Apex Laboratories, LLC
6700 SW Sandburg St. Tigard, Oregon 97223
503.718.2323

Level IV Data Package for

Anchor QEA, LLC

Gasco PreRD_DG 2019 -4c. Waste Characterization

Apex Laboratories Work Order #:

A9J1007

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard, OR 97223 phone 503-718-2323

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Analytical Case Narrative

APEX LABORATORIES, LLC
6700 SW Sandburg St Tigard, OR 97223 phone 503-718-2323

Analytical Case Narrative

Client: Anchor QEA, LLC Date: 12/23/2019
Project: Gasco PreRD_DG 2019 4c. Waste Characterization
Apex Work Order Number: A9J1007

This data package contains data associated with analysis of samples for the above referenced Apex work order numbers. The data package Table of Contents, along with the PDF bookmarks, allow for ease of navigation and location of items within the data deliverable.

The Sample Receipt Documentation section of this package contains sample receipt information, including sample temperature and condition of receipt documented on Cooler Receipt Form(s). Apex analyzed the samples by the methods indicated on the Chain of Custody. Any additional analyses requested are indicated on the Apex Work Order.

If any anomalies were encountered during analysis that could potentially impact data quality, sample results are qualified and/or a separate Case Narrative is included in the Analytical Report. Please refer to the Notes and Definition section of the Analytical Report(s) for Qualifier explanations, Conventions, and the Blank Policy.

Data represented in this package are in compliance with the referenced method(s), both technically and for completeness, for all conditions other than those stated above and/or noted by qualification of the reported data. The signature below verifies that the Laboratory Director or his designee has authorized release of this data package.

Estella Rieben,
Quality Systems Manager
Apex Laboratories, LLC

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Analytical Report

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Wednesday, December 4, 2019

Ryan Barth
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A9J1007 - Gasco PreRD_DG 2019 - 4c. Waste Characterization - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9J1007, which was received by the laboratory on 10/29/2019 at 10:00:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 2.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-083SC-C-00-08-191028	**A9J1007-01**	**Sediment**	**10/28/19 14:52**	**10/29/19 10:00**

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**		**Batch: 9101689**		
Benzene	ND	1280	2570	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
2-Butanone (MEK)	ND	64100	128000	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Carbon tetrachloride	ND	6410	12800	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Chlorobenzene	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Chloroform	ND	6410	12800	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
1,4-Dichlorobenzene	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
1,1-Dichloroethene	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
cis-1,2-Dichloroethene	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
trans-1,2-Dichloroethene	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Ethylbenzene	**40900**	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Tetrachloroethene (PCE)	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Toluene	ND	6410	12800	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Trichloroethene (TCE)	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Vinyl chloride	ND	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
m,p-Xylene	ND	6410	12800	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
o-Xylene	**9340**	3210	6410	ug/kg dry	5000	10/29/19 20:08	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*	*1*	*10/29/19 20:08*	*5035A/8260C*	
Toluene-d8 (Surr)		*101 %*		*80-120 %*	*1*	*10/29/19 20:08*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*	*1*	*10/29/19 20:08*	*5035A/8260C*	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**		**Batch: 9110460**		
Benzene	ND	0.00625	0.0125	mg/L	50	11/05/19 13:17	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	11/05/19 13:17	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	11/05/19 13:17	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	11/05/19 13:17	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	11/05/19 13:17	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:* *80-120 %*	*1*	*11/05/19 13:17*	*1311/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*11/05/19 13:17*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*11/05/19 13:17*	*1311/8260C*	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	8.52	17.0	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Endrin	ND	17.0	17.0	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Heptachlor	ND	8.52	17.0	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Heptachlor epoxide	ND	8.52	17.0	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Methoxychlor	ND	140	140	ug/kg dry	5	11/05/19 18:41	EPA 8081B	R-02
Chlordane (Technical)	ND	256	511	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Toxaphene (Total)	ND	256	511	ug/kg dry	5	11/05/19 18:41	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*108 %*	*Limits: 42-129 %*	*5*	*11/05/19 18:41*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*104 %*	*55-130 %*	*5*	*11/05/19 18:41*	*EPA 8081B*	

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ANALYTICAL SAMPLE RESULTS

TCLP Organochlorine Pesticides by EPA 1311/8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**		**Batch: 9110595**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/12/19 14:08	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/12/19 14:08	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/12/19 14:08	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/12/19 14:08	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/12/19 14:08	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/12/19 14:08	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/12/19 14:08	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 72 %*	*Limits: 25-140 %*	*1*	*11/12/19 14:08*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*101 %*	*30-135 %*	*1*	*11/12/19 14:08*	*1311/8081B*	

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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	6000	12000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
3+4-Methylphenol(s)	ND	6000	12000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Pentachlorophenol (PCP)	ND	24000	48100	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Phenol	ND	4810	9610	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
2,4,5-Trichlorophenol	ND	12000	24000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
2,4,6-Trichlorophenol	ND	12000	24000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Hexachlorobenzene	ND	2400	4810	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Hexachlorobutadiene	ND	6000	12000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Hexachloroethane	ND	6000	12000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Nitrobenzene	ND	24000	48100	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
2,4-Dinitrotoluene	ND	24000	48100	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Pyridine	ND	12000	24000	ug/kg dry	1000	11/01/19 17:37	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*94 %*	*Limits: 37-122 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*92 %*	*44-115 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-05*
Phenol-d6 (Surr)			*28 %*	*33-122 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*92 %*	*54-127 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*%*	*35-115 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-01*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 17:37*	*EPA 8270D*	*S-01*

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)				**Matrix: Sediment**		**Batch: 9110594**		
2,4-Dinitrotoluene	ND	0.0100	0.0200	mg/L	10	11/11/19 14:59	1311/8270D	
Hexachlorobenzene	ND	0.0100	0.0200	mg/L	10	11/11/19 14:59	1311/8270D	
Hexachlorobutadiene	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
Hexachloroethane	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
2-Methylphenol	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
3+4-Methylphenol(s)	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
Nitrobenzene	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
Pentachlorophenol (PCP)	ND	0.0500	0.100	mg/L	10	11/11/19 14:59	1311/8270D	
Pyridine	ND	0.0500	0.100	mg/L	10	11/11/19 14:59	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/11/19 14:59	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*53 %*	*Limits: 44-120 %*	*10*	*11/11/19 14:59*	*1311/8270D*	
2-Fluorobiphenyl (Surr)			*73 %*	*44-120 %*	*10*	*11/11/19 14:59*	*1311/8270D*	
Phenol-d6 (Surr)			*15 %*	*10-120 %*	*10*	*11/11/19 14:59*	*1311/8270D*	
p-Terphenyl-d14 (Surr)			*89 %*	*50-133 %*	*10*	*11/11/19 14:59*	*1311/8270D*	
2-Fluorophenol (Surr)			*25 %*	*19-120 %*	*10*	*11/11/19 14:59*	*1311/8270D*	
2,4,6-Tribromophenol (Surr)			*76 %*	*43-140 %*	*10*	*11/11/19 14:59*	*1311/8270D*	

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**				
Batch: 9110369								
Arsenic	**6.34**	0.452	0.904	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Barium	**216**	0.452	0.904	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Cadmium	**0.459**	0.0904	0.181	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Chromium	**46.7**	0.452	0.904	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Lead	**29.0**	0.0904	0.181	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Selenium	ND	0.452	0.904	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
Silver	**0.689**	0.0904	0.181	mg/kg dry	5	11/01/19 19:24	EPA 6020A	
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)				**Matrix: Sediment**				
Batch: 9110369								
Mercury	**0.387**	0.0362	0.0724	mg/kg dry	5	11/04/19 14:56	EPA 6020A	

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**				
Batch: 9110573								
Arsenic	ND	0.0500	0.100	mg/L	10	11/07/19 17:05	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/07/19 17:05	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/07/19 17:05	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/07/19 17:05	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/07/19 17:05	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/07/19 17:05	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/07/19 17:05	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/07/19 17:05	1311/6020A	

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Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**				
Batch: 9101715								
Total Solids	**55.2**	1.00	1.00	% by Weight	1	11/01/19 15:51	SM 2540 G	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-083SC-C-00-08-191028 (A9J1007-01)				**Matrix: Sediment**		**Batch: 9110443**		
TCLP ZHE Extraction	PREP	---		N/A	1	11/04/19 15:35	EPA 1311 ZHE	
TCLP Extraction	PREP	---		N/A	1	11/06/19 17:15	EPA 1311	
TCLP Extraction	PREP	---		N/A	1	11/06/19 17:15	EPA 1311	

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Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Blank (9101689-BLK1)			Prepared: 10/29/19 09:30 Analyzed: 10/29/19 11:30									
5035A/8260C												
Acetone	ND	333	667	ug/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Blank (9101689-BLK1)			Prepared: 10/29/19 09:30 Analyzed: 10/29/19 11:30									
1,2-Dichloropropane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*			*Dilution: 1x*					

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Blank (9101689-BLK1)				Prepared: 10/29/19 09:30 Analyzed: 10/29/19 11:30								
Surr: Toluene-d8 (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*			*"*					
LCS (9101689-BS1)				Prepared: 10/29/19 09:30 Analyzed: 10/29/19 10:36								
5035A/8260C												
Acetone	2190	500	1000	ug/kg wet	50	2000	---	109	80-120%	---	---	
Acrylonitrile	1110	50.0	100	ug/kg wet	50	1000	---	111	80-120%	---	---	
Benzene	952	5.00	10.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Bromobenzene	974	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Bromochloromethane	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Bromodichloromethane	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Bromoform	922	50.0	100	ug/kg wet	50	1000	---	92	80-120%	---	---	
Bromomethane	1310	500	500	ug/kg wet	50	1000	---	**131**	**80-120%**	---	---	Q-56
2-Butanone (MEK)	1910	250	500	ug/kg wet	50	2000	---	95	80-120%	---	---	
n-Butylbenzene	1120	25.0	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
sec-Butylbenzene	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
tert-Butylbenzene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Carbon disulfide	907	250	500	ug/kg wet	50	1000	---	91	80-120%	---	---	
Carbon tetrachloride	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Chlorobenzene	973	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Chloroethane	921	250	500	ug/kg wet	50	1000	---	92	80-120%	---	---	
Chloroform	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Chloromethane	875	125	250	ug/kg wet	50	1000	---	87	80-120%	---	---	
2-Chlorotoluene	999	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
4-Chlorotoluene	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Dibromochloromethane	982	50.0	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	950	125	250	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,2-Dibromoethane (EDB)	1050	25.0	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Dibromomethane	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
1,2-Dichlorobenzene	1000	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,3-Dichlorobenzene	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
1,4-Dichlorobenzene	955	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Dichlorodifluoromethane	806	50.0	100	ug/kg wet	50	1000	---	81	80-120%	---	---	
1,1-Dichloroethane	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
LCS (9101689-BS1)			Prepared: 10/29/19 09:30 Analyzed: 10/29/19 10:36									
1,2-Dichloroethane (EDC)	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1-Dichloroethene	960	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	970	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	989	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,2-Dichloropropane	986	50.0	100	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,3-Dichloropropane	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
2,2-Dichloropropane	1100	25.0	50.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
1,1-Dichloropropene	978	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
cis-1,3-Dichloropropene	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
trans-1,3-Dichloropropene	1140	25.0	50.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
Ethylbenzene	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Hexachlorobutadiene	1040	50.0	100	ug/kg wet	50	1000	---	104	80-120%	---	---	
2-Hexanone	2020	250	500	ug/kg wet	50	2000	---	101	80-120%	---	---	
Isopropylbenzene	1060	25.0	50.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
4-Isopropyltoluene	1100	25.0	50.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
Methylene chloride	1040	125	250	ug/kg wet	50	1000	---	104	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2100	250	500	ug/kg wet	50	2000	---	105	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	985	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Naphthalene	1070	50.0	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
n-Propylbenzene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Styrene	906	25.0	50.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1,2,2-Tetrachloroethane	970	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Toluene	977	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	1020	125	250	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,2,4-Trichlorobenzene	991	125	250	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,1,1-Trichloroethane	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1,2-Trichloroethane	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Trichloroethene (TCE)	997	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Trichlorofluoromethane	924	50.0	100	ug/kg wet	50	1000	---	92	80-120%	---	---	
1,2,3-Trichloropropane	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,2,4-Trimethylbenzene	1160	25.0	50.0	ug/kg wet	50	1000	---	116	80-120%	---	---	
1,3,5-Trimethylbenzene	1160	25.0	50.0	ug/kg wet	50	1000	---	116	80-120%	---	---	

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Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
LCS (9101689-BS1)			Prepared: 10/29/19 09:30 Analyzed: 10/29/19 10:36									
Vinyl chloride	989	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
m,p-Xylene	2140	25.0	50.0	ug/kg wet	50	2000	---	107	80-120%	---	---	
o-Xylene	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*102 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*		*"*					
Duplicate (9101689-DUP1)			Prepared: 10/29/19 12:55 Analyzed: 10/29/19 14:04									**V-15**
QC Source Sample: Non-SDG (A9J1012-01)												
Acetone	ND	2950	5900	ug/kg dry	200	---	ND	---	---	---	30%	
Acrylonitrile	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
Benzene	ND	29.5	59.0	ug/kg dry	200	---	ND	---	---	---	30%	
Bromobenzene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
Bromochloromethane	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Bromodichloromethane	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Bromoform	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
Bromomethane	ND	2950	2950	ug/kg dry	200	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	1480	2950	ug/kg dry	200	---	ND	---	---	---	30%	
n-Butylbenzene	**1950**	148	295	ug/kg dry	200	---	1490	---	---	27	30%	M-02
sec-Butylbenzene	**1720**	148	295	ug/kg dry	200	---	1340	---	---	25	30%	
tert-Butylbenzene	ND	325	325	ug/kg dry	200	---	ND	---	---	---	30%	
Carbon disulfide	ND	1480	2950	ug/kg dry	200	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Chlorobenzene	ND	150	150	ug/kg dry	200	---	ND	---	---	---	30%	
Chloroethane	ND	1480	2950	ug/kg dry	200	---	ND	---	---	---	30%	
Chloroform	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Chloromethane	ND	738	1480	ug/kg dry	200	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Dibromochloromethane	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	738	1480	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Dibromomethane	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Duplicate (9101689-DUP1)			Prepared: 10/29/19 12:55		Analyzed: 10/29/19 14:04							**V-15**
QC Source Sample: Non-SDG (A9J1012-01)												
1,3-Dichlorobenzene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Ethylbenzene	**977**	73.8	148	ug/kg dry	200	---	850	---	---	14	30%	
Hexachlorobutadiene	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
2-Hexanone	ND	3250	3250	ug/kg dry	200	---	ND	---	---	---	30%	
Isopropylbenzene	**1640**	148	295	ug/kg dry	200	---	1310	---	---	23	30%	
4-Isopropyltoluene	**3280**	148	295	ug/kg dry	200	---	2490	---	---	27	30%	M-02
Methylene chloride	ND	738	1480	ug/kg dry	200	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	29500	29500	ug/kg dry	200	---	ND	---	---	---	30%	R-02
Methyl tert-butyl ether (MTBE)	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
Naphthalene	**6300**	295	590	ug/kg dry	200	---	4770	---	---	28	30%	
n-Propylbenzene	**2910**	73.8	148	ug/kg dry	200	---	2280	---	---	24	30%	
Styrene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	2950	2950	ug/kg dry	200	---	ND	---	---	---	30%	R-02
Tetrachloroethene (PCE)	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
Toluene	ND	148	295	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	738	1480	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	738	1480	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Duplicate (9101689-DUP1)			Prepared: 10/29/19 12:55 Analyzed: 10/29/19 14:04									**V-15**
QC Source Sample: Non-SDG (A9J1012-01)												
Trichloroethene (TCE)	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	295	590	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	1480	1480	ug/kg dry	200	---	ND	---	---	---	30%	R-02
1,2,4-Trimethylbenzene	**29600**	148	295	ug/kg dry	200	---	23100	---	---	25	30%	
1,3,5-Trimethylbenzene	**11300**	148	295	ug/kg dry	200	---	8880	---	---	24	30%	
Vinyl chloride	ND	73.8	148	ug/kg dry	200	---	ND	---	---	---	30%	
m,p-Xylene	**3340**	148	295	ug/kg dry	200	---	2850	---	---	16	30%	
o-Xylene	**329**	73.8	148	ug/kg dry	200	---	294	---	---	11	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*103 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*		*"*					
Duplicate (9101689-DUP2)			Prepared: 10/28/19 09:05 Analyzed: 10/29/19 19:15									
QC Source Sample: Non-SDG (A9J1006-02)												
Acetone	ND	4240	8480	ug/kg dry	200	---	ND	---	---	---	30%	
Acrylonitrile	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
Benzene	**604**	42.4	84.8	ug/kg dry	200	---	582	---	---	4	30%	
Bromobenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Bromochloromethane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Bromodichloromethane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Bromoform	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
Bromomethane	ND	4240	4240	ug/kg dry	200	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	2120	4240	ug/kg dry	200	---	ND	---	---	---	30%	
n-Butylbenzene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Carbon disulfide	ND	2120	4240	ug/kg dry	200	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Chlorobenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Chloroethane	ND	2120	4240	ug/kg dry	200	---	ND	---	---	---	30%	
Chloroform	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Chloromethane	ND	1060	2120	ug/kg dry	200	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Duplicate (9101689-DUP2)			Prepared: 10/28/19 09:05		Analyzed: 10/29/19 19:15							
QC Source Sample: Non-SDG (A9J1006-02)												
4-Chlorotoluene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Dibromochloromethane	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	1060	2120	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Dibromomethane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Ethylbenzene	**1190**	106	212	ug/kg dry	200	---	1260	---	---	6	30%	
Hexachlorobutadiene	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
2-Hexanone	ND	2120	4240	ug/kg dry	200	---	ND	---	---	---	30%	
Isopropylbenzene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Methylene chloride	ND	1060	2120	ug/kg dry	200	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	2120	4240	ug/kg dry	200	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
Naphthalene	**138000**	424	848	ug/kg dry	200	---	153000	---	---	10	30%	E
n-Propylbenzene	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Styrene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Duplicate (9101689-DUP2)			Prepared: 10/28/19 09:05		Analyzed: 10/29/19 19:15							
QC Source Sample: Non-SDG (A9J1006-02)												
Tetrachloroethene (PCE)	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Toluene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1060	2120	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1060	2120	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	424	848	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	**705**	212	424	ug/kg dry	200	---	735	---	---	4	30%	
1,3,5-Trimethylbenzene	**221**	212	424	ug/kg dry	200	---	235	---	---	6	30%	J
Vinyl chloride	ND	106	212	ug/kg dry	200	---	ND	---	---	---	30%	
m,p-Xylene	ND	212	424	ug/kg dry	200	---	ND	---	---	---	30%	
o-Xylene	**294**	106	212	ug/kg dry	200	---	312	---	---	6	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			
Matrix Spike (9101689-MS1)			Prepared: 10/25/19 14:35		Analyzed: 10/29/19 22:22							
QC Source Sample: Non-SDG (A9J1015-04)												
5035A/8260C												
Acetone	3070	695	1390	ug/kg dry	50	2780	ND	111	36-164%	---	---	
Acrylonitrile	1550	69.5	139	ug/kg dry	50	1390	ND	112	65-134%	---	---	
Benzene	1350	6.95	13.9	ug/kg dry	50	1390	ND	97	77-121%	---	---	
Bromobenzene	1380	17.4	34.7	ug/kg dry	50	1390	ND	99	78-121%	---	---	
Bromochloromethane	1470	34.7	69.5	ug/kg dry	50	1390	ND	106	78-125%	---	---	
Bromodichloromethane	1450	34.7	69.5	ug/kg dry	50	1390	ND	105	75-127%	---	---	
Bromoform	1270	69.5	139	ug/kg dry	50	1390	ND	91	67-132%	---	---	
Bromomethane	2080	695	695	ug/kg dry	50	1390	ND	**150**	**53-143%**	---	---	Q-54
2-Butanone (MEK)	2720	347	695	ug/kg dry	50	2780	ND	98	51-148%	---	---	
n-Butylbenzene	1560	34.7	69.5	ug/kg dry	50	1390	ND	112	70-128%	---	---	
sec-Butylbenzene	1500	34.7	69.5	ug/kg dry	50	1390	ND	108	73-126%	---	---	
tert-Butylbenzene	1450	34.7	69.5	ug/kg dry	50	1390	ND	105	73-125%	---	---	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Matrix Spike (9101689-MS1)			Prepared: 10/25/19 14:35		Analyzed: 10/29/19 22:22							
QC Source Sample: Non-SDG (A9J1015-04)												
Carbon disulfide	1280	347	695	ug/kg dry	50	1390	ND	93	63-132%	---	---	
Carbon tetrachloride	1450	34.7	69.5	ug/kg dry	50	1390	ND	105	70-135%	---	---	
Chlorobenzene	1380	17.4	34.7	ug/kg dry	50	1390	ND	100	79-120%	---	---	
Chloroethane	1450	347	695	ug/kg dry	50	1390	ND	104	59-139%	---	---	
Chloroform	1510	34.7	69.5	ug/kg dry	50	1390	ND	108	78-123%	---	---	
Chloromethane	1170	174	347	ug/kg dry	50	1390	ND	85	50-136%	---	---	
2-Chlorotoluene	1430	34.7	69.5	ug/kg dry	50	1390	ND	103	75-122%	---	---	
4-Chlorotoluene	1470	34.7	69.5	ug/kg dry	50	1390	ND	106	72-124%	---	---	
Dibromochloromethane	1380	69.5	139	ug/kg dry	50	1390	ND	100	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1290	174	347	ug/kg dry	50	1390	ND	93	61-132%	---	---	
1,2-Dibromoethane (EDB)	1460	34.7	69.5	ug/kg dry	50	1390	ND	105	78-122%	---	---	
Dibromomethane	1500	34.7	69.5	ug/kg dry	50	1390	ND	108	78-125%	---	---	
1,2-Dichlorobenzene	1420	17.4	34.7	ug/kg dry	50	1390	ND	102	78-121%	---	---	
1,3-Dichlorobenzene	1430	17.4	34.7	ug/kg dry	50	1390	ND	103	77-121%	---	---	
1,4-Dichlorobenzene	1360	17.4	34.7	ug/kg dry	50	1390	ND	98	75-120%	---	---	
Dichlorodifluoromethane	1170	69.5	139	ug/kg dry	50	1390	ND	84	29-149%	---	---	
1,1-Dichloroethane	1480	17.4	34.7	ug/kg dry	50	1390	ND	107	76-125%	---	---	
1,2-Dichloroethane (EDC)	1440	17.4	34.7	ug/kg dry	50	1390	ND	103	73-128%	---	---	
1,1-Dichloroethene	1330	17.4	34.7	ug/kg dry	50	1390	ND	96	70-131%	---	---	
cis-1,2-Dichloroethene	1390	17.4	34.7	ug/kg dry	50	1390	ND	100	77-123%	---	---	
trans-1,2-Dichloroethene	1410	17.4	34.7	ug/kg dry	50	1390	ND	101	74-125%	---	---	
1,2-Dichloropropane	1410	69.5	139	ug/kg dry	50	1390	ND	102	76-123%	---	---	
1,3-Dichloropropane	1430	34.7	69.5	ug/kg dry	50	1390	ND	103	77-121%	---	---	
2,2-Dichloropropane	1330	34.7	69.5	ug/kg dry	50	1390	ND	96	67-133%	---	---	
1,1-Dichloropropene	1370	34.7	69.5	ug/kg dry	50	1390	ND	98	76-125%	---	---	
cis-1,3-Dichloropropene	1460	34.7	69.5	ug/kg dry	50	1390	ND	105	74-126%	---	---	
trans-1,3-Dichloropropene	1550	34.7	69.5	ug/kg dry	50	1390	ND	112	71-130%	---	---	
Ethylbenzene	1460	17.4	34.7	ug/kg dry	50	1390	ND	105	76-122%	---	---	
Hexachlorobutadiene	1480	69.5	139	ug/kg dry	50	1390	ND	106	61-135%	---	---	
2-Hexanone	2790	347	695	ug/kg dry	50	2780	ND	101	53-145%	---	---	
Isopropylbenzene	1500	34.7	69.5	ug/kg dry	50	1390	ND	108	68-134%	---	---	
4-Isopropyltoluene	1560	34.7	69.5	ug/kg dry	50	1390	ND	112	73-127%	---	---	
Methylene chloride	1560	174	347	ug/kg dry	50	1390	ND	112	70-128%	---	---	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101689 - EPA 5035A							**Soil**					
Matrix Spike (9101689-MS1)				Prepared: 10/25/19 14:35 Analyzed: 10/29/19 22:22								
QC Source Sample: Non-SDG (A9J1015-04)												
4-Methyl-2-pentanone (MiBK)	2890	347	695	ug/kg dry	50	2780	ND	104	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1390	34.7	69.5	ug/kg dry	50	1390	ND	100	73-125%	---	---	
Naphthalene	1480	69.5	139	ug/kg dry	50	1390	ND	107	62-129%	---	---	
n-Propylbenzene	1450	17.4	34.7	ug/kg dry	50	1390	ND	104	73-125%	---	---	
Styrene	1310	34.7	69.5	ug/kg dry	50	1390	ND	94	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1440	17.4	34.7	ug/kg dry	50	1390	ND	104	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1320	34.7	69.5	ug/kg dry	50	1390	ND	95	70-124%	---	---	
Tetrachloroethene (PCE)	1420	17.4	34.7	ug/kg dry	50	1390	ND	102	73-128%	---	---	
Toluene	1370	34.7	69.5	ug/kg dry	50	1390	ND	99	77-121%	---	---	
1,2,3-Trichlorobenzene	1410	174	347	ug/kg dry	50	1390	ND	102	66-130%	---	---	
1,2,4-Trichlorobenzene	1390	174	347	ug/kg dry	50	1390	ND	100	67-129%	---	---	
1,1,1-Trichloroethane	1410	17.4	34.7	ug/kg dry	50	1390	ND	102	73-130%	---	---	
1,1,2-Trichloroethane	1470	17.4	34.7	ug/kg dry	50	1390	ND	106	78-121%	---	---	
Trichloroethene (TCE)	1440	17.4	34.7	ug/kg dry	50	1390	ND	104	77-123%	---	---	
Trichlorofluoromethane	1270	69.5	139	ug/kg dry	50	1390	ND	92	62-140%	---	---	
1,2,3-Trichloropropane	1440	34.7	69.5	ug/kg dry	50	1390	ND	104	73-125%	---	---	
1,2,4-Trimethylbenzene	1640	34.7	69.5	ug/kg dry	50	1390	ND	118	75-123%	---	---	
1,3,5-Trimethylbenzene	1620	34.7	69.5	ug/kg dry	50	1390	ND	117	73-124%	---	---	
Vinyl chloride	1390	17.4	34.7	ug/kg dry	50	1390	ND	100	56-135%	---	---	
m,p-Xylene	3010	34.7	69.5	ug/kg dry	50	2780	ND	108	77-124%	---	---	
o-Xylene	1480	17.4	34.7	ug/kg dry	50	1390	ND	107	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110460 - EPA 1311/5030B TCLP Volatiles									Water			
Blank (9110460-BLK1)			Prepared: 11/05/19 09:41		Analyzed: 11/05/19 10:35							**TCLP**
1311/8260C												
Benzene	ND	0.00625	0.0125	mg/L	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Chloroform	ND	0.0250	0.0500	mg/L	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (9110460-BS1)			Prepared: 11/05/19 09:41		Analyzed: 11/05/19 10:08							**TCLP**
1311/8260C												
Benzene	1.07	0.00625	0.0125	mg/L	50	1.00	---	107	80-120%	---	---	
2-Butanone (MEK)	2.01	0.250	0.500	mg/L	50	2.00	---	101	80-120%	---	---	
Carbon tetrachloride	1.19	0.0250	0.0500	mg/L	50	1.00	---	119	80-120%	---	---	
Chlorobenzene	1.04	0.0125	0.0250	mg/L	50	1.00	---	104	80-120%	---	---	
Chloroform	1.06	0.0250	0.0500	mg/L	50	1.00	---	106	80-120%	---	---	
1,4-Dichlorobenzene	1.01	0.0125	0.0250	mg/L	50	1.00	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
1,1-Dichloroethene	1.07	0.0125	0.0250	mg/L	50	1.00	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	1.12	0.0125	0.0250	mg/L	50	1.00	---	112	80-120%	---	---	
Trichloroethene (TCE)	1.04	0.0125	0.0250	mg/L	50	1.00	---	104	80-120%	---	---	
Vinyl chloride	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (9110460-DUP1)			Prepared: 11/05/19 10:08		Analyzed: 11/05/19 11:29							

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110460 - EPA 1311/5030B TCLP Volatiles											**Water**	
Duplicate (9110460-DUP1)			Prepared: 11/05/19 10:08 Analyzed: 11/05/19 11:29									
QC Source Sample: Non-SDG (A9K0045-01)												
Benzene	ND	0.00625	0.0125	mg/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0250	0.0500	mg/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*				*"*			
Matrix Spike (9110460-MS1)			Prepared: 11/05/19 10:08 Analyzed: 11/05/19 14:38									
QC Source Sample: Non-SDG (A9K0048-01)												
1311/8260C												
Benzene	1.08	0.00625	0.0125	mg/L	50	1.00	0.0590	102	70-130%	---	---	
2-Butanone (MEK)	2.11	0.250	0.500	mg/L	50	2.00	ND	106	70-130%	---	---	
Carbon tetrachloride	1.10	0.0250	0.0500	mg/L	50	1.00	ND	110	70-130%	---	---	
Chlorobenzene	0.984	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
Chloroform	1.02	0.0250	0.0500	mg/L	50	1.00	ND	102	70-130%	---	---	
1,4-Dichlorobenzene	0.944	0.0125	0.0250	mg/L	50	1.00	ND	94	70-130%	---	---	
1,2-Dichloroethane (EDC)	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
1,1-Dichloroethene	1.01	0.0125	0.0250	mg/L	50	1.00	ND	101	70-130%	---	---	
Tetrachloroethene (PCE)	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
Trichloroethene (TCE)	0.974	0.0125	0.0250	mg/L	50	1.00	ND	97	70-130%	---	---	
Vinyl chloride	0.976	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110391 - EPA 3546/3640A (GPC)							**Sediment**					
Blank (9110391-BLK1)			Prepared: 10/31/19 15:10	Analyzed: 11/05/19 12:22								**C-05**
EPA 8081B												
gamma-BHC (Lindane)	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Endrin	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Heptachlor	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Methoxychlor	ND	2.73	5.45	ug/kg wet	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	27.3	54.5	ug/kg wet	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	27.3	54.5	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 65 %*	*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*100 %*	*55-130 %*			*"*					
LCS (9110391-BS1)			Prepared: 10/31/19 15:10	Analyzed: 11/05/19 12:39								**C-05**
EPA 8081B												
gamma-BHC (Lindane)	27.2	1.00	2.00	ug/kg wet	1	50.0	---	54	49-135%	---	---	
Endrin	47.2	1.00	2.00	ug/kg wet	1	50.0	---	94	56-140%	---	---	Q-41
Heptachlor	30.5	1.00	2.00	ug/kg wet	1	50.0	---	61	47-136%	---	---	Q-41
Heptachlor epoxide	33.6	1.00	2.00	ug/kg wet	1	50.0	---	67	52-136%	---	---	
Methoxychlor	59.8	3.00	6.00	ug/kg wet	1	50.0	---	120	52-143%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 50 %*	*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*98 %*	*55-130 %*			*"*					
Duplicate (9110391-DUP1)			Prepared: 10/31/19 15:10	Analyzed: 11/05/19 13:31								**C-05, R-04**
QC Source Sample: Non-SDG (A9J0950-01RE1)												
gamma-BHC (Lindane)	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Endrin	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Heptachlor	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	11.3	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Methoxychlor	ND	170	170	ug/kg dry	10	---	ND	---	---	---	30%	R-02
Chlordane (Technical)	ND	339	679	ug/kg dry	10	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	339	679	ug/kg dry	10	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 101 %*	*Limits: 42-129 %*			*Dilution: 10x*					
Decachlorobiphenyl (Surr)			*124 %*	*55-130 %*			*"*					

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110391 - EPA 3546/3640A (GPC)							**Sediment**					
Matrix Spike (9110391-MS1)			Prepared: 10/31/19 15:10		Analyzed: 11/05/19 19:15							**C-05, R-04**
QC Source Sample: PDI-083SC-C-00-08-191028 (A9J1007-01RE1)												
EPA 8081B												
gamma-BHC (Lindane)	62.0	8.61	17.2	ug/kg dry	5	86.1	ND	72	49-135%	---	---	
Endrin	88.8	17.2	17.2	ug/kg dry	5	86.1	ND	103	56-140%	---	---	Q-41
Heptachlor	61.6	8.61	17.2	ug/kg dry	5	86.1	ND	71	47-136%	---	---	Q-41
Heptachlor epoxide	73.3	8.61	17.2	ug/kg dry	5	86.1	ND	85	52-136%	---	---	
Methoxychlor	ND	141	141	ug/kg dry	5	86.1	ND		**52-143%**	---	---	R-02, Q-02
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 99 %*		*Limits: 42-129 %*				*Dilution: 5x*			
Decachlorobiphenyl (Surr)			*98 %*		*55-130 %*				*"*			

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Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Organochlorine Pesticides by EPA 1311/8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110595 - EPA 1311/3510C (Neutral Ext.)							**Sediment**					
Blank (9110595-BLK1)			Prepared: 11/08/19 10:06 Analyzed: 11/12/19 12:42									
1311/8081B												
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Endrin	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*101 %*		*30-135 %*			*"*				
LCS (9110595-BS1)			Prepared: 11/08/19 10:06 Analyzed: 11/12/19 12:59									
1311/8081B												
gamma-BHC (Lindane)	0.00239	0.0000750	0.000150	mg/L	1	0.00250	---	95	59-134%	---	---	
Endrin	0.00280	0.0000750	0.000150	mg/L	1	0.00250	---	112	60-138%	---	---	
Heptachlor	0.00222	0.0000750	0.000150	mg/L	1	0.00250	---	89	54-130%	---	---	
Heptachlor epoxide	0.00233	0.0000750	0.000150	mg/L	1	0.00250	---	93	61-133%	---	---	
Methoxychlor	0.00290	0.000200	0.000400	mg/L	1	0.00250	---	116	54-144%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 68 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*92 %*		*30-135 %*			*"*				
LCS Dup (9110595-BSD1)			Prepared: 11/08/19 10:06 Analyzed: 11/12/19 13:17									**Q-19**
1311/8081B												
gamma-BHC (Lindane)	0.00250	0.0000750	0.000150	mg/L	1	0.00250	---	100	59-134%	5	30%	
Endrin	0.00291	0.0000750	0.000150	mg/L	1	0.00250	---	116	60-138%	4	30%	
Heptachlor	0.00228	0.0000750	0.000150	mg/L	1	0.00250	---	91	54-130%	3	30%	
Heptachlor epoxide	0.00246	0.0000750	0.000150	mg/L	1	0.00250	---	98	61-133%	6	30%	
Methoxychlor	0.00292	0.000200	0.000400	mg/L	1	0.00250	---	117	54-144%	0.7	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 68 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*94 %*		*30-135 %*			*"*				

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110357 - EPA 3546							**Sediment**					
Blank (9110357-BLK2)			Prepared: 11/01/19 07:18		Analyzed: 11/01/19 11:09							
EPA 8270D												
2-Methylphenol	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery:*	*76 %*	*Limits:*	*37-122 %*		*Dilution:*	*1x*				
2-Fluorobiphenyl (Surr)			*76 %*		*44-115 %*			*"*				
Phenol-d6 (Surr)			*66 %*		*33-122 %*			*"*				
p-Terphenyl-d14 (Surr)			*87 %*		*54-127 %*			*"*				
2-Fluorophenol (Surr)			*60 %*		*35-115 %*			*"*				
2,4,6-Tribromophenol (Surr)			*85 %*		*39-132 %*			*"*				
LCS (9110357-BS2)			Prepared: 11/01/19 07:18		Analyzed: 11/01/19 11:44							**Q-18**
EPA 8270D												
2-Methylphenol	529	13.3	26.7	ug/kg wet	4	533	---	99	32-122%	---	---	
3+4-Methylphenol(s)	535	13.3	26.7	ug/kg wet	4	533	---	100	34-120%	---	---	
Pentachlorophenol (PCP)	594	53.2	107	ug/kg wet	4	533	---	111	25-133%	---	---	
Phenol	511	10.7	21.3	ug/kg wet	4	533	---	96	34-120%	---	---	
2,4,5-Trichlorophenol	573	26.7	53.2	ug/kg wet	4	533	---	108	41-124%	---	---	
2,4,6-Trichlorophenol	568	26.7	53.2	ug/kg wet	4	533	---	107	39-126%	---	---	
Hexachlorobenzene	565	5.32	10.7	ug/kg wet	4	533	---	106	44-122%	---	---	
Hexachlorobutadiene	506	13.3	26.7	ug/kg wet	4	533	---	95	32-123%	---	---	
Hexachloroethane	472	13.3	26.7	ug/kg wet	4	533	---	89	28-120%	---	---	
Nitrobenzene	481	53.2	107	ug/kg wet	4	533	---	90	34-122%	---	---	
2,4-Dinitrotoluene	611	53.2	107	ug/kg wet	4	533	---	115	48-126%	---	---	
Pyridine	261	26.7	53.2	ug/kg wet	4	533	---	49	5-120%	---	---	

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110357 - EPA 3546							**Sediment**					
LCS (9110357-BS2)			Prepared: 11/01/19 07:18 Analyzed: 11/01/19 11:44									**Q-18**
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 93 %*	*Limits: 37-122 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*101 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*90 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*102 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*79 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*108 %*	*39-132 %*			*"*					
Duplicate (9110357-DUP2)			Prepared: 11/01/19 09:07 Analyzed: 11/01/19 12:54									
QC Source Sample: Non-SDG (A9J0950-01)												
2-Methylphenol	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
Phenol	ND	3260	6520	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	1630	3260	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachloroethane	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Nitrobenzene	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
Pyridine	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 79 %*	*Limits: 37-122 %*			*Dilution: 1000x*					S-05
2-Fluorobiphenyl (Surr)			*131 %*	*44-115 %*			*"*					S-05
Phenol-d6 (Surr)			*59 %*	*33-122 %*			*"*					S-05
p-Terphenyl-d14 (Surr)			*99 %*	*54-127 %*			*"*					S-05
2-Fluorophenol (Surr)			*31 %*	*35-115 %*			*"*					S-05
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*			*"*					S-01

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110594 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (9110594-BLK1)			Prepared: 11/08/19 10:05 Analyzed: 11/08/19 16:22									
1311/8270D												
2,4-Dinitrotoluene	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
Pyridine	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 56 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*63 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*18 %*		*10-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*86 %*		*50-133 %*			*"*				
2-Fluorophenol (Surr)			*34 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*89 %*		*43-140 %*			*"*				
LCS (9110594-BS1)			Prepared: 11/08/19 10:05 Analyzed: 11/08/19 16:57									
1311/8270D												
2,4-Dinitrotoluene	0.0389	0.00400	0.00800	mg/L	4	0.0400	---	97	57-128%	---	---	
Hexachlorobenzene	0.0379	0.00400	0.00800	mg/L	4	0.0400	---	95	52-125%	---	---	
Hexachlorobutadiene	0.0338	0.0100	0.0200	mg/L	4	0.0400	---	85	22-124%	---	---	
Hexachloroethane	0.0309	0.0100	0.0200	mg/L	4	0.0400	---	77	21-120%	---	---	
2-Methylphenol	0.0257	0.0100	0.0200	mg/L	4	0.0400	---	64	30-120%	---	---	
3+4-Methylphenol(s)	0.0239	0.0100	0.0200	mg/L	4	0.0400	---	60	29-120%	---	---	
Nitrobenzene	0.0269	0.0100	0.0200	mg/L	4	0.0400	---	67	45-121%	---	---	
Pentachlorophenol (PCP)	0.0355	0.0200	0.0200	mg/L	4	0.0400	---	89	35-138%	---	---	
Pyridine	0.0134	0.00400	0.00400	mg/L	4	0.0400	---	33	5-120%	---	---	
2,4,5-Trichlorophenol	0.0387	0.0100	0.0200	mg/L	4	0.0400	---	97	53-123%	---	---	
2,4,6-Trichlorophenol	0.0395	0.0100	0.0200	mg/L	4	0.0400	---	99	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 68 %*		*Limits: 44-120 %*			*Dilution: 4x*				
2-Fluorobiphenyl (Surr)			*86 %*		*44-120 %*			*"*				

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110594 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (9110594-BS1)				Prepared: 11/08/19 10:05 Analyzed: 11/08/19 16:57								
Surr: Phenol-d6 (Surr)			*Recovery: 24 %*	*Limits: 10-120 %*			*Dilution: 4x*					
p-Terphenyl-d14 (Surr)			*95 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*42 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*92 %*	*43-140 %*			*"*					
LCS Dup (9110594-BSD1)				Prepared: 11/08/19 10:05 Analyzed: 11/08/19 17:33								**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0403	0.00400	0.00800	mg/L	4	0.0400	---	101	57-128%	3	30%	
Hexachlorobenzene	0.0376	0.00400	0.00800	mg/L	4	0.0400	---	94	52-125%	1	30%	
Hexachlorobutadiene	0.0351	0.0100	0.0200	mg/L	4	0.0400	---	88	22-124%	4	30%	
Hexachloroethane	0.0333	0.0100	0.0200	mg/L	4	0.0400	---	83	21-120%	8	30%	
2-Methylphenol	0.0277	0.0100	0.0200	mg/L	4	0.0400	---	69	30-120%	7	30%	
3+4-Methylphenol(s)	0.0255	0.0100	0.0200	mg/L	4	0.0400	---	64	29-120%	6	30%	
Nitrobenzene	0.0279	0.0100	0.0200	mg/L	4	0.0400	---	70	45-121%	3	30%	
Pentachlorophenol (PCP)	0.0369	0.0200	0.0200	mg/L	4	0.0400	---	92	35-138%	4	30%	
Pyridine	0.0144	0.00400	0.00400	mg/L	4	0.0400	---	36	5-120%	7	30%	
2,4,5-Trichlorophenol	0.0406	0.0100	0.0200	mg/L	4	0.0400	---	101	53-123%	5	30%	
2,4,6-Trichlorophenol	0.0421	0.0100	0.0200	mg/L	4	0.0400	---	105	50-125%	6	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 70 %*	*Limits: 44-120 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*89 %*	*44-120 %*			*"*					
Phenol-d6 (Surr)			*27 %*	*10-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*97 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*47 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*91 %*	*43-140 %*			*"*					

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110369 - EPA 3051A							**Sediment**					
Blank (9110369-BLK1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:05							
EPA 6020A												
Arsenic	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Barium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Cadmium	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Chromium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Lead	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Selenium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Silver	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Blank (9110369-BLK2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 14:37							
EPA 6020A												
Mercury	ND	0.0192	0.0385	mg/kg wet	5	---	---	---	---	---	---	Q-16
LCS (9110369-BS1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:10							
EPA 6020A												
Arsenic	26.4	0.250	0.500	mg/kg wet	5	25.0	---	106	80-120%	---	---	
Barium	28.6	0.250	0.500	mg/kg wet	5	25.0	---	114	80-120%	---	---	
Cadmium	26.0	0.0500	0.100	mg/kg wet	5	25.0	---	104	80-120%	---	---	
Chromium	27.0	0.250	0.500	mg/kg wet	5	25.0	---	108	80-120%	---	---	
Lead	24.6	0.0500	0.100	mg/kg wet	5	25.0	---	98	80-120%	---	---	
Selenium	12.5	0.250	0.500	mg/kg wet	5	12.5	---	100	80-120%	---	---	
Silver	14.0	0.0500	0.100	mg/kg wet	5	12.5	---	112	80-120%	---	---	
LCS (9110369-BS2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 14:42							
EPA 6020A												
Mercury	0.503	0.0200	0.0400	mg/kg wet	5	0.500	---	101	80-120%	---	---	Q-16
Duplicate (9110369-DUP1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:33							
QC Source Sample: Non-SDG (A9J1137-06)												
Arsenic	**5.03**	0.549	1.10	mg/kg dry	5	---	4.81	---	---	5	40%	
Barium	**192**	0.549	1.10	mg/kg dry	5	---	179	---	---	7	40%	
Cadmium	**0.662**	0.110	0.220	mg/kg dry	5	---	0.600	---	---	10	40%	
Chromium	**33.0**	0.549	1.10	mg/kg dry	5	---	30.7	---	---	7	40%	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110369 - EPA 3051A							**Sediment**					
Duplicate (9110369-DUP1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:33							
QC Source Sample: Non-SDG (A9J1137-06)												
Lead	**26.2**	0.110	0.220	mg/kg dry	5	---	22.6	---	---	15	40%	
Selenium	ND	0.549	1.10	mg/kg dry	5	---	ND	---	---	---	40%	
Silver	**0.180**	0.110	0.220	mg/kg dry	5	---	0.162	---	---	10	40%	J
Duplicate (9110369-DUP2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 15:14							
QC Source Sample: Non-SDG (A9J1137-06RE1)												
Mercury	**0.0586**	0.0439	0.0879	mg/kg dry	5	---	0.0571	---	---	3	40%	J, Q-16
Matrix Spike (9110369-MS1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:37							
QC Source Sample: Non-SDG (A9J1137-06)												
EPA 6020A												
Arsenic	65.1	0.536	1.07	mg/kg dry	5	53.6	4.81	112	75-125%	---	---	
Barium	231	0.536	1.07	mg/kg dry	5	53.6	179	98	75-125%	---	---	
Cadmium	62.1	0.107	0.215	mg/kg dry	5	53.6	0.600	115	75-125%	---	---	
Chromium	89.9	0.536	1.07	mg/kg dry	5	53.6	30.7	111	75-125%	---	---	
Lead	78.8	0.107	0.215	mg/kg dry	5	53.6	22.6	105	75-125%	---	---	
Selenium	30.0	0.536	1.07	mg/kg dry	5	26.8	ND	112	75-125%	---	---	
Silver	32.3	0.107	0.215	mg/kg dry	5	26.8	0.162	120	75-125%	---	---	
Matrix Spike (9110369-MS2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 15:20							
QC Source Sample: Non-SDG (A9J1137-06RE1)												
EPA 6020A												
Mercury	1.10	0.0429	0.0858	mg/kg dry	5	1.07	0.0571	97	75-125%	---	---	Q-16

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110573 - EPA 1311/3015							**Sediment**					
Blank (9110573-BLK1)			Prepared: 11/07/19 12:52 Analyzed: 11/07/19 16:35									
1311/6020A												
Arsenic	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Barium	ND	2.50	5.00	mg/L	10	---	---	---	---	---	---	TCLPa
Cadmium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Chromium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Lead	ND	0.0250	0.0500	mg/L	10	---	---	---	---	---	---	TCLPa
Mercury	ND	0.00350	0.00700	mg/L	10	---	---	---	---	---	---	TCLPa
Selenium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Silver	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
LCS (9110573-BS1)			Prepared: 11/07/19 12:52 Analyzed: 11/07/19 16:40									
1311/6020A												
Arsenic	5.20	0.0500	0.100	mg/L	10	5.00	---	104	80-120%	---	---	TCLPa
Barium	11.1	2.50	5.00	mg/L	10	10.0	---	111	80-120%	---	---	TCLPa
Cadmium	1.03	0.0500	0.100	mg/L	10	1.00	---	103	80-120%	---	---	TCLPa
Chromium	5.15	0.0500	0.100	mg/L	10	5.00	---	103	80-120%	---	---	TCLPa
Lead	5.08	0.0250	0.0500	mg/L	10	5.00	---	102	80-120%	---	---	TCLPa
Mercury	0.0956	0.00350	0.00700	mg/L	10	0.100	---	96	80-120%	---	---	TCLPa
Selenium	1.04	0.0500	0.100	mg/L	10	1.00	---	104	80-120%	---	---	TCLPa
Silver	1.08	0.0500	0.100	mg/L	10	1.00	---	108	80-120%	---	---	TCLPa
Matrix Spike (9110573-MS1)			Prepared: 11/07/19 12:52 Analyzed: 11/07/19 17:10									
QC Source Sample: PDI-083SC-C-00-08-191028 (A9J1007-01)												
1311/6020A												
Arsenic	5.29	0.0500	0.100	mg/L	10	5.00	ND	106	50-150%	---	---	
Barium	11.6	2.50	5.00	mg/L	10	10.0	ND	116	50-150%	---	---	
Cadmium	1.05	0.0500	0.100	mg/L	10	1.00	ND	105	50-150%	---	---	
Chromium	5.20	0.0500	0.100	mg/L	10	5.00	ND	104	50-150%	---	---	
Lead	5.27	0.0250	0.0500	mg/L	10	5.00	ND	105	50-150%	---	---	
Mercury	0.101	0.00350	0.00700	mg/L	10	0.100	ND	101	50-150%	---	---	
Selenium	1.04	0.0500	0.100	mg/L	10	1.00	ND	104	50-150%	---	---	
Silver	1.10	0.0500	0.100	mg/L	10	1.00	ND	110	50-150%	---	---	

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Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101715 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9101715-DUP1)			Prepared: 10/29/19 14:08		Analyzed: 11/01/19 15:51							
QC Source Sample: PDI-083SC-C-00-08-191028 (A9J1007-01)												
SM 2540 G												
Total Solids	**55.2**	1.00	1.00	% by Weight	1	---	55.2	---	---	0.08	10%	

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SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101689							
A9J1007-01	Sediment	5035A/8260C	10/28/19 14:52	10/28/19 14:52	5.17g/5mL	5g/5mL	0.97

TCLP Volatile Organic Compounds by EPA 1311/8260C

Prep: EPA 1311/5030B TCLP Volatiles

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110460							
A9J1007-01	Sediment	1311/8260C	10/28/19 14:52	11/05/19 10:08	5mL/5mL	5mL/5mL	1.00

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110391							
A9J1007-01RE1	Sediment	EPA 8081B	10/28/19 14:52	10/31/19 15:11	10.64g/10mL	10g/5mL	1.88

TCLP Organochlorine Pesticides by EPA 1311/8081B

Prep: EPA 1311/3510C (Neutral Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110595							
A9J1007-01	Sediment	1311/8081B	10/28/19 14:52	11/08/19 10:06	200g/5ml	200g/5ml	1.00

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110357							
A9J1007-01	Sediment	EPA 8270D	10/28/19 14:52	11/01/19 07:18	15.08g/2mL	15g/2mL	1.00

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Prep: EPA 1311/3510C (BNA Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110594							
A9J1007-01RE1	Sediment	1311/8270D	10/28/19 14:52	11/08/19 10:05	200mL/2mL	200mL/2mL	1.00

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

SAMPLE PREPARATION INFORMATION

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Prep: EPA 1311/3510C (BNA Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110369							
A9J1007-01	Sediment	EPA 6020A	10/28/19 14:52	11/01/19 10:01	0.501g/50mL	0.5g/50mL	1.00
A9J1007-01RE1	Sediment	EPA 6020A	10/28/19 14:52	11/01/19 10:01	0.501g/50mL	0.5g/50mL	1.00

TCLP Metals by EPA 6020A (ICPMS)

Prep: EPA 1311/3015

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110573							
A9J1007-01	Sediment	1311/6020A	10/28/19 14:52	11/07/19 12:52	10mL/50mL	10mL/50mL	1.00

Solid and Moisture Determinations

Prep: Total Solids (SM2540G/PSEP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101715							
A9J1007-01	Sediment	SM 2540 G	10/28/19 14:52	10/29/19 14:08			NA

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110529							
A9J1007-01	Sediment	EPA 1311	10/28/19 14:52	11/06/19 17:15	100.3g/2006mL	100g/2000mL	NA

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110443							
A9J1007-01	Sediment	EPA 1311 ZHE	10/28/19 14:52	11/04/19 15:35	20.3g/400mL	25g/500mL	NA

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J1007 - 12 04 19 1406**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

C-05	Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
E	Estimated Value. The result is above the calibration range of the instrument.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +11.0%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
S-01	Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9110443.
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9110529.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**	**Report ID:**
Portland, OR 97219	Project Manager:	**Ryan Barth**	**A9J1007 - 12 04 19 1406**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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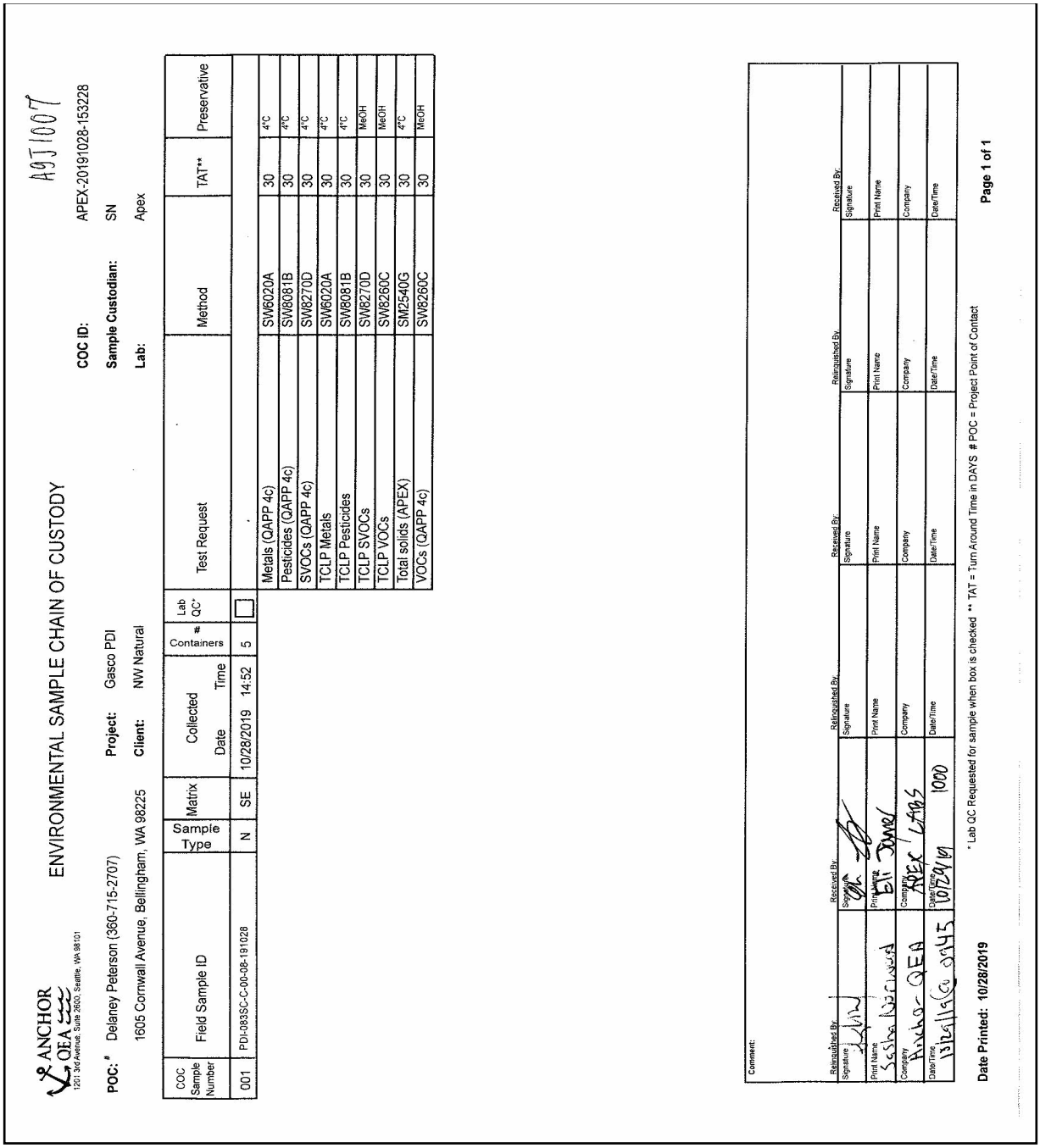

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J1007

ANCHOR QEA, 1201 3rd Avenue, Suite 2600, Seattle, WA 98101

COC ID: APEX-20191028-153228

POC: * Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI

Client: NW Natural

Sample Custodian: SN

Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-083SC-C-00-08-191028	N	SE	10/28/2019	14:52	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/28/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Page 1 of 1

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APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9 J1007

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/29/19 @ 1000 By: EJ

Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 10/29/19 @ 1100 By: EJ

Chain of Custody included? Yes X No ___ Custody seals? Yes X No ___

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.1						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition:	Good						

Cooler out of temp? (Y/(N)) Possible reason why: ___

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/(No)/NA

Out of temperature samples form initiated? Yes/(No)/NA

Samples Inspection: Date/time inspected: 10/29/19 @ 1243 By: (EJ)

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: ___

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments (EJ) 10/29/19

Water samples: pH checked: ~~Yes~~ ___ No ___ NA X pH appropriate? Yes ___ No ___ NA X

Comments: ___

Additional information: ___

Labeled by: (EJ) Witness: MK Cooler Inspected by: EJ See Project Contact Form: Y

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Sample Receipt Documentation
(Work orders, Chain of Custody & Cooler Receipt Forms)

A9J1007

Apex Laboratories

Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization
Project Manager: Darwin Thomas
Project Number: [none]

Report To:
Anchor QEA, LLC
Ryan Barth
6720 SW Macadam Ave. Suite 125
Portland, OR 97219
Phone: (503) 670-1108
Fax: na

Invoice To:
Anchor QEA, LLC Seattle
Accounts Payable
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone :(206) 287-9130
Fax: (206) 287-9131

Date Due: 11/12/19 17:00 (10 day TAT)
Received By: Eli S. Joyner
Date Received: 10/29/19 10:00
Logged In By: Susan L. Treat
Date Logged In: 10/29/19 09:51

Cooler #1 received at 2.1°C

Custody Seals	Yes	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes
Temperature OK	Yes								

Analysis	Due	TAT	Expires	Comments
A9J1007-01 PDI-083SC-C-00-08-191028 [Sediment] Sampled 10/28/19 14:52 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				
Dry Weight				
Dry Weight	11/01/19 17:00	3	04/25/20 14:52	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/11/19 17:00	10	04/25/20 14:52	
Metals, TCLP 8	11/11/19 17:00	10	04/25/20 14:52	
TCLP Extraction - Metals	10/31/19 17:00	2	11/25/19 14:52	
TCLP Extraction - Organics	10/31/19 17:00	2	11/11/19 14:52	
Project Mgmt				
Data Package	12/31/19 17:00	10	02/04/20 14:52	
Sample Control				
Archive Samples - Frozen	01/28/20 17:00	10	10/29/19 14:52	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/11/19 17:00	10	11/04/19 14:52	
8081B Pesticides	11/11/19 17:00	10	11/11/19 14:52	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/11/19 17:00	10	11/04/19 14:52	
8270D LL Full List	11/11/19 17:00	10	11/11/19 14:52	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/11/19 17:00	10	11/11/19 14:52	
8260C Full List	11/11/19 17:00	10	10/30/19 14:52	
TCLP/ZHE Extraction	11/05/19 17:00	2	11/11/19 14:52	
Wet Chem				
Solids, Total (SM 2540 G,B)	11/11/19 17:00	10	04/25/20 14:52	Use Result for Dry Weight.

Reviewed By

Date

A9J1007

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4c. Waste Characterization**	**Project Number:**	**[none]**

Analysis groups included in this work order

Metals, Select 1

Ag (Silver) - 6020 - Total	As (Arsenic) - 6020 - Total	Ba (Barium) - 6020 - Total	Cd (Cadmium) - 6020 - Total
Cr (Chromium) - 6020 - Total	Hg (Mercury) - 6020 - Total	Pb (Lead) - 6020 - Total	Se (Selenium) - 6020 - Total

Metals, TCLP 8

Ag (Silver) - 6020 - TCLP	As (Arsenic) - 6020 - TCLP	Ba (Barium) - 6020 - TCLP	Cd (Cadmium) - 6020 - TCLP
Cr (Chromium) - 6020 - TCLP	Hg (Mercury) - 6020 - TCLP	Pb (Lead) - 6020 - TCLP	Se (Selenium) - 6020 - TCLP

Reviewed By

Date

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J1007

COC ID: APEX-20191028-153228

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

Sample Custodian: SN
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-083SC-C-00-08-191028	N	SE	10/28/2019	14:52	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature	Signature	Signature	Signature
Print Name: Sasha Norcross	Print Name: Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company: Anchor QEA	Company: APEX LABS	Company	Company	Company	Company
Date/Time: 10/29/19 0945	Date/Time: 10/29/19 1000	Date/Time	Date/Time	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/28/2019

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9J1007

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/29/19 @ 1000 By: EJ

Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 10/29/19 @ 1100 By: EJ

Chain of Custody included? Yes X No ___ Custody seals? Yes X No ___

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.1						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition:	Good						

Cooler out of temp? (Y/(N)) Possible reason why: ___

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/(NA)

Out of temperature samples form initiated? Yes/No/(NA)

Samples Inspection: Date/time inspected: 10/29/19 @ 1243 By: (8)

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: ___

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments (8) 10/29/19

Water samples: pH checked: ~~Yes~~ X No ___ NA X pH appropriate? Yes ___ No ___ NA X

Comments: ___

Additional information: ___

Labeled by: (8) Witness: MK Cooler Inspected by: 8 See Project Contact Form: Y

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

CLP-Like Forms

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 5035A/8260C

ANALYSES DATA PACKAGE COVER PAGE

5035A/8260C

Laboratory: Apex Laboratories

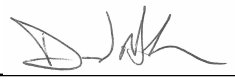
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/17/2019 4:45PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

5035A/8260C

Laboratory: Apex Laboratories **SDG:** Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units
Acetone	500	1000	ug/kg
Acrylonitrile	50.0	100	ug/kg
Benzene	5.00	10.0	ug/kg
Bromobenzene	12.5	25.0	ug/kg
Bromochloromethane	25.0	50.0	ug/kg
Bromodichloromethane	25.0	50.0	ug/kg
Bromoform	50.0	100	ug/kg
Bromomethane	500	500	ug/kg
2-Butanone (MEK)	250	500	ug/kg
n-Butylbenzene	25.0	50.0	ug/kg
sec-Butylbenzene	25.0	50.0	ug/kg
tert-Butylbenzene	25.0	50.0	ug/kg
Carbon tetrachloride	25.0	50.0	ug/kg
Chlorobenzene	12.5	25.0	ug/kg
Chloroethane	250	500	ug/kg
Chloroform	25.0	50.0	ug/kg
Chloromethane	125	250	ug/kg
2-Chlorotoluene	25.0	50.0	ug/kg
4-Chlorotoluene	25.0	50.0	ug/kg
Dibromochloromethane	50.0	100	ug/kg
1,2-Dibromo-3-chloropropane	125	250	ug/kg
1,2-Dibromoethane (EDB)	25.0	50.0	ug/kg
Dibromomethane	25.0	50.0	ug/kg
1,2-Dichlorobenzene	12.5	25.0	ug/kg
1,3-Dichlorobenzene	12.5	25.0	ug/kg
1,4-Dichlorobenzene	12.5	25.0	ug/kg
Dichlorodifluoromethane	50.0	100	ug/kg
1,1-Dichloroethane	12.5	25.0	ug/kg
1,2-Dichloroethane (EDC)	12.5	25.0	ug/kg
1,1-Dichloroethene	12.5	25.0	ug/kg
cis-1,2-Dichloroethene	12.5	25.0	ug/kg
trans-1,2-Dichloroethene	12.5	25.0	ug/kg
1,2-Dichloropropane	12.5	25.0	ug/kg
1,3-Dichloropropane	25.0	50.0	ug/kg
2,2-Dichloropropane	25.0	50.0	ug/kg
1,1-Dichloropropene	25.0	50.0	ug/kg
trans-1,3-Dichloropropene	25.0	50.0	ug/kg

METHOD DETECTION AND REPORTING LIMITS

5035A/8260C

Laboratory: Apex Laboratories **SDG:** Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units
Ethylbenzene	12.5	25.0	ug/kg
Hexachlorobutadiene	50.0	100	ug/kg
2-Hexanone	250	500	ug/kg
Methylene chloride	125	250	ug/kg
4-Methyl-2-pentanone (MiBK)	250	500	ug/kg
Methyl tert-butyl ether (MTBE)	25.0	50.0	ug/kg
Naphthalene	50.0	100	ug/kg
n-Propylbenzene	12.5	25.0	ug/kg
Styrene	25.0	50.0	ug/kg
1,1,1,2-Tetrachloroethane	12.5	25.0	ug/kg
1,1,2,2-Tetrachloroethane	25.0	50.0	ug/kg
Tetrachloroethene (PCE)	12.5	25.0	ug/kg
Toluene	25.0	50.0	ug/kg
1,2,3-Trichlorobenzene	125	250	ug/kg
1,2,4-Trichlorobenzene	125	250	ug/kg
1,1,1-Trichloroethane	12.5	25.0	ug/kg
1,1,2-Trichloroethane	12.5	25.0	ug/kg
Trichloroethene (TCE)	12.5	25.0	ug/kg
Trichlorofluoromethane	50.0	100	ug/kg
1,2,3-Trichloropropane	25.0	50.0	ug/kg
1,2,4-Trimethylbenzene	25.0	50.0	ug/kg
1,3,5-Trimethylbenzene	25.0	50.0	ug/kg
Vinyl chloride	12.5	25.0	ug/kg
m,p-Xylene	25.0	50.0	ug/kg
o-Xylene	12.5	25.0	ug/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01	File ID:	VJ19102923.D
Sampled:	10/28/19 14:52	Prepared:	10/28/19 14:52	Analyzed:	10/29/19 20:08
Solids:	55.18	Preparation:	EPA 5035A	Initial/Final:	5.17 g / 5 mL
Batch:	9101689	Sequence:	9J29035	Calibration:	A9J2404
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	5000	1280	U
78-93-3	2-Butanone (MEK)	5000	64100	U
56-23-5	Carbon tetrachloride	5000	6410	U
108-90-7	Chlorobenzene	5000	3210	U
67-66-3	Chloroform	5000	6410	U
106-46-7	1,4-Dichlorobenzene	5000	3210	U
107-06-2	1,2-Dichloroethane (EDC)	5000	3210	U
75-35-4	1,1-Dichloroethene	5000	3210	U
156-59-2	cis-1,2-Dichloroethene	5000	3210	U
156-60-5	trans-1,2-Dichloroethene	5000	3210	U
100-41-4	Ethylbenzene	5000	40900	D
127-18-4	Tetrachloroethene (PCE)	5000	3210	U
108-88-3	Toluene	5000	6410	U
79-01-6	Trichloroethene (TCE)	5000	3210	U
75-01-4	Vinyl chloride	5000	3210	U
179601-23-1	m,p-Xylene	5000	6410	U
95-47-6	o-Xylene	5000	9340	D

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.6	99	80 - 120	
Toluene-d8 (Surr)	50.0	50.5	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.8	100	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	110178	6.089	101558	6.089	
Chlorobenzene-d5 (ISTD)	295757	9.806	265975	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	122546	11.765	116596	11.765	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9101689 Batch Matrix: Soil
Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101689-BLK1	VJ19102905.D	10/29/19 09:30	
LCS	9101689-BS1	VJ19102903.D	10/29/19 09:30	
PDI-083SC-C-00-08-191028	A9J1007-01	VJ19102923.D	10/28/19 14:52	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101689-BLK1	File ID:	VJ19102905.D
Prepared:	10/29/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/29/19 11:30	Instrument:	VOA-GCMS10		
Batch:	9101689	Sequence:	9J29035	Calibration:	A9J2404

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
67-64-1	Acetone	333	U
107-13-1	Acrylonitrile	33.3	U
71-43-2	Benzene	3.33	U
108-86-1	Bromobenzene	8.33	U
74-97-5	Bromochloromethane	16.7	U
75-27-4	Bromodichloromethane	16.7	U
75-25-2	Bromoform	33.3	U
74-83-9	Bromomethane	333	U
78-93-3	2-Butanone (MEK)	167	U
104-51-8	n-Butylbenzene	16.7	U
135-98-8	sec-Butylbenzene	16.7	U
98-06-6	tert-Butylbenzene	16.7	U
75-15-0	Carbon disulfide	167	U
56-23-5	Carbon tetrachloride	16.7	U
108-90-7	Chlorobenzene	8.33	U
75-00-3	Chloroethane	167	U
67-66-3	Chloroform	16.7	U
74-87-3	Chloromethane	83.3	U
95-49-8	2-Chlorotoluene	16.7	U
106-43-4	4-Chlorotoluene	16.7	U
124-48-1	Dibromochloromethane	33.3	U
96-12-8	1,2-Dibromo-3-chloropropane	83.3	U
106-93-4	1,2-Dibromoethane (EDB)	16.7	U
74-95-3	Dibromomethane	16.7	U
95-50-1	1,2-Dichlorobenzene	8.33	U
541-73-1	1,3-Dichlorobenzene	8.33	U
106-46-7	1,4-Dichlorobenzene	8.33	U
75-71-8	Dichlorodifluoromethane	33.3	U
75-34-3	1,1-Dichloroethane	8.33	U
107-06-2	1,2-Dichloroethane (EDC)	8.33	U
75-35-4	1,1-Dichloroethene	8.33	U
156-59-2	cis-1,2-Dichloroethene	8.33	U
156-60-5	trans-1,2-Dichloroethene	8.33	U
78-87-5	1,2-Dichloropropane	33.3	U
142-28-9	1,3-Dichloropropane	16.7	U

METHOD BLANK DATA SHEET

5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101689-BLK1	File ID:	VJ19102905.D
Prepared:	10/29/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/29/19 11:30	Instrument:	VOA-GCMS10		
Batch:	9101689	Sequence:	9J29035	Calibration:	A9J2404

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
594-20-7	2,2-Dichloropropane	16.7	U
563-58-6	1,1-Dichloropropene	16.7	U
10061-01-5	cis-1,3-Dichloropropene	16.7	U
10061-02-6	trans-1,3-Dichloropropene	16.7	U
100-41-4	Ethylbenzene	8.33	U
87-68-3	Hexachlorobutadiene	33.3	U
591-78-6	2-Hexanone	167	U
98-82-8	Isopropylbenzene	16.7	U
99-87-6	4-Isopropyltoluene	16.7	U
75-09-2	Methylene chloride	83.3	U
108-10-1	4-Methyl-2-pentanone (MiBK)	167	U
1634-04-4	Methyl tert-butyl ether (MTBE)	16.7	U
91-20-3	Naphthalene	33.3	U
103-65-1	n-Propylbenzene	8.33	U
100-42-5	Styrene	16.7	U
630-20-6	1,1,1,2-Tetrachloroethane	8.33	U
79-34-5	1,1,2,2-Tetrachloroethane	16.7	U
127-18-4	Tetrachloroethene (PCE)	8.33	U
108-88-3	Toluene	16.7	U
87-61-6	1,2,3-Trichlorobenzene	83.3	U
120-82-1	1,2,4-Trichlorobenzene	83.3	U
71-55-6	1,1,1-Trichloroethane	8.33	U
79-00-5	1,1,2-Trichloroethane	8.33	U
79-01-6	Trichloroethene (TCE)	8.33	U
75-69-4	Trichlorofluoromethane	33.3	U
96-18-4	1,2,3-Trichloropropane	16.7	U
95-63-6	1,2,4-Trimethylbenzene	16.7	U
108-67-8	1,3,5-Trimethylbenzene	16.7	U
75-01-4	Vinyl chloride	8.33	U
179601-23-1	m,p-Xylene	16.7	U
95-47-6	o-Xylene	8.33	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.2	98	80 - 120	
Toluene-d8 (Surr)	50.0	51.7	103	80 - 120	

METHOD BLANK DATA SHEET

5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101689-BLK1	File ID:	VJ19102905.D
Prepared:	10/29/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/29/19 11:30	Instrument:	VOA-GCMS10		
Batch:	9101689	Sequence:	9J29035	Calibration:	A9J2404

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
4-Bromofluorobenzene (Surr)	50.0	49.7	99	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	96809	6.095	101558	6.089	
Chlorobenzene-d5 (ISTD)	253463	9.806	265975	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	100179	11.765	116596	11.765	

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Soil
Batch: 9101689
Laboratory ID: 9101689-BS1
Preparation: EPA 5035A
Initial/Final: 5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acetone	2000	2190	109	80 - 120
Acrylonitrile	1000	1110	111	80 - 120
Benzene	1000	952	95	80 - 120
Bromobenzene	1000	974	97	80 - 120
Bromochloromethane	1000	1040	104	80 - 120
Bromodichloromethane	1000	1030	103	80 - 120
Bromoform	1000	922	92	80 - 120
Bromomethane	1000	1310	131 *	80 - 120
2-Butanone (MEK)	2000	1910	95	80 - 120
n-Butylbenzene	1000	1120	112	80 - 120
sec-Butylbenzene	1000	1070	107	80 - 120
tert-Butylbenzene	1000	1040	104	80 - 120
Carbon disulfide	1000	907	91	80 - 120
Carbon tetrachloride	1000	1040	104	80 - 120
Chlorobenzene	1000	973	97	80 - 120
Chloroethane	1000	921	92	80 - 120
Chloroform	1000	1010	101	80 - 120
Chloromethane	1000	875	87	80 - 120
2-Chlorotoluene	1000	999	100	80 - 120
4-Chlorotoluene	1000	1030	103	80 - 120
Dibromochloromethane	1000	982	98	80 - 120
1,2-Dibromo-3-chloropropane	1000	950	95	80 - 120
1,2-Dibromoethane (EDB)	1000	1050	105	80 - 120
Dibromomethane	1000	1010	101	80 - 120
1,2-Dichlorobenzene	1000	1000	100	80 - 120
1,3-Dichlorobenzene	1000	1010	101	80 - 120
1,4-Dichlorobenzene	1000	955	96	80 - 120
Dichlorodifluoromethane	1000	806	81	80 - 120
1,1-Dichloroethane	1000	1010	101	80 - 120
1,2-Dichloroethane (EDC)	1000	1030	103	80 - 120

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9101689	Laboratory ID:	9101689-BS1
Preparation:	EPA 5035A	Initial/Final:	5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
1,1-Dichloroethene	1000	960	96	80 - 120
cis-1,2-Dichloroethene	1000	970	97	80 - 120
trans-1,2-Dichloroethene	1000	989	99	80 - 120
1,2-Dichloropropane	1000	986	99	80 - 120
1,3-Dichloropropane	1000	1030	103	80 - 120
2,2-Dichloropropane	1000	1100	110	80 - 120
1,1-Dichloropropene	1000	978	98	80 - 120
cis-1,3-Dichloropropene	1000	1070	107	80 - 120
trans-1,3-Dichloropropene	1000	1140	114	80 - 120
Ethylbenzene	1000	1040	104	80 - 120
Hexachlorobutadiene	1000	1040	104	80 - 120
2-Hexanone	2000	2020	101	80 - 120
Isopropylbenzene	1000	1060	106	80 - 120
4-Isopropyltoluene	1000	1100	110	80 - 120
Methylene chloride	1000	1040	104	80 - 120
4-Methyl-2-pentanone (MiBK)	2000	2100	105	80 - 120
Methyl tert-butyl ether (MTBE)	1000	985	98	80 - 120
Naphthalene	1000	1070	107	80 - 120
n-Propylbenzene	1000	1020	102	80 - 120
Styrene	1000	906	91	80 - 120
1,1,1,2-Tetrachloroethane	1000	1030	103	80 - 120
1,1,2,2-Tetrachloroethane	1000	970	97	80 - 120
Tetrachloroethene (PCE)	1000	1030	103	80 - 120
Toluene	1000	977	98	80 - 120
1,2,3-Trichlorobenzene	1000	1020	102	80 - 120
1,2,4-Trichlorobenzene	1000	991	99	80 - 120
1,1,1-Trichloroethane	1000	1030	103	80 - 120
1,1,2-Trichloroethane	1000	1050	105	80 - 120
Trichloroethene (TCE)	1000	997	100	80 - 120
Trichlorofluoromethane	1000	924	92	80 - 120

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9101689	Laboratory ID:	9101689-BS1
Preparation:	EPA 5035A	Initial/Final:	5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
1,2,3-Trichloropropane	1000	1030	103	80 - 120
1,2,4-Trimethylbenzene	1000	1160	116	80 - 120
1,3,5-Trimethylbenzene	1000	1160	116	80 - 120
Vinyl chloride	1000	989	99	80 - 120
m,p-Xylene	2000	2140	107	80 - 120
o-Xylene	1000	1040	104	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J23072	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J23072-TUN1	VJ19102321.D	10/23/19 21:24
Initial Cal Blank	9J23072-ICB1	VJ19102322.D	10/23/19 21:51
Cal Standard	9J23072-CAL1	VJ19102323.D	10/23/19 22:18
Cal Standard	9J23072-CAL2	VJ19102324.D	10/23/19 22:45
Cal Standard	9J23072-CAL3	VJ19102325.D	10/23/19 23:12
Cal Standard	9J23072-CAL4	VJ19102326.D	10/23/19 23:38
Cal Standard	9J23072-CAL5	VJ19102327.D	10/24/19 00:05
Cal Standard	9J23072-CAL6	VJ19102328.D	10/24/19 00:32
Cal Standard	9J23072-CAL7	VJ19102329.D	10/24/19 00:59
Cal Standard	9J23072-CAL8	VJ19102330.D	10/24/19 01:26
Cal Standard	9J23072-CAL9	VJ19102331.D	10/24/19 01:53
Cal Standard	9J23072-CALA	VJ19102333.D	10/24/19 02:46
Cal Standard	9J23072-CALB	VJ19102335.D	10/24/19 03:40
Initial Cal Check	9J23072-ICV1	VJ19102338.D	10/24/19 05:00

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J29035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J29035-TUN1	VJ19102902.D	10/29/19 10:09
Calibration Check	9J29035-CCV1	VJ19102903.D	10/29/19 10:36
Blank	9101689-BLK1	VJ19102905.D	10/29/19 11:30
PDI-083SC-C-00-08-191028	A9J1007-01	VJ19102923.D	10/29/19 20:08

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VJ19102321.D	Injection Date:	10/23/19
Instrument ID:	VOA-GCMS10	Injection Time:	21:24
Sequence:	9J23072	Lab Sample ID:	9J23072-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	147.78	PASS
m/z 96	5 - 9% of m/z 95	7.15	PASS
m/z 173	Less than 2% of m/z 174	0.74	PASS
m/z 174	50 - 200% of m/z 95	67.67	PASS
m/z 175	5 - 9% of m/z 174	7.13	PASS
m/z 176	95 - 105% of m/z 174	95.30	PASS
m/z 177	5 - 10% of m/z 176	6.81	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VJ19102902.D	Injection Date:	10/29/19
Instrument ID:	VOA-GCMS10	Injection Time:	10:09
Sequence:	9J29035	Lab Sample ID:	9J29035-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	148.14	PASS
m/z 96	5 - 9% of m/z 95	7.11	PASS
m/z 173	Less than 2% of m/z 174	0.26	PASS
m/z 174	50 - 200% of m/z 95	67.50	PASS
m/z 175	5 - 9% of m/z 174	7.09	PASS
m/z 176	95 - 105% of m/z 174	96.31	PASS
m/z 177	5 - 10% of m/z 176	6.78	PASS

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J2404 Date: 10/24/19 13:40 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acetone	0.7630346	Ave	7.780488	3.87	0.1174603			20	
Acrylonitrile	0.8637499	Ave	14.08609	4.636333	0.1079403			20	
Benzene	6.42084	Ave	5.626462	6.003455	3.501531E-02			20	
Bromobenzene	1.034598	Ave	5.113731	10.9638	2.955328E-02			20	
Bromochloromethane	1.16812	Ave	5.545978	5.329667	6.725774E-02			20	
Bromodichloromethane	1.552772	Ave	14.23023	7.2486	4.352734E-02			20	
Bromoform	0.2352265	XXX	23.91278	10.43833	2.183329E-02				
Bromomethane	3.24174	XXX	139.3167	2.343636	0.2584869				
2-Butanone (MEK)	1.343962	Ave	9.587451	5.73475	5.073369E-02			20	
n-Butylbenzene	3.154063	Ave	6.836626	11.972	2.119512E-02			20	
sec-Butylbenzene	4.267558	Ave	10.9799	11.546	7.675565E-03			20	
tert-Butylbenzene	1.979189	Ave	8.928197	11.4054	1.578147E-02			20	
Carbon disulfide	3.47021	Ave	14.56079	3.154273	0.1780623			20	
Carbon tetrachloride	1.448803	Ave	14.03004	5.5552	6.695901E-02			20	
Chlorobenzene	1.332881	Ave	3.799445	9.823545	3.088718E-02			20	
Chloroethane	0.1761344	XXX	20.51192	2.476714	0.4375376				
Chloroform	2.193058	Ave	5.725423	5.417	0.0557908			20	
Chloromethane	1.96101	Ave	9.832503	1.897143	0.2846326			20	
2-Chlorotoluene	0.9730858	Ave	5.990234	11.1164	0.0275477			20	
4-Chlorotoluene	3.159392	Ave	6.281659	11.2486	2.183889E-02			20	
Dibromochloromethane	0.3827769	Ave	12.60893	9.0655	2.783921E-02			20	
1,2-Dibromo-3-chloropropane	0.29905	Ave	13.90432	12.696	1.471367E-02			20	
1,2-Dibromoethane (EDB)	0.4544982	Ave	8.564783	9.3011	1.969881E-02			20	
Dibromomethane	0.8058568	Ave	3.431989	7.062889	4.081123E-02			20	
1,2-Dichlorobenzene	1.715567	Ave	5.398752	12.094	9.240268E-03			20	
1,3-Dichlorobenzene	1.872399	Ave	6.378968	11.71091	1.892805E-02			20	
1,4-Dichlorobenzene	1.990469	Ave	5.960029	11.77655	1.616477E-02			20	
Dichlorodifluoromethane	1.157153	Ave	4.195397	1.6925	0.3142671			20	
1,1-Dichloroethane	2.052362	Ave	5.505869	4.5817	5.918088E-02			20	
1,2-Dichloroethane (EDC)	1.977653	Ave	4.926241	6.208	5.092493E-02			20	
1,1-Dichloroethene	1.860368	Ave	5.025398	3.143	0.1662785			20	
cis-1,2-Dichloroethene	1.918395	Ave	4.009481	5.131333	6.008354E-02			20	
trans-1,2-Dichloroethene	1.944826	Ave	4.048457	3.9486	0.1115212			20	

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J2404 Date: 10/24/19 13:40 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,2-Dichloropropane	1.589063	Ave	2.168724	7.172667	0.0316026			20	
1,3-Dichloropropane	0.8908941	Ave	5.289103	9.162	2.645202E-02			20	
2,2-Dichloropropane	1.942855	Ave	5.980428	5.24	6.162833E-02			20	
1,1-Dichloropropene	1.959344	Ave	3.5152	5.749222	3.222457E-02			20	
cis-1,3-Dichloropropene	0.7450675	Ave	12.78409	7.9522	2.889974E-02			20	
trans-1,3-Dichloropropene	0.7224957	Ave	12.37483	8.7026	0.0353098			20	
Ethylbenzene	2.270775	Ave	5.558898	9.861	0.0194846			20	
Hexachlorobutadiene	0.2169599	Ave	11.77189	13.21833	1.673503E-02			20	
2-Hexanone	0.5388921	Ave	13.20295	9.545857	2.121464E-02			20	
Isopropylbenzene	1.859592	Ave	13.30658	9.683637	33.16624			20	
4-Isopropyltoluene	3.252949	Ave	13.6313	11.656	1.807841E-02			20	
Methylene chloride	2.908984	XXX	109.5029	2.749455	64.22624				
4-Methyl-2-pentanone (MiBK)	0.7241524	Ave	10.14834	8.671	3.957963E-02			20	
Methyl tert-butyl ether (MTBE)	4.652114	Ave	3.100733	4.10675	0.1452521			20	
Naphthalene	3.717873	Ave	11.6002	13.5158	1.410608E-02			20	
n-Propylbenzene	5.453597	Ave	4.607677	10.99682	2.197048E-02			20	
Styrene	1.02724	XXX	22.42696	10.421	1.478796E-02				
1,1,1,2-Tetrachloroethane	0.4128544	Ave	8.288025	9.886	1.505389E-02			20	
1,1,2,2-Tetrachloroethane	1.579054	Ave	6.865902	11.0464	2.011701E-02			20	
Tetrachloroethene (PCE)	0.4335888	Ave	9.463738	8.6792	3.437289E-02			20	
Toluene	2.336687	Ave	4.658904	8.231455	1.982802E-02			20	
1,2,3-Trichlorobenzene	1.008478	Ave	8.02173	13.6754	1.213214E-02			20	
1,2,4-Trichlorobenzene	1.036127	Ave	6.021869	13.243	1.607057E-02			20	
1,1,1-Trichloroethane	2.015569	Ave	6.578792	5.6222	4.343642E-02			20	
1,1,2-Trichloroethane	0.474218	Ave	6.909803	8.8762	0.0257095			20	
Trichloroethene (TCE)	1.275798	Ave	8.060541	6.623	6.264117E-02			20	
Trichlorofluoromethane	0.3375145	Ave	7.881205	2.604625	0.2428395			20	
1,2,3-Trichloropropane	0.5070411	Ave	6.919488	11.151	1.103529E-02			20	
1,2,4-Trimethylbenzene	3.371687	Ave	11.05569	11.461	2.389959E-02			20	
1,3,5-Trimethylbenzene	3.338074	Ave	12.70043	10.14273	33.16624			20	
Vinyl chloride	1.512511	Ave	5.395119	1.993	0.425789			20	
m,p-Xylene	1.616709	Ave	9.72333	9.995	1.368862E-02			20	
o-Xylene	1.543364	Ave	10.87211	9.434546	33.16624			20	

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J2404 Date: 10/24/19 13:40 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,4-Difluorobenzene (Surr)	3.07597	Ave	1.030422	6.655	9.65307E-03			20	
Toluene-d8 (Surr)	1.394366	Ave	0.6353862	8.17	4.457054E-03			20	
4-Bromofluorobenzene (Surr)	0.7219473	Ave	2.275187	10.883	3.456173E-03			20	

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

5035A/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS10

Calibration Date: 10/24/19 13:40

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acetone	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	~~1.393237~~	4	~~0~~	10	0.8460466
Acrylonitrile	0.1	~~0~~	0.2	~~0~~	0.4	0.5484338	1	0.8692497	2	0.9222922	5	0.8895916
Benzene	0.1	7.293099	0.2	6.723948	0.4	6.327773	1	6.33767	2	6.676794	5	6.285538
Bromobenzene	0.1	~~0~~	0.2	0.9505703	0.4	1.003151	1	1.030487	2	1.143625	5	1.043803
Bromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	1.082118	1	1.253236	2	1.261723	5	1.17612
Bromodichloromethane	0.1	~~0~~	0.2	1.148247	0.4	1.346278	1	1.406506	2	1.52889	5	1.504779
Bromoform	0.1	~~0~~	0.2	~~0~~	0.4	0.1517548	1	0.1766516	2	0.2035704	5	0.2059341
Bromomethane	0.1	14.76445	0.2	8.366178	0.4	4.529607	1	2.498348	2	1.37012	5	0.9456647
2-Butanone (MEK)	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	1.620704	4	1.438823	10	1.273313
n-Butylbenzene	0.1	~~0~~	0.2	2.998823	0.4	2.871048	1	2.856318	2	3.056434	5	3.02701
sec-Butylbenzene	0.1	~~0~~	0.2	3.686855	0.4	3.573727	1	3.668494	2	4.164478	5	4.270418
tert-Butylbenzene	0.1	~~0~~	0.2	1.799294	0.4	1.641951	1	1.803712	2	1.951733	5	1.986955
Carbon disulfide	0.1	4.82302	0.2	3.938725	0.4	3.346921	1	3.249532	2	3.389826	5	3.078361
Carbon tetrachloride	0.1	~~0~~	0.2	0.9643176	0.4	1.252414	1	1.476912	2	1.510692	5	1.44911
Chlorobenzene	0.1	1.321464	0.2	1.354265	0.4	1.367771	1	1.311498	2	1.445458	5	1.325432
Chloroethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	~~0~~	2	0.1471659	5	0.1398291
Chloroform	0.1	~~0~~	0.2	1.944401	0.4	2.034167	1	2.275214	2	2.367313	5	2.24171
Chloromethane	0.1	~~12.13649~~	0.2	~~7.288875~~	0.4	~~4.404902~~	1	~~2.874211~~	2	2.358874	5	2.024389
2-Chlorotoluene	0.1	~~0~~	0.2	0.8283542	0.4	0.952284	1	0.9679746	2	0.9867321	5	0.9443121
4-Chlorotoluene	0.1	~~0~~	0.2	2.998823	0.4	2.7563	1	2.951529	2	3.283057	5	3.136226
Dibromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0.2580326~~	1	0.3037449	2	0.3557808	5	0.352008
1,2-Dibromo-3-chloropropane	0.1	~~0~~	0.2	~~0~~	0.4	~~8.280731E-02~~	1	~~0.2389883~~	2	0.2739065	5	0.2419894
1,2-Dibromoethane (EDB)	0.1	~~0~~	0.2	0.4057081	0.4	0.3895205	1	0.4116542	2	0.4621412	5	0.4533185
Dibromomethane	0.1	~~0~~	0.2	~~0~~	0.4	0.7576164	1	0.779346	2	0.845017	5	0.8095738
1,2-Dichlorobenzene	0.1	1.516905	0.2	1.640865	0.4	1.680988	1	1.702731	2	1.867675	5	1.743716
1,3-Dichlorobenzene	0.1	1.580678	0.2	1.82419	0.4	1.860798	1	1.881131	2	2.057045	5	1.912627
1,4-Dichlorobenzene	0.1	2.177419	0.2	1.959985	0.4	2.113952	1	2.018657	2	2.170238	5	1.942519
Dichlorodifluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	1.102133	2	1.175217	5	1.126008
1,1-Dichloroethane	0.1	~~0~~	0.2	1.891849	0.4	1.955053	1	2.172853	2	2.237027	5	2.13401
1,2-Dichloroethane (EDC)	0.1	~~0~~	0.2	1.862946	0.4	1.812916	1	2.037456	2	2.150521	5	1.992059
1,1-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	2.02478	1	1.926972	2	1.951662	5	1.828386

INITIAL CALIBRATION DATA

5035A/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS10

Calibration Date: 10/24/19 13:40

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
cis-1,2-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	2.01003	1	1.993046	2	2.01786	5	1.896684
trans-1,2-Dichloroethene	0.1	~~0~~	0.2	1.876084	0.4	1.991257	1	2.014168	2	2.086432	5	1.969326
1,2-Dichloropropane	0.1	~~0~~	0.2	~~0~~	0.4	1.576915	1	1.560317	2	1.644935	5	1.5753
1,3-Dichloropropane	0.1	~~0~~	0.2	0.8104638	0.4	0.8492338	1	0.8776628	2	0.9797748	5	0.905244
2,2-Dichloropropane	0.1	~~0~~	0.2	1.99958	0.4	2.199099	1	1.997379	2	2.031311	5	1.873144
1,1-Dichloropropene	0.1	~~0~~	0.2	~~0~~	0.4	1.86253	1	1.950261	2	2.038432	5	1.88941
cis-1,3-Dichloropropene	0.1	~~0~~	0.2	0.5676104	0.4	0.6653485	1	0.667839	2	0.7395046	5	0.7286
trans-1,3-Dichloropropene	0.1	~~0~~	0.2	0.5523725	0.4	0.688087	1	0.6176811	2	0.6948352	5	0.6966369
Ethylbenzene	0.1	2.101032	0.2	2.083778	0.4	2.174493	1	2.151793	2	2.318676	5	2.255298
Hexachlorobutadiene	0.1	~~0~~	0.2	~~0~~	0.4	0.1644317	1	0.18417	2	0.2173103	5	0.2393126
n-Hexane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.2410069	2	0.3003977	5	0.2818808
2-Hexanone	0.2	~~0~~	0.4	~~0~~	0.8	~~0.3732081~~	2	~~0.3828784~~	4	0.4649453	10	0.4417417
Isopropylbenzene	0.1	1.515405	0.2	1.607594	0.4	1.581809	1	1.67839	2	1.795729	5	1.800812
4-Isopropyltoluene	0.1	~~0~~	0.2	2.786076	0.4	2.6522	1	2.651471	2	3.100135	5	3.135423
Methylene chloride	0.1	11.2605	0.2	6.24573	0.4	3.644604	1	2.051538	2	1.638341	5	1.313221
4-Methyl-2-pentanone (MiBK)	0.2	~~0~~	0.4	~~0~~	0.8	0.7261493	2	0.5882059	4	0.6757475	10	0.6615114
Methyl tert-butyl ether (MTBE)	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	4.762188	2	4.807946	5	4.601932
Naphthalene	0.1	~~0~~	0.2	3.526163	0.4	3.367892	1	3.115022	2	3.558158	5	3.259809
n-Propylbenzene	0.1	5.038128	0.2	5.253033	0.4	5.136419	1	5.237065	2	5.606606	5	5.39533
Styrene	0.1	~~0~~	0.2	0.8495108	0.4	0.7760751	1	0.770153	2	0.8546218	5	0.9128865
1,1,1,2-Tetrachloroethane	0.1	~~0~~	0.2	~~0~~	0.4	0.3519526	1	0.3772831	2	0.3987776	5	0.4050915
1,1,2,2-Tetrachloroethane	0.1	~~1.389357~~	0.2	1.514123	0.4	1.406541	1	1.543566	2	1.794601	5	1.602823
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	0.3333282	0.4	0.3979239	1	0.4312378	2	0.4579104	5	0.4398782
Toluene	0.1	2.570675	0.2	2.42282	0.4	2.355907	1	2.325646	2	2.441172	5	2.246488
1,2,3-Trichlorobenzene	0.1	~~0~~	0.2	0.9845193	0.4	0.8706597	1	0.8929602	2	1.118312	5	0.9561796
1,2,4-Trichlorobenzene	0.1	~~0~~	0.2	0.9415173	0.4	0.9511011	1	0.9920177	2	1.093954	5	0.9825022
1,1,1-Trichloroethane	0.1	~~0~~	0.2	1.802512	0.4	1.788779	1	1.984381	2	2.166873	5	2.025096
1,1,2-Trichloroethane	0.1	~~0~~	0.2	0.3971368	0.4	0.4611962	1	0.4604132	2	0.5133044	5	0.4911546
Trichloroethene (TCE)	0.1	~~0~~	0.2	1.001104	0.4	1.265823	1	1.291689	2	1.347965	5	1.294126
Trichlorofluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.2794597	2	0.3299364	5	0.3437127
1,2,3-Trichloropropane	0.1	~~0~~	0.2	~~0.3010139~~	0.4	0.4459765	1	0.4890364	2	0.5685889	5	0.4963818

INITIAL CALIBRATION DATA

5035A/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS10

Calibration Date: 10/24/19 13:40

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
1,1,2-Trichloro-1,2,2-trifluoroethan	0.1	0	0.2	0	0.4	1.020436	1	1.16604	2	1.216888	5	1.119441
1,2,4-Trimethylbenzene	0.1	3.161357	0.2	2.824552	0.4	2.809534	1	2.978938	2	3.419175	5	3.360459
1,3,5-Trimethylbenzene	0.1	2.560061	0.2	2.937715	0.4	2.906537	1	3.005867	2	3.371653	5	3.353678
Vinyl chloride	0.1	0	0.2	0	0.4	1.488415	1	1.643721	2	1.6481	5	1.476692
m,p-Xylene	0.2	1.455511	0.4	1.462359	0.8	1.401878	2	1.456876	4	1.581532	10	1.60094
o-Xylene	0.1	1.374702	0.2	1.371408	0.4	1.298566	1	1.423804	2	1.515611	5	1.494735
Xylenes, total	0.3	1.428575	0.6	1.432042	1.2	1.367441	3	1.445852	6	1.559559	15	1.565538
trans-1,4-Dichloro-2-butene	0.1	0	0.2	0	0.4	0	1	0.1610887	2	0.1745647	5	0.1941626
1,4-Difluorobenzene (Surr)	50	3.053547	50	3.111787	50	3.060223	50	3.077198	50	3.052157	50	3.067298
Toluene-d8 (Surr)	50	1.398268	50	1.384592	50	1.394982	50	1.399337	50	1.41034	50	1.391583
4-Bromofluorobenzene (Surr)	50	0.7394386	50	0.7276299	50	0.7292248	50	0.7295153	50	0.7296469	50	0.7284757

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9J2404	Instrument:	VOA-GCMS10
Matrix:		Calibration Date:	10/24/19 13:40

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acetone	20	0.7704426	40	0.8196669	100	0.7179921	200	0.7011265	400	0.722933		
Acrylonitrile	10	0.8846229	20	0.9676948	50	0.8921181	100	0.8893462	200	0.9104001		
Benzene	10	6.268415	20	6.398041	50	5.96031	100	6.18341	200	6.17424		
Bromobenzene	10	1.084041	20	1.062417	50	1.0065	100	1.011853	200	1.009528		
Bromochloromethane	10	1.160219	20	1.220333	50	1.113129	100	1.134116	200	1.112087		
Bromodichloromethane	10	1.535414	20	1.690776	50	1.671574	100	1.81995	200	1.875309		
Bromoform	10	0.2257765	20	0.2605292	50	0.2767994	100	0.3078937	200	0.3081286		
Bromomethane	10	0.7557151	20	0.6771658	50	0.6031349	100	0.5619599	200	0.5867984		
2-Butanone (MEK)	20	1.246483	40	1.348087	100	1.248917	200	1.268235	400	1.307138		
n-Butylbenzene	10	3.275568	20	3.327664	50	3.310543	100	3.430676	200	3.386545		
sec-Butylbenzene	10	4.712718	20	4.655265	50	4.592545	100	4.696977	200	4.654103		
tert-Butylbenzene	10	2.106716	20	2.13866	50	2.092078	100	2.141971	200	2.128824		
Carbon disulfide	10	3.114498	20	3.206447	50	3.192014	100	3.402267	200	3.430695		
Carbon tetrachloride	10	1.477335	20	1.564802	50	1.509346	100	1.612337	200	1.670761		
Chlorobenzene	10	1.324865	20	1.36281	50	1.253518	100	1.318105	200	1.276507		
Chloroethane	10	0.140338	20	0.1644223	50	0.2162399	100	0.214263	200	0.2106827		
Chloroform	10	2.254298	20	2.29046	50	2.159513	100	2.20067	200	2.162838		
Chloromethane	10	1.891999	20	1.940225	50	1.91641	100	1.806484	200	1.788688		
2-Chlorotoluene	10	1.018519	20	1.024009	50	0.979414	100	1.016897	200	1.012362		
4-Chlorotoluene	10	3.337416	20	3.376022	50	3.209198	100	3.287084	200	3.258265		
Dibromochloromethane	10	0.3637582	20	0.3967142	50	0.4040584	100	0.435874	200	0.4502767		
1,2-Dibromo-3-chloropropane	10	0.2722788	20	0.2983265	50	0.3067301	100	0.3341598	200	0.3659589		
1,2-Dibromoethane (EDB)	10	0.4647707	20	0.4972282	50	0.4811634	100	0.4923362	200	0.4871409		
Dibromomethane	10	0.8028038	20	0.8431292	50	0.7975679	100	0.8141702	200	0.8034864		
1,2-Dichlorobenzene	10	1.796471	20	1.803673	50	1.682297	100	1.714781	200	1.721131		
1,3-Dichlorobenzene	10	1.971429	20	1.959346	50	1.836262	100	1.864453	200	1.848432		
1,4-Dichlorobenzene	10	1.977422	20	1.958226	50	1.837155	100	1.883156	200	1.856428		
Dichlorodifluoromethane	10	1.115866	20	1.135359	50	1.253988	100	1.178053	200	1.1706		
1,1-Dichloroethane	10	2.067116	20	2.135231	50	1.97587	100	1.987307	200	1.967308		
1,2-Dichloroethane (EDC)	10	1.990133	20	2.070344	50	1.93098	100	1.974405	200	1.954766		
1,1-Dichloroethene	10	1.836411	20	1.871459	50	1.728738	100	1.802328	200	1.772576		

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2404
Instrument: VOA-GCMS10
Matrix:
Calibration Date: 10/24/19 13:40

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
cis-1,2-Dichloroethene	10	1.883988	20	1.948542	50	1.807081	100	1.865584	200	1.84274		
trans-1,2-Dichloroethene	10	1.960092	20	1.962625	50	1.822384	100	1.894149	200	1.871744		
1,2-Dichloropropane	10	1.584164	20	1.621265	50	1.530049	100	1.594122	200	1.6145		
1,3-Dichloropropane	10	0.904238	20	0.9434526	50	0.8778929	100	0.8897502	200	0.8712284		
2,2-Dichloropropane	10	1.8877	20	1.917321	50	1.804996	100	1.86919	200	1.848827		
1,1-Dichloropropene	10	1.925606	20	2.004421	50	1.899489	100	2.027169	200	2.036775		
cis-1,3-Dichloropropene	10	0.7415738	20	0.798058	50	0.8007985	100	0.8651065	200	0.8762361		
trans-1,3-Dichloropropene	10	0.7500995	20	0.8076237	50	0.7871404	100	0.8171114	200	0.8133689		
Ethylbenzene	10	2.331868	20	2.430161	50	2.319054	100	2.433189	200	2.379186		
Hexachlorobutadiene	10	0.2365435	20	0.2298232	50	0.2314252	100	0.2259866	200	0.2236363		
n-Hexane	10	0.3032435	20	0.2950195	50	0.2994201	100	0.316144	200	0.3196709		
2-Hexanone	20	0.4898732	40	0.584645	100	0.5736532	200	0.6117288	400	0.6056573		
Isopropylbenzene	10	1.958032	20	2.092879	50	2.071861	100	2.213732	200	2.139271		
4-Isopropyltoluene	10	3.510712	20	3.595201	50	3.61704	100	3.740005	200	3.741223		
Methylene chloride	10	1.220545	20	1.23617	50	1.130679	100	1.136281	200	1.12121		
4-Methyl-2-pentanone (MiBK)	20	0.7051341	40	0.7978057	100	0.7748014	200	0.8070795	400	0.7809366		
Methyl tert-butyl ether (MTBE)	10	4.432151	20	4.699507	50	4.468885	100	4.642389	200	4.801916		
Naphthalene	10	3.645298	20	4.050344	50	4.08639	100	4.18105	200	4.388605		
n-Propylbenzene	10	5.736137	20	5.728057	50	5.557824	100	5.66991	200	5.631053		
Styrene	10	1.022192	20	1.147616	50	1.215335	100	1.36181	200	1.362199		
1,1,1,2-Tetrachloroethane	10	0.409819	20	0.4363619	50	0.4296797	100	0.4552636	200	0.451461		
1,1,2,2-Tetrachloroethane	10	1.658823	20	1.67572	50	1.55644	100	1.525316	200	1.512583		
Tetrachloroethene (PCE)	10	0.4475002	20	0.458728	50	0.4333921	100	0.4678521	200	0.468137		
Toluene	10	2.27918	20	2.348898	50	2.193585	100	2.281718	200	2.237469		
1,2,3-Trichlorobenzene	10	1.036234	20	1.067952	50	1.038823	100	1.040333	200	1.078803		
1,2,4-Trichlorobenzene	10	1.05911	20	1.095291	50	1.072908	100	1.075275	200	1.09759		
1,1,1-Trichloroethane	10	2.019734	20	2.124789	50	1.989601	100	2.123597	200	2.130331		
1,1,2-Trichloroethane	10	0.4877737	20	0.5101671	50	0.4722353	100	0.4801892	200	0.4686095		
Trichloroethene (TCE)	10	1.281311	20	1.325077	50	1.255292	100	1.330793	200	1.364798		
Trichlorofluoromethane	10	0.35551	20	0.3355405	50	0.3682497	100	0.3520402	200	0.3356668		
1,2,3-Trichloropropane	10	0.5348473	20	0.5360824	50	0.497828	100	0.496329	200	0.4982992		

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2404
Instrument: VOA-GCMS10
Matrix:
Calibration Date: 10/24/19 13:40

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
1,1,2-Trichloro-1,2,2-trifluoroethan	10	1.139947	20	1.148007	50	1.080838	100	1.141179	200	1.139769		
1,2,4-Trimethylbenzene	10	3.739688	20	3.757664	50	3.620708	100	3.721132	200	3.695345		
1,3,5-Trimethylbenzene	10	3.668043	20	3.762482	50	3.628045	100	3.744308	200	3.780424		
Vinyl chloride	10	1.46312	20	1.537673	50	1.483016	100	1.427716	200	1.444146		
m,p-Xylene	20	1.692649	40	1.77691	100	1.715154	200	1.83315	400	1.806838		
o-Xylene	10	1.585402	20	1.703732	50	1.673018	100	1.789868	200	1.746158		
Xylenes, total	30	1.656899	60	1.752517	150	1.701109	300	1.818722	600	1.786612		
trans-1,4-Dichloro-2-butene	10	0.1997148	20	0.218955	50	0.2227853	100	0.2280774	200	0.2279923		
1,4-Difluorobenzene (Surr)	50	3.060766	50	3.037965	50	3.082637	50	3.081134	50	3.150953		
Toluene-d8 (Surr)	50	1.399	50	1.384472	50	1.399445	50	1.396945	50	1.379057		
4-Bromofluorobenzene (Surr)	50	0.7404932	50	0.7164049	50	0.7152718	50	0.6951936	50	0.6901251		

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acetone	40.0	41.3	3.3	70 - 130
Acrylonitrile	20.0	20.9	4.4	70 - 130
Benzene	20.0	19.9	-0.5	70 - 130
Bromobenzene	20.0	21.5	7.7	70 - 130
Bromochloromethane	20.0	20.5	2.6	70 - 130
Bromodichloromethane	20.0	21.4	7.0	70 - 130
Bromoform	20.0	19.7	-1.4	70 - 130
Bromomethane	20.0	25.7	28.7	70 - 130
2-Butanone (MEK)	40.0	38.0	-5.0	70 - 130
n-Butylbenzene	20.0	22.4	12.0	70 - 130
sec-Butylbenzene	20.0	22.6	13.0	70 - 130
tert-Butylbenzene	20.0	22.3	11.3	70 - 130
Carbon disulfide	20.0	18.1	-9.4	70 - 130
Carbon tetrachloride	20.0	21.5	7.7	70 - 130
Chlorobenzene	20.0	20.8	4.1	70 - 130
Chloroethane	20.0	18.1	-9.7	70 - 130
Chloroform	20.0	21.4	6.9	70 - 130
Chloromethane	20.0	21.9	9.5	70 - 130
2-Chlorotoluene	20.0	21.8	9.1	70 - 130
4-Chlorotoluene	20.0	22.0	10.0	70 - 130
Dibromochloromethane	20.0	21.6	8.0	70 - 130
1,2-Dibromo-3-chloropropane	20.0	19.7	-1.6	70 - 130
1,2-Dibromoethane (EDB)	20.0	22.1	10.3	70 - 130
Dibromomethane	20.0	20.8	4.2	70 - 130
1,2-Dichlorobenzene	20.0	22.1	10.7	70 - 130
1,3-Dichlorobenzene	20.0	21.7	8.5	70 - 130
1,4-Dichlorobenzene	20.0	20.6	3.2	70 - 130
Dichlorodifluoromethane	20.0	24.2	21.1	70 - 130
1,1-Dichloroethane	20.0	21.5	7.7	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.8	3.9	70 - 130
1,1-Dichloroethene	20.0	18.9	-5.5	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
cis-1,2-Dichloroethene	20.0	20.2	1.1	70 - 130
trans-1,2-Dichloroethene	20.0	20.8	4.1	70 - 130
1,2-Dichloropropane	20.0	20.5	2.6	70 - 130
1,3-Dichloropropane	20.0	21.4	6.9	70 - 130
2,2-Dichloropropane	20.0	18.2	-9.2	70 - 130
1,1-Dichloropropene	20.0	20.2	0.9	70 - 130
cis-1,3-Dichloropropene	20.0	21.2	6.0	70 - 130
trans-1,3-Dichloropropene	20.0	22.8	13.9	70 - 130
Ethylbenzene	20.0	21.7	8.3	70 - 130
Hexachlorobutadiene	20.0	23.1	15.6	70 - 130
2-Hexanone	40.0	42.2	5.5	70 - 130
Isopropylbenzene	20.0	22.7	13.4	70 - 130
4-Isopropyltoluene	20.0	23.5	17.3	70 - 130
Methylene chloride	20.0	21.8	9.1	70 - 130
4-Methyl-2-pentanone (MiBK)	40.0	42.8	6.9	70 - 130
Methyl tert-butyl ether (MTBE)	20.0	20.4	2.1	70 - 130
Naphthalene	20.0	22.6	12.8	70 - 130
n-Propylbenzene	20.0	21.6	7.9	70 - 130
Styrene	20.0	19.4	-2.8	70 - 130
1,1,1,2-Tetrachloroethane	20.0	22.0	10.1	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.4	7.0	70 - 130
Tetrachloroethene (PCE)	20.0	21.8	9.2	70 - 130
Toluene	20.0	20.2	1.1	70 - 130
1,2,3-Trichlorobenzene	20.0	23.1	15.5	70 - 130
1,2,4-Trichlorobenzene	20.0	22.7	13.4	70 - 130
1,1,1-Trichloroethane	20.0	21.0	4.9	70 - 130
1,1,2-Trichloroethane	20.0	21.9	9.3	70 - 130
Trichloroethene (TCE)	20.0	21.7	8.7	70 - 130
Trichlorofluoromethane	20.0	19.8	-0.8	70 - 130
1,2,3-Trichloropropane	20.0	21.8	9.0	70 - 130
1,2,4-Trimethylbenzene	20.0	23.2	16.1	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
1,3,5-Trimethylbenzene	20.0	23.5	17.3	70 - 130
Vinyl chloride	20.0	22.5	12.7	70 - 130
m,p-Xylene	40.0	44.4	10.9	70 - 130
o-Xylene	20.0	22.4	12.2	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J23072	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J23072-ICV1)				Lab File ID: VJ19102338.D		Analyzed: 10/24/19 05:00		
1,4-Difluorobenzene (Surr)	50.0	101	70 - 130	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	101	70 - 130	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	70 - 130	10.883	10.883	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J29035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9101689-BS1)			Lab File ID: VJ19102903.D		Analyzed: 10/29/19 10:36			
1,4-Difluorobenzene (Surr)	50.0	99	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.877	10.883	-0.0060	+/-1.0	
Blank (9101689-BLK1)			Lab File ID: VJ19102905.D		Analyzed: 10/29/19 11:30			
1,4-Difluorobenzene (Surr)	50.0	98	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	103	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: VJ19102923.D		Analyzed: 10/29/19 20:08			
1,4-Difluorobenzene (Surr)	50.0	99	80 - 120	6.649	6.655	-0.0060	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	10.877	10.883	-0.0060	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J29035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9101689-BS1)			Lab File ID: VJ19102903.D			Analyzed: 10/29/19 10:36			
Pentafluorobenzene (ISTD)	101558	6.089	101558	6.089	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	265975	9.806	265975	9.806	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	116596	11.765	116596	11.765	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J29035-CCV1)			Lab File ID: VJ19102903.D			Analyzed: 10/29/19 10:36			
Pentafluorobenzene (ISTD)	101558	6.089	94087	6.089	108	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	265975	9.806	252726	9.806	105	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	116596	11.765	111564	11.765	105	50 - 200	0.0000	+/-0.50	
Blank (9101689-BLK1)			Lab File ID: VJ19102905.D			Analyzed: 10/29/19 11:30			
Pentafluorobenzene (ISTD)	96809	6.095	101558	6.089	95	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	253463	9.806	265975	9.806	95	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	100179	11.765	116596	11.765	86	50 - 200	0.0000	+/-0.50	
Duplicate (9101689-DUP1)			Lab File ID: VJ19102910.D			Analyzed: 10/29/19 14:04			
Pentafluorobenzene (ISTD)	114427	6.089	101558	6.089	113	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	330512	9.806	265975	9.806	124	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	134595	11.765	116596	11.765	115	50 - 200	0.0000	+/-0.50	
Duplicate (9101689-DUP2)			Lab File ID: VJ19102921.D			Analyzed: 10/29/19 19:15			
Pentafluorobenzene (ISTD)	107425	6.089	101558	6.089	106	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	294753	9.806	265975	9.806	111	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	123295	11.765	116596	11.765	106	50 - 200	0.0000	+/-0.50	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: VJ19102923.D			Analyzed: 10/29/19 20:08			
Pentafluorobenzene (ISTD)	110178	6.089	101558	6.089	108	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	295757	9.806	265975	9.806	111	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122546	11.765	116596	11.765	105	50 - 200	0.0000	+/-0.50	
Matrix Spike (9101689-MS1)			Lab File ID: VJ19102928.D			Analyzed: 10/29/19 22:22			
Pentafluorobenzene (ISTD)	106728	6.089	101558	6.089	105	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	285244	9.806	265975	9.806	107	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	123875	11.765	116596	11.765	106	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

5035A/8260C

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	10/28/19 14:52	0.00	2.00	10/29/19 20:08	1.22	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8260C

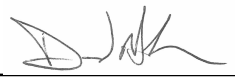
ANALYSES DATA PACKAGE COVER PAGE

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8260C

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Water

Analyte	MDL	MRL	Units
Benzene	0.00625	0.0125	mg/L
2-Butanone (MEK)	0.250	0.500	mg/L
Carbon tetrachloride	0.0250	0.0500	mg/L
Chlorobenzene	0.0125	0.0250	mg/L
Chloroform	0.0250	0.0500	mg/L
1,4-Dichlorobenzene	0.0125	0.0250	mg/L
1,2-Dichloroethane (EDC)	0.0125	0.0250	mg/L
1,1-Dichloroethene	0.0125	0.0250	mg/L
Tetrachloroethene (PCE)	0.0125	0.0250	mg/L
Trichloroethene (TCE)	0.0125	0.0250	mg/L
Vinyl chloride	0.0125	0.0250	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01	File ID:	VG19110511.D
Sampled:	10/28/19 14:52	Prepared:	11/05/19 10:08	Analyzed:	11/05/19 13:17
Solids:	55.18	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9110460	Sequence:	9K05032	Calibration:	A9J2806
Instrument:	VOA-GCMS7				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	0.00625	U
78-93-3	2-Butanone (MEK)	50	0.250	U
56-23-5	Carbon tetrachloride	50	0.0250	U
108-90-7	Chlorobenzene	50	0.0125	U
67-66-3	Chloroform	50	0.0250	U
106-46-7	1,4-Dichlorobenzene	50	0.0125	U
107-06-2	1,2-Dichloroethane (EDC)	50	0.0125	U
75-35-4	1,1-Dichloroethene	50	0.0125	U
127-18-4	Tetrachloroethene (PCE)	50	0.0125	U
79-01-6	Trichloroethene (TCE)	50	0.0125	U
75-01-4	Vinyl chloride	50	0.0125	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	51.4	103	80 - 120	
Toluene-d8 (Surr)	50.0	49.4	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.7	99	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	81368	6.855	88234	6.855	
Chlorobenzene-d5 (ISTD)	246979	10.446	255971	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	126029	12.287	130913	12.287	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110460 Batch Matrix: Water
Preparation: EPA 1311/5030B TCLP Volatiles

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110460-BLK1	VG19110505.D	11/05/19 09:41	
LCS	9110460-BS1	VG19110504.D	11/05/19 09:41	
PDI-083SC-C-00-08-191028	A9J1007-01	VG19110511.D	11/05/19 10:08	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water	Laboratory ID:	9110460-BLK1	File ID:	VG19110505.D
Prepared:	11/05/19 09:41	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Analyzed:	11/05/19 10:35	Instrument:	VOA-GCMS7		
Batch:	9110460	Sequence:	9K05032	Calibration:	A9J2806

CAS NO.	COMPOUND	CONC. (mg/L)	Q
71-43-2	Benzene	0.00625	U
78-93-3	2-Butanone (MEK)	0.250	U
56-23-5	Carbon tetrachloride	0.0250	U
108-90-7	Chlorobenzene	0.0125	U
67-66-3	Chloroform	0.0250	U
106-46-7	1,4-Dichlorobenzene	0.0125	U
107-06-2	1,2-Dichloroethane (EDC)	0.0125	U
75-35-4	1,1-Dichloroethene	0.0125	U
127-18-4	Tetrachloroethene (PCE)	0.0125	U
79-01-6	Trichloroethene (TCE)	0.0125	U
75-01-4	Vinyl chloride	0.0125	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	50.8	102	80 - 120	
Toluene-d8 (Surr)	50.0	49.4	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.9	102	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	83010	6.861	88234	6.855	
Chlorobenzene-d5 (ISTD)	248631	10.452	255971	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	122429	12.287	130913	12.287	

LCS / LCS DUPLICATE RECOVERY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water		
Batch:	9110460	Laboratory ID:	9110460-BS1
Preparation:	EPA 1311/5030B TCLP Volatiles	Initial/Final:	5 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Benzene	1.00	1.07	107	80 - 120
2-Butanone (MEK)	2.00	2.01	101	80 - 120
Carbon tetrachloride	1.00	1.19	119	80 - 120
Chlorobenzene	1.00	1.04	104	80 - 120
Chloroform	1.00	1.06	106	80 - 120
1,4-Dichlorobenzene	1.00	1.01	101	80 - 120
1,2-Dichloroethane (EDC)	1.00	1.03	103	80 - 120
1,1-Dichloroethene	1.00	1.07	107	80 - 120
Tetrachloroethene (PCE)	1.00	1.12	112	80 - 120
Trichloroethene (TCE)	1.00	1.04	104	80 - 120
Vinyl chloride	1.00	1.03	103	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J25051	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J25051-TUN1	VG19102512.D	10/25/19 15:58
Initial Cal Blank	9J25051-ICB1	VG19102513.D	10/25/19 16:25
Cal Standard	9J25051-CAL1	VG19102514.D	10/25/19 16:53
Cal Standard	9J25051-CAL2	VG19102515.D	10/25/19 17:20
Cal Standard	9J25051-CAL3	VG19102516.D	10/25/19 17:47
Cal Standard	9J25051-CAL4	VG19102517.D	10/25/19 18:14
Cal Standard	9J25051-CAL5	VG19102518.D	10/25/19 18:41
Cal Standard	9J25051-CAL6	VG19102519.D	10/25/19 19:08
Cal Standard	9J25051-CAL7	VG19102520.D	10/25/19 19:35
Cal Standard	9J25051-CAL8	VG19102521.D	10/25/19 20:02
Cal Standard	9J25051-CAL9	VG19102522.D	10/25/19 20:29
Cal Standard	9J25051-CALA	VG19102524.D	10/25/19 21:22
Cal Standard	9J25051-CALB	VG19102526.D	10/25/19 22:16
Initial Cal Check	9J25051-ICV1	VG19102529.D	10/25/19 23:37

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05032	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K05032-TUN1	VG19110503.D	11/05/19 09:41
Calibration Check	9K05032-CCV1	VG19110504.D	11/05/19 10:08
Blank	9110460-BLK1	VG19110505.D	11/05/19 10:35
PDI-083SC-C-00-08-191028	A9J1007-01	VG19110511.D	11/05/19 13:17

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VG19102512.D	Injection Date:	10/25/19
Instrument ID:	VOA-GCMS7	Injection Time:	15:58
Sequence:	9J25051	Lab Sample ID:	9J25051-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	102.51	PASS
m/z 96	5 - 9% of m/z 95	6.72	PASS
m/z 173	Less than 2% of m/z 174	0.57	PASS
m/z 174	50 - 200% of m/z 95	97.55	PASS
m/z 175	5 - 9% of m/z 174	7.02	PASS
m/z 176	95 - 105% of m/z 174	97.45	PASS
m/z 177	5 - 10% of m/z 176	6.60	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VG19110503.D	Injection Date:	11/05/19
Instrument ID:	VOA-GCMS7	Injection Time:	09:41
Sequence:	9K05032	Lab Sample ID:	9K05032-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	107.58	PASS
m/z 96	5 - 9% of m/z 95	6.69	PASS
m/z 173	Less than 2% of m/z 174	0.57	PASS
m/z 174	50 - 200% of m/z 95	92.95	PASS
m/z 175	5 - 9% of m/z 174	7.30	PASS
m/z 176	95 - 105% of m/z 174	97.33	PASS
m/z 177	5 - 10% of m/z 176	6.85	PASS

INITIAL CALIBRATION DATA (Summary)

1311/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J2806 Date: 10/28/19 15:00 Instrument: VOA-GCMS7

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	3.868793	Ave	4.48288	6.753636	3.804909E-02				***
2-Butanone (MEK)	0.7376484	Ave	11.50974	6.477667	8.502402E-02				***
Carbon tetrachloride	0.9094392	Ave	14.58477	6.263333	2.588236E-02				***
Chlorobenzene	0.9753339	Ave	4.881342	10.46909	2.274811E-02				***
Chloroform	1.653334	Ave	4.809425	6.135455	2.677078E-02				
1,4-Dichlorobenzene	1.46702	Ave	9.268635	12.30491	1.623973E-02				***
1,2-Dichloroethane (EDC)	1.320497	Ave	5.825746	6.9836	3.045285E-02				***
1,1-Dichloroethene	1.164311	Ave	3.691381	3.586091	8.459877E-02				
Tetrachloroethene (PCE)	0.3972145	Ave	4.493883	9.435636	3.398277E-02				***
Trichloroethene (TCE)	1.129911	Ave	3.802178	7.407273	0.0412526				***
Vinyl chloride	0.9721377	Ave	6.774546	2.112	1.971954E-02				***
1,4-Difluorobenzene (Surr)	3.434838	Ave	2.39639	7.452455	2.666068E-02				***
Toluene-d8 (Surr)	1.303604	Ave	1.324623	8.989546	1.052868E-02				***
4-Bromofluorobenzene (Surr)	0.8443165	Ave	1.917845	11.446	2.428221E-02				***

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

1311/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2806

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS7

Calibration Date: 10/28/19 15:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Benzene	0.1	3.648532	0.2	3.788669	0.4	3.688943	1	3.70402	2	4.042758	5	4.102439
2-Butanone (MEK)	0.2	θ	0.4	θ	0.8	0.5428198	2	0.6614525	4	0.7473759	10	0.7766667
Carbon tetrachloride	0.1	θ	0.2	0.7362595	0.4	0.7126004	1	0.7895306	2	0.9055437	5	0.9561076
Chlorobenzene	0.1	1.051419	0.2	0.9843234	0.4	0.9535335	1	0.998601	2	1.026842	5	1.008311
Chloroform	0.1	1.545398	0.2	1.687261	0.4	1.568677	1	1.659893	2	1.782656	5	1.738475
1,4-Dichlorobenzene	0.1	1.746298	0.2	1.64475	0.4	1.490221	1	1.449496	2	1.517934	5	1.495713
1,2-Dichloroethane (EDC)	0.1	θ	0.2	1.251641	0.4	1.281724	1	1.321766	2	1.474491	5	1.400494
1,1-Dichloroethene	0.1	1.208431	0.2	1.082915	0.4	1.147813	1	1.139042	2	1.19639	5	1.182339
Tetrachloroethene (PCE)	0.1	0.4087794	0.2	0.4312082	0.4	0.3822581	1	0.3803123	2	0.4111083	5	0.4093443
Trichloroethene (TCE)	0.1	1.179382	0.2	1.174948	0.4	1.178102	1	1.116272	2	1.150639	5	1.134836
Vinyl chloride	0.1	0.8366062	0.2	0.9602052	0.4	0.8704247	1	0.9574553	2	1.024823	5	1.021067
1,4-Difluorobenzene (Surr)	50	3.554949	50	3.532303	50	3.513582	50	3.523948	50	3.452805	50	3.389735
Toluene-d8 (Surr)	50	1.296584	50	1.291106	50	1.307175	50	1.305784	50	1.295163	50	1.291052
4-Bromofluorobenzene (Surr)	50	0.8541958	50	0.8431869	50	0.8326677	50	0.8324829	50	0.8219324	50	0.8368039

INITIAL CALIBRATION DATA (Continued)

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2806
Instrument: VOA-GCMS7
Matrix:
Calibration Date: 10/28/19 15:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Benzene	10	4.046922	20	4.040493	50	3.702856	100	3.820292	200	3.9708		
2-Butanone (MEK)	20	0.7819228	40	0.8100795	100	0.7542591	200	0.7615709	400	0.8026888		
Carbon tetrachloride	10	0.9830819	20	1.013194	50	1.006465	100	1.08217	200	~~1.181908~~		
Chlorobenzene	10	0.9799901	20	0.9770285	50	0.8921065	100	0.9101455	200	0.9463727		
Chloroform	10	1.682757	20	1.702189	50	1.545665	100	1.59295	200	1.680757		
1,4-Dichlorobenzene	10	1.421286	20	1.396459	50	1.288965	100	1.315406	200	1.370687		
1,2-Dichloroethane (EDC)	10	1.341815	20	1.340565	50	1.212785	100	1.254037	200	1.325653		
1,1-Dichloroethene	10	1.138998	20	1.167653	50	1.124781	100	1.183727	200	1.235331		
Tetrachloroethene (PCE)	10	0.403159	20	0.3979547	50	0.3713887	100	0.3787743	200	0.3950724		
Trichloroethene (TCE)	10	1.134892	20	1.095253	50	1.038084	100	1.093193	200	1.133417		
Vinyl chloride	10	0.9795551	20	0.9760282	50	1.049403	100	0.9952516	200	1.022696		
1,4-Difluorobenzene (Surr)	50	3.391032	50	3.361232	50	3.353739	50	3.372958	50	3.336935		
Toluene-d8 (Surr)	50	1.295394	50	1.301669	50	1.294086	50	1.309748	50	1.351879		
4-Bromofluorobenzene (Surr)	50	0.8421702	50	0.8369897	50	0.8460535	50	0.8591534	50	0.8818453		

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS7	Calibration:	A9J2806
Lab File ID:	VG19102529.D		
Sequence:	9J25051	Inject Date:	10/25/19
Lab Sample ID:	9J25051-ICV1	Inject Time:	23:37

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Benzene	20.0	20.4	2.0	70 - 130
2-Butanone (MEK)	40.0	42.4	6.1	70 - 130
Carbon tetrachloride	20.0	21.7	8.6	70 - 130
Chlorobenzene	20.0	19.9	-0.7	70 - 130
Chloroform	20.0	20.1	0.4	70 - 130
1,4-Dichlorobenzene	20.0	19.2	-4.0	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.0	0.05	70 - 130
1,1-Dichloroethene	20.0	20.2	1.0	70 - 130
Tetrachloroethene (PCE)	20.0	20.0	0.2	70 - 130
Trichloroethene (TCE)	20.0	19.8	-0.8	70 - 130
Vinyl chloride	20.0	22.3	11.7	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J25051	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J25051-ICV1)				Lab File ID: VG19102529.D		Analyzed: 10/25/19 23:37		
1,4-Difluorobenzene (Surr)	50.0	98	70 - 130	7.453	7.452455	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	99	70 - 130	8.995	8.989546	0.0055	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	70 - 130	11.446	11.446	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05032	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9110460-BS1)			Lab File ID: VG19110504.D		Analyzed: 11/05/19 10:08			
1,4-Difluorobenzene (Surr)	50.0	97	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	11.446	11.446	0.0000	+/-1.0	
Blank (9110460-BLK1)			Lab File ID: VG19110505.D		Analyzed: 11/05/19 10:35			
1,4-Difluorobenzene (Surr)	50.0	102	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: VG19110511.D		Analyzed: 11/05/19 13:17			
1,4-Difluorobenzene (Surr)	50.0	103	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	11.446	11.446	0.0000	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05032	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9110460-BS1)			Lab File ID: VG19110504.D			Analyzed: 11/05/19 10:08			
Pentafluorobenzene (ISTD)	88234	6.855	88234	6.855	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	255971	10.452	255971	10.452	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130913	12.287	130913	12.287	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9K05032-CCV1)			Lab File ID: VG19110504.D			Analyzed: 11/05/19 10:08			
Pentafluorobenzene (ISTD)	88234	6.855	86706	6.861	102	50 - 200	-0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	255971	10.452	253314	10.452	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130913	12.287	128679	12.293	102	50 - 200	-0.0060	+/-0.50	
Blank (9110460-BLK1)			Lab File ID: VG19110505.D			Analyzed: 11/05/19 10:35			
Pentafluorobenzene (ISTD)	83010	6.861	88234	6.855	94	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	248631	10.452	255971	10.452	97	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122429	12.287	130913	12.287	94	50 - 200	0.0000	+/-0.50	
Duplicate (9110460-DUP1)			Lab File ID: VG19110507.D			Analyzed: 11/05/19 11:29			
Pentafluorobenzene (ISTD)	81190	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	248512	10.446	255971	10.452	97	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122994	12.287	130913	12.287	94	50 - 200	0.0000	+/-0.50	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: VG19110511.D			Analyzed: 11/05/19 13:17			
Pentafluorobenzene (ISTD)	81368	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	246979	10.446	255971	10.452	96	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	126029	12.287	130913	12.287	96	50 - 200	0.0000	+/-0.50	
Matrix Spike (9110460-MS1)			Lab File ID: VG19110514.D			Analyzed: 11/05/19 14:38			
Pentafluorobenzene (ISTD)	81347	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	236973	10.446	255971	10.452	93	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122537	12.287	130913	12.287	94	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

1311/8260C

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/05/19 10:08	7.80	14.00	11/05/19 13:17	7.93	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: EPA 8081B

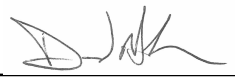
ANALYSES DATA PACKAGE COVER PAGE

EPA 8081B

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
gamma-BHC (Lindane) [2C]	0.500	1.00	ug/kg
Endrin [2C]	0.500	1.00	ug/kg
Heptachlor [2C]	0.500	1.00	ug/kg
Heptachlor epoxide [2C]	0.500	1.00	ug/kg
Methoxychlor [2C]	1.50	3.00	ug/kg
Chlordane (Technical) [2C]	15.0	30.0	ug/kg
Toxaphene (Total) [2C]	15.0	30.0	ug/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01RE1	File ID:	ECD5-11051928.D
Sampled:	10/28/19 14:52	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 18:41
Solids:	55.18	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.64 g / 10 mL
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
58-89-9	gamma-BHC (Lindane) [2C]	5	8.52	U
72-20-8	Endrin [2C]	5	17.0	U
76-44-8	Heptachlor [2C]	5	8.52	U
1024-57-3	Heptachlor epoxide [2C]	5	8.52	U
72-43-5	Methoxychlor [2C]	5	140	U
12789-03-6	Chlordane (Technical) [2C]	5	256	U
8001-35-2	Toxaphene (Total) [2C]	5	256	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	85.2	92.0	108	42 - 129	
Decachlorobiphenyl (Surr)	85.2	88.3	104	55 - 130	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110391 Batch Matrix: Sediment Preparation: EPA 3546/3640A (GPC)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110391-BLK1	ECD5-11051906.D	10/31/19 15:10	
LCS	9110391-BS1	ECD5-11051907.D	10/31/19 15:10	
PDI-083SC-C-00-08-191028 (MS)	9110391-MS1	ECD5-11051930.D	10/31/19 15:10	
PDI-083SC-C-00-08-191028	A9J1007-01RE1	ECD5-11051928.D	10/31/19 15:11	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET

EPA 8081B

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110391-BLK1	File ID:	ECD5-11051906.D
Prepared:	10/31/19 15:10	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	11 g / 10 mL
Analyzed:	11/05/19 12:22	Instrument:	DUALECD5		
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
58-89-9	gamma-BHC (Lindane) [2C]	0.909	U
72-20-8	Endrin [2C]	0.909	U
76-44-8	Heptachlor [2C]	0.909	U
1024-57-3	Heptachlor epoxide [2C]	0.909	U
72-43-5	Methoxychlor [2C]	2.73	U
12789-03-6	Chlordane (Technical) [2C]	27.3	U
8001-35-2	Toxaphene (Total) [2C]	27.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	45.5	29.5	65	42 - 129	
Decachlorobiphenyl (Surr) [2C]	45.5	45.3	100	55 - 130	

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110391	Laboratory ID:	9110391-BS1
Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10 g / 10 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
gamma-BHC (Lindane) [2C]	50.0	27.2	54	49 - 135
Endrin [2C]	50.0	47.2	94	56 - 140
Heptachlor [2C]	50.0	30.5	61	47 - 136
Heptachlor epoxide [2C]	50.0	33.6	67	52 - 136
Methoxychlor [2C]	50.0	59.8	120	52 - 143

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8081B

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110391	Laboratory ID:	9110391-MS1
Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.52 g / 10 mL

Source Sample Name: PDI-083SC-C-00-08-191028

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
gamma-BHC (Lindane) [2C]	86.1	ND	62.0	72	49 - 135
Endrin [2C]	86.1	ND	88.8	103	56 - 140
Heptachlor [2C]	86.1	ND	61.6	71	47 - 136
Heptachlor epoxide [2C]	86.1	ND	73.3	85	52 - 136
Methoxychlor [2C]	86.1	ND	ND	*	52 - 143

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	9H23034-ICB1	ECD5-08231907.D	08/23/19 13:33
Cal Standard	9H23034-CAL1	ECD5-08231908.D	08/23/19 13:51
Cal Standard	9H23034-CAL2	ECD5-08231909.D	08/23/19 14:08
Cal Standard	9H23034-CAL3	ECD5-08231910.D	08/23/19 14:25
Cal Standard	9H23034-CAL4	ECD5-08231911.D	08/23/19 14:42
Cal Standard	9H23034-CAL5	ECD5-08231912.D	08/23/19 15:00
Cal Standard	9H23034-CAL6	ECD5-08231913.D	08/23/19 15:17
Cal Standard	9H23034-CAL7	ECD5-08231914.D	08/23/19 15:34
Cal Standard	9H23034-CAL8	ECD5-08231915.D	08/23/19 15:52
Initial Cal Check	9H23034-ICV1	ECD5-08231917.D	08/23/19 16:26
Cal Standard	9H23034-CALH	ECD5-08231928.D	08/23/19 19:36
Cal Standard	9H23034-CALI	ECD5-08231929.D	08/23/19 19:54
Cal Standard	9H23034-CALJ	ECD5-08231930.D	08/23/19 20:11
Cal Standard	9H23034-CALK	ECD5-08231931.D	08/23/19 20:28
Cal Standard	9H23034-CALL	ECD5-08231932.D	08/23/19 20:45
Cal Standard	9H23034-CALM	ECD5-08231933.D	08/23/19 21:02
Initial Cal Check	9H23034-ICV3	ECD5-08231935.D	08/23/19 21:37
Cal Standard	9H23034-CALN	ECD5-08231936.D	08/23/19 21:54
Cal Standard	9H23034-CALO	ECD5-08231937.D	08/23/19 22:11
Cal Standard	9H23034-CALP	ECD5-08231938.D	08/23/19 22:28
Cal Standard	9H23034-CALQ	ECD5-08231939.D	08/23/19 22:45
Cal Standard	9H23034-CALR	ECD5-08231940.D	08/23/19 23:03
Cal Standard	9H23034-CALS	ECD5-08231941.D	08/23/19 23:20
Initial Cal Check	9H23034-ICV4	ECD5-08231943.D	08/23/19 23:54

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K05039-CCV1	ECD5-11051904.D	11/05/19 11:48
Calibration Blank	9K05039-CCB1	ECD5-11051905.D	11/05/19 12:05
Blank	9110391-BLK1	ECD5-11051906.D	11/05/19 12:22
LCS	9110391-BS1	ECD5-11051907.D	11/05/19 12:39
Calibration Check	9K05039-CCV2	ECD5-11051918.D	11/05/19 15:49
Calibration Blank	9K05039-CCB2	ECD5-11051919.D	11/05/19 16:06
PDI-083SC-C-00-08-191028	A9J1007-01RE1	ECD5-11051928.D	11/05/19 18:41
PDI-083SC-C-00-08-191028 (MS)	9110391-MS1	ECD5-11051930.D	11/05/19 19:15
Calibration Check	9K05039-CCV3	ECD5-11051932.D	11/05/19 19:49
Calibration Blank	9K05039-CCB3	ECD5-11051933.D	11/05/19 20:06

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL CALIBRATION DATA (Summary)

EPA 8081B

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9H2608 Date: 08/26/19 15:54 Instrument: DUALECD5

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-BHC (Lindane) [2C]	356703.9	Ave	5.794449	6.914375	4.626364E-03			20	
Endrin [2C]	225826.9	Ave	7.319878	8.71675	1.794047E-02			20	
Heptachlor [2C]	305977.1	Ave	6.975914	7.29025	0.0138367			20	
Heptachlor epoxide [2C]	300848.3	Ave	4.39584	7.992625	1.285247E-02			20	
Methoxychlor [2C]	92733.75	XXX	12.08833	9.464375	0.0181623				
2,4,5,6-TCMX (Surr) [2C]	293366.8	Ave	3.539338	5.98975	1.128579E-02			20	
Decachlorobiphenyl (Surr)	141098.6	Ave	8.332442	9.5925	1.576214E-03			20	

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9H2608

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: DUALECD5

Calibration Date: 08/26/19 15:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	1	207427	2	203013.5	5	204144.8	10	203485.9	25	195026.3	50	195720
gamma-BHC (Lindane) [2C]	1	352286	2	345461	5	348535.4	10	347673.3	25	340335.4	50	347621.4
Endrin	1	156412	2	149257.5	5	147790.6	10	147550.8	25	140356.2	50	139591.4
Endrin [2C]	1	222882	2	212444.5	5	218575.4	10	224448.3	25	213035.3	50	220307.6
Heptachlor	1	192066	2	184807.5	5	179818.2	10	181962.1	25	172572.2	50	174703.2
Heptachlor [2C]	1	309811	2	293382.5	5	301643.6	10	300591.5	25	291291.3	50	291902.8
Heptachlor epoxide	1	200503	2	196026	5	184724	10	186542.8	25	173771.4	50	177386
Heptachlor epoxide [2C]	1	310098	2	303120	5	291188.2	10	295930.1	25	282589.2	50	296755.8
Methoxychlor	1	59659	2	55733	5	54077.6	10	56170.6	25	55611.32	50	57213.66
Methoxychlor [2C]	1	95155	2	89037	5	82760.4	10	88306.9	25	86666.36	50	86923.98
2,4,5,6-TCMX (Surr)	1	176748	2	174986	5	166841.2	10	164444.7	25	160633.3	50	161429.6
2,4,5,6-TCMX (Surr) [2C]	1	300053	2	300383	5	287575.2	10	286585.4	25	282916.9	50	283935
Decachlorobiphenyl (Surr)	1	163865	2	154952	5	140210	10	133546.8	25	133705.4	50	133579.8
Decachlorobiphenyl (Surr) [2C]	1	191572	2	195003	5	174184.2	10	167872.8	25	166529.2	50	174613.8
Aldrin	1	205523	2	199775	5	202546.6	10	201080.2	25	193814.2	50	186553.4
Aldrin [2C]	1	317466	2	317729	5	320199	10	334109.3	25	315143	50	325288.4
alpha-BHC	1	231994	2	229182.5	5	229586.4	10	234706.5	25	222123.8	50	227391.8
alpha-BHC [2C]	1	393119	2	392293	5	397087.6	10	409589	25	396434.5	50	405316.4
beta-BHC	1	104326	2	97084	5	91390.8	10	91087.5	25	82415.12	50	82017.16
beta-BHC [2C]	1	176262	2	167630	5	157726	10	158084.7	25	147086.2	50	150320.2
delta-BHC	1	199840	2	193490	5	200802.4	10	200649.3	25	186686.6	50	192214.8
delta-BHC [2C]	1	349123	2	334561	5	343490	10	361351.7	25	329911	50	346225.2
gamma-BHC (Lindane)	1	207427	2	203013.5	5	204144.8	10	203485.9	25	195026.3	50	195720
gamma-BHC (Lindane) [2C]	1	352286	2	345461	5	348535.4	10	347673.3	25	340335.4	50	347621.4
cis-Chlordane	1	209780	2	194999.5	5	181759	10	184334.6	25	169776.5	50	172453.5
cis-Chlordane [2C]	1	299422	2	289833.5	5	286971	10	285957.3	25	277434.3	50	280042.4
trans-Chlordane	1	197202	2	191135.5	5	185315.4	10	184799.6	25	176058.2	50	179186.1
trans-Chlordane [2C]	1	364142	2	322227	5	300423.8	10	300278.2	25	286299.2	50	293574.4
4,4'-DDD	1	164956	2	157311	5	158099.6	10	156597.4	25	149081.4	50	154523.9
4,4'-DDD [2C]	1	251549	2	244060	5	241728.4	10	242549.6	25	245858.8	50	263189
4,4'-DDE	1	193435	2	194309	5	190670.2	10	189093.1	25	182842.6	50	183547.8

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9H2608

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: DUALECD5

Calibration Date: 08/26/19 15:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
4,4'-DDE [2C]	1	298463	2	299033	5	297599.8	10	304979.2	25	300041.9	50	311094.2
4,4'-DDT	1	113897	2	109095	5	110601.8	10	114655.6	25	116978.7	50	124107.4
4,4'-DDT [2C]	1	179700	2	170891	5	174730.6	10	184111.9	25	179215.5	50	185709.8
Dieldrin	1	197721	2	197864	5	194401.8	10	195489	25	183292.2	50	187733.3
Dieldrin [2C]	1	296684	2	291906	5	292507.6	10	289886.6	25	293355.6	50	308682.2
Endosulfan I	1	185217	2	178684	5	172301.8	10	170933.2	25	164451.4	50	159688.2
Endosulfan I [2C]	1	278874	2	270221	5	265438.2	10	272427.2	25	262860.5	50	274246.6
Endosulfan II	1	158139	2	149553	5	141908.8	10	144808	25	134874.6	50	136818.4
Endosulfan II [2C]	1	232156	2	231128	5	219271.8	10	224361	25	217904.1	50	230690.6
Endosulfan sulfate	1	176097	2	161081.5	5	153759.6	10	155354	25	145816.4	50	148411.5
Endosulfan sulfate [2C]	1	265797	2	249383.5	5	235181.6	10	242458.4	25	239156.2	50	242985.8
Endrin	1	156412	2	149257.5	5	147790.6	10	147550.8	25	140356.2	50	139591.4
Endrin [2C]	1	222882	2	212444.5	5	218575.4	10	224448.3	25	213035.3	50	220307.6
Endrin Aldehyde	1	241285	2	164091	5	136678.6	10	137512.9	25	124790.7	50	124489
Endrin Aldehyde [2C]	1	348624	2	238847	5	209173.8	10	212502.8	25	193940.2	50	204180.6
Endrin ketone	1	177552	2	165634.5	5	162276.8	10	166438	25	160358.3	50	163814.1
Endrin ketone [2C]	1	255763	2	246555	5	241000.8	10	249698.5	25	235747.6	50	259091.4
Heptachlor	1	192066	2	184807.5	5	179818.2	10	181962.1	25	172572.2	50	174703.2
Heptachlor [2C]	1	309811	2	293382.5	5	301643.6	10	300591.5	25	291291.3	50	291902.8
Heptachlor epoxide	1	200503	2	196026	5	184724	10	186542.8	25	173771.4	50	177386
Heptachlor epoxide [2C]	1	310098	2	303120	5	291188.2	10	295930.1	25	282589.2	50	296755.8
Methoxychlor	1	59659	2	55733	5	54077.6	10	56170.6	25	55611.32	50	57213.66
Methoxychlor [2C]	1	95155	2	89037	5	82760.4	10	88306.9	25	86666.36	50	86923.98
2,4,5,6-TCMX (Surr)	1	176748	2	174986	5	166841.2	10	164444.7	25	160633.3	50	161429.6
2,4,5,6-TCMX (Surr) [2C]	1	300053	2	300383	5	287575.2	10	286585.4	25	282916.9	50	283935
Decachlorobiphenyl (Surr)	1	163865	2	154952	5	140210	10	133546.8	25	133705.4	50	133579.8
Decachlorobiphenyl (Surr) [2C]	1	191572	2	195003	5	174184.2	10	167872.8	25	166529.2	50	174613.8

INITIAL CALIBRATION DATA (Continued)

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Heptachlor	100	175515.3	200	188928.5								
Heptachlor [2C]	100	302778.2	200	356415.9								
Heptachlor epoxide	100	173184.4	200	181290.8								
Heptachlor epoxide [2C]	100	300455.1	200	326650.4								
Methoxychlor	100	58773.29	200	71355.7								
Methoxychlor [2C]	100	94449.87	200	118570.5								
2,4,5,6-TCMX (Surr)	100	158509.2	200	164212.7								
2,4,5,6-TCMX (Surr) [2C]	100	292563.3	200	312922.3								
Decachlorobiphenyl (Surr)	100	134054	200	134876.2								
Decachlorobiphenyl (Surr) [2C]	100	177840.7	200	190488.9								
Aldrin	100	191080.7	200	199192								
Aldrin [2C]	100	339064.2	200	366140.9								
alpha-BHC	100	223635.8	200	236011.2								
alpha-BHC [2C]	100	416992.1	200	471883.8								
beta-BHC	100	83554.16	200	91193.5								
beta-BHC [2C]	100	146251.8	200	162767.2								
delta-BHC	100	194755.8	200	205083								
delta-BHC [2C]	100	351766.3	200	404898.8								
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
cis-Chlordane	100	167425.8	200	176039.7								
cis-Chlordane [2C]	100	290428.6	200	319885.3								
trans-Chlordane	100	177327.9	200	188107								
trans-Chlordane [2C]	100	307422.7	200	332239.8								
4,4'-DDD	100	154371.5	200	162184								
4,4'-DDD [2C]	100	262974.8	200	297801.4								
4,4'-DDE	100	180525.5	200	193815.4								

INITIAL CALIBRATION DATA (Continued)

EPA 8081B

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9H2608
Matrix:

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Instrument: DUALECD5
Calibration Date: 08/26/19 15:54

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
4,4'-DDE [2C]	100	324996	200	349211.8								
4,4'-DDT	100	121769.6	200	145376.1								
4,4'-DDT [2C]	100	197895	200	241017.2								
Dieldrin	100	183244.2	200	196088.8								
Dieldrin [2C]	100	310019.6	200	350158.9								
Endosulfan I	100	160900	200	169263								
Endosulfan I [2C]	100	272127.1	200	305217.6								
Endosulfan II	100	135435	200	147355.2								
Endosulfan II [2C]	100	230163.7	200	259174.4								
Endosulfan sulfate	100	143667.9	200	155632.6								
Endosulfan sulfate [2C]	100	244773.2	200	272964								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Endrin Aldehyde	100	123638.1	200	133138.3								
Endrin Aldehyde [2C]	100	205027.4	200	225422.7								
Endrin ketone	100	162519.4	200	175473.6								
Endrin ketone [2C]	100	266365.6	200	304306.9								
Heptachlor	100	175515.3	200	188928.5								
Heptachlor [2C]	100	302778.2	200	356415.9								
Heptachlor epoxide	100	173184.4	200	181290.8								
Heptachlor epoxide [2C]	100	300455.1	200	326650.4								
Methoxychlor	100	58773.29	200	71355.7								
Methoxychlor [2C]	100	94449.87	200	118570.5								
2,4,5,6-TCMX (Surr)	100	158509.2	200	164212.7								
2,4,5,6-TCMX (Surr) [2C]	100	292563.3	200	312922.3								
Decachlorobiphenyl (Surr)	100	134054	200	134876.2								
Decachlorobiphenyl (Surr) [2C]	100	177840.7	200	190488.9								

INITIAL CALIBRATION DATA (Continued)

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Chlordane 1 (g)									50	20182.86	100	19788.97
Chlordane 2									50	25733.1	100	25195.2
Chlordane 3 (a)									50	5761.74	100	5481.96
Chlordane (Technical)									50	~~107.3~~	100	~~49.38~~
Chlordane 1 (g) [2C]									50	35094.14	100	33783.88
Chlordane 2 (a) [2C]									50	29448	100	29059.41
Chlordane 3 [2C]									50	8780.4	100	8744.65
Chlordane (Technical) [2C]									50	~~0~~	100	~~0~~
Chlordane 1 (g)									50	20182.86	100	19788.97
Chlordane 2									50	25733.1	100	25195.2
Chlordane 3 (a)									50	5761.74	100	5481.96
Chlordane (Technical)									50	~~107.3~~	100	~~49.38~~
Chlordane 1 (g) [2C]									50	35094.14	100	33783.88
Chlordane 2 (a) [2C]									50	29448	100	29059.41
Chlordane 3 [2C]									50	8780.4	100	8744.65
Chlordane (Technical) [2C]									50	~~0~~	100	~~0~~

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231917.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV1	Inject Time:	16:26

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aldrin	50.0	52.8	5.5	70 - 130
Aldrin [2C]	50.0	53.9	7.7	70 - 130
alpha-BHC	50.0	51.1	2.1	70 - 130
alpha-BHC [2C]	50.0	52.4	4.8	70 - 130
beta-BHC	50.0	48.8	-2.4	70 - 130
beta-BHC [2C]	50.0	50.1	0.2	70 - 130
delta-BHC	50.0	51.7	3.3	70 - 130
delta-BHC [2C]	50.0	52.6	5.3	70 - 130
gamma-BHC (Lindane)	50.0	51.4	2.8	70 - 130
gamma-BHC (Lindane) [2C]	50.0	52.7	5.5	70 - 130
cis-Chlordane	50.0	48.8	-2.3	70 - 130
cis-Chlordane [2C]	50.0	51.6	3.3	70 - 130
trans-Chlordane	50.0	51.1	2.2	70 - 130
trans-Chlordane [2C]	50.0	50.7	1.4	70 - 130
4,4'-DDD	50.0	51.2	2.4	70 - 130
4,4'-DDD [2C]	50.0	55.1	10.2	70 - 130
4,4'-DDE	50.0	51.3	2.6	70 - 130
4,4'-DDE [2C]	50.0	52.7	5.3	70 - 130
4,4'-DDT	50.0	53.8	7.5	70 - 130
4,4'-DDT [2C]	50.0	54.1	8.2	70 - 130
Dieldrin	50.0	49.8	-0.3	70 - 130
Dieldrin [2C]	50.0	51.8	3.6	70 - 130
Endosulfan I	50.0	49.7	-0.6	70 - 130
Endosulfan I [2C]	50.0	51.0	2.1	70 - 130
Endosulfan II	50.0	53.2	6.4	70 - 130
Endosulfan II [2C]	50.0	53.4	6.7	70 - 130
Endosulfan sulfate	50.0	51.8	3.5	70 - 130
Endosulfan sulfate [2C]	50.0	52.0	3.9	70 - 130
Endrin	50.0	52.7	5.4	70 - 130
Endrin [2C]	50.0	53.1	6.3	70 - 130
Endrin Aldehyde	50.0	60.7	21.3	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231917.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV1	Inject Time:	16:26

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Endrin Aldehyde [2C]	50.0	61.1	22.3	70 - 130
Endrin ketone	50.0	53.4	6.7	70 - 130
Endrin ketone [2C]	50.0	54.2	8.5	70 - 130
Heptachlor	50.0	51.2	2.4	70 - 130
Heptachlor [2C]	50.0	52.3	4.6	70 - 130
Heptachlor epoxide	50.0	50.1	0.1	70 - 130
Heptachlor epoxide [2C]	50.0	51.4	2.7	70 - 130
Methoxychlor	50.0	55.4	10.7	70 - 130
Methoxychlor [2C]	50.0	56.3	12.5	70 - 130
2,4,5,6-TCMX (Surr)	50.0	49.5	-1.1	70 - 130
2,4,5,6-TCMX (Surr) [2C]	50.0	49.3	-1.4	70 - 130
Decachlorobiphenyl (Surr)	50.0	49.1	-1.8	70 - 130
Decachlorobiphenyl (Surr) [2C]	50.0	48.2	-3.6	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231935.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV3	Inject Time:	21:37

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Chlordane 1 (g)	500	545	8.9	65 - 135
Chlordane 2	500	535	6.9	65 - 135
Chlordane 3 (a)	500	550	9.9	65 - 135
Chlordane (Technical)	500	543	8.6	65 - 135
Chlordane 1 (g) [2C]	500	549	9.8	65 - 135
Chlordane 2 (a) [2C]	500	536	7.3	65 - 135
Chlordane 3 [2C]	500	541	8.2	65 - 135
Chlordane (Technical) [2C]	500	542	8.4	65 - 135

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231943.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV4	Inject Time:	23:54

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Toxaphene 1	500	476	-4.9	65 - 135
Toxaphene 2	500	474	-5.1	65 - 135
Toxaphene 3	500	487	-2.7	65 - 135
Toxaphene 4	500	485	-3.0	65 - 135
Toxaphene 5	500	495	-1.0	65 - 135
Toxaphene 6	500	489	-2.2	65 - 135
Toxaphene (Total)	500	484	-3.2	65 - 135
Toxaphene 1 [2C]	500	477	-4.5	65 - 135
Toxaphene 2 [2C]	500	492	-1.6	65 - 135
Toxaphene 3 [2C]	500	483	-3.4	65 - 135
Toxaphene 4 [2C]	500	484	-3.1	65 - 135
Toxaphene 5 [2C]	500	488	-2.3	65 - 135
Toxaphene 6 [2C]	500	498	-0.5	65 - 135
Toxaphene (Total) [2C]	500	487	-2.6	65 - 135

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV1	Injection Time:	11:48

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	50.0	54.2		197445.6	213943.4	8.4	20
Aldrin [2C]	Ave	50.0	56.2		329392.5	370541.6	12.5	20
alpha-BHC	Ave	50.0	50.8		229329	233223.8	1.7	20
alpha-BHC [2C]	Ave	50.0	52.1		410339.4	427749.2	4.2	20
beta-BHC	Ave	50.0	39.6		90383.53	71511.74	-20.9*	20
beta-BHC [2C]	Ave	50.0	43.4		158266	137336.8	-13.2	20
delta-BHC	Ave	50.0	40.5		196690.2	159270.6	-19.0	20
delta-BHC [2C]	Ave	50.0	46.3		352665.9	326506.8	-7.4	20
gamma-BHC (Lindane)	Ave	50.0	47.7		201777.1	192366	-4.7	20
gamma-BHC (Lindane) [2C]	Ave	50.0	51.8		356703.9	369369	3.6	20
cis-Chlordane	Ave	50.0	50.7		182071.1	184659.2	1.4	20
cis-Chlordane [2C]	Ave	50.0	54.1		291246.8	315148.4	8.2	20
trans-Chlordane	Ave	50.0	49.8		184891.5	184227.8	-0.4	20
trans-Chlordane [2C]	Ave	50.0	52.5		313325.9	329115.2	5.0	20
4,4'-DDD	Ave	50.0	42.1		157140.6	132449.8	-15.7	20
4,4'-DDD [2C]	Ave	50.0	46.6		256213.9	239026.8	-6.7	20
4,4'-DDE	Ave	50.0	43.7		188529.8	164599.9	-12.7	20
4,4'-DDE [2C]	Ave	50.0	44.3		310677.4	275070.4	-11.5	20
4,4'-DDT	Ave	50.0	48.0		119560.1	114665.6	-4.1	20
4,4'-DDT [2C]	XXX	50.0	50.4	0.8				20
Dieldrin	Ave	50.0	53.0		191979.3	203413.2	6.0	20
Dieldrin [2C]	Ave	50.0	55.1		304150.1	335045.2	10.2	20
Endosulfan I	Ave	50.0	55.5		170179.8	188844.6	11.0	20
Endosulfan I [2C]	Ave	50.0	53.4		275176.5	293648.4	6.7	20
Endosulfan II	Ave	50.0	50.1		143611.5	143982.4	0.3	20
Endosulfan II [2C]	Ave	50.0	53.3		230606.2	245665.4	6.5	20
Endosulfan sulfate	Ave	50.0	50.0		154977.6	154966.8	-0.007	20
Endosulfan sulfate [2C]	Ave	50.0	51.1		249087.5	254378.8	2.1	20
Endrin	Ave	50.0	54.1		147027.1	158941.7	8.1	20
Endrin [2C]	Ave	50.0	56.3		225826.9	254245.2	12.6	20

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV1	Injection Time:	11:48

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	50.0	51.2	2.5				20
Endrin Aldehyde [2C]	XXX	50.0	53.4	6.8				20
Endrin ketone	Ave	50.0	50.7		166758.3	168951.4	1.3	20
Endrin ketone [2C]	Ave	50.0	53.5		257316.1	275214.2	7.0	20
Heptachlor	Ave	50.0	54.7		181296.6	198254.6	9.4	20
Heptachlor [2C]	Ave	50.0	58.3		305977.1	356743.8	16.6	20
Heptachlor epoxide	Ave	50.0	49.1		184178.6	180699.7	-1.9	20
Heptachlor epoxide [2C]	Ave	50.0	53.6		300848.3	322380.6	7.2	20
Methoxychlor	Ave	50.0	47.3		58574.27	55379.28	-5.5	20
Methoxychlor [2C]	XXX	50.0	50.9	1.8				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051918.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV2	Injection Time:	15:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	100	106		197445.6	208925.4	5.8	20
Aldrin [2C]	Ave	100	115		329392.5	379592.4	15.2	20
alpha-BHC	Ave	100	106		229329	242924.3	5.9	20
alpha-BHC [2C]	Ave	100	110		410339.4	450616.4	9.8	20
beta-BHC	Ave	100	73.4		90383.53	66301.86	-26.6*	20
beta-BHC [2C]	Ave	100	90.4		158266	142995.6	-9.6	20
delta-BHC	Ave	100	84.6		196690.2	166403.4	-15.4	20
delta-BHC [2C]	Ave	100	98.2		352665.9	346305	-1.8	20
gamma-BHC (Lindane)	Ave	100	99.2		201777.1	200185.5	-0.8	20
gamma-BHC (Lindane) [2C]	Ave	100	109		356703.9	390321.9	9.4	20
cis-Chlordane	Ave	100	102		182071.1	185415.8	1.8	20
cis-Chlordane [2C]	Ave	100	108		291246.8	313860.3	7.8	20
trans-Chlordane	Ave	100	95.8		184891.5	177207.2	-4.2	20
trans-Chlordane [2C]	Ave	100	106		313325.9	331425.1	5.8	20
4,4'-DDD	Ave	100	83.5		157140.6	131145.1	-16.5	20
4,4'-DDD [2C]	Ave	100	99.9		256213.9	255968.3	-0.1	20
4,4'-DDE	Ave	100	87.4		188529.8	164772.5	-12.6	20
4,4'-DDE [2C]	Ave	100	97.4		310677.4	302619.7	-2.6	20
4,4'-DDT	Ave	100	112		119560.1	134436.2	12.4	20
4,4'-DDT [2C]	XXX	100	114	13.8				20
Dieldrin	Ave	100	106		191979.3	204092.8	6.3	20
Dieldrin [2C]	Ave	100	115		304150.1	348324.8	14.5	20
Endosulfan I	Ave	100	110		170179.8	187085.4	9.9	20
Endosulfan I [2C]	Ave	100	106		275176.5	292668	6.4	20
Endosulfan II	Ave	100	103		143611.5	147601	2.8	20
Endosulfan II [2C]	Ave	100	110		230606.2	254505.6	10.4	20
Endosulfan sulfate	Ave	100	102		154977.6	157923.3	1.9	20
Endosulfan sulfate [2C]	Ave	100	109		249087.5	271844.4	9.1	20
Endrin	Ave	100	115		147027.1	169699.9	15.4	20
Endrin [2C]	Ave	100	122		225826.9	275344.9	21.9*	20

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051918.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV2	Injection Time:	15:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	100	100	0.3				20
Endrin Aldehyde [2C]	XXX	100	105	5.5				20
Endrin ketone	Ave	100	107		166758.3	177809.4	6.6	20
Endrin ketone [2C]	Ave	100	116		257316.1	299229.7	16.3	20
Heptachlor	Ave	100	116		181296.6	209932.4	15.8	20
Heptachlor [2C]	Ave	100	125		305977.1	383832.8	25.4*	20
Heptachlor epoxide	Ave	100	99.1		184178.6	182543.4	-0.9	20
Heptachlor epoxide [2C]	Ave	100	109		300848.3	327209.4	8.8	20
Methoxychlor	Ave	100	113		58574.27	66084.43	12.8	20
Methoxychlor [2C]	XXX	100	113	12.9				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco PreRD DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco PreRD DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051932.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV3	Injection Time:	19:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	50.0	53.7		197445.6	211891	7.3	20
Aldrin [2C]	Ave	50.0	54.5		329392.5	359085	9.0	20
alpha-BHC	Ave	50.0	51.5		229329	236334	3.1	20
alpha-BHC [2C]	Ave	50.0	50.2		410339.4	411850.4	0.4	20
beta-BHC	Ave	50.0	38.6		90383.53	69764.54	-22.8*	20
beta-BHC [2C]	Ave	50.0	42.4		158266	134075.9	-15.3	20
delta-BHC	Ave	50.0	39.1		196690.2	153758.8	-21.8*	20
delta-BHC [2C]	Ave	50.0	44.5		352665.9	314064	-10.9	20
gamma-BHC (Lindane)	Ave	50.0	48.6		201777.1	196107.6	-2.8	20
gamma-BHC (Lindane) [2C]	Ave	50.0	51.7		356703.9	368530.4	3.3	20
cis-Chlordane	Ave	50.0	50.1		182071.1	182549.2	0.3	20
cis-Chlordane [2C]	Ave	50.0	51.9		291246.8	302074.8	3.7	20
trans-Chlordane	Ave	50.0	48.6		184891.5	179589	-2.9	20
trans-Chlordane [2C]	Ave	50.0	49.7		313325.9	311182.4	-0.7	20
4,4'-DDD	Ave	50.0	38.6		157140.6	121276.3	-22.8*	20
4,4'-DDD [2C]	Ave	50.0	44.9		256213.9	230330.2	-10.1	20
4,4'-DDE	Ave	50.0	40.8		188529.8	153879.8	-18.4	20
4,4'-DDE [2C]	Ave	50.0	44.3		310677.4	275207.6	-11.4	20
4,4'-DDT	Ave	50.0	50.3		119560.1	120192.8	0.5	20
4,4'-DDT [2C]	XXX	50.0	53.5	7.1				20
Dieldrin	Ave	50.0	52.0		191979.3	199614.4	4.0	20
Dieldrin [2C]	Ave	50.0	54.8		304150.1	333422	9.6	20
Endosulfan I	Ave	50.0	55.8		170179.8	189899.6	11.6	20
Endosulfan I [2C]	Ave	50.0	50.5		275176.5	277797.2	1.0	20
Endosulfan II	Ave	50.0	49.1		143611.5	141029.4	-1.8	20
Endosulfan II [2C]	Ave	50.0	50.4		230606.2	232404.6	0.8	20
Endosulfan sulfate	Ave	50.0	48.2		154977.6	149551.4	-3.5	20
Endosulfan sulfate [2C]	Ave	50.0	50.8		249087.5	252977.8	1.6	20
Endrin	Ave	50.0	54.9		147027.1	161505.6	9.8	20
Endrin [2C]	Ave	50.0	56.6		225826.9	255408.2	13.1	20

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11051932.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV3	Injection Time:	19:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	50.0	50.1	0.1				20
Endrin Aldehyde [2C]	XXX	50.0	52.7	5.4				20
Endrin ketone	Ave	50.0	49.7		166758.3	165661.1	-0.7	20
Endrin ketone [2C]	Ave	50.0	54.2		257316.1	279048.2	8.4	20
Heptachlor	Ave	50.0	55.5		181296.6	201147.6	10.9	20
Heptachlor [2C]	Ave	50.0	59.5		305977.1	363959.6	18.9	20
Heptachlor epoxide	Ave	50.0	49.5		184178.6	182472.7	-0.9	20
Heptachlor epoxide [2C]	Ave	50.0	51.2		300848.3	307896.2	2.3	20
Methoxychlor	Ave	50.0	47.7		58574.27	55912.48	-4.5	20
Methoxychlor [2C]	XXX	50.0	53.5	6.9				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9H23034-ICV1)				Lab File ID: ECD5-08231917.D		Analyzed: 08/23/19 16:26		
2,4,5,6-TCMX (Surr)	50.0	99	70 - 130	5.395	5.39525	-0.0003	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	99	70 - 130	5.989	5.98975	-0.0008	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	98	70 - 130	9.589	9.5925	-0.0035	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	96	70 - 130	10.539	10.54062	-0.0016	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K05039-CCV1)				Lab File ID: ECD5-11051904.D		Analyzed: 11/05/19 11:48		
2,4,5,6-TCMX (Surr)	50.0	100	80 - 120	5.13	5.39525	-0.2653	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	88	80 - 120	5.727	5.98975	-0.2628	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	95	80 - 120	9.319	9.5925	-0.2735	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	112	80 - 120	10.236	10.54062	-0.3046	+/-1.0	
Calibration Blank (9K05039-CCB1)				Lab File ID: ECD5-11051905.D		Analyzed: 11/05/19 12:05		
2,4,5,6-TCMX (Surr) [2C]	100	82	42 - 129	5.726	5.98975	-0.2638	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	101	55 - 130	10.236	10.54062	-0.3046	+/-1.0	
Blank (9110391-BLK1)				Lab File ID: ECD5-11051906.D		Analyzed: 11/05/19 12:22		
2,4,5,6-TCMX (Surr) [2C]	45.5	65	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	45.5	100	55 - 130	10.234	10.54062	-0.3066	+/-1.0	
LCS (9110391-BS1)				Lab File ID: ECD5-11051907.D		Analyzed: 11/05/19 12:39		
2,4,5,6-TCMX (Surr) [2C]	50.0	50	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	98	55 - 130	10.233	10.54062	-0.3076	+/-1.0	
Calibration Check (9K05039-CCV2)				Lab File ID: ECD5-11051918.D		Analyzed: 11/05/19 15:49		
2,4,5,6-TCMX (Surr)	100	99	80 - 120	5.128	5.39525	-0.2673	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	91	80 - 120	5.726	5.98975	-0.2638	+/-1.0	
Decachlorobiphenyl (Surr)	100	98	80 - 120	9.317	9.5925	-0.2755	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	115	80 - 120	10.234	10.54062	-0.3066	+/-1.0	
Calibration Blank (9K05039-CCB2)				Lab File ID: ECD5-11051919.D		Analyzed: 11/05/19 16:06		
2,4,5,6-TCMX (Surr) [2C]	100	81	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	97	55 - 130	10.235	10.54062	-0.3056	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)				Lab File ID: ECD5-11051928.D		Analyzed: 11/05/19 18:41		
2,4,5,6-TCMX (Surr) [2C]	85.2	108	42 - 129	5.723	5.98975	-0.2668	+/-1.0	
Decachlorobiphenyl (Surr)	85.2	104	55 - 130	9.312	9.5925	-0.2805	+/-1.0	
Matrix Spike (9110391-MS1)				Lab File ID: ECD5-11051930.D		Analyzed: 11/05/19 19:15		
2,4,5,6-TCMX (Surr) [2C]	86.1	99	42 - 129	5.723	5.98975	-0.2668	+/-1.0	
Decachlorobiphenyl (Surr)	86.1	98	55 - 130	9.313	9.5925	-0.2795	+/-1.0	
Calibration Check (9K05039-CCV3)				Lab File ID: ECD5-11051932.D		Analyzed: 11/05/19 19:49		
2,4,5,6-TCMX (Surr)	50.0	100	80 - 120	5.128	5.39525	-0.2673	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	86	80 - 120	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	94	80 - 120	9.318	9.5925	-0.2745	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	112	80 - 120	10.235	10.54062	-0.3056	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (9K05039-CCB3)			Lab File ID: ECD5-11051933.D		Analyzed: 11/05/19 20:06			
2,4,5,6-TCMX (Surr) [2C]	100	86	42 - 129	5.724	5.98975	-0.2658	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	107	55 - 130	10.235	10.54062	-0.3056	+/-1.0	

HOLDING TIME SUMMARY

EPA 8081B

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	10/31/19 15:11	3.01	14.00	11/05/19 18:41	5.15	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: 1311/8081B

ANALYSES DATA PACKAGE COVER PAGE

1311/8081B

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8081B

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
gamma-BHC (Lindane) [2C]	0.0000750	0.000150	mg/L
Endrin [2C]	0.0000750	0.000150	mg/L
Heptachlor [2C]	0.0000750	0.000150	mg/L
Heptachlor epoxide [2C]	0.0000750	0.000150	mg/L
Methoxychlor [2C]	0.000200	0.000400	mg/L
Chlordane (Technical) [2C]	0.000940	0.00188	mg/L
Toxaphene (Total) [2C]	0.00250	0.00500	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01	File ID:	ECD5-11121912.D
Sampled:	10/28/19 14:52	Prepared:	11/08/19 10:06	Analyzed:	11/12/19 14:08
Solids:	55.18	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110595	Sequence:	9K12037	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
58-89-9	gamma-BHC (Lindane) [2C]	1	0.0000750	U
72-20-8	Endrin [2C]	1	0.0000750	U
76-44-8	Heptachlor [2C]	1	0.0000750	U
1024-57-3	Heptachlor epoxide [2C]	1	0.0000750	U
72-43-5	Methoxychlor [2C]	1	0.000200	U
12789-03-6	Chlordane (Technical) [2C]	1	0.000940	U
8001-35-2	Toxaphene (Total) [2C]	1	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	0.00250	0.00181	72	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00253	101	30 - 135	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8081B

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110595 Batch Matrix: Sediment Preparation: EPA 1311/3510C (Neutral Ext.)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110595-BLK1	ECD5-11121907.D	11/08/19 10:06	
LCS	9110595-BS1	ECD5-11121908.D	11/08/19 10:06	
LCS Dup	9110595-BSD1	ECD5-11121909.D	11/08/19 10:06	
PDI-083SC-C-00-08-191028	A9J1007-01	ECD5-11121912.D	11/08/19 10:06	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/8081B

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110595-BLK1	File ID:	ECD5-11121907.D
Prepared:	11/08/19 10:06	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Analyzed:	11/12/19 12:42	Instrument:	DUALECD5		
Batch:	9110595	Sequence:	9K12037	Calibration:	A9H2608

CAS NO.	COMPOUND	CONC. (mg/L)	Q
58-89-9	gamma-BHC (Lindane) [2C]	0.0000750	U
72-20-8	Endrin [2C]	0.0000750	U
76-44-8	Heptachlor [2C]	0.0000750	U
1024-57-3	Heptachlor epoxide [2C]	0.0000750	U
72-43-5	Methoxychlor [2C]	0.000200	U
12789-03-6	Chlordane (Technical) [2C]	0.000940	U
8001-35-2	Toxaphene (Total) [2C]	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	0.00250	0.00183	73	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00252	101	30 - 135	

LCS / LCS DUPLICATE RECOVERY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110595	Laboratory ID:	9110595-BS1
Preparation:	EPA 1311/3510C (Neutral Ext.)	Initial/Final:	200 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
gamma-BHC (Lindane) [2C]	0.00250	0.00239	95	59 - 134
Endrin [2C]	0.00250	0.00280	112	60 - 138
Heptachlor [2C]	0.00250	0.00222	89	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00233	93	61 - 133
Methoxychlor [2C]	0.00250	0.00290	116	54 - 144

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110595	Laboratory ID:	9110595-BSD1
Preparation:	EPA 1311/3510C (Neutral Ext.)	Initial/Final:	200 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
gamma-BHC (Lindane) [2C]	0.00250	0.00250	100	5	30	59 - 134
Endrin [2C]	0.00250	0.00291	116	4	30	60 - 138
Heptachlor [2C]	0.00250	0.00228	91	3	30	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00246	98	6	30	61 - 133
Methoxychlor [2C]	0.00250	0.00292	117	0.7	30	54 - 144

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	9H23034-ICB1	ECD5-08231907.D	08/23/19 13:33
Cal Standard	9H23034-CAL1	ECD5-08231908.D	08/23/19 13:51
Cal Standard	9H23034-CAL2	ECD5-08231909.D	08/23/19 14:08
Cal Standard	9H23034-CAL3	ECD5-08231910.D	08/23/19 14:25
Cal Standard	9H23034-CAL4	ECD5-08231911.D	08/23/19 14:42
Cal Standard	9H23034-CAL5	ECD5-08231912.D	08/23/19 15:00
Cal Standard	9H23034-CAL6	ECD5-08231913.D	08/23/19 15:17
Cal Standard	9H23034-CAL7	ECD5-08231914.D	08/23/19 15:34
Cal Standard	9H23034-CAL8	ECD5-08231915.D	08/23/19 15:52
Initial Cal Check	9H23034-ICV1	ECD5-08231917.D	08/23/19 16:26
Cal Standard	9H23034-CALH	ECD5-08231928.D	08/23/19 19:36
Cal Standard	9H23034-CALI	ECD5-08231929.D	08/23/19 19:54
Cal Standard	9H23034-CALJ	ECD5-08231930.D	08/23/19 20:11
Cal Standard	9H23034-CALK	ECD5-08231931.D	08/23/19 20:28
Cal Standard	9H23034-CALL	ECD5-08231932.D	08/23/19 20:45
Cal Standard	9H23034-CALM	ECD5-08231933.D	08/23/19 21:02
Initial Cal Check	9H23034-ICV3	ECD5-08231935.D	08/23/19 21:37
Cal Standard	9H23034-CALN	ECD5-08231936.D	08/23/19 21:54
Cal Standard	9H23034-CALO	ECD5-08231937.D	08/23/19 22:11
Cal Standard	9H23034-CALP	ECD5-08231938.D	08/23/19 22:28
Cal Standard	9H23034-CALQ	ECD5-08231939.D	08/23/19 22:45
Cal Standard	9H23034-CALR	ECD5-08231940.D	08/23/19 23:03
Cal Standard	9H23034-CALS	ECD5-08231941.D	08/23/19 23:20
Initial Cal Check	9H23034-ICV4	ECD5-08231943.D	08/23/19 23:54

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K12037	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K12037-CCV1	ECD5-11121904.D	11/12/19 11:50
Calibration Blank	9K12037-CCB1	ECD5-11121906.D	11/12/19 12:25
Blank	9110595-BLK1	ECD5-11121907.D	11/12/19 12:42
LCS	9110595-BS1	ECD5-11121908.D	11/12/19 12:59
LCS Dup	9110595-BSD1	ECD5-11121909.D	11/12/19 13:17
PDI-083SC-C-00-08-191028	A9J1007-01	ECD5-11121912.D	11/12/19 14:08
Calibration Check	9K12037-CCV3	ECD5-11121919.D	11/12/19 16:19
Calibration Blank	9K12037-CCB2	ECD5-11121921.D	11/12/19 16:54

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL CALIBRATION DATA (Summary)

1311/8081B

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9H2608 Date: 08/26/19 15:54 Instrument: DUALECD5

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-BHC (Lindane) [2C]	356703.9	Ave	5.794449	6.914375	4.626364E-03			20	
Endrin [2C]	225826.9	Ave	7.319878	8.71675	1.794047E-02			20	
Heptachlor [2C]	305977.1	Ave	6.975914	7.29025	0.0138367			20	
Heptachlor epoxide [2C]	300848.3	Ave	4.39584	7.992625	1.285247E-02			20	
Methoxychlor [2C]	92733.75	XXX	12.08833	9.464375	0.0181623				
2,4,5,6-TCMX (Surr) [2C]	293366.8	Ave	3.539338	5.98975	1.128579E-02			20	
Decachlorobiphenyl (Surr)	141098.6	Ave	8.332442	9.5925	1.576214E-03			20	

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

1311/8081B

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9H2608

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: DUALECD5

Calibration Date: 08/26/19 15:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	1	207427	2	203013.5	5	204144.8	10	203485.9	25	195026.3	50	195720
gamma-BHC (Lindane) [2C]	1	352286	2	345461	5	348535.4	10	347673.3	25	340335.4	50	347621.4
Endrin	1	156412	2	149257.5	5	147790.6	10	147550.8	25	140356.2	50	139591.4
Endrin [2C]	1	222882	2	212444.5	5	218575.4	10	224448.3	25	213035.3	50	220307.6
Heptachlor	1	192066	2	184807.5	5	179818.2	10	181962.1	25	172572.2	50	174703.2
Heptachlor [2C]	1	309811	2	293382.5	5	301643.6	10	300591.5	25	291291.3	50	291902.8
Heptachlor epoxide	1	200503	2	196026	5	184724	10	186542.8	25	173771.4	50	177386
Heptachlor epoxide [2C]	1	310098	2	303120	5	291188.2	10	295930.1	25	282589.2	50	296755.8
Methoxychlor	1	59659	2	55733	5	54077.6	10	56170.6	25	55611.32	50	57213.66
Methoxychlor [2C]	1	95155	2	89037	5	82760.4	10	88306.9	25	86666.36	50	86923.98
2,4,5,6-TCMX (Surr)	1	176748	2	174986	5	166841.2	10	164444.7	25	160633.3	50	161429.6
2,4,5,6-TCMX (Surr) [2C]	1	300053	2	300383	5	287575.2	10	286585.4	25	282916.9	50	283935
Decachlorobiphenyl (Surr)	1	163865	2	154952	5	140210	10	133546.8	25	133705.4	50	133579.8
Decachlorobiphenyl (Surr) [2C]	1	191572	2	195003	5	174184.2	10	167872.8	25	166529.2	50	174613.8
gamma-BHC (Lindane)	1	207427	2	203013.5	5	204144.8	10	203485.9	25	195026.3	50	195720
gamma-BHC (Lindane) [2C]	1	352286	2	345461	5	348535.4	10	347673.3	25	340335.4	50	347621.4
Endrin	1	156412	2	149257.5	5	147790.6	10	147550.8	25	140356.2	50	139591.4
Endrin [2C]	1	222882	2	212444.5	5	218575.4	10	224448.3	25	213035.3	50	220307.6
Heptachlor	1	192066	2	184807.5	5	179818.2	10	181962.1	25	172572.2	50	174703.2
Heptachlor [2C]	1	309811	2	293382.5	5	301643.6	10	300591.5	25	291291.3	50	291902.8
Heptachlor epoxide	1	200503	2	196026	5	184724	10	186542.8	25	173771.4	50	177386
Heptachlor epoxide [2C]	1	310098	2	303120	5	291188.2	10	295930.1	25	282589.2	50	296755.8
Methoxychlor	1	59659	2	55733	5	54077.6	10	56170.6	25	55611.32	50	57213.66
Methoxychlor [2C]	1	95155	2	89037	5	82760.4	10	88306.9	25	86666.36	50	86923.98
2,4,5,6-TCMX (Surr)	1	176748	2	174986	5	166841.2	10	164444.7	25	160633.3	50	161429.6
2,4,5,6-TCMX (Surr) [2C]	1	300053	2	300383	5	287575.2	10	286585.4	25	282916.9	50	283935
Decachlorobiphenyl (Surr)	1	163865	2	154952	5	140210	10	133546.8	25	133705.4	50	133579.8
Decachlorobiphenyl (Surr) [2C]	1	191572	2	195003	5	174184.2	10	167872.8	25	166529.2	50	174613.8

INITIAL CALIBRATION DATA (Continued)

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Heptachlor	100	175515.3	200	188928.5								
Heptachlor [2C]	100	302778.2	200	356415.9								
Heptachlor epoxide	100	173184.4	200	181290.8								
Heptachlor epoxide [2C]	100	300455.1	200	326650.4								
Methoxychlor	100	58773.29	200	71355.7								
Methoxychlor [2C]	100	94449.87	200	118570.5								
2,4,5,6-TCMX (Surr)	100	158509.2	200	164212.7								
2,4,5,6-TCMX (Surr) [2C]	100	292563.3	200	312922.3								
Decachlorobiphenyl (Surr)	100	134054	200	134876.2								
Decachlorobiphenyl (Surr) [2C]	100	177840.7	200	190488.9								
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Heptachlor	100	175515.3	200	188928.5								
Heptachlor [2C]	100	302778.2	200	356415.9								
Heptachlor epoxide	100	173184.4	200	181290.8								
Heptachlor epoxide [2C]	100	300455.1	200	326650.4								
Methoxychlor	100	58773.29	200	71355.7								
Methoxychlor [2C]	100	94449.87	200	118570.5								
2,4,5,6-TCMX (Surr)	100	158509.2	200	164212.7								
2,4,5,6-TCMX (Surr) [2C]	100	292563.3	200	312922.3								
Decachlorobiphenyl (Surr)	100	134054	200	134876.2								
Decachlorobiphenyl (Surr) [2C]	100	177840.7	200	190488.9								

INITIAL CALIBRATION DATA (Continued)

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Chlordane 1 (g)									50	20182.86	100	19788.97
Chlordane 2									50	25733.1	100	25195.2
Chlordane 3 (a)									50	5761.74	100	5481.96
Chlordane (Technical)									50	~~107.3~~	100	~~49.38~~
Chlordane 1 (g) [2C]									50	35094.14	100	33783.88
Chlordane 2 (a) [2C]									50	29448	100	29059.41
Chlordane 3 [2C]									50	8780.4	100	8744.65
Chlordane (Technical) [2C]									50	~~0~~	100	~~0~~
Chlordane 1 (g)									50	20182.86	100	19788.97
Chlordane 2									50	25733.1	100	25195.2
Chlordane 3 (a)									50	5761.74	100	5481.96
Chlordane (Technical)									50	~~107.3~~	100	~~49.38~~
Chlordane 1 (g) [2C]									50	35094.14	100	33783.88
Chlordane 2 (a) [2C]									50	29448	100	29059.41
Chlordane 3 [2C]									50	8780.4	100	8744.65
Chlordane (Technical) [2C]									50	~~0~~	100	~~0~~

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231917.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV1	Inject Time:	16:26

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
gamma-BHC (Lindane)	50.0	51.4	2.8	70 - 130
gamma-BHC (Lindane) [2C]	50.0	52.7	5.5	70 - 130
Endrin	50.0	52.7	5.4	70 - 130
Endrin [2C]	50.0	53.1	6.3	70 - 130
Heptachlor	50.0	51.2	2.4	70 - 130
Heptachlor [2C]	50.0	52.3	4.6	70 - 130
Heptachlor epoxide	50.0	50.1	0.1	70 - 130
Heptachlor epoxide [2C]	50.0	51.4	2.7	70 - 130
Methoxychlor	50.0	55.4	10.7	70 - 130
Methoxychlor [2C]	50.0	56.3	12.5	70 - 130
2,4,5,6-TCMX (Surr)	50.0	49.5	-1.1	70 - 130
2,4,5,6-TCMX (Surr) [2C]	50.0	49.3	-1.4	70 - 130
Decachlorobiphenyl (Surr)	50.0	49.1	-1.8	70 - 130
Decachlorobiphenyl (Surr) [2C]	50.0	48.2	-3.6	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231935.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV3	Inject Time:	21:37

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Chlordane 1 (g)	500	545	8.9	65 - 135
Chlordane 2	500	535	6.9	65 - 135
Chlordane 3 (a)	500	550	9.9	65 - 135
Chlordane (Technical)	500	543	8.6	65 - 135
Chlordane 1 (g) [2C]	500	549	9.8	65 - 135
Chlordane 2 (a) [2C]	500	536	7.3	65 - 135
Chlordane 3 [2C]	500	541	8.2	65 - 135
Chlordane (Technical) [2C]	500	542	8.4	65 - 135

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231943.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV4	Inject Time:	23:54

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Toxaphene 1	500	476	-4.9	65 - 135
Toxaphene 2	500	474	-5.1	65 - 135
Toxaphene 3	500	487	-2.7	65 - 135
Toxaphene 4	500	485	-3.0	65 - 135
Toxaphene 5	500	495	-1.0	65 - 135
Toxaphene 6	500	489	-2.2	65 - 135
Toxaphene (Total)	500	484	-3.2	65 - 135
Toxaphene 1 [2C]	500	477	-4.5	65 - 135
Toxaphene 2 [2C]	500	492	-1.6	65 - 135
Toxaphene 3 [2C]	500	483	-3.4	65 - 135
Toxaphene 4 [2C]	500	484	-3.1	65 - 135
Toxaphene 5 [2C]	500	488	-2.3	65 - 135
Toxaphene 6 [2C]	500	498	-0.5	65 - 135
Toxaphene (Total) [2C]	500	487	-2.6	65 - 135

CONTINUING CALIBRATION CHECK

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11121904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K12037	Injection Date:	11/12/19
Lab Sample ID:	9K12037-CCV1	Injection Time:	11:50

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
gamma-BHC (Lindane)	Ave	50.0	52.7		201777.1	212826.4	5.5	20
gamma-BHC (Lindane) [2C]	Ave	50.0	49.6		356703.9	353787.6	-0.8	20
Endrin	Ave	50.0	55.7		147027.1	163854.4	11.4	20
Endrin [2C]	Ave	50.0	53.6		225826.9	242079.6	7.2	20
Heptachlor	Ave	50.0	52.8		181296.6	191462	5.6	20
Heptachlor [2C]	Ave	50.0	51.1		305977.1	312523.4	2.1	20
Heptachlor epoxide	Ave	50.0	50.7		184178.6	186837.9	1.4	20
Heptachlor epoxide [2C]	Ave	50.0	48.6		300848.3	292322	-2.8	20
Methoxychlor	Ave	50.0	58.6		58574.27	68651.56	17.2	20
Methoxychlor [2C]	XXX	50.0	51.7	3.3				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-11121919.D	Calibration Date:	08/26/19 15:54
Sequence:	9K12037	Injection Date:	11/12/19
Lab Sample ID:	9K12037-CCV3	Injection Time:	16:19

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
gamma-BHC (Lindane)	Ave	100	104		201777.1	209766.4	4.0	20
gamma-BHC (Lindane) [2C]	Ave	100	94.5		356703.9	337254	-5.5	20
Endrin	Ave	100	105		147027.1	153775.5	4.6	20
Endrin [2C]	Ave	100	104		225826.9	234027.9	3.6	20
Heptachlor	Ave	100	105		181296.6	189822.8	4.7	20
Heptachlor [2C]	Ave	100	102		305977.1	310945.1	1.6	20
Heptachlor epoxide	Ave	100	98.6		184178.6	181510.9	-1.4	20
Heptachlor epoxide [2C]	Ave	100	92.9		300848.3	279363.1	-7.1	20
Methoxychlor	Ave	100	108		58574.27	63301.45	8.1	20
Methoxychlor [2C]	XXX	100	95.4	-4.6				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9H23034-ICV1)				Lab File ID: ECD5-08231917.D		Analyzed: 08/23/19 16:26		
2,4,5,6-TCMX (Surr)	50.0	99	70 - 130	5.395	5.39525	-0.0003	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	99	70 - 130	5.989	5.98975	-0.0008	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	98	70 - 130	9.589	9.5925	-0.0035	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	96	70 - 130	10.539	10.54062	-0.0016	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K12037	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K12037-CCV1)				Lab File ID: ECD5-11121904.D		Analyzed: 11/12/19 11:50		
2,4,5,6-TCMX (Surr)	50.0	103	80 - 120	5.248	5.39525	-0.1473	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	91	80 - 120	5.843	5.98975	-0.1468	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	94	80 - 120	9.428	9.5925	-0.1645	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	97	80 - 120	10.355	10.54062	-0.1856	+/-1.0	
Calibration Blank (9K12037-CCB1)				Lab File ID: ECD5-11121906.D		Analyzed: 11/12/19 12:25		
2,4,5,6-TCMX (Surr) [2C]	100	87	25 - 140	5.843	5.98975	-0.1468	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	95	30 - 135	10.355	10.54062	-0.1856	+/-1.0	
Blank (9110595-BLK1)				Lab File ID: ECD5-11121907.D		Analyzed: 11/12/19 12:42		
2,4,5,6-TCMX (Surr) [2C]	0.00250	73	25 - 140	5.841	5.98975	-0.1488	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	101	30 - 135	10.353	10.54062	-0.1876	+/-1.0	
LCS (9110595-BS1)				Lab File ID: ECD5-11121908.D		Analyzed: 11/12/19 12:59		
2,4,5,6-TCMX (Surr) [2C]	0.00250	68	25 - 140	5.842	5.98975	-0.1478	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	92	30 - 135	10.354	10.54062	-0.1866	+/-1.0	
LCS Dup (9110595-BSD1)				Lab File ID: ECD5-11121909.D		Analyzed: 11/12/19 13:17		
2,4,5,6-TCMX (Surr) [2C]	0.00250	68	25 - 140	5.843	5.98975	-0.1468	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	94	30 - 135	10.355	10.54062	-0.1856	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01)				Lab File ID: ECD5-11121912.D		Analyzed: 11/12/19 14:08		
2,4,5,6-TCMX (Surr) [2C]	0.00250	72	25 - 140	5.841	5.98975	-0.1488	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	101	30 - 135	10.353	10.54062	-0.1876	+/-1.0	
Calibration Check (9K12037-CCV3)				Lab File ID: ECD5-11121919.D		Analyzed: 11/12/19 16:19		
2,4,5,6-TCMX (Surr)	100	100	80 - 120	5.245	5.39525	-0.1503	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	85	80 - 120	5.841	5.98975	-0.1488	+/-1.0	
Decachlorobiphenyl (Surr)	100	91	80 - 120	9.425	9.5925	-0.1675	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	104	80 - 120	10.351	10.54062	-0.1896	+/-1.0	
Calibration Blank (9K12037-CCB2)				Lab File ID: ECD5-11121921.D		Analyzed: 11/12/19 16:54		
2,4,5,6-TCMX (Surr) [2C]	100	85	25 - 140	5.84	5.98975	-0.1498	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	98	30 - 135	10.352	10.54062	-0.1886	+/-1.0	

HOLDING TIME SUMMARY

1311/8081B

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/08/19 10:06	10.80	7.00	11/12/19 14:08	4.17	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 8270D

ANALYSES DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: Apex Laboratories

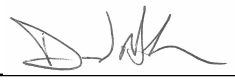
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/17/2019 4:45PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: Apex Laboratories **SDG:** Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Naphthalene	2.67	5.33	ug/kg
2-Methylphenol	3.33	6.67	ug/kg
3+4-Methylphenol(s)	3.33	6.67	ug/kg
Pentachlorophenol (PCP)	13.3	26.7	ug/kg
Phenol	2.67	5.33	ug/kg
2,4,5-Trichlorophenol	6.67	13.3	ug/kg
2,4,6-Trichlorophenol	6.67	13.3	ug/kg
Hexachlorobenzene	1.33	2.67	ug/kg
Hexachlorobutadiene	3.33	6.67	ug/kg
Hexachloroethane	3.33	6.67	ug/kg
1,2-Dichlorobenzene	3.33	6.67	ug/kg
1,3-Dichlorobenzene	3.33	6.67	ug/kg
1,4-Dichlorobenzene	3.33	6.67	ug/kg
1,2,4-Trichlorobenzene	3.33	6.67	ug/kg
Nitrobenzene	13.3	26.7	ug/kg
2,4-Dinitrotoluene	13.3	26.7	ug/kg
Pyridine	6.67	13.3	ug/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01	File ID:	I11011915.D
Sampled:	10/28/19 14:52	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 17:37
Solids:	55.18	Preparation:	EPA 3546	Initial/Final:	15.08 g / 2 mL
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
95-48-7	2-Methylphenol	1000	6000	U
NA	3+4-Methylphenol(s)	1000	6000	U
87-86-5	Pentachlorophenol (PCP)	1000	24000	U
108-95-2	Phenol	1000	4810	U
95-95-4	2,4,5-Trichlorophenol	1000	12000	U
88-06-2	2,4,6-Trichlorophenol	1000	12000	U
118-74-1	Hexachlorobenzene	1000	2400	U
87-68-3	Hexachlorobutadiene	1000	6000	U
67-72-1	Hexachloroethane	1000	6000	U
98-95-3	Nitrobenzene	1000	24000	U
121-14-2	2,4-Dinitrotoluene	1000	24000	U
110-86-1	Pyridine	1000	12000	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	601	562	94	37 - 122	D
2-Fluorobiphenyl (Surr)	601	552	92	44 - 115	D
Phenol-d6 (Surr)	601	166	28	33 - 122	D
p-Terphenyl-d14 (Surr)	601	550	92	54 - 127	D
2-Fluorophenol (Surr)	601	0.00		35 - 115	D
2,4,6-Tribromophenol (Surr)	601	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	116944	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	457881	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	235075	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	428131	11.152	376095	11.151	
Chrysene-d12 (ISTD)	461776	14.928	404706	14.933	
Perylene-d12 (ISTD)	450869	18.415	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	393350	20.811	362980	20.811	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110357 Batch Matrix: Sediment Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110357-BLK2	I11011904.D	11/01/19 07:18	
LCS	9110357-BS2	I11011905.D	11/01/19 07:18	
PDI-083SC-C-00-08-191028	A9J1007-01	I11011915.D	11/01/19 07:18	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET

EPA 8270D

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110357-BLK2	File ID:	I11011904.D
Prepared:	11/01/19 07:18	Preparation:	EPA 3546	Initial/Final:	16 g / 2 mL
Analyzed:	11/01/19 11:09	Instrument:	SV-GCMS9		
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
95-48-7	2-Methylphenol	3.12	U
NA	3+4-Methylphenol(s)	3.12	U
87-86-5	Pentachlorophenol (PCP)	12.5	U
108-95-2	Phenol	2.50	U
95-95-4	2,4,5-Trichlorophenol	6.25	U
88-06-2	2,4,6-Trichlorophenol	6.25	U
118-74-1	Hexachlorobenzene	1.25	U
87-68-3	Hexachlorobutadiene	3.12	U
67-72-1	Hexachloroethane	3.12	U
98-95-3	Nitrobenzene	12.5	U
121-14-2	2,4-Dinitrotoluene	12.5	U
110-86-1	Pyridine	6.25	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	312	236	76	37 - 122	
2-Fluorobiphenyl (Surr)	312	239	76	44 - 115	
Phenol-d6 (Surr)	312	206	66	33 - 122	
p-Terphenyl-d14 (Surr)	312	271	87	54 - 127	
2-Fluorophenol (Surr)	312	188	60	35 - 115	
2,4,6-Tribromophenol (Surr)	312	264	85	39 - 132	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	114442	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	439250	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	225356	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	418613	11.152	376095	11.151	
Chrysene-d12 (ISTD)	449358	14.922	404706	14.933	
Perylene-d12 (ISTD)	448066	18.41	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	371409	20.8	362980	20.811	

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110357	Laboratory ID:	9110357-BS2
Preparation:	EPA 3546	Initial/Final:	15 g / 2 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
2-Methylphenol	533	529	99	32 - 122
3+4-Methylphenol(s)	533	535	100	34 - 120
Pentachlorophenol (PCP)	533	594	111	25 - 133
Phenol	533	511	96	34 - 120
2,4,5-Trichlorophenol	533	573	108	41 - 124
2,4,6-Trichlorophenol	533	568	107	39 - 126
Hexachlorobenzene	533	565	106	44 - 122
Hexachlorobutadiene	533	506	95	32 - 123
Hexachloroethane	533	472	89	28 - 120
Nitrobenzene	533	481	90	34 - 122
2,4-Dinitrotoluene	533	611	115	48 - 126
Pyridine	533	261	49	5 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J16053-TUN1	I10161910.D	10/16/19 16:07
Initial Cal Blank	9J16053-ICB1	I10161911.D	10/16/19 16:34
Cal Standard	9J16053-CAL1	I10161912.D	10/16/19 17:09
Cal Standard	9J16053-CAL2	I10161913.D	10/16/19 17:44
Cal Standard	9J16053-CAL3	I10161914.D	10/16/19 18:19
Cal Standard	9J16053-CAL4	I10161915.D	10/16/19 18:54
Cal Standard	9J16053-CAL5	I10161916.D	10/16/19 19:30
Cal Standard	9J16053-CAL6	I10161917.D	10/16/19 20:05
Cal Standard	9J16053-CAL7	I10161918.D	10/16/19 20:40
Cal Standard	9J16053-CAL8	I10161919.D	10/16/19 21:14
Cal Standard	9J16053-CAL9	I10161920.D	10/16/19 21:49
Cal Standard	9J16053-CALA	I10161921.D	10/16/19 22:24
Initial Cal Check	9J16053-ICV1	I10161923.D	10/16/19 23:33

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K01021-TUN1	I11011901.D	11/01/19 09:33
Calibration Check	9K01021-CCV1	I11011902.D	11/01/19 10:01
Calibration Blank	9K01021-CCB1	I11011903.D	11/01/19 10:35
Blank	9110357-BLK2	I11011904.D	11/01/19 11:09
LCS	9110357-BS2	I11011905.D	11/01/19 11:44
PDI-083SC-C-00-08-191028	A9J1007-01	I11011915.D	11/01/19 17:37

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I10161910.D	Injection Date:	10/16/19
Instrument ID:	SV-GCMS9	Injection Time:	16:07
Sequence:	9J16053	Lab Sample ID:	9J16053-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.49	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	7.24	PASS
m/z 365	1 - 100% of m/z 198	4.51	PASS
m/z 441	Less than 150% of m/z 443	16.35	PASS
m/z 442	0.1 - 200% of m/z 198	159.87	PASS
m/z 443	15 - 24% of m/z 442	20.35	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I11011901.D	Injection Date:	11/01/19
Instrument ID:	SV-GCMS9	Injection Time:	09:33
Sequence:	9K01021	Lab Sample ID:	9K01021-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.02	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.54	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.96	PASS
m/z 365	1 - 100% of m/z 198	4.62	PASS
m/z 441	Less than 150% of m/z 443	10.49	PASS
m/z 442	0.1 - 200% of m/z 198	174.36	PASS
m/z 443	15 - 24% of m/z 442	20.14	PASS

INITIAL CALIBRATION DATA (Summary)

EPA 8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J1803 Date: 10/18/19 14:37 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2-Methylphenol	1.099165	Ave	7.789134	6.8961	7.314507E-02			20	
3+4-Methylphenol(s)	1.341624	Ave	10.74992	7.044889	0.1081421			20	
Pentachlorophenol (PCP)	0.1259349	XXX	25.12494	11.02237	3.824211E-02				
Phenol	1.88751	Ave	5.379272	6.311	0.1491452			20	
2,4,5-Trichlorophenol	0.3525281	XXX	18.08522	8.956111	5.635937E-02				
2,4,6-Trichlorophenol	0.3570852	XXX	22.06597	8.923333	4.703718E-02				
Hexachlorobenzene	0.2772973	Ave	7.01503	10.8293	5.546932E-02			20	
Hexachlorobutadiene	0.1859475	Ave	5.065064	8.073	3.448972E-02			20	
Hexachloroethane	0.4895762	Ave	3.804138	7.1652	4.173269E-02			20	
Nitrobenzene	1.377218	Ave	7.938123	7.220778	6.836454E-02			20	
2,4-Dinitrotoluene	0.3301329	XXX	30.90523	9.887125	0.1129094				
Pyridine	1.836599	Ave	6.454497	4.099333	0.4911306			20	
Nitrobenzene-d5 (Surr)	1.300669	Ave	10.50682	7.2032	9.179795E-02			20	
2-Fluorobiphenyl (Surr)	1.469509	Ave	13.1077	9.0078	5.187103E-02			20	
Phenol-d6 (Surr)	1.782102	Ave	10.17121	6.2976	0.13622			20	
p-Terphenyl-d14 (Surr)	0.9704079	Ave	5.838011	13.0243	5.545816E-02			20	
2-Fluorophenol (Surr)	1.47269	Ave	7.135994	5.4102	0.1230205			20	
2,4,6-Tribromophenol (Surr)	0.1140922	XXX	19.74819	10.50367	6.062349E-02				

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	20	1.348024	50	1.368122	100	1.420777	200	1.374623	500	1.36458	1000	1.306021
Acenaphthylene	20	1.894319	50	2.09133	100	2.220481	200	2.214576	500	2.24394	1000	2.117469
Anthracene	20	1.029901	50	1.136585	100	1.176434	200	1.167405	500	1.163478	1000	1.094853
Benz(a)anthracene	20	1.240287	50	1.141585	100	1.153208	200	1.171386	500	1.208394	1000	1.164429
Benzo(a)pyrene	20	0.6605372	50	0.7900506	100	0.9014438	200	1.023675	500	1.073483	1000	1.091986
Benzo(b)fluoranthene	20	0.8086366	50	0.8872934	100	1.013216	200	1.139208	500	1.175368	1000	1.200896
Benzo(k)fluoranthene	20	0.7947305	50	0.8993068	100	1.031266	200	1.123132	500	1.185756	1000	1.178863
Benzo(b+k)fluoranthene(s)	40	0.8015677	100	0.9304757	200	1.060563	400	1.161498	1000	1.206076	2000	1.217101
Benzo(g,h,i)perylene	20	0.8993165	50	1.029782	100	1.134226	200	1.205434	500	1.258114	1000	1.226717
Chrysene	20	1.004836	50	1.055864	100	1.062939	200	1.068909	500	1.096782	1000	1.055785
Dibenz(a,h)anthracene	20	0.9992406	50	1.012221	100	1.059179	200	1.09878	500	1.112885	1000	1.070652
Fluoranthene	20	1.112589	50	1.206321	100	1.289271	200	1.31775	500	1.362013	1000	1.335171
Fluorene	20	1.388701	50	1.47419	100	1.57822	200	1.508717	500	1.523522	1000	1.427787
Indeno(1,2,3-cd)pyrene	20	1.155693	50	1.175648	100	1.170037	200	1.201141	500	1.227099	1000	1.174735
1-Methylnaphthalene	20	0.6775022	50	0.7370515	100	0.7733677	200	0.7639427	500	0.7810577	1000	0.7448339
2-Methylnaphthalene	20	0.6811035	50	0.7244937	100	0.7815215	200	0.8088201	500	0.8222188	1000	0.7920122
Naphthalene	20	1.135098	50	1.123024	100	1.148489	200	1.135465	500	1.129272	1000	1.071215
Phenanthrene	20	1.148809	50	1.168756	100	1.169649	200	1.162457	500	1.130058	1000	1.082055
Pyrene	20	1.102342	50	1.236181	100	1.312332	200	1.367553	500	1.378337	1000	1.316204
Carbazole	20	0.8964571	50	0.9703356	100	1.004997	200	1.024052	500	1.007109	1000	0.8542514
Dibenzofuran	20	1.735985	50	1.893602	100	1.980096	200	1.91458	500	1.92252	1000	1.809066
4-Chloro-3-methylphenol	20	~~0.1174937~~	50	0.1746427	100	0.2070542	200	0.2407304	500	0.3058227	1000	0.3214361
2-Chlorophenol	20	1.274052	50	1.432473	100	1.431239	200	1.451791	500	1.546235	1000	1.520498
2,4-Dichlorophenol	20	0.1291981	50	0.1695299	100	0.196227	200	0.232648	500	0.2621911	1000	0.2785966
2,4-Dimethylphenol	20	0.2435407	50	0.2476572	100	0.2716166	200	0.2944716	500	0.2984019	1000	0.3080494
2,4-Dinitrophenol	20	~~0~~	50	~~0~~	100	~~8.871242E-03~~	200	1.354481E-02	500	0.0277345	1000	4.826226E-02
4,6-Dinitro-2-methylphenol	20	~~0~~	50	~~1.805415E-02~~	100	~~2.936984E-02~~	200	4.019749E-02	500	7.122033E-02	1000	0.1062377
2-Methylphenol	20	1.101834	50	0.9707556	100	1.133049	200	1.092755	500	1.223238	1000	1.177676
3+4-Methylphenol(s)	20	1.135196	50	1.156208	100	1.310941	200	1.254213	500	1.520781	1000	1.481195
2-Nitrophenol	20	~~8.305592E-02~~	50	~~8.297099E-02~~	100	0.1029256	200	0.1182888	500	0.1592929	1000	0.1868278
4-Nitrophenol	20	~~6.517051E-02~~	50	~~6.579347E-02~~	100	7.811861E-02	200	0.1047319	500	0.1747827	1000	0.2144009

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Pentachlorophenol (PCP)	20	~~0.2139868~~	50	~~7.782719E-02~~	100	7.890978E-02	200	8.370261E-02	500	0.1108285	1000	0.1263173
Phenol	20	1.830379	50	1.906021	100	1.821016	200	1.723857	500	2.000526	1000	1.949177
2,3,4,6-Tetrachlorophenol	20	0.1771413	50	0.2024147	100	0.2690656	200	0.2694543	500	0.3394395	1000	0.351438
2,3,5,6-Tetrachlorophenol	20	~~0.111096~~	50	0.1364477	100	0.1987847	200	0.219688	500	0.2901318	1000	0.3130027
2,4,5-Trichlorophenol	20	~~0.1456495~~	50	0.2616115	100	0.2517538	200	0.3003015	500	0.3767462	1000	0.4005824
2,4,6-Trichlorophenol	20	~~0.1561468~~	50	0.2048451	100	0.2604528	200	0.3132783	500	0.3851577	1000	0.4010757
Bis(2-ethylhexyl)phthalate	20	~~0.3160971~~	50	~~0.3804649~~	100	~~0.4839904~~	200	0.6057346	500	0.7390758	1000	0.7693364
Butyl benzyl phthalate	20	~~0.2827261~~	50	0.3195753	100	0.3815821	200	0.4384383	500	0.5487677	1000	0.5851562
Diethylphthalate	20	1.411445	50	1.464295	100	1.536878	200	1.537904	500	1.530862	1000	1.443514
Dimethylphthalate	20	1.422817	50	1.542241	100	1.609312	200	1.600122	500	1.603618	1000	1.536443
Di-n-butylphthalate	20	~~1.015365~~	50	1.218554	100	1.255297	200	1.341113	500	1.387555	1000	1.357923
Di-n-octyl phthalate	20	~~0.4146319~~	50	~~0.4614304~~	100	0.6313393	200	0.8512331	500	1.102486	1000	1.277898
N-Nitrosodimethylamine	20	1.106342	50	1.22684	100	1.169156	200	1.119138	500	1.195972	1000	1.172211
N-Nitroso-di-n-propylamine	20	1.228067	50	1.243541	100	1.270607	200	1.223503	500	1.324401	1000	1.224911
N-Nitrosodiphenylamine	20	0.5475966	50	0.6378363	100	0.6990372	200	0.7114968	500	0.6943802	1000	0.6438628
Bis(2-Chloroethoxy) methane	20	0.4308104	50	0.4428408	100	0.455546	200	0.4609645	500	0.4848529	1000	0.4696525
Bis(2-Chloroethyl) ether	20	1.531026	50	1.689254	100	1.802522	200	1.712288	500	1.843234	1000	1.78854
2,2'-Oxybis(1-Chloropropane)	20	2.558924	50	2.66662	100	2.627519	200	2.539553	500	2.564863	1000	2.370644
Hexachlorobenzene	20	0.2897639	50	0.2784634	100	0.2952355	200	0.3020187	500	0.2928269	1000	0.2795559
Hexachlorobutadiene	20	0.1733145	50	0.1901605	100	0.193509	200	0.2011891	500	0.1925226	1000	0.187227
Hexachlorocyclopentadiene	20	0.2759906	50	0.2831376	100	0.3029142	200	0.3403679	500	0.3556016	1000	0.3794297
Hexachloroethane	20	0.4571439	50	0.4578904	100	0.4841835	200	0.4954434	500	0.5008838	1000	0.4965959
2-Chloronaphthalene	20	1.053226	50	1.267436	100	1.34128	200	1.364967	500	1.384992	1000	1.311741
1,2-Dichlorobenzene	20	1.578814	50	1.578609	100	1.574433	200	1.58437	500	1.613568	1000	1.514684
1,3-Dichlorobenzene	20	1.588733	50	1.665594	100	1.673947	200	1.703799	500	1.68605	1000	1.61896
1,4-Dichlorobenzene	20	1.580618	50	1.601225	100	1.607369	200	1.614415	500	1.627709	1000	1.539193
1,2,4-Trichlorobenzene	20	0.3416772	50	0.3531425	100	0.3561403	200	0.3629487	500	0.3555077	1000	0.3459489
4-Bromophenyl phenyl ether	20	0.2351949	50	0.2267391	100	0.2334553	200	0.2448055	500	0.246862	1000	0.2384005
4-Chlorophenyl phenyl ether	20	0.663952	50	0.7037645	100	0.7459595	200	0.7224625	500	0.7408664	1000	0.7155961
Aniline	20	~~0.9205994~~	50	2.063986	100	2.173454	200	2.088386	500	2.159232	1000	1.926508
4-Chloroaniline	20	0.1373011	50	0.2580622	100	0.2699235	200	0.3195226	500	0.352554	1000	0.3607065

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2-Nitroaniline	20	~~0.1159073~~	50	~~0.1393988~~	100	0.1747549	200	0.2223096	500	0.3246704	1000	0.3748482
3-Nitroaniline	20	~~8.878936E-02~~	50	0.1418292	100	0.180181	200	0.2234893	500	0.2942214	1000	0.2736474
4-Nitroaniline	20	~~0.107597~~	50	~~0.1421764~~	100	0.1780277	200	0.1971862	500	0.2639867	1000	0.2449727
Nitrobenzene	20	1.352497	50	1.243541	100	1.256693	200	1.303899	500	1.539708	1000	1.50287
2,4-Dinitrotoluene	20	~~0.1342775~~	50	~~0.1234279~~	100	0.1573569	200	0.1944772	500	0.3087048	1000	0.3622799
2,6-Dinitrotoluene	20	~~9.316322E-02~~	50	0.1374893	100	0.1702762	200	0.2211736	500	0.2957572	1000	0.3140082
Benzoic acid	40	~~7.202681E-03~~	100	~~6.009791E-03~~	200	~~1.156242E-02~~	400	~~2.108791E-02~~	1000	4.552789E-02	2000	0.1030198
Benzyl alcohol	20	0.8565812	50	0.6332527	100	0.6629562	200	0.6831176	500	0.8312771	1000	0.8904795
Isophorone	20	0.7114899	50	0.7695223	100	0.8070079	200	0.8496786	500	0.861201	1000	0.8319945
Azobenzene (1,2-DPH)	20	0.8061441	50	0.9023331	100	0.8941053	200	0.9132201	500	0.8922208	1000	0.8120053
Benzidine	40	~~0.4303566~~	100	~~0.1632156~~	200	0.2385325	400	0.2756031	1000	0.4359378	2000	0.4309328
Bis(2-Ethylhexyl) adipate	20	~~0.2947767~~	50	~~0.2877034~~	100	~~0.3297572~~	200	0.3893734	500	0.4906088	1000	0.51746
3,3'-Dichlorobenzidine	40	~~0.1844672~~	100	~~0.2436536~~	200	0.2841403	400	0.2807724	1000	0.2367345	2000	0.1801298
1,2-Dinitrobenzene	20	~~0~~	50	~~5.364164E-02~~	100	7.105607E-02	200	9.258531E-02	500	0.1282073	1000	0.1435157
1,3-Dinitrobenzene	20	~~2.274407E-02~~	50	~~6.093274E-02~~	100	~~6.640512E-02~~	200	8.253594E-02	500	0.140119	1000	0.1709478
1,4-Dinitrobenzene	20	~~0~~	50	~~4.513536E-02~~	100	~~4.719845E-02~~	200	5.579587E-02	500	9.072198E-02	1000	0.1185119
Pyridine	20	~~0.7709231~~	50	1.638802	100	1.724672	200	1.714036	500	1.83939	1000	1.851875
2,3,5-Trimethylnaphthalene	20	1.138516	50	1.208933	100	1.268846	200	1.242714	500	1.289252	1000	1.226429
2,6-Dimethylnaphthalene	20	1.177006	50	1.305627	100	1.369616	200	1.365054	500	1.388546	1000	1.323864
Benzo(e)pyrene	20	0.8264827	50	0.9703471	100	1.032377	200	1.119723	500	1.164733	1000	1.172233
1,1'-Biphenyl	20	1.44075	50	1.643274	100	1.821878	200	1.860445	500	1.872123	1000	1.77876
Perylene	20	0.8515136	50	0.8628881	100	0.8889475	200	0.9230576	500	0.9536409	1000	0.9503091
Nitrobenzene-d5 (Surr)	20	1.200115	50	1.108192	100	1.172855	200	1.120553	500	1.404462	1000	1.399717
2-Fluorobiphenyl (Surr)	20	1.393512	50	1.494154	100	1.665382	200	1.659326	500	1.690304	1000	1.58961
Phenol-d6 (Surr)	20	1.458893	50	1.601921	100	1.654396	200	1.625983	500	1.875722	1000	1.881426
p-Terphenyl-d14 (Surr)	20	0.8618512	50	0.9039252	100	0.9599334	200	1.002361	500	1.041212	1000	1.000571
2-Fluorophenol (Surr)	20	1.352497	50	1.350359	100	1.341764	200	1.381382	500	1.497176	1000	1.500368
2,4,6-Tribromophenol (Surr)	20	~~7.958975E-02~~	50	7.031417E-02	100	8.906414E-02	200	0.1011571	500	0.1165657	1000	0.1223403

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	2000	1.262216	4000	1.12837	6000	1.044155	8000	0.9754524				
Acenaphthylene	2000	1.966573	4000	1.72159	6000	1.553506	8000	~~1.389081~~				
Anthracene	2000	1.038701	4000	0.9071059	6000	0.8223905	8000	0.7517352				
Benz(a)anthracene	2000	1.174929	4000	1.13591	6000	1.120902	8000	1.070336				
Benzo(a)pyrene	2000	1.106492	4000	1.053211	6000	1.007048	8000	0.9723904				
Benzo(b)fluoranthene	2000	1.257817	4000	1.232516	6000	1.216883	8000	1.236308				
Benzo(k)fluoranthene	2000	1.156639	4000	1.083754	6000	0.9930956	8000	0.9372229				
Benzo(b+k)fluoranthene(s)	4000	1.230317	8000	1.181897	12000	1.130451	16000	1.113979				
Benzo(g,h,i)perylene	2000	1.21608	4000	1.140558	6000	1.102552	8000	1.048816				
Chrysene	2000	1.083197	4000	1.047747	6000	1.020032	8000	0.9783019				
Dibenz(a,h)anthracene	2000	1.06579	4000	1.007416	6000	0.9710271	8000	0.9310457				
Fluoranthene	2000	1.2606	4000	1.136817	6000	1.046115	8000	~~0.9636008~~				
Fluorene	2000	1.345569	4000	1.172242	6000	1.063949	8000	~~0.9874251~~				
Indeno(1,2,3-cd)pyrene	2000	1.183298	4000	1.191923	6000	1.183455	8000	1.149961				
1-Methylnaphthalene	2000	0.7172449	4000	0.6602146	6000	0.6129864	8000	0.566073				
2-Methylnaphthalene	2000	0.7751795	4000	0.7185898	6000	0.6677423	8000	0.616983				
Naphthalene	2000	1.010474	4000	0.9111305	6000	0.8395099	8000	0.7693983				
Phenanthrene	2000	1.036609	4000	0.9087333	6000	0.8467551	8000	0.777969				
Pyrene	2000	1.235503	4000	1.093965	6000	1.01797	8000	0.9311508				
Carbazole	2000	0.6444017	4000	~~0.4523411~~	6000	~~0.376204~~	8000	~~0.3849147~~				
Dibenzofuran	2000	1.745003	4000	1.538178	6000	1.406759	8000	1.296001				
4-Chloro-3-methylphenol	2000	0.3343176	4000	0.3346253	6000	0.3176341	8000	0.3023566				
2-Chlorophenol	2000	1.51838	4000	1.457597	6000	1.435797	8000	1.350092				
2,4-Dichlorophenol	2000	0.295869	4000	0.2860752	6000	0.2696074	8000	0.2574342				
2,4-Dimethylphenol	2000	0.3140946	4000	0.2991469	6000	0.2806716	8000	0.2667603				
2,4-Dinitrophenol	2000	0.0740148	4000	0.1124359	6000	0.1268895	8000	~~0.1329418~~				
4,6-Dinitro-2-methylphenol	2000	0.1419412	4000	0.1799418	6000	0.1852602	8000	0.1911006				
2-Methylphenol	2000	1.178545	4000	1.094775	6000	1.05605	8000	0.9629765				
3+4-Methylphenol(s)	2000	1.506152	4000	1.385189	6000	1.324741	8000	~~1.207034~~				
2-Nitrophenol	2000	0.1819452	4000	0.1975186	6000	0.1932634	8000	0.1884848				
4-Nitrophenol	2000	0.2474795	4000	0.2682337	6000	0.2714787	8000	~~0.2562546~~				

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Pentachlorophenol (PCP)	2000	0.144815	4000	0.1553731	6000	0.156272	8000	0.1512611				
Phenol	2000	1.956176	4000	2.046919	6000	1.854384	8000	1.786646				
2,3,4,6-Tetrachlorophenol	2000	0.3602122	4000	0.3677027	6000	0.3592527	8000	0.3521752				
2,3,5,6-Tetrachlorophenol	2000	0.3391036	4000	0.3512111	6000	0.3497742	8000	0.341807				
2,4,5-Trichlorophenol	2000	0.4162262	4000	0.4035457	6000	0.3908094	8000	0.3711759				
2,4,6-Trichlorophenol	2000	0.4209246	4000	0.4217126	6000	0.4057378	8000	0.4005818				
Bis(2-ethylhexyl)phthalate	2000	0.8132417	4000	0.7740551	6000	0.7380275	8000	0.7057213				
Butyl benzyl phthalate	2000	0.6424573	4000	0.650034	6000	0.6305064	8000	0.6178051				
Diethylphthalate	2000	1.332903	4000	1.15571	6000	1.034341	8000	~~0.9555838~~				
Dimethylphthalate	2000	1.487006	4000	1.348961	6000	1.255734	8000	1.187945				
Di-n-butylphthalate	2000	1.2916	4000	1.121337	6000	1.009695	8000	~~0.9118865~~				
Di-n-octyl phthalate	2000	1.433328	4000	1.433627	6000	1.335146	8000	1.327822				
N-Nitrosodimethylamine	2000	1.225796	4000	1.224093	6000	1.191745	8000	1.181233				
N-Nitroso-di-n-propylamine	2000	1.149908	4000	1.025219	6000	0.980519	8000	0.9067643				
N-Nitrosodiphenylamine	2000	0.5896081	4000	0.4983187	6000	~~0.4416175~~	8000	~~0.4137926~~				
Bis(2-Chloroethoxy) methane	2000	0.4562662	4000	0.4227209	6000	0.3917115	8000	0.3626439				
Bis(2-Chloroethyl) ether	2000	1.971316	4000	1.774451	6000	1.478082	8000	1.397753				
2,2'-Oxybis(1-Chloropropane)	2000	2.179334	4000	1.89874	6000	1.753674	8000	~~1.510488~~				
Hexachlorobenzene	2000	0.2754968	4000	0.2661266	6000	0.2528429	8000	0.2406424				
Hexachlorobutadiene	2000	0.1877888	4000	0.1846128	6000	0.1779547	8000	0.1711964				
Hexachlorocyclopentadiene	2000	0.4072307	4000	0.3986078	6000	0.3833113	8000	0.3635606				
Hexachloroethane	2000	0.508406	4000	0.5023034	6000	0.5068014	8000	0.4861106				
2-Chloronaphthalene	2000	1.227497	4000	1.081102	6000	1.004457	8000	0.9232991				
1,2-Dichlorobenzene	2000	1.485414	4000	1.371142	6000	1.324918	8000	1.223473				
1,3-Dichlorobenzene	2000	1.614584	4000	1.528535	6000	1.501961	8000	1.415573				
1,4-Dichlorobenzene	2000	1.516718	4000	1.431711	6000	1.40731	8000	1.310726				
1,2,4-Trichlorobenzene	2000	0.3387443	4000	0.322795	6000	0.305903	8000	0.2880484				
4-Bromophenyl phenyl ether	2000	0.2383221	4000	0.23609	6000	0.2268098	8000	0.2188491				
4-Chlorophenyl phenyl ether	2000	0.705272	4000	0.6630593	6000	0.6230779	8000	0.586883				
Aniline	2000	1.815078	4000	1.784572	6000	1.886541	8000	1.784424				
4-Chloroaniline	2000	0.393282	4000	0.3922367	6000	0.3578092	8000	0.3382095				

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2-Nitroaniline	2000	0.4055715	4000	0.4135884	6000	0.4040878	8000	0.4015496				
3-Nitroaniline	2000	0.2309323	4000	~~0.1717698~~	6000	~~0.1397608~~	8000	~~0.1604668~~				
4-Nitroaniline	2000	0.2443227	4000	0.2610937	6000	0.2592235	8000	0.2420753				
Nitrobenzene	2000	1.486522	4000	1.386811	6000	1.322422	8000	~~1.197805~~				
2,4-Dinitrotoluene	2000	0.4101378	4000	0.4223418	6000	0.4059896	8000	0.3797755				
2,6-Dinitrotoluene	2000	0.3312337	4000	0.3230539	6000	0.3109711	8000	0.2966667				
Benzoic acid	4000	0.1326233	8000	0.2005641	12000	0.217593	16000	0.2075313				
Benzyl alcohol	2000	0.9487846	4000	0.9562684	6000	0.9452642	8000	0.8929416				
Isophorone	2000	0.8105835	4000	0.7851367	6000	0.7497189	8000	0.7320915				
Azobenzene (1,2-DPH)	2000	0.7401068	4000	0.6076975	6000	~~0.5390385~~	8000	~~0.4858888~~				
Benzidine	4000	0.4457108	8000	0.4401225	12000	0.4093505	16000	0.3759457				
Bis(2-Ethylhexyl) adipate	2000	0.557048	4000	0.5474977	6000	0.5247413	8000	0.5031472				
3,3'-Dichlorobenzidine	4000	0.1544715	8000	0.1374539	12000	~~0.1378669~~	16000	~~0.1317219~~				
1,2-Dinitrobenzene	2000	0.1529336	4000	0.1554308	6000	0.150991	8000	0.1423422				
1,3-Dinitrobenzene	2000	0.2050175	4000	0.2172552	6000	0.2144045	8000	0.2092211				
1,4-Dinitrobenzene	2000	0.1562714	4000	0.1838025	6000	0.192694	8000	0.1934428				
Pyridine	2000	1.93958	4000	1.970311	6000	1.900232	8000	1.950497				
2,3,5-Trimethylnaphthalene	2000	1.169662	4000	1.034713	6000	0.956238	8000	0.8827995				
2,6-Dimethylnaphthalene	2000	1.249931	4000	1.107462	6000	1.003877	8000	0.9404066				
Benzo(e)pyrene	2000	1.193816	4000	1.161045	6000	1.110688	8000	1.093838				
1,1'-Biphenyl	2000	1.69128	4000	1.485529	6000	1.350438	8000	1.239661				
Perylene	2000	0.9539474	4000	0.9204651	6000	0.894342	8000	0.8762402				
Nitrobenzene-d5 (Surr)	2000	1.455077	4000	1.433906	6000	1.399863	8000	1.31195				
2-Fluorobiphenyl (Surr)	2000	1.504082	4000	1.337329	6000	1.227974	8000	1.133417				
Phenol-d6 (Surr)	2000	1.966987	4000	1.985867	6000	1.921086	8000	1.848738				
p-Terphenyl-d14 (Surr)	2000	1.028803	4000	1.002033	6000	0.9677689	8000	0.9356206				
2-Fluorophenol (Surr)	2000	1.579486	4000	1.593877	6000	1.567146	8000	1.562846				
2,4,6-Tribromophenol (Surr)	2000	0.1290112	4000	0.133301	6000	0.1340835	8000	0.1309928				

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acenaphthene	1000	1020	2.4	70 - 130
Acenaphthylene	1000	1040	4.0	70 - 130
Anthracene	1000	1030	2.6	70 - 130
Benz(a)anthracene	1000	1030	2.7	70 - 130
Benzo(a)pyrene	1000	951	-4.9	70 - 130
Benzo(b)fluoranthene	1000	1050	4.8	70 - 130
Benzo(k)fluoranthene	1000	1120	12.1	70 - 130
Benzo(g,h,i)perylene	1000	1070	6.5	70 - 130
Chrysene	1000	999	-0.1	70 - 130
Dibenz(a,h)anthracene	1000	1000	0.3	70 - 130
Fluoranthene	1000	1050	5.2	70 - 130
Fluorene	1000	1000	0.5	70 - 130
Indeno(1,2,3-cd)pyrene	1000	981	-1.9	70 - 130
1-Methylnaphthalene	1000	1060	5.9	70 - 130
2-Methylnaphthalene	1000	1070	6.6	70 - 130
Naphthalene	1000	1030	2.9	70 - 130
Phenanthrene	1000	1020	2.1	70 - 130
Pyrene	1000	1070	6.7	70 - 130
Carbazole	1000	833	-16.7	70 - 130
Dibenzofuran	1000	1030	2.8	70 - 130
4-Chloro-3-methylphenol	1000	995	-0.5	70 - 130
2-Chlorophenol	1000	1060	6.4	70 - 130
2,4-Dichlorophenol	1000	1050	5.4	70 - 130
2,4-Dimethylphenol	1000	1040	4.0	70 - 130
2,4-Dinitrophenol	1000	966	-3.4	70 - 130
4,6-Dinitro-2-methylphenol	1000	1020	1.5	70 - 130
2-Methylphenol	1000	1100	10.3	70 - 130
3+4-Methylphenol(s)	1000	1060	6.1	70 - 130
2-Nitrophenol	1000	1120	12.2	70 - 130
4-Nitrophenol	1000	980	-2.0	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Phenol	1000	1020	1.8	70 - 130
2,3,4,6-Tetrachlorophenol	1000	1000	0.4	70 - 130
2,3,5,6-Tetrachlorophenol	1000	1000	0.3	70 - 130
2,4,5-Trichlorophenol	1000	1030	3.3	70 - 130
2,4,6-Trichlorophenol	1000	1020	1.5	70 - 130
Bis(2-ethylhexyl)phthalate	1000	1030	2.9	70 - 130
Butyl benzyl phthalate	1000	996	-0.4	70 - 130
Diethylphthalate	1000	1020	2.0	70 - 130
Dimethylphthalate	1000	1040	3.7	70 - 130
Di-n-butylphthalate	1000	1060	6.2	70 - 130
Di-n-octyl phthalate	1000	966	-3.4	70 - 130
N-Nitrosodimethylamine	1000	962	-3.8	70 - 130
N-Nitroso-di-n-propylamine	1000	1020	2.2	70 - 130
N-Nitrosodiphenylamine	1000	984	-1.6	70 - 130
Bis(2-Chloroethoxy) methane	1000	1040	4.1	70 - 130
Bis(2-Chloroethyl) ether	1000	1050	5.5	70 - 130
2,2'-Oxybis(1-Chloropropane)	1000	942	-5.8	70 - 130
Hexachlorobenzene	1000	1060	6.2	70 - 130
Hexachlorobutadiene	1000	1020	1.7	70 - 130
Hexachlorocyclopentadiene	1000	994	-0.6	70 - 130
Hexachloroethane	1000	1020	2.2	70 - 130
2-Chloronaphthalene	1000	1070	6.6	70 - 130
1,2-Dichlorobenzene	1000	1010	1.5	70 - 130
1,3-Dichlorobenzene	1000	1010	0.8	70 - 130
1,4-Dichlorobenzene	1000	997	-0.3	70 - 130
1,2,4-Trichlorobenzene	1000	1030	2.9	70 - 130
4-Bromophenyl phenyl ether	1000	1010	0.8	70 - 130
4-Chlorophenyl phenyl ether	1000	1030	2.8	70 - 130
Aniline	1000	920	-8.0	70 - 130
4-Chloroaniline	1000	927	-7.3	70 - 130
2-Nitroaniline	1000	1030	2.9	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
3-Nitroaniline	1000	869	-13.1	70 - 130
4-Nitroaniline	1000	934	-6.6	70 - 130
Nitrobenzene	1000	1090	8.6	70 - 130
2,4-Dinitrotoluene	1000	994	-0.6	70 - 130
2,6-Dinitrotoluene	1000	1050	4.6	70 - 130
Benzoic acid	2000	1750	-12.6	70 - 130
Benzyl alcohol	1000	972	-2.8	70 - 130
Isophorone	1000	1030	2.7	70 - 130
Azobenzene (1,2-DPH)	1000	949	-5.1	70 - 130
Bis(2-Ethylhexyl) adipate	1000	1010	1.0	70 - 130
3,3'-Dichlorobenzidine	2000	1770	-11.7	70 - 130
1,2-Dinitrobenzene	1000	991	-0.9	70 - 130
1,3-Dinitrobenzene	1000	999	-0.1	70 - 130
1,4-Dinitrobenzene	1000	1000	0.4	70 - 130
Pyridine	1000	870	-13.0	70 - 130
Nitrobenzene-d5 (Surr)	1000	1120	12.4	70 - 130
2-Fluorobiphenyl (Surr)	1000	1070	7.4	70 - 130
Phenol-d6 (Surr)	1000	1030	3.4	70 - 130
p-Terphenyl-d14 (Surr)	1000	1040	4.2	70 - 130
2-Fluorophenol (Surr)	1000	980	-2.0	70 - 130
2,4,6-Tribromophenol (Surr)	1000	992	-0.8	70 - 130

CONTINUING CALIBRATION CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I11011902.D	Calibration Date:	10/18/19 14:37
Sequence:	9K01021	Injection Date:	11/01/19
Lab Sample ID:	9K01021-CCV1	Injection Time:	10:01

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2-Methylphenol	Ave	1000	1050		1.099165	1.159586	5.5	20
3+4-Methylphenol(s)	Ave	1000	1100		1.341624	1.474952	9.9	20
Pentachlorophenol (PCP)	XXX	1000	1110	11.3				20
Phenol	Ave	1000	1060		1.88751	2.007849	6.4	20
2,4,5-Trichlorophenol	XXX	1000	1110	10.7				20
2,4,6-Trichlorophenol	XXX	1000	1090	9.0				20
Hexachlorobenzene	Ave	1000	1090		0.2772973	0.3021258	9.0	20
Hexachlorobutadiene	Ave	1000	1090		0.1859475	0.2020719	8.7	20
Hexachloroethane	Ave	1000	1060		0.4895762	0.5209454	6.4	20
Nitrobenzene	Ave	1000	1030		1.377218	1.419196	3.0	20
2,4-Dinitrotoluene	XXX	1000	1120	12.4				20
Pyridine	Ave	1000	871		1.836599	1.600377	-12.9	20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J16053-ICV1)				Lab File ID: I10161923.D		Analyzed: 10/16/19 23:33		
Nitrobenzene-d5 (Surr)	1000	112	70 - 130	7.199	7.2032	-0.0042	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	107	70 - 130	9.007	9.0078	-0.0008	+/-1.0	
Phenol-d6 (Surr)	1000	103	70 - 130	6.295	6.2976	-0.0026	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	70 - 130	13.023	13.0243	-0.0013	+/-1.0	
2-Fluorophenol (Surr)	1000	98	70 - 130	5.407	5.4102	-0.0032	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	99	70 - 130	10.499	10.50367	-0.0047	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K01021-CCV1)			Lab File ID: I11011902.D		Analyzed: 11/01/19 10:01			
Nitrobenzene-d5 (Surr)	1000	107	80 - 120	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	109	80 - 120	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	1000	104	80 - 120	6.247	6.2976	-0.0506	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	105	80 - 120	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	1000	96	80 - 120	5.364	5.4102	-0.0462	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	115	80 - 120	10.44	10.50367	-0.0637	+/-1.0	
Calibration Blank (9K01021-CCB1)			Lab File ID: I11011903.D		Analyzed: 11/01/19 10:35			
Nitrobenzene-d5 (Surr)			37 - 122	0	7.2032	-7.2032	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 115	0	9.0078	-9.0078	+/-1.0	
Phenol-d6 (Surr)			33 - 122	0	6.2976	-6.2976	+/-1.0	
p-Terphenyl-d14 (Surr)			54 - 127	0	13.0243	-13.0243	+/-1.0	
2-Fluorophenol (Surr)			35 - 115	0	5.4102	-5.4102	+/-1.0	
2,4,6-Tribromophenol (Surr)			39 - 132	0	10.50367	-10.5037	+/-1.0	
Blank (9110357-BLK2)			Lab File ID: I11011904.D		Analyzed: 11/01/19 11:09			
Nitrobenzene-d5 (Surr)	312	76	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	312	76	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	312	66	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	312	87	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	312	60	35 - 115	5.37	5.4102	-0.0402	+/-1.0	
2,4,6-Tribromophenol (Surr)	312	85	39 - 132	10.44	10.50367	-0.0637	+/-1.0	
LCS (9110357-BS2)			Lab File ID: I11011905.D		Analyzed: 11/01/19 11:44			
Nitrobenzene-d5 (Surr)	333	93	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	333	101	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	333	90	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	333	102	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	333	79	35 - 115	5.37	5.4102	-0.0402	+/-1.0	
2,4,6-Tribromophenol (Surr)	333	108	39 - 132	10.44	10.50367	-0.0637	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: I11011915.D		Analyzed: 11/01/19 17:37			
Nitrobenzene-d5 (Surr)	601	94	37 - 122	7.151	7.2032	-0.0522	+/-1.0	
2-Fluorobiphenyl (Surr)	601	92	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	601	28	33 - 122	6.252	6.2976	-0.0456	+/-1.0	*
p-Terphenyl-d14 (Surr)	601	92	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	601		35 - 115	0	5.4102	-5.4102	+/-1.0	*
2,4,6-Tribromophenol (Surr)	601		39 - 132	0	10.50367	-10.5037	+/-1.0	*

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K01021-CCV1)			Lab File ID: I11011902.D			Analyzed: 11/01/19 10:01			
1,4-Dichlorobenzene-d4 (ISTD)	100905	6.605	108692	6.659	93	50 - 200	-0.0540	+/-0.50	
Naphthalene-d8 (ISTD)	384962	7.862	415784	7.921	93	50 - 200	-0.0590	+/-0.50	
Acenaphthene-d10 (ISTD)	197971	9.643	210848	9.702	94	50 - 200	-0.0590	+/-0.50	
Phenanthrene-d10 (ISTD)	376095	11.151	394261	11.216	95	50 - 200	-0.0650	+/-0.50	
Chrysene-d12 (ISTD)	404706	14.933	404897	15.051	100	50 - 200	-0.1180	+/-0.50	
Perylene-d12 (ISTD)	405313	18.42	409934	18.554	99	50 - 200	-0.1340	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	362980	20.811	363670	20.95	100	50 - 200	-0.1390	+/-0.50	
Calibration Blank (9K01021-CCB1)			Lab File ID: I11011903.D			Analyzed: 11/01/19 10:35			
1,4-Dichlorobenzene-d4 (ISTD)	109644	6.605	100905	6.605	109	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	424668	7.862	384962	7.862	110	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	218592	9.638	197971	9.643	110	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	392156	11.151	376095	11.151	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	407371	14.922	404706	14.933	101	50 - 200	-0.0110	+/-0.50	
Perylene-d12 (ISTD)	391878	18.409	405313	18.42	97	50 - 200	-0.0110	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	314017	20.8	362980	20.811	87	50 - 200	-0.0110	+/-0.50	
Blank (9110357-BLK2)			Lab File ID: I11011904.D			Analyzed: 11/01/19 11:09			
1,4-Dichlorobenzene-d4 (ISTD)	114442	6.605	100905	6.605	113	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	439250	7.862	384962	7.862	114	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	225356	9.638	197971	9.643	114	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	418613	11.152	376095	11.151	111	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	449358	14.922	404706	14.933	111	50 - 200	-0.0110	+/-0.50	
Perylene-d12 (ISTD)	448066	18.41	405313	18.42	111	50 - 200	-0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	371409	20.8	362980	20.811	102	50 - 200	-0.0110	+/-0.50	
LCS (9110357-BS2)			Lab File ID: I11011905.D			Analyzed: 11/01/19 11:44			
1,4-Dichlorobenzene-d4 (ISTD)	109240	6.605	100905	6.605	108	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	408681	7.862	384962	7.862	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	209161	9.638	197971	9.643	106	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	403657	11.152	376095	11.151	107	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	432360	14.928	404706	14.933	107	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	439300	18.415	405313	18.42	108	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	397565	20.806	362980	20.811	110	50 - 200	-0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Duplicate (9110357-DUP2)			Lab File ID: I11011907.D			Analyzed: 11/01/19 12:54			
1,4-Dichlorobenzene-d4 (ISTD)	117262	6.605	100905	6.605	116	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	440101	7.867	384962	7.862	114	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	210970	9.638	197971	9.643	107	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	395641	11.152	376095	11.151	105	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	430642	14.928	404706	14.933	106	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	437113	18.42	405313	18.42	108	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	391900	20.811	362980	20.811	108	50 - 200	0.0000	+/-0.50	
PDI-083SC-C-00-08-191028 (A9J1007-01)			Lab File ID: I11011915.D			Analyzed: 11/01/19 17:37			
1,4-Dichlorobenzene-d4 (ISTD)	116944	6.605	100905	6.605	116	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	457881	7.862	384962	7.862	119	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	235075	9.638	197971	9.643	119	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	428131	11.152	376095	11.151	114	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	461776	14.928	404706	14.933	114	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	450869	18.415	405313	18.42	111	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	393350	20.811	362980	20.811	108	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

EPA 8270D

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/01/19 07:18	3.68	14.00	11/01/19 17:37	0.43	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8270D

ANALYSES DATA PACKAGE COVER PAGE

1311/8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/17/2019 4:45PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8270D

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
2,4-Dinitrotoluene	0.00100	0.00200	mg/L
Hexachlorobenzene	0.00100	0.00200	mg/L
Hexachlorobutadiene	0.00250	0.00500	mg/L
Hexachloroethane	0.00250	0.00500	mg/L
2-Methylphenol	0.00250	0.00500	mg/L
3+4-Methylphenol(s)	0.00250	0.00500	mg/L
Nitrobenzene	0.00250	0.00500	mg/L
Pentachlorophenol (PCP)	0.00500	0.0100	mg/L
Pyridine	0.00500	0.0100	mg/L
2,4,5-Trichlorophenol	0.00250	0.00500	mg/L
2,4,6-Trichlorophenol	0.00250	0.00500	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01RE1	File ID:	J11111912.D
Sampled:	10/28/19 14:52	Prepared:	11/08/19 10:05	Analyzed:	11/11/19 14:59
Solids:	55.18	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110594	Sequence:	9K11044	Calibration:	A9I2405
Instrument:	SV-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	10	0.0100	U
118-74-1	Hexachlorobenzene	10	0.0100	U
87-68-3	Hexachlorobutadiene	10	0.0250	U
67-72-1	Hexachloroethane	10	0.0250	U
95-48-7	2-Methylphenol	10	0.0250	U
NA	3+4-Methylphenol(s)	10	0.0250	U
98-95-3	Nitrobenzene	10	0.0250	U
87-86-5	Pentachlorophenol (PCP)	10	0.0500	U
110-86-1	Pyridine	10	0.0500	U
95-95-4	2,4,5-Trichlorophenol	10	0.0250	U
88-06-2	2,4,6-Trichlorophenol	10	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0132	53	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0184	73	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00367	15	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0223	89	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00621	25	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0191	76	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	428749	6.386	354889	6.386	
Naphthalene-d8 (ISTD)	1503060	7.653	1325771	7.648	
Acenaphthene-d10 (ISTD)	809623	9.424	701244	9.424	
Phenanthrene-d10 (ISTD)	1442340	10.938	1280504	10.938	
Chrysene-d12 (ISTD)	1539806	14.526	1168241	14.527	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110594 Batch Matrix: Soil
Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110594-BLK1	J11081910.D	11/08/19 10:05	
LCS	9110594-BS1	J11081911.D	11/08/19 10:05	
LCS Dup	9110594-BSD1	J11081912.D	11/08/19 10:05	
PDI-083SC-C-00-08-191028	A9J1007-01RE1	J11111912.D	11/08/19 10:05	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET

1311/8270D

Laboratory:	Apex Laboratories			SDG:	Gasco PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9110594-BLK1	File ID:	J11081910.D
Prepared:	11/08/19 10:05	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	11/08/19 16:22	Instrument:	SV-GCMS10		
Batch:	9110594	Sequence:	9K08049	Calibration:	A9I2405

CAS NO.	COMPOUND	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	0.00100	U
118-74-1	Hexachlorobenzene	0.00100	U
87-68-3	Hexachlorobutadiene	0.00250	U
67-72-1	Hexachloroethane	0.00250	U
95-48-7	2-Methylphenol	0.00250	U
NA	3+4-Methylphenol(s)	0.00250	U
98-95-3	Nitrobenzene	0.00250	U
87-86-5	Pentachlorophenol (PCP)	0.00500	U
110-86-1	Pyridine	0.00500	U
95-95-4	2,4,5-Trichlorophenol	0.00250	U
88-06-2	2,4,6-Trichlorophenol	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0139	56	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0157	63	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00442	18	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0216	86	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00840	34	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0223	89	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	280621	6.386	260132	6.386	
Naphthalene-d8 (ISTD)	999012	7.648	965320	7.648	
Acenaphthene-d10 (ISTD)	530345	9.424	513617	9.429	
Phenanthrene-d10 (ISTD)	941423	10.937	945673	10.937	
Chrysene-d12 (ISTD)	998583	14.526	825397	14.526	

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9110594	Laboratory ID:	9110594-BS1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
2,4-Dinitrotoluene	0.0400	0.0389	97	57 - 128
Hexachlorobenzene	0.0400	0.0379	95	52 - 125
Hexachlorobutadiene	0.0400	0.0338	85	22 - 124
Hexachloroethane	0.0400	0.0309	77	21 - 120
2-Methylphenol	0.0400	0.0257	64	30 - 120
3+4-Methylphenol(s)	0.0400	0.0239	60	29 - 120
Nitrobenzene	0.0400	0.0269	67	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0355	89	35 - 138
Pyridine	0.0400	0.0134	33	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0387	97	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0395	99	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9110594	Laboratory ID:	9110594-BSD1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
2,4-Dinitrotoluene	0.0400	0.0403	101	3	30	57 - 128
Hexachlorobenzene	0.0400	0.0376	94	1	30	52 - 125
Hexachlorobutadiene	0.0400	0.0351	88	4	30	22 - 124
Hexachloroethane	0.0400	0.0333	83	8	30	21 - 120
2-Methylphenol	0.0400	0.0277	69	7	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0255	64	6	30	29 - 120
Nitrobenzene	0.0400	0.0279	70	3	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0369	92	4	30	35 - 138
Pyridine	0.0400	0.0144	36	7	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0406	101	5	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0421	105	6	30	50 - 125

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9I19035	Instrument:	SV-GCMS10
Matrix:	Sediment	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9I19035-TUN1	J09191916.D	09/20/19 00:22
Initial Cal Blank	9I19035-ICB1	J09191917.D	09/20/19 00:49
Cal Standard	9I19035-CAL1	J09191918.D	09/20/19 01:24
Cal Standard	9I19035-CAL2	J09191919.D	09/20/19 01:59
Cal Standard	9I19035-CAL3	J09191920.D	09/20/19 02:34
Cal Standard	9I19035-CAL4	J09191921.D	09/20/19 03:09
Cal Standard	9I19035-CAL5	J09191922.D	09/20/19 03:44
Cal Standard	9I19035-CAL6	J09191923.D	09/20/19 04:19
Cal Standard	9I19035-CAL7	J09191924.D	09/20/19 04:54
Cal Standard	9I19035-CAL8	J09191925.D	09/20/19 05:29
Cal Standard	9I19035-CAL9	J09191926.D	09/20/19 06:04
Cal Standard	9I19035-CALA	J09191927.D	09/20/19 06:39
Initial Cal Check	9I19035-ICV1	J09191929.D	09/20/19 07:50

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K08049	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K08049-TUN1	J11081907.D	11/08/19 14:42
Calibration Check	9K08049-CCV1	J11081908.D	11/08/19 15:10
Calibration Blank	9K08049-CCB1	J11081909.D	11/08/19 15:46
Blank	9110594-BLK1	J11081910.D	11/08/19 16:22
LCS	9110594-BS1	J11081911.D	11/08/19 16:57
LCS Dup	9110594-BSD1	J11081912.D	11/08/19 17:33

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K11044	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K11044-TUN1	J11111908.D	11/11/19 12:33
Calibration Check	9K11044-CCV1	J11111909.D	11/11/19 13:01
Calibration Blank	9K11044-CCB1	J11111910.D	11/11/19 13:37
PDI-083SC-C-00-08-191028	A9J1007-01RE1	J11111912.D	11/11/19 14:59

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	J09191916.D	Injection Date:	09/20/19
Instrument ID:	SV-GCMS10	Injection Time:	00:22
Sequence:	9I19035	Lab Sample ID:	9I19035-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.61	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.51	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.90	PASS
m/z 365	1 - 100% of m/z 198	3.17	PASS
m/z 441	Less than 150% of m/z 443	73.90	PASS
m/z 442	0.1 - 200% of m/z 198	95.52	PASS
m/z 443	15 - 24% of m/z 442	19.71	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	J11081907.D	Injection Date:	11/08/19
Instrument ID:	SV-GCMS10	Injection Time:	14:42
Sequence:	9K08049	Lab Sample ID:	9K08049-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.70	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.49	PASS
m/z 197	Less than 2% of m/z 198	0.13	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	7.09	PASS
m/z 365	1 - 100% of m/z 198	3.39	PASS
m/z 441	Less than 150% of m/z 443	76.95	PASS
m/z 442	0.1 - 200% of m/z 198	106.24	PASS
m/z 443	15 - 24% of m/z 442	19.67	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	J11111908.D	Injection Date:	11/11/19
Instrument ID:	SV-GCMS10	Injection Time:	12:33
Sequence:	9K11044	Lab Sample ID:	9K11044-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.44	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.52	PASS
m/z 197	Less than 2% of m/z 198	0.11	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.97	PASS
m/z 365	1 - 100% of m/z 198	3.41	PASS
m/z 441	Less than 150% of m/z 443	75.59	PASS
m/z 442	0.1 - 200% of m/z 198	106.29	PASS
m/z 443	15 - 24% of m/z 442	19.93	PASS

INITIAL CALIBRATION DATA (Summary)

1311/8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9I2405 Date: 09/24/19 12:40 Instrument: SV-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4-Dinitrotoluene	0.3649887	XXX	21.34667	9.806875	0.113925				
Hexachlorobenzene	0.2707358	Ave	10.60551	10.7482	4.451335E-02			20	
Hexachlorobutadiene	0.1891523	Ave	6.739156	7.9913	2.888985E-02			20	
Hexachloroethane	0.4806864	Ave	5.451873	7.077	2.898215E-02			20	
2-Methylphenol	1.03014	Ave	9.222719	6.8119	8.482721E-02			20	
3+4-Methylphenol(s)	1.277354	Ave	11.32459	6.961556	8.520401E-02			20	
Nitrobenzene	1.221036	Ave	7.439446	7.1363	0.1023456			20	
Pentachlorophenol (PCP)	0.1189653	XXX	26.10993	10.94237	3.850139E-02				
Pyridine	1.298764	Ave	10.27213	3.950556	0.8873878			20	
2,4,5-Trichlorophenol	0.3514615	XXX	18.51245	8.876	5.529415E-02				
2,4,6-Trichlorophenol	0.3575479	XXX	19.98563	8.842555	5.254443E-02				
Nitrobenzene-d5 (Surr)	1.205168	Ave	9.142619	7.1168	8.867008E-02			20	
2-Fluorobiphenyl (Surr)	1.565217	Ave	12.06569	8.927444	2.774874E-02			20	
Phenol-d6 (Surr)	1.553469	Ave	11.40827	6.2088	0.1181197			20	
p-Terphenyl-d14 (Surr)	0.9216776	Ave	6.530579	12.9267	5.442172E-02			20	
2-Fluorophenol (Surr)	1.213667	Ave	14.14738	5.3054	0.1655531			20	
2,4,6-Tribromophenol (Surr)	0.1092555	XXX	18.24175	10.42356	6.009604E-02				

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

1311/8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9I2405

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS10

Calibration Date: 09/24/19 12:40

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	20	~~0.1603367~~	50	~~0.1627974~~	100	0.2214885	200	0.2765041	500	0.369336	1000	0.3982255
Hexachlorobenzene	20	0.3002082	50	0.2799895	100	0.2916868	200	0.277925	500	0.2949459	1000	0.2857907
Hexachlorobutadiene	20	0.1839228	50	0.199773	100	0.1954379	200	0.2004045	500	0.2006305	1000	0.1988902
Hexachloroethane	20	0.4342819	50	0.4549996	100	0.4516267	200	0.4715052	500	0.4944285	1000	0.4835438
2-Methylphenol	20	0.9295757	50	0.8796476	100	0.9810251	200	1.076563	500	1.154826	1000	1.147864
3+4-Methylphenol(s)	20	1.06531	50	1.132761	100	1.159969	200	1.345101	500	1.440506	1000	1.458462
Nitrobenzene	20	1.075593	50	1.183026	100	1.189288	200	1.30162	500	1.340887	1000	1.326686
Pentachlorophenol (PCP)	20	~~8.691609E-02~~	50	~~5.118127E-02~~	100	7.761508E-02	200	6.955638E-02	500	0.1080871	1000	0.1222728
Pyridine	20	~~0.7561372~~	50	1.052968	100	1.276558	200	1.345625	500	1.118092	1000	1.285171
2,4,5-Trichlorophenol	20	~~0.1901559~~	50	0.2373804	100	0.2701951	200	0.3011386	500	0.3811527	1000	0.3898394
2,4,6-Trichlorophenol	20	~~0.1746999~~	50	0.2365366	100	0.2572544	200	0.3068435	500	0.3835634	1000	0.4024493
Nitrobenzene-d5 (Surr)	20	0.9806475	50	1.085379	100	1.135054	200	1.209032	500	1.31341	1000	1.321832
2-Fluorobiphenyl (Surr)	20	1.476909	50	1.609929	100	1.734744	200	1.751334	500	1.739556	1000	1.652173
Phenol-d6 (Surr)	20	1.197274	50	1.304845	100	1.445522	200	1.602349	500	1.667059	1000	1.681755
p-Terphenyl-d14 (Surr)	20	0.8205178	50	0.9023018	100	0.9773009	200	0.9592621	500	0.994643	1000	0.9688955
2-Fluorophenol (Surr)	20	0.9398586	50	1.045277	100	0.9521188	200	1.216931	500	1.280008	1000	1.263499
2,4,6-Tribromophenol (Surr)	20	~~6.623006E-02~~	50	7.092577E-02	100	8.598271E-02	200	9.861561E-02	500	0.1200291	1000	0.122147

INITIAL CALIBRATION DATA (Continued)

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9I2405
Instrument: SV-GCMS10
Matrix:
Calibration Date: 09/24/19 12:40

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	2000	0.4391508	4000	0.4369418	6000	0.4126319	8000	0.3656313				
Hexachlorobenzene	2000	0.2793127	4000	0.2519446	6000	0.2310087	8000	0.2145459				
Hexachlorobutadiene	2000	0.1905242	4000	0.1849175	6000	0.1738819	8000	0.1631409				
Hexachloroethane	2000	0.5034331	4000	0.5096268	6000	0.5004542	8000	0.5029646				
2-Methylphenol	2000	1.116896	4000	1.057322	6000	1.00091	8000	0.9567711				
3+4-Methylphenol(s)	2000	1.400529	4000	1.304656	6000	1.18889	8000	~~1.118737~~				
Nitrobenzene	2000	1.280974	4000	1.234394	6000	1.165306	8000	1.112587				
Pentachlorophenol (PCP)	2000	0.1418302	4000	0.1484859	6000	0.1453844	8000	0.1384905				
Pyridine	2000	1.375861	4000	1.417463	6000	1.442542	8000	1.374592				
2,4,5-Trichlorophenol	2000	0.4178827	4000	0.4063886	6000	0.3928207	8000	0.3663551				
2,4,6-Trichlorophenol	2000	0.4232436	4000	0.4186057	6000	0.4009108	8000	0.3885235				
Nitrobenzene-d5 (Surr)	2000	1.281854	4000	1.28613	6000	1.24582	8000	1.192526				
2-Fluorobiphenyl (Surr)	2000	1.564374	4000	1.350787	6000	1.207146	8000	~~1.092707~~				
Phenol-d6 (Surr)	2000	1.673553	4000	1.705426	6000	1.658679	8000	1.598233				
p-Terphenyl-d14 (Surr)	2000	0.953339	4000	0.9235964	6000	0.8801238	8000	0.8367959				
2-Fluorophenol (Surr)	2000	1.332531	4000	1.380766	6000	1.371479	8000	1.354202				
2,4,6-Tribromophenol (Surr)	2000	0.1302975	4000	0.1246898	6000	0.1182398	8000	0.1123724				

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS10	Calibration:	A9I2405
Lab File ID:	J09191929.D		
Sequence:	9I19035	Inject Date:	09/20/19
Lab Sample ID:	9I19035-ICV1	Inject Time:	07:50

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4-Dinitrotoluene	1000	1050	4.8	70 - 130
Hexachlorobenzene	1000	1010	1.0	70 - 130
Hexachlorobutadiene	1000	1040	3.7	70 - 130
Hexachloroethane	1000	1040	4.1	70 - 130
2-Methylphenol	1000	1050	5.3	70 - 130
3+4-Methylphenol(s)	1000	1070	6.7	70 - 130
Nitrobenzene	1000	1060	5.8	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130
Pyridine	1000	896	-10.4	70 - 130
2,4,5-Trichlorophenol	1000	1050	4.8	70 - 130
2,4,6-Trichlorophenol	1000	1030	3.4	70 - 130
Nitrobenzene-d5 (Surr)	1000	1070	6.6	70 - 130
2-Fluorobiphenyl (Surr)	1000	1060	6.2	70 - 130
Phenol-d6 (Surr)	1000	1020	1.6	70 - 130
p-Terphenyl-d14 (Surr)	1000	1060	6.1	70 - 130
2-Fluorophenol (Surr)	1000	981	-1.9	70 - 130
2,4,6-Tribromophenol (Surr)	1000	1040	4.1	70 - 130

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS10	Calibration:	A9I2405
Lab File ID:	J11081908.D	Calibration Date:	09/24/19 12:40
Sequence:	9K08049	Injection Date:	11/08/19
Lab Sample ID:	9K08049-CCV1	Injection Time:	15:10

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4-Dinitrotoluene	XXX	1000	1080	7.8				20
Hexachlorobenzene	Ave	1000	1070		0.2707358	0.2900664	7.1	20
Hexachlorobutadiene	Ave	1000	1140		0.1891523	0.2164464	14.4	20
Hexachloroethane	Ave	1000	1130		0.4806864	0.5431935	13.0	20
2-Methylphenol	Ave	1000	932		1.03014	0.9596666	-6.8	20
3+4-Methylphenol(s)	Ave	1000	952		1.277354	1.216636	-4.8	20
Nitrobenzene	Ave	1000	845		1.221036	1.031607	-15.5	20
Pentachlorophenol (PCP)	XXX	1000	929	-7.1				20
Pyridine	Ave	1000	798		1.298764	1.037058	-20.2*	20
2,4,5-Trichlorophenol	XXX	1000	1110	11.2				20
2,4,6-Trichlorophenol	XXX	1000	1120	12.3				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS10	Calibration:	A9I2405
Lab File ID:	J11111909.D	Calibration Date:	09/24/19 12:40
Sequence:	9K11044	Injection Date:	11/11/19
Lab Sample ID:	9K11044-CCV1	Injection Time:	13:01

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4-Dinitrotoluene	XXX	1000	1060	5.6				20
Hexachlorobenzene	Ave	1000	1020		0.2707358	0.2765005	2.1	20
Hexachlorobutadiene	Ave	1000	1090		0.1891523	0.2063826	9.1	20
Hexachloroethane	Ave	1000	1070		0.4806864	0.5166066	7.5	20
2-Methylphenol	Ave	1000	968		1.03014	0.9968525	-3.2	20
3+4-Methylphenol(s)	Ave	1000	968		1.277354	1.236488	-3.2	20
Nitrobenzene	Ave	1000	894		1.221036	1.091192	-10.6	20
Pentachlorophenol (PCP)	XXX	1000	910	-9.0				20
Pyridine	Ave	1000	807		1.298764	1.047984	-19.3	20
2,4,5-Trichlorophenol	XXX	1000	1060	6.4				20
2,4,6-Trichlorophenol	XXX	1000	1080	8.5				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9I19035	Instrument:	SV-GCMS10
Matrix:	Sediment	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9I19035-ICV1)			Lab File ID: J09191929.D		Analyzed: 09/20/19 07:50			
Nitrobenzene-d5 (Surr)	1000	107	70 - 130	7.113	7.1168	-0.0038	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	106	70 - 130	8.927	8.927444	-0.0004	+/-1.0	
Phenol-d6 (Surr)	1000	102	70 - 130	6.209	6.2088	0.0002	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	106	70 - 130	12.917	12.9267	-0.0097	+/-1.0	
2-Fluorophenol (Surr)	1000	98	70 - 130	5.316	5.3054	0.0106	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	104	70 - 130	10.419	10.42356	-0.0046	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K08049	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K08049-CCV1)			Lab File ID: J11081908.D		Analyzed: 11/08/19 15:10			
Nitrobenzene-d5 (Surr)	1000	87	80 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	106	80 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	1000	90	80 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	109	80 - 120	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	1000	107	80 - 120	5.129	5.3054	-0.1764	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	99	80 - 120	10.226	10.42356	-0.1976	+/-1.0	
Calibration Blank (9K08049-CCB1)			Lab File ID: J11081909.D		Analyzed: 11/08/19 15:46			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.1168	-7.1168	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.927444	-8.9274	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2088	-6.2088	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9267	-12.9267	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.3054	-5.3054	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.42356	-10.4236	+/-1.0	
Blank (9110594-BLK1)			Lab File ID: J11081910.D		Analyzed: 11/08/19 16:22			
Nitrobenzene-d5 (Surr)	0.0250	56	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	63	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	18	10 - 120	6.043	6.2088	-0.1658	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	86	50 - 133	12.67	12.9267	-0.2567	+/-1.0	
2-Fluorophenol (Surr)	0.0250	34	19 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	89	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS (9110594-BS1)			Lab File ID: J11081911.D		Analyzed: 11/08/19 16:57			
Nitrobenzene-d5 (Surr)	0.0250	68	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	86	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	24	10 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	95	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	42	19 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	92	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS Dup (9110594-BSD1)			Lab File ID: J11081912.D		Analyzed: 11/08/19 17:33			
Nitrobenzene-d5 (Surr)	0.0250	70	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	89	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	27	10 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	97	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	47	19 - 120	5.129	5.3054	-0.1764	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	91	43 - 140	10.226	10.42356	-0.1976	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K11044	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K11044-CCV1)			Lab File ID: J11111909.D		Analyzed: 11/11/19 13:01			
Nitrobenzene-d5 (Surr)	1000	91	80 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	103	80 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	1000	93	80 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	107	80 - 120	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	1000	100	80 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	95	80 - 120	10.226	10.42356	-0.1976	+/-1.0	
Calibration Blank (9K11044-CCB1)			Lab File ID: J11111910.D		Analyzed: 11/11/19 13:37			
Nitrobenzene-d5 (Surr)			44 - 120	6.953	7.1168	-0.1638	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	8.793	8.927444	-0.1344	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2088	-6.2088	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9267	-12.9267	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.3054	-5.3054	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.42356	-10.4236	+/-1.0	
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)			Lab File ID: J11111912.D		Analyzed: 11/11/19 14:59			
Nitrobenzene-d5 (Surr)	0.0250	53	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	73	44 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	0.0250	15	10 - 120	6.044	6.2088	-0.1648	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	89	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	25	19 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	76	43 - 140	10.226	10.42356	-0.1976	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K11044	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K11044-CCV1)			Lab File ID: J11111909.D			Analyzed: 11/11/19 13:01			
1,4-Dichlorobenzene-d4 (ISTD)	354889	6.386	283511	6.568	125	50 - 200	-0.1820	+/-0.50	
Naphthalene-d8 (ISTD)	1325771	7.648	1143968	7.835	116	50 - 200	-0.1870	+/-0.50	
Acenaphthene-d10 (ISTD)	701244	9.424	583825	9.616	120	50 - 200	-0.1920	+/-0.50	
Phenanthrene-d10 (ISTD)	1280504	10.938	1065192	11.135	120	50 - 200	-0.1970	+/-0.50	
Chrysene-d12 (ISTD)	1168241	14.527	1048464	14.917	111	50 - 200	-0.3900	+/-0.50	
Calibration Blank (9K11044-CCB1)			Lab File ID: J11111910.D			Analyzed: 11/11/19 13:37			
1,4-Dichlorobenzene-d4 (ISTD)	398439	6.386	354889	6.386	112	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	1504804	7.648	1325771	7.648	114	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	792283	9.424	701244	9.424	113	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1436811	10.932	1280504	10.938	112	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	1457139	14.526	1168241	14.527	125	50 - 200	-0.0010	+/-0.50	
PDI-083SC-C-00-08-191028 (A9J1007-01RE1)			Lab File ID: J11111912.D			Analyzed: 11/11/19 14:59			
1,4-Dichlorobenzene-d4 (ISTD)	428749	6.386	354889	6.386	121	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	1503060	7.653	1325771	7.648	113	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	809623	9.424	701244	9.424	115	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1442340	10.938	1280504	10.938	113	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	1539806	14.526	1168241	14.527	132	50 - 200	-0.0010	+/-0.50	

HOLDING TIME SUMMARY

1311/8270D

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/08/19 10:05	10.80	7.00	11/11/19 14:59	3.20	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: EPA 6020A

ANALYSES DATA PACKAGE COVER PAGE

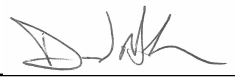
EPA 6020A

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Arsenic	0.250	0.500	mg/kg
Barium	0.250	0.500	mg/kg
Cadmium	0.0500	0.100	mg/kg
Chromium	0.250	0.500	mg/kg
Lead	0.0500	0.100	mg/kg
Mercury	0.0200	0.0400	mg/kg
Selenium	0.250	0.500	mg/kg
Silver	0.0500	0.100	mg/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-083SC-C-00-08-191028

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J1007-01
File ID: 9K01022-100
Sampled: 10/28/19 14:52
Prepared: 11/01/19 10:01
Analyzed: 11/01/19 19:24
Solids: 55.18
Preparation: EPA 3051A
Initial/Final: 0.501 g / 50 mL
Batch: 9110369
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	6.34	5		EPA 6020A
7440-39-3	Barium	216	5		EPA 6020A
7440-43-9	Cadmium	0.459	5		EPA 6020A
7440-47-3	Chromium	46.7	5		EPA 6020A
7439-92-1	Lead	29.0	5		EPA 6020A
7782-49-2	Selenium	0.452	5	U	EPA 6020A
7440-22-4	Silver	0.689	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-083SC-C-00-08-191028

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J1007-01RE1
File ID: 9K04033-042
Sampled: 10/28/19 14:52
Prepared: 11/01/19 10:01
Analyzed: 11/04/19 14:56
Solids: 55.18
Preparation: EPA 3051A
Initial/Final: 0.501 g / 50 mL
Batch: 9110369
Sequence: 9K04033
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.387	5		EPA 6020A

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110369 Batch Matrix: Sediment Preparation: EPA 3051A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110369-BLK1	9K01022-096	11/01/19 10:01	
Blank	9110369-BLK2	9K04033-038	11/01/19 10:01	
LCS	9110369-BS1	9K01022-097	11/01/19 10:01	
LCS	9110369-BS2	9K04033-039	11/01/19 10:01	
PDI-083SC-C-00-08-191028	A9J1007-01	9K01022-100	11/01/19 10:01	
PDI-083SC-C-00-08-191028	A9J1007-01RE1	9K04033-042	11/01/19 10:01	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET

EPA 6020A

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110369-BLK1	File ID:	9K01022-096
Prepared:	11/01/19 10:01	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	11/01/19 19:05	Instrument:	ICPMS5		
Batch:	9110369	Sequence:	9K01022	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7440-38-2	Arsenic	0.240	U
7440-39-3	Barium	0.240	U
7440-43-9	Cadmium	0.0481	U
7440-47-3	Chromium	0.240	U
7439-92-1	Lead	0.0481	U
7782-49-2	Selenium	0.240	U
7440-22-4	Silver	0.0481	U

METHOD BLANK DATA SHEET

EPA 6020A

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110369-BLK2	File ID:	9K04033-038
Prepared:	11/01/19 10:01	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	11/04/19 14:37	Instrument:	ICPMS5		
Batch:	9110369	Sequence:	9K04033	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7439-97-6	Mercury	0.0192	U

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110369	Laboratory ID:	9110369-BS1
Preparation:	EPA 3051A	Initial/Final:	0.5 g / 50 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Arsenic	25.0	26.4	106	80 - 120
Barium	25.0	28.6	114	80 - 120
Cadmium	25.0	26.0	104	80 - 120
Chromium	25.0	27.0	108	80 - 120
Lead	25.0	24.6	98	80 - 120
Selenium	12.5	12.5	100	80 - 120
Silver	12.5	14.0	112	80 - 120

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110369	Laboratory ID:	9110369-BS2
Preparation:	EPA 3051A	Initial/Final:	0.5 g / 50 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Mercury	0.500	0.503	101	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01022	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K01022-ICV1	9K01022-013	11/01/19 11:59
Initial Cal Blank	9K01022-ICB1	9K01022-014	11/01/19 12:04
Instrument RL Check	9K01022-CRL1	9K01022-015	11/01/19 12:09
Instrument RL Check	9K01022-CRL2	9K01022-016	11/01/19 12:13
Instrument RL Check	9K01022-CRL3	9K01022-017	11/01/19 12:19
Calibration Check	9K01022-CCV1	9K01022-033	11/01/19 13:33
Calibration Check	9K01022-CCV2	9K01022-034	11/01/19 13:38
Calibration Blank	9K01022-CCB1	9K01022-035	11/01/19 13:43
Calibration Check	9K01022-CCV3	9K01022-046	11/01/19 14:55
Calibration Check	9K01022-CCV4	9K01022-047	11/01/19 14:59
Calibration Blank	9K01022-CCB2	9K01022-048	11/01/19 15:04
Calibration Blank	9K01022-CCB3	9K01022-049	11/01/19 15:09
Instrument RL Check	9K01022-CRL4	9K01022-050	11/01/19 15:13
Instrument RL Check	9K01022-CRL5	9K01022-051	11/01/19 15:18
Instrument RL Check	9K01022-CRL6	9K01022-052	11/01/19 15:23
Instrument RL Check	9K01022-CRL7	9K01022-053	11/01/19 15:28
Calibration Check	9K01022-CCV5	9K01022-064	11/01/19 16:19
Calibration Blank	9K01022-CCB4	9K01022-065	11/01/19 16:23
Calibration Check	9K01022-CCV6	9K01022-076	11/01/19 17:33
Calibration Blank	9K01022-CCB5	9K01022-077	11/01/19 17:37
Instrument RL Check	9K01022-CRL8	9K01022-078	11/01/19 17:42
Instrument RL Check	9K01022-CRL9	9K01022-079	11/01/19 17:47
Instrument RL Check	9K01022-CRLA	9K01022-080	11/01/19 17:51
Instrument RL Check	9K01022-CRLB	9K01022-081	11/01/19 17:56
Calibration Check	9K01022-CCV7	9K01022-092	11/01/19 18:47
Calibration Blank	9K01022-CCB6	9K01022-093	11/01/19 18:51
Blank	9110369-BLK1	9K01022-096	11/01/19 19:05
LCS	9110369-BS1	9K01022-097	11/01/19 19:10
PDI-083SC-C-00-08-191028	A9J1007-01	9K01022-100	11/01/19 19:24
Calibration Check	9K01022-CCV8	9K01022-104	11/01/19 19:42
Calibration Blank	9K01022-CCB7	9K01022-105	11/01/19 19:47
Calibration Check	9K01022-CCV9	9K01022-113	11/01/19 20:30
Calibration Blank	9K01022-CCB8	9K01022-114	11/01/19 20:35

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01022	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Instrument RL Check	9K01022-CRLC	9K01022-115	11/01/19 20:39
Instrument RL Check	9K01022-CRLD	9K01022-116	11/01/19 20:44
Instrument RL Check	9K01022-CRLE	9K01022-117	11/01/19 20:49
Instrument RL Check	9K01022-CRLF	9K01022-118	11/01/19 20:53

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K04033	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K04033-ICV1	9K04033-013	11/04/19 12:26
Initial Cal Blank	9K04033-ICB2	9K04033-015	11/04/19 12:35
Instrument RL Check	9K04033-CRL1	9K04033-016	11/04/19 12:40
Instrument RL Check	9K04033-CRL2	9K04033-017	11/04/19 12:45
Instrument RL Check	9K04033-CRL3	9K04033-018	11/04/19 12:49
Calibration Check	9K04033-CCV1	9K04033-032	11/04/19 14:02
Calibration Blank	9K04033-CCB1	9K04033-033	11/04/19 14:07
Blank	9110369-BLK2	9K04033-038	11/04/19 14:37
LCS	9110369-BS2	9K04033-039	11/04/19 14:42
PDI-083SC-C-00-08-191028	A9J1007-01RE1	9K04033-042	11/04/19 14:56
Calibration Check	9K04033-CCV2	9K04033-044	11/04/19 15:05
Calibration Blank	9K04033-CCB2	9K04033-045	11/04/19 15:10
Calibration Check	9K04033-CCV3	9K04033-056	11/04/19 16:02
Calibration Blank	9K04033-CCB3	9K04033-058	11/04/19 16:11
Calibration Check	9K04033-CCV5	9K04033-069	11/04/19 17:02
Calibration Blank	9K04033-CCB4	9K04033-070	11/04/19 17:06
Instrument RL Check	9K04033-CRL4	9K04033-071	11/04/19 17:11
Instrument RL Check	9K04033-CRL5	9K04033-072	11/04/19 17:16
Instrument RL Check	9K04033-CRL6	9K04033-073	11/04/19 17:21
Calibration Check	9K04033-CCV6	9K04033-084	11/04/19 18:12
Calibration Blank	9K04033-CCB5	9K04033-085	11/04/19 18:16
Calibration Check	9K04033-CCV7	9K04033-096	11/04/19 19:07
Calibration Blank	9K04033-CCB6	9K04033-097	11/04/19 19:12
Calibration Check	9K04033-CCV8	9K04033-108	11/04/19 20:03
Calibration Blank	9K04033-CCB7	9K04033-109	11/04/19 20:08
Calibration Blank	9K04033-CCB8	9K04033-110	11/04/19 20:12
Calibration Check	9K04033-CCV9	9K04033-114	11/04/19 20:31
Calibration Blank	9K04033-CCB9	9K04033-115	11/04/19 20:35
Instrument RL Check	9K04033-CRL7	9K04033-116	11/04/19 20:40
Instrument RL Check	9K04033-CRL8	9K04033-117	11/04/19 20:45
Instrument RL Check	9K04033-CRL9	9K04033-118	11/04/19 20:50
Instrument RL Check	9K04033-CRLA	9K04033-119	11/04/19 20:54

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K01022-ICV1	Arsenic	100	99.9	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	98.7	99	ug/L	EPA 6020A
	Chromium	100	99.5	100	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	829	104	ng/L	EPA 6020A
	Selenium	40.0	40.2	100	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K01022-CCV1	Arsenic	100	99.6	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.8	99	ug/L	EPA 6020A
	Lead	100	104	104	ug/L	EPA 6020A
	Mercury	800	828	103	ng/L	EPA 6020A
	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV2	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	99.8	100	ug/L	EPA 6020A
	Chromium	100	98.5	99	ug/L	EPA 6020A
	Lead	100	103	103	ug/L	EPA 6020A
	Mercury	800	808	101	ng/L	EPA 6020A
	Selenium	40.0	41.0	103	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV3	Arsenic	100	101	101	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	99.2	99	ug/L	EPA 6020A
	Chromium	100	102	102	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	788	99	ng/L	EPA 6020A
	Selenium	40.0	40.1	100	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K01022-CCV4	Arsenic	100	99.4	99	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	102	102	ug/L	EPA 6020A
	Mercury	800	823	103	ng/L	EPA 6020A
	Selenium	40.0	40.2	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV5	Arsenic	100	99.8	100	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	101	101	ug/L	EPA 6020A
	Chromium	100	98.7	99	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	803	100	ng/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K01022-CCV5	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV6	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	101	101	ug/L	EPA 6020A
	Chromium	100	99.4	99	ug/L	EPA 6020A
	Lead	100	99.5	100	ug/L	EPA 6020A
	Mercury	800	800	100	ng/L	EPA 6020A
	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K01022-CCV7	Arsenic	100	103	103	ug/L	EPA 6020A
	Barium	100	108	108	ug/L	EPA 6020A
	Cadmium	100	99.4	99	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	94.2	94	ug/L	EPA 6020A
	Mercury	800	766	96	ng/L	EPA 6020A
	Selenium	40.0	40.6	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV8	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	109	109	ug/L	EPA 6020A
	Cadmium	100	99.4	99	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	93.0	93	ug/L	EPA 6020A
	Mercury	800	707	88 *	ng/L	EPA 6020A
	Selenium	40.0	40.2	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV9	Arsenic	100	101	101	ug/L	EPA 6020A
	Barium	100	110	110	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	102	102	ug/L	EPA 6020A
	Lead	100	93.6	94	ug/L	EPA 6020A
	Mercury	800	757	95	ng/L	EPA 6020A
	Selenium	40.0	40.4	101	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K04033-ICV1	Arsenic	100	98.8	99	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.6	99	ug/L	EPA 6020A
	Chromium	100	98.7	99	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	821	103	ng/L	EPA 6020A
	Selenium	40.0	39.5	99	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K04033-CCV1	Arsenic	100	97.9	98	ug/L	EPA 6020A
	Barium	100	102	102	ug/L	EPA 6020A
	Cadmium	100	99.6	100	ug/L	EPA 6020A
	Chromium	100	97.9	98	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	798	100	ng/L	EPA 6020A
	Selenium	40.0	39.9	100	ug/L	EPA 6020A
	Silver	40.0	41.5	104	ug/L	EPA 6020A
9K04033-CCV2	Arsenic	100	98.3	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.1	98	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	98.5	99	ug/L	EPA 6020A
	Mercury	800	789	99	ng/L	EPA 6020A
	Selenium	40.0	40.0	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV3	Arsenic	100	99.0	99	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	98.1	98	ug/L	EPA 6020A
	Chromium	100	99.4	99	ug/L	EPA 6020A
	Lead	100	95.9	96	ug/L	EPA 6020A
	Mercury	800	774	97	ng/L	EPA 6020A
	Selenium	40.0	39.9	100	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K04033-CCV5	Arsenic	100	102	102	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	98.8	99	ug/L	EPA 6020A
	Chromium	100	100	100	ug/L	EPA 6020A
	Lead	100	95.9	96	ug/L	EPA 6020A
	Mercury	800	751	94	ng/L	EPA 6020A
	Selenium	40.0	40.0	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV6	Arsenic	100	98.4	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	99.1	99	ug/L	EPA 6020A
	Chromium	100	97.7	98	ug/L	EPA 6020A
	Lead	100	94.7	95	ug/L	EPA 6020A
	Mercury	800	766	96	ng/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K04033-CCV6	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV7	Arsenic	100	97.8	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	96.1	96	ug/L	EPA 6020A
	Mercury	800	754	94	ng/L	EPA 6020A
	Selenium	40.0	40.1	100	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K04033-CCV8	Arsenic	100	97.9	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.6	99	ug/L	EPA 6020A
	Chromium	100	100	100	ug/L	EPA 6020A
	Lead	100	94.8	95	ug/L	EPA 6020A
	Mercury	800	744	93	ng/L	EPA 6020A
	Selenium	40.0	40.6	101	ug/L	EPA 6020A
	Silver	40.0	41.0	103	ug/L	EPA 6020A
9K04033-CCV9	Arsenic	100	98.5	99	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	94.3	94	ug/L	EPA 6020A
	Mercury	800	730	91	ng/L	EPA 6020A
	Selenium	40.0	41.2	103	ug/L	EPA 6020A
	Silver	40.0	41.6	104	ug/L	EPA 6020A

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-ICB1	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB1	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB2	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB3	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K01022-CCB4	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-CCB4	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB5	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB6	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB7	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB8	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-CCB8	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-ICB2	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB1	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB2	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
9K04033-CCB3	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K04033-CCB4	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-CCB4	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K04033-CCB5	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB6	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB7	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB8	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-CCB8	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9K04033-CCB9	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL1	Arsenic	0.180	0.209	116	ug/L	70 - 130
	Barium	0.180	0.210	116	ug/L	70 - 130
	Cadmium	0.180	0.230	128	ug/L	70 - 130
	Chromium	0.180	0.192	107	ug/L	70 - 130
	Lead	0.180	0.232	129	ug/L	70 - 130
	Mercury	7.20	8.20	114	ng/L	70 - 130
	Silver	0.180	0.167	93	ug/L	70 - 130
9K01022-CRL2	Arsenic	0.900	0.952	106	ug/L	70 - 130
	Barium	0.900	0.956	106	ug/L	70 - 130
	Cadmium	0.900	0.923	103	ug/L	70 - 130
	Chromium	0.900	0.879	98	ug/L	70 - 130
	Lead	0.900	0.972	108	ug/L	70 - 130
	Mercury	36.0	37.2	103	ng/L	70 - 130
	Selenium	0.900	0.856	95	ug/L	70 - 130
	Silver	0.900	0.926	103	ug/L	70 - 130
9K01022-CRL3	Arsenic	1.80	1.81	101	ug/L	70 - 130
	Barium	1.80	1.93	107	ug/L	70 - 130
	Cadmium	1.80	1.80	100	ug/L	70 - 130
	Chromium	1.80	1.78	99	ug/L	70 - 130
	Lead	1.80	1.85	103	ug/L	70 - 130
	Mercury	72.0	73.3	102	ng/L	70 - 130
	Selenium	1.80	1.87	104	ug/L	70 - 130
	Silver	1.80	1.82	101	ug/L	70 - 130
9K01022-CRL4	Arsenic	0.180	0.179	99	ug/L	70 - 130
	Barium	0.180	0.188	104	ug/L	70 - 130
	Cadmium	0.180	0.194	108	ug/L	70 - 130
	Chromium	0.180	0.199	110	ug/L	70 - 130
	Lead	0.180	0.188	105	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL4	Mercury	7.20	6.73	94	ng/L	70 - 130
	Selenium	0.180	0.178	99	ug/L	70 - 130
	Silver	0.180	0.184	102	ug/L	70 - 130
9K01022-CRL5	Arsenic	0.900	0.984	109	ug/L	70 - 130
	Barium	0.900	0.967	107	ug/L	70 - 130
	Cadmium	0.900	0.978	109	ug/L	70 - 130
	Chromium	0.900	0.894	99	ug/L	70 - 130
	Lead	0.900	0.936	104	ug/L	70 - 130
	Mercury	36.0	42.3	117	ng/L	70 - 130
	Selenium	0.900	0.856	95	ug/L	70 - 130
	Silver	0.900	0.913	101	ug/L	70 - 130
9K01022-CRL6	Arsenic	1.80	1.87	104	ug/L	70 - 130
	Barium	1.80	1.88	104	ug/L	70 - 130
	Cadmium	1.80	1.91	106	ug/L	70 - 130
	Chromium	1.80	1.81	101	ug/L	70 - 130
	Lead	1.80	1.90	105	ug/L	70 - 130
	Mercury	72.0	87.4	121	ng/L	70 - 130
	Selenium	1.80	1.83	102	ug/L	70 - 130
	Silver	1.80	1.91	106	ug/L	70 - 130
9K01022-CRL7	Arsenic	3.60	3.60	100	ug/L	70 - 130
	Barium	3.60	3.86	107	ug/L	70 - 130
	Cadmium	3.60	3.72	103	ug/L	70 - 130
	Chromium	3.60	3.59	100	ug/L	70 - 130
	Lead	3.60	3.76	105	ug/L	70 - 130
	Mercury	144	158	110	ng/L	70 - 130
	Selenium	3.60	3.79	105	ug/L	70 - 130
	Silver	3.60	3.67	102	ug/L	70 - 130
9K01022-CRL8	Arsenic	0.180	0.204	114	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL8	Barium	0.180	0.184	102	ug/L	70 - 130
	Cadmium	0.180	0.181	101	ug/L	70 - 130
	Chromium	0.180	0.184	102	ug/L	70 - 130
	Lead	0.180	0.191	106	ug/L	70 - 130
	Mercury	7.20	5.17	72	ng/L	70 - 130
	Selenium	0.180	0.194	108	ug/L	70 - 130
	Silver	0.180	0.205	114	ug/L	70 - 130
9K01022-CRL9	Arsenic	0.900	0.891	99	ug/L	70 - 130
	Barium	0.900	1.00	111	ug/L	70 - 130
	Cadmium	0.900	0.910	101	ug/L	70 - 130
	Chromium	0.900	0.895	99	ug/L	70 - 130
	Lead	0.900	0.948	105	ug/L	70 - 130
	Mercury	36.0	40.9	114	ng/L	70 - 130
	Selenium	0.900	0.932	104	ug/L	70 - 130
	Silver	0.900	0.927	103	ug/L	70 - 130
9K01022-CRLA	Arsenic	1.80	1.81	101	ug/L	70 - 130
	Barium	1.80	1.96	109	ug/L	70 - 130
	Cadmium	1.80	1.88	104	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.90	106	ug/L	70 - 130
	Mercury	72.0	76.3	106	ng/L	70 - 130
	Selenium	1.80	1.94	108	ug/L	70 - 130
	Silver	1.80	1.83	102	ug/L	70 - 130
9K01022-CRLB	Arsenic	3.60	3.80	106	ug/L	70 - 130
	Barium	3.60	3.98	110	ug/L	70 - 130
	Cadmium	3.60	3.74	104	ug/L	70 - 130
	Chromium	3.60	3.50	97	ug/L	70 - 130
	Lead	3.60	3.75	104	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRLB	Mercury	144	140	97	ng/L	70 - 130
	Selenium	3.60	3.64	101	ug/L	70 - 130
	Silver	3.60	3.64	101	ug/L	70 - 130
9K01022-CRLC	Arsenic	0.180	0.223	124	ug/L	70 - 130
	Barium	0.180	0.230	128	ug/L	70 - 130
	Cadmium	0.180	0.171	95	ug/L	70 - 130
	Chromium	0.180	0.183	102	ug/L	70 - 130
	Lead	0.180	0.211	117	ug/L	70 - 130
	Mercury	7.20	6.96	97	ng/L	70 - 130
	Selenium	0.180	0.219	121	ug/L	70 - 130
	Silver	0.180	0.204	113	ug/L	70 - 130
9K01022-CRLD	Arsenic	0.900	0.987	110	ug/L	70 - 130
	Barium	0.900	1.03	114	ug/L	70 - 130
	Cadmium	0.900	0.914	102	ug/L	70 - 130
	Chromium	0.900	0.938	104	ug/L	70 - 130
	Lead	0.900	0.875	97	ug/L	70 - 130
	Mercury	36.0	32.3	90	ng/L	70 - 130
	Selenium	0.900	0.942	105	ug/L	70 - 130
	Silver	0.900	0.930	103	ug/L	70 - 130
9K01022-CRLE	Arsenic	1.80	1.84	102	ug/L	70 - 130
	Barium	1.80	2.01	112	ug/L	70 - 130
	Cadmium	1.80	1.91	106	ug/L	70 - 130
	Chromium	1.80	1.83	102	ug/L	70 - 130
	Lead	1.80	1.74	97	ug/L	70 - 130
	Mercury	72.0	75.9	105	ng/L	70 - 130
	Selenium	1.80	1.81	101	ug/L	70 - 130
	Silver	1.80	1.84	102	ug/L	70 - 130
9K01022-CRLF	Arsenic	3.60	3.86	107	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization

Instrument ID: ICPMS5

Calibration: UNASSIGNED

Sequence: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRLF	Barium	3.60	4.09	114	ug/L	70 - 130
	Cadmium	3.60	3.71	103	ug/L	70 - 130
	Chromium	3.60	3.66	102	ug/L	70 - 130
	Lead	3.60	3.49	97	ug/L	70 - 130
	Mercury	144	133	92	ng/L	70 - 130
	Selenium	3.60	3.70	103	ug/L	70 - 130
	Silver	3.60	3.62	101	ug/L	70 - 130

* Values outside of QC limits

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL1	Arsenic	0.180	0.178	99	ug/L	70 - 130
	Cadmium	0.180	0.229	127	ug/L	70 - 130
	Chromium	0.180	0.218	121	ug/L	70 - 130
	Lead	0.180	0.231	128	ug/L	70 - 130
	Mercury	7.20	7.75	108	ng/L	70 - 130
	Selenium	0.180	0.187	104	ug/L	70 - 130
	Silver	0.180	0.183	102	ug/L	70 - 130
9K04033-CRL2	Arsenic	0.900	0.909	101	ug/L	70 - 130
	Barium	0.900	1.03	114	ug/L	70 - 130
	Cadmium	0.900	0.988	110	ug/L	70 - 130
	Chromium	0.900	0.949	105	ug/L	70 - 130
	Lead	0.900	0.970	108	ug/L	70 - 130
	Mercury	36.0	37.6	104	ng/L	70 - 130
	Selenium	0.900	0.916	102	ug/L	70 - 130
	Silver	0.900	0.918	102	ug/L	70 - 130
9K04033-CRL3	Arsenic	1.80	1.83	101	ug/L	70 - 130
	Barium	1.80	1.97	110	ug/L	70 - 130
	Cadmium	1.80	1.85	103	ug/L	70 - 130
	Chromium	1.80	1.82	101	ug/L	70 - 130
	Lead	1.80	1.90	106	ug/L	70 - 130
	Mercury	72.0	67.9	94	ng/L	70 - 130
	Selenium	1.80	1.75	97	ug/L	70 - 130
	Silver	1.80	1.77	98	ug/L	70 - 130
9K04033-CRL4	Arsenic	0.180	0.174	96	ug/L	70 - 130
	Barium	0.180	0.216	120	ug/L	70 - 130
	Cadmium	0.180	0.201	111	ug/L	70 - 130
	Chromium	0.180	0.183	101	ug/L	70 - 130
	Lead	0.180	0.200	111	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL4	Mercury	7.20	9.39	130	ng/L	70 - 130
	Selenium	0.180	0.182	101	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K04033-CRL5	Arsenic	0.900	0.901	100	ug/L	70 - 130
	Barium	0.900	1.02	114	ug/L	70 - 130
	Cadmium	0.900	0.903	100	ug/L	70 - 130
	Chromium	0.900	0.910	101	ug/L	70 - 130
	Lead	0.900	0.876	97	ug/L	70 - 130
	Mercury	36.0	32.6	90	ng/L	70 - 130
	Selenium	0.900	0.880	98	ug/L	70 - 130
	Silver	0.900	0.898	100	ug/L	70 - 130
9K04033-CRL6	Arsenic	1.80	1.88	105	ug/L	70 - 130
	Barium	1.80	2.01	112	ug/L	70 - 130
	Cadmium	1.80	1.81	101	ug/L	70 - 130
	Chromium	1.80	1.82	101	ug/L	70 - 130
	Lead	1.80	1.73	96	ug/L	70 - 130
	Mercury	72.0	68.9	96	ng/L	70 - 130
	Selenium	1.80	1.85	103	ug/L	70 - 130
	Silver	1.80	1.80	100	ug/L	70 - 130
9K04033-CRL7	Arsenic	0.180	0.146	81	ug/L	70 - 130
	Barium	0.180	0.220	122	ug/L	70 - 130
	Cadmium	0.180	0.186	104	ug/L	70 - 130
	Chromium	0.180	0.173	96	ug/L	70 - 130
	Lead	0.180	0.222	123	ug/L	70 - 130
	Mercury	7.20	6.17	86	ng/L	70 - 130
	Selenium	0.180	0.196	109	ug/L	70 - 130
	Silver	0.180	0.185	103	ug/L	70 - 130
9K04033-CRL8	Arsenic	0.900	0.872	97	ug/L	70 - 130

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL8	Barium	0.900	0.953	106	ug/L	70 - 130
	Cadmium	0.900	0.958	106	ug/L	70 - 130
	Chromium	0.900	0.867	96	ug/L	70 - 130
	Lead	0.900	0.894	99	ug/L	70 - 130
	Mercury	36.0	30.5	85	ng/L	70 - 130
	Selenium	0.900	0.966	107	ug/L	70 - 130
	Silver	0.900	0.876	97	ug/L	70 - 130
9K04033-CRL9	Arsenic	1.80	1.82	101	ug/L	70 - 130
	Barium	1.80	2.00	111	ug/L	70 - 130
	Cadmium	1.80	1.83	102	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.73	96	ug/L	70 - 130
	Mercury	72.0	63.7	88	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.83	102	ug/L	70 - 130
9K04033-CRLA	Arsenic	3.60	3.68	102	ug/L	70 - 130
	Barium	3.60	3.82	106	ug/L	70 - 130
	Cadmium	3.60	3.74	104	ug/L	70 - 130
	Chromium	3.60	3.45	96	ug/L	70 - 130
	Lead	3.60	3.47	96	ug/L	70 - 130
	Mercury	144	120	84	ng/L	70 - 130
	Selenium	3.60	3.68	102	ug/L	70 - 130
	Silver	3.60	3.67	102	ug/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

EPA 6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/01/19 10:01	3.80	180.00	11/01/19 19:24	4.19	180.00	
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/01/19 10:01	3.80	56.00	11/04/19 14:56	7.00	56.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: 1311/6020A

ANALYSES DATA PACKAGE COVER PAGE

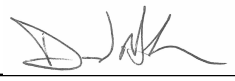
1311/6020A

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Arsenic	0.0500	0.100	mg/L
Barium	2.50	5.00	mg/L
Cadmium	0.0500	0.100	mg/L
Chromium	0.0500	0.100	mg/L
Lead	0.0250	0.0500	mg/L
Mercury	0.00350	0.00700	mg/L
Selenium	0.0500	0.100	mg/L
Silver	0.0500	0.100	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-083SC-C-00-08-191028

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J1007-01
File ID: 9K07021-074
Sampled: 10/28/19 14:52
Prepared: 11/07/19 12:52
Analyzed: 11/07/19 17:05
Solids: 55.18
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110573
Sequence: 9K07021
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	Q	Method
7440-38-2	Arsenic	0.0500	10	U	1311/6020A
7440-39-3	Barium	2.50	10	U	1311/6020A
7440-43-9	Cadmium	0.0500	10	U	1311/6020A
7440-47-3	Chromium	0.0500	10	U	1311/6020A
7439-92-1	Lead	0.0250	10	U	1311/6020A
7439-97-6	Mercury	0.00350	10	U	1311/6020A
7782-49-2	Selenium	0.0500	10	U	1311/6020A
7440-22-4	Silver	0.0500	10	U	1311/6020A

PREPARATION BATCH SUMMARY

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110573 Batch Matrix: Sediment Preparation: EPA 1311/3015

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110573-BLK1	9K07021-068	11/07/19 12:52	
LCS	9110573-BS1	9K07021-069	11/07/19 12:52	
PDI-083SC-C-00-08-191028 (MS)	9110573-MS1	9K07021-075	11/07/19 12:52	
PDI-083SC-C-00-08-191028	A9J1007-01	9K07021-074	11/07/19 12:52	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET

1311/6020A

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110573-BLK1	File ID:	9K07021-068
Prepared:	11/07/19 12:52	Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL
Analyzed:	11/07/19 16:35	Instrument:	ICPMS5		
Batch:	9110573	Sequence:	9K07021	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	Q
7440-38-2	Arsenic	0.0500	U
7440-39-3	Barium	2.50	U
7440-43-9	Cadmium	0.0500	U
7440-47-3	Chromium	0.0500	U
7439-92-1	Lead	0.0250	U
7439-97-6	Mercury	0.00350	U
7782-49-2	Selenium	0.0500	U
7440-22-4	Silver	0.0500	U

LCS / LCS DUPLICATE RECOVERY

1311/6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110573	Laboratory ID:	9110573-BS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	5.20	104	80 - 120
Barium	10.0	11.1	111	80 - 120
Cadmium	1.00	1.03	103	80 - 120
Chromium	5.00	5.15	103	80 - 120
Lead	5.00	5.08	102	80 - 120
Mercury	0.100	0.0956	96	80 - 120
Selenium	1.00	1.04	104	80 - 120
Silver	1.00	1.08	108	80 - 120

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1311/6020A

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110573	Laboratory ID:	9110573-MS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

Source Sample Name: PDI-083SC-C-00-08-191028

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	ND	5.29	106	50 - 150
Barium	10.0	ND	11.6	116	50 - 150
Cadmium	1.00	ND	1.05	105	50 - 150
Chromium	5.00	ND	5.20	104	50 - 150
Lead	5.00	ND	5.27	105	50 - 150
Mercury	0.100	ND	0.101	101	50 - 150
Selenium	1.00	ND	1.04	104	50 - 150
Silver	1.00	ND	1.10	110	50 - 150

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07021	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K07021-ICV1	9K07021-013	11/07/19 12:00
Initial Cal Blank	9K07021-ICB1	9K07021-014	11/07/19 12:05
Instrument RL Check	9K07021-CRL2	9K07021-016	11/07/19 12:14
Instrument RL Check	9K07021-CRL3	9K07021-017	11/07/19 12:19
Instrument RL Check	9K07021-CRL4	9K07021-018	11/07/19 12:24
Calibration Check	9K07021-CCV1	9K07021-032	11/07/19 13:48
Calibration Blank	9K07021-CCB1	9K07021-033	11/07/19 13:53
Calibration Check	9K07021-CCV2	9K07021-043	11/07/19 14:39
Calibration Blank	9K07021-CCB2	9K07021-044	11/07/19 14:44
Instrument RL Check	9K07021-CRL5	9K07021-045	11/07/19 14:48
Instrument RL Check	9K07021-CRL6	9K07021-046	11/07/19 14:53
Instrument RL Check	9K07021-CRL7	9K07021-047	11/07/19 14:58
Calibration Check	9K07021-CCV3	9K07021-058	11/07/19 15:48
Calibration Blank	9K07021-CCB3	9K07021-059	11/07/19 15:53
Blank	9110573-BLK1	9K07021-068	11/07/19 16:35
LCS	9110573-BS1	9K07021-069	11/07/19 16:40
Calibration Check	9K07021-CCV4	9K07021-070	11/07/19 16:45
Calibration Blank	9K07021-CCB4	9K07021-071	11/07/19 16:49
PDI-083SC-C-00-08-191028	A9J1007-01	9K07021-074	11/07/19 17:05
PDI-083SC-C-00-08-191028 (MS)	9110573-MS1	9K07021-075	11/07/19 17:10
Calibration Check	9K07021-CCV5	9K07021-082	11/07/19 17:42
Calibration Blank	9K07021-CCB5	9K07021-083	11/07/19 17:47
Calibration Check	9K07021-CCV6	9K07021-089	11/07/19 18:15
Calibration Blank	9K07021-CCB6	9K07021-090	11/07/19 18:19
Instrument RL Check	9K07021-CRL8	9K07021-091	11/07/19 18:24
Instrument RL Check	9K07021-CRL9	9K07021-092	11/07/19 18:29
Instrument RL Check	9K07021-CRLA	9K07021-093	11/07/19 18:33
Instrument RL Check	9K07021-CRLB	9K07021-094	11/07/19 18:38
Calibration Check	9K07021-CCV7	9K07021-105	11/07/19 19:29
Calibration Blank	9K07021-CCB7	9K07021-106	11/07/19 19:33
Calibration Blank	9K07021-CCB8	9K07021-107	11/07/19 19:38
Calibration Check	9K07021-CCV8	9K07021-118	11/07/19 20:29
Calibration Check	9K07021-CCV9	9K07021-119	11/07/19 20:34

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07021	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	9K07021-CCB9	9K07021-120	11/07/19 20:38
Calibration Check	9K07021-CCVA	9K07021-124	11/07/19 20:57
Calibration Blank	9K07021-CCBA	9K07021-125	11/07/19 21:02
Instrument RL Check	9K07021-CRLC	9K07021-126	11/07/19 21:06
Instrument RL Check	9K07021-CRLD	9K07021-127	11/07/19 21:11
Instrument RL Check	9K07021-CRLE	9K07021-128	11/07/19 21:16
Instrument RL Check	9K07021-CRLF	9K07021-129	11/07/19 21:20

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL AND CONTINUING CALIBRATION CHECK

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K07021-ICV1	Arsenic	100	97.3	97	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	98.2	98	ug/L	1311/6020A
	Chromium	100	96.9	97	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	804	101	ng/L	1311/6020A
	Selenium	40.0	40.0	100	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K07021-CCV1	Arsenic	100	98.3	98	ug/L	1311/6020A
	Barium	100	103	103	ug/L	1311/6020A
	Cadmium	100	98.4	98	ug/L	1311/6020A
	Chromium	100	97.4	97	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	800	100	ng/L	1311/6020A
	Selenium	40.0	39.8	99	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9K07021-CCV2	Arsenic	100	98.0	98	ug/L	1311/6020A
	Barium	100	103	103	ug/L	1311/6020A
	Cadmium	100	98.3	98	ug/L	1311/6020A
	Chromium	100	97.0	97	ug/L	1311/6020A
	Lead	100	99.1	99	ug/L	1311/6020A
	Mercury	800	786	98	ng/L	1311/6020A
	Selenium	40.0	40.5	101	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K07021-CCV3	Arsenic	100	98.1	98	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	97.9	98	ug/L	1311/6020A
	Chromium	100	96.9	97	ug/L	1311/6020A
	Lead	100	98.0	98	ug/L	1311/6020A
	Mercury	800	767	96	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	40.4	101	ug/L	1311/6020A
9K07021-CCV4	Arsenic	100	97.7	98	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	97.2	97	ug/L	1311/6020A
	Chromium	100	98.2	98	ug/L	1311/6020A
	Lead	100	98.8	99	ug/L	1311/6020A
	Mercury	800	773	97	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K07021-CCV5	Arsenic	100	98.7	99	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	97.1	97	ug/L	1311/6020A
	Chromium	100	98.5	99	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	787	98	ng/L	1311/6020A

INITIAL AND CONTINUING CALIBRATION CHECK

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K07021-CCV5	Selenium	40.0	39.9	100	ug/L	1311/6020A
	Silver	40.0	40.5	101	ug/L	1311/6020A
9K07021-CCV6	Arsenic	100	97.5	97	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	97.7	98	ug/L	1311/6020A
	Chromium	100	98.9	99	ug/L	1311/6020A
	Lead	100	99.0	99	ug/L	1311/6020A
	Mercury	800	761	95	ng/L	1311/6020A
	Selenium	40.0	40.7	102	ug/L	1311/6020A
	Silver	40.0	40.6	101	ug/L	1311/6020A
9K07021-CCV7	Arsenic	100	97.2	97	ug/L	1311/6020A
	Barium	100	103	103	ug/L	1311/6020A
	Cadmium	100	97.3	97	ug/L	1311/6020A
	Chromium	100	100	100	ug/L	1311/6020A
	Lead	100	96.1	96	ug/L	1311/6020A
	Mercury	800	724	90	ng/L	1311/6020A
	Selenium	40.0	40.5	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K07021-CCV8	Arsenic	100	96.6	97	ug/L	1311/6020A
	Barium	100	102	102	ug/L	1311/6020A
	Cadmium	100	97.9	98	ug/L	1311/6020A
	Chromium	100	98.7	99	ug/L	1311/6020A
	Lead	100	96.5	97	ug/L	1311/6020A
	Mercury	800	718	90	ng/L	1311/6020A
	Selenium	40.0	40.8	102	ug/L	1311/6020A
	Silver	40.0	41.0	102	ug/L	1311/6020A
9K07021-CCV9	Arsenic	100	96.9	97	ug/L	1311/6020A
	Barium	100	102	102	ug/L	1311/6020A
	Cadmium	100	98.2	98	ug/L	1311/6020A
	Chromium	100	98.8	99	ug/L	1311/6020A
	Lead	100	97.4	97	ug/L	1311/6020A
	Mercury	800	774	97	ng/L	1311/6020A
	Selenium	40.0	40.8	102	ug/L	1311/6020A
	Silver	40.0	41.0	103	ug/L	1311/6020A
9K07021-CCVA	Arsenic	100	97.0	97	ug/L	1311/6020A
	Barium	100	102	102	ug/L	1311/6020A
	Cadmium	100	98.3	98	ug/L	1311/6020A
	Chromium	100	98.6	99	ug/L	1311/6020A
	Lead	100	96.7	97	ug/L	1311/6020A
	Mercury	800	767	96	ng/L	1311/6020A
	Selenium	40.0	40.6	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A

* Values outside of QC limits

INSTRUMENT BLANKS

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K07021
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K07021-ICB1	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB1	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB2	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB3	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K07021-CCB4	Silver	ND	1.00 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K07021
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K07021-CCB4	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K07021-CCB5	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB6	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB7	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
9K07021-CCB8	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K07021
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K07021-CCB8	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
9K07021-CCB9	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
9K07021-CCBA	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K07021-CRL2	Arsenic	0.900	0.928	103	ug/L	70 - 130
	Barium	0.900	0.998	111	ug/L	70 - 130
	Cadmium	0.900	0.899	100	ug/L	70 - 130
	Chromium	0.900	0.907	101	ug/L	70 - 130
	Lead	0.900	0.969	108	ug/L	70 - 130
	Mercury	36.0	44.2	123	ng/L	70 - 130
	Selenium	0.900	0.952	106	ug/L	70 - 130
	Silver	0.900	0.885	98	ug/L	70 - 130
9K07021-CRL3	Arsenic	1.80	1.76	98	ug/L	70 - 130
	Barium	1.80	1.90	106	ug/L	70 - 130
	Cadmium	1.80	1.82	101	ug/L	70 - 130
	Chromium	1.80	1.81	100	ug/L	70 - 130
	Lead	1.80	1.89	105	ug/L	70 - 130
	Mercury	72.0	72.5	101	ng/L	70 - 130
	Selenium	1.80	1.78	99	ug/L	70 - 130
	Silver	1.80	1.85	103	ug/L	70 - 130
9K07021-CRL4	Arsenic	0.180	0.169	94	ug/L	70 - 130
	Barium	0.180	0.209	116	ug/L	70 - 130
	Cadmium	0.180	0.172	96	ug/L	70 - 130
	Chromium	0.180	0.179	100	ug/L	70 - 130
	Lead	0.180	0.212	118	ug/L	70 - 130
	Selenium	0.180	0.174	97	ug/L	70 - 130
	Silver	0.180	0.178	99	ug/L	70 - 130
9K07021-CRL5	Arsenic	0.180	0.194	108	ug/L	70 - 130
	Barium	0.180	0.187	104	ug/L	70 - 130
	Cadmium	0.180	0.184	102	ug/L	70 - 130
	Chromium	0.180	0.174	97	ug/L	70 - 130
	Lead	0.180	0.198	110	ug/L	70 - 130

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K07021-CRL5	Mercury	7.20	8.87	123	ng/L	70 - 130
	Selenium	0.180	0.174	97	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K07021-CRL6	Arsenic	0.900	0.902	100	ug/L	70 - 130
	Barium	0.900	0.951	106	ug/L	70 - 130
	Cadmium	0.900	0.940	104	ug/L	70 - 130
	Chromium	0.900	0.859	95	ug/L	70 - 130
	Lead	0.900	0.908	101	ug/L	70 - 130
	Mercury	36.0	34.2	95	ng/L	70 - 130
	Selenium	0.900	0.912	101	ug/L	70 - 130
	Silver	0.900	0.903	100	ug/L	70 - 130
9K07021-CRL7	Arsenic	1.80	1.78	99	ug/L	70 - 130
	Barium	1.80	1.90	105	ug/L	70 - 130
	Cadmium	1.80	1.77	98	ug/L	70 - 130
	Chromium	1.80	1.78	99	ug/L	70 - 130
	Lead	1.80	1.84	102	ug/L	70 - 130
	Mercury	72.0	76.6	106	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.76	98	ug/L	70 - 130
9K07021-CRL8	Arsenic	0.180	0.196	109	ug/L	70 - 130
	Barium	0.180	0.194	108	ug/L	70 - 130
	Cadmium	0.180	0.179	99	ug/L	70 - 130
	Chromium	0.180	0.170	94	ug/L	70 - 130
	Lead	0.180	0.211	117	ug/L	70 - 130
	Selenium	0.180	0.209	116	ug/L	70 - 130
	Silver	0.180	0.187	104	ug/L	70 - 130
9K07021-CRL9	Arsenic	0.900	0.867	96	ug/L	70 - 130
	Barium	0.900	0.969	108	ug/L	70 - 130

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K07021-CRL9	Cadmium	0.900	0.914	102	ug/L	70 - 130
	Chromium	0.900	0.873	97	ug/L	70 - 130
	Lead	0.900	0.908	101	ug/L	70 - 130
	Mercury	36.0	35.3	98	ng/L	70 - 130
	Selenium	0.900	0.912	101	ug/L	70 - 130
	Silver	0.900	0.878	98	ug/L	70 - 130
9K07021-CRLA	Arsenic	1.80	1.80	100	ug/L	70 - 130
	Barium	1.80	1.82	101	ug/L	70 - 130
	Cadmium	1.80	1.74	97	ug/L	70 - 130
	Chromium	1.80	1.70	95	ug/L	70 - 130
	Lead	1.80	1.76	98	ug/L	70 - 130
	Mercury	72.0	67.4	94	ng/L	70 - 130
	Selenium	1.80	1.80	100	ug/L	70 - 130
	Silver	1.80	1.73	96	ug/L	70 - 130
9K07021-CRLB	Arsenic	3.60	3.58	99	ug/L	70 - 130
	Barium	3.60	3.73	104	ug/L	70 - 130
	Cadmium	3.60	3.67	102	ug/L	70 - 130
	Chromium	3.60	3.55	99	ug/L	70 - 130
	Lead	3.60	3.60	100	ug/L	70 - 130
	Mercury	144	140	97	ng/L	70 - 130
	Selenium	3.60	3.88	108	ug/L	70 - 130
	Silver	3.60	3.56	99	ug/L	70 - 130
9K07021-CRLC	Arsenic	0.180	0.177	99	ug/L	70 - 130
	Barium	0.180	0.221	123	ug/L	70 - 130
	Cadmium	0.180	0.185	103	ug/L	70 - 130
	Chromium	0.180	0.178	99	ug/L	70 - 130
	Lead	0.180	0.190	106	ug/L	70 - 130
	Mercury	7.20	9.32	129	ng/L	70 - 130

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9K07021

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K07021-CRLC	Selenium	0.180	0.185	103	ug/L	70 - 130
	Silver	0.180	0.173	96	ug/L	70 - 130
9K07021-CRLD	Arsenic	0.900	0.904	100	ug/L	70 - 130
	Barium	0.900	0.970	108	ug/L	70 - 130
	Cadmium	0.900	0.863	96	ug/L	70 - 130
	Chromium	0.900	0.863	96	ug/L	70 - 130
	Lead	0.900	0.891	99	ug/L	70 - 130
	Mercury	36.0	40.9	114	ng/L	70 - 130
	Selenium	0.900	0.947	105	ug/L	70 - 130
	Silver	0.900	0.871	97	ug/L	70 - 130
9K07021-CRLE	Arsenic	1.80	1.90	106	ug/L	70 - 130
	Barium	1.80	1.81	101	ug/L	70 - 130
	Cadmium	1.80	1.79	100	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.76	98	ug/L	70 - 130
	Mercury	72.0	69.0	96	ng/L	70 - 130
	Selenium	1.80	1.83	101	ug/L	70 - 130
	Silver	1.80	1.76	98	ug/L	70 - 130
9K07021-CRLF	Arsenic	3.60	3.50	97	ug/L	70 - 130
	Barium	3.60	3.72	103	ug/L	70 - 130
	Cadmium	3.60	3.53	98	ug/L	70 - 130
	Chromium	3.60	3.53	98	ug/L	70 - 130
	Lead	3.60	3.52	98	ug/L	70 - 130
	Mercury	144	135	94	ng/L	70 - 130
	Selenium	3.60	3.57	99	ug/L	70 - 130
	Silver	3.60	3.53	98	ug/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

1311/6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/07/19 12:52	9.92	28.00	11/07/19 17:05	10.09	28.00	
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/07/19 12:52	9.92	180.00	11/07/19 17:05	10.09	180.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: WET

METHOD: SM 2540 G

ANALYSES DATA PACKAGE COVER PAGE

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Total Solids	1.00	1.00	% by Weight

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-083SC-C-00-08-191028

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J1007-01
Sampled: 10/28/19 14:52
Prepared: 10/29/19 14:08
Analyzed: 11/01/19 15:51
Solids: 55.18
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101715
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	55.2	1		SM 2540 G

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9101715 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-083SC-C-00-08-191028 (Dup)	9101715-DUP1		10/29/19 14:08	
PDI-083SC-C-00-08-191028	A9J1007-01		10/29/19 14:08	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PDI-083SC-C-00-08-191028

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9101715
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-083SC-C-00-08-191028

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9101715-DUP1
Lab Source ID: A9J1007-01
Initial/Final: 1 N/A / 1 N/A
% Solids: 55.18

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	55.2		55.2		0.08		SM 2540 G

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	10/29/19 14:08	0.97	180.00	11/01/19 15:51	3.07		

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 1311 ZHE

ANALYSES DATA PACKAGE COVER PAGE

EPA 1311 ZHE

Laboratory: Apex Laboratories

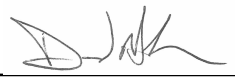
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/17/2019 4:45PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 1311 ZHE

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Solid

Analyte	MDL	MRL	Units

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-083SC-C-00-08-191028

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J1007-01	File ID:	
Sampled:	10/28/19 14:52	Prepared:	11/04/19 15:35	Analyzed:	11/04/19 15:35
Solids:	55.18	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	20.3 g / 400 mL
Batch:	9110443	Sequence:		Calibration:	Instrument: Inst

CAS NO.	COMPOUND	DILUTION	CONC. (N/A)	Q
NA	TCLP ZHE Extraction	1	PREP	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 1311 ZHE

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110443 Batch Matrix: Solid Preparation: EPA 1311 TCLP/ZHE

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-083SC-C-00-08-191028	A9J1007-01		11/04/19 15:35	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

HOLDING TIME SUMMARY

EPA 1311 ZHE

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/04/19 15:35	7.03	14.00	11/04/19 15:35	0.00		

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: EPA 1311

ANALYSES DATA PACKAGE COVER PAGE

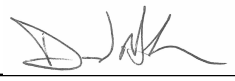
EPA 1311

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-083SC-C-00-08-191028	A9J1007-01	Sediment

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 4:45PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 1311

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Solid

Analyte	MDL	MRL	Units

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-083SC-C-00-08-191028

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J1007-01
Sampled: 10/28/19 14:52
Prepared: 11/06/19 17:15
Analyzed: 11/06/19 17:15
Solids: 55.18
Preparation: EPA 1311 (TCLP)
Initial/Final: 100.3 g / 2006 mL
Batch: 9110529
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (N/A)	Dilution Factor	Q	Method
TCLP	TCLP Extraction	PREP	1		EPA 1311
TCLP	TCLP Extraction	PREP	1		EPA 1311

PREPARATION BATCH SUMMARY

EPA 1311

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110529 Batch Matrix: Solid Preparation: EPA 1311 (TCLP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110529-BLK1		11/06/19 17:15	
PDI-083SC-C-00-08-191028	A9J1007-01		11/06/19 17:15	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
EPA 1311

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Solid	Laboratory ID:	9110529-BLK1	File ID:	
Prepared:	11/06/19 17:15	Preparation:	EPA 1311 (TCLP)	Initial/Final:	50 g / 1000 mL
Analyzed:	11/06/19 17:15	Instrument:	Inst		
Batch:	9110529	Sequence:		Calibration:	

CAS NO.	COMPOUND	CONC. (N/A)	Q
TCLP	TCLP Extraction	PREP	U

HOLDING TIME SUMMARY

EPA 1311

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/06/19 17:15	9.10	14.00	11/06/19 17:15	0.00		
PDI-083SC-C-00-08-191028	10/28/19 14:52	10/29/19 10:00	11/06/19 17:15	9.10	28.00	11/06/19 17:15	0.00		

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Raw Data

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Volatile Organic Compounds by EPA 5035A/8260C
Benchsheet & Analysis Sequence Data

Batch 9101689
Sequence 9J29035 (A9J1006-01,02)

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 9101689 (Soil)

Prep Method: EPA 5035A

OCT 3 1 2019

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9101689-BLK1		QC	10/29/19 09:30	7.5	5							
9101689-BS1		QC	10/29/19 09:30	5	5	A19J290		250				
9101689-BS2		QC	10/29/19 09:30	5	5	A19J354		250				
A9J0989-01RE1	C	NWTPH-Gx	10/28/19 15:55	5.95	5					SEDCOMP-1	MOD	
A9J0989-01RE1	C	8260C Full List	10/28/19 15:55	5.95	5					SEDCOMP-1	200X (RR01) MOD	
A9J0992-02	B	8260C BTEX+N	(Date Sampled)	6.11	5					15151B S@70"	FP	
A9J1006-01	G	8260C Full List	(Date Sampled)	5.95	5					PDI-071SC-C-00-08-191028	FP	
A9J1006-02	G	8260C BTEX	(Date Sampled)	5.89	5					PDI-074SC-C-00-7.3-191028	FP Added for BatchQC in: 9101689	
A9J1006-02	G	8260C BTEX+N	(Date Sampled)	5.89	5					PDI-074SC-C-00-7.3-191028	FP Added for BatchQC in: 9101689	
A9J1006-02	G	NWTPH-Gx	(Date Sampled)	5.89	5					PDI-074SC-C-00-7.3-191028	FP Added for BatchQC in: 9101689	
A9J1006-02	G	8260C Full List	(Date Sampled)	5.89	5					PDI-074SC-C-00-7.3-191028	FP	
A9J1006-02	G	8260C RBDM List	(Date Sampled)	5.89	5					PDI-074SC-C-00-7.3-191028	FP Added for BatchQC in: 9101689	
9101689-DUP2		QC	10/28/19 09:05	6.16	5		A9J1006-02					
A9J1007-01	G	8260C Full List	(Date Sampled)	5.17	5					PDI-083SC-C-00-08-191028	FP	
A9J1012-01	B	8260C Full List	10/29/19 12:55	5.26	5					SP-32 6'	MOD	
A9J1012-01	B	8260C BTEX	10/29/19 12:55	5.26	5					SP-32 6'	MOD Added for BatchQC in: 9101	
A9J1012-01	B	8260C RBDM List	10/29/19 12:55	5.26	5					SP-32 6'	MOD Added for BatchQC in: 9101	
A9J1012-01	B	NWTPH-Gx	10/29/19 12:55	5.26	5					SP-32 6'	MOD	
A9J1012-01	B	8260C BTEX+N	10/29/19 12:55	5.26	5					SP-32 6'	MOD Added for BatchQC in: 9101	
9101689-DUP1		QC	10/29/19 12:55	5.36	5		A9J1012-01					
A9J1015-01	B	8260C RBDM List	(Date Sampled)	4.39	5					B2-0-3	FP	
A9J1015-01	B	NWTPH-Gx	(Date Sampled)	4.39	5					B2-0-3	FP	

Prepared By: 10/31/19 Date

IMA 10/31/19
Reviewed By: Date

PREPARATION BENCH SHEET

BATCH #: 9101689 (Soil)

Apex Laboratories

Prep Method: EPA 5035A

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J1015-02	B	8260C RBDM List	(Date Sampled)	5.52	5					B2-0-15	FP	
A9J1015-02	B	NWTPH-Gx	(Date Sampled)	5.52	5					B2-0-15	FP	
A9J1015-03	B	NWTPH-Gx	(Date Sampled)	6.6	5					B3-0-3	FP	
A9J1015-03	B	8260C RBDM List	(Date Sampled)	6.6	5					B3-0-3	FP	
A9J1015-04	B	8260C RBDM List	(Date Sampled)	5.02	5					B3-0-15	FP	
A9J1015-04	B	NWTPH-Gx	(Date Sampled)	5.02	5					B3-0-15	FP	
A9J1015-04	B	8260C BTEX	(Date Sampled)	5.02	5					B3-0-15	FP Added for BatchQC in: 9101689	
A9J1015-04	B	8260C BTEX+N	(Date Sampled)	5.02	5					B3-0-15	FP Added for BatchQC in: 9101689	
A9J1015-04	B	8260C Full List	(Date Sampled)	5.02	5					B3-0-15	FP Added for BatchQC in: 9101689	
9101689-MS1		QC	10/25/19 14:35	5.02	5	A19J290	A9J1015-04	291			dw=83.5%@50x	
A9J1020-01	B	NWTPH-Gx	(Date Sampled)	5.94	5					15103 4602-P2@11.0'	FP	
A9J1020-01	B	8260C BTEX	(Date Sampled)	5.94	5					15103 4602-P2@11.0'	FP	
A9J1020-02	B	NWTPH-Gx	(Date Sampled)	5.28	5					15103 4602-P3@11.0'	FP	
A9J1020-02	B	8260C BTEX	(Date Sampled)	5.28	5					15103 4602-P3@11.0'	FP	
A9J1020-03	B	NWTPH-Gx	(Date Sampled)	6.31	5					15103 4602-P4@11.5'	FP	
A9J1020-03	B	8260C BTEX	(Date Sampled)	6.31	5					15103 4602-P4@11.5'	FP	
A9J1020-04	B	8260C BTEX	(Date Sampled)	6.49	5					15103 4602-P5@12.0'	FP	
A9J1020-04	B	NWTPH-Gx	(Date Sampled)	6.49	5					15103 4602-P5@12.0'	FP	
A9J1020-05	B	8260C BTEX	(Date Sampled)	5.1	5					15103 4602-P6@11.5'	FP	
A9J1020-05	B	NWTPH-Gx	(Date Sampled)	5.1	5					15103 4602-P6@11.5'	FP	
A9J1020-06	B	NWTPH-Gx	(Date Sampled)	5.93	5					15103 4602-P6@15.0'	FP	

*pH <2 verified_____

Prepared By: _____ Date _____

Reviewed By: _____ Date _____

PREPARATION BENCH SHEET

BATCH #: 9101689 (Soil)

Apex Laboratories

Prep Method: EPA 5035A

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18J327	11/30/23	Balance s/n 593312
A19I219	09/16/20	Methanol - Fisher (P/T) #191546
A19I220	09/16/20	Methanol - B&J (P/T) #DX075-US

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J290	04/09/20	8260 Cal. Std. B VOC+OXY Spike (20-40ug/ml
A19J354	04/21/20	Prim NWTPH-Gx Spike (500 ug/mL)

Surrogate(s)

Std ID	Exp. Date	Description

SOIL MS10

Prepared By: Date

Reviewed By: Date

Worksheet

5035 Field Prep Worksheet (Validated 7/11/16)

Sample ID	Container	Container Weight (g)	Tare Weight (g)	Net Sample Weight (g)	Formula Check
A9J0992-02	B	39.48	33.37	6.11	✓
A9J1006-01	D	39.19	33.24	5.95	✓
2	D	38.96	33.07	5.89	✓
2	E	40.16	34	6.16	✓
A9J1007-01	B	38.68	33.51	5.17	✓
A9J1015-01	B	38.16	33.77	4.39	✓
2	B	39	33.48	5.52	✓
3	B	40.31	33.71	6.6	✓
4	B	38.61	33.59	5.02	✓
A9J1020-01	B	39.5	33.56	5.94	✓
2	B	38.74	33.46	5.28	✓
3	B	39.68	33.37	6.31	✓
4	B	39.85	33.36	6.49	✓
5	B	38.91	33.81	5.1	✓
6	B	38.95	33.02	5.93	✓
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	

10/31/19

Volatile Soils Matrix Spike Volume Calculation (Validated 5/3/2013)

Enter the Spike Amount value into the Bench Sheet to ensure correct MS/MSD recoveries.

Batch: 9101689

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g	mL		%
5.020	5	50	83.5

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1390.44	**291**

Assumptions:
Spiking Solution = 20ug/mL
Spike Amount into 50mL = 50ul
Dilution = 1mL of MeOH to 50mL of water
Initial Spike Concentration = 20ug/L

A9J1015-04

10/31/19

A9J1012

5035 Container Prep Worksheet
~Soil Jar Extraction~

A9J1012-01	SP_32 6'							Sampled: 10/29/19 08:30
B Soil	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used: A	Sample Weight (g): 5.26	Volume MeOH (mL): (5) 10 15	Prepared By: AKK	Prepared date/time: 10/29/19 1255	Within 48 hours? (Y) N	Notes: Mod, HS, odor
C Soil	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used: A	Sample Weight (g): 5.36	Volume MeOH (mL): (5) 10 15	Prepared By: AKK	Prepared date/time: 10/29/19 1255	Within 48 hours? (Y) N	Notes: Mod, HS, odor (DUP)

NWTPH-Gx/8260C Full List Expires: 10/31/19 08:30 Due: 10/30/19 17:00

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/29/201911:50:17AM

A9J0992

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0992-01 — **15151B N@70"** — Sampled: **10/28/19 13:00**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		39.36	33.94	(5) 10 15 Other	

Due: TAT:

A9J0992-02 — **15151B S@70"** — Sampled: **10/28/19 13:15**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		39.48	33.37	(5) 10 15 Other	Dx@29200 500x

BTEX+N

Due: TAT:

Weighed by: _____ @ 10/28/19 1700

Methanol Reagent ID: A19K219 Balance ID: A18J327

Print Date: 10/28/2019 4:57:45PM

A9J1006

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J1006-01 — **PDI-071SC-C-00-08-191028** — Sampled: **10/28/19 10:00**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	39.19	33.24	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	39.67	33.45	5 10 15 Other	

8260 Due: TAT:

A9J1006-02 — **PDI-074SC-C-00-7.3-191028** — Sampled: **10/28/19 09:05**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	38.96	33.07	5 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	~~40~~ 40.16	34.00	5 10 15 Other	(DUP)

Due: (8) 10/29/19 TAT:

Weighed by: (8) @ 10/29/19 1247

Methanol Reagent ID: A191219-RD Balance ID: A183327

Print Date: 10/29/201912:26:19PM

A9J1007

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J1007-01 | **PDI-083SC-C-00-08-191028** | Sampled: **10/28/19 14:52**

D Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.68	Tare Weight (g): 33.51	Volume MeOH (mL): (5) 10 15 Other	Notes:
E Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.64	Tare Weight (g): 33.38	Volume MeOH (mL): (5) 10 15 Other	Notes:

8260 Due: TAT:

Weighed by: (SS) @ 10/29/19 1248

Methanol Reagent ID: A191219R Balance ID: A183527

A9J1015

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J1015-01 — **B2-0-3** — Sampled: **10/25/19 13:41**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.16	33.77	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	40.19	33.74	(5) 10 15 Other	

GX+RBDM — Due: — TAT:

A9J1015-02 — **B2-0-15** — Sampled: **10/25/19 13:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.00	33.48	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	39.17	33.69	(5) 10 15 Other	

Due: — TAT:

A9J1015-03 — **B3-0-3** — Sampled: **10/25/19 14:31**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	40.31	33.71	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	40.72	33.67	(5) 10 15 Other	

Due: — TAT:

A9J1015-04 — **B3-0-15** — Sampled: **10/25/19 14:35**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.61	33.59	5 10 15 Other	(MS)
C Soil	40 mL VOA - 5035 (MeOH)	40.23	33.43	(5) 10 15 Other	DW=83.5%

Due: — TAT:

Weighed by: AMK @ 1300 10/29/19

Methanol Reagent ID: A191219 — Balance ID: A18J327

Print Date: 10/29/201912:44:58PM

A9J1020

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J1020-01 | **15103 4602-P2@11.0'** | Sampled: **10/28/19 10:05**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		39.50	33.56	5 10 15 Other	

6XBTEX | Due: | TAT:

A9J1020-02 | **15103 4602-P3@11.0'** | Sampled: **10/28/19 10:30**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		38.74	33.46	5 10 15 Other	

Due: | TAT:

A9J1020-03 | **15103 4602-P4@11.5'** | Sampled: **10/28/19 11:10**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		39.68	33.37	5 10 15 Other	

Due: | TAT:

A9J1020-04 | **15103 4602-P5@12.0'** | Sampled: **10/28/19 11:35**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		39.85	33.36	5 10 15 Other	

Due: | TAT:

A9J1020-05 | **15103 4602-P6@11.5'** | Sampled: **10/28/19 12:30**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		38.91	33.81	5 10 15 Other	

Due: | TAT:

A9J1020-06 | **15103 4602-P6@15.0'** | Sampled: **10/28/19 12:35**

B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
		38.95	33.02	5 10 15 Other	

6X | Due: | TAT:

Weighed by: _____ @ 10/29/19 1310

Methanol Reagent ID: A19I219 | Balance ID: A18J327

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J29035**	Instrument:	**VOA-GCMS10**
Date:	**10/29/19 09:22**	Calibration:	**A9J2404**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J29035-IBL1	Soil	QC	QC			A19G118	
2	9J29035-TUN1	Soil	QC	QC			A19G118	
3	9J29035-CCV1	Soil	QC	QC			A19G118	
4	9101689-BS1	Soil	QC	QC		9101689	A19G118	
5	9J29035-CCV2	Soil	QC	QC			A19G118	
6	9101689-BS2	Soil	QC	QC		9101689	A19G118	
7	9101689-BLK1	Soil	QC	QC		9101689	A19G118	
8	9J29035-IBL2	Soil	QC	QC			A19G118	
9	A9J0989-01RE1	Soil	8260C Full List		10/30/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/30/19	9101689	A19G118	
10	9J29035-IBL3	Soil	QC	QC			A19G118	
11	A9J1012-01	Soil	8260C Full List	PSI	10/30/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/30/19	9101689	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9101689	A19G118	
"	"	Soil	8260C BTEX+N	(QC Source)		9101689	A19G118	
"	"	Soil	8260C RBDM List	(QC Source)		9101689	A19G118	
12	9101689-DUP1	Soil	QC	QC		9101689	A19G118	
13	A9J0992-02	Soil	8260C BTEX+N		10/31/19	9101689	A19G118	
14	9J29035-IBL4	Soil	QC	QC			A19G118	
15	A9J1015-01	Soil	8260C RBDM List		11/04/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	11/04/19	9101689	A19G118	
16	A9J1015-02	Soil	8260C RBDM List		11/04/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	11/04/19	9101689	A19G118	
17	A9J1020-01	Soil	8260C BTEX		10/31/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/31/19	9101689	A19G118	
18	A9J1020-02	Soil	8260C BTEX		10/31/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/31/19	9101689	A19G118	
19	A9J1020-03	Soil	8260C BTEX		10/31/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/31/19	9101689	A19G118	
20	A9J1020-04	Soil	8260C BTEX		10/31/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/31/19	9101689	A19G118	
21	A9J1015-03	Soil	8260C RBDM List		11/04/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	11/04/19	9101689	A19G118	
22	A9J1006-02	Soil	8260C Full List	Anchor QEA, LLC	11/11/19	9101689	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9101689	A19G118	
"	"	Soil	8260C BTEX+N	(QC Source)		9101689	A19G118	
"	"	Soil	8260C RBDM List	(QC Source)		9101689	A19G118	
"	"	Soil	NWTPH-Gx	(QC Source)		9101689	A19G118	
23	9101689-DUP2	Soil	QC	QC		9101689	A19G118	
24	A9J1006-01	Soil	8260C Full List	Anchor QEA, LLC	11/11/19	9101689	A19G118	
25	A9J1007-01	Soil	8260C Full List	Anchor QEA, LLC	11/11/19	9101689	A19G118	
26	A9J1020-05	Soil	8260C BTEX		10/31/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	10/31/19	9101689	A19G118	
27	A9J1020-06	Soil	NWTPH-Gx		10/31/19	9101689	A19G118	
28	9J29035-IBL5	Soil	QC	QC			A19G118	
29	A9J1015-04	Soil	8260C RBDM List		11/04/19	9101689	A19G118	
"	"	Soil	NWTPH-Gx	"	11/04/19	9101689	A19G118	
"	"	Soil	8260C Full List	(QC Source)		9101689	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9101689	A19G118	
"	"	Soil	8260C BTEX+N	(QC Source)		9101689	A19G118	
30	9101689-MS1	Soil	QC	QC		9101689	A19G118	

Sequence:	9J29035	Instrument:	VOA-GCMS10
Date:	10/29/19 09:22	Calibration:	A9J2404

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
31	9J29035-IBL6	Soil	QC	QC			A19G118	

Comments: ↑ 12DCPA to 1/2ppb on col LOD

Data Entered By: 10/30/19

Data Reviewed By: 10/31/19

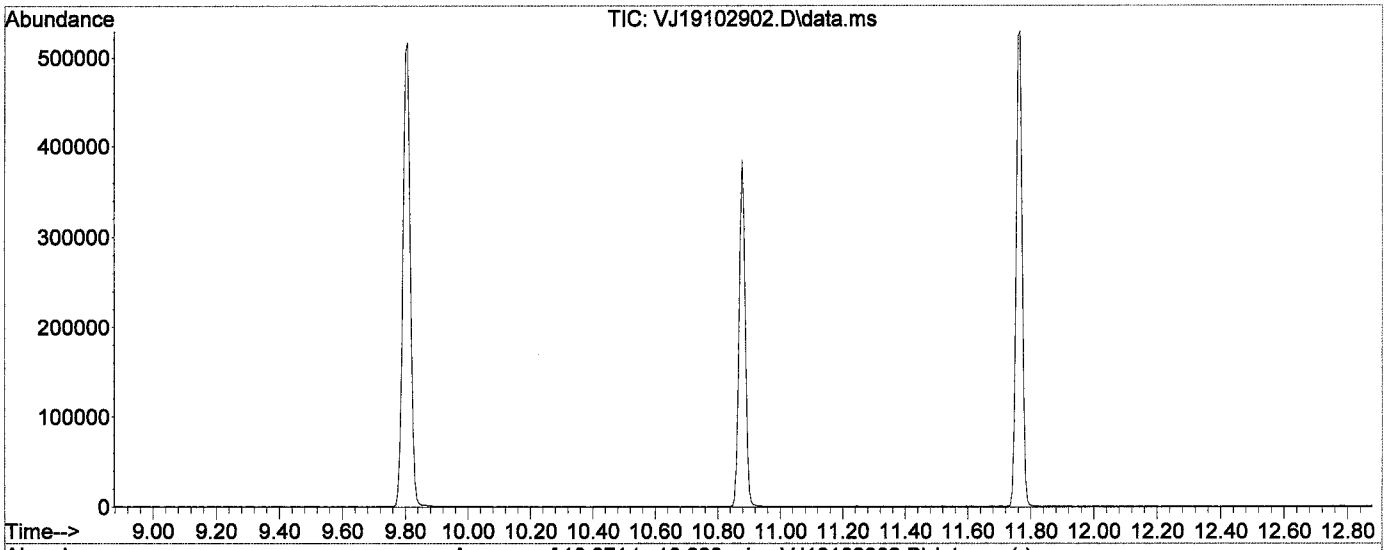
BFB

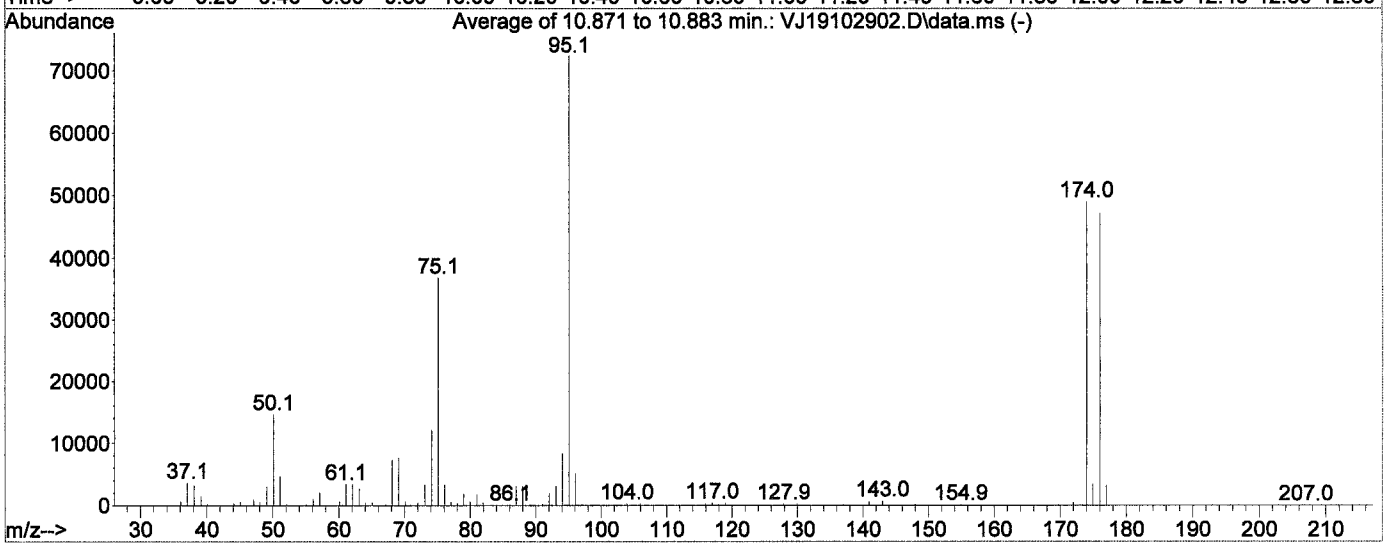
Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102902.D
Acq On : 29 Oct 2019 10:09 am
Operator : IMA
Sample : 9J29035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

IMA
10/29/19

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019





AutoFind: Scans 1527, 1528, 1529; Background Corrected with Scan 1520

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	148.1	72541	PASS
96	95	5	9	7.1	5161	PASS
173	174	0.00	2	0.3	127	PASS
174	95	50	200	67.5	48968	PASS
175	174	5	9	7.1	3474	PASS
176	174	95	105	96.3	47163	PASS
177	176	5	10	6.8	3197	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102902.D
Acq On : 29 Oct 2019 10:09 am
Operator : IMA
Sample : 9J29035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 30 09:40:46 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

VJ 10/31/19

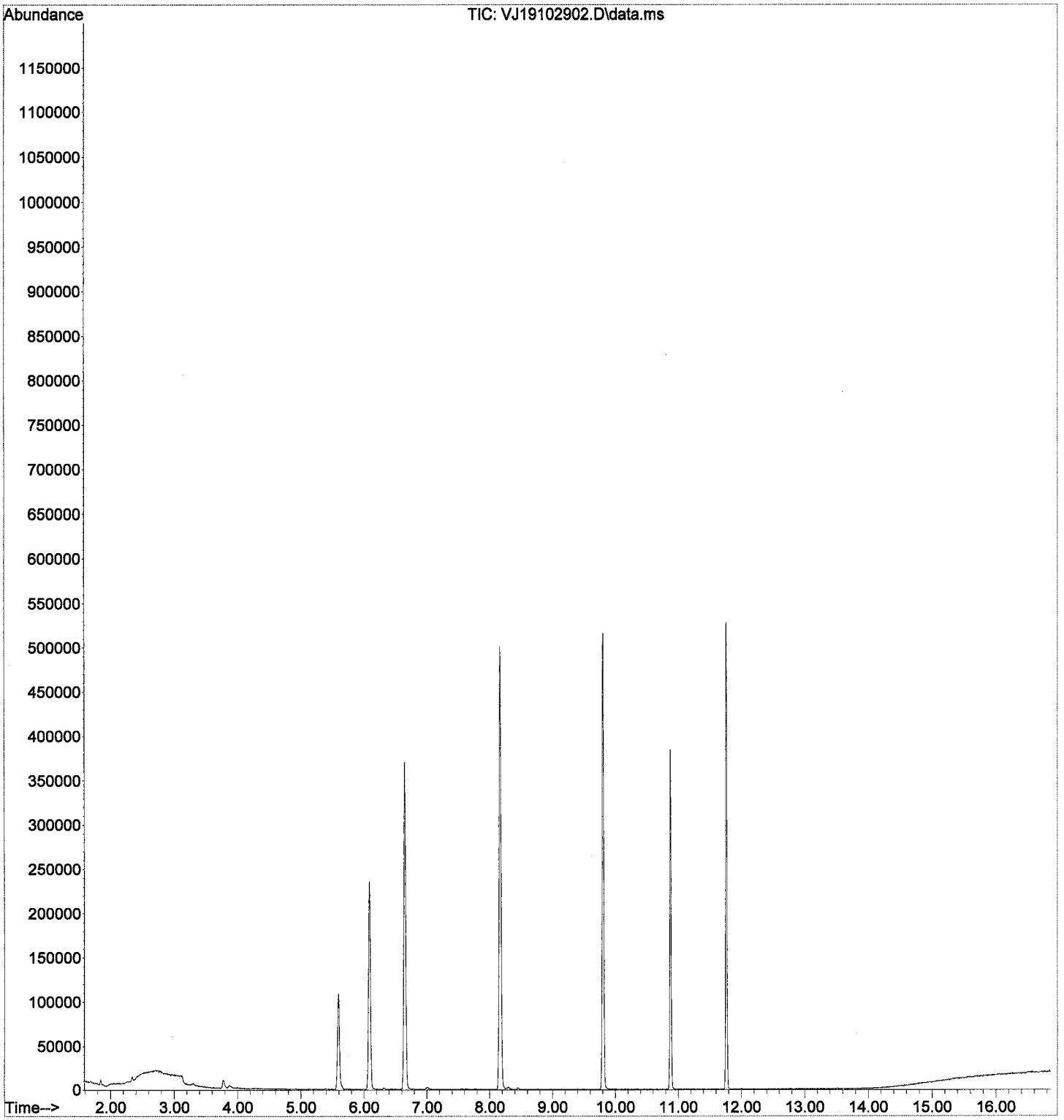
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	101314	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	270297	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	109808	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	77236	48.23	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	306461	49.17	ug/L		0.00
45) Toluene-d8 (S)	8.164	98	381712	50.64	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	78469	49.49	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	847	0.21	ug/L		93
5) Bromomethane	2.342	96	3519	0.39	ug/L		89
6) Chloroethane	2.451	64	56	1.36	ug/L	#	5
8) Ethanol	3.303	45	5432	Below Cal			96
12) Iodomethane	3.285	142	300	0.39	ug/L	#	47
13) Methylene Chloride	3.771	84	4671	1.14	ug/L		91
14) Acetone	3.869	43	2175	1.41	ug/L		93
18) tert-Butanol (TBA)	4.240	59	77	0.10	ug/L	#	1
28) Tetrahydrofuran	5.596	42	422	0.21	ug/L	#	44
32) 2-Butanone (MEK)	5.730	43	734	0.27	ug/L		52
36) iso-Butyl Alcohol	6.320	43	607	1.95	ug/L		70
84) Naphthalene	13.517	128	726	0.09	ug/L		79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102902.D
Acq On : 29 Oct 2019 10:09 am
Operator : IMA
Sample : 9J29035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 30 09:40:46 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102903.D
Acq On : 29 Oct 2019 10:36 am
Operator : IMA
Sample : 9101689-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 09:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	108	0.00	
2		Dichlorodifluoromethane	20.000	16.121	19.4	89	0.00	
3	P	Chloromethane	20.000	17.499	12.5	95	0.00	
4	C	Vinyl Chloride	20.000	19.782	1.1	105	0.00	
5		Bromomethane	20.000	26.190	H -31.0#	132	0.00	Q56
6		Chloroethane	20.000	18.416	7.9	116	0.00	
7		Trichlorofluoromethane	20.000	18.480	7.6	100	0.00	
8		Ethanol	1250.000	1327.499	-6.2	108	0.00	
9	C	1,1-Dichloroethene	20.000	19.199	4.0	103	0.00	
10		Carbon Disulfide	20.000	18.146	9.3	106	0.00	
11		Freon 113	20.000	19.097	4.5	101	0.00	
12		Iodomethane	20.000	12.004	L 40.0#	64	0.00	Q55 NR
13		Methylene Chloride	20.000	20.703	-3.5	107	0.00	
14		Acetone	40.000	43.755	-9.4	110	0.00	
15		t-1,2-Dichloroethene	20.000	19.771	1.1	106	0.00	
16		n-Hexane	20.000	20.760	-3.8	112	0.00	
17		Methyl-tert-butyl-ether	20.000	19.697	1.5	105	0.00	
18		tert-Butanol (TBA)	1250.000	1321.741	-5.7	103	0.01	
19		Diisopropyl ether (DIPE)	5.000	4.922	1.6	102	0.00	
20	P	1,1-Dichloroethane	20.000	20.148	-0.7	105	0.00	
21		Acrylonitrile	20.000	22.192	-11.0	107	0.00	
22		Ethyl-tert-butyl ether (ETB	5.000	4.741	5.2	99	0.00	
23		c-1,2-Dichloroethene	20.000	19.403	3.0	103	0.00	
24		2,2-Dichloropropane	20.000	21.910	-9.6	120	0.00	
25		Bromochloromethane	20.000	20.764	-3.8	107	0.00	
26	C	Chloroform	20.000	20.249	-1.2	105	0.00	
27		Carbon Tetrachloride	20.000	20.834	-4.2	104	0.00	
28		Tetrahydrofuran	20.000	18.571	7.1	103	0.00	
29		1,1,1-Trichloroethane	20.000	20.504	-2.5	105	0.00	
30	S	Dibromofluoromethane (S)	50.000	49.305	1.4	107	0.00	
31		1,1-Dichloropropene	20.000	19.570	2.1	103	0.00	
32		2-Butanone (MEK)	40.000	38.193	4.5	103	0.00	
33		Benzene	20.000	19.033	4.8	103	0.00	
34		tert-Amyl methyl ether (TAM	5.000	4.449	11.0	98	0.00	
35		1,2-Dichloroethane (EDC)	20.000	20.623	-3.1	106	0.00	
36		iso-Butyl Alcohol	500.000	505.787	-1.2	102	0.00	
37	S	1,4-Difluorobenzene (S)	50.000	49.408	1.2	108	0.00	
38		Trichloroethene (TCE)	20.000	19.932	0.3	104	0.00	
39		tert-Amyl ethyl ether (TAEE	5.000	4.951	1.0	99	0.00	
40		Dibromomethane	20.000	20.158	-0.8	104	0.00	
41	C	1,2-Dichloropropane	20.000	19.722	1.4	104	0.00	
42		Bromodichloromethane	20.000	20.685	-3.4	103	0.00	
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	105	0.00	
44		c-1,3-Dichloropropene	20.000	21.464	-7.3	105	0.00	
45	S	Toluene-d8 (S)	50.000	51.080	-2.2	108	0.00	
46	C	Toluene	20.000	19.541	2.3	102	0.00	
47		Tetrachloroethene (PCE)	20.000	20.679	-3.4	103	0.00	
48		4-Methyl-2-Pentanone (MIBK)	40.000	42.060	-5.2	100	0.00	
49		t-1,3-Dichloropropene	20.000	22.825	-14.1	107	0.00	
50		1,1,2-Trichloroethane	20.000	21.046	-5.2	103	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102903.D
Acq On : 29 Oct 2019 10:36 am
Operator : IMA
Sample : 9101689-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 30 09:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Dibromochloromethane	20.000	19.649	1.8	100	0.00
52		1,3-Dichloropropane	20.000	20.563	-2.8	102	0.00
53		1,2-Dibromoethane (EDB)	20.000	21.070	-5.4	101	0.00
54		2-Hexanone	40.000	40.459	-1.1	98	0.00
55	P	Chlorobenzene	20.000	19.462	2.7	100	0.00
56	C	Ethylbenzene	20.000	20.732	-3.7	102	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.653	-3.3	103	0.00
58		m,p-Xylenes (2)	40.000	42.889	-7.2	103	0.00
59		o-Xylene	20.000	20.892	-4.5	100	0.00
60		Styrene	20.000	18.128	9.4	99	0.00
61	P	Bromoform	20.000	18.438	7.8	100	0.00
62		Isopropylbenzene	20.000	21.260	-6.3	99	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	105	0.00
64	S	4-Bromofluorobenzene (S)	50.000	48.271	3.5	102	0.00
65		Bromobenzene	20.000	19.483	2.6	99	0.00
66		n-Propylbenzene	20.000	20.365	-1.8	101	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	19.405	3.0	96	0.00
68		2-Chlorotoluene	20.000	19.988	0.1	99	0.00
69		1,3,5-Trimethylbenzene	20.000	23.100	-15.5	107	0.00
70		1,2,3-Trichloropropane	20.000	20.621	-3.1	102	0.00
71		t-1,4-Dichloro-2-butene	20.000	22.926	-14.6	111	0.00
72		4-Chlorotoluene	20.000	20.691	-3.5	101	0.00
73		tert-Butylbenzene	20.000	20.821	-4.1	101	0.00
74		1,2,4-Trimethylbenzene	20.000	23.249	-16.2	109	0.00
75		sec-Butylbenzene	20.000	21.317	-6.6	102	0.00
76		4-Isopropyltoluene	20.000	22.074	-10.4	104	0.00
77		1,3-Dichlorobenzene	20.000	20.163	-0.8	101	0.00
78		1,4-Dichlorobenzene	20.000	19.106	4.5	101	0.00
79		n-Butylbenzene	20.000	22.355	-11.8	111	0.00
80		1,2-Dichlorobenzene	20.000	20.059	-0.3	100	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	19.000	5.0	100	0.00
82		Hexachlorobutadiene	20.000	20.700	-3.5	102	0.00
83		1,2,4-Trichlorobenzene	20.000	19.814	0.9	98	0.00
84		Naphthalene	20.000	21.346	-6.7	102	0.00
85		1,2,3-Trichlorobenzene	20.000	20.401	-2.0	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102903.D
Acq On : 29 Oct 2019 10:36 am
Operator : IMA
Sample : 9101689-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 30 09:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

10/30/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	101558	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	265975	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116596	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	79147	49.30	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	308689	49.41	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	378874	51.08	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	81265	48.27	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	37890	16.12	ug/L		98
3) Chloromethane	1.904	50	69700	17.50	ug/L		99
4) Vinyl Chloride	2.001	62	60774	19.78	ug/L		96
5) Bromomethane	2.348	96	33752	26.19	ug/L		99
6) Chloroethane	2.469	64	7207	18.42	ug/L		92
7) Trichlorofluoromethane	2.603	101	12669	18.48	ug/L		99
8) Ethanol	3.315	45	132357	1327.50	ug/L		92
9) 1,1-Dichloroethene	3.145	61	72546	19.20	ug/L		89
10) Carbon Disulfide	3.157	76	127903	18.15	ug/L		100
11) Freon 113	3.199	101	43843	19.10	ug/L		85
12) Iodomethane	3.297	142	9236	12.00	ug/L		89
13) Methylene Chloride	3.783	84	49658	20.70	ug/L		89
14) Acetone	3.875	43	67814	43.76	ug/L		99
15) t-1,2-Dichloroethene	3.948	61	78102	19.77	ug/L		92
16) n-Hexane	4.039	86	12422	20.76	ug/L	#	74
17) Methyl-tert-butyl-ether	4.112	73	186120	19.70	ug/L		89
18) tert-Butanol (TBA)	4.276	59	1054042	1321.74	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.507	45	47744	4.92	ug/L		96
20) 1,1-Dichloroethane	4.580	63	83989	20.15	ug/L		98
21) Acrylonitrile	4.635	53	38934	22.19	ug/L		100
22) Ethyl-tert-butyl ether...	4.872	59	41433	4.74	ug/L		93
23) c-1,2-Dichloroethene	5.134	61	75606	19.40	ug/L		94
24) 2,2-Dichloropropane	5.244	77	86461	21.91	ug/L		97
25) Bromochloromethane	5.329	49	49265	20.76	ug/L		74
26) Chloroform	5.420	83	90196	20.25	ug/L		95
27) Carbon Tetrachloride	5.554	117	61310	20.83	ug/L		98
28) Tetrahydrofuran	5.590	42	38271	18.57	ug/L		97
29) 1,1,1-Trichloroethane	5.621	97	83944	20.50	ug/L		96
31) 1,1-Dichloropropene	5.748	75	77883	19.57	ug/L		95
32) 2-Butanone (MEK)	5.736	43	104259	38.19	ug/L		97
33) Benzene	6.004	78	248223	19.03	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	37497	4.45	ug/L		98
35) 1,2-Dichloroethane (EDC)	6.211	62	82841	20.62	ug/L		99
36) iso-Butyl Alcohol	6.296	43	157949	505.79	ug/L		95
38) Trichloroethene (TCE)	6.618	130	51650	19.93	ug/L		92
39) tert-Amyl ethyl ether ...	6.904	59	28989	4.95	ug/L		84
40) Dibromomethane	7.063	93	32995	20.16	ug/L		83
41) 1,2-Dichloropropane	7.172	63	63654	19.72	ug/L		98
42) Bromodichloromethane	7.245	83	65238	20.68	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	85071	21.46	ug/L		98
46) Toluene	8.231	91	242897	19.54	ug/L		99
47) Tetrachloroethene (PCE)	8.675	166	47696	20.68	ug/L		81
48) 4-Methyl-2-Pentanone (...	8.669	43	162020	42.06	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102903.D
Acq On : 29 Oct 2019 10:36 am
Operator : IMA
Sample : 9101689-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 30 09:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

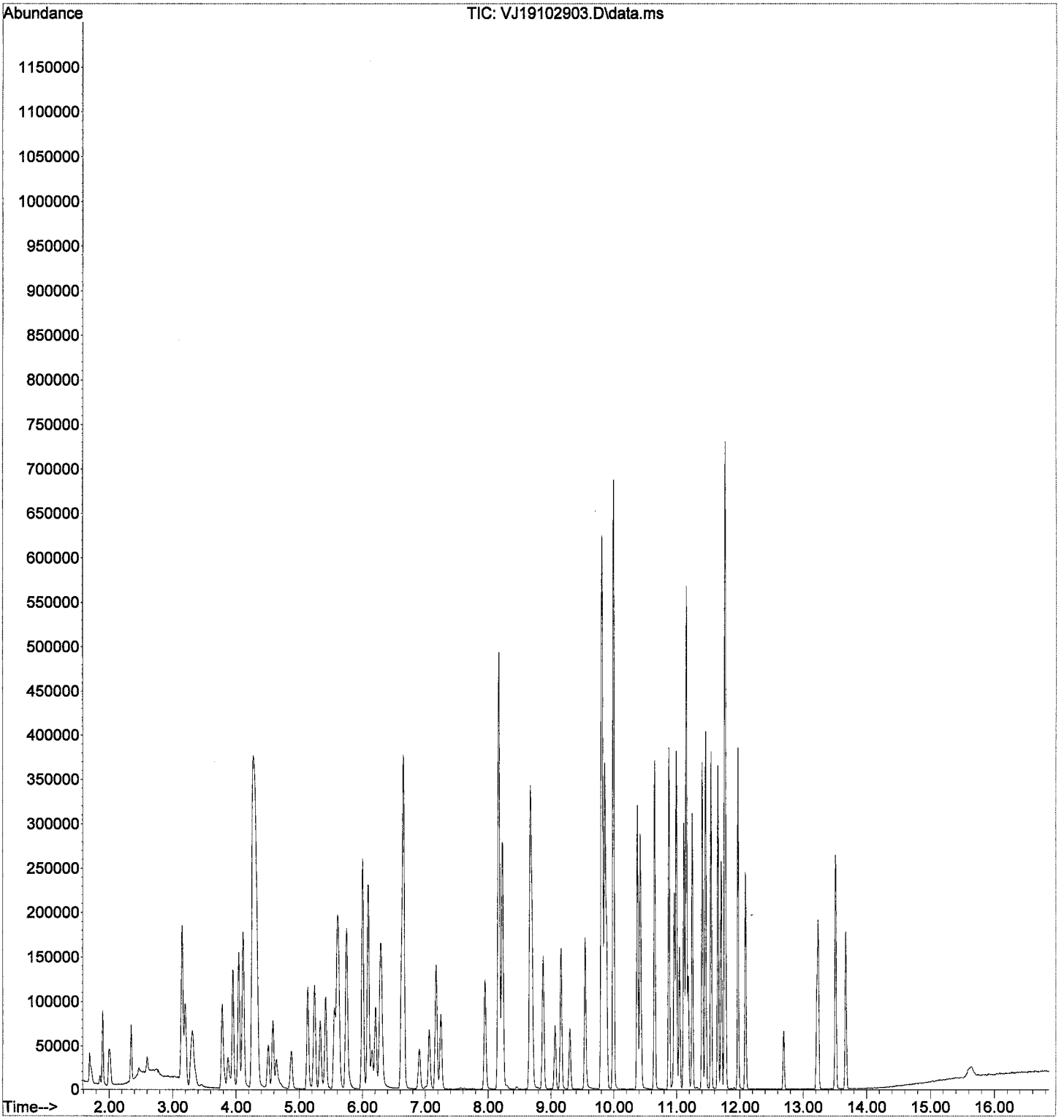
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	87722	22.82	ug/L		95
50) 1,1,2-Trichloroethane	8.875	97	53090	21.05	ug/L		93
51) Dibromochloromethane	9.064	129	40008	19.65	ug/L		99
52) 1,3-Dichloropropane	9.161	76	97451	20.56	ug/L		97
53) 1,2-Dibromoethane (EDB)	9.301	107	50942	21.07	ug/L		100
54) 2-Hexanone	9.545	43	115980	40.46	ug/L		98
55) Chlorobenzene	9.818	112	137990	19.46	ug/L		90
56) Ethylbenzene	9.855	91	250432	20.73	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.885	131	45358	20.65	ug/L		97
58) m,p-Xylenes (2)	9.995	91	368852	42.89	ug/L		96
59) o-Xylene	10.378	91	171519	20.89	ug/L		94
60) Styrene	10.421	104	114422	18.13	ug/L		98
61) Bromoform	10.439	173	26437	18.44	ug/L		94
62) Isopropylbenzene	10.652	105	210309	21.26	ug/L		97
65) Bromobenzene	10.962	156	47004	19.48	ug/L	#	68
66) n-Propylbenzene	10.993	91	258983	20.36	ug/L		93
67) 1,1,2,2-Tetrachloroethane	11.047	83	71453	19.40	ug/L		97
68) 2-Chlorotoluene	11.114	126	45355	19.99	ug/L	#	79
69) 1,3,5-Trimethylbenzene	11.157	105	179814	23.10	ug/L		96
70) 1,2,3-Trichloropropane	11.151	110	24382	20.62	ug/L		95
71) t-1,4-Dichloro-2-butene	11.187	88	10875	22.93	ug/L	#	89
72) 4-Chlorotoluene	11.248	91	152440	20.69	ug/L		92
73) tert-Butylbenzene	11.406	91	96096	20.82	ug/L		86
74) 1,2,4-Trimethylbenzene	11.461	105	182794	23.25	ug/L		97
75) sec-Butylbenzene	11.546	105	212142	21.32	ug/L		95
76) 4-Isopropyltoluene	11.656	119	167444	22.07	ug/L		97
77) 1,3-Dichlorobenzene	11.710	146	88039	20.16	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	88684	19.11	ug/L		95
79) n-Butylbenzene	11.972	91	164424	22.36	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	80248	20.06	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	13250	19.00	ug/L	#	53
82) Hexachlorobutadiene	13.219	223	10473	20.70	ug/L		91
83) 1,2,4-Trichlorobenzene	13.237	180	47875	19.81	ug/L		93
84) Naphthalene	13.511	128	185064	21.35	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	47977	20.40	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102903.D
Acq On : 29 Oct 2019 10:36 am
Operator : IMA
Sample : 9101689-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 30 09:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102904.D
Acq On : 29 Oct 2019 11:03 am
Operator : IMA
Sample : 9101689-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 09:41:49 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	106	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	50.132	-0.3	106	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.854	4.3	100	0.00
4	H	NWTPH-Gx (TPH)	500.000	498.315	0.3	109	0.00
5	H	TPHg (C5-C9)	500.000	515.557	-3.1	110	0.00
6	H	TPHg (C6-C10)	500.000	515.757	-3.2	109	0.00
7	H	CA-LUFT (C5-C12)	500.000	507.867	-1.6	110	0.00
8		Benzene (NR)	-1.000	0.000	0.0	111	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	106	0.00
10		Toluene (NR)	-1.000	0.000	0.0	106	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	106	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	104	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102904.D
Acq On : 29 Oct 2019 11:03 am
Operator : IMA
Sample : 9101689-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 30 09:41:49 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

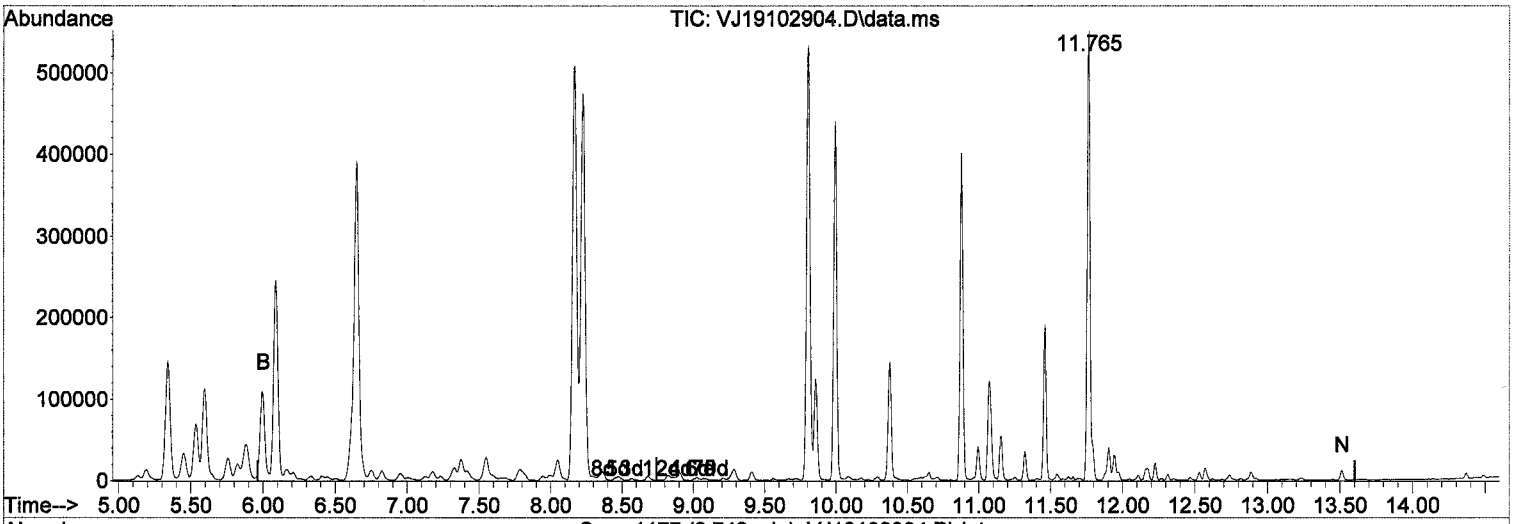
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	169261	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.649	114	322847	50.13	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.877	174	83020	47.85	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	398234	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	280410	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	181753	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	4217377m	498.31	ug/L	
5) TPHg (C5-C9)	9.239	TIC	6006219m	515.56	ug/L	
6) TPHg (C6-C10)	9.239	TIC	5099206m	515.76	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6964481m	507.87	ug/L	

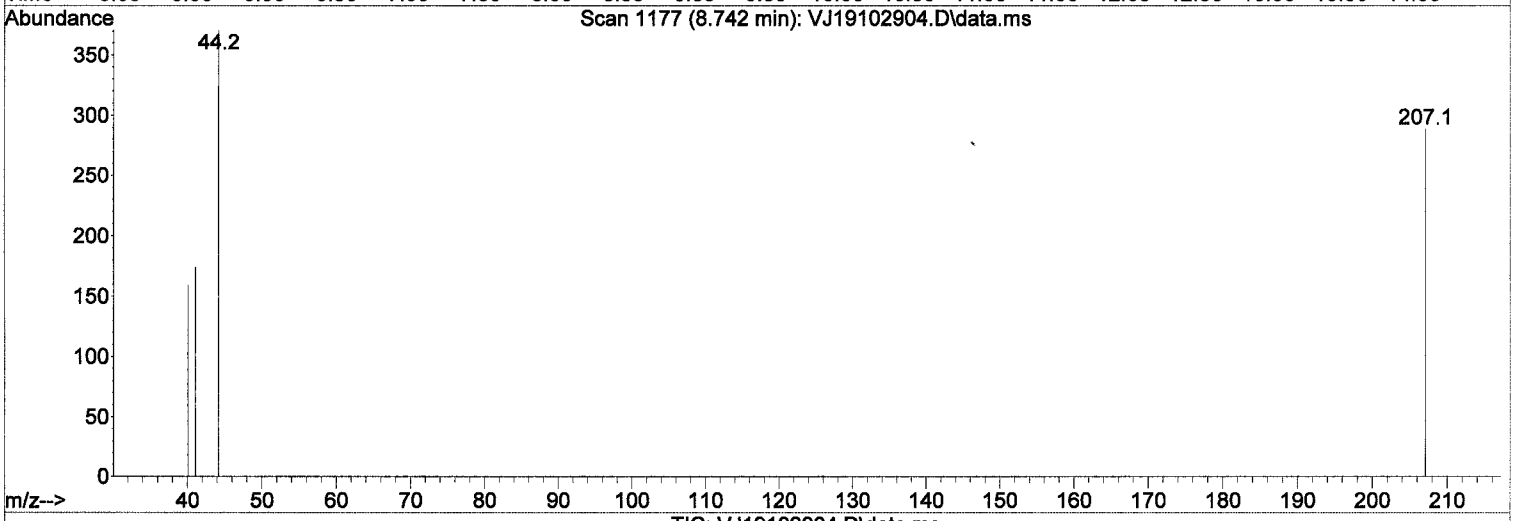
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102904.D
Acq On : 29 Oct 2019 11:03 am
Operator : IMA
Sample : 9101689-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 30 09:41:49 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102904.D\data.ms

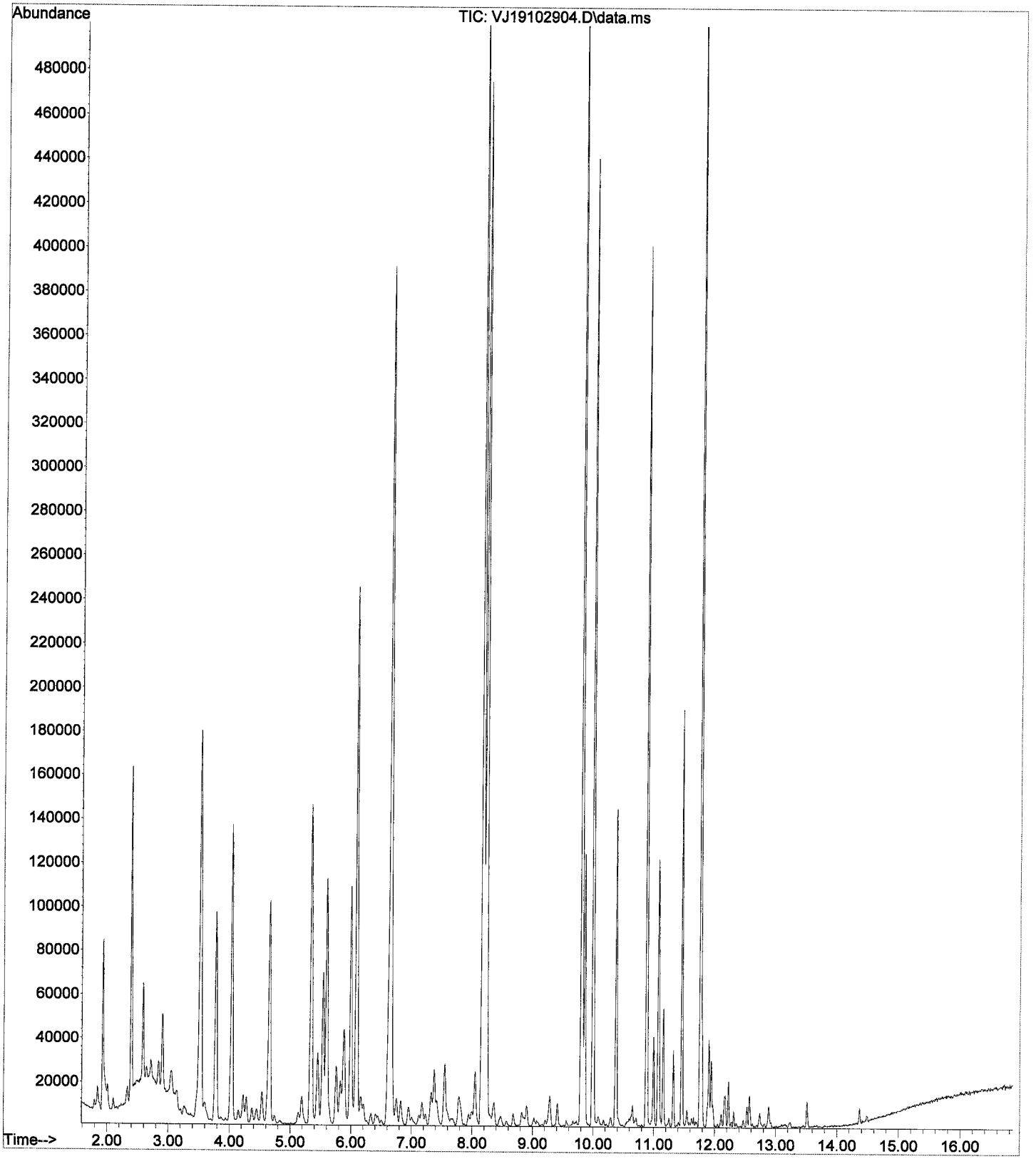
(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 498.31 ug/L m

response 4217377

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.01#
0.00	0.00	0.02#
0.00	0.00	0.00

File :C:\msdchem\1\data\2019-10\9J29035\VJ19102904.D
Operator : IMA
Acquired : 29 Oct 2019 11:03 am using AcqMethod VJ1907RUN.M
Instrument : VOA-GCMS10
Sample Name: 9101689-BS2
Misc Info : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
Vial Number: 4



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102905.D
Acq On : 29 Oct 2019 11:30 am
Operator : IMA
Sample : 9101689-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 09:42:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min) / Qvalue
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	151768	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	293155	50.77	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	71943	46.25	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	365749	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	253463	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	157051	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	118454m	19.13	ug/L	<MQL
5) TPHg (C5-C9)	9.239	TIC	354441m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	307081m	10.76	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	411158m	3.09	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102905.D
Acq On : 29 Oct 2019 11:30 am
Operator : IMA
Sample : 9101689-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 09:42:34 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

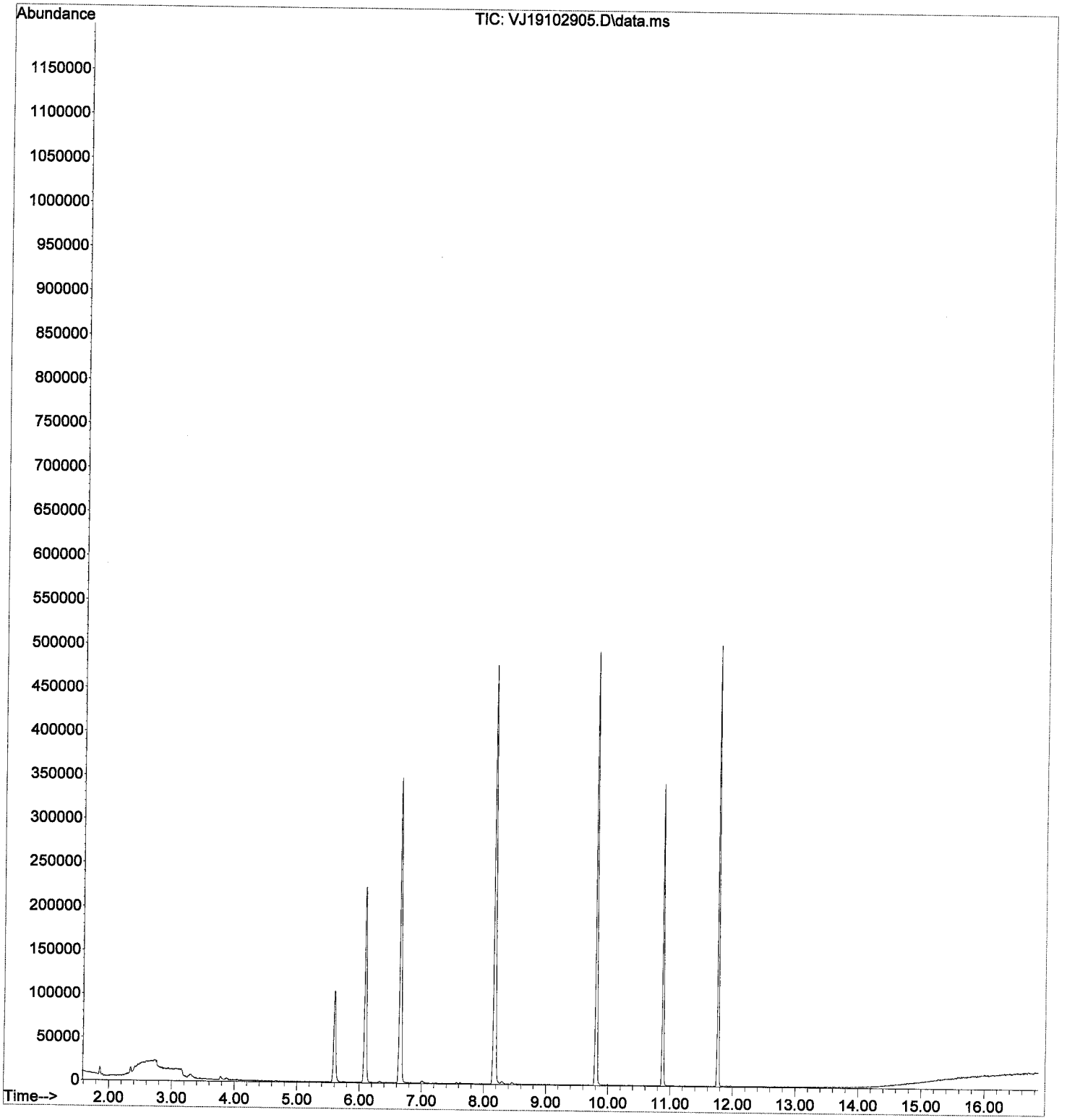
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	96809	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	253463	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	100179	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	75905	49.60	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	292824	49.17	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	365749	51.74	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	71943	49.74	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	1079	0.28	ug/L	< MDL	82
5) Bromomethane	2.348	96	3782	0.76	ug/L		94
6) Chloroethane	2.476	64	271	1.90	ug/L	#	1
8) Ethanol	3.309	45	7731	7.67	ug/L		93
12) Iodomethane	3.297	142	621	0.85	ug/L		72
13) Methylene Chloride	3.784	84	1566	Below Cal			90
14) Acetone	3.875	43	2174	1.47	ug/L		93
28) Tetrahydrofuran	5.590	42	508	0.26	ug/L	#	30
32) 2-Butanone (MEK)	5.743	43	522	0.20	ug/L		52
36) iso-Butyl Alcohol	6.327	43	643	2.16	ug/L		72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102905.D
Acq On : 29 Oct 2019 11:30 am
Operator : IMA
Sample : 9101689-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 30 09:42:34 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 12:28:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

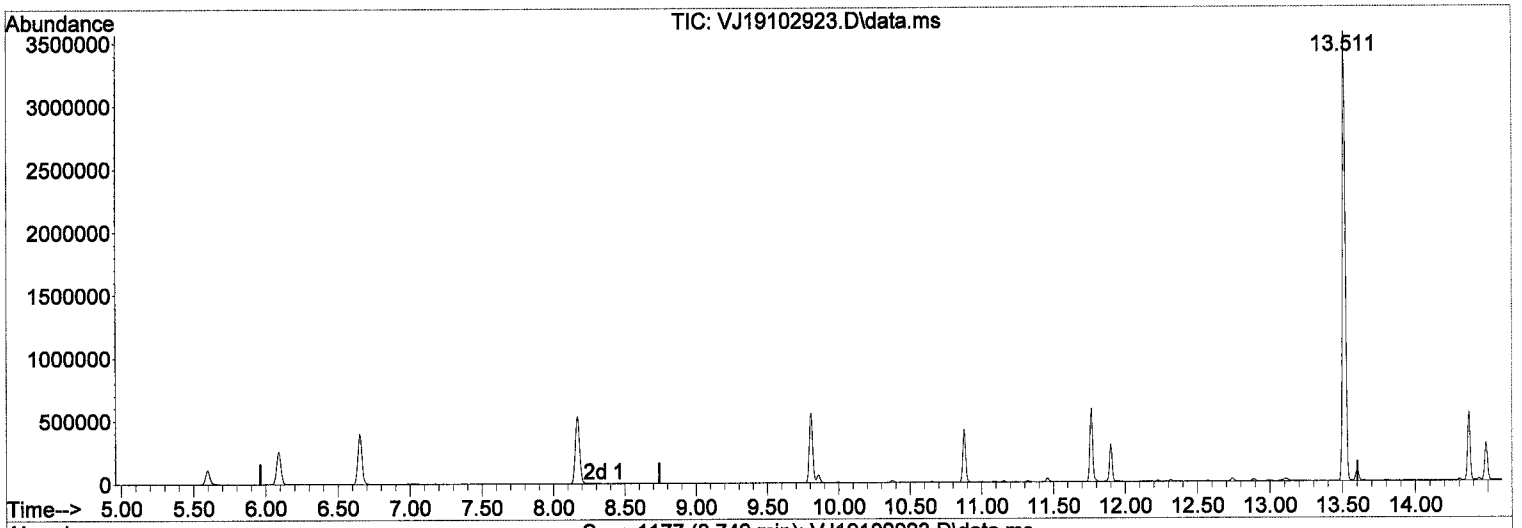
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	176478	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.649	114	336107	50.06	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.877	174	88198	48.76	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	416635	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	295956	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	192786	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	5807660m	655.19	ug/L	
5) TPHg (C5-C9)	9.239	TIC	500375m	4.93	ug/L	
6) TPHg (C6-C10)	9.239	TIC	434939m	18.73	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	1106996m	50.14	ug/L	

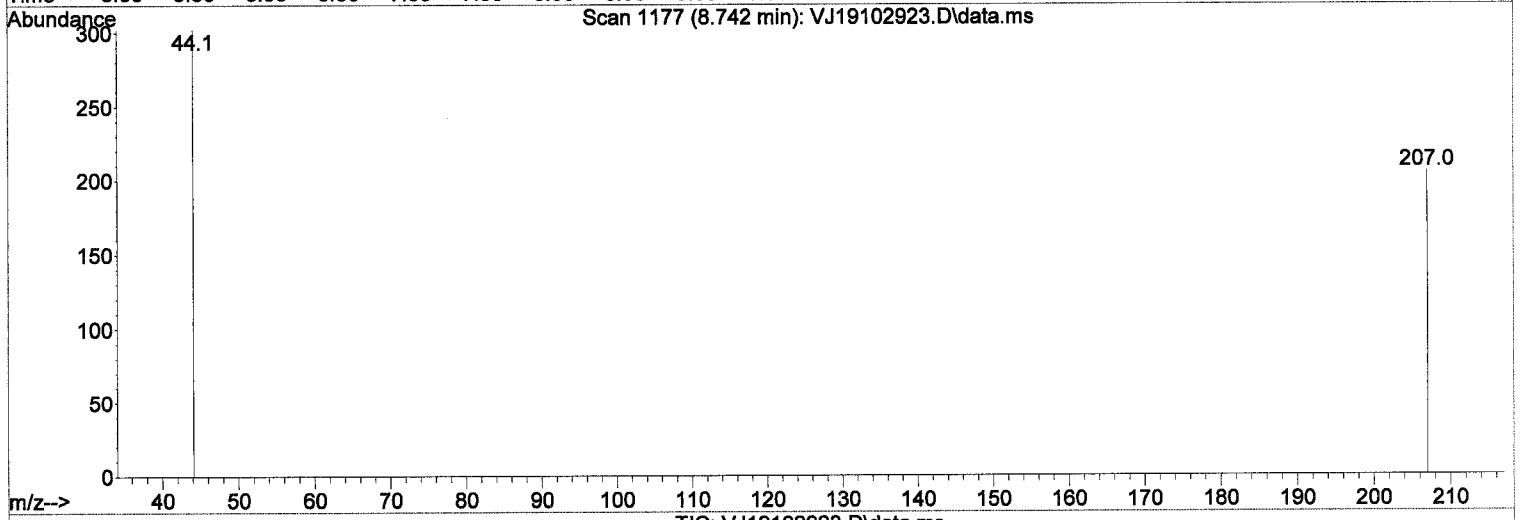
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 12:28:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102923.D\data.ms

(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 655.19 ug/L m

response 5807660

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	3.56#
0.00	0.00	2.92#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

IMA
10/30/19

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	110178	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	295757	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	122546	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	82708	47.49	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	336107	49.59	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	416635	50.51	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	88198	49.85	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	689	0.16	ug/L	<MDL	83
5) Bromomethane	2.342	96	3046	Below Cal			95
6) Chloroethane	2.470	64	119	1.48	ug/L	#	1
8) Ethanol	3.261	45	3792	Below Cal			88
13) Methylene Chloride	3.778	84	1519	Below Cal			88
14) Acetone	3.869	43	1155	0.69	ug/L	#	42
28) Tetrahydrofuran	5.603	42	290	0.13	ug/L	#	30
32) 2-Butanone (MEK)	5.743	43	808	0.27	ug/L		52
36) iso-Butyl Alcohol	6.314	43	623	1.84	ug/L		85
56) Ethylbenzene	9.855	91	42849	3.19	ug/L		96
58) m,p-Xylenes (2)	9.995	91	2081	0.22	ug/L	<MDL	92
59) o-Xylene	10.378	91	6647	0.73	ug/L		96
60) Styrene	10.378	104	58	0.18	ug/L	#<MDL	1
62) Isopropylbenzene	10.652	105	3583	0.33	ug/L		91
66) n-Propylbenzene	10.999	91	2051	0.15	ug/L		83
69) 1,3,5-Trimethylbenzene	11.151	105	3863	0.47	ug/L		90
74) 1,2,4-Trimethylbenzene	11.461	105	13832	1.67	ug/L		97
76) 4-Isopropyltoluene	11.656	119	1222	0.15	ug/L	<MDL	87
84) Naphthalene	13.511	128	2373971	260.53	ug/L		97

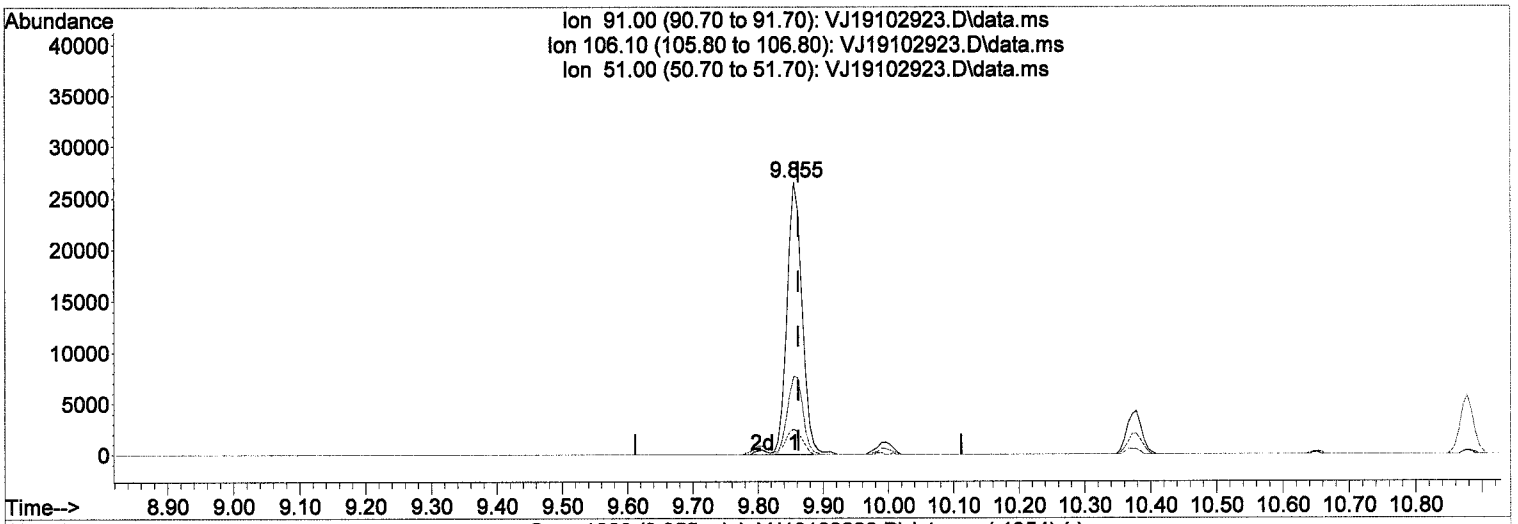
RR2

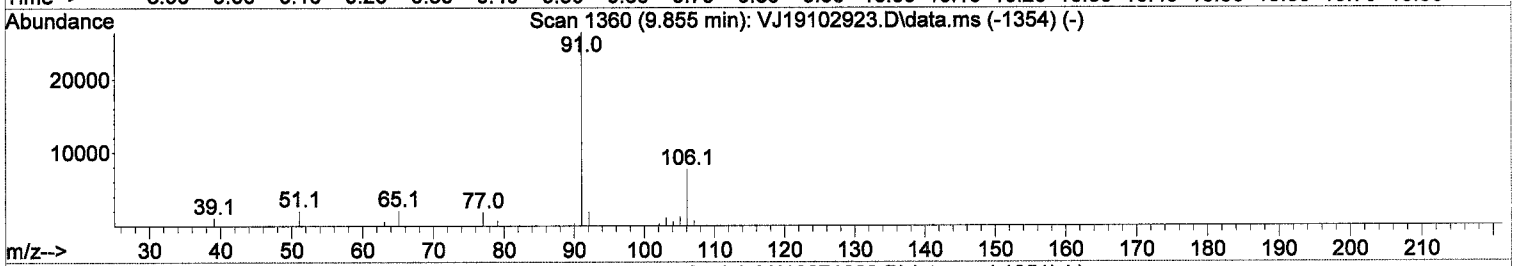
(#) = qualifier out of range (m) = manual integration (+) = signals summed

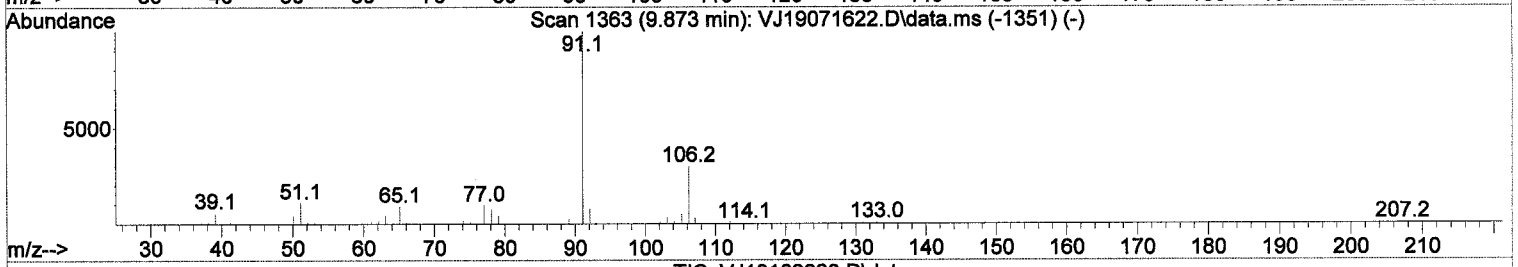
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102923.D\data.ms

(56) Ethylbenzene (C)

9.855min (-0.006) 3.19 ug/L

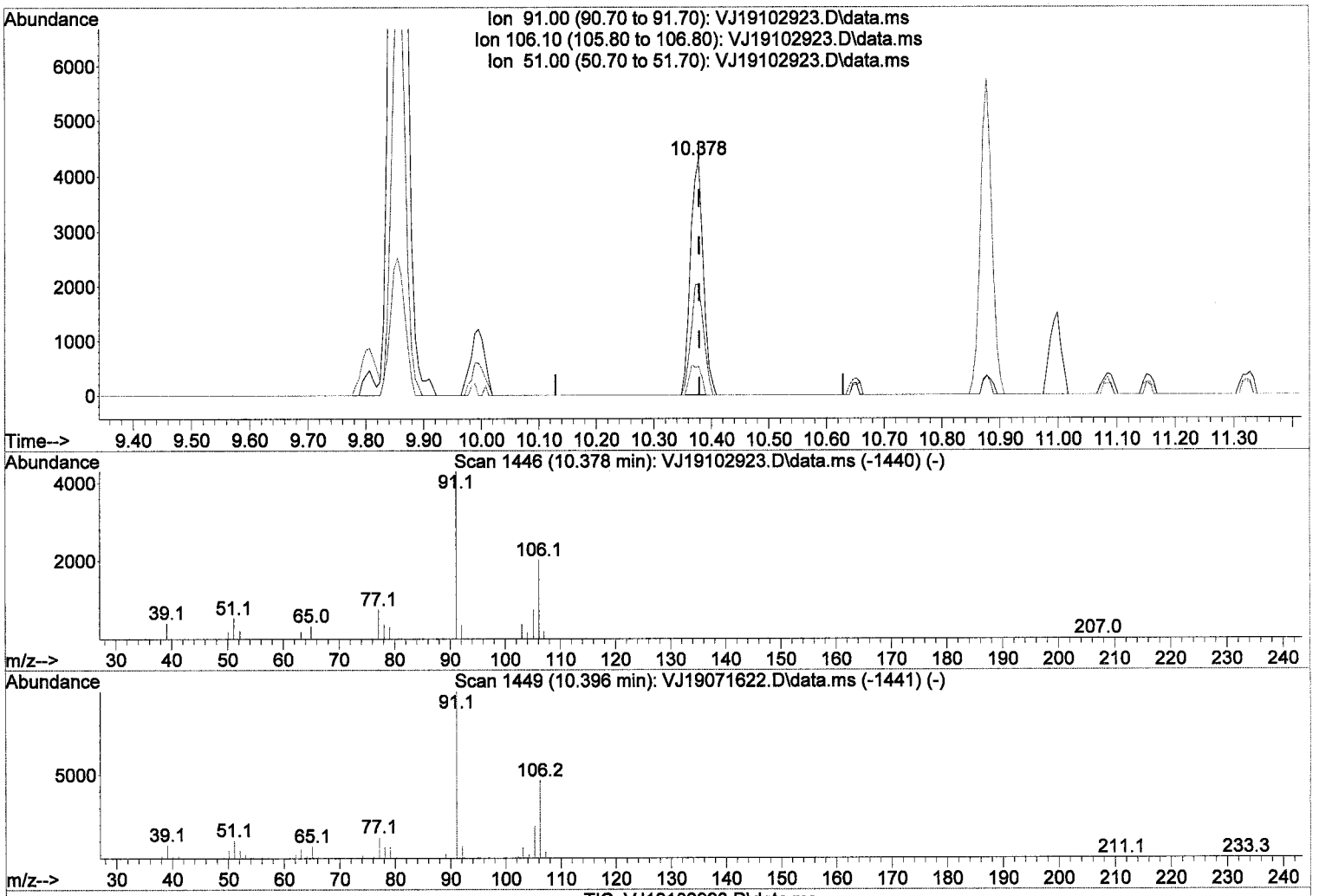
response 42849

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	28.84
51.00	9.80	9.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



TIC: VJ19102923.D\data.ms

(59) o-Xylene

10.378min (0.000) 0.73 ug/L

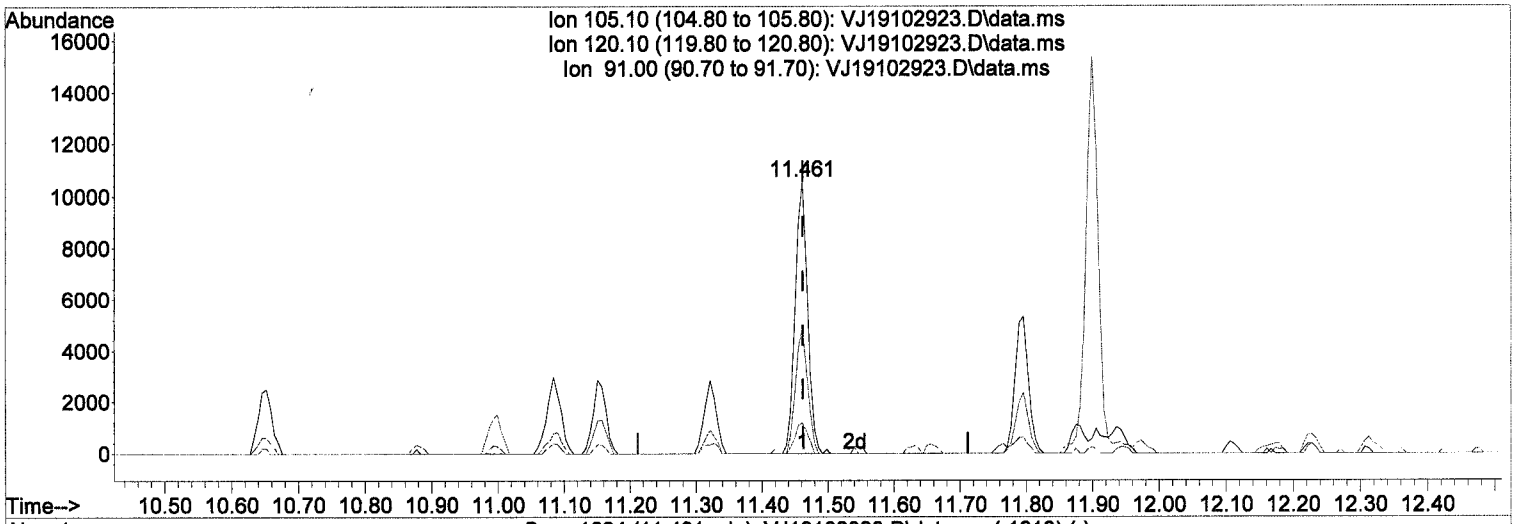
response 6647

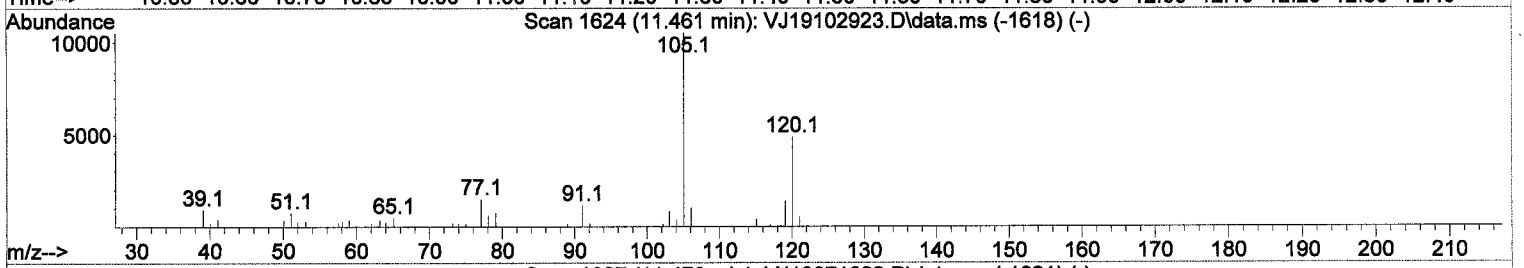
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	47.09
51.00	9.70	12.06
0.00	0.00	0.00

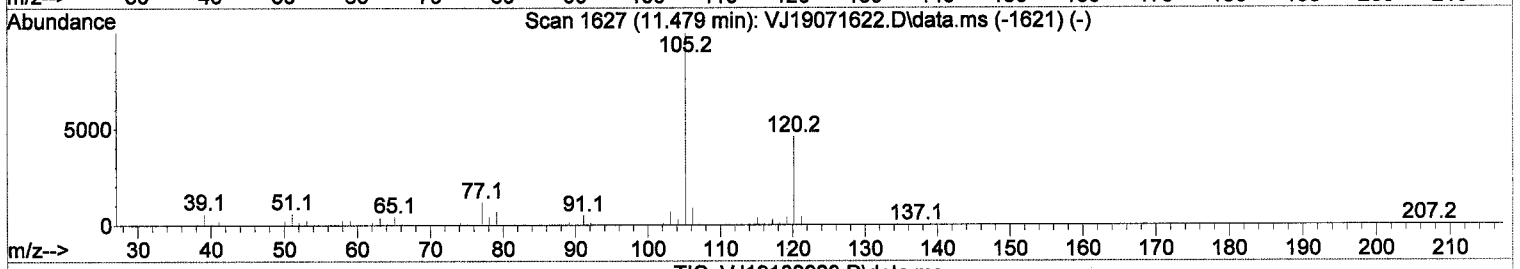
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102923.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (0.000) 1.67 ug/L

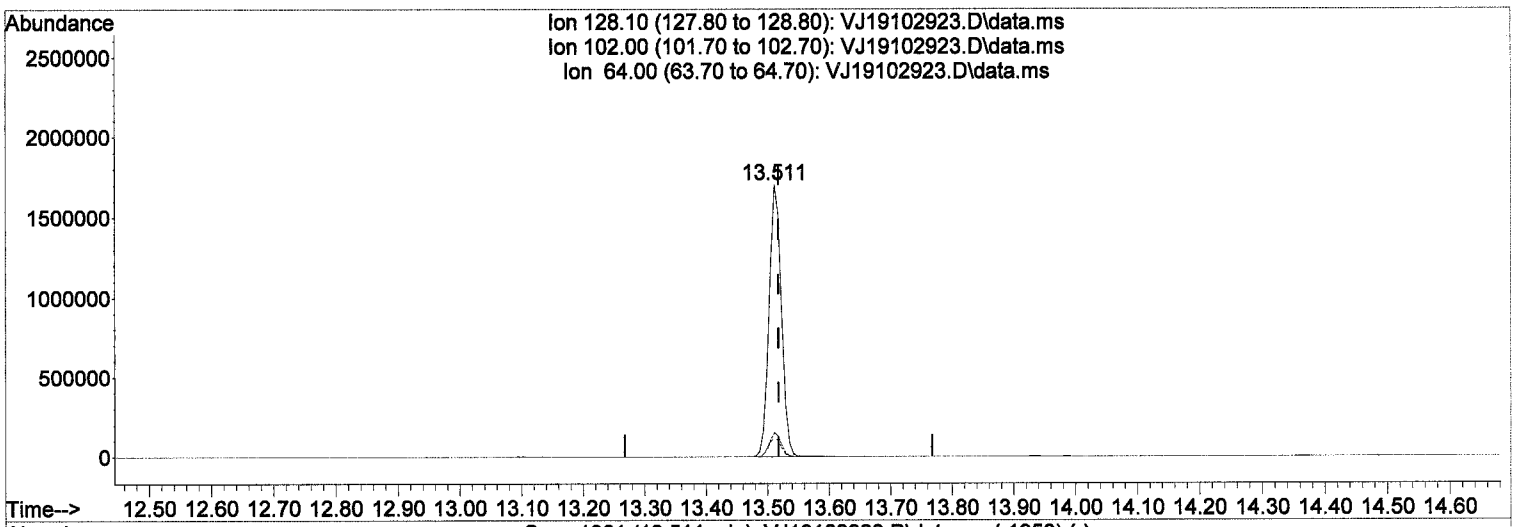
response 13832

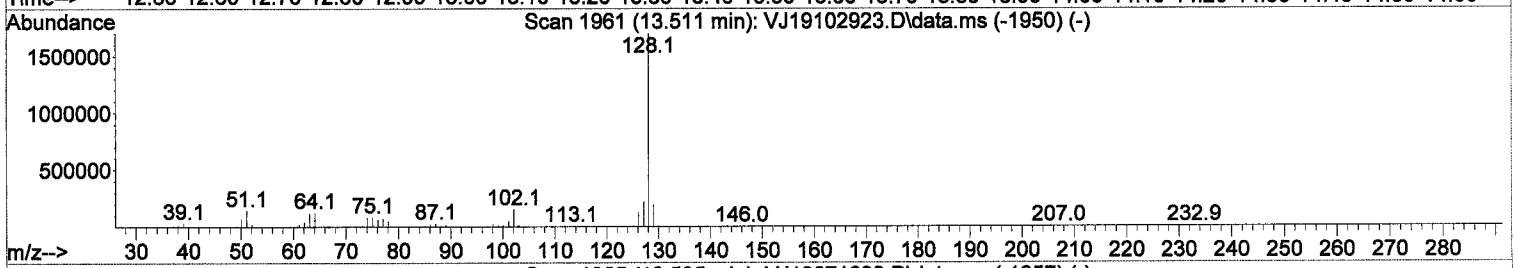
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	46.54
91.00	9.80	11.15
0.00	0.00	0.00

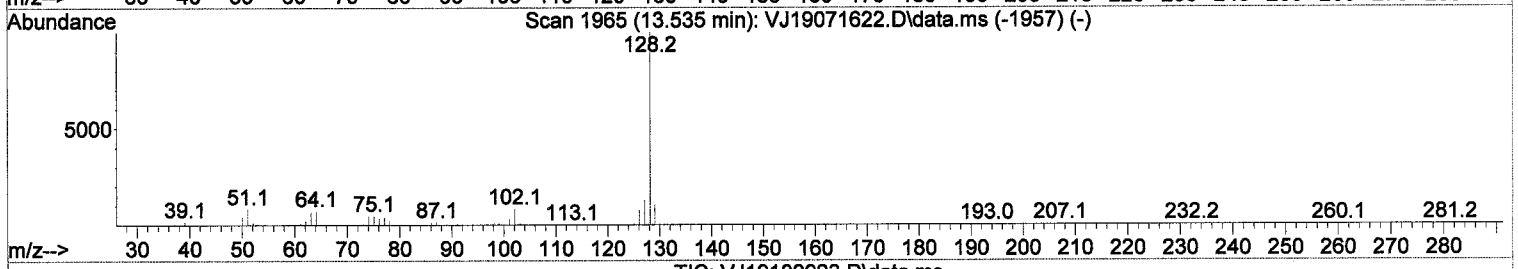
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102923.D\data.ms

(84) Naphthalene

13.511min (-0.006) 260.53 ug/L

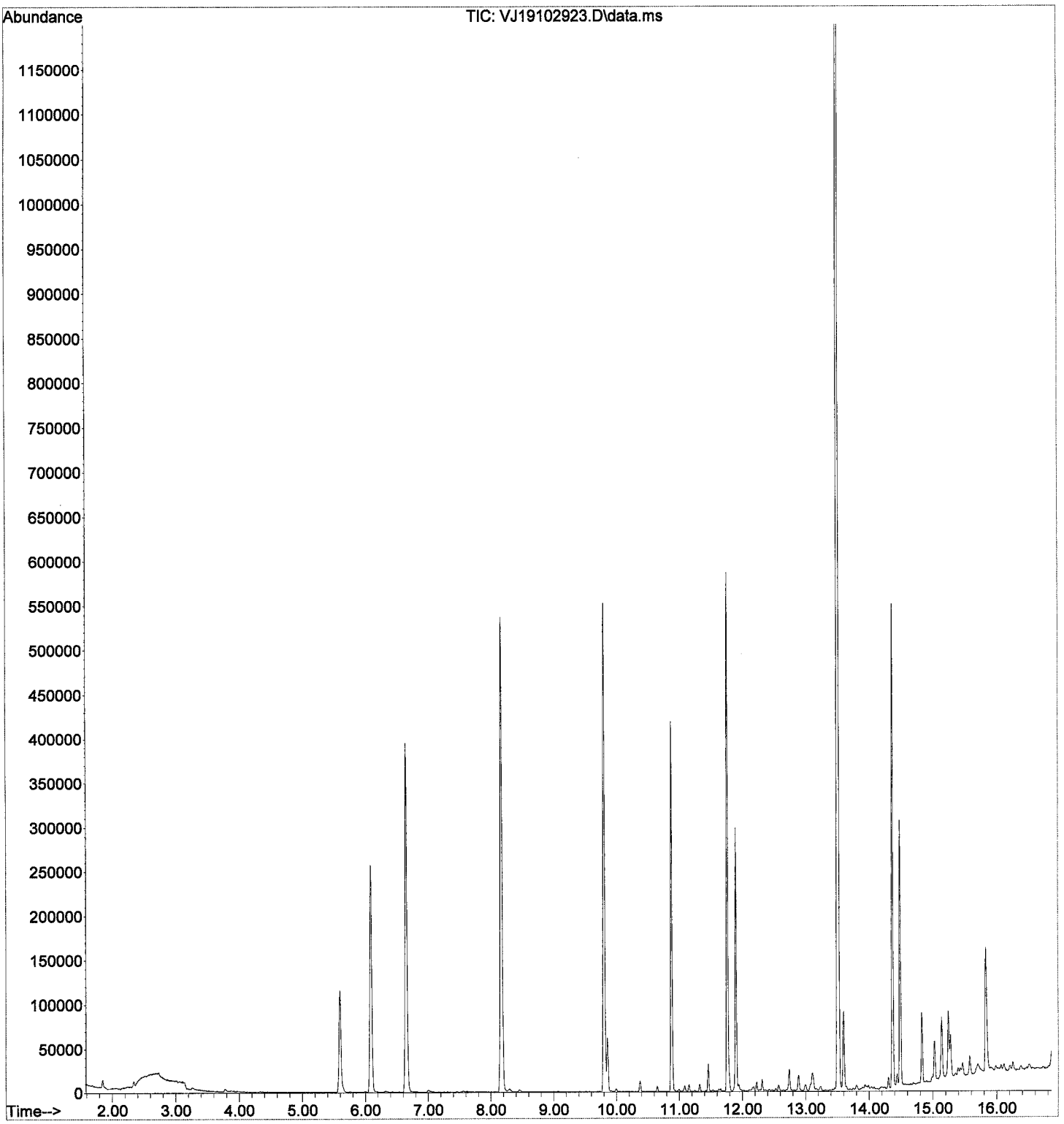
response 2373971

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.95
64.00	6.30	7.34
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J29035\
Data File : VJ19102923.D
Acq On : 29 Oct 2019 8:08 pm
Operator : IMA
Sample : A9J1007-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 30 11:16:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Volatile Organic Compounds by EPA 5035A/8260C
Calibration Data

Sequence 9J23072 (Cal ID A9J2404) VOA-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J23072	Instrument:	VOA-GCMS10
Date:	10/23/19 18:38	Calibration:	A9J2404

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J23072-IBL1	Soil	QC	QC			A19G118	
2	9J23072-TUN1	Soil	QC	QC			A19G118	
3	9J23072-ICB1	Soil	QC	QC			A19G118	
4	9J23072-CAL1	Soil	QC	QC			A19G118	A19J339
5	9J23072-CAL2	Soil	QC	QC			A19G118	A19J340
6	9J23072-CAL3	Soil	QC	QC			A19G118	A19J341
7	9J23072-CAL4	Soil	QC	QC			A19G118	A19J342
8	9J23072-CAL5	Soil	QC	QC			A19G118	A19J343
9	9J23072-CAL6	Soil	QC	QC			A19G118	A19J344
10	9J23072-CAL7	Soil	QC	QC			A19G118	A19J345
11	9J23072-CAL8	Soil	QC	QC			A19G118	A19J346
12	9J23072-CAL9	Soil	QC	QC			A19G118	A19J347
13	9J23072-IBL2	Soil	QC	QC			A19G118	
14	9J23072-CALA	Soil	QC	QC			A19G118	A19J348
15	9J23072-IBL3	Soil	QC	QC			A19G118	
16	9J23072-CALB	Soil	QC	QC			A19G118	A19J349
17	9J23072-IBL4	Soil	QC	QC			A19G118	
18	9J23072-IBL5	Soil	QC	QC			A19G118	
19	9J23072-ICV1	Soil	QC	QC			A19G118	A19J131
20	9J23072-ICV2	Soil	QC	QC			A19G118	A19E195
21	9J23072-IBL6	Soil	QC	QC			A19G118	
22	9J23072-TUN2	Soil	QC	QC			A19G118	
23	9J23072-IBL7	Soil	QC	QC			A19G118	
24	9J23072-ICB2	Soil	QC	QC			A19G118	
25	9J23072-CALC	Soil	QC	QC			A19G118	A19J269
26	9J23072-CALD	Soil	QC	QC			A19G118	A19J270
27	9J23072-CALE	Soil	QC	QC			A19G118	A19J271
28	9J23072-CALF	Soil	QC	QC			A19G118	A19J272
29	9J23072-CALG	Soil	QC	QC			A19G118	A19J273
30	9J23072-CALH	Soil	QC	QC			A19G118	A19J274
31	9J23072-CALI	Soil	QC	QC			A19G118	A19J275
32	9J23072-CALJ	Soil	QC	QC			A19G118	A19J276
33	9J23072-IBL8	Soil	QC	QC			A19G118	
34	9J23072-IBL9	Soil	QC	QC			A19G118	
35	9J23072-ICV3	Soil	QC	QC			A19G118	A19G350

Data Entered By: 10/24/19

Data Reviewed By: 10/24/19

Comments: Iodomethane EOS

Calibration Status Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102323.D
2	2	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102324.D
3	3	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102325.D
4	4	1	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102326.D
5	5	2	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102327.D
6	6	5	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102328.D
7	7	10	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102329.D
8	8	20	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102330.D
9	9	50	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102331.D
10	10	100	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102333.D
11	1a	200	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102335.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Oct 24 08:55 2019	Oct 24 08:19 2019	23 Oct 2019 10:18 pm
2	2	Oct 24 08:55 2019	Oct 24 08:22 2019	23 Oct 2019 10:45 pm
3	3	Oct 24 08:55 2019	Oct 24 08:24 2019	23 Oct 2019 11:12 pm
4	4	Oct 24 08:55 2019	Oct 24 08:25 2019	23 Oct 2019 11:38 pm
5	5	Oct 24 08:55 2019	Oct 24 08:27 2019	24 Oct 2019 12:05 am
6	6	Oct 24 08:55 2019	Oct 24 08:29 2019	24 Oct 2019 12:32 am
7	7	Oct 24 08:55 2019	Oct 24 08:31 2019	24 Oct 2019 12:59 am
8	8	Oct 24 08:55 2019	Oct 24 08:33 2019	24 Oct 2019 1:26 am
9	9	Oct 24 08:55 2019	Oct 24 08:42 2019	24 Oct 2019 1:53 am
10	10	Oct 24 08:55 2019	Oct 24 08:51 2019	24 Oct 2019 2:46 am
11	1a	Oct 24 08:55 2019	Oct 24 08:54 2019	24 Oct 2019 3:40 am

VJ191024S.M Thu Oct 24 09:44:02 2019

A9J2404

Response Factor Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019
Response Via : Initial Calibration

Calibration Files
1 =VJ19102323.D 2 =VJ19102324.D 3 =VJ19102325.D 4 =VJ19102326.D 5 =VJ19102327.D 6 =VJ19102328.D
7 =VJ19102329.D 8 =VJ19102330.D 9 =VJ19102331.D 10 =VJ19102333.D 1a =VJ19102335.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg		%RSD
1)	I	Pentafluorobenzene...	ISTD													
2)		Dichlorodifluo...				1.102	1.175	1.126	1.116	1.135	1.254	1.178	1.171	1.157		4.20
3)	P	Chloromethane					2.359	2.024	1.892	1.940	1.916	1.806	1.789	1.961		9.83
4)	C	Vinyl Chloride			1.488	1.644	1.648	1.477	1.463	1.538	1.483	1.428	1.444	1.513		5.40
5)		Bromomethane	1.476	0.837	0.453	0.250	0.137	0.095	0.076	0.068	0.060	0.056	0.059	0.324	E1	139.32
6)		Chloroethane					0.147	0.140	0.140	0.164	0.216	0.214	0.211	0.176		20.51
7)		Trichlorofluor...				0.279	0.330	0.344	0.356	0.336	0.368	0.352	0.336	0.338		7.88
8)		Ethanol				0.106	0.081	0.058	0.050	0.052	0.046	0.041		0.062		37.93
9)	C	1,1-Dichloroet...			2.025	1.927	1.952	1.828	1.836	1.871	1.729	1.802	1.773	1.860		5.03
10)		Carbon Disulfide	4.823	3.939	3.347	3.250	3.390	3.078	3.114	3.206	3.192	3.402	3.431	3.470		14.56
11)		Freon 113			1.020	1.166	1.217	1.119	1.140	1.148	1.081	1.141	1.140	1.130		4.85
12)		Iodomethane					0.411	0.324	0.331	0.381	0.448			0.379		13.91
13)		Methylene Chlo...	1.126	0.625	0.364	0.205	0.164	0.131	0.122	0.124	0.113	0.114	0.112	0.291	E1	109.50
14)		Acetone						0.846	0.770	0.820	0.718	0.701	0.723	0.763		7.78
15)		t-1,2-Dichloro...		1.876	1.991	2.014	2.086	1.969	1.960	1.963	1.822	1.894	1.872	1.945		4.05
16)		n-Hexane				0.241	0.300	0.282	0.303	0.295	0.299	0.316	0.320	0.295		8.37
17)		Methyl-tert-bu...				4.762	4.808	4.602	4.432	4.700	4.469	4.642	4.802	4.652		3.10
18)		tert-Butanol (...			0.384	0.378	0.410	0.370	0.381	0.436	0.403	0.377		0.393		5.68
19)		Diisopropyl et...			4.795	4.870	4.832	4.621	4.683	4.975	4.866	4.564		4.776		2.93
20)	P	1,1-Dichloroet...		1.892	1.955	2.173	2.237	2.134	2.067	2.135	1.976	1.987	1.967	2.052		5.51
21)		Acrylonitrile			0.548	0.869	0.922	0.890	0.885	0.968	0.892	0.889	0.910	0.864		14.09
22)		Ethyl-tert-but...				4.506	4.401	4.129	4.224	4.434	4.321	4.103		4.303		3.61
23)		c-1,2-Dichloro...			2.010	1.993	2.018	1.897	1.884	1.949	1.807	1.866	1.843	1.918		4.01
24)		2,2-Dichloropr...		2.000	2.199	1.997	2.031	1.873	1.888	1.917	1.805	1.869	1.849	1.943		5.98
25)		Bromochloromet...			1.082	1.253	1.262	1.176	1.160	1.220	1.113	1.134	1.112	1.168		5.55
26)	C	Chloroform		1.944	2.034	2.275	2.367	2.242	2.254	2.290	2.160	2.201	2.163	2.193		5.73
27)		Carbon Tetrach...		0.964	1.252	1.477	1.511	1.449	1.477	1.565	1.509	1.612	1.671	1.449		14.03
28)		Tetrahydrofuran				1.298	1.149	0.966	0.925	0.987	0.906	0.928	0.958	1.015		13.52
29)		1,1,1-Trichlor...		1.803	1.789	1.984	2.167	2.025	2.020	2.125	1.990	2.124	2.130	2.016		6.58
30)	S	Dibromofluorom...	0.774	0.782	0.789	0.789	0.771	0.779	0.791	0.790	0.810	0.800	0.816	0.790		1.79
31)		1,1-Dichloropr...			1.863	1.950	2.038	1.889	1.926	2.004	1.899	2.027	2.037	1.959		3.52
32)		2-Butanone (MEK)				1.621	1.439	1.273	1.246	1.348	1.249	1.268	1.307	1.344		9.59
33)		Benzene	7.293	6.724	6.328	6.338	6.677	6.286	6.268	6.398	5.960	6.183	6.174	6.421		5.63
34)		tert-Amyl meth...				4.666	4.529	4.116	3.928	4.070	3.921	3.816		4.150		7.81
35)		1,2-Dichloroet...		1.863	1.813	2.037	2.151	1.992	1.990	2.070	1.931	1.974	1.955	1.978		4.93
36)		iso-Butyl Alcohol				0.135	0.157	0.137	0.142	0.164	0.157	0.165	0.172	0.154		9.10
37)	S	1,4-Difluorobe...	3.054	3.112	3.060	3.077	3.052	3.067	3.061	3.038	3.083	3.081	3.151	3.076		1.03
38)		Trichloroethen...		1.001	1.266	1.292	1.348	1.294	1.281	1.325	1.255	1.331	1.365	1.276		8.06
39)		tert-Amyl ethy...			2.124	2.682	3.174	2.894	2.921	3.107	3.130	3.026		2.882		11.98
40)		Dibromomethane			0.758	0.779	0.845	0.810	0.803	0.843	0.798	0.814	0.803	0.806		3.43

Method Path : C:\msdchem\1\methods\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds

41)	C	1,2-Dichloropr...			1.577	1.560	1.645	1.575	1.584	1.621	1.530	1.594	1.615	1.589	2.17
42)		Bromodichlorom...		1.148	1.346	1.407	1.529	1.505	1.535	1.691	1.672	1.820	1.875	1.553	14.23
43)		Chlorobenzene-d5 (I)	----------	ISTD	----------										
44)		c-1,3-Dichloro...		0.568	0.665	0.668	0.740	0.729	0.742	0.798	0.801	0.865	0.876	0.745	12.78
45)	S	Toluene-d8 (S)	1.398	1.385	1.395	1.399	1.410	1.392	1.399	1.384	1.399	1.397	1.379	1.394	0.64
46)	C	Toluene	2.571	2.423	2.356	2.326	2.441	2.246	2.279	2.349	2.194	2.282	2.237	2.337	4.66
47)		Tetrachloroeth...		0.333	0.398	0.431	0.458	0.440	0.448	0.459	0.433	0.468	0.468	0.434	9.46
48)		4-Methyl-2-Pen...			0.726	0.588	0.676	0.662	0.705	0.798	0.775	0.807	0.781	0.724	10.15
49)		t-1,3-Dichloro...		0.552	0.688	0.618	0.695	0.697	0.750	0.808	0.787	0.817	0.813	0.722	12.37
50)		1,1,2-Trichlor...		0.397	0.461	0.460	0.513	0.491	0.488	0.510	0.472	0.480	0.469	0.474	6.91
51)		Dibromochlorom...				0.304	0.356	0.352	0.364	0.397	0.404	0.436	0.450	0.383	12.61
52)		1,3-Dichloropr...		0.810	0.849	0.878	0.980	0.905	0.904	0.943	0.878	0.890	0.871	0.891	5.29
53)		1,2-Dibromoeth...		0.406	0.390	0.412	0.462	0.453	0.465	0.497	0.481	0.492	0.487	0.454	8.56
54)		2-Hexanone					0.465	0.442	0.490	0.585	0.574	0.612	0.606	0.539	13.20
55)	P	Chlorobenzene	1.321	1.354	1.368	1.311	1.445	1.325	1.325	1.363	1.254	1.318	1.277	1.333	3.80
56)	C	Ethylbenzene	2.101	2.084	2.174	2.152	2.319	2.255	2.332	2.430	2.319	2.433	2.379	2.271	5.56
57)		1,1,1,2-Tetrac...			0.352	0.377	0.399	0.405	0.410	0.436	0.430	0.455	0.451	0.413	8.29
58)		m,p-Xylenes (2)	1.456	1.462	1.402	1.457	1.582	1.601	1.693	1.777	1.715	1.833	1.807	1.617	9.72
59)		o-Xylene	1.375	1.371	1.299	1.424	1.516	1.495	1.585	1.704	1.673	1.790	1.746	1.543	10.87
60)		Styrene		0.850	0.776	0.770	0.855	0.913	1.022	1.148	1.215	1.362	1.362	1.027	22.43
61)	P	Bromoform			0.152	0.177	0.204	0.206	0.226	0.261	0.277	0.308	0.308	0.235	23.91
62)		Isopropylbenzene	1.515	1.608	1.582	1.678	1.796	1.801	1.958	2.093	2.072	2.214	2.139	1.860	13.31
63)	I	1,4-Dichlorobenzen...	----------	ISTD	----------										
64)	S	4-Bromofluorob...	0.739	0.728	0.729	0.730	0.730	0.728	0.740	0.716	0.715	0.695	0.690	0.722	2.28
65)		Bromobenzene		0.951	1.003	1.030	1.144	1.044	1.084	1.062	1.006	1.012	1.010	1.035	5.11
66)		n-Propylbenzene	5.038	5.253	5.136	5.237	5.607	5.395	5.736	5.728	5.558	5.670	5.631	5.454	4.61
67)	P	1,1,2,2-Tetrac...		1.514	1.407	1.544	1.795	1.603	1.659	1.676	1.556	1.525	1.513	1.579	6.87
68)		2-Chlorotoluene		0.828	0.952	0.968	0.987	0.944	1.019	1.024	0.979	1.017	1.012	0.973	5.99
69)		1,3,5-Trimethy...	2.560	2.938	2.907	3.006	3.372	3.354	3.668	3.762	3.628	3.744	3.780	3.338	12.70
70)		1,2,3-Trichlor...			0.446	0.489	0.569	0.496	0.535	0.536	0.498	0.496	0.498	0.507	6.92
71)		t-1,4-Dichloro...				0.161	0.175	0.194	0.200	0.219	0.223	0.228	0.228	0.203	12.54
72)		4-Chlorotoluene		2.999	2.756	2.952	3.283	3.136	3.337	3.376	3.209	3.287	3.258	3.159	6.28
73)		tert-Butylbenzene		1.799	1.642	1.804	1.952	1.987	2.107	2.139	2.092	2.142	2.129	1.979	8.93
74)		1,2,4-Trimethy...	3.161	2.825	2.810	2.979	3.419	3.360	3.740	3.758	3.621	3.721	3.695	3.372	11.06
75)		sec-Butylbenzene		3.687	3.574	3.668	4.164	4.270	4.713	4.655	4.593	4.697	4.654	4.268	10.98
76)		4-Isopropyltol...		2.786	2.652	2.651	3.100	3.135	3.511	3.595	3.617	3.740	3.741	3.253	13.63
77)		1,3-Dichlorobe...	1.581	1.824	1.861	1.881	2.057	1.913	1.971	1.959	1.836	1.864	1.848	1.872	6.38
78)		1,4-Dichlorobe...	2.177	1.960	2.114	2.019	2.170	1.943	1.977	1.958	1.837	1.883	1.856	1.990	5.96
79)		n-Butylbenzene		2.999	2.871	2.856	3.056	3.027	3.276	3.328	3.311	3.431	3.387	3.154	6.84
80)		1,2-Dichlorobe...	1.517	1.641	1.681	1.703	1.868	1.744	1.796	1.804	1.682	1.715	1.721	1.716	5.40
81)		1,2-Dibromo-3-...					0.274	0.242	0.272	0.298	0.307	0.334	0.366	0.299	13.90
82)		Hexachlorobuta...			0.164	0.184	0.217	0.239	0.237	0.230	0.231	0.226	0.224	0.217	11.77
83)		1,2,4-Trichlor...		0.942	0.951	0.992	1.094	0.983	1.059	1.095	1.073	1.075	1.098	1.036	6.02
84)		Naphthalene		3.526	3.368	3.115	3.558	3.260	3.645	4.050	4.086	4.181	4.389	3.718	11.60
85)		1,2,3-Trichlor...		0.985	0.871	0.893	1.118	0.956	1.036	1.068	1.039	1.040	1.079	1.008	8.02

(#) = Out of Range

Compound List Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019
Response Via : Initial Calibration

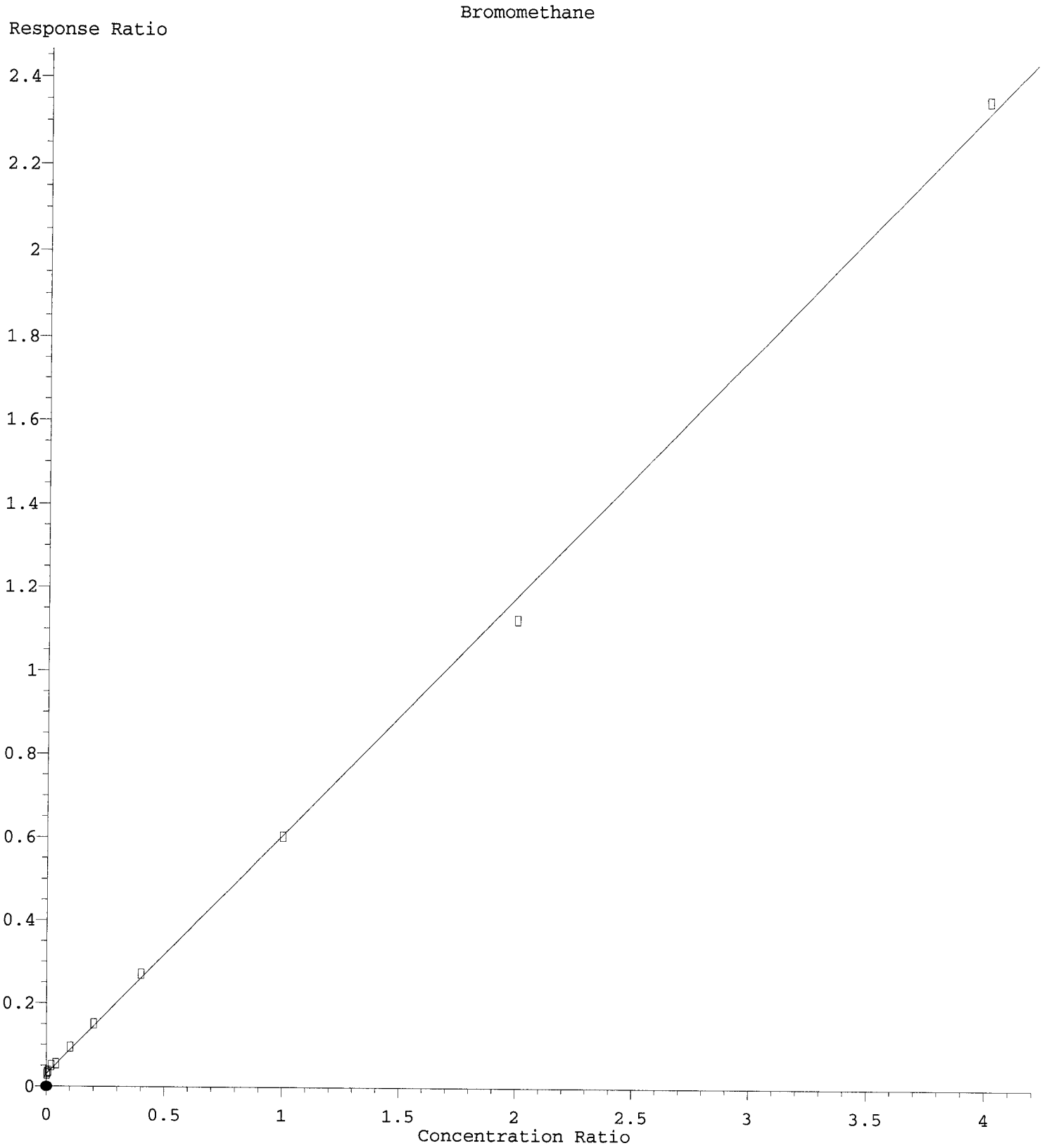
Total Cpnds : 85

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (I)	99	6.089	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.691	0.278	A	2	A	R
3	P	Chloromethane	50	1.897	0.312	A	2	A	R
4	C	Vinyl Chloride	62	1.995	0.328	A	2	A	R
5		Bromomethane	96	2.347	0.385	Q	2	A	R
6		Chloroethane	64	2.469	0.405	Q	2	A	R
7		Trichlorofluoromethane	101	2.597	0.427	A	2	A	R
8		Ethanol	45	3.315	0.544	Q	1	A	R
9	C	1,1-Dichloroethene	61	3.139	0.515	A	2	A	R
10		Carbon Disulfide	76	3.150	0.517	A	2	A	R
11		Freon 113	101	3.200	0.525	A	2	A	R
12		Iodomethane	142	3.290	0.540	A	2	A	R
13		Methylene Chloride	84	3.777	0.620	Q	2	A	R
14		Acetone	43	3.868	0.635	A	1	A	R
15		t-1,2-Dichloroethene	61	3.948	0.648	A	2	A	R
16		n-Hexane	86	4.045	0.664	A	3	A	R
17		Methyl-tert-butyl-ether	73	4.106	0.674	A	3	A	R
18		tert-Butanol (TBA)	59	4.264	0.700	A	1	A	R
19		Diisopropyl ether (DIPE)	45	4.507	0.740	A	2	A	R
20	P	1,1-Dichloroethane	63	4.580	0.752	A	2	A	R
21		Acrylonitrile	53	4.635	0.761	A	2	A	R
22		Ethyl-tert-butyl ether (ETBE)	59	4.872	0.800	A	2	A	R
23		c-1,2-Dichloroethene	61	5.128	0.842	A	2	A	R
24		2,2-Dichloropropane	77	5.243	0.861	A	2	A	R
25		Bromochloromethane	49	5.328	0.875	A	2	A	R
26	C	Chloroform	83	5.414	0.889	A	2	A	R
27		Carbon Tetrachloride	117	5.554	0.912	A	2	A	R
28		Tetrahydrofuran	42	5.590	0.918	A	2	A	R
29		1,1,1-Trichloroethane	97	5.621	0.923	A	2	A	R
30	S	Dibromofluoromethane (S)	111	5.597	0.919	A	2	A	R
31		1,1-Dichloropropene	75	5.749	0.944	A	2	A	R
32		2-Butanone (MEK)	43	5.736	0.942	A	2	A	R
33		Benzene	78	6.004	0.986	A	2	A	R
34		tert-Amyl methyl ether (TAME)	73	6.156	1.011	A	2	A	R
35		1,2-Dichloroethane (EDC)	62	6.205	1.019	A	2	A	R
36		iso-Butyl Alcohol	43	6.290	1.033	A	2	A	R
37	S	1,4-Difluorobenzene (S)	114	6.655	1.093	A	2	A	R
38		Trichloroethene (TCE)	130	6.624	1.088	A	2	A	R
39		tert-Amyl ethyl ether (TAEE)	59	6.904	1.134	A	2	A	R
40		Dibromomethane	93	7.062	1.160	A	2	A	R
41	C	1,2-Dichloropropane	63	7.172	1.178	A	2	A	R
42		Bromodichloromethane	83	7.251	1.191	A	2	A	R
43	I	Chlorobenzene-d5 (I)	117	9.806	1.000	A	2	A	R
44		c-1,3-Dichloropropene	75	7.950	0.811	A	2	A	R
45	S	Toluene-d8 (S)	98	8.170	0.833	A	2	A	R
46	C	Toluene	91	8.231	0.839	A	2	A	R
47		Tetrachloroethene (PCE)	166	8.680	0.885	A	2	A	R
48		4-Methyl-2-Pentanone (MIBK)	43	8.669	0.884	A	2	A	R
49		t-1,3-Dichloropropene	75	8.699	0.887	A	2	A	R
50		1,1,2-Trichloroethane	97	8.875	0.905	A	2	A	R
51		Dibromochloromethane	129	9.064	0.924	A	2	A	R
52		1,3-Dichloropropane	76	9.162	0.934	A	2	A	R
53		1,2-Dibromoethane (EDB)	107	9.301	0.948	A	2	A	R
54		2-Hexanone	43	9.313	0.949	A	2	A	R

55	P	Chlorobenzene	112	9.825	1.002	A	2	A	R
56	C	Ethylbenzene	91	9.861	1.006	A	2	A	R
57		1,1,1,2-Tetrachloroethane	131	9.886	1.008	A	2	A	R
58		m,p-Xylenes (2)	91	9.995	1.019	A	2	A	R
59		o-Xylene	91	10.378	1.058	A	2	A	R
60		Styrene	104	10.420	1.063	Q	2	A	R
61	P	Bromoform	173	10.439	1.065	Q	2	A	R
62		Isopropylbenzene	105	10.652	1.086	A	2	A	R
63	I	1,4-Dichlorobenzene-d4 (I)	152	11.765	1.000	A	2	A	R
64	S	4-Bromofluorobenzene (S)	174	10.883	0.925	A	2	A	R
65		Bromobenzene	156	10.962	0.932	A	2	A	R
66		n-Propylbenzene	91	10.999	0.935	A	2	A	R
67	P	1,1,2,2-Tetrachloroethane	83	11.047	0.939	A	2	A	R
68		2-Chlorotoluene	126	11.120	0.945	A	2	A	R
69		1,3,5-Trimethylbenzene	105	11.157	0.948	A	2	A	R
70		1,2,3-Trichloropropane	110	11.150	0.948	A	2	A	R
71		t-1,4-Dichloro-2-butene	88	11.187	0.951	A	3	A	R
72		4-Chlorotoluene	91	11.248	0.956	A	2	A	R
73		tert-Butylbenzene	91	11.406	0.969	A	2	A	R
74		1,2,4-Trimethylbenzene	105	11.461	0.974	A	2	A	R
75		sec-Butylbenzene	105	11.546	0.981	A	2	A	R
76		4-Isopropyltoluene	119	11.656	0.991	A	2	A	R
77		1,3-Dichlorobenzene	146	11.710	0.995	A	2	A	R
78		1,4-Dichlorobenzene	146	11.778	1.001	A	2	A	R
79		n-Butylbenzene	91	11.972	1.018	A	2	A	R
80		1,2-Dichlorobenzene	146	12.093	1.028	A	2	A	R
81		1,2-Dibromo-3-Chloropropane	157	12.696	1.079	A	2	A	R
82		Hexachlorobutadiene	223	13.219	1.124	A	3	A	R
83		1,2,4-Trichlorobenzene	180	13.243	1.126	A	2	A	R
84		Naphthalene	128	13.517	1.149	A	2	A	R
85		1,2,3-Trichlorobenzene	180	13.675	1.162	A	2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VJ191024S.M Thu Oct 24 09:43:58 2019

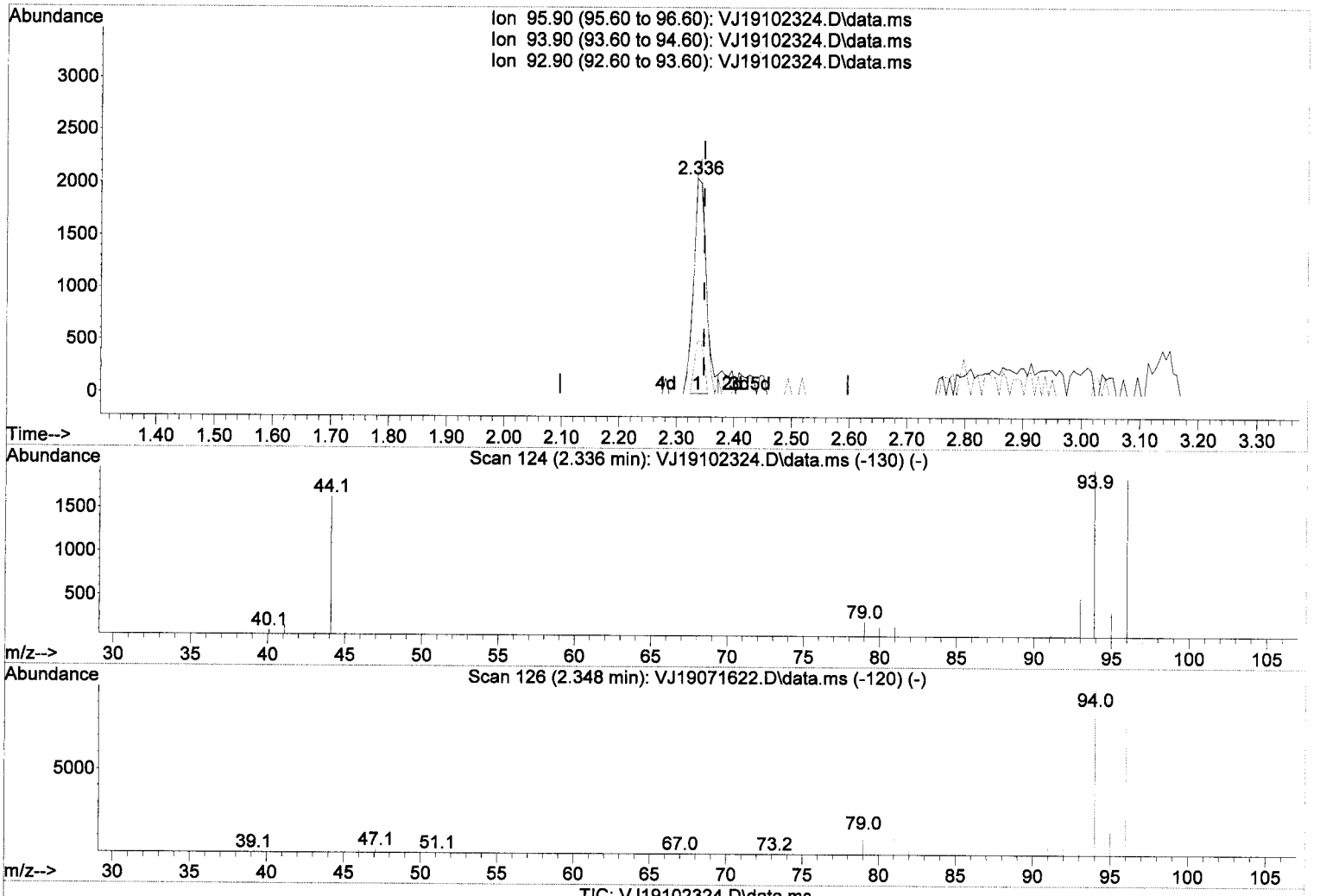


R = -1.25e-003 A*A + 5.77e-001 A + 3.02e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024s.M 12/26/19 Amber IOEA, LLC - Geosyntec DG 2019 -4c. Waste Characterization Page 330 of 2012
Calibration Table Last Updated: Thu Oct 24 08:55:53 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



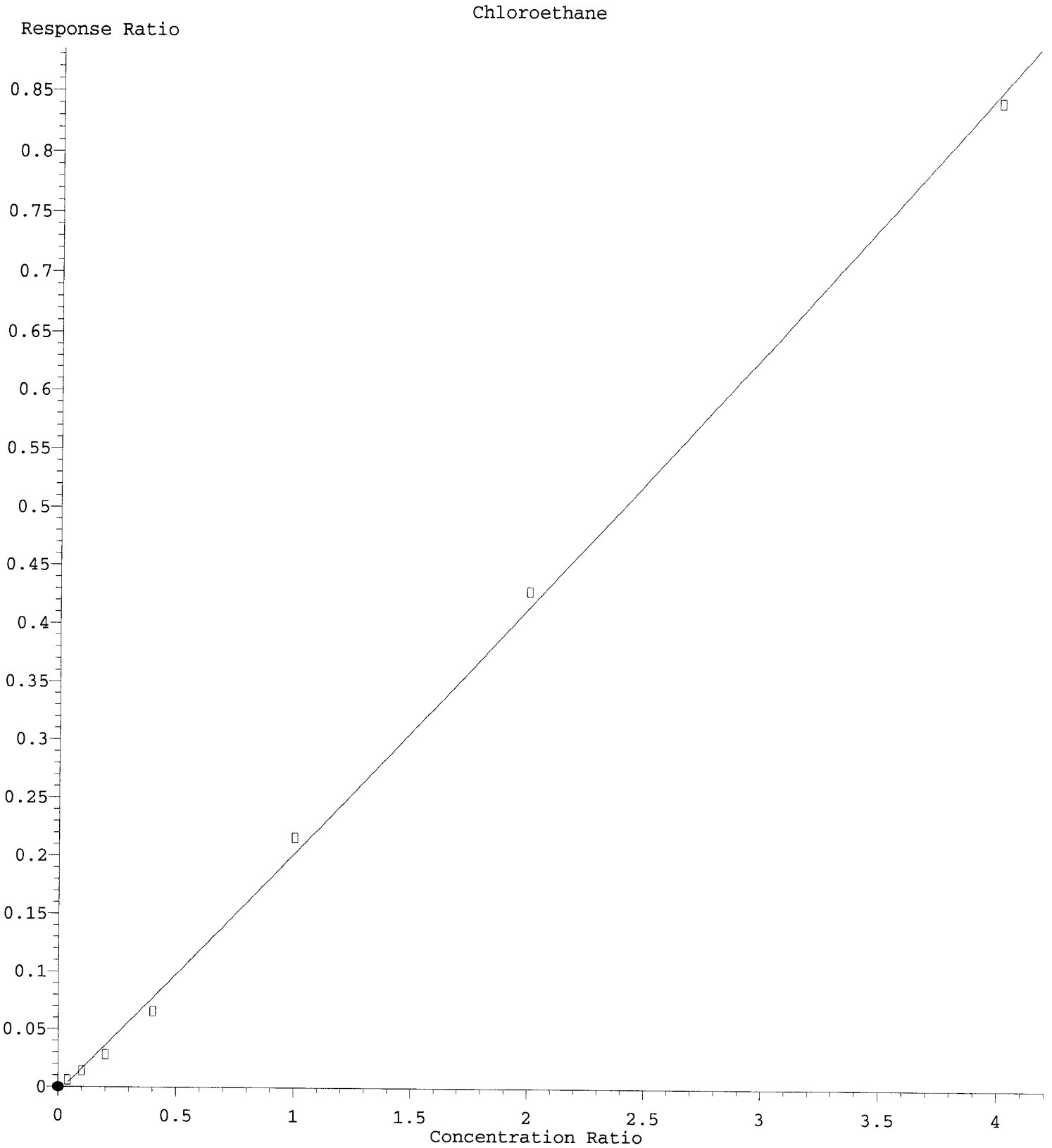
TIC: VJ19102324.D\data.ms

(5) Bromomethane

2.336min (-0.011) 0.28 ug/L

response 3184

Ion	Exp%	Act%
95.90	100.00	100.00
93.90	106.80	103.03
92.90	22.80	24.01
0.00	0.00	0.00

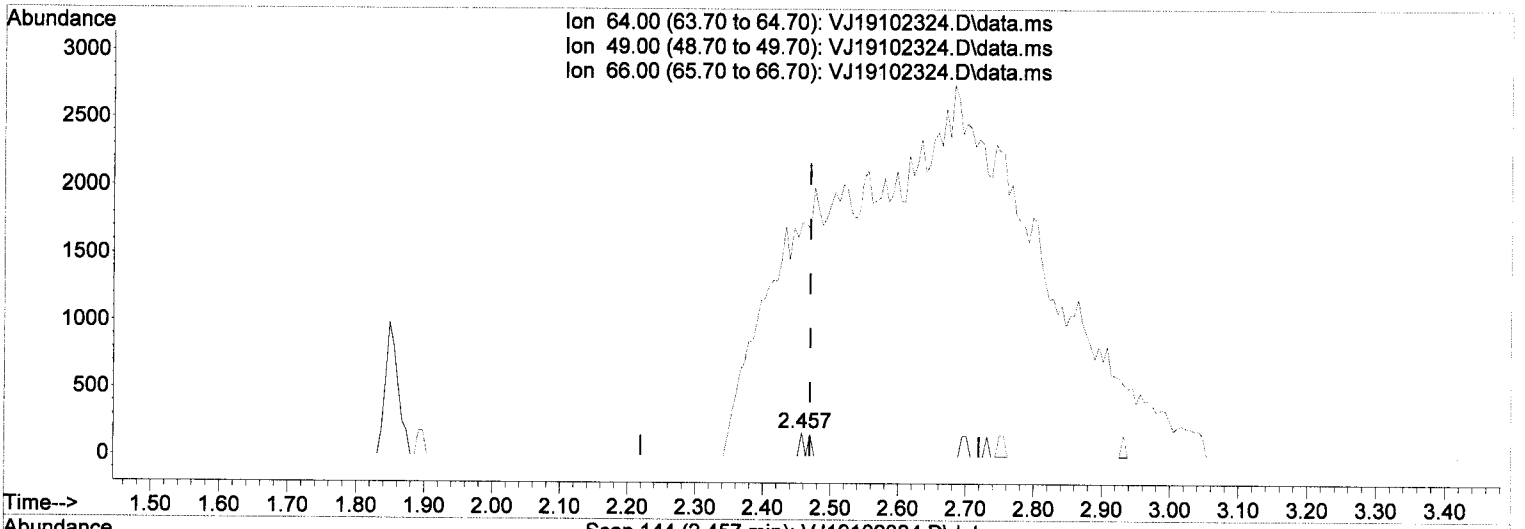


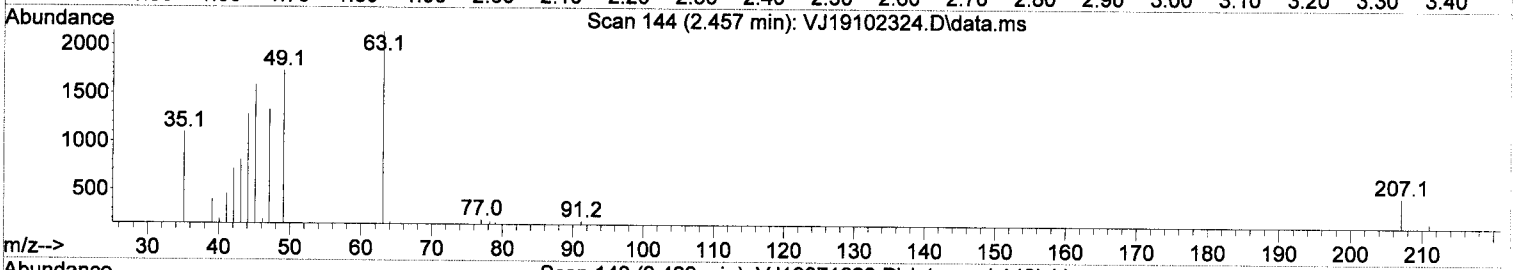
R = 2.15e-003 A*A + 2.06e-001 A - 5.03e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024s.M
Calibration Table Last Updated: Thu Oct 24 08:56:18 2019

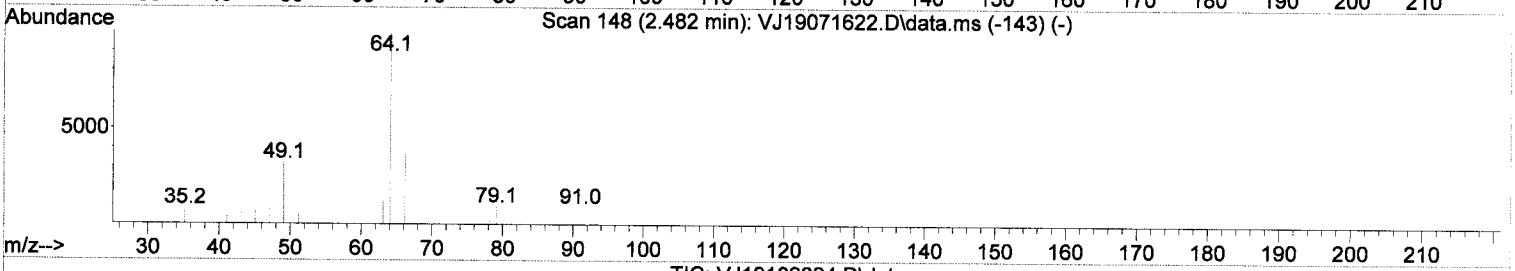
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







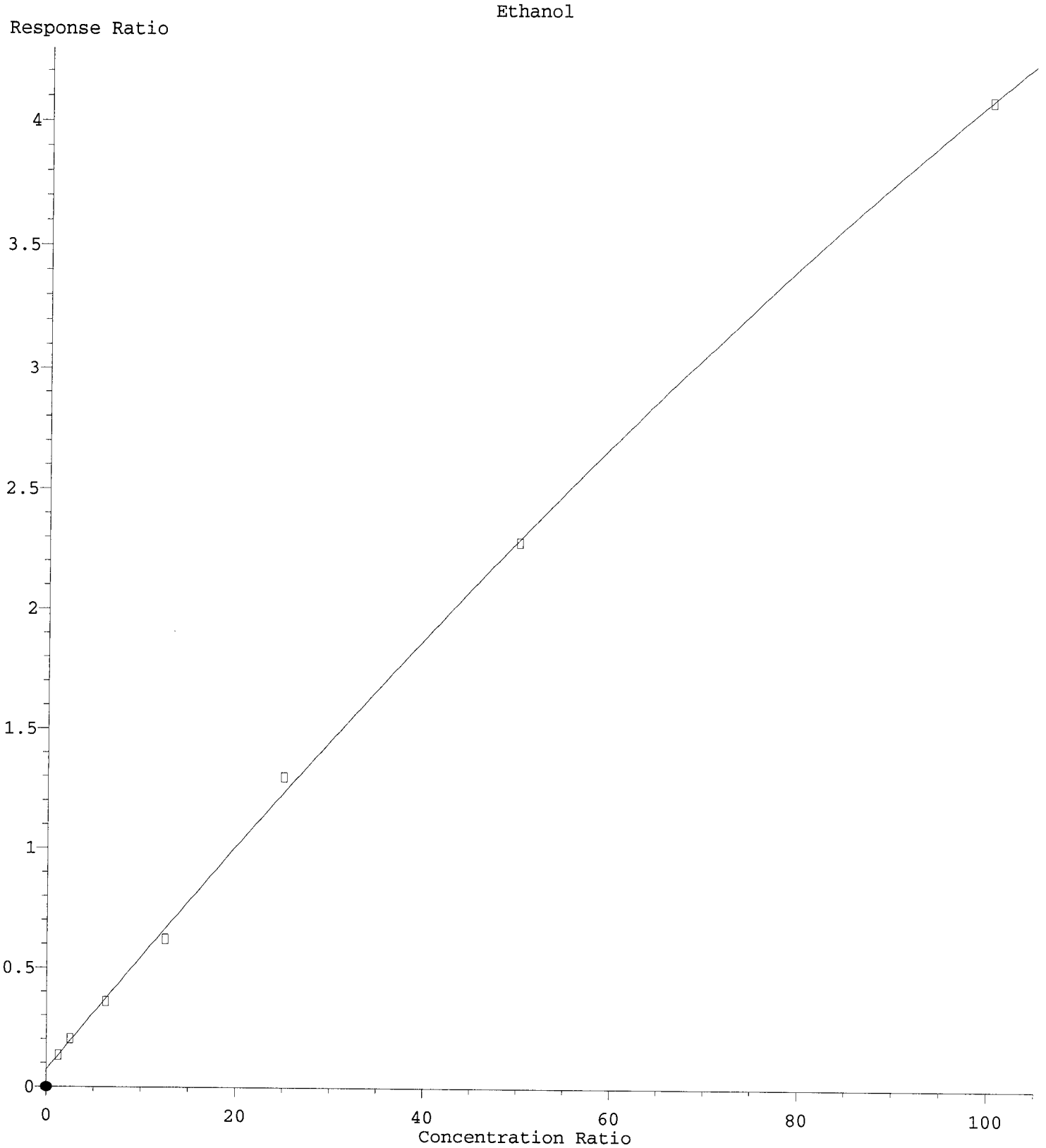
TIC: VJ19102324.D\data.ms

(6) Chloroethane

2.457min (-0.012) 1.53 ug/L m

response 122

Ion	Exp%	Act%
64.00	100.00	100.00
49.00	24.30	995.98#
66.00	31.30	0.00#
0.00	0.00	0.00

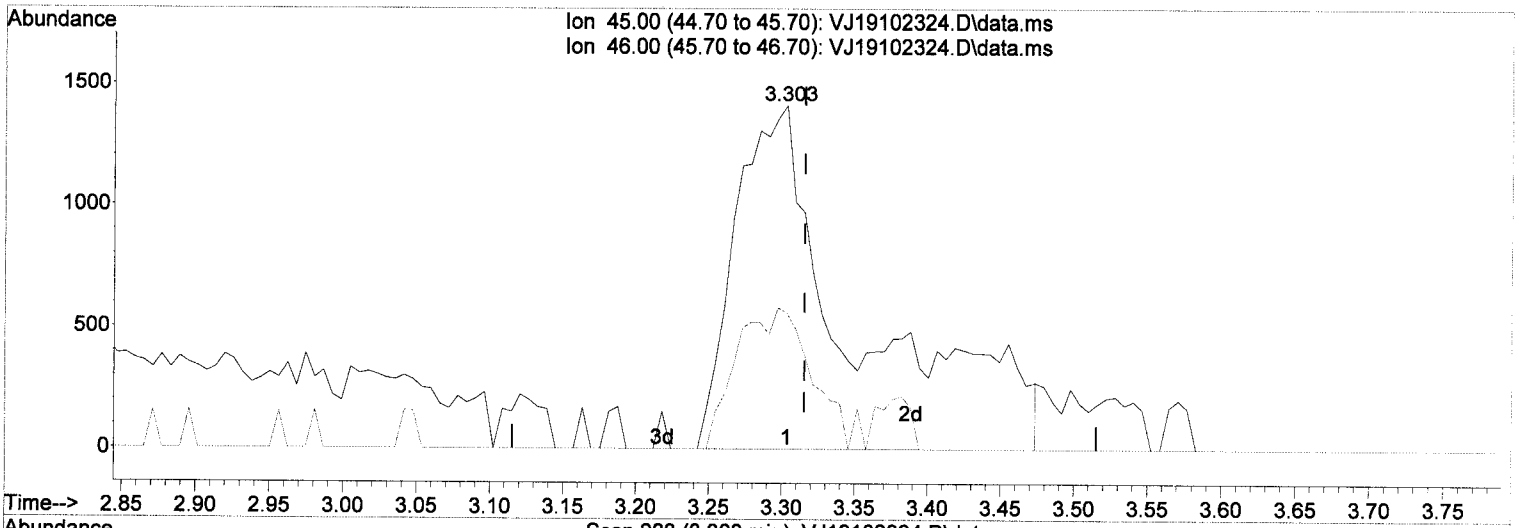


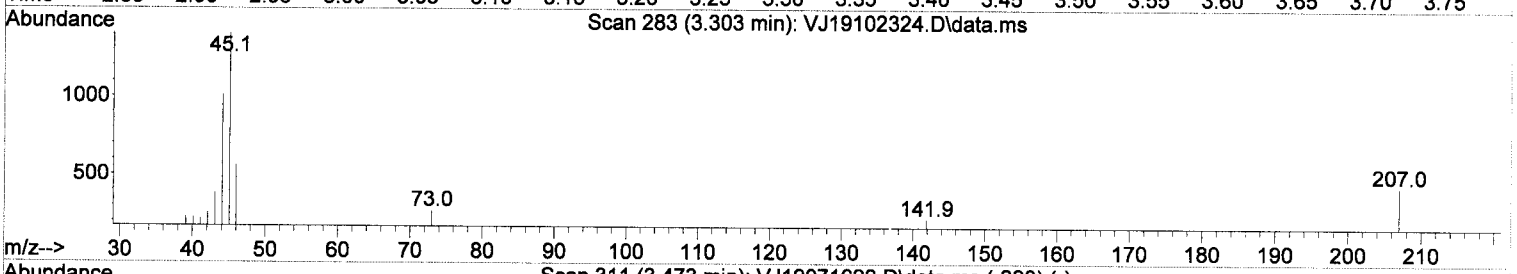
R = -8.41e-005 A*A + 4.86e-002 A + 7.24e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\Va1910245.M
Calibration Table Last Updated: Thu Oct 24 08:56:39 2019

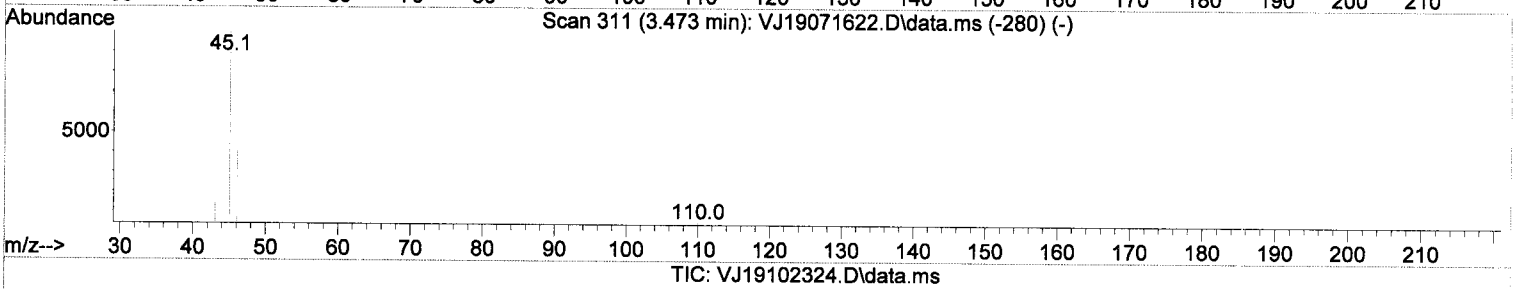
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







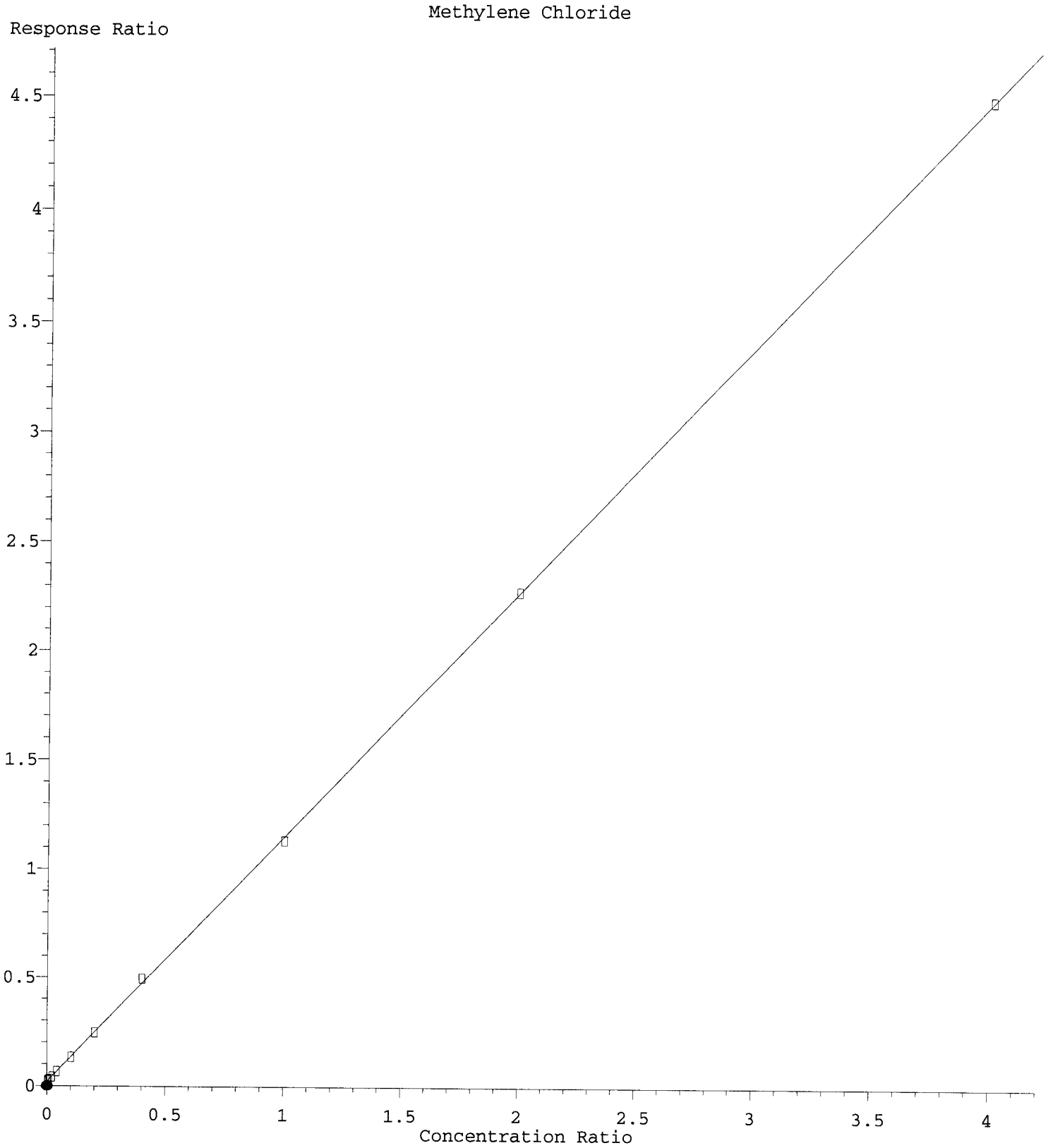
TIC: VJ19102324.D\data.ms

(8) Ethanol

3.303min (-0.012) 13.26 ug/L m

response 8114

Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.74
0.00	0.00	0.00
0.00	0.00	0.00

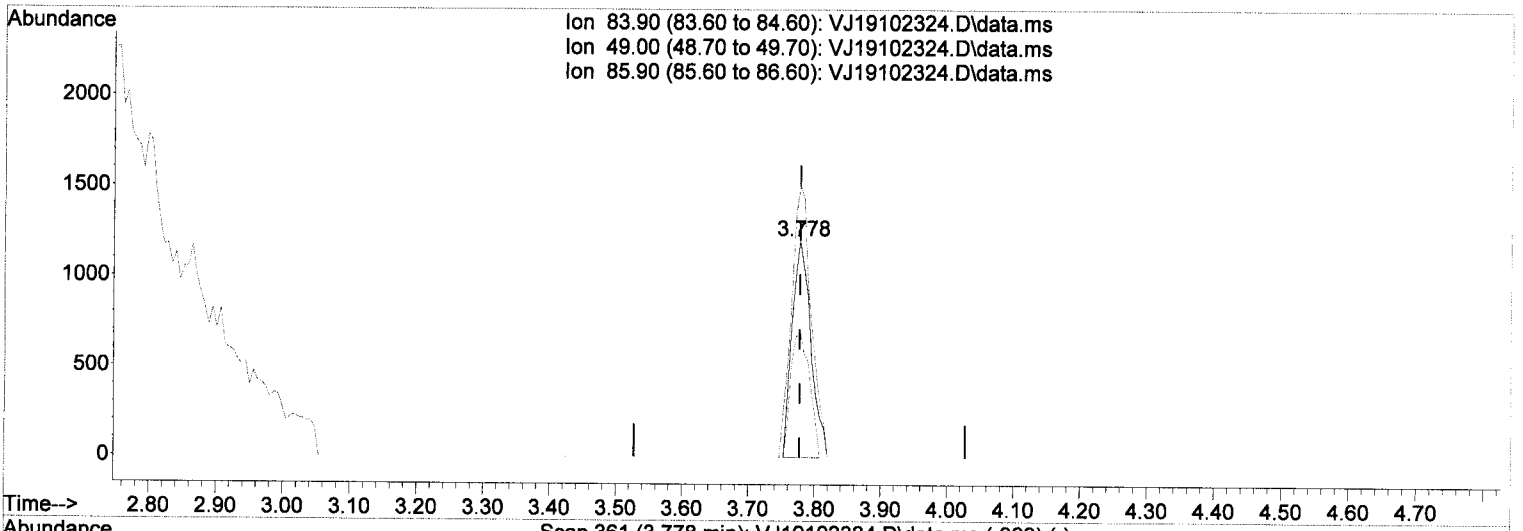


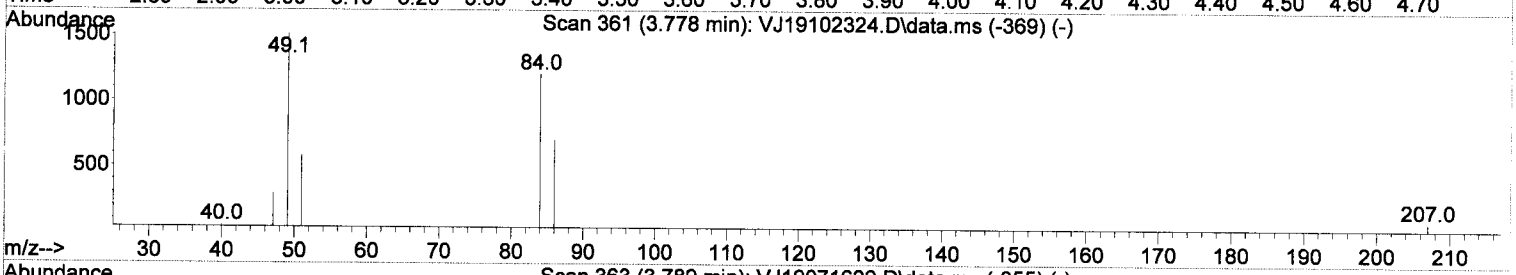
R = -4.57e-003 A*A + 1.13e+000 A + 2.02e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC191024R.M
Calibration Table Last Updated: Thu Oct 24 08:58:11 2019

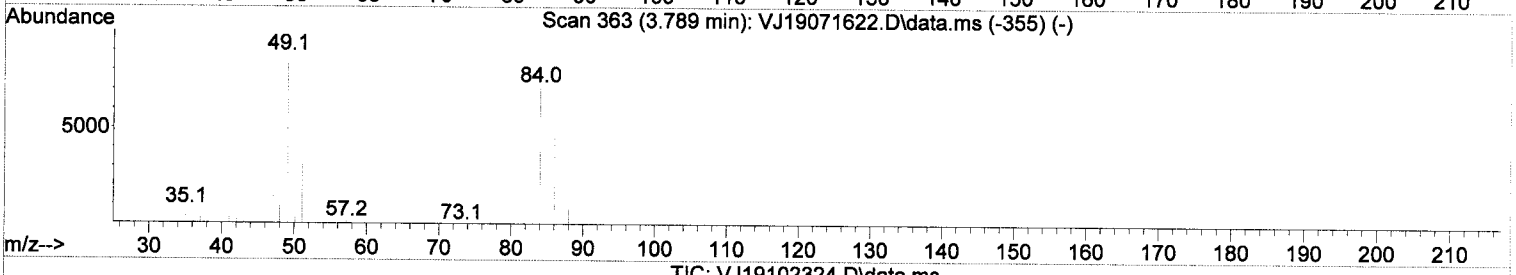
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







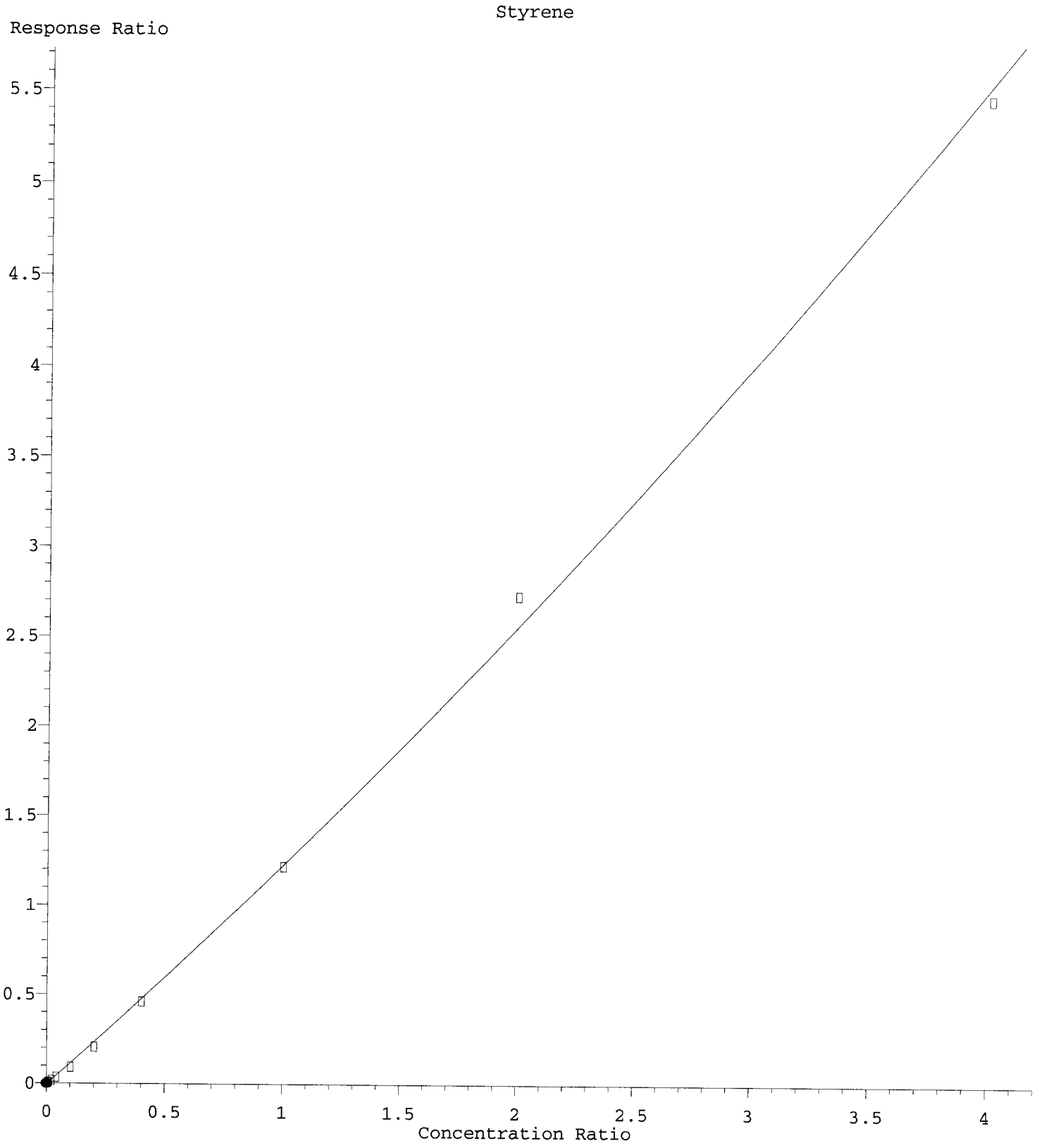
TIC: VJ19102324.D\data.ms

(13) Methylene Chloride

3.778min (+ 0.001) 0.21 ug/L

response 2377

Ion	Exp%	Act%
83.90	100.00	100.00
49.00	123.30	125.15
85.90	63.90	58.51
0.00	0.00	0.00

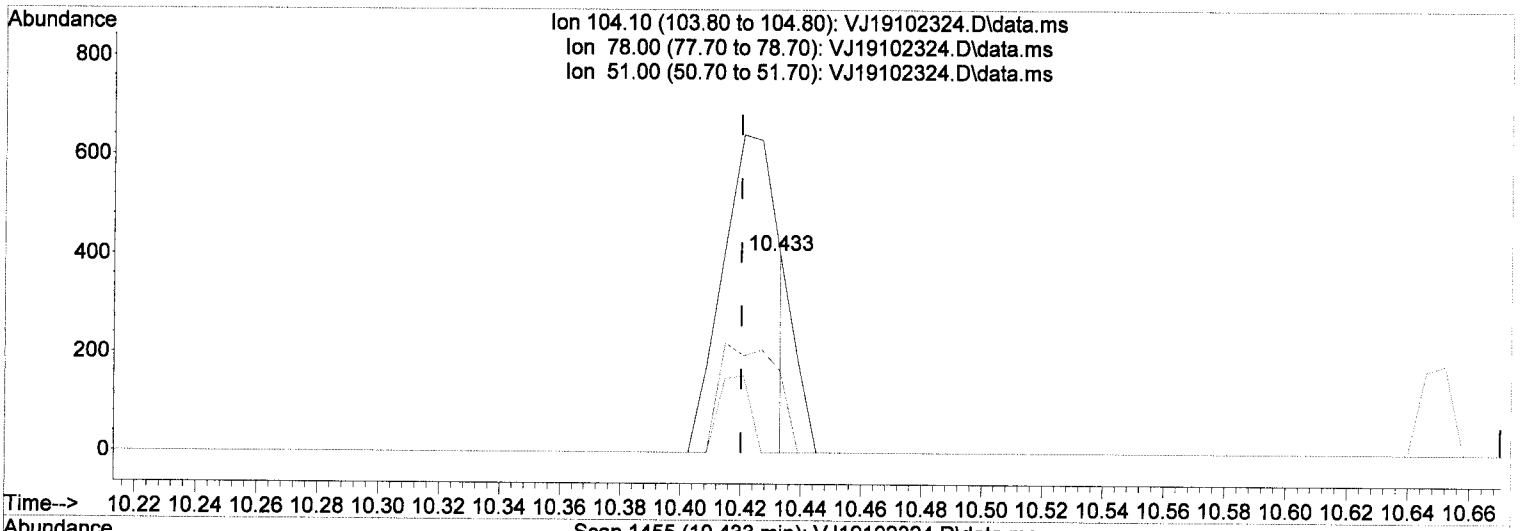


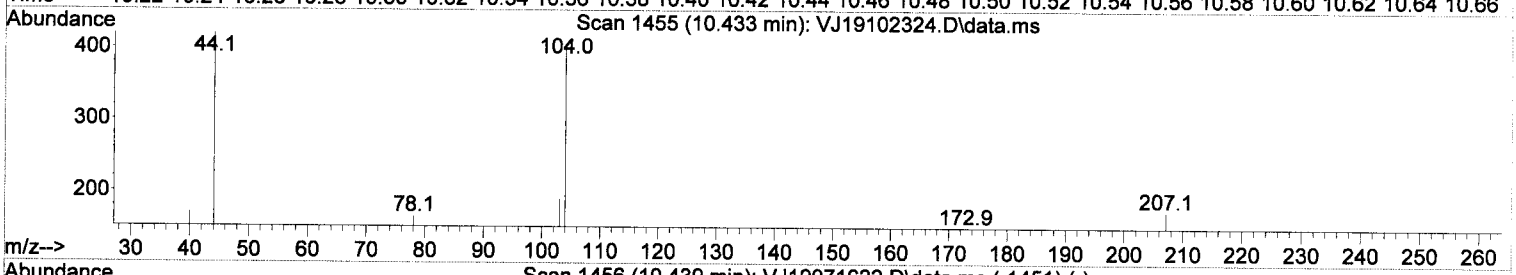
R = 5.07e-002 A*A + 1.18e+000 A - 4.08e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VOA_10-24-19.M
Calibration Table Last Updated: Thu Oct 24 09:02:33 2019

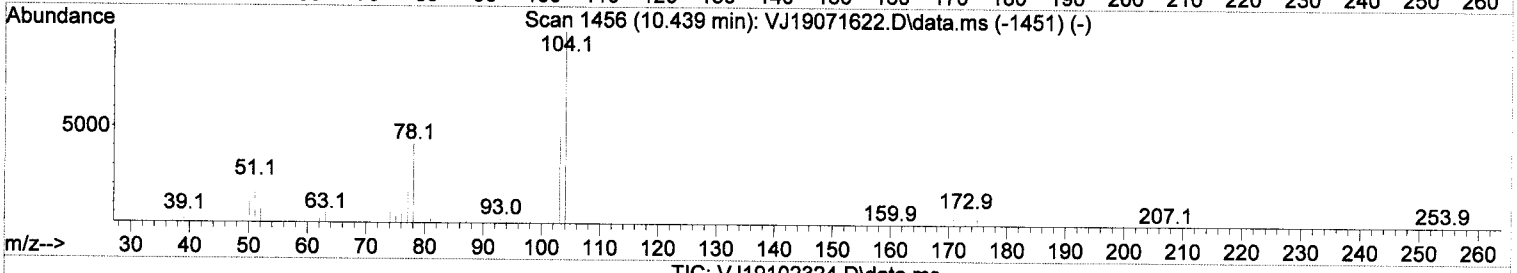
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







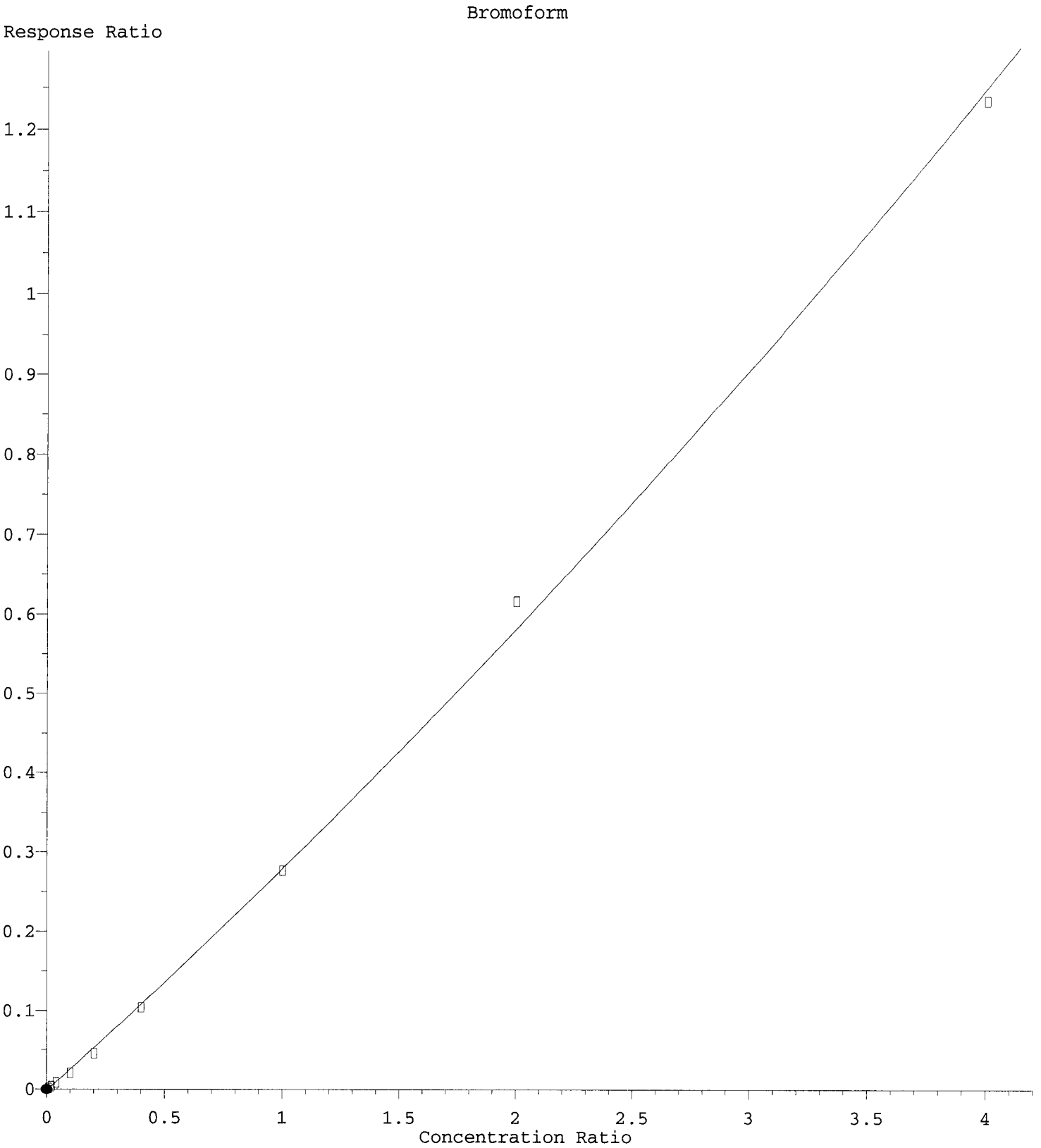
TIC: VJ19102324.D\data.ms

(60) Styrene

10.433min (+ 0.013) 0.18 ug/L m

response 66

Ion	Exp%	Act%
104.10	100.00	100.00
78.00	42.20	41.25
51.00	24.70	0.00
0.00	0.00	0.00

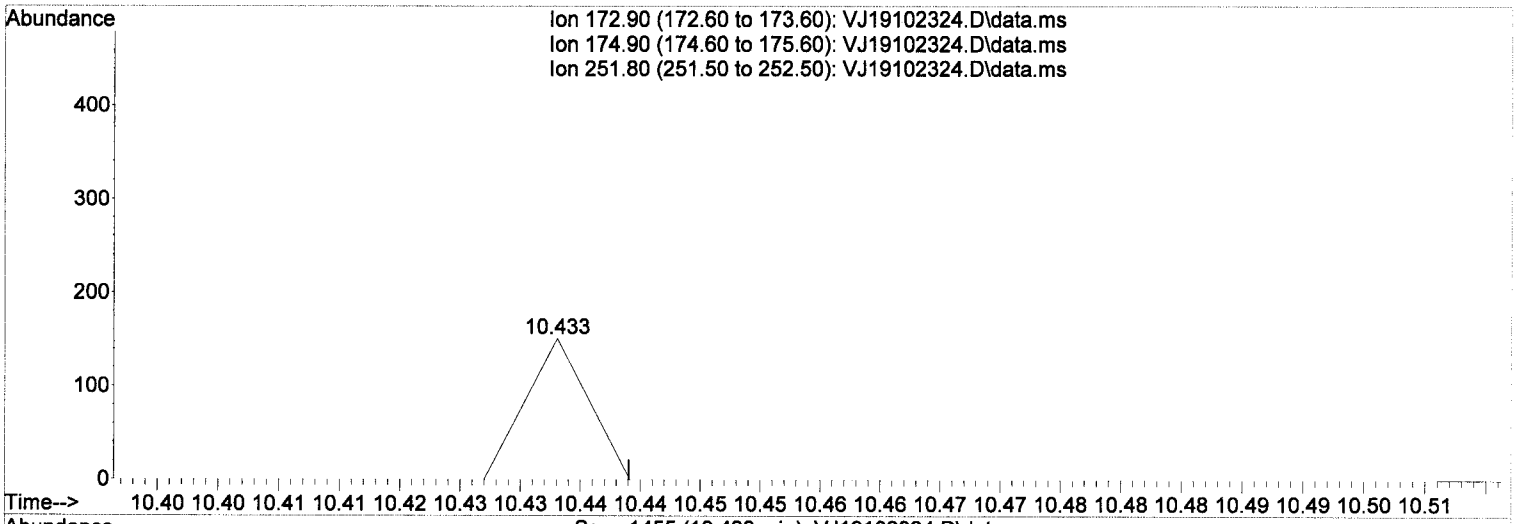


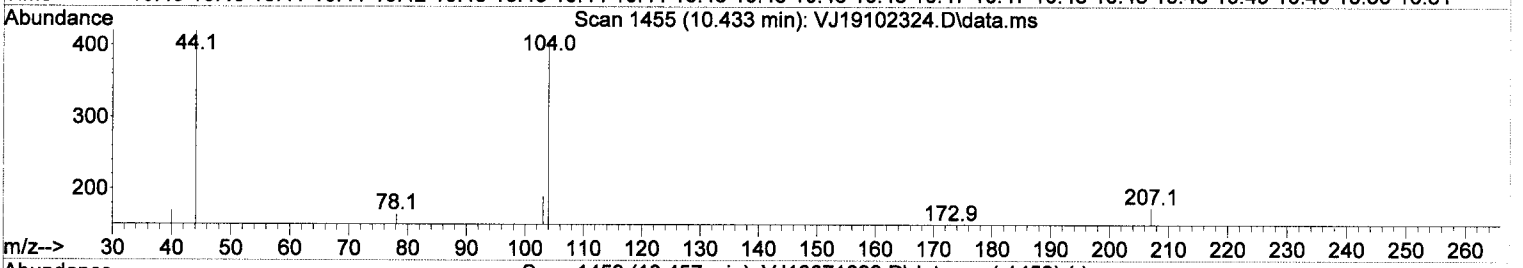
R = 1.05e-002 A*A + 2.71e-001 A - 1.82e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024S.M
Calibration Table Last Updated: Thu Oct 24 09:03:19 2019

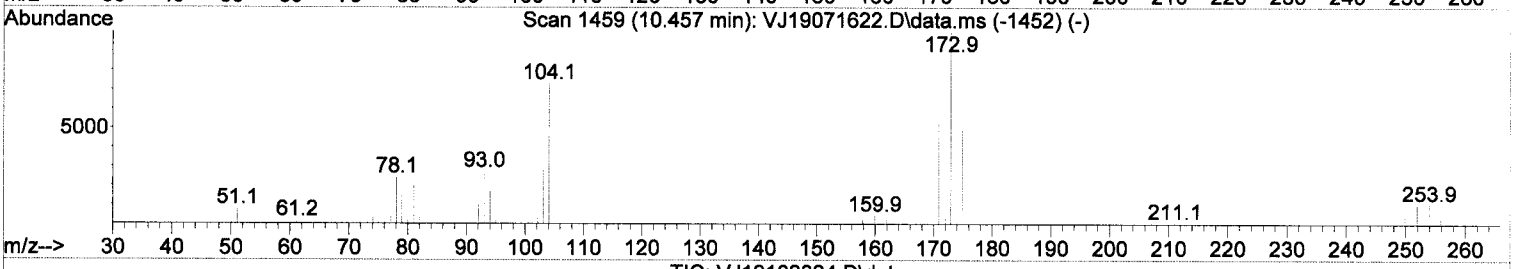
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102324.D\data.ms

(61) Bromoform (P)

10.433min (-0.006) 0.38 ug/L (m)

response 55

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	48.50	0.00#
251.80	13.90	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:42:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

MM 10/24/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	106	0.00
2		Dichlorodifluoromethane	20.000	24.222	-21.1#	131	0.00
3	P	Chloromethane	20.000	21.897	-9.5	117	0.00
4	C	Vinyl Chloride	20.000	22.532	-12.7	118	-0.01
5		Bromomethane	20.000	25.749	-28.7#	128	0.00
6		Chloroethane	20.000	18.062	9.7	112	0.00
7		Trichlorofluoromethane	20.000	19.846	0.8	106	0.00
8		~~Ethanol~~	~~1250.000~~	~~32.817~~	~~97.4#~~	~~9~~	~~0.01~~
9	C	1,1-Dichloroethene	20.000	18.892	5.5	100	0.00
10		Carbon Disulfide	20.000	18.116	9.4	104	0.00
11		Freon 113	20.000	19.495	~~2.5~~	~~102~~	0.00
12		Iodomethane	20.000	27.678	~~-38.4#~~	~~146~~	0.00
13		Methylene Chloride	20.000	21.825	-9.1	110	0.00
14		Acetone	40.000	41.334	-3.3	102	0.00
15		t-1,2-Dichloroethene	20.000	20.825	-4.1	110	0.00
16		n-Hexane	20.000	19.050	4.7	101	0.00
17		Methyl-tert-butyl-ether	20.000	20.415	-2.1	107	0.00
18		~~tert-Butanol (TBA)~~	~~1250.000~~	~~4.337~~	~~99.7#~~	~~0~~	~~0.00~~
19		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.109~~	~~97.8#~~	~~2~~	~~0.00~~
20	P	1,1-Dichloroethane	20.000	21.543	-7.7	110	0.00
21		Acrylonitrile	20.000	20.875	-4.4	99	0.00
22		~~Ethyl-tert-butyl ether (ETB~~	~~5.000~~	~~0.095~~	~~98.1#~~	~~2~~	~~0.00~~
23		c-1,2-Dichloroethene	20.000	20.215	-1.1	106	0.00
24		2,2-Dichloropropane	20.000	18.159	9.2	98	0.00
25		Bromochloromethane	20.000	20.515	-2.6	104	0.00
26	C	Chloroform	20.000	21.386	-6.9	109	0.00
27		Carbon Tetrachloride	20.000	21.544	-7.7	106	0.00
28		Tetrahydrofuran	20.000	18.683	6.6	102	0.00
29		1,1,1-Trichloroethane	20.000	20.975	-4.9	106	0.00
30	S	Dibromofluoromethane (S)	50.000	49.967	0.1	106	0.00
31		1,1-Dichloropropene	20.000	20.186	-0.9	105	0.00
32		2-Butanone (MEK)	40.000	37.986	5.0	101	0.00
33		Benzene	20.000	19.904	0.5	106	0.00
34		~~tert-Amyl methyl ether (TAM~~	~~5.000~~	~~0.139~~	~~97.2#~~	~~3~~	~~0.00~~
35		1,2-Dichloroethane (EDC)	20.000	20.788	-3.9	105	0.00
36		iso-Butyl Alcohol	500.000	551.010	-10.2	110	0.01
37	S	1,4-Difluorobenzene (S)	50.000	50.430	-0.9	108	0.00
38		Trichloroethene (TCE)	20.000	21.735	-8.7	111	0.00
39		~~tert-Amyl ethyl ether (TAEE~~	~~5.000~~	~~0.073~~	~~98.5#~~	~~1~~	~~0.00~~
40		Dibromomethane	20.000	20.843	-4.2	106	0.00
41	C	1,2-Dichloropropane	20.000	20.511	-2.6	107	0.00
42		Bromodichloromethane	20.000	21.397	-7.0	104	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	106	0.00
44		c-1,3-Dichloropropene	20.000	21.194	-6.0	104	0.00
45	S	Toluene-d8 (S)	50.000	50.320	-0.6	107	0.00
46	C	Toluene	20.000	20.223	-1.1	106	0.00
47		Tetrachloroethene (PCE)	20.000	21.835	-9.2	109	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	42.772	-6.9	103	0.00
49		t-1,3-Dichloropropene	20.000	22.780	-13.9	108	0.00
50		1,1,2-Trichloroethane	20.000	21.854	-9.3	107	0.00

EOS

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:42:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Dibromochloromethane	20.000	21.602	-8.0	110	0.00
52		1,3-Dichloropropane	20.000	21.388	-6.9	107	0.00
53		1,2-Dibromoethane (EDB)	20.000	22.051	-10.3	106	0.00
54		2-Hexanone	40.000	42.181	-5.5	103	0.00
55	P	Chlorobenzene	20.000	20.823	-4.1	108	0.00
56	C	Ethylbenzene	20.000	21.659	-8.3	107	0.00
57		1,1,1,2-Tetrachloroethane	20.000	22.014	-10.1	110	0.00
58		m,p-Xylenes (2)	40.000	44.355	-10.9	107	0.00
59		o-Xylene	20.000	22.438	-12.2	107	0.00
60		Styrene	20.000	19.442	2.8	106	0.00
61	P	Bromoform	20.000	19.721	1.4	108	0.00
62		Isopropylbenzene	20.000	22.684	-13.4	106	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	103	0.00
64	S	4-Bromofluorobenzene (S)	50.000	49.980	0.0	104	0.00
65		Bromobenzene	20.000	21.539	-7.7	108	0.00
66		n-Propylbenzene	20.000	21.587	-7.9	106	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	21.406	-7.0	104	0.00
68		2-Chlorotoluene	20.000	21.826	-9.1	107	0.00
69		1,3,5-Trimethylbenzene	20.000	23.462	-17.3	107	0.00
70		1,2,3-Trichloropropane	20.000	21.798	-9.0	106	0.00
71		t-1,4-Dichloro-2-butene	20.000	19.798	1.0	95	0.00
72		4-Chlorotoluene	20.000	21.990	-9.9	106	0.00
73		tert-Butylbenzene	20.000	22.261	-11.3	106	0.00
74		1,2,4-Trimethylbenzene	20.000	23.213	-16.1	107	0.00
75		sec-Butylbenzene	20.000	22.606	-13.0	107	0.00
76		4-Isopropyltoluene	20.000	23.461	-17.3	110	0.00
77		1,3-Dichlorobenzene	20.000	21.701	-8.5	107	0.00
78		1,4-Dichlorobenzene	20.000	20.648	-3.2	108	0.00
79		n-Butylbenzene	20.000	22.405	-12.0	110	0.00
80		1,2-Dichlorobenzene	20.000	22.134	-10.7	109	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	19.683	1.6	102	0.00
82		Hexachlorobutadiene	20.000	23.125	-15.6	113	0.00
83		1,2,4-Trichlorobenzene	20.000	22.682	-13.4	111	0.00
84		Naphthalene	20.000	22.568	-12.8	107	0.00
85		1,2,3-Trichlorobenzene	20.000	23.094	-15.5	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:43:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	109	0.00
2		Dichlorodifluoromethane	20.000	0.152	99.2#	1	0.00
3	P	Chloromethane	20.000	0.823	95.9#	5	0.00
4	C	Vinyl Chloride	20.000	0.086	99.6#	0	-0.01
5		Bromomethane	20.000	1.087	94.6#	17	0.00
6		Chloroethane	20.000	1.685	91.6#	3	0.00
7		Trichlorofluoromethane	20.000	0.000	100.0#	0	-2.60#
8		Ethanol	1250.000	1319.114	-5.5	109	0.00
9	C	1,1-Dichloroethene	20.000	0.230	98.8#	1	0.00
10		Carbon Disulfide	20.000	0.517	97.4#	3	0.00
11		Freon 113	20.000	0.163	99.2#	1	0.00
12		Iodomethane	20.000	3.629	81.9#	20	0.00
13		Methylene Chloride	20.000	0.246	98.8#	6	0.00
14		Acetone	40.000	1.459	96.4#	4	0.00
15		t-1,2-Dichloroethene	20.000	0.330	98.4#	2	0.00
16		n-Hexane	20.000	0.000	100.0#	0	-4.04#
17		Methyl-tert-butyl-ether	20.000	0.122	99.4#	1	0.00
18		tert-Butanol (TBA)	1250.000	1428.859	-14.3	112	0.00
19		Diisopropyl ether (DIPE)	5.000	5.264	-5.3	110	0.00
20	P	1,1-Dichloroethane	20.000	0.226	98.9#	1	0.00
21		Acrylonitrile	20.000	0.000	100.0#	0	-4.63#
22		Ethyl-tert-butyl ether (ETB	5.000	5.361	-7.2	113	0.00
23		c-1,2-Dichloroethene	20.000	0.259	98.7#	1	0.00
24		2,2-Dichloropropane	20.000	0.189	99.1#	1	0.00
25		Bromochloromethane	20.000	0.153	99.2#	1	0.00
26	C	Chloroform	20.000	0.227	98.9#	1	0.00
27		Carbon Tetrachloride	20.000	0.137	99.3#	1	0.00
28		Tetrahydrofuran	20.000	0.175	99.1#	1	0.00
29		1,1,1-Trichloroethane	20.000	0.134	99.3#	1	0.00
30	S	Dibromofluoromethane (S)	50.000	50.009	-0.0	109	0.00
31		1,1-Dichloropropene	20.000	0.297	98.5#	2	0.00
32		2-Butanone (MEK)	40.000	0.435	98.9#	1	0.00
33		Benzene	20.000	0.261	98.7#	1	0.00
34		tert-Amyl methyl ether (TAM	5.000	4.956	0.9	110	0.00
35		1,2-Dichloroethane (EDC)	20.000	0.125	99.4#	1	0.00
36		iso-Butyl Alcohol	500.000	3.187	99.4#	1	0.03
37	S	1,4-Difluorobenzene (S)	50.000	50.468	-0.9	111	0.00
38		Trichloroethene (TCE)	20.000	0.304	98.5#	2	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	5.390	-7.8	109	0.00
40		Dibromomethane	20.000	0.070	99.6#	0	0.00
41	C	1,2-Dichloropropane	20.000	0.199	99.0#	1	0.00
42		Bromodichloromethane	20.000	0.142	99.3#	1	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	111	0.00
44		c-1,3-Dichloropropene	20.000	0.149	99.3#	1	0.01
45	S	Toluene-d8 (S)	50.000	50.233	-0.5	112	0.00
46	C	Toluene	20.000	0.267	98.7#	1	0.00
47		Tetrachloroethene (PCE)	20.000	0.355	98.2#	2	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	0.014	100.0#	0	0.00
49		t-1,3-Dichloropropene	20.000	0.110	99.5#	1	0.00
50		1,1,2-Trichloroethane	20.000	0.044	99.8#	0	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:43:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Dibromochloromethane	20.000	0.000	100.0#	0	-9.06#
52		1,3-Dichloropropane	20.000	0.085	99.6#	0	0.00
53		1,2-Dibromoethane (EDB)	20.000	0.000	100.0#	0	-9.30#
54		2-Hexanone	40.000	0.000	100.0#	0	-9.54#
55	P	Chlorobenzene	20.000	0.286	98.6#	2	0.00
56	C	Ethylbenzene	20.000	0.270	98.7#	1	0.00
57		1,1,1,2-Tetrachloroethane	20.000	0.158	99.2#	1	0.00
58		m,p-Xylenes (2)	40.000	0.538	98.7#	1	0.00
59		o-Xylene	20.000	0.247	98.8#	1	0.00
60		Styrene	20.000	0.344	98.3#	1	0.00
61	P	Bromoform	20.000	0.000	100.0#	0	-10.44#
62		Isopropylbenzene	20.000	0.231	98.8#	1	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	104	0.00
64	S	4-Bromofluorobenzene (S)	50.000	51.065	-2.1	107	0.00
65		Bromobenzene	20.000	0.252	98.7#	1	0.00
66		n-Propylbenzene	20.000	0.318	98.4#	2	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	0.037	99.8#	0	0.00
68		2-Chlorotoluene	20.000	0.306	98.5#	2	0.00
69		1,3,5-Trimethylbenzene	20.000	0.290	98.6#	1	0.00
70		1,2,3-Trichloropropane	20.000	0.000	100.0#	0	-11.15#
71		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.19#
72		4-Chlorotoluene	20.000	0.339	98.3#	2	0.00
73		tert-Butylbenzene	20.000	0.221	98.9#	1	0.00
74		1,2,4-Trimethylbenzene	20.000	0.295	98.5#	1	0.00
75		sec-Butylbenzene	20.000	0.284	98.6#	1	0.00
76		4-Isopropyltoluene	20.000	0.328	98.4#	2	0.00
77		1,3-Dichlorobenzene	20.000	0.412	97.9#	2	0.00
78		1,4-Dichlorobenzene	20.000	0.394	98.0#	2	0.00
79		n-Butylbenzene	20.000	0.496	97.5#	2	0.00
80		1,2-Dichlorobenzene	20.000	0.266	98.7#	1	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-12.70#
82		Hexachlorobutadiene	20.000	0.597	97.0#	3	0.00
83		1,2,4-Trichlorobenzene	20.000	0.633	96.8#	3	0.00
84		Naphthalene	20.000	0.536	97.3#	3	0.00
85		1,2,3-Trichlorobenzene	20.000	0.539	97.3#	3	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

Analysis Included
8260C Full List
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9J23072-TUN1	MS Tune	Soil		A19G118	10/23/2019 9:24:00PM
9J23072-ICB1	Initial Cal Blank	Soil		A19G118	10/23/2019 9:51:00PM
9J23072-CAL1	Cal Standard	Soil	A19J339	"	10/23/2019 10:18:00PM
9J23072-CAL2	Cal Standard	Soil	A19J340	"	10/23/2019 10:45:00PM
9J23072-CAL3	Cal Standard	Soil	A19J341	"	10/23/2019 11:12:00PM
9J23072-CAL4	Cal Standard	Soil	A19J342	"	10/23/2019 11:38:00PM
9J23072-CAL5	Cal Standard	Soil	A19J343	"	10/24/2019 12:05:00AM
9J23072-CAL6	Cal Standard	Soil	A19J344	"	10/24/2019 12:32:00AM
9J23072-CAL7	Cal Standard	Soil	A19J345	"	10/24/2019 12:59:00AM
9J23072-CAL8	Cal Standard	Soil	A19J346	"	10/24/2019 1:26:00AM
9J23072-CAL9	Cal Standard	Soil	A19J347	"	10/24/2019 1:53:00AM
9J23072-CALA	Cal Standard	Soil	A19J348	"	10/24/2019 2:46:00AM
9J23072-CALB	Cal Standard	Soil	A19J349	"	10/24/2019 3:40:00AM
9J23072-ICV1	Initial Cal Check	Soil	A19J131	"	10/24/2019 5:00:00AM
9J23072-ICV2	Initial Cal Check	Soil	A19E195	"	10/24/2019 5:27:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

8260C Full List Sequence: **9J23072** Matrix: **Soil**

9J23072-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

8260C Full List Sequence: **9J23072** Matrix: **Soil**

9J23072-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
Iodomethane	20	20.0	27.68	138	E05

9J23072-ICV2	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

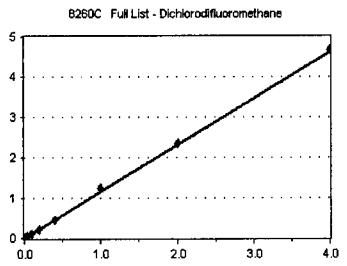
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

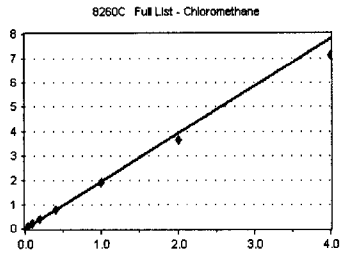


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	2035	1.102	1.70
9J23072-CAL5	2	4456	1.175	1.69
9J23072-CAL6	5	11145	1.126	1.70
9J23072-CAL7	10	22844	1.116	1.70
9J23072-CAL8	20	42729	1.135	1.69
9J23072-CAL9	50	131685	1.254	1.69
9J23072-CALA	100	259035	1.178	1.70
9J23072-CALB	200	515195	1.171	1.69

AVE RF **1.157** RF RSD **4.20** AVE RT **1.69**

Chloromethane

Curve Fit: **AVERAGE RF**

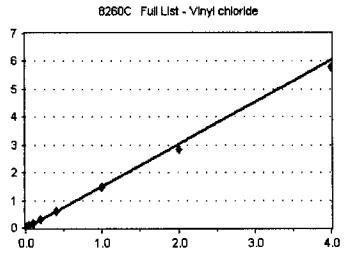


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~2383~~	~~12.136~~	~~1.89~~
~~9J23072-CAL2~~	~~0.2~~	~~2774~~	~~7.289~~	~~1.90~~
~~9J23072-CAL3~~	~~0.4~~	~~3285~~	~~4.405~~	~~1.90~~
~~9J23072-CAL4~~	~~1~~	~~5307~~	~~2.874~~	~~1.90~~
9J23072-CAL5	2	8944	2.359	1.89
9J23072-CAL6	5	20037	2.024	1.90
9J23072-CAL7	10	38733	1.892	1.90
9J23072-CAL8	20	73020	1.940	1.90
9J23072-CAL9	50	201248	1.916	1.89
9J23072-CALA	100	397217	1.806	1.90
9J23072-CALB	200	787223	1.789	1.89

AVE RF **1.961** RF RSD **9.83** AVE RT **1.90**

Vinyl chloride

Curve Fit: **AVERAGE RF**

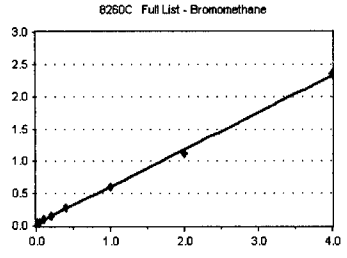


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1110	1.488	2.01
9J23072-CAL4	1	3035	1.644	2.00
9J23072-CAL5	2	6249	1.648	1.98
9J23072-CAL6	5	14616	1.477	2.00
9J23072-CAL7	10	29953	1.463	2.00
9J23072-CAL8	20	57870	1.538	2.00
9J23072-CAL9	50	155736	1.483	1.98
9J23072-CALA	100	313932	1.428	2.00
9J23072-CALB	200	635586	1.444	1.98

AVE RF **1.513** RF RSD **5.40** AVE RT **1.99**

Bromomethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	2899	14.764	2.34
9J23072-CAL2	0.2	3184	8.366	2.34
9J23072-CAL3	0.4	3378	4.530	2.34
9J23072-CAL4	1	4613	2.498	2.35
9J23072-CAL5	2	5195	1.370	2.34
9J23072-CAL6	5	9360	0.946	2.35
9J23072-CAL7	10	15471	0.756	2.35
9J23072-CAL8	20	25485	0.677	2.35
9J23072-CAL9	50	63337	0.603	2.34
9J23072-CALA	100	123566	0.562	2.35
9J23072-CALB	200	258257	0.587	2.34

AVE RF **3.242** RF RSD **139.32** AVE RT **2.34**

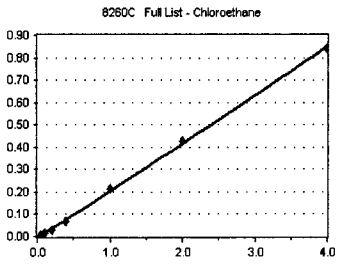
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Chloroethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

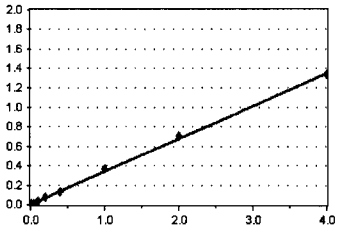


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL5	2	558	0.147	2.46
9J23072-CAL6	5	1384	0.140	2.48
9J23072-CAL7	10	2873	0.140	2.48
9J23072-CAL8	20	6188	0.164	2.47
9J23072-CAL9	50	22708	0.216	2.47
9J23072-CALA	100	47113	0.214	2.49
9J23072-CALB	200	92724	0.211	2.49

AVE RF **0.176** RF RSD **20.51** AVE RT **2.48**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

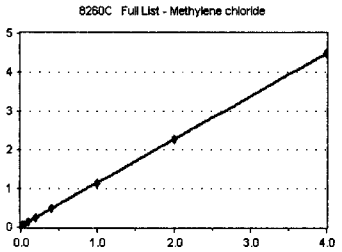


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	516	0.279	2.60
9J23072-CAL5	2	1251	0.330	2.60
9J23072-CAL6	5	3402	0.344	2.62
9J23072-CAL7	10	7278	0.356	2.61
9J23072-CAL8	20	12628	0.336	2.60
9J23072-CAL9	50	38671	0.368	2.60
9J23072-CALA	100	77408	0.352	2.61
9J23072-CALB	200	147731	0.336	2.60

AVE RF **0.338** RF RSD **7.88** AVE RT **2.60**

Methylene chloride

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

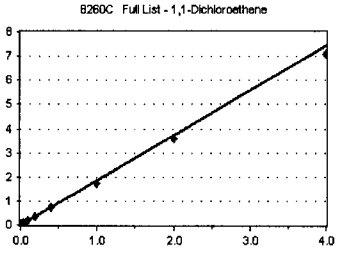


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	2211	11.260	0.00
9J23072-CAL2	0.2	2377	6.246	0.00
9J23072-CAL3	0.4	2718	3.645	0.00
9J23072-CAL4	1	3788	2.052	3.78
9J23072-CAL5	2	6212	1.638	3.78
9J23072-CAL6	5	12998	1.313	3.78
9J23072-CAL7	10	24987	1.221	3.78
9J23072-CAL8	20	46523	1.236	3.78
9J23072-CAL9	50	118736	1.131	3.78
9J23072-CALA	100	249850	1.136	3.78
9J23072-CALB	200	493458	1.121	3.78

AVE RF **2.909** RF RSD **109.50** AVE RT **2.75**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1510	2.025	3.14
9J23072-CAL4	1	3558	1.927	3.14
9J23072-CAL5	2	7400	1.952	3.14
9J23072-CAL6	5	18097	1.828	3.15
9J23072-CAL7	10	37595	1.836	3.15
9J23072-CAL8	20	70432	1.871	3.14
9J23072-CAL9	50	181540	1.729	3.15
9J23072-CALA	100	396303	1.802	3.15
9J23072-CALB	200	780132	1.773	3.14

AVE RF **1.860** RF RSD **5.03** AVE RT **3.14**

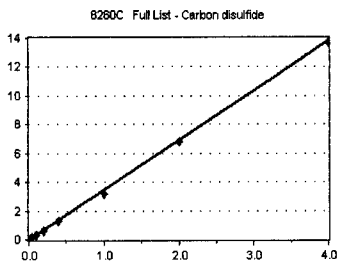
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Carbon disulfide

Curve Fit: **AVERAGE RF**

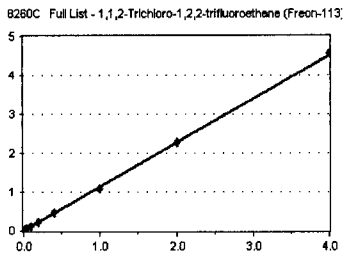


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	947	4.823	3.15
9J23072-CAL2	0.2	1499	3.939	3.15
9J23072-CAL3	0.4	2496	3.347	3.15
9J23072-CAL4	1	6000	3.250	3.16
9J23072-CAL5	2	12853	3.390	3.15
9J23072-CAL6	5	30469	3.078	3.16
9J23072-CAL7	10	63760	3.114	3.16
9J23072-CAL8	20	120674	3.206	3.15
9J23072-CAL9	50	335203	3.192	3.16
9J23072-CALA	100	748104	3.402	3.16
9J23072-CALB	200	1509890	3.431	3.15

AVE RF **3.470** RF RSD **14.56** AVE RT **3.15**

1,1,2-Trichloro-1,2,2-trifluoroetha

Curve Fit: **AVERAGE RF**

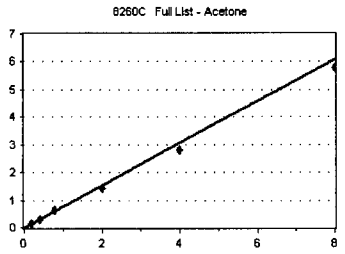


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	761	1.020	3.19
9J23072-CAL4	1	2153	1.166	3.21
9J23072-CAL5	2	4614	1.217	3.19
9J23072-CAL6	5	11080	1.119	3.21
9J23072-CAL7	10	23337	1.140	3.21
9J23072-CAL8	20	43205	1.148	3.20
9J23072-CAL9	50	113502	1.081	3.20
9J23072-CALA	100	250927	1.141	3.21
9J23072-CALB	200	501626	1.140	3.19

AVE RF **1.130** RF RSD **4.85** AVE RT **3.20**

Acetone

Curve Fit: **AVERAGE RF**

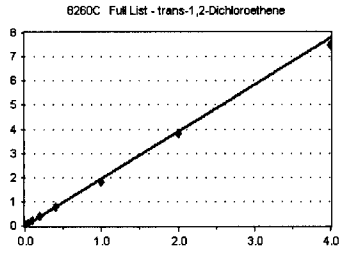


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~2~~	~~5145~~	~~1.393~~	~~3.88~~
~~9J23072-CAL5~~	~~4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL6	10	16748	0.846	3.88
9J23072-CAL7	20	31545	0.770	3.88
9J23072-CAL8	40	61696	0.820	3.87
9J23072-CAL9	100	150797	0.718	3.87
9J23072-CALA	200	308333	0.701	3.87
9J23072-CALB	400	636343	0.723	3.86

AVE RF **0.763** RF RSD **7.78** AVE RT **3.87**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	714	1.876	3.94
9J23072-CAL3	0.4	1485	1.991	3.95
9J23072-CAL4	1	3719	2.014	3.95
9J23072-CAL5	2	7911	2.086	3.95
9J23072-CAL6	5	19492	1.969	3.95
9J23072-CAL7	10	40127	1.960	3.95
9J23072-CAL8	20	73863	1.963	3.95
9J23072-CAL9	50	191374	1.822	3.95
9J23072-CALA	100	416493	1.894	3.95
9J23072-CALB	200	823777	1.872	3.94

AVE RF **1.945** RF RSD **4.05** AVE RT **3.95**

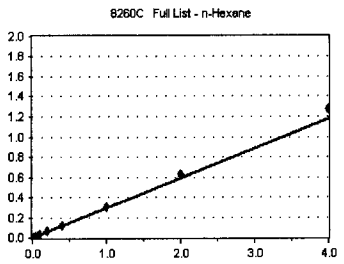
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

n-Hexane

Curve Fit: **AVERAGE RF**

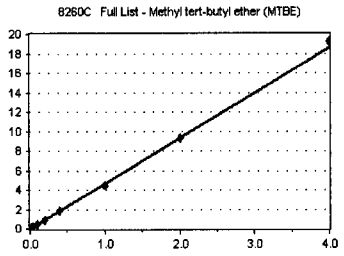


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	445	0.241	4.04
9J23072-CAL5	2	1139	0.300	4.04
9J23072-CAL6	5	2790	0.282	4.05
9J23072-CAL7	10	6208	0.303	4.05
9J23072-CAL8	20	11103	0.295	4.05
9J23072-CAL9	50	31443	0.299	4.05
9J23072-CALA	100	69515	0.316	4.05
9J23072-CALB	200	140691	0.320	4.04

AVE RF **0.295** RF RSD **8.37** AVE RT **4.04**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

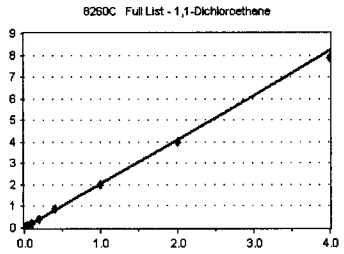


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	8793	4.762	4.12
9J23072-CAL5	2	18230	4.808	4.10
9J23072-CAL6	5	45549	4.602	4.11
9J23072-CAL7	10	90735	4.432	4.11
9J23072-CAL8	20	176865	4.700	4.11
9J23072-CAL9	50	469291	4.469	4.11
9J23072-CALA	100	1020787	4.642	4.11
9J23072-CALB	200	2113381	4.802	4.10

AVE RF **4.652** RF RSD **3.10** AVE RT **4.11**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

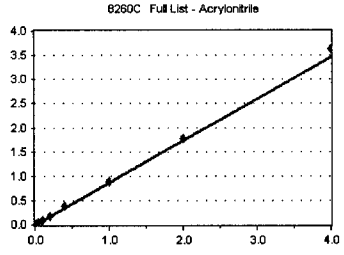


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	720	1.892	4.58
9J23072-CAL3	0.4	1458	1.955	4.58
9J23072-CAL4	1	4012	2.173	4.58
9J23072-CAL5	2	8482	2.237	4.58
9J23072-CAL6	5	21122	2.134	4.59
9J23072-CAL7	10	42318	2.067	4.59
9J23072-CAL8	20	80359	2.135	4.58
9J23072-CAL9	50	207492	1.976	4.58
9J23072-CALA	100	436977	1.987	4.58
9J23072-CALB	200	865836	1.967	4.58

AVE RF **2.052** RF RSD **5.51** AVE RT **4.58**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	409	0.548	4.64
9J23072-CAL4	1	1605	0.869	4.64
9J23072-CAL5	2	3497	0.922	4.64
9J23072-CAL6	5	8805	0.890	4.64
9J23072-CAL7	10	18110	0.885	4.64
9J23072-CAL8	20	36419	0.968	4.64
9J23072-CAL9	50	93684	0.892	4.63
9J23072-CALA	100	195553	0.889	4.64
9J23072-CALB	200	400678	0.910	4.63

AVE RF **0.864** RF RSD **14.09** AVE RT **4.64**

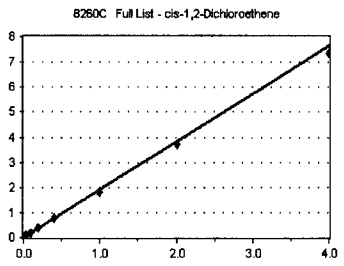
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

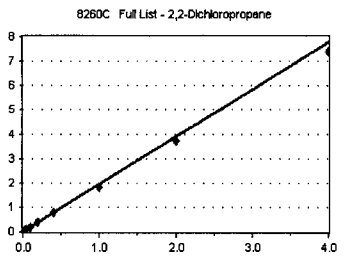


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1499	2.010	5.13
9J23072-CAL4	1	3680	1.993	5.13
9J23072-CAL5	2	7651	2.018	5.13
9J23072-CAL6	5	18773	1.897	5.13
9J23072-CAL7	10	38569	1.884	5.13
9J23072-CAL8	20	73333	1.949	5.13
9J23072-CAL9	50	189767	1.807	5.13
9J23072-CALA	100	410212	1.866	5.13
9J23072-CALB	200	811012	1.843	5.13

AVE RF **1.918** RF RSD **4.01** AVE RT **5.13**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

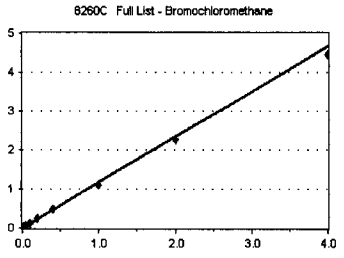


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	761	2.000	5.24
9J23072-CAL3	0.4	1640	2.199	5.24
9J23072-CAL4	1	3688	1.997	5.24
9J23072-CAL5	2	7702	2.031	5.24
9J23072-CAL6	5	18540	1.873	5.24
9J23072-CAL7	10	38645	1.888	5.24
9J23072-CAL8	20	72158	1.917	5.24
9J23072-CAL9	50	189548	1.805	5.24
9J23072-CALA	100	411005	1.869	5.24
9J23072-CALB	200	813691	1.849	5.24

AVE RF **1.943** RF RSD **5.98** AVE RT **5.24**

Bromochloromethane

Curve Fit: **AVERAGE RF**

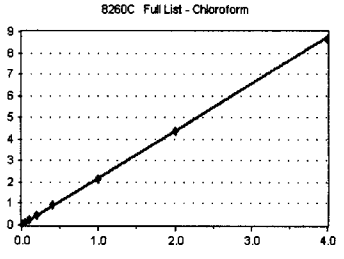


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	807	1.082	5.33
9J23072-CAL4	1	2314	1.253	5.34
9J23072-CAL5	2	4784	1.262	5.32
9J23072-CAL6	5	11641	1.176	5.34
9J23072-CAL7	10	23752	1.160	5.33
9J23072-CAL8	20	45927	1.220	5.33
9J23072-CAL9	50	116893	1.113	5.33
9J23072-CALA	100	249374	1.134	5.33
9J23072-CALB	200	489443	1.112	5.33

AVE RF **1.168** RF RSD **5.55** AVE RT **5.33**

Chloroform

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	740	1.944	5.41
9J23072-CAL3	0.4	1517	2.034	5.42
9J23072-CAL4	1	4201	2.275	5.42
9J23072-CAL5	2	8976	2.367	5.41
9J23072-CAL6	5	22188	2.242	5.42
9J23072-CAL7	10	46150	2.254	5.42
9J23072-CAL8	20	86201	2.290	5.41
9J23072-CAL9	50	226777	2.160	5.41
9J23072-CALA	100	483892	2.201	5.42
9J23072-CALB	200	951891	2.163	5.41

AVE RF **2.193** RF RSD **5.73** AVE RT **5.42**

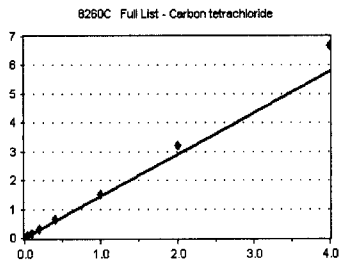
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

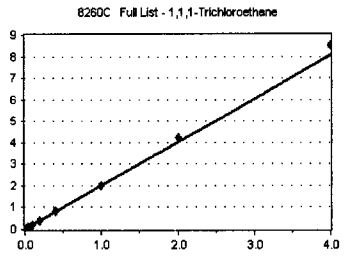


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	367	0.964	5.55
9J23072-CAL3	0.4	934	1.252	5.55
9J23072-CAL4	1	2727	1.477	5.56
9J23072-CAL5	2	5728	1.511	5.55
9J23072-CAL6	5	14343	1.449	5.55
9J23072-CAL7	10	30244	1.477	5.56
9J23072-CAL8	20	58891	1.565	5.55
9J23072-CAL9	50	158501	1.509	5.55
9J23072-CALA	100	354527	1.612	5.56
9J23072-CALB	200	735322	1.671	5.55

AVE RF **1.449** RF RSD **14.03** AVE RT **5.56**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

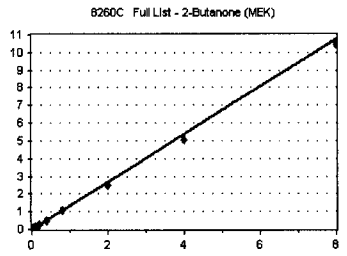


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	686	1.803	5.63
9J23072-CAL3	0.4	1334	1.789	5.62
9J23072-CAL4	1	3664	1.984	5.62
9J23072-CAL5	2	8216	2.167	5.62
9J23072-CAL6	5	20044	2.025	5.62
9J23072-CAL7	10	41348	2.020	5.63
9J23072-CAL8	20	79966	2.125	5.62
9J23072-CAL9	50	208934	1.990	5.62
9J23072-CALA	100	466945	2.124	5.62
9J23072-CALB	200	937584	2.130	5.62

AVE RF **2.016** RF RSD **6.58** AVE RT **5.62**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**

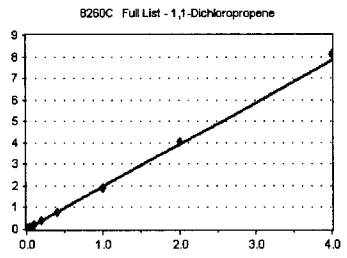


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	2	5985	1.621	5.74
9J23072-CAL5	4	10911	1.439	5.74
9J23072-CAL6	10	25206	1.273	5.74
9J23072-CAL7	20	51036	1.246	5.74
9J23072-CAL8	40	101470	1.348	5.74
9J23072-CAL9	100	262305	1.249	5.73
9J23072-CALA	200	557729	1.268	5.74
9J23072-CALB	400	1150574	1.307	5.73

AVE RF **1.344** RF RSD **9.59** AVE RT **5.73**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1389	1.863	5.75
9J23072-CAL4	1	3601	1.950	5.75
9J23072-CAL5	2	7729	2.038	5.75
9J23072-CAL6	5	18701	1.889	5.75
9J23072-CAL7	10	39421	1.926	5.75
9J23072-CAL8	20	75436	2.004	5.75
9J23072-CAL9	50	199471	1.899	5.75
9J23072-CALA	100	445742	2.027	5.75
9J23072-CALB	200	896409	2.037	5.75

AVE RF **1.959** RF RSD **3.52** AVE RT **5.75**

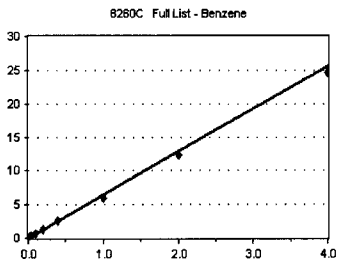
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Benzene

Curve Fit: **AVERAGE RF**

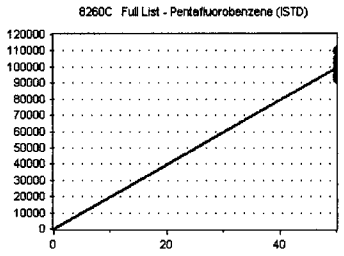


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1432	7.293	6.00
9J23072-CAL2	0.2	2559	6.724	6.00
9J23072-CAL3	0.4	4719	6.328	6.00
9J23072-CAL4	1	11702	6.338	6.00
9J23072-CAL5	2	25316	6.677	6.00
9J23072-CAL6	5	62213	6.286	6.00
9J23072-CAL7	10	128327	6.268	6.00
9J23072-CAL8	20	240789	6.398	6.00
9J23072-CAL9	50	625910	5.960	6.00
9J23072-CALA	100	1359633	6.183	6.00
9J23072-CALB	200	2717357	6.174	6.00

AVE RF **6.421** RF RSD **5.63** AVE RT **6.00**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

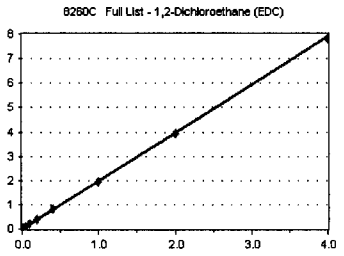


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**

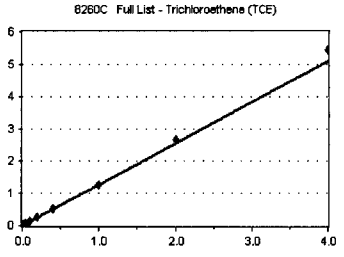


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	709	1.863	6.21
9J23072-CAL3	0.4	1352	1.813	6.21
9J23072-CAL4	1	3762	2.037	6.21
9J23072-CAL5	2	8154	2.151	6.21
9J23072-CAL6	5	19717	1.992	6.21
9J23072-CAL7	10	40742	1.990	6.21
9J23072-CAL8	20	77917	2.070	6.21
9J23072-CAL9	50	202778	1.931	6.21
9J23072-CALA	100	434140	1.974	6.21
9J23072-CALB	200	860316	1.955	6.21

AVE RF **1.978** RF RSD **4.93** AVE RT **6.21**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	381	1.001	6.62
9J23072-CAL3	0.4	944	1.266	6.62
9J23072-CAL4	1	2385	1.292	6.63
9J23072-CAL5	2	5111	1.348	6.62
9J23072-CAL6	5	12809	1.294	6.63
9J23072-CAL7	10	26231	1.281	6.63
9J23072-CAL8	20	49869	1.325	6.63
9J23072-CAL9	50	131822	1.255	6.62
9J23072-CALA	100	292620	1.331	6.62
9J23072-CALB	200	600664	1.365	6.63

AVE RF **1.276** RF RSD **8.06** AVE RT **6.62**

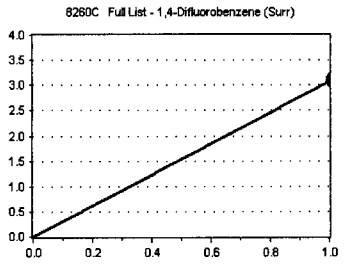
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

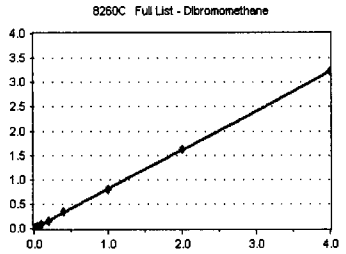


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	50	285833	3.038	6.66
9J23072-CAL9	50	323717	3.083	6.66
9J23072-CALA	50	338746	3.081	6.66
9J23072-CALB	50	346693	3.151	6.66

AVE RF **3.076** RF RSD **1.03** AVE RT **6.66**

Dibromomethane

Curve Fit: **AVERAGE RF**

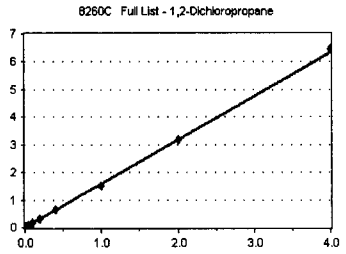


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	565	0.758	7.06
9J23072-CAL4	1	1439	0.779	7.07
9J23072-CAL5	2	3204	0.845	7.06
9J23072-CAL6	5	8013	0.810	7.06
9J23072-CAL7	10	16435	0.803	7.06
9J23072-CAL8	20	31731	0.843	7.06
9J23072-CAL9	50	83755	0.798	7.06
9J23072-CALA	100	179023	0.814	7.06
9J23072-CALB	200	353624	0.803	7.06

AVE RF **0.806** RF RSD **3.43** AVE RT **7.06**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

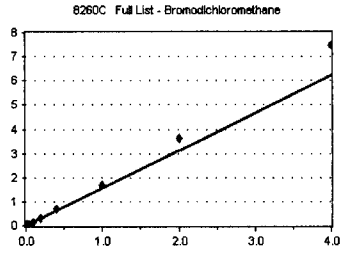


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1176	1.577	7.17
9J23072-CAL4	1	2881	1.560	7.17
9J23072-CAL5	2	6237	1.645	7.17
9J23072-CAL6	5	15592	1.575	7.18
9J23072-CAL7	10	32431	1.584	7.17
9J23072-CAL8	20	61016	1.621	7.17
9J23072-CAL9	50	160675	1.530	7.17
9J23072-CALA	100	350522	1.594	7.17
9J23072-CALB	200	710561	1.614	7.17

AVE RF **1.589** RF RSD **2.17** AVE RT **7.17**

Bromodichloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	437	1.148	7.25
9J23072-CAL3	0.4	1004	1.346	7.25
9J23072-CAL4	1	2597	1.407	7.25
9J23072-CAL5	2	5797	1.529	7.25
9J23072-CAL6	5	14894	1.505	7.25
9J23072-CAL7	10	31433	1.535	7.25
9J23072-CAL8	20	63632	1.691	7.25
9J23072-CAL9	50	175537	1.672	7.25
9J23072-CALA	100	400178	1.820	7.25
9J23072-CALB	200	825346	1.875	7.25

AVE RF **1.553** RF RSD **14.23** AVE RT **7.25**

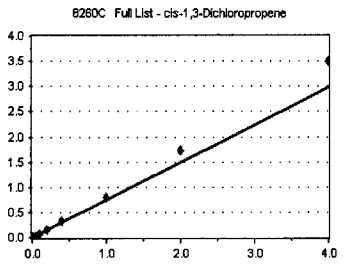
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

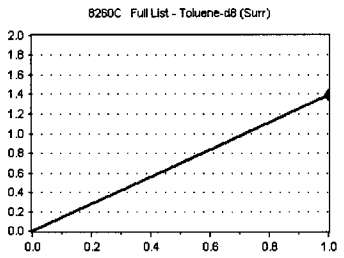


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	596	0.568	7.95
9J23072-CAL3	0.4	1346	0.665	7.96
9J23072-CAL4	1	3342	0.668	7.96
9J23072-CAL5	2	7516	0.740	7.95
9J23072-CAL6	5	19353	0.729	7.95
9J23072-CAL7	10	40620	0.742	7.95
9J23072-CAL8	20	80676	0.798	7.95
9J23072-CAL9	50	225850	0.801	7.95
9J23072-CALA	100	509437	0.865	7.95
9J23072-CALB	200	1055097	0.876	7.95

AVE RF **0.745** RF RSD **12.78** AVE RT **7.95**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

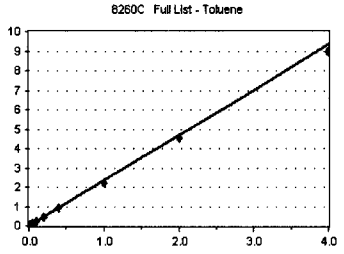


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	50	349892	1.384	8.17
9J23072-CAL9	50	394687	1.399	8.17
9J23072-CALA	50	411311	1.397	8.17
9J23072-CALB	50	415139	1.379	8.17

AVE RF **1.394** RF RSD **0.64** AVE RT **8.17**

Toluene

Curve Fit: **AVERAGE RF**

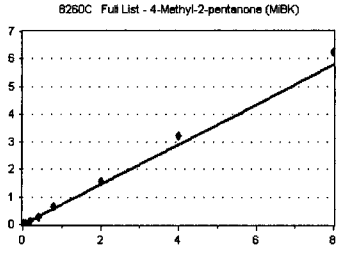


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1352	2.571	8.23
9J23072-CAL2	0.2	2544	2.423	8.24
9J23072-CAL3	0.4	4766	2.356	8.23
9J23072-CAL4	1	11638	2.326	8.23
9J23072-CAL5	2	24811	2.441	8.23
9J23072-CAL6	5	59671	2.246	8.23
9J23072-CAL7	10	124843	2.279	8.23
9J23072-CAL8	20	237451	2.349	8.23
9J23072-CAL9	50	618659	2.194	8.23
9J23072-CALA	100	1343640	2.282	8.23
9J23072-CALB	200	2694190	2.237	8.23

AVE RF **2.337** RF RSD **4.66** AVE RT **8.23**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.8	2938	0.726	8.67
9J23072-CAL4	2	5887	0.588	8.67
9J23072-CAL5	4	13736	0.676	8.67
9J23072-CAL6	10	35142	0.662	8.68
9J23072-CAL7	20	77248	0.705	8.67
9J23072-CAL8	40	161301	0.798	8.67
9J23072-CAL9	100	437036	0.775	8.67
9J23072-CALA	200	950533	0.807	8.68
9J23072-CALB	400	1880689	0.781	8.68

AVE RF **0.724** RF RSD **10.15** AVE RT **8.67**

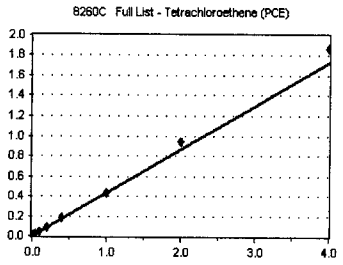
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

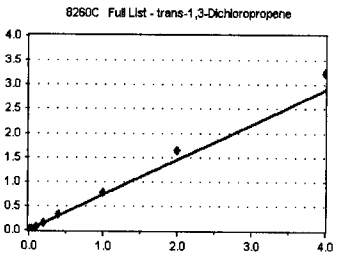


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	350	0.333	8.68
9J23072-CAL3	0.4	805	0.398	8.68
9J23072-CAL4	1	2158	0.431	8.68
9J23072-CAL5	2	4654	0.458	8.68
9J23072-CAL6	5	11684	0.440	8.68
9J23072-CAL7	10	24512	0.448	8.68
9J23072-CAL8	20	46373	0.459	8.68
9J23072-CAL9	50	122230	0.433	8.68
9J23072-CALA	100	275505	0.468	8.68
9J23072-CALB	200	563695	0.468	8.68

AVE RF **0.434** RF RSD **9.46** AVE RT **8.68**

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

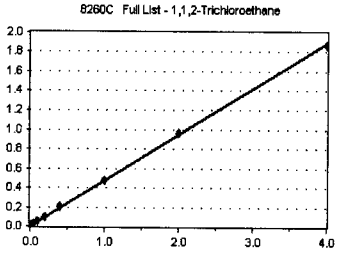


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	580	0.552	8.71
9J23072-CAL3	0.4	1392	0.688	8.70
9J23072-CAL4	1	3091	0.618	8.71
9J23072-CAL5	2	7062	0.695	8.70
9J23072-CAL6	5	18504	0.697	8.71
9J23072-CAL7	10	41087	0.750	8.71
9J23072-CAL8	20	81643	0.808	8.70
9J23072-CAL9	50	221998	0.787	8.70
9J23072-CALA	100	481174	0.817	8.71
9J23072-CALB	200	979397	0.813	8.71

AVE RF **0.722** RF RSD **12.37** AVE RT **8.70**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

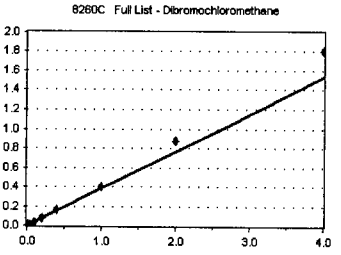


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	417	0.397	8.88
9J23072-CAL3	0.4	933	0.461	8.88
9J23072-CAL4	1	2304	0.460	8.88
9J23072-CAL5	2	5217	0.513	8.88
9J23072-CAL6	5	13046	0.491	8.88
9J23072-CAL7	10	26718	0.488	8.88
9J23072-CAL8	20	51573	0.510	8.88
9J23072-CAL9	50	133185	0.472	8.88
9J23072-CALA	100	282770	0.480	8.88
9J23072-CALB	200	564264	0.469	8.88

AVE RF **0.474** RF RSD **6.91** AVE RT **8.88**

Dibromochloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~522~~	~~0.258~~	~~9.06~~
9J23072-CAL4	1	1520	0.304	9.07
9J23072-CAL5	2	3616	0.356	9.06
9J23072-CAL6	5	9350	0.352	9.06
9J23072-CAL7	10	19925	0.364	9.06
9J23072-CAL8	20	40104	0.397	9.06
9J23072-CAL9	50	113957	0.404	9.06
9J23072-CALA	100	256674	0.436	9.07
9J23072-CALB	200	542189	0.450	9.06

AVE RF **0.383** RF RSD **12.61** AVE RT **9.07**

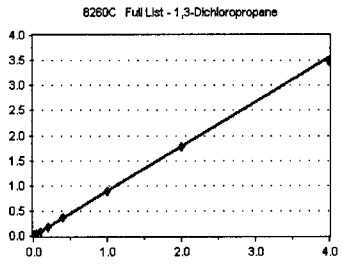
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

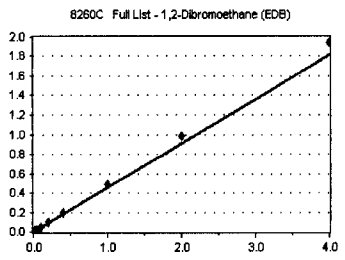


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	851	0.810	9.16
9J23072-CAL3	0.4	1718	0.849	9.17
9J23072-CAL4	1	4392	0.878	9.16
9J23072-CAL5	2	9958	0.980	9.16
9J23072-CAL6	5	24045	0.905	9.16
9J23072-CAL7	10	49530	0.904	9.16
9J23072-CAL8	20	95374	0.943	9.16
9J23072-CAL9	50	247593	0.878	9.16
9J23072-CALA	100	523949	0.890	9.16
9J23072-CALB	200	1049067	0.871	9.16

AVE RF **0.891** RF RSD **5.29** AVE RT **9.16**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**

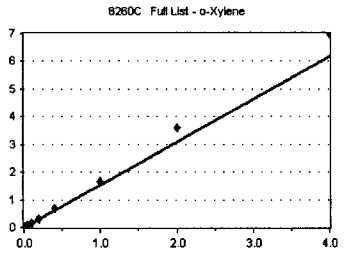


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	426	0.406	9.30
9J23072-CAL3	0.4	788	0.390	9.30
9J23072-CAL4	1	2060	0.412	9.30
9J23072-CAL5	2	4697	0.462	9.30
9J23072-CAL6	5	12041	0.453	9.30
9J23072-CAL7	10	25458	0.465	9.30
9J23072-CAL8	20	50265	0.497	9.30
9J23072-CAL9	50	135703	0.481	9.30
9J23072-CALA	100	289923	0.492	9.30
9J23072-CALB	200	586578	0.487	9.30

AVE RF **0.454** RF RSD **8.56** AVE RT **9.30**

o-Xylene

Curve Fit: **AVERAGE RF**

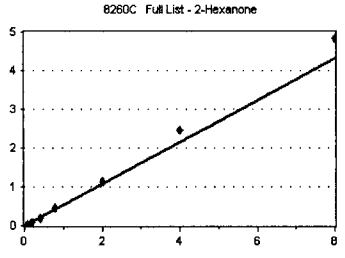


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	723	1.375	0.00
9J23072-CAL2	0.2	1440	1.371	10.38
9J23072-CAL3	0.4	2627	1.299	10.38
9J23072-CAL4	1	7125	1.424	10.38
9J23072-CAL5	2	15404	1.516	10.38
9J23072-CAL6	5	39703	1.495	10.38
9J23072-CAL7	10	86841	1.585	10.38
9J23072-CAL8	20	172231	1.704	10.38
9J23072-CAL9	50	471843	1.673	10.38
9J23072-CALA	100	1054003	1.790	10.38
9J23072-CALB	200	2102591	1.746	10.38

AVE RF **1.543** RF RSD **10.87** AVE RT **9.43**

2-Hexanone

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~1510~~	~~0.373~~	~~9.55~~
~~9J23072-CAL4~~	~~2~~	~~3832~~	~~0.383~~	~~9.55~~
9J23072-CAL5	4	9451	0.465	9.55
9J23072-CAL6	10	23467	0.442	9.55
9J23072-CAL7	20	53666	0.490	9.55
9J23072-CAL8	40	118204	0.585	9.55
9J23072-CAL9	100	323576	0.574	9.55
9J23072-CALA	200	720460	0.612	9.55
9J23072-CALB	400	1458573	0.606	9.55

AVE RF **0.539** RF RSD **13.20** AVE RT **9.55**

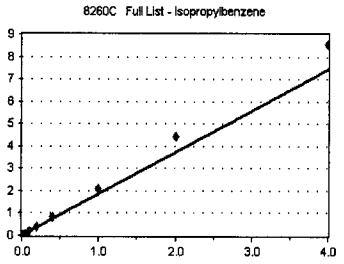
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

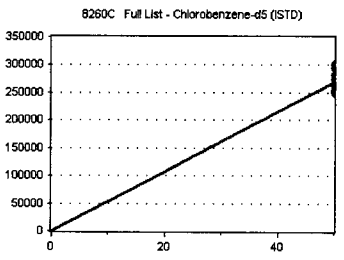


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	797	1.515	0.00
9J23072-CAL2	0.2	1688	1.608	10.65
9J23072-CAL3	0.4	3200	1.582	10.65
9J23072-CAL4	1	8399	1.678	10.65
9J23072-CAL5	2	18251	1.796	10.65
9J23072-CAL6	5	47833	1.801	10.65
9J23072-CAL7	10	107252	1.958	10.65
9J23072-CAL8	20	211570	2.093	10.65
9J23072-CAL9	50	584329	2.072	10.65
9J23072-CALA	100	1303605	2.214	10.65
9J23072-CALB	200	2575948	2.139	10.65

AVE RF **1.860** RF RSD **13.31** AVE RT **9.68**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

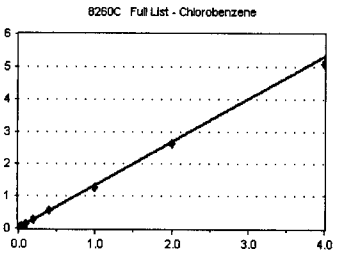


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	9.81
9J23072-CAL8	50	252726	5054.520	9.81
9J23072-CAL9	50	282031	5640.620	9.81
9J23072-CALA	50	294436	5888.720	9.81
9J23072-CALB	50	301031	6020.620	9.81

AVE RF **5367.935** RF RSD **6.51** AVE RT **9.81**

Chlorobenzene

Curve Fit: **AVERAGE RF**

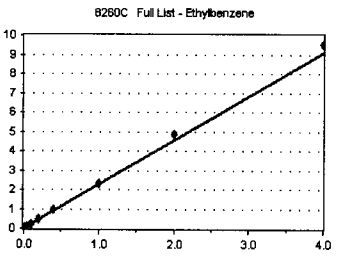


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	695	1.321	9.82
9J23072-CAL2	0.2	1422	1.354	9.83
9J23072-CAL3	0.4	2767	1.368	9.83
9J23072-CAL4	1	6563	1.311	9.82
9J23072-CAL5	2	14691	1.445	9.82
9J23072-CAL6	5	35206	1.325	9.83
9J23072-CAL7	10	72570	1.325	9.82
9J23072-CAL8	20	137767	1.363	9.83
9J23072-CAL9	50	353531	1.254	9.83
9J23072-CALA	100	776195	1.318	9.82
9J23072-CALB	200	1537073	1.277	9.83

AVE RF **1.333** RF RSD **3.80** AVE RT **9.82**

Ethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1105	2.101	9.86
9J23072-CAL2	0.2	2188	2.084	9.86
9J23072-CAL3	0.4	4399	2.174	9.86
9J23072-CAL4	1	10768	2.152	9.86
9J23072-CAL5	2	23566	2.319	9.86
9J23072-CAL6	5	59905	2.255	9.86
9J23072-CAL7	10	127729	2.332	9.86
9J23072-CAL8	20	245666	2.430	9.86
9J23072-CAL9	50	654045	2.319	9.86
9J23072-CALA	100	1432837	2.433	9.86
9J23072-CALB	200	2864835	2.379	9.86

AVE RF **2.271** RF RSD **5.56** AVE RT **9.86**

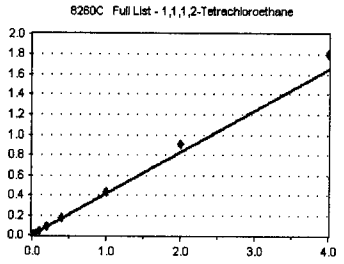
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

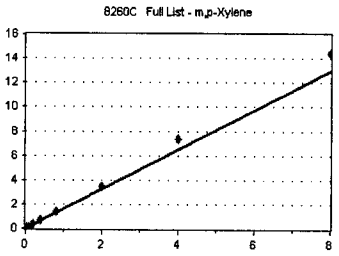


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	712	0.352	9.89
9J23072-CAL4	1	1888	0.377	9.89
9J23072-CAL5	2	4053	0.399	9.89
9J23072-CAL6	5	10760	0.405	9.89
9J23072-CAL7	10	22448	0.410	9.89
9J23072-CAL8	20	44112	0.436	9.89
9J23072-CAL9	50	121183	0.430	9.89
9J23072-CALA	100	268092	0.455	9.89
9J23072-CALB	200	543615	0.451	9.89

AVE RF **0.413** RF RSD **8.29** AVE RT **9.89**

m,p-Xylene

Curve Fit: **AVERAGE RF**

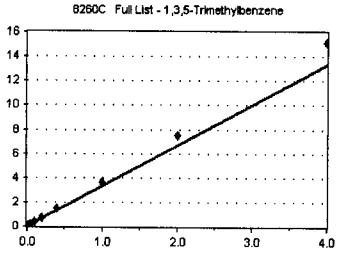


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.2	1531	1.456	10.00
9J23072-CAL2	0.4	3071	1.462	10.00
9J23072-CAL3	0.8	5672	1.402	10.00
9J23072-CAL4	2	14581	1.457	10.00
9J23072-CAL5	4	32148	1.582	10.00
9J23072-CAL6	10	85048	1.601	10.00
9J23072-CAL7	20	185431	1.693	10.00
9J23072-CAL8	40	359257	1.777	10.00
9J23072-CAL9	100	967453	1.715	10.00
9J23072-CALA	200	2158981	1.833	10.00
9J23072-CALB	400	4351315	1.807	10.00

AVE RF **1.617** RF RSD **9.72** AVE RT **10.00**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

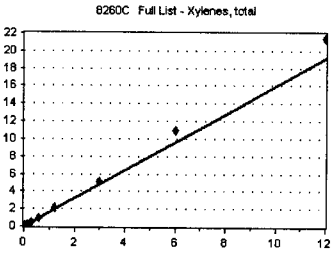


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	562	2.560	0.00
9J23072-CAL2	0.2	1298	2.938	11.16
9J23072-CAL3	0.4	2457	2.907	11.16
9J23072-CAL4	1	6251	3.006	11.16
9J23072-CAL5	2	14119	3.372	11.16
9J23072-CAL6	5	37585	3.354	11.16
9J23072-CAL7	10	83861	3.668	11.16
9J23072-CAL8	20	167903	3.762	11.16
9J23072-CAL9	50	450995	3.628	11.16
9J23072-CALA	100	1011802	3.744	11.16
9J23072-CALB	200	2020440	3.780	11.16

AVE RF **3.338** RF RSD **12.70** AVE RT **10.14**

Xylenes, total

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.3	2254	1.429	10.00
9J23072-CAL2	0.6	4511	1.432	10.38
9J23072-CAL3	1.2	8299	1.367	10.38
9J23072-CAL4	3	21706	1.446	10.38
9J23072-CAL5	6	47552	1.560	10.38
9J23072-CAL6	15	124751	1.566	10.38
9J23072-CAL7	30	272272	1.657	10.38
9J23072-CAL8	60	531488	1.753	10.38
9J23072-CAL9	150	1439296	1.701	10.38
9J23072-CALA	300	3212984	1.819	10.38
9J23072-CALB	600	6453906	1.787	10.38

AVE RF **1.592** RF RSD **10.07** AVE RT **10.34**

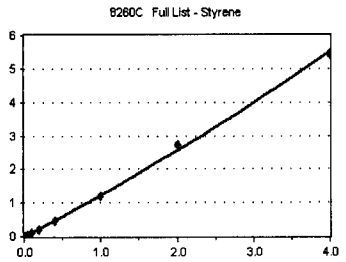
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Styrene

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

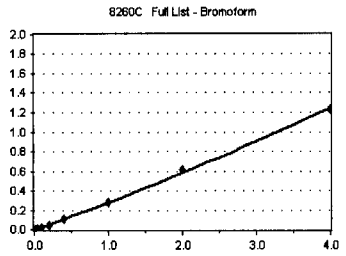


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	892	0.850	10.42
9J23072-CAL3	0.4	1570	0.776	10.42
9J23072-CAL4	1	3854	0.770	10.42
9J23072-CAL5	2	8686	0.855	10.42
9J23072-CAL6	5	24248	0.913	10.42
9J23072-CAL7	10	55991	1.022	10.42
9J23072-CAL8	20	116013	1.148	10.42
9J23072-CAL9	50	342762	1.215	10.42
9J23072-CALA	100	801932	1.362	10.42
9J23072-CALB	200	1640257	1.362	10.42

AVE RF **1.027** RF RSD **22.43** AVE RT **10.42**

Bromoform

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

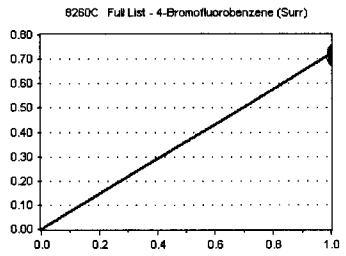


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	307	0.152	10.43
9J23072-CAL4	1	884	0.177	10.44
9J23072-CAL5	2	2069	0.204	10.44
9J23072-CAL6	5	5470	0.206	10.44
9J23072-CAL7	10	12367	0.226	10.44
9J23072-CAL8	20	26337	0.261	10.44
9J23072-CAL9	50	78066	0.277	10.44
9J23072-CALA	100	181310	0.308	10.44
9J23072-CALB	200	371025	0.308	10.44

AVE RF **0.235** RF RSD **23.91** AVE RT **10.44**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

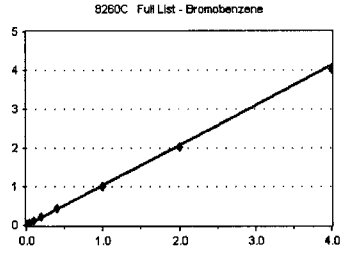


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	50	79925	0.716	10.88
9J23072-CAL9	50	88914	0.715	10.88
9J23072-CALA	50	93929	0.695	10.88
9J23072-CALB	50	92209	0.690	10.88

AVE RF **0.722** RF RSD **2.28** AVE RT **10.88**

Bromobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	420	0.951	10.97
9J23072-CAL3	0.4	848	1.003	10.96
9J23072-CAL4	1	2143	1.030	10.96
9J23072-CAL5	2	4789	1.144	10.96
9J23072-CAL6	5	11698	1.044	10.96
9J23072-CAL7	10	24784	1.084	10.96
9J23072-CAL8	20	47411	1.062	10.96
9J23072-CAL9	50	125116	1.007	10.96
9J23072-CALA	100	273427	1.012	10.97
9J23072-CALB	200	539540	1.010	10.97

AVE RF **1.035** RF RSD **5.11** AVE RT **10.96**

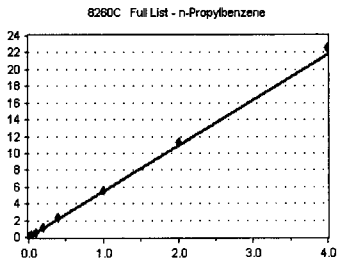
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

n-Propylbenzene

Curve Fit: **AVERAGE RF**

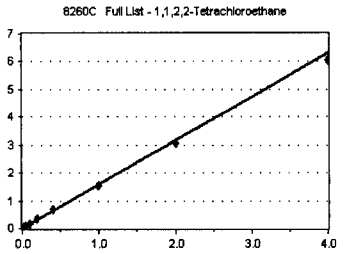


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1106	5.038	10.99
9J23072-CAL2	0.2	2321	5.253	10.99
9J23072-CAL3	0.4	4342	5.136	11.00
9J23072-CAL4	1	10891	5.237	11.00
9J23072-CAL5	2	23478	5.607	10.99
9J23072-CAL6	5	60466	5.395	11.00
9J23072-CAL7	10	131143	5.736	11.00
9J23072-CAL8	20	255618	5.728	11.00
9J23072-CAL9	50	690882	5.558	10.99
9J23072-CALA	100	1532146	5.670	11.00
9J23072-CALB	200	3009505	5.631	11.00

AVE RF **5.454** RF RSD **4.61** AVE RT **11.00**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

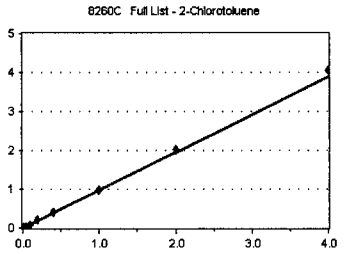


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~305~~	~~1.389~~	~~11.04~~
9J23072-CAL2	0.2	669	1.514	11.04
9J23072-CAL3	0.4	1189	1.407	11.05
9J23072-CAL4	1	3210	1.544	11.05
9J23072-CAL5	2	7515	1.795	11.05
9J23072-CAL6	5	17963	1.603	11.05
9J23072-CAL7	10	37925	1.659	11.05
9J23072-CAL8	20	74780	1.676	11.05
9J23072-CAL9	50	193478	1.556	11.05
9J23072-CALA	100	412177	1.525	11.05
9J23072-CALB	200	808397	1.513	11.05

AVE RF **1.579** RF RSD **6.87** AVE RT **11.05**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

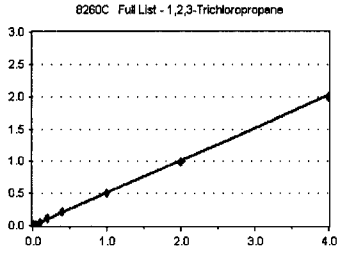


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	366	0.828	11.11
9J23072-CAL3	0.4	805	0.952	11.11
9J23072-CAL4	1	2013	0.968	11.11
9J23072-CAL5	2	4132	0.987	11.11
9J23072-CAL6	5	10583	0.944	11.11
9J23072-CAL7	10	23286	1.019	11.12
9J23072-CAL8	20	45697	1.024	11.12
9J23072-CAL9	50	121749	0.979	11.11
9J23072-CALA	100	274790	1.017	11.12
9J23072-CALB	200	541055	1.012	11.12

AVE RF **0.973** RF RSD **5.99** AVE RT **11.12**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~133~~	~~0.301~~	~~11.15~~
9J23072-CAL3	0.4	377	0.446	11.15
9J23072-CAL4	1	1017	0.489	11.15
9J23072-CAL5	2	2381	0.569	11.15
9J23072-CAL6	5	5563	0.496	11.15
9J23072-CAL7	10	12228	0.535	11.15
9J23072-CAL8	20	23923	0.536	11.15
9J23072-CAL9	50	61884	0.498	11.15
9J23072-CALA	100	134120	0.496	11.15
9J23072-CALB	200	266315	0.498	11.15

AVE RF **0.507** RF RSD **6.92** AVE RT **11.15**

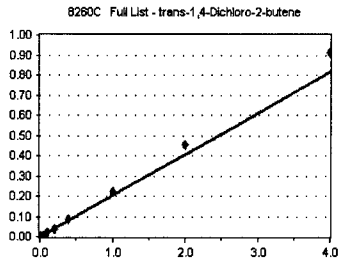
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

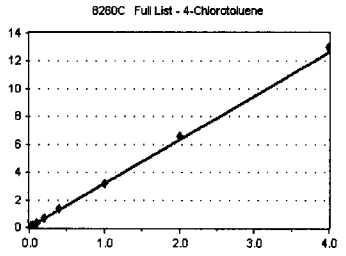


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	335	0.161	11.19
9J23072-CAL5	2	731	0.175	11.19
9J23072-CAL6	5	2176	0.194	11.19
9J23072-CAL7	10	4566	0.200	11.19
9J23072-CAL8	20	9771	0.219	11.19
9J23072-CAL9	50	27694	0.223	11.19
9J23072-CALA	100	61632	0.228	11.19
9J23072-CALB	200	121850	0.228	11.19

AVE RF **0.203** RF RSD **12.54** AVE RT **11.19**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

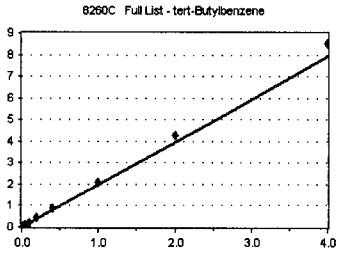


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.25
9J23072-CAL3	0.4	2330	2.756	11.25
9J23072-CAL4	1	6138	2.952	11.25
9J23072-CAL5	2	13748	3.283	11.25
9J23072-CAL6	5	35148	3.136	11.25
9J23072-CAL7	10	76302	3.337	11.25
9J23072-CAL8	20	150657	3.376	11.25
9J23072-CAL9	50	398929	3.209	11.25
9J23072-CALA	100	888249	3.287	11.25
9J23072-CALB	200	1741373	3.258	11.25

AVE RF **3.159** RF RSD **6.28** AVE RT **11.25**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

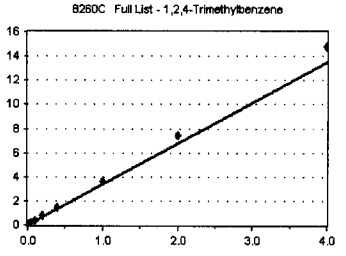


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	795	1.799	11.40
9J23072-CAL3	0.4	1388	1.642	11.41
9J23072-CAL4	1	3751	1.804	11.41
9J23072-CAL5	2	8173	1.952	11.41
9J23072-CAL6	5	22268	1.987	11.41
9J23072-CAL7	10	48165	2.107	11.41
9J23072-CAL8	20	95439	2.139	11.41
9J23072-CAL9	50	260062	2.092	11.41
9J23072-CALA	100	578812	2.142	11.41
9J23072-CALB	200	1137746	2.129	11.41

AVE RF **1.979** RF RSD **8.93** AVE RT **11.41**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	694	3.161	11.46
9J23072-CAL2	0.2	1248	2.825	11.46
9J23072-CAL3	0.4	2375	2.810	11.46
9J23072-CAL4	1	6195	2.979	11.46
9J23072-CAL5	2	14318	3.419	11.46
9J23072-CAL6	5	37661	3.360	11.46
9J23072-CAL7	10	85499	3.740	11.46
9J23072-CAL8	20	167688	3.758	11.46
9J23072-CAL9	50	450083	3.621	11.46
9J23072-CALA	100	1005539	3.721	11.46
9J23072-CALB	200	1974970	3.695	11.46

AVE RF **3.372** RF RSD **11.06** AVE RT **11.46**

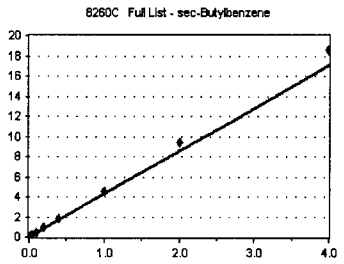
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

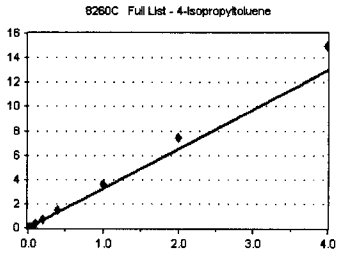


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1629	3.687	11.55
9J23072-CAL3	0.4	3021	3.574	11.55
9J23072-CAL4	1	7629	3.668	11.55
9J23072-CAL5	2	17439	4.164	11.55
9J23072-CAL6	5	47859	4.270	11.55
9J23072-CAL7	10	107745	4.713	11.55
9J23072-CAL8	20	207744	4.655	11.55
9J23072-CAL9	50	570890	4.593	11.55
9J23072-CALA	100	1269236	4.697	11.55
9J23072-CALB	200	2487376	4.654	11.55

AVE RF **4.268** RF RSD **10.98** AVE RT **11.55**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

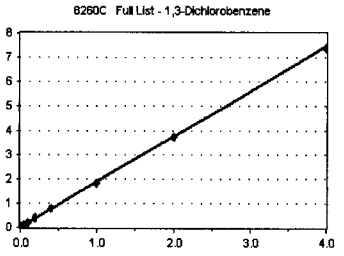


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1231	2.786	11.66
9J23072-CAL3	0.4	2242	2.652	11.66
9J23072-CAL4	1	5514	2.651	11.66
9J23072-CAL5	2	12982	3.100	11.66
9J23072-CAL6	5	35139	3.135	11.66
9J23072-CAL7	10	80264	3.511	11.66
9J23072-CAL8	20	160438	3.595	11.66
9J23072-CAL9	50	449627	3.617	11.66
9J23072-CALA	100	1010639	3.740	11.66
9J23072-CALB	200	1999489	3.741	11.66

AVE RF **3.253** RF RSD **13.63** AVE RT **11.66**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

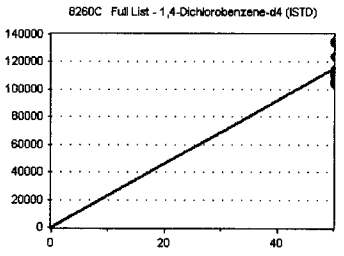


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	347	1.581	11.72
9J23072-CAL2	0.2	806	1.824	11.71
9J23072-CAL3	0.4	1573	1.861	11.71
9J23072-CAL4	1	3912	1.881	11.71
9J23072-CAL5	2	8614	2.057	11.71
9J23072-CAL6	5	21435	1.913	11.71
9J23072-CAL7	10	45072	1.971	11.71
9J23072-CAL8	20	87437	1.959	11.71
9J23072-CAL9	50	228262	1.836	11.71
9J23072-CALA	100	503820	1.864	11.71
9J23072-CALB	200	987891	1.848	11.71

AVE RF **1.872** RF RSD **6.38** AVE RT **11.71**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	109763	2195.260	11.77
9J23072-CAL2	50	110460	2209.200	11.77
9J23072-CAL3	50	105667	2113.340	11.77
9J23072-CAL4	50	103980	2079.600	11.77
9J23072-CAL5	50	104689	2093.780	11.77
9J23072-CAL6	50	112071	2241.420	11.77
9J23072-CAL7	50	114313	2286.260	11.77
9J23072-CAL8	50	111564	2231.280	11.77
9J23072-CAL9	50	124308	2486.160	11.77
9J23072-CALA	50	135112	2702.240	11.77
9J23072-CALB	50	133612	2672.240	11.77

AVE RF **2300.980** RF RSD **9.61** AVE RT **11.77**

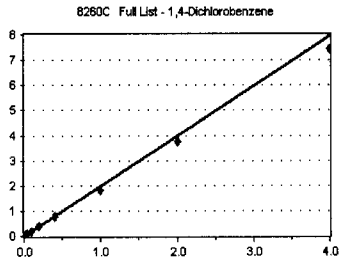
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

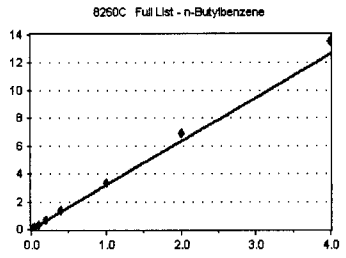


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	478	2.177	11.78
9J23072-CAL2	0.2	866	1.960	11.77
9J23072-CAL3	0.4	1787	2.114	11.78
9J23072-CAL4	1	4198	2.019	11.78
9J23072-CAL5	2	9088	2.170	11.78
9J23072-CAL6	5	21770	1.943	11.78
9J23072-CAL7	10	45209	1.977	11.78
9J23072-CAL8	20	87387	1.958	11.78
9J23072-CAL9	50	228373	1.837	11.78
9J23072-CALA	100	508874	1.883	11.78
9J23072-CALB	200	992164	1.856	11.78

AVE RF **1.990** RF RSD **5.96** AVE RT **11.78**

n-Butylbenzene

Curve Fit: **AVERAGE RF**

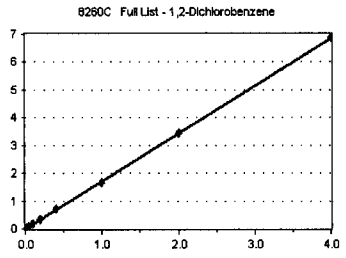


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.97
9J23072-CAL3	0.4	2427	2.871	11.97
9J23072-CAL4	1	5940	2.856	11.97
9J23072-CAL5	2	12799	3.056	11.97
9J23072-CAL6	5	33924	3.027	11.97
9J23072-CAL7	10	74888	3.276	11.97
9J23072-CAL8	20	148499	3.328	11.97
9J23072-CAL9	50	411527	3.311	11.97
9J23072-CALA	100	927051	3.431	11.97
9J23072-CALB	200	1809932	3.387	11.97

AVE RF **3.154** RF RSD **6.84** AVE RT **11.97**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

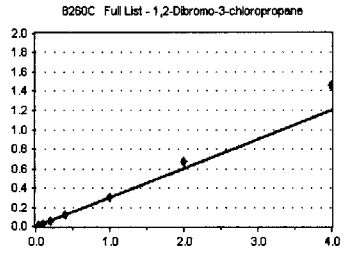


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	333	1.517	12.09
9J23072-CAL2	0.2	725	1.641	12.09
9J23072-CAL3	0.4	1421	1.681	12.09
9J23072-CAL4	1	3541	1.703	12.09
9J23072-CAL5	2	7821	1.868	12.09
9J23072-CAL6	5	19542	1.744	12.09
9J23072-CAL7	10	41072	1.796	12.09
9J23072-CAL8	20	80490	1.804	12.09
9J23072-CAL9	50	209123	1.682	12.09
9J23072-CALA	100	463375	1.715	12.09
9J23072-CALB	200	919855	1.721	12.09

AVE RF **1.716** RF RSD **5.40** AVE RT **12.09**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~70~~	~~8.281~~	~~12.69~~
~~9J23072-CAL4~~	~~1~~	~~497~~	~~0.239~~	~~12.70~~
9J23072-CAL5	2	1147	0.274	12.70
9J23072-CAL6	5	2712	0.242	12.70
9J23072-CAL7	10	6225	0.272	12.70
9J23072-CAL8	20	13313	0.298	12.70
9J23072-CAL9	50	38129	0.307	12.70
9J23072-CALA	100	90298	0.334	12.70
9J23072-CALB	200	195586	0.366	12.70

AVE RF **0.299** RF RSD **13.90** AVE RT **12.70**

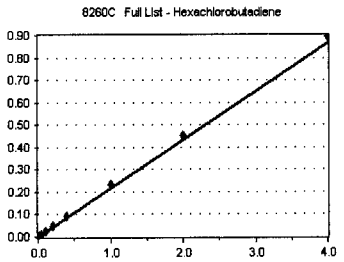
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

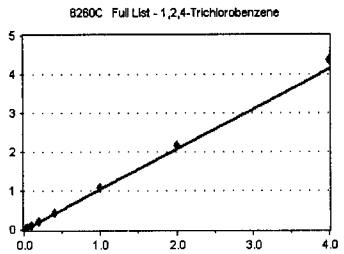


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	139	0.164	13.22
9J23072-CAL4	1	383	0.184	13.22
9J23072-CAL5	2	910	0.217	13.22
9J23072-CAL6	5	2682	0.239	13.21
9J23072-CAL7	10	5408	0.237	13.22
9J23072-CAL8	20	10256	0.230	13.22
9J23072-CAL9	50	28768	0.231	13.22
9J23072-CALA	100	61067	0.226	13.22
9J23072-CALB	200	119522	0.224	13.22

AVE RF **0.217** RF RSD **11.77** AVE RT **13.22**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

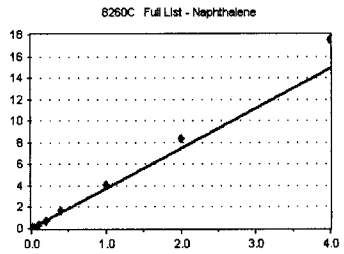


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	416	0.942	13.24
9J23072-CAL3	0.4	804	0.951	13.24
9J23072-CAL4	1	2063	0.992	13.24
9J23072-CAL5	2	4581	1.094	13.24
9J23072-CAL6	5	11011	0.983	13.24
9J23072-CAL7	10	24214	1.059	13.24
9J23072-CAL8	20	48878	1.095	13.24
9J23072-CAL9	50	133371	1.073	13.24
9J23072-CALA	100	290565	1.075	13.24
9J23072-CALB	200	586605	1.098	13.24

AVE RF **1.036** RF RSD **6.02** AVE RT **13.24**

Naphthalene

Curve Fit: **AVERAGE RF**

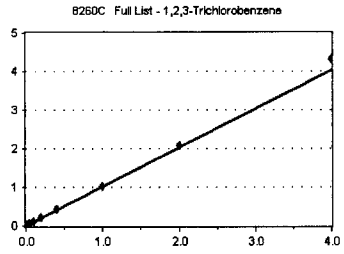


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1558	3.526	13.52
9J23072-CAL3	0.4	2847	3.368	13.52
9J23072-CAL4	1	6478	3.115	13.52
9J23072-CAL5	2	14900	3.558	13.52
9J23072-CAL6	5	36533	3.260	13.52
9J23072-CAL7	10	83341	3.645	13.52
9J23072-CAL8	20	180749	4.050	13.52
9J23072-CAL9	50	507971	4.086	13.51
9J23072-CALA	100	1129820	4.181	13.52
9J23072-CALB	200	2345481	4.389	13.51

AVE RF **3.718** RF RSD **11.60** AVE RT **13.52**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	435	0.985	13.68
9J23072-CAL3	0.4	736	0.871	13.68
9J23072-CAL4	1	1857	0.893	13.68
9J23072-CAL5	2	4683	1.118	13.68
9J23072-CAL6	5	10716	0.956	13.68
9J23072-CAL7	10	23691	1.036	13.68
9J23072-CAL8	20	47658	1.068	13.68
9J23072-CAL9	50	129134	1.039	13.68
9J23072-CALA	100	281123	1.040	13.68
9J23072-CALB	200	576564	1.079	13.68

AVE RF **1.008** RF RSD **8.02** AVE RT **13.68**

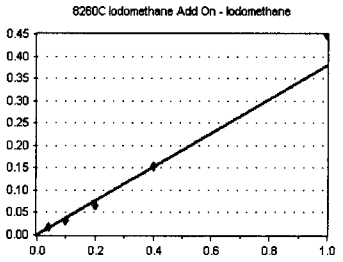
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VJ191024S VJ191024G**

Iodomethane

Curve Fit: **AVERAGE RF**

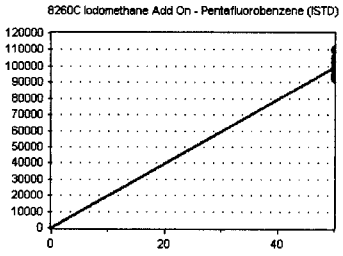


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~851~~	~~4.334~~	~~3.29~~
~~9J23072-CAL2~~	~~0.2~~	~~823~~	~~2.162~~	~~3.29~~
~~9J23072-CAL3~~	~~0.4~~	~~849~~	~~1.138~~	~~3.30~~
~~9J23072-CAL4~~	~~1~~	~~1059~~	~~0.574~~	~~3.30~~
9J23072-CAL5	2	1558	0.411	3.29
9J23072-CAL6	5	3207	0.324	3.30
9J23072-CAL7	10	6769	0.331	3.30
9J23072-CAL8	20	14327	0.381	3.29
9J23072-CAL9	50	47020	0.448	3.29
~~9J23072-CALA~~	~~100~~	~~117106~~	~~0.533~~	~~3.30~~
~~9J23072-CALB~~	~~200~~	~~265396~~	~~0.603~~	~~3.29~~

AVE RF **0.379** RF RSD **13.91** AVE RT **3.29**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

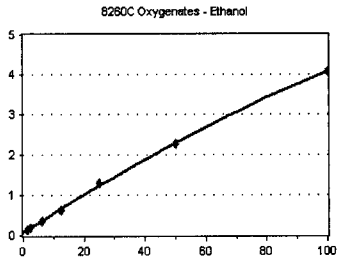
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Ethanol

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

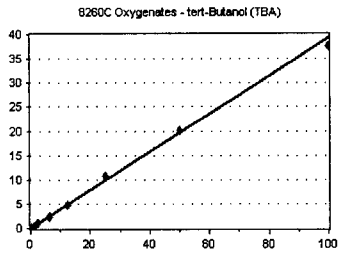


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~25~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	62.5	12276	0.106	3.33
9J23072-CAL5	125	19108	8.063	3.35
9J23072-CAL6	312	35634	5.770	3.38
9J23072-CAL7	625	63621	4.972	3.35
9J23072-CAL8	1250	122288	5.199	3.32
9J23072-CAL9	2500	239469	0.046	3.35
9J23072-CALA	5000	449287	4.087	3.35

AVE RF **6.184** RF RSD **37.93** AVE RT **3.35**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

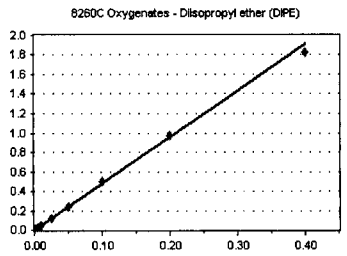


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	25	17903	0.384	4.26
9J23072-CAL4	62.5	43663	0.378	4.28
9J23072-CAL5	125	97251	0.410	4.32
9J23072-CAL6	312	228821	0.370	4.34
9J23072-CAL7	625	487639	0.381	4.26
9J23072-CAL8	1250	1026400	0.436	4.26
9J23072-CAL9	2500	2117115	0.403	4.32
9J23072-CALA	5000	4143802	0.377	4.33

AVE RF **0.393** RF RSD **5.68** AVE RT **4.30**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

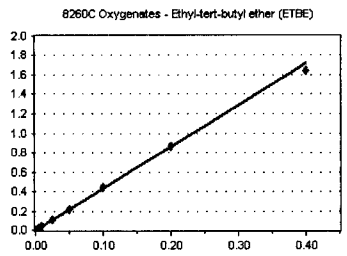


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.1	894	4.795	4.51
9J23072-CAL4	0.25	2248	4.870	4.51
9J23072-CAL5	0.5	4580	4.832	4.51
9J23072-CAL6	1.25	11435	4.621	4.51
9J23072-CAL7	2.5	23966	4.683	4.51
9J23072-CAL8	5	46804	4.975	4.51
9J23072-CAL9	10	102191	4.866	4.50
9J23072-CALA	20	200708	4.564	4.51

AVE RF **4.776** RF RSD **2.93** AVE RT **4.51**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	0.25	2080	4.506	4.88
9J23072-CAL5	0.5	4172	4.401	4.87
9J23072-CAL6	1.25	10218	4.129	4.87
9J23072-CAL7	2.5	21616	4.224	4.88
9J23072-CAL8	5	41722	4.434	4.87
9J23072-CAL9	10	90750	4.321	4.87
9J23072-CALA	20	180440	4.103	4.87

AVE RF **4.303** RF RSD **3.61** AVE RT **4.87**

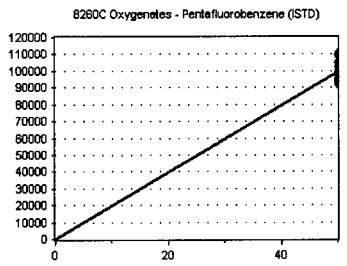
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

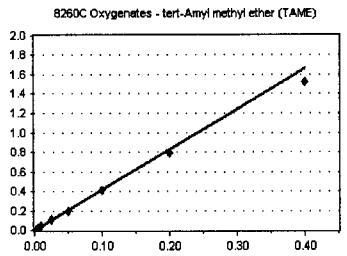


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

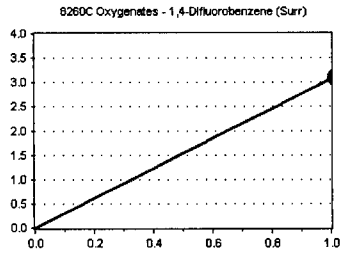


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	0.25	2154	4.666	6.16
9J23072-CAL5	0.5	4293	4.529	6.15
9J23072-CAL6	1.25	10184	4.116	6.16
9J23072-CAL7	2.5	20102	3.928	6.16
9J23072-CAL8	5	38296	4.070	6.16
9J23072-CAL9	10	82359	3.921	6.15
9J23072-CALA	20	167834	3.816	6.16

AVE RF **4.150** RF RSD **7.81** AVE RT **6.15**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

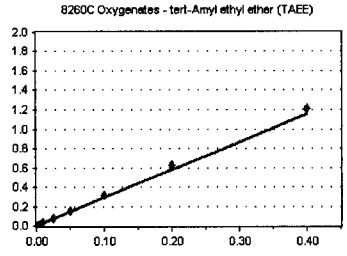


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	50	285833	3.038	6.66
9J23072-CAL9	50	323717	3.083	6.66
9J23072-CALA	50	338746	3.081	6.66
9J23072-CALB	50	346693	3.151	6.66

AVE RF **3.076** RF RSD **1.03** AVE RT **6.66**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.1	396	2.124	6.91
9J23072-CAL4	0.25	1238	2.682	6.91
9J23072-CAL5	0.5	3009	3.174	6.90
9J23072-CAL6	1.25	7162	2.894	6.91
9J23072-CAL7	2.5	14950	2.921	6.91
9J23072-CAL8	5	29237	3.107	6.91
9J23072-CAL9	10	65747	3.130	6.90
9J23072-CALA	20	133080	3.026	6.90

AVE RF **2.882** RF RSD **11.98** AVE RT **6.91**

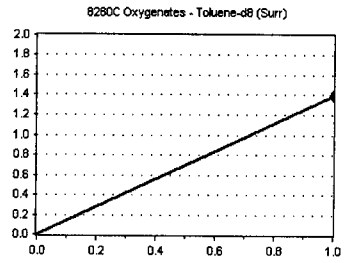
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

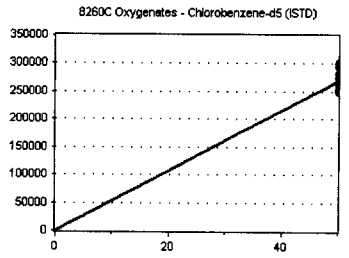


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	50	349892	1.384	8.17
9J23072-CAL9	50	394687	1.399	8.17
9J23072-CALA	50	411311	1.397	8.17
9J23072-CALB	50	415139	1.379	8.17

AVE RF **1.394** RF RSD **0.64** AVE RT **8.17**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

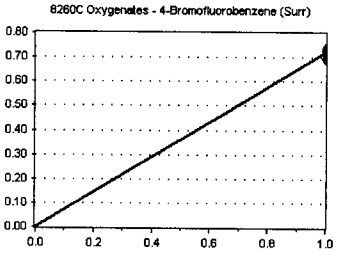


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	9.81
9J23072-CAL8	50	252726	5054.520	9.81
9J23072-CAL9	50	282031	5640.620	9.81
9J23072-CALA	50	294436	5888.720	9.81
9J23072-CALB	50	301031	6020.620	9.81

AVE RF **5367.935** RF RSD **6.51** AVE RT **9.81**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

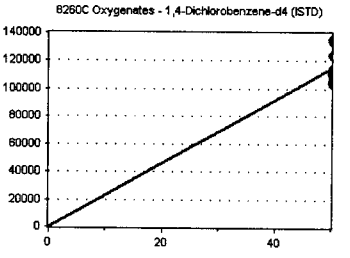


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	50	79925	0.716	10.88
9J23072-CAL9	50	88914	0.715	10.88
9J23072-CALA	50	93929	0.695	10.88
9J23072-CALB	50	92209	0.690	10.88

AVE RF **0.722** RF RSD **2.28** AVE RT **10.88**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	109763	2195.260	11.77
9J23072-CAL2	50	110460	2209.200	11.77
9J23072-CAL3	50	105667	2113.340	11.77
9J23072-CAL4	50	103980	2079.600	11.77
9J23072-CAL5	50	104689	2093.780	11.77
9J23072-CAL6	50	112071	2241.420	11.77
9J23072-CAL7	50	114313	2286.260	11.77
9J23072-CAL8	50	111564	2231.280	11.77
9J23072-CAL9	50	124308	2486.160	11.77
9J23072-CALA	50	135112	2702.240	11.77
9J23072-CALB	50	133612	2672.240	11.77

AVE RF **2300.980** RF RSD **9.61** AVE RT **11.77**

Calibration Status Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102345.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102346.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102347.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102348.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102349.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102350.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102351.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102352.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 8:08 am
2	100	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 8:35 am
3	250	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:02 am
4	500	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:29 am
5	1000	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:56 am
6	2500	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 10:23 am
7	5000	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 10:50 am
8	10K	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 11:16 am

VJ191024G.M Thu Oct 24 13:08:01 2019

Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

Calibration Files
50 =VJ19102345.D 100 =VJ19102346.D 250 =VJ19102347.D 500 =VJ19102348.D 1000=VJ19102349.D 2500=VJ19102350.D
5000=VJ19102351.D 10K =VJ19102352.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	----------ISTD----------									
2)	S	1,4-Difluorobe...	1.899	1.904	1.904	1.922	1.905	1.925	1.900	1.860	1.902	1.04
3)	S	4-Bromofluorob...	0.509	0.508	0.513	0.520	0.513	0.534	0.506	0.496	0.512	2.12
4)	H	NWTPH-Gx (TPH)	2.460	2.371	2.382	2.428	2.537	2.727	2.647	2.958	2.564	7.93
5)	H	TPHg (C5-C9)	5.532	4.652	3.604	3.420	3.367	3.453	3.261	3.535	3.853	20.93
6)	H	TPHg (C6-C10)	4.141	3.503	3.007	2.939	2.904	2.990	2.805	3.052	3.168	14.03
7)	H	CA-LUFT (C5-C12)	6.201	5.202	4.158	3.981	3.974	4.105	3.923	4.254	4.475	18.10
8)		Benzene (NR)									0.000	-1.00
9)	S	Toluene-d8 (NR)									0.000	-1.00
10)		Toluene (NR)									0.000	-1.00
11)	S	Chlorobenzene-...									0.000	-1.00
12)	S	1,4-Dichlorobe...									0.000	-1.00
13)		Naphthalene (NR)									0.000	-1.00

(#) = Out of Range

Compound List Report VOA-GCMS10

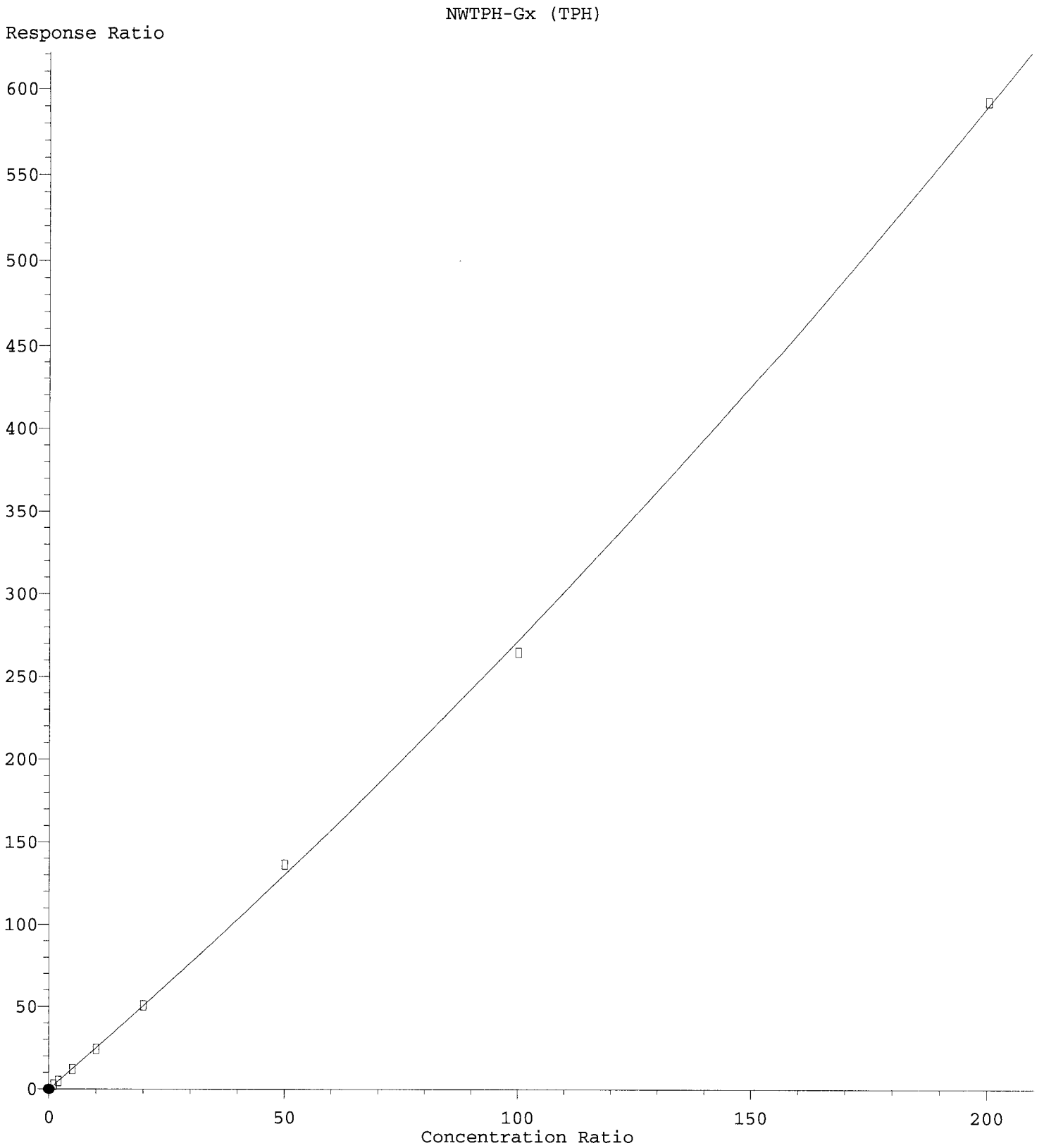
Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.095	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	6.655	1.092	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	10.883	1.785	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	8.739	1.434	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.239	1.516	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.239	1.516	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.239	1.516	Q	0	A	B
8		Benzene (NR)	78	6.004	0.985	A	2	A	B
9	S	Toluene-d8 (NR)	98	8.170	1.340	A	2	A	B
10		Toluene (NR)	91	8.231	1.350	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	9.806	1.609	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	11.765	1.930	A	2	A	B
13		Naphthalene (NR)	128	13.517	2.218	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VJ191024G.M Thu Oct 24 13:07:57 2019

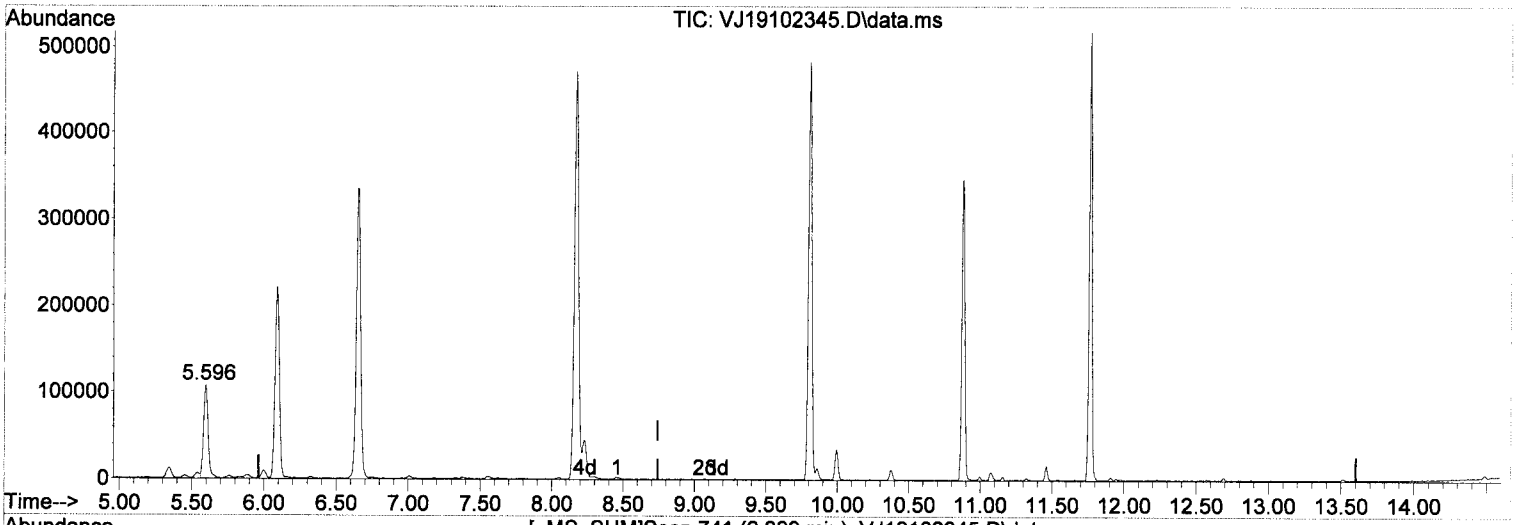


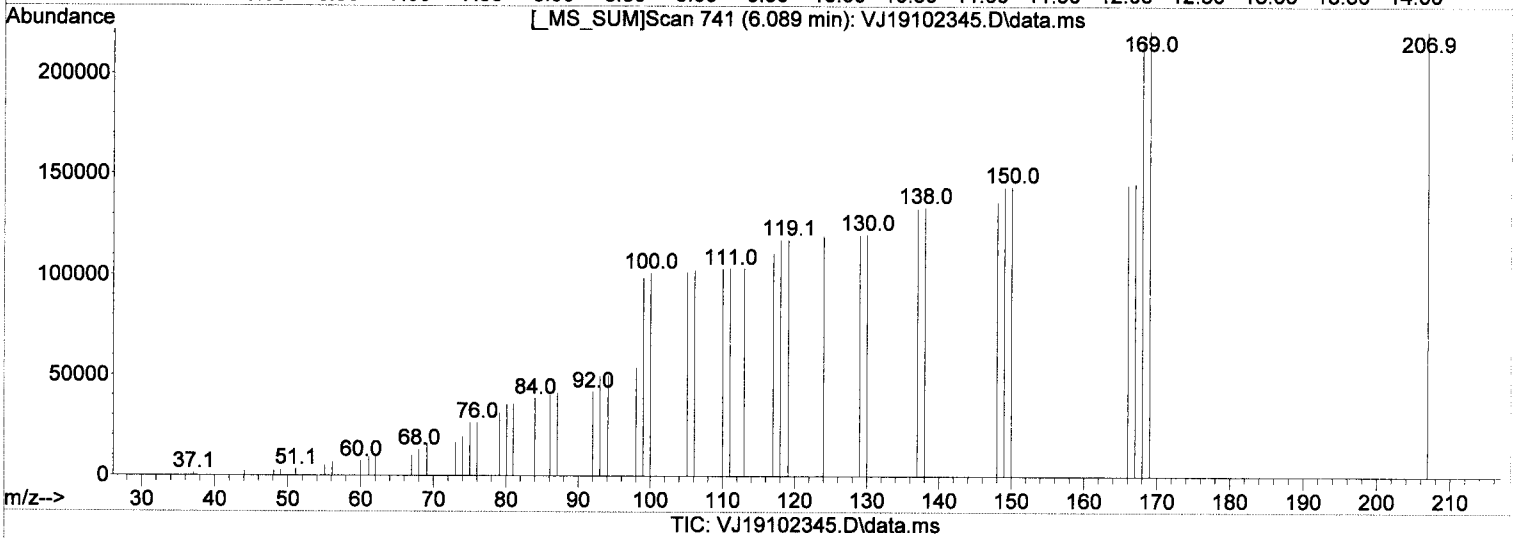
R = 2.27e-003 A*A + 2.49e+000 A - 1.74e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024G.M
Calibration Table Last Updated: Thu Oct 24 12:02:16 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





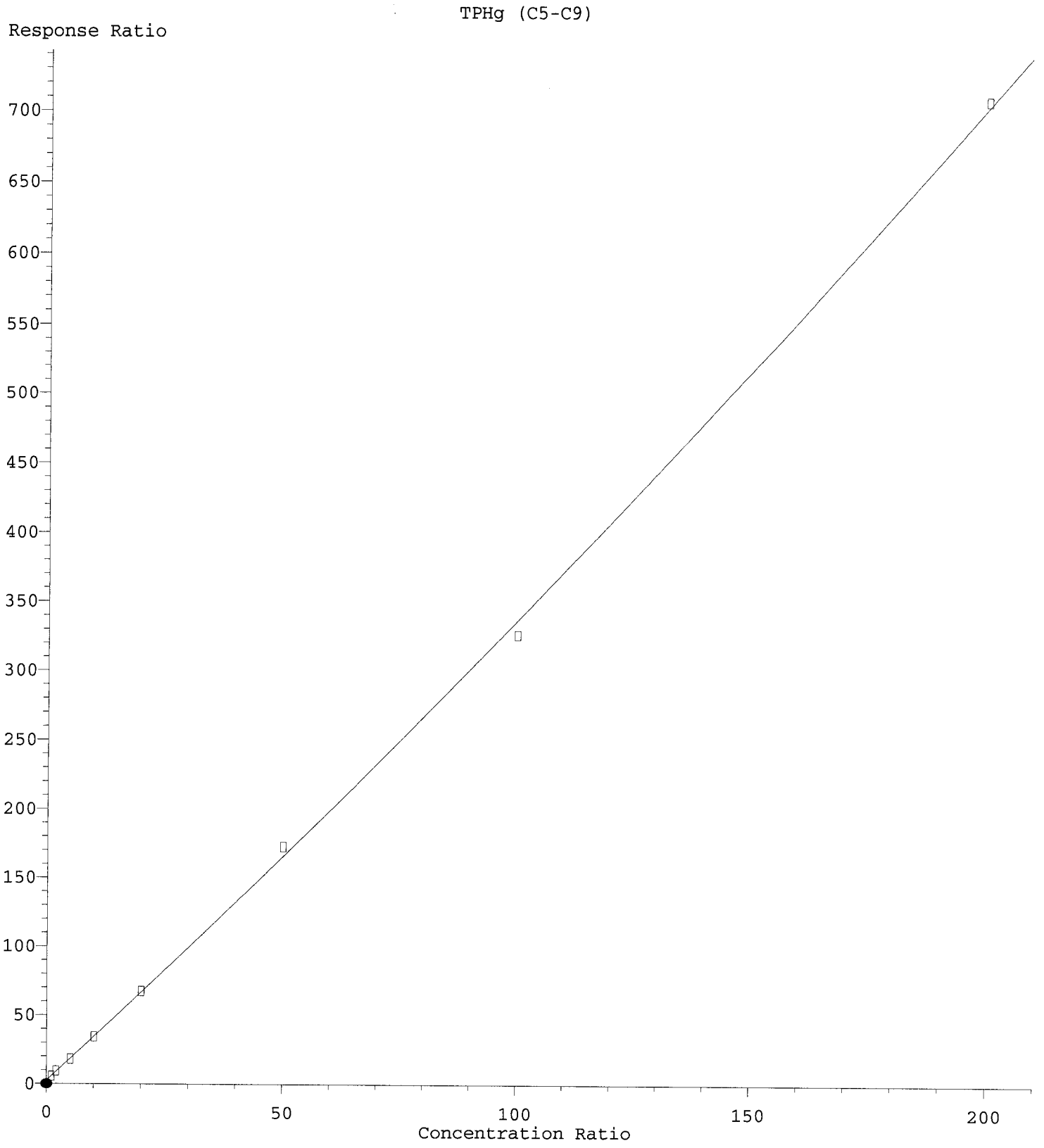
TIC: VJ19102345.D\data.ms

(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 37.80 ug/L m

response 261399

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	7.24#
0.00	0.00	6.00#
0.00	0.00	0.00

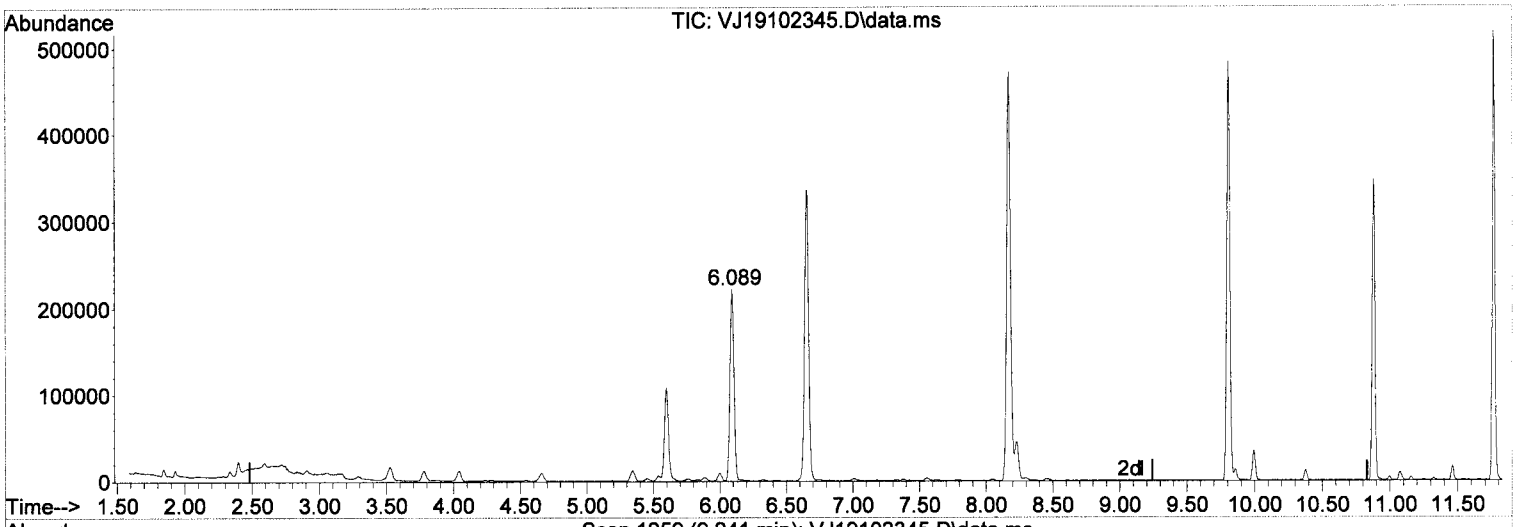


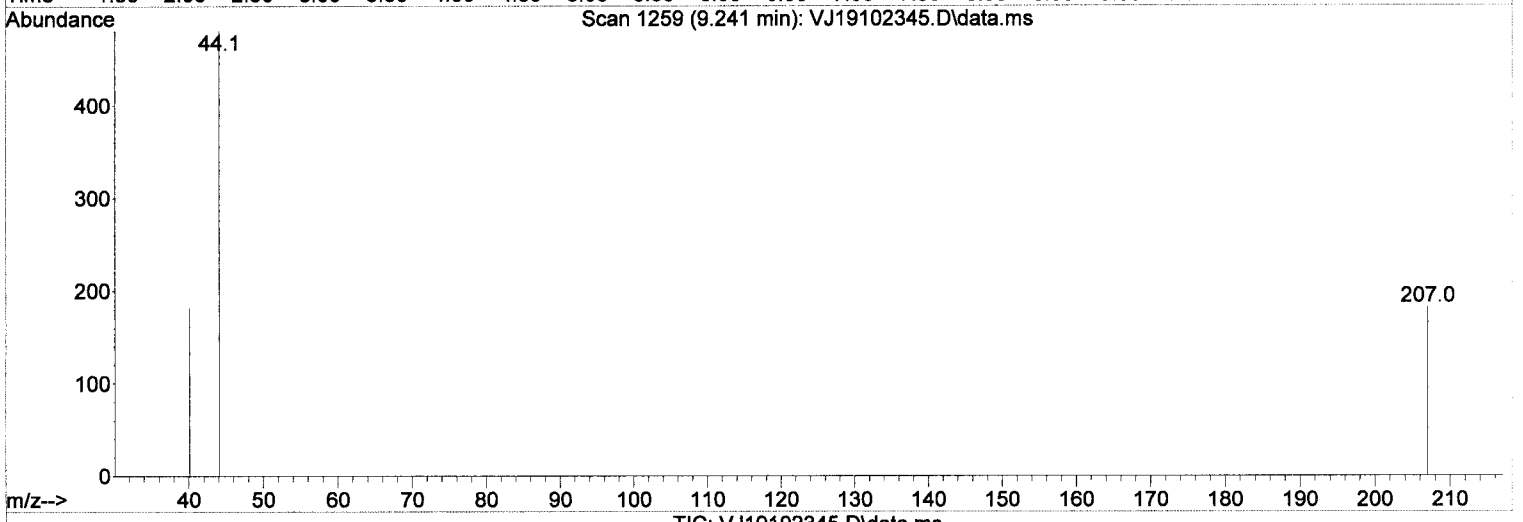
R = 1.62e-003 A*A + 3.18e+000 A + 2.52e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024ERM
Calibration Table Last Updated: Thu Oct 24 12:02:25 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





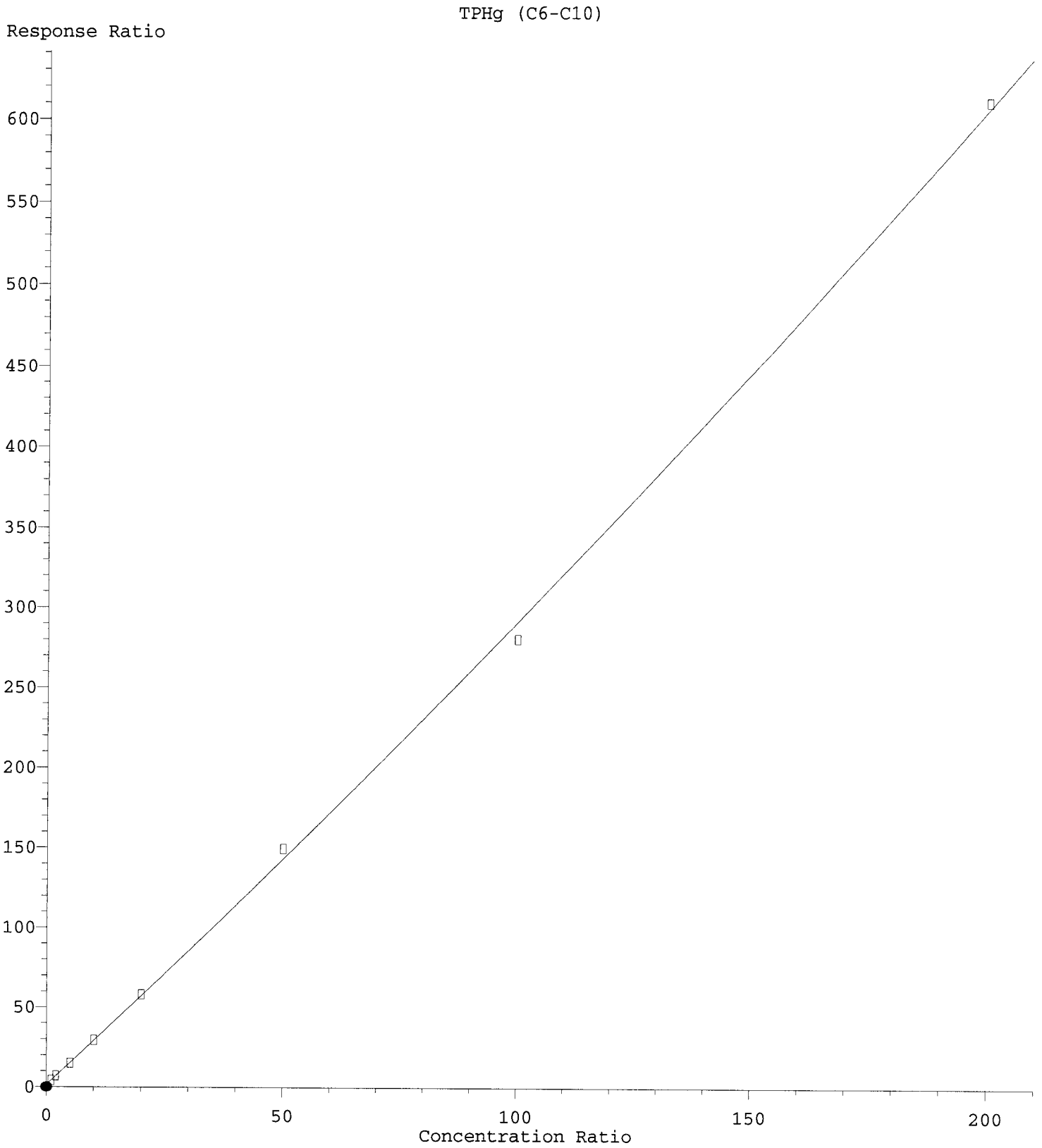
TIC: VJ19102345.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 40.57 ug/L m

response 778590

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.43#
0.00	0.00	2.01#
0.00	0.00	0.00

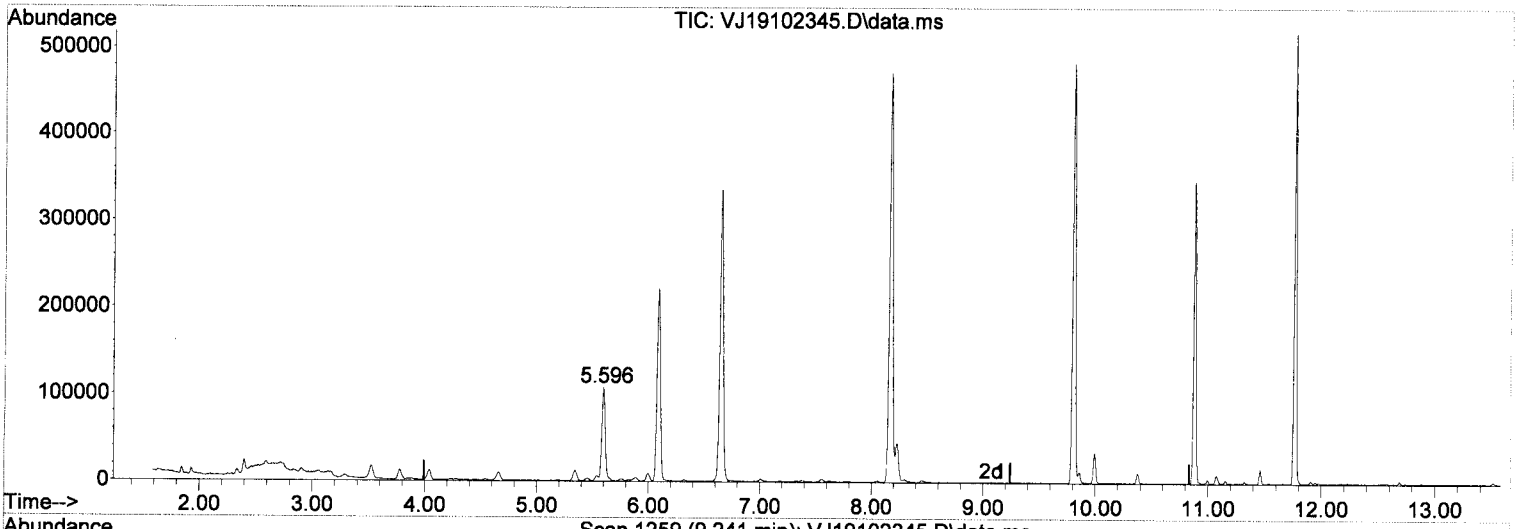


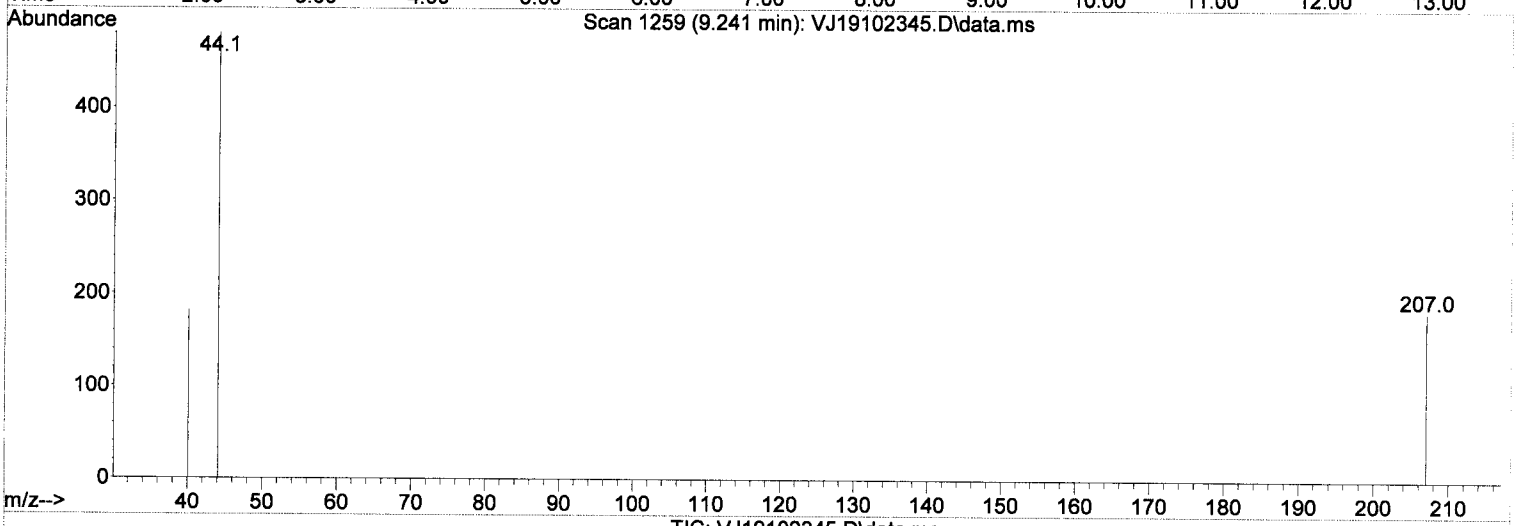
R = 1.29e-003 A*A + 2.77e+000 A + 1.43e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024e.M
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





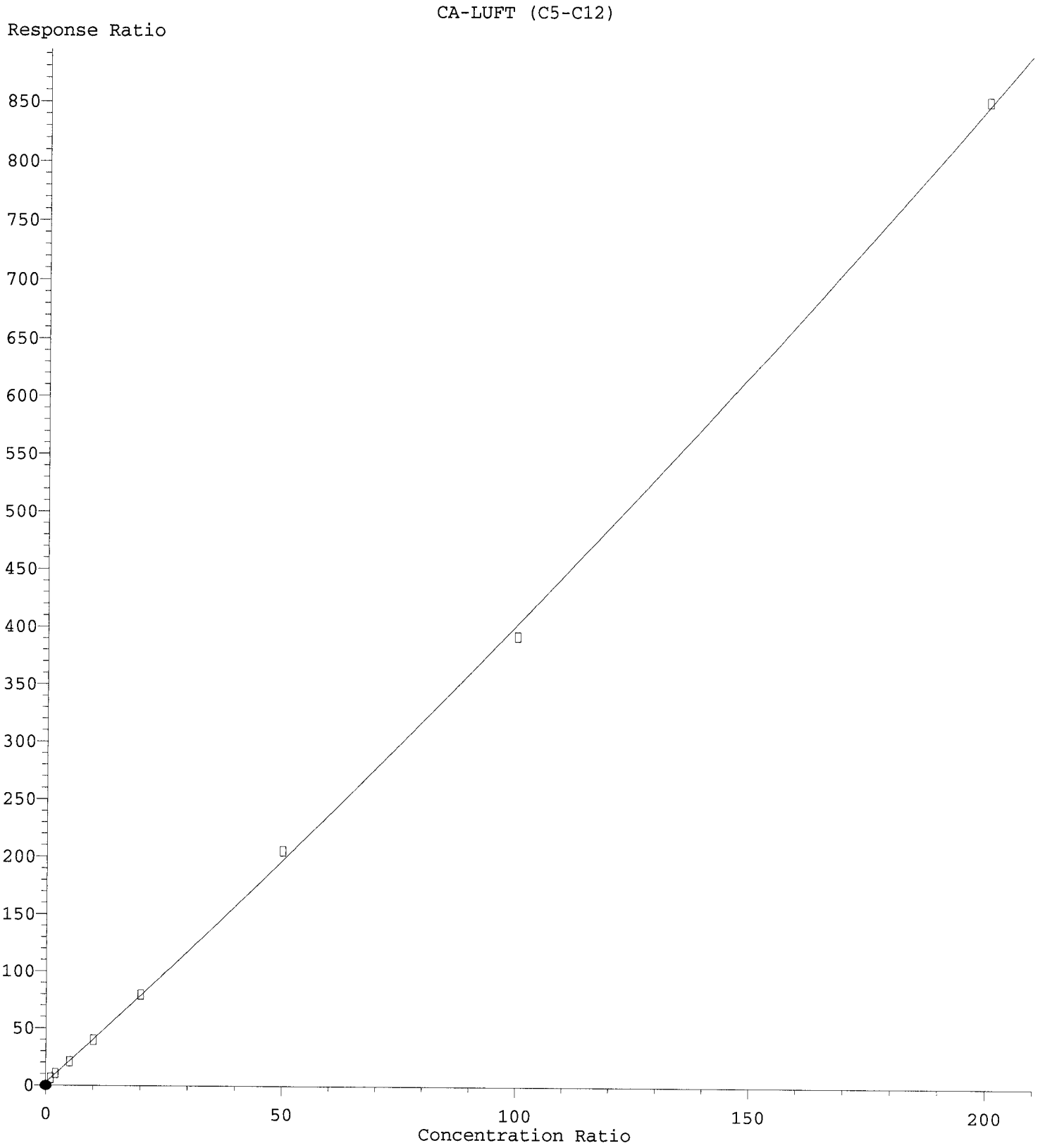
TIC: VJ19102345.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 12.37 ug/L m

response 322302

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	5.87#
0.00	0.00	4.87#
0.00	0.00	0.00

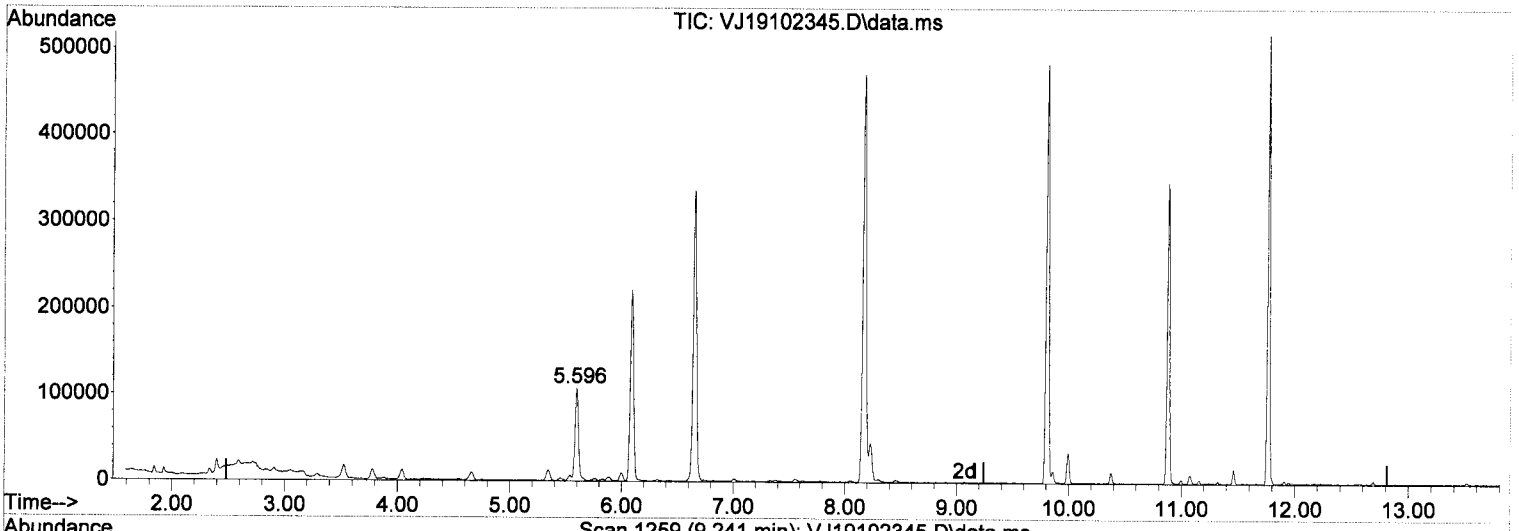


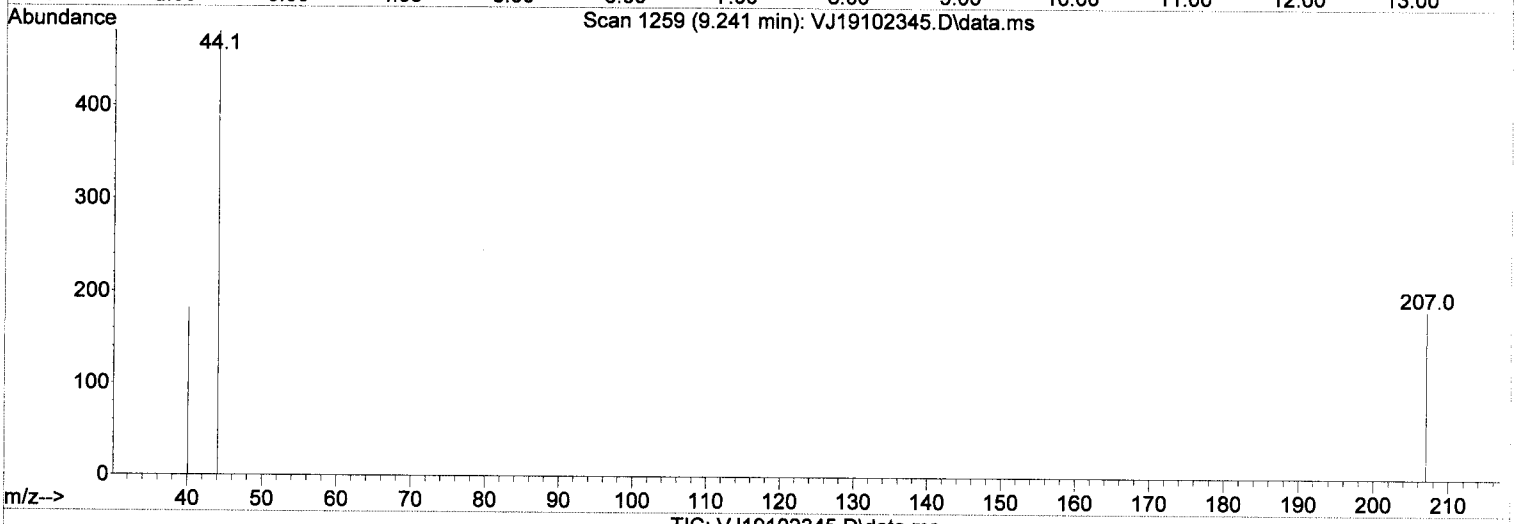
R = 2.20e-003 A*A + 3.78e+000 A + 2.48e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC-191002CRD
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 3.21 ug/L m

response 414726

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	4.56#
0.00	0.00	3.78#
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	111	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.403	1.2	109	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.916	4.2	105	0.00
4	H	NWTPH-Gx (TPH)	500.000	488.493	2.3	112	0.00
5	H	TPHg (C5-C9)	500.000	470.459	5.9	106	0.00
6	H	TPHg (C6-C10)	500.000	483.247	3.4	107	0.00
7	H	CA-LUFT (C5-C12)	500.000	474.172	5.2	108	0.00
8		Benzene (NR)	-1.000	0.000	0.0	111	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	108	0.00
10		Toluene (NR)	-1.000	0.000	0.0	112	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	107	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	108	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	124	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

Analysis Included
8015D-Mod Gasoline (C6-C10) by GC/MS
CA LUFT GRO
NWTPH-Gx

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J23072-TUN2	MS Tune	Soil		A19G118	10/24/2019 6:21:00AM
9J23072-ICB2	Initial Cal Blank	Soil		A19G118	10/24/2019 7:41:00AM
9J23072-CALC	Cal Standard	Soil	A19J269	"	10/24/2019 8:08:00AM
9J23072-CALD	Cal Standard	Soil	A19J270	"	10/24/2019 8:35:00AM
9J23072-CALE	Cal Standard	Soil	A19J271	"	10/24/2019 9:02:00AM
9J23072-CALF	Cal Standard	Soil	A19J272	"	10/24/2019 9:29:00AM
9J23072-CALG	Cal Standard	Soil	A19J273	"	10/24/2019 9:56:00AM
9J23072-CALH	Cal Standard	Soil	A19J274	"	10/24/2019 10:23:00AM
9J23072-CALI	Cal Standard	Soil	A19J275	"	10/24/2019 10:50:00AM
9J23072-CALJ	Cal Standard	Soil	A19J276	"	10/24/2019 11:16:00AM
9J23072-ICV3	Initial Cal Check	Soil	A19G350	"	10/24/2019 12:37:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

8015D-Mod Gasoline (C6-C1(Sequence: **9J23072** Matrix: **Soil**

9J23072-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

NWTPH-Gx Sequence: **9J23072** Matrix: **Soil**

9J23072-ICV3	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

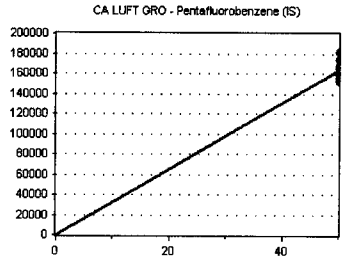
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

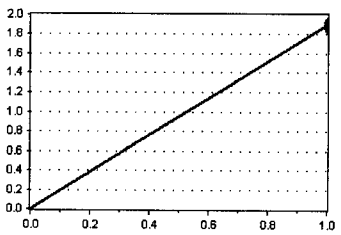


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

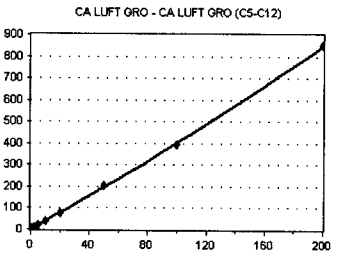


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

CA LUFT GRO (C5-C12)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

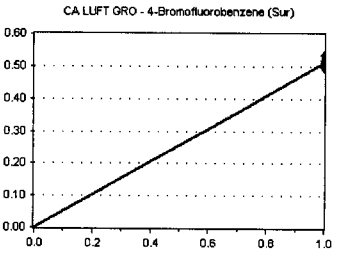


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	946025	6.201	0.00
9J23072-CALD	100	1596035	5.202	9.24
9J23072-CALE	250	3235032	4.158	9.24
9J23072-CALF	500	6336737	3.981	9.24
9J23072-CALG	1000	1.328617E+07	3.974	9.24
9J23072-CALH	2500	3.392865E+07	4.105	9.24
9J23072-CALI	5000	6.826362E+07	3.923	9.24
9J23072-CALJ	10000	1.542917E+08	4.254	9.24

AVE RF **4.475** RF RSD **18.10** AVE RT **8.08**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

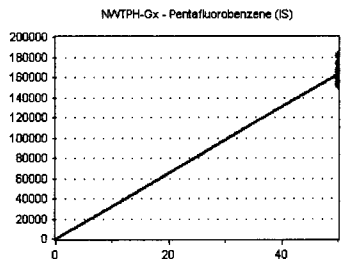
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

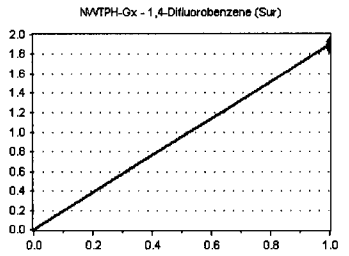


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

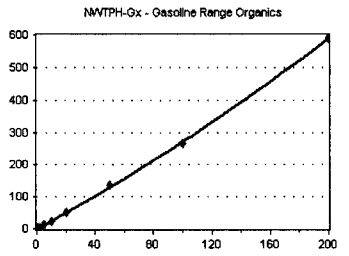


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

Gasoline Range Organics

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

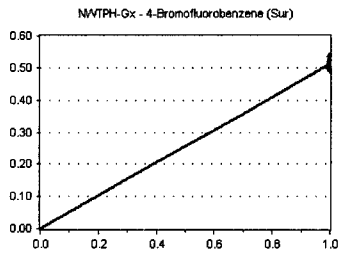


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	375320	2.460	8.74
9J23072-CALD	100	727259	2.371	8.74
9J23072-CALE	250	1852913	2.382	8.74
9J23072-CALF	500	3865293	2.428	8.74
9J23072-CALG	1000	8482501	2.537	8.74
9J23072-CALH	2500	2.254156E+07	2.727	8.74
9J23072-CALI	5000	4.606917E+07	2.647	8.74
9J23072-CALJ	10000	1.072841E+08	2.958	8.74

AVE RF **2.564** RF RSD **7.93** AVE RT **8.74**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

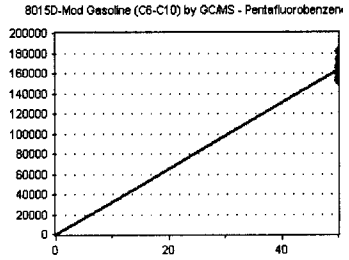
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

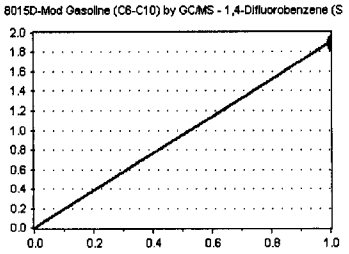


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

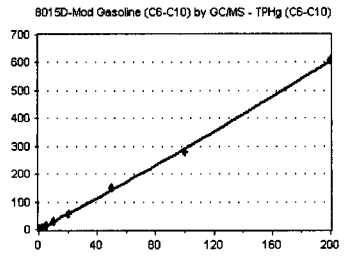


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

TPHg (C6-C10)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

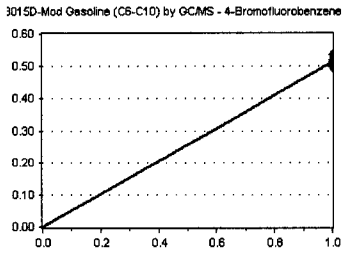


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	631711	4.141	9.24
9J23072-CALD	100	1074809	3.503	9.24
9J23072-CALE	250	2339645	3.007	9.24
9J23072-CALF	500	4678414	2.939	9.24
9J23072-CALG	1000	9708618	2.904	9.24
9J23072-CALH	2500	2.471193E+07	2.990	9.24
9J23072-CALI	5000	4.881578E+07	2.805	9.24
9J23072-CALJ	10000	1.106875E+08	3.052	9.24

AVE RF **3.168** RF RSD **14.03** AVE RT **9.24**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

Injection Log

Directory: w:\data\2019-10\9J23072

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vj19102315.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 18:43
2	2	Vj19102316.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 19:10
3	3	Vj19102317.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 19:37
4	4	Vj19102318.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 20:04
5	5	Vj19102319.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 20:31
6	6	Vj19102320.d	1.	9J23072-IBL1	1X 5mL DI+MeOH	23 Oct 2019 20:57
7	7	Vj19102321.d	1.	9J23072-TUN1	A19G118 BFB (IS/...	23 Oct 2019 21:24
8	8	Vj19102322.d	1.	9J23072-ICB1	1X 5mL DI+MeOH	23 Oct 2019 21:51
9	9	Vj19102323.d	1.	9J23072-CAL1	1X 5mL 0.1/0....	23 Oct 2019 22:18
10	10	Vj19102324.d	1.	9J23072-CAL2	1X 5mL 0.2/0....	23 Oct 2019 22:45
11	11	Vj19102325.d	1.	9J23072-CAL3	1X 5mL 0.4/0....	23 Oct 2019 23:12
12	12	Vj19102326.d	1.	9J23072-CAL4	1X 5mL 1/2PPB...	23 Oct 2019 23:38
13	13	Vj19102327.d	1.	9J23072-CAL5	1X 5mL 2/4PPB...	24 Oct 2019 00:05
14	14	Vj19102328.d	1.	9J23072-CAL6	1X 5mL 5/10PP...	24 Oct 2019 00:32
15	15	Vj19102329.d	1.	9J23072-CAL7	1X 5mL 10/20P...	24 Oct 2019 00:59
16	16	Vj19102330.d	1.	9J23072-CAL8	1X 5mL 20/40P...	24 Oct 2019 01:26
17	17	Vj19102331.d	1.	9J23072-CAL9	1X 5mL 50/100...	24 Oct 2019 01:53
18	18	Vj19102332.d	1.	9J23072-IBL2	1X 5mL DI+MeOH	24 Oct 2019 02:19
19	19	Vj19102333.d	1.	9J23072-CALA	1X 5mL 100/20...	24 Oct 2019 02:46
20	20	Vj19102334.d	1.	9J23072-IBL3	1X 5mL DI+MeOH	24 Oct 2019 03:13
21	21	Vj19102335.d	1.	9J23072-CALB	1X 5mL 200/40...	24 Oct 2019 03:40
22	22	Vj19102336.d	1.	9J23072-IBL4	1X 5mL DI+MeOH	24 Oct 2019 04:07
23	23	Vj19102337.d	1.	9J23072-IBL5	1X 5mL DI+MeOH	24 Oct 2019 04:34
24	24	Vj19102338.d	1.	9J23072-ICV1	1X 5mL 20/40P...	24 Oct 2019 05:00
25	25	Vj19102339.d	1.	9J23072-ICV2	1X 5mL 5/1250...	24 Oct 2019 05:27
26	26	Vj19102340.d	1.	9J23072-IBL6	1X 5mL DI+MeOH	24 Oct 2019 05:54
27	27	Vj19102341.d	1.	9J23072-TUN2	A19G118 BFB (IS/...	24 Oct 2019 06:21
28	28	Vj19102342.d	1.	9J23072-RT1	A19A167 VPH RT STD	24 Oct 2019 06:48
29	29	Vj19102343.d	1.	9J23072-IBL7	1X 5mL DI+MeOH	24 Oct 2019 07:14
30	30	Vj19102344.d	1.	9J23072-ICB2	1X 5mL DI+MeOH	24 Oct 2019 07:41
31	31	Vj19102345.d	1.	9J23072-CALC	1X 5mL 50PPB ...	24 Oct 2019 08:08
32	32	Vj19102346.d	1.	9J23072-CALD	1X 5mL 100PPB...	24 Oct 2019 08:35
33	33	Vj19102347.d	1.	9J23072-CALE	1X 5mL 250PPB...	24 Oct 2019 09:02
34	34	Vj19102348.d	1.	9J23072-CALF	1X 5mL 500PPB...	24 Oct 2019 09:29
35	35	Vj19102349.d	1.	9J23072-CALG	1X 5mL 1000PP...	24 Oct 2019 09:56
36	36	Vj19102350.d	1.	9J23072-CALH	1X 5mL 2500PP...	24 Oct 2019 10:23
37	37	Vj19102351.d	1.	9J23072-CALI	1X 5mL 5000PP...	24 Oct 2019 10:50
38	38	Vj19102352.d	1.	9J23072-CALJ	1X 5mL 10000P...	24 Oct 2019 11:16
39	39	Vj19102353.d	1.	9J23072-IBL8	1X 5mL DI+MeOH	24 Oct 2019 11:43
40	40	Vj19102354.d	1.	9J23072-IBL9	1X 5mL DI+MeOH	24 Oct 2019 12:10
41	41	Vj19102355.d	1.	9J23072-ICV3	1X 5mL 500PPB...	24 Oct 2019 12:37
42		Vj19102356.d	1.	No MS or GC data present		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102320.D
Acq On : 23 Oct 2019 8:57 pm
Operator : MM
Sample : 9J23072-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 24 09:40:43 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

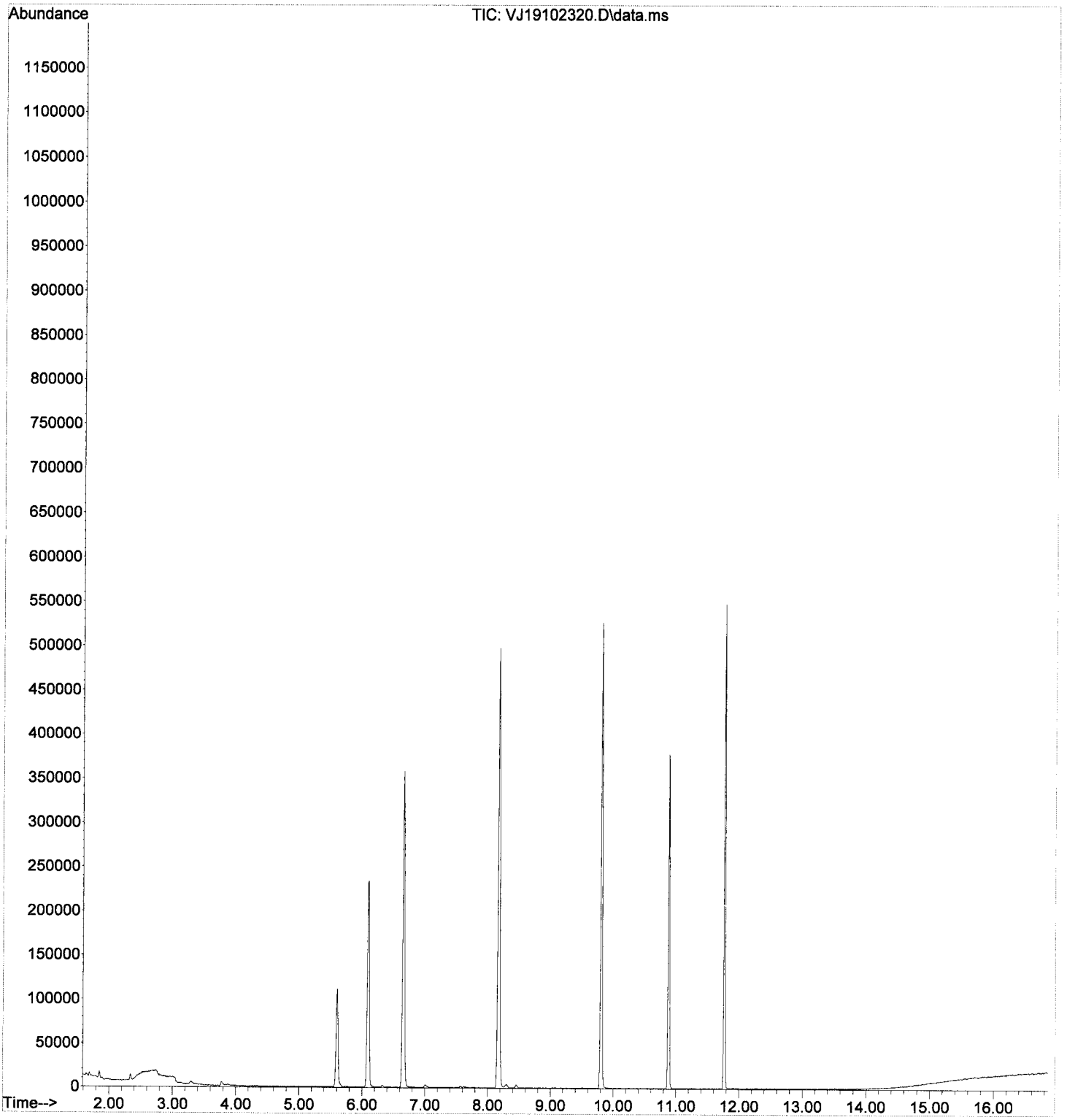
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	101329	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	279302	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115194	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.602	111	78729	49.16	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	312975	50.21	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	386001	49.56	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	85642	51.49	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.898	50	2352	0.59	ug/L	96
5) Bromomethane	2.342	96	2897	Below Cal		98
6) Chloroethane	2.463	64	112	1.49	ug/L #	47
8) Ethanol	3.303	45	6241	Below Cal		91
12) Iodomethane	3.291	142	1333	1.74	ug/L	80
13) Methylene Chloride	3.777	84	2244	0.09	ug/L	93
14) Acetone	3.875	43	1706	1.10	ug/L	100
18) tert-Butanol (TBA)	4.258	59	142	0.18	ug/L #	13
28) Tetrahydrofuran	5.596	42	323	0.16	ug/L #	56
32) 2-Butanone (MEK)	5.736	43	1116	0.41	ug/L	52
36) iso-Butyl Alcohol	6.326	43	748	2.40	ug/L	69

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102320.D
Acq On : 23 Oct 2019 8:57 pm
Operator : MM
Sample : 9J23072-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 24 09:40:43 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

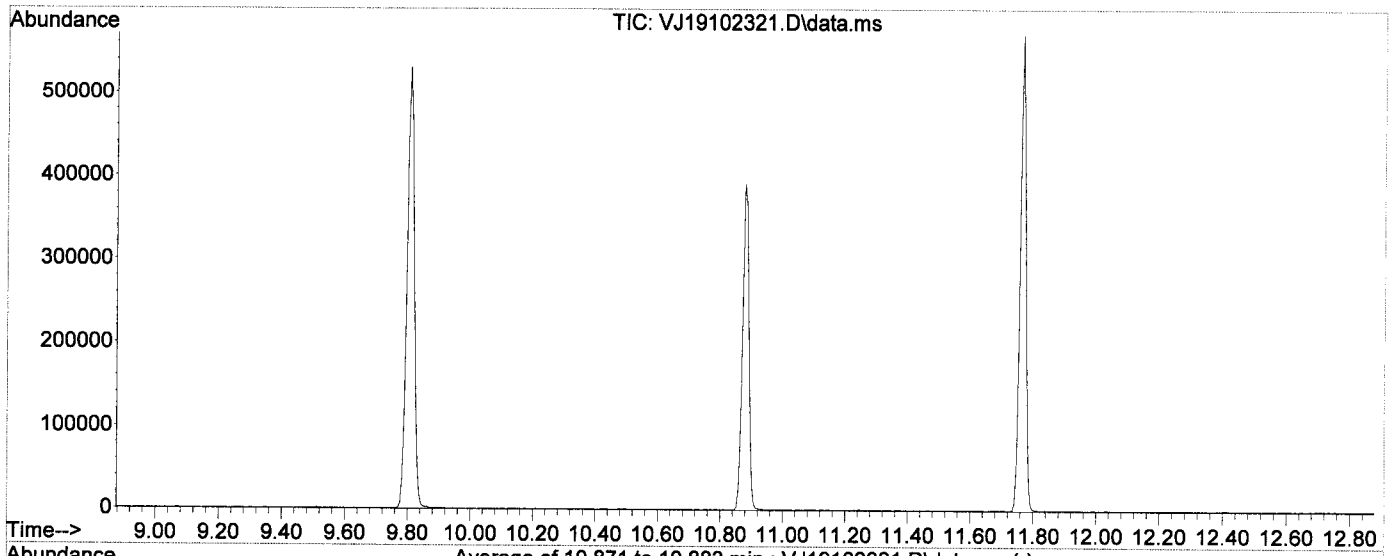


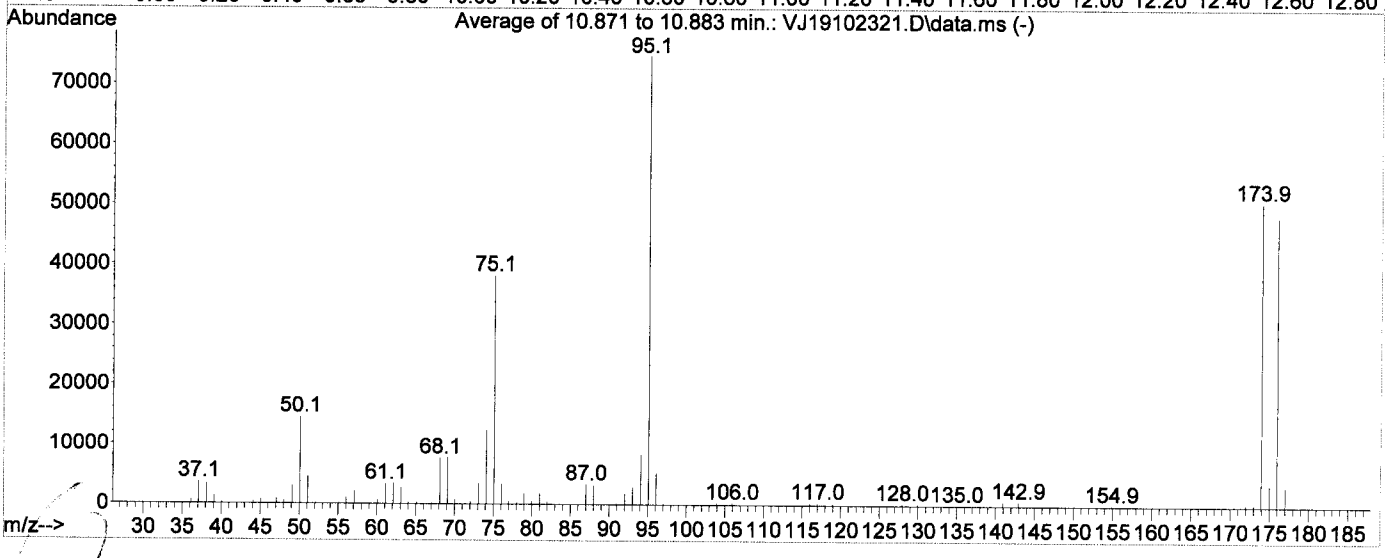
BFB

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019





AutoFind: Scans 1527, 1528, 1529; Background Corrected with Scan 1521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	147.8	74819	PASS
96	95	5	9	7.2	5353	PASS
173	174	0.00	2	0.7	373	PASS
174	95	50	200	67.7	50627	PASS
175	174	5	9	7.1	3612	PASS
176	174	95	105	95.3	48248	PASS
177	176	5	10	6.8	3284	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 09:40:47 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

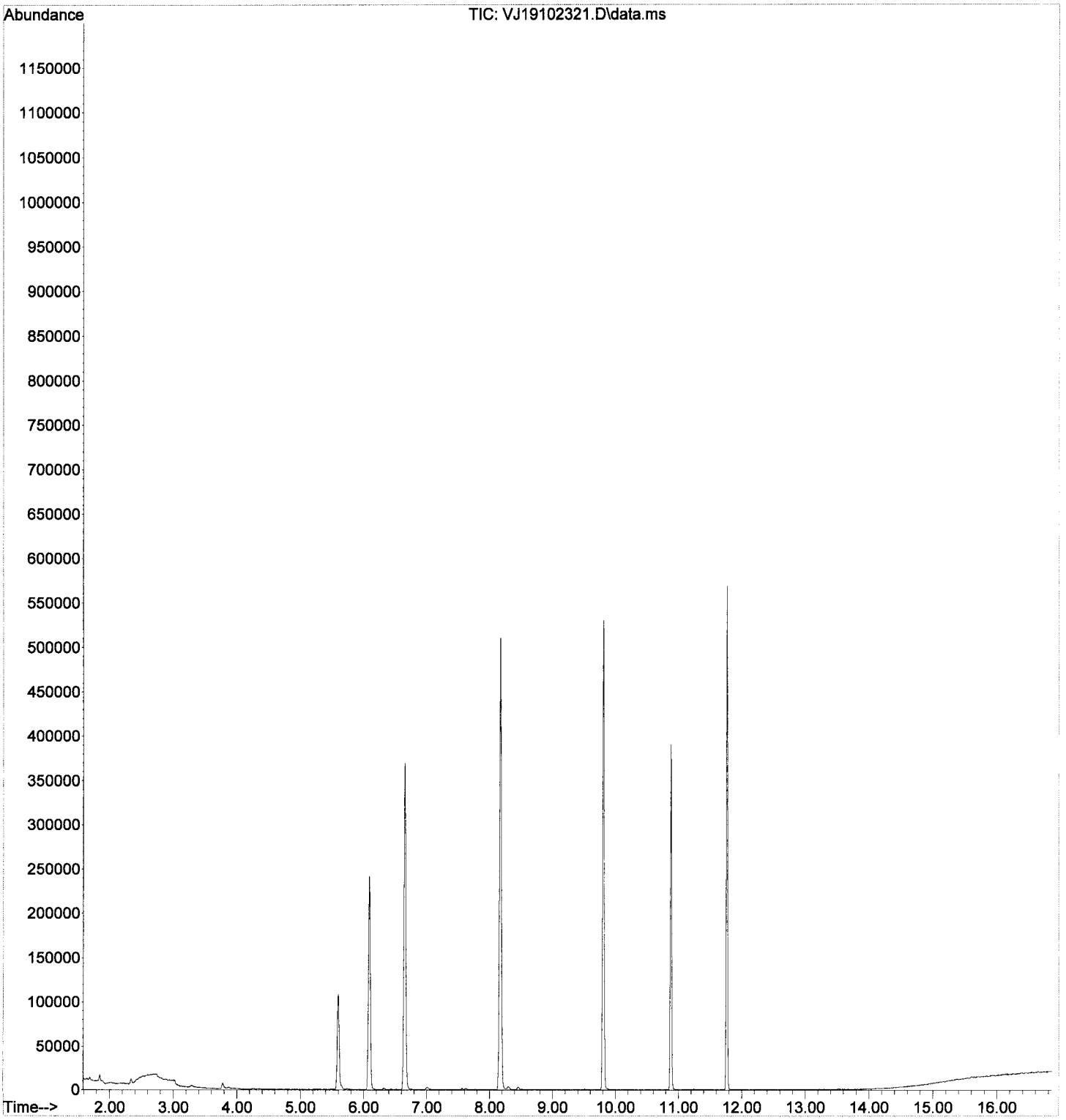
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	102916	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	281718	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115749	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.597	111	77404	47.58	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	318896	50.37	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	393275	50.06	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	86338	51.66	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.892	50	2074	0.51	ug/L	82
5) Bromomethane	2.342	96	2659	Below Cal		98
6) Chloroethane	2.530	64	57	1.36	ug/L #	47
8) Ethanol	3.303	45	4154	Below Cal		98
12) Iodomethane	3.291	142	916	1.17	ug/L	74
13) Methylene Chloride	3.778	84	3230	0.49	ug/L	90
14) Acetone	3.869	43	1979	1.26	ug/L	99
18) tert-Butanol (TBA)	4.252	59	718	0.89	ug/L #	61
28) Tetrahydrofuran	5.584	42	367	0.18	ug/L #	30
32) 2-Butanone (MEK)	5.743	43	1068	0.39	ug/L	52
36) iso-Butyl Alcohol	6.320	43	727	2.30	ug/L	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 09:40:47 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102322.D
Acq On : 23 Oct 2019 9:51 pm
Operator : MM
Sample : 9J23072-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 09:40:58 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

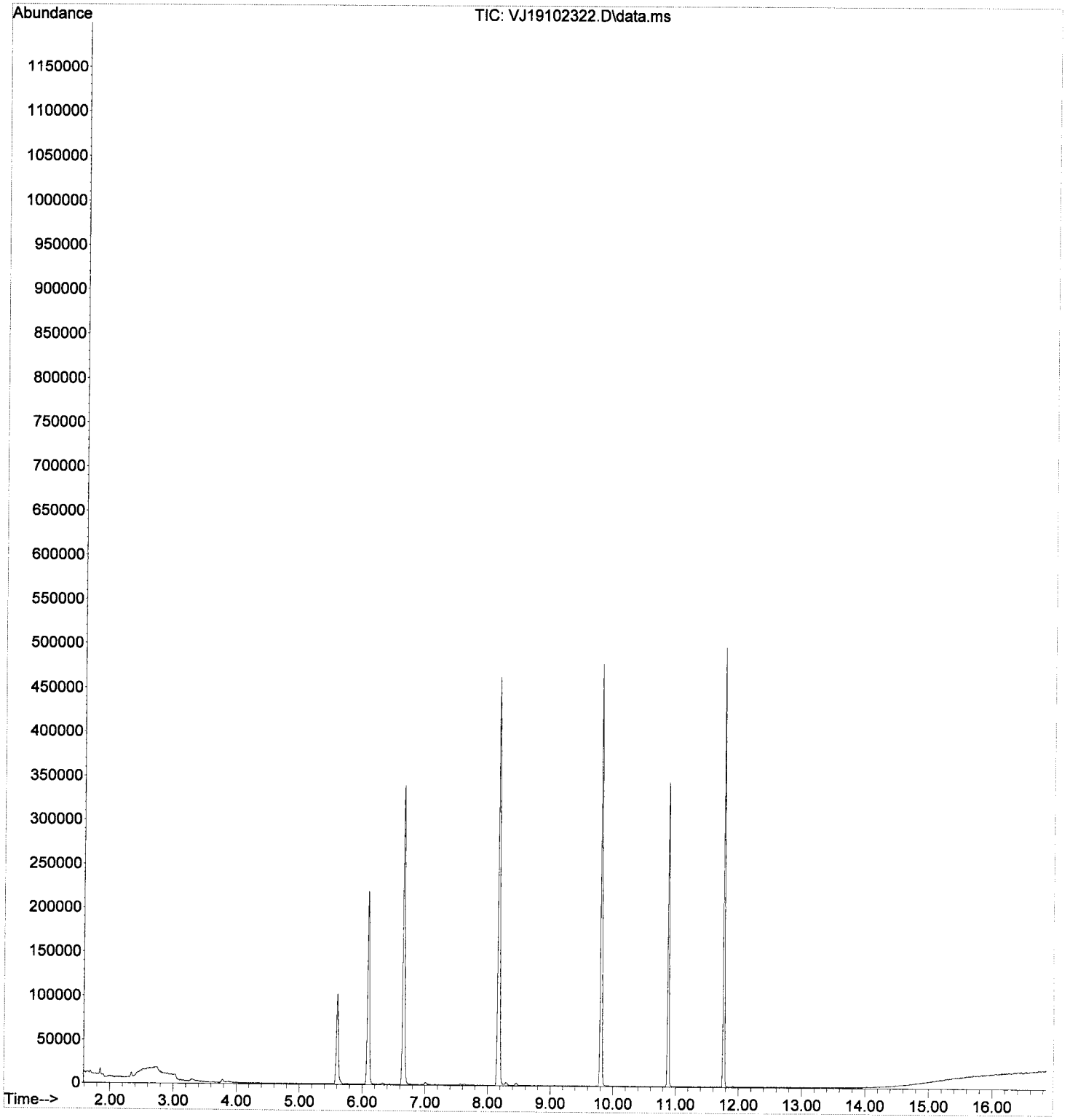
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	96423	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	253840	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104143	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	75130	49.29	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	294467	49.64	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358880	50.70	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	79007	52.54	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	2050	0.54	ug/L		91
5) Bromomethane	2.342	96	3056	0.13	ug/L		98
6) Chloroethane	2.543	64	59	1.37	ug/L	#	47
8) Ethanol	3.315	45	4637	Below Cal			80
12) Iodomethane	3.285	142	957	1.31	ug/L		80
14) Acetone	3.869	43	1766	1.20	ug/L	#	42
18) tert-Butanol (TBA)	4.258	59	117	0.15	ug/L	#	1
28) Tetrahydrofuran	5.609	42	384	0.20	ug/L	#	40
32) 2-Butanone (MEK)	5.743	43	1018	0.39	ug/L		52
36) iso-Butyl Alcohol	6.320	43	626	2.11	ug/L	#	65

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102322.D
Acq On : 23 Oct 2019 9:51 pm
Operator : MM
Sample : 9J23072-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 09:40:58 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:19:44 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	98175	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	262966	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	109763	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.596	111	76023	57.28	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	299782	70.51	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	367697	51.50	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81163	48.19	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.891	50	2383	0.91	ug/L	98
4) Vinyl Chloride	0.000		0	N.D.	d	
5) Bromomethane	2.336	96	2899	0.34	ug/L	96
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	3.145	76	947	0.25	ug/L	64
11) Freon 113	0.000		0	N.D.		
12) Iodomethane	3.285	142	851	0.28	ug/L	82
13) Methylene Chloride	3.771	84	2211	Below Cal		94
14) Acetone	0.000		0	N.D.	d	
15) t-1,2-Dichloroethene	0.000		0	N.D.	d	
16) n-Hexane	0.000		0	N.D.		
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
18) tert-Butanol (TBA)	0.000		0	N.D.	d	
19) Diisopropyl ether (DIPE)	0.000		0	N.D.	d	
20) 1,1-Dichloroethane	0.000		0	N.D.	d	
21) Acrylonitrile	0.000		0	N.D.		
22) Ethyl-tert-butyl ether...	0.000		0	N.D.		
23) c-1,2-Dichloroethene	0.000		0	N.D.	d	
24) 2,2-Dichloropropane	0.000		0	N.D.	d	
25) Bromochloromethane	0.000		0	N.D.		
26) Chloroform	0.000		0	N.D.	d	
27) Carbon Tetrachloride	0.000		0	N.D.	d	
28) Tetrahydrofuran	0.000		0	N.D.	d	
29) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
31) 1,1-Dichloropropene	0.000		0	N.D.	d	
32) 2-Butanone (MEK)	0.000		0	N.D.	d	
33) Benzene	6.004	78	1432	0.19	ug/L	82
34) tert-Amyl methyl ether...	0.000		0	N.D.	d	
35) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d	
36) iso-Butyl Alcohol	0.000		0	N.D.	d	
38) Trichloroethene (TCE)	0.000		0	N.D.		
39) tert-Amyl ethyl ether ...	0.000		0	N.D.		
40) Dibromomethane	0.000		0	N.D.		
41) 1,2-Dichloropropane	0.000		0	N.D.	d	
42) Bromodichloromethane	0.000		0	N.D.		
44) c-1,3-Dichloropropene	0.000		0	N.D.	d	
46) Toluene	8.231	91	1352	0.12	ug/L	87
47) Tetrachloroethene (PCE)	0.000		0	N.D.		
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:19:44 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	0.000		0	N.D. d	
50) 1,1,2-Trichloroethane	0.000		0	N.D. d	
51) Dibromochloromethane	0.000		0	N.D.	
52) 1,3-Dichloropropane	0.000		0	N.D. d	
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.	
54) 2-Hexanone	0.000		0	N.D. d	
55) Chlorobenzene	9.818	112	695	0.11 ug/L #	1
56) Ethylbenzene	9.861	91	1105	0.09 ug/L	84
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
58) m,p-Xylenes (2)	9.995	91	1531	0.16 ug/L	86
59) o-Xylene	10.378	91	723	0.08 ug/L	87
60) Styrene	0.000		0	N.D. d	
61) Bromoform	0.000		0	N.D.	
62) Isopropylbenzene	10.646	105	797	0.07 ug/L	86
65) Bromobenzene	0.000		0	N.D. d	
66) n-Propylbenzene	10.993	91	1106	0.09 ug/L	84
67) 1,1,2,2-Tetrachloroethane	11.041	83	305	0.12 ug/L	91
68) 2-Chlorotoluene	0.000		0	N.D. d	
69) 1,3,5-Trimethylbenzene	11.157	105	562	0.07 ug/L	73
70) 1,2,3-Trichloropropane	0.000		0	N.D.	
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.	
72) 4-Chlorotoluene	0.000		0	N.D. d	
73) tert-Butylbenzene	0.000		0	N.D. d	
74) 1,2,4-Trimethylbenzene	11.461	105	694	0.08 ug/L	90
75) sec-Butylbenzene	0.000		0	N.D. d	
76) 4-Isopropyltoluene	0.000		0	N.D. d	
77) 1,3-Dichlorobenzene	11.716	146	347	0.09 ug/L #	25
78) 1,4-Dichlorobenzene	11.777	146	478	0.12 ug/L #	1
79) n-Butylbenzene	0.000		0	N.D. d	
80) 1,2-Dichlorobenzene	12.094	146	333	0.09 ug/L	87
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	
82) Hexachlorobutadiene	0.000		0	N.D.	
83) 1,2,4-Trichlorobenzene	0.000		0	N.D. d	
84) Naphthalene	0.000		0	N.D. d	
85) 1,2,3-Trichlorobenzene	0.000		0	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	98175	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	262966	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	109763	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	76023	57.28	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	299782	70.51	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	367697	51.50	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81163	48.19	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.891	50	2383	0.91	ug/L		98
4) Vinyl Chloride	2.007	62	73	0.14	ug/L	#	46
5) Bromomethane	2.336	96	2899	0.34	ug/L		96
6) Chloroethane	2.482	64	59	0.06	ug/L	#	27
7) Trichlorofluoromethane	0.000		0	N.D.			
8) Ethanol	3.449	45	392	7.26	ug/L	#	29
9) 1,1-Dichloroethene	3.133	61	330	0.11	ug/L	#	25
10) Carbon Disulfide	3.145	76	947	0.25	ug/L		64
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	3.285	142	851	0.28	ug/L		82
13) Methylene Chloride	3.771	84	2211	Below Cal			94
14) Acetone	3.863	43	1911	1.76	ug/L		97
15) t-1,2-Dichloroethene	3.942	61	294	0.11	ug/L	#	53
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.112	73	1500	0.21	ug/L		91
18) tert-Butanol (TBA)	4.307	59	141	6.76	ug/L	#	58
19) Diisopropyl ether (DIPE)	4.507	45	64	0.01	ug/L	#	33
20) 1,1-Dichloroethane	4.580	63	197	0.06	ug/L	#	50
21) Acrylonitrile	0.000		0	N.D.			
22) Ethyl-tert-butyl ether...	0.000		0	N.D.			
23) c-1,2-Dichloroethene	5.128	61	295	0.10	ug/L	#	70
24) 2,2-Dichloropropane	5.237	77	361	0.11	ug/L	#	53
25) Bromochloromethane	0.000		0	N.D.			
26) Chloroform	5.414	83	325	0.09	ug/L	#	25
27) Carbon Tetrachloride	5.554	117	56	0.02	ug/L	#	13
28) Tetrahydrofuran	5.584	42	484	0.47	ug/L	#	41
29) 1,1,1-Trichloroethane	5.615	97	320	0.09	ug/L	#	25
31) 1,1-Dichloropropene	5.755	75	137	0.05	ug/L	#	39
32) 2-Butanone (MEK)	5.736	43	1371	0.88	ug/L		52
33) Benzene	6.004	78	1432	0.19	ug/L		82
34) tert-Amyl methyl ether...	6.150	73	135	0.02	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.199	62	184	0.04	ug/L	#	49
36) iso-Butyl Alcohol	6.314	43	1117	6.95	ug/L		94
38) Trichloroethene (TCE)	0.000		0	N.D.			
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	0.000		0	N.D.			
41) 1,2-Dichloropropane	7.178	63	189	0.10	ug/L	#	40
42) Bromodichloromethane	0.000		0	N.D.			
44) c-1,3-Dichloropropene	7.951	75	194	0.05	ug/L	#	46
46) Toluene	8.231	91	1352	0.12	ug/L		87
47) Tetrachloroethene (PCE)	0.000		0	N.D.			
48) 4-Methyl-2-Pentanone (...	8.675	43	484	0.14	ug/L	#	43

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\V~~J191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

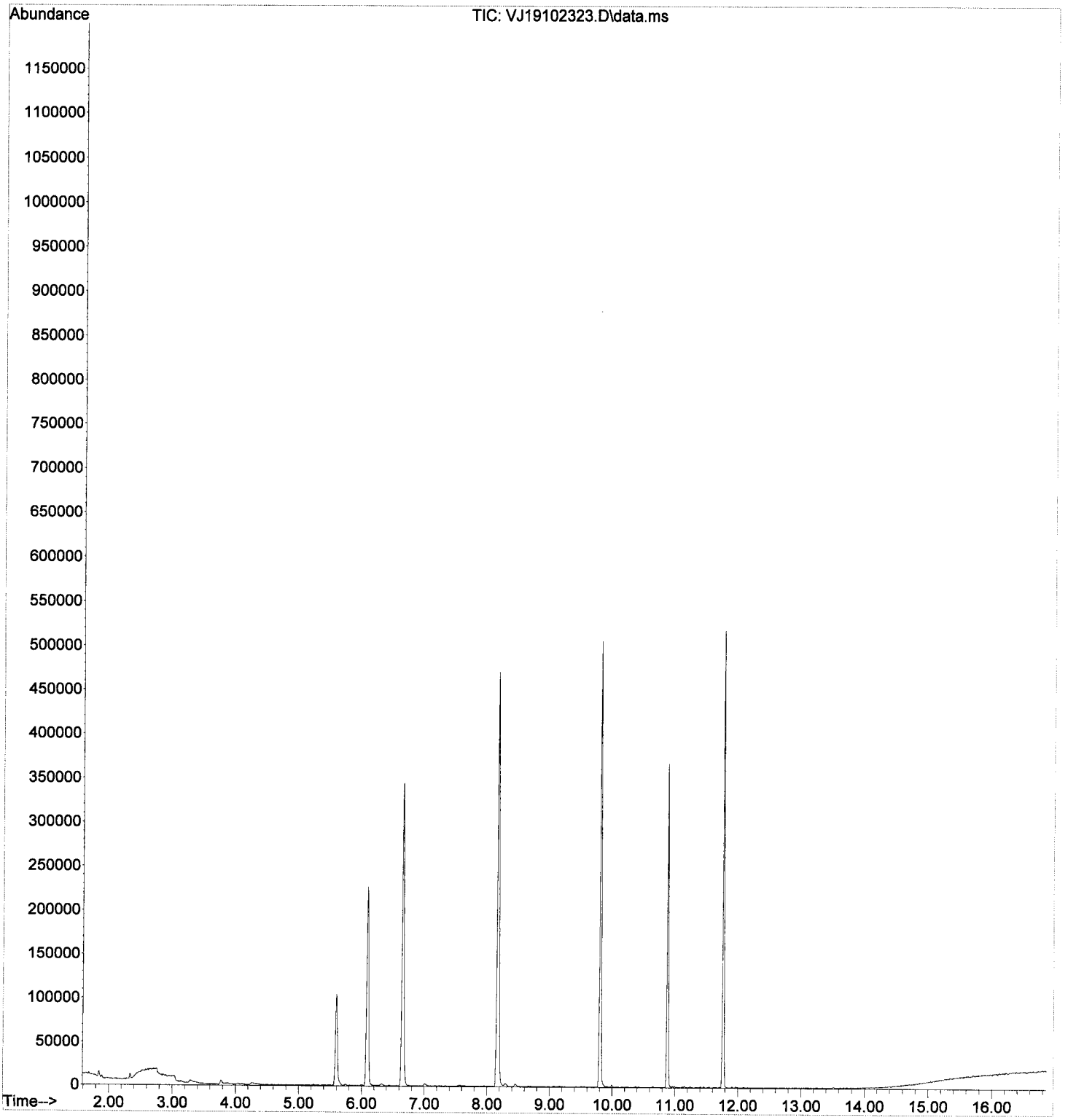
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	149	0.03	ug/L	#	45
50) 1,1,2-Trichloroethane	8.869	97	69	0.14	ug/L	#	64
51) Dibromochloromethane	0.000		0	N.D.			
52) 1,3-Dichloropropane	9.161	76	315	0.07	ug/L	#	56
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.			
54) 2-Hexanone	9.551	43	303	0.11	ug/L	#	32
55) Chlorobenzene	9.818	112	695	0.11	ug/L	#	1
56) Ethylbenzene	9.861	91	1105	0.09	ug/L		84
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
58) m,p-Xylenes (2)	9.995	91	1531	0.16	ug/L		86
59) o-Xylene	10.378	91	723	0.08	ug/L		87
60) Styrene	10.427	104	335	0.06	ug/L	#	40
61) Bromoform	0.000		0	N.D.			
62) Isopropylbenzene	10.646	105	797	0.07	ug/L		86
65) Bromobenzene	10.968	156	143	0.07	ug/L	#	42
66) n-Propylbenzene	10.993	91	1106	0.09	ug/L		84
67) 1,1,2,2-Tetrachloroethane	11.041	83	305	0.12	ug/L		91
68) 2-Chlorotoluene	11.120	126	58	0.03	ug/L	#	89
69) 1,3,5-Trimethylbenzene	11.157	105	562	0.07	ug/L		73
70) 1,2,3-Trichloropropane	0.000		0	N.D.			
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	697	0.09	ug/L	#	46
73) tert-Butylbenzene	11.406	91	324	0.06	ug/L	#	59
74) 1,2,4-Trimethylbenzene	11.461	105	694	0.08	ug/L		90
75) sec-Butylbenzene	11.546	105	799	0.08	ug/L		58
76) 4-Isopropyltoluene	11.656	119	616	0.08	ug/L		51
77) 1,3-Dichlorobenzene	11.716	146	347	0.09	ug/L	#	25
78) 1,4-Dichlorobenzene	11.777	146	478	0.12	ug/L	#	1
79) n-Butylbenzene	11.972	91	741	0.10	ug/L		68
80) 1,2-Dichlorobenzene	12.094	146	333	0.09	ug/L		87
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D			
83) 1,2,4-Trichlorobenzene	13.243	180	141	0.06	ug/L		87
84) Naphthalene	13.517	128	1002	0.13	ug/L		79
85) 1,2,3-Trichlorobenzene	13.675	180	88	0.04	ug/L		78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:22:17 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	95145	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	262504	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110460	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.597	111	74426	57.87	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	296071	71.86	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	363461	50.99	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	80374	47.42	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d	
3) Chloromethane	1.898	50	2774	1.09	ug/L	96
4) Vinyl Chloride	0.000		0	N.D.	d	
5) Bromomethane	2.336	96	3184	0.76	ug/L	97
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	3.151	76	1499	0.42	ug/L	57
11) Freon 113	0.000		0	N.D.	d	
12) Iodomethane	3.285	142	823	0.27	ug/L	86
13) Methylene Chloride	3.778	84	2377	Below Cal		97
14) Acetone	0.000		0	N.D.	d	
15) t-1,2-Dichloroethene	3.942	61	714	0.27	ug/L	90
16) n-Hexane	0.000		0	N.D.	d	
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
18) tert-Butanol (TBA)	0.000		0	N.D.	d	
19) Diisopropyl ether (DIPE)	0.000		0	N.D.	d	
20) 1,1-Dichloroethane	4.581	63	720	0.24	ug/L #	50
21) Acrylonitrile	0.000		0	N.D.	d	
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d	
23) c-1,2-Dichloroethene	0.000		0	N.D.	d	
24) 2,2-Dichloropropane	5.238	77	761	0.23	ug/L	60
25) Bromochloromethane	0.000		0	N.D.	d	
26) Chloroform	5.414	83	740	0.20	ug/L	81
27) Carbon Tetrachloride	5.554	117	367	0.12	ug/L	69
28) Tetrahydrofuran	0.000		0	N.D.	d	
29) 1,1,1-Trichloroethane	5.627	97	686	0.19	ug/L	86
31) 1,1-Dichloropropene	0.000		0	N.D.	d	
32) 2-Butanone (MEK)	0.000		0	N.D.	d	
33) Benzene	6.004	78	2559	0.35	ug/L	95
34) tert-Amyl methyl ether...	0.000		0	N.D.	d	
35) 1,2-Dichloroethane (EDC)	6.205	62	709	0.17	ug/L	83
36) iso-Butyl Alcohol	0.000		0	N.D.	d	
38) Trichloroethene (TCE)	6.619	130	381	0.37	ug/L #	71
39) tert-Amyl ethyl ether ...	0.000		0	N.D.	d	
40) Dibromomethane	0.000		0	N.D.	d	
41) 1,2-Dichloropropane	0.000		0	N.D.	d	
42) Bromodichloromethane	7.251	83	437	0.16	ug/L	94
44) c-1,3-Dichloropropene	7.951	75	596	0.15	ug/L	81
46) Toluene	8.237	91	2544	0.24	ug/L	80
47) Tetrachloroethene (PCE)	8.681	166	350	0.16	ug/L	75
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:22:17 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	580	0.13	ug/L		70
50) 1,1,2-Trichloroethane	8.876	97	417	0.29	ug/L	#	63
51) Dibromochloromethane	0.000		0	N.D.	d		
52) 1,3-Dichloropropane	9.162	76	851	0.18	ug/L		69
53) 1,2-Dibromoethane (EDB)	9.302	107	426	0.18	ug/L		87
54) 2-Hexanone	0.000		0	N.D.	d		
55) Chlorobenzene	9.825	112	1422	0.22	ug/L		80
56) Ethylbenzene	9.861	91	2188	0.18	ug/L		90
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
58) m,p-Xylenes (2)	9.995	91	3071	0.32	ug/L		96
59) o-Xylene	10.378	91	1440	0.15	ug/L		72
60) Styrene	10.421	104	892	0.15	ug/L		88
61) Bromoform	0.000		0	N.D.	d		
62) Isopropylbenzene	10.652	105	1688	0.16	ug/L		90
65) Bromobenzene	10.968	156	420	0.20	ug/L		85
66) n-Propylbenzene	10.993	91	2321	0.19	ug/L		84
67) 1,1,2,2-Tetrachloroethane	11.041	83	669	0.26	ug/L		80
68) 2-Chlorotoluene	11.114	126	366	0.18	ug/L	#	92
69) 1,3,5-Trimethylbenzene	11.157	105	1298	0.16	ug/L		84
70) 1,2,3-Trichloropropane	11.151	110	133	0.12	ug/L	#	81
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	1325	0.18	ug/L		80
73) tert-Butylbenzene	11.400	91	795	0.15	ug/L	#	60
74) 1,2,4-Trimethylbenzene	11.461	105	1248	0.15	ug/L		94
75) sec-Butylbenzene	11.546	105	1629	0.17	ug/L		97
76) 4-Isopropyltoluene	11.656	119	1231	0.15	ug/L		98
77) 1,3-Dichlorobenzene	11.711	146	806	0.20	ug/L		95
78) 1,4-Dichlorobenzene	11.771	146	866	0.22	ug/L	#	16
79) n-Butylbenzene	11.972	91	1325	0.18	ug/L		87
80) 1,2-Dichlorobenzene	12.094	146	725	0.19	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	13.244	180	416	0.18	ug/L		87
84) Naphthalene	13.517	128	1558	0.20	ug/L		85
85) 1,2,3-Trichlorobenzene	13.676	180	435	0.19	ug/L		79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	95145	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	262504	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110460	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	74426	57.87	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	296071	71.86	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	363461	50.99	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	80374	47.42	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	391	0.17	ug/L	#	51
3) Chloromethane	1.898	50	2774	1.09	ug/L		96
4) Vinyl Chloride	2.013	62	623	0.39	ug/L	#	46
5) Bromomethane	2.336	96	3184	0.76	ug/L		97
6) Chloroethane	2.457	64	122	0.12	ug/L	#	66
7) Trichlorofluoromethane	0.000		0	N.D.			
8) Ethanol	3.388	45	1179	22.53	ug/L		83
9) 1,1-Dichloroethene	3.139	61	739	0.26	ug/L	#	56
10) Carbon Disulfide	3.151	76	1499	0.42	ug/L		57
11) Freon 113	3.194	101	296	0.23	ug/L	#	64
12) Iodomethane	3.285	142	823	0.27	ug/L		86
13) Methylene Chloride	3.778	84	2377	Below Cal			97
14) Acetone	3.863	43	1997	1.90	ug/L		99
15) t-1,2-Dichloroethene	3.942	61	714	0.27	ug/L		90
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.106	73	2159	0.30	ug/L		97
18) tert-Butanol (TBA)	4.343	59	3209	13.15	ug/L	#	42
19) Diisopropyl ether (DIPE)	4.508	45	436	0.06	ug/L		59
20) 1,1-Dichloroethane	4.581	63	720	0.24	ug/L	#	50
21) Acrylonitrile	4.629	53	116	0.14	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.867	59	322	0.05	ug/L	#	38
23) c-1,2-Dichloroethene	5.134	61	1002	0.36	ug/L		92
24) 2,2-Dichloropropane	5.238	77	761	0.23	ug/L		60
25) Bromochloromethane	5.335	49	345	0.22	ug/L	#	57
26) Chloroform	5.414	83	740	0.20	ug/L		81
27) Carbon Tetrachloride	5.554	117	367	0.12	ug/L		69
28) Tetrahydrofuran	5.597	42	719	0.72	ug/L	#	55
29) 1,1,1-Trichloroethane	5.627	97	686	0.19	ug/L		86
31) 1,1-Dichloropropene	5.749	75	827	0.30	ug/L	#	60
32) 2-Butanone (MEK)	5.730	43	1859	1.24	ug/L		93
33) Benzene	6.004	78	2559	0.35	ug/L		95
34) tert-Amyl methyl ether...	6.144	73	653	0.10	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.205	62	709	0.17	ug/L		83
36) iso-Butyl Alcohol	6.321	43	1986	12.74	ug/L		96
38) Trichloroethene (TCE)	6.619	130	381	0.37	ug/L	#	71
39) tert-Amyl ethyl ether ...	6.917	59	71	0.01	ug/L	#	19
40) Dibromomethane	7.063	93	69	0.06	ug/L	#	38
41) 1,2-Dichloropropane	7.172	63	579	0.31	ug/L	#	40
42) Bromodichloromethane	7.251	83	437	0.16	ug/L		94
44) c-1,3-Dichloropropene	7.951	75	596	0.15	ug/L		81
46) Toluene	8.237	91	2544	0.24	ug/L		80
47) Tetrachloroethene (PCE)	8.681	166	350	0.16	ug/L		75
48) 4-Methyl-2-Pentanone (...	8.669	43	1391	0.40	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

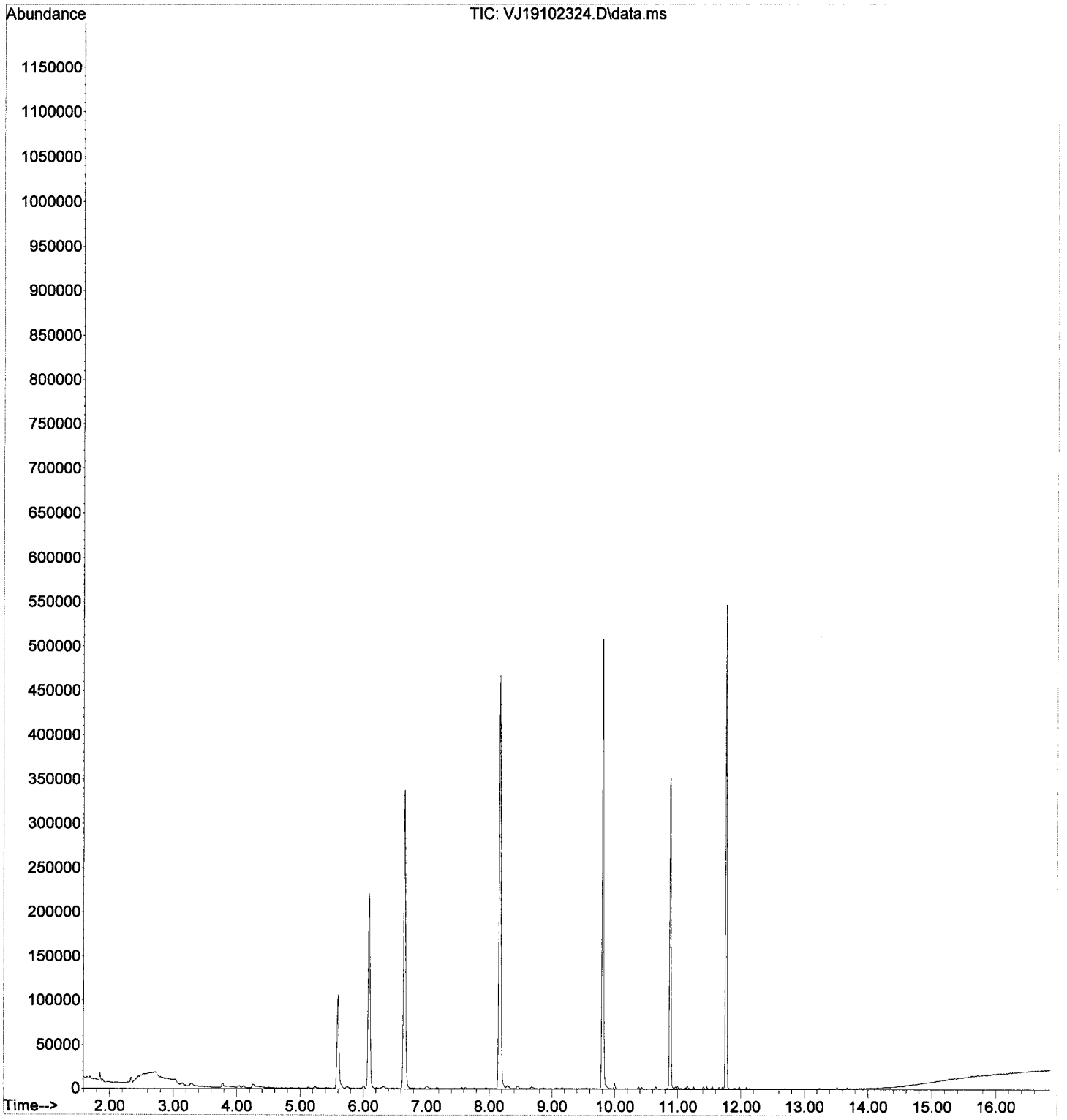
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	580	0.13	ug/L		70
50) 1,1,2-Trichloroethane	8.876	97	417	0.29	ug/L	#	63
51) Dibromochloromethane	9.058	129	61	0.03	ug/L	#	17
52) 1,3-Dichloropropane	9.162	76	851	0.18	ug/L		69
53) 1,2-Dibromoethane (EDB)	9.302	107	426	0.18	ug/L		87
54) 2-Hexanone	9.551	43	725	0.27	ug/L		86
55) Chlorobenzene	9.825	112	1422	0.22	ug/L		80
56) Ethylbenzene	9.861	91	2188	0.18	ug/L		90
57) 1,1,1,2-Tetrachloroethane	9.886	131	216	0.09	ug/L	#	79
58) m,p-Xylenes (2)	9.995	91	3071	0.32	ug/L		96
59) o-Xylene	10.378	91	1440	0.15	ug/L		72
60) Styrene	10.421	104	892	0.15	ug/L		88
61) Bromoform	10.433	173	55	0.59	ug/L	#	37
62) Isopropylbenzene	10.652	105	1688	0.15	ug/L		90
65) Bromobenzene	10.968	156	420	0.20	ug/L		85
66) n-Propylbenzene	10.993	91	2321	0.19	ug/L		84
67) 1,1,2,2-Tetrachloroethane	11.041	83	669	0.26	ug/L		80
68) 2-Chlorotoluene	11.114	126	366	0.18	ug/L	#	92
69) 1,3,5-Trimethylbenzene	11.157	105	1298	0.16	ug/L		84
70) 1,2,3-Trichloropropane	11.151	110	133	0.12	ug/L	#	81
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	1325	0.18	ug/L		80
73) tert-Butylbenzene	11.400	91	795	0.15	ug/L	#	60
74) 1,2,4-Trimethylbenzene	11.461	105	1248	0.15	ug/L		94
75) sec-Butylbenzene	11.546	105	1629	0.17	ug/L		97
76) 4-Isopropyltoluene	11.656	119	1231	0.15	ug/L		98
77) 1,3-Dichlorobenzene	11.711	146	806	0.20	ug/L		95
78) 1,4-Dichlorobenzene	11.771	146	866	0.22	ug/L	#	16
79) n-Butylbenzene	11.972	91	1325	0.18	ug/L		87
80) 1,2-Dichlorobenzene	12.094	146	725	0.19	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	13.244	180	416	0.18	ug/L		87
84) Naphthalene	13.517	128	1558	0.20	ug/L		85
85) 1,2,3-Trichlorobenzene	13.676	180	435	0.19	ug/L		79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:24:41 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	93220	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252875	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	105667	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	73589	58.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285274	70.67	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	352756	51.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	77055	47.52	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d		
3) Chloromethane	1.898	50	3285	1.32	ug/L		97
4) Vinyl Chloride	2.007	62	1110	0.62	ug/L		94
5) Bromomethane	2.342	96	3378	1.05	ug/L		91
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	0.000		0	N.D.	d		
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.139	61	1510	0.53	ug/L		81
10) Carbon Disulfide	3.151	76	2496	0.71	ug/L		76
11) Freon 113	3.194	101	761	0.60	ug/L	#	66
12) Iodomethane	3.297	142	849	0.52	ug/L		82
13) Methylene Chloride	3.778	84	2718	Below Cal			86
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.954	61	1485	0.58	ug/L		87
16) n-Hexane	0.000		0	N.D.	d		
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d		
18) tert-Butanol (TBA)	4.258	59	17903	44.38	ug/L	#	87
19) Diisopropyl ether (DIPE)	4.508	45	894	0.13	ug/L		80
20) 1,1-Dichloroethane	4.581	63	1458	0.50	ug/L		89
21) Acrylonitrile	4.641	53	409	0.51	ug/L		86
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
23) c-1,2-Dichloroethene	5.134	61	1499	0.54	ug/L		92
24) 2,2-Dichloropropane	5.238	77	1640	0.51	ug/L		69
25) Bromochloromethane	5.329	49	807	0.53	ug/L		80
26) Chloroform	5.420	83	1517	0.42	ug/L		91
27) Carbon Tetrachloride	5.554	117	934	0.31	ug/L		88
28) Tetrahydrofuran	0.000		0	N.D.	d		
29) 1,1,1-Trichloroethane	5.621	97	1334	0.38	ug/L		92
31) 1,1-Dichloropropene	5.749	75	1389	0.51	ug/L		94
32) 2-Butanone (MEK)	0.000		0	N.D.	d		
33) Benzene	6.004	78	4719	0.67	ug/L		98
34) tert-Amyl methyl ether...	0.000		0	N.D.	d		
35) 1,2-Dichloroethane (EDC)	6.211	62	1352	0.38	ug/L		80
36) iso-Butyl Alcohol	0.000		0	N.D.	d		
38) Trichloroethene (TCE)	6.619	130	944	0.70	ug/L		82
39) tert-Amyl ethyl ether ...	6.911	59	396	0.08	ug/L	#	30
40) Dibromomethane	7.057	93	565	0.47	ug/L	#	62
41) 1,2-Dichloropropane	7.172	63	1176	0.64	ug/L		94
42) Bromodichloromethane	7.251	83	1004	0.37	ug/L		95
44) c-1,3-Dichloropropene	7.957	75	1346	0.35	ug/L		91
46) Toluene	8.231	91	4766	0.46	ug/L		92
47) Tetrachloroethene (PCE)	8.675	166	805	0.38	ug/L		77
48) 4-Methyl-2-Pentanone (...	8.669	43	2938	0.87	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:24:41 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	1392	0.33	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	933	0.53	ug/L	94
51) Dibromochloromethane	9.064	129	522	0.22	ug/L	88
52) 1,3-Dichloropropane	9.168	76	1718	0.38	ug/L	91
53) 1,2-Dibromoethane (EDB)	9.301	107	788	0.34	ug/L	90
54) 2-Hexanone	9.545	43	1510	0.59	ug/L	82
55) Chlorobenzene	9.825	112	2767	0.44	ug/L	94
56) Ethylbenzene	9.861	91	4399	0.37	ug/L	98
57) 1,1,1,2-Tetrachloroethane	9.892	131	712	0.30	ug/L	85
58) m,p-Xylenes (2)	9.995	91	5672	0.62	ug/L	90
59) o-Xylene	10.378	91	2627	0.29	ug/L	90
60) Styrene	10.421	104	1570	0.27	ug/L	92
61) Bromoform	10.433	173	307	0.75	ug/L #	37
62) Isopropylbenzene	10.652	105	3200	0.30	ug/L	95
65) Bromobenzene	10.962	156	848	0.42	ug/L #	75
66) n-Propylbenzene	10.999	91	4342	0.37	ug/L	92
67) 1,1,2,2-Tetrachloroethane	11.047	83	1189	0.49	ug/L	81
68) 2-Chlorotoluene	11.114	126	805	0.41	ug/L	99
69) 1,3,5-Trimethylbenzene	11.157	105	2457	0.31	ug/L	87
70) 1,2,3-Trichloropropane	11.151	110	377	0.36	ug/L #	82
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.	d	
72) 4-Chlorotoluene	11.248	91	2330	0.33	ug/L	99
73) tert-Butylbenzene	11.406	91	1388	0.27	ug/L	92
74) 1,2,4-Trimethylbenzene	11.461	105	2375	0.30	ug/L	87
75) sec-Butylbenzene	11.546	105	3021	0.33	ug/L	92
76) 4-Isopropyltoluene	11.656	119	2242	0.29	ug/L	93
77) 1,3-Dichlorobenzene	11.711	146	1573	0.40	ug/L	96
78) 1,4-Dichlorobenzene	11.777	146	1787	0.47	ug/L	82
79) n-Butylbenzene	11.972	91	2427	0.34	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	1421	0.39	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.690	157	70	0.12	ug/L #	38
82) Hexachlorobutadiene	13.219	223	139	0.25	ug/L #	76
83) 1,2,4-Trichlorobenzene	13.244	180	804	0.35	ug/L	82
84) Naphthalene	13.517	128	2847	0.38	ug/L	94
85) 1,2,3-Trichlorobenzene	13.676	180	736	0.34	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	93220	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252875	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	105667	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	73589	58.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285274	70.67	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	352756	51.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	77055	47.52	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	707	0.31	ug/L	#	51
3) Chloromethane	1.898	50	3285	1.32	ug/L		97
4) Vinyl Chloride	2.007	62	1110	0.62	ug/L		94
5) Bromomethane	2.342	96	3378	1.05	ug/L		91
6) Chloroethane	2.463	64	144	0.14	ug/L	#	47
7) Trichlorofluoromethane	2.603	101	57	0.02	ug/L	#	35
8) Ethanol	3.388	45	906	17.67	ug/L	#	29
9) 1,1-Dichloroethene	3.139	61	1510	0.53	ug/L		81
10) Carbon Disulfide	3.151	76	2496	0.71	ug/L		76
11) Freon 113	3.194	101	761	0.60	ug/L	#	66
12) Iodomethane	3.297	142	849	0.52	ug/L		82
13) Methylene Chloride	3.778	84	2718	Below Cal			86
14) Acetone	3.869	43	2417	2.35	ug/L		100
15) t-1,2-Dichloroethene	3.954	61	1485	0.58	ug/L		87
16) n-Hexane	4.051	86	65	1.09	ug/L	#	1
17) Methyl-tert-butyl-ether	4.100	73	4119	0.59	ug/L		86
18) tert-Butanol (TBA)	4.258	59	17903	44.38	ug/L	#	87
19) Diisopropyl ether (DIPE)	4.508	45	894	0.13	ug/L		80
20) 1,1-Dichloroethane	4.581	63	1458	0.50	ug/L		89
21) Acrylonitrile	4.641	53	409	0.51	ug/L		86
22) Ethyl-tert-butyl ether...	4.879	59	826	0.12	ug/L	#	55
23) c-1,2-Dichloroethene	5.134	61	1499	0.54	ug/L		92
24) 2,2-Dichloropropane	5.238	77	1640	0.51	ug/L		69
25) Bromochloromethane	5.329	49	807	0.53	ug/L		80
26) Chloroform	5.420	83	1517	0.42	ug/L		91
27) Carbon Tetrachloride	5.554	117	934	0.31	ug/L		88
28) Tetrahydrofuran	5.597	42	990	1.01	ug/L	#	65
29) 1,1,1-Trichloroethane	5.621	97	1334	0.38	ug/L		92
31) 1,1-Dichloropropene	5.749	75	1389	0.51	ug/L		94
32) 2-Butanone (MEK)	5.736	43	2181	1.48	ug/L		88
33) Benzene	6.004	78	4719	0.67	ug/L		98
34) tert-Amyl methyl ether...	6.150	73	1028	0.16	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.211	62	1352	0.33	ug/L		80
36) iso-Butyl Alcohol	6.327	43	2217	14.52	ug/L		74
38) Trichloroethene (TCE)	6.619	130	944	0.70	ug/L		82
39) tert-Amyl ethyl ether ...	6.911	59	396	0.08	ug/L	#	30
40) Dibromomethane	7.057	93	565	0.47	ug/L	#	62
41) 1,2-Dichloropropane	7.172	63	1176	0.64	ug/L		94
42) Bromodichloromethane	7.251	83	1004	0.37	ug/L		95
44) c-1,3-Dichloropropene	7.957	75	1346	0.35	ug/L		91
46) Toluene	8.231	91	4766	0.45	ug/L		92
47) Tetrachloroethene (PCE)	8.675	166	805	0.38	ug/L		77
48) 4-Methyl-2-Pentanone (...	8.669	43	2938	0.87	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

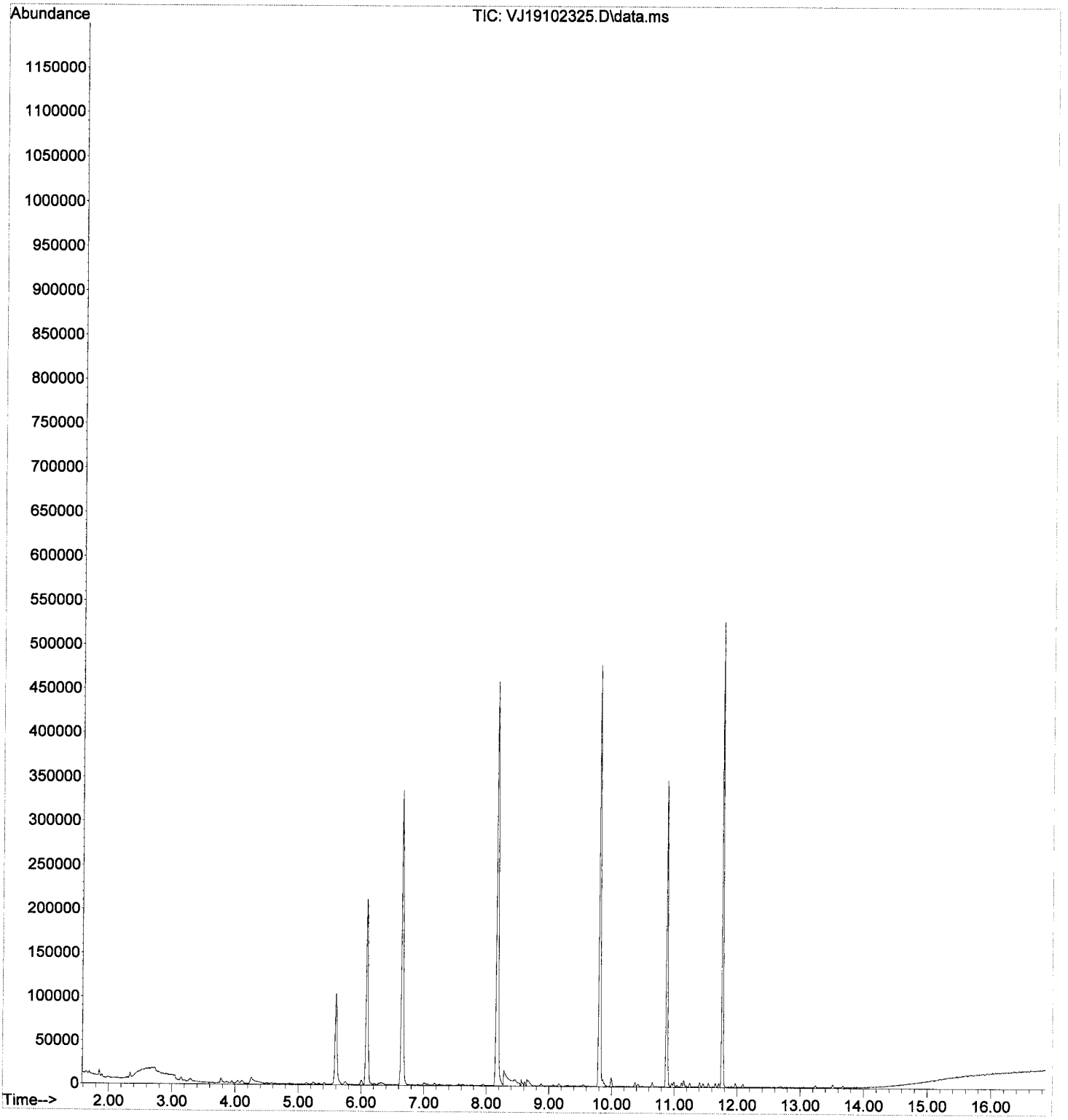
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	1392	0.33	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	933	0.53	ug/L	94
51) Dibromochloromethane	9.064	129	522	0.22	ug/L	88
52) 1,3-Dichloropropane	9.168	76	1718	0.38	ug/L	91
53) 1,2-Dibromoethane (EDB)	9.301	107	788	0.34	ug/L	90
54) 2-Hexanone	9.545	43	1510	0.59	ug/L	82
55) Chlorobenzene	9.825	112	2767	0.44	ug/L	94
56) Ethylbenzene	9.861	91	4399	0.37	ug/L	98
57) 1,1,1,2-Tetrachloroethane	9.892	131	712	0.30	ug/L	85
58) m,p-Xylenes (2)	9.995	91	5672	0.62	ug/L	90
59) o-Xylene	10.378	91	2627	0.29	ug/L	90
60) Styrene	10.421	104	1570	0.27	ug/L	92
61) Bromoform	10.433	173	307	0.75	ug/L #	37
62) Isopropylbenzene	10.652	105	3200	0.30	ug/L	95
65) Bromobenzene	10.962	156	848	0.42	ug/L #	75
66) n-Propylbenzene	10.999	91	4342	0.37	ug/L	92
67) 1,1,2,2-Tetrachloroethane	11.047	83	1189	0.49	ug/L	81
68) 2-Chlorotoluene	11.114	126	805	0.41	ug/L	99
69) 1,3,5-Trimethylbenzene	11.157	105	2457	0.31	ug/L	87
70) 1,2,3-Trichloropropane	11.151	110	377	0.36	ug/L #	82
71) t-1,4-Dichloro-2-butene	11.187	88	62	0.12	ug/L #	63
72) 4-Chlorotoluene	11.248	91	2330	0.33	ug/L	99
73) tert-Butylbenzene	11.406	91	1388	0.27	ug/L	92
74) 1,2,4-Trimethylbenzene	11.461	105	2375	0.30	ug/L	87
75) sec-Butylbenzene	11.546	105	3021	0.33	ug/L	92
76) 4-Isopropyltoluene	11.656	119	2242	0.29	ug/L	93
77) 1,3-Dichlorobenzene	11.711	146	1573	0.40	ug/L	96
78) 1,4-Dichlorobenzene	11.777	146	1787	0.47	ug/L	82
79) n-Butylbenzene	11.972	91	2427	0.34	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	1421	0.39	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.690	157	70	0.12	ug/L #	38
82) Hexachlorobutadiene	13.219	223	139	0.25	ug/L #	76
83) 1,2,4-Trichlorobenzene	13.244	180	804	0.35	ug/L	82
84) Naphthalene	13.517	128	2847	0.38	ug/L	94
85) 1,2,3-Trichlorobenzene	13.676	180	736	0.34	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:25:31 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	92321	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	250210	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	103980	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	72858	58.38	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	284090	71.06	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	350128	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	75855	47.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	2035	0.90	ug/L		89
3) Chloromethane	1.904	50	5307	2.15	ug/L		96
4) Vinyl Chloride	2.001	62	3035	1.53	ug/L		90
5) Bromomethane	2.348	96	4613	2.49	ug/L		89
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.603	101	516	0.16	ug/L	#	62
8) Ethanol	3.327	45	12276m	241.79	ug/L		
9) 1,1-Dichloroethene	3.139	61	3558	1.27	ug/L		89
10) Carbon Disulfide	3.157	76	6000	1.72	ug/L		94
11) Freon 113	3.206	101	2153	1.71	ug/L		95
12) Iodomethane	3.297	142	1059	1.79	ug/L		87
13) Methylene Chloride	3.784	84	3788	0.62	ug/L		87
14) Acetone	3.875	43	5145	5.04	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	3719	1.47	ug/L		95
16) n-Hexane	4.039	86	445	2.47	ug/L	#	84
17) Methyl-tert-butyl-ether	4.118	73	8793	1.28	ug/L		99
18) tert-Butanol (TBA)	4.276	59	43663	99.44	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.507	45	2248	0.34	ug/L		97
20) 1,1-Dichloroethane	4.580	63	4012	1.38	ug/L		93
21) Acrylonitrile	4.641	53	1605	2.00	ug/L		95
22) Ethyl-tert-butyl ether...	4.879	59	2080	0.32	ug/L		90
23) c-1,2-Dichloroethene	5.134	61	3680	1.34	ug/L		97
24) 2,2-Dichloropropane	5.237	77	3688	1.15	ug/L		89
25) Bromochloromethane	5.335	49	2314	1.52	ug/L		76
26) Chloroform	5.420	83	4201	1.18	ug/L		92
27) Carbon Tetrachloride	5.560	117	2727	0.93	ug/L		92
28) Tetrahydrofuran	5.596	42	2396	2.47	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	3664	1.05	ug/L		91
31) 1,1-Dichloropropene	5.748	75	3601	1.32	ug/L		90
32) 2-Butanone (MEK)	5.736	43	5985	4.11	ug/L		88
33) Benzene	6.004	78	11702	1.67	ug/L		97
34) tert-Amyl methyl ether...	6.156	73	2154	0.33	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.211	62	3762	0.94	ug/L		96
36) iso-Butyl Alcohol	6.296	43	6214	41.09	ug/L		88
38) Trichloroethene (TCE)	6.631	130	2385	1.55	ug/L		90
39) tert-Amyl ethyl ether ...	6.910	59	1238	0.26	ug/L		86
40) Dibromomethane	7.069	93	1439	1.22	ug/L	#	78
41) 1,2-Dichloropropane	7.172	63	2881	1.57	ug/L		98
42) Bromodichloromethane	7.251	83	2597	0.97	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	3342	0.87	ug/L		99
46) Toluene	8.231	91	11638	1.13	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	2158	1.04	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	5887	1.76	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:25:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	3091	0.75	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	2304	1.16	ug/L		94
51) Dibromochloromethane	9.070	129	1520	0.65	ug/L		87
52) 1,3-Dichloropropane	9.161	76	4392	0.99	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	2060	0.89	ug/L		98
54) 2-Hexanone	9.545	43	3832	1.52	ug/L		95
55) Chlorobenzene	9.824	112	6563	1.06	ug/L		88
56) Ethylbenzene	9.861	91	10768	0.91	ug/L		96
57) 1,1,1,2-Tetrachloroethane	9.885	131	1888	0.80	ug/L		88
58) m,p-Xylenes (2)	9.995	91	14581	1.61	ug/L		98
59) o-Xylene	10.378	91	7125	0.79	ug/L		93
60) Styrene	10.421	104	3854	0.68	ug/L		95
61) Bromoform	10.439	173	884	1.11	ug/L		75
62) Isopropylbenzene	10.652	105	8399	0.81	ug/L		94
65) Bromobenzene	10.962	156	2143	1.08	ug/L	#	65
66) n-Propylbenzene	10.999	91	10891	0.95	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	3210	1.33	ug/L		90
68) 2-Chlorotoluene	11.114	126	2013	1.03	ug/L		94
69) 1,3,5-Trimethylbenzene	11.157	105	6251	0.81	ug/L		86
70) 1,2,3-Trichloropropane	11.151	110	1017	0.98	ug/L	#	80
71) t-1,4-Dichloro-2-butene	11.187	88	335	0.67	ug/L	#	73
72) 4-Chlorotoluene	11.248	91	6138	0.87	ug/L		86
73) tert-Butylbenzene	11.406	91	3751	0.74	ug/L		87
74) 1,2,4-Trimethylbenzene	11.461	105	6195	0.79	ug/L		98
75) sec-Butylbenzene	11.546	105	7629	0.84	ug/L		90
76) 4-Isopropyltoluene	11.656	119	5514	0.72	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	3912	1.02	ug/L		93
78) 1,4-Dichlorobenzene	11.777	146	4198	1.13	ug/L		88
79) n-Butylbenzene	11.972	91	5940	0.84	ug/L		92
80) 1,2-Dichlorobenzene	12.094	146	3541	1.00	ug/L		93
81) 1,2-Dibromo-3-Chloropr...	12.696	157	497	0.88	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	383	0.69	ug/L		92
83) 1,2,4-Trichlorobenzene	13.237	180	2063	0.93	ug/L		94
84) Naphthalene	13.517	128	6478	0.88	ug/L		96
85) 1,2,3-Trichlorobenzene	13.675	180	1857	0.87	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	92321	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	250210	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	103980	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	72858	58.38	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	284090	71.06	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	350128	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	75855	47.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	2035	0.90	ug/L		89
3) Chloromethane	1.904	50	5307	2.15	ug/L		96
4) Vinyl Chloride	2.001	62	3035	1.53	ug/L		90
5) Bromomethane	2.348	96	4613	2.49	ug/L		89
6) Chloroethane	2.463	64	266	0.27	ug/L	#	32
7) Trichlorofluoromethane	2.603	101	516	0.16	ug/L	#	62
8) Ethanol	3.455	45	~~369~~	7.27	ug/L	#	29
9) 1,1-Dichloroethene	3.139	61	3558	1.27	ug/L		89
10) Carbon Disulfide	3.157	76	6000	1.72	ug/L		94
11) Freon 113	3.206	101	2153	1.71	ug/L		95
12) Iodomethane	3.297	142	1059	1.79	ug/L		87
13) Methylene Chloride	3.784	84	3788	0.62	ug/L		87
14) Acetone	3.875	43	5145	5.04	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	3719	1.47	ug/L		95
16) n-Hexane	4.039	86	445	2.47	ug/L	#	84
17) Methyl-tert-butyl-ether	4.118	73	8793	1.28	ug/L		99
18) tert-Butanol (TBA)	4.276	59	43663	99.44	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.507	45	2248	0.34	ug/L		97
20) 1,1-Dichloroethane	4.580	63	4012	1.38	ug/L		93
21) Acrylonitrile	4.641	53	1605	2.00	ug/L		95
22) Ethyl-tert-butyl ether...	4.879	59	2080	0.32	ug/L		90
23) c-1,2-Dichloroethene	5.134	61	3680	1.34	ug/L		97
24) 2,2-Dichloropropane	5.237	77	3688	1.15	ug/L		89
25) Bromochloromethane	5.335	49	2314	1.52	ug/L		76
26) Chloroform	5.420	83	4201	1.18	ug/L		92
27) Carbon Tetrachloride	5.560	117	2727	0.93	ug/L		92
28) Tetrahydrofuran	5.596	42	2396	2.47	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	3664	1.05	ug/L		91
31) 1,1-Dichloropropene	5.748	75	3601	1.32	ug/L		90
32) 2-Butanone (MEK)	5.736	43	5985	4.11	ug/L		88
33) Benzene	6.004	78	11702	1.67	ug/L		97
34) tert-Amyl methyl ether...	6.156	73	2154	0.33	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.211	62	3762	0.94	ug/L		96
36) iso-Butyl Alcohol	6.296	43	6214	41.09	ug/L		88
38) Trichloroethene (TCE)	6.631	130	2385	1.55	ug/L		90
39) tert-Amyl ethyl ether ...	6.910	59	1238	0.26	ug/L		86
40) Dibromomethane	7.069	93	1439	1.22	ug/L	#	78
41) 1,2-Dichloropropane	7.172	63	2881	1.57	ug/L		98
42) Bromodichloromethane	7.251	83	2597	0.97	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	3342	0.87	ug/L		99
46) Toluene	8.231	91	11638	1.13	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	2158	1.04	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	5887	1.76	ug/L		92

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

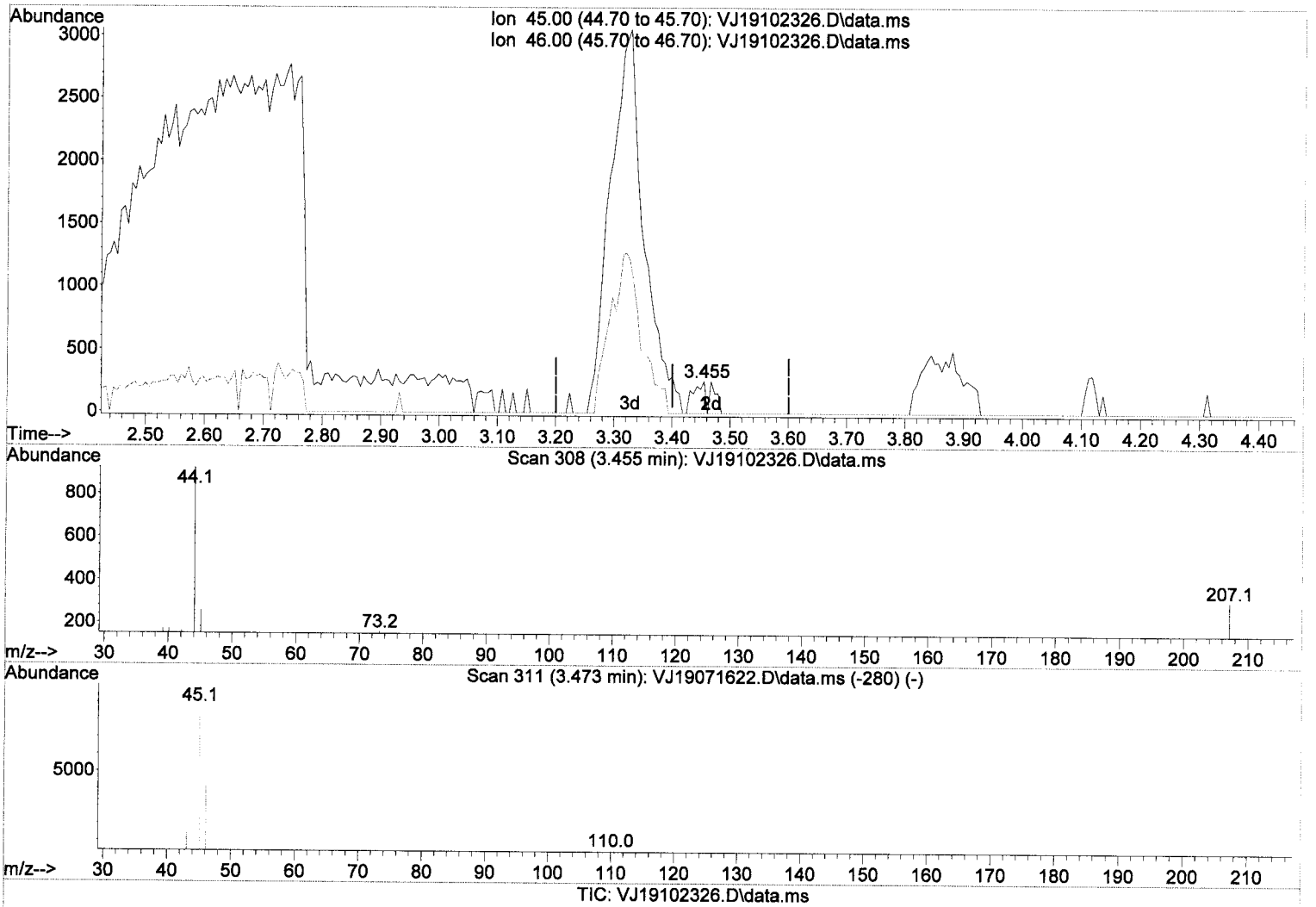
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	3091	0.75	ug/L	91
50) 1,1,2-Trichloroethane	8.875	97	2304	1.16	ug/L	94
51) Dibromochloromethane	9.070	129	1520	0.65	ug/L	87
52) 1,3-Dichloropropane	9.161	76	4392	0.99	ug/L	95
53) 1,2-Dibromoethane (EDB)	9.301	107	2060	0.89	ug/L	98
54) 2-Hexanone	9.545	43	3832	1.52	ug/L	95
55) Chlorobenzene	9.824	112	6563	1.06	ug/L	88
56) Ethylbenzene	9.861	91	10768	0.91	ug/L	96
57) 1,1,1,2-Tetrachloroethane	9.885	131	1888	0.80	ug/L	88
58) m,p-Xylenes (2)	9.995	91	14581	1.61	ug/L	98
59) o-Xylene	10.378	91	7125	0.79	ug/L	93
60) Styrene	10.421	104	3854	0.68	ug/L	95
61) Bromoform	10.439	173	884	1.11	ug/L	75
62) Isopropylbenzene	10.652	105	8399	0.81	ug/L	94
65) Bromobenzene	10.962	156	2143	1.08	ug/L #	65
66) n-Propylbenzene	10.999	91	10891	0.95	ug/L	94
67) 1,1,2,2-Tetrachloroethane	11.047	83	3210	1.33	ug/L	90
68) 2-Chlorotoluene	11.114	126	2013	1.03	ug/L	94
69) 1,3,5-Trimethylbenzene	11.157	105	6251	0.81	ug/L	86
70) 1,2,3-Trichloropropane	11.151	110	1017	0.98	ug/L #	80
71) t-1,4-Dichloro-2-butene	11.187	88	335	0.67	ug/L #	73
72) 4-Chlorotoluene	11.248	91	6138	0.87	ug/L	86
73) tert-Butylbenzene	11.406	91	3751	0.74	ug/L	87
74) 1,2,4-Trimethylbenzene	11.461	105	6195	0.79	ug/L	98
75) sec-Butylbenzene	11.546	105	7629	0.84	ug/L	90
76) 4-Isopropyltoluene	11.656	119	5514	0.72	ug/L	96
77) 1,3-Dichlorobenzene	11.710	146	3912	1.02	ug/L	93
78) 1,4-Dichlorobenzene	11.777	146	4198	1.13	ug/L	88
79) n-Butylbenzene	11.972	91	5940	0.84	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	3541	1.00	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.696	157	497	0.88	ug/L #	45
82) Hexachlorobutadiene	13.219	223	383	0.69	ug/L	92
83) 1,2,4-Trichlorobenzene	13.237	180	2063	0.93	ug/L	94
84) Naphthalene	13.517	128	6478	0.88	ug/L	96
85) 1,2,3-Trichlorobenzene	13.675	180	1857	0.87	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102326.D\data.ms

(8) Ethanol

3.455min (+ 0.055) 7.27 ug/L

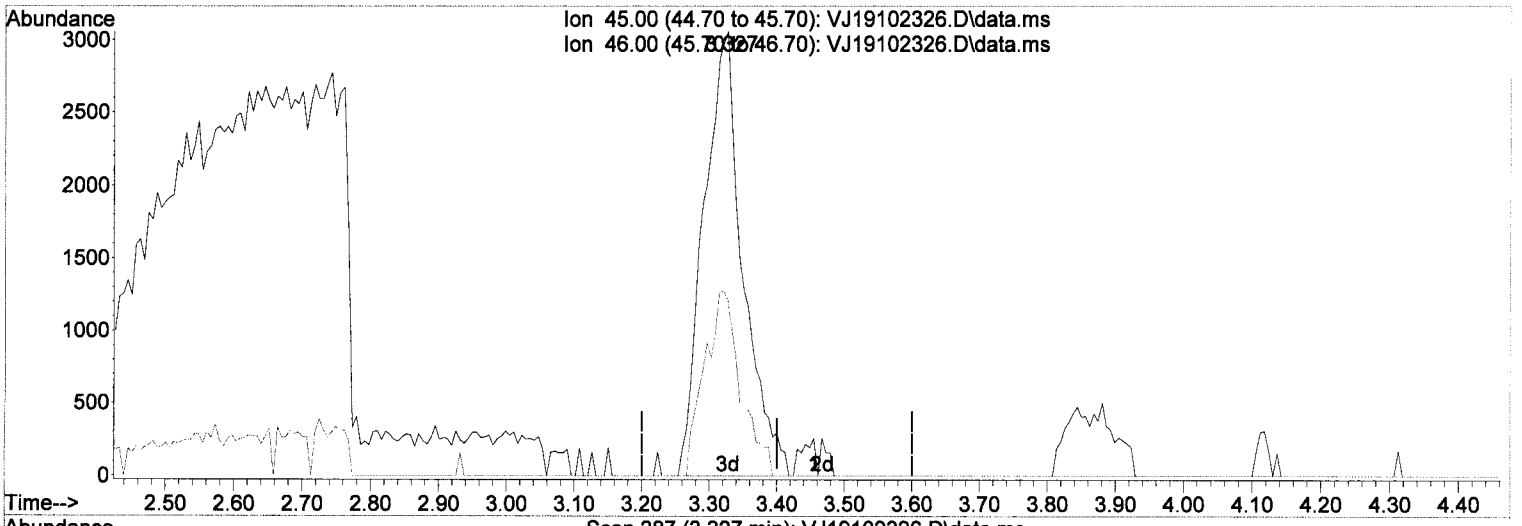
response 369

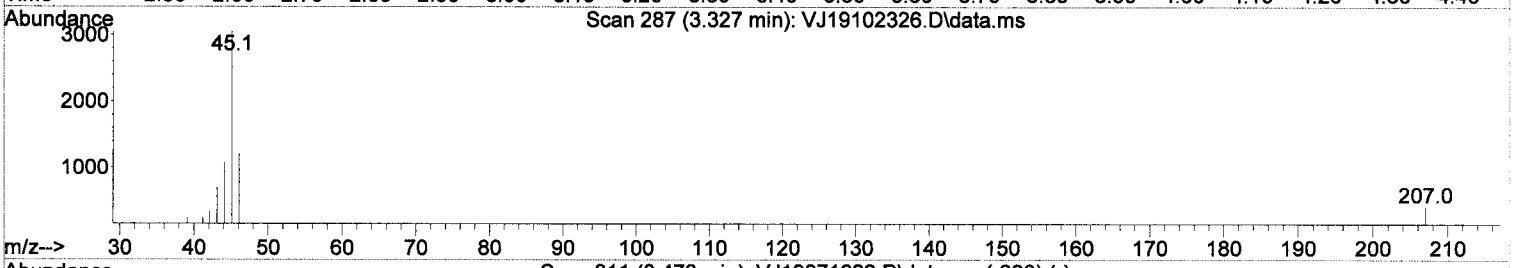
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

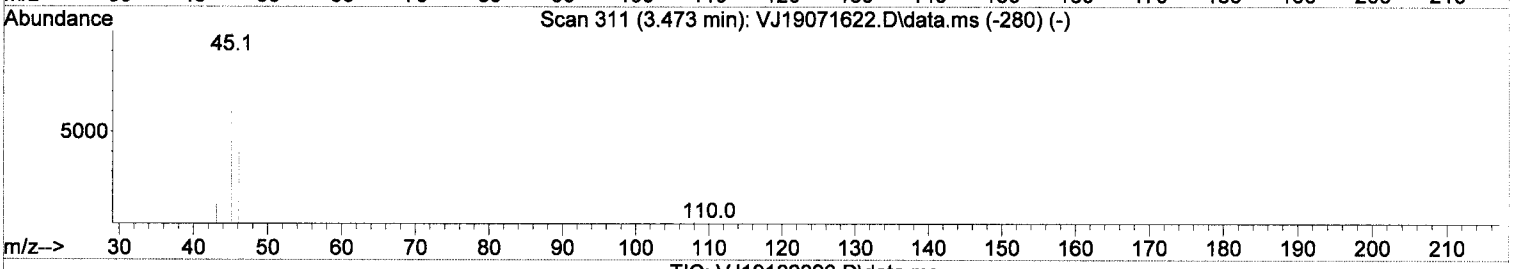
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102326.D\data.ms

(8) Ethanol

3.327min (-0.073) 241.79 ug/L m

response 12276

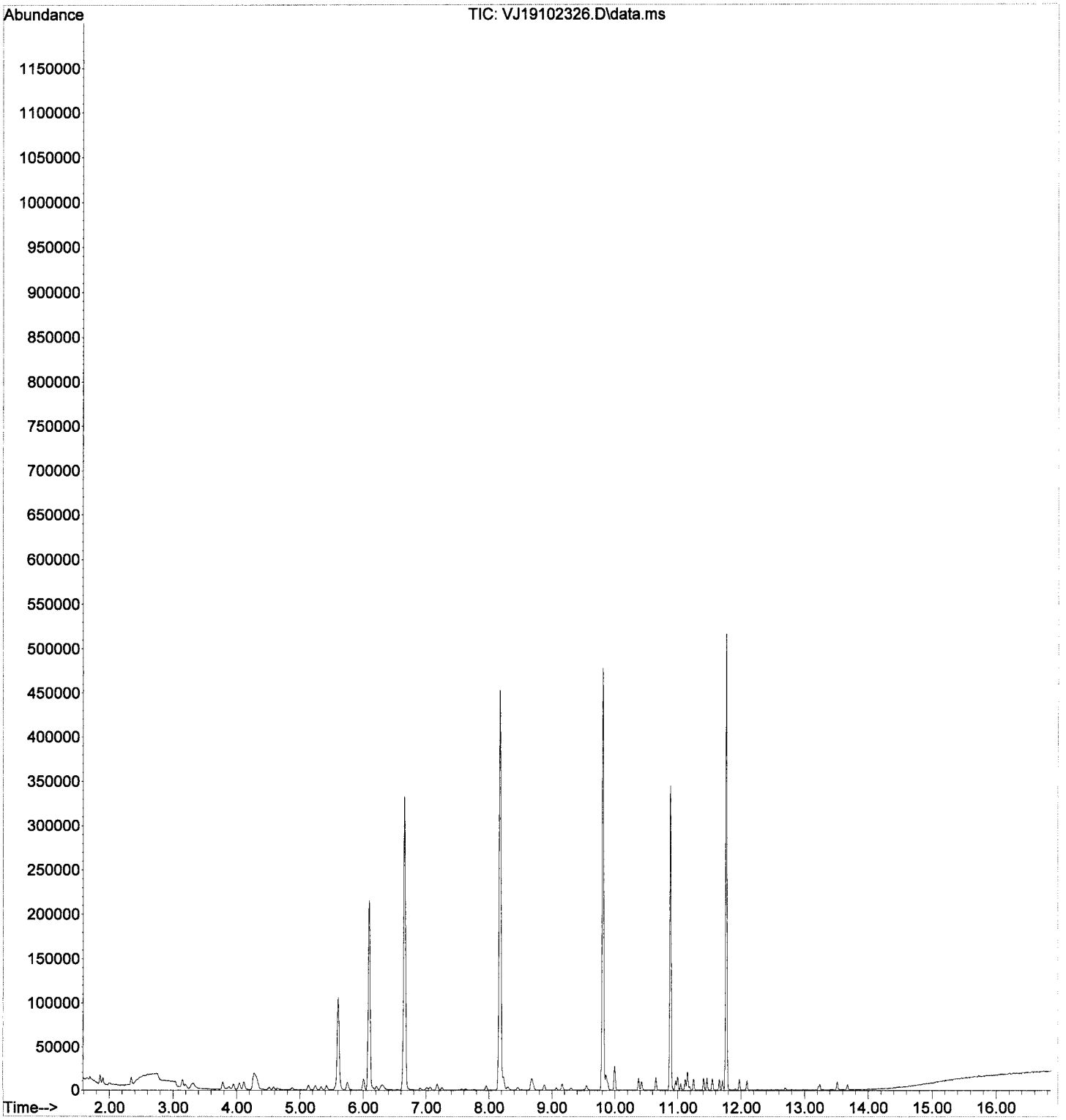
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.72
0.00	0.00	0.00
0.00	0.00	0.00

10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:27:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94791	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	254089	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104689	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	73108	57.05	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	289317	70.48	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358352	51.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	76386	47.55	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	4456m	1.91	ug/L		
3) Chloromethane	1.892	50	8944	3.53	ug/L		99
4) Vinyl Chloride	1.983	62	6249	2.96	ug/L		98
5) Bromomethane	2.336	96	5195	3.00	ug/L		94
6) Chloroethane	2.463	64	558	0.54	ug/L	#	14
7) Trichlorofluoromethane	2.603	101	1251	0.39	ug/L		72
8) Ethanol	3.352	45	19108	366.54	ug/L		97
9) 1,1-Dichloroethene	3.139	61	7400	2.57	ug/L		93
10) Carbon Disulfide	3.151	76	12853	3.58	ug/L		97
11) Freon 113	3.193	101	4614	3.57	ug/L		81
12) Iodomethane	3.285	142	1558	4.27	ug/L		78
13) Methylene Chloride	3.777	84	6212	2.37	ug/L		90
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.948	61	7911	3.05	ug/L		95
16) n-Hexane	4.039	86	1139	4.87	ug/L	#	83
17) Methyl-tert-butyl-ether	4.100	73	18230	2.58	ug/L		96
18) tert-Butanol (TBA)	4.319	59	97251m	206.57	ug/L		
19) Diisopropyl ether (DIPE)	4.507	45	4580	0.68	ug/L		98
20) 1,1-Dichloroethane	4.580	63	8482	2.85	ug/L		97
21) Acrylonitrile	4.635	53	3497m	4.25	ug/L		
22) Ethyl-tert-butyl ether...	4.872	59	4172	0.62	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	7651	2.72	ug/L		94
24) 2,2-Dichloropropane	5.237	77	7702	2.34	ug/L		92
25) Bromochloromethane	5.323	49	4784	3.06	ug/L		78
26) Chloroform	5.414	83	8976	2.46	ug/L		93
27) Carbon Tetrachloride	5.548	117	5728	1.90	ug/L		95
28) Tetrahydrofuran	5.596	42	4355	4.38	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	8216	2.29	ug/L		97
31) 1,1-Dichloropropene	5.748	75	7729	2.77	ug/L		93
32) 2-Butanone (MEK)	5.736	43	10911	7.29	ug/L		98
33) Benzene	5.998	78	25316	3.51	ug/L		97
34) tert-Amyl methyl ether...	6.150	73	4293	0.64	ug/L		90
35) 1,2-Dichloroethane (EDC)	6.205	62	8154	1.98	ug/L		96
36) iso-Butyl Alcohol	6.308	43	14927	96.13	ug/L		91
38) Trichloroethene (TCE)	6.618	130	5111	3.06	ug/L		88
39) tert-Amyl ethyl ether ...	6.898	59	3009	0.61	ug/L		77
40) Dibromomethane	7.063	93	3204	2.64	ug/L	#	75
41) 1,2-Dichloropropane	7.172	63	6237	3.32	ug/L		94
42) Bromodichloromethane	7.245	83	5797	2.10	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	7516	1.92	ug/L		98
46) Toluene	8.231	91	24811	2.37	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	4654	2.20	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	13736	4.04	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:27:45 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	7062	1.69	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	5217	2.44	ug/L		94
51) Dibromochloromethane	9.064	129	3616	1.58	ug/L		96
52) 1,3-Dichloropropane	9.161	76	9958	2.22	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	4697	2.00	ug/L		92
54) 2-Hexanone	9.545	43	9451	3.69	ug/L		90
55) Chlorobenzene	9.824	112	14691	2.38	ug/L		97
56) Ethylbenzene	9.861	91	23566	1.96	ug/L		95
57) 1,1,1,2-Tetrachloroethane	9.885	131	4053	1.69	ug/L		96
58) m,p-Xylenes (2)	9.995	91	32148	3.49	ug/L		99
59) o-Xylene	10.378	91	15404	1.68	ug/L		94
60) Styrene	10.421	104	8686	1.51	ug/L		91
61) Bromoform	10.439	173	2069	1.83	ug/L		90
62) Isopropylbenzene	10.652	105	18251	1.72	ug/L		96
65) Bromobenzene	10.962	156	4789	2.40	ug/L	#	62
66) n-Propylbenzene	10.993	91	23478	2.04	ug/L		92
67) 1,1,2,2-Tetrachloroethane	11.047	83	7515	3.10	ug/L		99
68) 2-Chlorotoluene	11.114	126	4132	2.11	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	14119	1.81	ug/L		91
70) 1,2,3-Trichloropropane	11.151	110	2381	2.28	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	731	1.44	ug/L	#	62
72) 4-Chlorotoluene	11.248	91	13748	1.94	ug/L		95
73) tert-Butylbenzene	11.406	91	8173	1.61	ug/L		85
74) 1,2,4-Trimethylbenzene	11.461	105	14318	1.81	ug/L		97
75) sec-Butylbenzene	11.546	105	17439	1.90	ug/L		96
76) 4-Isopropyltoluene	11.656	119	12982	1.68	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	8614	2.22	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	9088	2.48	ug/L		95
79) n-Butylbenzene	11.972	91	12799	1.79	ug/L		93
80) 1,2-Dichlorobenzene	12.094	146	7821	2.19	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	1147	2.02	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	910	1.62	ug/L		85
83) 1,2,4-Trichlorobenzene	13.243	180	4581	2.04	ug/L		91
84) Naphthalene	13.517	128	14900	2.01	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	4683	2.18	ug/L		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S_M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94791	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	254089	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104689	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	73108	57.05	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	289317	70.48	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358352	51.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	76386	47.55	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	2909	1.25	ug/L		91
3) Chloromethane	1.892	50	8944	3.53	ug/L		99
4) Vinyl Chloride	1.983	62	6249	2.96	ug/L		98
5) Bromomethane	2.336	96	5195	3.00	ug/L		94
6) Chloroethane	2.463	64	558	0.54	ug/L	#	14
7) Trichlorofluoromethane	2.603	101	1251	0.39	ug/L		72
8) Ethanol	3.352	45	19108	366.54	ug/L		97
9) 1,1-Dichloroethene	3.139	61	7400	2.57	ug/L		93
10) Carbon Disulfide	3.151	76	12853	3.58	ug/L		97
11) Freon 113	3.193	101	4614	3.57	ug/L		81
12) Iodomethane	3.285	142	1558	4.27	ug/L		78
13) Methylene Chloride	3.777	84	6212	2.37	ug/L		90
14) Acetone	3.869	43	6940	6.63	ug/L		95
15) t-1,2-Dichloroethene	3.948	61	7911	3.05	ug/L		95
16) n-Hexane	4.039	86	1139	4.87	ug/L	#	83
17) Methyl-tert-butyl-ether	4.100	73	18230	2.58	ug/L		96
18) tert-Butanol (TBA)	4.319	59	63582	137.95	ug/L	#	100
19) Diisopropyl ether (DIPE)	4.507	45	4580	0.68	ug/L		98
20) 1,1-Dichloroethane	4.580	63	8482	2.85	ug/L		97
21) Acrylonitrile	4.635	53	29805	3.63	ug/L		97
22) Ethyl-tert-butyl ether...	4.872	59	4172	0.62	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	7651	2.72	ug/L		94
24) 2,2-Dichloropropane	5.237	77	7702	2.34	ug/L		92
25) Bromochloromethane	5.323	49	4784	3.06	ug/L		78
26) Chloroform	5.414	83	8976	2.46	ug/L		93
27) Carbon Tetrachloride	5.548	117	5728	1.90	ug/L		95
28) Tetrahydrofuran	5.596	42	4355	4.38	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	8216	2.29	ug/L		97
31) 1,1-Dichloropropene	5.748	75	7729	2.77	ug/L		93
32) 2-Butanone (MEK)	5.736	43	10911	7.29	ug/L		98
33) Benzene	5.998	78	25316	3.51	ug/L		97
34) tert-Amyl methyl ether...	6.150	73	4293	0.64	ug/L		90
35) 1,2-Dichloroethane (EDC)	6.205	62	8154	1.98	ug/L		96
36) iso-Butyl Alcohol	6.308	43	14927	96.13	ug/L		91
38) Trichloroethene (TCE)	6.618	130	5111	3.06	ug/L		88
39) tert-Amyl ethyl ether ...	6.898	59	3009	0.61	ug/L		77
40) Dibromomethane	7.063	93	3204	2.64	ug/L	#	75
41) 1,2-Dichloropropane	7.172	63	6237	3.32	ug/L		94
42) Bromodichloromethane	7.245	83	5797	2.10	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	7516	1.92	ug/L		98
46) Toluene	8.231	91	24811	2.37	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	4654	2.20	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	13736	4.04	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

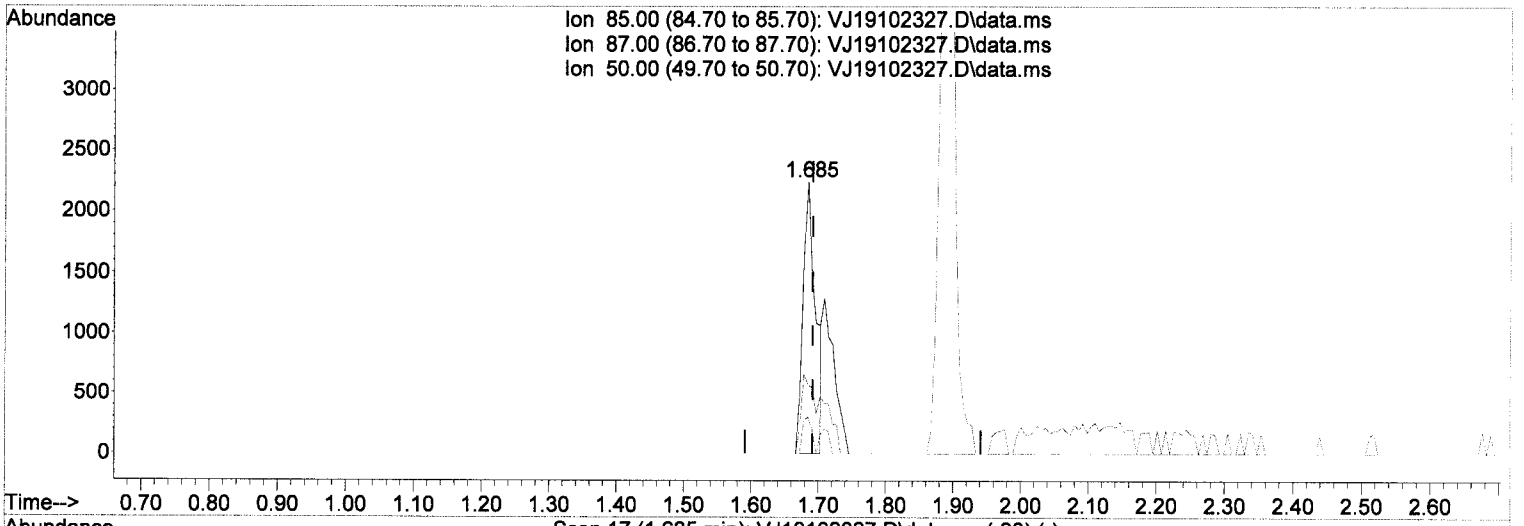
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	7062	1.69	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	5217	2.44	ug/L		94
51) Dibromochloromethane	9.064	129	3616	1.53	ug/L		96
52) 1,3-Dichloropropane	9.161	76	9958	2.22	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	4697	2.00	ug/L		92
54) 2-Hexanone	9.545	43	9451	3.69	ug/L		90
55) Chlorobenzene	9.824	112	14691	2.33	ug/L		97
56) Ethylbenzene	9.861	91	23566	1.96	ug/L		95
57) 1,1,1,2-Tetrachloroethane	9.885	131	4053	1.69	ug/L		96
58) m,p-Xylenes (2)	9.995	91	32148	3.49	ug/L		99
59) o-Xylene	10.378	91	15404	1.68	ug/L		94
60) Styrene	10.421	104	8686	1.51	ug/L		91
61) Bromoform	10.439	173	2069	1.83	ug/L		90
62) Isopropylbenzene	10.652	105	18251	1.72	ug/L		96
65) Bromobenzene	10.962	156	4789	2.40	ug/L	#	62
66) n-Propylbenzene	10.993	91	23478	2.04	ug/L		92
67) 1,1,2,2-Tetrachloroethane	11.047	83	7515	3.10	ug/L		99
68) 2-Chlorotoluene	11.114	126	4132	2.11	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	14119	1.81	ug/L		91
70) 1,2,3-Trichloropropane	11.151	110	2381	2.28	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	731	1.44	ug/L	#	62
72) 4-Chlorotoluene	11.248	91	13748	1.94	ug/L		95
73) tert-Butylbenzene	11.406	91	8173	1.61	ug/L		85
74) 1,2,4-Trimethylbenzene	11.461	105	14318	1.81	ug/L		97
75) sec-Butylbenzene	11.546	105	17439	1.90	ug/L		96
76) 4-Isopropyltoluene	11.656	119	12982	1.68	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	8614	2.22	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	9088	2.43	ug/L		95
79) n-Butylbenzene	11.972	91	12799	1.79	ug/L		93
80) 1,2-Dichlorobenzene	12.094	146	7821	2.19	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	1147	2.02	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	910	1.62	ug/L		85
83) 1,2,4-Trichlorobenzene	13.243	180	4581	2.04	ug/L		91
84) Naphthalene	13.517	128	14900	2.01	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	4683	2.18	ug/L		91

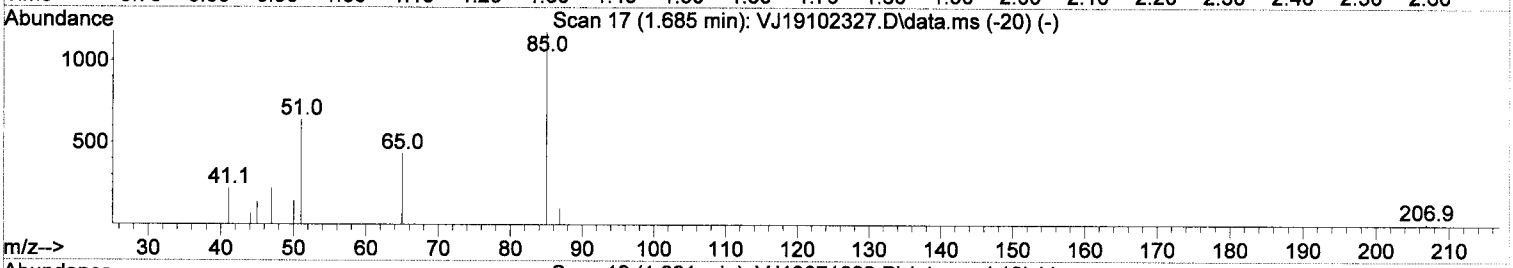
(#) = qualifier out of range (m) = manual integration (+) = signals summed

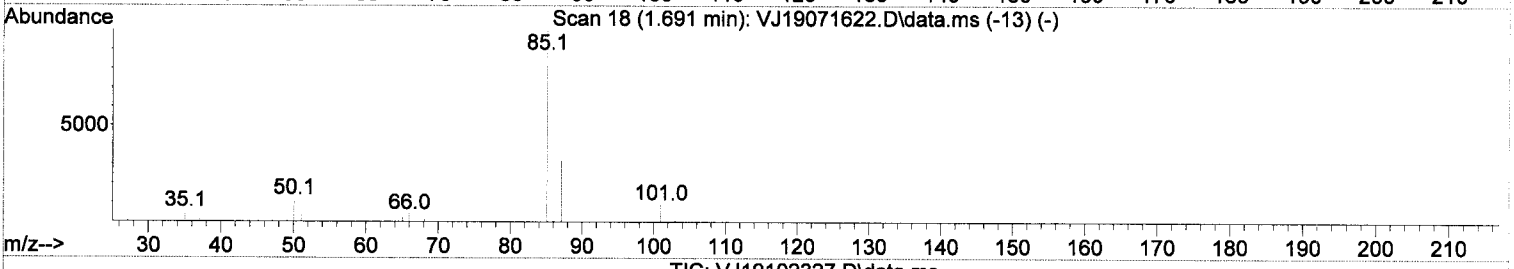
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 1.25 ug/L

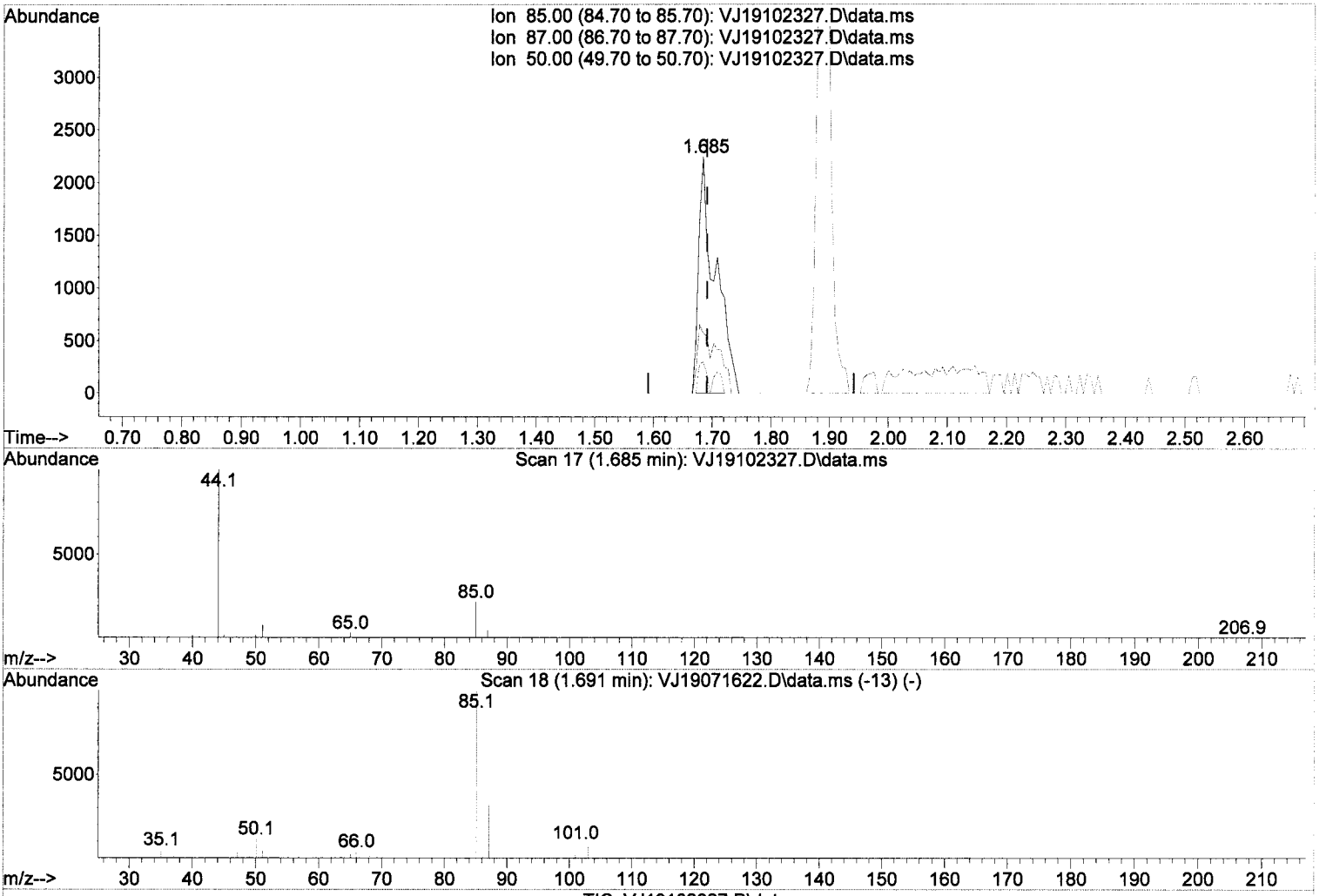
response 2909

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102327.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 1.91 ug/L m

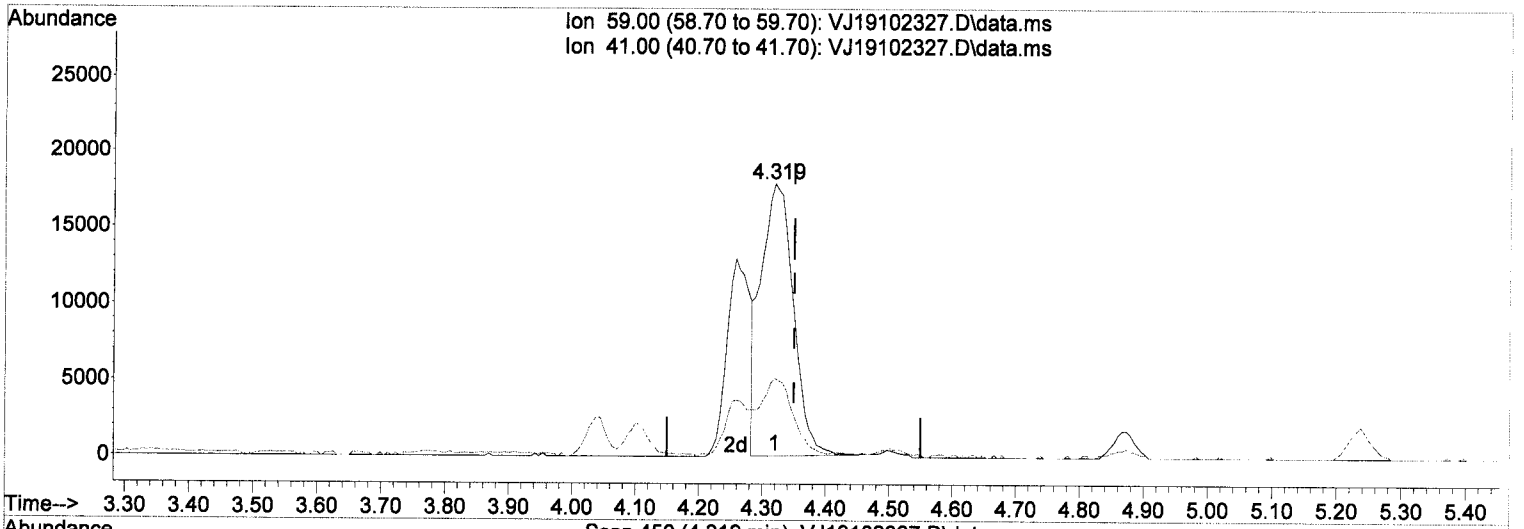
response 4456

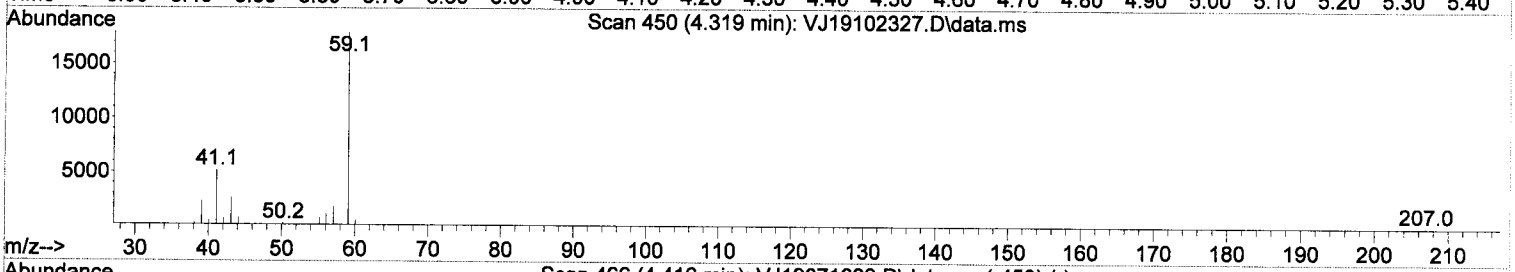
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

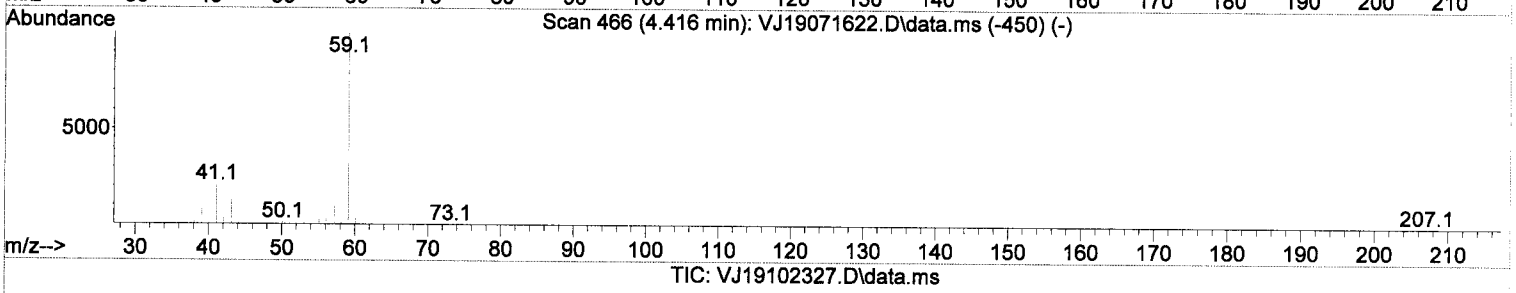
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 137.95 ug/L

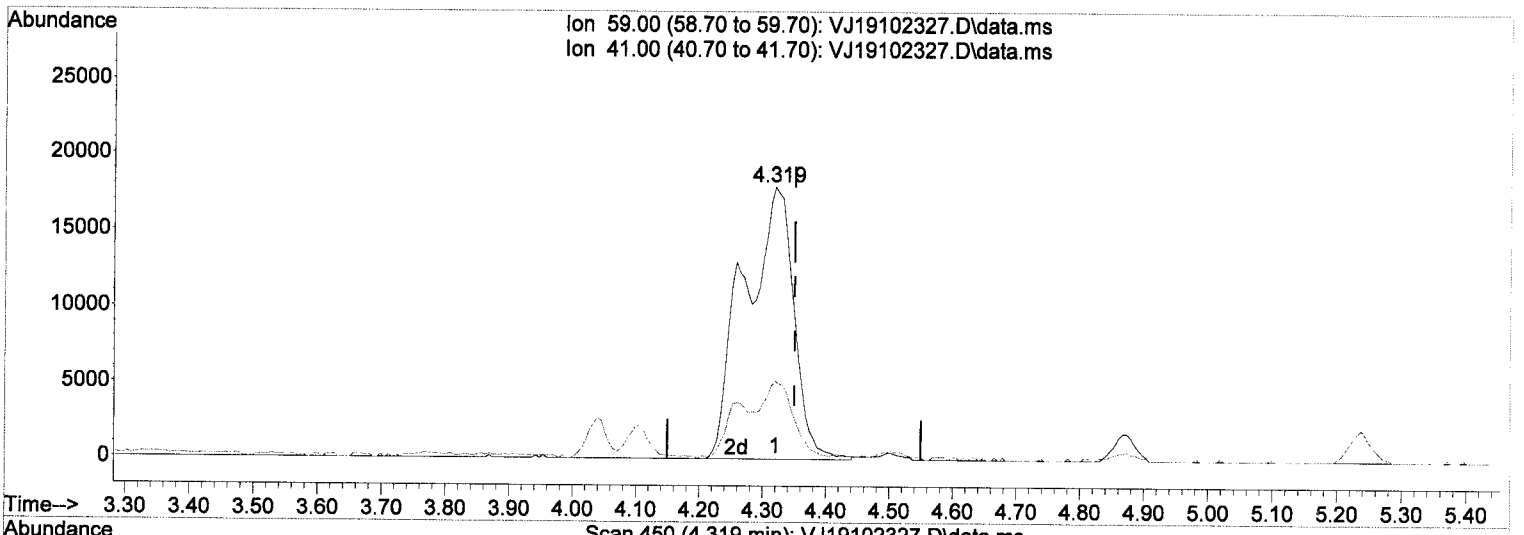
response 63582

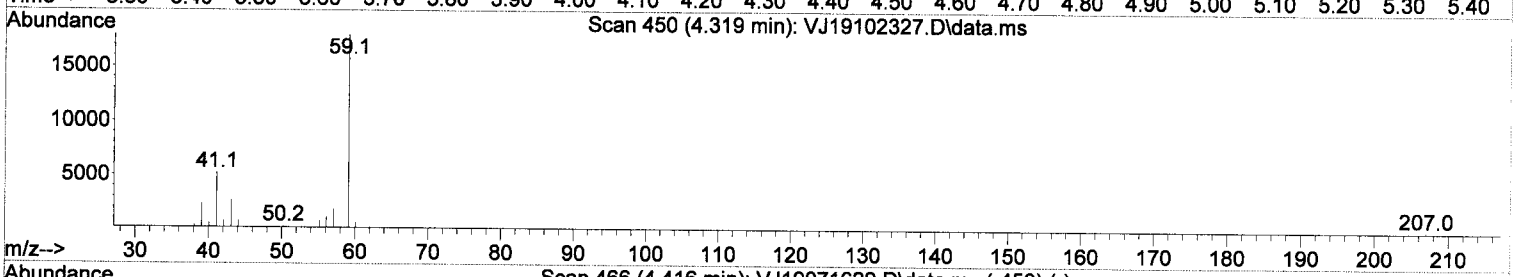
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

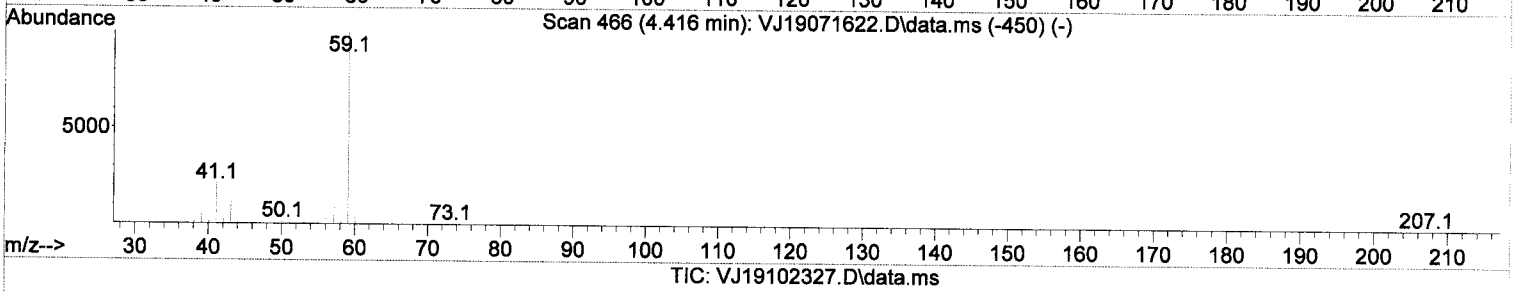
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 206.57 ug/L m

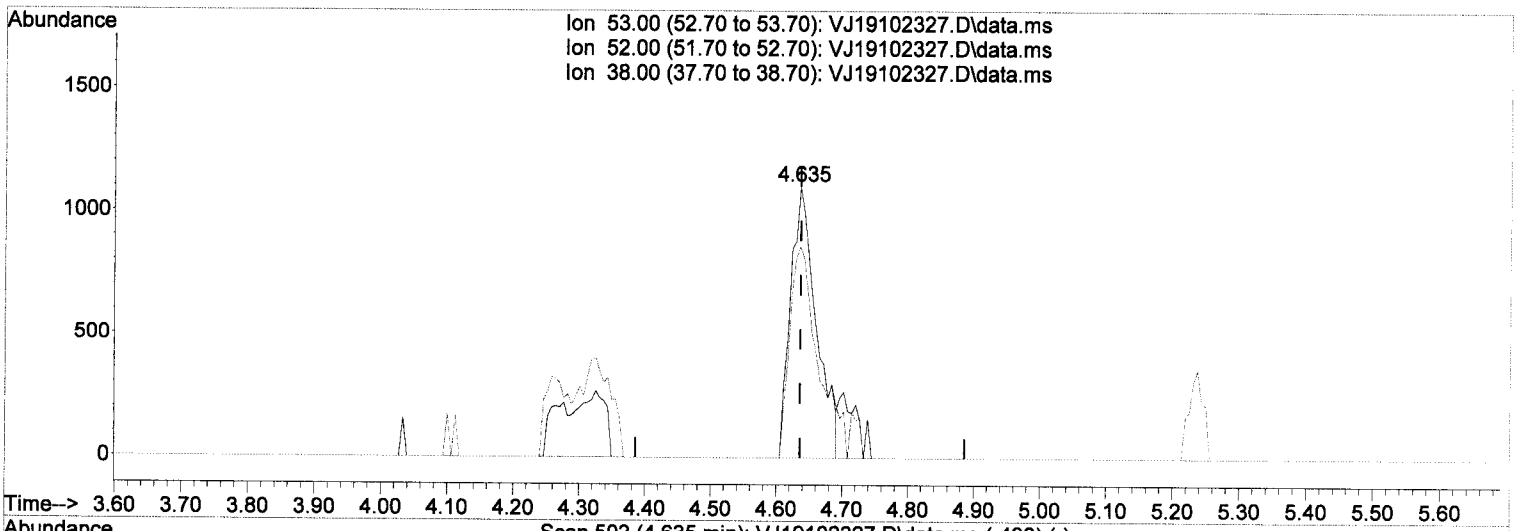
response 97251

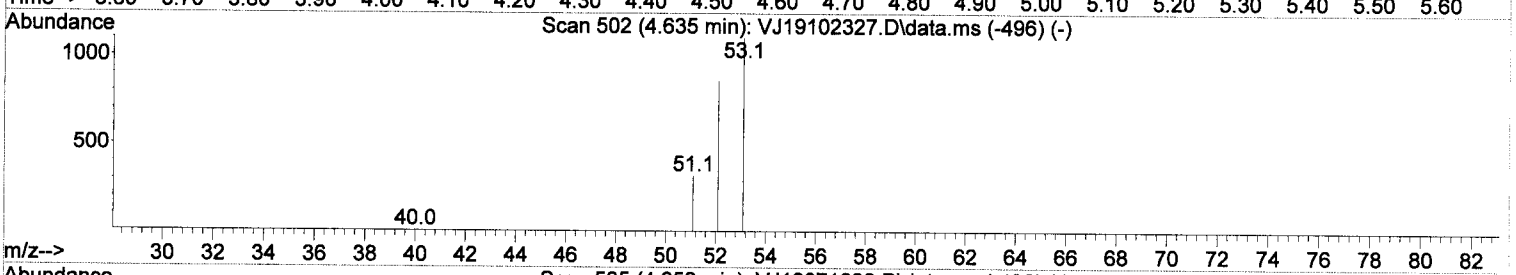
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

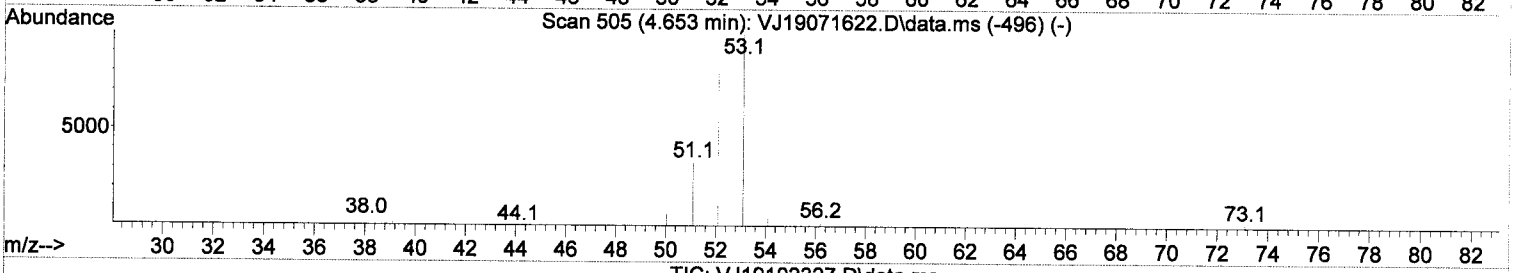
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 3.63 ug/L

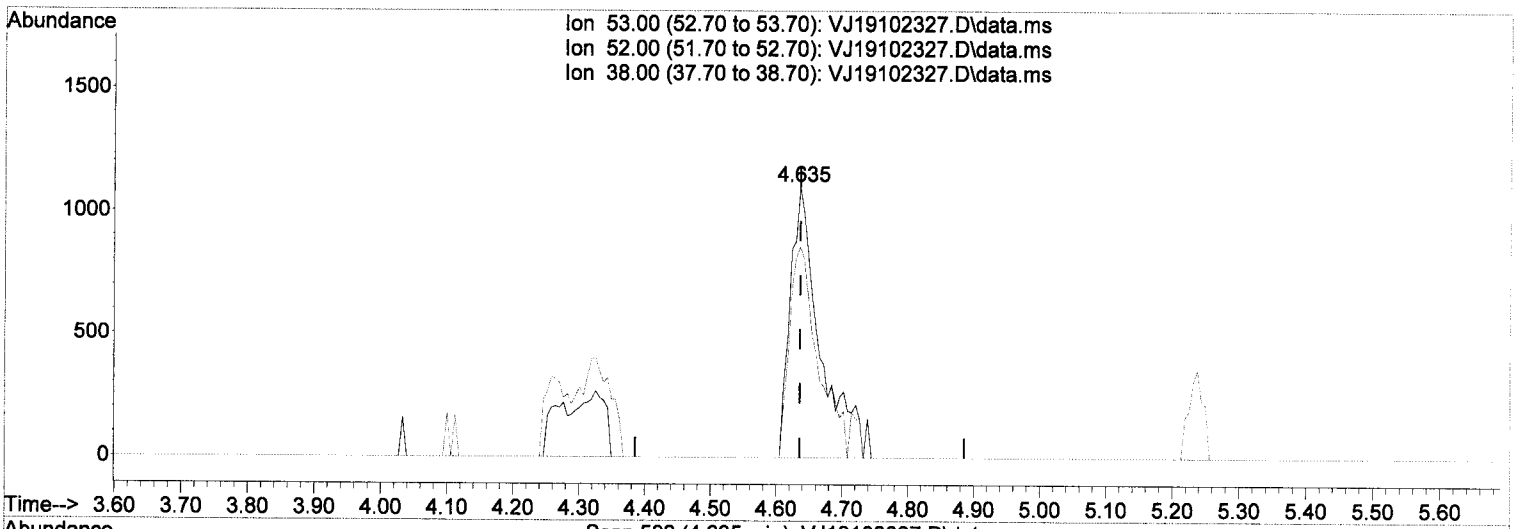
response 2980

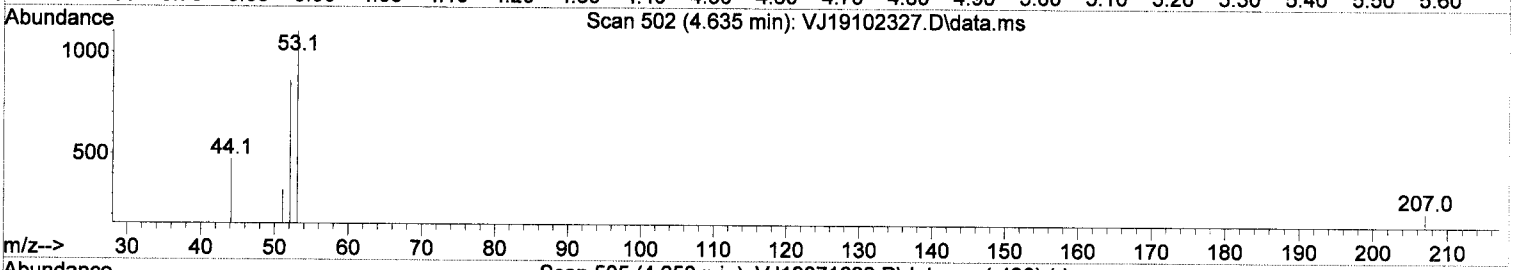
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.79
38.00	5.50	0.00
0.00	0.00	0.00

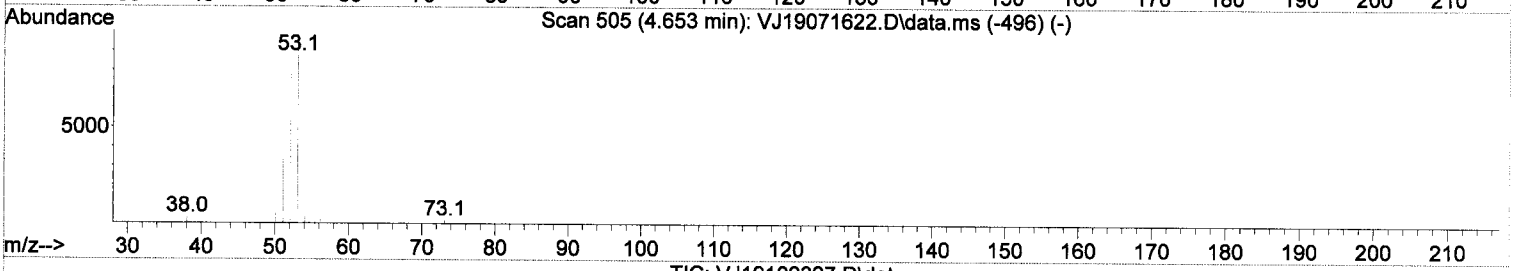
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 4.25 ug/L m

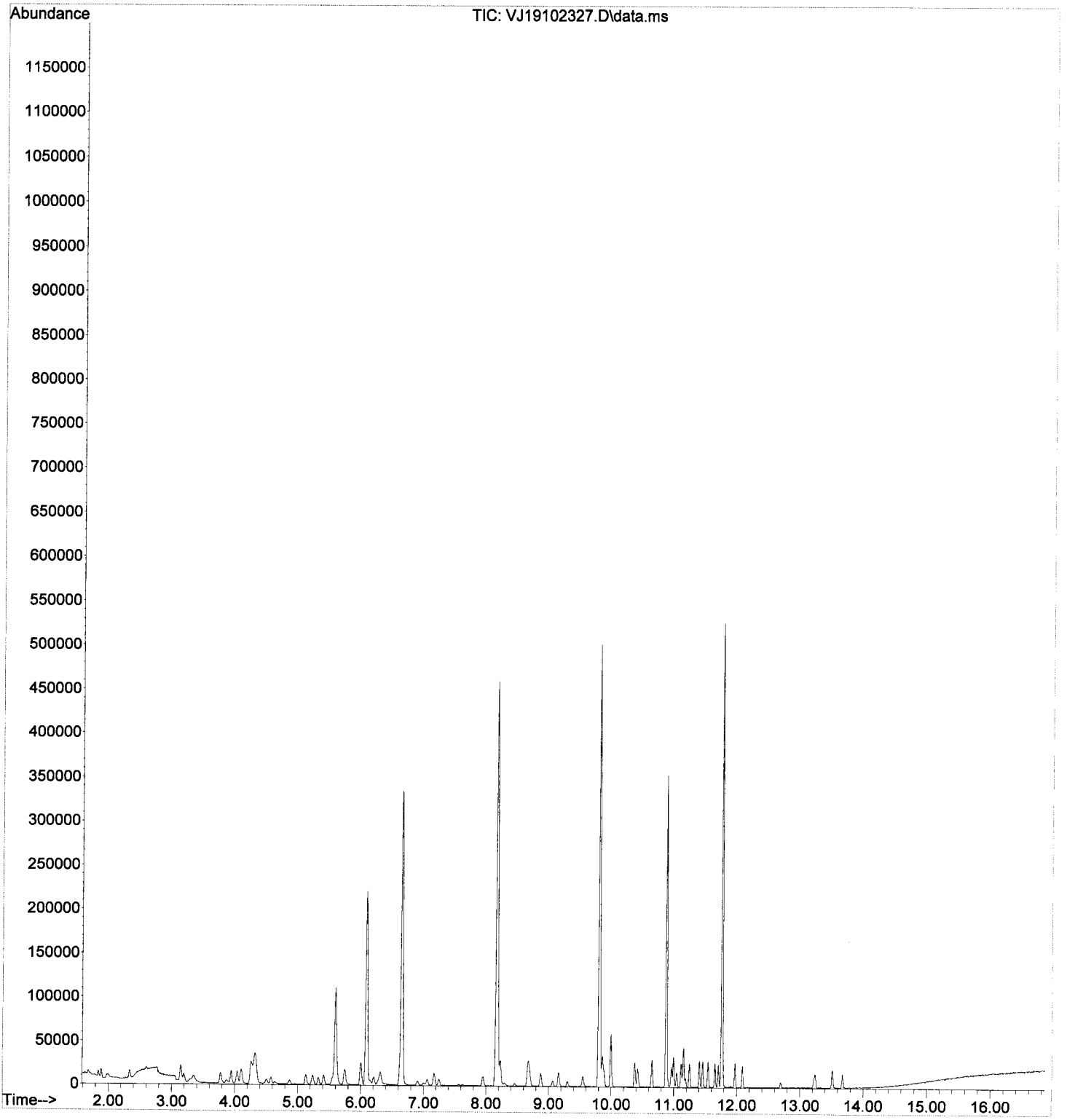
response 3497

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.79
38.00	5.50	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

10/24/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	98978	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	265619	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	112071	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	77095	57.62	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	303595	70.83	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	369631	51.25	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81641	47.47	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	11145	4.57	ug/L		96
3) Chloromethane	1.904	50	20037	7.57	ug/L		100
4) Vinyl Chloride	1.995	62	14616	6.49	ug/L		95
5) Bromomethane	2.348	96	9360	7.17	ug/L		95
6) Chloroethane	2.476	64	1384	1.29	ug/L	#	54
7) Trichlorofluoromethane	2.615	101	3402	1.01	ug/L		94
8) Ethanol	3.376	45	35634	654.64	ug/L		88
9) 1,1-Dichloroethene	3.151	61	18097	6.02	ug/L		93
10) Carbon Disulfide	3.163	76	30469	8.14	ug/L		99
11) Freon 113	3.206	101	11080	8.22	ug/L		87
12) Iodomethane	3.297	142	3207	11.14	ug/L		86
13) Methylene Chloride	3.784	84	12998	7.07	ug/L		90
14) Acetone	3.875	43	~~13457~~ 16748	12.31	ug/L		100
15) t-1,2-Dichloroethene	3.948	61	19492	7.19	ug/L		93
16) n-Hexane	4.045	86	2790	10.24	ug/L	#	54
17) Methyl-tert-butyl-ether	4.106	73	45549	6.18	ug/L		89
18) tert-Butanol (TBA)	4.343	59	~~154829~~ 28821	309.30	ug/L	#	93
19) Diisopropyl ether (DIPE)	4.507	45	11435	1.61	ug/L		96
20) 1,1-Dichloroethane	4.587	63	21122	6.79	ug/L		98
21) Acrylonitrile	4.641	53	~~7128~~ 8805	8.30	ug/L		98
22) Ethyl-tert-butyl ether...	4.872	59	10218	1.45	ug/L		89
23) c-1,2-Dichloroethene	5.134	61	18773	6.40	ug/L		99
24) 2,2-Dichloropropane	5.244	77	18540	5.39	ug/L		92
25) Bromochloromethane	5.335	49	11641	7.14	ug/L		83
26) Chloroform	5.420	83	22188	5.83	ug/L		97
27) Carbon Tetrachloride	5.554	117	14343	4.56	ug/L		95
28) Tetrahydrofuran	5.596	42	9562	9.21	ug/L		94
29) 1,1,1-Trichloroethane	5.621	97	20044	5.35	ug/L		98
31) 1,1-Dichloropropene	5.749	75	18701	6.41	ug/L		95
32) 2-Butanone (MEK)	5.736	43	~~19029~~ 25302	12.17	ug/L		97
33) Benzene	6.004	78	62213	8.27	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	10184	1.46	ug/L		91
35) 1,2-Dichloroethane (EDC)	6.211	62	19717	4.58	ug/L		96
36) iso-Butyl Alcohol	6.314	43	33987	209.61	ug/L		93
38) Trichloroethene (TCE)	6.625	130	12809	7.12	ug/L		93
39) tert-Amyl ethyl ether ...	6.910	59	7162	1.39	ug/L		89
40) Dibromomethane	7.063	93	8013	6.32	ug/L	#	81
41) 1,2-Dichloropropane	7.178	63	15592	7.94	ug/L		99
42) Bromodichloromethane	7.245	83	14894	5.16	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	19353	4.74	ug/L		98
46) Toluene	8.231	91	59671	5.46	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	11684	5.29	ug/L		88
48) 4-Methyl-2-Pentanone (...	8.675	43	35142	9.89	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

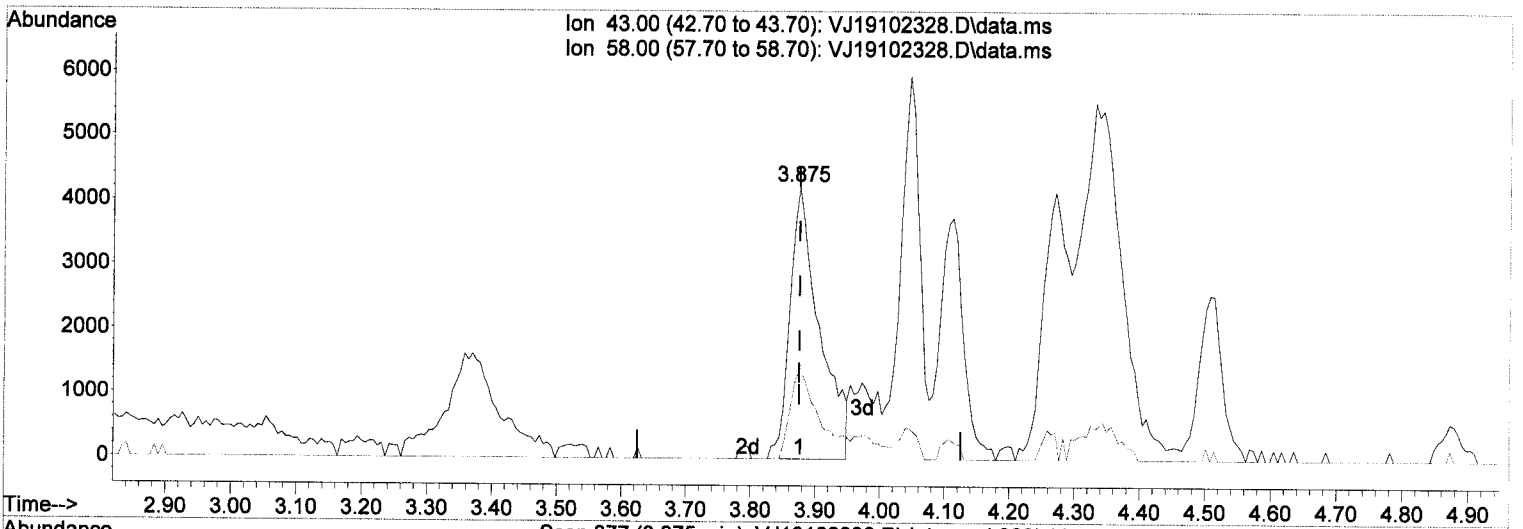
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	18504	4.24	ug/L		97
50) 1,1,2-Trichloroethane	8.876	97	13046	5.68	ug/L		95
51) Dibromochloromethane	9.064	129	9350	3.79	ug/L		90
52) 1,3-Dichloropropane	9.161	76	24045	5.12	ug/L		96
53) 1,2-Dibromoethane (EDB)	9.301	107	12041	4.89	ug/L		95
54) 2-Hexanone	9.551	43	23467	8.77	ug/L		99
55) Chlorobenzene	9.825	112	35206	5.34	ug/L		92
56) Ethylbenzene	9.861	91	59905	4.76	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.885	131	10760	4.30	ug/L		98
58) m,p-Xylenes (2)	9.995	91	85048	8.82	ug/L		96
59) o-Xylene	10.378	91	39703	4.14	ug/L		97
60) Styrene	10.421	104	24248	4.04	ug/L		95
61) Bromoform	10.439	173	5470	3.78	ug/L		96
62) Isopropylbenzene	10.652	105	47833	4.32	ug/L		96
65) Bromobenzene	10.962	156	11698	5.48	ug/L	#	69
66) n-Propylbenzene	10.999	91	60466	4.92	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	17963	6.92	ug/L		96
68) 2-Chlorotoluene	11.114	126	10583	5.04	ug/L	#	80
69) 1,3,5-Trimethylbenzene	11.157	105	37585	4.49	ug/L		94
70) 1,2,3-Trichloropropane	11.151	110	5563	4.98	ug/L		91
71) t-1,4-Dichloro-2-butene	11.187	88	2176	4.02	ug/L	#	81
72) 4-Chlorotoluene	11.248	91	35148	4.63	ug/L		92
73) tert-Butylbenzene	11.406	91	22268	4.09	ug/L		84
74) 1,2,4-Trimethylbenzene	11.461	105	37661	4.45	ug/L		99
75) sec-Butylbenzene	11.546	105	47859	4.87	ug/L		95
76) 4-Isopropyltoluene	11.656	119	35139	4.25	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	21435	5.17	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	21770	5.43	ug/L		96
79) n-Butylbenzene	11.972	91	33924	4.44	ug/L		96
80) 1,2-Dichlorobenzene	12.094	146	19542	5.10	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	2712	4.46	ug/L	#	38
82) Hexachlorobutadiene	13.213	223	2682	4.47	ug/L		80
83) 1,2,4-Trichlorobenzene	13.244	180	11011	4.58	ug/L		97
84) Naphthalene	13.517	128	36533	4.60	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	10716	4.66	ug/L		99

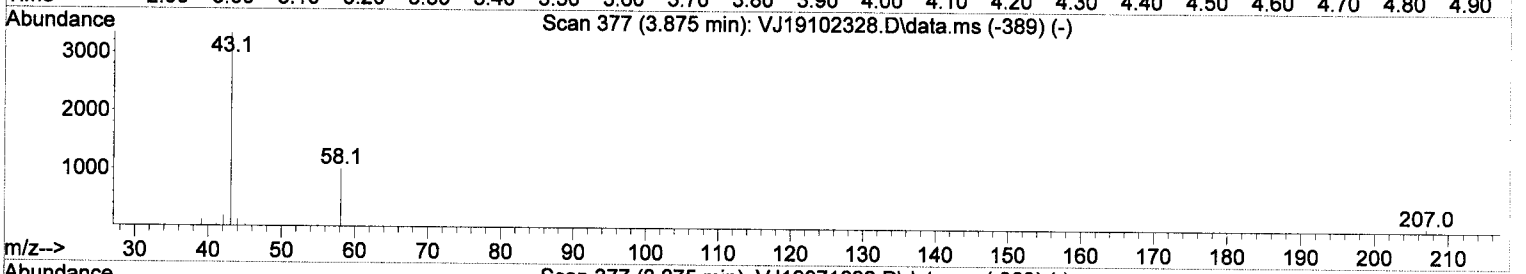
(#) = qualifier out of range (m) = manual integration (+) = signals summed

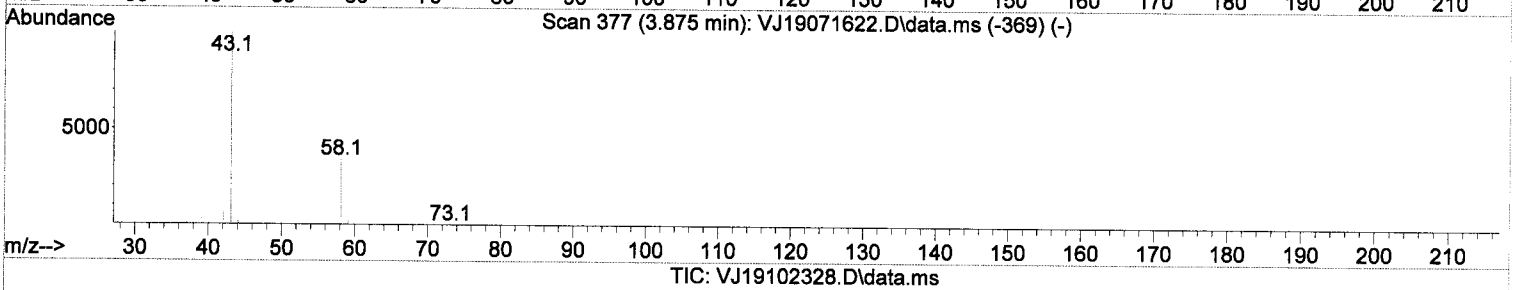
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(14) Acetone

3.875min (+ 0.001) 12.31 ug/L

response 13457

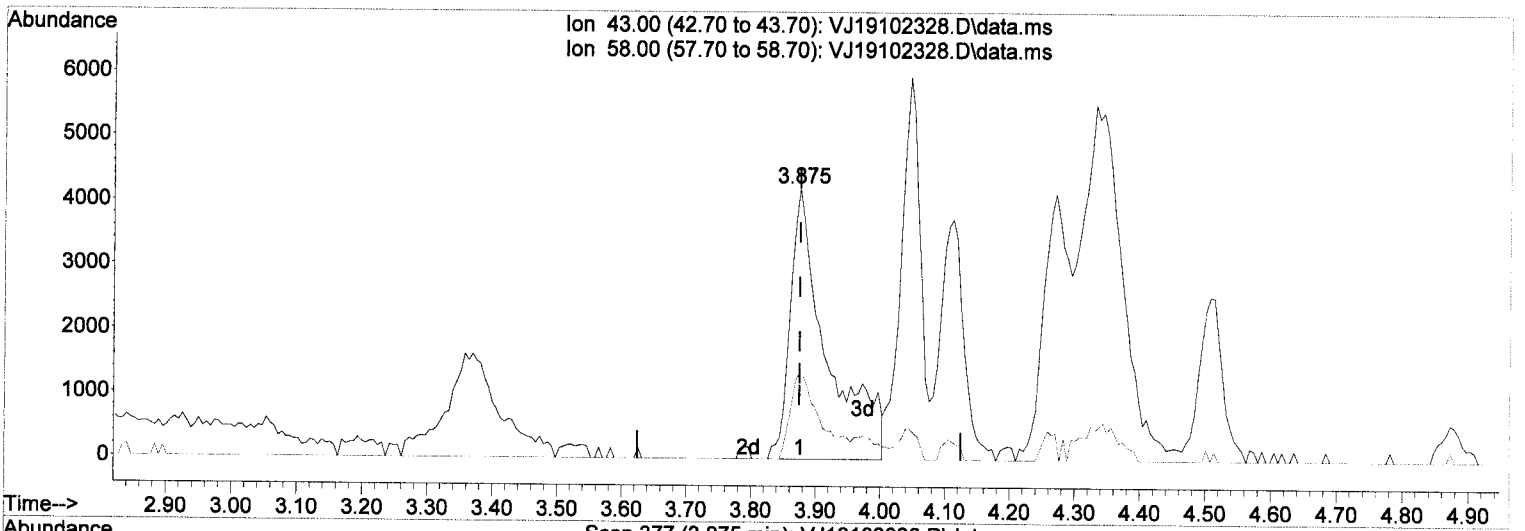
M.2.

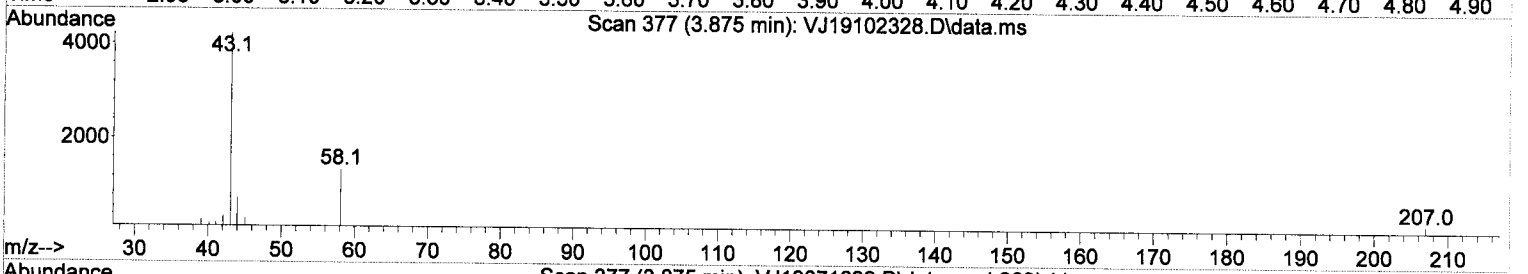
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

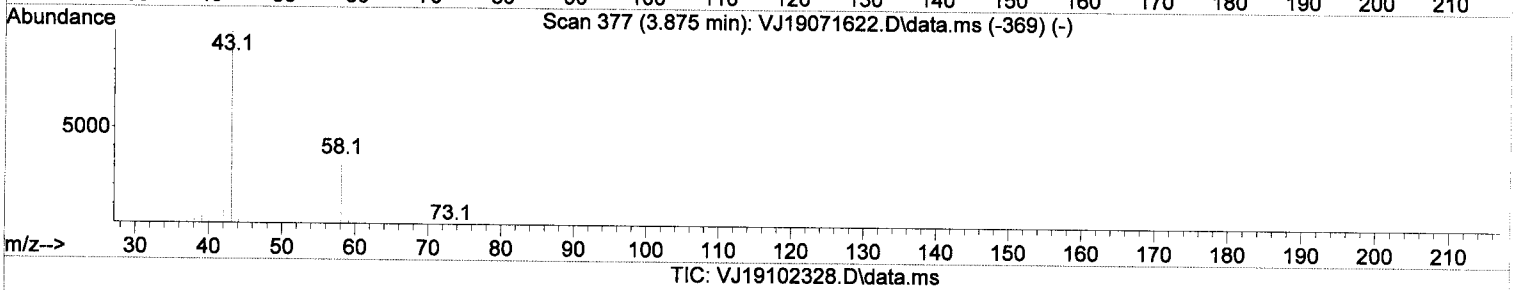
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(14) Acetone

3.875min (+ 0.001) 15.31 ug/L m

response 16748

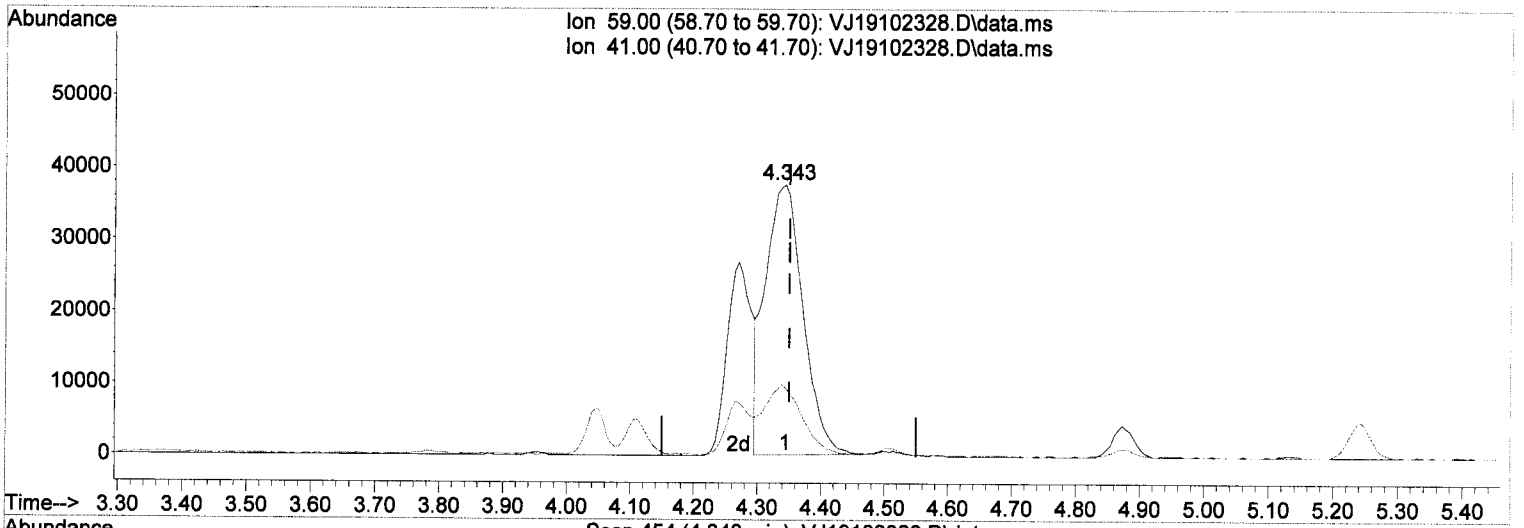
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

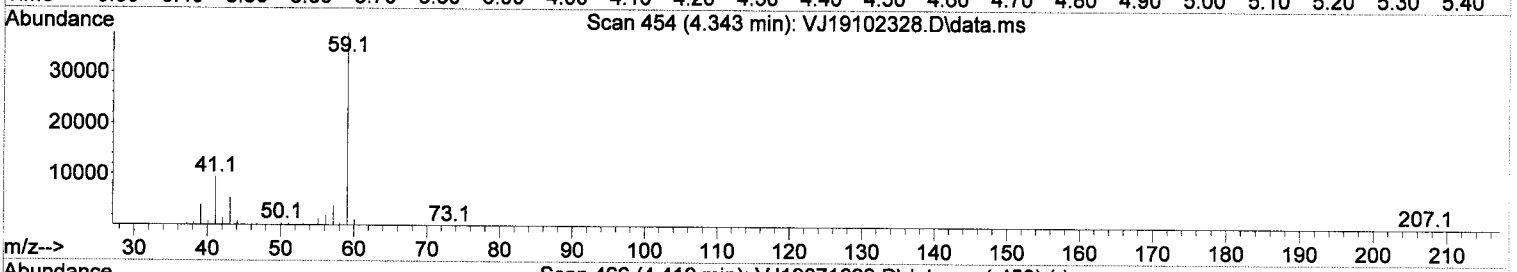
M
10/24/19

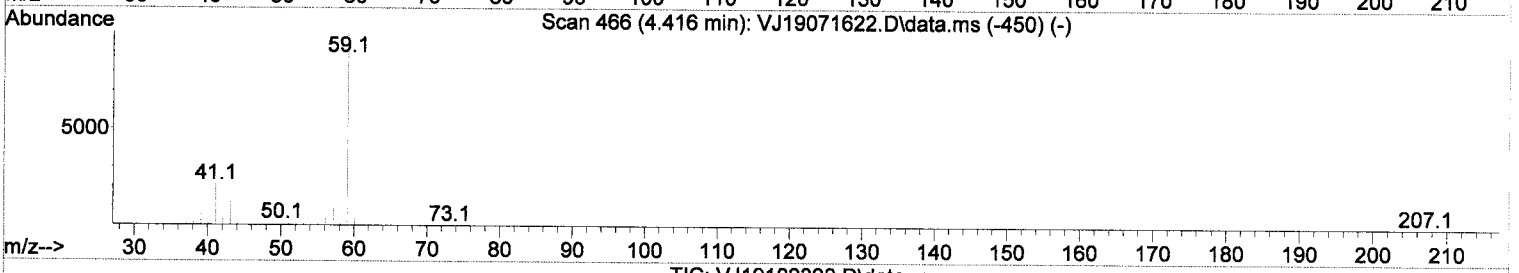
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(18) tert-Butanol (TBA)

4.343min (-0.006) 309.30 ug/L

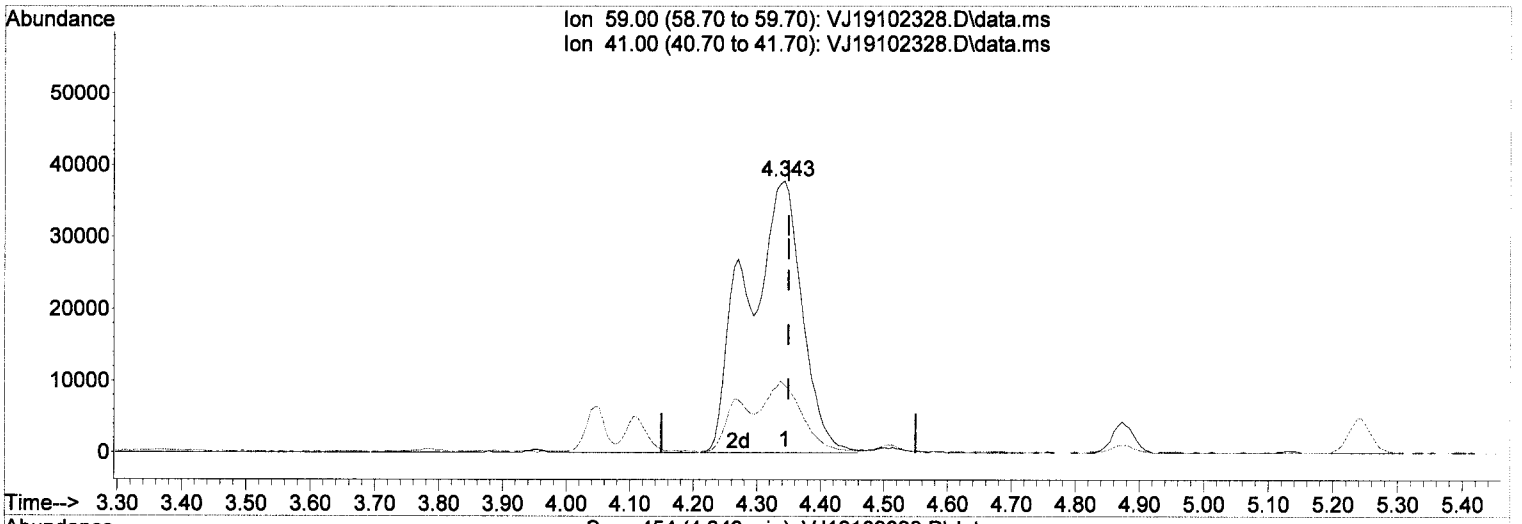
response 154829

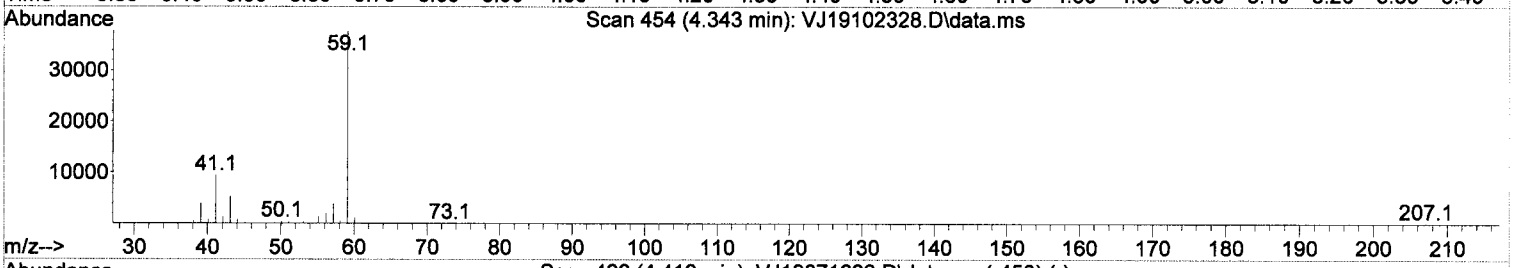
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

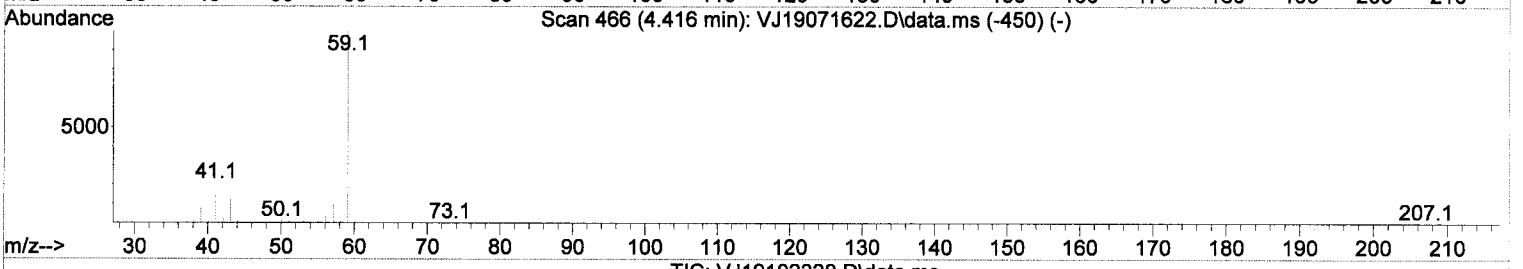
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(18) tert-Butanol (TBA)

4.343min (-0.006) 449.53 ug/L m

response 228821

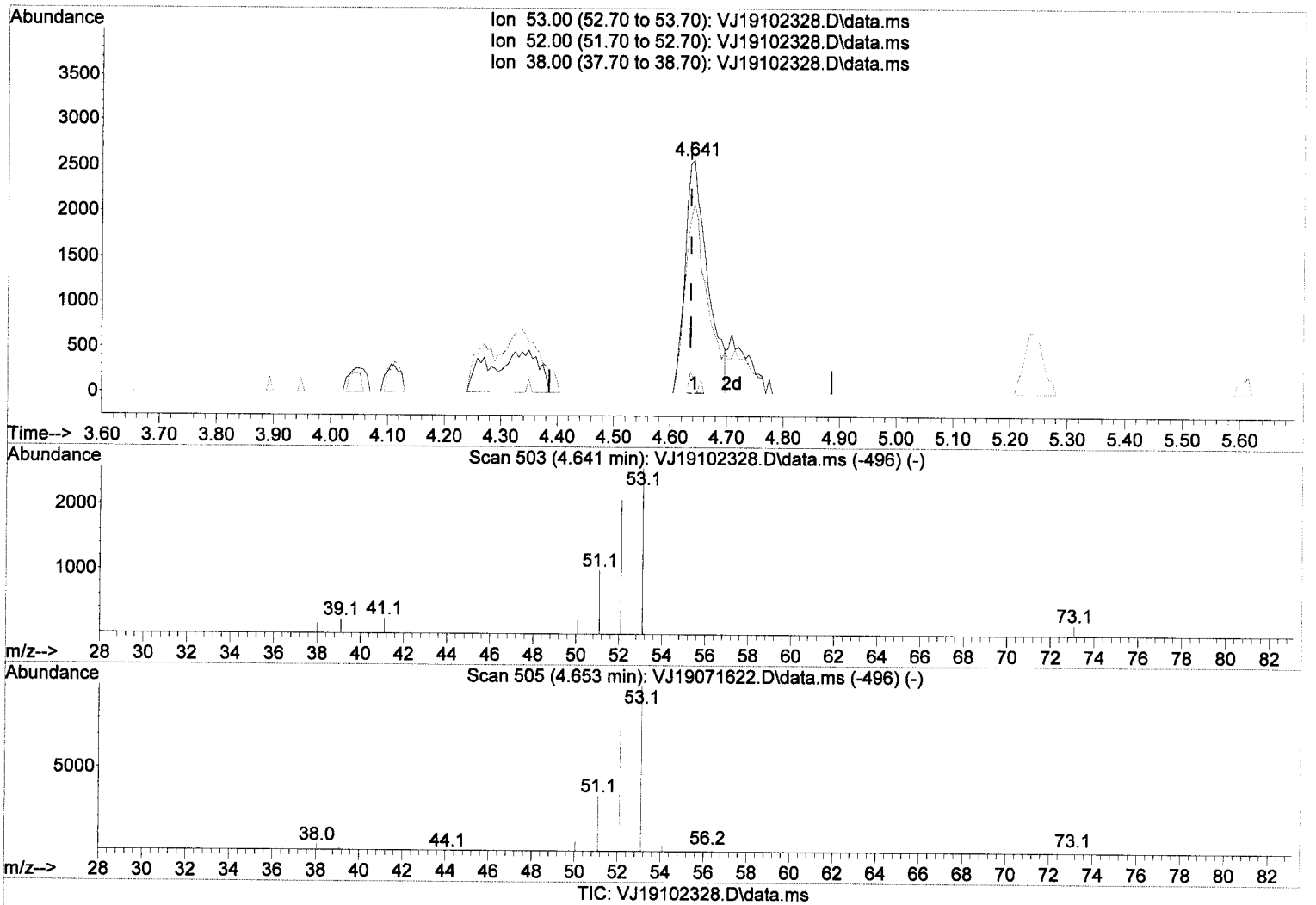
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

M 12/24/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



(21) Acrylonitrile

4.641min (+ 0.006) 8.30 ug/L

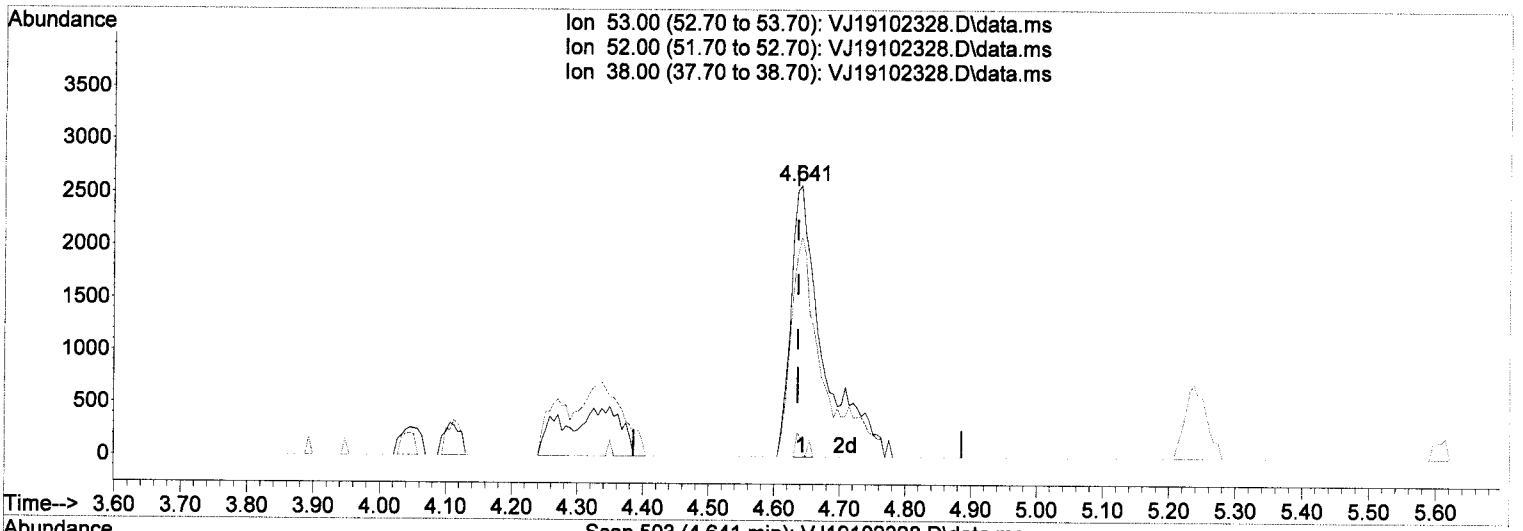
response 7128

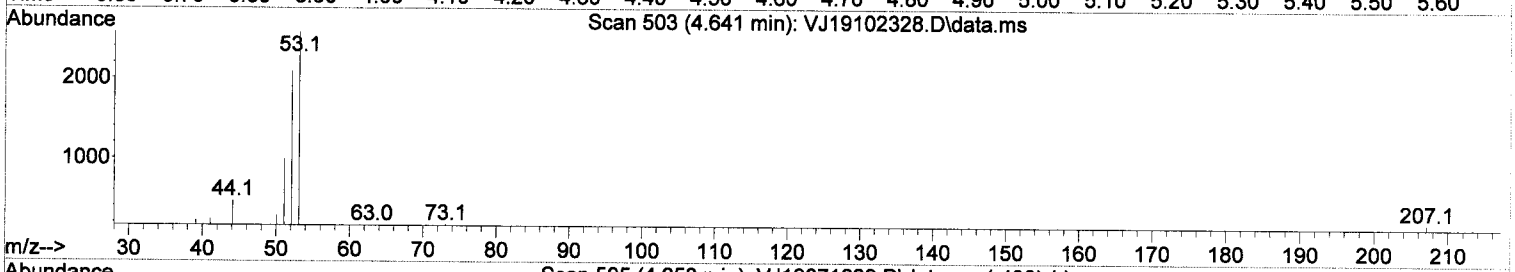
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

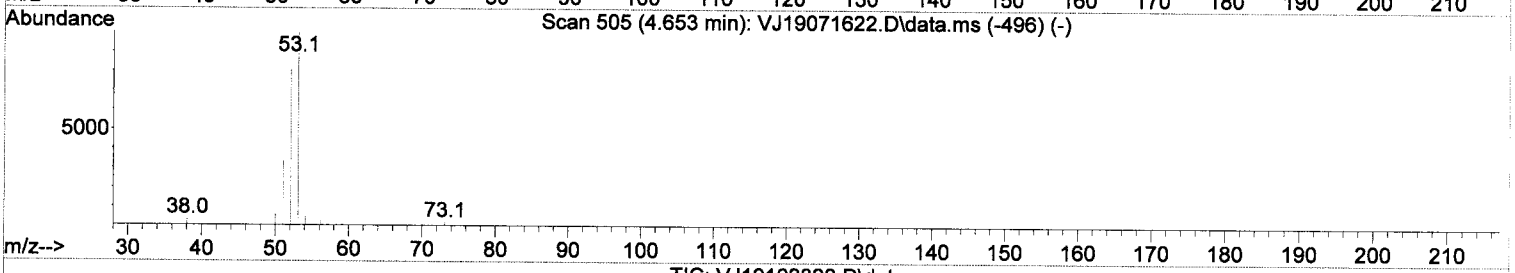
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(21) Acrylonitrile

4.641min (+ 0.006) 10.26 ug/L m

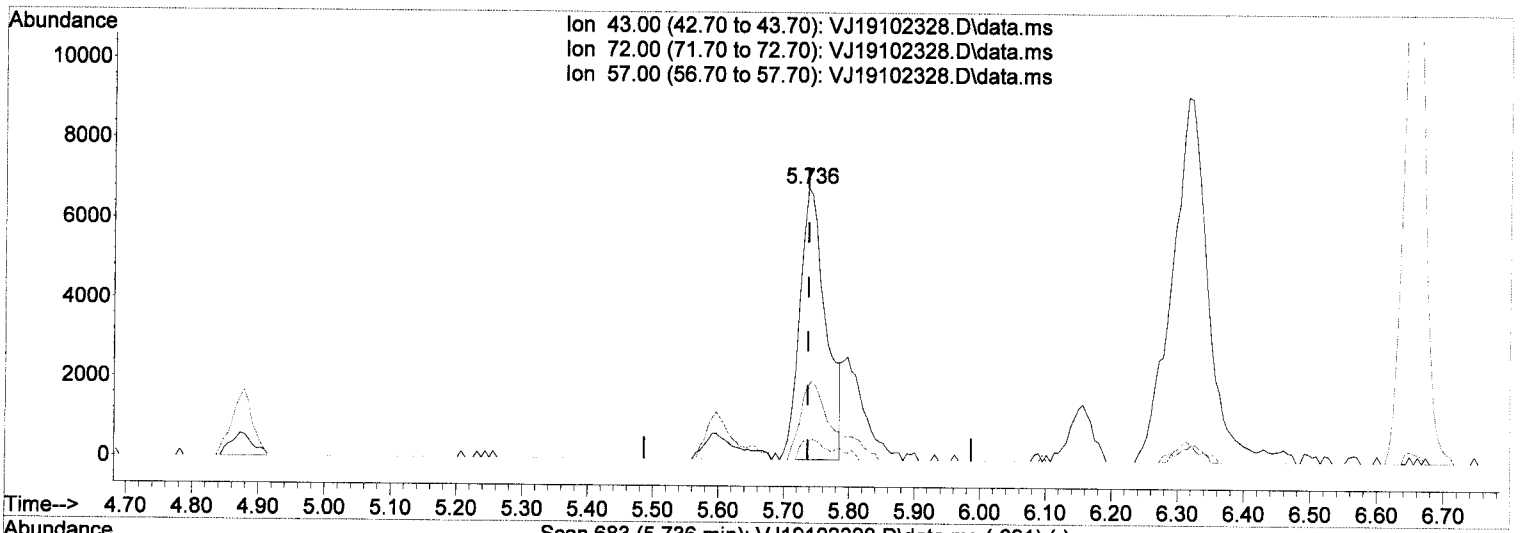
response 8805

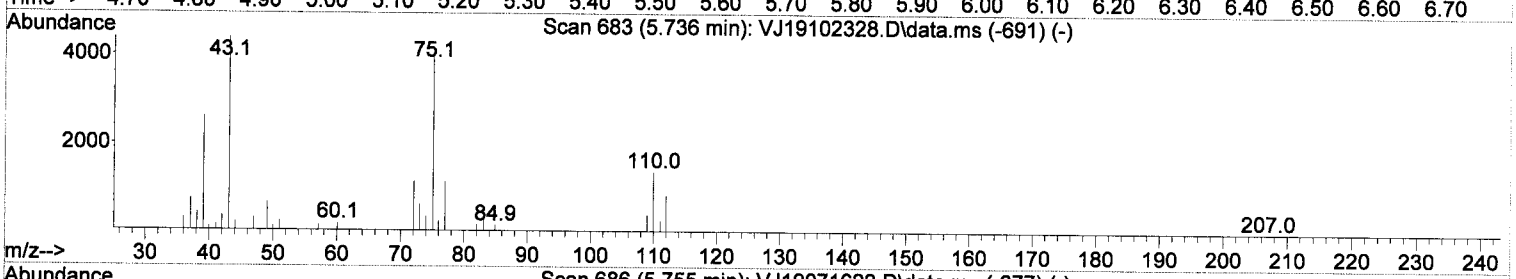
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

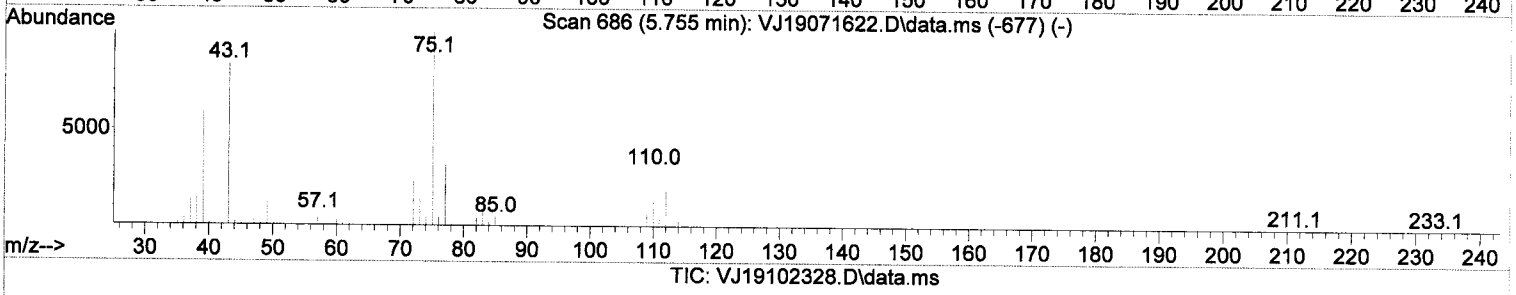
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 12.17 ug/L

response 19029

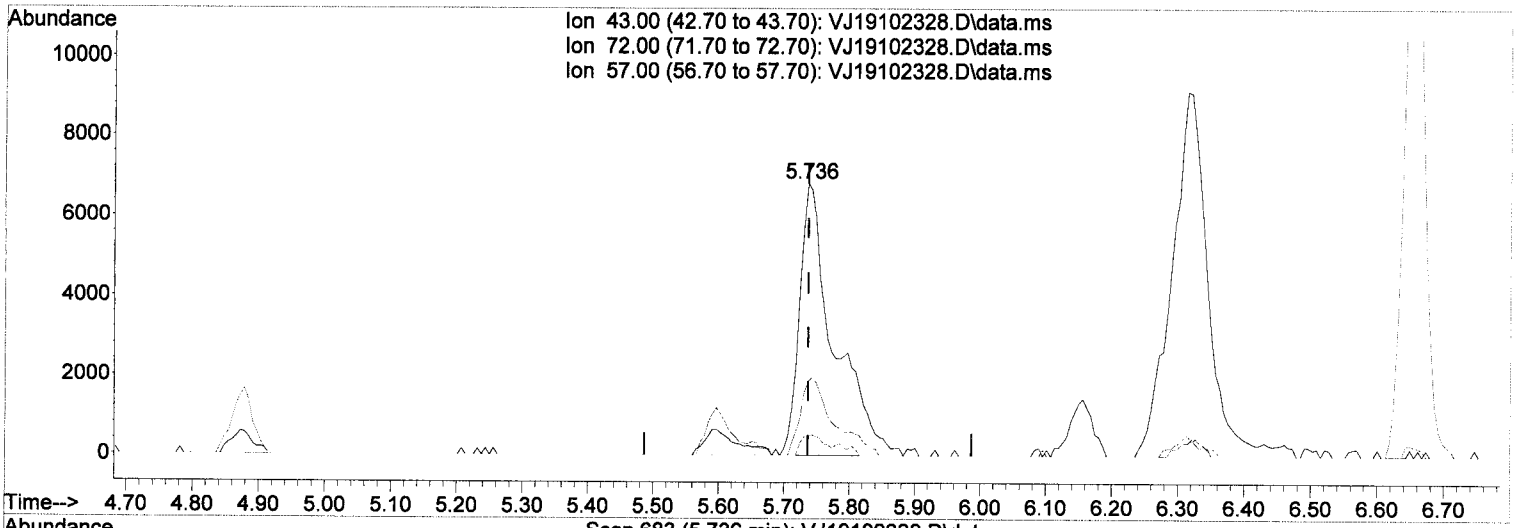
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

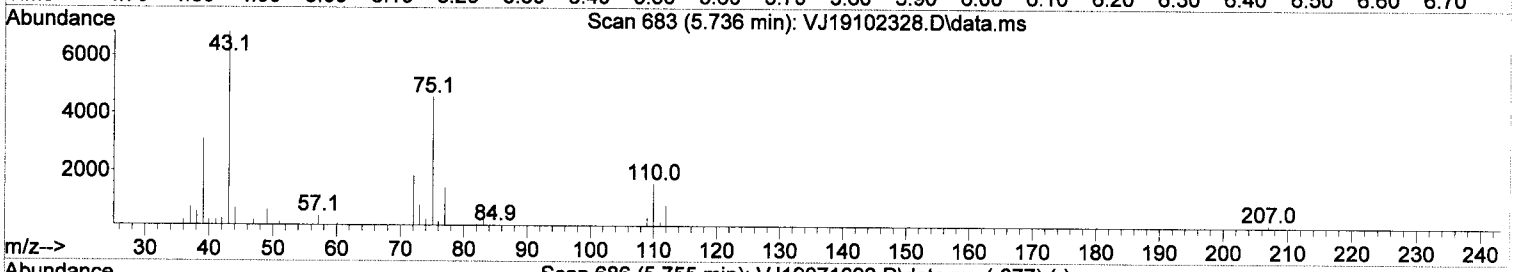
M.2.

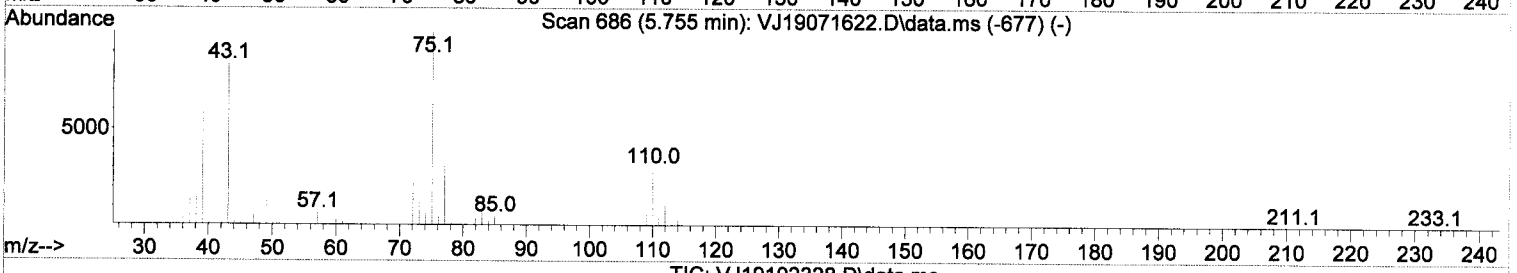
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 16.13 ug/L (m)

response 25206

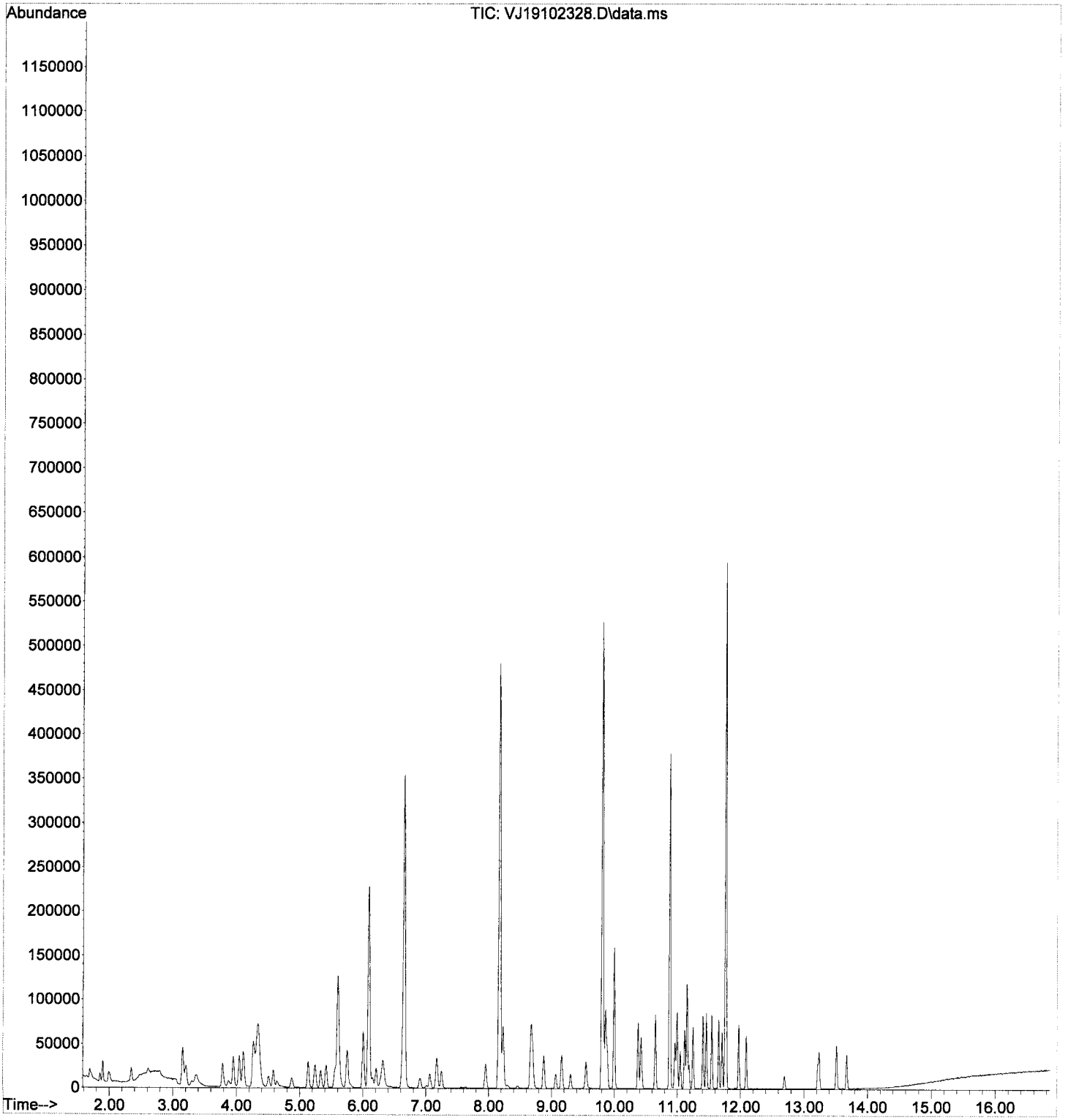
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

M 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	102360	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	273877	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	114313	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	80977	58.52	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	313300	70.68	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	383154	51.52	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	84648	48.26	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	22844	9.07	ug/L		98
3) Chloromethane	1.904	50	38733	14.14	ug/L		99
4) Vinyl Chloride	1.995	62	29953	12.73	ug/L		97
5) Bromomethane	2.354	96	15471	13.11	ug/L		94
6) Chloroethane	2.476	64	2873	2.58	ug/L		89
7) Trichlorofluoromethane	2.610	101	7278	2.09	ug/L		94
8) Ethanol	3.352	45	63621	1130.18	ug/L		92
9) 1,1-Dichloroethene	3.151	61	37595	12.09	ug/L		92
10) Carbon Disulfide	3.163	76	63760	16.46	ug/L		99
11) Freon 113	3.212	101	23337	16.73	ug/L		83
12) Iodomethane	3.297	142	6769	22.54	ug/L		98
13) Methylene Chloride	3.784	84	24987	15.10	ug/L		89
14) Acetone	3.875	43	~~23103~~	20.43	ug/L		98
15) t-1,2-Dichloroethene	3.954	61	40127	14.31	ug/L		97
16) n-Hexane	4.051	86	6208	20.93	ug/L	#	78
17) Methyl-tert-butyl-ether	4.112	73	90735	11.90	ug/L		97
18) tert-Butanol (TBA)	4.319	59	~~30102~~	66.45	ug/L	#	92
19) Diisopropyl ether (DIPE)	4.508	45	23966	3.27	ug/L		95
20) 1,1-Dichloroethane	4.587	63	42318	13.14	ug/L		96
21) Acrylonitrile	4.641	53	~~13627~~	15.35	ug/L		98
22) Ethyl-tert-butyl ether...	4.879	59	21616	2.97	ug/L		91
23) c-1,2-Dichloroethene	5.134	61	38569	12.71	ug/L		98
24) 2,2-Dichloropropane	5.244	77	38645	10.87	ug/L		97
25) Bromochloromethane	5.329	49	23752	14.09	ug/L		77
26) Chloroform	5.420	83	46150	11.73	ug/L		97
27) Carbon Tetrachloride	5.560	117	30244	9.29	ug/L		97
28) Tetrahydrofuran	5.590	42	18946	17.65	ug/L		99
29) 1,1,1-Trichloroethane	5.627	97	41348	10.67	ug/L		91
31) 1,1-Dichloropropene	5.749	75	39421	13.07	ug/L		91
32) 2-Butanone (MEK)	5.737	43	~~37992~~	23.50	ug/L		98
33) Benzene	6.004	78	128327	16.49	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	20102	2.79	ug/L		98
35) 1,2-Dichloroethane (EDC)	6.211	62	40742	9.16	ug/L		98
36) iso-Butyl Alcohol	6.308	43	72797	434.13	ug/L		88
38) Trichloroethene (TCE)	6.625	130	26231	13.92	ug/L		92
39) tert-Amyl ethyl ether ...	6.905	59	14950	2.81	ug/L		88
40) Dibromomethane	7.063	93	16435	12.53	ug/L	#	82
41) 1,2-Dichloropropane	7.172	63	32431	15.97	ug/L		98
42) Bromodichloromethane	7.251	83	31433	10.53	ug/L		100
44) c-1,3-Dichloropropene	7.951	75	40620	9.65	ug/L		97
46) Toluene	8.231	91	124843	11.07	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	24512	10.76	ug/L		88
48) 4-Methyl-2-Pentanone (...	8.669	43	77248	21.09	ug/L		100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

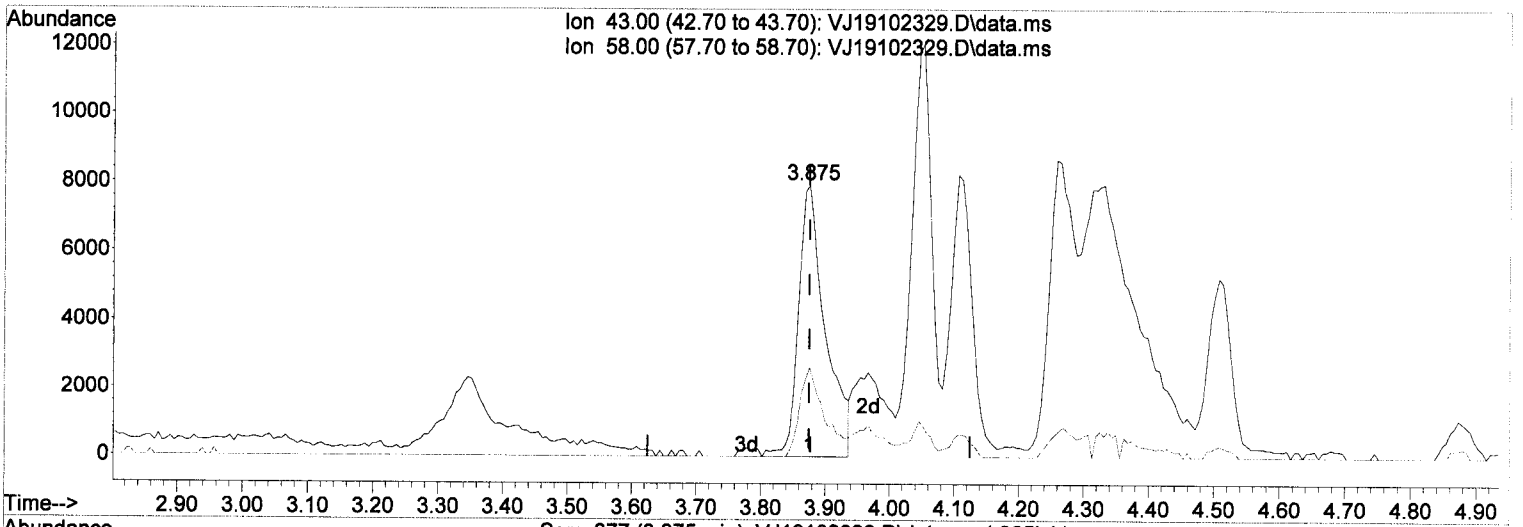
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	41087	9.13	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	26718	11.18	ug/L		95
51) Dibromochloromethane	9.064	129	19925	7.84	ug/L		98
52) 1,3-Dichloropropane	9.162	76	49530	10.23	ug/L		98
53) 1,2-Dibromoethane (EDB)	9.301	107	25458	10.03	ug/L		99
54) 2-Hexanone	9.545	43	53666	19.46	ug/L		100
55) Chlorobenzene	9.819	112	72570	10.67	ug/L		93
56) Ethylbenzene	9.861	91	127729	9.84	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.886	131	22448	8.70	ug/L		97
58) m,p-Xylenes (2)	9.995	91	185431	18.65	ug/L		96
59) o-Xylene	10.378	91	86841	8.79	ug/L		95
60) Styrene	10.421	104	55991	9.04	ug/L		95
61) Bromoform	10.439	173	12367	7.61	ug/L		98
62) Isopropylbenzene	10.652	105	107252	9.40	ug/L		98
65) Bromobenzene	10.962	156	24784	11.39	ug/L	#	71
66) n-Propylbenzene	10.999	91	131143	10.46	ug/L		96
67) 1,1,2,2-Tetrachloroethane	11.047	83	37925	14.32	ug/L		95
68) 2-Chlorotoluene	11.120	126	23286	10.88	ug/L		92
69) 1,3,5-Trimethylbenzene	11.157	105	83861	9.83	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	12228	10.73	ug/L		98
71) t-1,4-Dichloro-2-butene	11.187	88	4566	8.26	ug/L	#	78
72) 4-Chlorotoluene	11.248	91	76302	9.85	ug/L		92
73) tert-Butylbenzene	11.406	91	48165	8.67	ug/L		91
74) 1,2,4-Trimethylbenzene	11.461	105	85499	9.91	ug/L		95
75) sec-Butylbenzene	11.546	105	107745	10.74	ug/L		95
76) 4-Isopropyltoluene	11.656	119	80264	9.51	ug/L		97
77) 1,3-Dichlorobenzene	11.711	146	45072	10.66	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	45209	11.06	ug/L		92
79) n-Butylbenzene	11.972	91	74888	9.62	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	41072	10.52	ug/L		95
81) 1,2-Dibromo-3-Chloropr...	12.696	157	6225	10.03	ug/L	#	50
82) Hexachlorobutadiene	13.219	223	5408	8.83	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	24214	9.88	ug/L		95
84) Naphthalene	13.517	128	83341	10.29	ug/L		99
85) 1,2,3-Trichlorobenzene	13.676	180	23691	10.11	ug/L		96

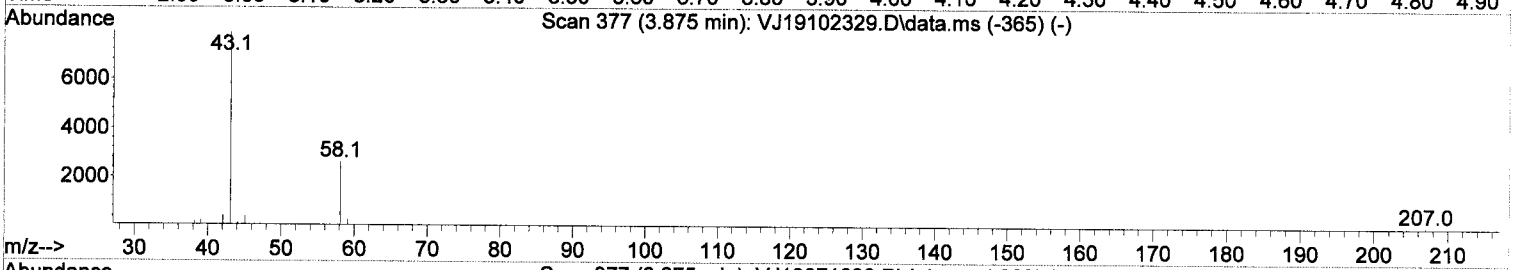
(#) = qualifier out of range (m) = manual integration (+) = signals summed

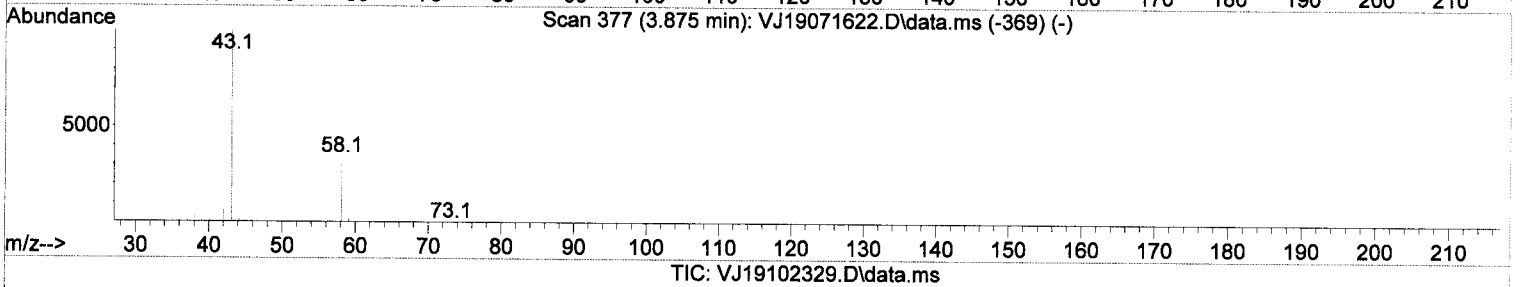
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(14) Acetone

3.875min (+ 0.001) 20.43 ug/L

response 23103

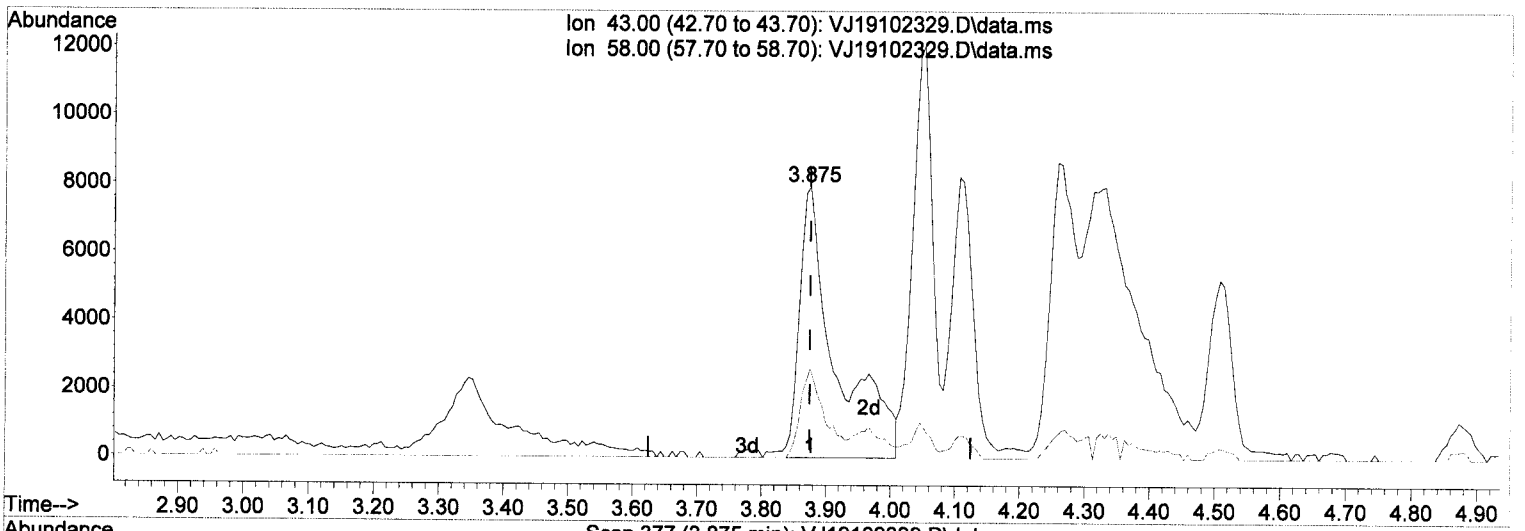
M.2.

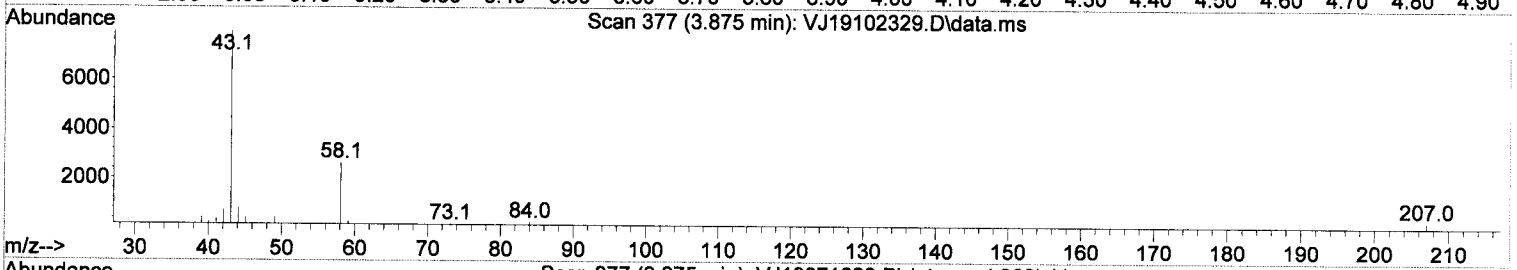
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

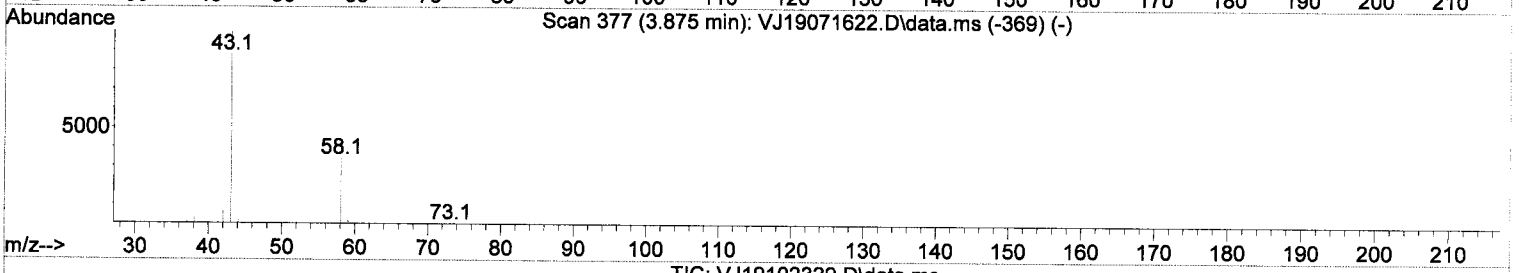
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(14) Acetone

3.875min (+ 0.001) 27.89 ug/L m

response 31545

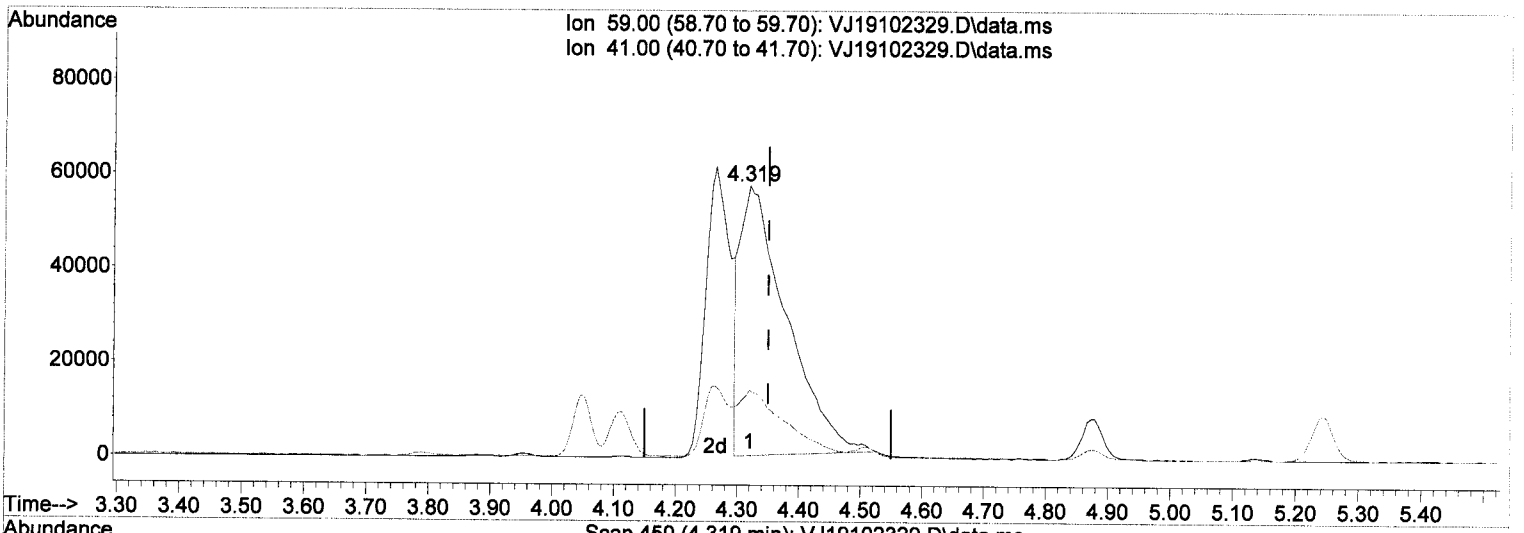
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

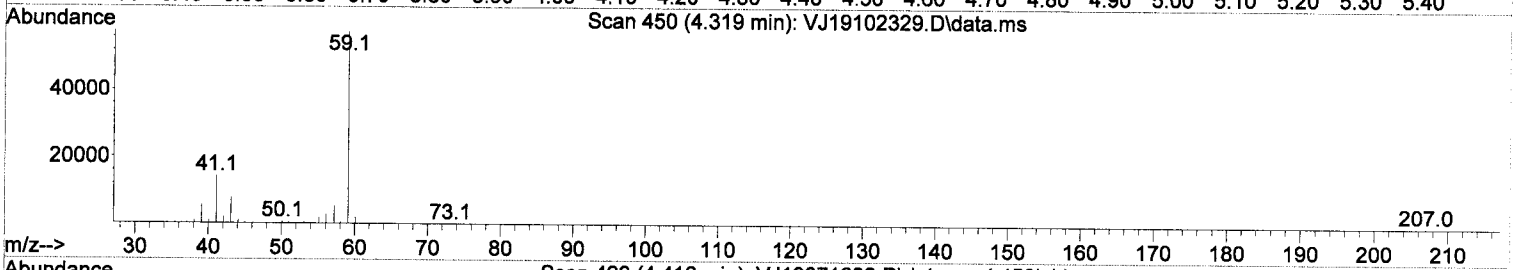
VM 12/24/19

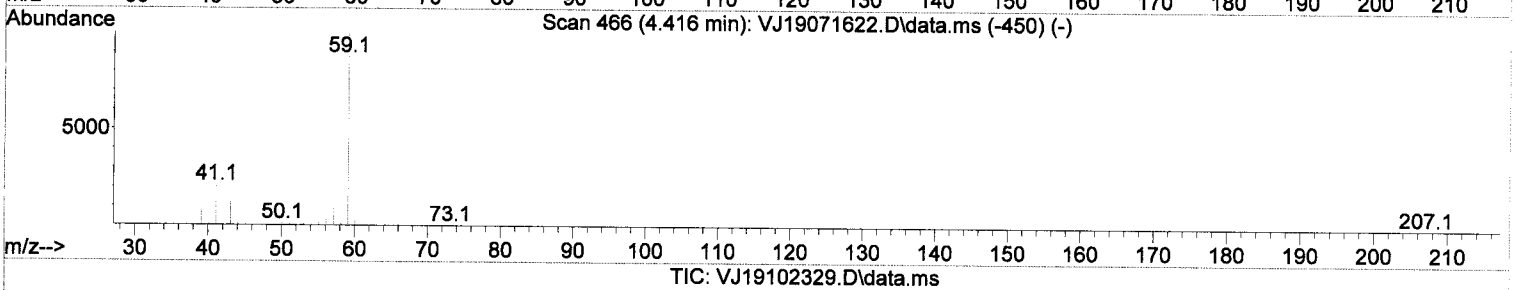
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 565.45 ug/L

response 301023

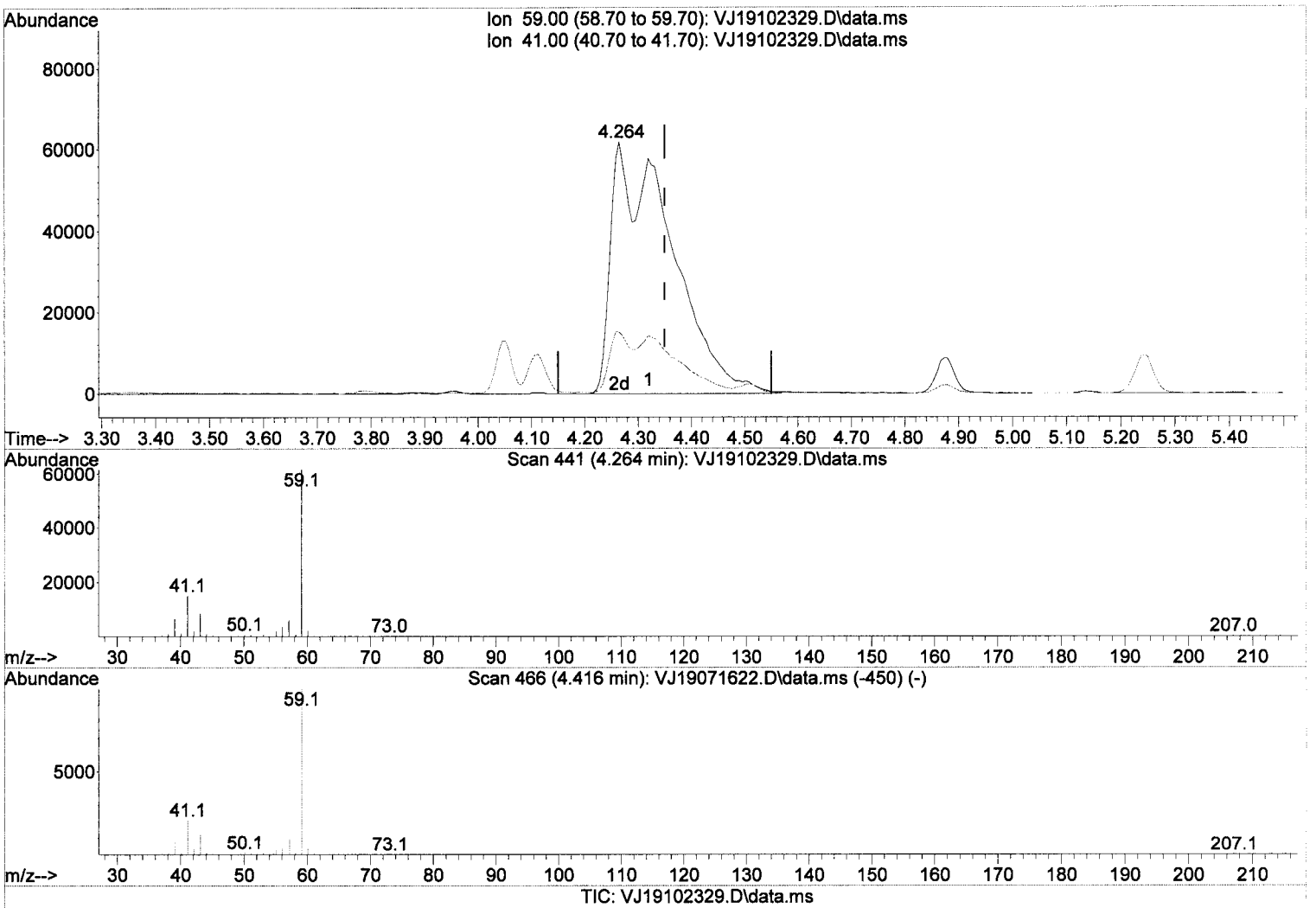
M.2.

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.77#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102329.D\data.ms

(18) tert-Butanol (TBA)

4.264min (-0.085) 891.56 ug/L m

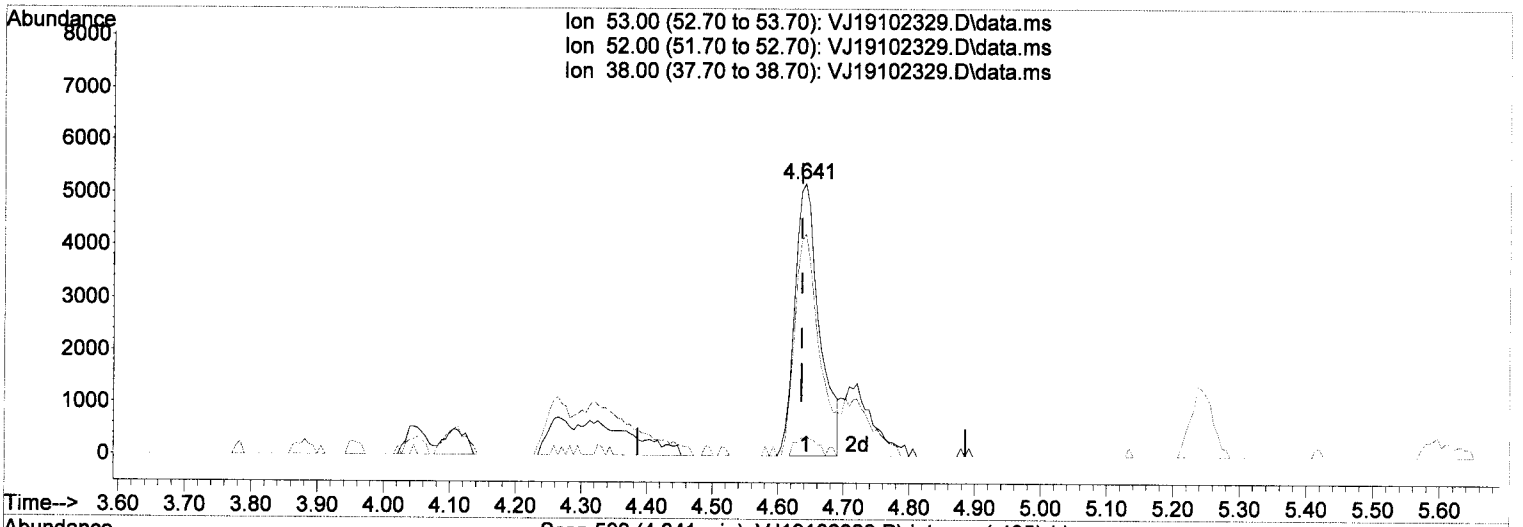
response 487639

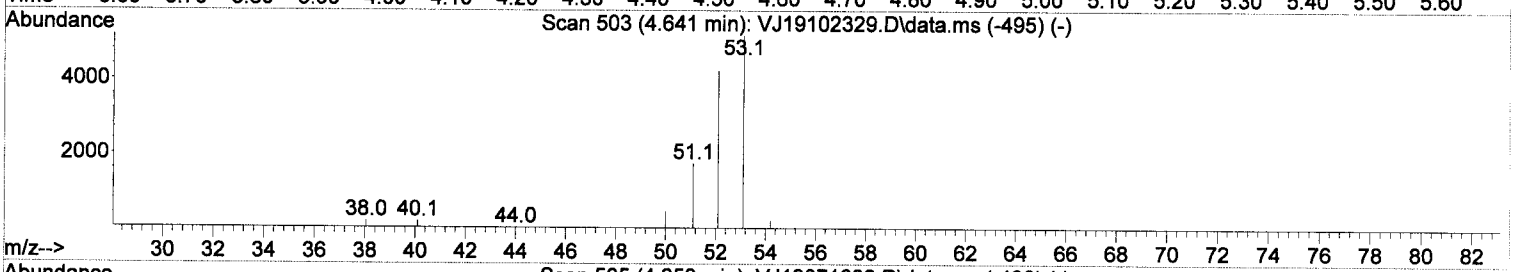
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.53#
0.00	0.00	0.00
0.00	0.00	0.00

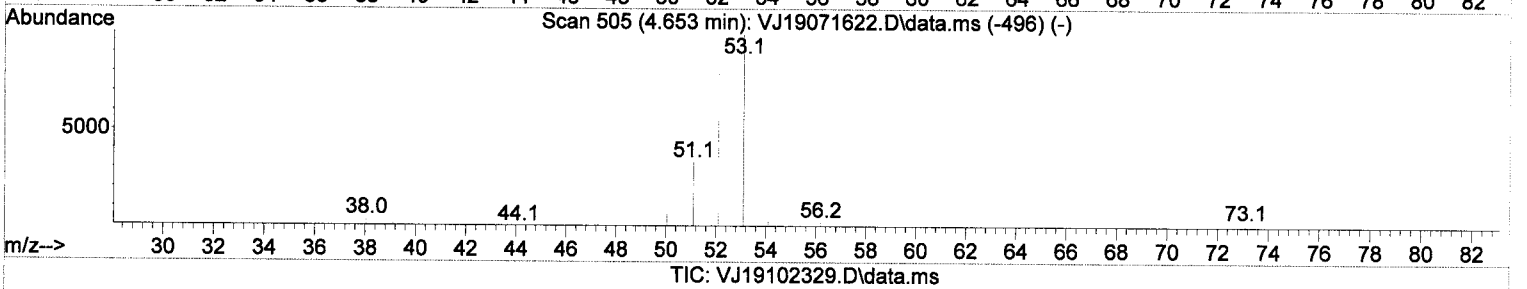
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(21) Acrylonitrile

4.641min (+ 0.006) 15.35 ug/L

response 13627

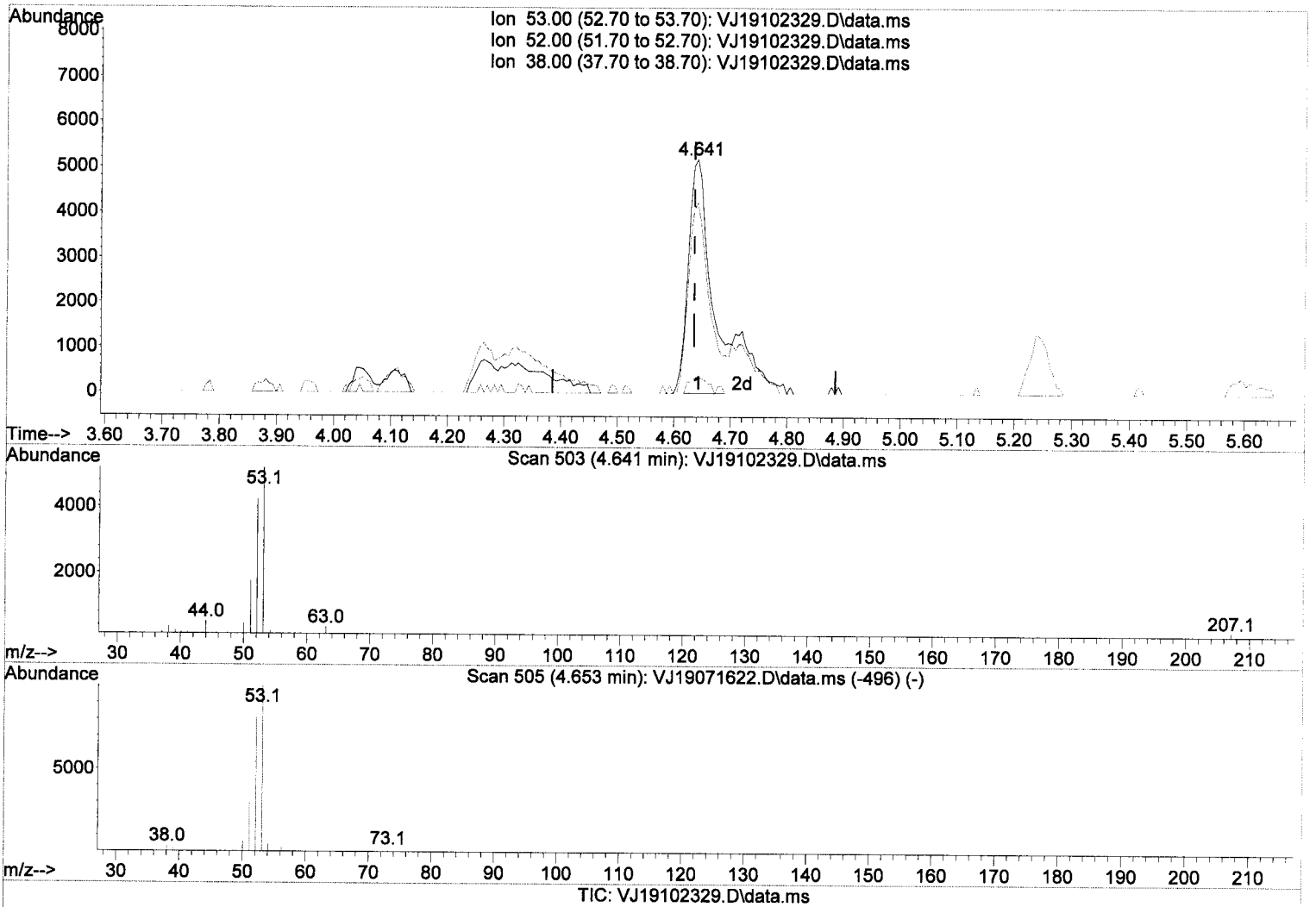
M.2.

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



(21) Acrylonitrile

4.641min (+ 0.006) 20.40 ug/L (m)

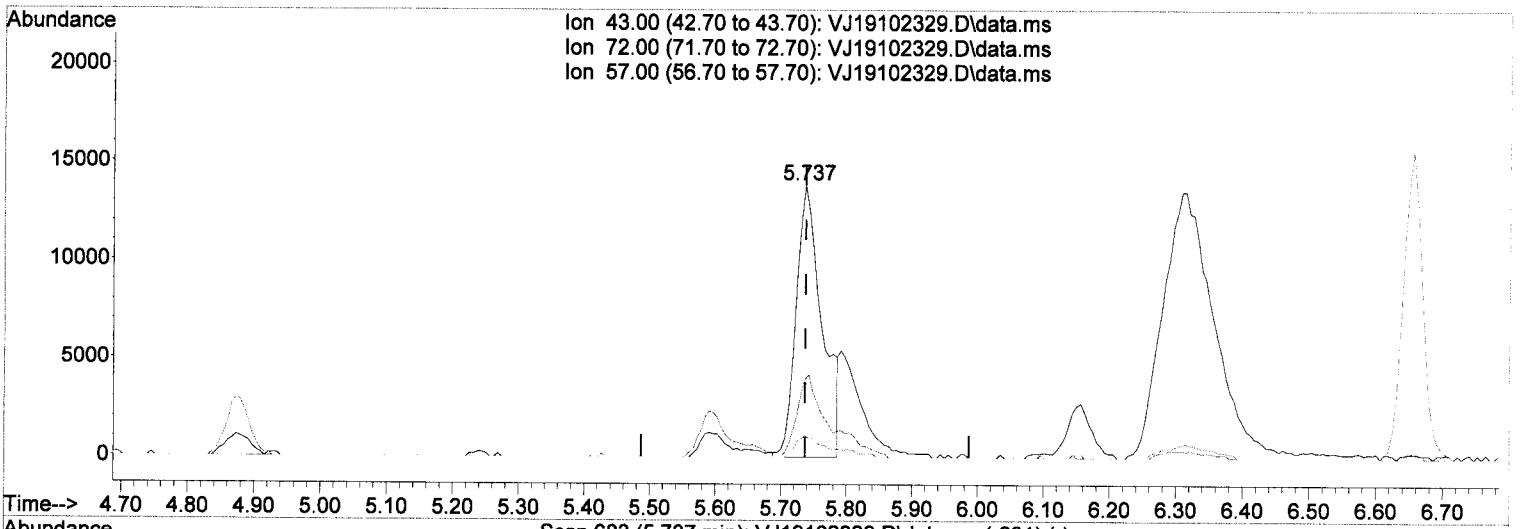
response 18110

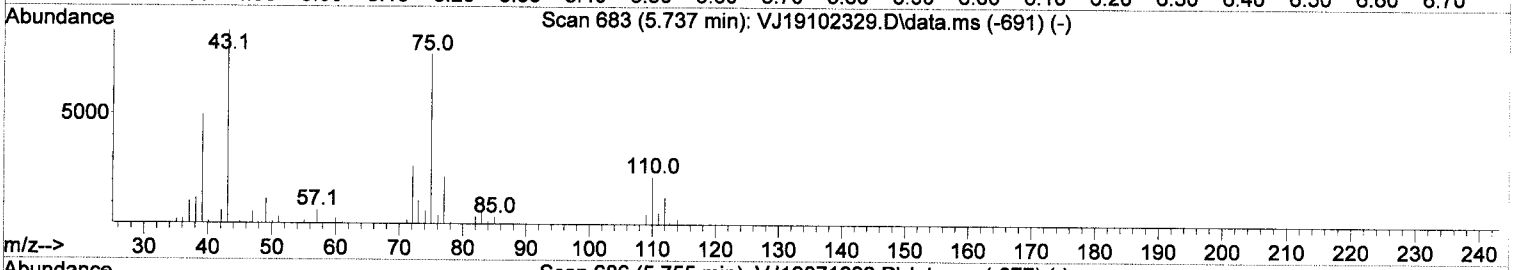
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

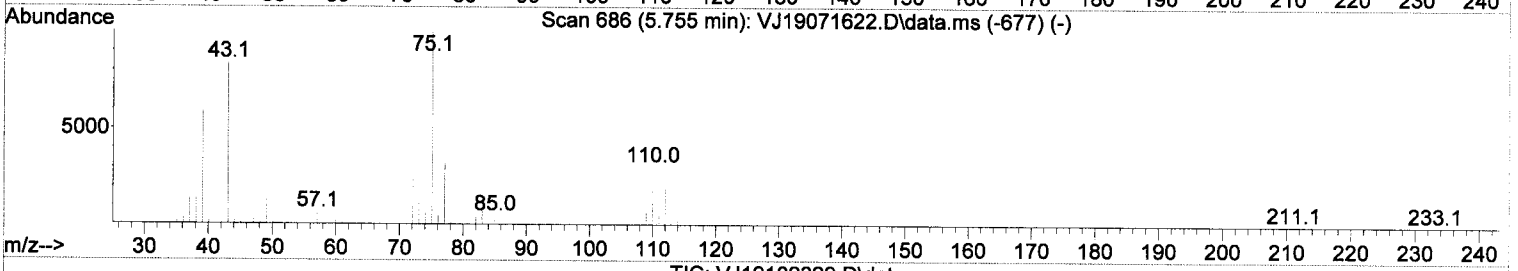
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(32) 2-Butanone (MEK)

5.737min (+ 0.001) 23.50 ug/L

response 37992

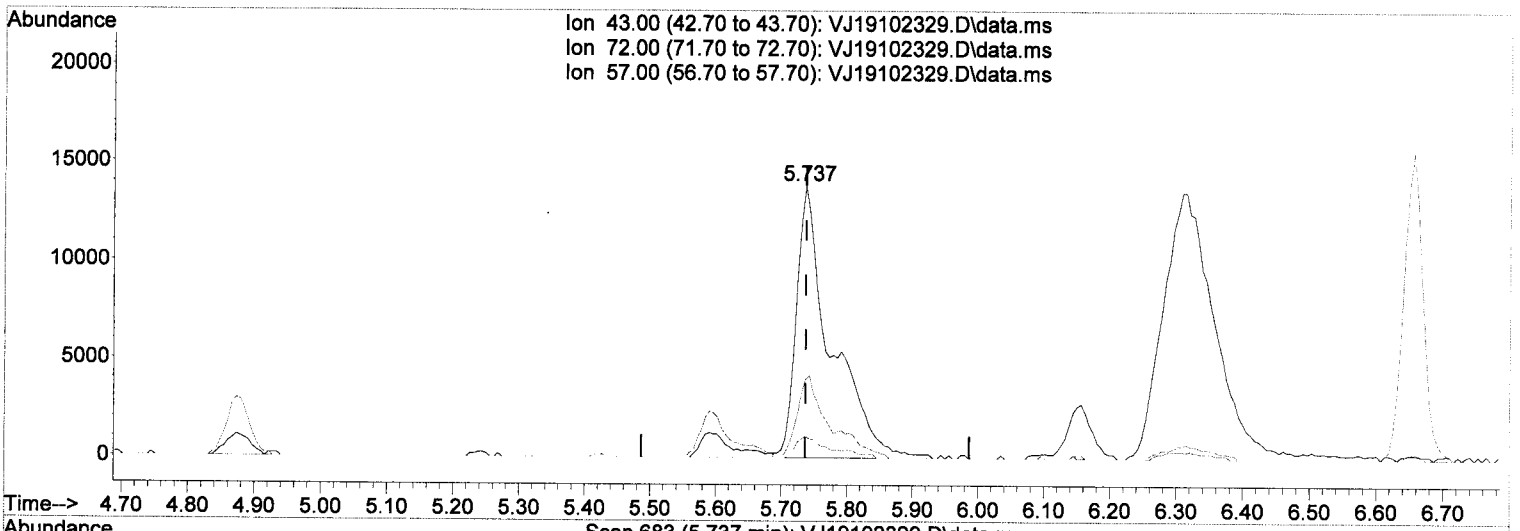
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.02
57.00	7.20	8.14
0.00	0.00	0.00

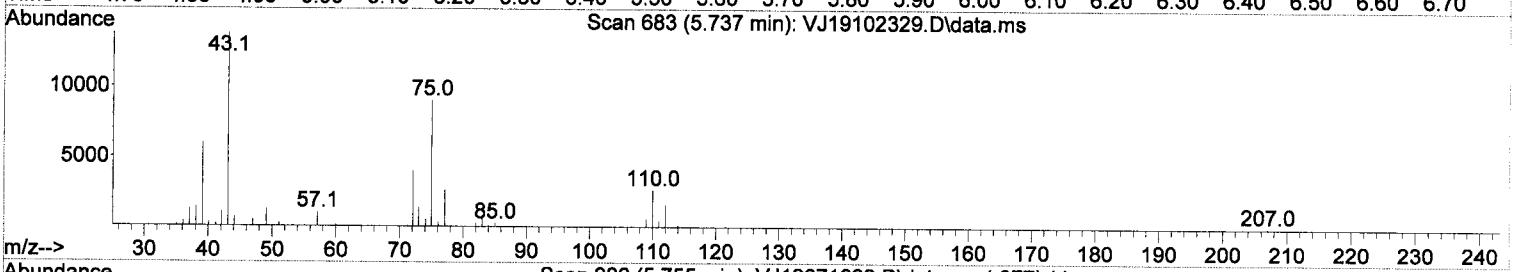
M.2

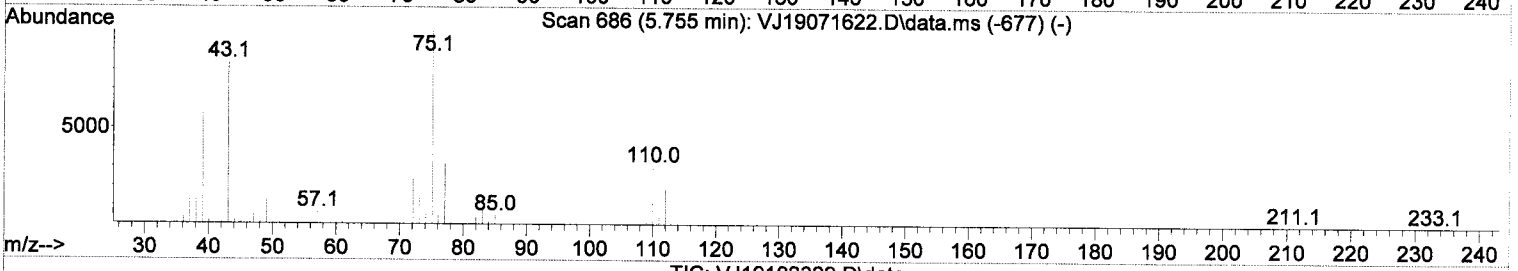
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(32) 2-Butanone (MEK)

5.737min (+ 0.001) 31.57 ug/L m

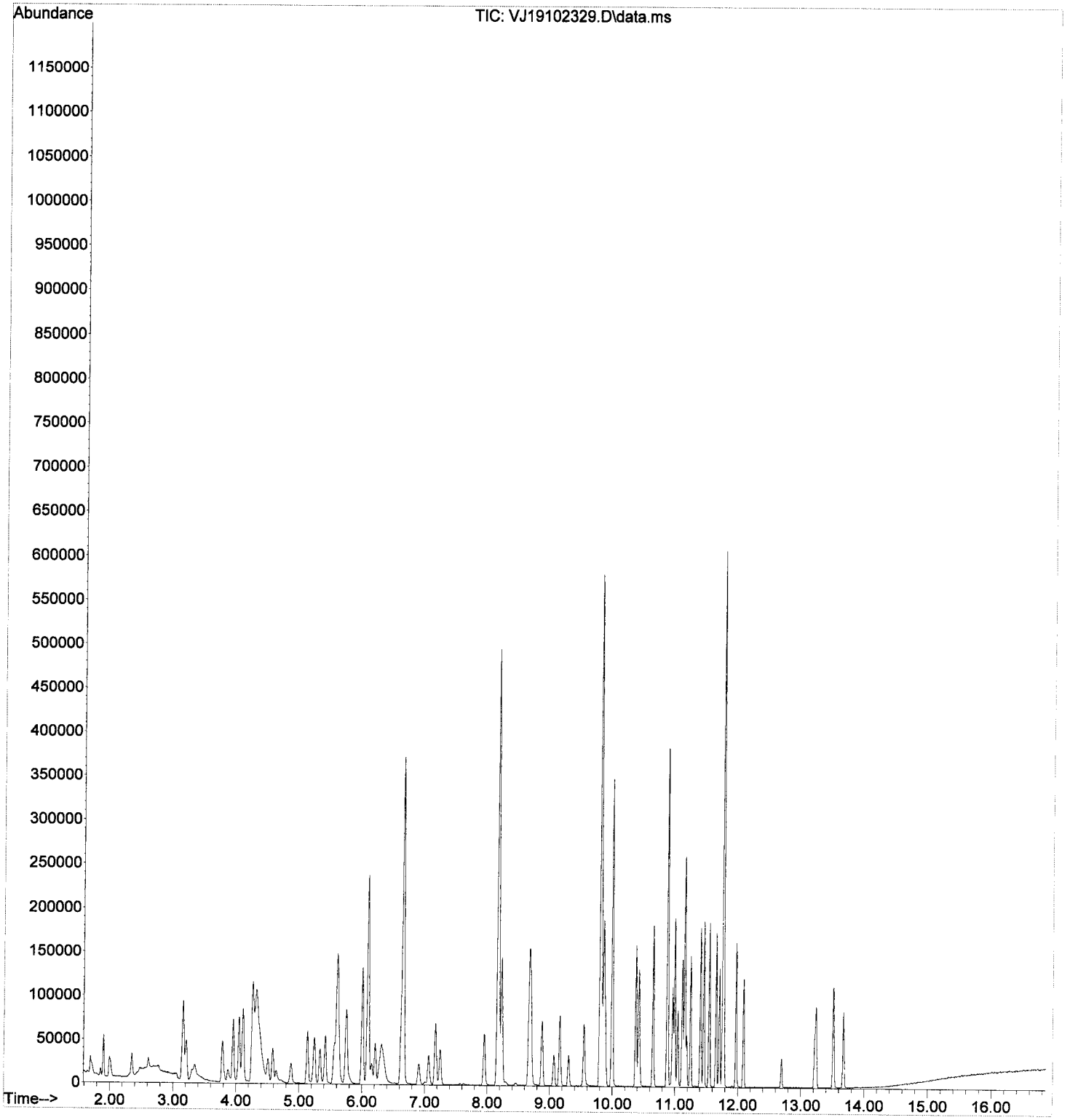
response 51036

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.89
57.00	7.20	8.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94087	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252726	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	111564	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	74311	58.43	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285833	70.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	349892	50.99	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	79925	46.69	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	42729	18.45	ug/L		97
3) Chloromethane	1.898	50	73020	29.00	ug/L		99
4) Vinyl Chloride	1.995	62	57870	26.53	ug/L		94
5) Bromomethane	2.348	96	25485	25.66	ug/L		96
6) Chloroethane	2.470	64	6188	6.06	ug/L		84
7) Trichlorofluoromethane	2.597	101	12628	3.95	ug/L		98
8) Ethanol	3.315	45	122288	2363.38	ug/L		90
9) 1,1-Dichloroethene	3.139	61	70432	24.64	ug/L		89
10) Carbon Disulfide	3.151	76	120674	33.90	ug/L		99
11) Freon 113	3.200	101	43205	33.70	ug/L		85
12) Iodomethane	3.291	142	14327	43.60	ug/L		93
13) Methylene Chloride	3.778	84	46523	32.83	ug/L		91
14) Acetone	3.869	43	~~45862~~	44.12	ug/L		98
15) t-1,2-Dichloroethene	3.948	61	73863	28.66	ug/L		97
16) n-Hexane	4.045	86	11103	39.59	ug/L	#	76
17) Methyl-tert-butyl-ether	4.106	73	176865	25.24	ug/L		99
18) tert-Butanol (TBA)	4.264	59	1026400	1900.95	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.508	45	46804	6.95	ug/L		90
20) 1,1-Dichloroethane	4.581	63	80359	27.16	ug/L		99
21) Acrylonitrile	4.635	53	~~28427~~	24.84	ug/L		97
22) Ethyl-tert-butyl ether...	4.873	59	41722	6.25	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	73333	26.29	ug/L		95
24) 2,2-Dichloropropane	5.244	77	72158	22.08	ug/L		99
25) Bromochloromethane	5.329	49	45927	29.64	ug/L		79
26) Chloroform	5.414	83	86201	23.83	ug/L		96
27) Carbon Tetrachloride	5.554	117	58891	19.68	ug/L		94
28) Tetrahydrofuran	5.590	42	37130	37.63	ug/L		100
29) 1,1,1-Trichloroethane	5.621	97	79966	22.45	ug/L		95
31) 1,1-Dichloropropene	5.749	75	75436	27.22	ug/L		93
32) 2-Butanone (MEK)	5.737	43	101470	68.29	ug/L		99
33) Benzene	6.004	78	240789	33.67	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	38296	5.78	ug/L		98
35) 1,2-Dichloroethane (EDC)	6.205	62	77917	19.05	ug/L		97
36) iso-Butyl Alcohol	6.290	43	154175	1000.29	ug/L		95
38) Trichloroethene (TCE)	6.625	130	49869	28.48	ug/L		92
39) tert-Amyl ethyl ether ...	6.905	59	29237	5.97	ug/L		87
40) Dibromomethane	7.063	93	31731	26.33	ug/L		86
41) 1,2-Dichloropropane	7.172	63	61016	32.69	ug/L		98
42) Bromodichloromethane	7.251	83	63632	23.20	ug/L		95
44) c-1,3-Dichloropropene	7.951	75	80676	20.76	ug/L		98
46) Toluene	8.231	91	237451	22.82	ug/L		99
47) Tetrachloroethene (PCE)	8.681	166	46373	22.07	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.669	43	161301	47.73	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

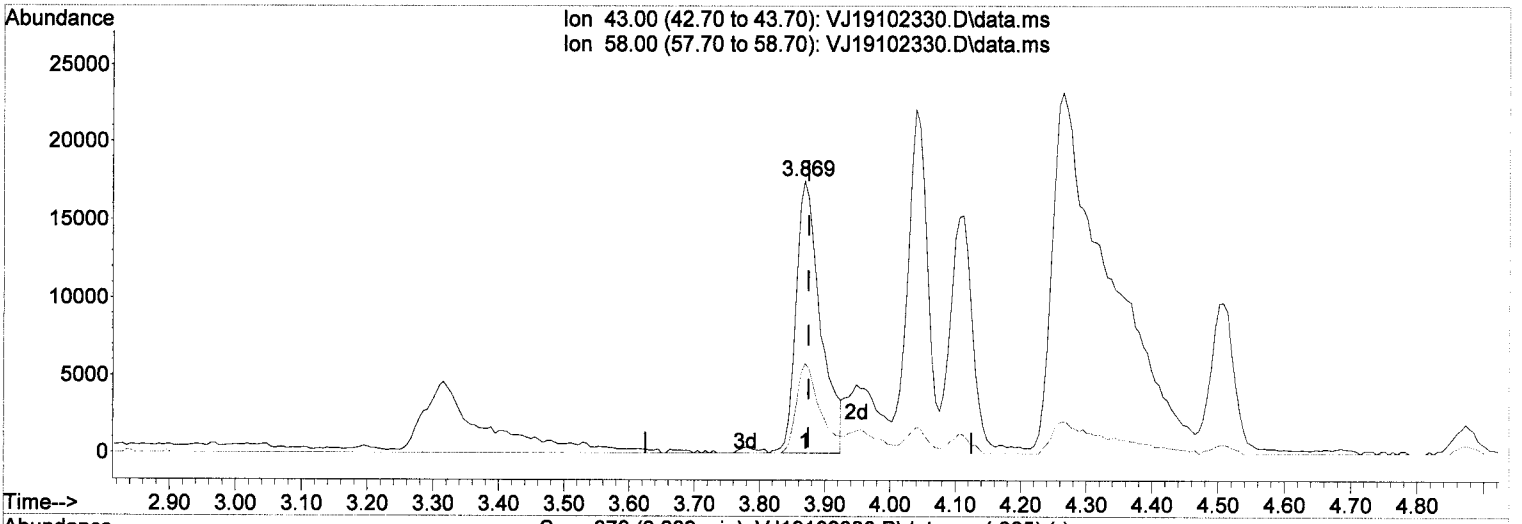
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	81643	19.65	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	51573	23.28	ug/L		95
51) Dibromochloromethane	9.064	129	40104	17.09	ug/L		99
52) 1,3-Dichloropropane	9.162	76	95374	21.36	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	50265	21.47	ug/L		96
54) 2-Hexanone	9.545	43	118204	46.44	ug/L		99
55) Chlorobenzene	9.825	112	137767	21.94	ug/L		95
56) Ethylbenzene	9.861	91	245666	20.51	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.886	131	44112	18.53	ug/L		97
58) m,p-Xylenes (2)	9.995	91	359257	39.16	ug/L		97
59) o-Xylene	10.378	91	172231	18.89	ug/L		95
60) Styrene	10.421	104	116013	20.30	ug/L		95
61) Bromoform	10.439	173	26337	16.76	ug/L		97
62) Isopropylbenzene	10.652	105	211570	20.10	ug/L		97
65) Bromobenzene	10.962	156	47411	22.32	ug/L	#	69
66) n-Propylbenzene	10.999	91	255618	20.89	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.047	83	74780	28.94	ug/L		97
68) 2-Chlorotoluene	11.120	126	45697	21.88	ug/L		87
69) 1,3,5-Trimethylbenzene	11.157	105	167903	20.16	ug/L		96
70) 1,2,3-Trichloropropane	11.151	110	23923	21.50	ug/L		93
71) t-1,4-Dichloro-2-butene	11.187	88	9771	18.12	ug/L	#	85
72) 4-Chlorotoluene	11.248	91	150657	19.93	ug/L		93
73) tert-Butylbenzene	11.406	91	95439	17.61	ug/L		89
74) 1,2,4-Trimethylbenzene	11.461	105	167688	19.91	ug/L		97
75) sec-Butylbenzene	11.546	105	207744	21.23	ug/L		96
76) 4-Isopropyltoluene	11.656	119	160438	19.48	ug/L		97
77) 1,3-Dichlorobenzene	11.711	146	87437	21.18	ug/L		96
78) 1,4-Dichlorobenzene	11.778	146	87387	21.91	ug/L		95
79) n-Butylbenzene	11.972	91	148499	19.54	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	80490	21.12	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	13313	21.98	ug/L	#	58
82) Hexachlorobutadiene	13.219	223	10256	17.15	ug/L		94
83) 1,2,4-Trichlorobenzene	13.244	180	48878	20.43	ug/L		95
84) Naphthalene	13.517	128	180749	22.85	ug/L		98
85) 1,2,3-Trichlorobenzene	13.676	180	47658	20.84	ug/L		97

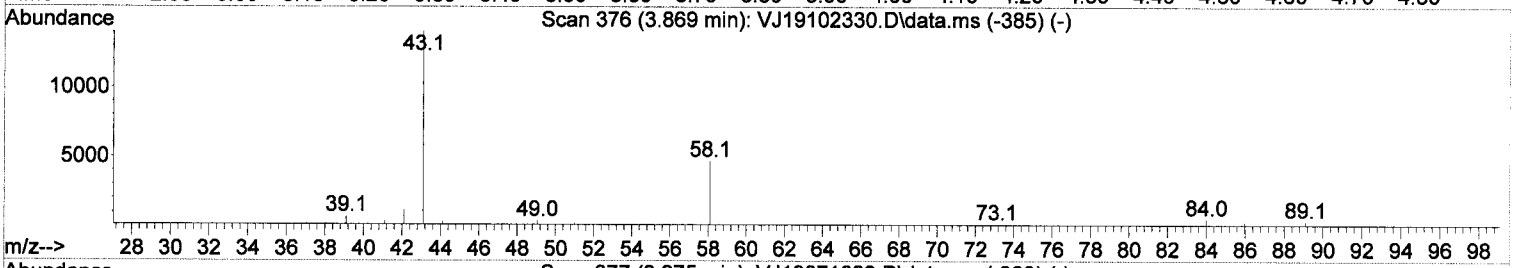
(#) = qualifier out of range (m) = manual integration (+) = signals summed

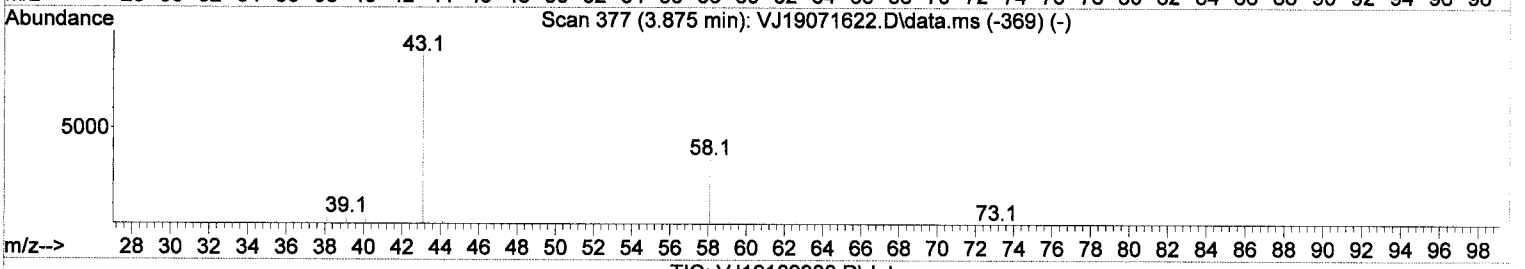
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(14) Acetone

3.869min (-0.005) 44.12 ug/L

response 45862

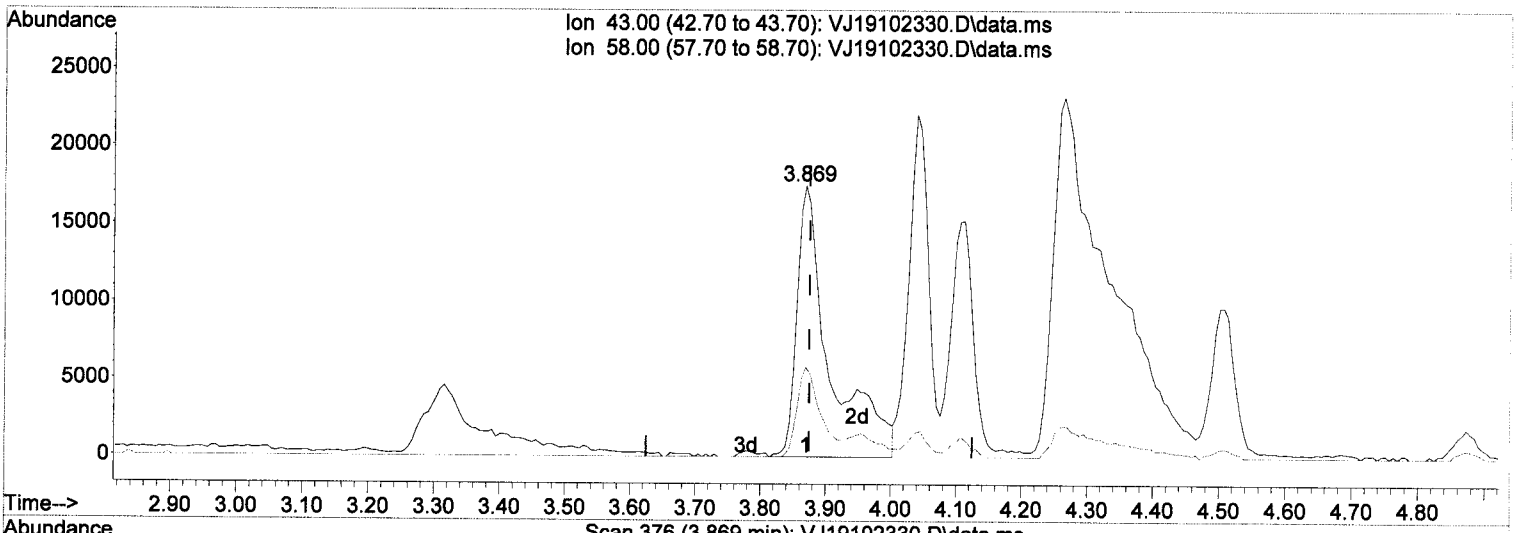
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

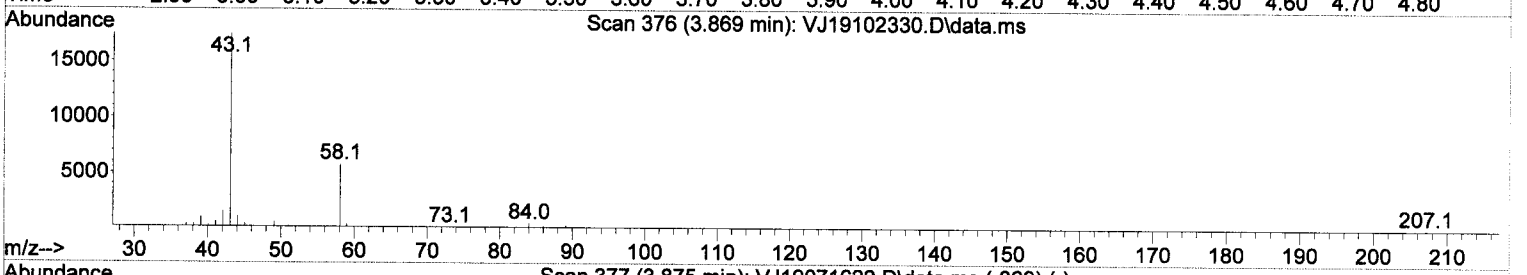
MJ.

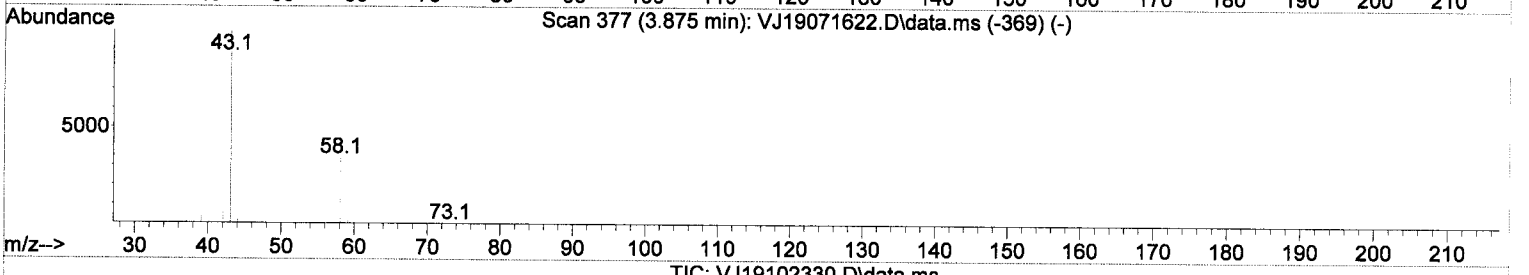
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(14) Acetone

3.869min (-0.005) 59.35 ug/L (m)

response 61696

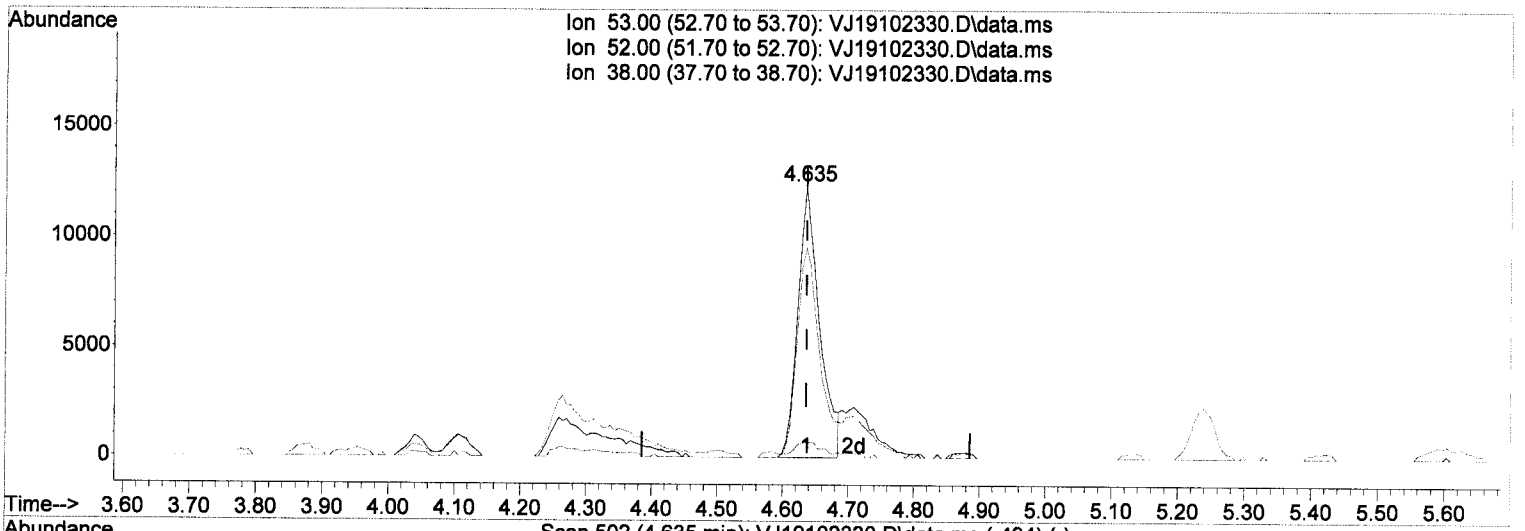
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

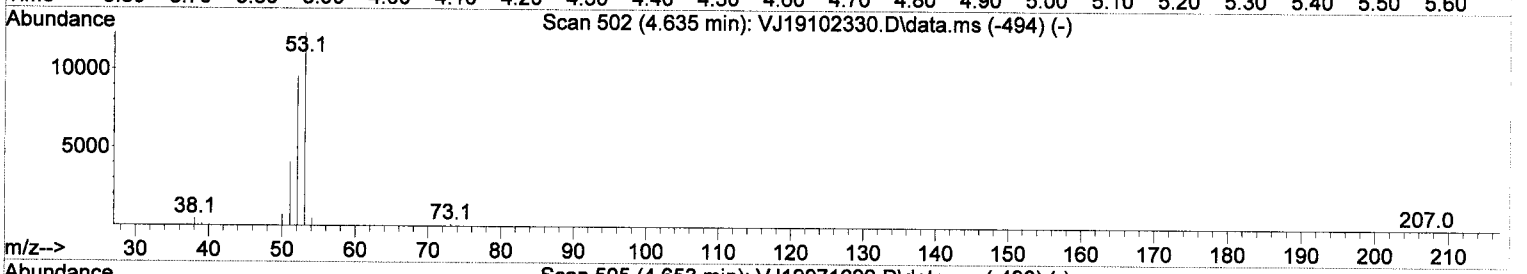
M 12/24/19

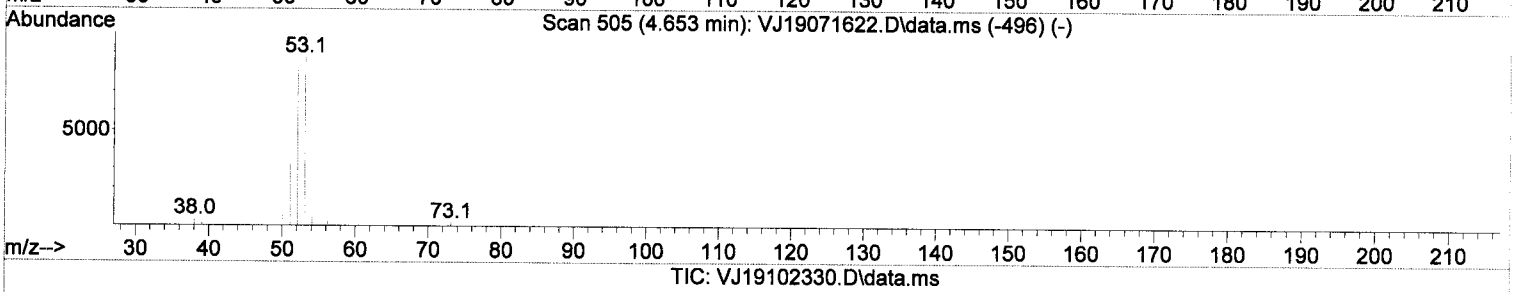
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 34.84 ug/L

response 28427

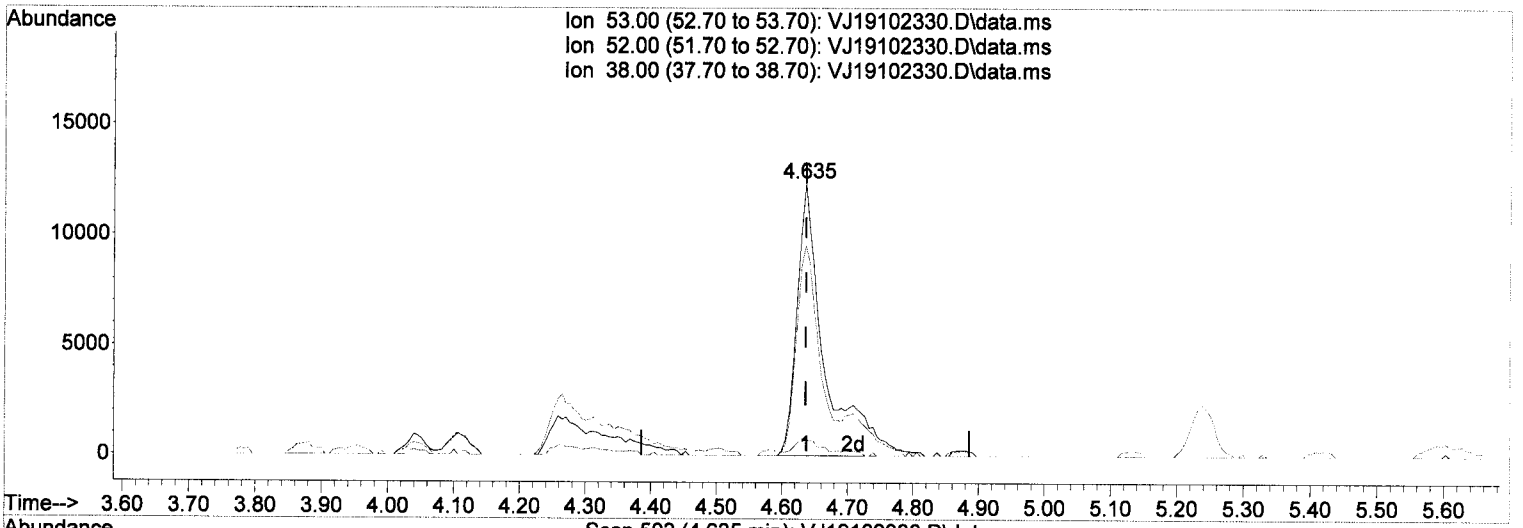
M.2.

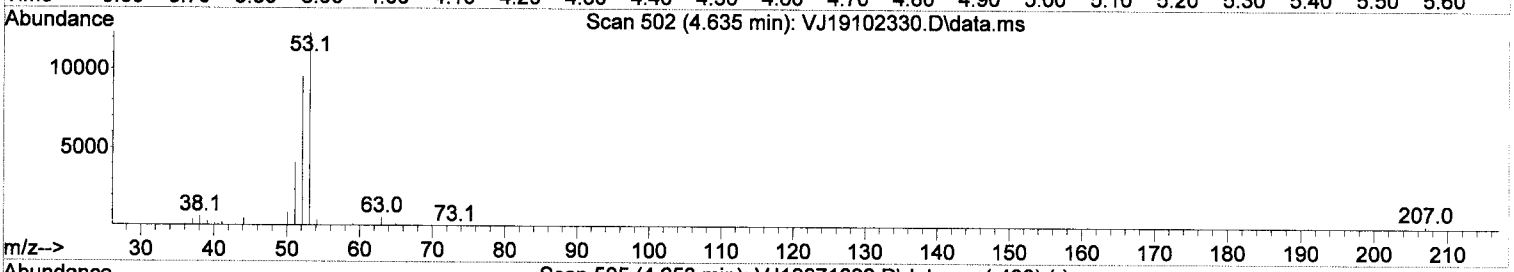
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	3.70
0.00	0.00	0.00

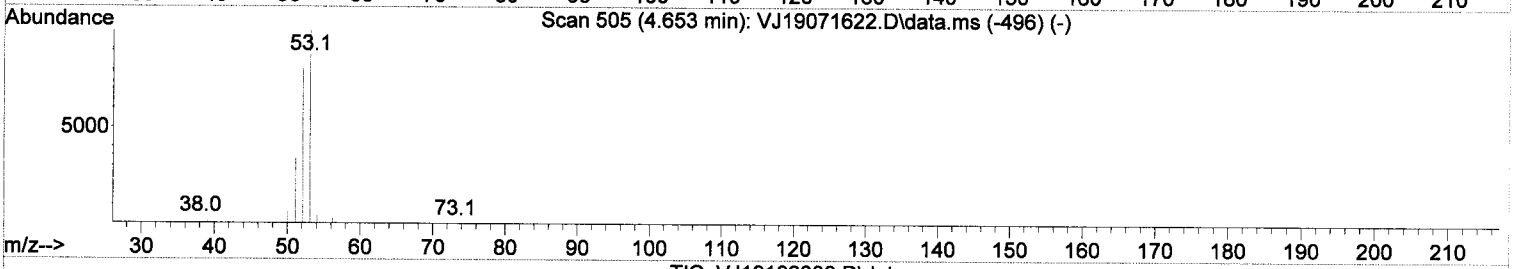
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 44.64 ug/L

response 36419

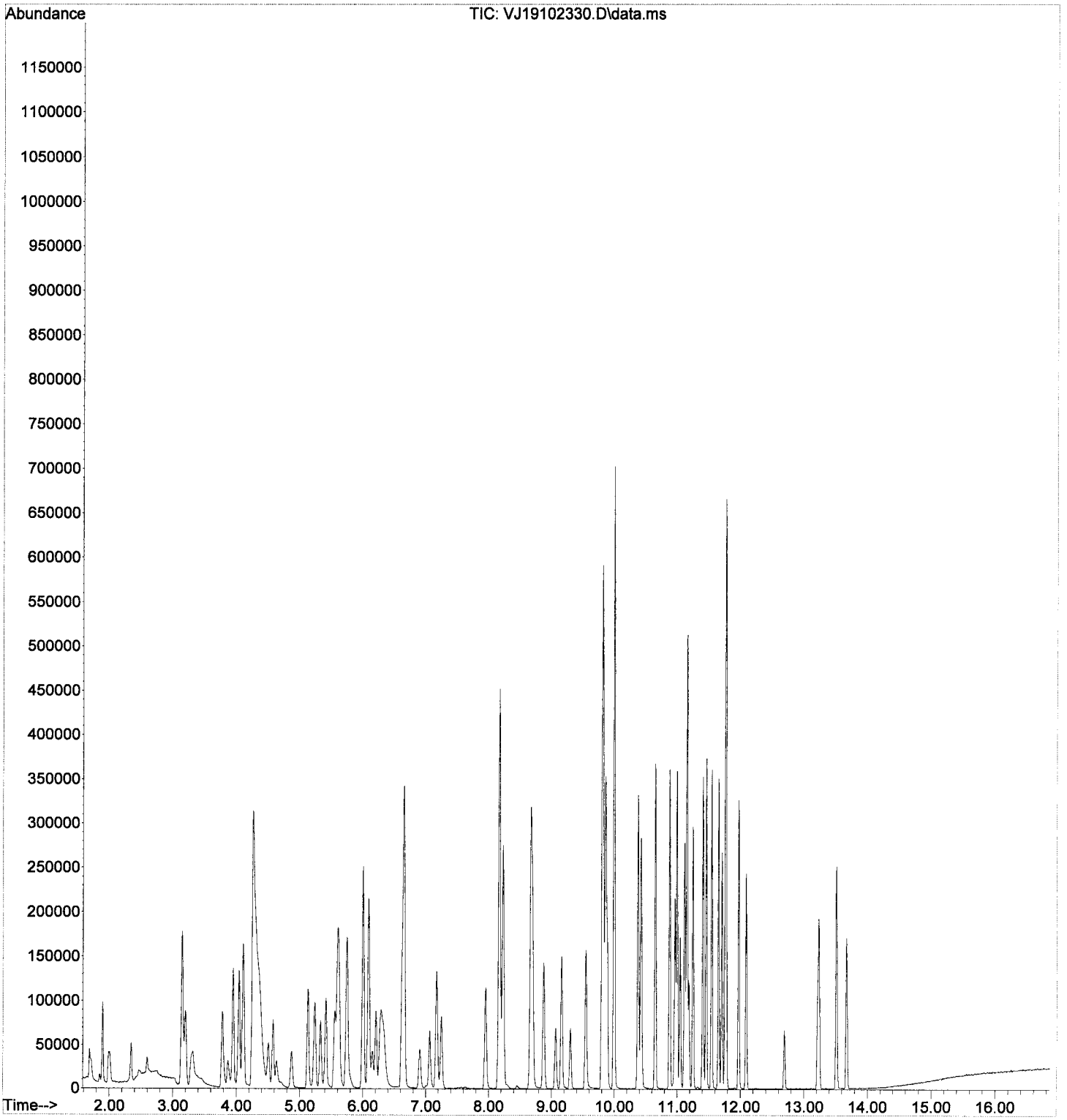
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	5.64
0.00	0.00	0.00

12/2/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	105013	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	282031	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	124308	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	85109	59.95	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	323717	71.18	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	394687	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	88914	46.61	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	131685	50.95	ug/L		98
3) Chloromethane	1.892	50	201248	71.62	ug/L		99
4) Vinyl Chloride	1.983	62	155736	63.06	ug/L		95
5) Bromomethane	2.342	96	63337	60.39	ug/L		96
6) Chloroethane	2.470	64	22708	19.91	ug/L		96
7) Trichlorofluoromethane	2.603	101	38671	10.83	ug/L		99
8) Ethanol	3.346	45	239469	4146.53	ug/L		92
9) 1,1-Dichloroethene	3.145	61	181540	56.89	ug/L		93
10) Carbon Disulfide	3.157	76	335203	84.37	ug/L		98
11) Freon 113	3.200	101	113502	79.33	ug/L		87
12) Iodomethane	3.291	142	47020	89.59	ug/L		89
13) Methylene Chloride	3.777	84	118736	77.26	ug/L		90
14) Acetone	3.869	43	~~112420~~	96.89	ug/L		97
15) t-1,2-Dichloroethene	3.948	61	191374	66.54	ug/L		98
16) n-Hexane	4.045	86	31443	96.62	ug/L	#	86
17) Methyl-tert-butyl-ether	4.106	73	469291	59.99	ug/L		98
18) tert-Butanol (TBA)	4.319	59	~~1395157~~	2261.14	ug/L	#	86
19) Diisopropyl ether (DIPE)	4.501	45	102191	13.60	ug/L		94
20) 1,1-Dichloroethane	4.580	63	207492	62.82	ug/L		99
21) Acrylonitrile	4.629	53	~~74111~~	81.38	ug/L		99
22) Ethyl-tert-butyl ether...	4.873	59	90750	12.17	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	189767	60.94	ug/L		96
24) 2,2-Dichloropropane	5.238	77	189548	51.96	ug/L		100
25) Bromochloromethane	5.329	49	116893	67.59	ug/L		80
26) Chloroform	5.414	83	226777	56.18	ug/L		97
27) Carbon Tetrachloride	5.554	117	158501	47.45	ug/L		94
28) Tetrahydrofuran	5.590	42	95139	86.39	ug/L		98
29) 1,1,1-Trichloroethane	5.621	97	208934	52.56	ug/L		96
31) 1,1-Dichloropropene	5.749	75	199471	64.49	ug/L		95
32) 2-Butanone (MEK)	5.730	43	~~189045~~	113.99	ug/L		94
33) Benzene	6.004	78	625910	78.42	ug/L		99
34) tert-Amyl methyl ether...	6.150	73	82359	11.14	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.205	62	202778	44.43	ug/L		99
36) iso-Butyl Alcohol	6.302	43	411574	2392.47	ug/L		99
38) Trichloroethene (TCE)	6.619	130	131822	66.43	ug/L		95
39) tert-Amyl ethyl ether ...	6.904	59	65747	12.03	ug/L		89
40) Dibromomethane	7.063	93	83755	62.27	ug/L		84
41) 1,2-Dichloropropane	7.172	63	160675	77.12	ug/L		97
42) Bromodichloromethane	7.245	83	175537	57.34	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	225850	52.08	ug/L		98
46) Toluene	8.231	91	618659	53.27	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	122230	52.12	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	437036	115.89	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

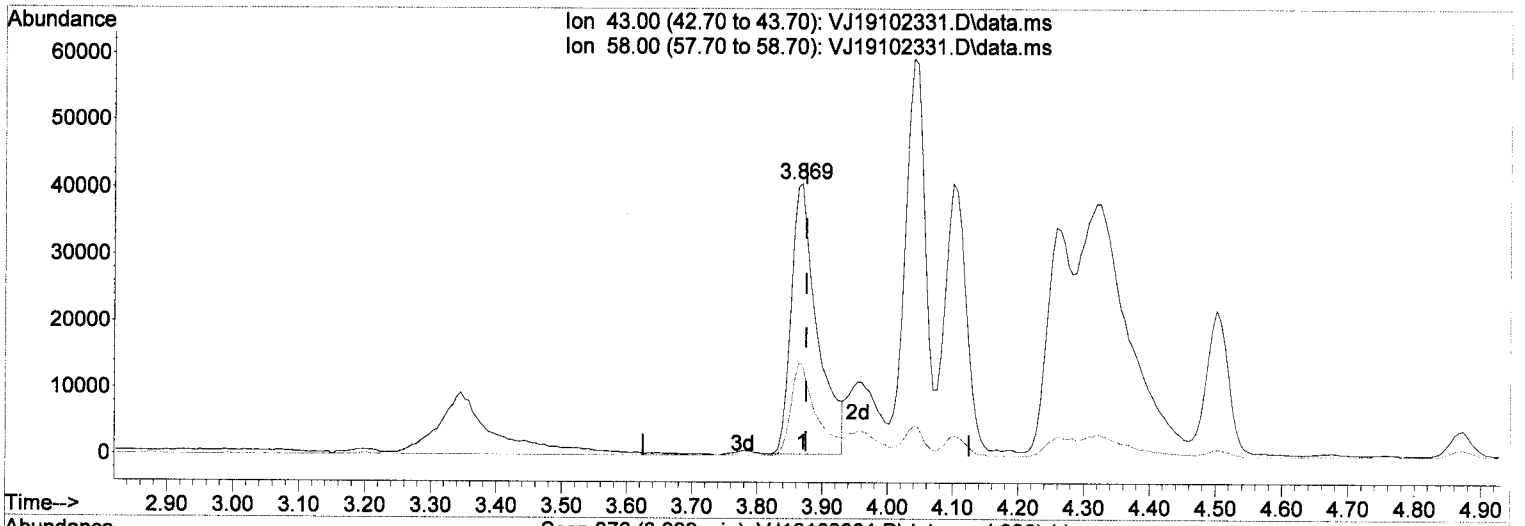
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	221998	47.89	ug/L		96
50) 1,1,2-Trichloroethane	8.876	97	133185	53.79	ug/L		97
51) Dibromochloromethane	9.064	129	113957	43.52	ug/L		99
52) 1,3-Dichloropropane	9.161	76	247593	49.68	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	135703	51.93	ug/L		100
54) 2-Hexanone	9.545	43	323576	113.92	ug/L		99
55) Chlorobenzene	9.825	112	353531	50.46	ug/L		95
56) Ethylbenzene	9.861	91	654045	48.92	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.885	131	121183	45.61	ug/L		97
58) m,p-Xylenes (2)	9.995	91	967453	94.49	ug/L		97
59) o-Xylene	10.378	91	471843	46.38	ug/L		95
60) Styrene	10.421	104	342762	53.74	ug/L		98
61) Bromoform	10.439	173	78066	43.02	ug/L		97
62) Isopropylbenzene	10.652	105	584329	49.73	ug/L		97
65) Bromobenzene	10.962	156	125116	52.87	ug/L	#	72
66) n-Propylbenzene	10.993	91	690882	50.67	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	193478	67.20	ug/L		96
68) 2-Chlorotoluene	11.114	126	121749	52.32	ug/L	#	78
69) 1,3,5-Trimethylbenzene	11.157	105	450995	48.60	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	61884	49.92	ug/L		94
71) t-1,4-Dichloro-2-butene	11.187	88	27694	46.09	ug/L		93
72) 4-Chlorotoluene	11.248	91	398929	47.37	ug/L		92
73) tert-Butylbenzene	11.406	91	260062	43.07	ug/L		90
74) 1,2,4-Trimethylbenzene	11.461	105	450083	47.95	ug/L		97
75) sec-Butylbenzene	11.546	105	570890	52.35	ug/L		96
76) 4-Isopropyltoluene	11.656	119	449627	49.00	ug/L		97
77) 1,3-Dichlorobenzene	11.710	146	228262	49.62	ug/L		97
78) 1,4-Dichlorobenzene	11.777	146	228373	51.40	ug/L		95
79) n-Butylbenzene	11.972	91	411527	48.59	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	209123	49.24	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	38129	56.50	ug/L	#	65
82) Hexachlorobutadiene	13.219	223	28768	43.18	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	133371	50.04	ug/L		95
84) Naphthalene	13.511	128	507971	57.66	ug/L		97
85) 1,2,3-Trichlorobenzene	13.675	180	129134	50.68	ug/L		96

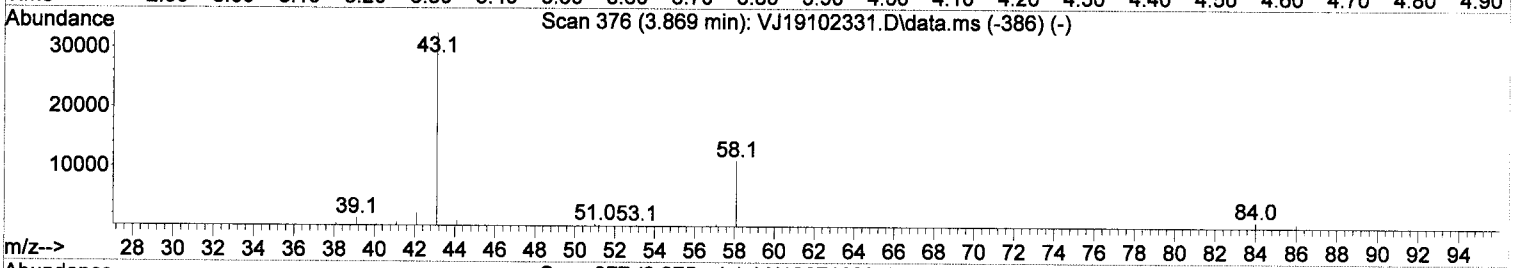
(#) = qualifier out of range (m) = manual integration (+) = signals summed

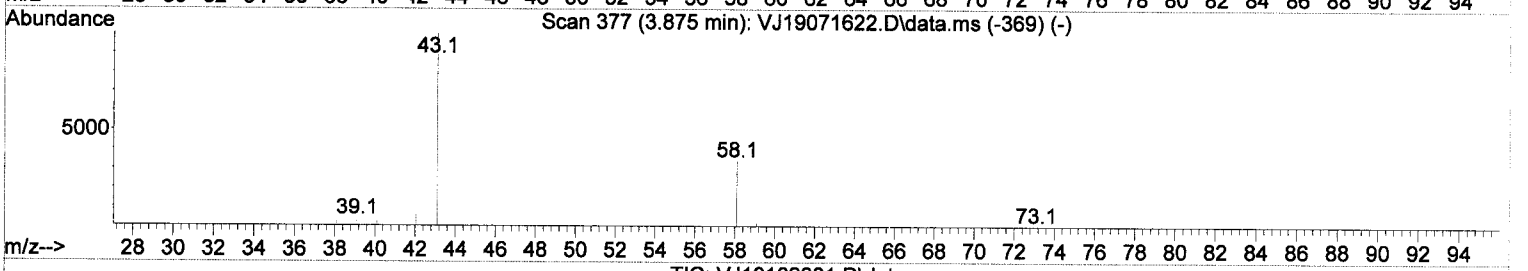
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(14) Acetone

3.869min (-0.005) 96.89 ug/L

response 112420

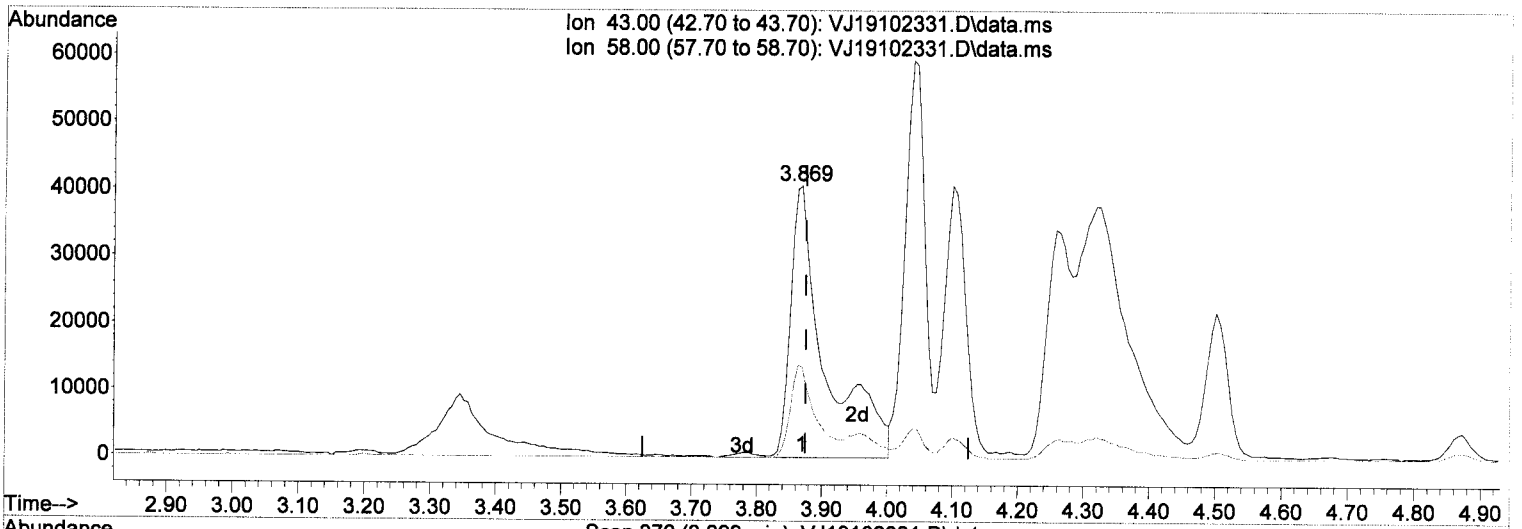
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.86
0.00	0.00	0.00
0.00	0.00	0.00

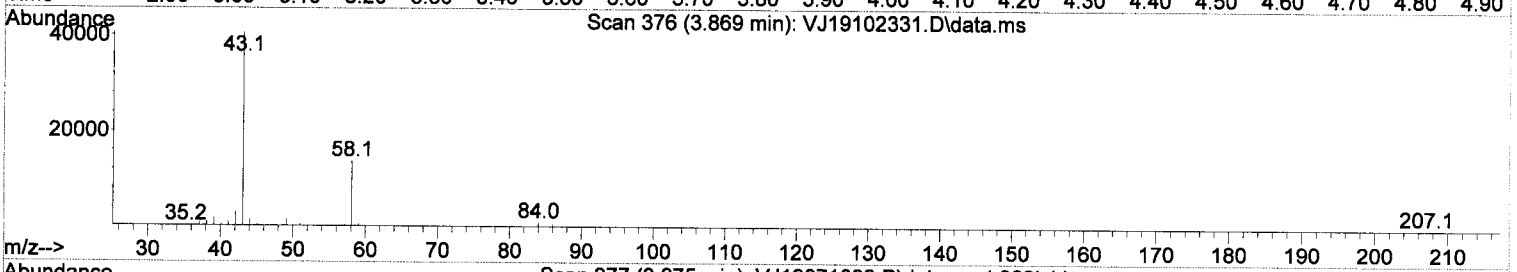
M.2.

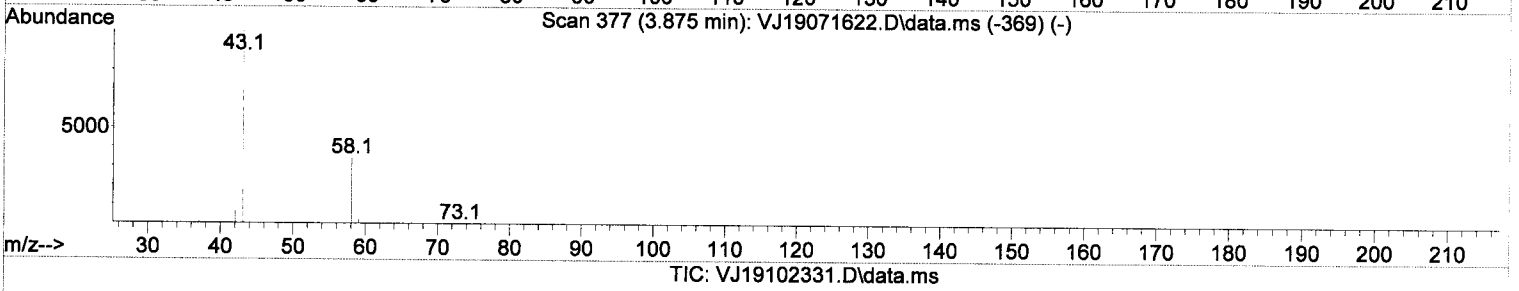
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(14) Acetone

3.869min (-0.005) 129.97 ug/L m

response 150797

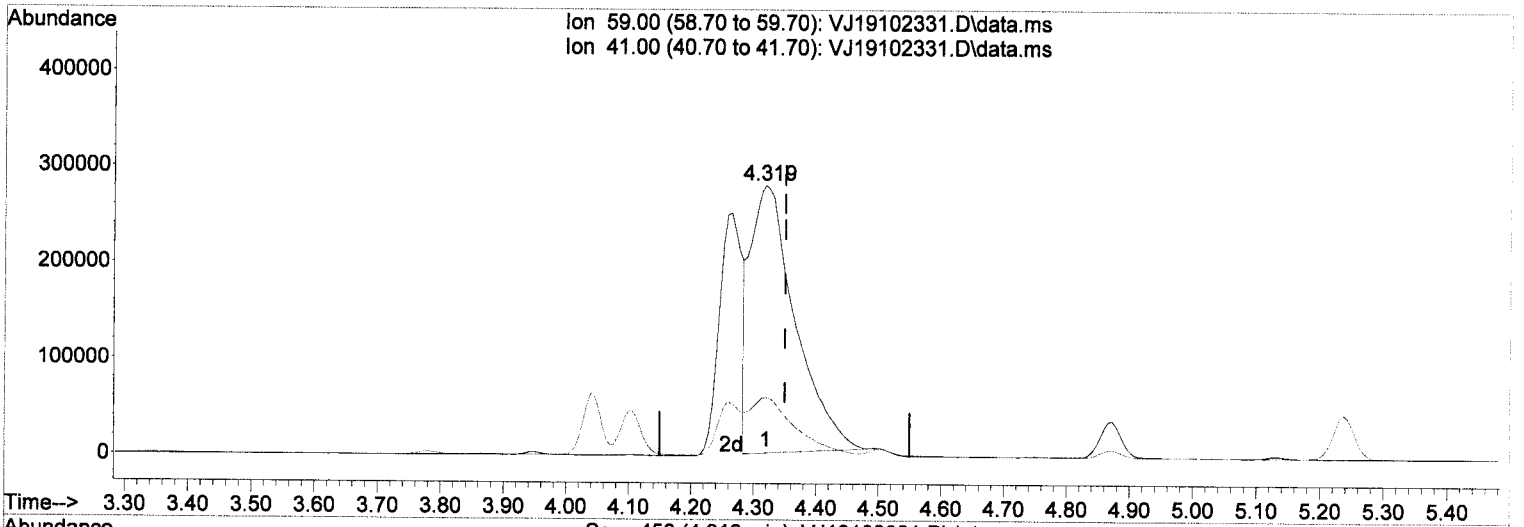
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.68
0.00	0.00	0.00
0.00	0.00	0.00

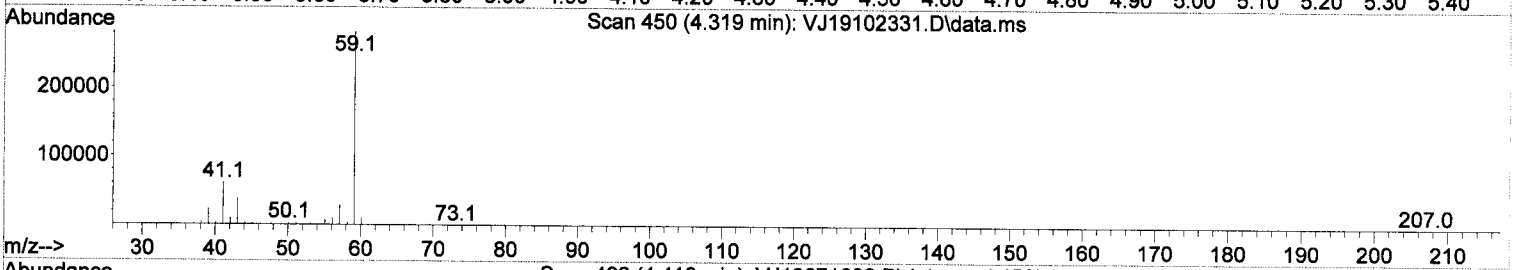
10/24/19

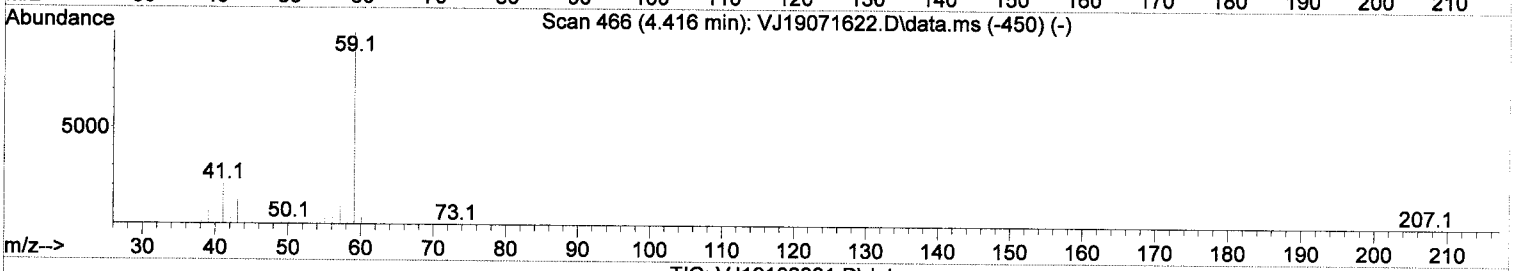
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 2261.14 ug/L

response 1395157

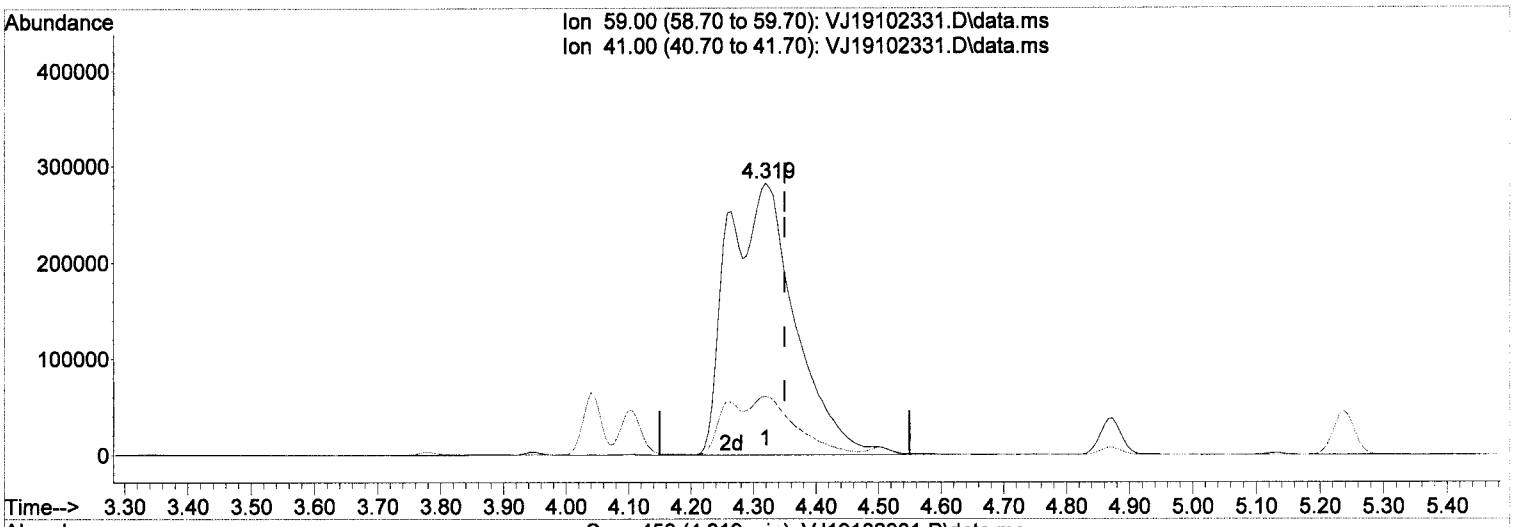
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

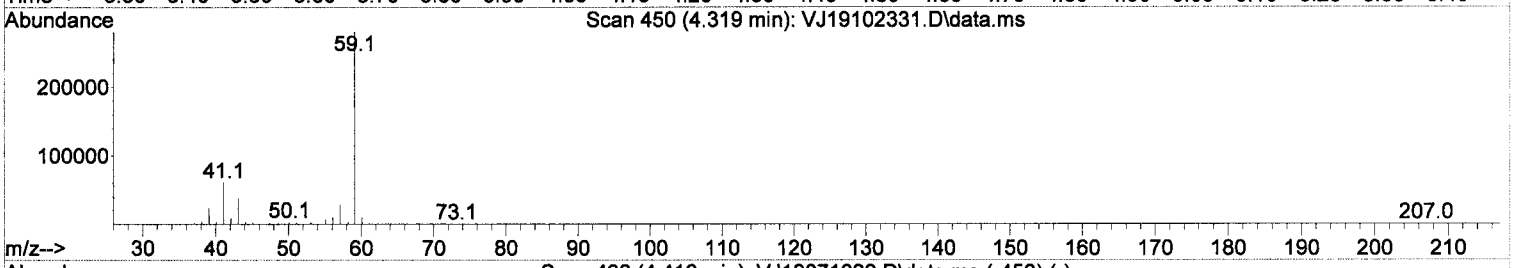
M.L.

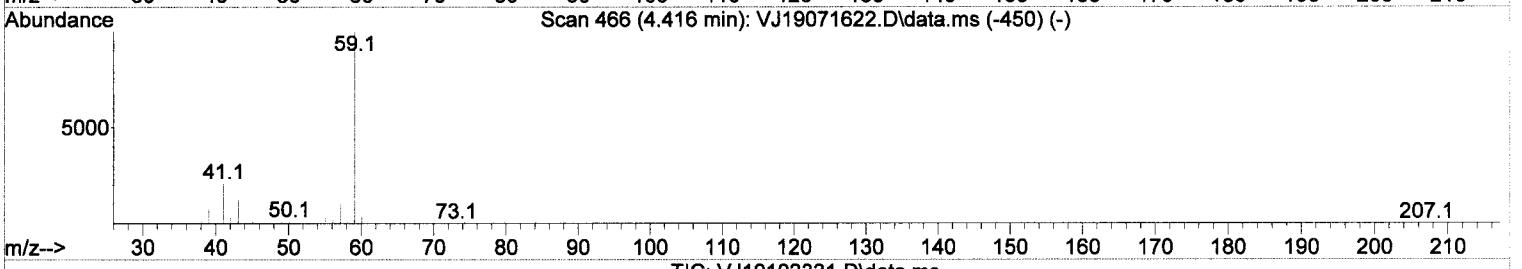
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 3230.41 ug/L m

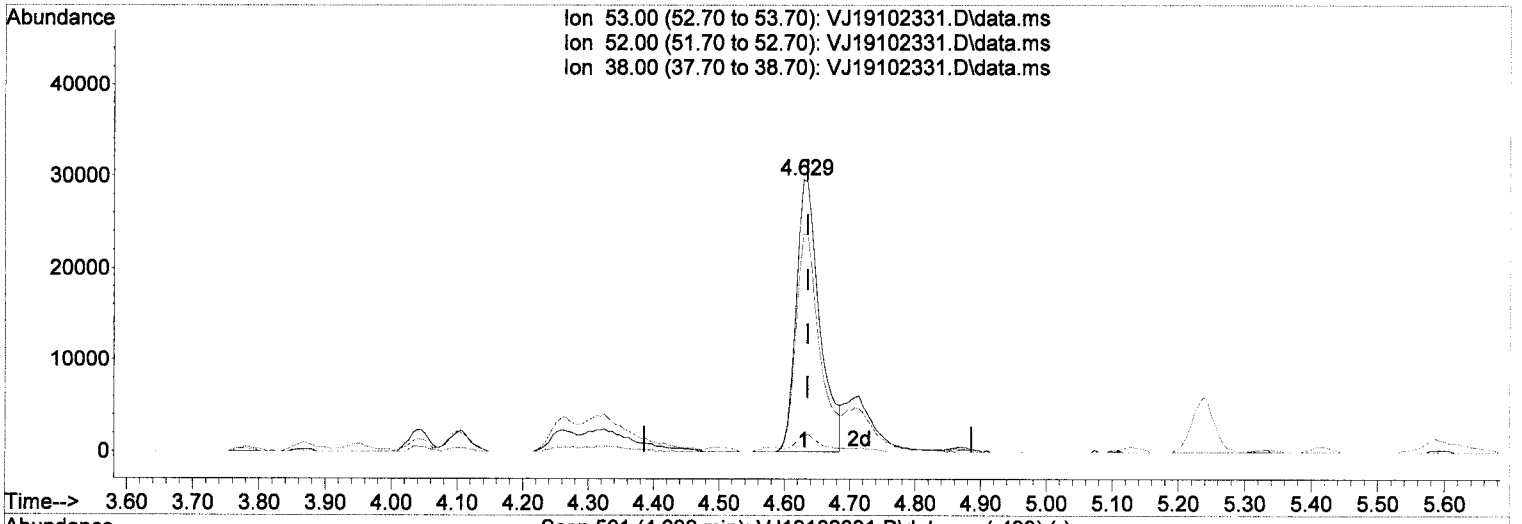
response 2117115

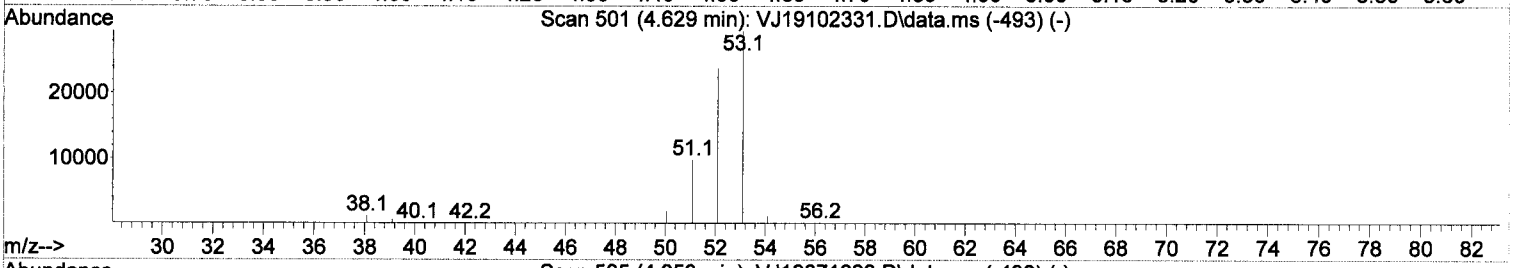
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

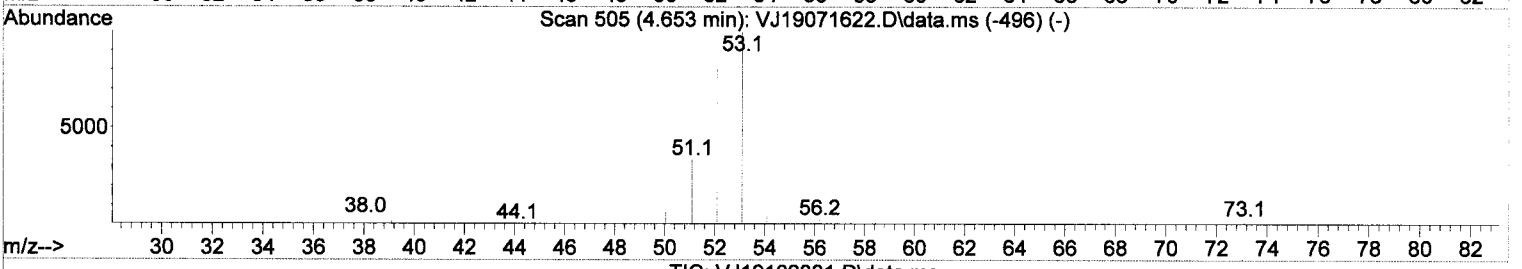
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 81.38 ug/L

response 74111

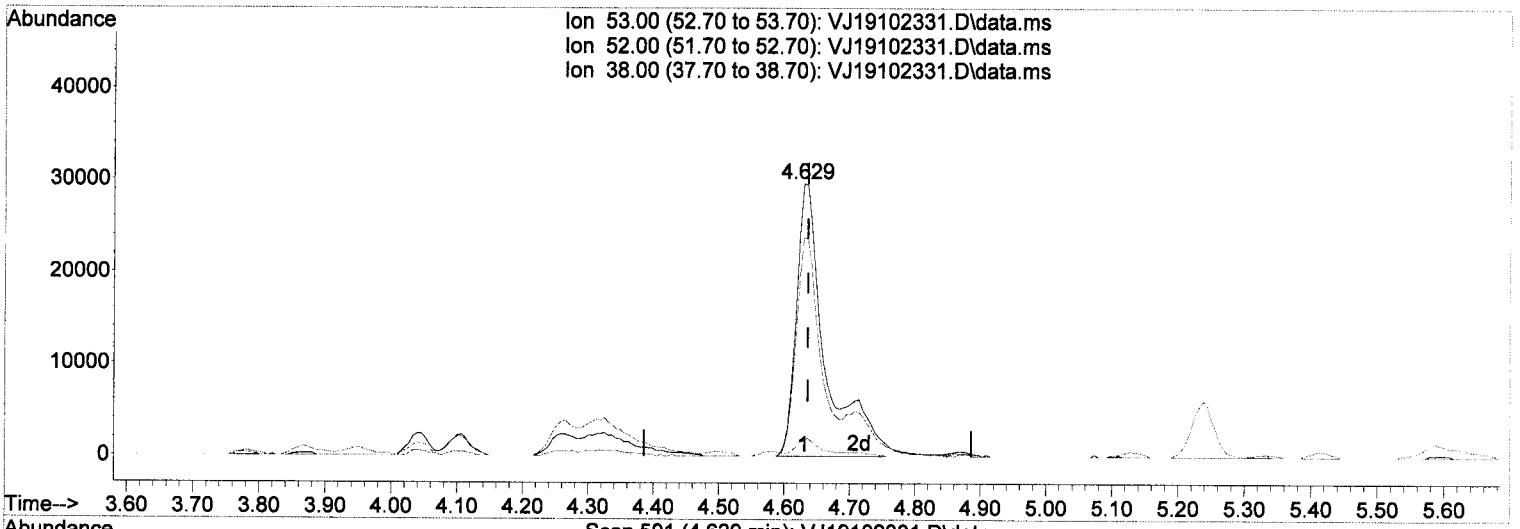
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	4.25
0.00	0.00	0.00

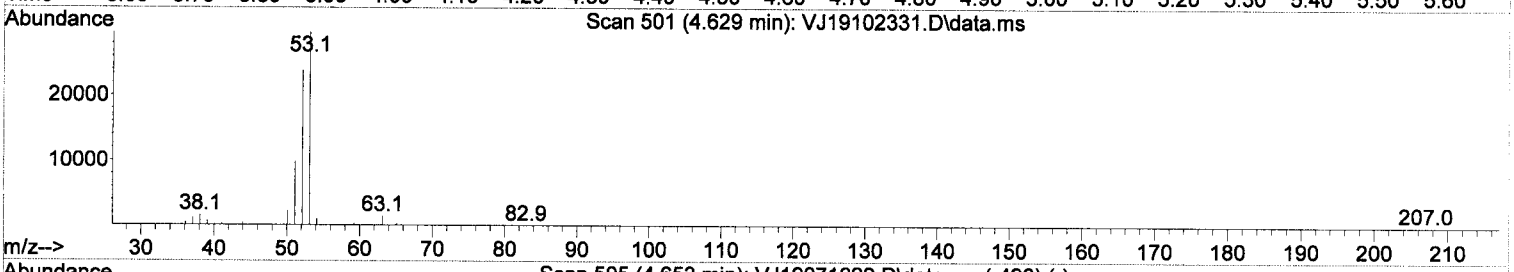
M2.

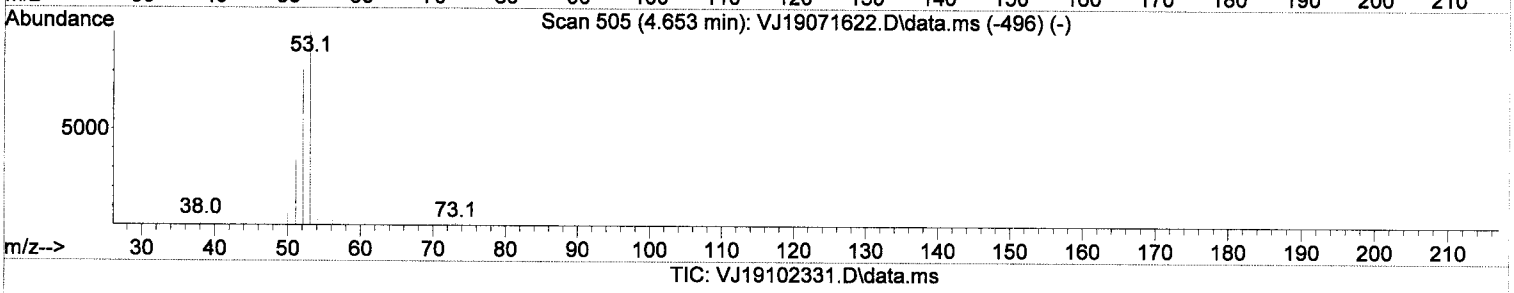
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 102.87 ug/L m

response 93684

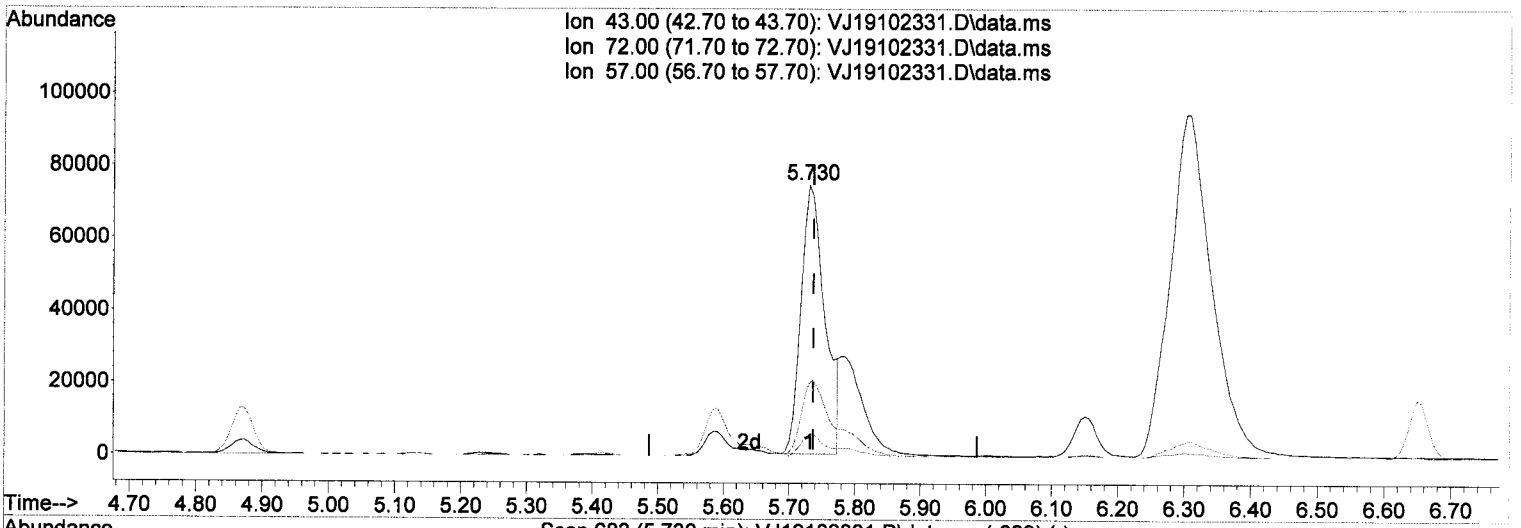
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	5.68
0.00	0.00	0.00

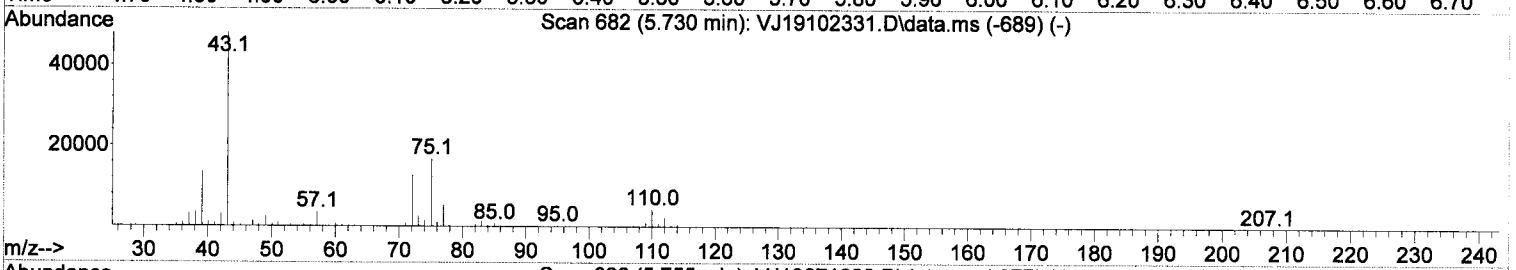
10/24/19

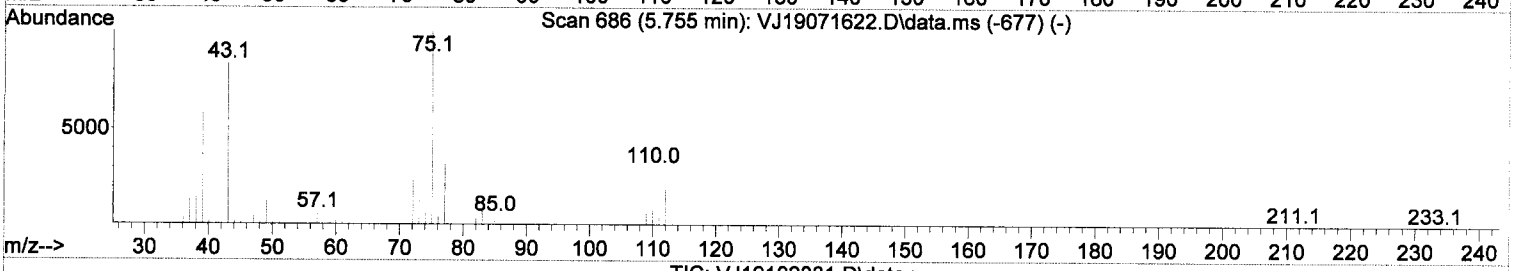
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 113.99 ug/L

response 189043

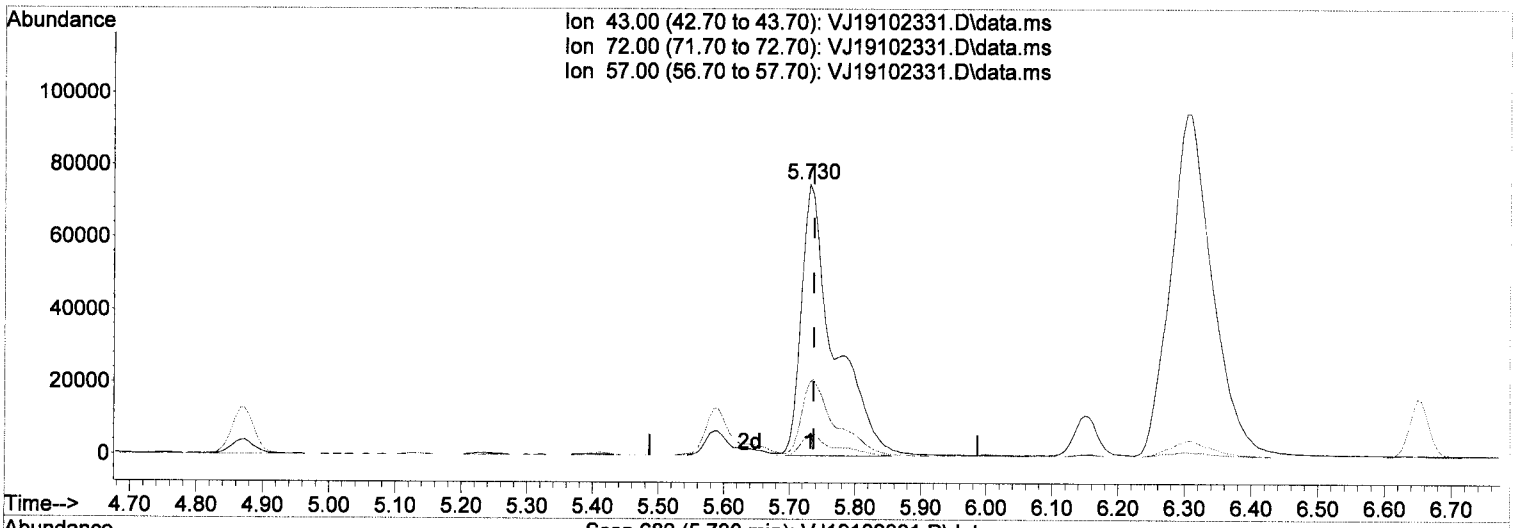
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	25.57
57.00	7.20	7.73
0.00	0.00	0.00

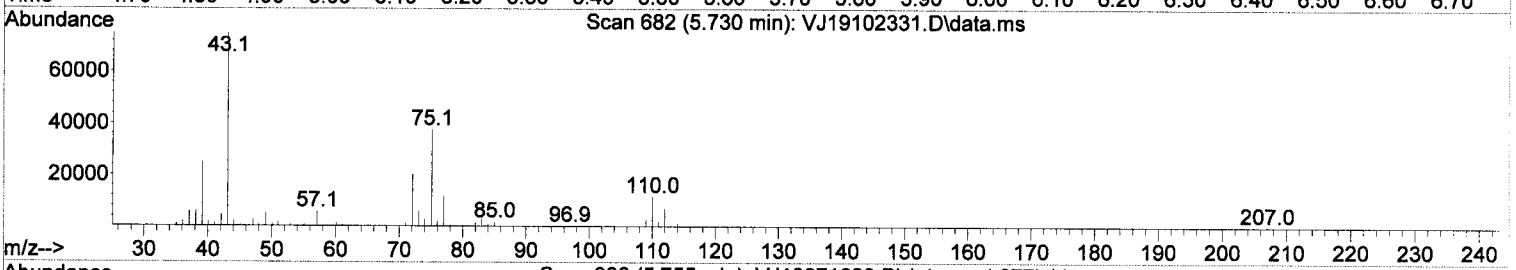
M.2.

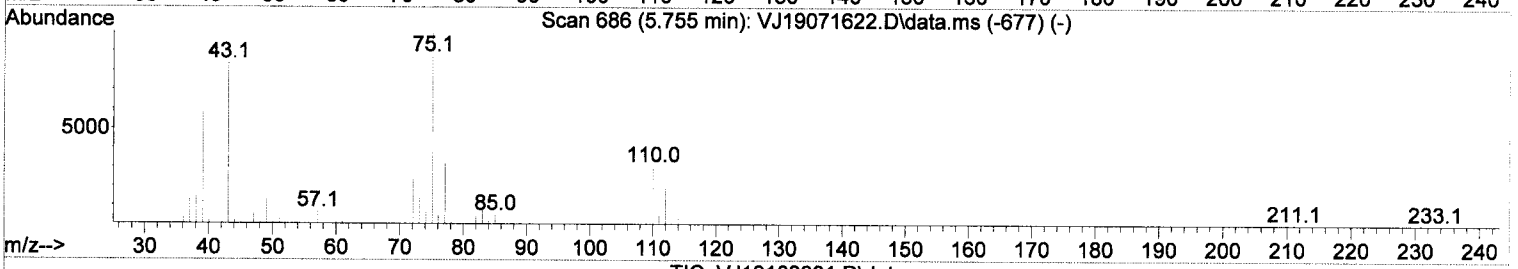
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 158.17 ug/L m

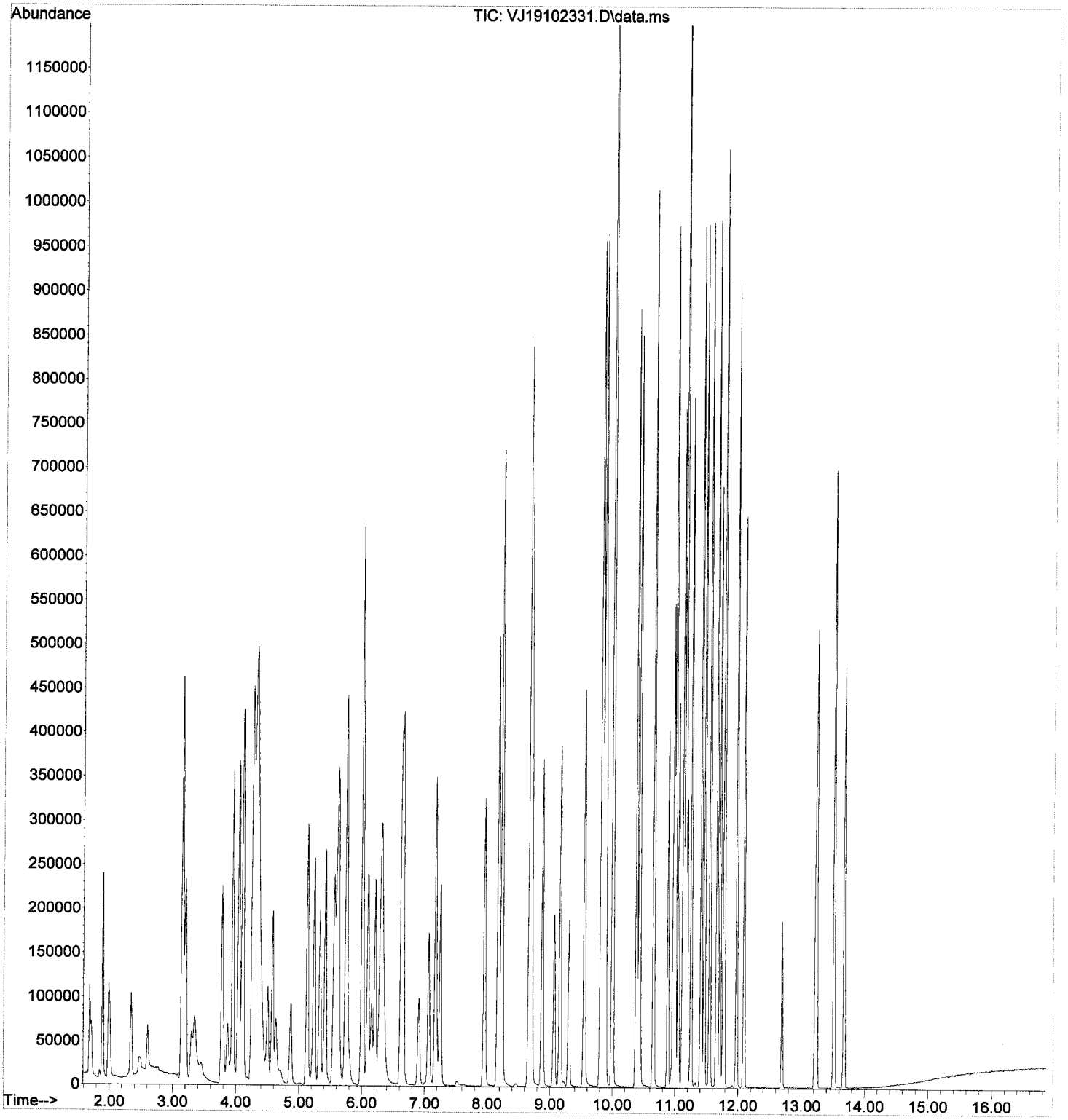
response 262305

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	26.97
57.00	7.20	7.66
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102332.D
Acq On : 24 Oct 2019 2:19 am
Operator : MM
Sample : 9J23072-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 24 09:41:13 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

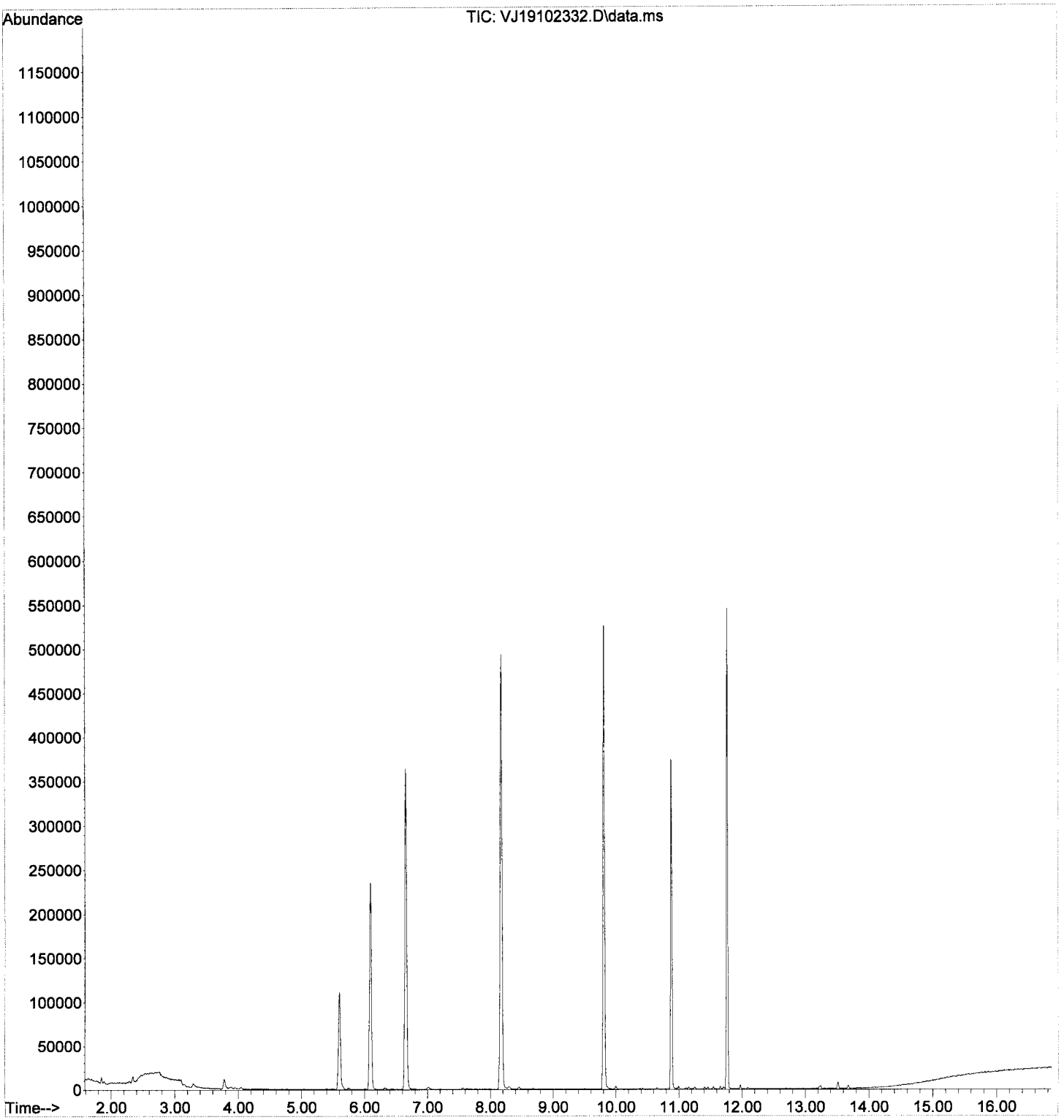
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.089	99	102386	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	273341	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110048	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.596	111	78486	48.50 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	312478	49.61 ug/L	0.00
45) Toluene-d8 (S)	8.170	98	385533	50.58 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	82617	51.99 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.697	85	208	0.09 ug/L #	51
3) Chloromethane	1.892	50	3251	0.81 ug/L	95
5) Bromomethane	2.342	96	4006	0.77 ug/L	98
6) Chloroethane	2.451	64	166	1.62 ug/L #	61
8) Ethanol	3.321	45	6089	Below Cal	89
10) Carbon Disulfide	3.157	76	2317	0.33 ug/L	81
12) Iodomethane	3.297	142	3655	4.71 ug/L	98
13) Methylene Chloride	3.784	84	5623	1.53 ug/L	95
14) Acetone	3.863	43	1912	1.22 ug/L	98
15) t-1,2-Dichloroethene	3.948	61	589	0.15 ug/L	96
28) Tetrahydrofuran	5.596	42	569	0.27 ug/L #	30
31) 1,1-Dichloropropene	5.749	75	547	0.14 ug/L #	39
32) 2-Butanone (MEK)	5.749	43	1103	0.40 ug/L	52
36) iso-Butyl Alcohol	6.314	43	838	2.66 ug/L	90
47) Tetrachloroethene (PCE)	8.681	166	303	0.13 ug/L #	74
55) Chlorobenzene	9.825	112	617	0.08 ug/L #	15
56) Ethylbenzene	9.855	91	1295	0.10 ug/L	93
58) m,p-Xylenes (2)	9.995	91	2069	0.23 ug/L	92
60) Styrene	10.421	104	326	0.22 ug/L	69
62) Isopropylbenzene	10.658	105	1144	0.11 ug/L	82
65) Bromobenzene	10.968	156	205	0.09 ug/L #	72
66) n-Propylbenzene	10.999	91	2329	0.19 ug/L	92
68) 2-Chlorotoluene	11.120	126	217	0.10 ug/L #	77
69) 1,3,5-Trimethylbenzene	11.157	105	1216	0.17 ug/L	82
72) 4-Chlorotoluene	11.254	91	1302	0.19 ug/L	74
73) tert-Butylbenzene	11.406	91	562	0.13 ug/L #	68
74) 1,2,4-Trimethylbenzene	11.461	105	1149	0.15 ug/L	88
75) sec-Butylbenzene	11.546	105	1742	0.19 ug/L	85
76) 4-Isopropyltoluene	11.656	119	1548	0.22 ug/L	87
77) 1,3-Dichlorobenzene	11.711	146	866	0.21 ug/L	86
78) 1,4-Dichlorobenzene	11.777	146	1142	0.26 ug/L #	74
79) n-Butylbenzene	11.972	91	2418	0.35 ug/L	92
80) 1,2-Dichlorobenzene	12.088	146	623	0.16 ug/L	86
82) Hexachlorobutadiene	13.219	223	222	0.46 ug/L #	84
83) 1,2,4-Trichlorobenzene	13.244	180	1195	0.52 ug/L	95
84) Naphthalene	13.511	128	5712	0.70 ug/L	91
85) 1,2,3-Trichlorobenzene	13.676	180	1273	0.57 ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102332.D
Acq On : 24 Oct 2019 2:19 am
Operator : MM
Sample : 9J23072-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 24 09:41:13 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	109942	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	294436	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	135112	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	87982	59.20	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	338746	71.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	411311	51.45	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	93929	45.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	259035	95.72	ug/L		99
3) Chloromethane	1.898	50	397217	135.02	ug/L		99
4) Vinyl Chloride	1.995	62	313932	119.18	ug/L		96
5) Bromomethane	2.348	96	123566	114.51	ug/L		99
6) Chloroethane	2.494	64	47113	39.45	ug/L		97
7) Trichlorofluoromethane	2.609	101	77408	20.70	ug/L		100
8) Ethanol	3.351	45	449287	7430.86	ug/L		91
9) 1,1-Dichloroethene	3.145	61	396303	118.63	ug/L		91
10) Carbon Disulfide	3.157	76	748104	179.86	ug/L		98
11) Freon 113	3.205	101	250927	167.52	ug/L		87
12) Iodomethane	3.297	142	117106	150.44	ug/L		90
13) Methylene Chloride	3.783	84	249850	154.91	ug/L		93
14) Acetone	3.869	43	~~219265~~	180.51	ug/L		96 308333
15) t-1,2-Dichloroethene	3.954	61	416493	138.32	ug/L		98
16) n-Hexane	4.045	86	69515	194.60	ug/L	#	71
17) Methyl-tert-butyl-ether	4.106	73	1020787	124.64	ug/L		97
18) tert-Butanol (TBA)	4.325	59	~~2773547~~	3888.55	ug/L	#	86 443802
19) Diisopropyl ether (DIPE)	4.507	45	200708	25.51	ug/L		94
20) 1,1-Dichloroethane	4.580	63	436977	126.37	ug/L		99
21) Acrylonitrile	4.635	53	~~147629~~	154.84	ug/L		97 195553
22) Ethyl-tert-butyl ether...	4.872	59	180440	23.12	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	410212	125.83	ug/L		98
24) 2,2-Dichloropropane	5.243	77	411005	107.61	ug/L		99
25) Bromochloromethane	5.329	49	249374	137.73	ug/L		80
26) Chloroform	5.420	83	483892	114.50	ug/L		96
27) Carbon Tetrachloride	5.560	117	354527	101.38	ug/L		95
28) Tetrahydrofuran	5.590	42	~~162789~~	141.19	ug/L		98 204078
29) 1,1,1-Trichloroethane	5.621	97	466945	112.20	ug/L		98
31) 1,1-Dichloropropene	5.754	75	445742	137.64	ug/L		95
32) 2-Butanone (MEK)	5.736	43	~~360862~~	207.84	ug/L		99 557729
33) Benzene	6.004	78	1359633	162.71	ug/L		100
34) tert-Amyl methyl ether...	6.156	73	167834	21.68	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.211	62	434140	90.85	ug/L		99
36) iso-Butyl Alcohol	6.308	43	909010	5047.15	ug/L		98
38) Trichloroethene (TCE)	6.624	130	292620	137.56	ug/L		96
39) tert-Amyl ethyl ether ...	6.904	59	133080	23.27	ug/L		89
40) Dibromomethane	7.062	93	179023	127.12	ug/L	#	84
41) 1,2-Dichloropropane	7.172	63	350522	160.69	ug/L		96
42) Bromodichloromethane	7.251	83	400178	124.87	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	509437	112.52	ug/L		97
46) Toluene	8.230	91	1343640	110.82	ug/L		99
47) Tetrachloroethene (PCE)	8.681	166	275505	112.53	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.675	43	950533	241.43	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

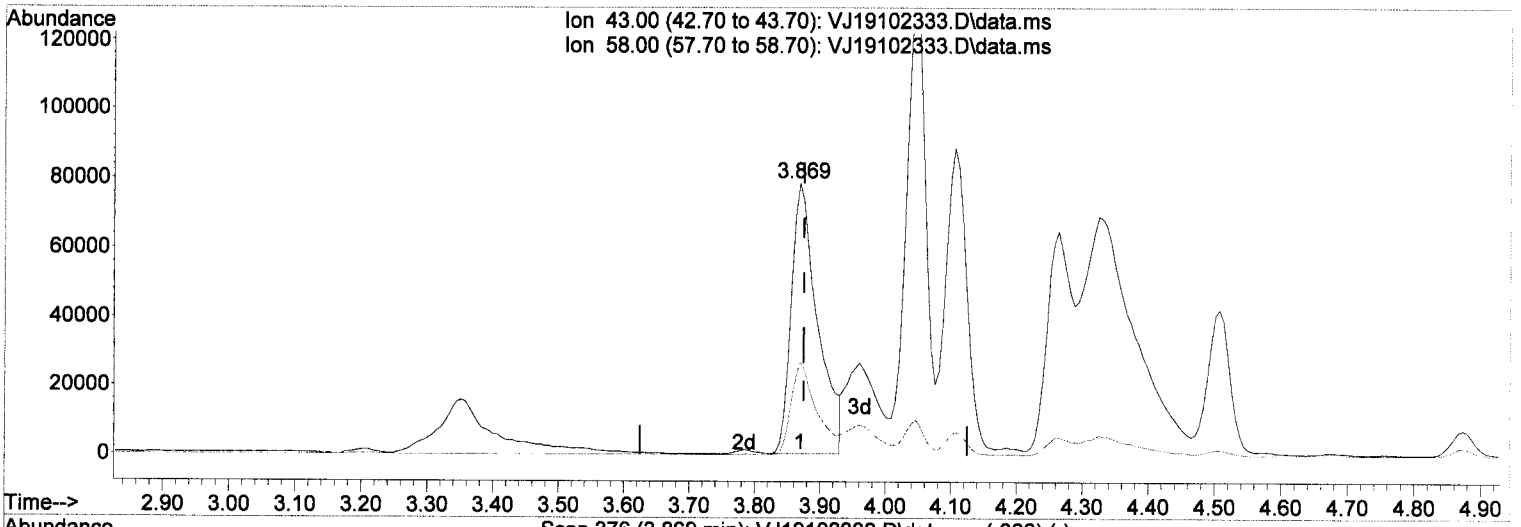
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	481174	99.42	ug/L		96
50) 1,1,2-Trichloroethane	8.881	97	282770	109.51	ug/L		98
51) Dibromochloromethane	9.070	129	256674	93.89	ug/L		99
52) 1,3-Dichloropropane	9.161	76	523949	100.70	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	289923	106.28	ug/L		99
54) 2-Hexanone	9.545	43	720460	242.97	ug/L		98
55) Chlorobenzene	9.824	112	776195	106.12	ug/L		96
56) Ethylbenzene	9.861	91	1432837	102.66	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.885	131	268092	96.65	ug/L		98
58) m,p-Xylenes (2)	9.995	91	2158981	201.99	ug/L		98
59) o-Xylene	10.378	91	1054003	99.24	ug/L		96
60) Styrene	10.421	104	801932	120.43	ug/L		98
61) Bromoform	10.439	173	181310	92.74	ug/L		97
62) Isopropylbenzene	10.652	105	1303605	106.28	ug/L		97
65) Bromobenzene	10.968	156	273427	106.29	ug/L	#	81
66) n-Propylbenzene	10.999	91	1532146	103.39	ug/L		97
67) 1,1,2,2-Tetrachloroethane	11.047	83	412177	131.71	ug/L		97
68) 2-Chlorotoluene	11.120	126	274790	108.64	ug/L		89
69) 1,3,5-Trimethylbenzene	11.157	105	1011802	100.32	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	134120	99.54	ug/L		91
71) t-1,4-Dichloro-2-butene	11.187	88	61632	94.37	ug/L		92
72) 4-Chlorotoluene	11.248	91	888249	97.03	ug/L		93
73) tert-Butylbenzene	11.406	91	578812	88.19	ug/L		90
74) 1,2,4-Trimethylbenzene	11.461	105	1005539	98.57	ug/L		97
75) sec-Butylbenzene	11.546	105	1269236	107.09	ug/L		96
76) 4-Isopropyltoluene	11.656	119	1010639	101.32	ug/L		97
77) 1,3-Dichlorobenzene	11.710	146	503820	100.77	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	508874	105.36	ug/L		95
79) n-Butylbenzene	11.972	91	927051	100.71	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	463375	100.38	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	90298	123.10	ug/L		70
82) Hexachlorobutadiene	13.219	223	61067	84.34	ug/L		94
83) 1,2,4-Trichlorobenzene	13.243	180	290565	100.30	ug/L		96
84) Naphthalene	13.517	128	1129820	117.98	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	281123	101.50	ug/L		98

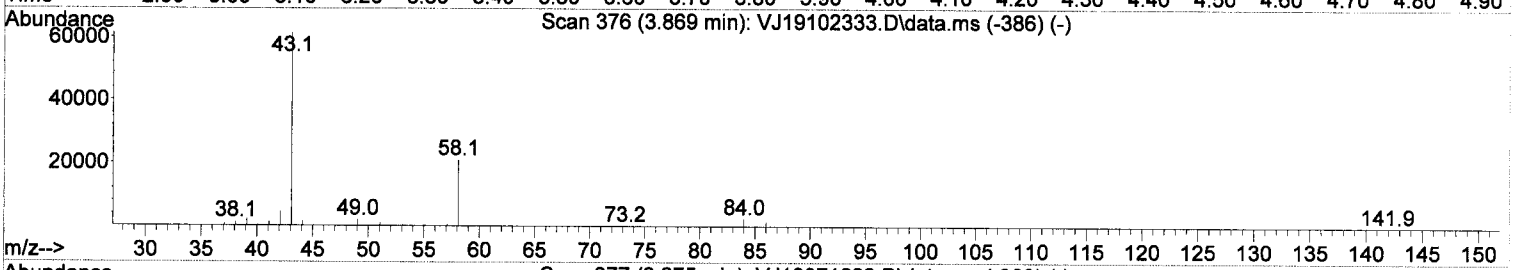
(#) = qualifier out of range (m) = manual integration (+) = signals summed

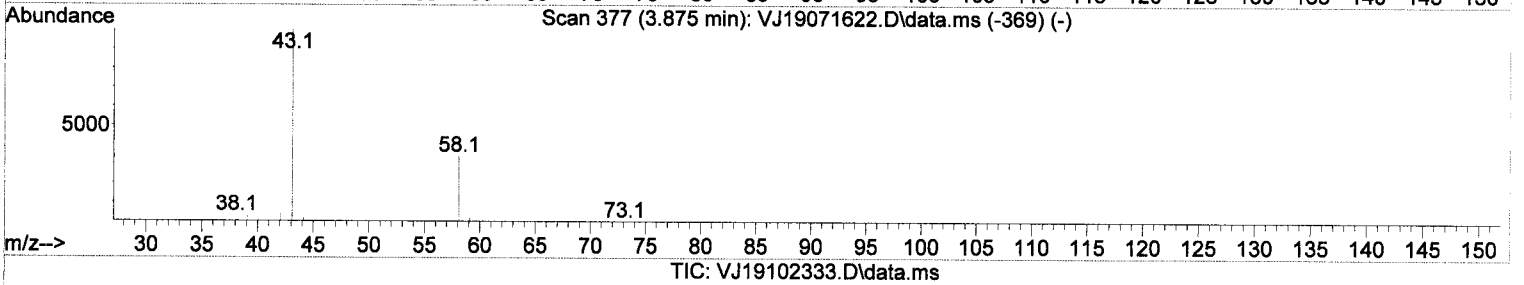
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(14) Acetone

3.869min (-0.005) 180.51 ug/L

response 219265

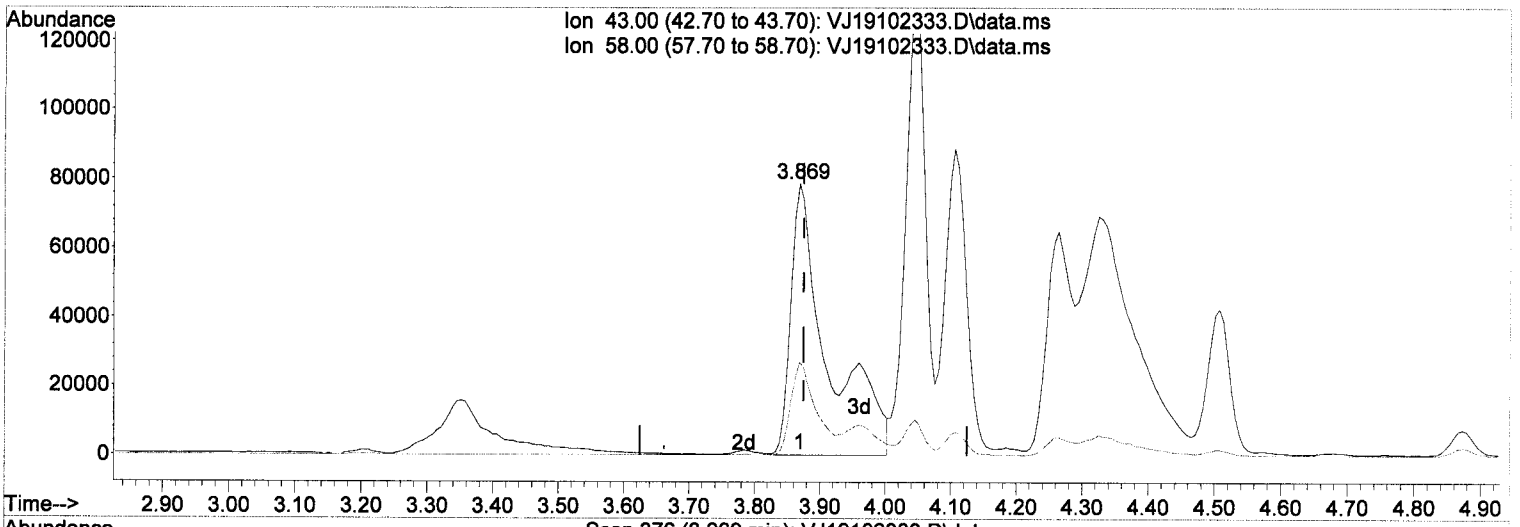
M.2.

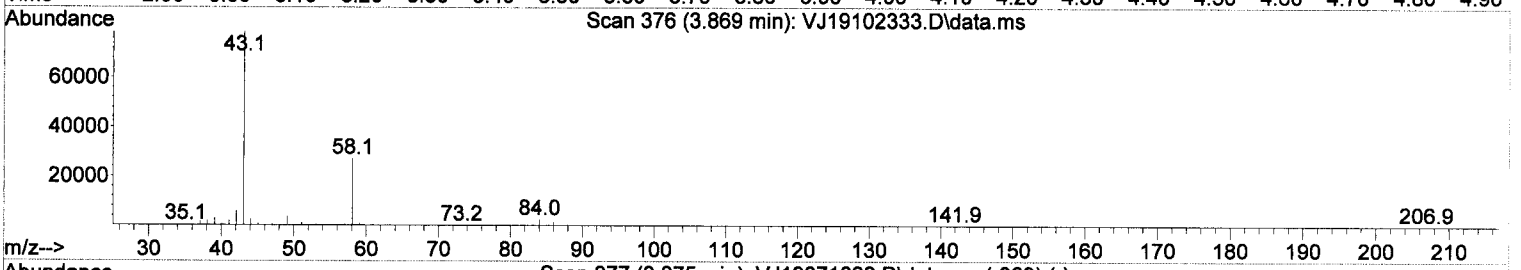
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.49
0.00	0.00	0.00
0.00	0.00	0.00

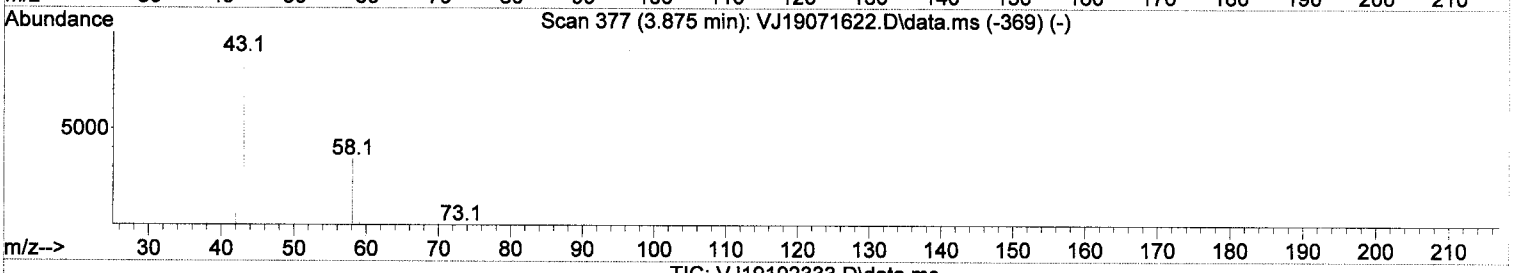
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(14) Acetone

3.869min (-0.005) 253.83 ug/L m

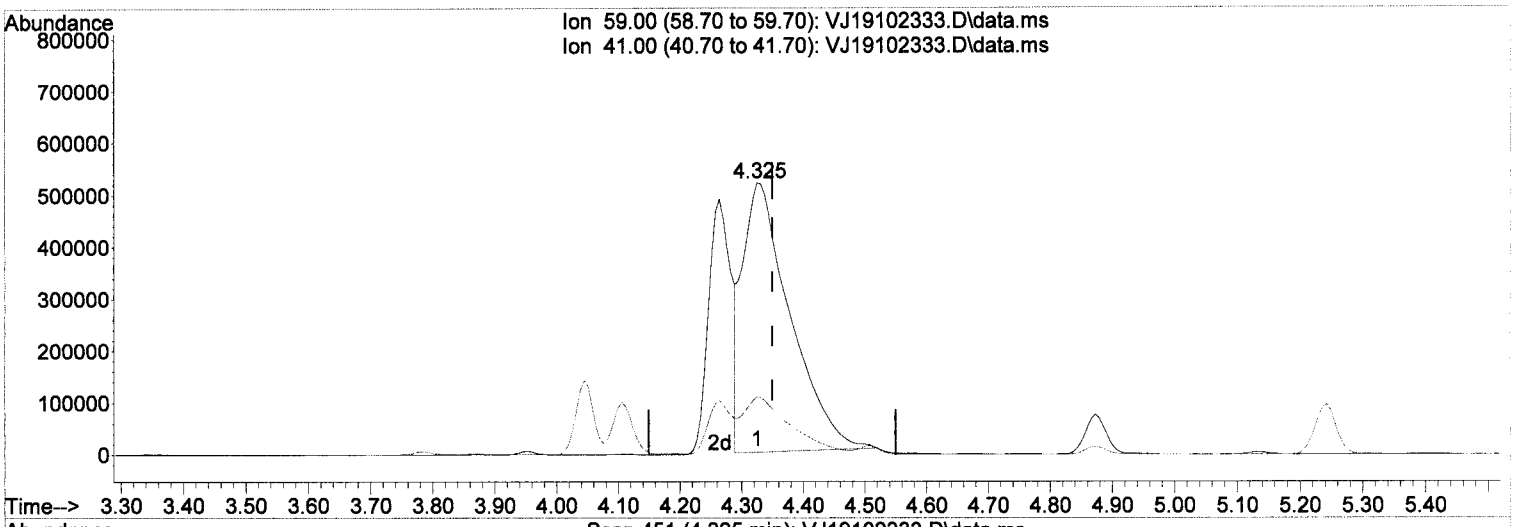
response 308333

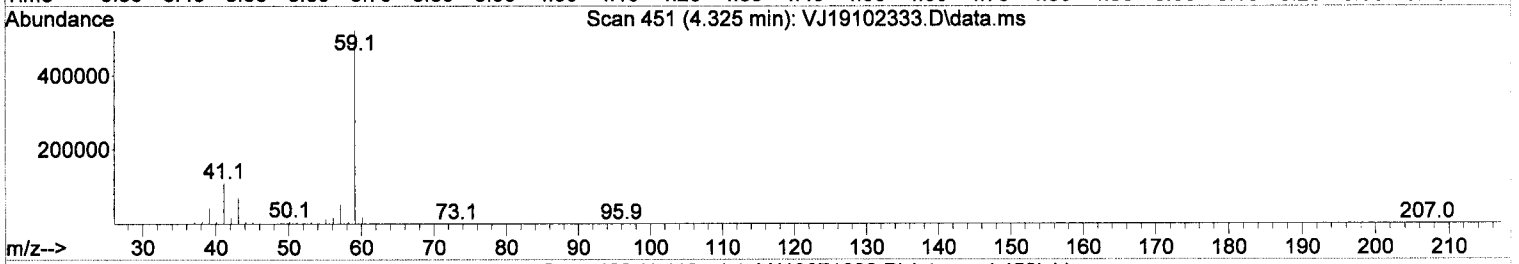
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.33
0.00	0.00	0.00
0.00	0.00	0.00

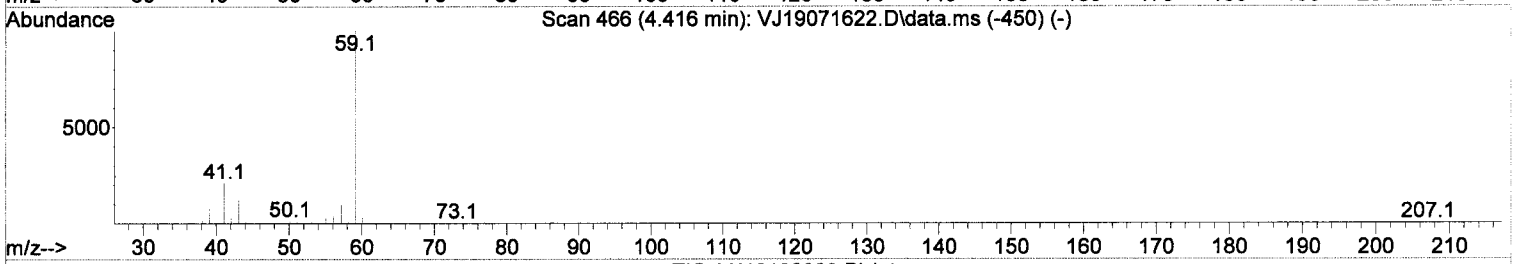
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(18) tert-Butanol (TBA)

4.325min (-0.024) 3888.55 ug/L

response 2773547

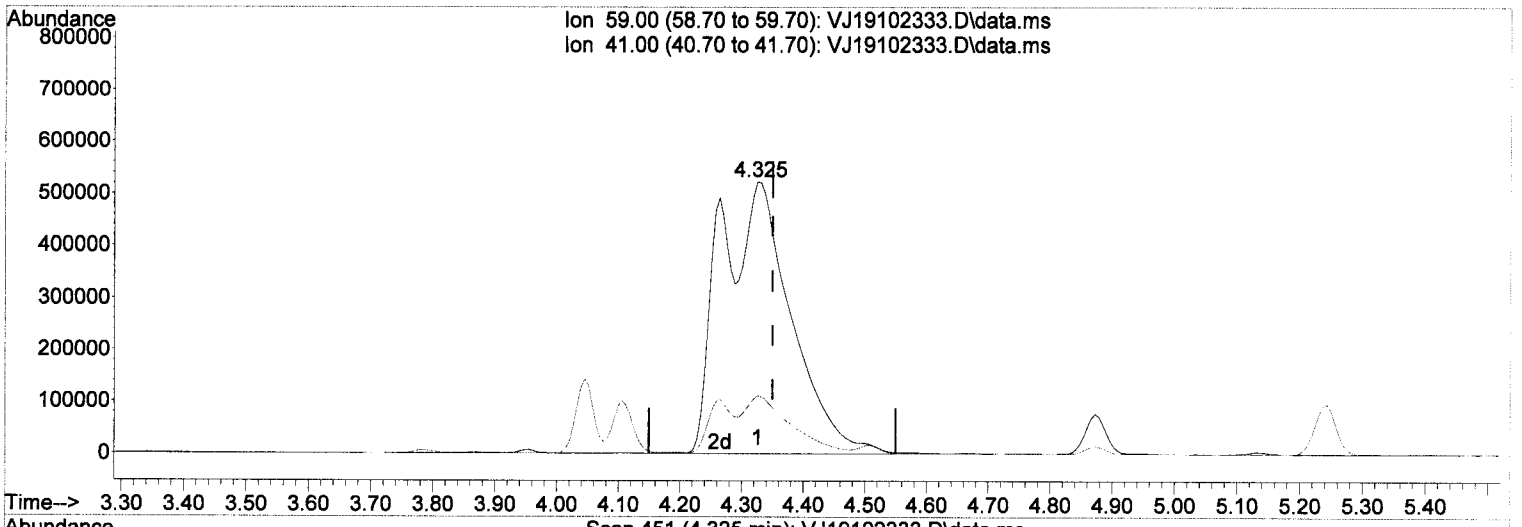
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

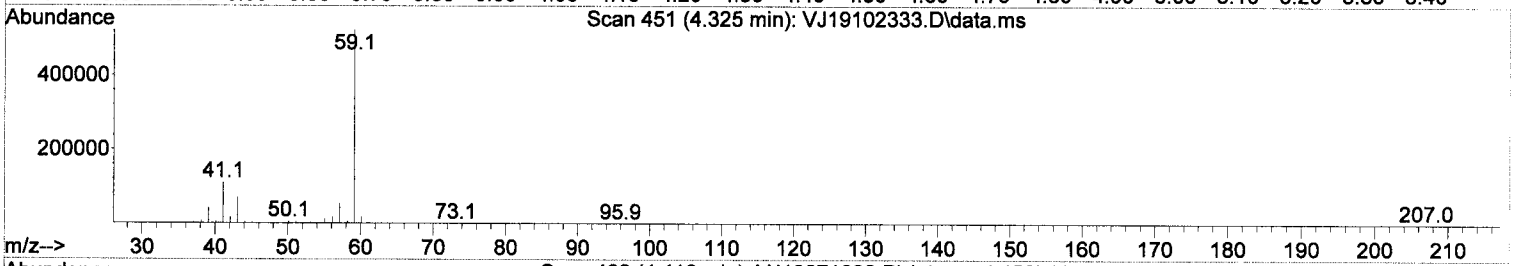
M.2.

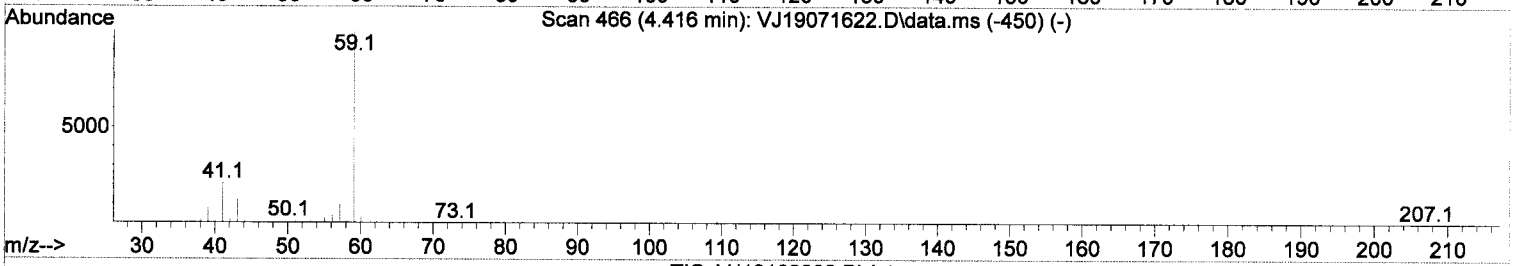
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(18) tert-Butanol (TBA)

4.325min (-0.024) 5356.48 ug/L m

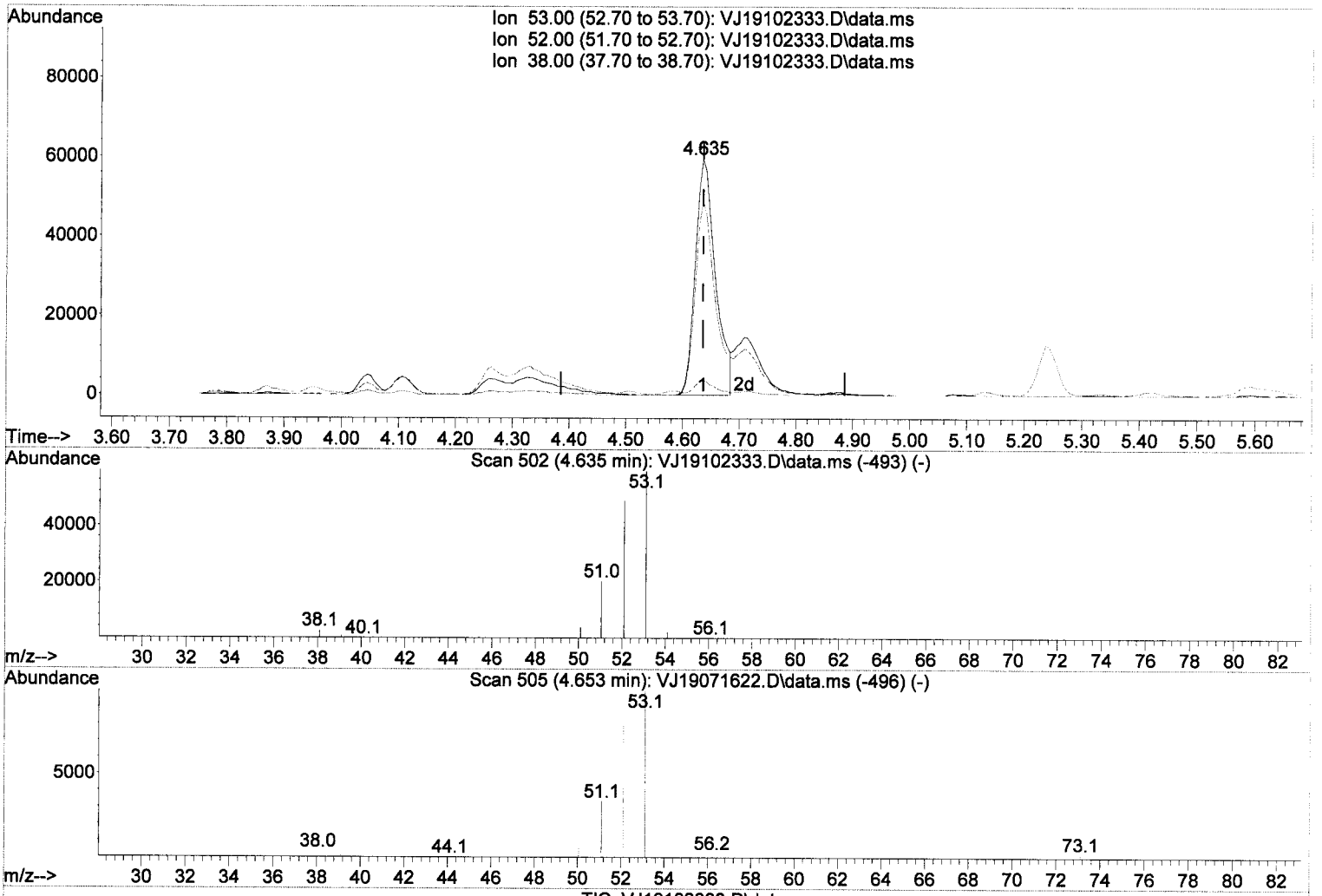
response 4143802

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102333.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 154.84 ug/L

response 147629

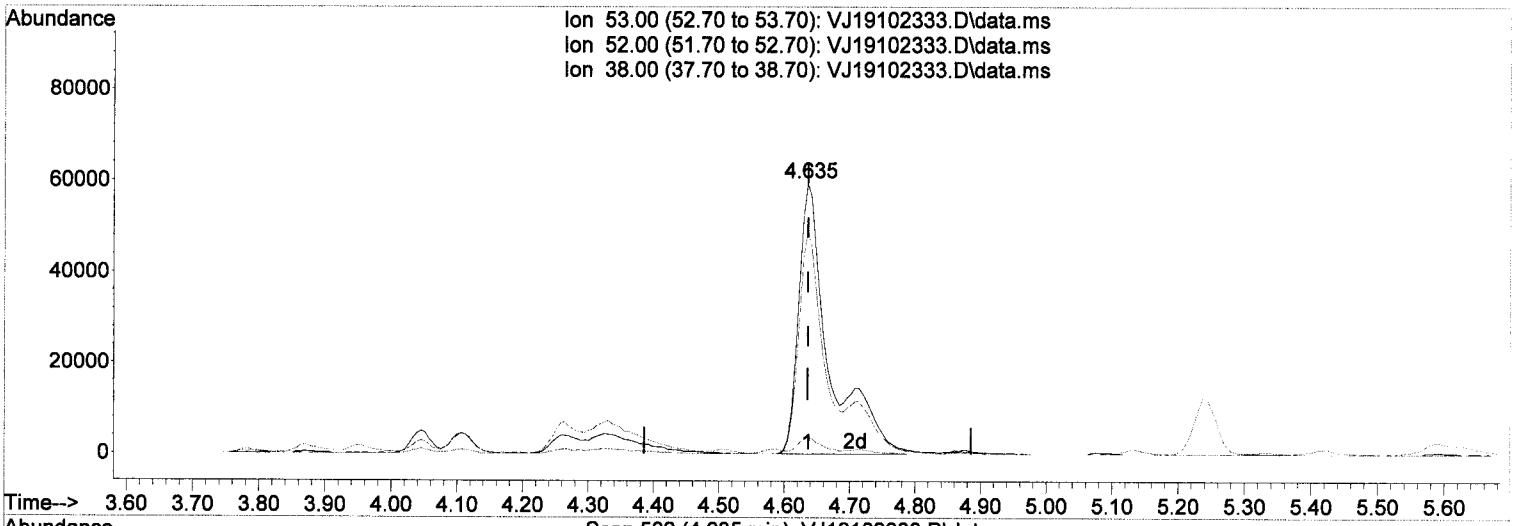
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	5.06
0.00	0.00	0.00

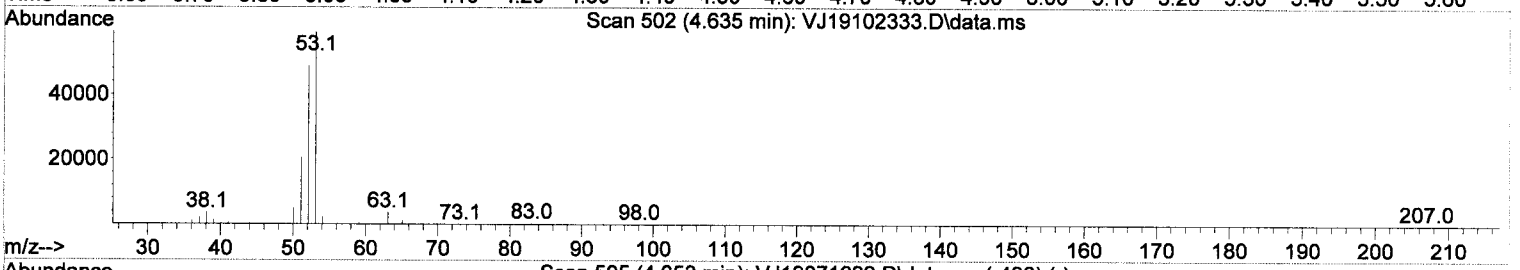
M.2.

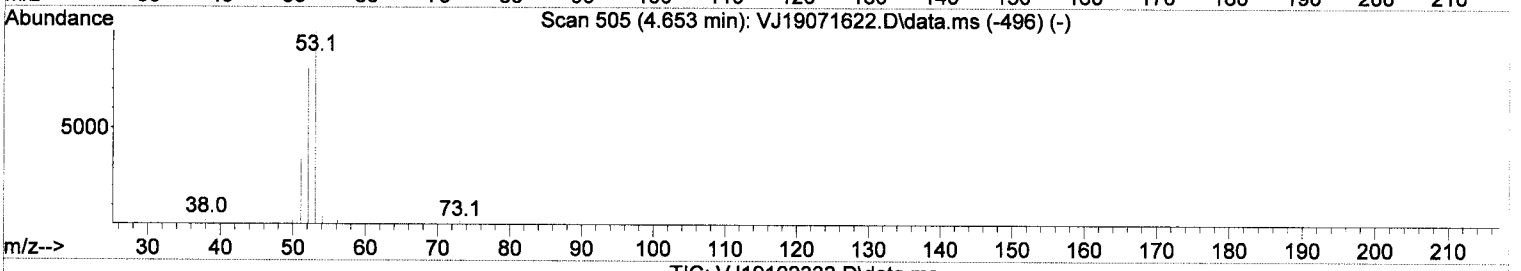
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 205.11 ug/L m

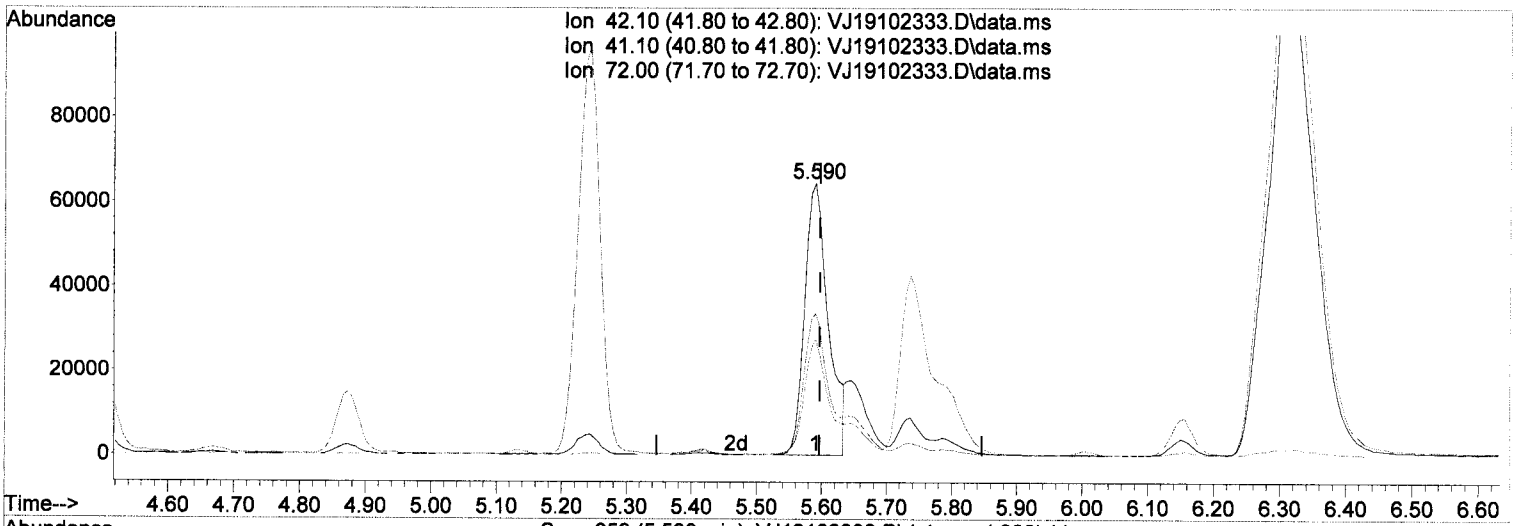
response 195553

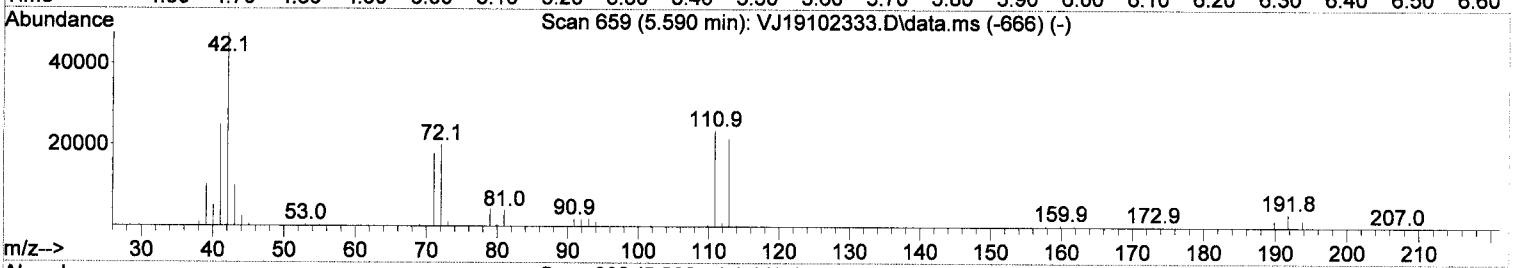
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	6.20
0.00	0.00	0.00

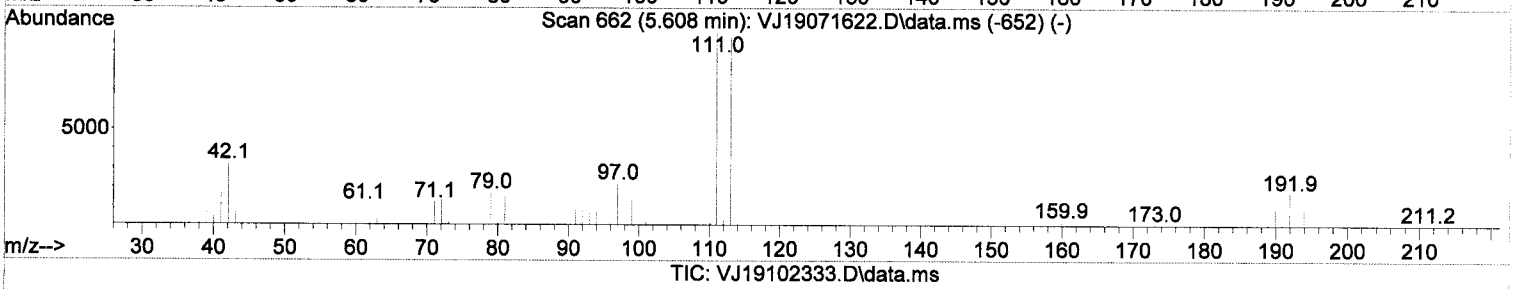
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(28) Tetrahydrofuran

5.590min (-0.006) 141.19 ug/L

response 162789

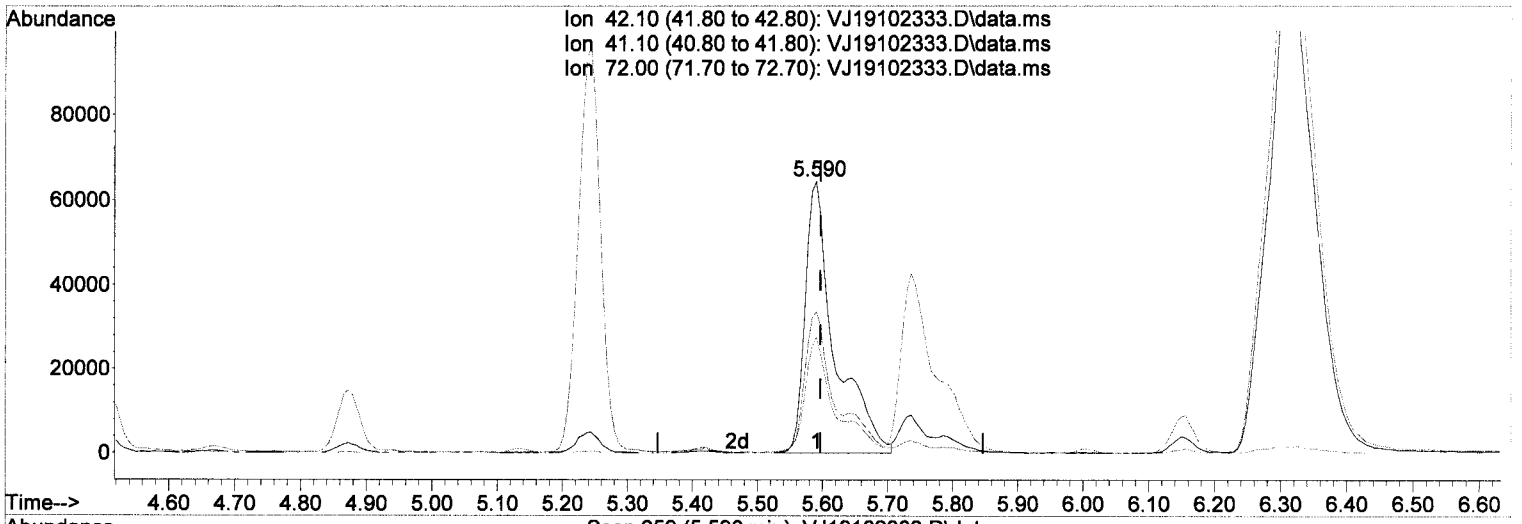
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	51.87
72.00	40.40	42.79
0.00	0.00	0.00

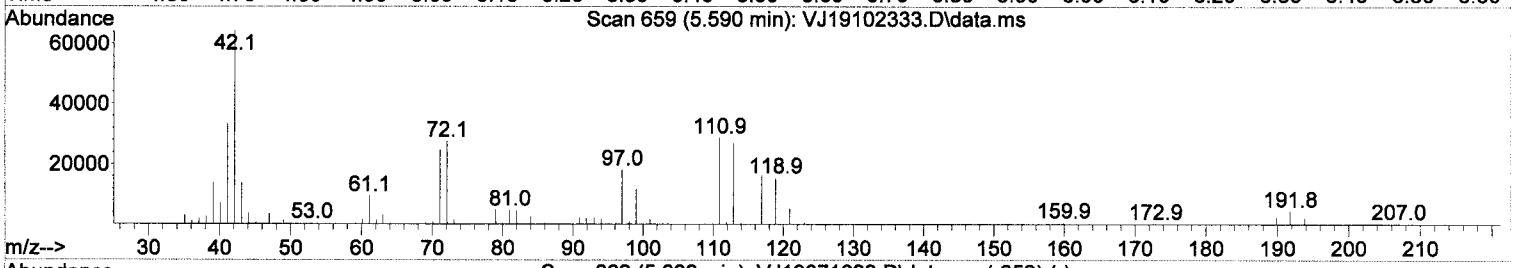
M.2.

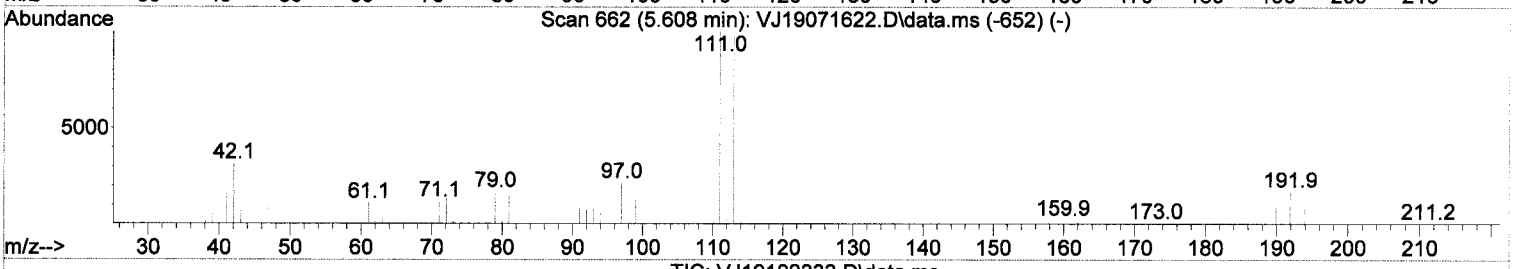
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(28) Tetrahydrofuran

5.590min (-0.006) 177.00 ug/L m

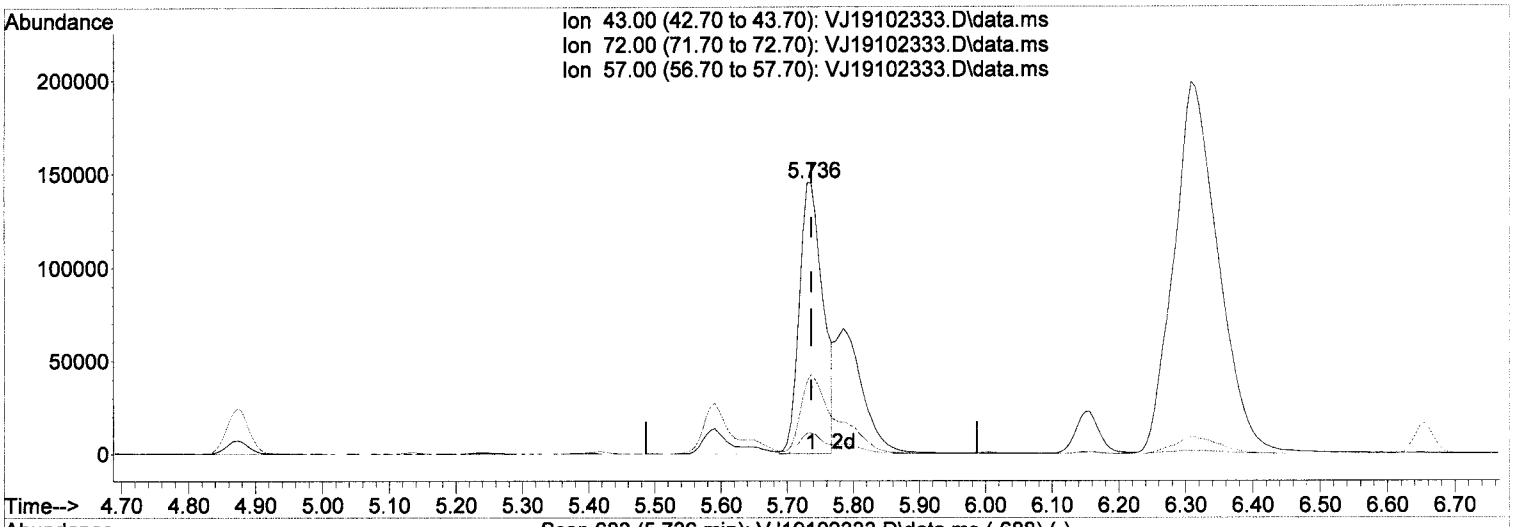
response 204078

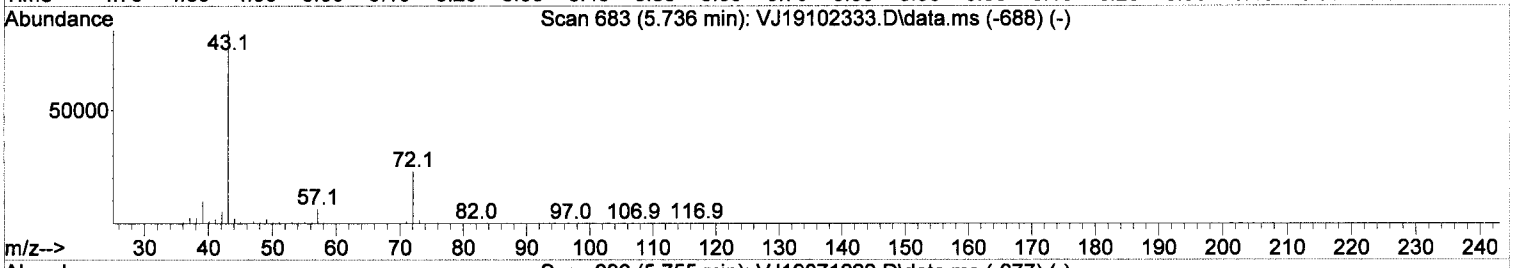
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	52.22
72.00	40.40	42.79
0.00	0.00	0.00

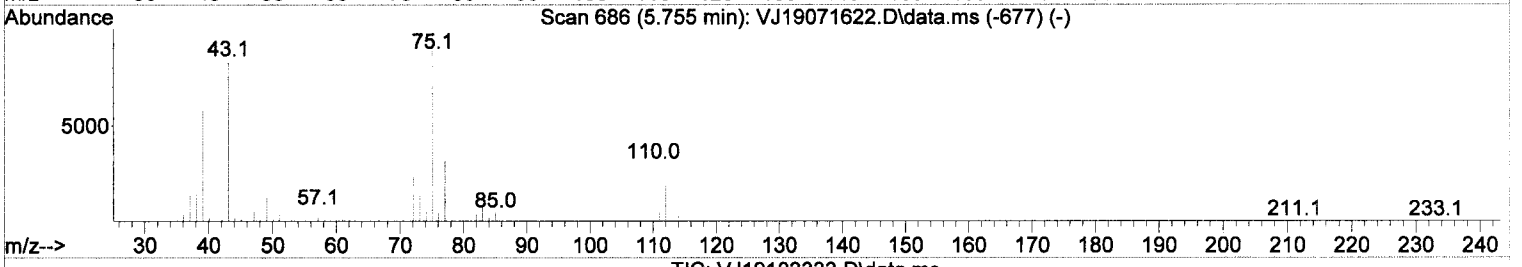
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 207.84 ug/L

response 360862

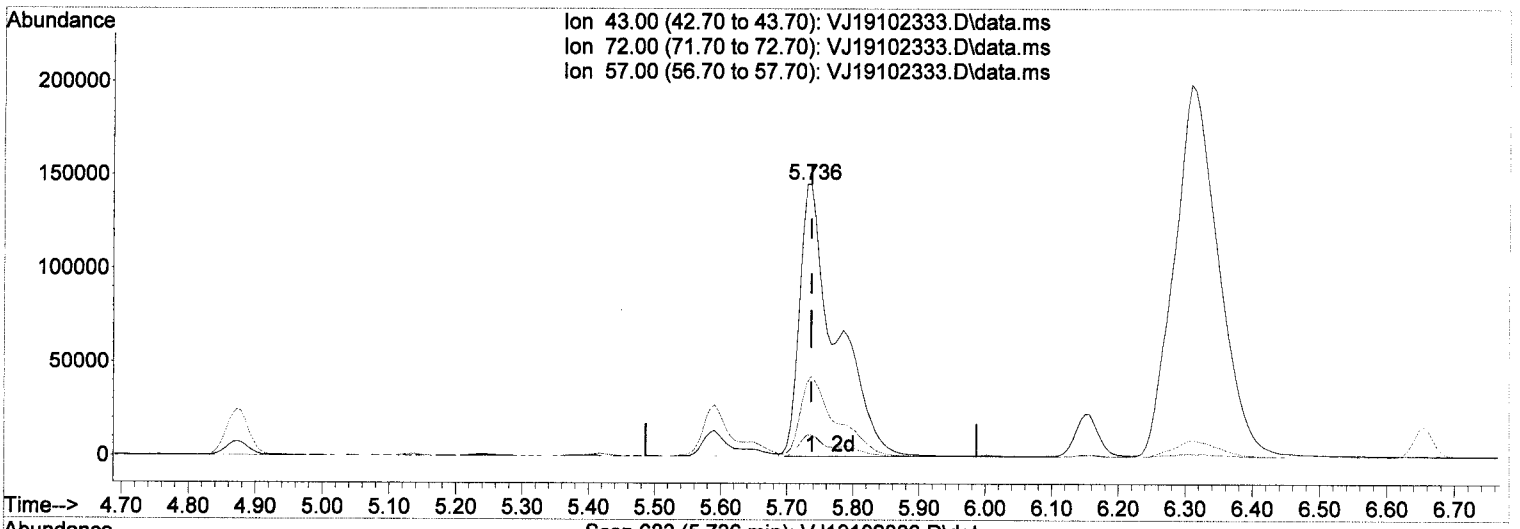
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.42
57.00	7.20	7.96
0.00	0.00	0.00

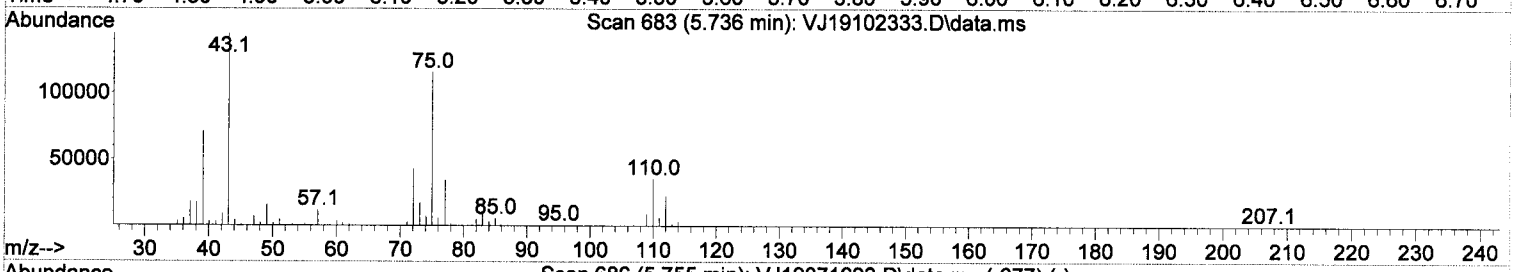
M.J.

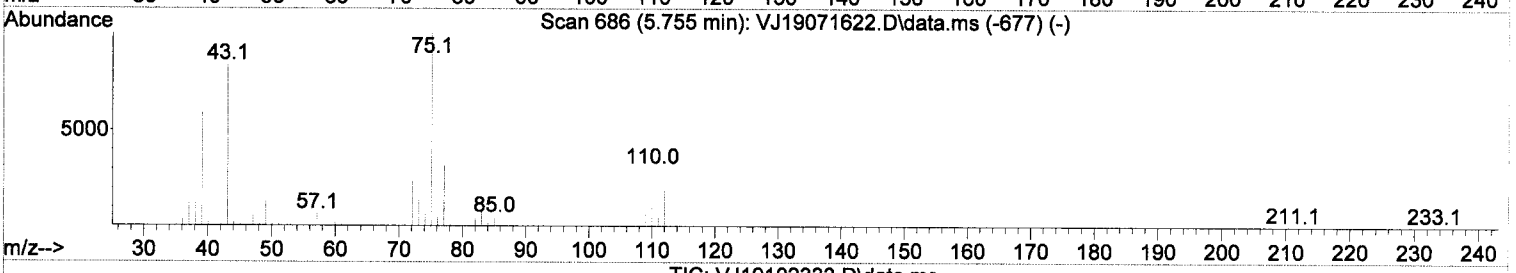
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 321.23 ug/L (m)

response 557729

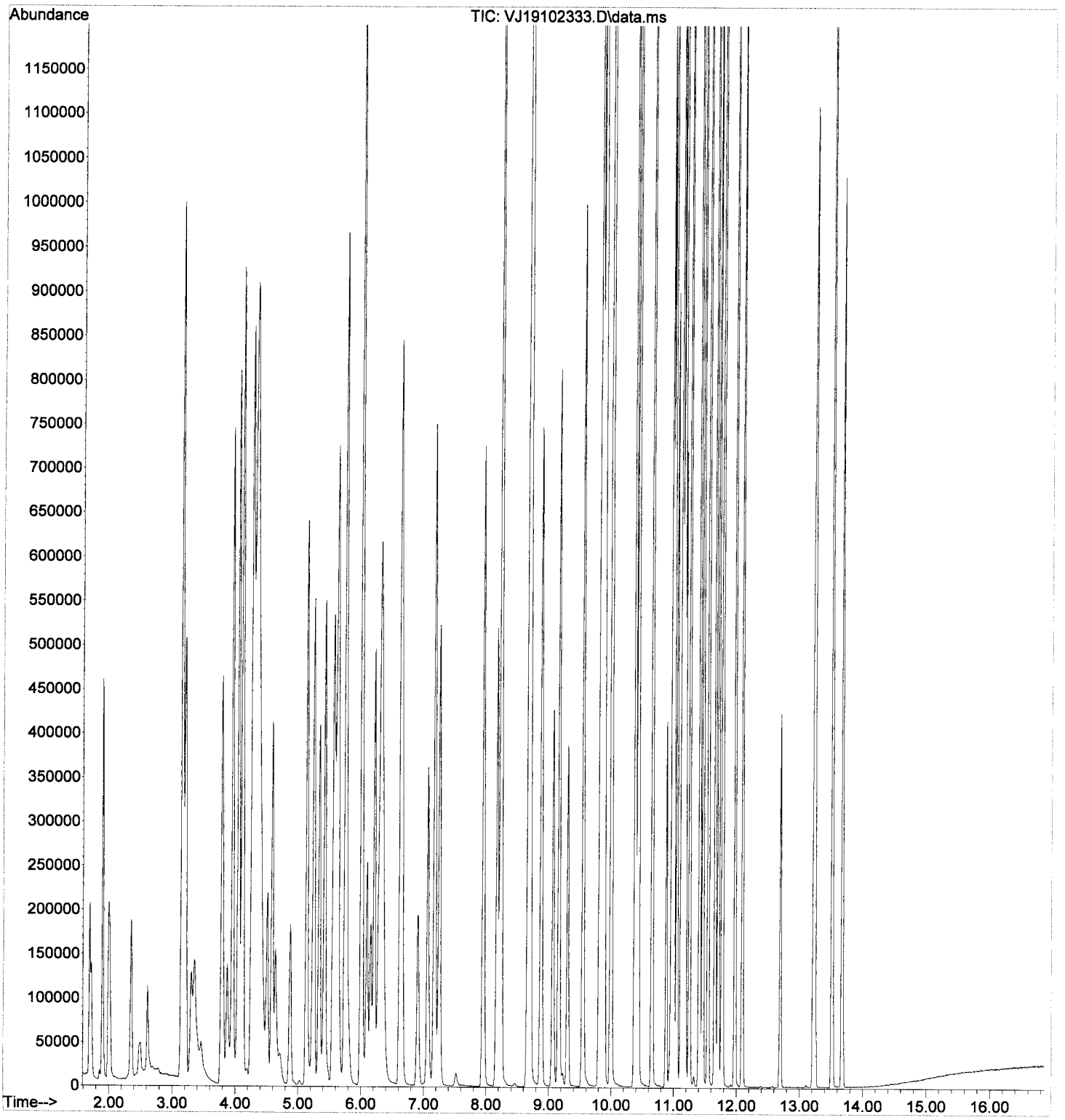
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	29.40
57.00	7.20	7.90
0.00	0.00	0.00

m 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	104554	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	284982	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116300	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	80800	48.89	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	322580	50.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	399241	50.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	86666	51.61	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	796	0.33	ug/L	#	51
3) Chloromethane	1.892	50	3867	0.94	ug/L		94
5) Bromomethane	2.342	96	5091	1.60	ug/L		99
6) Chloroethane	2.463	64	55	1.35	ug/L	#	8
8) Ethanol	3.333	45	5609	Below Cal			90
9) 1,1-Dichloroethene	3.139	61	786	0.20	ug/L	#	64
10) Carbon Disulfide	3.151	76	4770	0.66	ug/L		87
11) Freon 113	3.193	101	775	0.33	ug/L		81
12) Iodomethane	3.291	142	5133	6.48	ug/L		83
13) Methylene Chloride	3.784	84	5648	1.49	ug/L		88
14) Acetone	3.875	43	2370	1.49	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	1187	0.29	ug/L		85
18) tert-Butanol (TBA)	4.270	59	353	0.43	ug/L	#	1
28) Tetrahydrofuran	5.621	42	406	0.19	ug/L	#	60
31) 1,1-Dichloropropene	5.749	75	1167	0.28	ug/L		86
32) 2-Butanone (MEK)	5.742	43	1402	0.50	ug/L		91
33) Benzene	6.004	78	1461	0.11	ug/L		81
36) iso-Butyl Alcohol	6.320	43	926	2.88	ug/L		92
38) Trichloroethene (TCE)	6.631	130	579	0.22	ug/L	#	66
46) Toluene	8.231	91	1947	0.15	ug/L		92
47) Tetrachloroethene (PCE)	8.681	166	934	0.38	ug/L		80
55) Chlorobenzene	9.818	112	1177	0.15	ug/L	#	1
56) Ethylbenzene	9.855	91	2568	0.20	ug/L		98
58) m,p-Xylenes (2)	10.001	91	4085	0.44	ug/L		95
59) o-Xylene	10.378	91	1317	0.15	ug/L		92
60) Styrene	10.427	104	704	0.28	ug/L		71
62) Isopropylbenzene	10.652	105	2219	0.21	ug/L		89
65) Bromobenzene	10.968	156	416	0.17	ug/L		80
66) n-Propylbenzene	10.999	91	4554	0.36	ug/L		97
68) 2-Chlorotoluene	11.114	126	573	0.25	ug/L		86
69) 1,3,5-Trimethylbenzene	11.157	105	2207	0.28	ug/L		94
72) 4-Chlorotoluene	11.254	91	2585	0.35	ug/L		92
73) tert-Butylbenzene	11.406	91	1163	0.25	ug/L	#	79
74) 1,2,4-Trimethylbenzene	11.461	105	2363	0.30	ug/L		97
75) sec-Butylbenzene	11.546	105	3443	0.35	ug/L		95
76) 4-Isopropyltoluene	11.656	119	3126	0.41	ug/L		94
77) 1,3-Dichlorobenzene	11.710	146	1896	0.44	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	2115	0.46	ug/L	#	78
79) n-Butylbenzene	11.978	91	4572	0.62	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	1108	0.28	ug/L		84
82) Hexachlorobutadiene	13.219	223	629	1.25	ug/L		93
83) 1,2,4-Trichlorobenzene	13.243	180	2262	0.94	ug/L		95
84) Naphthalene	13.517	128	8728	1.01	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

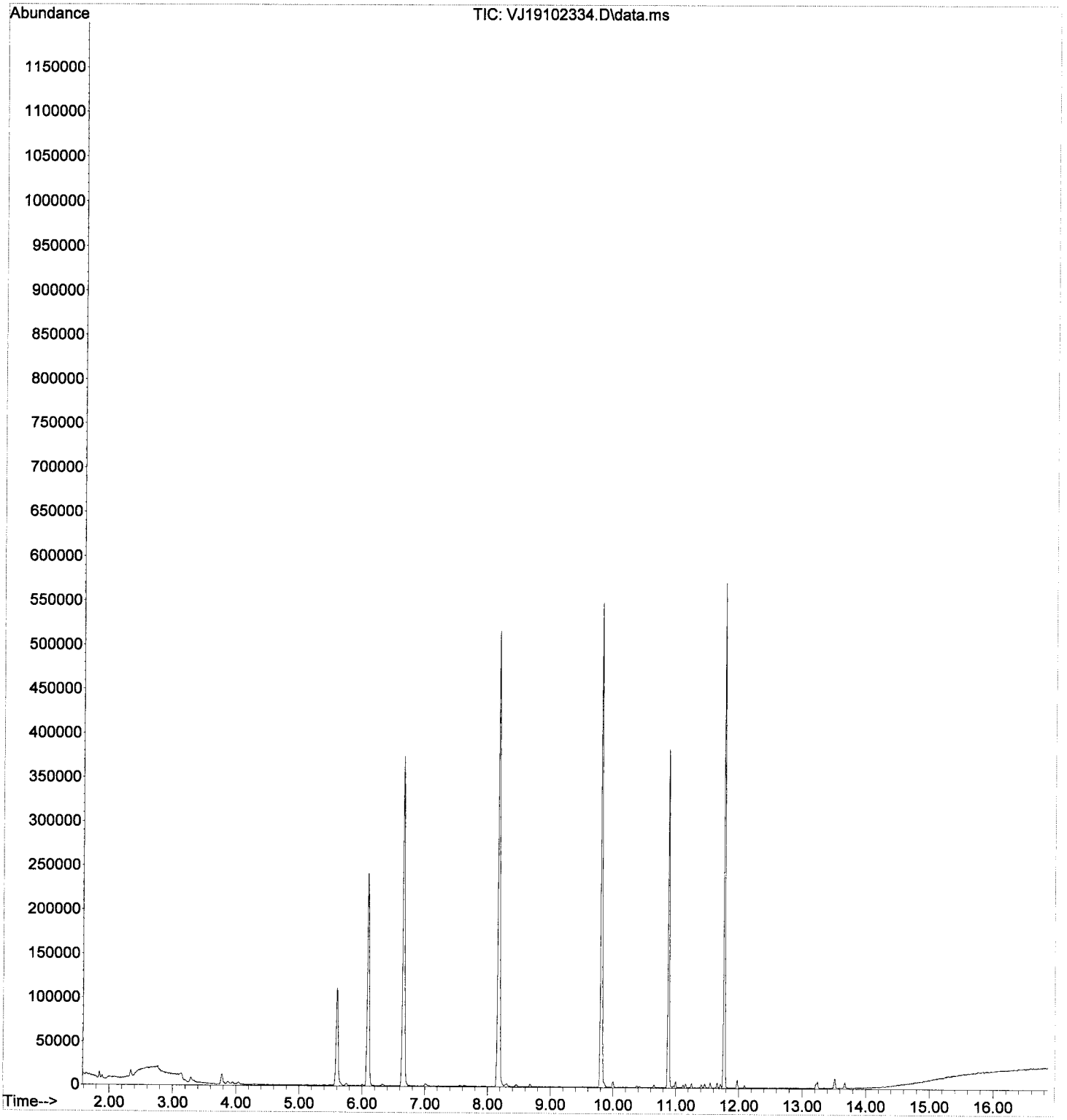
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) 1,2,3-Trichlorobenzene	13.675	180	2207	0.94	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	110028	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	301031	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	133612	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	89835	60.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	346693	72.76	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	415139	50.79	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	92209	44.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	~~292431~~	107.98	ug/L		97
3) Chloromethane	1.892	50	787223	267.39	ug/L		100
4) Vinyl Chloride	1.983	62	635586	232.67	ug/L		96
5) Bromomethane	2.342	96	258257	240.16	ug/L		99
6) Chloroethane	2.488	64	92724	77.59	ug/L		98
7) Trichlorofluoromethane	2.597	101	147731	39.48	ug/L		97
8) Ethanol	3.400	45	713	11.78	ug/L		96
9) 1,1-Dichloroethene	3.139	61	780132	233.34	ug/L		94
10) Carbon Disulfide	3.151	76	1509890	362.72	ug/L		99
11) Freon 113	3.193	101	501626	334.62	ug/L		86
12) Iodomethane	3.291	142	265396	238.33	ug/L		91
13) Methylene Chloride	3.777	84	493458	298.49	ug/L		94
14) Acetone	3.863	43	~~496457~~	408.38	ug/L		99
15) t-1,2-Dichloroethene	3.942	61	823777	273.36	ug/L		96
16) n-Hexane	4.039	86	140691	365.93	ug/L	#	76
17) Methyl-tert-butyl-ether	4.100	73	2113381	257.85	ug/L		98
18) tert-Butanol (TBA)	0.000		0	N.D.			
19) Diisopropyl ether (DIPE)	0.000		0	N.D.			
20) 1,1-Dichloroethane	4.580	63	865836	250.20	ug/L		99
21) Acrylonitrile	4.629	53	~~328546~~	344.33	ug/L		97
22) Ethyl-tert-butyl ether...	4.860	59	57	0.01	ug/L	#	38
23) c-1,2-Dichloroethene	5.128	61	811012	248.58	ug/L		98
24) 2,2-Dichloropropane	5.237	77	813691	212.88	ug/L		98
25) Bromochloromethane	5.329	49	489443	270.12	ug/L		84
26) Chloroform	5.414	83	951891	225.05	ug/L		96
27) Carbon Tetrachloride	5.554	117	735322	210.11	ug/L		96
28) Tetrahydrofuran	5.584	42	~~357281~~	309.64	ug/L		96
29) 1,1,1-Trichloroethane	5.621	97	937584	225.11	ug/L		97
31) 1,1-Dichloropropene	5.748	75	896409	276.59	ug/L		95
32) 2-Butanone (MEK)	5.730	43	~~847722~~	487.88	ug/L		97
33) Benzene	6.004	78	2717357	324.94	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	133	0.02	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.205	62	860316	179.89	ug/L		99
36) iso-Butyl Alcohol	6.302	43	1895741	10517.61	ug/L		97
38) Trichloroethene (TCE)	6.625	130	600664	270.76	ug/L		97
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	7.063	93	353624	250.91	ug/L		84
41) 1,2-Dichloropropane	7.172	63	710561	325.50	ug/L		97
42) Bromodichloromethane	7.245	83	825346	257.33	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	1055097	227.94	ug/L		95
46) Toluene	8.231	91	2694190	217.35	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	563695	225.19	ug/L		85
48) 4-Methyl-2-Pentanone (...	8.675	43	1880689	467.22	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

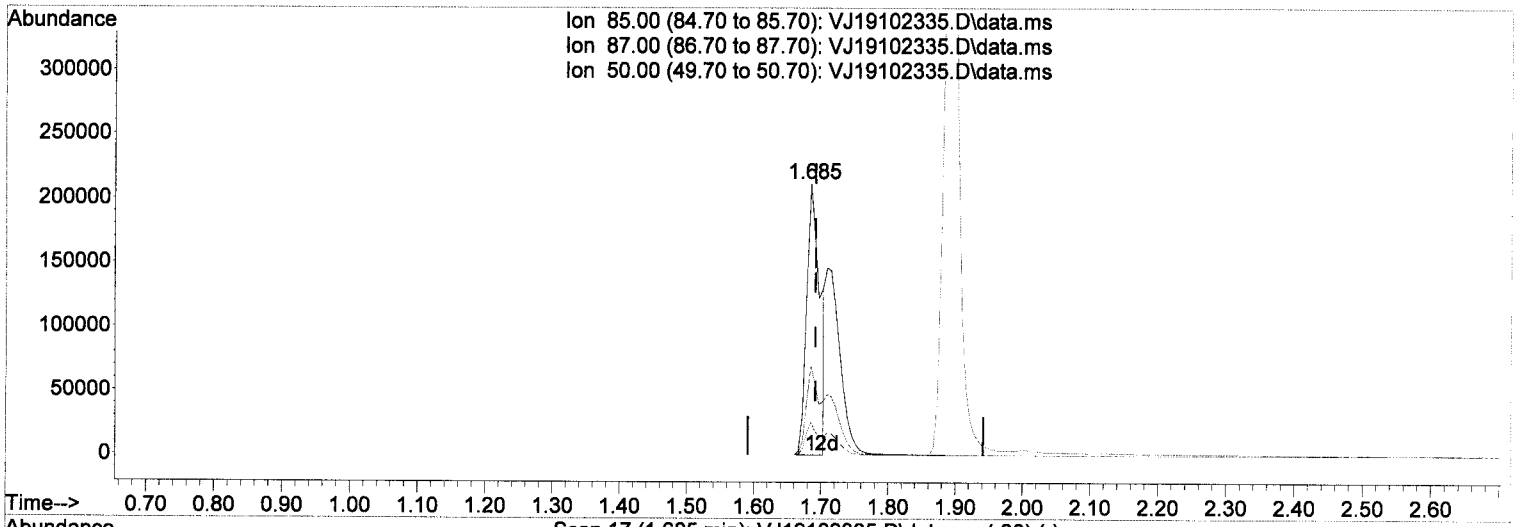
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	979397	197.94	ug/L		98
50) 1,1,2-Trichloroethane	8.875	97	564264	214.50	ug/L		97
51) Dibromochloromethane	9.064	129	542189	193.99	ug/L		99
52) 1,3-Dichloropropane	9.161	76	1049067	197.21	ug/L		98
53) 1,2-Dibromoethane (EDB)	9.301	107	586578	210.31	ug/L		100
54) 2-Hexanone	9.545	43	1458573	481.12	ug/L		96
55) Chlorobenzene	9.825	112	1537073	205.55	ug/L		96
56) Ethylbenzene	9.861	91	2864835	200.77	ug/L		100
57) 1,1,1,2-Tetrachloroethane	9.885	131	543615	191.69	ug/L		97
58) m,p-Xylenes (2)	9.995	91	4351315	398.18	ug/L		99
59) o-Xylene	10.378	91	2102591	193.64	ug/L		97
60) Styrene	10.421	104	1640257	240.92	ug/L		99
61) Bromoform	10.439	173	371025	177.73	ug/L		97
62) Isopropylbenzene	10.652	105	2575948	205.41	ug/L		98
65) Bromobenzene	10.968	156	539540	212.10	ug/L	#	82
66) n-Propylbenzene	10.999	91	3009505	205.36	ug/L		97
67) 1,1,2,2-Tetrachloroethane	11.047	83	808397	261.23	ug/L		97
68) 2-Chlorotoluene	11.120	126	541055	216.31	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	2020440	202.57	ug/L		96
70) 1,2,3-Trichloropropane	11.151	110	266315	199.87	ug/L		92
71) t-1,4-Dichloro-2-butene	11.187	88	121850	188.67	ug/L	#	92
72) 4-Chlorotoluene	11.248	91	1741373	192.36	ug/L		93
73) tert-Butylbenzene	11.406	91	1137746	175.29	ug/L		91
74) 1,2,4-Trimethylbenzene	11.461	105	1974970	195.77	ug/L		97
75) sec-Butylbenzene	11.546	105	2487376	212.22	ug/L		96
76) 4-Isopropyltoluene	11.656	119	1999489	202.71	ug/L		98
77) 1,3-Dichlorobenzene	11.710	146	987891	199.81	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	992164	207.74	ug/L		95
79) n-Butylbenzene	11.972	91	1809932	198.83	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	919855	201.50	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	195586	269.62	ug/L		75
82) Hexachlorobutadiene	13.219	223	119522	166.93	ug/L		94
83) 1,2,4-Trichlorobenzene	13.243	180	586605	204.77	ug/L		96
84) Naphthalene	13.511	128	2345481	247.68	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	576564	210.50	ug/L		98

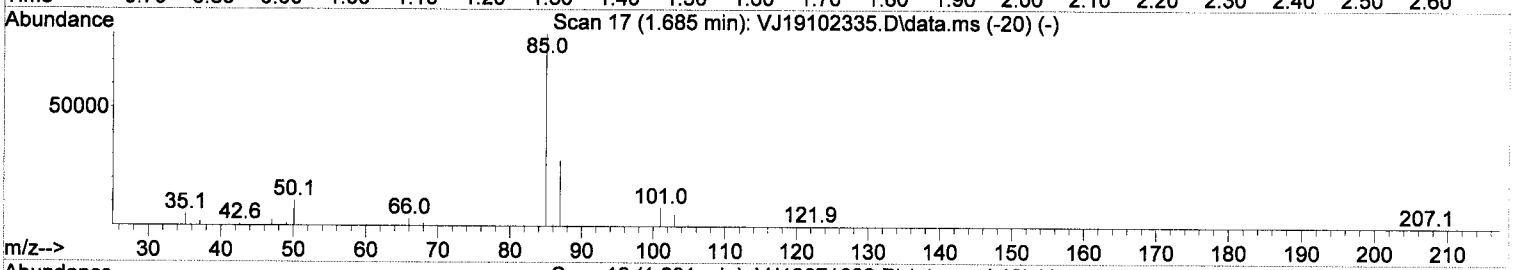
(#) = qualifier out of range (m) = manual integration (+) = signals summed

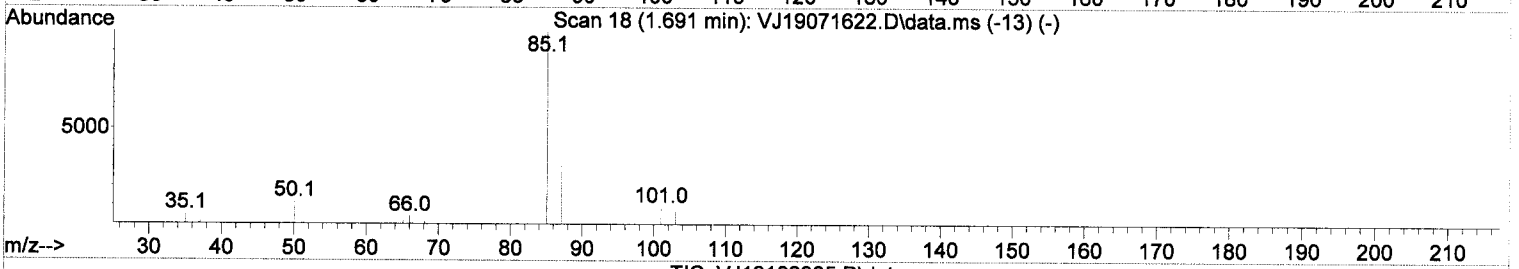
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 107.98 ug/L

response 292431

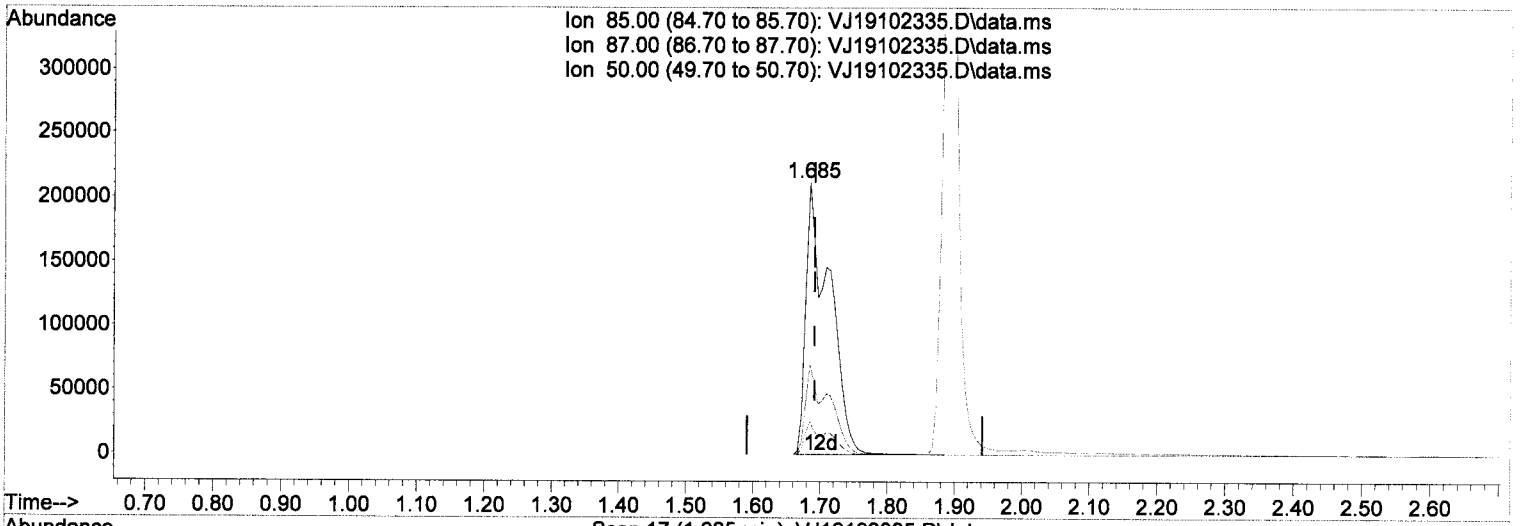
M.2.

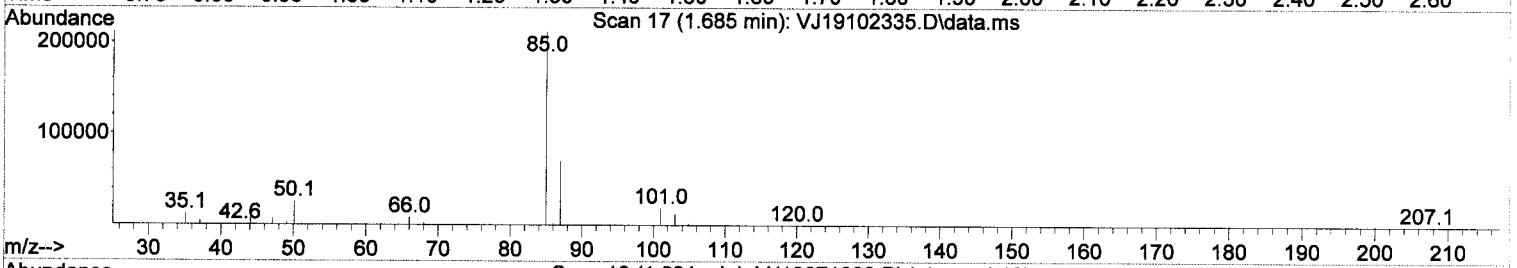
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

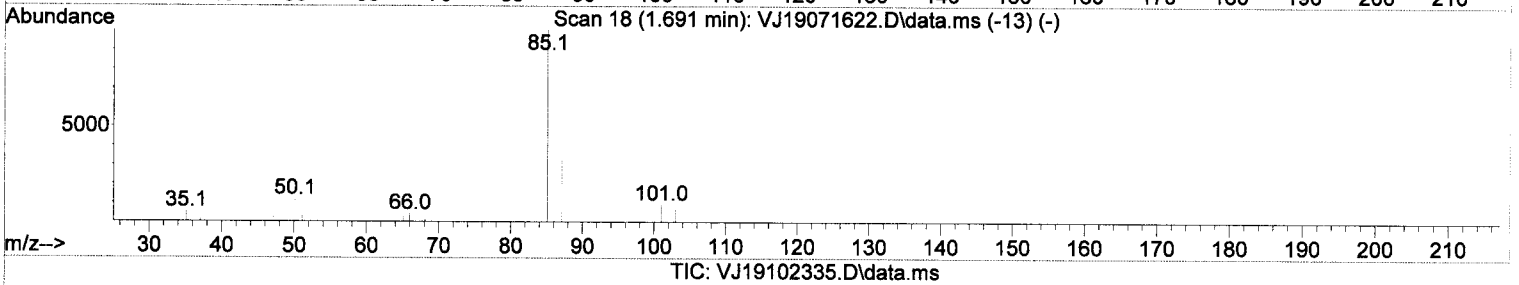
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 190.24 ug/L m

response 515195

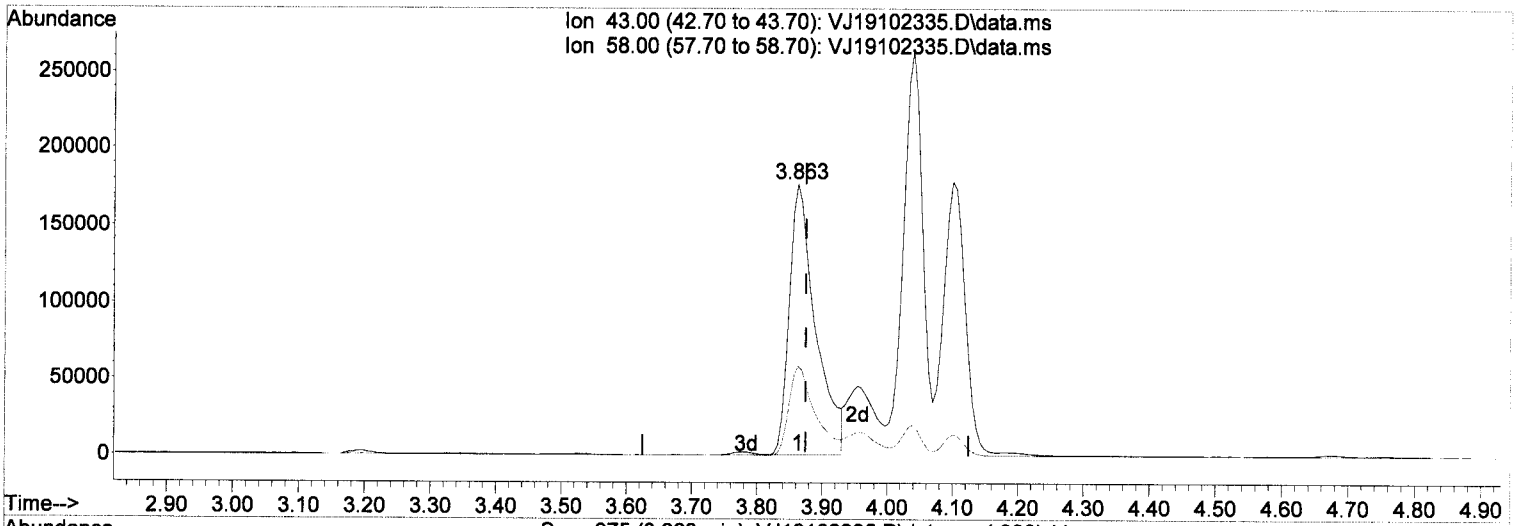
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

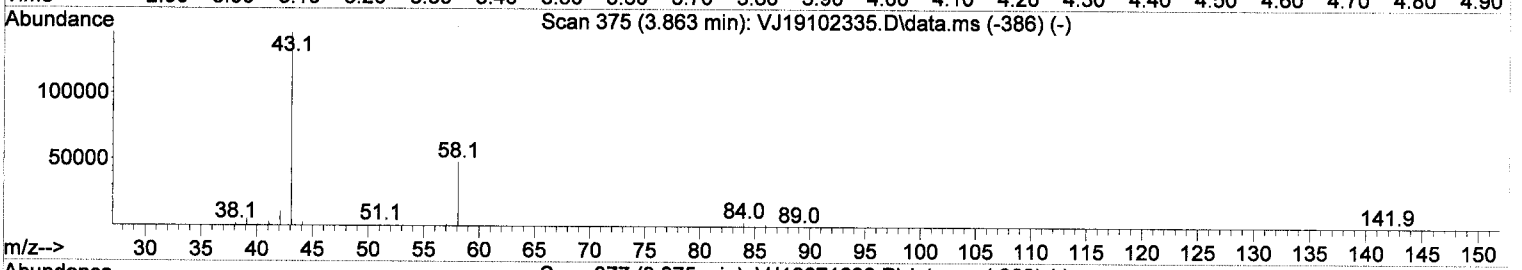
10/24/19

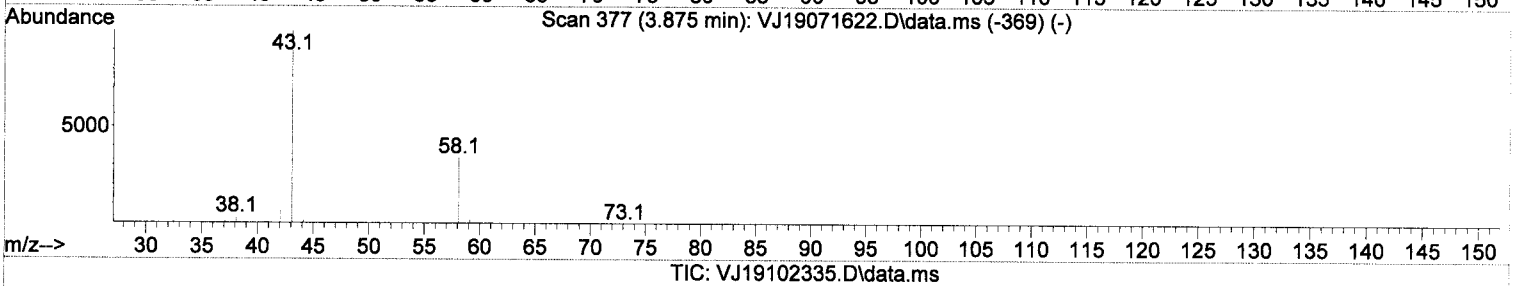
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(14) Acetone

3.863min (-0.011) 408.38 ug/L

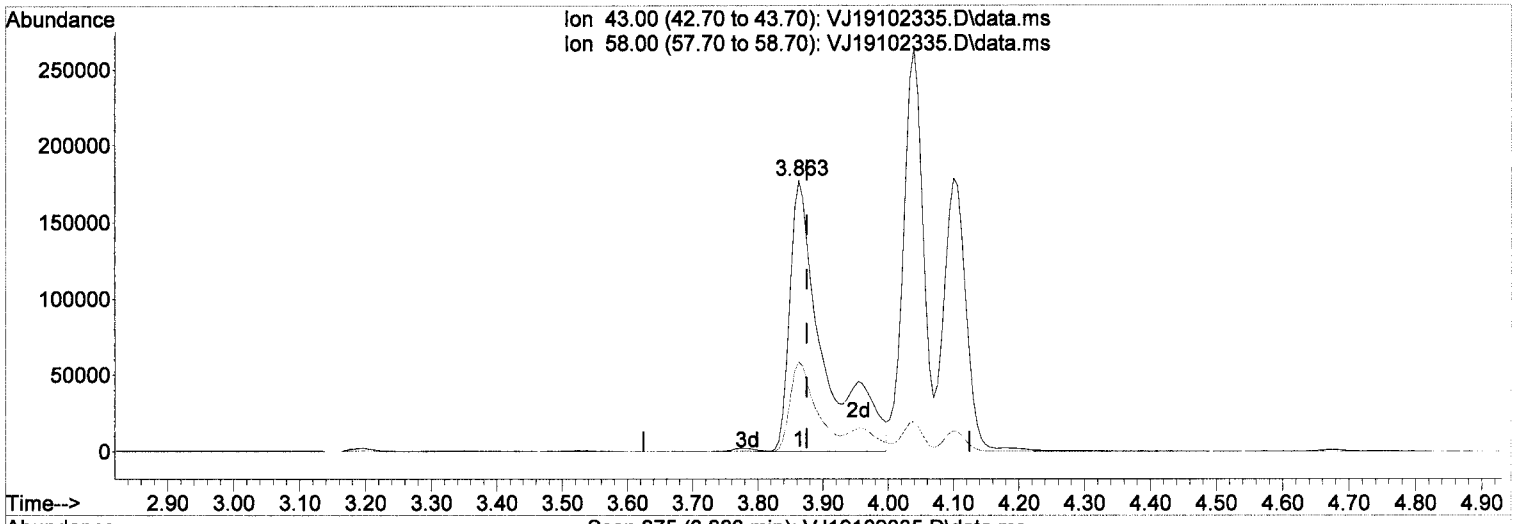
response 496457

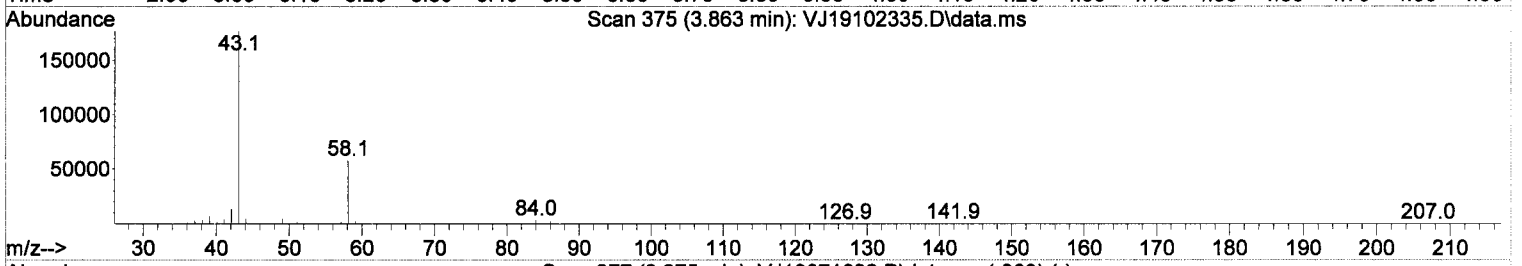
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.01
0.00	0.00	0.00
0.00	0.00	0.00

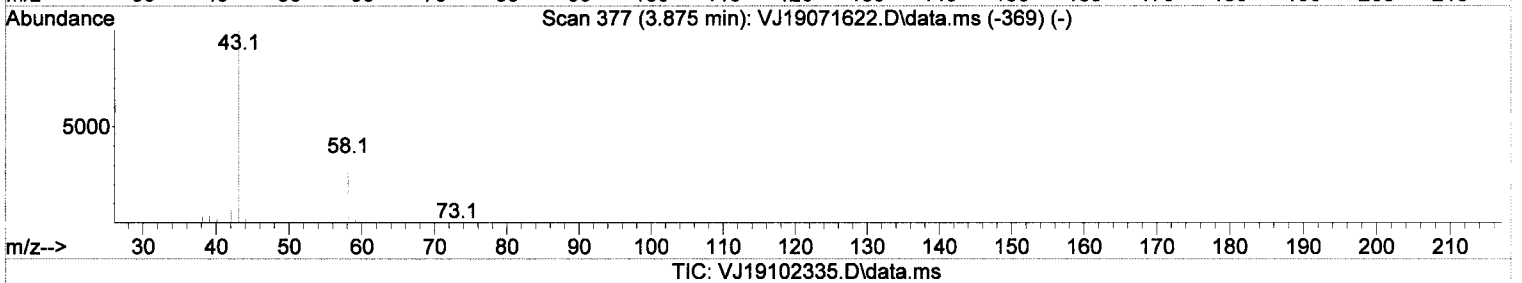
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(14) Acetone

3.863min (-0.011) 523.45 ug/L m

response 636343

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	32.93
0.00	0.00	0.00
0.00	0.00	0.00

M
10/24/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

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Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
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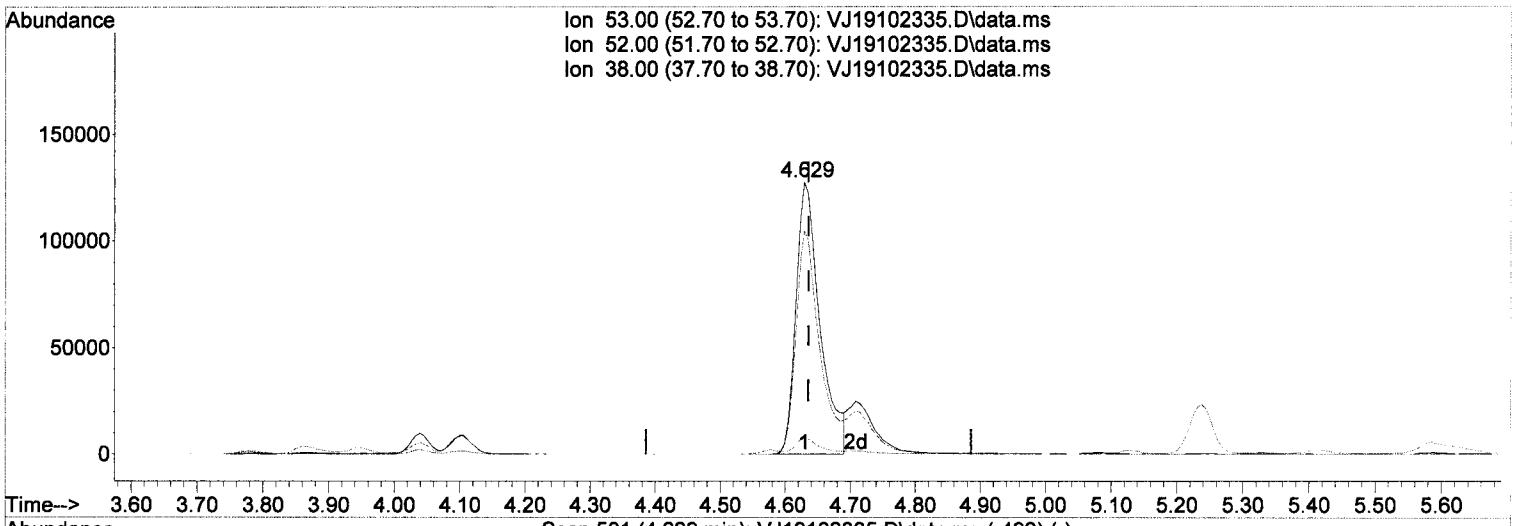
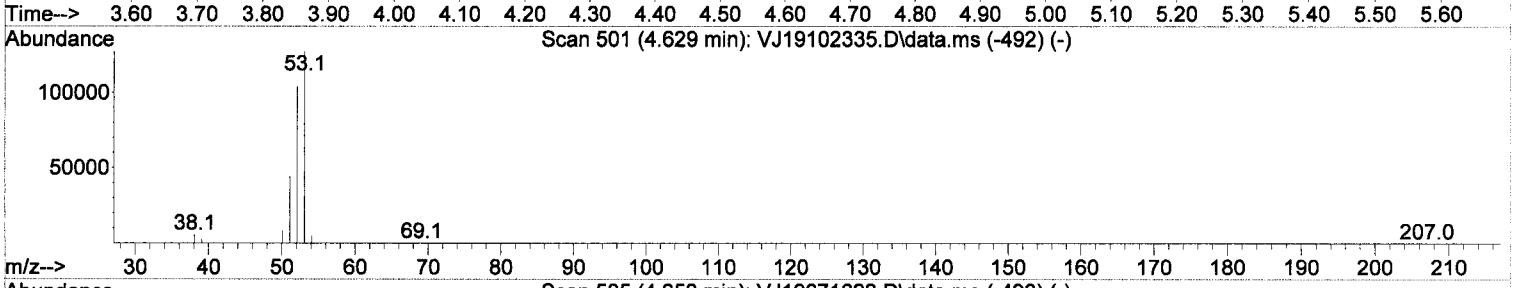
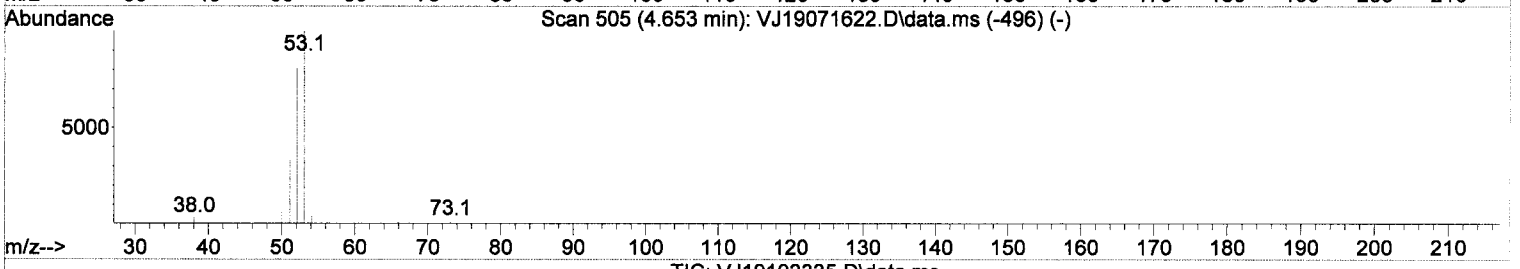
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 344.33 ug/L

response 328546

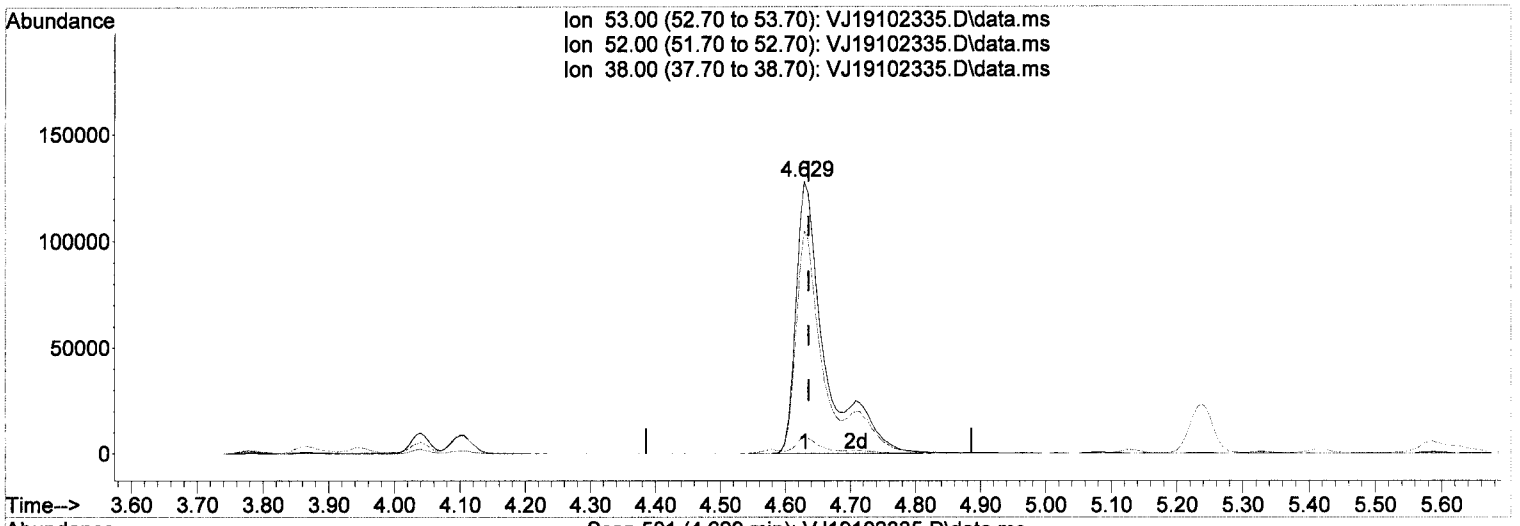
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	4.78
0.00	0.00	0.00

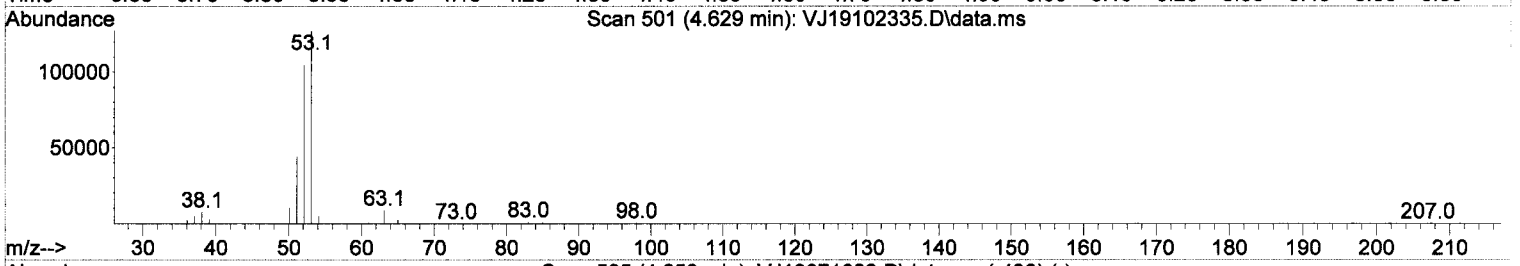
M.2.

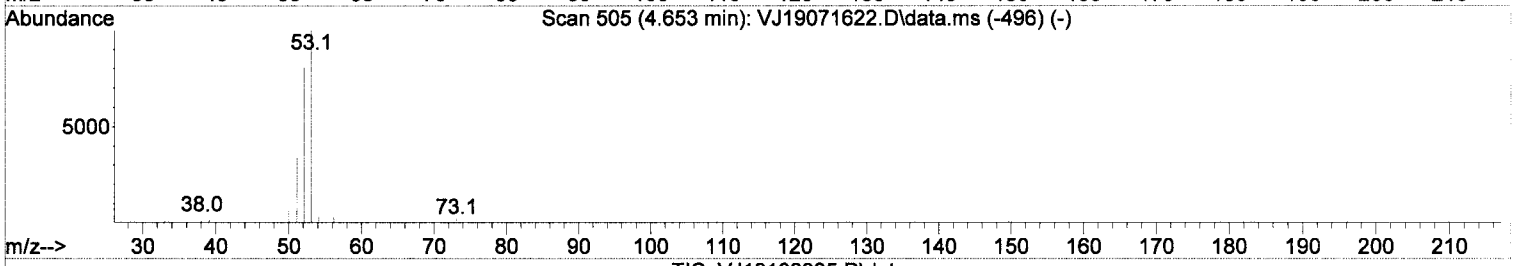
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 419.92 ug/L

response 400678

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	5.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

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Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
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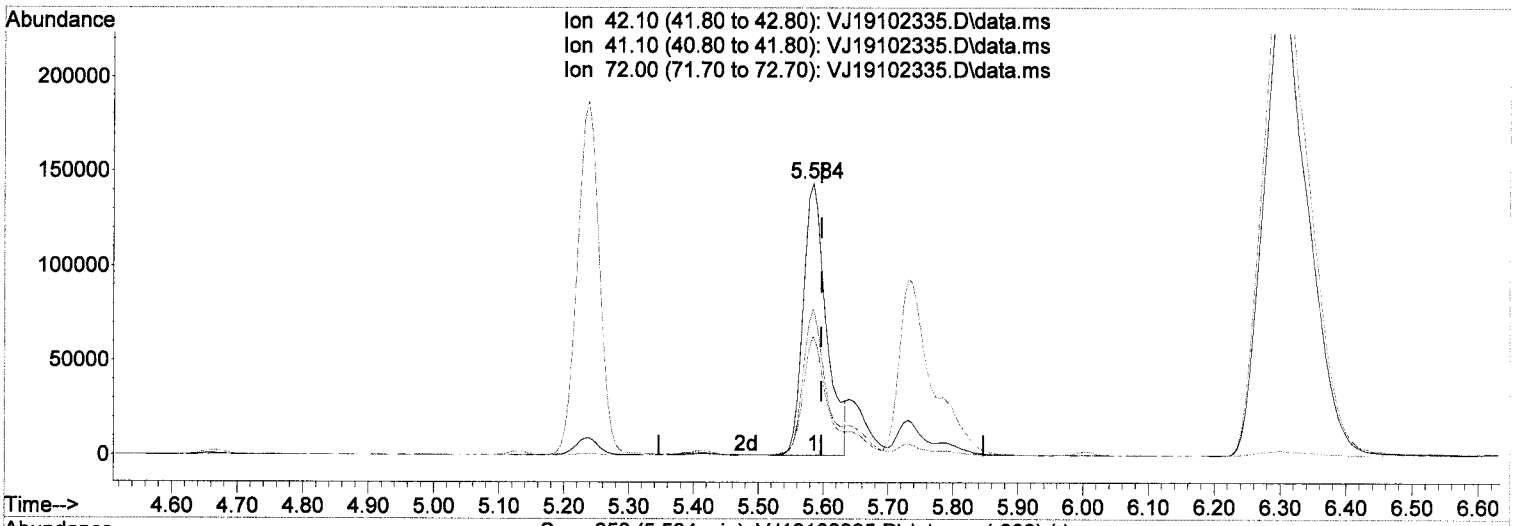

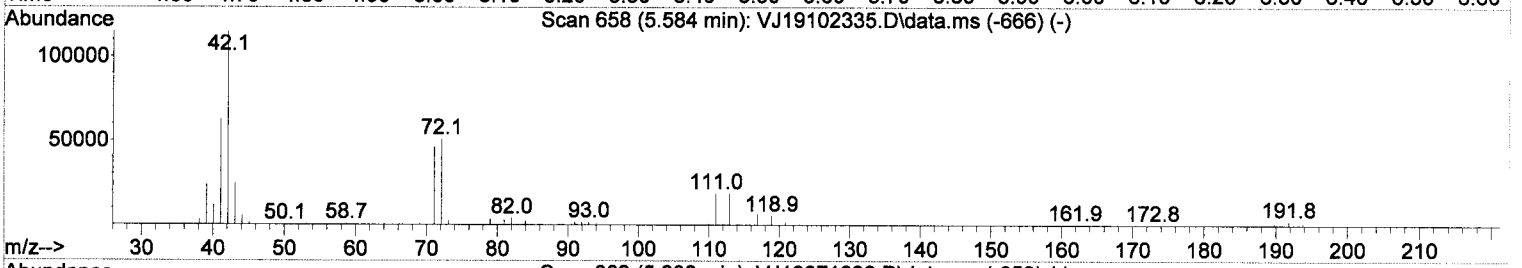

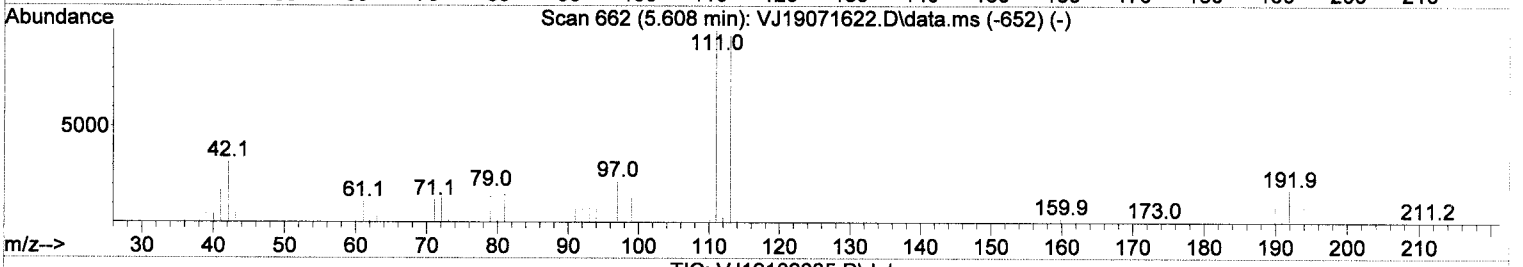

TIC: VJ19102335.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.012) 309.64 ug/L

response 357281

Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	53.96
72.00	40.40	44.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
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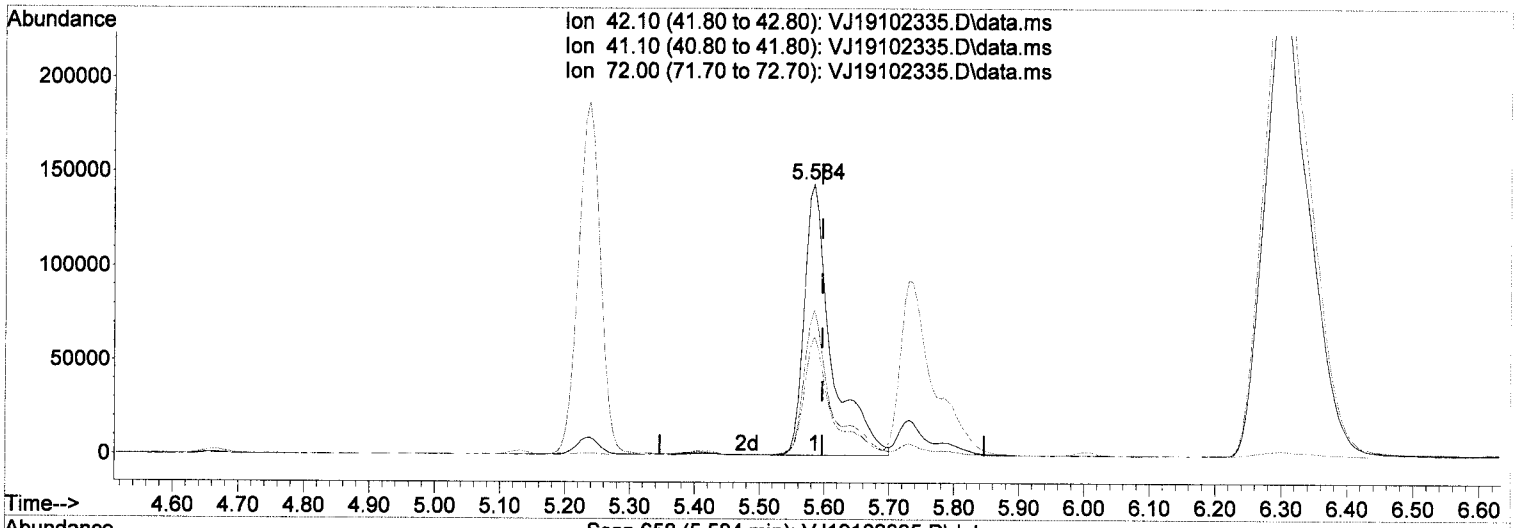

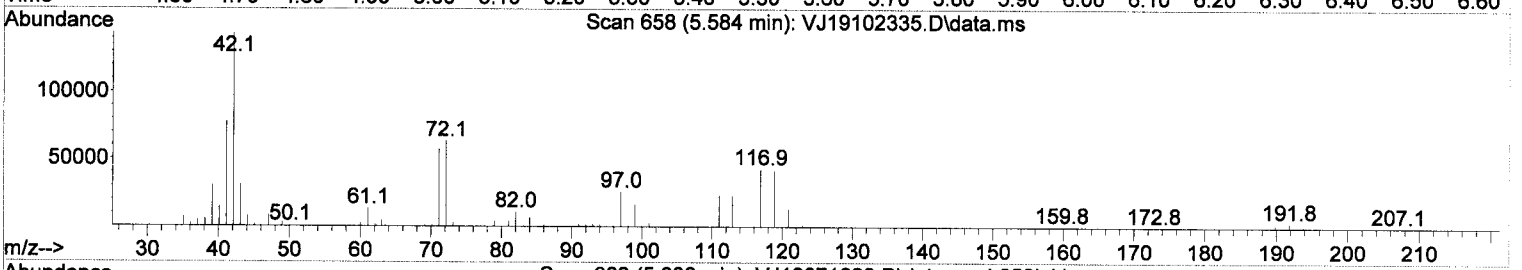

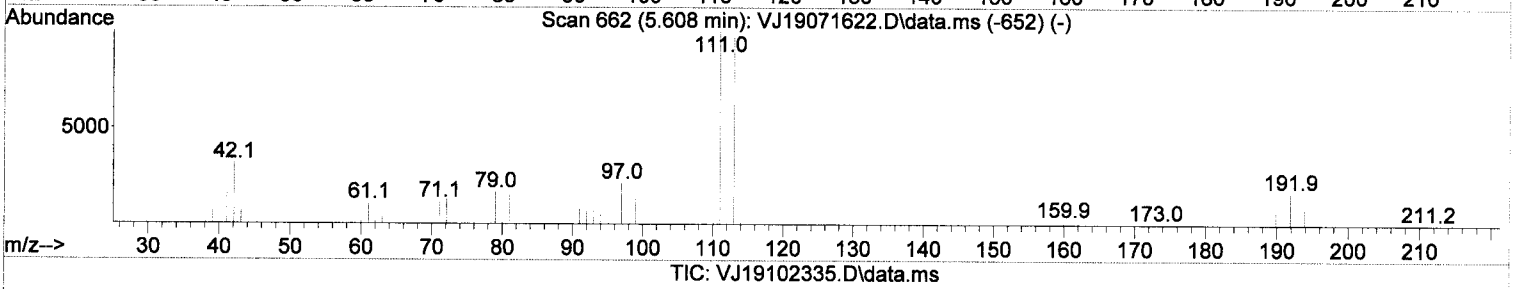

TIC: VJ19102335.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.012) 365.44 ug/L m

response 421666

Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	54.14
72.00	40.40	44.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
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QLast Update : Fri Oct 18 10:09:40 2019
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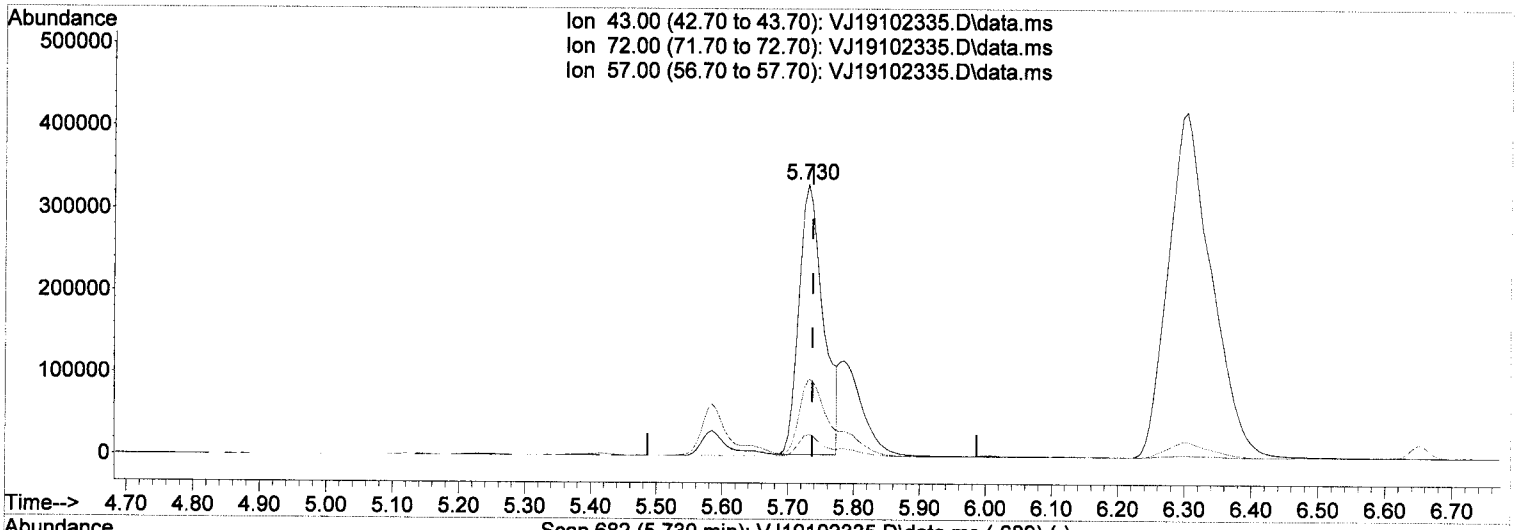
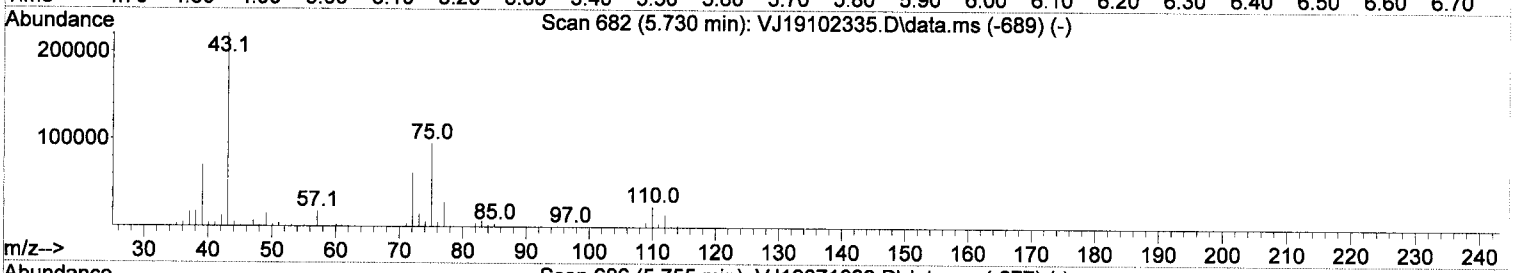
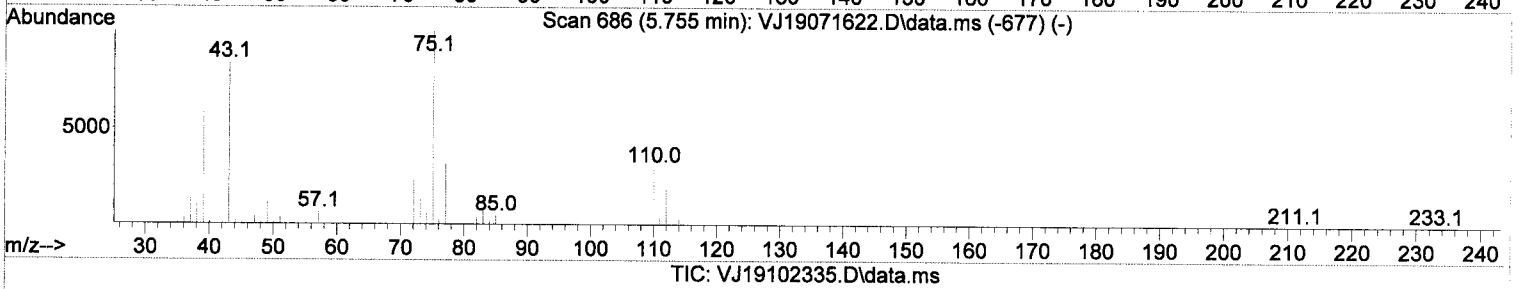






TIC: VJ19102335.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 487.88 ug/L

response 847722

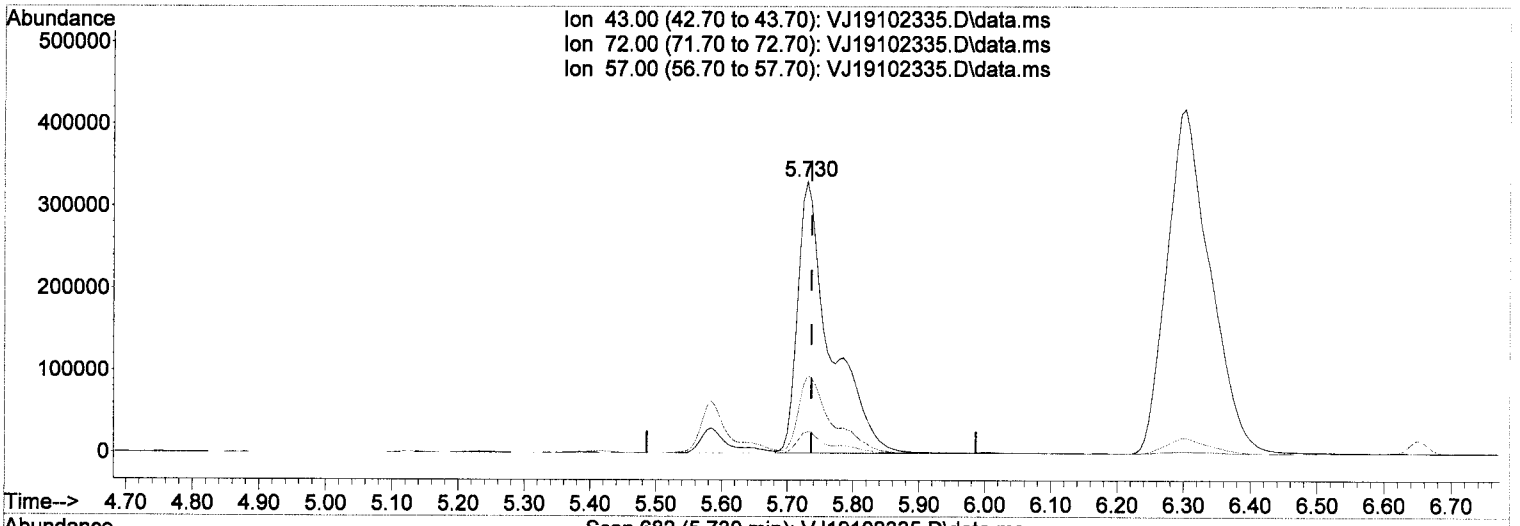
M.2

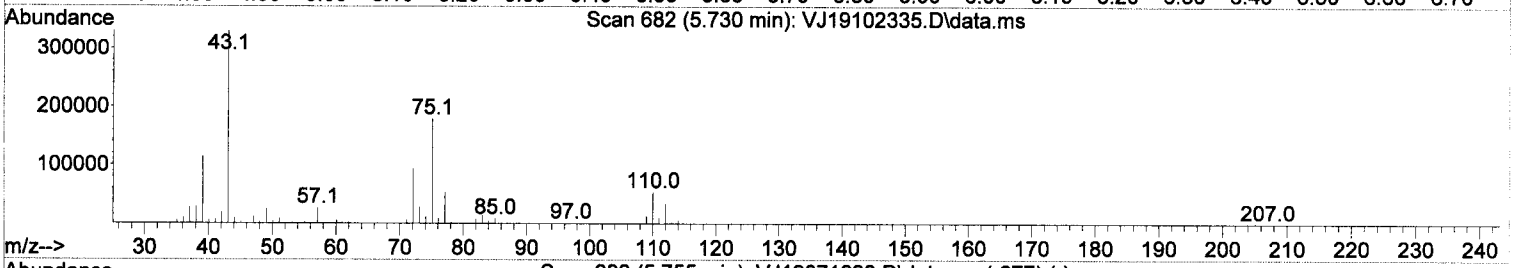
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.19
57.00	7.20	7.98
0.00	0.00	0.00

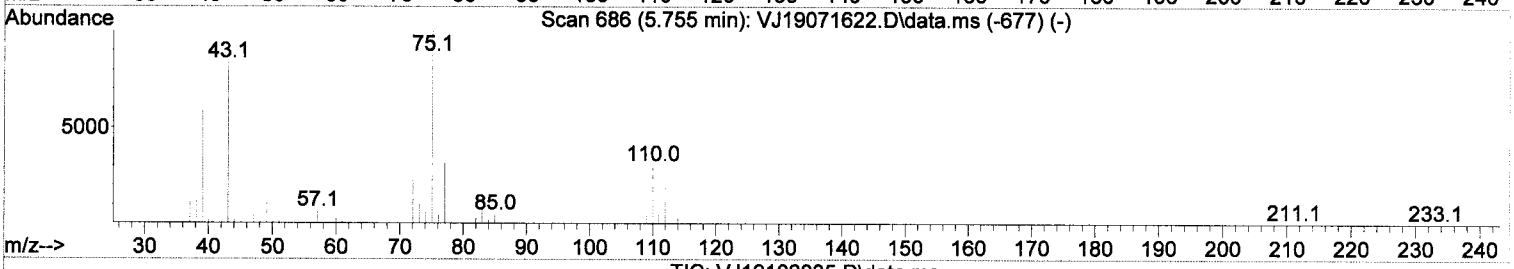
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 662.17 ug/L m

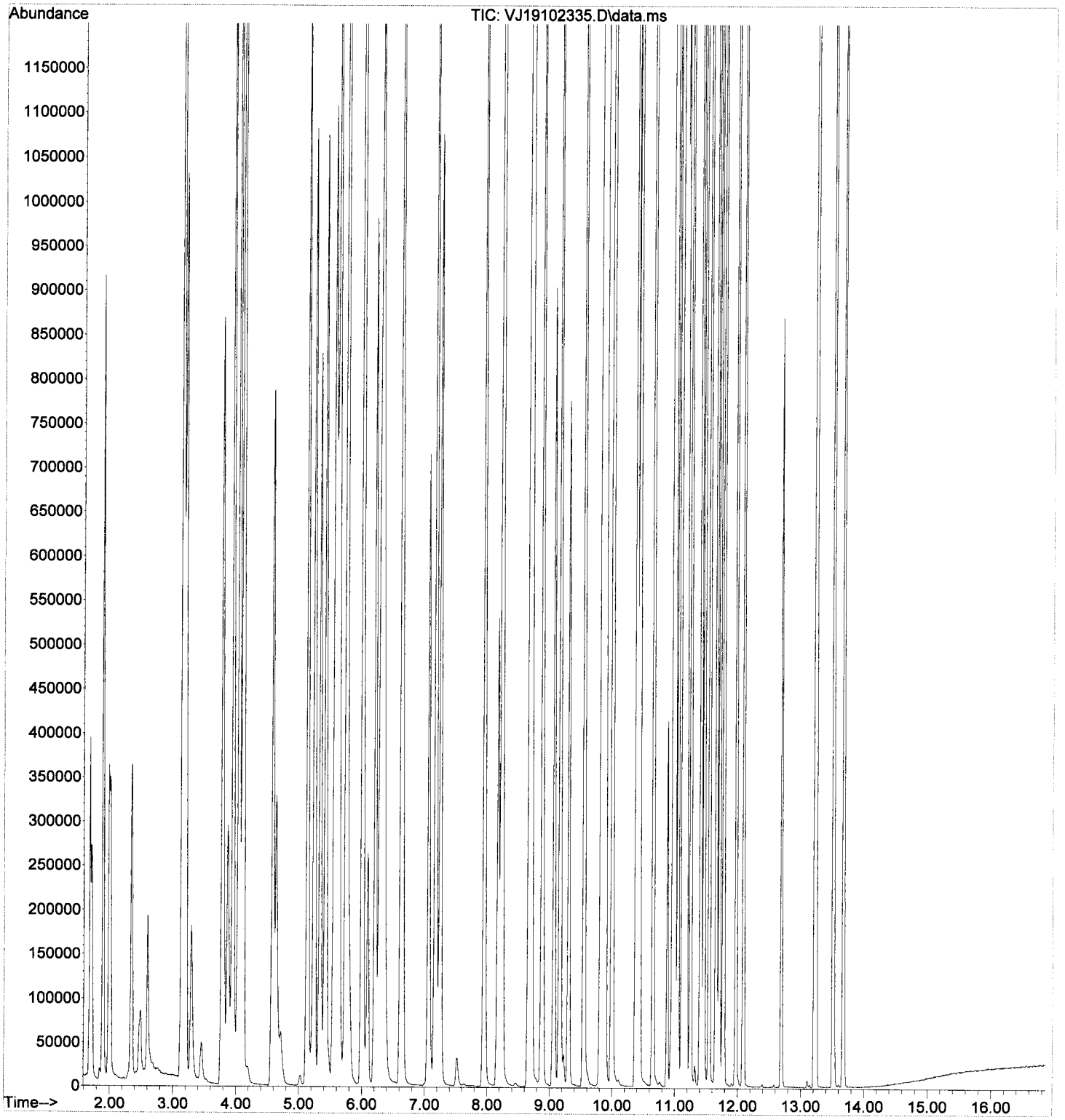
response 1150574

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.15
57.00	7.20	7.93
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	107566	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	292494	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	122660	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	84793	49.87	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	333118	50.34	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	410057	50.27	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	89939	50.78	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	1579	0.63	ug/L		90
3) Chloromethane	1.898	50	4506	1.07	ug/L		97
4) Vinyl Chloride	1.995	62	838	0.26	ug/L	#	46
5) Bromomethane	2.348	96	6148	2.33	ug/L		96
6) Chloroethane	2.488	64	114	1.48	ug/L	#	63
7) Trichlorofluoromethane	2.603	101	174	0.24	ug/L	#	41
8) Ethanol	3.297	45	4668	Below Cal			87
9) 1,1-Dichloroethene	3.145	61	1317	0.33	ug/L		92
10) Carbon Disulfide	3.163	76	9199	1.23	ug/L		97
11) Freon 113	3.206	101	1568	0.64	ug/L		81
12) Iodomethane	3.297	142	6159	7.56	ug/L		88
13) Methylene Chloride	3.784	84	6521	1.78	ug/L		90
14) Acetone	3.875	43	2258	1.38	ug/L		90
15) t-1,2-Dichloroethene	3.954	61	2151	0.51	ug/L		94
16) n-Hexane	4.051	86	156	0.25	ug/L	#	34
17) Methyl-tert-butyl-ether	4.106	73	1006	0.10	ug/L		57
23) c-1,2-Dichloroethene	5.140	61	752	0.18	ug/L		95
25) Bromochloromethane	5.335	49	439	0.17	ug/L	#	63
27) Carbon Tetrachloride	5.572	117	605	0.19	ug/L		70
28) Tetrahydrofuran	5.590	42	775	0.36	ug/L	#	62
29) 1,1,1-Trichloroethane	5.627	97	479	0.11	ug/L		90
31) 1,1-Dichloropropene	5.749	75	2265	0.54	ug/L		90
32) 2-Butanone (MEK)	5.736	43	2102	0.73	ug/L		52
33) Benzene	6.010	78	2611	0.19	ug/L		93
35) 1,2-Dichloroethane (EDC)	6.211	62	343	0.08	ug/L	#	49
36) iso-Butyl Alcohol	6.327	43	955	2.89	ug/L		93
38) Trichloroethene (TCE)	6.619	130	1181	0.43	ug/L		72
44) c-1,3-Dichloropropene	7.951	75	451	0.10	ug/L	#	56
46) Toluene	8.231	91	3474	0.25	ug/L		88
47) Tetrachloroethene (PCE)	8.681	166	1969	0.78	ug/L		93
49) t-1,3-Dichloropropene	8.705	75	643	0.15	ug/L		69
55) Chlorobenzene	9.819	112	2476	0.32	ug/L	#	66
56) Ethylbenzene	9.861	91	4956	0.37	ug/L		97
58) m,p-Xylenes (2)	9.995	91	7912	0.84	ug/L		96
59) o-Xylene	10.378	91	2358	0.26	ug/L		99
60) Styrene	10.427	104	1491	0.39	ug/L		87
62) Isopropylbenzene	10.652	105	4301	0.40	ug/L		93
65) Bromobenzene	10.968	156	802	0.32	ug/L	#	74
66) n-Propylbenzene	10.999	91	9166	0.69	ug/L		95
68) 2-Chlorotoluene	11.120	126	1193	0.50	ug/L		95
69) 1,3,5-Trimethylbenzene	11.157	105	4619	0.56	ug/L		96
72) 4-Chlorotoluene	11.248	91	4873	0.63	ug/L		92
73) tert-Butylbenzene	11.406	91	2458	0.51	ug/L		86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

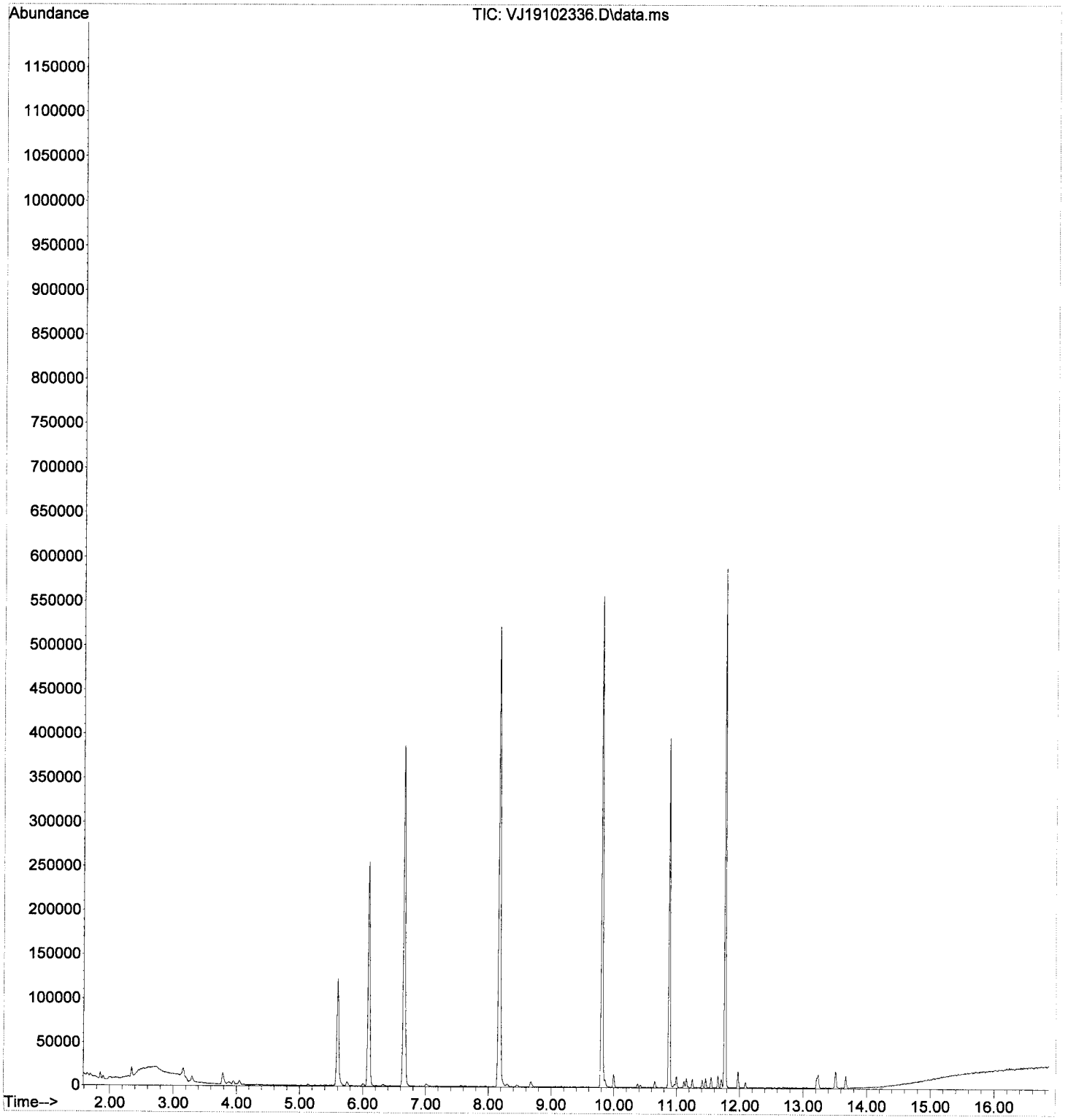
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
74) 1,2,4-Trimethylbenzene	11.461	105	5075	0.61 ug/L	98
75) sec-Butylbenzene	11.546	105	7209	0.69 ug/L	97
76) 4-Isopropyltoluene	11.656	119	6234	0.78 ug/L	95
77) 1,3-Dichlorobenzene	11.711	146	3787	0.82 ug/L	93
78) 1,4-Dichlorobenzene	11.777	146	4050	0.83 ug/L	81
79) n-Butylbenzene	11.972	91	8931	1.15 ug/L	95
80) 1,2-Dichlorobenzene	12.094	146	2355	0.56 ug/L	96
82) Hexachlorobutadiene	13.219	223	1189	2.23 ug/L	91
83) 1,2,4-Trichlorobenzene	13.244	180	4623	1.82 ug/L	89
84) Naphthalene	13.511	128	14934	1.64 ug/L	96
85) 1,2,3-Trichlorobenzene	13.676	180	4240	1.71 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	108805	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	293706	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116760	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	83108	48.32	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	334636	49.99	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	411232	50.21	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	88844	52.70	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	412	0.16	ug/L	#	51
3) Chloromethane	1.898	50	3247	0.76	ug/L		98
5) Bromomethane	2.342	96	4921	1.30	ug/L		95
6) Chloroethane	2.470	64	56	1.35	ug/L	#	62
8) Ethanol	3.327	45	4945	Below Cal			78
9) 1,1-Dichloroethene	3.151	61	337	0.08	ug/L	#	40
10) Carbon Disulfide	3.157	76	3948	0.52	ug/L		90
11) Freon 113	3.206	101	700	0.28	ug/L		87
12) Iodomethane	3.297	142	4186	5.08	ug/L		89
13) Methylene Chloride	3.784	84	5777	1.45	ug/L		91
14) Acetone	3.881	43	1879	1.13	ug/L		92
15) t-1,2-Dichloroethene	3.948	61	731	0.17	ug/L		83
18) tert-Butanol (TBA)	4.252	59	202	0.24	ug/L	#	46
28) Tetrahydrofuran	5.609	42	385	0.17	ug/L	#	30
31) 1,1-Dichloropropene	5.749	75	904	0.21	ug/L	#	61
32) 2-Butanone (MEK)	5.736	43	1096	0.37	ug/L		52
36) iso-Butyl Alcohol	6.327	43	715	2.14	ug/L		78
38) Trichloroethene (TCE)	6.625	130	395	0.14	ug/L	#	74
46) Toluene	8.225	91	1576	0.11	ug/L		86
47) Tetrachloroethene (PCE)	8.675	166	834	0.33	ug/L		97
55) Chlorobenzene	9.825	112	1049	0.13	ug/L	#	58
56) Ethylbenzene	9.855	91	1918	0.14	ug/L		82
58) m,p-Xylenes (2)	9.995	91	3048	0.32	ug/L		95
59) o-Xylene	10.378	91	952	0.11	ug/L		91
60) Styrene	10.427	104	462	0.24	ug/L		66
62) Isopropylbenzene	10.652	105	1652	0.15	ug/L		86
65) Bromobenzene	10.962	156	241	0.10	ug/L		92
66) n-Propylbenzene	10.999	91	3504	0.28	ug/L		91
68) 2-Chlorotoluene	11.114	126	330	0.15	ug/L	#	67
69) 1,3,5-Trimethylbenzene	11.151	105	1691	0.22	ug/L		83
72) 4-Chlorotoluene	11.254	91	1898	0.26	ug/L		97
73) tert-Butylbenzene	11.406	91	704	0.15	ug/L		99
74) 1,2,4-Trimethylbenzene	11.461	105	1813	0.23	ug/L		90
75) sec-Butylbenzene	11.546	105	2505	0.25	ug/L		93
76) 4-Isopropyltoluene	11.656	119	2535	0.33	ug/L		94
77) 1,3-Dichlorobenzene	11.711	146	1436	0.33	ug/L		84
78) 1,4-Dichlorobenzene	11.771	146	1594	0.34	ug/L	#	59
79) n-Butylbenzene	11.972	91	3797	0.52	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	834	0.21	ug/L		89
82) Hexachlorobutadiene	13.213	223	436	0.86	ug/L	#	76
83) 1,2,4-Trichlorobenzene	13.238	180	1613	0.67	ug/L		92
84) Naphthalene	13.511	128	4574	0.53	ug/L		96
85) 1,2,3-Trichlorobenzene	13.676	180	1311	0.56	ug/L		82

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

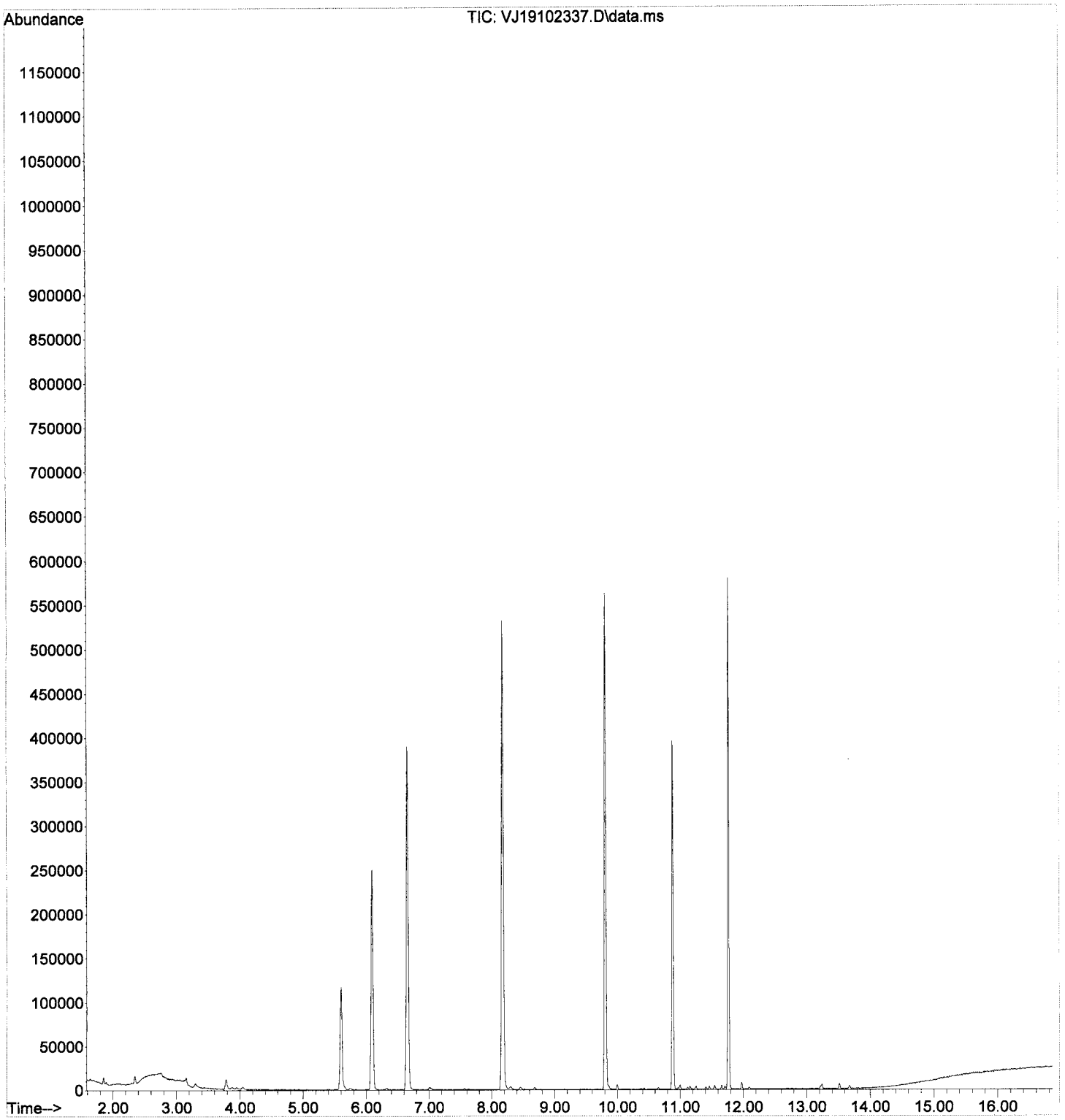
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	99885	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	266896	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115116	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	78888	49.97	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	309887	50.43	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	374533	50.32	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	83075	49.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	55993	24.22	ug/L		99
3) Chloromethane	1.891	50	85783	21.90	ug/L		99
4) Vinyl Chloride	1.983	62	68082	22.53	ug/L		93
5) Bromomethane	2.342	96	32688	25.75	ug/L		97
6) Chloroethane	2.469	64	6942	18.06	ug/L		90
7) Trichlorofluoromethane	2.597	101	13381	19.85	ug/L		99
8) Ethanol	3.327	45	10414	32.82	ug/L		91
9) 1,1-Dichloroethene	3.139	61	70213	18.89	ug/L		96
10) Carbon Disulfide	3.151	76	125587	18.12	ug/L		98
11) Freon 113	3.193	101	44019	19.49	ug/L		83
12) Iodomethane	3.291	142	20945	27.68	ug/L		90
13) Methylene Chloride	3.777	84	51374	21.83	ug/L		91
14) Acetone	3.863	43	49385	32.40	ug/L		97
15) t-1,2-Dichloroethene	3.948	61	80908	20.82	ug/L		97
16) n-Hexane	4.039	86	11211	19.05	ug/L	#	78
17) Methyl-tert-butyl-ether	4.106	73	189730	20.42	ug/L		97
18) tert-Butanol (TBA)	4.264	59	3402	4.34	ug/L	#	88
19) Diisopropyl ether (DIPE)	4.501	45	1037	0.11	ug/L		73
20) 1,1-Dichloroethane	4.580	63	88325	21.54	ug/L		99
21) Acrylonitrile	4.635	53	29602	17.16	ug/L		99
22) Ethyl-tert-butyl ether...	4.872	59	819	0.10	ug/L	#	38
23) c-1,2-Dichloroethene	5.128	61	77472	20.22	ug/L		97
24) 2,2-Dichloropropane	5.237	77	70480	18.16	ug/L		96
25) Bromochloromethane	5.329	49	47873	20.52	ug/L		79
26) Chloroform	5.414	83	93692	21.39	ug/L		95
27) Carbon Tetrachloride	5.554	117	62353	21.54	ug/L		95
28) Tetrahydrofuran	5.590	42	37867	18.68	ug/L		98
29) 1,1,1-Trichloroethane	5.621	97	84455	20.97	ug/L		98
31) 1,1-Dichloropropene	5.748	75	79011	20.19	ug/L		95
32) 2-Butanone (MEK)	5.736	43	101987	37.99	ug/L		95
33) Benzene	6.004	78	255304	19.90	ug/L		99
34) tert-Amyl methyl ether...	6.150	73	1151	0.14	ug/L		71
35) 1,2-Dichloroethane (EDC)	6.211	62	82128	20.79	ug/L		99
36) iso-Butyl Alcohol	6.302	43	169237	551.01	ug/L		98
38) Trichloroethene (TCE)	6.624	130	55394	21.73	ug/L		95
40) Dibromomethane	7.062	93	33554	20.84	ug/L		84
41) 1,2-Dichloropropane	7.172	63	65112	20.51	ug/L		99
42) Bromodichloromethane	7.251	83	66373	21.40	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	84290	21.19	ug/L		98
46) Toluene	8.231	91	252241	20.22	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	50536	21.83	ug/L		90
48) 4-Methyl-2-Pentanone (...	8.669	43	165334	42.77	ug/L		98
49) t-1,3-Dichloropropene	8.699	75	87854	22.78	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

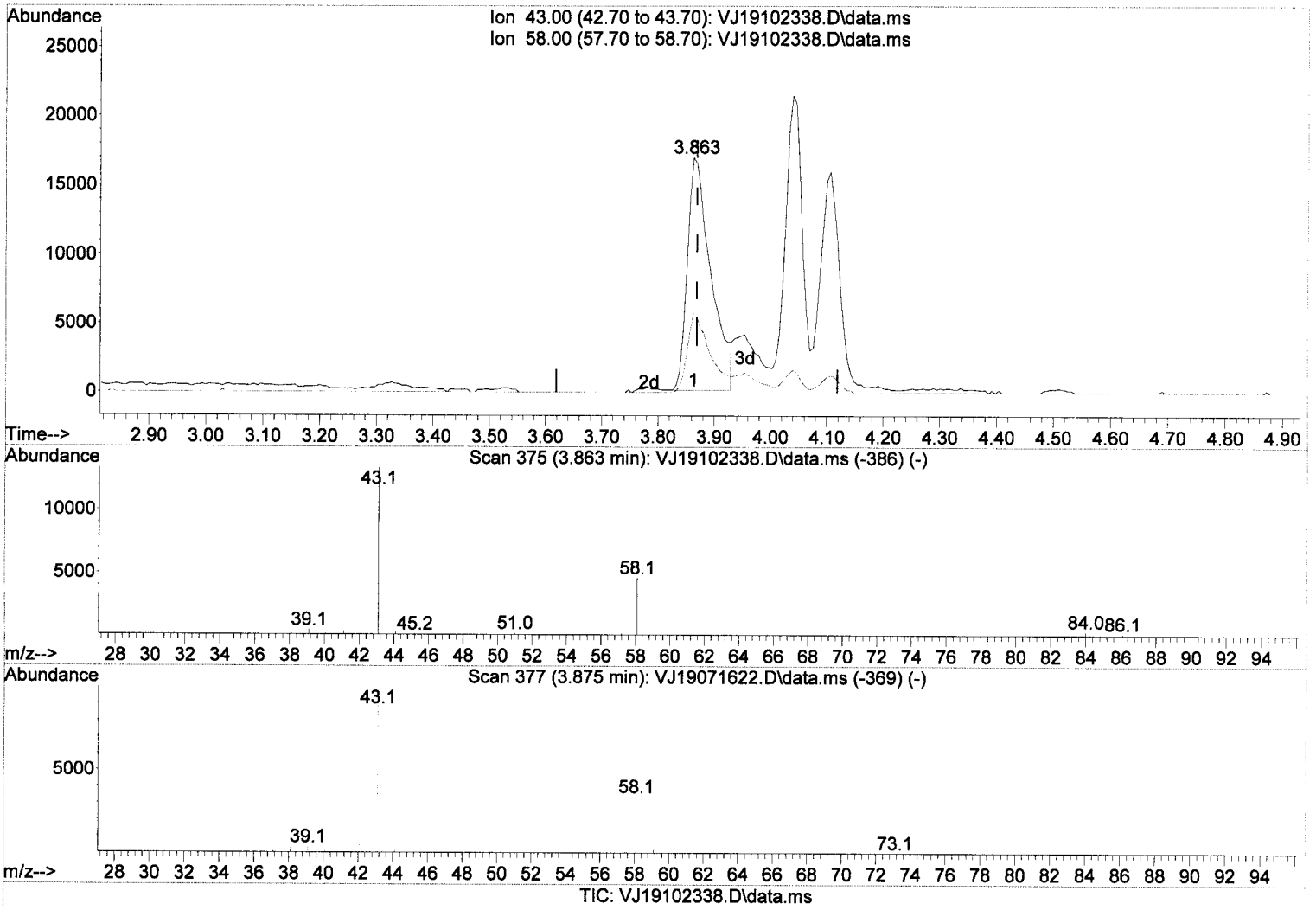
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1,2-Trichloroethane	8.875	97	55320	21.85	ug/L		96
51) Dibromochloromethane	9.064	129	44137	21.60	ug/L		99
52) 1,3-Dichloropropane	9.161	76	101709	21.39	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	53497	22.05	ug/L		97
54) 2-Hexanone	9.545	43	121336	42.18	ug/L		99
55) Chlorobenzene	9.824	112	148150	20.82	ug/L		95
56) Ethylbenzene	9.861	91	262531	21.66	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.885	131	48514	22.01	ug/L		98
58) m,p-Xylenes (2)	9.995	91	382778	44.36	ug/L		98
59) o-Xylene	10.378	91	184849	22.44	ug/L		95
60) Styrene	10.421	104	123362	19.44	ug/L		98
61) Bromoform	10.439	173	28437	19.72	ug/L		98
62) Isopropylbenzene	10.652	105	225170	22.68	ug/L		96
65) Bromobenzene	10.962	156	51305	21.54	ug/L	#	74
66) n-Propylbenzene	10.999	91	271045	21.59	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.047	83	77823	21.41	ug/L		98
68) 2-Chlorotoluene	11.114	126	48899	21.83	ug/L	#	80
69) 1,3,5-Trimethylbenzene	11.157	105	180309	23.46	ug/L		94
70) 1,2,3-Trichloropropane	11.151	110	25446	21.80	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	9272	19.80	ug/L		92
72) 4-Chlorotoluene	11.248	91	159954	21.99	ug/L		92
73) tert-Butylbenzene	11.406	91	101437	22.26	ug/L		89
74) 1,2,4-Trimethylbenzene	11.461	105	180192	23.21	ug/L		95
75) sec-Butylbenzene	11.546	105	222106	22.61	ug/L		97
76) 4-Isopropyltoluene	11.656	119	175710	23.46	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	93549	21.70	ug/L		97
78) 1,4-Dichlorobenzene	11.777	146	94625	20.65	ug/L		95
79) n-Butylbenzene	11.972	91	162694	22.40	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	87423	22.13	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	13552	19.68	ug/L	#	55
82) Hexachlorobutadiene	13.219	223	11551	23.12	ug/L		95
83) 1,2,4-Trichlorobenzene	13.243	180	54107	22.68	ug/L		97
84) Naphthalene	13.517	128	193179	22.57	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	53621	23.09	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



TIC: VJ19102338.D\data.ms

(14) Acetone

3.863min (-0.005) 32.40 ug/L

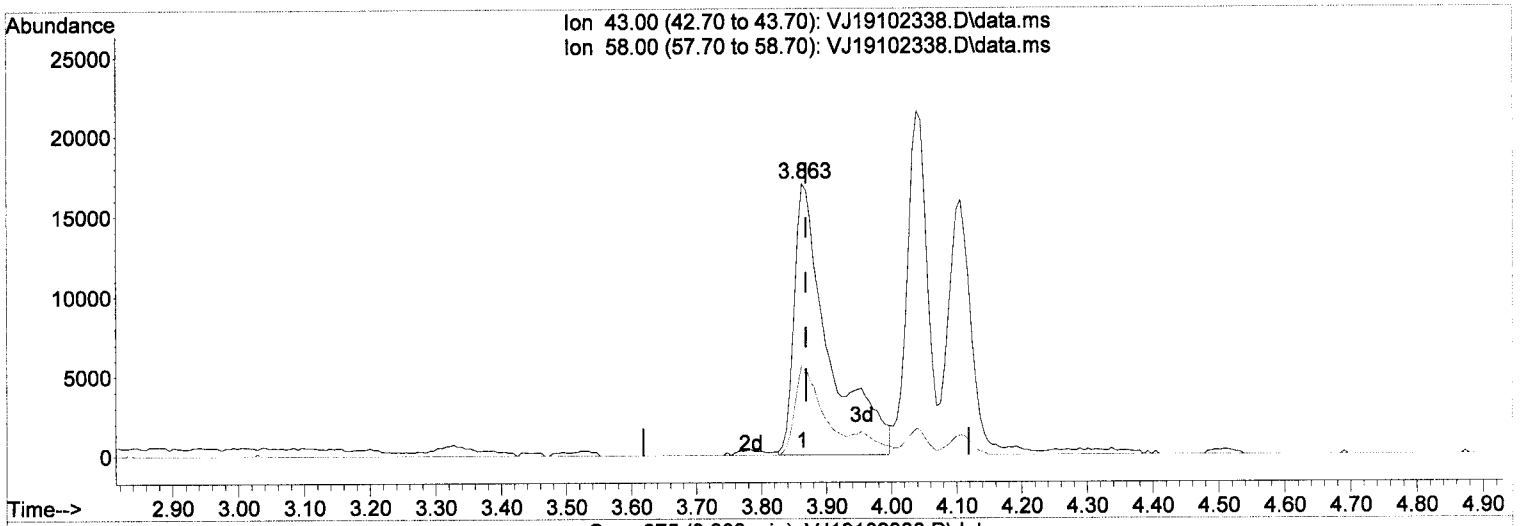
response 49385

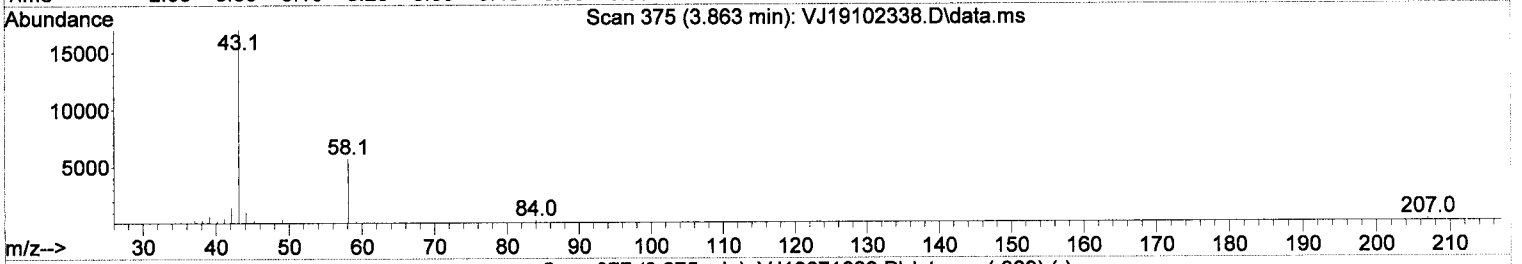
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.06
0.00	0.00	0.00
0.00	0.00	0.00

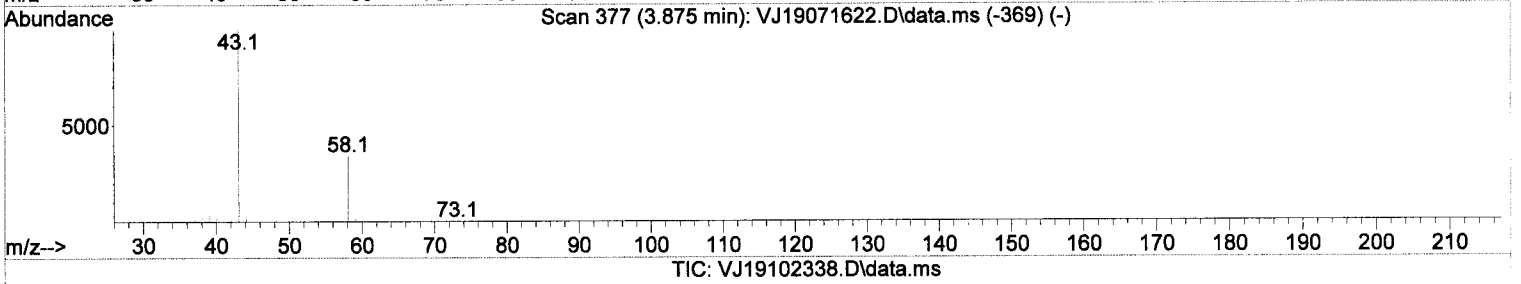
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102338.D\data.ms

(14) Acetone

3.863min (-0.005) 41.33 ug/L (m)

response 63006

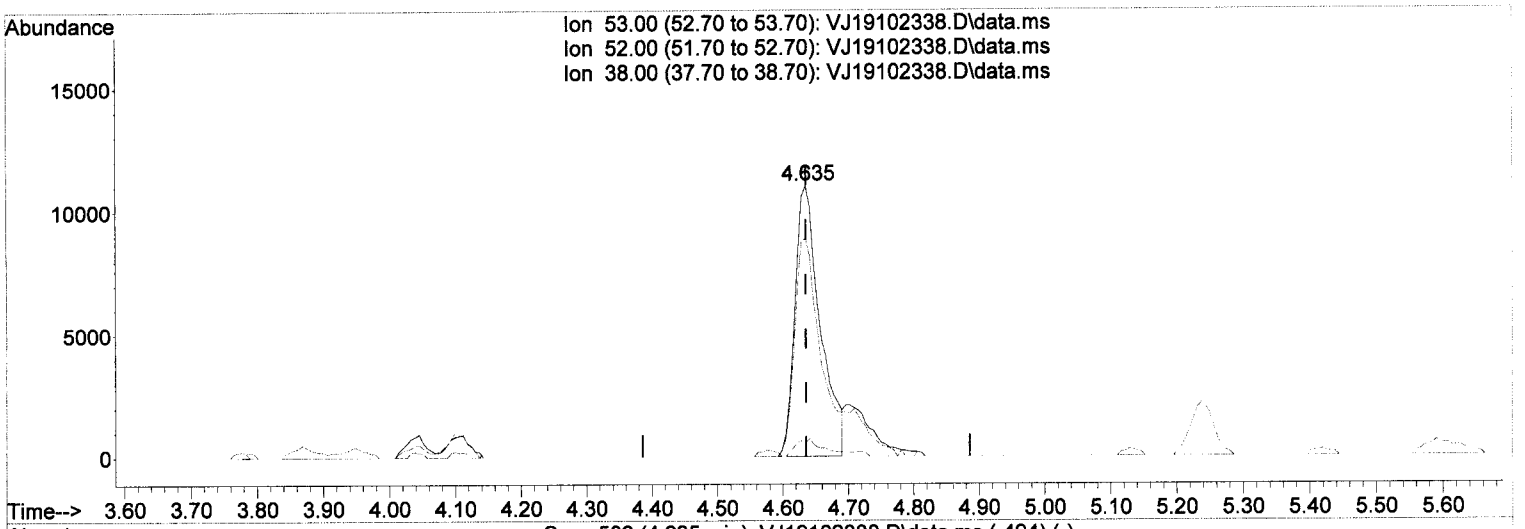
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.75
0.00	0.00	0.00
0.00	0.00	0.00

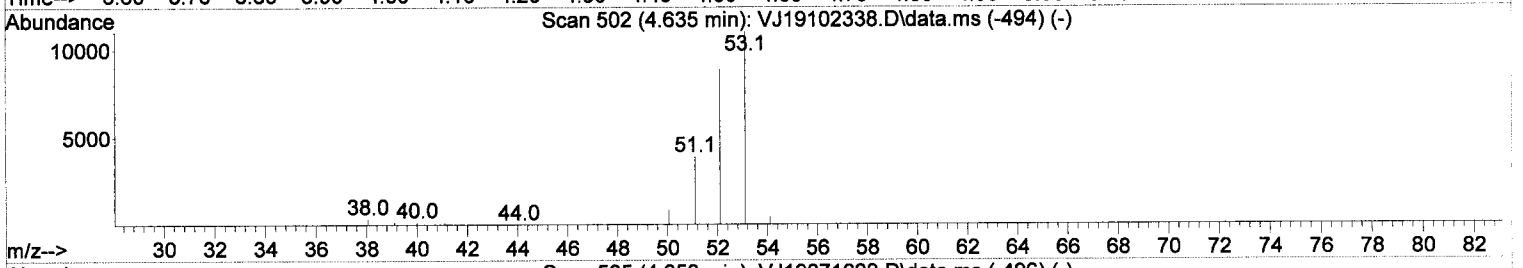
M 10/24/19

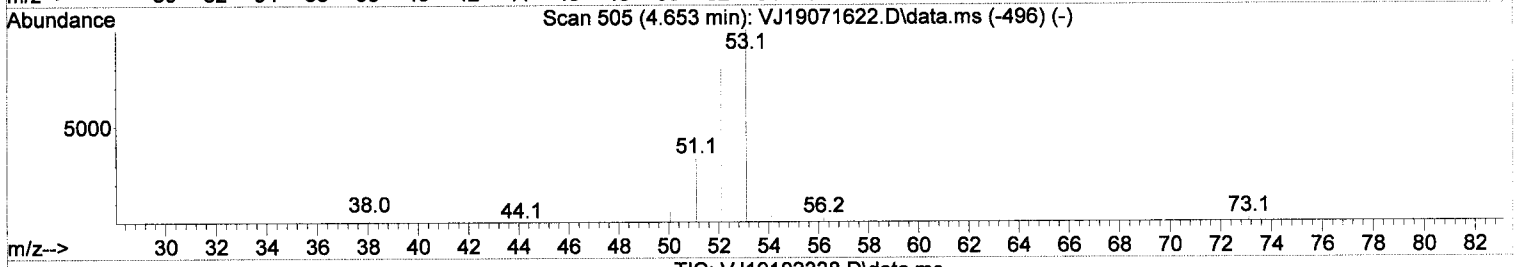
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102338.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 17.16 ug/L

response 29602

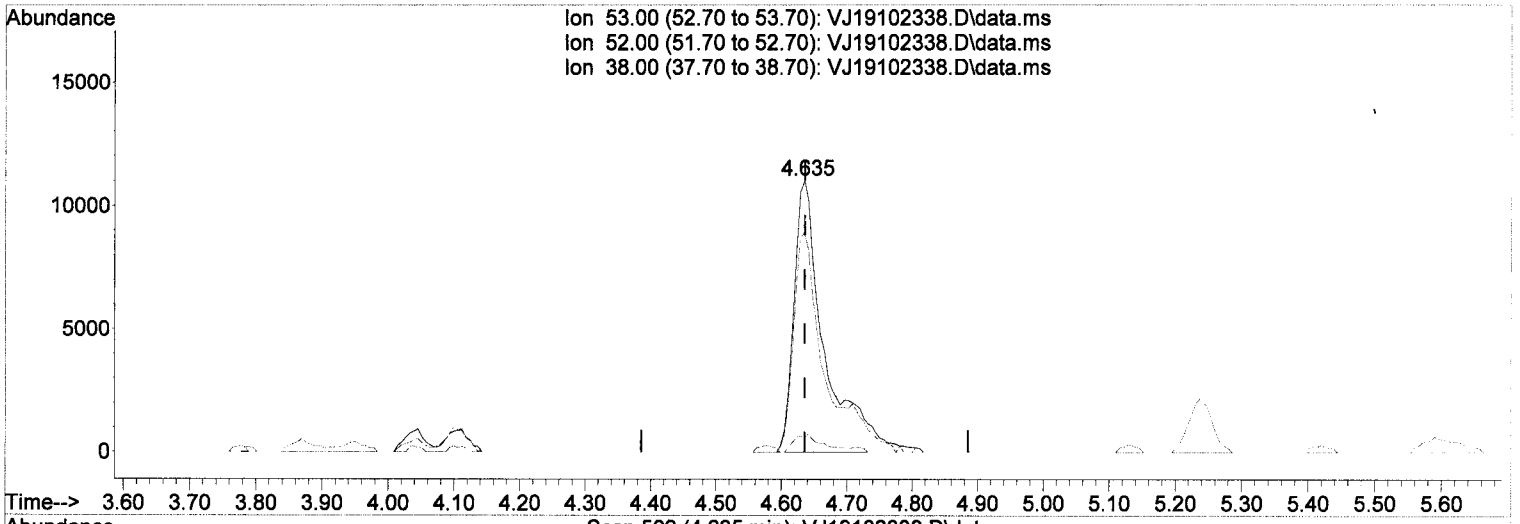
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.51
38.00	5.50	3.81
0.00	0.00	0.00

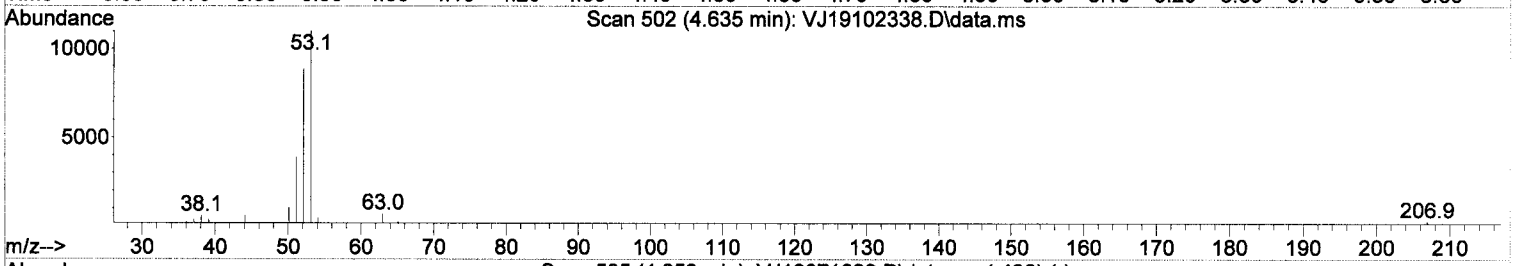
M.2

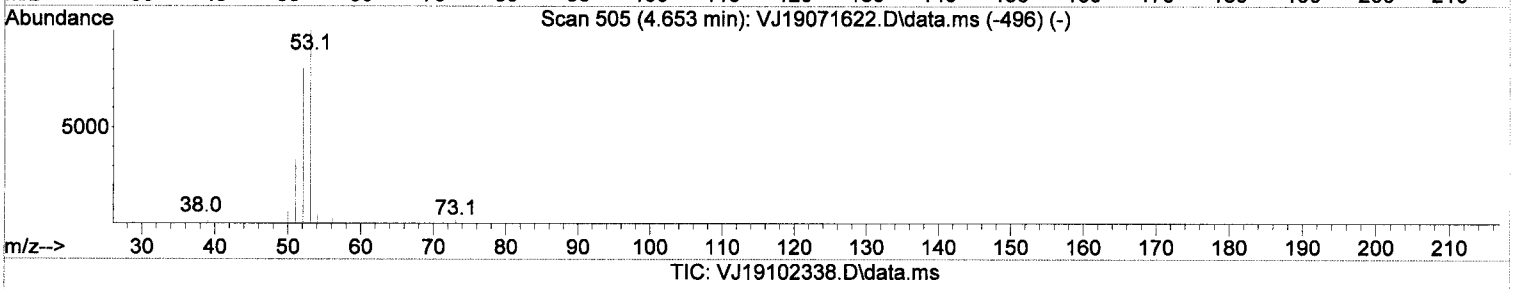
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102338.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 20.87 ug/L m

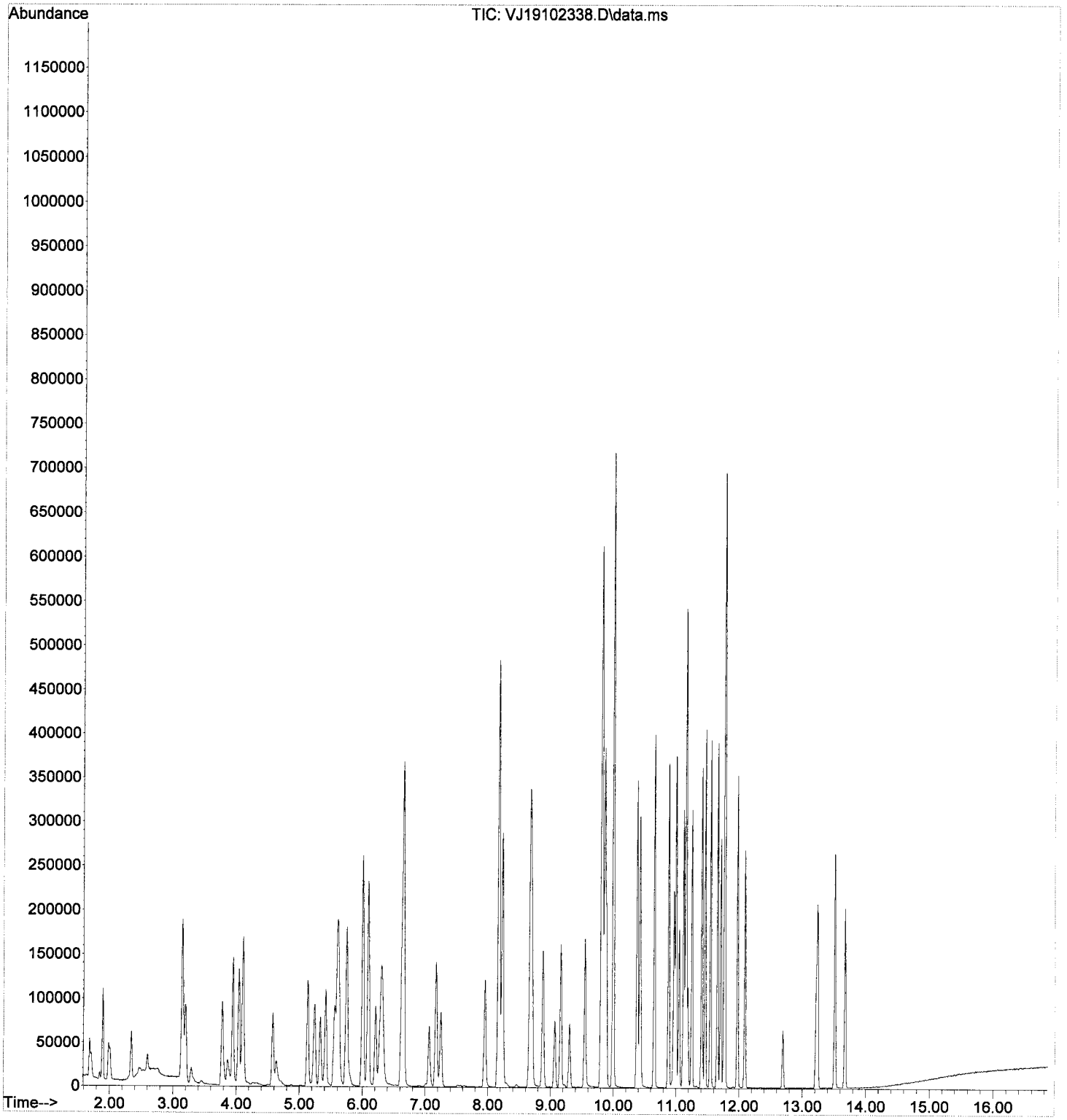
response 36020

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.51
38.00	5.50	5.37
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	102568	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	279935	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116291	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	81075	50.01	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	318450	50.47	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	392151	50.23	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	85744	51.06	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	360	0.15	ug/L	#	51
3) Chloromethane	1.891	50	3310	0.82	ug/L		94
4) Vinyl Chloride	1.983	62	266	0.09	ug/L	#	46
5) Bromomethane	2.342	96	4390	1.09	ug/L		95
6) Chloroethane	2.463	64	195	1.68	ug/L	#	47
8) Ethanol	3.315	45	132914	1319.11	ug/L		90
9) 1,1-Dichloroethene	3.145	61	879	0.23	ug/L		92
10) Carbon Disulfide	3.157	76	3679	0.52	ug/L		81
11) Freon 113	3.199	101	379	0.16	ug/L	#	73
12) Iodomethane	3.291	142	2820	3.63	ug/L		92
13) Methylene Chloride	3.783	84	2642	0.25	ug/L		98
14) Acetone	3.869	43	2284	1.46	ug/L		94
15) t-1,2-Dichloroethene	3.954	61	1316	0.33	ug/L		92
17) Methyl-tert-butyl-ether	4.106	73	1163	0.12	ug/L		57
18) tert-Butanol (TBA)	4.258	59	505484	~~627.62~~	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.501	45	51568	5.26	ug/L		92
20) 1,1-Dichloroethane	4.580	63	950	0.23	ug/L		91
22) Ethyl-tert-butyl ether...	4.872	59	47320	5.36	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	1019	0.26	ug/L		84
24) 2,2-Dichloropropane	5.244	77	754	0.19	ug/L		66
25) Bromochloromethane	5.329	49	367	0.15	ug/L	#	14
26) Chloroform	5.420	83	1021	0.23	ug/L		88
27) Carbon Tetrachloride	5.554	117	408	0.14	ug/L		90
28) Tetrahydrofuran	5.596	42	364	0.17	ug/L	#	28
29) 1,1,1-Trichloroethane	5.621	97	552	0.13	ug/L		83
31) 1,1-Dichloropropene	5.755	75	1195	0.30	ug/L		90
32) 2-Butanone (MEK)	5.742	43	1199	0.43	ug/L		52
33) Benzene	6.004	78	3439	0.26	ug/L		92
34) tert-Amyl methyl ether...	6.150	73	42189	4.96	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.211	62	507	0.12	ug/L	#	49
36) iso-Butyl Alcohol	6.320	43	1005	3.19	ug/L		88
38) Trichloroethene (TCE)	6.625	130	796	0.30	ug/L		86
39) tert-Amyl ethyl ether ...	6.910	59	31873	5.39	ug/L		89
41) 1,2-Dichloropropane	7.172	63	648	0.20	ug/L	#	40
42) Bromodichloromethane	7.257	83	453	0.14	ug/L		83
44) c-1,3-Dichloropropene	7.963	75	620	0.15	ug/L		70
46) Toluene	8.231	91	3493	0.27	ug/L		96
47) Tetrachloroethene (PCE)	8.675	166	862	0.36	ug/L		74
49) t-1,3-Dichloropropene	8.705	75	446	0.11	ug/L	#	45
52) 1,3-Dichloropropane	9.161	76	422	0.08	ug/L		66
55) Chlorobenzene	9.824	112	2136	0.29	ug/L		94
56) Ethylbenzene	9.855	91	3431	0.27	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.885	131	365	0.16	ug/L	#	49

1428.86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

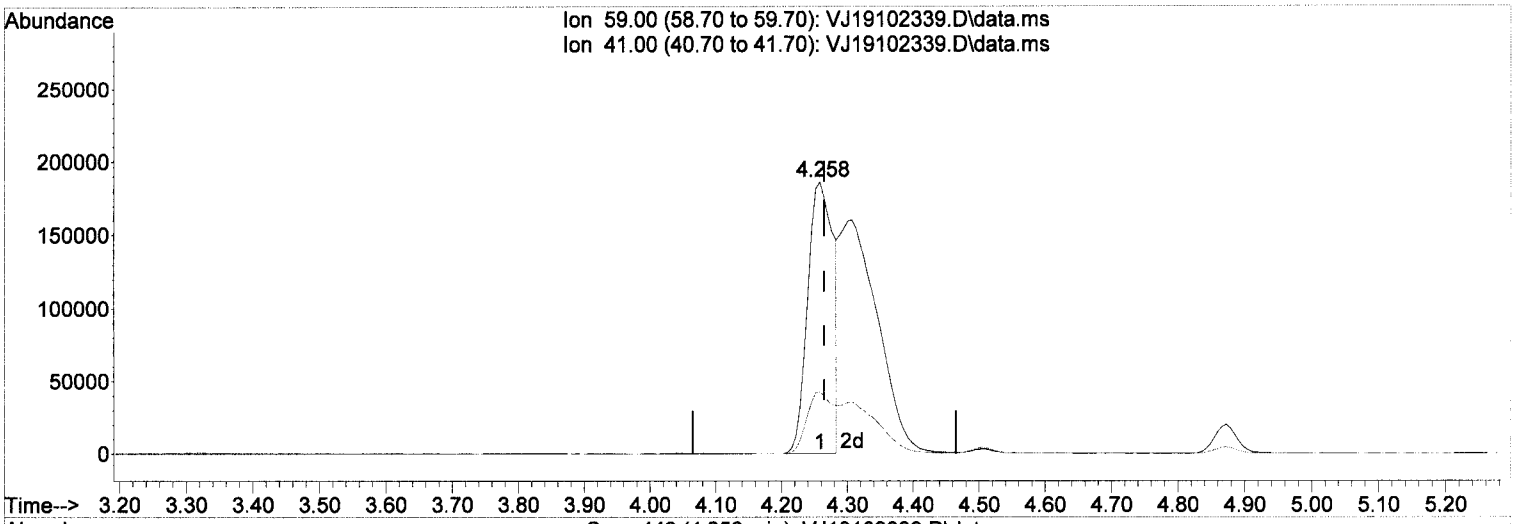
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58) m,p-Xylenes (2)	9.995	91	4873	0.54 ug/L	94
59) o-Xylene	10.372	91	2135	0.25 ug/L	82
60) Styrene	10.427	104	1126	0.34 ug/L	95
62) Isopropylbenzene	10.652	105	2409	0.23 ug/L	93
65) Bromobenzene	10.968	156	607	0.25 ug/L	93
66) n-Propylbenzene	10.993	91	4033	0.32 ug/L	93
68) 2-Chlorotoluene	11.114	126	692	0.31 ug/L	96
69) 1,3,5-Trimethylbenzene	11.157	105	2252	0.29 ug/L	100
72) 4-Chlorotoluene	11.248	91	2491	0.34 ug/L	96
73) tert-Butylbenzene	11.406	91	1019	0.22 ug/L	94
74) 1,2,4-Trimethylbenzene	11.461	105	2316	0.30 ug/L	97
75) sec-Butylbenzene	11.546	105	2816	0.28 ug/L	96
76) 4-Isopropyltoluene	11.656	119	2479	0.33 ug/L	93
77) 1,3-Dichlorobenzene	11.710	146	1793	0.41 ug/L	97
78) 1,4-Dichlorobenzene	11.777	146	1826	0.39 ug/L	83
79) n-Butylbenzene	11.972	91	3638	0.50 ug/L	93
80) 1,2-Dichlorobenzene	12.094	146	1062	0.27 ug/L	90
82) Hexachlorobutadiene	13.219	223	301	0.60 ug/L #	74
83) 1,2,4-Trichlorobenzene	13.237	180	1525	0.63 ug/L	88
84) Naphthalene	13.517	128	4638	0.54 ug/L	91
85) 1,2,3-Trichlorobenzene	13.675	180	1265	0.54 ug/L	88

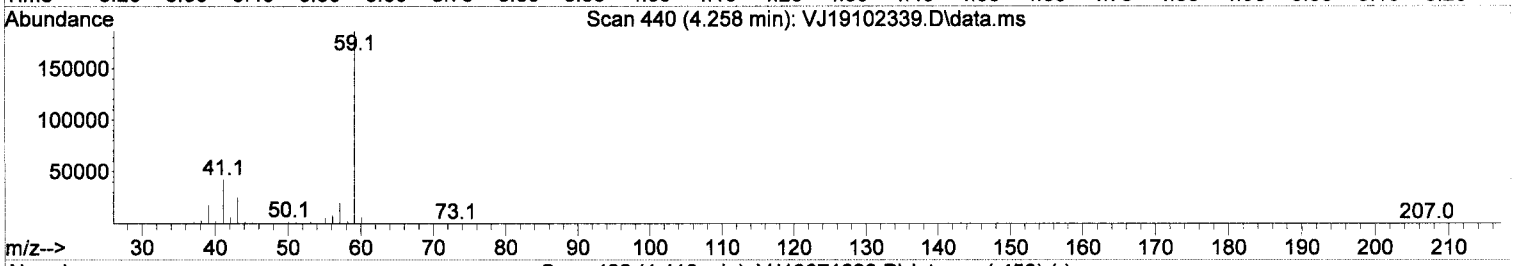
(#) = qualifier out of range (m) = manual integration (+) = signals summed

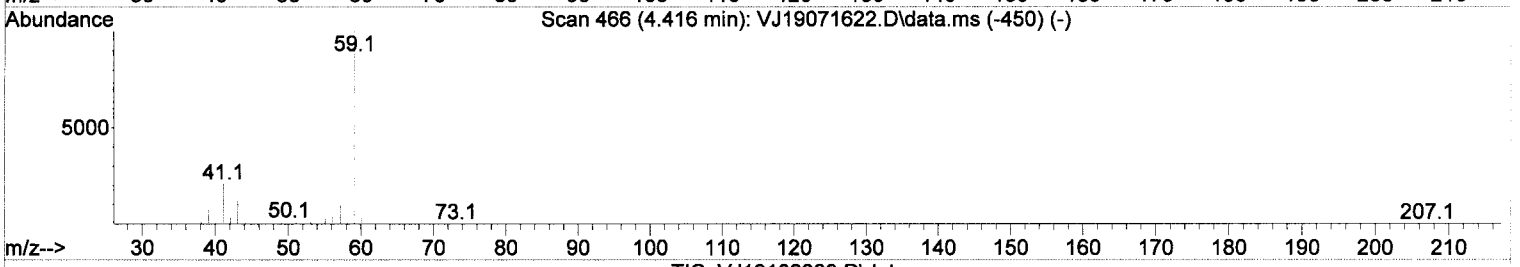
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102339.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 627.62 ug/L

response 505484

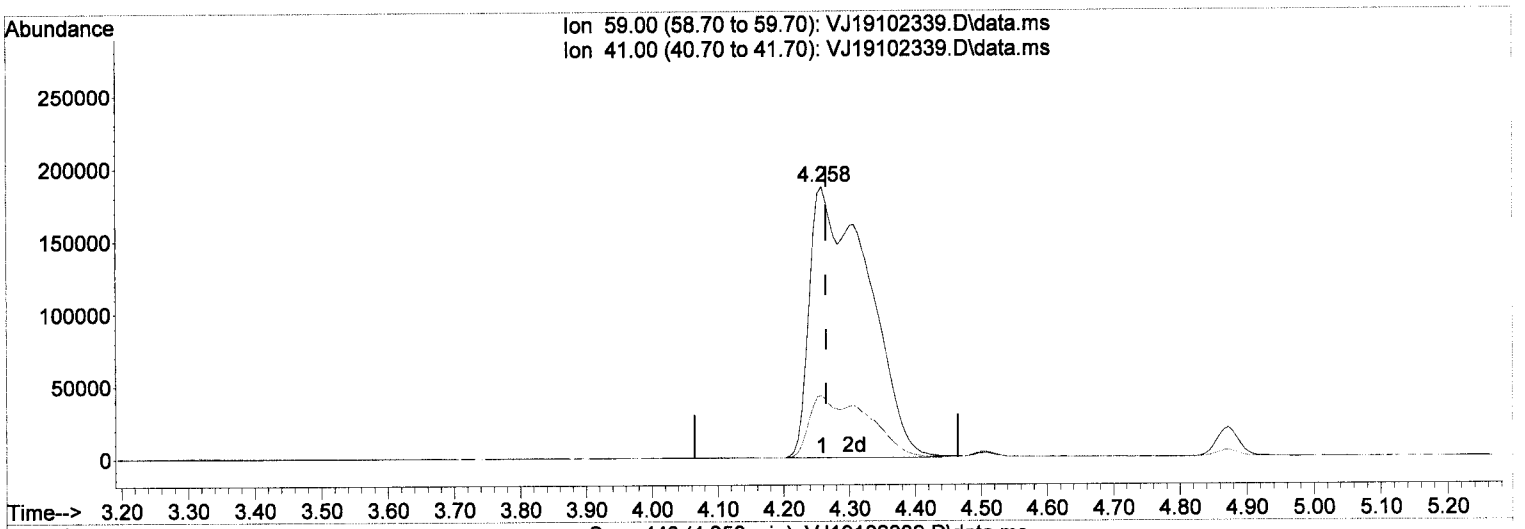
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

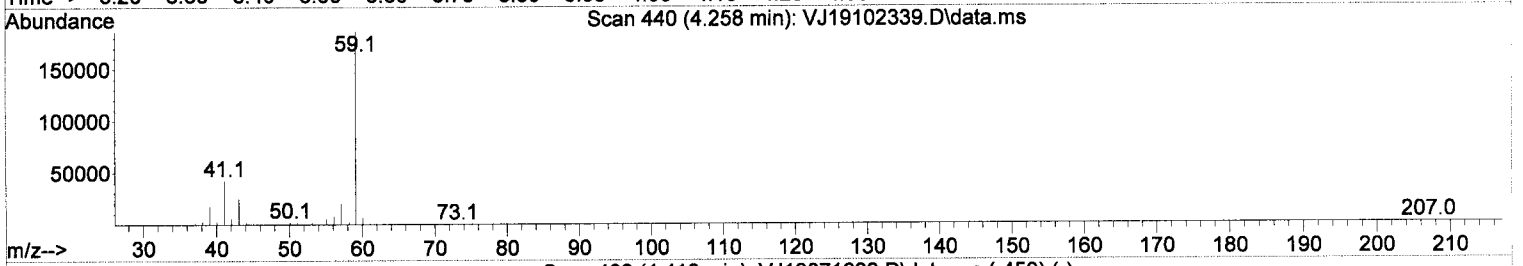
M.T.

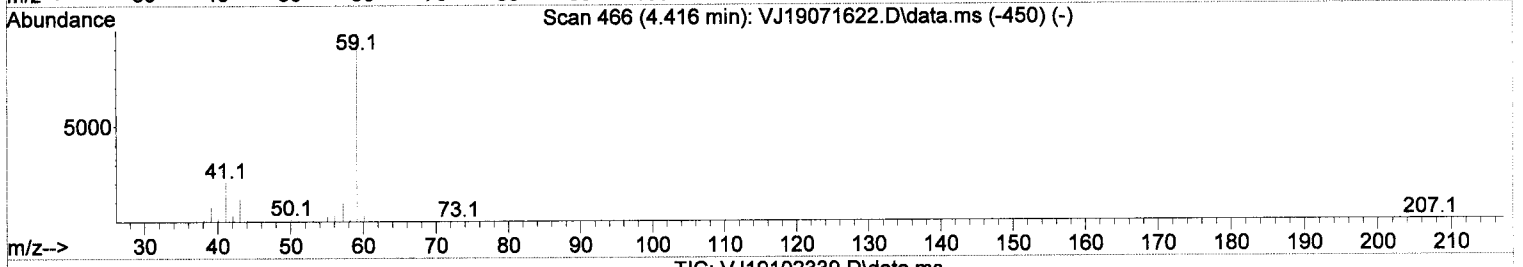
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19102339.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 1428.86 ug/L m

response 1150797

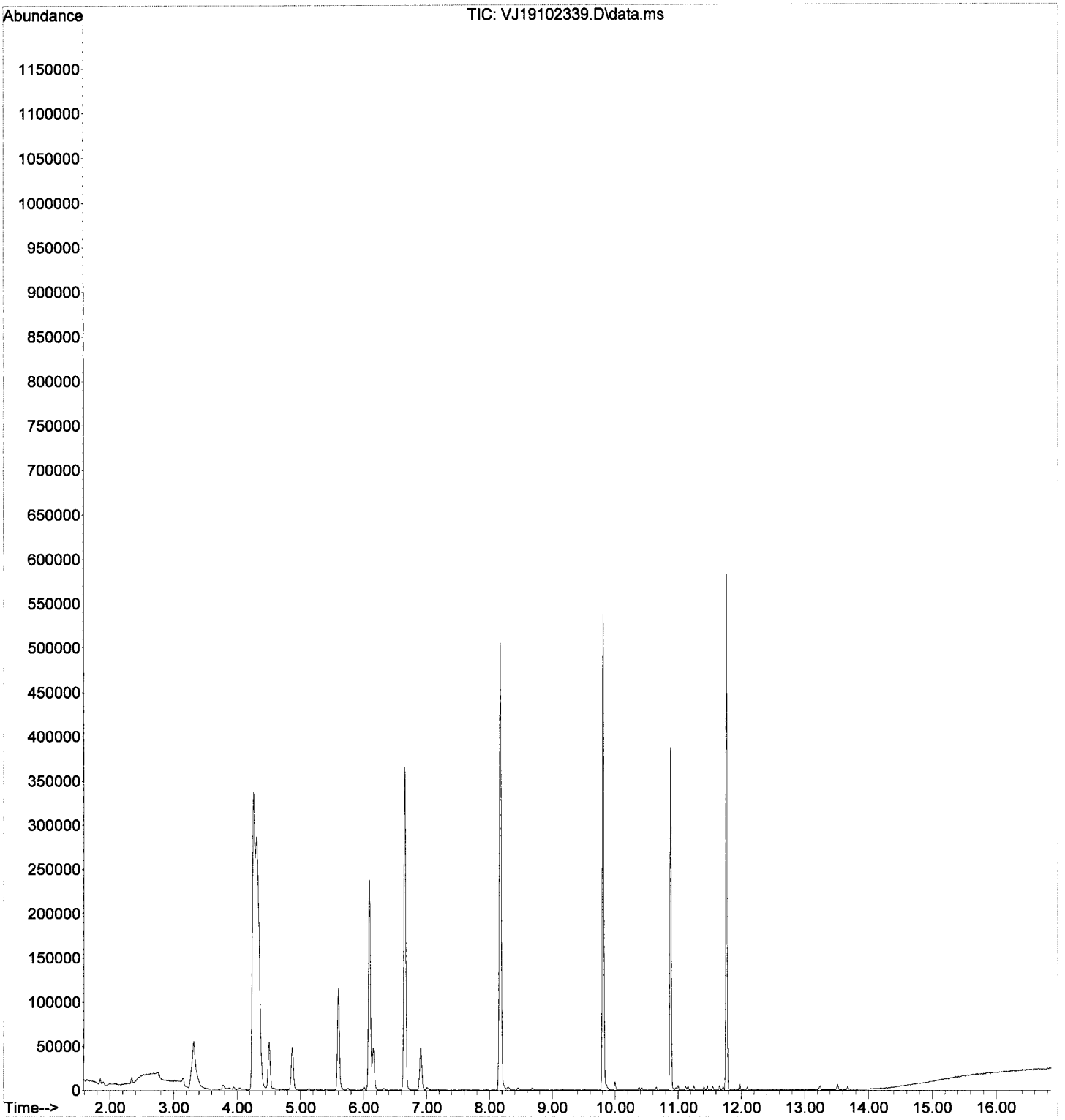
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

M 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102340.D
Acq On : 24 Oct 2019 5:54 am
Operator : MM
Sample : 9J23072-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 24 09:41:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

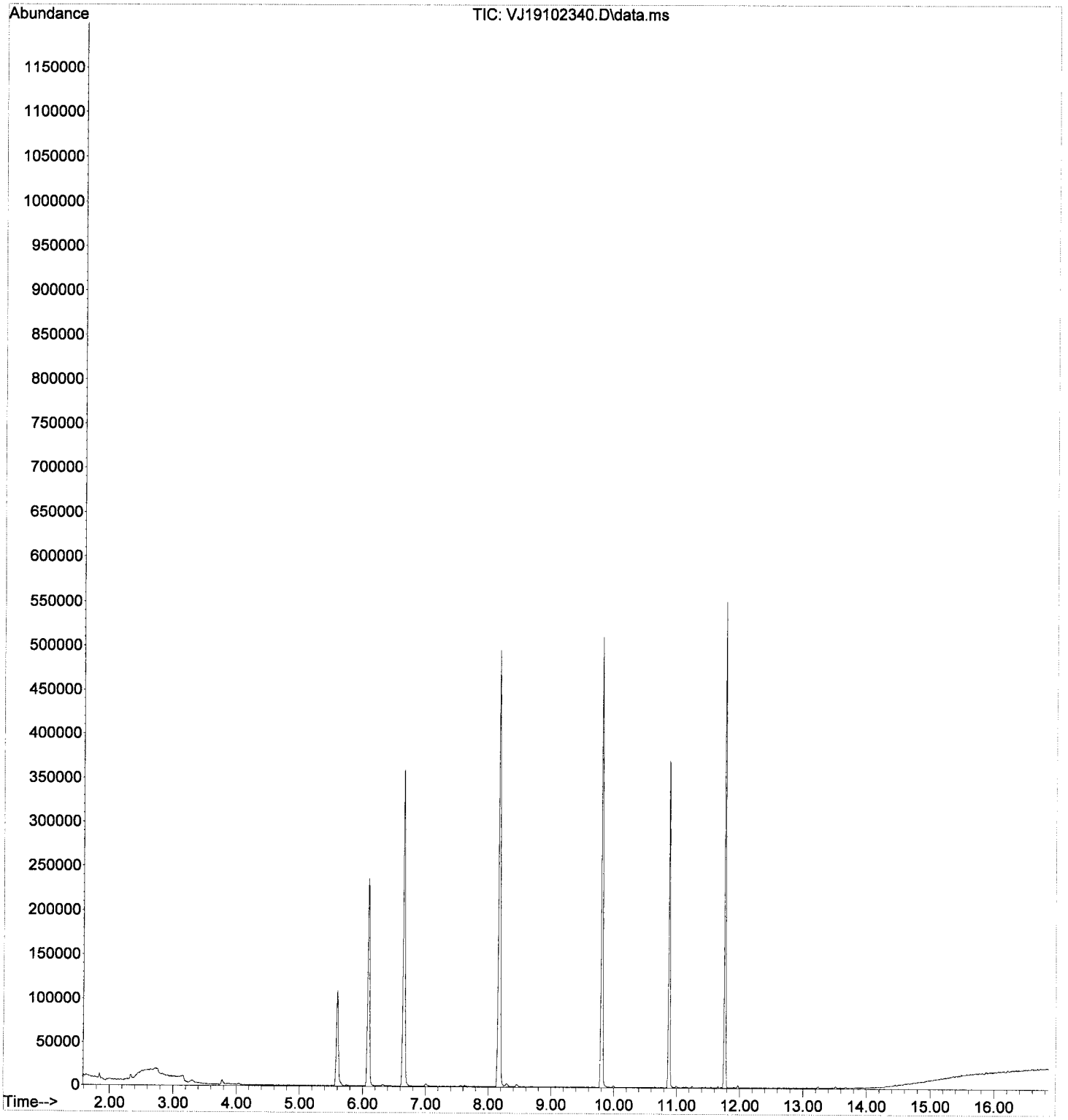
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	100948	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	272905	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	112217	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	77569	48.61	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	310823	50.05	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	380882	50.05	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	82709	51.05	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	1724	0.44	ug/L		77
5) Bromomethane	2.342	96	3174	0.10	ug/L		93
6) Chloroethane	2.469	64	55	1.35	ug/L	#	68
8) Ethanol	3.315	45	5033	Below Cal			84
10) Carbon Disulfide	3.157	76	1703	0.24	ug/L		45
12) Iodomethane	3.291	142	1937	2.53	ug/L		86
13) Methylene Chloride	3.777	84	2471	0.19	ug/L	#	71
14) Acetone	3.869	43	1441	0.94	ug/L	#	42
28) Tetrahydrofuran	5.590	42	208	0.10	ug/L	#	43
32) 2-Butanone (MEK)	5.749	43	733	0.27	ug/L		52
36) iso-Butyl Alcohol	6.308	43	702	2.26	ug/L		89
58) m,p-Xylenes (2)	9.995	91	1183	0.13	ug/L		90
60) Styrene	10.421	104	205	0.20	ug/L	#	40
66) n-Propylbenzene	10.993	91	1329	0.11	ug/L		89
72) 4-Chlorotoluene	11.248	91	620	0.09	ug/L	#	46
74) 1,2,4-Trimethylbenzene	11.461	105	648	0.09	ug/L		94
75) sec-Butylbenzene	11.546	105	871	0.09	ug/L		68
76) 4-Isopropyltoluene	11.656	119	954	0.13	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	423	0.10	ug/L		78
78) 1,4-Dichlorobenzene	11.777	146	590	0.13	ug/L	#	54
79) n-Butylbenzene	11.978	91	1462	0.21	ug/L		90
83) 1,2,4-Trichlorobenzene	13.250	180	684	0.29	ug/L	#	61
84) Naphthalene	13.517	128	1765	0.21	ug/L		79
85) 1,2,3-Trichlorobenzene	13.669	180	544	0.24	ug/L	#	58

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102340.D
Acq On : 24 Oct 2019 5:54 am
Operator : MM
Sample : 9J23072-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 24 09:41:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

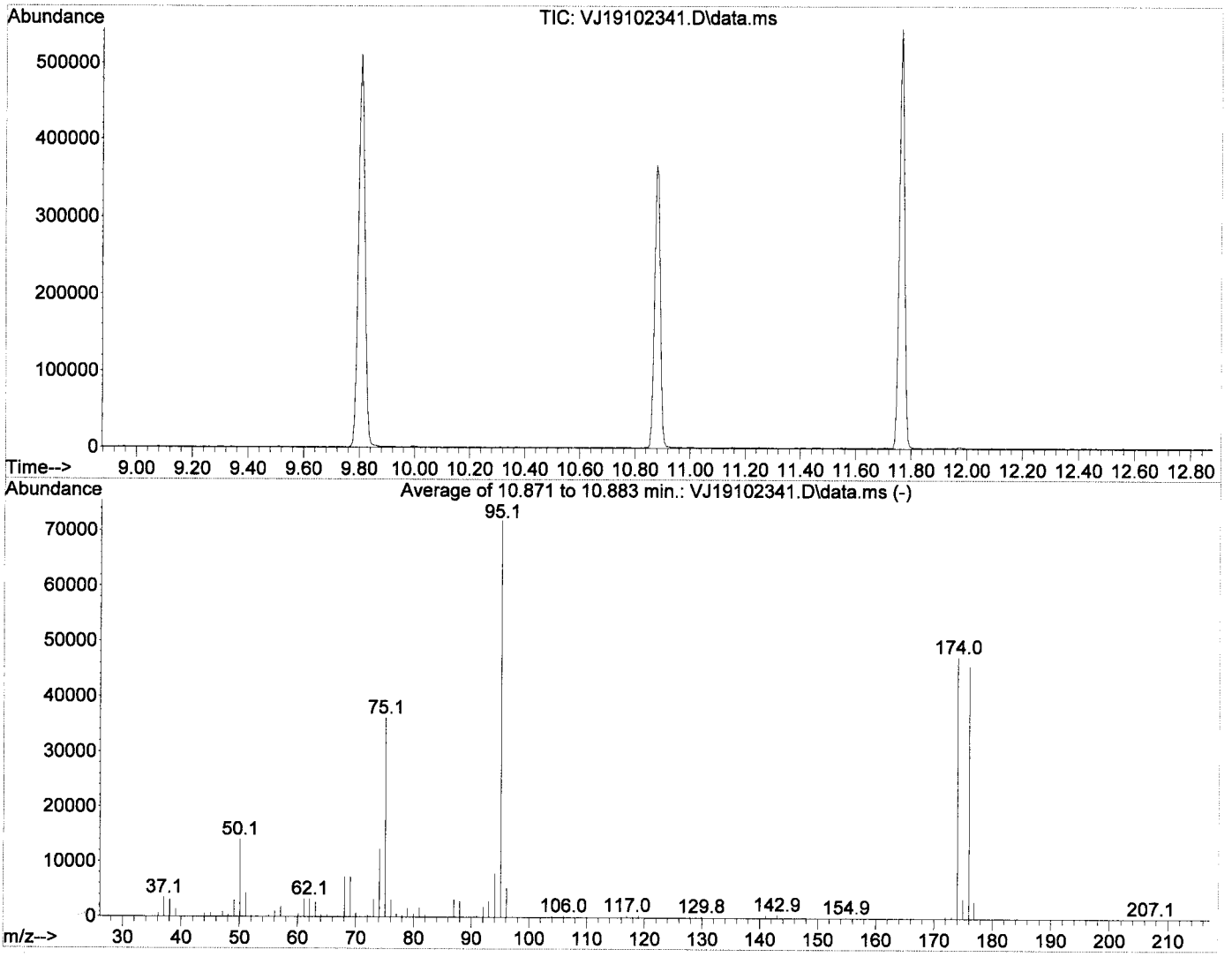


BFB

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

Integration File: APEXG.P

Method : C:\msdchem\1\methods\VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019



AutoFind: Scans 1527, 1528, 1529; Background Corrected with Scan 1521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	151.6	71859	PASS
96	95	5	9	7.3	5269	PASS
173	174	0.00	2	0.7	332	PASS
174	95	50	200	66.0	47405	PASS
175	174	5	9	7.5	3553	PASS
176	174	95	105	96.5	45755	PASS
177	176	5	10	6.6	2999	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 24 12:07:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

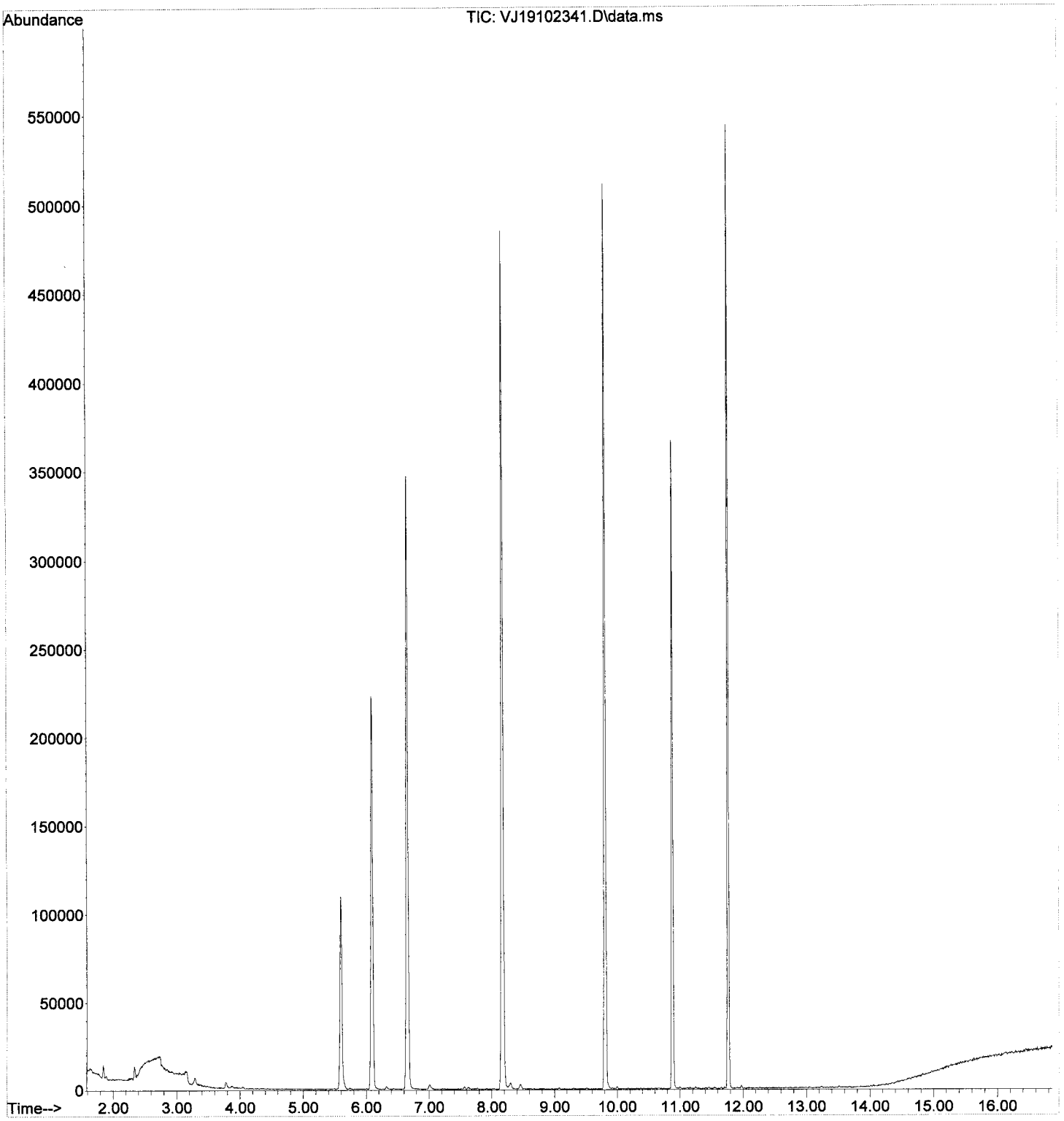
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157543	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301152	50.24	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81118	50.24	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	371145	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	267046	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	173688	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	104995m	16.84	ug/L	
5) TPHg (C5-C9)	9.239	TIC	335883m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	297596m	8.34	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	383945m	Below Cal		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

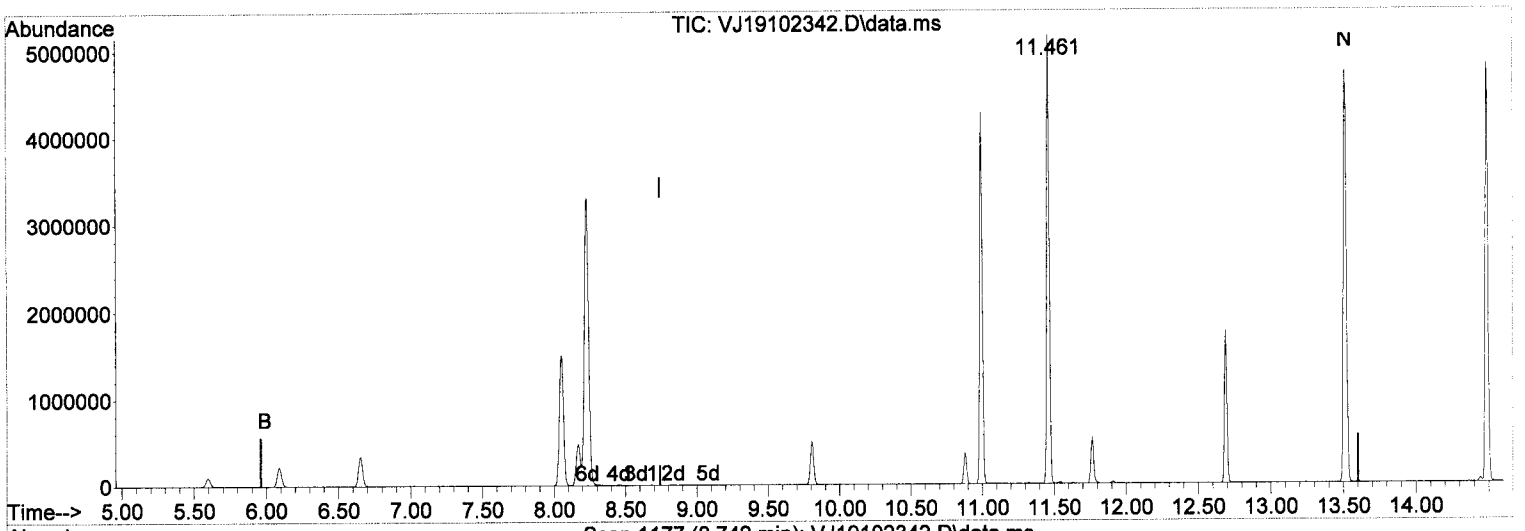
Quant Time: Oct 24 12:07:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

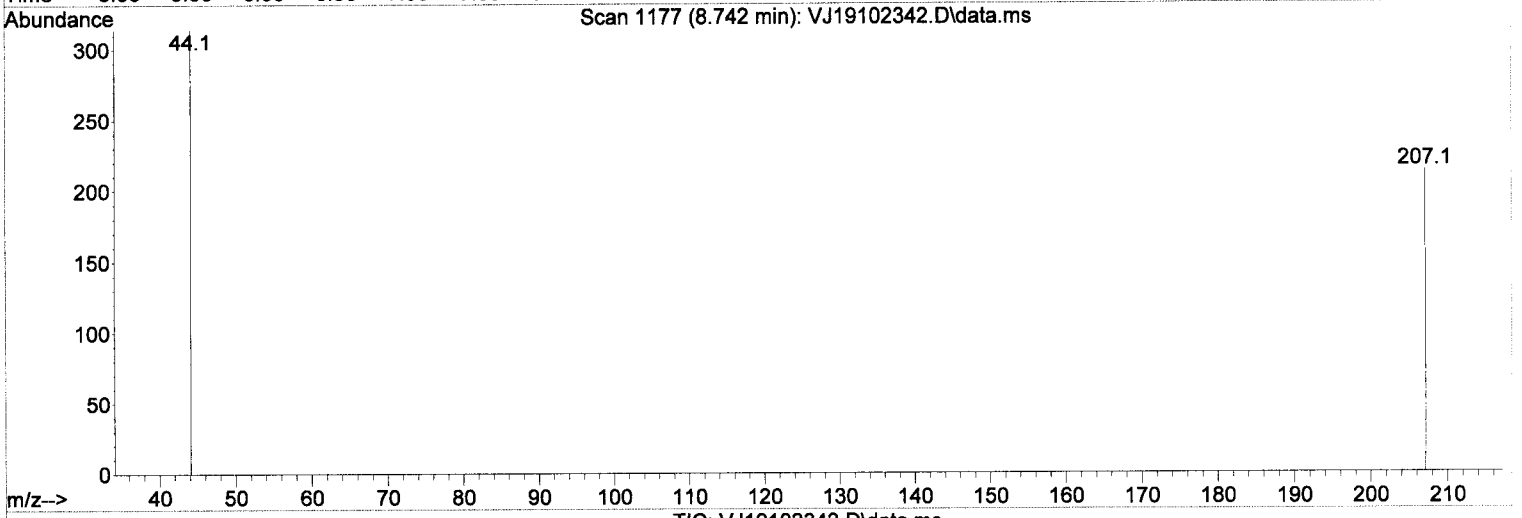


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102342.D\data.ms

(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 3791.19 ug/L m

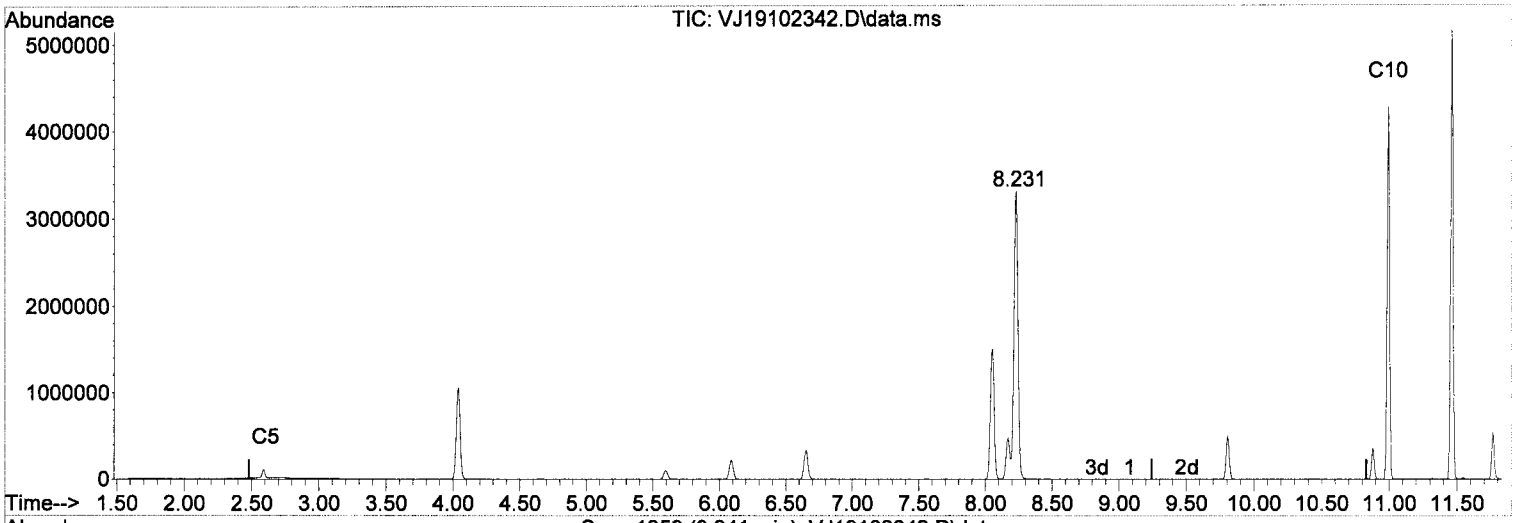
response 30811353

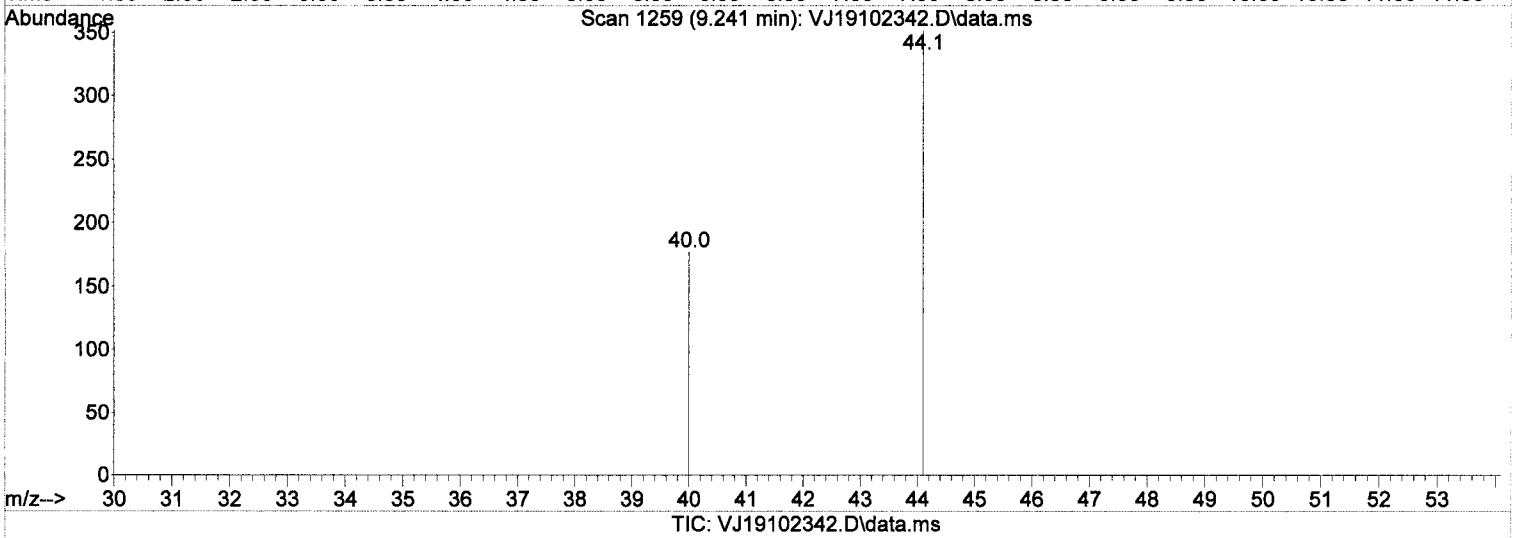
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.94#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102342.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 1281.09 ug/L m

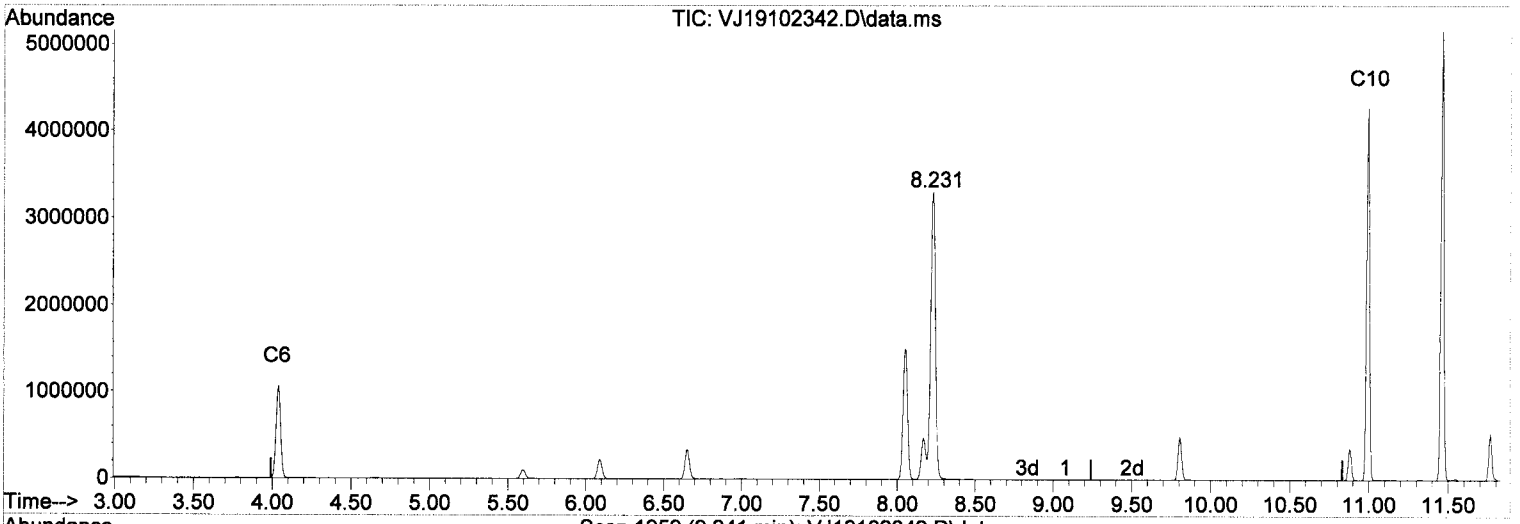
response 12973167

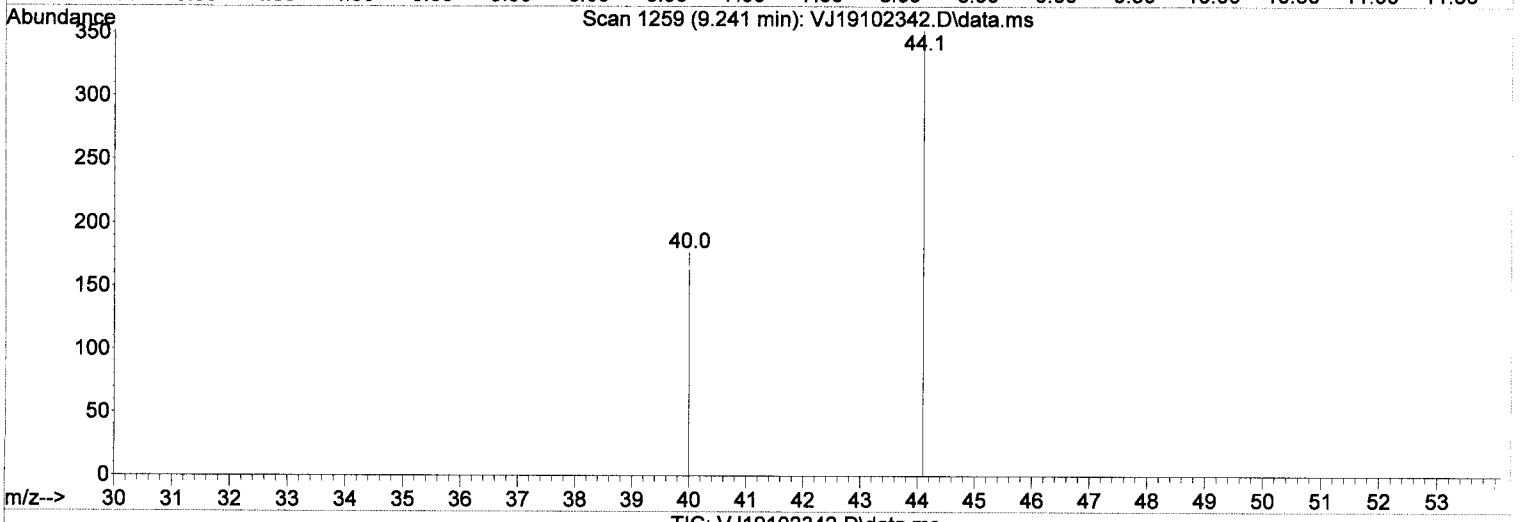
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102342.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 1426.94 ug/L m

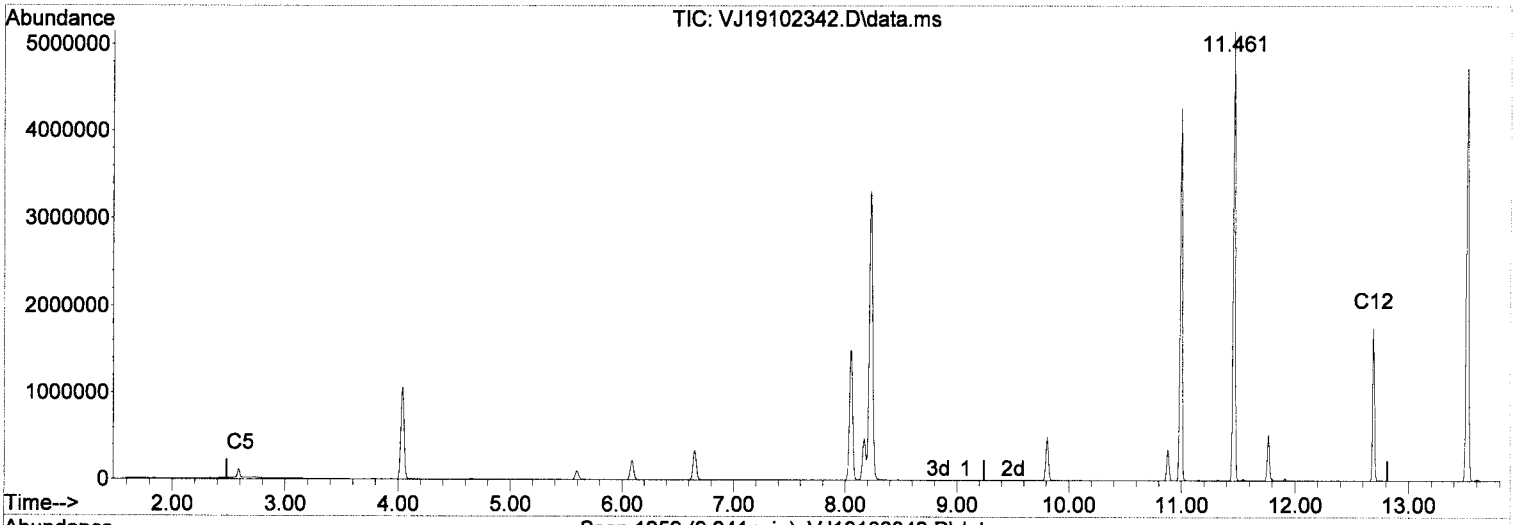
response 12428804

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.33#
0.00	0.00	1.85#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



TIC: VJ19102342.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 2235.31 ug/L m

response 26853201

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.08#
0.00	0.00	0.86#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

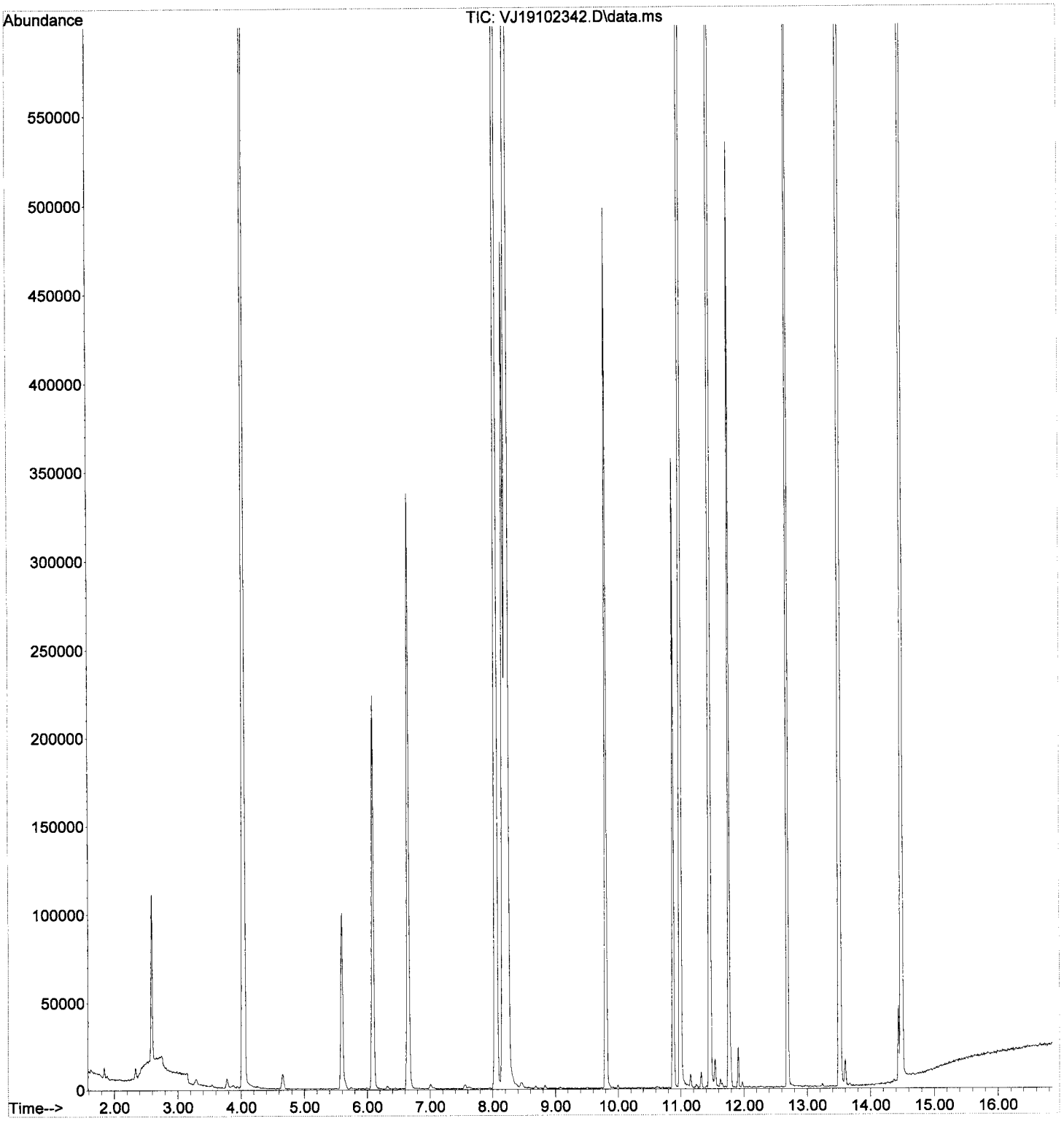
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152504	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	291705	50.27	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79181	50.66	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	374151	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	260047	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	178769	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	30811353m	3791.19	ug/L	
5) TPHg (C5-C9)	9.239	TIC	12973167m	1281.09	ug/L	
6) TPHg (C6-C10)	9.239	TIC	12428804m	1426.94	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	26853201m	2235.31	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102343.D
Acq On : 24 Oct 2019 7:14 am
Operator : MM
Sample : 9J23072-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 24 12:08:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

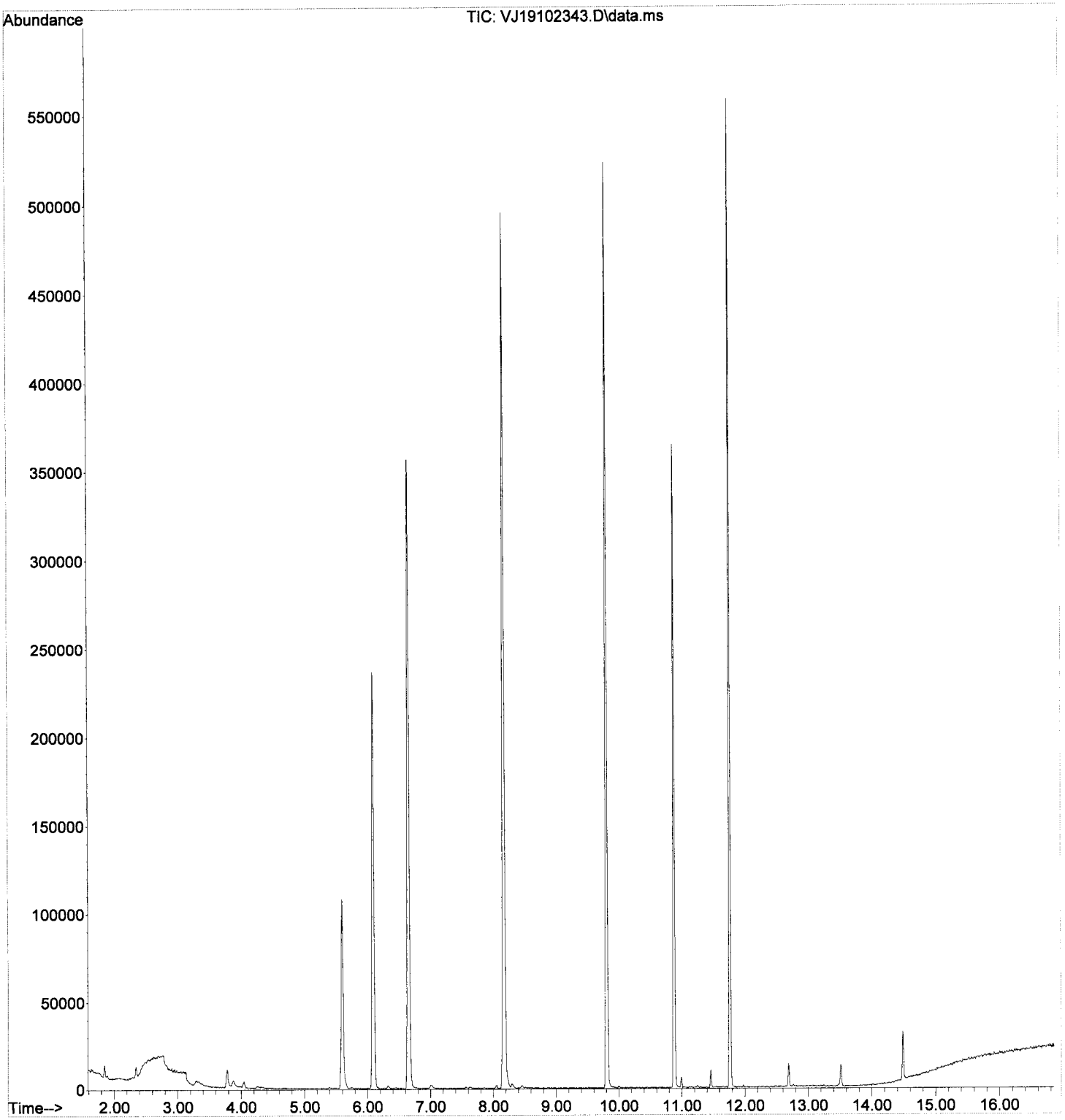
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	162093	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	309916	50.25	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81881	49.28	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	381407	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	272169	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	173838	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	162878m	23.62	ug/L	
5) TPHg (C5-C9)	9.239	TIC	367418m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	301030m	7.76	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	454097m	4.31	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102343.D
Acq On : 24 Oct 2019 7:14 am
Operator : MM
Sample : 9J23072-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 24 12:08:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102344.D
Acq On : 24 Oct 2019 7:41 am
Operator : MM
Sample : 9J23072-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 24 12:08:40 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

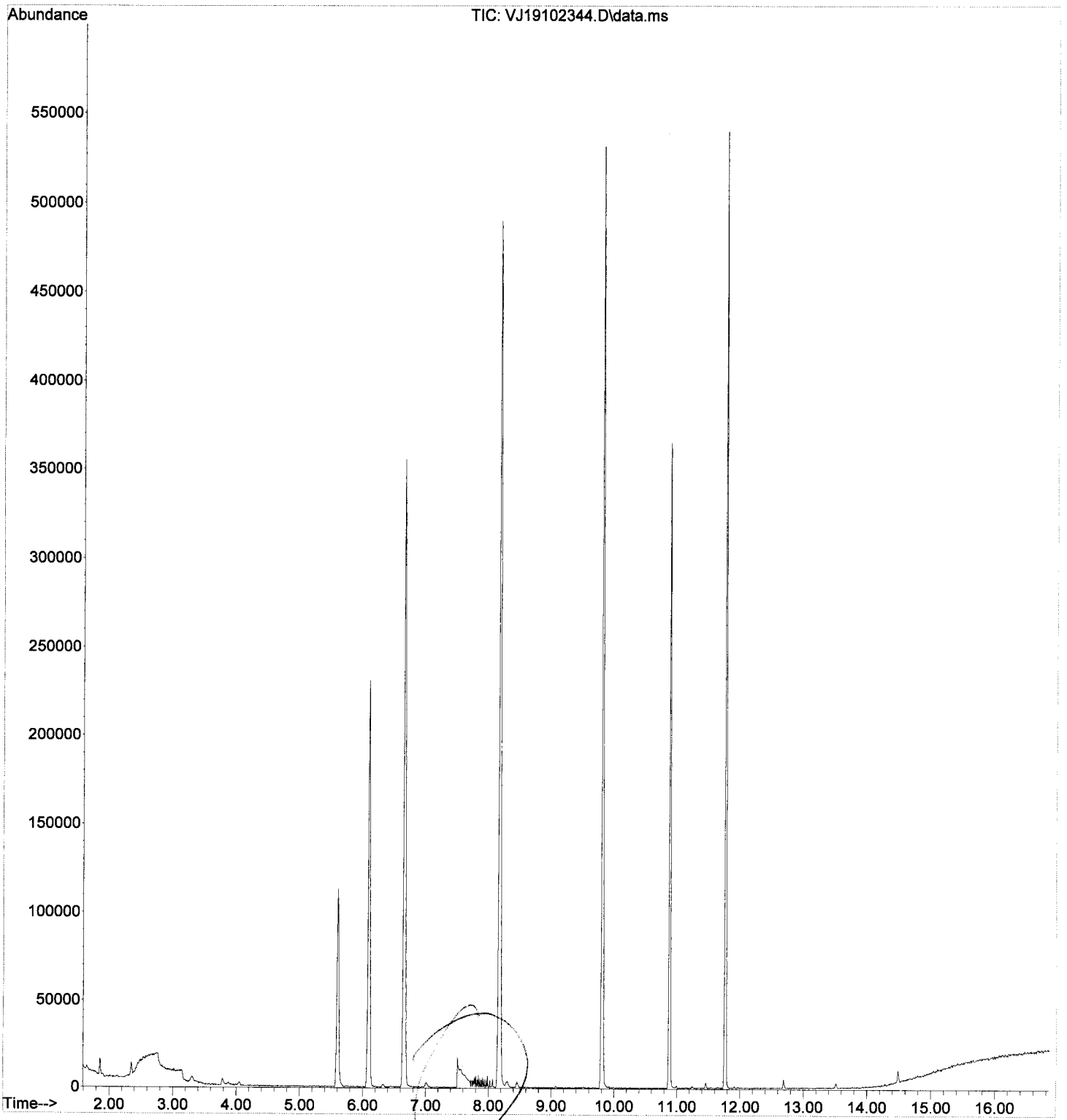
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157703	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301697	50.28	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79924	49.45	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	376233	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	267981	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	171088	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	224158m	31.96	ug/L	
5) TPHg (C5-C9)	9.239	TIC	461564m	6.37	ug/L	
6) TPHg (C6-C10)	9.239	TIC	415558m	21.81	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	511341m	10.14	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102344.D
Acq On : 24 Oct 2019 7:41 am
Operator : MM
Sample : 9J23072-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 24 12:08:40 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 11:56:22 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

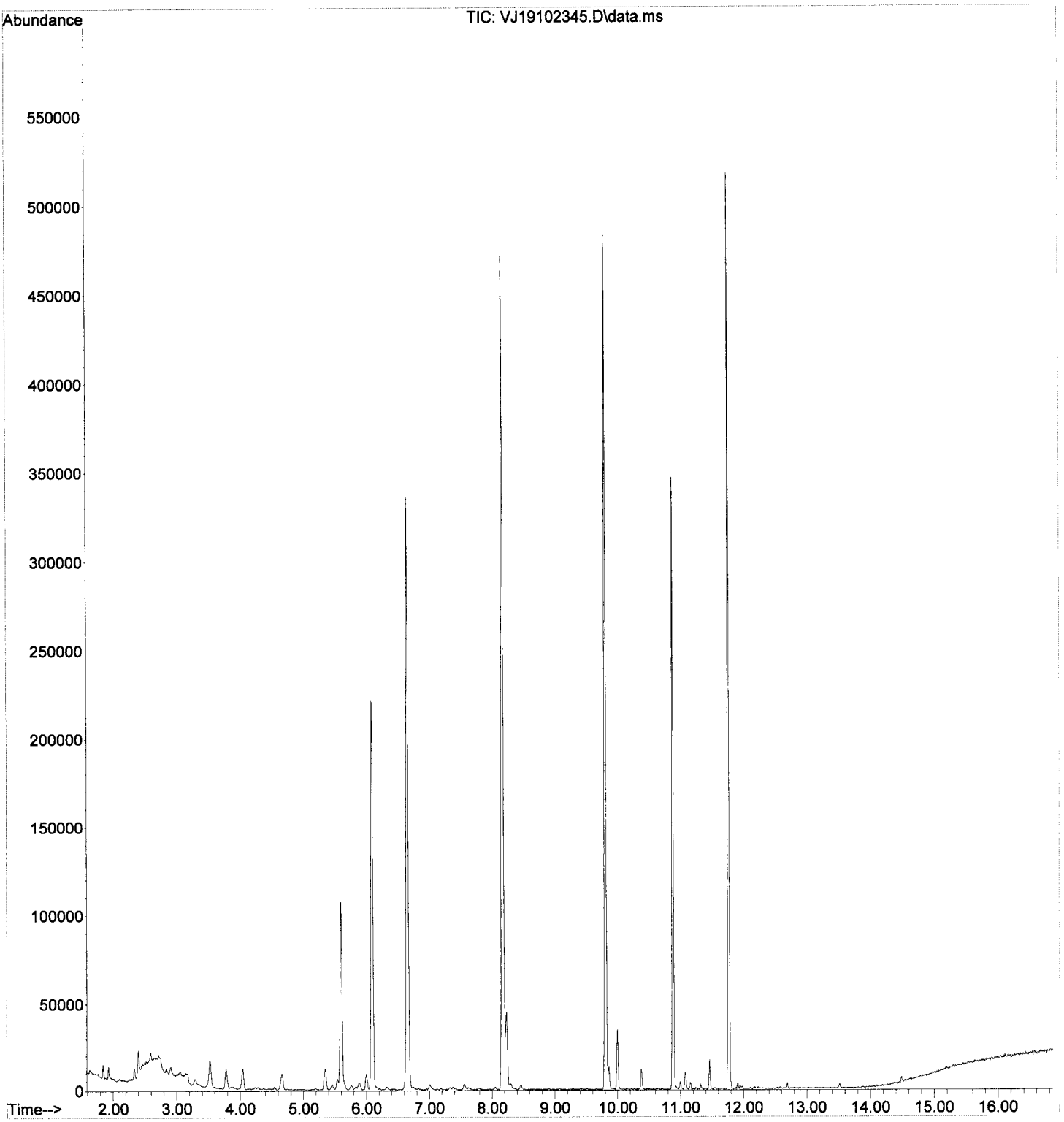
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152567	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	289686	54.80	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77731	44.73	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	359519	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	255377	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	164945	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	375320m	73.85	ug/L	
5) TPHg (C5-C9)	9.239	TIC	843934m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	631711m	67.57	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	946025m	Below Cal		
8) Benzene (NR)	5.998	78	4495	No Calib		
10) Toluene (NR)	8.231	91	38006	No Calib		
13) Naphthalene (NR)	13.517	128	2301	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 11:56:22 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102346.D
Acq On : 24 Oct 2019 8:35 am
Operator : MM
Sample : 9J23072-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 24 11:56:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

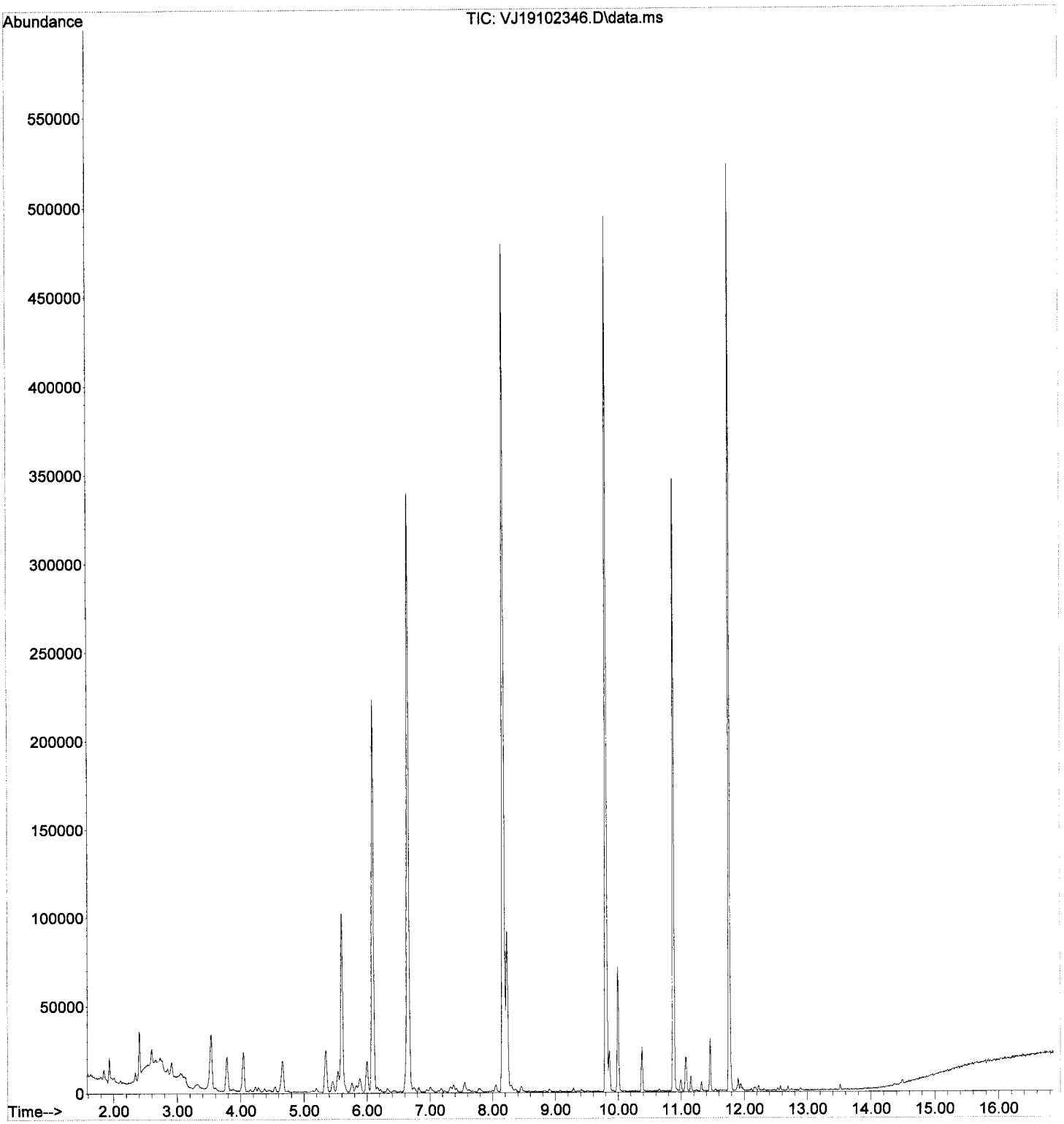
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	153392	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	292121	54.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77996	44.64	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	363344	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	257766	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	166498	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	727259m	112.67	ug/L	
5) TPHg (C5-C9)	9.239	TIC	1427185m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	1074809m	115.74	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	1596035m	6.25	ug/L	
8) Benzene (NR)	6.004	78	8975	No Calib		
10) Toluene (NR)	8.231	91	77585	No Calib		
13) Naphthalene (NR)	13.511	128	2245	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102346.D
Acq On : 24 Oct 2019 8:35 am
Operator : MM
Sample : 9J23072-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 24 11:56:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102347.D
Acq On : 24 Oct 2019 9:02 am
Operator : MM
Sample : 9J23072-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 24 11:56:27 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

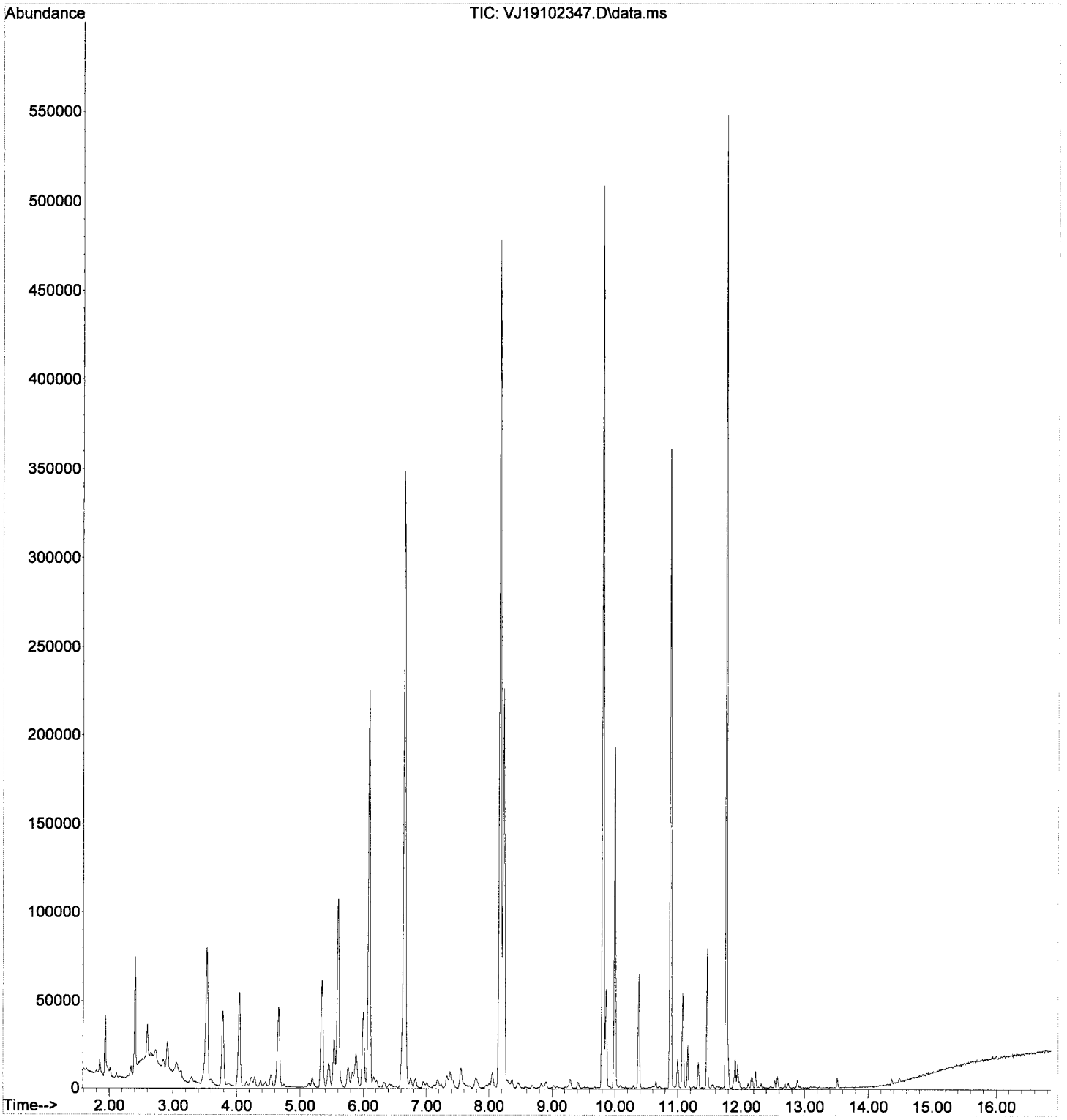
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	155593	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	296265	54.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79823	45.04	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	365297	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	262110	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	171256	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	1852913m	234.60	ug/L	
5) TPHg (C5-C9)	9.239	TIC	2804041m	108.97	ug/L	
6) TPHg (C6-C10)	9.239	TIC	2339645m	250.72	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	3235032m	126.41	ug/L	
8) Benzene (NR)	6.004	78	21544	No Calib		
10) Toluene (NR)	8.231	91	188901	No Calib		
13) Naphthalene (NR)	13.517	128	3700	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102347.D
Acq On : 24 Oct 2019 9:02 am
Operator : MM
Sample : 9J23072-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 24 11:56:27 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102348.D
Acq On : 24 Oct 2019 9:29 am
Operator : MM
Sample : 9J23072-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 24 11:56:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

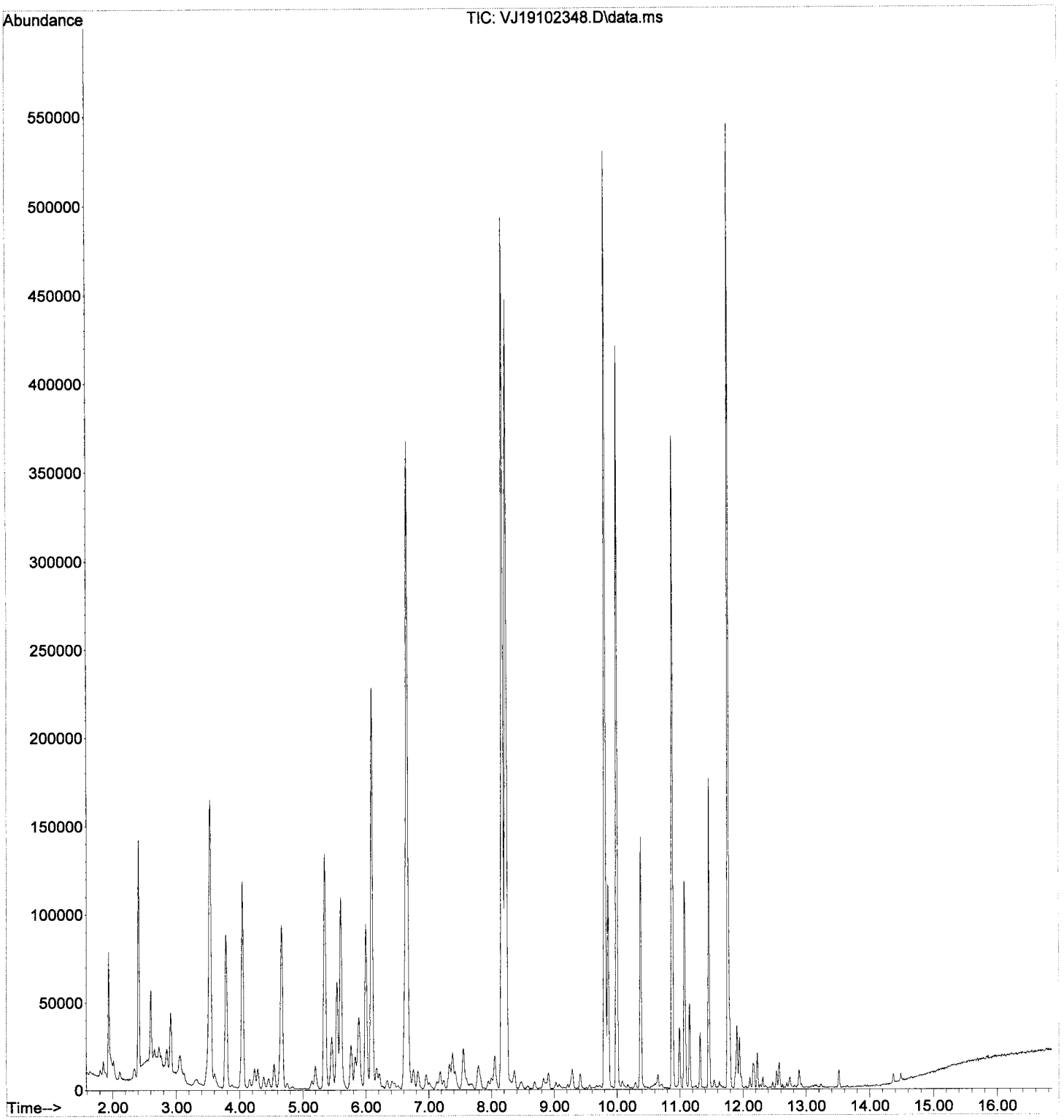
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	159177	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	305907	55.47	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	82765	45.65	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	375068	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	265334	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	174931	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	3865293m	444.99	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5443810m	340.27	ug/L	
6) TPHg (C6-C10)	9.239	TIC	4678414m	492.11	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6336737m	346.64	ug/L	
8) Benzene (NR)	6.004	78	43809	No Calib		
10) Toluene (NR)	8.231	91	381749	No Calib		
13) Naphthalene (NR)	13.517	128	7126	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102348.D
Acq On : 24 Oct 2019 9:29 am
Operator : MM
Sample : 9J23072-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 24 11:56:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102349.D
Acq On : 24 Oct 2019 9:56 am
Operator : MM
Sample : 9J23072-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 24 11:56:31 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

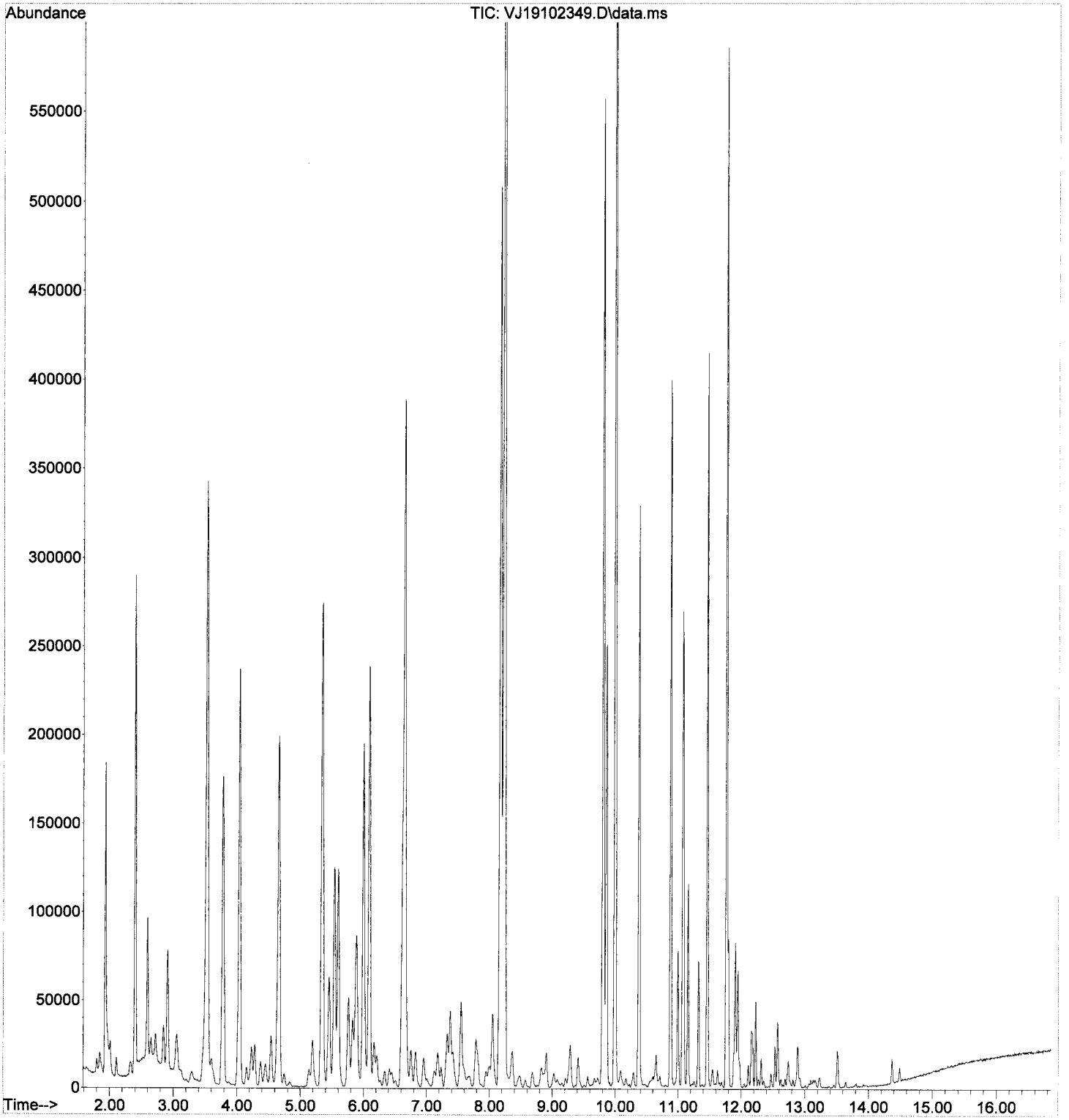
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	167155	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318452	54.99	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	85756	45.04	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	390339	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	277618	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	186339	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	8482501m	894.38	ug/L	
5) TPHg (C5-C9)	9.239	TIC	11257602m	814.94	ug/L	
6) TPHg (C6-C10)	9.239	TIC	9708618m	975.00	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	13286173m	807.02	ug/L	
8) Benzene (NR)	6.004	78	92658	No Calib		
10) Toluene (NR)	8.231	91	802280	No Calib		
13) Naphthalene (NR)	13.511	128	15467	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102349.D
Acq On : 24 Oct 2019 9:56 am
Operator : MM
Sample : 9J23072-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 24 11:56:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102350.D
Acq On : 24 Oct 2019 10:23 am
Operator : MM
Sample : 9J23072-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 24 11:56:33 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

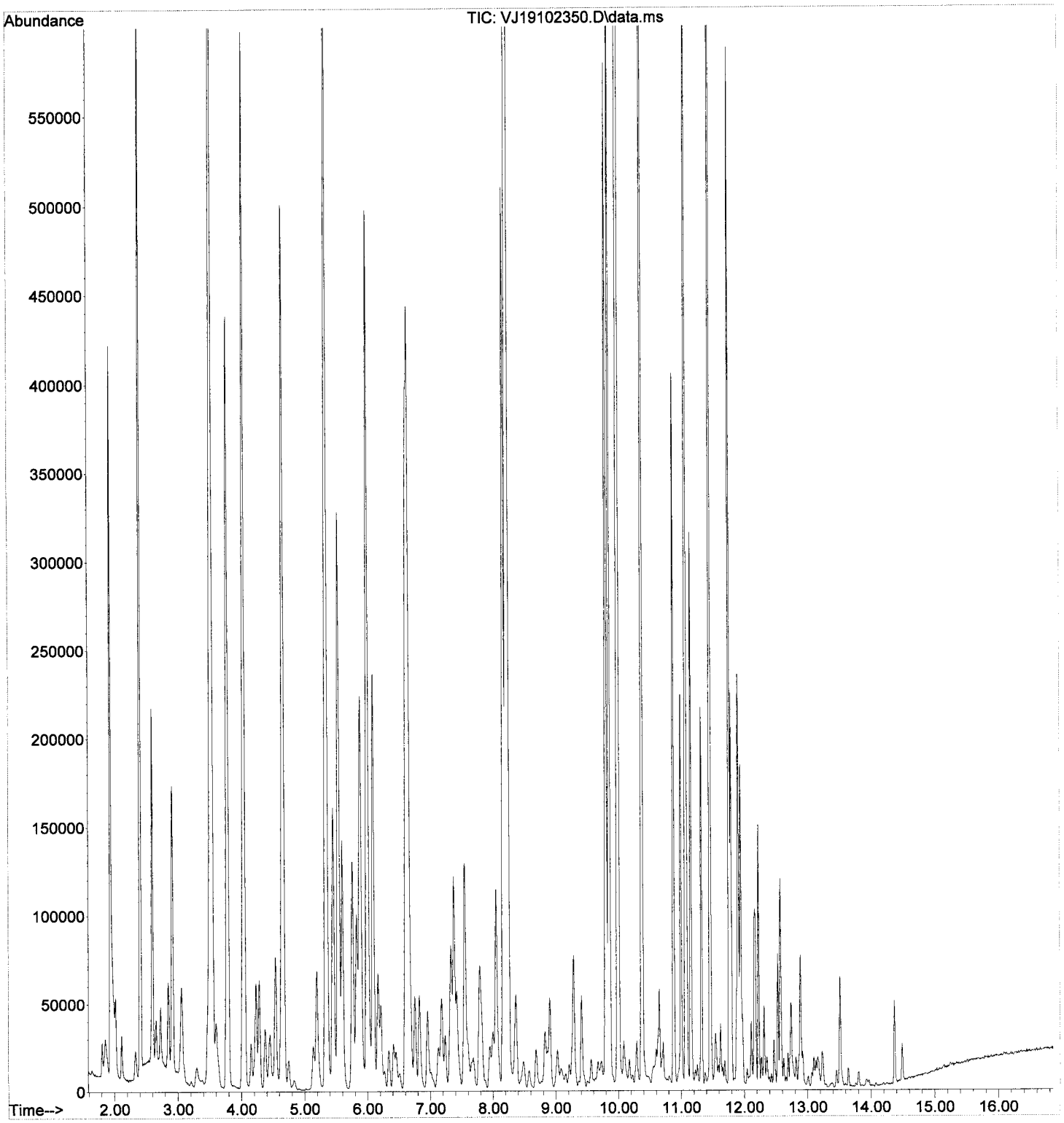
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	165305	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318152	55.55	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88206	46.85	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	391013	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	281864	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	191298	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	22541564m	2343.34	ug/L	
5) TPHg (C5-C9)	9.239	TIC	28537427m	2329.09	ug/L	
6) TPHg (C6-C10)	9.239	TIC	24711927m	2517.27	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	33928653m	2274.82	ug/L	
8) Benzene (NR)	6.004	78	233398	No Calib		
10) Toluene (NR)	8.231	91	2066383	No Calib		
13) Naphthalene (NR)	13.511	128	44264	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102350.D
Acq On : 24 Oct 2019 10:23 am
Operator : MM
Sample : 9J23072-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 24 11:56:33 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102351.D
Acq On : 24 Oct 2019 10:50 am
Operator : MM
Sample : 9J23072-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 24 11:56:35 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	174020	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	330721	54.85	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88041	44.42	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	401096	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	276544	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	192375	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	46069170m	4501.87	ug/L	
5) TPHg (C5-C9)	9.239	TIC	56741700m	4553.67	ug/L	
6) TPHg (C6-C10)	9.239	TIC	48815780m	4737.90	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	68263618m	4481.96	ug/L	
8) Benzene (NR)	6.004	78	464989	No Calib		
10) Toluene (NR)	8.231	91	3996793	No Calib		
13) Naphthalene (NR)	13.511	128	96059	No Calib		

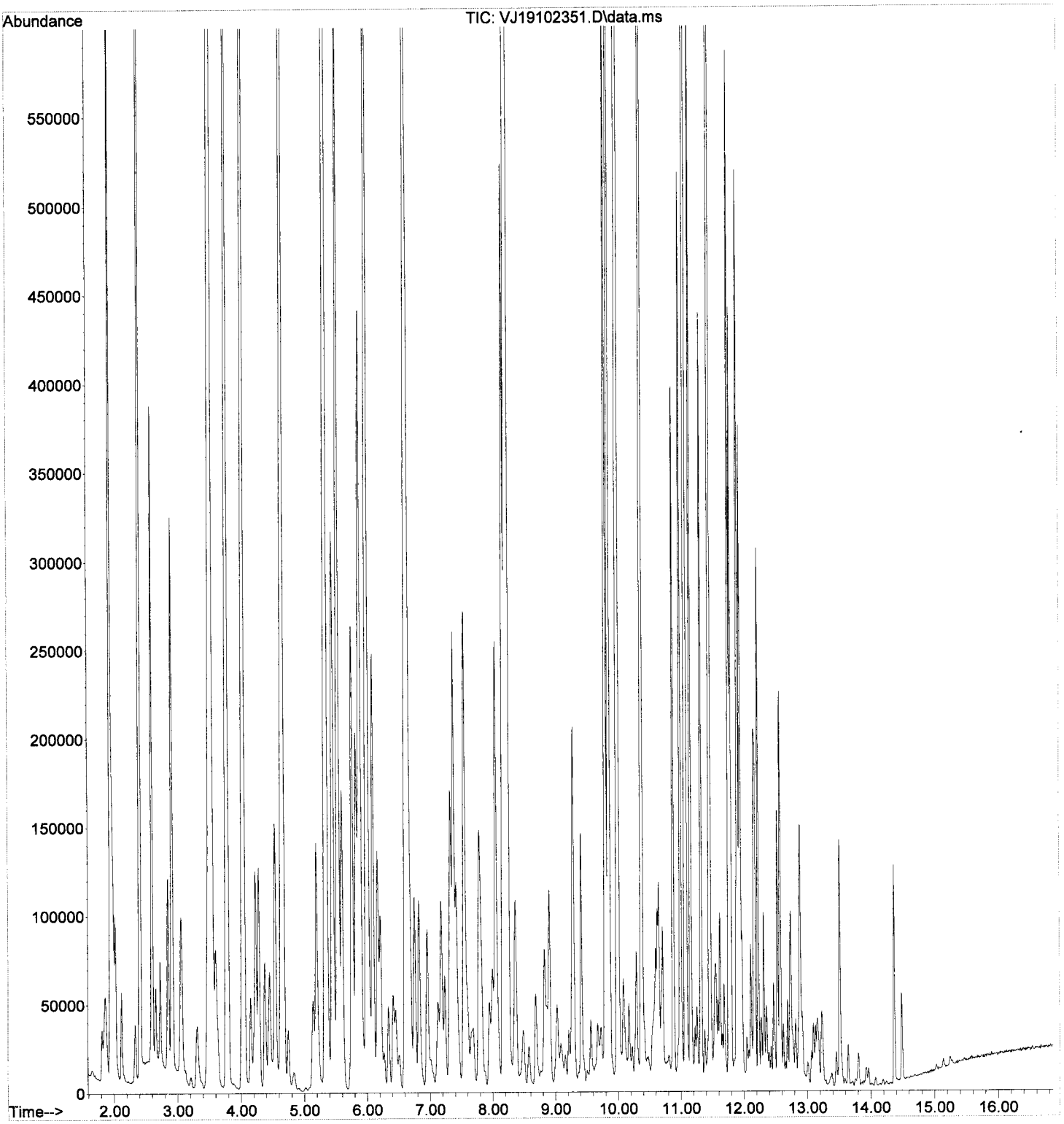
(#) = qualifier out of range (m) = manual integration (+) = signals summed

VJ 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102351.D
Acq On : 24 Oct 2019 10:50 am
Operator : MM
Sample : 9J23072-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 24 11:56:35 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102352.D
Acq On : 24 Oct 2019 11:16 am
Operator : MM
Sample : 9J23072-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 24 11:56:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

VV 10/24/19

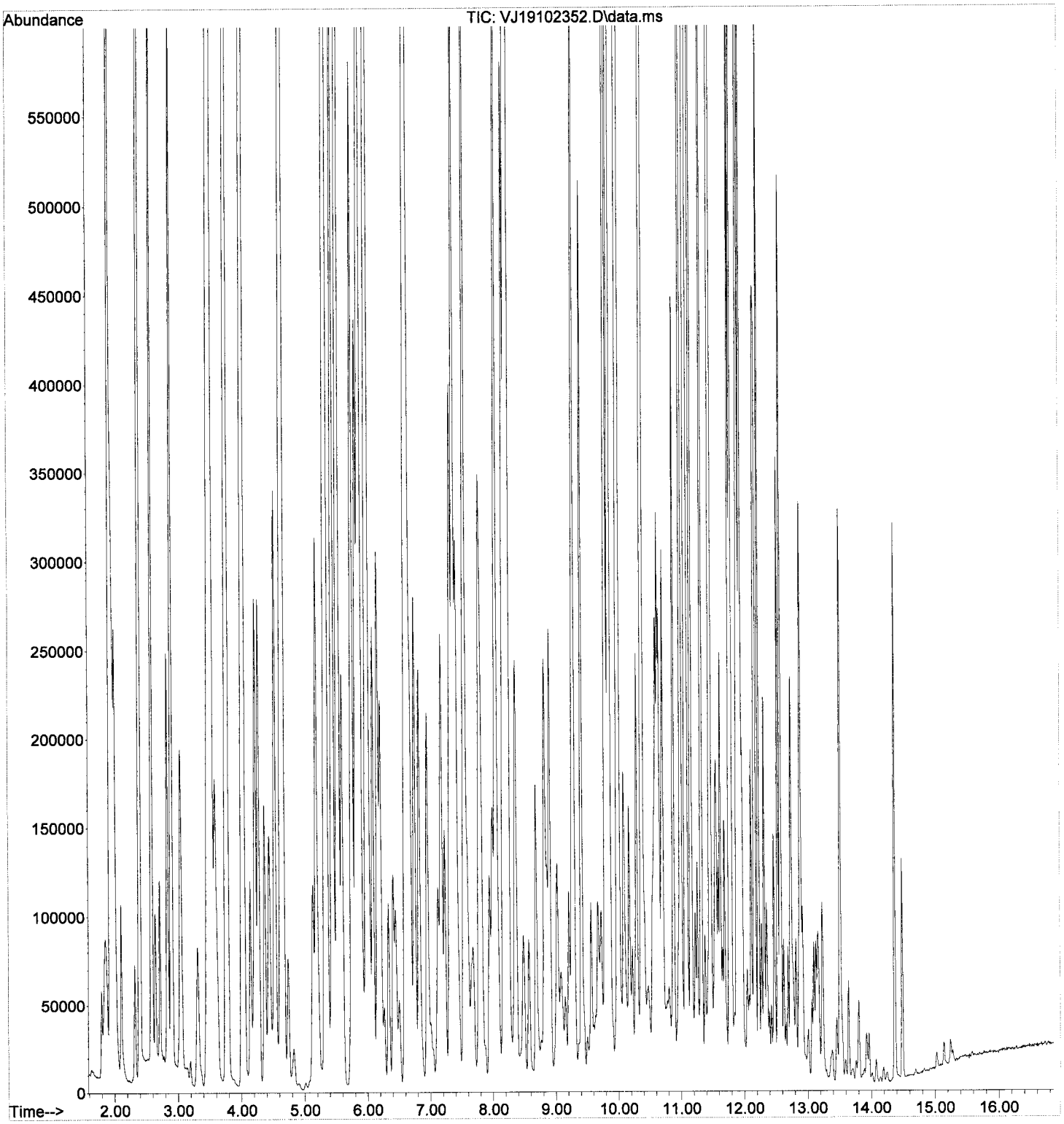
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	181337	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	337220	53.68	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	90011	43.58	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	410077	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	282468	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	197183	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	107284123m	9925.06	ug/L	
5) TPHg (C5-C9)	9.239	TIC	128200060m	10173.08	ug/L	
6) TPHg (C6-C10)	9.239	TIC	110687494m	10382.03	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	154291685m	10024.25	ug/L	
8) Benzene (NR)	5.998	78	1011196	No Calib		
10) Toluene (NR)	8.231	91	8616507	No Calib		
13) Naphthalene (NR)	13.511	128	217422	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102352.D
Acq On : 24 Oct 2019 11:16 am
Operator : MM
Sample : 9J23072-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 24 11:56:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102353.D
Acq On : 24 Oct 2019 11:43 am
Operator : MM
Sample : 9J23072-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 24 12:08:49 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

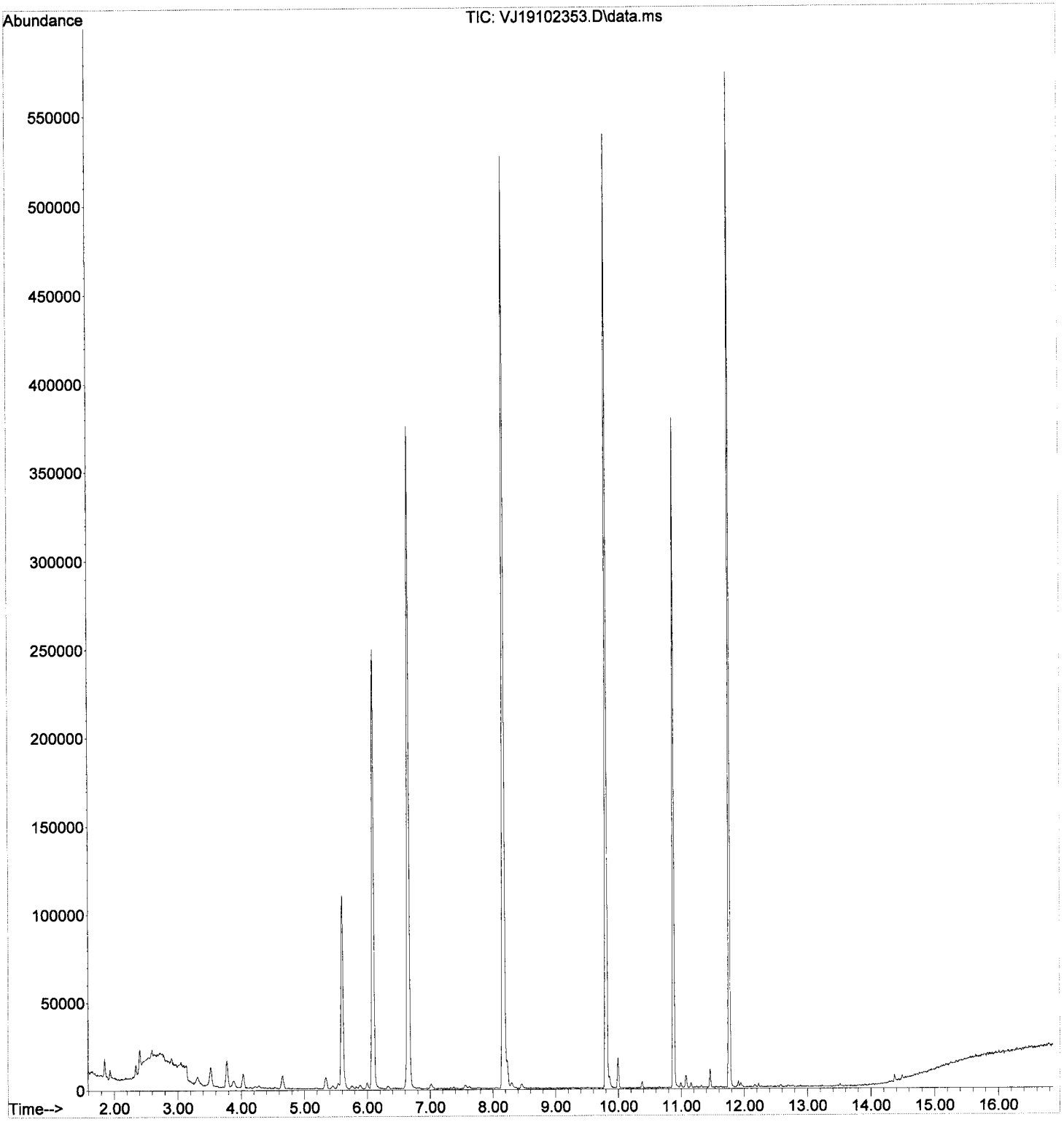
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	180184	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	335961	49.01	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	86624	46.90	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	412224	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	287061	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	186193	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	258654m	32.24	ug/L	
5) TPHg (C5-C9)	9.239	TIC	598793m	12.60	ug/L	
6) TPHg (C6-C10)	9.239	TIC	506930m	25.02	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	690694m	17.94	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102353.D
Acq On : 24 Oct 2019 11:43 am
Operator : MM
Sample : 9J23072-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 24 12:08:49 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102354.D
Acq On : 24 Oct 2019 12:10 pm
Operator : MM
Sample : 9J23072-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 24 13:07:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

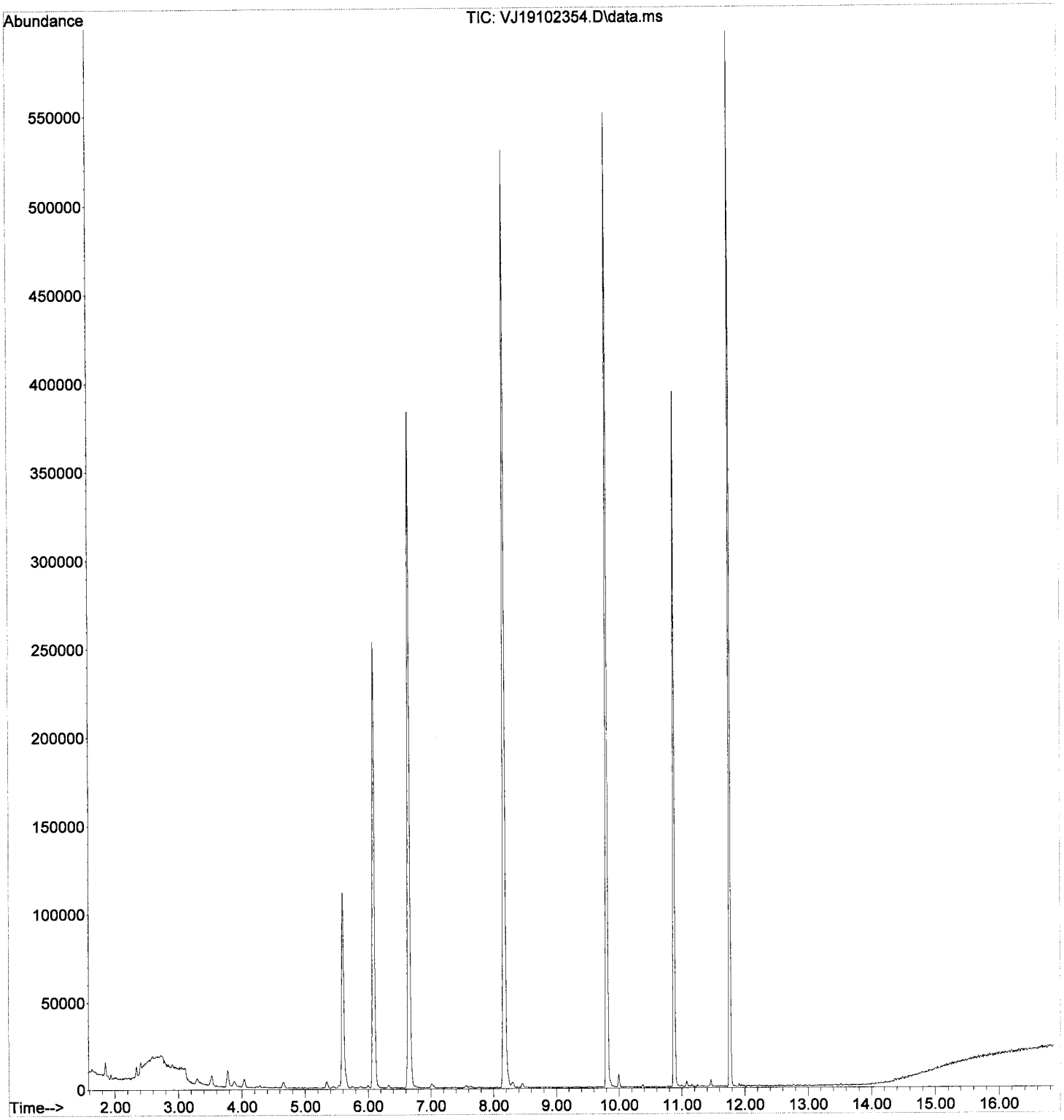
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	182663	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	342782	49.32	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	89835	47.98	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	418445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	293118	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	192417	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	142810m	19.15	ug/L	
5) TPHg (C5-C9)	9.239	TIC	449208m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	373549m	11.15	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	516394m	4.65	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102354.D
Acq On : 24 Oct 2019 12:10 pm
Operator : MM
Sample : 9J23072-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 24 13:07:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

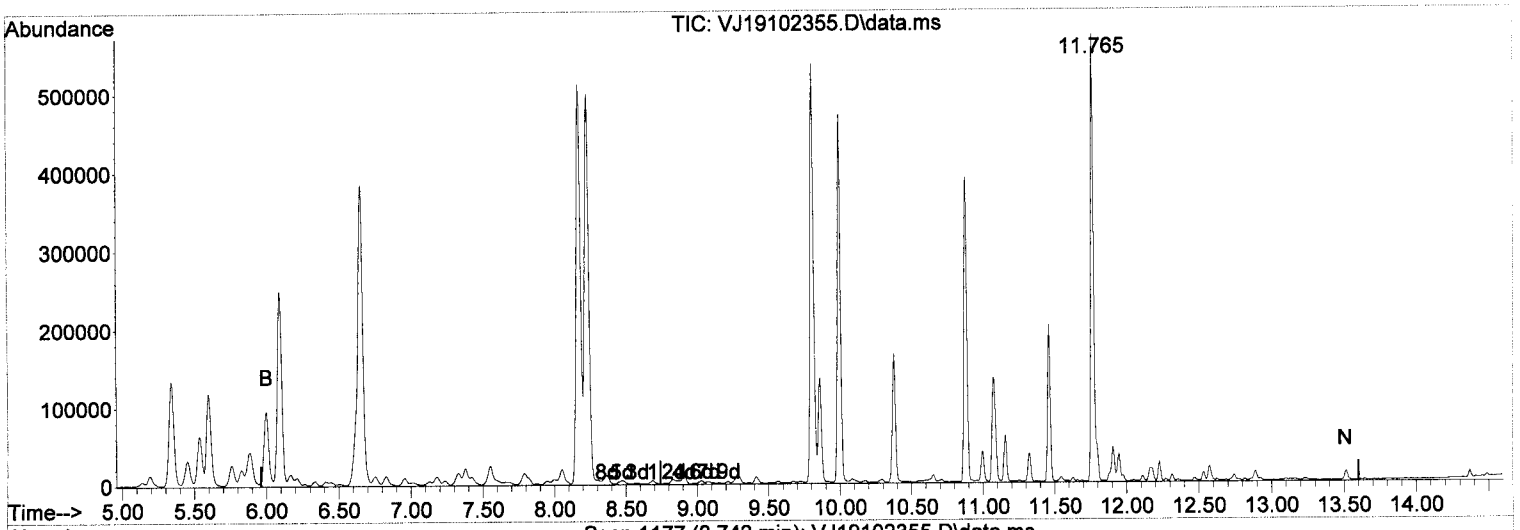
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	177331	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	333318	49.40	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	87092	47.92	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	404431	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	284724	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	189269	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	4329987m	488.49	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5778816m	470.46	ug/L	
6) TPHg (C6-C10)	9.239	TIC	5020099m	483.25	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6839068m	474.17	ug/L	

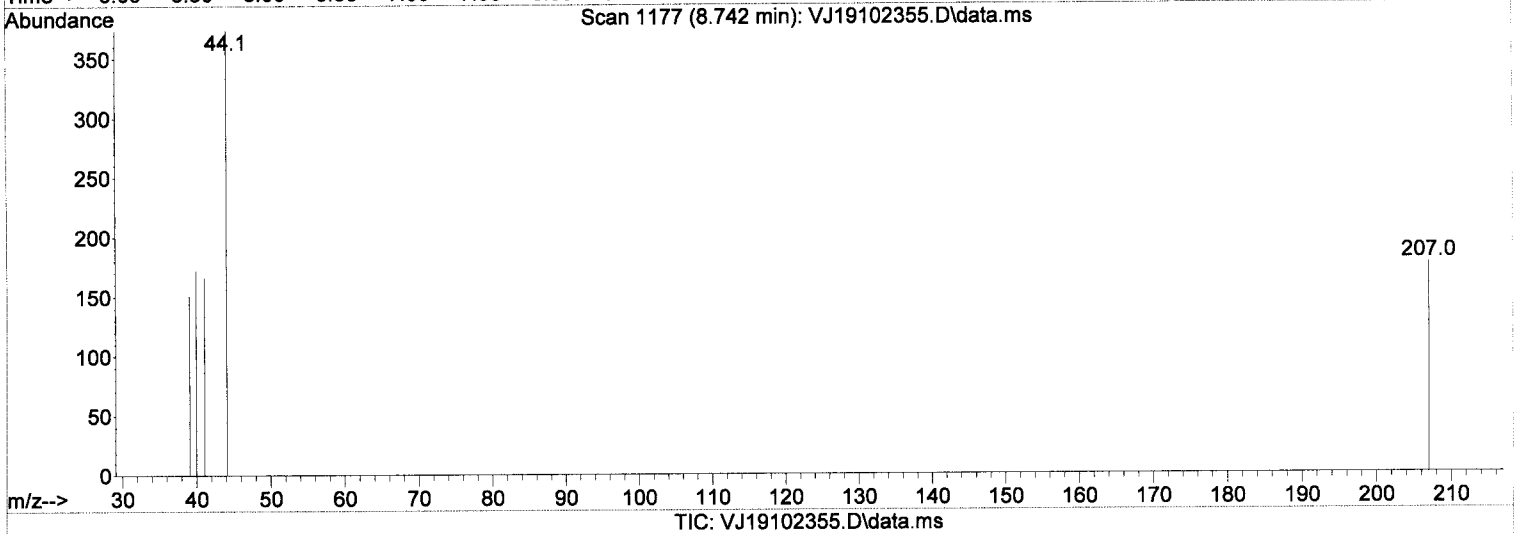
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19102355.D\data.ms

(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 488.49 ug/L m

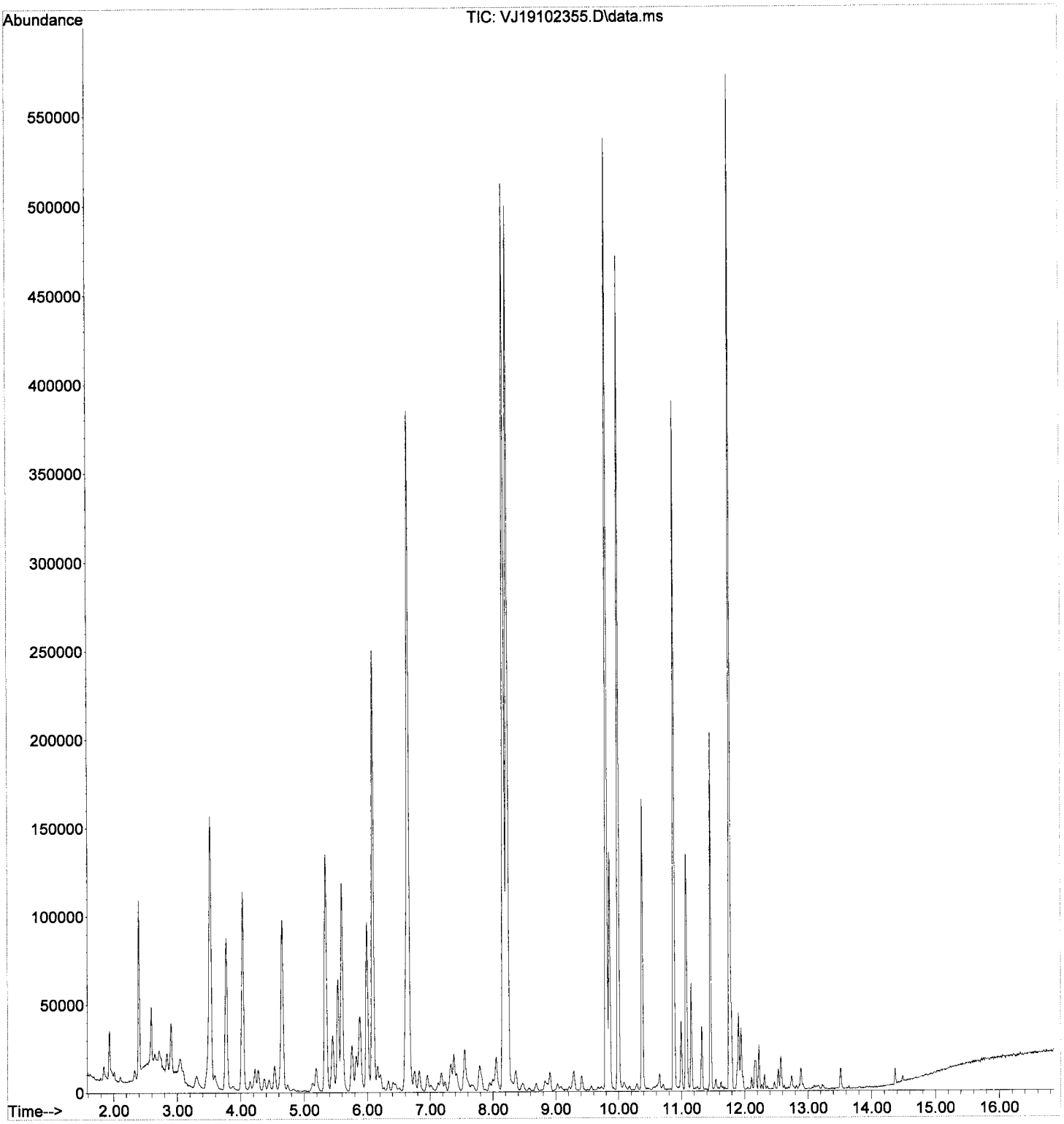
response 4329987

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.02#
0.00	0.00	0.02#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Volatile Organic Compounds by EPA 1311/8260C
Benchsheet & Analysis Sequence Data

Batch 9110460
Sequence 9K05032 (A9J1007-01)

PREPARATION BENCH SHEET

BATCH #: 9110460 (Water)

Apex Laboratories

Prep Method: EPA 1311/5030B TCLP Volatiles

Lab Number	Cont.	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9110460-BLK1		QC	11/05/19 09:41	5	5						Extraction batch 9110443	
9110460-BS1		QC	11/05/19 09:41	5	5	A19K007		250				
A9J0954-01	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-019SC-C-00-3.2-191025		<2
A9J0954-02	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-095SC-C-00-8.8-191025		<2
A9J1007-01	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-083SC-C-00-08-191028		<2
A9K0045-01	A	1311/8260C TCLP/ZHE Full	11/05/19 10:08	5	5					BF-110419-108	Added for BatchQC in: 9110460	<2
A9K0045-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					BF-110419-108	mdl, ug/L	<2
9110460-DUP1		QC	11/05/19 09:41	5	5		A9K0045-01					<2
A9K0046-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5						FC-110419-1210	MDL, ug/L	<2
A9K0048-01	A	1311/8260C TCLP/ZHE Full	11/05/19 10:08	5	5					Vapor Carbon-T125-110119	ppb	<2
A9K0048-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					Vapor Carbon-T125-110119	Added for BatchQC in: 9110460	<2
9110460-MS1		QC	11/05/19 10:08	5	5	A19K007	A9K0048-01	250				<2

*pH <2 verified NA

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
			A19K007	11/09/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r			

GCMS7

Prepared By: 11/5/19 Date

Reviewed By: 11/5/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K05032**	Instrument:	**VOA-GCMS7**
Date:	**11/05/19 08:33**	Calibration:	**A9J2806**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K05032-IBL1	Water	QC	QC			A19F381	
2	9K05032-IBL2	Water	QC	QC			A19F381	
3	9K05032-TUN1	Water	QC	QC			A19F381	
4	9K05032-CCV1	Water	QC	QC			A19F381	
5	9110460-BS1	Water	QC	QC		9110460	A19F381	
6	9110460-BLK1	Water	QC	QC		9110460	A19F381	
7	A9K0045-01	Water	1311/8260C TCLP/ZHE VOC Reg List		11/08/19	9110460	A19F381	
"	"	Water	1311/8260C TCLP/ZHE Full List VOAs	(QC Source)		9110460	A19F381	
8	9110460-DUP1	Water	QC	QC		9110460	A19F381	
9	A9K0046-01	Water	1311/8260C TCLP/ZHE VOC Reg List		11/08/19	9110460	A19F381	
10	A9J0954-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9110460	A19F381	
11	A9J0954-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9110460	A19F381	
12	A9J1007-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/11/19	9110460	A19F381	
13	9K05032-IBL3	Water	QC	QC			A19F381	
14	A9K0048-01	Water	1311/8260C TCLP/ZHE Full List VOAs		11/08/19	9110460	A19F381	
"	"	Water	1311/8260C TCLP/ZHE VOC Reg List	(QC Source)		9110460	A19F381	
15	9110460-MS1	Water	QC	QC		9110460	A19F381	
16	9K05032-IBL4	Water	QC	QC			A19F381	

Data Entered By: 11/5/19

Data Reviewed By: 11/5/19

Comments:

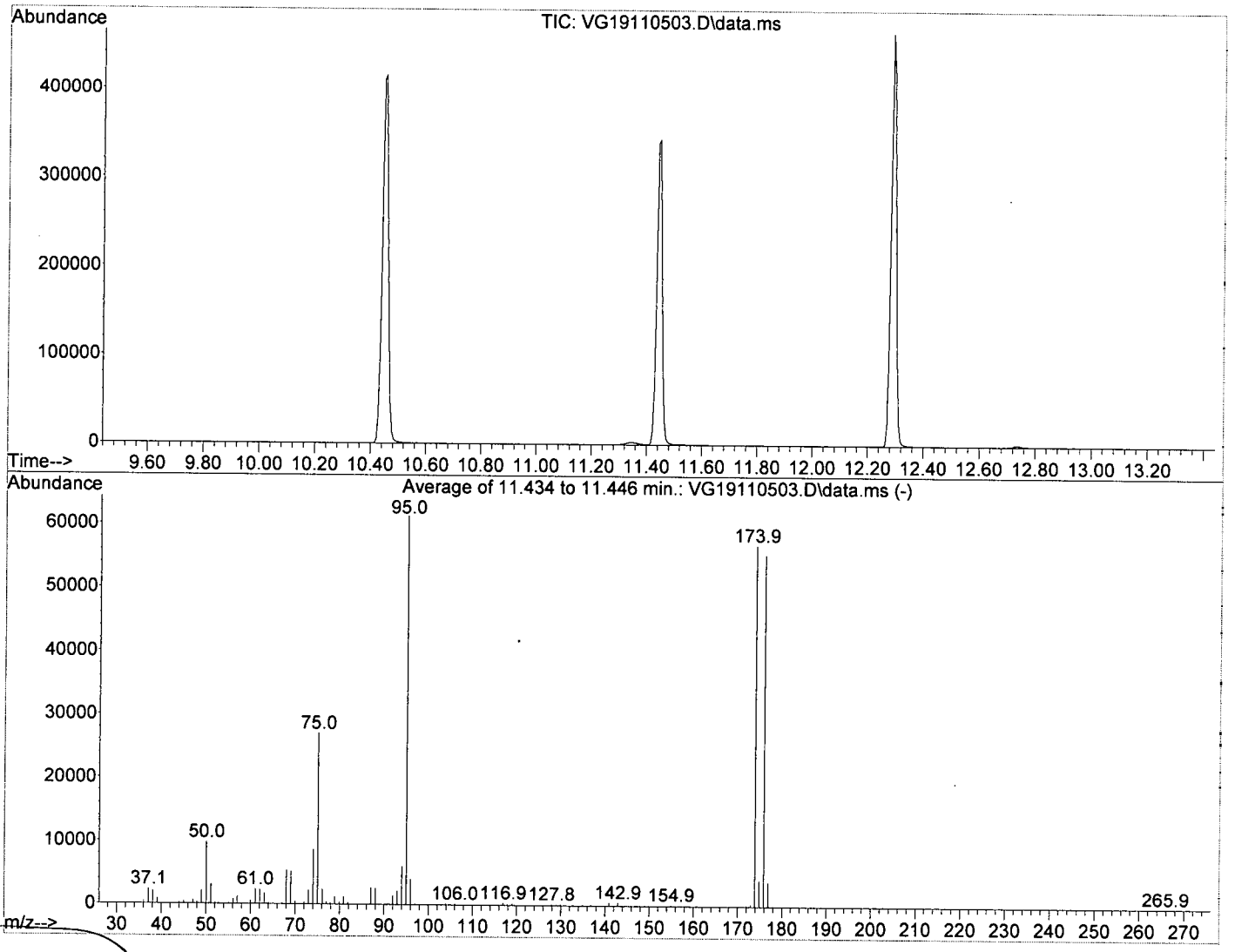
BFB

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019

11/5/19



AutoFind: Scans 1607, 1608, 1609; Background Corrected with Scan 1600

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	107.6	61251	PASS
96	95	5	9	6.7	4100	PASS
173	174	0.00	2	0.6	326	PASS
174	95	50	200	93.0	56933	PASS
175	174	5	9	7.3	4157	PASS
176	174	95	105	97.3	55413	PASS
177	176	5	10	6.9	3797	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

11/5/19

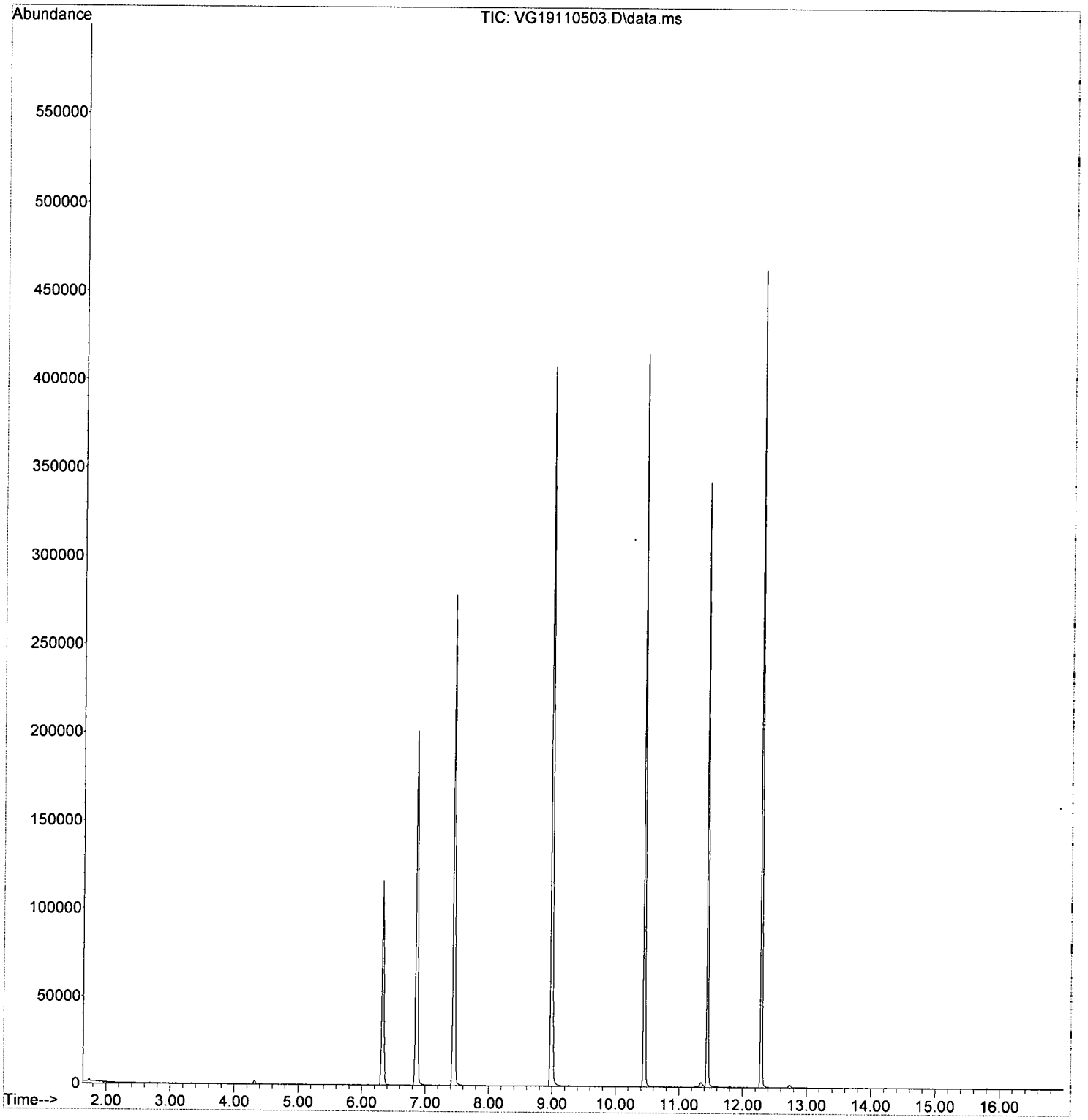
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	75893	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	231395	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	116757	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	79612	49.83	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	267539	51.32	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	297250	49.27	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	97189	49.29	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	255	0.15	ug/L		81
6) Chloroethane	2.771	64	10	Below Cal		#	47
14) Methylene Chloride	4.319	84	1204	Below Cal			92
15) Acetone	4.398	43	959	1.21	ug/L		99
19) tert-Butanol (TBA)	4.831	59	332	1.11	ug/L	#	100
87) Naphthalene	14.201	128	19	0.28	ug/L		79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

11/5/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	102	0.00
2		Dichlorodifluoromethane	20.000	19.535	2.3	106	0.00
3	P	Chloromethane	20.000	18.287	8.6	100	0.00
4	C	Vinyl Chloride	20.000	20.514	-2.6	104	0.00
5		Bromomethane	20.000	20.025	-0.1	109	0.00
6		Chloroethane	20.000	22.417	-12.1	117	0.00
7		Trichlorofluoromethane	20.000	22.330	-11.6	112	0.00
8		Ethanol	1250.000	1058.038	15.4	82	0.00
9	C	1,1-Dichloroethene	20.000	21.378	-6.9	108	0.00
10		Carbon Disulfide	20.000	20.519	-2.6	107	0.00
11		Freon 113	20.000	21.641	-8.2	110	0.00
12		Iodomethane	20.000	16.366	18.2	92	0.00
13		Acrolein	20.000	19.307	3.5	100	0.00
14		Methylene Chloride	20.000	21.323	-6.6	104	0.00
15		Acetone	40.000	36.834	7.9	95	0.00
16		t-1,2-Dichloroethene	20.000	21.600	-8.0	106	0.00
17		n-Hexane	20.000	23.925	-19.6	122	0.00
18		Methyl-tert-butyl-ether	20.000	22.687	-13.4	106	0.00
19		tert-Butanol (TBA)	1250.000	1230.041	1.6	88	0.00
20		Diisopropyl ether (DIPE)	5.000	4.673	6.5	85	0.00
21	P	1,1-Dichloroethane	20.000	20.528	-2.6	104	0.00
22		Acrylonitrile	20.000	20.116	-0.6	94	0.00
23		Vinyl Acetate	20.000	18.878	5.6	97	0.00
24		Ethyl-tert-butyl ether (ETB	5.000	5.085	-1.7	90	0.00
25		c-1,2-Dichloroethene	20.000	21.423	-7.1	104	0.00
26		2,2-Dichloropropane	20.000	26.227	-31.1#	130	0.00 -Q56
27		Bromochloromethane	20.000	20.210	-1.1	100	0.00
28	C	Chloroform	20.000	21.280	-6.4	105	0.00
29		Carbon Tetrachloride	20.000	23.800	-19.0	109	0.00
30		Tetrahydrofuran	20.000	19.879	0.6	93	0.00
31		1,1,1-Trichloroethane	20.000	22.786	-13.9	112	0.00
32	S	Dibromofluoromethane (S)	50.000	48.794	2.4	101	0.00
33		1,1-Dichloropropene	20.000	24.014	-20.1#	107	0.00
34		2-Butanone (MEK)	40.000	40.209	-0.5	93	0.00
35		Benzene	20.000	21.316	-6.6	104	0.00
36		tert-Amyl methyl ether (TAM	5.000	4.640	7.2	92	0.00
37		1,2-Dichloroethane (EDC)	20.000	20.617	-3.1	103	0.00
38		iso-Butyl Alcohol	500.000	476.297	4.7	93	0.00
39	S	1,4-Difluorobenzene (S)	50.000	48.459	3.1	101	0.00
40		Trichloroethene (TCE)	20.000	20.725	-3.6	109	0.00
41		tert-Amyl ethyl ether (TAEE	5.000	4.983	0.3	94	0.00
42		Dibromomethane	20.000	20.990	-4.9	101	0.00
43	C	1,2-Dichloropropane	20.000	20.326	-1.6	100	0.00
44		Bromodichloromethane	20.000	21.307	-6.5	103	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	101	0.00
46		2-Chloroethyl Vinyl Ether	20.000	18.715	6.4	97	0.00
47		c-1,3-Dichloropropene	20.000	21.445	-7.2	103	0.00
48	S	Toluene-d8 (S)	50.000	49.269	1.5	100	0.00
49	C	Toluene	20.000	20.468	-2.3	106	0.00
50		Tetrachloroethene (PCE)	20.000	22.420	-12.1	113	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
51		4-Methyl-2-Pentanone (MIBK)	40.000	42.433	-6.1	96	0.00	
52		t-1,3-Dichloropropene	20.000	23.374	-16.9	107	0.00	
53		1,1,2-Trichloroethane	20.000	21.359	-6.8	102	0.00	
54		Dibromochloromethane	20.000	21.001	-5.0	104	0.00	
55		1,3-Dichloropropane	20.000	21.214	-6.1	101	0.00	
56		1,2-Dibromoethane (EDB)	20.000	21.763	-8.8	101	0.00	
57		2-Hexanone	40.000	43.059	-7.6	97	0.00	
58	P	Chlorobenzene	20.000	20.770	-3.8	105	0.00	
59	C	Ethylbenzene	20.000	21.765	-8.8	106	0.00	
60		1,1,1,2-Tetrachloroethane	20.000	22.380	-11.9	106	0.00	
61		m,p-Xylenes (2)	40.000	46.395	-16.0	106	0.00	
62		o-Xylene	20.000	23.808	-19.0	106	0.00	
63		Styrene	20.000	21.782	-8.9	106	0.00	
64	P	Bromoform	20.000	19.669	1.7	101	0.00	
65		Isopropylbenzene	20.000	23.304	-16.5	108	0.00	
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	102	0.00	
67	S	4-Bromofluorobenzene (S)	50.000	50.726	-1.5	104	0.00	
68		Bromobenzene	20.000	21.645	-8.2	106	0.00	
69		n-Propylbenzene	20.000	22.040	-10.2	106	0.00	
70	P	1,1,2,2-Tetrachloroethane	20.000	20.690	-3.5	100	0.00	
71		2-Chlorotoluene	20.000	22.668	-13.3	107	0.00	
72		1,3,5-Trimethylbenzene	20.000	23.400	-17.0	106	0.00	
73		1,2,3-Trichloropropane	20.000	20.777	-3.9	104	0.00	
74		t-1,4-Dichloro-2-butene	20.000	21.301	-6.5	106	0.00	
75		4-Chlorotoluene	20.000	22.824	-14.1	106	0.00	
76		tert-Butylbenzene	20.000	22.911	-14.6	107	0.00	
77		1,2,4-Trimethylbenzene	20.000	23.082	-15.4	105	0.00	
78		sec-Butylbenzene	20.000	22.688	-13.4	106	0.00	
79		4-Isopropyltoluene	20.000	22.904	-14.5	107	0.00	
80		1,3-Dichlorobenzene	20.000	22.299	-11.5	108	0.00	
81		1,4-Dichlorobenzene	20.000	20.117	-0.6	108	0.00	
82		n-Butylbenzene	20.000	23.937	-19.7	106	0.00	
83		1,2-Dichlorobenzene	20.000	22.070	-10.4	106	0.00	
84		1,2-Dibromo-3-Chloropropane	20.000	20.939	-4.7	106	0.00	
85		Hexachlorobutadiene	20.000	23.716	-18.6	110	0.00	
86		1,2,4-Trichlorobenzene	20.000	24.086	-20.4#	109	0.00	~~-QSL~~ OKAA 1/5/19
87		Naphthalene	20.000	21.463	-7.3	105	0.00	
88		1,2,3-Trichlorobenzene	20.000	24.246	-21.2#	107	0.00	-QSL

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

11/5/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	88234	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	255971	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	130913	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90631	48.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	293730	48.46	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	328805	49.27	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	112138	50.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	28906	19.53	ug/L		96
3) Chloromethane	1.984	50	36748	18.29	ug/L		99
4) Vinyl Chloride	2.112	62	35192	20.51	ug/L		95
5) Bromomethane	2.551	96	18275	20.02	ug/L		97
6) Chloroethane	2.722	64	9452	22.42	ug/L		91
7) Trichlorofluoromethane	2.917	101	41336	22.33	ug/L		97
8) Ethanol	3.636	45	48964	1058.04	ug/L		82
9) 1,1-Dichloroethene	3.582	61	43924	21.38	ug/L		97
10) Carbon Disulfide	3.582	76	63974	20.52	ug/L		98
11) Freon 113	3.661	101	36444	21.64	ug/L		97
12) Iodomethane	3.746	142	10809	16.37	ug/L		95
13) Acrolein	4.033	56	8761	19.31	ug/L		98
14) Methylene Chloride	4.319	84	35672	21.32	ug/L		91
15) Acetone	4.398	43	33881	36.83	ug/L		98
16) t-1,2-Dichloroethene	4.502	61	45967	21.60	ug/L		94
17) n-Hexane	4.600	86	5768	23.92	ug/L	#	64
18) Methyl-tert-butyl-ether	4.661	73	91052	22.69	ug/L		94
19) tert-Butanol (TBA)	4.819	59	428367	1230.04	ug/L	#	89
20) Diisopropyl ether (DIPE)	5.106	45	20572	4.67	ug/L		97
21) 1,1-Dichloroethane	5.215	63	59547	20.53	ug/L		98
22) Acrylonitrile	5.282	53	19787	20.12	ug/L		97
23) Vinyl Acetate	5.526	43	59457	18.88	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	19272	5.09	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	46352	21.42	ug/L		93
26) 2,2-Dichloropropane	5.929	77	34548	26.23	ug/L		77
27) Bromochloromethane	6.032	49	27664	20.21	ug/L		82
28) Chloroform	6.130	83	62088	21.28	ug/L		95
29) Carbon Tetrachloride	6.258	117	38196	23.80	ug/L		95
30) Tetrahydrofuran	6.300	42	16958	19.88	ug/L		93
31) 1,1,1-Trichloroethane	6.337	97	49999	22.79	ug/L		97
33) 1,1-Dichloropropene	6.477	75	47346	24.01	ug/L		97
34) 2-Butanone (MEK)	6.471	43	52341	40.21	ug/L		96
35) Benzene	6.746	78	145525	21.32	ug/L		99
36) tert-Amyl methyl ether...	6.892	73	18131	4.64	ug/L		85
37) 1,2-Dichloroethane (EDC)	6.977	62	48042	20.62	ug/L		99
38) iso-Butyl Alcohol	7.038	43	69606	476.30	ug/L		91
40) Trichloroethene (TCE)	7.404	130	41325	20.73	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	12518	4.98	ug/L		96
42) Dibromomethane	7.879	93	24181	20.99	ug/L		92
43) 1,2-Dichloropropane	7.989	63	35217	20.33	ug/L		100
44) Bromodichloromethane	8.075	83	40163	21.31	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.733	63	19701	18.72	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	46320	21.44	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

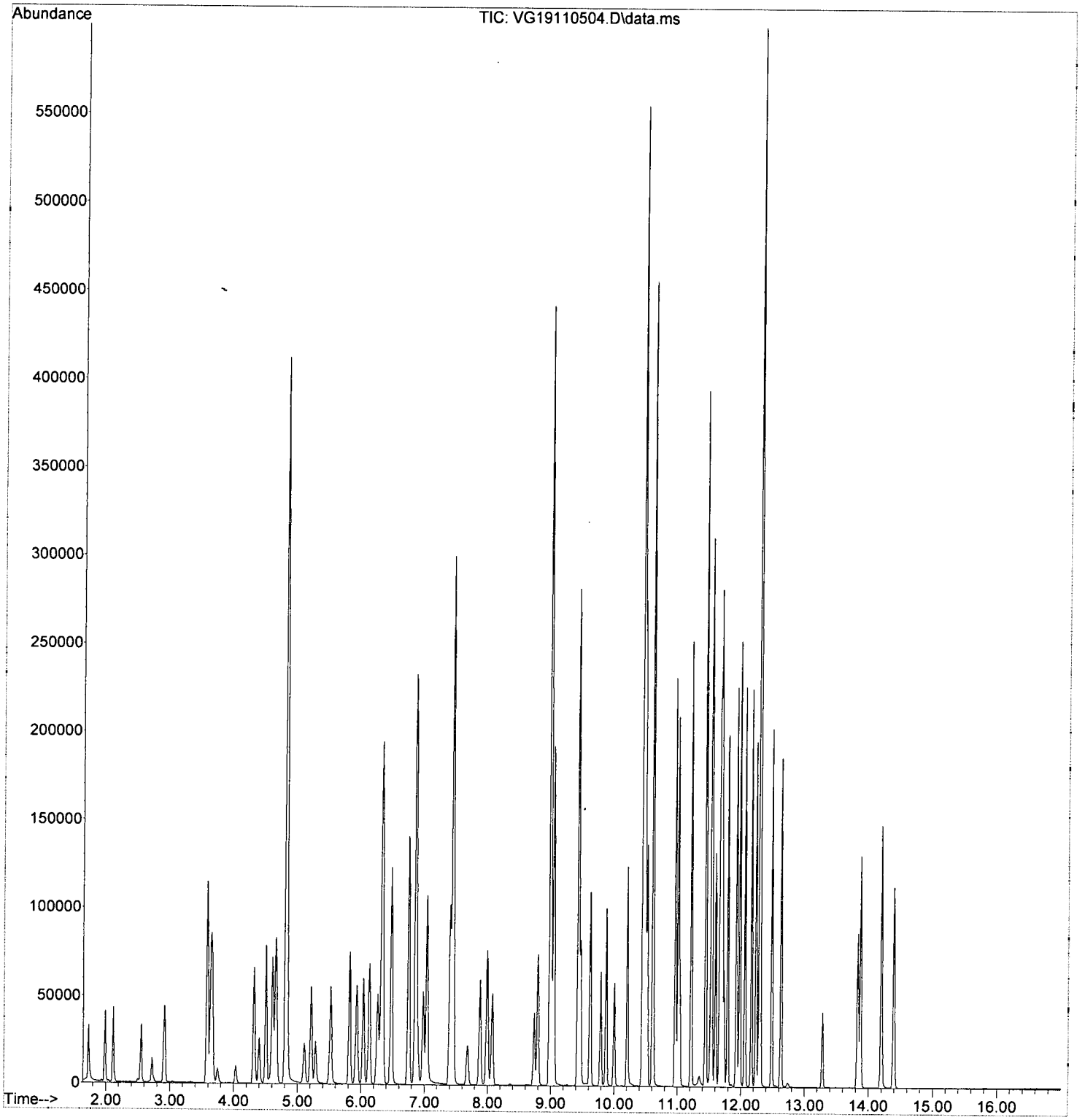
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Toluene	9.038	91	156842	20.47 ug/L	100
50) Tetrachloroethene (PCE)	9.428	166	45592	22.42 ug/L	95
51) 4-Methyl-2-Pentanone (...	9.434	43	94198	42.43 ug/L	92
52) t-1,3-Dichloropropene	9.471	75	40473	23.37 ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	37737	21.36 ug/L	95
54) Dibromochloromethane	9.788	129	35046	21.00 ug/L	99
55) 1,3-Dichloropropane	9.873	76	57935	21.21 ug/L	97
56) 1,2-Dibromoethane (EDB)	10.001	107	38720	21.76 ug/L	96
57) 2-Hexanone	10.208	43	69769	43.06 ug/L	97
58) Chlorobenzene	10.464	112	103707	20.77 ug/L	96
59) Ethylbenzene	10.483	91	159481	21.77 ug/L	99
60) 1,1,1,2-Tetrachloroethane	10.519	131	33535	22.38 ug/L	96
61) m,p-Xylenes (2)	10.611	91	233808	46.39 ug/L	99
62) o-Xylene	10.964	91	113633	23.81 ug/L	98
63) Styrene	11.007	104	93406	21.78 ug/L	96
64) Bromoform	11.037	173	26622	19.67 ug/L	98
65) Isopropylbenzene	11.214	105	142674	23.30 ug/L	99
68) Bromobenzene	11.525	156	46575	21.65 ug/L	98
69) n-Propylbenzene	11.537	91	158482	22.04 ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.598	83	56665	20.69 ug/L	97
71) 2-Chlorotoluene	11.665	126	37097	22.67 ug/L	90
72) 1,3,5-Trimethylbenzene	11.684	105	118725	23.40 ug/L	94
73) 1,2,3-Trichloropropane	11.702	110	17272	20.78 ug/L	97
74) t-1,4-Dichloro-2-butene	11.732	88	5076	21.30 ug/L #	83
75) 4-Chlorotoluene	11.793	91	100329	22.82 ug/L	96
76) tert-Butylbenzene	11.927	91	58437	22.91 ug/L	99
77) 1,2,4-Trimethylbenzene	11.982	105	121368	23.08 ug/L	99
78) sec-Butylbenzene	12.062	105	131613	22.69 ug/L	99
79) 4-Isopropyltoluene	12.165	119	111924	22.90 ug/L	98
80) 1,3-Dichlorobenzene	12.232	146	75922	22.30 ug/L	99
81) 1,4-Dichlorobenzene	12.299	146	77271	20.12 ug/L	97
82) n-Butylbenzene	12.482	91	93379	23.94 ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	73747	22.07 ug/L	98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	12675	20.94 ug/L	94
85) Hexachlorobutadiene	13.829	223	12360	23.72 ug/L	99
86) 1,2,4-Trichlorobenzene	13.872	180	47139	24.09 ug/L	96
87) Naphthalene	14.195	128	129726	21.46 ug/L	97
88) 1,2,3-Trichlorobenzene	14.390	180	46439	24.25 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



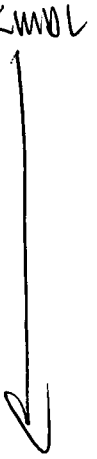
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110505.D
Acq On : 5 Nov 2019 10:35 am
Operator : tb
Sample : 9110460-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

11/5/19

Quant Time: Nov 05 10:52:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.861	99	83010	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248631	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	122429	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.325	111	87392	50.01 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	289769	50.81 ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320064	49.37 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105216	50.89 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.984	50	261	0.14 ug/L		72
5) Bromomethane	2.551	96	88	0.10 ug/L	#	7
6) Chloroethane	2.704	64	11	Below Cal	#	47
8) Ethanol	3.642	45	19	0.44 ug/L	#	29
10) Carbon Disulfide	3.588	76	447	0.15 ug/L		78
14) Methylene Chloride	4.319	84	700	Below Cal		88
15) Acetone	4.404	43	807	0.93 ug/L		92
19) tert-Butanol (TBA)	4.825	59	398	1.21 ug/L	#	45
28) Chloroform	6.124	83	434	0.16 ug/L		90
61) m,p-Xylenes (2)	10.617	91	468	0.10 ug/L		90
81) 1,4-Dichlorobenzene	12.299	146	390	0.11 ug/L	#	13
82) n-Butylbenzene	12.494	91	296	0.08 ug/L		90
85) Hexachlorobutadiene	13.829	223	101	0.21 ug/L	#	68
86) 1,2,4-Trichlorobenzene	13.878	180	161	0.09 ug/L		97
87) Naphthalene	14.207	128	330	0.33 ug/L		79
88) 1,2,3-Trichlorobenzene	14.403	180	156	0.09 ug/L		81

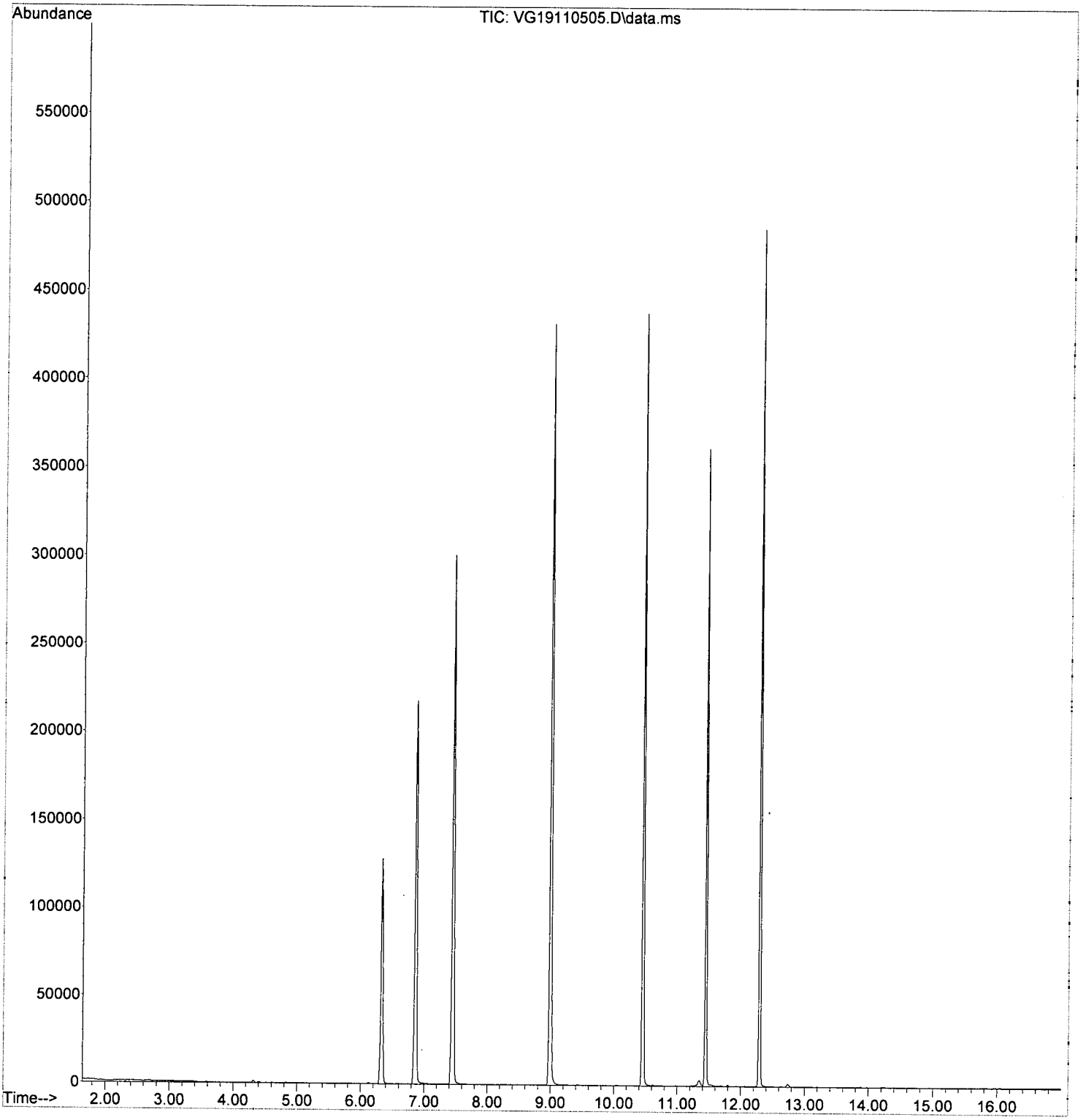


(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110505.D
Acq On : 5 Nov 2019 10:35 am
Operator : tb
Sample : 9110460-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110511.D
Acq On : 5 Nov 2019 1:17 pm
Operator : tb
Sample : A9J1007-01
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

11/5/19

Quant Time: Nov 05 13:42:13 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

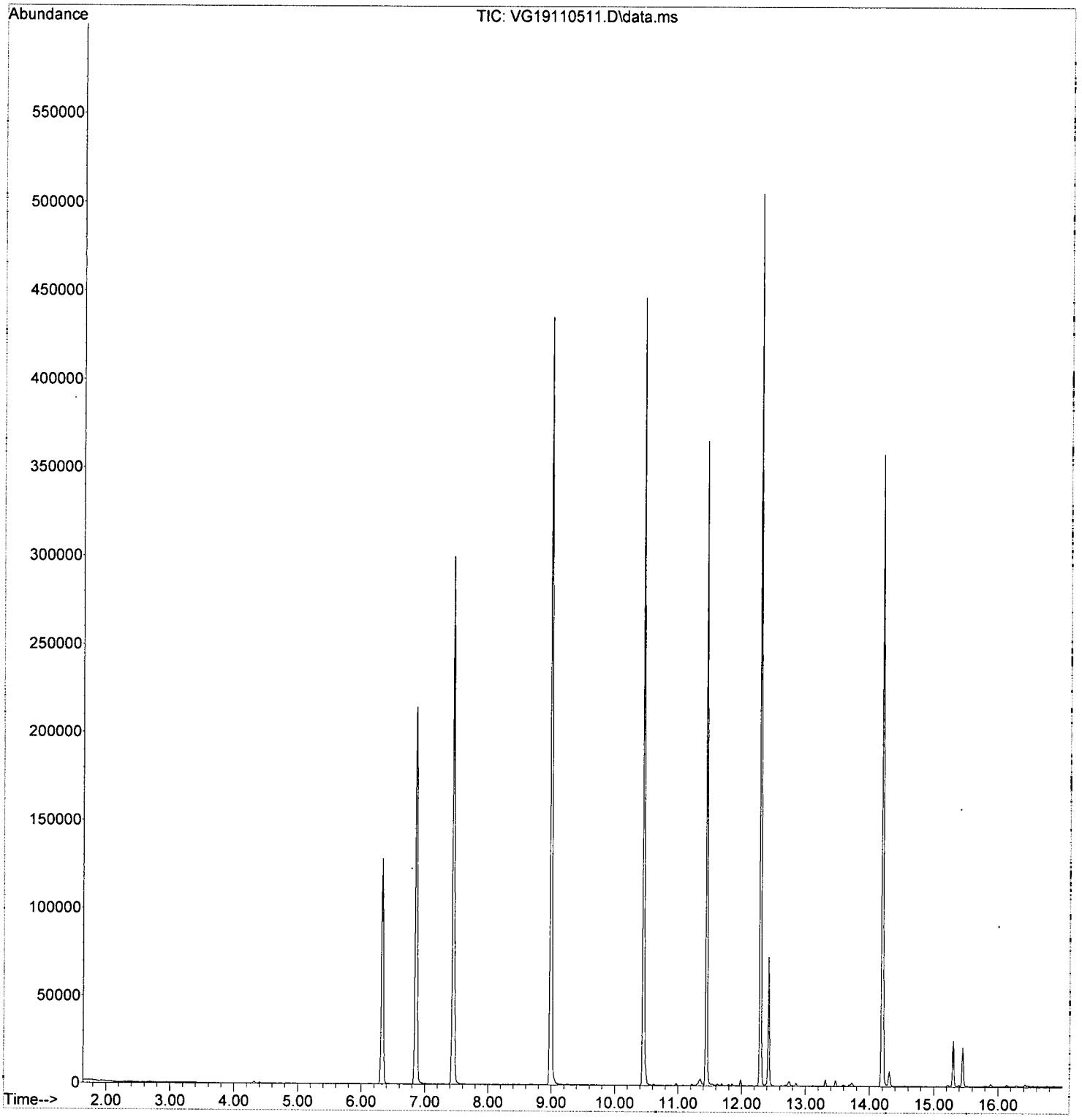
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	81368	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	246979	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	126029	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	86392	50.44	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	287560	51.44	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	318311	49.43	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105736	49.68	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	220	0.12	ug/L		79
6) Chloroethane	2.758	64	51	Below Cal		#	47
8) Ethanol	3.630	45	10	0.23	ug/L	#	29
14) Methylene Chloride	4.319	84	627	Below Cal			84
15) Acetone	4.398	43	763	0.90	ug/L		85
19) tert-Butanol (TBA)	4.819	59	262	0.82	ug/L	#	92
28) Chloroform	6.124	83	375	0.14	ug/L		76
49) Toluene	9.044	91	1274	0.17	ug/L		91
59) Ethylbenzene	10.489	91	4928	0.70	ug/L		97
61) m,p-Xylenes (2)	10.617	91	496	0.10	ug/L		95
62) o-Xylene	10.970	91	863	0.19	ug/L		92
63) Styrene	11.037	104	10	0.10	ug/L	#	40
65) Isopropylbenzene	11.214	105	634	0.11	ug/L		91
72) 1,3,5-Trimethylbenzene	11.690	105	746	0.15	ug/L		78
77) 1,2,4-Trimethylbenzene	11.982	105	1898	0.37	ug/L		94
87) Naphthalene	14.195	128	299631	49.99	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110511.D
Acq On : 5 Nov 2019 1:17 pm
Operator : tb
Sample : A9J1007-01
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 13:42:13 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Volatile Organic Compounds by EPA 1311/8260C
Calibration Data

Sequence 9J25051 (Cal ID A9J2806) VOA-GCMS7

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J25051**	Instrument:	**VOA-GCMS7**
Date:	**10/25/19 15:22**	Calibration:	**A9J2806**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J25051-IBL1	Water	QC	QC			A19F381	
2	9J25051-TUN1	Water	QC	QC			A19F381	
3	9J25051-ICB1	Water	QC	QC			A19F381	
4	9J25051-CAL1	Water	QC	QC			A19F381	A19J377
5	9J25051-CAL2	Water	QC	QC			A19F381	A19J378
6	9J25051-CAL3	Water	QC	QC			A19F381	A19J379
7	9J25051-CAL4	Water	QC	QC			A19F381	A19J380
8	9J25051-CAL5	Water	QC	QC			A19F381	A19J381
9	9J25051-CAL6	Water	QC	QC			A19F381	A19J382
10	9J25051-CAL7	Water	QC	QC			A19F381	A19J383
11	9J25051-CAL8	Water	QC	QC			A19F381	A19J384
12	9J25051-CAL9	Water	QC	QC			A19F381	A19J385
13	9J25051-IBL2	Water	QC	QC			A19F381	
14	9J25051-CALA	Water	QC	QC			A19F381	A19J386
15	9J25051-IBL3	Water	QC	QC			A19F381	
16	9J25051-CALB	Water	QC	QC			A19F381	A19J387
17	9J25051-IBL4	Water	QC	QC			A19F381	
18	9J25051-IBL5	Water	QC	QC			A19F381	
19	9J25051-ICV1	Water	QC	QC			A19F381	A19J131
20	9J25051-ICV2	Water	QC	QC			A19F381	A19E195
21	9J25051-IBL6	Water	QC	QC			A19F381	
22	9J25051-TUN2	Water	QC	QC			A19F381	
23	9J25051-IBL7	Water	QC	QC			A19F381	
24	9J25051-ICB2	Water	QC	QC			A19F381	
25	9J25051-CALC	Water	QC	QC			A19F381	A19J388
26	9J25051-CALD	Water	QC	QC			A19F381	A19J389
27	9J25051-CALE	Water	QC	QC			A19F381	A19J390
28	9J25051-CALF	Water	QC	QC			A19F381	A19J391
29	9J25051-CALG	Water	QC	QC			A19F381	A19J392
30	9J25051-CALH	Water	QC	QC			A19F381	A19J393
31	9J25051-CALI	Water	QC	QC			A19F381	A19J394
32	9J25051-CALJ	Water	QC	QC			A19F381	A19J395
33	9J25051-IBL8	Water	QC	QC			A19F381	
34	9J25051-IBL9	Water	QC	QC			A19F381	
35	9J25051-ICV3	Water	QC	QC			A19F381	A19G350
36	9J25051-IBLA	Water	QC	QC			A19F381	

Data Entered By: 10/28/19

Data Reviewed By: MA 10/30/19

Comments:

Calibration Status Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	-1	50	C:\msdchem\1\data\2019-10\9J25051\VG19102514.D
2	2	0	50	C:\msdchem\1\data\2019-10\9J25051\VG19102515.D
3	3	0	50	C:\msdchem\1\data\2019-10\9J25051\VG19102516.D
4	4	1	50	C:\msdchem\1\data\2019-10\9J25051\VG19102517.D
5	5	2	50	C:\msdchem\1\data\2019-10\9J25051\VG19102518.D
6	6	5	50	C:\msdchem\1\data\2019-10\9J25051\VG19102519.D
7	7	10	50	C:\msdchem\1\data\2019-10\9J25051\VG19102520.D
8	8	20	50	C:\msdchem\1\data\2019-10\9J25051\VG19102521.D
9	9	50	50	C:\msdchem\1\data\2019-10\9J25051\VG19102522.D
10	10	100	50	C:\msdchem\1\data\2019-10\9J25051\VG19102524.D
11	1a	200	50	C:\msdchem\1\data\2019-10\9J25051\VG19102526.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Oct 28 11:11 2019	Oct 28 10:37 2019	25 Oct 2019 4:53 pm
2	2	Oct 28 11:11 2019	Oct 28 10:40 2019	25 Oct 2019 5:20 pm
3	3	Oct 28 11:11 2019	Oct 28 10:43 2019	25 Oct 2019 5:47 pm
4	4	Oct 28 11:11 2019	Oct 28 10:44 2019	25 Oct 2019 6:14 pm
5	5	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 6:41 pm
6	6	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 7:08 pm
7	7	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 7:35 pm
8	8	Oct 28 11:12 2019	Oct 28 10:25 2019	25 Oct 2019 8:02 pm
9	9	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 8:29 pm
10	10	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 9:22 pm
11	1a	Oct 28 11:11 2019	Oct 28 10:53 2019	25 Oct 2019 10:16 pm

VG191025W.M Mon Oct 28 12:57:18 2019

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

Analysis Included

8260C Full List
8260C Additional Cpds
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed	
9J25051-TUN1	MS Tune	Water		A19F381	10/25/2019	3:58:00PM
9J25051-ICB1	Initial Cal Blank	Water		A19F381	10/25/2019	4:25:00PM
9J25051-CAL1	Cal Standard	Water	A19J377	"	10/25/2019	4:53:00PM
9J25051-CAL2	Cal Standard	Water	A19J378	"	10/25/2019	5:20:00PM
9J25051-CAL3	Cal Standard	Water	A19J379	"	10/25/2019	5:47:00PM
9J25051-CAL4	Cal Standard	Water	A19J380	"	10/25/2019	6:14:00PM
9J25051-CAL5	Cal Standard	Water	A19J381	"	10/25/2019	6:41:00PM
9J25051-CAL6	Cal Standard	Water	A19J382	"	10/25/2019	7:08:00PM
9J25051-CAL7	Cal Standard	Water	A19J383	"	10/25/2019	7:35:00PM
9J25051-CAL8	Cal Standard	Water	A19J384	"	10/25/2019	8:02:00PM
9J25051-CAL9	Cal Standard	Water	A19J385	"	10/25/2019	8:29:00PM
9J25051-CALA	Cal Standard	Water	A19J386	"	10/25/2019	9:22:00PM
9J25051-CALB	Cal Standard	Water	A19J387	"	10/25/2019	10:16:00PM
9J25051-ICV1	Initial Cal Check	Water	A19J131	"	10/25/2019	11:37:00PM
9J25051-ICV2	Initial Cal Check	Water	A19E195	"	10/26/2019	12:04:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: A9J2806 Instrument: VOA-GCMS7

8260C Full List Sequence: 9J25051 Matrix: Water

9J25051-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2806** Instrument: **VOA-GCMS7**

8260C Full List Sequence: **9J25051** Matrix: **Water**

9J25051-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
9J25051-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/28/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	105	0.00
2		Dichlorodifluoromethane	20.000	24.475	-22.4	137	0.00
3	P	Chloromethane	20.000	21.781	-8.9	122	0.00
4	C	Vinyl Chloride	20.000	22.344	-11.7	117	0.00
5		Bromomethane	20.000	18.619	6.9	105	0.00
6		Chloroethane	20.000	18.870	5.6	102	0.00
7		Trichlorofluoromethane	20.000	20.028	-0.1	103	0.00
8		~~Ethanol~~	~~1250.000~~	~~32.970~~	~~97.4#~~	~~3~~	~~0.00~~
9	C	1,1-Dichloroethene	20.000	20.190	-1.0	106	0.00
10		Carbon Disulfide	20.000	18.937	5.3	102	0.00
11		Freon 113	20.000	18.382	8.1	96	0.00
12		Iodomethane	20.000	23.068	-15.3	144	0.00
13		Acrolein	20.000	23.137	-15.7	123	0.00
14		Methylene Chloride	20.000	20.883	-4.4	105	0.00
15		Acetone	40.000	38.535	3.7	103	0.00
16		t-1,2-Dichloroethene	20.000	20.695	-3.5	105	0.00
17		n-Hexane	20.000	18.853	5.7	99	0.00
18		Methyl-tert-butyl-ether	20.000	21.443	-7.2	103	0.00
19		~~tert-Butanol (TBA)~~	~~1250.000~~	~~29.198~~	~~97.7#~~	~~2~~	~~0.00~~
20		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.167~~	~~96.7#~~	~~3~~	~~0.00~~
21	P	1,1-Dichloroethane	20.000	20.134	-0.7	105	0.00
22		Acrylonitrile	20.000	20.433	-2.2	99	0.00
23		Vinyl Acetate	20.000	21.254	-6.3	113	0.00
24		~~Ethyl-tert-butyl ether (ETB~~	~~5.000~~	~~0.196~~	~~96.1#~~	~~4~~	~~0.01~~
25		c-1,2-Dichloroethene	20.000	20.722	-3.6	103	0.00
26		2,2-Dichloropropane	20.000	18.657	6.7	95	0.00
27		Bromochloromethane	20.000	20.679	-3.4	105	0.00
28	C	Chloroform	20.000	20.087	-0.4	102	0.00
29		Carbon Tetrachloride	20.000	21.734	-8.7	102	0.00
30		Tetrahydrofuran	20.000	21.248	-6.2	103	0.00
31		1,1,1-Trichloroethane	20.000	20.183	-0.9	102	0.00
32	S	Dibromofluoromethane (S)	50.000	49.158	1.7	105	0.00
33		1,1-Dichloropropene	20.000	22.212	-11.1	102	0.00
34		2-Butanone (MEK)	40.000	42.443	-6.1	101	0.00
35		Benzene	20.000	20.402	-2.0	102	0.00
36		~~tert-Amyl methyl ether (TAM~~	~~5.000~~	~~0.212~~	~~95.8#~~	~~4~~	~~0.00~~
37		1,2-Dichloroethane (EDC)	20.000	20.013	-0.1	103	0.00
38		iso-Butyl Alcohol	500.000	529.784	-6.0	107	0.00
39	S	1,4-Difluorobenzene (S)	50.000	48.823	2.4	105	0.00
40		Trichloroethene (TCE)	20.000	19.828	0.9	107	0.00
41		~~tert-Amyl ethyl ether (TAEE~~	~~5.000~~	~~0.182~~	~~96.4#~~	~~4~~	~~0.00~~
42		Dibromomethane	20.000	20.428	-2.1	101	0.00
43	C	1,2-Dichloropropane	20.000	20.305	-1.5	103	0.00
44		Bromodichloromethane	20.000	20.687	-3.4	103	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	105	0.00
46		2-Chloroethyl Vinyl Ether	20.000	21.360	-6.8	116	0.00
47		c-1,3-Dichloropropene	20.000	20.290	-1.4	102	0.00
48	S	Toluene-d8 (S)	50.000	49.725	0.5	105	0.00
49	C	Toluene	20.000	19.384	3.1	104	0.00
50		Tetrachloroethene (PCE)	20.000	20.033	-0.2	105	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	43.897	-9.7	103	0.00
52		t-1,3-Dichloropropene	20.000	22.830	-14.1	108	0.00
53		1,1,2-Trichloroethane	20.000	21.039	-5.2	105	0.00
54		Dibromochloromethane	20.000	20.745	-3.7	106	0.00
55		1,3-Dichloropropane	20.000	21.061	-5.3	104	0.00
56		1,2-Dibromoethane (EDB)	20.000	21.476	-7.4	104	0.00
57		2-Hexanone	40.000	44.774	-11.9	105	0.00
58	P	Chlorobenzene	20.000	19.855	0.7	104	0.00
59	C	Ethylbenzene	20.000	20.650	-3.2	105	0.00
60		1,1,1,2-Tetrachloroethane	20.000	20.976	-4.9	104	0.00
61		m,p-Xylenes (2)	40.000	44.147	-10.4	105	0.00
62		o-Xylene	20.000	22.920	-14.6	106	0.00
63		Styrene	20.000	21.134	-5.7	107	0.00
64	P	Bromoform	20.000	19.469	2.7	104	0.00
65		Isopropylbenzene	20.000	21.747	-8.7	105	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	107	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.148	1.7	106	0.00
68		Bromobenzene	20.000	20.236	-1.2	105	0.00
69		n-Propylbenzene	20.000	20.543	-2.7	104	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	19.960	0.2	102	0.00
71		2-Chlorotoluene	20.000	21.462	-7.3	106	0.00
72		1,3,5-Trimethylbenzene	20.000	22.121	-10.6	105	0.00
73		1,2,3-Trichloropropane	20.000	19.915	0.4	105	0.00
74		t-1,4-Dichloro-2-butene	20.000	16.698	16.5	86	0.00
75		4-Chlorotoluene	20.000	21.910	-9.6	107	0.00
76		tert-Butylbenzene	20.000	21.688	-8.4	106	0.00
77		1,2,4-Trimethylbenzene	20.000	21.702	-8.5	104	0.00
78		sec-Butylbenzene	20.000	21.287	-6.4	104	0.00
79		4-Isopropyltoluene	20.000	21.641	-8.2	106	0.00
80		1,3-Dichlorobenzene	20.000	21.290	-6.4	108	0.00
81		1,4-Dichlorobenzene	20.000	19.194	4.0	108	0.00
82		n-Butylbenzene	20.000	22.979	-14.9	106	0.00
83		1,2-Dichlorobenzene	20.000	21.226	-6.1	107	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	19.861	0.7	106	0.00
85		Hexachlorobutadiene	20.000	21.482	-7.4	105	0.00
86		1,2,4-Trichlorobenzene	20.000	22.669	-13.3	108	0.00
87		Naphthalene	20.000	20.737	-3.7	107	0.00
88		1,2,3-Trichlorobenzene	20.000	23.057	-15.3	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	98	0.00
2		Dichlorodifluoromethane	20.000	0.154	99.2#	1	0.00
3	P	Chloromethane	20.000	0.503	97.5#	3	0.00
4	C	Vinyl Chloride	20.000	0.234	98.8#	1	0.00
5		Bromomethane	20.000	0.479	97.6#	3	0.00
6		Chloroethane	20.000	-1.000	105.0#	1	0.00
7		Trichlorofluoromethane	20.000	0.128	99.4#	1	0.00
8		Ethanol	1250.000	1240.676	0.7	92	-0.01
9	C	1,1-Dichloroethene	20.000	0.214	98.9#	1	0.00
10		Carbon Disulfide	20.000	0.491	97.5#	2	0.00
11		Freon 113	20.000	0.163	99.2#	1	0.00
12		Iodomethane	20.000	2.402	88.0#	2	0.00
13		Acrolein	20.000	0.000	100.0#	0	-4.03#
14		Methylene Chloride	20.000	0.356	98.2#	7	0.00
15		Acetone	40.000	1.225	96.9#	3	0.00
16		t-1,2-Dichloroethene	20.000	0.345	98.3#	2	0.00
17		n-Hexane	20.000	0.043	99.8#	0	0.00
18		Methyl-tert-butyl-ether	20.000	0.103	99.5#	0	0.00
19		tert-Butanol (TBA)	1250.000	1370.603	-9.6	94	0.00
20		Diisopropyl ether (DIPE)	5.000	5.379	-7.6	95	0.00
21	P	1,1-Dichloroethane	20.000	0.269	98.7#	1	0.00
22		Acrylonitrile	20.000	0.020	99.9#	0	0.01
23		Vinyl Acetate	20.000	0.795	96.0#	4	0.00
24		Ethyl-tert-butyl ether (ETB	5.000	5.357	-7.1	91	0.00
25		c-1,2-Dichloroethene	20.000	0.306	98.5#	1	0.00
26		2,2-Dichloropropane	20.000	0.163	99.2#	1	0.00
27		Bromochloromethane	20.000	0.228	98.9#	1	0.00
28	C	Chloroform	20.000	0.256	98.7#	1	0.00
29		Carbon Tetrachloride	20.000	0.087	99.6#	0	0.00
30		Tetrahydrofuran	20.000	0.013	99.9#	0	0.00
31		1,1,1-Trichloroethane	20.000	0.167	99.2#	1	0.00
32	S	Dibromofluoromethane (S)	50.000	48.359	3.3	96	0.00
33		1,1-Dichloropropene	20.000	0.236	98.8#	1	0.01
34		2-Butanone (MEK)	40.000	0.000	100.0#	0	-6.48#
35		Benzene	20.000	0.271	98.6#	1	0.00
36		tert-Amyl methyl ether (TAM	5.000	4.709	5.8	90	0.00
37		1,2-Dichloroethane (EDC)	20.000	0.174	99.1#	1	0.00
38		iso-Butyl Alcohol	500.000	0.135	100.0#	0	0.02
39	S	1,4-Difluorobenzene (S)	50.000	49.944	0.1	100	0.00
40		Trichloroethene (TCE)	20.000	0.304	98.5#	2	0.00
41		tert-Amyl ethyl ether (TAEE	5.000	4.937	1.3	90	0.00
42		Dibromomethane	20.000	0.126	99.4#	1	0.00
43	C	1,2-Dichloropropane	20.000	0.246	98.8#	1	0.00
44		Bromodichloromethane	20.000	0.203	99.0#	1	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	99	0.00
46		2-Chloroethyl Vinyl Ether	20.000	0.000	100.0#	0	-8.74#
47		c-1,3-Dichloropropene	20.000	0.258	98.7#	1	0.00
48	S	Toluene-d8 (S)	50.000	49.687	0.6	98	0.00
49	C	Toluene	20.000	0.289	98.6#	1	0.00
50		Tetrachloroethene (PCE)	20.000	0.313	98.4#	2	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	0.070	99.8#	0	0.00
52		t-1,3-Dichloropropene	20.000	0.227	98.9#	1	0.02
53		1,1,2-Trichloroethane	20.000	0.134	99.3#	1	0.00
54		Dibromochloromethane	20.000	0.239	98.8#	1	0.00
55		1,3-Dichloropropane	20.000	0.134	99.3#	1	0.00
56		1,2-Dibromoethane (EDB)	20.000	0.110	99.5#	1	0.01
57		2-Hexanone	40.000	0.047	99.9#	0	0.01
58	P	Chlorobenzene	20.000	0.322	98.4#	2	0.00
59	C	Ethylbenzene	20.000	0.262	98.7#	1	0.00
60		1,1,1,2-Tetrachloroethane	20.000	0.167	99.2#	1	0.00
61		m,p-Xylenes (2)	40.000	0.528	98.7#	1	0.00
62		o-Xylene	20.000	0.235	98.8#	1	0.00
63		Styrene	20.000	0.316	98.4#	1	0.00
64	P	Bromoform	20.000	0.186	99.1#	0	0.00
65		Isopropylbenzene	20.000	0.202	99.0#	1	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	98	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.237	1.5	98	0.00
68		Bromobenzene	20.000	0.280	98.6#	1	0.00
69		n-Propylbenzene	20.000	0.291	98.5#	1	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	0.070	99.6#	0	0.00
71		2-Chlorotoluene	20.000	0.298	98.5#	1	0.00
72		1,3,5-Trimethylbenzene	20.000	0.249	98.8#	1	0.00
73		1,2,3-Trichloropropane	20.000	0.012	99.9#	0	0.00
74		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.74#
75		4-Chlorotoluene	20.000	0.349	98.3#	2	0.00
76		tert-Butylbenzene	20.000	0.220	98.9#	1	0.00
77		1,2,4-Trimethylbenzene	20.000	0.225	98.9#	1	0.00
78		sec-Butylbenzene	20.000	0.215	98.9#	1	0.00
79		4-Isopropyltoluene	20.000	0.250	98.8#	1	0.00
80		1,3-Dichlorobenzene	20.000	0.378	98.1#	2	0.00
81		1,4-Dichlorobenzene	20.000	0.417	97.9#	2	0.00
82		n-Butylbenzene	20.000	0.358	98.2#	2	0.00
83		1,2-Dichlorobenzene	20.000	0.298	98.5#	1	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-13.28#
85		Hexachlorobutadiene	20.000	0.512	97.4#	2	0.00
86		1,2,4-Trichlorobenzene	20.000	0.361	98.2#	2	0.00
87		Naphthalene	20.000	0.392	98.0#	1	0.00
88		1,2,3-Trichlorobenzene	20.000	0.292	98.5#	1	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Compound List Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019
Response Via : Initial Calibration

Total Cpnds : 88

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (I)	99	6.861	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.728	0.252	A	2	A	R
3	P	Chloromethane	50	1.990	0.290	A	2	A	R
4	C	Vinyl Chloride	62	2.112	0.308	A	2	A	R
5		Bromomethane	96	2.551	0.372	A	2	A	R
6		Chloroethane	64	2.722	0.397	Q1/a	2	A	R
7		Trichlorofluoromethane	101	2.917	0.425	A	2	A	R
8		Ethanol	45	3.636	0.530	A	1	A	R
9	C	1,1-Dichloroethene	61	3.588	0.523	A	2	A	R
10		Carbon Disulfide	76	3.588	0.523	A	2	A	R
11		Freon 113	101	3.661	0.534	A	2	A	R
12		Iodomethane	142	3.746	0.546	Q1/a	2	A	R
13		Acrolein	56	4.032	0.588	A	2	A	R
14		Methylene Chloride	84	4.319	0.630	Q1/a	2	A	R
15		Acetone	43	4.398	0.641	A	1	A	R
16		t-1,2-Dichloroethene	61	4.508	0.657	A	2	A	R
17		n-Hexane	86	4.606	0.671	A	3	A	R
18		Methyl-tert-butyl-ether	73	4.661	0.679	A	3	A	R
19		tert-Butanol (TBA)	59	4.819	0.702	A	1	A	R
20		Diisopropyl ether (DIPE)	45	5.112	0.745	A	2	A	R
21	P	1,1-Dichloroethane	63	5.215	0.760	A	2	A	R
22		Acrylonitrile	53	5.289	0.771	A	2	A	R
23		Vinyl Acetate	43	5.526	0.805	A	2	A	R
24		Ethyl-tert-butyl ether (ETBE)	59	5.514	0.804	A	2	A	R
25		c-1,2-Dichloroethene	61	5.825	0.849	A	2	A	R
26		2,2-Dichloropropane	77	5.935	0.865	A	2	A	R
27		Bromochloromethane	49	6.038	0.880	A	2	A	R
28	C	Chloroform	83	6.136	0.894	A	2	A	R
29		Carbon Tetrachloride	117	6.264	0.913	A	2	A	R
30		Tetrahydrofuran	42	6.307	0.919	A	2	A	R
31		1,1,1-Trichloroethane	97	6.343	0.925	A	2	A	R
32	S	Dibromofluoromethane (S)	111	6.331	0.923	A	2	A	R
33		1,1-Dichloropropene	75	6.477	0.944	A	2	A	R
34		2-Butanone (MEK)	43	6.477	0.944	A	2	A	R
35		Benzene	78	6.752	0.984	A	2	A	R
36		tert-Amyl methyl ether (TAME)	73	6.898	1.005	A	2	A	R
37		1,2-Dichloroethane (EDC)	62	6.983	1.018	A	2	A	R
38		iso-Butyl Alcohol	43	7.038	1.026	A	2	A	R
39	S	1,4-Difluorobenzene (S)	114	7.453	1.086	A	2	A	R
40		Trichloroethene (TCE)	130	7.410	1.080	A	2	A	R
41		tert-Amyl ethyl ether (TAEE)	59	7.691	1.121	A	2	A	R
42		Dibromomethane	93	7.886	1.149	A	2	A	R
43	C	1,2-Dichloropropane	63	7.995	1.165	A	2	A	R
44		Bromodichloromethane	83	8.075	1.177	A	2	A	R
45	I	Chlorobenzene-d5 (I)	117	10.452	1.000	A	2	A	R
46		2-Chloroethyl Vinyl Ether	63	8.739	0.836	Q1/a	2	A	R
47		c-1,3-Dichloropropene	75	8.800	0.842	Q1/a	2	A	R
48	S	Toluene-d8 (S)	98	8.989	0.860	A	2	A	R
49	C	Toluene	91	9.044	0.865	A	2	A	R
50		Tetrachloroethene (PCE)	166	9.434	0.903	A	2	A	R
51		4-Methyl-2-Pentanone (MIBK)	43	9.434	0.903	A	2	A	R
52		t-1,3-Dichloropropene	75	9.470	0.906	Q1/a2	2	A	R
53		1,1,2-Trichloroethane	97	9.623	0.921	A	2	A	R
54		Dibromochloromethane	129	9.787	0.936	Q1/a	2	A	R
55		1,3-Dichloropropane	76	9.879	0.945	A	2	A	R

56		1,2-Dibromoethane (EDB)	107	10.001	0.957	A		2	A	R
57		2-Hexanone	43	10.208	0.977	A		2	A	R
58	P	Chlorobenzene	112	10.471	1.002	A		2	A	R
59	C	Ethylbenzene	91	10.489	1.004	A		2	A	R
60		1,1,1,2-Tetrachloroethane	131	10.525	1.007	A		2	A	R
61		m,p-Xylenes (2)	91	10.611	1.015	A		2	A	R
62		o-Xylene	91	10.970	1.050	A		2	A	R
63		Styrene	104	11.013	1.054	~~Q~~ I/a		2	A	R
64	P	Bromoform	173	11.037	1.056	~~Q~~ I/a		2	A	R
65		Isopropylbenzene	105	11.220	1.073	A		2	A	R
66	I	1,4-Dichlorobenzene-d4 (I)	152	12.293	1.000	A		2	A	R
67	S	4-Bromofluorobenzene (S)	174	11.446	0.931	A		2	A	R
68		Bromobenzene	156	11.531	0.938	A		2	A	R
69		n-Propylbenzene	91	11.544	0.939	A		2	A	R
70	P	1,1,2,2-Tetrachloroethane	83	11.598	0.943	A		2	A	R
71		2-Chlorotoluene	126	11.665	0.949	A		2	A	R
72		1,3,5-Trimethylbenzene	105	11.690	0.951	A		2	A	R
73		1,2,3-Trichloropropane	110	11.708	0.952	A		2	A	R
74		t-1,4-Dichloro-2-butene	88	11.738	0.955	~~Q~~ I/a		3	A	R
75		4-Chlorotoluene	91	11.793	0.959	A		2	A	R
76		tert-Butylbenzene	91	11.934	0.971	A		2	A	R
77		1,2,4-Trimethylbenzene	105	11.982	0.975	A		2	A	R
78		sec-Butylbenzene	105	12.062	0.981	A		2	A	R
79		4-Isopropyltoluene	119	12.165	0.990	A		2	A	R
80		1,3-Dichlorobenzene	146	12.238	0.996	A		2	A	R
81		1,4-Dichlorobenzene	146	12.306	1.001	A		2	A	R
82		n-Butylbenzene	91	12.488	1.016	A		2	A	R
83		1,2-Dichlorobenzene	146	12.629	1.027	A		2	A	R
84		1,2-Dibromo-3-Chloropropane	157	13.281	1.080	A		2	A	R
85		Hexachlorobutadiene	223	13.830	1.125	A		3	A	R
86		1,2,4-Trichlorobenzene	180	13.872	1.128	A		2	A	R
87		Naphthalene	128	14.201	1.155	~~Q~~ I/a		2	A	R
88		1,2,3-Trichlorobenzene	180	14.396	1.171	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VG191025W.M Mon Oct 28 12:23:07 2019

Response Factor Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019
Response Via : Initial Calibration

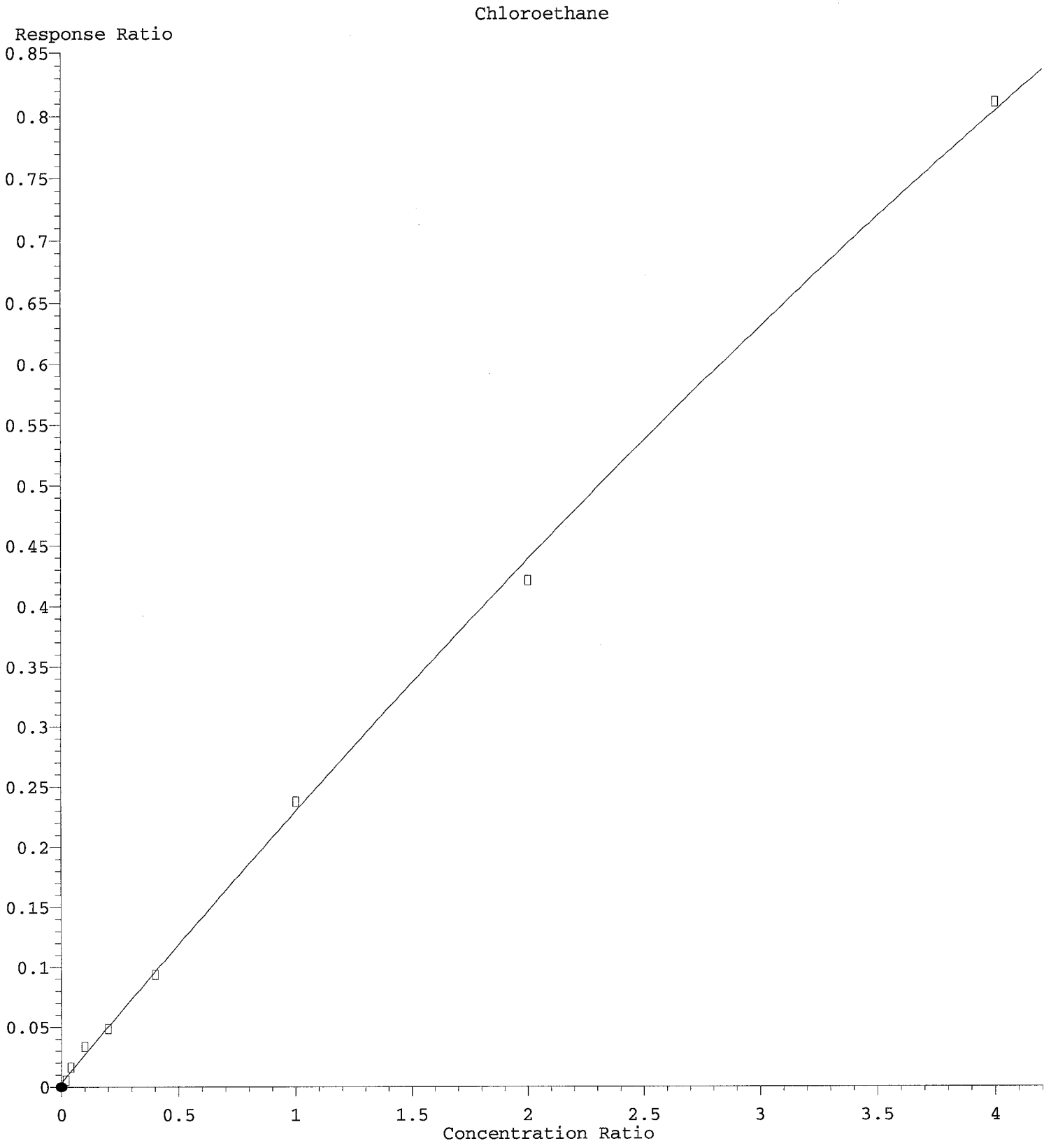
Calibration Files
1 =VG19102514.D 2 =VG19102515.D 3 =VG19102516.D 4 =VG19102517.D 5 =VG19102518.D 6 =VG19102519.D
7 =VG19102520.D 8 =VG19102521.D 9 =VG19102522.D 10 =VG19102524.D 1a =VG19102526.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg	%RSD	
1)	I	Pentafluorobenzene...	----------				ISTD									
2)		Dichlorodifluo...		0.807	0.646	0.756	0.913	0.879	0.821	0.784	0.966	0.899	0.914	0.839	11.32	
3)	P	Chloromethane			1.457	1.154	1.209	1.149	1.069	1.064	1.072	1.025	1.049	1.139	11.72	
4)	C	Vinyl Chloride	0.837	0.960	0.870	0.957	1.025	1.021	0.980	0.976	1.049	0.995	1.023	0.972	6.77	
5)		Bromomethane				0.587	0.643	0.585	0.497	0.483	0.441	0.439	0.463	0.517	14.94	
6)		Chloroethane				0.269	0.405	0.333	0.242	0.234	0.238	0.210	0.202	0.267	25.91	
7)		Trichlorofluor...	0.959	1.037	1.036	1.078	1.178	1.134	1.104	1.068	1.070	0.971	0.904	1.049	7.63	
8)		Ethanol			0.026	0.026	0.029	0.028	0.027	0.028	0.025	0.021		0.026	8.82	
9)	C	1,1-Dichloroet...	1.208	1.083	1.148	1.139	1.196	1.182	1.139	1.168	1.125	1.184	1.235	1.164	3.69	
10)		Carbon Disulfide	1.999	1.788	1.527	1.489	1.635	1.610	1.620	1.727	1.845	2.018	2.177	1.767	12.55	
11)		Freon 113		0.979	0.921	0.908	1.036	1.024	0.981	0.954	0.892	0.897	0.951	0.954	5.33	
12)		Iodomethane					0.146	0.189	0.241	0.338	0.465	0.603	0.741	0.389	57.35	
13)		Acrolein				0.207	0.260	0.242	0.249	0.254	0.280	0.276	0.290	0.257	10.23	
14)		Methylene Chlo...	1.057	0.596	0.326	0.198	0.156	0.122	0.107	0.099	0.089	0.088	0.090	0.266	E1	114.13
15)		Acetone					0.647	0.553	0.516	0.512	0.464	0.463	0.494	0.521	12.24	
16)		t-1,2-Dichloro...	1.255	1.071	1.149	1.152	1.272	1.224	1.212	1.248	1.167	1.220	1.295	1.206	5.44	
17)		n-Hexane					0.112	0.120	0.135	0.137	0.144	0.150	0.158	0.137	11.92	
18)		Methyl-tert-bu...	2.068	1.979	1.982	2.041	2.191	2.305	2.409	2.482	2.371	2.511	2.678	2.274	10.48	
19)		tert-Butanol (...	0.195	0.180	0.176	0.176	0.208	0.209	0.215	0.226	0.205	0.183		0.197	9.01	
20)		Diisopropyl et...			2.181	2.343	2.644	2.606	2.587	2.782	2.442	2.374		2.495	7.80	
21)	P	1,1-Dichloroet...	1.749	1.558	1.562	1.702	1.767	1.719	1.642	1.650	1.508	1.572	1.653	1.644	5.19	
22)		Acrylonitrile			0.466	0.473	0.567	0.588	0.581	0.606	0.559	0.574	0.604	0.557	9.39	
23)		Vinyl Acetate						1.393	1.557	1.766	1.930	1.988	2.075	1.785	14.87	
24)		Ethyl-tert-but...			1.766	1.819	2.135	2.243	2.356	2.469	2.237	2.156		2.148	11.37	
25)		c-1,2-Dichloro...	1.150	1.129	1.181	1.160	1.274	1.274	1.265	1.288	1.188	1.249	1.330	1.226	5.42	
26)		2,2-Dichloropr...		0.669	0.576	0.727	0.761	0.748	0.744	0.766	0.751	0.818	0.905	0.746	11.51	
27)		Bromochloromet...	0.657	0.733	0.843	0.845	0.867	0.860	0.827	0.801	0.705	0.693	0.700	0.776	10.12	
28)	C	Chloroform	1.545	1.687	1.569	1.660	1.783	1.738	1.683	1.702	1.546	1.593	1.681	1.653	4.81	
29)		Carbon Tetrach...		0.736	0.713	0.790	0.906	0.956	0.983	1.013	1.006	1.082		0.909	14.58	
30)		Tetrahydrofuran			0.394	0.414	0.458	0.476	0.486	0.523	0.505	0.524	0.570	0.483	11.49	
31)		1,1,1-Trichlor...	1.185	1.068	1.169	1.153	1.295	1.296	1.286	1.288	1.230	1.309	1.401	1.243	7.48	
32)	S	Dibromofluorom...	1.074	1.076	1.069	1.064	1.065	1.045	1.051	1.036	1.032	1.040	1.026	1.053	1.68	
33)		1,1-Dichloropr...	0.767	0.942	0.990	1.060	1.101	1.180	1.224	1.274	1.199	1.247	1.307	1.117	14.78	
34)		2-Butanone (MEK)			0.543	0.661	0.747	0.777	0.782	0.810	0.754	0.762	0.803	0.738	11.51	
35)		Benzene	3.649	3.789	3.689	3.704	4.043	4.102	4.047	4.040	3.703	3.820	3.971	3.869	4.48	
36)		tert-Amyl meth...				2.439	2.274	2.241	2.234	2.277	2.056	1.981		2.215	6.86	
37)		1,2-Dichloroet...		1.252	1.282	1.322	1.474	1.400	1.342	1.341	1.213	1.254	1.326	1.320	5.83	
38)		iso-Butyl Alcohol					0.084	0.082	0.082	0.086	0.085	0.081	0.079	0.083	3.12	
39)	S	1,4-Difluorobe...	3.555	3.532	3.514	3.524	3.453	3.390	3.391	3.361	3.354	3.373	3.337	3.435	2.40	
40)		Trichloroethen...	1.179	1.175	1.178	1.116	1.151	1.135	1.135	1.095	1.038	1.093	1.133	1.130	3.80	
41)		tert-Amyl ethy...				1.330	1.484	1.403	1.462	1.536	1.388	1.362		1.423	5.12	

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds

42)		Dibromomethane		0.506	0.580	0.660	0.681	0.694	0.699	0.690	0.643	0.670	0.705	0.653	9.69
43)	C	1,2-Dichloropr...	0.918	1.003	0.933	0.951	1.055	1.018	1.001	1.013	0.926	0.963	1.019	0.982	4.65
44)		Bromodichlorom...		0.862	0.894	1.010	1.069	1.083	1.084	1.124	1.090	1.180	1.286	1.068	11.68
45)		Chlorobenzene-d5 (I)	----------	ISTD	----------										
46)		2-Chloroethyl ...			0.078	0.122	0.141	0.152	0.166	0.201	0.225	0.240	0.262	0.176	34.20
47)		c-1,3-Dichloro...	0.228	0.239	0.270	0.284	0.336	0.358	0.400	0.442	0.442	0.486	0.553	0.367	29.10
48)	S	Toluene-d8 (S)	1.297	1.291	1.307	1.306	1.295	1.291	1.295	1.302	1.294	1.310	1.352	1.304	1.32
49)	C	Toluene	1.884	1.545	1.435	1.451	1.508	1.486	1.463	1.467	1.343	1.392	1.491	1.497	9.34
50)		Tetrachloroeth...	0.409	0.431	0.382	0.380	0.411	0.409	0.403	0.398	0.371	0.379	0.395	0.397	4.49
51)		4-Methyl-2-Pen...			0.353	0.370	0.424	0.434	0.449	0.484	0.460	0.461	0.467	0.434	10.32
52)		t-1,3-Dichloro...		0.213	0.211	0.243	0.279	0.316	0.345	0.374	0.387	0.431	0.493	0.329	28.73
53)		1,1,2-Trichlor...	0.310	0.314	0.321	0.330	0.381	0.371	0.366	0.363	0.332	0.341	0.366	0.345	7.30
54)		Dibromochlorom...		0.182	0.224	0.243	0.281	0.299	0.314	0.334	0.336	0.371	0.416	0.300	23.35
55)		1,3-Dichloropr...	0.504	0.467	0.465	0.518	0.565	0.566	0.565	0.565	0.520	0.544	0.588	0.533	7.84
56)		1,2-Dibromoeth...		0.288	0.295	0.309	0.344	0.366	0.364	0.377	0.355	0.372	0.406	0.348	11.05
57)		2-Hexanone				0.233	0.273	0.299	0.316	0.354	0.349	0.349	0.358	0.316	14.29
58)	P	Chlorobenzene	1.051	0.984	0.954	0.999	1.027	1.008	0.980	0.977	0.892	0.910	0.946	0.975	4.88
59)	C	Ethylbenzene	1.437	1.394	1.308	1.356	1.486	1.494	1.468	1.482	1.388	1.426	1.502	1.431	4.42
60)		1,1,1,2-Tetrac...		0.230	0.257	0.271	0.282	0.296	0.308	0.312	0.304	0.321	0.348	0.293	11.68
61)		m,p-Xylenes (2)			0.820	0.848	0.964	1.027	1.052	1.090	1.020	1.054		0.984	10.15
62)		o-Xylene			0.732	0.777	0.853	0.930	0.970	1.057	1.040	1.098		0.932	14.42
63)		Styrene	0.426	0.477	0.475	0.547	0.659	0.772	0.825	0.873	0.847	0.884	0.926	0.701	27.01
64)	P	Bromoform		0.135	0.167	0.175	0.206	0.221	0.234	0.260	0.274	0.301	0.316	0.229	26.09
65)		Isopropylbenzene				0.889	1.018	1.154	1.225	1.301	1.263	1.326	1.392	1.196	14.11
66)	I	1,4-Dichlorobenzen...	----------	ISTD	----------										
67)	S	4-Bromofluorob...	0.854	0.843	0.833	0.832	0.822	0.837	0.842	0.837	0.846	0.859	0.882	0.844	1.92
68)		Bromobenzene	0.823	0.792	0.783	0.824	0.844	0.860	0.846	0.851	0.781	0.798	0.840	0.822	3.52
69)		n-Propylbenzene	2.728	2.581	2.417	2.595	2.852	2.843	2.831	2.894	2.661	2.780	3.027	2.746	6.26
70)	P	1,1,2,2-Tetrac...	0.974	0.993	1.034	1.046	1.209	1.114	1.119	1.096	0.992	0.957	0.973	1.046	7.59
71)		2-Chlorotoluene		0.495	0.514	0.615	0.633	0.653	0.665	0.675	0.632	0.663	0.706	0.625	10.97
72)		1,3,5-Trimethy...			1.484	1.538	1.821	2.002	2.137	2.184	2.009	2.072	2.195	1.938	13.82
73)		1,2,3-Trichlor...		0.313	0.310	0.330	0.355	0.338	0.328	0.323	0.295	0.292	0.291	0.317	6.67
74)		t-1,4-Dichloro...				0.056	0.069	0.073	0.079	0.093	0.096	0.107	0.121	0.087	24.88
75)		4-Chlorotoluene	1.475	1.443	1.350	1.545	1.700	1.808	1.799	1.838	1.721	1.806	1.984	1.679	11.77
76)		tert-Butylbenzene		0.810	0.778	0.853	0.954	0.999	1.016	1.066	1.011	1.070	1.184	0.974	13.06
77)		1,2,4-Trimethy...				1.475	1.721	2.035	2.190	2.238	2.050	2.117	2.240	2.008	13.58
78)		sec-Butylbenzene			1.661	1.884	2.113	2.325	2.359	2.422	2.246	2.376	2.554	2.216	12.81
79)		4-Isopropyltol...				1.398	1.615	1.842	1.959	2.041	1.911	2.019	2.145	1.866	13.21
80)		1,3-Dichlorobe...	1.199	1.266	1.146	1.211	1.364	1.401	1.381	1.369	1.271	1.321	1.374	1.300	6.68
81)		1,4-Dichlorobe...	1.746	1.645	1.490	1.449	1.518	1.496	1.421	1.396	1.289	1.315	1.371	1.467	9.27
82)		n-Butylbenzene		1.168	1.172	1.283	1.410	1.546	1.657	1.719	1.573	1.642	1.728	1.490	14.58
83)		1,2-Dichlorobe...	1.199	1.189	1.125	1.258	1.357	1.350	1.357	1.356	1.264	1.274	1.312	1.276	6.22
84)		1,2-Dibromo-3-...					0.194	0.200	0.220	0.232	0.246	0.251	0.276	0.231	12.69
85)		Hexachlorobuta...			0.172	0.185	0.202	0.208	0.218	0.218	0.195	0.197	0.196	0.199	7.49
86)		1,2,4-Trichlor...				0.594	0.635	0.680	0.788	0.843	0.811	0.797	0.833	0.747	12.92
87)		Naphthalene		0.922	0.978	1.054	1.309	1.514	1.979	2.399	2.496	2.501	2.651	1.780	39.33
88)		1,2,3-Trichlor...				0.537	0.626	0.700	0.807	0.845	0.784	0.759	0.795	0.732	14.26

(#) = Out of Range



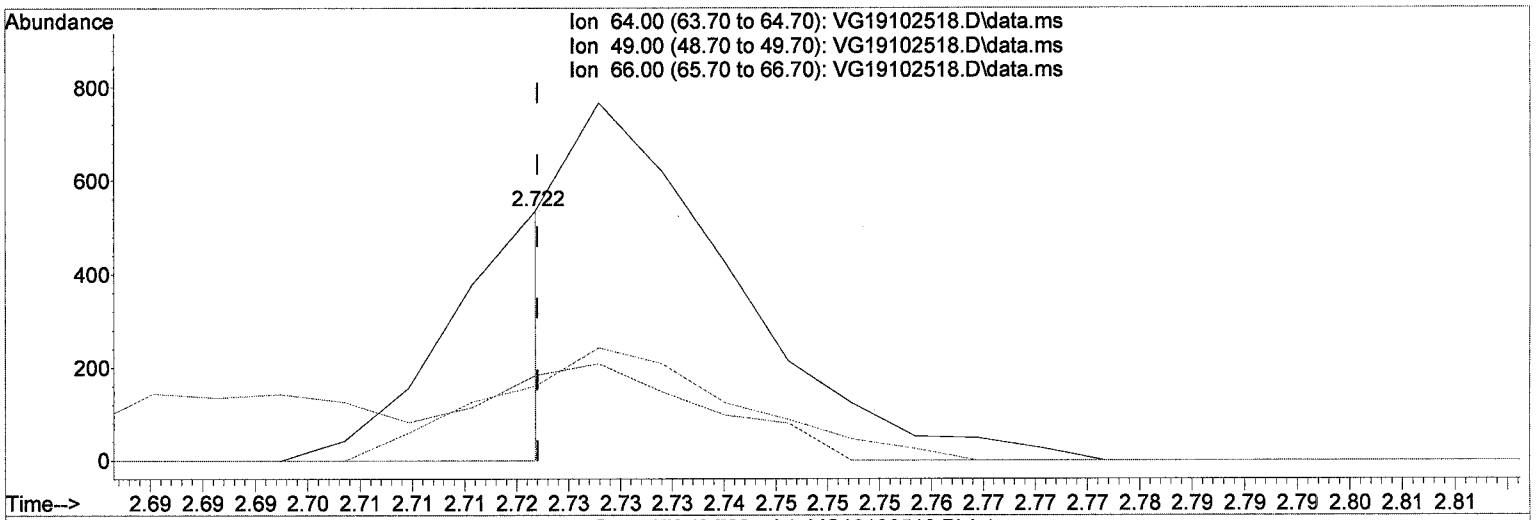
Int = (−)

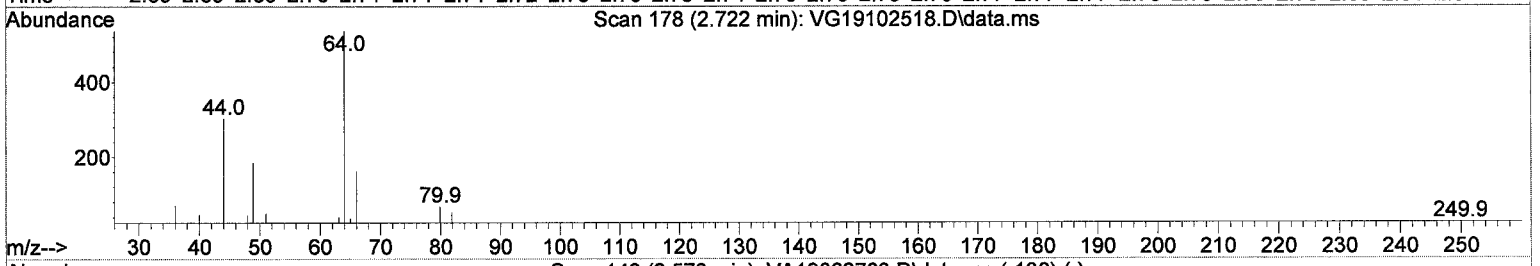
R = -8.88e-003 A*A + 2.35e-001 A + 3.40e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

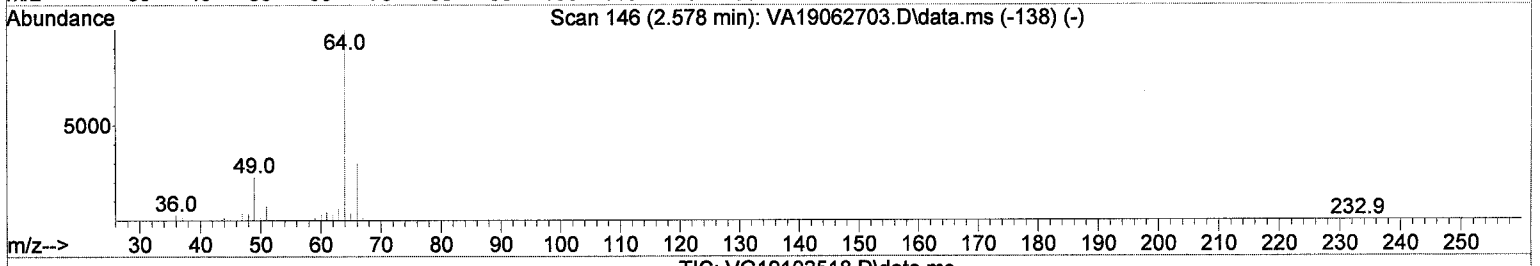
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







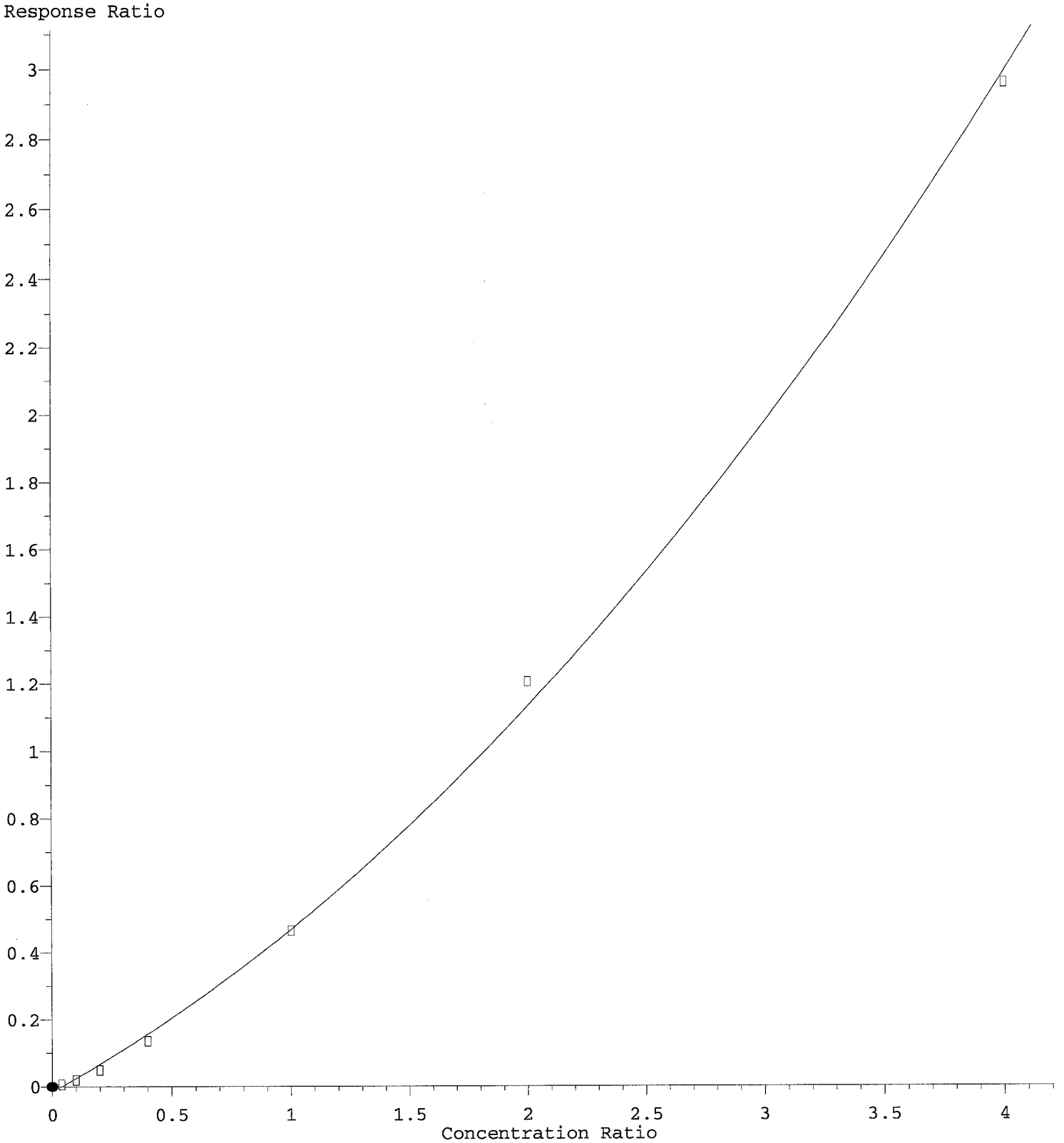
TIC: VG19102518.D\data.ms

(6) Chloroethane

2.722min (-0.000) 0.41 ug/L m

response 407

Ion	Exp%	Act%
64.00	100.00	100.00
49.00	24.30	34.33
66.00	31.30	30.04
0.00	0.00	0.00



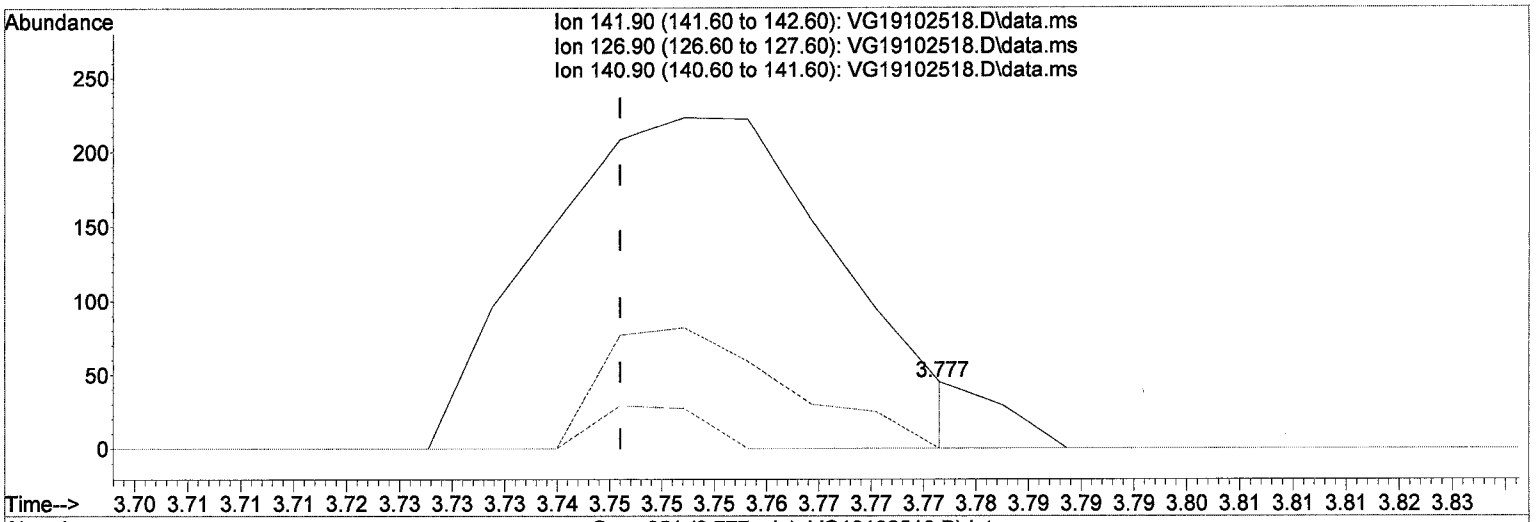
Int = 2.11

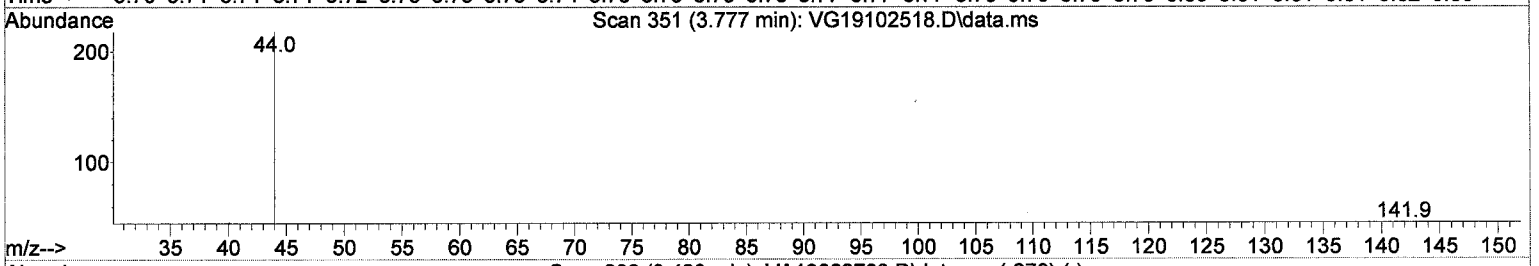
R = 8.93e-002 A*A + 3.96e-001 A - 1.67e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

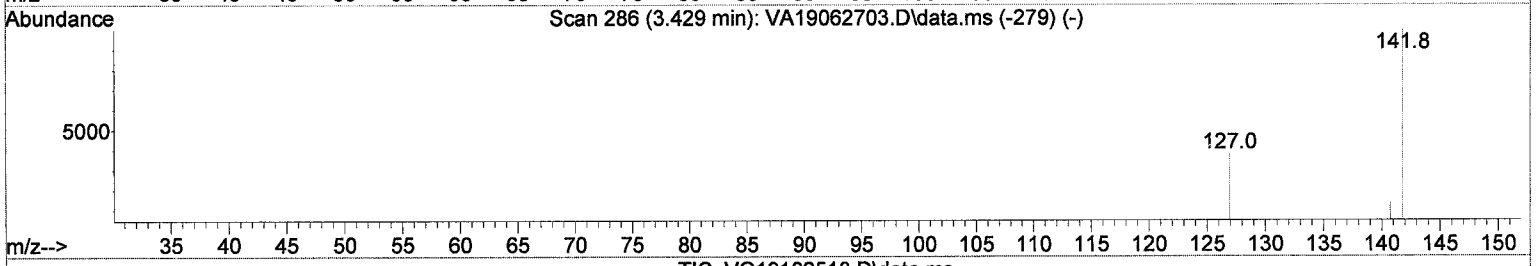
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







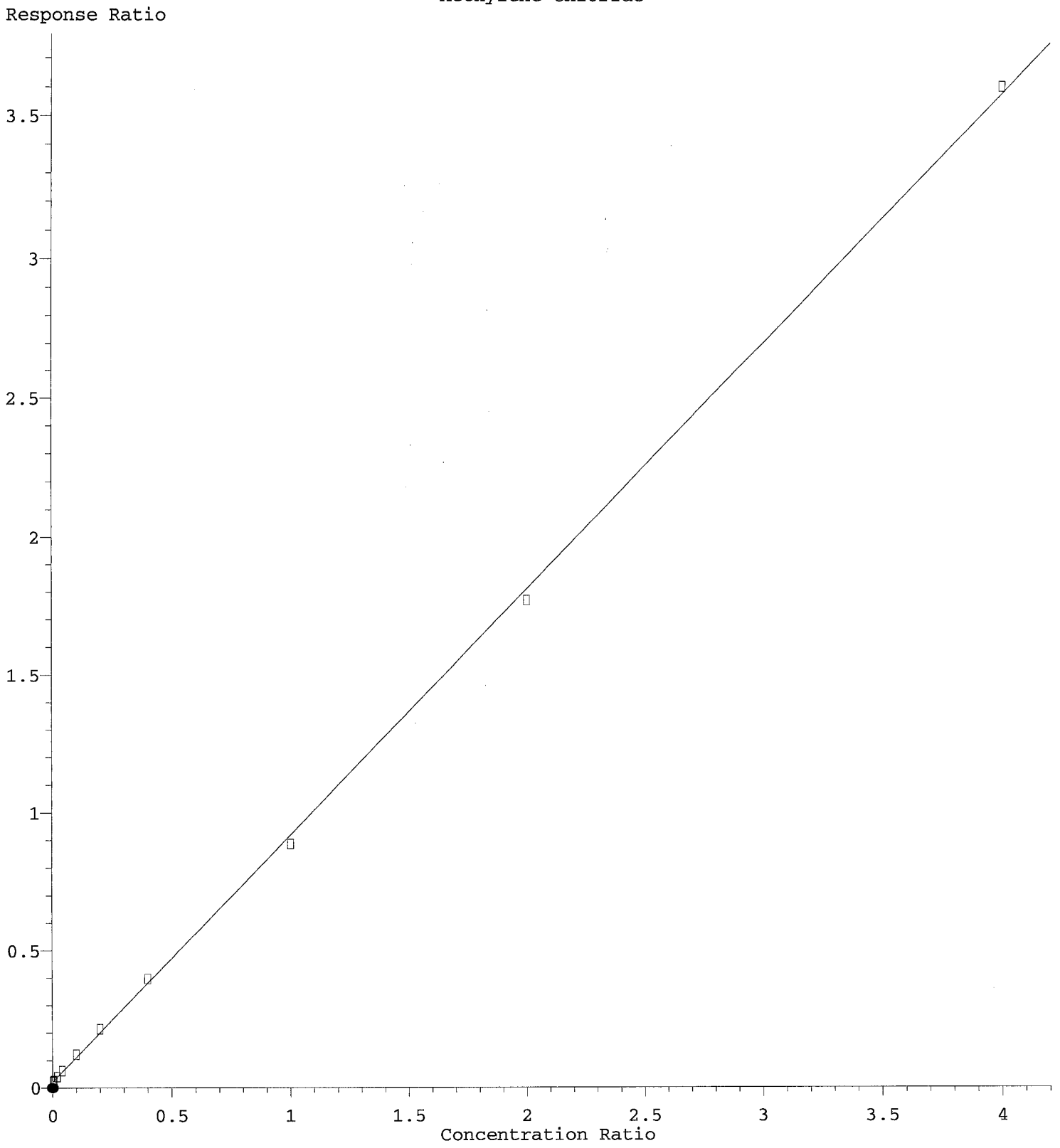
TIC: VG19102518.D\data.ms

(12) Iodomethane

3.777min (+ 0.030) 2.11 ug/L m

response 11

Ion	Exp%	Act%
141.90	100.00	100.00
126.90	34.80	0.00#
140.90	15.30	0.00
0.00	0.00	0.00



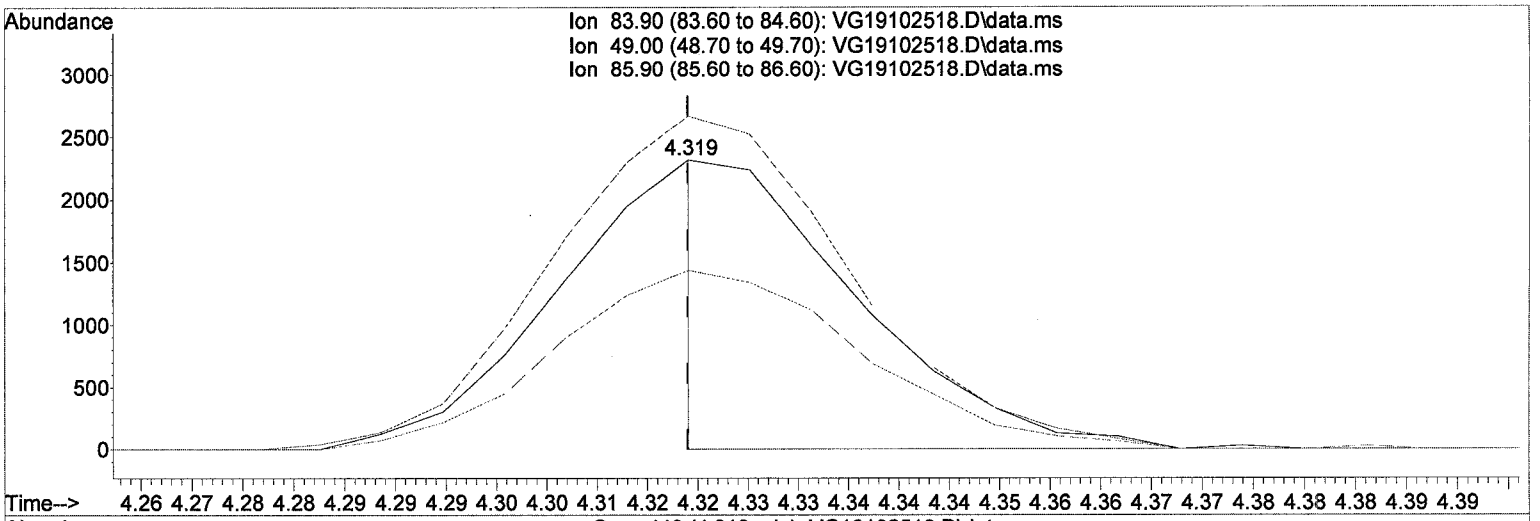
Int = (−) 0.52

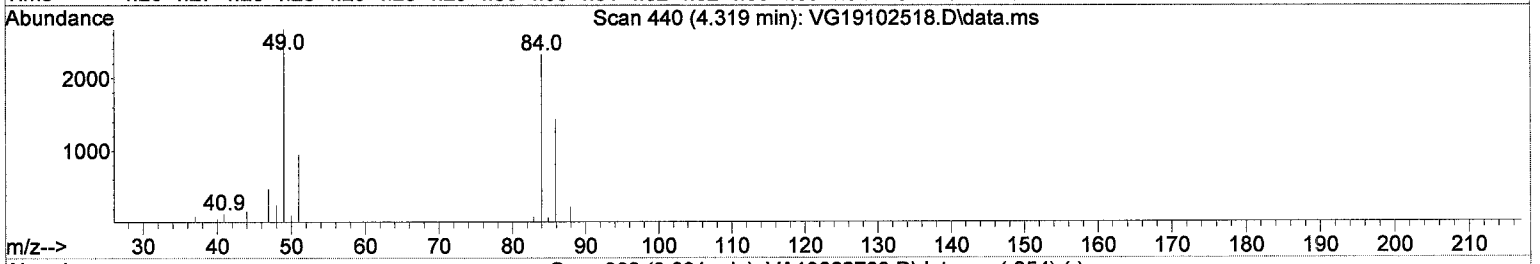
R = -3.40e-003 A*A + 9.03e-001 A + 2.00e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

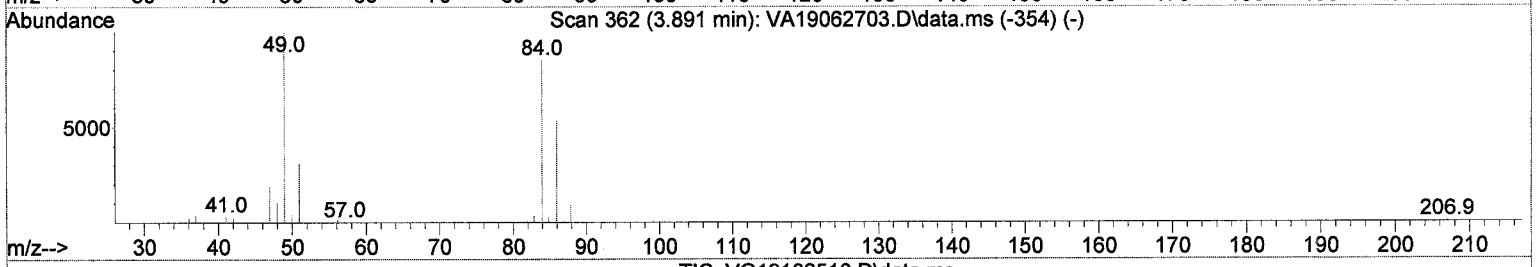
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







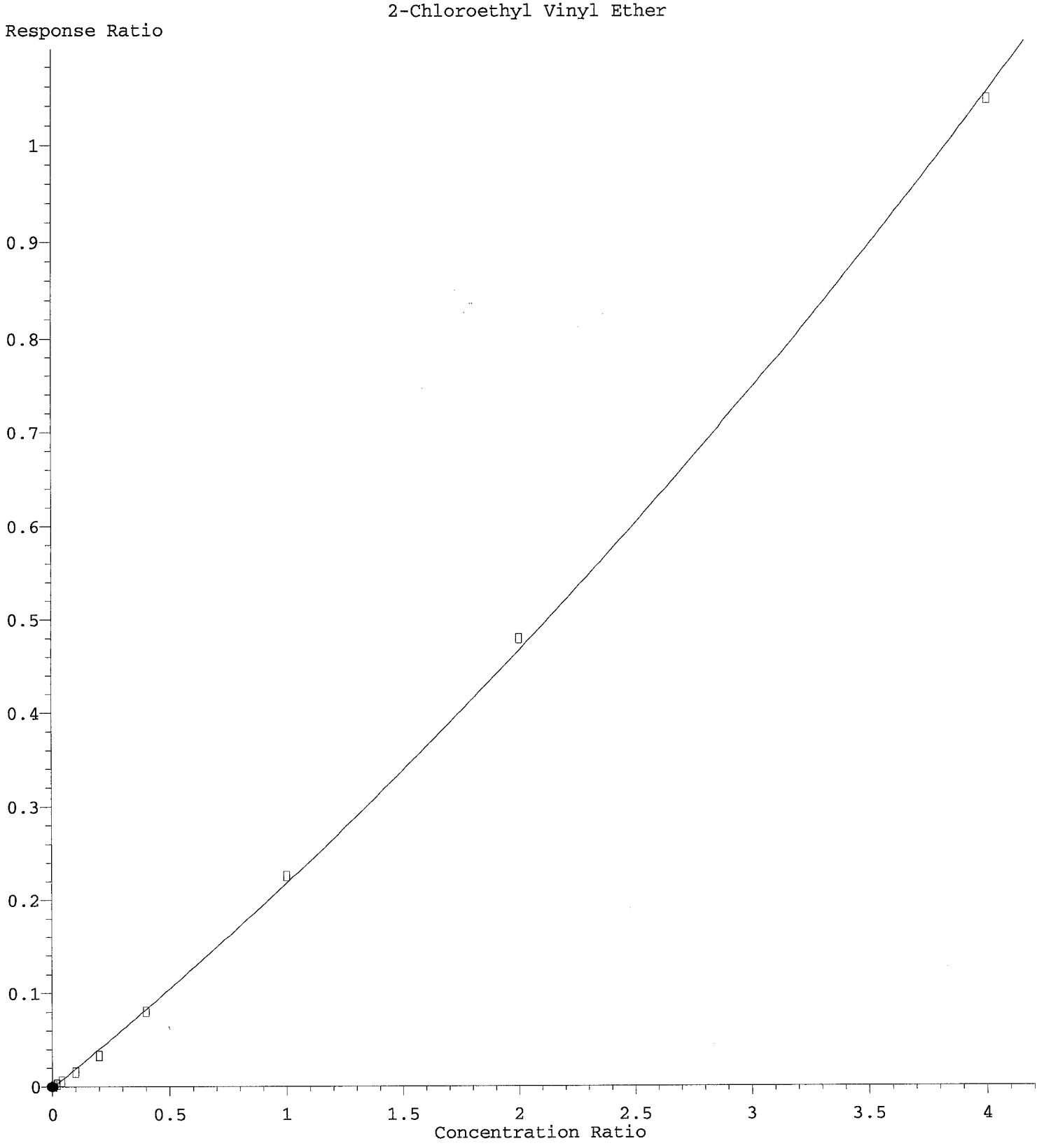
TIC: VG19102518.D\data.ms

(14) Methylene Chloride

4.319min (+ 0.000) 0.52 ug/L m

response 2253

Ion	Exp%	Act%
83.90	100.00	100.00
49.00	123.30	114.94
85.90	63.90	62.10
0.00	0.00	0.00



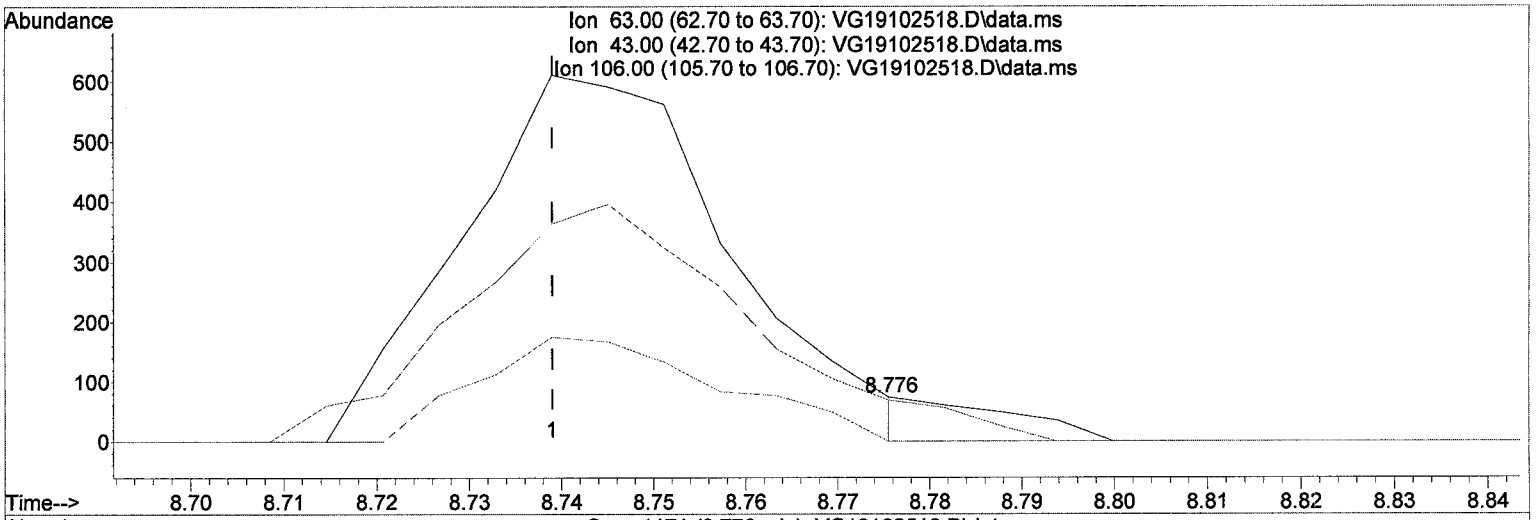
Int = 0.47

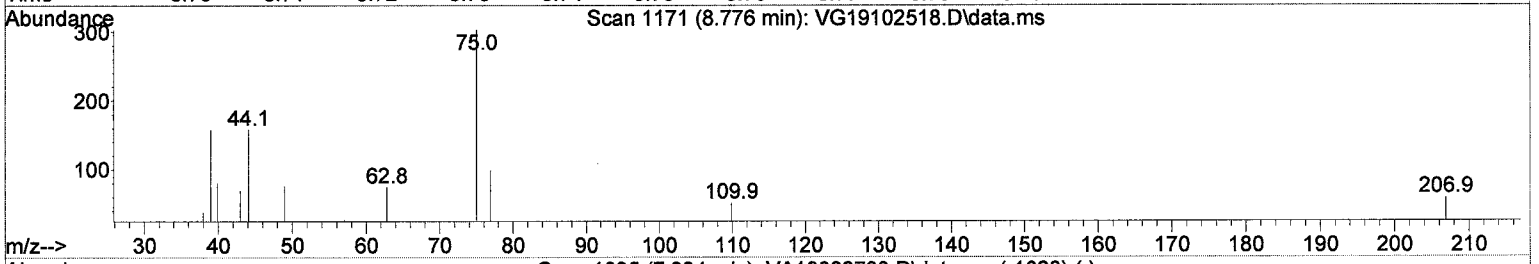
R = 1.48e-002 A*A + 2.05e-001 A - 1.70e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M

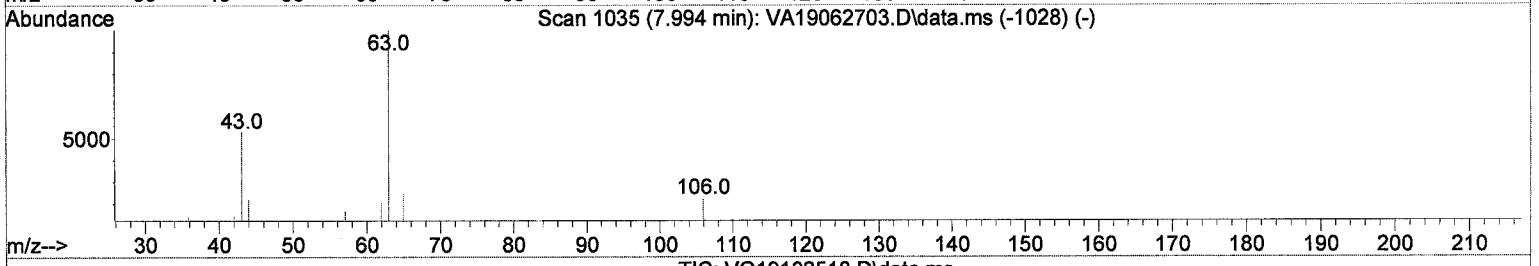
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







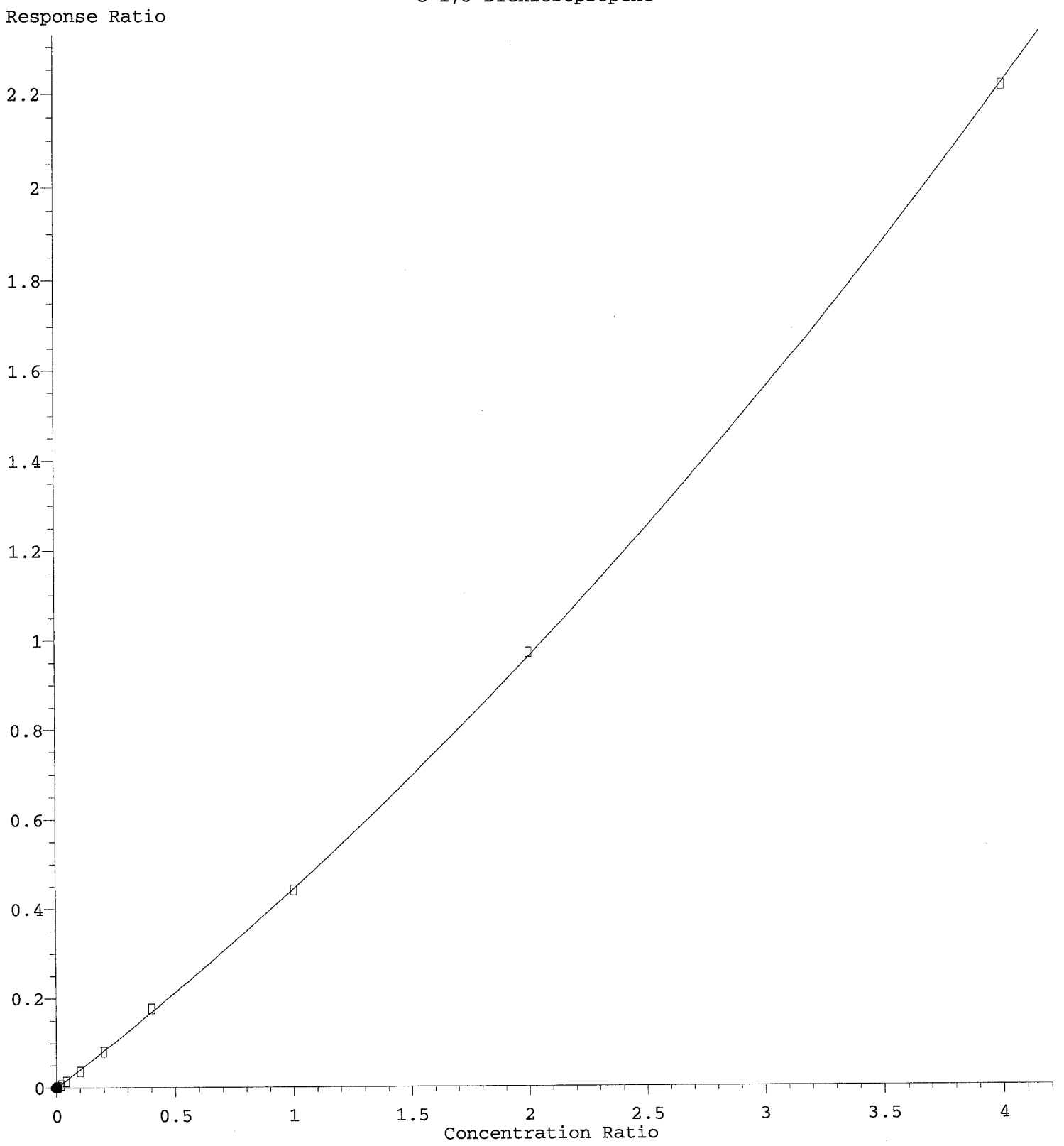
TIC: VG19102518.D\data.ms

(46) 2-Chloroethyl Vinyl Ether

8.776min (+ 0.037) 0.47 ug/L m

response 53

Ion	Exp%	Act%
63.00	100.00	100.00
43.00	282.80	93.24#
106.00	0.00	0.00
0.00	0.00	0.00



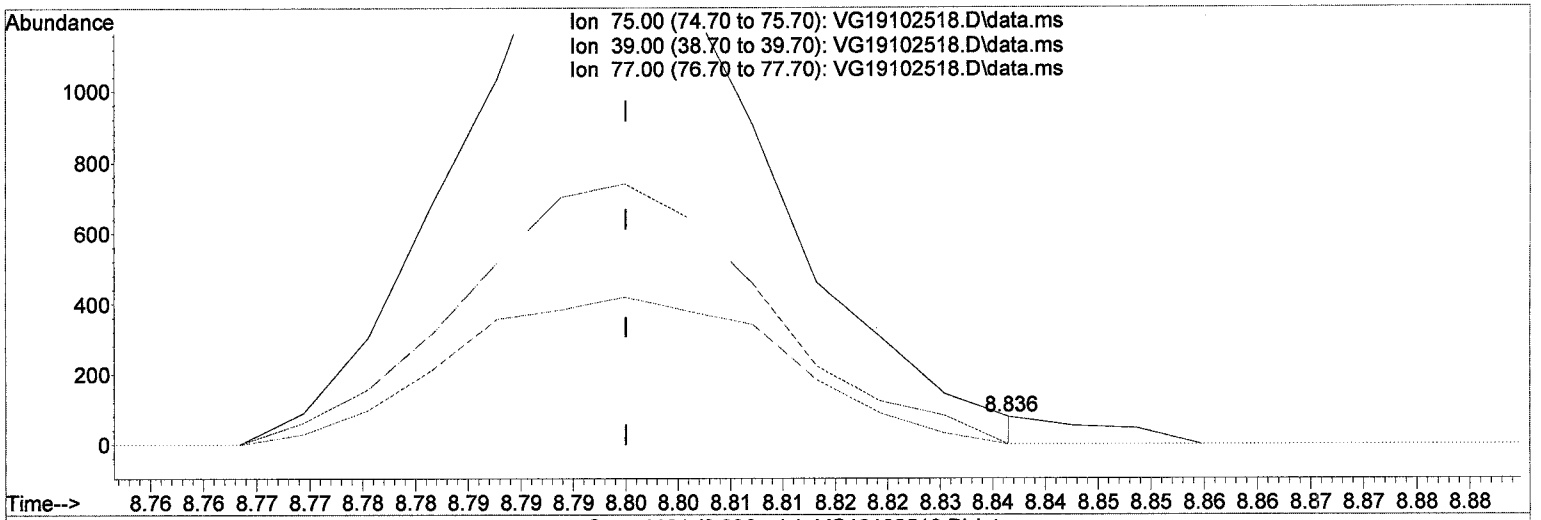
Int = 0.11

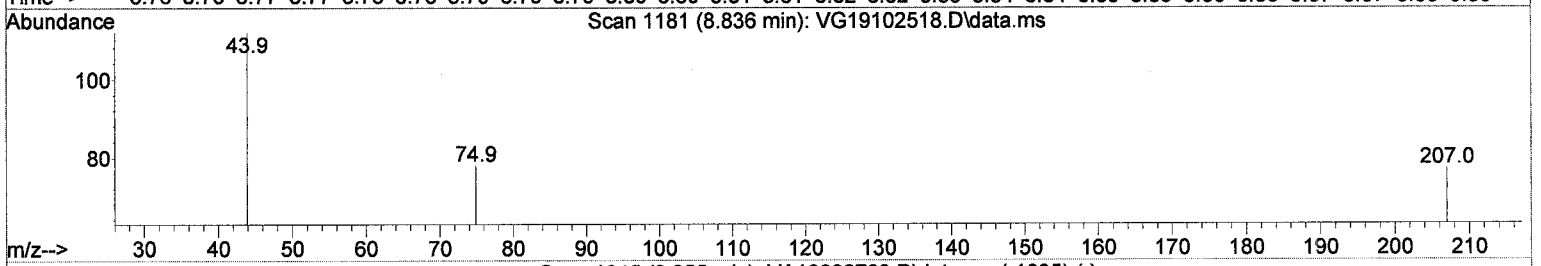
R = 3.67e-002 A*A + 4.08e-001 A - 7.59e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

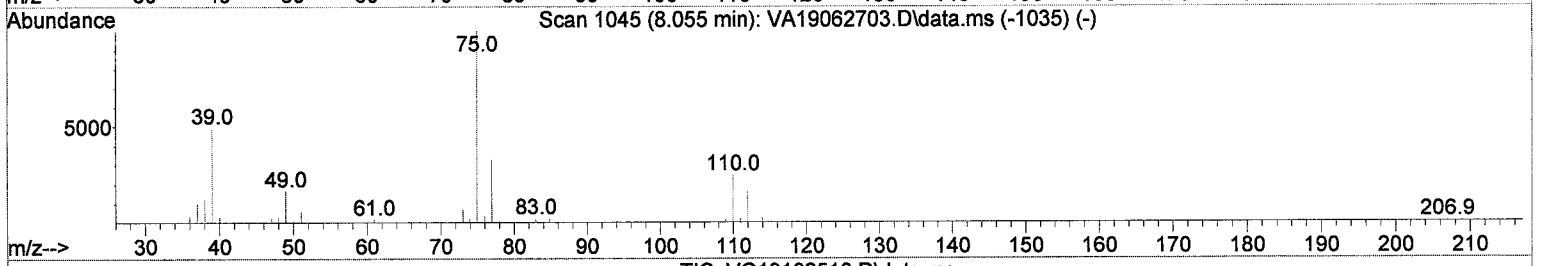
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







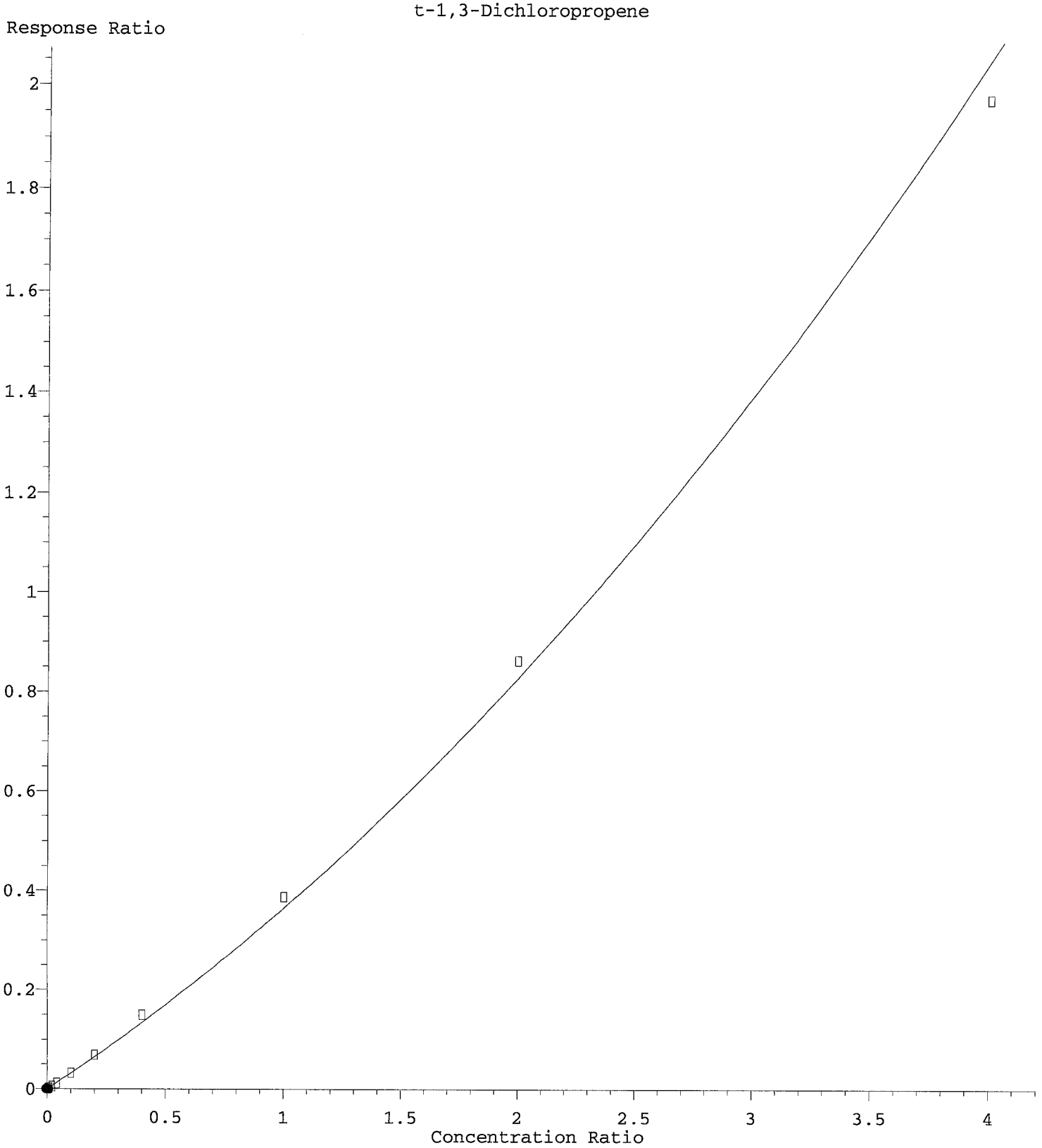
TIC: VG19102518.D\data.ms

(47) c-1,3-Dichloropropene

8.836min (+ 0.036) 0.11 ug/L m

response 36

Ion	Exp%	Act%
75.00	100.00	100.00
39.00	50.30	0.00#
77.00	31.90	0.00#
0.00	0.00	0.00



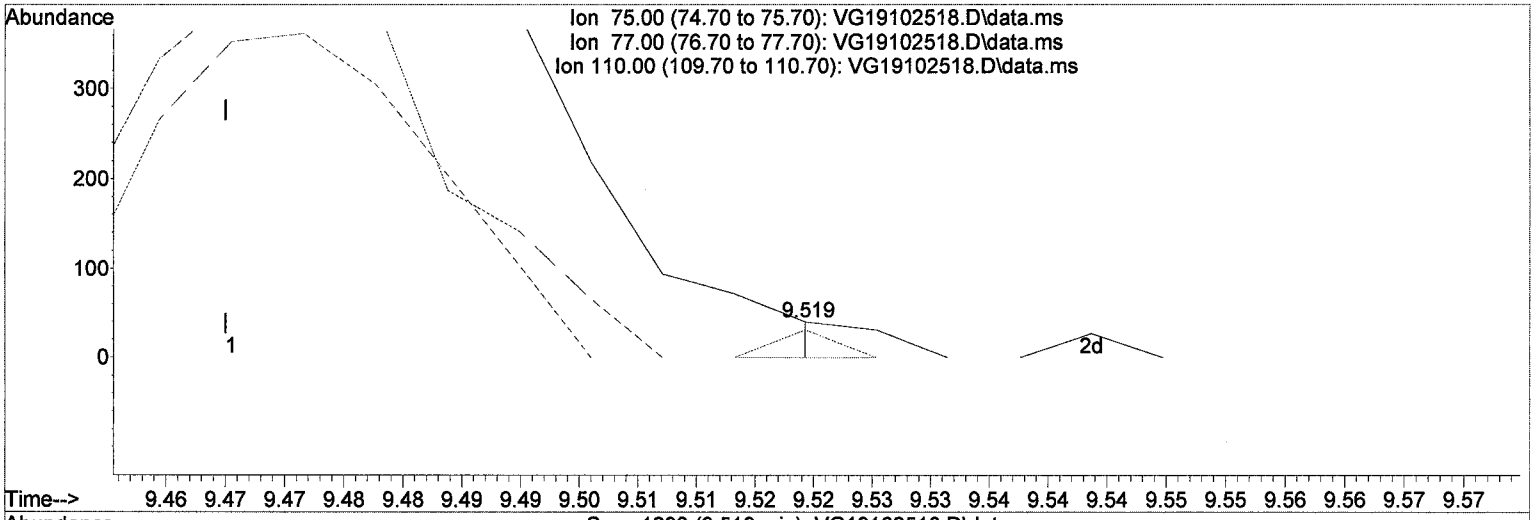
Int= 0.09

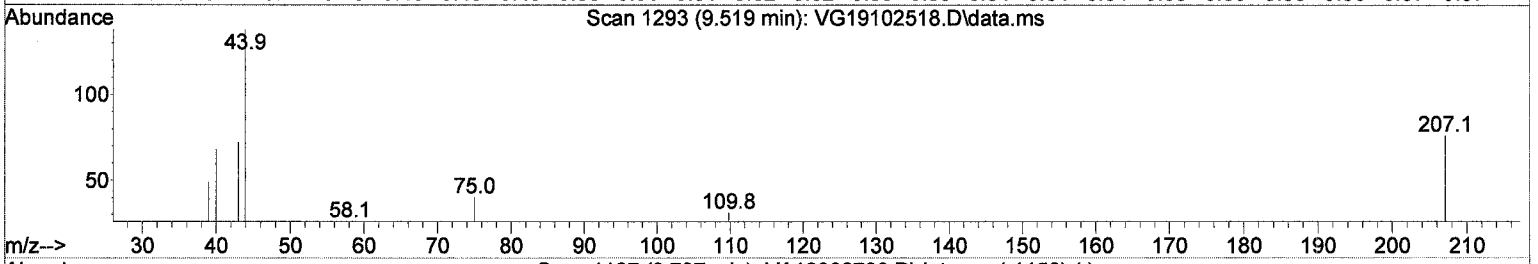
R = 4.88e-002 A*A + 3.17e-001 A - 5.38e-004
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\VGI91025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

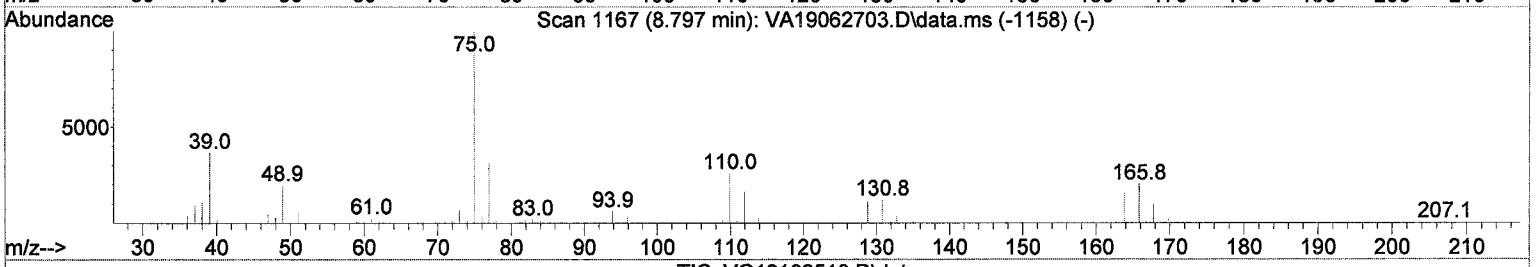
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







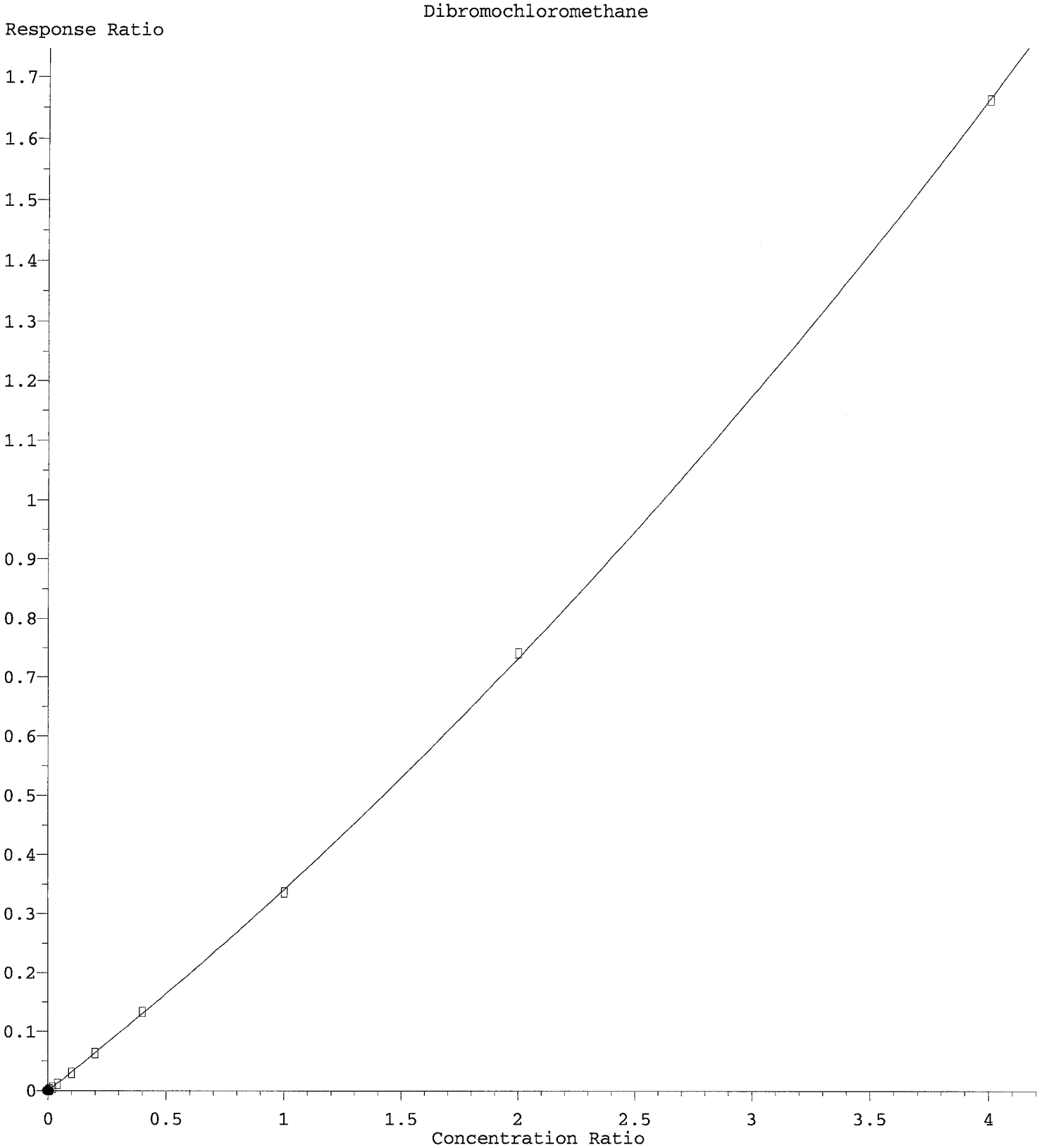
TIC: VG19102518.D\data.ms

(52) t-1,3-Dichloropropene

9.519min (+ 0.049) 0.09 ug/L m

response 11

Ion	Exp%	Act%
75.00	100.00	100.00
77.00	33.20	0.00#
110.00	25.60	77.50#
0.00	0.00	0.00



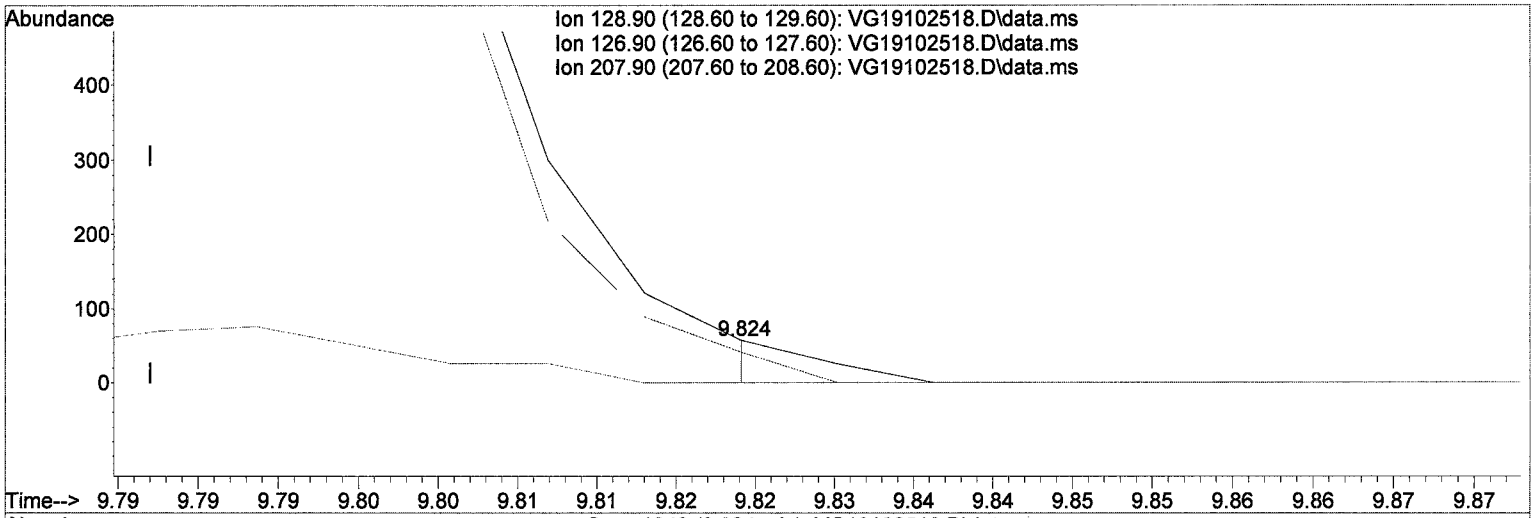
Int = 0,13

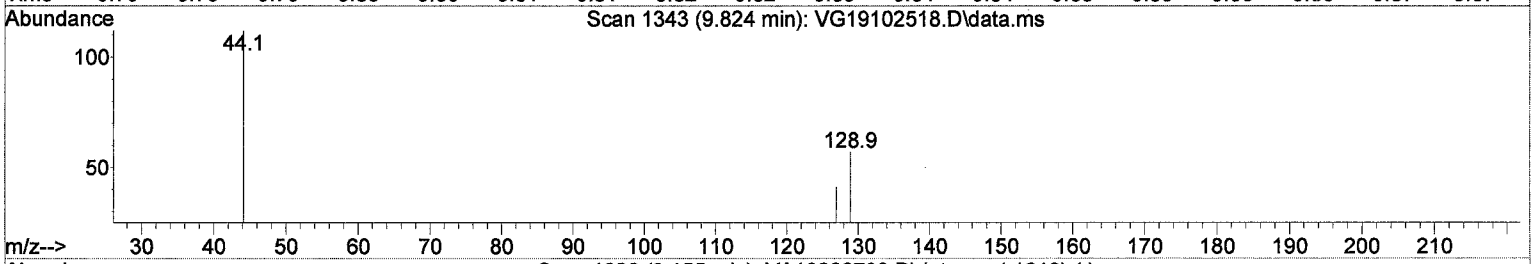
R = 2.49e-002 A*A + 3.17e-001 A - 7.80e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

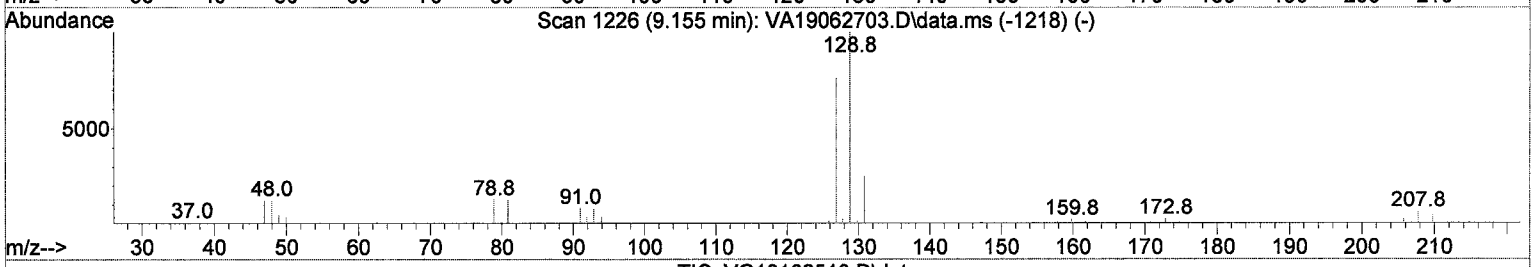
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







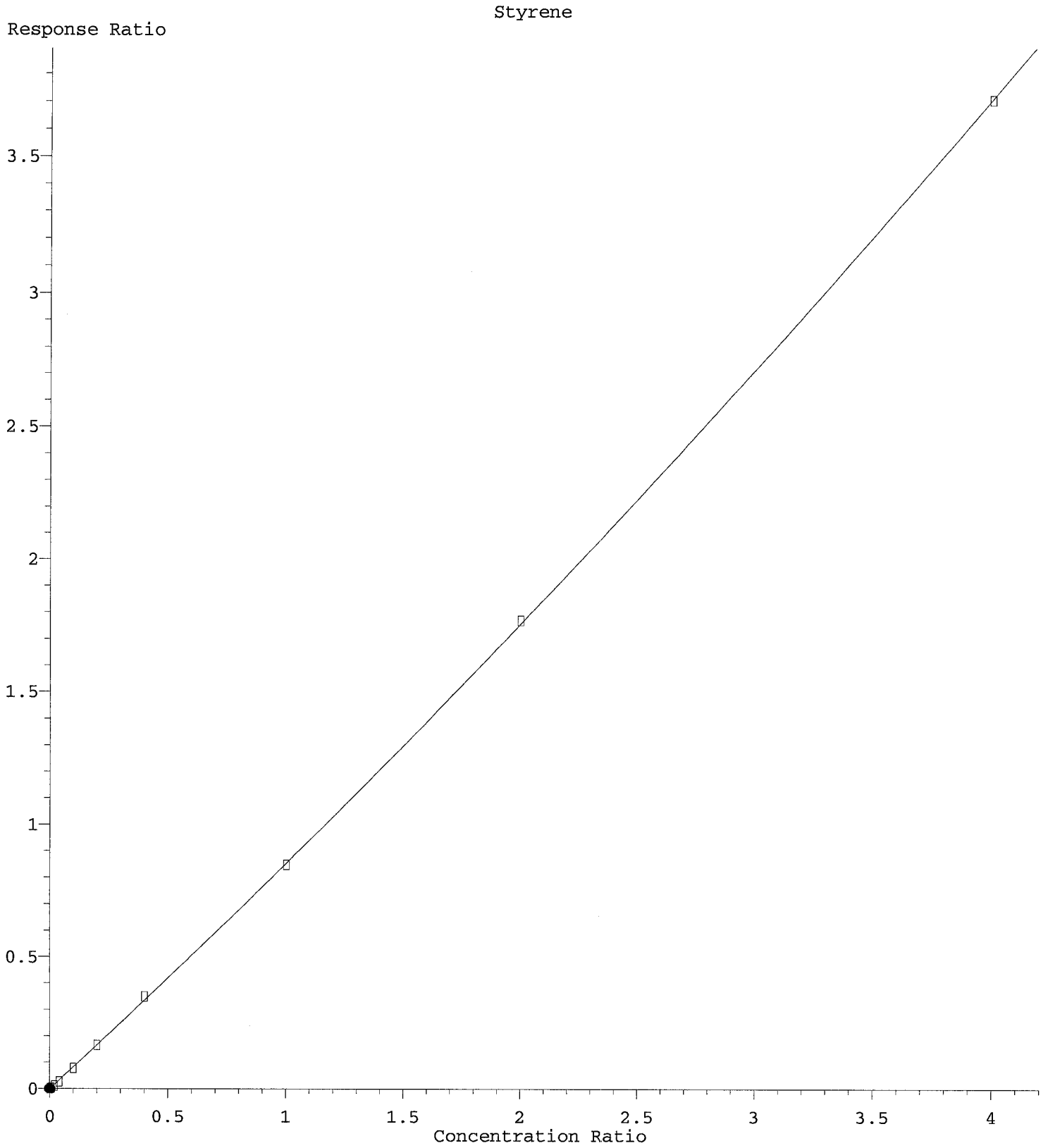
TIC: VG19102518.D\data.ms

(54) Dibromochloromethane

9.824min (+ 0.037) 0.13 ug/L m

response 9

Ion	Exp%	Act%
128.90	100.00	100.00
126.90	77.40	71.93
207.90	7.30	0.00
0.00	0.00	0.00



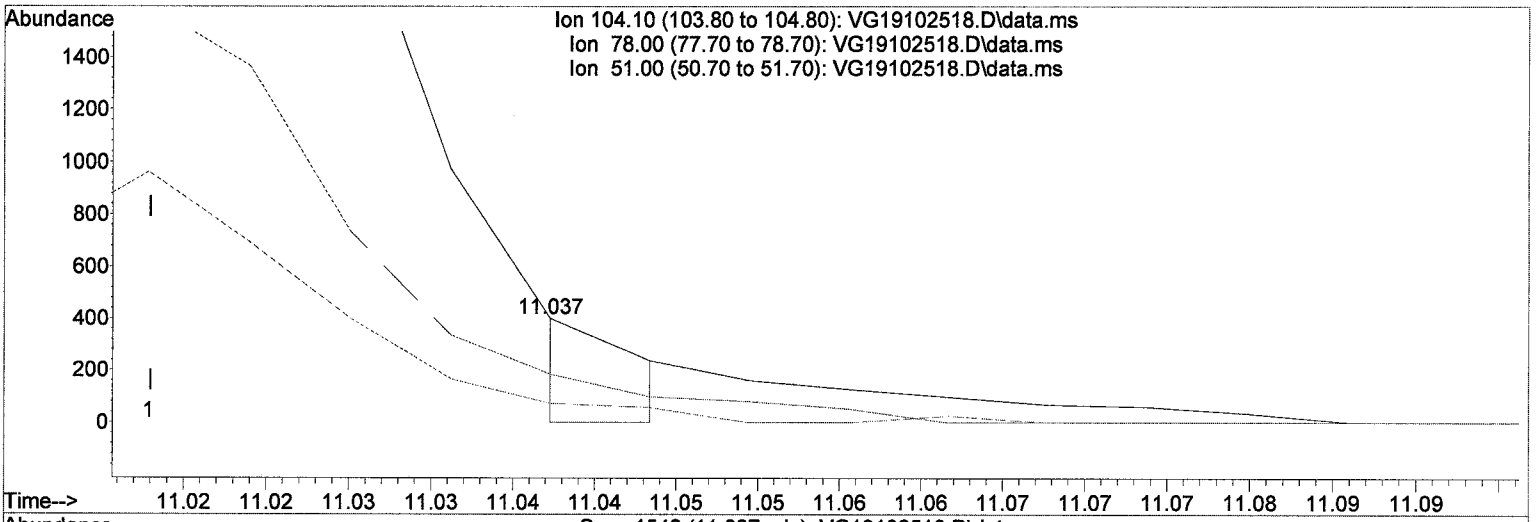
Int = 0.12

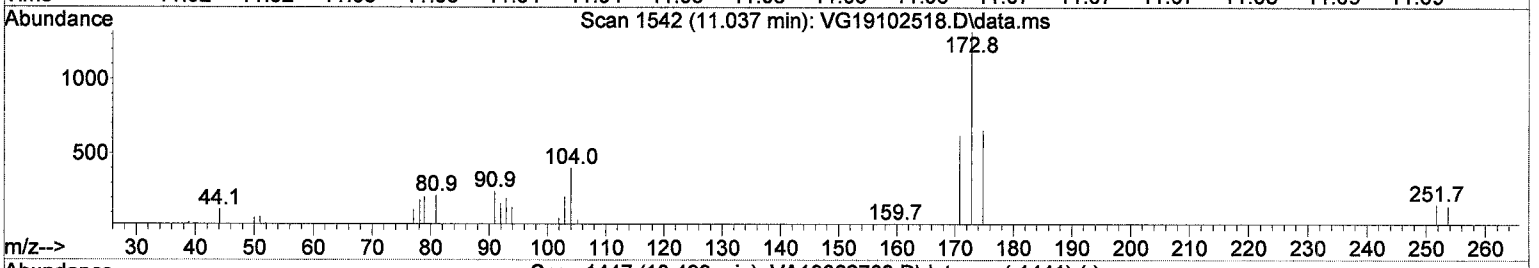
R = 2.43e-002 A*A + 8.31e-001 A - 1.67e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

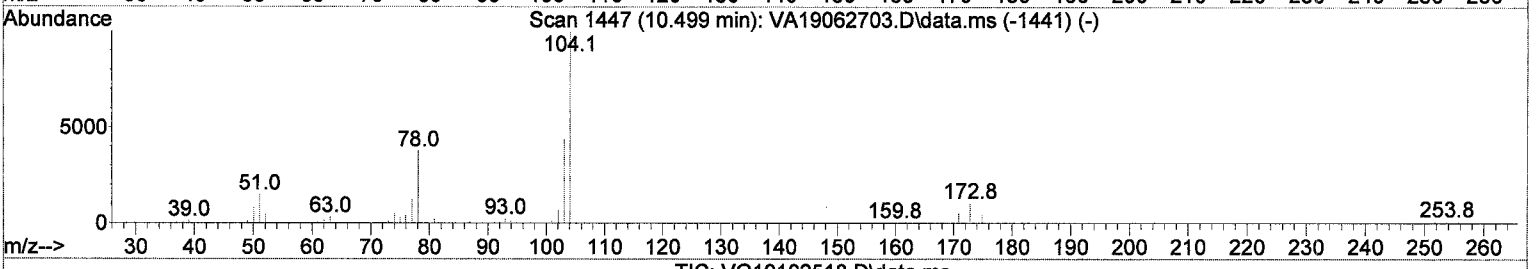
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







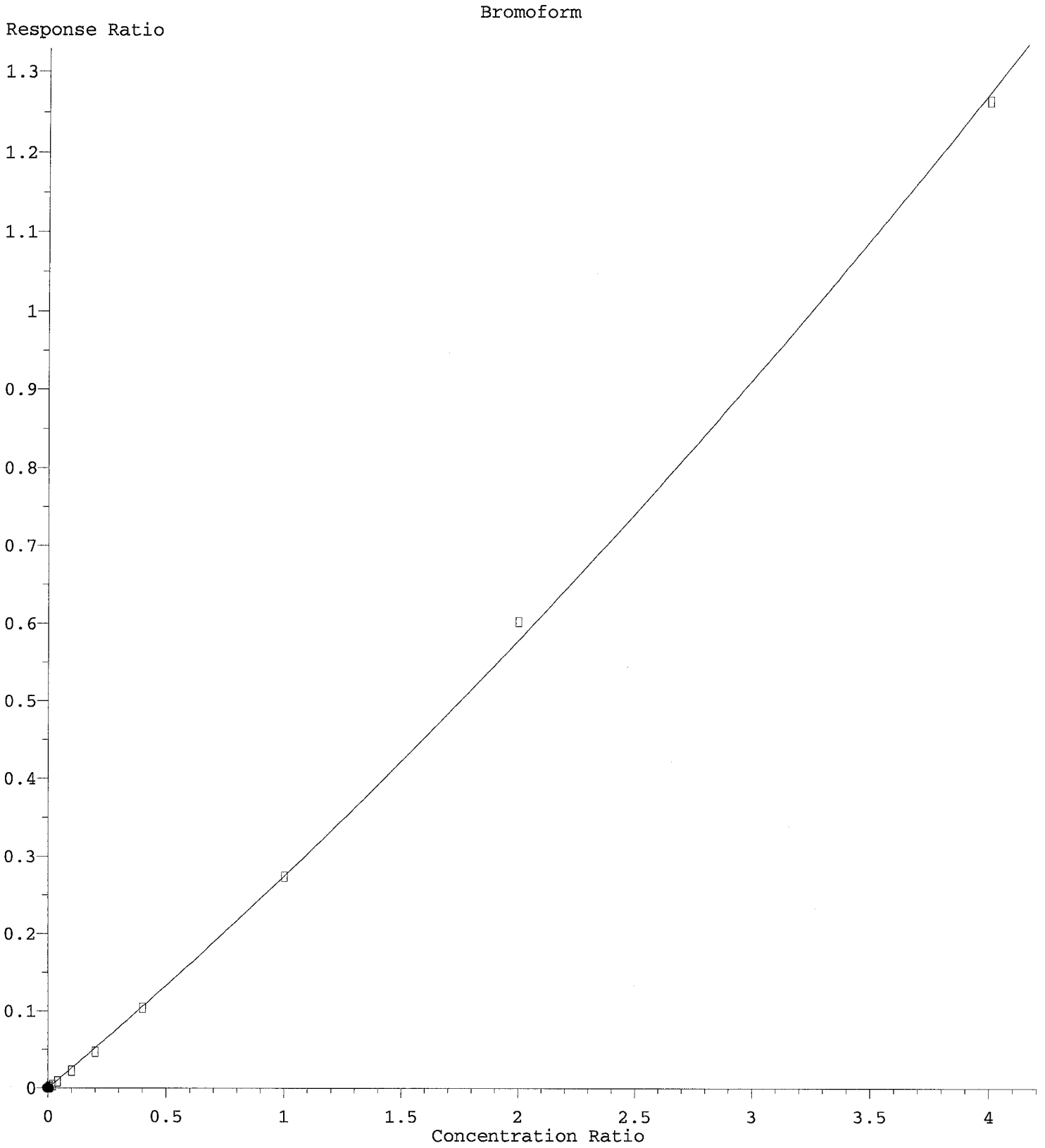
TIC: VG19102518.D\data.ms

(63) Styrene

11.037min (+ 0.024) 0.12 ug/L m

response 86

Ion	Exp%	Act%
104.10	100.00	100.00
78.00	42.20	46.00
51.00	24.70	18.25
0.00	0.00	0.00



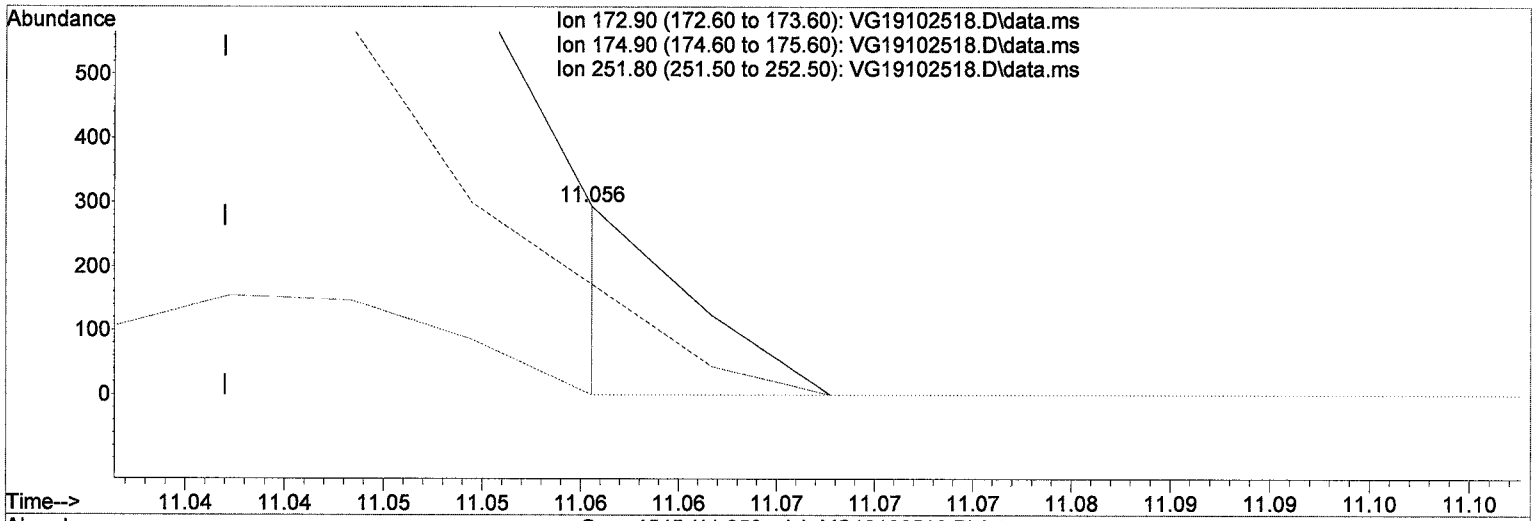
INT = 0,21

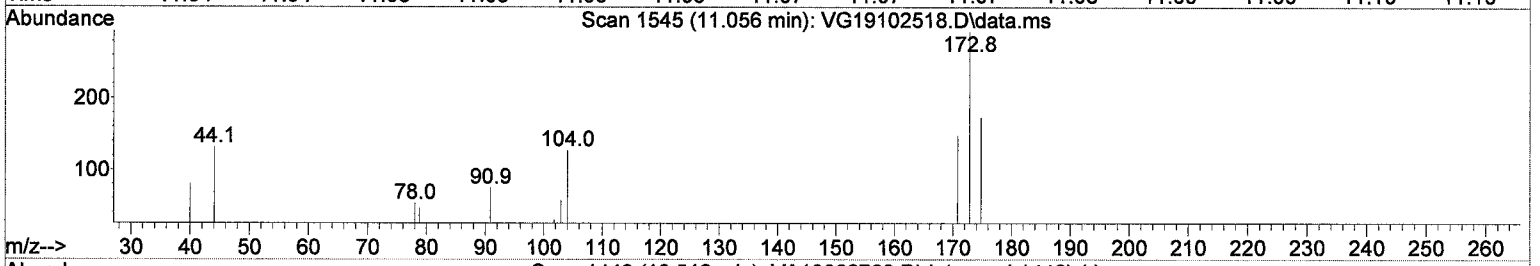
R = 1.46e-002 A*A + 2.61e-001 A - 9.25e-004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

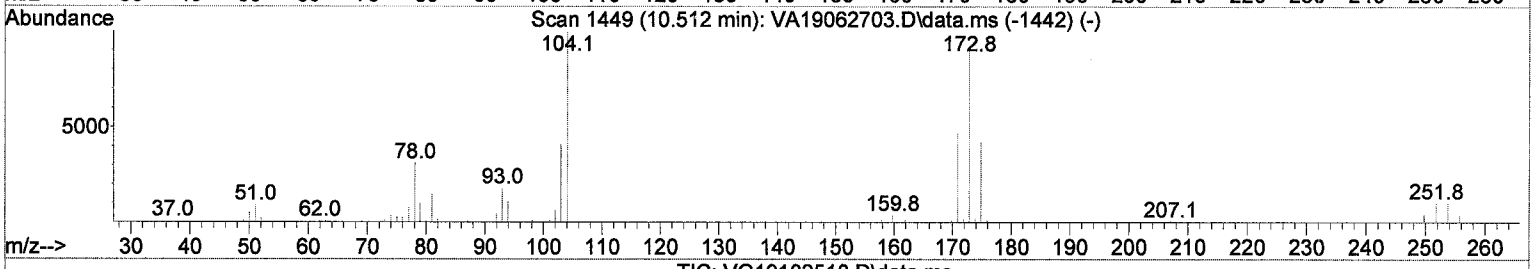
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







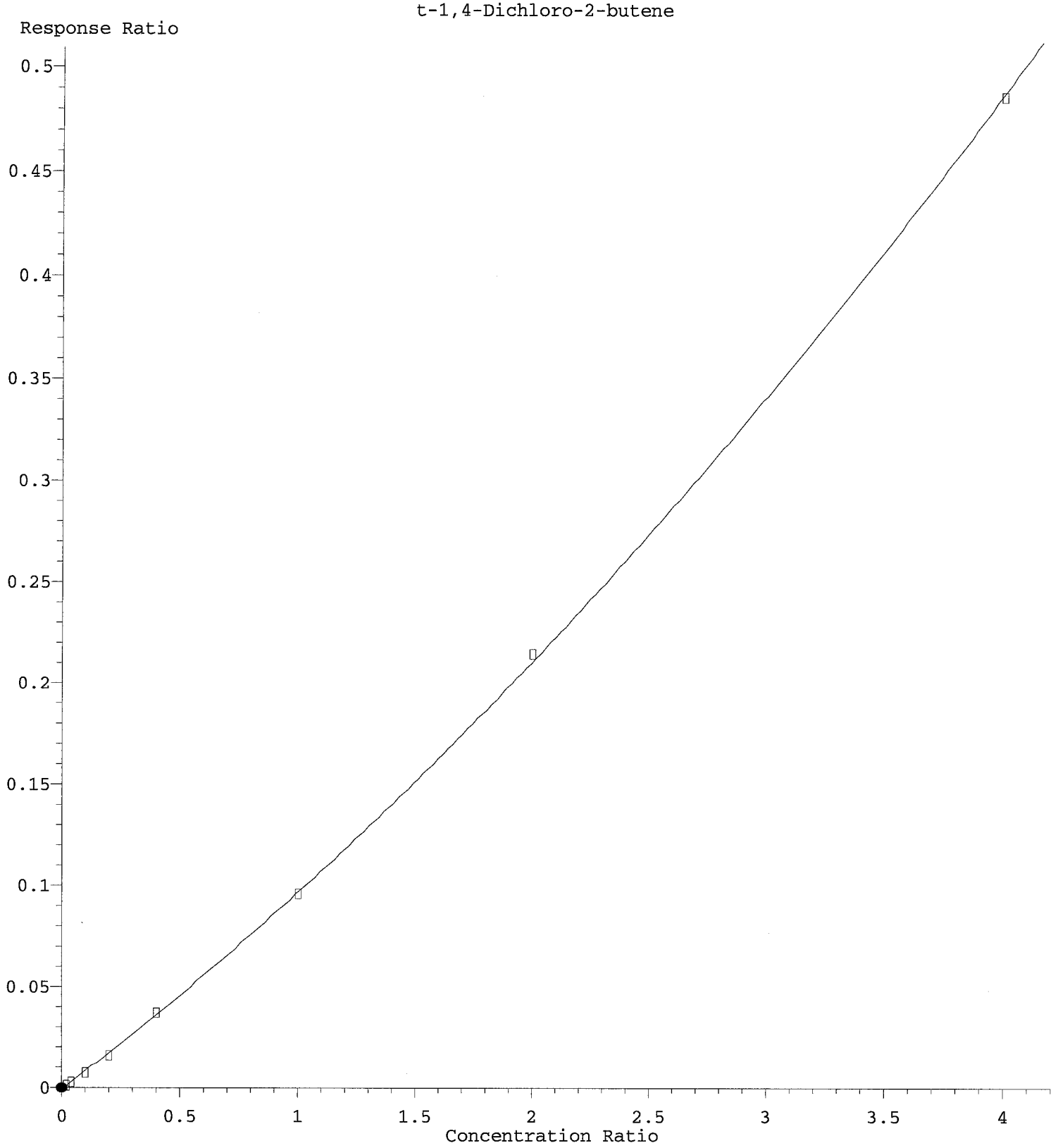
TIC: VG19102518.D\data.ms

(64) Bromoform (P)

11.056min (+ 0.019) 0.21 ug/L m

response 45

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	48.50	58.84
251.80	13.90	0.00
0.00	0.00	0.00



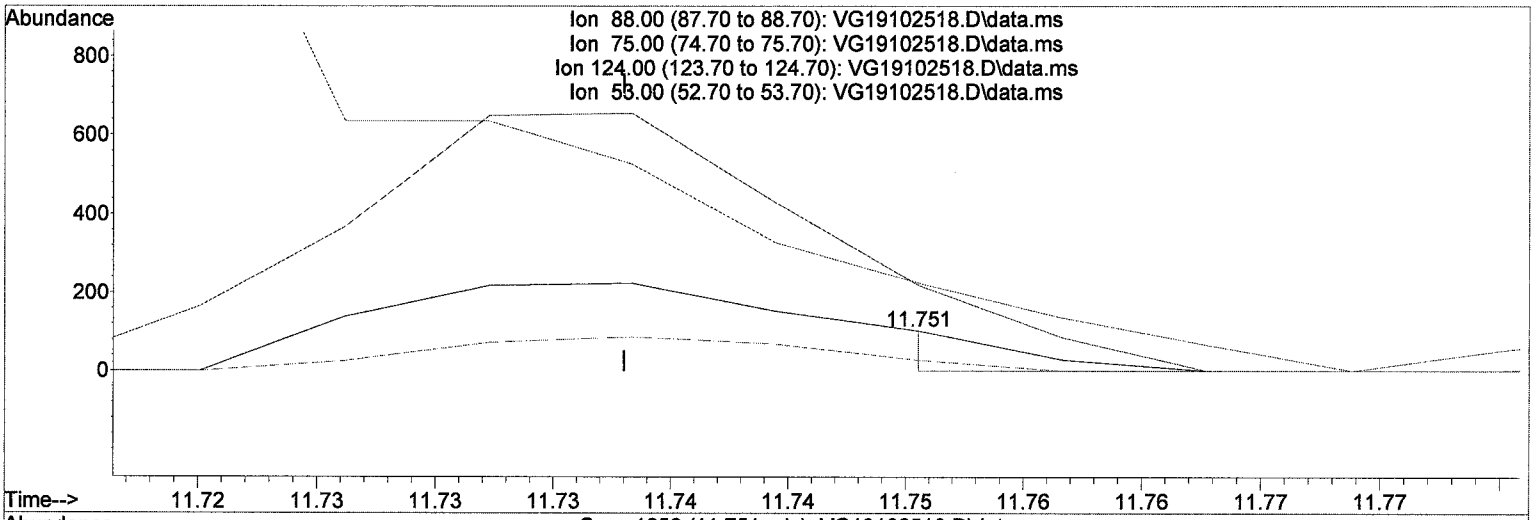
Fut = 0.56

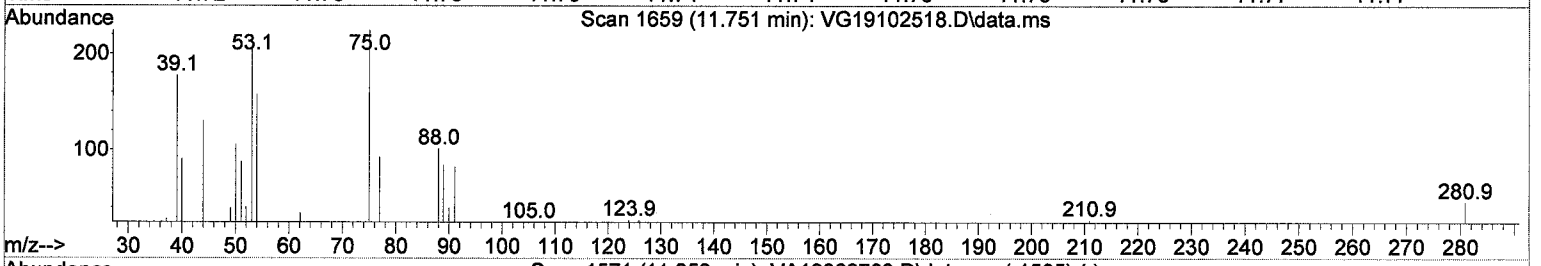
R = 8.09e-003 A*A + 8.97e-002 A - 9.14e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VGI191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

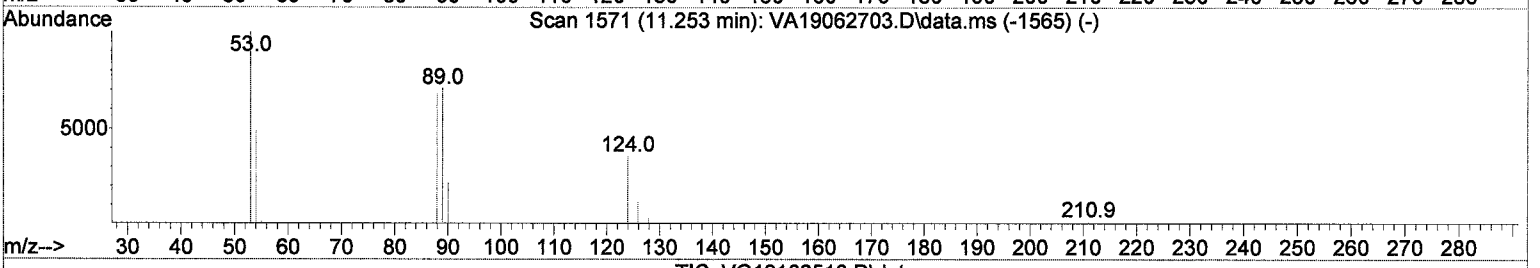
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







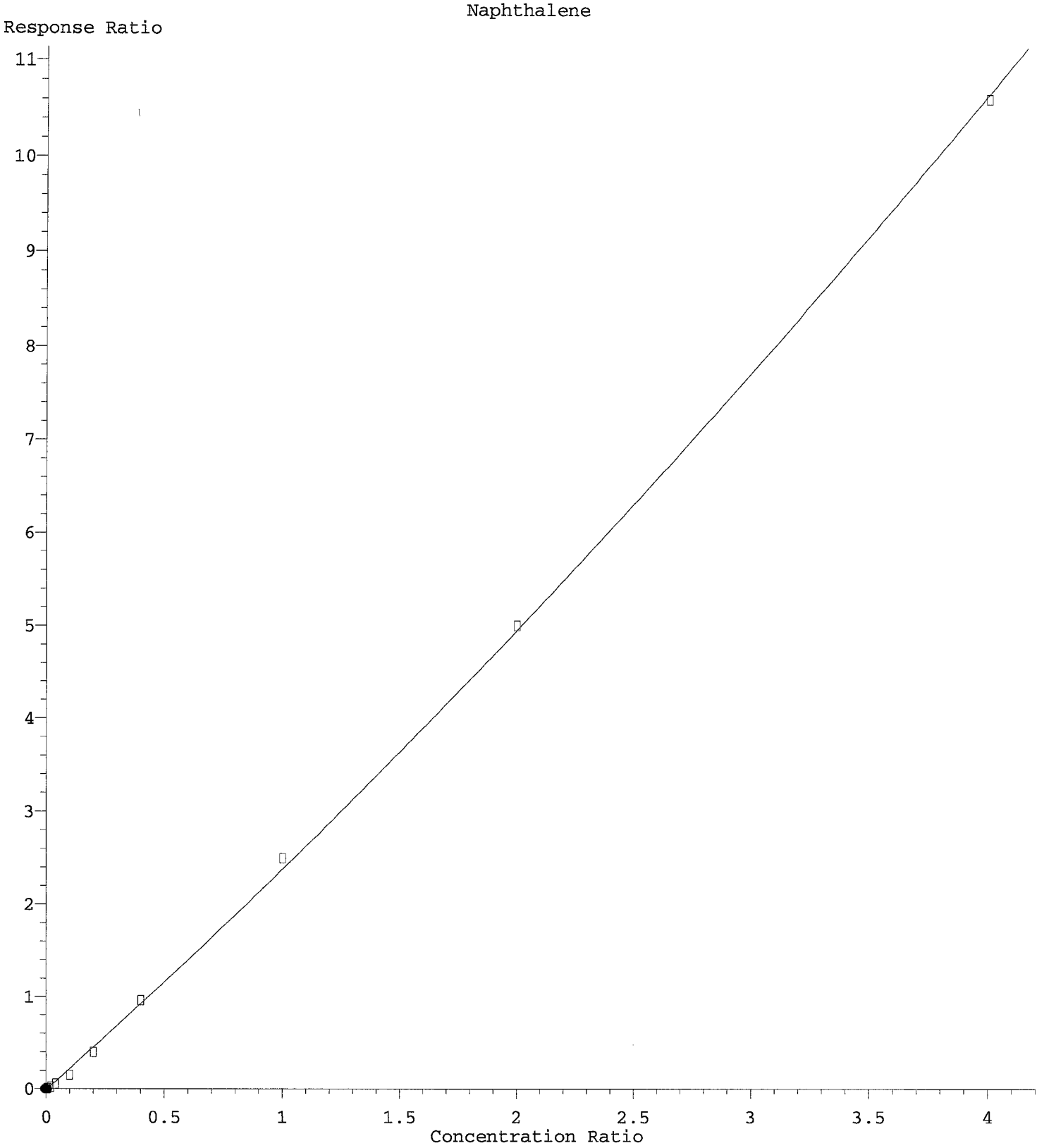
TIC: VG19102518.D\data.ms

(74) t-1,4-Dichloro-2-butene

11.751min (+ 0.013) 0.56 ug/L m

response 10

Ion	Exp%	Act%
88.00	100.00	100.00
75.00	263.20	221.78#
124.00	63.30	26.73#
53.00	196.80	215.84



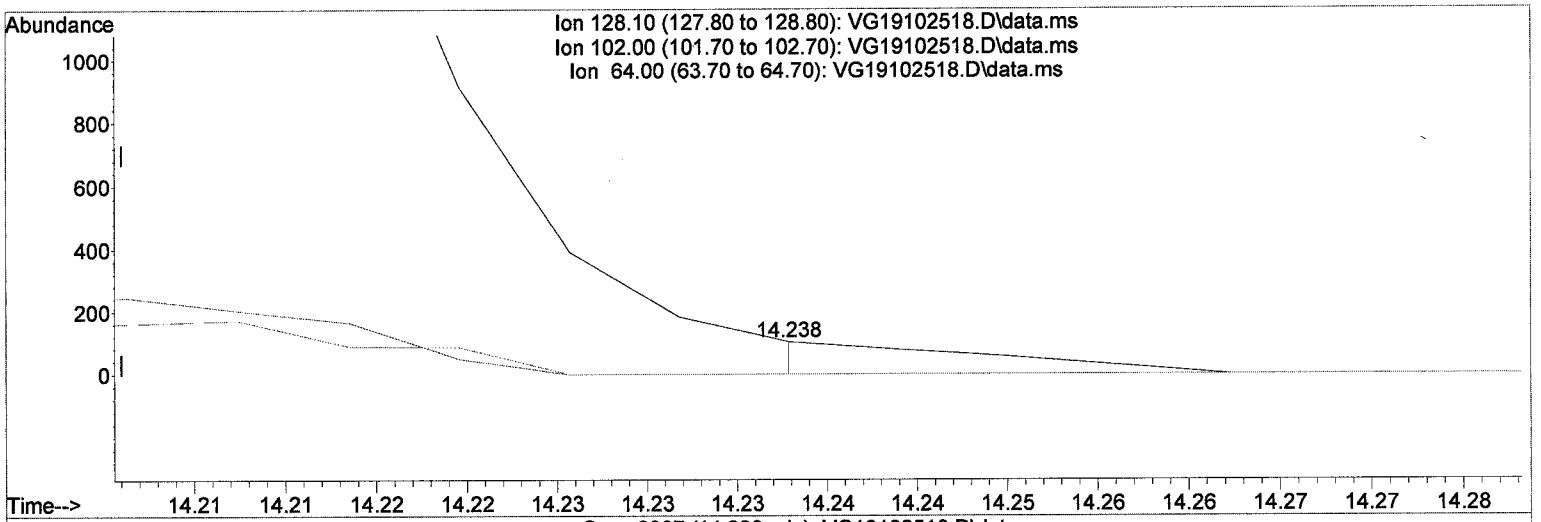
Int = 0.28

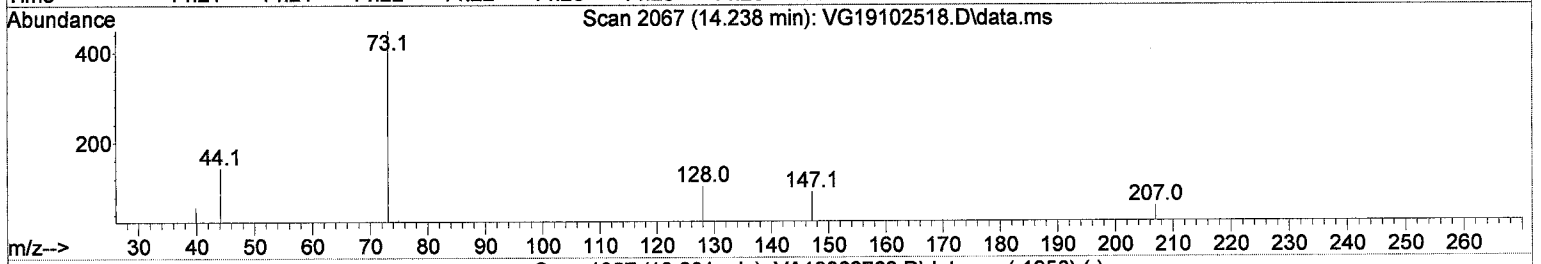
R = 9.23e-002 A*A + 2.30e+000 A - 1.26e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

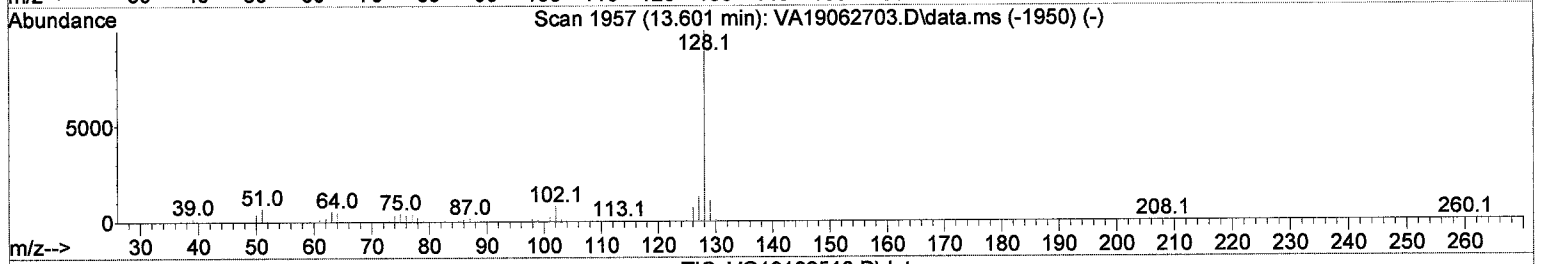
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19102518.D\data.ms

(87) Naphthalene

14.238min (+ 0.037) 0.28 ug/L m

response 58

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	0.00
64.00	6.30	0.00
0.00	0.00	0.00

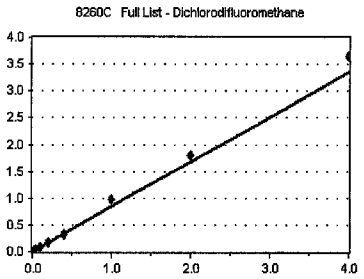
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

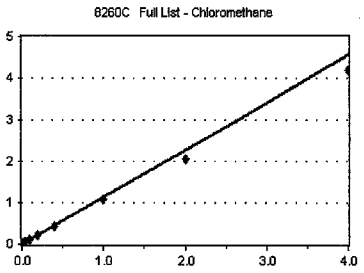


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	263	0.807	1.73
9J25051-CAL3	0.4	405	0.646	1.73
9J25051-CAL4	1	1328	0.756	1.73
9J25051-CAL5	2	2795	0.913	1.73
9J25051-CAL6	5	7404	0.879	1.73
9J25051-CAL7	10	15599	0.821	1.73
9J25051-CAL8	20	27201	0.784	1.73
9J25051-CAL9	50	91711	0.966	1.73
9J25051-CALA	100	173843	0.899	1.73
9J25051-CALB	200	310233	0.914	1.73

AVE RF **0.839** RF RSD **11.32** AVE RT **1.73**

Chloromethane

Curve Fit: **AVERAGE RF**

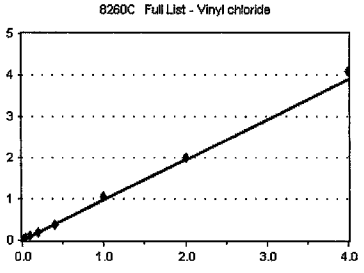


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~449~~	~~2.609~~	~~1.98~~
~~9J25051-CAL2~~	~~0.2~~	~~619~~	~~1.899~~	~~1.98~~
9J25051-CAL3	0.4	914	1.457	1.98
9J25051-CAL4	1	2027	1.154	1.98
9J25051-CAL5	2	3700	1.209	1.98
9J25051-CAL6	5	9675	1.149	1.98
9J25051-CAL7	10	20315	1.069	1.98
9J25051-CAL8	20	36903	1.064	1.99
9J25051-CAL9	50	101831	1.072	1.98
9J25051-CALA	100	198132	1.025	1.98
9J25051-CALB	200	356174	1.049	1.98

AVE RF **1.139** RF RSD **11.72** AVE RT **1.98**

Vinyl chloride

Curve Fit: **AVERAGE RF**

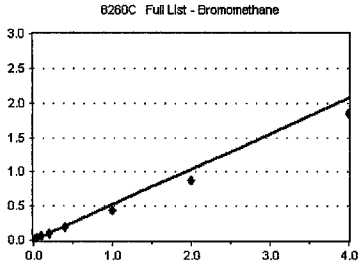


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	144	0.837	2.11
9J25051-CAL2	0.2	313	0.960	2.11
9J25051-CAL3	0.4	546	0.870	2.11
9J25051-CAL4	1	1682	0.957	2.11
9J25051-CAL5	2	3136	1.025	2.11
9J25051-CAL6	5	8598	1.021	2.11
9J25051-CAL7	10	18609	0.980	2.11
9J25051-CAL8	20	33851	0.976	2.11
9J25051-CAL9	50	99666	1.049	2.11
9J25051-CALA	100	192412	0.995	2.11
9J25051-CALB	200	347189	1.023	2.11

AVE RF **0.972** RF RSD **6.77** AVE RT **2.11**

Bromomethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~151~~	~~0.877~~	~~2.55~~
~~9J25051-CAL2~~	~~0.2~~	~~229~~	~~0.703~~	~~2.55~~
~~9J25051-CAL3~~	~~0.4~~	~~415~~	~~0.662~~	~~2.55~~
9J25051-CAL4	1	1031	0.587	2.55
9J25051-CAL5	2	1968	0.643	2.55
9J25051-CAL6	5	4925	0.585	2.55
9J25051-CAL7	10	9433	0.497	2.55
9J25051-CAL8	20	16751	0.483	2.55
9J25051-CAL9	50	41867	0.441	2.55
9J25051-CALA	100	84791	0.439	2.55
9J25051-CALB	200	157346	0.463	2.55

AVE RF **0.517** RF RSD **14.94** AVE RT **2.55**

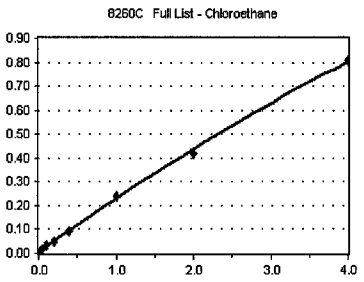
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Chloroethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

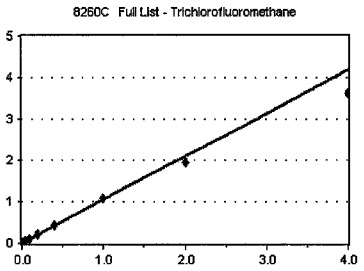


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~183~~	~~0.292~~	~~2.72~~
9J25051-CAL4	1	473	0.269	2.72
9J25051-CAL5	2	1240	0.405	2.73
9J25051-CAL6	5	2805	0.333	2.73
9J25051-CAL7	10	4599	0.242	2.72
9J25051-CAL8	20	8110	0.234	2.72
9J25051-CAL9	50	22569	0.238	2.72
9J25051-CALA	100	40673	0.210	2.72
9J25051-CALB	200	68728	0.202	2.72

AVE RF **0.267** RF RSD **25.91** AVE RT **2.72**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

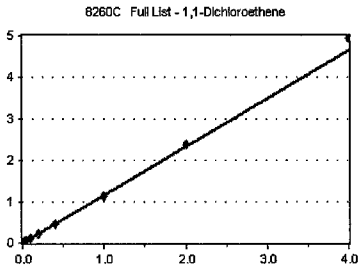


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	165	0.959	2.92
9J25051-CAL2	0.2	338	1.037	2.92
9J25051-CAL3	0.4	650	1.036	2.92
9J25051-CAL4	1	1893	1.078	2.92
9J25051-CAL5	2	3605	1.178	2.92
9J25051-CAL6	5	9548	1.134	2.92
9J25051-CAL7	10	20980	1.104	2.92
9J25051-CAL8	20	37053	1.068	2.92
9J25051-CAL9	50	101591	1.070	2.92
9J25051-CALA	100	187789	0.971	2.92
9J25051-CALB	200	306829	0.904	2.91

AVE RF **1.049** RF RSD **7.63** AVE RT **2.92**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**

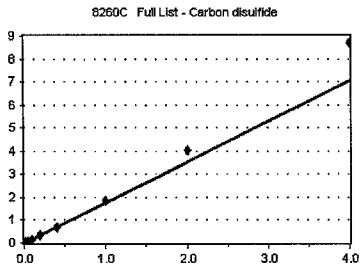


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	208	1.208	3.59
9J25051-CAL2	0.2	353	1.083	3.58
9J25051-CAL3	0.4	720	1.148	3.59
9J25051-CAL4	1	2001	1.139	3.58
9J25051-CAL5	2	3661	1.196	3.59
9J25051-CAL6	5	9956	1.182	3.59
9J25051-CAL7	10	21638	1.139	3.59
9J25051-CAL8	20	40497	1.168	3.59
9J25051-CAL9	50	106825	1.125	3.59
9J25051-CALA	100	228850	1.184	3.59
9J25051-CALB	200	419375	1.235	3.58

AVE RF **1.164** RF RSD **3.69** AVE RT **3.59**

Carbon disulfide

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	344	1.999	3.59
9J25051-CAL2	0.2	583	1.788	3.59
9J25051-CAL3	0.4	958	1.527	3.59
9J25051-CAL4	1	2616	1.489	3.59
9J25051-CAL5	2	5003	1.635	3.59
9J25051-CAL6	5	13555	1.610	3.59
9J25051-CAL7	10	30767	1.620	3.59
9J25051-CAL8	20	59881	1.727	3.59
9J25051-CAL9	50	175211	1.845	3.59
9J25051-CALA	100	390234	2.018	3.59
9J25051-CALB	200	739088	2.177	3.58

AVE RF **1.767** RF RSD **12.55** AVE RT **3.59**

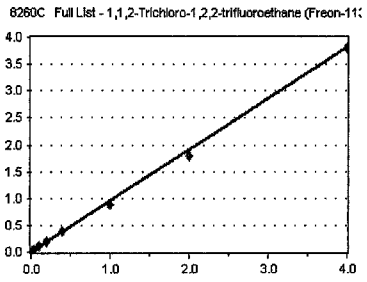
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,1,2-Trichloro-1,2,2-trifluoroetha

Curve Fit: **AVERAGE RF**

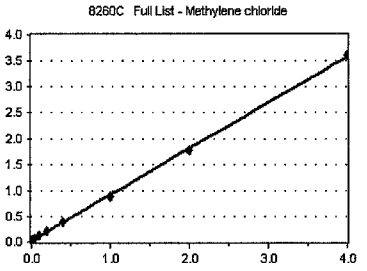


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	319	0.979	3.67
9J25051-CAL3	0.4	578	0.921	3.66
9J25051-CAL4	1	1595	0.908	3.66
9J25051-CAL5	2	3171	1.036	3.66
9J25051-CAL6	5	8623	1.024	3.66
9J25051-CAL7	10	18630	0.981	3.66
9J25051-CAL8	20	33091	0.954	3.66
9J25051-CAL9	50	84735	0.892	3.66
9J25051-CALA	100	173399	0.897	3.66
9J25051-CALB	200	322757	0.951	3.66

AVE RF **0.954** RF RSD **5.33** AVE RT **3.66**

Methylene chloride

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

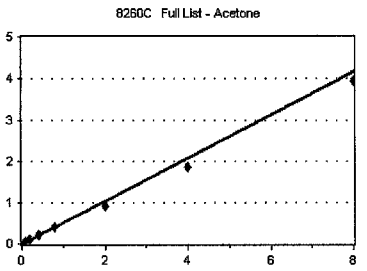


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	1819	10.568	4.32
9J25051-CAL2	0.2	1942	5.958	4.32
9J25051-CAL3	0.4	2043	3.257	4.32
9J25051-CAL4	1	3475	1.978	4.32
9J25051-CAL5	2	4760	1.556	4.32
9J25051-CAL6	5	10277	1.220	4.32
9J25051-CAL7	10	20314	1.069	4.32
9J25051-CAL8	20	34415	0.992	4.32
9J25051-CAL9	50	84220	0.887	4.32
9J25051-CALA	100	171077	0.885	4.32
9J25051-CALB	200	305732	0.901	4.32

AVE RF **2.661** RF RSD **114.13** AVE RT **4.32**

Acetone

Curve Fit: **AVERAGE RF**

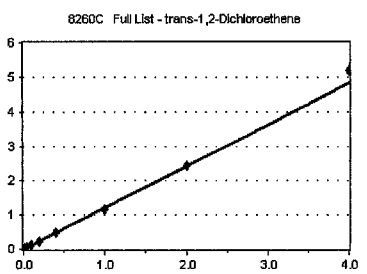


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~1032~~	~~2.998~~	~~4.41~~
~~9J25051-CAL2~~	~~0.4~~	~~1117~~	~~1.713~~	~~4.40~~
~~9J25051-CAL3~~	~~0.8~~	~~1426~~	~~1.137~~	~~4.40~~
~~9J25051-CAL4~~	~~2~~	~~2696~~	~~0.767~~	~~4.40~~
9J25051-CAL5	4	3962	0.647	4.40
9J25051-CAL6	10	9305	0.553	4.40
9J25051-CAL7	20	19598	0.516	4.40
9J25051-CAL8	40	35535	0.512	4.40
9J25051-CAL9	100	88109	0.464	4.40
9J25051-CALA	200	178985	0.463	4.40
9J25051-CALB	400	335353	0.494	4.40

AVE RF **0.521** RF RSD **12.24** AVE RT **4.40**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	216	1.255	4.51
9J25051-CAL2	0.2	349	1.071	4.51
9J25051-CAL3	0.4	721	1.149	4.51
9J25051-CAL4	1	2024	1.152	4.51
9J25051-CAL5	2	3893	1.272	4.51
9J25051-CAL6	5	10306	1.224	4.51
9J25051-CAL7	10	23032	1.212	4.51
9J25051-CAL8	20	43270	1.248	4.51
9J25051-CAL9	50	110813	1.167	4.51
9J25051-CALA	100	235876	1.220	4.51
9J25051-CALB	200	439733	1.295	4.51

AVE RF **1.206** RF RSD **5.44** AVE RT **4.51**

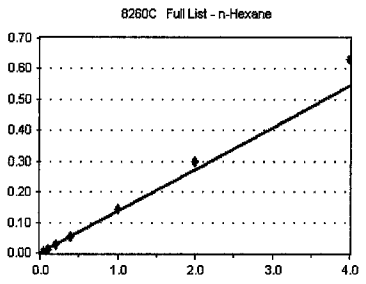
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

n-Hexane

Curve Fit: **AVERAGE RF**

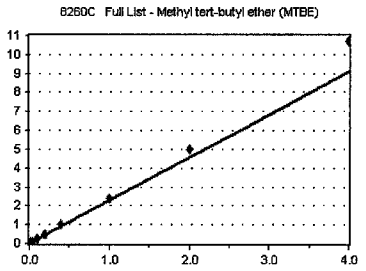


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~10~~	~~1.594~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~168~~	~~9.563~~	~~4.61~~
9J25051-CAL5	2	342	0.112	4.61
9J25051-CAL6	5	1014	0.120	4.61
9J25051-CAL7	10	2568	0.135	4.61
9J25051-CAL8	20	4737	0.137	4.61
9J25051-CAL9	50	13670	0.144	4.61
9J25051-CALA	100	29007	0.150	4.61
9J25051-CALB	200	53781	0.158	4.61

AVE RF **0.137** RF RSD **11.92** AVE RT **4.61**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

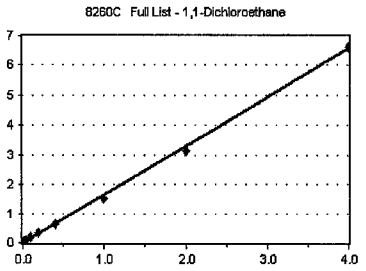


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	356	2.068	4.67
9J25051-CAL2	0.2	645	1.979	4.67
9J25051-CAL3	0.4	1243	1.982	4.67
9J25051-CAL4	1	3585	2.041	4.67
9J25051-CAL5	2	6706	2.191	4.67
9J25051-CAL6	5	19407	2.305	4.66
9J25051-CAL7	10	45758	2.409	4.66
9J25051-CAL8	20	86097	2.482	4.66
9J25051-CAL9	50	225213	2.371	4.66
9J25051-CALA	100	485505	2.511	4.66
9J25051-CALB	200	909069	2.678	4.66

AVE RF **2.274** RF RSD **10.48** AVE RT **4.66**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

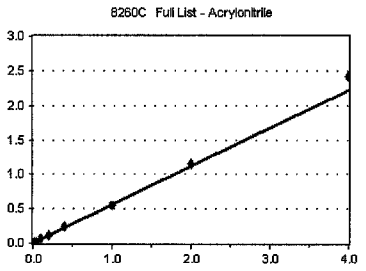


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	301	1.749	5.22
9J25051-CAL2	0.2	508	1.558	5.22
9J25051-CAL3	0.4	980	1.562	5.22
9J25051-CAL4	1	2990	1.702	5.22
9J25051-CAL5	2	5406	1.767	5.22
9J25051-CAL6	5	14473	1.719	5.22
9J25051-CAL7	10	31196	1.642	5.22
9J25051-CAL8	20	57239	1.650	5.22
9J25051-CAL9	50	143204	1.508	5.22
9J25051-CALA	100	303825	1.572	5.22
9J25051-CALB	200	561273	1.653	5.22

AVE RF **1.644** RF RSD **5.19** AVE RT **5.22**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	292	0.466	5.30
9J25051-CAL4	1	831	0.473	5.30
9J25051-CAL5	2	1734	0.567	5.30
9J25051-CAL6	5	4948	0.588	5.29
9J25051-CAL7	10	11034	0.581	5.29
9J25051-CAL8	20	21017	0.606	5.29
9J25051-CAL9	50	53096	0.559	5.28
9J25051-CALA	100	110954	0.574	5.29
9J25051-CALB	200	205093	0.604	5.29

AVE RF **0.557** RF RSD **9.39** AVE RT **5.29**

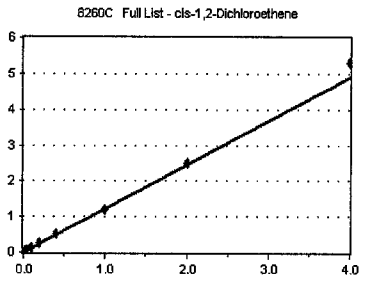
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

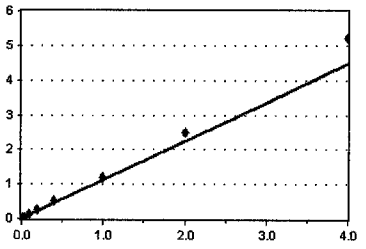


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	198	1.150	5.83
9J25051-CAL2	0.2	368	1.129	5.83
9J25051-CAL3	0.4	741	1.181	5.83
9J25051-CAL4	1	2038	1.160	5.82
9J25051-CAL5	2	3898	1.274	5.83
9J25051-CAL6	5	10725	1.274	5.83
9J25051-CAL7	10	24037	1.265	5.82
9J25051-CAL8	20	44663	1.288	5.83
9J25051-CAL9	50	112782	1.188	5.82
9J25051-CALA	100	241396	1.249	5.83
9J25051-CALB	200	451383	1.330	5.82

AVE RF **1.226** RF RSD **5.42** AVE RT **5.82**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**

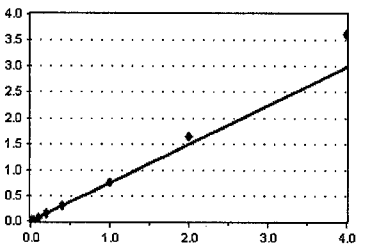


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	132	0.767	0.00
9J25051-CAL2	0.2	307	0.942	6.48
9J25051-CAL3	0.4	621	0.990	6.48
9J25051-CAL4	1	1862	1.060	6.48
9J25051-CAL5	2	3368	1.101	6.48
9J25051-CAL6	5	9935	1.180	6.48
9J25051-CAL7	10	23256	1.224	6.48
9J25051-CAL8	20	44179	1.274	6.48
9J25051-CAL9	50	113867	1.199	6.48
9J25051-CALA	100	241070	1.247	6.48
9J25051-CALB	200	443732	1.307	6.48

AVE RF **1.117** RF RSD **14.78** AVE RT **5.89**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

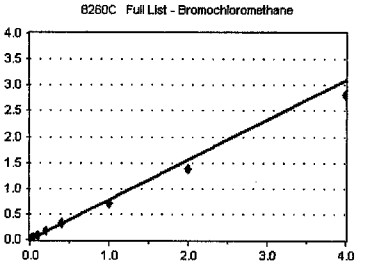


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	218	0.669	5.94
9J25051-CAL3	0.4	361	0.576	5.94
9J25051-CAL4	1	1277	0.727	5.94
9J25051-CAL5	2	2329	0.761	5.94
9J25051-CAL6	5	6301	0.748	5.94
9J25051-CAL7	10	14137	0.744	5.94
9J25051-CAL8	20	26576	0.766	5.94
9J25051-CAL9	50	71310	0.751	5.94
9J25051-CALA	100	158158	0.818	5.94
9J25051-CALB	200	307183	0.905	5.94

AVE RF **0.746** RF RSD **11.51** AVE RT **5.94**

Bromochloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	113	0.657	6.04
9J25051-CAL2	0.2	239	0.733	6.04
9J25051-CAL3	0.4	529	0.843	6.04
9J25051-CAL4	1	1485	0.845	6.04
9J25051-CAL5	2	2654	0.867	6.04
9J25051-CAL6	5	7242	0.860	6.04
9J25051-CAL7	10	15717	0.827	6.04
9J25051-CAL8	20	27767	0.801	6.04
9J25051-CAL9	50	66951	0.705	6.04
9J25051-CALA	100	134039	0.693	6.04
9J25051-CALB	200	237805	0.700	6.04

AVE RF **0.776** RF RSD **10.12** AVE RT **6.04**

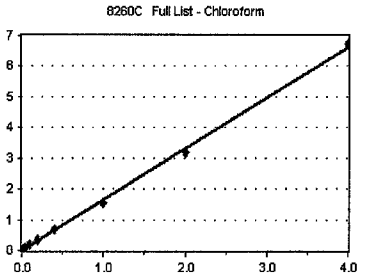
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Chloroform

Curve Fit: **AVERAGE RF**

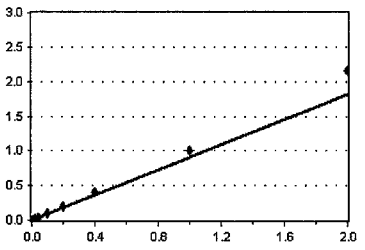


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	266	1.545	6.13
9J25051-CAL2	0.2	550	1.687	6.14
9J25051-CAL3	0.4	984	1.569	6.14
9J25051-CAL4	1	2916	1.660	6.14
9J25051-CAL5	2	5455	1.783	6.14
9J25051-CAL6	5	14639	1.738	6.14
9J25051-CAL7	10	31968	1.683	6.14
9J25051-CAL8	20	59036	1.702	6.14
9J25051-CAL9	50	146798	1.546	6.14
9J25051-CALA	100	307965	1.593	6.14
9J25051-CALB	200	570590	1.681	6.14

AVE RF **1.653** RF RSD **4.81** AVE RT **6.14**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

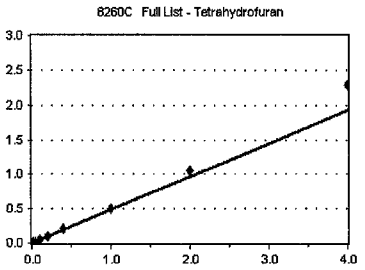


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	240	0.736	6.26
9J25051-CAL3	0.4	447	0.713	6.26
9J25051-CAL4	1	1387	0.790	6.26
9J25051-CAL5	2	2771	0.906	6.26
9J25051-CAL6	5	8051	0.956	6.26
9J25051-CAL7	10	18676	0.983	6.26
9J25051-CAL8	20	35140	1.013	6.26
9J25051-CAL9	50	95588	1.006	6.26
9J25051-CALA	100	209216	1.082	6.26
~~9J25051-CALB~~	~~200~~	~~401239~~	~~1.182~~	~~6.26~~

AVE RF **0.909** RF RSD **14.58** AVE RT **6.26**

Tetrahydrofuran

Curve Fit: **AVERAGE RF**

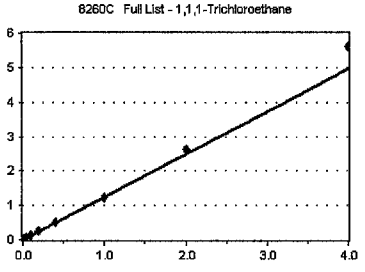


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	247	0.394	6.31
9J25051-CAL4	1	728	0.414	6.32
9J25051-CAL5	2	1403	0.458	6.31
9J25051-CAL6	5	4008	0.476	6.31
9J25051-CAL7	10	9225	0.486	6.31
9J25051-CAL8	20	18146	0.523	6.31
9J25051-CAL9	50	48009	0.505	6.30
9J25051-CALA	100	101260	0.524	6.30
9J25051-CALB	200	193536	0.570	6.30

AVE RF **0.483** RF RSD **11.49** AVE RT **6.31**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	204	1.185	6.34
9J25051-CAL2	0.2	348	1.068	6.34
9J25051-CAL3	0.4	733	1.169	6.34
9J25051-CAL4	1	2025	1.153	6.34
9J25051-CAL5	2	3963	1.295	6.34
9J25051-CAL6	5	10911	1.296	6.34
9J25051-CAL7	10	24426	1.286	6.34
9J25051-CAL8	20	44656	1.288	6.34
9J25051-CAL9	50	116783	1.230	6.34
9J25051-CALA	100	253138	1.309	6.34
9J25051-CALB	200	475459	1.401	6.34

AVE RF **1.243** RF RSD **7.48** AVE RT **6.34**

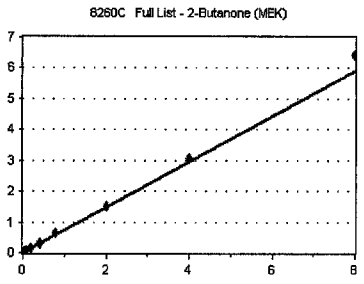
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**

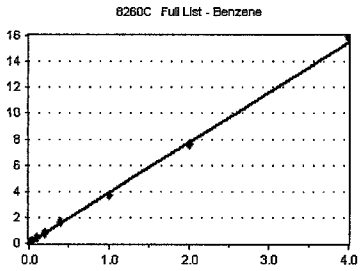


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.8	681	0.543	6.48
9J25051-CAL4	2	2324	0.661	6.48
9J25051-CAL5	4	4574	0.747	6.48
9J25051-CAL6	10	13080	0.777	6.48
9J25051-CAL7	20	29709	0.782	6.48
9J25051-CAL8	40	56191	0.810	6.48
9J25051-CAL9	100	143270	0.754	6.47
9J25051-CALA	200	294469	0.762	6.47
9J25051-CALB	400	545000	0.803	6.47

AVE RF **0.738** RF RSD **11.51** AVE RT **6.48**

Benzene

Curve Fit: **AVERAGE RF**

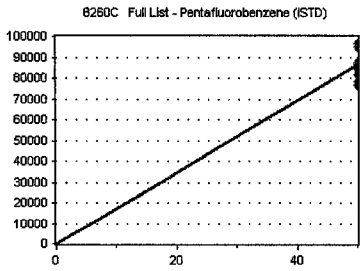


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	628	3.649	6.76
9J25051-CAL2	0.2	1235	3.789	6.75
9J25051-CAL3	0.4	2314	3.689	6.75
9J25051-CAL4	1	6507	3.704	6.75
9J25051-CAL5	2	12371	4.043	6.76
9J25051-CAL6	5	34545	4.102	6.76
9J25051-CAL7	10	76881	4.047	6.75
9J25051-CAL8	20	140134	4.040	6.75
9J25051-CAL9	50	351675	3.703	6.75
9J25051-CALA	100	738577	3.820	6.75
9J25051-CALB	200	1348023	3.971	6.75

AVE RF **3.869** RF RSD **4.48** AVE RT **6.75**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

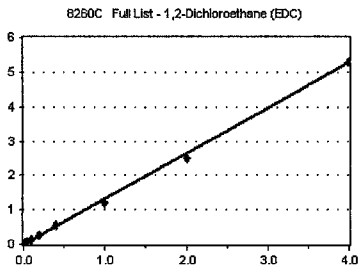


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	408	1.252	6.99
9J25051-CAL3	0.4	804	1.282	6.98
9J25051-CAL4	1	2322	1.322	6.98
9J25051-CAL5	2	4512	1.474	6.98
9J25051-CAL6	5	11793	1.400	6.98
9J25051-CAL7	10	25491	1.342	6.98
9J25051-CAL8	20	46494	1.341	6.98
9J25051-CAL9	50	115183	1.213	6.98
9J25051-CALA	100	242443	1.254	6.98
9J25051-CALB	200	450038	1.326	6.98

AVE RF **1.320** RF RSD **5.83** AVE RT **6.98**

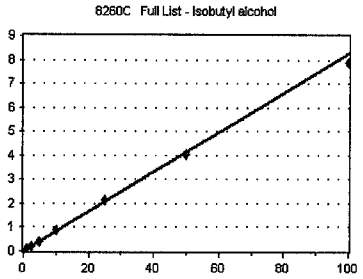
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Isobutyl alcohol

Curve Fit: **AVERAGE RF**

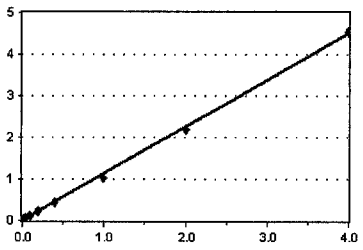


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~5~~	~~506~~	~~6.209~~	~~7.05~~
~~9J25051-CAL3~~	~~10~~	~~1036~~	~~0.066~~	~~7.05~~
~~9J25051-CAL4~~	~~25~~	~~3182~~	~~7.245~~	~~7.04~~
9J25051-CAL5	50	6444	8.423	7.04
9J25051-CAL6	125	17343	8.238	7.04
9J25051-CAL7	250	38810	8.172	7.04
9J25051-CAL8	500	74881	8.636	7.04
9J25051-CAL9	1250	202120	8.513	7.04
9J25051-CALA	2500	391326	0.081	7.04
9J25051-CALB	5000	669707	7.891	7.04

AVE RF **8.281** RF RSD **3.12** AVE RT **7.04**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**

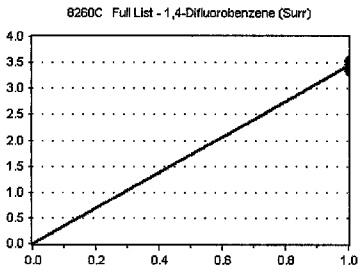


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	203	1.179	7.40
9J25051-CAL2	0.2	383	1.175	7.40
9J25051-CAL3	0.4	739	1.178	7.40
9J25051-CAL4	1	1961	1.116	7.41
9J25051-CAL5	2	3521	1.151	7.41
9J25051-CAL6	5	9556	1.135	7.40
9J25051-CAL7	10	21560	1.135	7.41
9J25051-CAL8	20	37986	1.095	7.41
9J25051-CAL9	50	98591	1.038	7.40
9J25051-CALA	100	211347	1.093	7.41
9J25051-CALB	200	384777	1.133	7.41

AVE RF **1.130** RF RSD **3.80** AVE RT **7.41**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

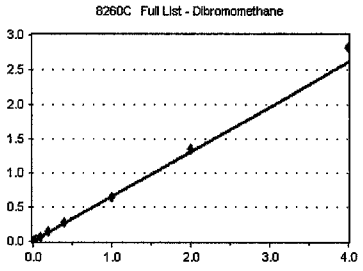


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	50	291439	3.361	7.45
9J25051-CAL9	50	318518	3.354	7.45
9J25051-CALA	50	326047	3.373	7.45
9J25051-CALB	50	283209	3.337	7.45

AVE RF **3.435** RF RSD **2.40** AVE RT **7.45**

Dibromomethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~64~~	~~0.372~~	~~0.00~~
9J25051-CAL2	0.2	165	0.506	7.89
9J25051-CAL3	0.4	364	0.580	7.89
9J25051-CAL4	1	1159	0.660	7.88
9J25051-CAL5	2	2084	0.681	7.89
9J25051-CAL6	5	5847	0.694	7.88
9J25051-CAL7	10	13281	0.699	7.88
9J25051-CAL8	20	23918	0.690	7.89
9J25051-CAL9	50	61052	0.643	7.88
9J25051-CALA	100	129476	0.670	7.88
9J25051-CALB	200	239485	0.705	7.88

AVE RF **0.653** RF RSD **9.69** AVE RT **7.88**

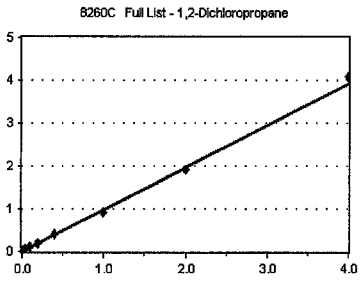
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

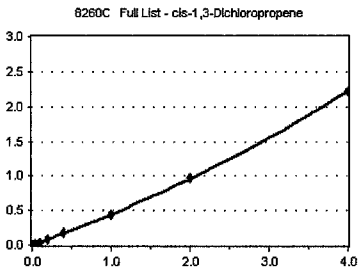


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	158	0.918	8.00
9J25051-CAL2	0.2	327	1.003	8.00
9J25051-CAL3	0.4	585	0.933	7.99
9J25051-CAL4	1	1670	0.951	8.00
9J25051-CAL5	2	3229	1.055	8.00
9J25051-CAL6	5	8575	1.018	8.00
9J25051-CAL7	10	19019	1.001	8.00
9J25051-CAL8	20	35146	1.013	8.00
9J25051-CAL9	50	87924	0.926	8.00
9J25051-CALA	100	186244	0.963	8.00
9J25051-CALB	200	345874	1.019	8.00

AVE RF **0.982** RF RSD **4.65** AVE RT **8.00**

cis-1,3-Dichloropropene

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

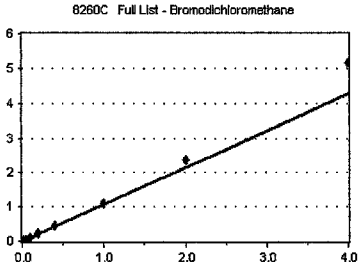


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	120	0.228	0.00
9J25051-CAL2	0.2	237	0.239	8.80
9J25051-CAL3	0.4	512	0.270	8.81
9J25051-CAL4	1	1512	0.284	8.80
9J25051-CAL5	2	3075	0.336	8.80
9J25051-CAL6	5	8925	0.358	8.80
9J25051-CAL7	10	22428	0.400	8.80
9J25051-CAL8	20	44754	0.442	8.80
9J25051-CAL9	50	122277	0.442	8.79
9J25051-CALA	100	272691	0.486	8.79
9J25051-CALB	200	524872	0.553	8.80

AVE RF **0.367** RF RSD **29.10** AVE RT **8.00**

Bromodichloromethane

Curve Fit: **AVERAGE RF**

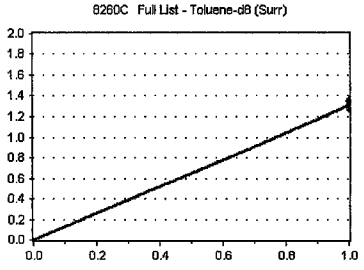


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	281	0.862	8.07
9J25051-CAL3	0.4	561	0.894	8.08
9J25051-CAL4	1	1774	1.010	8.08
9J25051-CAL5	2	3272	1.069	8.07
9J25051-CAL6	5	9117	1.083	8.08
9J25051-CAL7	10	20600	1.084	8.08
9J25051-CAL8	20	38970	1.124	8.08
9J25051-CAL9	50	103483	1.090	8.08
9J25051-CALA	100	228141	1.180	8.08
9J25051-CALB	200	436572	1.286	8.08

AVE RF **1.068** RF RSD **11.68** AVE RT **8.08**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	340973	1.297	8.99
9J25051-CAL2	50	320375	1.291	8.99
9J25051-CAL3	50	309475	1.307	8.99
9J25051-CAL4	50	348152	1.306	8.99
9J25051-CAL5	50	296218	1.295	8.99
9J25051-CAL6	50	321703	1.291	8.99
9J25051-CAL7	50	362985	1.295	8.99
9J25051-CAL8	50	329731	1.302	8.99
9J25051-CAL9	50	358348	1.294	8.99
9J25051-CALA	50	367797	1.310	8.99
9J25051-CALB	50	320536	1.352	9.00

AVE RF **1.304** RF RSD **1.32** AVE RT **8.99**

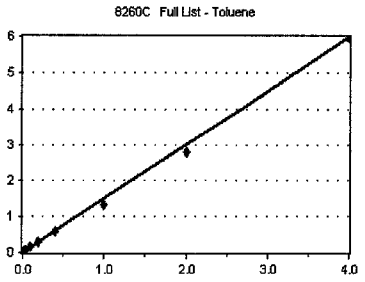
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Toluene

Curve Fit: **AVERAGE RF**

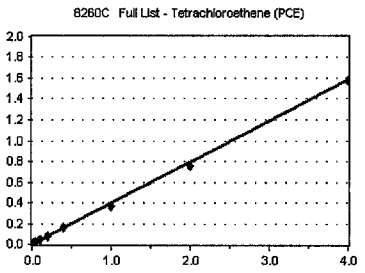


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	991	1.884	9.05
9J25051-CAL2	0.2	1534	1.545	9.05
9J25051-CAL3	0.4	2717	1.435	9.05
9J25051-CAL4	1	7737	1.451	9.04
9J25051-CAL5	2	13799	1.508	9.04
9J25051-CAL6	5	37021	1.486	9.04
9J25051-CAL7	10	81964	1.463	9.04
9J25051-CAL8	20	148631	1.467	9.04
9J25051-CAL9	50	371837	1.343	9.04
9J25051-CALA	100	781810	1.392	9.04
9J25051-CALB	200	1414184	1.491	9.04

AVE RF **1.497** RF RSD **9.34** AVE RT **9.05**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

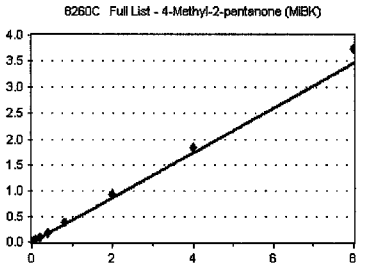


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	215	0.409	9.44
9J25051-CAL2	0.2	428	0.431	9.43
9J25051-CAL3	0.4	724	0.382	9.44
9J25051-CAL4	1	2028	0.380	9.44
9J25051-CAL5	2	3761	0.411	9.43
9J25051-CAL6	5	10200	0.409	9.43
9J25051-CAL7	10	22594	0.403	9.43
9J25051-CAL8	20	40323	0.398	9.43
9J25051-CAL9	50	102842	0.371	9.43
9J25051-CALA	100	212731	0.379	9.43
9J25051-CALB	200	374693	0.395	9.43

AVE RF **0.397** RF RSD **4.49** AVE RT **9.44**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**

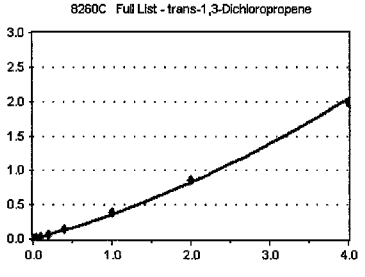


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~316~~	~~0.300~~	~~9.45~~
~~9J25051-CAL2~~	~~0.4~~	~~661~~	~~0.333~~	~~9.44~~
9J25051-CAL3	0.8	1338	0.353	9.45
9J25051-CAL4	2	3944	0.370	9.44
9J25051-CAL5	4	7750	0.424	9.44
9J25051-CAL6	10	21651	0.434	9.44
9J25051-CAL7	20	50335	0.449	9.44
9J25051-CAL8	40	98178	0.484	9.43
9J25051-CAL9	100	254574	0.460	9.43
9J25051-CALA	200	518207	0.461	9.43
9J25051-CALB	400	885884	0.467	9.43

AVE RF **0.434** RF RSD **10.32** AVE RT **9.44**

trans-1,3-Dichloropropene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	211	0.213	9.48
9J25051-CAL3	0.4	400	0.211	9.48
9J25051-CAL4	1	1296	0.243	9.47
9J25051-CAL5	2	2554	0.279	9.47
9J25051-CAL6	5	7875	0.316	9.47
9J25051-CAL7	10	19307	0.345	9.47
9J25051-CAL8	20	37931	0.374	9.47
9J25051-CAL9	50	107286	0.387	9.47
9J25051-CALA	100	242090	0.431	9.47
9J25051-CALB	200	467620	0.493	9.47

AVE RF **0.329** RF RSD **28.73** AVE RT **9.47**

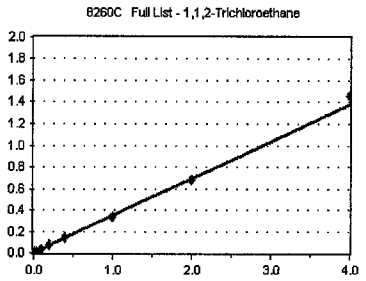
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

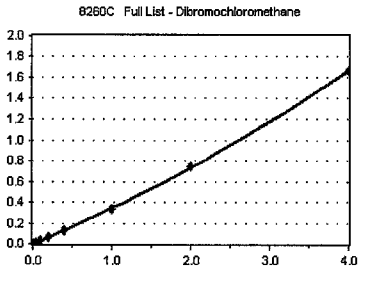


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	163	0.310	9.63
9J25051-CAL2	0.2	312	0.314	9.64
9J25051-CAL3	0.4	608	0.321	9.62
9J25051-CAL4	1	1761	0.330	9.62
9J25051-CAL5	2	3489	0.381	9.63
9J25051-CAL6	5	9239	0.371	9.62
9J25051-CAL7	10	20512	0.366	9.62
9J25051-CAL8	20	36821	0.363	9.62
9J25051-CAL9	50	91931	0.332	9.62
9J25051-CALA	100	191781	0.341	9.62
9J25051-CALB	200	346944	0.366	9.62

AVE RF **0.345** RF RSD **7.30** AVE RT **9.63**

Dibromochloromethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

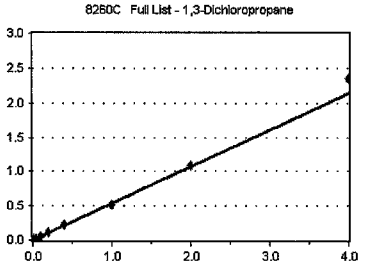


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~42~~	~~7.985~~	~~0.00~~
9J25051-CAL2	0.2	181	0.182	9.79
9J25051-CAL3	0.4	425	0.224	9.79
9J25051-CAL4	1	1298	0.243	9.79
9J25051-CAL5	2	2572	0.281	9.79
9J25051-CAL6	5	7461	0.299	9.79
9J25051-CAL7	10	17581	0.314	9.79
9J25051-CAL8	20	33811	0.334	9.79
9J25051-CAL9	50	93162	0.336	9.79
9J25051-CALA	100	208257	0.371	9.79
9J25051-CALB	200	394459	0.416	9.79

AVE RF **0.300** RF RSD **23.35** AVE RT **9.79**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

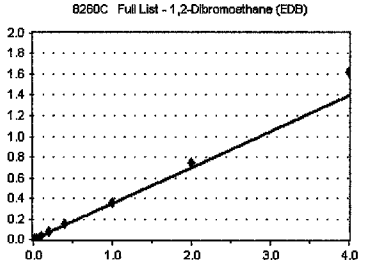


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	265	0.504	9.88
9J25051-CAL2	0.2	464	0.467	9.88
9J25051-CAL3	0.4	881	0.465	9.88
9J25051-CAL4	1	2761	0.518	9.88
9J25051-CAL5	2	5172	0.565	9.88
9J25051-CAL6	5	14110	0.566	9.88
9J25051-CAL7	10	31655	0.565	9.88
9J25051-CAL8	20	57259	0.565	9.88
9J25051-CAL9	50	144038	0.520	9.88
9J25051-CALA	100	305571	0.544	9.88
9J25051-CALB	200	557771	0.588	9.88

AVE RF **0.533** RF RSD **7.84** AVE RT **9.88**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	286	0.288	10.01
9J25051-CAL3	0.4	559	0.295	10.01
9J25051-CAL4	1	1647	0.309	10.01
9J25051-CAL5	2	3150	0.344	10.01
9J25051-CAL6	5	9131	0.366	10.01
9J25051-CAL7	10	20378	0.364	10.01
9J25051-CAL8	20	38181	0.377	10.00
9J25051-CAL9	50	98185	0.355	10.00
9J25051-CALA	100	208836	0.372	10.00
9J25051-CALB	200	384667	0.406	10.01

AVE RF **0.348** RF RSD **11.05** AVE RT **10.01**

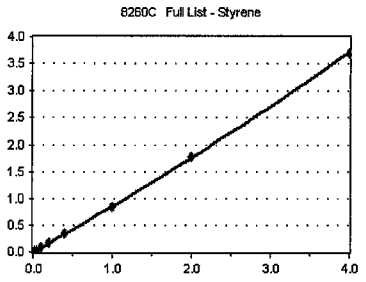
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Styrene

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

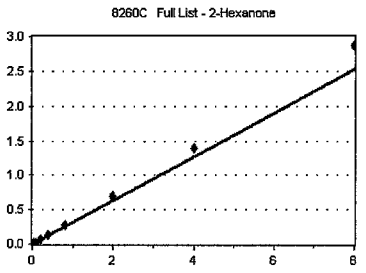


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	224	0.426	0.00
9J25051-CAL2	0.2	473	0.477	11.02
9J25051-CAL3	0.4	899	0.475	11.02
9J25051-CAL4	1	2917	0.547	11.01
9J25051-CAL5	2	6029	0.659	11.01
9J25051-CAL6	5	19241	0.772	11.01
9J25051-CAL7	10	46210	0.825	11.01
9J25051-CAL8	20	88408	0.873	11.01
9J25051-CAL9	50	234659	0.847	11.01
9J25051-CALA	100	496713	0.884	11.01
9J25051-CALB	200	878618	0.926	11.01

AVE RF **0.701** RF RSD **27.01** AVE RT **10.01**

2-Hexanone

Curve Fit: **AVERAGE RF**

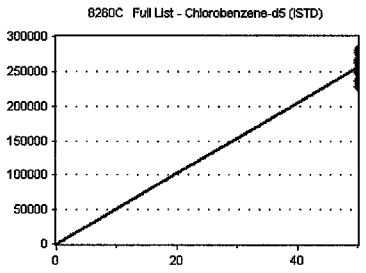


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~303~~	~~0.153~~	~~10.22~~
~~9J25051-CAL3~~	~~0.8~~	~~717~~	~~0.189~~	~~10.21~~
9J25051-CAL4	2	2488	0.233	10.21
9J25051-CAL5	4	5003	0.273	10.21
9J25051-CAL6	10	14919	0.299	10.21
9J25051-CAL7	20	35393	0.316	10.21
9J25051-CAL8	40	71710	0.354	10.21
9J25051-CAL9	100	193352	0.349	10.21
9J25051-CALA	200	392003	0.349	10.21
9J25051-CALB	400	679397	0.358	10.21

AVE RF **0.316** RF RSD **14.29** AVE RT **10.21**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

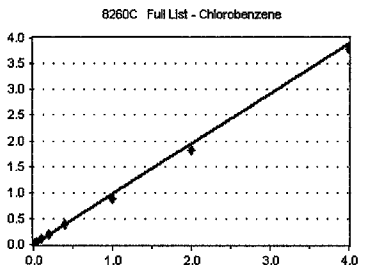


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

Chlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	553	1.051	10.47
9J25051-CAL2	0.2	977	0.984	10.46
9J25051-CAL3	0.4	1806	0.954	10.47
9J25051-CAL4	1	5325	0.999	10.47
9J25051-CAL5	2	9394	1.027	10.46
9J25051-CAL6	5	25125	1.008	10.47
9J25051-CAL7	10	54921	0.980	10.47
9J25051-CAL8	20	98998	0.977	10.47
9J25051-CAL9	50	247035	0.892	10.47
9J25051-CALA	100	511165	0.910	10.47
9J25051-CALB	200	897555	0.946	10.47

AVE RF **0.975** RF RSD **4.88** AVE RT **10.47**

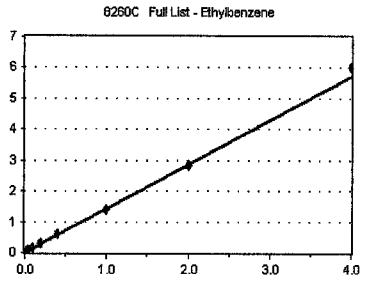
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Ethylbenzene

Curve Fit: **AVERAGE RF**

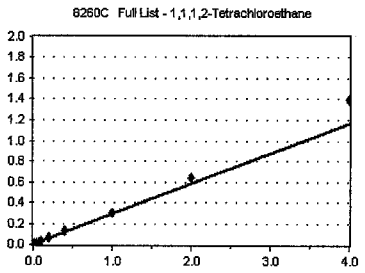


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	756	1.437	10.49
9J25051-CAL2	0.2	1384	1.394	10.49
9J25051-CAL3	0.4	2478	1.308	10.49
9J25051-CAL4	1	7230	1.356	10.49
9J25051-CAL5	2	13598	1.486	10.49
9J25051-CAL6	5	37238	1.494	10.49
9J25051-CAL7	10	82267	1.468	10.49
9J25051-CAL8	20	150206	1.482	10.49
9J25051-CAL9	50	384473	1.388	10.49
9J25051-CALA	100	801122	1.426	10.49
9J25051-CALB	200	1424477	1.502	10.49

AVE RF **1.431** RF RSD **4.42** AVE RT **10.49**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

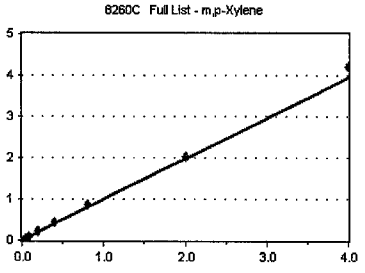


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	228	0.230	10.53
9J25051-CAL3	0.4	486	0.257	10.53
9J25051-CAL4	1	1443	0.271	10.52
9J25051-CAL5	2	2578	0.282	10.53
9J25051-CAL6	5	7365	0.296	10.53
9J25051-CAL7	10	17260	0.308	10.53
9J25051-CAL8	20	31571	0.312	10.53
9J25051-CAL9	50	84064	0.304	10.53
9J25051-CALA	100	180354	0.321	10.53
9J25051-CALB	200	330493	0.348	10.53

AVE RF **0.293** RF RSD **11.68** AVE RT **10.52**

m,p-Xylene

Curve Fit: **AVERAGE RF**

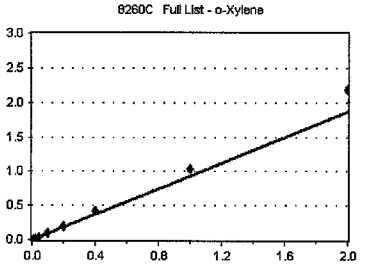


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~920~~	~~0.875~~	~~10.62~~
~~9J25051-CAL2~~	~~0.4~~	~~1670~~	~~0.841~~	~~10.62~~
9J25051-CAL3	0.8	3107	0.820	10.62
9J25051-CAL4	2	9040	0.848	10.61
9J25051-CAL5	4	17637	0.964	10.62
9J25051-CAL6	10	51157	1.027	10.61
9J25051-CAL7	20	117957	1.052	10.61
9J25051-CAL8	40	220983	1.090	10.61
9J25051-CAL9	100	564636	1.020	10.61
9J25051-CALA	200	1184446	1.054	10.61
~~9J25051-CALB~~	~~400~~	~~2061112~~	~~1.087~~	~~10.61~~

AVE RF **0.984** RF RSD **10.15** AVE RT **10.61**

o-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~378~~	~~0.719~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~748~~	~~0.754~~	~~10.97~~
9J25051-CAL3	0.4	1387	0.732	10.97
9J25051-CAL4	1	4144	0.777	10.97
9J25051-CAL5	2	7805	0.853	10.97
9J25051-CAL6	5	23185	0.930	10.97
9J25051-CAL7	10	54341	0.970	10.97
9J25051-CAL8	20	107127	1.057	10.97
9J25051-CAL9	50	288059	1.040	10.97
9J25051-CALA	100	616887	1.098	10.97
~~9J25051-CALB~~	~~200~~	~~1108926~~	~~1.169~~	~~10.97~~

AVE RF **0.932** RF RSD **14.42** AVE RT **10.97**

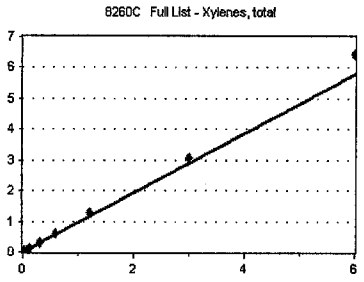
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Xylenes, total

Curve Fit: **AVERAGE RF**

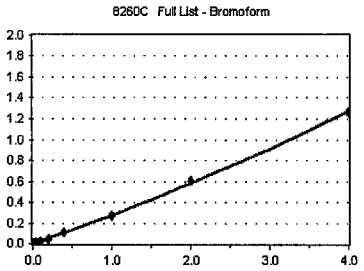


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.3~~	~~1298~~	~~0.823~~	~~10.62~~
~~9J25051-CAL2~~	~~0.6~~	~~2418~~	~~0.812~~	~~10.97~~
9J25051-CAL3	1.2	4494	0.791	10.97
9J25051-CAL4	3	13184	0.824	10.97
9J25051-CAL5	6	25442	0.927	10.97
9J25051-CAL6	15	74342	0.994	10.97
9J25051-CAL7	30	172298	1.025	10.97
9J25051-CAL8	60	328110	1.079	10.97
9J25051-CAL9	150	852695	1.026	10.97
9J25051-CALA	300	1801333	1.069	10.97
~~9J25051-CALB~~	~~600~~	~~3170038~~	~~1.114~~	~~10.97~~

AVE RF **0.967** RF RSD **11.31** AVE RT **10.97**

Bromoform

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

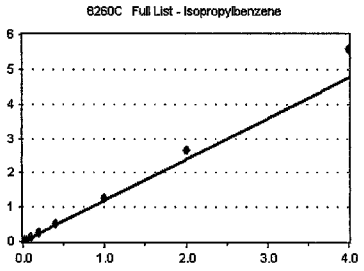


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	134	0.135	11.04
9J25051-CAL3	0.4	316	0.167	11.04
9J25051-CAL4	1	931	0.175	11.04
9J25051-CAL5	2	1883	0.206	11.04
9J25051-CAL6	5	5513	0.221	11.04
9J25051-CAL7	10	13109	0.234	11.04
9J25051-CAL8	20	26373	0.260	11.04
9J25051-CAL9	50	75820	0.274	11.04
9J25051-CALA	100	169206	0.301	11.04
9J25051-CALB	200	299993	0.316	11.04

AVE RF **0.229** RF RSD **26.09** AVE RT **11.04**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

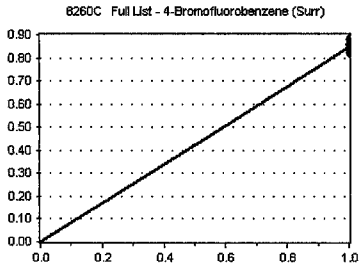


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~392~~	~~0.745~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~829~~	~~0.835~~	~~11.22~~
~~9J25051-CAL3~~	~~0.4~~	~~1525~~	~~0.805~~	~~11.22~~
9J25051-CAL4	1	4739	0.889	11.22
9J25051-CAL5	2	9314	1.018	11.22
9J25051-CAL6	5	28750	1.154	11.22
9J25051-CAL7	10	68642	1.225	11.22
9J25051-CAL8	20	131792	1.301	11.22
9J25051-CAL9	50	349766	1.263	11.22
9J25051-CALA	100	744896	1.326	11.22
9J25051-CALB	200	1319857	1.392	11.22

AVE RF **1.196** RF RSD **14.11** AVE RT **11.22**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	110058	0.854	11.45
9J25051-CAL2	50	103556	0.843	11.45
9J25051-CAL3	50	97363	0.833	11.45
9J25051-CAL4	50	112252	0.832	11.45
9J25051-CAL5	50	93974	0.822	11.45
9J25051-CAL6	50	105208	0.837	11.45
9J25051-CAL7	50	119477	0.842	11.45
9J25051-CAL8	50	107703	0.837	11.45
9J25051-CAL9	50	121264	0.846	11.45
9J25051-CALA	50	124225	0.859	11.45
9J25051-CALB	50	102899	0.882	11.45

AVE RF **0.844** RF RSD **1.92** AVE RT **11.45**

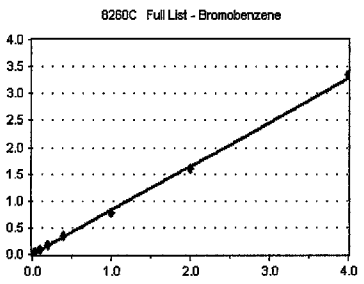
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Bromobenzene

Curve Fit: **AVERAGE RF**

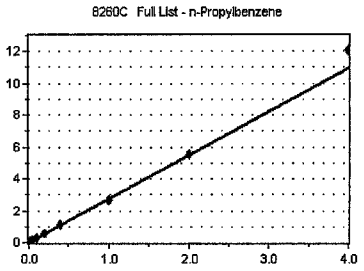


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	212	0.823	11.53
9J25051-CAL2	0.2	389	0.792	11.53
9J25051-CAL3	0.4	732	0.783	11.53
9J25051-CAL4	1	2221	0.824	11.53
9J25051-CAL5	2	3862	0.844	11.53
9J25051-CAL6	5	10809	0.860	11.53
9J25051-CAL7	10	23997	0.846	11.53
9J25051-CAL8	20	43790	0.851	11.53
9J25051-CAL9	50	111875	0.781	11.53
9J25051-CALA	100	230853	0.798	11.53
9J25051-CALB	200	391986	0.840	11.53

AVE RF **0.822** RF RSD **3.52** AVE RT **11.53**

n-Propylbenzene

Curve Fit: **AVERAGE RF**

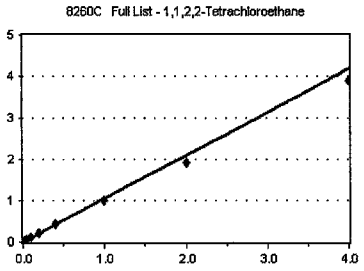


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	703	2.728	11.54
9J25051-CAL2	0.2	1268	2.581	11.54
9J25051-CAL3	0.4	2261	2.417	11.54
9J25051-CAL4	1	6998	2.595	11.54
9J25051-CAL5	2	13043	2.852	11.54
9J25051-CAL6	5	35745	2.843	11.54
9J25051-CAL7	10	80330	2.831	11.54
9J25051-CAL8	20	148949	2.894	11.54
9J25051-CAL9	50	381465	2.661	11.54
9J25051-CALA	100	803869	2.780	11.54
9J25051-CALB	200	1412751	3.027	11.54

AVE RF **2.746** RF RSD **6.26** AVE RT **11.54**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

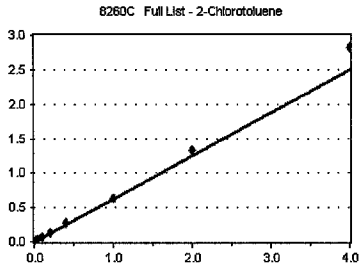


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	251	0.974	11.60
9J25051-CAL2	0.2	488	0.993	11.60
9J25051-CAL3	0.4	967	1.034	11.60
9J25051-CAL4	1	2820	1.046	11.60
9J25051-CAL5	2	5527	1.209	11.60
9J25051-CAL6	5	14004	1.114	11.60
9J25051-CAL7	10	31762	1.119	11.60
9J25051-CAL8	20	56394	1.096	11.60
9J25051-CAL9	50	142222	0.992	11.60
9J25051-CALA	100	276789	0.957	11.60
9J25051-CALB	200	454028	0.973	11.60

AVE RF **1.046** RF RSD **7.59** AVE RT **11.60**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~96~~	~~0.373~~	~~0.00~~
9J25051-CAL2	0.2	243	0.495	11.67
9J25051-CAL3	0.4	481	0.514	11.67
9J25051-CAL4	1	1659	0.615	11.67
9J25051-CAL5	2	2896	0.633	11.67
9J25051-CAL6	5	8212	0.653	11.67
9J25051-CAL7	10	18857	0.665	11.67
9J25051-CAL8	20	34740	0.675	11.67
9J25051-CAL9	50	90597	0.632	11.67
9J25051-CALA	100	191643	0.663	11.67
9J25051-CALB	200	329426	0.706	11.67

AVE RF **0.625** RF RSD **10.97** AVE RT **11.67**

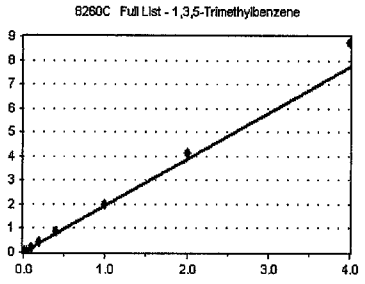
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

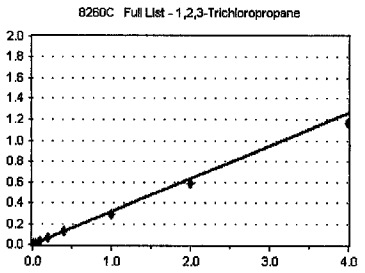


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~347~~	~~1.347~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~719~~	~~1.464~~	~~11.69~~
9J25051-CAL3	0.4	1388	1.484	11.69
9J25051-CAL4	1	4147	1.538	11.69
9J25051-CAL5	2	8326	1.821	11.69
9J25051-CAL6	5	25171	2.002	11.69
9J25051-CAL7	10	60626	2.137	11.69
9J25051-CAL8	20	112417	2.184	11.69
9J25051-CAL9	50	287885	2.009	11.69
9J25051-CALA	100	599123	2.072	11.69
9J25051-CALB	200	1024588	2.195	11.69

AVE RF **1.938** RF RSD **13.82** AVE RT **11.69**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**

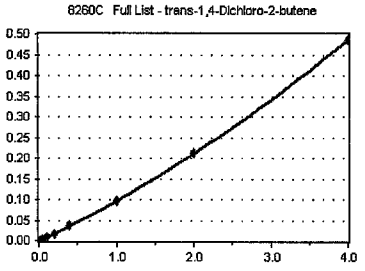


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	154	0.313	11.71
9J25051-CAL3	0.4	290	0.310	11.70
9J25051-CAL4	1	889	0.330	11.71
9J25051-CAL5	2	1624	0.355	11.71
9J25051-CAL6	5	4250	0.338	11.71
9J25051-CAL7	10	9293	0.328	11.71
9J25051-CAL8	20	16623	0.323	11.71
9J25051-CAL9	50	42315	0.295	11.71
9J25051-CALA	100	84503	0.292	11.71
9J25051-CALB	200	135722	0.291	11.71

AVE RF **0.317** RF RSD **6.67** AVE RT **11.71**

trans-1,4-Dichloro-2-butene

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

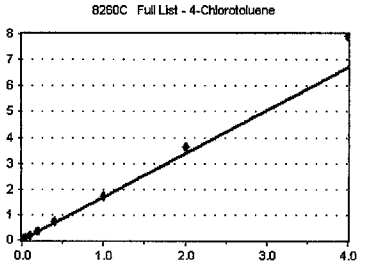


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	151	5.599	11.73
9J25051-CAL5	2	314	6.866	11.74
9J25051-CAL6	5	920	0.073	11.74
9J25051-CAL7	10	2243	7.905	11.74
9J25051-CAL8	20	4774	9.275	11.74
9J25051-CAL9	50	13756	9.597	11.73
9J25051-CALA	100	31040	0.107	11.73
9J25051-CALB	200	56671	0.121	11.73

AVE RF **8.679** RF RSD **24.88** AVE RT **11.74**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	380	1.475	11.80
9J25051-CAL2	0.2	709	1.443	11.80
9J25051-CAL3	0.4	1263	1.350	11.80
9J25051-CAL4	1	4167	1.545	11.79
9J25051-CAL5	2	7775	1.700	11.79
9J25051-CAL6	5	22730	1.808	11.79
9J25051-CAL7	10	51031	1.799	11.79
9J25051-CAL8	20	94606	1.838	11.79
9J25051-CAL9	50	246655	1.721	11.79
9J25051-CALA	100	522158	1.806	11.79
9J25051-CALB	200	925899	1.984	11.79

AVE RF **1.679** RF RSD **11.77** AVE RT **11.79**

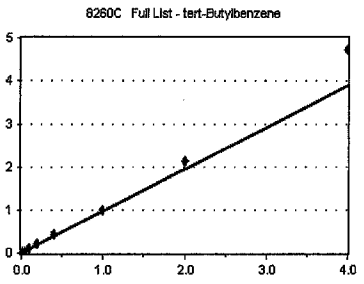
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

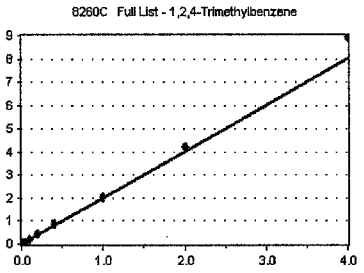


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~160~~	~~0.621~~	~~0.00~~
9J25051-CAL2	0.2	398	0.810	11.93
9J25051-CAL3	0.4	728	0.778	11.93
9J25051-CAL4	1	2301	0.853	11.93
9J25051-CAL5	2	4363	0.954	11.93
9J25051-CAL6	5	12557	0.999	11.93
9J25051-CAL7	10	28831	1.016	11.93
9J25051-CAL8	20	54853	1.066	11.93
9J25051-CAL9	50	144949	1.011	11.93
9J25051-CALA	100	309424	1.070	11.93
9J25051-CALB	200	552713	1.184	11.93

AVE RF **0.974** RF RSD **13.06** AVE RT **11.93**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**

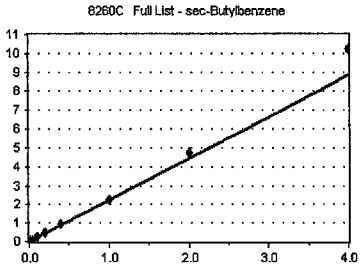


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~385~~	~~1.494~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~700~~	~~1.425~~	~~11.98~~
~~9J25051-CAL3~~	~~0.4~~	~~1235~~	~~1.320~~	~~11.98~~
9J25051-CAL4	1	3979	1.475	11.98
9J25051-CAL5	2	7870	1.721	11.98
9J25051-CAL6	5	25589	2.035	11.98
9J25051-CAL7	10	62151	2.190	11.98
9J25051-CAL8	20	115215	2.238	11.98
9J25051-CAL9	50	293788	2.050	11.98
9J25051-CALA	100	612078	2.117	11.98
9J25051-CALB	200	1045289	2.240	11.98

AVE RF **2.008** RF RSD **13.58** AVE RT **11.98**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

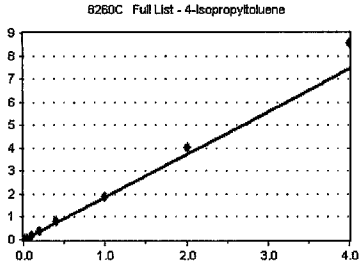


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~435~~	~~1.688~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~773~~	~~1.574~~	~~12.07~~
9J25051-CAL3	0.4	1554	1.661	12.06
9J25051-CAL4	1	5081	1.884	12.06
9J25051-CAL5	2	9664	2.113	12.06
9J25051-CAL6	5	29229	2.325	12.06
9J25051-CAL7	10	66926	2.359	12.06
9J25051-CAL8	20	124647	2.422	12.06
9J25051-CAL9	50	321962	2.246	12.06
9J25051-CALA	100	687152	2.376	12.06
9J25051-CALB	200	1192215	2.554	12.06

AVE RF **2.216** RF RSD **12.81** AVE RT **12.06**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~323~~	~~1.253~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~591~~	~~1.203~~	~~12.17~~
~~9J25051-CAL3~~	~~0.4~~	~~1094~~	~~1.170~~	~~12.17~~
9J25051-CAL4	1	3769	1.398	12.17
9J25051-CAL5	2	7387	1.615	12.17
9J25051-CAL6	5	23158	1.842	12.17
9J25051-CAL7	10	55590	1.959	12.17
9J25051-CAL8	20	105070	2.041	12.17
9J25051-CAL9	50	273920	1.911	12.17
9J25051-CALA	100	583941	2.019	12.17
9J25051-CALB	200	1001166	2.145	12.17

AVE RF **1.866** RF RSD **13.21** AVE RT **12.17**

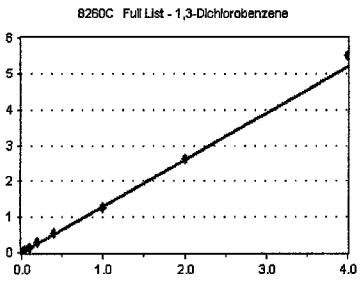
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

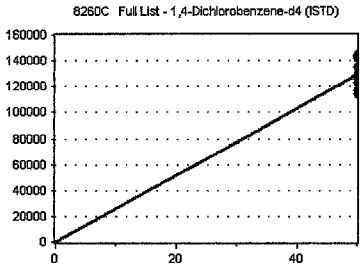


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.24
9J25051-CAL2	0.2	622	1.266	12.24
9J25051-CAL3	0.4	1072	1.146	12.24
9J25051-CAL4	1	3266	1.211	12.24
9J25051-CAL5	2	6240	1.364	12.24
9J25051-CAL6	5	17620	1.401	12.24
9J25051-CAL7	10	39173	1.381	12.24
9J25051-CAL8	20	70439	1.369	12.24
9J25051-CAL9	50	182204	1.271	12.24
9J25051-CALA	100	382076	1.321	12.24
9J25051-CALB	200	641529	1.374	12.24

AVE RF **1.300** RF RSD **6.68** AVE RT **12.24**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

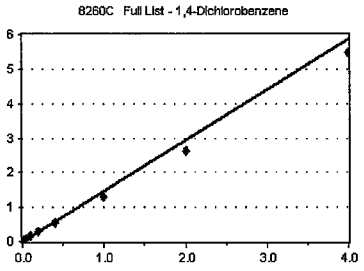


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	128844	2576.880	12.29
9J25051-CAL2	50	122815	2456.300	12.29
9J25051-CAL3	50	116929	2338.580	12.29
9J25051-CAL4	50	134840	2696.800	12.29
9J25051-CAL5	50	114333	2286.660	12.29
9J25051-CAL6	50	125726	2514.520	12.29
9J25051-CAL7	50	141868	2837.360	12.29
9J25051-CAL8	50	128679	2573.580	12.29
9J25051-CAL9	50	143329	2866.580	12.29
9J25051-CALA	50	144590	2891.800	12.29
9J25051-CALB	50	116686	2333.720	12.29

AVE RF **2579.344** RF RSD **8.53** AVE RT **12.29**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

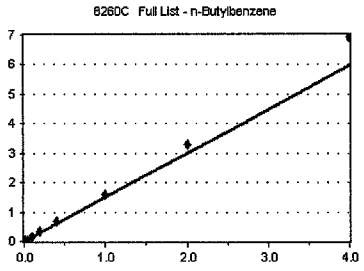


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	450	1.746	12.31
9J25051-CAL2	0.2	808	1.645	12.30
9J25051-CAL3	0.4	1394	1.490	12.31
9J25051-CAL4	1	3909	1.449	12.31
9J25051-CAL5	2	6942	1.518	12.31
9J25051-CAL6	5	18805	1.496	12.31
9J25051-CAL7	10	40327	1.421	12.31
9J25051-CAL8	20	71878	1.396	12.31
9J25051-CAL9	50	184746	1.289	12.31
9J25051-CALA	100	380389	1.315	12.31
9J25051-CALB	200	639760	1.371	12.31

AVE RF **1.467** RF RSD **9.27** AVE RT **12.30**

n-Butylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~309~~	~~1.199~~	~~0.00~~
9J25051-CAL2	0.2	574	1.168	12.49
9J25051-CAL3	0.4	1096	1.172	12.49
9J25051-CAL4	1	3461	1.283	12.49
9J25051-CAL5	2	6447	1.410	12.49
9J25051-CAL6	5	19439	1.546	12.49
9J25051-CAL7	10	47013	1.657	12.49
9J25051-CAL8	20	88503	1.719	12.49
9J25051-CAL9	50	225454	1.573	12.48
9J25051-CALA	100	474858	1.642	12.49
9J25051-CALB	200	806750	1.728	12.49

AVE RF **1.490** RF RSD **14.58** AVE RT **12.49**

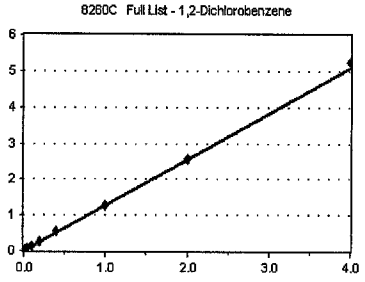
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

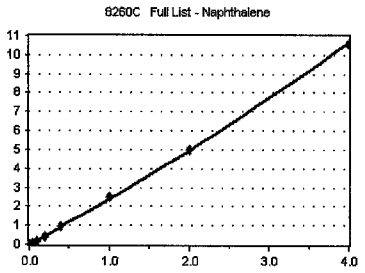


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.64
9J25051-CAL2	0.2	584	1.189	12.64
9J25051-CAL3	0.4	1052	1.125	12.63
9J25051-CAL4	1	3393	1.258	12.64
9J25051-CAL5	2	6204	1.357	12.64
9J25051-CAL6	5	16971	1.350	12.64
9J25051-CAL7	10	38505	1.357	12.64
9J25051-CAL8	20	69775	1.356	12.63
9J25051-CAL9	50	181138	1.264	12.63
9J25051-CALA	100	368271	1.274	12.63
9J25051-CALB	200	612148	1.312	12.63

AVE RF **1.276** RF RSD **6.22** AVE RT **12.63**

Naphthalene

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

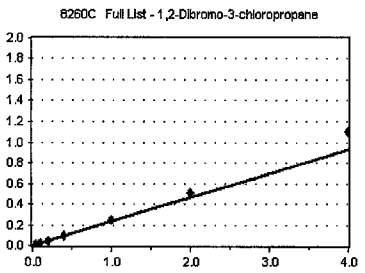


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	453	0.922	0.00
9J25051-CAL3	0.4	915	0.978	14.20
9J25051-CAL4	1	2843	1.054	14.20
9J25051-CAL5	2	5987	1.309	14.20
9J25051-CAL6	5	19030	1.514	14.20
9J25051-CAL7	10	56149	1.979	14.20
9J25051-CAL8	20	123502	2.399	14.20
9J25051-CAL9	50	357738	2.496	14.20
9J25051-CALA	100	723210	2.501	14.20
9J25051-CALB	200	1237338	2.651	14.20

AVE RF **1.780** RF RSD **39.33** AVE RT **12.78**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**

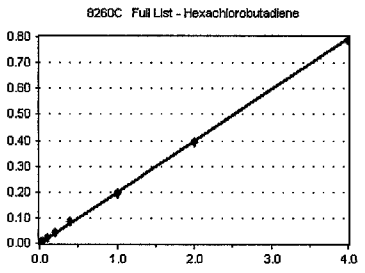


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~121~~	~~0.129~~	~~13.29~~
~~9J25051-CAL4~~	~~1~~	~~450~~	~~0.167~~	~~13.28~~
9J25051-CAL5	2	887	0.194	13.28
9J25051-CAL6	5	2511	0.200	13.28
9J25051-CAL7	10	6229	0.220	13.28
9J25051-CAL8	20	11935	0.232	13.28
9J25051-CAL9	50	35194	0.246	13.28
9J25051-CALA	100	72710	0.251	13.28
9J25051-CALB	200	128958	0.276	13.28

AVE RF **0.231** RF RSD **12.69** AVE RT **13.28**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	161	0.172	13.83
9J25051-CAL4	1	499	0.185	13.83
9J25051-CAL5	2	925	0.202	13.83
9J25051-CAL6	5	2612	0.208	13.83
9J25051-CAL7	10	6191	0.218	13.83
9J25051-CAL8	20	11238	0.218	13.83
9J25051-CAL9	50	27912	0.195	13.83
9J25051-CALA	100	56850	0.197	13.83
9J25051-CALB	200	91693	0.196	13.83

AVE RF **0.199** RF RSD **7.49** AVE RT **13.83**

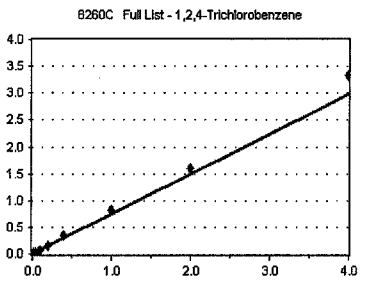
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

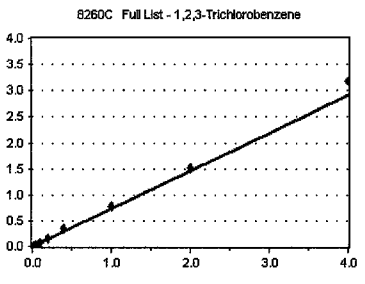


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~123~~	~~0.477~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~228~~	~~0.464~~	~~13.88~~
~~9J25051-CAL3~~	~~0.4~~	~~459~~	~~0.491~~	~~13.87~~
9J25051-CAL4	1	1602	0.594	13.87
9J25051-CAL5	2	2902	0.635	13.87
9J25051-CAL6	5	8550	0.680	13.87
9J25051-CAL7	10	22360	0.788	13.87
9J25051-CAL8	20	43365	0.843	13.87
9J25051-CAL9	50	116235	0.811	13.87
9J25051-CALA	100	230455	0.797	13.87
9J25051-CALB	200	388731	0.833	13.87

AVE RF **0.747** RF RSD **12.92** AVE RT **13.87**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~188~~	~~0.383~~	~~14.40~~
~~9J25051-CAL3~~	~~0.4~~	~~435~~	~~0.465~~	~~14.40~~
9J25051-CAL4	1	1447	0.537	14.40
9J25051-CAL5	2	2863	0.626	14.40
9J25051-CAL6	5	8797	0.700	14.40
9J25051-CAL7	10	22886	0.807	14.40
9J25051-CAL8	20	43488	0.845	14.40
9J25051-CAL9	50	112370	0.784	14.40
9J25051-CALA	100	219631	0.759	14.40
9J25051-CALB	200	370994	0.795	14.40

AVE RF **0.732** RF RSD **14.26** AVE RT **14.40**

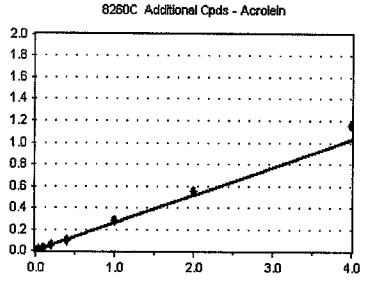
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VG191025W VG191025G**

Acrolein

Curve Fit: **AVERAGE RF**

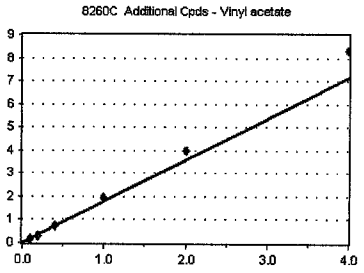


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	363	0.207	4.03
9J25051-CAL5	2	797	0.260	4.03
9J25051-CAL6	5	2034	0.242	4.04
9J25051-CAL7	10	4726	0.249	4.03
9J25051-CAL8	20	8799	0.254	4.03
9J25051-CAL9	50	26568	0.280	4.03
9J25051-CALA	100	53447	0.276	4.03
9J25051-CALB	200	98401	0.290	4.03

AVE RF **0.257** RF RSD **10.23** AVE RT **4.03**

Vinyl acetate

Curve Fit: **AVERAGE RF**

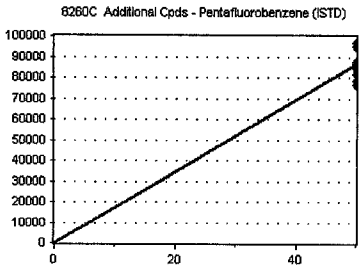


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~1655~~	~~0.942~~	~~5.53~~
~~9J25051-CAL5~~	~~2~~	~~3721~~	~~1.216~~	~~5.53~~
9J25051-CAL6	5	11730	1.393	5.53
9J25051-CAL7	10	29582	1.557	5.53
9J25051-CAL8	20	61236	1.766	5.53
9J25051-CAL9	50	183258	1.930	5.53
9J25051-CALA	100	384431	1.988	5.53
9J25051-CALB	200	704281	2.075	5.53

AVE RF **1.785** RF RSD **14.87** AVE RT **5.53**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

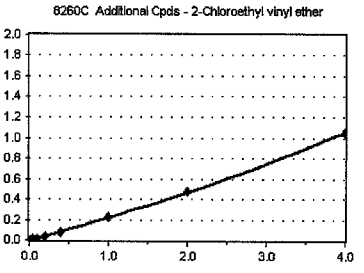


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

2-Chloroethyl vinyl ether

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	147	7.761	8.75
9J25051-CAL4	1	648	0.122	8.74
9J25051-CAL5	2	1287	0.141	8.74
9J25051-CAL6	5	3782	0.152	8.74
9J25051-CAL7	10	9286	0.166	8.74
9J25051-CAL8	20	20353	0.201	8.74
9J25051-CAL9	50	62426	0.225	8.74
9J25051-CALA	100	134625	0.240	8.74
9J25051-CALB	200	248016	0.262	8.74

AVE RF **0.176** RF RSD **34.20** AVE RT **8.74**

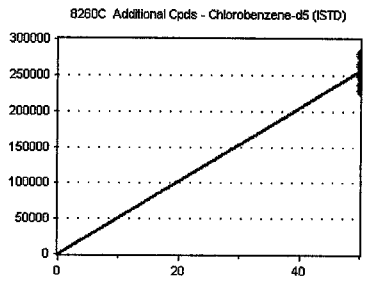
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VG191025W VG191025G**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

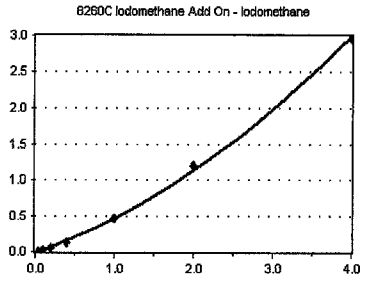
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VG191025W VG191025G**

Iodomethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

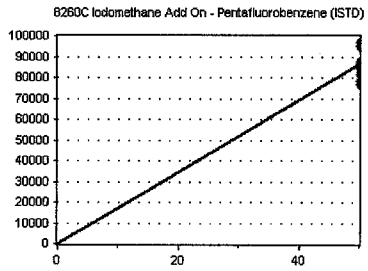


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL5	2	448	0.146	3.75
9J25051-CAL6	5	1592	0.189	3.75
9J25051-CAL7	10	4581	0.241	3.75
9J25051-CAL8	20	11720	0.338	3.75
9J25051-CAL9	50	44167	0.465	3.75
9J25051-CALA	100	116589	0.603	3.75
9J25051-CALB	200	251532	0.741	3.75

AVE RF **0.389** RF RSD **57.35** AVE RT **3.75**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

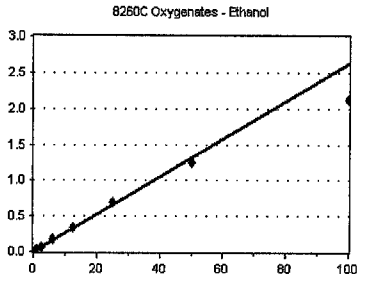
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Ethanol

Curve Fit: **AVERAGE RF**

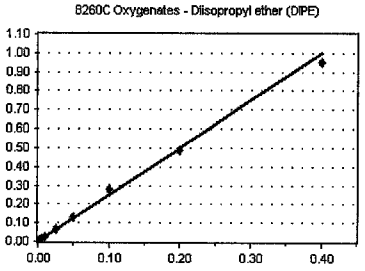


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~6.25~~	~~266~~	~~2.473~~	~~3.63~~
~~9J25051-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	25	1029	2.625	3.63
9J25051-CAL4	62.5	2873	2.617	3.64
9J25051-CAL5	125	5504	2.878	3.63
9J25051-CAL6	312	14603	2.779	3.63
9J25051-CAL7	625	31930	0.027	3.63
9J25051-CAL8	1250	59872	0.028	3.64
9J25051-CAL9	2500	118949	2.505	3.63
9J25051-CALA	5000	205433	2.125	3.64

AVE RF **2.622** RF RSD **8.82** AVE RT **3.63**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

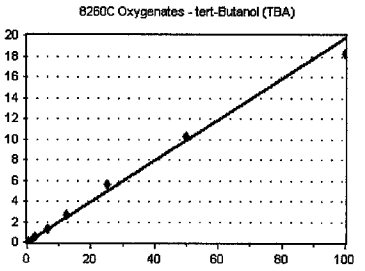


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.1	342	2.181	0.00
9J25051-CAL4	0.25	1029	2.343	5.11
9J25051-CAL5	0.5	2023	2.644	5.11
9J25051-CAL6	1.25	5485	2.606	5.11
9J25051-CAL7	2.5	12288	2.587	5.11
9J25051-CAL8	5	24122	2.782	5.11
9J25051-CAL9	10	46377	2.442	5.11
9J25051-CALA	20	91793	2.374	5.11

AVE RF **2.495** RF RSD **7.80** AVE RT **4.47**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

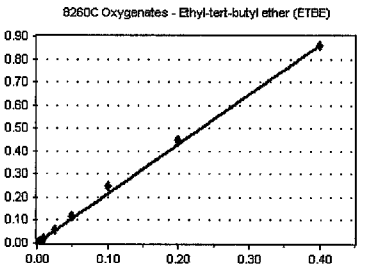


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	6.25	2096	0.195	4.83
9J25051-CAL2	12.5	3672	0.180	4.83
9J25051-CAL3	25	6902	0.176	4.83
9J25051-CAL4	62.5	19370	0.176	4.83
9J25051-CAL5	125	39779	0.208	4.82
9J25051-CAL6	312	110044	0.209	4.82
9J25051-CAL7	625	255470	0.215	4.82
9J25051-CAL8	1250	489113	0.226	4.82
9J25051-CAL9	2500	974201	0.205	4.82
9J25051-CALA	5000	1764644	0.183	4.83

AVE RF **0.197** RF RSD **9.01** AVE RT **4.82**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.1	277	1.766	0.00
9J25051-CAL4	0.25	799	1.819	5.51
9J25051-CAL5	0.5	1633	2.135	5.52
9J25051-CAL6	1.25	4721	2.243	5.51
9J25051-CAL7	2.5	11188	2.356	5.52
9J25051-CAL8	5	21409	2.469	5.51
9J25051-CAL9	10	42497	2.237	5.51
9J25051-CALA	20	83379	2.156	5.51

AVE RF **2.148** RF RSD **11.37** AVE RT **4.83**

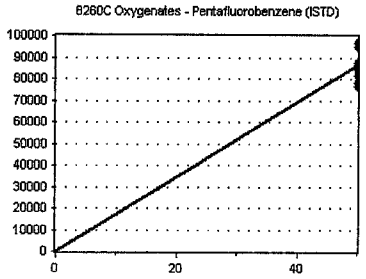
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

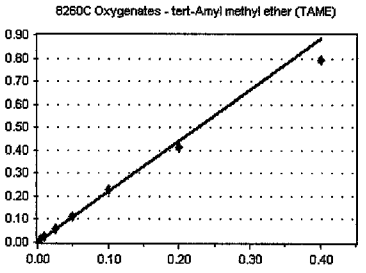


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

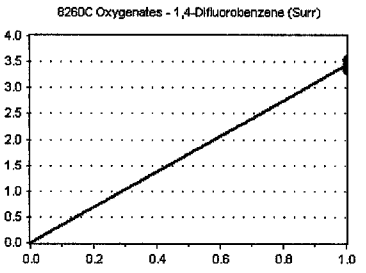


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	0.25	1071	2.439	6.90
9J25051-CAL5	0.5	1740	2.274	6.90
9J25051-CAL6	1.25	4717	2.241	6.90
9J25051-CAL7	2.5	10610	2.234	6.90
9J25051-CAL8	5	19745	2.277	6.90
9J25051-CAL9	10	39047	2.056	6.90
9J25051-CALA	20	76599	1.981	6.90

AVE RF **2.215** RF RSD **6.86** AVE RT **6.90**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

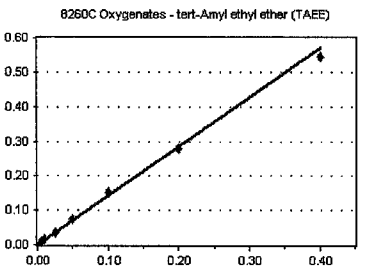


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	50	291439	3.361	7.45
9J25051-CAL9	50	318518	3.354	7.45
9J25051-CALA	50	326047	3.373	7.45
9J25051-CALB	50	283209	3.337	7.45

AVE RF **3.435** RF RSD **2.40** AVE RT **7.45**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.1~~	~~195~~	~~1.243~~	~~7.68~~
9J25051-CAL4	0.25	584	1.330	7.68
9J25051-CAL5	0.5	1135	1.484	7.68
9J25051-CAL6	1.25	2954	1.403	7.68
9J25051-CAL7	2.5	6943	1.462	7.69
9J25051-CAL8	5	13314	1.536	7.69
9J25051-CAL9	10	26359	1.388	7.68
9J25051-CALA	20	52681	1.362	7.69

AVE RF **1.423** RF RSD **5.12** AVE RT **7.69**

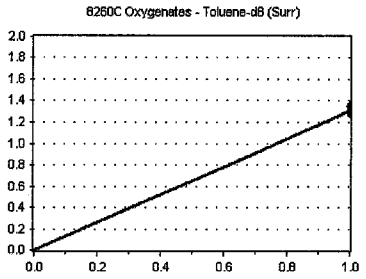
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

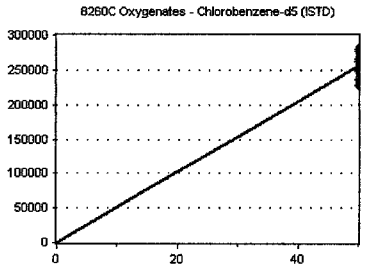


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	340973	1.297	8.99
9J25051-CAL2	50	320375	1.291	8.99
9J25051-CAL3	50	309475	1.307	8.99
9J25051-CAL4	50	348152	1.306	8.99
9J25051-CAL5	50	296218	1.295	8.99
9J25051-CAL6	50	321703	1.291	8.99
9J25051-CAL7	50	362985	1.295	8.99
9J25051-CAL8	50	329731	1.302	8.99
9J25051-CAL9	50	358348	1.294	8.99
9J25051-CALA	50	367797	1.310	8.99
9J25051-CALB	50	320536	1.352	9.00

AVE RF **1.304** RF RSD **1.32** AVE RT **8.99**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

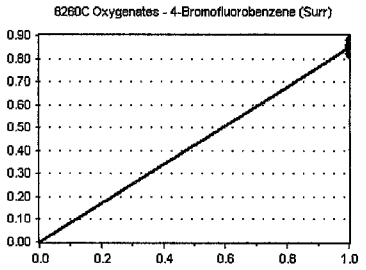


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

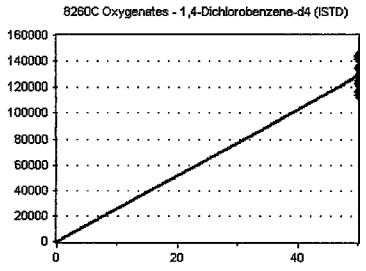


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	110058	0.854	11.45
9J25051-CAL2	50	103556	0.843	11.45
9J25051-CAL3	50	97363	0.833	11.45
9J25051-CAL4	50	112252	0.832	11.45
9J25051-CAL5	50	93974	0.822	11.45
9J25051-CAL6	50	105208	0.837	11.45
9J25051-CAL7	50	119477	0.842	11.45
9J25051-CAL8	50	107703	0.837	11.45
9J25051-CAL9	50	121264	0.846	11.45
9J25051-CALA	50	124225	0.859	11.45
9J25051-CALB	50	102899	0.882	11.45

AVE RF **0.844** RF RSD **1.92** AVE RT **11.45**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	128844	2576.880	12.29
9J25051-CAL2	50	122815	2456.300	12.29
9J25051-CAL3	50	116929	2338.580	12.29
9J25051-CAL4	50	134840	2696.800	12.29
9J25051-CAL5	50	114333	2286.660	12.29
9J25051-CAL6	50	125726	2514.520	12.29
9J25051-CAL7	50	141868	2837.360	12.29
9J25051-CAL8	50	128679	2573.580	12.29
9J25051-CAL9	50	143329	2866.580	12.29
9J25051-CALA	50	144590	2891.800	12.29
9J25051-CALB	50	116686	2333.720	12.29

AVE RF **2579.344** RF RSD **8.53** AVE RT **12.29**

Calibration Status Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J25051\VG19102536.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J25051\VG19102537.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J25051\VG19102538.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J25051\VG19102539.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102540.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J25051\VG19102541.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102542.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102543.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 2:45 am
2	100	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 3:12 am
3	250	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 3:38 am
4	500	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:05 am
5	1000	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:32 am
6	2500	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:59 am
7	5000	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 5:26 am
8	10K	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 5:52 am

VG191025G.M Mon Oct 28 13:01:23 2019

Response Factor Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

Calibration Files
50 =VG19102536.D 100 =VG19102537.D 250 =VG19102538.D 500 =VG19102539.D 1000=VG19102540.D 2500=VG19102541.D
5000=VG19102542.D 10K =VG19102543.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	----------	----------	ISTD	----------	----------	----------	----------	----------		
2)	S	1,4-Difluorobe...	1.524	1.508	1.481	1.497	1.503	1.466	1.494	1.485	1.495	1.20
3)	S	4-Bromofluorob...	0.543	0.543	0.544	0.538	0.536	0.541	0.557	0.553	0.545	1.31
4)	H	NWTPH-Gx (TPH)	1.077	1.006	1.136	1.222	1.285	1.296	1.372	1.394	1.224	11.42
5)	H	TPHg (C5-C9)	2.792	1.935	1.689	1.647	1.666	1.555	1.606	1.595	1.811	22.82
6)	H	TPHg (C6-C10)	2.469	1.683	1.432	1.380	1.387	1.295	1.334	1.328	1.539	25.67
7)	H	CA-LUFT (C5-C12)	3.061	2.205	1.975	1.979	2.037	1.955	2.033	2.039	2.160	17.22
8)		Benzene (NR)									0.000	-1.00
9)	S	Toluene-d8 (NR)									0.000	-1.00
10)		Toluene (NR)									0.000	-1.00
11)	S	Chlorobenzene-...									0.000	-1.00
12)	S	1,4-Dichlorobe...									0.000	-1.00
13)		Naphthalene (NR)									0.000	-1.00

(#) = Out of Range

Compound List Report VOA-GCMS7

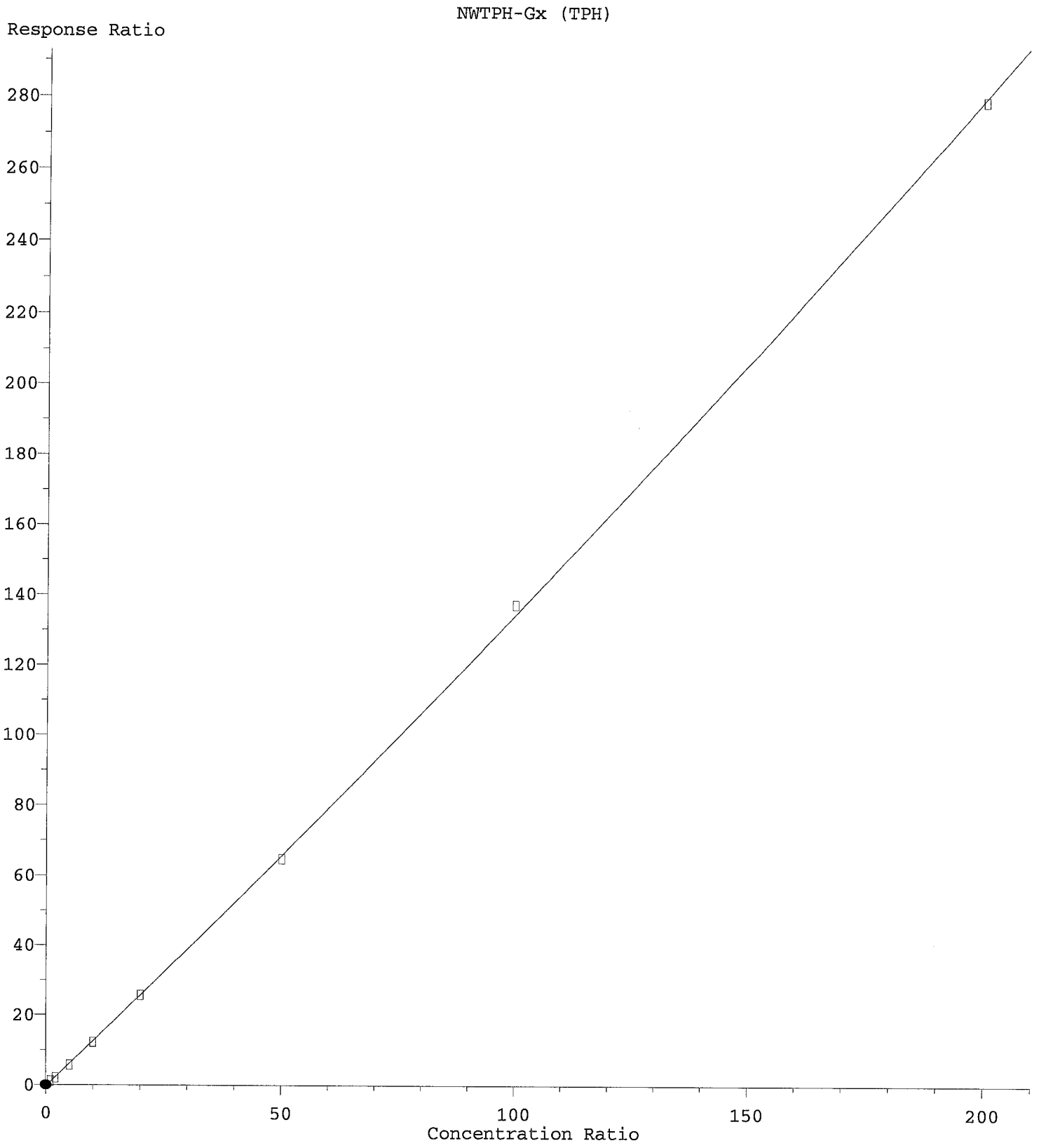
Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.874	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	7.459	1.085	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	11.452	1.666	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	9.440	1.373	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.940	1.446	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.940	1.446	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.940	1.446	Q	0	A	B
8		Benzene (NR)	78	6.758	0.983	A	2	A	B
9	S	Toluene-d8 (NR)	98	9.001	1.310	A	2	A	B
10		Toluene (NR)	91	9.050	1.317	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	10.458	1.522	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	12.293	1.788	A	2	A	B
13		Naphthalene (NR)	128	14.207	2.067	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VG191025G.M Mon Oct 28 13:01:42 2019



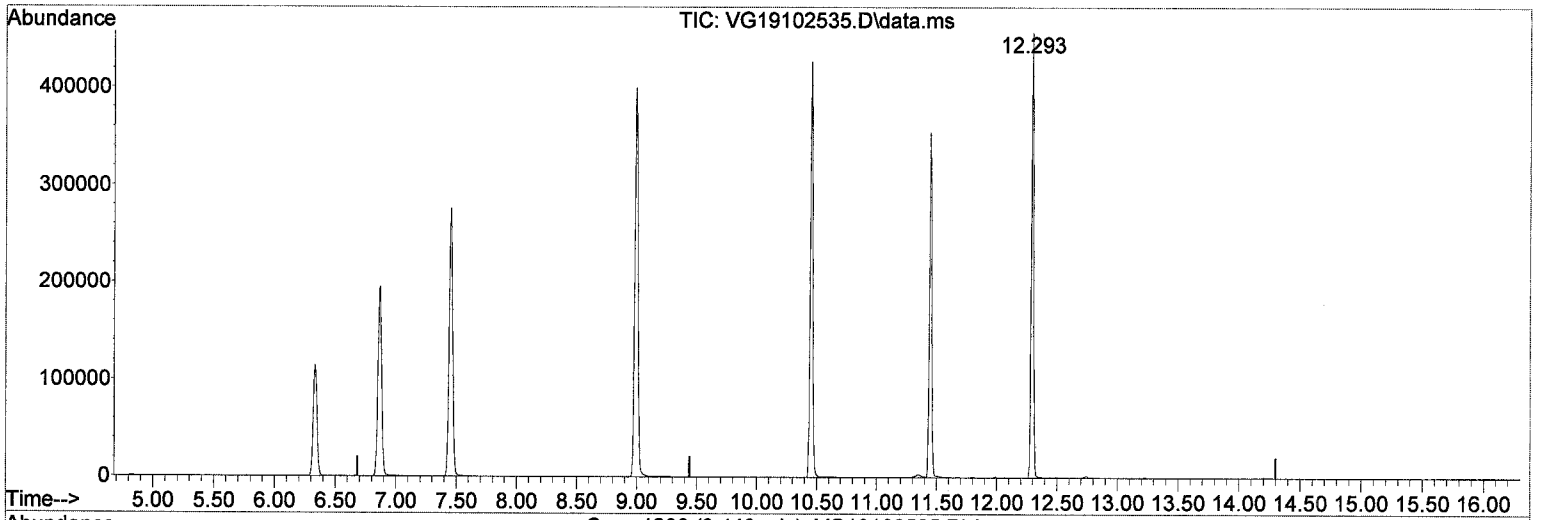
Int = 23.29 ✓

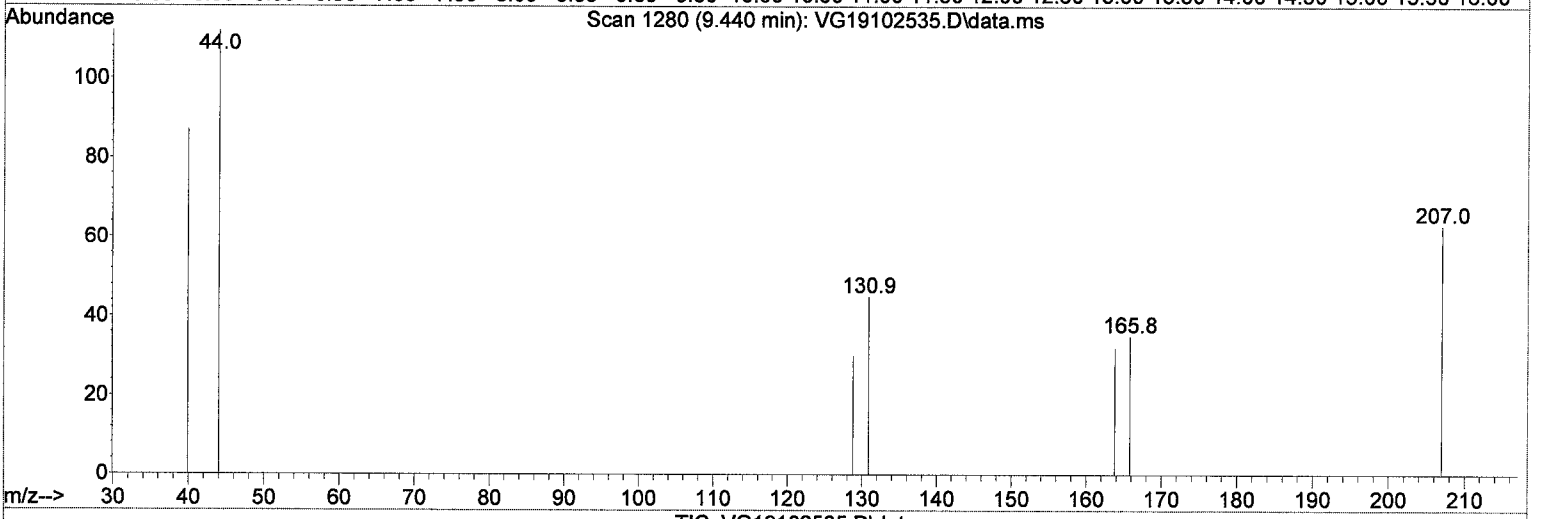
R = 5.30e-004 A*A + 1.30e+000 A - 4.15e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





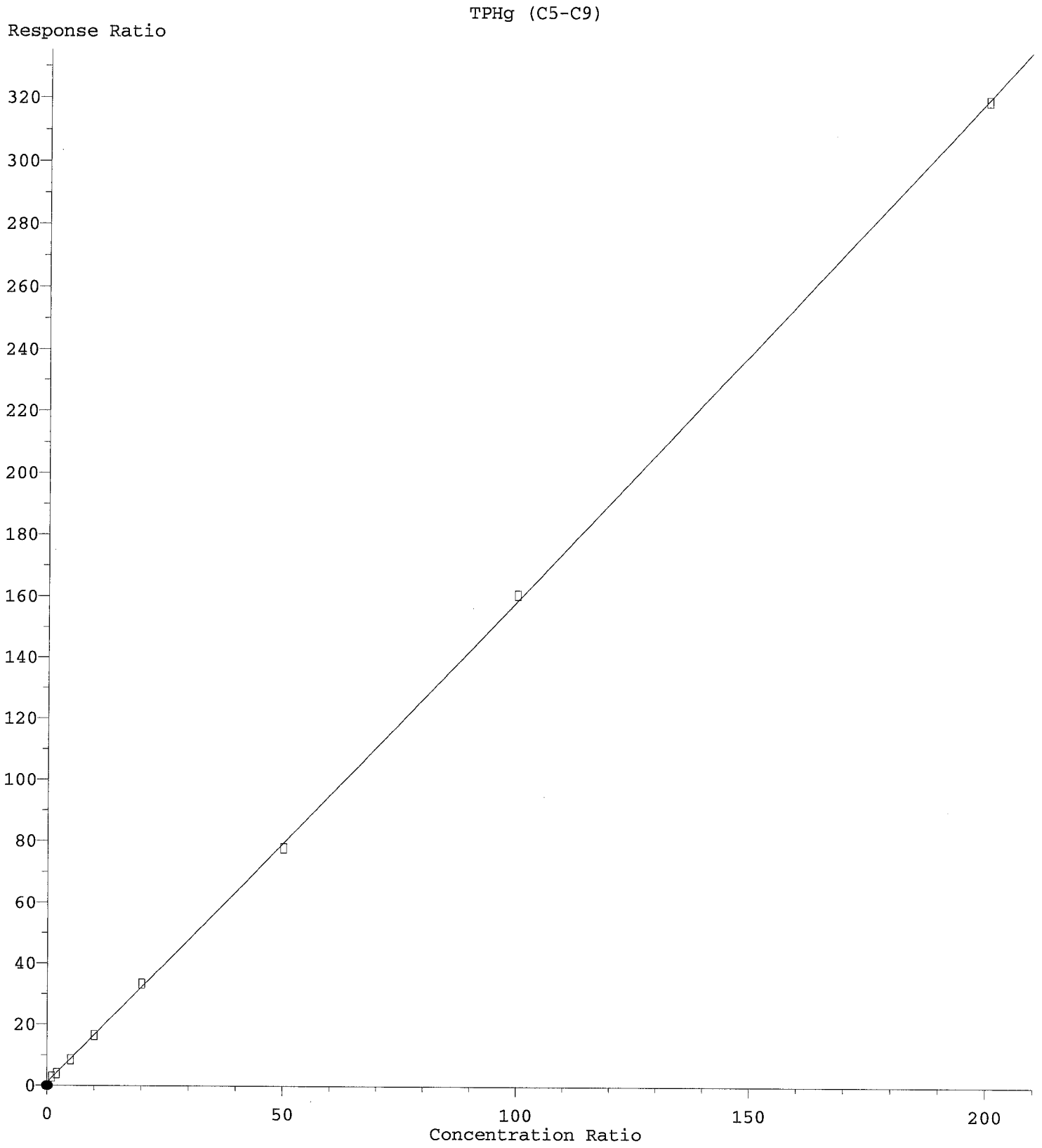
TIC: VG19102535.D\data.ms

(4) NWTPH-Gx (TPH) (H)

9.440min (0.000) 23.29 ug/L m

response 31416

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00



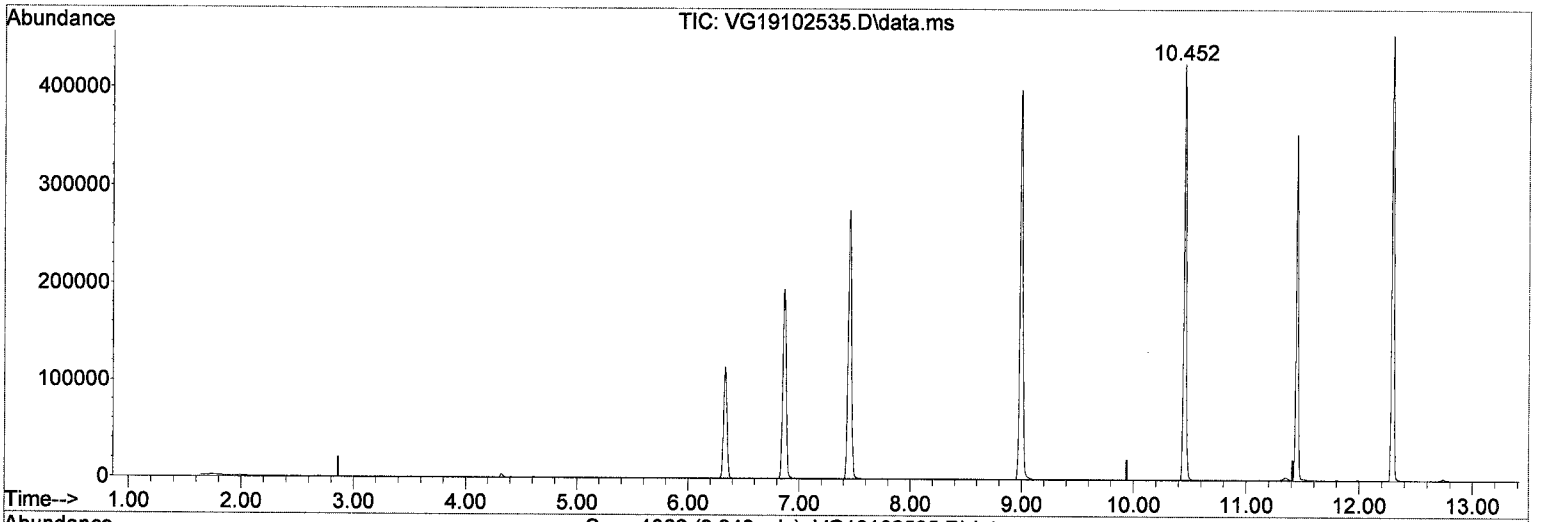
Int = 18.73

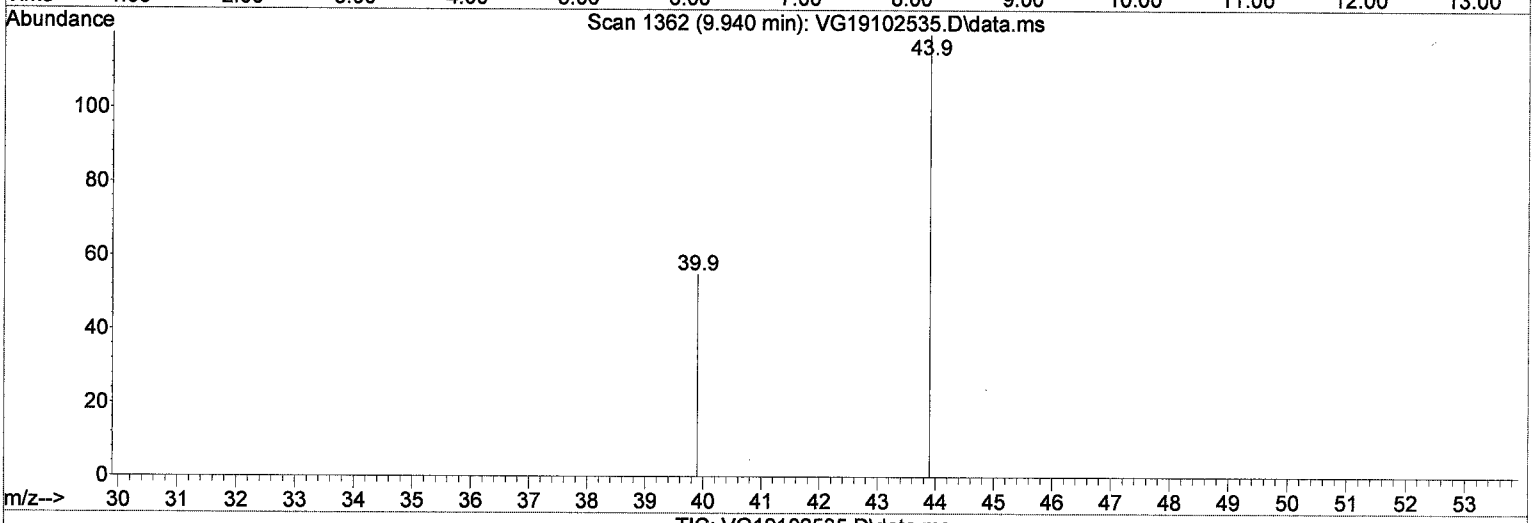
R = 1.66e-004 A*A + 1.56e+000 A + 1.03e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





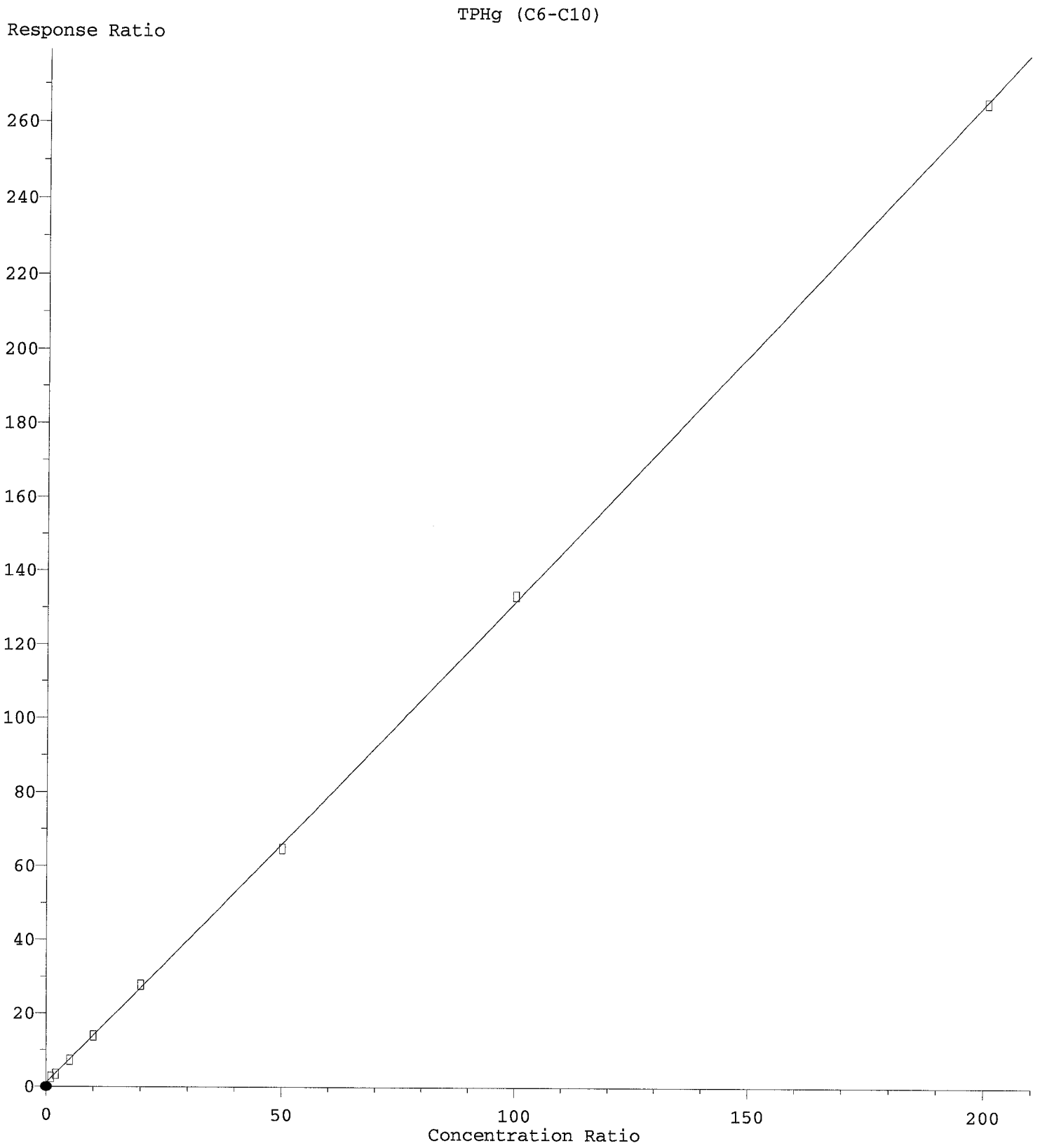
TIC: VG19102535.D\data.ms

(5) TPHg (C5-C9) (H)

9.940min (0.000) 18.73 ug/L m

response 269339

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00



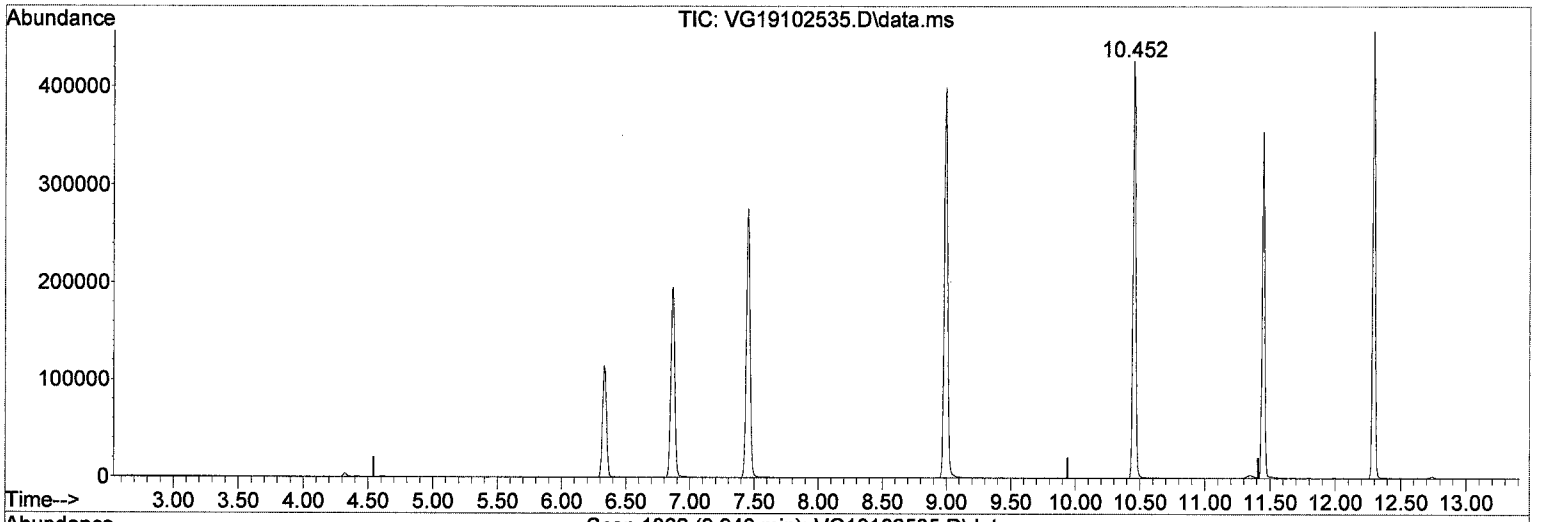
fmt = 21.67

R = 1.62e-004 A*A + 1.29e+000 A + 1.01e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



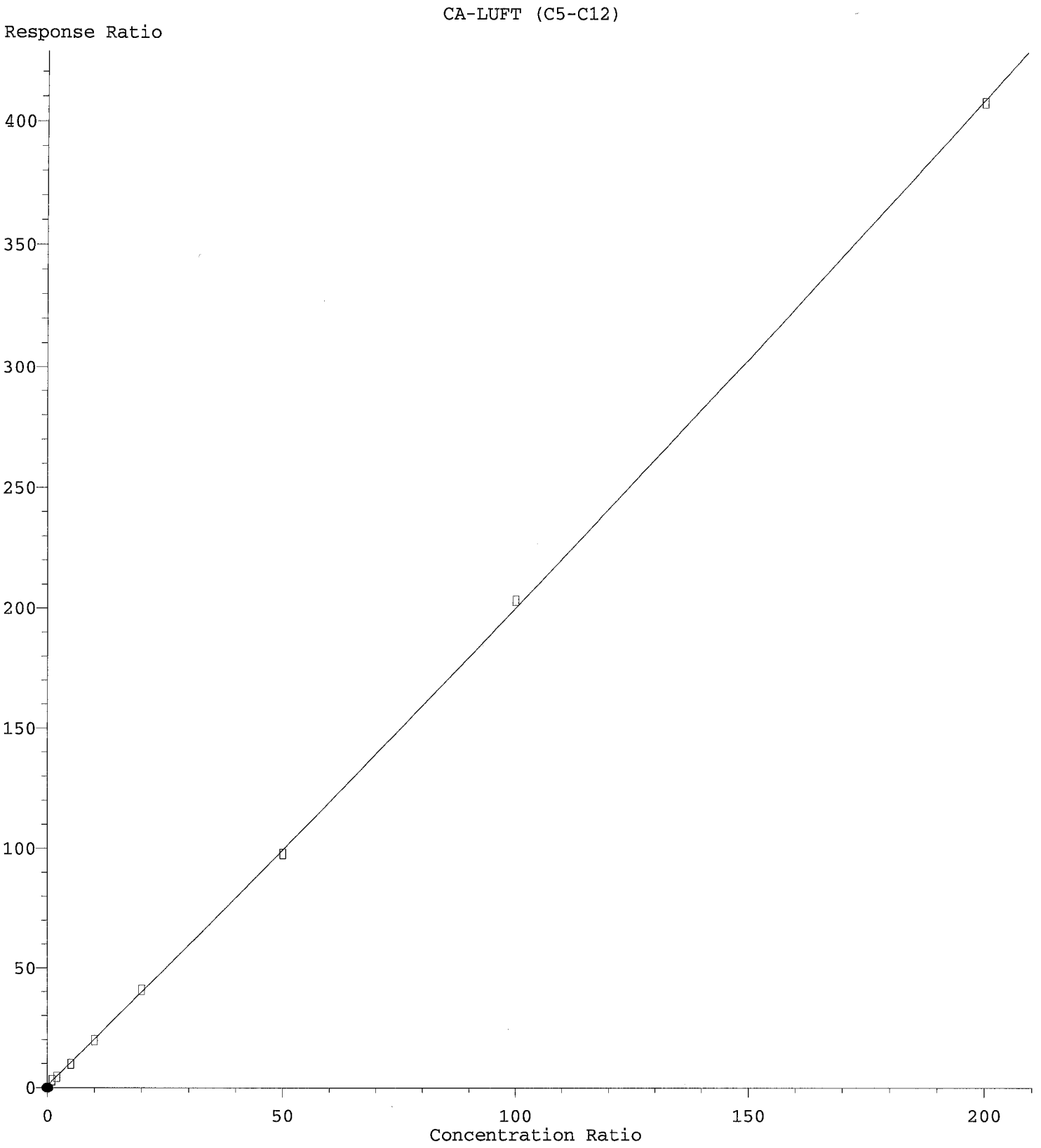
TIC: VG19102535.D\data.ms

(6) TPHg (C6-C10) (H)

9.940min (0.000) 21.67 ug/L m

response 261869

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00



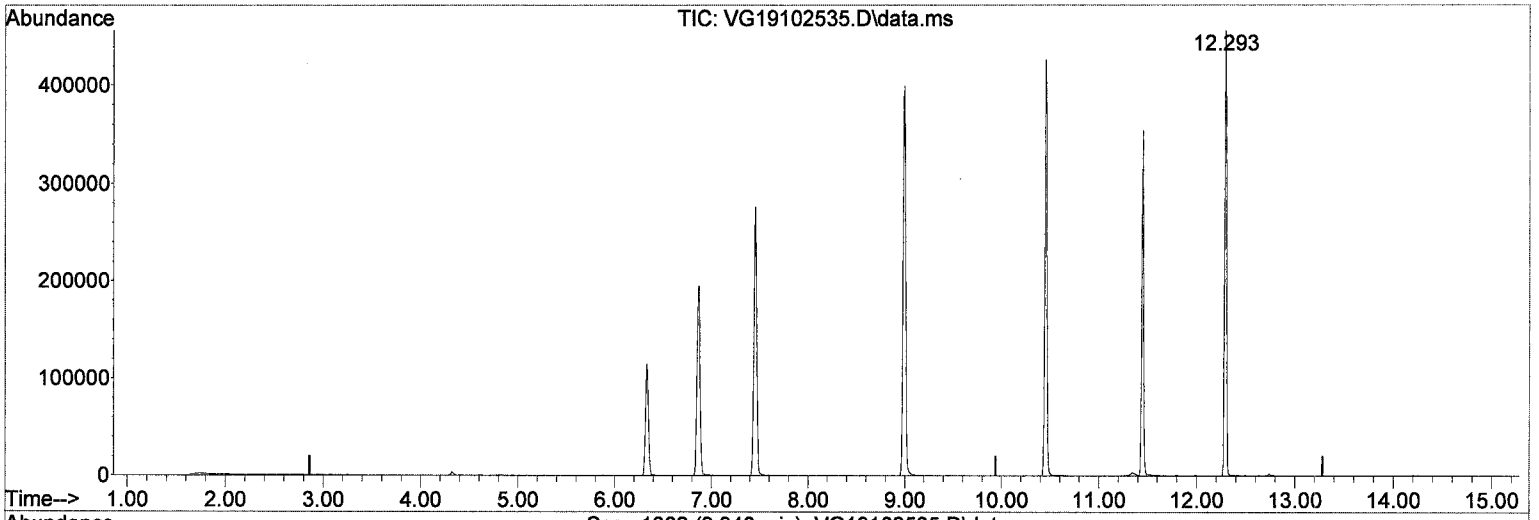
Fut = 22.78

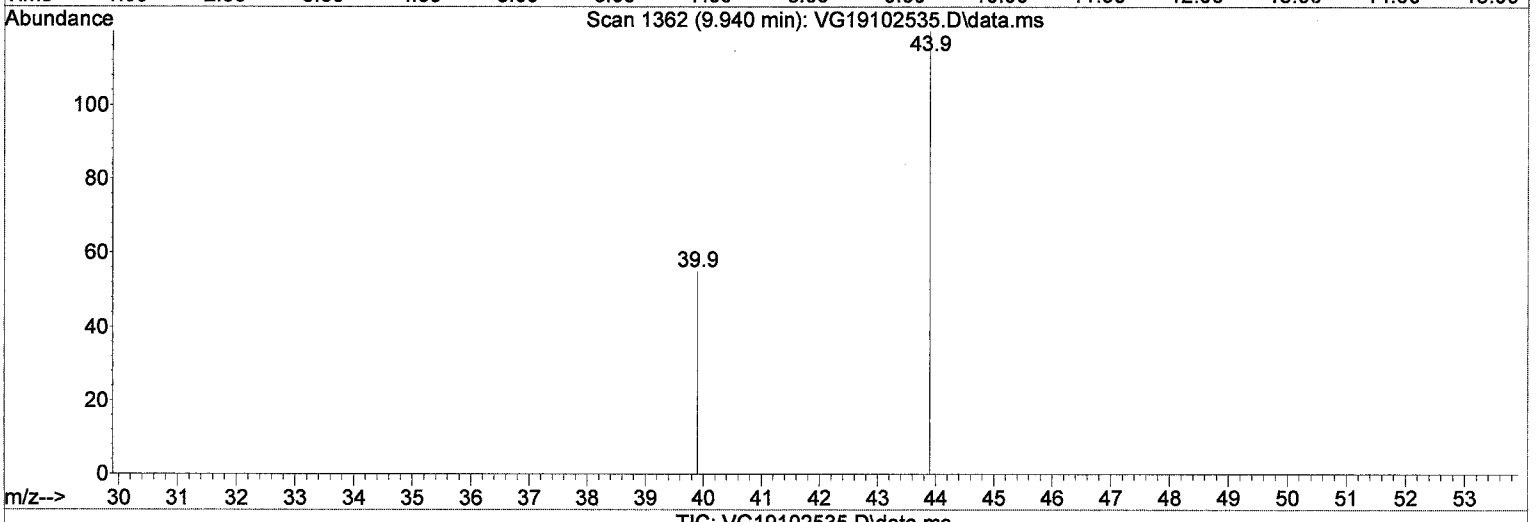
R = 4.75e-004 A*A + 1.95e+000 A + 8.13e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





TIC: VG19102535.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.940min (0.000) 22.78 ug/L m

response 283617

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

Analysis Included
8015D-Mod Gasoline (C6-C10) by GC/MS
CA LUFT GRO
NWTPH-Gx

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J25051-TUN2	MS Tune	Water		A19F381	10/26/2019 12:57:00AM
9J25051-ICB2	Initial Cal Blank	Water		A19F381	10/26/2019 2:18:00AM
9J25051-CALC	Cal Standard	Water	A19J388	"	10/26/2019 2:45:00AM
9J25051-CALD	Cal Standard	Water	A19J389	"	10/26/2019 3:12:00AM
9J25051-CALE	Cal Standard	Water	A19J390	"	10/26/2019 3:38:00AM
9J25051-CALF	Cal Standard	Water	A19J391	"	10/26/2019 4:05:00AM
9J25051-CALG	Cal Standard	Water	A19J392	"	10/26/2019 4:32:00AM
9J25051-CALH	Cal Standard	Water	A19J393	"	10/26/2019 4:59:00AM
9J25051-CALI	Cal Standard	Water	A19J394	"	10/26/2019 5:26:00AM
9J25051-CALJ	Cal Standard	Water	A19J395	"	10/26/2019 5:52:00AM
9J25051-ICV3	Initial Cal Check	Water	A19G350	"	10/26/2019 7:13:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2806** Instrument: **VOA-GCMS7**

8015D-Mod Gasoline (C6-C10 Sequence: **9J25051** Matrix: **Water**

9J25051-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALD	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALE	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALF	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALG	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALH	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALI	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALJ	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2806** Instrument: **VOA-GCMS7**

NWTPH-Gx Sequence: **9J25051** Matrix: **Water**

9J25051-ICV3	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	108	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.620	0.8	107	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	49.762	0.5	109	0.00
4	H	NWTPH-Gx (TPH)	500.000	536.396	-7.3	120	0.00
5	H	TPHg (C5-C9)	500.000	518.140	-3.6	113	0.00
6	H	TPHg (C6-C10)	500.000	530.811	-6.2	116	0.00
7	H	CA-LUFT (C5-C12)	500.000	518.197	-3.6	115	0.00
8		Benzene (NR)	-1.000	0.000	0.0	108	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	107	0.00
10		Toluene (NR)	-1.000	0.000	0.0	111	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	107	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	106	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	126	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

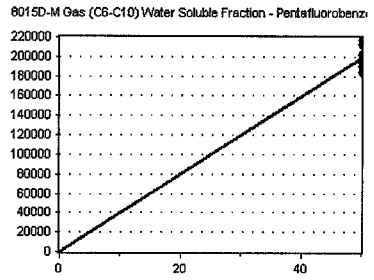
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8015D-M Gas (C6-C10) Wate** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

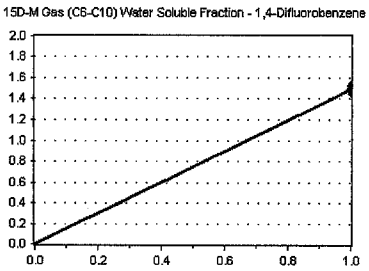


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

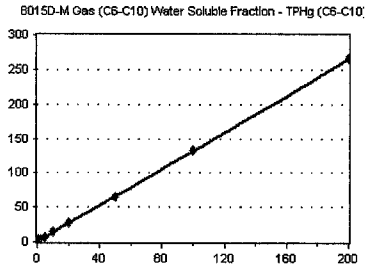


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

TPHg (C6-C10)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

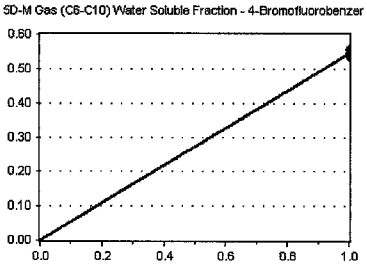


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	1.334	9.94
9J25051-CALJ	10000	5.235829E+07	1.328	9.94

AVE RF **1.539** RF RSD **25.67** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

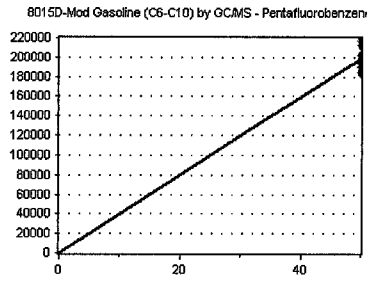
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

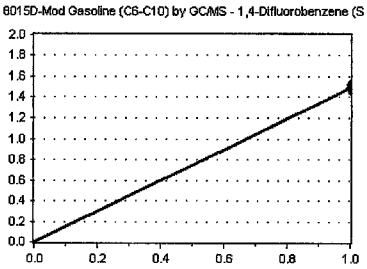


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

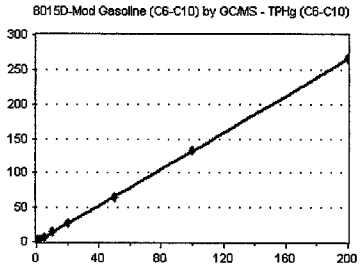


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

TPHg (C6-C10)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

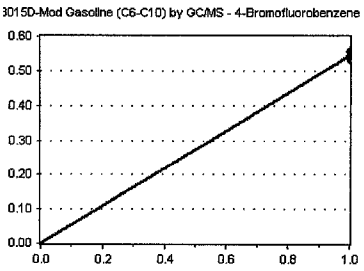


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	1.334	9.94
9J25051-CALJ	10000	5.235829E+07	1.328	9.94

AVE RF **1.539** RF RSD **25.67** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

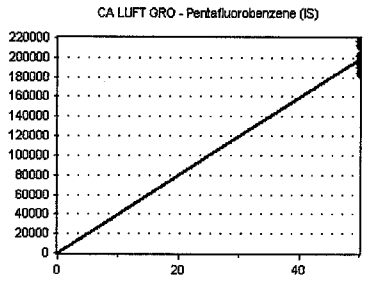
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

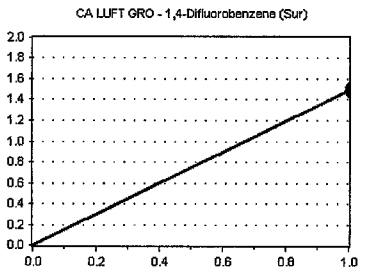


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

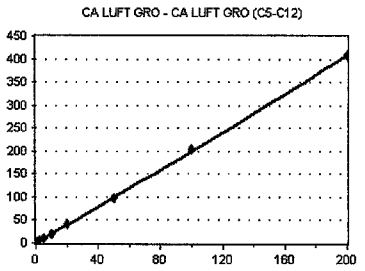


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

CA LUFT GRO (C5-C12)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

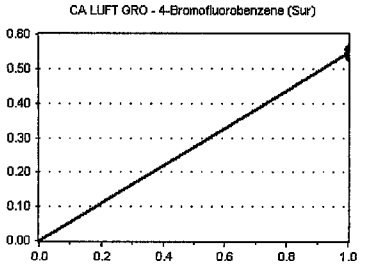


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	592441	3.061	9.94
9J25051-CALD	100	891666	2.205	9.94
9J25051-CALE	250	2098250	1.975	9.94
9J25051-CALF	500	3642980	1.979	9.94
9J25051-CALG	1000	7765125	2.037	9.94
9J25051-CALH	2500	2.13198E+07	1.955	9.94
9J25051-CALI	5000	3.968852E+07	2.033	9.94
9J25051-CALJ	10000	8.03942E+07	2.039	9.94

AVE RF **2.160** RF RSD **17.22** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

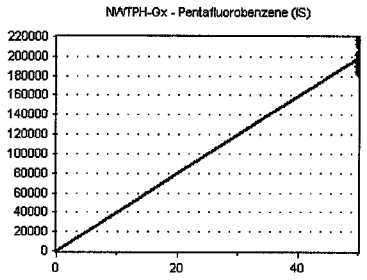
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

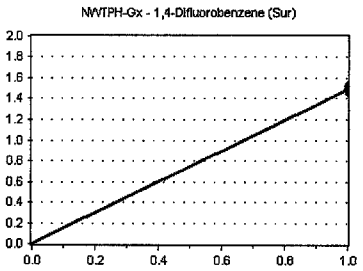


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

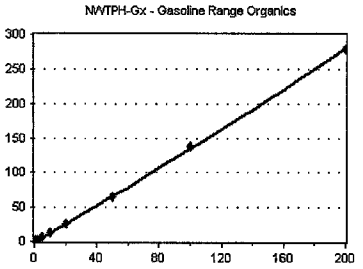


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

Gasoline Range Organics

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

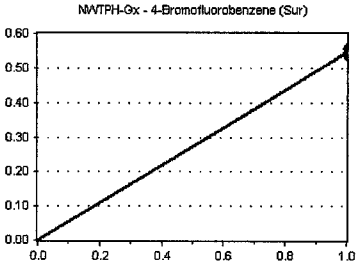


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	208521	1.077	9.44
9J25051-CALD	100	406857	1.006	9.44
9J25051-CALE	250	1206913	1.136	9.44
9J25051-CALF	500	2248368	1.222	9.44
9J25051-CALG	1000	4898415	1.285	9.44
9J25051-CALH	2500	1.413597E+07	1.296	9.44
9J25051-CALI	5000	2.67945E+07	1.372	9.44
9J25051-CALJ	10000	5.496649E+07	1.394	9.44

AVE RF **1.224** RF RSD **11.42** AVE RT **9.44**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

Injection Log

Directory: z:\data\2019-10\9J25051

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vg19102511.d	1.	9J25051-IBL1	1X 5mL DI	25 Oct 2019 15:31
2	2	Vg19102512.d	1.	9J25051-TUN1	A19F381 BFB (IS/...	25 Oct 2019 15:58
3	3	Vg19102513.d	1.	9J25051-ICB1	1X 5mL DI	25 Oct 2019 16:25
4	4	Vg19102514.d	1.	9J25051-CAL1	1X 5mL 0.1/0.2...	25 Oct 2019 16:53
5	5	Vg19102515.d	1.	9J25051-CAL2	1X 5mL 0.2/0.4...	25 Oct 2019 17:20
6	6	Vg19102516.d	1.	9J25051-CAL3	1X 5mL 0.4/0.8...	25 Oct 2019 17:47
7	7	Vg19102517.d	1.	9J25051-CAL4	1X 5mL 1/2PPB ...	25 Oct 2019 18:14
8	8	Vg19102518.d	1.	9J25051-CAL5	1X 5mL 2/4PPB ...	25 Oct 2019 18:41
9	9	Vg19102519.d	1.	9J25051-CAL6	1X 5mL 5/10PPB...	25 Oct 2019 19:08
10	10	Vg19102520.d	1.	9J25051-CAL7	1X 5mL 10/20PP...	25 Oct 2019 19:35
11	11	Vg19102521.d	1.	9J25051-CAL8	1X 5mL 20/40PP...	25 Oct 2019 20:02
12	12	Vg19102522.d	1.	9J25051-CAL9	1X 5mL 50/100P...	25 Oct 2019 20:29
13	13	Vg19102523.d	1.	9J25051-IBL2	1X 5mL DI	25 Oct 2019 20:55
14	14	Vg19102524.d	1.	9J25051-CALA	1X 5mL 100/200...	25 Oct 2019 21:22
15	15	Vg19102525.d	1.	9J25051-IBL3	1X 5mL DI	25 Oct 2019 21:49
16	16	Vg19102526.d	1.	9J25051-CALB	1X 5mL 200/400...	25 Oct 2019 22:16
17	17	Vg19102527.d	1.	9J25051-IBL4	1X 5mL DI	25 Oct 2019 22:43
18	18	Vg19102528.d	1.	9J25051-IBL5	1X 5mL DI	25 Oct 2019 23:10
19	19	Vg19102529.d	1.	9J25051-ICV1	1X 5mL 20/40PP...	25 Oct 2019 23:37
20	20	Vg19102530.d	1.	9J25051-ICV2	1X 5mL 5/1250P...	26 Oct 2019 00:04
21	21	Vg19102531.d	1.	9J25051-IBL6	1X 5mL DI	26 Oct 2019 00:31
22	22	Vg19102532.d	1.	9J25051-TUN2	A19F381 BFB (IS/...	26 Oct 2019 00:57
23	23	Vg19102533.d	1.	9J25051-RT1	A18A167 VPH RT STD	26 Oct 2019 01:24
24	24	Vg19102534.d	1.	9J25051-IBL7	1X 5mL DI	26 Oct 2019 01:51
25	25	Vg19102535.d	1.	9J25051-ICB2	1X 5mL DI	26 Oct 2019 02:18
26	26	Vg19102536.d	1.	9J25051-CALC	1X 5mL 50PPB GX	26 Oct 2019 02:45
27	27	Vg19102537.d	1.	9J25051-CALD	1X 5mL 100PPB GX	26 Oct 2019 03:12
28	28	Vg19102538.d	1.	9J25051-CALE	1X 5mL 250PPB GX	26 Oct 2019 03:38
29	29	Vg19102539.d	1.	9J25051-CALF	1X 5mL 500PPB GX	26 Oct 2019 04:05
30	30	Vg19102540.d	1.	9J25051-CALG	1X 5mL 1000PPB GX	26 Oct 2019 04:32
31	31	Vg19102541.d	1.	9J25051-CALH	1X 5mL 2500PPB GX	26 Oct 2019 04:59
32	32	Vg19102542.d	1.	9J25051-CALI	1X 5mL 5000PPB GX	26 Oct 2019 05:26
33	33	Vg19102543.d	1.	9J25051-CALJ	1X 5mL 10000PP...	26 Oct 2019 05:52
34	34	Vg19102544.d	1.	9J25051-IBL8	1X 5mL DI	26 Oct 2019 06:19
35	35	Vg19102545.d	1.	9J25051-IBL9	1X 5mL DI	26 Oct 2019 06:46
36	36	Vg19102546.d	1.	9J25051-ICV3	1X 5mL 500PPB GX	26 Oct 2019 07:13
37	37	Vg19102547.d	1.	9J25051-IBLA	1X 5mL DI	26 Oct 2019 07:40

10/28/19 ml

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102511.D
Acq On : 25 Oct 2019 3:31 pm
Operator : MM
Sample : 9J25051-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:37 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

NR

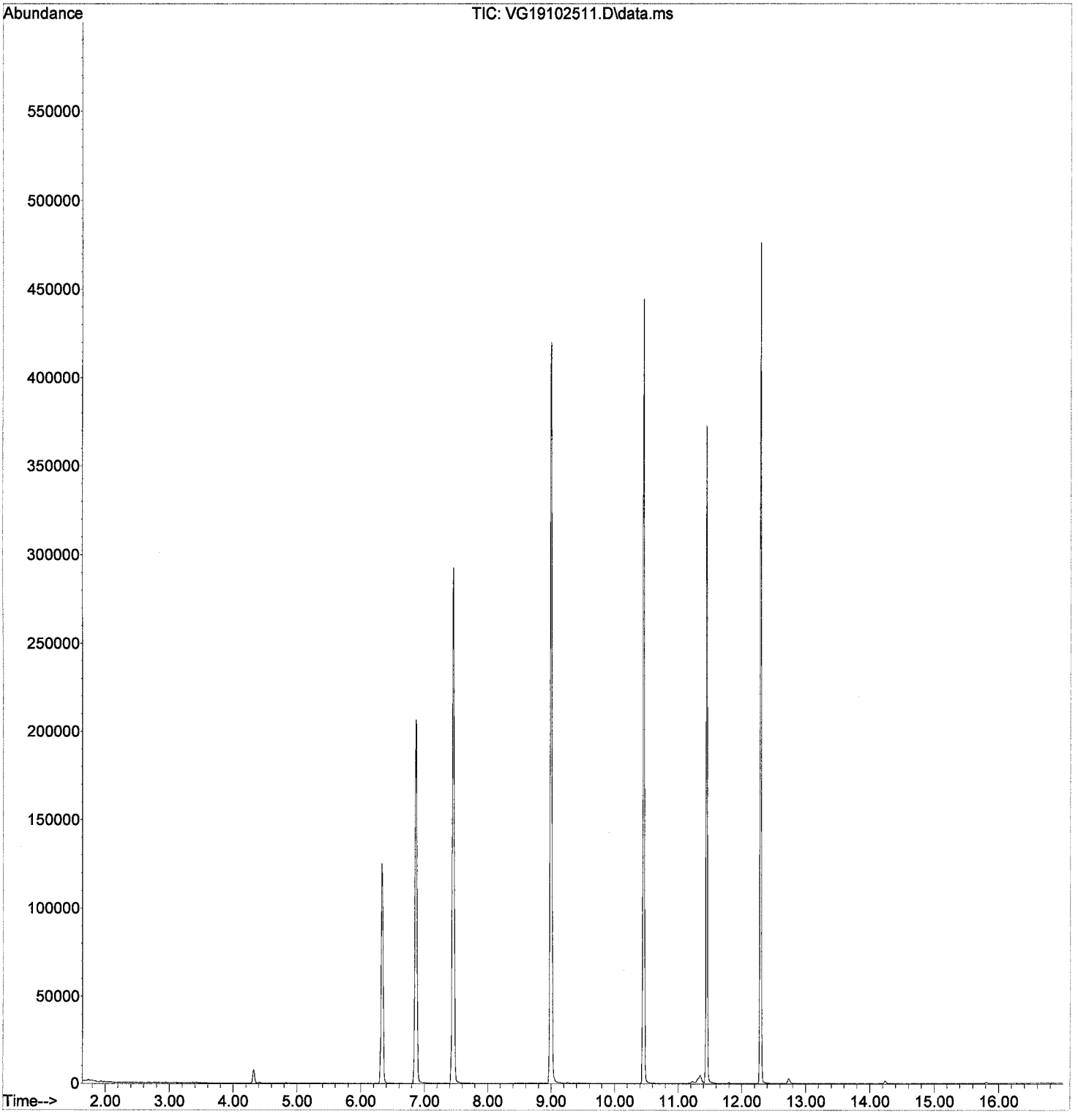
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	79679	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	238424	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114211	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	84431	50.34	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	279431	51.05	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	311513	50.11	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	97930	50.78	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	207	0.11	ug/L		77
6) Chloroethane	2.832	64	11	Below Cal		#	47
14) Methylene Chloride	4.319	84	4164	1.79	ug/L		96
15) Acetone	4.405	43	787	0.95	ug/L		95
19) tert-Butanol (TBA)	4.831	59	256	0.81	ug/L	#	46

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102511.D
Acq On : 25 Oct 2019 3:31 pm
Operator : MM
Sample : 9J25051-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:37 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



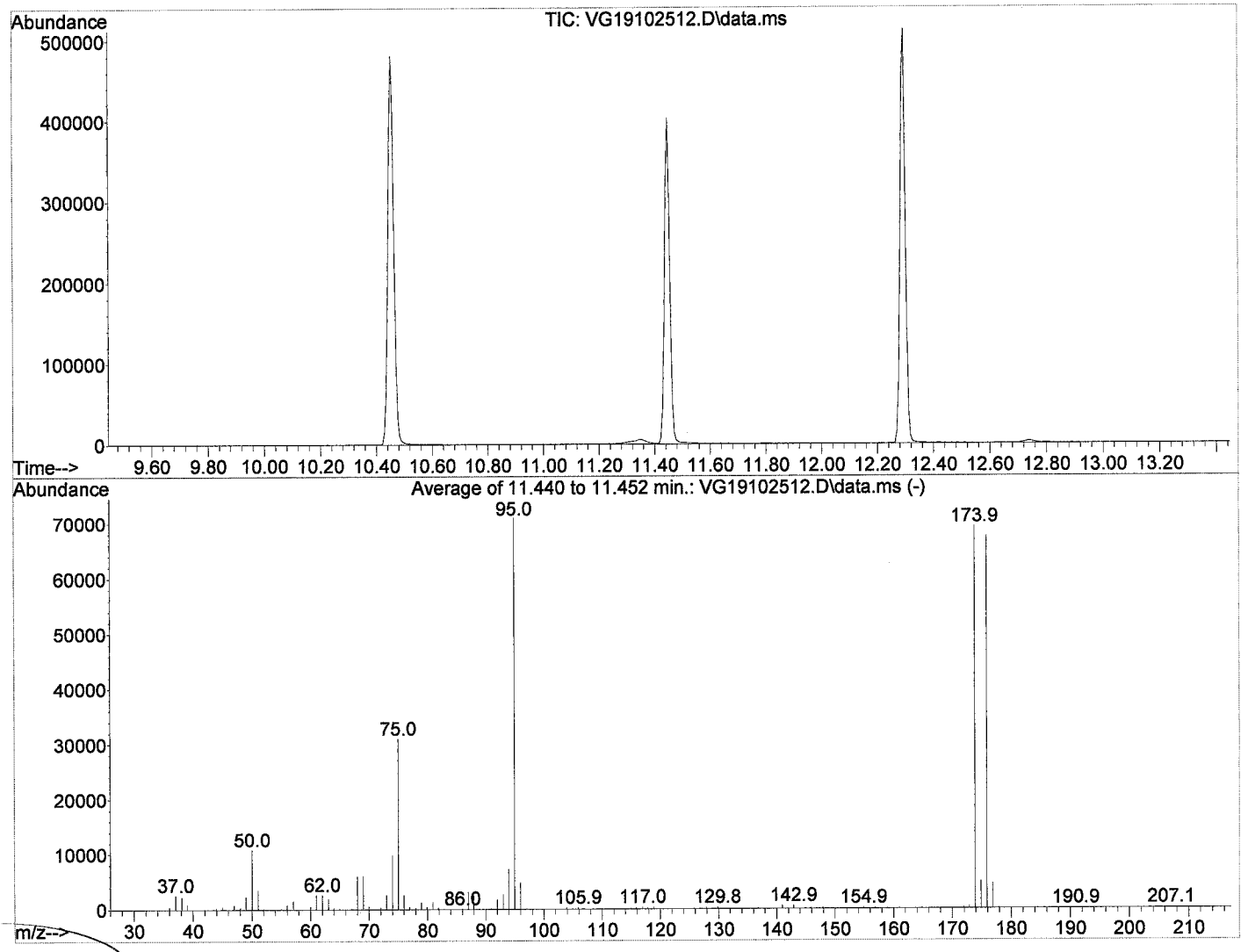
BFB

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019

10/25/19



AutoFind: Scans 1608, 1609, 1610; Background Corrected with Scan 1601

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	102.5	71019	PASS
96	95	5	9	6.7	4776	PASS
173	174	0.00	2	0.6	397	PASS
174	95	50	200	97.5	69277	PASS
175	174	5	9	7.0	4863	PASS
176	174	95	105	97.4	67507	PASS
177	176	5	10	6.6	4457	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

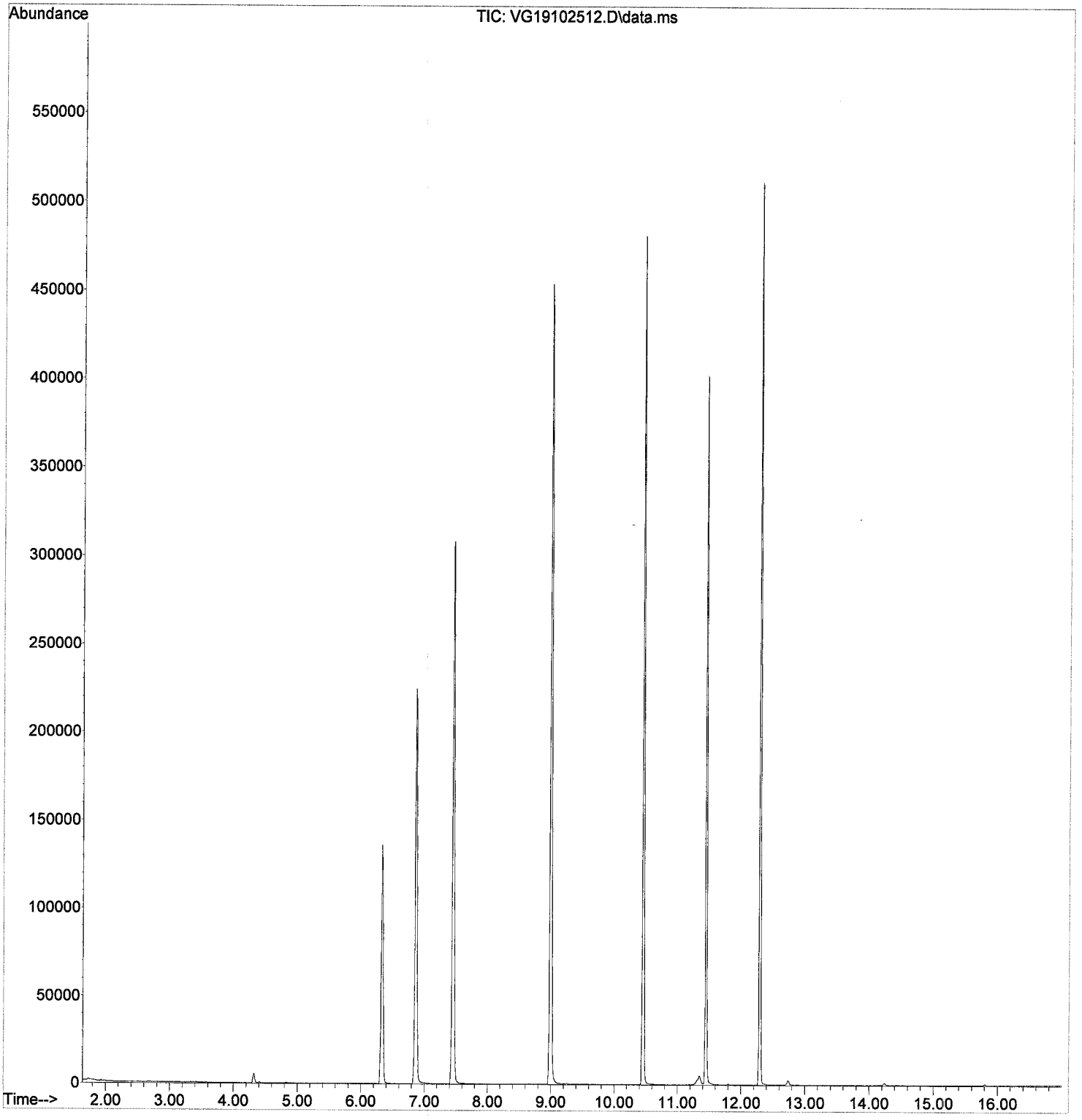
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	84248	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	258488	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125829	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	91848	51.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	301964	52.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	335293	49.75	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	107678	50.68	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	243	0.13	ug/L		78
6) Chloroethane	2.807	64	20	Below Cal		#	47
14) Methylene Chloride	4.319	84	2895	0.80	ug/L		96
15) Acetone	4.405	43	747	0.85	ug/L		95
19) tert-Butanol (TBA)	4.831	59	341	1.03	ug/L	#	82
87) Naphthalene	14.214	128	19	0.28	ug/L		79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102513.D
Acq On : 25 Oct 2019 4:25 pm
Operator : MM
Sample : 9J25051-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:43 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	79992	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	244512	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	118749	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87451	51.93	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	286935	52.22	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	318243	49.92	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	100945	50.34	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	219	0.12	ug/L		77
6) Chloroethane	2.771	64	10	Below Cal		#	47
14) Methylene Chloride	4.325	84	1333	Below Cal			92
15) Acetone	4.405	43	628	0.75	ug/L		89
19) tert-Butanol (TBA)	4.831	59	197	0.62	ug/L	#	60
47) c-1,3-Dichloropropene	8.751	75	10	0.10	ug/L	#	33

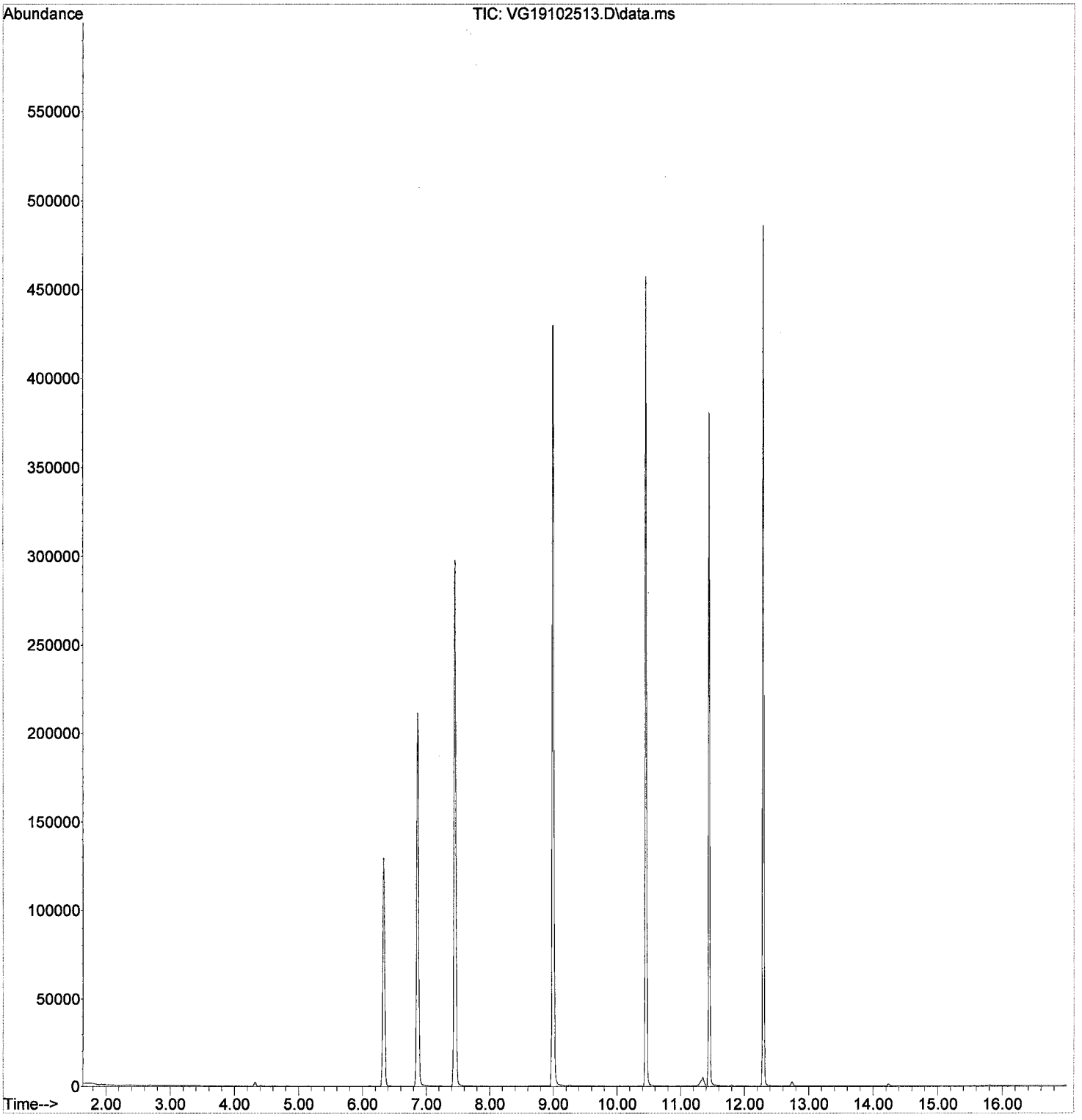
LMDC

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102513.D
Acq On : 25 Oct 2019 4:25 pm
Operator : MM
Sample : 9J25051-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:43 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:37:03 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86062	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	262978	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128844	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92408	51.80	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305946	52.88	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	340973	49.80	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	110058	51.03	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d		
3) Chloromethane	1.984	50	449	0.25	ug/L		89
4) Vinyl Chloride	2.112	62	144	0.09	ug/L		77
5) Bromomethane	2.551	96	151	0.18	ug/L		82
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.923	101	165	0.09	ug/L		81
8) Ethanol	3.630	45	266	5.60	ug/L		78
9) 1,1-Dichloroethene	3.588	61	208	0.10	ug/L		91
10) Carbon Disulfide	3.588	76	344	0.12	ug/L		78
11) Freon 113	0.000		0	N.D.	d		
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	4.319	84	1819	1.07	ug/L		99
15) Acetone	4.411	43	1032	1.17	ug/L		91
16) t-1,2-Dichloroethene	4.514	61	216	0.10	ug/L		81
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.673	73	356	0.08	ug/L		57
19) tert-Butanol (TBA)	4.825	59	2096	5.40	ug/L	#	71
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	301	0.11	ug/L		84
22) Acrylonitrile	0.000		0	N.D.	d		
23) Vinyl Acetate	0.000		0	N.D.			
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.825	61	198	0.09	ug/L		82
26) 2,2-Dichloropropane	0.000		0	N.D.	d		
27) Bromochloromethane	6.038	49	113	0.08	ug/L		90
28) Chloroform	6.130	83	266	0.09	ug/L		66
29) Carbon Tetrachloride	0.000		0	N.D.	d		
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	6.343	97	204	0.09	ug/L		74
33) 1,1-Dichloropropene	6.477	75	132	0.06	ug/L	#	65
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.758	78	628	0.09	ug/L		75
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d		
38) iso-Butyl Alcohol	0.000		0	N.D.	d		
40) Trichloroethene (TCE)	7.404	130	203	0.11	ug/L		87
41) tert-Amyl ethyl ether ...	0.000		0	N.D.			
42) Dibromomethane	7.892	93	64	0.05	ug/L	#	32
43) 1,2-Dichloropropane	7.995	63	158	0.09	ug/L		83
44) Bromodichloromethane	0.000		0	N.D.	d		
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	d		
47) c-1,3-Dichloropropene	8.812	75	120	0.05	ug/L	#	60

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:37:03 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	991	0.13	ug/L		90
50) Tetrachloroethene (PCE)	9.440	166	215	0.10	ug/L		74
51) 4-Methyl-2-Pentanone (...	9.446	43	316	0.12	ug/L		86
52) t-1,3-Dichloropropene	0.000		0	N.D.	d		
53) 1,1,2-Trichloroethane	9.629	97	163	0.09	ug/L	#	63
54) Dibromochloromethane	9.794	129	42	0.02	ug/L	#	58
55) 1,3-Dichloropropane	9.879	76	265	0.09	ug/L		80
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.	d		
57) 2-Hexanone	0.000		0	N.D.	d		
58) Chlorobenzene	10.470	112	553	0.11	ug/L	#	55
59) Ethylbenzene	10.489	91	756	0.10	ug/L		89
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
61) m,p-Xylenes (2)	10.617	91	920	0.16	ug/L		98
62) o-Xylene	10.970	91	378	0.07	ug/L		95
63) Styrene	11.019	104	224	0.05	ug/L		97
64) Bromoform	0.000		0	N.D.	d		
65) Isopropylbenzene	11.220	105	392	0.06	ug/L		92
68) Bromobenzene	11.531	156	212	0.10	ug/L		88
69) n-Propylbenzene	11.543	91	703	0.09	ug/L		95
70) 1,1,2,2-Tetrachloroethane	11.604	83	251	0.09	ug/L		89
71) 2-Chlorotoluene	11.671	126	96	0.06	ug/L	#	67
72) 1,3,5-Trimethylbenzene	11.690	105	347	0.06	ug/L		74
73) 1,2,3-Trichloropropane	0.000		0	N.D.	d		
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	380	0.08	ug/L		80
76) tert-Butylbenzene	11.927	91	160	0.06	ug/L		91
77) 1,2,4-Trimethylbenzene	11.988	105	385	0.07	ug/L		81
78) sec-Butylbenzene	12.068	105	435	0.07	ug/L		97
79) 4-Isopropyltoluene	12.165	119	323	0.06	ug/L		84
80) 1,3-Dichlorobenzene	12.238	146	309	0.09	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	450	0.13	ug/L	#	56
82) n-Butylbenzene	12.488	91	309	0.07	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	309	0.09	ug/L		74
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.	d		
86) 1,2,4-Trichlorobenzene	13.884	180	123	0.06	ug/L		83
87) Naphthalene	0.000		0	N.D.	d		
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.	d		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86062	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	262978	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128844	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92408	51.80	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305946	52.88	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	340973	49.80	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	110058	51.08	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	129	0.10	ug/L	#	51
3) Chloromethane	1.984	50	449	0.25	ug/L		89
4) Vinyl Chloride	2.112	62	144	0.09	ug/L		77
5) Bromomethane	2.551	96	151	0.18	ug/L		82
6) Chloroethane	2.722	64	59	0.15	ug/L	#	47
7) Trichlorofluoromethane	2.923	101	165	0.09	ug/L		81
8) Ethanol	3.630	45	266	5.60	ug/L		78
9) 1,1-Dichloroethene	3.588	61	208	0.10	ug/L		91
10) Carbon Disulfide	3.588	76	344	0.12	ug/L		78
11) Freon 113	3.655	101	163	0.10	ug/L	#	77
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	4.319	84	1819	1.07	ug/L		99
15) Acetone	4.411	43	1032	1.17	ug/L		91
16) t-1,2-Dichloroethene	4.514	61	216	0.10	ug/L		81
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.673	73	356	0.08	ug/L		57
19) tert-Butanol (TBA)	4.825	59	2096	5.40	ug/L	#	71
20) Diisopropyl ether (DIPE)	5.112	45	35	0.01	ug/L		60
21) 1,1-Dichloroethane	5.215	63	301	0.11	ug/L		84
22) Acrylonitrile	5.343	53	10	0.01	ug/L	#	14
23) Vinyl Acetate	0.000		0	N.D.			
24) Ethyl-tert-butyl ether...	5.508	59	19	0.00	ug/L	#	38
25) c-1,2-Dichloroethene	5.825	61	198	0.09	ug/L		82
26) 2,2-Dichloropropane	5.947	77	59	0.04	ug/L	#	32
27) Bromochloromethane	6.038	49	113	0.08	ug/L		90
28) Chloroform	6.130	83	266	0.09	ug/L		66
29) Carbon Tetrachloride	6.252	117	10	0.01	ug/L	#	20
30) Tetrahydrofuran	6.301	42	11	0.01	ug/L	#	30
31) 1,1,1-Trichloroethane	6.343	97	204	0.09	ug/L		74
33) 1,1-Dichloropropene	6.477	75	132	0.06	ug/L	#	65
34) 2-Butanone (MEK)	6.489	43	25	0.02	ug/L		52
35) Benzene	6.758	78	628	0.09	ug/L		75
36) tert-Amyl methyl ether...	6.916	73	11	0.00	ug/L	#	8
37) 1,2-Dichloroethane (EDC)	6.983	62	195	0.08	ug/L		81
38) iso-Butyl Alcohol	7.056	43	168	1.13	ug/L		67
40) Trichloroethene (TCE)	7.404	130	203	0.11	ug/L		87
41) tert-Amyl ethyl ether ...	0.000		0	N.D.			
42) Dibromomethane	7.892	93	64	0.05	ug/L	#	32
43) 1,2-Dichloropropane	7.995	63	158	0.09	ug/L		83
44) Bromodichloromethane	8.075	83	165	0.09	ug/L	#	26
46) 2-Chloroethyl Vinyl Ether	8.757	63	10	0.01	ug/L	#	1
47) c-1,3-Dichloropropene	8.812	75	120	0.05	ug/L	#	60

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

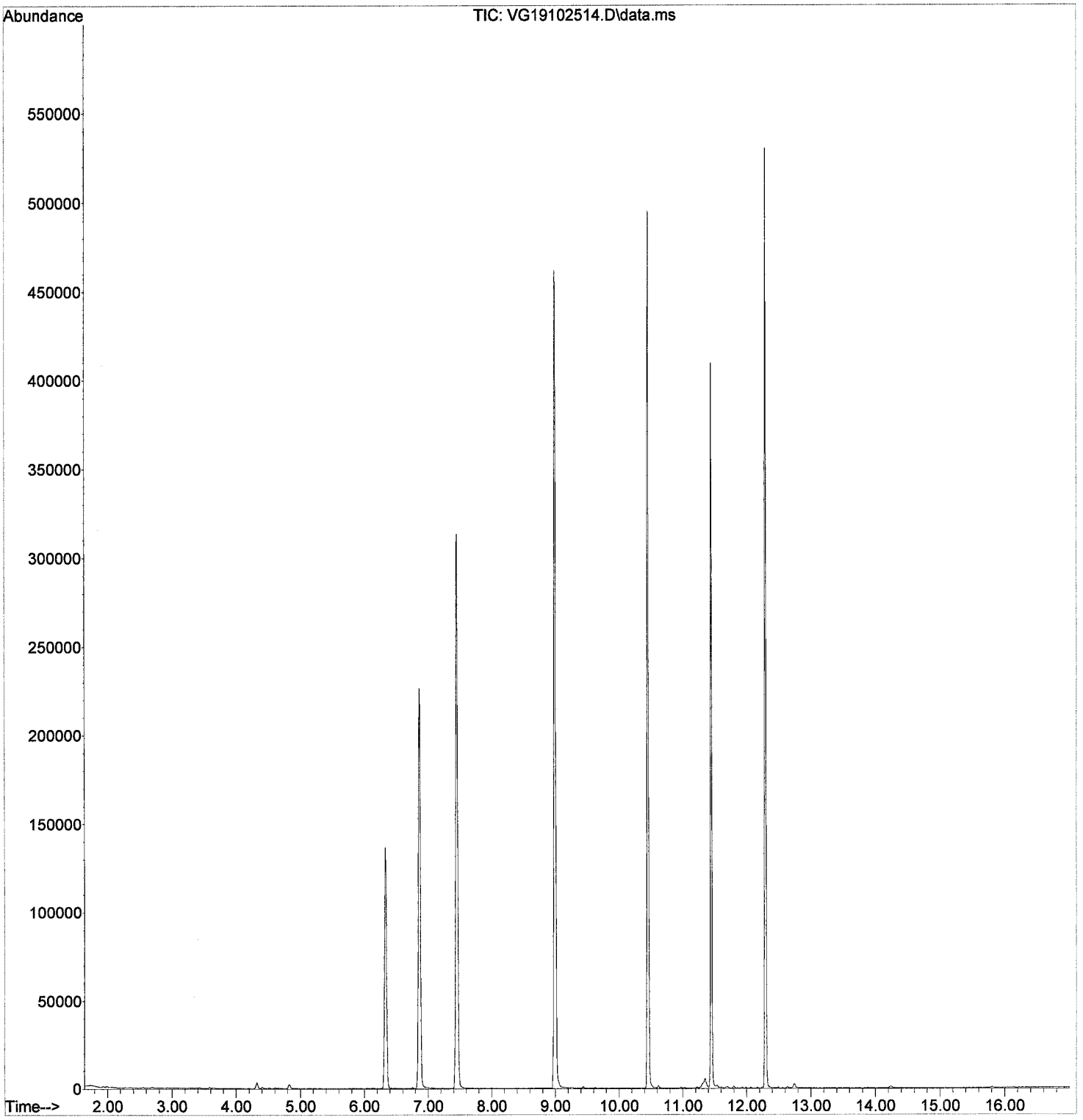
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	991	0.13	ug/L		90
50) Tetrachloroethene (PCE)	9.440	166	215	0.10	ug/L		74
51) 4-Methyl-2-Pentanone (...	9.446	43	316	0.12	ug/L		86
52) t-1,3-Dichloropropene	9.483	75	81	0.04	ug/L	#	45
53) 1,1,2-Trichloroethane	9.629	97	163	0.09	ug/L	#	63
54) Dibromochloromethane	9.794	129	42	0.02	ug/L	#	58
55) 1,3-Dichloropropane	9.879	76	265	0.09	ug/L		80
56) 1,2-Dibromoethane (EDB)	10.007	107	117	0.06	ug/L		85
57) 2-Hexanone	10.227	43	143	0.08	ug/L		71
58) Chlorobenzene	10.470	112	553	0.11	ug/L	#	55
59) Ethylbenzene	10.489	91	756	0.10	ug/L		89
60) 1,1,1,2-Tetrachloroethane	10.525	131	113	0.07	ug/L	#	61
61) m,p-Xylenes (2)	10.617	91	920	0.16	ug/L		98
62) o-Xylene	10.970	91	378	0.07	ug/L		95
63) Styrene	11.019	104	224	0.05	ug/L		97
64) Bromoform	11.037	173	29	0.02	ug/L	#	37
65) Isopropylbenzene	11.220	105	392	0.06	ug/L		92
68) Bromobenzene	11.531	156	212	0.10	ug/L		88
69) n-Propylbenzene	11.543	91	703	0.09	ug/L		95
70) 1,1,2,2-Tetrachloroethane	11.604	83	251	0.09	ug/L		89
71) 2-Chlorotoluene	11.671	126	96	0.06	ug/L	#	67
72) 1,3,5-Trimethylbenzene	11.690	105	347	0.06	ug/L		74
73) 1,2,3-Trichloropropane	11.702	110	63	0.08	ug/L	#	60
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	380	0.08	ug/L		80
76) tert-Butylbenzene	11.927	91	160	0.06	ug/L		91
77) 1,2,4-Trimethylbenzene	11.988	105	385	0.07	ug/L		81
78) sec-Butylbenzene	12.068	105	435	0.07	ug/L		97
79) 4-Isopropyltoluene	12.165	119	323	0.06	ug/L		84
80) 1,3-Dichlorobenzene	12.238	146	309	0.09	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	450	0.13	ug/L	#	56
82) n-Butylbenzene	12.488	91	309	0.07	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	309	0.09	ug/L		74
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	13.830	223	19	0.03	ug/L	#	1
86) 1,2,4-Trichlorobenzene	13.884	180	123	0.06	ug/L		83
87) Naphthalene	14.201	128	230	0.04	ug/L		79
88) 1,2,3-Trichlorobenzene	14.403	180	75	0.03	ug/L	#	12

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:40:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81493	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248140	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	122815	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87694	51.91	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	287858	52.54	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320375	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	103556	50.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	263	0.21	ug/L		72
3) Chloromethane	1.984	50	619	0.36	ug/L		99
4) Vinyl Chloride	2.112	62	313	0.20	ug/L		94
5) Bromomethane	2.551	96	229	0.29	ug/L		80
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.923	101	338	0.19	ug/L		78
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.581	61	353	0.19	ug/L		98
10) Carbon Disulfide	3.588	76	583	0.21	ug/L		77
11) Freon 113	3.667	101	319	0.21	ug/L		77
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	0.000		0	N.D.	d		
14) Methylene Chloride	4.319	84	1942	1.20	ug/L		91
15) Acetone	4.404	43	1117	1.34	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	349	0.17	ug/L		93
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.667	73	645	0.16	ug/L		96
19) tert-Butanol (TBA)	4.825	59	3672	9.98	ug/L	#	66
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	508	0.19	ug/L		95
22) Acrylonitrile	0.000		0	N.D.	d		
23) Vinyl Acetate	0.000		0	N.D.	d		
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.825	61	368	0.18	ug/L		93
26) 2,2-Dichloropropane	5.935	77	218	0.17	ug/L		59
27) Bromochloromethane	6.044	49	239	0.18	ug/L		83
28) Chloroform	6.136	83	550	0.20	ug/L		81
29) Carbon Tetrachloride	6.264	117	240	0.15	ug/L	#	63
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	6.337	97	348	0.17	ug/L		91
33) 1,1-Dichloropropene	6.483	75	307	0.15	ug/L		87
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.752	78	1235	0.19	ug/L		93
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.989	62	408	0.19	ug/L		71
38) iso-Butyl Alcohol	7.050	43	506	3.59	ug/L		92
40) Trichloroethene (TCE)	7.404	130	383	0.21	ug/L		79
41) tert-Amyl ethyl ether ...	0.000		0	N.D.	d		
42) Dibromomethane	7.892	93	165m	0.15	ug/L		
43) 1,2-Dichloropropane	8.001	63	327	0.20	ug/L		98
44) Bromodichloromethane	8.074	83	281	0.15	ug/L		96
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	d		
47) c-1,3-Dichloropropene	8.800	75	237	0.11	ug/L	#	52

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:40:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

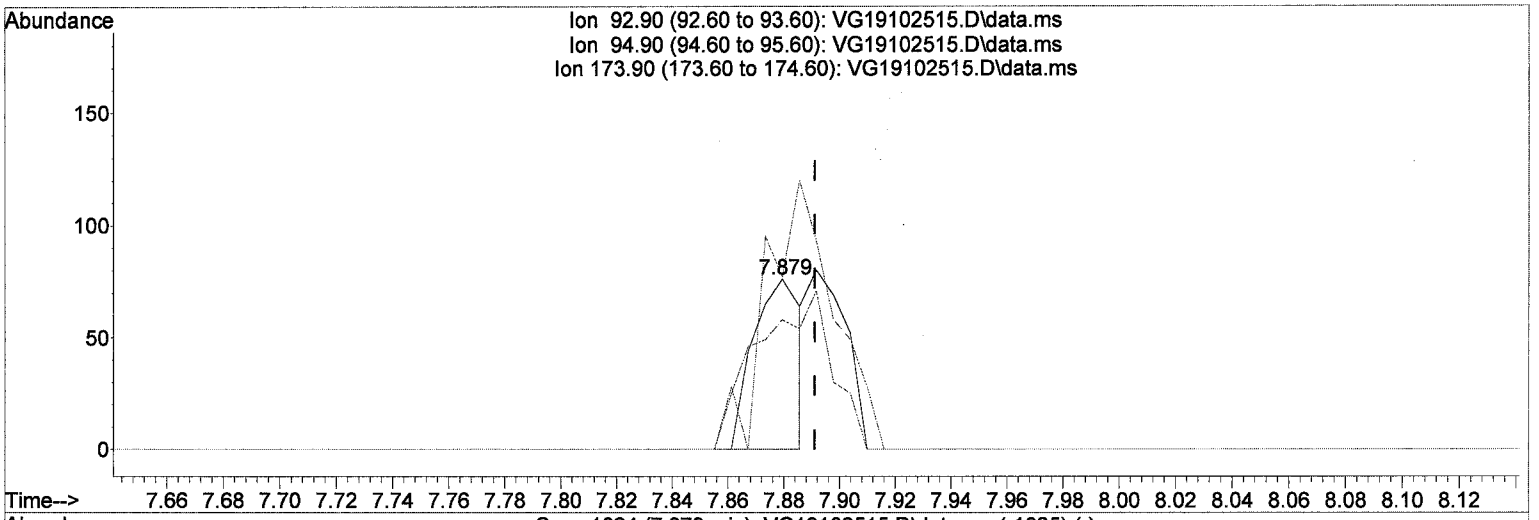
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		87
54) Dibromochloromethane	9.794	129	181	0.11	ug/L		87
55) 1,3-Dichloropropane	9.879	76	464	0.17	ug/L		83
56) 1,2-Dibromoethane (EDB)	10.007	107	286	0.15	ug/L		81
57) 2-Hexanone	10.220	43	303	0.17	ug/L		86
58) Chlorobenzene	10.464	112	977	0.20	ug/L	#	36
59) Ethylbenzene	10.489	91	1384	0.19	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	228	0.15	ug/L		84
61) m,p-Xylenes (2)	10.617	91	1670	0.31	ug/L		97
62) o-Xylene	10.970	91	748	0.14	ug/L		91
63) Styrene	11.019	104	473	0.11	ug/L		82
64) Bromoform	11.043	173	134	0.10	ug/L		81
65) Isopropylbenzene	11.220	105	829	0.13	ug/L		98
68) Bromobenzene	11.531	156	389	0.19	ug/L		97
69) n-Propylbenzene	11.543	91	1268	0.18	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	488	0.18	ug/L		90
71) 2-Chlorotoluene	11.671	126	243	0.15	ug/L	#	74
72) 1,3,5-Trimethylbenzene	11.690	105	719	0.13	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	154	0.19	ug/L	#	76
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	709	0.16	ug/L		87
76) tert-Butylbenzene	11.927	91	398	0.15	ug/L	#	70
77) 1,2,4-Trimethylbenzene	11.982	105	700	0.13	ug/L		88
78) sec-Butylbenzene	12.068	105	773	0.13	ug/L		98
79) 4-Isopropyltoluene	12.165	119	591	0.12	ug/L		92
80) 1,3-Dichlorobenzene	12.238	146	622	0.19	ug/L		86
81) 1,4-Dichlorobenzene	12.299	146	808	0.24	ug/L	#	26
82) n-Butylbenzene	12.488	91	574	0.14	ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	584	0.18	ug/L		94
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d		
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.884	180	228	0.11	ug/L		83
87) Naphthalene	14.207	128	453	0.08	ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	188	0.09	ug/L		82

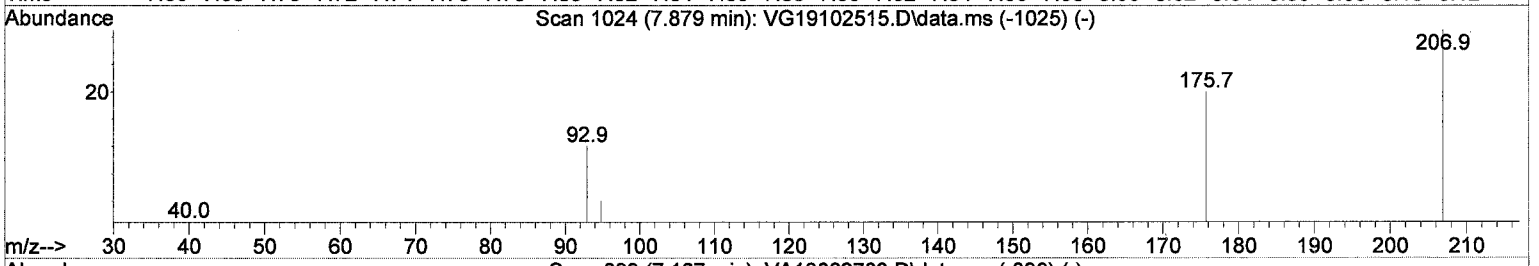
(#) = qualifier out of range (m) = manual integration (+) = signals summed

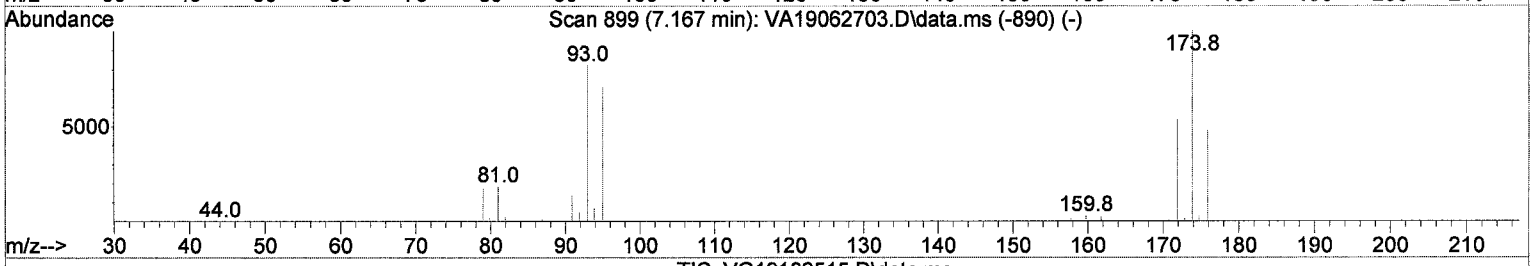
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102515.D\data.ms

(42) Dibromomethane

7.879min (-0.012) 0.08 ug/L

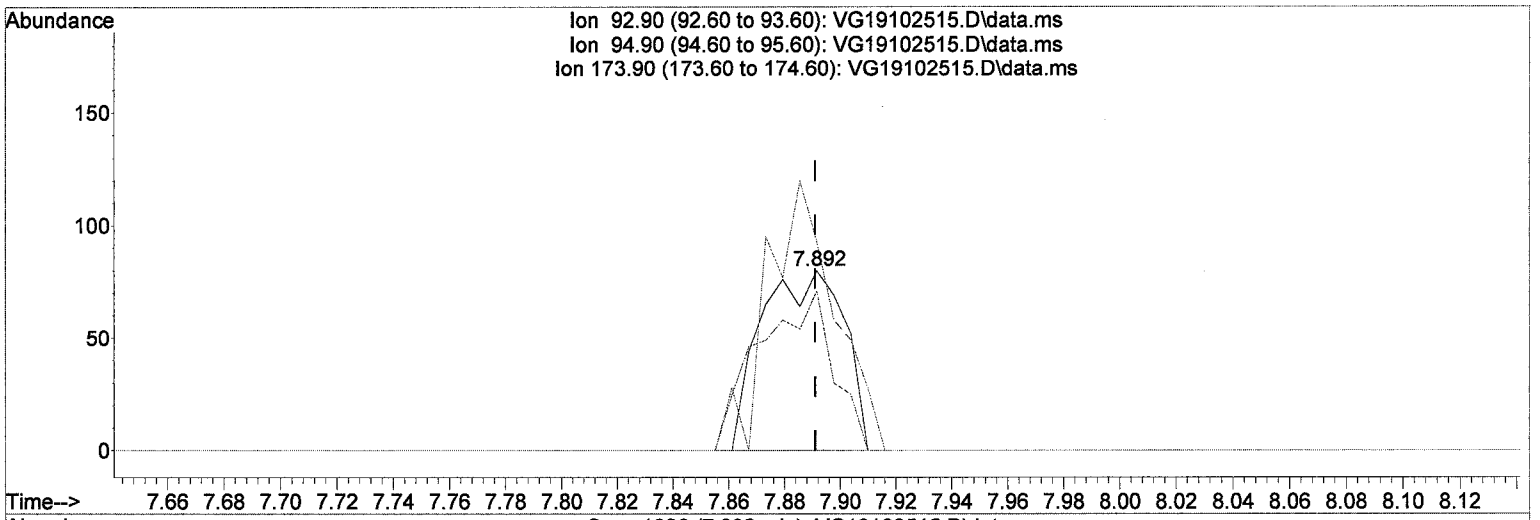
response 91

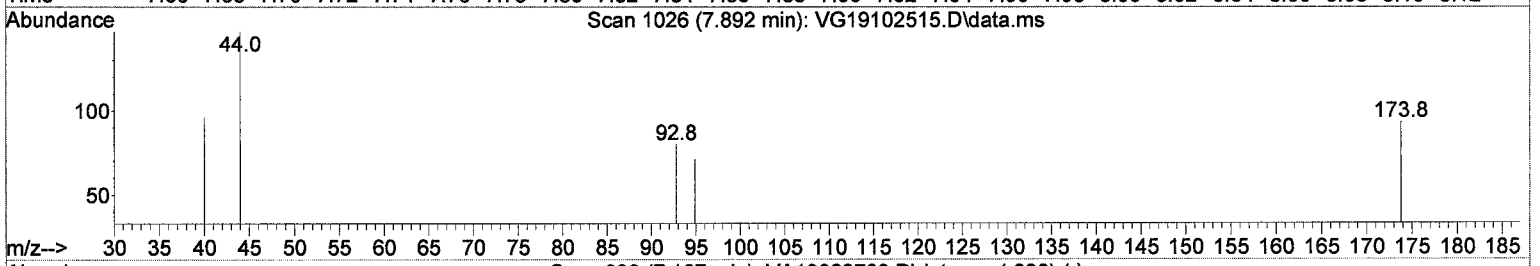
Ion	Exp%	Act%
92.90	100.00	100.00
94.90	83.10	76.32
173.90	115.70	101.32
0.00	0.00	0.00

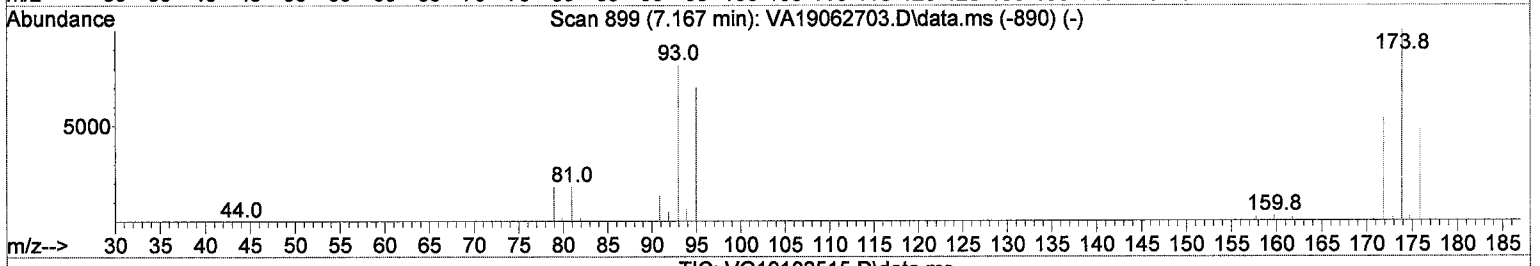
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102515.D\data.ms

(42) Dibromomethane

7.892min (+ 0.001) 0.15 ug/L m

response 165

Ion	Exp%	Act%
92.90	100.00	100.00
94.90	83.10	88.75
173.90	115.70	116.25
0.00	0.00	0.00

10/28/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81493	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248140	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	122815	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87694	51.91	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	287858	52.54	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320375	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	103556	50.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	263	0.21	ug/L		72
3) Chloromethane	1.984	50	619	0.36	ug/L		99
4) Vinyl Chloride	2.112	62	313	0.20	ug/L		94
5) Bromomethane	2.551	96	229	0.29	ug/L		80
6) Chloroethane	2.728	64	137	0.36	ug/L	#	47
7) Trichlorofluoromethane	2.923	101	338	0.19	ug/L		78
8) Ethanol	3.630	45	529	11.75	ug/L		89
9) 1,1-Dichloroethene	3.581	61	353	0.19	ug/L		98
10) Carbon Disulfide	3.588	76	583	0.21	ug/L		77
11) Freon 113	3.667	101	319	0.21	ug/L		77
12) Iodomethane	3.746	142	22	0.04	ug/L	#	47
13) Acrolein	4.039	56	35	0.08	ug/L	#	23
14) Methylene Chloride	4.319	84	1942	1.20	ug/L		91
15) Acetone	4.404	43	1117	1.34	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	349	0.17	ug/L		93
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.667	73	645	0.16	ug/L		96
19) tert-Butanol (TBA)	4.825	59	3672	9.98	ug/L	#	66
20) Diisopropyl ether (DIPE)	5.124	45	144	0.03	ug/L	#	33
21) 1,1-Dichloroethane	5.215	63	508	0.19	ug/L		95
22) Acrylonitrile	5.295	53	109	0.11	ug/L	#	14
23) Vinyl Acetate	5.551	43	104	0.04	ug/L		74
24) Ethyl-tert-butyl ether...	5.520	59	80	0.02	ug/L	#	72
25) c-1,2-Dichloroethene	5.825	61	368	0.18	ug/L		93
26) 2,2-Dichloropropane	5.935	77	218	0.17	ug/L		59
27) Bromochloromethane	6.044	49	239	0.18	ug/L		83
28) Chloroform	6.136	83	550	0.20	ug/L		81
29) Carbon Tetrachloride	6.264	117	240	0.15	ug/L	#	63
30) Tetrahydrofuran	6.313	42	50	0.06	ug/L	#	30
31) 1,1,1-Trichloroethane	6.337	97	348	0.17	ug/L		91
33) 1,1-Dichloropropene	6.483	75	307	0.15	ug/L		87
34) 2-Butanone (MEK)	6.496	43	192	0.15	ug/L		52
35) Benzene	6.752	78	1235	0.19	ug/L		93
36) tert-Amyl methyl ether...	6.898	73	143	0.04	ug/L	#	1
37) 1,2-Dichloroethane (EDC)	6.989	62	408	0.19	ug/L		71
38) iso-Butyl Alcohol	7.050	43	506	3.59	ug/L		92
40) Trichloroethene (TCE)	7.404	130	383	0.21	ug/L		79
41) tert-Amyl ethyl ether ...	7.678	59	21	0.01	ug/L	#	42
42) Dibromomethane	~~7.879~~	~~93~~	~~91~~	~~0.08~~	~~ug/L~~		~~89~~ MI 165
43) 1,2-Dichloropropane	8.001	63	327	0.20	ug/L		98
44) Bromodichloromethane	8.074	83	281	0.15	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.745	63	19	0.02	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	237	0.11	ug/L	#	52

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG~~191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

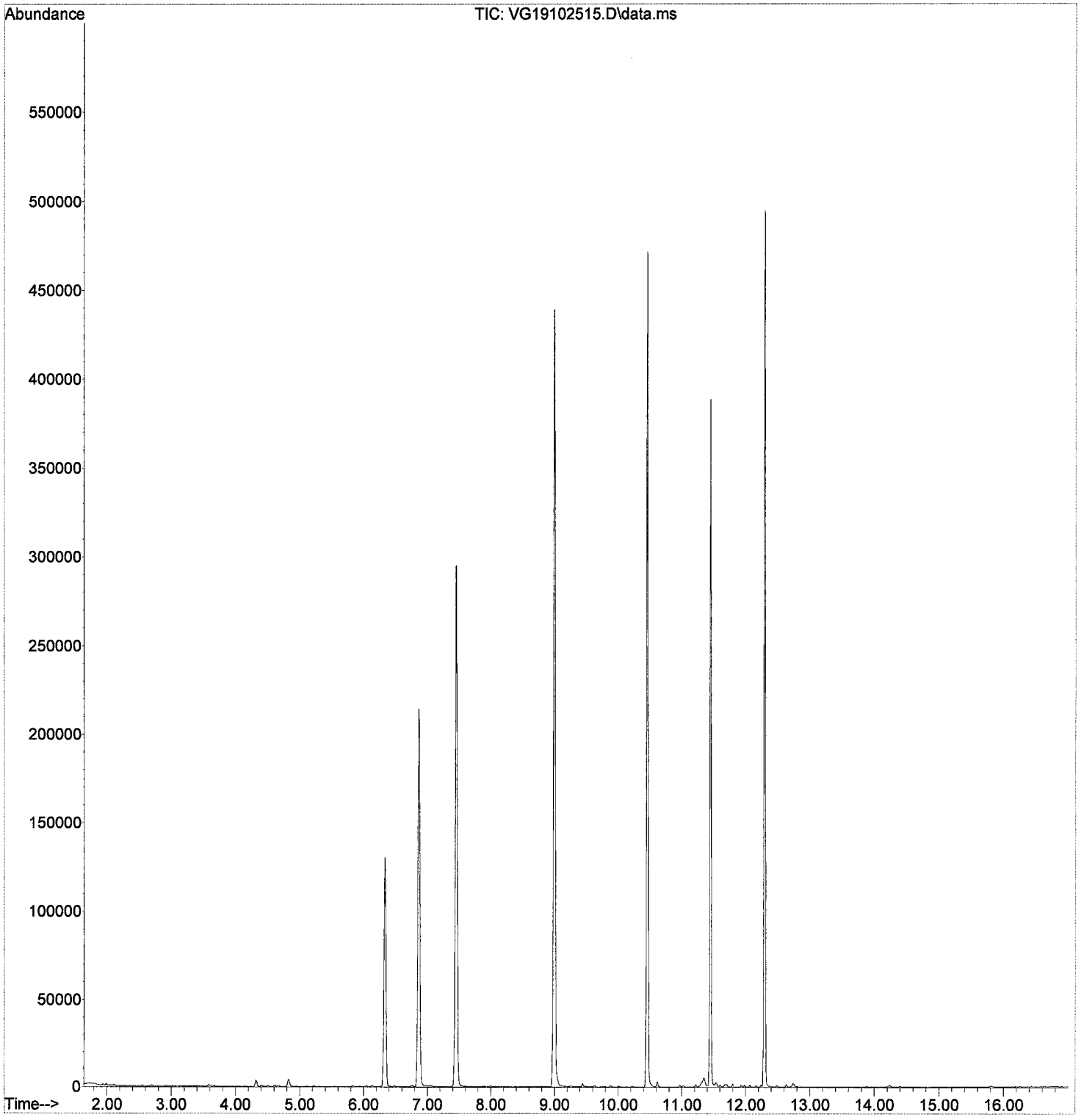
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		87
54) Dibromochloromethane	9.794	129	181	0.11	ug/L		87
55) 1,3-Dichloropropane	9.879	76	464	0.17	ug/L		83
56) 1,2-Dibromoethane (EDB)	10.007	107	286	0.15	ug/L		81
57) 2-Hexanone	10.220	43	303	0.17	ug/L		86
58) Chlorobenzene	10.464	112	977	0.20	ug/L	#	36
59) Ethylbenzene	10.489	91	1384	0.19	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	228	0.15	ug/L		84
61) m,p-Xylenes (2)	10.617	91	1670	0.31	ug/L		97
62) o-Xylene	10.970	91	748	0.14	ug/L		91
63) Styrene	11.019	104	473	0.11	ug/L		82
64) Bromoform	11.043	173	134	0.10	ug/L		81
65) Isopropylbenzene	11.220	105	829	0.13	ug/L		98
68) Bromobenzene	11.531	156	389	0.19	ug/L		97
69) n-Propylbenzene	11.543	91	1268	0.18	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	488	0.18	ug/L		90
71) 2-Chlorotoluene	11.671	126	243	0.15	ug/L	#	74
72) 1,3,5-Trimethylbenzene	11.690	105	719	0.13	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	154	0.19	ug/L	#	76
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	709	0.16	ug/L		87
76) tert-Butylbenzene	11.927	91	398	0.15	ug/L	#	70
77) 1,2,4-Trimethylbenzene	11.982	105	700	0.13	ug/L		88
78) sec-Butylbenzene	12.068	105	773	0.13	ug/L		98
79) 4-Isopropyltoluene	12.165	119	591	0.12	ug/L		92
80) 1,3-Dichlorobenzene	12.238	146	622	0.19	ug/L		86
81) 1,4-Dichlorobenzene	12.299	146	808	0.24	ug/L	#	26
82) n-Butylbenzene	12.488	91	574	0.14	ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	584	0.18	ug/L		94
84) 1,2-Dibromo-3-Chloropr...	13.287	157	31	0.05	ug/L	#	18
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.884	180	228	0.11	ug/L		83
87) Naphthalene	14.207	128	453	0.08	ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	188	0.09	ug/L		82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:43:31 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	78410	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	236751	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116929	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	83807	51.56	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	275500	52.27	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	309475	50.21	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	97363	49.74	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	405	0.33	ug/L		90
3) Chloromethane	1.984	50	914	0.55	ug/L		90
4) Vinyl Chloride	2.112	62	546	0.36	ug/L		83
5) Bromomethane	2.545	96	415	0.55	ug/L		77
6) Chloroethane	2.722	64	183	0.50	ug/L	#	65
7) Trichlorofluoromethane	2.923	101	650	0.39	ug/L		89
8) Ethanol	3.630	45	1029	23.76	ug/L		76
9) 1,1-Dichloroethene	3.588	61	720	0.39	ug/L		98
10) Carbon Disulfide	3.588	76	958	0.35	ug/L		93
11) Freon 113	3.655	101	578	0.39	ug/L		88
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	0.000		0	N.D.	d		
14) Methylene Chloride	4.319	84	2043	1.31	ug/L		94
15) Acetone	4.404	43	1426	1.78	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	721	0.37	ug/L		83
17) n-Hexane	4.624	86	10	0.05	ug/L	#	22
18) Methyl-tert-butyl-ether	4.667	73	1243	0.32	ug/L		95
19) tert-Butanol (TBA)	4.825	59	6902	19.51	ug/L	#	52
20) Diisopropyl ether (DIPE)	5.106	45	342	0.08	ug/L		78
21) 1,1-Dichloroethane	5.215	63	980	0.38	ug/L		98
22) Acrylonitrile	5.295	53	292	0.31	ug/L		83
23) Vinyl Acetate	0.000		0	N.D.	d		
24) Ethyl-tert-butyl ether...	5.520	59	277	0.07	ug/L	#	76
25) c-1,2-Dichloroethene	5.831	61	741	0.37	ug/L		88
26) 2,2-Dichloropropane	5.935	77	361	0.30	ug/L	#	53
27) Bromochloromethane	6.038	49	529	0.42	ug/L		93
28) Chloroform	6.136	83	984	0.37	ug/L		96
29) Carbon Tetrachloride	6.264	117	447	0.28	ug/L		92
30) Tetrahydrofuran	6.313	42	247	0.30	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	733	0.36	ug/L		96
33) 1,1-Dichloropropene	6.483	75	621	0.31	ug/L		94
34) 2-Butanone (MEK)	6.483	43	681	0.54	ug/L		86
35) Benzene	6.752	78	2314	0.37	ug/L		91
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.983	62	804	0.38	ug/L		91
38) iso-Butyl Alcohol	7.050	43	1036	7.65	ug/L		68
40) Trichloroethene (TCE)	7.404	130	739	0.43	ug/L		94
41) tert-Amyl ethyl ether ...	7.684	59	195	0.08	ug/L	#	58
42) Dibromomethane	7.892	93	364	0.34	ug/L		97
43) 1,2-Dichloropropane	7.989	63	585	0.37	ug/L		79
44) Bromodichloromethane	8.081	83	561	0.32	ug/L		85
46) 2-Chloroethyl Vinyl Ether	8.751	63	147	0.15	ug/L	#	1
47) c-1,3-Dichloropropene	8.806	75	512	0.24	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:43:31 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	2717	0.39	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	724	0.38	ug/L		88
51) 4-Methyl-2-Pentanone (...	9.446	43	1338	0.58	ug/L		98
52) t-1,3-Dichloropropene	9.477	75	400	0.23	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	608	0.35	ug/L		95
54) Dibromochloromethane	9.794	129	425	0.27	ug/L		88
55) 1,3-Dichloropropane	9.879	76	881	0.33	ug/L		77
56) 1,2-Dibromoethane (EDB)	10.007	107	559	0.31	ug/L		91
57) 2-Hexanone	10.214	43	717	0.43	ug/L		97
58) Chlorobenzene	10.470	112	1806	0.39	ug/L		87
59) Ethylbenzene	10.489	91	2478	0.35	ug/L		96
60) 1,1,1,2-Tetrachloroethane	10.525	131	486	0.33	ug/L		96
61) m,p-Xylenes (2)	10.617	91	3107	0.60	ug/L		98
62) o-Xylene	10.970	91	1387	0.28	ug/L		97
63) Styrene	11.019	104	899	0.22	ug/L		98
64) Bromoform	11.043	173	316	0.26	ug/L		75
65) Isopropylbenzene	11.220	105	1525	0.25	ug/L		95
68) Bromobenzene	11.531	156	732	0.37	ug/L		97
69) n-Propylbenzene	11.543	91	2261	0.33	ug/L		96
70) 1,1,2,2-Tetrachloroethane	11.604	83	967	0.38	ug/L		95
71) 2-Chlorotoluene	11.671	126	481	0.30	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	1388	0.27	ug/L		98
73) 1,2,3-Trichloropropane	11.702	110	290	0.38	ug/L	#	72
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.	d		
75) 4-Chlorotoluene	11.799	91	1263	0.29	ug/L		92
76) tert-Butylbenzene	11.927	91	728	0.29	ug/L		87
77) 1,2,4-Trimethylbenzene	11.982	105	1235	0.24	ug/L		94
78) sec-Butylbenzene	12.062	105	1554	0.27	ug/L		97
79) 4-Isopropyltoluene	12.165	119	1094	0.23	ug/L		97
80) 1,3-Dichlorobenzene	12.238	146	1072	0.33	ug/L		100
81) 1,4-Dichlorobenzene	12.305	146	1394	0.43	ug/L		84
82) n-Butylbenzene	12.488	91	1096	0.27	ug/L		92
83) 1,2-Dichlorobenzene	12.628	146	1052	0.33	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	13.287	157	121	0.22	ug/L		84
85) Hexachlorobutadiene	13.829	223	161	0.32	ug/L		93
86) 1,2,4-Trichlorobenzene	13.872	180	459	0.23	ug/L		93
87) Naphthalene	14.201	128	915	0.16	ug/L		89
88) 1,2,3-Trichlorobenzene	14.396	180	435	0.22	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	78410	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	236751	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116929	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	83807	51.56	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	275500	52.27	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	309475	50.21	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	97363	49.74	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	405	0.33	ug/L		90
3) Chloromethane	1.984	50	914	0.55	ug/L		90
4) Vinyl Chloride	2.112	62	546	0.36	ug/L		83
5) Bromomethane	2.545	96	415	0.55	ug/L		77
6) Chloroethane	2.722	64	183	0.50	ug/L	#	65
7) Trichlorofluoromethane	2.923	101	650	0.39	ug/L		89
8) Ethanol	3.630	45	1029	23.76	ug/L		76
9) 1,1-Dichloroethene	3.588	61	720	0.39	ug/L		98
10) Carbon Disulfide	3.588	76	958	0.35	ug/L		93
11) Freon 113	3.655	101	578	0.39	ug/L		88
12) Iodomethane	3.740	142	27	0.05	ug/L	#	47
13) Acrolein	4.039	56	89	0.22	ug/L		96
14) Methylene Chloride	4.319	84	2043	1.31	ug/L		94
15) Acetone	4.404	43	1426	1.78	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	721	0.37	ug/L		83
17) n-Hexane	4.624	86	10	0.05	ug/L	#	22
18) Methyl-tert-butyl-ether	4.667	73	1243	0.32	ug/L		95
19) tert-Butanol (TBA)	4.825	59	6902	19.51	ug/L	#	52
20) Diisopropyl ether (DIPE)	5.106	45	342	0.08	ug/L		78
21) 1,1-Dichloroethane	5.215	63	980	0.38	ug/L		98
22) Acrylonitrile	5.295	53	292	0.31	ug/L		83
23) Vinyl Acetate	5.544	43	406	0.15	ug/L		74
24) Ethyl-tert-butyl ether...	5.520	59	277	0.07	ug/L	#	76
25) c-1,2-Dichloroethene	5.831	61	741	0.37	ug/L		88
26) 2,2-Dichloropropane	5.935	77	361	0.30	ug/L	#	53
27) Bromochloromethane	6.038	49	529	0.42	ug/L		93
28) Chloroform	6.136	83	984	0.37	ug/L		96
29) Carbon Tetrachloride	6.264	117	447	0.28	ug/L		92
30) Tetrahydrofuran	6.313	42	247	0.30	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	733	0.36	ug/L		96
33) 1,1-Dichloropropene	6.483	75	621	0.31	ug/L		94
34) 2-Butanone (MEK)	6.483	43	681	0.54	ug/L		86
35) Benzene	6.752	78	2314	0.37	ug/L		91
36) tert-Amyl methyl ether...	6.892	73	326	0.09	ug/L	#	1
37) 1,2-Dichloroethane (EDC)	6.983	62	804	0.38	ug/L		91
38) iso-Butyl Alcohol	7.050	43	1036	7.65	ug/L		68
40) Trichloroethene (TCE)	7.404	130	739	0.43	ug/L		94
41) tert-Amyl ethyl ether ...	7.684	59	195	0.08	ug/L	#	58
42) Dibromomethane	7.892	93	364	0.34	ug/L		97
43) 1,2-Dichloropropane	7.989	63	585	0.37	ug/L		79
44) Bromodichloromethane	8.081	83	561	0.32	ug/L		85
46) 2-Chloroethyl Vinyl Ether	8.751	63	147	0.15	ug/L	#	1
47) c-1,3-Dichloropropene	8.806	75	512	0.24	ug/L		100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

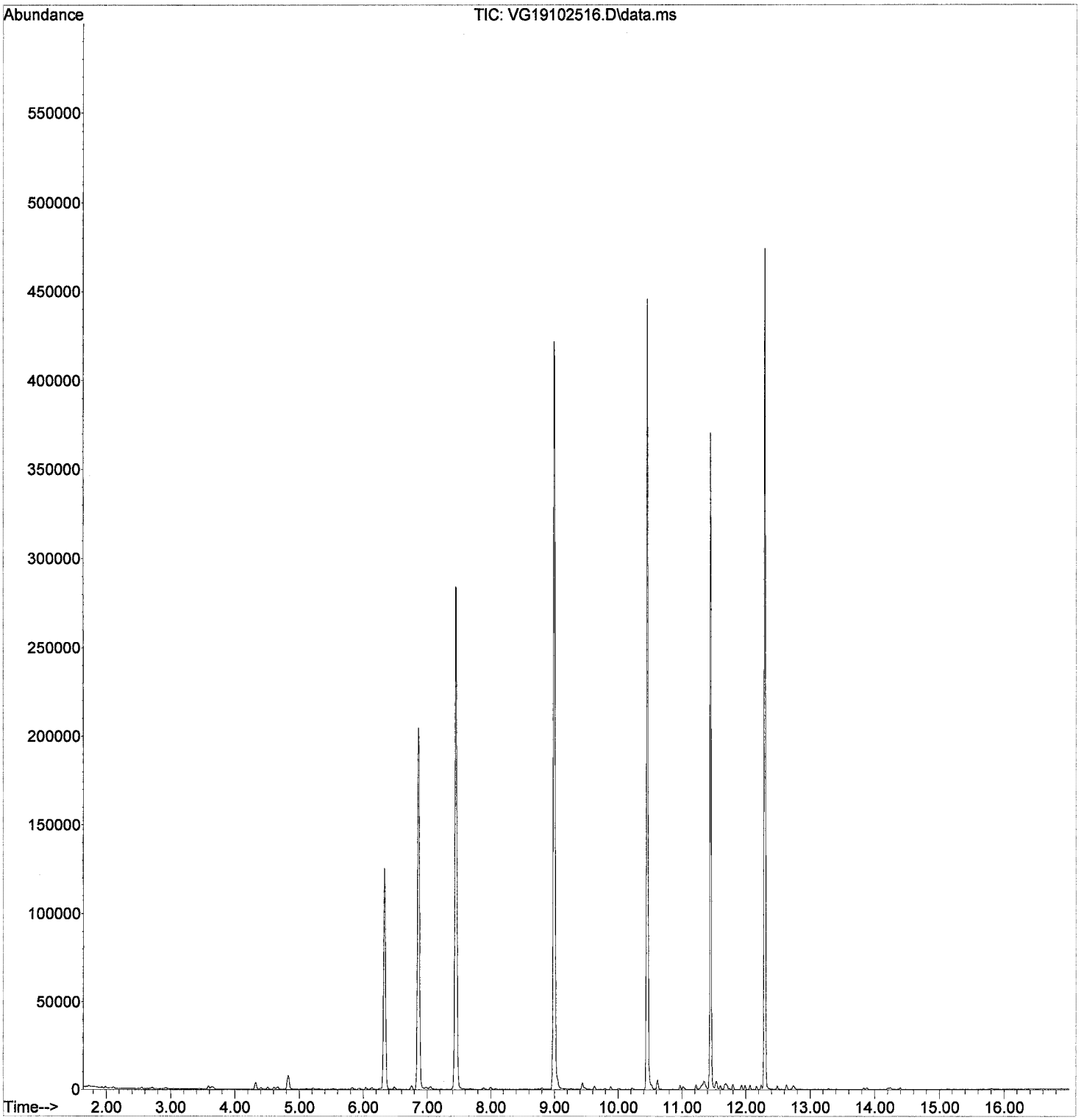
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	2717	0.39	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	724	0.38	ug/L		88
51) 4-Methyl-2-Pentanone (...	9.446	43	1338	0.58	ug/L		98
52) t-1,3-Dichloropropene	9.477	75	400	0.23	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	608	0.35	ug/L		95
54) Dibromochloromethane	9.794	129	425	0.27	ug/L		88
55) 1,3-Dichloropropane	9.879	76	881	0.33	ug/L		77
56) 1,2-Dibromoethane (EDB)	10.007	107	559	0.31	ug/L		91
57) 2-Hexanone	10.214	43	717	0.43	ug/L		97
58) Chlorobenzene	10.470	112	1806	0.39	ug/L		87
59) Ethylbenzene	10.489	91	2478	0.35	ug/L		96
60) 1,1,1,2-Tetrachloroethane	10.525	131	486	0.33	ug/L		96
61) m,p-Xylenes (2)	10.617	91	3107	0.60	ug/L		98
62) o-Xylene	10.970	91	1387	0.28	ug/L		97
63) Styrene	11.019	104	899	0.22	ug/L		98
64) Bromoform	11.043	173	316	0.26	ug/L		75
65) Isopropylbenzene	11.220	105	1525	0.25	ug/L		95
68) Bromobenzene	11.531	156	732	0.37	ug/L		97
69) n-Propylbenzene	11.543	91	2261	0.33	ug/L		96
70) 1,1,2,2-Tetrachloroethane	11.604	83	967	0.38	ug/L		95
71) 2-Chlorotoluene	11.671	126	481	0.30	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	1388	0.27	ug/L		98
73) 1,2,3-Trichloropropane	11.702	110	290	0.38	ug/L	#	72
74) t-1,4-Dichloro-2-butene	11.744	88	10	0.05	ug/L	#	28
75) 4-Chlorotoluene	11.799	91	1263	0.29	ug/L		92
76) tert-Butylbenzene	11.927	91	728	0.29	ug/L		87
77) 1,2,4-Trimethylbenzene	11.982	105	1235	0.24	ug/L		94
78) sec-Butylbenzene	12.062	105	1554	0.27	ug/L		97
79) 4-Isopropyltoluene	12.165	119	1094	0.23	ug/L		97
80) 1,3-Dichlorobenzene	12.238	146	1072	0.33	ug/L		100
81) 1,4-Dichlorobenzene	12.305	146	1394	0.43	ug/L		84
82) n-Butylbenzene	12.488	91	1096	0.27	ug/L		92
83) 1,2-Dichlorobenzene	12.628	146	1052	0.33	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	13.287	157	121	0.22	ug/L		84
85) Hexachlorobutadiene	13.829	223	161	0.32	ug/L		93
86) 1,2,4-Trichlorobenzene	13.872	180	459	0.23	ug/L		93
87) Naphthalene	14.201	128	915	0.16	ug/L		89
88) 1,2,3-Trichlorobenzene	14.396	180	435	0.22	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:44:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	87837	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266623	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	134840	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	93451	51.32	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	309533	52.42	ug/L		-0.01
48) Toluene-d8 (S)	8.989	98	348152	50.16	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	112252	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	1328	0.96	ug/L		98
3) Chloromethane	1.984	50	2027	1.08	ug/L		88
4) Vinyl Chloride	2.112	62	1682	0.98	ug/L		99
5) Bromomethane	2.545	96	1031	1.22	ug/L		99
6) Chloroethane	2.722	64	473	1.15	ug/L	#	34
7) Trichlorofluoromethane	2.917	101	1893	1.01	ug/L		99
8) Ethanol	3.636	45	2873	59.21	ug/L		93
9) 1,1-Dichloroethene	3.581	61	2001	0.98	ug/L		92
10) Carbon Disulfide	3.588	76	2616	0.86	ug/L		95
11) Freon 113	3.661	101	1595	0.95	ug/L		83
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	4.027	56	363	0.81	ug/L		85
14) Methylene Chloride	4.319	84	3475	1.99	ug/L		89
15) Acetone	4.404	43	2696	3.00	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	2024	0.92	ug/L		94
17) n-Hexane	4.606	86	168	0.70	ug/L	#	60
18) Methyl-tert-butyl-ether	4.667	73	3585	0.82	ug/L		92
19) tert-Butanol (TBA)	4.825	59	19370	48.87	ug/L	#	57
20) Diisopropyl ether (DIPE)	5.112	45	1029	0.21	ug/L		96
21) 1,1-Dichloroethane	5.215	63	2990	1.03	ug/L		97
22) Acrylonitrile	5.295	53	831	0.78	ug/L		98
23) Vinyl Acetate	5.532	43	1655	0.53	ug/L		87
24) Ethyl-tert-butyl ether...	5.514	59	799	0.18	ug/L		92
25) c-1,2-Dichloroethene	5.819	61	2038	0.90	ug/L		95
26) 2,2-Dichloropropane	5.935	77	1277	0.95	ug/L	#	51
27) Bromochloromethane	6.038	49	1485	1.06	ug/L		95
28) Chloroform	6.136	83	2916	0.98	ug/L		97
29) Carbon Tetrachloride	6.264	117	1387	0.78	ug/L		95
30) Tetrahydrofuran	6.319	42	728	0.79	ug/L		80
31) 1,1,1-Trichloroethane	6.337	97	2025	0.90	ug/L		95
33) 1,1-Dichloropropene	6.477	75	1862	0.83	ug/L		97
34) 2-Butanone (MEK)	6.483	43	2324	1.63	ug/L		90
35) Benzene	6.752	78	6507	0.92	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	1071	0.27	ug/L	#	58
37) 1,2-Dichloroethane (EDC)	6.983	62	2322	0.99	ug/L		99
38) iso-Butyl Alcohol	7.044	43	3182	20.97	ug/L		89
40) Trichloroethene (TCE)	7.410	130	1961	1.02	ug/L		88
41) tert-Amyl ethyl ether ...	7.684	59	584	0.22	ug/L		80
42) Dibromomethane	7.879	93	1159	0.96	ug/L		96
43) 1,2-Dichloropropane	7.995	63	1670	0.94	ug/L		93
44) Bromodichloromethane	8.075	83	1774	0.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	648	0.60	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	1512	0.64	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:44:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

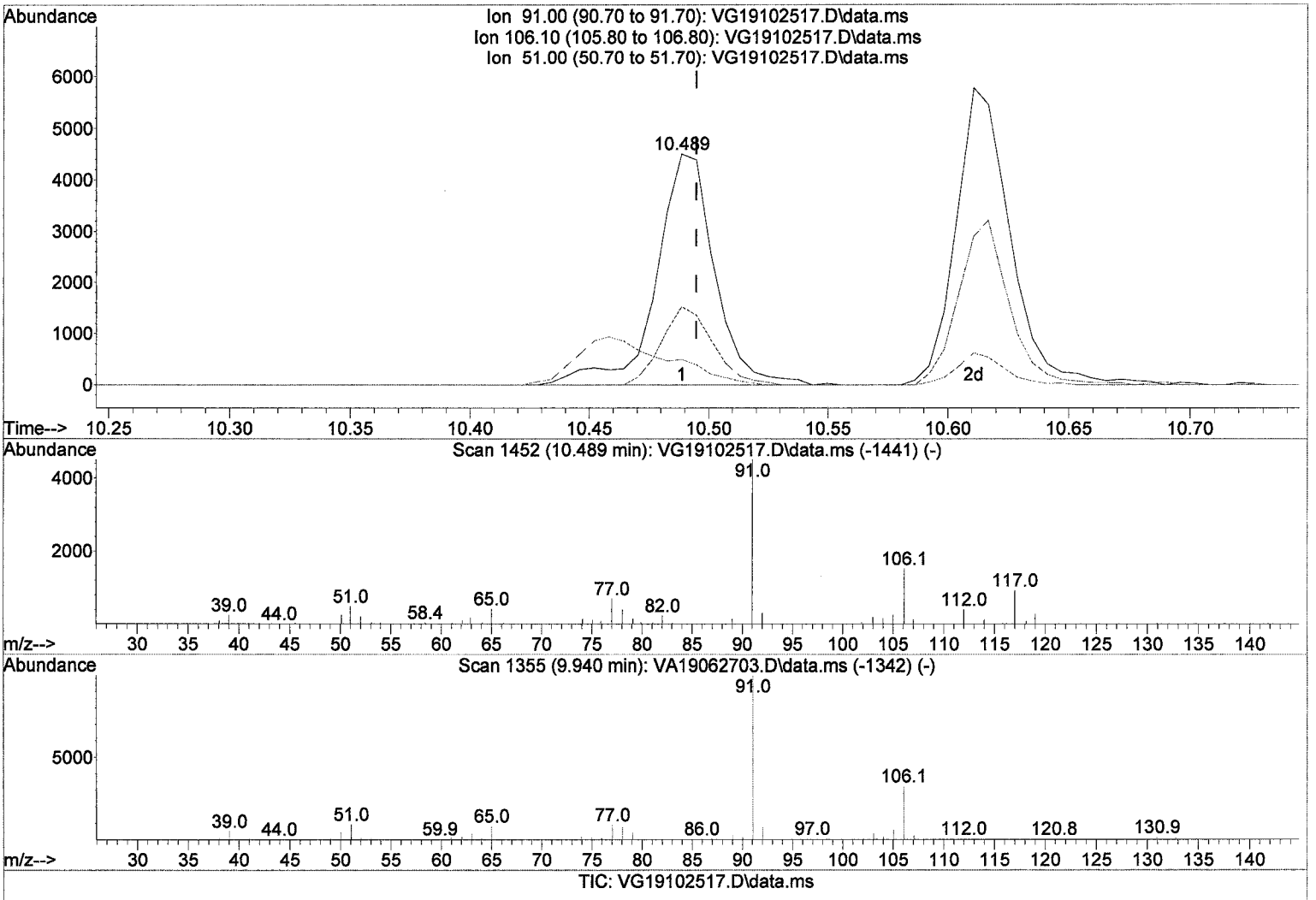
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	ug/L		96
54) Dibromochloromethane	9.788	129	1298	0.73	ug/L		92
55) 1,3-Dichloropropane	9.879	76	2761	0.92	ug/L		94
56) 1,2-Dibromoethane (EDB)	10.007	107	1647	0.82	ug/L		99
57) 2-Hexanone	10.214	43	2488	1.32	ug/L		96
58) Chlorobenzene	10.470	112	5325	1.02	ug/L		98
59) Ethylbenzene	10.489	91	7230m	0.91	ug/L		
60) 1,1,1,2-Tetrachloroethane	10.519	131	1443	0.87	ug/L		97
61) m,p-Xylenes (2)	10.611	91	9040	1.55	ug/L		98
62) o-Xylene	10.970	91	4144	0.74	ug/L		95
63) Styrene	11.013	104	2917	0.63	ug/L		95
64) Bromoform	11.037	173	931	0.67	ug/L		95
65) Isopropylbenzene	11.220	105	4739	0.68	ug/L		96
68) Bromobenzene	11.531	156	2221	0.97	ug/L		96
69) n-Propylbenzene	11.543	91	6998	0.90	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	2820	0.95	ug/L		100
71) 2-Chlorotoluene	11.665	126	1659	0.91	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	4147	0.70	ug/L		98
73) 1,2,3-Trichloropropane	11.708	110	889	1.02	ug/L	#	81
74) t-1,4-Dichloro-2-butene	11.732	88	151	0.60	ug/L	#	65
75) 4-Chlorotoluene	11.793	91	4167	0.84	ug/L		99
76) tert-Butylbenzene	11.927	91	2301	0.80	ug/L		88
77) 1,2,4-Trimethylbenzene	11.982	105	3979	0.66	ug/L		99
78) sec-Butylbenzene	12.062	105	5081	0.78	ug/L		98
79) 4-Isopropyltoluene	12.165	119	3769	0.68	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	3266	0.88	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	3909	1.04	ug/L		94
82) n-Butylbenzene	12.488	91	3461	0.75	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	3393	0.93	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	450	0.72	ug/L		73
85) Hexachlorobutadiene	13.829	223	499	0.85	ug/L		86
86) 1,2,4-Trichlorobenzene	13.872	180	1602	0.71	ug/L		85
87) Naphthalene	14.201	128	2843	0.44	ug/L		99
88) 1,2,3-Trichlorobenzene	14.396	180	1447	0.64	ug/L		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



(59) Ethylbenzene (C)

10.489min (-0.006) 0.97 ug/L

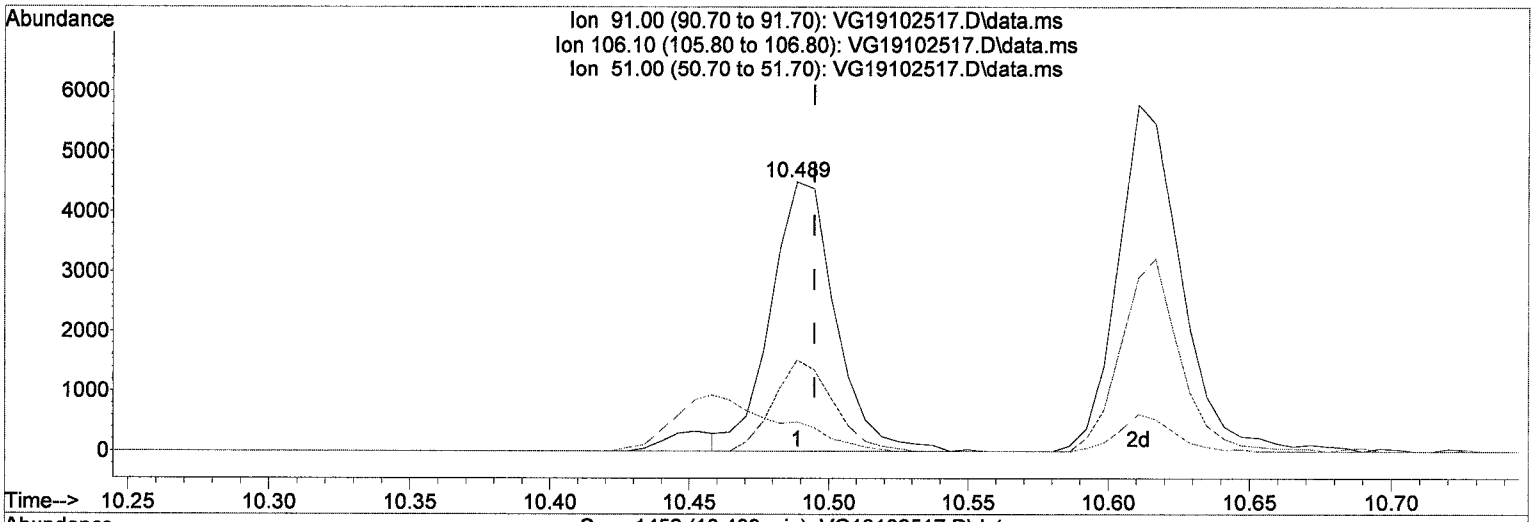
response 7653

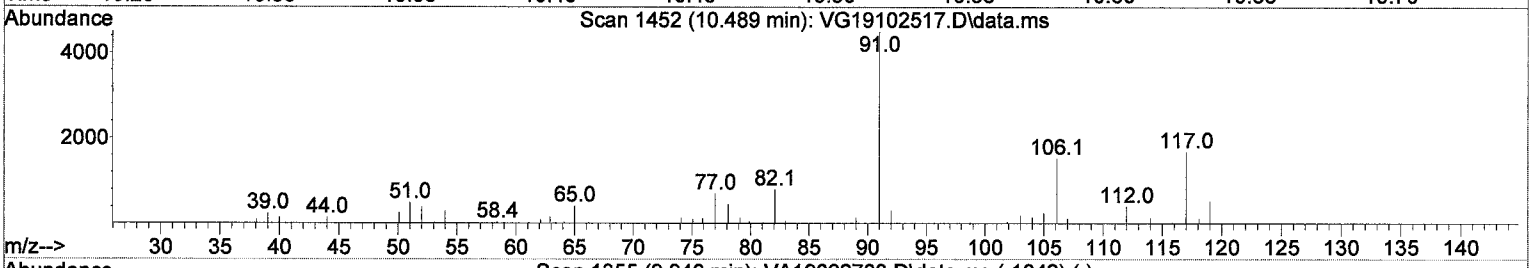
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	33.82
51.00	9.80	10.88
0.00	0.00	0.00

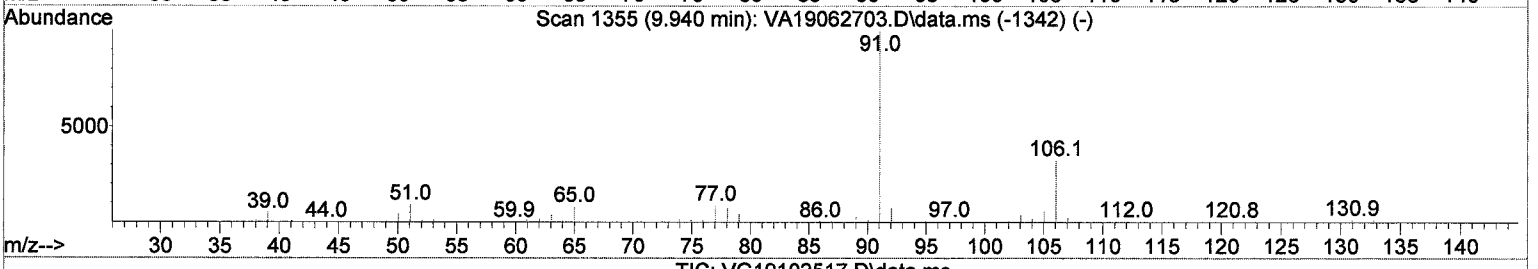
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102517.D\data.ms

(59) Ethylbenzene (C)

10.489min (-0.006) 0.91 ug/L m

response 7230

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	33.82
51.00	9.80	10.88
0.00	0.00	0.00

10/28/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	87837	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266623	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	134840	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	93451	51.32	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	309533	52.42	ug/L		-0.01
48) Toluene-d8 (S)	8.989	98	348152	50.16	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	112252	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	1328	0.96	ug/L		98
3) Chloromethane	1.984	50	2027	1.08	ug/L		88
4) Vinyl Chloride	2.112	62	1682	0.98	ug/L		99
5) Bromomethane	2.545	96	1031	1.22	ug/L		99
6) Chloroethane	2.722	64	473	1.15	ug/L	#	34
7) Trichlorofluoromethane	2.917	101	1893	1.01	ug/L		99
8) Ethanol	3.636	45	2873	59.21	ug/L		93
9) 1,1-Dichloroethene	3.581	61	2001	0.98	ug/L		92
10) Carbon Disulfide	3.588	76	2616	0.86	ug/L		95
11) Freon 113	3.661	101	1595	0.95	ug/L		83
12) Iodomethane	3.746	142	185	0.81	ug/L	#	54
13) Acrolein	4.027	56	363	0.81	ug/L		85
14) Methylene Chloride	4.319	84	3475	1.99	ug/L		89
15) Acetone	4.404	43	2696	3.00	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	2024	0.92	ug/L		94
17) n-Hexane	4.606	86	168	0.70	ug/L	#	60
18) Methyl-tert-butyl-ether	4.667	73	3585	0.82	ug/L		92
19) tert-Butanol (TBA)	4.825	59	19370	48.87	ug/L	#	57
20) Diisopropyl ether (DIPE)	5.112	45	1029	0.21	ug/L		96
21) 1,1-Dichloroethane	5.215	63	2990	1.03	ug/L		97
22) Acrylonitrile	5.295	53	831	0.78	ug/L		98
23) Vinyl Acetate	5.532	43	1655	0.53	ug/L		87
24) Ethyl-tert-butyl ether...	5.514	59	799	0.18	ug/L		92
25) c-1,2-Dichloroethene	5.819	61	2038	0.90	ug/L		95
26) 2,2-Dichloropropane	5.935	77	1277	0.95	ug/L	#	51
27) Bromochloromethane	6.038	49	1485	1.06	ug/L		95
28) Chloroform	6.136	83	2916	0.98	ug/L		97
29) Carbon Tetrachloride	6.264	117	1387	0.78	ug/L		95
30) Tetrahydrofuran	6.319	42	728	0.79	ug/L		80
31) 1,1,1-Trichloroethane	6.337	97	2025	0.90	ug/L		95
33) 1,1-Dichloropropene	6.477	75	1862	0.83	ug/L		97
34) 2-Butanone (MEK)	6.483	43	2324	1.63	ug/L		90
35) Benzene	6.752	78	6507	0.92	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	1071	0.27	ug/L	#	58
37) 1,2-Dichloroethane (EDC)	6.983	62	2322	0.99	ug/L		99
38) iso-Butyl Alcohol	7.044	43	3182	20.97	ug/L		89
40) Trichloroethene (TCE)	7.410	130	1961	1.02	ug/L		88
41) tert-Amyl ethyl ether ...	7.684	59	584	0.22	ug/L		80
42) Dibromomethane	7.879	93	1159	0.96	ug/L		96
43) 1,2-Dichloropropane	7.995	63	1670	0.94	ug/L		93
44) Bromodichloromethane	8.075	83	1774	0.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	648	0.60	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	1512	0.64	ug/L		89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

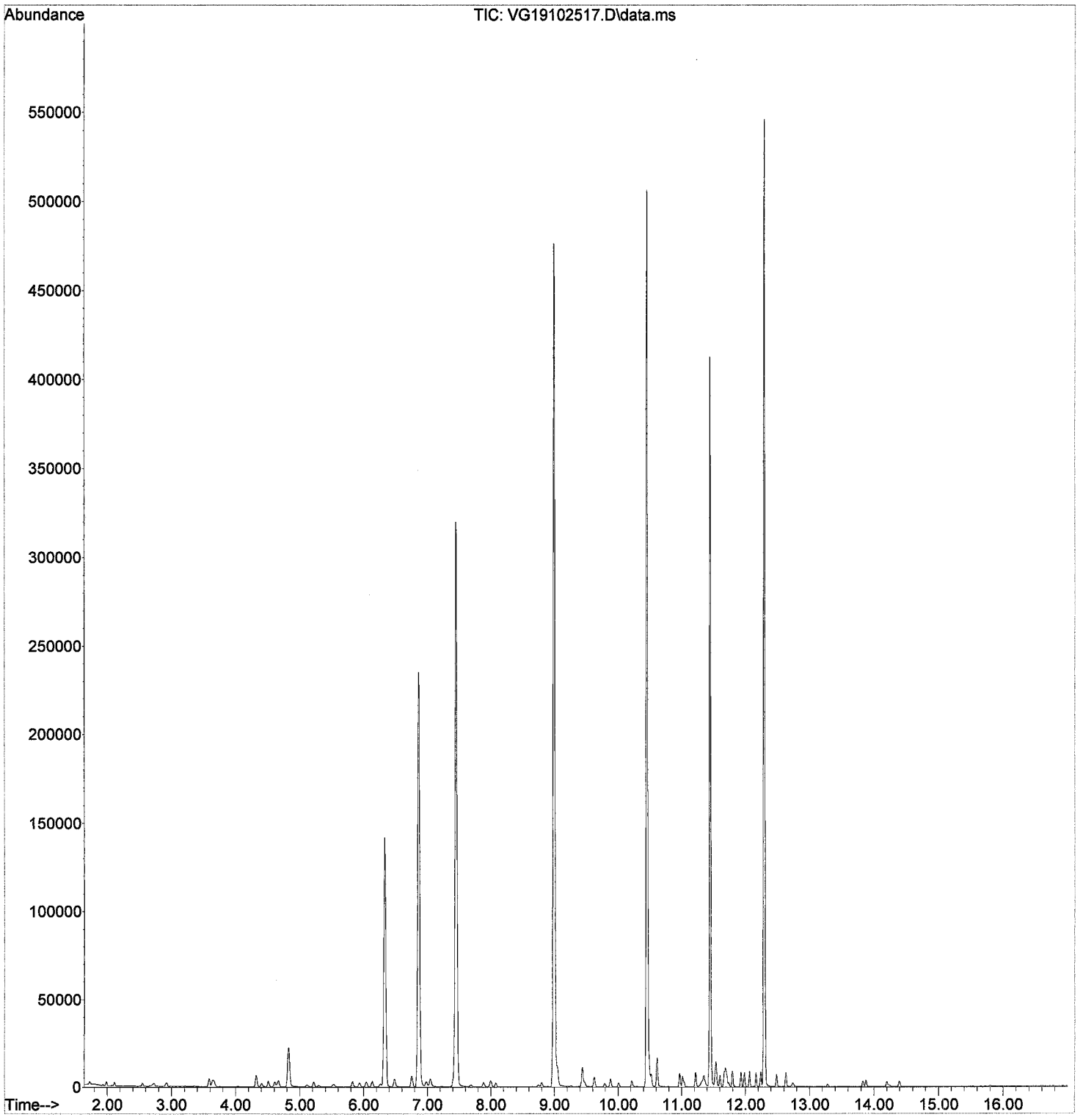
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	ug/L		96
54) Dibromochloromethane	9.788	129	1298	0.73	ug/L		92
55) 1,3-Dichloropropane	9.879	76	2761	0.92	ug/L		94
56) 1,2-Dibromoethane (EDB)	10.007	107	1647	0.82	ug/L		99
57) 2-Hexanone	10.214	43	2488	1.32	ug/L		96
58) Chlorobenzene	10.470	112	5325	1.02	ug/L		98
59) Ethylbenzene	10.489	91	~~7653~~	~~0.97~~	~~ug/L~~		~~97~~ MI 7230
60) 1,1,1,2-Tetrachloroethane	10.519	131	1443	0.87	ug/L		97
61) m,p-Xylenes (2)	10.611	91	9040	1.55	ug/L		98
62) o-Xylene	10.970	91	4144	0.74	ug/L		95
63) Styrene	11.013	104	2917	0.63	ug/L		95
64) Bromoform	11.037	173	931	0.67	ug/L		95
65) Isopropylbenzene	11.220	105	4739	0.68	ug/L		96
68) Bromobenzene	11.531	156	2221	0.97	ug/L		96
69) n-Propylbenzene	11.543	91	6998	0.90	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	2820	0.95	ug/L		100
71) 2-Chlorotoluene	11.665	126	1659	0.91	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	4147	0.70	ug/L		98
73) 1,2,3-Trichloropropane	11.708	110	889	1.02	ug/L	#	81
74) t-1,4-Dichloro-2-butene	11.732	88	151	0.60	ug/L	#	65
75) 4-Chlorotoluene	11.793	91	4167	0.84	ug/L		99
76) tert-Butylbenzene	11.927	91	2301	0.80	ug/L		88
77) 1,2,4-Trimethylbenzene	11.982	105	3979	0.66	ug/L		99
78) sec-Butylbenzene	12.062	105	5081	0.78	ug/L		98
79) 4-Isopropyltoluene	12.165	119	3769	0.68	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	3266	0.88	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	3909	1.04	ug/L		94
82) n-Butylbenzene	12.488	91	3461	0.75	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	3393	0.93	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	450	0.72	ug/L		73
85) Hexachlorobutadiene	13.829	223	499	0.85	ug/L		86
86) 1,2,4-Trichlorobenzene	13.872	180	1602	0.71	ug/L		85
87) Naphthalene	14.201	128	2843	0.44	ug/L		99
88) 1,2,3-Trichlorobenzene	14.396	180	1447	0.64	ug/L		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	76501	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	228711	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114333	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	81480	51.38	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	264143	51.36	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	296218	49.75	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	93974	49.10	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	2795	2.33	ug/L		96
3) Chloromethane	1.984	50	3700	2.27	ug/L		94
4) Vinyl Chloride	2.112	62	3136	2.10	ug/L		95
5) Bromomethane	2.551	96	1968	2.66	ug/L		92
6) Chloroethane	2.728	64	1240	3.47	ug/L		97
7) Trichlorofluoromethane	2.923	101	3605	2.21	ug/L		91
8) Ethanol	3.630	45	5504	130.24	ug/L		82
9) 1,1-Dichloroethene	3.587	61	3661	2.05	ug/L		90
10) Carbon Disulfide	3.587	76	5003	1.89	ug/L		99
11) Freon 113	3.661	101	3171	2.17	ug/L		96
12) Iodomethane	3.752	142	448	0.87	ug/L		95
13) Acrolein	4.033	56	797	2.05	ug/L		92
14) Methylene Chloride	4.319	84	4760	3.14	ug/L		94
15) Acetone	4.404	43	3962	5.05	ug/L		99
16) t-1,2-Dichloroethene	4.508	61	3893	2.04	ug/L		93
17) n-Hexane	4.606	86	342	1.64	ug/L	#	72
18) Methyl-tert-butyl-ether	4.667	73	6706	1.77	ug/L		97
19) tert-Butanol (TBA)	4.819	59	39779	115.22	ug/L	#	59
20) Diisopropyl ether (DIPE)	5.106	45	2023	0.48	ug/L		96
21) 1,1-Dichloroethane	5.215	63	5406	2.14	ug/L		95
22) Acrylonitrile	5.301	53	1734	1.87	ug/L		94
23) Vinyl Acetate	5.532	43	3721	1.38	ug/L		95
24) Ethyl-tert-butyl ether...	5.520	59	1633	0.43	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	3898	1.98	ug/L		91
26) 2,2-Dichloropropane	5.935	77	2329	1.99	ug/L	#	61
27) Bromochloromethane	6.044	49	2654	2.17	ug/L		87
28) Chloroform	6.136	83	5455	2.09	ug/L		98
29) Carbon Tetrachloride	6.258	117	2771	1.79	ug/L		94
30) Tetrahydrofuran	6.313	42	1403	1.75	ug/L		90
31) 1,1,1-Trichloroethane	6.343	97	3963	2.01	ug/L		93
33) 1,1-Dichloropropene	6.483	75	3368	1.73	ug/L		96
34) 2-Butanone (MEK)	6.483	43	4574	3.69	ug/L		98
35) Benzene	6.758	78	12371	2.00	ug/L		97
36) tert-Amyl methyl ether...	6.904	73	1740	0.50	ug/L		65
37) 1,2-Dichloroethane (EDC)	6.983	62	4512	2.20	ug/L		96
38) iso-Butyl Alcohol	7.044	43	6444	48.77	ug/L		80
40) Trichloroethene (TCE)	7.410	130	3521	2.10	ug/L		96
41) tert-Amyl ethyl ether ...	7.684	59	1135	0.48	ug/L		91
42) Dibromomethane	7.885	93	2084	1.98	ug/L		92
43) 1,2-Dichloropropane	7.995	63	3229	2.08	ug/L		91
44) Bromodichloromethane	8.074	83	3272	1.90	ug/L		91
46) 2-Chloroethyl Vinyl Ether	8.739	63	1287	1.40	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	3075	1.52	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	13799	2.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	3761	2.07	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.440	43	7750	3.50	ug/L		98
52) t-1,3-Dichloropropene	9.470	75	2554	1.49	ug/L		96
53) 1,1,2-Trichloroethane	9.629	97	3489	2.10	ug/L		94
54) Dibromochloromethane	9.794	129	2572	1.69	ug/L		93
55) 1,3-Dichloropropane	9.879	76	5172	2.00	ug/L		99
56) 1,2-Dibromoethane (EDB)	10.007	107	3150	1.83	ug/L		95
57) 2-Hexanone	10.214	43	5003	3.09	ug/L		100
58) Chlorobenzene	10.464	112	9394	2.10	ug/L		97
59) Ethylbenzene	10.489	91	13598	2.01	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	2578	1.81	ug/L		94
61) m,p-Xylenes (2)	10.617	91	17637	3.54	ug/L		98
62) o-Xylene	10.970	91	7805	1.61	ug/L		95
63) Styrene	11.013	104	6029	1.51	ug/L		98
64) Bromoform	11.037	173	1883	1.58	ug/L		98
65) Isopropylbenzene	11.220	105	9314	1.57	ug/L		99
68) Bromobenzene	11.531	156	3862	1.99	ug/L		96
69) n-Propylbenzene	11.543	91	13043	1.97	ug/L		97
70) 1,1,2,2-Tetrachloroethane	11.604	83	5527	2.21	ug/L		99
71) 2-Chlorotoluene	11.665	126	2896	1.88	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	8326	1.67	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	1624	2.20	ug/L	#	83
74) t-1,4-Dichloro-2-butene	11.738	88	314	1.48	ug/L	#	64
75) 4-Chlorotoluene	11.793	91	7775	1.85	ug/L		98
76) tert-Butylbenzene	11.933	91	4363	1.79	ug/L		91
77) 1,2,4-Trimethylbenzene	11.982	105	7870	1.54	ug/L		98
78) sec-Butylbenzene	12.061	105	9664	1.75	ug/L		96
79) 4-Isopropyltoluene	12.165	119	7387	1.58	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	6240	1.99	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	6942	2.17	ug/L		95
82) n-Butylbenzene	12.488	91	6447	1.64	ug/L		96
83) 1,2-Dichlorobenzene	12.635	146	6204	2.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	887	1.67	ug/L		96
85) Hexachlorobutadiene	13.829	223	925	1.85	ug/L		90
86) 1,2,4-Trichlorobenzene	13.872	180	2902	1.51	ug/L		93
87) Naphthalene	14.201	128	5987	1.09	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	2863	1.48	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	76501	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	228711	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114333	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	81480	51.38	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	264143	51.36	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	296218	49.75	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	93974	49.10	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	2795	2.33	ug/L		96
3) Chloromethane	1.984	50	3700	2.27	ug/L		94
4) Vinyl Chloride	2.112	62	3136	2.10	ug/L		95
5) Bromomethane	2.551	96	1968	2.66	ug/L		92
6) Chloroethane	2.728	64	1240	3.47	ug/L		97
7) Trichlorofluoromethane	2.923	101	3605	2.21	ug/L		91
8) Ethanol	3.630	45	5504	130.24	ug/L		82
9) 1,1-Dichloroethene	3.587	61	3661	2.05	ug/L		90
10) Carbon Disulfide	3.587	76	5003	1.89	ug/L		99
11) Freon 113	3.661	101	3171	2.17	ug/L		96
12) Iodomethane	3.752	142	448	0.87	ug/L		95
13) Acrolein	4.033	56	797	2.05	ug/L		92
14) Methylene Chloride	4.319	84	4760	3.14	ug/L		94
15) Acetone	4.404	43	3962	5.05	ug/L		99
16) t-1,2-Dichloroethene	4.508	61	3893	2.04	ug/L		93
17) n-Hexane	4.606	86	342	1.64	ug/L	#	72
18) Methyl-tert-butyl-ether	4.667	73	6706	1.77	ug/L		97
19) tert-Butanol (TBA)	4.819	59	39779	115.22	ug/L	#	59
20) Diisopropyl ether (DIPE)	5.106	45	2023	0.48	ug/L		96
21) 1,1-Dichloroethane	5.215	63	5406	2.14	ug/L		95
22) Acrylonitrile	5.301	53	1734	1.87	ug/L		94
23) Vinyl Acetate	5.532	43	3721	1.38	ug/L		95
24) Ethyl-tert-butyl ether...	5.520	59	1633	0.43	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	3898	1.98	ug/L		91
26) 2,2-Dichloropropane	5.935	77	2329	1.99	ug/L	#	61
27) Bromochloromethane	6.044	49	2654	2.17	ug/L		87
28) Chloroform	6.136	83	5455	2.09	ug/L		98
29) Carbon Tetrachloride	6.258	117	2771	1.79	ug/L		94
30) Tetrahydrofuran	6.313	42	1403	1.75	ug/L		90
31) 1,1,1-Trichloroethane	6.343	97	3963	2.01	ug/L		93
33) 1,1-Dichloropropene	6.483	75	3368	1.73	ug/L		96
34) 2-Butanone (MEK)	6.483	43	4574	3.69	ug/L		98
35) Benzene	6.758	78	12371	2.00	ug/L		97
36) tert-Amyl methyl ether...	6.904	73	1740	0.50	ug/L		65
37) 1,2-Dichloroethane (EDC)	6.983	62	4512	2.20	ug/L		96
38) iso-Butyl Alcohol	7.044	43	6444	48.77	ug/L		80
40) Trichloroethene (TCE)	7.410	130	3521	2.10	ug/L		96
41) tert-Amyl ethyl ether ...	7.684	59	1135	0.48	ug/L		91
42) Dibromomethane	7.885	93	2084	1.98	ug/L		92
43) 1,2-Dichloropropane	7.995	63	3229	2.08	ug/L		91
44) Bromodichloromethane	8.074	83	3272	1.90	ug/L		91
46) 2-Chloroethyl Vinyl Ether	8.739	63	1287	1.40	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	3075	1.52	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

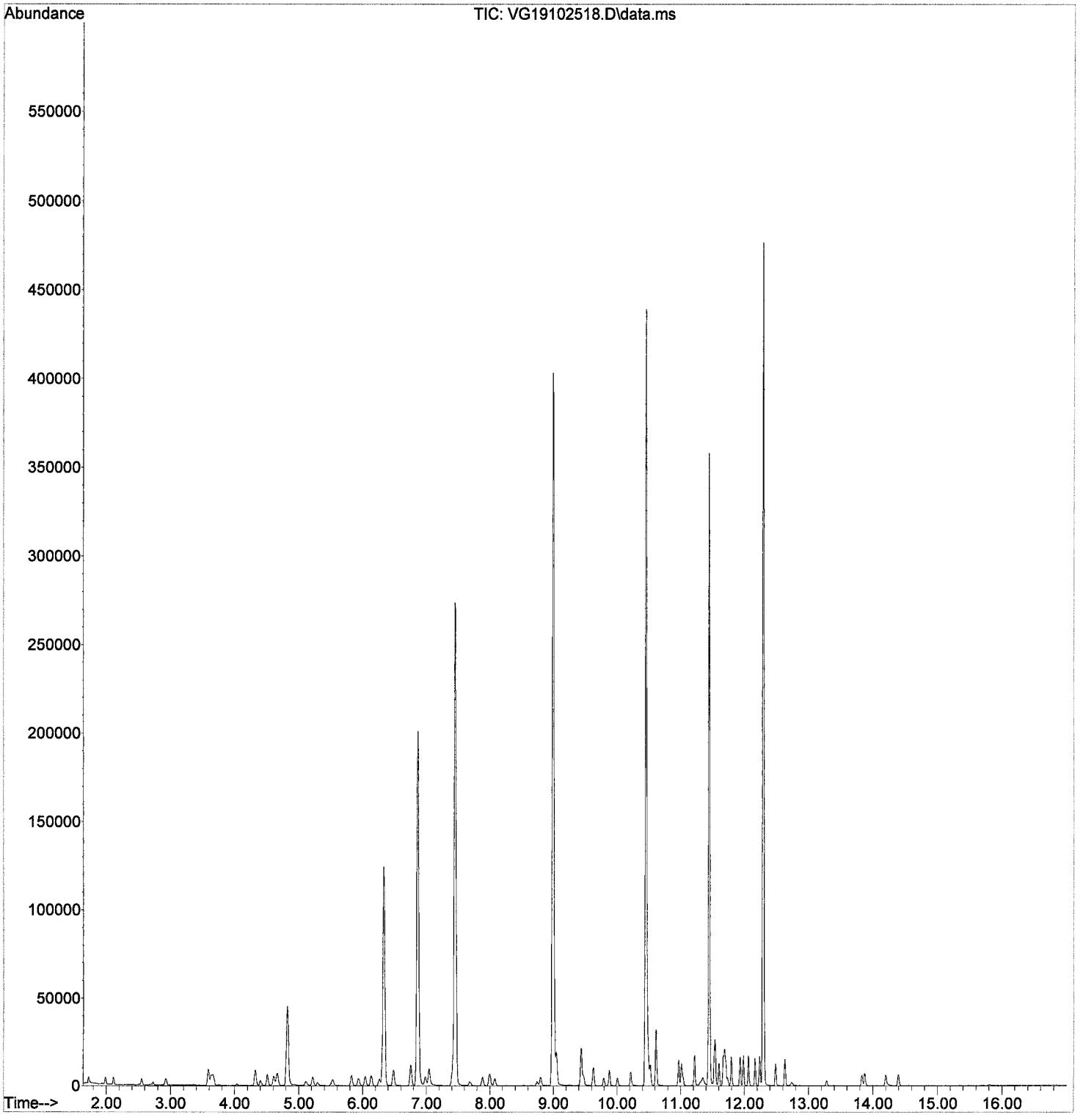
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	13799	2.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	3761	2.07	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.440	43	7750	3.50	ug/L		98
52) t-1,3-Dichloropropene	9.470	75	2554	1.49	ug/L		96
53) 1,1,2-Trichloroethane	9.629	97	3489	2.10	ug/L		94
54) Dibromochloromethane	9.794	129	2572	1.69	ug/L		93
55) 1,3-Dichloropropane	9.879	76	5172	2.00	ug/L		99
56) 1,2-Dibromoethane (EDB)	10.007	107	3150	1.83	ug/L		95
57) 2-Hexanone	10.214	43	5003	3.09	ug/L		100
58) Chlorobenzene	10.464	112	9394	2.10	ug/L		97
59) Ethylbenzene	10.489	91	13598	2.01	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	2578	1.81	ug/L		94
61) m,p-Xylenes (2)	10.617	91	17637	3.54	ug/L		98
62) o-Xylene	10.970	91	7805	1.61	ug/L		95
63) Styrene	11.013	104	6029	1.51	ug/L		98
64) Bromoform	11.037	173	1883	1.58	ug/L		98
65) Isopropylbenzene	11.220	105	9314	1.57	ug/L		99
68) Bromobenzene	11.531	156	3862	1.99	ug/L		96
69) n-Propylbenzene	11.543	91	13043	1.97	ug/L		97
70) 1,1,2,2-Tetrachloroethane	11.604	83	5527	2.21	ug/L		99
71) 2-Chlorotoluene	11.665	126	2896	1.88	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	8326	1.67	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	1624	2.20	ug/L	#	83
74) t-1,4-Dichloro-2-butene	11.738	88	314	1.48	ug/L	#	64
75) 4-Chlorotoluene	11.793	91	7775	1.85	ug/L		98
76) tert-Butylbenzene	11.933	91	4363	1.79	ug/L		91
77) 1,2,4-Trimethylbenzene	11.982	105	7870	1.54	ug/L		98
78) sec-Butylbenzene	12.061	105	9664	1.75	ug/L		96
79) 4-Isopropyltoluene	12.165	119	7387	1.58	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	6240	1.99	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	6942	2.17	ug/L		95
82) n-Butylbenzene	12.488	91	6447	1.64	ug/L		96
83) 1,2-Dichlorobenzene	12.635	146	6204	2.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	887	1.67	ug/L		96
85) Hexachlorobutadiene	13.829	223	925	1.85	ug/L		90
86) 1,2,4-Trichlorobenzene	13.872	180	2902	1.51	ug/L		93
87) Naphthalene	14.201	128	5987	1.09	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	2863	1.48	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84206	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	249179	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125726	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87988	50.41	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	285436	50.42	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	321703	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	105208	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	7404	5.61	ug/L		97
3) Chloromethane	1.984	50	9675	5.40	ug/L		98
4) Vinyl Chloride	2.112	62	8598	5.23	ug/L		97
5) Bromomethane	2.551	96	4925	6.05	ug/L		94
6) Chloroethane	2.728	64	2805	7.12	ug/L		91
7) Trichlorofluoromethane	2.923	101	9548	5.31	ug/L		97
8) Ethanol	3.630	45	14603	313.93	ug/L		84
9) 1,1-Dichloroethene	3.588	61	9956	5.06	ug/L		99
10) Carbon Disulfide	3.588	76	13555	4.66	ug/L		99
11) Freon 113	3.661	101	8623	5.37	ug/L		95
12) Iodomethane	3.752	142	1592	2.80	ug/L		98
13) Acrolein	4.039	56	2034	4.76	ug/L		91
14) Methylene Chloride	4.319	84	10277	6.15	ug/L		96
15) Acetone	4.399	43	9305	10.79	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	10306	4.91	ug/L		93
17) n-Hexane	4.612	86	1014	4.41	ug/L	#	46
18) Methyl-tert-butyl-ether	4.661	73	19407	4.64	ug/L		94
19) tert-Butanol (TBA)	4.819	59	110044	289.58	ug/L	#	65
20) Diisopropyl ether (DIPE)	5.106	45	5485	1.17	ug/L		95
21) 1,1-Dichloroethane	5.215	63	14473	5.21	ug/L		96
22) Acrylonitrile	5.289	53	4948	4.85	ug/L		96
23) Vinyl Acetate	5.532	43	11730	3.94	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	4721	1.14	ug/L		91
25) c-1,2-Dichloroethene	5.825	61	10725	4.95	ug/L		96
26) 2,2-Dichloropropane	5.935	77	6301	4.88	ug/L	#	65
27) Bromochloromethane	6.038	49	7242	5.37	ug/L		86
28) Chloroform	6.136	83	14639	5.11	ug/L		97
29) Carbon Tetrachloride	6.264	117	8051	4.72	ug/L		97
30) Tetrahydrofuran	6.313	42	4008	4.55	ug/L		96
31) 1,1,1-Trichloroethane	6.343	97	10911	5.03	ug/L		92
33) 1,1-Dichloropropene	6.483	75	9935	4.63	ug/L		97
34) 2-Butanone (MEK)	6.483	43	13080	9.59	ug/L		99
35) Benzene	6.758	78	34545	5.08	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	4717	1.23	ug/L		71
37) 1,2-Dichloroethane (EDC)	6.983	62	11793	5.22	ug/L		95
38) iso-Butyl Alcohol	7.044	43	17343	119.24	ug/L		86
40) Trichloroethene (TCE)	7.404	130	9556	5.18	ug/L		99
41) tert-Amyl ethyl ether ...	7.684	59	2954	1.14	ug/L		91
42) Dibromomethane	7.880	93	5847	5.03	ug/L		95
43) 1,2-Dichloropropane	7.995	63	8575	5.02	ug/L		100
44) Bromodichloromethane	8.075	83	9117	4.82	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	3782	3.78	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	8925	4.05	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	37021	5.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	10200	5.14	ug/L		96
51) 4-Methyl-2-Pentanone (...	9.440	43	21651	8.97	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	7875	4.22	ug/L		96
53) 1,1,2-Trichloroethane	9.623	97	9239	5.10	ug/L		100
54) Dibromochloromethane	9.794	129	7461	4.49	ug/L		97
55) 1,3-Dichloropropane	9.879	76	14110	5.01	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	9131	4.86	ug/L		99
57) 2-Hexanone	10.214	43	14919	8.46	ug/L		99
58) Chlorobenzene	10.470	112	25125	5.16	ug/L		98
59) Ethylbenzene	10.489	91	37238	5.04	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	7365	4.74	ug/L		94
61) m,p-Xylenes (2)	10.611	91	51157	9.41	ug/L		98
62) o-Xylene	10.970	91	23185	4.40	ug/L		98
63) Styrene	11.013	104	19241	4.43	ug/L		94
64) Bromoform	11.037	173	5513	4.25	ug/L		96
65) Isopropylbenzene	11.220	105	28750	4.44	ug/L		100
68) Bromobenzene	11.531	156	10809	5.05	ug/L		95
69) n-Propylbenzene	11.543	91	35745	4.91	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	14004	5.08	ug/L		96
71) 2-Chlorotoluene	11.665	126	8212	4.84	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	25171	4.58	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	4250	5.23	ug/L		94
74) t-1,4-Dichloro-2-butene	11.739	88	920	3.94	ug/L	#	67
75) 4-Chlorotoluene	11.793	91	22730	4.92	ug/L		99
76) tert-Butylbenzene	11.934	91	12557	4.69	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	25589	4.55	ug/L		99
78) sec-Butylbenzene	12.062	105	29229	4.80	ug/L		96
79) 4-Isopropyltoluene	12.165	119	23158	4.51	ug/L		98
80) 1,3-Dichlorobenzene	12.238	146	17620	5.12	ug/L		97
81) 1,4-Dichlorobenzene	12.306	146	18805	5.36	ug/L		96
82) n-Butylbenzene	12.488	91	19439	4.50	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	16971	4.98	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	2511	4.31	ug/L		89
85) Hexachlorobutadiene	13.830	223	2612	4.76	ug/L		96
86) 1,2,4-Trichlorobenzene	13.872	180	8550	4.04	ug/L		95
87) Naphthalene	14.201	128	19030	3.15	ug/L		99
88) 1,2,3-Trichlorobenzene	14.397	180	8797	4.14	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84206	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	249179	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125726	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87988	50.41	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	285436	50.42	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	321703	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	105208	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	7404	5.61	ug/L		97
3) Chloromethane	1.984	50	9675	5.40	ug/L		98
4) Vinyl Chloride	2.112	62	8598	5.23	ug/L		97
5) Bromomethane	2.551	96	4925	6.05	ug/L		94
6) Chloroethane	2.728	64	2805	7.12	ug/L		91
7) Trichlorofluoromethane	2.923	101	9548	5.31	ug/L		97
8) Ethanol	3.630	45	14603	313.93	ug/L		84
9) 1,1-Dichloroethene	3.588	61	9956	5.06	ug/L		99
10) Carbon Disulfide	3.588	76	13555	4.66	ug/L		99
11) Freon 113	3.661	101	8623	5.37	ug/L		95
12) Iodomethane	3.752	142	1592	2.80	ug/L		98
13) Acrolein	4.039	56	2034	4.76	ug/L		91
14) Methylene Chloride	4.319	84	10277	6.15	ug/L		96
15) Acetone	4.399	43	9305	10.79	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	10306	4.91	ug/L		93
17) n-Hexane	4.612	86	1014	4.41	ug/L	#	46
18) Methyl-tert-butyl-ether	4.661	73	19407	4.64	ug/L		94
19) tert-Butanol (TBA)	4.819	59	110044	289.58	ug/L	#	65
20) Diisopropyl ether (DIPE)	5.106	45	5485	1.17	ug/L		95
21) 1,1-Dichloroethane	5.215	63	14473	5.21	ug/L		96
22) Acrylonitrile	5.289	53	4948	4.85	ug/L		96
23) Vinyl Acetate	5.532	43	11730	3.94	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	4721	1.14	ug/L		91
25) c-1,2-Dichloroethene	5.825	61	10725	4.95	ug/L		96
26) 2,2-Dichloropropane	5.935	77	6301	4.88	ug/L	#	65
27) Bromochloromethane	6.038	49	7242	5.37	ug/L		86
28) Chloroform	6.136	83	14639	5.11	ug/L		97
29) Carbon Tetrachloride	6.264	117	8051	4.72	ug/L		97
30) Tetrahydrofuran	6.313	42	4008	4.55	ug/L		96
31) 1,1,1-Trichloroethane	6.343	97	10911	5.03	ug/L		92
33) 1,1-Dichloropropene	6.483	75	9935	4.63	ug/L		97
34) 2-Butanone (MEK)	6.483	43	13080	9.59	ug/L		99
35) Benzene	6.758	78	34545	5.08	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	4717	1.23	ug/L		71
37) 1,2-Dichloroethane (EDC)	6.983	62	11793	5.22	ug/L		95
38) iso-Butyl Alcohol	7.044	43	17343	119.24	ug/L		86
40) Trichloroethene (TCE)	7.404	130	9556	5.18	ug/L		99
41) tert-Amyl ethyl ether ...	7.684	59	2954	1.14	ug/L		91
42) Dibromomethane	7.880	93	5847	5.03	ug/L		95
43) 1,2-Dichloropropane	7.995	63	8575	5.02	ug/L		100
44) Bromodichloromethane	8.075	83	9117	4.82	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	3782	3.78	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	8925	4.05	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

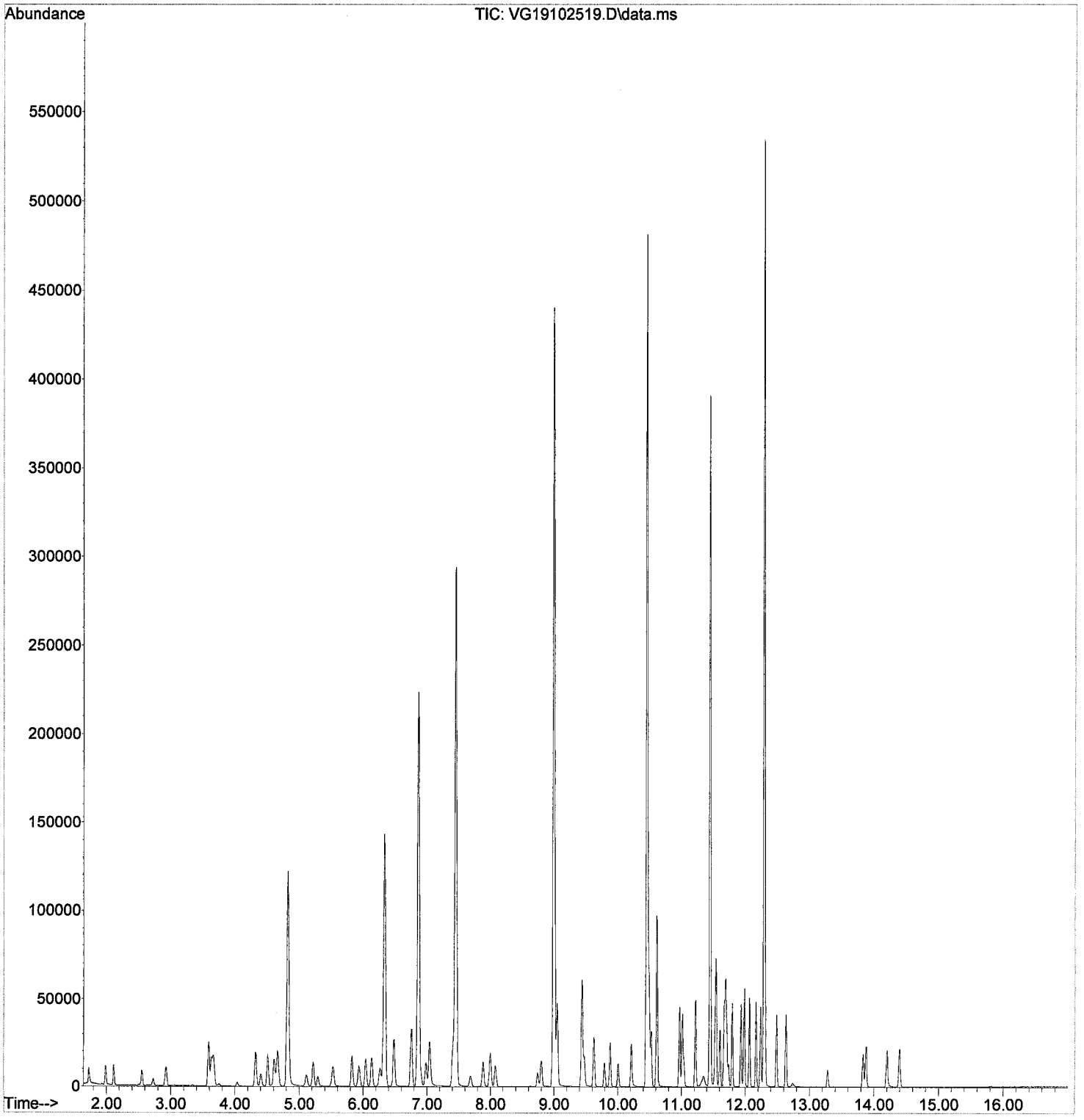
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	37021	5.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	10200	5.14	ug/L		96
51) 4-Methyl-2-Pentanone (...	9.440	43	21651	8.97	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	7875	4.22	ug/L		96
53) 1,1,2-Trichloroethane	9.623	97	9239	5.10	ug/L		100
54) Dibromochloromethane	9.794	129	7461	4.49	ug/L		97
55) 1,3-Dichloropropane	9.879	76	14110	5.01	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	9131	4.86	ug/L		99
57) 2-Hexanone	10.214	43	14919	8.46	ug/L		99
58) Chlorobenzene	10.470	112	25125	5.16	ug/L		98
59) Ethylbenzene	10.489	91	37238	5.04	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	7365	4.74	ug/L		94
61) m,p-Xylenes (2)	10.611	91	51157	9.41	ug/L		98
62) o-Xylene	10.970	91	23185	4.40	ug/L		98
63) Styrene	11.013	104	19241	4.43	ug/L		94
64) Bromoform	11.037	173	5513	4.25	ug/L		96
65) Isopropylbenzene	11.220	105	28750	4.44	ug/L		100
68) Bromobenzene	11.531	156	10809	5.05	ug/L		95
69) n-Propylbenzene	11.543	91	35745	4.91	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	14004	5.08	ug/L		96
71) 2-Chlorotoluene	11.665	126	8212	4.84	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	25171	4.58	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	4250	5.23	ug/L		94
74) t-1,4-Dichloro-2-butene	11.739	88	920	3.94	ug/L	#	67
75) 4-Chlorotoluene	11.793	91	22730	4.92	ug/L		99
76) tert-Butylbenzene	11.934	91	12557	4.69	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	25589	4.55	ug/L		99
78) sec-Butylbenzene	12.062	105	29229	4.80	ug/L		96
79) 4-Isopropyltoluene	12.165	119	23158	4.51	ug/L		98
80) 1,3-Dichlorobenzene	12.238	146	17620	5.12	ug/L		97
81) 1,4-Dichlorobenzene	12.306	146	18805	5.36	ug/L		96
82) n-Butylbenzene	12.488	91	19439	4.50	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	16971	4.98	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	2511	4.31	ug/L		89
85) Hexachlorobutadiene	13.830	223	2612	4.76	ug/L		96
86) 1,2,4-Trichlorobenzene	13.872	180	8550	4.04	ug/L		95
87) Naphthalene	14.201	128	19030	3.15	ug/L		99
88) 1,2,3-Trichlorobenzene	14.397	180	8797	4.14	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94987	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280212	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	141868	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	99801	50.68	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322104	50.44	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	362985	49.76	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	119477	50.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	15599	10.47	ug/L		99
3) Chloromethane	1.984	50	20315	10.05	ug/L		99
4) Vinyl Chloride	2.112	62	18609	10.04	ug/L		96
5) Bromomethane	2.551	96	9433	10.28	ug/L		99
6) Chloroethane	2.722	64	4599	10.35	ug/L		86
7) Trichlorofluoromethane	2.923	101	20980	10.34	ug/L		97
8) Ethanol	3.630	45	31930	608.51	ug/L		85
9) 1,1-Dichloroethene	3.588	61	21638	9.75	ug/L		95
10) Carbon Disulfide	3.588	76	30767	9.38	ug/L		98
11) Freon 113	3.661	101	18630	10.28	ug/L		99
12) Iodomethane	3.752	142	4581	7.14	ug/L		97
13) Acrolein	4.033	56	4726	9.81	ug/L		97
14) Methylene Chloride	4.319	84	20314	10.78	ug/L		94
15) Acetone	4.399	43	19598	20.14	ug/L		93
16) t-1,2-Dichloroethene	4.508	61	23032	9.72	ug/L		94
17) n-Hexane	4.612	86	2568	9.90	ug/L	#	66
18) Methyl-tert-butyl-ether	4.661	73	45758	9.70	ug/L		97
19) tert-Butanol (TBA)	4.819	59	255470	595.97	ug/L	#	77
20) Diisopropyl ether (DIPE)	5.112	45	12288	2.32	ug/L		96
21) 1,1-Dichloroethane	5.215	63	31196	9.95	ug/L		98
22) Acrylonitrile	5.289	53	11034	9.58	ug/L		99
23) Vinyl Acetate	5.532	43	29582	8.82	ug/L		98
24) Ethyl-tert-butyl ether...	5.520	59	11188	2.39	ug/L		95
25) c-1,2-Dichloroethene	5.819	61	24037	9.83	ug/L		93
26) 2,2-Dichloropropane	5.935	77	14137	9.71	ug/L		68
27) Bromochloromethane	6.038	49	15717	10.33	ug/L		86
28) Chloroform	6.136	83	31968	9.89	ug/L		98
29) Carbon Tetrachloride	6.264	117	18676	9.70	ug/L		99
30) Tetrahydrofuran	6.307	42	9225	9.28	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	24426	9.99	ug/L		97
33) 1,1-Dichloropropene	6.477	75	23256	9.61	ug/L		99
34) 2-Butanone (MEK)	6.477	43	29709	19.30	ug/L		96
35) Benzene	6.752	78	76881	10.02	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	10610	2.45	ug/L		76
37) 1,2-Dichloroethane (EDC)	6.983	62	25491	10.01	ug/L		98
38) iso-Butyl Alcohol	7.044	43	38810	236.55	ug/L		89
40) Trichloroethene (TCE)	7.410	130	21560	10.36	ug/L		97
41) tert-Amyl ethyl ether ...	7.691	59	6943	2.38	ug/L		95
42) Dibromomethane	7.880	93	13281	10.14	ug/L		99
43) 1,2-Dichloropropane	7.995	63	19019	9.88	ug/L		99
44) Bromodichloromethane	8.075	83	20600	9.65	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	9286	8.25	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	22428	9.06	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	81964	9.97	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	22594	10.13	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.440	43	50335	18.54	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	19307	9.20	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	20512	10.07	ug/L		97
54) Dibromochloromethane	9.788	129	17581	9.40	ug/L		99
55) 1,3-Dichloropropane	9.879	76	31655	10.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	20378	9.65	ug/L		97
57) 2-Hexanone	10.208	43	35393	17.85	ug/L		99
58) Chlorobenzene	10.470	112	54921	10.03	ug/L		96
59) Ethylbenzene	10.489	91	82267	9.90	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	17260	9.88	ug/L		97
61) m,p-Xylenes (2)	10.611	91	117957	19.30	ug/L		99
62) o-Xylene	10.970	91	54341	9.17	ug/L		99
63) Styrene	11.013	104	46210	9.45	ug/L		93
64) Bromoform	11.037	173	13109	8.99	ug/L		98
65) Isopropylbenzene	11.220	105	68642	9.42	ug/L		100
68) Bromobenzene	11.531	156	23997	9.94	ug/L		97
69) n-Propylbenzene	11.543	91	80330	9.78	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	31762	10.22	ug/L		96
71) 2-Chlorotoluene	11.665	126	18857	9.85	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	60626	9.78	ug/L		97
73) 1,2,3-Trichloropropane	11.708	110	9293	10.14	ug/L		98
74) t-1,4-Dichloro-2-butene	11.739	88	2243	8.52	ug/L	#	73
75) 4-Chlorotoluene	11.793	91	51031	9.79	ug/L		99
76) tert-Butylbenzene	11.934	91	28831	9.53	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	62151	9.79	ug/L		98
78) sec-Butylbenzene	12.062	105	66926	9.74	ug/L		98
79) 4-Isopropyltoluene	12.165	119	55590	9.60	ug/L		100
80) 1,3-Dichlorobenzene	12.238	146	39173	10.09	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	40327	10.18	ug/L		98
82) n-Butylbenzene	12.488	91	47013	9.64	ug/L		98
83) 1,2-Dichlorobenzene	12.635	146	38505	10.01	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	6229	9.47	ug/L		98
85) Hexachlorobutadiene	13.830	223	6191	9.99	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	22360	9.35	ug/L		98
87) Naphthalene	14.201	128	56149	8.25	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	22886	9.55	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94987	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280212	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	141868	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	99801	50.68	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322104	50.44	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	362985	49.76	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	119477	50.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	15599	10.47	ug/L		99
3) Chloromethane	1.984	50	20315	10.05	ug/L		99
4) Vinyl Chloride	2.112	62	18609	10.04	ug/L		96
5) Bromomethane	2.551	96	9433	10.28	ug/L		99
6) Chloroethane	2.722	64	4599	10.35	ug/L		86
7) Trichlorofluoromethane	2.923	101	20980	10.34	ug/L		97
8) Ethanol	3.630	45	31930	608.51	ug/L		85
9) 1,1-Dichloroethene	3.588	61	21638	9.75	ug/L		95
10) Carbon Disulfide	3.588	76	30767	9.38	ug/L		98
11) Freon 113	3.661	101	18630	10.28	ug/L		99
12) Iodomethane	3.752	142	4581	7.14	ug/L		97
13) Acrolein	4.033	56	4726	9.81	ug/L		97
14) Methylene Chloride	4.319	84	20314	10.78	ug/L		94
15) Acetone	4.399	43	19598	20.14	ug/L		93
16) t-1,2-Dichloroethene	4.508	61	23032	9.72	ug/L		94
17) n-Hexane	4.612	86	2568	9.90	ug/L	#	66
18) Methyl-tert-butyl-ether	4.661	73	45758	9.70	ug/L		97
19) tert-Butanol (TBA)	4.819	59	255470	595.97	ug/L	#	77
20) Diisopropyl ether (DIPE)	5.112	45	12288	2.32	ug/L		96
21) 1,1-Dichloroethane	5.215	63	31196	9.95	ug/L		98
22) Acrylonitrile	5.289	53	11034	9.58	ug/L		99
23) Vinyl Acetate	5.532	43	29582	8.82	ug/L		98
24) Ethyl-tert-butyl ether...	5.520	59	11188	2.39	ug/L		95
25) c-1,2-Dichloroethene	5.819	61	24037	9.83	ug/L		93
26) 2,2-Dichloropropane	5.935	77	14137	9.71	ug/L		68
27) Bromochloromethane	6.038	49	15717	10.33	ug/L		86
28) Chloroform	6.136	83	31968	9.89	ug/L		98
29) Carbon Tetrachloride	6.264	117	18676	9.70	ug/L		99
30) Tetrahydrofuran	6.307	42	9225	9.28	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	24426	9.99	ug/L		97
33) 1,1-Dichloropropene	6.477	75	23256	9.61	ug/L		99
34) 2-Butanone (MEK)	6.477	43	29709	19.30	ug/L		96
35) Benzene	6.752	78	76881	10.02	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	10610	2.45	ug/L		76
37) 1,2-Dichloroethane (EDC)	6.983	62	25491	10.01	ug/L		98
38) iso-Butyl Alcohol	7.044	43	38810	236.55	ug/L		89
40) Trichloroethene (TCE)	7.410	130	21560	10.36	ug/L		97
41) tert-Amyl ethyl ether ...	7.691	59	6943	2.38	ug/L		95
42) Dibromomethane	7.880	93	13281	10.14	ug/L		99
43) 1,2-Dichloropropane	7.995	63	19019	9.88	ug/L		99
44) Bromodichloromethane	8.075	83	20600	9.65	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	9286	8.25	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	22428	9.06	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

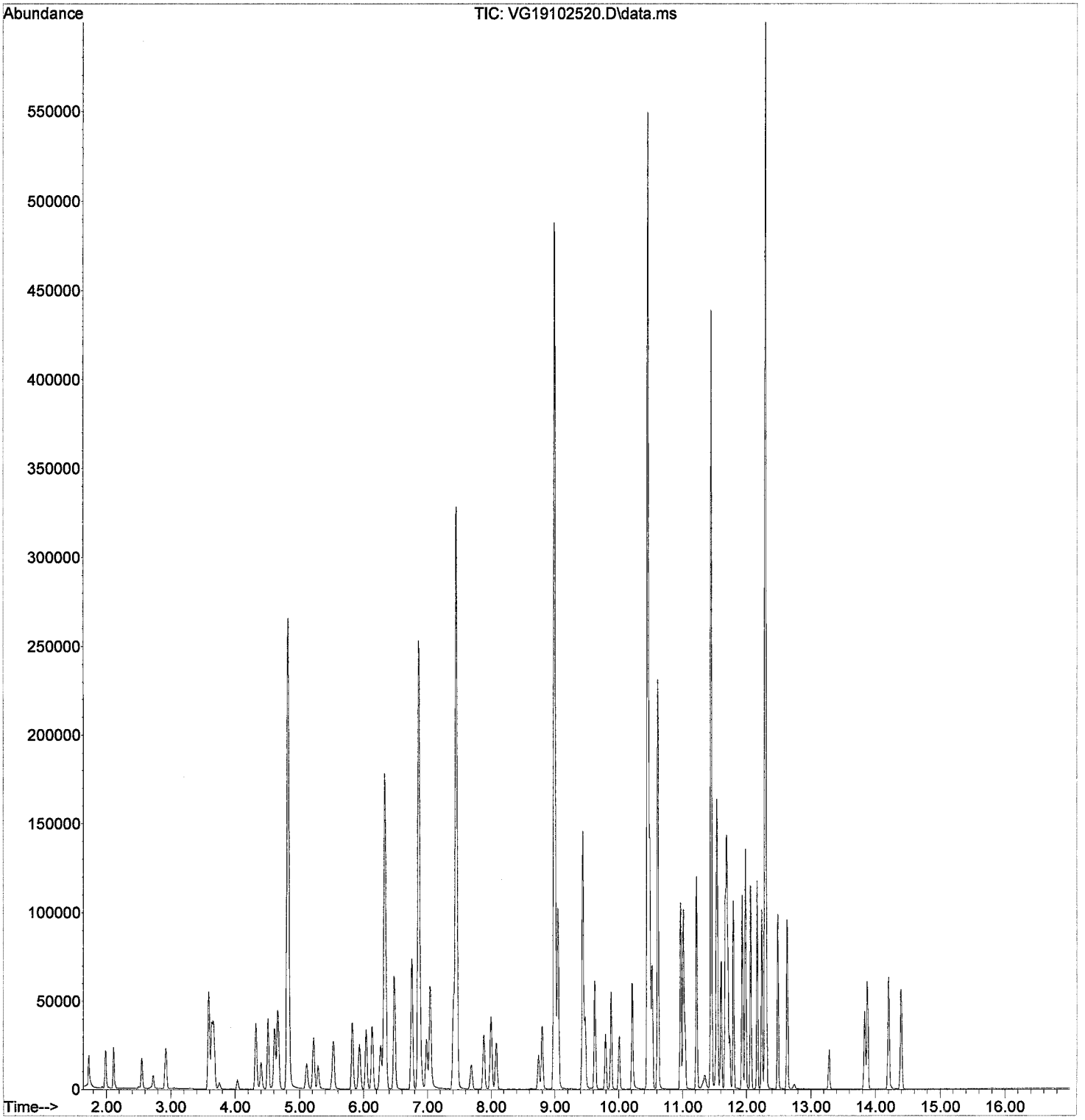
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	81964	9.97	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	22594	10.13	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.440	43	50335	18.54	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	19307	9.20	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	20512	10.07	ug/L		97
54) Dibromochloromethane	9.788	129	17581	9.40	ug/L		99
55) 1,3-Dichloropropane	9.879	76	31655	10.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	20378	9.65	ug/L		97
57) 2-Hexanone	10.208	43	35393	17.85	ug/L		99
58) Chlorobenzene	10.470	112	54921	10.03	ug/L		96
59) Ethylbenzene	10.489	91	82267	9.90	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	17260	9.88	ug/L		97
61) m,p-Xylenes (2)	10.611	91	117957	19.30	ug/L		99
62) o-Xylene	10.970	91	54341	9.17	ug/L		99
63) Styrene	11.013	104	46210	9.45	ug/L		93
64) Bromoform	11.037	173	13109	8.99	ug/L		98
65) Isopropylbenzene	11.220	105	68642	9.42	ug/L		100
68) Bromobenzene	11.531	156	23997	9.94	ug/L		97
69) n-Propylbenzene	11.543	91	80330	9.78	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	31762	10.22	ug/L		96
71) 2-Chlorotoluene	11.665	126	18857	9.85	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	60626	9.78	ug/L		97
73) 1,2,3-Trichloropropane	11.708	110	9293	10.14	ug/L		98
74) t-1,4-Dichloro-2-butene	11.739	88	2243	8.52	ug/L	#	73
75) 4-Chlorotoluene	11.793	91	51031	9.79	ug/L		99
76) tert-Butylbenzene	11.934	91	28831	9.53	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	62151	9.79	ug/L		98
78) sec-Butylbenzene	12.062	105	66926	9.74	ug/L		98
79) 4-Isopropyltoluene	12.165	119	55590	9.60	ug/L		100
80) 1,3-Dichlorobenzene	12.238	146	39173	10.09	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	40327	10.18	ug/L		98
82) n-Butylbenzene	12.488	91	47013	9.64	ug/L		98
83) 1,2-Dichlorobenzene	12.635	146	38505	10.01	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	6229	9.47	ug/L		98
85) Hexachlorobutadiene	13.830	223	6191	9.99	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	22360	9.35	ug/L		98
87) Naphthalene	14.201	128	56149	8.25	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	22886	9.55	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86706	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	253314	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128679	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	89870	50.00	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291439	50.00	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	329731	50.00	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	107703	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	27201	20.00	ug/L		97
3) Chloromethane	1.990	50	36903	20.00	ug/L		99
4) Vinyl Chloride	2.112	62	33851	20.00	ug/L		95
5) Bromomethane	2.551	96	16751	20.00	ug/L		99
6) Chloroethane	2.722	64	8110	20.00	ug/L		91
7) Trichlorofluoromethane	2.917	101	37053	20.00	ug/L		99
8) Ethanol	3.636	45	59872	1250.00	ug/L		86
9) 1,1-Dichloroethene	3.588	61	40497	20.00	ug/L		95
10) Carbon Disulfide	3.588	76	59881	20.00	ug/L		99
11) Freon 113	3.661	101	33091	20.00	ug/L		94
12) Iodomethane	3.746	142	11720	20.00	ug/L		98
13) Acrolein	4.033	56	8799	20.00	ug/L		98
14) Methylene Chloride	4.319	84	34415	20.00	ug/L		93
15) Acetone	4.399	43	35535	40.00	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	43270	20.00	ug/L		93
17) n-Hexane	4.606	86	4737	20.00	ug/L	#	57
18) Methyl-tert-butyl-ether	4.661	73	86097	20.00	ug/L		96
19) tert-Butanol (TBA)	4.819	59	489113	1250.00	ug/L	#	81
20) Diisopropyl ether (DIPE)	5.112	45	24122	5.00	ug/L		98
21) 1,1-Dichloroethane	5.215	63	57239	20.00	ug/L		99
22) Acrylonitrile	5.289	53	21017	20.00	ug/L		96
23) Vinyl Acetate	5.526	43	61236	20.00	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	21409	5.00	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	44663	20.00	ug/L		93
26) 2,2-Dichloropropane	5.935	77	26576	20.00	ug/L		74
27) Bromochloromethane	6.038	49	27767	20.00	ug/L		84
28) Chloroform	6.136	83	59036	20.00	ug/L		96
29) Carbon Tetrachloride	6.264	117	35140	20.00	ug/L		97
30) Tetrahydrofuran	6.307	42	18146	20.00	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	44656	20.00	ug/L		95
33) 1,1-Dichloropropene	6.477	75	44179	20.00	ug/L		98
34) 2-Butanone (MEK)	6.477	43	56191	40.00	ug/L		97
35) Benzene	6.752	78	140134	20.00	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	19745	5.00	ug/L		80
37) 1,2-Dichloroethane (EDC)	6.983	62	46494	20.00	ug/L		99
38) iso-Butyl Alcohol	7.038	43	74881	500.00	ug/L		91
40) Trichloroethene (TCE)	7.410	130	37986	20.00	ug/L		98
41) tert-Amyl ethyl ether ...	7.691	59	13314	5.00	ug/L		93
42) Dibromomethane	7.886	93	23918	20.00	ug/L		95
43) 1,2-Dichloropropane	7.995	63	35146	20.00	ug/L		98
44) Bromodichloromethane	8.075	83	38970	20.00	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	20353	20.00	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	44754	20.00	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	148631	20.00	ug/L		100
50) Tetrachloroethene (PCE)	9.434	166	40323	20.00	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.434	43	98178	40.00	ug/L		97
52) t-1,3-Dichloropropene	9.471	75	37931	20.00	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	36821	20.00	ug/L		94
54) Dibromochloromethane	9.788	129	33811	20.00	ug/L		99
55) 1,3-Dichloropropane	9.879	76	57259	20.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.001	107	38181	20.00	ug/L		99
57) 2-Hexanone	10.208	43	71710	40.00	ug/L		98
58) Chlorobenzene	10.471	112	98998	20.00	ug/L		97
59) Ethylbenzene	10.489	91	150206	20.00	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	31571	20.00	ug/L		96
61) m,p-Xylenes (2)	10.611	91	220983	40.00	ug/L		98
62) o-Xylene	10.970	91	107127	20.00	ug/L		98
63) Styrene	11.013	104	88408	20.00	ug/L		94
64) Bromoform	11.038	173	26373	20.00	ug/L		97
65) Isopropylbenzene	11.220	105	131792	20.00	ug/L		99
68) Bromobenzene	11.531	156	43790	20.00	ug/L		94
69) n-Propylbenzene	11.544	91	148949	20.00	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	56394	20.00	ug/L		98
71) 2-Chlorotoluene	11.665	126	34740	20.00	ug/L		94
72) 1,3,5-Trimethylbenzene	11.690	105	112417	20.00	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	16623	20.00	ug/L		96
74) t-1,4-Dichloro-2-butene	11.739	88	4774	20.00	ug/L	#	80
75) 4-Chlorotoluene	11.793	91	94606	20.00	ug/L		97
76) tert-Butylbenzene	11.934	91	54853	20.00	ug/L		96
77) 1,2,4-Trimethylbenzene	11.982	105	115215	20.00	ug/L		99
78) sec-Butylbenzene	12.062	105	124647	20.00	ug/L		98
79) 4-Isopropyltoluene	12.165	119	105070	20.00	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	70439	20.00	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	71878	20.00	ug/L		99
82) n-Butylbenzene	12.488	91	88503	20.00	ug/L		99
83) 1,2-Dichlorobenzene	12.629	146	69775	20.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	11935	20.00	ug/L		97
85) Hexachlorobutadiene	13.830	223	11238	20.00	ug/L		97
86) 1,2,4-Trichlorobenzene	13.872	180	43365	20.00	ug/L		95
87) Naphthalene	14.202	128	123502	20.00	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	43488	20.00	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86706	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	253314	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128679	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	89870	50.00	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291439	50.00	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	329731	50.00	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	107703	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	27201	20.00	ug/L		97
3) Chloromethane	1.990	50	36903	20.00	ug/L		99
4) Vinyl Chloride	2.112	62	33851	20.00	ug/L		95
5) Bromomethane	2.551	96	16751	20.00	ug/L		99
6) Chloroethane	2.722	64	8110	20.00	ug/L		91
7) Trichlorofluoromethane	2.917	101	37053	20.00	ug/L		99
8) Ethanol	3.636	45	59872	1250.00	ug/L		86
9) 1,1-Dichloroethene	3.588	61	40497	20.00	ug/L		95
10) Carbon Disulfide	3.588	76	59881	20.00	ug/L		99
11) Freon 113	3.661	101	33091	20.00	ug/L		94
12) Iodomethane	3.746	142	11720	20.00	ug/L		98
13) Acrolein	4.033	56	8799	20.00	ug/L		98
14) Methylene Chloride	4.319	84	34415	20.00	ug/L		93
15) Acetone	4.399	43	35535	40.00	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	43270	20.00	ug/L		93
17) n-Hexane	4.606	86	4737	20.00	ug/L	#	57
18) Methyl-tert-butyl-ether	4.661	73	86097	20.00	ug/L		96
19) tert-Butanol (TBA)	4.819	59	489113	1250.00	ug/L	#	81
20) Diisopropyl ether (DIPE)	5.112	45	24122	5.00	ug/L		98
21) 1,1-Dichloroethane	5.215	63	57239	20.00	ug/L		99
22) Acrylonitrile	5.289	53	21017	20.00	ug/L		96
23) Vinyl Acetate	5.526	43	61236	20.00	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	21409	5.00	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	44663	20.00	ug/L		93
26) 2,2-Dichloropropane	5.935	77	26576	20.00	ug/L		74
27) Bromochloromethane	6.038	49	27767	20.00	ug/L		84
28) Chloroform	6.136	83	59036	20.00	ug/L		96
29) Carbon Tetrachloride	6.264	117	35140	20.00	ug/L		97
30) Tetrahydrofuran	6.307	42	18146	20.00	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	44656	20.00	ug/L		95
33) 1,1-Dichloropropene	6.477	75	44179	20.00	ug/L		98
34) 2-Butanone (MEK)	6.477	43	56191	40.00	ug/L		97
35) Benzene	6.752	78	140134	20.00	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	19745	5.00	ug/L		80
37) 1,2-Dichloroethane (EDC)	6.983	62	46494	20.00	ug/L		99
38) iso-Butyl Alcohol	7.038	43	74881	500.00	ug/L		91
40) Trichloroethene (TCE)	7.410	130	37986	20.00	ug/L		98
41) tert-Amyl ethyl ether ...	7.691	59	13314	5.00	ug/L		93
42) Dibromomethane	7.886	93	23918	20.00	ug/L		95
43) 1,2-Dichloropropane	7.995	63	35146	20.00	ug/L		98
44) Bromodichloromethane	8.075	83	38970	20.00	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	20353	20.00	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	44754	20.00	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

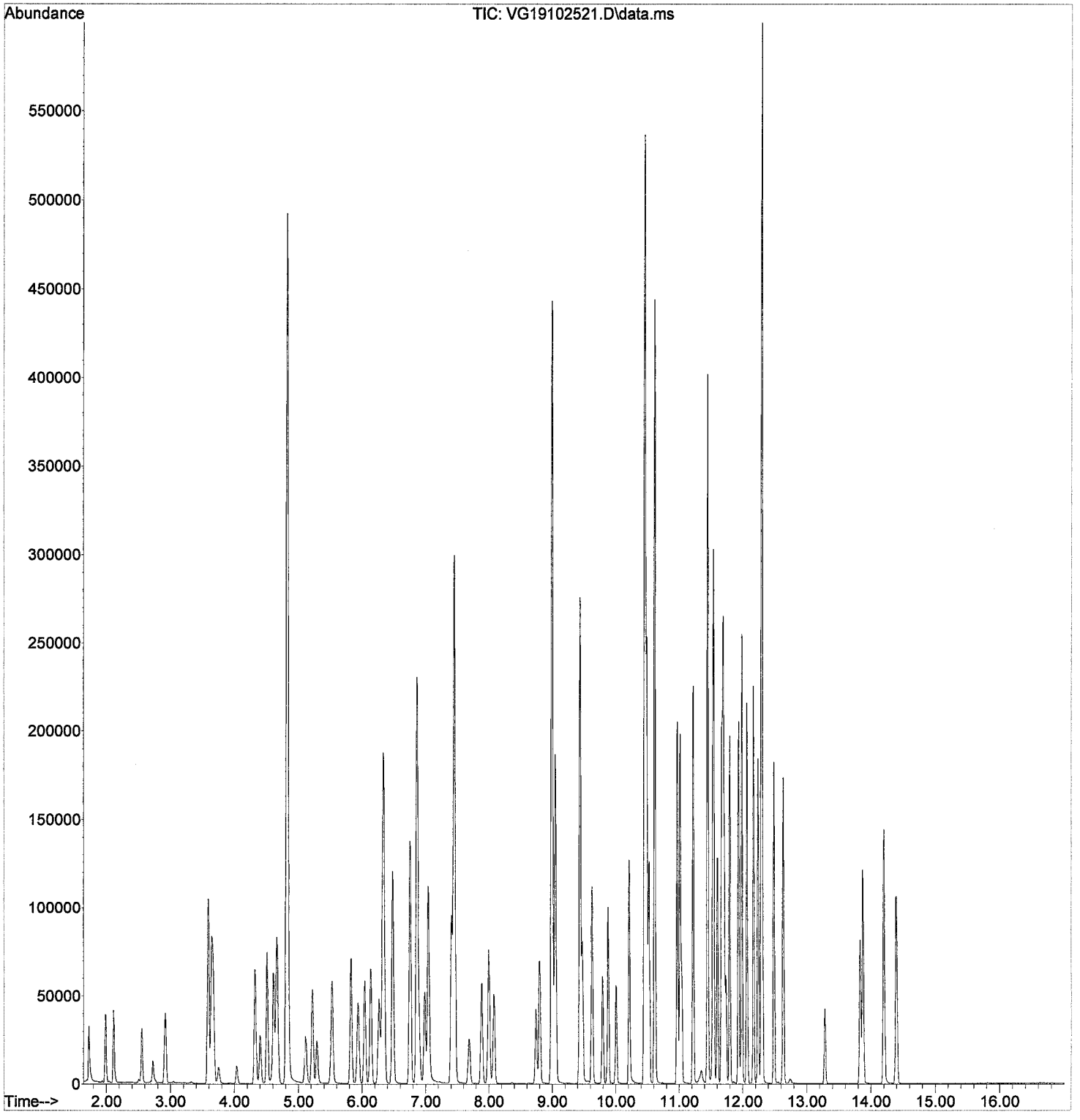
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	148631	20.00	ug/L		100
50) Tetrachloroethene (PCE)	9.434	166	40323	20.00	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.434	43	98178	40.00	ug/L		97
52) t-1,3-Dichloropropene	9.471	75	37931	20.00	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	36821	20.00	ug/L		94
54) Dibromochloromethane	9.788	129	33811	20.00	ug/L		99
55) 1,3-Dichloropropane	9.879	76	57259	20.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.001	107	38181	20.00	ug/L		99
57) 2-Hexanone	10.208	43	71710	40.00	ug/L		98
58) Chlorobenzene	10.471	112	98998	20.00	ug/L		97
59) Ethylbenzene	10.489	91	150206	20.00	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	31571	20.00	ug/L		96
61) m,p-Xylenes (2)	10.611	91	220983	40.00	ug/L		98
62) o-Xylene	10.970	91	107127	20.00	ug/L		98
63) Styrene	11.013	104	88408	20.00	ug/L		94
64) Bromoform	11.038	173	26373	20.00	ug/L		97
65) Isopropylbenzene	11.220	105	131792	20.00	ug/L		99
68) Bromobenzene	11.531	156	43790	20.00	ug/L		94
69) n-Propylbenzene	11.544	91	148949	20.00	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	56394	20.00	ug/L		98
71) 2-Chlorotoluene	11.665	126	34740	20.00	ug/L		94
72) 1,3,5-Trimethylbenzene	11.690	105	112417	20.00	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	16623	20.00	ug/L		96
74) t-1,4-Dichloro-2-butene	11.739	88	4774	20.00	ug/L	#	80
75) 4-Chlorotoluene	11.793	91	94606	20.00	ug/L		97
76) tert-Butylbenzene	11.934	91	54853	20.00	ug/L		96
77) 1,2,4-Trimethylbenzene	11.982	105	115215	20.00	ug/L		99
78) sec-Butylbenzene	12.062	105	124647	20.00	ug/L		98
79) 4-Isopropyltoluene	12.165	119	105070	20.00	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	70439	20.00	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	71878	20.00	ug/L		99
82) n-Butylbenzene	12.488	91	88503	20.00	ug/L		99
83) 1,2-Dichlorobenzene	12.629	146	69775	20.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	11935	20.00	ug/L		97
85) Hexachlorobutadiene	13.830	223	11238	20.00	ug/L		97
86) 1,2,4-Trichlorobenzene	13.872	180	43365	20.00	ug/L		95
87) Naphthalene	14.202	128	123502	20.00	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	43488	20.00	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94974	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276912	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	143329	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	98035	49.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	318518	49.89	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	358348	49.71	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	121264	50.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	91711	61.56	ug/L		98
3) Chloromethane	1.984	50	101831	50.38	ug/L		99
4) Vinyl Chloride	2.112	62	99666	53.76	ug/L		95
5) Bromomethane	2.551	96	41867	45.64	ug/L		100
6) Chloroethane	2.722	64	22569	50.81	ug/L		92
7) Trichlorofluoromethane	2.917	101	101591	50.06	ug/L		97
8) Ethanol	3.630	45	118949	2267.21	ug/L		84
9) 1,1-Dichloroethene	3.588	61	106825	48.16	ug/L		96
10) Carbon Disulfide	3.588	76	175211	53.43	ug/L		99
11) Freon 113	3.661	101	84735	46.75	ug/L		97
12) Iodomethane	3.752	142	44167	68.81	ug/L		99
13) Acrolein	4.033	56	26568	55.13	ug/L		96
14) Methylene Chloride	4.319	84	84220	44.68	ug/L		94
15) Acetone	4.398	43	88109	90.55	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	110813	46.76	ug/L		94
17) n-Hexane	4.612	86	13670	52.69	ug/L	#	70
18) Methyl-tert-butyl-ether	4.661	73	225213	47.76	ug/L		74
19) tert-Butanol (TBA)	4.819	59	974201	2272.97	ug/L	#	90
20) Diisopropyl ether (DIPE)	5.112	45	46377	8.78	ug/L		97
21) 1,1-Dichloroethane	5.215	63	143204	45.68	ug/L		99
22) Acrylonitrile	5.282	53	53096	46.13	ug/L		97
23) Vinyl Acetate	5.526	43	183258	54.64	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	42497	9.06	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	112782	46.11	ug/L		95
26) 2,2-Dichloropropane	5.935	77	71310	48.99	ug/L		78
27) Bromochloromethane	6.038	49	66951	44.03	ug/L		84
28) Chloroform	6.136	83	146798	45.40	ug/L		95
29) Carbon Tetrachloride	6.264	117	95588	49.67	ug/L		97
30) Tetrahydrofuran	6.301	42	48009	48.31	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	116783	47.75	ug/L		97
33) 1,1-Dichloropropene	6.483	75	113867	47.06	ug/L		98
34) 2-Butanone (MEK)	6.471	43	143270	93.11	ug/L		98
35) Benzene	6.752	78	351675	45.82	ug/L		97
36) tert-Amyl methyl ether...	6.898	73	39047	9.03	ug/L		83
37) 1,2-Dichloroethane (EDC)	6.983	62	115183	45.23	ug/L		99
38) iso-Butyl Alcohol	7.038	43	202120	1232.12	ug/L		95
40) Trichloroethene (TCE)	7.404	130	98591	47.39	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	26359	9.04	ug/L		91
42) Dibromomethane	7.879	93	61052	46.61	ug/L		98
43) 1,2-Dichloropropane	7.995	63	87924	45.68	ug/L		97
44) Bromodichloromethane	8.075	83	103483	48.49	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	62426	56.12	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	122277	49.99	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	371837	45.77	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	102842	46.66	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	254574	94.88	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	107286	51.75	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	91931	45.68	ug/L		95
54) Dibromochloromethane	9.788	129	93162	50.41	ug/L		99
55) 1,3-Dichloropropane	9.879	76	144038	46.02	ug/L		95
56) 1,2-Dibromoethane (EDB)	10.001	107	98185	47.05	ug/L		99
57) 2-Hexanone	10.208	43	193352	98.66	ug/L		96
58) Chlorobenzene	10.470	112	247035	45.65	ug/L		96
59) Ethylbenzene	10.489	91	384473	46.83	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	84064	48.72	ug/L		98
61) m,p-Xylenes (2)	10.611	91	564636	93.49	ug/L		100
62) o-Xylene	10.970	91	288059	49.20	ug/L		99
63) Styrene	11.013	104	234659	48.56	ug/L		94
64) Bromoform	11.037	173	75820	52.60	ug/L		98
65) Isopropylbenzene	11.220	105	349766	48.56	ug/L		99
68) Bromobenzene	11.531	156	111875	45.87	ug/L		96
69) n-Propylbenzene	11.543	91	381465	45.99	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	142222	45.28	ug/L		98
71) 2-Chlorotoluene	11.665	126	90597	46.83	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	287885	45.98	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	42315	45.71	ug/L		96
74) t-1,4-Dichloro-2-butene	11.732	88	13756	51.74	ug/L	#	89
75) 4-Chlorotoluene	11.793	91	246655	46.81	ug/L		98
76) tert-Butylbenzene	11.934	91	144949	47.45	ug/L		97
77) 1,2,4-Trimethylbenzene	11.982	105	293788	45.79	ug/L		99
78) sec-Butylbenzene	12.062	105	321962	46.38	ug/L		98
79) 4-Isopropyltoluene	12.165	119	273920	46.81	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	182204	46.45	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	184746	46.15	ug/L		98
82) n-Butylbenzene	12.482	91	225454	45.74	ug/L		98
83) 1,2-Dichlorobenzene	12.629	146	181138	46.61	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	35194	52.95	ug/L		94
85) Hexachlorobutadiene	13.830	223	27912	44.60	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	116235	48.13	ug/L		96
87) Naphthalene	14.201	128	357738	52.01	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	112370	46.40	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94974	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276912	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	143329	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	98035	49.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	318518	49.89	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	358348	49.71	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	121264	50.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	91711	61.56	ug/L		98
3) Chloromethane	1.984	50	101831	50.38	ug/L		99
4) Vinyl Chloride	2.112	62	99666	53.76	ug/L		95
5) Bromomethane	2.551	96	41867	45.64	ug/L		100
6) Chloroethane	2.722	64	22569	50.81	ug/L		92
7) Trichlorofluoromethane	2.917	101	101591	50.06	ug/L		97
8) Ethanol	3.630	45	118949	2267.21	ug/L		84
9) 1,1-Dichloroethene	3.588	61	106825	48.16	ug/L		96
10) Carbon Disulfide	3.588	76	175211	53.43	ug/L		99
11) Freon 113	3.661	101	84735	46.75	ug/L		97
12) Iodomethane	3.752	142	44167	68.81	ug/L		99
13) Acrolein	4.033	56	26568	55.13	ug/L		96
14) Methylene Chloride	4.319	84	84220	44.68	ug/L		94
15) Acetone	4.398	43	88109	90.55	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	110813	46.76	ug/L		94
17) n-Hexane	4.612	86	13670	52.69	ug/L	#	70
18) Methyl-tert-butyl-ether	4.661	73	225213	47.76	ug/L		74
19) tert-Butanol (TBA)	4.819	59	974201	2272.97	ug/L	#	90
20) Diisopropyl ether (DIPE)	5.112	45	46377	8.78	ug/L		97
21) 1,1-Dichloroethane	5.215	63	143204	45.68	ug/L		99
22) Acrylonitrile	5.282	53	53096	46.13	ug/L		97
23) Vinyl Acetate	5.526	43	183258	54.64	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	42497	9.06	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	112782	46.11	ug/L		95
26) 2,2-Dichloropropane	5.935	77	71310	48.99	ug/L		78
27) Bromochloromethane	6.038	49	66951	44.03	ug/L		84
28) Chloroform	6.136	83	146798	45.40	ug/L		95
29) Carbon Tetrachloride	6.264	117	95588	49.67	ug/L		97
30) Tetrahydrofuran	6.301	42	48009	48.31	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	116783	47.75	ug/L		97
33) 1,1-Dichloropropene	6.483	75	113867	47.06	ug/L		98
34) 2-Butanone (MEK)	6.471	43	143270	93.11	ug/L		98
35) Benzene	6.752	78	351675	45.82	ug/L		97
36) tert-Amyl methyl ether...	6.898	73	39047	9.03	ug/L		83
37) 1,2-Dichloroethane (EDC)	6.983	62	115183	45.23	ug/L		99
38) iso-Butyl Alcohol	7.038	43	202120	1232.12	ug/L		95
40) Trichloroethene (TCE)	7.404	130	98591	47.39	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	26359	9.04	ug/L		91
42) Dibromomethane	7.879	93	61052	46.61	ug/L		98
43) 1,2-Dichloropropane	7.995	63	87924	45.68	ug/L		97
44) Bromodichloromethane	8.075	83	103483	48.49	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	62426	56.12	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	122277	49.99	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

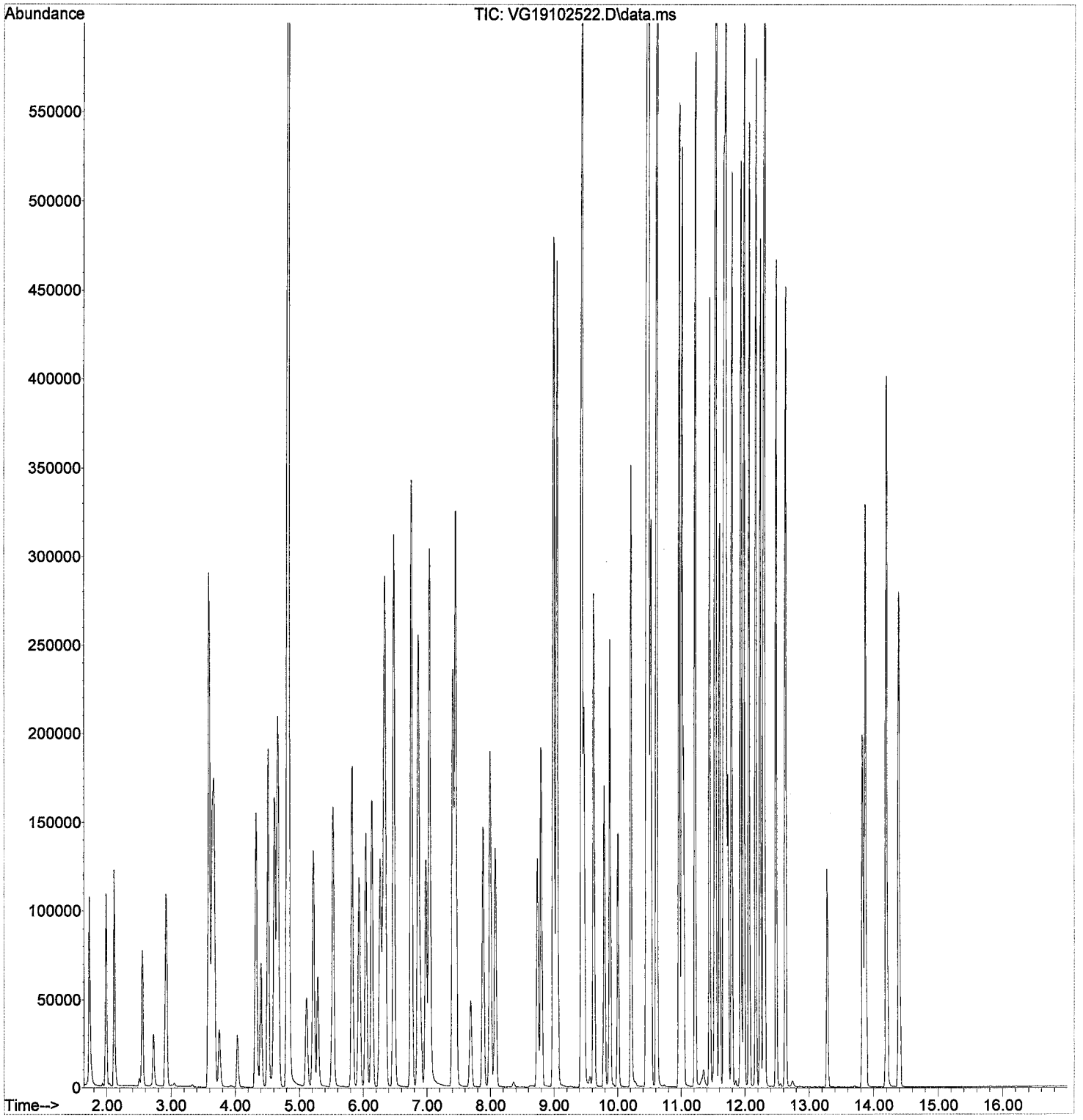
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	371837	45.77	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	102842	46.66	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	254574	94.88	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	107286	51.75	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	91931	45.68	ug/L		95
54) Dibromochloromethane	9.788	129	93162	50.41	ug/L		99
55) 1,3-Dichloropropane	9.879	76	144038	46.02	ug/L		95
56) 1,2-Dibromoethane (EDB)	10.001	107	98185	47.05	ug/L		99
57) 2-Hexanone	10.208	43	193352	98.66	ug/L		96
58) Chlorobenzene	10.470	112	247035	45.65	ug/L		96
59) Ethylbenzene	10.489	91	384473	46.83	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	84064	48.72	ug/L		98
61) m,p-Xylenes (2)	10.611	91	564636	93.49	ug/L		100
62) o-Xylene	10.970	91	288059	49.20	ug/L		99
63) Styrene	11.013	104	234659	48.56	ug/L		94
64) Bromoform	11.037	173	75820	52.60	ug/L		98
65) Isopropylbenzene	11.220	105	349766	48.56	ug/L		99
68) Bromobenzene	11.531	156	111875	45.87	ug/L		96
69) n-Propylbenzene	11.543	91	381465	45.99	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	142222	45.28	ug/L		98
71) 2-Chlorotoluene	11.665	126	90597	46.83	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	287885	45.98	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	42315	45.71	ug/L		96
74) t-1,4-Dichloro-2-butene	11.732	88	13756	51.74	ug/L	#	89
75) 4-Chlorotoluene	11.793	91	246655	46.81	ug/L		98
76) tert-Butylbenzene	11.934	91	144949	47.45	ug/L		97
77) 1,2,4-Trimethylbenzene	11.982	105	293788	45.79	ug/L		99
78) sec-Butylbenzene	12.062	105	321962	46.38	ug/L		98
79) 4-Isopropyltoluene	12.165	119	273920	46.81	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	182204	46.45	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	184746	46.15	ug/L		98
82) n-Butylbenzene	12.482	91	225454	45.74	ug/L		98
83) 1,2-Dichlorobenzene	12.629	146	181138	46.61	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	35194	52.95	ug/L		94
85) Hexachlorobutadiene	13.830	223	27912	44.60	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	116235	48.13	ug/L		96
87) Naphthalene	14.201	128	357738	52.01	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	112370	46.40	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102523.D
Acq On : 25 Oct 2019 8:55 pm
Operator : MM
Sample : 9J25051-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:46 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

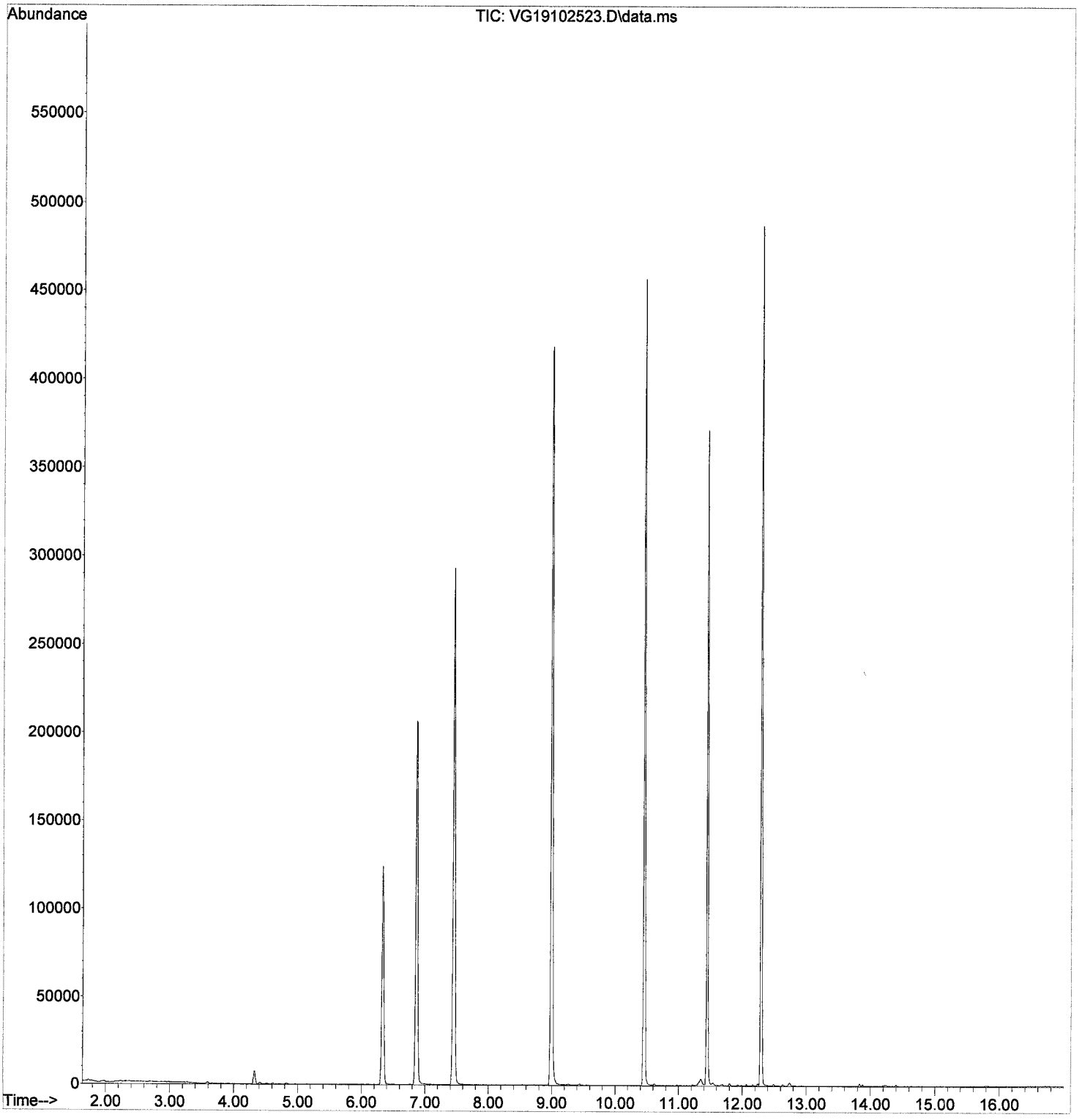
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.861	99	79919	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	240589	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	117739	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.331	111	83899	49.87 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	280390	51.07 ug/L		0.00
48) Toluene-d8 (S)	8.995	98	311902	49.72 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	98502	49.54 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.728	85	204	0.15 ug/L	#	51
3) Chloromethane	1.990	50	313	0.17 ug/L		86
6) Chloroethane	2.661	64	10	Below Cal	#	53
8) Ethanol	3.636	45	53	1.26 ug/L	#	29
9) 1,1-Dichloroethene	3.582	61	167	0.09 ug/L	#	25
10) Carbon Disulfide	3.594	76	1010	0.36 ug/L		91
14) Methylene Chloride	4.325	84	3641	1.42 ug/L		88
15) Acetone	4.405	43	1207	1.45 ug/L		98
16) t-1,2-Dichloroethene	4.508	61	286	0.15 ug/L		84
19) tert-Butanol (TBA)	4.831	59	531	1.68 ug/L	#	84
33) 1,1-Dichloropropene	6.483	75	184	0.10 ug/L	#	59
38) iso-Butyl Alcohol	7.087	43	11	0.08 ug/L	#	22
40) Trichloroethene (TCE)	7.410	130	193	0.11 ug/L		77
47) c-1,3-Dichloropropene	8.818	75	11	0.10 ug/L	#	33
50) Tetrachloroethene (PCE)	9.440	166	275	0.14 ug/L		75
52) t-1,3-Dichloropropene	9.489	75	12	0.09 ug/L	#	45
58) Chlorobenzene	10.464	112	411	0.09 ug/L	#	1
61) m,p-Xylenes (2)	10.623	91	666	0.14 ug/L		86
63) Styrene	11.037	104	134	0.13 ug/L	#	40
68) Bromobenzene	11.531	156	175	0.09 ug/L		81
69) n-Propylbenzene	11.549	91	840	0.13 ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	392	0.09 ug/L		93
75) 4-Chlorotoluene	11.799	91	519	0.13 ug/L		89
76) tert-Butylbenzene	11.934	91	202	0.09 ug/L	#	71
77) 1,2,4-Trimethylbenzene	11.988	105	420	0.09 ug/L		94
78) sec-Butylbenzene	12.068	105	601	0.12 ug/L		96
79) 4-Isopropyltoluene	12.165	119	488	0.11 ug/L		90
80) 1,3-Dichlorobenzene	12.244	146	511	0.17 ug/L		95
81) 1,4-Dichlorobenzene	12.305	146	726	0.21 ug/L	#	60
82) n-Butylbenzene	12.488	91	766	0.22 ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	337	0.11 ug/L		98
85) Hexachlorobutadiene	13.823	223	208	0.44 ug/L		95
86) 1,2,4-Trichlorobenzene	13.878	180	409	0.23 ug/L		91
87) Naphthalene	14.208	128	669	0.40 ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	327	0.19 ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102523.D
Acq On : 25 Oct 2019 8:55 pm
Operator : MM
Sample : 9J25051-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:46 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	96665	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280815	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	144590	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	100532	50.17	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	326047	50.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	367797	50.31	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	124225	51.32	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	173843	114.65	ug/L		97
3) Chloromethane	1.984	50	198132	96.32	ug/L		98
4) Vinyl Chloride	2.112	62	192412	101.97	ug/L		95
5) Bromomethane	2.551	96	84791	90.81	ug/L		99
6) Chloroethane	2.722	64	40673	89.97	ug/L		94
7) Trichlorofluoromethane	2.917	101	187789	90.92	ug/L		97
8) Ethanol	3.643	45	205433	3847.13	ug/L		84
9) 1,1-Dichloroethene	3.588	61	228850	101.38	ug/L		96
10) Carbon Disulfide	3.588	76	390234	116.91	ug/L		98
11) Freon 113	3.661	101	173399	94.00	ug/L		95
12) Iodomethane	3.752	142	116589	178.46	ug/L		99
13) Acrolein	4.033	56	53447	108.97	ug/L		98
14) Methylene Chloride	4.319	84	171077	89.18	ug/L		94
15) Acetone	4.399	43	178985	180.72	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	235876	97.79	ug/L		94
17) n-Hexane	4.612	86	29007	109.85	ug/L	#	62
18) Methyl-tert-butyl-ether	4.661	73	485505	101.16	ug/L		92
19) tert-Butanol (TBA)	4.825	59	1764644	4045.18	ug/L	#	94
20) Diisopropyl ether (DIPE)	5.112	45	91793	17.07	ug/L		96
21) 1,1-Dichloroethane	5.215	63	303825	95.22	ug/L		99
22) Acrylonitrile	5.289	53	110954	94.71	ug/L		98
23) Vinyl Acetate	5.526	43	384431	112.62	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	83379	17.47	ug/L		99
25) c-1,2-Dichloroethene	5.825	61	241396	96.96	ug/L		92
26) 2,2-Dichloropropane	5.935	77	158158	106.76	ug/L		83
27) Bromochloromethane	6.039	49	134039	86.60	ug/L		83
28) Chloroform	6.136	83	307965	93.58	ug/L		96
29) Carbon Tetrachloride	6.264	117	209216	106.81	ug/L		96
30) Tetrahydrofuran	6.301	42	101260	100.11	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	253138	101.69	ug/L		98
33) 1,1-Dichloropropene	6.477	75	241070	97.89	ug/L		97
34) 2-Butanone (MEK)	6.471	43	294469	188.02	ug/L		97
35) Benzene	6.752	78	738577	94.55	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	76599	17.40	ug/L		86
37) 1,2-Dichloroethane (EDC)	6.983	62	242443	93.55	ug/L		99
38) iso-Butyl Alcohol	7.044	43	391326	2343.78	ug/L		96
40) Trichloroethene (TCE)	7.410	130	211347	99.81	ug/L		97
41) tert-Amyl ethyl ether ...	7.685	59	52681	17.75	ug/L		93
42) Dibromomethane	7.880	93	129476	97.11	ug/L		97
43) 1,2-Dichloropropane	7.995	63	186244	95.06	ug/L		97
44) Bromodichloromethane	8.075	83	228141	105.02	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.739	63	134625	119.33	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	272691	109.93	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	781810	94.90	ug/L	99
50) Tetrachloroethene (PCE)	9.434	166	212731	95.18	ug/L	98
51) 4-Methyl-2-Pentanone (...	9.434	43	518207	190.45	ug/L	93
52) t-1,3-Dichloropropene	9.471	75	242090	115.15	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	191781	93.97	ug/L	96
54) Dibromochloromethane	9.788	129	208257	111.12	ug/L	99
55) 1,3-Dichloropropane	9.879	76	305571	96.28	ug/L	96
56) 1,2-Dibromoethane (EDB)	10.001	107	208836	98.68	ug/L	98
57) 2-Hexanone	10.208	43	392003	197.25	ug/L	96
58) Chlorobenzene	10.471	112	511165	93.15	ug/L	97
59) Ethylbenzene	10.489	91	801122	96.22	ug/L	98
60) 1,1,1,2-Tetrachloroethane	10.525	131	180354	103.06	ug/L	96
61) m,p-Xylenes (2)	10.611	91	1184446	193.40	ug/L	98
62) o-Xylene	10.970	91	616887	103.89	ug/L	98
63) Styrene	11.013	104	496713	101.36	ug/L	94
64) Bromoform	11.038	173	169206	115.75	ug/L	98
65) Isopropylbenzene	11.220	105	744896	101.97	ug/L	99
68) Bromobenzene	11.531	156	230853	93.83	ug/L	95
69) n-Propylbenzene	11.544	91	803869	96.06	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.598	83	276789	87.36	ug/L	97
71) 2-Chlorotoluene	11.665	126	191643	98.19	ug/L	92
72) 1,3,5-Trimethylbenzene	11.690	105	599123	94.86	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	84503	90.48	ug/L	93
74) t-1,4-Dichloro-2-butene	11.733	88	31040	115.73	ug/L	90
75) 4-Chlorotoluene	11.793	91	522158	98.24	ug/L	99
76) tert-Butylbenzene	11.934	91	309424	100.40	ug/L	97
77) 1,2,4-Trimethylbenzene	11.982	105	612078	94.56	ug/L	99
78) sec-Butylbenzene	12.062	105	687152	98.12	ug/L	98
79) 4-Isopropyltoluene	12.165	119	583941	98.92	ug/L	99
80) 1,3-Dichlorobenzene	12.239	146	382076	96.55	ug/L	100
81) 1,4-Dichlorobenzene	12.306	146	380389	94.20	ug/L	98
82) n-Butylbenzene	12.488	91	474858	95.50	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	368271	93.94	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	72710	108.44	ug/L	91
85) Hexachlorobutadiene	13.830	223	56850	90.04	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	230455	94.59	ug/L	97
87) Naphthalene	14.202	128	723210	104.23	ug/L	97
88) 1,2,3-Trichlorobenzene	14.397	180	219631	89.89	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	96665	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280815	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	144590	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	100532	50.17	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	326047	50.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	367797	50.31	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	124225	51.32	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	173843	114.65	ug/L		97
3) Chloromethane	1.984	50	198132	96.32	ug/L		98
4) Vinyl Chloride	2.112	62	192412	101.97	ug/L		95
5) Bromomethane	2.551	96	84791	90.81	ug/L		99
6) Chloroethane	2.722	64	40673	89.97	ug/L		94
7) Trichlorofluoromethane	2.917	101	187789	90.92	ug/L		97
8) Ethanol	3.643	45	205433	3847.13	ug/L		84
9) 1,1-Dichloroethene	3.588	61	228850	101.38	ug/L		96
10) Carbon Disulfide	3.588	76	390234	116.91	ug/L		98
11) Freon 113	3.661	101	173399	94.00	ug/L		95
12) Iodomethane	3.752	142	116589	178.46	ug/L		99
13) Acrolein	4.033	56	53447	108.97	ug/L		98
14) Methylene Chloride	4.319	84	171077	89.18	ug/L		94
15) Acetone	4.399	43	178985	180.72	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	235876	97.79	ug/L		94
17) n-Hexane	4.612	86	29007	109.85	ug/L	#	62
18) Methyl-tert-butyl-ether	4.661	73	485505	101.16	ug/L		92
19) tert-Butanol (TBA)	4.825	59	1764644	4045.18	ug/L	#	94
20) Diisopropyl ether (DIPE)	5.112	45	91793	17.07	ug/L		96
21) 1,1-Dichloroethane	5.215	63	303825	95.22	ug/L		99
22) Acrylonitrile	5.289	53	110954	94.71	ug/L		98
23) Vinyl Acetate	5.526	43	384431	112.62	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	83379	17.47	ug/L		99
25) c-1,2-Dichloroethene	5.825	61	241396	96.96	ug/L		92
26) 2,2-Dichloropropane	5.935	77	158158	106.76	ug/L		83
27) Bromochloromethane	6.039	49	134039	86.60	ug/L		83
28) Chloroform	6.136	83	307965	93.58	ug/L		96
29) Carbon Tetrachloride	6.264	117	209216	106.81	ug/L		96
30) Tetrahydrofuran	6.301	42	101260	100.11	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	253138	101.69	ug/L		98
33) 1,1-Dichloropropene	6.477	75	241070	97.89	ug/L		97
34) 2-Butanone (MEK)	6.471	43	294469	188.02	ug/L		97
35) Benzene	6.752	78	738577	94.55	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	76599	17.40	ug/L		86
37) 1,2-Dichloroethane (EDC)	6.983	62	242443	93.55	ug/L		99
38) iso-Butyl Alcohol	7.044	43	391326	2343.78	ug/L		96
40) Trichloroethene (TCE)	7.410	130	211347	99.81	ug/L		97
41) tert-Amyl ethyl ether ...	7.685	59	52681	17.75	ug/L		93
42) Dibromomethane	7.880	93	129476	97.11	ug/L		97
43) 1,2-Dichloropropane	7.995	63	186244	95.06	ug/L		97
44) Bromodichloromethane	8.075	83	228141	105.02	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.739	63	134625	119.33	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	272691	109.93	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

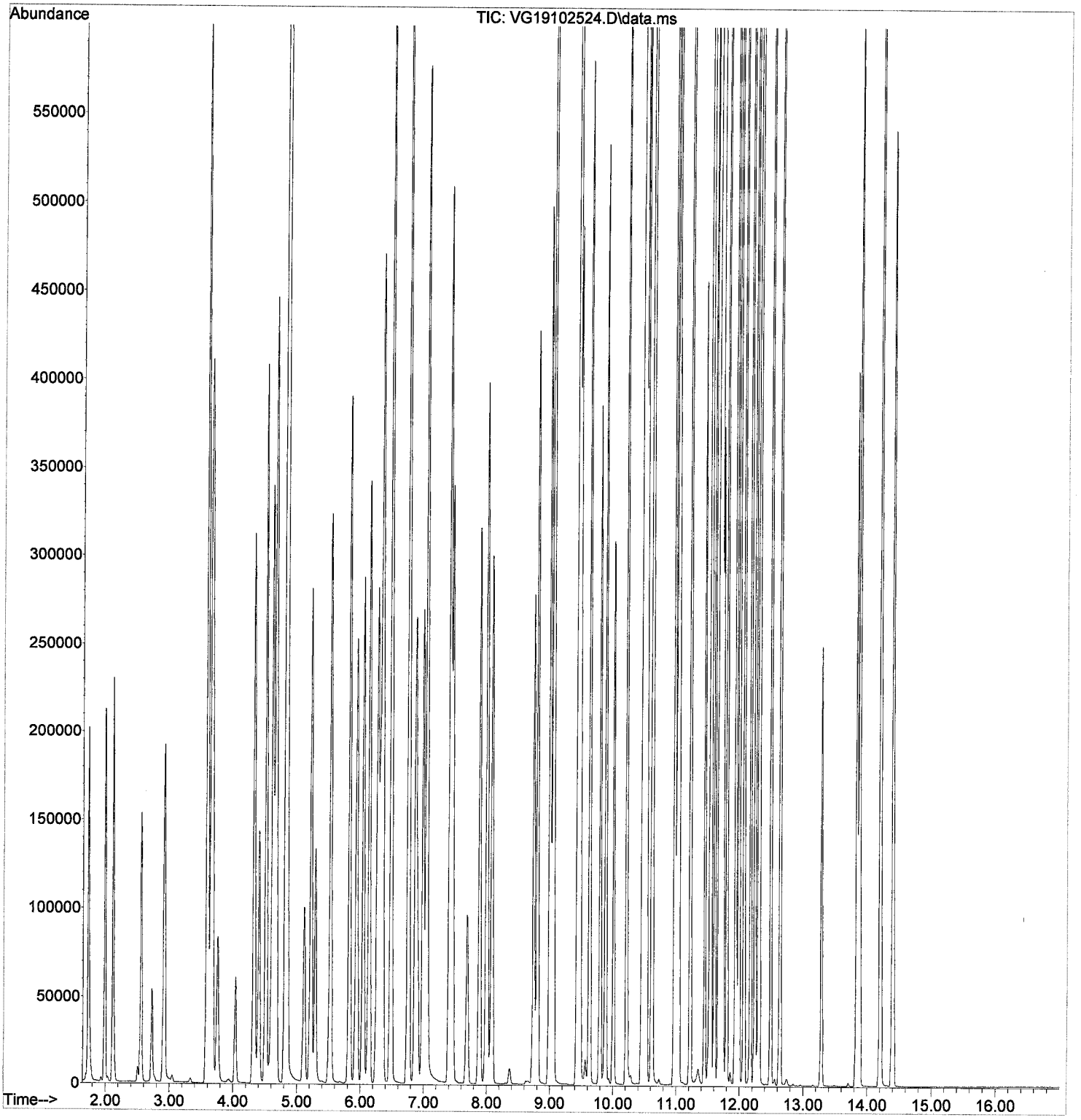
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	781810	94.90	ug/L	99
50) Tetrachloroethene (PCE)	9.434	166	212731	95.18	ug/L	98
51) 4-Methyl-2-Pentanone (...	9.434	43	518207	190.45	ug/L	93
52) t-1,3-Dichloropropene	9.471	75	242090	115.15	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	191781	93.97	ug/L	96
54) Dibromochloromethane	9.788	129	208257	111.12	ug/L	99
55) 1,3-Dichloropropane	9.879	76	305571	96.28	ug/L	96
56) 1,2-Dibromoethane (EDB)	10.001	107	208836	98.68	ug/L	98
57) 2-Hexanone	10.208	43	392003	197.25	ug/L	96
58) Chlorobenzene	10.471	112	511165	93.15	ug/L	97
59) Ethylbenzene	10.489	91	801122	96.22	ug/L	98
60) 1,1,1,2-Tetrachloroethane	10.525	131	180354	103.06	ug/L	96
61) m,p-Xylenes (2)	10.611	91	1184446	193.40	ug/L	98
62) o-Xylene	10.970	91	616887	103.89	ug/L	98
63) Styrene	11.013	104	496713	101.36	ug/L	94
64) Bromoform	11.038	173	169206	115.75	ug/L	98
65) Isopropylbenzene	11.220	105	744896	101.97	ug/L	99
68) Bromobenzene	11.531	156	230853	93.83	ug/L	95
69) n-Propylbenzene	11.544	91	803869	96.06	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.598	83	276789	87.36	ug/L	97
71) 2-Chlorotoluene	11.665	126	191643	98.19	ug/L	92
72) 1,3,5-Trimethylbenzene	11.690	105	599123	94.86	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	84503	90.48	ug/L	93
74) t-1,4-Dichloro-2-butene	11.733	88	31040	115.73	ug/L	90
75) 4-Chlorotoluene	11.793	91	522158	98.24	ug/L	99
76) tert-Butylbenzene	11.934	91	309424	100.40	ug/L	97
77) 1,2,4-Trimethylbenzene	11.982	105	612078	94.56	ug/L	99
78) sec-Butylbenzene	12.062	105	687152	98.12	ug/L	98
79) 4-Isopropyltoluene	12.165	119	583941	98.92	ug/L	99
80) 1,3-Dichlorobenzene	12.239	146	382076	96.55	ug/L	100
81) 1,4-Dichlorobenzene	12.306	146	380389	94.20	ug/L	98
82) n-Butylbenzene	12.488	91	474858	95.50	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	368271	93.94	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	72710	108.44	ug/L	91
85) Hexachlorobutadiene	13.830	223	56850	90.04	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	230455	94.59	ug/L	97
87) Naphthalene	14.202	128	723210	104.23	ug/L	97
88) 1,2,3-Trichlorobenzene	14.397	180	219631	89.89	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81875	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	238938	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	117374	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	85118	49.39	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283924	50.48	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	312156	50.11	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	98559	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	388	0.28	ug/L		83
3) Chloromethane	1.990	50	362	0.19	ug/L		91
4) Vinyl Chloride	2.112	62	175	0.11	ug/L		63
5) Bromomethane	2.551	96	92	0.11	ug/L		86
6) Chloroethane	2.740	64	39	Below Cal		#	47
7) Trichlorofluoromethane	2.929	101	260	0.15	ug/L		94
8) Ethanol	3.630	45	101	2.35	ug/L	#	29
9) 1,1-Dichloroethene	3.588	61	321	0.17	ug/L		96
10) Carbon Disulfide	3.594	76	1909	0.66	ug/L		98
11) Freon 113	3.661	101	441	0.28	ug/L		76
12) Iodomethane	3.752	142	27	2.13	ug/L	#	47
14) Methylene Chloride	4.325	84	2626	0.67	ug/L		94
15) Acetone	4.411	43	1215	1.42	ug/L		99
16) t-1,2-Dichloroethene	4.514	61	544	0.28	ug/L		91
19) tert-Butanol (TBA)	4.825	59	566	1.75	ug/L	#	82
25) c-1,2-Dichloroethene	5.819	61	227	0.11	ug/L		90
33) 1,1-Dichloropropene	6.483	75	346	0.19	ug/L		84
38) iso-Butyl Alcohol	7.063	43	130	0.96	ug/L		71
40) Trichloroethene (TCE)	7.416	130	385	0.21	ug/L		95
47) c-1,3-Dichloropropene	8.812	75	85	0.14	ug/L	#	33
49) Toluene	9.044	91	825	0.12	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	526	0.28	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.452	43	232	0.11	ug/L		70
52) t-1,3-Dichloropropene	9.483	75	60	0.12	ug/L	#	45
57) 2-Hexanone	10.227	43	155	0.10	ug/L		69
58) Chlorobenzene	10.464	112	661	0.14	ug/L	#	1
59) Ethylbenzene	10.489	91	952	0.14	ug/L		89
61) m,p-Xylenes (2)	10.617	91	1444	0.31	ug/L		98
62) o-Xylene	10.970	91	449	0.10	ug/L		85
63) Styrene	11.019	104	336	0.19	ug/L		71
65) Isopropylbenzene	11.214	105	667	0.12	ug/L		85
68) Bromobenzene	11.537	156	300	0.16	ug/L	#	79
69) n-Propylbenzene	11.543	91	1731	0.27	ug/L		96
71) 2-Chlorotoluene	11.671	126	275	0.19	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	790	0.17	ug/L		92
75) 4-Chlorotoluene	11.800	91	942	0.24	ug/L		98
76) tert-Butylbenzene	11.928	91	416	0.18	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.988	105	751	0.16	ug/L		90
78) sec-Butylbenzene	12.062	105	1219	0.23	ug/L		96
79) 4-Isopropyltoluene	12.165	119	952	0.22	ug/L		96
80) 1,3-Dichlorobenzene	12.238	146	960	0.31	ug/L		94
81) 1,4-Dichlorobenzene	12.299	146	1383	0.40	ug/L	#	62
82) n-Butylbenzene	12.488	91	1399	0.40	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

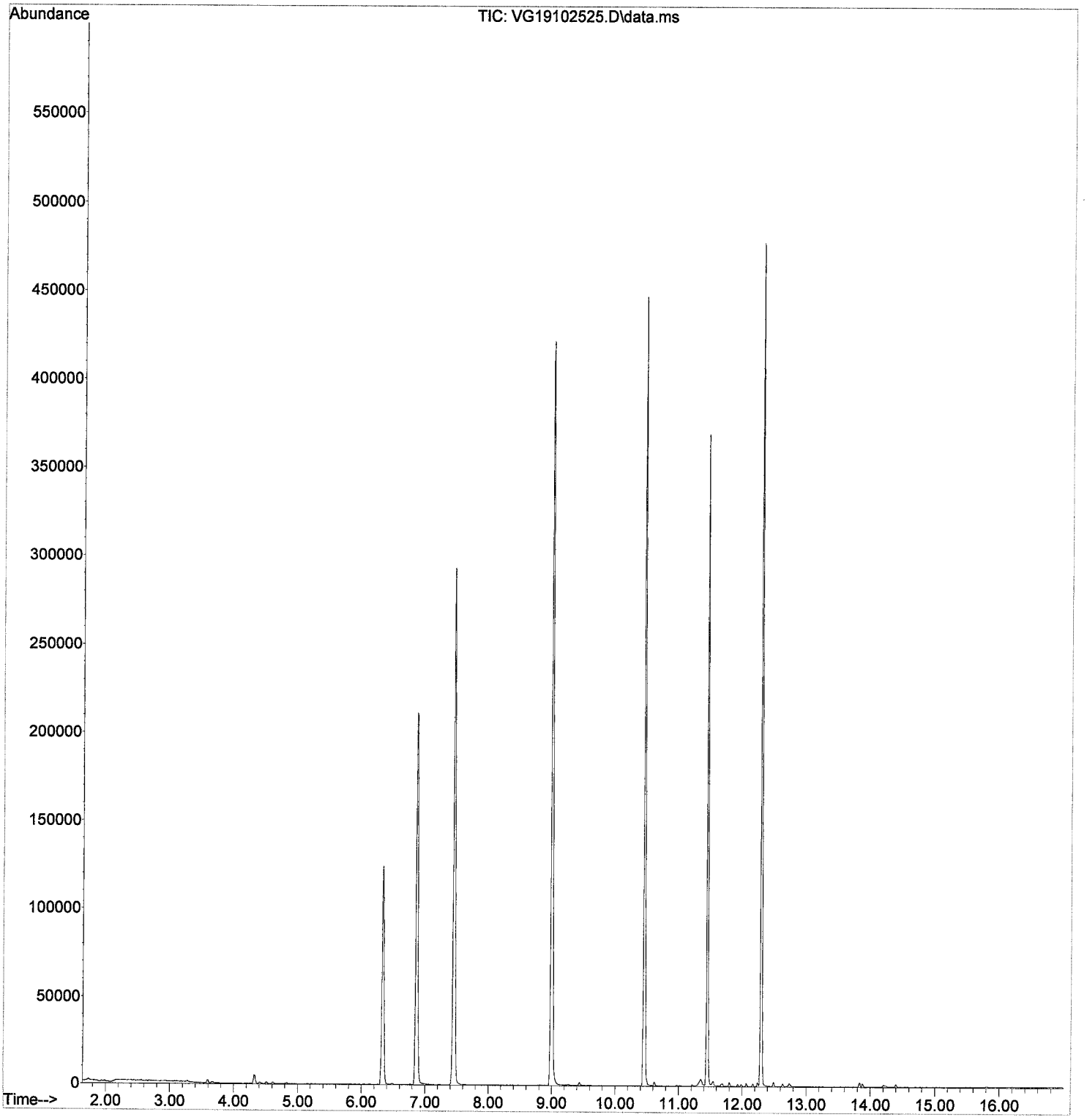
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
83) 1,2-Dichlorobenzene	12.635	146	683	0.23 ug/L	93
85) Hexachlorobutadiene	13.830	223	397	0.85 ug/L	94
86) 1,2,4-Trichlorobenzene	13.878	180	879	0.50 ug/L	89
87) Naphthalene	14.208	128	1414	0.54 ug/L	79
88) 1,2,3-Trichlorobenzene	14.397	180	774	0.45 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:53:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84871	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	237104	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116686	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87086	49.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283209	49.64	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	320536	51.93	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	102899	52.68	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	310233	233.04	ug/L		98
3) Chloromethane	1.984	50	356174	197.21	ug/L		99
4) Vinyl Chloride	2.112	62	347189	209.56	ug/L		96
5) Bromomethane	2.551	96	157346	191.93	ug/L		99
6) Chloroethane	2.722	64	68728	173.15	ug/L		95
7) Trichlorofluoromethane	2.911	101	306829	169.20	ug/L		98
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.582	61	419375	211.59	ug/L		98
10) Carbon Disulfide	3.582	76	739088	252.19	ug/L		98
11) Freon 113	3.655	101	322757	199.29	ug/L		99
12) Iodomethane	3.746	142	251532	438.52	ug/L		97
13) Acrolein	4.033	56	98401	228.50	ug/L		97
14) Methylene Chloride	4.319	84	305732	181.52	ug/L		95
15) Acetone	4.399	43	335353	385.65	ug/L		98
16) t-1,2-Dichloroethene	4.508	61	439733	207.65	ug/L		95
17) n-Hexane	4.606	86	53781	231.98	ug/L	#	61
18) Methyl-tert-butyl-ether	4.661	73	909069	215.74	ug/L		95
19) tert-Butanol (TBA)	0.000		0	N.D.	d		
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	561273	200.36	ug/L		99
22) Acrylonitrile	5.289	53	205093	199.39	ug/L		96
23) Vinyl Acetate	5.526	43	704281	235.00	ug/L		99
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.819	61	451383	206.50	ug/L		94
26) 2,2-Dichloropropane	5.935	77	307183	236.17	ug/L		85
27) Bromochloromethane	6.038	49	237805	174.99	ug/L		85
28) Chloroform	6.136	83	570590	197.48	ug/L		96
29) Carbon Tetrachloride	6.264	117	401239	233.30	ug/L		96
30) Tetrahydrofuran	6.301	42	193536	217.92	ug/L		92
31) 1,1,1-Trichloroethane	6.343	97	475459	217.55	ug/L		98
33) 1,1-Dichloropropene	6.477	75	443732	205.22	ug/L		98
34) 2-Butanone (MEK)	6.471	43	545000	396.35	ug/L		97
35) Benzene	6.752	78	1348023	196.55	ug/L		99
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.983	62	450038	197.78	ug/L		99
38) iso-Butyl Alcohol	7.044	43	669707	4568.49	ug/L		96
40) Trichloroethene (TCE)	7.410	130	384777	206.97	ug/L		97
41) tert-Amyl ethyl ether ...	0.000		0	N.D.	d		
42) Dibromomethane	7.880	93	239485	204.58	ug/L		99
43) 1,2-Dichloropropane	7.995	63	345874	201.08	ug/L		97
44) Bromodichloromethane	8.075	83	436572	228.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	248016	260.38	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	524872	250.59	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:53:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Toluene	9.044	91	1414184	203.30 ug/L	100
50) Tetrachloroethene (PCE)	9.434	166	374693	198.55 ug/L	99
51) 4-Methyl-2-Pentanone (...	9.434	43	885884	385.61 ug/L	94
52) t-1,3-Dichloropropene	9.471	75	467620	263.42 ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	346944	201.33 ug/L	96
54) Dibromochloromethane	9.794	129	394459	249.28 ug/L	99
55) 1,3-Dichloropropane	9.879	76	557771	208.14 ug/L	97
56) 1,2-Dibromoethane (EDB)	10.007	107	384667	215.27 ug/L	98
57) 2-Hexanone	10.208	43	679397	404.88 ug/L	97
58) Chlorobenzene	10.470	112	897555	193.72 ug/L	98
59) Ethylbenzene	10.489	91	1424477	202.64 ug/L	99
60) 1,1,1,2-Tetrachloroethane	10.525	131	330493	223.68 ug/L	97
61) m,p-Xylenes (2)	10.611	91	2061112	398.59 ug/L	97
62) o-Xylene	10.970	91	1108926	221.18 ug/L	98
63) Styrene	11.013	104	878618	212.35 ug/L	96
64) Bromoform	11.037	173	299993	243.05 ug/L	97
65) Isopropylbenzene	11.220	105	1319857	213.99 ug/L	100
68) Bromobenzene	11.531	156	391986	197.43 ug/L	97
69) n-Propylbenzene	11.543	91	1412751	209.19 ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.604	83	454028	177.57 ug/L	97
71) 2-Chlorotoluene	11.665	126	329426	209.14 ug/L	97
72) 1,3,5-Trimethylbenzene	11.690	105	1024588	201.02 ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	135722	180.08 ug/L	92
74) t-1,4-Dichloro-2-butene	11.732	88	56671	261.82 ug/L	93
75) 4-Chlorotoluene	11.793	91	925899	215.86 ug/L	99
76) tert-Butylbenzene	11.934	91	552713	222.24 ug/L	99
77) 1,2,4-Trimethylbenzene	11.982	105	1045289	200.10 ug/L	99
78) sec-Butylbenzene	12.062	105	1192215	210.96 ug/L	98
79) 4-Isopropyltoluene	12.165	119	1001166	210.16 ug/L	98
80) 1,3-Dichlorobenzene	12.238	146	641529	200.87 ug/L	99
81) 1,4-Dichlorobenzene	12.306	146	639760	196.31 ug/L	98
82) n-Butylbenzene	12.488	91	806750	201.05 ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	612148	193.50 ug/L	99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	128958	238.31 ug/L	93
85) Hexachlorobutadiene	13.830	223	91693	179.96 ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	388731	197.71 ug/L	97
87) Naphthalene	14.201	128	1237338	220.97 ug/L	98
88) 1,2,3-Trichlorobenzene	14.397	180	370994	188.16 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84871	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	237104	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116686	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87086	49.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283209	49.64	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	320536	51.93	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	102899	52.68	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	310233	233.04	ug/L		98
3) Chloromethane	1.984	50	356174	197.21	ug/L		99
4) Vinyl Chloride	2.112	62	347189	209.56	ug/L		96
5) Bromomethane	2.551	96	157346	191.93	ug/L		99
6) Chloroethane	2.722	64	68728	173.15	ug/L		95
7) Trichlorofluoromethane	2.911	101	306829	169.20	ug/L		98
8) Ethanol	3.655	45	540	11.52	ug/L		87
9) 1,1-Dichloroethene	3.582	61	419375	211.59	ug/L		98
10) Carbon Disulfide	3.582	76	739088	252.19	ug/L		98
11) Freon 113	3.655	101	322757	199.29	ug/L		99
12) Iodomethane	3.746	142	251532	438.52	ug/L		97
13) Acrolein	4.033	56	98401	228.50	ug/L		97
14) Methylene Chloride	4.319	84	305732	181.52	ug/L		95
15) Acetone	4.399	43	335353	385.65	ug/L		98
16) t-1,2-Dichloroethene	4.508	61	439733	207.65	ug/L		95
17) n-Hexane	4.606	86	53781	231.98	ug/L	#	61
18) Methyl-tert-butyl-ether	4.661	73	909069	215.74	ug/L		95
19) tert-Butanol (TBA)	4.831	59	1729	4.51	ug/L	#	55
20) Diisopropyl ether (DIPE)	5.118	45	822	0.17	ug/L		85
21) 1,1-Dichloroethane	5.215	63	561273	200.36	ug/L		99
22) Acrylonitrile	5.289	53	205093	199.39	ug/L		96
23) Vinyl Acetate	5.526	43	704281	235.00	ug/L		99
24) Ethyl-tert-butyl ether...	5.520	59	721	0.17	ug/L	#	1
25) c-1,2-Dichloroethene	5.819	61	451383	206.50	ug/L		94
26) 2,2-Dichloropropane	5.935	77	307183	236.17	ug/L		85
27) Bromochloromethane	6.038	49	237805	174.99	ug/L		85
28) Chloroform	6.136	83	570590	197.48	ug/L		96
29) Carbon Tetrachloride	6.264	117	401239	233.30	ug/L		96
30) Tetrahydrofuran	6.301	42	193536	217.92	ug/L		92
31) 1,1,1-Trichloroethane	6.343	97	475459	217.55	ug/L		98
33) 1,1-Dichloropropene	6.477	75	443732	205.22	ug/L		98
34) 2-Butanone (MEK)	6.471	43	545000	396.35	ug/L		97
35) Benzene	6.752	78	1348023	196.55	ug/L		99
36) tert-Amyl methyl ether...	6.898	73	687	0.18	ug/L		55
37) 1,2-Dichloroethane (EDC)	6.983	62	450038	197.78	ug/L		99
38) iso-Butyl Alcohol	7.044	43	669707	4568.49	ug/L		96
40) Trichloroethene (TCE)	7.410	130	384777	206.97	ug/L		97
41) tert-Amyl ethyl ether ...	7.684	59	526	0.20	ug/L		81
42) Dibromomethane	7.880	93	239485	204.58	ug/L		99
43) 1,2-Dichloropropane	7.995	63	345874	201.08	ug/L		97
44) Bromodichloromethane	8.075	83	436572	228.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	248016	260.38	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	524872	250.59	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

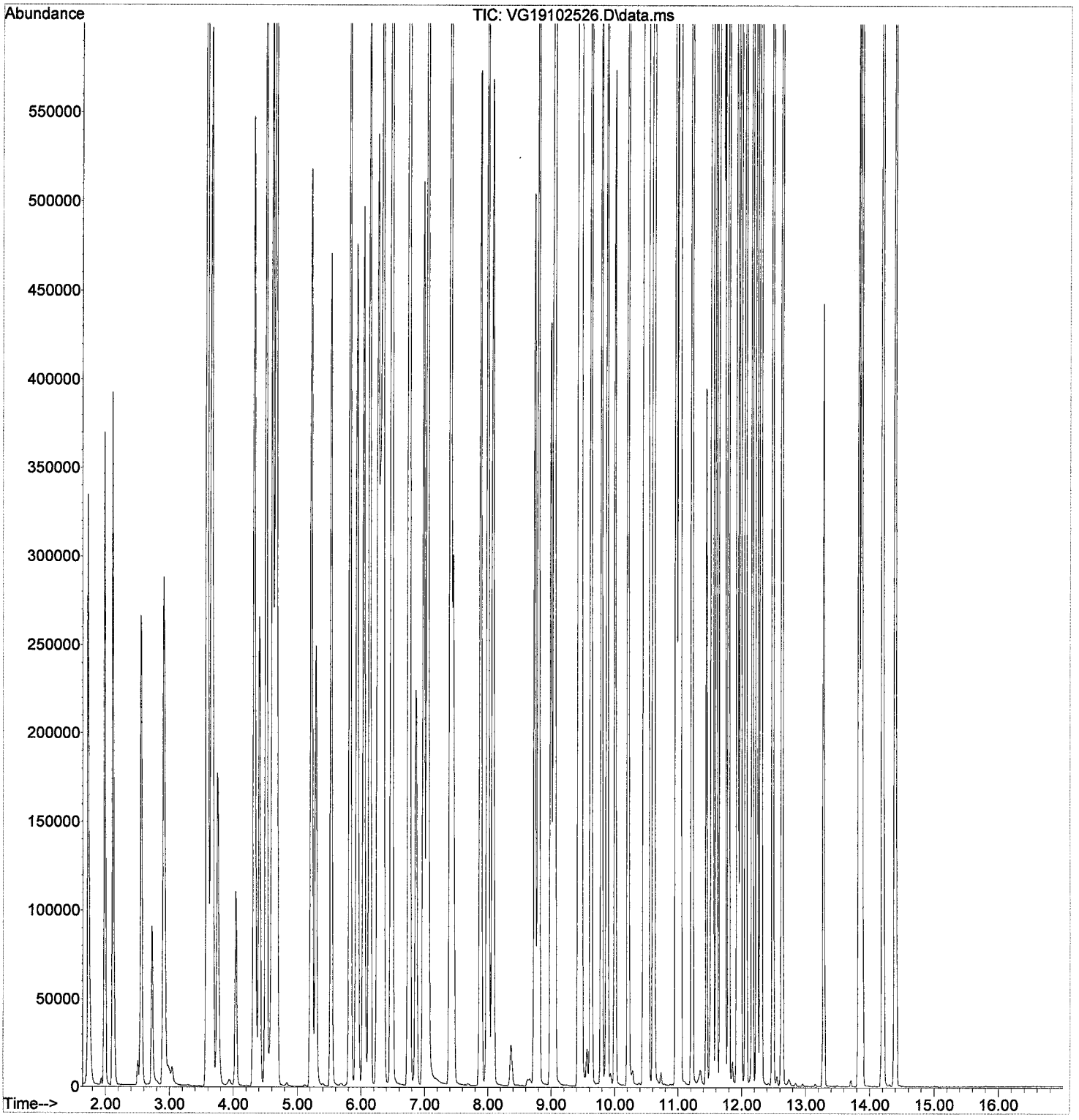
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	1414184	203.30	ug/L	100
50) Tetrachloroethene (PCE)	9.434	166	374693	198.55	ug/L	99
51) 4-Methyl-2-Pentanone (...	9.434	43	885884	385.61	ug/L	94
52) t-1,3-Dichloropropene	9.471	75	467620	263.42	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	346944	201.33	ug/L	96
54) Dibromochloromethane	9.794	129	394459	249.28	ug/L	99
55) 1,3-Dichloropropane	9.879	76	557771	208.14	ug/L	97
56) 1,2-Dibromoethane (EDB)	10.007	107	384667	215.27	ug/L	98
57) 2-Hexanone	10.208	43	679397	404.88	ug/L	97
58) Chlorobenzene	10.470	112	897555	193.72	ug/L	98
59) Ethylbenzene	10.489	91	1424477	202.64	ug/L	99
60) 1,1,1,2-Tetrachloroethane	10.525	131	330493	223.68	ug/L	97
61) m,p-Xylenes (2)	10.611	91	2061112	398.59	ug/L	97
62) o-Xylene	10.970	91	1108926	221.18	ug/L	98
63) Styrene	11.013	104	878618	212.35	ug/L	96
64) Bromoform	11.037	173	299993	243.05	ug/L	97
65) Isopropylbenzene	11.220	105	1319857	213.99	ug/L	100
68) Bromobenzene	11.531	156	391986	197.43	ug/L	97
69) n-Propylbenzene	11.543	91	1412751	209.19	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.604	83	454028	177.57	ug/L	97
71) 2-Chlorotoluene	11.665	126	329426	209.14	ug/L	97
72) 1,3,5-Trimethylbenzene	11.690	105	1024588	201.02	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	135722	180.08	ug/L	92
74) t-1,4-Dichloro-2-butene	11.732	88	56671	261.82	ug/L	93
75) 4-Chlorotoluene	11.793	91	925899	215.86	ug/L	99
76) tert-Butylbenzene	11.934	91	552713	222.24	ug/L	99
77) 1,2,4-Trimethylbenzene	11.982	105	1045289	200.10	ug/L	99
78) sec-Butylbenzene	12.062	105	1192215	210.96	ug/L	98
79) 4-Isopropyltoluene	12.165	119	1001166	210.16	ug/L	98
80) 1,3-Dichlorobenzene	12.238	146	641529	200.87	ug/L	99
81) 1,4-Dichlorobenzene	12.306	146	639760	196.31	ug/L	98
82) n-Butylbenzene	12.488	91	806750	201.05	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	612148	193.50	ug/L	99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	128958	238.31	ug/L	93
85) Hexachlorobutadiene	13.830	223	91693	179.96	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	388731	197.71	ug/L	97
87) Naphthalene	14.201	128	1237338	220.97	ug/L	98
88) 1,2,3-Trichlorobenzene	14.397	180	370994	188.16	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	89938	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	264181	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	131026	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	91826	48.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	309186	50.04	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	342029	49.66	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	110596	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	880	0.58	ug/L		97
3) Chloromethane	1.990	50	589	0.29	ug/L		83
4) Vinyl Chloride	2.112	62	470	0.27	ug/L		95
5) Bromomethane	2.551	96	226	0.24	ug/L	#	63
6) Chloroethane	2.728	64	90	Below Cal		#	47
7) Trichlorofluoromethane	2.929	101	590	0.31	ug/L		94
8) Ethanol	3.648	45	10	0.21	ug/L	#	29
9) 1,1-Dichloroethene	3.594	61	579	0.28	ug/L		81
10) Carbon Disulfide	3.594	76	4168	1.31	ug/L		99
11) Freon 113	3.667	101	905	0.53	ug/L		94
12) Iodomethane	3.758	142	132	2.27	ug/L	#	47
14) Methylene Chloride	4.325	84	4270	1.52	ug/L		92
15) Acetone	4.404	43	1316	1.40	ug/L		95
16) t-1,2-Dichloroethene	4.514	61	1153	0.53	ug/L		92
17) n-Hexane	4.612	86	107	0.44	ug/L	#	87
19) tert-Butanol (TBA)	4.825	59	462	1.30	ug/L	#	47
22) Acrylonitrile	5.313	53	118	0.12	ug/L	#	49
25) c-1,2-Dichloroethene	5.825	61	522	0.24	ug/L		93
27) Bromochloromethane	6.038	49	262	0.19	ug/L		90
28) Chloroform	6.136	83	285	0.10	ug/L		74
29) Carbon Tetrachloride	6.264	117	134	0.08	ug/L	#	53
33) 1,1-Dichloropropene	6.483	75	863	0.43	ug/L		90
34) 2-Butanone (MEK)	6.502	43	266	0.20	ug/L		52
35) Benzene	6.758	78	966	0.14	ug/L		92
37) 1,2-Dichloroethane (EDC)	6.983	62	221	0.09	ug/L	#	49
38) iso-Butyl Alcohol	7.056	43	320	2.15	ug/L		70
40) Trichloroethene (TCE)	7.416	130	741	0.36	ug/L		91
42) Dibromomethane	7.892	93	161	0.14	ug/L		85
47) c-1,3-Dichloropropene	8.806	75	253	0.21	ug/L		92
49) Toluene	9.050	91	1637	0.21	ug/L		93
50) Tetrachloroethene (PCE)	9.434	166	1240	0.59	ug/L		93
51) 4-Methyl-2-Pentanone (...	9.446	43	521	0.23	ug/L		91
52) t-1,3-Dichloropropene	9.477	75	270	0.25	ug/L	#	45
54) Dibromochloromethane	9.800	129	82	0.17	ug/L	#	60
56) 1,2-Dibromoethane (EDB)	10.019	107	226	0.12	ug/L		82
57) 2-Hexanone	10.220	43	495	0.30	ug/L		82
58) Chlorobenzene	10.464	112	1497	0.29	ug/L	#	57
59) Ethylbenzene	10.495	91	2070	0.27	ug/L		98
61) m,p-Xylenes (2)	10.617	91	3152	0.61	ug/L		97
62) o-Xylene	10.976	91	946	0.19	ug/L		84
63) Styrene	11.019	104	791	0.28	ug/L		95
64) Bromoform	11.043	173	76	0.23	ug/L	#	37
65) Isopropylbenzene	11.220	105	1538	0.24	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

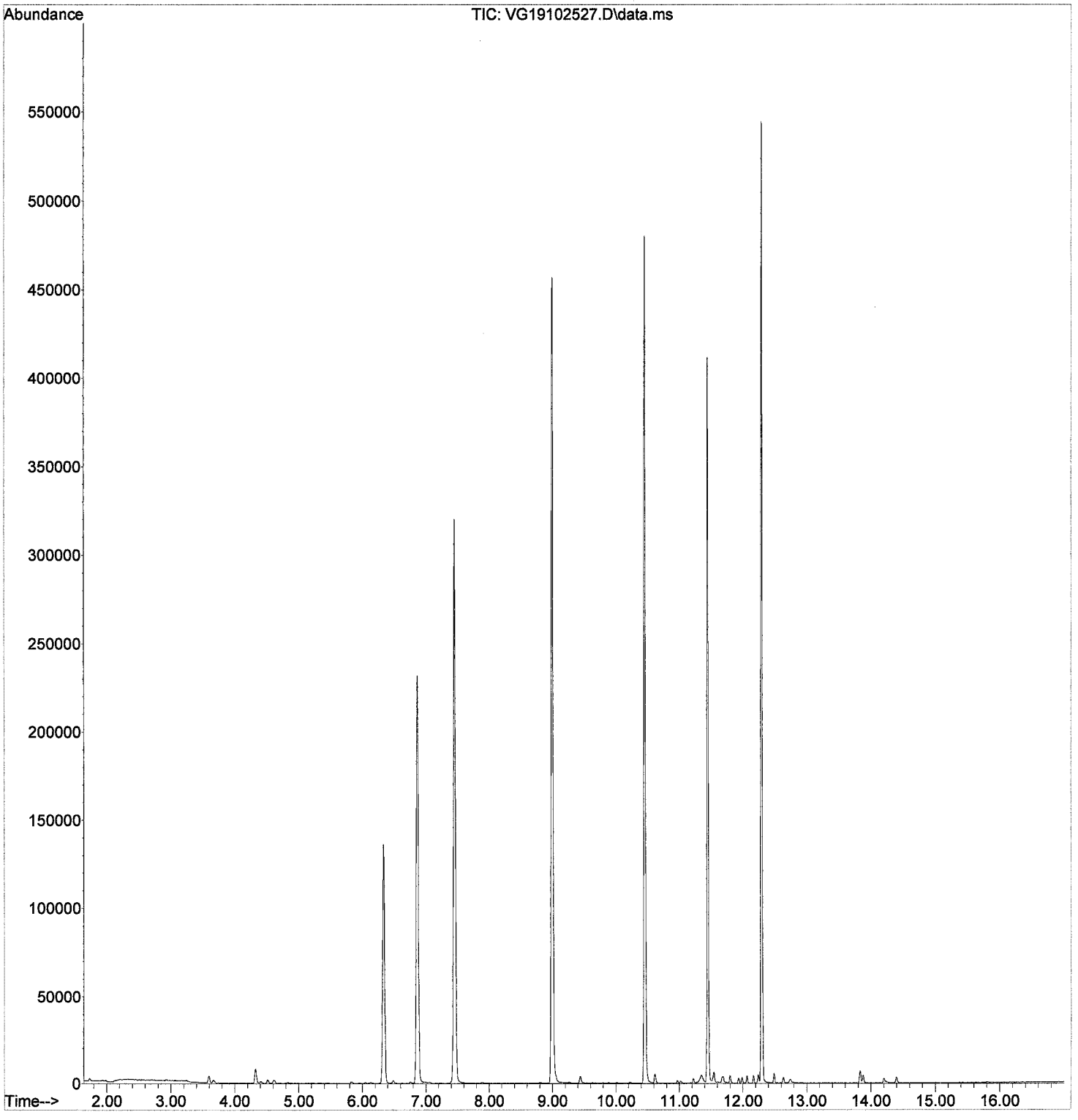
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) Bromobenzene	11.531	156	636	0.30	ug/L		85
69) n-Propylbenzene	11.543	91	3545	0.49	ug/L		95
71) 2-Chlorotoluene	11.671	126	545	0.33	ug/L	#	81
72) 1,3,5-Trimethylbenzene	11.690	105	1761	0.35	ug/L		88
75) 4-Chlorotoluene	11.799	91	2149	0.49	ug/L		98
76) tert-Butylbenzene	11.933	91	902	0.35	ug/L		92
77) 1,2,4-Trimethylbenzene	11.982	105	1790	0.34	ug/L		94
78) sec-Butylbenzene	12.061	105	2637	0.45	ug/L		94
79) 4-Isopropyltoluene	12.165	119	2255	0.46	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	2125	0.62	ug/L		97
81) 1,4-Dichlorobenzene	12.305	146	2707	0.70	ug/L		90
82) n-Butylbenzene	12.488	91	3145	0.81	ug/L		95
83) 1,2-Dichlorobenzene	12.635	146	1381	0.41	ug/L		93
84) 1,2-Dibromo-3-Chloropr...	13.287	157	60	0.10	ug/L	#	18
85) Hexachlorobutadiene	13.829	223	1094	2.10	ug/L		96
86) 1,2,4-Trichlorobenzene	13.878	180	1916	0.98	ug/L		95
87) Naphthalene	14.201	128	2725	0.73	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	1506	0.79	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.867	99	92100	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276911	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	138080	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.331	111	96022	49.53 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322415	50.96 ug/L		0.00
48) Toluene-d8 (S)	8.995	98	358808	49.70 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	116196	49.83 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.728	85	353	0.23 ug/L		88
3) Chloromethane	1.990	50	363	0.17 ug/L		81
4) Vinyl Chloride	2.118	62	147	0.08 ug/L		88
5) Bromomethane	2.557	96	109	0.11 ug/L	#	56
6) Chloroethane	2.832	64	20	Below Cal	#	47
7) Trichlorofluoromethane	2.935	101	252	0.13 ug/L		75
8) Ethanol	3.630	45	11	0.23 ug/L	#	29
9) 1,1-Dichloroethene	3.588	61	226	0.11 ug/L		86
10) Carbon Disulfide	3.594	76	1842	0.57 ug/L		97
11) Freon 113	3.667	101	435	0.25 ug/L		92
12) Iodomethane	3.758	142	31	2.13 ug/L	#	47
14) Methylene Chloride	4.325	84	2342	0.30 ug/L		92
15) Acetone	4.411	43	891	0.93 ug/L		99
16) t-1,2-Dichloroethene	4.508	61	406	0.18 ug/L		88
17) n-Hexane	4.612	86	47	0.19 ug/L	#	44
19) tert-Butanol (TBA)	4.819	59	219	0.60 ug/L	#	89
25) c-1,2-Dichloroethene	5.825	61	186	0.08 ug/L	#	68
33) 1,1-Dichloropropene	6.483	75	371	0.18 ug/L	#	72
40) Trichloroethene (TCE)	7.416	130	290	0.14 ug/L		85
47) c-1,3-Dichloropropene	8.806	75	59	0.12 ug/L	#	33
49) Toluene	9.050	91	703	0.08 ug/L		85
50) Tetrachloroethene (PCE)	9.440	166	556	0.25 ug/L		92
52) t-1,3-Dichloropropene	9.489	75	100	0.14 ug/L	#	45
54) Dibromochloromethane	9.794	129	10	0.13 ug/L		86
58) Chlorobenzene	10.470	112	590	0.11 ug/L	#	64
59) Ethylbenzene	10.501	91	700	0.09 ug/L		92
61) m,p-Xylenes (2)	10.617	91	1215	0.22 ug/L		95
63) Styrene	11.019	104	269	0.16 ug/L		75
68) Bromobenzene	11.537	156	255	0.11 ug/L		77
69) n-Propylbenzene	11.549	91	1452	0.19 ug/L		96
71) 2-Chlorotoluene	11.677	126	201	0.12 ug/L		91
72) 1,3,5-Trimethylbenzene	11.690	105	600	0.11 ug/L		96
75) 4-Chlorotoluene	11.799	91	831	0.18 ug/L		98
76) tert-Butylbenzene	11.927	91	219	0.08 ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.988	105	568	0.10 ug/L		91
78) sec-Butylbenzene	12.062	105	808	0.13 ug/L		95
79) 4-Isopropyltoluene	12.171	119	738	0.14 ug/L		99
80) 1,3-Dichlorobenzene	12.244	146	852	0.24 ug/L		94
81) 1,4-Dichlorobenzene	12.305	146	1131	0.28 ug/L	#	78
82) n-Butylbenzene	12.488	91	1221	0.30 ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	524	0.15 ug/L		95
85) Hexachlorobutadiene	13.829	223	331	0.60 ug/L		86
86) 1,2,4-Trichlorobenzene	13.878	180	665	0.32 ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

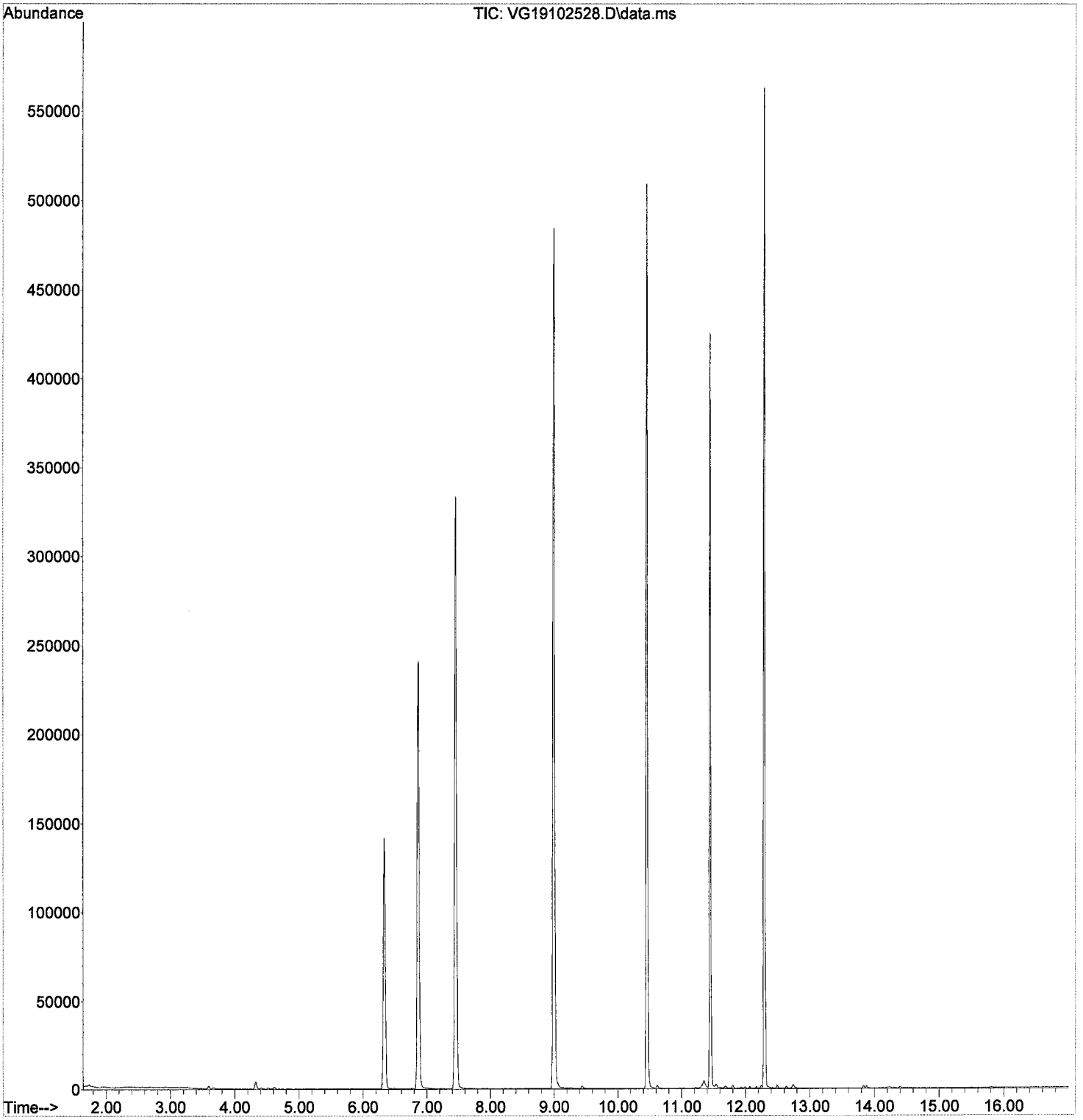
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Naphthalene	14.207	128	735	0.39	ug/L	92
88) 1,2,3-Trichlorobenzene	14.396	180	489	0.24	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/28/19

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	90965	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266164	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	137604	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	94133	49.16	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305094	48.82	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	345063	49.72	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	114201	49.15	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	37337	24.48	ug/L		97
3) Chloromethane	1.990	50	45124	21.78	ug/L		100
4) Vinyl Chloride	2.112	62	39518	22.34	ug/L		95
5) Bromomethane	2.551	96	17518	18.62	ug/L		99
6) Chloroethane	2.722	64	8273	18.87	ug/L		88
7) Trichlorofluoromethane	2.917	101	38221	20.03	ug/L		97
8) Ethanol	3.642	45	1573	32.97	ug/L		76
9) 1,1-Dichloroethene	3.588	61	42768	20.19	ug/L		97
10) Carbon Disulfide	3.588	76	60869	18.94	ug/L		99
11) Freon 113	3.667	101	31913	18.38	ug/L		96
12) Iodomethane	3.752	142	16833	23.07	ug/L		97
13) Acrolein	4.033	56	10824	23.14	ug/L		98
14) Methylene Chloride	4.319	84	36056	20.88	ug/L		96
15) Acetone	4.398	43	36542	38.53	ug/L		95
16) t-1,2-Dichloroethene	4.508	61	45403	20.69	ug/L		91
17) n-Hexane	4.606	86	4686	18.85	ug/L	#	56
18) Methyl-tert-butyl-ether	4.661	73	88721	21.44	ug/L		96
19) tert-Butanol (TBA)	4.825	59	10483	29.20	ug/L	#	58
20) Diisopropyl ether (DIPE)	5.118	45	759	0.17	ug/L		92
21) 1,1-Dichloroethane	5.221	63	60213	20.13	ug/L		99
22) Acrylonitrile	5.289	53	20721	20.43	ug/L		93
23) Vinyl Acetate	5.532	43	69012	21.25	ug/L		99
24) Ethyl-tert-butyl ether...	5.526	59	764	0.20	ug/L	#	51
25) c-1,2-Dichloroethene	5.825	61	46222	20.72	ug/L		90
26) 2,2-Dichloropropane	5.935	77	25337	18.66	ug/L		70
27) Bromochloromethane	6.038	49	29181	20.68	ug/L		85
28) Chloroform	6.136	83	60420	20.09	ug/L		96
29) Carbon Tetrachloride	6.264	117	35960	21.73	ug/L		95
30) Tetrahydrofuran	6.307	42	18687	21.25	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	45657	20.18	ug/L		96
33) 1,1-Dichloropropene	6.483	75	45149	22.21	ug/L		97
34) 2-Butanone (MEK)	6.477	43	56959	42.44	ug/L		96
35) Benzene	6.758	78	143601	20.40	ug/L		98
36) tert-Amyl methyl ether...	6.904	73	854	0.21	ug/L		75
37) 1,2-Dichloroethane (EDC)	6.983	62	48080	20.01	ug/L		99
38) iso-Butyl Alcohol	7.038	43	79819	529.78	ug/L		91
40) Trichloroethene (TCE)	7.410	130	40760	19.83	ug/L		97
41) tert-Amyl ethyl ether ...	7.690	59	471	0.18	ug/L		79
42) Dibromomethane	7.886	93	24262	20.43	ug/L		96
43) 1,2-Dichloropropane	7.995	63	36271	20.31	ug/L		98
44) Bromodichloromethane	8.081	83	40202	20.69	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	23534	21.36	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	45468	20.29	ug/L		92

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

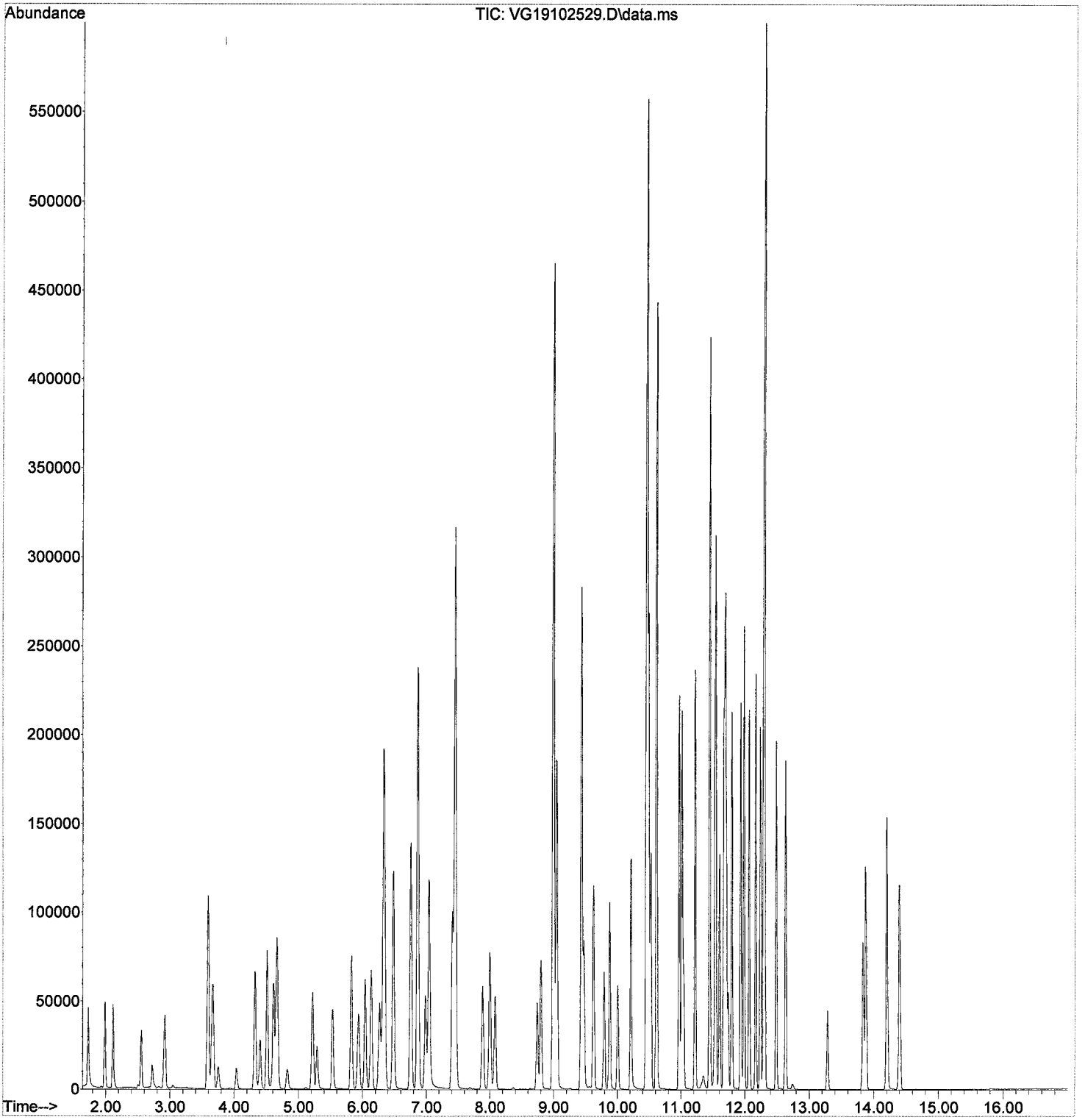
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	154447	19.38	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	42359	20.03	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	101327	43.90	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	41037	22.83	ug/L		98
53) 1,1,2-Trichloroethane	9.623	97	38653	21.04	ug/L		94
54) Dibromochloromethane	9.794	129	35982	20.75	ug/L		98
55) 1,3-Dichloropropane	9.879	76	59808	21.06	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	39732	21.48	ug/L		100
57) 2-Hexanone	10.214	43	75436	44.77	ug/L		96
58) Chlorobenzene	10.470	112	103089	19.86	ug/L		97
59) Ethylbenzene	10.489	91	157330	20.65	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	32683	20.98	ug/L		96
61) m,p-Xylenes (2)	10.611	91	231340	44.15	ug/L		100
62) o-Xylene	10.970	91	113752	22.92	ug/L		99
63) Styrene	11.013	104	94185	21.13	ug/L		94
64) Bromoform	11.037	173	27392	19.47	ug/L		97
65) Isopropylbenzene	11.220	105	138446	21.75	ug/L		99
68) Bromobenzene	11.531	156	45767	20.24	ug/L		98
69) n-Propylbenzene	11.543	91	155267	20.54	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	57461	19.96	ug/L		99
71) 2-Chlorotoluene	11.665	126	36919	21.46	ug/L		93
72) 1,3,5-Trimethylbenzene	11.690	105	117971	22.12	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	17401	19.91	ug/L		99
74) t-1,4-Dichloro-2-butene	11.738	88	4121	16.70	ug/L	#	80
75) 4-Chlorotoluene	11.793	91	101234	21.91	ug/L		99
76) tert-Butylbenzene	11.934	91	58145	21.69	ug/L		98
77) 1,2,4-Trimethylbenzene	11.982	105	119947	21.70	ug/L		99
78) sec-Butylbenzene	12.062	105	129800	21.29	ug/L		98
79) 4-Isopropyltoluene	12.165	119	111157	21.64	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	76192	21.29	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	77493	19.19	ug/L		99
82) n-Butylbenzene	12.488	91	94224	22.98	ug/L		99
83) 1,2-Dichlorobenzene	12.635	146	74553	21.23	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	12637	19.86	ug/L		95
85) Hexachlorobutadiene	13.830	223	11768	21.48	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	46633	22.67	ug/L		98
87) Naphthalene	14.201	128	131607	20.74	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	46418	23.06	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/28/19

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.868	99	84982	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	250385	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	126694	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.331	111	86513	48.36 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291575	49.94 ug/L		0.00
48) Toluene-d8 (S)	8.995	98	324360	49.69 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105337	49.24 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.728	85	219	0.15 ug/L		73
3) Chloromethane	1.984	50	973	0.50 ug/L		85
4) Vinyl Chloride	2.112	62	387	0.23 ug/L		83
5) Bromomethane	2.551	96	421	0.48 ug/L		87
6) Chloroethane	2.728	64	105	Below Cal	#	49
7) Trichlorofluoromethane	2.923	101	228	0.13 ug/L		73
8) Ethanol	3.624	45	55300	1240.68 ug/L		83
9) 1,1-Dichloroethene	3.588	61	424	0.21 ug/L		87
10) Carbon Disulfide	3.594	76	1474	0.49 ug/L		97
11) Freon 113	3.667	101	265	0.16 ug/L		95
12) Iodomethane	3.746	142	212	2.40 ug/L	#	47
14) Methylene Chloride	4.325	84	2244	0.36 ug/L		86
15) Acetone	4.405	43	1085	1.22 ug/L		94
16) t-1,2-Dichloroethene	4.514	61	708	0.35 ug/L		83
18) Methyl-tert-butyl-ether	4.655	73	398	0.10 ug/L		81
19) tert-Butanol (TBA)	4.813	59	459726	1370.60 ug/L	#	83
20) Diisopropyl ether (DIPE)	5.106	45	22807	5.38 ug/L		96
21) 1,1-Dichloroethane	5.215	63	751	0.27 ug/L		82
23) Vinyl Acetate	5.520	43	2412	0.80 ug/L	#	46
24) Ethyl-tert-butyl ether...	5.514	59	19554	5.36 ug/L		97
25) c-1,2-Dichloroethene	5.825	61	638	0.31 ug/L		90
26) 2,2-Dichloropropane	5.929	77	207	0.16 ug/L		88
27) Bromochloromethane	6.032	49	300	0.23 ug/L		84
28) Chloroform	6.136	83	719	0.26 ug/L		88
29) Carbon Tetrachloride	6.264	117	135	0.09 ug/L		87
31) 1,1,1-Trichloroethane	6.337	97	352	0.17 ug/L		86
33) 1,1-Dichloropropene	6.490	75	449	0.24 ug/L		89
35) Benzene	6.758	78	1782	0.27 ug/L		93
36) tert-Amyl methyl ether...	6.898	73	17726	4.71 ug/L		79
37) 1,2-Dichloroethane (EDC)	6.989	62	391	0.17 ug/L		89
38) iso-Butyl Alcohol	7.063	43	19	0.13 ug/L	#	22
40) Trichloroethene (TCE)	7.410	130	584	0.30 ug/L		83
41) tert-Amyl ethyl ether ...	7.691	59	11945	4.94 ug/L		95
42) Dibromomethane	7.892	93	140	0.13 ug/L		96
43) 1,2-Dichloropropane	8.001	63	410	0.25 ug/L		86
44) Bromodichloromethane	8.081	83	368	0.20 ug/L		85
47) c-1,3-Dichloropropene	8.806	75	338	0.26 ug/L		85
49) Toluene	9.044	91	2163	0.29 ug/L		98
50) Tetrachloroethene (PCE)	9.434	166	622	0.31 ug/L		83
52) t-1,3-Dichloropropene	9.489	75	225	0.23 ug/L	#	45
53) 1,1,2-Trichloroethane	9.629	97	232	0.13 ug/L		76
54) Dibromochloromethane	9.794	129	184	0.24 ug/L		72
55) 1,3-Dichloropropane	9.885	76	358	0.13 ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

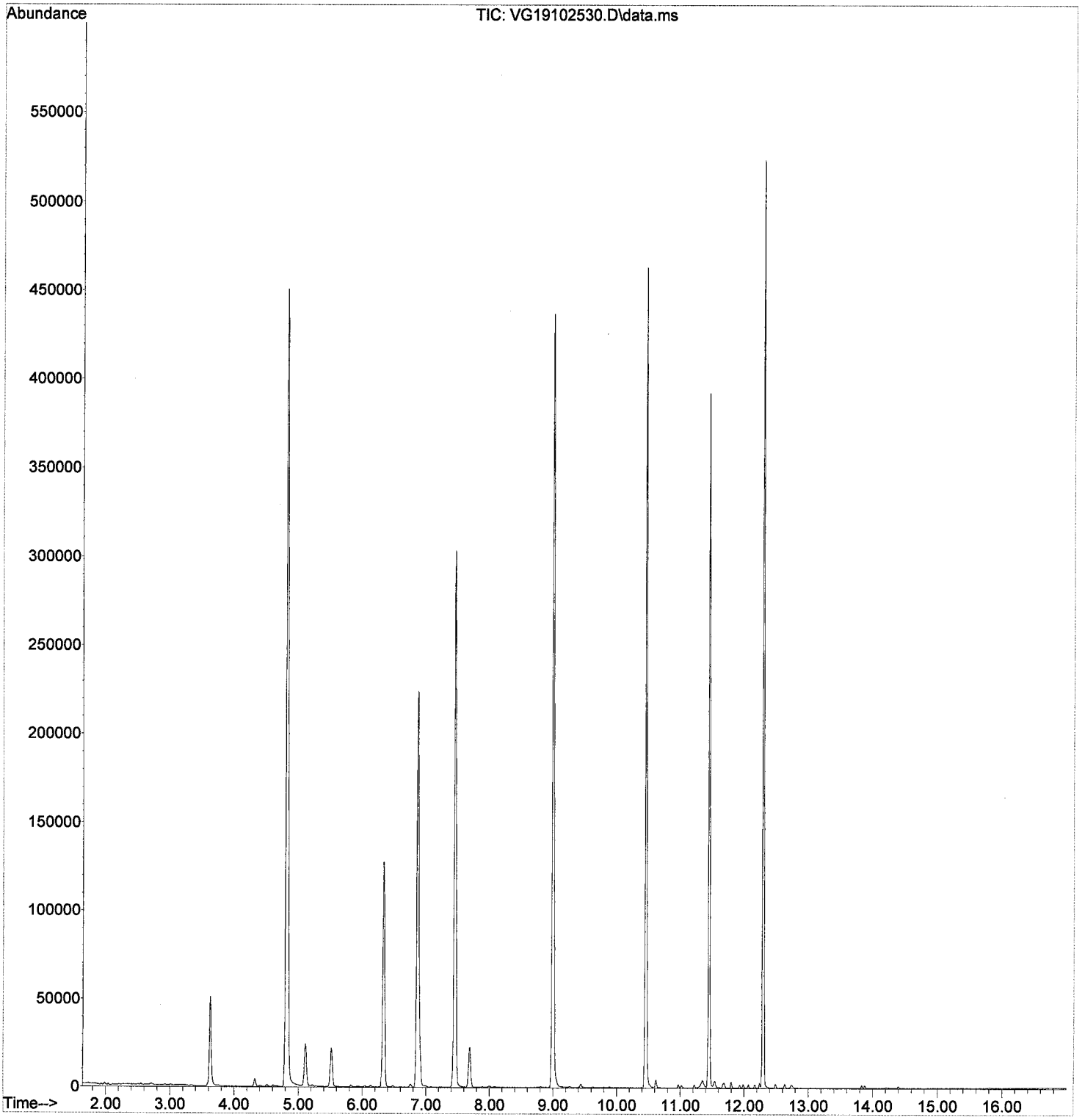
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
56) 1,2-Dibromoethane (EDB)	10.013	107	191	0.11	ug/L		83
58) Chlorobenzene	10.470	112	1573	0.32	ug/L		95
59) Ethylbenzene	10.495	91	1876	0.26	ug/L		93
60) 1,1,1,2-Tetrachloroethane	10.525	131	245	0.17	ug/L		74
61) m,p-Xylenes (2)	10.617	91	2604	0.53	ug/L		98
62) o-Xylene	10.970	91	1099	0.24	ug/L		99
63) Styrene	11.019	104	896	0.32	ug/L		92
64) Bromoform	11.031	173	11	0.19	ug/L	#	37
65) Isopropylbenzene	11.220	105	1212	0.20	ug/L		100
68) Bromobenzene	11.525	156	584	0.28	ug/L		90
69) n-Propylbenzene	11.543	91	2022	0.29	ug/L		98
71) 2-Chlorotoluene	11.671	126	472	0.30	ug/L	#	84
72) 1,3,5-Trimethylbenzene	11.690	105	1221	0.25	ug/L		88
75) 4-Chlorotoluene	11.799	91	1485	0.35	ug/L		95
76) tert-Butylbenzene	11.934	91	544	0.22	ug/L		90
77) 1,2,4-Trimethylbenzene	11.988	105	1145	0.23	ug/L		93
78) sec-Butylbenzene	12.068	105	1206	0.21	ug/L		98
79) 4-Isopropyltoluene	12.165	119	1183	0.25	ug/L		93
80) 1,3-Dichlorobenzene	12.245	146	1245	0.38	ug/L		87
81) 1,4-Dichlorobenzene	12.305	146	1551	0.42	ug/L		86
82) n-Butylbenzene	12.488	91	1351	0.36	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	963	0.30	ug/L		91
85) Hexachlorobutadiene	13.836	223	258	0.51	ug/L		93
86) 1,2,4-Trichlorobenzene	13.878	180	684	0.36	ug/L		83
87) Naphthalene	14.201	128	691	0.39	ug/L		86
88) 1,2,3-Trichlorobenzene	14.397	180	541	0.29	ug/L		77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102531.D
Acq On : 26 Oct 2019 12:31 am
Operator : MM
Sample : 9J25051-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

NR

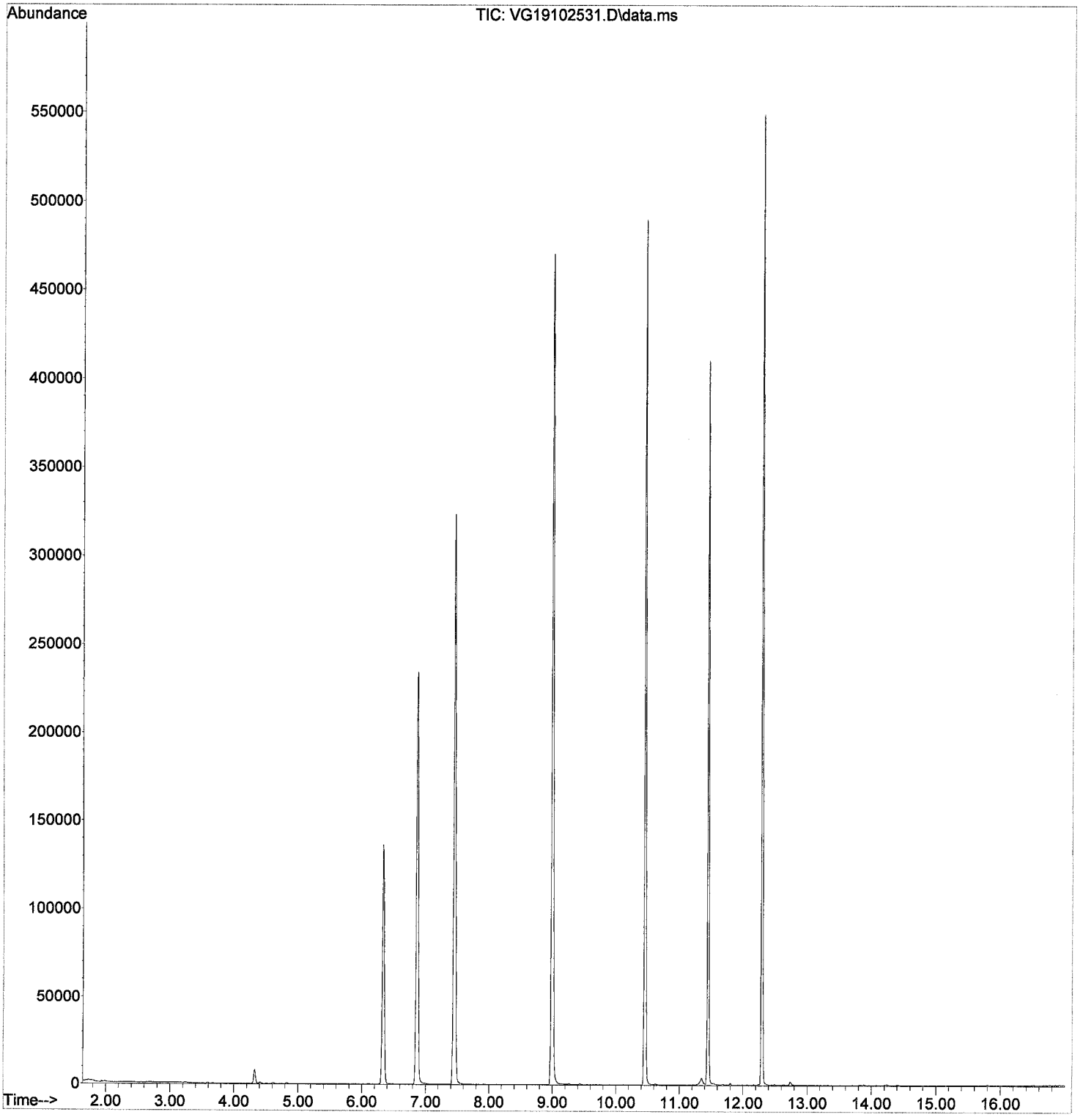
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	89250	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	268337	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	133750	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92391	49.18	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	313231	51.09	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	348030	49.75	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	111496	49.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	143	0.10	ug/L	#	51
3) Chloromethane	1.990	50	271	0.13	ug/L		91
6) Chloroethane	2.728	64	10	Below Cal		#	47
10) Carbon Disulfide	3.594	76	654	0.21	ug/L		96
11) Freon 113	3.661	101	149	0.09	ug/L		87
12) Iodomethane	3.764	142	10	2.11	ug/L	#	47
14) Methylene Chloride	4.325	84	3984	1.37	ug/L		91
15) Acetone	4.404	43	1226	1.32	ug/L		88
19) tert-Butanol (TBA)	4.825	59	425	1.21	ug/L	#	66
47) c-1,3-Dichloropropene	8.818	75	10	0.10	ug/L	#	37
50) Tetrachloroethene (PCE)	9.440	166	190	0.09	ug/L	#	64
61) m,p-Xylenes (2)	10.617	91	524	0.10	ug/L		78
63) Styrene	11.013	104	10	0.10	ug/L	#	40
80) 1,3-Dichlorobenzene	12.238	146	314	0.09	ug/L		95
81) 1,4-Dichlorobenzene	12.305	146	477	0.12	ug/L	#	5
82) n-Butylbenzene	12.494	91	416	0.10	ug/L		80
85) Hexachlorobutadiene	13.829	223	68	0.13	ug/L		89
86) 1,2,4-Trichlorobenzene	13.884	180	221	0.11	ug/L		80
87) Naphthalene	14.207	128	260	0.32	ug/L		79
88) 1,2,3-Trichlorobenzene	14.402	180	162	0.08	ug/L		82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102531.D
Acq On : 26 Oct 2019 12:31 am
Operator : MM
Sample : 9J25051-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



BFB

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

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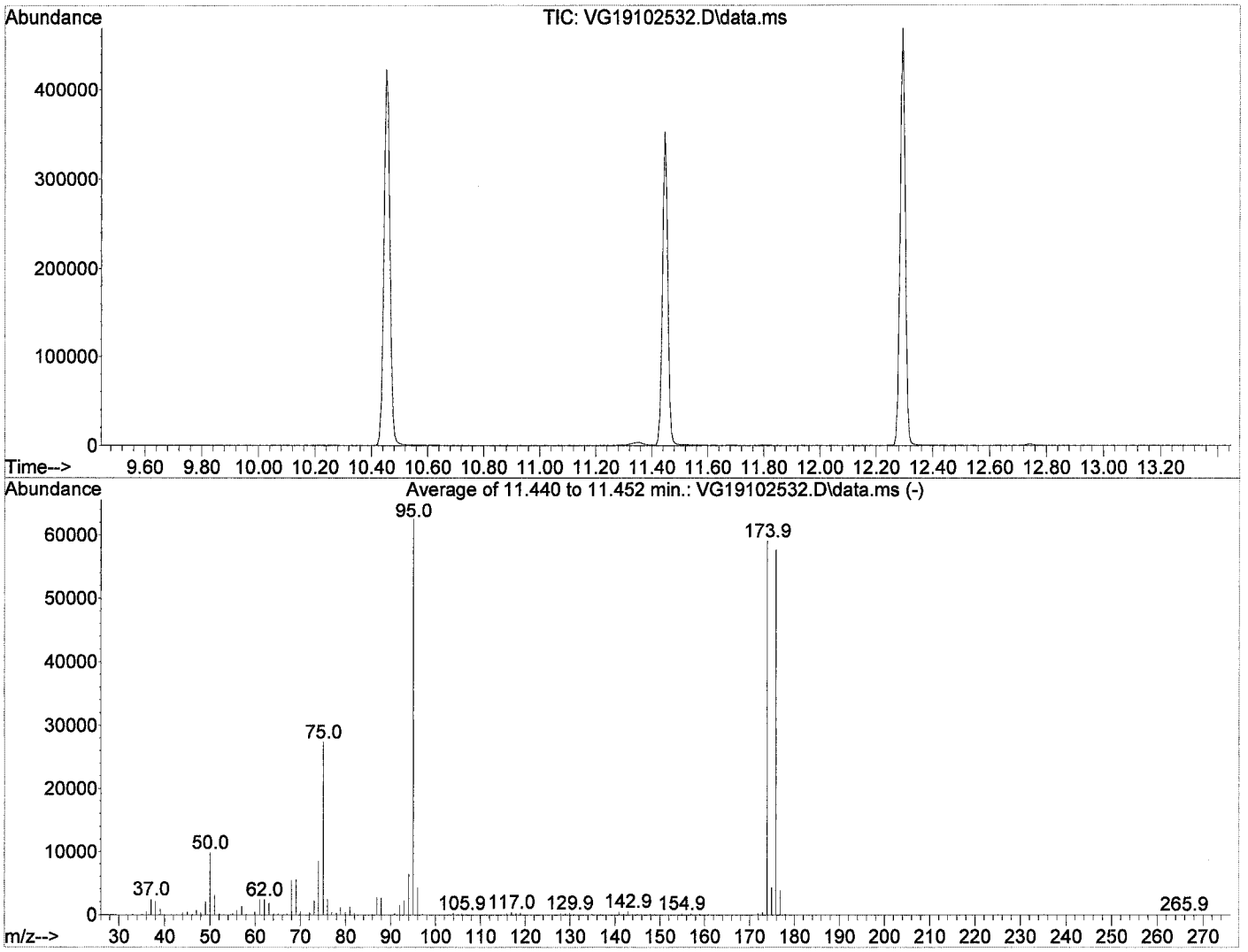
Integration File: APEXG.P

Method : C:\msdchem\1\methods\VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019



AutoFind: Scans 1608, 1609, 1610; Background Corrected with Scan 1601

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	105.7	62517	PASS
96	95	5	9	6.6	4121	PASS
173	174	0.00	2	0.5	319	PASS
174	95	50	200	94.6	59120	PASS
175	174	5	9	7.1	4209	PASS
176	174	95	105	97.6	57699	PASS
177	176	5	10	6.5	3773	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:33 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

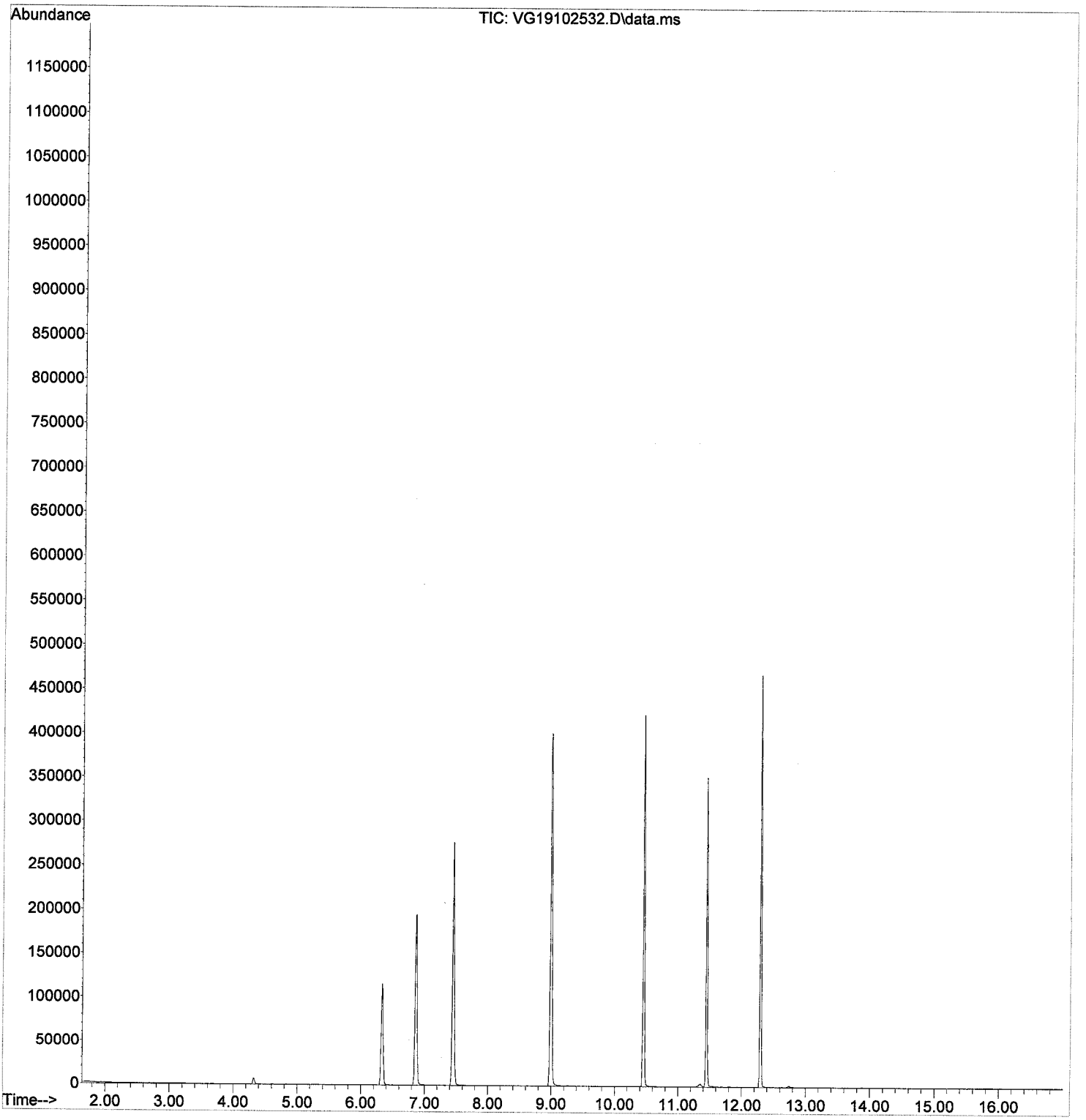
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	167672	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	264256	52.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92938	50.90	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	295445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	226737	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	175589	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	38078m	24.79	ug/L	
5) TPHg (C5-C9)	9.940	TIC	288403m	22.12	ug/L	
6) TPHg (C6-C10)	9.940	TIC	271428m	23.57	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	304009m	25.69	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:33 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:36 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

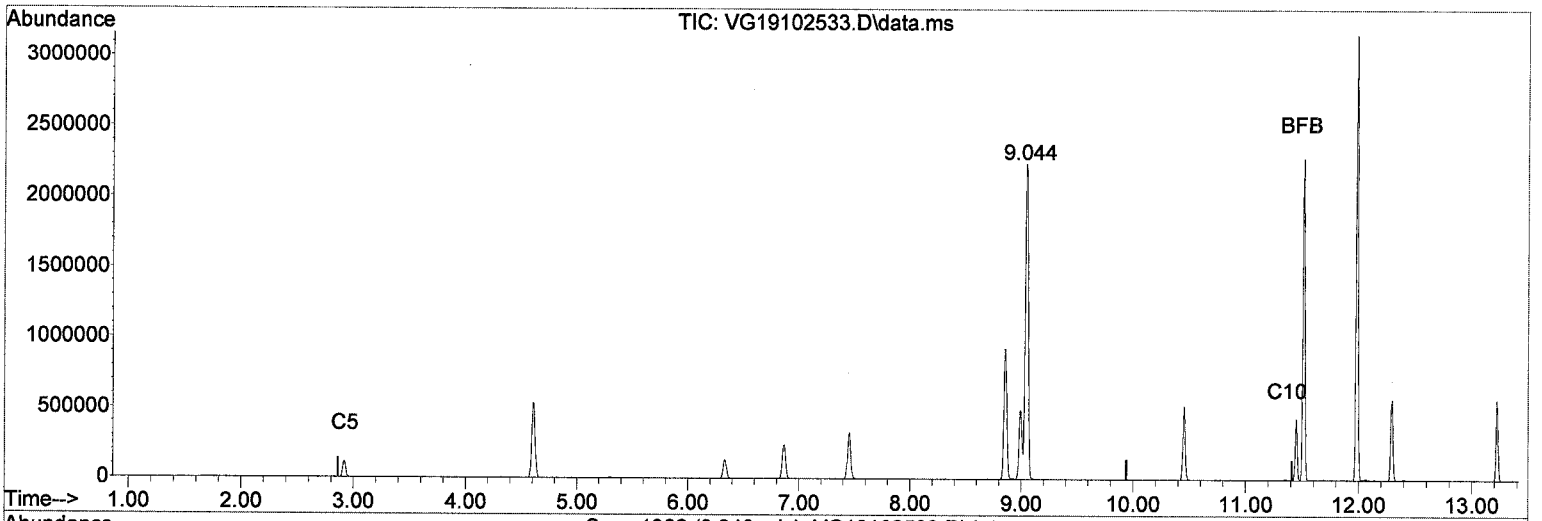
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	206554	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314345	50.91	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117175	52.09	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	370131	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	275270	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	223021	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	17801383m	3255.06	ug/L	
5) TPHg (C5-C9)	9.940	TIC	7577119m	1140.06	ug/L	
6) TPHg (C6-C10)	9.940	TIC	7354306m	1333.45	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	15242164m	1858.54	ug/L	

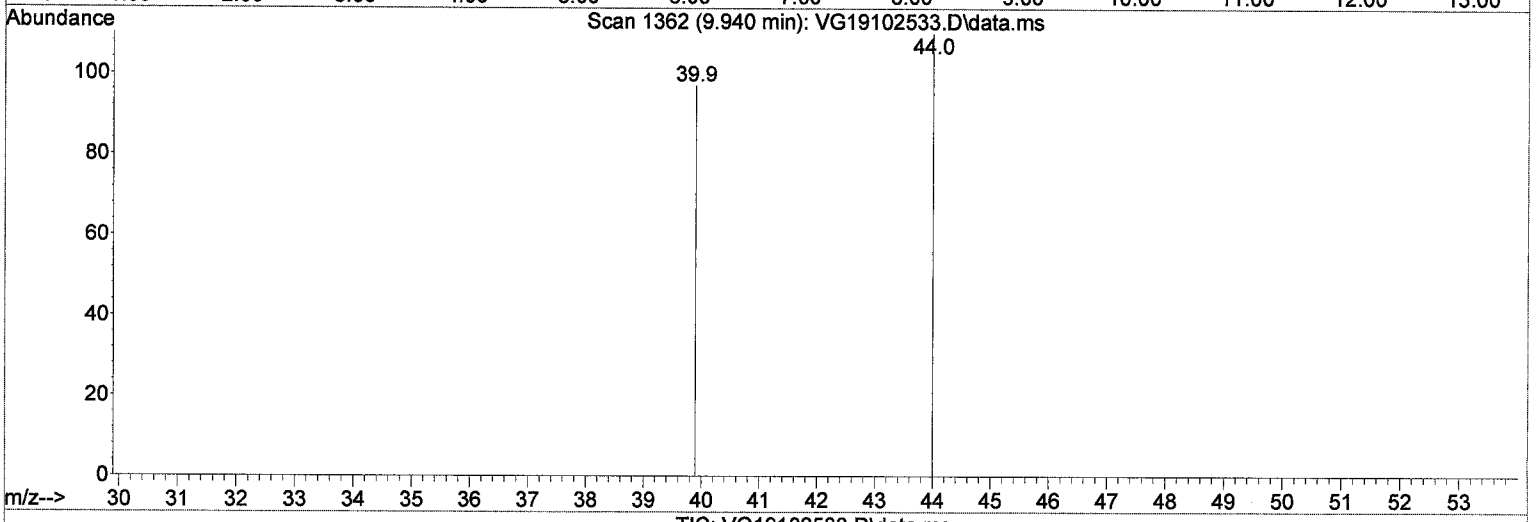
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(5) TPHg (C5-C9) (H)

9.940min (0.000) 997.65 ug/L m

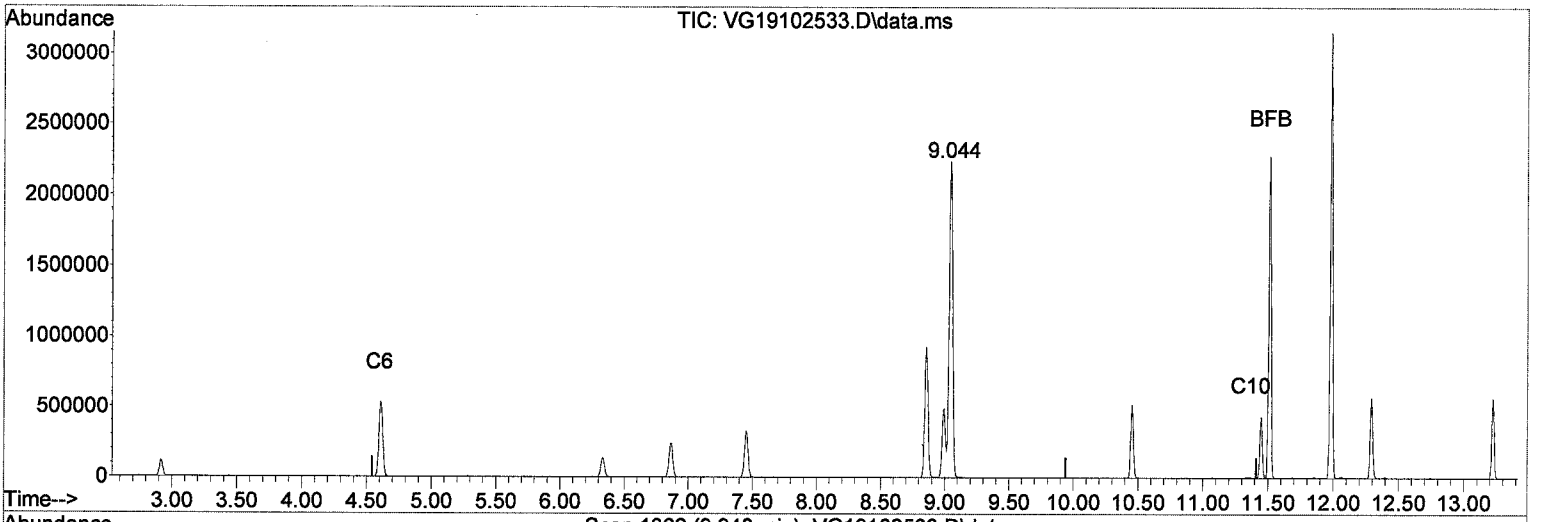
response 7577119

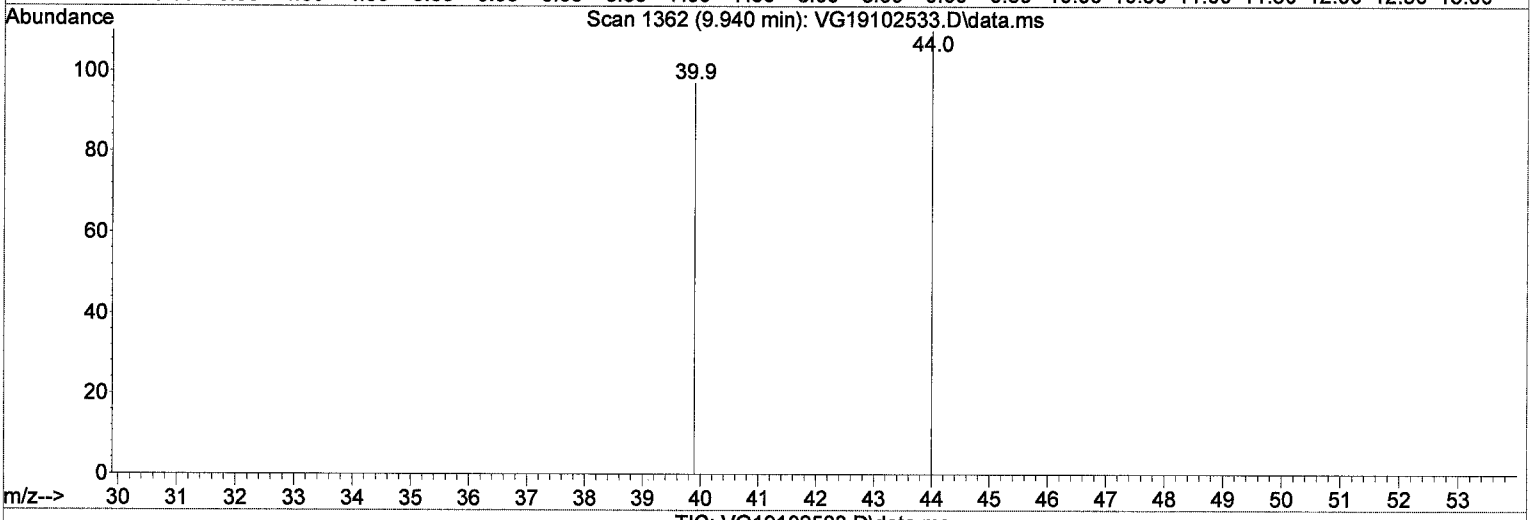
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.50#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(6) TPHg (C6-C10) (H)

9.940min (0.000) 1157.40 ug/L m

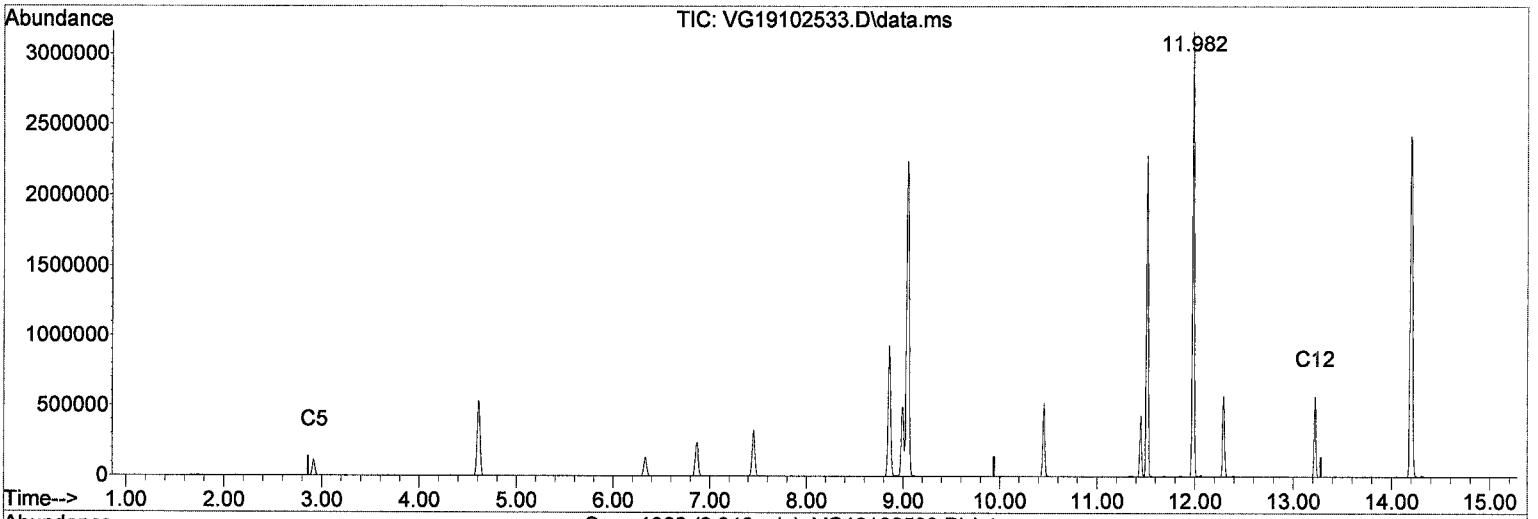
response 7354306

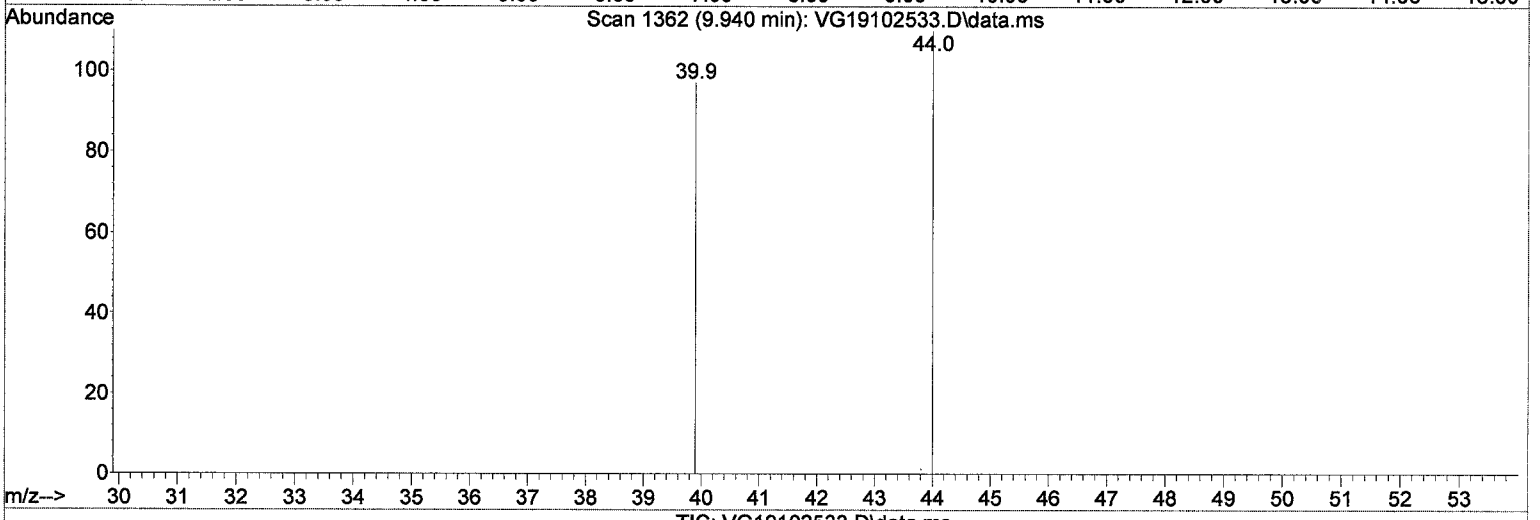
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.29#
0.00	0.00	1.55#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.940min (0.000) 1638.40 ug/L m

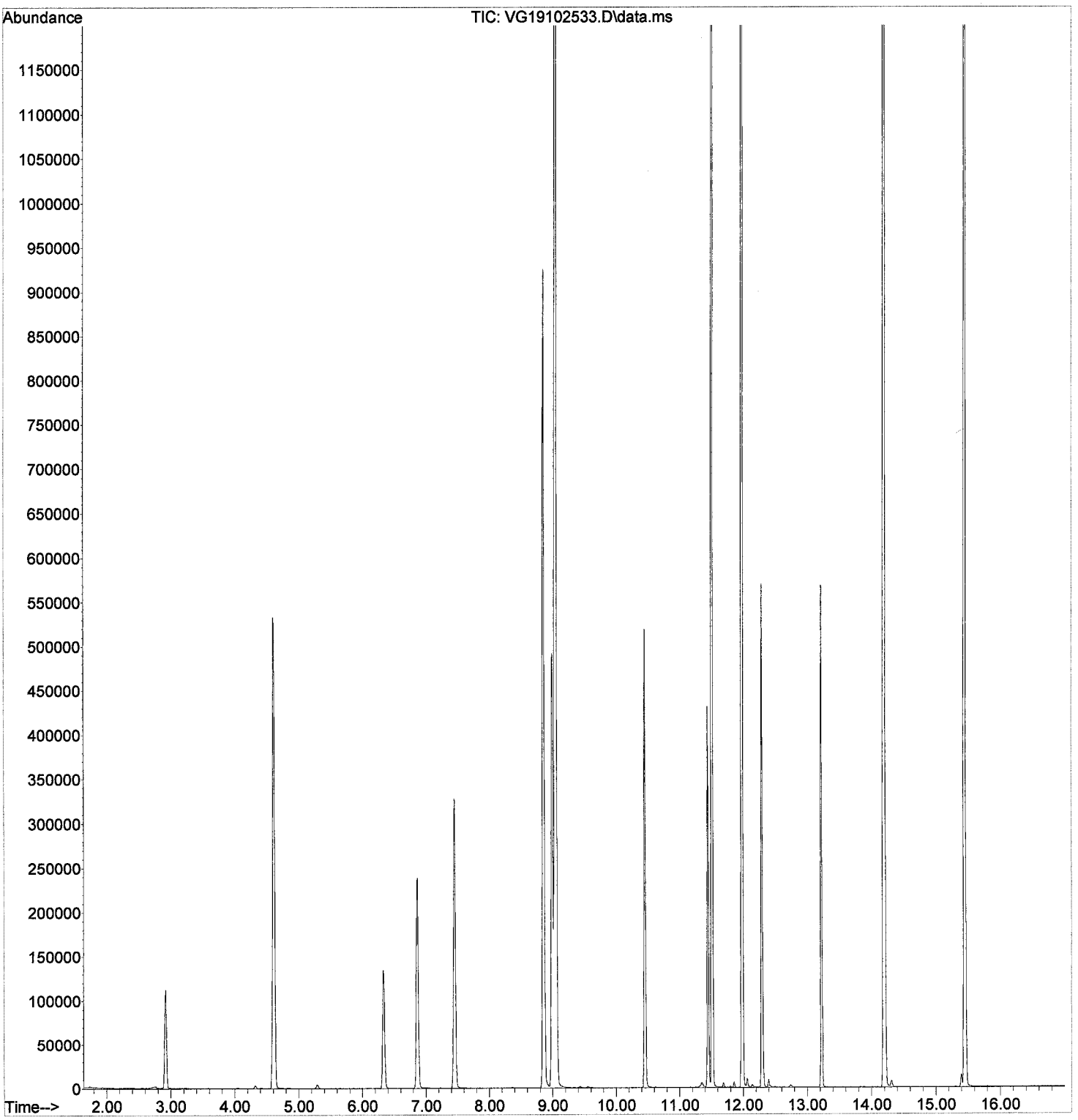
response 15242164

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.11#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:36 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102534.D
Acq On : 26 Oct 2019 1:51 am
Operator : MM
Sample : 9J25051-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

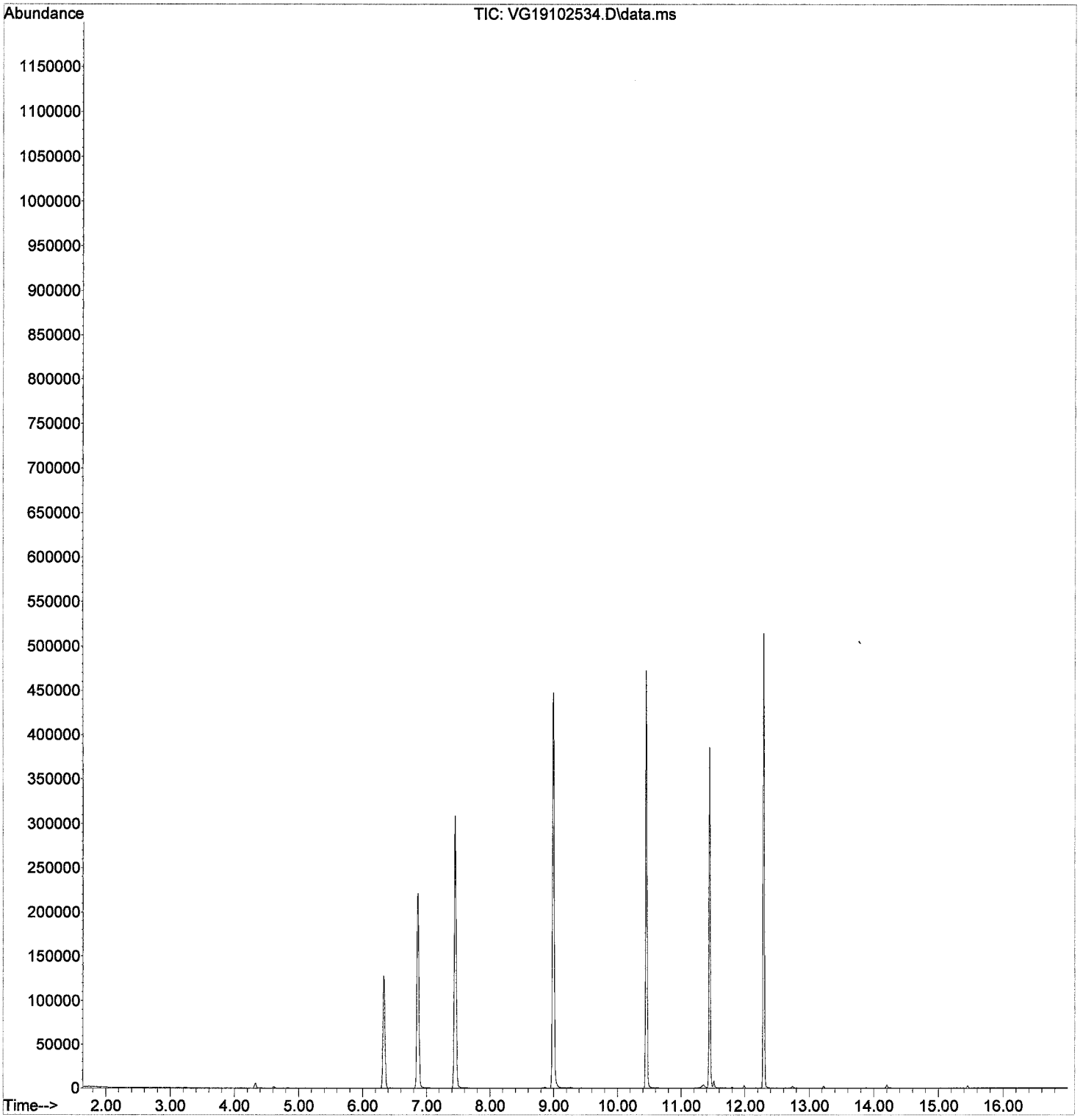
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	192420	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	297870	51.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105012	50.11	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	331316	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	254503	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199526	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	74370m	30.94	ug/L	
5) TPHg (C5-C9)	9.940	TIC	326747m	21.41	ug/L	
6) TPHg (C6-C10)	9.940	TIC	310417m	23.35	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	363718m	27.67	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102534.D
Acq On : 26 Oct 2019 1:51 am
Operator : MM
Sample : 9J25051-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

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Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

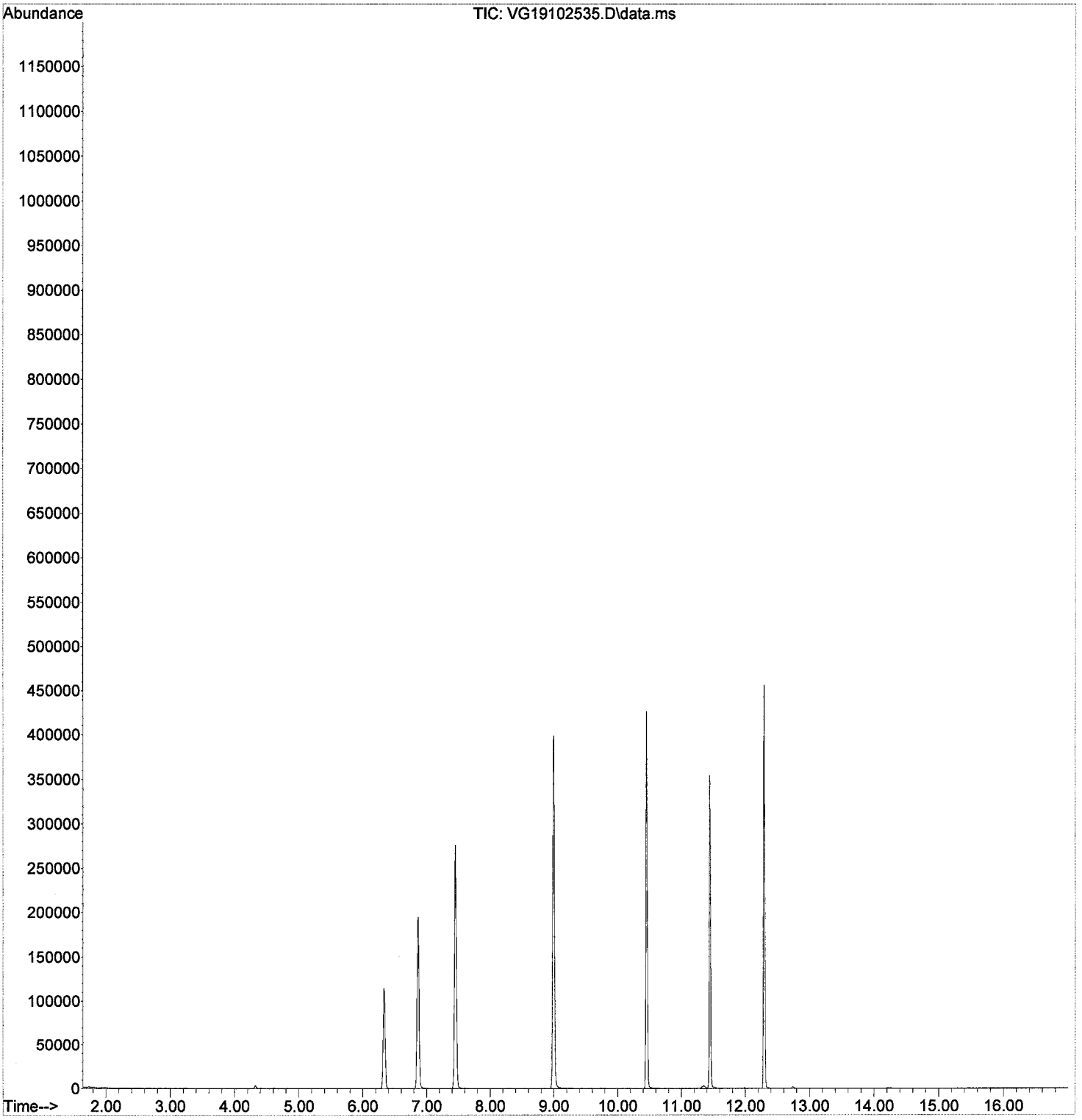
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	166825	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	262789	52.69	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92634	50.99	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	295889	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	227022	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	174689	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	31416m	23.29	ug/L	MWL
5) TPHg (C5-C9)	9.940	TIC	269339m	18.73	ug/L	
6) TPHg (C6-C10)	9.940	TIC	261869m	21.67	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	283617m	22.78	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102536.D
Acq On : 26 Oct 2019 2:45 am
Operator : MM
Sample : 9J25051-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:35 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

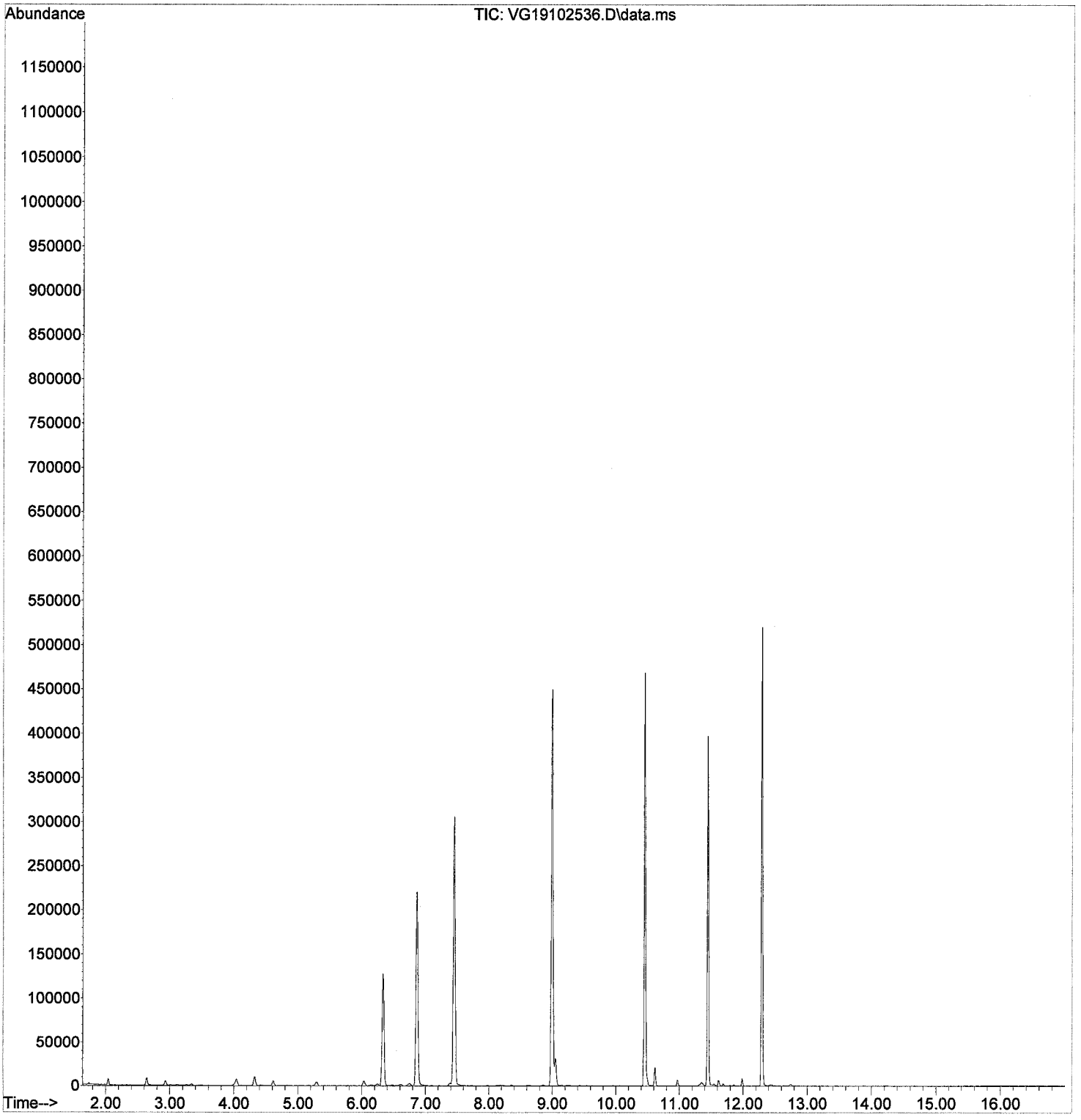
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	193559	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295012	50.90	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105074	50.40	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	328759	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	251777	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199445	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	208521m	44.09	ug/L	
5) TPHg (C5-C9)	9.940	TIC	540435m	84.79	ug/L	
6) TPHg (C6-C10)	9.940	TIC	477926m	89.46	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	592441m	77.31	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102536.D
Acq On : 26 Oct 2019 2:45 am
Operator : MM
Sample : 9J25051-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:35 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102537.D
Acq On : 26 Oct 2019 3:12 am
Operator : MM
Sample : 9J25051-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

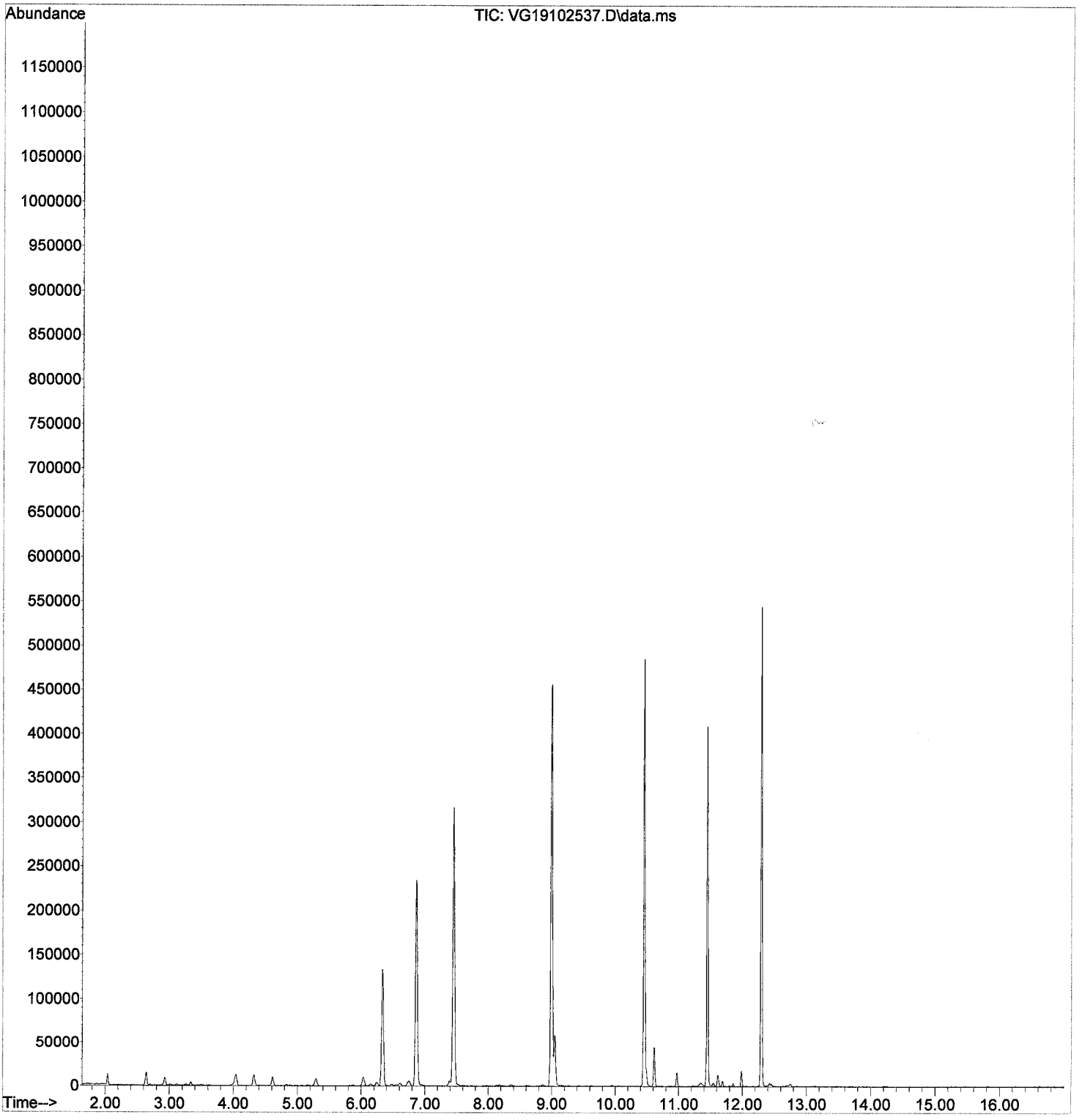
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.868	168	202223	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	304919	50.35	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109800	50.42	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	341874	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	262610	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	208745	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	406857m	82.34	ug/L	
5) TPHg (C5-C9)	9.940	TIC	782617m	117.52	ug/L	
6) TPHg (C6-C10)	9.940	TIC	680725m	121.97	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	891666m	111.38	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102537.D
Acq On : 26 Oct 2019 3:12 am
Operator : MM
Sample : 9J25051-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102538.D
Acq On : 26 Oct 2019 3:38 am
Operator : MM
Sample : 9J25051-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

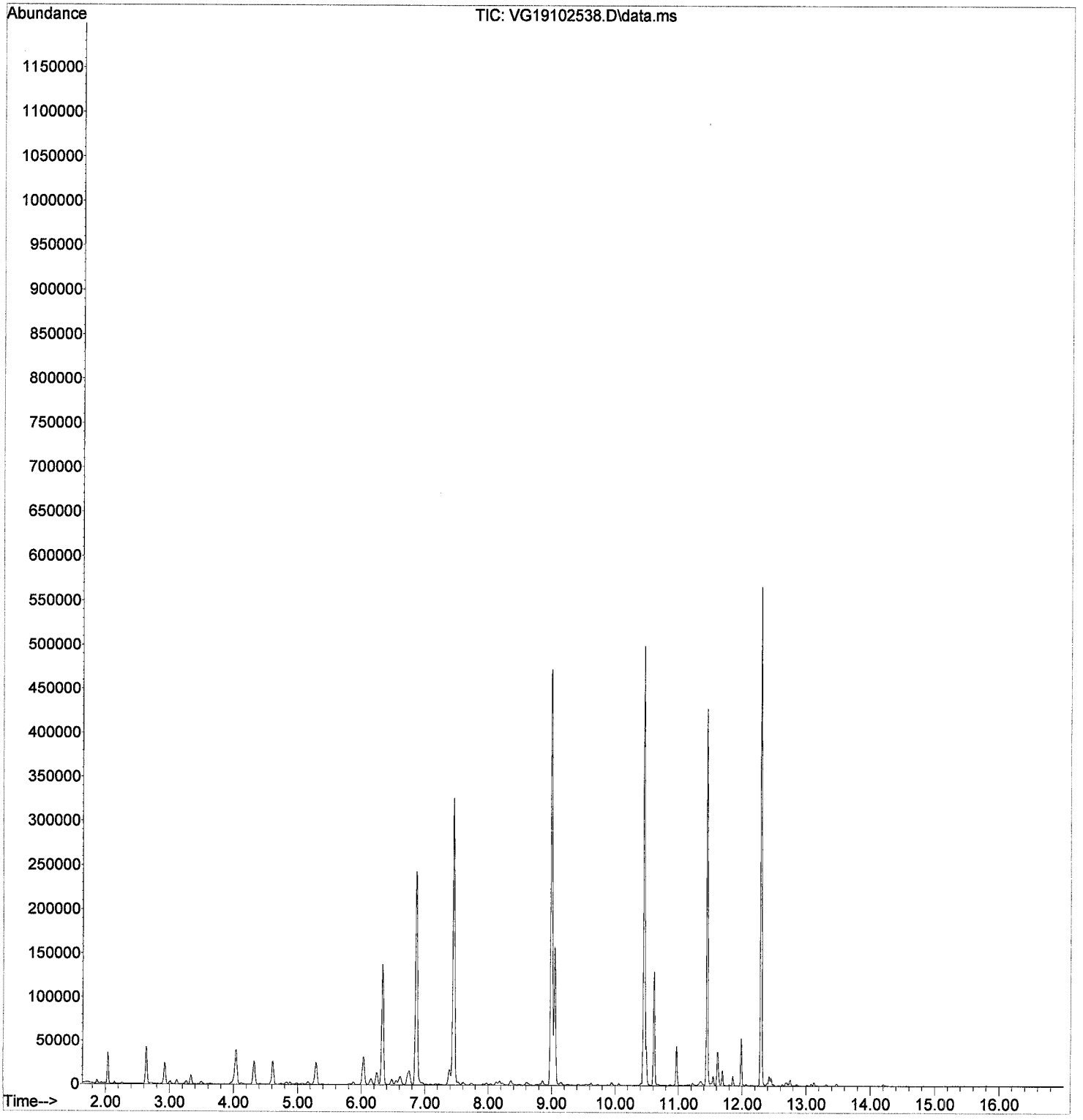
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212459	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314600	49.45	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115645	50.54	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	352860	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	270819	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	218030	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	1206913m	232.49	ug/L	
5) TPHg (C5-C9)	9.940	TIC	1794254m	256.45	ug/L	
6) TPHg (C6-C10)	9.940	TIC	1521053m	259.40	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	2098250m	249.46	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102538.D
Acq On : 26 Oct 2019 3:38 am
Operator : MM
Sample : 9J25051-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

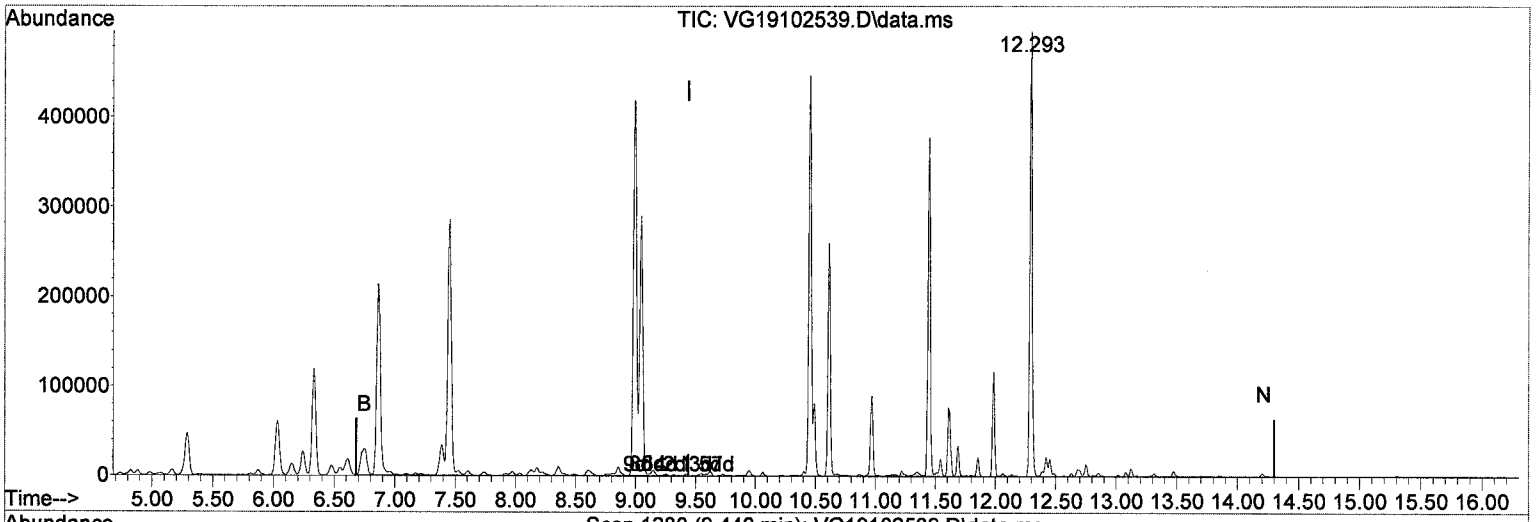
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.862	168	184039	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	275552	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	99104	50.00	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	311019	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	239613	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	188917	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	2248368m	500.00	ug/L	
5) TPHg (C5-C9)	9.940	TIC	3030299m	500.00	ug/L	
6) TPHg (C6-C10)	9.940	TIC	2539707m	500.00	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	3642980m	500.00	ug/L	

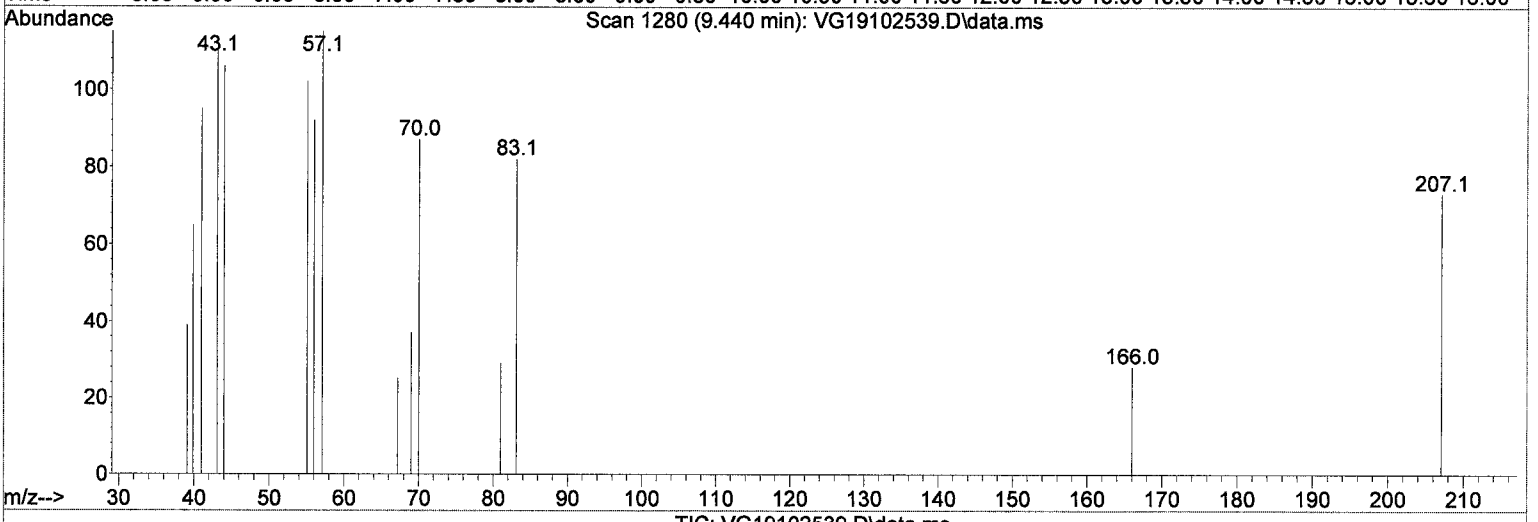
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration





TIC: VG19102539.D\data.ms

(4) NWTPH-Gx (TPH) (H)

9.440min (0.000) 500.00 ug/L m

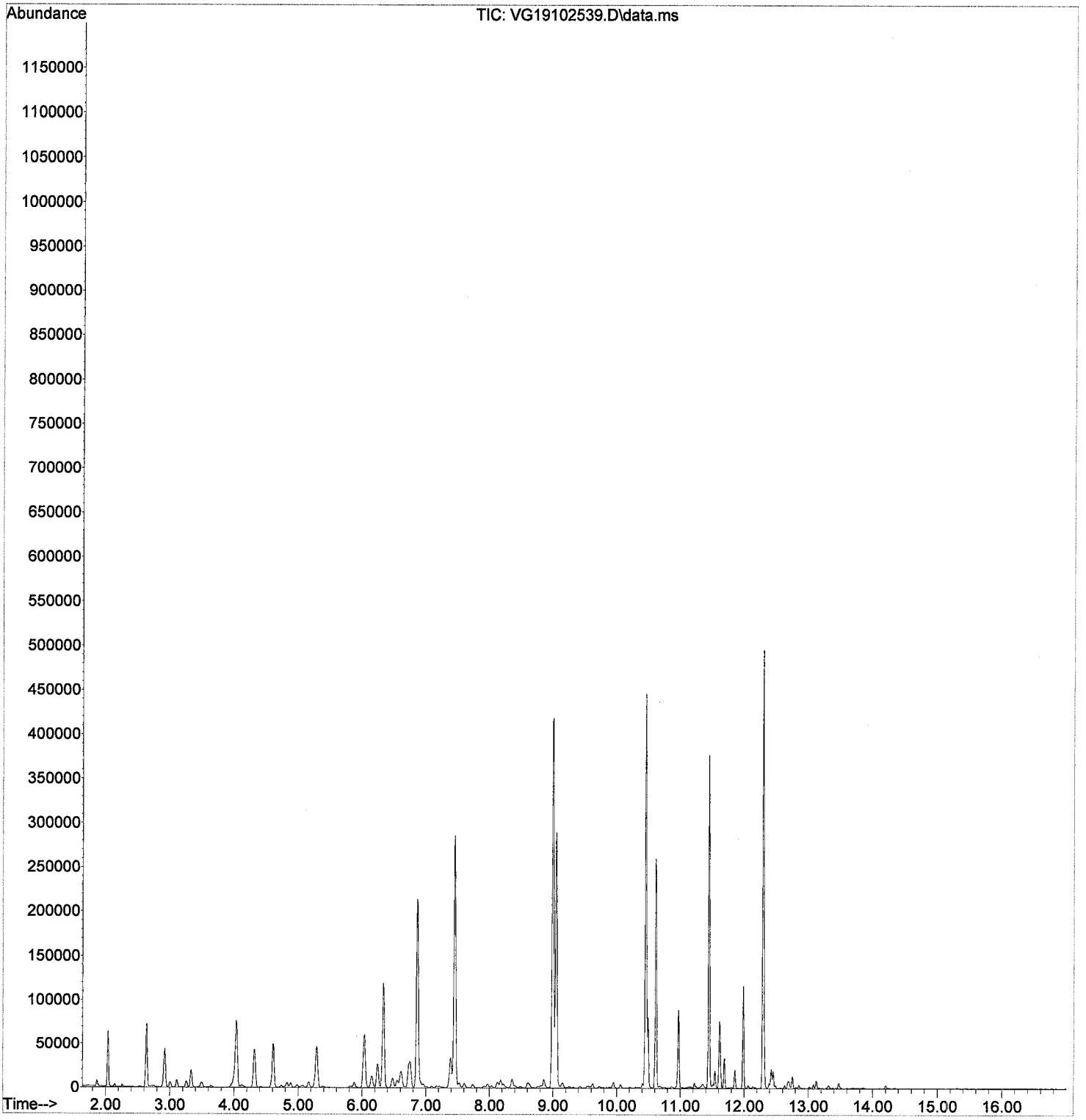
response 2248368

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.01#
0.00	0.00	0.01#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102540.D
Acq On : 26 Oct 2019 4:32 am
Operator : MM
Sample : 9J25051-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:44 2019
Quant Method : C:\msdchem\1\methods\~~VG191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

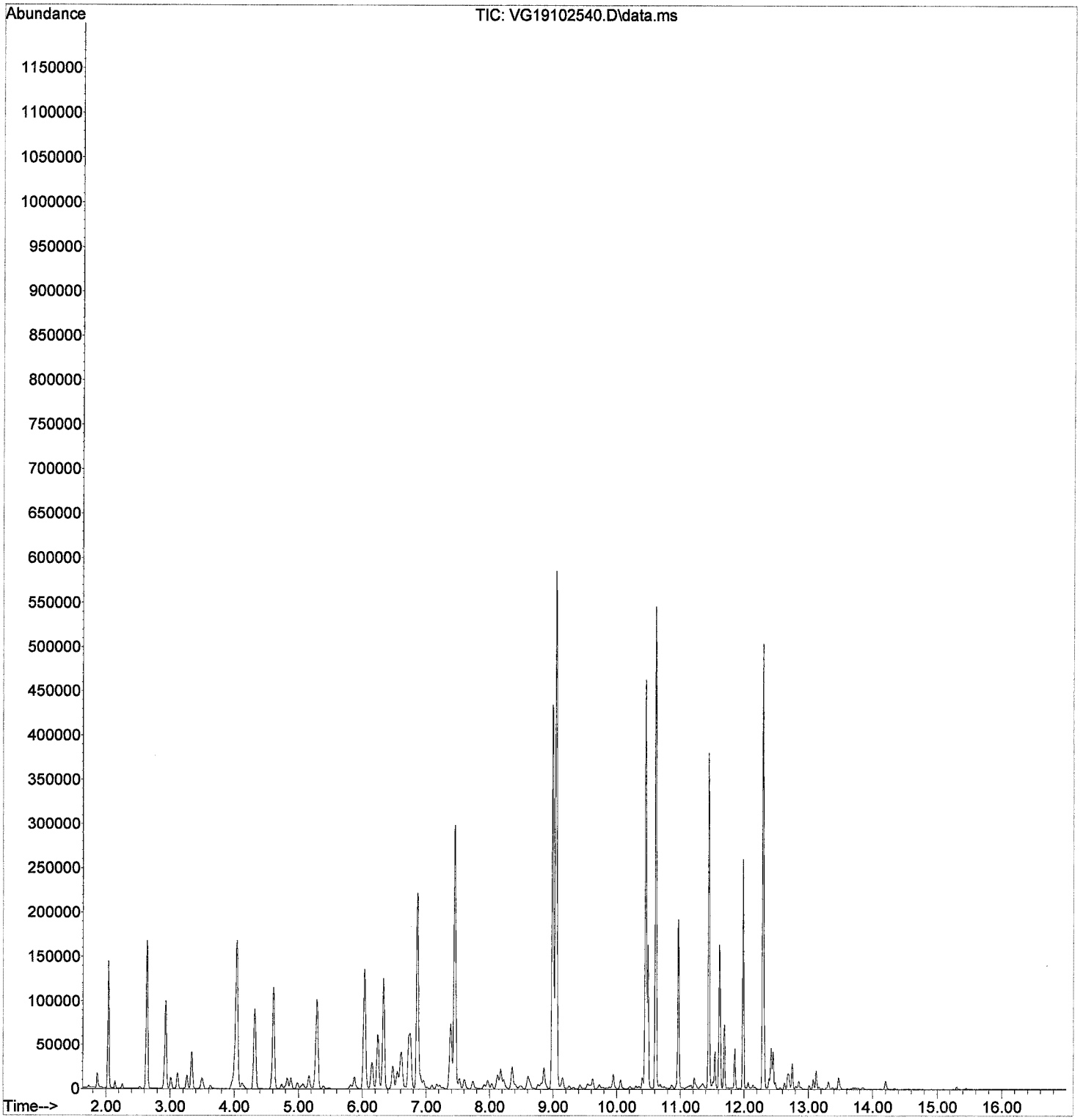
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	190639	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	286580	50.20	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	102218	49.79	ug/L	0.00
9) Toluene-d8 (NR)	8.989	98	321105	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	10.452	117	246991	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	190835	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	4898415m	1051.61	ug/L	
5) TPHg (C5-C9)	9.940	TIC	6352259m	1011.84	ug/L	
6) TPHg (C6-C10)	9.940	TIC	5288509m	1005.12	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	7765125m	1028.87	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102540.D
Acq On : 26 Oct 2019 4:32 am
Operator : MM
Sample : 9J25051-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102541.D
Acq On : 26 Oct 2019 4:59 am
Operator : MM
Sample : 9J25051-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:47 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

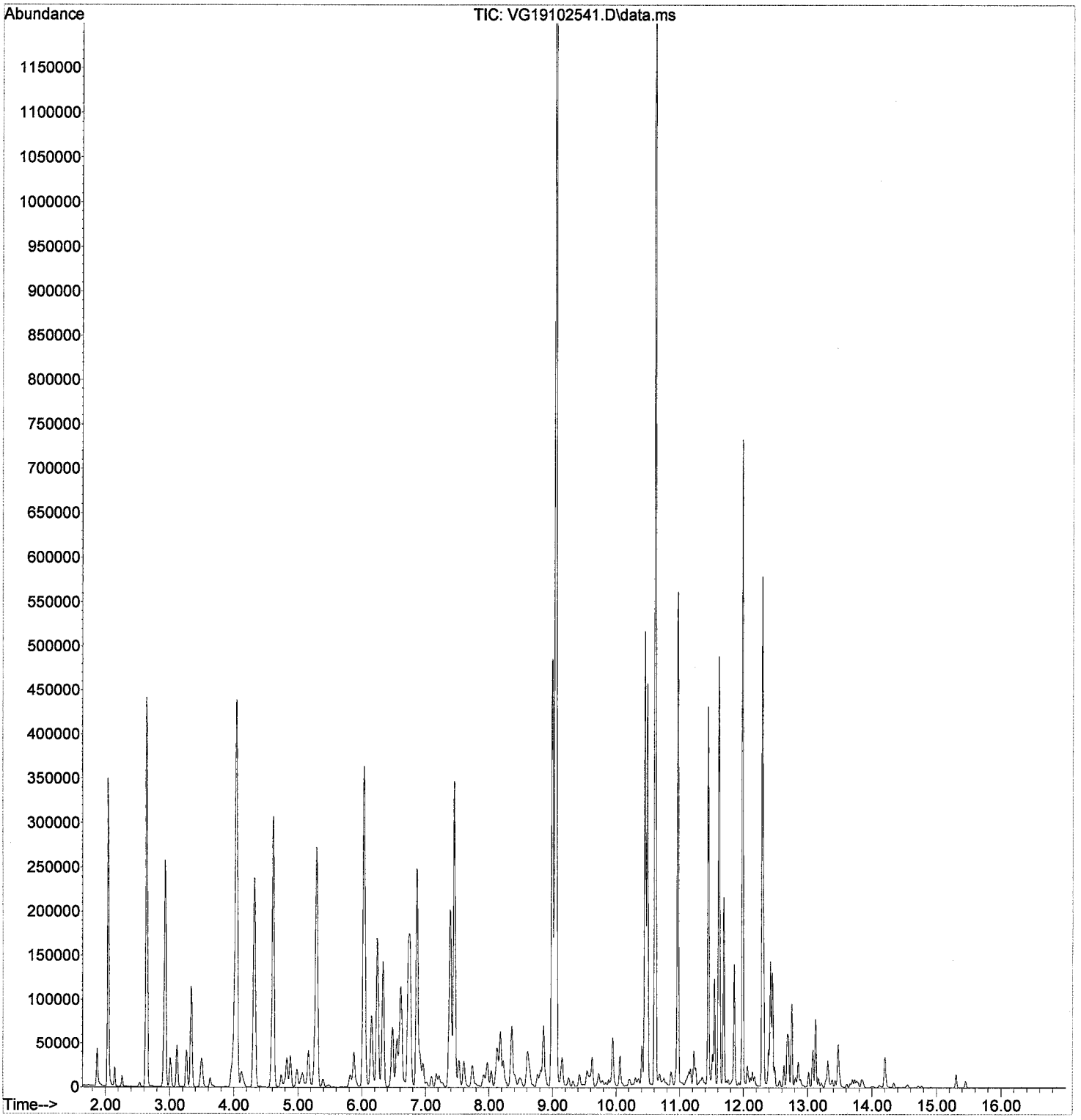
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	218107	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	319682	48.95	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117998	50.23	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	359191	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	278863	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	220552	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	14135965m	2652.58	ug/L	
5) TPHg (C5-C9)	9.940	TIC	16960704m	2361.40	ug/L	
6) TPHg (C6-C10)	9.940	TIC	14124797m	2345.44	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	21319796m	2469.09	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102541.D
Acq On : 26 Oct 2019 4:59 am
Operator : MM
Sample : 9J25051-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:47 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102542.D
Acq On : 26 Oct 2019 5:26 am
Operator : MM
Sample : 9J25051-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:49 2019
Quant Method : C:\msdchem\1\methods\VG~~191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

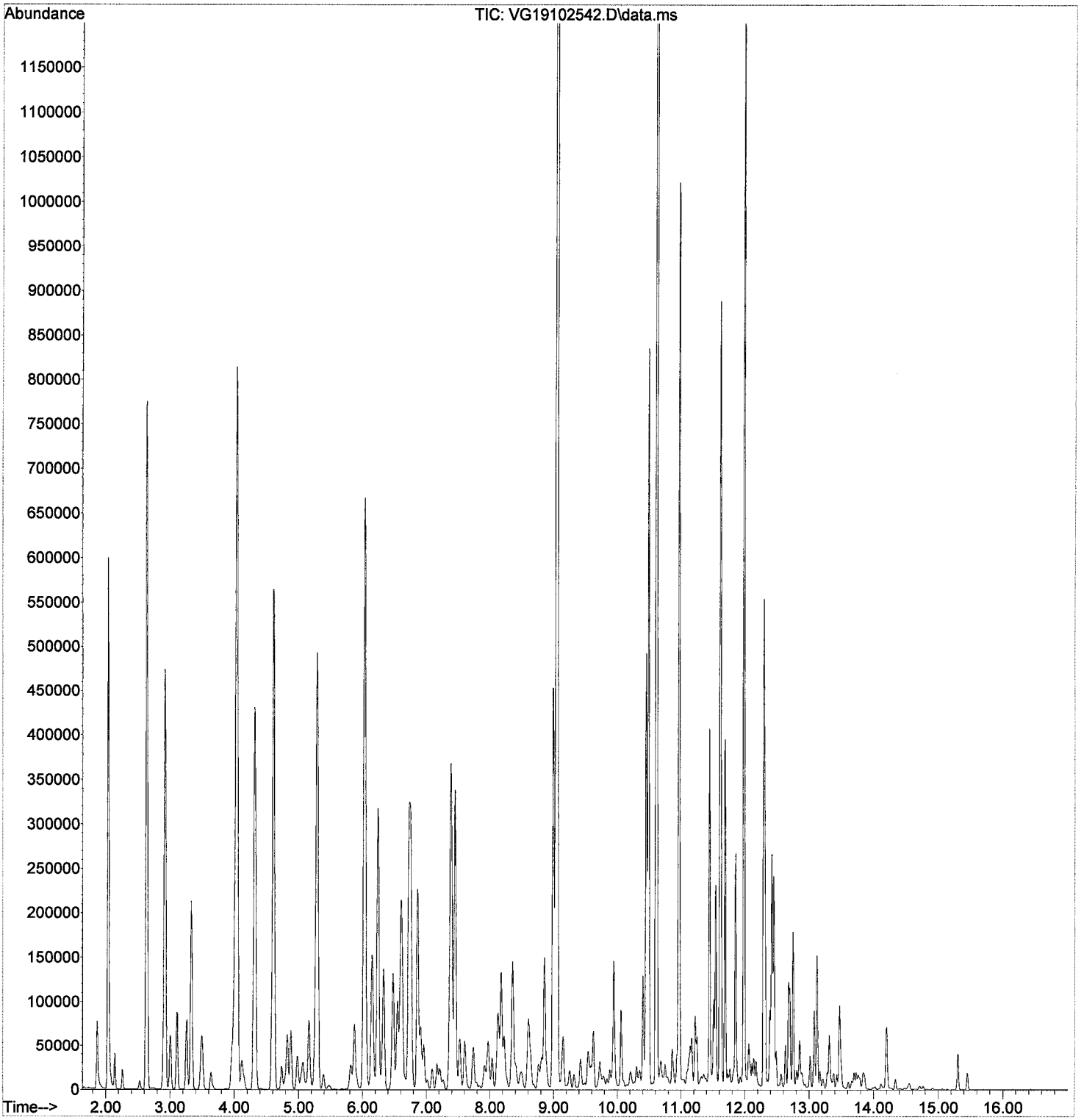
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	195244	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	291674	49.89	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	108752	51.72	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	328924	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	253387	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	202369	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	26794497m	5616.69	ug/L	
5) TPHg (C5-C9)	9.940	TIC	31355075m	4876.68	ug/L	
6) TPHg (C6-C10)	9.940	TIC	26053972m	4834.96	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	39688515m	5134.64	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102542.D
Acq On : 26 Oct 2019 5:26 am
Operator : MM
Sample : 9J25051-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:49 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102543.D
Acq On : 26 Oct 2019 5:52 am
Operator : MM
Sample : 9J25051-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:51 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

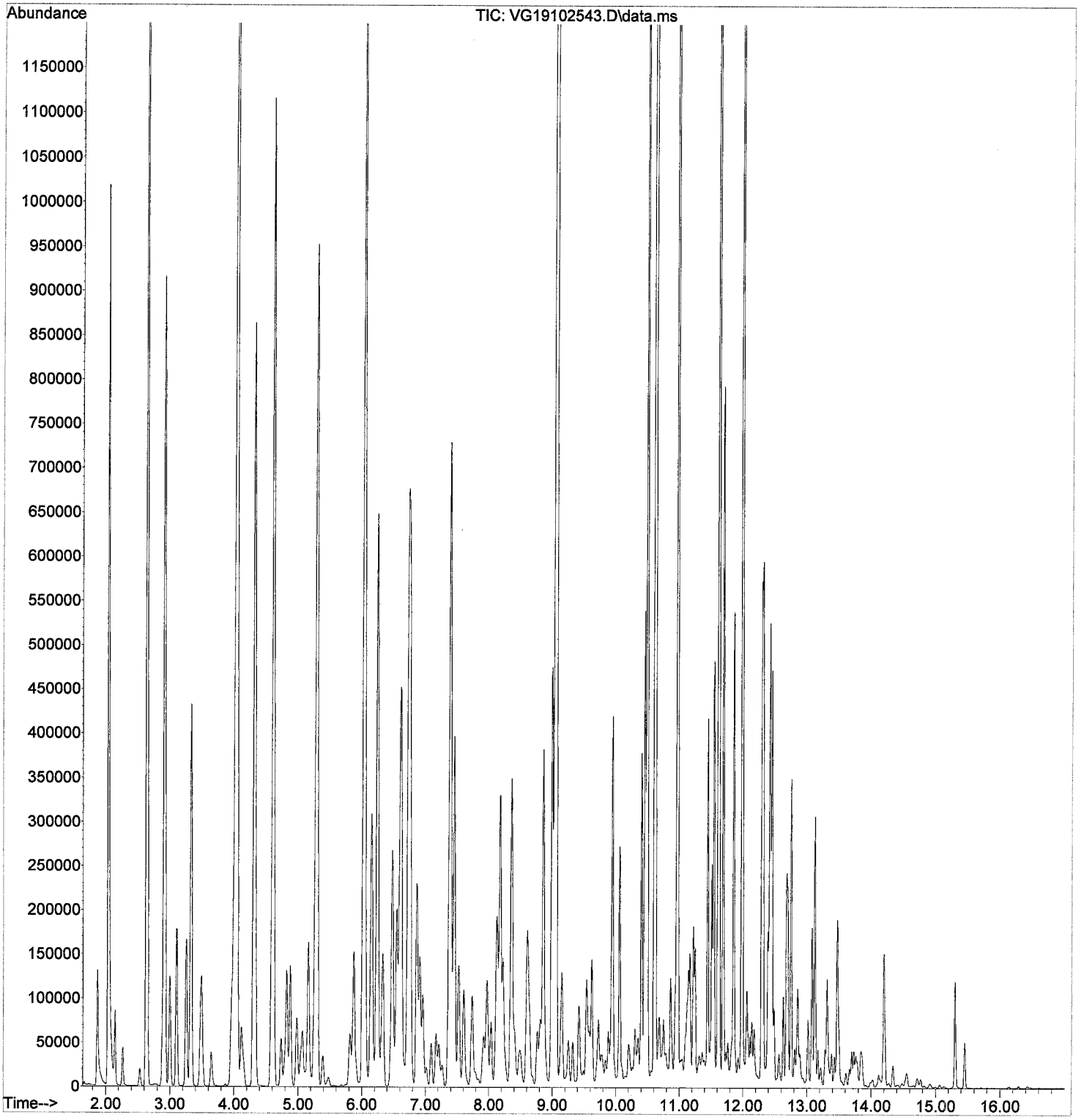
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	197171	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	292717	49.58	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109113	51.38	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	331575	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	254631	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199163	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	54966493m	11409.52	ug/L	
5) TPHg (C5-C9)	9.940	TIC	62901609m	9687.53	ug/L	
6) TPHg (C6-C10)	9.940	TIC	52358292m	9621.41	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	80394197m	10299.23	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102543.D
Acq On : 26 Oct 2019 5:52 am
Operator : MM
Sample : 9J25051-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:51 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102544.D
Acq On : 26 Oct 2019 6:19 am
Operator : MM
Sample : 9J25051-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

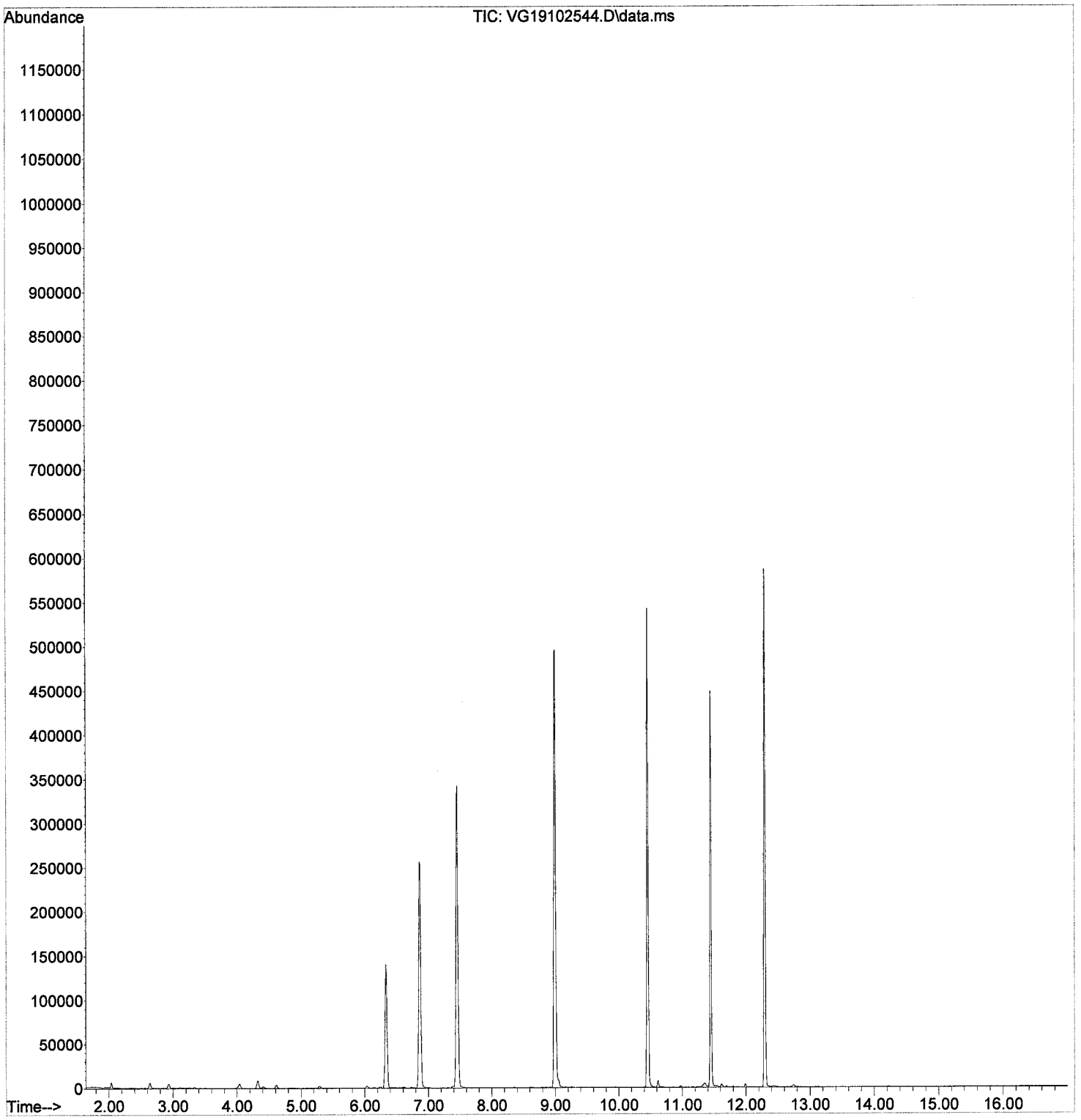
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	225495	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	337060	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	122114	49.73	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	377779	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	290665	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	226756	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	107579m	34.43	ug/L	
5) TPHg (C5-C9)	9.940	TIC	445850m	30.36	ug/L	
6) TPHg (C6-C10)	9.940	TIC	393291m	28.41	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	481896m	34.01	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102544.D
Acq On : 26 Oct 2019 6:19 am
Operator : MM
Sample : 9J25051-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102545.D
Acq On : 26 Oct 2019 6:46 am
Operator : MM
Sample : 9J25051-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

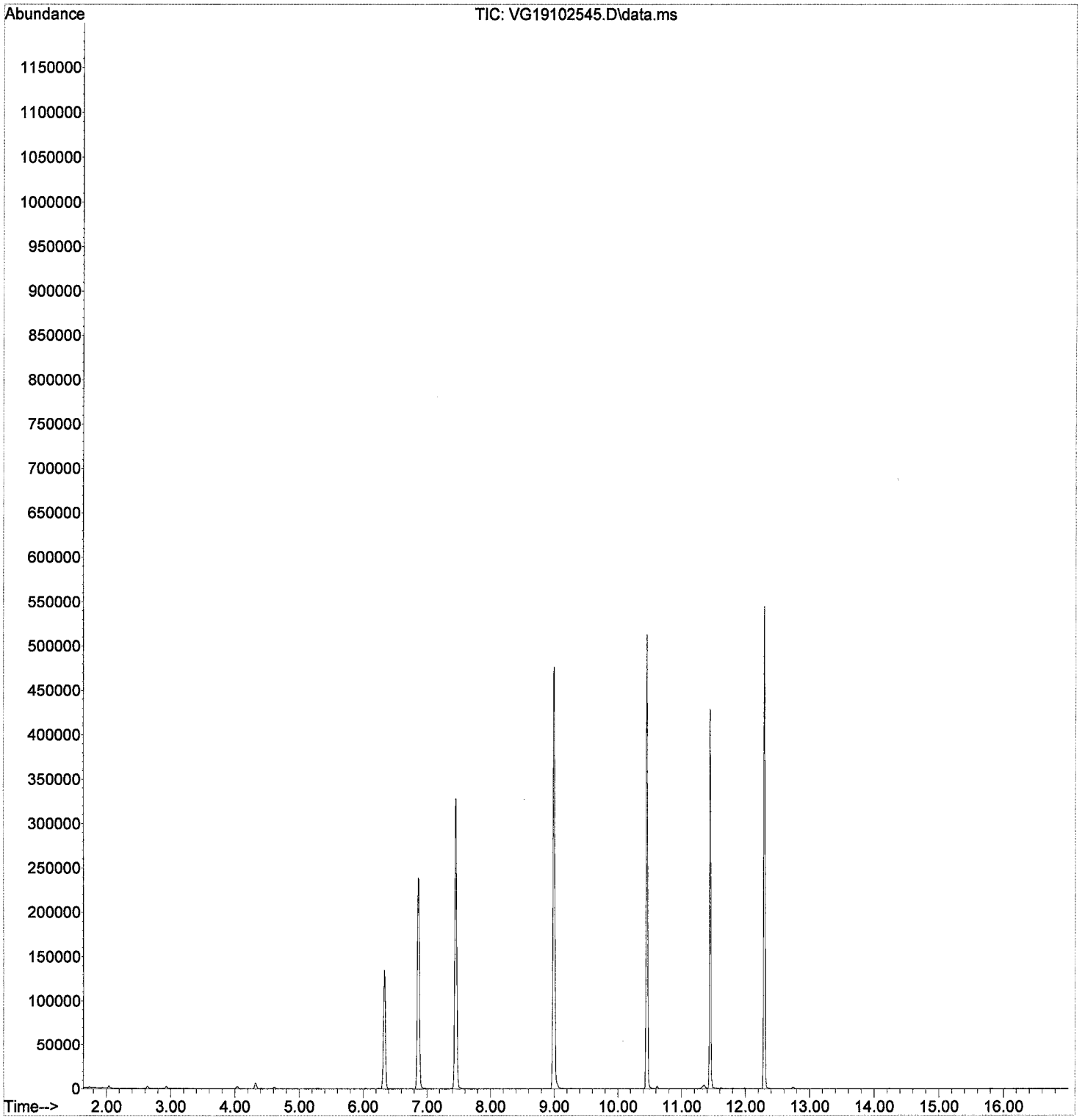
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212130	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	321985	50.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115469	49.98	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	359017	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	275943	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	214203	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	58592m	26.68	ug/L	
5) TPHg (C5-C9)	9.940	TIC	360796m	21.50	ug/L	
6) TPHg (C6-C10)	9.940	TIC	330453m	21.21	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	382639m	25.45	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102545.D
Acq On : 26 Oct 2019 6:46 am
Operator : MM
Sample : 9J25051-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

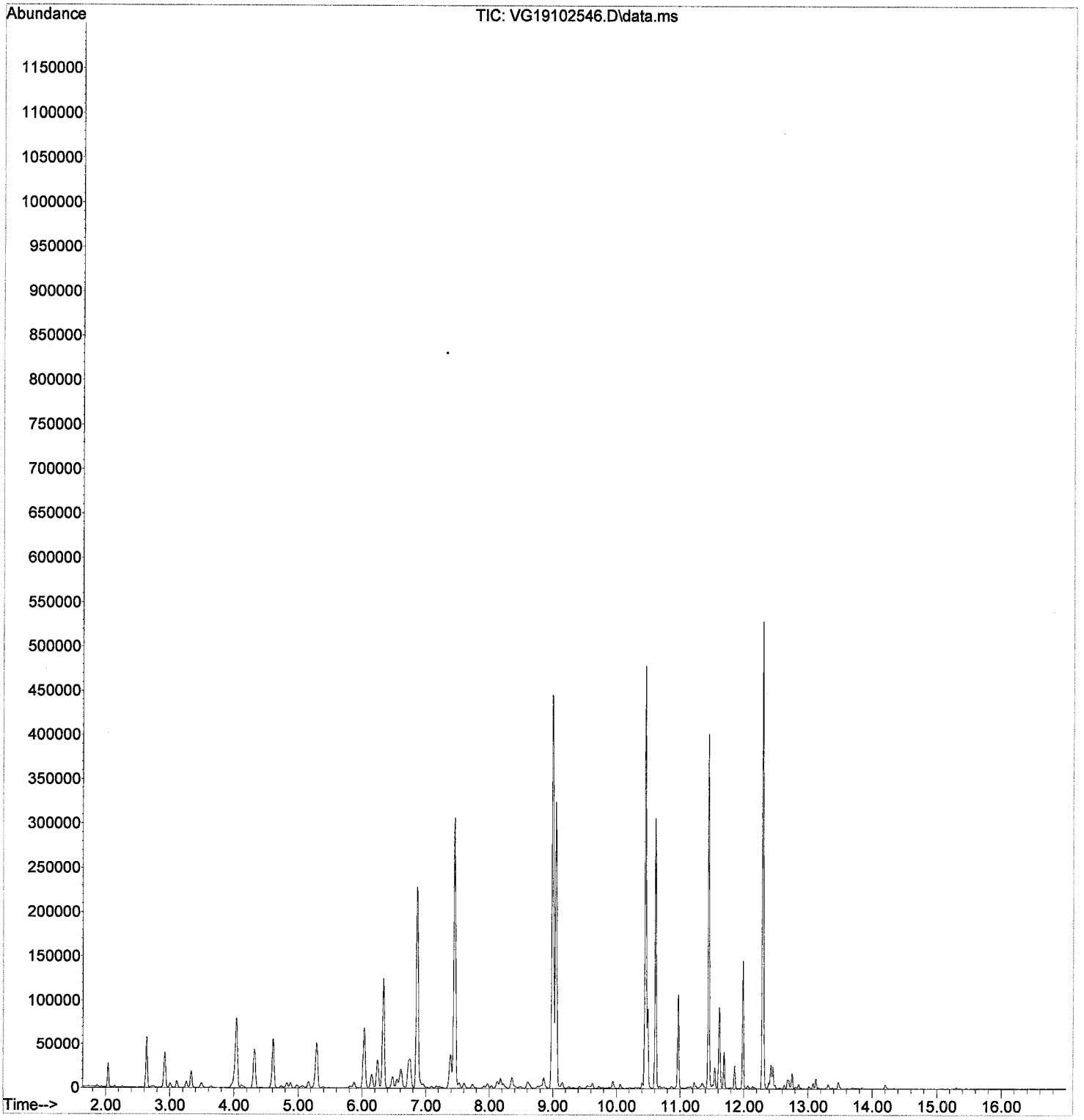
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	198918	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295059	49.62	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	107800	49.76	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	333031	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	255524	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	200908	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	2694552m	536.40	ug/L	
5) TPHg (C5-C9)	9.940	TIC	3423889m	518.14	ug/L	
6) TPHg (C6-C10)	9.940	TIC	2934697m	530.81	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	4183115m	518.20	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102547.D
Acq On : 26 Oct 2019 7:40 am
Operator : MM
Sample : 9J25051-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:48 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

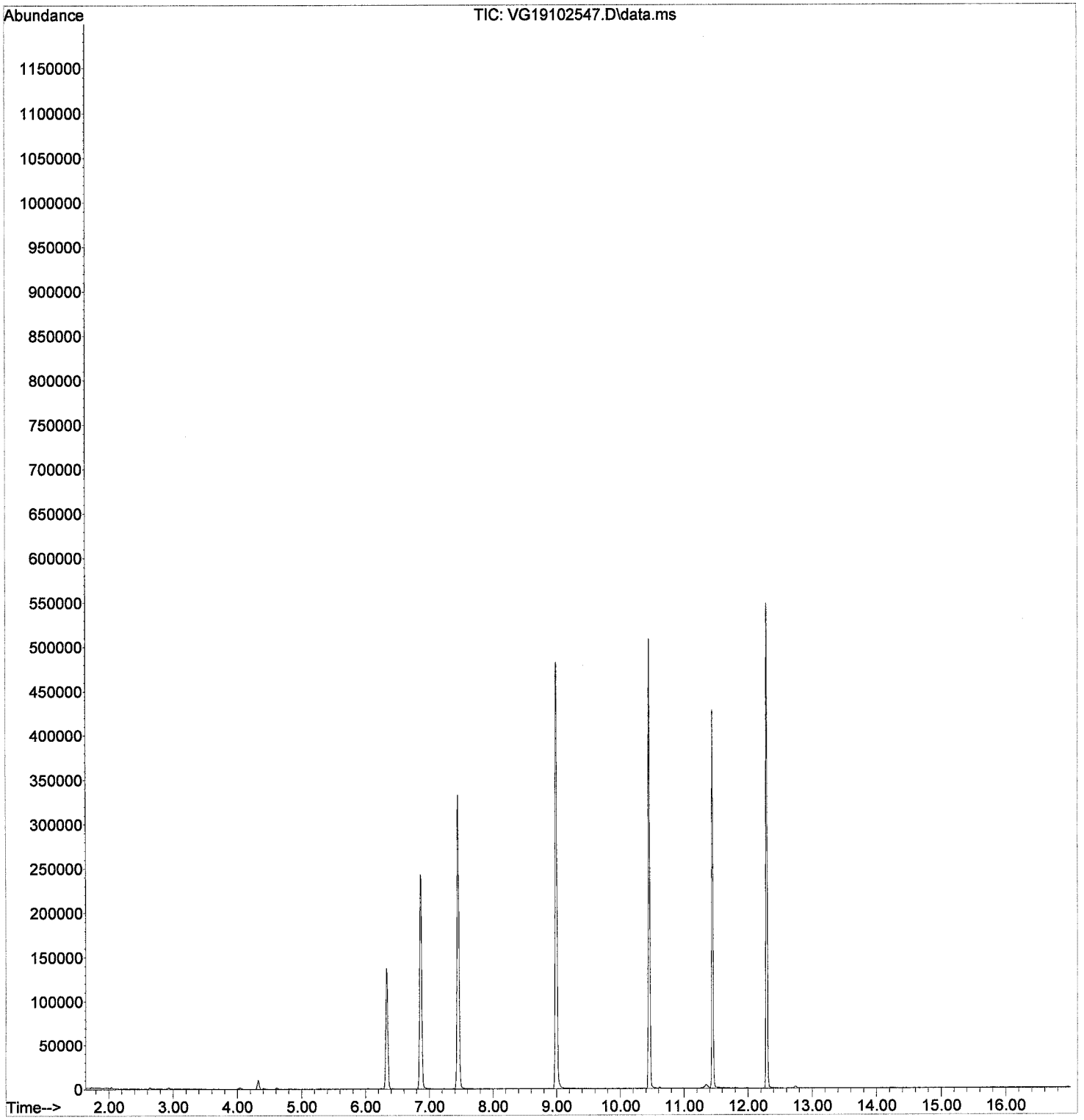
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	214380	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	325769	50.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115143	49.32	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	361095	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	276533	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	213955	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	60146m	26.85	ug/L	
5) TPHg (C5-C9)	9.940	TIC	363449m	21.32	ug/L	
6) TPHg (C6-C10)	9.940	TIC	332311m	20.91	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	383928m	25.12	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102547.D
Acq On : 26 Oct 2019 7:40 am
Operator : MM
Sample : 9J25051-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:48 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data

Batch 9110391
Sequence 9K05039 (A9J1007-01RE1)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110391 (Sediment)

Prep Method: EPA 3546/3640A (GPC)

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110391-BLK1		QC	10/31/19 15:10	11	10				100					
	9110391-BS1		QC	10/31/19 15:10	10	10	A19E266		100	100					
	A9J0950-01RE1	G	8081B Pesticides	10/31/19 15:11	10.73	10				100	PDI-015SC-C-00-8.1-191024	From 9101833 by gwh on 11/01/19			
	9110391-DUP1		QC	10/31/19 15:10	10.86	10		A9J0950-01RE1		100					
	A9J0950-02RE1	H	8081B Pesticides	10/31/19 15:11	10.27	10				100	PDI-026SC-C-00-3.9-191024	From 9101833 by gwh on 11/01/19			
	A9J0950-03RE1	H	8081B Pesticides	10/31/19 15:11	10.66	10				100	PDI-037SC-C-00-12.4-191024	From 9101833 by gwh on 11/01/19			
	A9J0950-04RE1	H	8081B Pesticides	10/31/19 15:11	10.12	10				100	PDI-073SC-C-00-13.7-191024	From 9101833 by gwh on 11/01/19			
	A9J0954-01RE1	H	8081B Pesticides	10/31/19 15:11	10.23	10				100	PDI-019SC-C-00-3.2-191025	From 9101833 by gwh on 11/01/19			
	A9J0954-02RE1	H	8081B Pesticides	10/31/19 15:11	10.6	10				100	PDI-095SC-C-00-8.8-191025	From 9101833 by gwh on 11/01/19			
	A9J1006-01RE1	H	8081B Pesticides	10/31/19 15:11	10.5	10				100	PDI-071SC-C-00-08-191028	From 9101833 by gwh on 11/01/19			
	A9J1006-02RE1	H	8081B Pesticides	10/31/19 15:11	10.31	10				100	PDI-074SC-C-00-7.3-191028	From 9101833 by gwh on 11/01/19			
	A9J1007-01RE1	H	8081B Pesticides	10/31/19 15:11	10.64	10				100	PDI-083SC-C-00-08-191028	From 9101833 by gwh on 11/01/19			
	9110391-MS1		QC	10/31/19 15:10	10.52	10	A19E266	A9J1007-01RE1	100	100					

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

From 9101833 on 11/1/2019 by gwh

Prepared By: Date

MJB 11/6/19
Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110391 (Sediment)

Prep Method: EPA 3546/3640A (GPC)

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110391-BLK1		QC	10/31/19 15:10	11	5 10				100		1mL 2mL			
	9110391-BS1		QC	10/31/19 15:10	10	5 10	A19E266		100	100		1mL 2mL			
	A9J0950-01RE1	G	8081B Pesticides	10/31/19 15:11	10.73	5 10				100	PDI-015SC-C-00-8.1-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	9110391-DUP1		QC	10/31/19 15:10	10.86	5 10		A9J0950-01RE1		100		1mL 2mL			
	A9J0950-02RE1	H	8081B Pesticides	10/31/19 15:11	10.27	5 10				100	PDI-026SC-C-00-3.9-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0950-03RE1	H	8081B Pesticides	10/31/19 15:11	10.66	5 10				100	PDI-037SC-C-00-12.4-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0950-04RE1	H	8081B Pesticides	10/31/19 15:11	10.12	5 10				100	PDI-073SC-C-00-13.7-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0954-01RE1	H	8081B Pesticides	10/31/19 15:11	10.23	5 10				100	PDI-019SC-C-00-3.2-191025	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0954-02RE1	H	8081B Pesticides	10/31/19 15:11	10.6	5 10				100	PDI-095SC-C-00-8.8-191025	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1006-01RE1	H	8081B Pesticides	10/31/19 15:11	10.5	5 10				100	PDI-071SC-C-00-08-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1006-02RE1	H	8081B Pesticides	10/31/19 15:11	10.31	5 10				100	PDI-074SC-C-00-7.3-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1007-01RE1	H	8081B Pesticides	10/31/19 15:11	10.64	5 10				100	PDI-083SC-C-00-08-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	9110391-MS1		QC	10/31/19 15:10	10.52	5 10	A19E266	A9J1007-01RE1	100	100		1mL 2mL			

Initial / final

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

From 9101833 on 11/1/2019 by gwh

Prepared By: JAG — Date: 11/1/19 (11/4/19)

Reviewed By: cas — Date: 11/04/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9101833 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
13	9101833-BLK1		QC	10/31/19 15:10	~~10~~ 11	5 ✓				100					
14	9101833-BS1		QC	10/31/19 15:10	10	5 ✓	A19E266		100	100					
15	A9J0950-01	G	8081B Pesticides	10/31/19 15:11	~~10~~ 10.73	5 ✓				100	PDI-015SC-C-00 -8.1-191024	dirt odor			
16	9101833-DUP1		QC	10/31/19 15:10	~~10~~ 10.86	5 ✓		A9J0950-01		100					
17	A9J0950-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.27	5 ✓				100	PDI-026SC-C-00 -3.9-191024	dirt			
18	A9J0950-03	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.66	5 ✓				100	PDI-037SC-C-00 -12.4-191024	dirt Odor			
19	A9J0950-04	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.12	5 ✓				100	PDI-073SC-C-00 -13.7-191024	Mud			
20	A9J0954-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.23	5 ✓				100	PDI-019SC-C-00 -3.2-191025	Mud.			
21	A9J0954-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.60	5 ✓				100	PDI-095SC-C-00 -8.8-191025	Mud			
22	A9J1006-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.50	5 ✓				100	PDI-071SC-C-00 -08-191028	Mud			
23	A9J1006-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.31	5 ✓				100	PDI-074SC-C-00 -7.3-191028	Mud			
24	A9J1007-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.64	5 ✓				100	PDI-083SC-C-00 -08-191028	Mud			
25	9101833-MS1		QC	10/31/19 15:10	~~10~~ 10.52	5 ✓	A19E266	A9J1007-01	100	100					

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

Method 3546 digestion time and temperture achieved.
Initial:

Witness: ~~CAA~~ 10/31/19

Prepared By: 10/31/19 Date

Reviewed By: SCG 10/31/2019 Date

10.31.19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K05039** Instrument: **DUALECD5**

Date: **11/05/19 10:44** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K05039-BKD1	Sediment	QC	QC				A19J201
2	9K05039-CCV1	Sediment	QC	QC				A19H383
3	9K05039-CCB1	Sediment	QC	QC				A19K026
4	9110391-BLK1	Sediment	QC	QC		9110391		
5	9110391-BS1	Sediment	QC	QC		9110391		
6	A9J0950-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
7	9K05039-IBL1	Sediment	QC	QC				
8	9110391-DUP1	Sediment	QC	QC		9110391		
9	9K05039-IBL2	Sediment	QC	QC				
10	A9J0950-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
11	9K05039-IBL3	Sediment	QC	QC				
12	A9J0950-03RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
13	9K05039-IBL4	Sediment	QC	QC				
14	A9J0950-04RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
15	9K05039-IBL5	Sediment	QC	QC				
16	9K05039-CCV2	Sediment	QC	QC				A19H384
17	9K05039-CCB2	Sediment	QC	QC				A19K026
18	A9J0954-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
19	9K05039-IBL6	Sediment	QC	QC				
20	A9J0954-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
21	9K05039-IBL7	Sediment	QC	QC				
22	A9J1006-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
23	9K05039-IBL8	Sediment	QC	QC				
24	A9J1006-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
25	9K05039-IBL9	Sediment	QC	QC				
26	A9J1007-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
27	9K05039-IBLA	Sediment	QC	QC				
28	9110391-MS1	Sediment	QC	QC		9110391		
29	9K05039-IBLB	Sediment	QC	QC				
30	9K05039-CCV3	Sediment	QC	QC				A19H383
31	9K05039-CCB3	Sediment	QC	QC				A19K026
32	9K05039-IBLC	Sediment	QC	QC				

Comments:

Data Entered By: MJB 11/6/19

Data Reviewed By: [illegible] 11/8/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K05039\
Data File : ECD5-11051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:30
Operator : MJB
Sample : 9K05039-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 11:44:41 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT6.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.325	909186	NoCal	ng/mL
2)	Endrin	7.679	80987955	NoCal	ng/mL
3)	4,4'-DDD	7.742	11217951	NoCal	ng/mL
4)	4,4'-DDT	7.937	138470527	NoCal	ng/mL
5)	Endrin Aldehyde	8.124	4230042	NoCal	ng/mL
6)	Endrin Ketone	8.613	8362554	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.086	1648724	NoCal	ng/mL
9)	Endrin [2C]	8.441	124367292	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.498	20059583	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.825	6718391	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.721	215417767	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.408	12492934	NoCal	ng/mL

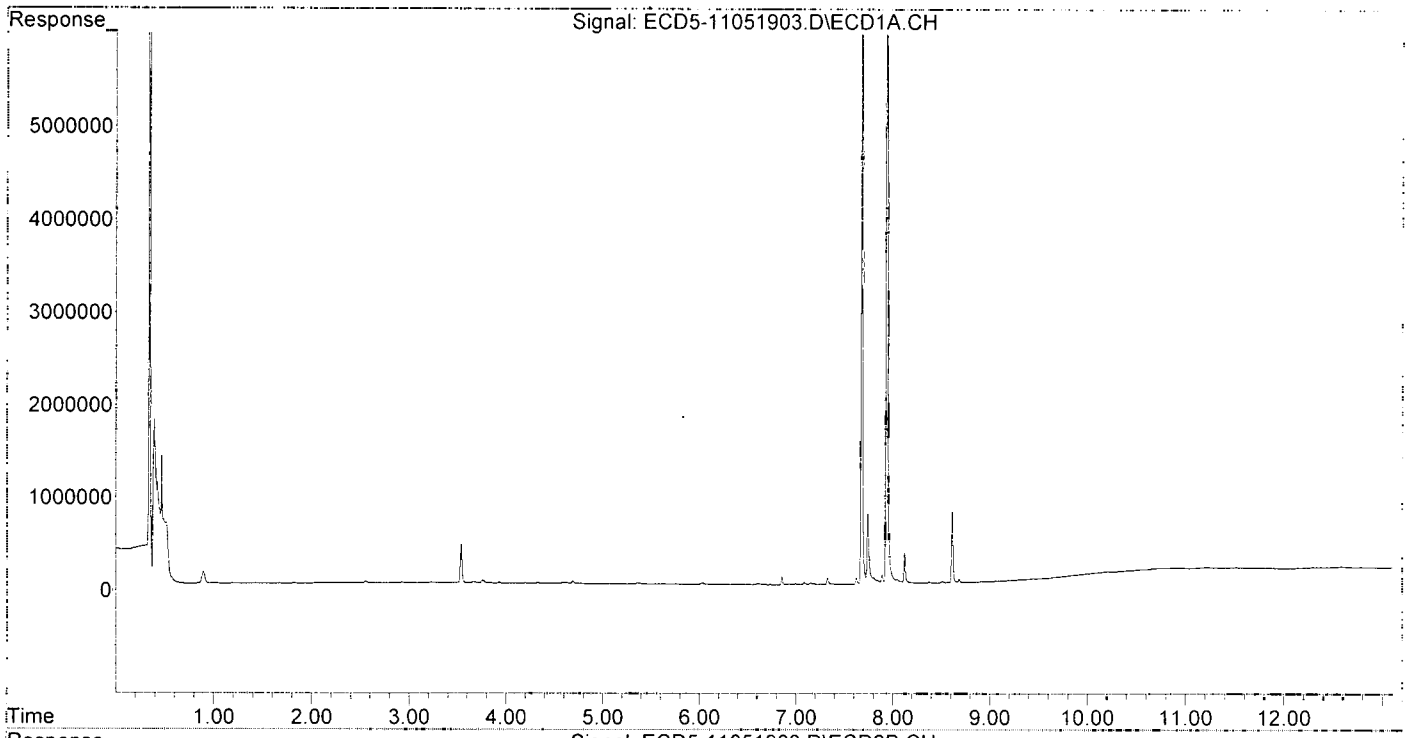
(f)=RT Delta > 1/2 Window (m)=manual int.

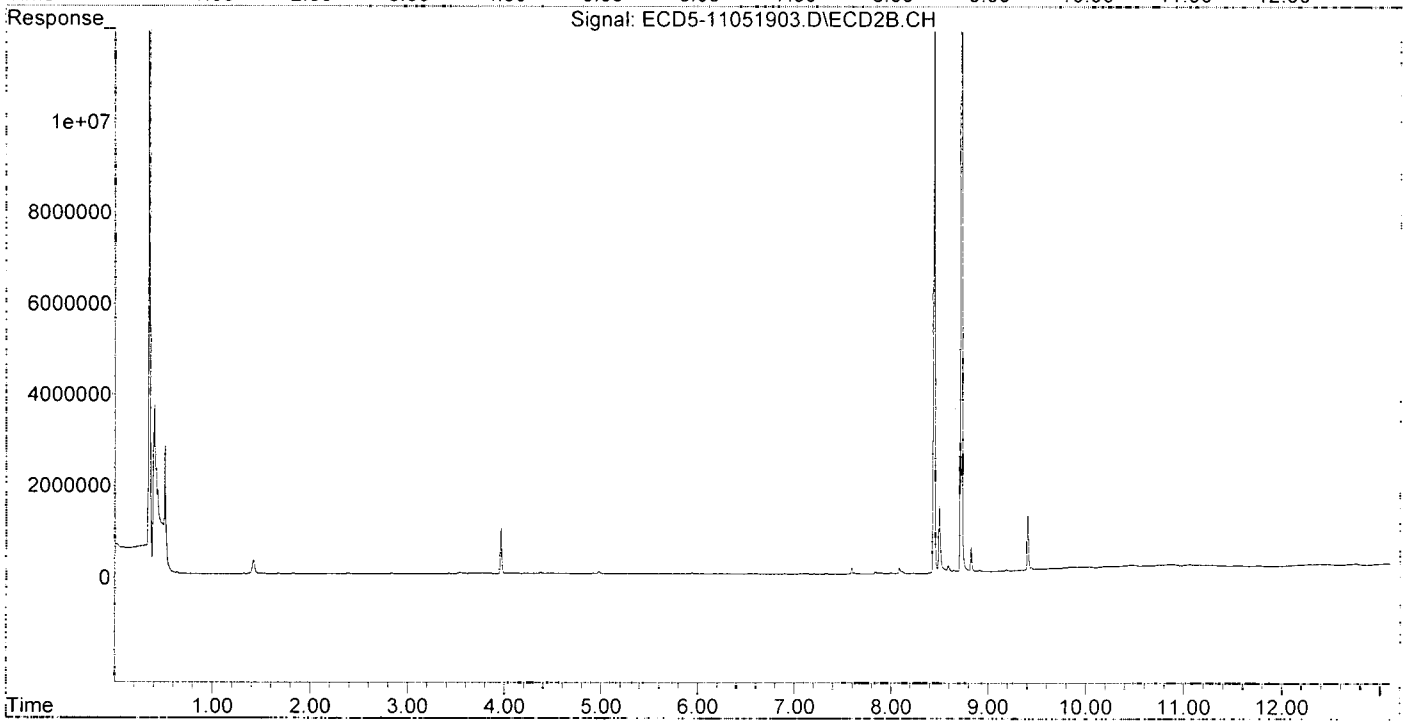
MJB 11/5/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K05039\
Data File : ECD5-11051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:30
Operator : MJB
Sample : 9K05039-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 11:44:41 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT6.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:48
Operator : MJB
Sample : 9K05039-CCV1
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

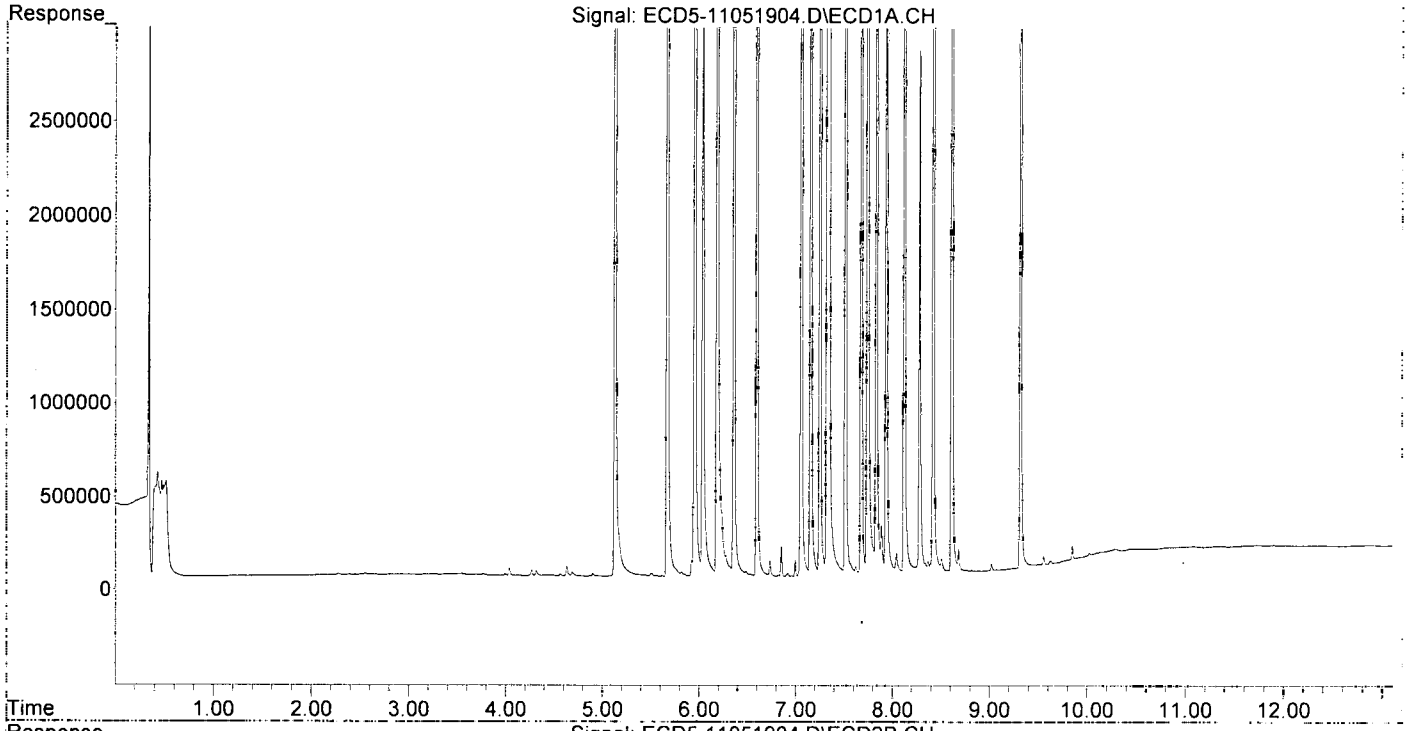
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.130	5.727	8305357	12858512	50.040	43.831	
22)	S	DCBP (S)	9.319	10.236	6710079	10051164	47.556	55.913	
		Target Compounds							
2)		a-BHC	5.669	6.336	11661191	21387464	50.849	52.121	
3)		g-BHC	5.955	6.654	9618300	18468447	47.668	51.775	
4)		b-BHC	6.037	6.723	3575587	6866839	39.560 Q-31	43.388	
5)		Heptachlor	6.361	7.022	9912728	17837186	54.677	58.296	
6)		d-BHC	6.186	6.975	7963532	16325335	40.488	46.291	
7)		Aldrin	6.599	7.283	10697166	18527084	54.178	56.246	
8)		Heptachlo...	7.058	7.722	9034984	16119033	49.056	53.579	
9)		trans-Chl...	7.155	7.861	9211391	16455755	49.821	52.520	
10)		cis-Chlor...	7.250	7.968	9232959	15757415	50.711	54.103	
11)		Endosulfa...	7.344	8.016	9442229	14682423	55.484	53.356	
12)		4,4'-DDE	7.324	8.084	8229995	13753521	43.654	44.269	
13)		Dieldrin	7.516	8.216	10170661	16752264	52.978	55.079	
14)		Endrin	7.678	8.440	7947083	12712262	54.052	56.292	
15)		4,4'-DDD	7.742	8.498	6622488	11951344	42.144	46.646	
16)		Endosulfa...	7.835	8.589	7199122	12283272	50.129	53.265	
17)		4,4'-DDT	7.936	8.720	5733280	9483542	47.953	50.399	
18)		Endrin Al...	8.123	8.825	6293181	10525482	51.248	53.375	
19)		Endosulfa...	8.422	9.015	7748339	12718938	49.997	51.062	
20)		Methoxychlor	8.281	9.203	2768964	4571093	47.273	50.887	
21)		Endrin Ke...	8.613	9.408	8447570	13760707	50.658	53.478	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.508	0.000	16586	0	0.094	N.D.	#
25)		Oxychlordane	6.996	7.638	86472	7988	0.526	0.029	#
26)		2,4'-DDE	7.058	7.861	9034984	16455755	70.442	77.571	
27)		trans-Non...	7.250	7.920	9232959	78432	51.248	0.260	#
28)		2,4'-DDD	0.000	8.216f	0	16752264	N.D.	88.700	#
29)		2,4'-DDT	7.623	8.440	46986	12712262	0.428	71.281	#
30)		cis-Nonac...	7.742f	8.498	6622488	11951344	31.898	35.628	
31)		Mirex	8.370	9.408	62057	13760707	0.495	73.953	#
32)		Chlordane...	7.250	7.968f	9232959	15757415	468.925	435.473	
33)		Chlordane...	7.324	8.084f	8229995	13753521	328.355	452.954	
34)		Chlordane...	7.888	8.720	262194	9483542	45.353	1057.737	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.357	0	9003	N.D.	3.431	#
37)		Toxaphene...	7.678	8.720	7947083	9483542	4920.982	2881.638	#
38)		Toxaphene...	8.043f	8.720f	110213	9483542	32.729	1871.142	#
39)		Toxaphene...	8.281f	8.825	2768964	10525482	854.578	1260.562	#
40)		Toxaphene...	8.508f	9.015f	74715	12718938	31.168	2729.176	#
41)		Toxaphene...	8.508f	9.408f	74715	13760707	23.610	2896.868	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

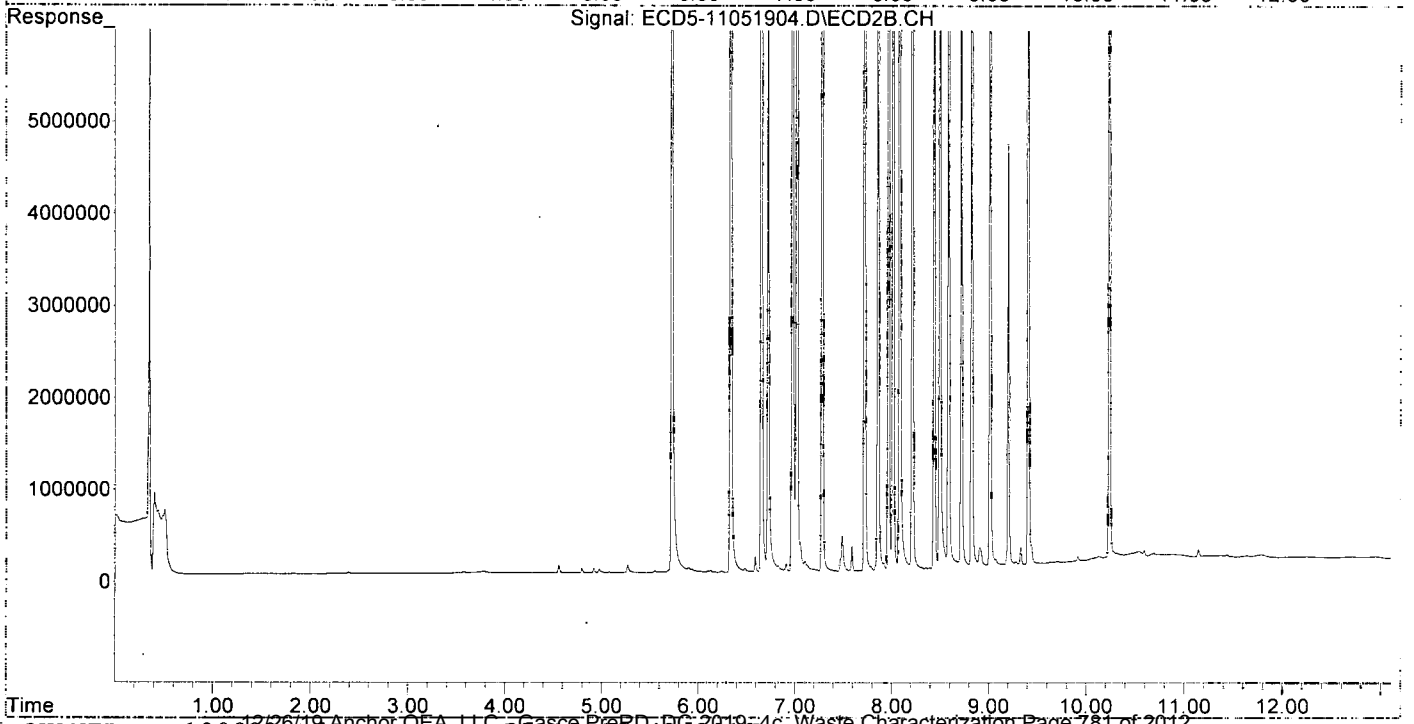
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:48
Operator : MJB
Sample : 9K05039-CCV1
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:05
Operator : MJB
Sample : 9K05039-CCB1
Misc : A19J194
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

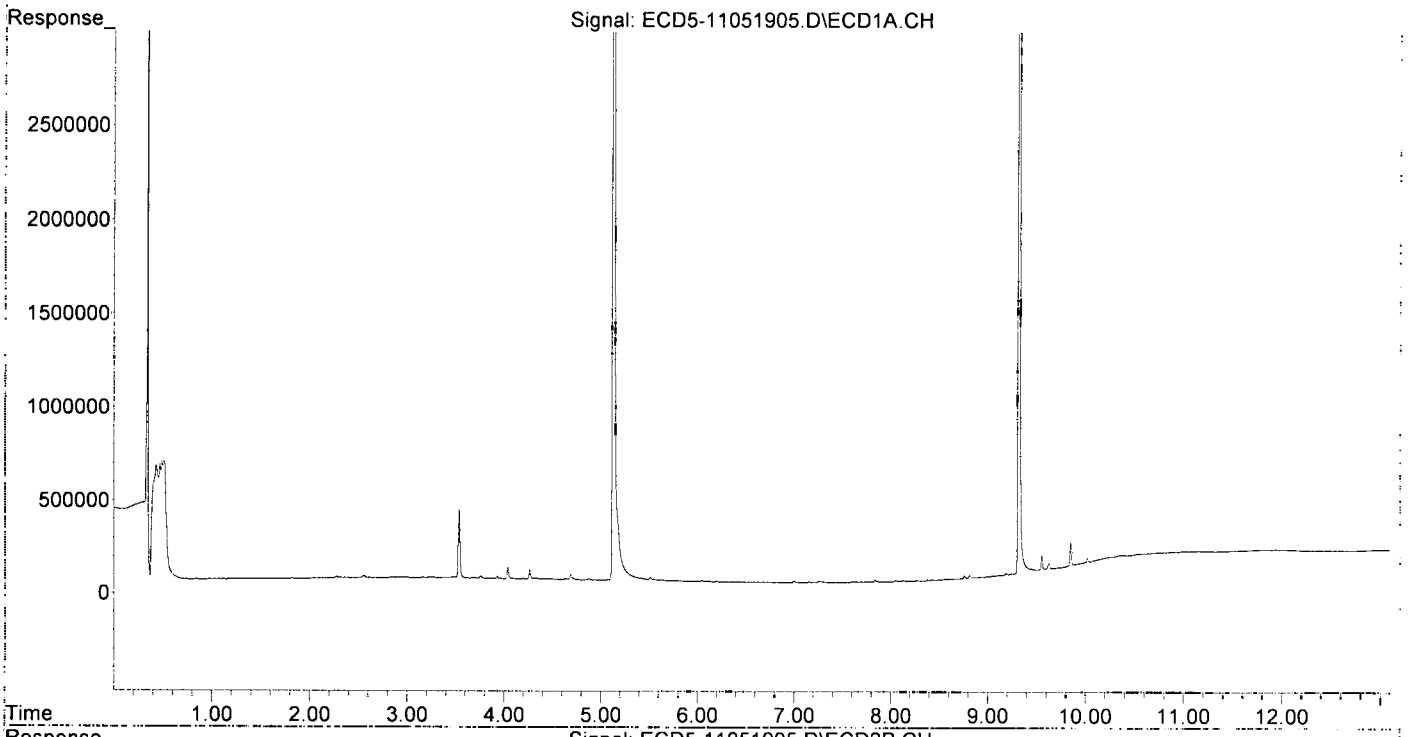
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.129	5.726	15077257	24007703	90.840	81.835	
22)	S	DCBP (S)	9.319	10.236	11811390	18138547	83.710	100.903	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.046	0.000	7105	0	0.079	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	0.000	6.980	0	6572	N.D.	0.019	#
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	7.896f	0	7491	N.D.	0.024	#
10)		cis-Chlor...	7.259	0.000	5471	0	0.030	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.451	0	4463	N.D.	0.020	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.841	8.583	11086	13418	0.077	0.058	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.129	8.828	5734	6889	BelowCal	BelowCal	
19)		Endosulfa...	8.424	9.017	4507	5460	0.029	0.022	
20)		Methoxychlor	8.263	9.202	4731	2083	0.081	BelowCal	#
21)		Endrin Ke...	8.616	9.409	1702	1869	0.010	0.007	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.512	0.000	19702	0	0.112	N.D.	#
25)		Oxychlordane	7.001	7.626f	10406	20315	0.063	0.074	
26)		2,4'-DDE	0.000	7.896f	0	7491	N.D.	0.035	#
27)		trans-Non...	7.259	7.896f	5471	7491	87346.670	0.025	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	8.451	0	4463	N.D.	0.025	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.380	9.409	4267	1869	0.034	0.010	#
32)		Chlordane...	7.259f	0.000	5471	0	0.278	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	7.841f	0.000	11086	0	1.918	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.263	8.828	4731	6889	1.460	0.825	#
40)		Toxaphene...	0.000	9.017f	0	5460	N.D.	1.172	#
41)		Toxaphene...	8.559	9.409f	2371	1869	0.749	0.394	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

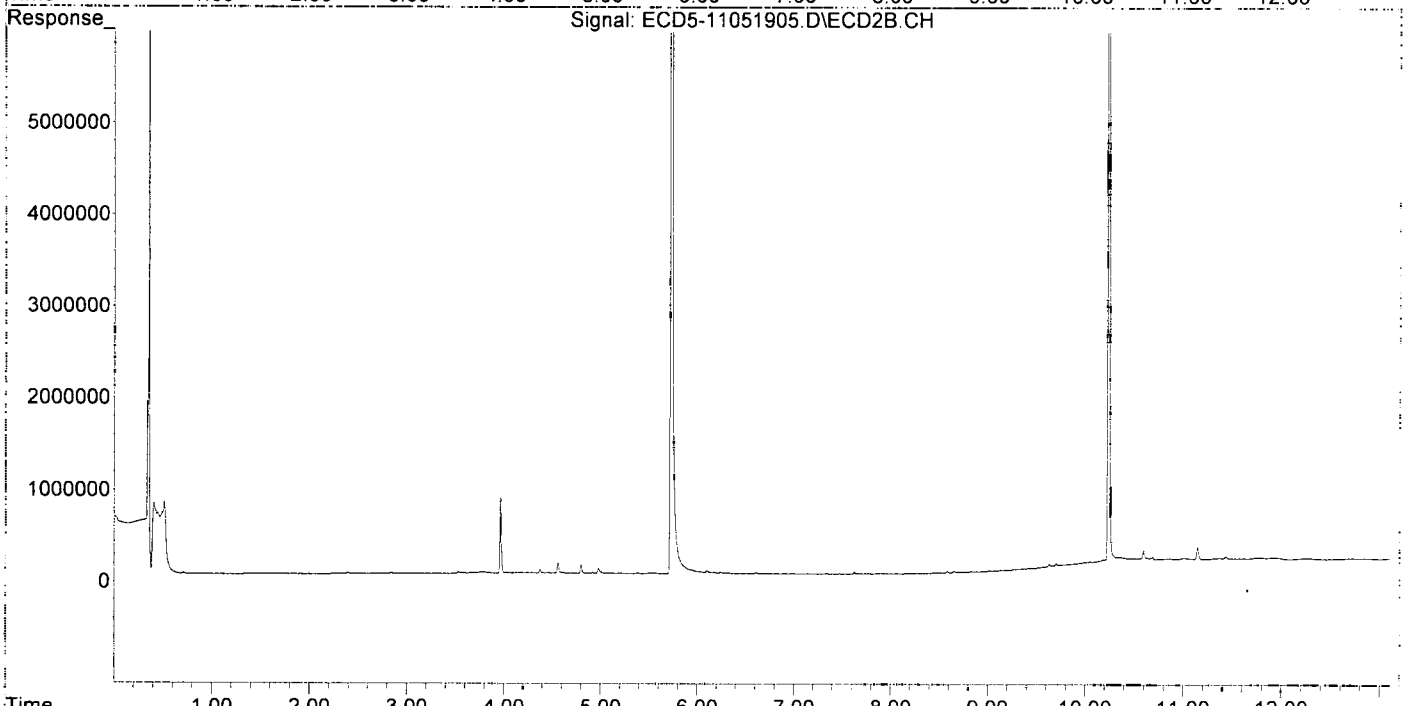
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:05
Operator : MJB
Sample : 9K05039-CCB1
Misc : A19J194
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:37:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

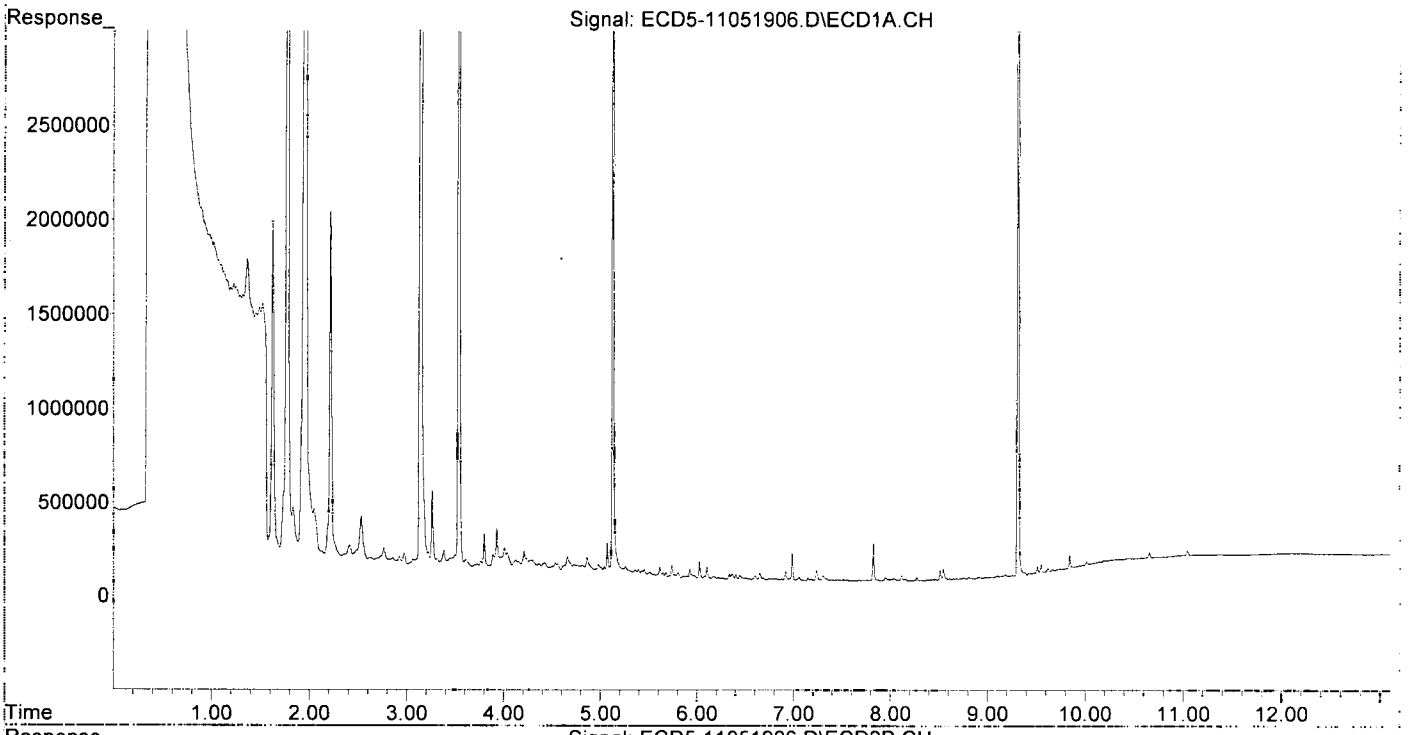
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S	DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
		Target Compounds							
2)		a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)		g-BHC	5.926f	6.655	46492	10565	0.230	0.030m	#
4)		b-BHC	6.026	6.713	92658	20156	1.025	0.127	#
5)		Heptachlor	6.363	7.027	28506	35259	0.157	0.115	
6)		d-BHC	6.176	6.958	14294	39019	0.073	0.111	#
7)		Aldrin	6.601	7.278	21623	9549	0.110	0.029	#
8)		Heptachlo...	7.056	7.709	18240	74943	0.099	0.249	#
9)		trans-Chl...	7.149	7.867	15979	75123	0.086	0.240	#
10)		cis-Chlor...	7.239	7.965	57271	16473	0.315	0.057	#
11)		Endosulfa...	7.341	8.010	12662	61252	0.074	0.223	#
12)		4,4'-DDE	7.305	8.083	26311	9406	0.140	0.030	#
13)		Dieldrin	7.513	8.215	7256	10687	0.038	0.035	
14)		Endrin	7.676	8.437	5361	10571	0.036	0.047	
15)		4,4'-DDD	0.000	8.505	0	7367	N.D.	0.029	#
16)		Endosulfa...	7.826	8.575	204420	240699	1.423	1.044	
17)		4,4'-DDT	7.952	8.723	17859	10691	0.149	0.024	#
18)		Endrin Al...	8.119	8.820	28111	35456	BelowCal	BelowCal	
19)		Endosulfa...	8.420	9.014	5090	7853	0.033	0.032	
20)		Methoxychlor	8.274	9.199	18244	23843	0.311	0.110	#
21)		Endrin Ke...	8.610	9.424	5981	43947	0.036	0.171	#
23)		Hexachlor...	2.925	3.402f	35147	23133933	0.192	61.538	#
24)		Hexachlor...	5.511	6.176f	21256	46193	0.121	0.147	
25)		Oxychlordane	6.985	7.663	145138	16599	0.882	0.061	#
26)		2,4'-DDE	7.056	7.867	18240	75123	0.142	0.354	#
27)		trans-Non...	7.239	7.936	57271	11724	0.003	0.039	#
28)		2,4'-DDD	0.000	8.215f	0	10687	N.D.	0.057	#
29)		2,4'-DDT	0.000	8.437f	0	10571	N.D.	0.059	#
30)		cis-Nonac...	7.676f	8.505	5361	7367	0.026	0.022	
31)		Mirex	8.382	9.424f	4927	43947	0.039	0.236	#
32)		Chlordane...	7.239	7.936	57271	11724	2.909	0.324	#
33)		Chlordane...	7.341	8.083f	12662	9406	0.505	0.310	
34)		Chlordane...	7.874	8.723	7307	10691	1.264	1.192	
35)		Chlordane...	3.382f	3.343	82427	43097	NoCal	NoCal	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	7.676	8.723	5361	10691	3.320	3.249	
38)		Toxaphene...	8.010	8.755	10329	16975	3.067	3.349	
39)		Toxaphene...	8.274f	8.820	18244	35456	5.631	4.246	
40)		Toxaphene...	8.467	9.014f	5272	7853	2.199	1.685	
41)		Toxaphene...	8.549	9.349f	58789	6662	18.577	1.403	#
42)		Toxaphene...	3.382f	3.343	82427	43097	NoCal	NoCal	

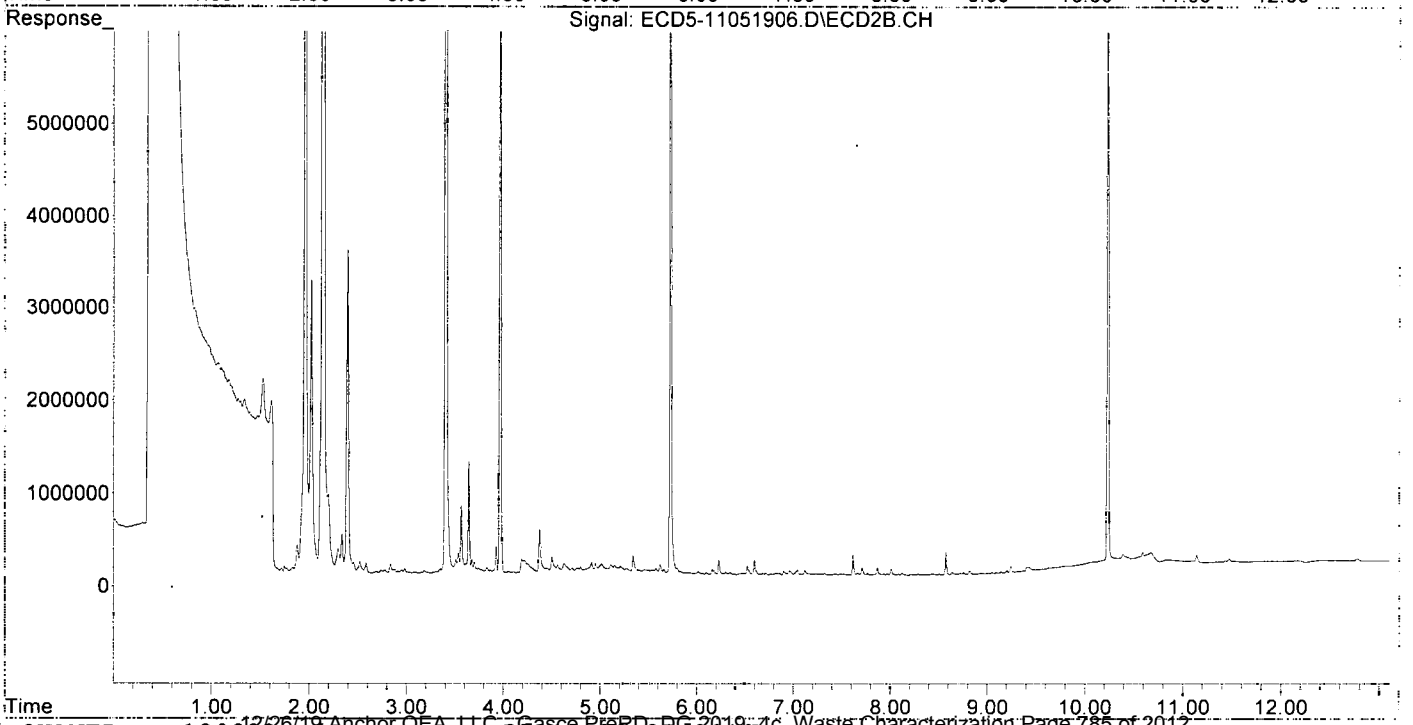
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:37:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

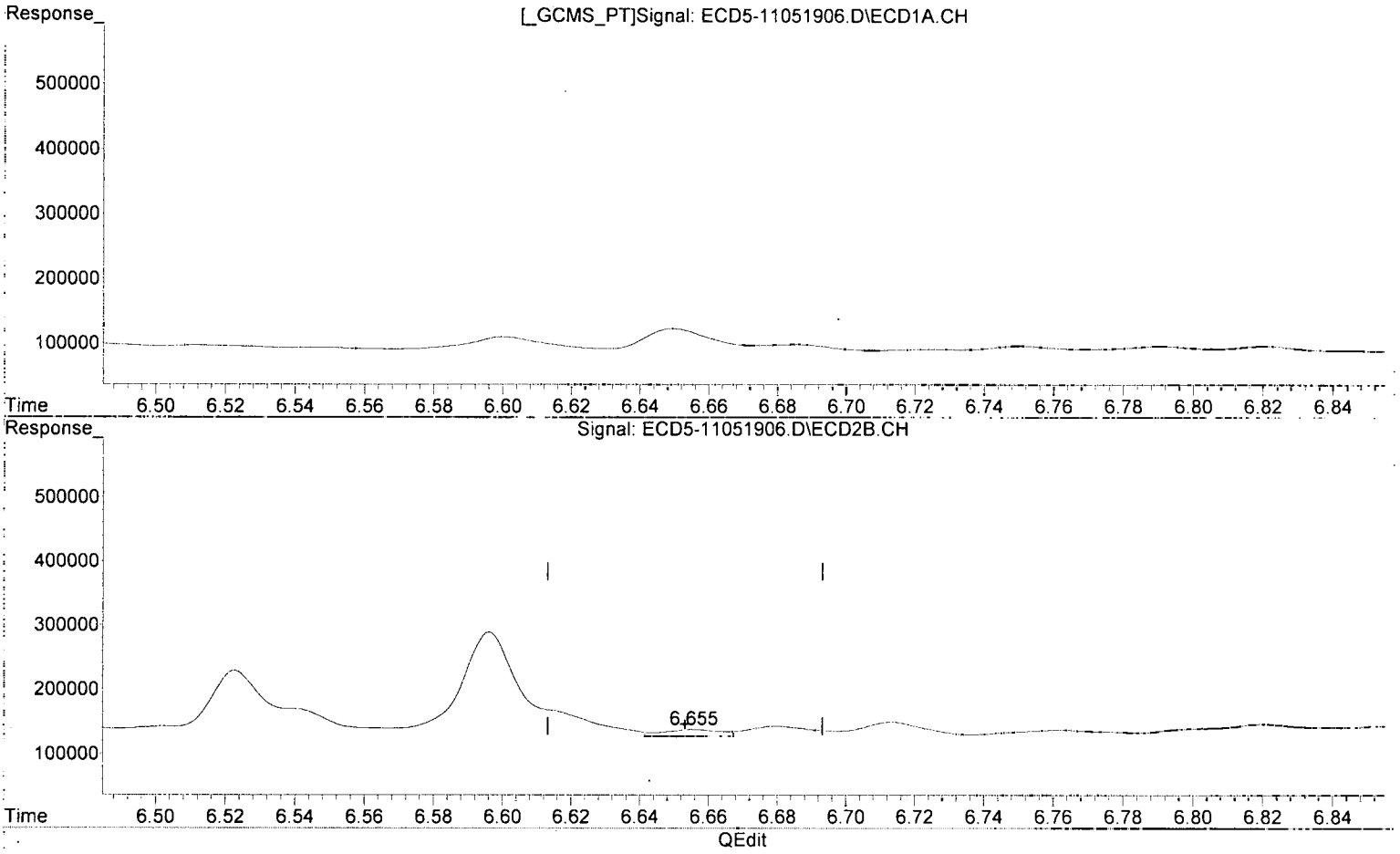




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(3) g-BHC

5.926min 0.230 ng/mL

response 46492

MJB 11/5/19

(3) g-BHC #2

6.655min 0.030 ng/mL m

response 10565

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MF MJB 11/5/19

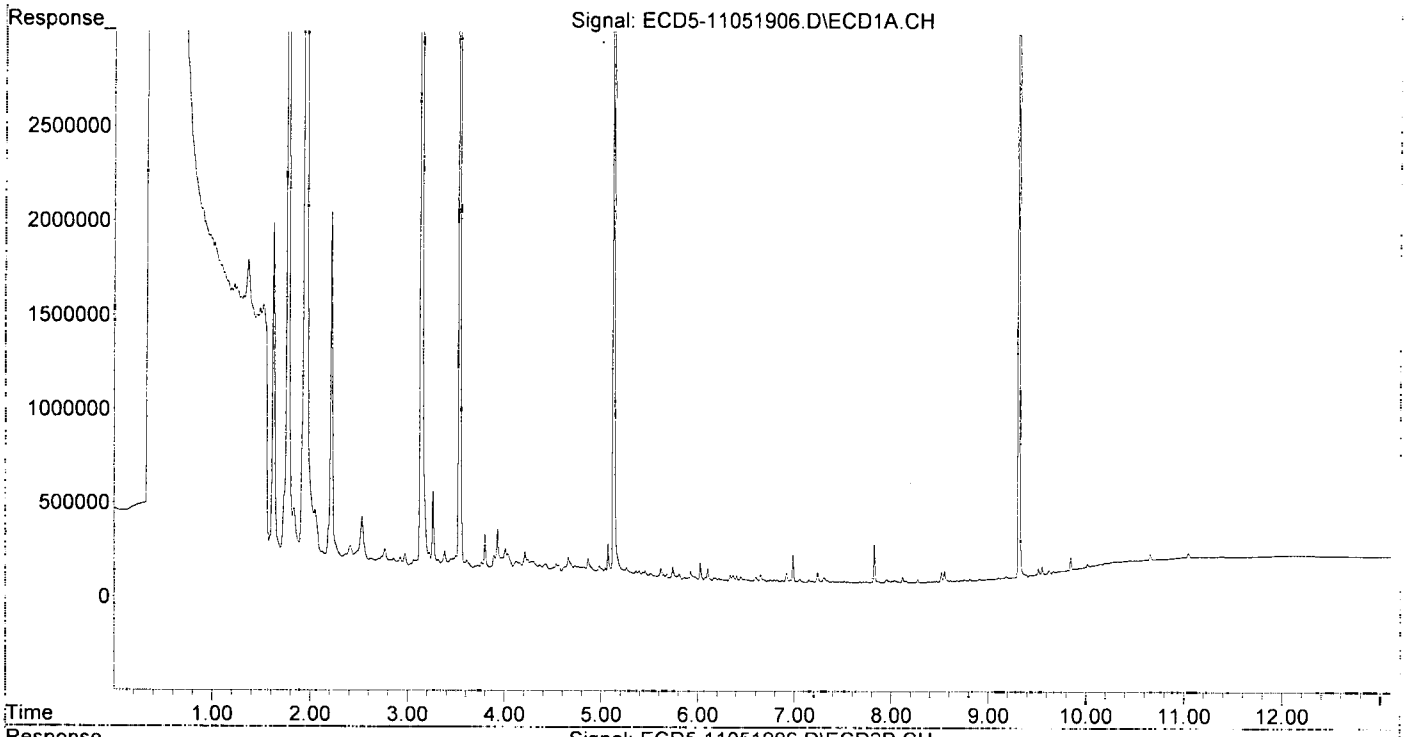
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
	Target Compounds							
2)	a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)	g-BHC	5.926f	6.680f	46492	13577	0.230	0.038	#
4)	b-BHC	6.026	6.713	92658	20156	1.025	0.127	#
5)	Heptachlor	6.363	7.027	28506	35259	0.157	0.115	
6)	d-BHC	6.176	6.958	14294	39019	0.073	0.111	#
7)	Aldrin	6.601	7.278	21623	9549	0.110	0.029	#
8)	Heptachlo...	7.056	7.709	18240	74943	0.099	0.249	#
9)	trans-Chl...	7.149	7.867	15979	75123	0.086	0.240	#
10)	cis-Chlor...	7.239	7.965	57271	16473	0.315	0.057	#
11)	Endosulfa...	7.341	8.010	12662	61252	0.074	0.223	#
12)	4,4'-DDE	7.305	8.083	26311	9406	0.140	0.030	#
13)	Dieldrin	7.513	8.215	7256	10687	0.038	0.035	
14)	Endrin	7.676	8.437	5361	10571	0.036	0.047	
15)	4,4'-DDD	0.000	8.505	0	7367	N.D.	0.029	#
16)	Endosulfa...	7.826	8.575	204420	240699	1.423	1.044	
17)	4,4'-DDT	7.952	8.723	17859	10691	0.149	0.024	#
18)	Endrin Al...	8.119	8.820	28111	35456	BelowCal	BelowCal	
19)	Endosulfa...	8.420	9.014	5090	7853	0.033	0.032	
20)	Methoxychlor	8.274	9.199	18244	23843	0.311	0.110	#
21)	Endrin Ke...	8.610	9.424	5981	43947	0.036	0.171	#
23)	Hexachlor...	2.925	8.402f	35147	23133933	0.192	61.538	#
24)	Hexachlor...	5.511	6.176f	21256	46193	0.121	0.147	
25)	Oxychlordane	6.985	7.663	145138	16599	0.882	0.061	#
26)	2,4'-DDE	7.056	7.867	18240	75123	0.142	0.354	#
27)	trans-Non...	7.239	7.936	57271	11724	0.003	0.039	#
28)	2,4'-DDD	0.000	8.215f	0	10687	N.D.	0.057	#
29)	2,4'-DDT	0.000	8.437f	0	10571	N.D.	0.059	#
30)	cis-Nonac...	7.676f	8.505	5361	7367	0.026	0.022	
31)	Mirex	8.382	9.424f	4927	43947	0.039	0.236	#
32)	Chlordane...	7.239	7.936	57271	11724	2.909	0.324	#
33)	Chlordane...	7.841	8.083f	12662	9406	0.505	0.310	
34)	Chlordane...	7.874	8.723	7307	10691	1.264	1.192	
35)	Chlordane...	3.382f	3.343	82427	43097	NoCal	NoCal	
36)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)	Toxaphene...	7.676	8.723	5361	10691	3.320	3.249	
38)	Toxaphene...	8.010	8.755	10329	16975	3.067	3.349	
39)	Toxaphene...	8.274f	8.820	18244	35456	5.631	4.246	
40)	Toxaphene...	8.467	9.014f	5272	7853	2.199	1.685	
41)	Toxaphene...	8.549	9.349f	58789	6662	18.577	1.403	#
42)	Toxaphene...	3.382f	3.343	82427	43097	NoCal	NoCal	

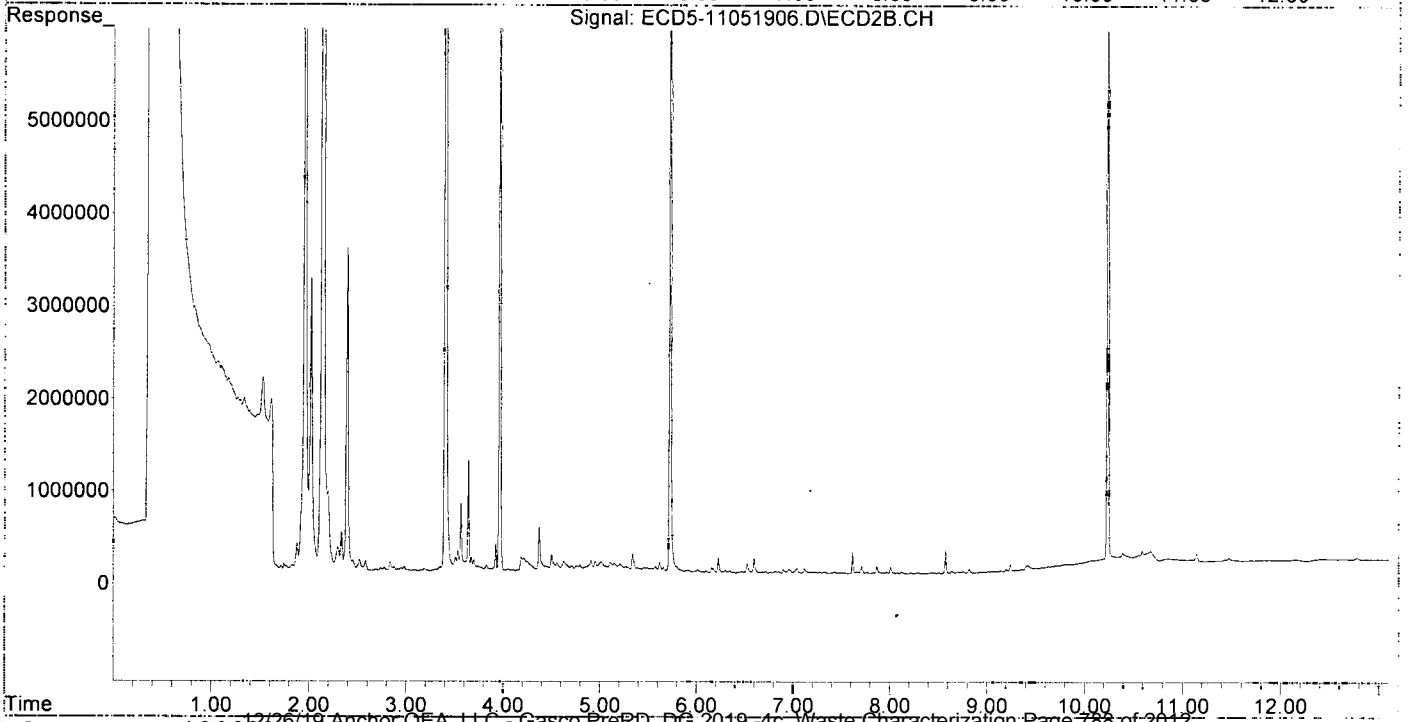
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2). Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:39
Operator : MJB
Sample : 9110391-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:02 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

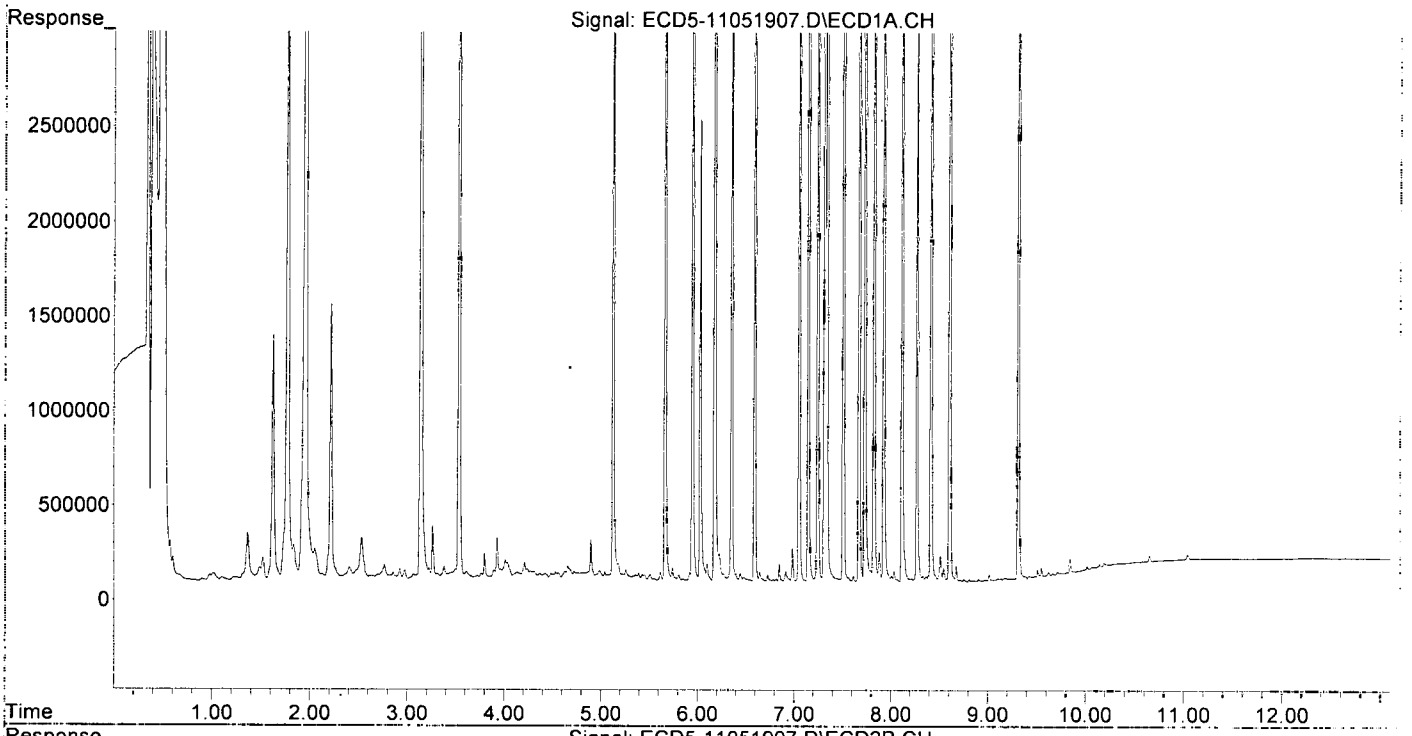
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	4552662	7285584	27.430	24.834	
22)	S	DCBP (S)	9.314	10.233	6384296	8819326	45.247	49.061	
		Target Compounds							
2)		a-BHC	5.666	6.333	6183452	10905604	26.963	26.577	
3)		g-BHC	5.949	6.650	5580508	9689725	27.657	27.165	
4)		b-BHC	6.031	6.719	2409651	4387734	26.660	27.724	
5)		Heptachlor	6.355	7.017	5639578	9317253	31.107	30.451	
6)		d-BHC	6.178	6.970	5908938	10780719	30.042	30.569	
7)		Aldrin	6.593	7.279	5661063	9436881	28.672	28.649	
8)		Heptachlo...	7.054	7.719	6228877	10116948	33.820	33.628	
9)		trans-Chl...	7.149	7.858	6544219	11014991	35.395	35.155	
10)		cis-Chlor...	7.246	7.965	6837364	10825144	37.553	37.168	
11)		Endosulfa...	7.340	8.013	6523896	10239954	38.335	37.212	
12)		4,4'-DDE	7.315	8.080	7322891	11830776	38.842	38.081	
13)		Dieldrin	7.511	8.213	7970096	12610432	41.515	41.461	
14)		Endrin	7.674	8.438	7073160	10667520	48.108	47.238	
15)		4,4'-DDD	7.733	8.493	6753044	10684318	42.975	41.701	
16)		Endosulfa...	7.829	8.585	6829052	10831169	47.552	46.968	
17)		4,4'-DDT	7.929	8.716	7013318	10855125	58.659	57.029	
18)		Endrin Al...	8.118	8.822	5586862	8727212	45.559	44.561	
19)		Endosulfa...	8.417	9.013	7387139	11638050	47.666	46.723	
20)		Methoxychlor	8.272	9.198	3505142	5463973	59.841	59.797	
21)		Endrin Ke...	8.608	9.406	8262718	12243940	49.549	47.583	
23)		Hexachlor...	2.924	3.402f	65980	17925429	0.361	47.683	#
24)		Hexachlor...	5.509	6.190	36612	44006	0.208	0.140	
25)		Oxychlordane	6.984	7.659	175028	26313	1.064	0.096	#
26)		2,4'-DDE	7.054f	7.858	6228877	11014991	48.564	51.924	
27)		trans-Non...	7.246	7.920	6837364	40418	37.863	0.134	#
28)		2,4'-DDD	0.000	8.213f	0	12610432	N.D.	66.770	#
29)		2,4'-DDT	7.616	8.438	30970	10667520	0.282	59.816	#
30)		cis-Nonac...	7.733	8.493	6753044	10684318	32.527	31.851	
31)		Mirex	0.000	9.406	0	12243940	N.D.	65.802	#
32)		Chlordane...	7.246	7.965f	6837364	10825144	347.257	299.165	
33)		Chlordane...	7.340	8.080f	6523896	11830776	260.286	389.631	#
34)		Chlordane...	7.883	8.716	155203	10855125	26.847	1210.715	#
35)		Chlordane...	3.382f	3.343	77786	35205	NoCal	NoCal	
36)		Toxaphene...	0.000	8.389f	0	14747	N.D.	5.619	#
37)		Toxaphene...	7.674	8.716	7073160	10855125	4379.832	3298.402	
38)		Toxaphene...	8.008	8.716f	29505	10855125	8.762	2141.761	#
39)		Toxaphene...	8.272f	8.822	3505142	8727212	1081.783	1045.196	
40)		Toxaphene...	0.000	9.013f	0	11638050	N.D.	2497.244	#
41)		Toxaphene...	8.514f	9.406f	136265	12243940	43.059	2577.562	#
42)		Toxaphene...	3.382f	3.343	77786	35205	NoCal	NoCal	

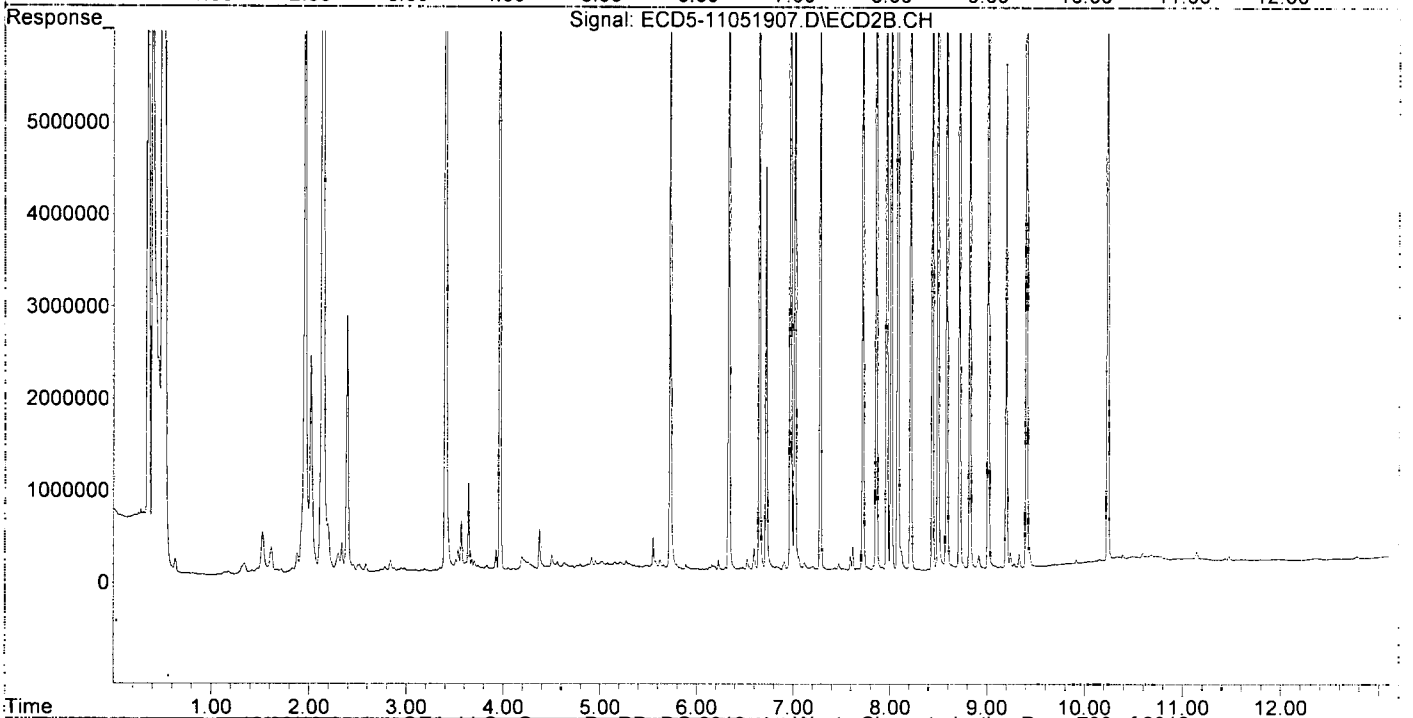
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:39
Operator : MJB
Sample : 9110391-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:02 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:10:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

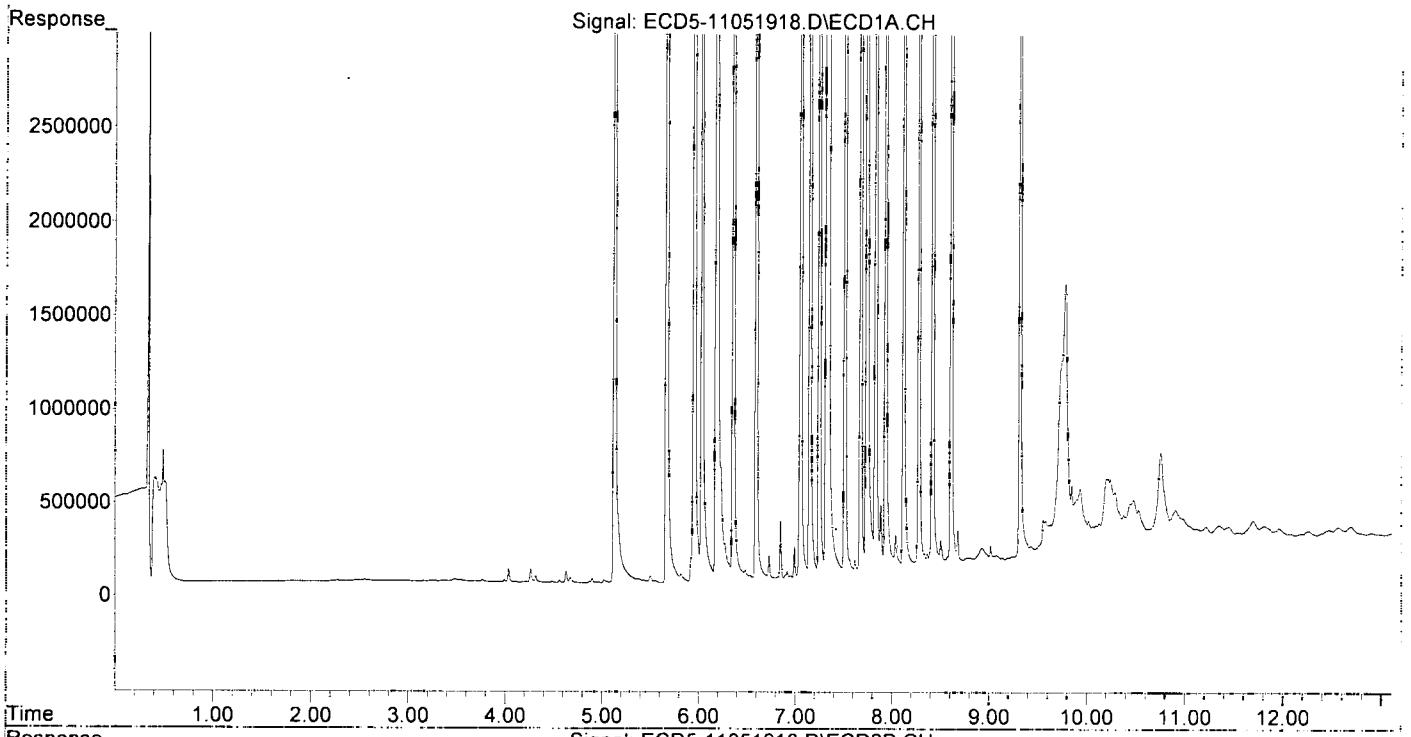
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	6.652	20018551	39032193	99.211 Q-31	109.425	
4)		b-BHC	6.032	6.721	6630186	14299555	73.356	90.351	
5)		Heptachlor	6.358	7.020	20993237	38383285	115.795	125.445 Q-41	
6)		d-BHC	6.181	6.972	16640343	34630500	84.602	98.196	
7)		Aldrin	6.596	7.282	20892545	37959241	105.814	115.240	
8)		Heptachlo...	7.055	7.720	18254338	32720942	99.112	108.762	
9)		trans-Chl...	7.151	7.859	17720719	33142512	95.844	105.776	
10)		cis-Chlor...	7.247	7.967	18541582	31386031	101.837	107.764	
11)		Endosulfa...	7.341	8.014	18708541	29266801	109.934m	106.356	
12)		4,4'-DDE	7.319	8.082	16477251	30261969	87.399m	97.406	
13)		Dieldrin	7.513	8.214	20409281	34832482	106.310	114.524	
14)		Endrin	7.675	8.439	16969990	27534492	115.421	121.927 Q-41	
15)		4,4'-DDD	7.738	8.495	13114509	25596829	83.457	99.904	
16)		Endosulfa...	7.831	8.586	14760099	25450565	102.778	110.364	
17)		4,4'-DDT	7.933	8.719	13443623	23788286	112.442	113.803	
18)		Endrin Al...	8.120	8.824	12595562	21847854	100.277	105.477	
19)		Endosulfa...	8.418	9.014	15792326	27184436	101.901	109.136	
20)		Methoxychlor	8.277	9.200	6608443	11370574	112.822	112.881	
21)		Endrin Ke...	8.610	9.406	17780940	29922970	106.627	116.289	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.503	6.237f	32763	16345	0.186	0.052	#
25)		Oxychlordane	6.993	7.660	162402	6040	0.987	0.022	#
26)		2,4'-DDE	7.055	7.859	18254338	33142512	142.322	156.231	
27)		trans-Non...	7.247	7.920	18541582	119737	103.296	0.397	#
28)		2,4'-DDD	0.000	8.214f	0	34832482	N.D.	184.432	#
29)		2,4'-DDT	7.620	8.439	70377	27534492	0.642	154.394	#
30)		cis-Nonac...	7.738f	8.495	13114509	25596829	63.167	76.306	
31)		Mirex	0.000	9.406	0	29922970	N.D.	160.813	#
32)		Chlordane...	7.247	7.967f	18541582	31386031	941.694	867.387	
33)		Chlordane...	7.340	8.082f	19134917	30261969	763.433	996.638	
34)		Chlordane...	7.884	8.719	361649	23788286	62.557	2653.202	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.352	0	8812	N.D.	3.358	#
37)		Toxaphene...	7.675	8.719	16969990	23788286	10508.134	7228.230	
38)		Toxaphene...	8.039f	8.719f	184535	23788286	54.799	4693.528	#
39)		Toxaphene...	8.277f	8.824	6608443	21847854	2039.547	2616.562	
40)		Toxaphene...	8.505f	9.014f	142043	27184436	59.255	5833.122	#
41)		Toxaphene...	8.505f	9.406f	142043	29922970	44.885	6299.304	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

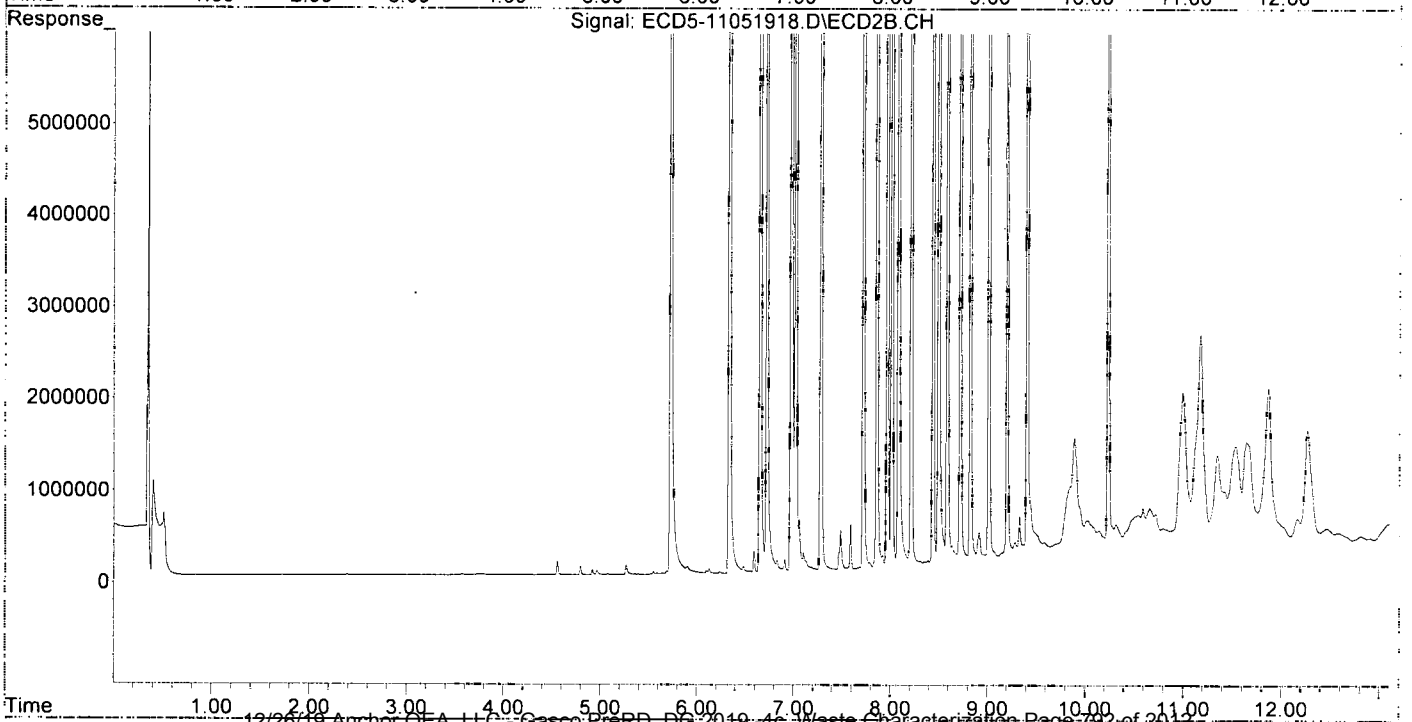
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:10:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

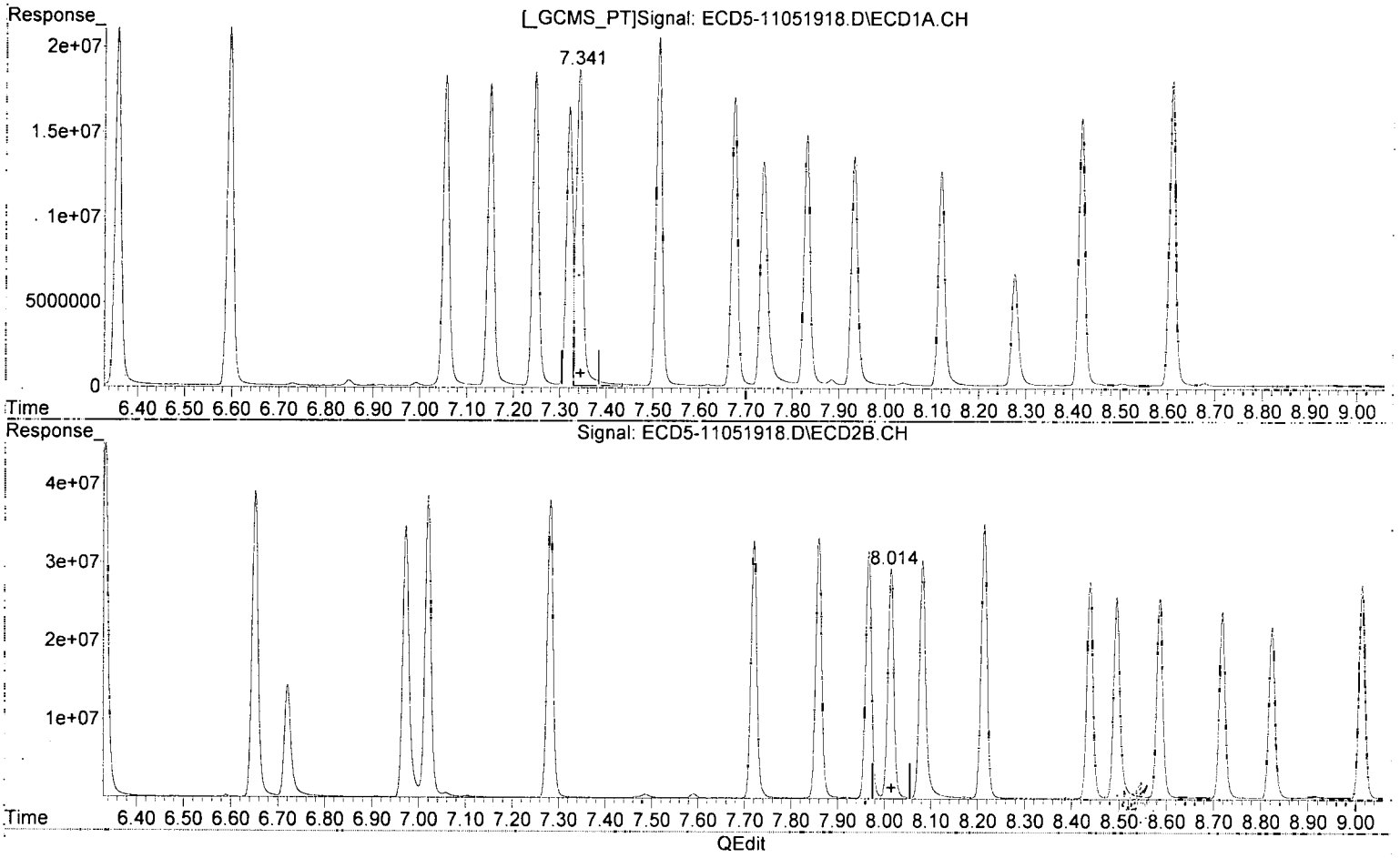




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.341min 109.934 ng/mL (m)

response 18708541

WB 11/5/19

(11) Endosulfan I #2

8.014min 106.356 ng/mL

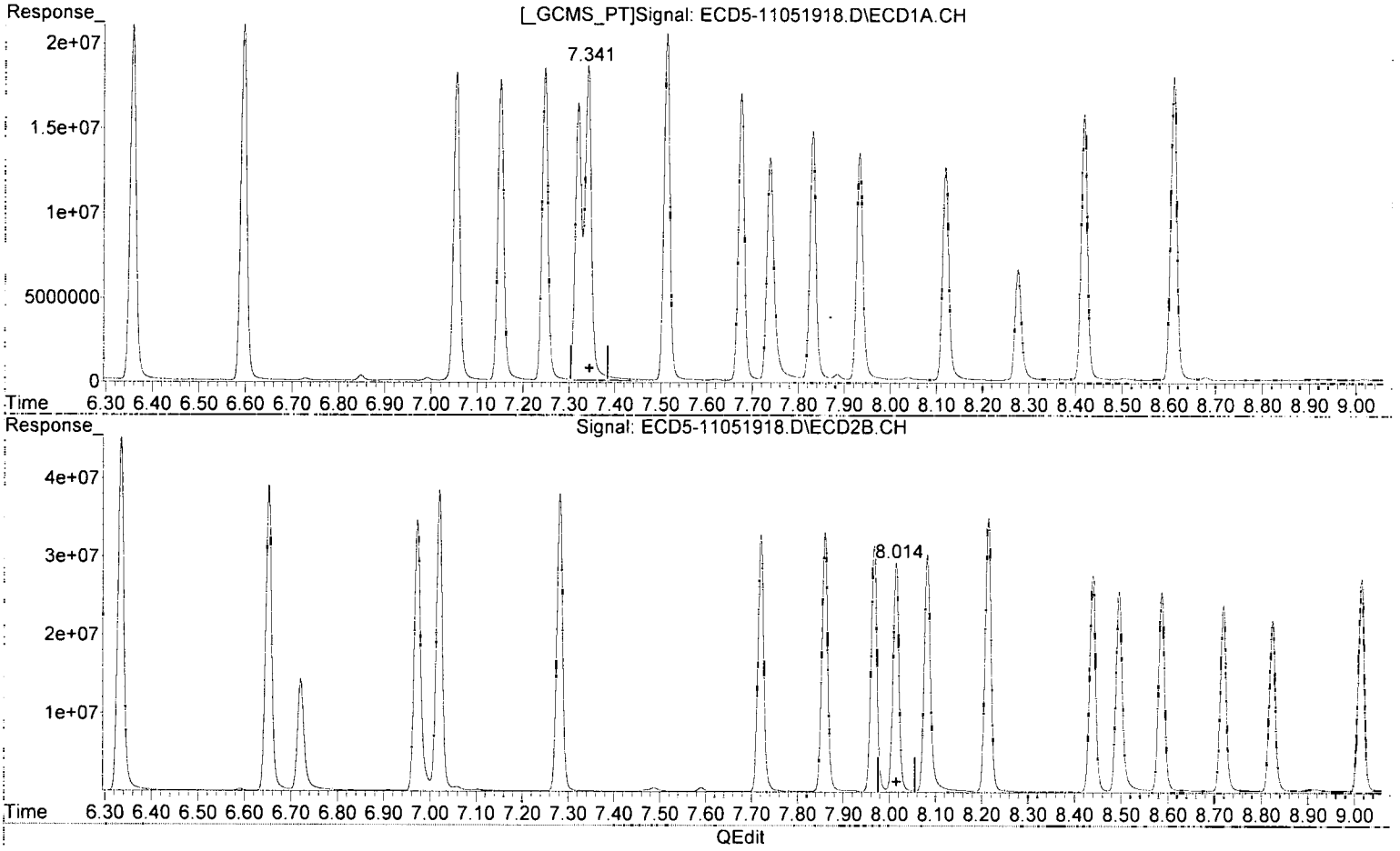
response 29266801

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.340min 112.439 ng/mL

response 19134917

MJB 11/5/19

(11) Endosulfan I #2

8.014min 106.356 ng/mL

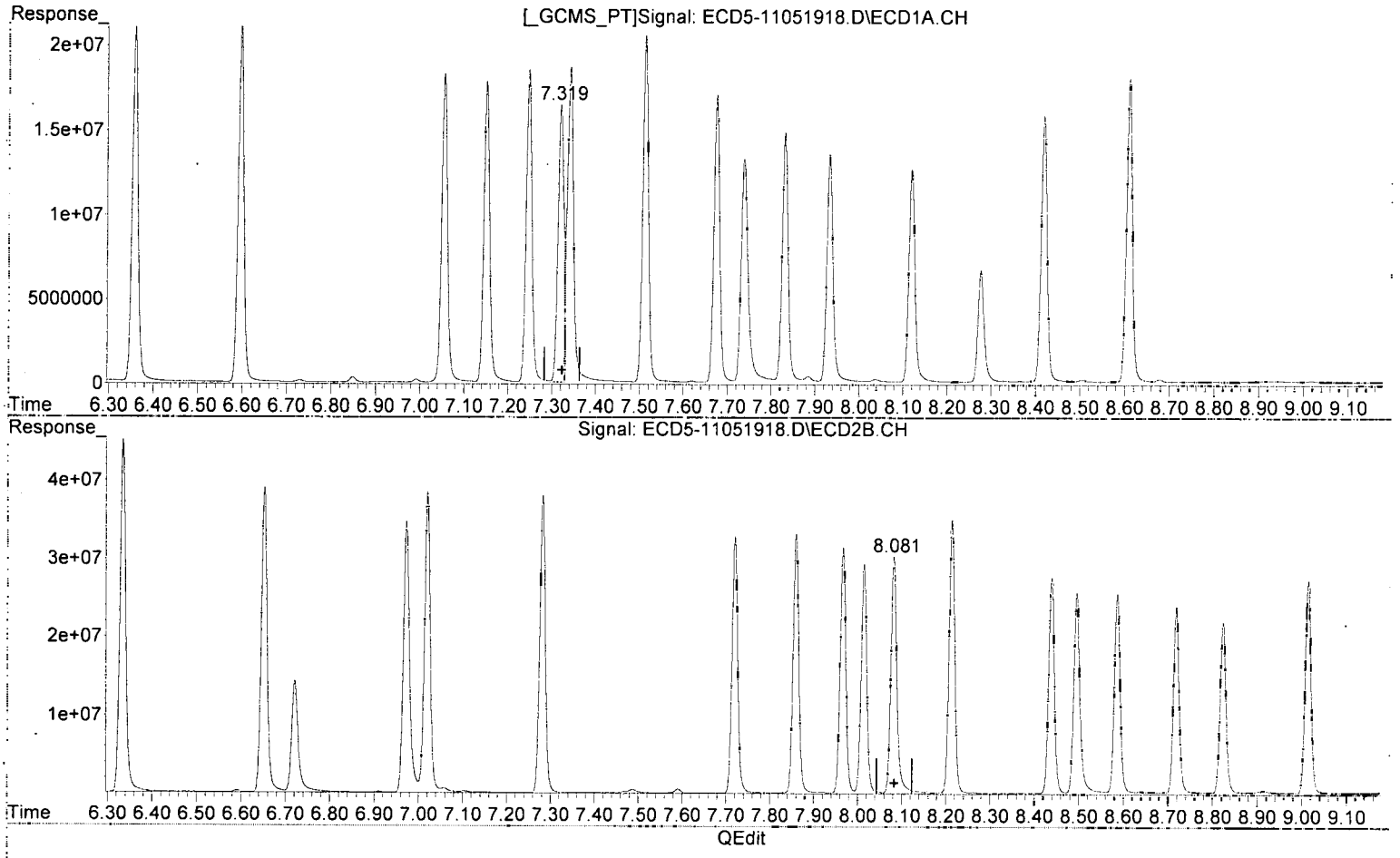
response 29266801

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.319min 87.399 ng/mL (m)

response 16477251

MJB 11/5/19

(12) 4,4'-DDE #2

8.082min 97.406 ng/mL

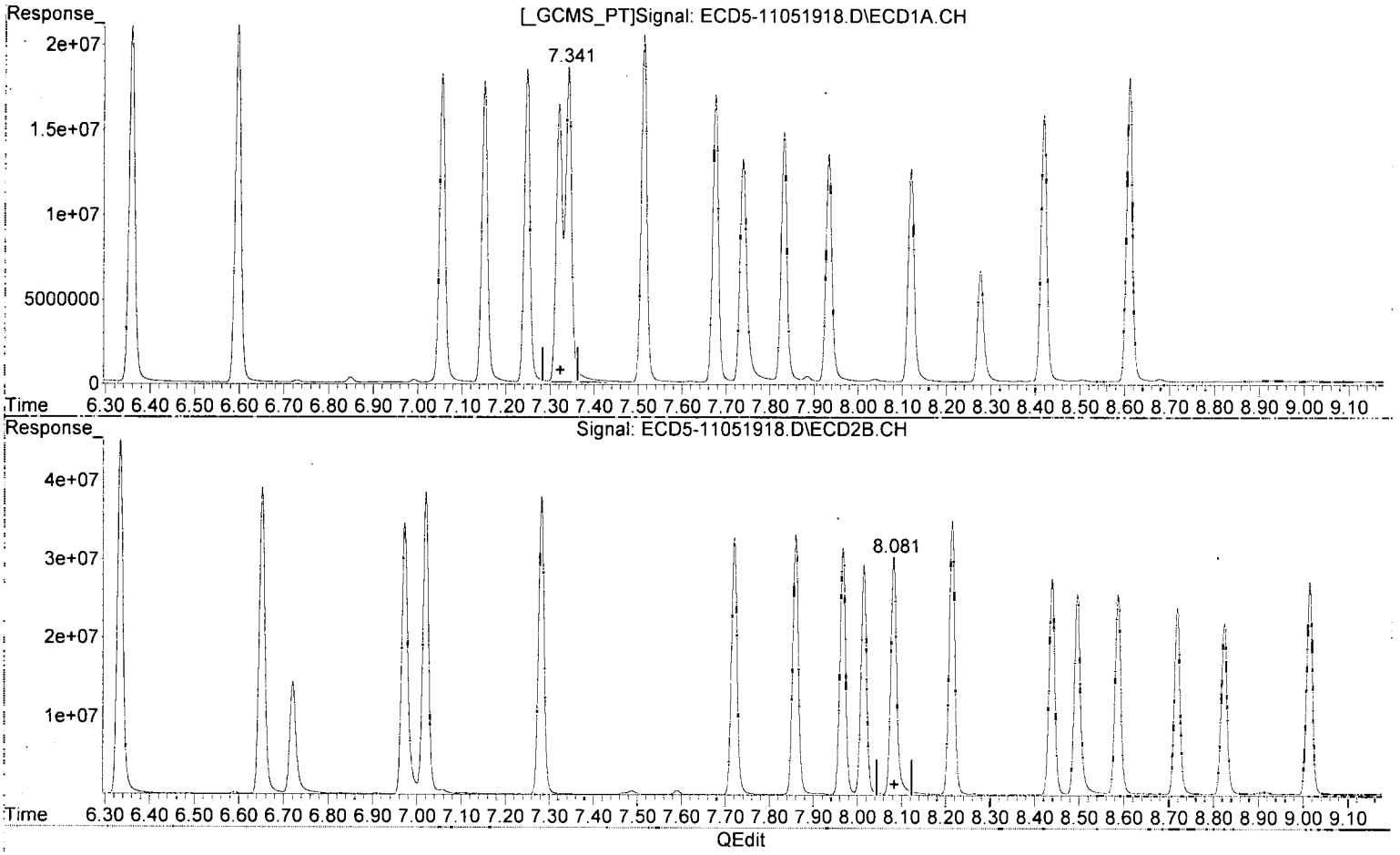
response 30261969

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.340min 101.496 ng/mL

response 19134917

MJB 11/6/19

(12) 4,4'-DDE #2

8.082min 97.406 ng/mL

response 30261969

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MT
MB 11/5/19

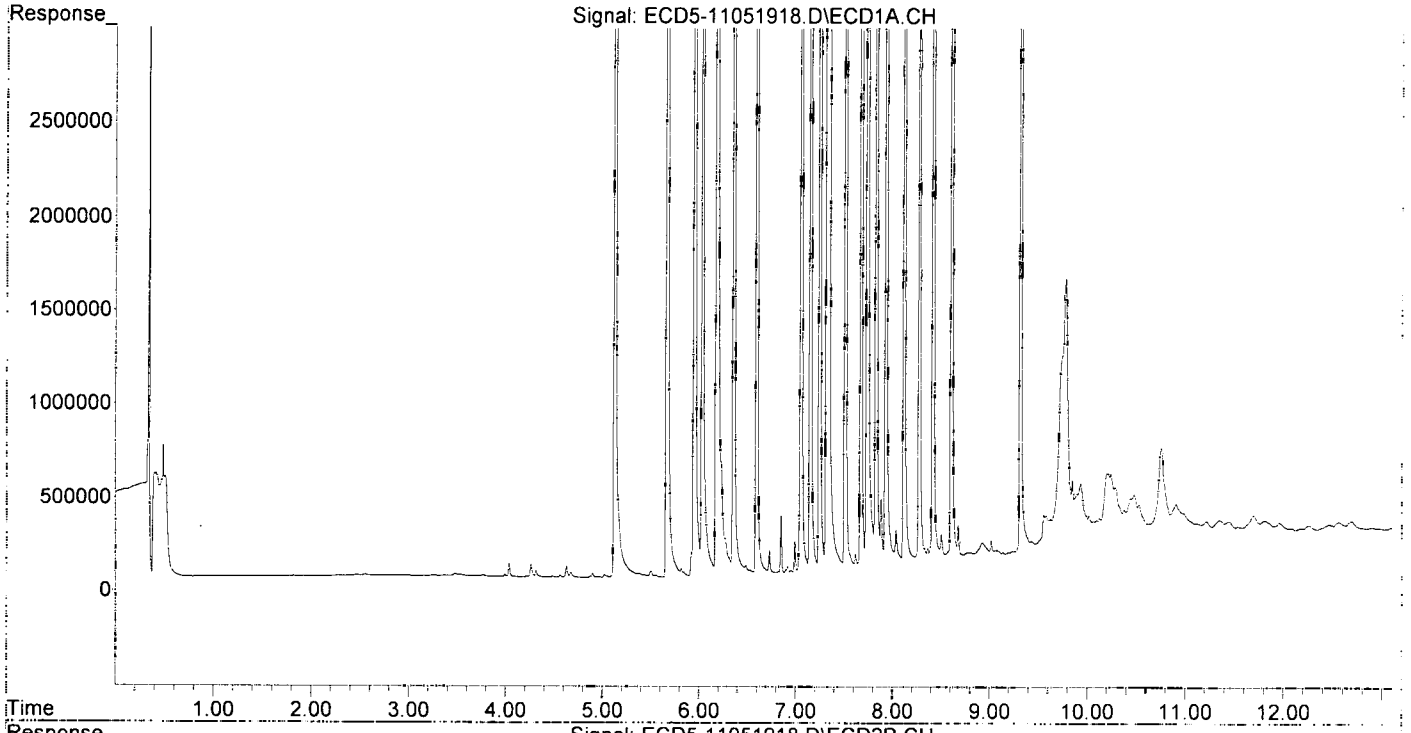
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	6.652	20018551	39032193	99.211	109.425	
4)		b-BHC	6.032	6.721	6630186	14299555	73.356	90.351	
5)		Heptachlor	6.358	7.020	20993237	38383285	115.795	125.445	
6)		d-BHC	6.181	6.972	16640343	34630500	84.602	98.196	
7)		Aldrin	6.596	7.282	20892545	37959241	105.814	115.240	
8)		Heptachlo...	7.055	7.720	18254338	32720942	99.112	108.762	
9)		trans-Chl...	7.151	7.859	17720719	33142512	95.844	105.776	
10)		cis-Chlor...	7.247	7.967	18541582	31386031	101.837	107.764	
11)		Endosulfa...	7.340	8.014	19134917	29266801	112.439	106.356	
12)		4,4'-DDE	7.340	8.082	19134917	30261969	101.495	97.406	
13)		Dieldrin	7.513	8.214	20409281	34832482	106.310	114.524	
14)		Endrin	7.675	8.439	16969990	27534492	115.421	121.927	
15)		4,4'-DDD	7.738	8.495	13114509	25596829	83.457	99.904	
16)		Endosulfa...	7.831	8.586	14760099	25450565	102.778	110.364	
17)		4,4'-DDT	7.933	8.719	13443623	23788286	112.442	113.803	
18)		Endrin Al...	8.120	8.824	12595562	21847854	100.277	105.477	
19)		Endosulfa...	8.418	9.014	15792326	27184436	101.901	109.136	
20)		Methoxychlor	8.277	9.200	6608443	11370574	112.822	112.881	
21)		Endrin Ke...	8.610	9.406	17780940	29922970	106.627	116.289	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.503	6.237f	32763	16345	0.186	0.052	#
25)		Oxychlordane	6.993	7.660	162402	6040	0.987	0.022	#
26)		2,4'-DDE	7.055	7.859	18254338	33142512	142.322	156.231	
27)		trans-Non...	7.247	7.920	18541582	119737	103.296	0.397	#
28)		2,4'-DDD	0.000	8.214f	0	34832482	N.D.	184.432	#
29)		2,4'-DDT	7.620	8.439	70377	27534492	0.642	154.394	#
30)		cis-Nonac...	7.738f	8.495	13114509	25596829	63.167	76.306	
31)		Mirex	0.000	9.406	0	29922970	N.D.	160.813	#
32)		Chlordane...	7.247	7.967f	18541582	31386031	941.694	867.387	
33)		Chlordane...	7.340	8.082f	19134917	30261969	763.433	996.638	
34)		Chlordane...	7.884	8.719	361649	23788286	62.557	2653.202	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.352	0	8812	N.D.	3.358	#
37)		Toxaphene...	7.675	8.719	16969990	23788286	10508.134	7228.230	
38)		Toxaphene...	8.039f	8.719f	184535	23788286	54.799	4693.528	#
39)		Toxaphene...	8.277f	8.824	6608443	21847854	2039.547	2616.562	
40)		Toxaphene...	8.505f	9.014f	142043	27184436	59.255	5833.122	#
41)		Toxaphene...	8.505f	9.406f	142043	29922970	44.885	6299.304	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

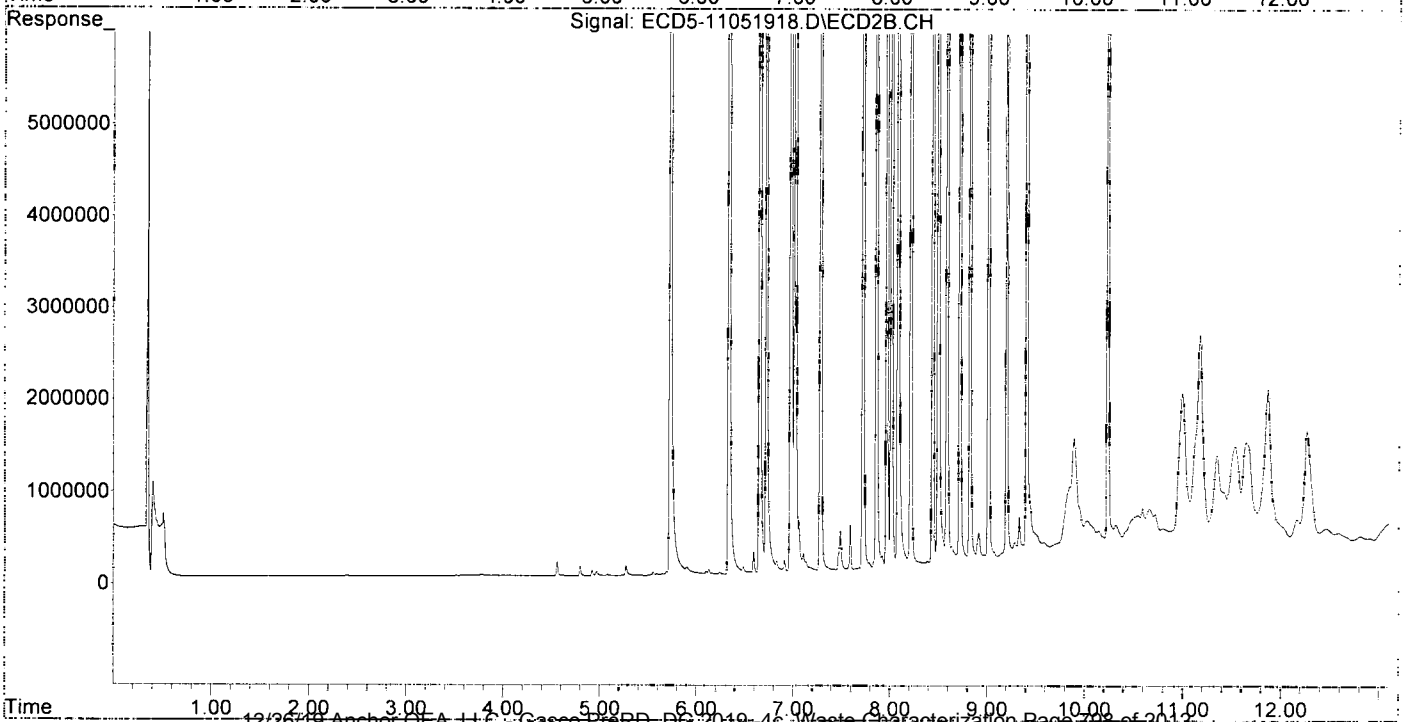
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:21:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/5/19

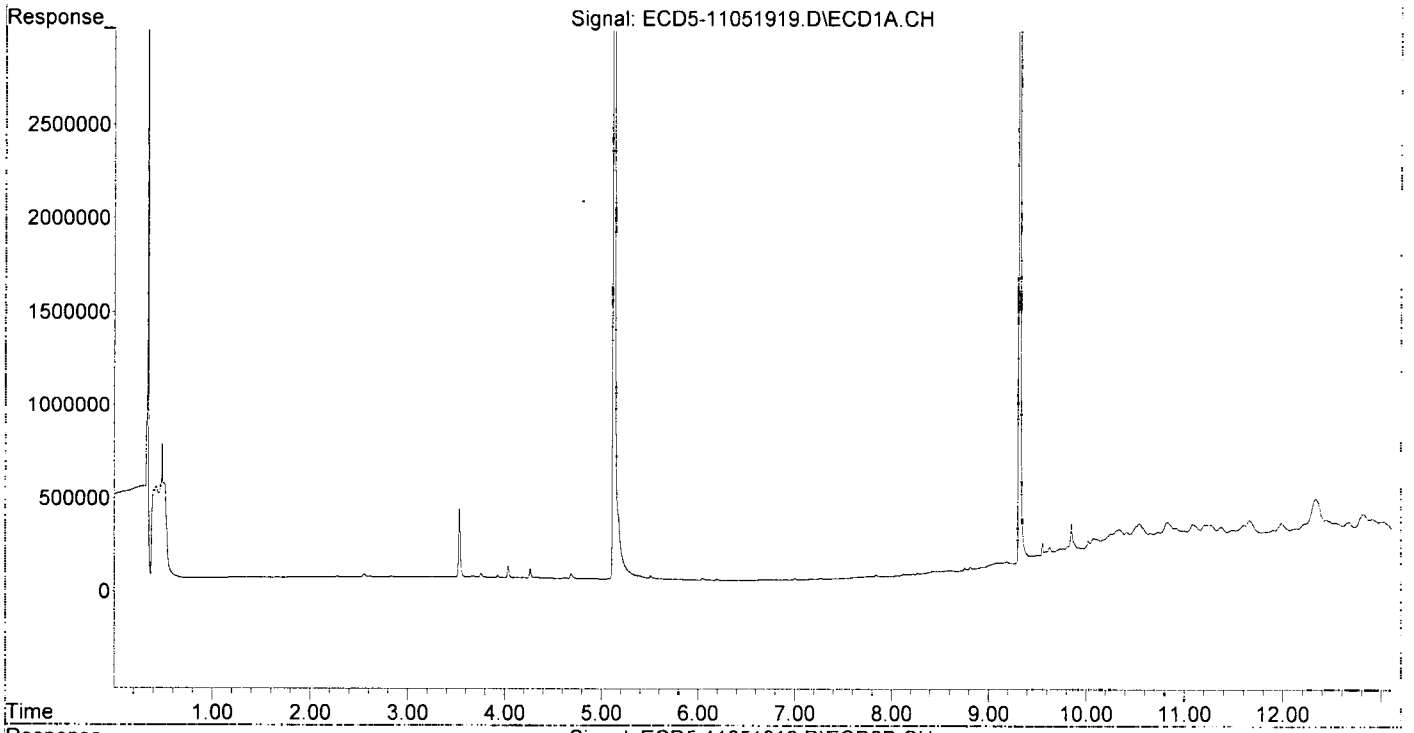
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)		b-BHC	6.046	0.000	10028	0	0.111	N.D. #
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.
6)		d-BHC	6.197	6.979	5567	11705	0.028	0.033
7)		Aldrin	6.636f	0.000	1877	0	0.010	N.D. #
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.
9)		trans-Chl...	7.160	7.875	2392	53749	0.013	0.172m#
10)		cis-Chlor...	7.261	7.987	3577	61589	0.020	0.211m#
11)		Endosulfa...	7.307f	8.043f	1210	65761	0.007	0.239m#
12)		4,4'-DDE	7.307	8.101	1210	68692	0.006	0.221m#
13)		Dieldrin	0.000	8.199	0	57989	N.D.	0.191m#
14)		Endrin	7.662	8.410f	2088	92097	0.014	0.408m#
15)		4,4'-DDD	7.755	8.477f	2813	74461	0.018	0.291m#
16)		Endosulfa...	7.841	8.585	10158	90808	0.071	0.394m#
17)		4,4'-DDT	0.000	8.700	0	77629	N.D.	0.414m#
18)		Endrin Al...	8.127	8.851f	6239	159366	BelowCal	0.023m
19)		Endosulfa...	8.425	9.011	13743	314104	0.089	1.261m# P-01
20)		Methoxychlor	8.271	9.180f	5374	146645	0.092	1.631m#
21)		Endrin Ke...	8.616	9.419	6744	237132	0.040	0.922m#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.
24)		Hexachlor...	5.510	6.174f	15297	5362	0.087	0.017 #
25)		Oxychlordane	7.002	7.625f	9682	16735	0.059	0.061
26)		2,4'-DDE	0.000	7.902f	0	18075	N.D.	0.085 #
27)		trans-Non...	7.261	7.902f	3577	18075	87346.680	0.060 #
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.
29)		2,4'-DDT	7.605	0.000	1545	0	0.014	N.D. #
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.
31)		Mirex	8.381	0.000	7274	0	0.058	N.D. #
32)		Chlordane...	7.261f	0.000	3577	0	0.182	N.D. #
33)		Chlordane...	7.307f	0.000	1210	0	0.048	N.D. #
34)		Chlordane...	7.841f	0.000	10158	0	1.757	N.D. #
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.
36)		Toxaphene...	0.000	8.387f	0	33408	N.D.	12.730 #
37)		Toxaphene...	7.662f	0.000	2088	0	1.293	N.D. #
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.
39)		Toxaphene...	8.227	0.000	4080	0	1.259	N.D. #
40)		Toxaphene...	0.000	9.011f	0	242527	N.D.	52.040 #
41)		Toxaphene...	8.563f	0.000	7598	0	2.401	N.D. #
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.

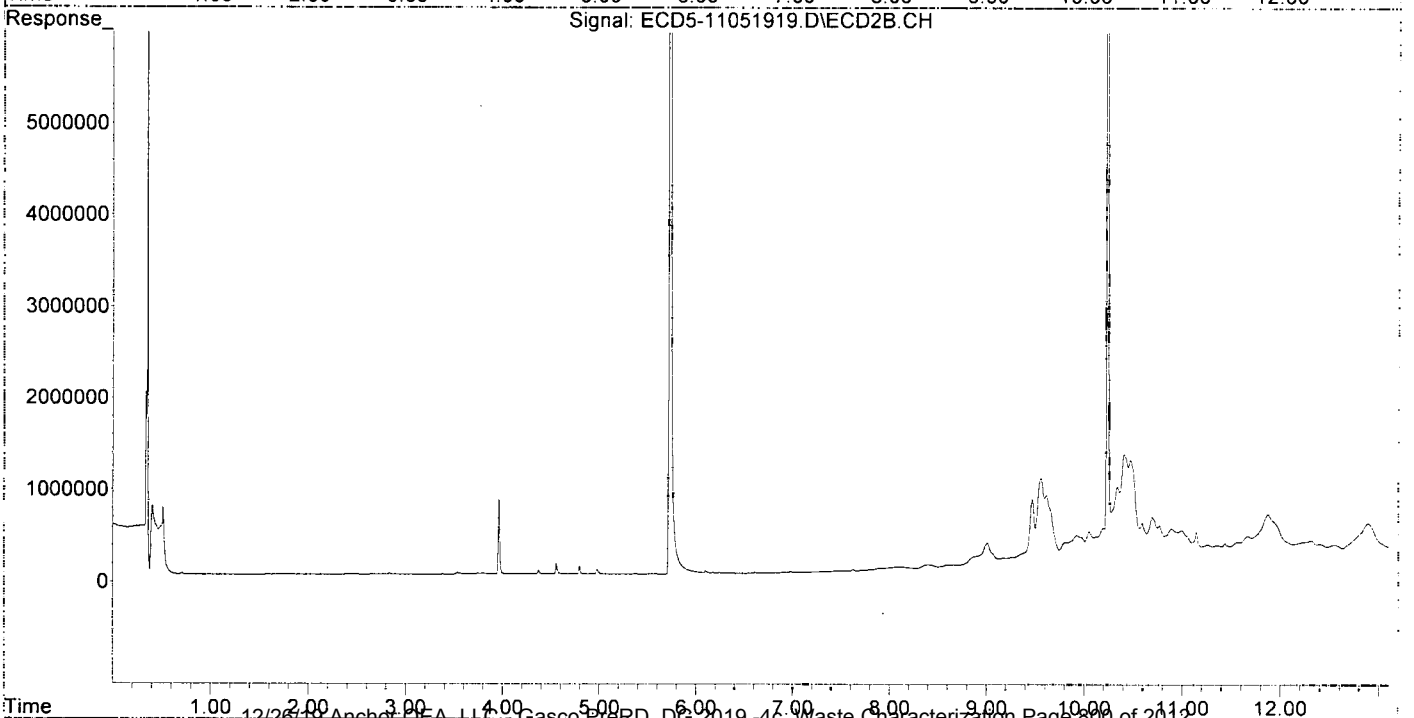
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:21:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

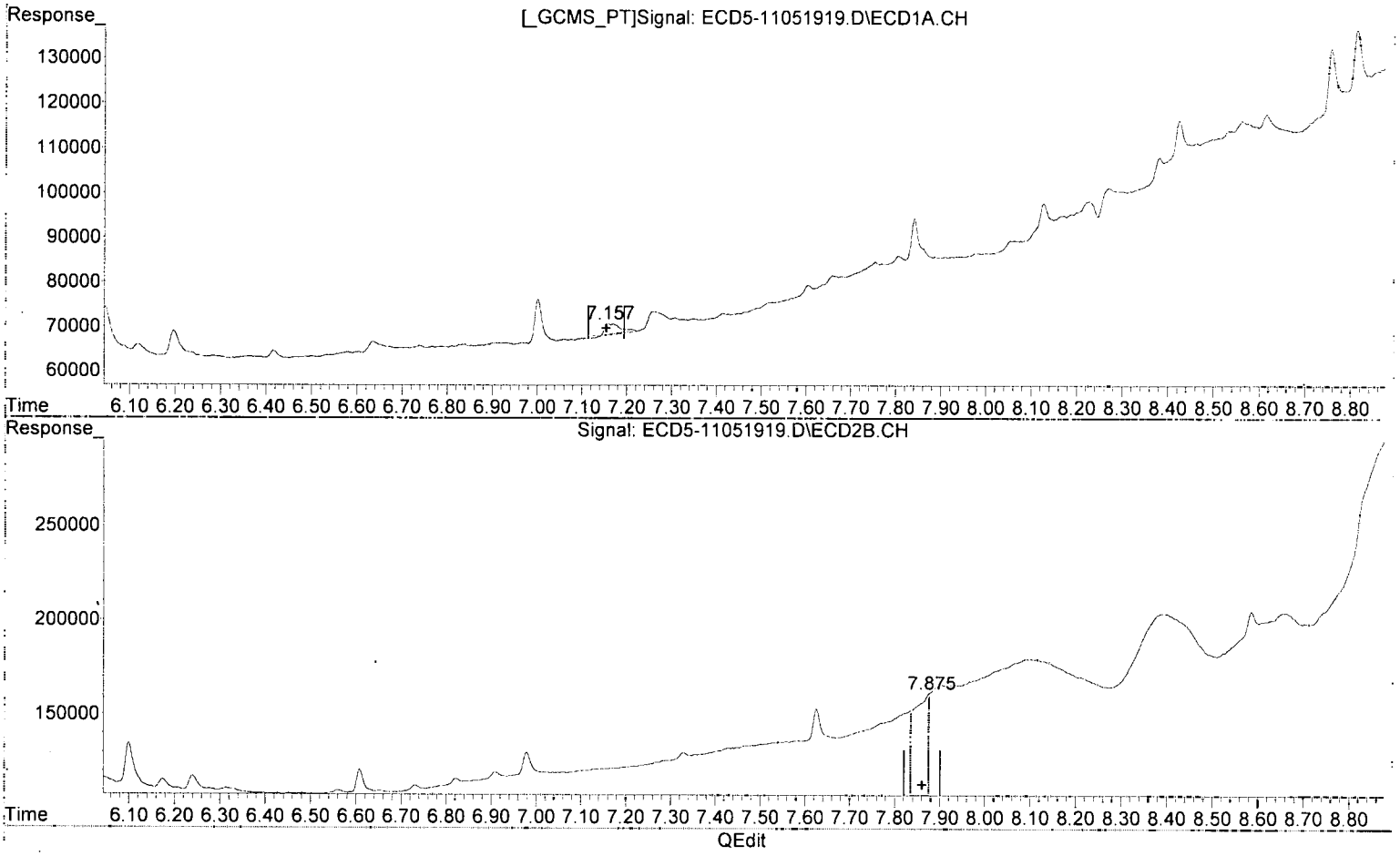




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(9) trans-Chlordane

7.160min 0.013 ng/mL

response 2392

MB 11/5/19

(9) trans-Chlordane #2

7.875min 0.172 ng/mL m

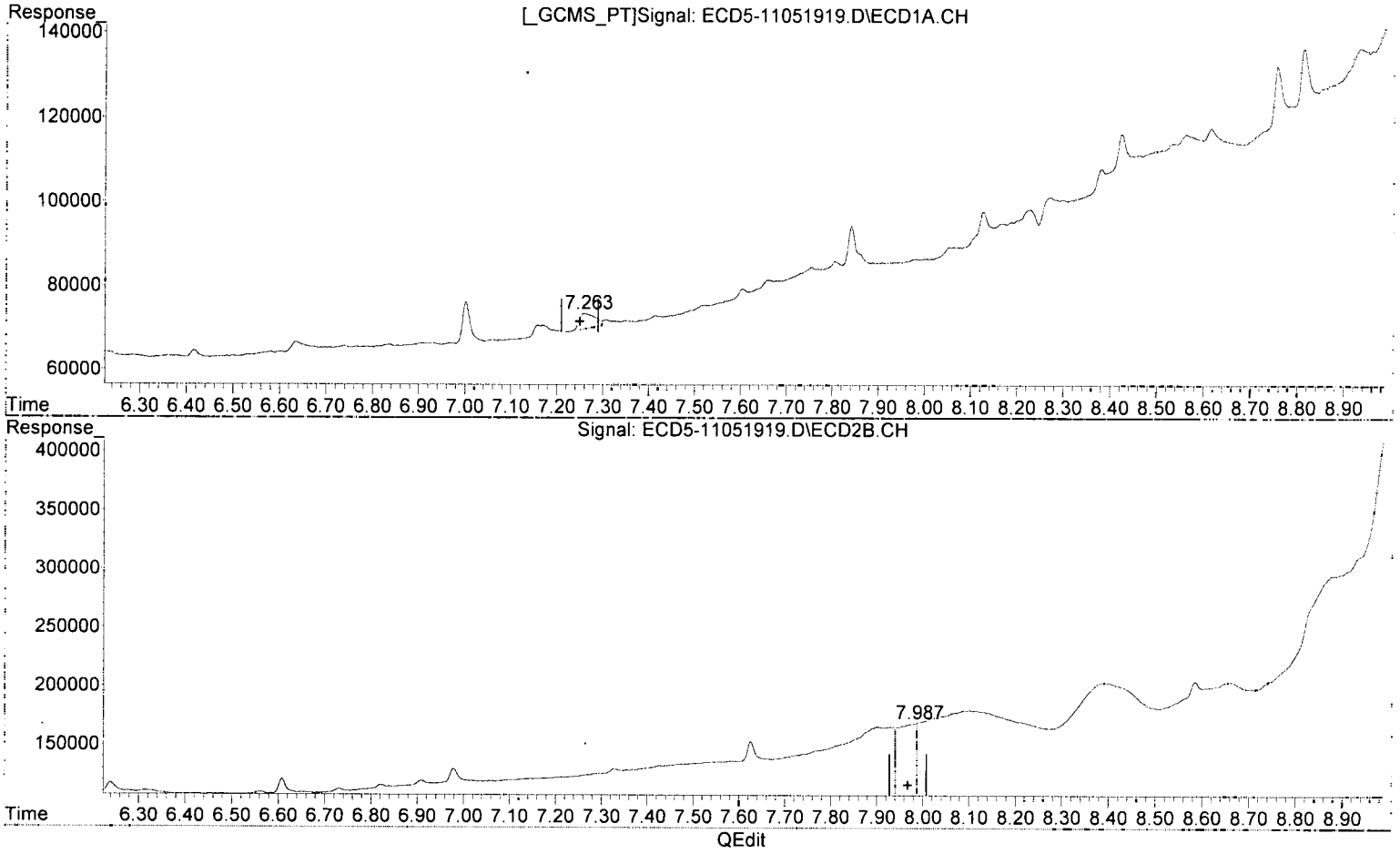
response 53749

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(10) cis-Chlordane

7.261min 0.020 ng/mL

response 3577

MJB 11/5/19

(10) cis-Chlordane #2

7.987min 0.211 ng/mL (m)

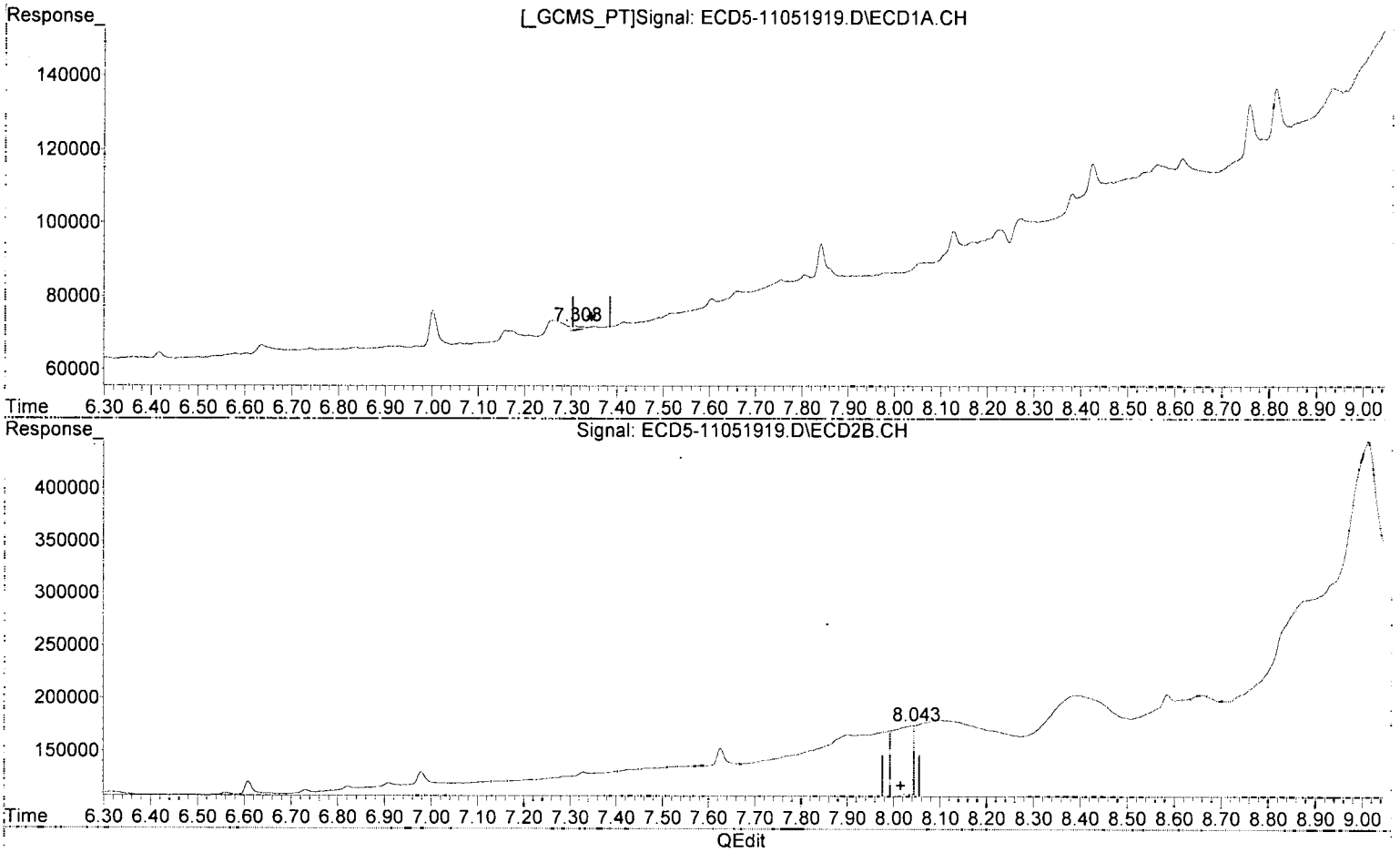
response 61589

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.307min 0.007 ng/mL

response 1210

MJB 11/5/19

(11) Endosulfan I #2

8.043min 0.239 ng/mL (m)

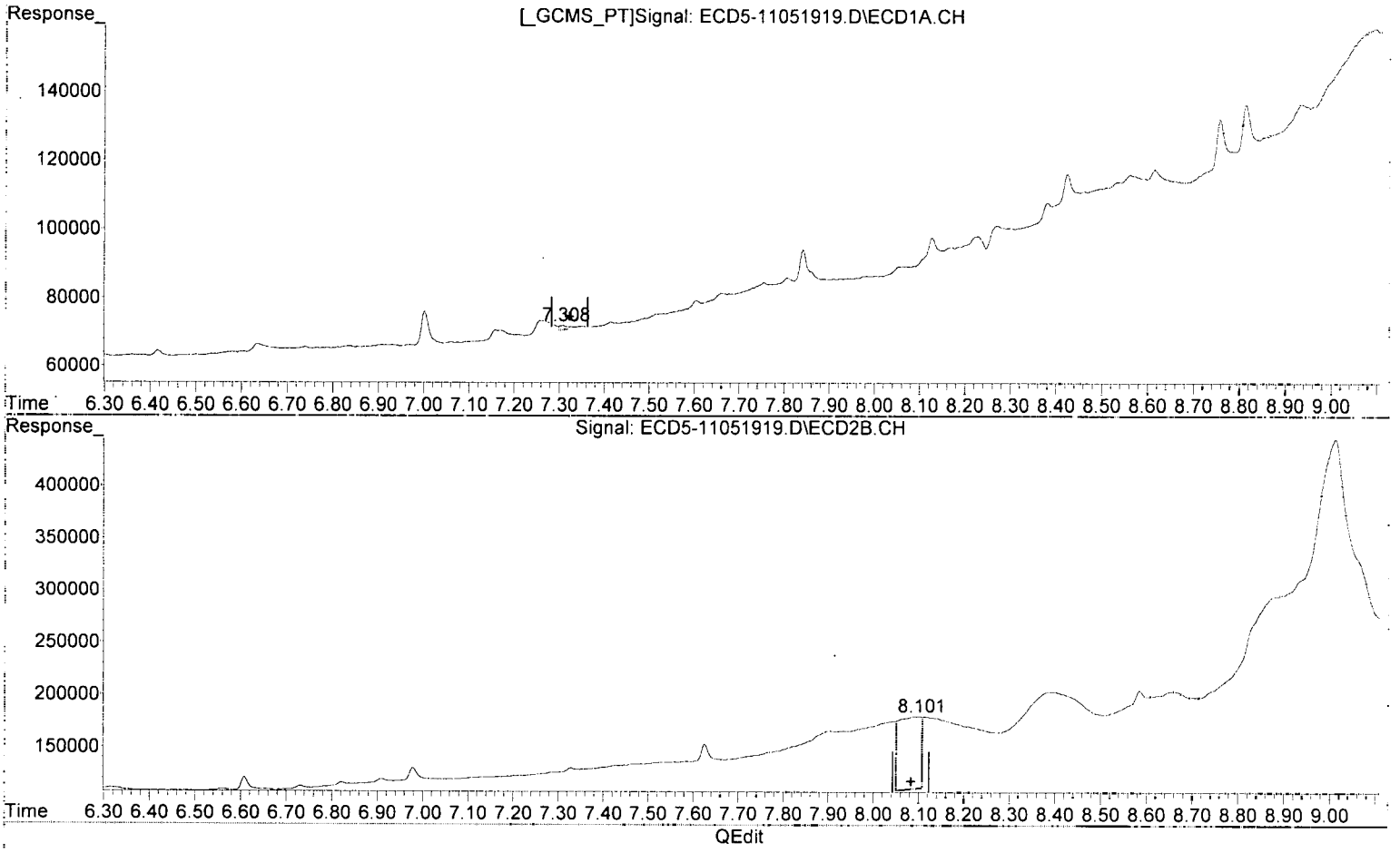
response 65761

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.307min 0.006 ng/mL

response 1210

MJB 11/5/19

(12) 4,4'-DDE #2

8.101min 0.221 ng/mL (m)

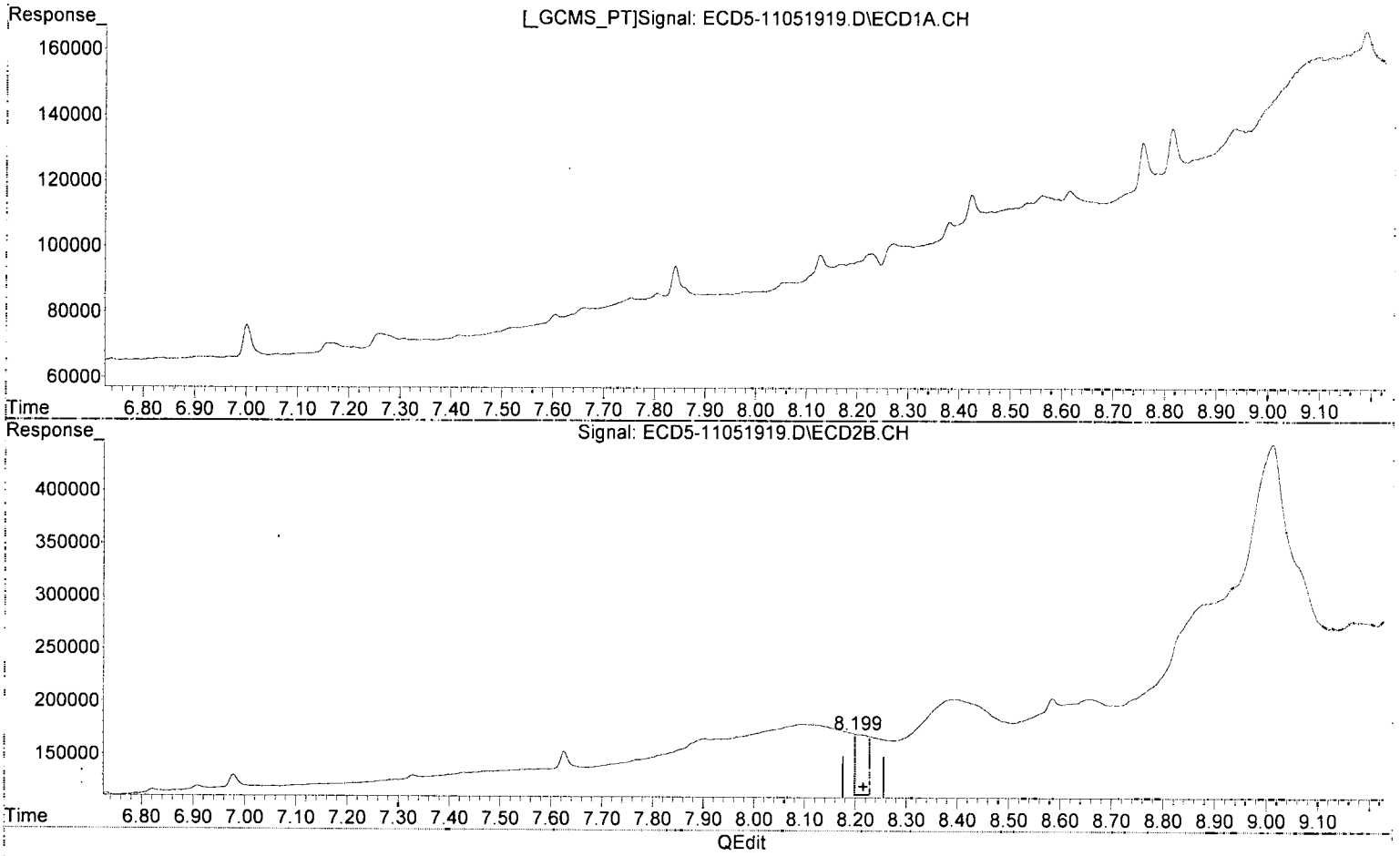
response 68692

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(13) Dieldrin

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(13) Dieldrin #2

8.199min 0.191 ng/mL (m)

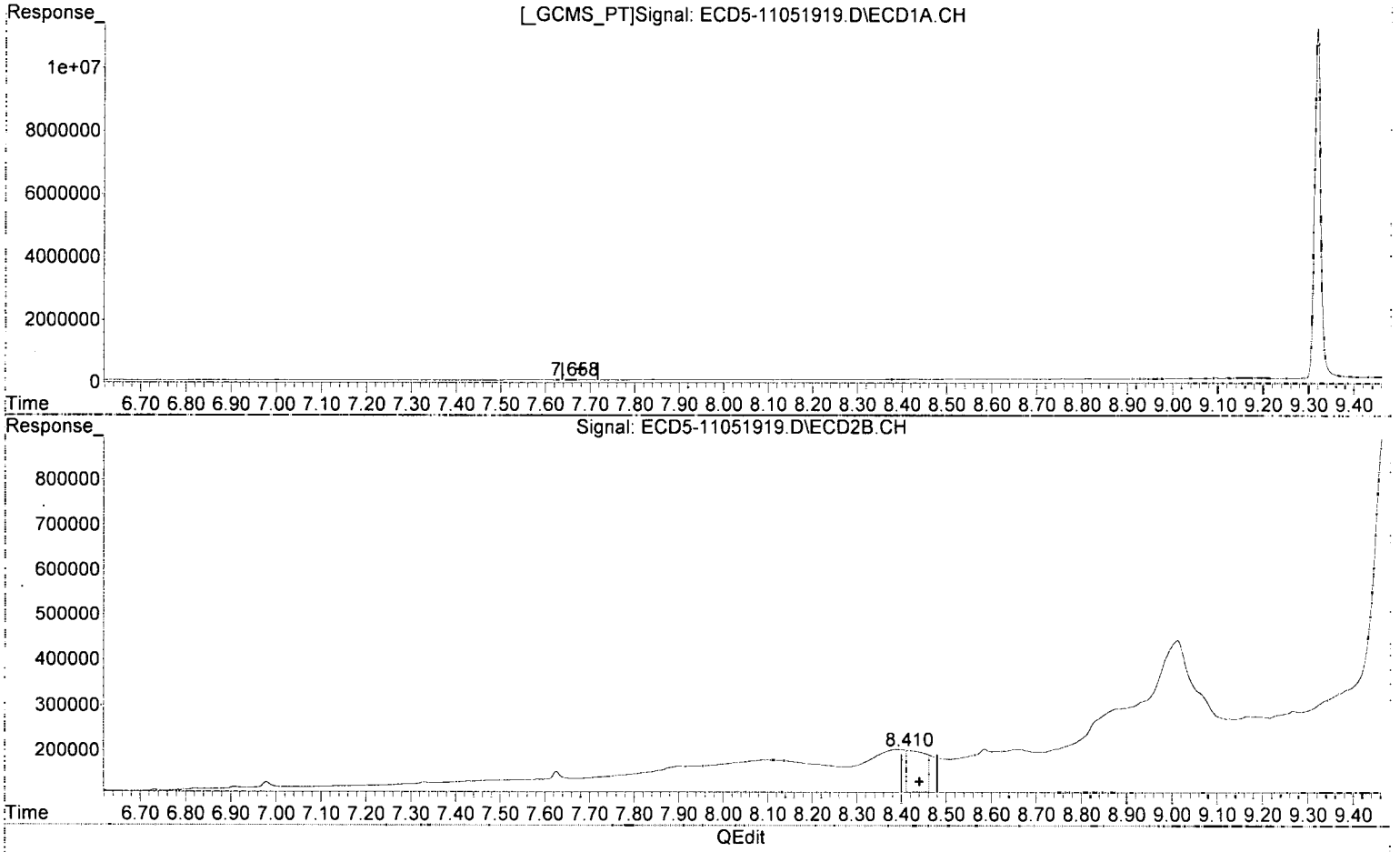
response 57989

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Endrin

7.662min 0.014 ng/mL

response 2088

MJB 11/5/19

(14) Endrin #2

8.410min 0.408 ng/mL (m)

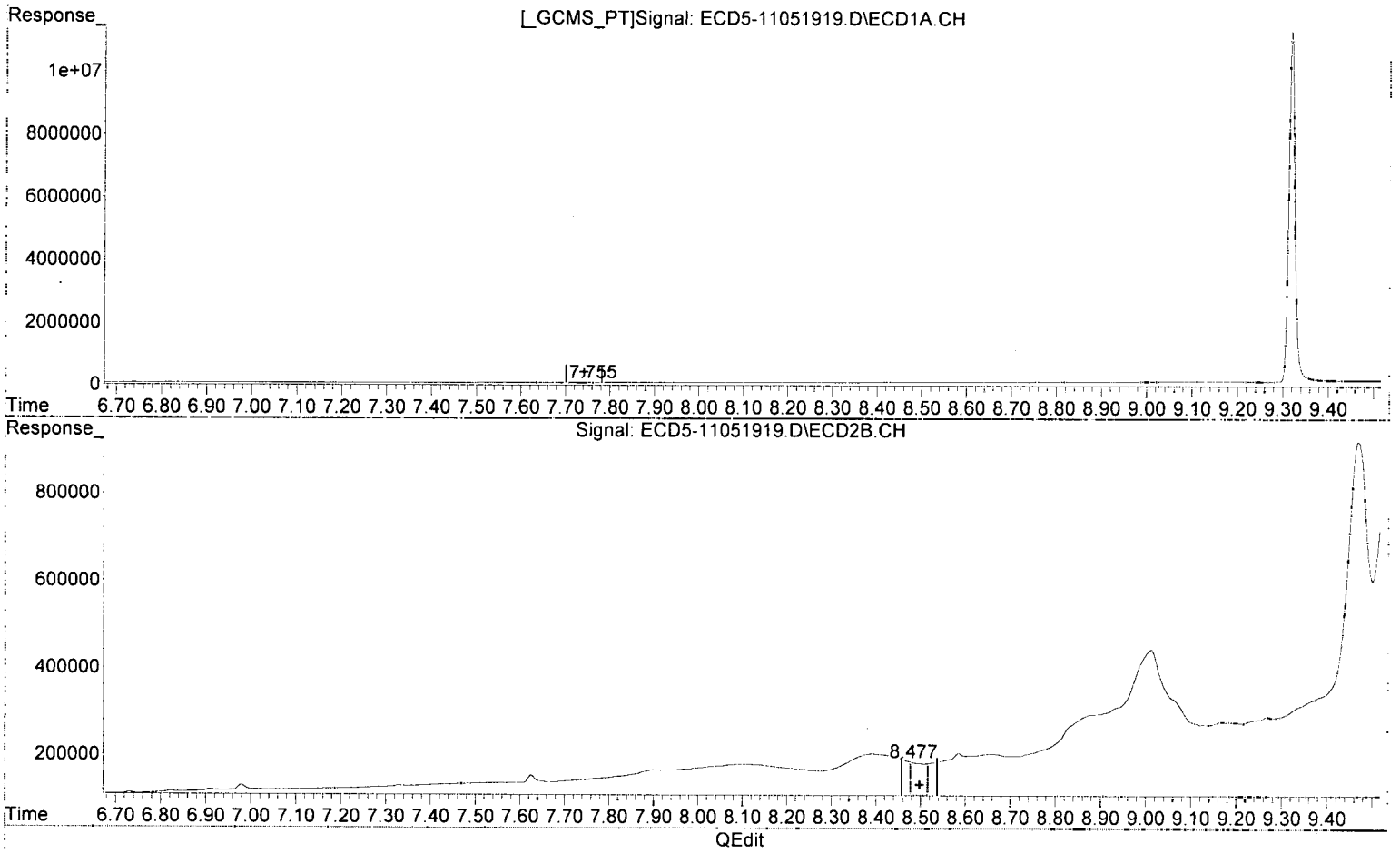
response 92097

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.755min 0.018 ng/mL

response 2813

MJB 11/5/19

(15) 4,4'-DDD #2

8.477min 0.291 ng/mL (m)

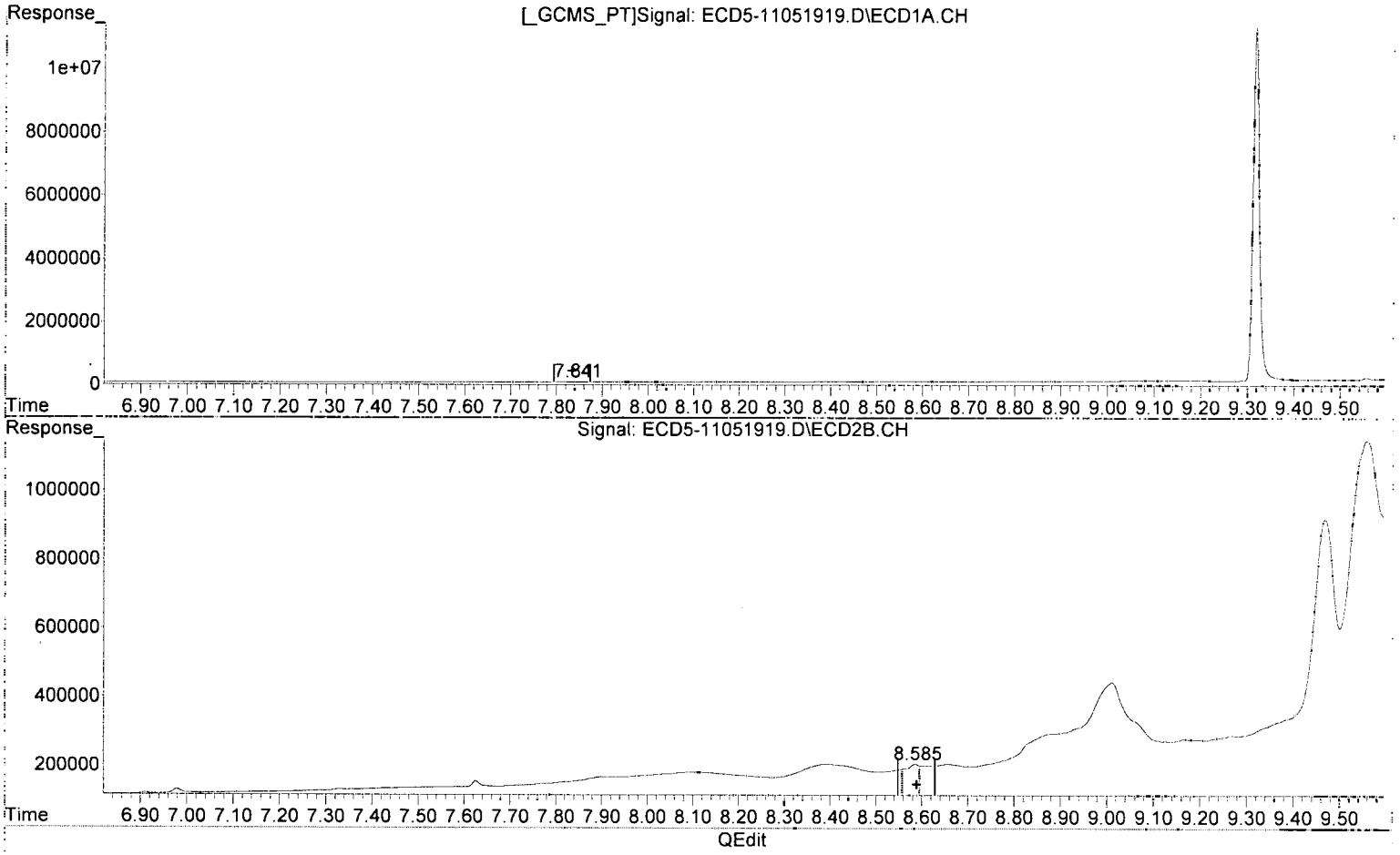
response 74461

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(16) Endosulfan II

7.841min 0.071 ng/mL

response 10158

MJB 11/5/19

(16) Endosulfan II #2

8.585min 0.394 ng/mL m

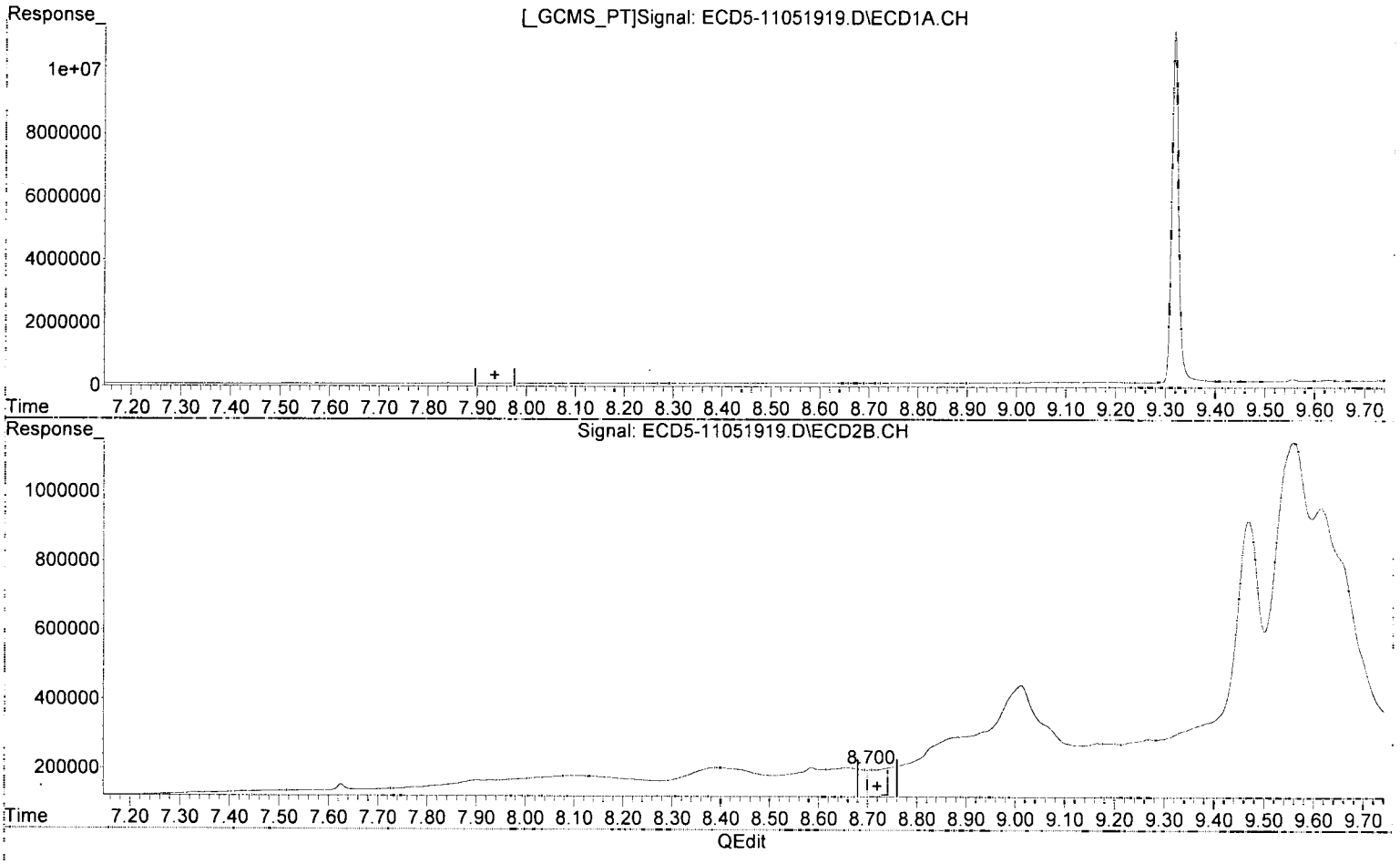
response 90808

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

0.000min 0.000 ng/mL

response 0

MJB 11/5/19

(17) 4,4'-DDT #2

8.700min 0.414 ng/mL (m)

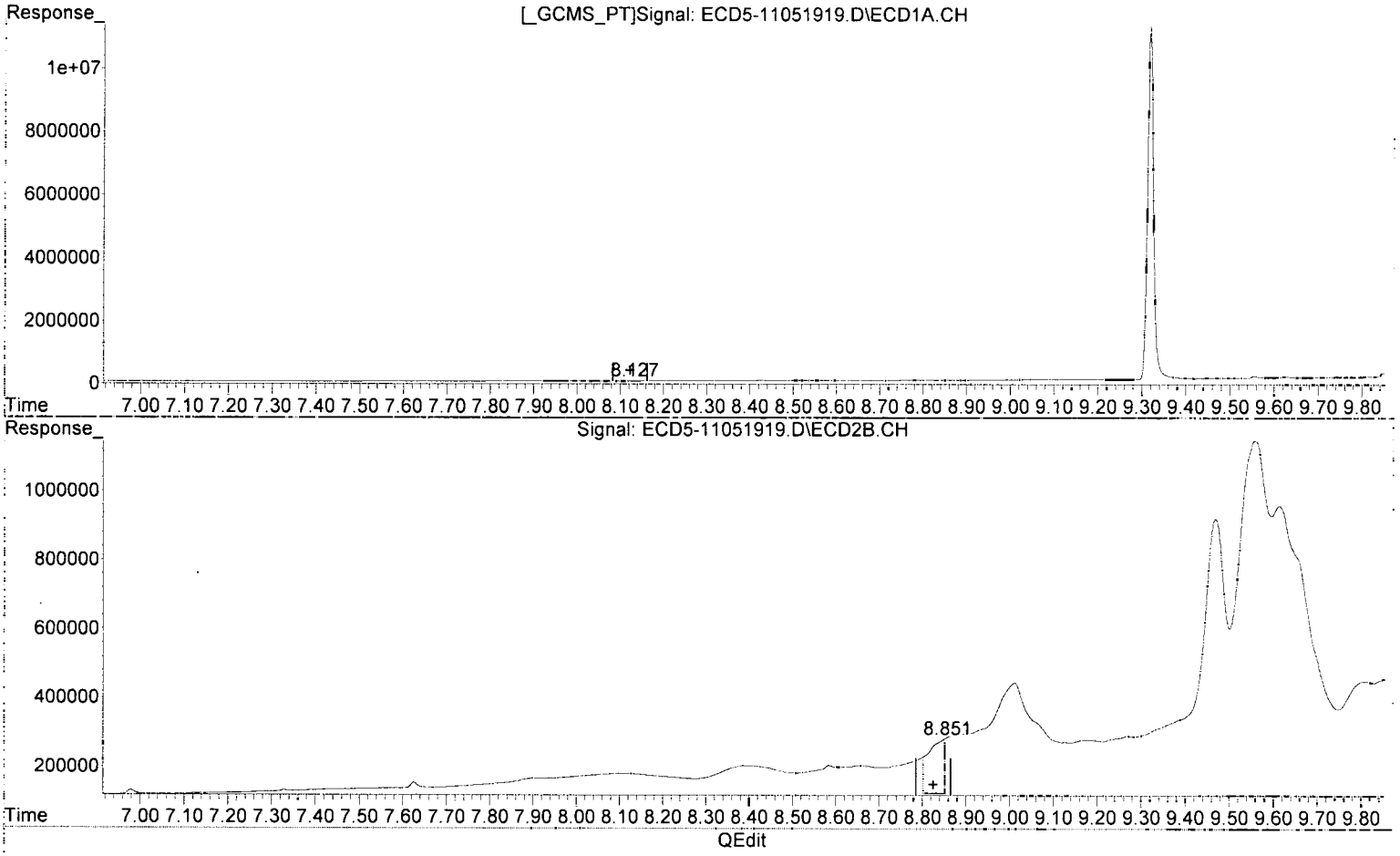
response 77629

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.127min -0.970 ng/mL

response 6239

MJB 11/5/19

(18) Endrin Aldehyde #2

8.851min 0.023 ng/mL (m)

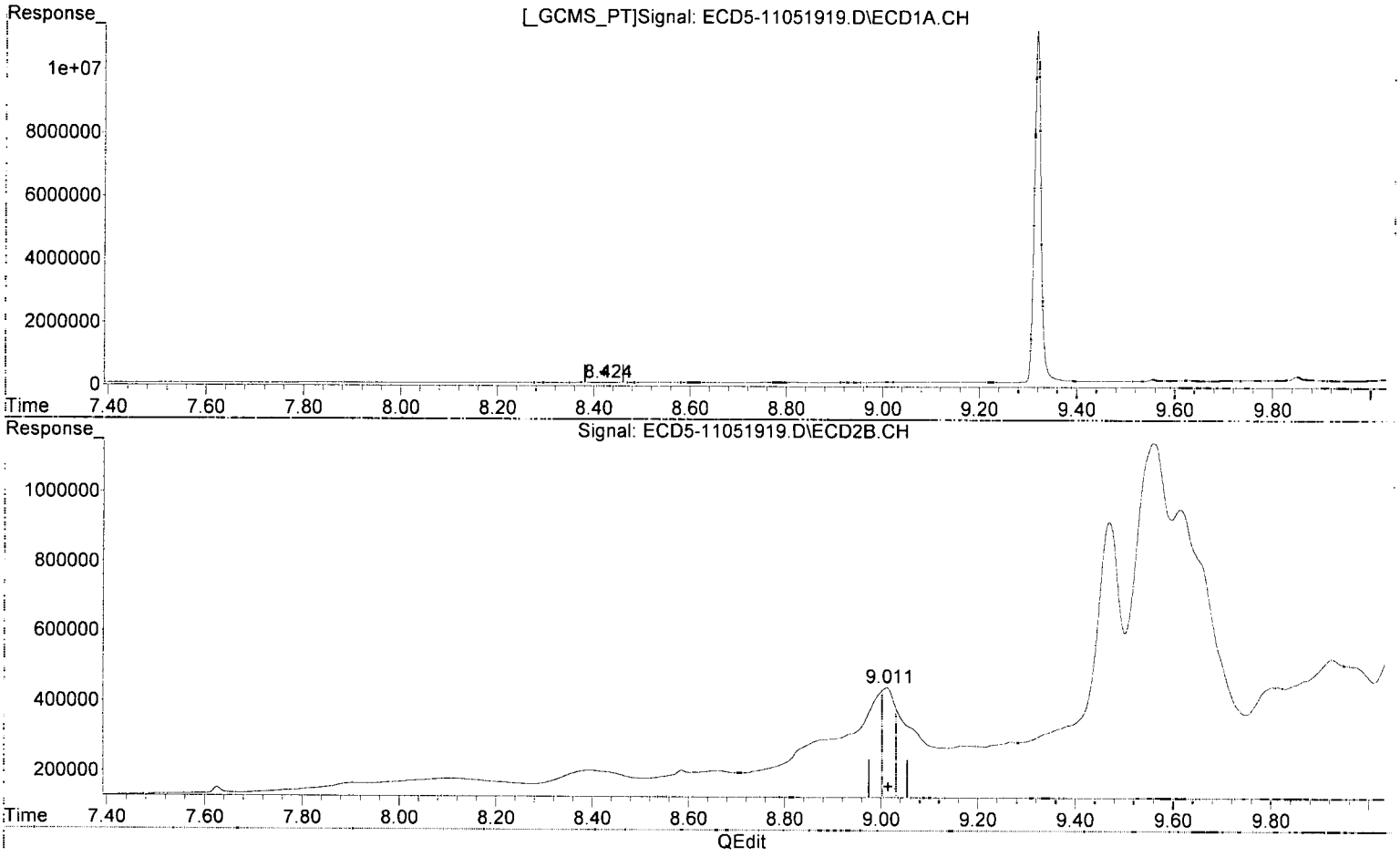
response 159366

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(19) Endosulfan Sulfate

8.425min 0.089 ng/mL

response 13743

MJB 11/5/19

(19) Endosulfan Sulfate #2

9.011min 1.261 ng/mL (m) P-Q1

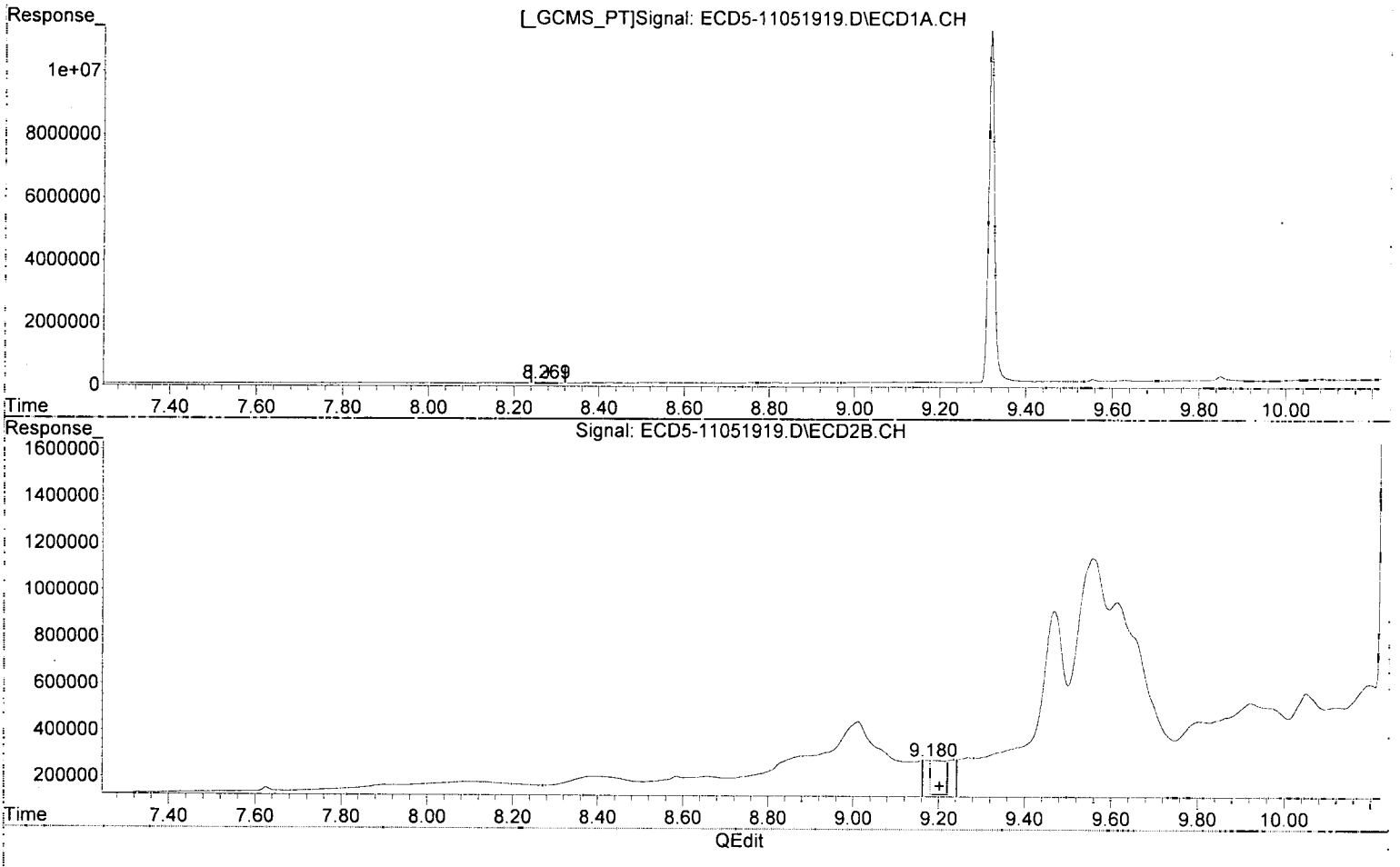
response 314104

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.271min 0.092 ng/mL

response 5374

WB 11/5/19

(20) Methoxychlor #2

9.180min 1.631 ng/mL (m)

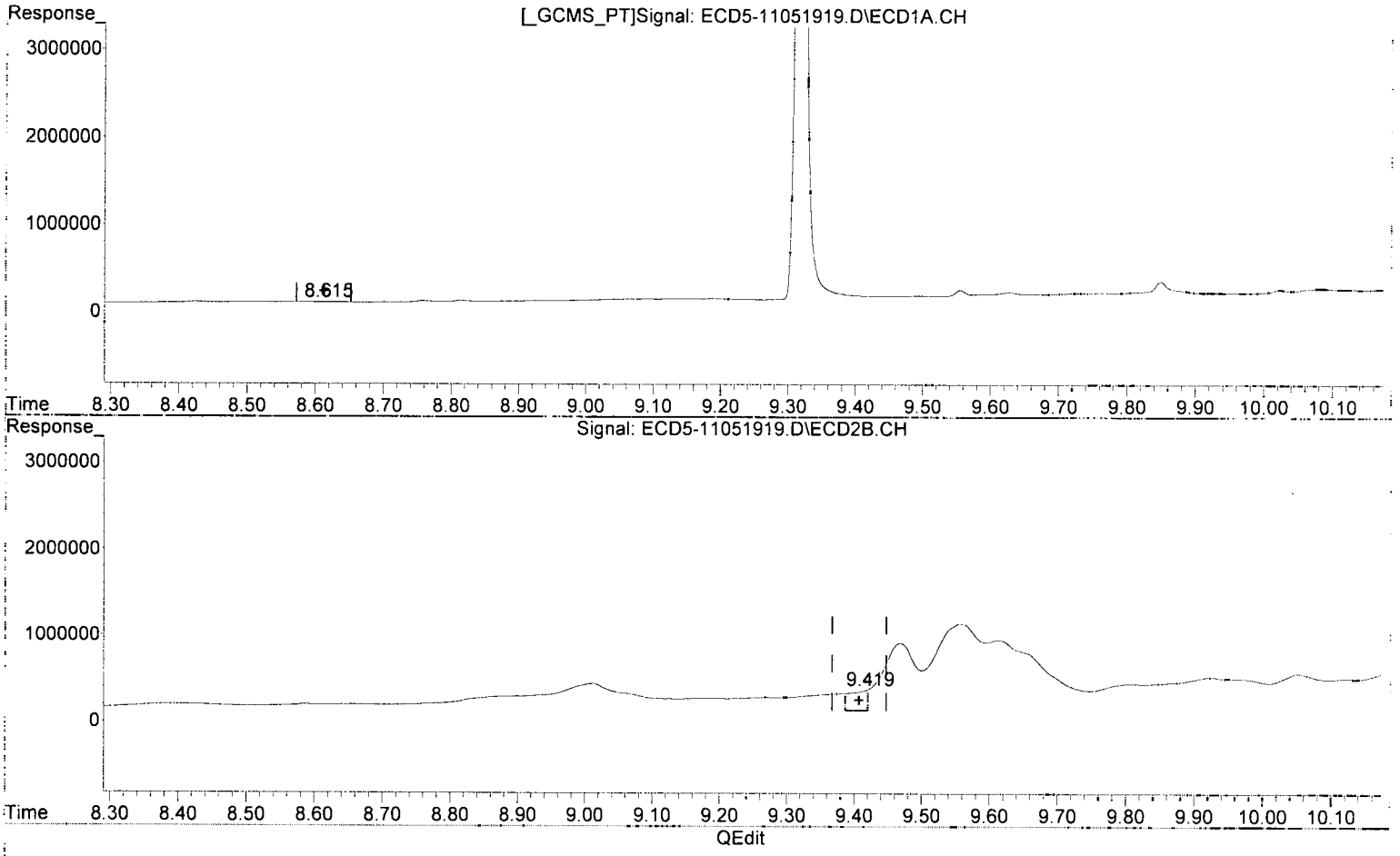
response 146645

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(21) Endrin Ketone

8.616min 0.040 ng/mL

response 6744

MJB 11/5/19

(21) Endrin Ketone #2

9.419min 0.922 ng/mL (m)

response 237132

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MI MJB 11/5/19

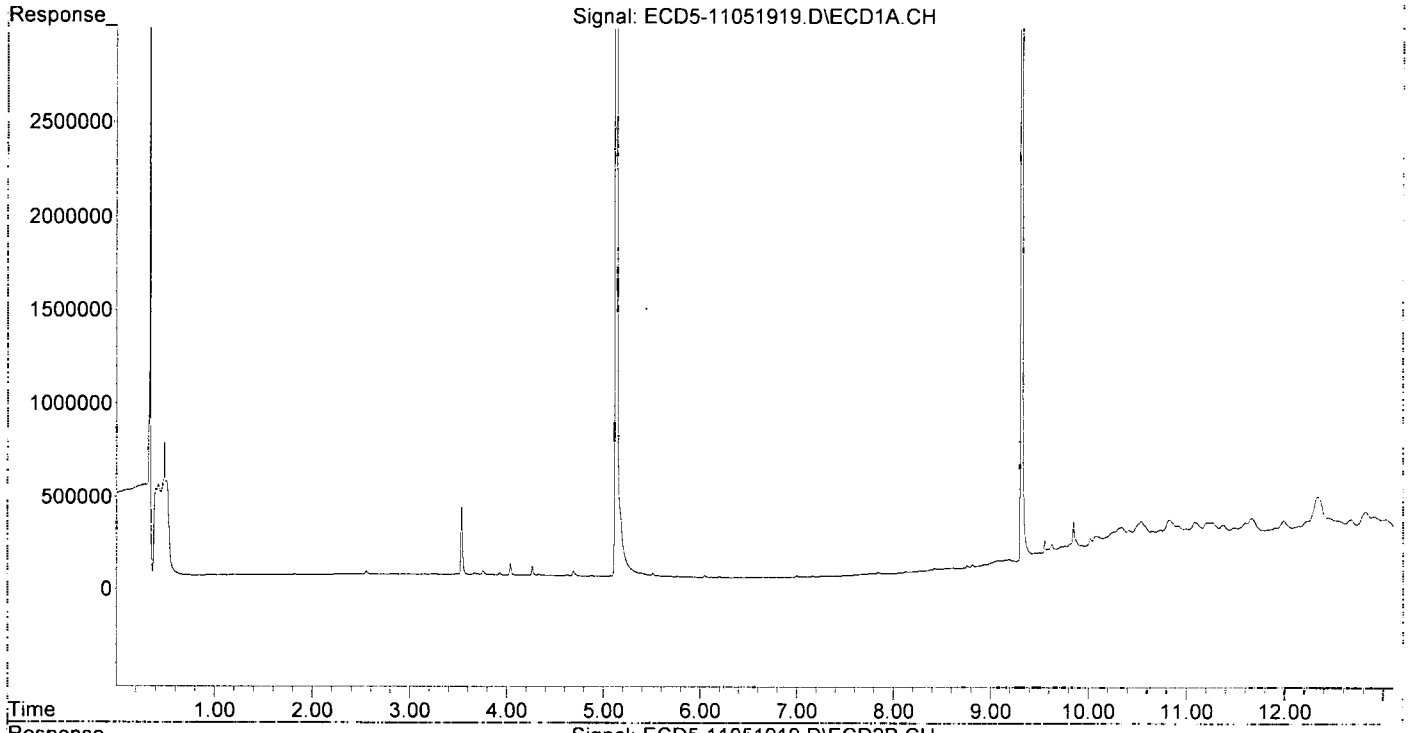
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898	
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.046	0.000	10028	0	0.111	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.197	6.979	5567	11705	0.028	0.033	
7)		Aldrin	6.636f	0.000	1877	0	0.010	N.D.	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.160	0.000	2392	0	0.013	N.D.	#
10)		cis-Chlor...	7.261	0.000	3577	0	0.020	N.D.	#
11)		Endosulfa...	7.307f	0.000	1210	0	0.007	N.D.	#
12)		4,4'-DDE	7.307	8.100	1210	23213	0.006	0.075	#
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.662	0.000	2088	0	0.014	N.D.	#
15)		4,4'-DDD	7.755	0.000	2813	0	0.018	N.D.	#
16)		Endosulfa...	7.841	8.585	10158	24402	0.071	0.106	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.127	0.000	6239	0	BelowCal	N.D.	
19)		Endosulfa...	8.425	9.011	13743	242527	0.089	0.974	#
20)		Methoxychlor	8.271	9.165f	5374	68124	0.092	0.659	#
21)		Endrin Ke...	8.616	0.000	6744	0	0.040	N.D.	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.510	6.174f	15297	5362	0.087	0.017	#
25)		Oxychlordane	7.002	7.625f	9682	16735	0.059	0.061	
26)		2,4'-DDE	0.000	7.902f	0	18075	N.D.	0.085	#
27)		trans-Non...	7.261	7.902f	3577	18075	87346.680	0.060	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.605	0.000	1545	0	0.014	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.381	0.000	7274	0	0.058	N.D.	#
32)		Chlordane...	7.261f	0.000	3577	0	0.182	N.D.	#
33)		Chlordane...	7.307f	0.000	1210	0	0.048	N.D.	#
34)		Chlordane...	7.841f	0.000	10158	0	1.757	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.387f	0	33408	N.D.	12.730	#
37)		Toxaphene...	7.662f	0.000	2088	0	1.293	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.227	0.000	4080	0	1.259	N.D.	#
40)		Toxaphene...	0.000	9.011f	0	242527	N.D.	52.040	#
41)		Toxaphene...	8.563f	0.000	7598	0	2.401	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

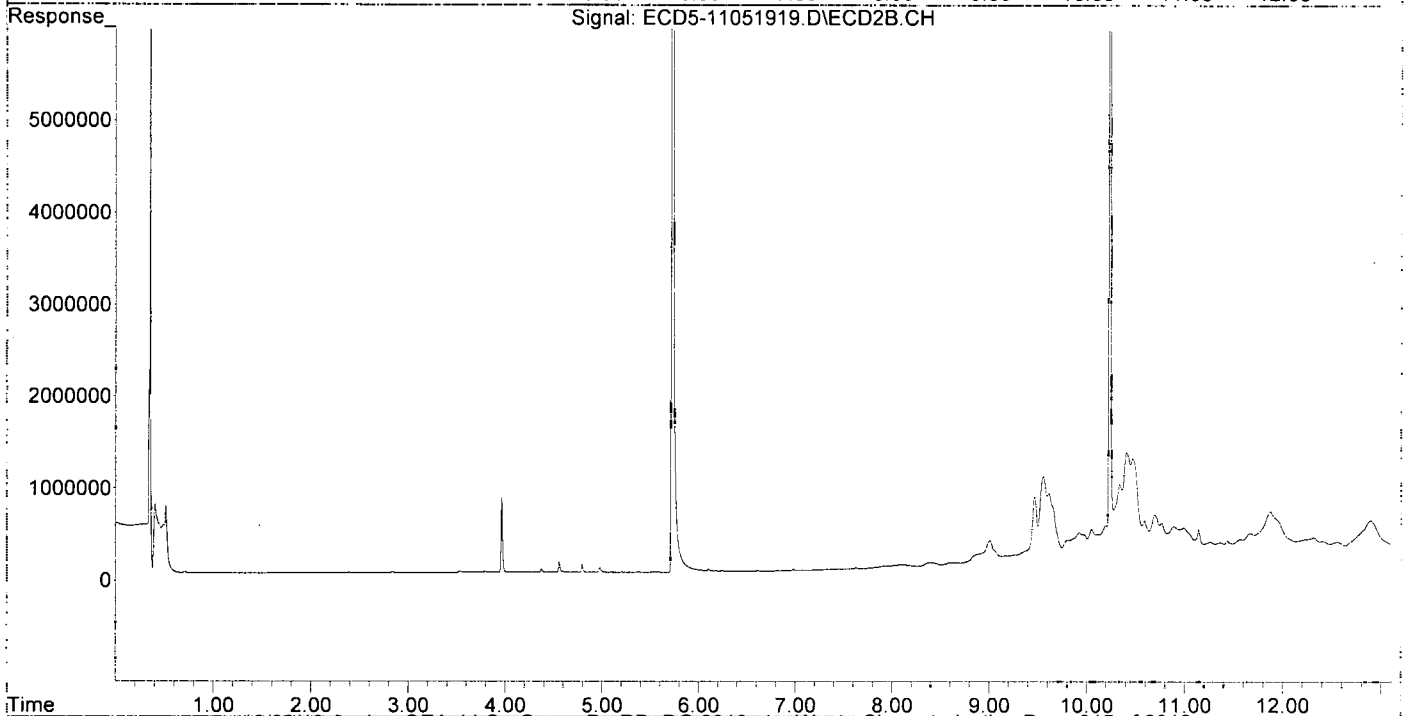
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-CCB2
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB JJ MJB 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:34:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

R-04

LMB 11/6/19

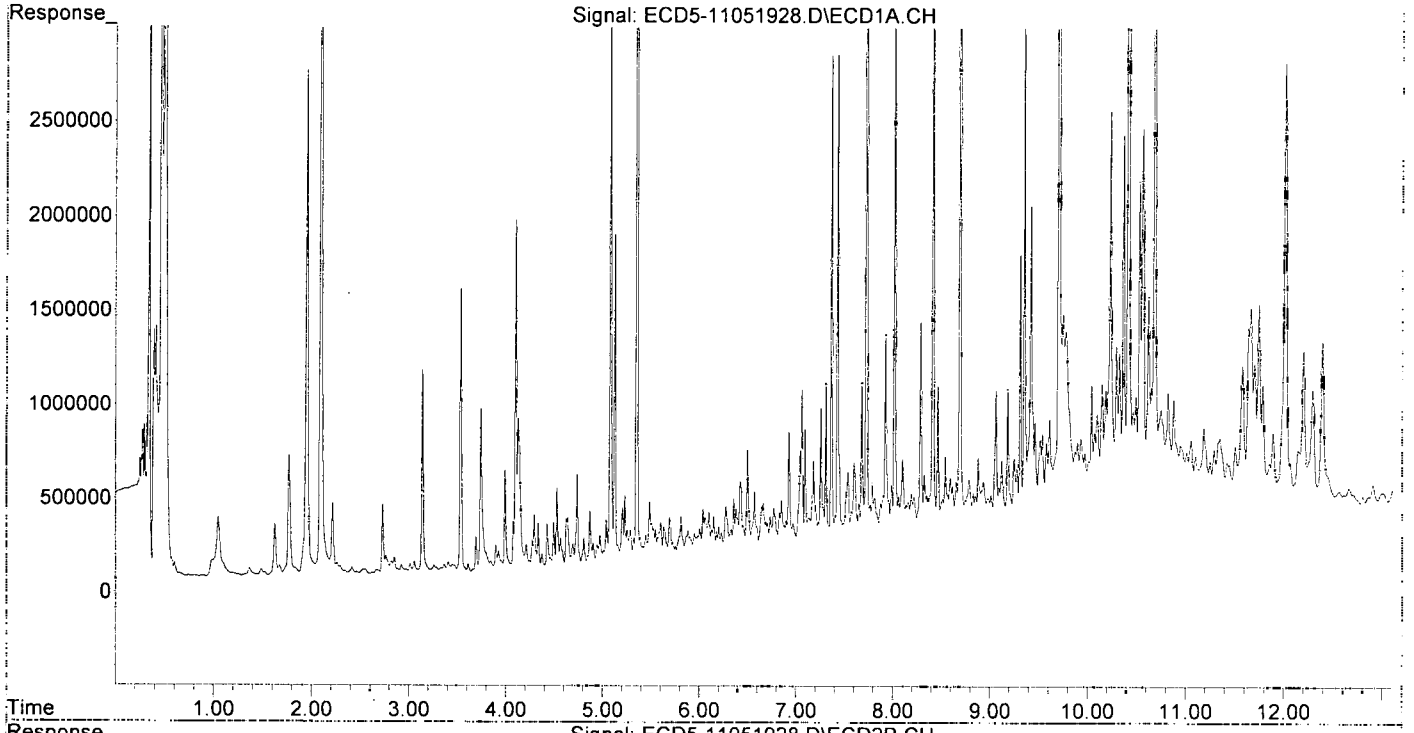
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.126	5.723	1730274	3167391	10.425	~~10.797~~	
22)	S DCBP (S)	9.312	10.231	1462757	2784064	10.367	15.487 #	S-04
	Target Compounds							
2)	a-BHC	5.694f	6.328	203797	151152	0.889	0.368 #	
3)	g-BHC	5.952	6.644	110660	284803	0.548	0.798 #	
4)	b-BHC	6.039	6.720	237049	359202	2.623	2.270	
5)	Heptachlor	6.357	7.015	276277	210782	1.524	0.689m#	
6)	d-BHC	6.179	6.962	112288	225260	0.571	0.639	
7)	Aldrin	6.571f	7.294	308699	197478	1.563	0.600 #	
8)	Heptachlo...	7.062	7.711	829348	268201	4.503	0.891 #	
9)	trans-Chl...	7.130f	7.853	147256	1467265	0.796	4.683 #	
10)	cis-Chlor...	7.258	7.985	725953	529124	3.987	1.817 #	
11)	Endosulfa...	7.366f	8.037f	2574393	286747	15.127	1.042 #	
12)	4,4'-DDE	7.310	8.086	849239	5977708	4.505	19.241 #	
13)	Dieldrin	7.538f	8.226	373137	4047587	1.944	13.308 #	MDL-MRL
14)	Endrin	7.681	8.447	842645	353745	5.731	1.566m#	
15)	4,4'-DDD	7.729	8.490	8150586	13434586	51.868	52.435	
16)	Endosulfa...	7.814f	8.577	227476	865766	1.584	3.754 #	
17)	4,4'-DDT	7.926	8.715	1088802	1687809	9.107	9.630	
18)	Endrin Al...	8.103	8.836	415487	372745	2.543	1.190 #	
19)	Endosulfa...	8.416	9.023	3915753	1431277	25.267	5.746 #	
20)	Methoxychlor	8.285	9.206	1079068	1376479	18.422m	16.331m	R-02
21)	Endrin Ke...	8.617	9.403	256620	919797	1.539	3.575 #	
23)	Hexachlor...	2.922	3.400f	44384	2116768	0.243	5.631 #	
24)	Hexachlor...	5.485f	6.188	298172	379695	1.691	1.209	
25)	Oxychlordane	6.973	7.638	124589	1106677	0.757	4.040 #	
26)	2,4'-DDE	7.062	7.853	829348	1467265	6.466	6.917	
27)	trans-Non...	7.258	7.940	725953	849217	3.736	2.815	
28)	2,4'-DDD	7.430	8.226	2569174	4047587	22.512	21.431	
29)	2,4'-DDT	7.603f	8.456	418372	427507	3.814	2.397	
30)	cis-Nonac...	7.729	8.490	8150586	13434586	39.258	40.049	
31)	Mirex	0.000	9.403	0	919797	N.D.	4.943 #	
32)	Chlordane...	7.258	7.940	725953	849217	36.870	23.469	
33)	Chlordane...	7.310f	8.037	849239	286747	33.882	9.444 #	
34)	Chlordane...	7.875	8.715	194309	1687809	33.611	188.248 #	
35)	Chlordane...	3.363	3.347	38250	45388	NoCal	NoCal	
36)	Toxaphene...	7.430f	8.379	2569174	599477	2868.510	228.437 #	
37)	Toxaphene...	7.681	8.715	842645	1687809	521.782	512.852	
38)	Toxaphene...	8.020	8.770f	3370527	414539	1000.902	81.790 #	
39)	Toxaphene...	8.220f	8.811	215935	520512	66.643	62.338	
40)	Toxaphene...	8.466	8.982	791024	447213	329.986	95.961 #	
41)	Toxaphene...	8.543	9.378	415032	600517	131.149	126.419	
42)	Toxaphene...	3.363	3.347	38250	45388	NoCal	NoCal	

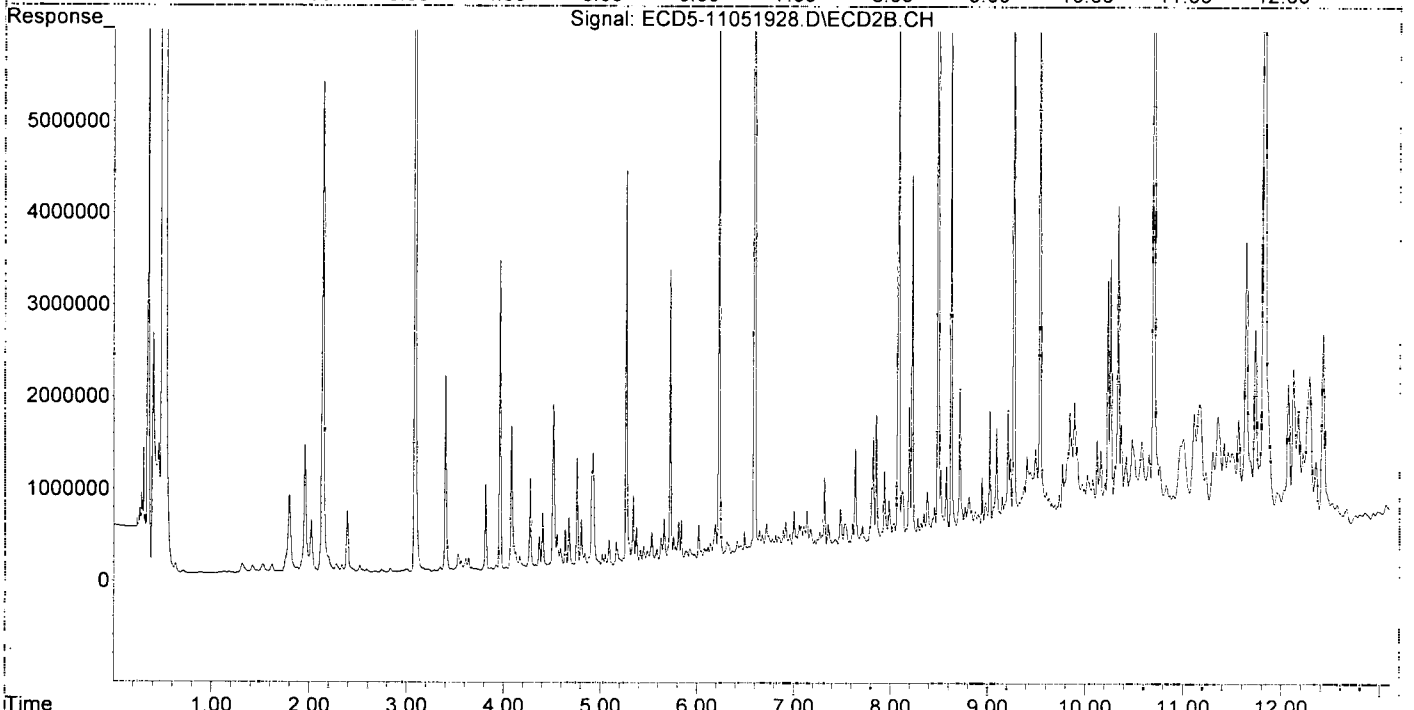
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB 11 WTP 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:34:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

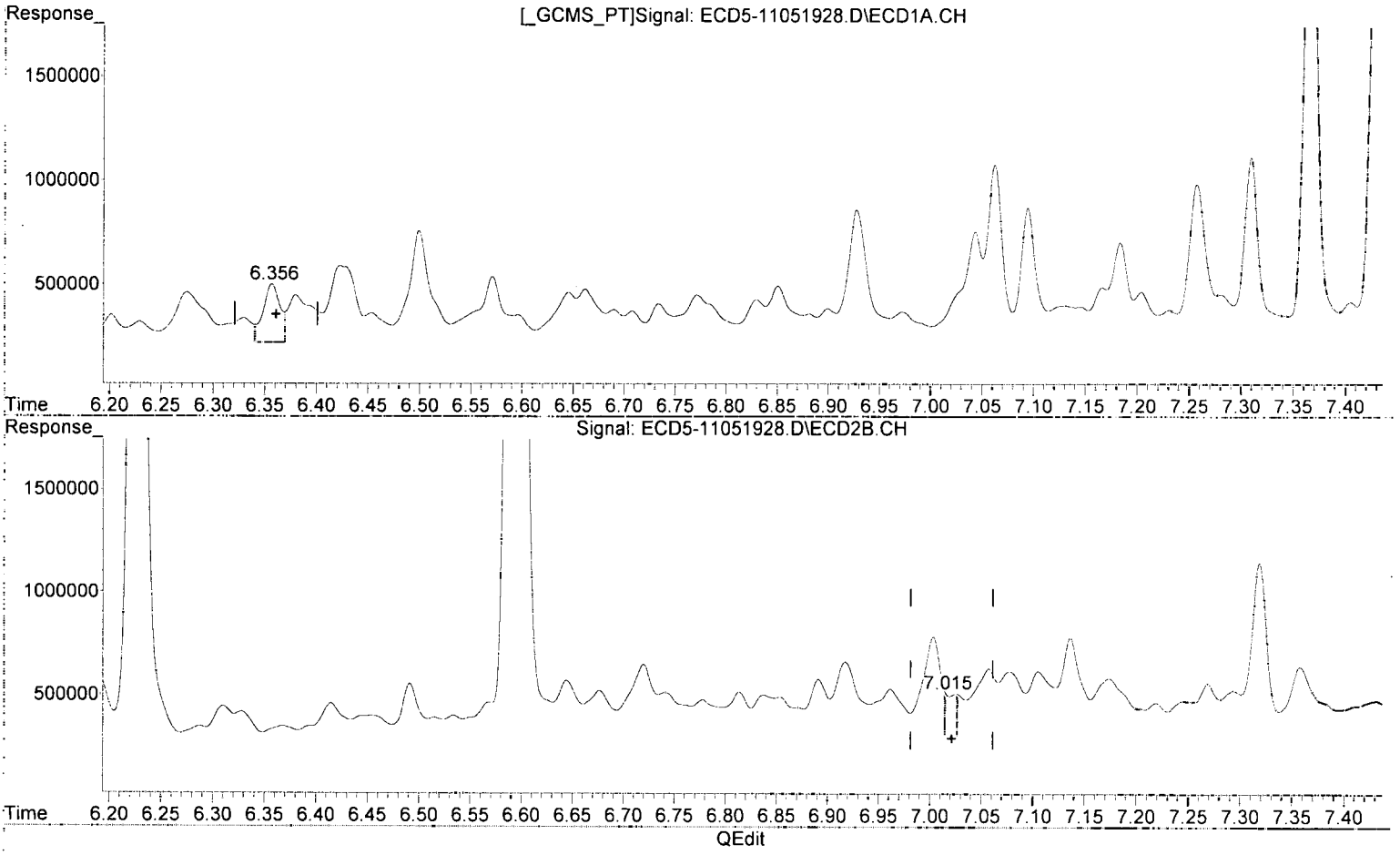




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB JJ MJB 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(5) Heptachlor

6.357min 1.524 ng/mL

response 276277

MJB 11/6/19

(5) Heptachlor #2

7.015min 0.689 ng/mL m

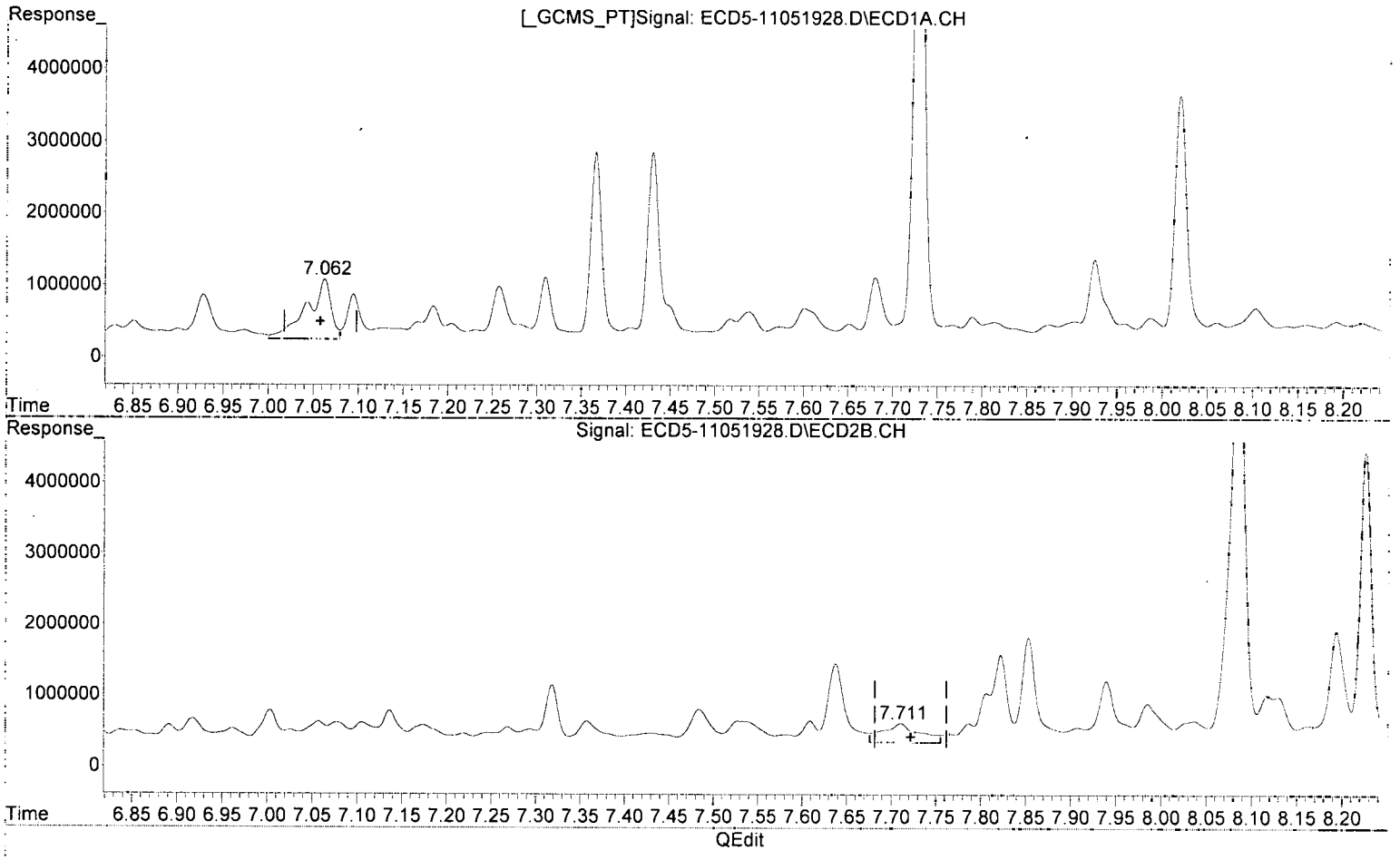
response 210782

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB JJ MJB 11/6/19
Sample : A9~~K0~~007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(8) Heptachlor Expoxide

7.062min 4.503 ng/mL

response 829348

MJB 11/6/19

(8) Heptachlor Expoxide #2

7.711min 0.891 ng/mL

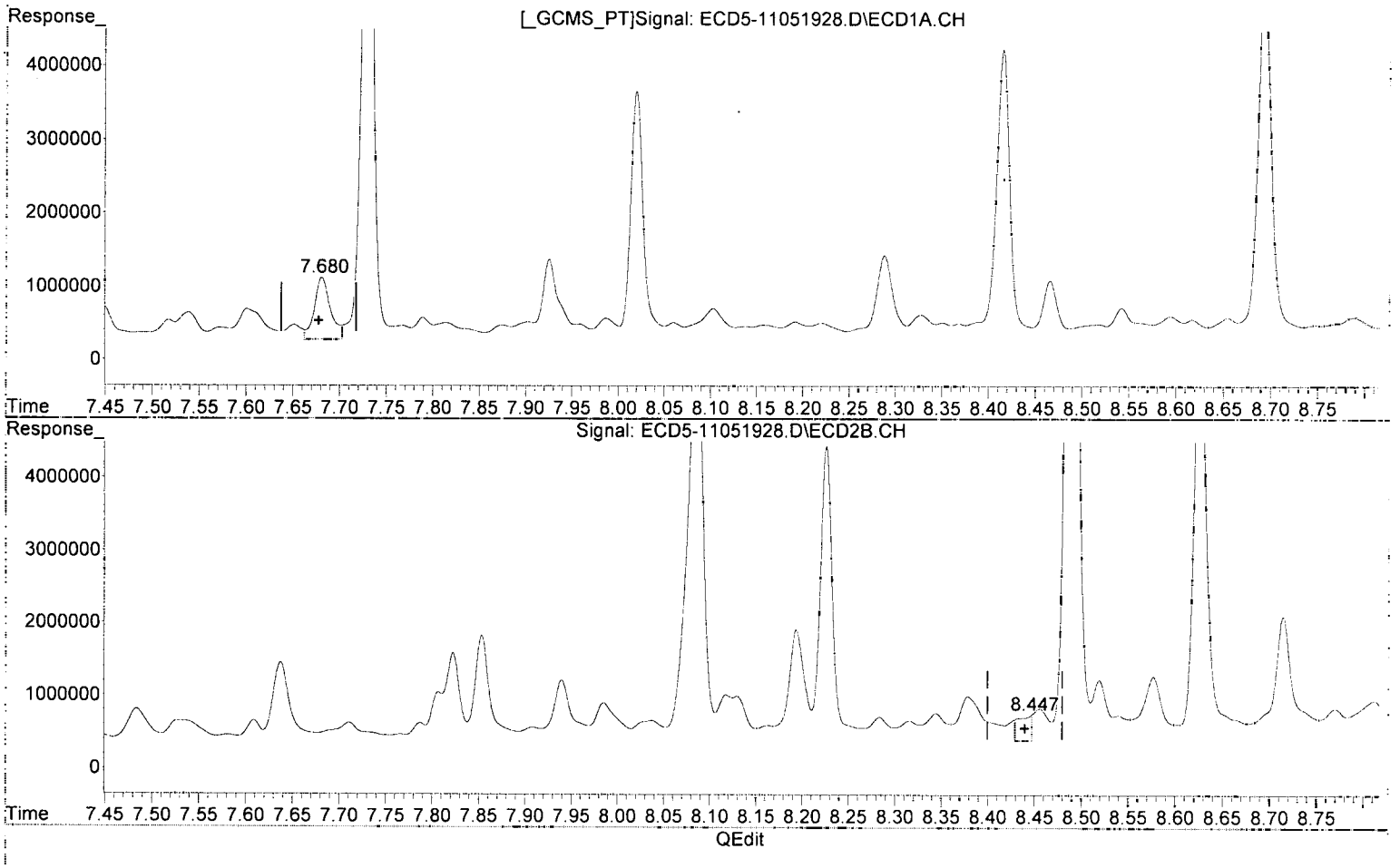
response 268201

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB MJB 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Endrin

7.681min 5.731 ng/mL

response 842645

MJB 11/6/19

(14) Endrin #2

8.447min 1.566 ng/mL (m) MJB=MJB

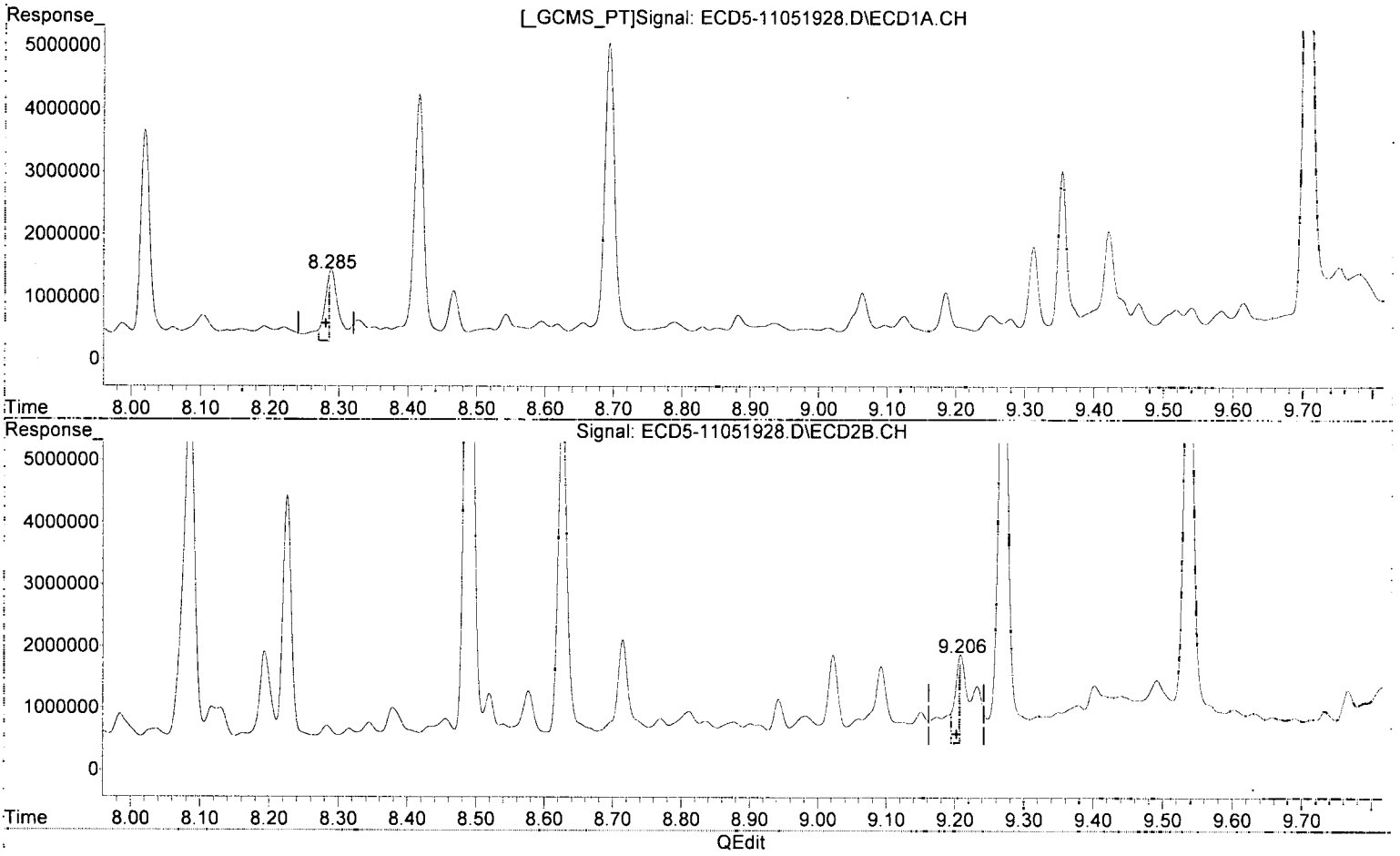
response 353745

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB MJB 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.285min 18.422 ng/mL (m)

response 1079068

MJB 11/6/19

(20) Methoxychlor #2

9.206min 16.331 ng/mL (m) R-02

response 1376479

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB JJ MJB 11/6/19
Sample : A9K0007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/8/19

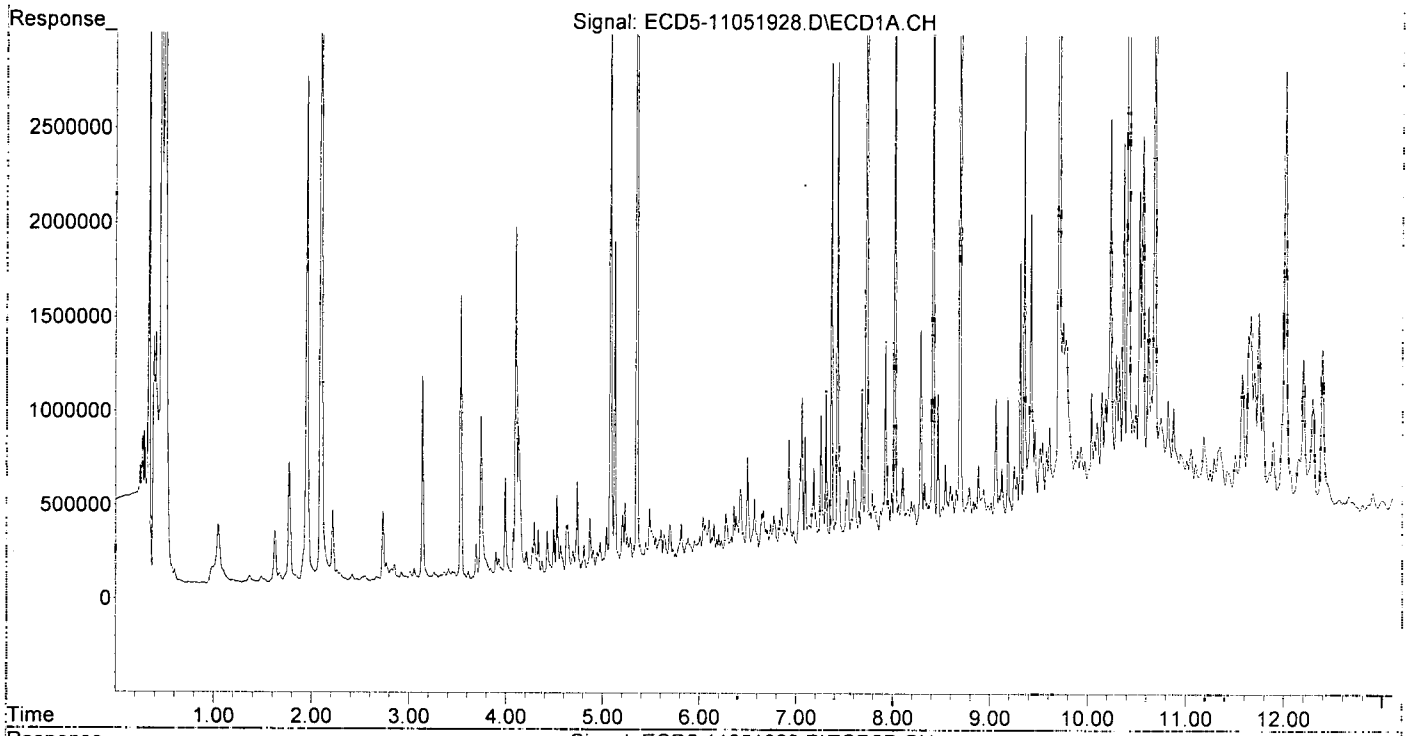
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.126	5.723	1730274	3167391	10.425	10.797	
22)	S	DCBP (S)	9.312	10.231	1462757	2784064	10.367	15.487	#
		Target Compounds							
2)		a-BHC	5.694f	6.328	203797	151152	0.889	0.368	#
3)		g-BHC	5.952	6.644	110660	284803	0.548	0.798	#
4)		b-BHC	6.039	6.720	237049	359202	2.623	2.270	
5)		Heptachlor	6.357	7.026	276277	198687	1.524	0.649	#
6)		d-BHC	6.179	6.962	112288	225260	0.571	0.639	
7)		Aldrin	6.571f	7.294	308699	197478	1.563	0.600	#
8)		Heptachlo...	7.062	7.711	829348	268201	4.503	0.891	#
9)		trans-Chl...	7.130f	7.853	147256	1467265	0.796	4.683	#
10)		cis-Chlor...	7.258	7.985	725953	529124	3.987	1.817	#
11)		Endosulfa...	7.366f	8.037f	2574393	286747	15.127	1.042	#
12)		4,4'-DDE	7.310	8.086	849239	5977708	4.505	19.241	#
13)		Dieldrin	7.538f	8.226	373137	4047587	1.944	13.308	#
14)		Endrin	7.681	8.456	842645	427507	5.731	1.893	#
15)		4,4'-DDD	7.729	8.490	8150586	13434586	51.868	52.435	
16)		Endosulfa...	7.814f	8.577	227476	865766	1.584	3.754	#
17)		4,4'-DDT	7.926	8.715	1088802	1687809	9.107	9.630	
18)		Endrin Al...	8.103	8.836	415487	372745	2.543	1.190	#
19)		Endosulfa...	8.416	9.023	3915753	1431277	25.267	5.746	#
20)		Methoxychlor	8.288	9.208	1139718	1426806	19.458	16.914	
21)		Endrin Ke...	8.617	9.403	256620	919797	1.539	3.575	#
23)		Hexachlor...	2.922	3.400f	44384	2116768	0.243	5.631	#
24)		Hexachlor...	5.485f	6.188	298172	379695	1.691	1.209	
25)		Oxychlordane	6.973	7.638	124589	1106677	0.757	4.040	#
26)		2,4'-DDE	7.062	7.853	829348	1467265	6.466	6.917	
27)		trans-Non...	7.258	7.940	725953	849217	3.736	2.815	
28)		2,4'-DDD	7.430	8.226	2569174	4047587	22.512	21.431	
29)		2,4'-DDT	7.603f	8.456	418372	427507	3.814	2.397	
30)		cis-Nonac...	7.729	8.490	8150586	13434586	39.258	40.049	
31)		Mirex	0.000	9.403	0	919797	N.D.	4.943	#
32)		Chlordane...	7.258	7.940	725953	849217	36.870	23.469	
33)		Chlordane...	7.310f	8.037	849239	286747	33.882	9.444	#
34)		Chlordane...	7.875	8.715	194309	1687809	33.611	188.248	#
35)		Chlordane...	3.363	3.347	38250	45388	NoCal	NoCal	
36)		Toxaphene...	7.430f	8.379	2569174	599477	2868.510	228.437	#
37)		Toxaphene...	7.681	8.715	842645	1687809	521.782	512.852	
38)		Toxaphene...	8.020	8.770f	3370527	414539	1000.902	81.790	#
39)		Toxaphene...	8.220f	8.811	215935	520512	66.643	62.338	
40)		Toxaphene...	8.466	8.982	791024	447213	329.986	95.961	#
41)		Toxaphene...	8.543	9.378	415032	600517	131.149	126.419	
42)		Toxaphene...	3.363	3.347	38250	45388	NoCal	NoCal	

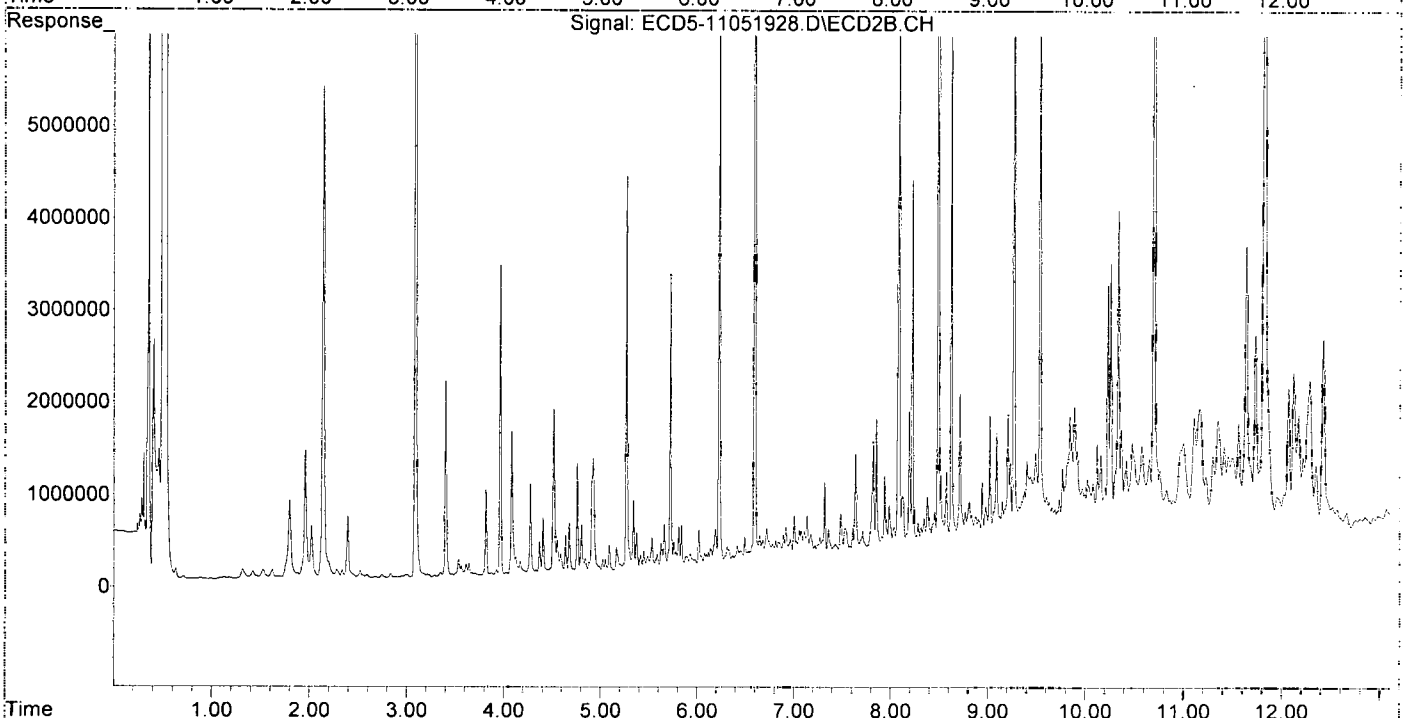
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 18:41
Operator : MJB
Sample : A9~~K0~~007-01RE1@5
Misc : 5x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : A9110391-MS1(5)
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:39:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

R04

MJB 11/6/19

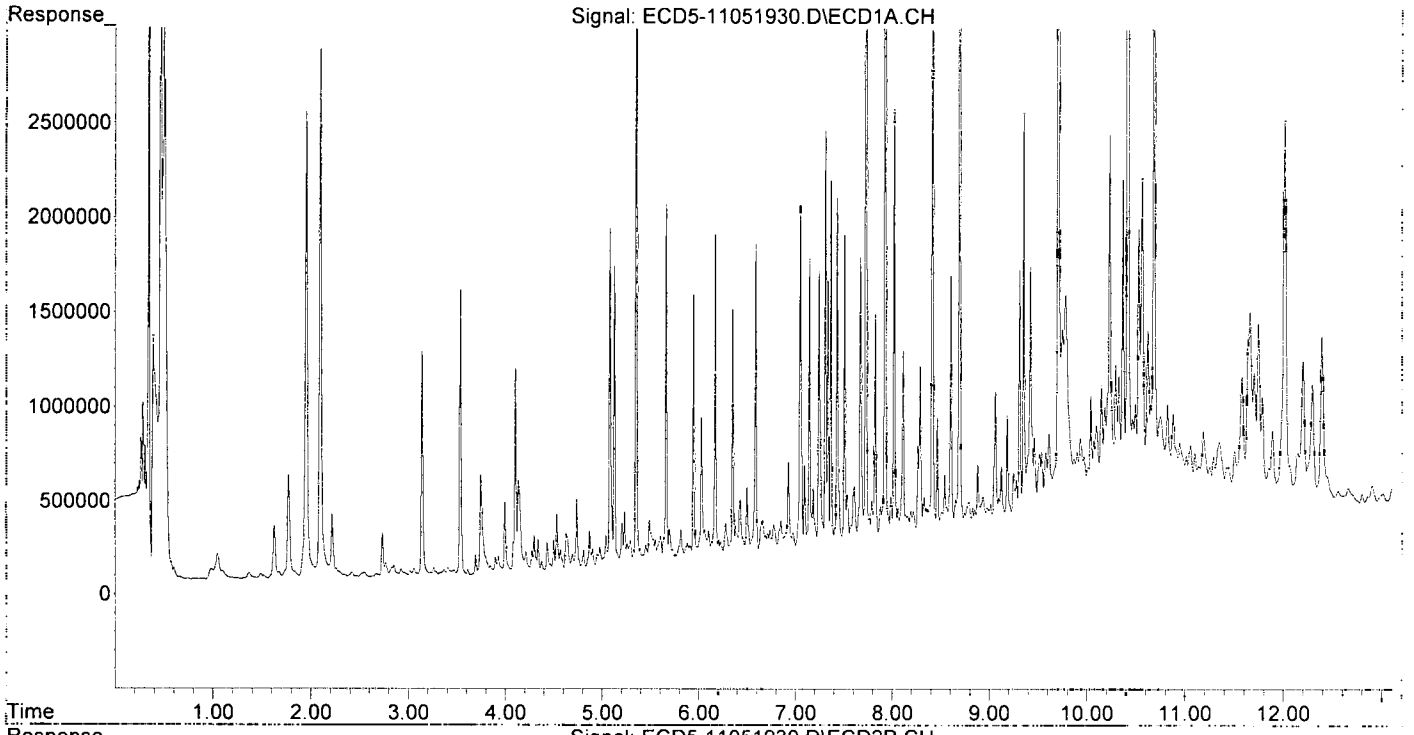
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.127	5.723	1574500	2892314	9.486	9.859	
22)	S DCBP (S)	9.313	10.231	1380221	2672624	9.782	14.867	#
	Target Compounds							
2)	a-BHC	5.662	6.330	1878781	3297424	8.193	8.036	
3)	g-BHC	5.945	6.648	1396975	2566379	6.923	7.195	
4)	b-BHC	6.028	6.718	737185	1499143	8.156	9.472	
5)	Heptachlor	6.351	7.015	1289197	2186887	7.111	7.147	
6)	d-BHC	6.170	6.966	1684551	2906889	8.564	8.243	
7)	Aldrin	6.589	7.277	1635134	2739615	8.281	8.317	
8)	Heptachlo...	7.049	7.716	1810138	2559324	9.828	8.507	
9)	trans-Chl...	7.146	7.855	1527066	3683931	8.259	11.758	#
10)	cis-Chlor...	7.243	7.964	1449272	2631207	7.960	9.034	
11)	Endosulfa...	7.335	8.011	1406033	2226248	8.262	8.090	
12)	4,4'-DDE	7.335	8.083	1406033	5597429	7.458	18.017	#
13)	Dieldrin	7.508	8.210	1638962	2825982	8.537	9.291	
14)	Endrin	7.672	8.436	1499246	2328802	10.197	10.312	- MDL-MRL
15)	4,4'-DDD	7.729	8.490	7238531	12138162	46.064	47.375	
16)	Endosulfa...	7.826	8.582	1207195	2542991	8.406	11.027	
17)	4,4'-DDT	7.926	8.714	7158194	12129631	59.871	63.068	
18)	Endrin Al...	8.114	8.820	1006379	1674174	7.587	8.236	
19)	Endosulfa...	8.416	9.012	4573374	2291159	29.510	9.198	#
20)	Methoxychlor	8.267	9.197	505189	1106350	8.625m	13.180m	# - R-02
21)	Endrin Ke...	8.605	9.403	1378809	2623780	8.268	10.197	
23)	Hexachlor...	2.922	3.400f	40924	2303184	0.224	6.127	#
24)	Hexachlor...	5.487f	6.189	218872	300062	1.242	0.955	
25)	Oxychlordane	6.974	7.638	86908	877910	0.528	3.205	#
26)	2,4'-DDE	7.095f	7.855	440733	3683931	3.436	17.366	#
27)	trans-Non...	7.243	7.940	1449272	640907	7.774	2.125	#
28)	2,4'-DDD	7.431	8.225	1830682	2931011	16.041	15.519	
29)	2,4'-DDT	7.608	8.436f	304998	2328802	2.781	13.058	#
30)	cis-Nonac...	7.729	8.490	7238531	12138162	34.865	36.185	
31)	Mirex	0.000	9.403	0	2623780	N.D.	14.101	#
32)	Chlordane...	7.243	7.940	1449272	640907	73.606	17.712	#
33)	Chlordane...	7.335	8.083f	1406033	5597429	56.097	184.344	#
34)	Chlordane...	7.879	8.714	190921	12129631	33.025	1352.866	#
35)	Chlordane...	3.363	3.346	32034	34315	NoCal	NoCal	
36)	Toxaphene...	7.431f	8.383	1830682	460935	2043.976	175.644	#
37)	Toxaphene...	7.672f	8.714	1499246	12129631	928.361	3685.669	#
38)	Toxaphene...	8.020	8.770f	2269926	302359	674.071	59.657	#
39)	Toxaphene...	8.219f	8.820	150302	1674174	46.387	200.504	#
40)	Toxaphene...	8.466	8.982	628525	370261	262.198	79.449	#
41)	Toxaphene...	8.542	9.380	329354	422013	104.075	88.841	
42)	Toxaphene...	3.363	3.346	32034	34315	NoCal	NoCal	

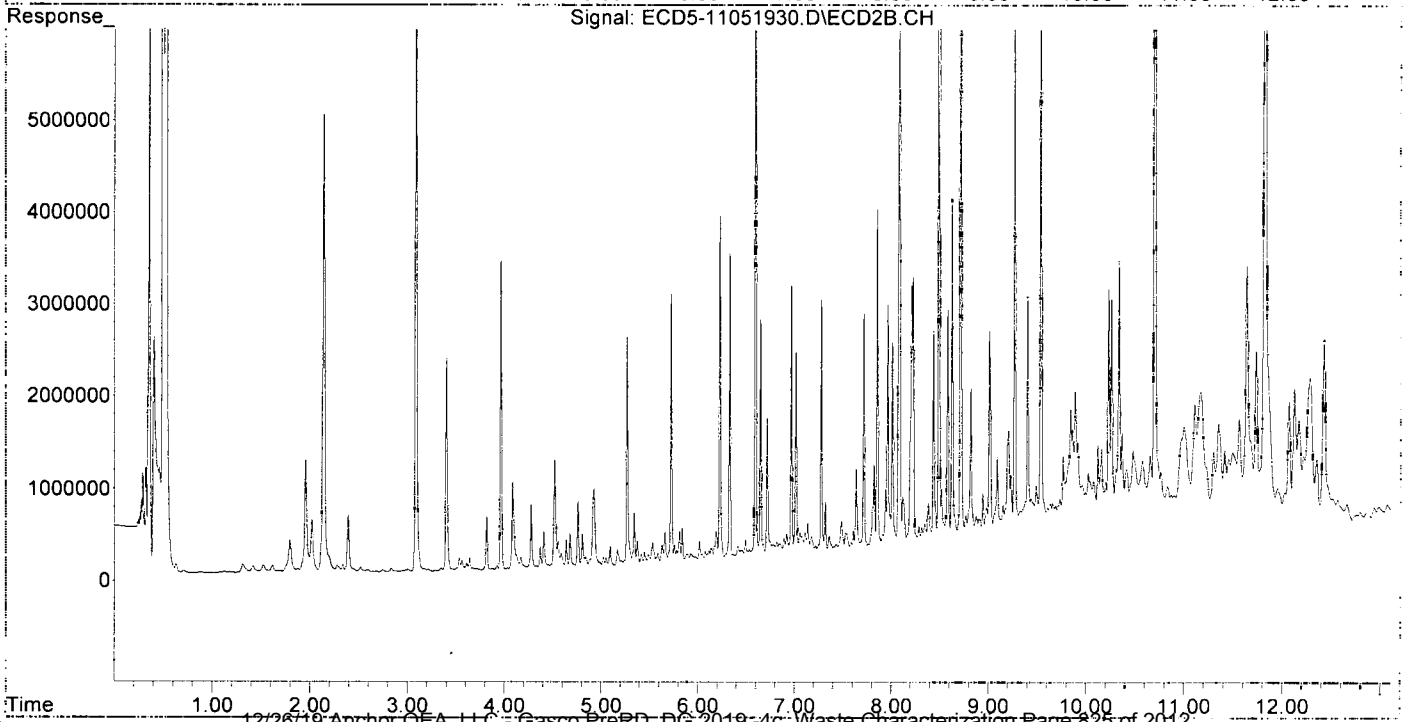
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : A9110391-MS1@5
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:39:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

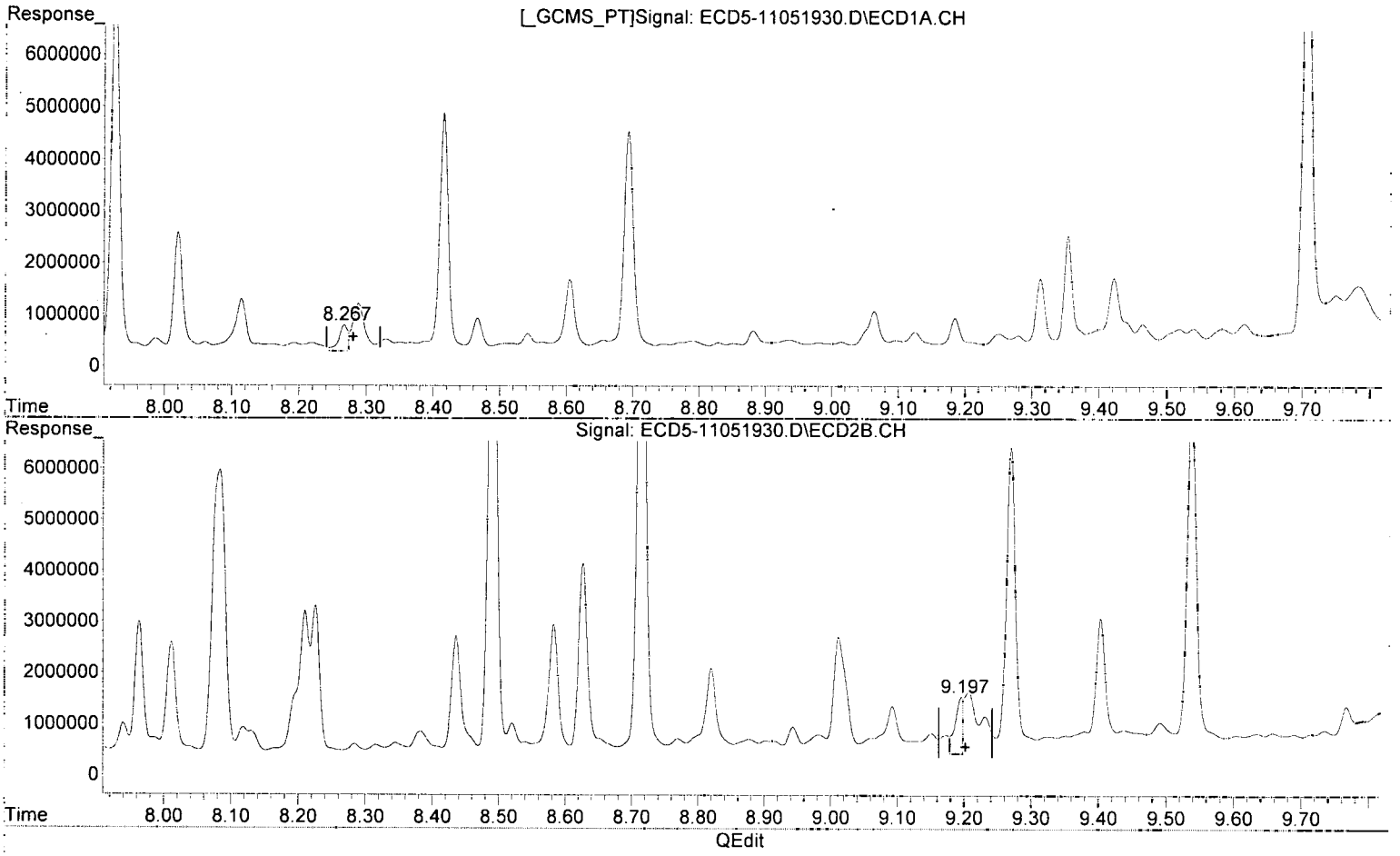




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : 9110391-MS1@5
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.267min 8.625 ng/mL (m)

response 505189

MJB 11/6/19

(20) Methoxychlor #2

9.197min 13.180 ng/mL (m)

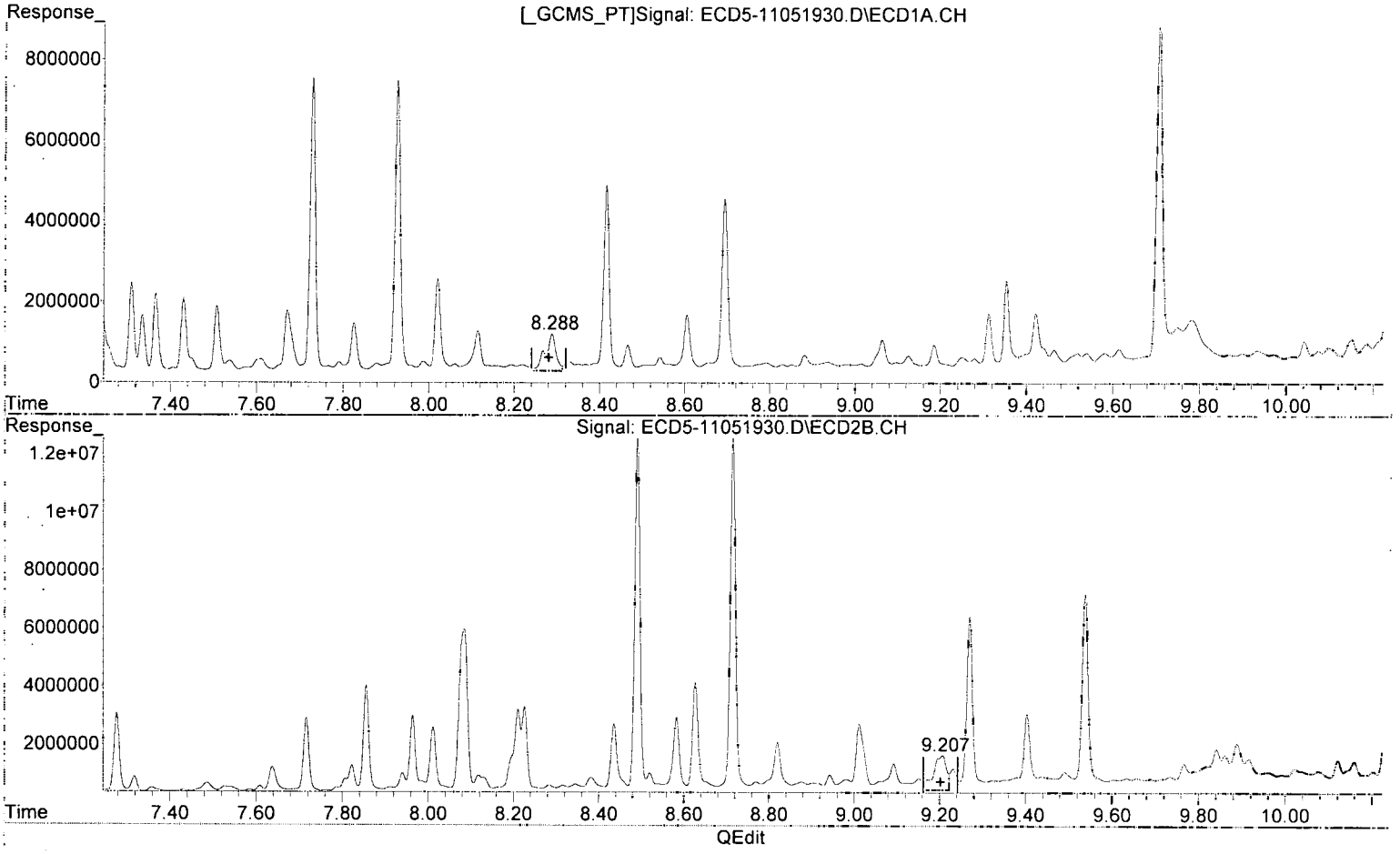
response 1106350

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : A9110391-MS1@5
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.288min 15.635 ng/mL

response 918811

MJB 11/6/19

(20) Methoxychlor #2

9.207min 14.256 ng/mL

response 1198185

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : 9110391-MS1@5
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MI MJB 11/6/19

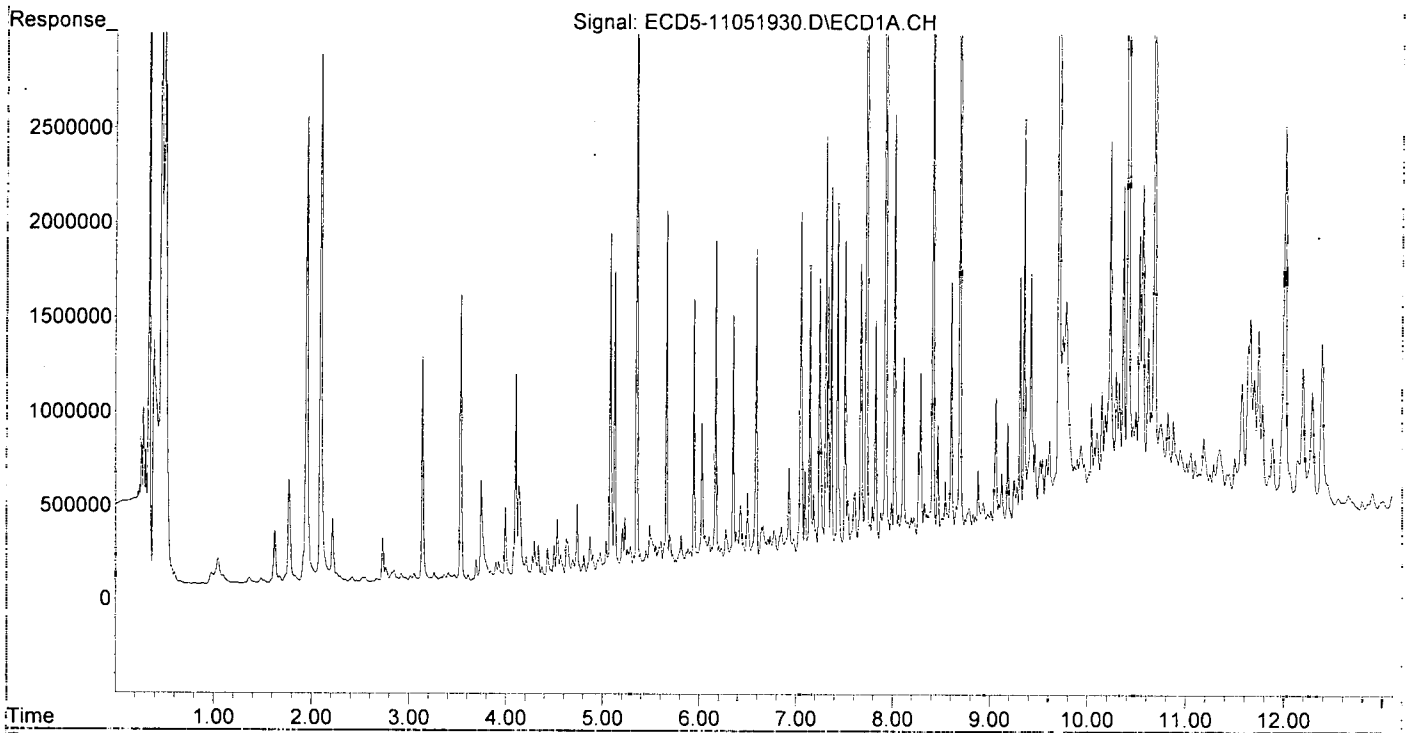
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.127	5.723	1574500	2892314	9.486	9.859	
22)	S	DCBP (S)	9.313	10.231	1380221	2672624	9.782	14.867	#
		Target Compounds							
2)		a-BHC	5.662	6.330	1878781	3297424	8.193	8.036	
3)		g-BHC	5.945	6.648	1396975	2566379	6.923	7.195	
4)		b-BHC	6.028	6.718	737185	1499143	8.156	9.472	
5)		Heptachlor	6.351	7.015	1289197	2186887	7.111	7.147	
6)		d-BHC	6.170	6.966	1684551	2906889	8.564	8.243	
7)		Aldrin	6.589	7.277	1635134	2739615	8.281	8.317	
8)		Heptachlo...	7.049	7.716	1810138	2559324	9.828	8.507	
9)		trans-Chl...	7.146	7.855	1527066	3883931	8.259	11.758	#
10)		cis-Chlor...	7.243	7.964	1449272	2631207	7.960	9.034	
11)		Endosulfa...	7.335	8.011	1406033	2226248	8.262	8.090	
12)		4,4'-DDE	7.335	8.083	1406033	5597429	7.458	18.017	#
13)		Dieldrin	7.508	8.210	1638962	2825982	8.537	9.291	
14)		Endrin	7.672	8.436	1499246	2328802	10.197	10.312	
15)		4,4'-DDD	7.729	8.490	7238531	12138162	46.064	47.375	
16)		Endosulfa...	7.826	8.582	1207195	2542991	8.406	11.027	
17)		4,4'-DDT	7.926	8.714	7158194	12129631	59.871	63.068	
18)		Endrin Al...	8.114	8.820	1006379	1674174	7.587	8.236	
19)		Endosulfa...	8.416	9.012	4573374	2291159	29.510	9.198	#
20)		Methoxychlor	8.288	9.207	915811	1198185	15.635	14.256	
21)		Endrin Ke...	8.605	9.403	1378809	2623780	8.268	10.197	
23)		Hexachlor...	2.922	3.400f	40924	2303184	0.224	6.127	#
24)		Hexachlor...	5.487f	6.189	218872	300062	1.242	0.955	
25)		Oxychlordane	6.974	7.638	86908	877910	0.528	3.205	#
26)		2,4'-DDE	7.095f	7.855	440733	3683931	3.436	17.366	#
27)		trans-Non...	7.243	7.940	1449272	640907	7.774	2.125	#
28)		2,4'-DDD	7.431	8.225	1830682	2931011	16.041	15.519	
29)		2,4'-DDT	7.608	8.436f	304998	2328802	2.781	13.058	#
30)		cis-Nonac...	7.729	8.490	7238531	12138162	34.865	36.185	
31)		Mirex	0.000	9.403	0	2623780	N.D.	14.101	#
32)		Chlordane...	7.243	7.940	1449272	640907	73.606	17.712	#
33)		Chlordane...	7.335	8.083f	1406033	5597429	56.097	184.344	#
34)		Chlordane...	7.879	8.714	190921	12129631	33.025	1352.866	#
35)		Chlordane...	3.363	3.346	32034	34315	NoCal	NoCal	
36)		Toxaphene...	7.431f	8.383	1830682	460935	2043.976	175.644	#
37)		Toxaphene...	7.672f	8.714	1499246	12129631	928.361	3685.669	#
38)		Toxaphene...	8.020	8.770f	2269926	302359	674.071	59.657	#
39)		Toxaphene...	8.219f	8.820	150302	1674174	46.387	200.504	#
40)		Toxaphene...	8.466	8.982	628525	370261	262.198	79.449	#
41)		Toxaphene...	8.542	9.380	329354	422013	104.075	88.841	
42)		Toxaphene...	3.363	3.346	32034	34315	NoCal	NoCal	

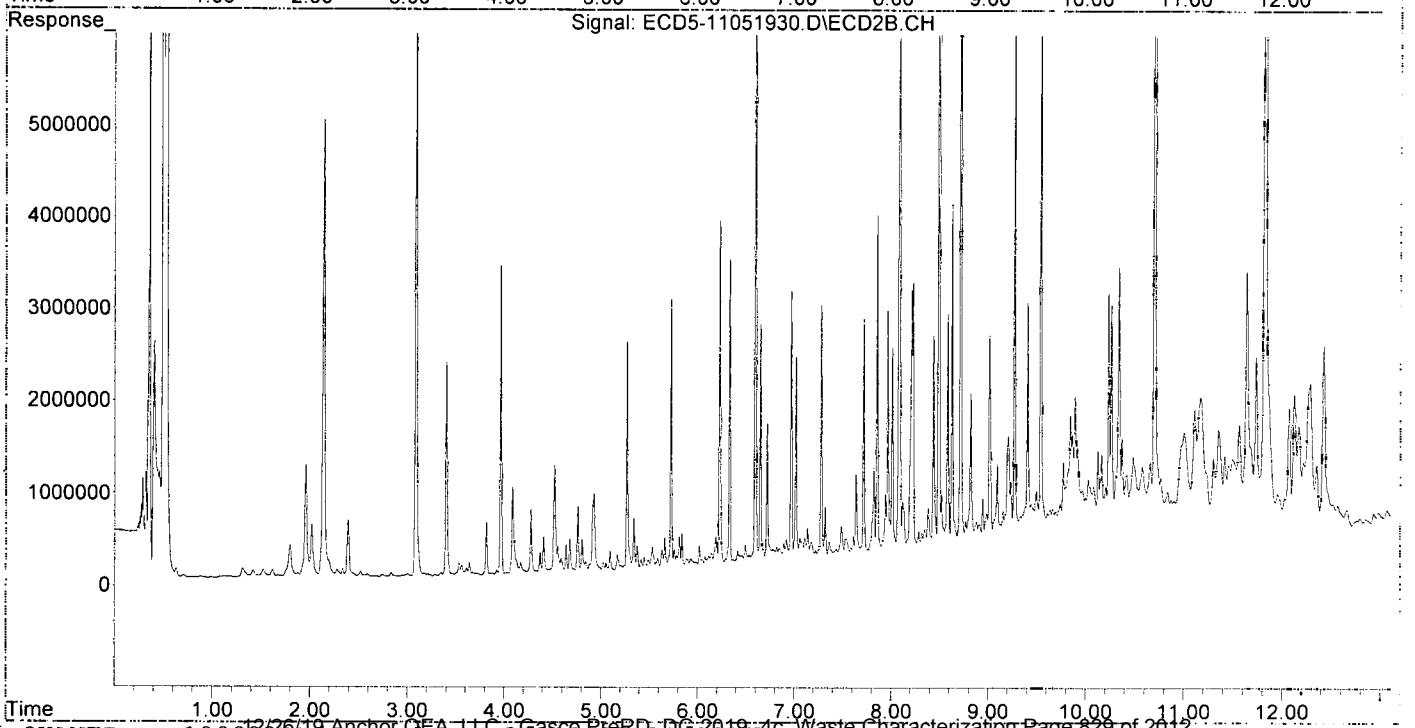
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:15
Operator : MJB MJB 11/6/19
Sample : 9110391-MS1@5
Misc : 5x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:49
Operator : MJB
Sample : 9K05039-CCV3
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/6/19

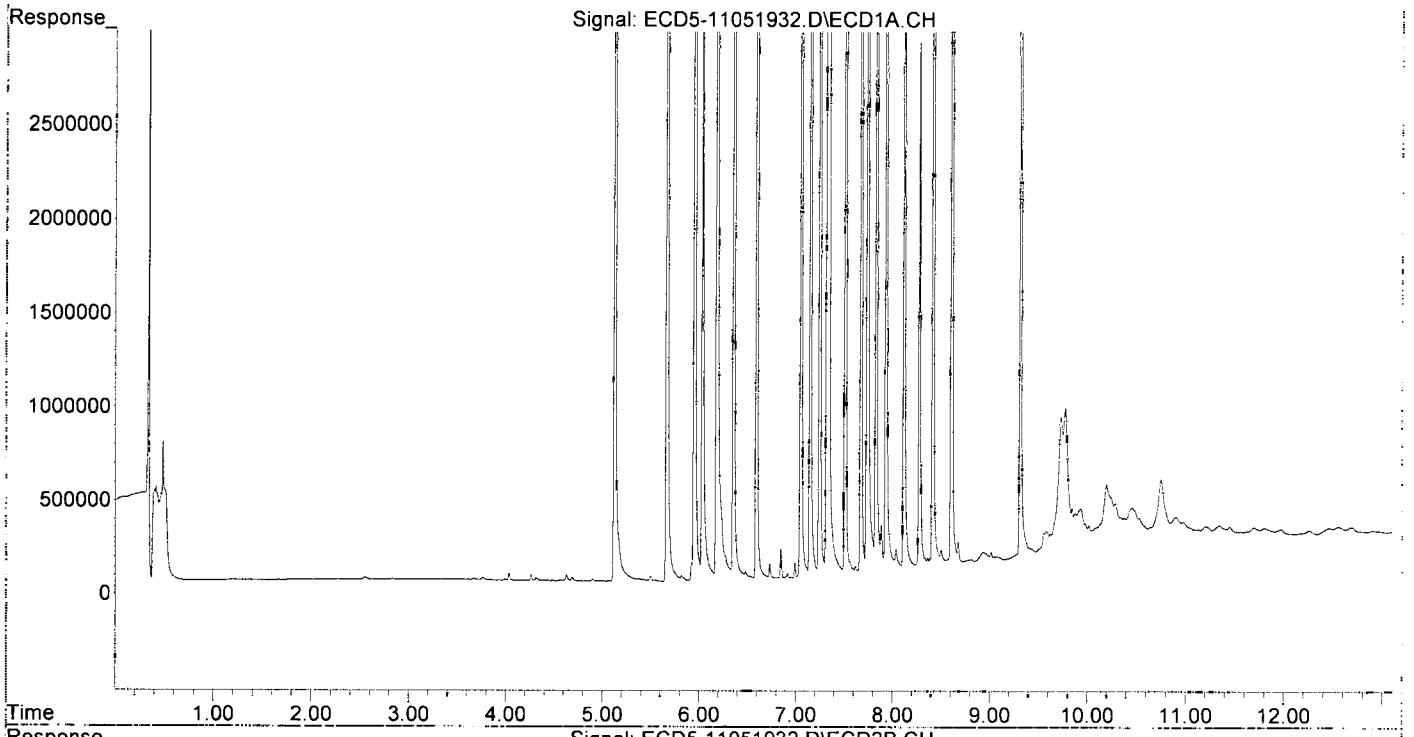
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.128	5.725	8285376	12635444	49.919	43.070	
22) S	DCBP (S)	9.318	10.235	6612459	10081199	46.864	56.080	
	Target Compounds							
2)	a-BHC	5.668	6.334	11816699	20592519	51.527	50.184	
3)	g-BHC	5.953	6.652	9805378	18426521	48.595 (Q-31)	51.658	
4)	b-BHC	6.035	6.722	3488227	6703796	38.594	42.358	
5)	Heptachlor	6.359	7.020	10057380	18197982	55.475 (Q-31)	59.475	
6)	d-BHC	6.183	6.973	7687941	15703198	39.087	44.527	
7)	Aldrin	6.597	7.281	10594547	17954251	53.658	54.507	
8)	Heptachlo...	7.056	7.720	9123637	15394806	49.537	51.171	
9)	trans-Chl...	7.152	7.859	8979449	15559116	48.566	49.658	
10)	cis-Chlor...	7.248	7.967	9127462	15103735	50.131	51.859	
11)	Endosulfa...	7.342	8.015	9494981	13889858	55.794	50.476	
12)	4,4'-DDE	7.322	8.082	7693988	13760378	40.810	44.292	
13)	Dieldrin	7.513	8.214	9980722	16671104	51.989	54.812	
14)	Endrin	7.676	8.438	8075279	12770405	54.924 (Q-31)	56.550	
15)	4,4'-DDD	7.740	8.496	6063814	11516514	38.588	44.949	
16)	Endosulfa...	7.832	8.587	7051471	11620231	49.101	50.390	
17)	4,4'-DDT	7.935	8.719	6009641	10127765	50.265	53.530	
18)	Endrin Al...	8.121	8.824	6145703	10384039	50.064	52.688	
19)	Endosulfa...	8.419	9.014	7477568	12648886	48.249	50.781	
20)	Methoxychlor	8.280	9.201	2795624	4826727	47.728	53.467	
21)	Endrin Ke...	8.611	9.406	8283053	13952405	49.671	54.223	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.502	6.237f	25833	13456	0.147	0.043	#
25)	Oxychlordane	6.994	7.661	82416	4660	0.501	0.017	#
26)	2,4'-DDE	7.056	7.859	9123637	15559116	71.133	73.344	
27)	trans-Non...	7.248	7.917	9127462	87770	50.658	0.291	#
28)	2,4'-DDD	0.000	8.214f	0	16671104	N.D.	88.271	#
29)	2,4'-DDT	7.621	8.438	39041	12770405	0.356	71.607	#
30)	cis-Nonac...	7.740f	8.496	6063814	11516514	29.207	34.332	
31)	Mirex	8.367	9.406	54102	13952405	0.432	74.983	#
32)	Chlordane...	7.248	7.967f	9127462	15103735	463.567	417.408	
33)	Chlordane...	7.322	8.082f	7693988	13760378	306.970	453.180	#
34)	Chlordane...	7.885	8.719	246249	10127765	42.595	1129.590	#
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	8.357	0	7248	N.D.	2.762	#
37)	Toxaphene...	7.676	8.719	8075279	10127765	5000.363	3077.389	
38)	Toxaphene...	8.040f	8.719f	113957	10127765	33.840	1998.250	#
39)	Toxaphene...	8.280f	8.824	2795624	10384039	862.806	1243.622	#
40)	Toxaphene...	8.505f	9.014f	87642	12648886	36.561	2714.145	#
41)	Toxaphene...	8.505f	9.406f	87642	13952405	27.695	2937.223	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

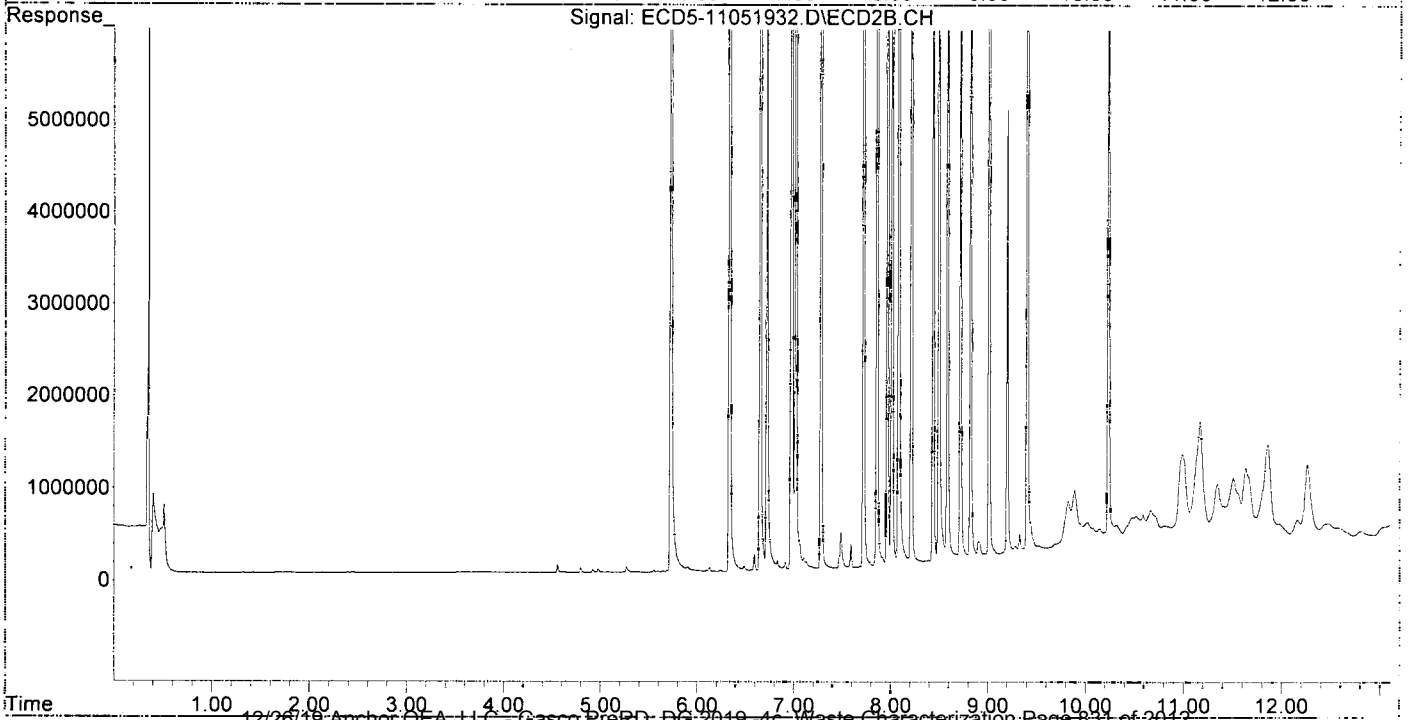
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:49
Operator : MJB
Sample : 9K05039-CCV3
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:44:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WB 11/6/19

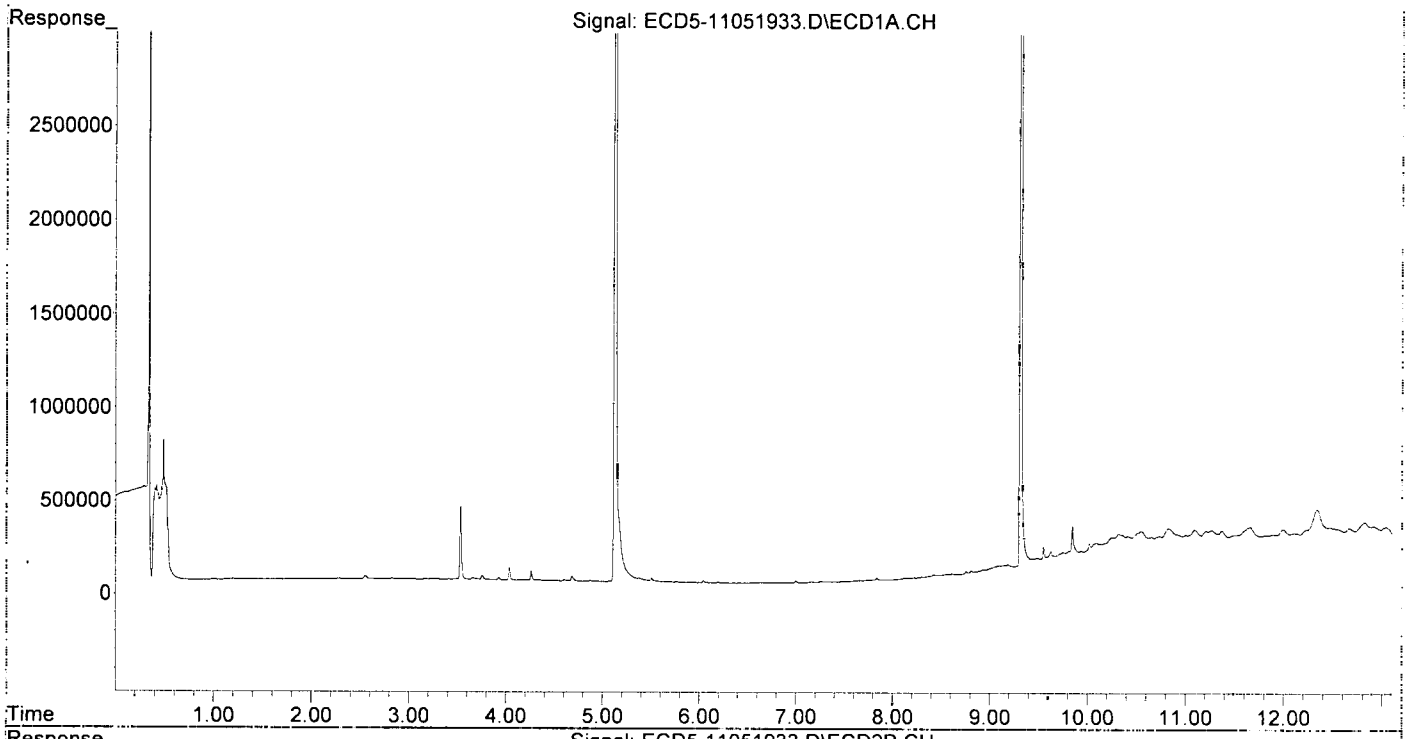
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020	
22)	S DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	b-BHC	6.043	0.000	11416	0	0.126	N.D.	#
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)	d-BHC	6.194	6.976	5094	10429	0.026	0.030	
7)	Aldrin	6.627f	0.000	2755	0	0.014	N.D.	#
8)	Heptachlo...	0.000	7.733	0	29958	N.D.	0.100m	#
9)	trans-Chl...	7.159	7.876	3968	47242	0.021	0.151m	#
10)	cis-Chlor...	7.256	7.972	4247	54507	0.023	0.187m	#
11)	Endosulfa...	7.305f	8.017	1321	60519	0.008	0.220m	#
12)	4,4'-DDE	7.305	8.087	1321	65732	0.007	0.212m	#
13)	Dieldrin	0.000	8.197	0	57057	N.D.	0.188m	#
14)	Endrin	7.653f	8.422	2456	85738	0.017	0.380m	#
15)	4,4'-DDD	0.000	8.482	0	64140	N.D.	0.250m	#
16)	Endosulfa...	7.839	8.581	12139	91134	0.085	0.395m	#
17)	4,4'-DDT	0.000	8.726	0	85413	N.D.	0.460m	#
18)	Endrin Al...	8.126	8.831	5241	137698	BelowCal	BelowCalm	
19)	Endosulfa...	8.423	9.012	12153	251082	0.078	1.008m	# P-01
20)	Methoxychlor	0.000	9.210	0	147791	N.D.	1.645m	#
21)	Endrin Ke...	8.614	9.423	6902	225226	0.041	0.875m	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.509	6.172f	21249	8043	0.121	0.026	#
25)	Oxychlordane	6.999	7.623f	10731	18388	0.065	0.067	
26)	2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
27)	trans-Non...	7.256	0.000	4247	0	87346.677	N.D.	#
28)	2,4'-DDD	7.412f	0.000	680	0	0.006	N.D.	#
29)	2,4'-DDT	7.606	0.000	769	0	0.007	N.D.	#
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	0.000	0.000	0	0	N.D.	N.D.	
32)	Chlordane...	7.256	0.000	4247	0	0.216	N.D.	#
33)	Chlordane...	7.305f	0.000	1321	0	0.053	N.D.	#
34)	Chlordane...	7.839f	0.000	12139	0	2.100	N.D.	#
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	7.412	8.405f	680	27869	0.760	10.620	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)	Toxaphene...	8.225	0.000	3601	0	1.111	N.D.	#
40)	Toxaphene...	0.000	9.012f	0	169100	N.D.	36.285	#
41)	Toxaphene...	8.559	0.000	6967	0	2.202	N.D.	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

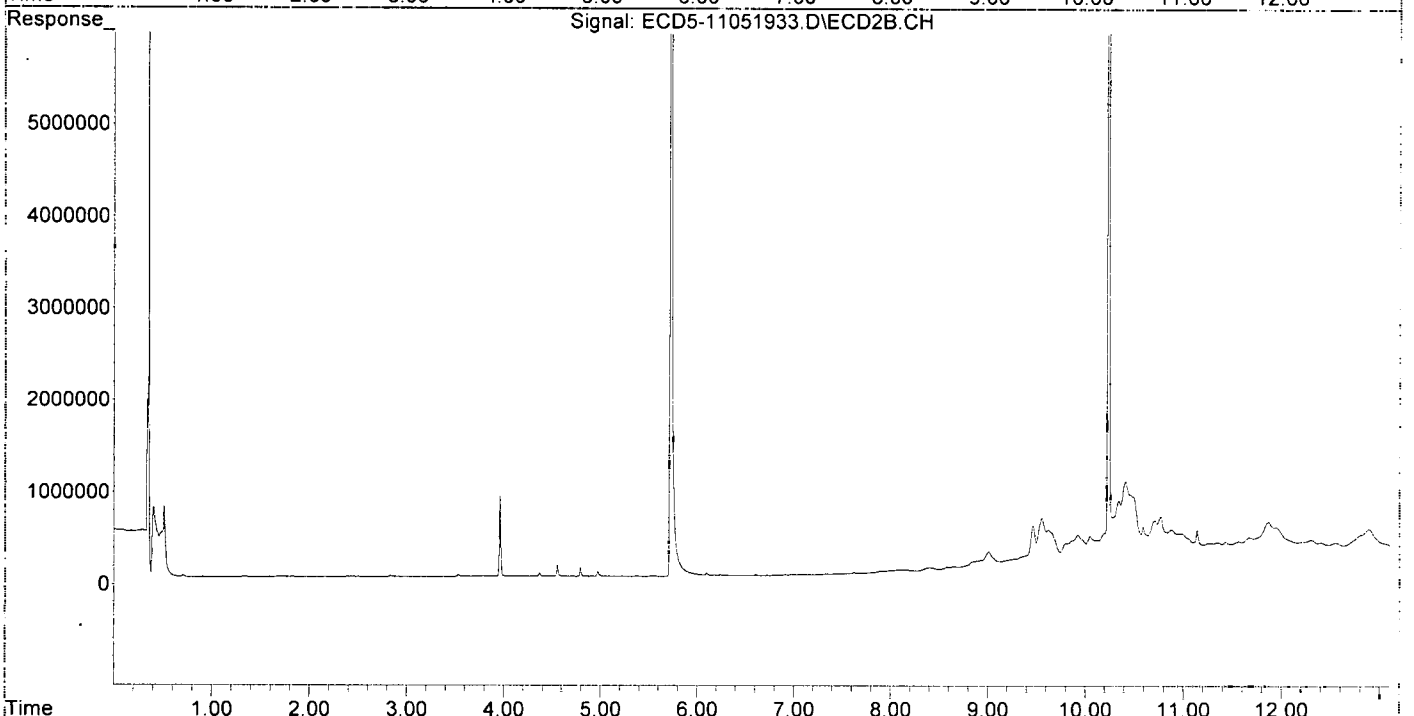
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 11:44:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

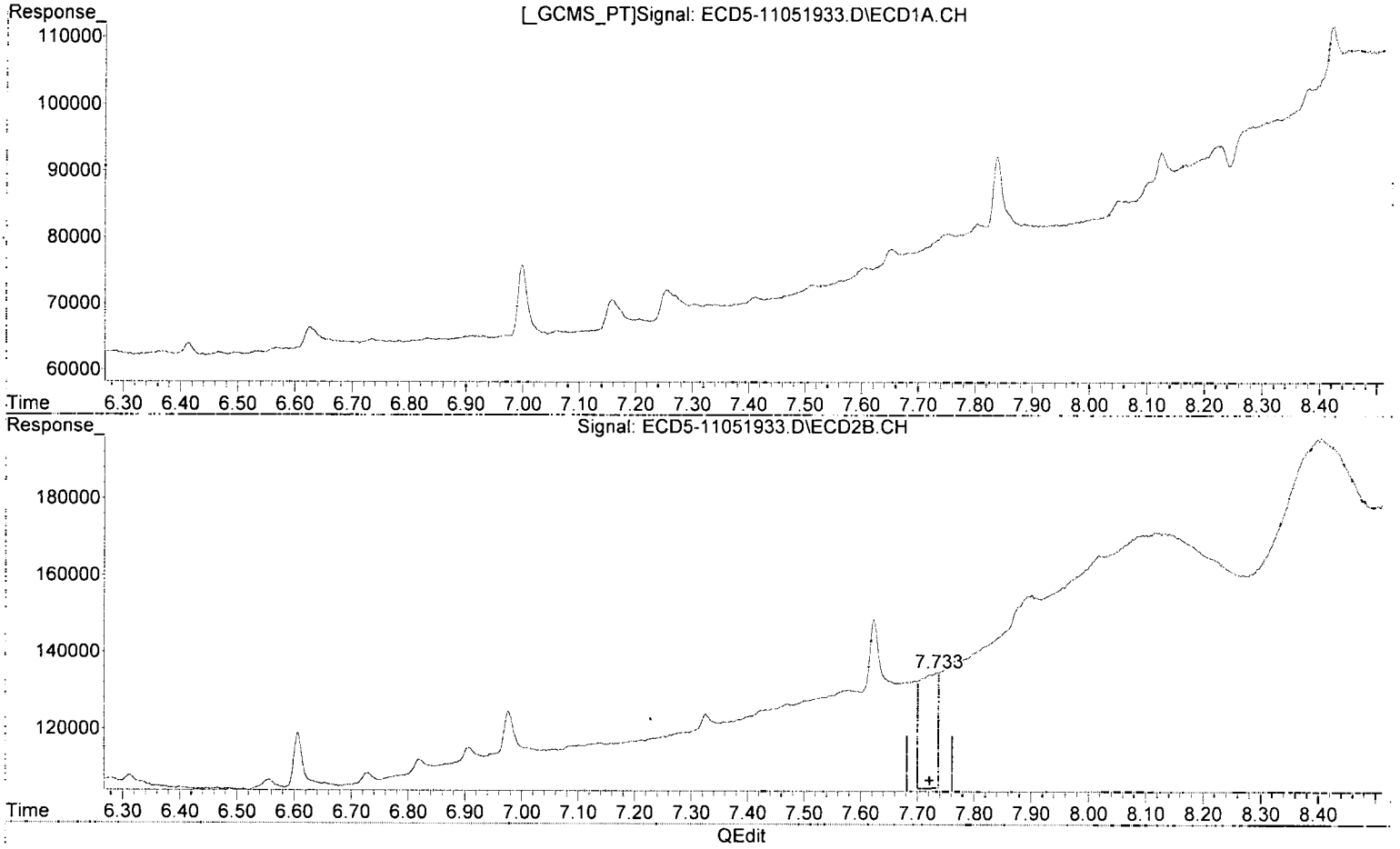




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(8) Heptachlor Expoxide

0.000min 0.000 ng/mL

response 0

MJB 1/6/19

(8) Heptachlor Expoxide #2

7.733min 0.100 ng/mL (m)

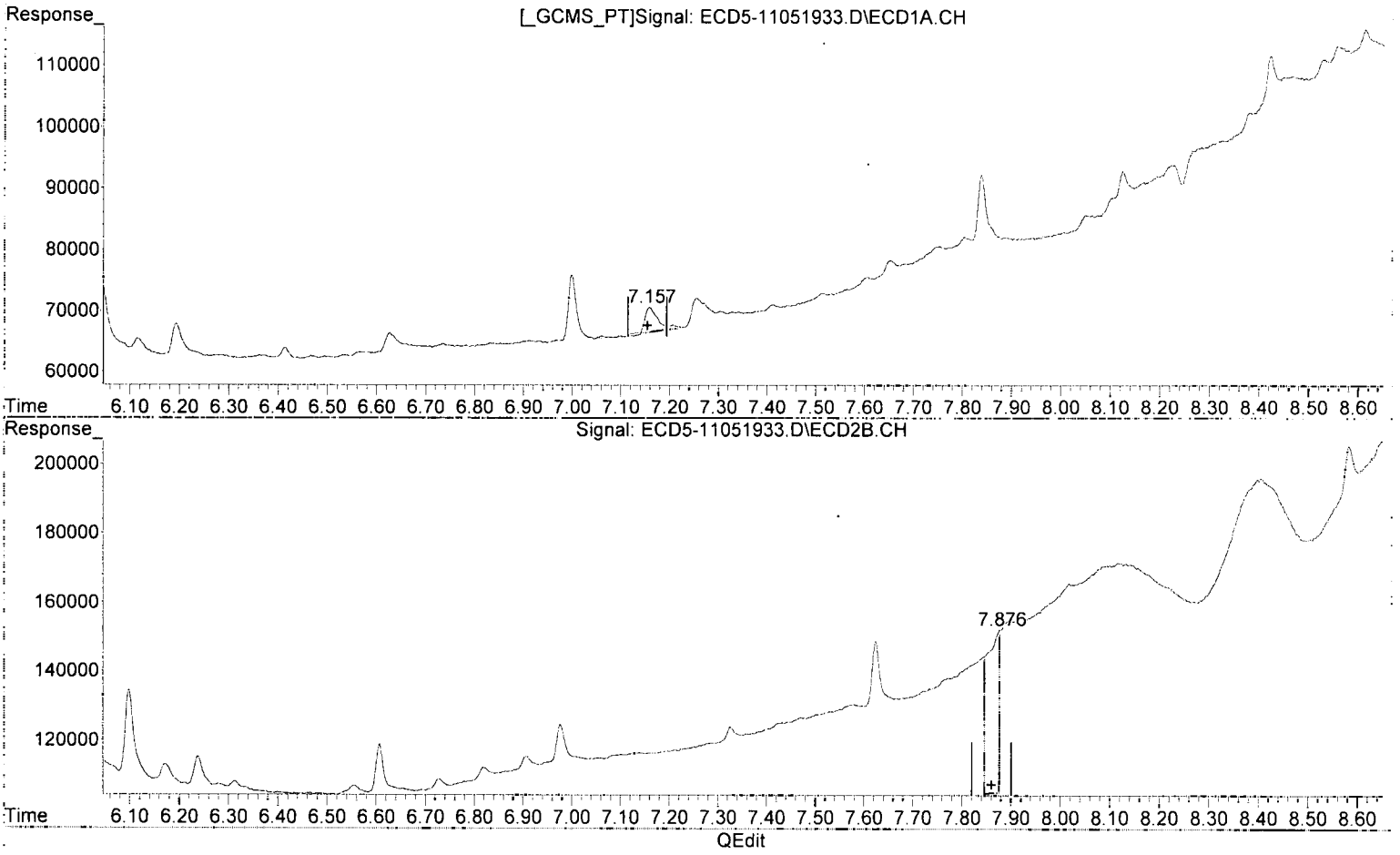
response 29958

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(9) trans-Chlordane

7.159min 0.021 ng/mL

response 3968

MJB 11/6/19

(9) trans-Chlordane #2

7.876min 0.151 ng/mL m

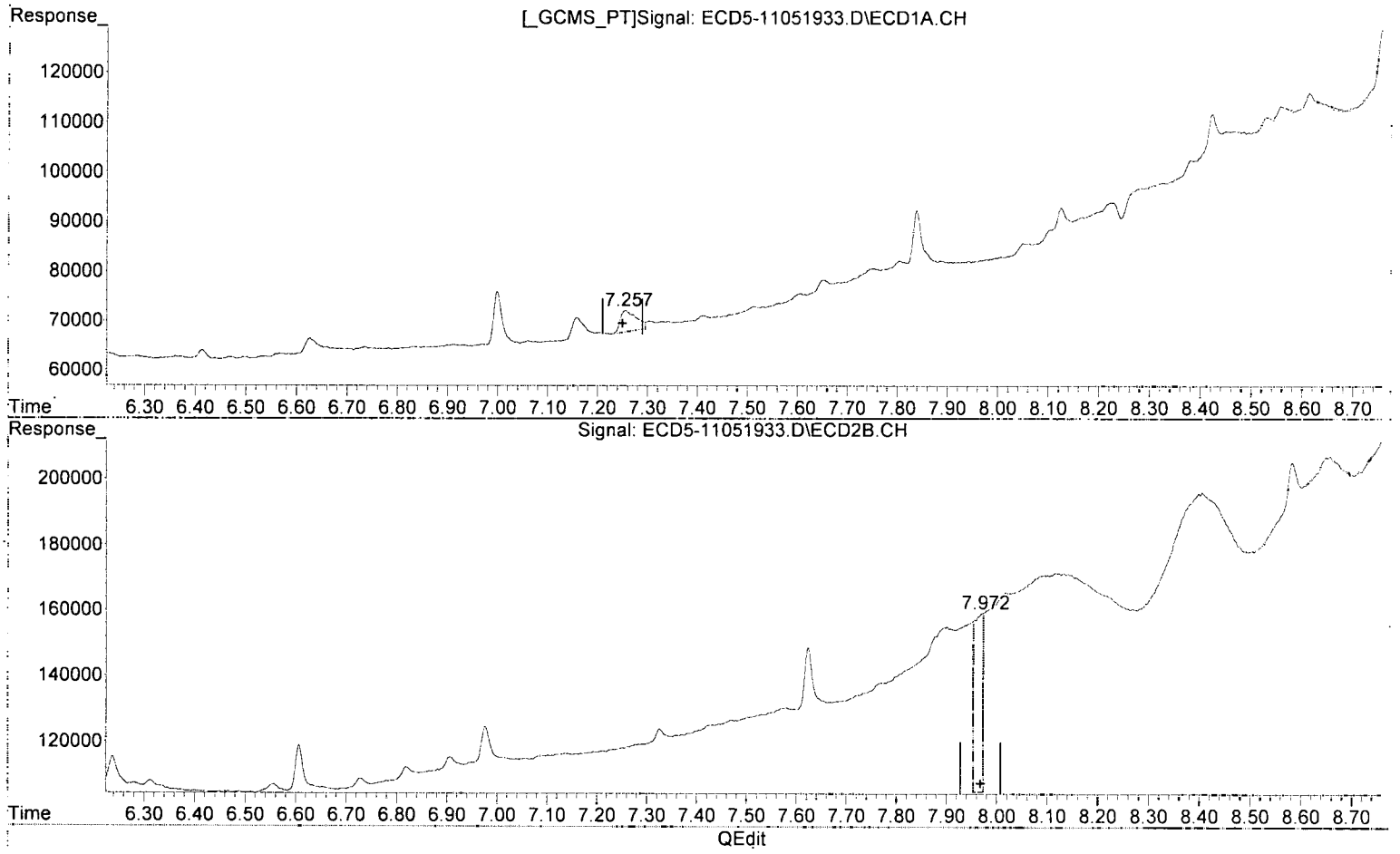
response 47242

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(10) cis-Chlordane

7.256min 0.023 ng/mL

response 4247

MJB 11/6/19

(10) cis-Chlordane #2

7.972min 0.187 ng/mL (m)

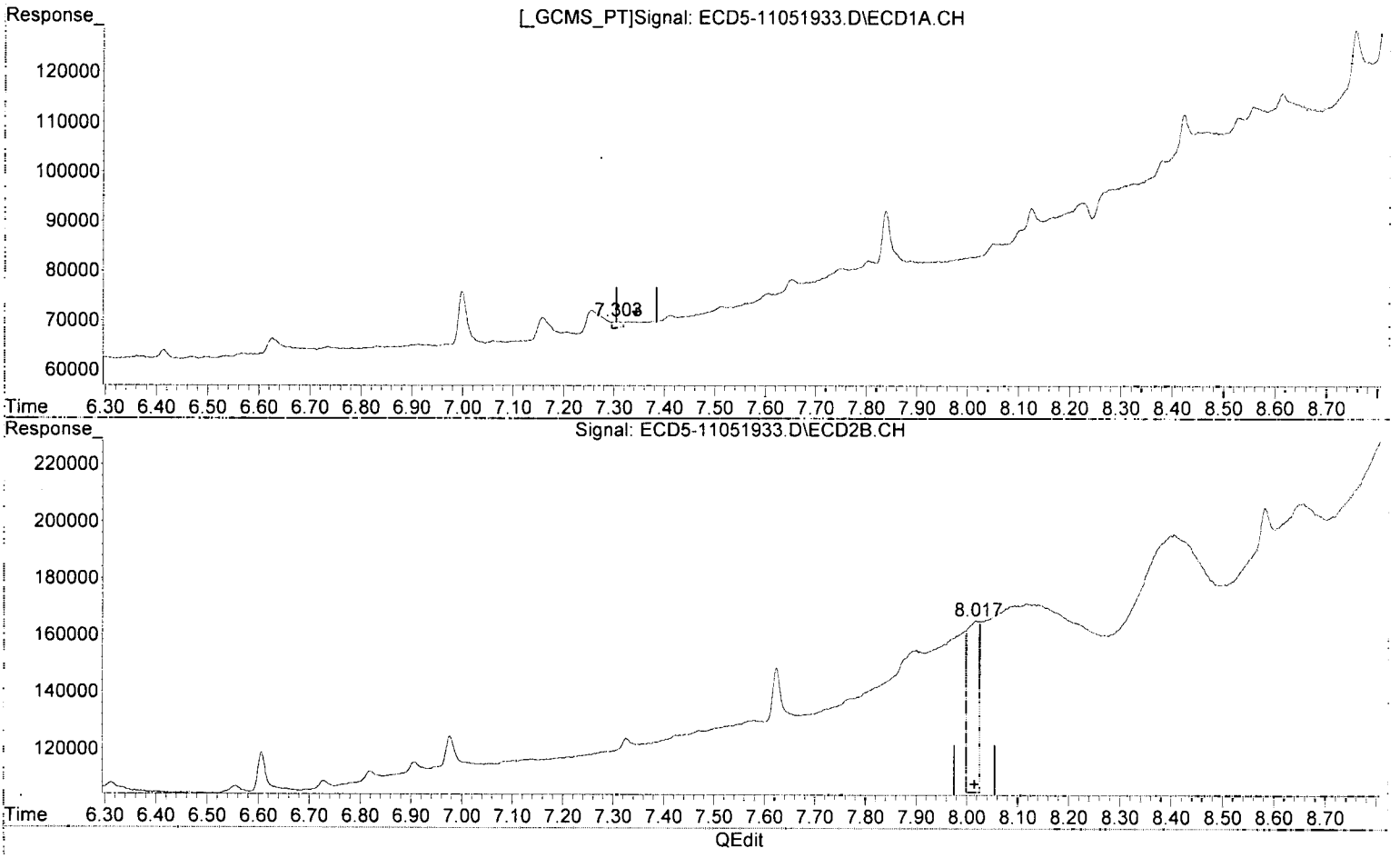
response 54507

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.305min 0.008 ng/mL

response 1321

MJB 11/6/19

(11) Endosulfan I #2

8.017min 0.220 ng/mL (m)

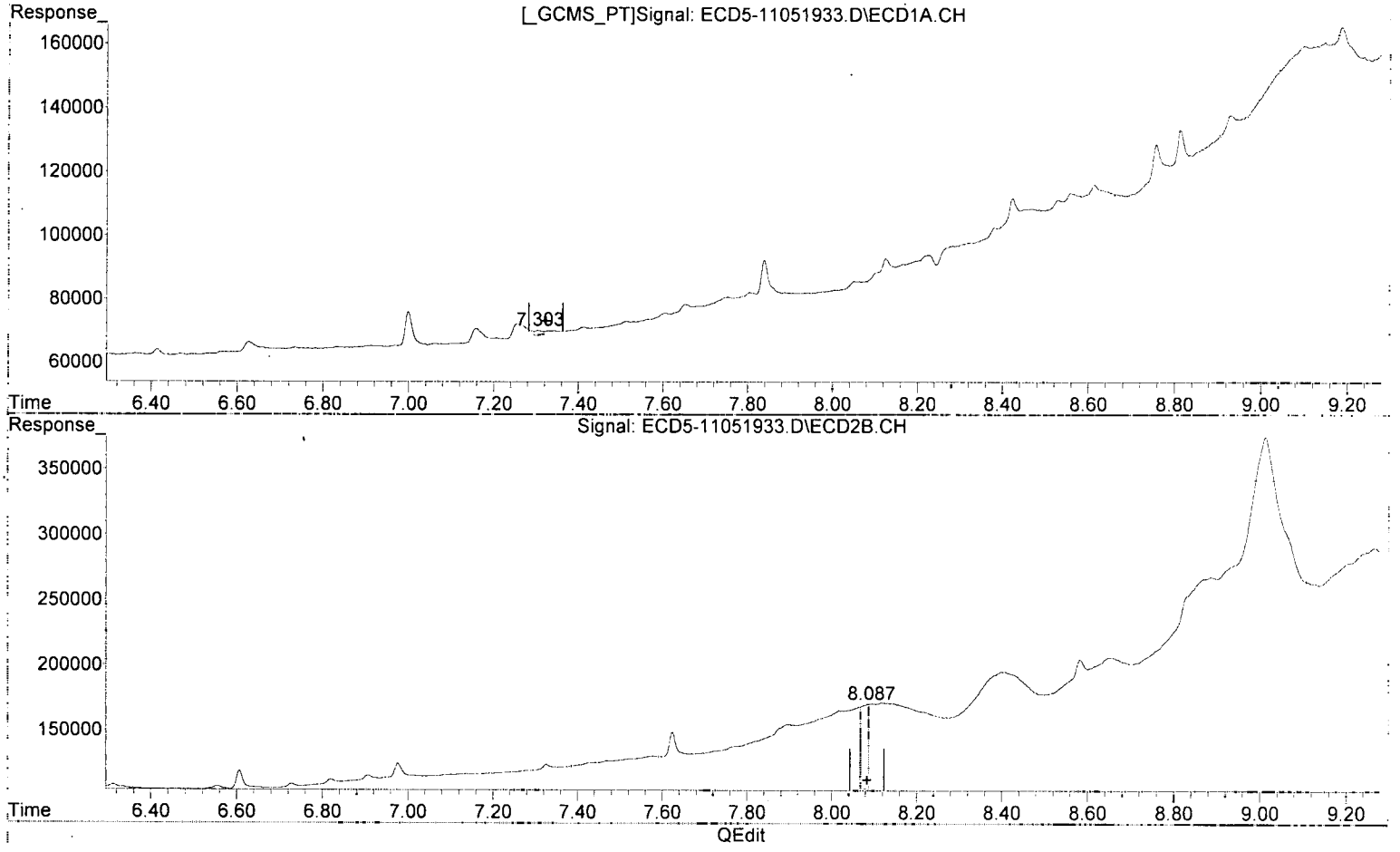
response 60519

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.305min 0.007 ng/mL

response 1321

MJB 11/4/19

(12) 4,4'-DDE #2

8.087min 0.212 ng/mL (m)

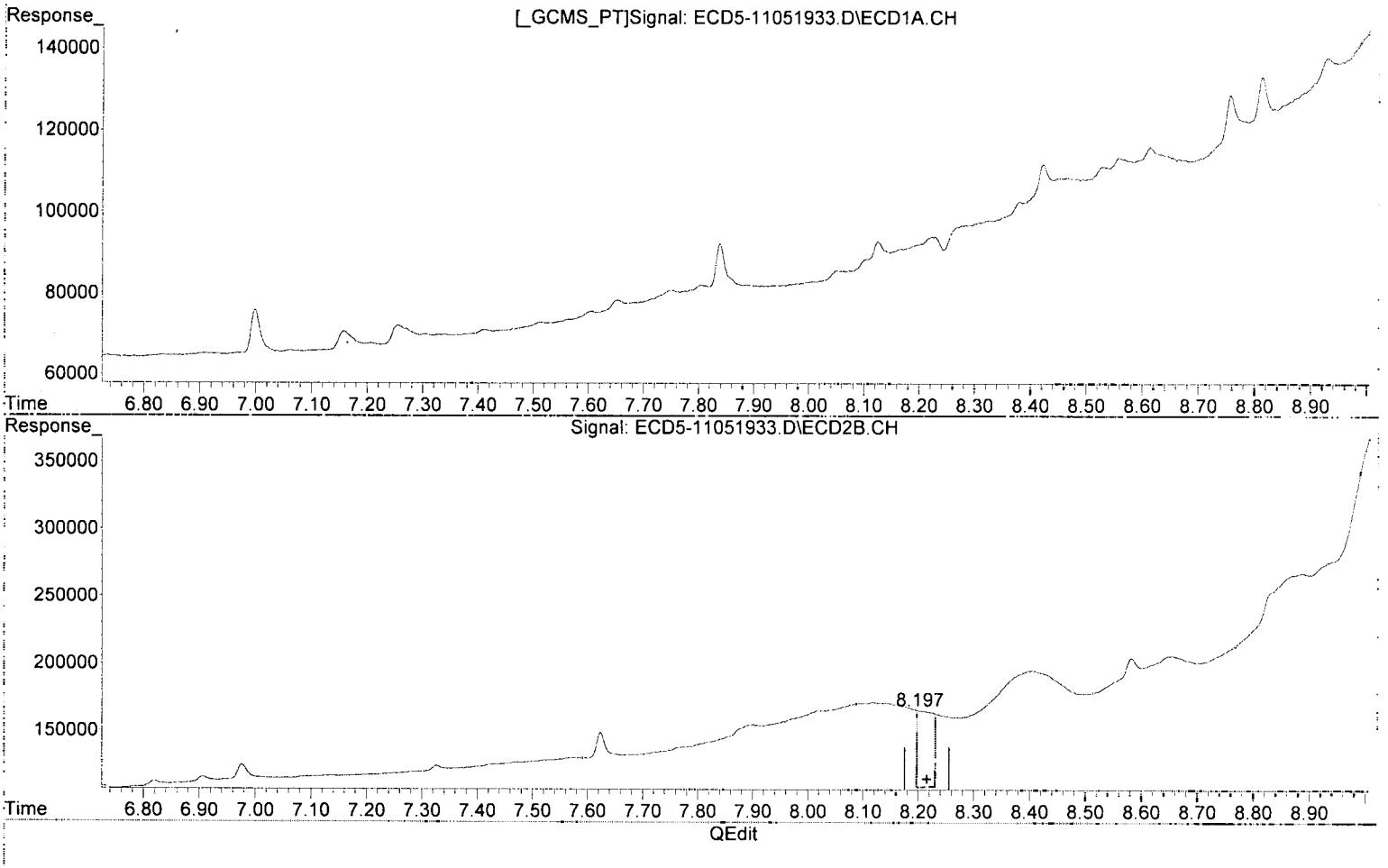
response 65732

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(13) Dieldrin

0.000min 0.000 ng/mL

response 0

MD 11/6/19

(13) Dieldrin #2

8.197min 0.188 ng/mL (m)

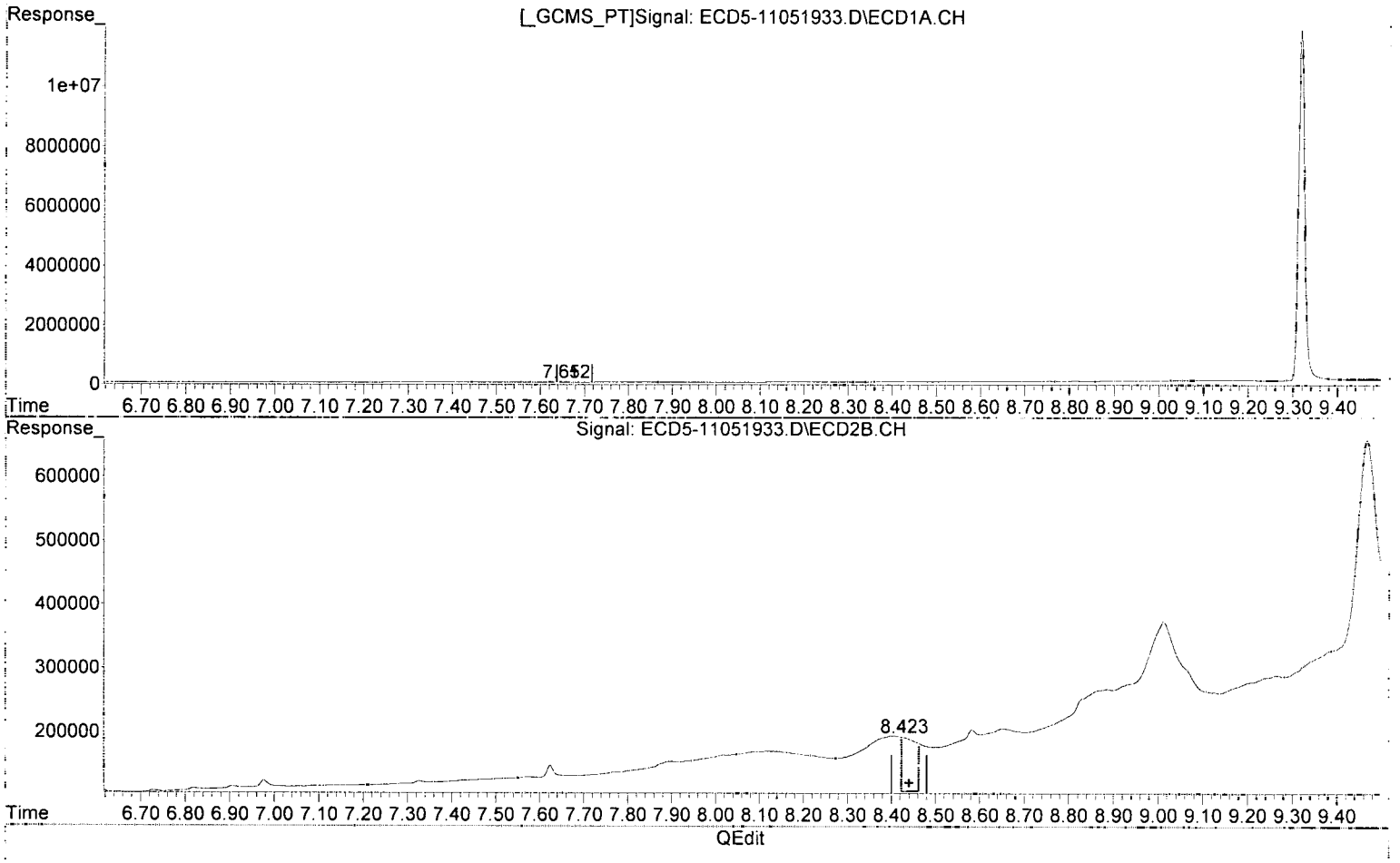
response 57057

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Endrin

7.653min 0.017 ng/mL

response 2456

MJB 11/14/19

(14) Endrin #2

8.422min 0.380 ng/mL m

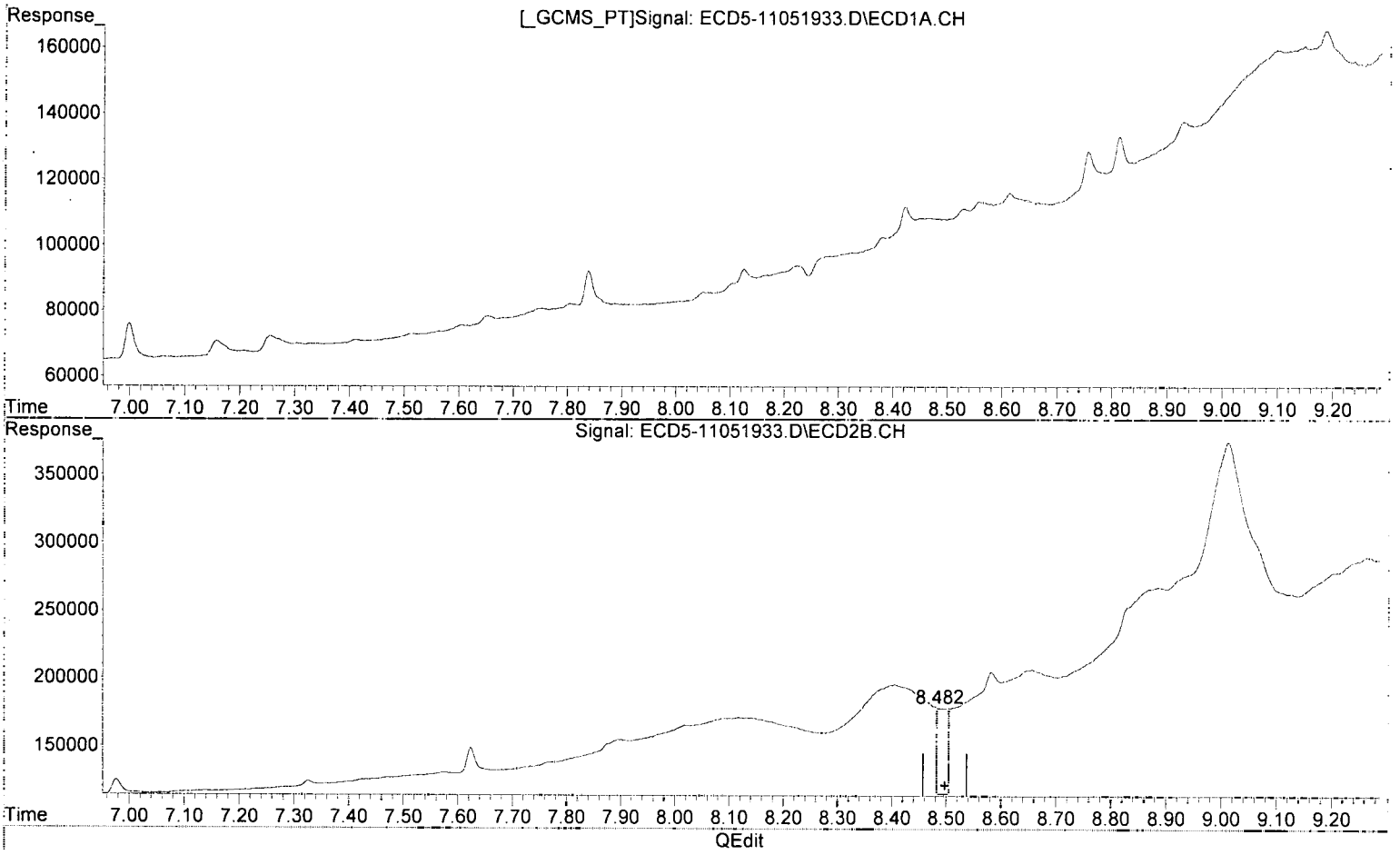
response 85738

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(15) 4,4'-DDD #2

8.482min 0.250 ng/mL (m)

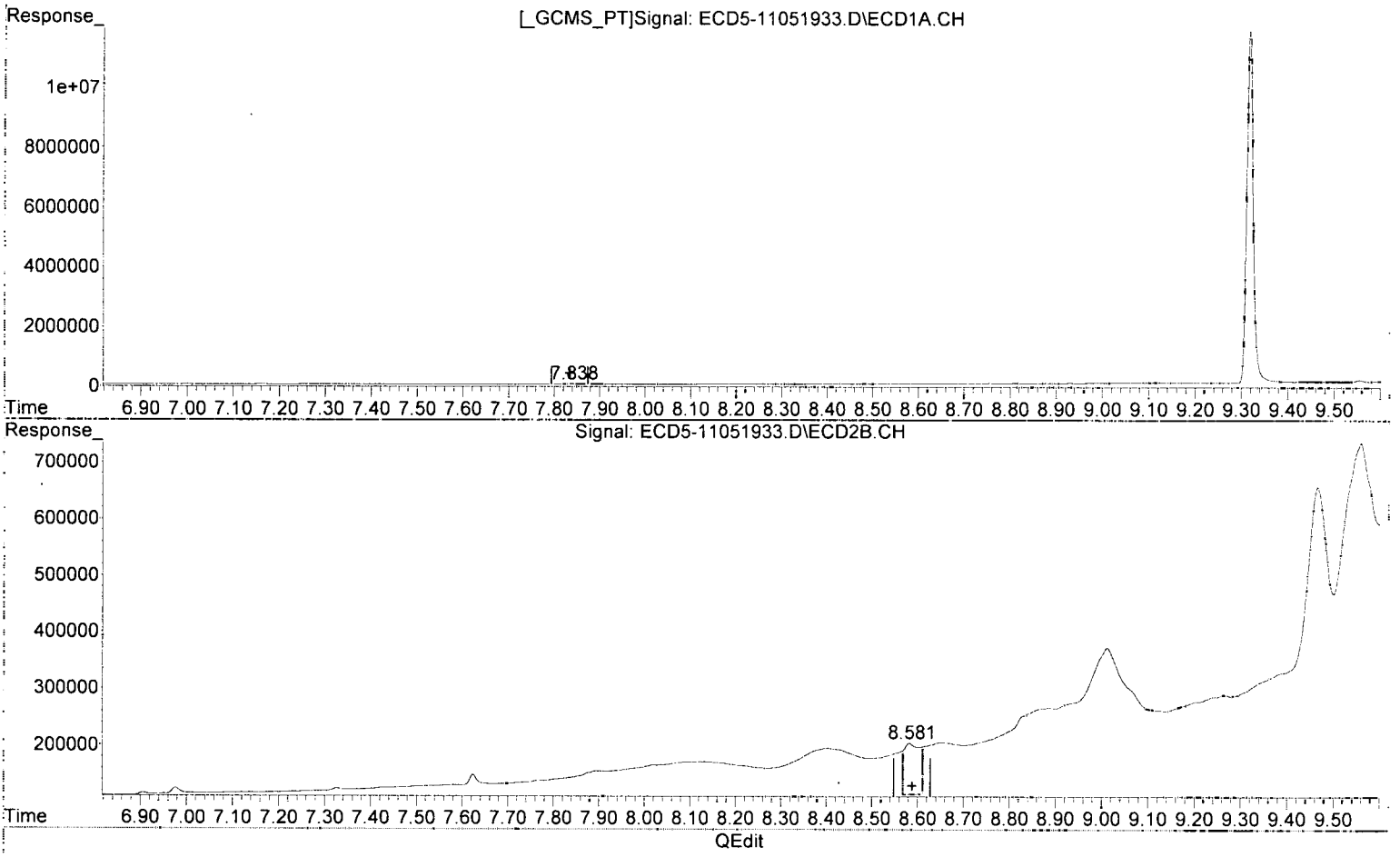
response 64140

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(16) Endosulfan II

7.839min 0.085 ng/mL

response 12139

MJB 1/6/19

(16) Endosulfan II #2

8.581min 0.395 ng/mL (m)

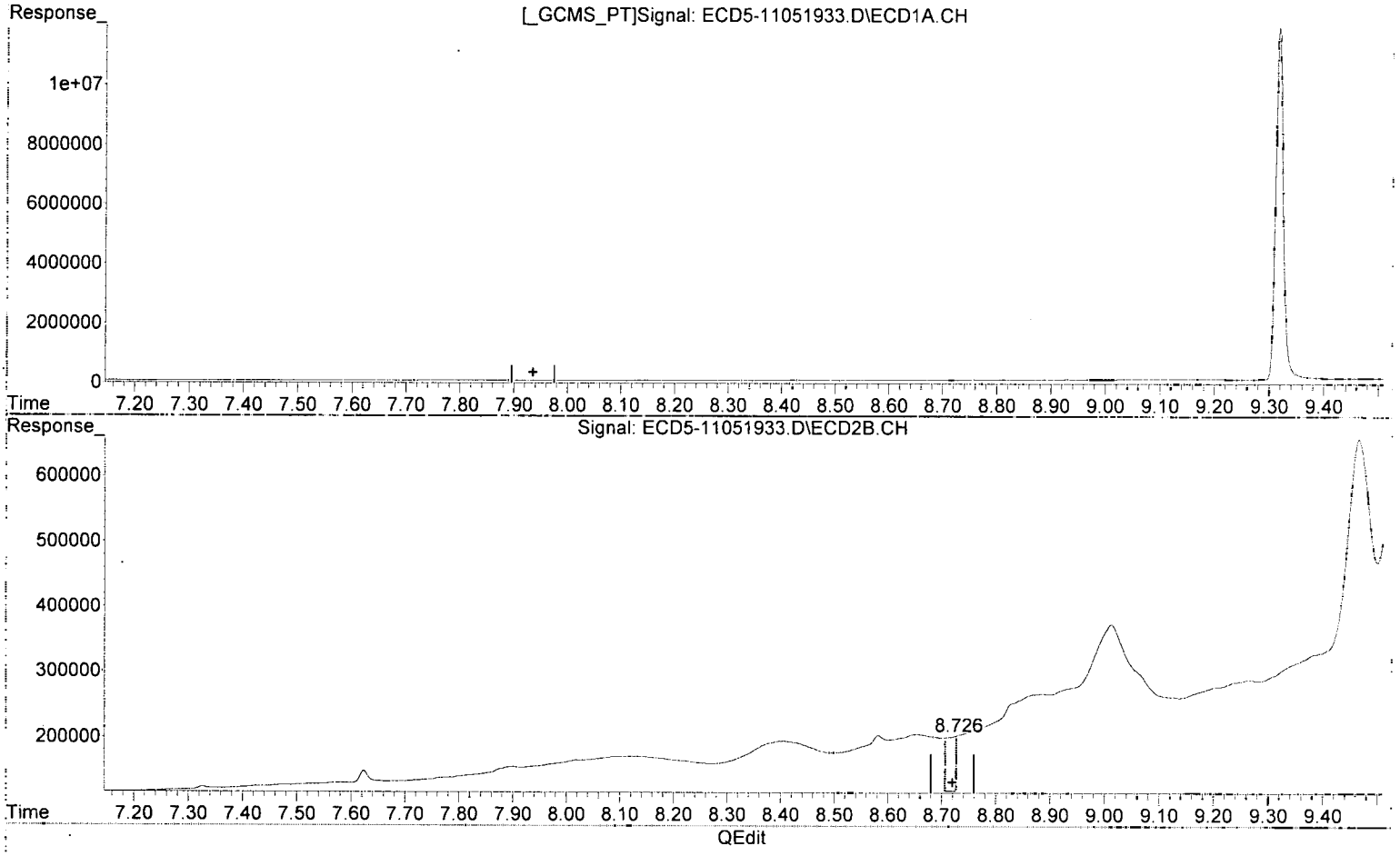
response 91134

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(17) 4,4'-DDT #2

8.726min 0.460 ng/mL (m)

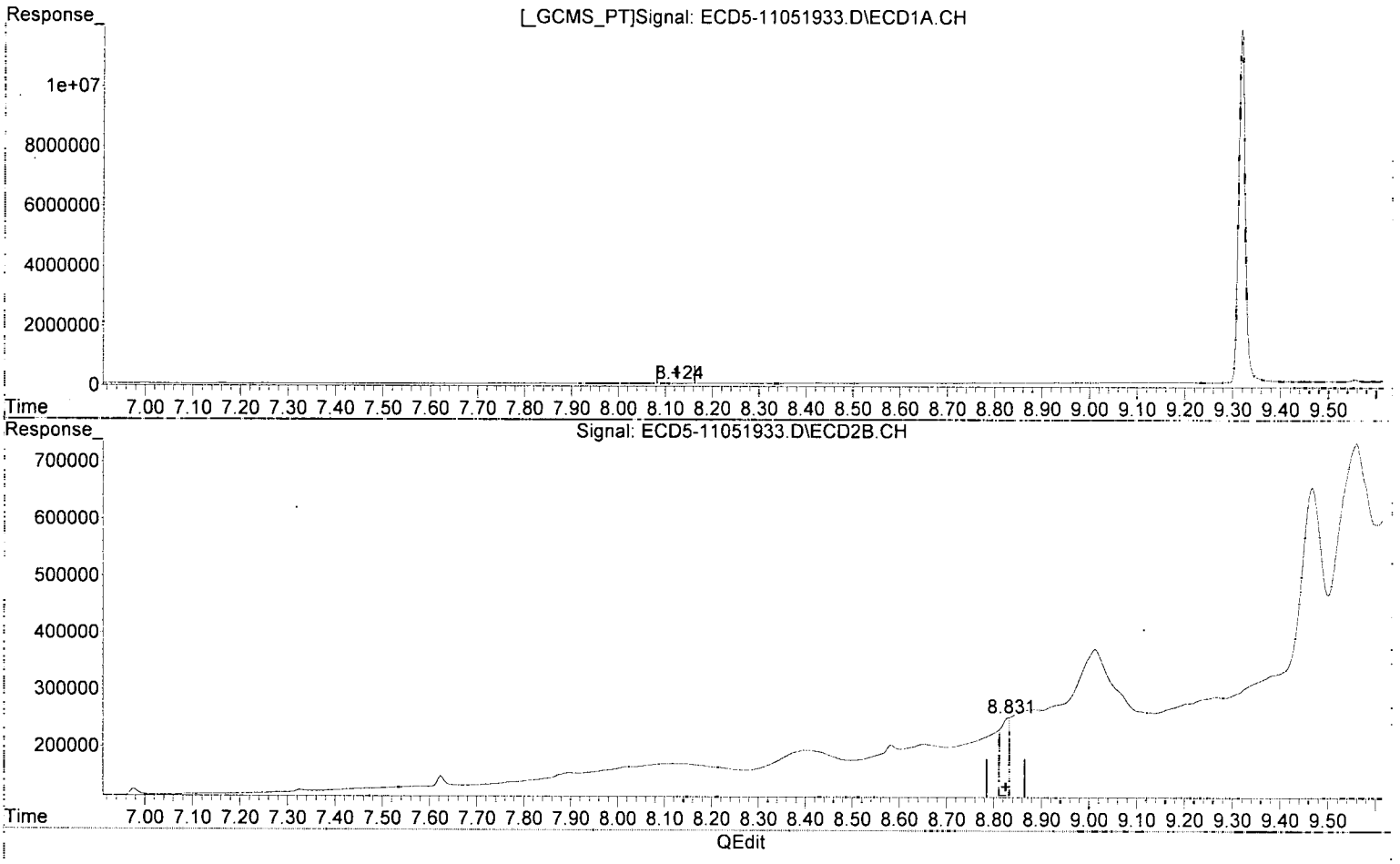
response 85413

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.126min -0.979 ng/mL

response 5241

MJ 11/6/19

(18) Endrin Aldehyde #2

8.831min -0.095 ng/mL m

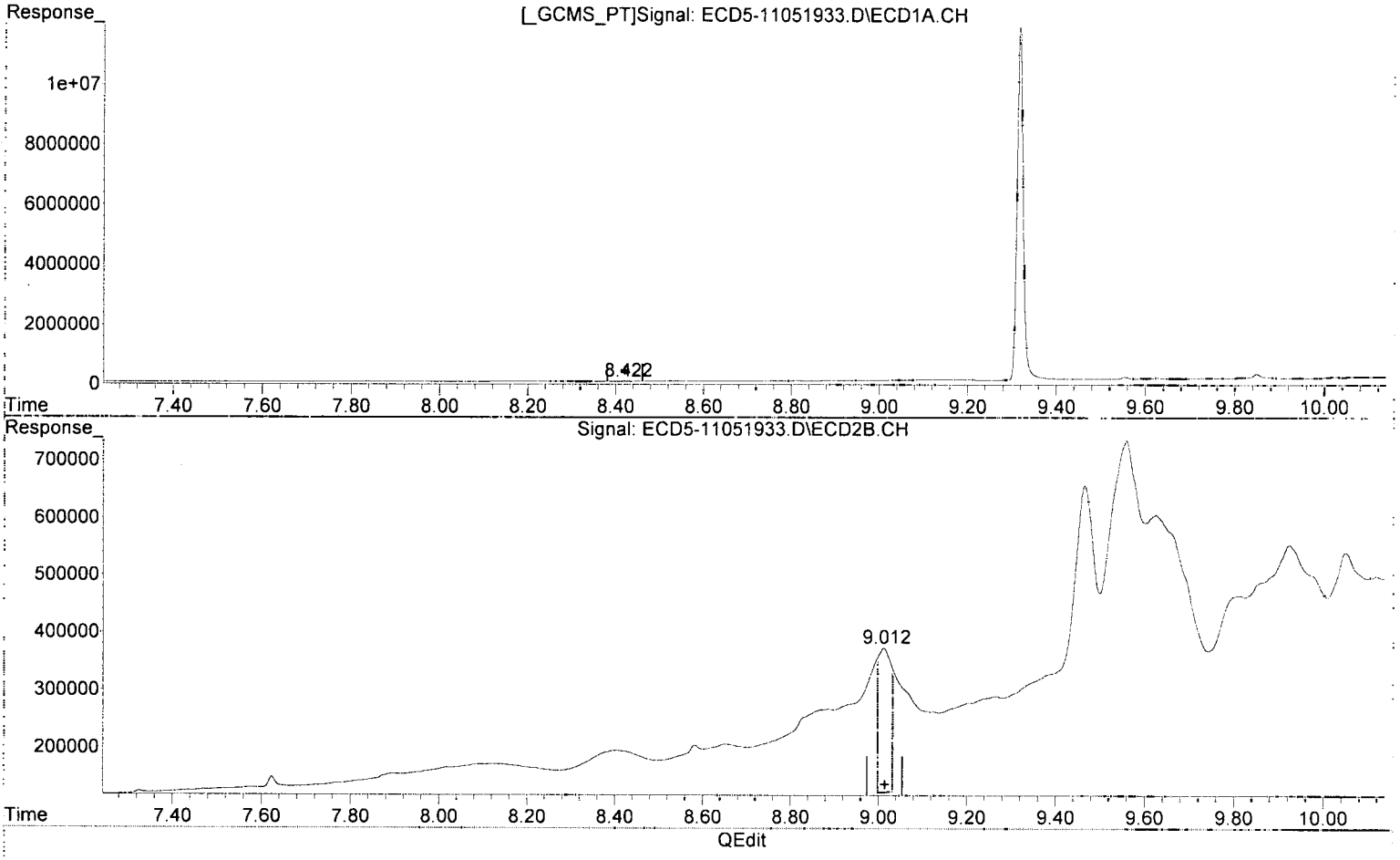
response 137698

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(19) Endosulfan Sulfate

8.423min 0.078 ng/mL

response 12153

MJB 11/6/19

(19) Endosulfan Sulfate #2

9.012min 1.008 ng/mL m QP-01

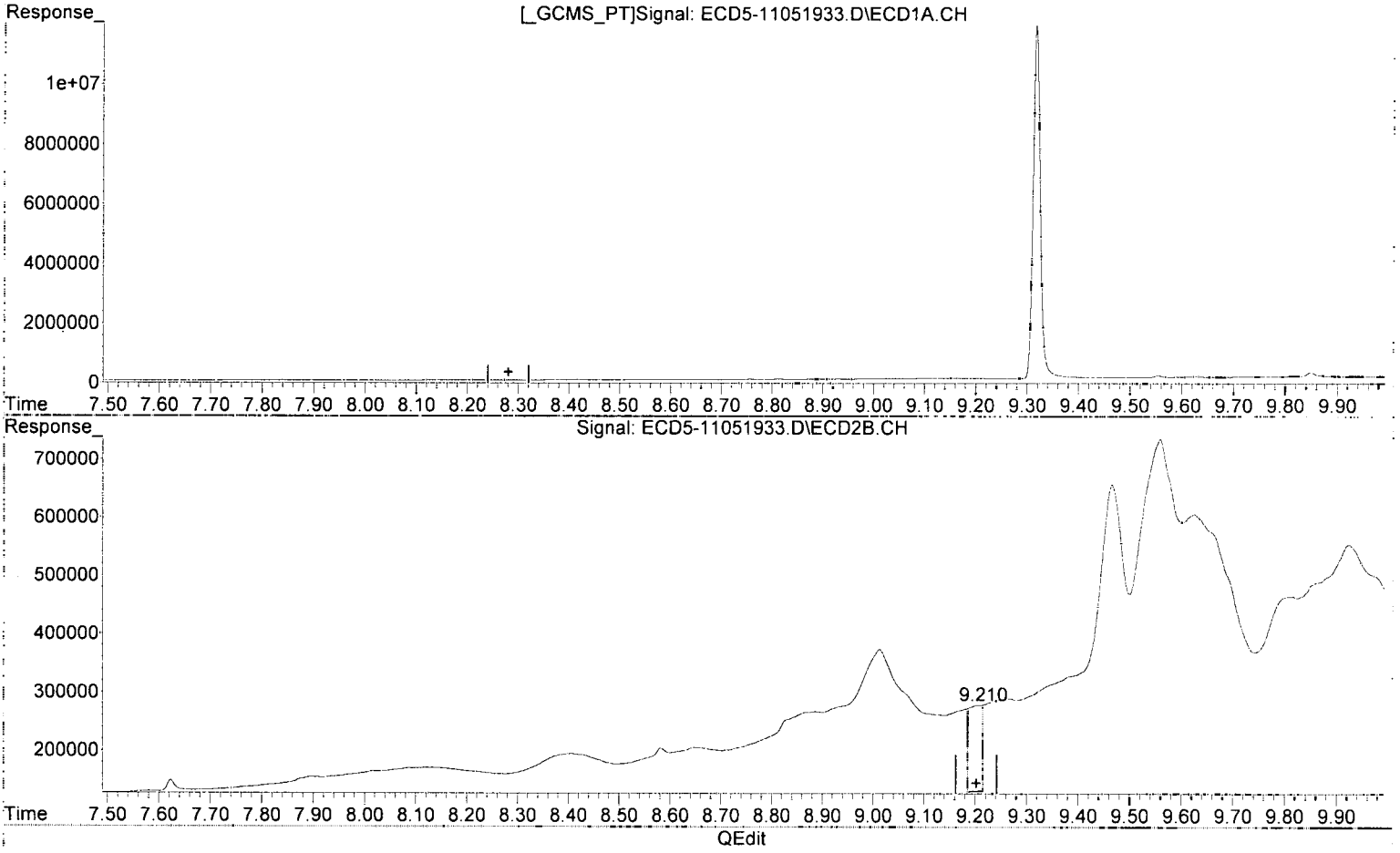
response 251082

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(20) Methoxychlor #2

9.210min 1.645 ng/mL m

response 147791

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
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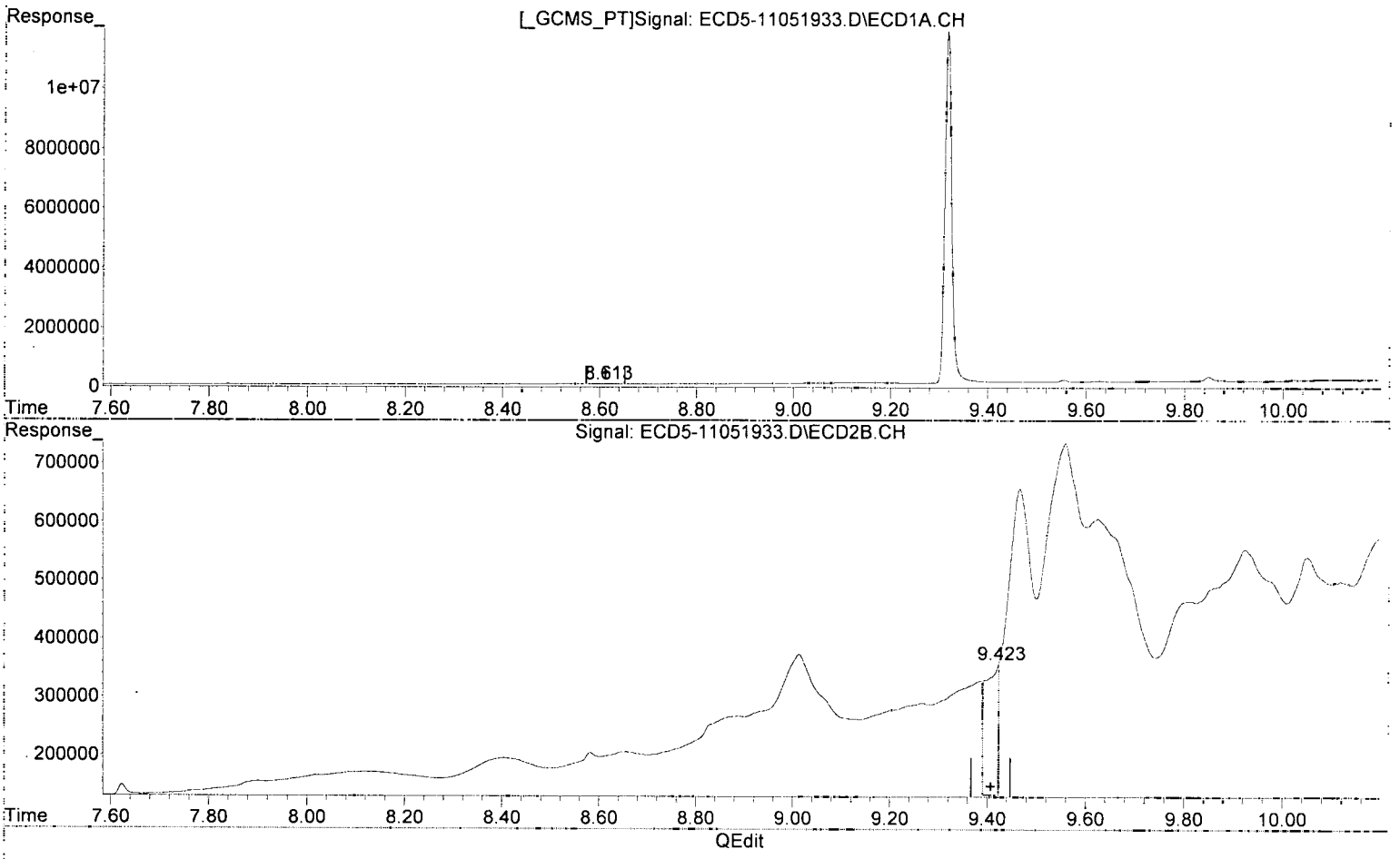


(21) Endrin Ketone

8.614min 0.041 ng/mL

response 6902

MJB 11/6/19

(21) Endrin Ketone #2

9.423min 0.875 ng/mL (m)

response 225226

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MF MJB 11/6/19

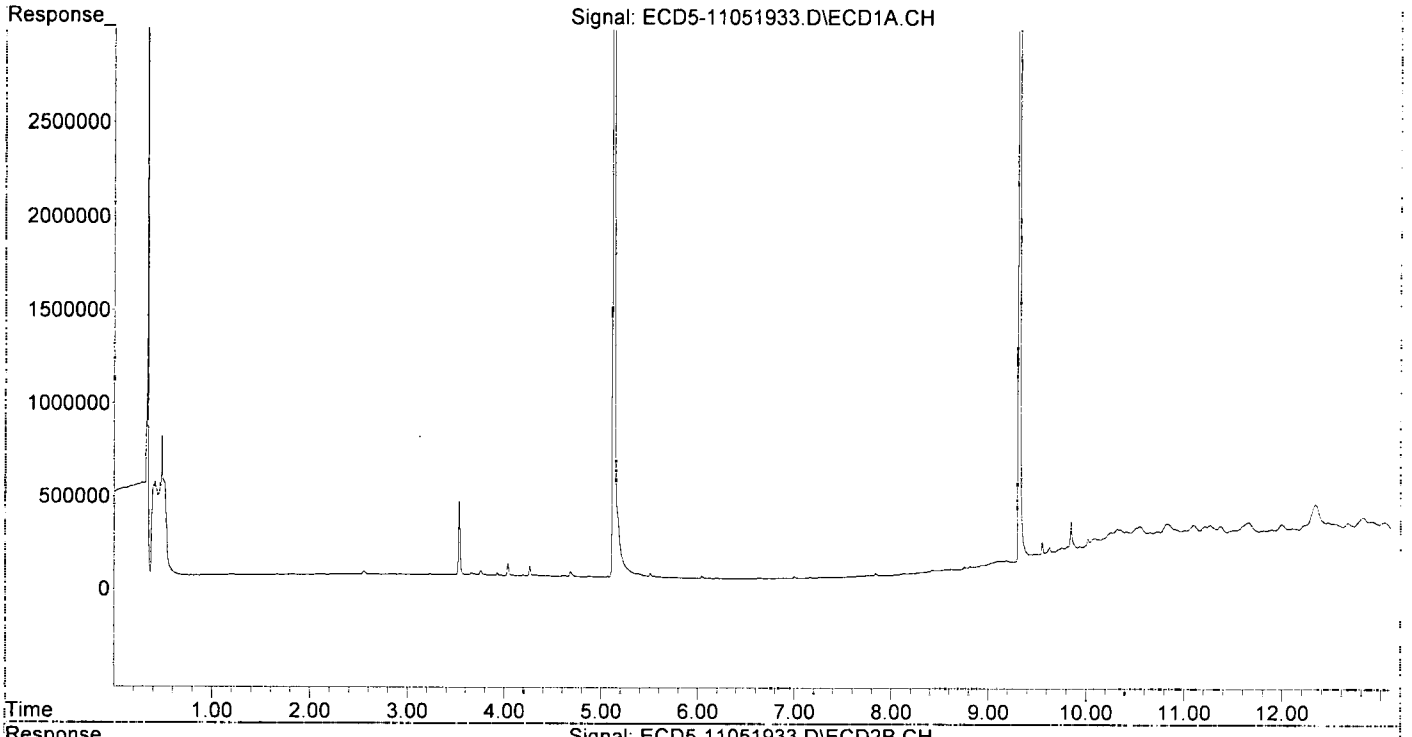
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020	
22)	S	DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.043	0.000	11416	0	0.126	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.194	6.976	5094	10429	0.026	0.030	
7)		Aldrin	6.627f	0.000	2755	0	0.014	N.D.	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.159	0.000	3968	0	0.021	N.D.	#
10)		cis-Chlor...	7.256	0.000	4247	0	0.023	N.D.	#
11)		Endosulfa...	7.305f	0.000	1321	0	0.008	N.D.	#
12)		4,4'-DDE	7.305	8.117f	1321	18883	0.007	0.061	#
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.653f	8.405f	2456	27869	0.017	0.123	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.839	8.582	12139	26283	0.085	0.114	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.126	0.000	5241	0	BelowCal	N.D.	
19)		Endosulfa...	8.423	9.012	12153	169100	0.078	0.679	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.614	0.000	6902	0	0.041	N.D.	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.509	6.172f	21249	8043	0.121	0.026	#
25)		Oxychlordane	6.999	7.623f	10731	18388	0.065	0.067	
26)		2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
27)		trans-Non...	7.256	0.000	4247	0	87346.677	N.D.	#
28)		2,4'-DDD	7.412f	0.000	680	0	0.006	N.D.	#
29)		2,4'-DDT	7.606	0.000	769	0	0.007	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	0.000	0.000	0	0	N.D.	N.D.	
32)		Chlordane...	7.256	0.000	4247	0	0.216	N.D.	#
33)		Chlordane...	7.305f	0.000	1321	0	0.053	N.D.	#
34)		Chlordane...	7.839f	0.000	12139	0	2.100	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.412	8.405f	680	27869	0.760	10.620	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.225	0.000	3601	0	1.111	N.D.	#
40)		Toxaphene...	0.000	9.012f	0	169100	N.D.	36.285	#
41)		Toxaphene...	8.559	0.000	6967	0	2.202	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

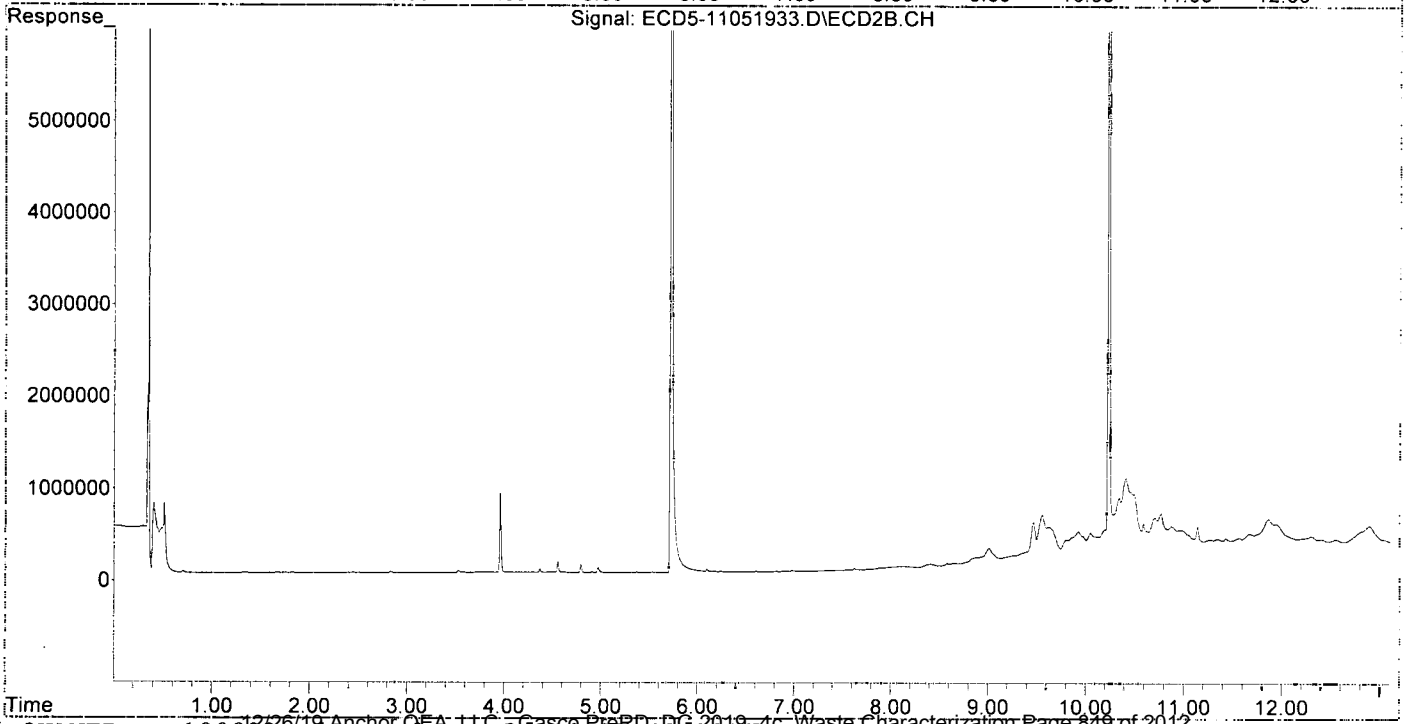
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
Misc : A19K026
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Organochloride Pesticides by EPA 8081B
Calibration Data

Sequence 9H23034 (Cal ID A9H2608) DualECD5

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9H23034**	Instrument:	**DUALECD5**
Date:	**08/23/19 11:23**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H23034-BKD1	Water	QC	QC				A19G138
2	9H23034-BKD2	Water	QC	QC				A19G138
3	9H23034-ICB1	Water	QC	QC				A19H348
4	9H23034-CAL1	Water	QC	QC				A19E245
5	9H23034-CAL2	Water	QC	QC				A19E246
6	9H23034-CAL3	Water	QC	QC				A19E247
7	9H23034-CAL4	Water	QC	QC				A19E249
8	9H23034-CAL5	Water	QC	QC				A19E250
9	9H23034-CAL6	Water	QC	QC				A19H383
10	9H23034-CAL7	Water	QC	QC				A19H384
11	9H23034-CAL8	Water	QC	QC				A19E244
12	9H23034-IBL1	Water	QC	QC				
13	9H23034-ICV1	Water	QC	QC				A19E106
14	9H23034-CAL9	Water	QC	QC				A19E272
15	9H23034-CALA	Water	QC	QC				A19E273
16	9H23034-CALB	Water	QC	QC				A19E274
17	9H23034-CALC	Water	QC	QC				A19E275
18	9H23034-CALD	Water	QC	QC				A19E276
19	9H23034-CALE	Water	QC	QC				A19E154
20	9H23034-CALF	Water	QC	QC				A19E155
21	9H23034-CALG	Water	QC	QC				A19E271
22	9H23034-IBL2	Water	QC	QC				
23	9H23034-ICV2	Water	QC	QC				A19E043
24	9H23034-CALH	Water	QC	QC				A19F232
25	9H23034-CALI	Water	QC	QC				A19F233
26	9H23034-CALJ	Water	QC	QC				A19F234
27	9H23034-CALK	Water	QC	QC				A19F235
28	9H23034-CALL	Water	QC	QC				A19F236
29	9H23034-CALM	Water	QC	QC				A19F231
30	9H23034-IBL3	Water	QC	QC				
31	9H23034-ICV3	Water	QC	QC				A19E108
32	9H23034-CALN	Water	QC	QC				A19D122
33	9H23034-CALO	Water	QC	QC				A19D123
34	9H23034-CALP	Water	QC	QC				A19D124
35	9H23034-CALQ	Water	QC	QC				A19D125
36	9H23034-CALR	Water	QC	QC				A19D126
37	9H23034-CALS	Water	QC	QC				A19D121
38	9H23034-IBL4	Water	QC	QC				
39	9H23034-ICV4	Water	QC	QC				A19D127

Data Entered By: MJB 8/26/19

Comments: ICAL

Data Reviewed By: [illegible] 8/30/19

Calibration Status Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

A9H2608

MJB 8/26/19

#	ID	Conc	ISTD Conc	Path\File
1	1	50	0	R:\data\2019-08\9H23034\ECD5-08231936.D
2	2	100	0	R:\data\2019-08\9H23034\ECD5-08231937.D
3	3	200	0	R:\data\2019-08\9H23034\ECD5-08231938.D
4	4	500	0	R:\data\2019-08\9H23034\ECD5-08231939.D
5	5	1000	0	R:\data\2019-08\9H23034\ECD5-08231940.D
6	6	2000	0	R:\data\2019-08\9H23034\ECD5-08231941.D
7	7	-1	0	R:\data\2019-08\9H23034\ECD5-08231924.D
8	8	-1	0	R:\data\2019-08\9H23034\ECD5-08231925.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 26 11:47 2019	Aug 26 11:37 2019	23 Aug 2019 21:54
2	2	Aug 26 11:47 2019	Aug 26 11:38 2019	23 Aug 2019 22:11
3	3	Aug 26 11:48 2019	Aug 26 11:39 2019	23 Aug 2019 22:28
4	4	Aug 26 11:48 2019	Aug 26 11:36 2019	23 Aug 2019 22:45
5	5	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:03
6	6	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:20
7	7	Aug 26 11:46 2019	Aug 26 11:26 2019	23 Aug 2019 18:27
8	8	Aug 26 11:46 2019	Aug 26 11:27 2019	23 Aug 2019 18:45

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:23 2019

Response Factor Report DUALECD5

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D 4 =ECD5-08231939.D 5 =ECD5-08231940.D
6 =ECD5-08231941.D 7 =ECD5-08231924.D 8 =ECD5-08231925.D

		Compound	1	2	3	4	5	6	7	8	Avg		%RSD
1)	S	TCMX (S)	1.767	1.750	1.668	1.644	1.606	1.614	1.585	1.642	1.660	E5	4.00
2)		a-BHC	2.320	2.292	2.296	2.347	2.221	2.274	2.236	2.360	2.293	E5	2.14
3)		g-BHC	2.074	2.030	2.041	2.035	1.950	1.957	1.960	2.094	2.018	E5	2.76
4)		b-BHC	1.043	0.971	0.914	0.911	0.824	0.820	0.836	0.912	0.904	E5	8.59
5)		Heptachlor	1.921	1.848	1.798	1.820	1.726	1.747	1.755	1.889	1.813	E5	3.86
6)		d-BHC	1.998	1.935	2.008	2.006	1.867	1.922	1.948	2.051	1.967	E5	3.02
7)		Aldrin	2.055	1.998	2.025	2.011	1.938	1.866	1.911	1.992	1.974	E5	3.23
8)		Heptachlor Exp...	2.005	1.960	1.847	1.865	1.738	1.774	1.732	1.813	1.842	E5	5.42
9)		trans-Chlordane	1.972	1.911	1.853	1.848	1.761	1.792	1.773	1.881	1.849	E5	3.93
10)		cis-Chlordane	2.098	1.950	1.818	1.843	1.698	1.725	1.674	1.760	1.821	E5	7.86
11)		Endosulfan I	1.852	1.787	1.723	1.709	1.645	1.597	1.609	1.693	1.702	E5	5.13
12)		4,4'-DDE	1.934	1.943	1.907	1.891	1.828	1.835	1.805	1.938	1.885	E5	2.92
13)		Dieldrin	1.977	1.979	1.944	1.955	1.833	1.877	1.832	1.961	1.920	E5	3.25
14)		Endrin	1.564	1.493	1.478	1.476	1.404	1.396	1.381	1.571	1.470	E5	4.98
15)		4,4'-DDD	1.650	1.573	1.581	1.566	1.491	1.545	1.544	1.622	1.571	E5	3.11
16)		Endosulfan II	1.581	1.496	1.419	1.448	1.349	1.368	1.354	1.474	1.436	E5	5.61
17)		4,4'-DDT	1.139	1.091	1.106	1.147	1.170	1.241	1.218	1.454	1.196	E5	9.72
18)		Endrin Aldehyde	2.413	1.641	1.367	1.375	1.248	1.245	1.236	1.331	1.482	E5	26.87
19)		Endosulfan Sul...	1.761	1.611	1.538	1.554	1.458	1.484	1.437	1.556	1.550	E5	6.64
20)		Methoxychlor	5.966	5.573	5.408	5.617	5.561	5.721	5.877	7.136	5.857	E4	9.33
21)		Endrin Ketone	1.776	1.656	1.623	1.664	1.604	1.638	1.625	1.755	1.668	E5	3.80
22)	S	DCBP (S)	1.639	1.550	1.402	1.335	1.337	1.336	1.341	1.349	1.411	E5	8.33
23)		Hexachlorobuta...	1.982	1.879	1.918	1.838	1.746	1.752	1.795	1.708	1.827	E5	5.17
24)		Hexachlorobenzene	1.947	1.810	1.708	1.712	1.674	1.782	1.767	1.704	1.763	E5	4.96
25)		Oxychlordane	1.768	1.697	1.639	1.592	1.553	1.677	1.636	1.602	1.645	E5	4.13
26)		2,4'-DDE	1.379	1.326	1.266	1.245	1.224	1.302	1.277	1.241	1.283	E5	4.01
27)		trans-Nonachlor	2.368	2.076	1.866	1.818	1.756	1.916	1.835	1.751	1.923	E5	10.78
28)		2,4'-DDD	1.202	1.165	1.122	1.104	1.098	1.184	1.159	1.096	1.141	E5	3.65
29)		2,4'-DDT	1.071	1.021	1.074	1.052	1.092	1.137	1.177	1.151	1.097	E5	4.88
30)		cis-Nonachlor	2.192	2.117	2.052	2.032	1.997	2.123	2.093	2.002	2.076	E5	3.25
31)		Mirex	1.474	1.334	1.257	1.196	1.164	1.244	1.196	1.164	1.254	E5	8.39
32)		Chlordane (1)	2.018	1.979	1.925	1.926	1.964	2.002			1.969	E4	1.96
33)		Chlordane (2)	2.573	2.520	2.453	2.435	2.508	2.549			2.506	E4	2.14
34)		Chlordane (3)	5.762	5.482	5.508	5.843	5.988	6.104			5.781	E3	4.34
35)		Chlordane - AVE									0.000		-1.00
36)		Toxaphene (1)	9.850	9.158	8.802	8.837	8.719	8.373			8.956	E2	5.64
37)		Toxaphene (2)	1.766	1.661	1.588	1.639	1.556	1.479			1.615	E3	6.08
38)		Toxaphene (3)	3.388	3.328	3.222	3.355	3.496	3.416			3.367	E3	2.72
39)		Toxaphene (4)	3.286	3.203	3.162	3.299	3.287	3.204			3.240	E3	1.78
40)		Toxaphene (5)	2.294	2.290	2.272	2.443	2.546	2.537			2.397	E3	5.33
41)		Toxaphene (6)	3.063	3.026	2.990	3.247	3.407	3.255			3.165	E3	5.17
42)		Toxaphene - AVE									0.000		-1.00

MJB 5/26/19

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5

Signal #2 Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D
4 =ECD5-08231939.D 5 =ECD5-08231940.D 6 =ECD5-08231941.D

		Compound	1	2	3	4	5	6	Avg		%RSD
44)	S	TCMX (S) #2	3.001	3.004	2.876	2.866	2.829	2.839	2.926	3.129 2.934 E5	3.54
45)		a-BHC #2	3.931	3.923	3.971	4.096	3.964	4.053	4.170	4.719 4.103 E5	6.41
46)		g-BHC #2	3.523	3.455	3.485	3.477	3.403	3.476	3.679	4.038 3.567 E5	5.79
47)		b-BHC #2	1.763	1.676	1.577	1.581	1.471	1.503	1.463	1.628 1.583 E5	6.60
48)		Heptachlor #2	3.098	2.934	3.016	3.006	2.913	2.919	3.028	3.564 3.060 E5	6.98
49)		d-BHC #2	3.491	3.346	3.435	3.614	3.299	3.462	3.518	4.049 3.527 E5	6.60
50)		Aldrin #2	3.175	3.177	3.202	3.341	3.151	3.253	3.391	3.661 3.294 E5	5.19
51)		Heptachlor Exp...	3.101	3.031	2.912	2.959	2.826	2.968	3.005	3.267 3.008 E5	4.40
52)		trans-Chlordan...	3.641	3.222	3.004	3.003	2.863	2.936	3.074	3.322 3.133 E5	8.10
53)		cis-Chlordane #2	2.994	2.898	2.870	2.860	2.774	2.800	2.904	3.199 2.912 E5	4.59
54)		Endosulfan I #2	2.789	2.702	2.654	2.724	2.629	2.742	2.721	3.052 2.752 E5	4.77
55)		4,4'-DDE #2	2.985	2.990	2.976	3.050	3.000	3.111	3.250	3.492 3.107 E5	5.82
56)		Dieldrin #2	2.967	2.919	2.925	2.899	2.934	3.087	3.100	3.502 3.042 E5	6.61
57)		Endrin #2	2.229	2.124	2.186	2.244	2.130	2.203	2.310	2.639 2.258 E5	7.32
58)		4,4'-DDD #2	2.515	2.441	2.417	2.425	2.459	2.632	2.630	2.978 2.562 E5	7.37
59)		Endosulfan II #2	2.322	2.311	2.193	2.244	2.179	2.307	2.302	2.592 2.306 E5	5.55
60)		4,4'-DDT #2	1.797	1.709	1.747	1.841	1.792	1.857	1.979	2.410 1.892 E5	11.88
61)		Endrin Aldehyd...	3.486	2.388	2.092	2.125	1.939	2.042	2.050	2.254 2.297 E5	21.77
62)		Endosulfan Sul...	2.658	2.494	2.352	2.425	2.392	2.430	2.448	2.730 2.491 E5	5.35
63)		Methoxychlor #2	0.952	0.890	0.828	0.883	0.867	0.869	0.944	1.186 0.927 E5	12.09
64)		Endrin Ketone #2	2.558	2.466	2.410	2.497	2.357	2.591	2.664	3.043 2.573 E5	8.31
65)	S	DCBP (S) #2	1.916	1.950	1.742	1.679	1.665	1.746	1.778	1.905 1.798 E5	6.18
66)		Hexachlorobuta...	3.832	3.773	3.755	3.702	3.557	3.727	3.930	3.799 3.759 E5	2.87
67)		Hexachlorobenz...	3.280	3.164	2.971	2.936	2.967	3.219	3.277	3.313 3.141 E5	5.04
68)		Oxychlordane #2	2.791	2.705	2.651	2.539	2.481	2.835	2.973	2.937 2.739 E5	6.49
69)		2,4'-DDE #2	2.192	2.059	2.059	2.018	2.000	2.201	2.216	2.225 2.121 E5	4.52
70)		trans-Nonachlo...	3.062	2.939	2.935	2.844	2.837	3.162	3.198	3.154 3.016 E5	4.84
71)		2,4'-DDD #2	1.920	1.868	1.797	1.779	1.756	1.985	2.012	1.992 1.889 E5	5.47
72)		2,4'-DDT #2	1.733	1.661	1.746	1.703	1.762	1.762	1.900	2.000 1.783 E5	6.24
73)		cis-Nonachlor #2	3.327	3.124	3.174	3.148	3.288	3.544	3.607	3.623 3.354 E5	6.23
74)		Mirex #2	2.098	1.941	1.791	1.723	1.655	1.820	1.936	1.921 1.861 E5	7.59
75)		Chlordane (1) #2	3.509	3.378	3.376	3.566	3.797	4.085		3.618 E4	7.62
76)		Chlordane (2) #2	2.945	2.906	2.942	2.962	3.149	3.314		3.036 E4	5.30
77)		Chlordane (3) #2	8.780	8.745	8.659	8.543	9.359	9.709		8.966 E3	5.14
78)		Chlordane - AV...								0.000	-1.00
79)		Toxaphene (1) #2	2.737	2.675	2.545	2.618	2.655	2.515		2.624 E3	3.16
80)		Toxaphene (2) #2	3.294	3.241	3.227	3.295	3.384	3.305		3.291 E3	1.70
81)		Toxaphene (3) #2	5.097	4.944	4.978	4.950	5.168	5.273		5.068 E3	2.65
82)		Toxaphene (4) #2	8.327	8.119	7.902	8.505	8.650	8.595		8.350 E3	3.51
83)		Toxaphene (5) #2	4.664	4.522	4.477	4.681	4.900	4.718		4.660 E3	3.24
84)		Toxaphene (6) #2	4.618	4.525	4.526	4.740	5.047	5.045		4.750 E3	5.10
85)		Toxaphene - AV...								0.000	-1.00

(#) = Out of Range

MJB 8/26/19

Compound List Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Total Cpnds : 85

MWB 8/26/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.394	1.000	A	H	R
2		a-BHC	5.934	1.000	A	H	R
3		g-BHC	6.218	1.000	A	H	R
4		b-BHC	6.296	1.000	A	H	R
5		Heptachlor	6.632	1.000	A	H	R
6		d-BHC	6.446	1.000	A	H	R
7		Aldrin	6.873	1.000	A	H	R
8		Heptachlor Expoxide	7.332	1.000	A	H	R
9		trans-Chlordane	7.428	1.000	A	H	R
10		cis-Chlordane	7.524	1.000	A	H	R
11		Endosulfan I	7.621	1.000	A	H	R
12		4,4'-DDE	7.583	1.000	A	H	R
13		Dieldrin	7.792	1.000	A	H	R
14		Endrin	7.957	1.000	A	H	R
15		4,4'-DDD	8.003	1.000	A	H	R
16		Endosulfan II	8.114	1.000	A	H	R
17		4,4'-DDT	8.202	1.000	A	H	R
18		Endrin Aldehyde	8.403	1.000	Q	H	R
19		Endosulfan Sulfate	8.705	1.000	A	H	R
20		Methoxychlor	8.540	1.000	A	H	R
21		Endrin Ketone	8.899	1.000	A	H	R
22	S	DCBP (S)	9.592	1.000	A	H	R
23		Hexachlorobutadiene	3.198	1.000	A	H	R
24		Hexachlorobenzene	5.774	1.000	A	H	R
25		Oxychlordane	7.261	1.000	A	H	R
26		2,4'-DDE	7.333	1.000	A	H	R
27		trans-Nonachlor	7.515	1.000	Q	H	R
28		2,4'-DDD	7.705	1.000	A	H	R
29		2,4'-DDT	7.887	1.000	A	H	R
30		cis-Nonachlor	7.985	1.000	A	H	R
31		Mirex	8.652	1.000	A	H	R
32		Chlordane (1)	7.427	1.000	A	H	R
33		Chlordane (2)	7.520	1.000	A	H	R
34		Chlordane (3)	8.067	1.000	A	H	R
35		Chlordane - AVE	3.447	1.000	A	H	R
36		Toxaphene (1)	7.502	1.000	A	H	R
37		Toxaphene (2)	7.794	1.000	A	H	R
38		Toxaphene (3)	8.105	1.000	A	H	R
39		Toxaphene (4)	8.346	1.000	A	H	R
40		Toxaphene (5)	8.574	1.000	A	H	R
41		Toxaphene (6)	8.640	1.000	A	H	R
42		Toxaphene - AVE	3.450	1.000	A	H	R
43		Signal #2	3.544	1.000	A	H	R
44	S	TCMX (S) #2	5.988	1.000	A	H	R
45		a-BHC #2	6.595	1.000	A	H	R
46		g-BHC #2	6.914	1.000	A	H	R
47		b-BHC #2	6.978	1.000	A	H	R
48		Heptachlor #2	7.290	1.000	A	H	R
49		d-BHC #2	7.231	1.000	A	H	R
50		Aldrin #2	7.555	1.000	A	H	R
51		Heptachlor Expoxide #2	7.992	1.000	A	H	R
52		trans-Chlordane #2	8.131	1.000	A	H	R
53		cis-Chlordane #2	8.238	1.000	A	H	R
54		Endosulfan I #2	8.289	1.000	A	H	R
55		4,4'-DDE #2	8.343	1.000	A	H	R
56		Dieldrin #2	8.489	1.000	A	H	R

57		Endrin #2	8.715	1.000	A	H	R
58		4,4'-DDD #2	8.758	1.000	A	H	R
59		Endosulfan II #2	8.863	1.000	A	H	R
60		4,4'-DDT #2	8.984	1.000	Q	H	R
61		Endrin Aldehyde #2	9.099	1.000	Q	H	R
62		Endosulfan Sulfate #2	9.289	1.000	A	H	R
63		Methoxychlor #2	9.463	1.000	Q	H	R
64		Endrin Ketone #2	9.687	1.000	A	H	R
65	S	DCBP (S) #2	10.541	1.000	A	H	R
66		Hexachlorobutadiene #2	3.688	1.000	A	H	R
67		Hexachlorobenzene #2	6.454	1.000	A	H	R
68		Oxychlordane #2	7.920	1.000	A	H	R
69		2,4'-DDE #2	8.122	1.000	A	H	R
70		trans-Nonachlor #2	8.194	1.000	A	H	R
71		2,4'-DDD #2	8.495	1.000	A	H	R
72		2,4'-DDT #2	8.718	1.000	A	H	R
73		cis-Nonachlor #2	8.758	1.000	A	H	R
74		Mirex #2	9.679	1.000	A	H	R
75		Chlordane (1) #2	8.129	1.000	A	H	R
76		Chlordane (2) #2	8.236	1.000	A	H	R
77		Chlordane (3) #2	8.896	1.000	A	H	R
78		Chlordane - AVE #2	3.428	1.000	A	H	R
79		Toxaphene (1) #2	8.466	1.000	A	H	R
80		Toxaphene (2) #2	8.812	1.000	A	H	R
81		Toxaphene (3) #2	8.848	1.000	A	H	R
82		Toxaphene (4) #2	8.915	1.000	A	H	R
83		Toxaphene (5) #2	9.091	1.000	A	H	R
84		Toxaphene (6) #2	9.470	1.000	A	H	R
85		Toxaphene - AVE #2	3.434	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:34 2019

Calibration Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936 2 =ECD5-08231937 3 =ECD5-08231938 4 =ECD5-08231939 5 =ECD5-08

6 =ECD5-08231941 7 =ECD5-08231924 8 =ECD5-08231925

MJB 5/26/19

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	1.6598 e5	-----	0.0400
2)		a-BHC	Avg	-----	2.2933 e5	-----	0.0214
3)		g-BHC	Avg	-----	2.0178 e5	-----	0.0276
4)		b-BHC	Avg	-----	9.0384 e4	-----	0.0859
5)		Heptachlor	Avg	-----	1.8130 e5	-----	0.0386
6)		d-BHC	Avg	-----	1.9669 e5	-----	0.0302
7)		Aldrin	Avg	-----	1.9745 e5	-----	0.0323
8)		Heptachlor Expoxide	Avg	-----	1.8418 e5	-----	0.0542
9)		trans-Chlordane	Avg	-----	1.8489 e5	-----	0.0393
10)		cis-Chlordane	Avg	-----	1.8207 e5	-----	0.0786
11)		Endosulfan I	Avg	-----	1.7018 e5	-----	0.0513
12)		4,4'-DDE	Avg	-----	1.8853 e5	-----	0.0292
13)		Dieldrin	Avg	-----	1.9198 e5	-----	0.0325
14)		Endrin	Avg	-----	1.4703 e5	-----	0.0498
15)		4,4'-DDD	Avg	-----	1.5714 e5	-----	0.0311
16)		Endosulfan II	Avg	-----	1.4361 e5	-----	0.0561
17)		4,4'-DDT	Avg	-----	1.1956 e5	-----	0.0972
18)		Endrin Aldehyde	Quad	1.1904 e5	1.1635 e5	8.0472 e1	0.9966
19)		Endosulfan Sulfate	Avg	-----	1.5498 e5	-----	0.0664
20)		Methoxychlor	Avg	-----	5.8574 e4	-----	0.0933
21)		Endrin Ketone	Avg	-----	1.6676 e5	-----	0.0380
22)	S	DCBP (S)	Avg	-----	1.4110 e5	-----	0.0833
23)		Hexachlorobutadiene	Avg	-----	1.8274 e5	-----	0.0517
24)		Hexachlorobenzene	Avg	-----	1.7629 e5	-----	0.0496
25)		Oxychlordane	Avg	-----	1.6454 e5	-----	0.0413
26)		2,4'-DDE	Avg	-----	1.2826 e5	-----	0.0401
27)		trans-Nonachlor	Quad	5.6661 e4	1.7916 e5	-2.0512	0.9987
28)		2,4'-DDD	Avg	-----	1.1413 e5	-----	0.0365
29)		2,4'-DDT	Avg	-----	1.0969 e5	-----	0.0488
30)		cis-Nonachlor	Avg	-----	2.0762 e5	-----	0.0325
31)		Mirex	Avg	-----	1.2537 e5	-----	0.0839
32)		Chlordane (1)	Avg	-----	1.9690 e4	-----	0.0196
33)		Chlordane (2)	Avg	-----	2.5064 e4	-----	0.0214
34)		Chlordane (3)	Avg	-----	5.7811 e3	-----	0.0434
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	8.9565 e2	-----	0.0564
37)		Toxaphene (2)	Avg	-----	1.6149 e3	-----	0.0608
38)		Toxaphene (3)	Avg	-----	3.3675 e3	-----	0.0272
39)		Toxaphene (4)	Avg	-----	3.2402 e3	-----	0.0178
40)		Toxaphene (5)	Avg	-----	2.3971 e3	-----	0.0533
41)		Toxaphene (6)	Avg	-----	3.1646 e3	-----	0.0517
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

Signal #2

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	2.9337 e5	-----	0.0354
2)		a-BHC	Avg	-----	4.1034 e5	-----	0.0641
3)		g-BHC	Avg	-----	3.5670 e5	-----	0.0579
4)		b-BHC	Avg	-----	1.5827 e5	-----	0.0660
5)		Heptachlor	Avg	-----	3.0598 e5	-----	0.0698
6)		d-BHC	Avg	-----	3.5267 e5	-----	0.0660
7)		Aldrin	Avg	-----	3.2939 e5	-----	0.0519

8)		Heptachlor Expoxide	Avg	-----	3.0085 e5	-----	0.0440
9)		trans-Chlordane	Avg	-----	3.1333 e5	-----	0.0810
10)		cis-Chlordane	Avg	-----	2.9125 e5	-----	0.0459
11)		Endosulfan I	Avg	-----	2.7518 e5	-----	0.0477
12)		4,4'-DDE	Avg	-----	3.1068 e5	-----	0.0582
13)		Dieldrin	Avg	-----	3.0415 e5	-----	0.0661
14)		Endrin	Avg	-----	2.2583 e5	-----	0.0732
15)		4,4'-DDD	Avg	-----	2.5621 e5	-----	0.0737
16)		Endosulfan II	Avg	-----	2.3061 e5	-----	0.0555
17)		4,4'-DDT	Quad	6.5669 e3	1.7140 e5	3.3014 e2	0.9992
18)		Endrin Aldehyde	Quad	1.5509 e5	1.8265 e5	2.1823 e2	0.9961
19)		Endosulfan Sulfate	Avg	-----	2.4909 e5	-----	0.0535
20)		Methoxychlor	Quad	1.4992 e4	8.0453 e4	1.7846 e2	0.9988
21)		Endrin Ketone	Avg	-----	2.5732 e5	-----	0.0831
22)	S	DCBP (S)	Avg	-----	1.7976 e5	-----	0.0618
23)		Hexachlorobutadiene	Avg	-----	3.7593 e5	-----	0.0287
24)		Hexachlorobenzene	Avg	-----	3.1409 e5	-----	0.0504
25)		Oxychlordane	Avg	-----	2.7390 e5	-----	0.0649
26)		2,4'-DDE	Avg	-----	2.1214 e5	-----	0.0452
27)		trans-Nonachlor	Avg	-----	3.0164 e5	-----	0.0484
28)		2,4'-DDD	Avg	-----	1.8886 e5	-----	0.0547
29)		2,4'-DDT	Avg	-----	1.7834 e5	-----	0.0624
30)		cis-Nonachlor	Avg	-----	3.3545 e5	-----	0.0623
31)		Mirex	Avg	-----	1.8607 e5	-----	0.0759
32)		Chlordane (1)	Avg	-----	3.6185 e4	-----	0.0762
33)		Chlordane (2)	Avg	-----	3.0364 e4	-----	0.0530
34)		Chlordane (3)	Avg	-----	8.9659 e3	-----	0.0514
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	2.6243 e3	-----	0.0316
37)		Toxaphene (2)	Avg	-----	3.2910 e3	-----	0.0170
38)		Toxaphene (3)	Avg	-----	5.0683 e3	-----	0.0265
39)		Toxaphene (4)	Avg	-----	8.3498 e3	-----	0.0351
40)		Toxaphene (5)	Avg	-----	4.6604 e3	-----	0.0324
41)		Toxaphene (6)	Avg	-----	4.7502 e3	-----	0.0510
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:42 2019

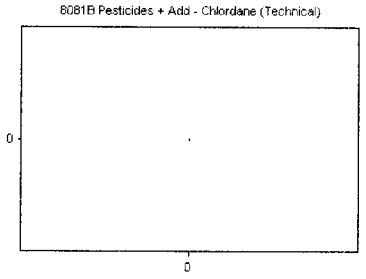
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane (Technical)

Curve Fit: **AVERAGE RF**

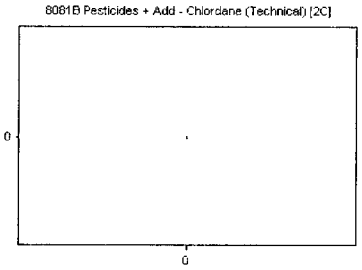


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~4.825~~	~~3.45~~
~~9H23034-CALM~~	~~2000~~	~~4939~~	~~2.469~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Chlordane (Technical) [2C]

Curve Fit: **AVERAGE RF**

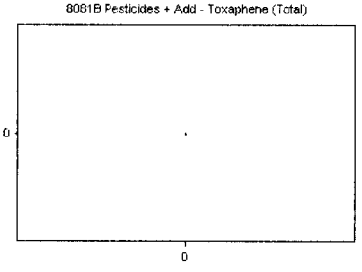


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALM~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total)

Curve Fit: **AVERAGE RF**

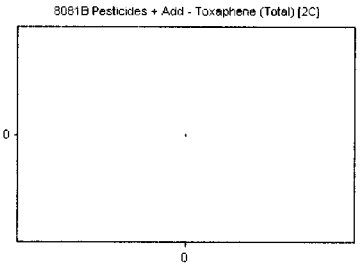


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~3.45~~
~~9H23034-CALS~~	~~2000~~	~~4166~~	~~2.083~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total) [2C]

Curve Fit: **AVERAGE RF**

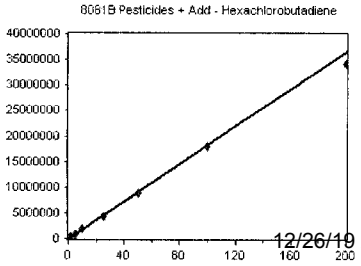


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALS~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	198207	198207.000	3.20
9H23034-CALA	2	375794	187897.000	3.20
9H23034-CALB	5	959211	191842.200	3.20
9H23034-CALC	10	1838187	183818.700	3.20
9H23034-CALD	25	4363988	174559.500	3.20
9H23034-CALE	50	8761747	175234.900	3.20
9H23034-CALF	100	795213E+07	179521.300	3.20
9H23034-CALG	200	416653E+07	170832.600	3.20

AVE RF **182739.200** RF RSD **5.17** AVE RT **3.20**

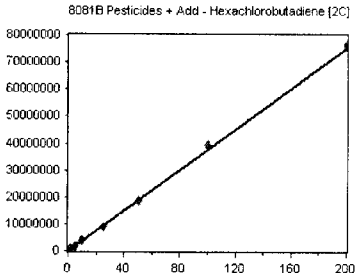
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Hexachlorobutadiene [2C]

Curve Fit: **AVERAGE RF**

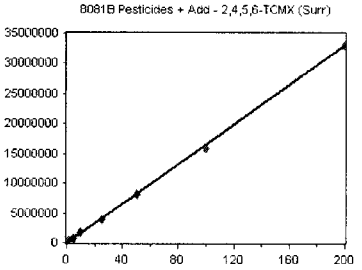


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	100	929888E+07	392988.800	3.69
9H23034-CALG	200	598857E+07	379942.800	3.69

AVE RF **375931.900** RF RSD **2.87** AVE RT **3.69**

2,4,5,6-TCMX (Surr)

Curve Fit: **AVERAGE RF**

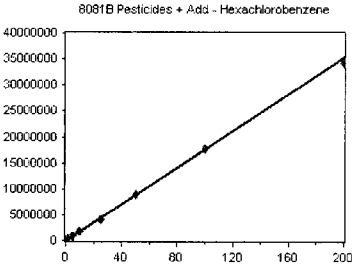


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	585092E+07	158509.200	5.40
9H23034-CAL8	200	284254E+07	164212.700	5.39

AVE RF **165975.600** RF RSD **4.00** AVE RT **5.40**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

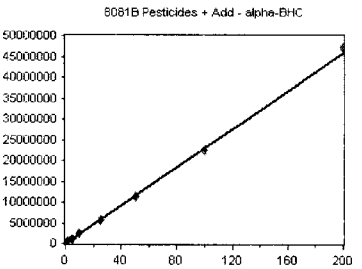


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	767002E+07	176700.200	5.78
9H23034-CALG	200	407346E+07	170367.300	5.77

AVE RF **176293.600** RF RSD **4.96** AVE RT **5.77**

alpha-BHC

Curve Fit: **AVERAGE RF**

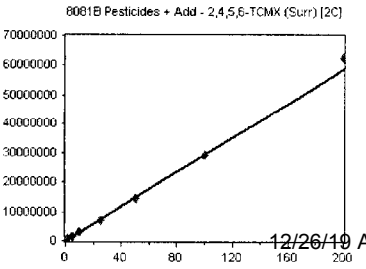


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	100	236358E+07	223635.800	5.94
9H23034-CAL8	200	720225E+07	236011.200	5.94

AVE RF **229329.000** RF RSD **2.14** AVE RT **5.94**

2,4,5,6-TCMX (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	300053	300053.000	5.99
9H23034-CAL2	2	600766	300383.000	5.99
9H23034-CAL3	5	1437876	287575.200	5.99
9H23034-CAL4	10	2865854	286585.400	5.99
9H23034-CAL5	25	7072923	282916.900	5.99
9H23034-CAL6	50	419675E+07	283935.000	5.99
9H23034-CAL7	100	925633E+07	292563.300	5.99
9H23034-CAL8	200	258445E+07	312922.300	5.99

AVE RF **293366.800** RF RSD **3.54** AVE RT **5.99**

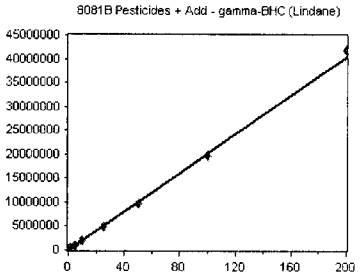
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

gamma-BHC (Lindane)

Curve Fit: **AVERAGE RF**

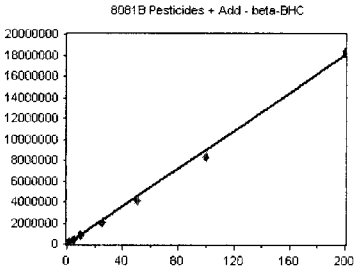


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	959509E+07	195950.900	6.22
9H23034-CAL8	200	188973E+07	209448.600	6.22

AVE RF **201777.100** RF RSD **2.76** AVE RT **6.22**

beta-BHC

Curve Fit: **AVERAGE RF**

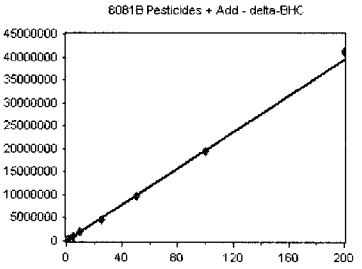


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	83554.160	6.30
9H23034-CAL8	200	.82387E+07	91193.500	6.29

AVE RF **90383.530** RF RSD **8.59** AVE RT **6.30**

delta-BHC

Curve Fit: **AVERAGE RF**

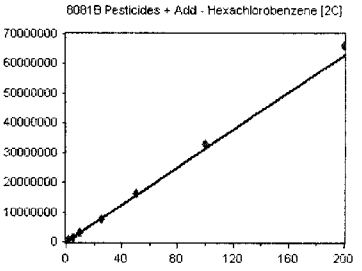


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	947558E+07	194755.800	6.45
9H23034-CAL8	200	101659E+07	205083.000	6.45

AVE RF **196690.200** RF RSD **3.02** AVE RT **6.45**

Hexachlorobenzene [2C]

Curve Fit: **AVERAGE RF**

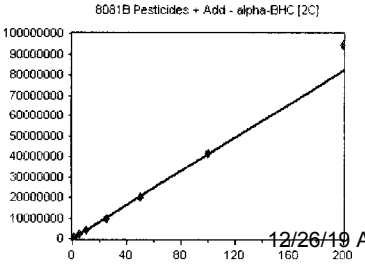


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	326197E+07	331309.800	6.45

AVE RF **314087.400** RF RSD **5.04** AVE RT **6.45**

alpha-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	393119	393119.000	6.60
9H23034-CAL2	2	784586	392293.000	6.60
9H23034-CAL3	5	1985438	397087.600	6.60
9H23034-CAL4	10	4095890	409589.000	6.60
9H23034-CAL5	25	9910863	396434.500	6.60
9H23034-CAL6	50	026582E+07	405316.400	6.60
9H23034-CAL7	100	169921E+07	416992.100	6.60
9H23034-CAL8	200	437675E+07	471883.800	6.60

AVE RF **410339.400** RF RSD **6.41** AVE RT **6.60**

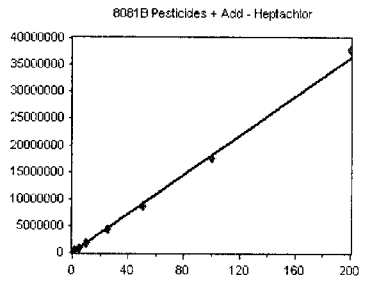
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor

Curve Fit: **AVERAGE RF**

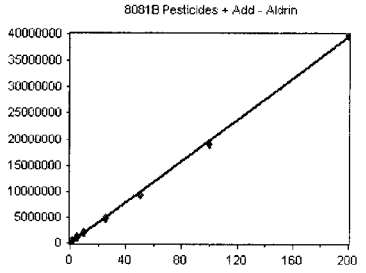


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100	755153E+07	175515.300	6.63
9H23034-CAL8	200	3.77857E+07	188928.500	6.63

AVE RF **181296.600** RF RSD **3.86** AVE RT **6.63**

Aldrin

Curve Fit: **AVERAGE RF**

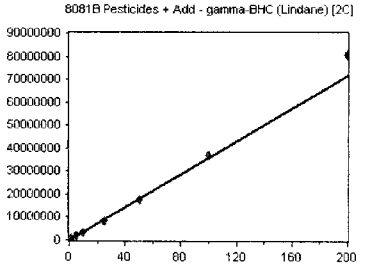


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100	910807E+07	191080.700	6.87
9H23034-CAL8	200	3.98384E+07	199192.000	6.87

AVE RF **197445.600** RF RSD **3.23** AVE RT **6.87**

gamma-BHC (Lindane) [2C]

Curve Fit: **AVERAGE RF**

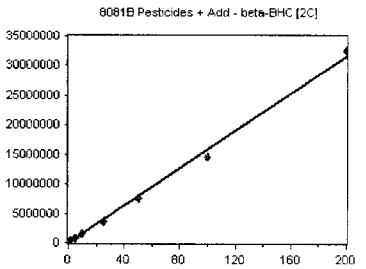


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7	100	678899E+07	367889.900	6.91
9H23034-CAL8	200	076568E+07	403828.400	6.91

AVE RF **356703.900** RF RSD **5.79** AVE RT **6.91**

beta-BHC [2C]

Curve Fit: **AVERAGE RF**

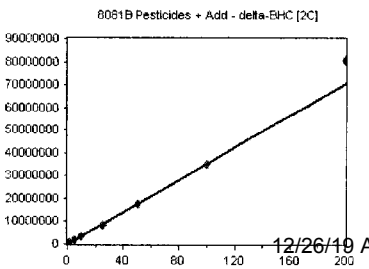


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	462518E+07	146251.800	6.98
9H23034-CAL8	200	255343E+07	162767.200	6.98

AVE RF **158266.000** RF RSD **6.60** AVE RT **6.98**

delta-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	349123	349123.000	7.23
9H23034-CAL2	2	669122	334561.000	7.23
9H23034-CAL3	5	1717450	343490.000	7.23
9H23034-CAL4	10	3613517	361351.700	7.23
9H23034-CAL5	25	8247775	329911.000	7.23
9H23034-CAL6	50	731126E+07	346225.200	7.23
9H23034-CAL7	100	517663E+07	351766.300	7.23
9H23034-CAL8	200	097975E+07	404898.800	7.23

AVE RF **352668.900** RF RSD **6.60** AVE RT **7.23**

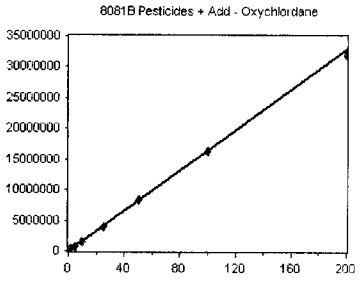
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

Curve Fit: **AVERAGE RF**

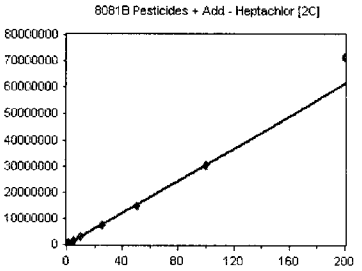


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

Curve Fit: **AVERAGE RF**

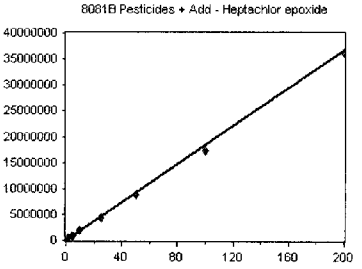


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

Curve Fit: **AVERAGE RF**

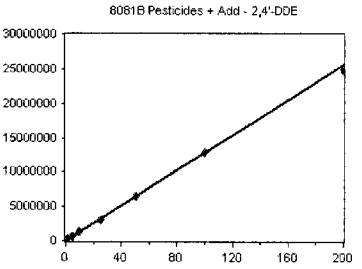


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

Curve Fit: **AVERAGE RF**

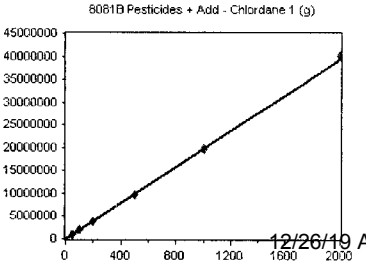


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

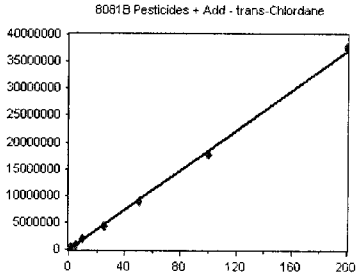
AVE RF **19869.610** RF RSD **1.96** AVE RT **7.43**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

trans-Chlordane

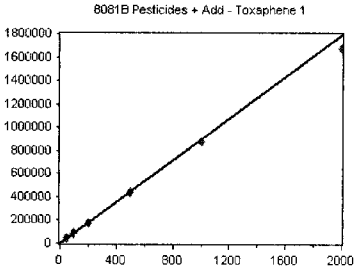


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197202	197202.000	7.43
9H23034-CAL2	2	382271	191135.500	7.43
9H23034-CAL3	5	926577	185315.400	7.43
9H23034-CAL4	10	1847996	184799.600	7.43
9H23034-CAL5	25	4401456	176058.200	7.43
9H23034-CAL6	50	8959305	179186.100	7.43
9H23034-CAL7	100	773279E+07	177327.900	7.43
9H23034-CAL8	200	762141E+07	188107.000	7.43

AVE RF **184891.500** RF RSD **3.93** AVE RT **7.43**

Toxaphene 1

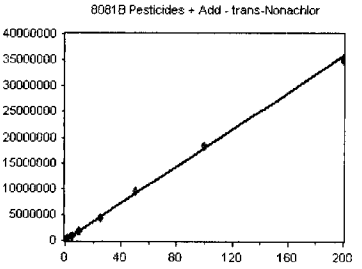


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	49250	985.000	7.51
9H23034-CALO	100	91576	915.760	7.50
9H23034-CALP	200	176047	880.235	7.50
9H23034-CALQ	500	441826	883.652	7.50
9H23034-CALR	1000	871889	871.889	7.50
9H23034-CALS	2000	1674674	837.337	7.50

AVE RF **895.646** RF RSD **5.63** AVE RT **7.50**

trans-Nonachlor

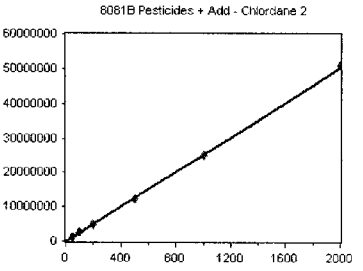


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	236836	236836.000	7.52
9H23034-CALA	2	415126	207563.000	7.52
9H23034-CALB	5	933222	186644.400	7.52
9H23034-CALC	10	1817552	181755.200	7.52
9H23034-CALD	25	4391046	175641.800	7.52
9H23034-CALE	50	9581794	191635.900	7.52
9H23034-CALF	100	835125E+07	183512.500	7.52
9H23034-CALG	200	502792E+07	175139.600	7.51

AVE RF **192341.100** RF RSD **10.78** AVE RT **7.52**

Chlordane 2

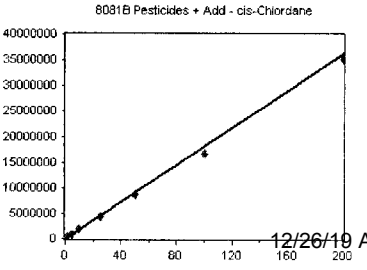


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1286655	25733.100	7.52
9H23034-CALI	100	2519520	25195.200	7.52
9H23034-CALJ	200	4906320	24531.600	7.52
9H23034-CALK	500	217652E+07	24353.040	7.52
9H23034-CALL	1000	508324E+07	25083.240	7.52
9H23034-CALM	2000	097914E+07	25489.570	7.52

AVE RF **25064.290** RF RSD **2.14** AVE RT **7.52**

cis-Chlordane



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	209780	209780.000	7.53
9H23034-CAL2	2	389999	194999.500	7.53
9H23034-CAL3	5	908795	181759.000	7.53
9H23034-CAL4	10	1843346	184334.600	7.53
9H23034-CAL5	25	4244413	169776.500	7.53
9H23034-CAL6	50	8622674	172453.500	7.52
9H23034-CAL7	100	574258E+07	167425.800	7.52
9H23034-CAL8	200	520794E+07	176039.700	7.52

AVE RF **182074.100** RF RSD **7.86** AVE RT **7.53**

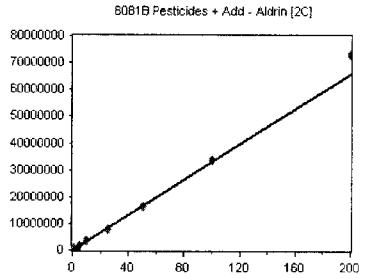
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Aldrin [2C]

Curve Fit: **AVERAGE RF**

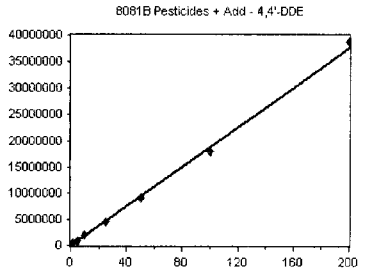


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7	100	390642E+07	339064.200	7.56
9H23034-CAL8	200	322818E+07	366140.900	7.55

AVE RF **329392.500** RF RSD **5.19** AVE RT **7.56**

4,4'-DDE

Curve Fit: **AVERAGE RF**

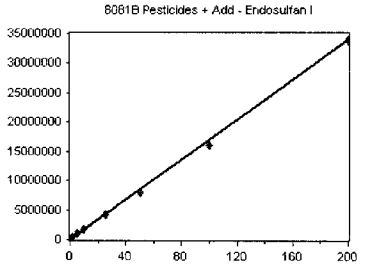


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100	805255E+07	180525.500	7.58
9H23034-CAL8	200	876308E+07	193815.400	7.58

AVE RF **188529.800** RF RSD **2.92** AVE RT **7.58**

Endosulfan I

Curve Fit: **AVERAGE RF**

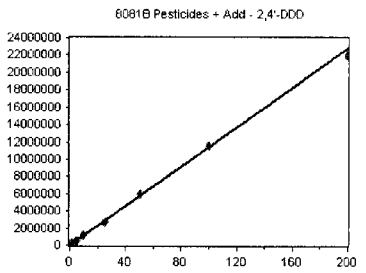


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100	1.609E+07	160900.000	7.62
9H23034-CAL8	200	385259E+07	169263.000	7.62

AVE RF **170179.800** RF RSD **5.13** AVE RT **7.62**

2,4'-DDD

Curve Fit: **AVERAGE RF**

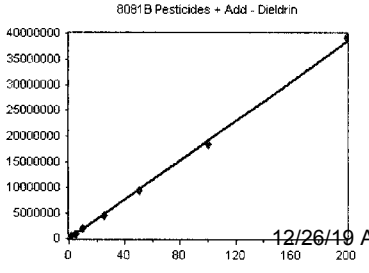


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	158755E+07	115875.500	7.71
9H23034-CALG	200	191696E+07	109584.800	7.70

AVE RF **114125.100** RF RSD **3.65** AVE RT **7.71**

Dieldrin

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197721	197721.000	7.80
9H23034-CAL2	2	395728	197864.000	7.80
9H23034-CAL3	5	972009	194401.800	7.80
9H23034-CAL4	10	1954890	195489.000	7.80
9H23034-CAL5	25	4582306	183292.200	7.79
9H23034-CAL6	50	9386664	187733.300	7.79
9H23034-CAL7	100	832442E+07	183244.200	7.79
9H23034-CAL8	200	921777E+07	196088.800	7.79

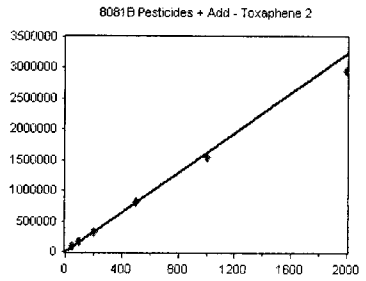
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 2

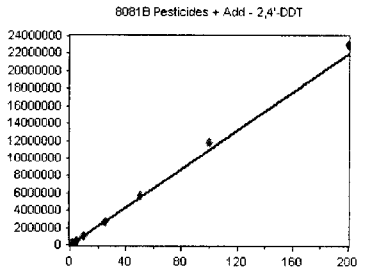


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	88321	1766.420	7.79
9H23034-CALO	100	166085	1660.850	7.80
9H23034-CALP	200	317587	1587.935	7.80
9H23034-CALQ	500	819454	1638.908	7.79
9H23034-CALR	1000	1556013	1556.013	7.79
9H23034-CALS	2000	2958997	1479.499	7.79

AVE RF **1614.937** RF RSD **6.08** AVE RT **7.79**

2,4'-DDT

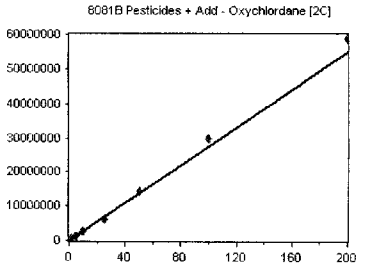


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	107110	107110.000	7.89
9H23034-CALA	2	204209	102104.500	7.89
9H23034-CALB	5	536967	107393.400	7.89
9H23034-CALC	10	1051565	105156.500	7.89
9H23034-CALD	25	2728794	109151.800	7.89
9H23034-CALE	50	5687323	113746.500	7.89
9H23034-CALF	100	177135E+07	117713.500	7.89
9H23034-CALG	200	302496E+07	115124.800	7.89

AVE RF **109687.600** RF RSD **4.88** AVE RT **7.89**

Oxychlordane [2C]

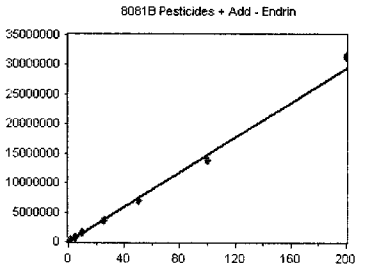


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	279143	279143.000	7.92
9H23034-CALA	2	541023	270511.500	7.92
9H23034-CALB	5	1325543	265108.600	7.92
9H23034-CALC	10	2538903	253890.300	7.92
9H23034-CALD	25	6202791	248111.600	7.92
9H23034-CALE	50	417254E+07	283450.800	7.92
9H23034-CALF	100	973215E+07	297321.500	7.92
9H23034-CALG	200	873698E+07	293684.900	7.92

AVE RF **273902.800** RF RSD **6.49** AVE RT **7.92**

Endrin

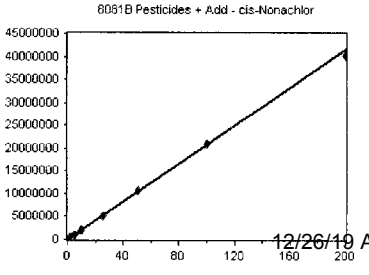


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	156412	156412.000	7.96
9H23034-CAL2	2	298515	149257.500	7.96
9H23034-CAL3	5	738953	147790.600	7.96
9H23034-CAL4	10	1475508	147550.800	7.96
9H23034-CAL5	25	3508904	140356.200	7.96
9H23034-CAL6	50	6979572	139591.400	7.96
9H23034-CAL7	100	381271E+07	138127.100	7.96
9H23034-CAL8	200	142631E+07	157131.500	7.96

AVE RF **147027.100** RF RSD **4.98** AVE RT **7.96**

cis-Nonachlor



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219220	219220.000	7.99
9H23034-CALA	2	423442	211721.000	7.99
9H23034-CALB	5	1025899	205179.800	7.99
9H23034-CALC	10	2032010	203201.000	7.99
9H23034-CALD	25	4993110	199724.400	7.99
9H23034-CALE	50	061602E+07	212320.400	7.99
9H23034-CALF	100	093264E+07	209326.400	7.99
9H23034-CALG	200	004618E+07	200230.900	7.98

AVE RF **207615.500** RF RSD **3.25** AVE RT **7.99**

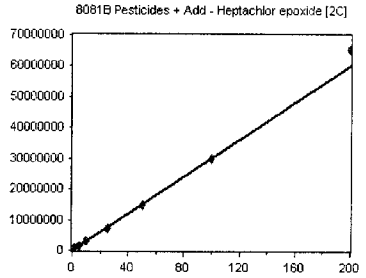
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor epoxide [2C]

Curve Fit: **AVERAGE RF**

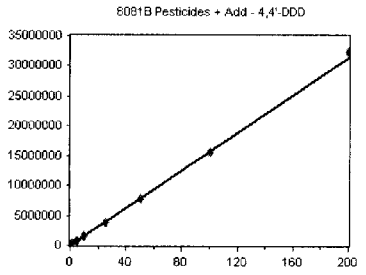


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7	100	004551E+07	300455.100	7.99
9H23034-CAL8	200	533007E+07	326650.400	7.99

AVE RF **300848.300** RF RSD **4.40** AVE RT **7.99**

4,4'-DDD

Curve Fit: **AVERAGE RF**

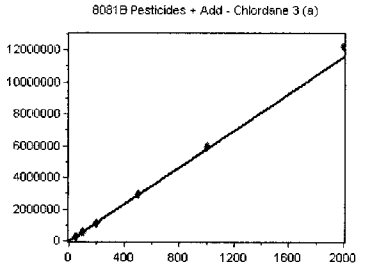


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100	543715E+07	154371.500	8.00
9H23034-CAL8	200	3.24368E+07	162184.000	8.00

AVE RF **157140.600** RF RSD **3.11** AVE RT **8.00**

Chlordane 3 (a)

Curve Fit: **AVERAGE RF**

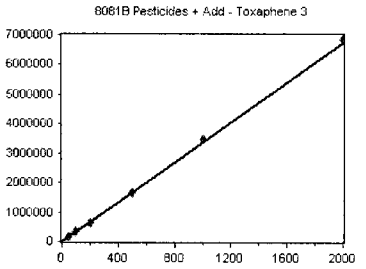


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

AVE RF **5781.121** RF RSD **4.34** AVE RT **8.07**

Toxaphene 3

Curve Fit: **AVERAGE RF**

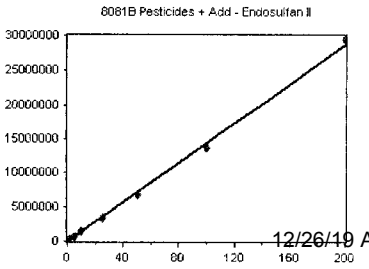


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

AVE RF **3367.488** RF RSD **2.72** AVE RT **8.11**

Endosulfan II

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	158139	158139.000	8.12
9H23034-CAL2	2	299106	149553.000	8.12
9H23034-CAL3	5	709544	141908.800	8.12
9H23034-CAL4	10	1448080	144808.000	8.12
9H23034-CAL5	25	3371864	134874.600	8.12
9H23034-CAL6	50	6840920	136818.400	8.11
9H23034-CAL7	100	.35435E+07	135435.000	8.11
9H23034-CAL8	200	947104E+07	147355.200	8.11

AVE RF **143611.500** RF RSD **5.61** AVE RT **8.12**

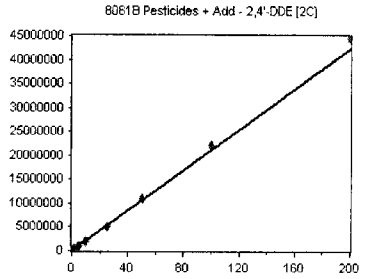
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

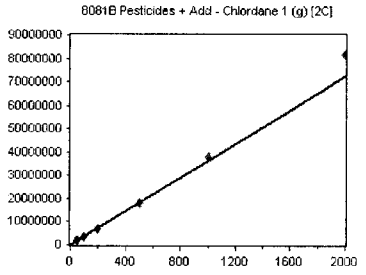


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF	100	1.21644E+07	221644.000	8.12
9H23034-CALG	200	450459E+07	222523.000	8.12

AVE RF **212138.100** RF RSD **4.52** AVE RT **8.12**

Chlordane 1 (g) [2C]

Curve Fit: **AVERAGE RF**

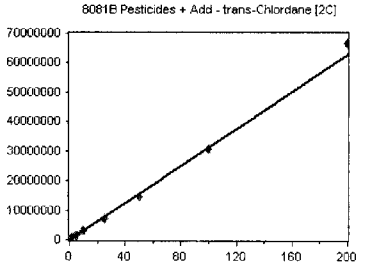


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

AVE RF **36184.580** RF RSD **7.62** AVE RT **8.13**

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

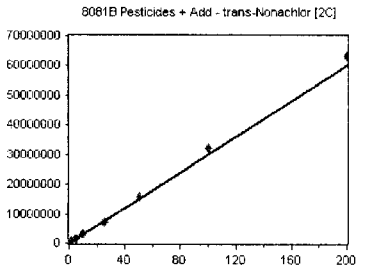


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7	100	074227E+07	307422.700	8.13
9H23034-CAL8	200	644797E+07	332239.800	8.13

AVE RF **313325.900** RF RSD **8.10** AVE RT **8.13**

trans-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

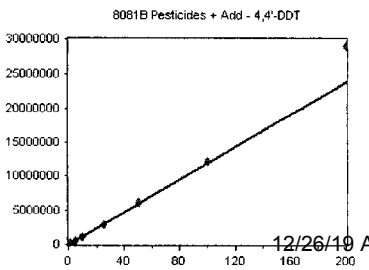


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF	100	197527E+07	319752.700	8.20
9H23034-CALG	200	308364E+07	315418.200	8.19

AVE RF **301635.800** RF RSD **4.84** AVE RT **8.19**

4,4'-DDT

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	113897	113897.000	8.21
9H23034-CAL2	2	218190	109095.000	8.20
9H23034-CAL3	5	553009	110601.800	8.21
9H23034-CAL4	10	1146556	114655.600	8.20
9H23034-CAL5	25	2924467	116978.700	8.20
9H23034-CAL6	50	6205369	124107.400	8.20
9H23034-CAL7	100	217696E+07	121769.600	8.20
9H23034-CAL8	200	907522E+07	145376.100	8.20

AVE RF **119560.100** RF RSD **9.72** AVE RT **8.20**

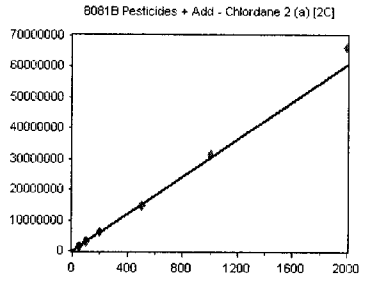
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane 2 (a) [2C]

Curve Fit: **AVERAGE RF**

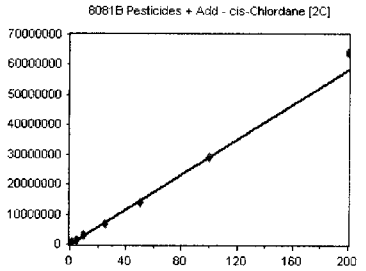


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

AVE RF **30364.070** RF RSD **5.30** AVE RT **8.24**

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

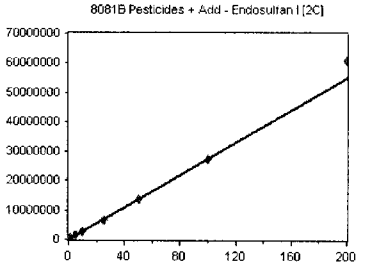


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7	100	904286E+07	290428.600	8.24
9H23034-CAL8	200	397706E+07	319885.300	8.24

AVE RF **291246.800** RF RSD **4.59** AVE RT **8.24**

Endosulfan I [2C]

Curve Fit: **AVERAGE RF**

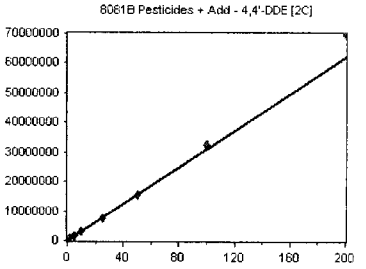


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7	100	721271E+07	272127.100	8.29
9H23034-CAL8	200	104351E+07	305217.600	8.29

AVE RF **275176.500** RF RSD **4.77** AVE RT **8.29**

4,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

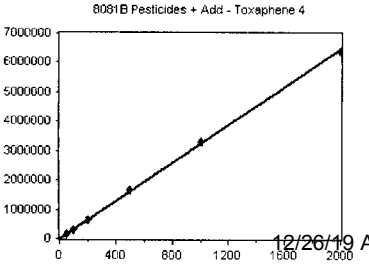


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	1.24996E+07	324996.000	8.34
9H23034-CAL8	200	984235E+07	349211.800	8.34

AVE RF **310677.400** RF RSD **5.82** AVE RT **8.34**

Toxaphene 4

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164317	3286.340	8.35
9H23034-CALO	100	320313	3203.130	8.35
9H23034-CALP	200	632351	3161.755	8.35
9H23034-CALQ	500	1649569	3299.138	8.35
9H23034-CALR	1000	3287014	3287.014	8.35
9H23034-CALS	2000	6407070	3203.535	8.35

AVE RF **3240.152** RF RSD **1.78** AVE RT **8.35**

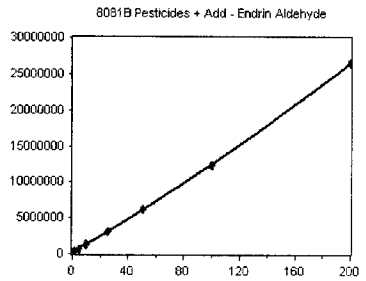
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endrin Aldehyde

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

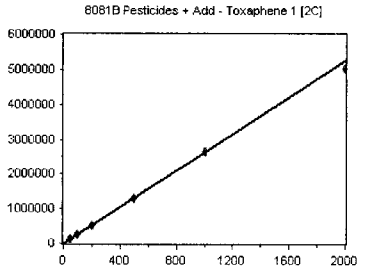


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	362767E+07	133138.300	8.40

AVE RF **148203.000** RF RSD **26.87** AVE RT **8.41**

Toxaphene 1 [2C]

Curve Fit: **AVERAGE RF**

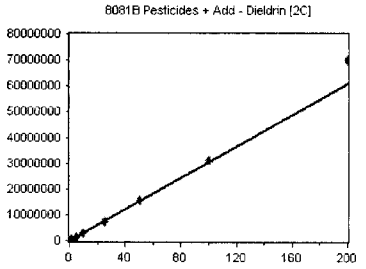


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

AVE RF **2624.258** RF RSD **3.16** AVE RT **8.47**

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

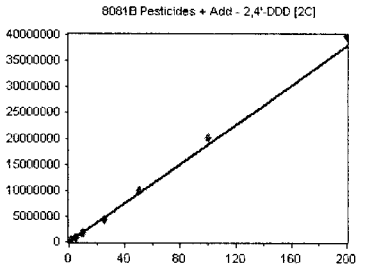


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7	100	100196E+07	310019.600	8.49
9H23034-CAL8	200	003178E+07	350158.900	8.49

AVE RF **304150.100** RF RSD **6.61** AVE RT **8.49**

2,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

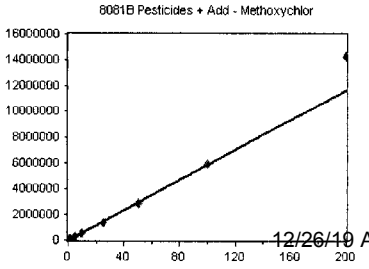


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	011892E+07	201189.200	8.50
9H23034-CALG	200	3.98393E+07	199196.500	8.49

AVE RF **188863.500** RF RSD **5.47** AVE RT **8.50**

Methoxychlor

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	59659	59659.000	8.54
9H23034-CAL2	2	111466	55733.000	8.54
9H23034-CAL3	5	270388	54077.600	8.54
9H23034-CAL4	10	561706	56170.600	8.54
9H23034-CAL5	25	1390283	55611.320	8.54
9H23034-CAL6	50	2860683	57213.660	8.54
9H23034-CAL7	100	5877329	58773.290	8.54
9H23034-CAL8	200	427114E+07	71355.700	8.54

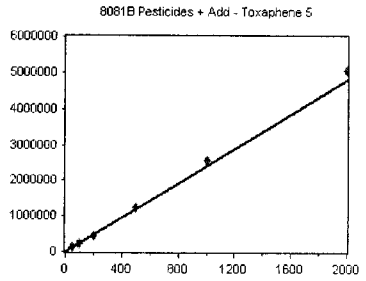
AVE RF **58574.270** RF RSD **9.33** AVE RT **8.54**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5

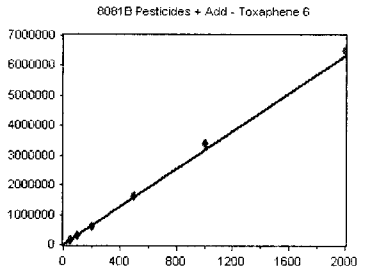


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

AVE RF **2397.142** RF RSD **5.33** AVE RT **8.57**

Toxaphene 6

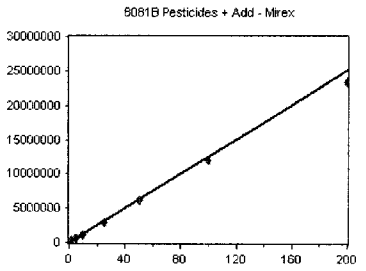


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

AVE RF **3164.584** RF RSD **5.17** AVE RT **8.64**

Mirex

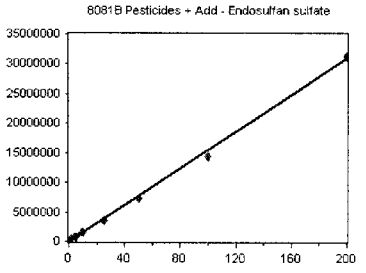


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100	196075E+07	119607.500	8.65
9H23034-CALG	200	2.3285E+07	116425.000	8.65

AVE RF **125366.600** RF RSD **8.39** AVE RT **8.65**

Endosulfan sulfate

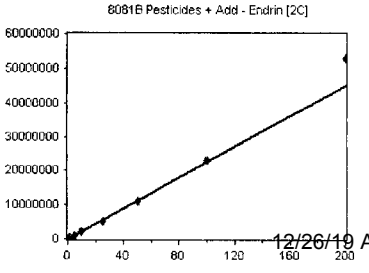


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	436679E+07	143667.900	8.70
9H23034-CAL8	200	112652E+07	155632.600	8.70

AVE RF **154977.600** RF RSD **6.64** AVE RT **8.71**

Endrin [2C]



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	222882	222882.000	8.72
9H23034-CAL2	2	424889	212444.500	8.72
9H23034-CAL3	5	1092877	218575.400	8.72
9H23034-CAL4	10	2244483	224448.300	8.72
9H23034-CAL5	25	5325883	213035.300	8.72
9H23034-CAL6	50	101538E+07	220307.600	8.72
9H23034-CAL7	100	310241E+07	231024.100	8.72
9H23034-CAL8	200	277958E+07	263897.900	8.72

AVE RF **225826.900** RF RSD **7.32** AVE RT **8.72**

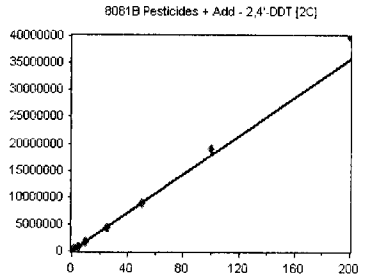
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDT [2C]

Curve Fit: **AVERAGE RF**

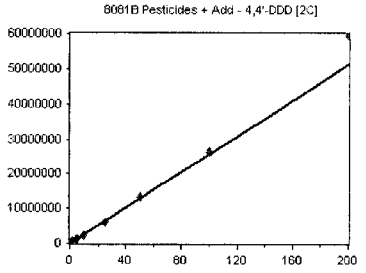


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	899897E+07	189989.700	8.72
9H23034-CALG	200	999923E+07	199996.200	8.72

AVE RF **178339.300** RF RSD **6.24** AVE RT **8.72**

4,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

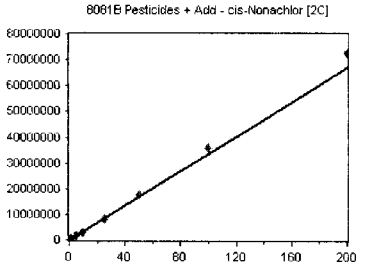


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	100	629748E+07	262974.800	8.76
9H23034-CAL8	200	956027E+07	297801.400	8.76

AVE RF **256213.900** RF RSD **7.37** AVE RT **8.76**

cis-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

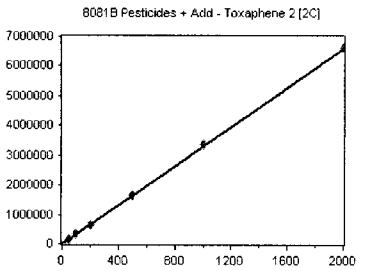


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	100	607264E+07	360726.400	8.76
9H23034-CALG	200	245582E+07	362279.100	8.76

AVE RF **335449.500** RF RSD **6.23** AVE RT **8.76**

Toxaphene 2 [2C]

Curve Fit: **AVERAGE RF**

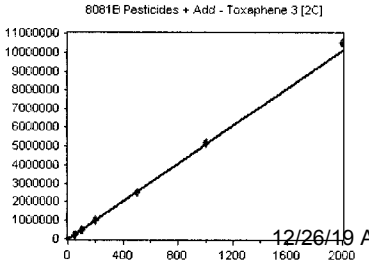


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

AVE RF **3291.024** RF RSD **1.70** AVE RT **8.81**

Toxaphene 3 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	254833	5096.660	8.85
9H23034-CALO	100	494430	4944.300	8.85
9H23034-CALP	200	995555	4977.775	8.85
9H23034-CALQ	500	2475022	4950.044	8.85
9H23034-CALR	1000	5168269	5168.269	8.85
9H23034-CALS	2000	054571E+07	5272.855	8.85

AVE RF **5068.317** RF RSD **2.65** AVE RT **8.85**

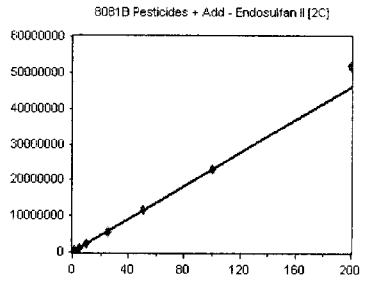
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endosulfan II [2C]

Curve Fit: **AVERAGE RF**

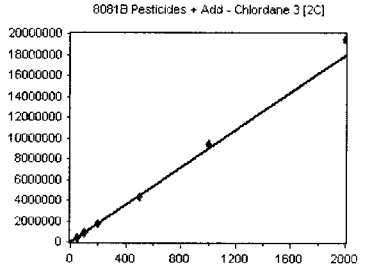


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	100	301637E+07	230163.700	8.86
9H23034-CAL8	200	183489E+07	259174.400	8.86

AVE RF **230606.200** RF RSD **5.55** AVE RT **8.86**

Chlordane 3 [2C]

Curve Fit: **AVERAGE RF**

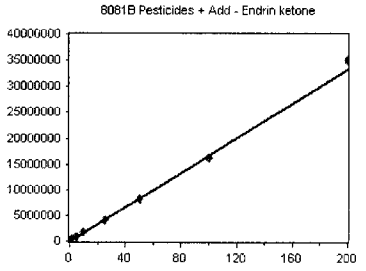


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

AVE RF **8965.877** RF RSD **5.14** AVE RT **8.90**

Endrin ketone

Curve Fit: **AVERAGE RF**

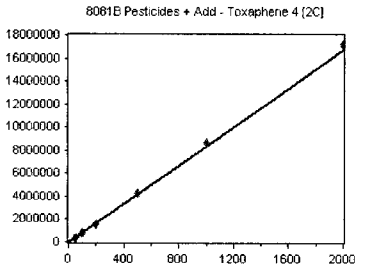


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	525194E+07	162519.400	8.90
9H23034-CAL8	200	509472E+07	175473.600	8.90

AVE RF **166758.300** RF RSD **3.80** AVE RT **8.90**

Toxaphene 4 [2C]

Curve Fit: **AVERAGE RF**

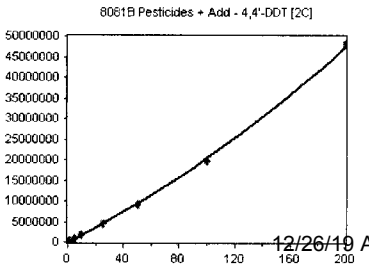


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

AVE RF **8349.831** RF RSD **3.51** AVE RT **8.91**

4,4'-DDT [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	179700	179700.000	8.99
9H23034-CAL2	2	341782	170891.000	8.99
9H23034-CAL3	5	873653	174730.600	8.99
9H23034-CAL4	10	1841119	184111.900	8.99
9H23034-CAL5	25	4480388	179215.500	8.98
9H23034-CAL6	50	9285492	185709.800	8.99
9H23034-CAL7	100	.97895E+07	197895.000	8.98
9H23034-CAL8	200	820344E+07	241017.200	8.98

AVE RF **189156.900** RF RSD **11.88** AVE RT **8.99**

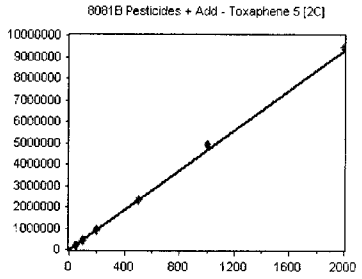
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5 [2C]

Curve Fit: **AVERAGE RF**

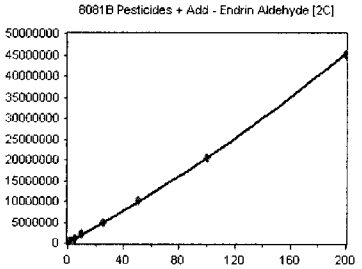


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

AVE RF **4660.360** RF RSD **3.24** AVE RT **9.09**

Endrin Aldehyde [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

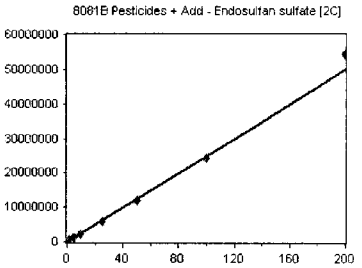


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	100	050274E+07	205027.400	9.10
9H23034-CAL8	200	508454E+07	225422.700	9.10

AVE RF **229714.800** RF RSD **21.77** AVE RT **9.10**

Endosulfan sulfate [2C]

Curve Fit: **AVERAGE RF**

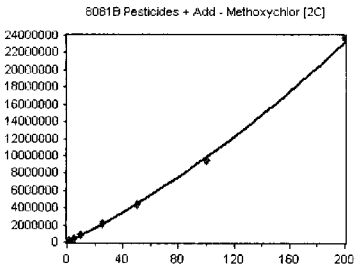


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	100	447732E+07	244773.200	9.29
9H23034-CAL8	200	459279E+07	272964.000	9.29

AVE RF **249087.500** RF RSD **5.35** AVE RT **9.29**

Methoxychlor [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

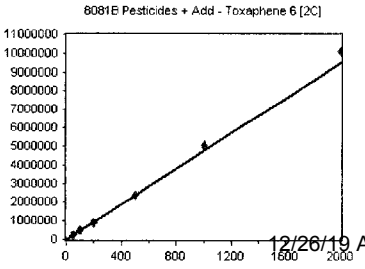


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	1.37141E+07	118570.500	9.46

AVE RF **92733.750** RF RSD **12.09** AVE RT **9.46**

Toxaphene 6 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	230922	4618.440	9.47
9H23034-CALO	100	452485	4524.850	9.47
9H23034-CALP	200	905244	4526.220	9.47
9H23034-CALQ	500	2369795	4739.590	9.47
9H23034-CALR	1000	5046645	5046.645	9.47
9H23034-CALS	2000	009095E+07	5045.475	9.47

AVE RF **4750.203** RF RSD **5.10** AVE RT **9.47**

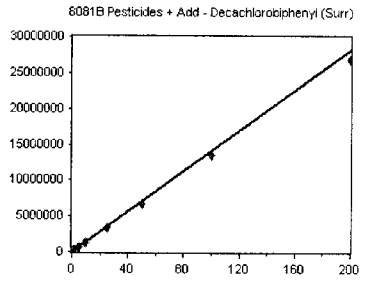
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

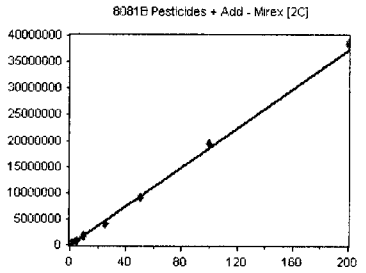


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.34054E+07	134054.000	9.59
9H23034-CAL8	200	697523E+07	134876.200	9.59

AVE RF **141098.600** RF RSD **8.33** AVE RT **9.59**

Mirex [2C]

Curve Fit: **AVERAGE RF**

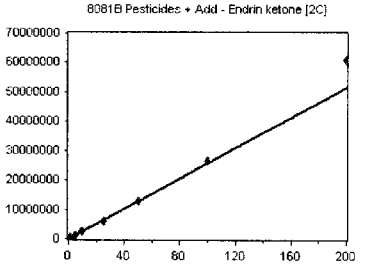


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.93632E+07	193632.000	9.68
9H23034-CALG	200	842553E+07	192127.600	9.68

AVE RF **186073.300** RF RSD **7.59** AVE RT **9.68**

Endrin ketone [2C]

Curve Fit: **AVERAGE RF**

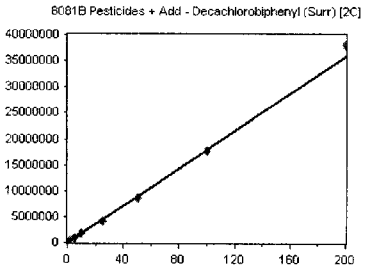


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	100	563656E+07	266365.600	9.69
9H23034-CAL8	200	086138E+07	304306.900	9.69

AVE RF **257316.100** RF RSD **8.31** AVE RT **9.69**

Decachlorobiphenyl (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	191572	191572.000	10.54
9H23034-CAL2	2	390006	195003.000	10.54
9H23034-CAL3	5	870921	174184.200	10.54
9H23034-CAL4	10	1678728	167872.800	10.54
9H23034-CAL5	25	4163229	166529.200	10.54
9H23034-CAL6	50	8730692	174613.800	10.54
9H23034-CAL7	100	778407E+07	177840.700	10.54
9H23034-CAL8	200	809778E+07	190488.900	10.54

AVE RF **179763.100** RF RSD **6.18** AVE RT **10.54**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analysis Included

1311/8081B TCLP Pest Reg List
1311/8081B TCLP Pest Reg List +ADD
1311/8081B TCLP Pesticides (All)
1311/8081B TCLP Pesticides + Add (All)
1312/8081B SPLP Pesticides
608 Additionals Only (QC)
608 Pest (Chlordane)
608 Pesticides
608 Pesticides (DDT Only)
608 Pesticides (SW)
608 Pesticides (SW) Full List
608 Pesticides (TTO)
608 Pesticides + Adds
608.3 Additionals - DEVELOPMENT
608.3 Chlordane - DEVELOPMENT
608.3 PCBs - DEVELOPMENT
608.3 Pesticides - DEVELOPMENT
608.3 Pesticides + Adds - DEVELOPMENT
608.3 Toxaphene - DEVELOPMENT
8081B Pesticides
8081B 2,4+4,4-DDx Only (+Add)
8081B Chlordane
8081B DDT Only
8081B Pesticides + Add
8081B RSET FW Sed (+Add) (2016)
8081B RSET Sediment List (+Add)
8081B RSET Sediment Marine (2016) (+Add)
8081B Toxaphene

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H23034-ICB1	Initial Cal Blank	Water	A19H348		8/23/2019 1:33:00PM
9H23034-CAL1	Cal Standard	Water	A19E245	"	8/23/2019 1:51:00PM
9H23034-CAL2	Cal Standard	Water	A19E246	"	8/23/2019 2:08:00PM
9H23034-CAL3	Cal Standard	Water	A19E247	"	8/23/2019 2:25:00PM
9H23034-CAL4	Cal Standard	Water	A19E249	"	8/23/2019 2:42:00PM
9H23034-CAL5	Cal Standard	Water	A19E250	"	8/23/2019 3:00:00PM
9H23034-CAL6	Cal Standard	Water	A19H383	"	8/23/2019 3:17:00PM
9H23034-CAL7	Cal Standard	Water	A19H384	"	8/23/2019 3:34:00PM
9H23034-CAL8	Cal Standard	Water	A19E244	"	8/23/2019 3:52:00PM
9H23034-ICV1	Initial Cal Check	Water	A19E106	"	8/23/2019 4:26:00PM
9H23034-CAL9	Cal Standard	Water	A19E272	"	8/23/2019 4:44:00PM
9H23034-CALA	Cal Standard	Water	A19E273	"	8/23/2019 5:01:00PM
9H23034-CALB	Cal Standard	Water	A19E274	"	8/23/2019 5:18:00PM
9H23034-CALC	Cal Standard	Water	A19E275	"	8/23/2019 5:35:00PM
9H23034-CALD	Cal Standard	Water	A19E276	"	8/23/2019 5:53:00PM
9H23034-CALE	Cal Standard	Water	A19E154	"	8/23/2019 6:10:00PM
9H23034-CALF	Cal Standard	Water	A19E155	"	8/23/2019 6:27:00PM
9H23034-CALG	Cal Standard	Water	A19E271	"	8/23/2019 6:45:00PM
9H23034-ICV2	Initial Cal Check	Water	A19E043	"	8/23/2019 7:19:00PM
9H23034-CALH	Cal Standard	Water	A19F232	"	8/23/2019 7:36:00PM
9H23034-CALI	Cal Standard	Water	A19F233	"	8/23/2019 7:54:00PM
9H23034-CALJ	Cal Standard	Water	A19F234	"	8/23/2019 8:11:00PM
9H23034-CALK	Cal Standard	Water	A19F235	"	8/23/2019 8:28:00PM
9H23034-CALL	Cal Standard	Water	A19F236	"	8/23/2019 8:45:00PM
9H23034-CALM	Cal Standard	Water	A19F231	"	8/23/2019 9:02:00PM
9H23034-ICV3	Initial Cal Check	Water	A19E108	"	8/23/2019 9:37:00PM
9H23034-CALN	Cal Standard	Water	A19D122	"	8/23/2019 9:54:00PM
9H23034-CALO	Cal Standard	Water	A19D123	"	8/23/2019 10:11:00PM
9H23034-CALP	Cal Standard	Water	A19D124	"	8/23/2019 10:28:00PM
9H23034-CALQ	Cal Standard	Water	A19D125	"	8/23/2019 10:45:00PM
9H23034-CALR	Cal Standard	Water	A19D126	"	8/23/2019 11:03:00PM
9H23034-CALS	Cal Standard	Water	A19D121	"	8/23/2019 11:20:00PM
9H23034-ICV4	Initial Cal Check	Water	A19D127	"	8/23/2019 11:54:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

1311/8081B TCLP Pest Reg L Sequence: **9H23034** Matrix: **Water**

9H23034-CAL1	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL2	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

9H23034-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALK	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALL	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALM	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALN	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALO	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALP	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALQ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALR	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALS	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

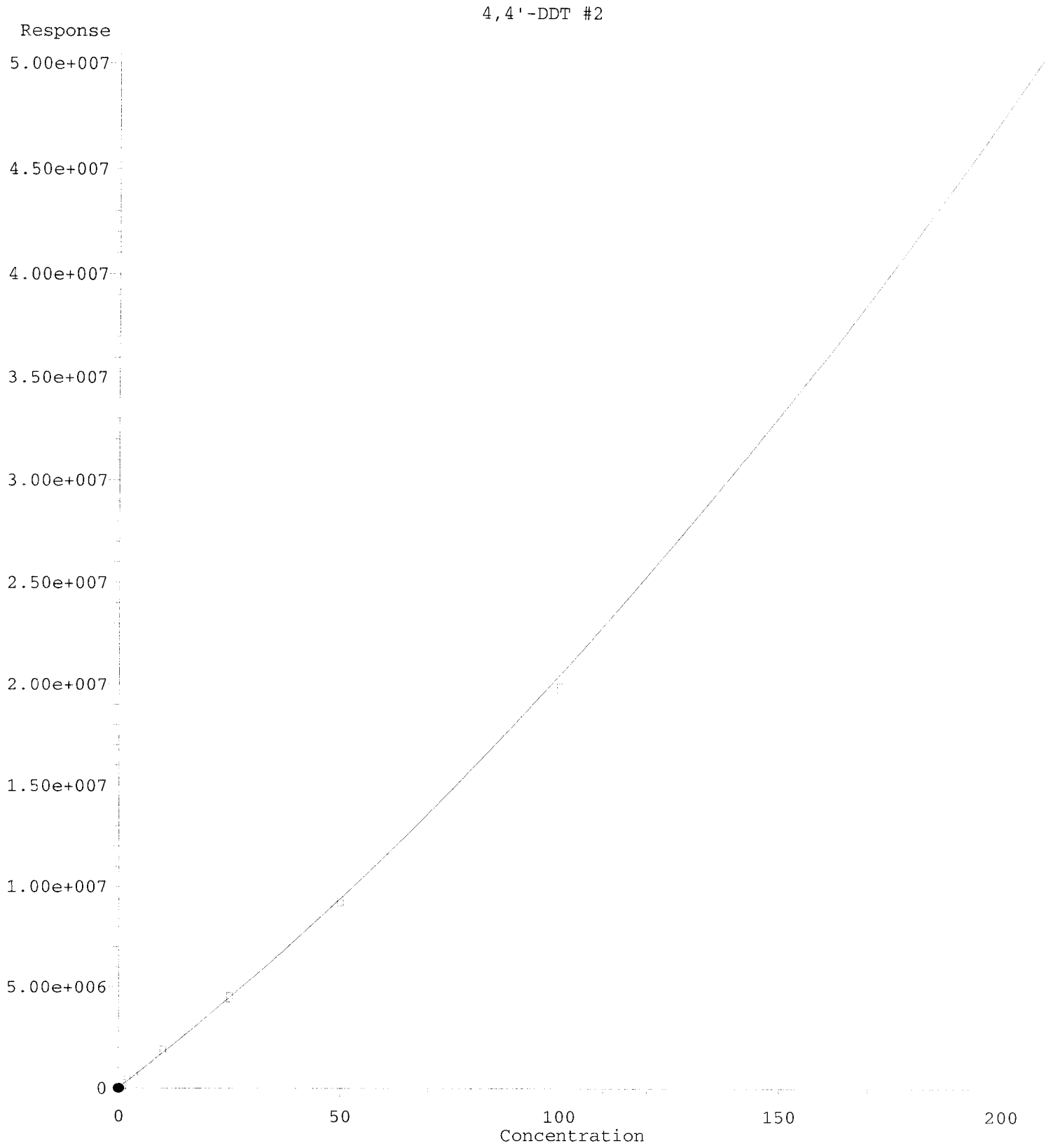
ICV RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

608 Pesticides (SW) Full List Sequence: **9H23034** Matrix: **Water**

9H23034-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV3	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV4	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

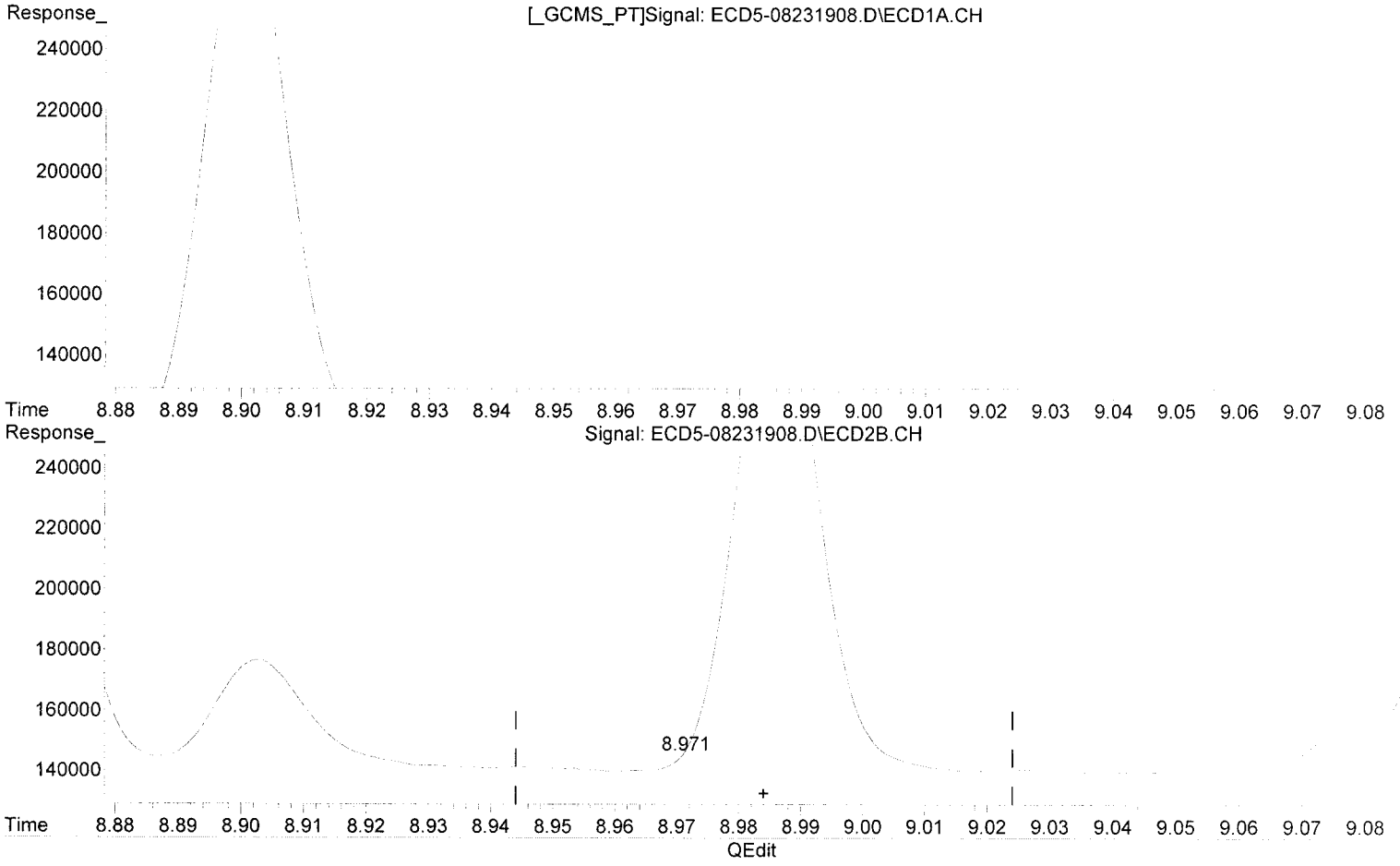


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

8.205min 0.953 ng/mL

response 113897

MJB 8/26/19

(17) 4,4'-DDT #2

8.971min -0.006 ng/mL m

response 5621

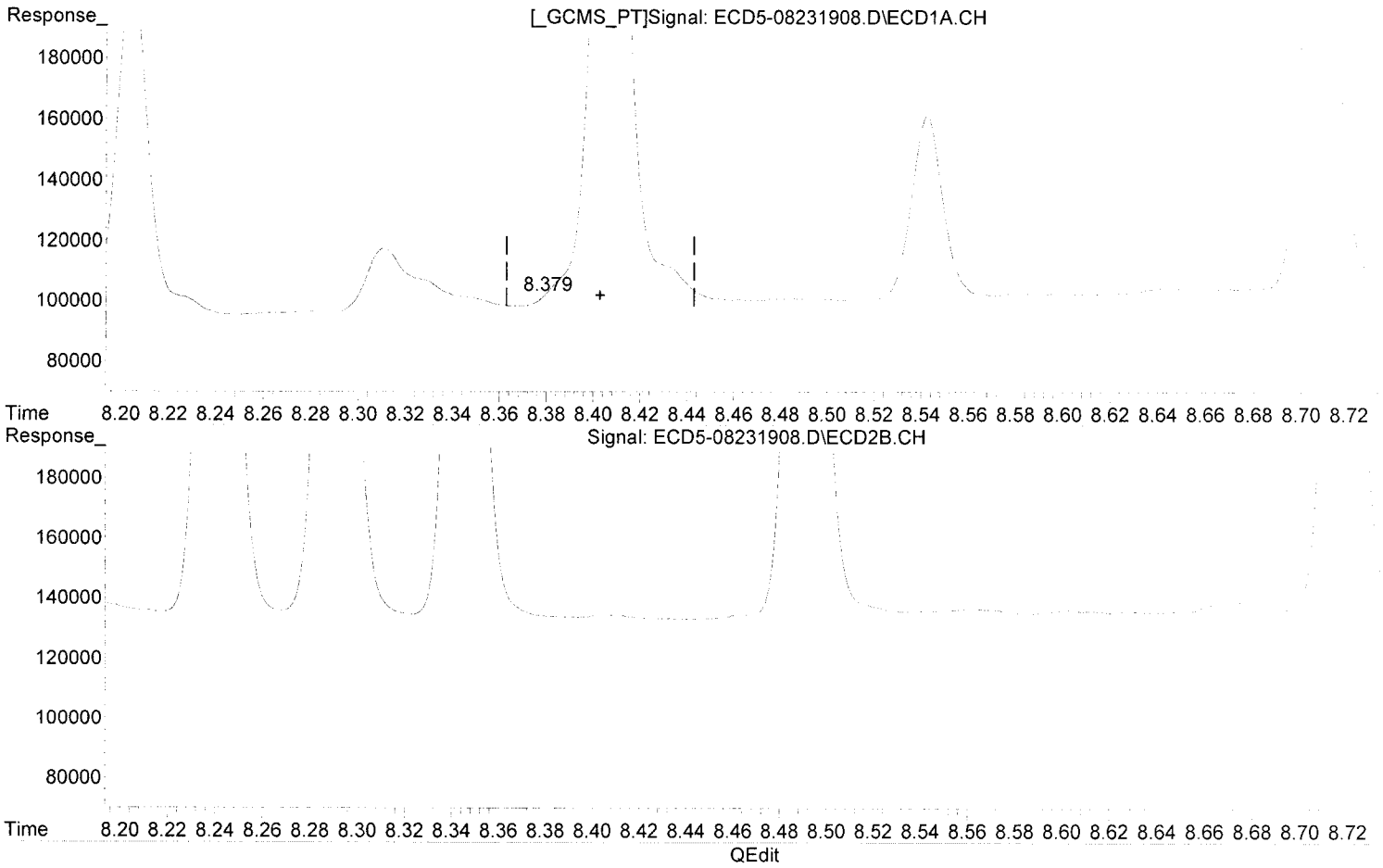
(+) = Expected Retention Time

R = 8.05e+001 A*A + 1.16e+005 A + 1.19e+005
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL (m)

response 3543

MJB 9/26/19

(18) Endrin Aldehyde #2

9.101min 1.058 ng/mL

response 348624

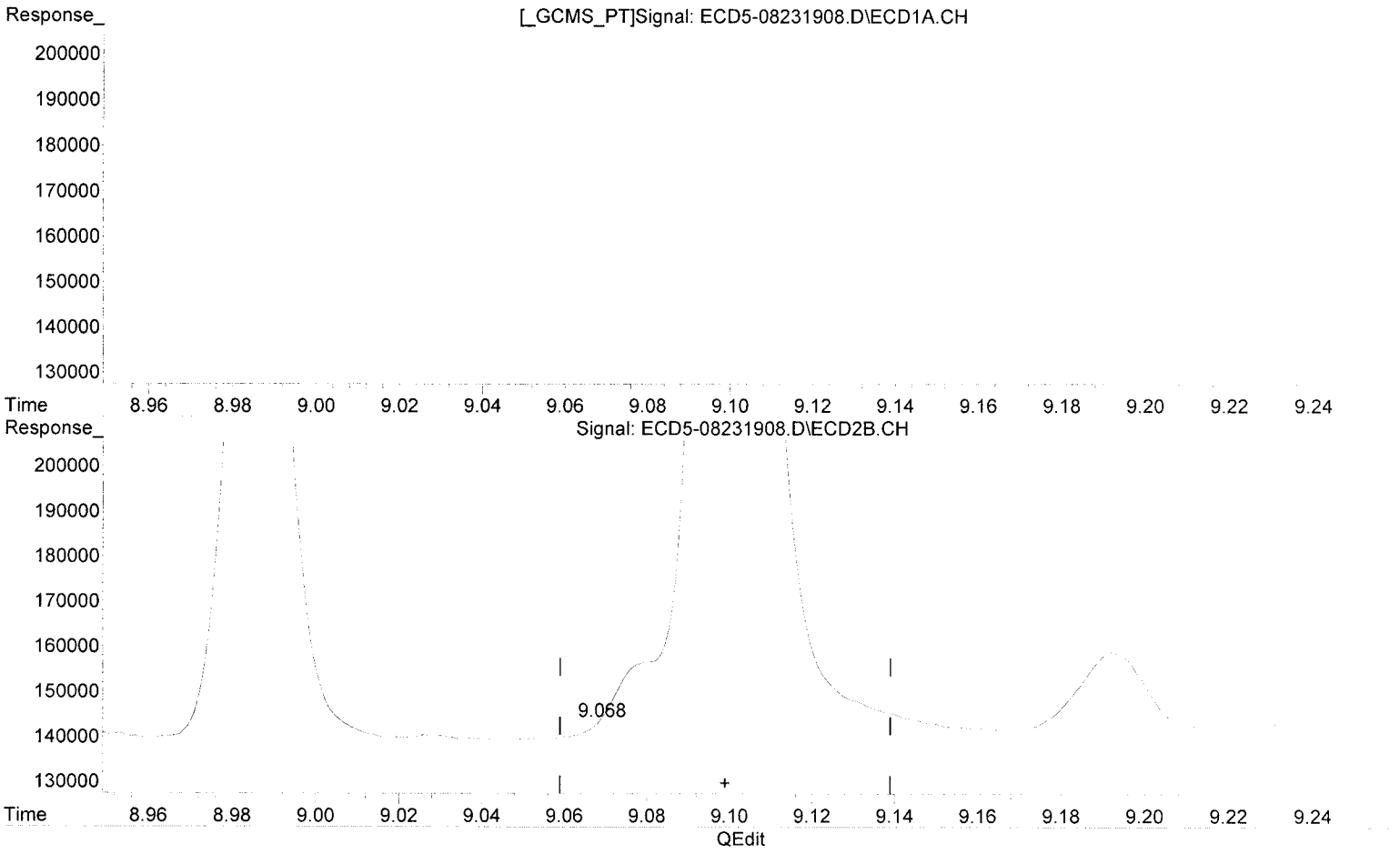
(+) = Expected Retention Time

R = 2.18e+002 A*A + 1.83e+005 A + 1.55e+005
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL m

response 3543

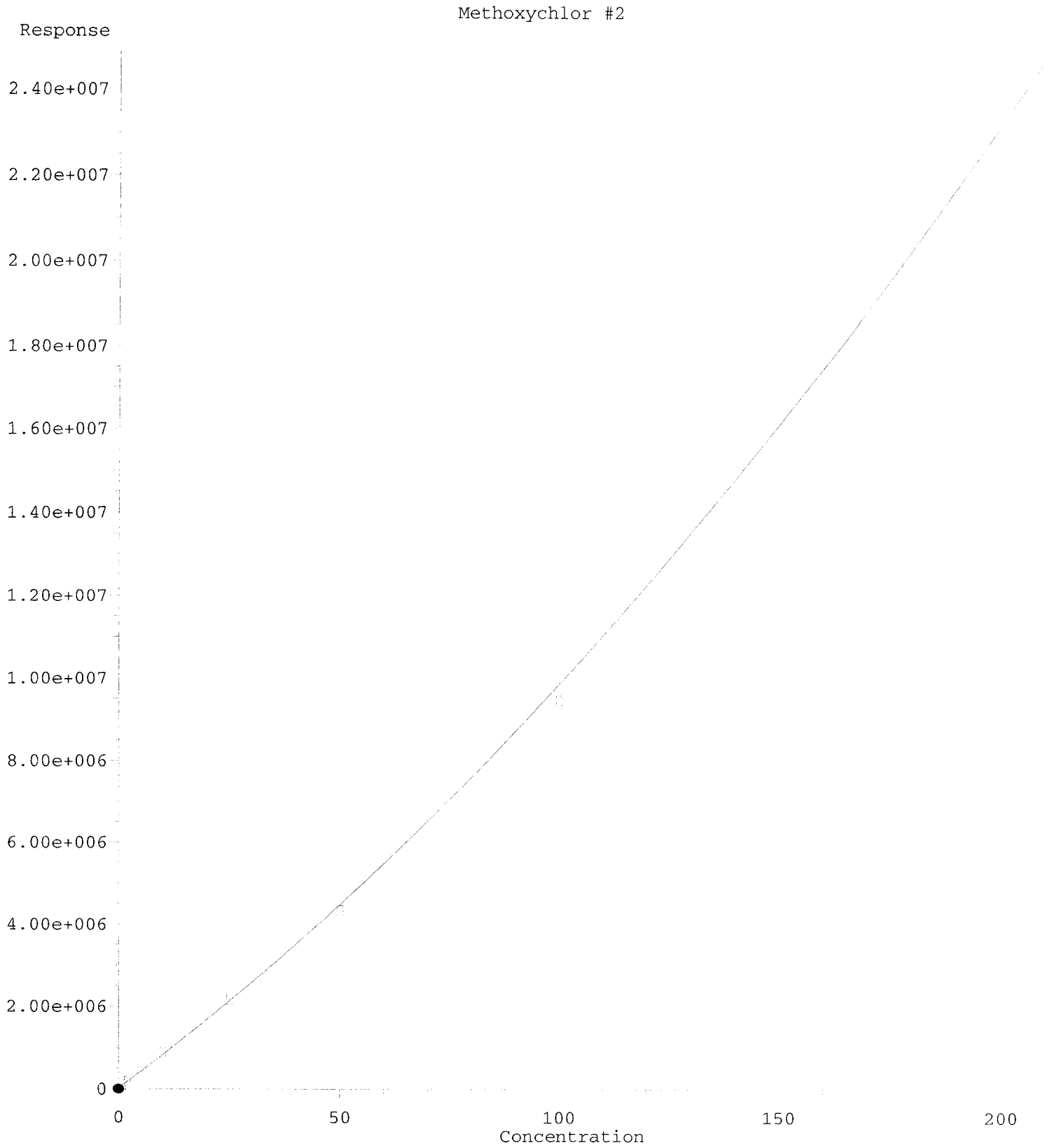
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL (m)

response 3374

(+) = Expected Retention Time

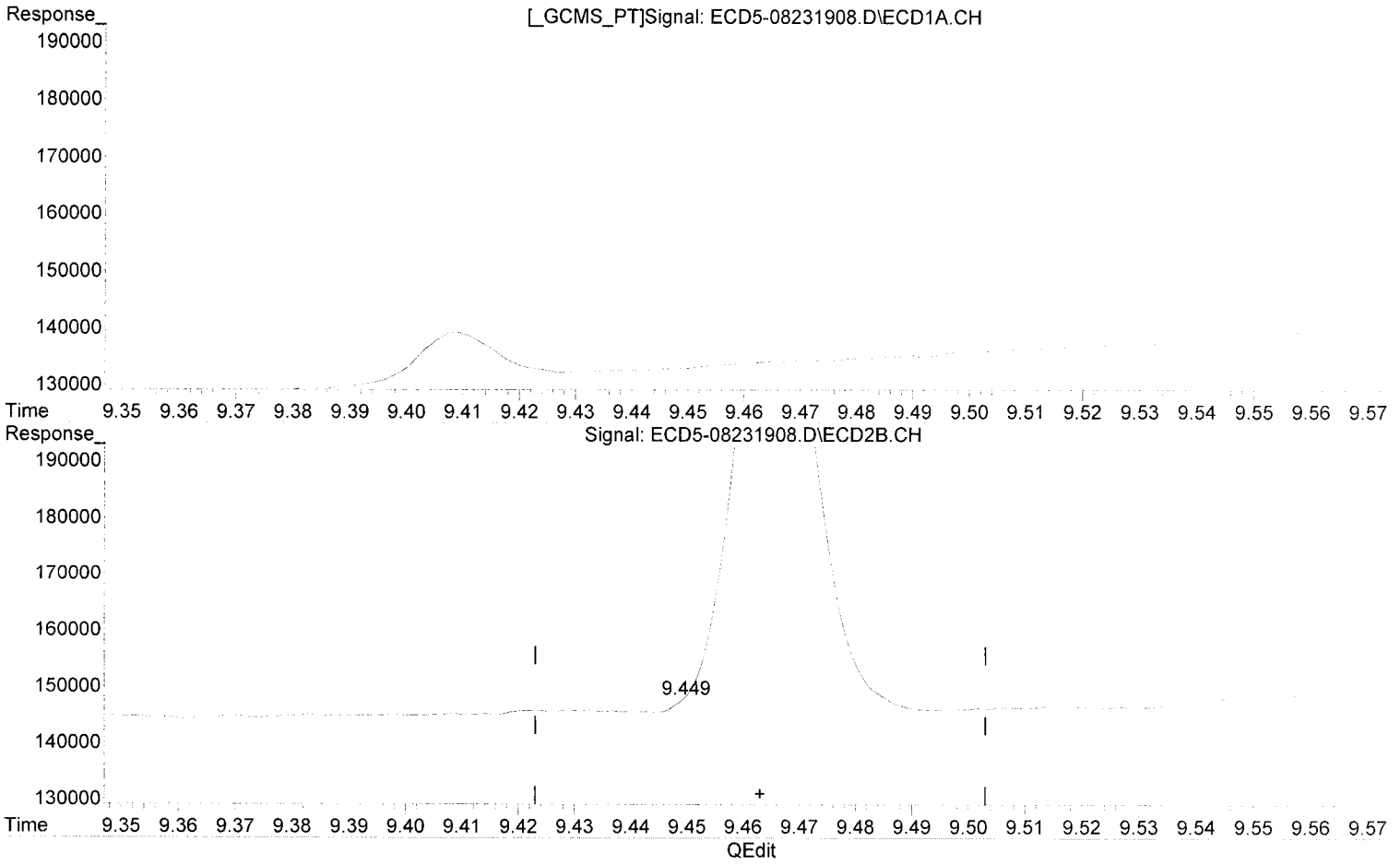


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.543min 1.019 ng/mL

response 59659

MJB 8/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

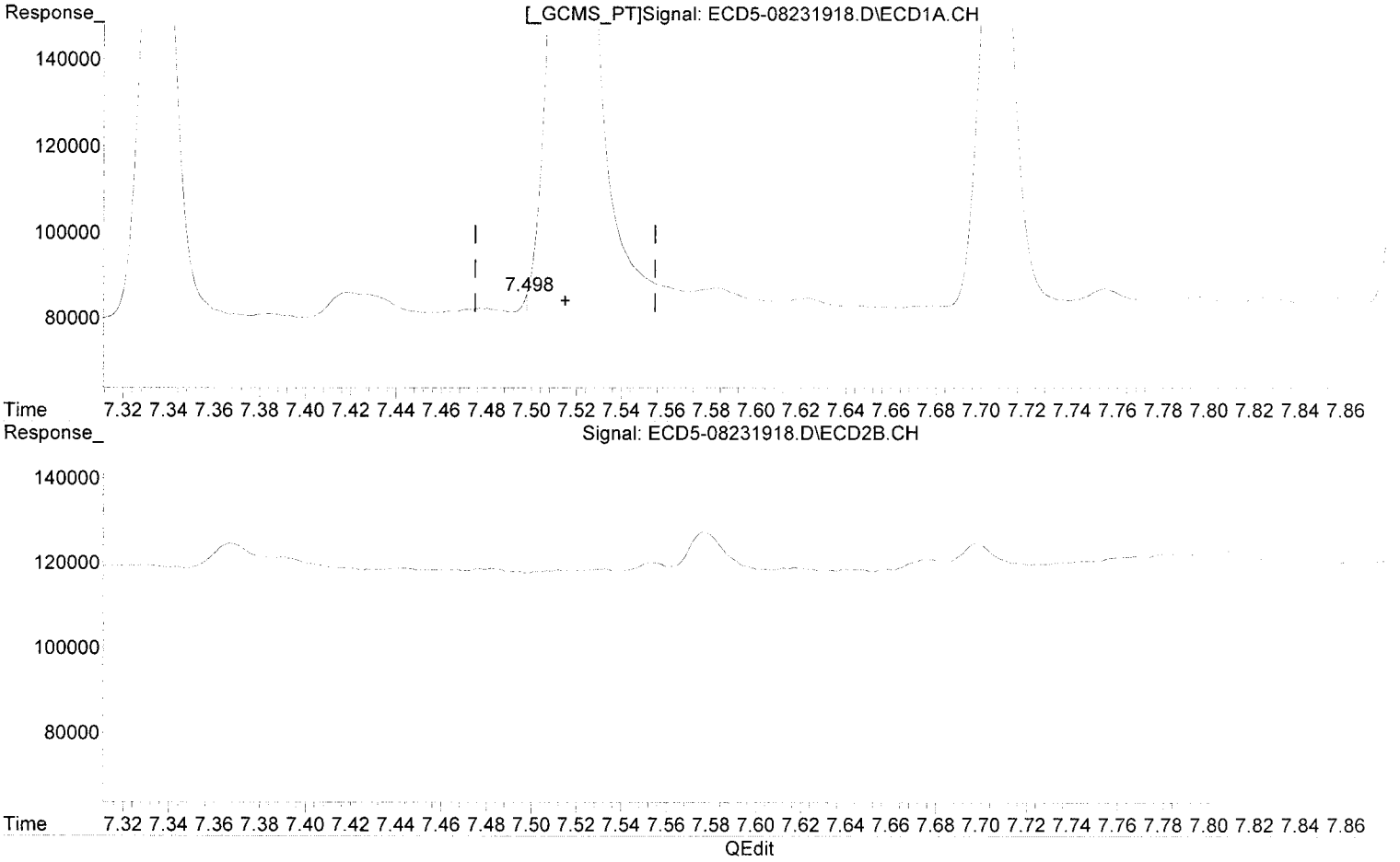
(+) = Expected Retention Time

R = -2.05e+000 A*A + 1.79e+005 A + 5.67e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(27) trans-Nonachlor

7.498min 87346.675 ng/mL (m) Q-ou

response 4608

MJB 6/26/19

(27) trans-Nonachlor #2

8.195min 1.015 ng/mL

response 306202

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

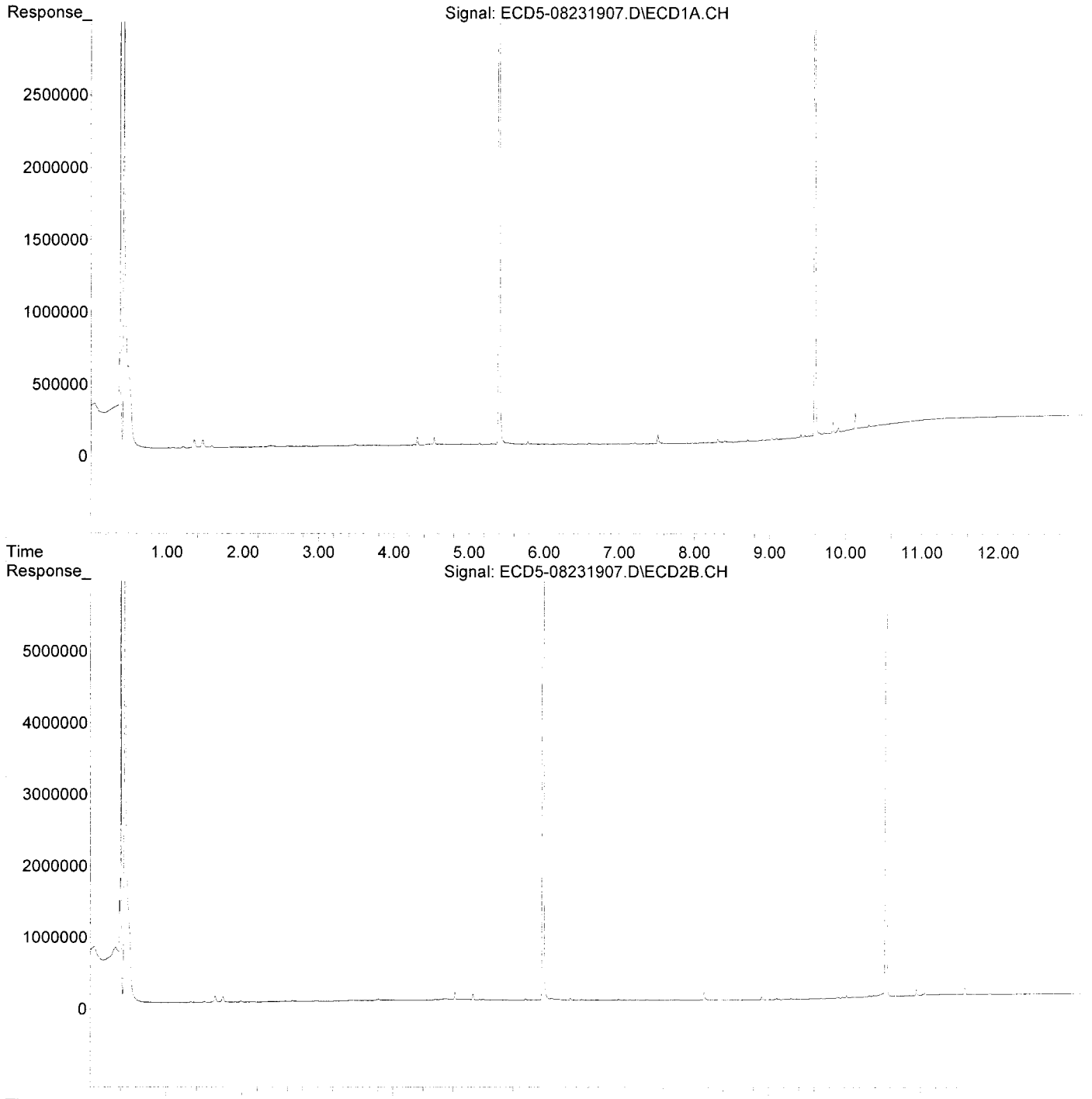
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22)	S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
4)		b-BHC	0.000	7.003f	0	10802	N.D.	0.068	#
5)		Heptachlor	6.596f	0.000	8260	0	0.046	N.D.	#
6)		d-BHC	6.451	7.234	5541	7061	0.028	0.020	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.318	0.000	2356	0	0.013	N.D.	#
9)		trans-Chl...	0.000	8.140	0	104395	N.D.	0.333	#
10)		cis-Chlor...	7.514	0.000	58774	0	0.323	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.119	0.000	3735	0	0.026	N.D.	#
17)		4,4'-DDT	8.185	0.000	4049	0	0.034	N.D.	#
18)		Endrin Al...	8.408	9.102	14375	14948	BelowCal	BelowCal	
19)		Endosulfa...	8.709	9.292	12123	14809	0.078	0.059	
20)		Methoxychlor	8.542	0.000	4975	0	0.085	N.D.	#
21)		Endrin Ke...	8.903	9.690	4830	7943	0.029	0.031	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	21656	0	0.123	N.D.	#
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.318	8.140	2356	104395	0.018	0.492	#
27)		trans-Non...	7.514	0.000	58774	0	0.012	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.652	9.690	4544	7943	0.036	0.043	
32)		Chlordane...	0.000	8.140	0	104395	N.D.	2.885	#
33)		Chlordane...	7.514	0.000	58774	0	2.345	N.D.	#
34)		Chlordane...	0.000	8.904	0	37260	N.D.	4.156	#
35)		Chlordane...	3.445	0.000	6677	0	NoCal	N.D.	
36)		Toxaphene...	7.514	0.000	58774	0	65.621	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.119	0.000	3735	0	1.109	N.D.	#
39)		Toxaphene...	8.312f	8.904	24186	37260	7.464	4.462	#
40)		Toxaphene...	8.542f	9.102	4975	14948	2.075	3.207	#
41)		Toxaphene...	8.652	0.000	4544	0	1.436	N.D.	#
42)		Toxaphene...	3.445	0.000	6677	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Clean

MJB 8/26/19

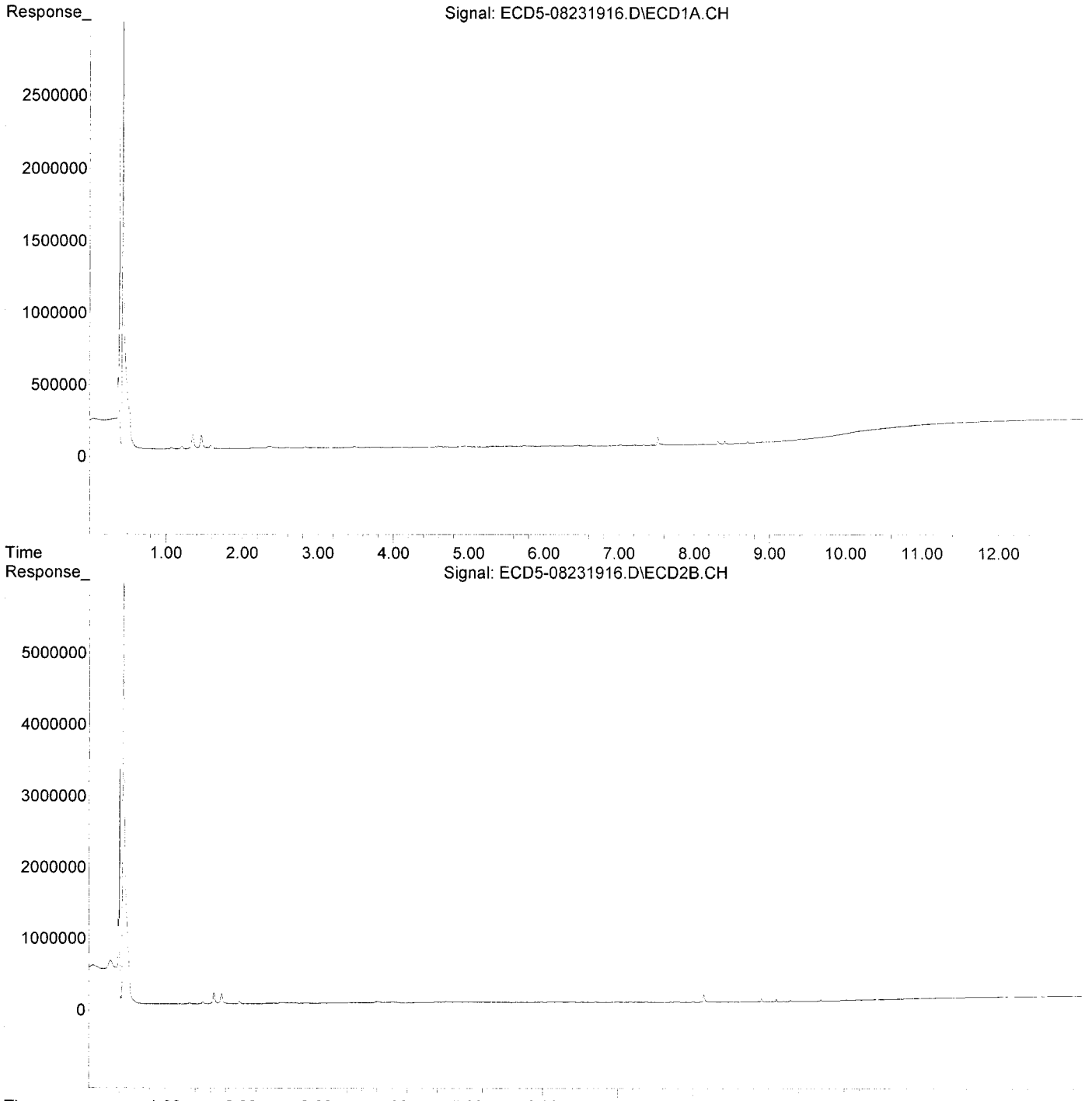
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	7.003f	0	7432	N.D.	0.047	#
5)		Heptachlor	6.602f	0.000	4945	0	0.027	N.D.	#
6)		d-BHC	6.450	7.233	6336	9226	0.032	0.026	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	99412	N.D.	0.317	#
10)		cis-Chlor...	7.516	0.000	56525	0	0.310	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.007	0.000	1177	0	0.007	N.D.	#
16)		Endosulfa...	8.117	8.865	3391	6280	0.024	0.027	
17)		4,4'-DDT	8.226f	0.000	1460	0	0.012	N.D.	#
18)		Endrin Al...	8.407	9.100	21929	28697	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.291	12087	18257	0.078	0.073	
20)		Methoxychlor	8.544	0.000	4198	0	0.072	N.D.	#
21)		Endrin Ke...	8.901	9.686	4385	18734	0.026	0.073	#
23)		Hexachlor...	0.000	3.689	0	2782	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	99412	N.D. Q ok	0.469	#
27)		trans-Non...	7.516	0.000	56525	0 ~~87346.385~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.007f	0.000	1177	0	0.006	N.D.	#
31)		Mirex	0.000	9.686	0	18734	N.D.	0.101	#
32)		Chlordane...	0.000	8.142	0	99412	N.D.	2.747	#
33)		Chlordane...	7.516	0.000	56525	0	2.255	N.D.	#
34)		Chlordane...	8.065	8.904	2775	39801	0.480	4.439	#
35)		Chlordane...	3.447	0.000	4520	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	56525	0	63.111	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	8.865	3391	6280	1.007	1.239	
39)		Toxaphene...	8.314f	8.904	23317	39801	7.196	4.767	
40)		Toxaphene...	8.583	9.100	2463	28697	1.028	6.158	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.447	0.000	4520	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

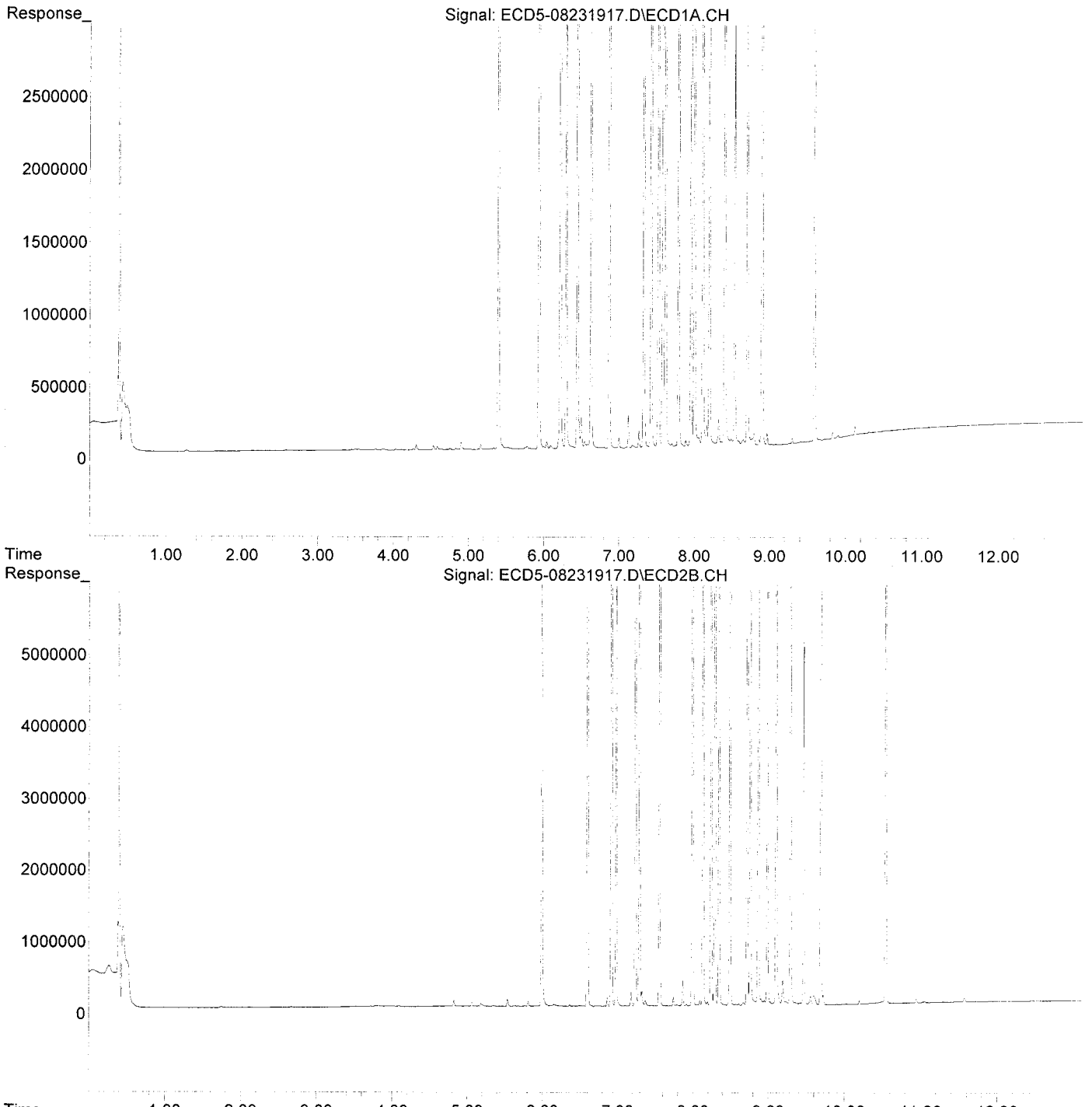
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	10370774	18809716	51.397	52.732	
4)		b-BHC	6.296	6.977	4410789	7929442	48.801	50.102	
5)		Heptachlor	6.629	7.288	9286546	15998647	51.223	52.287	
6)		d-BHC	6.446	7.231	10162400	18561571	51.667	52.632	
7)		Aldrin	6.870	7.553	10415223	17743229	52.750	53.867	
8)		Heptachlo...	7.330	7.991	9218950	15454788	50.054	51.371	
9)		trans-Chl...	7.427	8.130	9449748	15882363	51.110	50.690	
10)		cis-Chlor...	7.523	8.238	8891439	15040020	48.835	51.640	
11)		Endosulfa...	7.620	8.288	8454858	14042285	49.682	51.030	
12)		4,4'-DDE	7.583	8.343	9669653	16358741	51.290	52.655	
13)		Dieldrin	7.792	8.489	9566646	15751562	49.832	51.789	
14)		Endrin	7.957	8.715	7744641	11999227	52.675	53.135	
15)		4,4'-DDD	8.003	8.758	8044313	14118585	51.192	55.105	
16)		Endosulfa...	8.114	8.862	7639079	12307624	53.193	53.371	
17)		4,4'-DDT	8.201	8.984	6427421	10243965	53.759	54.092	
18)		Endrin Al...	8.403	9.098	7471981	12138603	60.652	61.144	
19)		Endosulfa...	8.704	9.289	8022310	12945664	51.764	51.972	
20)		Methoxychlor	8.537	9.463	3243218	5107379	55.369	56.272	
21)		Endrin Ke...	8.898	9.687	8897553	13958232	53.356	54.245	
23)		Hexachlor...	0.000	3.713f	0	6424	N.D.	0.017	#
24)		Hexachlor...	5.778	6.482f	19713	11218	0.112	0.036	#
25)		Oxychlordane	7.266	7.916	116203	18640	0.706	0.068	#
26)		2,4'-DDE	7.330	8.130	9218950	15882363	71.876	74.868	
27)		trans-Non...	7.523	8.193	8891439	52587	49.340	0.174	#
28)		2,4'-DDD	7.704	8.489	22276	15751562	0.195	83.402	#
29)		2,4'-DDT	7.889	8.715	44366	11999227	0.404	67.283	#
30)		cis-Nonac...	8.003	8.758	8044313	14118585	38.746	42.089	
31)		Mirex	8.653	9.687	40409	13958232	0.322	75.015	#
32)		Chlordane...	7.427	8.130	9449748	15882363	479.936	438.926	
33)		Chlordane...	7.523	8.238	8891439	15040020	354.745	495.323	
34)		Chlordane...	0.000	8.899	0	79876	N.D.	8.909	#
35)		Chlordane...	3.446	0.000	5075	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.489f	8891439	15751562	9927.388	6002.292	
37)		Toxaphene...	7.792	0.000	9566646	0	5923.845	N.D.	#
38)		Toxaphene...	8.114	8.862	7639079	12307624	2268.479	2428.346	
39)		Toxaphene...	8.324f	8.899	184731	79876	57.013	9.566	#
40)		Toxaphene...	8.537f	9.098	3243218	12138603	1352.952	2604.650	#
41)		Toxaphene...	8.653	9.463	40409	5107379	12.769	1075.192	#
42)		Toxaphene...	3.446	0.000	5075	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean
MJB 8/26/19

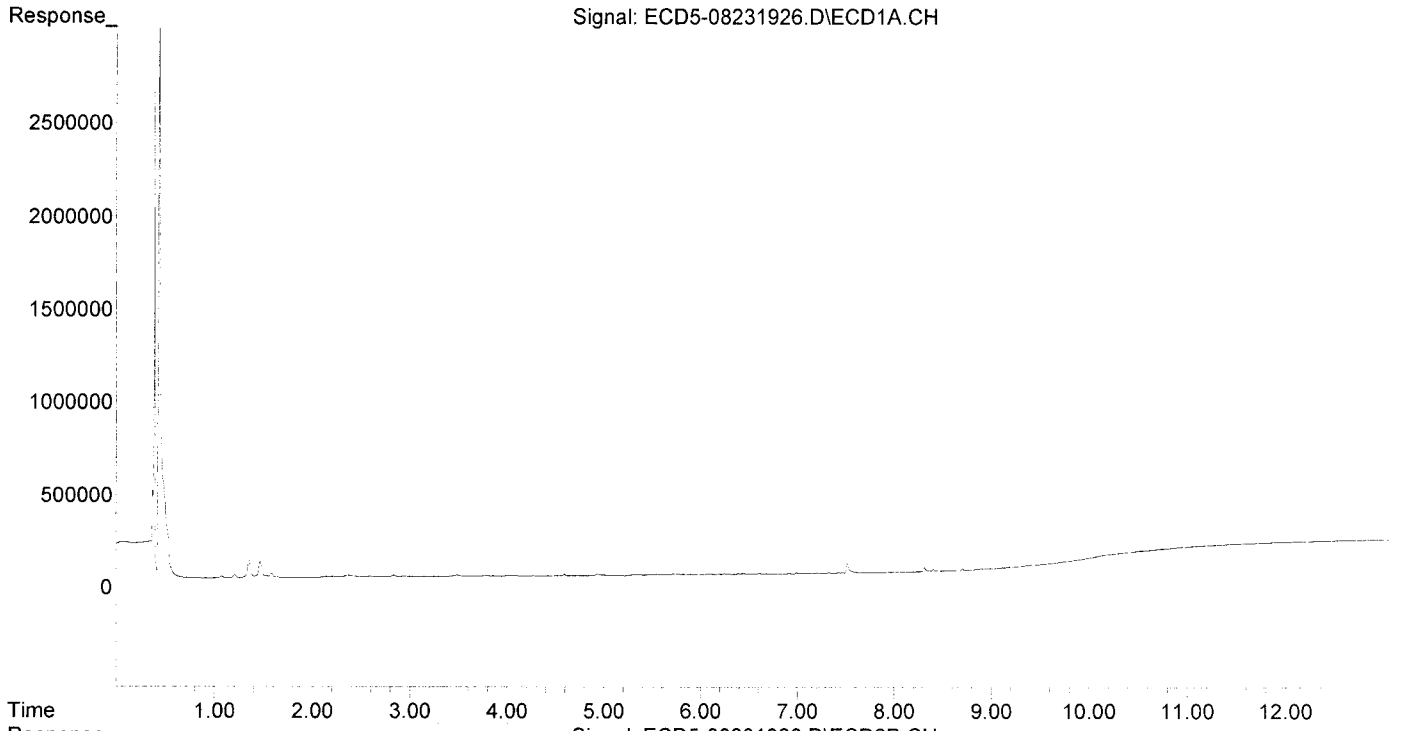
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)	d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)	cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)	Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)	Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)	Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	0.000	8.141	0	95737	N.D. Q-pu	0.451	#
27)	trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)	Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)	Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)	Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)	Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)	Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)	Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)	Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)	Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)	Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

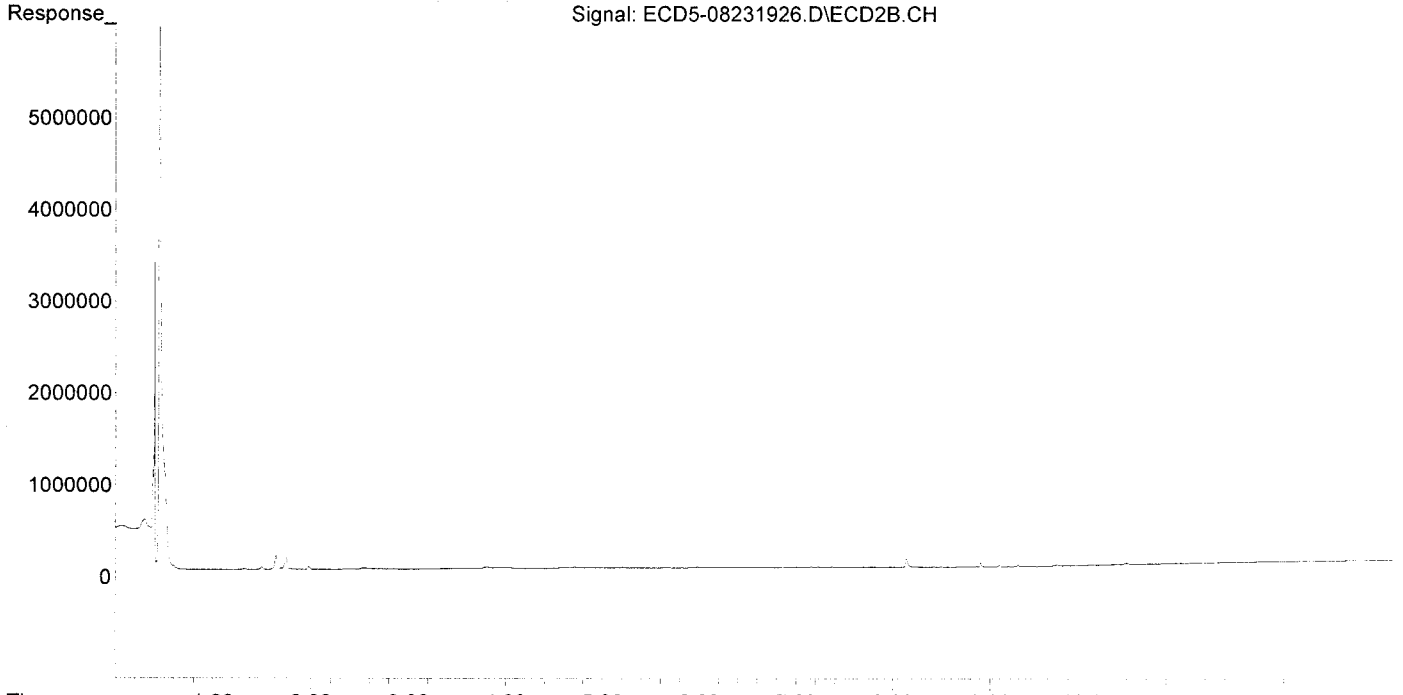
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

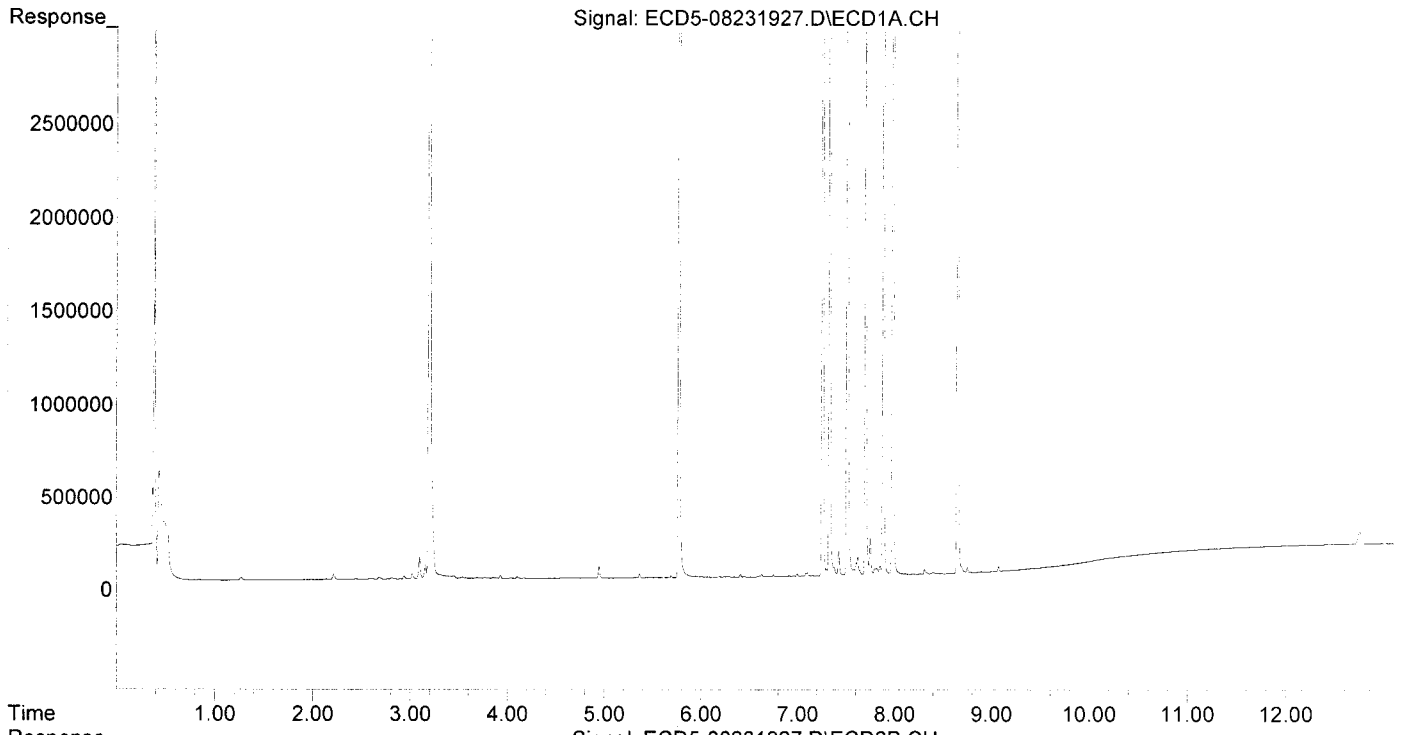
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

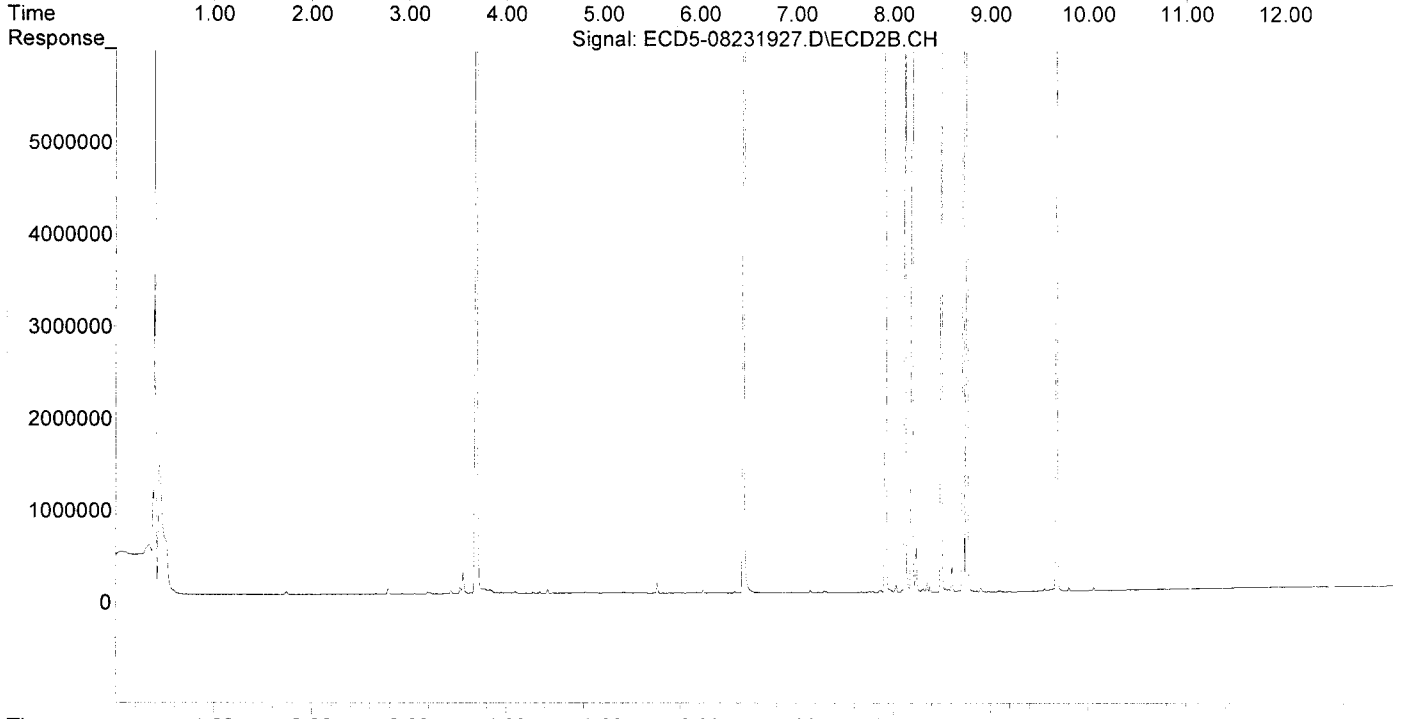
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

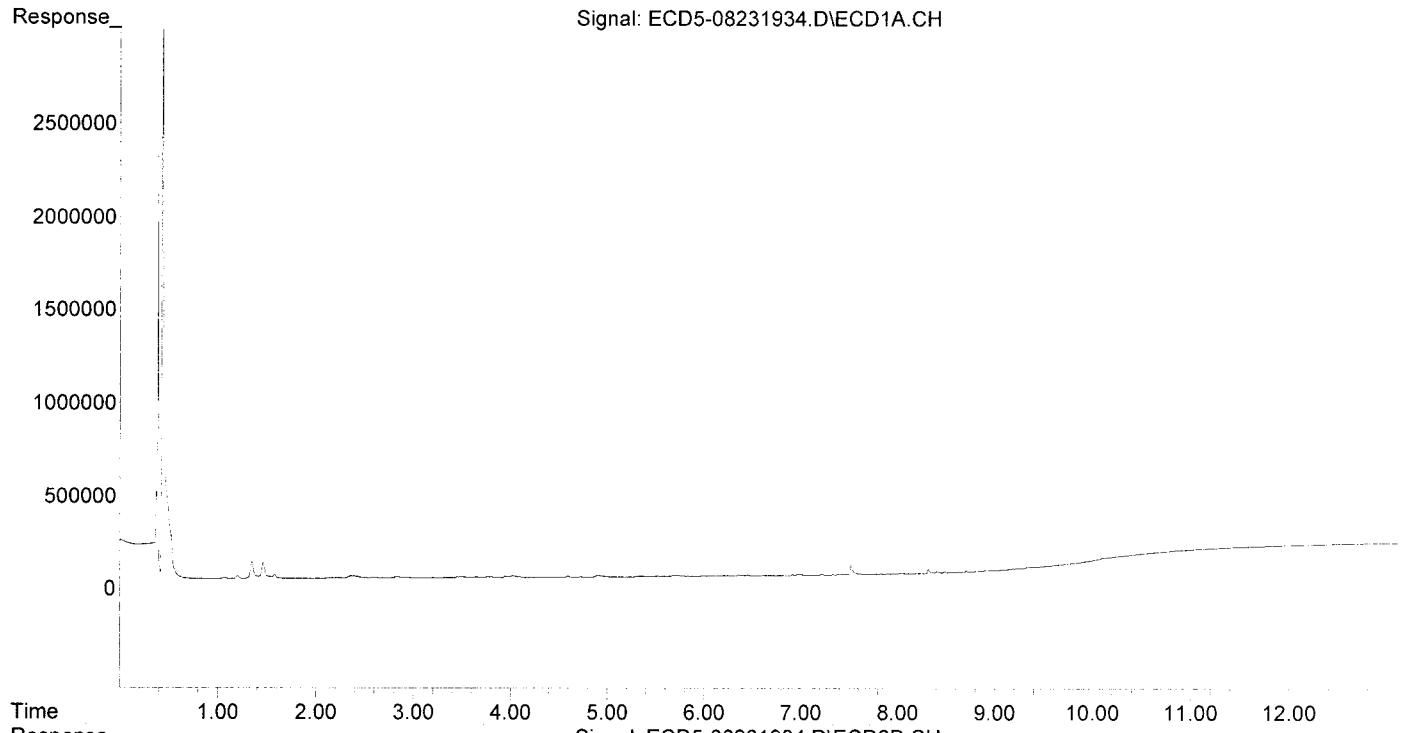
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)		d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)		cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)		Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)		Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)		Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)		Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)		trans-Non...	7.519	0.000	51396	0 ~~87346.414~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)		Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)		Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)		Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)		Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)		Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)		Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)		Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)		Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

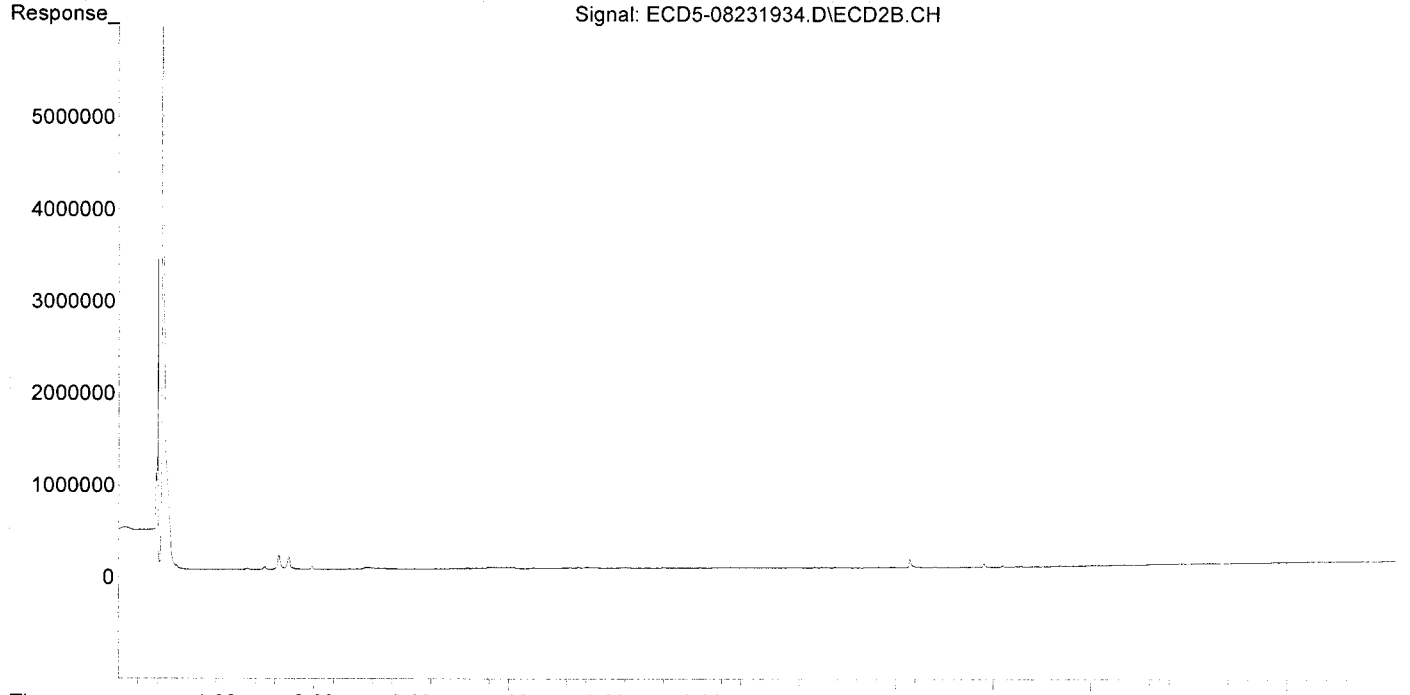
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

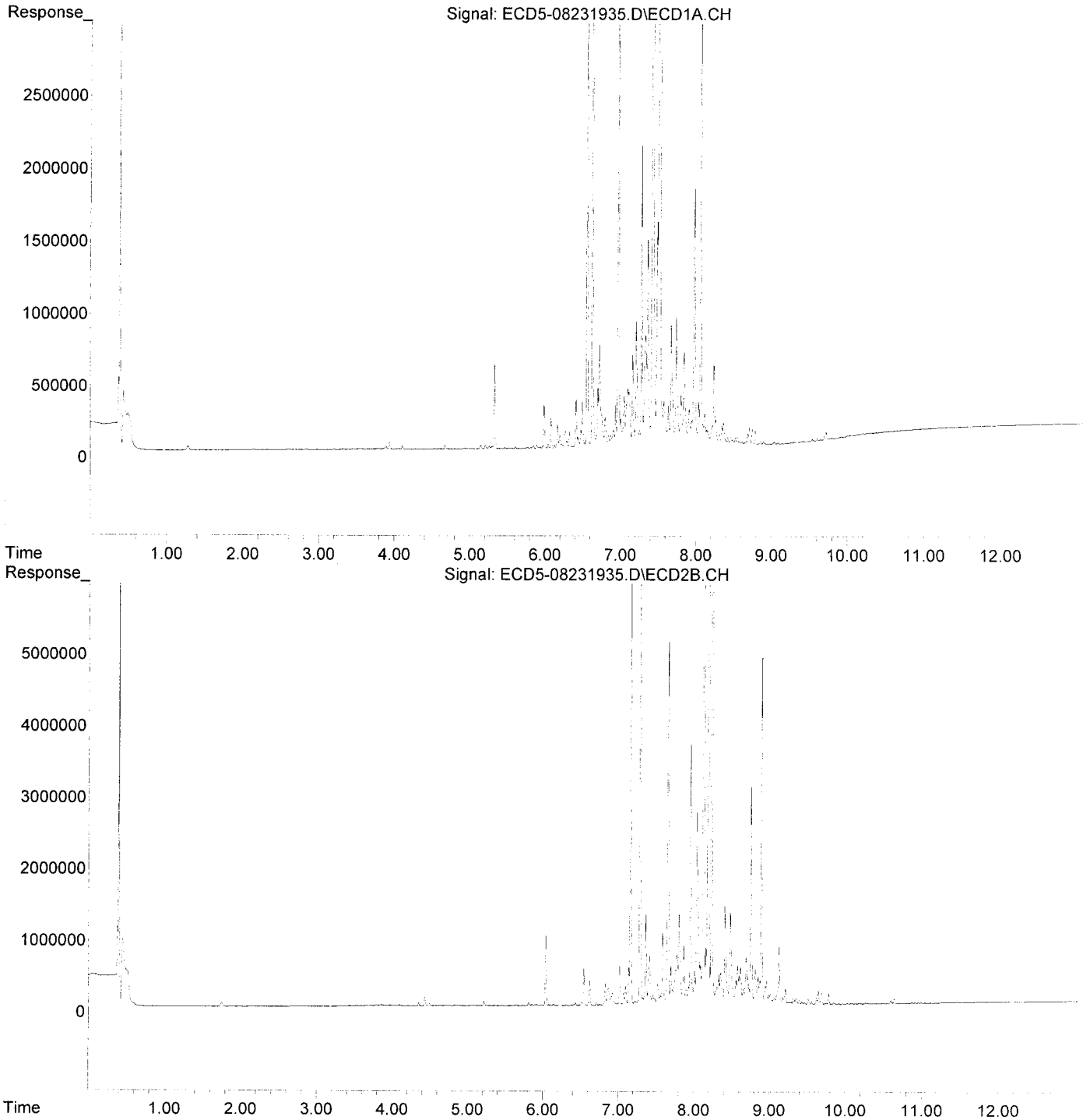
E 542.20

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/12/19

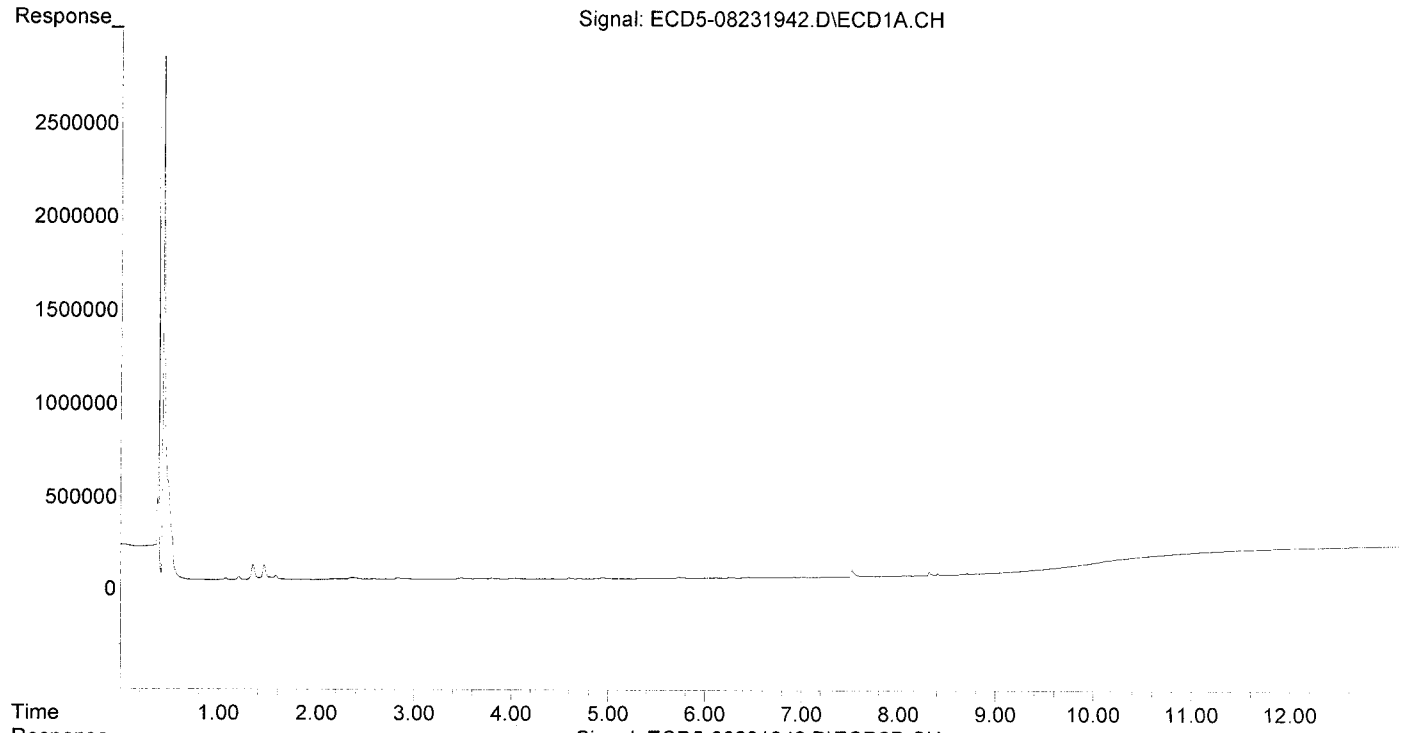
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q2d	0.344	#
27)		trans-Non...	7.522	0.000	38316	0	~~87346.487~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.644	9.687	766	7207	0.006	0.039	#
32)		Chlordane...	7.425	8.145	1693	72982	0.086	2.017	#
33)		Chlordane...	7.522	0.000	38316	0	1.529	N.D.	#
34)		Chlordane...	8.049	8.906	2785	37528	0.482	4.186	#
35)		Chlordane...	3.451	0.000	3890	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	0.000	38316	0	42.781	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	0.000	2505	0	0.744	N.D.	#
39)		Toxaphene...	8.318f	8.906	18960	37528	5.852	4.495	
40)		Toxaphene...	8.540f	9.100	2018	13686	0.842	2.937	#
41)		Toxaphene...	8.644	0.000	766	0	0.242	N.D.	#
42)		Toxaphene...	3.451	0.000	3890	0	NoCal	N.D.	

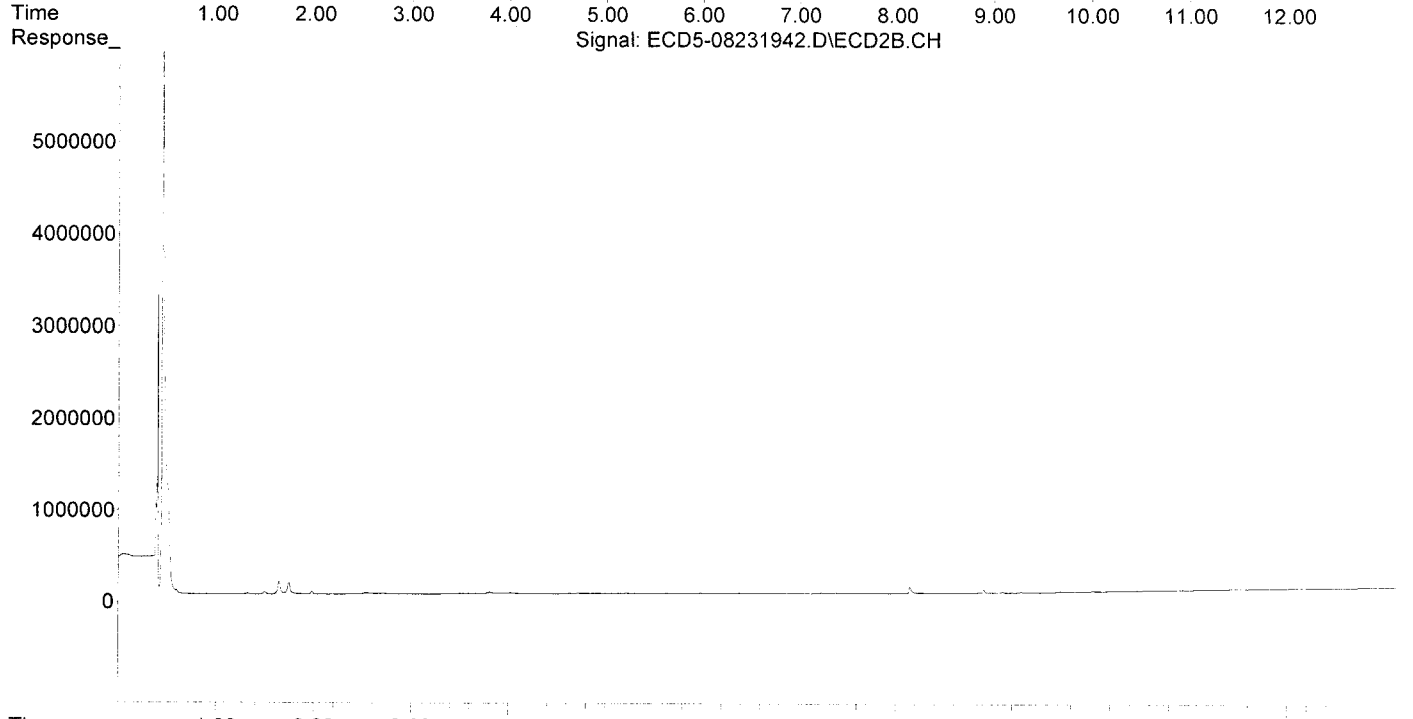
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5611	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	22246	40017	0.158	0.223	#
		Target Compounds							
2)		a-BHC	5.949	6.596	3272	7415	0.014	0.018	
3)		g-BHC	6.247f	6.907	6246	18839	0.031	0.053	#
4)		b-BHC	6.296	6.966	11447	24200	0.127	0.153	
5)		Heptachlor	6.631	7.293	23849	45477	0.132	0.149	
6)		d-BHC	6.434	7.233	11867	47325	0.060	0.134	#
7)		Aldrin	6.871	7.582f	53004	119759	0.268	0.364	
8)		Heptachlo...	7.358f	7.984	250185	414973	1.358	1.379	
9)		trans-Chl...	7.445	8.135	315388	332556	1.706	1.061	
10)		cis-Chlor...	7.501f	8.220	426074	475646	2.340	1.633	
11)		Endosulfa...	7.629	8.295	511717	592244	3.007	2.152	
12)		4,4'-DDE	7.551f	8.359	359885	753065	1.909	2.424	
13)		Dieldrin	7.794	8.506	766286	726725	3.992	2.389	#
14)		Endrin	7.934f	8.711	607064	1341537	4.129	5.941	#
15)		4,4'-DDD	8.021	8.761	679517	912025	4.324	3.560	
16)		Endosulfa...	8.105	8.848	1638713	2447077	11.411	10.611	
17)		4,4'-DDT	8.184	8.976	1416015	960593	11.844	5.508	#
18)		Endrin Al...	8.392	9.091	1088580	2275708	8.285	11.454	
19)		Endosulfa...	8.709	9.291	549140	929201	3.543	3.730	
20)		Methoxychlor	8.543	9.470	549172	2364076	9.376	27.518	#
21)		Endrin Ke...	8.893	9.712f	380224	458705	2.280	1.783	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.813f	6.462	3660	6563	0.021	0.021	
25)		Oxychlordane	7.265	7.936	334880	406205	2.035	1.483	
26)		2,4'-DDE	7.358f	8.112	250185	466633	1.951	2.200	
27)		trans-Non...	7.501	8.205	426074	457454	2.062	1.517	
28)		2,4'-DDD	7.712	8.506	575777	726725	5.045	3.848	
29)		2,4'-DDT	7.898	8.711	911632	1341537	8.311	7.522	
30)		cis-Nonac...	7.982	8.761	1096031	912025	5.279	2.719	#
31)		Mirex	8.641	9.712f	1546722	458705	12.338	2.465	#
32)		Chlordane...	7.445	8.135	315388	332556	16.018	9.191	#
33)		Chlordane...	7.501	8.220	426074	475646	16.999	15.665	
34)		Chlordane...	8.046f	8.915	705731	4045258	122.075	451.184	#
35)		Chlordane...	3.453	0.000	2732	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	426074	1252556	475.717	477.299	
37)		Toxaphene...	7.794	8.813	766286	1618562	474.499	491.811	
38)		Toxaphene...	8.105	8.848	1638713	2447077	486.627	482.818	
39)		Toxaphene...	8.346	8.915	1570667	4045258	484.751	484.472	
40)		Toxaphene...	8.573	9.091	1186452	2275708	494.944	488.312	
41)		Toxaphene...	8.641	9.470	1546722	2364076	488.760	497.679	
42)		Toxaphene...	3.453	0.000	2732	0	NoCal	N.D.	

A B

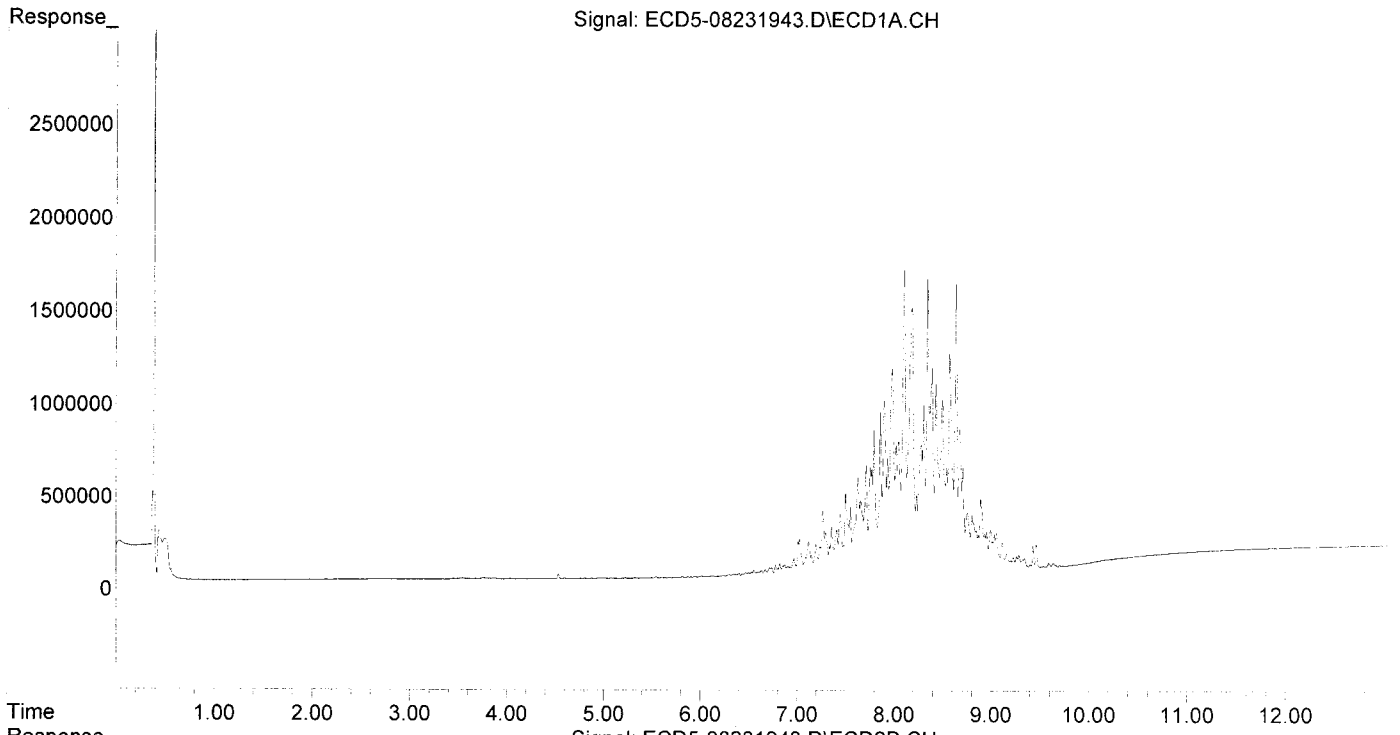
484.22 487.07

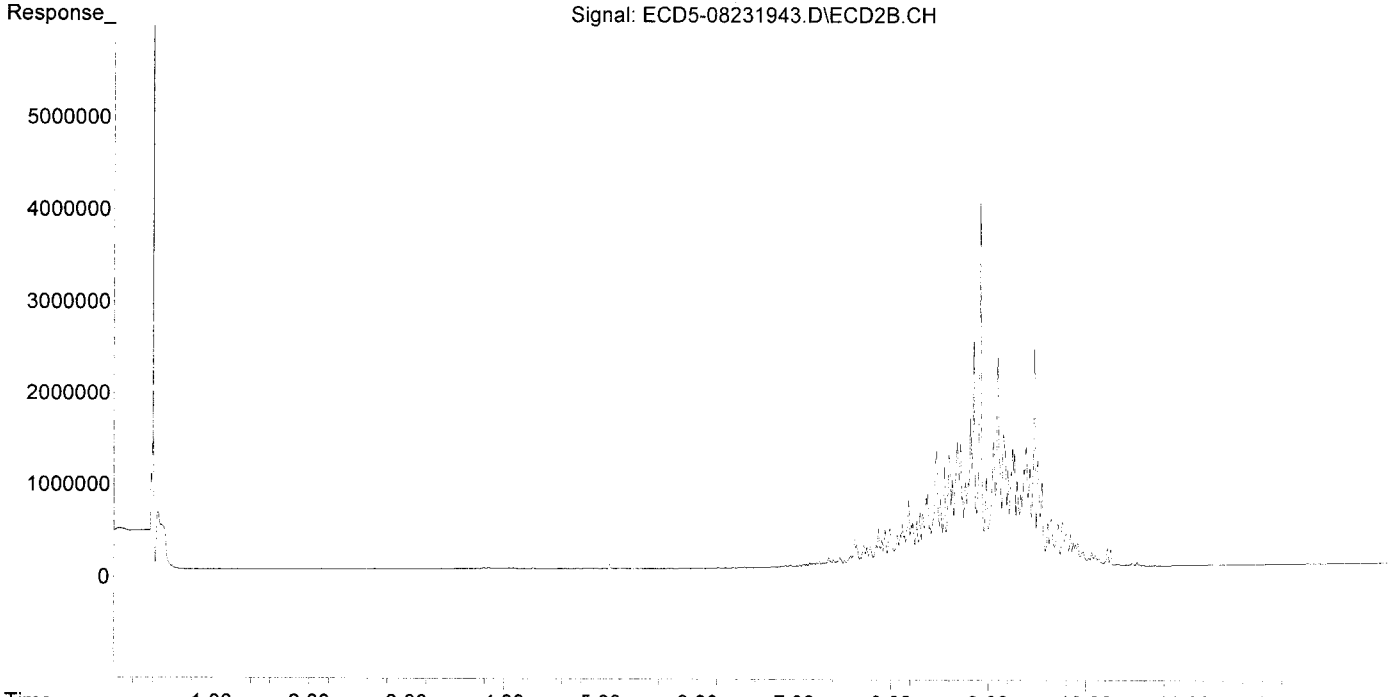
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

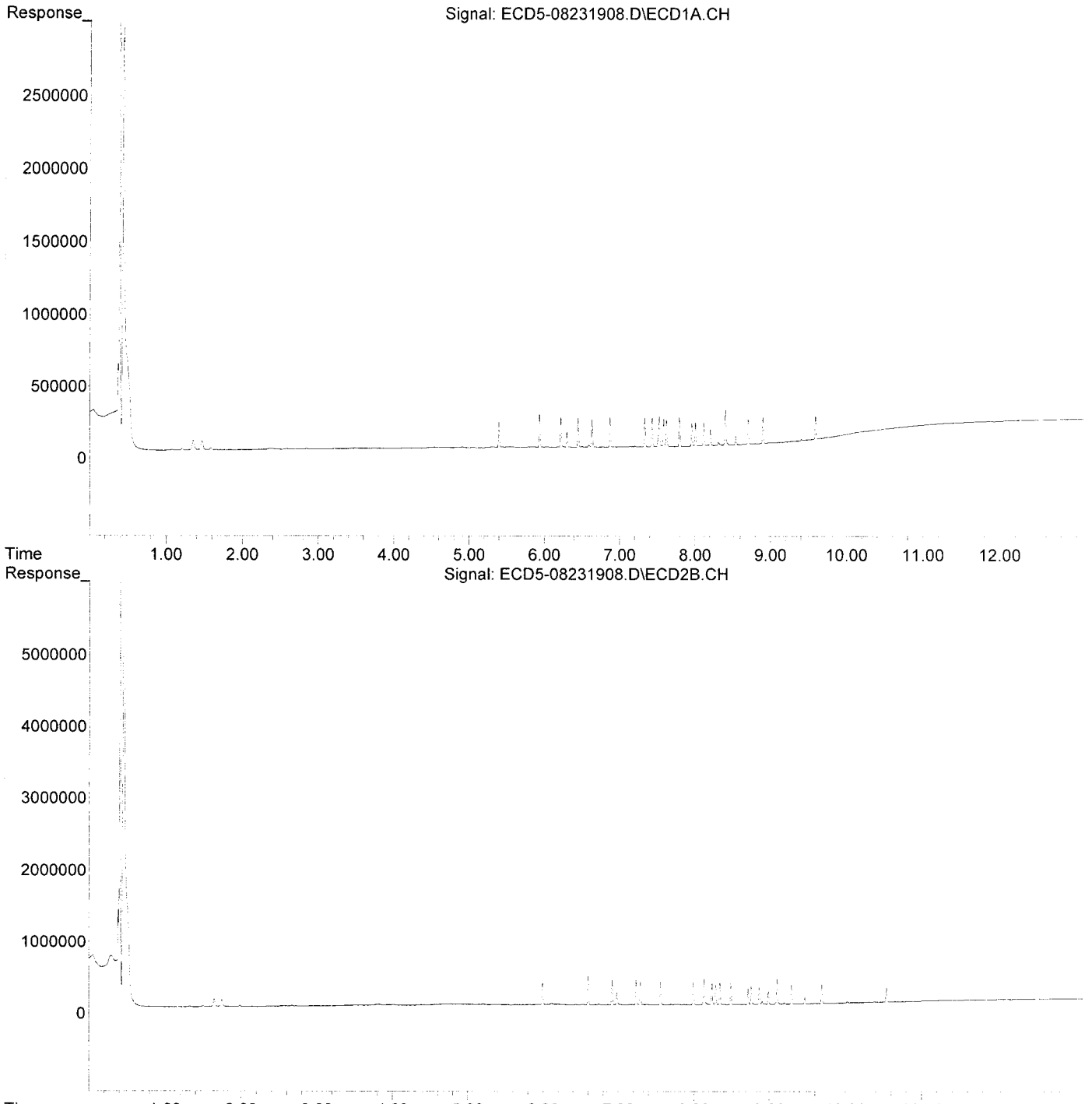
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	1.028	0.988	
4)		b-BHC	6.300	6.980	104326	176262	1.154	1.114	
5)		Heptachlor	6.635	7.292	192066	309811	1.059	1.013	
6)		d-BHC	6.450	7.234	199840	349123	1.016	0.990	
7)		Aldrin	6.875	7.557	205523	317466	1.041	0.964	
8)		Heptachlo...	7.335	7.994	200503	310098	1.089	1.031	
9)		trans-Chl...	7.433	8.135	197202	364142	1.067	1.162	
10)		cis-Chlor...	7.528	8.241	209780	299422	1.152	1.028	
11)		Endosulfa...	7.625	8.291	185217	278874	1.088	1.013	
12)		4,4'-DDE	7.586	8.346	193435	298463	1.026	0.961	
13)		Dieldrin	7.796	8.491	197721	296684	1.030	0.975	
14)		Endrin	7.961	8.718	156412	222882	1.064	0.987	
15)		4,4'-DDD	8.007	8.760	164956	251549	1.050	0.982	
16)		Endosulfa...	8.118	8.865	158139	232156	1.101	1.007	
17)		4,4'-DDT	8.205	8.986	113897	179700	0.953	1.008	
18)		Endrin Al...	8.407	9.101	241285	348624	1.050	1.058	
19)		Endosulfa...	8.708	9.292	176097	265797	1.136	1.067	
20)		Methoxychlor	8.543	9.466	59659	95155	1.019	0.994	
21)		Endrin Ke...	8.901	9.690	177552	255763	1.065	0.994	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.335	8.135	200503	364142	1.563	1.717	
27)		trans-Non...	7.528	0.000	209780	0	0.855	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	296684	N.D.	1.571	#
29)		2,4'-DDT	0.000	8.718	0	222882	N.D.	1.250	#
30)		cis-Nonac...	8.007f	8.760	164956	251549	0.795	0.750	
31)		Mirex	0.000	9.690	0	255763	N.D.	1.375	#
32)		Chlordane...	7.433	8.135	197202	364142	10.016	10.063	
33)		Chlordane...	7.528	8.241	209780	299422	8.370	9.861	
34)		Chlordane...	0.000	8.903	0	37787	N.D.	4.214	#
35)		Chlordane...	3.445	0.000	4502	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	209780	296684	234.222	113.054	#
37)		Toxaphene...	7.796	0.000	197721	0	122.432	N.D.	#
38)		Toxaphene...	8.118	8.865	158139	232156	46.960	45.805	
39)		Toxaphene...	8.312f	8.903	20859	37787	6.438	4.525	
40)		Toxaphene...	8.543f	9.101	59659	348624	24.888	74.806	#
41)		Toxaphene...	0.000	9.466	0	95155	N.D.	20.032	#
42)		Toxaphene...	3.445	0.000	4502	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

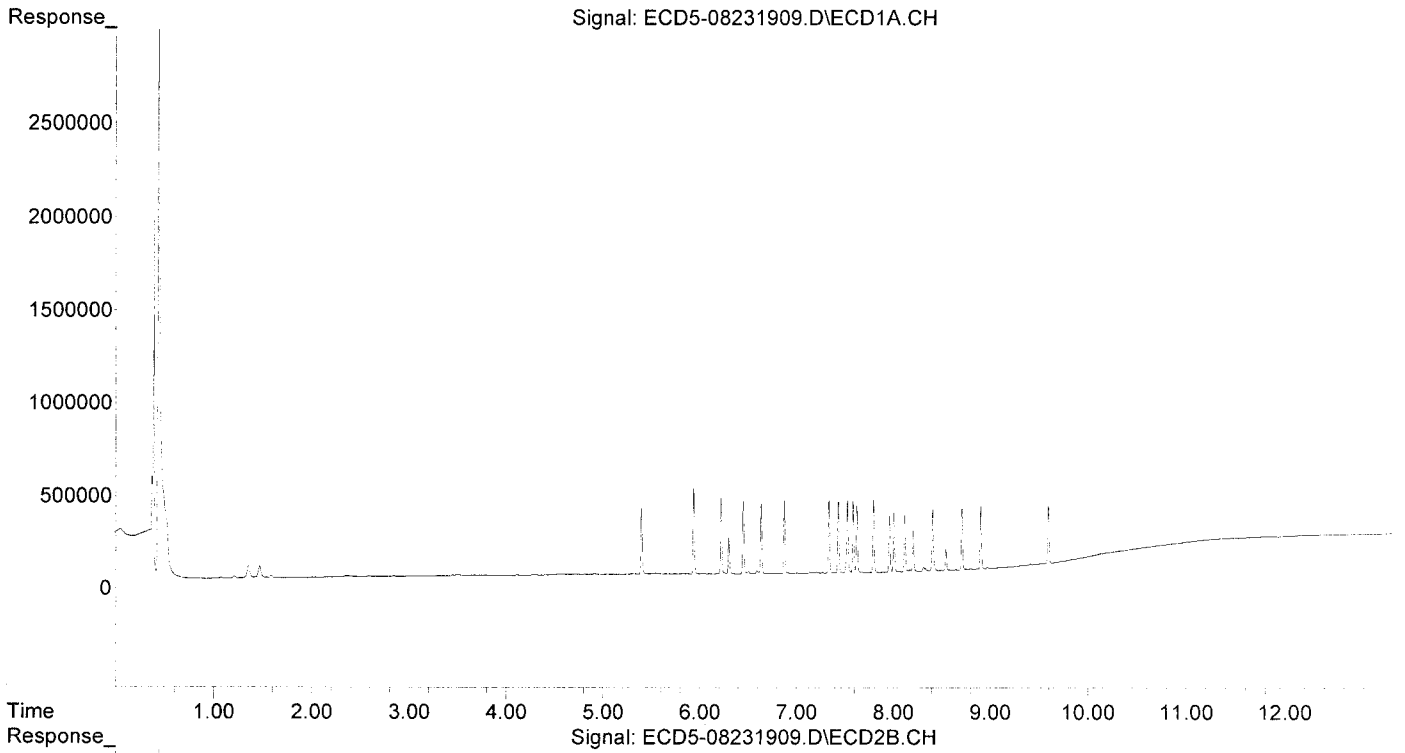
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	2.012	1.937	
4)		b-BHC	6.300	6.980	194168	335260	2.148	2.118	
5)		Heptachlor	6.635	7.291	369615	586765	2.039	1.918	
6)		d-BHC	6.450	7.233	386980	669122	1.967	1.897	
7)		Aldrin	6.875	7.556	399550	635458	2.024	1.929	
8)		Heptachlo...	7.335	7.993	392052	606240	2.129	2.015	
9)		trans-Chl...	7.432	8.135	382271	644454	2.068	2.057	
10)		cis-Chlor...	7.527	8.241	389999	579667	2.142	1.990	
11)		Endosulfa...	7.625	8.291	357368	540442	2.100	1.964	
12)		4,4'-DDE	7.586	8.345	388618	598066	2.061	1.925	
13)		Dieldrin	7.796	8.491	395728	583812	2.061	1.919	
14)		Endrin	7.960	8.718	298515	424889	2.030	1.881	
15)		4,4'-DDD	8.006	8.760	314622	488120	2.002	1.905	
16)		Endosulfa...	8.118	8.864	299106	462256	2.083	2.005	
17)		4,4'-DDT	8.204	8.986	218190	341782	1.825	1.948	
18)		Endrin Al...	8.407	9.101	328182	477694	1.795	1.763	
19)		Endosulfa...	8.707	9.291	322163	498767	2.079	2.002	
20)		Methoxychlor	8.542	9.465	111466	178074	1.903	2.018	
21)		Endrin Ke...	8.901	9.689	331269	493110	1.987	1.916	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.271	0.000	4709	0	0.029	N.D.	#
26)		2,4'-DDE	7.335	8.135	392052	644454	3.057	3.038	
27)		trans-Non...	7.527	0.000	389999	0	1.861	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	583812	N.D.	3.091	#
29)		2,4'-DDT	0.000	8.718	0	424889	N.D.	2.382	#
30)		cis-Nonac...	8.006f	8.760	314622	488120	1.515	1.455	
31)		Mirex	8.657	9.689	1737	493110	0.014	2.650	#
32)		Chlordane...	7.432	8.135	382271	644454	19.415	17.810	
33)		Chlordane...	7.527	8.241	389999	579667	15.560	19.091	
34)		Chlordane...	8.065	8.903	2900	40429	0.502	4.509	#
35)		Chlordane...	3.445	0.000	4897	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	389999	583812	435.438	222.468	#
37)		Toxaphene...	7.796	0.000	395728	0	245.042	N.D.	#
38)		Toxaphene...	8.118	8.864	299106	462256	88.822	91.205	
39)		Toxaphene...	8.312f	8.903	21365	40429	6.594	4.842	
40)		Toxaphene...	8.582	9.101	2314	477694	0.965	102.502	#
41)		Toxaphene...	8.657	9.465	1737	178074	0.549	37.488	#
42)		Toxaphene...	3.445	0.000	4897	0	NoCal	N.D.	

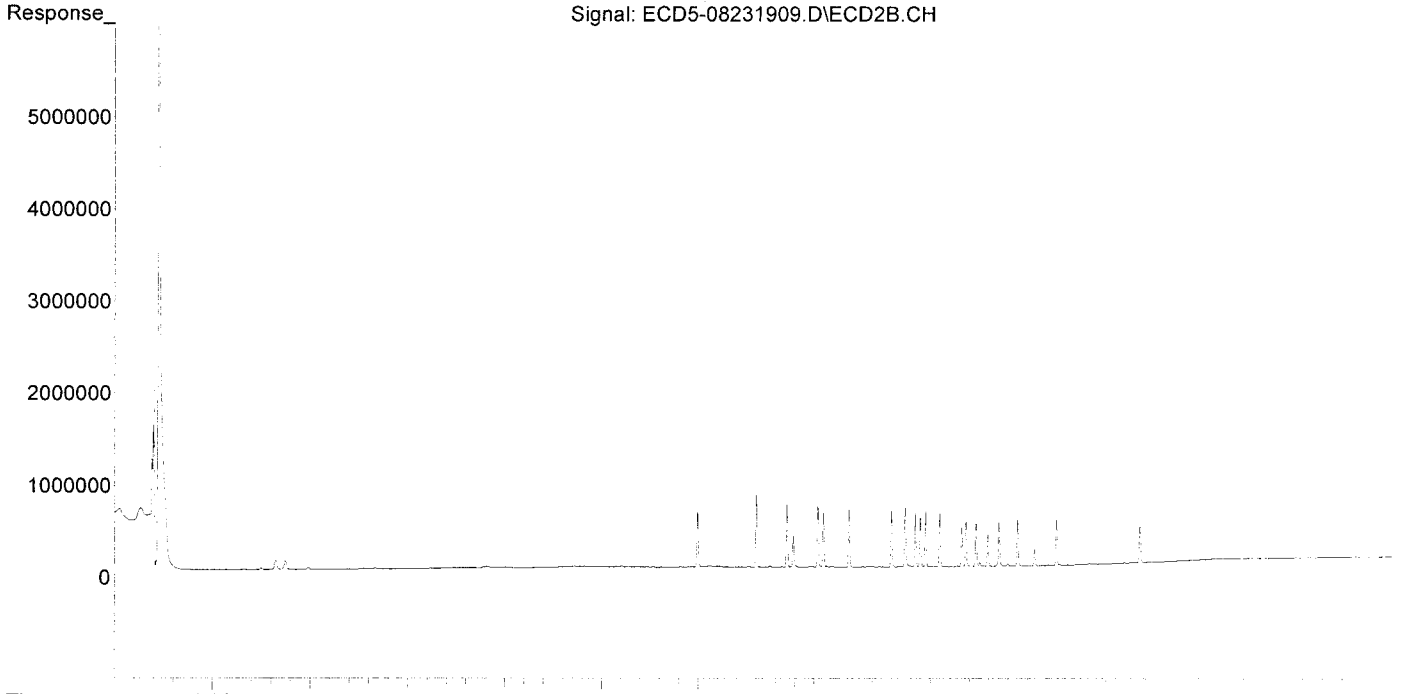
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

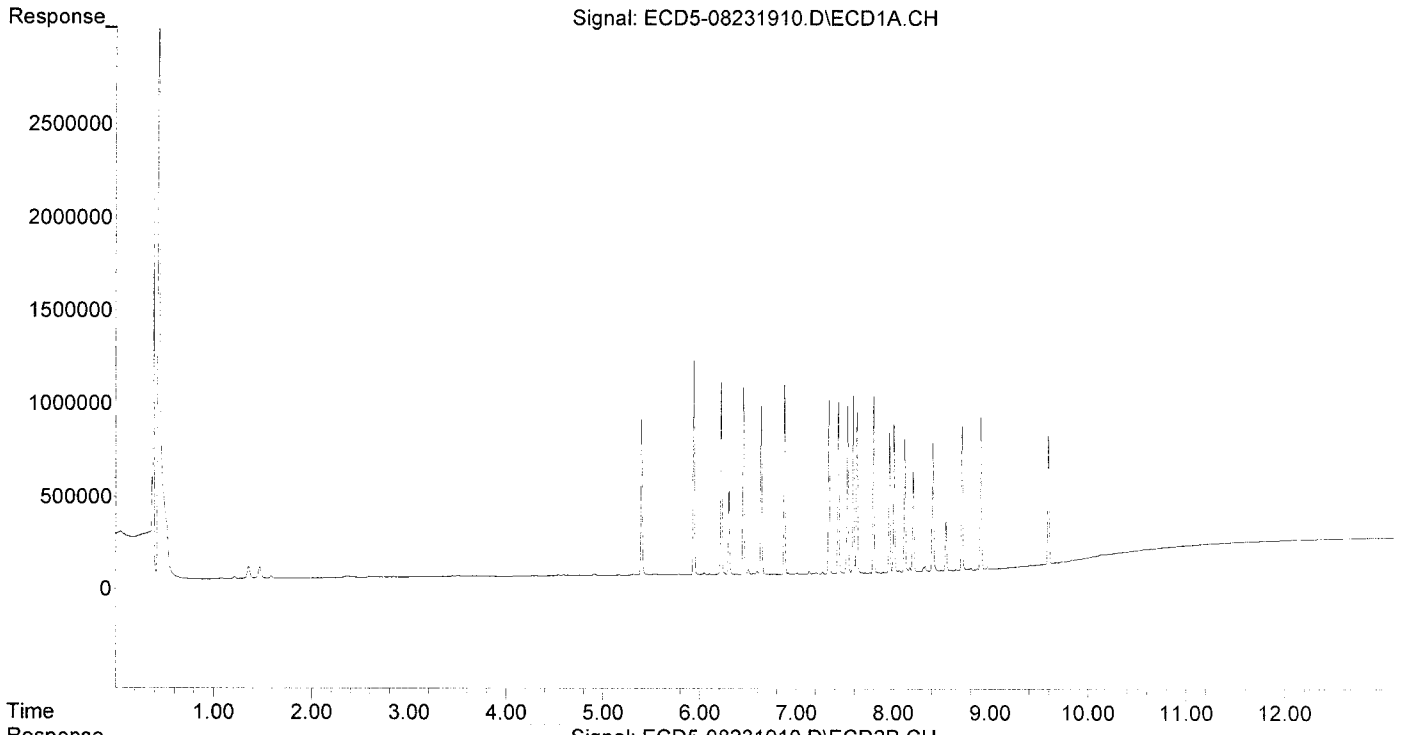
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22) S	DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	5.059	4.885	
4)	b-BHC	6.300	6.980	456954	788630	5.056	4.983	
5)	Heptachlor	6.635	7.291	899091	1508218	4.959	4.929	
6)	d-BHC	6.449	7.233	1004012	1717450	5.105	4.870	
7)	Aldrin	6.875	7.556	1012733	1600995	5.129	4.860	
8)	Heptachlo...	7.335	7.994	923620	1455941	5.015	4.839	
9)	trans-Chl...	7.432	8.134	926577	1502119	5.011	4.794	
10)	cis-Chlor...	7.528	8.241	908795	1434855	4.991	4.927	
11)	Endosulfa...	7.624	8.290	861509	1327191	5.062	4.823	
12)	4,4'-DDE	7.586	8.345	953351	1487999	5.057	4.790	
13)	Dieldrin	7.796	8.491	972009	1462538	5.063	4.809	
14)	Endrin	7.960	8.718	738953	1092877	5.026	4.839	
15)	4,4'-DDD	8.007	8.759	790498	1208642	5.031	4.717	
16)	Endosulfa...	8.118	8.865	709544	1096359	4.941	4.754	
17)	4,4'-DDT	8.205	8.986	553009	873653	4.625	5.010	
18)	Endrin Al...	8.407	9.101	683393	1045869	4.834	4.849	
19)	Endosulfa...	8.708	9.291	768798	1175908	4.961	4.721	
20)	Methoxychlor	8.542	9.466	270388	413802	4.616	4.904	
21)	Endrin Ke...	8.901	9.689	811384	1205004	4.866	4.683	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.782	0.000	4389	0	0.025	N.D.	#
25)	Oxychlordane	7.271	0.000	11672	0	0.071	N.D.	#
26)	2,4'-DDE	7.335	8.134	923620	1502119	7.201	7.081	
27)	trans-Non...	7.528	0.000	908795	0	4.756	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	1462538	N.D.	7.744	#
29)	2,4'-DDT	7.894	8.718	3329	1092877	0.030	6.128	#
30)	cis-Nonac...	8.007f	8.759	790498	1208642	3.808	3.603	
31)	Mirex	8.645	9.689	4292	1205004	0.034	6.476	#
32)	Chlordane...	7.432	8.134	926577	1502119	47.059	41.513	
33)	Chlordane...	7.528	8.241	908795	1434855	36.259	47.255	
34)	Chlordane...	8.063	8.903	7555	42265	1.307	4.714	#
35)	Chlordane...	3.446	0.000	4904	0	NoCal	N.D.	
36)	Toxaphene...	7.528f	8.491f	908795	1462538	1014.680	557.315	#
37)	Toxaphene...	7.796	0.000	972009	0	601.886	N.D.	#
38)	Toxaphene...	8.118	8.865	709544	1096359	210.704	216.316	
39)	Toxaphene...	8.328	8.903	27348	42265	8.440	5.062	#
40)	Toxaphene...	8.542f	9.101	270388	1045869	112.796	224.418	#
41)	Toxaphene...	8.645	9.466	4292	413802	1.356	87.113	#
42)	Toxaphene...	3.446	0.000	4904	0	NoCal	N.D.	

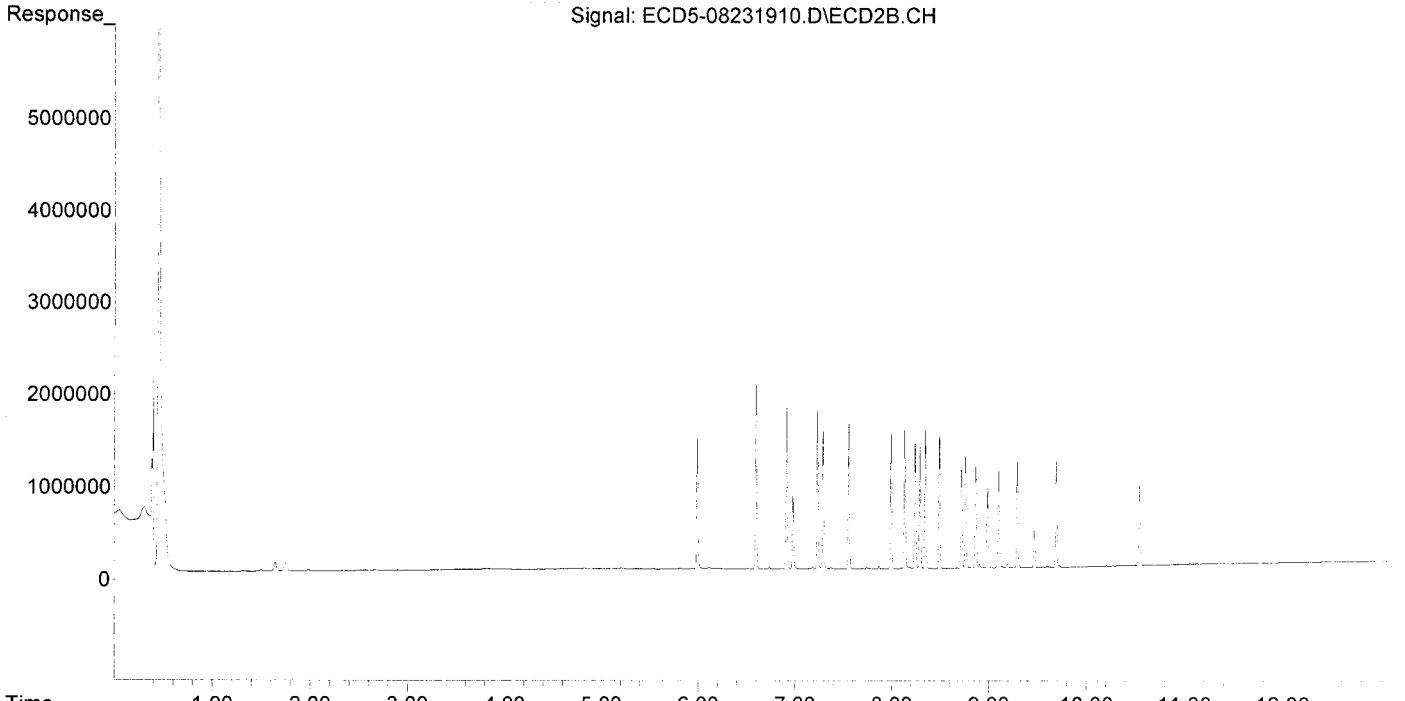
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

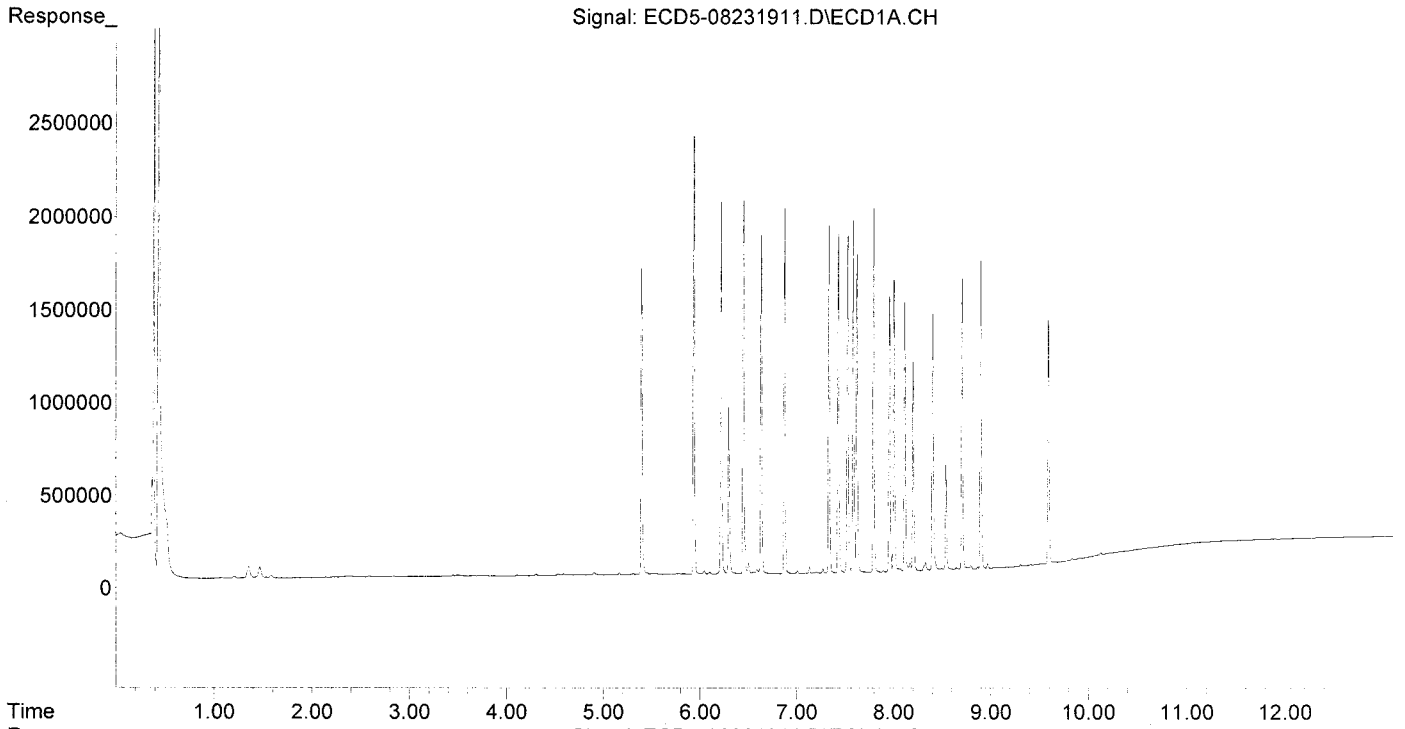
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
		Target Compounds							
2)		a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)		g-BHC	6.220	6.915	2034859	3476733	10.085	9.747	
4)		b-BHC	6.299	6.980	910875	1580847	10.078	9.989	
5)		Heptachlor	6.634	7.291	1819621	3005915	10.037	9.824	
6)		d-BHC	6.449	7.234	2006493	3613517	10.201	10.246	
7)		Aldrin	6.875	7.556	2010802	3341093	10.184	10.143	
8)		Heptachlo...	7.335	7.994	1865428	2959301	10.128	9.837	
9)		trans-Chl...	7.431	8.134	1847996	3002782	9.995	9.584	
10)		cis-Chlor...	7.527	8.241	1843346	2859573	10.124	9.818	
11)		Endosulfa...	7.623	8.291	1709332	2724272	10.044	9.900	
12)		4,4'-DDE	7.585	8.346	1890931	3049792	10.030	9.817	
13)		Dieldrin	7.795	8.491	1954890	2898866	10.183	9.531	
14)		Endrin	7.960	8.718	1475508	2244483	10.036	9.939	
15)		4,4'-DDD	8.006	8.760	1565974	2425496	9.965	9.467	
16)		Endosulfa...	8.117	8.864	1448080	2243610	10.083	9.729	
17)		4,4'-DDT	8.204	8.987	1146556	1841119	9.590	10.491	
18)		Endrin Al...	8.406	9.101	1375129	2125028	10.716	10.650	
19)		Endosulfa...	8.707	9.292	1553540	2424584	10.024	9.734	
20)		Methoxychlor	8.542	9.465	561706	883069	9.590	10.543	
21)		Endrin Ke...	8.900	9.689	1664380	2496985	9.981	9.704	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.781	0.000	6414	0	0.036	N.D.	#
25)		Oxychlordane	7.271	0.000	23125	0	0.141	N.D.	#
26)		2,4'-DDE	7.335	8.134	1865428	3002782	14.544	14.155	
27)		trans-Non...	7.527	0.000	1843346	0	9.974	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	2898866	N.D.	15.349	#
29)		2,4'-DDT	7.893	8.718	6940	2244483	0.063	12.585	#
30)		cis-Nonac...	8.006f	8.760	1565974	2425496	7.543	7.231	
31)		Mirex	8.644	9.689	9584	2496985	0.076	13.419	#
32)		Chlordane...	7.431	8.134	1847996	3002782	93.856	82.985	
33)		Chlordane...	7.527	8.241	1843346	2859573	73.545	94.176	
34)		Chlordane...	8.062	8.903	15147	46214	2.620	5.154	#
35)		Chlordane...	3.446	0.000	4445	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	1843346	2898866	2058.116	1104.642	#
37)		Toxaphene...	7.795	0.000	1954890	0	1210.504	N.D.	#
38)		Toxaphene...	8.117	8.864	1448080	2243610	430.018	442.674	
39)		Toxaphene...	8.328	8.903	47046	46214	14.520	5.535	#
40)		Toxaphene...	8.542f	9.101	561706	2125028	234.323	455.980	#
41)		Toxaphene...	8.644	9.465	9584	883069	3.029	185.901	#
42)		Toxaphene...	3.446	0.000	4445	0	NoCal	N.D.	

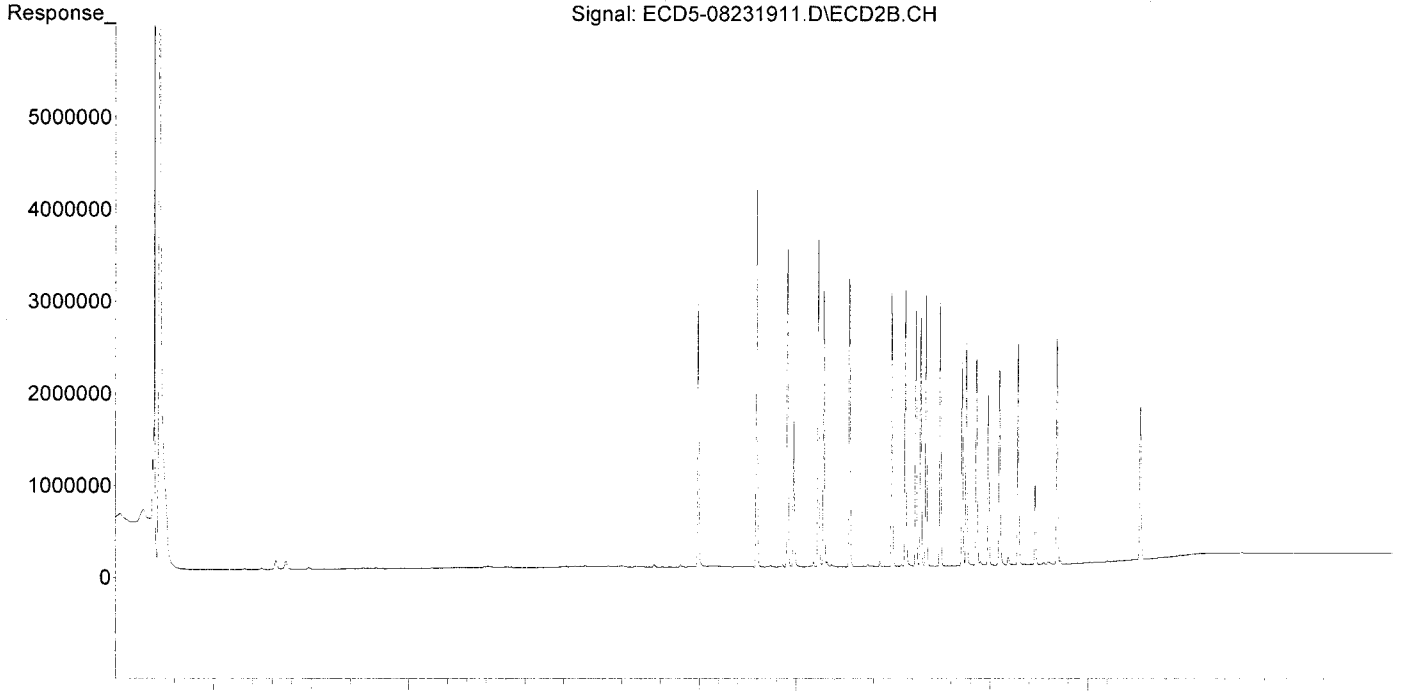
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

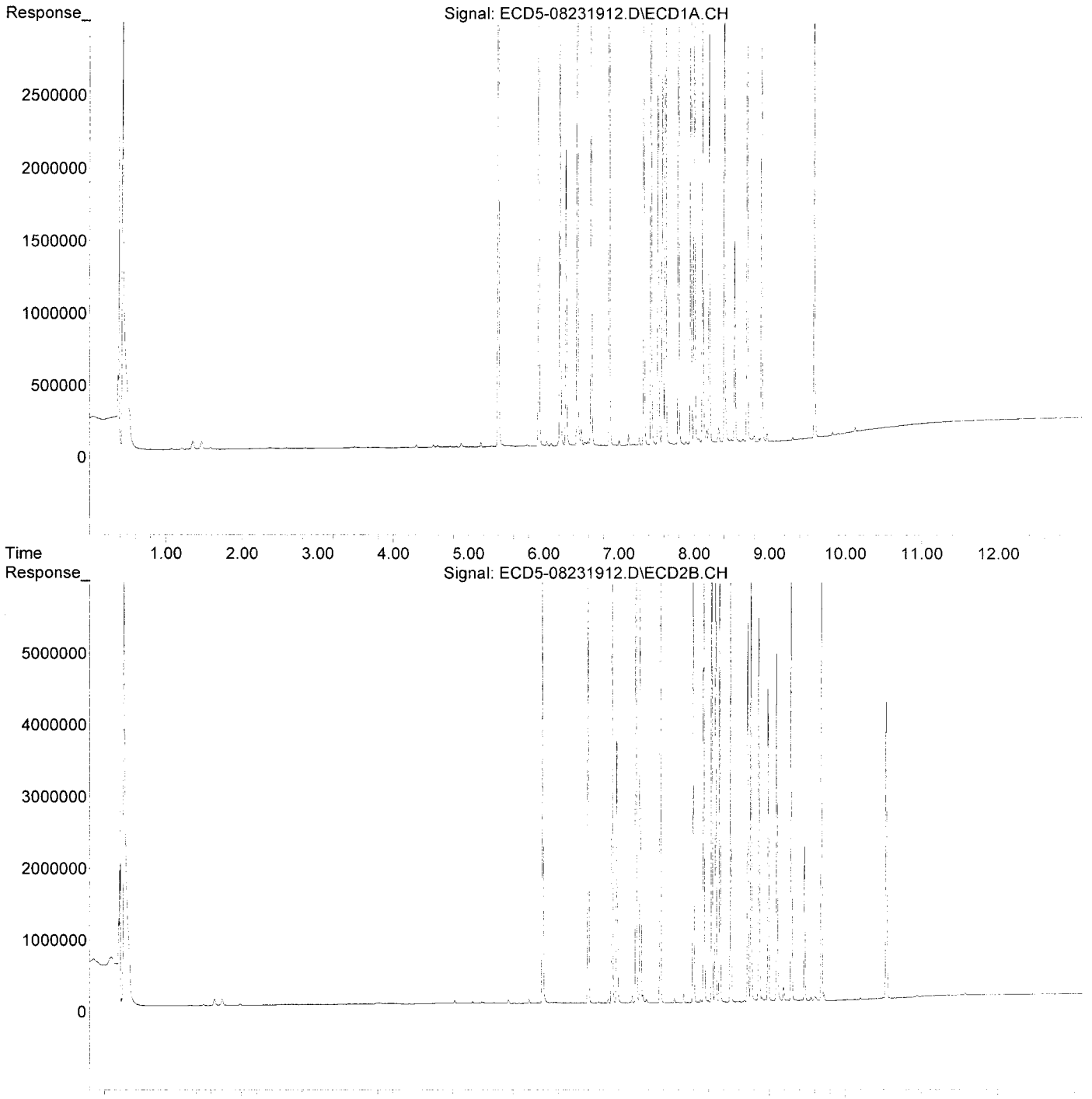
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	8508386	24.164	23.853	
4)		b-BHC	6.297	6.978	2060378	3677155	22.796	23.234	
5)		Heptachlor	6.633	7.289	4314306	7282282	23.797	23.800	
6)		d-BHC	6.447	7.232	4667166	8247775	23.729	23.387	
7)		Aldrin	6.873	7.555	4845355	7878574	24.540	23.919	
8)		Heptachlo...	7.332	7.992	4344286	7064729	23.587	23.483	
9)		trans-Chl...	7.429	8.131	4401456	7157480	23.806	22.844	
10)		cis-Chlor...	7.525	8.239	4244413	6935857	23.312	23.814	
11)		Endosulfa...	7.621	8.288	4111285	6571512	24.158	23.881	
12)		4,4'-DDE	7.583	8.343	4571066	7501047	24.246	24.144	
13)		Dieldrin	7.792	8.489	4582306	7333890	23.869	24.113	
14)		Endrin	7.957	8.716	3508904	5325883	23.866	23.584	
15)		4,4'-DDD	8.004	8.758	3727035	6146469	23.718	23.990	
16)		Endosulfa...	8.115	8.862	3371864	5447602	23.479	23.623	
17)		4,4'-DDT	8.202	8.984	2924467	4480388	24.460	24.907	
18)		Endrin Al...	8.404	9.099	3119767	4848504	25.346	24.953	
19)		Endosulfa...	8.705	9.289	3645411	5978906	23.522	24.003	
20)		Methoxychlor	8.540	9.463	1390283	2166659	23.735	25.322	
21)		Endrin Ke...	8.899	9.688	4008958	5893691	24.041	22.904	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	7817	0	0.044	N.D.	#
25)		Oxychlordane	7.269	0.000	51278	0	0.312	N.D.	#
26)		2,4'-DDE	7.332	8.131	4344286	7157480	33.871	33.740	
27)		trans-Non...	7.525	8.192	4244413	24831	23.380	0.082	#
28)		2,4'-DDD	0.000	8.489	0	7333890	N.D.	38.832	#
29)		2,4'-DDT	7.891	8.716	15573	5325883	0.142	29.864	#
30)		cis-Nonac...	8.004	8.758	3727035	6146469	17.952	18.323	
31)		Mirex	8.651	9.688	18145	5893691	0.145	31.674	#
32)		Chlordane...	7.429	8.131	4401456	7157480	223.542	197.805	
33)		Chlordane...	7.525	8.239	4244413	6935857	169.341	228.423	
34)		Chlordane...	8.059	8.901	33094	57884	5.724	6.456	
35)		Chlordane...	3.446	0.000	4689	0	NoCal	N.D.	
36)		Toxaphene...	7.525f	8.489f	4244413	7333890	4738.933	2794.653	#
37)		Toxaphene...	7.792	0.000	4582306	0	2837.449	N.D.	#
38)		Toxaphene...	8.115	8.862	3371864	5447602	1001.299	1074.835	
39)		Toxaphene...	8.326f	8.901	104762	57884	32.332	6.932	#
40)		Toxaphene...	8.540f	9.099	1390283	4848504	579.975	1040.371	#
41)		Toxaphene...	8.651	9.463	18145	2166659	5.734	456.119	#
42)		Toxaphene...	3.446	0.000	4689	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

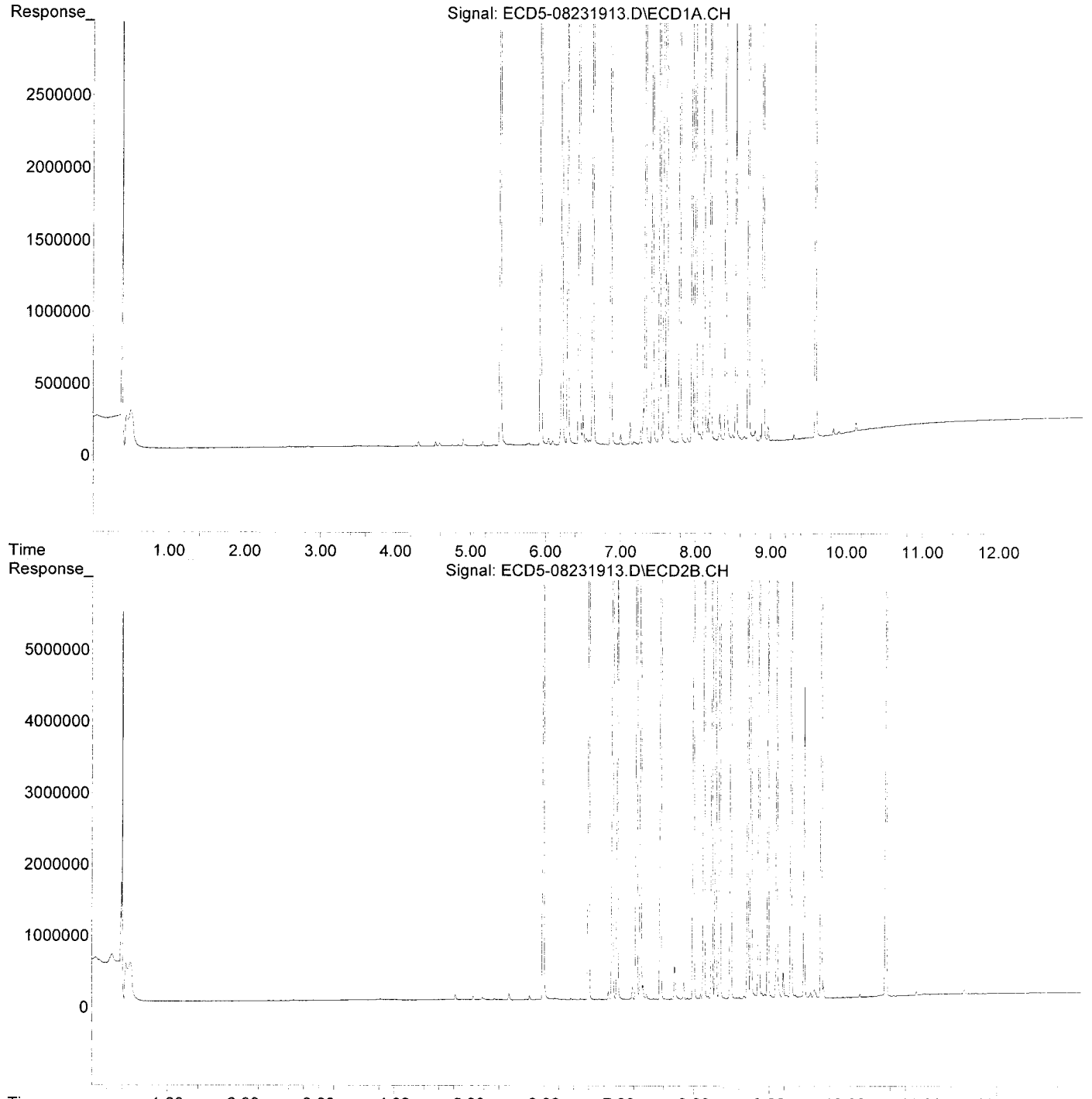
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	9785999	17381069	48.499	48.727	
4)		b-BHC	6.296	6.978	4100858	7516011	45.372	47.490	
5)		Heptachlor	6.632	7.290	8735158	14595143	48.182	47.700	
6)		d-BHC	6.447	7.232	9610742	17311258	48.862	49.087	
7)		Aldrin	6.873	7.555	9327672	16264416	47.242	49.377	
8)		Heptachlo...	7.332	7.992	8869300	14837794	48.156	49.320	
9)		trans-Chl...	7.428	8.131	8959305	14678719	48.457	46.848	
10)		cis-Chlor...	7.524	8.238	8622674	14002116	47.359	48.076	
11)		Endosulfa...	7.621	8.289	7984410	13712329	46.917	49.831	
12)		4,4'-DDE	7.583	8.344	9177389	15554706	48.679	50.067	
13)		Dieldrin	7.792	8.489	9386664	15434113	48.894	50.745	
14)		Endrin	7.957	8.716	6979572	11015379	47.471	48.778	
15)		4,4'-DDD	8.004	8.758	7726197	13159451	49.167	51.361	
16)		Endosulfa...	8.114	8.863	6840920	11534525	47.635	50.018	
17)		4,4'-DDT	8.202	8.985	6205369	9285492	51.902	49.430	
18)		Endrin Al...	8.404	9.099	6224451	10209034	50.697	51.836	
19)		Endosulfa...	8.705	9.289	7420576	12149289	47.882	48.775	
20)		Methoxychlor	8.540	9.464	2860683	4346199	48.839	48.597	
21)		Endrin Ke...	8.899	9.687	8190707	12954568	49.117	50.345	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	6.487f	17034	6623	0.097	0.021	#
25)		Oxychlordane	7.268	7.916	93115	13858	0.566	0.051	#
26)		2,4'-DDE	7.332	8.131	8869300	14678719	69.150	69.194	
27)		trans-Non...	7.524	8.193	8622674	44541	47.838	0.148	#
28)		2,4'-DDD	7.705	8.489	15706	15434113	0.138	81.721	#
29)		2,4'-DDT	7.890	8.716	32276	11015379	0.294	61.766	#
30)		cis-Nonac...	8.004	8.758	7726197	13159451	37.214	39.229	
31)		Mirex	8.653	9.687	33100	12954568	0.264	69.621	#
32)		Chlordane...	7.428	8.131	8959305	14678719	455.027	405.662	
33)		Chlordane...	7.524	8.238	8622674	14002116	344.022	461.141	
34)		Chlordane...	8.059	8.901	56505	76664	9.774	8.551	
35)		Chlordane...	3.445	0.000	3954	0	NoCal	N.D.	
36)		Toxaphene...	7.524f	8.489f	8622674	15434113	9627.309	5881.324	
37)		Toxaphene...	7.792	8.823	9386664	45987	5812.397	13.973	#
38)		Toxaphene...	8.114	8.863	6840920	11534525	2031.460	2275.810	
39)		Toxaphene...	8.325f	8.901	190344	76664	58.746	9.182	#
40)		Toxaphene...	8.540f	9.099	2860683	10209034	1193.372	2190.611	#
41)		Toxaphene...	8.653	9.464	33100	4346199	10.460	914.950	#
42)		Toxaphene...	3.445	0.000	3954	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

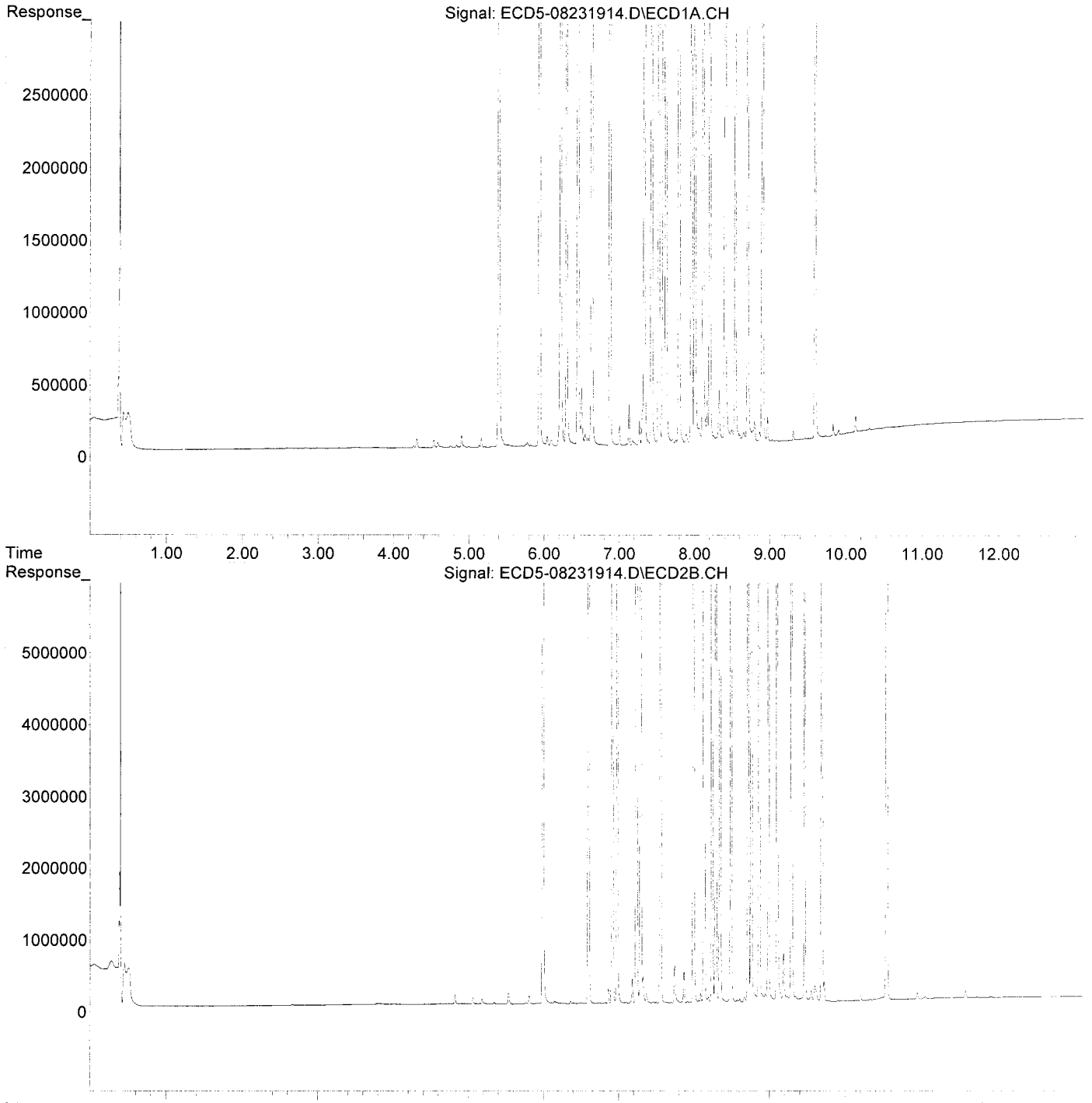
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	6.914	19595093	36788994	97.113	103.136	
4)		b-BHC	6.296	6.977	8355416	14625175	92.444	92.409	
5)		Heptachlor	6.632	7.289	17551528	30277818	96.811	98.955	
6)		d-BHC	6.446	7.232	19475580	35176633	99.016	99.745	
7)		Aldrin	6.872	7.555	19108074	33906422	96.776	102.936	
8)		Heptachlo...	7.331	7.991	17318444	30045511	94.031	99.869	
9)		trans-Chl...	7.427	8.131	17732791	30742272	95.909	98.116	
10)		cis-Chlor...	7.523	8.238	16742584	29042863	91.956	99.719	
11)		Endosulfa...	7.619	8.288	16089996	27212707	94.547	98.892	
12)		4,4'-DDE	7.582	8.344	18052552	32499603	95.754	104.609	
13)		Dieldrin	7.791	8.488	18324422	31001958	95.450	101.930	
14)		Endrin	7.957	8.715	13812708	23102413	93.947	102.301	
15)		4,4'-DDD	8.003	8.758	15437146	26297484	98.238	102.639	
16)		Endosulfa...	8.113	8.861	13543500	23016371	94.307	99.808	
17)		4,4'-DDT	8.201	8.984	12176961	19789501	101.848	97.215	
18)		Endrin Al...	8.403	9.098	12363806	20502737	98.526	99.562	
19)		Endosulfa...	8.704	9.289	14366789	24477320	92.702	98.268	
20)		Methoxychlor	8.539	9.463	5877329	9444987	100.340	96.538	
21)		Endrin Ke...	8.898	9.687	16251943	26636559	97.458	103.517	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	0.000	29252	0	0.166	N.D.	#
25)		Oxychlordane	7.267	7.915	165864	25145	1.008	0.092	#
26)		2,4'-DDE	7.331	8.131	17318444	30742272	135.025	144.916	
27)		trans-Non...	7.523	8.192	16742584	77338	93.233	0.256	#
28)		2,4'-DDD	7.704	8.488	32176	31001958	0.282	164.150	#
29)		2,4'-DDT	7.889	8.715	66298	23102413	0.604	129.542	#
30)		cis-Nonac...	8.003	8.758	15437146	26297484	74.355	78.395	
31)		Mirex	8.651	9.687	63592	26636559	0.507	143.151	#
32)		Chlordane...	7.427	8.131	17732791	30742272	900.616	849.596	
33)		Chlordane...	7.523	8.238	16742584	29042863	667.985	956.488	#
34)		Chlordane...	8.059	8.899	102306	115089	17.697	12.836	
35)		Chlordane...	3.447	0.000	5362	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.488f	16742584	31001958	18693.275	11813.609	
37)		Toxaphene...	7.791	0.000	18324422	0	11346.823	N.D.	#
38)		Toxaphene...	8.113	8.861	13543500	23016371	4021.839	4541.226	
39)		Toxaphene...	8.324f	8.899	362066	115089	111.744	13.783	#
40)		Toxaphene...	8.598f	9.098	51910	20502737	21.655	4399.391	#
41)		Toxaphene...	8.651	9.463	63592	9444987	20.095	1988.334	#
42)		Toxaphene...	3.447	0.000	5362	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

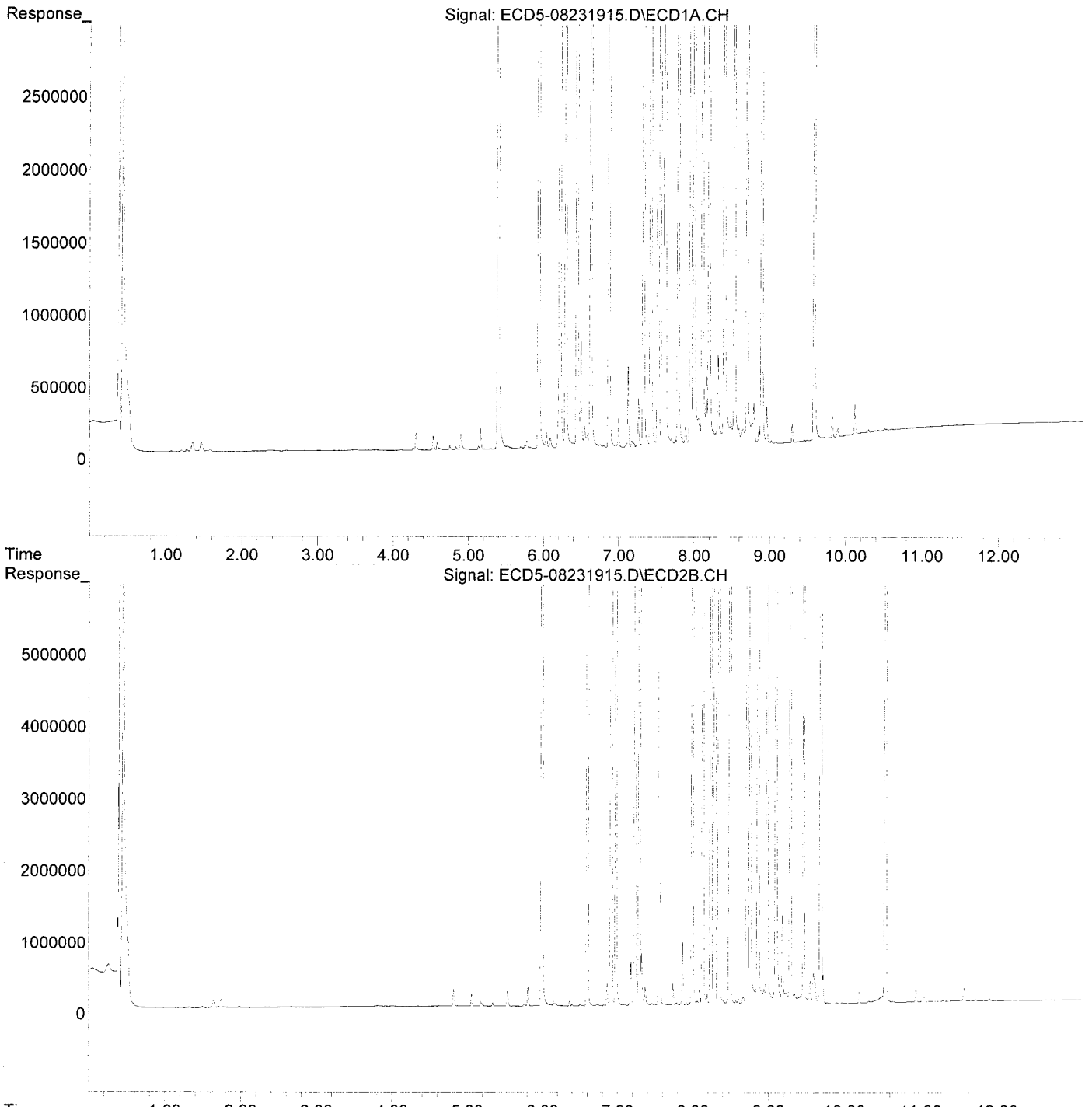
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22) S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
	Target Compounds							
2)	a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)	g-BHC	6.218	6.914	41889726	80765680	207.604	226.422	
4)	b-BHC	6.294	6.977	18238696	32553433	201.792	205.688	
5)	Heptachlor	6.630	7.289	37785699	71283176	208.419	232.969	
6)	d-BHC	6.445	7.232	41016592	80979751	208.534	229.622	
7)	Aldrin	6.870	7.554	39838403	73228186	201.769	222.313	
8)	Heptachlo...	7.330	7.991	36258170	65330070	196.864	217.153	
9)	trans-Chl...	7.425	8.130	37621413	66447972	203.478	212.073	
10)	cis-Chlor...	7.521	8.238	35207945	63977063	193.375	219.666	
11)	Endosulfa...	7.618	8.288	33852593	61043507	198.922	221.834	
12)	4,4'-DDE	7.581	8.344	38763081	69842351	205.607	224.807	
13)	Dieldrin	7.791	8.489	39217772	70031781	204.281	230.254	
14)	Endrin	7.955	8.715	31426311	52779585	213.745	233.717	
15)	4,4'-DDD	8.002	8.758	32436804	59560270	206.419	232.463	
16)	Endosulfa...	8.112	8.862	29471042	51834888	205.214	224.777	
17)	4,4'-DDT	8.200	8.984	29075222	48203441	243.185	202.337	
18)	Endrin Al...	8.402	9.098	26627672	45084544	200.132	198.781	
19)	Endosulfa...	8.704	9.289	31126520	54592794	200.845	219.171	
20)	Methoxychlor	8.537	9.463	14271143	23714100	243.642	203.084	
21)	Endrin Ke...	8.898	9.688	35094718	60861376	210.452	236.524	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.776	0.000	55469	0	0.315	N.D.	#
25)	Oxychlordane	7.265	7.915	336226	30124	2.043	0.110	#
26)	2,4'-DDE	7.330	8.130	36258170	66447972	282.690	313.230	
27)	trans-Non...	7.521	8.191	35207945	140624	196.641	0.466	#
28)	2,4'-DDD	7.703	8.489	57049	70031781	0.500	370.806	#
29)	2,4'-DDT	7.886	8.715	129876	52779585	1.184	295.950	#
30)	cis-Nonac...	8.002	8.758	32436804	59560270	156.235	177.554	
31)	Mirex	8.651	9.688	103310	60861376	0.824	327.083	#
32)	Chlordane...	7.425	8.130	37621413	66447972	1910.724	1836.362	
33)	Chlordane...	7.521	8.238	35207945	63977063	1404.705	2106.999	#
34)	Chlordane...	8.058	8.862f	183720	51834888	31.779	5781.350	#
35)	Chlordane...	3.445	0.000	4872	0	NoCal	N.D.	
36)	Toxaphene...	7.521	8.489f	35207945	70031781	39310.050	26686.316	
37)	Toxaphene...	7.791	0.000	39217772	0	24284.375	N.D.	#
38)	Toxaphene...	8.112	8.862	29471042	51834888	8751.637	10227.240	
39)	Toxaphene...	8.322f	8.943f	634260	207653	195.750	24.869	#
40)	Toxaphene...	8.537f	9.098	14271143	45084544	5953.399	9674.052	#
41)	Toxaphene...	8.651	9.463	103310	23714100	32.646	4992.230	#
42)	Toxaphene...	3.445	0.000	4872	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

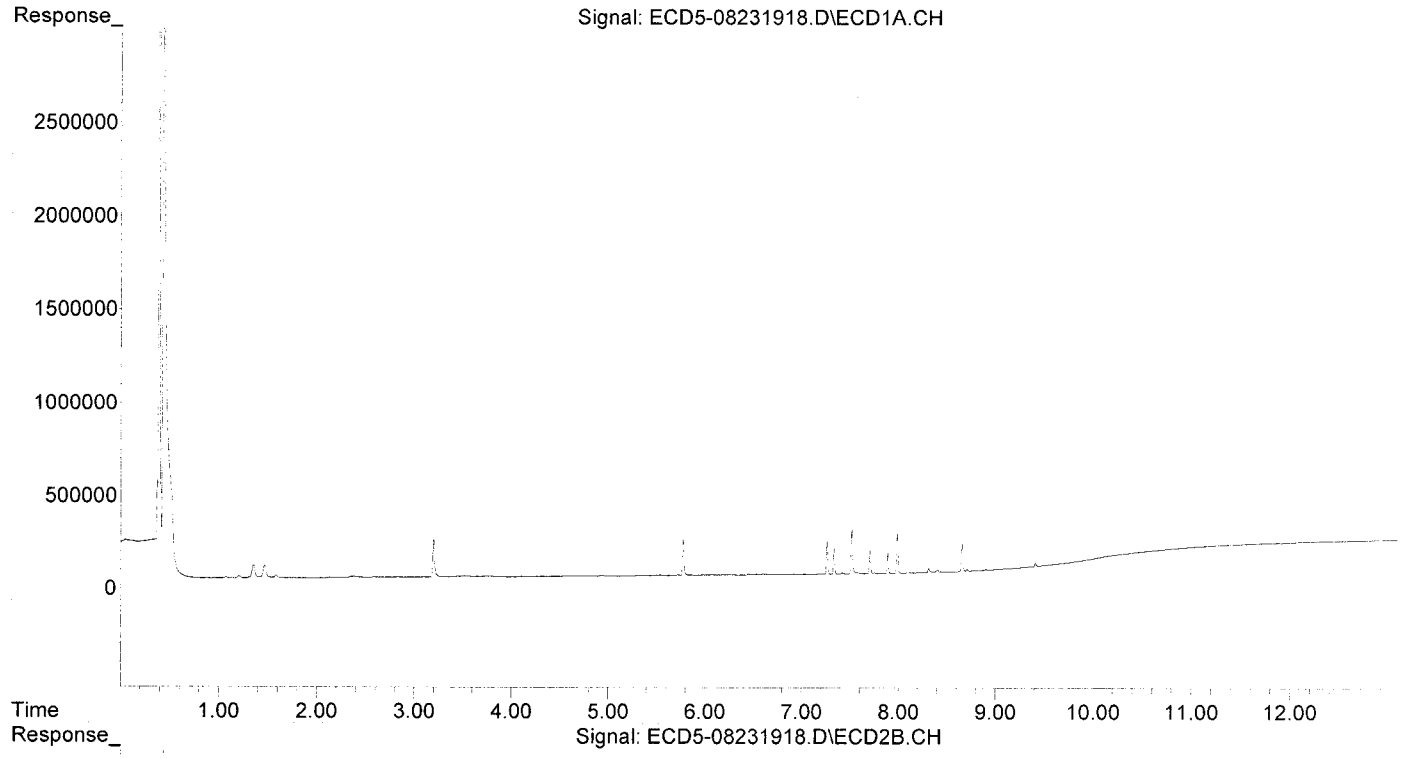
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	7.002f	0	7162	N.D.	0.045	#
5)		Heptachlor	6.601f	0.000	3572	0	0.020	N.D.	#
6)		d-BHC	6.449	7.232	5321	8483	0.027	0.024	
7)		Aldrin	0.000	7.577f	0	8990	N.D.	0.027	#
8)		Heptachlo...	7.335	0.000	137947	0	0.749	N.D.	#
9)		trans-Chl...	7.420	8.123	5532	219164	0.030	0.699	#
10)		cis-Chlor...	7.518	0.000	236836	0	1.301	N.D.	#
11)		Endosulfa...	7.582f	0.000	5522	0	0.032	N.D.	#
12)		4,4'-DDE	7.582	0.000	5522	0	0.029	N.D.	#
13)		Dieldrin	7.755f	8.495	4087	192040	0.021	0.631	#
14)		Endrin	7.987f	8.719	219220	173338	1.491	0.768	#
15)		4,4'-DDD	7.987	8.759	219220	332745	1.395	1.299	
16)		Endosulfa...	8.116	8.903f	2586	40443	0.018	0.175	#
17)		4,4'-DDT	8.202	0.000	1027	0	0.009	N.D.	#
18)		Endrin Al...	8.404	9.099	13122	17799	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.290	8041	12118	0.052	0.049	
20)		Methoxychlor	8.548	0.000	665	0	0.011	N.D.	#
21)		Endrin Ke...	8.900	9.680	3962	209783	0.024	0.815	#
23)		Hexachlor...	3.198	3.687	198207	383198	1.085	1.019	
24)		Hexachlor...	5.775	6.453	194679	328025	1.104	1.044	
25)		Oxychlordane	7.263	7.922	176844	279143	1.075	1.019	
26)		2,4'-DDE	7.335	8.123	137947	219164	1.076	1.033	
27)		trans-Non...	7.518	8.195	236836	306202	1.006	1.015	
28)		2,4'-DDD	7.707	8.495	120240	192040	1.054	1.017	
29)		2,4'-DDT	7.890	8.719	107110	173338	0.977	0.972	
30)		cis-Nonac...	7.987	8.759	219220	332745	1.056	0.992	
31)		Mirex	8.655	9.680	147356	209783	1.175	1.127	
32)		Chlordane...	7.420	8.123	5532	219164	0.281	6.057	#
33)		Chlordane...	7.518	0.000	236836	0	9.449	N.D.	#
34)		Chlordane...	0.000	8.903	0	40443	N.D.	4.511	#
35)		Chlordane...	3.444	0.000	4642	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	236836	192040	264.430	73.179	#
37)		Toxaphene...	7.755f	0.000	4087	0	2.531	N.D.	#
38)		Toxaphene...	8.116	0.000	2586	0	0.768	N.D.	#
39)		Toxaphene...	8.312f	8.903	22217	40443	6.857	4.844	
40)		Toxaphene...	8.548f	9.099	665	17799	0.277	3.819	#
41)		Toxaphene...	8.655	0.000	147356	0	46.564	N.D.	#
42)		Toxaphene...	3.444	0.000	4642	0	NoCal	N.D.	

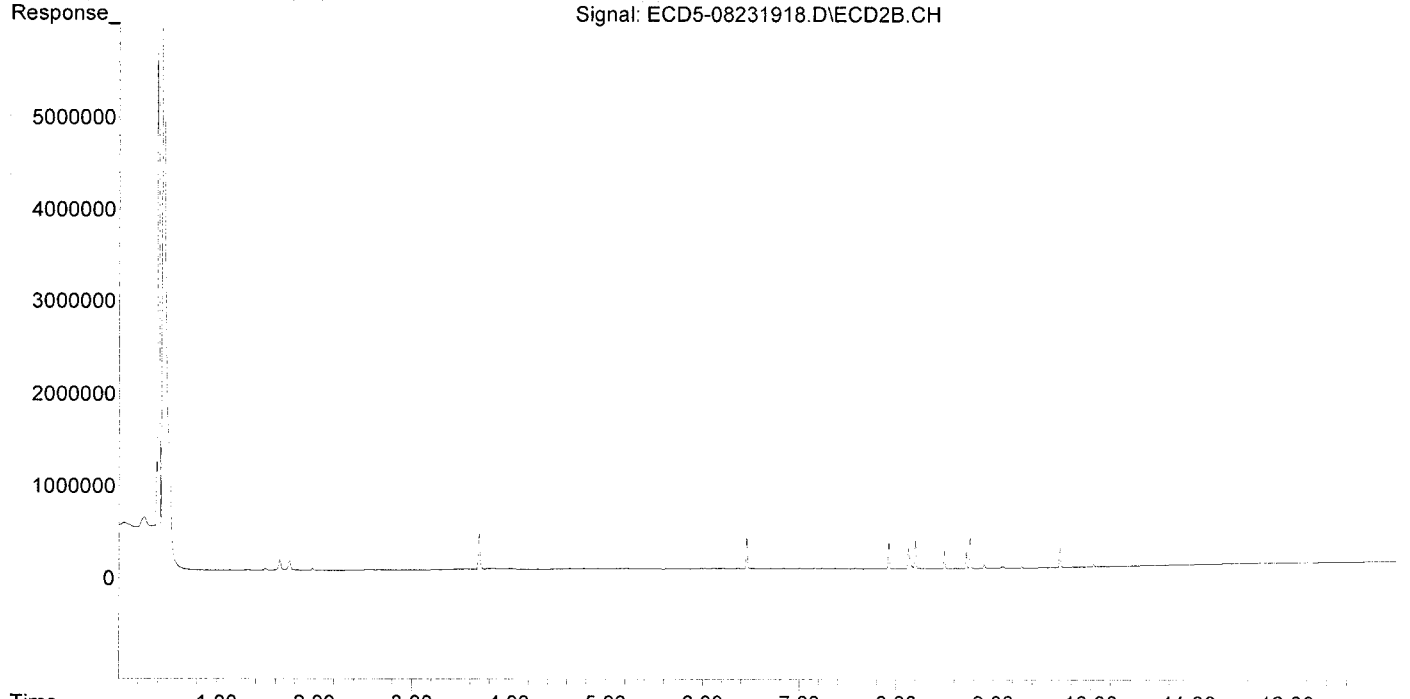
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

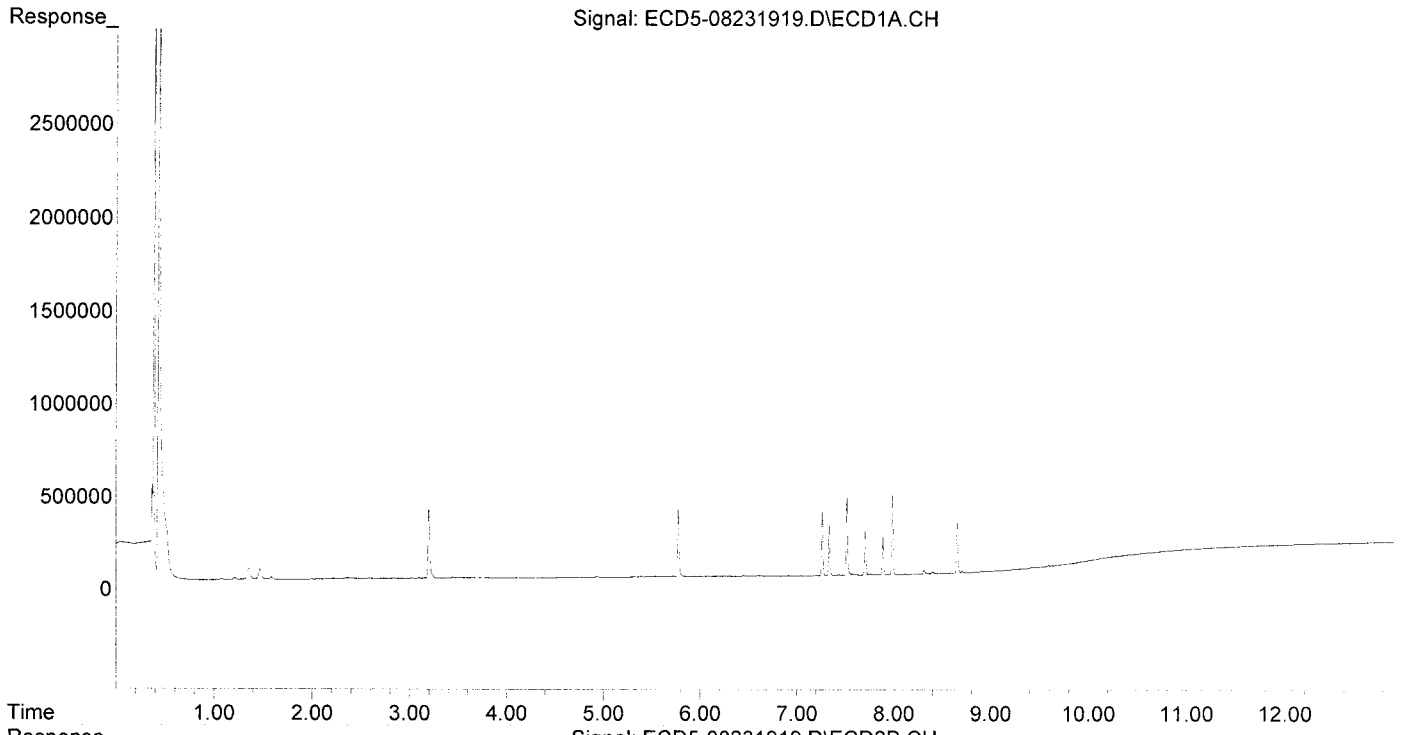
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22) S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.631	0.000	3915	0	0.022	N.D.	#
6)	d-BHC	6.449	7.231	6839	9605	0.035	0.027	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.334	0.000	265212	0	1.440	N.D.	#
9)	trans-Chl...	7.429	8.123	4955	411812	0.027	1.314	#
10)	cis-Chlor...	7.518	0.000	415126	0	2.280	N.D.	#
11)	Endosulfa...	7.582f	0.000	3811	0	0.022	N.D.	#
12)	4,4'-DDE	7.582	0.000	3811	0	0.020	N.D.	#
13)	Dieldrin	7.754f	8.495	8020	373596	0.042	1.228	#
14)	Endrin	7.986f	8.718	423442	332170	2.880	1.471	#
15)	4,4'-DDD	7.986	8.758	423442	624783	2.695	2.439	
16)	Endosulfa...	8.116	8.862	3733	5461	0.026	0.024	
17)	4,4'-DDT	8.200	0.000	1311	0	0.011	N.D.	#
18)	Endrin Al...	8.405	9.099	11160	14424	BelowCal	BelowCal	
19)	Endosulfa...	8.705	9.289	10006	14488	0.065	0.058	
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.680	5404	388199	0.032	1.509	#
23)	Hexachlor...	3.198	3.687	375794	754548	2.056	2.007	
24)	Hexachlor...	5.775	6.453	362082	632830	2.054	2.015	
25)	Oxychlordane	7.262	7.921	339370	541023	2.063	1.975	
26)	2,4'-DDE	7.334	8.123	265212	411812	2.068	1.941	
27)	trans-Non...	7.518	8.194	415126	587765	2.001	1.949	
28)	2,4'-DDD	7.707	8.495	233089	373596	2.042	1.978	
29)	2,4'-DDT	7.889	8.718	204209	332170	1.862	1.863	
30)	cis-Nonac...	7.986	8.758	423442	624783	2.040	1.863	
31)	Mirex	8.655	9.680	266770	388199	2.128	2.086	
32)	Chlordane...	7.429	8.123	4955	411812	0.252	11.381	#
33)	Chlordane...	7.518	0.000	415126	0	16.562	N.D.	#
34)	Chlordane...	0.000	8.903	0	41985	N.D.	4.683	#
35)	Chlordane...	3.444	0.000	5015	0	NoCal	N.D.	
36)	Toxaphene...	7.518	8.495f	415126	373596	463.493	142.363	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.116	8.862	3733	5461	1.108	1.077	
39)	Toxaphene...	8.312f	8.903	22876	41985	7.060	5.028	
40)	Toxaphene...	0.000	9.099	0	14424	N.D.	3.095	#
41)	Toxaphene...	8.655	0.000	266770	0	84.299	N.D.	#
42)	Toxaphene...	3.444	0.000	5015	0	NoCal	N.D.	

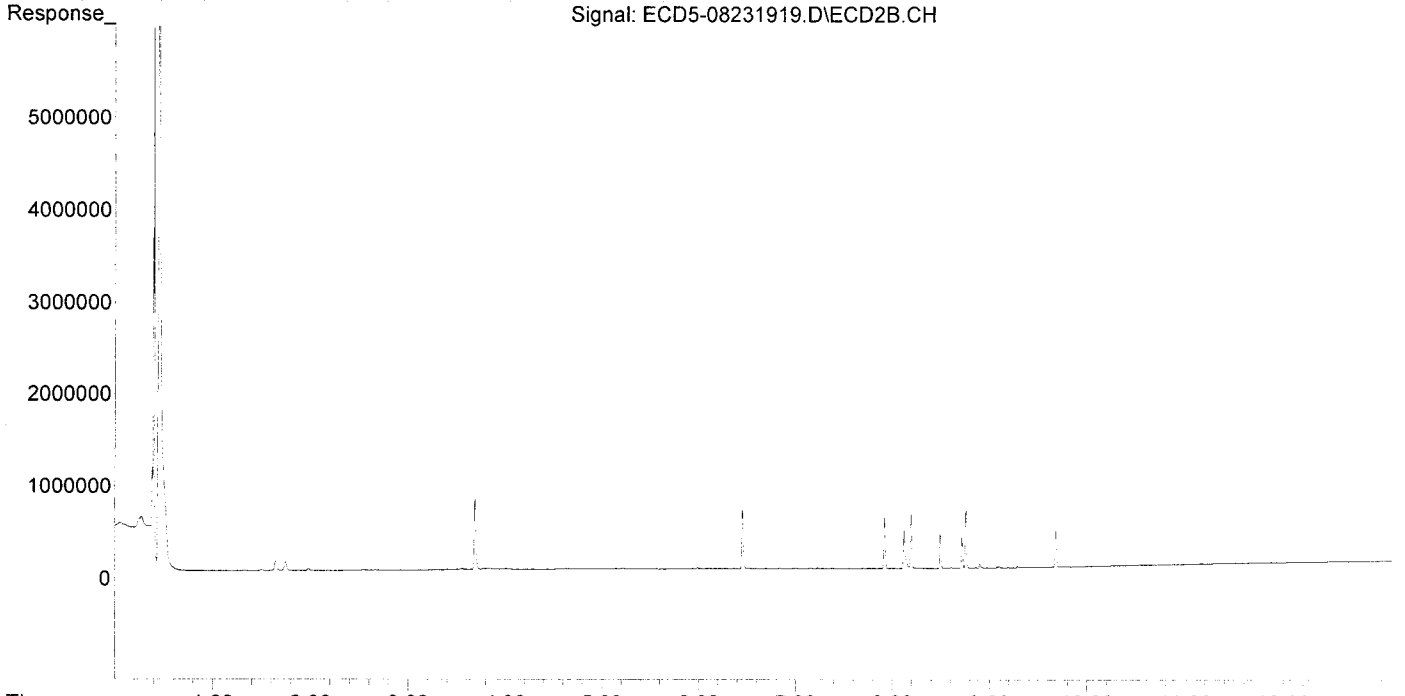
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/26/19

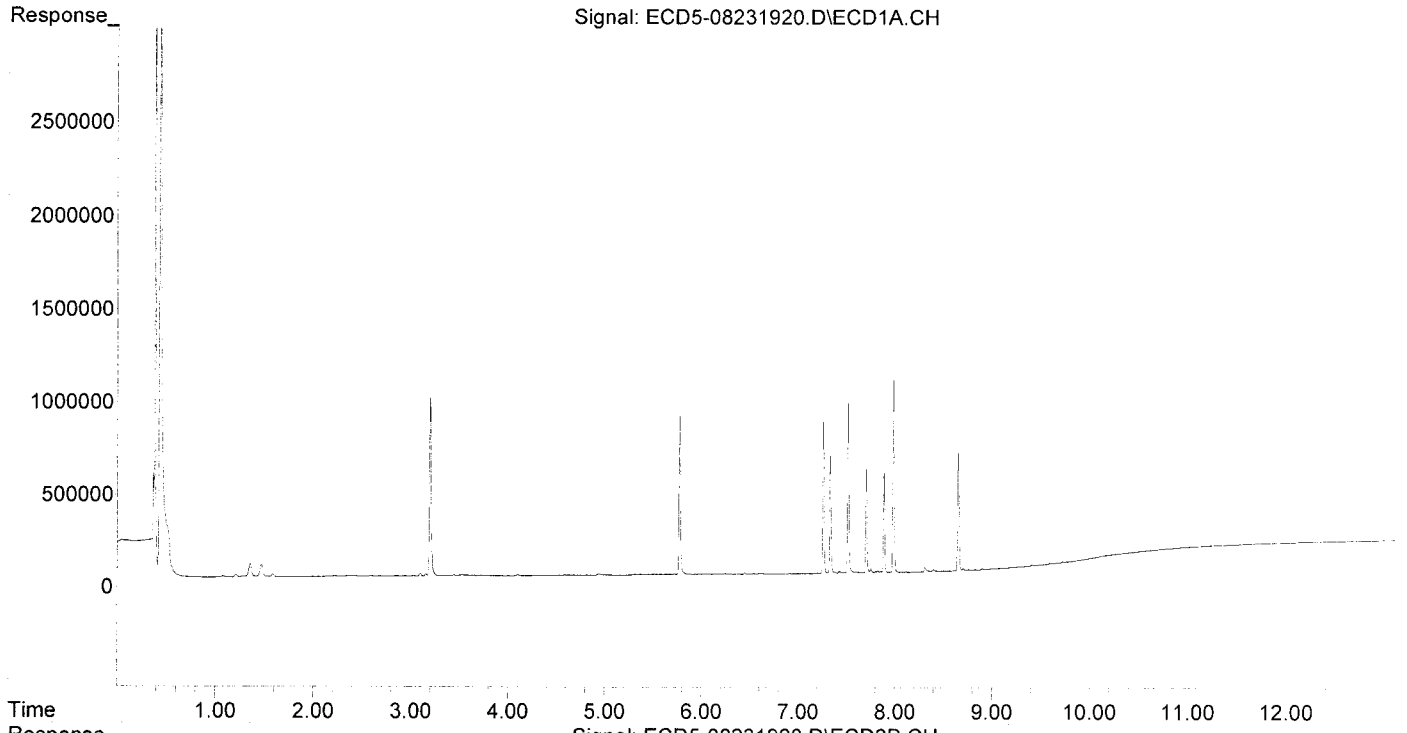
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	7.289	4685	5276	0.026	0.017	
6)		d-BHC	6.449	7.232	7597	11663	0.039	0.033	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	7.991	633168	6408	3.438	0.021	#
9)		trans-Chl...	7.429	8.123	9886	1029687	0.053	3.286	#
10)		cis-Chlor...	7.518	8.236	933222	8550	5.126	0.029	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	7.799	8.495	5522	898697	0.029	2.955	#
14)		Endrin	7.986f	8.719	1025899	873074	6.978	3.866	#
15)		4,4'-DDD	7.986	8.759	1025899	1587243	6.529	6.195	
16)		Endosulfa...	8.116	8.862	3810	5519	0.027	0.024	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	10319	12495	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10733	14179	0.069	0.057	
20)		Methoxychlor	8.550	0.000	617	0	0.011	N.D.	#
21)		Endrin Ke...	8.899	9.679	5632	895523	0.034	3.480	#
23)		Hexachlor...	3.198	3.687	959211	1877484	5.249	4.994	
24)		Hexachlor...	5.775	6.453	853793	1485583	4.843	4.730	
25)		Oxychlordane	7.262	7.921	819748	1325543	4.982	4.839	
26)		2,4'-DDE	7.334	8.123	633168	1029687	4.937	4.854	
27)		trans-Non...	7.518	8.194	933222	1467723	4.893	4.866	
28)		2,4'-DDD	7.705	8.495	560942	898697	4.915	4.758	
29)		2,4'-DDT	7.889	8.719	536967	873074	4.895	4.896	
30)		cis-Nonac...	7.986	8.759	1025899	1587243	4.941	4.732	
31)		Mirex	8.654	9.679	628618	895523	5.014	4.813	
32)		Chlordane...	7.429	8.123	9886	1029687	0.502	28.457	#
33)		Chlordane...	7.518	8.236	933222	8550	37.233	0.282	#
34)		Chlordane...	0.000	8.903	0	41570	N.D.	4.636	#
35)		Chlordane...	3.443	3.434	5083	3848	NoCal	NoCal	
36)		Toxaphene...	7.518	8.495f	933222	898697	1041.953	342.457	#
37)		Toxaphene...	7.799	0.000	5522	0	3.419	N.D.	#
38)		Toxaphene...	8.116	8.862	3810	5519	1.131	1.089	
39)		Toxaphene...	8.312f	8.903	22738	41570	7.017	4.979	
40)		Toxaphene...	8.550f	9.098	617	12495	0.257	2.681	#
41)		Toxaphene...	8.654	0.000	628618	0	198.642	N.D.	#
42)		Toxaphene...	3.443	3.434	5083	3848	NoCal	NoCal	

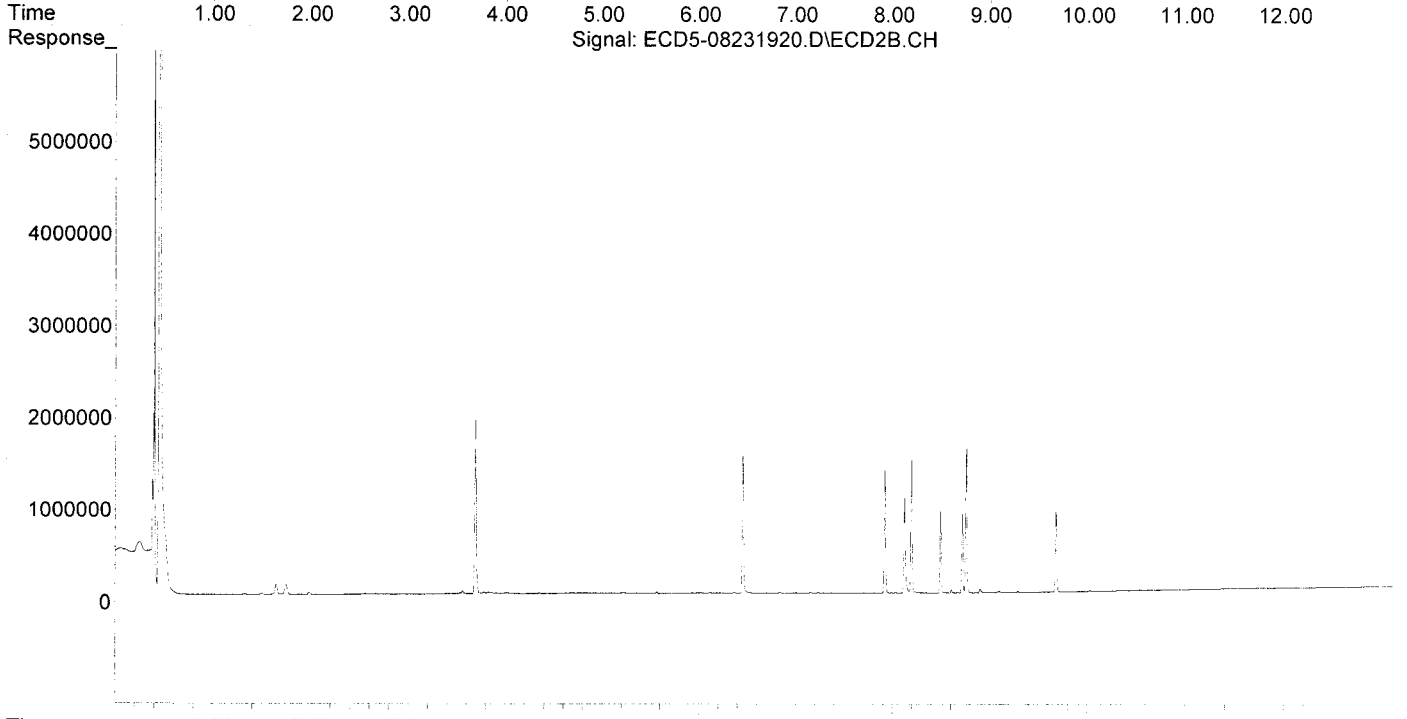
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

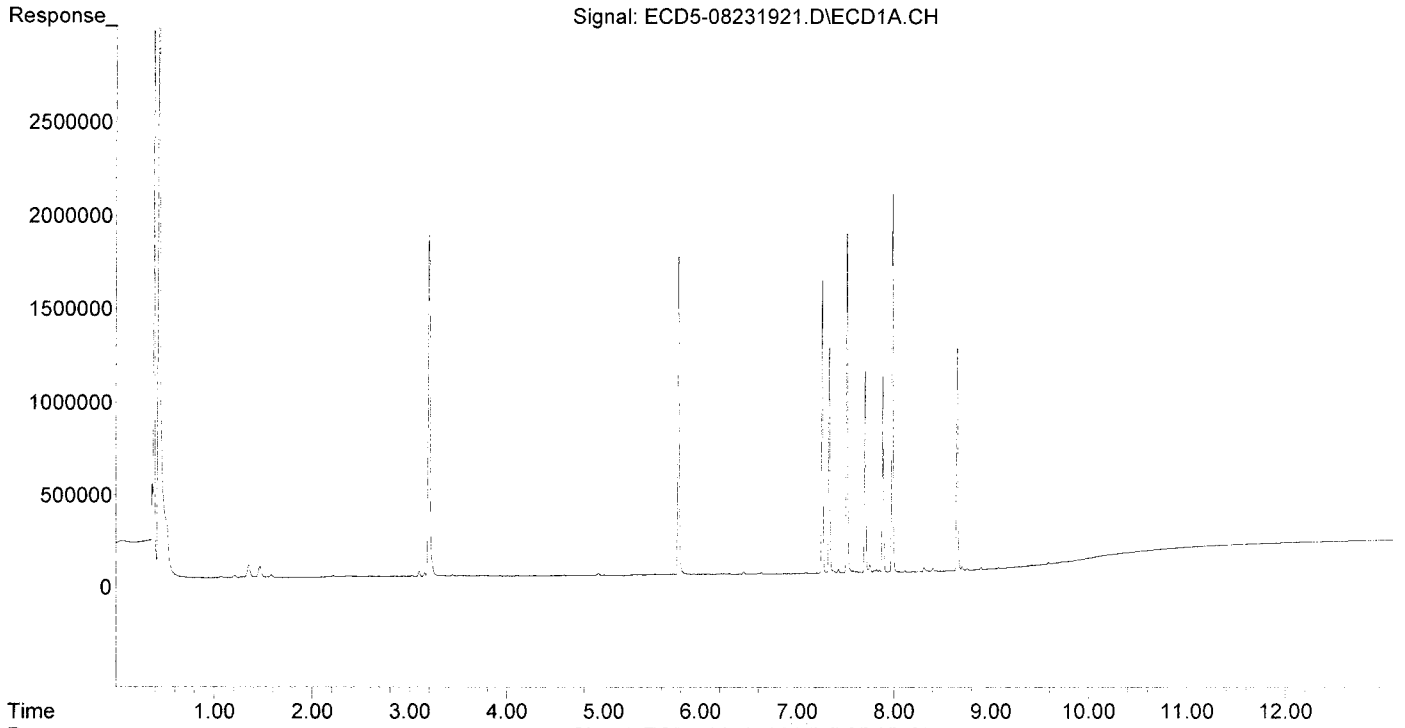
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
4)		b-BHC	6.300	6.978	6085	7741	0.067	0.049	
5)		Heptachlor	6.631	7.288	8267	12275	0.046	0.040	
6)		d-BHC	6.449	7.232	14325	24245	0.073	0.069	
7)		Aldrin	6.872	7.553	3901	5863	0.020	0.018	
8)		Heptachlo...	7.333	7.990	1245265	15714	6.761	0.052	#
9)		trans-Chl...	7.428	8.122	20597	2018331	0.111	6.442	#
10)		cis-Chlor...	7.516	8.236	1817552	21137	9.983	0.073	#
11)		Endosulfa...	7.620	8.289	8045	10794	0.047	0.039	
12)		4,4'-DDE	7.582	8.342	11334	7910	0.060	0.025	#
13)		Dieldrin	7.797	8.495	12142	1778790	0.063	5.848	#
14)		Endrin	7.986f	8.719	2032010	1702568	13.821	7.539	#
15)		4,4'-DDD	7.986	8.759	2032010	3148054	12.931	12.287	
16)		Endosulfa...	8.115	8.863	8267	13466	0.058	0.058	
17)		4,4'-DDT	8.202	0.000	2833	0	0.024	N.D.	#
18)		Endrin Al...	8.404	9.098	18899	26666	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	20232	26713	0.131	0.107	
20)		Methoxychlor	8.543	0.000	1294	0	0.022	N.D.	#
21)		Endrin Ke...	8.899	9.679	11108	1722960	0.067	6.696	#
23)		Hexachlor...	3.198	3.687	1838187	3701532	10.059	9.846	
24)		Hexachlor...	5.774	6.453	1711884	2936294	9.710	9.349	
25)		Oxychlordane	7.261	7.921	1591613	2538903	9.673	9.269	
26)		2,4'-DDE	7.333	8.122	1245265	2018331	9.709	9.514	
27)		trans-Non...	7.516	8.194	1817552	2844404	9.830	9.430	
28)		2,4'-DDD	7.705	8.495	1103587	1778790	9.670	9.418	
29)		2,4'-DDT	7.888	8.719	1051565	1702568	9.587	9.547	
30)		cis-Nonac...	7.986	8.759	2032010	3148054	9.787	9.385	
31)		Mirex	8.654	9.679	1196365	1722960	9.543	9.260	
32)		Chlordane...	7.428	8.122	20597	2018331	1.046	55.779	#
33)		Chlordane...	7.516	8.236	1817552	21137	72.516	0.696	#
34)		Chlordane...	0.000	8.903	0	42511	N.D.	4.741	#
35)		Chlordane...	3.445	3.433	6229	7261	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	1817552	1778790	2029.316	677.826	#
37)		Toxaphene...	7.797	0.000	12142	0	7.518	N.D.	#
38)		Toxaphene...	8.115	8.863	8267	13466	2.455	2.657	
39)		Toxaphene...	8.312f	8.903	23581	42511	7.278	5.091	
40)		Toxaphene...	8.582	9.098	560	26666	0.234	5.722	#
41)		Toxaphene...	8.654	0.000	1196365	0	378.048	N.D.	#
42)		Toxaphene...	3.445	3.433	6229	7261	NoCal	NoCal	

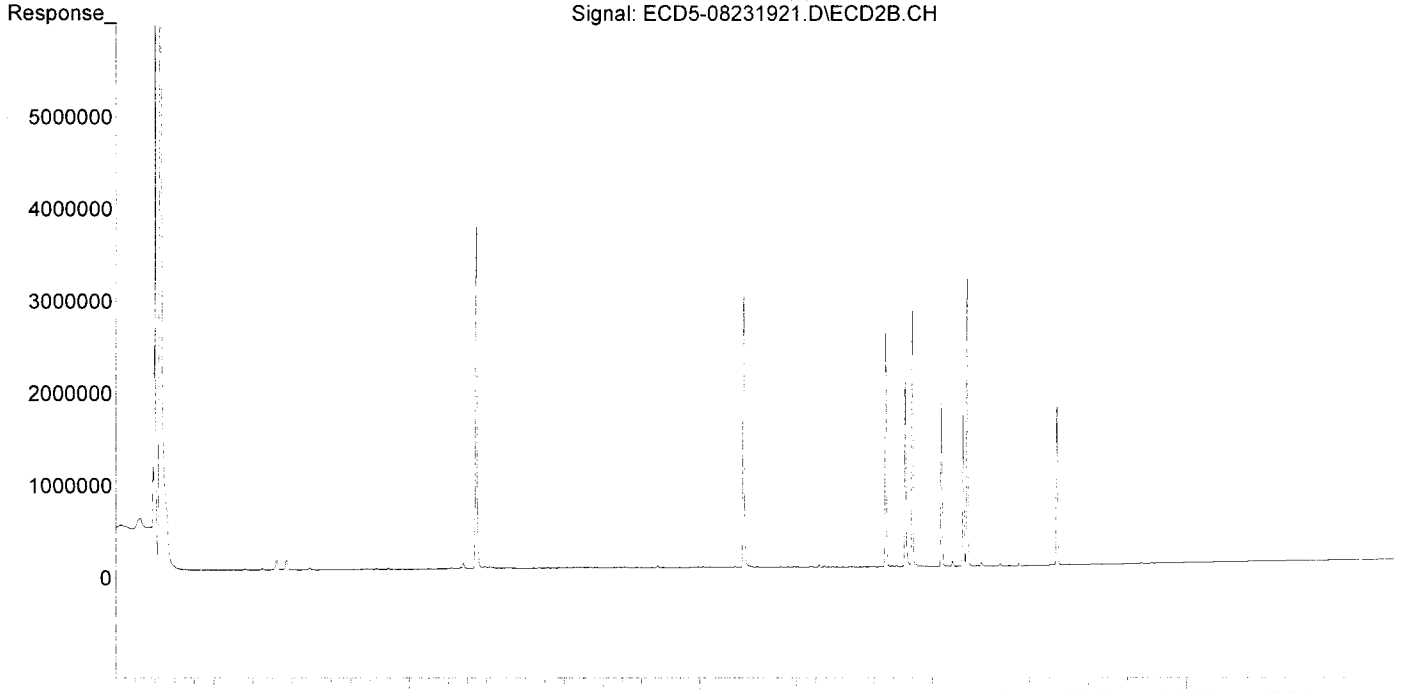
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

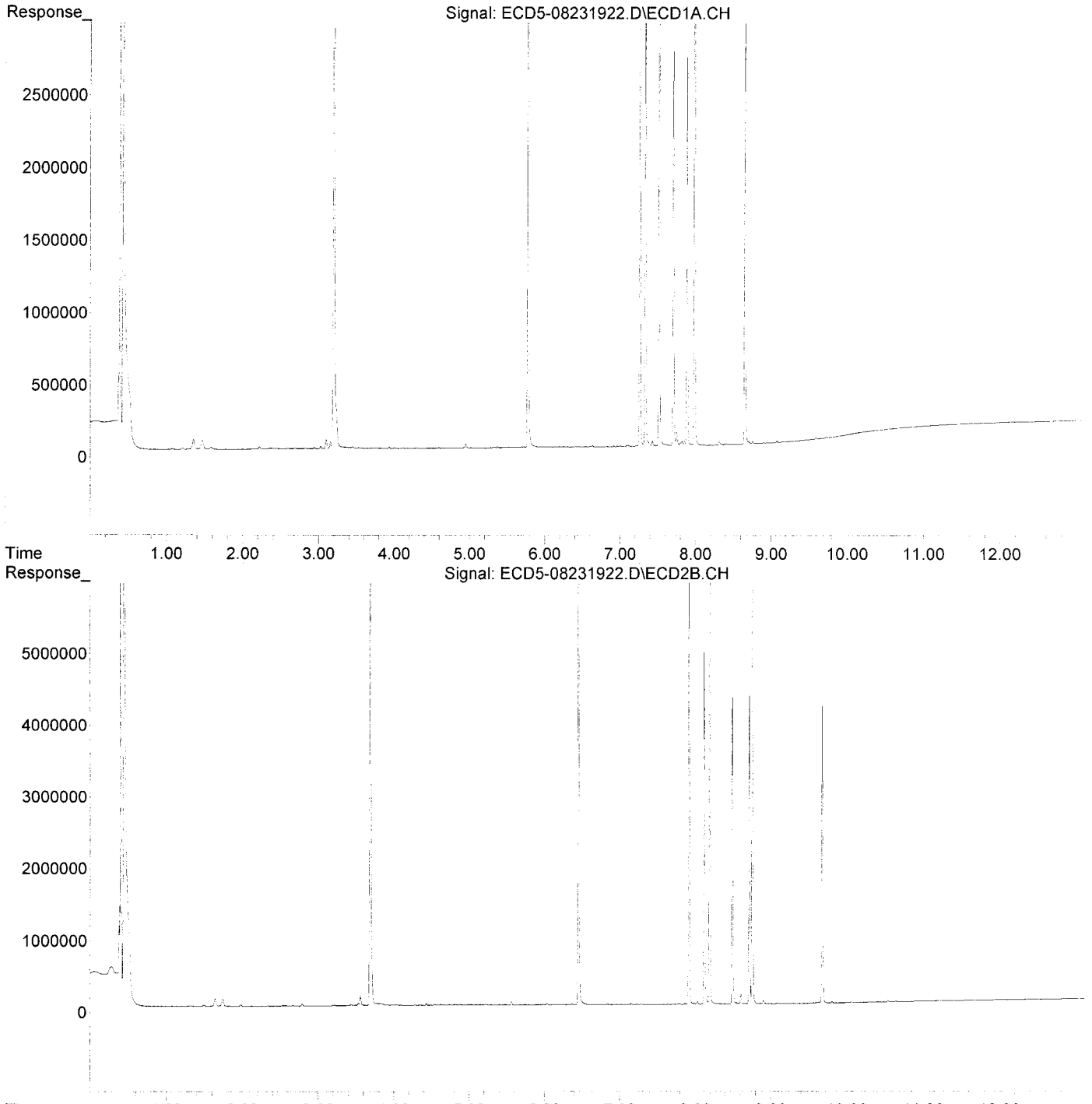
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22)	S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.632	7.288	9958	12977	0.055	0.042	
6)		d-BHC	6.450	7.231	5090	7876	0.026	0.022	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.989	3059421	19960	16.611	0.066	#
9)		trans-Chl...	7.428	8.122	36083	4999232	0.195	15.955	#
10)		cis-Chlor...	7.516	8.235	4391046	27018	24.117	0.093	#
11)		Endosulfa...	7.604	8.299	11350	9999	0.067	0.036	#
12)		4,4'-DDE	7.604f	0.000	11350	0	0.060	N.D.	#
13)		Dieldrin	7.800	8.495	19961	4389185	0.104	14.431	#
14)		Endrin	7.986f	8.719	4993110	4405554	33.960	19.509	#
15)		4,4'-DDD	7.986	8.759	4993110	8219393	31.775	32.080	
16)		Endosulfa...	0.000	8.862	0	7977	N.D.	0.035	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	7779	9076	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.289	0	11382	N.D.	0.046	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.899	9.679	4709	4138115	0.028	16.082	#
23)		Hexachlor...	3.198	3.687	4363988	8892238	23.881	23.654	
24)		Hexachlor...	5.774	6.453	4184551	7416324	23.736	23.612	
25)		Oxychlordane	7.261	7.920	3881255	6202791	23.589	22.646	
26)		2,4'-DDE	7.333	8.122	3059421	4999232	23.853	23.566	
27)		trans-Non...	7.516	8.194	4391046	7092288	24.199	23.513	
28)		2,4'-DDD	7.705	8.495	2745178	4389185	24.054	23.240	
29)		2,4'-DDT	7.888	8.719	2728794	4405554	24.878	24.703	
30)		cis-Nonac...	7.986	8.759	4993110	8219393	24.050	24.503	
31)		Mirex	8.654	9.679	2910818	4138115	23.218	22.239	
32)		Chlordane...	7.428	8.122	36083	4999232	1.833	138.159	#
33)		Chlordane...	7.516	8.235	4391046	27018	175.191	0.890	#
34)		Chlordane...	0.000	8.903	0	43328	N.D.	4.833	#
35)		Chlordane...	3.444	3.433	9286	16581	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	4391046	4389185	4902.650	1672.543	#
37)		Toxaphene...	7.800	0.000	19961	0	12.360	N.D.	#
38)		Toxaphene...	0.000	8.862	0	7977	N.D.	1.574	#
39)		Toxaphene...	8.313f	8.903	24731	43328	7.633	5.189	
40)		Toxaphene...	8.607f	9.098	797	9076	0.332	1.947	#
41)		Toxaphene...	8.654	0.000	2910818	0	919.811	N.D.	#
42)		Toxaphene...	3.444	3.433	9286	16581	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

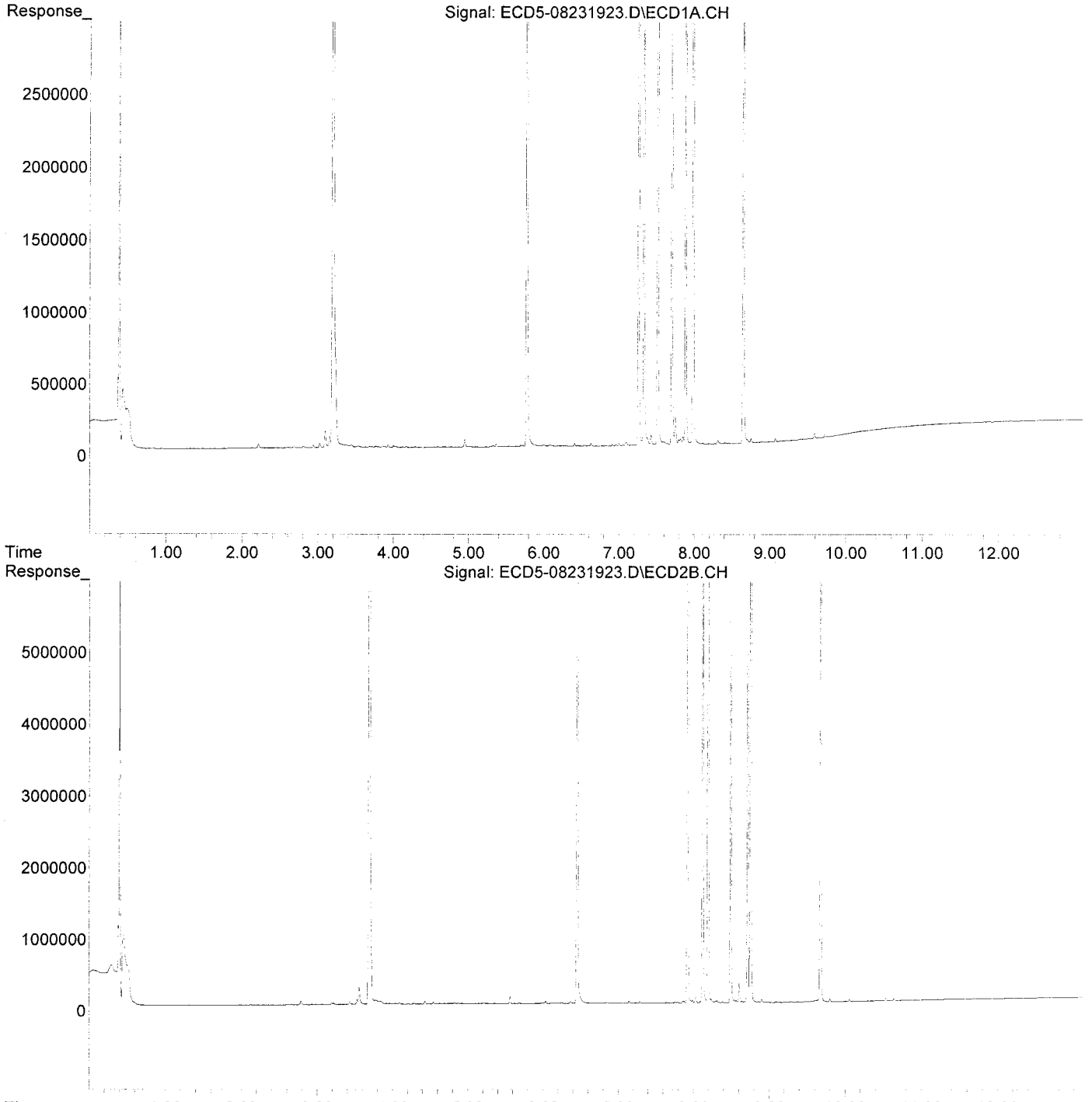
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22)	S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
		Target Compounds							
2)		a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)		g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)		b-BHC	0.000	6.951f	0	3735	N.D.	0.024	#
5)		Heptachlor	6.632	7.289	17900	26152	0.099	0.085	
6)		d-BHC	6.450	7.232	4458	7173	0.023	0.020	
7)		Aldrin	0.000	7.520f	0	4998	N.D.	0.015	#
8)		Heptachlo...	7.333	7.989	6510588	39220	35.349	0.130	#
9)		trans-Chl...	7.428	8.122	71663	11006400	0.388	35.128	#
10)		cis-Chlor...	7.516	8.236	9581794	53379	52.627	0.183	#
11)		Endosulfa...	7.604	8.299	22096	24918	0.130	0.091	
12)		4,4'-DDE	7.604f	8.314f	22096	29928	0.117	0.096	
13)		Dieldrin	7.798	8.495	33203	9924934	0.173	32.632	#
14)		Endrin	7.985f	8.718	10616019	8810591	72.204	39.015	#
15)		4,4'-DDD	7.985	8.758	10616019	17721229	67.557	69.166	
16)		Endosulfa...	0.000	8.862	0	12791	N.D.	0.055	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.409	9.099	5626	7468	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.289	0	9409	N.D.	0.038	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.679	5162	9100959	0.031	35.369	#
23)		Hexachlor...	3.198	3.688	8761747	18635615	47.947	49.572	
24)		Hexachlor...	5.774	6.454	8911624	16094159	50.550	51.241	
25)		Oxychlordane	7.261	7.920	8382873	14172543	50.948	51.743	
26)		2,4'-DDE	7.333	8.122	6510588	11006400	50.760	51.883	
27)		trans-Non...	7.516	8.194	9581794	15807712	53.197	52.407	
28)		2,4'-DDD	7.705	8.495	5920095	9924934	51.874	52.551	
29)		2,4'-DDT	7.888	8.718	5687323	8810591	51.850	49.404	
30)		cis-Nonac...	7.985	8.758	10616019	17721229	51.133	52.828	
31)		Mirex	8.652	9.679	6218341	9100959	49.601	48.911	
32)		Chlordane...	7.428	8.122	71663	11006400	3.640	304.174	#
33)		Chlordane...	7.516	8.236	9581794	53379	382.289	1.758	#
34)		Chlordane...	0.000	8.903	0	43859	N.D.	4.892	#
35)		Chlordane...	3.445	3.433	16729	32384	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	9581794	9924934	10698.176	3781.996	#
37)		Toxaphene...	7.798	0.000	33203	0	20.560	N.D.	#
38)		Toxaphene...	0.000	8.862	0	12791	N.D.	2.524	#
39)		Toxaphene...	8.314f	8.903	24262	43859	7.488	5.253	
40)		Toxaphene...	8.605f	9.099	1073	7468	0.448	1.603	#
41)		Toxaphene...	8.652	0.000	6218341	0	1964.980	N.D.	#
42)		Toxaphene...	3.445	3.433	16729	32384	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

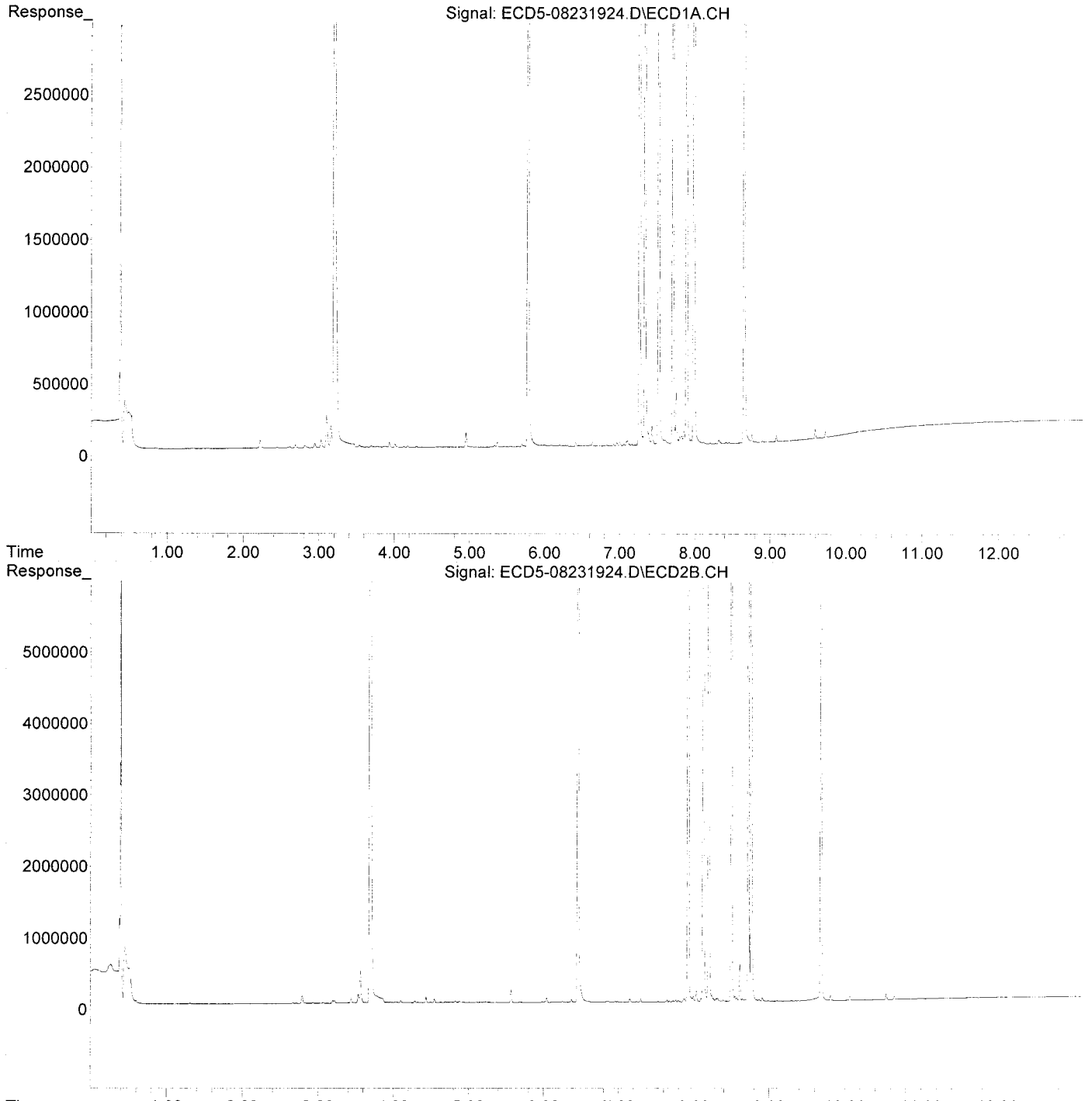
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
4)		b-BHC	6.301	6.979	5312	6852	0.059	0.043	
5)		Heptachlor	6.634	7.290	29320	42832	0.162	0.140	
6)		d-BHC	6.451	7.234	4881	8440	0.025	0.024	
7)		Aldrin	0.000	7.521f	0	8525	N.D.	0.026	#
8)		Heptachlo...	7.334	7.990	12769067	71027	69.330	0.236	#
9)		trans-Chl...	7.428	8.123	131019	22164400	0.709	70.739	#
10)		cis-Chlor...	7.516	8.237	18351251	88947	100.792	0.305	#
11)		Endosulfa...	7.604	8.299	36455	42308	0.214	0.154	
12)		4,4'-DDE	7.604f	8.315f	36455	43813	0.193	0.141	
13)		Dieldrin	7.798	8.496	56666	20118925	0.295	66.148	#
14)		Endrin	7.986f	8.721	20932641	18998968	142.373	84.131	#
15)		4,4'-DDD	7.986	8.760	20932641	36072644	133.210	140.791	
16)		Endosulfa...	8.115	8.863	14279	23343	0.099	0.101	
17)		4,4'-DDT	8.202	8.985	6473	9074	0.054	0.015	#
18)		Endrin Al...	8.415	9.101	7567	8073	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.290	0	9186	N.D.	0.037	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.680	6812	19363200	0.041	75.251	#
23)		Hexachlor...	3.199	3.690	17952134	39298885	98.239	104.537	
24)		Hexachlor...	5.776	6.455	17670025	32766708	100.231	104.324	
25)		Oxychlordane	7.261	7.922	16359215	29732149	99.425	108.550	
26)		2,4'-DDE	7.334	8.123	12769067	22164400	99.555	104.481	
27)		trans-Non...	7.516	8.195	18351251	31975271	102.232	106.006	
28)		2,4'-DDD	7.705	8.496	11587554	20118925	101.534	106.526	
29)		2,4'-DDT	7.888	8.721	11771354	18998968	107.317	106.533	
30)		cis-Nonac...	7.986	8.760	20932641	36072644	100.824	107.535	
31)		Mirex	8.653	9.680	11960753	19363200	95.406	104.062	
32)		Chlordane...	7.428	8.123	131019	22164400	6.654	612.537	#
33)		Chlordane...	7.516	8.237	18351251	88947	732.167	2.929	#
34)		Chlordane...	0.000	8.905	0	44814	N.D.	4.998	#
35)		Chlordane...	3.443	3.434	27193	63535	NoCal	NoCal	
36)		Toxaphene...	7.516	8.496f	18351251	20118925	20489.369	7666.519	#
37)		Toxaphene...	7.798	0.000	56666	0	35.089	N.D.	#
38)		Toxaphene...	8.115	8.863	14279	23343	4.240	4.606	
39)		Toxaphene...	8.316f	8.905	25592	44814	7.898	5.367	
40)		Toxaphene...	8.604f	9.101	1951	8073	0.814	1.732	#
41)		Toxaphene...	8.653	0.000	11960753	0	3779.567	N.D.	#
42)		Toxaphene...	3.443	3.434	27193	63535	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

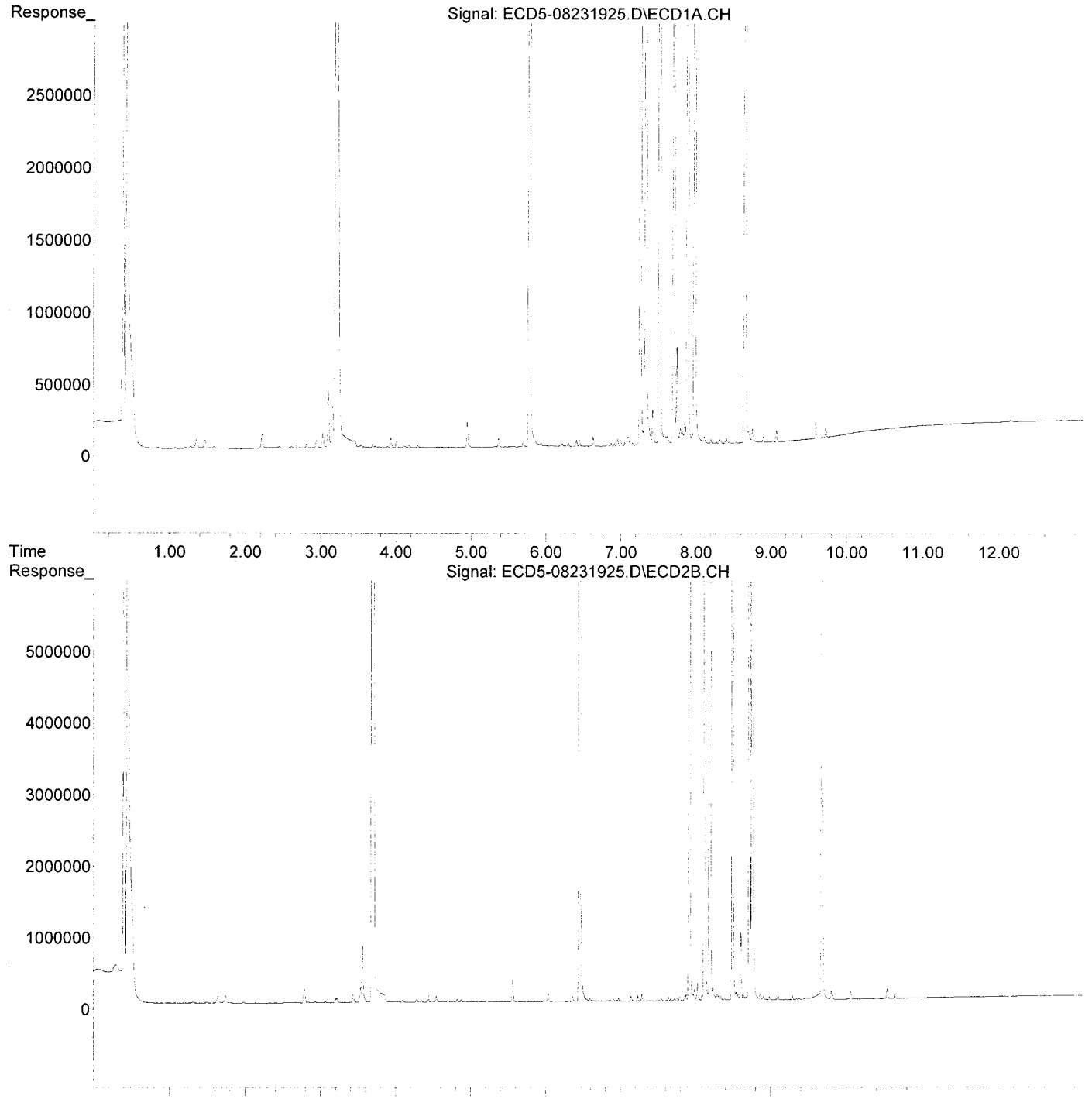
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105	0.087	
4)		b-BHC	6.299	6.977	25058	44238	0.277	0.280	
5)		Heptachlor	6.630	7.287	63252	104459	0.349	0.341	
6)		d-BHC	6.448	7.231	43545	78794	0.221	0.223	
7)		Aldrin	6.870	7.552	17012	29944	0.086	0.091	
8)		Heptachlo...	7.331	7.988	24819199	162906	134.756	0.541	#
9)		trans-Chl...	7.425	8.122	250239	44504592	1.353	142.039	#
10)		cis-Chlor...	7.514	8.235	35027918	188111	192.386	0.646	#
11)		Endosulfa...	7.581f	8.289	74592	84898	0.438	0.309	
12)		4,4'-DDE	7.581	8.341	74592	59877	0.396	0.193	#
13)		Dieldrin	7.794	8.494	114089	39839303	0.594	130.986	#
14)		Endrin	7.984f	8.719	40046185	39999231	272.373	177.123	
15)		4,4'-DDD	7.984	8.759	40046185	72455823	254.843	282.794	
16)		Endosulfa...	8.113	8.861	50946	84198	0.355	0.365	
17)		4,4'-DDT	8.201	8.983	28640	48189	0.240	0.243	
18)		Endrin Al...	8.404	9.098	39025	57504	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.289	0	61418	N.D.	0.247	#
20)		Methoxychlor	8.541	9.464	9687	26335	0.165	0.141	
21)		Endrin Ke...	8.898	9.679	37586	38425530	0.225	149.332	#
23)		Hexachlor...	3.199	3.689	34166533	75988565	186.969	202.134	
24)		Hexachlor...	5.774	6.454	34073459	66261966	193.277	210.967	
25)		Oxychlordane	7.258	7.920	32032634	58736982	194.683	214.445	
26)		2,4'-DDE	7.331	8.122	24819199	44504592	193.505	209.791	
27)		trans-Non...	7.514	8.194	35027918	63083636	195.632	209.138	
28)		2,4'-DDD	7.703	8.494	21916962	39839303	192.043	210.942	
29)		2,4'-DDT	7.887	8.719	23024956	39999231	209.914	224.287	
30)		cis-Nonac...	7.984	8.759	40046185	72455823	192.886	215.996	
31)		Mirex	8.652	9.679	23284997	38425530	185.735	206.507	
32)		Chlordane...	7.425	8.122	250239	44504592	12.709	1229.933	#
33)		Chlordane...	7.514	8.235	35027918	188111	1397.523	6.195	#
34)		Chlordane...	0.000	8.902	0	52051	N.D.	5.805	#
35)		Chlordane...	3.438	3.433	48985	106773	NoCal	NoCal	
36)		Toxaphene...	7.514	8.494f	35027918	39839303	39109.048	15181.168	#
37)		Toxaphene...	7.794	0.000	114089	0	70.646	N.D.	#
38)		Toxaphene...	8.113	8.861	50946	84198	15.129	16.613	
39)		Toxaphene...	8.313f	8.902	28693	52051	8.856	6.234	
40)		Toxaphene...	8.602f	9.098	3169	57504	1.322	12.339	#
41)		Toxaphene...	8.652	9.464	23284997	26335	7357.999	5.544	#
42)		Toxaphene...	3.438	3.433	48985	106773	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 4/26/19

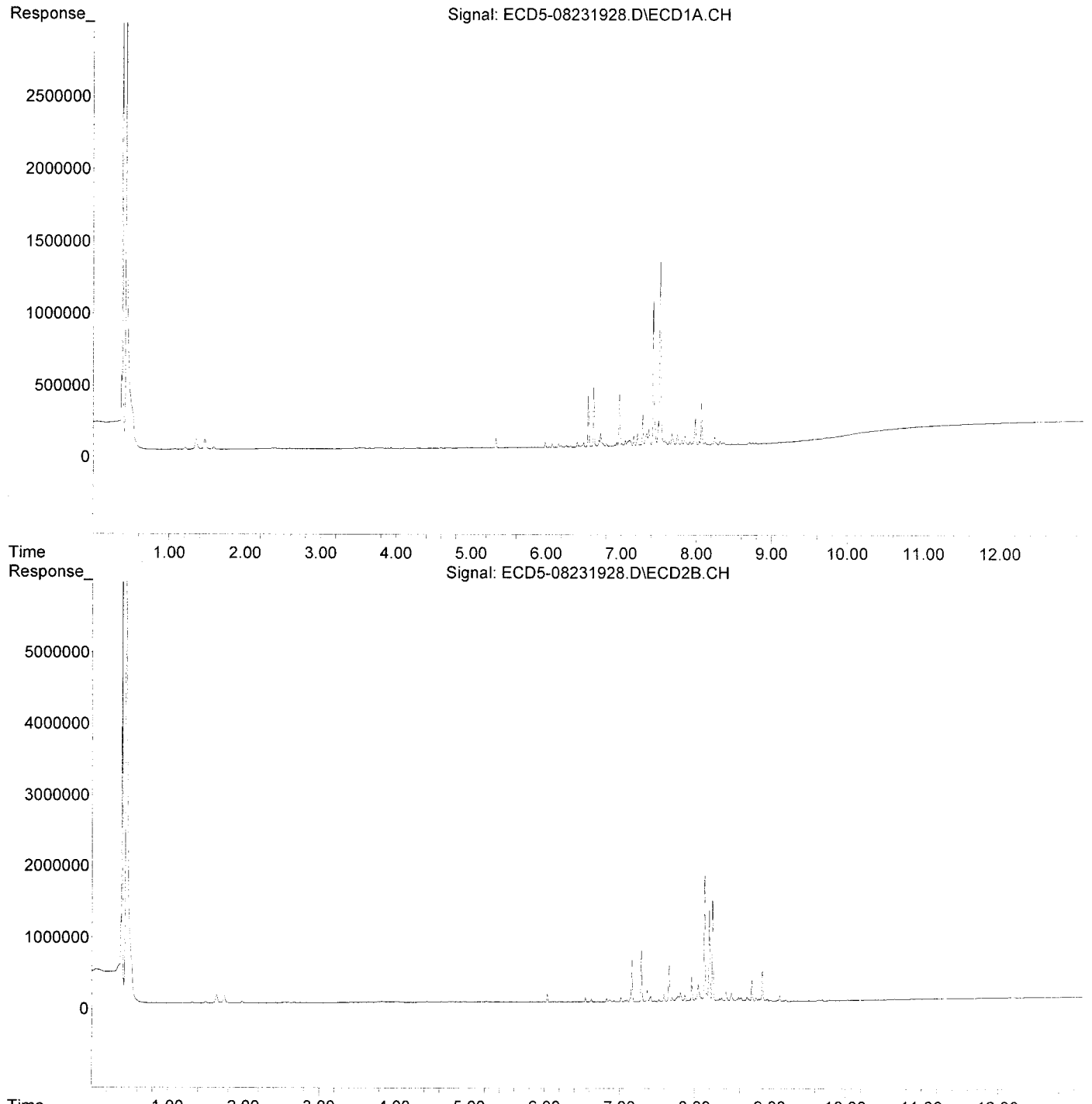
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f	7.016f	10976	62438	0.121	0.395	#
5)		Heptachlor	6.632	7.288	412192	714454	2.274	2.335	
6)		d-BHC	6.412f	0.000	34416	0	0.175	N.D.	#
7)		Aldrin	6.877	7.558	6150	10093	0.031	0.031	
8)		Heptachlo...	7.337	8.010	84467	51183	0.459	0.170	#
9)		trans-Chl...	7.429	8.131	1009143	1754707	5.458	5.600	
10)		cis-Chlor...	7.521	8.237	1286655	1472400	7.067	5.056	
11)		Endosulfa...	7.640	8.308	29794	24027	0.175	0.087	#
12)		4,4'-DDE	7.579	8.333	33953	45018	0.180	0.145	
13)		Dieldrin	7.807	8.488	35520	119533	0.185	0.393	#
14)		Endrin	7.986f	8.714	182097	37218	1.239	0.165	#
15)		4,4'-DDD	7.986	8.759	182097	301826	1.159	1.178	
16)		Endosulfa...	8.118	8.873	19535	32870	0.136	0.143	
17)		4,4'-DDT	0.000	8.994	0	11155	N.D.	0.027	#
18)		Endrin Al...	8.368f	9.128f	14946	80647	BelowCal	BelowCal	
19)		Endosulfa...	8.708	9.316f	13079	6249	0.084	0.025	#
20)		Methoxychlor	8.553	0.000	3815	0	0.065	N.D.	#
21)		Endrin Ke...	8.899	9.686	2603	18155	0.016	0.071	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.256	7.934	11579	24468	0.070	0.089	
26)		2,4'-DDE	7.337	8.131	84467	1754707	0.659	8.272	#
27)		trans-Non...	7.521	8.194	1286655	1274306	6.866	4.225	
28)		2,4'-DDD	7.675f	8.488	83034	119533	0.728	0.633	
29)		2,4'-DDT	7.914f	8.714	22312	37218	0.203	0.209	
30)		cis-Nonac...	7.986	8.759	182097	301826	0.877	0.900	
31)		Mirex	0.000	9.686	0	18155	N.D.	0.098	#
32)		Chlordane...	7.429	8.131	1009143	1754707	51.253	48.493	
33)		Chlordane...	7.521	8.237	1286655	1472400	51.334	48.492	
34)		Chlordane...	8.068	8.897	288087	439020	49.832	48.966	
35)		Chlordane...	3.446	0.000	5365	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	1286655	119533	1436.564	45.549	#
37)		Toxaphene...	7.807	8.814	35520	51904	21.995	15.771	
38)		Toxaphene...	8.118	8.851	19535	35575	5.801	7.019	
39)		Toxaphene...	8.348	8.897	14389	439020	4.441	52.578	#
40)		Toxaphene...	8.553f	9.128f	3815	80647	1.591	17.305	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	5365	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

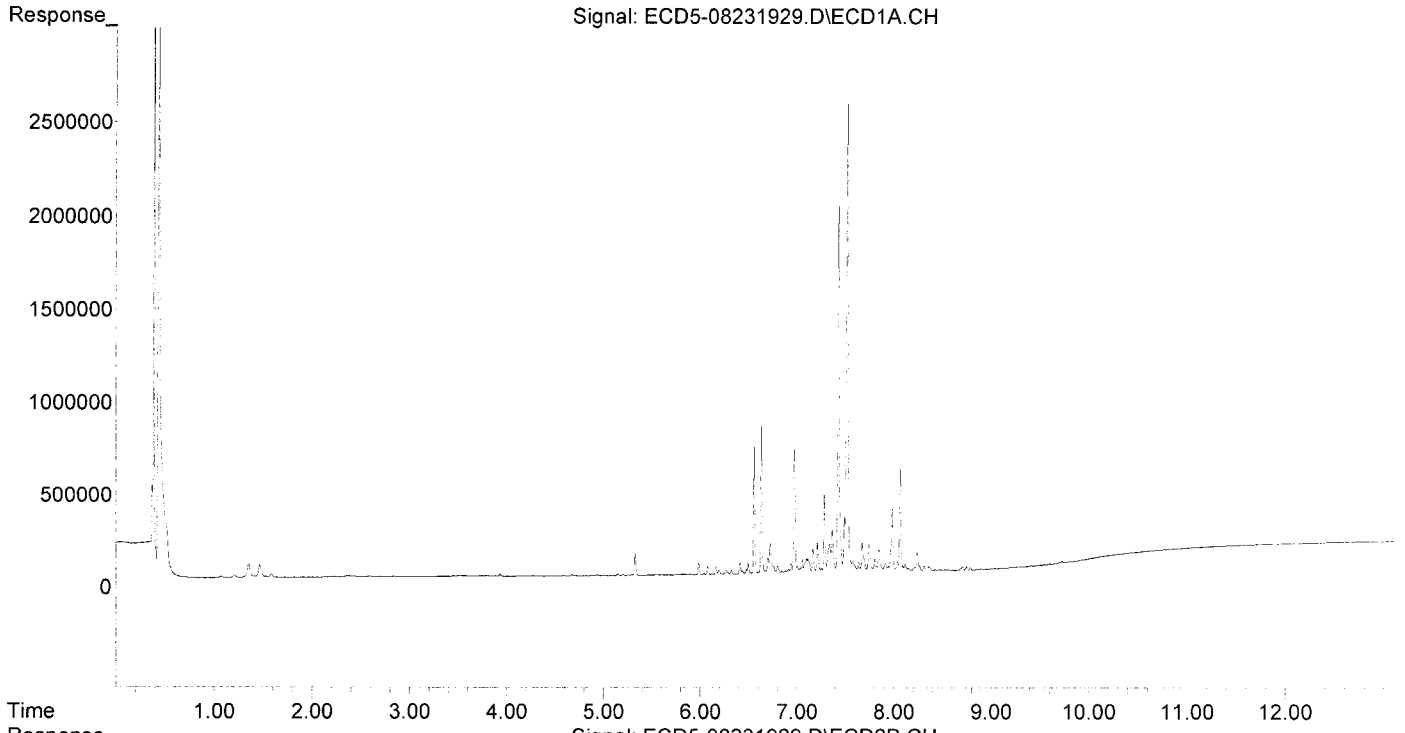
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC	6.323f	7.016f	21053	115009	0.233	0.727	#
5)		Heptachlor	6.632	7.288	802906	1372147	4.429	4.484	
6)		d-BHC	6.412f	0.000	63497	0	0.323	N.D.	#
7)		Aldrin	6.877	7.558	12864	20481	0.065	0.062	
8)		Heptachlo...	7.338	8.010	155514	93915	0.844	0.312	#
9)		trans-Chl...	7.429	8.130	1978897	3378388	10.703	10.782	
10)		cis-Chlor...	7.521	8.238	2519520	2905941	13.838	9.978	
11)		Endosulfa...	7.641f	8.309f	56850	48968	0.334	0.178	#
12)		4,4'-DDE	7.579	8.334	63125	84256	0.335	0.271	
13)		Dieldrin	7.807	8.488	69910	230931	0.364	0.759	#
14)		Endrin	7.986f	8.713	344068	89428	2.340	0.396	#
15)		4,4'-DDD	7.986	8.760	344068	593441	2.190	2.316	
16)		Endosulfa...	8.118	8.873	39271	74727	0.273	0.324	
17)		4,4'-DDT	0.000	8.995	0	22043	N.D.	0.090	#
18)		Endrin Al...	8.428f	9.128f	7592	153472	BelowCal	BelowCal	
19)		Endosulfa...	8.709	9.317f	21141	11695	0.136	0.047	#
20)		Methoxychlor	8.553	0.000	6889	0	0.118	N.D.	#
21)		Endrin Ke...	8.897	9.687	3240	29883	0.019	0.116	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	6.430f	0	7921	N.D.	0.025	#
25)		Oxychlordane	7.255	7.934	24127	50634	0.147	0.185	
26)		2,4'-DDE	7.338	8.130	155514	3378388	1.212	15.925	#
27)		trans-Non...	7.521	8.195	2519520	2542319	13.749	8.428	
28)		2,4'-DDD	7.676f	8.488	159771	230931	1.400	1.223	
29)		2,4'-DDT	7.914f	8.713	44472	89428	0.405	0.501	
30)		cis-Nonac...	7.986	8.760	344068	593441	1.657	1.769	
31)		Mirex	0.000	9.687	0	29883	N.D.	0.161	#
32)		Chlordane...	7.429	8.130	1978897	3378388	100.505	93.365	
33)		Chlordane...	7.521	8.238	2519520	2905941	100.522	95.703	
34)		Chlordane...	8.068	8.898	548196	874465	94.825	97.533	
35)		Chlordane...	3.446	0.000	4938	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	2519520	230931	2813.072	87.999	#
37)		Toxaphene...	7.807	8.815	69910	108014	43.289	32.821	
38)		Toxaphene...	8.118	8.851	39271	84269	11.662	16.627	#
39)		Toxaphene...	8.349	8.898	25383	874465	7.834	104.728	#
40)		Toxaphene...	8.553f	9.068f	6889	13931	2.874	2.989	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	4938	0	NoCal	N.D.	

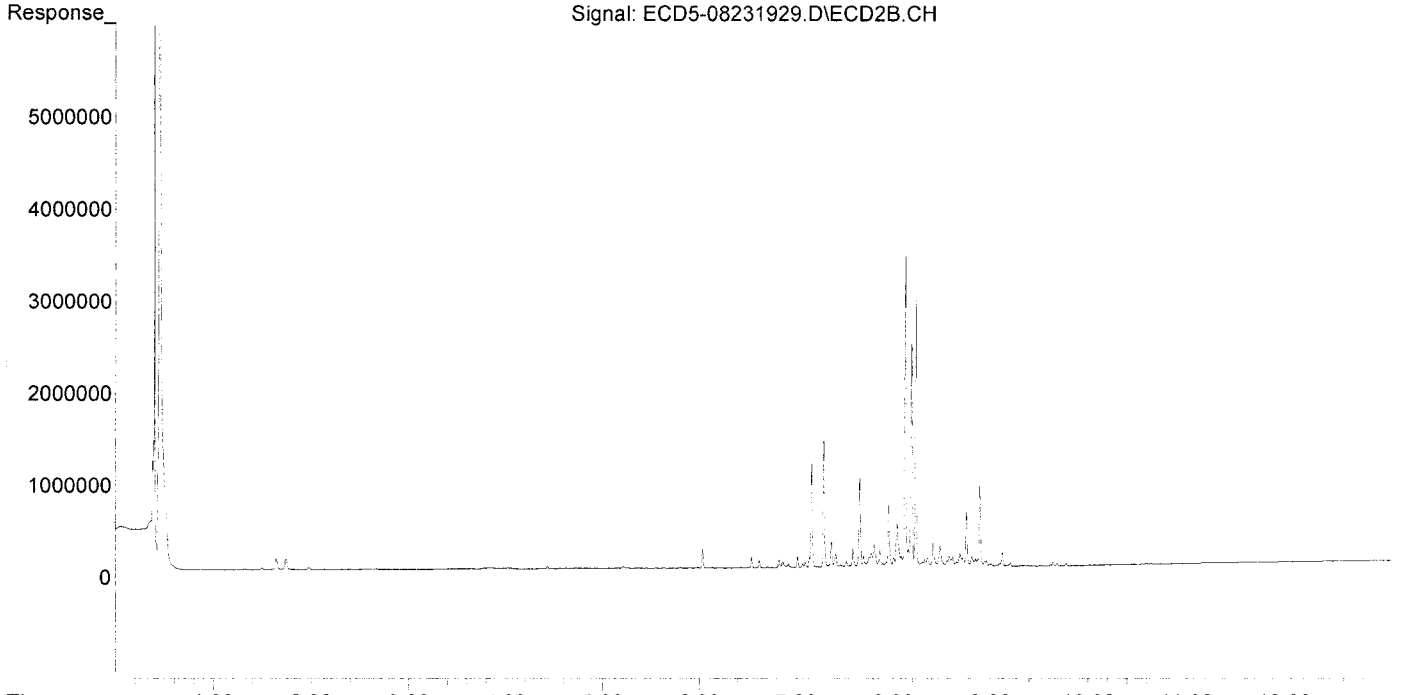
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

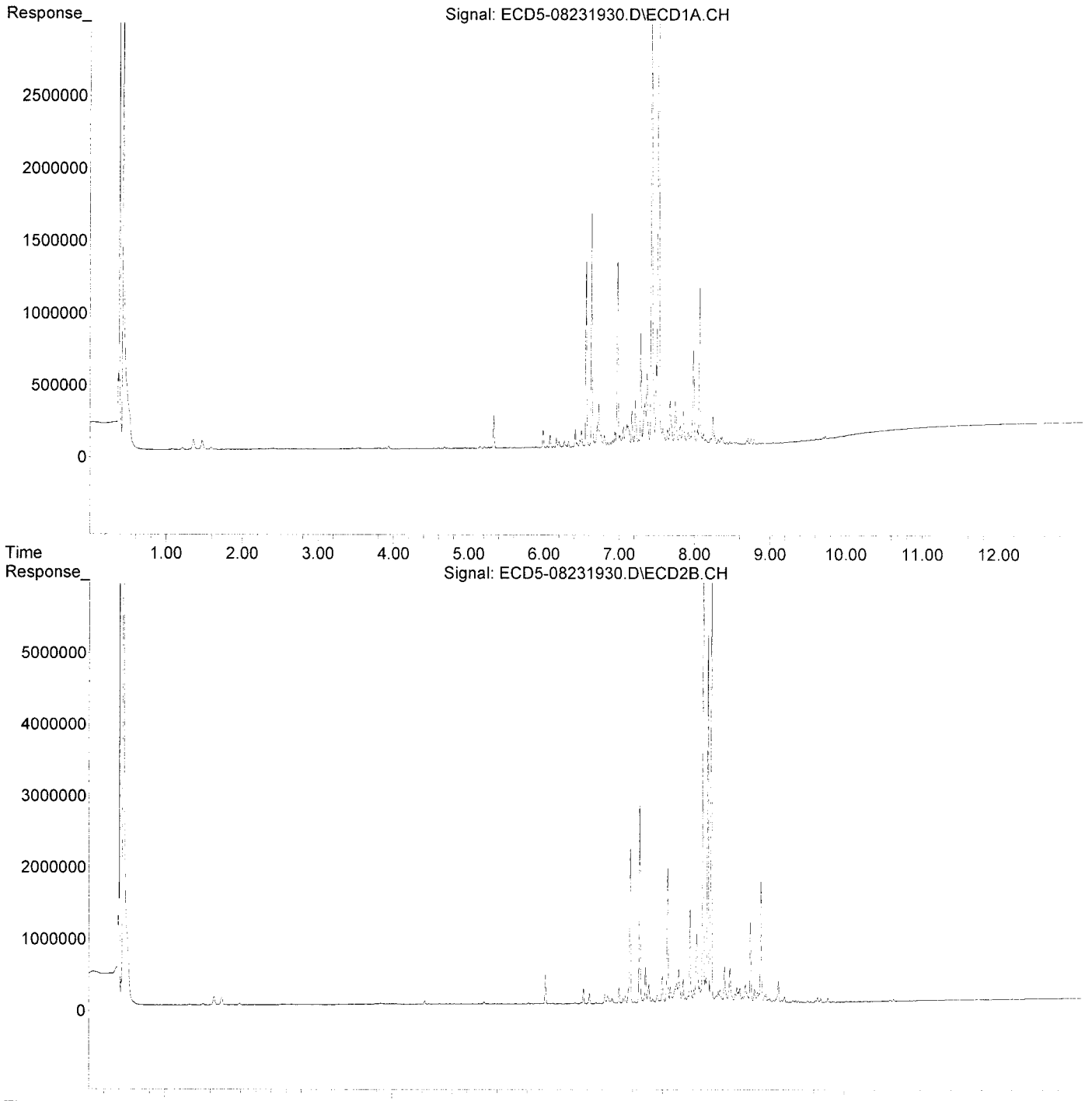
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f	0.000	45994	0	0.509	N.D.	#
5)		Heptachlor	6.633	7.290	1604459	2790294	8.850	9.119	
6)		d-BHC	6.414f	7.222	125171	21783	0.636	0.062	#
7)		Aldrin	6.878	7.559	27966	42088	0.142	0.128	
8)		Heptachlo...	7.339	8.011	296306	184421	1.609	0.613	#
9)		trans-Chl...	7.429	8.131	3849299	6751197	20.819	21.547	
10)		cis-Chlor...	7.522	8.239	4906320	5883615	26.947	20.201	
11)		Endosulfa...	7.641f	8.311f	111658	101195	0.656	0.368	#
12)		4,4'-DDE	7.579	8.334	119469	162236	0.634	0.522	
13)		Dieldrin	7.808	8.488	135995	479651	0.708	1.577	#
14)		Endrin	7.986f	8.714	662867	142098	4.508	0.629	#
15)		4,4'-DDD	7.986	8.759	662867	1113368	4.218	4.345	
16)		Endosulfa...	8.119	8.852	78177	142714	0.544	0.619	
17)		4,4'-DDT	0.000	8.995	0	47222	N.D.	0.237	#
18)		Endrin Al...	8.429f	9.129f	17160	296262	BelowCal	0.772	
19)		Endosulfa...	8.709	9.317f	39967	28714	0.258	0.115	#
20)		Methoxychlor	8.528	9.426f	15895	10981	0.271	BelowCal	#
21)		Endrin Ke...	8.895	9.688	5405	57534	0.032	0.224	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.768	6.432f	3592	14719	0.020	0.047	#
25)		Oxychlordane	7.256	7.935	46857	97946	0.285	0.358	
26)		2,4'-DDE	7.339	8.131	296306	6751197	2.310	31.825	#
27)		trans-Non...	7.522	8.196	4906320	5159253	27.077	17.104	
28)		2,4'-DDD	7.676f	8.488	310109	479651	2.717	2.540	
29)		2,4'-DDT	7.915f	8.714	90205	142098	0.822	0.797	
30)		cis-Nonac...	7.986	8.759	662867	1113368	3.193	3.319	
31)		Mirex	8.690f	9.688	25315	57534	0.202	0.309	#
32)		Chlordane...	7.429	8.131	3849299	6751197	195.499	186.577	
33)		Chlordane...	7.522	8.239	4906320	5883615	195.749	193.769	
34)		Chlordane...	8.069	8.898	1101677	1731727	190.565	193.146	
35)		Chlordane...	3.448	0.000	4503	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	8.488f	4906320	479651	5477.960	182.776	#
37)		Toxaphene...	7.808	8.815	135995	186597	84.211	56.699	
38)		Toxaphene...	8.119	8.852	78177	142714	23.215	28.158	
39)		Toxaphene...	8.349	8.898	48611	1731727	15.003	207.397	#
40)		Toxaphene...	8.553f	9.069f	15795	32796	6.589	7.037	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.448	0.000	4503	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

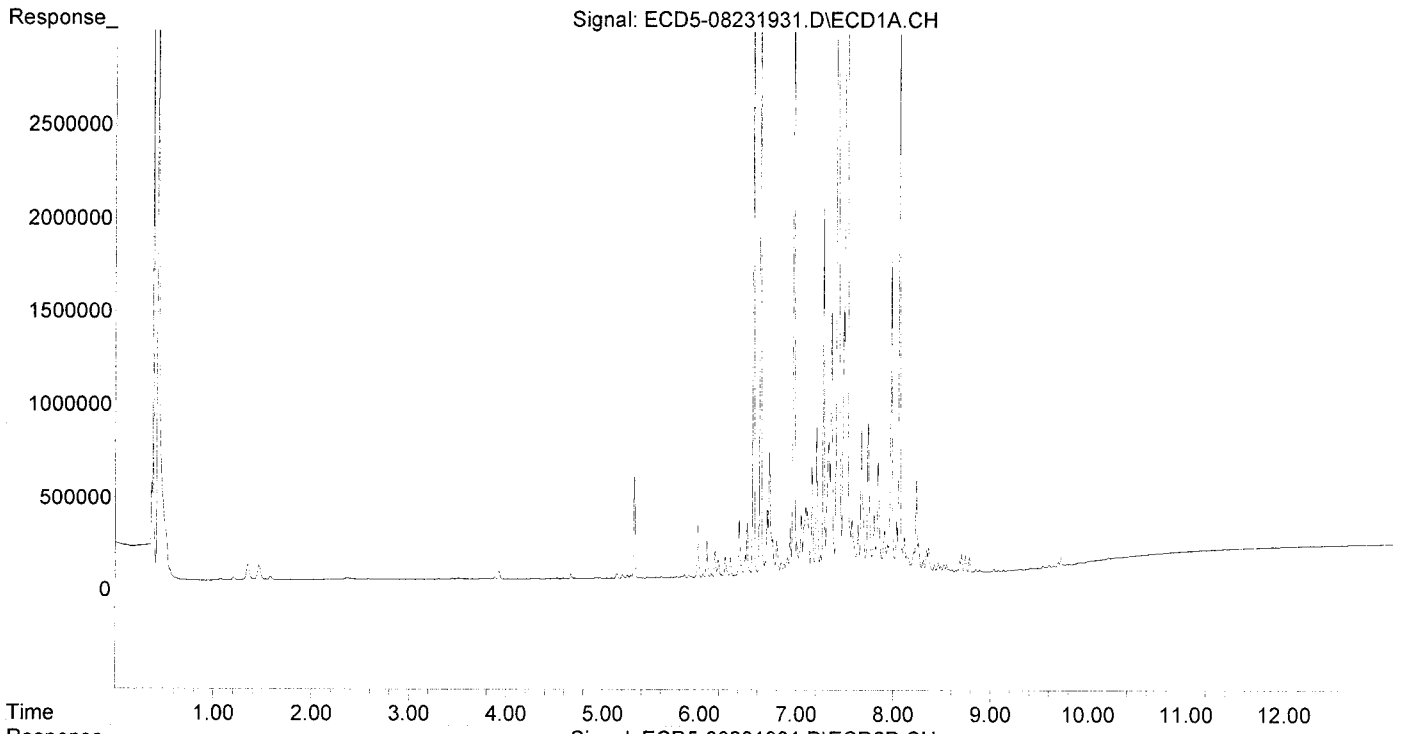
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
4)		b-BHC	6.322f	7.016f	105835	520011	1.171	3.286	#
5)		Heptachlor	6.631	7.288	4107971	7192687	22.659	23.507	
6)		d-BHC	6.412f	7.219	305503	51612	1.553	0.146	#
7)		Aldrin	6.876	7.558	67201	101902	0.340	0.309	
8)		Heptachlo...	7.336	8.009	709786	434942	3.854	1.446	#
9)		trans-Chl...	7.427	8.129	9628671	17830433	52.077	56.907	
10)		cis-Chlor...	7.520	8.237	12176524	14812273	66.878	50.858	
11)		Endosulfa...	7.639	8.308	267451	260205	1.572	0.946	
12)		4,4'-DDE	7.577	8.332	288716	403680	1.531	1.299	
13)		Dieldrin	7.806	8.487	320749	1311343	1.671	4.312	#
14)		Endrin	7.984f	8.712	1680286	346653	11.428	1.535	#
15)		4,4'-DDD	7.984	8.758	1680286	2798638	10.693	10.923	
16)		Endosulfa...	8.118	8.872	194466	323054	1.354	1.401	
17)		4,4'-DDT	0.000	8.994	0	120742	N.D.	0.665	#
18)		Endrin Al...	8.427f	9.127f	45775	749534	BelowCal	3.242	
19)		Endosulfa...	8.708	9.316f	99125	76741	0.640	0.308	#
20)		Methoxychlor	8.552	9.462	44336	19918	0.757	0.061	#
21)		Endrin Ke...	8.892	9.686	12903	140715	0.077	0.547	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	6475	34351	0.037	0.109	#
25)		Oxychlordane	7.283f	7.933	1963331	230983	11.932	0.843	#
26)		2,4'-DDE	7.336	8.129	709786	17830433	5.534	84.051	#
27)		trans-Non...	7.520	8.194	12176524	13173616	67.700	43.674	
28)		2,4'-DDD	7.674f	8.487	765105	1311343	6.704	6.943	
29)		2,4'-DDT	7.913f	8.712	230360	346653	2.100	1.944	
30)		cis-Nonac...	7.984	8.758	1680286	2798638	8.093	8.343	
31)		Mirex	8.645	9.686	12290	140715	0.098	0.756	#
32)		Chlordane...	7.427	8.129	9628671	17830433	489.023	492.763	
33)		Chlordane...	7.520	8.237	12176524	14812273	485.812	487.822	
34)		Chlordane...	8.067	8.896	2921278	4271709	505.313	476.441	
35)		Chlordane...	3.447	0.000	4056	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.487f	12176524	1311343	13595.220	499.701	#
37)		Toxaphene...	7.806	8.813	320749	462807	198.614	140.627	
38)		Toxaphene...	8.118	8.850	194466	348421	57.748	68.745	
39)		Toxaphene...	8.348	8.896	120098	4271709	37.065	511.592	#
40)		Toxaphene...	8.552f	9.067f	44336	90716	18.495	19.465	
41)		Toxaphene...	8.645	9.462	12290	19918	3.884	4.193	
42)		Toxaphene...	3.447	0.000	4056	0	NoCal	N.D.	

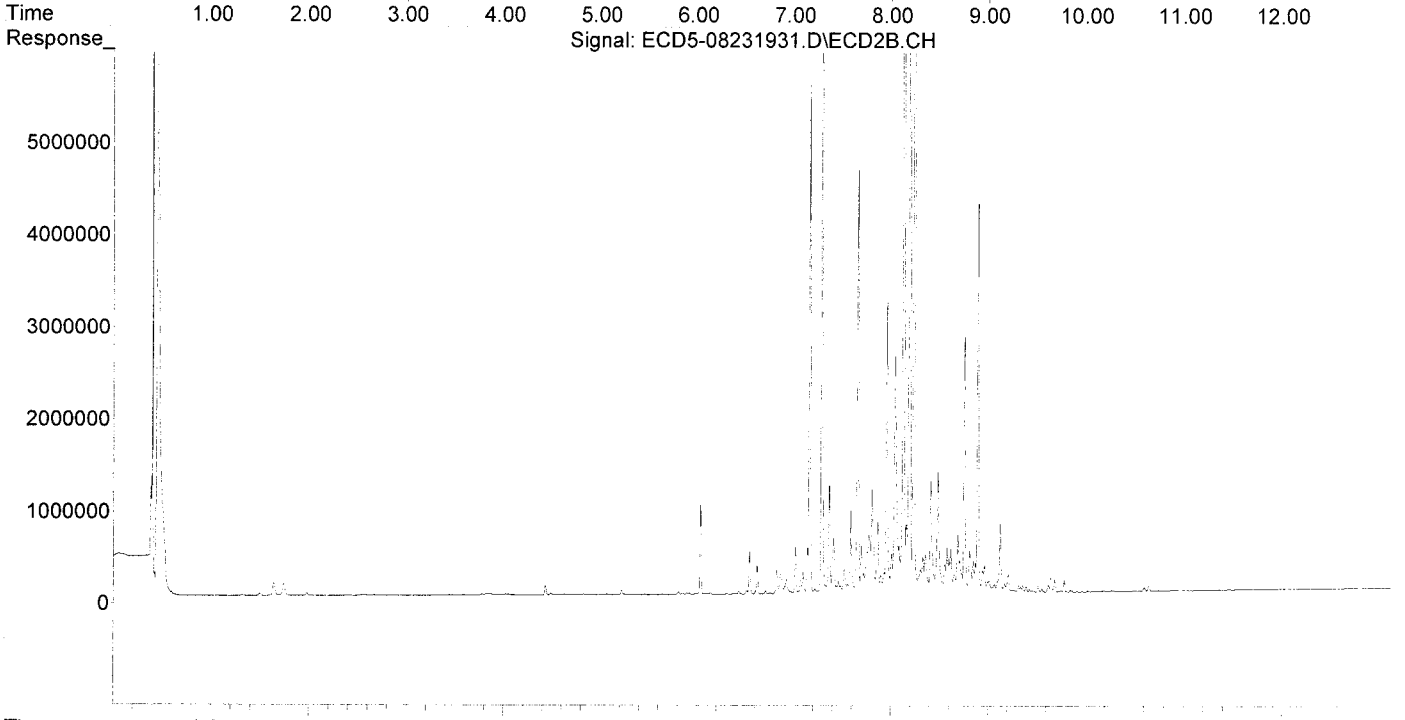
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

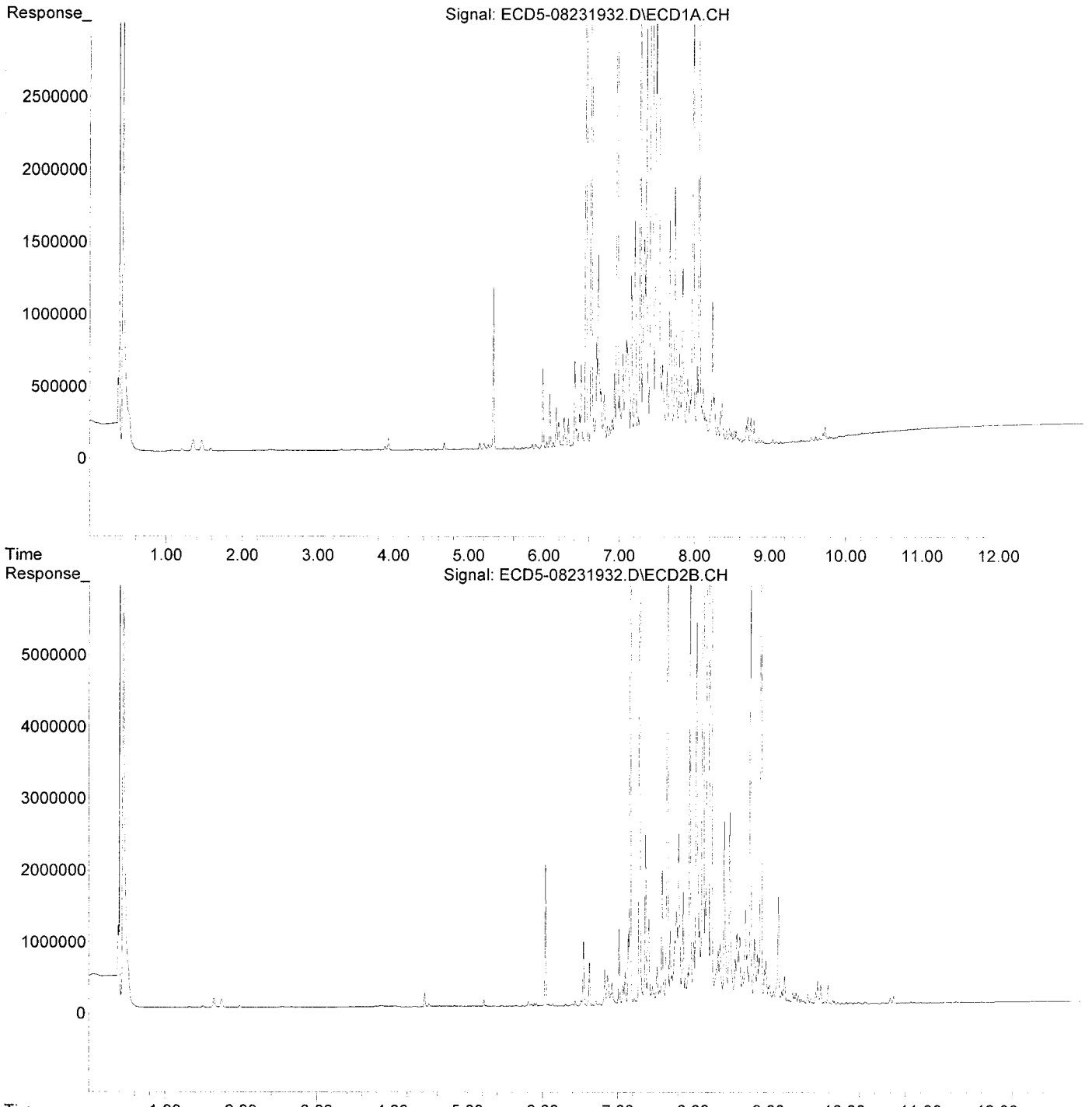
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896	
4)		b-BHC	6.322f	7.016f	206312	1070369	2.283	6.763	#
5)		Heptachlor	6.631	7.288	8491782	15019038	46.839	49.085	
6)		d-BHC	6.411f	7.241	615917	64884	3.131	0.184	#
7)		Aldrin	6.875	7.558	134371	205192	0.681	0.623	
8)		Heptachlo...	7.335	8.009	1431988	873449	7.775	2.903	#
9)		trans-Chl...	7.426	8.130	19643766	37966746	106.245	121.173	
10)		cis-Chlor...	7.519	8.237	25083239	31493677	137.766	108.134	
11)		Endosulfa...	7.638	8.309f	523226	508009	3.075	1.846	
12)		4,4'-DDE	7.576	8.332	564335	775935	2.993	2.498	
13)		Dieldrin	7.805	8.487	632206	2703774	3.293	8.890	#
14)		Endrin	7.985f	8.713	3305895	704023	22.485	3.118	#
15)		4,4'-DDD	7.985	8.758	3305895	5865563	21.038	22.893	
16)		Endosulfa...	8.118	8.872	392448	653843	2.733	2.835	
17)		4,4'-DDT	8.241f	8.994	1019486	242495	8.527	1.373	#
18)		Endrin Al...	8.427f	9.128f	96085	1500188	BelowCal	7.301	
19)		Endosulfa...	8.708	9.269	190049	57556	1.226	0.231	#
20)		Methoxychlor	8.552	9.462	93194	45695	1.591	0.381	#
21)		Endrin Ke...	8.891	9.687	25043	266287	0.150	1.035	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	12323	65416	0.070	0.208	#
25)		Oxychlordane	7.252	7.933	207847	466300	1.263	1.702	
26)		2,4'-DDE	7.335	8.130	1431988	37966746	11.165	178.972	#
27)		trans-Non...	7.519	8.194	25083239	27721467	139.911	91.904	
28)		2,4'-DDD	7.673f	8.487	1536407	2703774	13.462	14.316	
29)		2,4'-DDT	7.912f	8.713	462112	704023	4.213	3.948	
30)		cis-Nonac...	7.985	8.758	3305895	5865563	15.923	17.486	
31)		Mirex	8.645	9.687	28961	266287	0.231	1.431	#
32)		Chlordane...	7.426	8.130	19643766	37966746	997.671	1049.252	
33)		Chlordane...	7.519	8.237	25083239	31493677	1000.756	1037.202	
34)		Chlordane...	8.067	8.897	5987927	9358900	1035.773	1043.835	
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.487f	25083239	2703774	28005.706	1030.300	#
37)		Toxaphene...	7.805	8.814	632206	927954	391.474	281.965	
38)		Toxaphene...	8.118	8.850	392448	706508	116.540	139.397	
39)		Toxaphene...	8.348	8.897	233440	9358900	72.046	1120.849	#
40)		Toxaphene...	8.552f	9.067f	93194	183092	38.877	39.287	
41)		Toxaphene...	8.645	9.462	28961	45695	9.152	9.620	
42)		Toxaphene...	3.447	0.000	4825	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

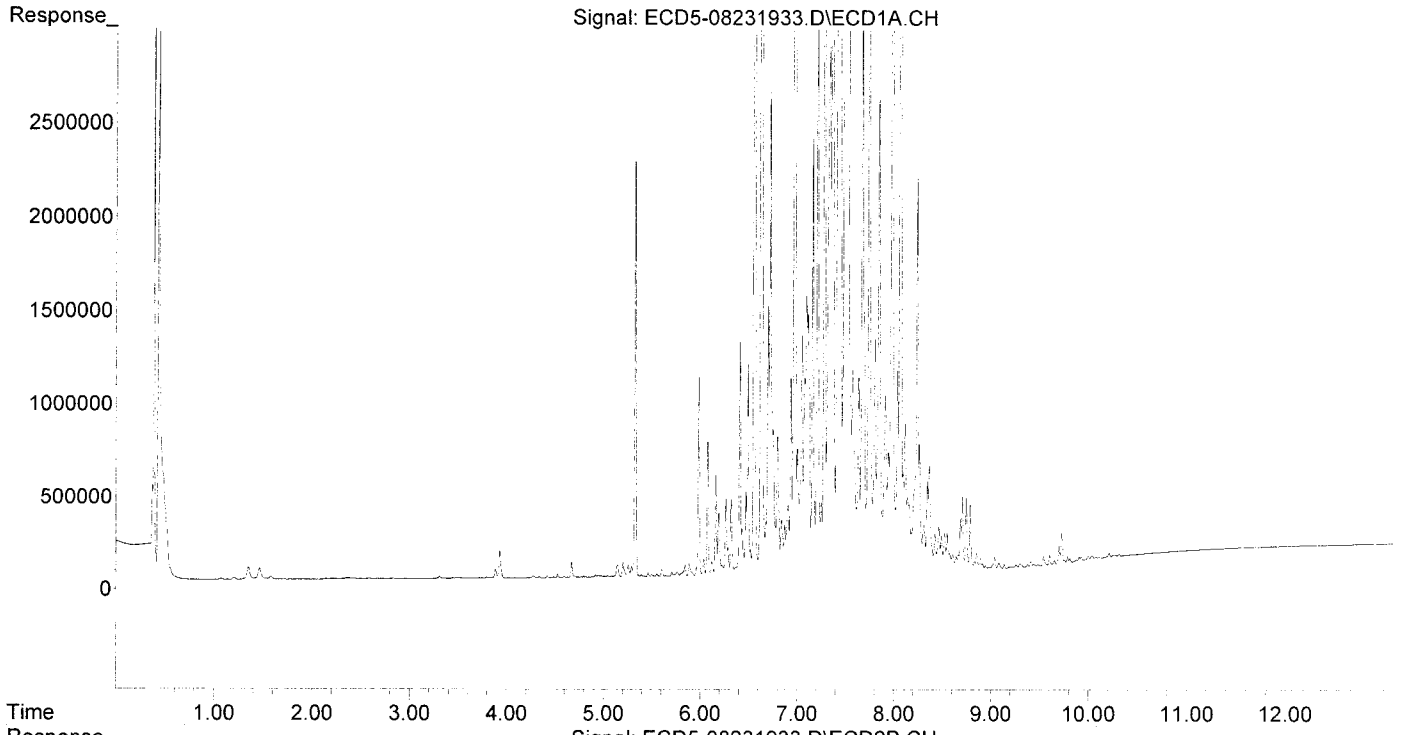
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657	1.666	
4)		b-BHC	6.321f	7.016f	403109	2092681	4.460	13.223	#
5)		Heptachlor	6.630	7.288	16898199	31950039	93.207	104.420	
6)		d-BHC	6.411f	7.240	1241284	122584	6.311	0.348	#
7)		Aldrin	6.874	7.557	258489	381283	1.309	1.158	
8)		Heptachlo...	7.335	8.008	2829322	1755780	15.362	5.836	#
9)		trans-Chl...	7.426	8.130	40036500	81691713	216.541	260.724	
10)		cis-Chlor...	7.519	8.238	50979142	66281388	279.996	227.578	
11)		Endosulfa...	7.638	8.308	1047673	1022624	6.156	3.716	
12)		4,4'-DDE	7.576	8.332	1098754	1565142	5.828	5.038	
13)		Dieldrin	7.805	8.486	1246658	5614133	6.494	18.458	#
14)		Endrin	7.984f	8.692f	6820662	2823722	46.391	12.504	#
15)		4,4'-DDD	7.984	8.759	6820662	12014776	43.405	46.894	
16)		Endosulfa...	8.118	8.872	787524	1320218	5.484	5.725	
17)		4,4'-DDT	8.242f	8.993	2107649	483614	17.628	2.768	#
18)		Endrin Al...	8.427f	9.128f	193793	3090717	0.642	15.775	#
19)		Endosulfa...	8.709	9.268f	400484	128754	2.584	0.517	#
20)		Methoxychlor	8.552	9.462	195767	96597	3.342	1.012	#
21)		Endrin Ke...	8.892	9.686	57711	528113	0.346	2.052	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.766	6.430f	22503	117032	0.128	0.373	#
25)		Oxychlordane	7.252	7.932	378689	930396	2.302	3.397	#
26)		2,4'-DDE	7.335	8.130	2829322	81691713	22.059	385.087	#
27)		trans-Non...	7.519	8.194	50979142	59315099	285.157	196.645	
28)		2,4'-DDD	7.673f	8.486	3134690	5614133	27.467	29.726	
29)		2,4'-DDT	7.912f	8.692f	956476	2823722	8.720	15.833	#
30)		cis-Nonac...	7.984	8.759	6820662	12014776	32.852	35.817	
31)		Mirex	8.645	9.686	70178	528113	0.560	2.838	#
32)		Chlordane...	7.426	8.130	40036500	81691713	2033.382	2257.639	
33)		Chlordane...	7.519	8.238	50979142	66281388	2033.935	2182.889	
34)		Chlordane...	8.067	8.897	12208306	19418517	2111.754	2165.824	
35)		Chlordane...	3.449	0.000	4939	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.486f	50979142	5614133	56918.762	2139.322	#
37)		Toxaphene...	7.805	8.814	1246658	1872513	771.954	568.976	
38)		Toxaphene...	8.118	8.850	787524	1450920	233.861	286.273	
39)		Toxaphene...	8.368f	8.897	565943	19418517	174.666	2325.617	#
40)		Toxaphene...	8.552f	9.067f	195767	367185	81.667	78.789	
41)		Toxaphene...	8.645	9.462	70178	96597	22.176	20.335	
42)		Toxaphene...	3.449	0.000	4939	0	NoCal	N.D.	

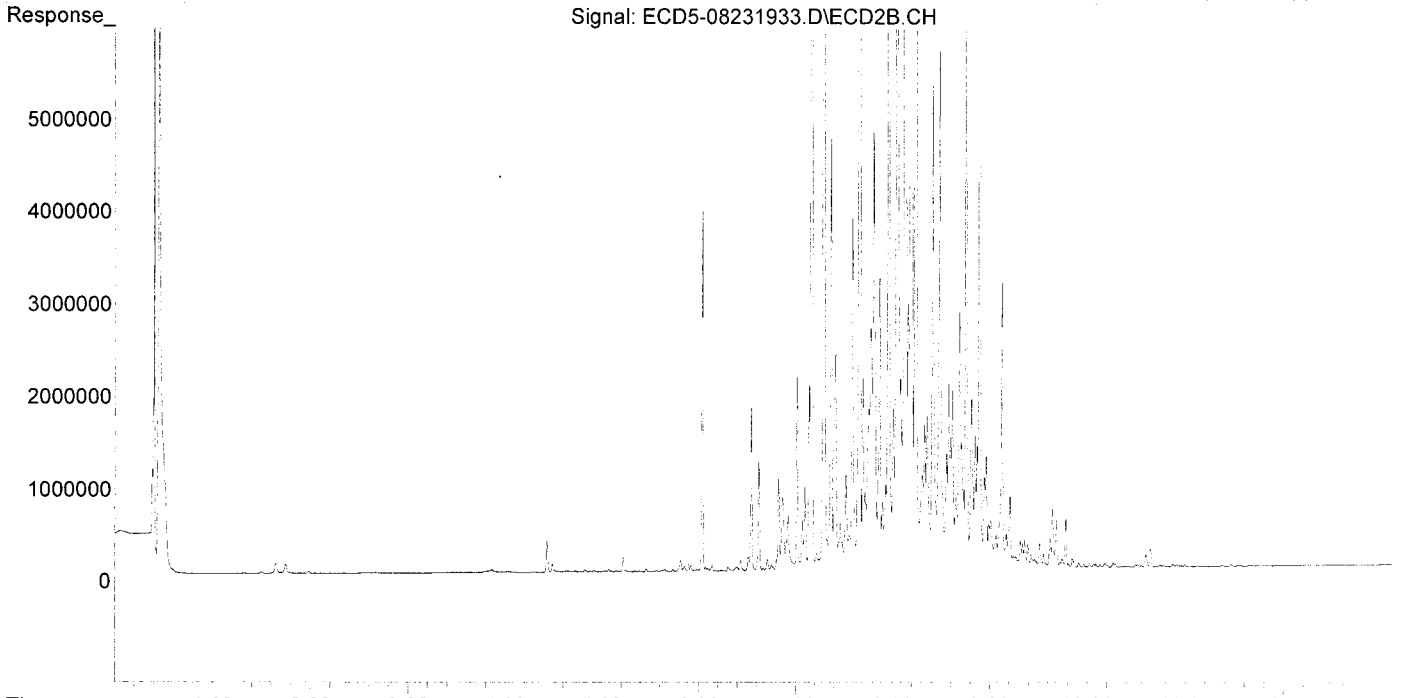
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

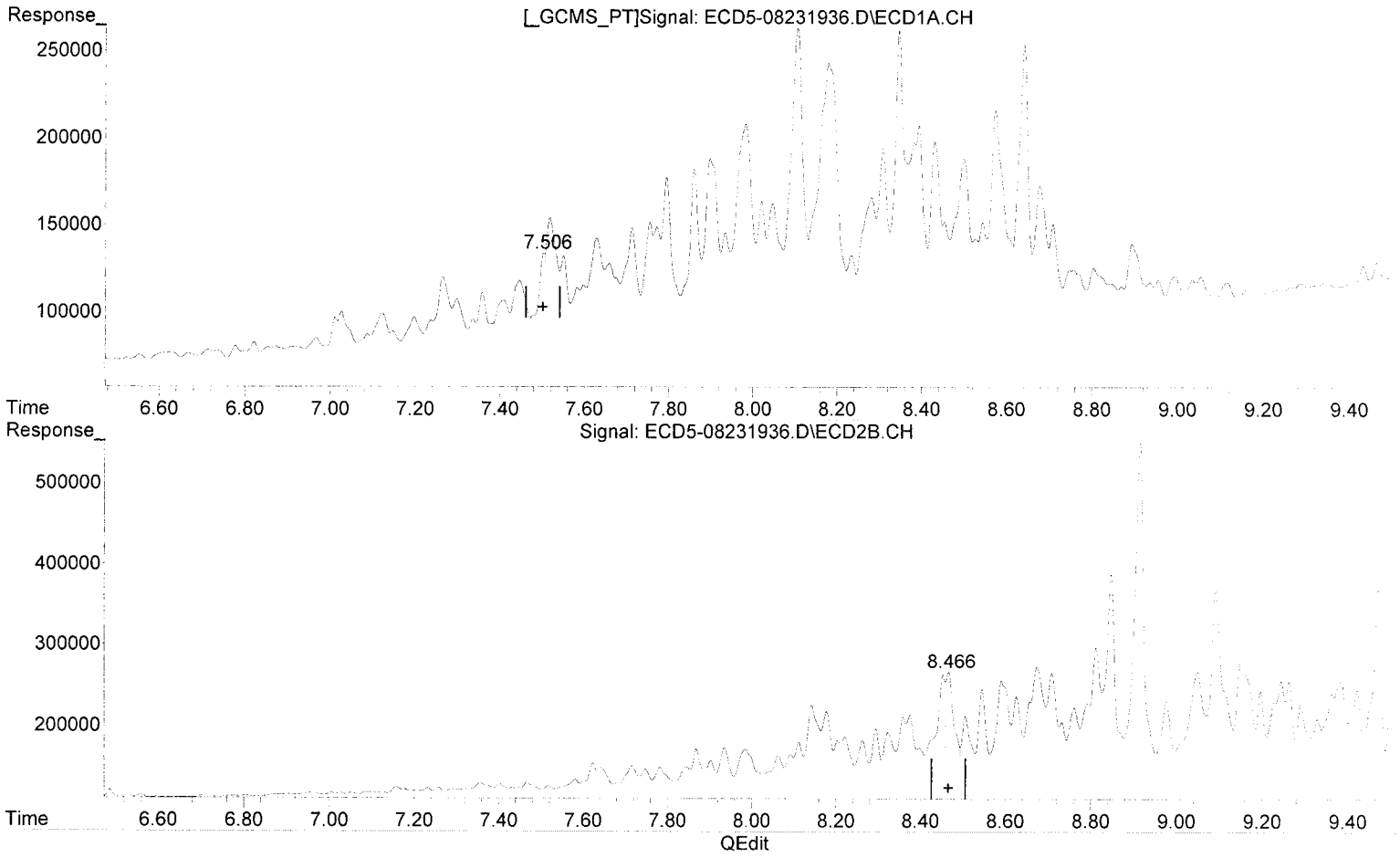
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0	0.033	N.D.	#
5)	Heptachlor	6.627	0.000	4370	0	0.024	N.D.	#
6)	d-BHC	6.469f	0.000	2958	0	0.015	N.D.	#
7)	Aldrin	6.871	7.582f	4859	11806	0.025	0.036	#
8)	Heptachlo...	7.336	7.985	13601	46078	0.074	0.153	#
9)	trans-Chl...	7.446	8.142	34060	99117	0.184	0.316	#
10)	cis-Chlor...	7.518	8.221	69068	59106	0.379	0.203	#
11)	Endosulfa...	7.629	8.294	55946	68659	0.329	0.250	
12)	4,4'-DDE	7.550f	8.359	47125	82546	0.250	0.266	
13)	Dieldrin	7.794	8.505	88321	82204	0.460	0.270	#
14)	Endrin	7.934f	8.709	54457	133121	0.370	0.589	#
15)	4,4'-DDD	8.020	8.762	70973	90688	0.452	0.354	
16)	Endosulfa...	8.105	8.847	169381	254833	1.179	1.105	
17)	4,4'-DDT	8.180f	8.977	146997	96725	1.229	0.525	#
18)	Endrin Al...	8.392	9.091	108459	233185	BelowCal	0.427	
19)	Endosulfa...	8.708	9.291	48053	90329	0.310	0.363	
20)	Methoxychlor	8.573f	9.470	114720	230922	1.959	2.668	
21)	Endrin Ke...	8.894	9.711f	33550	36259	0.201	0.141	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	6.487f	0	8846	N.D.	0.028	#
25)	Oxychlordane	7.265	7.935	38772	48452	0.236	0.177	
26)	2,4'-DDE	7.336	8.112	13601	53529	0.106	0.252	#
27)	trans-Non...	7.518	8.204	69068	54722	0.069	0.181	#
28)	2,4'-DDD	7.713	8.505	60294	82204	0.528	0.435	
29)	2,4'-DDT	7.899	8.709	96979	133121	0.884	0.746	
30)	cis-Nonac...	7.981	8.762	116026	90688	0.559	0.270	#
31)	Mirex	8.641	9.711f	153138	36259	1.222	0.195	#
32)	Chlordane...	7.446	8.142	34060	99117	1.730	2.739	#
33)	Chlordane...	7.518	8.221	69068	59106	2.756	1.947	
34)	Chlordane...	8.047f	8.915	69875	416348	12.087	46.437	#
35)	Chlordane...	3.449	0.000	4023	0	NoCal	N.D.	
36)	Toxaphene...	7.506	8.466	49110	136848	54.832m	52.147	
37)	Toxaphene...	7.794	8.813	88321	164706	54.690	50.047	
38)	Toxaphene...	8.105	8.847	169381	254833	50.299	50.280	
39)	Toxaphene...	8.346	8.915	164317	416348	50.713	49.863	
40)	Toxaphene...	8.573	9.091	114720	233185	47.857	50.036	
41)	Toxaphene...	8.641	9.470	153138	230922	48.391	48.613	
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 54.832 ng/mL m

response 49110

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

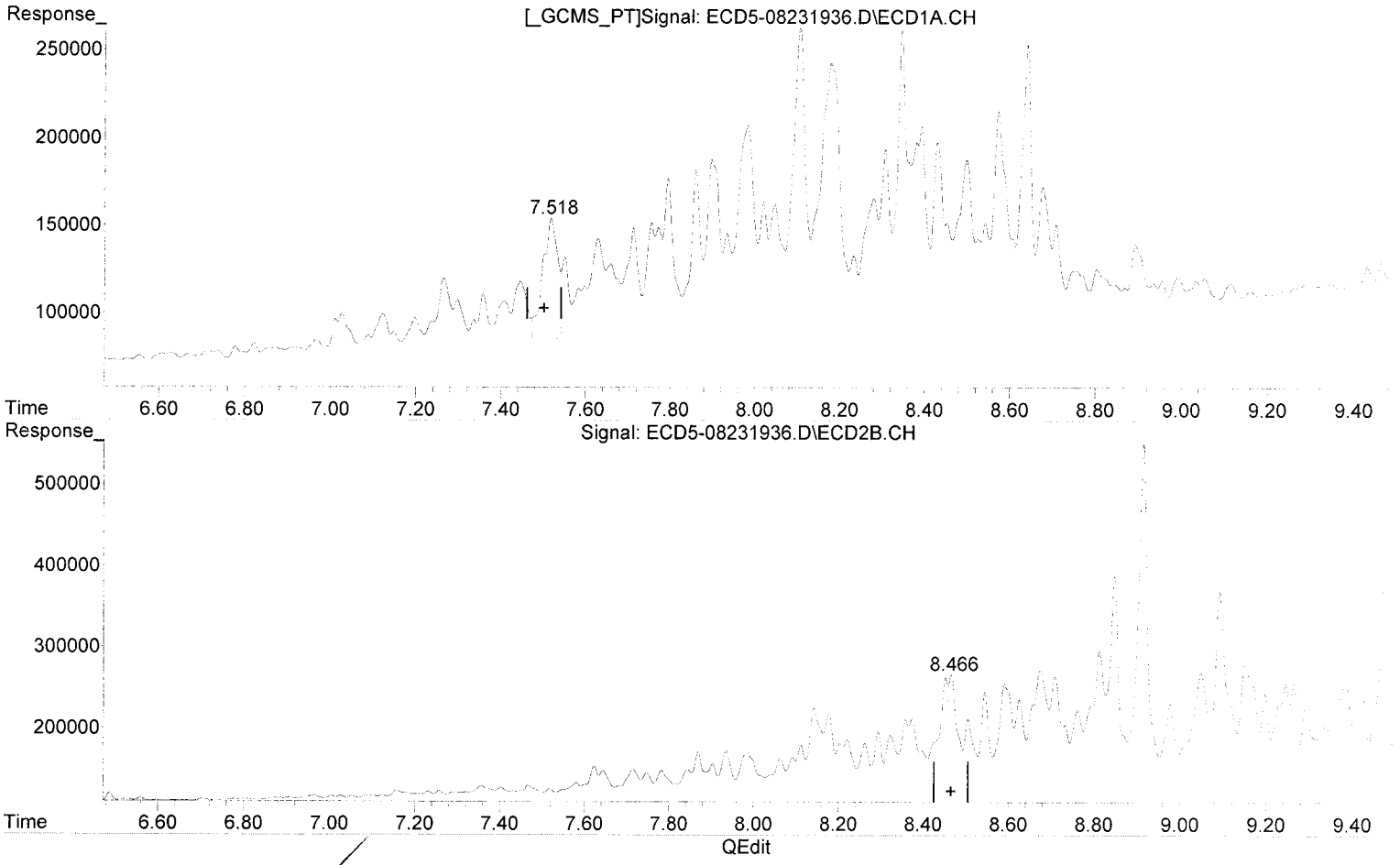
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 77.115 ng/mL

response 69068

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

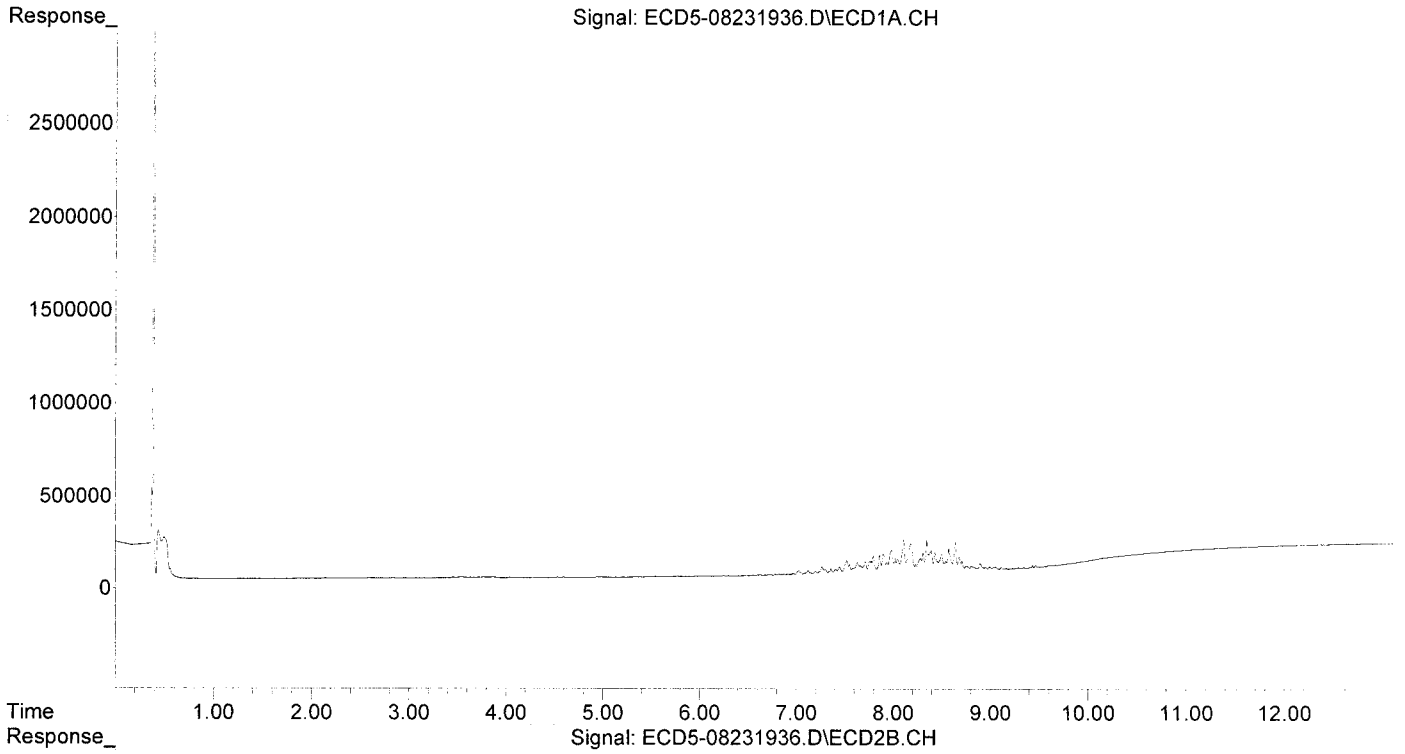
response 136848

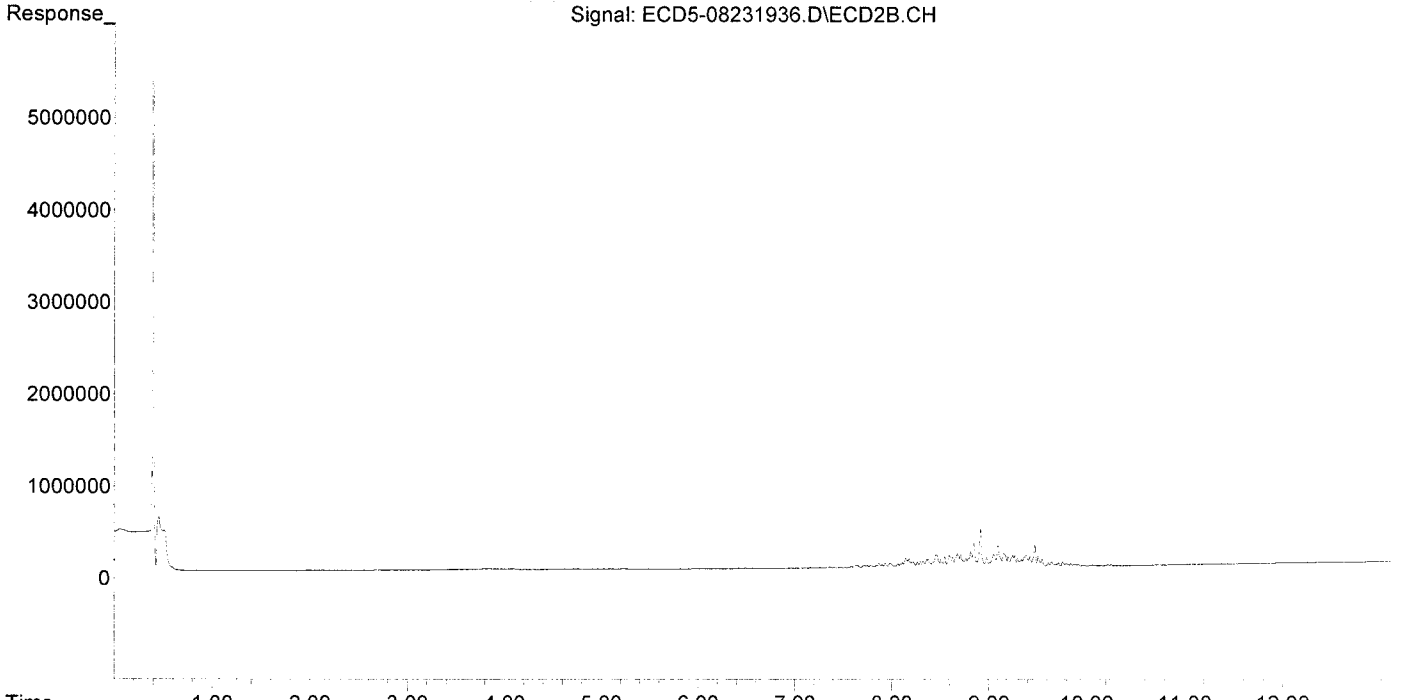
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

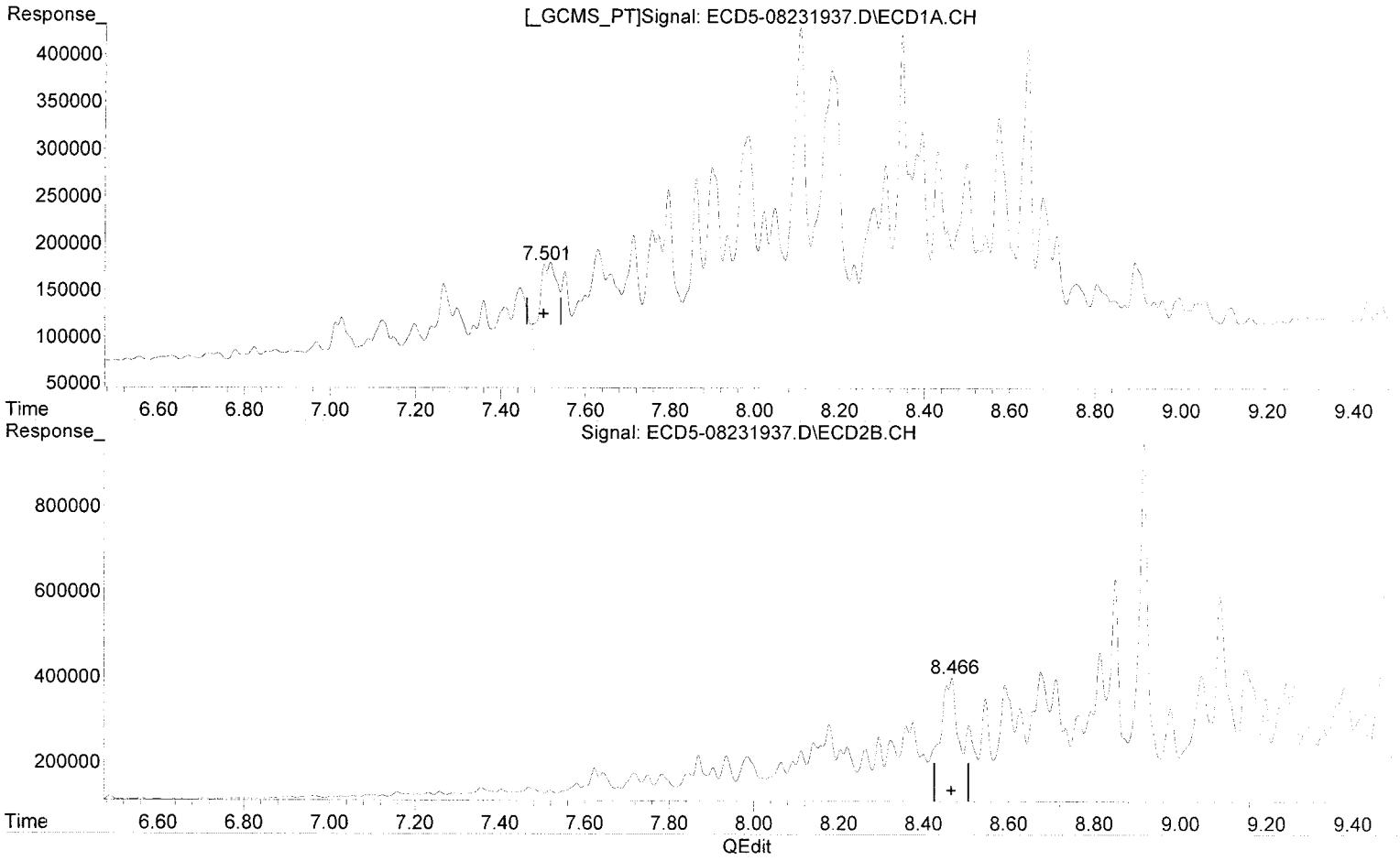
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297	6.965	3419	5803	0.038	0.037	
5)		Heptachlor	6.629	7.259f	5698	7338	0.031	0.024	
6)		d-BHC	6.470f	7.259f	3844	7338	0.020	0.021	
7)		Aldrin	6.872	7.582f	9196	24729	0.047	0.075	#
8)		Heptachlo...	7.359f	7.984	53934	87078	0.293	0.289	
9)		trans-Chl...	7.445	8.141	66985	117380	0.362	0.375	
10)		cis-Chlor...	7.517	8.220	93146	107177	0.512	0.368	
11)		Endosulfa...	7.629	8.295	104883	129689	0.616	0.471	
12)		4,4'-DDE	7.551f	8.359	82562	155356	0.438	0.500	
13)		Dieldrin	7.795	8.506	166085	156611	0.865	0.515	#
14)		Endrin	7.934f	8.710	115324	262153	0.784	1.161	#
15)		4,4'-DDD	8.021	8.762	139852	178338	0.890	0.696	
16)		Endosulfa...	8.106	8.848	332842	494430	2.318	2.144	
17)		4,4'-DDT	8.182f	8.977	285351	192921	2.387	1.085	#
18)		Endrin Al...	8.393	9.091	215405	452209	0.828	1.624	#
19)		Endosulfa...	8.710	9.291	103697	183737	0.669	0.738	
20)		Methoxychlor	8.543	9.471	105544	452485	1.802	5.374	#
21)		Endrin Ke...	8.894	9.712f	71764	83930	0.430	0.326	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.811f	6.488f	2684	8988	0.015	0.029	#
25)		Oxychlordane	7.266	7.935	73507	87358	0.447	0.319	
26)		2,4'-DDE	7.359f	8.112	53934	99205	0.420	0.468	
27)		trans-Non...	7.517	8.204	93146	102328	0.204	0.339	#
28)		2,4'-DDD	7.713	8.506	118203	156611	1.036	0.829	
29)		2,4'-DDT	7.899	8.710	187872	262153	1.713	1.470	
30)		cis-Nonac...	7.982	8.762	219963	178338	1.059	0.532	#
31)		Mirex	8.641	9.712f	302577	83930	2.414	0.451	#
32)		Chlordane...	7.410	8.141	46689	117380	2.371	3.244	
33)		Chlordane...	7.517	8.220	93146	107177	3.716	3.530	
34)		Chlordane...	8.047f	8.915	142490	811948	24.647	90.560	#
35)		Chlordane...	3.450	0.000	3536	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	91358	267534	102.002m	101.946	
37)		Toxaphene...	7.795	8.813	166085	324070	102.843	98.471	
38)		Toxaphene...	8.106	8.848	332842	494430	98.840	97.553	
39)		Toxaphene...	8.346	8.915	320313	811948	98.857	97.241	
40)		Toxaphene...	8.574	9.091	228960	452209	95.514	97.033	
41)		Toxaphene...	8.641	9.471	302577	452485	95.614	95.256	
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 102.002 ng/mL m

response 91358

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

response 267534

MJB 6/26/19

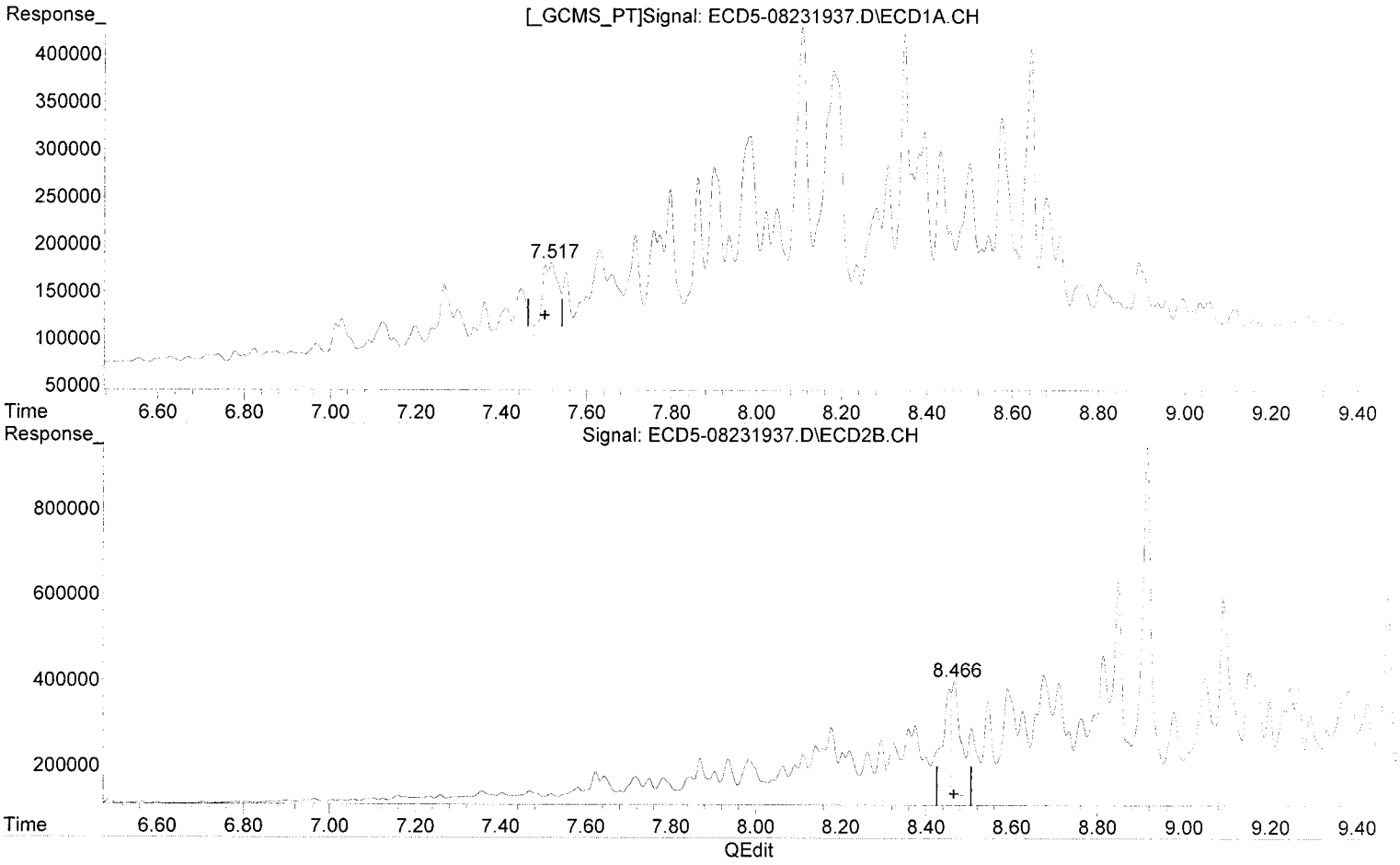
MJB 6/26/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 103.998 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

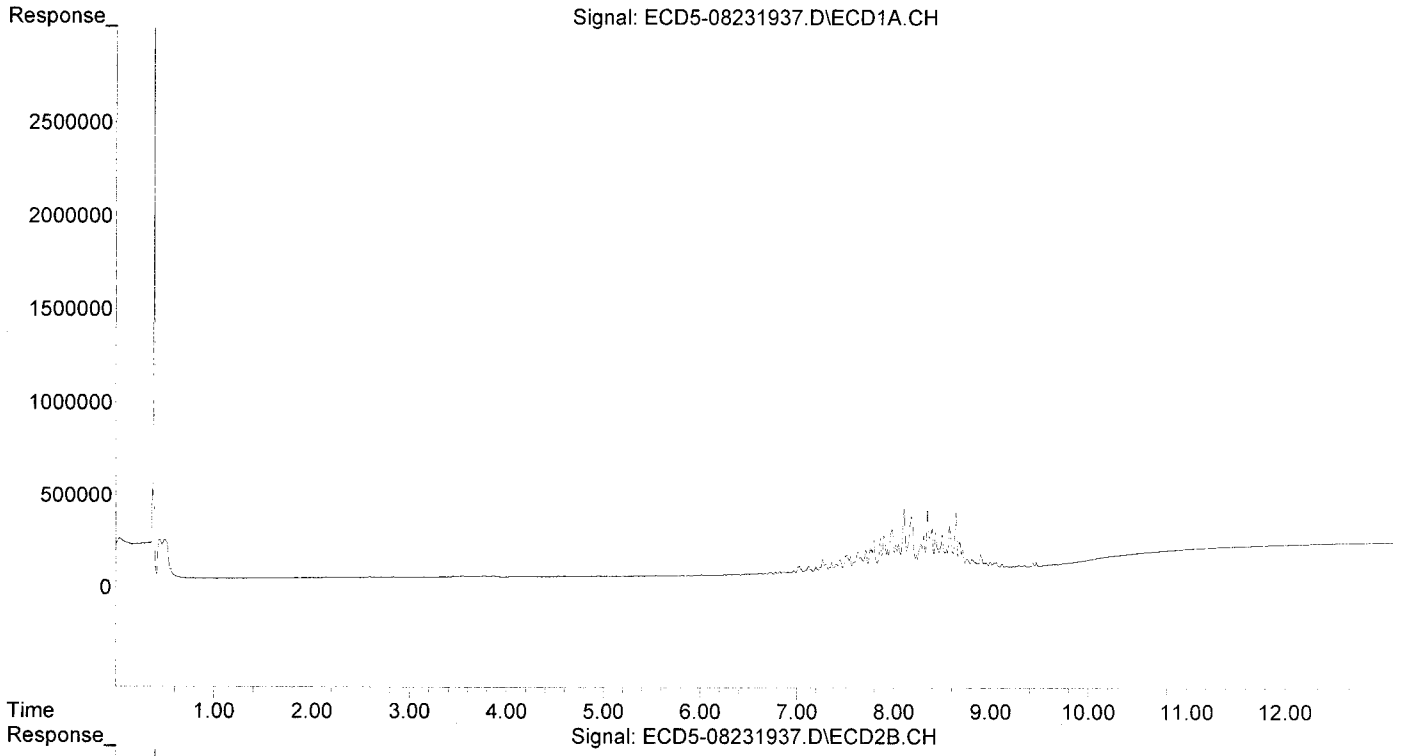
response 267534

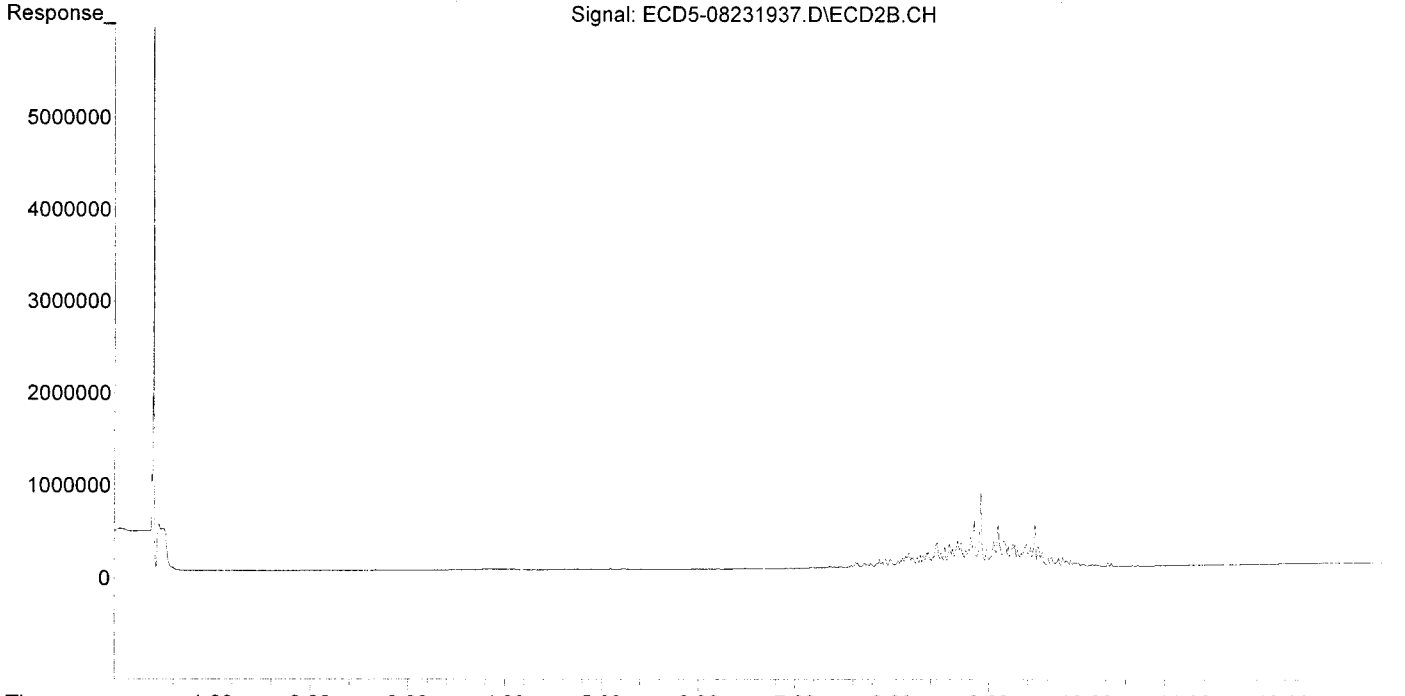
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MWB 8/26/19

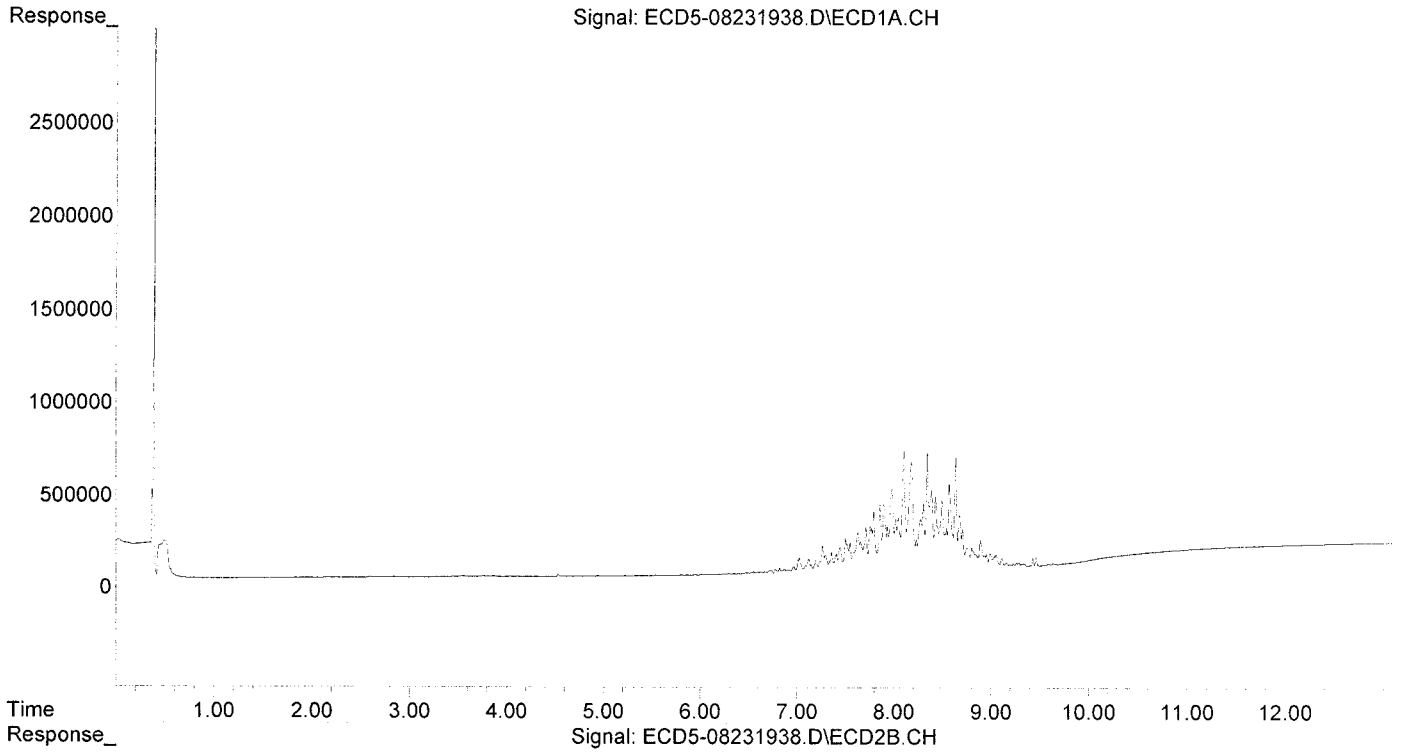
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22) S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
	Target Compounds							
2)	a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)	g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)	b-BHC	6.297	6.965	5553	11866	0.061	0.075	
5)	Heptachlor	6.630	7.292	9834	18991	0.054	0.062	
6)	d-BHC	6.469f	7.232	7279	22404	0.037	0.064	#
7)	Aldrin	6.872	7.582f	20475	52234	0.104	0.159	#
8)	Heptachlo...	7.336	7.984	58943	180203	0.320	0.599	#
9)	trans-Chl...	7.445	8.139	130754	171469	0.707	0.547	
10)	cis-Chlor...	7.502f	8.220	176047	207038	0.967	0.711	
11)	Endosulfa...	7.629	8.294	203563	255143	1.196	0.927	
12)	4,4'-DDE	7.551f	8.358	153844	307212	0.816	0.989	
13)	Dieldrin	7.795	8.506	317587	302159	1.654	0.993	
14)	Endrin	7.934f	8.709	233827	517355	1.590	2.291	#
15)	4,4'-DDD	8.021	8.761	271844	361076	1.730	1.409	
16)	Endosulfa...	8.105	8.847	644464	995555	4.488	4.317	
17)	4,4'-DDT	8.182f	8.976	572615	378347	4.789	2.160	#
18)	Endrin Al...	8.392	9.090	423151	895397	2.609	4.034	#
19)	Endosulfa...	8.709	9.290	207483	368442	1.339	1.479	
20)	Methoxychlor	8.543	9.469	215126	905244	3.673	10.806	#
21)	Endrin Ke...	8.893	9.711f	142657	173912	0.855	0.676	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.811f	6.487f	2563	8587	0.015	0.027	#
25)	Oxychlordane	7.266	7.935	140581	179085	0.854	0.654	
26)	2,4'-DDE	7.336	8.112	58943	198883	0.460	0.938	#
27)	trans-Non...	7.502	8.205	176047	199265	0.666	0.661	
28)	2,4'-DDD	7.713	8.506	232393	302159	2.036	1.600	
29)	2,4'-DDT	7.899	8.709	356627	517355	3.251	2.901	
30)	cis-Nonac...	7.982	8.761	437778	361076	2.109	1.076	#
31)	Mirex	8.640	9.711f	597991	173912	4.770	0.935	#
32)	Chlordane...	7.445	8.139	130754	171469	6.641	4.739	
33)	Chlordane...	7.502	8.220	176047	207038	7.024	6.819	
34)	Chlordane...	8.047f	8.914	280898	1580436	48.589	176.272	#
35)	Chlordane...	3.451	0.000	3919	0	NoCal	N.D.	
36)	Toxaphene...	7.502	8.466	176047	508983	196.559	193.953	
37)	Toxaphene...	7.795	8.812	317587	645322	196.656	196.085	
38)	Toxaphene...	8.105	8.847	644464	995555	191.378	196.427	
39)	Toxaphene...	8.346	8.914	632351	1580436	195.161	189.278	
40)	Toxaphene...	8.574	9.090	454431	895397	189.572	192.130	
41)	Toxaphene...	8.640	9.469	597991	905244	188.964	190.570	
42)	Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.	

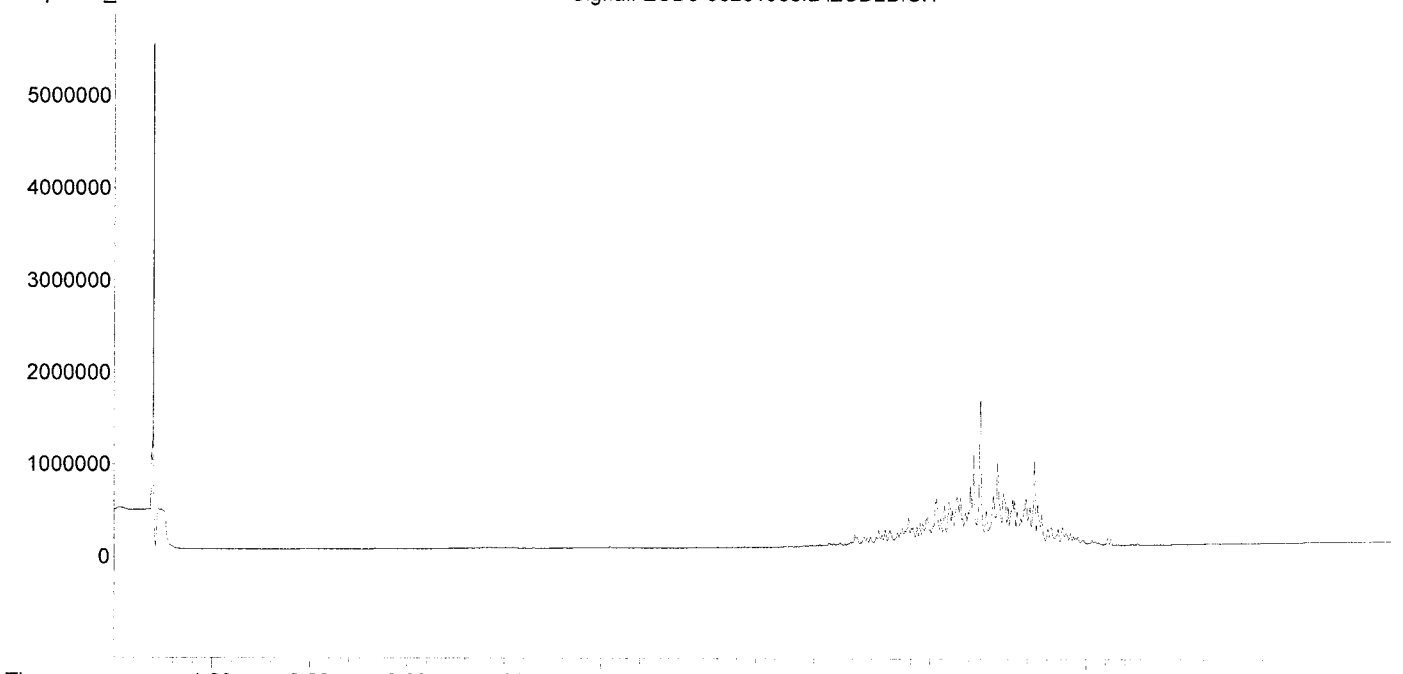
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

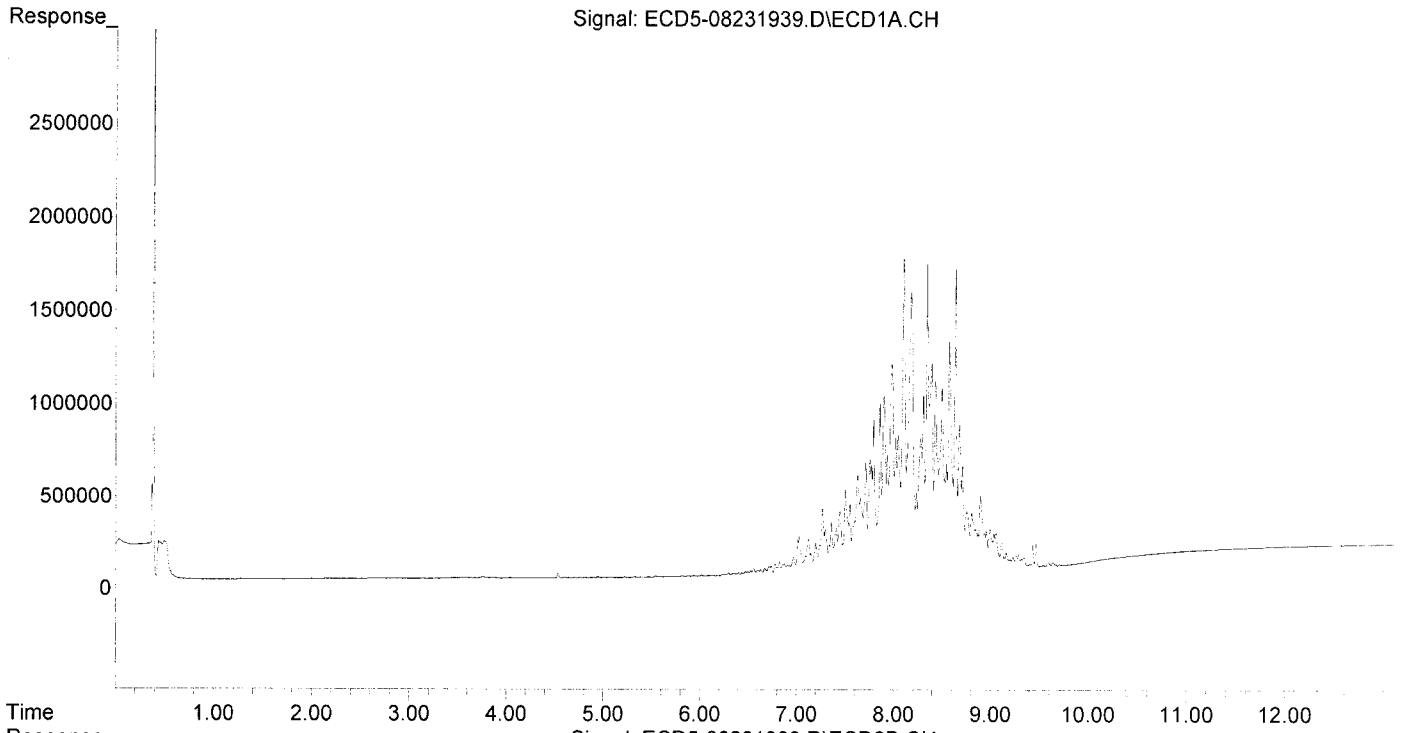
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
		Target Compounds							
2)		a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)		g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)		b-BHC	6.296	6.966	12656	26420	0.140	0.167	
5)		Heptachlor	6.631	7.291	26275	48687	0.145	0.159	
6)		d-BHC	6.434	7.233	12949	50866	0.066	0.144	#
7)		Aldrin	6.871	7.582f	54986	128738	0.278	0.391	#
8)		Heptachlo...	7.337	7.985	148782	431601	0.808	1.435	#
9)		trans-Chl...	7.445	8.136	326510	348418	1.766	1.112	
10)		cis-Chlor...	7.502f	8.220	441826	492762	2.427	1.692	
11)		Endosulfa...	7.629	8.295	523361	619890	3.075	2.253	
12)		4,4'-DDE	7.551f	8.358	370244	790371	1.964	2.544	
13)		Dieldrin	7.794	8.506	819454	752423	4.268	2.474	#
14)		Endrin	7.934f	8.711	624315	1366705	4.246	6.052	#
15)		4,4'-DDD	8.021	8.761	715456	940917	4.553	3.672	
16)		Endosulfa...	8.105	8.848	1677481	2475022	11.681	10.733	
17)		4,4'-DDT	8.182f	8.977	1480674	1000646	12.384	5.736	#
18)		Endrin Al...	8.392	9.091	1117641	2340668	8.532	11.800	
19)		Endosulfa...	8.709	9.290	555797	952729	3.586	3.825	
20)		Methoxychlor	8.574f	9.470	1221560	2369795	20.855	27.582	
21)		Endrin Ke...	8.894	9.711f	386326	477017	2.317	1.854	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.814f	6.461	4241	6767	0.024	0.022	
25)		Oxychlordane	7.265	7.936	350487	422818	2.130	1.544	
26)		2,4'-DDE	7.337	8.112	148782	485681	1.160	2.289	#
27)		trans-Non...	7.502	8.205	441826	487255	2.150	1.615	
28)		2,4'-DDD	7.713	8.506	583556	752423	5.113	3.984	
29)		2,4'-DDT	7.899	8.711	935213	1366705	8.526	7.664	
30)		cis-Nonac...	7.981	8.761	1117997	940917	5.385	2.805	#
31)		Mirex	8.640	9.711f	1623402	477017	12.949	2.564	#
32)		Chlordane...	7.408	8.136	238293	348418	12.102	9.629	
33)		Chlordane...	7.502	8.220	441826	492762	17.628	16.228	
34)		Chlordane...	8.046f	8.915	731630	4252640	126.555	474.314	#
35)		Chlordane...	3.450	0.000	4132	0	NoCal	N.D.	
36)		Toxaphene...	7.502	8.466	441826	1308994	493.303	498.805	
37)		Toxaphene...	7.794	8.812	819454	1647741	507.421	500.677	
38)		Toxaphene...	8.105	8.848	1677481	2475022	498.140	488.332	
39)		Toxaphene...	8.346	8.915	1649569	4252640	509.102	509.308	
40)		Toxaphene...	8.574	9.091	1221560	2340668	509.590	502.251	
41)		Toxaphene...	8.640	9.470	1623402	2369795	512.991	498.883	
42)		Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.	

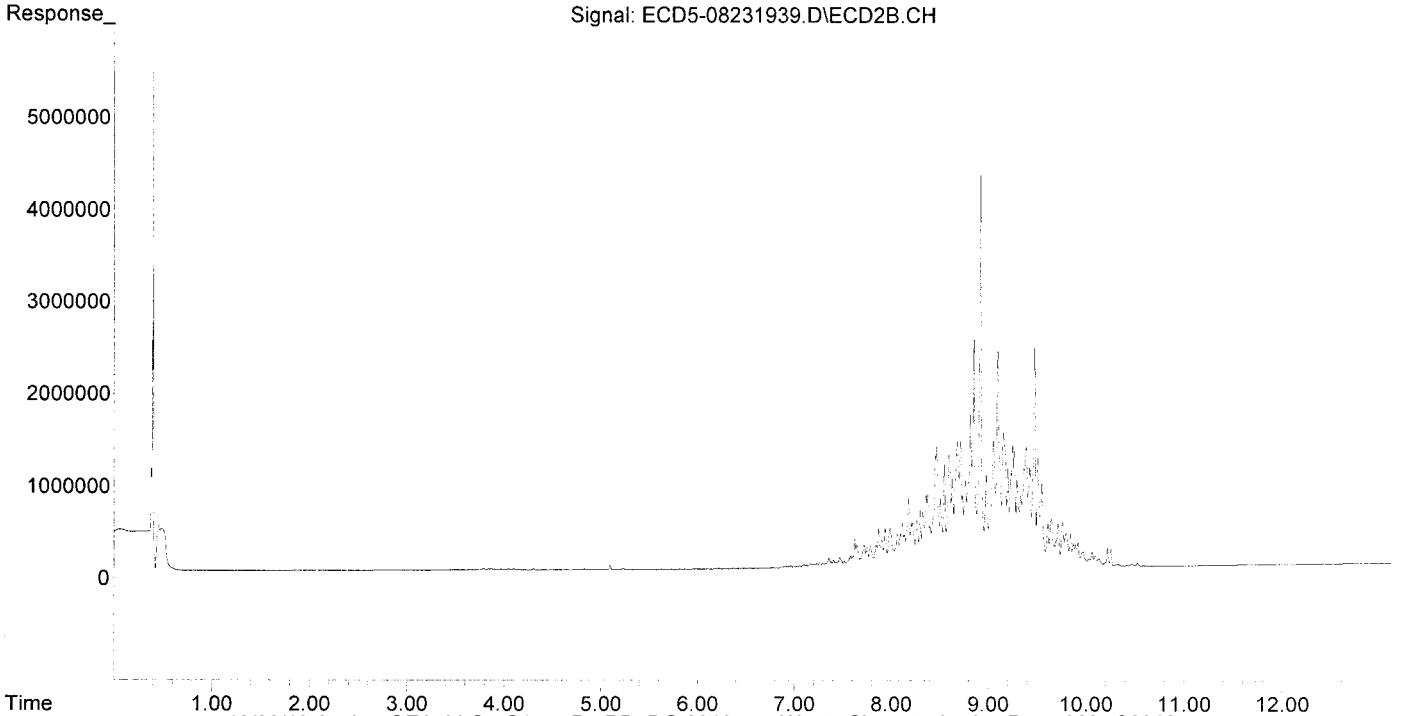
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

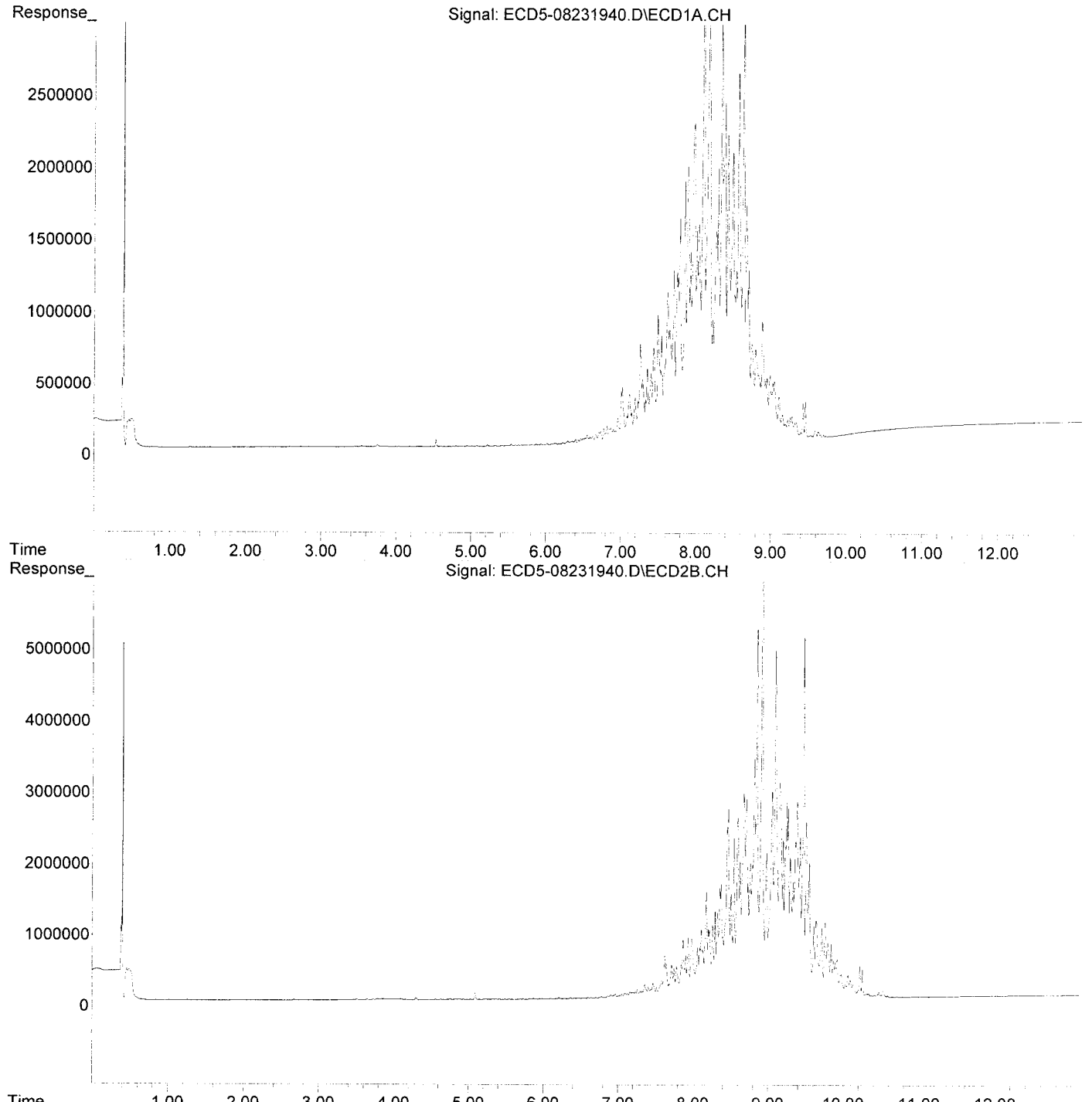
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S	DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
		Target Compounds							
2)		a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)		g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
4)		b-BHC	6.296	6.967	24041	58985	0.266	0.373	#
5)		Heptachlor	6.632	7.293	48435	95609	0.267	0.312	
6)		d-BHC	6.434	7.233	28416	100471	0.144	0.285	#
7)		Aldrin	6.871	7.551	108360	147580	0.549	0.448	
8)		Heptachlo...	7.336	7.985	294905	840940	1.601	2.795	#
9)		trans-Chl...	7.445	8.111f	659823	964498	3.569	3.078	
10)		cis-Chlor...	7.501f	8.220	871889	947518	4.789	3.253	
11)		Endosulfa...	7.628	8.295	1038833	1226540	6.104	4.457	
12)		4,4'-DDE	7.550f	8.358	746675	1543581	3.961	4.968	
13)		Dieldrin	7.793	8.506	1556013	1462579	8.105	4.809	#
14)		Endrin	7.933f	8.711	1312768	2786774	8.929	12.340	
15)		4,4'-DDD	8.020	8.762	1452045	1895471	9.240	7.398	
16)		Endosulfa...	8.105	8.848	3495877	5168269	24.343	22.412	
17)		4,4'-DDT	8.183	8.977	2996314	2028436	25.061	11.540	#
18)		Endrin Al...	8.391	9.091	2338006	4900430	18.826	25.221	
19)		Endosulfa...	8.709	9.291	1188299	2002950	7.668	8.041	
20)		Methoxychlor	8.543	9.470	1177404	5046645	20.101	55.668	#
21)		Endrin Ke...	8.893	9.712f	829327	990858	4.973	3.851	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.745f	6.463	2404	9221	0.014	0.029	#
25)		Oxychlordane	7.265	7.936	684836	845822	4.162	3.088	
26)		2,4'-DDE	7.336	8.111	294905	964498	2.299	4.547	#
27)		trans-Non...	7.501	8.204	871889	963521	4.550	3.194	
28)		2,4'-DDD	7.712	8.506	1203385	1462579	10.544	7.744	
29)		2,4'-DDT	7.898	8.711	1885482	2786774	17.190	15.626	
30)		cis-Nonac...	7.981	8.762	2207076	1895471	10.631	5.651	#
31)		Mirex	8.640	9.712f	3406737	990858	27.174	5.325	#
32)		Chlordane...	7.445	8.111	659823	964498	33.511	26.655	
33)		Chlordane...	7.501	8.220	871889	947518	34.786	31.205	
34)		Chlordane...	8.045f	8.915	1508434	8650068	260.924	964.776	#
35)		Chlordane...	3.451	0.000	2687	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.467	871889	2654886	973.473	1011.671	
37)		Toxaphene...	7.793	8.813	1556013	3384036	963.512	1028.262	
38)		Toxaphene...	8.105	8.848	3495877	5168269	1038.126	1019.721	
39)		Toxaphene...	8.345	8.915	3287014	8650068	1014.463	1035.957	
40)		Toxaphene...	8.573	9.091	2546293	4900430	1062.220	1051.514	
41)		Toxaphene...	8.640	9.470	3406737	5046645	1076.520	1062.406	
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

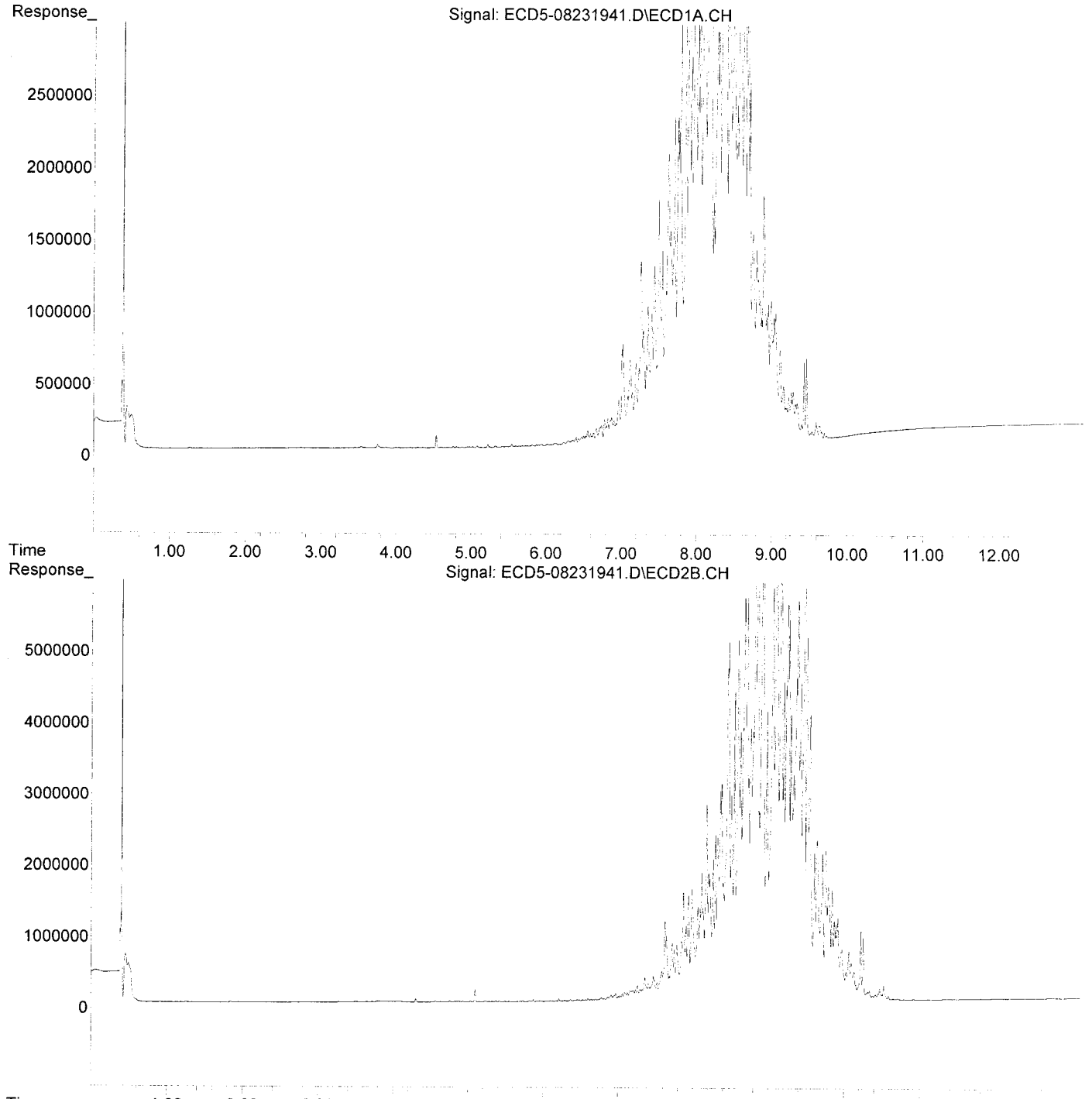
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
4)		b-BHC	6.295	6.967	35592	107682	0.394	0.680	#
5)		Heptachlor	6.633	7.293	79787	161818	0.440	0.529	
6)		d-BHC	6.433	7.233	46116	159995	0.234	0.454	#
7)		Aldrin	6.871	7.581f	182635	424827	0.925	1.290	
8)		Heptachlo...	7.357f	7.984	952857	1568607	5.174	5.214	
9)		trans-Chl...	7.444	8.111f	1223688	1798529	6.618	5.740	
10)		cis-Chlor...	7.500f	8.218f	1674674	1710240	9.198	5.872	
11)		Endosulfa...	7.627	8.294	1999949	2341198	11.752	8.508	
12)		4,4'-DDE	7.549f	8.357	1335034	2938735	7.081	9.459	
13)		Dieldrin	7.792	8.505	2958997	2895788	15.413	9.521	
14)		Endrin	7.981f	8.711	4441487	5651216	30.209	25.025	
15)		4,4'-DDD	8.020	8.761	2883315	3832878	18.349	14.960	
16)		Endosulfa...	8.104	8.848	6831460	10545708	47.569	45.730	
17)		4,4'-DDT	8.183	8.977	5897786	4051156	49.329	22.612	#
18)		Endrin Al...	8.391	9.091	4718611	9435236	38.506	48.051	
19)		Endosulfa...	8.708	9.291	2483005	4046643	16.022	16.246	
20)		Methoxychlor	8.542	9.471	2322878	10090951	39.657	102.111	#
21)		Endrin Ke...	8.893	9.712f	1725359	2080010	10.346	8.083	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.744f	6.462	3614	25550	0.021	0.081	#
25)		Oxychlordane	7.264	7.935	1262060	1485955	7.670	5.425	
26)		2,4'-DDE	7.357f	8.111	952857	1798529	7.429	8.478	
27)		trans-Non...	7.500	8.204	1674674	1791431	9.032	5.939	
28)		2,4'-DDD	7.712	8.505	2255144	2895788	19.760	15.333	
29)		2,4'-DDT	7.898	8.711	3633258	5651216	33.124	31.688	
30)		cis-Nonac...	7.981	8.761	4441487	3832878	21.393	11.426	#
31)		Mirex	8.640	9.712f	6510950	2080010	51.935	11.178	#
32)		Chlordane...	7.444	8.111	1223688	1798529	62.149	49.704	
33)		Chlordane...	7.500	8.218	1674674	1710240	66.815	56.324	
34)		Chlordane...	8.044f	8.914	2935856	17190037	507.835	1917.273	#
35)		Chlordane...	3.452	0.000	4166	0	NoCal	N.D.	
36)		Toxaphene...	7.500	8.466	1674674	5030917	1869.791	1917.082	
37)		Toxaphene...	7.792	8.813	2958997	6610397	1832.266	2008.613	
38)		Toxaphene...	8.104	8.848	6831460	10545708	2028.651	2080.712	
39)		Toxaphene...	8.345	8.914	6407070	17190037	1977.398	2058.728	
40)		Toxaphene...	8.572	9.091	5074570	9435236	2116.925	2024.573	
41)		Toxaphene...	8.640	9.471	6510950	10090951	2057.443	2124.320	
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence Name: C:\msdchem\4\sequence\9H23034.s
Comment: Pesticides
Operator: MJB
Data Path: C:\MSDCHEM\4\DATA\2019-08\9H23034\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231901
	Method		ECD5_AQUPEST_160111
2)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231902
	Method		ECD5_AQUPEST_160111
3)	Sample	1	Hexane
	Datafile		ECD5-08231903
	Method		ECD5_AQUPEST_160111
4)	Sample	2	9H23034-BKD1
	Datafile		ECD5-08231904
	Method		ECD5_AQUPEST_160111
5)	Sample	1	Hexane
	Datafile		ECD5-08231905
	Method		ECD5_AQUPEST_160111
6)	Sample	2	9H23034-BKD2
	Datafile		ECD5-08231906
	Method		ECD5_AQUPEST_160111
7)	Sample	3	9H23034-ICB1
	Datafile		ECD5-08231907
	Method		ECD5_AQUPEST_160111
8)	Sample	4	9H23034-CAL1
	Datafile		ECD5-08231908
	Method		ECD5_AQUPEST_160111
9)	Sample	5	9H23034-CAL2
	Datafile		ECD5-08231909
	Method		ECD5_AQUPEST_160111
10)	Sample	6	9H23034-CAL3
	Datafile		ECD5-08231910
	Method		ECD5_AQUPEST_160111
11)	Sample	7	9H23034-CAL4
	Datafile		ECD5-08231911
	Method		ECD5_AQUPEST_160111
12)	Sample	8	9H23034-CAL5
	Datafile		ECD5-08231912
	Method		ECD5_AQUPEST_160111
13)	Sample	9	9H23034-CAL6
	Datafile		ECD5-08231913
	Method		ECD5_AQUPEST_160111
14)	Sample	10	9H23034-CAL7
	Datafile		ECD5-08231914
	Method		ECD5_AQUPEST_160111
15)	Sample	11	9H23034-CAL8
	Datafile		ECD5-08231915
	Method		ECD5_AQUPEST_160111
16)	Sample	1	9H23034-IBL1
	Datafile		ECD5-08231916
	Method		ECD5_AQUPEST_160111
17)	Sample	12	9H23034-ICV1
	Datafile		ECD5-08231917
	Method		ECD5_AQUPEST_160111
18)	Sample	13	9H23034-CAL9
	Datafile		ECD5-08231918
	Method		ECD5_AQUPEST_160111
19)	Sample	14	9H23034-CALA
	Datafile		ECD5-08231919
	Method		ECD5_AQUPEST_160111
20)	Sample	15	9H23034-CALB

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	Datafile		ECD5-08231920
	Method		ECD5_AQUPEST_160111
21)	Sample	16	9H23034-CALC
	Datafile		ECD5-08231921
	Method		ECD5_AQUPEST_160111
22)	Sample	17	9H23034-CALD
	Datafile		ECD5-08231922
	Method		ECD5_AQUPEST_160111
23)	Sample	18	9H23034-CALE
	Datafile		ECD5-08231923
	Method		ECD5_AQUPEST_160111
24)	Sample	19	9H23034-CALF
	Datafile		ECD5-08231924
	Method		ECD5_AQUPEST_160111
25)	Sample	20	9H23034-CALG
	Datafile		ECD5-08231925
	Method		ECD5_AQUPEST_160111
26)	Sample	1	9H23034-IBL2
	Datafile		ECD5-08231926
	Method		ECD5_AQUPEST_160111
27)	Sample	21	9H23034-ICV2
	Datafile		ECD5-08231927
	Method		ECD5_AQUPEST_160111
28)	Sample	22	9H23034-CALH
	Datafile		ECD5-08231928
	Method		ECD5_AQUPEST_160111
29)	Sample	23	9H23034-CALI
	Datafile		ECD5-08231929
	Method		ECD5_AQUPEST_160111
30)	Sample	24	9H23034-CALJ
	Datafile		ECD5-08231930
	Method		ECD5_AQUPEST_160111
31)	Sample	25	9H23034-CALK
	Datafile		ECD5-08231931
	Method		ECD5_AQUPEST_160111
32)	Sample	26	9H23034-CALL
	Datafile		ECD5-08231932
	Method		ECD5_AQUPEST_160111
33)	Sample	27	9H23034-CALM
	Datafile		ECD5-08231933
	Method		ECD5_AQUPEST_160111
34)	Sample	1	9H23034-IBL3
	Datafile		ECD5-08231934
	Method		ECD5_AQUPEST_160111
35)	Sample	28	9H23034-ICV3
	Datafile		ECD5-08231935
	Method		ECD5_AQUPEST_160111
36)	Sample	29	9H23034-CALN
	Datafile		ECD5-08231936
	Method		ECD5_AQUPEST_160111
37)	Sample	30	9H23034-CALO
	Datafile		ECD5-08231937
	Method		ECD5_AQUPEST_160111
38)	Sample	31	9H23034-CALP
	Datafile		ECD5-08231938
	Method		ECD5_AQUPEST_160111
39)	Sample	32	9H23034-CALQ
	Datafile		ECD5-08231939
	Method		ECD5_AQUPEST_160111
40)	Sample	33	9H23034-CALR
	Datafile		ECD5-08231940
	Method		ECD5_AQUPEST_160111
41)	Sample	34	9H23034-CALS
	Datafile		ECD5-08231941
	Method		ECD5_AQUPEST_160111
42)	Sample	1	9H23034-IBL4
	Datafile		ECD5-08231942
	Method		ECD5_AQUPEST_160111
43)	Sample	35	9H23034-ICV4
	Datafile		ECD5-08231943
	Method		ECD5_AQUPEST_160111

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.587	1120444	NoCal	ng/mL
2)	Endrin	7.960	63253664	NoCal	ng/mL
3)	4,4'-DDD	8.007	6621952	NoCal	ng/mL
4)	4,4'-DDT	8.205	107029729	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	4202397	NoCal	ng/mL
6)	Endrin Ketone	8.901	6297738	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.347	1706439	NoCal	ng/mL
9)	Endrin [2C]	8.719	95742281	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.761	11347306	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.102	6529476	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	167003448	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	10363842	NoCal	ng/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

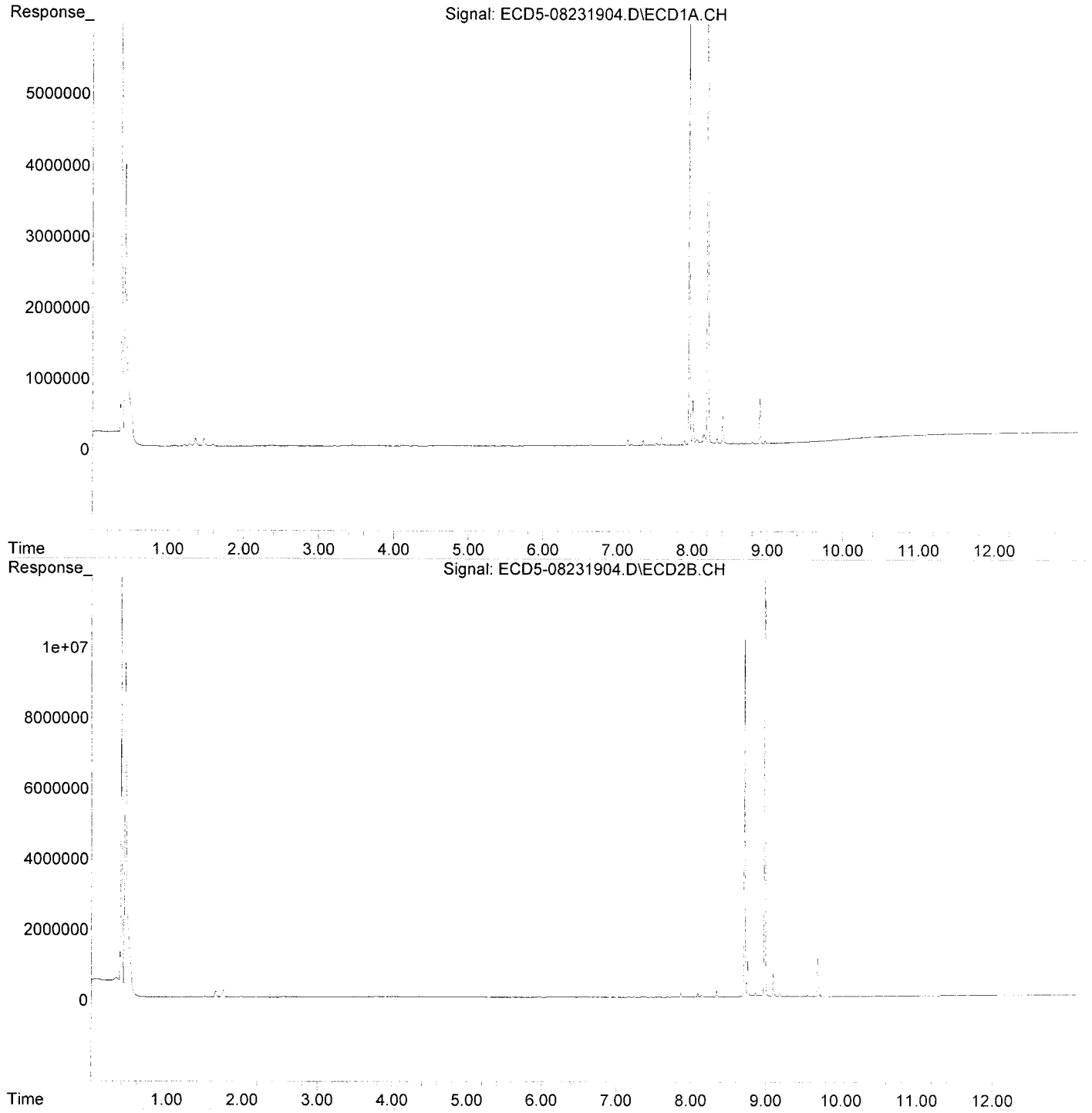
Breakdown passing, but ~~the~~ High. maintenance performed
MJB 8/26/19

MJB 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Pesticide Breakdown Check (Validated 8/8/2013)

Sequence: 9H23034 BKD2
Data File: ECD5-08231906.D

First Column Area Counts		Percent Breakdown	
DDE	734891		
DDD	4530463		
DDT	125149199	**4.04**	**PASS**
Endrin	70846235	**8.91**	**PASS**
Endrin Aldehyde	2399187		
Endrin Ketone	4532548		

Second Column Area Counts		Percent Breakdown	
DDE	977816		
DDD	7819328		
DDT	188765825	**4.45**	**PASS**
Endrin	109289125	**8.73**	**PASS**
Endrin Aldehyde	3703608		
Endrin Ketone	6751447		

Breakdown must be less than 15% to accept sample data.

MJB 9/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.586	734891	NoCal	ng/mL
2)	Endrin	7.960	70846235	NoCal	ng/mL
3)	4,4'-DDD	8.007	4530463	NoCal	ng/mL
4)	4,4'-DDT	8.205	125149199	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	2399187	NoCal	ng/mL
6)	Endrin Ketone	8.902	4532548	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.345	977816	NoCal	ng/mL
9)	Endrin [2C]	8.718	109289125	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.760	7819328	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.101	3703608	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	188765825	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	6751447	NoCal	ng/mL

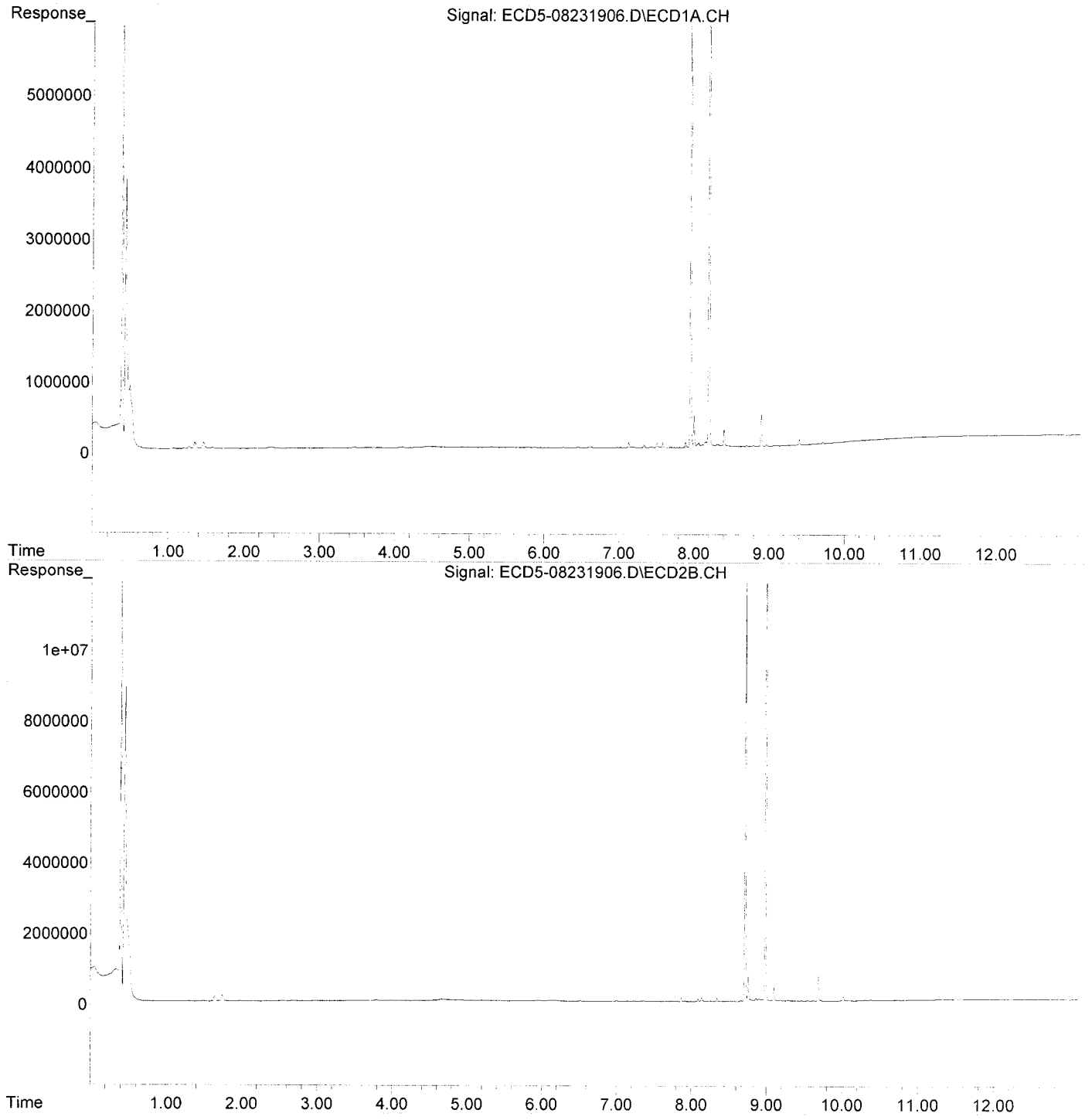
(f)=RT Delta > 1/2 Window (m)=manual int.

Swabbed in IBA w/ Hexane. MWP 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJF 8/26/19

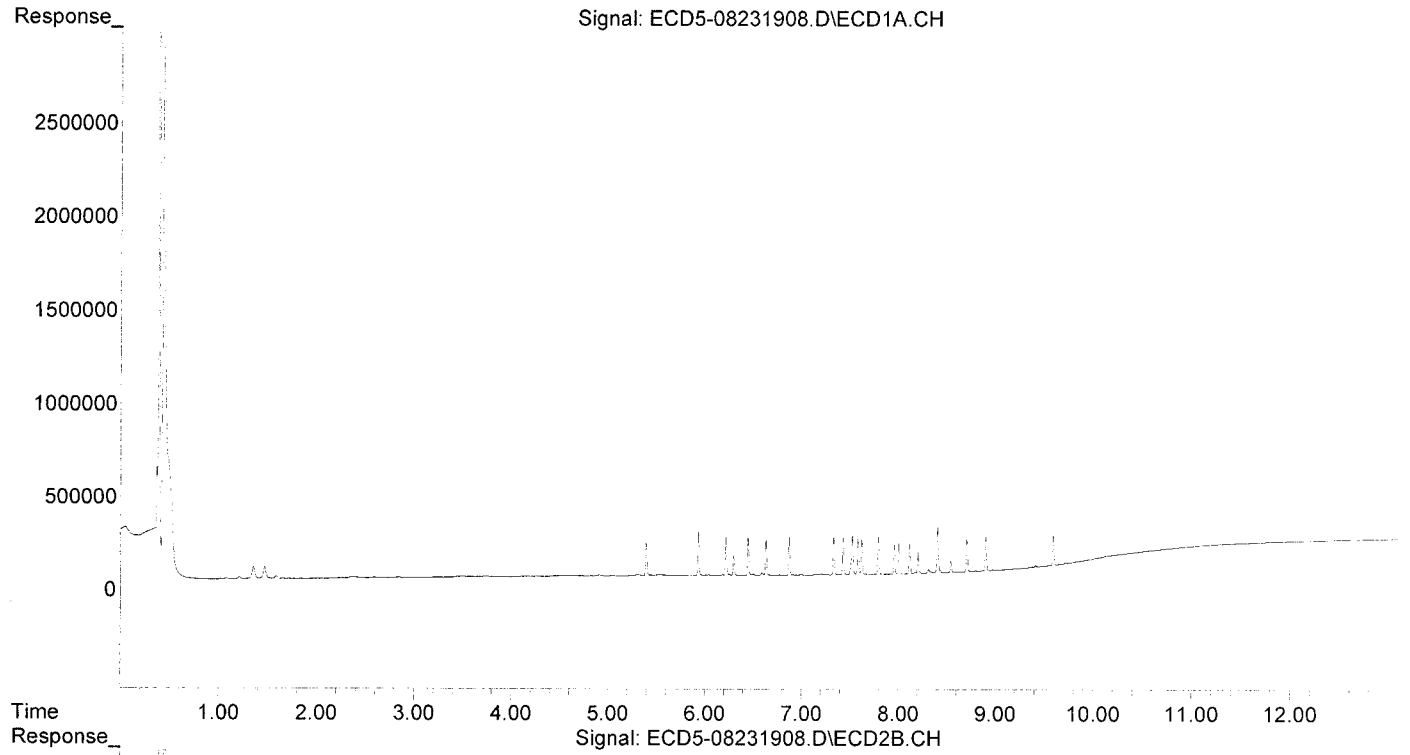
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	1.170
4)		b-BHC	6.300	6.980	104326	176262	1.760	1.450
5)		Heptachlor	6.635	7.292	192066	309811	1.183	1.054
6)		d-BHC	6.450	7.234	199840	349123	1.893	1.474
7)		Aldrin	6.875	7.557	205523	317466	1.221	1.096
8)		Heptachlo...	7.335	7.994	200503	310098	1.276	1.175
9)		trans-Chl...	7.433	8.135	197202	364142	1.276	1.384
10)		cis-Chlor...	7.528	8.241	209780	299422	1.367	1.179
11)		Endosulfa...	7.625	8.291	185217	278874	1.245	1.173
12)		4,4'-DDE	7.586	8.346	193435	298463	1.647	1.374
13)		Dieldrin	7.796	8.491	197721	296684	1.194	1.095
14)		Endrin	7.961	8.718	156412	222882	1.190	1.096
15)		4,4'-DDD	8.007	8.760	164956	251549	1.683	1.281
16)		Endosulfa...	8.118	8.865	158139	232156	1.378	1.183
17)		4,4'-DDT	8.205	8.986	113897	179700	1.686	1.607
18)		Endrin Al...	8.407	9.101	241285	348624	2.337	2.034
19)		Endosulfa...	8.708	9.292	176097	265797	1.418	1.337
20)		Methoxychlor	8.543	9.466	59659	95155	1.698	1.611
21)		Endrin Ke...	8.901	9.690	177552	255763	1.293	1.268
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

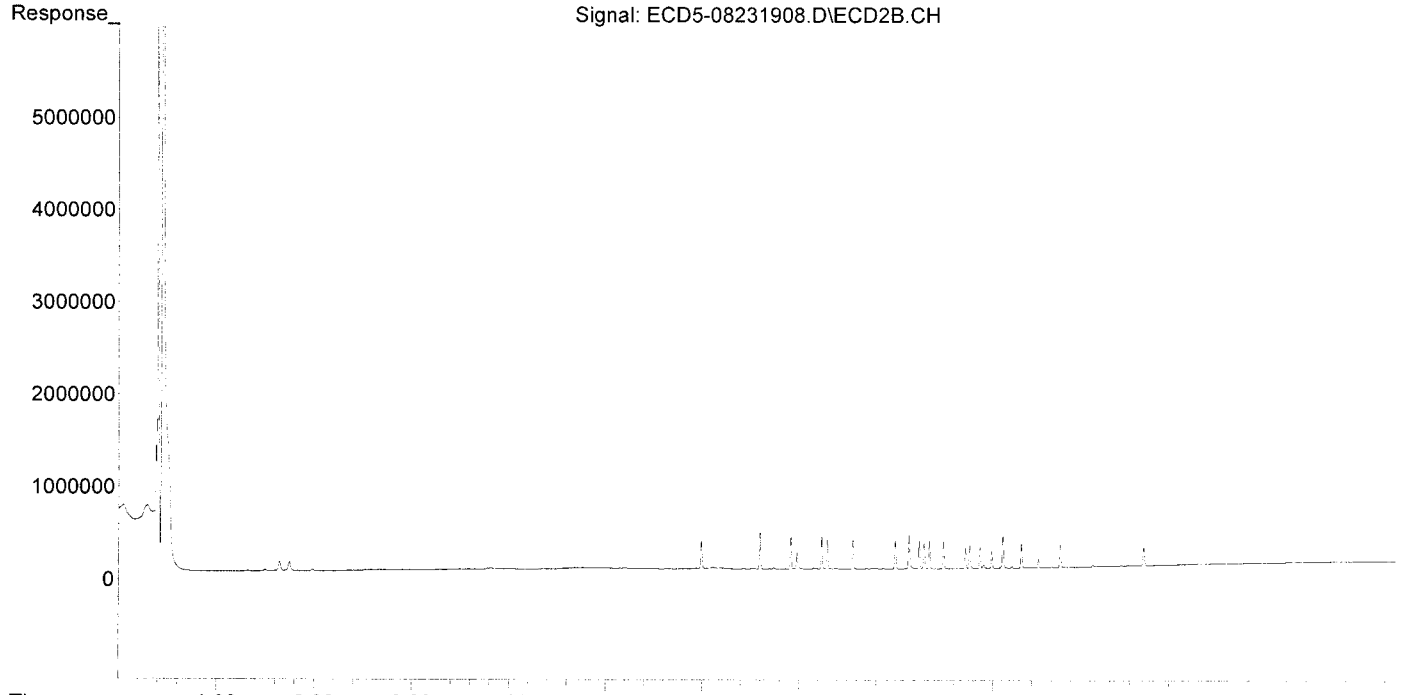
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

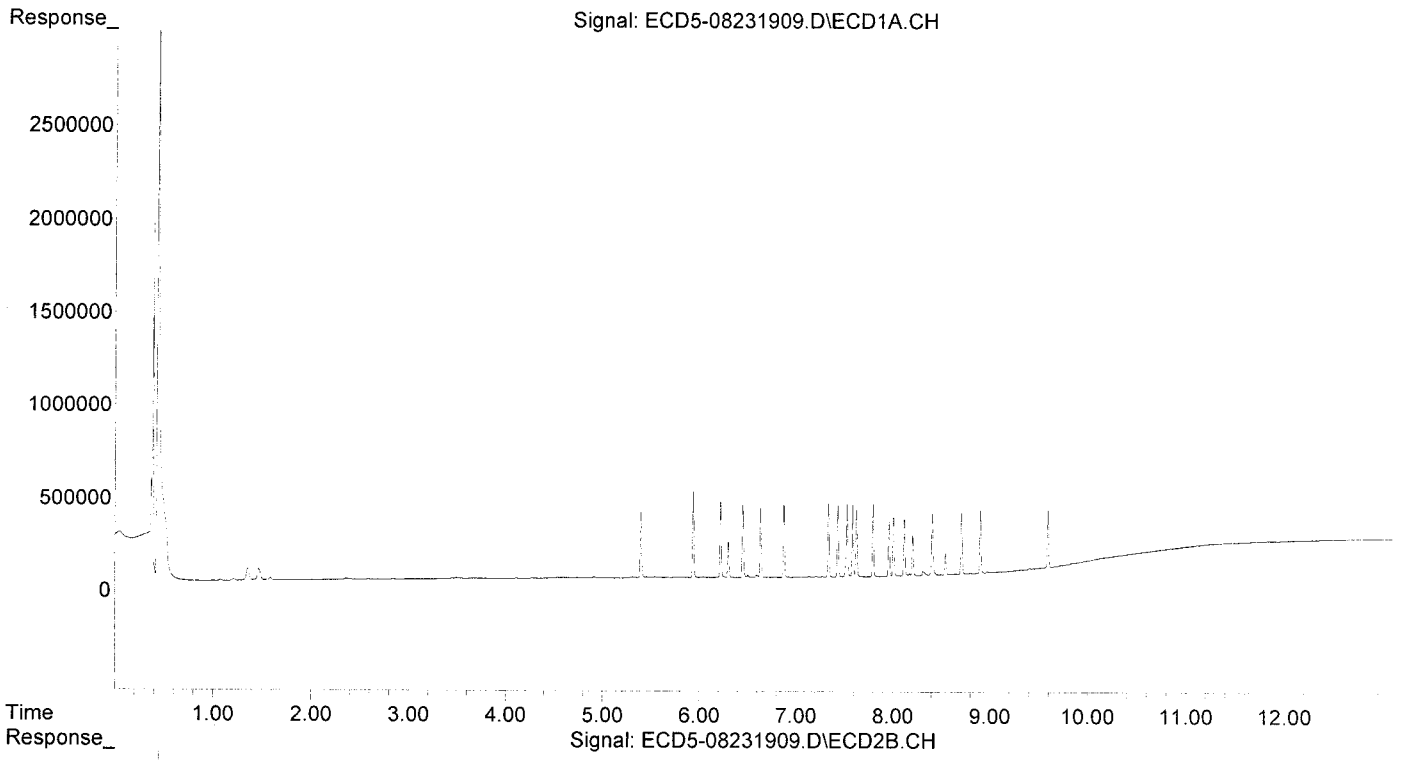
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	2.295
4)		b-BHC	6.300	6.980	194168	335260	3.275	2.757
5)		Heptachlor	6.635	7.291	369615	586765	2.276	1.995
6)		d-BHC	6.450	7.233	386980	669122	3.575	2.783
7)		Aldrin	6.875	7.556	399550	635458	2.375	2.194
8)		Heptachlo...	7.335	7.993	392052	606240	2.495	2.296
9)		trans-Chl...	7.432	8.135	382271	644454	2.473	2.449
10)		cis-Chlor...	7.527	8.241	389999	579667	2.541	2.282
11)		Endosulfa...	7.625	8.291	357368	540442	2.402	2.273
12)		4,4'-DDE	7.586	8.345	388618	598066	3.268	2.709
13)		Dieldrin	7.796	8.491	395728	583812	2.390	2.154
14)		Endrin	7.960	8.718	298515	424889	2.271	2.149
15)		4,4'-DDD	8.006	8.760	314622	488120	3.236	2.486
16)		Endosulfa...	8.118	8.864	299106	462256	2.607	2.355
17)		4,4'-DDT	8.204	8.986	218190	341782	3.052	2.875
18)		Endrin Al...	8.407	9.101	328182	477694	3.179	2.786
19)		Endosulfa...	8.707	9.291	322163	498767	2.595	2.558
20)		Methoxychlor	8.542	9.465	111466	178074	3.136	2.980
21)		Endrin Ke...	8.901	9.689	331269	493110	2.413	2.461
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

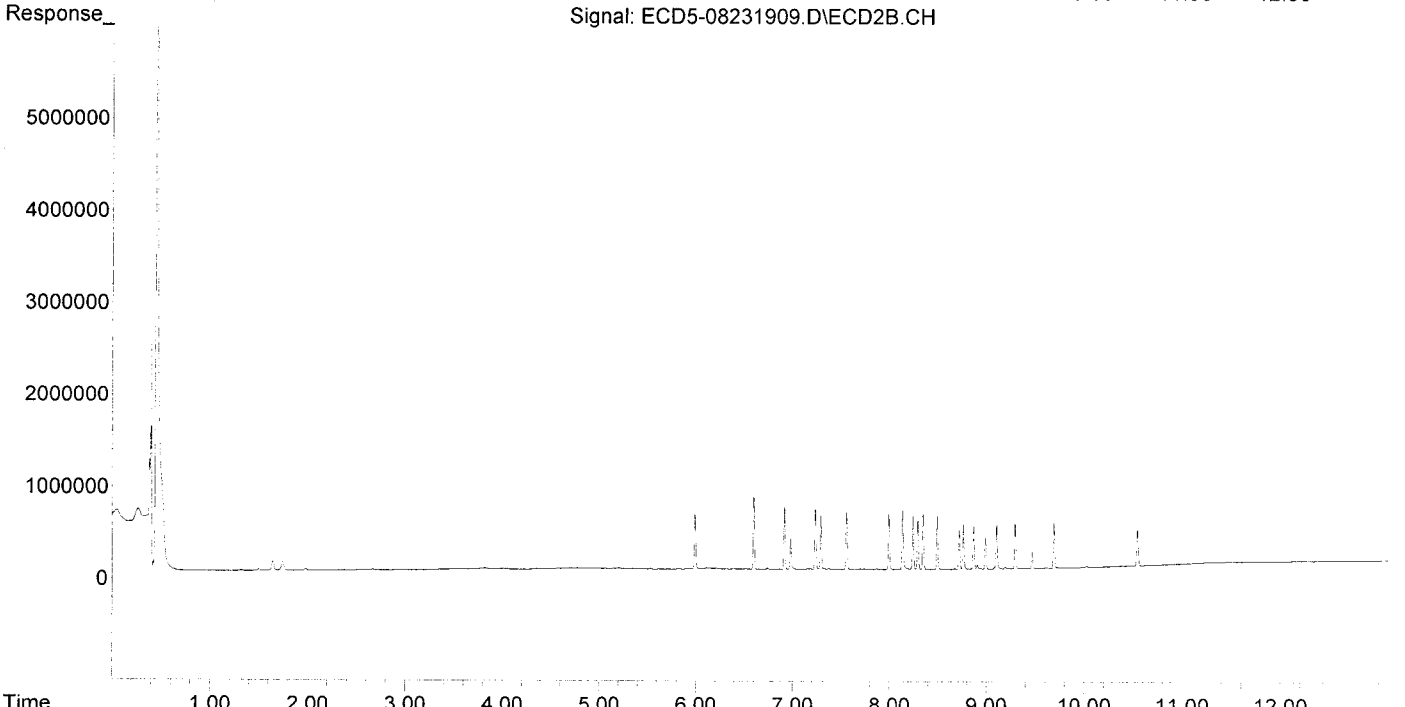
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

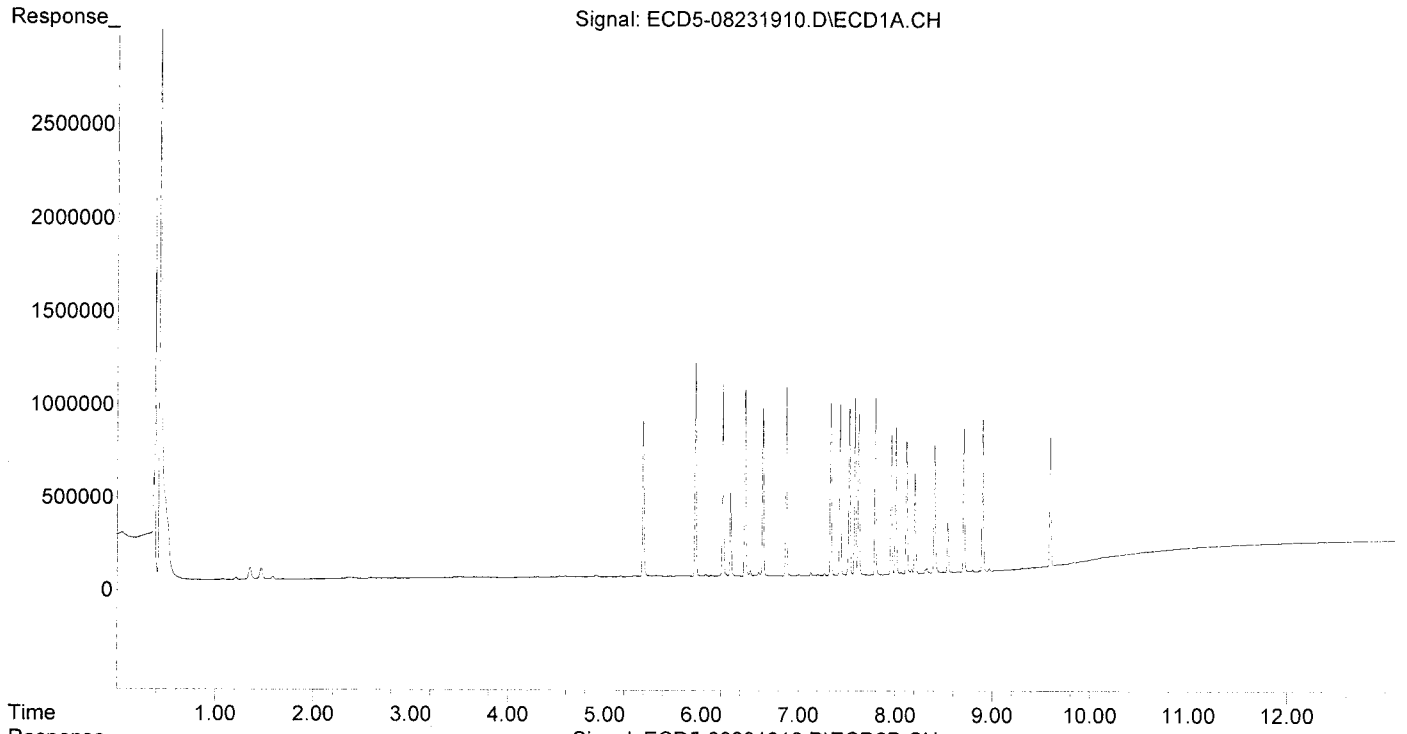
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	6.792	5.790
4)		b-BHC	6.300	6.980	456954	788630	7.708	6.486
5)		Heptachlor	6.635	7.291	899091	1508218	5.537	5.129
6)		d-BHC	6.449	7.233	1004012	1717450	9.061	7.030
7)		Aldrin	6.875	7.556	1012733	1600995	6.019	5.528
8)		Heptachlo...	7.335	7.994	923620	1455941	5.877	5.514
9)		trans-Chl...	7.432	8.134	926577	1502119	5.993	5.707
10)		cis-Chlor...	7.528	8.241	908795	1434855	5.922	5.649
11)		Endosulfa...	7.624	8.290	861509	1327191	5.790	5.583
12)		4,4'-DDE	7.586	8.345	953351	1487999	7.901	6.642
13)		Dieldrin	7.796	8.491	972009	1462538	5.870	5.397
14)		Endrin	7.960	8.718	738953	1092877	5.622	5.608
15)		4,4'-DDD	8.007	8.759	790498	1208642	8.130	6.156
16)		Endosulfa...	8.118	8.865	709544	1096359	6.185	5.586
17)		4,4'-DDT	8.205	8.986	553009	873653	7.371	6.957
18)		Endrin Al...	8.407	9.101	683393	1045869	6.620	6.101
19)		Endosulfa...	8.708	9.291	768798	1175908	6.192	6.083
20)		Methoxychlor	8.542	9.466	270388	413802	7.493	6.808
21)		Endrin Ke...	8.901	9.689	811384	1205004	5.910	6.014
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

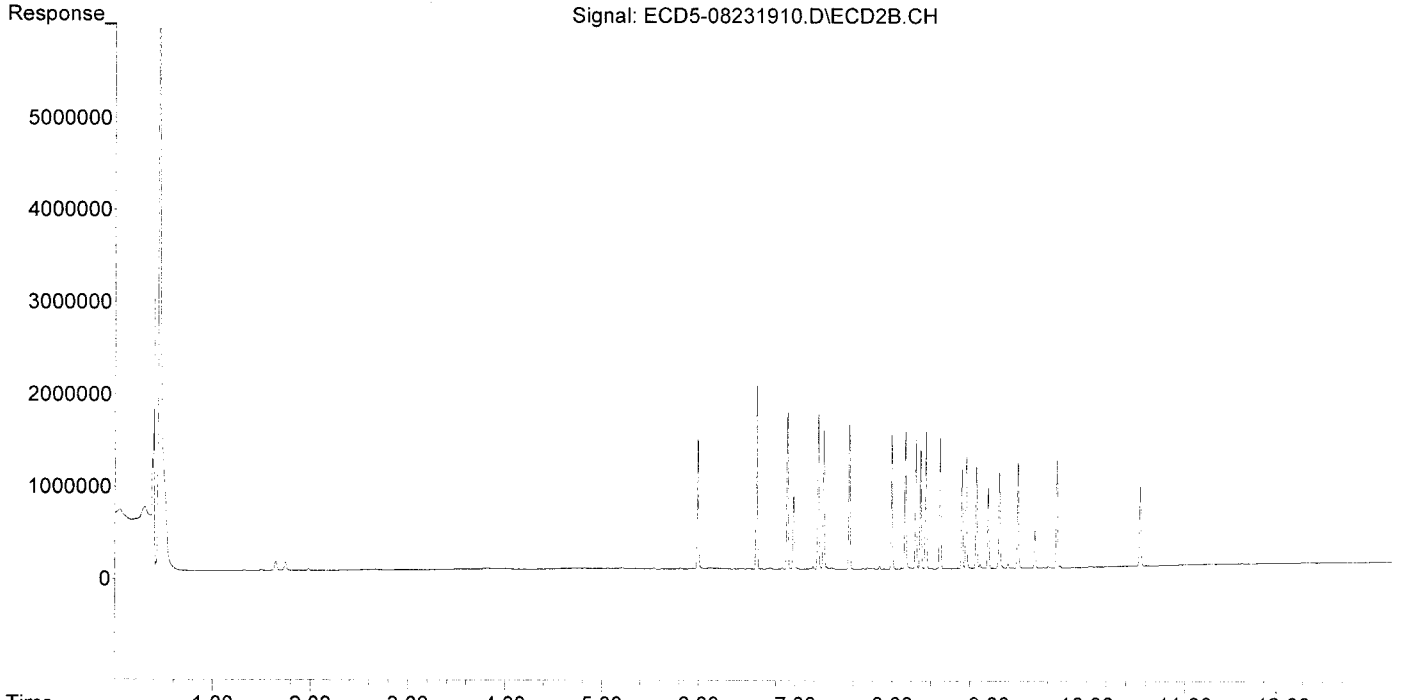
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

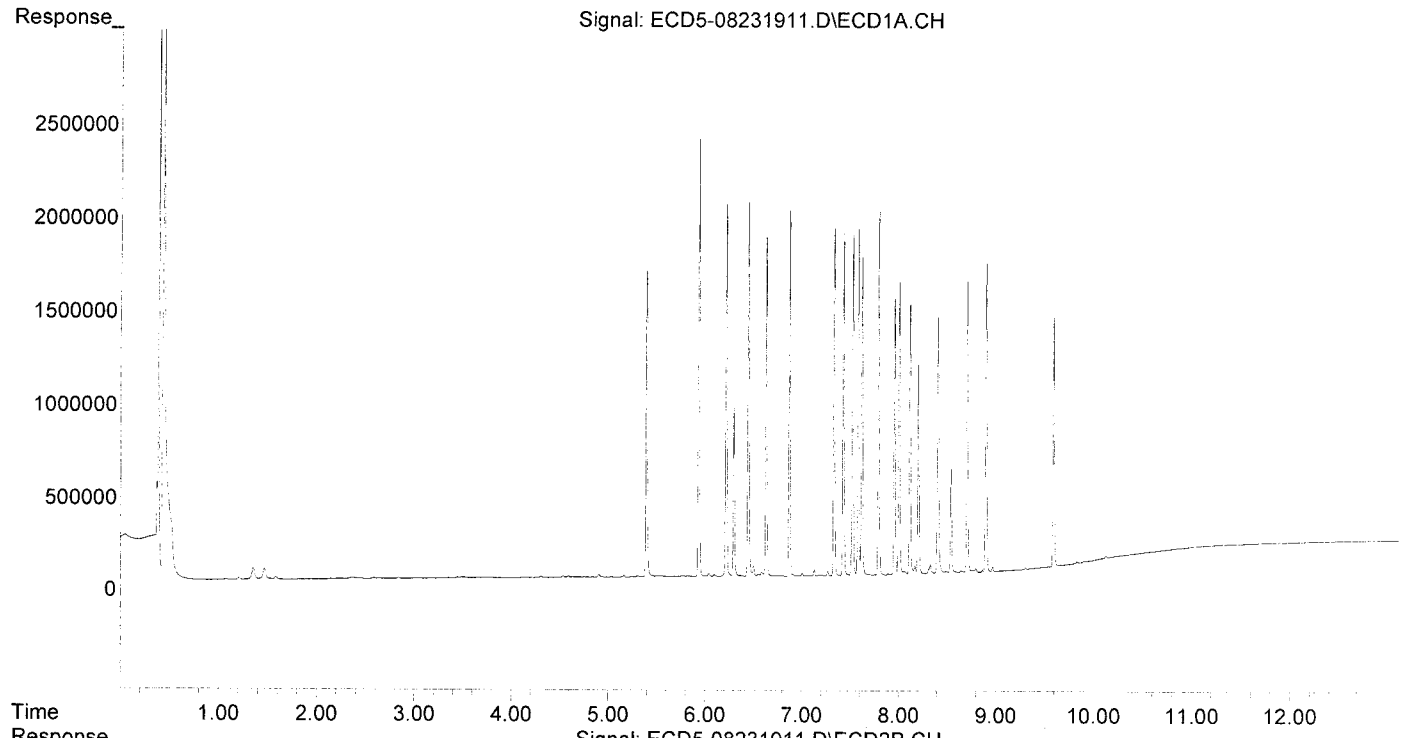
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859	3476733	13.541	11.551
4)		b-BHC	6.299	6.980	910875	1580847	15.365	13.002
5)		Heptachlor	6.634	7.291	1819621	3005915	11.206	10.223
6)		d-BHC	6.449	7.234	2006493	3613517	17.784	14.564
7)		Aldrin	6.875	7.556	2010802	3341093	11.950	11.536
8)		Heptachlo...	7.335	7.994	1865428	2959301	11.869	11.208
9)		trans-Chl...	7.431	8.134	1847996	3002782	11.953	11.409
10)		cis-Chlor...	7.527	8.241	1843346	2859573	12.012	11.257
11)		Endosulfa...	7.623	8.291	1709332	2724272	11.488	11.460
12)		4,4'-DDE	7.585	8.346	1890931	3049792	15.482	13.444
13)		Dieldrin	7.795	8.491	1954890	2898866	11.805	10.697
14)		Endrin	7.960	8.718	1475508	2244483	11.225	11.476
15)		4,4'-DDD	8.006	8.760	1565974	2425496	15.969	12.353
16)		Endosulfa...	8.117	8.864	1448080	2243610	12.623	11.432
17)		4,4'-DDT	8.204	8.987	1146556	1841119	14.788	14.109
18)		Endrin Al...	8.406	9.101	1375129	2125028	13.321	12.396
19)		Endosulfa...	8.707	9.292	1553540	2424584	12.512	12.489
20)		Methoxychlor	8.542	9.465	561706	883069	15.275	14.167
21)		Endrin Ke...	8.900	9.689	1664380	2496985	12.124	12.365
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

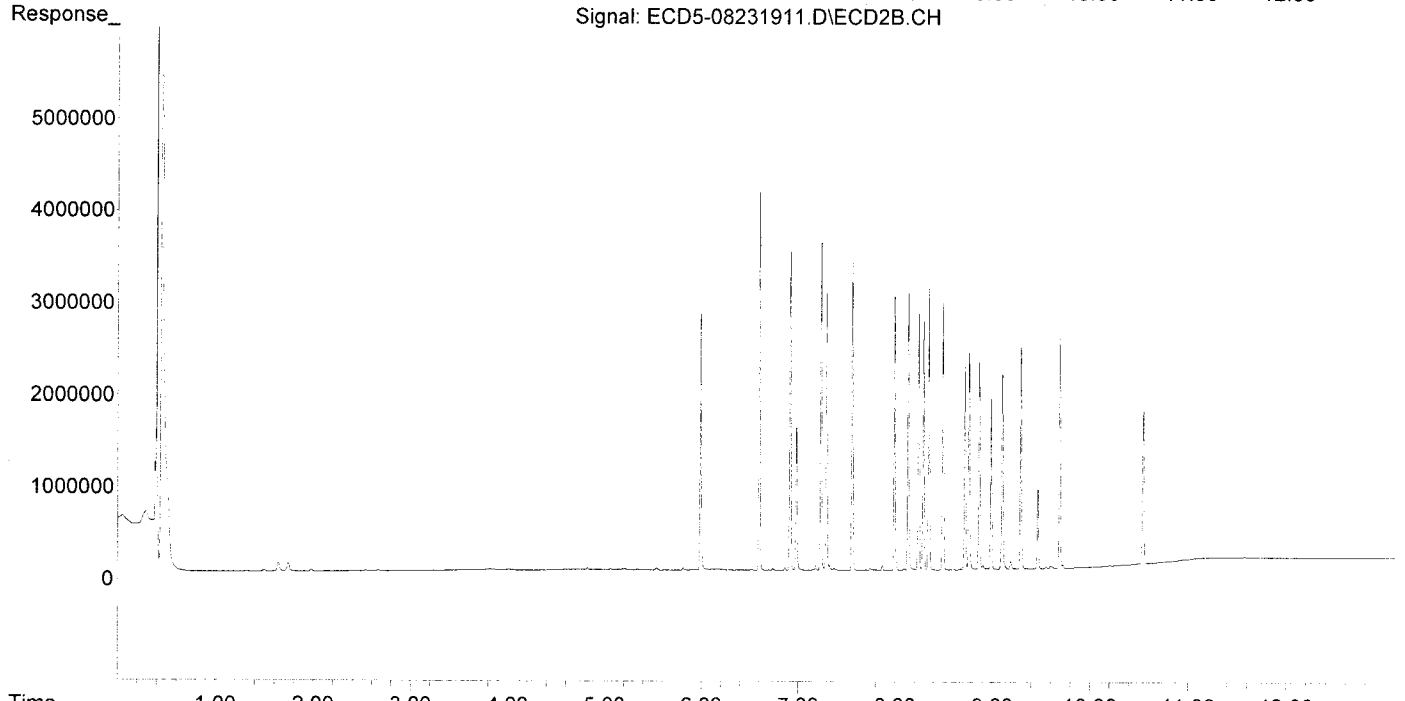
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

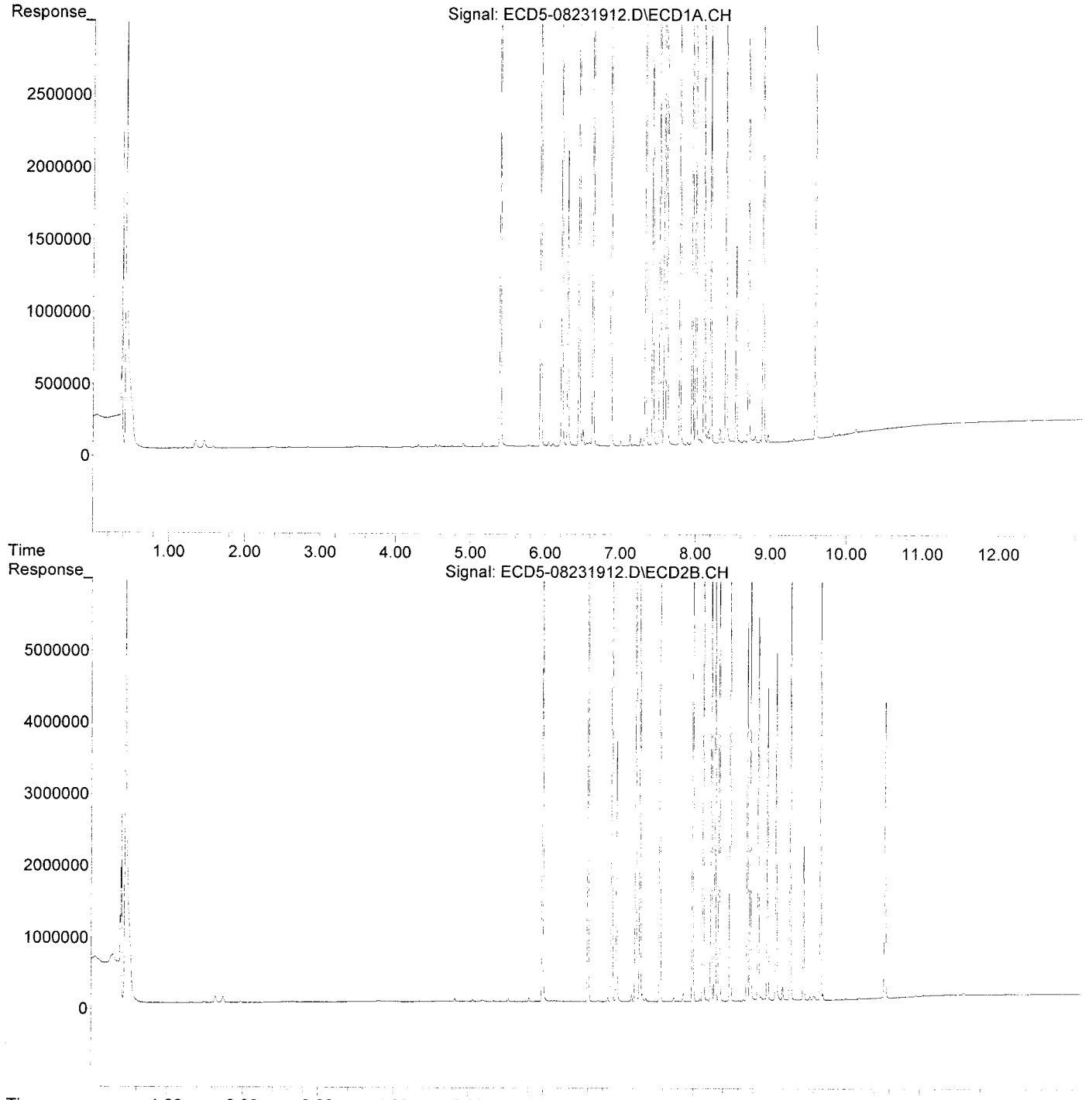
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22) S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	32.445	28.267
4)	b-BHC	6.297	6.978	2060378	3677155	34.755	30.244
5)	Heptachlor	6.633	7.289	4314306	7282282	26.568	24.766
6)	d-BHC	6.447	7.232	4667166	8247775	39.910	32.244
7)	Aldrin	6.873	7.555	4845355	7878574	28.797	27.203
8)	Heptachlo...	7.332	7.992	4344286	7064729	27.642	26.758
9)	trans-Chl...	7.429	8.131	4401456	7157480	28.469	27.194
10)	cis-Chlor...	7.525	8.239	4244413	6935857	27.657	27.304
11)	Endosulfa...	7.621	8.288	4111285	6571512	27.630	27.643
12)	4,4'-DDE	7.583	8.343	4571066	7501047	36.397	32.167
13)	Dieldrin	7.792	8.489	4582306	7333890	27.672	27.063
14)	Endrin	7.957	8.716	3508904	5325883	26.694	26.642
15)	4,4'-DDD	8.004	8.758	3727035	6146469	37.001	31.304
16)	Endosulfa...	8.115	8.862	3371864	5447602	29.393	27.758
17)	4,4'-DDT	8.202	8.984	2924467	4480388	36.460	32.123
18)	Endrin Al...	8.404	9.099	3119767	4848504	30.221	28.282
19)	Endosulfa...	8.705	9.289	3645411	5978906	29.360	30.102
20)	Methoxychlor	8.540	9.463	1390283	2166659	36.145	32.800
21)	Endrin Ke...	8.899	9.688	4008958	5893691	29.202	28.514
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

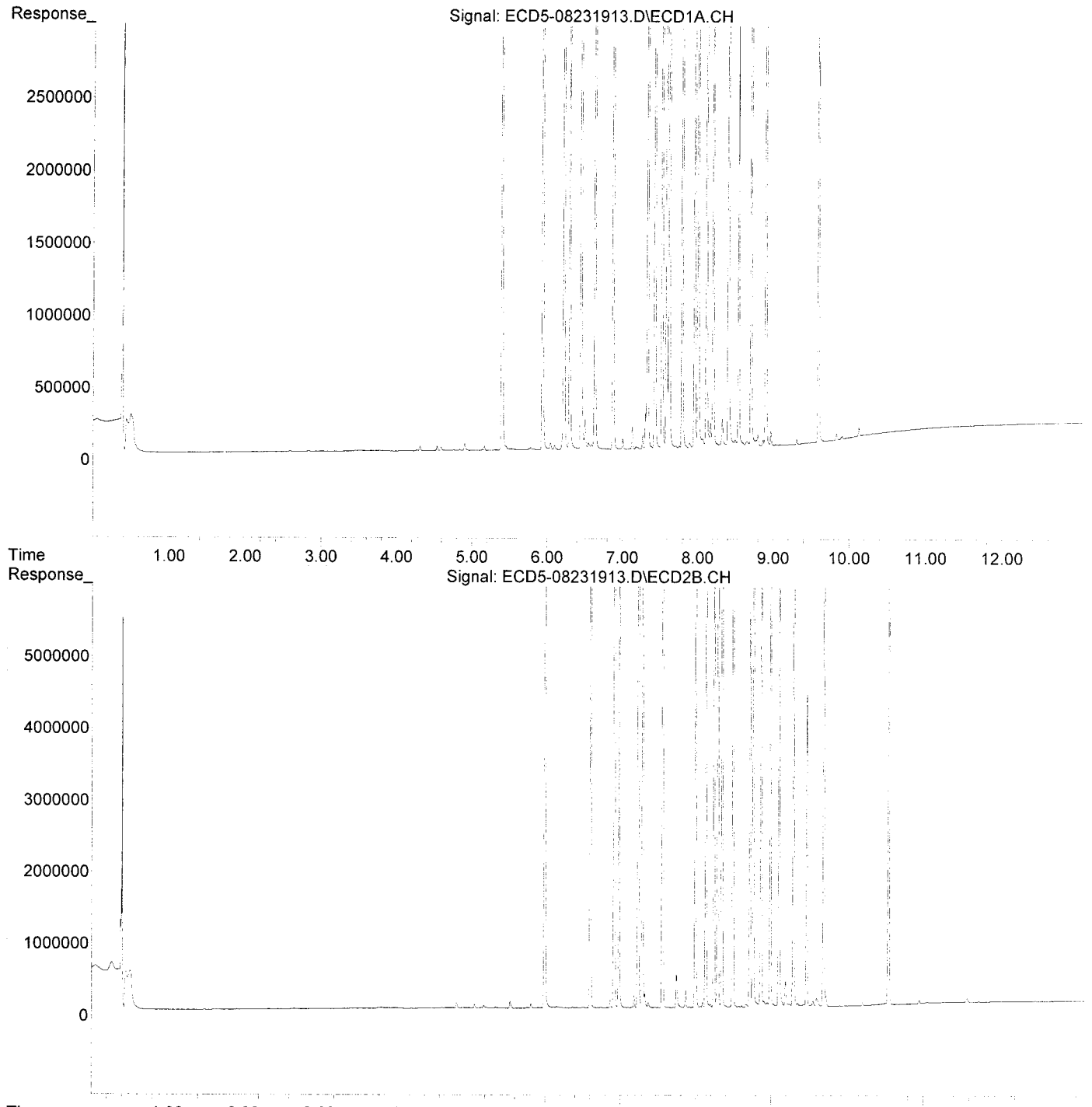
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	17381069	65.120	57.745
4)	b-BHC	6.296	6.978	4100858	7516011	69.174	61.818
5)	Heptachlor	6.632	7.290	8735158	14595143	53.793	49.636
6)	d-BHC	6.447	7.232	9610742	17311258	77.761	64.308
7)	Aldrin	6.873	7.555	9327672	16264416	55.436	56.158
8)	Heptachlo...	7.332	7.992	8869300	14837794	56.434	56.198
9)	trans-Chl...	7.428	8.131	8959305	14678719	57.950	55.771
10)	cis-Chlor...	7.524	8.238	8622674	14002116	56.187	55.122
11)	Endosulfa...	7.621	8.289	7984410	13712329	53.659	57.680
12)	4,4'-DDE	7.583	8.344	9177389	15554706	70.089	63.904
13)	Dieldrin	7.792	8.489	9386664	15434113	56.685	56.955
14)	Endrin	7.957	8.716	6979572	11015379	53.097	52.880
15)	4,4'-DDD	8.004	8.758	7726197	13159451	73.239	67.021
16)	Endosulfa...	8.114	8.863	6840920	11534525	59.632	58.774
17)	4,4'-DDT	8.202	8.985	6205369	9285492	69.085	60.834
18)	Endrin Al...	8.404	9.099	6224451	10209034	60.296	59.551
19)	Endosulfa...	8.705	9.289	7420576	12149289	59.766	58.797
20)	Methoxychlor	8.540	9.464	2860683	4346199	69.570	60.726
21)	Endrin Ke...	8.899	9.687	8190707	12954568	59.663	59.905
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

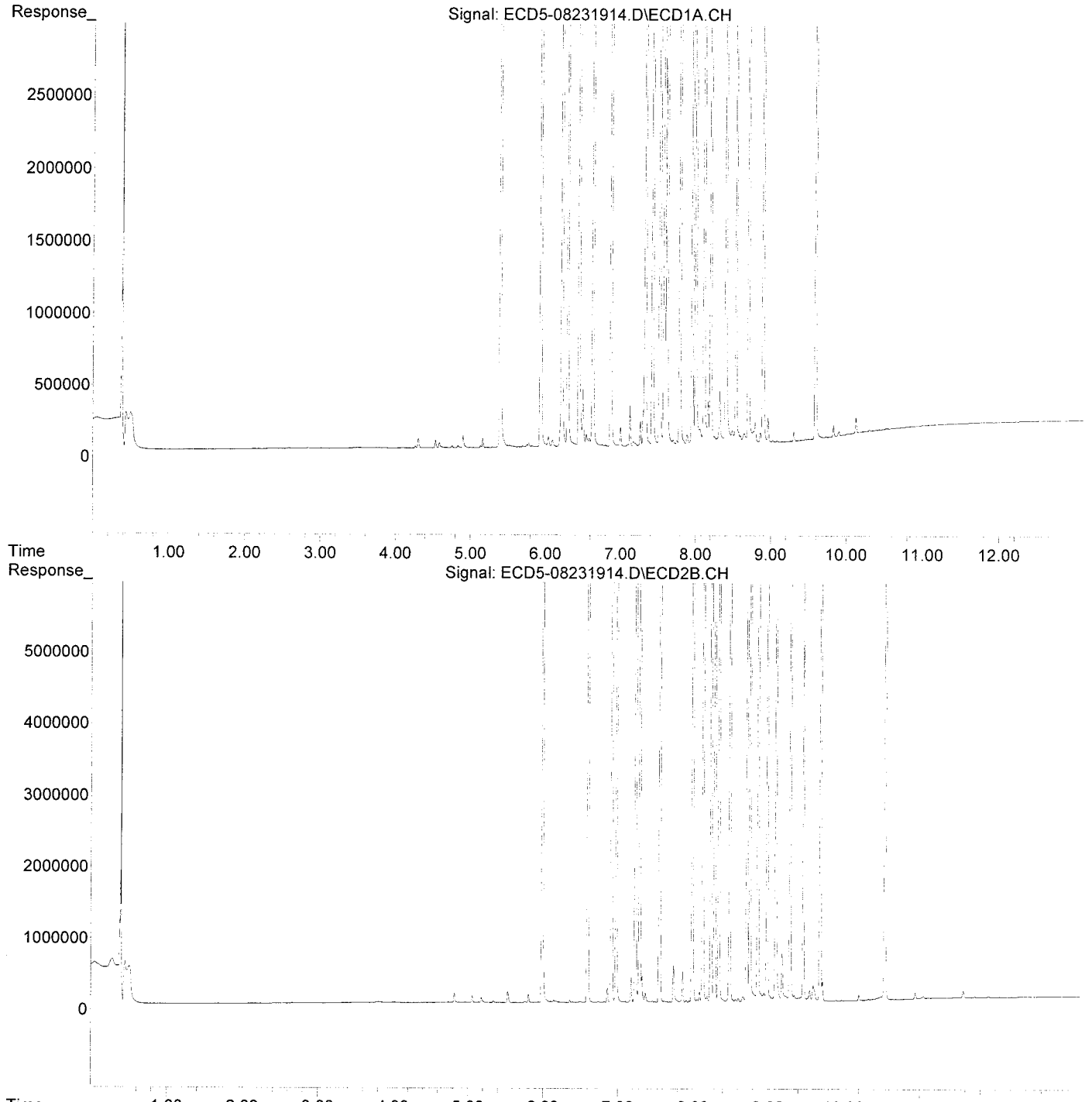
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	19595093	36788994	130.394	122.224
4)		b-BHC	6.296	6.977	8355416	14625175	140.940	120.290
5)		Heptachlor	6.632	7.289	17551528	30277818	108.086	102.970
6)		d-BHC	6.446	7.232	19475580	35176633	144.149	120.302
7)		Aldrin	6.872	7.555	19108074	33906422	113.562	117.072
8)		Heptachlo...	7.331	7.991	17318444	30045511	110.195	113.798
9)		trans-Chl...	7.427	8.131	17732791	30742272	114.698	116.803
10)		cis-Chlor...	7.523	8.238	16742584	29042863	109.098	114.333
11)		Endosulfa...	7.619	8.288	16089996	27212707	108.133	114.469
12)		4,4'-DDE	7.582	8.344	18052552	32499603	128.779	123.812
13)		Dieldrin	7.791	8.488	18324422	31001958	110.659	114.403
14)		Endrin	7.957	8.715	13812708	23102413	103.080	102.828
15)		4,4'-DDD	8.003	8.758	15437146	26297484	135.694	133.933
16)		Endosulfa...	8.113	8.861	13543500	23016371	118.059	117.279
17)		4,4'-DDT	8.201	8.984	12176961	19789501	120.685	112.516
18)		Endrin Al...	8.403	9.098	12363806	20502737	119.767	119.596
19)		Endosulfa...	8.704	9.289	14366789	24477320	115.711	110.592
20)		Methoxychlor	8.539	9.463	5877329	9444987	128.396	114.860
21)		Endrin Ke...	8.898	9.687	16251943	26636559	118.383	114.357
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

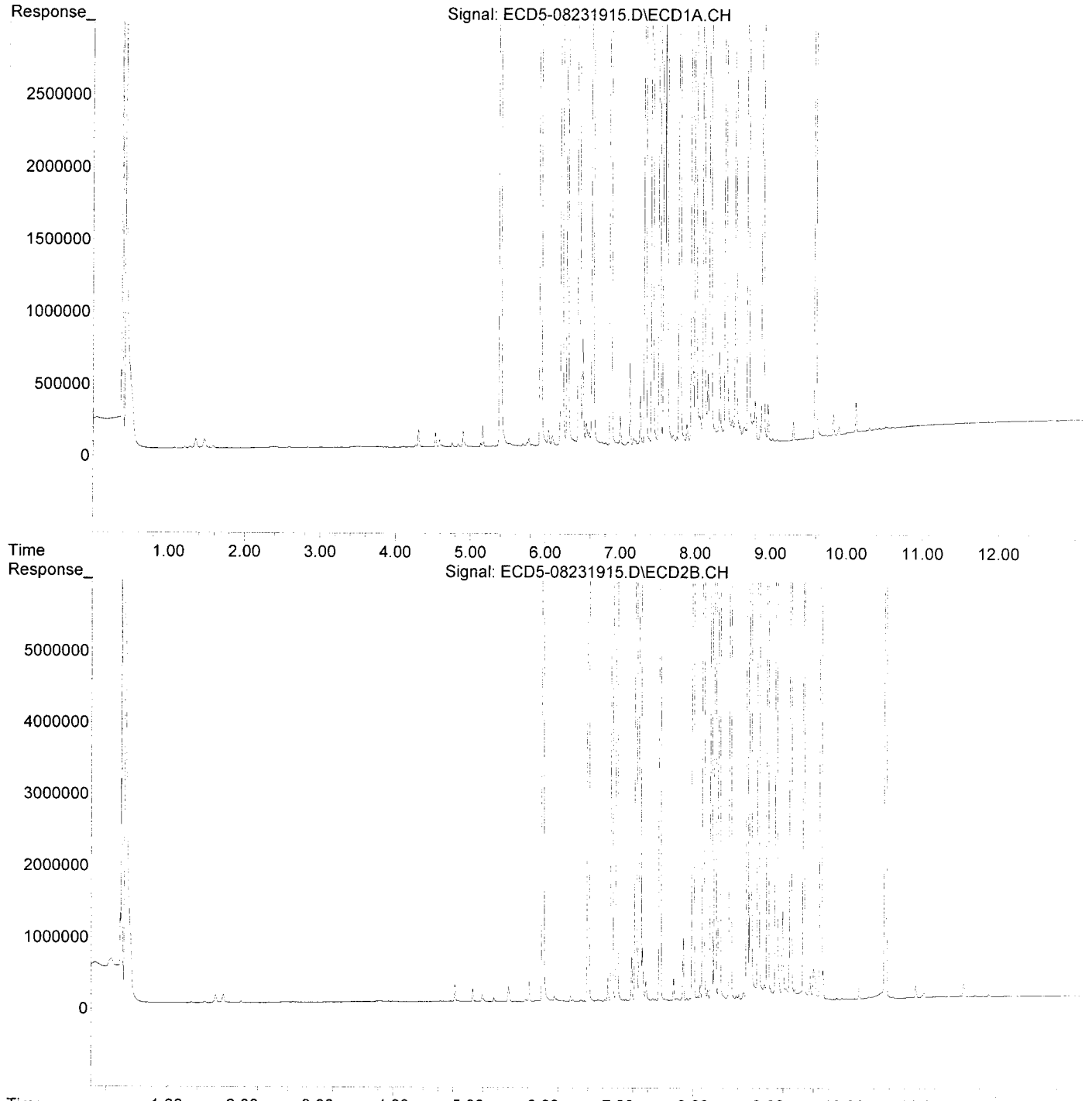
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914	41889726	80765680	278.753	268.327
4)		b-BHC	6.294	6.977	18238696	32553433	307.652	267.747
5)		Heptachlor	6.630	7.289	37785699	71283176	232.692	242.422
6)		d-BHC	6.445	7.232	41016592	80979751	263.399	237.546
7)		Aldrin	6.870	7.554	39838403	73228186	236.765	252.843
8)		Heptachlo...	7.330	7.991	36258170	65330070	230.706	247.439
9)		trans-Chl...	7.425	8.130	37621413	66447972	243.340	252.464
10)		cis-Chlor...	7.521	8.238	35207945	63977063	229.421	251.859
11)		Endosulfa...	7.618	8.288	33852593	61043507	227.507	256.777
12)		4,4'-DDE	7.581	8.344	38763081	69842351	244.719	234.608
13)		Dieldrin	7.791	8.489	39217772	70031781	236.831	258.430
14)		Endrin	7.955	8.715	31426311	52779585	239.075	204.455
15)		4,4'-DDD	8.002	8.758	32436804	59560270	251.258	303.340
16)		Endosulfa...	8.112	8.862	29471042	51834888	256.899	264.124
17)		4,4'-DDT	8.200	8.984	29075222	48203441	232.877	216.675
18)		Endrin Al...	8.402	9.098	26627672	45084544	257.940	262.986
19)		Endosulfa...	8.704	9.289	31126520	54592794	250.696	216.937
20)		Methoxychlor	8.537	9.463	14271143	23714100	255.612	227.264
21)		Endrin Ke...	8.898	9.688	35094718	60861376	255.639	227.431
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

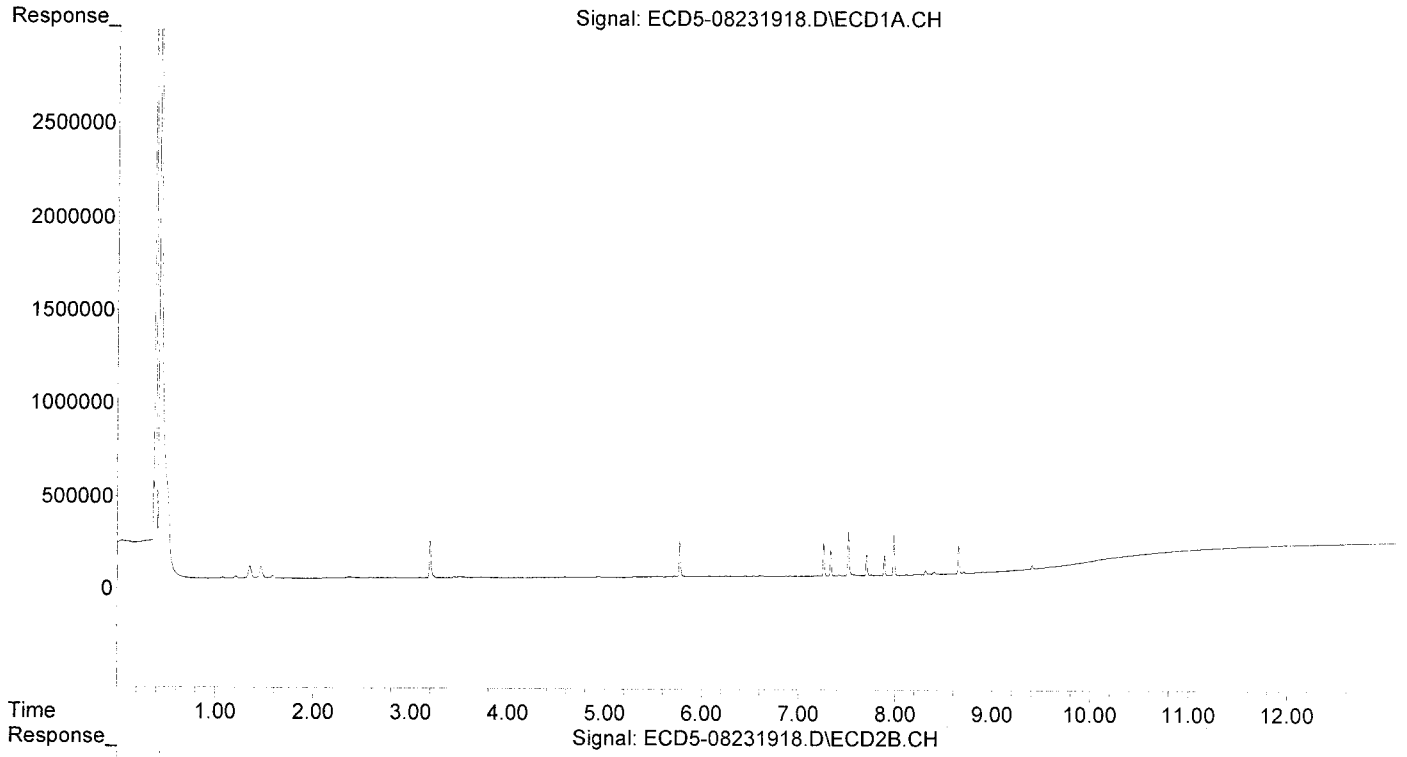
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	198207	383198	1.330	1.219
24)	Hexachlor...	5.775	6.453	194679	328025	1.585	1.463
25)	Oxychlordane	7.263	7.922	176844	279143	1.364	1.326
26)	2,4'-DDE	7.335	8.123	137947	219164	1.468	1.405
27)	trans-Non...	7.518	8.195	236836	306202	1.652	1.333
28)	2,4'-DDD	7.707	8.495	120240	192040	1.439	1.409
29)	2,4'-DDT	7.890	8.719	107110	173338	1.500	1.372
30)	cis-Nonac...	7.987	8.759	219220	332745	1.362	1.310
31)	Mirex	8.655	9.680	147356	209783	1.505	1.458
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

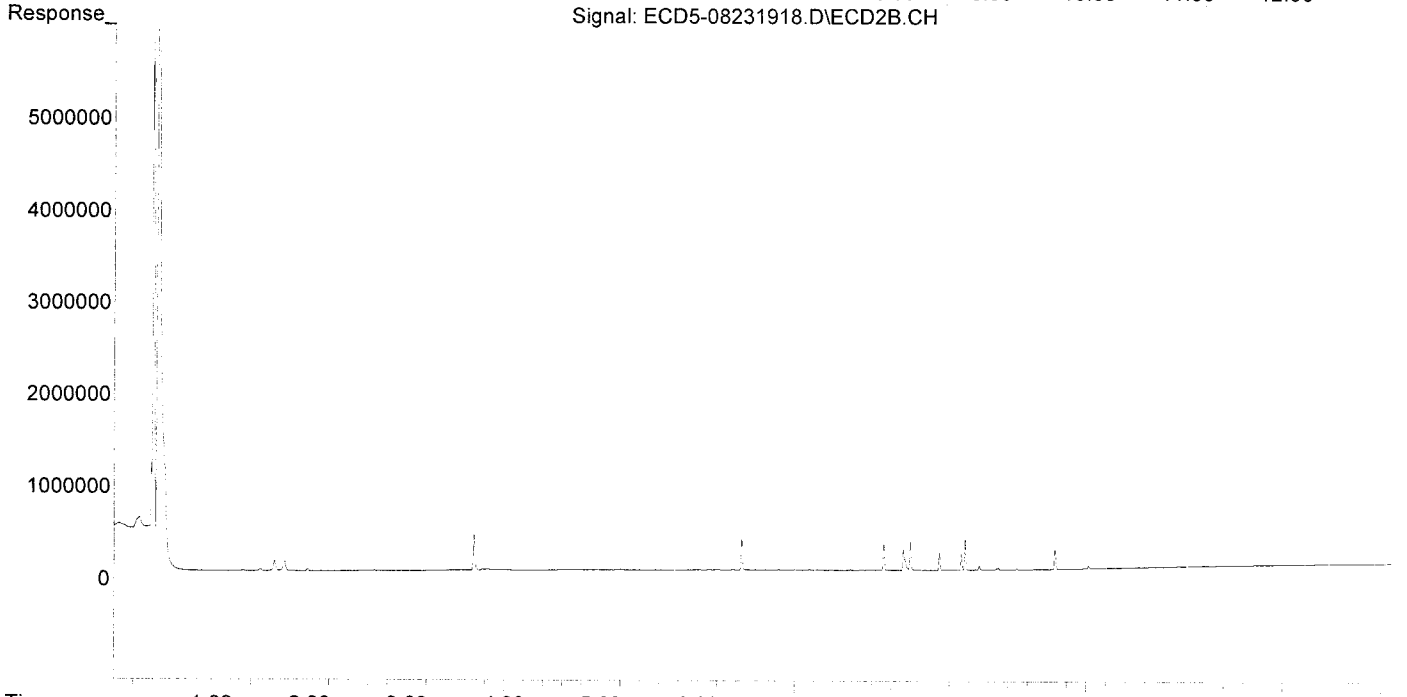
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

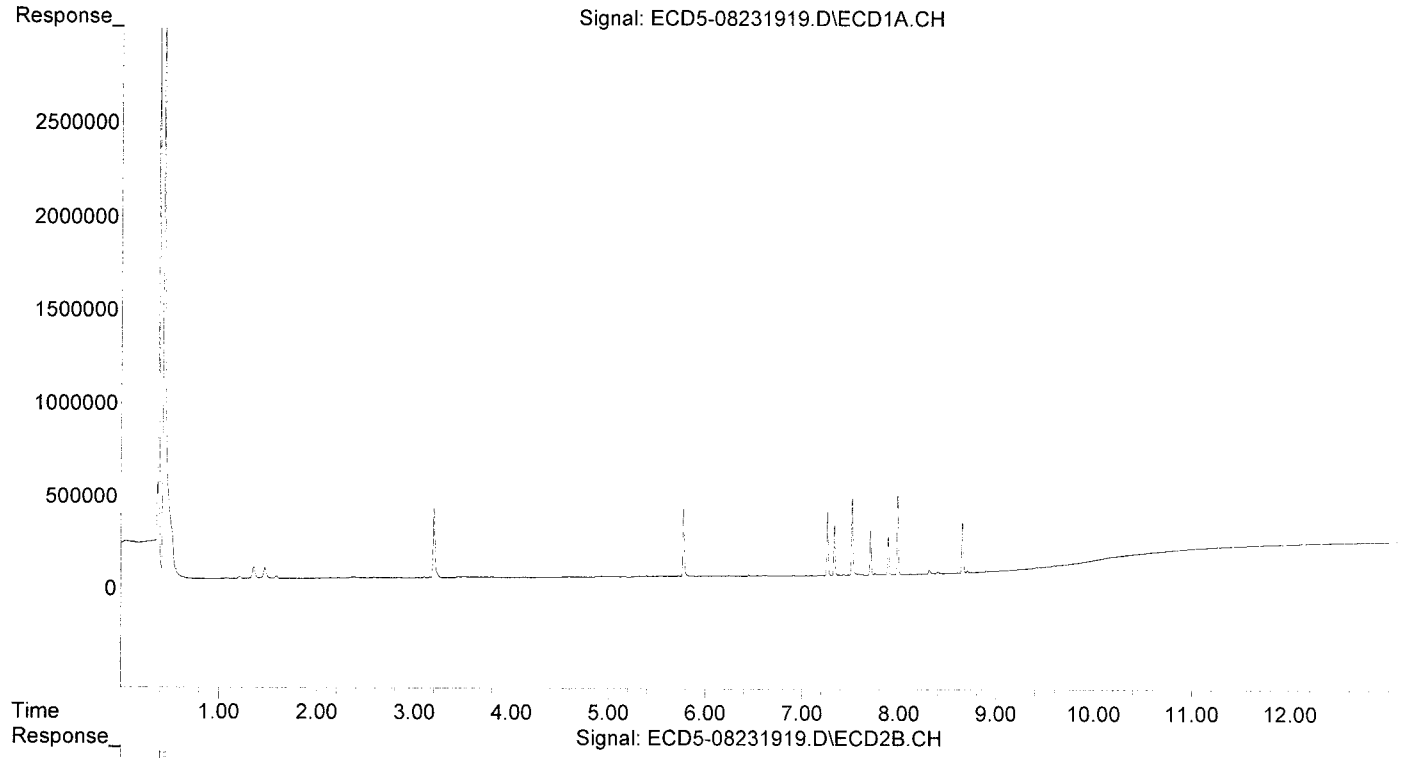
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	375794	754548	2.521	2.400
24)	Hexachlor...	5.775	6.453	362082	632830	2.948	2.823
25)	Oxychlordane	7.262	7.921	339370	541023	2.617	2.571
26)	2,4'-DDE	7.334	8.123	265212	411812	2.822	2.639
27)	trans-Non...	7.518	8.194	415126	587765	2.896	2.559
28)	2,4'-DDD	7.707	8.495	233089	373596	2.789	2.741
29)	2,4'-DDT	7.889	8.718	204209	332170	2.725	2.614
30)	cis-Nonac...	7.986	8.758	423442	624783	2.632	2.460
31)	Mirex	8.655	9.680	266770	388199	2.725	2.697
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

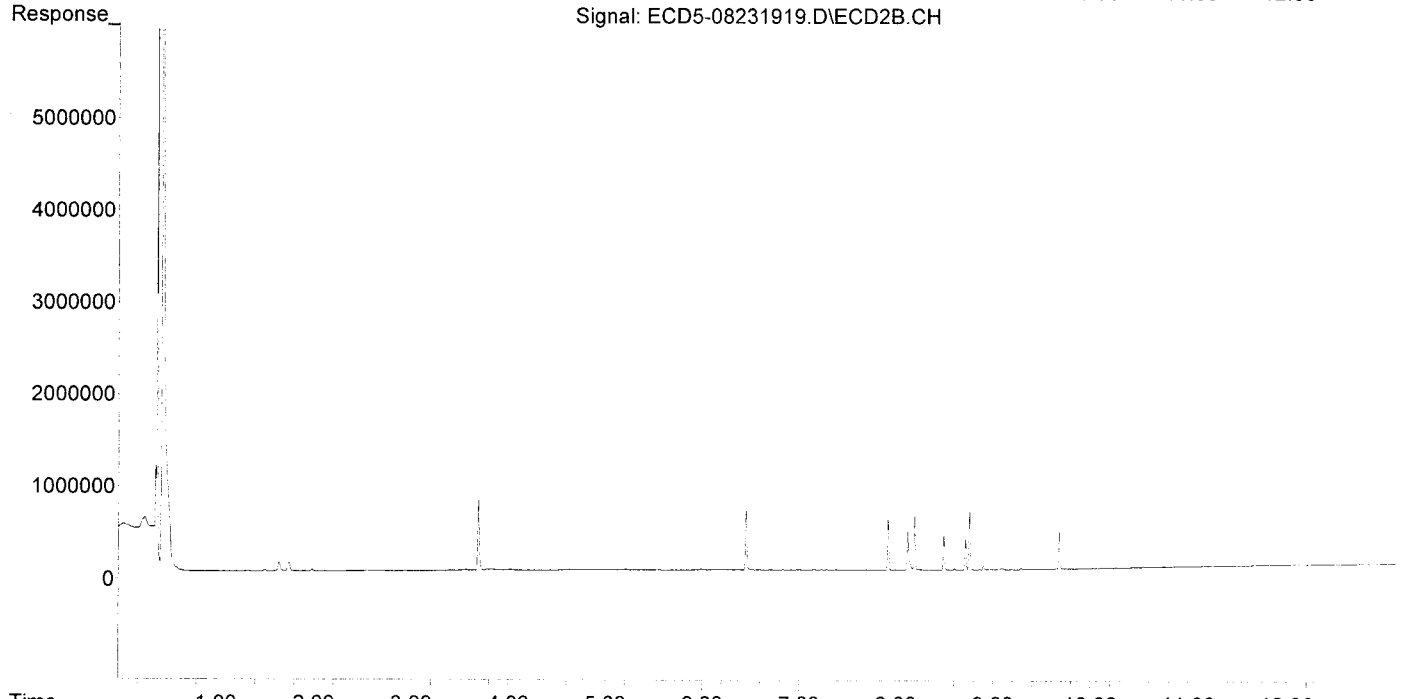
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

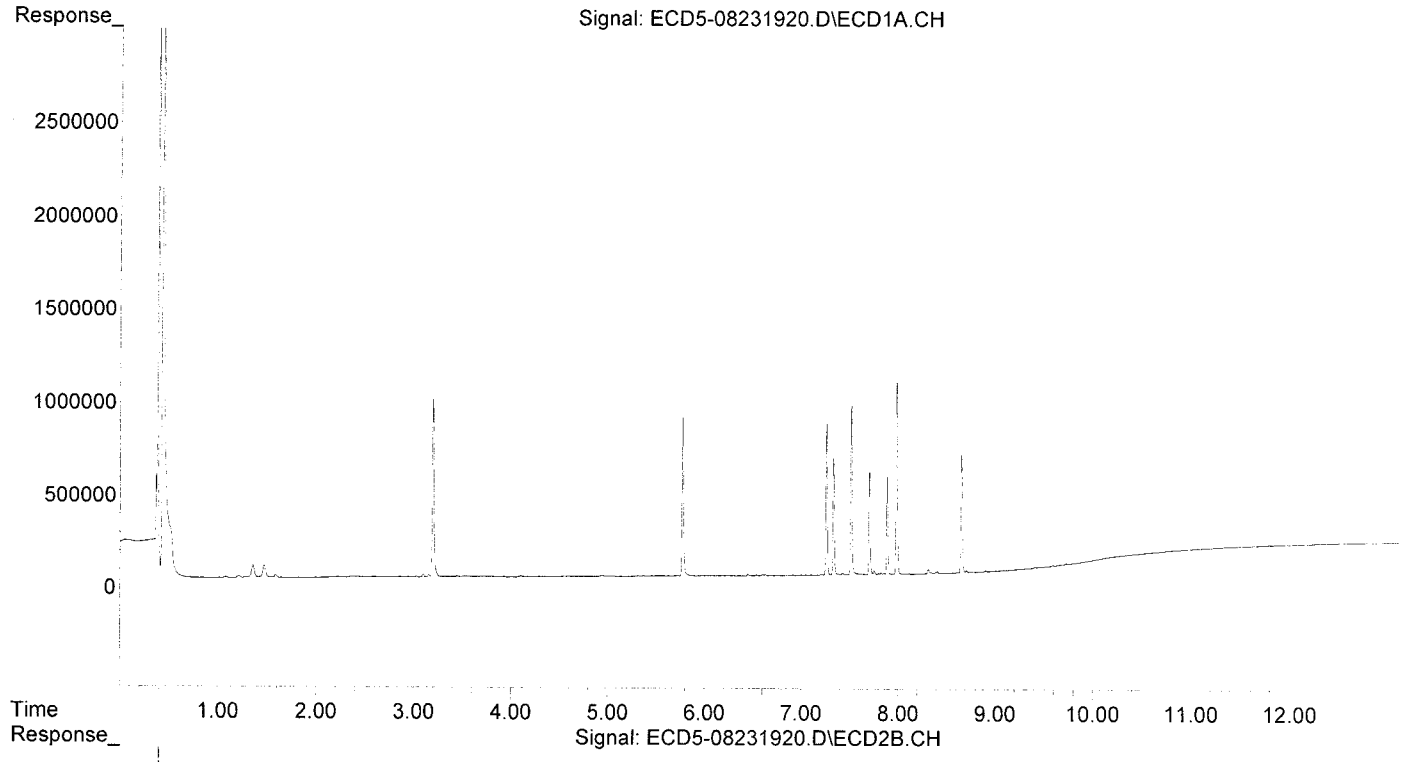
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	959211	1877484	6.435	5.971
24)	Hexachlor...	5.775	6.453	853793	1485583	6.951	6.626
25)	Oxychlordane	7.262	7.921	819748	1325543	6.321	6.298
26)	2,4'-DDE	7.334	8.123	633168	1029687	6.738	6.600
27)	trans-Non...	7.518	8.194	933222	1467723	6.510	6.390
28)	2,4'-DDD	7.705	8.495	560942	898697	6.711	6.593
29)	2,4'-DDT	7.889	8.719	536967	873074	6.892	6.802
30)	cis-Nonac...	7.986	8.759	1025899	1587243	6.376	6.249
31)	Mirex	8.654	9.679	628618	895523	6.422	6.222
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

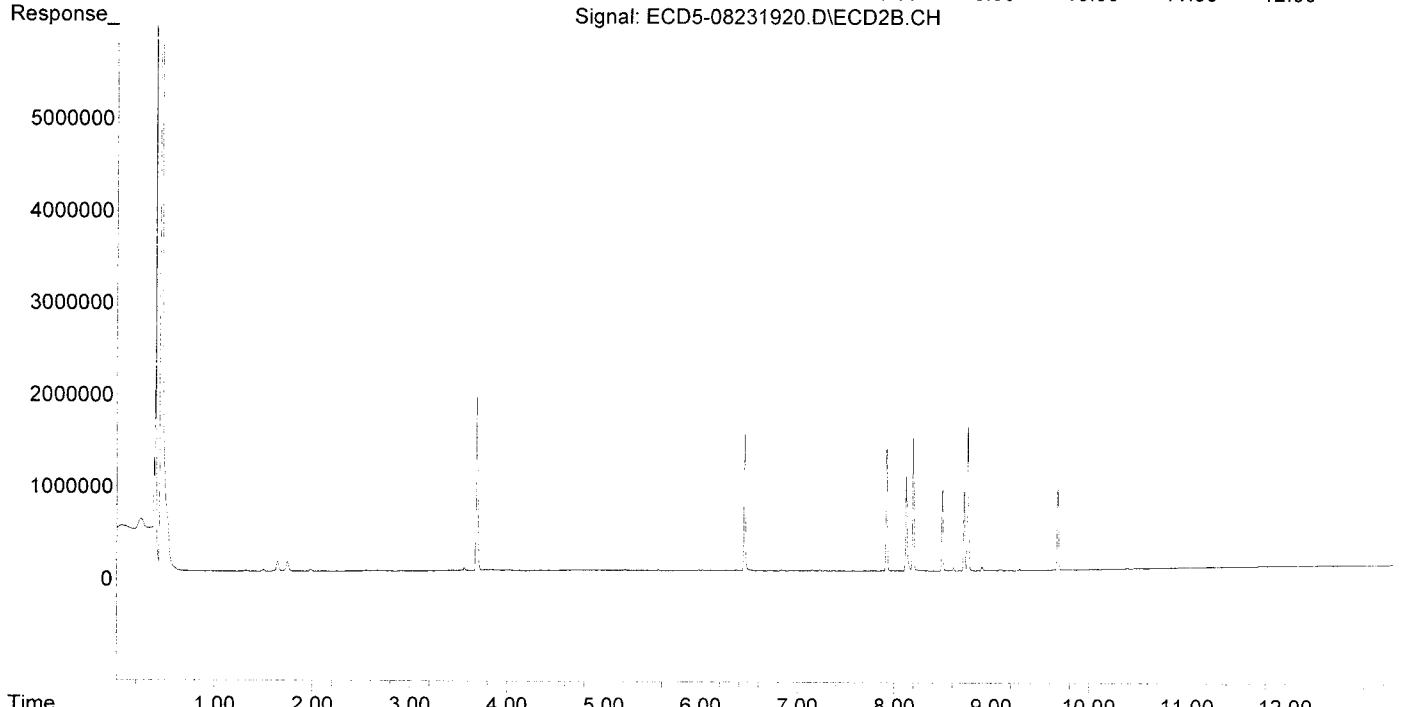
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

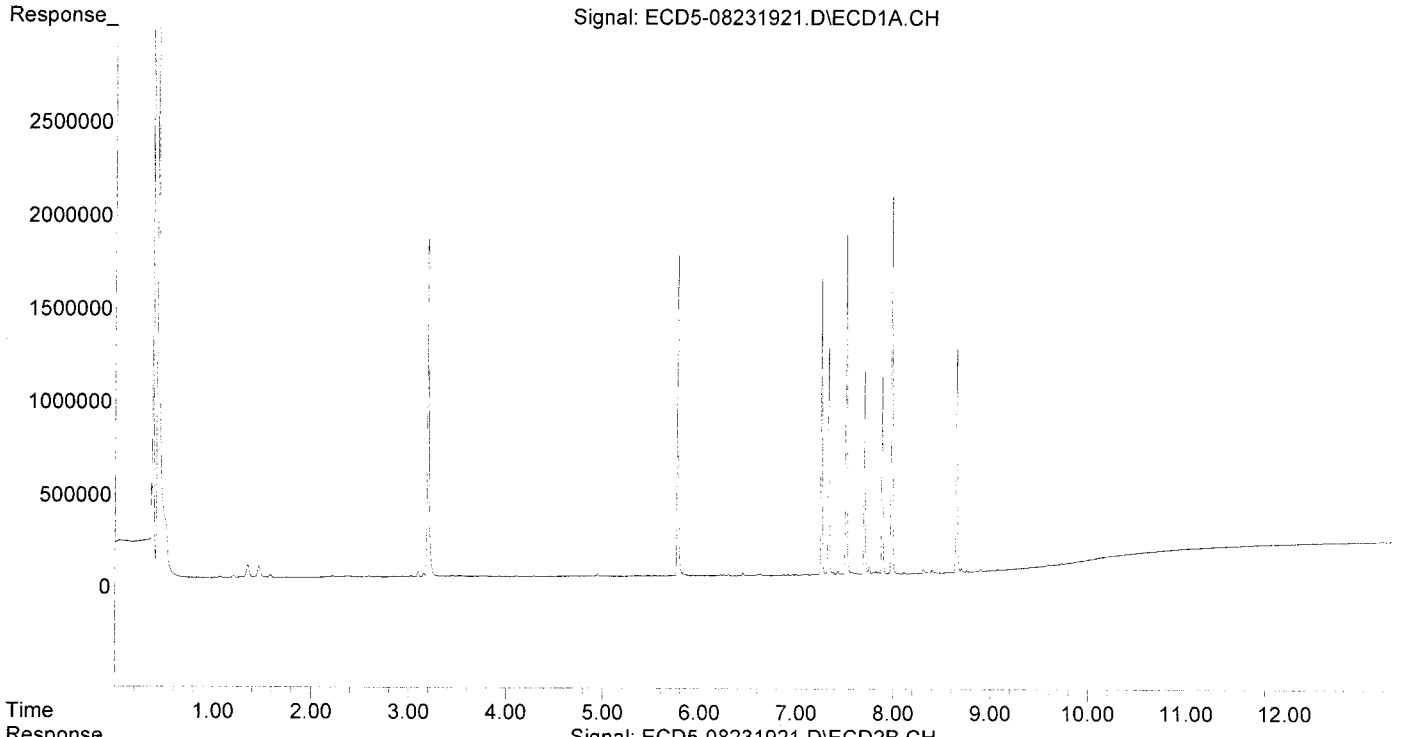
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	1838187	3701532	12.333	11.773
24)	Hexachlor...	5.774	6.453	1711884	2936294	13.936	13.097
25)	Oxychlordane	7.261	7.921	1591613	2538903	12.272	12.063
26)	2,4'-DDE	7.333	8.122	1245265	2018331	13.252	12.936
27)	trans-Non...	7.516	8.194	1817552	2844404	12.679	12.384
28)	2,4'-DDD	7.705	8.495	1103587	1778790	13.203	13.050
29)	2,4'-DDT	7.888	8.719	1051565	1702568	13.249	13.099
30)	cis-Nonac...	7.986	8.759	2032010	3148054	12.629	12.394
31)	Mirex	8.654	9.679	1196365	1722960	12.222	11.971
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

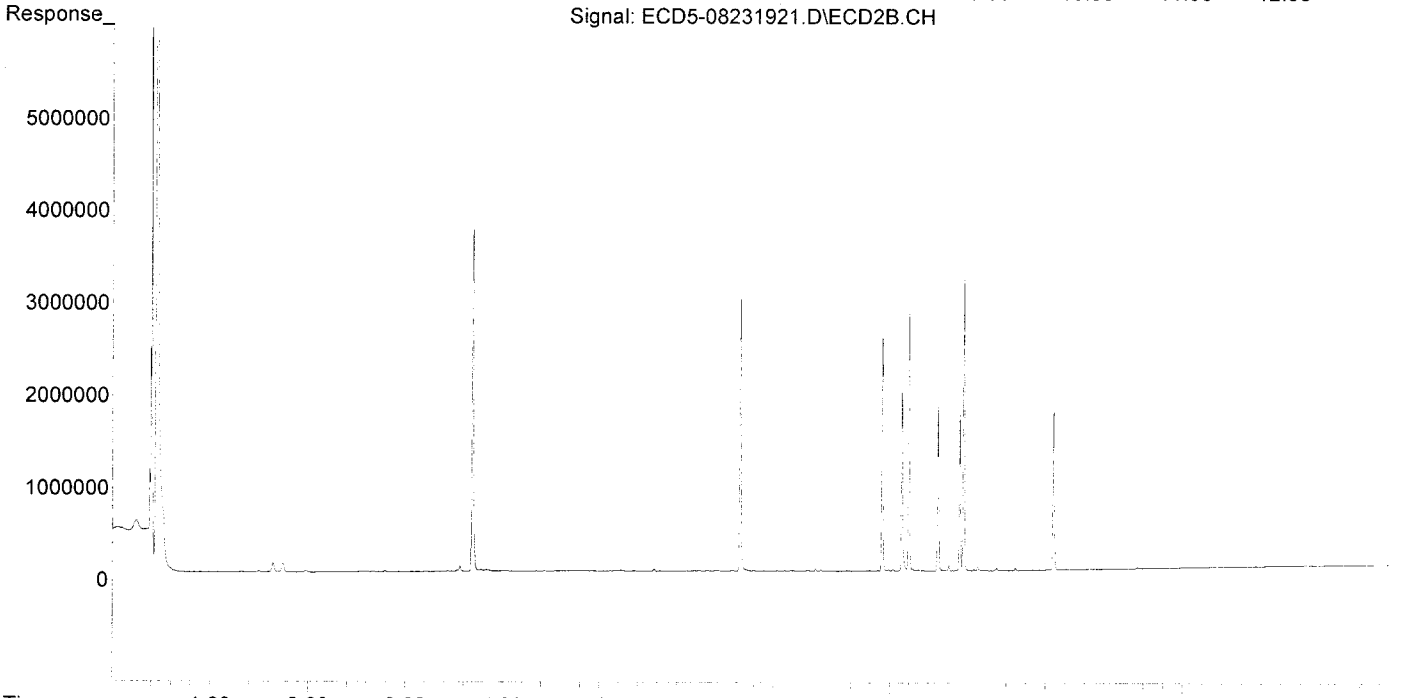
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

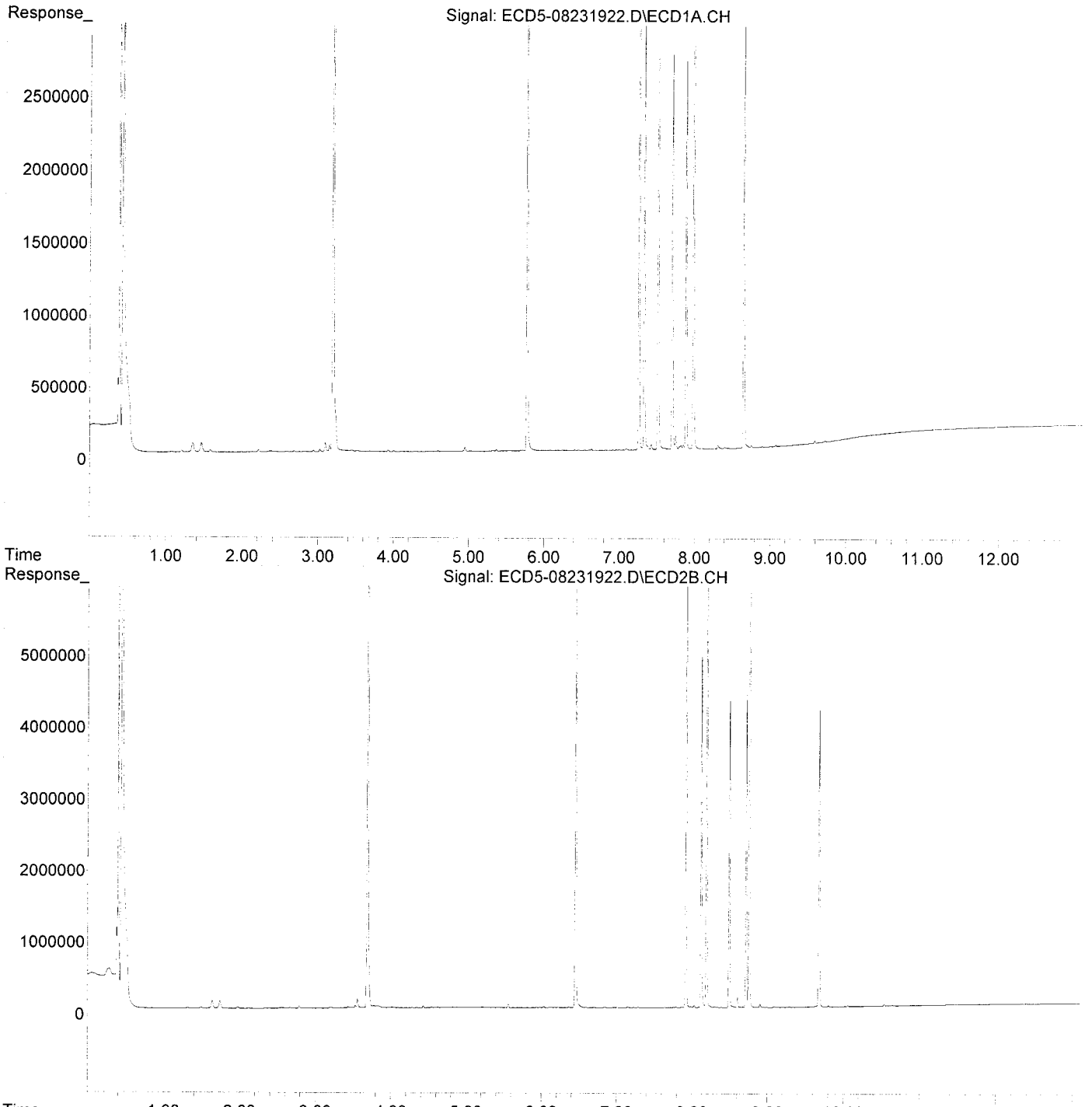
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	4363988	8892238	29.278	28.282
24)	Hexachlor...	5.774	6.453	4184551	7416324	34.066	33.080
25)	Oxychlordane	7.261	7.920	3881255	6202791	29.926	29.471
26)	2,4'-DDE	7.333	8.122	3059421	4999232	32.558	32.042
27)	trans-Non...	7.516	8.194	4391046	7092288	30.631	30.877
28)	2,4'-DDD	7.705	8.495	2745178	4389185	32.844	32.200
29)	2,4'-DDT	7.888	8.719	2728794	4405554	33.278	32.676
30)	cis-Nonac...	7.986	8.759	4993110	8219393	31.032	32.361
31)	Mirex	8.654	9.679	2910818	4138115	29.738	28.753
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

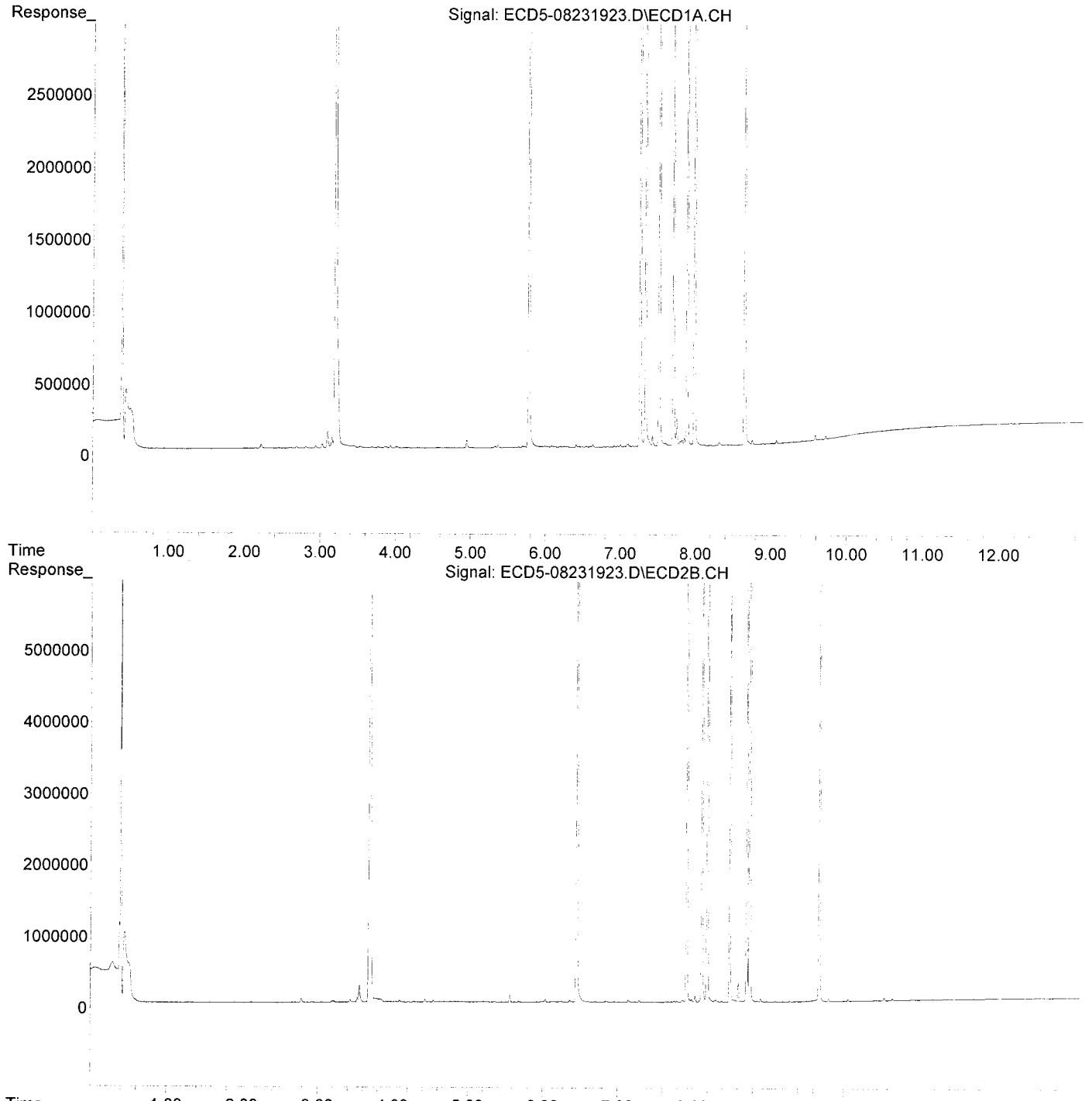
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.688	8761747	18635615	58.783	59.271
24)	Hexachlor...	5.774	6.454	8911624	16094159	72.549	71.786
25)	Oxychlordane	7.261	7.920	8382873	14172543	64.636	67.337
26)	2,4'-DDE	7.333	8.122	6510588	11006400	69.284	70.544
27)	trans-Non...	7.516	8.194	9581794	15807712	66.841	68.821
28)	2,4'-DDD	7.705	8.495	5920095	9924934	70.829	72.811
29)	2,4'-DDT	7.888	8.718	5687323	8810591	66.398	62.033
30)	cis-Nonac...	7.985	8.758	10616019	17721229	65.978	69.771
31)	Mirex	8.652	9.679	6218341	9100959	62.528	63.235
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

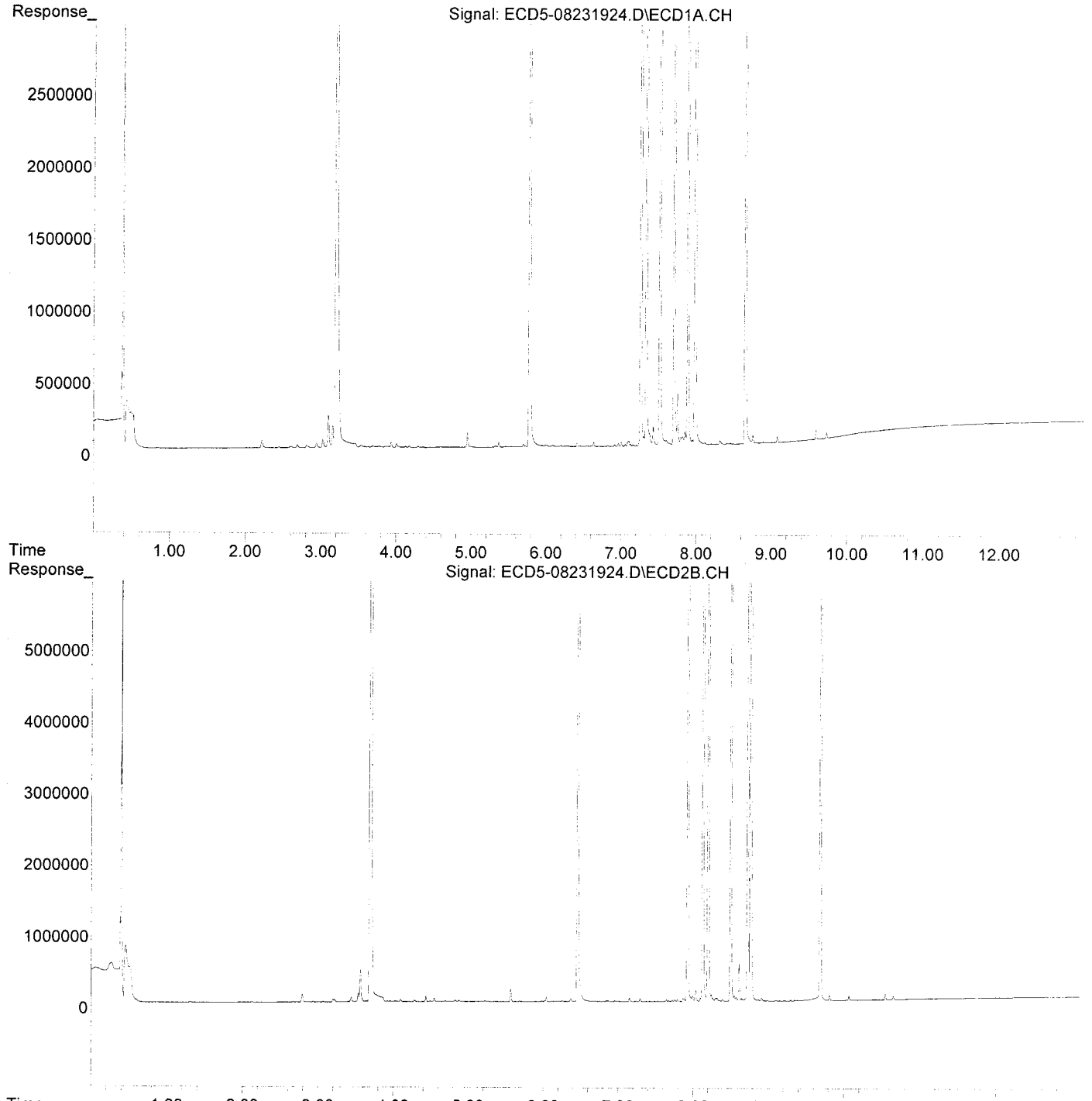
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.690	17952134	39298885	120.443	124.991
24)		Hexachlor...	5.776	6.455	17670025	32766708	143.851	146.152
25)		Oxychlordane	7.261	7.922	16359215	29732149	126.137	141.263
26)		2,4'-DDE	7.334	8.123	12769067	22164400	135.886	142.059
27)		trans-Non...	7.516	8.195	18351251	31975271	128.015	139.210
28)		2,4'-DDD	7.705	8.496	11587554	20118925	138.635	147.597
29)		2,4'-DDT	7.888	8.721	11771354	18998968	127.689	121.350
30)		cis-Nonac...	7.986	8.760	20932641	36072644	130.096	142.024
31)		Mirex	8.653	9.680	11960753	19363200	122.194	134.540
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

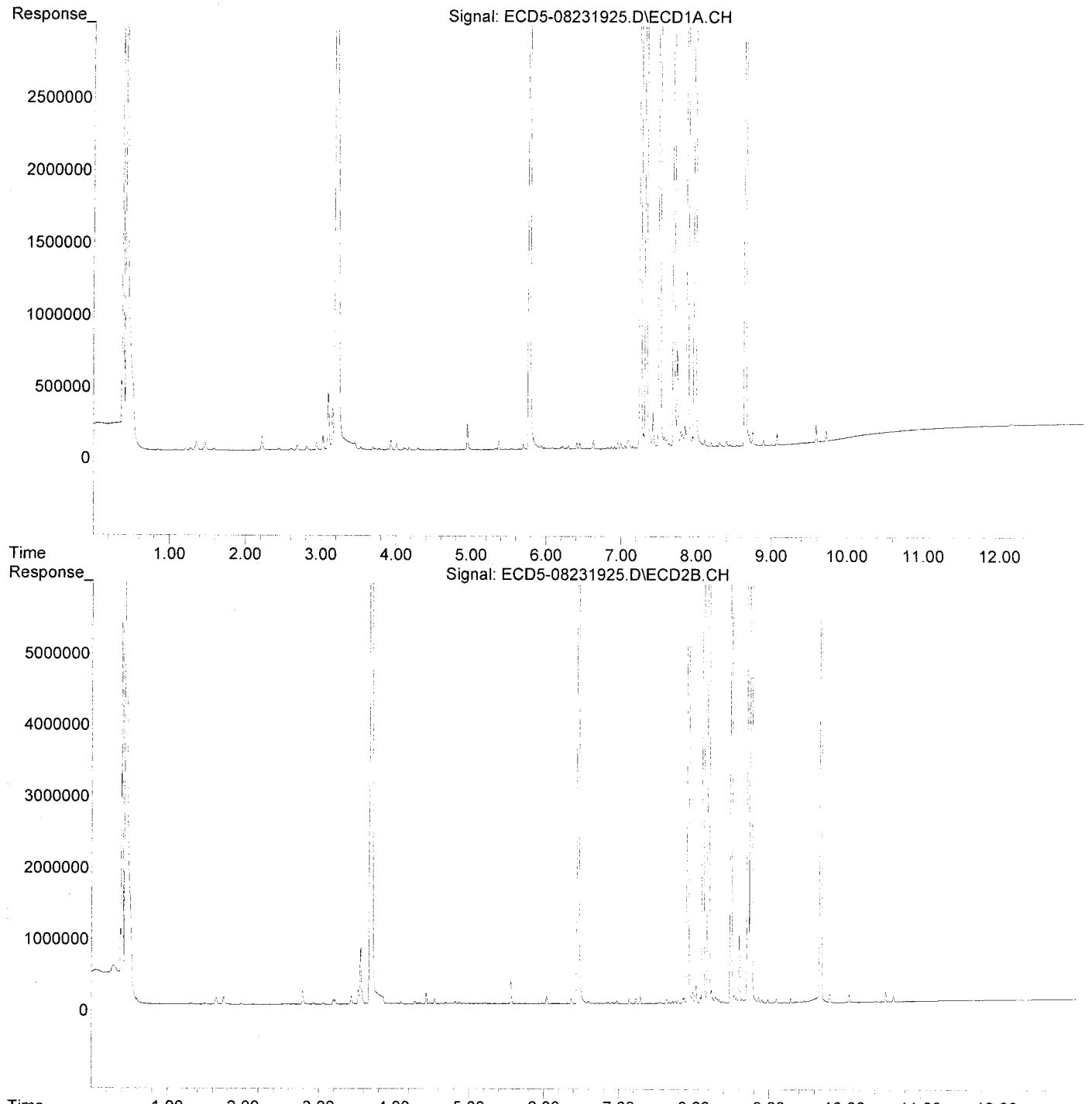
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.689	34166533	75988565	229.227	241.683
24)		Hexachlor...	5.774	6.454	34073459	66261966	277.392	295.553
25)		Oxychlordane	7.258	7.920	32032634	58736982	246.986	279.071
26)		2,4'-DDE	7.331	8.122	24819199	44504592	264.121	285.245
27)		trans-Non...	7.514	8.194	35027918	63083636	244.348	274.645
28)		2,4'-DDD	7.703	8.494	21916962	39839303	262.217	292.269
29)		2,4'-DDT	7.887	8.719	23024956	39999231	224.761	221.024
30)		cis-Nonac...	7.984	8.759	40046185	72455823	248.887	285.271
31)		Mirex	8.652	9.679	23284997	38425530	237.885	266.989
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MP 12/26/19

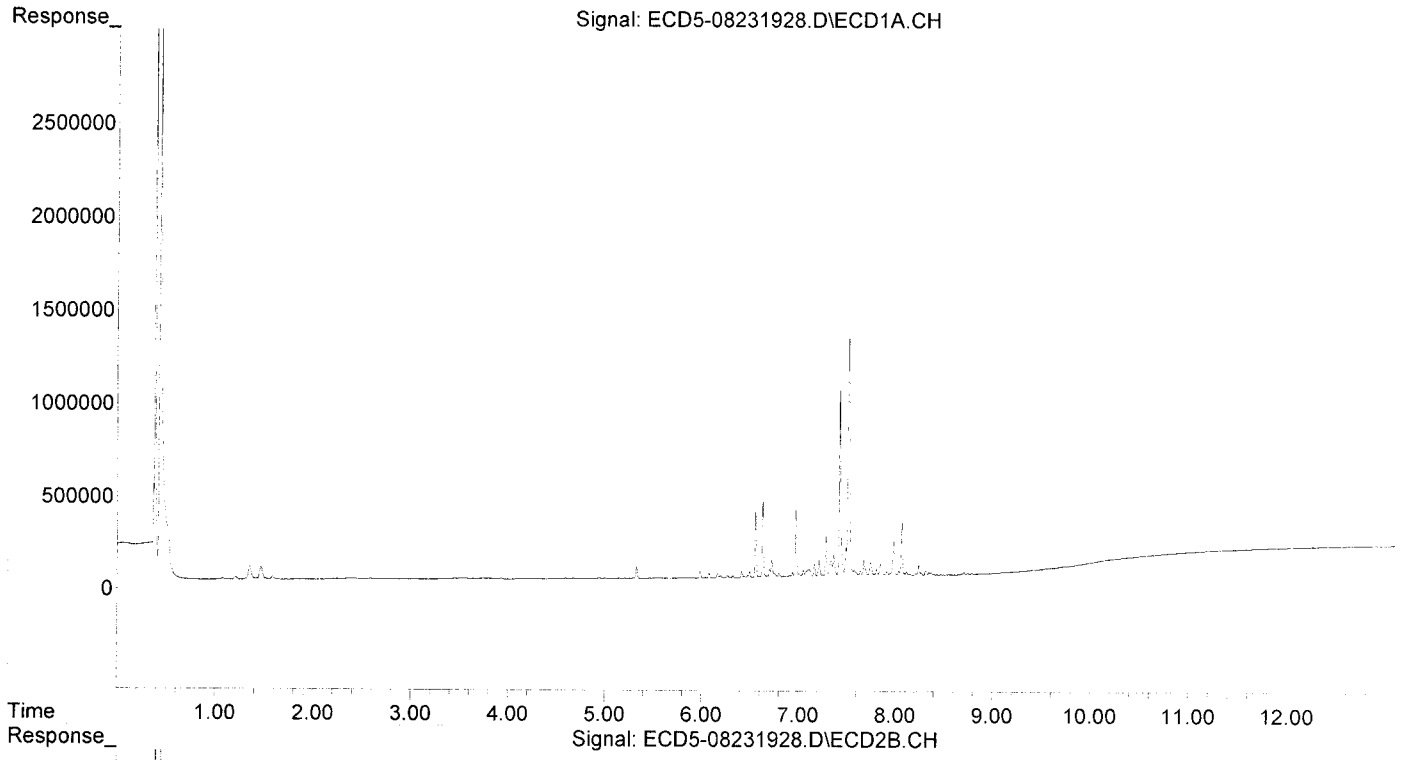
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	1009143	1754707	65.443	66.784
33)	Chlordane...	7.521	8.237	1286655	1472400	62.192	67.669
34)	Chlordane...	8.068	8.897	288087	439020	60.282	67.059
35)	Chlordane...	3.446	0.000	5365	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

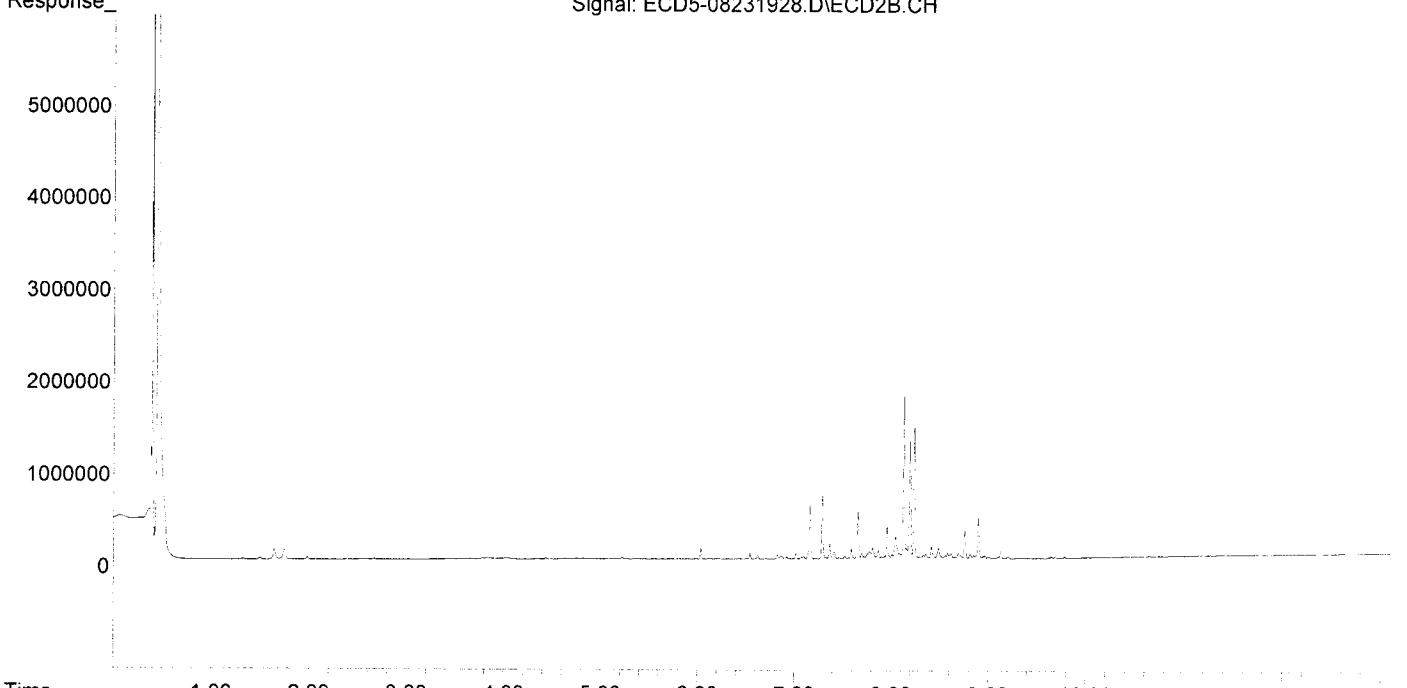
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

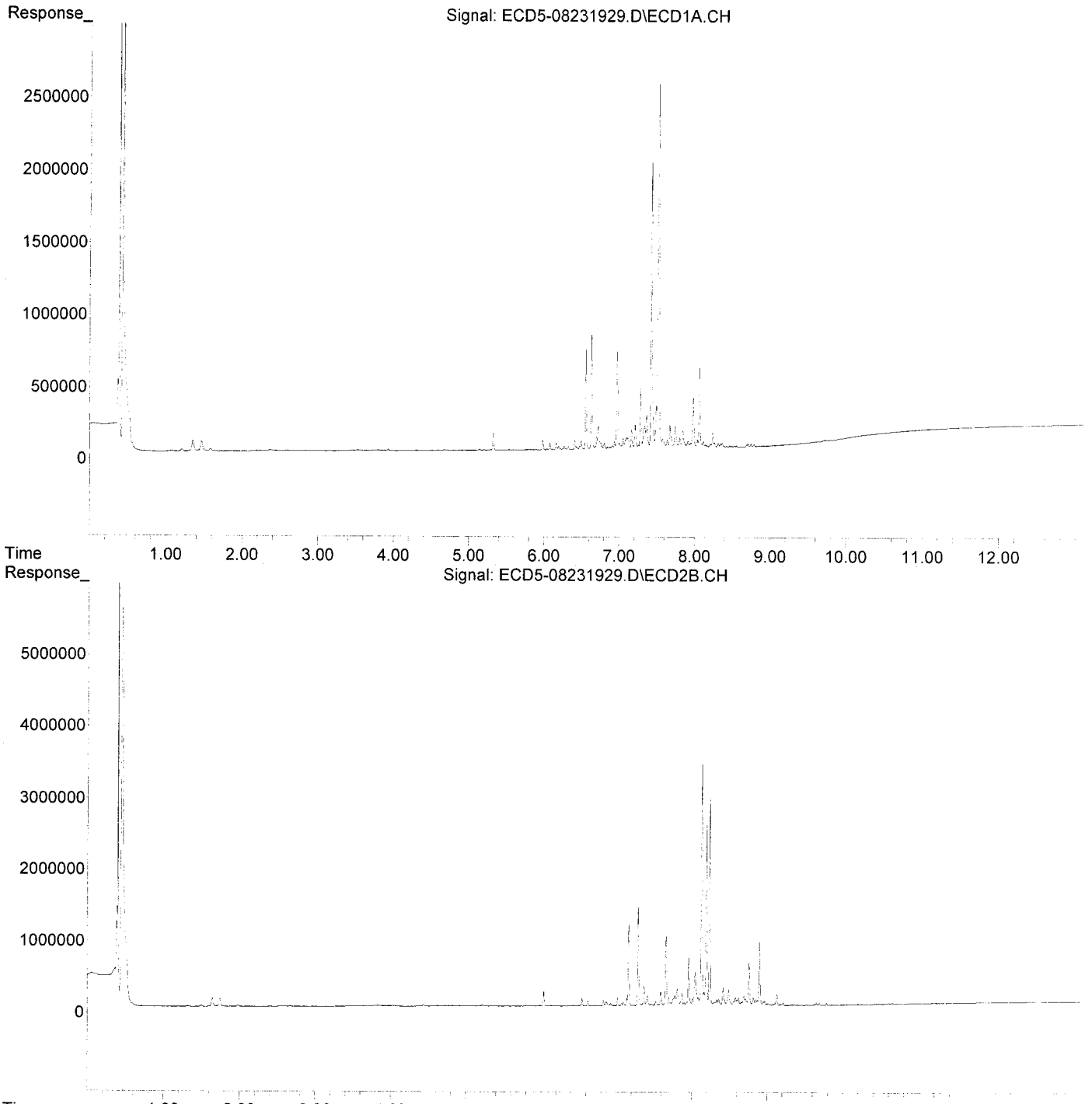
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.130	1978897	3378388	128.331	127.866
33)	Chlordane...	7.521	8.238	2519520	2905941	121.784	133.934
34)	Chlordane...	8.068	8.898	548196	874465	114.710	133.920
35)	Chlordane...	3.446	0.000	4938	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

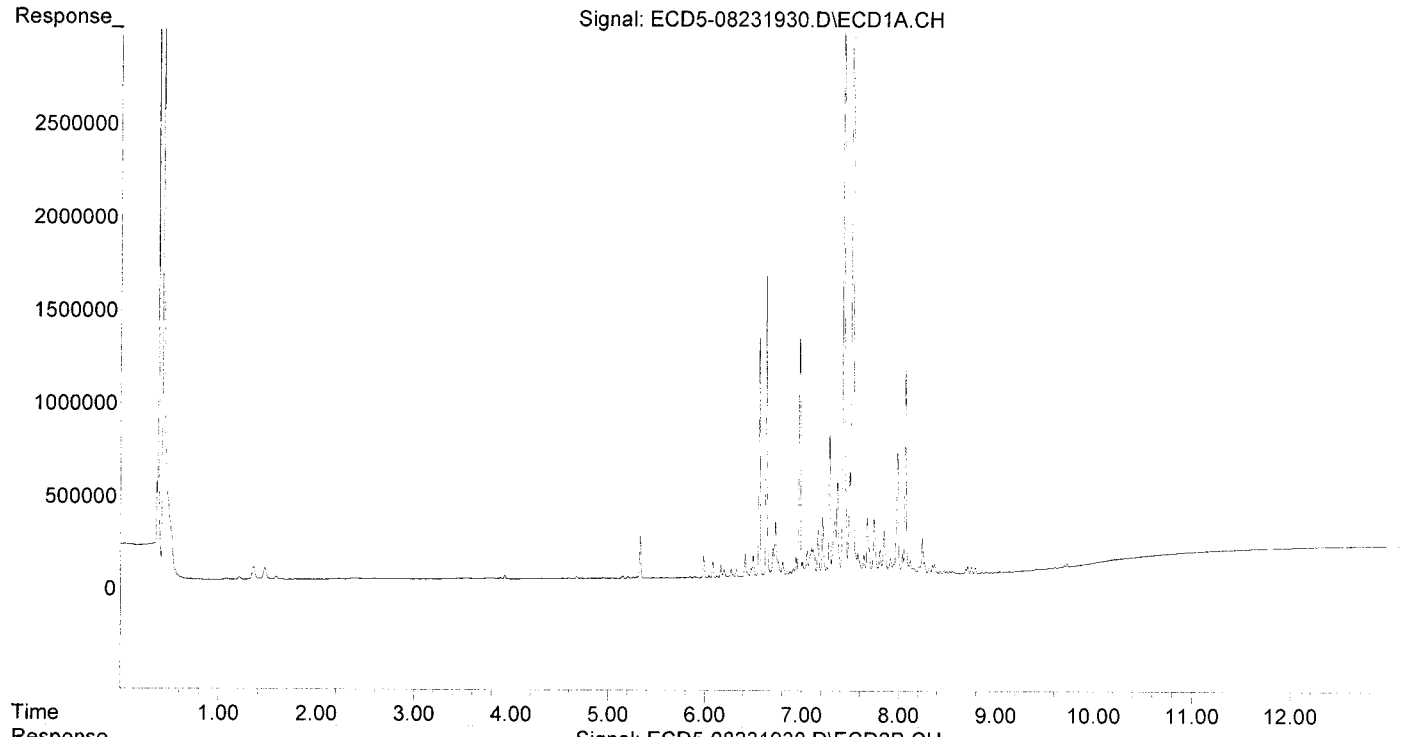
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	3849299	6751197	249.627	251.318
33)	Chlordane...	7.522	8.239	4906320	5883615	237.153	267.927
34)	Chlordane...	8.069	8.898	1101677	1731727	230.526	261.800
35)	Chlordane...	3.448	0.000	4503	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

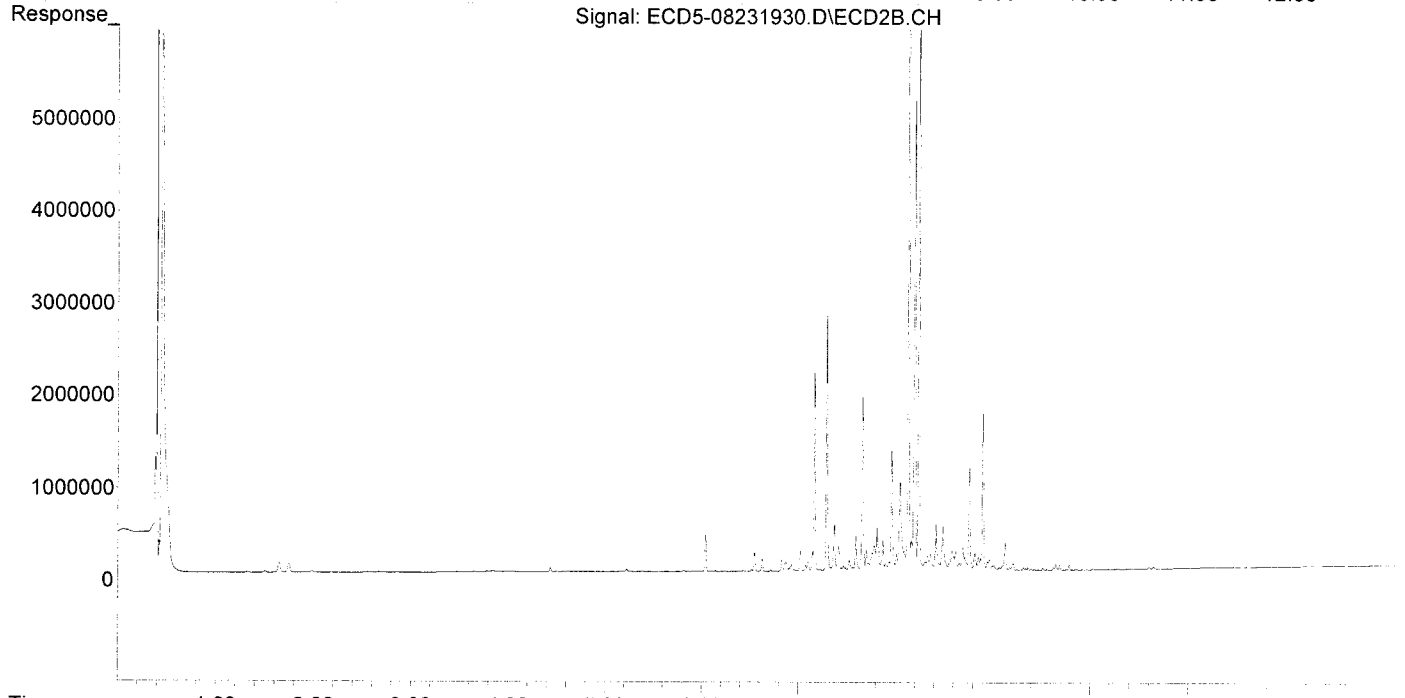
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

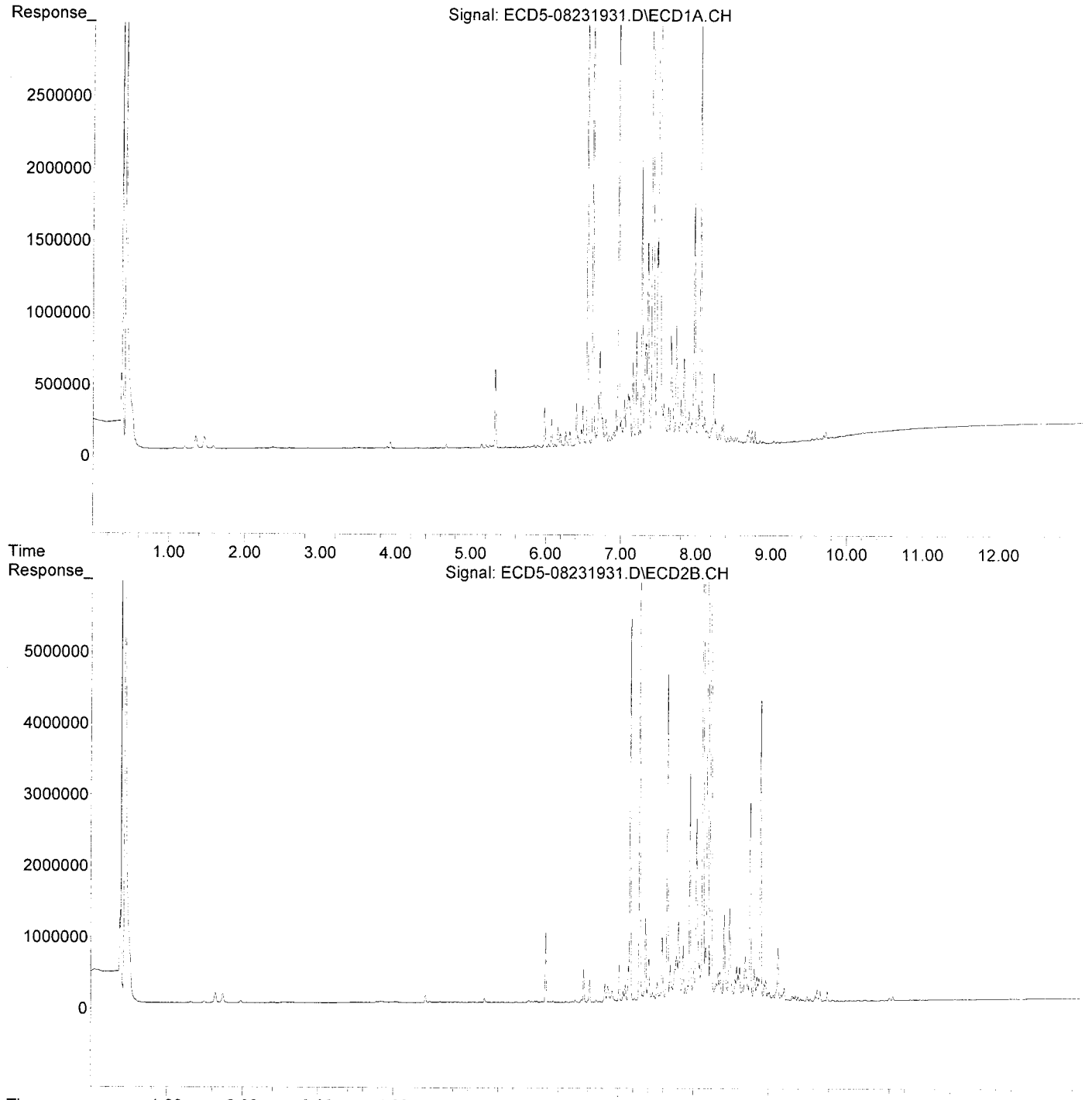
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.427	8.129	9628671	17830433	624.419	629.093
33)	Chlordane...	7.520	8.237	12176524	14812273	588.567	644.287
34)	Chlordane...	8.067	8.896	2921278	4271709	611.277	615.748
35)	Chlordane...	3.447	0.000	4056	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

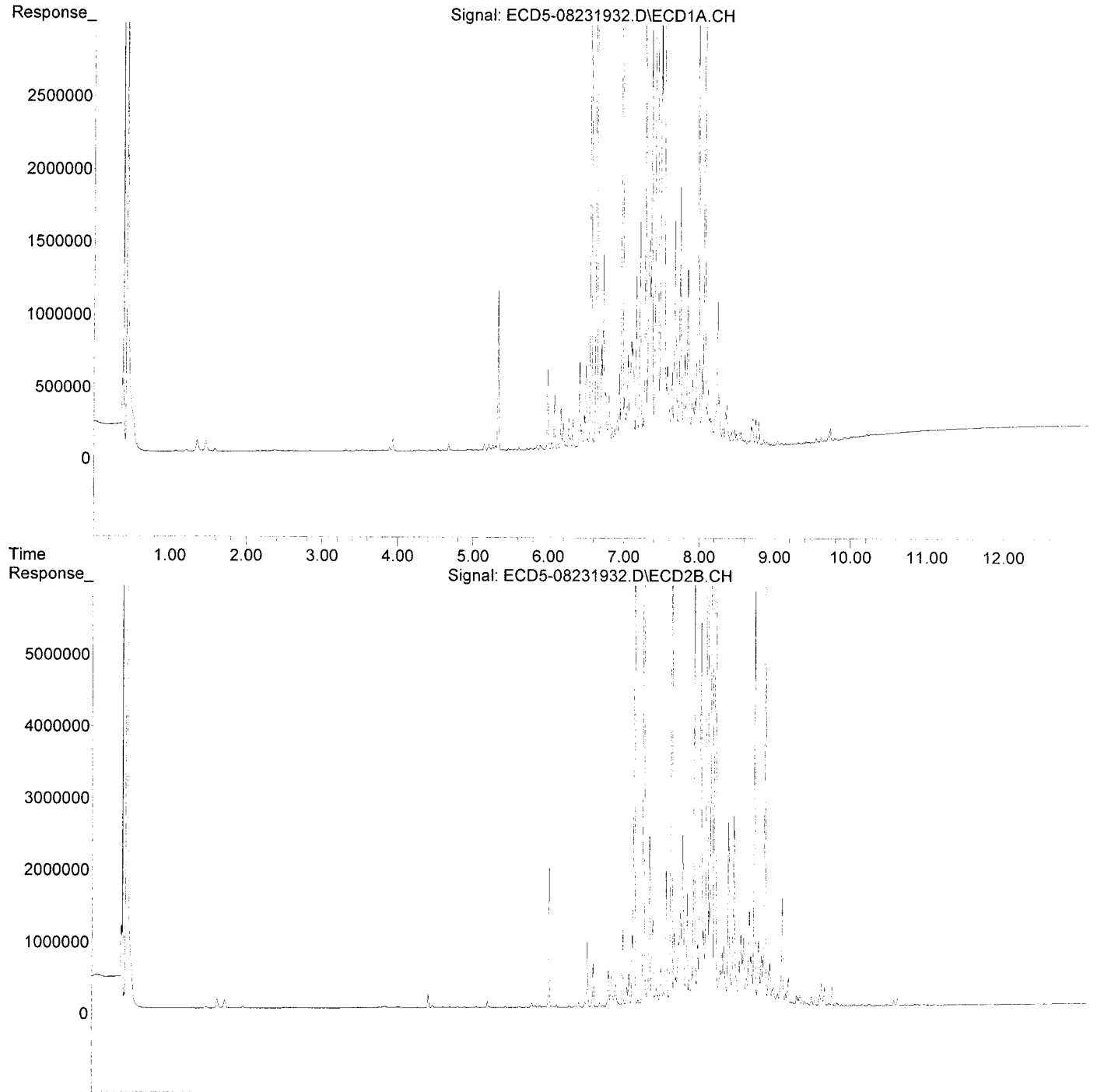
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.426	8.130	19643766	37966746	1273.898	1234.450
33)		Chlordane...	7.519	8.237	25083239	31493677	1212.428	1269.749
34)		Chlordane...	8.067	8.897	5987927	9358900	1252.974	1240.988
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

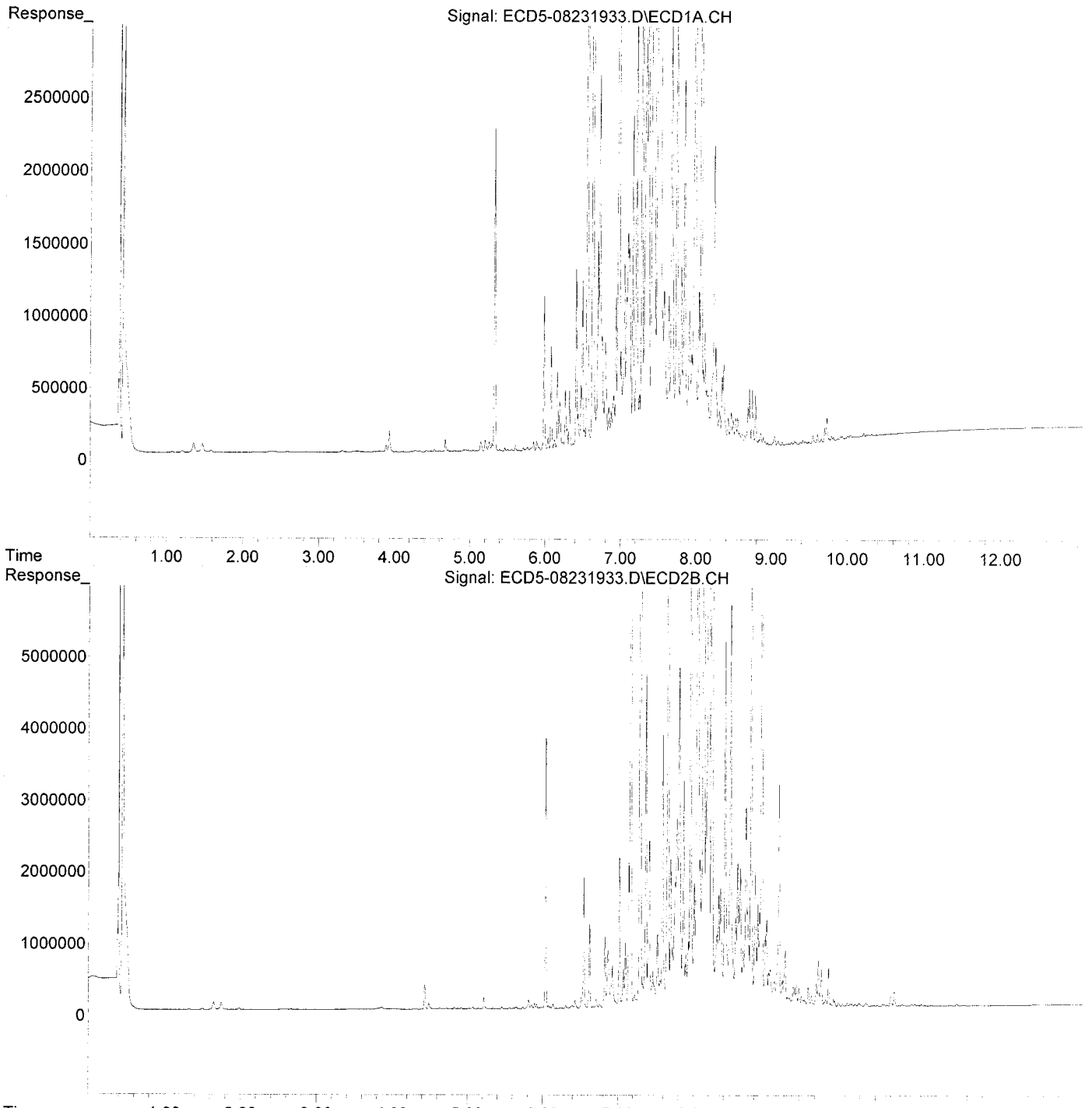
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.426	8.130	40036500	81691713	2596.366	2326.014
33)	Chlordane...	7.519	8.238	50979142	66281388	2464.138	2365.956
34)	Chlordane...	8.067	8.897	12208306	19418517	2554.588	2271.661
35)	Chlordane...	3.449	0.000	4939	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

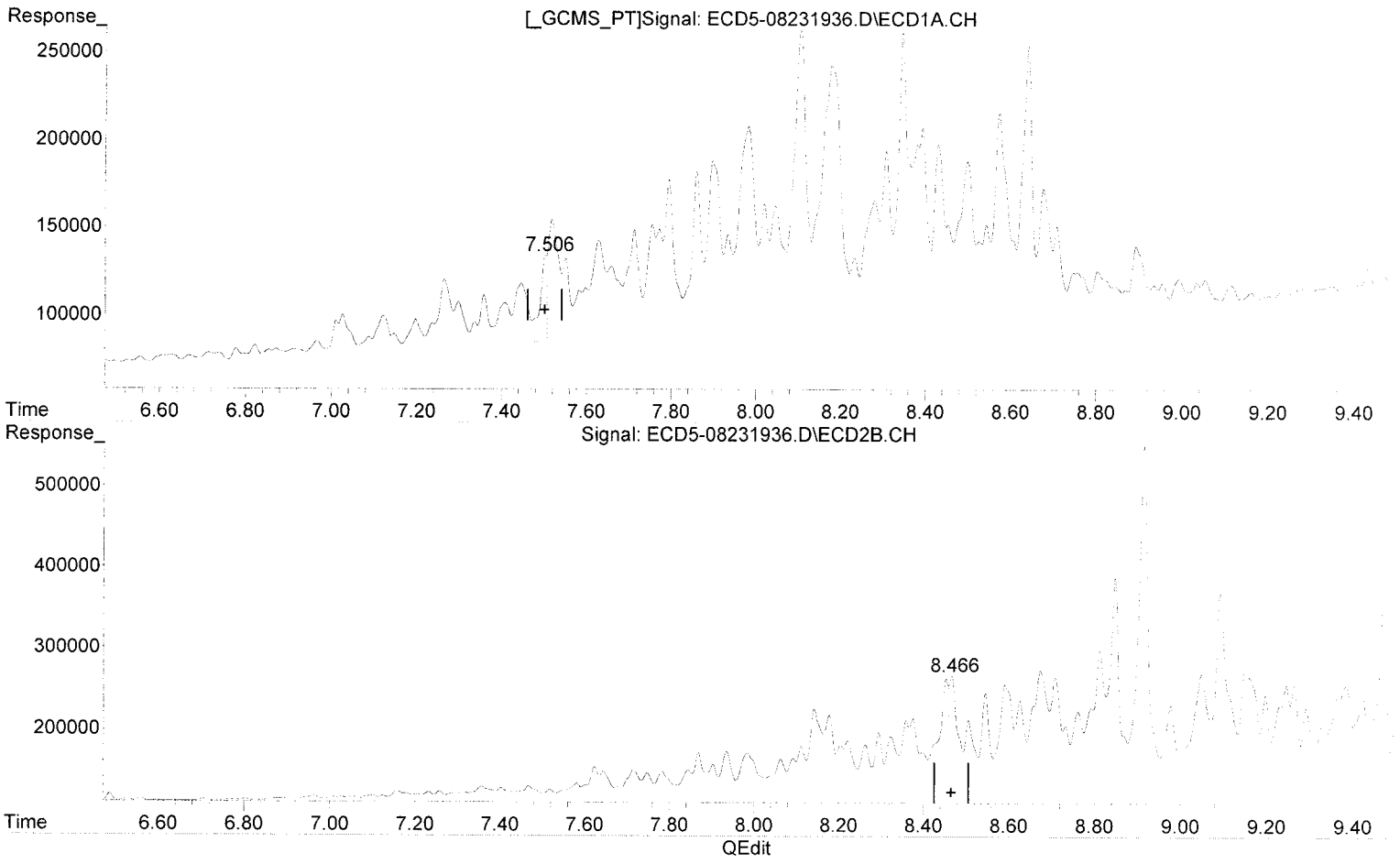
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.506	8.466	49250	136848	69.167m	65.864
37)	Toxaphene...	7.794	8.813	88321	164706	67.251	67.260
38)	Toxaphene...	8.105	8.847	169381	254833	62.397	67.028
39)	Toxaphene...	8.346	8.915	164317	416348	64.716	65.275
40)	Toxaphene...	8.573	9.091	114720	233185	60.554	65.984
41)	Toxaphene...	8.641	9.470	153138	230922	57.297	70.513
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 69.167 ng/mL (m)

response 49250

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

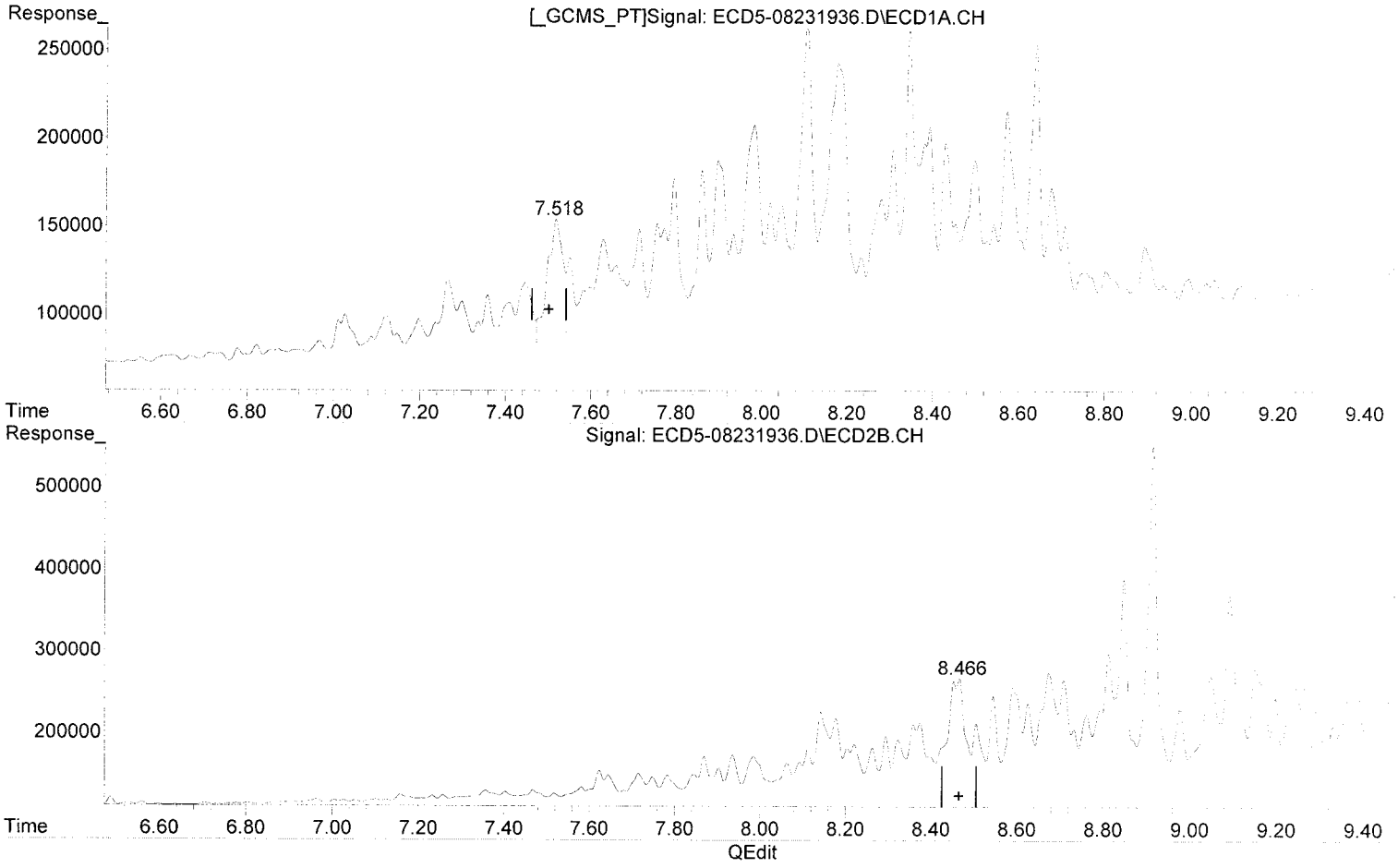
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 96.999 ng/mL

response 69068

MJB 6/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

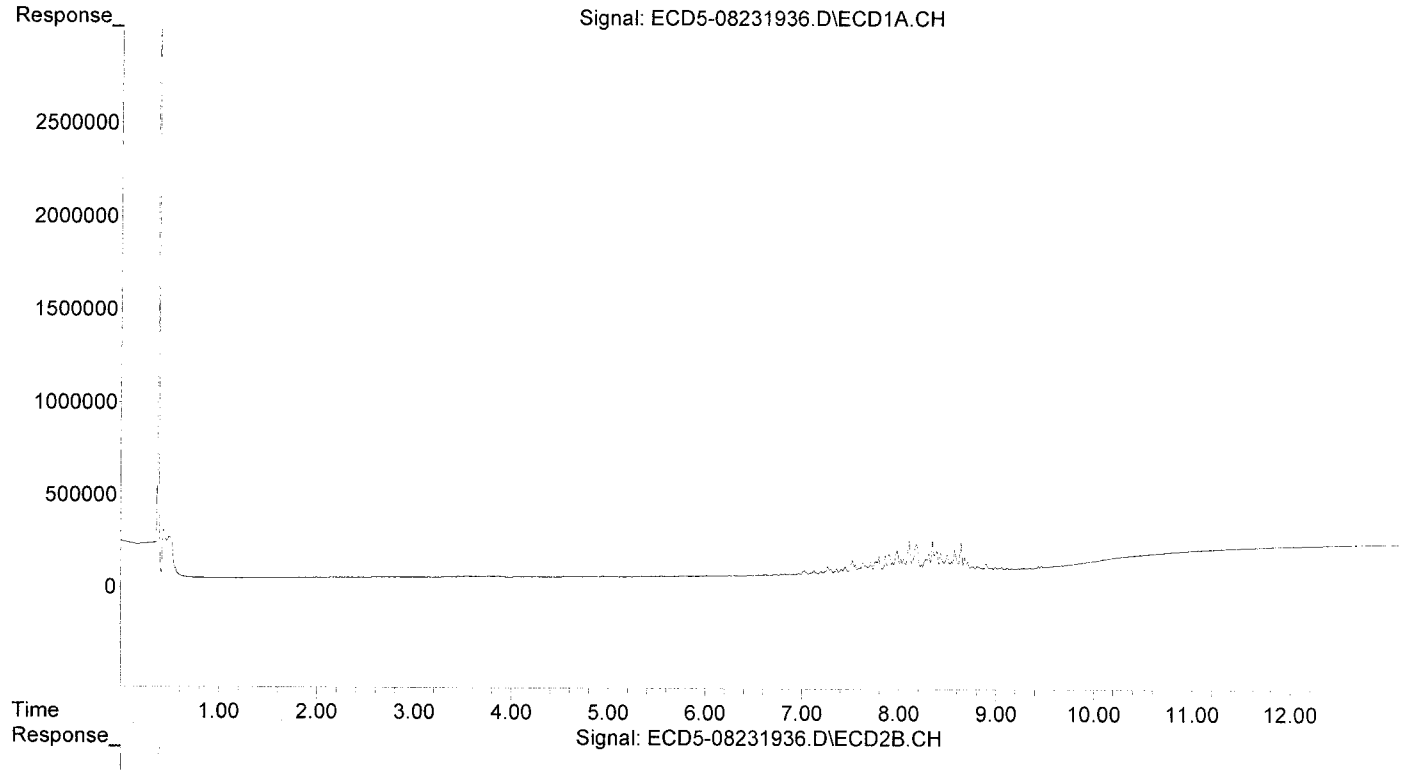
response 136848

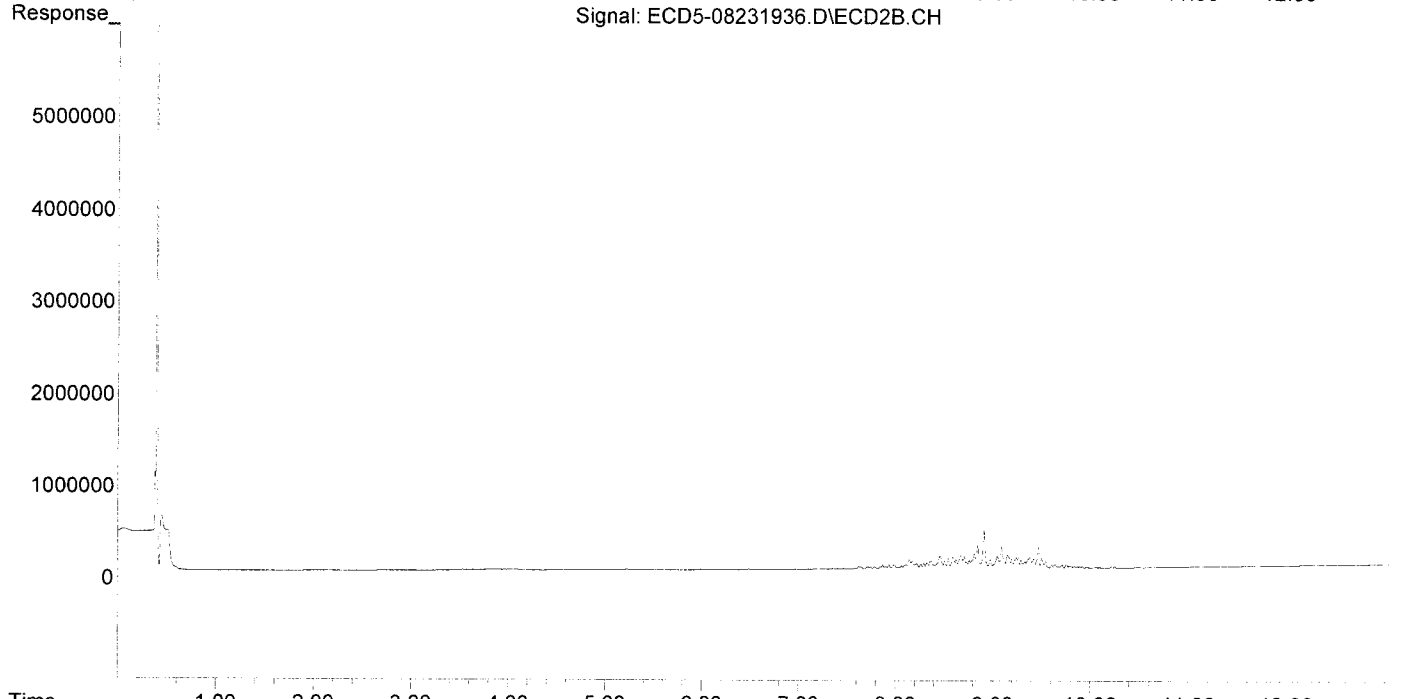
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

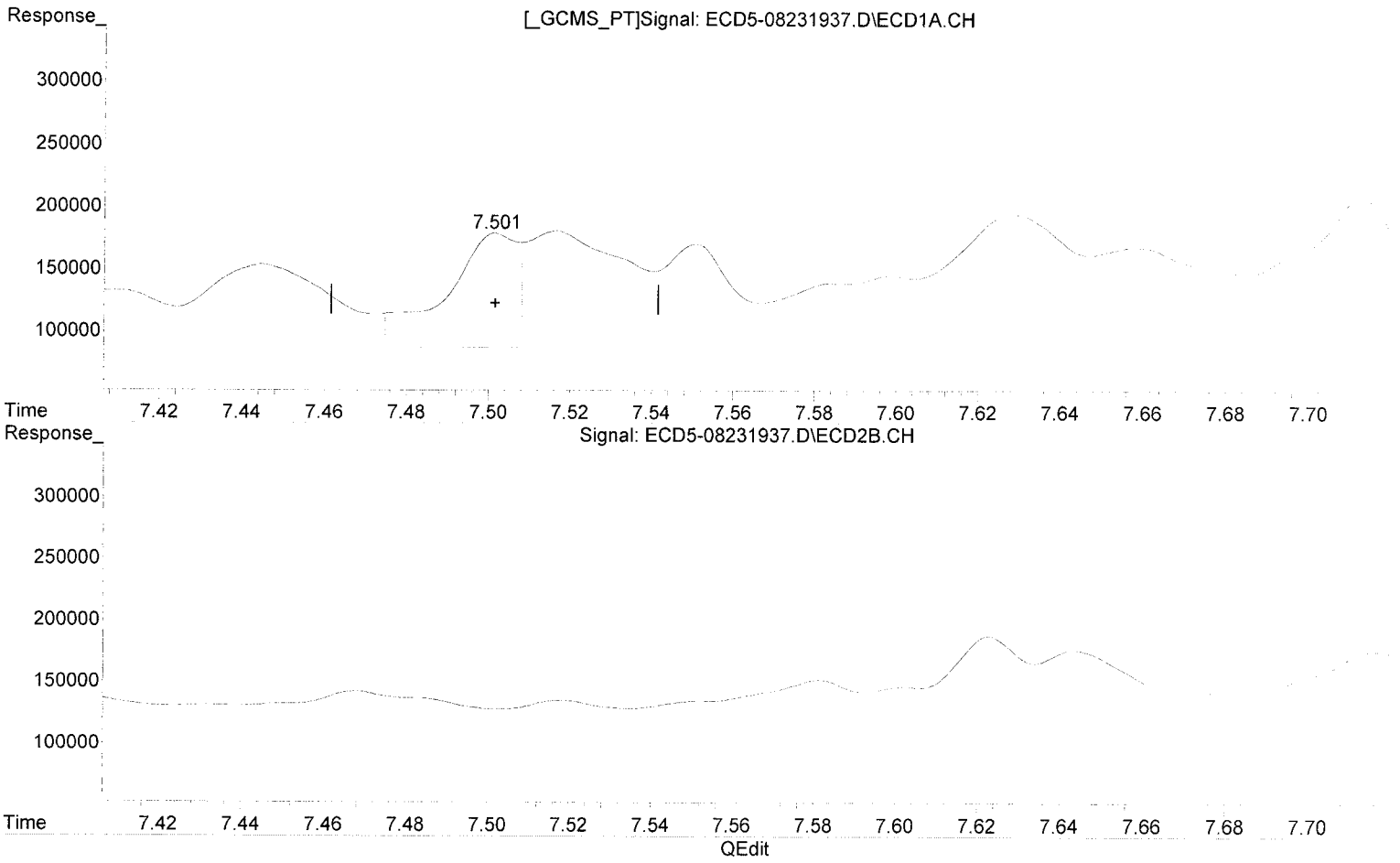
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.501	8.466	91576	267534	128.609m	128.761
37)	Toxaphene...	7.795	8.813	166085	324070	126.462	132.338
38)	Toxaphene...	8.106	8.848	332842	494430	122.613	130.048
39)	Toxaphene...	8.346	8.915	320313	811948	126.154	127.297
40)	Toxaphene...	8.574	9.091	228960	452209	120.854	127.962
41)	Toxaphene...	8.641	9.471	302577	452485	113.210	135.226
42)	Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 128.609 ng/mL m

response 91576

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

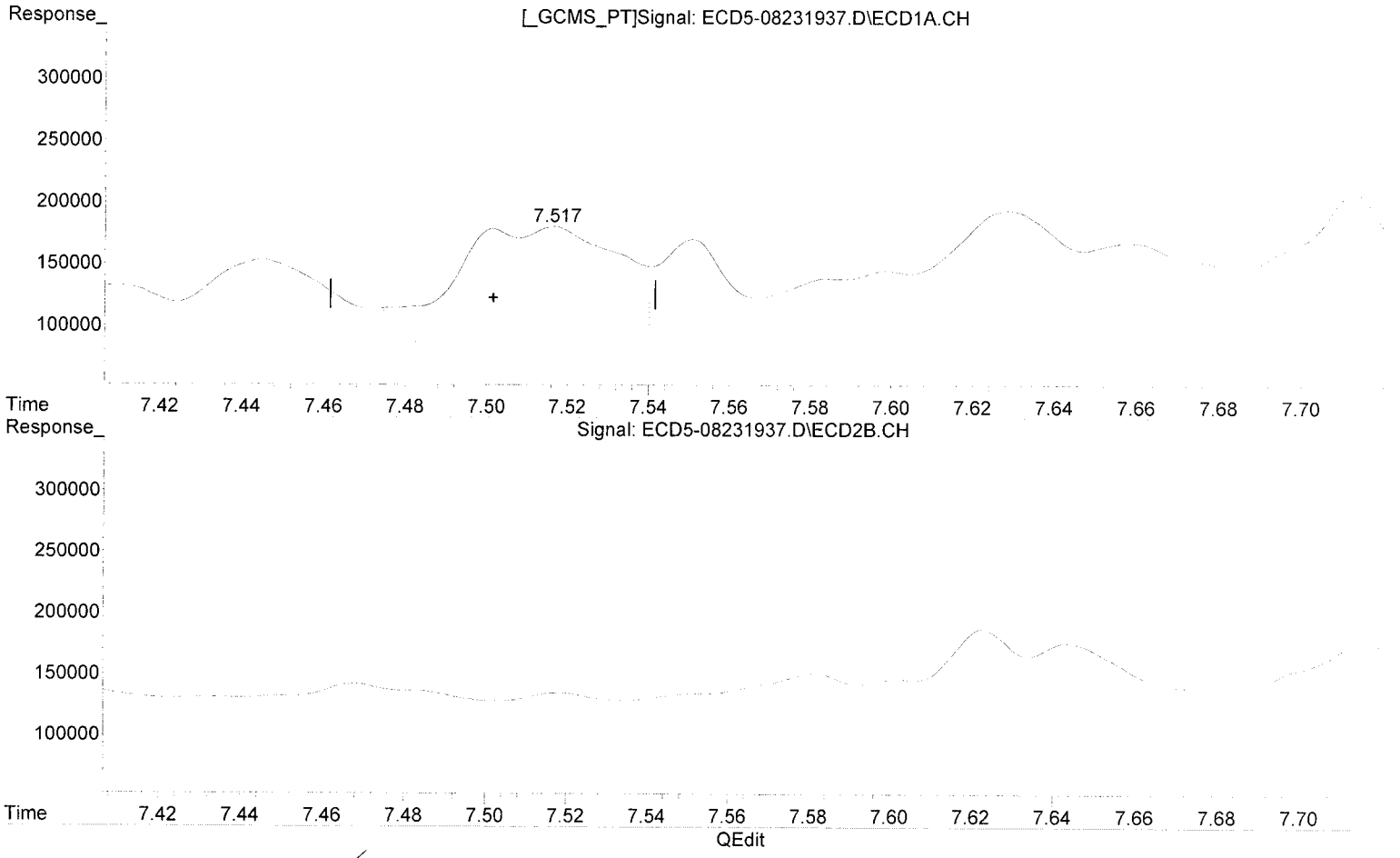
response 267534

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 130.814 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

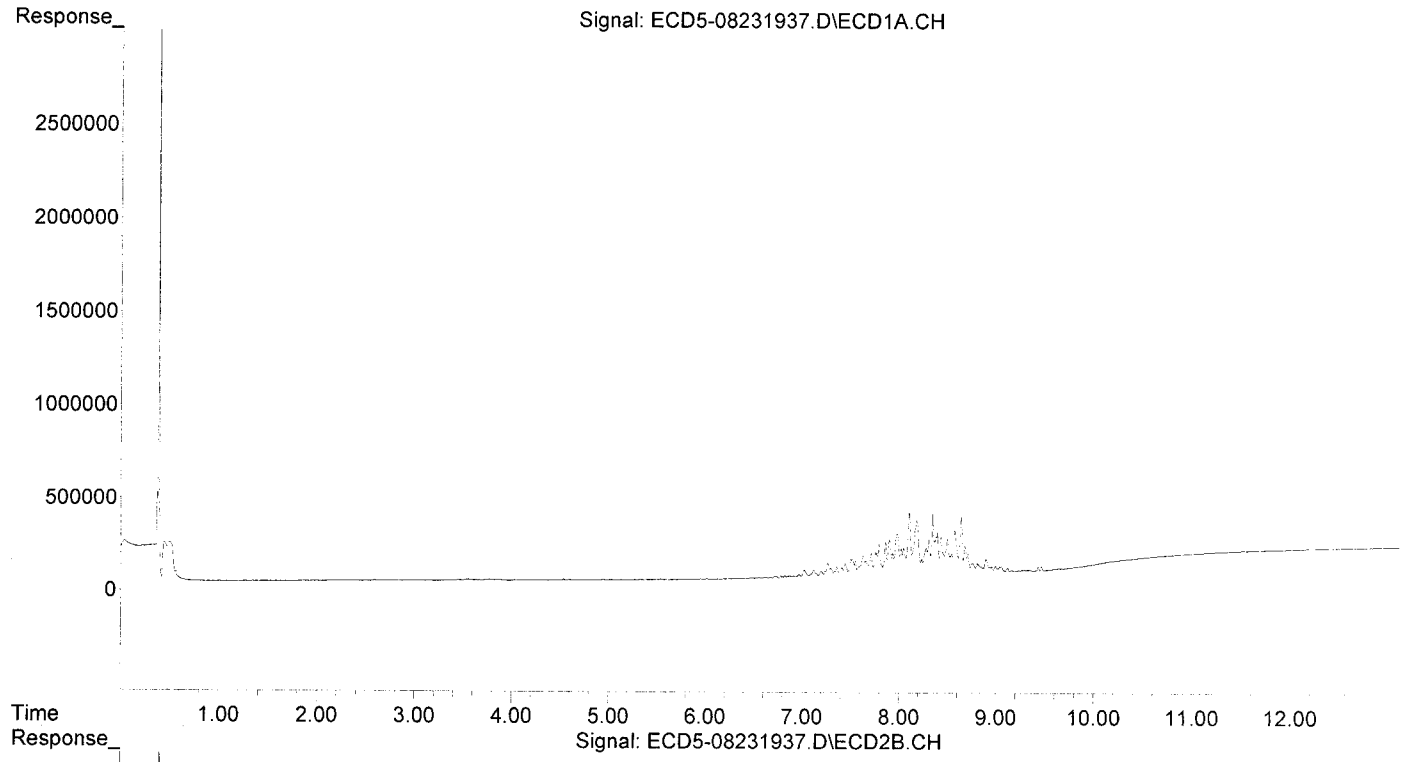
response 267534

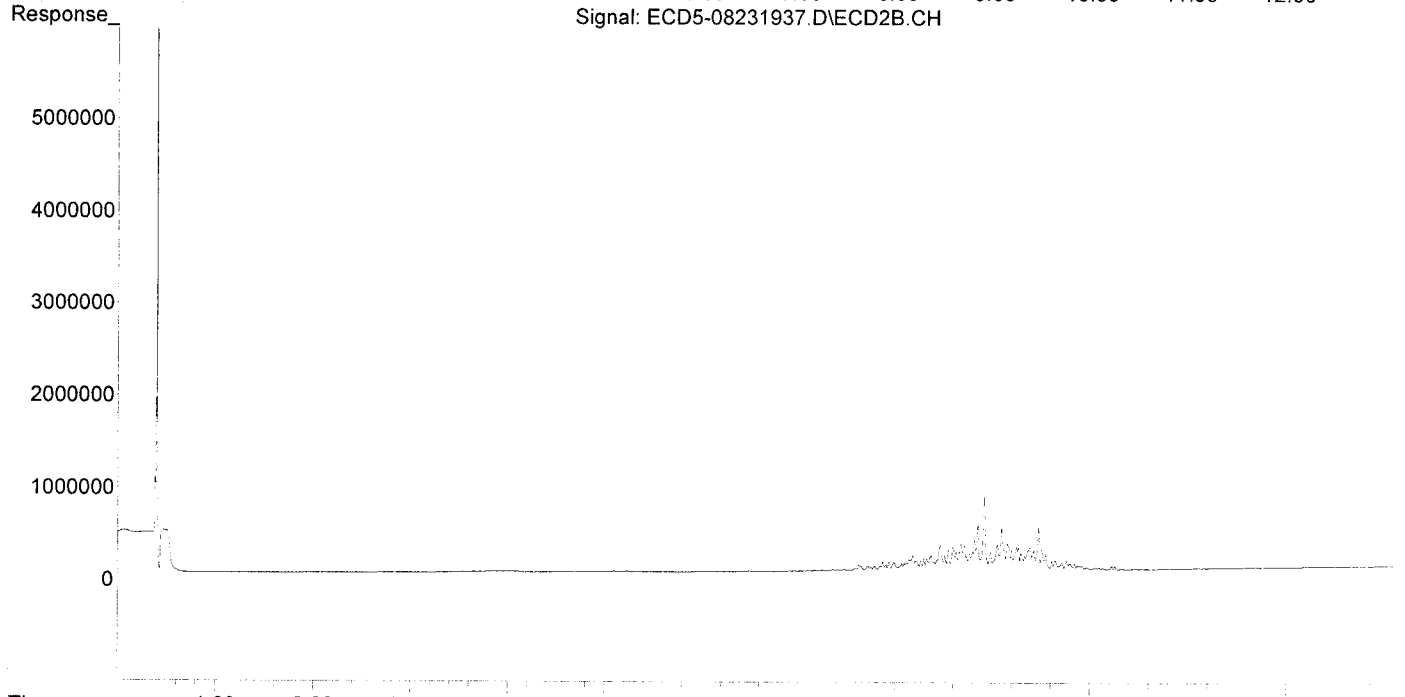
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

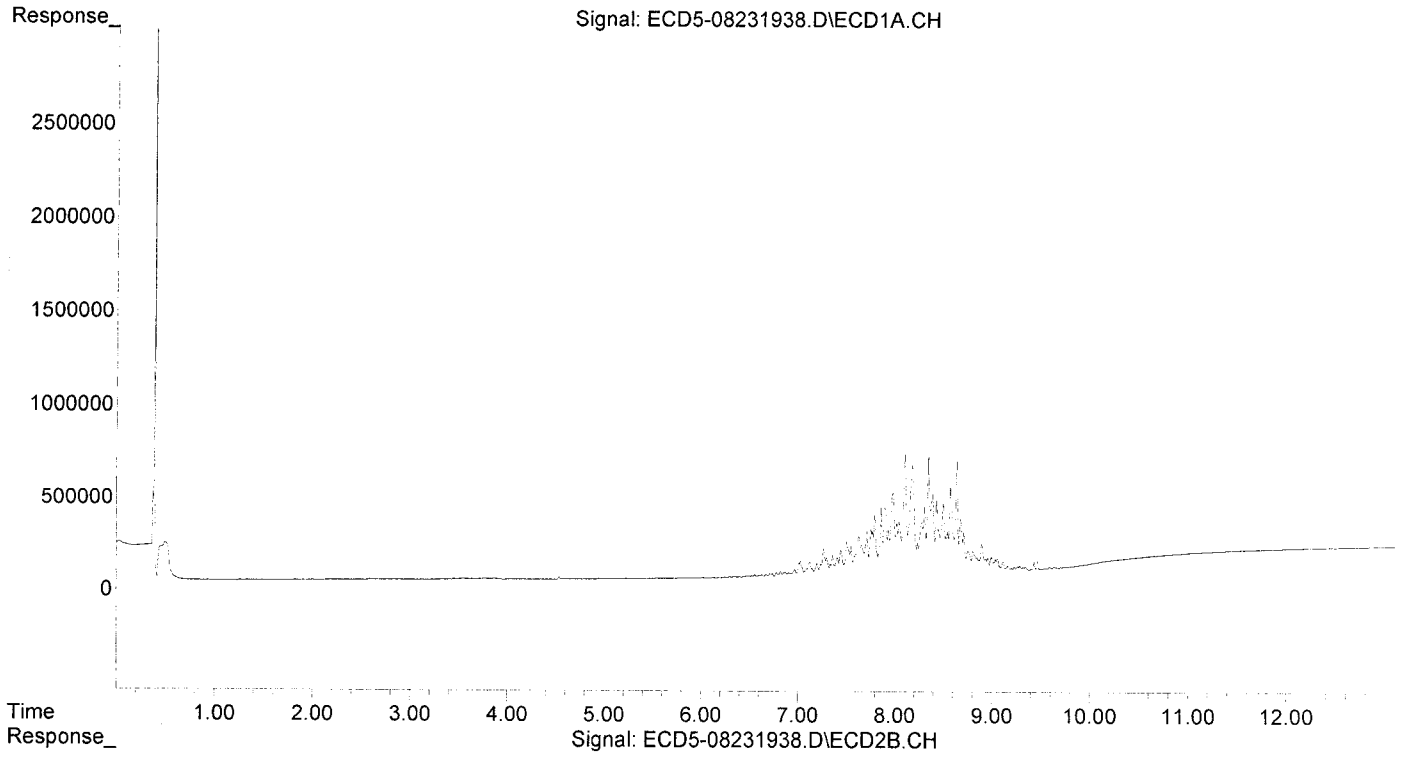
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	176047	508983	247.240	244.968
37)		Toxaphene...	7.795	8.812	317587	645322	241.821	263.525
38)		Toxaphene...	8.105	8.847	644464	995555	237.409	261.857
39)		Toxaphene...	8.346	8.914	632351	1580436	249.049	247.779
40)		Toxaphene...	8.574	9.090	454431	895397	239.867	253.371
41)		Toxaphene...	8.640	9.469	597991	905244	253.740	263.952
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.

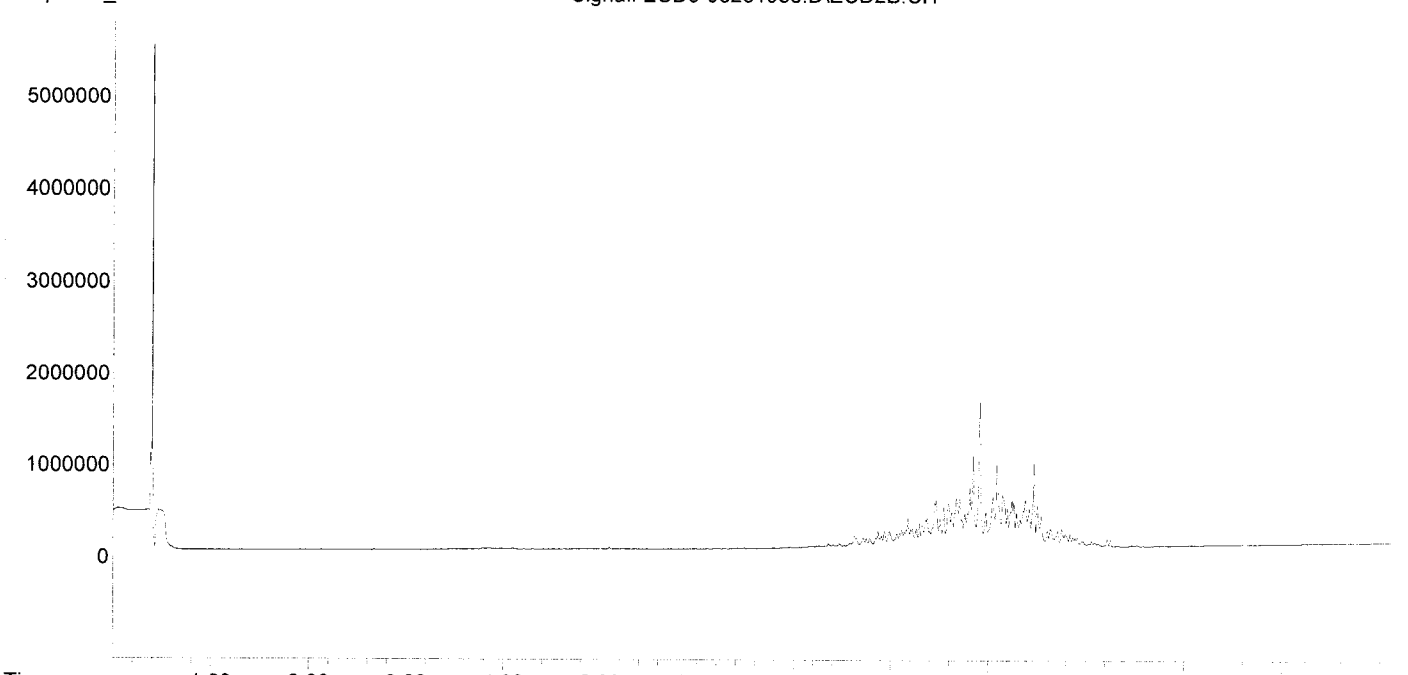
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

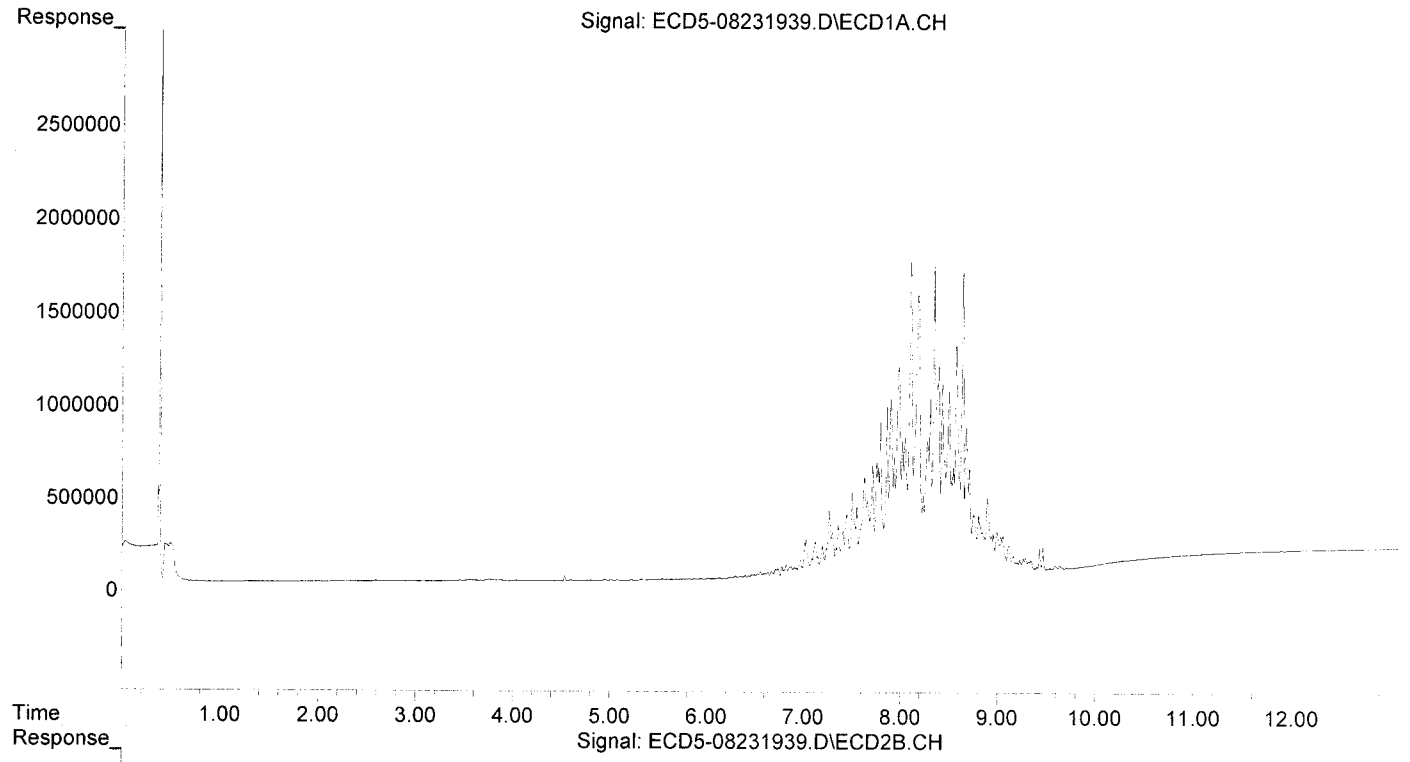
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	441826	1308994	620.497	630.004
37)		Toxaphene...	7.794	8.812	819454	1647741	623.958	672.874
38)		Toxaphene...	8.105	8.848	1677481	2475022	617.954	650.997
39)		Toxaphene...	8.346	8.915	1649569	4252640	649.677	666.725
40)		Toxaphene...	8.574	9.091	1221560	2340668	644.788	662.340
41)		Toxaphene...	8.640	9.470	1623402	2369795	607.400	652.719
42)		Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.

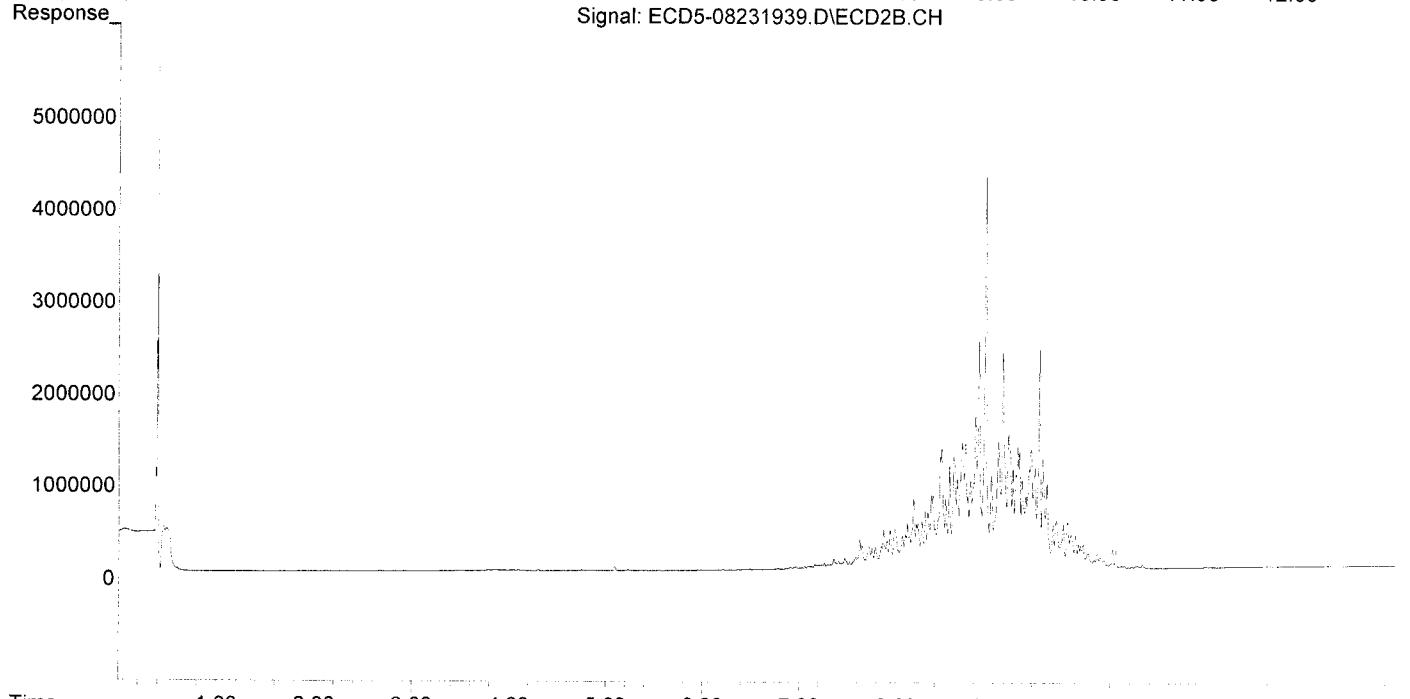
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

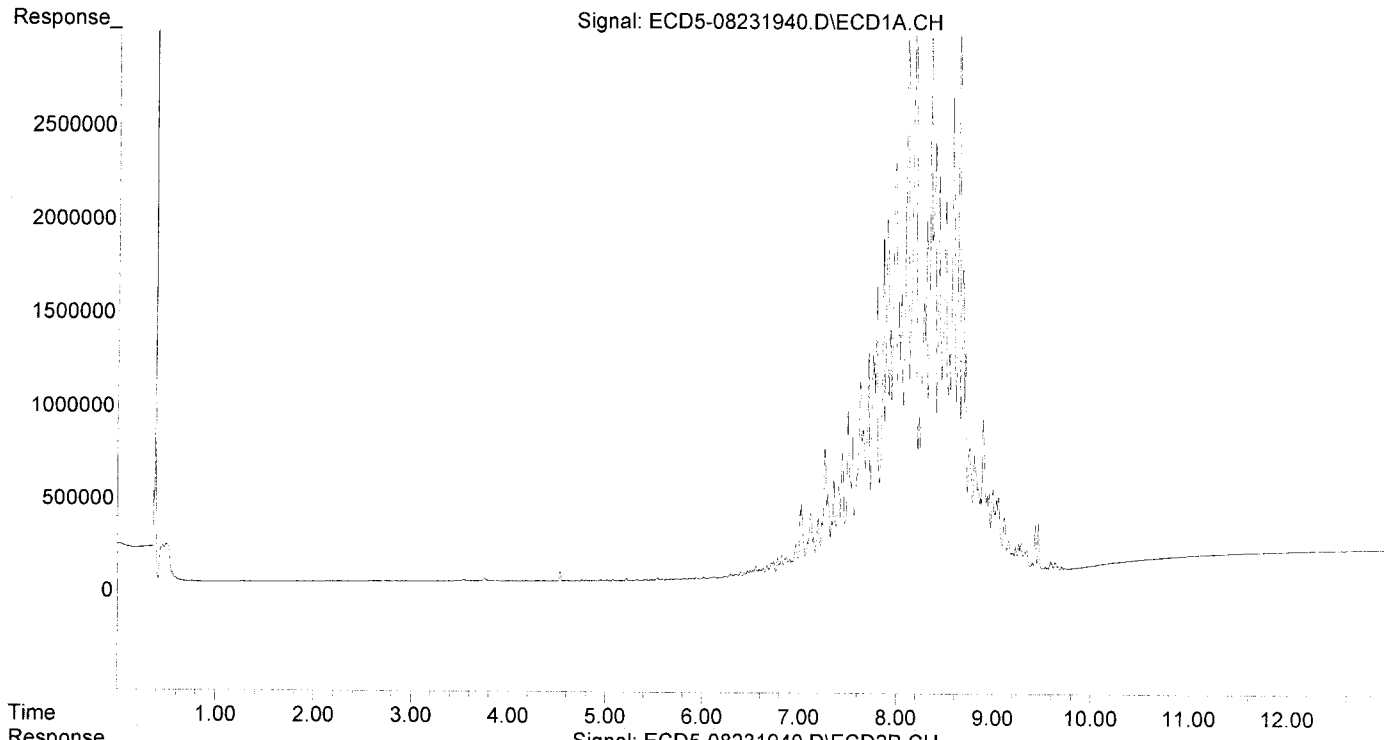
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.467	871889	2654886	1224.474	1277.768
37)		Toxaphene...	7.793	8.813	1556013	3384036	1184.797	1381.910
38)		Toxaphene...	8.105	8.848	3495877	5168269	1287.817	1359.392
39)		Toxaphene...	8.345	8.915	3287014	8650068	1294.579	1356.150
40)		Toxaphene...	8.573	9.091	2546293	4900430	1344.035	1386.677
41)		Toxaphene...	8.640	9.470	3406737	5046645	1274.639	1281.306
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.

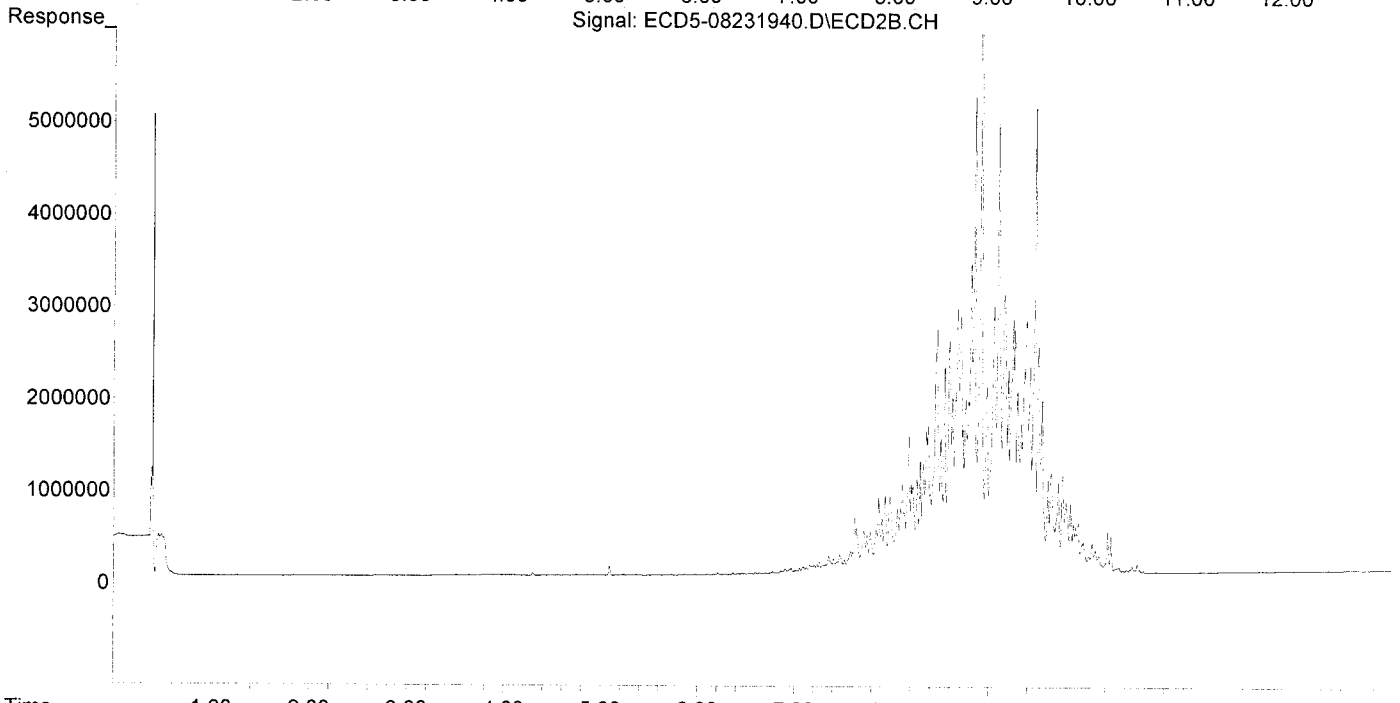
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/20/19

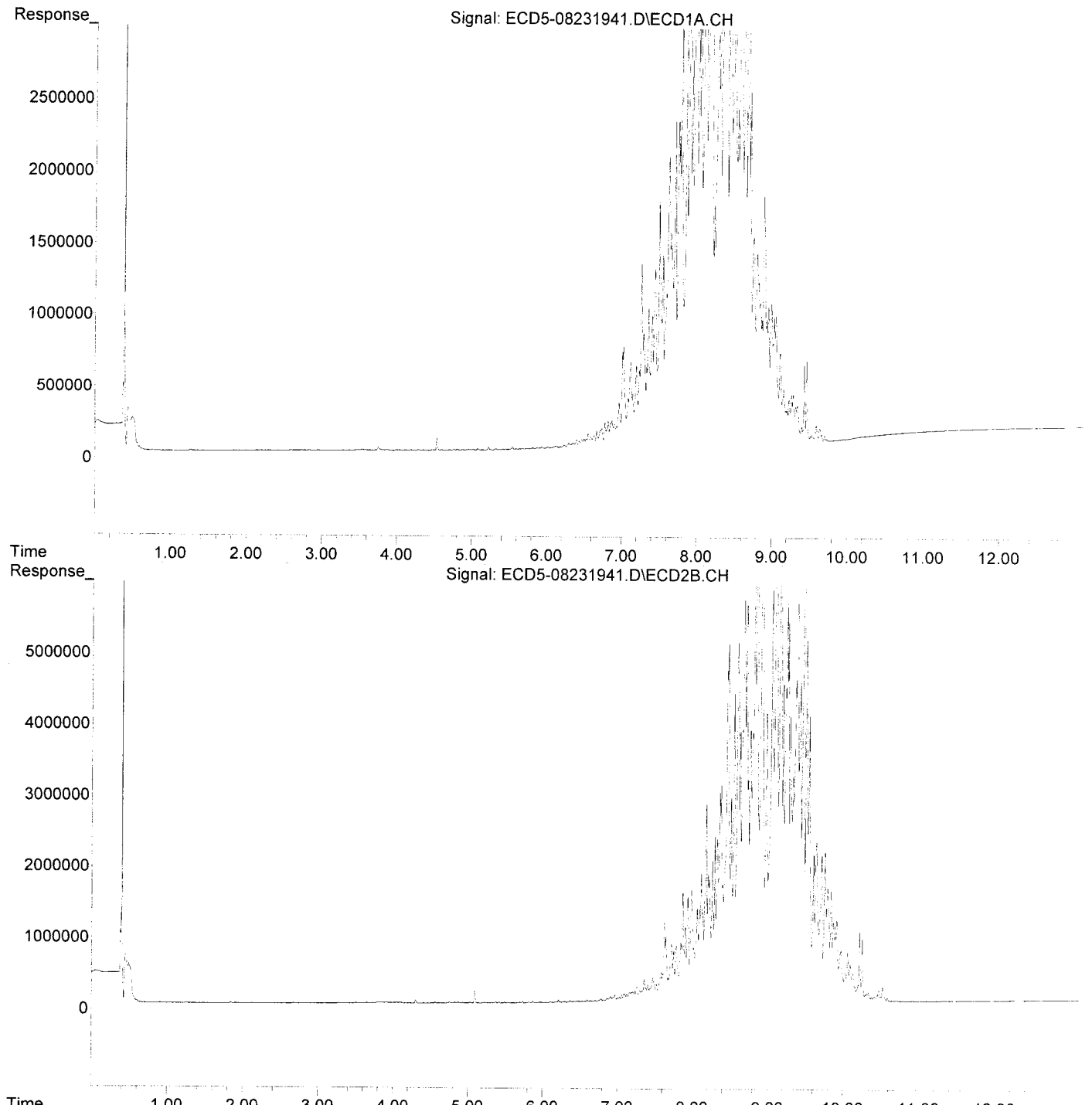
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.500	8.466	1674674	5030917	2351.899	2421.326
37)		Toxaphene...	7.792	8.813	2958997	6610397	2253.073	2699.433
38)		Toxaphene...	8.104	8.848	6831460	10545708	2516.585	2773.802
39)		Toxaphene...	8.345	8.914	6407070	17190037	2523.403	2695.039
40)		Toxaphene...	8.572	9.091	5074570	9435236	2678.561	2669.893
41)		Toxaphene...	8.640	9.471	6510950	10090951	2436.088	2281.169
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data

Batch 9110595
Sequence 9K12037 (A9J1007-01)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110595 (Sediment)

Prep Method: EPA 1311/3510C (Neutral Ext.)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110595-BLK1		QC	11/08/19 10:06	200	5				100					
	9110595-BSD1		QC	11/08/19 10:06	200	5	A19E266		100	100					
	9110595-BS1		QC	11/08/19 10:06	200	5	A19E266		100	100					
	A9J1006-01	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-071SC-C-00 -08-191028				
	A9J1006-02	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-074SC-C-00 -7.3-191028				
	A9J1007-01	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-083SC-C-00 -08-191028				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

Reviewed By: MB 11/12/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110595 (Sediment)

Prep Method: EPA 1311/3510C (Neutral Ext.)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110595-BLK1		QC	11/08/19 10:06	200	5				100				5	
	9110595-BSD1		QC	11/08/19 10:06	200	5	A19E266		100	100				6	
	9110595-BS1		QC	11/08/19 10:06	200	5	A19E266		100	100				6	
	A9J1006-01	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-071SC-C-00 -08-191028			5	
	A9J1006-02	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-074SC-C-00 -7.3-191028			5	
	A9J1007-01	A	1311/8081B TCLP Pest Reg List	11/08/19 10:06	200	5				100	PDI-083SC-C-00 -08-191028			5	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

3x rinse

Witness: JJ 11-8-19

Bottle Check: N/A 11/8/19

* = No BLK fluid added

2mL exchanged into 2mL Hexane 11/8/19

Prepared By: 11/8/19 Date

Reviewed By: 11/08/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K12037** Instrument: **DUALECD5**

Date: **11/12/19 10:47** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K12037-BKD1	Sediment	QC	QC				A19J201
2	9K12037-CCV1	Sediment	QC	QC				A19K133
3	9K12037-CCV2	Sediment	QC	QC				A19J408
4	9K12037-CCB1	Sediment	QC	QC				A19K026
5	9110595-BLK1	Sediment	QC	QC		9110595		
6	9110595-BS1	Sediment	QC	QC		9110595		
7	9110595-BSD1	Sediment	QC	QC		9110595		
8	A9J1006-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
9	A9J1006-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
10	A9J1007-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
11	A9J0663-21RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/30/19	9101722		
12	9K12037-IBL1	Sediment	QC	QC				
13	A9J0841-01RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/05/19	9101722		
14	9K12037-IBL2	Sediment	QC	QC				
15	A9J0841-10RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/05/19	9101722		
16	9K12037-IBL3	Sediment	QC	QC				
17	9K12037-CCV3	Sediment	QC	QC				A19K134
18	9K12037-CCV4	Sediment	QC	QC				A19J409
19	9K12037-CCB2	Sediment	QC	QC				A19K026
20	9110639-BLK1	Soil	QC	QC		9110639		
21	9110639-BS1	Soil	QC	QC		9110639		
22	A9K0197-04RE1	Soil	8081B Pesticides		11/13/19	9110639		
23	9110639-DUP1	Soil	QC	QC		9110639		
24	A9K0197-08RE1	Soil	8081B Pesticides		11/13/19	9110639		
25	A9K0197-12RE1	Soil	8081B Pesticides		11/13/19	9110639		
26	A9K0197-16RE1	Soil	8081B Pesticides		11/13/19	9110639		
27	A9K0197-21RE1	Soil	8081B Pesticides		11/13/19	9110639		
28	A9K0197-26RE1	Soil	8081B Pesticides		11/13/19	9110639		
29	A9K0197-27RE1	Soil	8081B Pesticides		11/13/19	9110639		
30	9K12037-CCV5	Sediment	QC	QC				A19K133
31	9K12037-CCB3	Sediment	QC	QC				A19K026

Comments: Complete

Data Entered By: MB 11/13/19

Data Reviewed By: MB 11/13/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K12037** Instrument: **DUALECD5**

Date: **11/12/19 10:47** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K12037-BKD1	Sediment	QC	QC				A19J201
2	9K12037-CCV1	Sediment	QC	QC				A19K133
3	9K12037-CCV2	Sediment	QC	QC				A19J408
4	9K12037-CCB1	Sediment	QC	QC				A19K026
5	9110595-BLK1	Sediment	QC	QC		9110595		
6	9110595-BS1	Sediment	QC	QC		9110595		
7	9110595-BSD1	Sediment	QC	QC		9110595		
8	A9J1006-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
9	A9J1006-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
10	A9J1007-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/11/19	9110595		
11	A9J0663-21RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/30/19	9101722		
12	9K12037-IBL1	Sediment	QC	QC				
13	A9J0841-01RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/05/19	9101722		
14	9K12037-IBL2	Sediment	QC	QC				
15	A9J0841-10RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/05/19	9101722		
16	9K12037-IBL3	Sediment	QC	QC				
17	9K12037-CCV3	Sediment	QC	QC				A19K134
18	9K12037-CCV4	Sediment	QC	QC				A19J409
19	9K12037-CCB2	Sediment	QC	QC				A19K026

Data Entered By: MJB 11/12/19

Data Reviewed By: MJ 11/13/19

Comments: Partial

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:45:00 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.427	938803	NoCal	ng/mL
2)	Endrin	7.790	95287190	NoCal	ng/mL
3)	4,4'-DDD	7.844	8892734	NoCal	ng/mL
4)	4,4'-DDT	8.042	155584198	NoCal	ng/mL
5)	Endrin Aldehyde	8.137	1617044	NoCal	ng/mL
6)	Endrin Ketone	8.724	6750338	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.191	1491198	NoCal	ng/mLm
9)	Endrin [2C]	8.555	141499451	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.605	16121954	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.938	2937959	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.829	223782672	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.522	9303936	NoCal	ng/mL

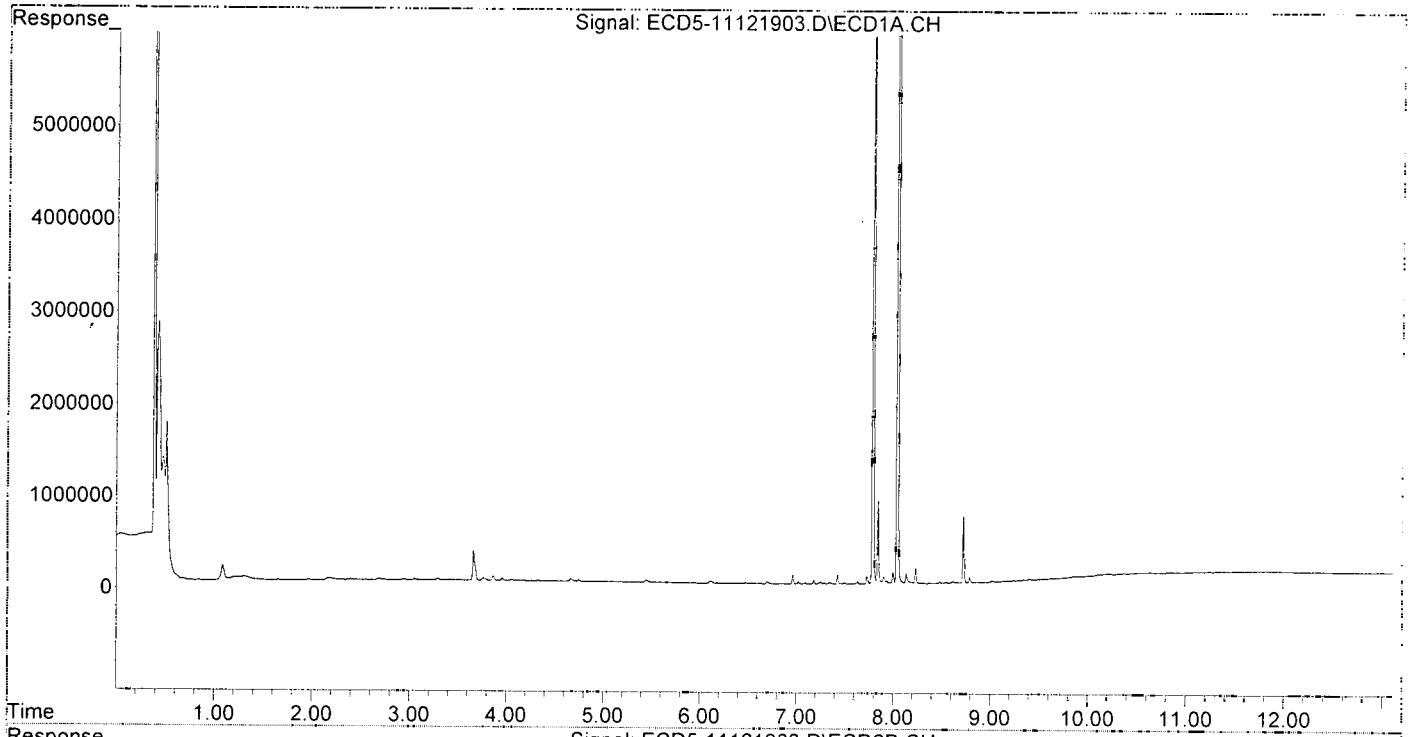
(f)=RT Delta > 1/2 Window (m)=manual int.

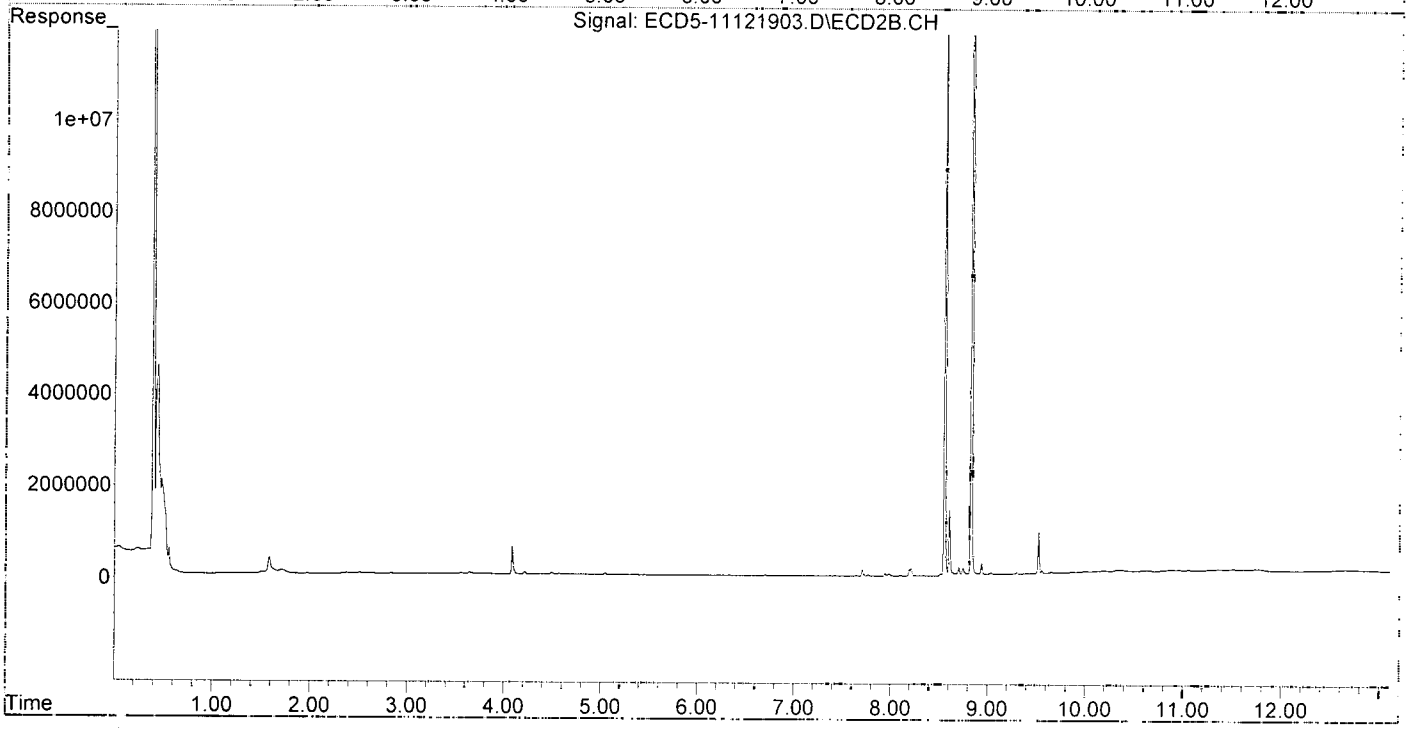
MJB 11/12/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:45:00 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

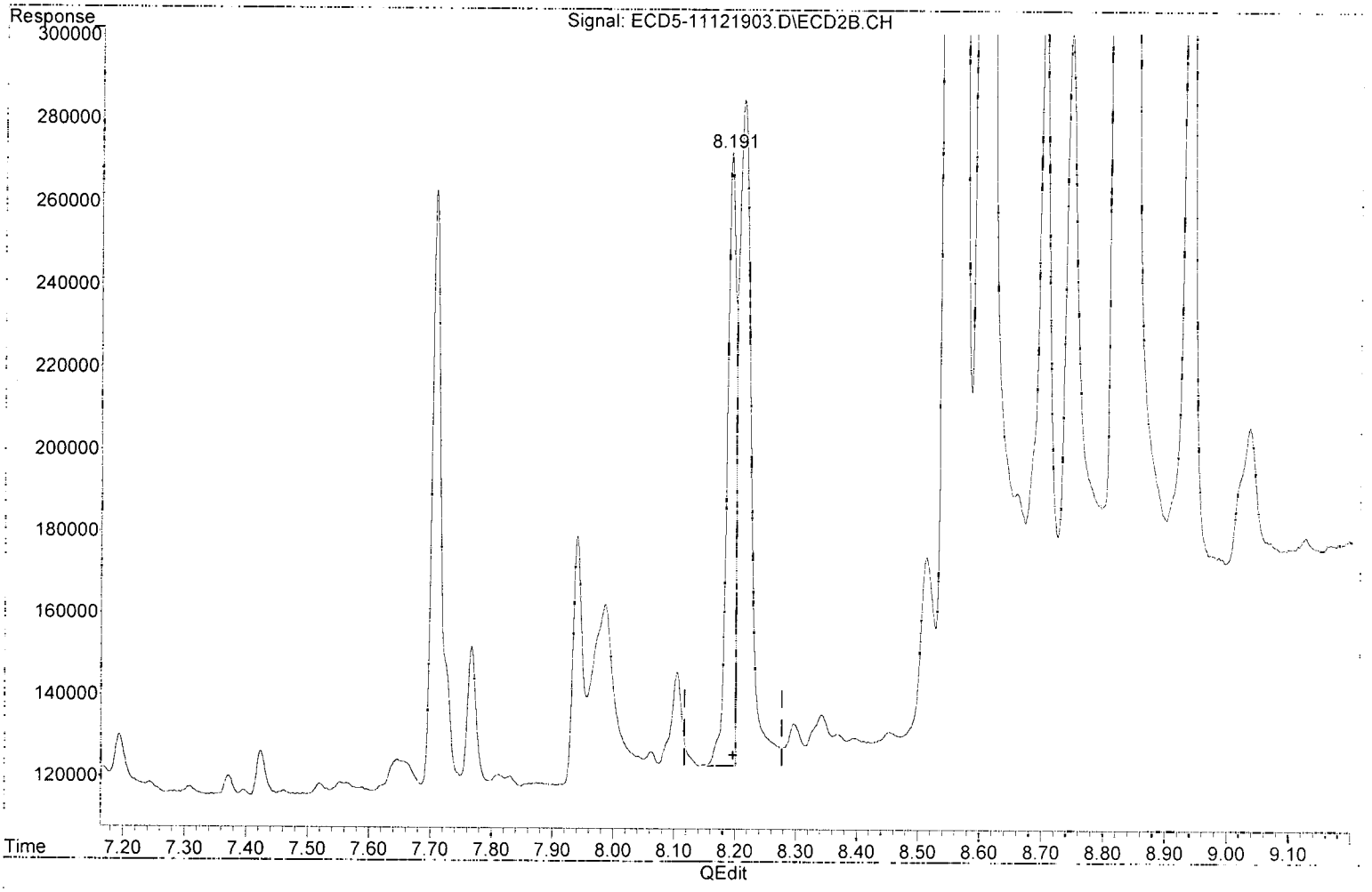




Quantitation Report (Qedit)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:44:25 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(8) 4,4'-DDE [2C]

8.191min 0.000 ng/mL (m)

response 1491198

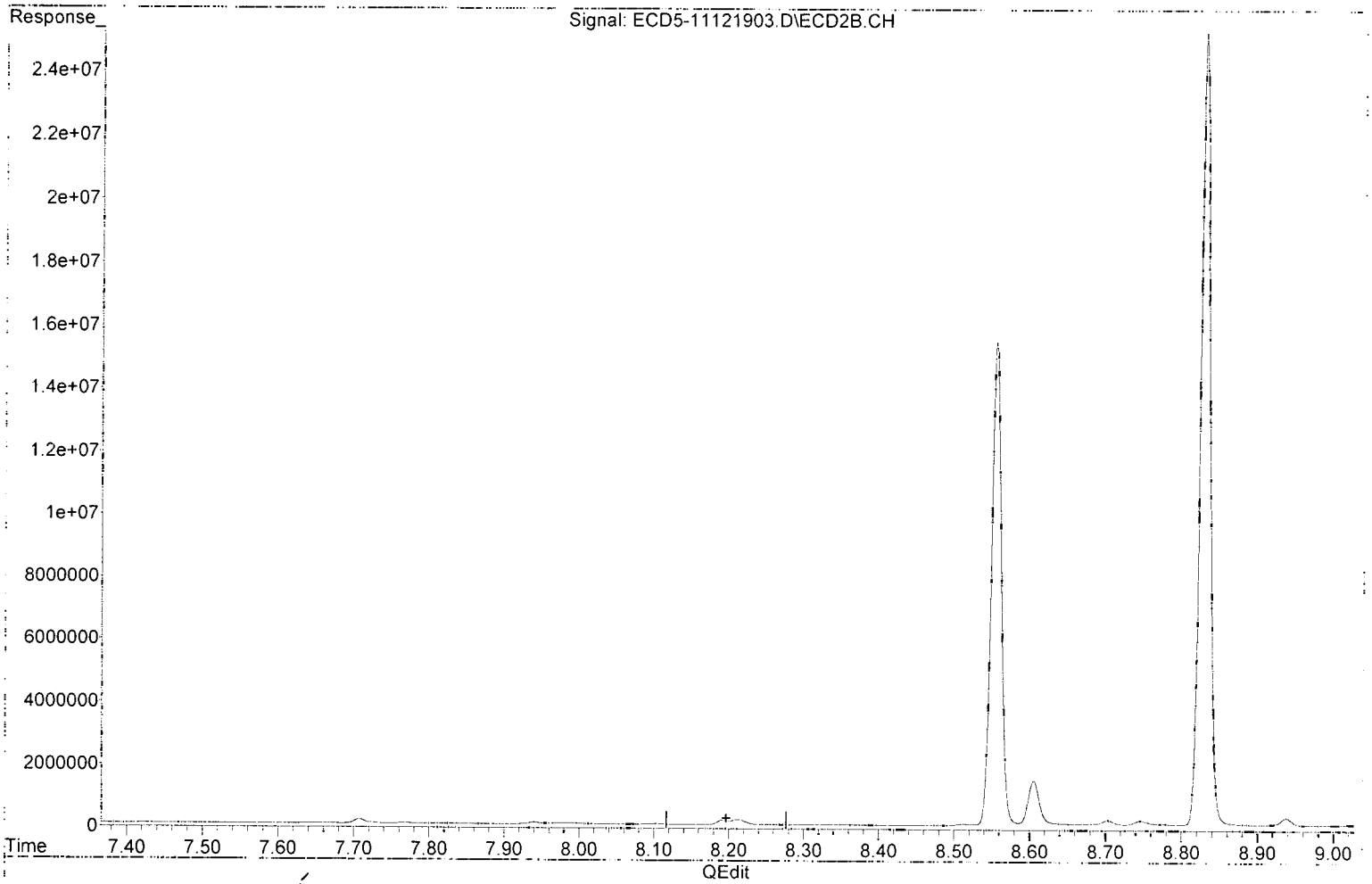
MJB 12/12/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:44:25 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(8) 4,4'-DDE [2C]

8.197min 0.000 ng/mL

response 0

MJB 11/12/19

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:44:25 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MT
MJB 11/12/19

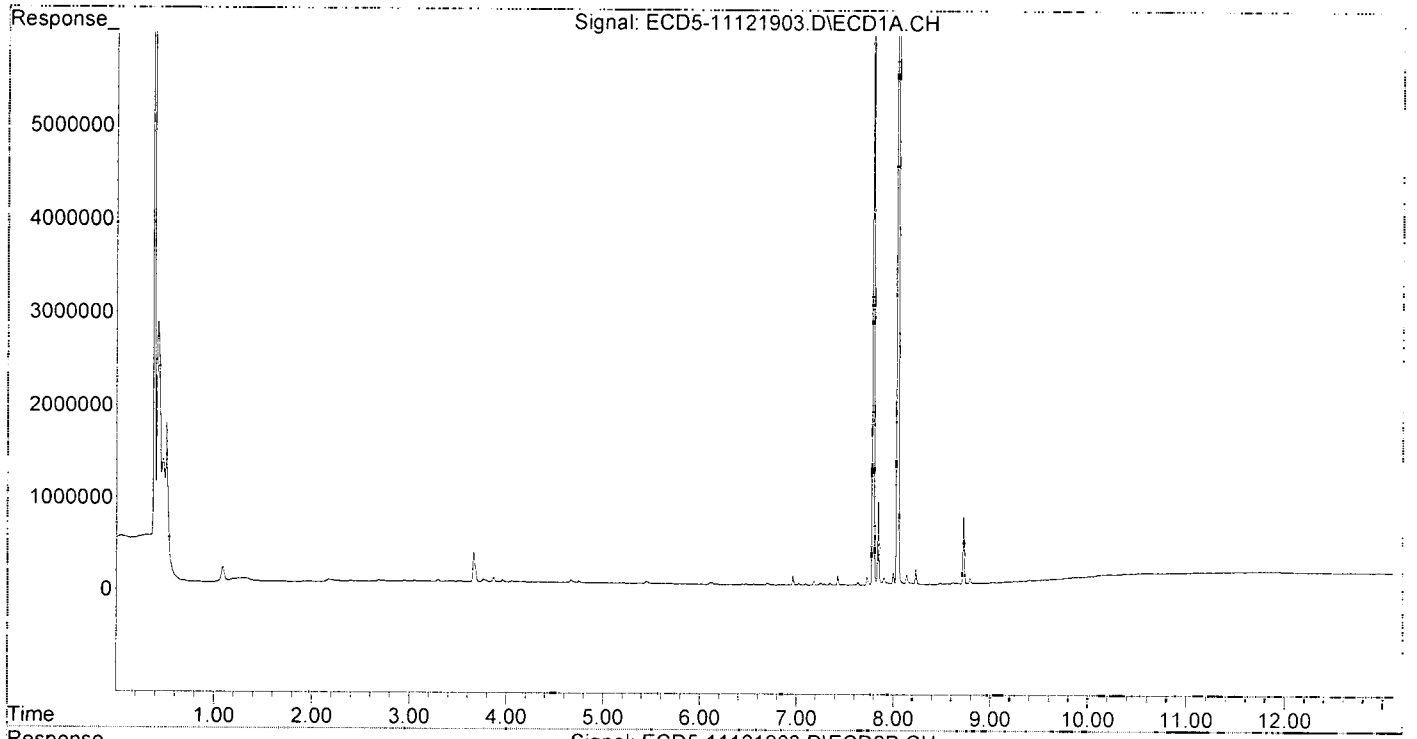
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.427	938803	NoCal	ng/mL
2)	Endrin	7.790	95287190	NoCal	ng/mL
3)	4,4'-DDD	7.844	8892734	NoCal	ng/mL
4)	4,4'-DDT	8.042	155584198	NoCal	ng/mL
5)	Endrin Aldehyde	8.137	1617044	NoCal	ng/mL
6)	Endrin Ketone	8.724	6750338	NoCal	ng/mL
8)	4,4'-DDE [2C]	0.000	0	N.D.	ng/mL
9)	Endrin [2C]	8.555	141499451	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.605	16121954	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.938	2937959	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.829	223782672	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.522	9303936	NoCal	ng/mL

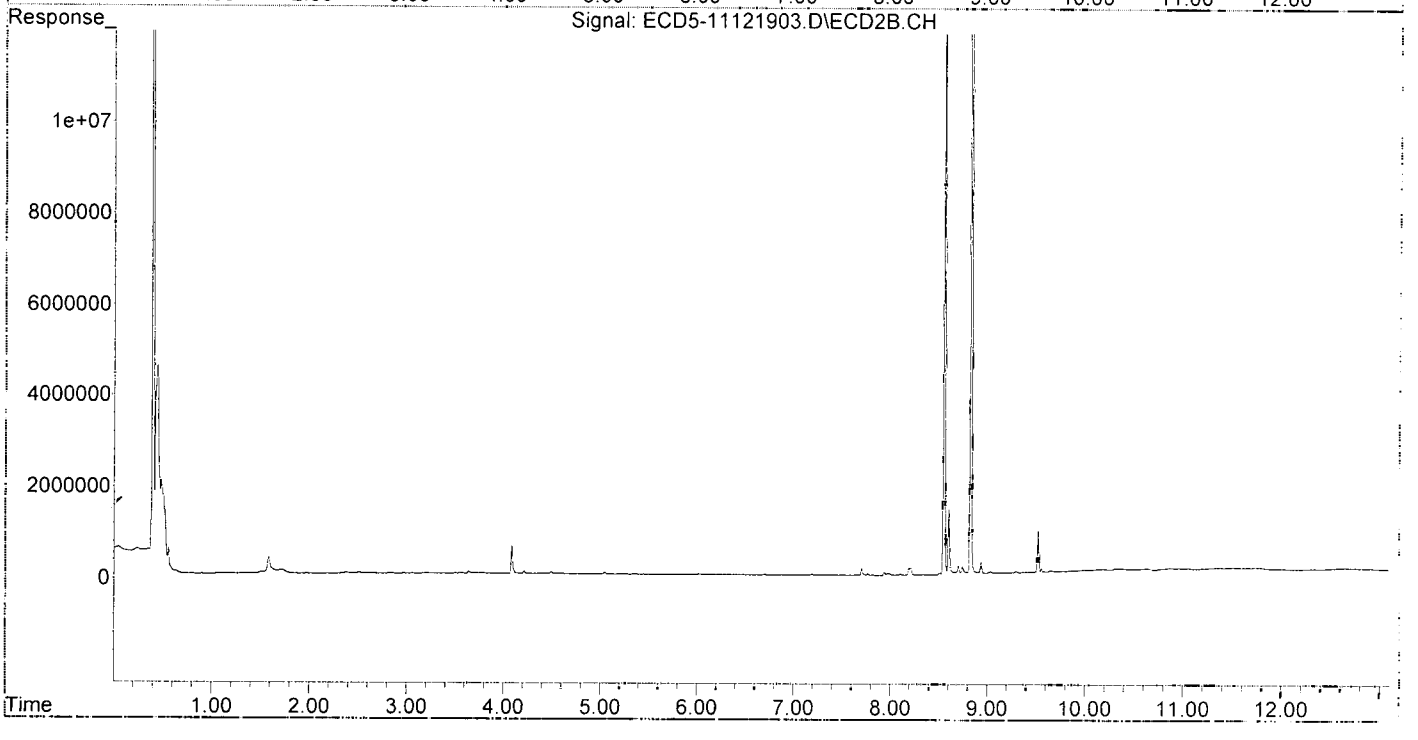
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K12037\
Data File : ECD5-11121903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:33
Operator : MJB
Sample : 9K12037-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:44:25 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:50
Operator : MJB
Sample : 9K12037-CCV1
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

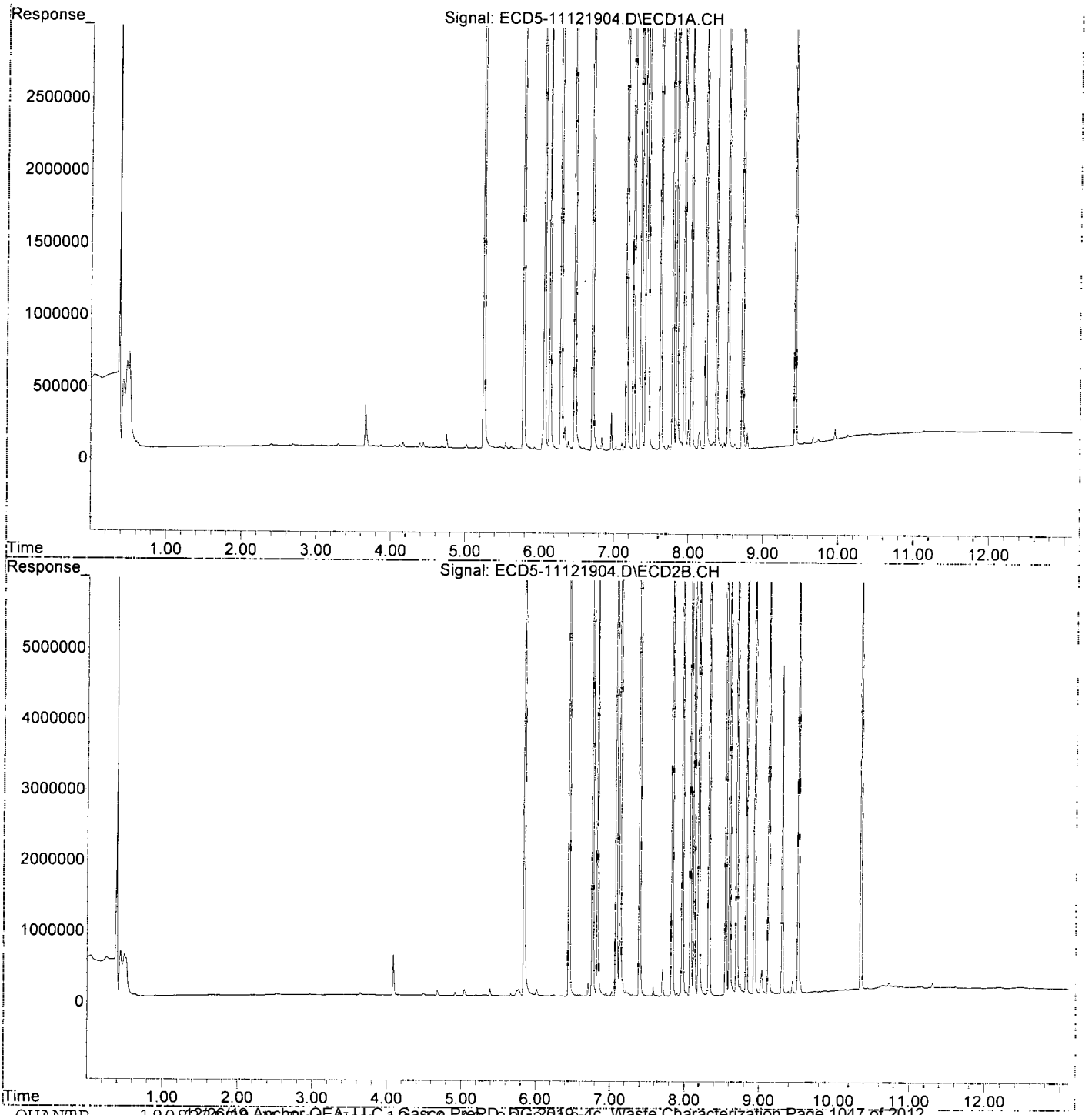
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.248	5.843	8585596	13380878	51.728	45.611	
22)	S	DCBP (S)	9.428	10.355	6644717	8753829	47.093	48.696	
		Target Compounds							
2)		a-BHC	5.782	6.447	12345646	20123268	53.834	49.041	
3)		g-BHC	6.063	6.764	10641321	17689383	52.738	49.591	
4)		b-BHC	6.138	6.830	4237222	6934145	46.880	43.813	
5)		Heptachlor	6.471	7.134	9573102	15626173	52.804	51.070	
6)		d-BHC	6.285	7.082	10001446	15958816	50.849	45.252	
7)		Aldrin	6.710	7.397	9869972	16629144	49.988	50.484	
8)		Heptachlo...	7.168	7.834	9341896	14616096	50.722	48.583	
9)		trans-Chl...	7.263	7.973	9201948	15053720	49.769	48.045	
10)		cis-Chlor...	7.361	8.080	9083619	14280307	49.890	49.032	
11)		Endosulfa...	7.455	8.129	8589479	13142950	50.473	47.762	
12)		4,4'-DDE	7.426	8.191	9379841	14244592	49.753	45.850	
13)		Dieldrin	7.626	8.328	9754634	15473953	50.811	50.876	
14)		Endrin	7.789	8.554	8192718	12103981	55.722	53.598	
15)		4,4'-DDD	7.844	8.604	7911611	11625240	50.347	45.373	
16)		Endosulfa...	7.944	8.701	7459496	11198975	51.942	48.563	
17)		4,4'-DDT	8.041	8.828	6840162	9133091	57.211	48.682	
18)		Endrin Al...	8.232	8.937	6447686	9509795	52.487	48.417	
19)		Endosulfa...	8.532	9.127	7190456	10783033	46.397	43.290	
20)		Methoxychlor	8.378	9.307	3432578	4648501	58.602	51.670	
21)		Endrin Ke...	8.724	9.522	8486830	11985710	50.893	46.580	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.622	0.000	15456	0	0.088	N.D.	#
25)		Oxychlordane	7.104	7.766	47343	10412	0.288	0.038	#
26)		2,4'-DDE	7.168	7.973	9341896	15053720	72.835	70.962	
27)		trans-Non...	7.361	8.032	9083619	52574	50.413	0.174	#
28)		2,4'-DDD	0.000	8.328	0	15473953	N.D.	81.932	#
29)		2,4'-DDT	7.730	8.554	29085	12103981	0.265	67.871	#
30)		cis-Nonac...	7.844f	8.604	7911611	11625240	38.107	34.656	
31)		Mirex	0.000	9.522	0	11985710	N.D.	64.414	#
32)		Chlordane...	7.361	8.080	9083619	14280307	461.341	394.652	
33)		Chlordane...	7.455	8.191	8589479	14244592	342.698	469.127	
34)		Chlordane...	7.998	8.828	205397	9133091	35.529	1018.650	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.506	0	16059	N.D.	6.119	#
37)		Toxaphene...	7.844	8.828	7911611	9133091	4899.017	2775.151	#
38)		Toxaphene...	8.144	0.000	112414	0	33.382	N.D.	#
39)		Toxaphene...	8.378	8.937	3432578	9509795	1059.388	1138.920	
40)		Toxaphene...	8.619	9.127	32880	10783033	13.717	2313.778	#
41)		Toxaphene...	0.000	9.522	0	11985710	N.D.	2523.200	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 11:50
Operator : MJB
Sample : 9K12037-CCV1
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:08
Operator : MJB
Sample : 9K12037-CCV2
Misc : A19J408, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

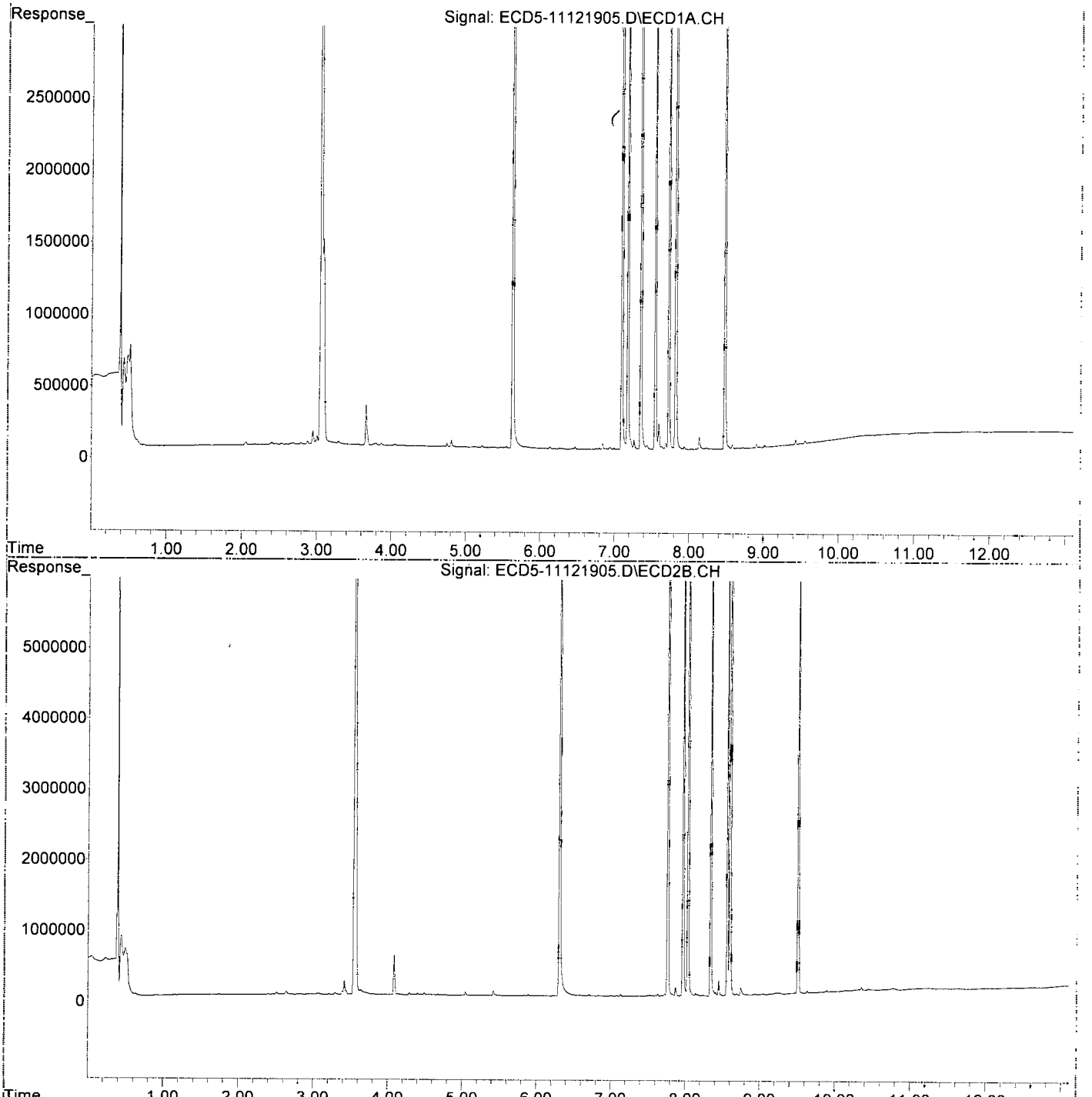
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.221f	5.841	14675	7249	0.088	0.025	#
22)	S	DCBP (S)	9.428	10.353	39357	49100	0.279	0.273	
		Target Compounds							
2)		a-BHC	5.782	0.000	9211	0	0.040	N.D.	#
3)		g-BHC	6.037f	0.000	4085	0	0.020	N.D.	#
4)		b-BHC	6.131	0.000	10931	0	0.121	N.D.	#
5)		Heptachlor	6.470	7.133	15295	23620	0.084	0.077	
6)		d-BHC	6.285	7.082	5238	8454	0.027	0.024	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.176	7.831	5860949	36448	31.822	0.121	#
9)		trans-Chl...	7.262	7.968	66843	9114805	0.362	29.090	#
10)		cis-Chlor...	7.352	0.000	8305673	0	45.618	N.D.	#
11)		Endosulfa...	7.437	8.142	28857	37735	0.170	0.137	
12)		4,4'-DDE	7.437	8.167f	28857	19575	0.153	0.063	#
13)		Dieldrin	7.630	8.340	20790	7812741	0.108	25.687	#
14)		Endrin	7.820f	8.562	9416560	7364312	64.046	32.610	#
15)		4,4'-DDD	7.820f	8.598	9416560	15238472	59.924	59.476	
16)		Endosulfa...	7.938	8.687	18400	17945	0.128	0.078	
17)		4,4'-DDT	8.041	8.827	5395	6651	0.045	0.000	#
18)		Endrin Al...	8.242	8.936	9214	8974	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.126	0	7335	N.D.	0.029	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.724	9.508	6136	7788343	0.037	30.268	#
23)		Hexachlor...	3.052	3.548	7084601	14802103	38.769	39.374	
24)		Hexachlor...	5.626	6.307	9007757	12609285	51.095	40.146	
25)		Oxychlordane	7.097	7.763	7242596	11430222	44.018	41.731	
26)		2,4'-DDE	7.176	7.968	5860949	9114805	45.695	42.966	
27)		trans-Non...	7.352	8.036	8305673	13084290	46.066	43.378	
28)		2,4'-DDD	7.546	8.340	5183270	7812741	45.417	41.367	
29)		2,4'-DDT	7.728	8.562	5214355	7364312	47.538	41.294	
30)		cis-Nonac...	7.820	8.598	9416560	15238472	45.356	45.427	
31)		Mirex	8.480	9.508	5440666	7788343	43.398	41.856	
32)		Chlordane...	7.352f	0.000	8305673	0	421.830	N.D.	#
33)		Chlordane...	7.437f	8.167	28857	19575	1.151	0.645	#
34)		Chlordane...	8.041f	8.827	5395	6651	0.933	0.742	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.546	8.480f	5183270	13448	5787.177	5.124	#
37)		Toxaphene...	7.820	8.827	9416560	6651	5830.910	2.021	#
38)		Toxaphene...	8.138	0.000	85429	0	25.369	N.D.	#
39)		Toxaphene...	0.000	8.936	0	8974	N.D.	1.075	#
40)		Toxaphene...	8.581f	9.126	26502	7335	11.056	1.574	#
41)		Toxaphene...	8.655	9.508	5437	7788343	1.718	1639.581	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:08
Operator : MJB
Sample : 9K12037-CCV2
Misc : A19J408, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:25
Operator : MJB
Sample : 9K12037-CCB1
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

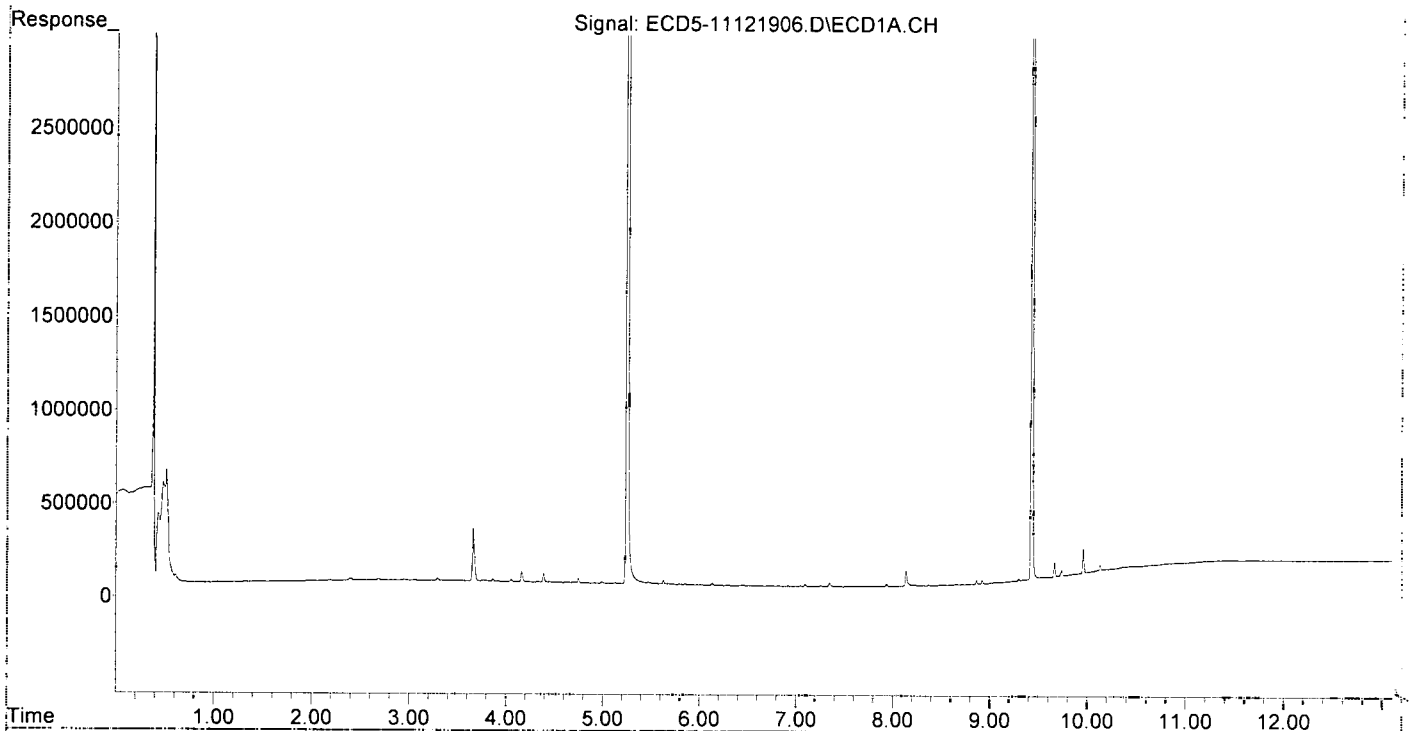
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.248	5.843	16224597	25480204	97.753	86.854	
22)	S	DCBP (S)	9.427	10.355	12344085	17057071	87.485	94.886	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.132	0.000	10461	0	0.116	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	0.000	0.000	0	0	N.D.	N.D.	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.253	7.993f	4255	18020	0.023	0.058	#
10)		cis-Chlor...	7.347	0.000	17895	0	0.098	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.561	0	3124	N.D.	0.014	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.937	8.686	13528	12407	0.094	0.054	#
17)		4,4'-DDT	0.000	8.845	0	5528	N.D.	BelowCal	
18)		Endrin Al...	8.230	0.000	7106	0	BelowCal	N.D.	
19)		Endosulfa...	8.532	9.127	3838	2709	0.025	0.011	#
20)		Methoxychlor	8.368	9.308	5409	2207	0.092	BelowCal	#
21)		Endrin Ke...	8.725	9.522	2444	14056	0.015	0.055	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.626	6.339f	20132	4901	0.114	0.016	#
25)		Oxychlordane	7.095	7.727f	12265	19434	0.075	0.071	
26)		2,4'-DDE	0.000	7.993f	0	18020	N.D.	0.085	#
27)		trans-Non...	7.347	0.000	17895	0	87346.601	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	8.561	0	3124	N.D.	0.018	#
30)		cis-Nonac...	0.000	8.561f	0	3124	N.D.	0.009	#
31)		Mirex	8.485	9.522	6771	14056	0.054	0.076	
32)		Chlordane...	7.347f	0.000	17895	0	0.909	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	0.000	8.845	0	5528	N.D.	0.617	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	8.845	0	5528	N.D.	1.680	#
38)		Toxaphene...	8.138	8.845f	82860	5528	24.606	1.091	#
39)		Toxaphene...	8.368	0.000	5409	0	1.669	N.D.	#
40)		Toxaphene...	0.000	9.127	0	2709	N.D.	0.581	#
41)		Toxaphene...	8.654f	9.522	5302	14056	1.675	2.959	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

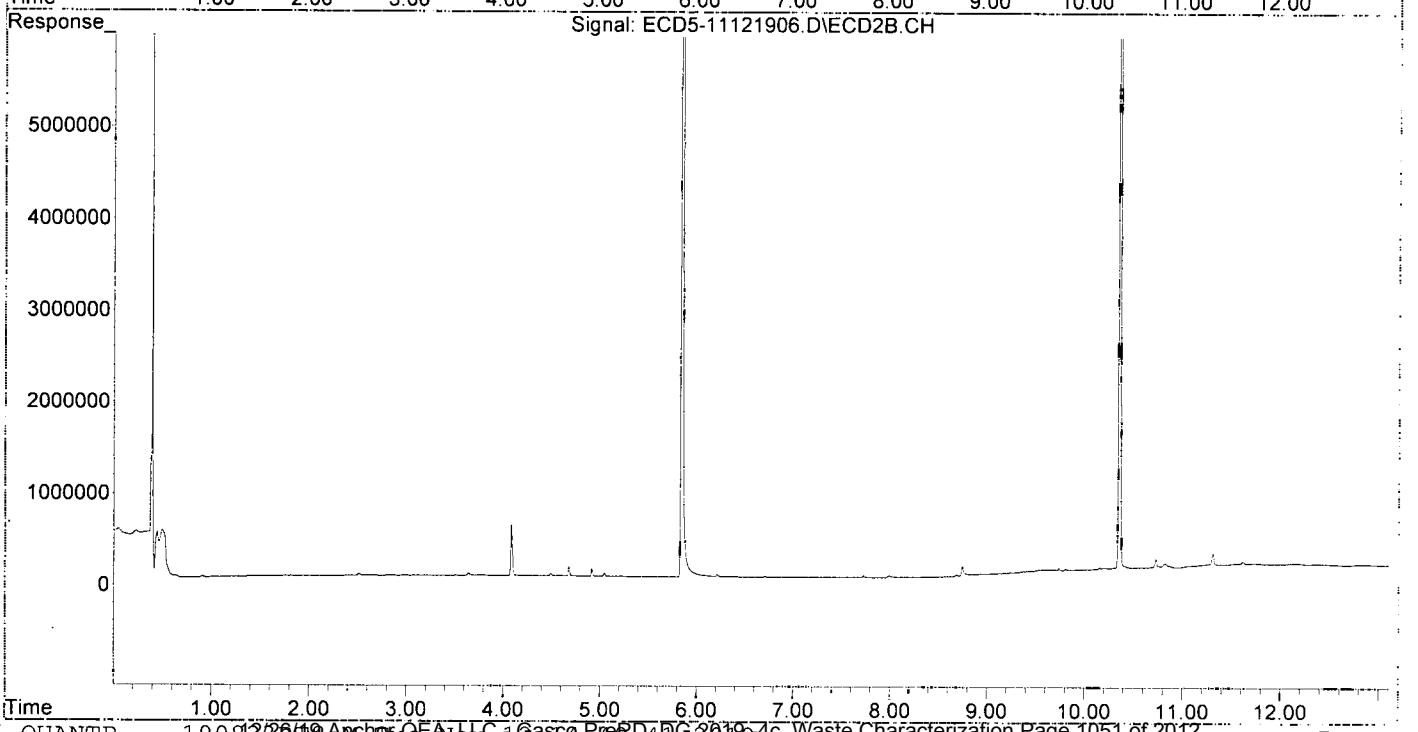
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:25
Operator : MJB
Sample : 9K12037-CCB1
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:42
Operator : MJB
Sample : 9110595-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

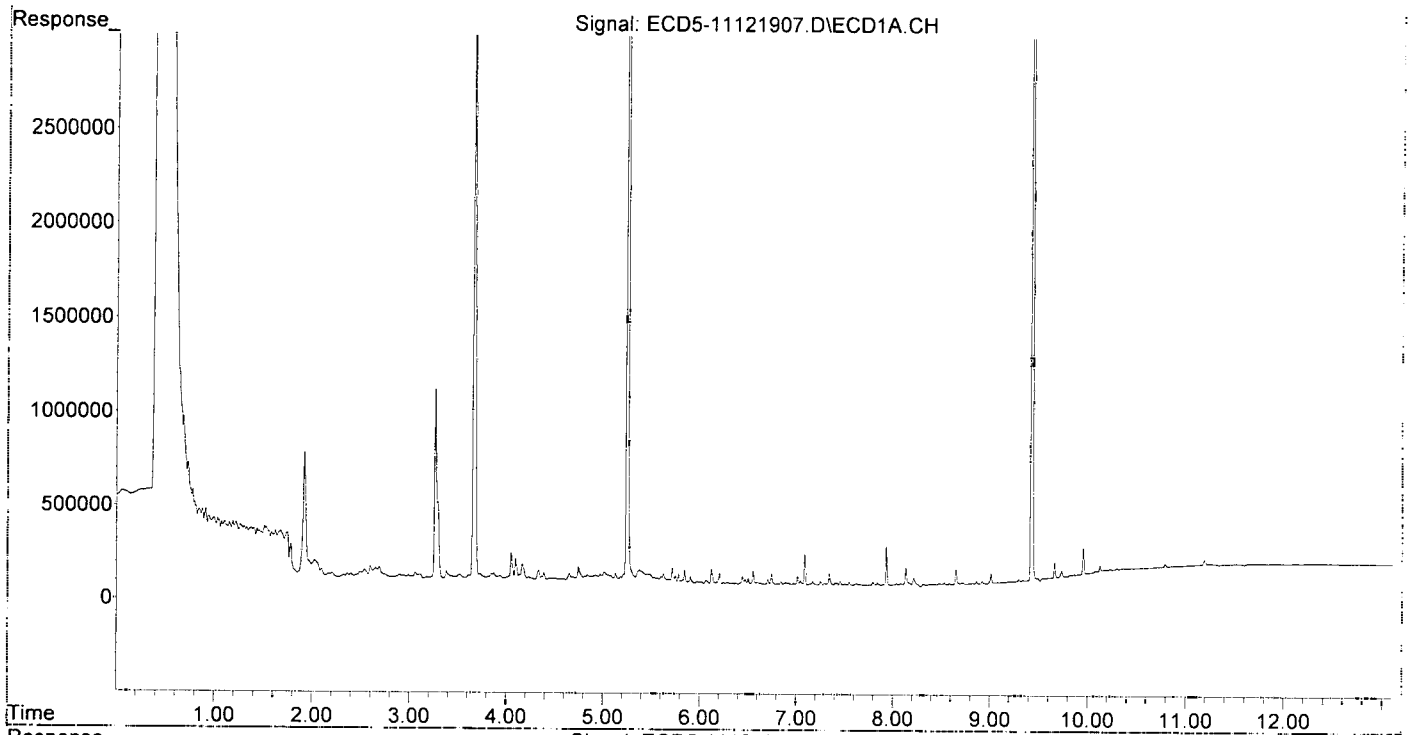
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.248	5.841	12614958	21453556	76.005	73.129	
22)	S	DCBP (S)	9.426	10.353	12687989	18100545	89.923	100.691	
		Target Compounds							
2)		a-BHC	5.781	6.449	46282	54774	0.202	0.133	
3)		g-BHC	6.064	6.764	13887	15039	0.069	0.042	
4)		b-BHC	6.124	6.821	73040	20780	0.808	0.131	#
5)		Heptachlor	6.470	7.133	25486	52199	0.141	0.171	
6)		d-BHC	6.285	7.079	7407	10079	0.038	0.029	
7)		Aldrin	6.705	7.394	25736	7409	0.130	0.022	#
8)		Heptachlo...	7.167	7.814	16880	51172	0.092	0.170	#
9)		trans-Chl...	7.248	7.975	17158	91744	0.093	0.293	#
10)		cis-Chlor...	7.342	8.077	62871	15924	0.345	0.055	#
11)		Endosulfa...	7.454	8.127	22165	12277	0.130	0.045	#
12)		4,4'-DDE	7.422	8.189	13547	19762	0.072	0.064	
13)		Dieldrin	7.623	8.325	12419	17010	0.065	0.056	
14)		Endrin	7.793	8.554	18229	11179	0.124	0.050	#
15)		4,4'-DDD	7.841	8.601	16580	18004	0.106	0.070	
16)		Endosulfa...	7.932	8.683	210780	254093	1.468	1.102	
17)		4,4'-DDT	8.038	8.826	16114	11003	0.135	0.026	#
18)		Endrin Al...	8.214	8.917	42909	42275	BelowCal	BelowCal	
19)		Endosulfa...	8.529	9.124	13368	7502	0.086	0.030	#
20)		Methoxychlor	8.376	9.307	9117	4724	0.156	BelowCal	#
21)		Endrin Ke...	8.720	9.521	10967	102119	0.066	0.397	#
23)		Hexachlor...	3.060	3.522f	29609	1409964	0.162	3.751	#
24)		Hexachlor...	5.625	6.298	45510	41207	0.258	0.131	#
25)		Oxychlordane	7.088	7.756	166451	18113	1.012	0.066	#
26)		2,4'-DDE	7.167	7.975	16880	91744	0.132	0.432	#
27)		trans-Non...	7.342	8.043	62871	15085	0.035	0.050	#
28)		2,4'-DDD	7.548	8.325	17501	17010	0.153	0.090	#
29)		2,4'-DDT	0.000	8.554	0	11179	N.D.	0.063	#
30)		cis-Nonac...	7.841f	8.601	16580	18004	0.080	0.054	
31)		Mirex	8.475	9.521	12544	102119	0.100	0.549	#
32)		Chlordane...	7.400f	8.077	15255	15924	0.775	0.440	#
33)		Chlordane...	7.454	8.189	22165	19762	0.884	0.651	
34)		Chlordane...	8.038f	8.853	16114	8075	2.787	0.901	#
35)		Chlordane...	3.469	3.466	13461	23785	NoCal	NoCal	
36)		Toxaphene...	7.548	8.501	17501	7786	19.540	2.967	#
37)		Toxaphene...	7.841	8.853	16580	8075	10.267	2.454	#
38)		Toxaphene...	8.133	8.878	95602	9535	28.390	1.881	#
39)		Toxaphene...	8.376	8.917f	9117	42275	2.814	5.063	#
40)		Toxaphene...	8.587	9.124	7083	7502	2.955	1.610	#
41)		Toxaphene...	8.650f	9.521	81375	102119	25.714	21.498	
42)		Toxaphene...	3.469f	3.466	13461	23785	NoCal	NoCal	

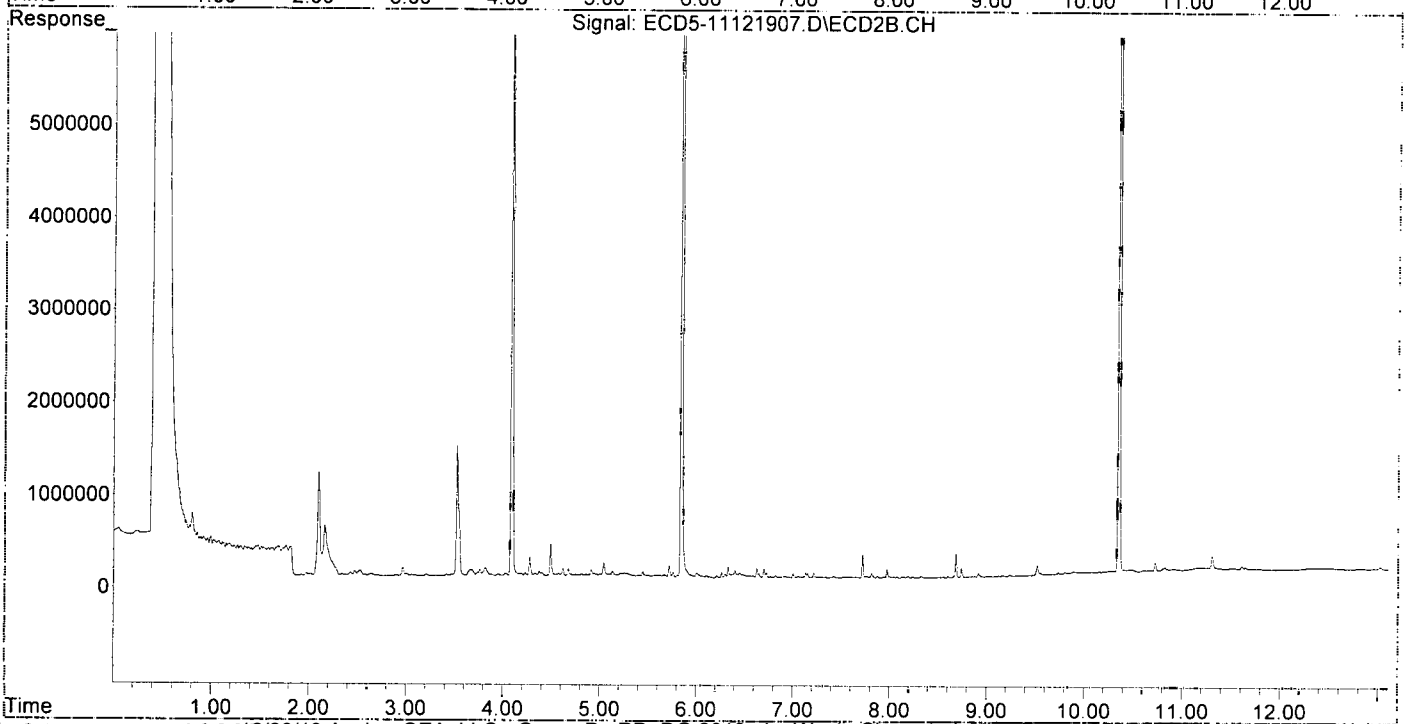
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:42
Operator : MJB
Sample : 9110595-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:59
Operator : MJB
Sample : 9110595-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/21/19

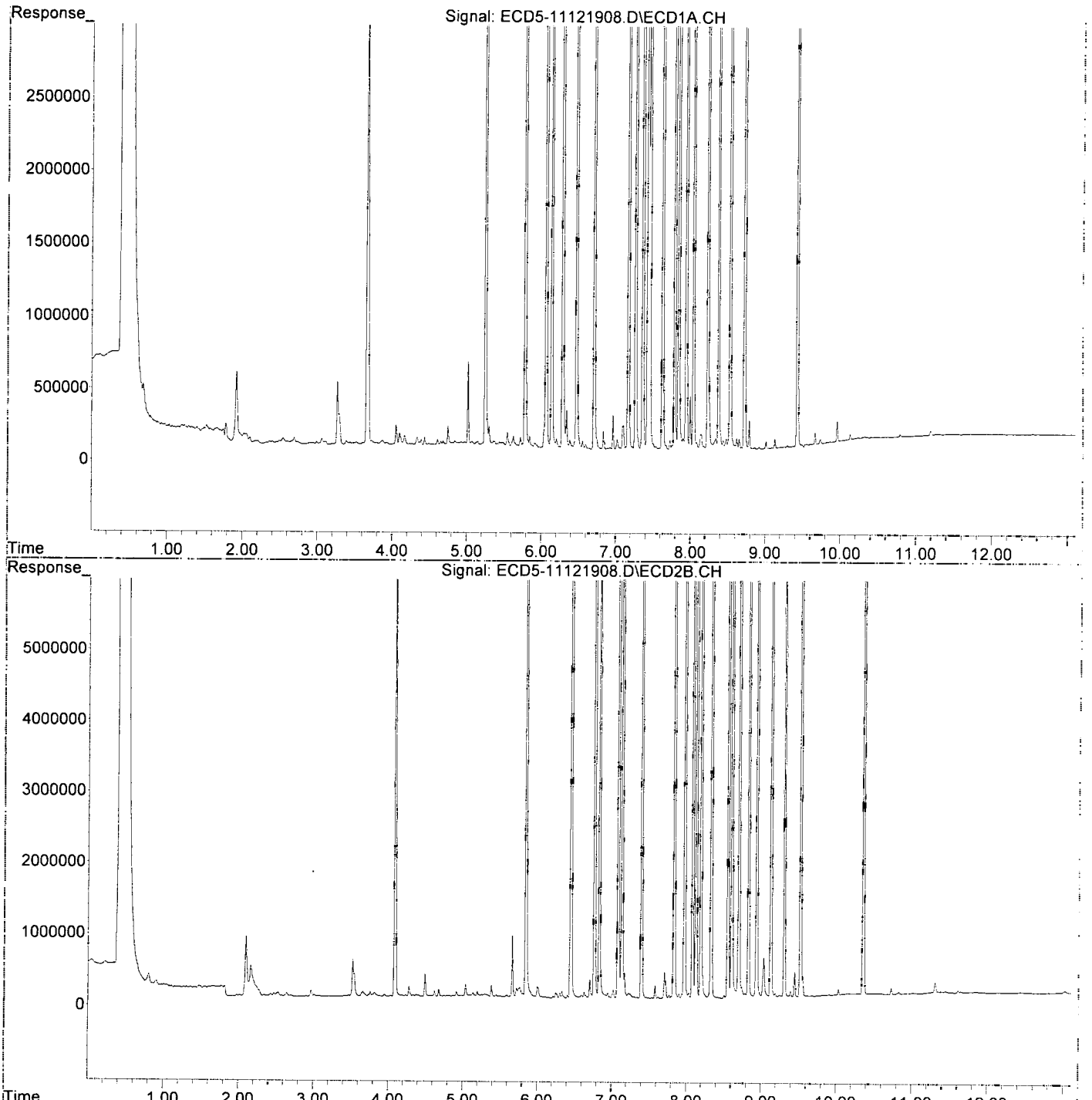
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.248	5.842	12431509	19811188	74.900	67.530	
22)	S	DCBP (S)	9.427	10.354	12556016	16617269	88.987	92.440	
		Target Compounds							
2)		a-BHC	5.782	6.447	22380635	37774974	97.592	92.058	
3)		g-BHC	6.062	6.764	20126846	34059304	99.748	95.483	
4)		b-BHC	6.137	6.829	8855046	14428989	97.972	91.169	
5)		Heptachlor	6.470	7.133	16158097	27229666	89.125	88.993	
6)		d-BHC	6.284	7.081	20113498	33858712	102.260	96.008	
7)		Aldrin	6.709	7.396	15919435	27503807	80.627	83.499	
8)		Heptachlo...	7.167	7.833	17257421	27988219	93.699	93.031	
9)		trans-Chl...	7.262	7.973	17382870	28180470	94.017	89.940	
10)		cis-Chlor...	7.360	8.080	16927175	27384024	92.970	94.023	
11)		Endosulfa...	7.454	8.128	16448132	26197920	96.651	95.204	
12)		4,4'-DDE	7.425	8.190	17728787	28262030	94.037	90.969	
13)		Dieldrin	7.625	8.328	19479022	30807905	101.464	101.292	
14)		Endrin	7.788	8.553	16477360	25332084	112.070	112.175	
15)		4,4'-DDD	7.842	8.603	16423352	26377188	104.514	102.950	
16)		Endosulfa...	7.943	8.700	15091185	24446078	105.083	106.008	
17)		4,4'-DDT	8.040	8.828	14568913	21638450	121.854	104.979	
18)		Endrin Al...	8.232	8.937	12806095	20525556	101.865	99.663	
19)		Endosulfa...	8.531	9.127	16443946	25253930	106.105	101.386	
20)		Methoxychlor	8.376	9.306	7827421	11741132	133.632	115.936	
21)		Endrin Ke...	8.723	9.521	17933252	27492404	107.540	106.843	
23)		Hexachlor...	3.057	3.543	41569	319211	0.227	0.849	#
24)		Hexachlor...	5.625	6.306	76060	72978	0.431	0.232	#
25)		Oxychlordane	7.101	7.767	168191	48062	1.022	0.175	#
26)		2,4'-DDE	7.167	7.973	17257421	28180470	134.549	132.840	
27)		trans-Non...	7.360	8.033	16927175	76802	94.265	0.255	#
28)		2,4'-DDD	7.543	8.328	17056	30807905	0.149	163.123	#
29)		2,4'-DDT	7.727	8.553	59397	25332084	0.542	142.044	#
30)		cis-Nonac...	7.842f	8.603	16423352	26377188	79.105	78.632	
31)		Mirex	8.479	9.521	68346	27492404	0.545	147.750	#
32)		Chlordane...	7.360	8.080	16927175	27384024	859.701	756.787	
33)		Chlordane...	7.454	8.190	16448132	28262030	656.238	930.772	#
34)		Chlordane...	7.997	8.828	361487	21638450	62.529	2413.422	#
35)		Chlordane...	3.469	3.466	12216	21597	NoCal	NoCal	
36)		Toxaphene...	7.543	8.505	17056	40649	19.043	15.490	
37)		Toxaphene...	7.842	8.828	16423352	21638450	10169.645	6574.988	
38)		Toxaphene...	8.144	0.000	104952	0	31.166	N.D.	#
39)		Toxaphene...	8.376	8.937	7827421	20525556	2415.757	2458.199	
40)		Toxaphene...	8.620	9.127	73787	25253930	30.781	5418.882	#
41)		Toxaphene...	8.683	9.521	13013	27492404	4.112	5787.628	#
42)		Toxaphene...	3.469f	3.466	12216	21597	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 12:59
Operator : MJB
Sample : 9110595-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 13:17
Operator : MJB
Sample : 9110595-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Q19
Q44 MJB 11/12/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.248	5.843	12054623	19804075	72.629	67.506	
22)	S	DCBP (S)	9.427	10.355	12204879	16960354	86.499	94.348	
		Target Compounds							
2)		a-BHC	5.781	6.448	22977614	40020385	100.195	97.530	
3)		g-BHC	6.062	6.764	21063229	35726364	104.389	100.157	
4)		b-BHC	6.137	6.829	9041255	14699014	100.032	92.875	
5)		Heptachlor	6.470	7.133	16432390	27919746	90.638	91.248	
6)		d-BHC	6.284	7.081	20452655	34134268	103.984	96.789	
7)		Aldrin	6.709	7.396	15881138	25875219	80.433	78.554	
8)		Heptachlo...	7.167	7.834	17689254	29616316	96.044	98.443	
9)		trans-Chl...	7.262	7.972	17696294	29462590	95.712	94.032	
10)		cis-Chlor...	7.359	8.080	17364672	27454086	95.373	94.264	
11)		Endosulfa...	7.454	8.129	17173728	26971633	100.915	98.016	
12)		4,4'-DDE	7.425	8.190	17763941	28602230	94.223	92.064	
13)		Dieldrin	7.625	8.328	19972517	31875011	104.035	104.800	
14)		Endrin	7.789	8.553	17850378	26274212	121.409	116.347	
15)		4,4'-DDD	7.842	8.603	16616809	26184697	105.745	102.199	
16)		Endosulfa...	7.943	8.700	15723918	25115471	109.489	108.911	
17)		4,4'-DDT	8.040	8.828	14377923	21494600	120.257	104.381	
18)		Endrin Al...	8.231	8.937	12997247	21399284	103.304	103.512	
19)		Endosulfa...	8.531	9.127	16877779	25919481	108.905	104.058	
20)		Methoxychlor	8.377	9.306	7750751	11845317	132.323	116.790	
21)		Endrin Ke...	8.723	9.521	18489136	27105059	110.874	105.338	
23)		Hexachlor...	3.057	3.523f	37059	484922	0.203	1.290	#
24)		Hexachlor...	5.624	6.304	49135	47939	0.279	0.153	#
25)		Oxychlordane	7.101	7.768	176129	41954	1.070	0.153	#
26)		2,4'-DDE	7.167	7.972	17689254	29462590	137.916	138.884	
27)		trans-Non...	7.359	8.032	17364672	89802	96.712	0.298	#
28)		2,4'-DDD	7.543	8.328	18443	31875011	0.162	168.773	#
29)		2,4'-DDT	7.727	8.553	63347	26274212	0.578	147.327	#
30)		cis-Nonac...	7.842f	8.603	16616809	26184697	80.036	78.059	
31)		Mirex	8.478	9.521	69737	27105059	0.556	145.669	#
32)		Chlordane...	7.359	8.080	17364672	27454086	881.920	758.723	
33)		Chlordane...	7.454	8.190	17173728	28602230	685.187	941.976	
34)		Chlordane...	7.997	8.828	340866	21494600	58.962	2397.378	#
35)		Chlordane...	3.468	3.465	11475	20290	NoCal	NoCal	
36)		Toxaphene...	7.543	8.505	18443	39462	20.592	15.037	
37)		Toxaphene...	7.842	8.828	16616809	21494600	10289.438	6531.278	
38)		Toxaphene...	8.146	0.000	119184	0	35.392	N.D.	#
39)		Toxaphene...	8.377	8.937	7750751	21399284	2392.094	2562.840	
40)		Toxaphene...	8.619	9.127	69169	25919481	28.855	5561.693	#
41)		Toxaphene...	8.683	9.521	13649	27105059	4.313	5706.085	#
42)		Toxaphene...	3.468f	3.465	11475	20290	NoCal	NoCal	

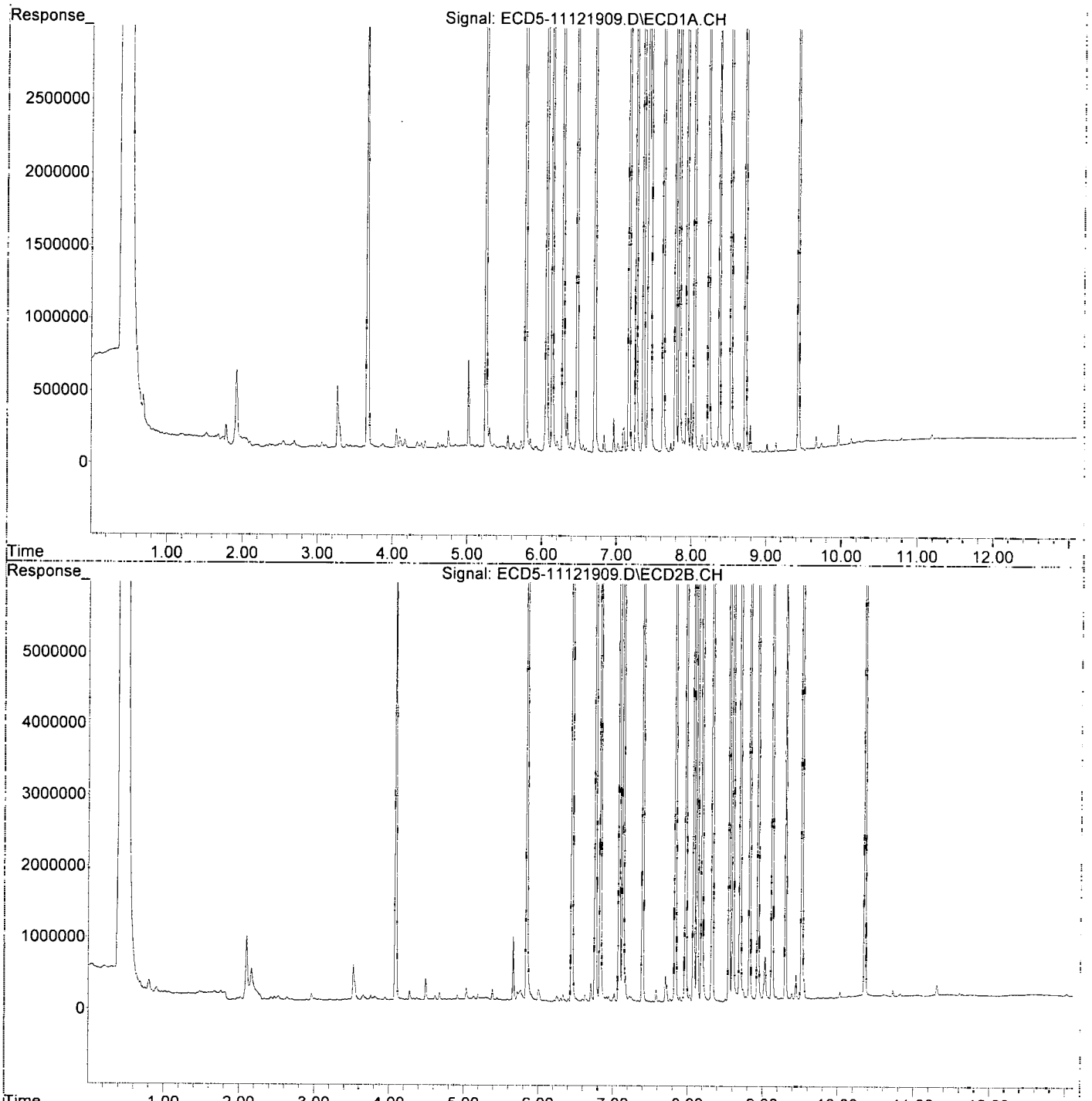
MJB 11/12/19

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 13:17
Operator : MJB
Sample : 9110595-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:40:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 14:08
Operator : MJB
Sample : A9J1007-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 15:00:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/21/19

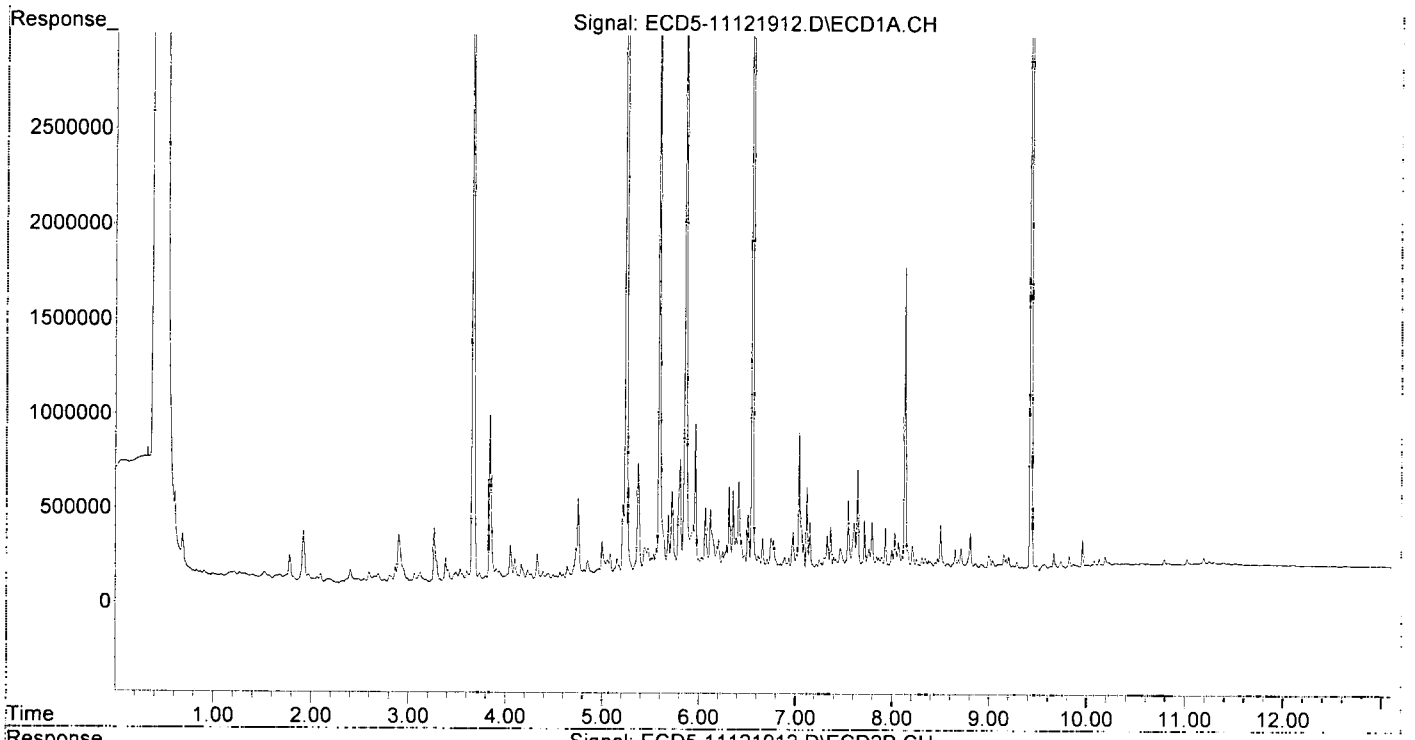
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.247	5.841	11654228	21219463	70.217	72.331	
22)	S	DCBP (S)	9.426	10.353	13178465	18223284	93.399	101.374	
		Target Compounds							
2)		a-BHC	5.804f	6.448	629133	452421	2.743	1.103	#
3)		g-BHC	6.067	6.761	362532	136799	1.797	0.384	#
4)		b-BHC	6.119	6.838	357002	75459	3.950	0.477	#
5)		Heptachlor	6.474	7.131	107446	121536	0.593	0.397	
6)		d-BHC	6.287	7.086	167491	106696	0.852	0.303	#
7)		Aldrin	6.705	7.387	88296	152533	0.447	0.463	
8)		Heptachlo...	7.149	7.819	283140	152749	1.537	0.508	#
9)		trans-Chl...	7.267	7.975	62125	147068	0.336	0.469	
10)		cis-Chlor...	7.364	8.049f	248614	223761	1.365	0.768	#
11)		Endosulfa...	7.465	8.165f	137475	427236	0.808	1.553	#
12)		4,4'-DDE	7.416	8.197	80450	286750	0.427	0.923	#
13)		Dieldrin	7.643	8.345	551982	146621	2.875	0.482	#
14)		Endrin	7.792	8.542	272753	60830	1.855	0.269m	#
15)		4,4'-DDD	7.839	8.600	89879	192122	0.572	0.750	
16)		Endosulfa...	7.931	8.684	238078	314289	1.658	1.363	
17)		4,4'-DDT	8.026	8.846	212533	288625	1.778	1.640	
18)		Endrin Al...	8.251	8.942	72086	97460	BelowCal	BelowCal	
19)		Endosulfa...	8.500f	9.149f	247116	92107	1.595	0.370	#
20)		Methoxychlor	8.377	9.321	64576	81020	1.102	0.819	
21)		Endrin Ke...	8.710	9.519	123243	169307	0.739	0.658	
23)		Hexachlor...	3.059	3.571f	45126	21510	0.247	0.057	#
24)		Hexachlor...	5.590f	6.295	3794373	443015	21.523	1.410	#
25)		Oxychlordane	7.118f	7.751	460807	935439	2.801	3.415	
26)		2,4'-DDE	7.149f	7.975	283140	147068	2.208	0.693	#
27)		trans-Non...	7.364	8.049	248614	223761	1.071	0.742	
28)		2,4'-DDD	7.546	8.345	386631	146621	3.388	0.776	#
29)		2,4'-DDT	7.715	8.573	280348	53669	2.556	0.301	#
30)		cis-Nonac...	7.839	8.600	89879	192122	0.433	0.573	
31)		Mirex	8.469	9.519	72951	169307	0.582	0.910	#
32)		Chlordane...	7.364	8.049f	248614	223761	12.627	6.184	#
33)		Chlordane...	7.465	8.197	137475	286750	5.485	9.444	#
34)		Chlordane...	7.996	8.846	123780	288625	21.411	32.192	#
35)		Chlordane...	3.486	3.464	48781	26026	NoCal	NoCal	
36)		Toxaphene...	7.546	8.500	386631	529417	431.678	201.740	#
37)		Toxaphene...	7.839	8.846	89879	288625	55.655	87.701	#
38)		Toxaphene...	8.131	8.878	1607113	134107	477.244	26.460	#
39)		Toxaphene...	8.377	8.942	64576	97460	19.930	11.672	#
40)		Toxaphene...	8.575f	9.149f	46203	92107	19.274	19.764	
41)		Toxaphene...	8.682	9.519	65706	169307	20.763	35.642	#
42)		Toxaphene...	3.486	3.464	48781	26026	NoCal	NoCal	

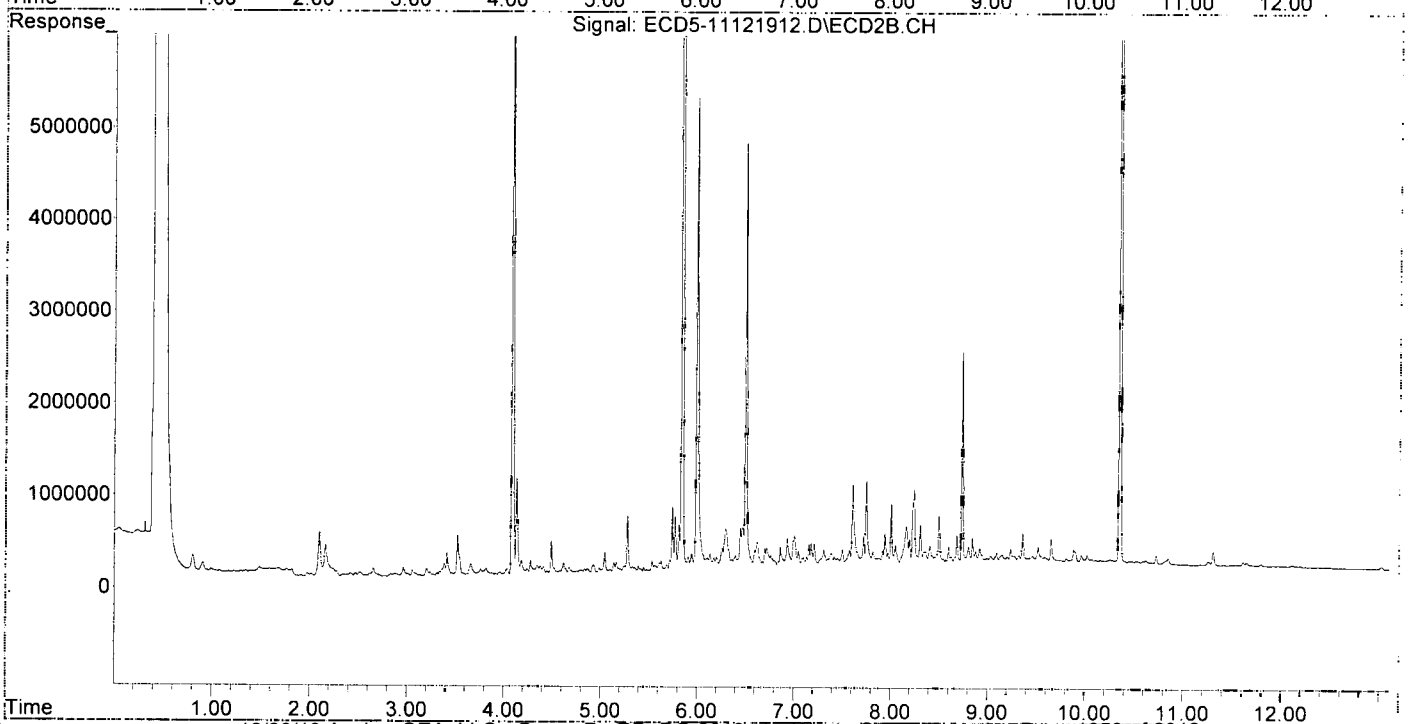
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 14:08
Operator : MJB
Sample : A9J1007-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 15:00:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

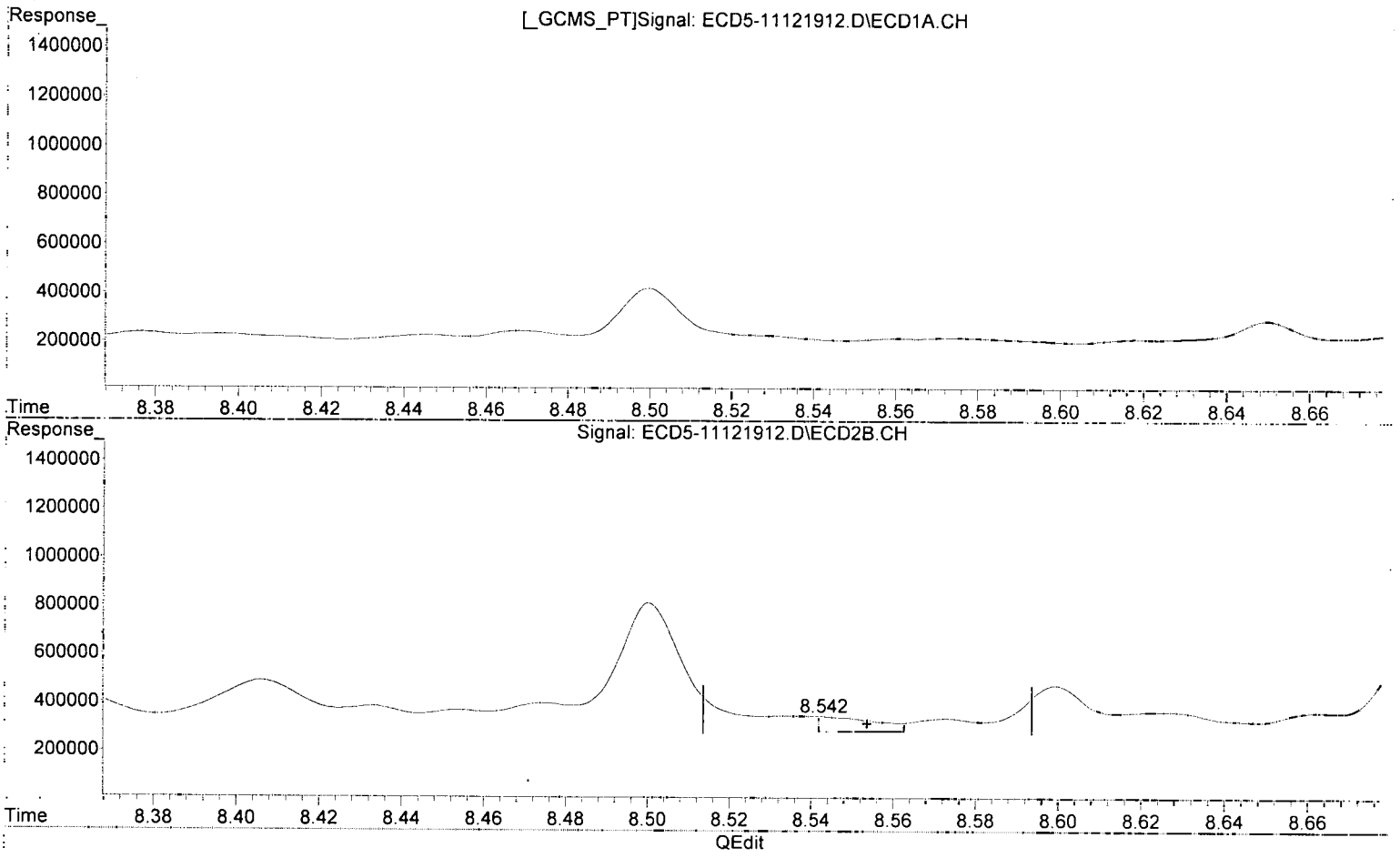




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 14:08
Operator : MJB
Sample : A9J1007-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:41:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Endrin

7.792min 1.855 ng/mL

response 272753

MJB 11/14/19

(14) Endrin #2

8.542min 0.269 ng/mL (m)

response 60830

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 14:08
Operator : MJB
Sample : A9J1007-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:41:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MI MJB 11/12/19

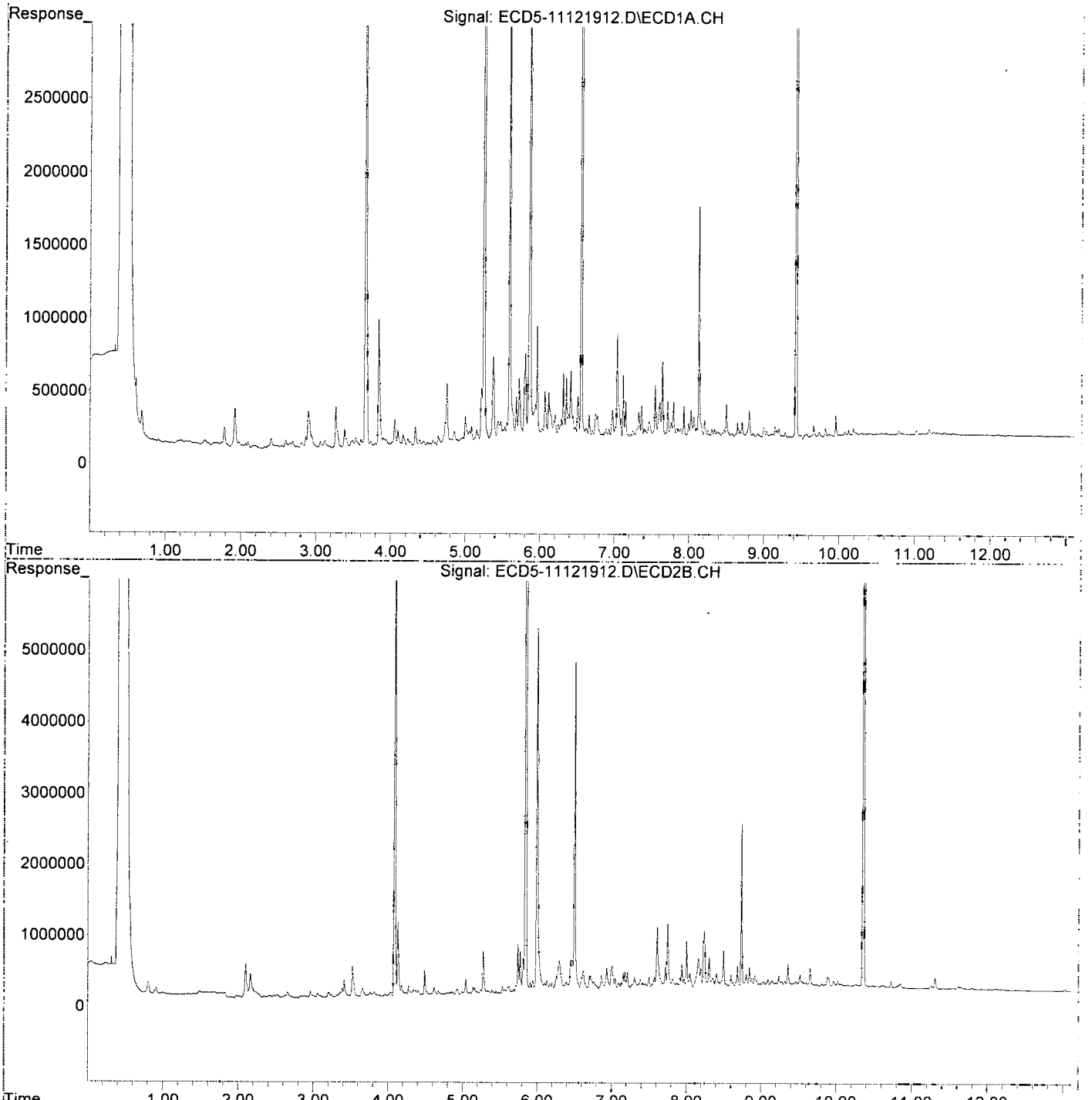
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.247	5.841	11654228	21219463	70.217	72.331	
22)	S	DCBP (S)	9.426	10.353	13178465	18223284	93.399	101.374	
		Target Compounds							
2)		a-BHC	5.804f	6.448	629133	452421	2.743	1.103	#
3)		g-BHC	6.067	6.761	362532	136799	1.797	0.384	#
4)		b-BHC	6.119	6.838	357002	75459	3.950	0.477	#
5)		Heptachlor	6.474	7.131	107446	121536	0.593	0.397	
6)		d-BHC	6.287	7.086	167491	106696	0.852	0.303	#
7)		Aldrin	6.705	7.387	88296	152533	0.447	0.463	
8)		Heptachlo...	7.149	7.819	283140	152749	1.537	0.508	#
9)		trans-Chl...	7.267	7.975	62125	147068	0.336	0.469	
10)		cis-Chlor...	7.364	8.049f	248614	223761	1.365	0.768	#
11)		Endosulfa...	7.465	8.165f	137475	427236	0.808	1.553	#
12)		4,4'-DDE	7.416	8.197	80450	286750	0.427	0.923	#
13)		Dieldrin	7.643	8.345	551982	146621	2.875	0.482	#
14)		Endrin	7.792	8.573	272753	53669	1.855	0.238	#
15)		4,4'-DDD	7.839	8.600	89879	192122	0.572	0.750	
16)		Endosulfa...	7.931	8.684	238078	314289	1.658	1.363	
17)		4,4'-DDT	8.026	8.846	212533	288625	1.778	1.640	
18)		Endrin Al...	8.251	8.942	72086	97460	BelowCal	BelowCal	
19)		Endosulfa...	8.500f	9.149f	247116	92107	1.595	0.370	#
20)		Methoxychlor	8.377	9.321	64576	81020	1.102	0.819	
21)		Endrin Ke...	8.710	9.519	123243	169307	0.739	0.658	
23)		Hexachlor...	3.059	3.571f	45126	21510	0.247	0.057	#
24)		Hexachlor...	5.590f	6.295	3794373	443015	21.523	1.410	#
25)		Oxychlordane	7.118f	7.751	460807	935439	2.801	3.415	
26)		2,4'-DDE	7.149f	7.975	283140	147068	2.208	0.693	#
27)		trans-Non...	7.364	8.049	248614	223761	1.071	0.742	
28)		2,4'-DDD	7.546	8.345	386631	146621	3.388	0.776	#
29)		2,4'-DDT	7.715	8.573	280348	53669	2.556	0.301	#
30)		cis-Nonac...	7.839	8.600	89879	192122	0.433	0.573	
31)		Mirex	8.469	9.519	72951	169307	0.582	0.910	#
32)		Chlordane...	7.364	8.049f	248614	223761	12.627	6.184	#
33)		Chlordane...	7.465	8.197	137475	286750	5.485	9.444	#
34)		Chlordane...	7.996	8.846	123780	288625	21.411	32.192	#
35)		Chlordane...	3.486	3.464	48781	26026	NoCal	NoCal	
36)		Toxaphene...	7.546	8.500	386631	529417	431.678	201.740	#
37)		Toxaphene...	7.839	8.846	89879	288625	55.655	87.701	#
38)		Toxaphene...	8.131	8.878	1607113	134107	477.244	26.460	#
39)		Toxaphene...	8.377	8.942	64576	97460	19.930	11.672	#
40)		Toxaphene...	8.575f	9.149f	46203	92107	19.274	19.764	
41)		Toxaphene...	8.682	9.519	65706	169307	20.763	35.642	#
42)		Toxaphene...	3.486	3.464	48781	26026	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 14:08
Operator : MJB
Sample : A9J1007-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 14:41:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 17:16:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

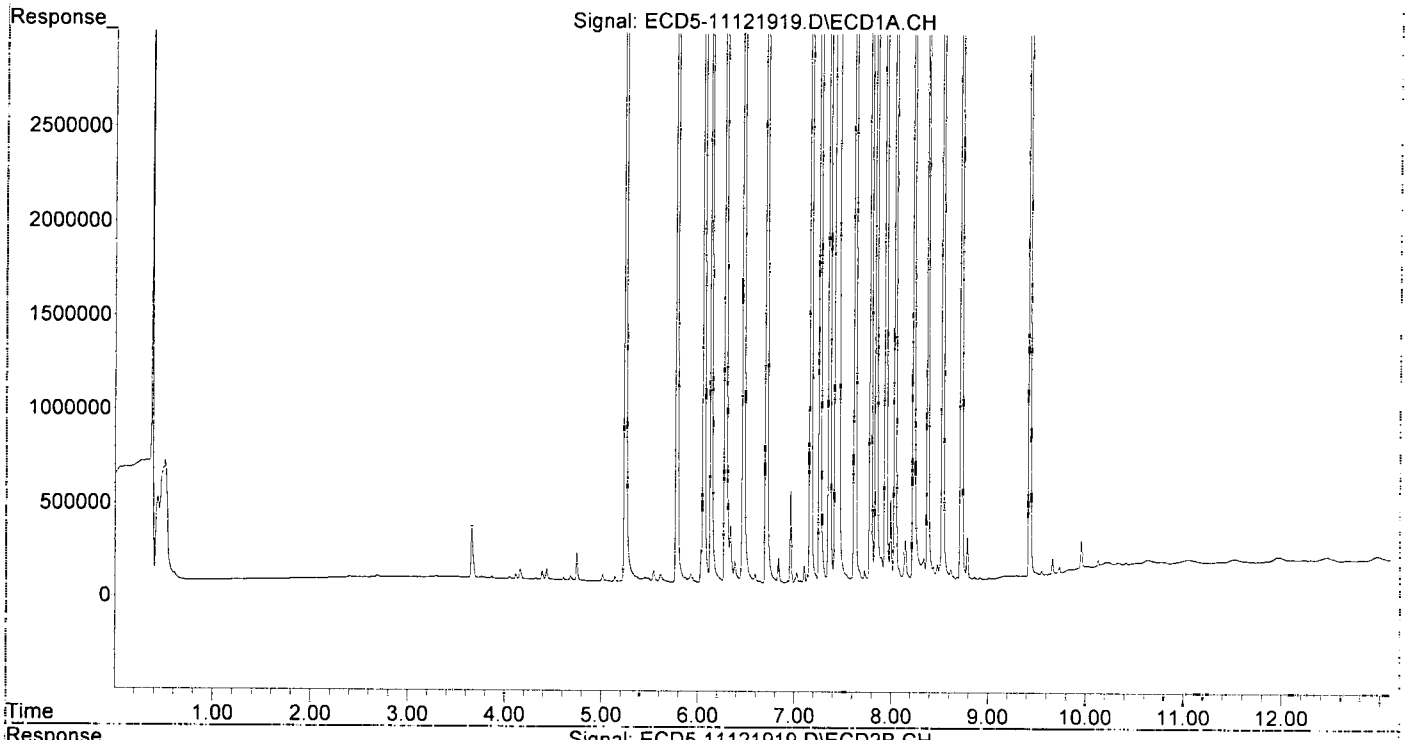
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.245	5.841	16606532	24825718	100.054	84.623	
22)	S	DCBP (S)	9.425	10.351	12850470	18606009	91.074	103.503	
		Target Compounds							
2)		a-BHC	5.779	6.446	24651352	39971532	107.493	97.411	
3)		g-BHC	6.060	6.762	20976640	33725399	103.959	94.547	
4)		b-BHC	6.135	6.828	8289719	12712553	91.717	80.324	
5)		Heptachlor	6.468	7.132	18982277	31094510	104.703	101.624	
6)		d-BHC	6.282	7.080	19862988	29601603	100.986	83.937	
7)		Aldrin	6.707	7.395	19678861	31910622	99.667	96.877	
8)		Heptachlo...	7.165	7.832	18151092	27936309	98.552	92.858	
9)		trans-Chl...	7.261	7.971	18775095	28834907	101.547	92.028	
10)		cis-Chlor...	7.358	8.078	17549653	28671767	96.389	98.445	
11)		Endosulfa...	7.452	8.127	16882621	26188170	99.205m	95.169	
12)		4,4'-DDE	7.423	8.189	18555567	29059554	98.422m	93.536	
13)		Dieldrin	7.623	8.326	18788434	30015670	97.867	98.687	
14)		Endrin	7.786	8.552	15377550	23402787	104.590	103.632	
15)		4,4'-DDD	7.842	8.602	15683157	24074306	99.803	93.962	
16)		Endosulfa...	7.941	8.698	14342892	22546677	99.873	97.771	
17)		4,4'-DDT	8.039	8.826	12936752	18444621	108.203	91.460	
18)		Endrin Al...	8.230	8.935	11877192	19591578	94.837	95.516	
19)		Endosulfa...	8.529	9.125	14335992	21349558	92.504	85.711	
20)		Methoxychlor	8.376	9.304	6330145	9313444	108.070	95.391	
21)		Endrin Ke...	8.721	9.519	16531491	24581649	99.134	95.531	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.612	0.000	35558	0	0.202	N.D.	#
25)		Oxychlordane	7.101	7.766	87463	16209	0.532	0.059	#
26)		2,4'-DDE	7.165	7.971	18151092	28834907	141.517	135.925	
27)		trans-Non...	7.358	8.028	17549653	104904	97.747	0.348	#
28)		2,4'-DDD	0.000	8.326	0	30015670	N.D.	158.928	#
29)		2,4'-DDT	7.726	8.552	56162	23402787	0.512	131.226	#
30)		cis-Nonac...	7.842f	8.602	15683157	24074306	75.539	71.767	
31)		Mirex	0.000	9.519	0	24581649	N.D.	132.107	#
32)		Chlordane...	7.358	8.078	17549653	28671767	891.315	792.375	
33)		Chlordane...	0.000	8.189	0	29059554	N.D.	957.038	#
34)		Chlordane...	7.995	8.826	431143	18444621	74.578	2057.202	#
35)		Chlordane...	0.000	3.507f	0	3686	N.D.	NoCal	
36)		Toxaphene...	0.000	8.503	0	29176	N.D.	11.118	#
37)		Toxaphene...	7.842	8.826f	15683157	18444621	9711.303	5604.522	#
38)		Toxaphene...	8.147	0.000	216928	0	64.418	N.D.	#
39)		Toxaphene...	8.376	8.935	6330145	19591578	1953.657	2346.344	
40)		Toxaphene...	8.617	9.125	53365	21349558	22.262	4581.098	#
41)		Toxaphene...	0.000	9.519	0	24581649	N.D.	5174.864	#
42)		Toxaphene...	0.000	3.507f	0	3686	N.D.	NoCal	

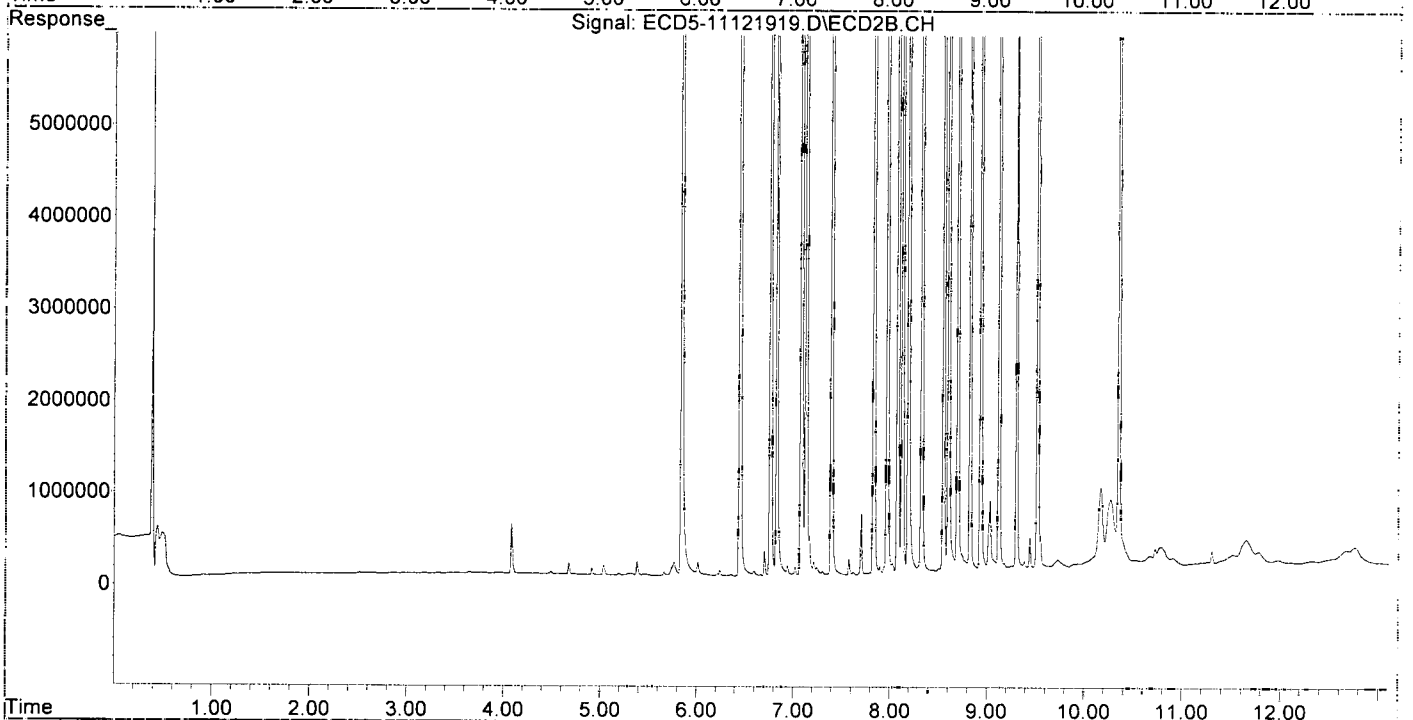
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 17:16:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

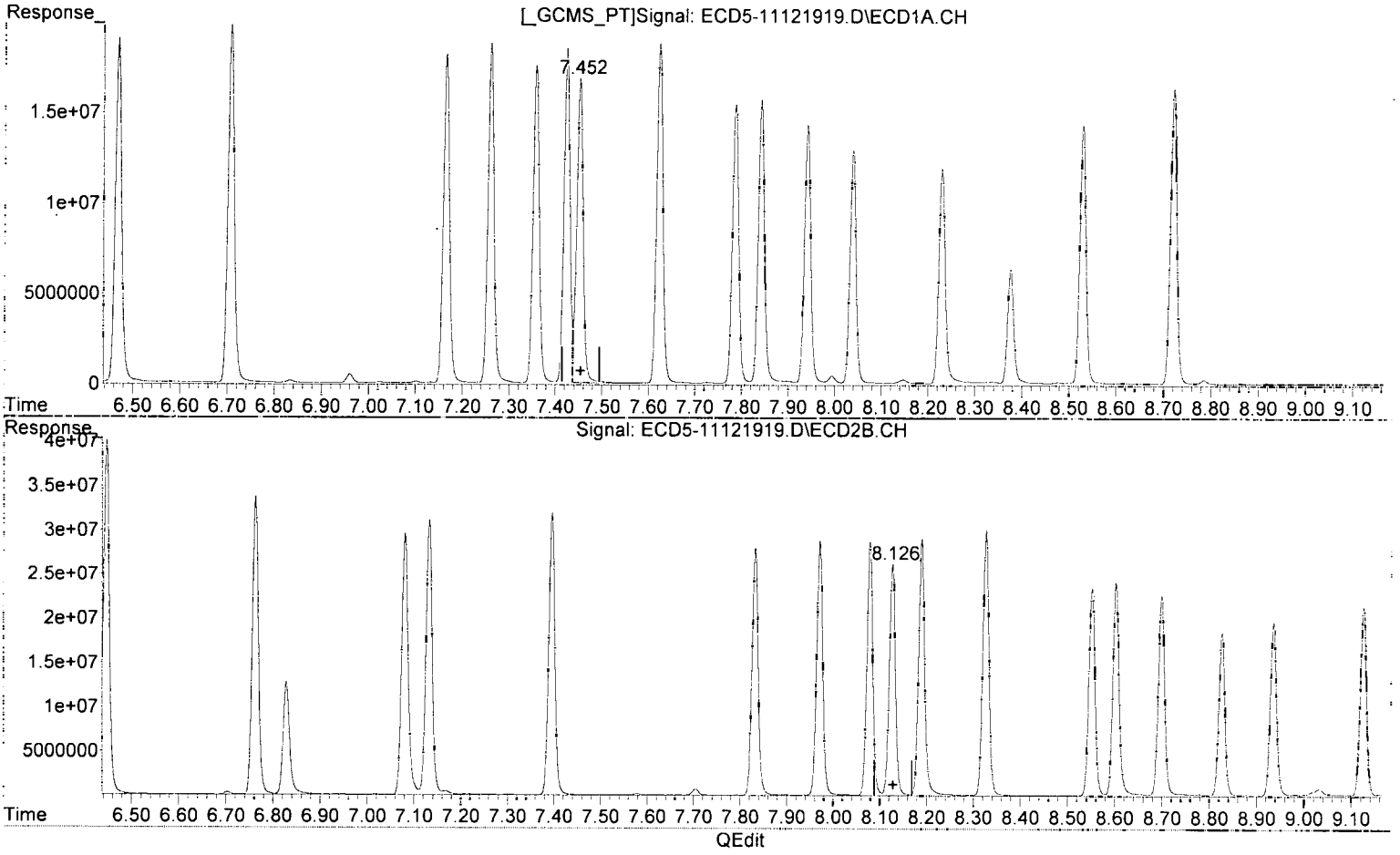




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.452min 99.205 ng/mL (m)

response 16882621

MJB 11/21/19

(11) Endosulfan I #2

8.127min 95.169 ng/mL

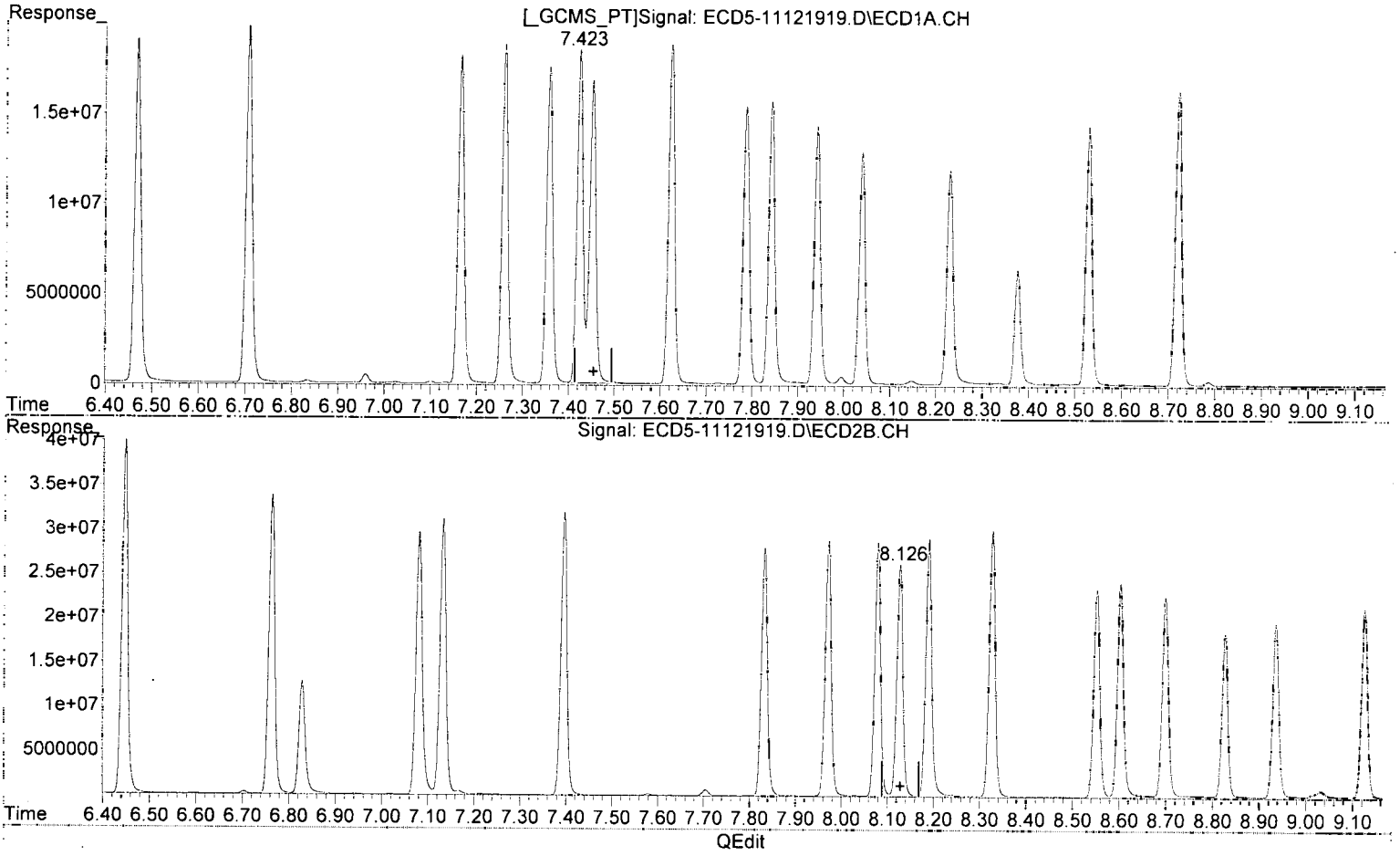
response 26188170

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.424min 107.733 ng/mL

response 18334057

MJB 11/12/19

(11) Endosulfan I #2

8.127min 95.169 ng/mL

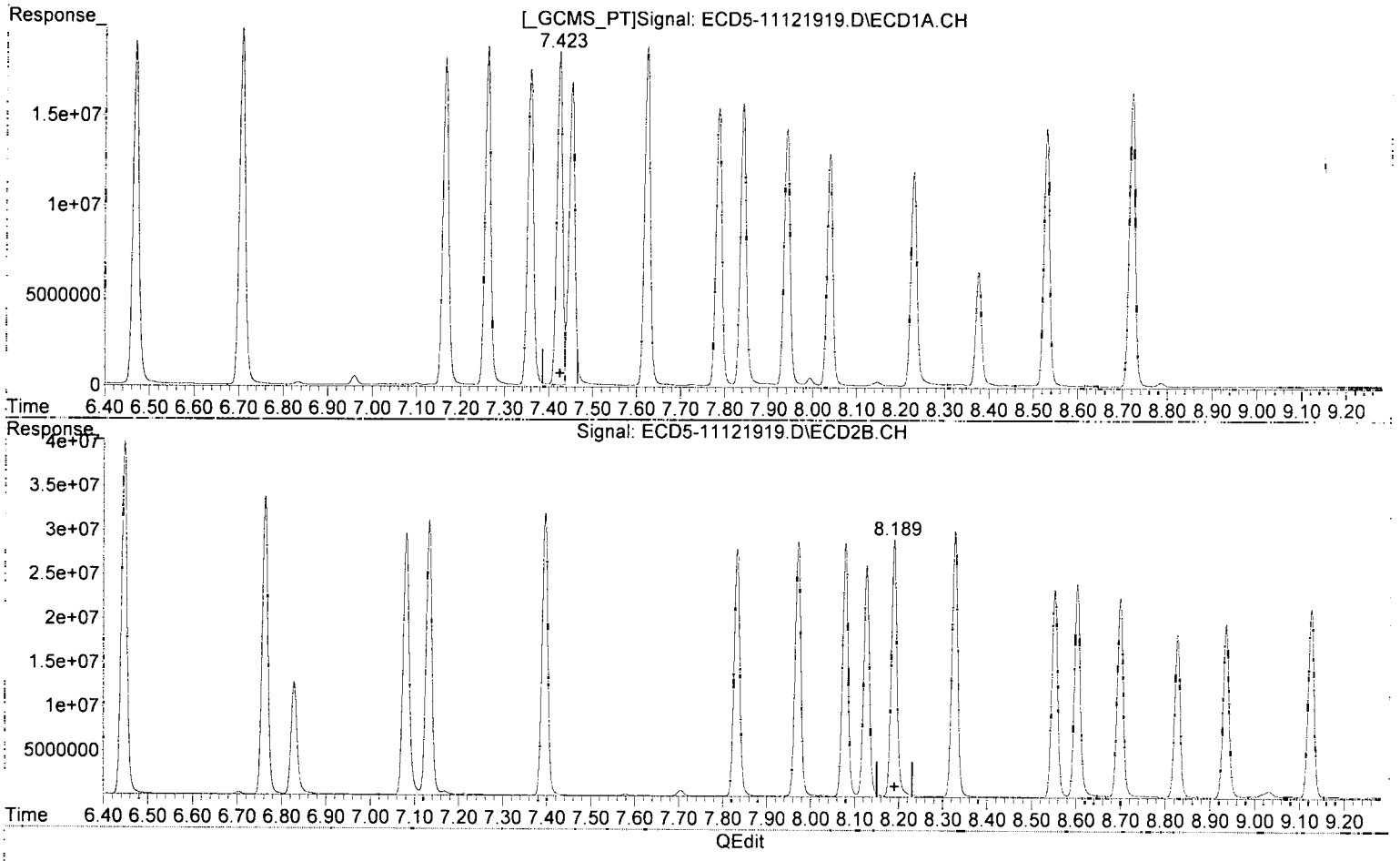
response 26188170

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.423min 98.422 ng/mL (m)

response 18555567

MB 11/12/19

(12) 4,4'-DDE #2

8.189min 93.536 ng/mL

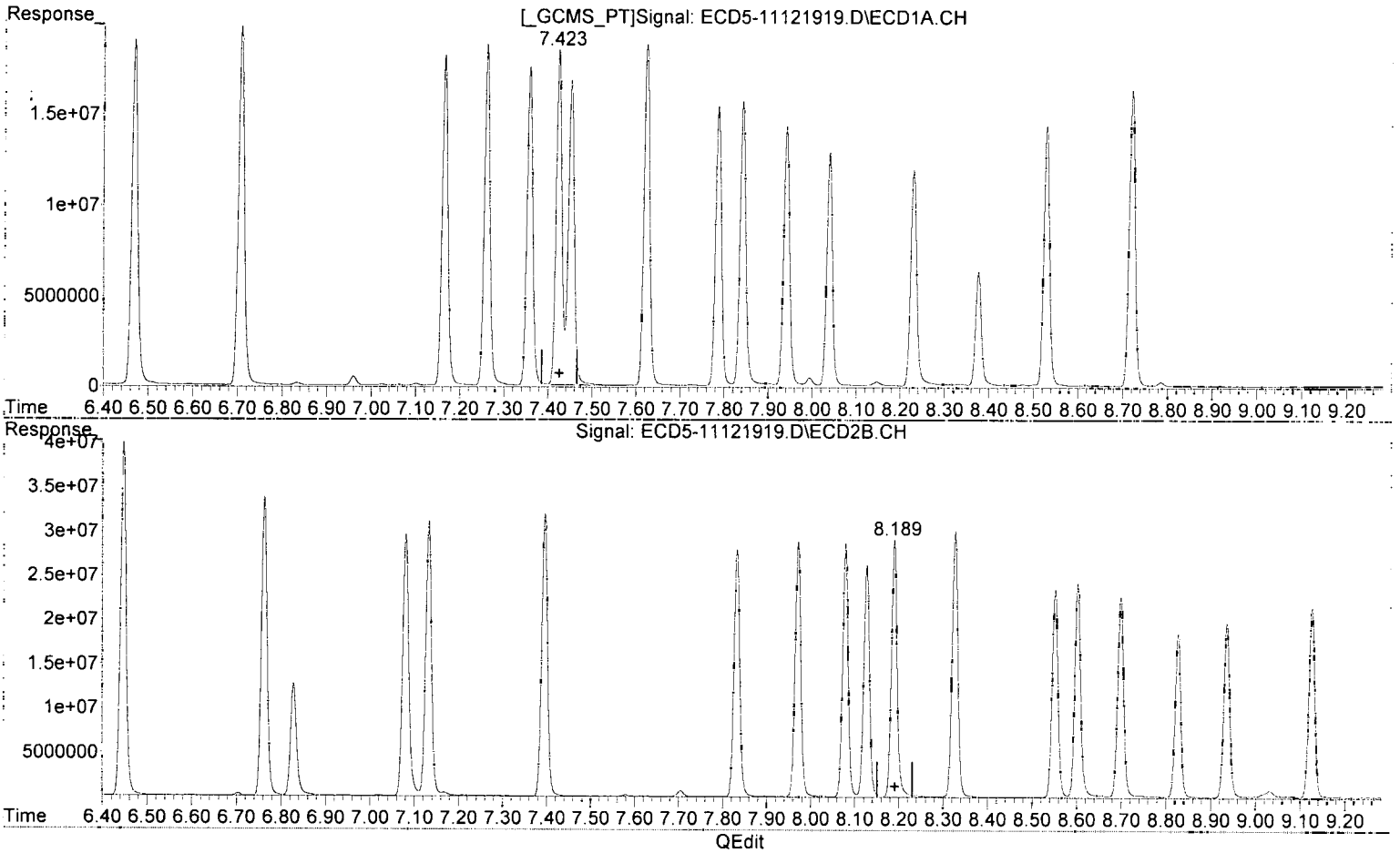
response 29059554

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.424min 97.247 ng/mL

response 18334057

MJB 11/24/19

(12) 4,4'-DDE #2

8.189min 93.536 ng/mL

response 29059554

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

ML MJB 11/12/19

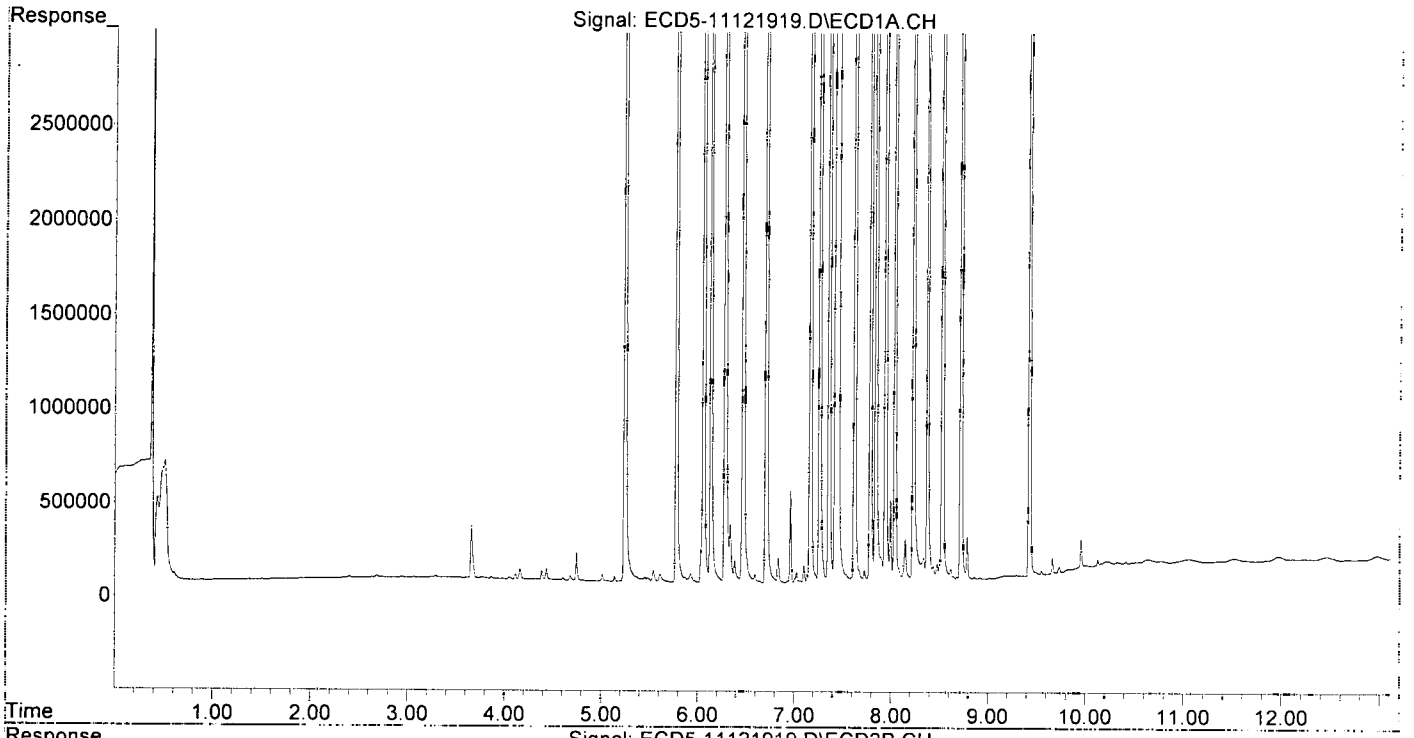
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.245	5.841	16606532	24825718	100.054	84.623	
22)	S	DCBP (S)	9.425	10.351	12850470	18606009	91.074	103.503	
		Target Compounds							
2)		a-BHC	5.779	6.446	24651352	39971532	107.493	97.411	
3)		g-BHC	6.060	6.762	20976640	33725399	103.959	94.547	
4)		b-BHC	6.135	6.828	8280719	12712553	91.717	80.324	
5)		Heptachlor	6.468	7.132	18982277	31094510	104.703	101.624	
6)		d-BHC	6.282	7.080	19862988	29601603	100.986	83.937	
7)		Aldrin	6.707	7.395	19678861	31910622	99.667	96.877	
8)		Heptachlo...	7.165	7.832	18151092	27936309	98.552	92.858	
9)		trans-Chl...	7.261	7.971	18775095	28834907	101.547	92.028	
10)		cis-Chlor...	7.358	8.078	17549653	28671767	96.389	98.445	
11)		Endosulfa...	7.424f	8.127	18334057	26188170	107.733	95.169	
12)		4,4'-DDE	7.424	8.189	18334057	29059554	97.247	93.536	
13)		Dieldrin	7.623	8.326	18788434	30015670	97.867	98.687	
14)		Endrin	7.786	8.552	15377550	23402787	104.590	103.632	
15)		4,4'-DDD	7.842	8.602	15683157	24074306	99.803	93.962	
16)		Endosulfa...	7.941	8.698	14342892	22546677	99.873	97.771	
17)		4,4'-DDT	8.039	8.826	12936752	18444621	108.203	91.460	
18)		Endrin Al...	8.230	8.935	11877192	19591578	94.837	95.516	
19)		Endosulfa...	8.529	9.125	14335992	21349558	92.504	85.711	
20)		Methoxychlor	8.376	9.304	6330145	9313444	108.070	95.391	
21)		Endrin Ke...	8.721	9.519	16531491	24581649	99.134	95.531	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.612	0.000	35558	0	0.202	N.D.	#
25)		Oxychlordane	7.101	7.766	87463	16209	0.532	0.059	#
26)		2,4'-DDE	7.165	7.971	18151092	28834907	141.517	135.925	
27)		trans-Non...	7.358	8.028	17549653	104904	97.747	0.348	#
28)		2,4'-DDD	0.000	8.326	0	30015670	N.D.	158.928	#
29)		2,4'-DDT	7.726	8.552	56162	23402787	0.512	131.226	#
30)		cis-Nonac...	7.842f	8.602	15683157	24074306	75.539	71.767	
31)		Mirex	0.000	9.519	0	24581649	N.D.	132.107	#
32)		Chlordane...	7.358	8.078	17549653	28671767	891.315	792.375	
33)		Chlordane...	0.000	8.189	0	29059554	N.D.	957.038	#
34)		Chlordane...	7.995	8.826	431143	18444621	74.578	2057.202	#
35)		Chlordane...	0.000	3.507f	0	3686	N.D.	NoCal	
36)		Toxaphene...	0.000	8.503	0	29176	N.D.	11.118	#
37)		Toxaphene...	7.842	8.826f	15683157	18444621	9711.303	5604.522	#
38)		Toxaphene...	8.147	0.000	216928	0	64.418	N.D.	#
39)		Toxaphene...	8.376	8.935	6330145	19591578	1953.657	2346.344	
40)		Toxaphene...	8.617	9.125	53365	21349558	22.262	4581.098	#
41)		Toxaphene...	0.000	9.519	0	24581649	N.D.	5174.864	#
42)		Toxaphene...	0.000	3.507f	0	3686	N.D.	NoCal	

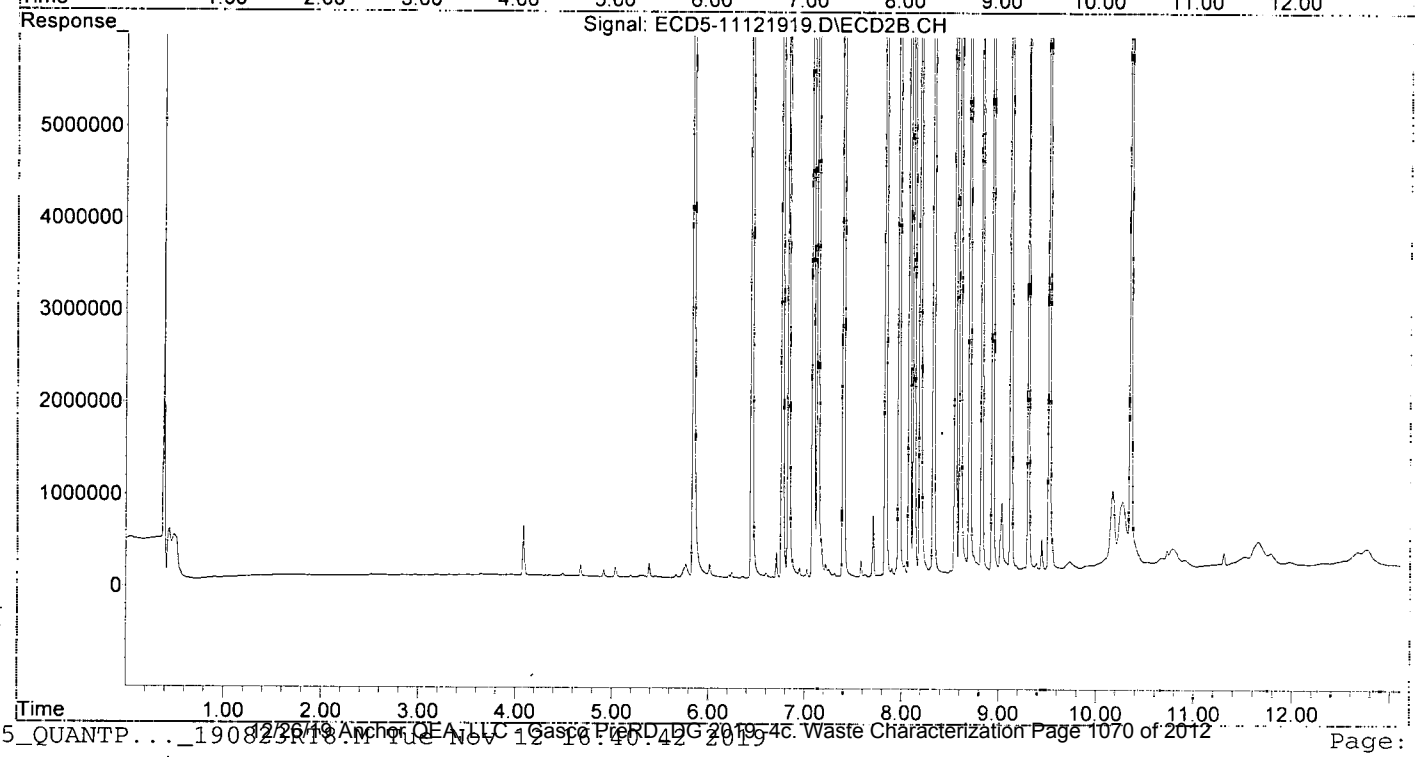
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:19
Operator : MJB
Sample : 9K12037-CCV3
Misc : A19K134, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:40:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:36
Operator : MJB
Sample : 9K12037-CCV4
Misc : A19J409, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:51:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

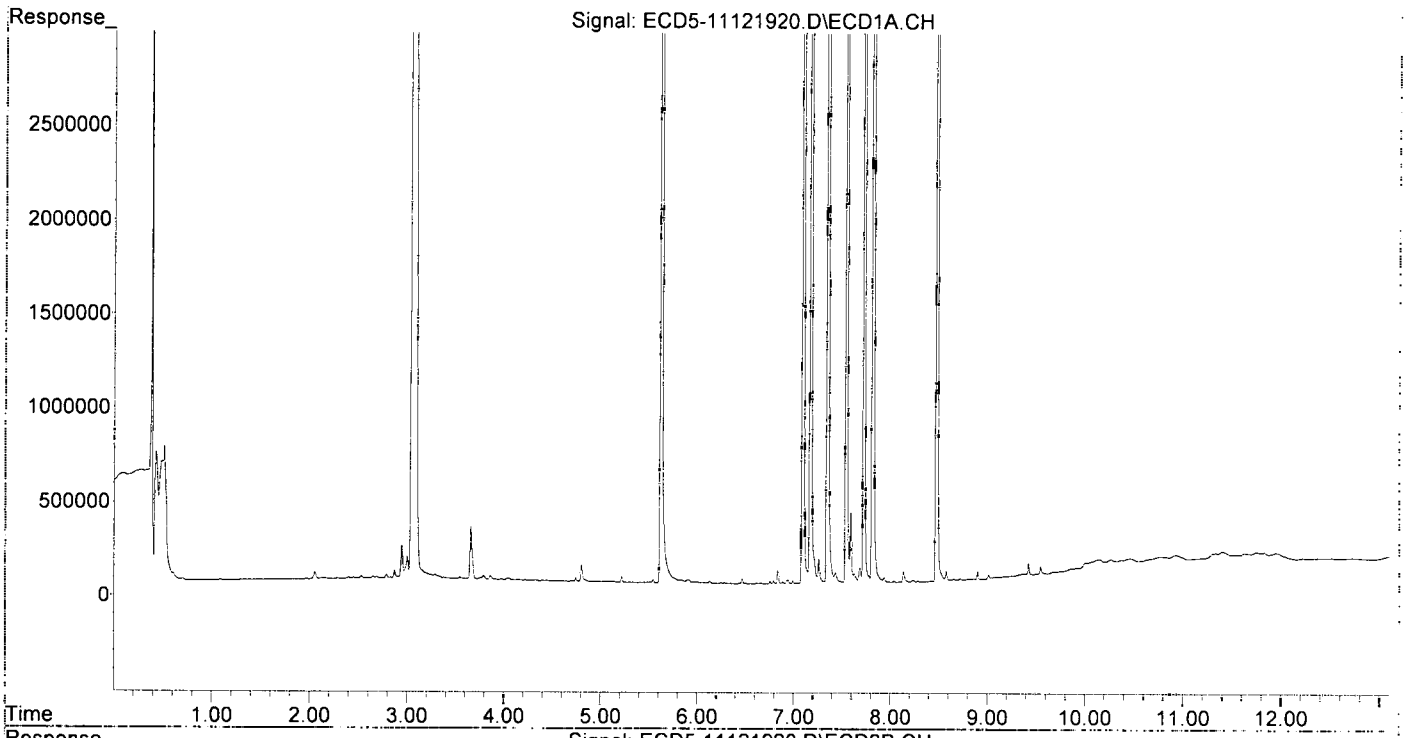
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.218f	5.841	30630	11588	0.185	0.039	#
22)	S DCBP (S)	9.424	10.351	71450	78225	0.506	0.435	
	Target Compounds							
2)	a-BHC	5.813f	0.000	16174	0	0.071	N.D.	#
3)	g-BHC	0.000	6.794f	0	5354	N.D.	0.015	#
4)	b-BHC	6.132	6.828	12357	8666	0.137	0.055	#
5)	Heptachlor	6.467	7.130	30173	41153	0.166	0.134	
6)	d-BHC	6.282	7.080	8128	12213	0.041	0.035	
7)	Aldrin	0.000	7.390	0	6849	N.D.	0.021	#
8)	Heptachlo...	7.173	7.828	12062661	66248	65.494	0.220	#
9)	trans-Chl...	7.260	7.966	130202	19359666	0.704	61.788	#
10)	cis-Chlor...	7.350	0.000	17138706	0	94.132	N.D.	#
11)	Endosulfa...	7.434f	8.139	57140	63249	0.336	0.230	
12)	4,4'-DDE	7.434	8.165f	57140	32083	0.303	0.103	#
13)	Dieldrin	7.627	8.337	50412	17137290	0.263	56.345	#
14)	Endrin	7.817f	8.559	19635001	16434352	133.547	72.774	#
15)	4,4'-DDD	7.817f	8.596	19635001	32878054	124.952	128.323	
16)	Endosulfa...	7.936	8.684	27500	30209	0.191	0.131	
17)	4,4'-DDT	8.038	8.824	6420	14503	0.054	0.046	
18)	Endrin Al...	8.239	8.933	9874	12087	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.123	0	13825	N.D.	0.056	#
20)	Methoxychlor	8.377	9.310	1430	22118	0.024	0.089	#
21)	Endrin Ke...	8.720	9.506	10483	16672664	0.063	64.794	#
23)	Hexachlor...	3.050	3.546	13720227	29243671	75.081	77.790	
24)	Hexachlor...	5.624	6.305	19217990	25819564	109.011	82.205	
25)	Oxychlordane	7.094	7.760	15853307	25120223	96.351	91.712	
26)	2,4'-DDE	7.173	7.966	12062661	19359666	94.048	91.260	
27)	trans-Non...	7.350	8.034	17138706	27826504	95.448	92.252	
28)	2,4'-DDD	7.543	8.337	10672007	17137290	93.511	90.739	
29)	2,4'-DDT	7.725	8.559	10904267	16434352	99.412	92.152	
30)	cis-Nonac...	7.817	8.596	19635001	32878054	94.574	98.012	
31)	Mirex	8.478	9.506	11257917	16672664	89.800	89.603	
32)	Chlordane...	7.350f	0.000	17138706	0	870.444	N.D.	#
33)	Chlordane...	7.434f	8.165f	57140	32083	2.280	1.057	#
34)	Chlordane...	8.038f	8.824	6420	14503	1.111	1.618	#
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	7.543	8.478f	10672007	35684	11915.411	13.598	#
37)	Toxaphene...	7.817	8.824f	19635001	14503	12158.358	4.407	#
38)	Toxaphene...	8.137	0.000	55881	0	16.594	N.D.	#
39)	Toxaphene...	8.377	8.933	1430	12087	0.441	1.448	#
40)	Toxaphene...	8.579f	9.123	50426	13825	21.036	2.967	#
41)	Toxaphene...	8.652f	9.506	7659	16672664	2.420	3509.885	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

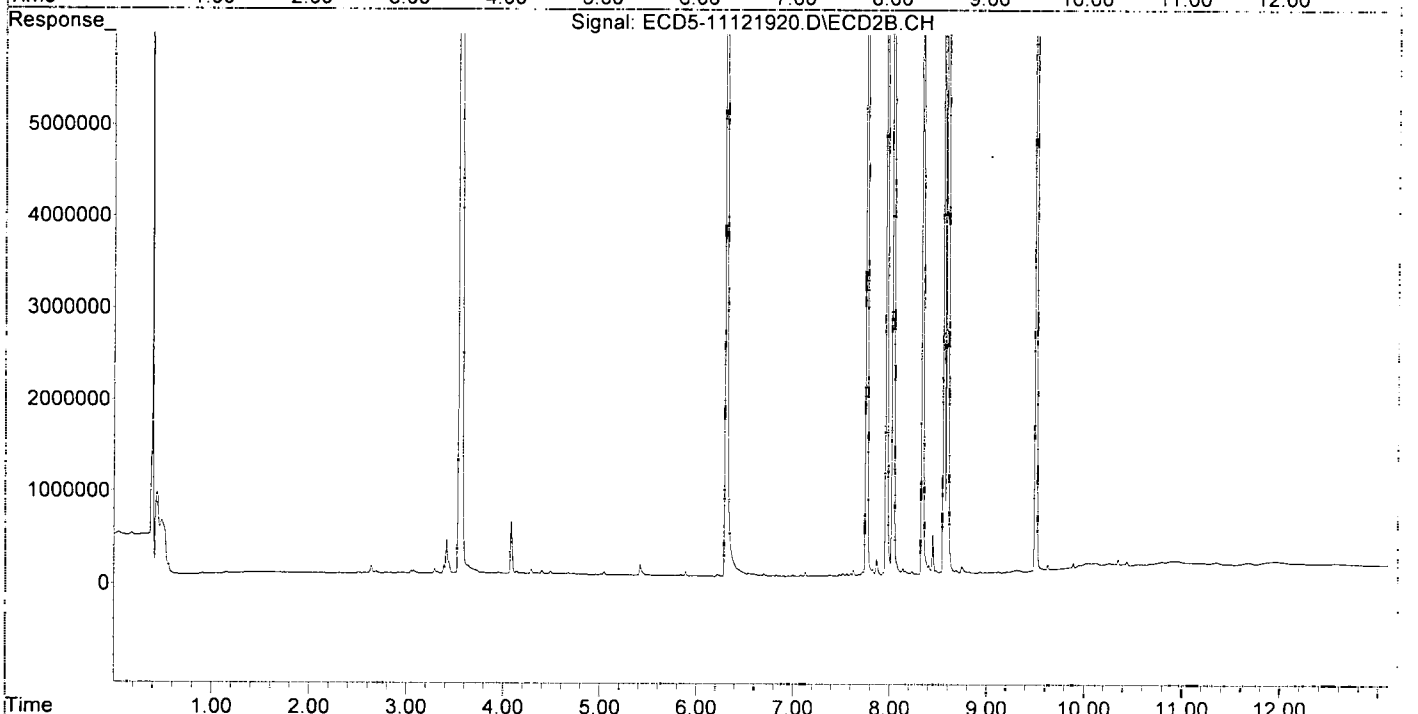
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:36
Operator : MJB
Sample : 9K12037-CCV4
Misc : A19J409, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 16:51:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:54
Operator : MJB
Sample : 9K12037-CCB2
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 17:19:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/12/19

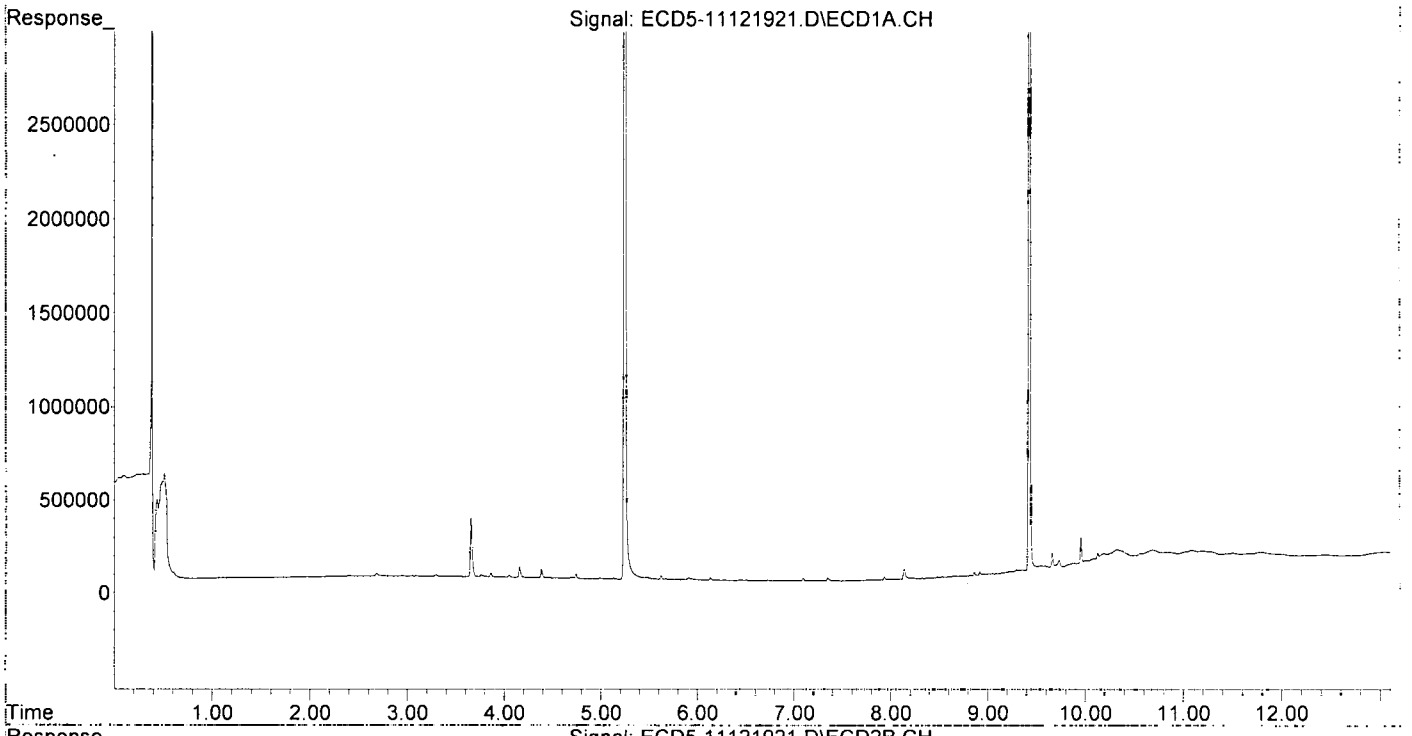
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.245	5.840	16358177	24826763	98.558	84.627	
22)	S DCBP (S)	9.426	10.352	12704751	17687269	90.042	98.392	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	b-BHC	6.133	0.000	12076	0	0.134	N.D.	#
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)	d-BHC	6.283	0.000	3526	0	0.018	N.D.	#
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	7.264	7.996f	3586	9644	0.019	0.031	#
10)	cis-Chlor...	7.348	0.000	15133	0	0.083	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	7.819f	8.557	3347	2326	0.023	0.010	#
15)	4,4'-DDD	7.819f	8.597	3347	3099	0.021	0.012	#
16)	Endosulfa...	7.937	8.685	16005	15336	0.111	0.067	#
17)	4,4'-DDT	8.040	8.842	2475	2688	0.021	BelowCal	#
18)	Endrin Al...	8.228	8.935	8558	6223	BelowCal	BelowCal	
19)	Endosulfa...	8.530	9.124	6037	5558	0.039	0.022	#
20)	Methoxychlor	8.377	9.299	4757	4021	0.081	BelowCal	#
21)	Endrin Ke...	8.722	9.517	3651	18940	0.022	0.074	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.624	0.000	22566	0	0.128	N.D.	#
25)	Oxychlordane	7.094	7.726f	13985	18636	0.085	0.068	
26)	2,4'-DDE	0.000	7.996f	0	9644	N.D.	0.045	#
27)	trans-Non...	7.348	7.996f	15133	9644	87346.616	0.032	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	7.758f	8.557	2151	2326	0.020	0.013	
30)	cis-Nonac...	7.819	8.597	3347	3099	0.016	0.009	#
31)	Mirex	8.483	9.517	6103	18940	0.049	0.102	#
32)	Chlordane...	7.348f	0.000	15133	0	0.769	N.D.	#
33)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)	Chlordane...	8.040f	8.842	2475	2688	0.428	0.300	
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)	Toxaphene...	7.819	8.842	3347	2688	2.073	0.817	#
38)	Toxaphene...	8.139	0.000	56801	0	16.867	N.D.	#
39)	Toxaphene...	8.377	8.935	4757	6223	1.468	0.745	#
40)	Toxaphene...	0.000	9.124	0	5558	N.D.	1.193	#
41)	Toxaphene...	8.653f	9.517	6537	18940	2.066	3.987	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

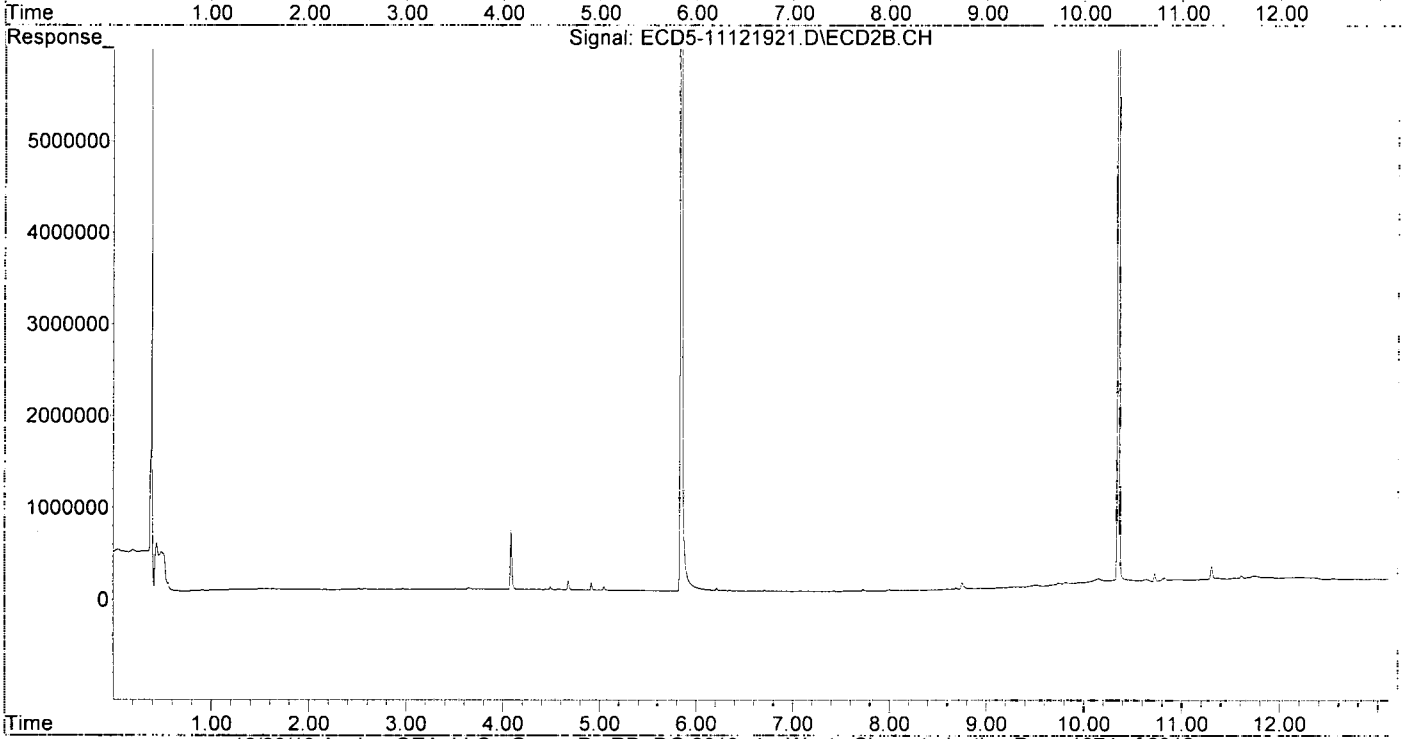
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 16:54
Operator : MJB
Sample : 9K12037-CCB2
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 12 17:19:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/13/19

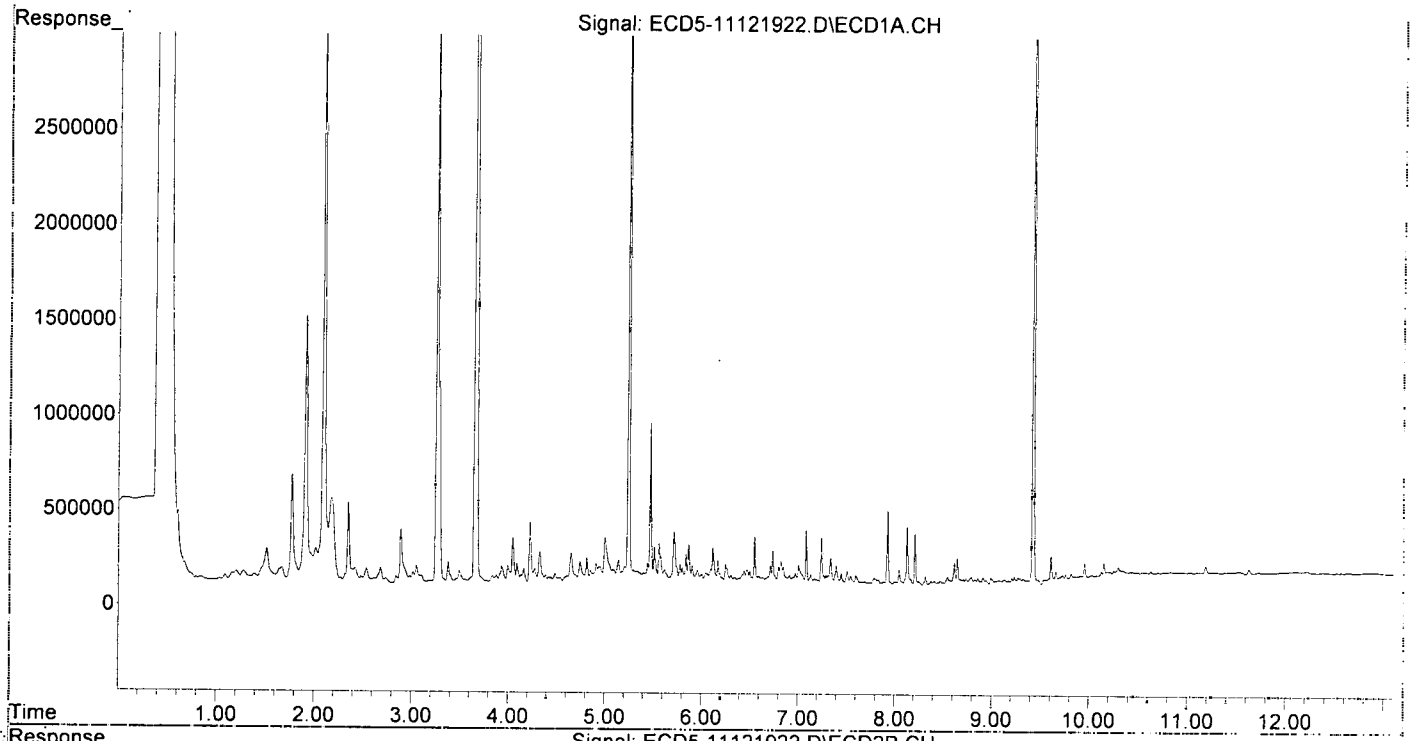
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.243	5.836	4975010	8802407	29.974	30.005
22)	S	DCBP (S)	9.425	10.351	5885154	7833057	41.709	43.574
		Target Compounds						
2)		a-BHC	5.778	6.438	106014	44396	0.462	0.108 #
3)		g-BHC	6.064	6.761	56812	50153	0.282	0.141 #
4)		b-BHC	6.130	6.818	113977	62711	1.261m	0.396m#
5)		Heptachlor	6.472	7.120	74525	112994	0.411	0.369
6)		d-BHC	6.271	7.080	65858	112778	0.335m	0.320
7)		Aldrin	6.715	7.415	95997	259453	0.486	0.788 #
8)		Heptachlo...	7.168	7.824	29543	97684	0.160	0.325m#
9)		trans-Chl...	7.253	7.972	89040	203081	0.482m	0.648
10)		cis-Chlor...	7.339f	8.092	142007	40195	0.780	0.138m#
11)		Endosulfa...	7.448	8.112	57686	62501	0.339	0.227m
12)		4,4'-DDE	7.408	8.191	53120	17183	0.282m	0.055m#
13)		Dieldrin	7.600f	8.312	49448	38010	0.258	0.125 #
14)		Endrin	7.790	0.000	35696	0	0.243	N.D. #
15)		4,4'-DDD	7.830	8.614	24702	17974	0.157	0.070m#
16)		Endosulfa...	7.937	8.690	149421	119654	1.040m	0.519m#
17)		4,4'-DDT	8.048	8.826	76547	33402	0.640	0.157 #
18)		Endrin Al...	8.220	8.927	87537	58357	BelowCalm	BelowCalm
19)		Endosulfa...	8.546	9.154f	40843	34739	0.264	0.139 #
20)		Methoxychlor	8.375	9.313	20328	47942	0.347	0.409
21)		Endrin Ke...	8.737	9.526	35796	110800	0.215m	0.431 #
23)		Hexachlor...	3.052	3.512f	92738	4920882	0.507	13.090 #
24)		Hexachlor...	5.618	6.309	74271	191414	0.421	0.609 #
25)		Oxychlordane	7.086	7.751	283540	112522	1.723	0.411 #
26)		2,4'-DDE	7.168	7.972	29543	203081	0.230	0.957 #
27)		trans-Non...	7.339	8.042	142007	70371	0.476	0.233 #
28)		2,4'-DDD	7.546	8.312f	43990	38010	0.385	0.201 #
29)		2,4'-DDT	7.689f	8.596f	16682	7894	0.152	0.044 #
30)		cis-Nonac...	7.830	8.596	24702	7894	0.119	0.024 #
31)		Mirex	8.470	9.526	18363	110800	0.146	0.595 #
32)		Chlordane...	7.396f	8.103f	99431	148381	5.050	4.101
33)		Chlordane...	7.448	8.217f	57686	125242	2.302	4.125 #
34)		Chlordane...	8.016	8.854	16462	40611	2.848	4.530 #
35)		Chlordane...	3.494	3.457	67494	64367	NoCal	NoCal
36)		Toxaphene...	7.546	8.508	43990	17351	49.116	6.612 #
37)		Toxaphene...	7.830	8.854	24702	40611	15.296	12.340
38)		Toxaphene...	8.130	8.854f	305986	40611	90.865	8.013 #
39)		Toxaphene...	8.375	8.946	20328	23661	6.274	2.834 #
40)		Toxaphene...	8.618	9.154f	113339	34739	47.281	7.454 #
41)		Toxaphene...	8.648f	9.526f	139020	110800	43.930	23.325 #
42)		Toxaphene...	3.494	3.457	67494	64367	NoCal	NoCal

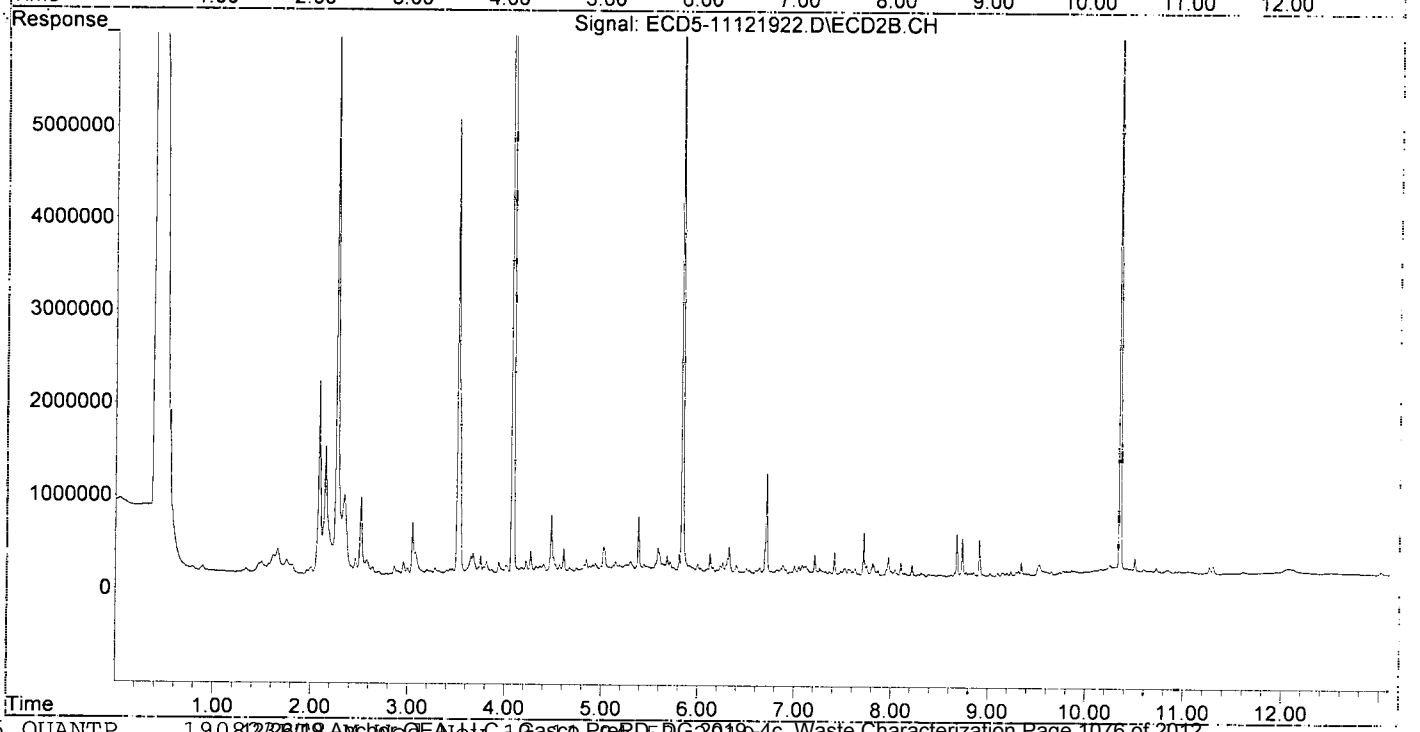
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

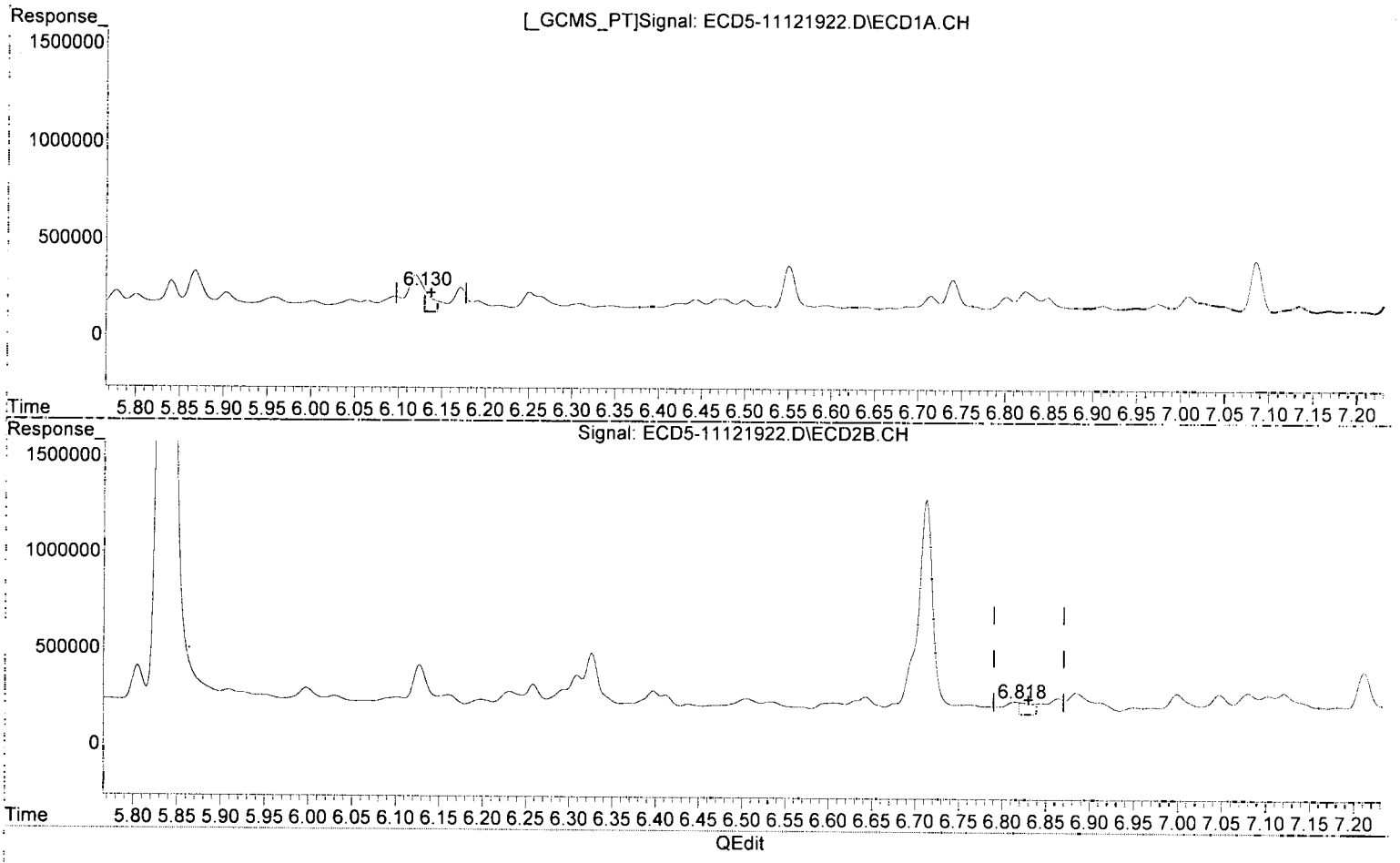




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(4) b-BHC

6.130min 1.261 ng/mL (m)

response 113977

MJB 11/13/19

(4) b-BHC #2

6.818min 0.396 ng/mL (m)

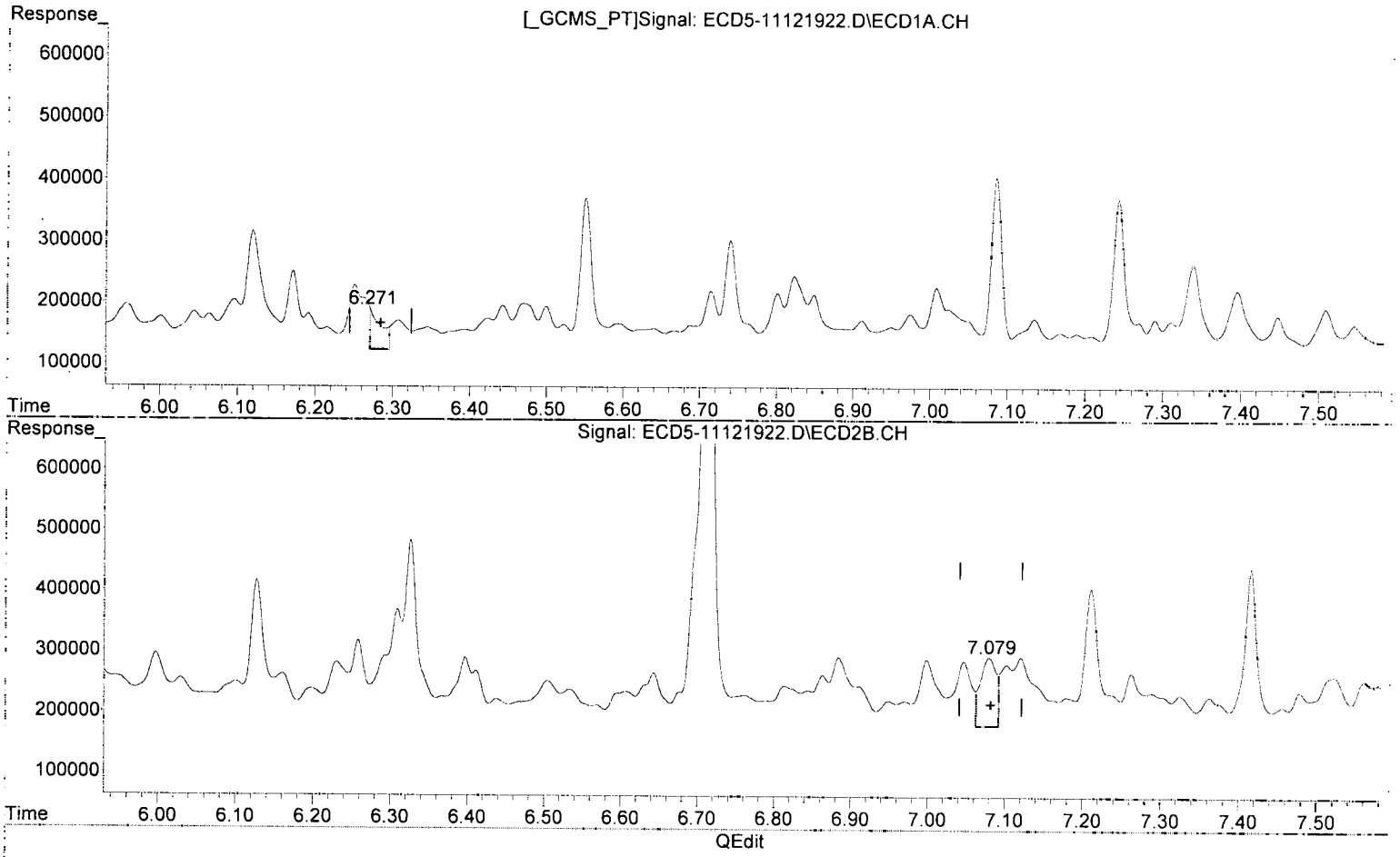
response 62711

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(6) d-BHC

6.271min 0.335 ng/mL (m)

response 65858

MJB 11/13/19

(6) d-BHC #2

7.080min 0.320 ng/mL

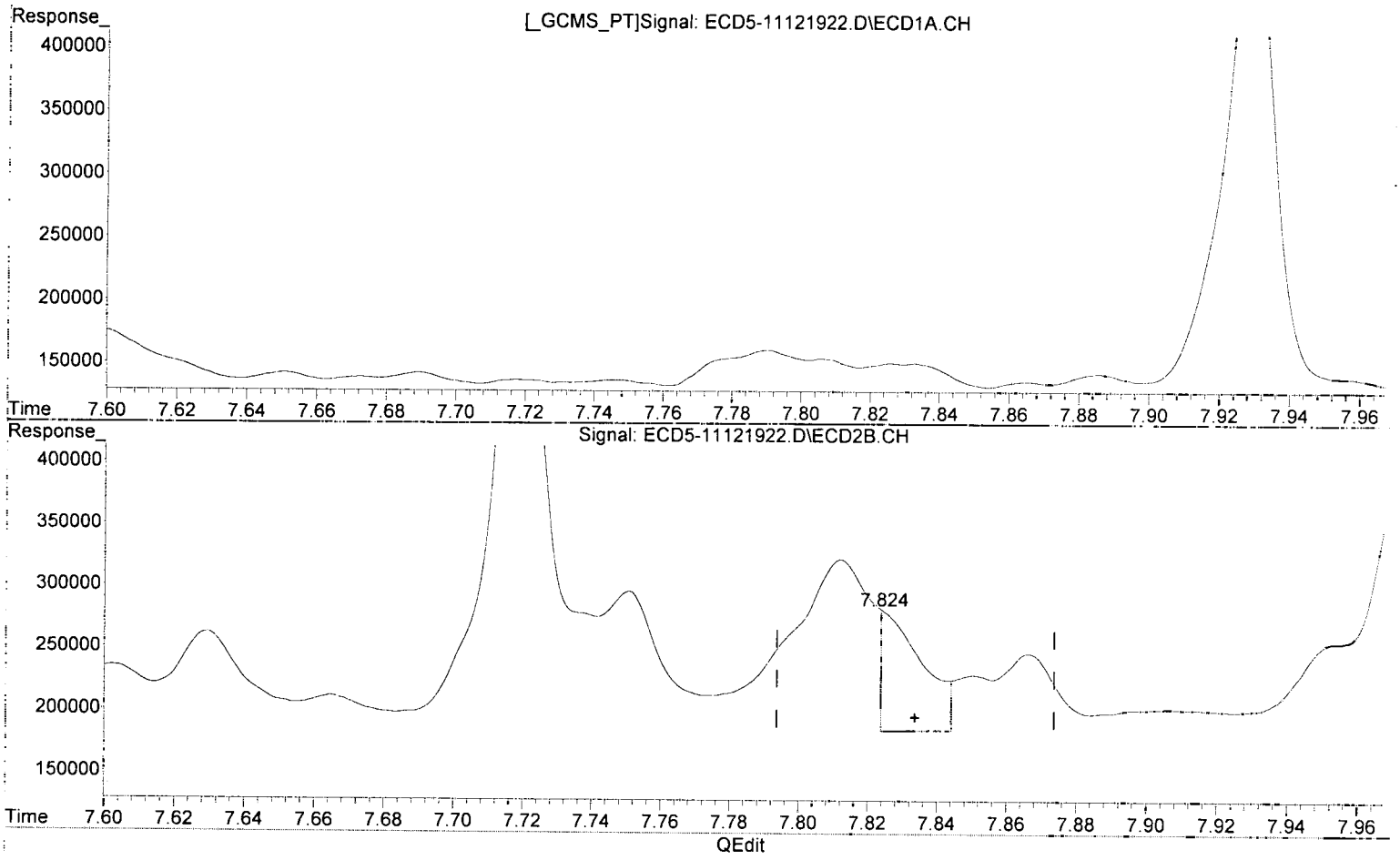
response 112778

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(8) Heptachlor Expoxide

7.168min 0.160 ng/mL

response 29543

MJB 11/13/19

(8) Heptachlor Expoxide #2

7.824min 0.325 ng/mL (m)

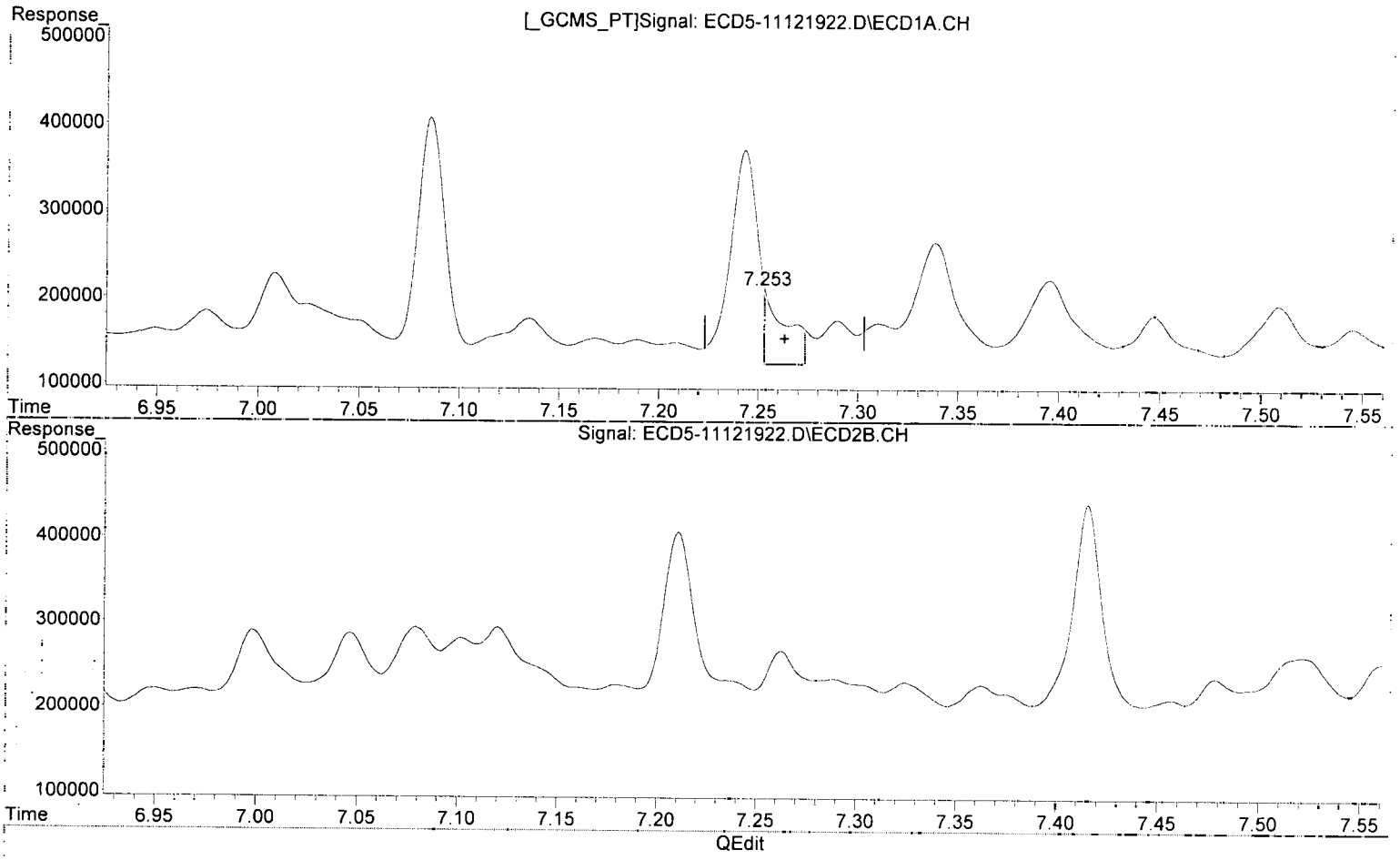
response 97684

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(9) trans-Chlordane

7.253min 0.482 ng/mL m

response 89040

MJB 11/13/19

(9) trans-Chlordane #2

7.972min 0.648 ng/mL

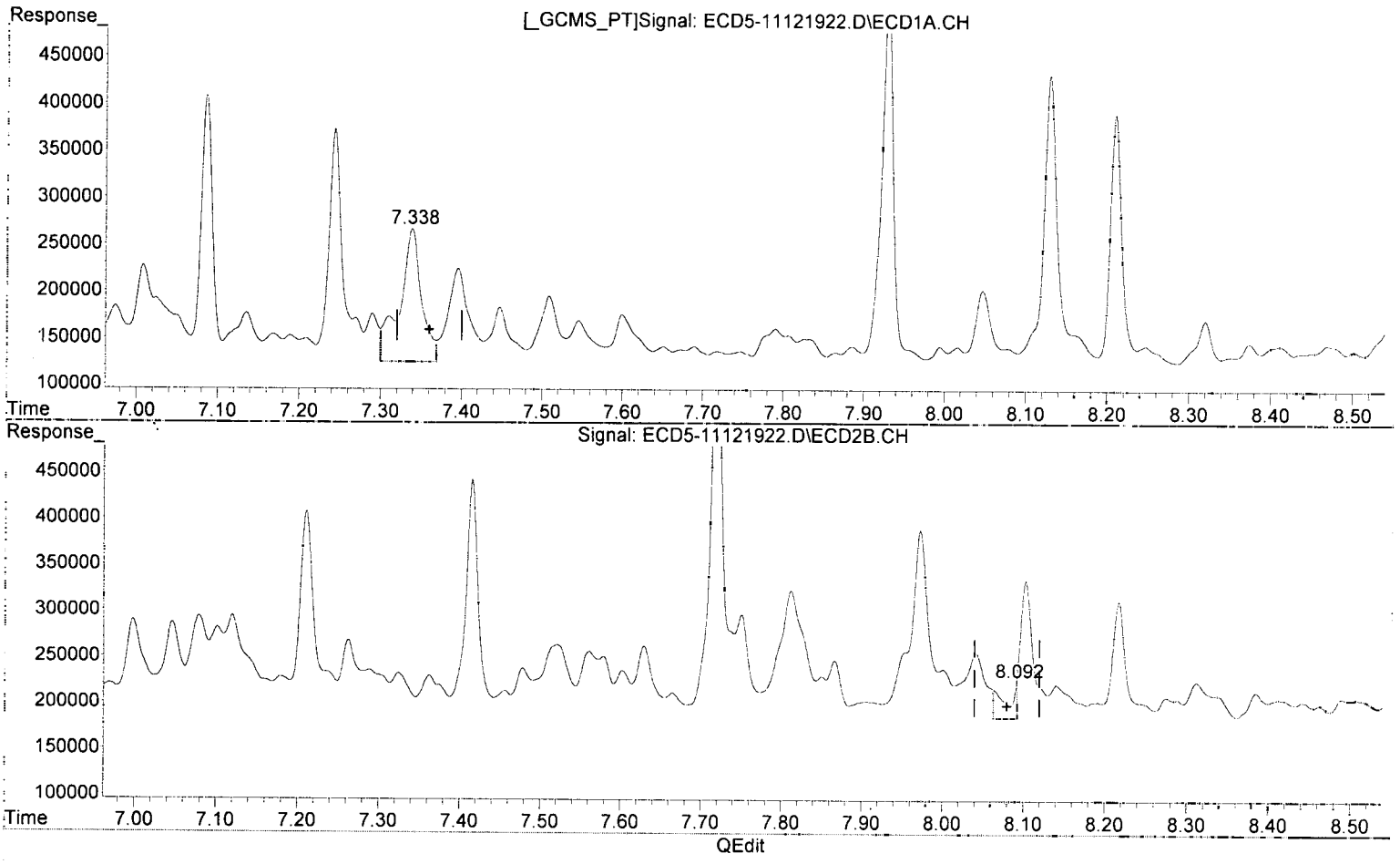
response 203081

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(10) cis-Chlordane

7.339min 0.780 ng/mL

response 142007

MJB 11/13/19

(10) cis-Chlordane #2

8.092min 0.138 ng/mL m

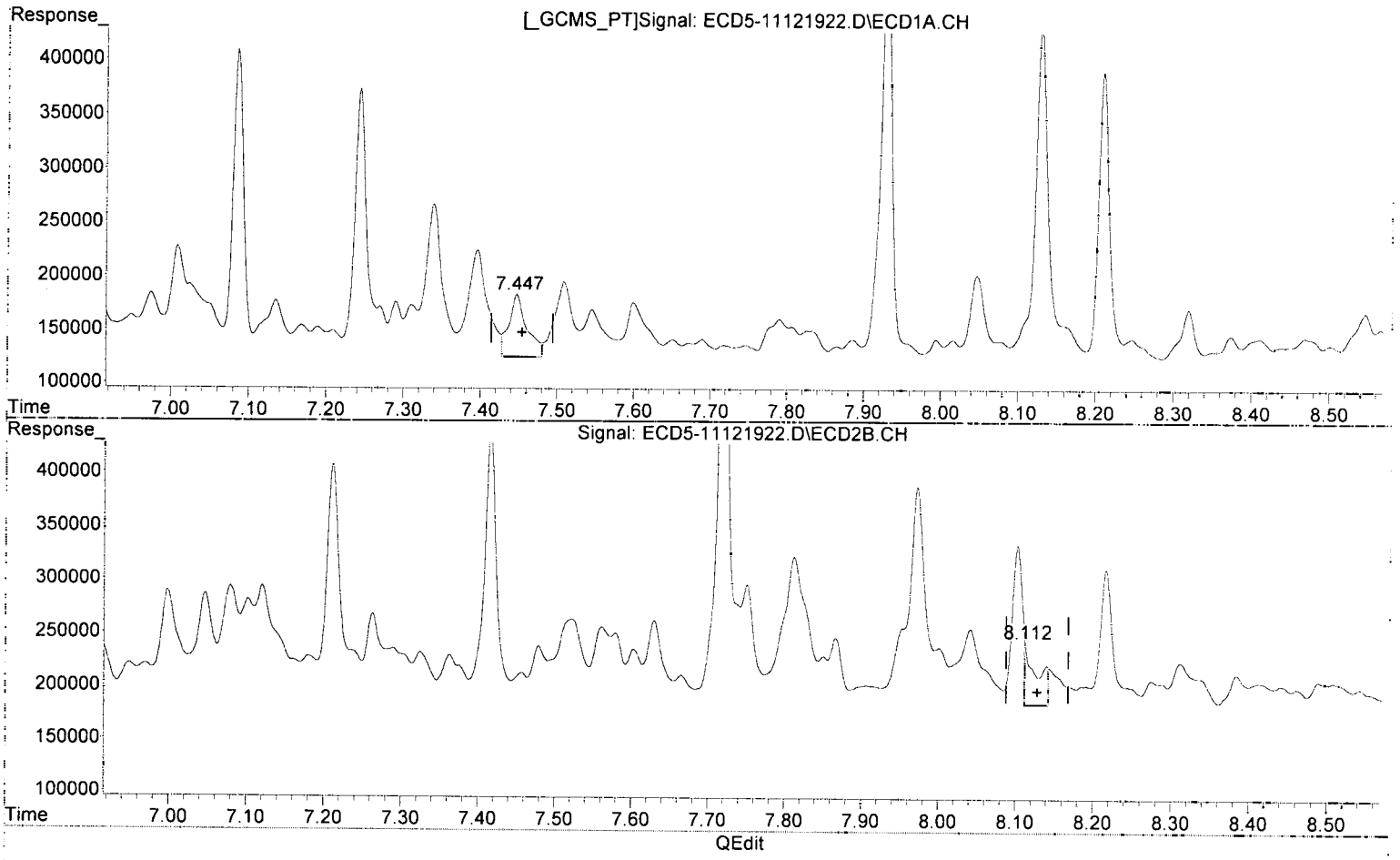
response 40195

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Endosulfan I

7.448min 0.339 ng/mL

response 57686

MJB 11/13/19

(11) Endosulfan I #2

8.112min 0.227 ng/mL (m)

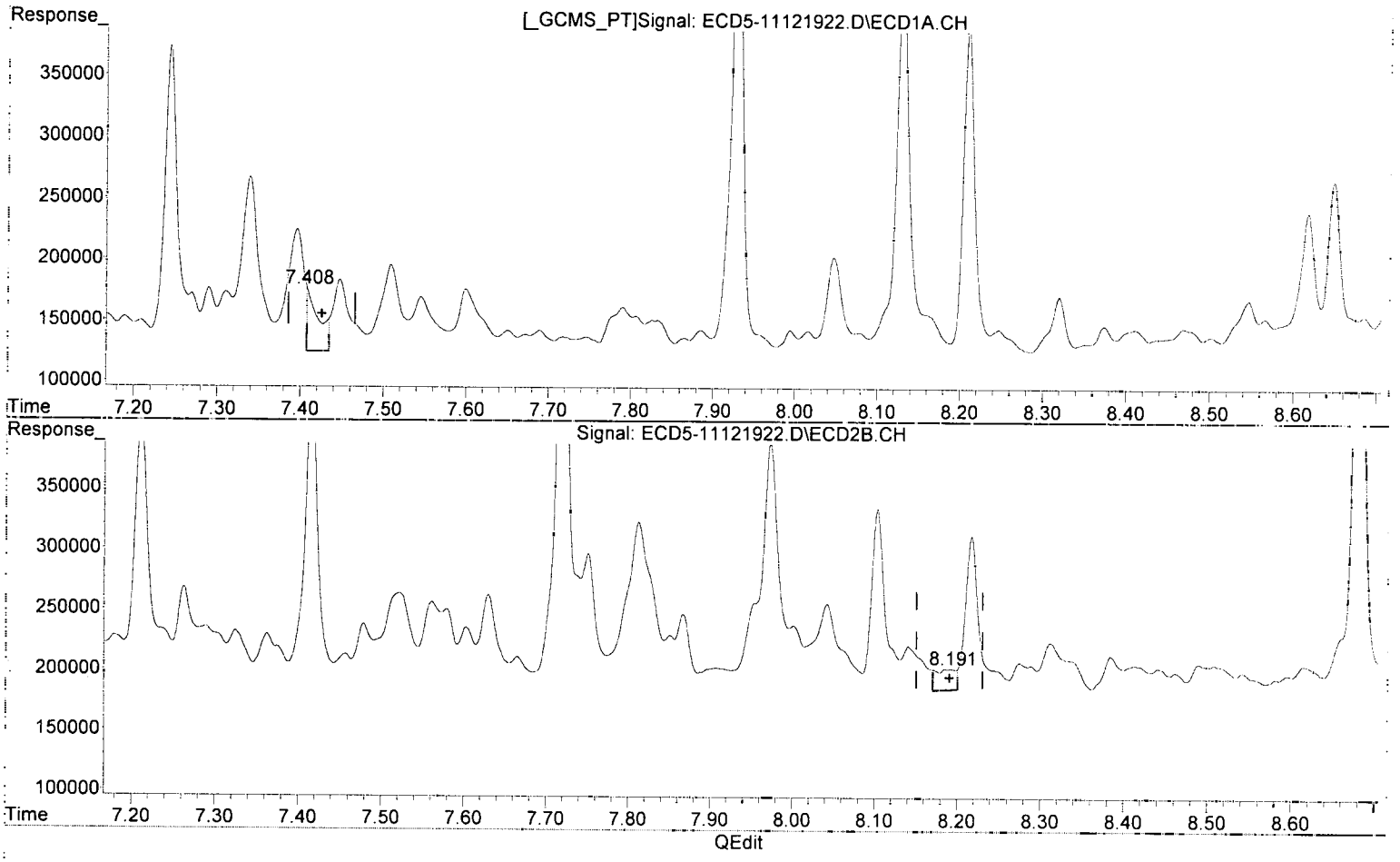
response 62501

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.408min 0.282 ng/mL m

response 53120

MJB 11/13/19

(12) 4,4'-DDE #2

8.191min 0.055 ng/mL m

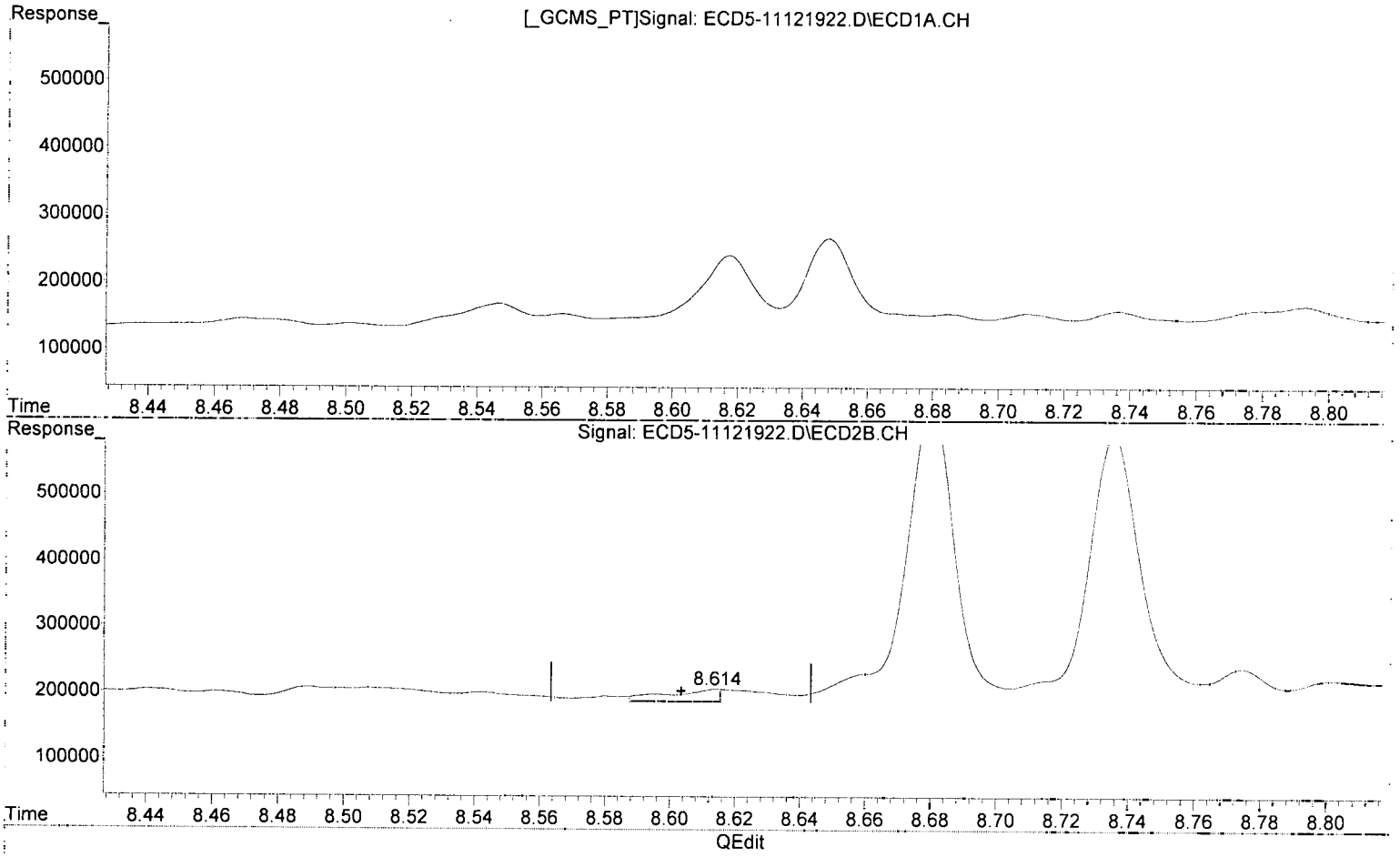
response 17183

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.830min 0.157 ng/mL

response 24702

MJB 11/13/19

(15) 4,4'-DDD #2

8.614min 0.070 ng/mL m

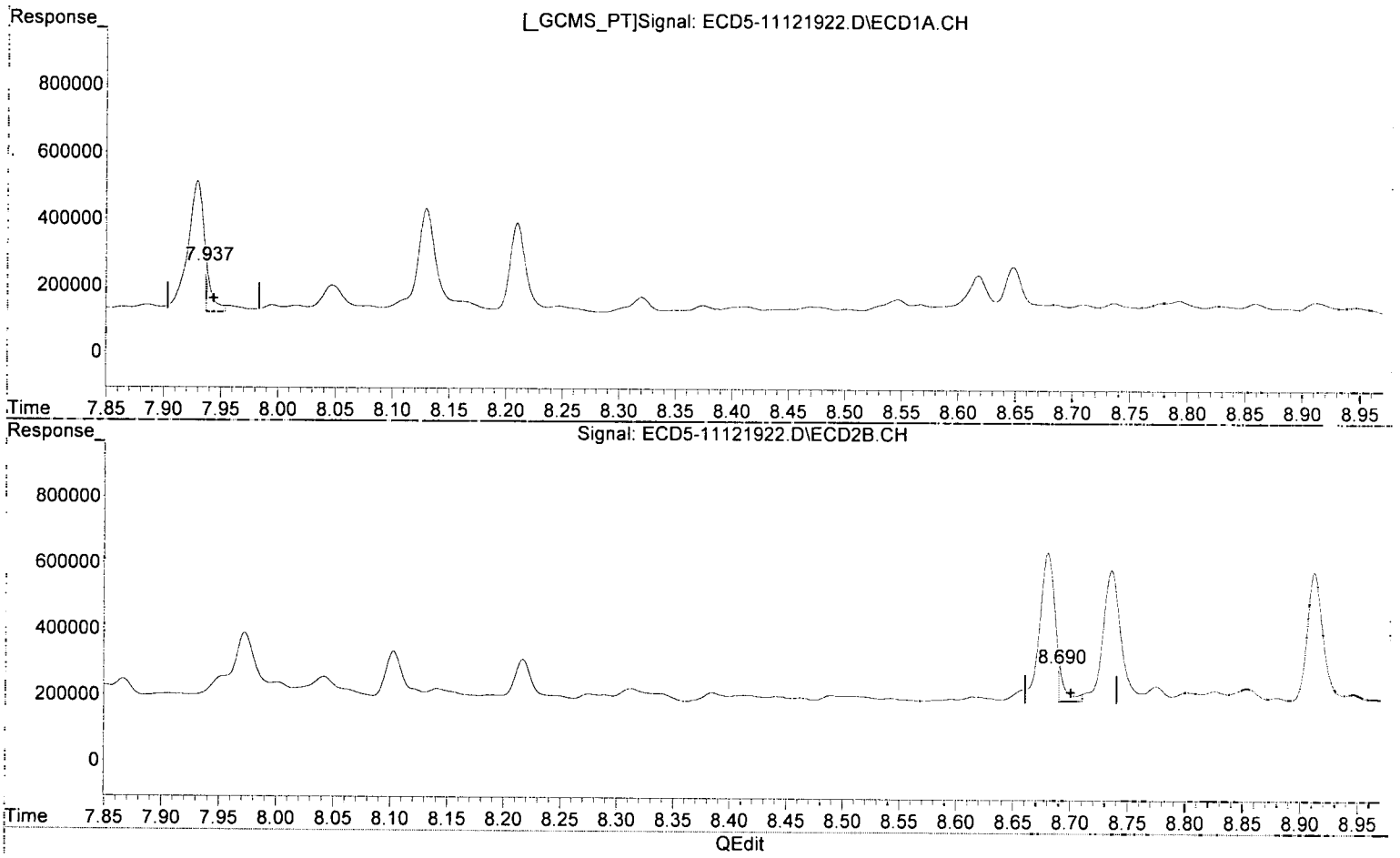
response 17974

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(16) Endosulfan II

7.937min 1.040 ng/mL (m)

response 149421

MJB 11/13/19

(16) Endosulfan II #2

8.690min 0.519 ng/mL (m)

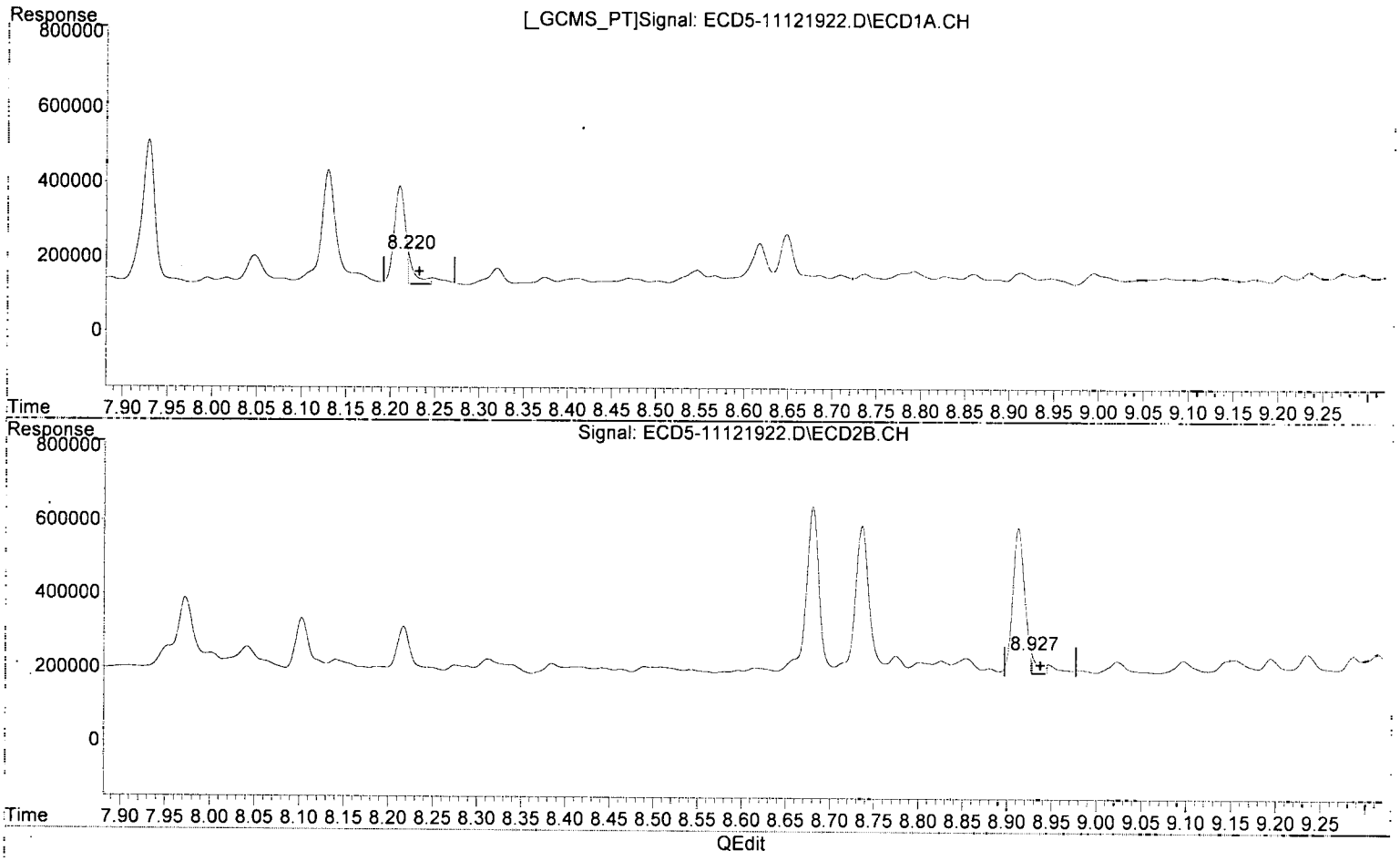
response 119654

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.220min -0.271 ng/mL m

response 87537

MJB 11/13/19

(18) Endrin Aldehyde #2

8.927min -0.530 ng/mL m

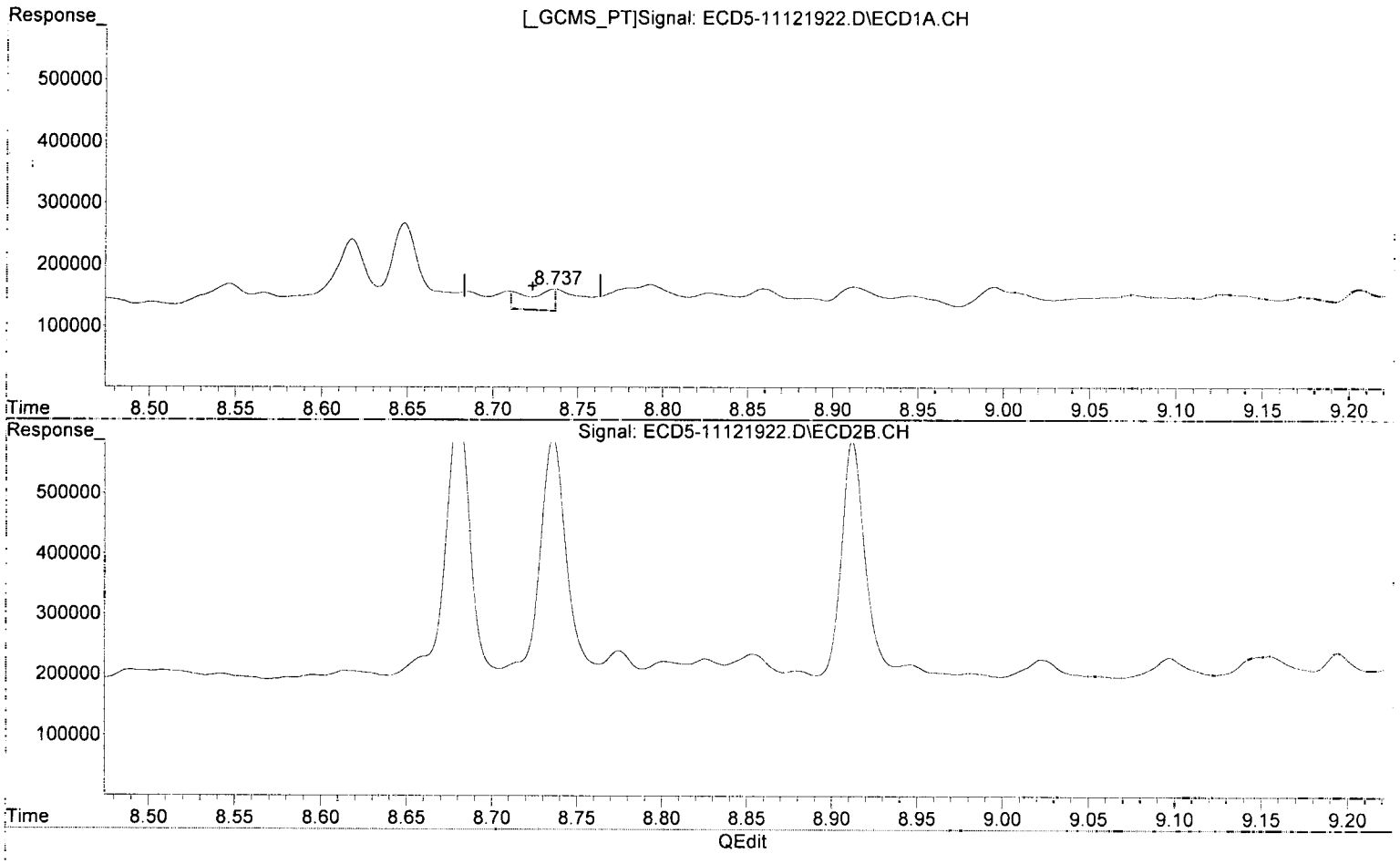
response 58357

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(21) Endrin Ketone

8.737min 0.215 ng/mL (m)

response 35796

MJB 11/13/19

(21) Endrin Ketone #2

9.526min 0.431 ng/mL

response 110800

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MT MP 11/13/19

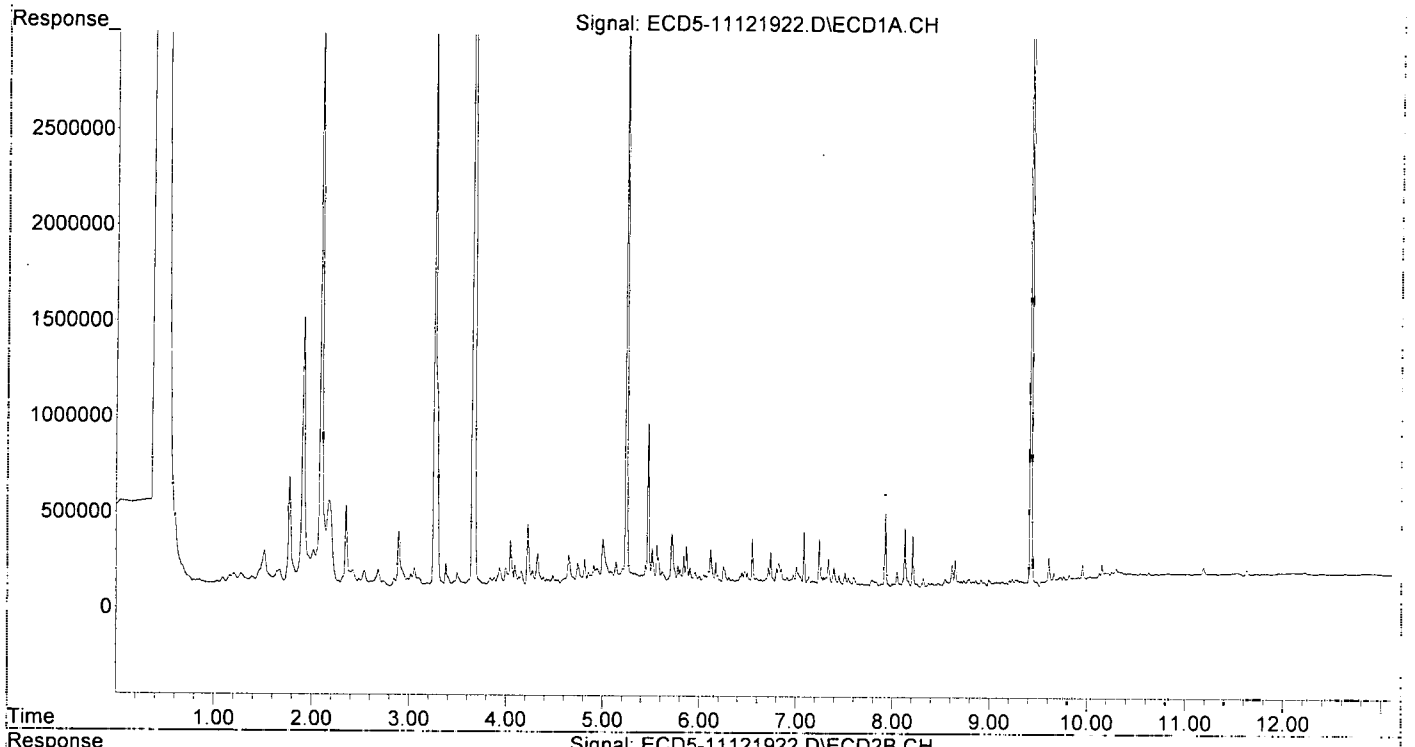
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.243	5.836	4975010	8802407	29.974	30.005	
22)	S	DCBP (S)	9.425	10.351	5885154	7833057	41.709	43.574	
		Target Compounds							
2)		a-BHC	5.778	6.438	106014	44396	0.462	0.108	#
3)		g-BHC	6.064	6.761	56812	50153	0.282	0.141	#
4)		b-BHC	6.120	6.844	192585	57934	2.131	0.366	#
5)		Heptachlor	6.472	7.120	74525	112994	0.411	0.369	
6)		d-BHC	6.307f	7.080	47034	112778	0.239	0.320	
7)		Aldrin	6.715	7.415	95997	259453	0.486	0.788	#
8)		Heptachlo...	7.168	7.851	29543	44980	0.160	0.150	
9)		trans-Chl...	7.243	7.972	247057	203081	1.336	0.648	#
10)		cis-Chlor...	7.339f	8.103f	142007	148381	0.780	0.509	
11)		Endosulfa...	7.448	8.141	57686	35651	0.339	0.130	#
12)		4,4'-DDE	7.448f	8.217f	57686	125242	0.306	0.403	
13)		Dieldrin	7.600f	8.312	49448	38010	0.258	0.125	#
14)		Endrin	7.790	0.000	35696	0	0.243	N.D.	#
15)		4,4'-DDD	7.830	8.596	24702	7894	0.157	0.031	#
16)		Endosulfa...	7.929	8.680	385852	450473	2.687	1.953	
17)		4,4'-DDT	8.048	8.826	76547	33402	0.640	0.157	#
18)		Endrin Al...	8.247	8.946	17969	23661	BelowCal	BelowCal	
19)		Endosulfa...	8.546	9.154f	40843	34739	0.264	0.139	#
20)		Methoxychlor	8.375	9.313	20328	47942	0.347	0.409	
21)		Endrin Ke...	8.737	9.526	32410	110800	0.194	0.431	#
23)		Hexachlor...	3.052	3.512f	92738	4920882	0.507	13.090	#
24)		Hexachlor...	5.618	6.309	74271	191414	0.421	0.609	#
25)		Oxychlordane	7.086	7.751	283540	112522	1.723	0.411	#
26)		2,4'-DDE	7.168	7.972	29543	203081	0.230	0.957	#
27)		trans-Non...	7.339	8.042	142007	70371	0.476	0.233	#
28)		2,4'-DDD	7.546	8.312f	43990	38010	0.385	0.201	#
29)		2,4'-DDT	7.689f	8.596f	16682	7894	0.152	0.044	#
30)		cis-Nonac...	7.830	8.596	24702	7894	0.119	0.024	#
31)		Mirex	8.470	9.526	18363	110800	0.146	0.595	#
32)		Chlordane...	7.396f	8.103f	99431	148381	5.050	4.101	
33)		Chlordane...	7.448	8.217f	57686	125242	2.302	4.125	#
34)		Chlordane...	8.016	8.854	16462	40611	2.848	4.530	#
35)		Chlordane...	3.494	3.457	67494	64367	NoCal	NoCal	
36)		Toxaphene...	7.546	8.508	43990	17351	49.116	6.612	#
37)		Toxaphene...	7.830	8.854	24702	40611	15.296	12.340	
38)		Toxaphene...	8.130	8.854f	305986	40611	90.865	8.013	#
39)		Toxaphene...	8.375	8.946	20328	23661	6.274	2.834	#
40)		Toxaphene...	8.618	9.154f	113339	34739	47.281	7.454	#
41)		Toxaphene...	8.648f	9.526f	139020	110800	43.930	23.325	#
42)		Toxaphene...	3.494	3.457	67494	64367	NoCal	NoCal	

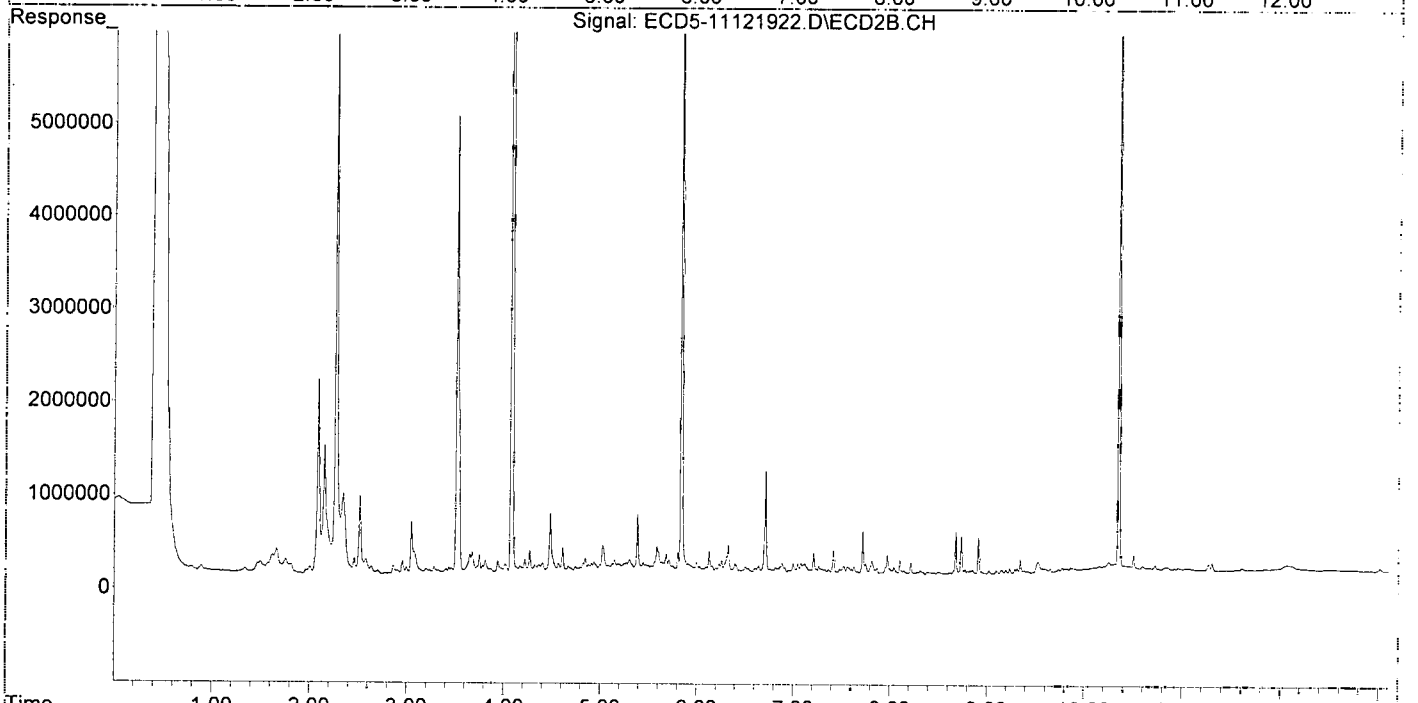
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:17
Operator : MJB
Sample : 9110639-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:35
Operator : MJB
Sample : 9110639-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/13/19

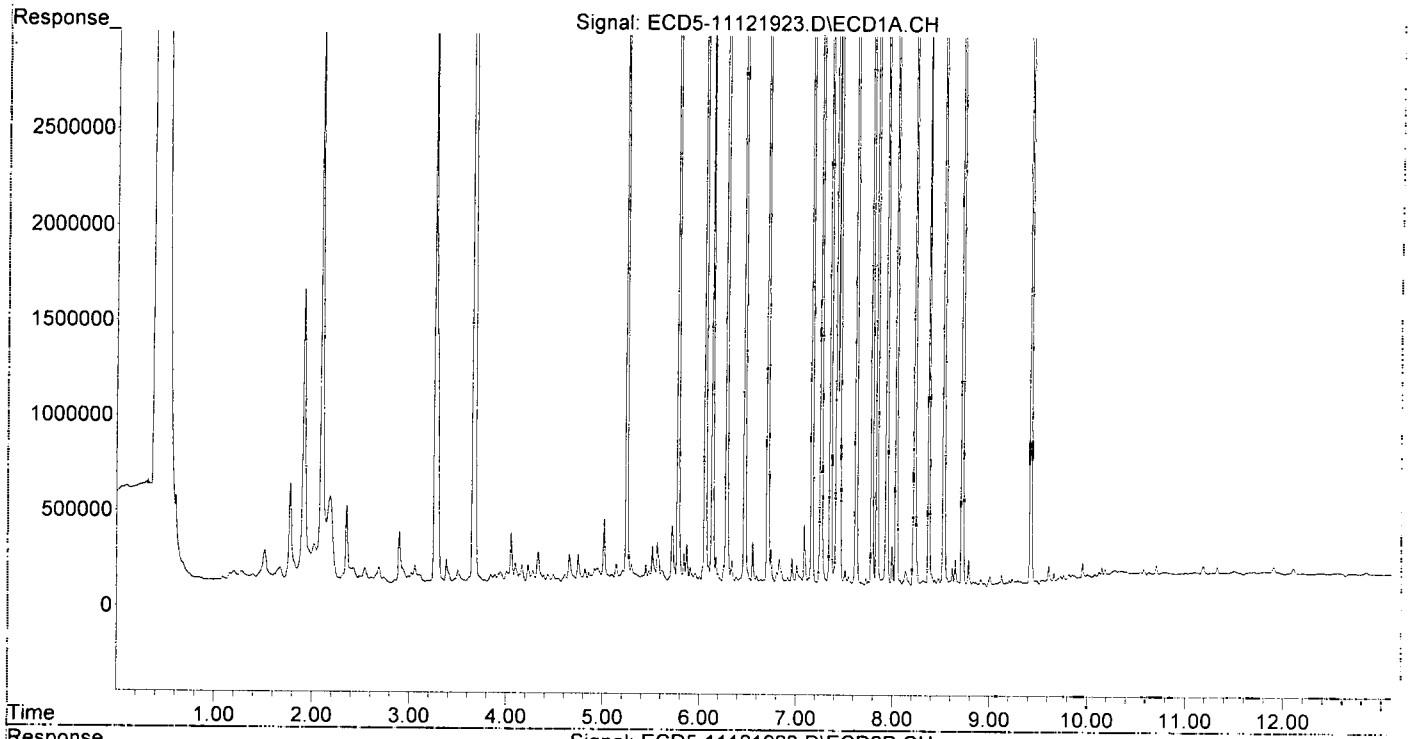
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.245	5.839	6571517	10757845	39.593	36.670	
22)	S DCBP (S)	9.425	10.351	6539522	8442497	46.347	46.965	
	Target Compounds							
2)	a-BHC	5.779	6.444	10911061	18116987	47.578	44.151	
3)	g-BHC	6.060	6.761	9810243	16137948	48.619	45.242	
4)	b-BHC	6.135	6.827	4599399	7331323	50.888	46.323	
5)	Heptachlor	6.468	7.130	8775645	14830828	48.405	48.470	
6)	d-BHC	6.281	7.078	9999563	16626226	50.839	47.144	
7)	Aldrin	6.707	7.393	8775320	14517232	44.444	44.073	
8)	Heptachlo...	7.165	7.830	8902067	14219645	48.334	47.265	
9)	trans-Chl...	7.260	7.969	9105999	14695730	49.251	46.902	
10)	cis-Chlor...	7.357	8.077	9045222	13855563	49.680	47.573	
11)	Endosulfa...	7.452	8.125	8713707	13156146	51.203	47.810	
12)	4,4'-DDE	7.423	8.187	9696636	16005809	51.433	51.519	
13)	Dieldrin	7.623	8.325	9848117	15055575	51.298	49.500	
14)	Endrin	7.786	8.550	8698235	13411311	59.161	59.388	
15)	4,4'-DDD	7.840	8.600	8621886	13753357	54.867	53.679	
16)	Endosulfa...	7.940	8.697	7817253	12215682	54.433	52.972	
17)	4,4'-DDT	8.038	8.824	8202553	12252250	68.606	63.643	
18)	Endrin Al...	8.229	8.933	6312475	9671920	51.403	49.212	
19)	Endosulfa...	8.529	9.124	8399449	13389155	54.198	53.753	
20)	Methoxychlor	8.375	9.303	4196140	6447679	71.638	69.302	
21)	Endrin Ke...	8.720	9.518	9168571	14033378	54.981	54.538	
23)	Hexachlor...	3.055	3.519f	92721	5358501	0.507	14.254	#
24)	Hexachlor...	5.613	6.311	73794	187891	0.419	0.598	#
25)	Oxychlordane	7.087	7.753	313854	74623	1.907	0.272	#
26)	2,4'-DDE	7.165	7.969	8902067	14695730	69.406	69.274	
27)	trans-Non...	7.357	8.025	9045222	66867	50.199	0.222	#
28)	2,4'-DDD	7.547	8.325	46132	15055575	0.404	79.717	#
29)	2,4'-DDT	7.725	8.550	38421	13411311	0.350	75.201	#
30)	cis-Nonac...	7.840f	8.600	8621886	13753357	41.528	41.000	
31)	Mirex	8.475	9.518	41806	14033378	0.333	75.419	#
32)	Chlordane...	7.357	8.077	9045222	13855563	459.391	382.913	
33)	Chlordane...	7.452	8.187	8713707	16005809	347.654	527.130	#
34)	Chlordane...	7.995	8.824	207750	12252250	35.936	1366.542	#
35)	Chlordane...	3.497	3.464	68444	56647	NoCal	NoCal	
36)	Toxaphene...	7.547	8.501	46132	35456	51.507	13.511	#
37)	Toxaphene...	7.840	8.824f	8621886	12252250	5338.832	3722.928	
38)	Toxaphene...	8.133	8.882	78777	36555	23.393	7.212	#
39)	Toxaphene...	8.375	8.933	4196140	9671920	1295.044	1158.337	
40)	Toxaphene...	8.618	9.124	95649	13389155	39.901	2872.988	#
41)	Toxaphene...	8.649f	9.518	140754	14033378	44.478	2954.270	#
42)	Toxaphene...	3.497	3.464	68444	56647	NoCal	NoCal	

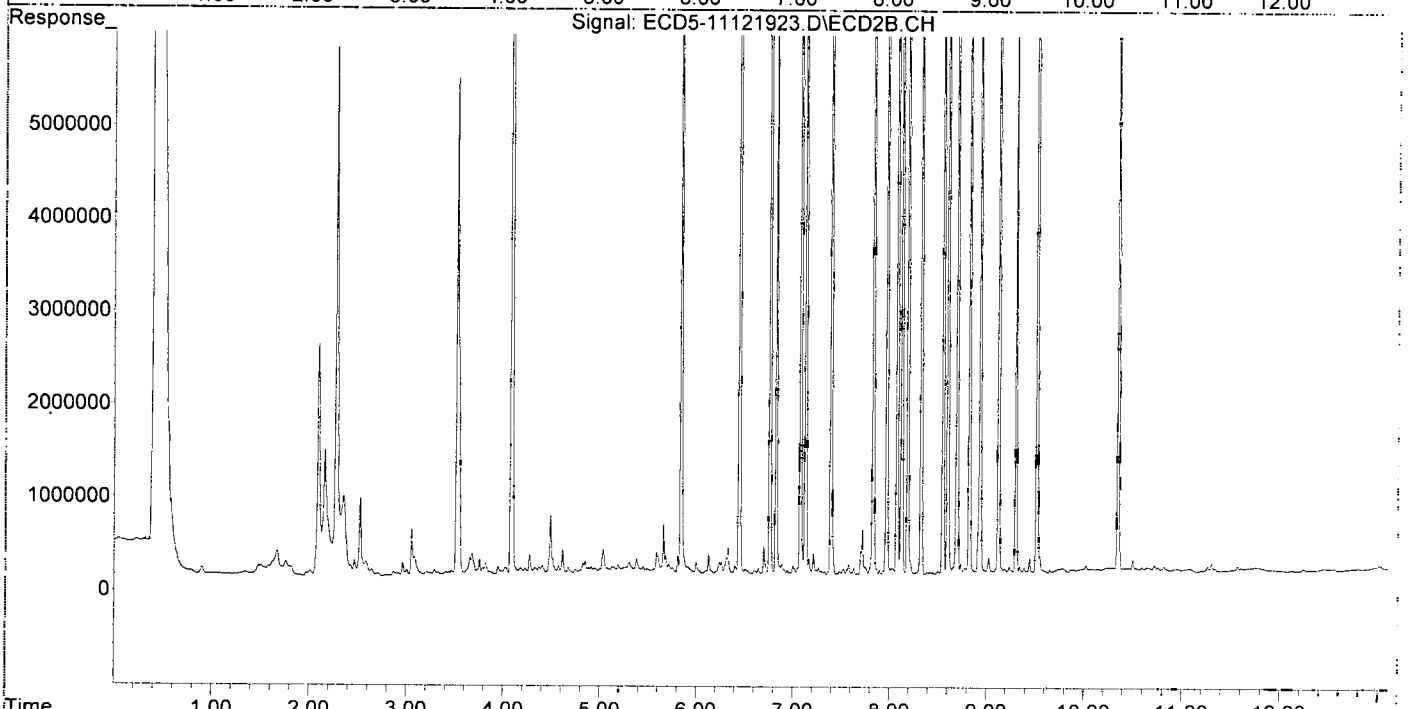
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 17:35
Operator : MJB
Sample : 9110639-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:37:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 20:09
Operator : MJB
Sample : 9K12037-CCV5
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:38:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/13/19

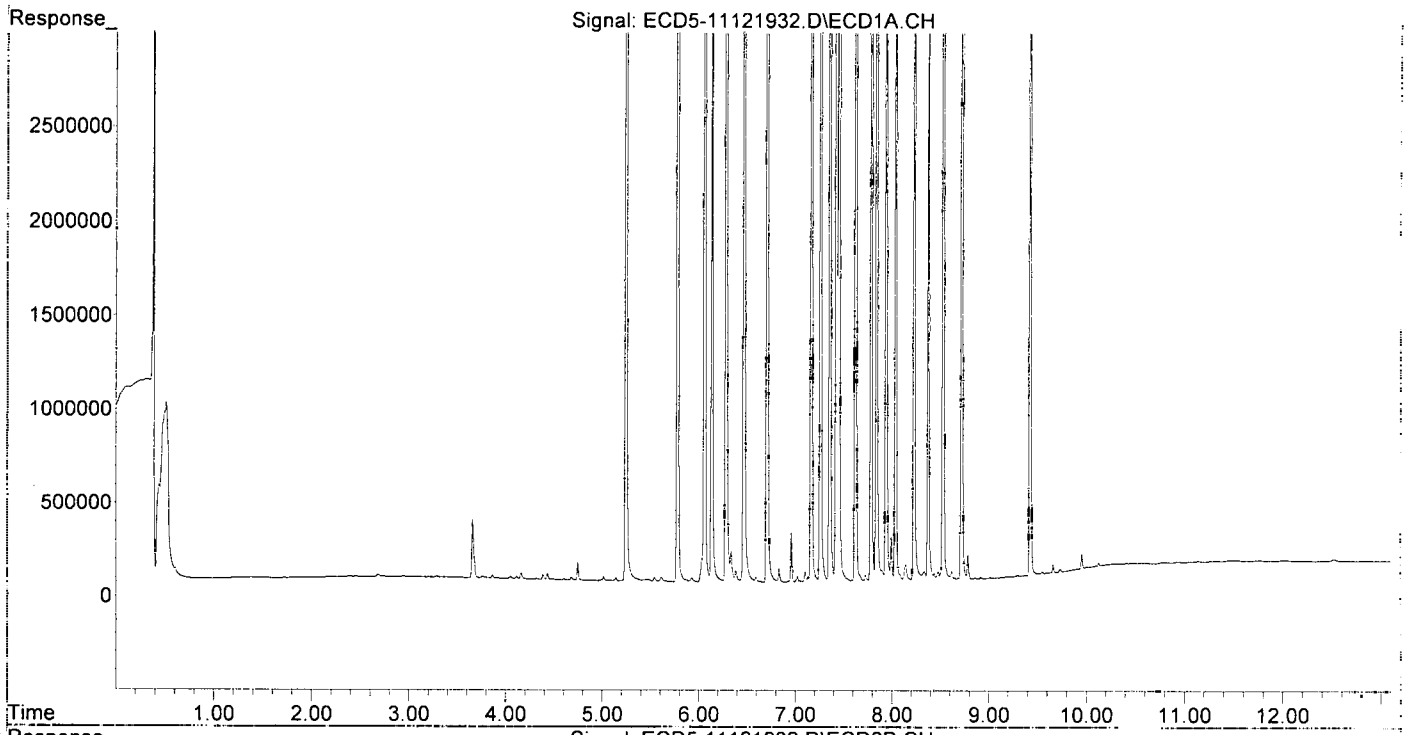
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.245	5.839	8641595	12926281	52.065	44.062	
22)	S	DCBP (S)	9.424	10.350	6782881	8865844	48.072	49.320	
		Target Compounds							
2)		a-BHC	5.778	6.444	12811232	20300958	55.864	49.474	
3)		g-BHC	6.059	6.760	11027875	17213034	54.654	48.256	
4)		b-BHC	6.134	6.826	4216192	6769199	46.648	42.771	
5)		Heptachlor	6.467	7.130	10009205	16590719	55.209	54.222	
6)		d-BHC	6.281	7.078	10189562	16082001	51.805	45.601	
7)		Aldrin	6.706	7.393	10010797	16174544	50.702	49.104	
8)		Heptachlo...	7.164	7.830	9409323	14590368	51.088	48.497	
9)		trans-Chl...	7.259	7.969	9075571	15132373	49.086	48.296	
10)		cis-Chlor...	7.357	8.076	9087420	14146166	49.911	48.571	
11)		Endosulfa...	7.451	8.125	8805095	13612785	51.740	49.469	
12)		4,4'-DDE	7.423	8.187	9722058	14606233	51.568	47.014	
13)		Dieldrin	7.622	8.324	10045857	14977115	52.328	49.243	
14)		Endrin	7.785	8.550	8331088	12258230	56.664	54.282	
15)		4,4'-DDD	7.840	8.600	8198852	12314974	52.175	48.065	
16)		Endosulfa...	7.940	8.696	7712002	11716244	53.700	50.806	
17)		4,4'-DDT	8.037	8.824	6881767	9715461	57.559	51.530	
18)		Endrin Al...	8.229	8.932	6445221	9883012	52.468	50.245	
19)		Endosulfa...	8.528	9.123	7364937	11142735	47.523	44.734	
20)		Methoxychlor	8.375	9.302	3344530	4869878	57.099	53.900	
21)		Endrin Ke...	8.720	9.517	8342385	12519167	50.027	48.653	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.610	0.000	21689	0	0.123	N.D.	#
25)		Oxychlordane	7.102	7.764	51999	11840	0.316	0.043	#
26)		2,4'-DDE	7.164	7.969	9409323	15132373	73.361	71.333	
27)		trans-Non...	7.357	8.027	9087420	61112	50.435	0.203	#
28)		2,4'-DDD	0.000	8.324	0	14977115	N.D.	79.301	#
29)		2,4'-DDT	7.726	8.550	30327	12258230	0.276	68.735	#
30)		cis-Nonac...	7.840f	8.600	8198852	12314974	39.491	36.712	
31)		Mirex	8.476	9.517	40494	12519167	0.323	67.281	#
32)		Chlordane...	7.357	8.076	9087420	14146166	461.534	390.945	
33)		Chlordane...	7.451	8.187	8805095	14606233	351.300	481.037	
34)		Chlordane...	7.994	8.824	230357	9715461	39.846	1083.604	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.504	0	15865	N.D.	6.046	#
37)		Toxaphene...	7.840	8.824f	8198852	9715461	5076.882	2952.108	#
38)		Toxaphene...	8.143	0.000	82247	0	24.424	N.D.	#
39)		Toxaphene...	8.375	8.932	3344530	9883012	1032.214	1183.618	
40)		Toxaphene...	8.616	9.123	42144	11142735	17.581	2390.961	#
41)		Toxaphene...	8.682	9.517	6782	12519167	2.143	2635.502	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

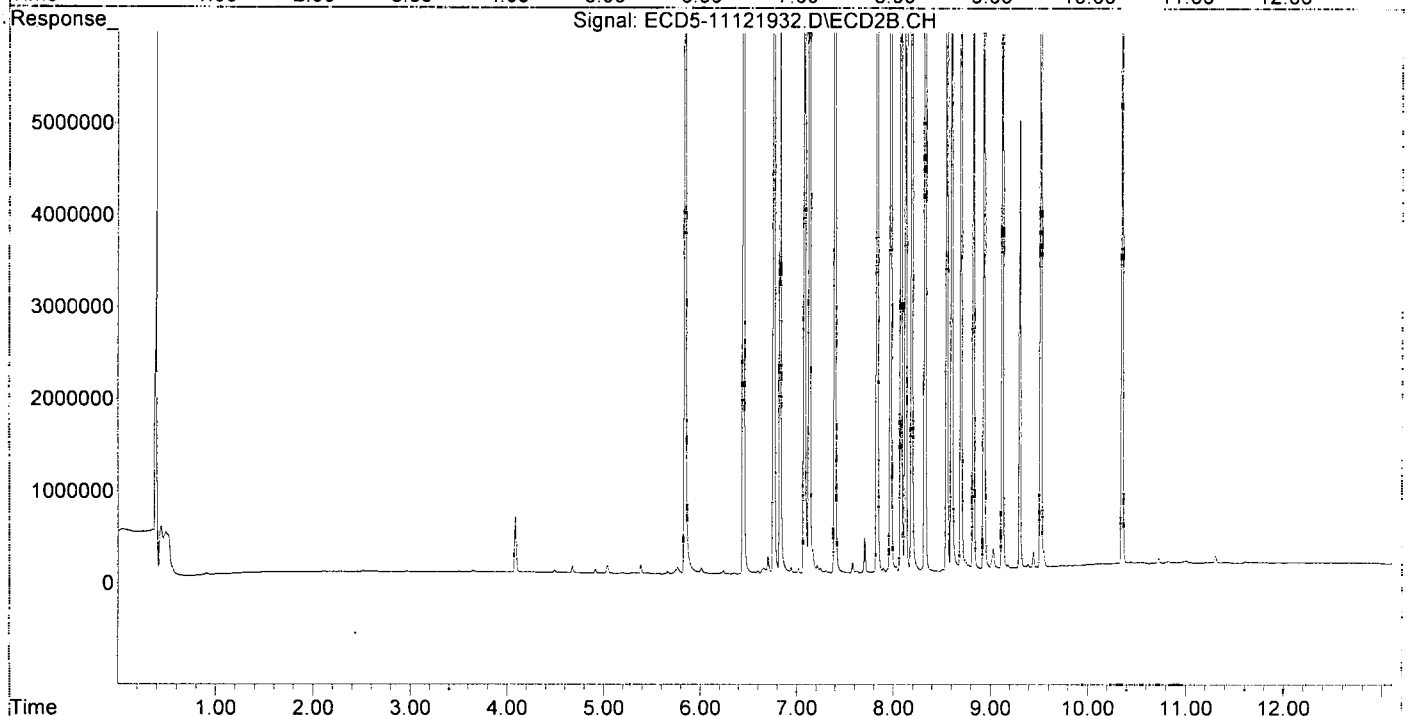
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 20:09
Operator : MJB
Sample : 9K12037-CCV5
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:38:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 20:26
Operator : MJB
Sample : 9K12037-CCB3
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:38:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 11/13/19

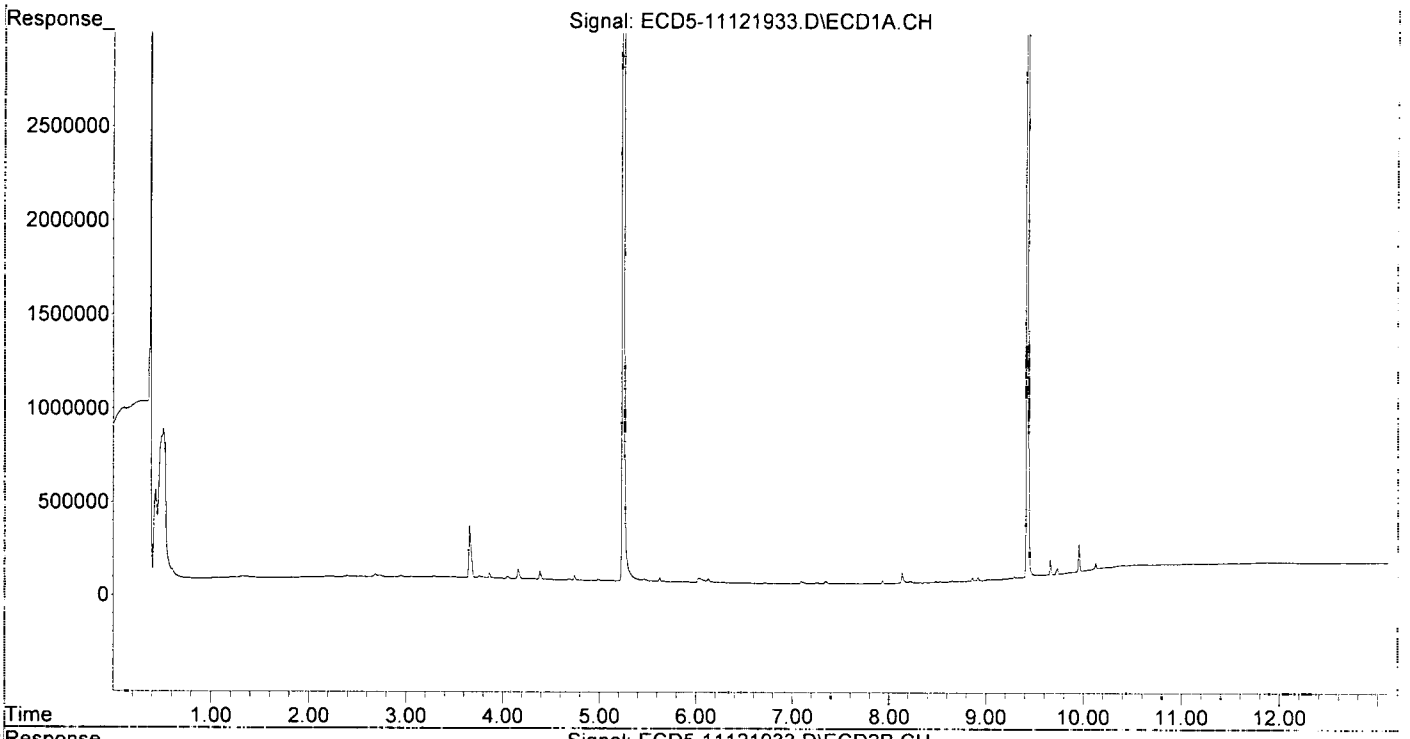
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.245	5.840	16189455	25474171	97.541	86.834	
22)	S	DCBP (S)	9.425	10.351	13021772	17876875	92.288	99.447	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.031f	0.000	23876	0	0.118	N.D.	#
4)		b-BHC	6.127	0.000	18354	0	0.203	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.281	7.080	4648	7032	0.024	0.020	
7)		Aldrin	6.715	0.000	4512	0	0.023	N.D.	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.251	7.990	6349	14161	0.034	0.045	
10)		cis-Chlor...	7.345	0.000	14570	0	0.080	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.935	8.683	15838	16332	0.110	0.071	
17)		4,4'-DDT	0.000	8.843	0	3075	N.D.	BelowCal	
18)		Endrin Al...	8.224	8.932	10392	8067	BelowCal	BelowCal	
19)		Endosulfa...	8.529	9.123	6410	5909	0.041	0.024	#
20)		Methoxychlor	8.376	9.303	4592	2877	0.078	BelowCal	#
21)		Endrin Ke...	8.721	9.521	2892	8687	0.017	0.034	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.623	6.341f	21615	6429	0.123	0.020	#
25)		Oxychlordane	7.092	7.724f	13074	20526	0.079	0.075	
26)		2,4'-DDE	0.000	7.990f	0	14161	N.D.	0.067	#
27)		trans-Non...	7.345	0.000	14570	0	87346.619	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.483	9.521	6603	8687	0.053	0.047	
32)		Chlordane...	7.345f	0.000	14570	0	0.740	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	0.000	8.843	0	3075	N.D.	0.343	#
35)		Chlordane...	0.000	3.503f	0	6692	N.D.	NoCal	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	8.843	0	3075	N.D.	0.934	#
38)		Toxaphene...	8.136	8.843f	57520	3075	17.081	0.607	#
39)		Toxaphene...	8.376	8.932	4592	8067	1.417	0.966	
40)		Toxaphene...	0.000	9.123	0	5909	N.D.	1.268	#
41)		Toxaphene...	8.652f	9.521	5930	8687	1.874	1.829	
42)		Toxaphene...	0.000	3.503f	0	6692	N.D.	NoCal	

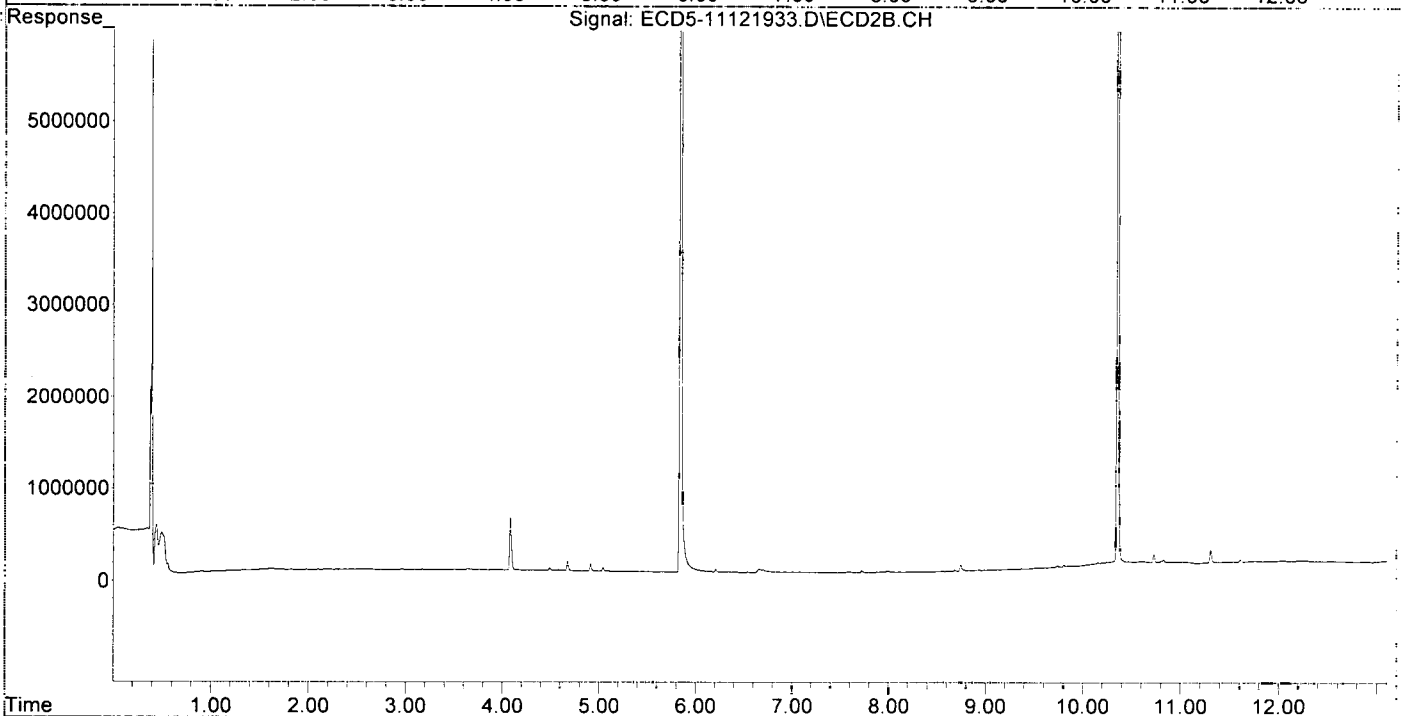
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K12037\
Data File : ECD5-11121933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Nov 2019 20:26
Operator : MJB
Sample : 9K12037-CCB3
Misc : A19K026
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 13 10:38:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Organochloride Pesticides by EPA 8081B
Calibration Data

Sequence 9H23034 (Cal ID A9H2608) DualECD5

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9H23034**	Instrument:	**DUALECD5**
Date:	**08/23/19 11:23**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H23034-BKD1	Water	QC	QC				A19G138
2	9H23034-BKD2	Water	QC	QC				A19G138
3	9H23034-ICB1	Water	QC	QC				A19H348
4	9H23034-CAL1	Water	QC	QC				A19E245
5	9H23034-CAL2	Water	QC	QC				A19E246
6	9H23034-CAL3	Water	QC	QC				A19E247
7	9H23034-CAL4	Water	QC	QC				A19E249
8	9H23034-CAL5	Water	QC	QC				A19E250
9	9H23034-CAL6	Water	QC	QC				A19H383
10	9H23034-CAL7	Water	QC	QC				A19H384
11	9H23034-CAL8	Water	QC	QC				A19E244
12	9H23034-IBL1	Water	QC	QC				
13	9H23034-ICV1	Water	QC	QC				A19E106
14	9H23034-CAL9	Water	QC	QC				A19E272
15	9H23034-CALA	Water	QC	QC				A19E273
16	9H23034-CALB	Water	QC	QC				A19E274
17	9H23034-CALC	Water	QC	QC				A19E275
18	9H23034-CALD	Water	QC	QC				A19E276
19	9H23034-CALE	Water	QC	QC				A19E154
20	9H23034-CALF	Water	QC	QC				A19E155
21	9H23034-CALG	Water	QC	QC				A19E271
22	9H23034-IBL2	Water	QC	QC				
23	9H23034-ICV2	Water	QC	QC				A19E043
24	9H23034-CALH	Water	QC	QC				A19F232
25	9H23034-CALI	Water	QC	QC				A19F233
26	9H23034-CALJ	Water	QC	QC				A19F234
27	9H23034-CALK	Water	QC	QC				A19F235
28	9H23034-CALL	Water	QC	QC				A19F236
29	9H23034-CALM	Water	QC	QC				A19F231
30	9H23034-IBL3	Water	QC	QC				
31	9H23034-ICV3	Water	QC	QC				A19E108
32	9H23034-CALN	Water	QC	QC				A19D122
33	9H23034-CALO	Water	QC	QC				A19D123
34	9H23034-CALP	Water	QC	QC				A19D124
35	9H23034-CALQ	Water	QC	QC				A19D125
36	9H23034-CALR	Water	QC	QC				A19D126
37	9H23034-CALS	Water	QC	QC				A19D121
38	9H23034-IBL4	Water	QC	QC				
39	9H23034-ICV4	Water	QC	QC				A19D127

Data Entered By: MJB 8/26/19

Comments: ICAL

Data Reviewed By: [illegible] 8/30/19

Calibration Status Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

A9H2608

MJB 8/26/19

#	ID	Conc	ISTD Conc	Path\File
1	1	50	0	R:\data\2019-08\9H23034\ECD5-08231936.D
2	2	100	0	R:\data\2019-08\9H23034\ECD5-08231937.D
3	3	200	0	R:\data\2019-08\9H23034\ECD5-08231938.D
4	4	500	0	R:\data\2019-08\9H23034\ECD5-08231939.D
5	5	1000	0	R:\data\2019-08\9H23034\ECD5-08231940.D
6	6	2000	0	R:\data\2019-08\9H23034\ECD5-08231941.D
7	7	-1	0	R:\data\2019-08\9H23034\ECD5-08231924.D
8	8	-1	0	R:\data\2019-08\9H23034\ECD5-08231925.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 26 11:47 2019	Aug 26 11:37 2019	23 Aug 2019 21:54
2	2	Aug 26 11:47 2019	Aug 26 11:38 2019	23 Aug 2019 22:11
3	3	Aug 26 11:48 2019	Aug 26 11:39 2019	23 Aug 2019 22:28
4	4	Aug 26 11:48 2019	Aug 26 11:36 2019	23 Aug 2019 22:45
5	5	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:03
6	6	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:20
7	7	Aug 26 11:46 2019	Aug 26 11:26 2019	23 Aug 2019 18:27
8	8	Aug 26 11:46 2019	Aug 26 11:27 2019	23 Aug 2019 18:45

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:23 2019

Response Factor Report DUALECD5

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D 4 =ECD5-08231939.D 5 =ECD5-08231940.D
6 =ECD5-08231941.D 7 =ECD5-08231924.D 8 =ECD5-08231925.D

MJB 5/26/19

		Compound	1	2	3	4	5	6	7	8	Avg		%RSD
1)	S	TCMX (S)	1.767	1.750	1.668	1.644	1.606	1.614	1.585	1.642	1.660	E5	4.00
2)		a-BHC	2.320	2.292	2.296	2.347	2.221	2.274	2.236	2.360	2.293	E5	2.14
3)		g-BHC	2.074	2.030	2.041	2.035	1.950	1.957	1.960	2.094	2.018	E5	2.76
4)		b-BHC	1.043	0.971	0.914	0.911	0.824	0.820	0.836	0.912	0.904	E5	8.59
5)		Heptachlor	1.921	1.848	1.798	1.820	1.726	1.747	1.755	1.889	1.813	E5	3.86
6)		d-BHC	1.998	1.935	2.008	2.006	1.867	1.922	1.948	2.051	1.967	E5	3.02
7)		Aldrin	2.055	1.998	2.025	2.011	1.938	1.866	1.911	1.992	1.974	E5	3.23
8)		Heptachlor Exp...	2.005	1.960	1.847	1.865	1.738	1.774	1.732	1.813	1.842	E5	5.42
9)		trans-Chlordane	1.972	1.911	1.853	1.848	1.761	1.792	1.773	1.881	1.849	E5	3.93
10)		cis-Chlordane	2.098	1.950	1.818	1.843	1.698	1.725	1.674	1.760	1.821	E5	7.86
11)		Endosulfan I	1.852	1.787	1.723	1.709	1.645	1.597	1.609	1.693	1.702	E5	5.13
12)		4,4'-DDE	1.934	1.943	1.907	1.891	1.828	1.835	1.805	1.938	1.885	E5	2.92
13)		Dieldrin	1.977	1.979	1.944	1.955	1.833	1.877	1.832	1.961	1.920	E5	3.25
14)		Endrin	1.564	1.493	1.478	1.476	1.404	1.396	1.381	1.571	1.470	E5	4.98
15)		4,4'-DDD	1.650	1.573	1.581	1.566	1.491	1.545	1.544	1.622	1.571	E5	3.11
16)		Endosulfan II	1.581	1.496	1.419	1.448	1.349	1.368	1.354	1.474	1.436	E5	5.61
17)		4,4'-DDT	1.139	1.091	1.106	1.147	1.170	1.241	1.218	1.454	1.196	E5	9.72
18)		Endrin Aldehyde	2.413	1.641	1.367	1.375	1.248	1.245	1.236	1.331	1.482	E5	26.87
19)		Endosulfan Sul...	1.761	1.611	1.538	1.554	1.458	1.484	1.437	1.556	1.550	E5	6.64
20)		Methoxychlor	5.966	5.573	5.408	5.617	5.561	5.721	5.877	7.136	5.857	E4	9.33
21)		Endrin Ketone	1.776	1.656	1.623	1.664	1.604	1.638	1.625	1.755	1.668	E5	3.80
22)	S	DCBP (S)	1.639	1.550	1.402	1.335	1.337	1.336	1.341	1.349	1.411	E5	8.33
23)		Hexachlorobuta...	1.982	1.879	1.918	1.838	1.746	1.752	1.795	1.708	1.827	E5	5.17
24)		Hexachlorobenzene	1.947	1.810	1.708	1.712	1.674	1.782	1.767	1.704	1.763	E5	4.96
25)		Oxychlordane	1.768	1.697	1.639	1.592	1.553	1.677	1.636	1.602	1.645	E5	4.13
26)		2,4'-DDE	1.379	1.326	1.266	1.245	1.224	1.302	1.277	1.241	1.283	E5	4.01
27)		trans-Nonachlor	2.368	2.076	1.866	1.818	1.756	1.916	1.835	1.751	1.923	E5	10.78
28)		2,4'-DDD	1.202	1.165	1.122	1.104	1.098	1.184	1.159	1.096	1.141	E5	3.65
29)		2,4'-DDT	1.071	1.021	1.074	1.052	1.092	1.137	1.177	1.151	1.097	E5	4.88
30)		cis-Nonachlor	2.192	2.117	2.052	2.032	1.997	2.123	2.093	2.002	2.076	E5	3.25
31)		Mirex	1.474	1.334	1.257	1.196	1.164	1.244	1.196	1.164	1.254	E5	8.39
32)		Chlordane (1)	2.018	1.979	1.925	1.926	1.964	2.002			1.969	E4	1.96
33)		Chlordane (2)	2.573	2.520	2.453	2.435	2.508	2.549			2.506	E4	2.14
34)		Chlordane (3)	5.762	5.482	5.508	5.843	5.988	6.104			5.781	E3	4.34
35)		Chlordane - AVE									0.000		-1.00
36)		Toxaphene (1)	9.850	9.158	8.802	8.837	8.719	8.373			8.956	E2	5.64
37)		Toxaphene (2)	1.766	1.661	1.588	1.639	1.556	1.479			1.615	E3	6.08
38)		Toxaphene (3)	3.388	3.328	3.222	3.355	3.496	3.416			3.367	E3	2.72
39)		Toxaphene (4)	3.286	3.203	3.162	3.299	3.287	3.204			3.240	E3	1.78
40)		Toxaphene (5)	2.294	2.290	2.272	2.443	2.546	2.537			2.397	E3	5.33
41)		Toxaphene (6)	3.063	3.026	2.990	3.247	3.407	3.255			3.165	E3	5.17
42)		Toxaphene - AVE									0.000		-1.00

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5

Signal #2 Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D
4 =ECD5-08231939.D 5 =ECD5-08231940.D 6 =ECD5-08231941.D

		Compound	1	2	3	4	5	6	Avg		%RSD
44)	S	TCMX (S) #2	3.001	3.004	2.876	2.866	2.829	2.839	2.926	3.129 2.934 E5	3.54
45)		a-BHC #2	3.931	3.923	3.971	4.096	3.964	4.053	4.170	4.719 4.103 E5	6.41
46)		g-BHC #2	3.523	3.455	3.485	3.477	3.403	3.476	3.679	4.038 3.567 E5	5.79
47)		b-BHC #2	1.763	1.676	1.577	1.581	1.471	1.503	1.463	1.628 1.583 E5	6.60
48)		Heptachlor #2	3.098	2.934	3.016	3.006	2.913	2.919	3.028	3.564 3.060 E5	6.98
49)		d-BHC #2	3.491	3.346	3.435	3.614	3.299	3.462	3.518	4.049 3.527 E5	6.60
50)		Aldrin #2	3.175	3.177	3.202	3.341	3.151	3.253	3.391	3.661 3.294 E5	5.19
51)		Heptachlor Exp...	3.101	3.031	2.912	2.959	2.826	2.968	3.005	3.267 3.008 E5	4.40
52)		trans-Chlordan...	3.641	3.222	3.004	3.003	2.863	2.936	3.074	3.322 3.133 E5	8.10
53)		cis-Chlordane #2	2.994	2.898	2.870	2.860	2.774	2.800	2.904	3.199 2.912 E5	4.59
54)		Endosulfan I #2	2.789	2.702	2.654	2.724	2.629	2.742	2.721	3.052 2.752 E5	4.77
55)		4,4'-DDE #2	2.985	2.990	2.976	3.050	3.000	3.111	3.250	3.492 3.107 E5	5.82
56)		Dieldrin #2	2.967	2.919	2.925	2.899	2.934	3.087	3.100	3.502 3.042 E5	6.61
57)		Endrin #2	2.229	2.124	2.186	2.244	2.130	2.203	2.310	2.639 2.258 E5	7.32
58)		4,4'-DDD #2	2.515	2.441	2.417	2.425	2.459	2.632	2.630	2.978 2.562 E5	7.37
59)		Endosulfan II #2	2.322	2.311	2.193	2.244	2.179	2.307	2.302	2.592 2.306 E5	5.55
60)		4,4'-DDT #2	1.797	1.709	1.747	1.841	1.792	1.857	1.979	2.410 1.892 E5	11.88
61)		Endrin Aldehyd...	3.486	2.388	2.092	2.125	1.939	2.042	2.050	2.254 2.297 E5	21.77
62)		Endosulfan Sul...	2.658	2.494	2.352	2.425	2.392	2.430	2.448	2.730 2.491 E5	5.35
63)		Methoxychlor #2	0.952	0.890	0.828	0.883	0.867	0.869	0.944	1.186 0.927 E5	12.09
64)		Endrin Ketone #2	2.558	2.466	2.410	2.497	2.357	2.591	2.664	3.043 2.573 E5	8.31
65)	S	DCBP (S) #2	1.916	1.950	1.742	1.679	1.665	1.746	1.778	1.905 1.798 E5	6.18
66)		Hexachlorobuta...	3.832	3.773	3.755	3.702	3.557	3.727	3.930	3.799 3.759 E5	2.87
67)		Hexachlorobenz...	3.280	3.164	2.971	2.936	2.967	3.219	3.277	3.313 3.141 E5	5.04
68)		Oxychlordane #2	2.791	2.705	2.651	2.539	2.481	2.835	2.973	2.937 2.739 E5	6.49
69)		2,4'-DDE #2	2.192	2.059	2.059	2.018	2.000	2.201	2.216	2.225 2.121 E5	4.52
70)		trans-Nonachlo...	3.062	2.939	2.935	2.844	2.837	3.162	3.198	3.154 3.016 E5	4.84
71)		2,4'-DDD #2	1.920	1.868	1.797	1.779	1.756	1.985	2.012	1.992 1.889 E5	5.47
72)		2,4'-DDT #2	1.733	1.661	1.746	1.703	1.762	1.762	1.900	2.000 1.783 E5	6.24
73)		cis-Nonachlor #2	3.327	3.124	3.174	3.148	3.288	3.544	3.607	3.623 3.354 E5	6.23
74)		Mirex #2	2.098	1.941	1.791	1.723	1.655	1.820	1.936	1.921 1.861 E5	7.59
75)		Chlordane (1) #2	3.509	3.378	3.376	3.566	3.797	4.085		3.618 E4	7.62
76)		Chlordane (2) #2	2.945	2.906	2.942	2.962	3.149	3.314		3.036 E4	5.30
77)		Chlordane (3) #2	8.780	8.745	8.659	8.543	9.359	9.709		8.966 E3	5.14
78)		Chlordane - AV...								0.000	-1.00
79)		Toxaphene (1) #2	2.737	2.675	2.545	2.618	2.655	2.515		2.624 E3	3.16
80)		Toxaphene (2) #2	3.294	3.241	3.227	3.295	3.384	3.305		3.291 E3	1.70
81)		Toxaphene (3) #2	5.097	4.944	4.978	4.950	5.168	5.273		5.068 E3	2.65
82)		Toxaphene (4) #2	8.327	8.119	7.902	8.505	8.650	8.595		8.350 E3	3.51
83)		Toxaphene (5) #2	4.664	4.522	4.477	4.681	4.900	4.718		4.660 E3	3.24
84)		Toxaphene (6) #2	4.618	4.525	4.526	4.740	5.047	5.045		4.750 E3	5.10
85)		Toxaphene - AV...								0.000	-1.00

(#) = Out of Range

MJB 8/26/19

Compound List Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Total Cpnds : 85

MWB 8/26/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.394	1.000	A	H	R
2		a-BHC	5.934	1.000	A	H	R
3		g-BHC	6.218	1.000	A	H	R
4		b-BHC	6.296	1.000	A	H	R
5		Heptachlor	6.632	1.000	A	H	R
6		d-BHC	6.446	1.000	A	H	R
7		Aldrin	6.873	1.000	A	H	R
8		Heptachlor Expoxide	7.332	1.000	A	H	R
9		trans-Chlordane	7.428	1.000	A	H	R
10		cis-Chlordane	7.524	1.000	A	H	R
11		Endosulfan I	7.621	1.000	A	H	R
12		4,4'-DDE	7.583	1.000	A	H	R
13		Dieldrin	7.792	1.000	A	H	R
14		Endrin	7.957	1.000	A	H	R
15		4,4'-DDD	8.003	1.000	A	H	R
16		Endosulfan II	8.114	1.000	A	H	R
17		4,4'-DDT	8.202	1.000	A	H	R
18		Endrin Aldehyde	8.403	1.000	Q	H	R
19		Endosulfan Sulfate	8.705	1.000	A	H	R
20		Methoxychlor	8.540	1.000	A	H	R
21		Endrin Ketone	8.899	1.000	A	H	R
22	S	DCBP (S)	9.592	1.000	A	H	R
23		Hexachlorobutadiene	3.198	1.000	A	H	R
24		Hexachlorobenzene	5.774	1.000	A	H	R
25		Oxychlordane	7.261	1.000	A	H	R
26		2,4'-DDE	7.333	1.000	A	H	R
27		trans-Nonachlor	7.515	1.000	Q	H	R
28		2,4'-DDD	7.705	1.000	A	H	R
29		2,4'-DDT	7.887	1.000	A	H	R
30		cis-Nonachlor	7.985	1.000	A	H	R
31		Mirex	8.652	1.000	A	H	R
32		Chlordane (1)	7.427	1.000	A	H	R
33		Chlordane (2)	7.520	1.000	A	H	R
34		Chlordane (3)	8.067	1.000	A	H	R
35		Chlordane - AVE	3.447	1.000	A	H	R
36		Toxaphene (1)	7.502	1.000	A	H	R
37		Toxaphene (2)	7.794	1.000	A	H	R
38		Toxaphene (3)	8.105	1.000	A	H	R
39		Toxaphene (4)	8.346	1.000	A	H	R
40		Toxaphene (5)	8.574	1.000	A	H	R
41		Toxaphene (6)	8.640	1.000	A	H	R
42		Toxaphene - AVE	3.450	1.000	A	H	R
43		Signal #2	3.544	1.000	A	H	R
44	S	TCMX (S) #2	5.988	1.000	A	H	R
45		a-BHC #2	6.595	1.000	A	H	R
46		g-BHC #2	6.914	1.000	A	H	R
47		b-BHC #2	6.978	1.000	A	H	R
48		Heptachlor #2	7.290	1.000	A	H	R
49		d-BHC #2	7.231	1.000	A	H	R
50		Aldrin #2	7.555	1.000	A	H	R
51		Heptachlor Expoxide #2	7.992	1.000	A	H	R
52		trans-Chlordane #2	8.131	1.000	A	H	R
53		cis-Chlordane #2	8.238	1.000	A	H	R
54		Endosulfan I #2	8.289	1.000	A	H	R
55		4,4'-DDE #2	8.343	1.000	A	H	R
56		Dieldrin #2	8.489	1.000	A	H	R

57		Endrin #2	8.715	1.000	A	H	R
58		4,4'-DDD #2	8.758	1.000	A	H	R
59		Endosulfan II #2	8.863	1.000	A	H	R
60		4,4'-DDT #2	8.984	1.000	Q	H	R
61		Endrin Aldehyde #2	9.099	1.000	Q	H	R
62		Endosulfan Sulfate #2	9.289	1.000	A	H	R
63		Methoxychlor #2	9.463	1.000	Q	H	R
64		Endrin Ketone #2	9.687	1.000	A	H	R
65	S	DCBP (S) #2	10.541	1.000	A	H	R
66		Hexachlorobutadiene #2	3.688	1.000	A	H	R
67		Hexachlorobenzene #2	6.454	1.000	A	H	R
68		Oxychlordane #2	7.920	1.000	A	H	R
69		2,4'-DDE #2	8.122	1.000	A	H	R
70		trans-Nonachlor #2	8.194	1.000	A	H	R
71		2,4'-DDD #2	8.495	1.000	A	H	R
72		2,4'-DDT #2	8.718	1.000	A	H	R
73		cis-Nonachlor #2	8.758	1.000	A	H	R
74		Mirex #2	9.679	1.000	A	H	R
75		Chlordane (1) #2	8.129	1.000	A	H	R
76		Chlordane (2) #2	8.236	1.000	A	H	R
77		Chlordane (3) #2	8.896	1.000	A	H	R
78		Chlordane - AVE #2	3.428	1.000	A	H	R
79		Toxaphene (1) #2	8.466	1.000	A	H	R
80		Toxaphene (2) #2	8.812	1.000	A	H	R
81		Toxaphene (3) #2	8.848	1.000	A	H	R
82		Toxaphene (4) #2	8.915	1.000	A	H	R
83		Toxaphene (5) #2	9.091	1.000	A	H	R
84		Toxaphene (6) #2	9.470	1.000	A	H	R
85		Toxaphene - AVE #2	3.434	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:34 2019

Calibration Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936 2 =ECD5-08231937 3 =ECD5-08231938 4 =ECD5-08231939 5 =ECD5-08

6 =ECD5-08231941 7 =ECD5-08231924 8 =ECD5-08231925

MJB 5/26/19

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	1.6598 e5	-----	0.0400
2)		a-BHC	Avg	-----	2.2933 e5	-----	0.0214
3)		g-BHC	Avg	-----	2.0178 e5	-----	0.0276
4)		b-BHC	Avg	-----	9.0384 e4	-----	0.0859
5)		Heptachlor	Avg	-----	1.8130 e5	-----	0.0386
6)		d-BHC	Avg	-----	1.9669 e5	-----	0.0302
7)		Aldrin	Avg	-----	1.9745 e5	-----	0.0323
8)		Heptachlor Expoxide	Avg	-----	1.8418 e5	-----	0.0542
9)		trans-Chlordane	Avg	-----	1.8489 e5	-----	0.0393
10)		cis-Chlordane	Avg	-----	1.8207 e5	-----	0.0786
11)		Endosulfan I	Avg	-----	1.7018 e5	-----	0.0513
12)		4,4'-DDE	Avg	-----	1.8853 e5	-----	0.0292
13)		Dieldrin	Avg	-----	1.9198 e5	-----	0.0325
14)		Endrin	Avg	-----	1.4703 e5	-----	0.0498
15)		4,4'-DDD	Avg	-----	1.5714 e5	-----	0.0311
16)		Endosulfan II	Avg	-----	1.4361 e5	-----	0.0561
17)		4,4'-DDT	Avg	-----	1.1956 e5	-----	0.0972
18)		Endrin Aldehyde	Quad	1.1904 e5	1.1635 e5	8.0472 e1	0.9966
19)		Endosulfan Sulfate	Avg	-----	1.5498 e5	-----	0.0664
20)		Methoxychlor	Avg	-----	5.8574 e4	-----	0.0933
21)		Endrin Ketone	Avg	-----	1.6676 e5	-----	0.0380
22)	S	DCBP (S)	Avg	-----	1.4110 e5	-----	0.0833
23)		Hexachlorobutadiene	Avg	-----	1.8274 e5	-----	0.0517
24)		Hexachlorobenzene	Avg	-----	1.7629 e5	-----	0.0496
25)		Oxychlordane	Avg	-----	1.6454 e5	-----	0.0413
26)		2,4'-DDE	Avg	-----	1.2826 e5	-----	0.0401
27)		trans-Nonachlor	Quad	5.6661 e4	1.7916 e5	-2.0512	0.9987
28)		2,4'-DDD	Avg	-----	1.1413 e5	-----	0.0365
29)		2,4'-DDT	Avg	-----	1.0969 e5	-----	0.0488
30)		cis-Nonachlor	Avg	-----	2.0762 e5	-----	0.0325
31)		Mirex	Avg	-----	1.2537 e5	-----	0.0839
32)		Chlordane (1)	Avg	-----	1.9690 e4	-----	0.0196
33)		Chlordane (2)	Avg	-----	2.5064 e4	-----	0.0214
34)		Chlordane (3)	Avg	-----	5.7811 e3	-----	0.0434
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	8.9565 e2	-----	0.0564
37)		Toxaphene (2)	Avg	-----	1.6149 e3	-----	0.0608
38)		Toxaphene (3)	Avg	-----	3.3675 e3	-----	0.0272
39)		Toxaphene (4)	Avg	-----	3.2402 e3	-----	0.0178
40)		Toxaphene (5)	Avg	-----	2.3971 e3	-----	0.0533
41)		Toxaphene (6)	Avg	-----	3.1646 e3	-----	0.0517
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

Signal #2

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	2.9337 e5	-----	0.0354
2)		a-BHC	Avg	-----	4.1034 e5	-----	0.0641
3)		g-BHC	Avg	-----	3.5670 e5	-----	0.0579
4)		b-BHC	Avg	-----	1.5827 e5	-----	0.0660
5)		Heptachlor	Avg	-----	3.0598 e5	-----	0.0698
6)		d-BHC	Avg	-----	3.5267 e5	-----	0.0660
7)		Aldrin	Avg	-----	3.2939 e5	-----	0.0519

8)		Heptachlor Expoxide	Avg	-----	3.0085 e5	-----	0.0440
9)		trans-Chlordane	Avg	-----	3.1333 e5	-----	0.0810
10)		cis-Chlordane	Avg	-----	2.9125 e5	-----	0.0459
11)		Endosulfan I	Avg	-----	2.7518 e5	-----	0.0477
12)		4,4'-DDE	Avg	-----	3.1068 e5	-----	0.0582
13)		Dieldrin	Avg	-----	3.0415 e5	-----	0.0661
14)		Endrin	Avg	-----	2.2583 e5	-----	0.0732
15)		4,4'-DDD	Avg	-----	2.5621 e5	-----	0.0737
16)		Endosulfan II	Avg	-----	2.3061 e5	-----	0.0555
17)		4,4'-DDT	Quad	6.5669 e3	1.7140 e5	3.3014 e2	0.9992
18)		Endrin Aldehyde	Quad	1.5509 e5	1.8265 e5	2.1823 e2	0.9961
19)		Endosulfan Sulfate	Avg	-----	2.4909 e5	-----	0.0535
20)		Methoxychlor	Quad	1.4992 e4	8.0453 e4	1.7846 e2	0.9988
21)		Endrin Ketone	Avg	-----	2.5732 e5	-----	0.0831
22)	S	DCBP (S)	Avg	-----	1.7976 e5	-----	0.0618
23)		Hexachlorobutadiene	Avg	-----	3.7593 e5	-----	0.0287
24)		Hexachlorobenzene	Avg	-----	3.1409 e5	-----	0.0504
25)		Oxychlordane	Avg	-----	2.7390 e5	-----	0.0649
26)		2,4'-DDE	Avg	-----	2.1214 e5	-----	0.0452
27)		trans-Nonachlor	Avg	-----	3.0164 e5	-----	0.0484
28)		2,4'-DDD	Avg	-----	1.8886 e5	-----	0.0547
29)		2,4'-DDT	Avg	-----	1.7834 e5	-----	0.0624
30)		cis-Nonachlor	Avg	-----	3.3545 e5	-----	0.0623
31)		Mirex	Avg	-----	1.8607 e5	-----	0.0759
32)		Chlordane (1)	Avg	-----	3.6185 e4	-----	0.0762
33)		Chlordane (2)	Avg	-----	3.0364 e4	-----	0.0530
34)		Chlordane (3)	Avg	-----	8.9659 e3	-----	0.0514
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	2.6243 e3	-----	0.0316
37)		Toxaphene (2)	Avg	-----	3.2910 e3	-----	0.0170
38)		Toxaphene (3)	Avg	-----	5.0683 e3	-----	0.0265
39)		Toxaphene (4)	Avg	-----	8.3498 e3	-----	0.0351
40)		Toxaphene (5)	Avg	-----	4.6604 e3	-----	0.0324
41)		Toxaphene (6)	Avg	-----	4.7502 e3	-----	0.0510
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:42 2019

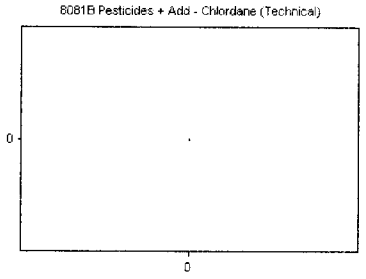
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane (Technical)

Curve Fit: **AVERAGE RF**

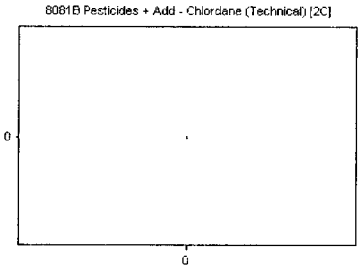


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~4.825~~	~~3.45~~
~~9H23034-CALM~~	~~2000~~	~~4939~~	~~2.469~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Chlordane (Technical) [2C]

Curve Fit: **AVERAGE RF**

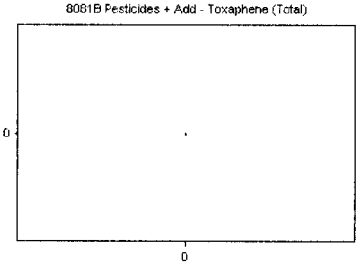


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALM~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total)

Curve Fit: **AVERAGE RF**

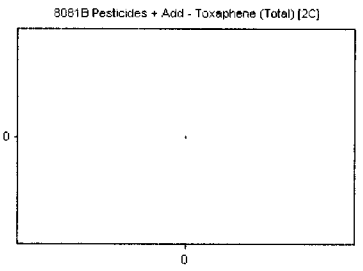


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~3.45~~
~~9H23034-CALS~~	~~2000~~	~~4166~~	~~2.083~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total) [2C]

Curve Fit: **AVERAGE RF**

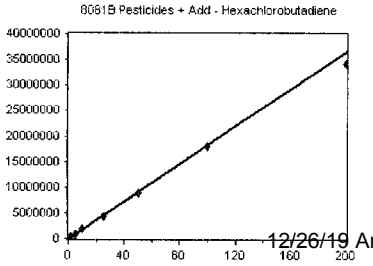


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALS~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	198207	198207.000	3.20
9H23034-CALA	2	375794	187897.000	3.20
9H23034-CALB	5	959211	191842.200	3.20
9H23034-CALC	10	1838187	183818.700	3.20
9H23034-CALD	25	4363988	174559.500	3.20
9H23034-CALE	50	8761747	175234.900	3.20
9H23034-CALF	100	795213E+07	179521.300	3.20
9H23034-CALG	200	416653E+07	170832.600	3.20

AVE RF **182739.200** RF RSD **5.17** AVE RT **3.20**

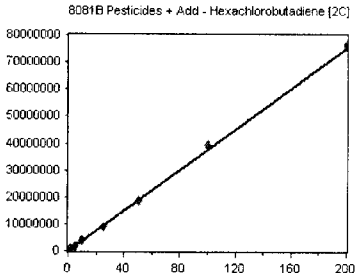
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Hexachlorobutadiene [2C]

Curve Fit: **AVERAGE RF**

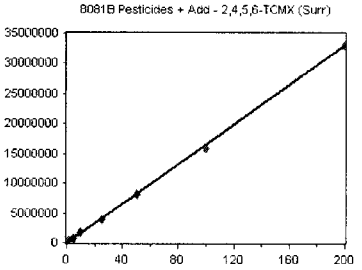


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	100	929888E+07	392988.800	3.69
9H23034-CALG	200	598857E+07	379942.800	3.69

AVE RF **375931.900** RF RSD **2.87** AVE RT **3.69**

2,4,5,6-TCMX (Surr)

Curve Fit: **AVERAGE RF**

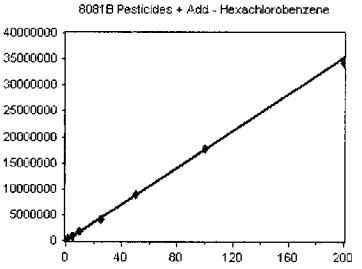


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	585092E+07	158509.200	5.40
9H23034-CAL8	200	284254E+07	164212.700	5.39

AVE RF **165975.600** RF RSD **4.00** AVE RT **5.40**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

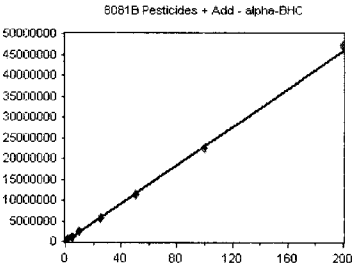


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	767002E+07	176700.200	5.78
9H23034-CALG	200	407346E+07	170367.300	5.77

AVE RF **176293.600** RF RSD **4.96** AVE RT **5.77**

alpha-BHC

Curve Fit: **AVERAGE RF**

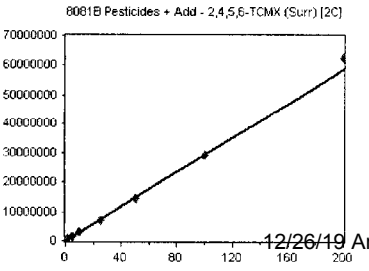


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	100	236358E+07	223635.800	5.94
9H23034-CAL8	200	720225E+07	236011.200	5.94

AVE RF **229329.000** RF RSD **2.14** AVE RT **5.94**

2,4,5,6-TCMX (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	300053	300053.000	5.99
9H23034-CAL2	2	600766	300383.000	5.99
9H23034-CAL3	5	1437876	287575.200	5.99
9H23034-CAL4	10	2865854	286585.400	5.99
9H23034-CAL5	25	7072923	282916.900	5.99
9H23034-CAL6	50	419675E+07	283935.000	5.99
9H23034-CAL7	100	925633E+07	292563.300	5.99
9H23034-CAL8	200	258445E+07	312922.300	5.99

AVE RF **293366.800** RF RSD **3.54** AVE RT **5.99**

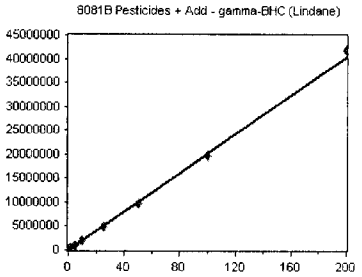
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

gamma-BHC (Lindane)

Curve Fit: **AVERAGE RF**

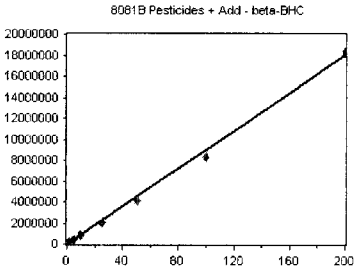


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	959509E+07	195950.900	6.22
9H23034-CAL8	200	188973E+07	209448.600	6.22

AVE RF **201777.100** RF RSD **2.76** AVE RT **6.22**

beta-BHC

Curve Fit: **AVERAGE RF**

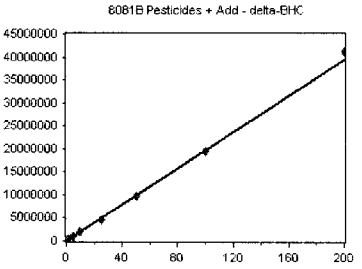


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	83554.160	6.30
9H23034-CAL8	200	.82387E+07	91193.500	6.29

AVE RF **90383.530** RF RSD **8.59** AVE RT **6.30**

delta-BHC

Curve Fit: **AVERAGE RF**

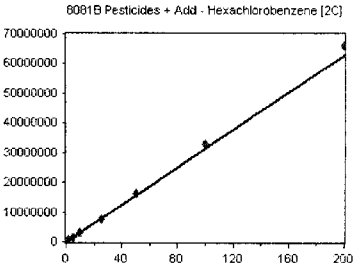


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	947558E+07	194755.800	6.45
9H23034-CAL8	200	101659E+07	205083.000	6.45

AVE RF **196690.200** RF RSD **3.02** AVE RT **6.45**

Hexachlorobenzene [2C]

Curve Fit: **AVERAGE RF**

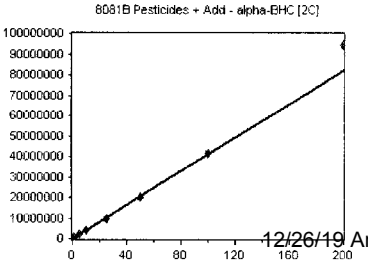


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	326197E+07	331309.800	6.45

AVE RF **314087.400** RF RSD **5.04** AVE RT **6.45**

alpha-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	393119	393119.000	6.60
9H23034-CAL2	2	784586	392293.000	6.60
9H23034-CAL3	5	1985438	397087.600	6.60
9H23034-CAL4	10	4095890	409589.000	6.60
9H23034-CAL5	25	9910863	396434.500	6.60
9H23034-CAL6	50	026582E+07	405316.400	6.60
9H23034-CAL7	100	169921E+07	416992.100	6.60
9H23034-CAL8	200	437675E+07	471883.800	6.60

AVE RF **410339.400** RF RSD **6.44** AVE RT **6.60**

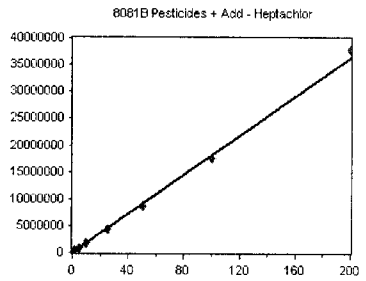
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor

Curve Fit: **AVERAGE RF**

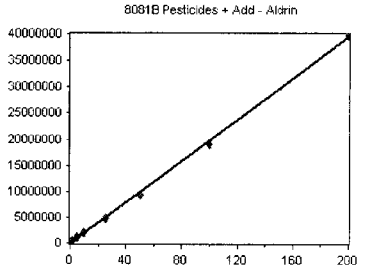


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100	755153E+07	175515.300	6.63
9H23034-CAL8	200	3.77857E+07	188928.500	6.63

AVE RF **181296.600** RF RSD **3.86** AVE RT **6.63**

Aldrin

Curve Fit: **AVERAGE RF**

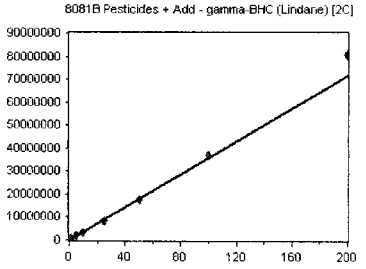


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100	910807E+07	191080.700	6.87
9H23034-CAL8	200	3.98384E+07	199192.000	6.87

AVE RF **197445.600** RF RSD **3.23** AVE RT **6.87**

gamma-BHC (Lindane) [2C]

Curve Fit: **AVERAGE RF**

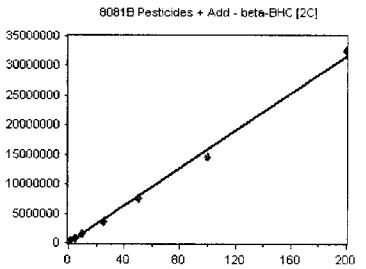


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7	100	678899E+07	367889.900	6.91
9H23034-CAL8	200	076568E+07	403828.400	6.91

AVE RF **356703.900** RF RSD **5.79** AVE RT **6.91**

beta-BHC [2C]

Curve Fit: **AVERAGE RF**

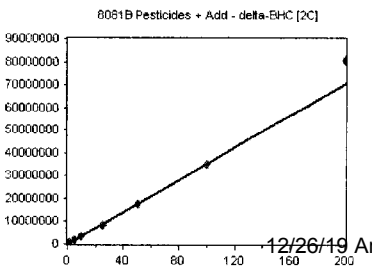


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	462518E+07	146251.800	6.98
9H23034-CAL8	200	255343E+07	162767.200	6.98

AVE RF **158266.000** RF RSD **6.60** AVE RT **6.98**

delta-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	349123	349123.000	7.23
9H23034-CAL2	2	669122	334561.000	7.23
9H23034-CAL3	5	1717450	343490.000	7.23
9H23034-CAL4	10	3613517	361351.700	7.23
9H23034-CAL5	25	8247775	329911.000	7.23
9H23034-CAL6	50	731126E+07	346225.200	7.23
9H23034-CAL7	100	517663E+07	351766.300	7.23
9H23034-CAL8	200	097975E+07	404898.800	7.23

AVE RF **352665.900** RF RSD **6.66** AVE RT **7.23**

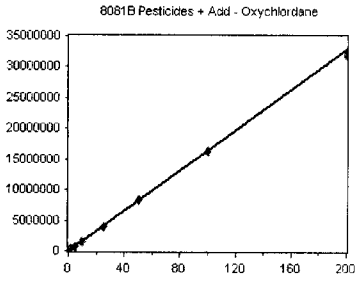
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

Curve Fit: **AVERAGE RF**

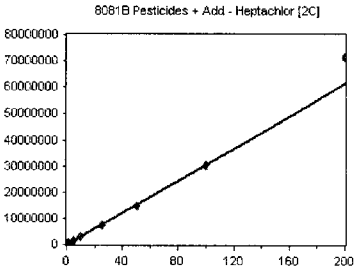


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

Curve Fit: **AVERAGE RF**

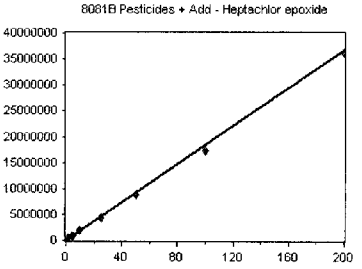


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

Curve Fit: **AVERAGE RF**

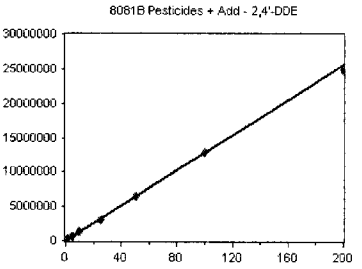


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

Curve Fit: **AVERAGE RF**

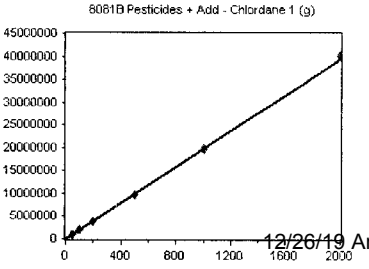


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

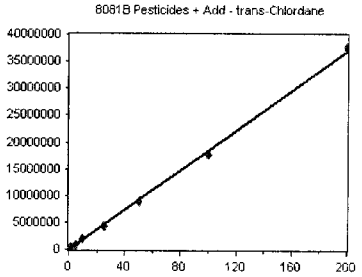
AVE RF **19589.610** RF RSD **1.96** AVE RT **7.43**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

trans-Chlordane

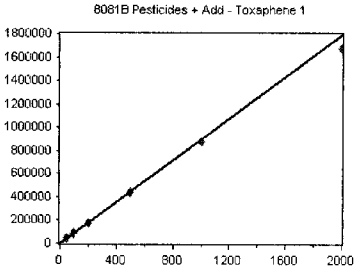


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197202	197202.000	7.43
9H23034-CAL2	2	382271	191135.500	7.43
9H23034-CAL3	5	926577	185315.400	7.43
9H23034-CAL4	10	1847996	184799.600	7.43
9H23034-CAL5	25	4401456	176058.200	7.43
9H23034-CAL6	50	8959305	179186.100	7.43
9H23034-CAL7	100	773279E+07	177327.900	7.43
9H23034-CAL8	200	762141E+07	188107.000	7.43

AVE RF **184891.500** RF RSD **3.93** AVE RT **7.43**

Toxaphene 1

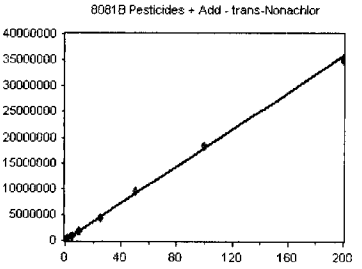


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	49250	985.000	7.51
9H23034-CALO	100	91576	915.760	7.50
9H23034-CALP	200	176047	880.235	7.50
9H23034-CALQ	500	441826	883.652	7.50
9H23034-CALR	1000	871889	871.889	7.50
9H23034-CALS	2000	1674674	837.337	7.50

AVE RF **895.646** RF RSD **5.63** AVE RT **7.50**

trans-Nonachlor

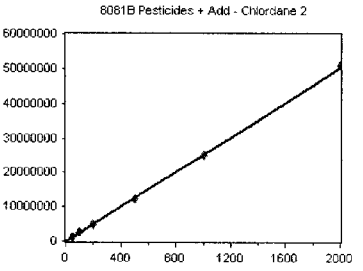


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	236836	236836.000	7.52
9H23034-CALA	2	415126	207563.000	7.52
9H23034-CALB	5	933222	186644.400	7.52
9H23034-CALC	10	1817552	181755.200	7.52
9H23034-CALD	25	4391046	175641.800	7.52
9H23034-CALE	50	9581794	191635.900	7.52
9H23034-CALF	100	835125E+07	183512.500	7.52
9H23034-CALG	200	502792E+07	175139.600	7.51

AVE RF **192341.100** RF RSD **10.78** AVE RT **7.52**

Chlordane 2

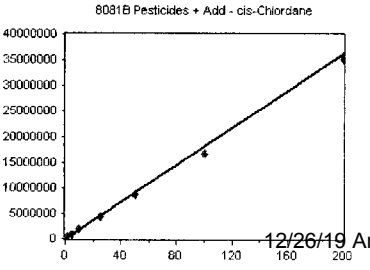


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1286655	25733.100	7.52
9H23034-CALI	100	2519520	25195.200	7.52
9H23034-CALJ	200	4906320	24531.600	7.52
9H23034-CALK	500	217652E+07	24353.040	7.52
9H23034-CALL	1000	508324E+07	25083.240	7.52
9H23034-CALM	2000	097914E+07	25489.570	7.52

AVE RF **25064.290** RF RSD **2.14** AVE RT **7.52**

cis-Chlordane



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	209780	209780.000	7.53
9H23034-CAL2	2	389999	194999.500	7.53
9H23034-CAL3	5	908795	181759.000	7.53
9H23034-CAL4	10	1843346	184334.600	7.53
9H23034-CAL5	25	4244413	169776.500	7.53
9H23034-CAL6	50	8622674	172453.500	7.52
9H23034-CAL7	100	574258E+07	167425.800	7.52
9H23034-CAL8	200	520794E+07	176039.700	7.52

AVE RF **182071.100** RF RSD **7.86** AVE RT **7.53**

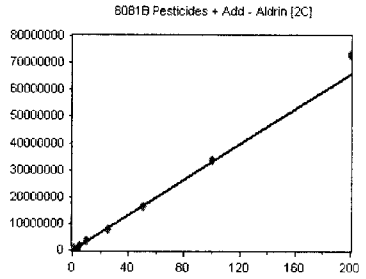
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Aldrin [2C]

Curve Fit: **AVERAGE RF**

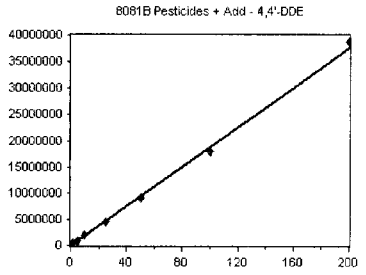


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7	100	390642E+07	339064.200	7.56
9H23034-CAL8	200	322818E+07	366140.900	7.55

AVE RF **329392.500** RF RSD **5.19** AVE RT **7.56**

4,4'-DDE

Curve Fit: **AVERAGE RF**

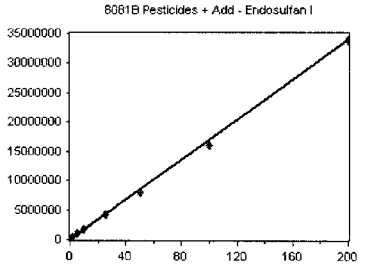


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100	805255E+07	180525.500	7.58
9H23034-CAL8	200	876308E+07	193815.400	7.58

AVE RF **188529.800** RF RSD **2.92** AVE RT **7.58**

Endosulfan I

Curve Fit: **AVERAGE RF**

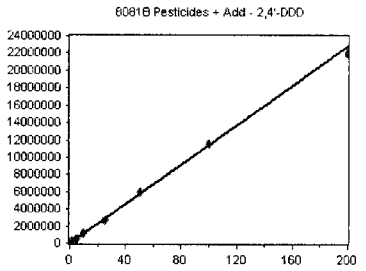


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100	1.609E+07	160900.000	7.62
9H23034-CAL8	200	385259E+07	169263.000	7.62

AVE RF **170179.800** RF RSD **5.13** AVE RT **7.62**

2,4'-DDD

Curve Fit: **AVERAGE RF**

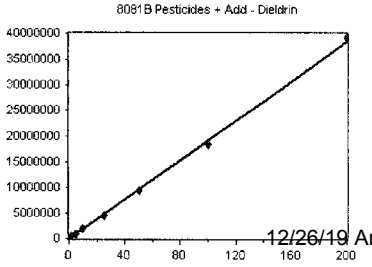


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	158755E+07	115875.500	7.71
9H23034-CALG	200	191696E+07	109584.800	7.70

AVE RF **114125.100** RF RSD **3.65** AVE RT **7.71**

Dieldrin

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197721	197721.000	7.80
9H23034-CAL2	2	395728	197864.000	7.80
9H23034-CAL3	5	972009	194401.800	7.80
9H23034-CAL4	10	1954890	195489.000	7.80
9H23034-CAL5	25	4582306	183292.200	7.79
9H23034-CAL6	50	9386664	187733.300	7.79
9H23034-CAL7	100	832442E+07	183244.200	7.79
9H23034-CAL8	200	921777E+07	196088.800	7.79

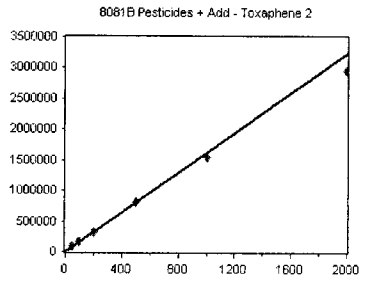
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 2

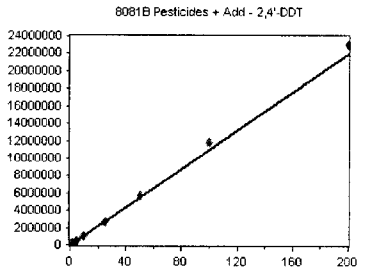


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	88321	1766.420	7.79
9H23034-CALO	100	166085	1660.850	7.80
9H23034-CALP	200	317587	1587.935	7.80
9H23034-CALQ	500	819454	1638.908	7.79
9H23034-CALR	1000	1556013	1556.013	7.79
9H23034-CALS	2000	2958997	1479.499	7.79

AVE RF **1614.937** RF RSD **6.08** AVE RT **7.79**

2,4'-DDT

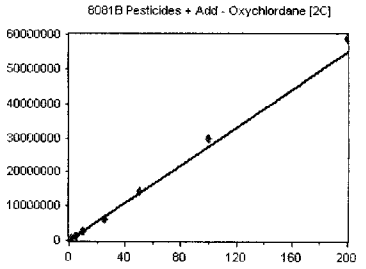


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	107110	107110.000	7.89
9H23034-CALA	2	204209	102104.500	7.89
9H23034-CALB	5	536967	107393.400	7.89
9H23034-CALC	10	1051565	105156.500	7.89
9H23034-CALD	25	2728794	109151.800	7.89
9H23034-CALE	50	5687323	113746.500	7.89
9H23034-CALF	100	177135E+07	117713.500	7.89
9H23034-CALG	200	302496E+07	115124.800	7.89

AVE RF **109687.600** RF RSD **4.88** AVE RT **7.89**

Oxychlordane [2C]

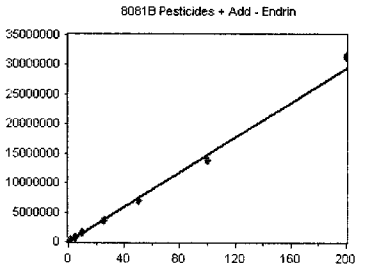


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	279143	279143.000	7.92
9H23034-CALA	2	541023	270511.500	7.92
9H23034-CALB	5	1325543	265108.600	7.92
9H23034-CALC	10	2538903	253890.300	7.92
9H23034-CALD	25	6202791	248111.600	7.92
9H23034-CALE	50	417254E+07	283450.800	7.92
9H23034-CALF	100	973215E+07	297321.500	7.92
9H23034-CALG	200	873698E+07	293684.900	7.92

AVE RF **273902.800** RF RSD **6.49** AVE RT **7.92**

Endrin

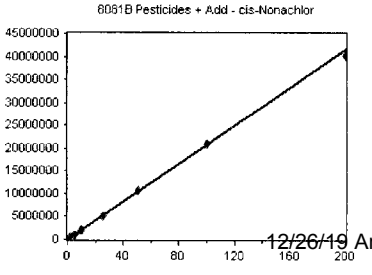


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	156412	156412.000	7.96
9H23034-CAL2	2	298515	149257.500	7.96
9H23034-CAL3	5	738953	147790.600	7.96
9H23034-CAL4	10	1475508	147550.800	7.96
9H23034-CAL5	25	3508904	140356.200	7.96
9H23034-CAL6	50	6979572	139591.400	7.96
9H23034-CAL7	100	381271E+07	138127.100	7.96
9H23034-CAL8	200	142631E+07	157131.500	7.96

AVE RF **147027.100** RF RSD **4.98** AVE RT **7.96**

cis-Nonachlor



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219220	219220.000	7.99
9H23034-CALA	2	423442	211721.000	7.99
9H23034-CALB	5	1025899	205179.800	7.99
9H23034-CALC	10	2032010	203201.000	7.99
9H23034-CALD	25	4993110	199724.400	7.99
9H23034-CALE	50	061602E+07	212320.400	7.99
9H23034-CALF	100	093264E+07	209326.400	7.99
9H23034-CALG	200	004618E+07	200230.900	7.98

AVE RF **207615.500** RF RSD **3.25** AVE RT **7.99**

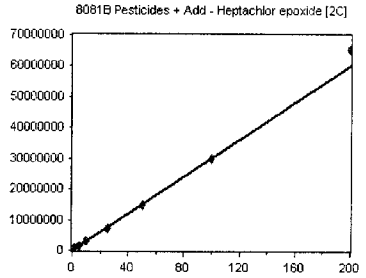
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor epoxide [2C]

Curve Fit: **AVERAGE RF**

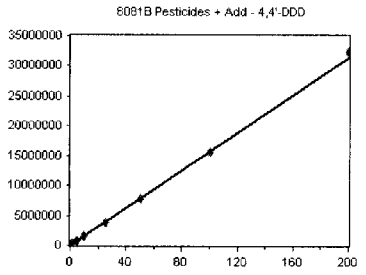


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7	100	004551E+07	300455.100	7.99
9H23034-CAL8	200	533007E+07	326650.400	7.99

AVE RF **300848.300** RF RSD **4.40** AVE RT **7.99**

4,4'-DDD

Curve Fit: **AVERAGE RF**

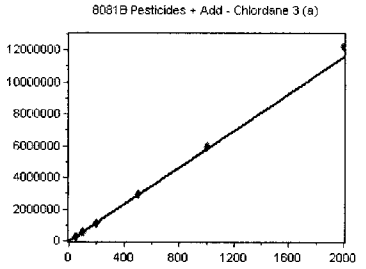


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100	543715E+07	154371.500	8.00
9H23034-CAL8	200	3.24368E+07	162184.000	8.00

AVE RF **157140.600** RF RSD **3.11** AVE RT **8.00**

Chlordane 3 (a)

Curve Fit: **AVERAGE RF**

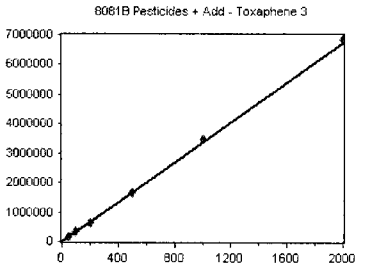


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

AVE RF **5781.121** RF RSD **4.34** AVE RT **8.07**

Toxaphene 3

Curve Fit: **AVERAGE RF**

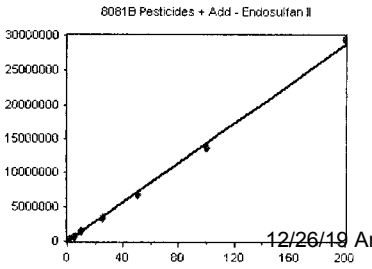


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

AVE RF **3367.488** RF RSD **2.72** AVE RT **8.11**

Endosulfan II

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	158139	158139.000	8.12
9H23034-CAL2	2	299106	149553.000	8.12
9H23034-CAL3	5	709544	141908.800	8.12
9H23034-CAL4	10	1448080	144808.000	8.12
9H23034-CAL5	25	3371864	134874.600	8.12
9H23034-CAL6	50	6840920	136818.400	8.11
9H23034-CAL7	100	.35435E+07	135435.000	8.11
9H23034-CAL8	200	947104E+07	147355.200	8.11

AVE RF **143611.500** RF RSD **5.61** AVE RT **8.12**

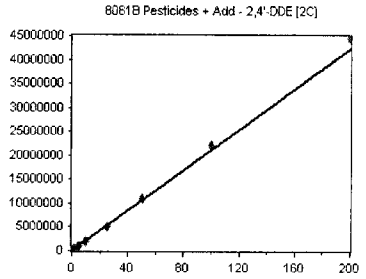
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

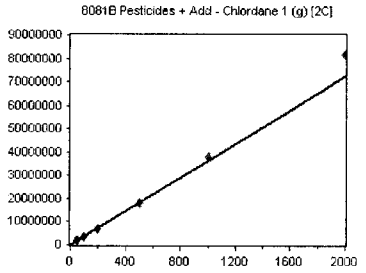


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF	100	:.21644E+07	221644.000	8.12
9H23034-CALG	200	450459E+07	222523.000	8.12

AVE RF **212138.100** RF RSD **4.52** AVE RT **8.12**

Chlordane 1 (g) [2C]

Curve Fit: **AVERAGE RF**

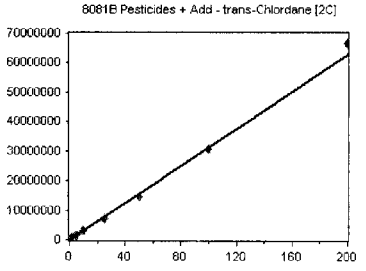


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

AVE RF **36184.580** RF RSD **7.62** AVE RT **8.13**

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

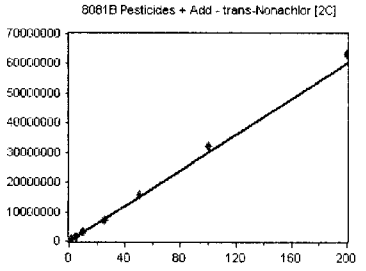


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7	100	074227E+07	307422.700	8.13
9H23034-CAL8	200	644797E+07	332239.800	8.13

AVE RF **313325.900** RF RSD **8.10** AVE RT **8.13**

trans-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

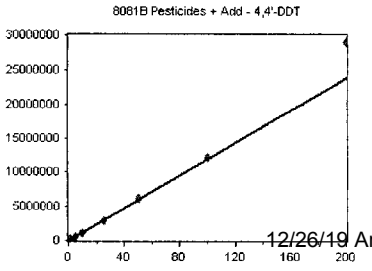


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF	100	197527E+07	319752.700	8.20
9H23034-CALG	200	308364E+07	315418.200	8.19

AVE RF **301635.800** RF RSD **4.84** AVE RT **8.19**

4,4'-DDT

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	113897	113897.000	8.21
9H23034-CAL2	2	218190	109095.000	8.20
9H23034-CAL3	5	553009	110601.800	8.21
9H23034-CAL4	10	1146556	114655.600	8.20
9H23034-CAL5	25	2924467	116978.700	8.20
9H23034-CAL6	50	6205369	124107.400	8.20
9H23034-CAL7	100	217696E+07	121769.600	8.20
9H23034-CAL8	200	907522E+07	145376.100	8.20

AVE RF **119560.100** RF RSD **9.72** AVE RT **8.20**

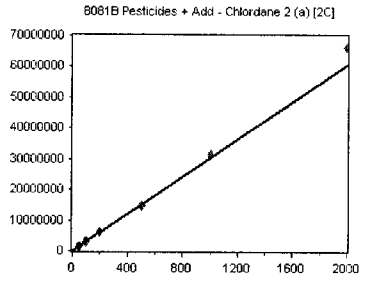
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane 2 (a) [2C]

Curve Fit: **AVERAGE RF**

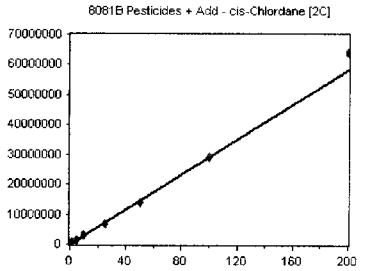


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

AVE RF **30364.070** RF RSD **5.30** AVE RT **8.24**

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

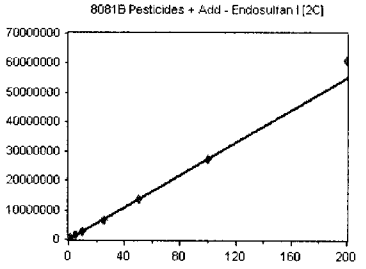


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7	100	904286E+07	290428.600	8.24
9H23034-CAL8	200	397706E+07	319885.300	8.24

AVE RF **291246.800** RF RSD **4.59** AVE RT **8.24**

Endosulfan I [2C]

Curve Fit: **AVERAGE RF**

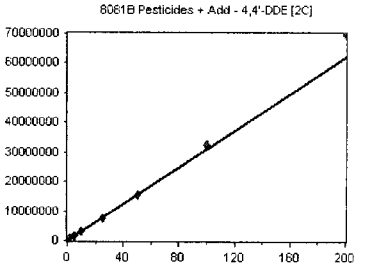


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7	100	721271E+07	272127.100	8.29
9H23034-CAL8	200	104351E+07	305217.600	8.29

AVE RF **275176.500** RF RSD **4.77** AVE RT **8.29**

4,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

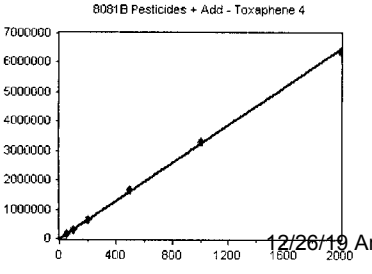


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	3.24996E+07	324996.000	8.34
9H23034-CAL8	200	984235E+07	349211.800	8.34

AVE RF **310677.400** RF RSD **5.82** AVE RT **8.34**

Toxaphene 4

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164317	3286.340	8.35
9H23034-CALO	100	320313	3203.130	8.35
9H23034-CALP	200	632351	3161.755	8.35
9H23034-CALQ	500	1649569	3299.138	8.35
9H23034-CALR	1000	3287014	3287.014	8.35
9H23034-CALS	2000	6407070	3203.535	8.35

AVE RF **3240.162** RF RSD **1.78** AVE RT **8.35**

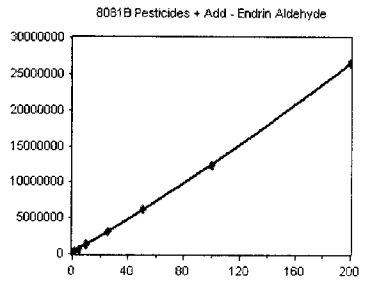
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endrin Aldehyde

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

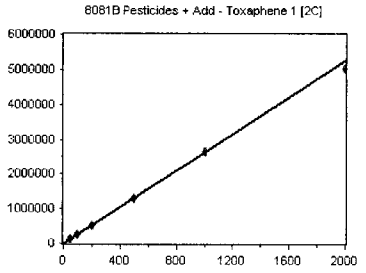


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	662767E+07	133138.300	8.40

AVE RF **148203.000** RF RSD **26.87** AVE RT **8.41**

Toxaphene 1 [2C]

Curve Fit: **AVERAGE RF**

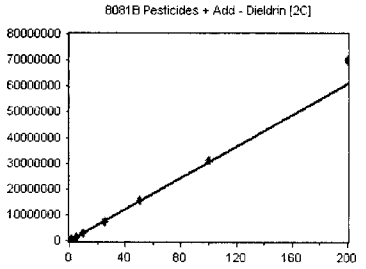


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

AVE RF **2624.258** RF RSD **3.16** AVE RT **8.47**

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

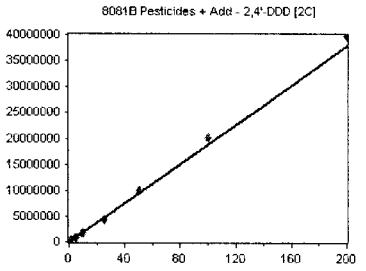


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7	100	100196E+07	310019.600	8.49
9H23034-CAL8	200	003178E+07	350158.900	8.49

AVE RF **304150.100** RF RSD **6.61** AVE RT **8.49**

2,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

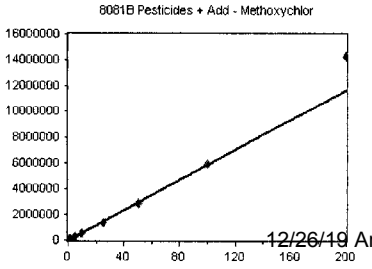


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	011892E+07	201189.200	8.50
9H23034-CALG	200	.98393E+07	199196.500	8.49

AVE RF **188863.500** RF RSD **5.47** AVE RT **8.50**

Methoxychlor

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	59659	59659.000	8.54
9H23034-CAL2	2	111466	55733.000	8.54
9H23034-CAL3	5	270388	54077.600	8.54
9H23034-CAL4	10	561706	56170.600	8.54
9H23034-CAL5	25	1390283	55611.320	8.54
9H23034-CAL6	50	2860683	57213.660	8.54
9H23034-CAL7	100	5877329	58773.290	8.54
9H23034-CAL8	200	427114E+07	71355.700	8.54

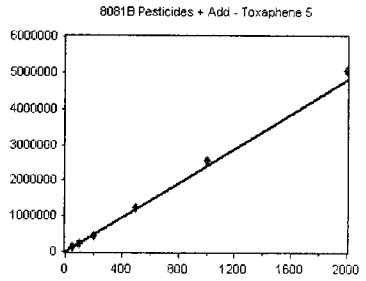
AVE RF **58574.270** RF RSD **9.55** AVE RT **8.54**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5

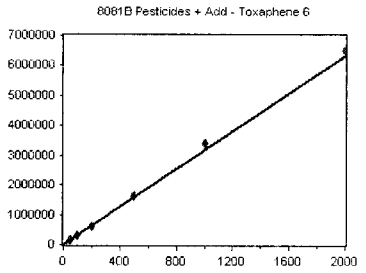


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

AVE RF **2397.142** RF RSD **5.33** AVE RT **8.57**

Toxaphene 6

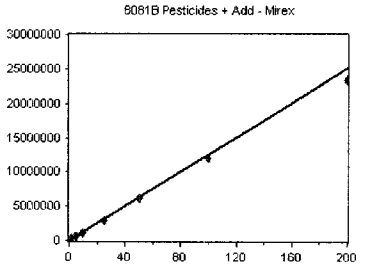


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

AVE RF **3164.584** RF RSD **5.17** AVE RT **8.64**

Mirex

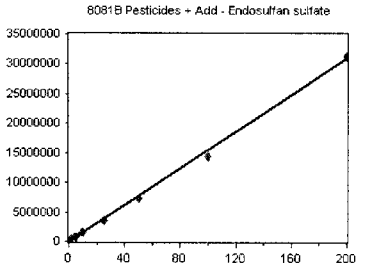


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100	196075E+07	119607.500	8.65
9H23034-CALG	200	2.3285E+07	116425.000	8.65

AVE RF **125366.600** RF RSD **8.39** AVE RT **8.65**

Endosulfan sulfate

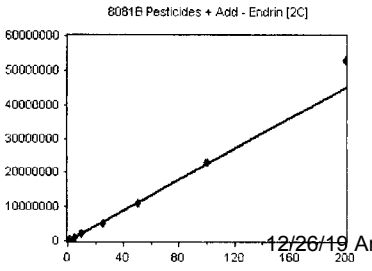


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	436679E+07	143667.900	8.70
9H23034-CAL8	200	112652E+07	155632.600	8.70

AVE RF **154977.600** RF RSD **6.64** AVE RT **8.71**

Endrin [2C]



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	222882	222882.000	8.72
9H23034-CAL2	2	424889	212444.500	8.72
9H23034-CAL3	5	1092877	218575.400	8.72
9H23034-CAL4	10	2244483	224448.300	8.72
9H23034-CAL5	25	5325883	213035.300	8.72
9H23034-CAL6	50	101538E+07	220307.600	8.72
9H23034-CAL7	100	310241E+07	231024.100	8.72
9H23034-CAL8	200	277958E+07	263897.900	8.72

AVE RF **225826.900** RF RSD **7.82** AVE RT **8.72**

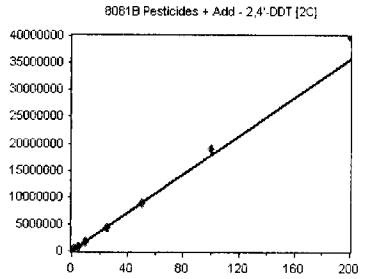
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDT [2C]

Curve Fit: **AVERAGE RF**

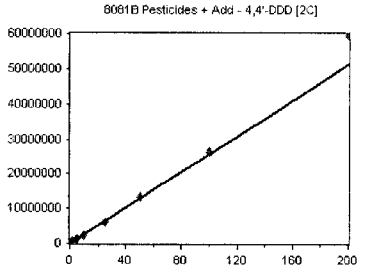


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	899897E+07	189989.700	8.72
9H23034-CALG	200	999923E+07	199996.200	8.72

AVE RF **178339.300** RF RSD **6.24** AVE RT **8.72**

4,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

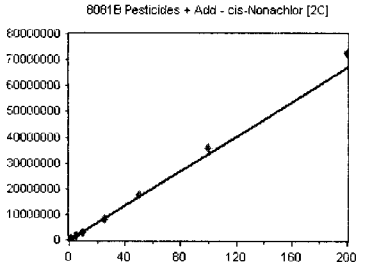


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	100	629748E+07	262974.800	8.76
9H23034-CAL8	200	956027E+07	297801.400	8.76

AVE RF **256213.900** RF RSD **7.37** AVE RT **8.76**

cis-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

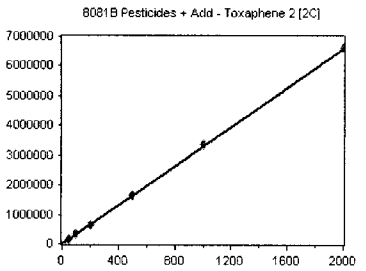


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	100	607264E+07	360726.400	8.76
9H23034-CALG	200	245582E+07	362279.100	8.76

AVE RF **335449.500** RF RSD **6.23** AVE RT **8.76**

Toxaphene 2 [2C]

Curve Fit: **AVERAGE RF**

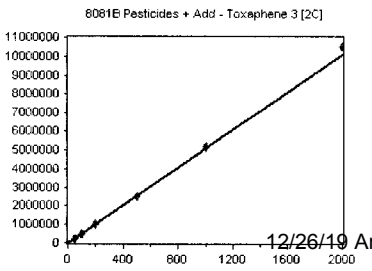


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

AVE RF **3291.024** RF RSD **1.70** AVE RT **8.81**

Toxaphene 3 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	254833	5096.660	8.85
9H23034-CALO	100	494430	4944.300	8.85
9H23034-CALP	200	995555	4977.775	8.85
9H23034-CALQ	500	2475022	4950.044	8.85
9H23034-CALR	1000	5168269	5168.269	8.85
9H23034-CALS	2000	054571E+07	5272.855	8.85

AVE RF **5068.317** RF RSD **2.65** AVE RT **8.85**

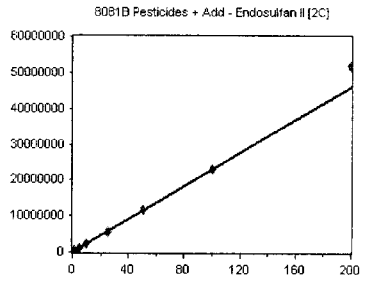
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endosulfan II [2C]

Curve Fit: **AVERAGE RF**

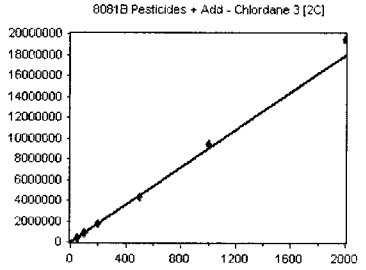


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	100	301637E+07	230163.700	8.86
9H23034-CAL8	200	183489E+07	259174.400	8.86

AVE RF **230606.200** RF RSD **5.55** AVE RT **8.86**

Chlordane 3 [2C]

Curve Fit: **AVERAGE RF**

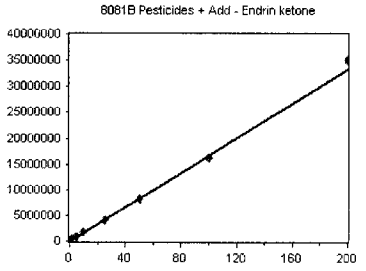


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

AVE RF **8965.877** RF RSD **5.14** AVE RT **8.90**

Endrin ketone

Curve Fit: **AVERAGE RF**

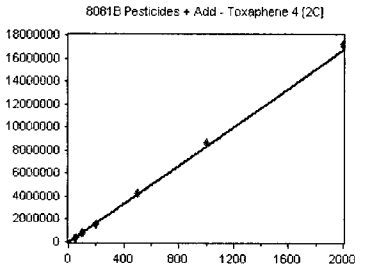


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	525194E+07	162519.400	8.90
9H23034-CAL8	200	509472E+07	175473.600	8.90

AVE RF **166758.300** RF RSD **3.80** AVE RT **8.90**

Toxaphene 4 [2C]

Curve Fit: **AVERAGE RF**

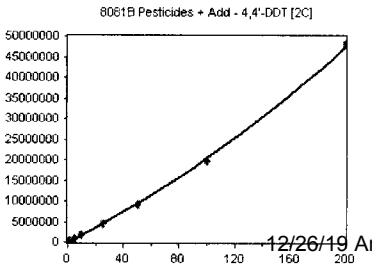


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

AVE RF **8349.831** RF RSD **3.51** AVE RT **8.91**

4,4'-DDT [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	179700	179700.000	8.99
9H23034-CAL2	2	341782	170891.000	8.99
9H23034-CAL3	5	873653	174730.600	8.99
9H23034-CAL4	10	1841119	184111.900	8.99
9H23034-CAL5	25	4480388	179215.500	8.98
9H23034-CAL6	50	9285492	185709.800	8.99
9H23034-CAL7	100	.97895E+07	197895.000	8.98
9H23034-CAL8	200	820344E+07	241017.200	8.98

AVE RF **189158.900** RF RSD **11.69** AVE RT **8.99**

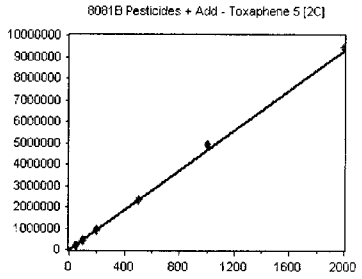
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5 [2C]

Curve Fit: **AVERAGE RF**

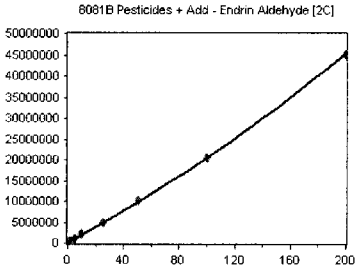


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

AVE RF **4660.360** RF RSD **3.24** AVE RT **9.09**

Endrin Aldehyde [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

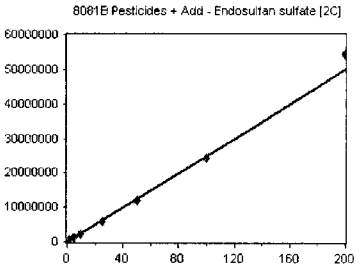


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	100	050274E+07	205027.400	9.10
9H23034-CAL8	200	508454E+07	225422.700	9.10

AVE RF **229714.800** RF RSD **21.77** AVE RT **9.10**

Endosulfan sulfate [2C]

Curve Fit: **AVERAGE RF**

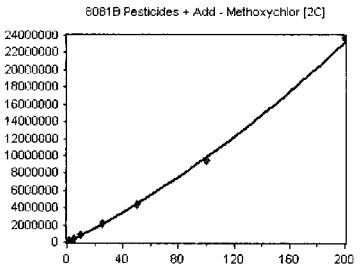


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	100	447732E+07	244773.200	9.29
9H23034-CAL8	200	459279E+07	272964.000	9.29

AVE RF **249087.500** RF RSD **5.35** AVE RT **9.29**

Methoxychlor [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

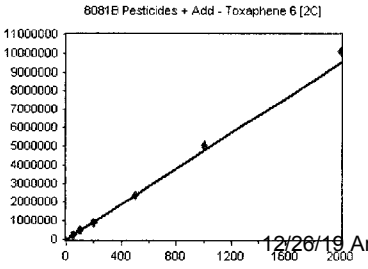


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	1.37141E+07	118570.500	9.46

AVE RF **92733.750** RF RSD **12.09** AVE RT **9.46**

Toxaphene 6 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	230922	4618.440	9.47
9H23034-CALO	100	452485	4524.850	9.47
9H23034-CALP	200	905244	4526.220	9.47
9H23034-CALQ	500	2369795	4739.590	9.47
9H23034-CALR	1000	5046645	5046.645	9.47
9H23034-CALS	2000	009095E+07	5045.475	9.47

AVE RF **4750.203** RF RSD **5.12** AVE RT **9.47**

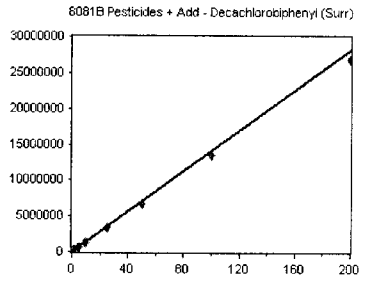
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

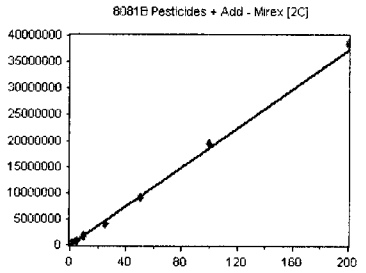


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.34054E+07	134054.000	9.59
9H23034-CAL8	200	697523E+07	134876.200	9.59

AVE RF **141098.600** RF RSD **8.33** AVE RT **9.59**

Mirex [2C]

Curve Fit: **AVERAGE RF**

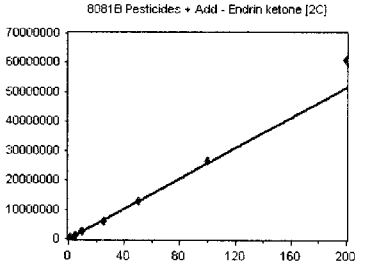


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.93632E+07	193632.000	9.68
9H23034-CALG	200	842553E+07	192127.600	9.68

AVE RF **186073.300** RF RSD **7.59** AVE RT **9.68**

Endrin ketone [2C]

Curve Fit: **AVERAGE RF**

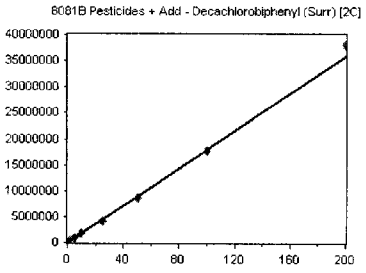


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	100	563656E+07	266365.600	9.69
9H23034-CAL8	200	086138E+07	304306.900	9.69

AVE RF **257316.100** RF RSD **8.31** AVE RT **9.69**

Decachlorobiphenyl (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	191572	191572.000	10.54
9H23034-CAL2	2	390006	195003.000	10.54
9H23034-CAL3	5	870921	174184.200	10.54
9H23034-CAL4	10	1678728	167872.800	10.54
9H23034-CAL5	25	4163229	166529.200	10.54
9H23034-CAL6	50	8730692	174613.800	10.54
9H23034-CAL7	100	778407E+07	177840.700	10.54
9H23034-CAL8	200	809778E+07	190488.900	10.54

AVE RF **179763.100** RF RSD **6.18** AVE RT **10.54**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analysis Included

1311/8081B TCLP Pest Reg List
1311/8081B TCLP Pest Reg List +ADD
1311/8081B TCLP Pesticides (All)
1311/8081B TCLP Pesticides + Add (All)
1312/8081B SPLP Pesticides
608 Additionals Only (QC)
608 Pest (Chlordane)
608 Pesticides
608 Pesticides (DDT Only)
608 Pesticides (SW)
608 Pesticides (SW) Full List
608 Pesticides (TTO)
608 Pesticides + Adds
608.3 Additionals - DEVELOPMENT
608.3 Chlordane - DEVELOPMENT
608.3 PCBs - DEVELOPMENT
608.3 Pesticides - DEVELOPMENT
608.3 Pesticides + Adds - DEVELOPMENT
608.3 Toxaphene - DEVELOPMENT
8081B Pesticides
8081B 2,4+4,4-DDx Only (+Add)
8081B Chlordane
8081B DDT Only
8081B Pesticides + Add
8081B RSET FW Sed (+Add) (2016)
8081B RSET Sediment List (+Add)
8081B RSET Sediment Marine (2016) (+Add)
8081B Toxaphene

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H23034-ICB1	Initial Cal Blank	Water	A19H348		8/23/2019 1:33:00PM
9H23034-CAL1	Cal Standard	Water	A19E245	"	8/23/2019 1:51:00PM
9H23034-CAL2	Cal Standard	Water	A19E246	"	8/23/2019 2:08:00PM
9H23034-CAL3	Cal Standard	Water	A19E247	"	8/23/2019 2:25:00PM
9H23034-CAL4	Cal Standard	Water	A19E249	"	8/23/2019 2:42:00PM
9H23034-CAL5	Cal Standard	Water	A19E250	"	8/23/2019 3:00:00PM
9H23034-CAL6	Cal Standard	Water	A19H383	"	8/23/2019 3:17:00PM
9H23034-CAL7	Cal Standard	Water	A19H384	"	8/23/2019 3:34:00PM
9H23034-CAL8	Cal Standard	Water	A19E244	"	8/23/2019 3:52:00PM
9H23034-ICV1	Initial Cal Check	Water	A19E106	"	8/23/2019 4:26:00PM
9H23034-CAL9	Cal Standard	Water	A19E272	"	8/23/2019 4:44:00PM
9H23034-CALA	Cal Standard	Water	A19E273	"	8/23/2019 5:01:00PM
9H23034-CALB	Cal Standard	Water	A19E274	"	8/23/2019 5:18:00PM
9H23034-CALC	Cal Standard	Water	A19E275	"	8/23/2019 5:35:00PM
9H23034-CALD	Cal Standard	Water	A19E276	"	8/23/2019 5:53:00PM
9H23034-CALE	Cal Standard	Water	A19E154	"	8/23/2019 6:10:00PM
9H23034-CALF	Cal Standard	Water	A19E155	"	8/23/2019 6:27:00PM
9H23034-CALG	Cal Standard	Water	A19E271	"	8/23/2019 6:45:00PM
9H23034-ICV2	Initial Cal Check	Water	A19E043	"	8/23/2019 7:19:00PM
9H23034-CALH	Cal Standard	Water	A19F232	"	8/23/2019 7:36:00PM
9H23034-CALI	Cal Standard	Water	A19F233	"	8/23/2019 7:54:00PM
9H23034-CALJ	Cal Standard	Water	A19F234	"	8/23/2019 8:11:00PM
9H23034-CALK	Cal Standard	Water	A19F235	"	8/23/2019 8:28:00PM
9H23034-CALL	Cal Standard	Water	A19F236	"	8/23/2019 8:45:00PM
9H23034-CALM	Cal Standard	Water	A19F231	"	8/23/2019 9:02:00PM
9H23034-ICV3	Initial Cal Check	Water	A19E108	"	8/23/2019 9:37:00PM
9H23034-CALN	Cal Standard	Water	A19D122	"	8/23/2019 9:54:00PM
9H23034-CALO	Cal Standard	Water	A19D123	"	8/23/2019 10:11:00PM
9H23034-CALP	Cal Standard	Water	A19D124	"	8/23/2019 10:28:00PM
9H23034-CALQ	Cal Standard	Water	A19D125	"	8/23/2019 10:45:00PM
9H23034-CALR	Cal Standard	Water	A19D126	"	8/23/2019 11:03:00PM
9H23034-CALS	Cal Standard	Water	A19D121	"	8/23/2019 11:20:00PM
9H23034-ICV4	Initial Cal Check	Water	A19D127	"	8/23/2019 11:54:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

1311/8081B TCLP Pest Reg L Sequence: **9H23034** Matrix: **Water**

9H23034-CAL1	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL2	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

9H23034-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALK	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALL	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALM	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALN	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALO	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALP	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALQ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALR	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALS	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

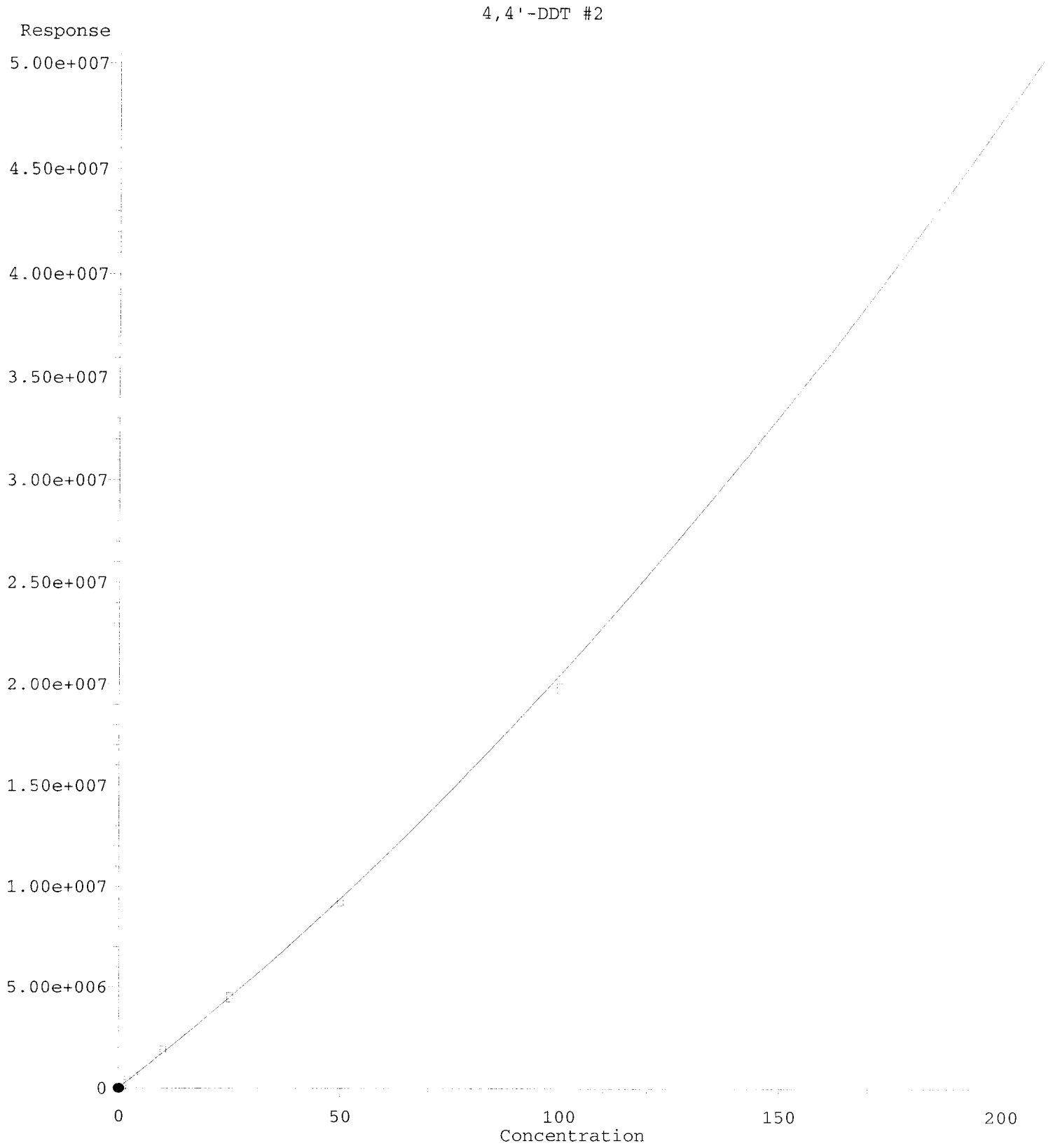
ICV RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

608 Pesticides (SW) Full List Sequence: **9H23034** Matrix: **Water**

9H23034-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV3	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV4	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

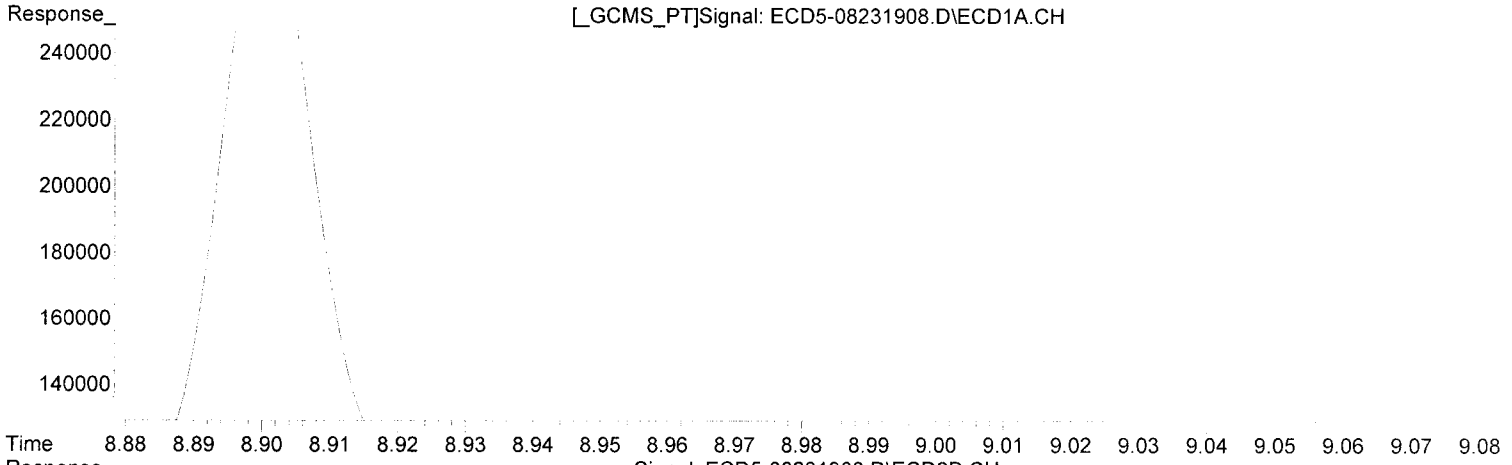


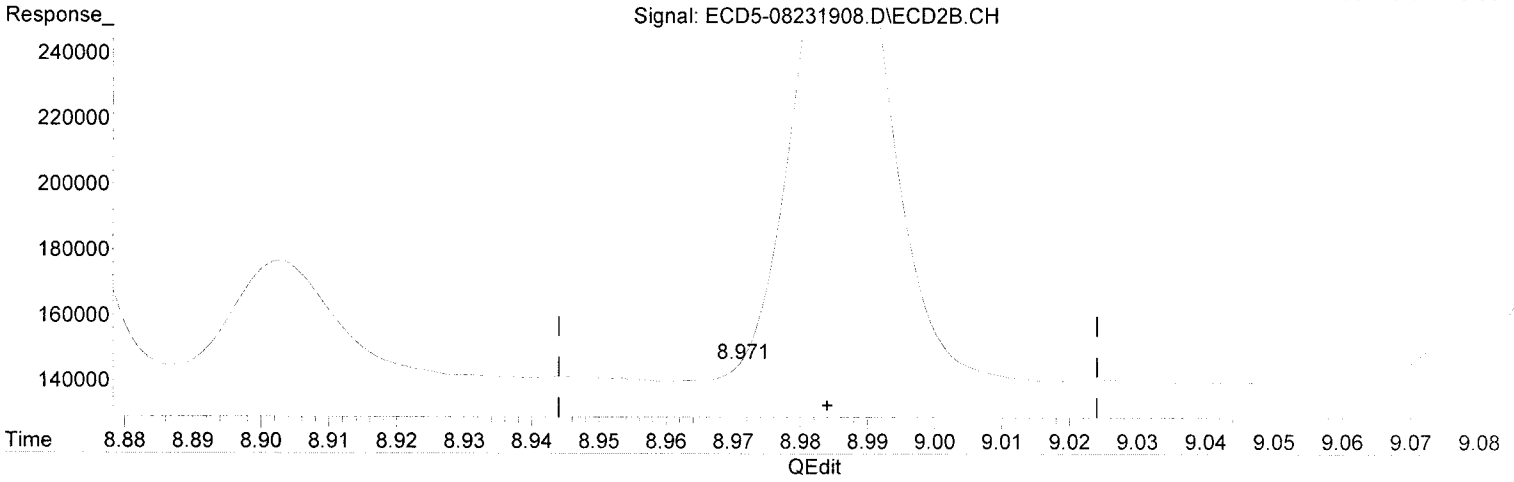
R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





(17) 4,4'-DDT

8.205min 0.953 ng/mL

response 113897

MJB 8/26/19

(17) 4,4'-DDT #2

8.971min -0.006 ng/mL m

response 5621

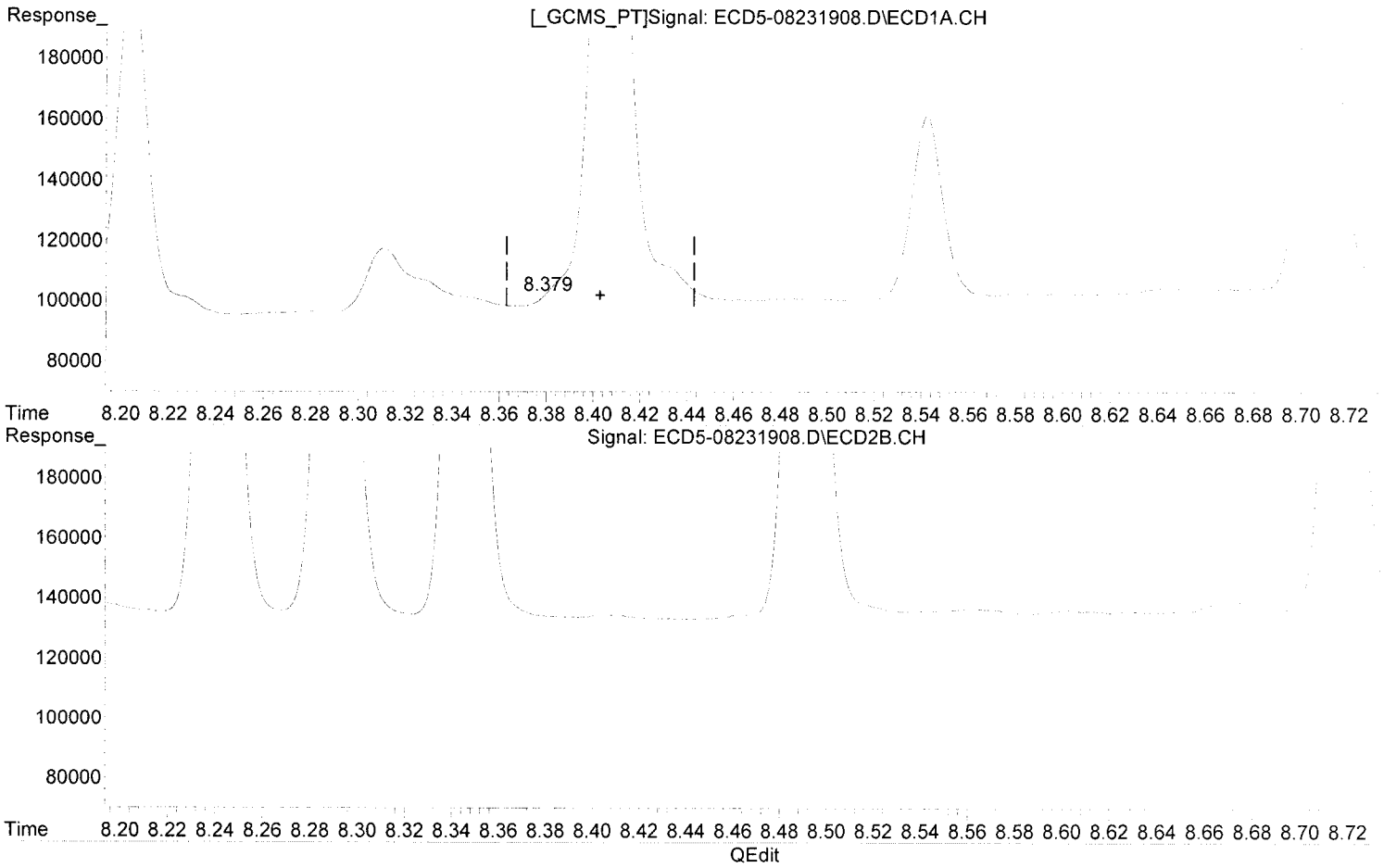
(+) = Expected Retention Time

R = 8.05e+001 A*A + 1.16e+005 A + 1.19e+005
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL (m)

response 3543

MJB 9/26/19

(18) Endrin Aldehyde #2

9.101min 1.058 ng/mL

response 348624

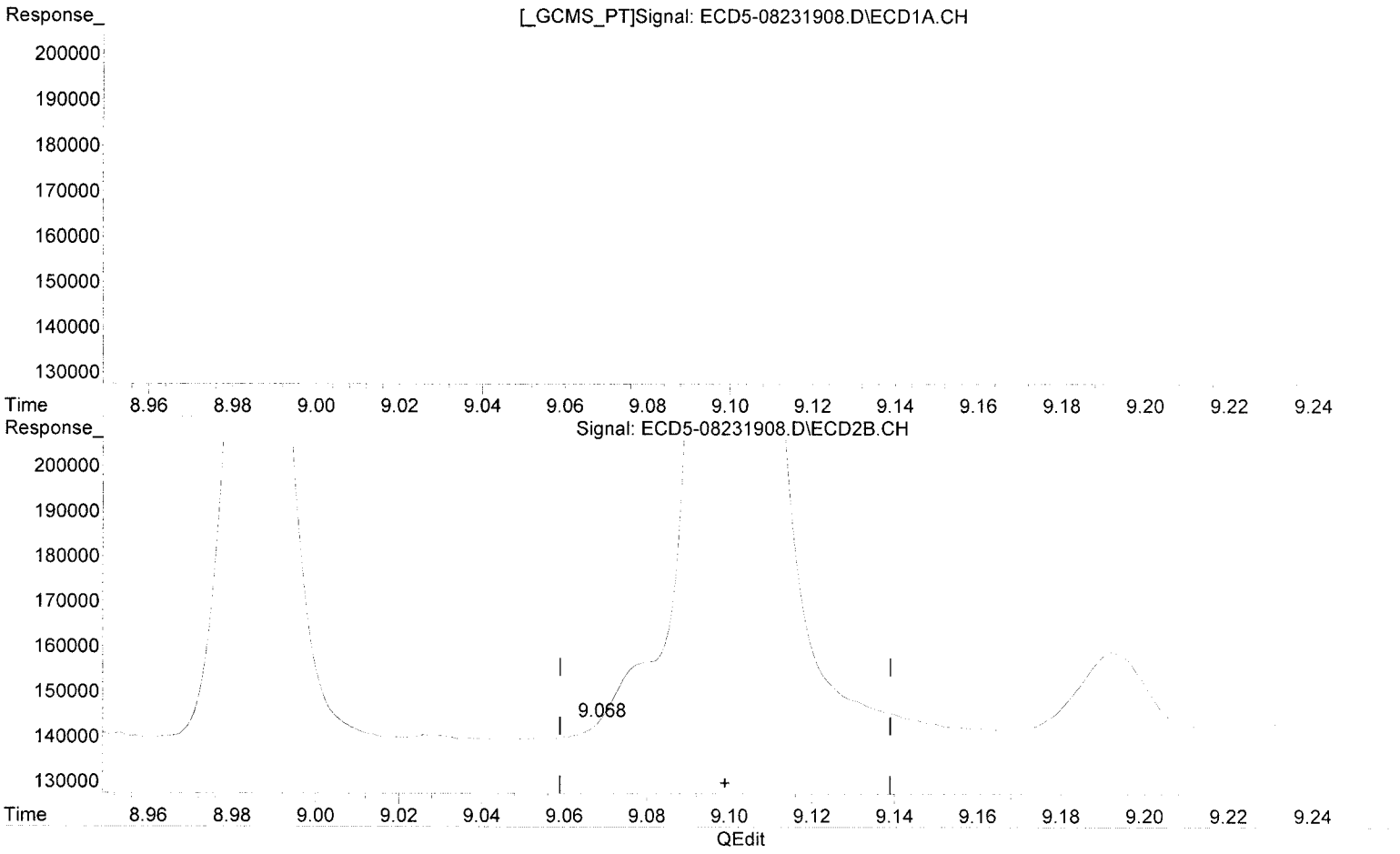
(+) = Expected Retention Time

R = 2.18e+002 A*A + 1.83e+005 A + 1.55e+005
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL m

response 3543

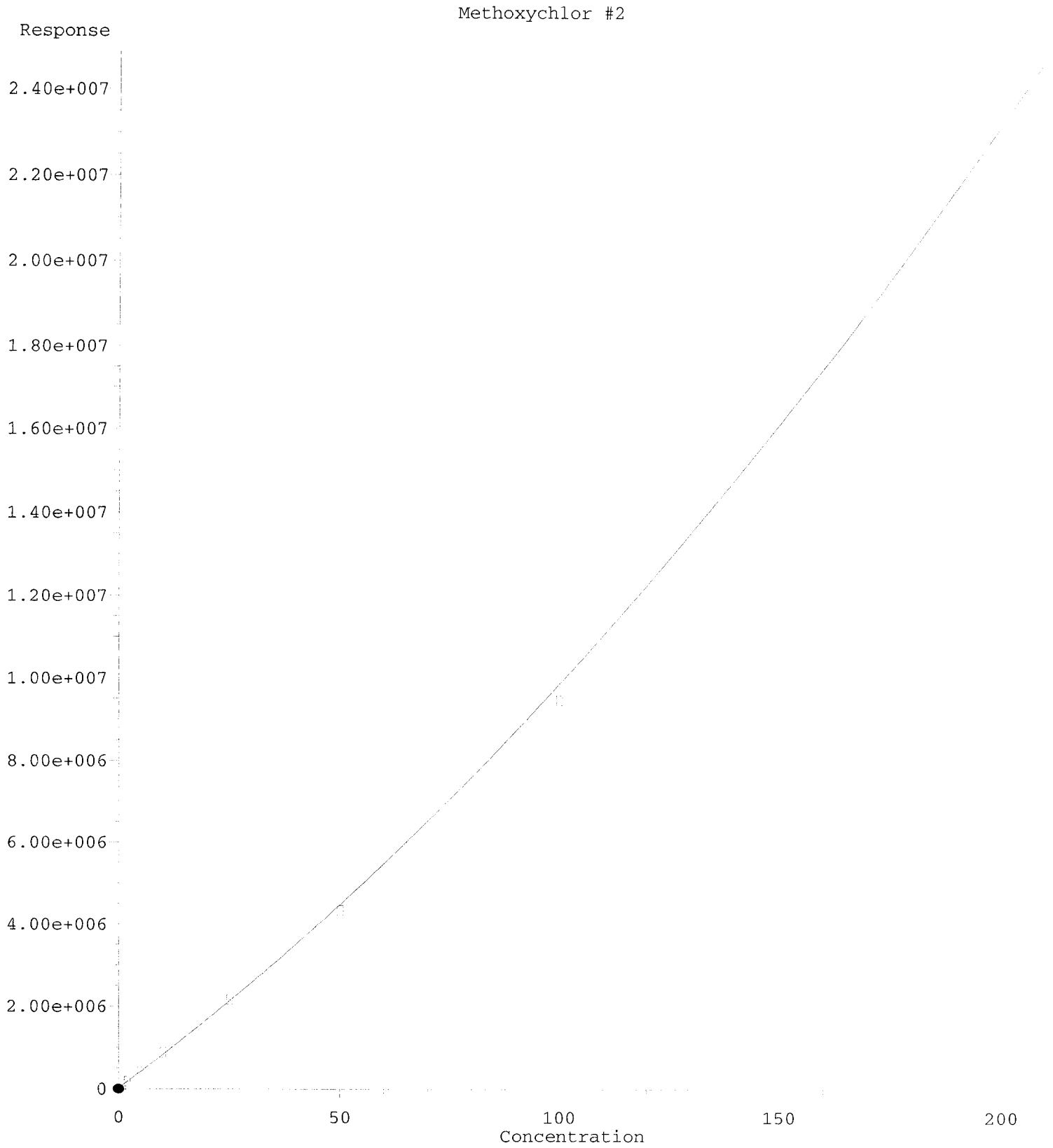
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL (m)

response 3374

(+) = Expected Retention Time

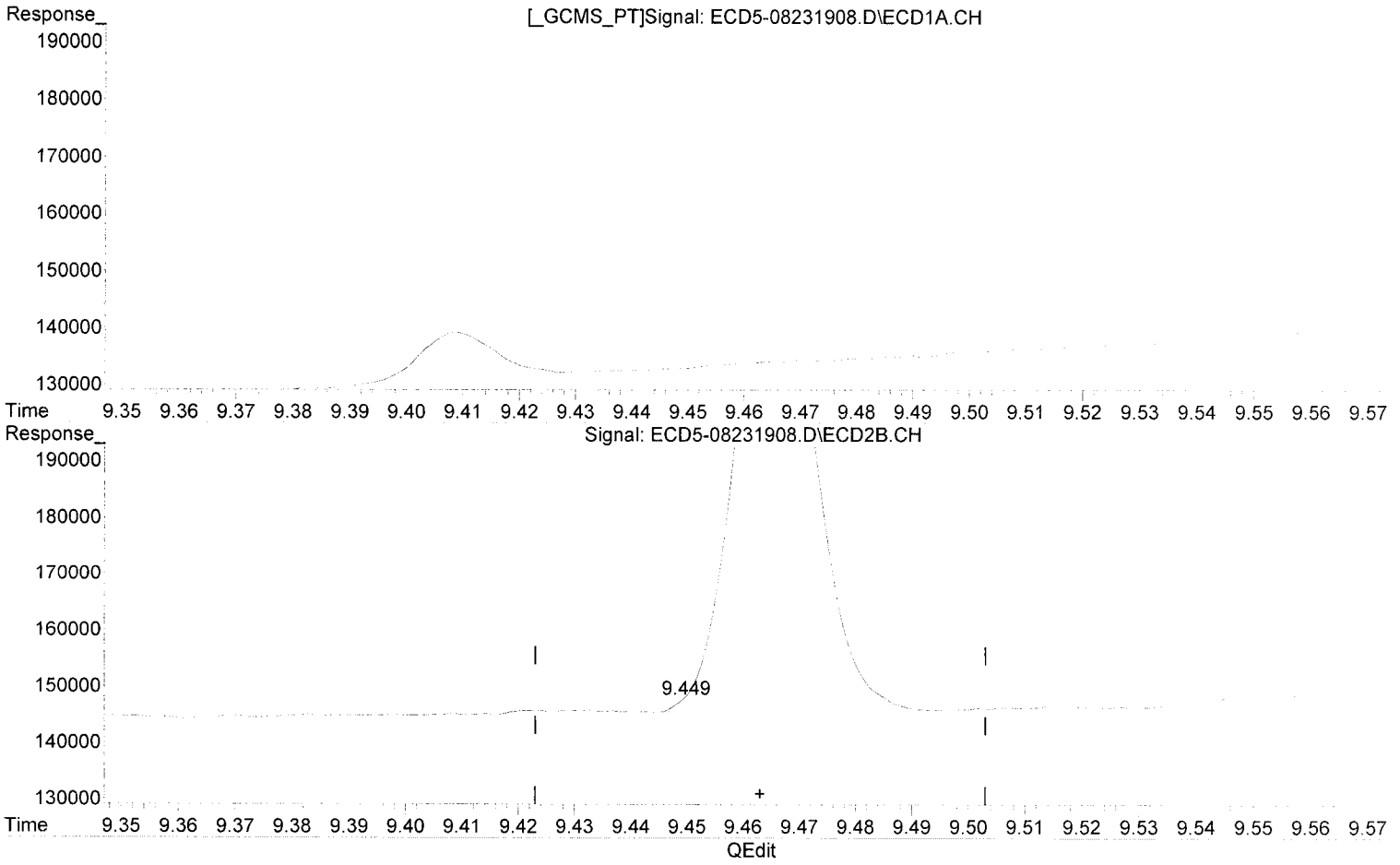


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.543min 1.019 ng/mL

response 59659

MJB 4/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

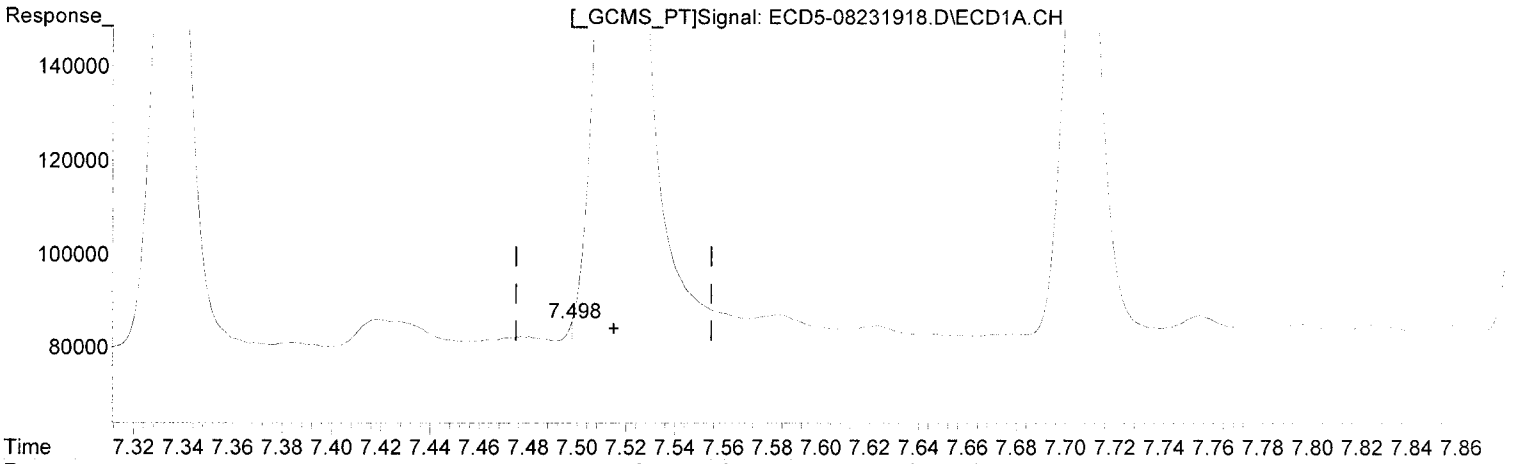
(+) = Expected Retention Time

R = -2.05e+000 A*A + 1.79e+005 A + 5.67e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTTEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(27) trans-Nonachlor

7.498min 87346.675 ng/mL (m) Q-ou

response 4608

MJB 8/26/19

(27) trans-Nonachlor #2

8.195min 1.015 ng/mL

response 306202

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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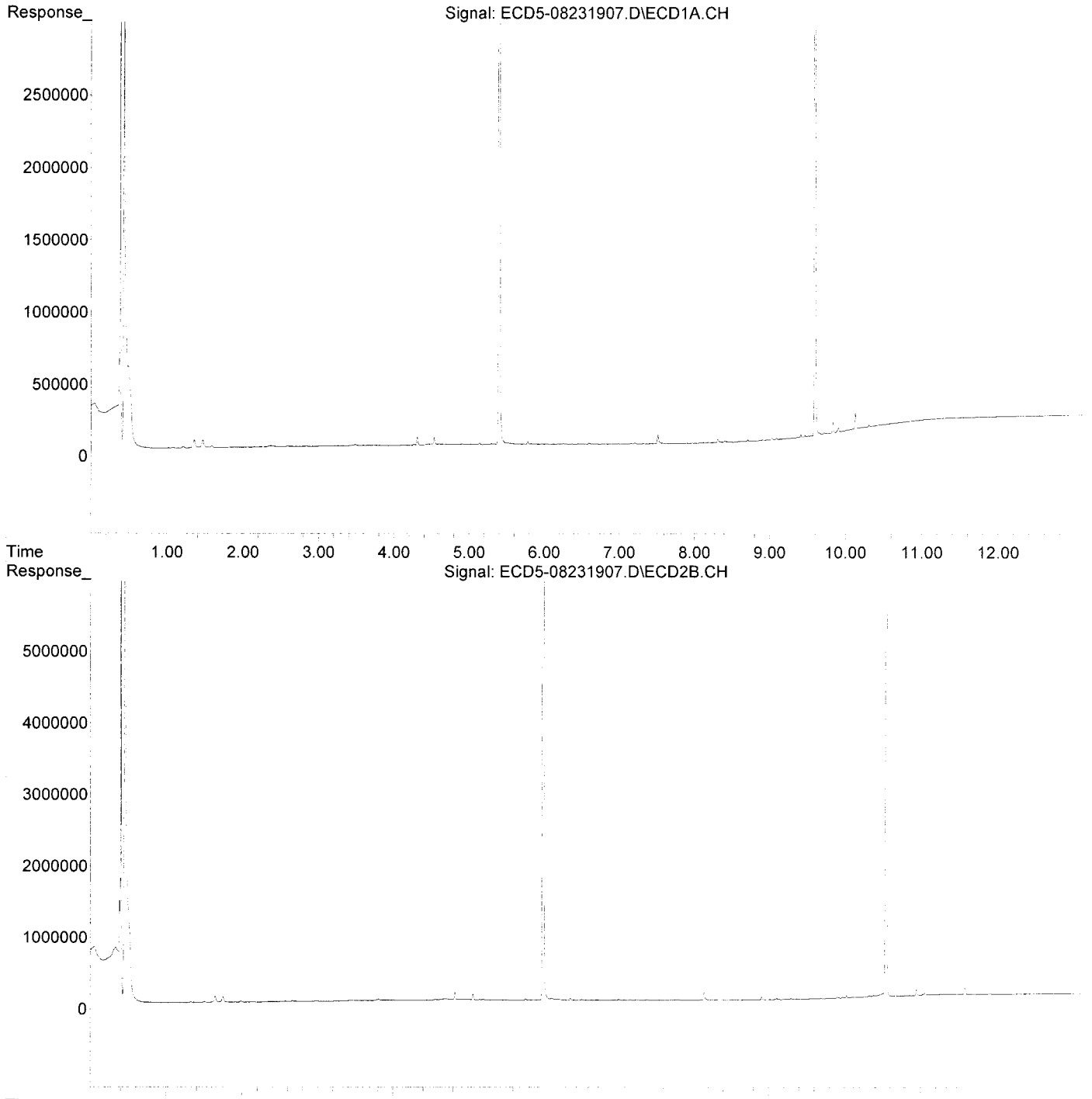
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
4)	b-BHC	0.000	7.003f	0	10802	N.D.	0.068	#
5)	Heptachlor	6.596f	0.000	8260	0	0.046	N.D.	#
6)	d-BHC	6.451	7.234	5541	7061	0.028	0.020	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.318	0.000	2356	0	0.013	N.D.	#
9)	trans-Chl...	0.000	8.140	0	104395	N.D.	0.333	#
10)	cis-Chlor...	7.514	0.000	58774	0	0.323	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.119	0.000	3735	0	0.026	N.D.	#
17)	4,4'-DDT	8.185	0.000	4049	0	0.034	N.D.	#
18)	Endrin Al...	8.408	9.102	14375	14948	BelowCal	BelowCal	
19)	Endosulfa...	8.709	9.292	12123	14809	0.078	0.059	
20)	Methoxychlor	8.542	0.000	4975	0	0.085	N.D.	#
21)	Endrin Ke...	8.903	9.690	4830	7943	0.029	0.031	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.779	0.000	21656	0	0.123	N.D.	#
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	7.318	8.140	2356	104395	0.018	0.492	#
27)	trans-Non...	7.514	0.000	58774	0	0.012	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	8.652	9.690	4544	7943	0.036	0.043	
32)	Chlordane...	0.000	8.140	0	104395	N.D.	2.885	#
33)	Chlordane...	7.514	0.000	58774	0	2.345	N.D.	#
34)	Chlordane...	0.000	8.904	0	37260	N.D.	4.156	#
35)	Chlordane...	3.445	0.000	6677	0	NoCal	N.D.	
36)	Toxaphene...	7.514	0.000	58774	0	65.621	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.119	0.000	3735	0	1.109	N.D.	#
39)	Toxaphene...	8.312f	8.904	24186	37260	7.464	4.462	#
40)	Toxaphene...	8.542f	9.102	4975	14948	2.075	3.207	#
41)	Toxaphene...	8.652	0.000	4544	0	1.436	N.D.	#
42)	Toxaphene...	3.445	0.000	6677	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Clean

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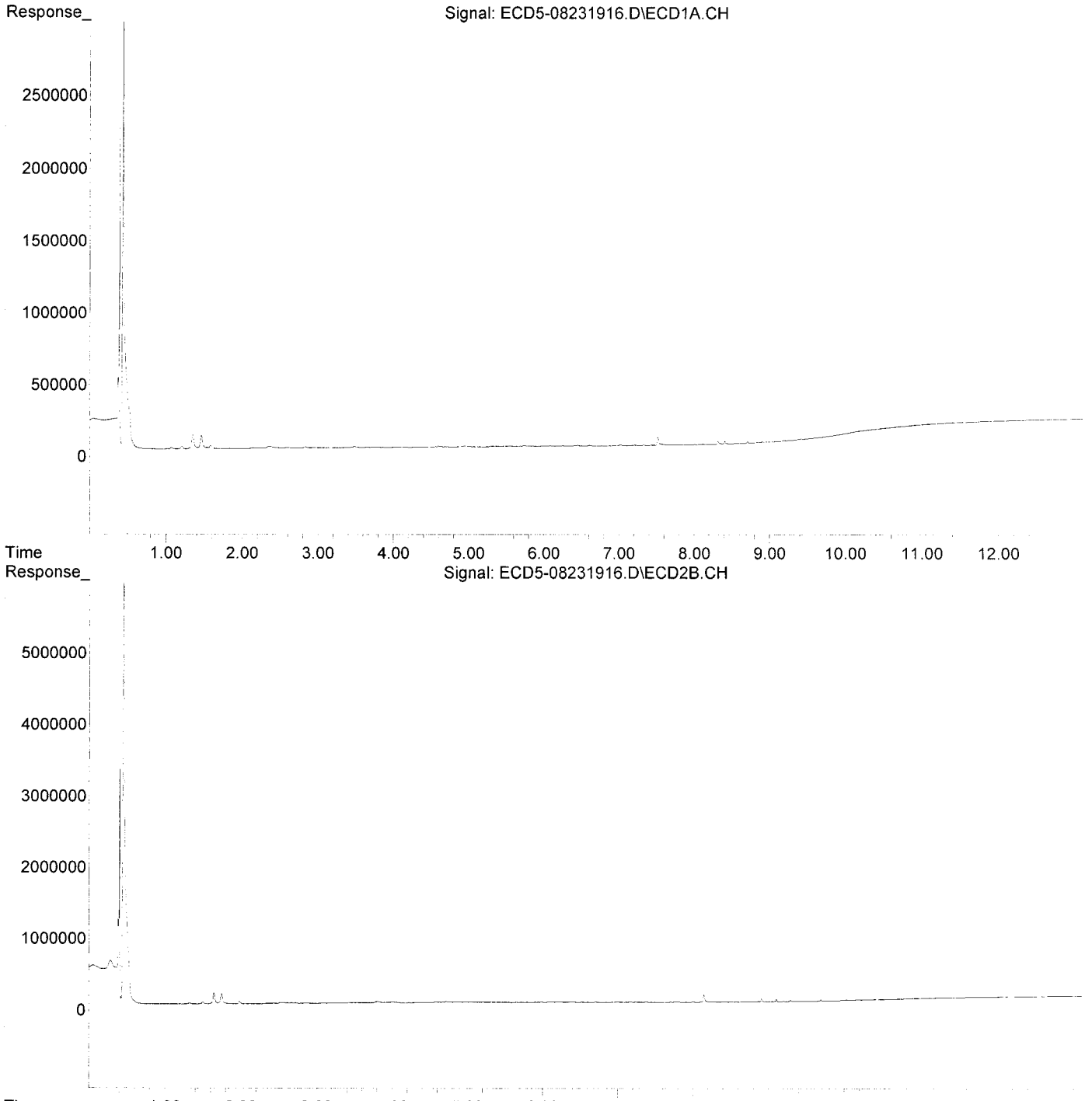
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	7.003f	0	7432	N.D.	0.047	#
5)		Heptachlor	6.602f	0.000	4945	0	0.027	N.D.	#
6)		d-BHC	6.450	7.233	6336	9226	0.032	0.026	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	99412	N.D.	0.317	#
10)		cis-Chlor...	7.516	0.000	56525	0	0.310	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.007	0.000	1177	0	0.007	N.D.	#
16)		Endosulfa...	8.117	8.865	3391	6280	0.024	0.027	
17)		4,4'-DDT	8.226f	0.000	1460	0	0.012	N.D.	#
18)		Endrin Al...	8.407	9.100	21929	28697	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.291	12087	18257	0.078	0.073	
20)		Methoxychlor	8.544	0.000	4198	0	0.072	N.D.	#
21)		Endrin Ke...	8.901	9.686	4385	18734	0.026	0.073	#
23)		Hexachlor...	0.000	3.689	0	2782	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	99412	N.D. Q ok	0.469	#
27)		trans-Non...	7.516	0.000	56525	0 ~~87346.385~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.007f	0.000	1177	0	0.006	N.D.	#
31)		Mirex	0.000	9.686	0	18734	N.D.	0.101	#
32)		Chlordane...	0.000	8.142	0	99412	N.D.	2.747	#
33)		Chlordane...	7.516	0.000	56525	0	2.255	N.D.	#
34)		Chlordane...	8.065	8.904	2775	39801	0.480	4.439	#
35)		Chlordane...	3.447	0.000	4520	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	56525	0	63.111	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	8.865	3391	6280	1.007	1.239	
39)		Toxaphene...	8.314f	8.904	23317	39801	7.196	4.767	
40)		Toxaphene...	8.583	9.100	2463	28697	1.028	6.158	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.447	0.000	4520	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

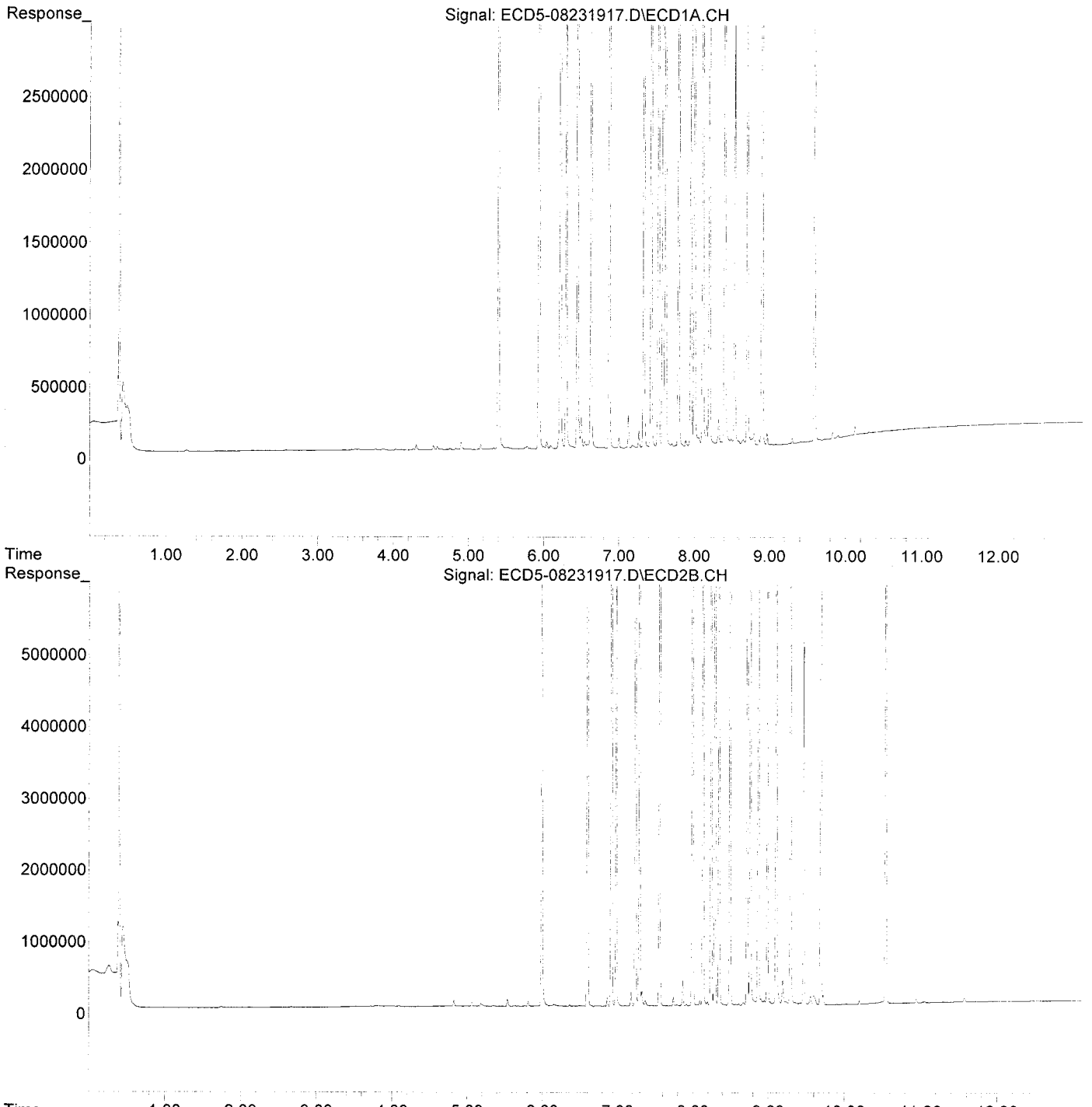
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	10370774	18809716	51.397	52.732	
4)		b-BHC	6.296	6.977	4410789	7929442	48.801	50.102	
5)		Heptachlor	6.629	7.288	9286546	15998647	51.223	52.287	
6)		d-BHC	6.446	7.231	10162400	18561571	51.667	52.632	
7)		Aldrin	6.870	7.553	10415223	17743229	52.750	53.867	
8)		Heptachlo...	7.330	7.991	9218950	15454788	50.054	51.371	
9)		trans-Chl...	7.427	8.130	9449748	15882363	51.110	50.690	
10)		cis-Chlor...	7.523	8.238	8891439	15040020	48.835	51.640	
11)		Endosulfa...	7.620	8.288	8454858	14042285	49.682	51.030	
12)		4,4'-DDE	7.583	8.343	9669653	16358741	51.290	52.655	
13)		Dieldrin	7.792	8.489	9566646	15751562	49.832	51.789	
14)		Endrin	7.957	8.715	7744641	11999227	52.675	53.135	
15)		4,4'-DDD	8.003	8.758	8044313	14118585	51.192	55.105	
16)		Endosulfa...	8.114	8.862	7639079	12307624	53.193	53.371	
17)		4,4'-DDT	8.201	8.984	6427421	10243965	53.759	54.092	
18)		Endrin Al...	8.403	9.098	7471981	12138603	60.652	61.144	
19)		Endosulfa...	8.704	9.289	8022310	12945664	51.764	51.972	
20)		Methoxychlor	8.537	9.463	3243218	5107379	55.369	56.272	
21)		Endrin Ke...	8.898	9.687	8897553	13958232	53.356	54.245	
23)		Hexachlor...	0.000	3.713f	0	6424	N.D.	0.017	#
24)		Hexachlor...	5.778	6.482f	19713	11218	0.112	0.036	#
25)		Oxychlordane	7.266	7.916	116203	18640	0.706	0.068	#
26)		2,4'-DDE	7.330	8.130	9218950	15882363	71.876	74.868	
27)		trans-Non...	7.523	8.193	8891439	52587	49.340	0.174	#
28)		2,4'-DDD	7.704	8.489	22276	15751562	0.195	83.402	#
29)		2,4'-DDT	7.889	8.715	44366	11999227	0.404	67.283	#
30)		cis-Nonac...	8.003	8.758	8044313	14118585	38.746	42.089	
31)		Mirex	8.653	9.687	40409	13958232	0.322	75.015	#
32)		Chlordane...	7.427	8.130	9449748	15882363	479.936	438.926	
33)		Chlordane...	7.523	8.238	8891439	15040020	354.745	495.323	
34)		Chlordane...	0.000	8.899	0	79876	N.D.	8.909	#
35)		Chlordane...	3.446	0.000	5075	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.489f	8891439	15751562	9927.388	6002.292	
37)		Toxaphene...	7.792	0.000	9566646	0	5923.845	N.D.	#
38)		Toxaphene...	8.114	8.862	7639079	12307624	2268.479	2428.346	
39)		Toxaphene...	8.324f	8.899	184731	79876	57.013	9.566	#
40)		Toxaphene...	8.537f	9.098	3243218	12138603	1352.952	2604.650	#
41)		Toxaphene...	8.653	9.463	40409	5107379	12.769	1075.192	#
42)		Toxaphene...	3.446	0.000	5075	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean
MJB 8/26/19

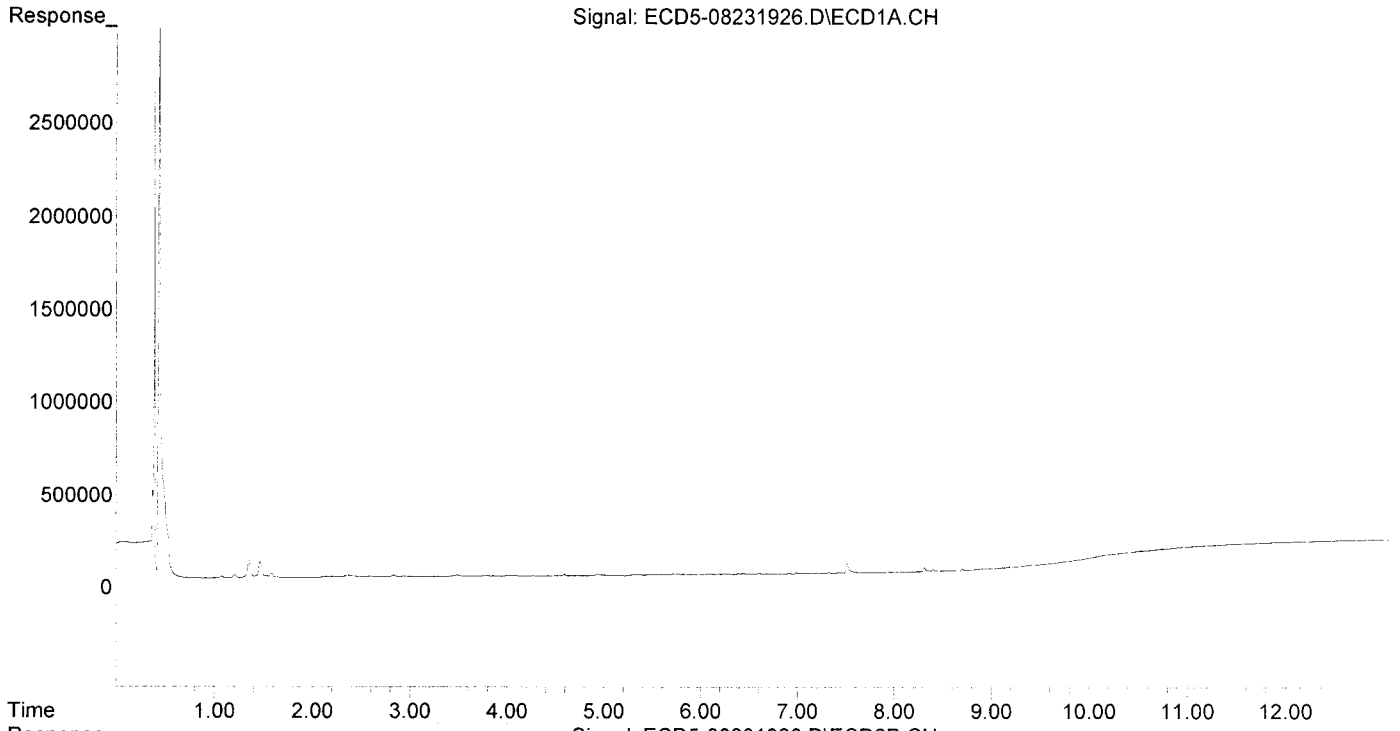
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)		d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)		cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)		Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)		Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.141	0	95737	N.D. Q-pu	0.451	#
27)		trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)		Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)		Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)		Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)		Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)		Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)		Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)		Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)		Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

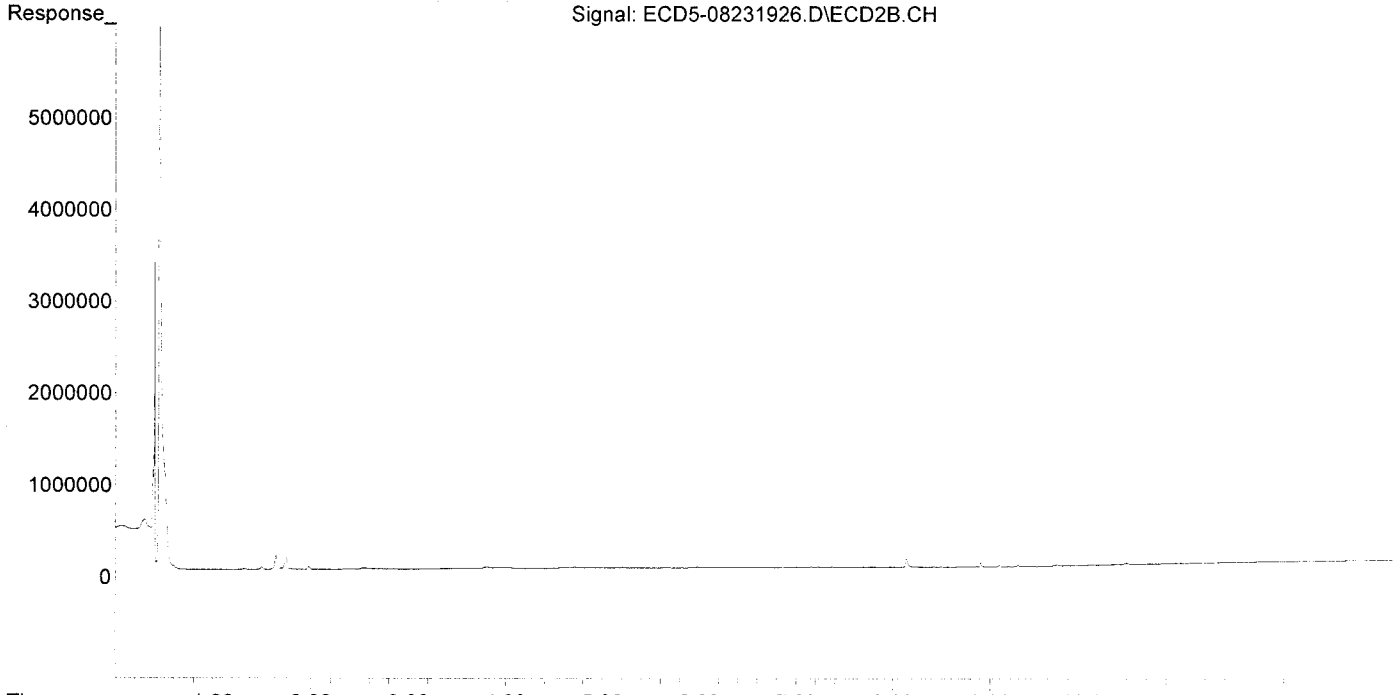
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

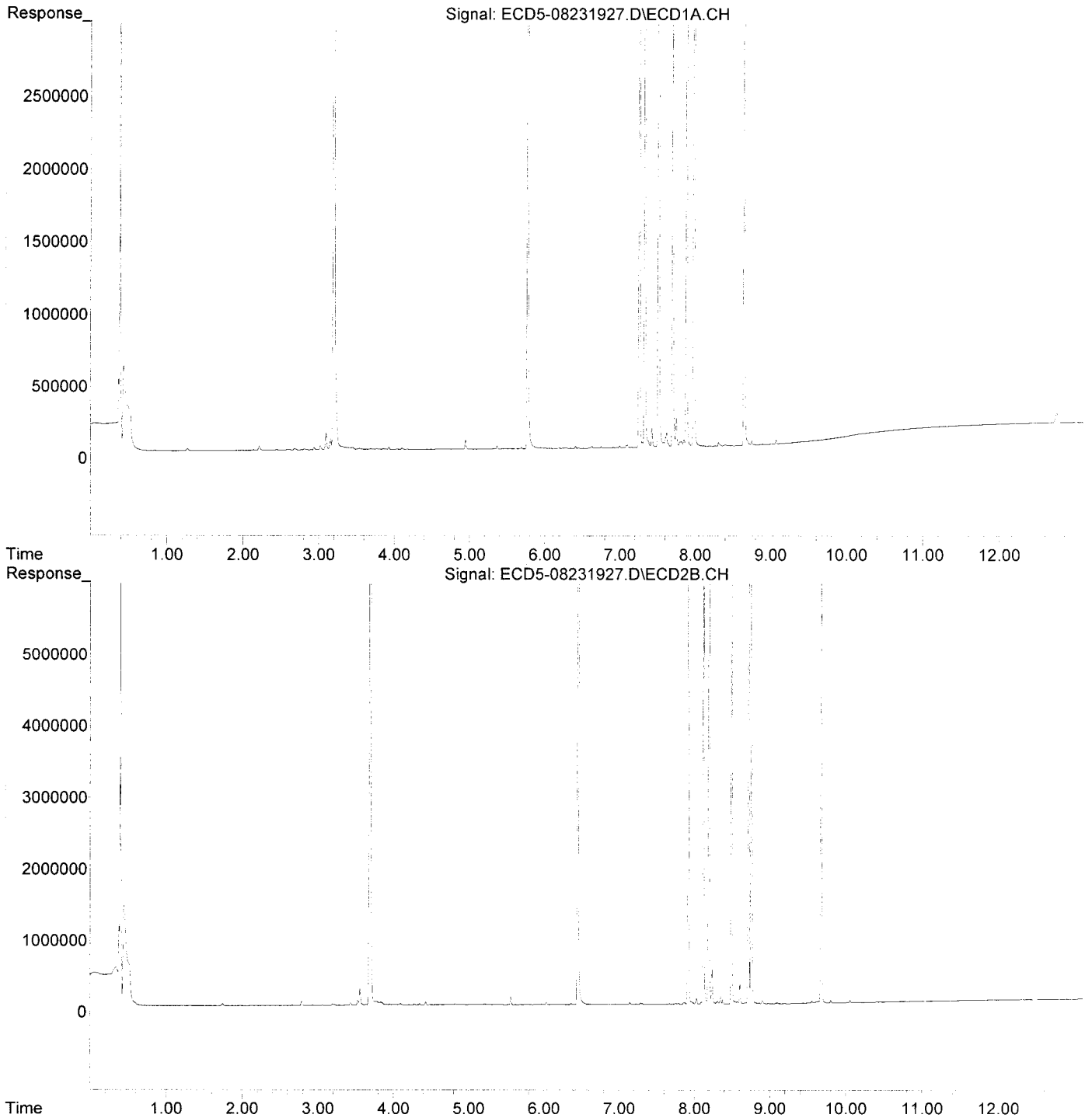
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

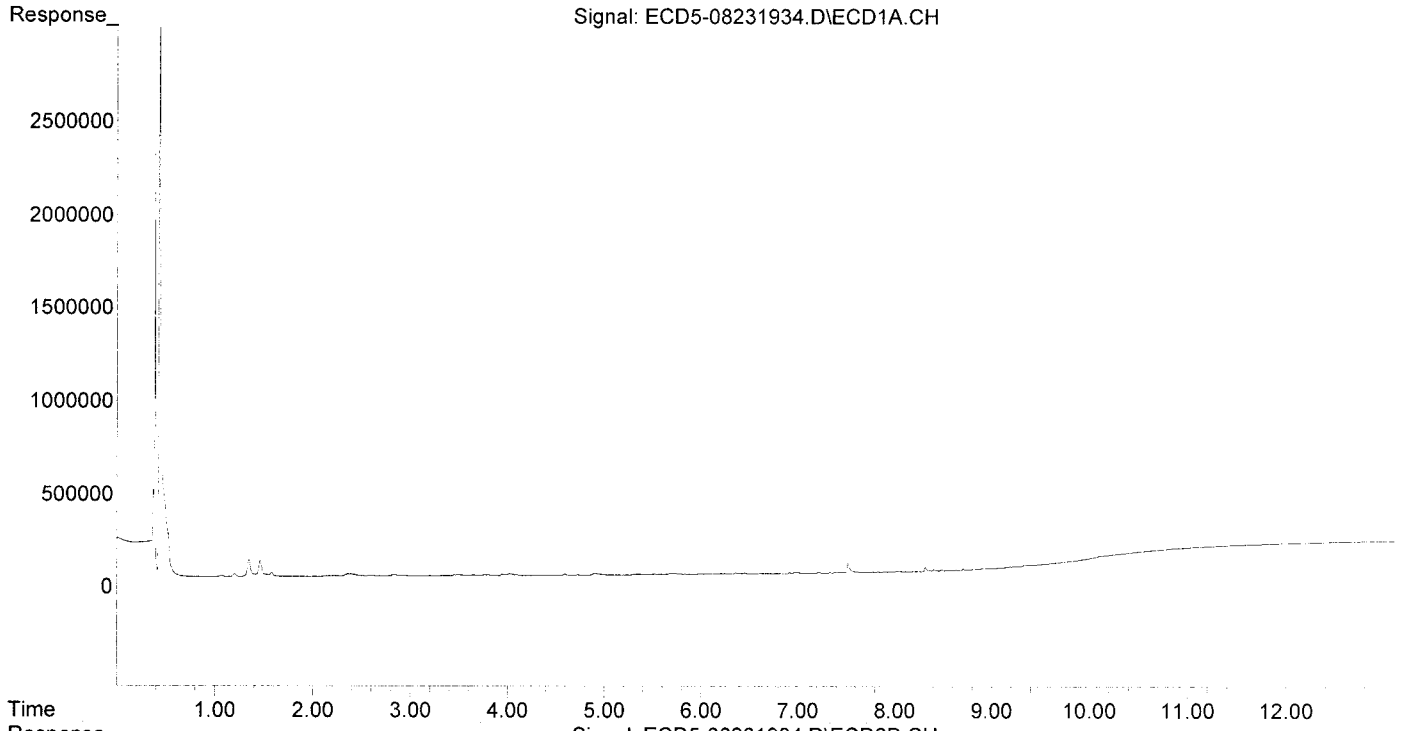
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)		d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)		cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)		Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)		Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)		Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)		Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)		trans-Non...	7.519	0.000	51396	0 ~~87346.414~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)		Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)		Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)		Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)		Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)		Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)		Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)		Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)		Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

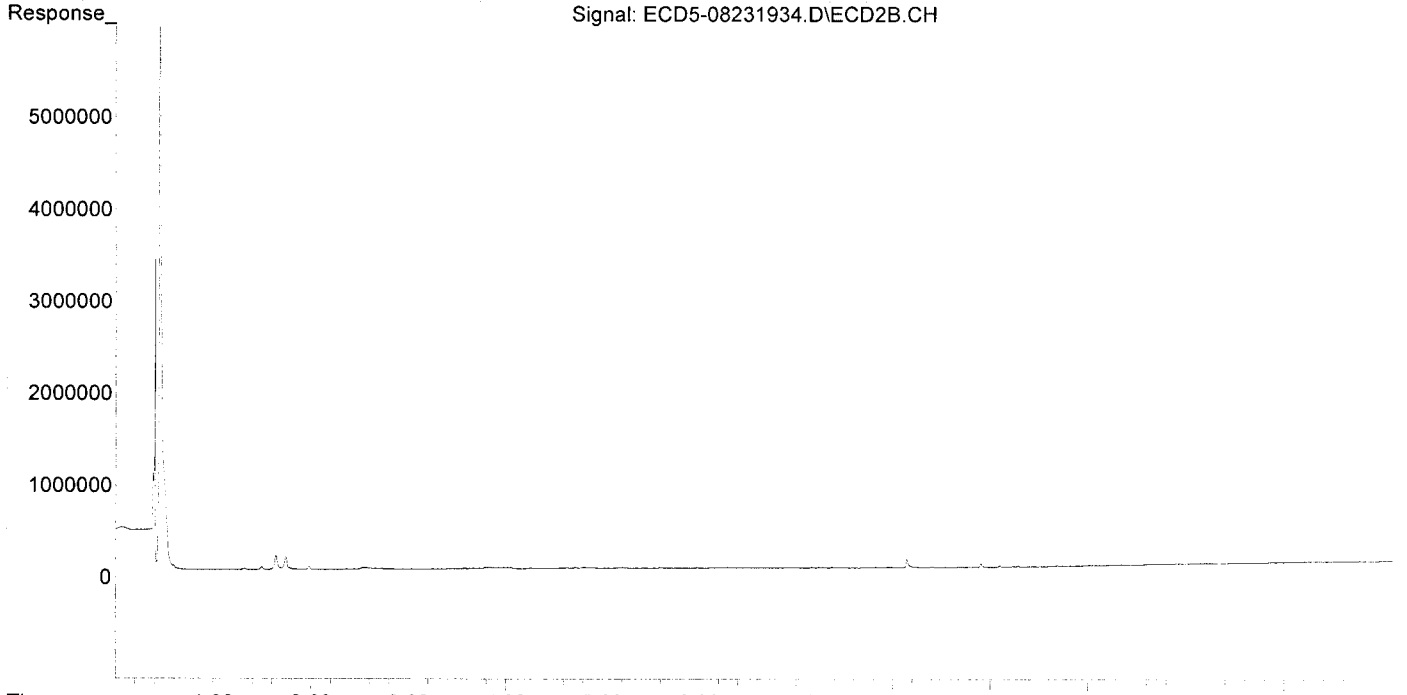
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

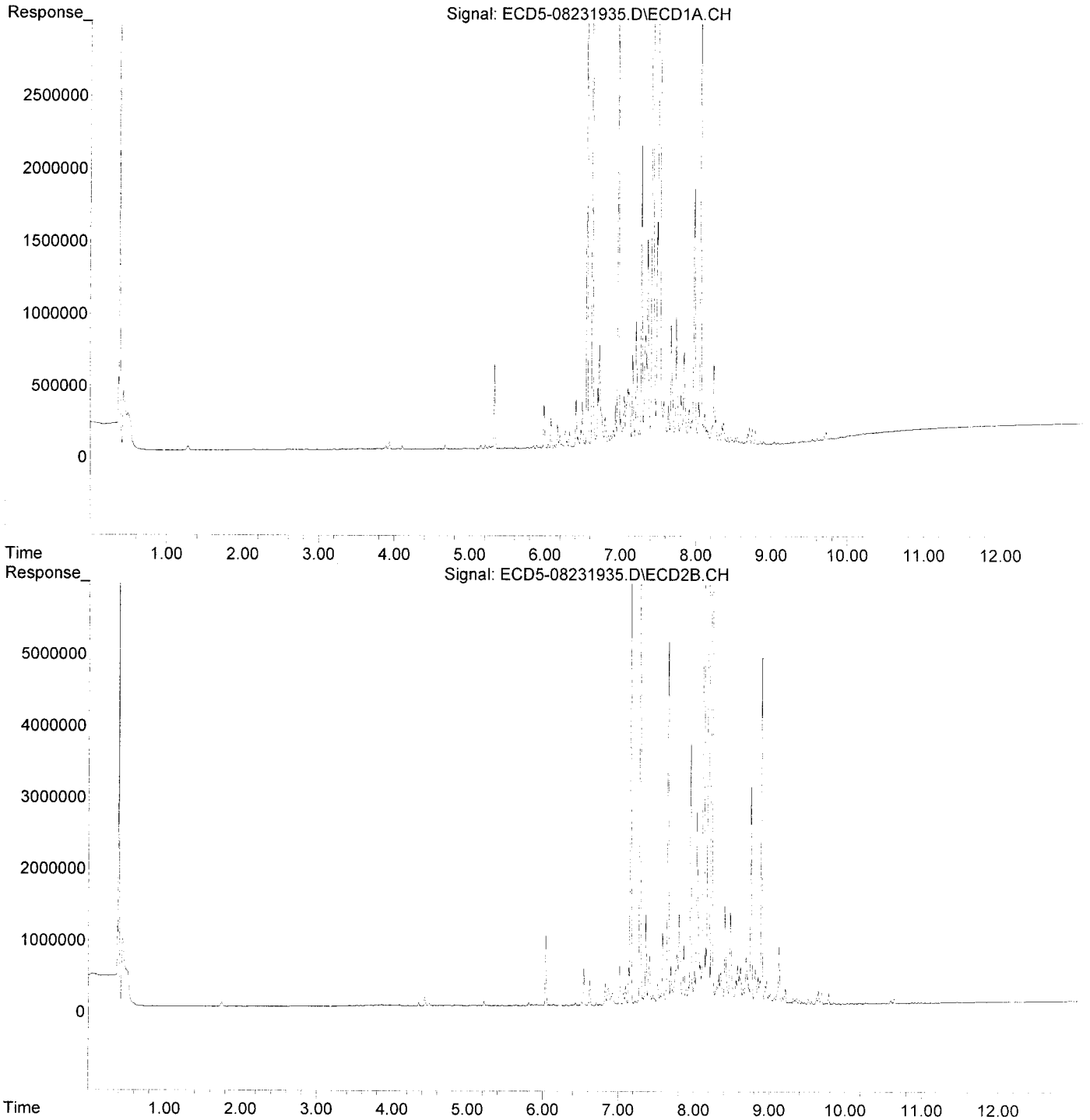
E 542.20

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/12/19

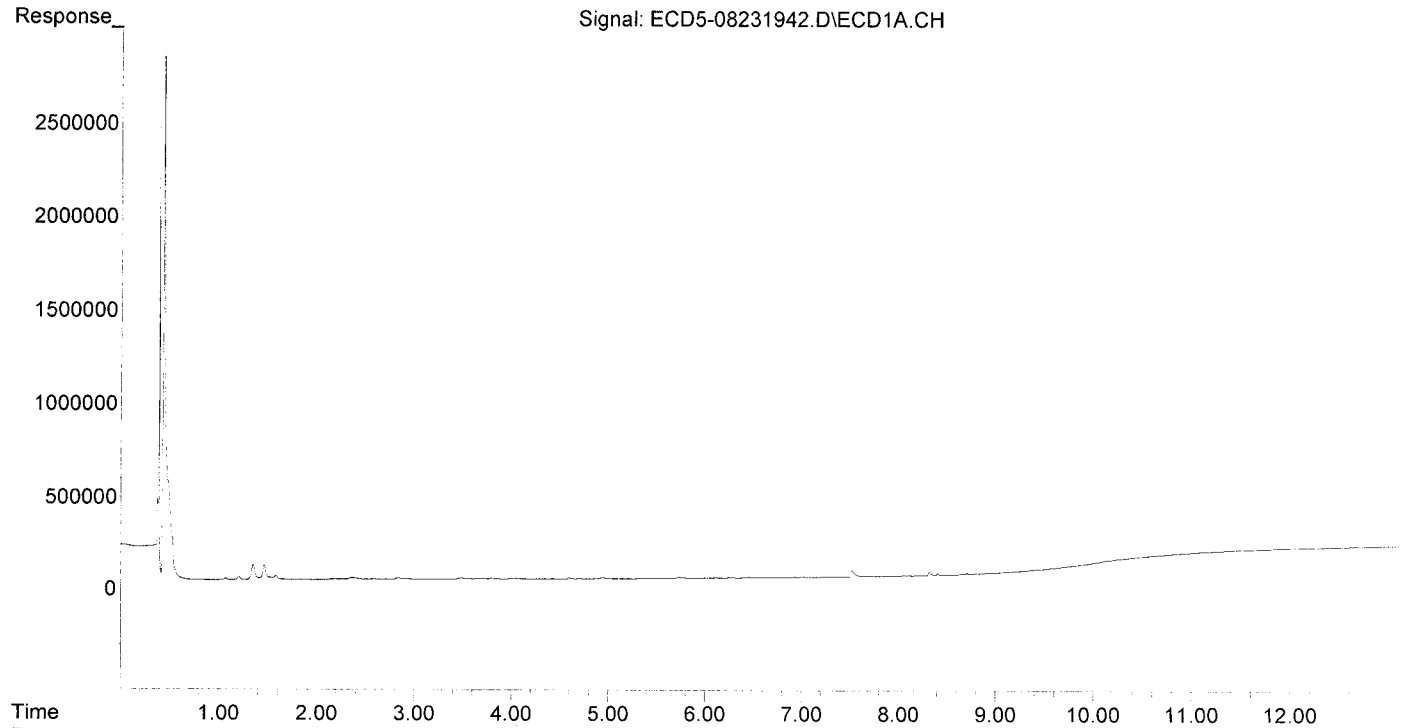
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q2d	0.344	#
27)		trans-Non...	7.522	0.000	38316	0	~~87346.487~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.644	9.687	766	7207	0.006	0.039	#
32)		Chlordane...	7.425	8.145	1693	72982	0.086	2.017	#
33)		Chlordane...	7.522	0.000	38316	0	1.529	N.D.	#
34)		Chlordane...	8.049	8.906	2785	37528	0.482	4.186	#
35)		Chlordane...	3.451	0.000	3890	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	0.000	38316	0	42.781	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	0.000	2505	0	0.744	N.D.	#
39)		Toxaphene...	8.318f	8.906	18960	37528	5.852	4.495	
40)		Toxaphene...	8.540f	9.100	2018	13686	0.842	2.937	#
41)		Toxaphene...	8.644	0.000	766	0	0.242	N.D.	#
42)		Toxaphene...	3.451	0.000	3890	0	NoCal	N.D.	

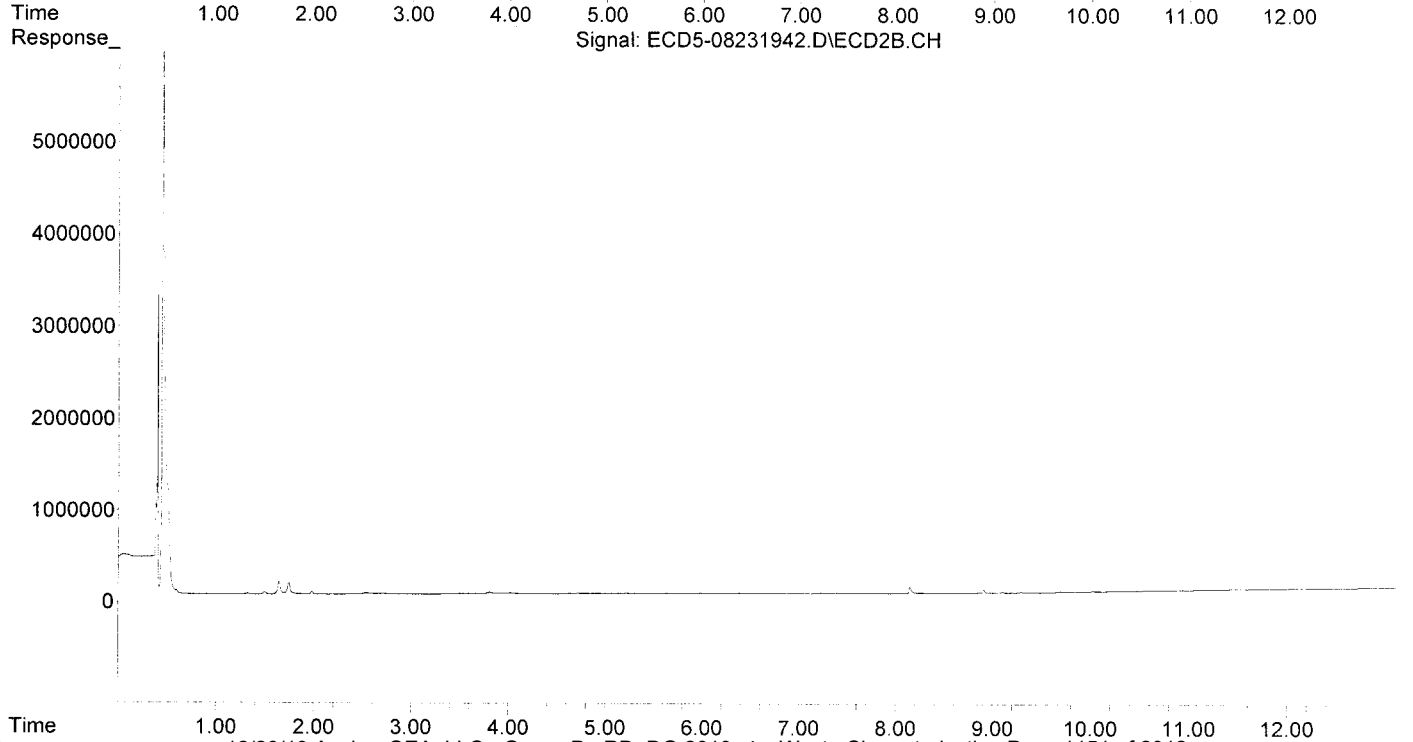
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5611	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	22246	40017	0.158	0.223	#
		Target Compounds							
2)		a-BHC	5.949	6.596	3272	7415	0.014	0.018	
3)		g-BHC	6.247f	6.907	6246	18839	0.031	0.053	#
4)		b-BHC	6.296	6.966	11447	24200	0.127	0.153	
5)		Heptachlor	6.631	7.293	23849	45477	0.132	0.149	
6)		d-BHC	6.434	7.233	11867	47325	0.060	0.134	#
7)		Aldrin	6.871	7.582f	53004	119759	0.268	0.364	
8)		Heptachlo...	7.358f	7.984	250185	414973	1.358	1.379	
9)		trans-Chl...	7.445	8.135	315388	332556	1.706	1.061	
10)		cis-Chlor...	7.501f	8.220	426074	475646	2.340	1.633	
11)		Endosulfa...	7.629	8.295	511717	592244	3.007	2.152	
12)		4,4'-DDE	7.551f	8.359	359885	753065	1.909	2.424	
13)		Dieldrin	7.794	8.506	766286	726725	3.992	2.389	#
14)		Endrin	7.934f	8.711	607064	1341537	4.129	5.941	#
15)		4,4'-DDD	8.021	8.761	679517	912025	4.324	3.560	
16)		Endosulfa...	8.105	8.848	1638713	2447077	11.411	10.611	
17)		4,4'-DDT	8.184	8.976	1416015	960593	11.844	5.508	#
18)		Endrin Al...	8.392	9.091	1088580	2275708	8.285	11.454	
19)		Endosulfa...	8.709	9.291	549140	929201	3.543	3.730	
20)		Methoxychlor	8.543	9.470	549172	2364076	9.376	27.518	#
21)		Endrin Ke...	8.893	9.712f	380224	458705	2.280	1.783	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.813f	6.462	3660	6563	0.021	0.021	
25)		Oxychlordane	7.265	7.936	334880	406205	2.035	1.483	
26)		2,4'-DDE	7.358f	8.112	250185	466633	1.951	2.200	
27)		trans-Non...	7.501	8.205	426074	457454	2.062	1.517	
28)		2,4'-DDD	7.712	8.506	575777	726725	5.045	3.848	
29)		2,4'-DDT	7.898	8.711	911632	1341537	8.311	7.522	
30)		cis-Nonac...	7.982	8.761	1096031	912025	5.279	2.719	#
31)		Mirex	8.641	9.712f	1546722	458705	12.338	2.465	#
32)		Chlordane...	7.445	8.135	315388	332556	16.018	9.191	#
33)		Chlordane...	7.501	8.220	426074	475646	16.999	15.665	
34)		Chlordane...	8.046f	8.915	705731	4045258	122.075	451.184	#
35)		Chlordane...	3.453	0.000	2732	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	426074	1252556	475.717	477.299	
37)		Toxaphene...	7.794	8.813	766286	1618562	474.499	491.811	
38)		Toxaphene...	8.105	8.848	1638713	2447077	486.627	482.818	
39)		Toxaphene...	8.346	8.915	1570667	4045258	484.751	484.472	
40)		Toxaphene...	8.573	9.091	1186452	2275708	494.944	488.312	
41)		Toxaphene...	8.641	9.470	1546722	2364076	488.760	497.679	
42)		Toxaphene...	3.453	0.000	2732	0	NoCal	N.D.	

A B

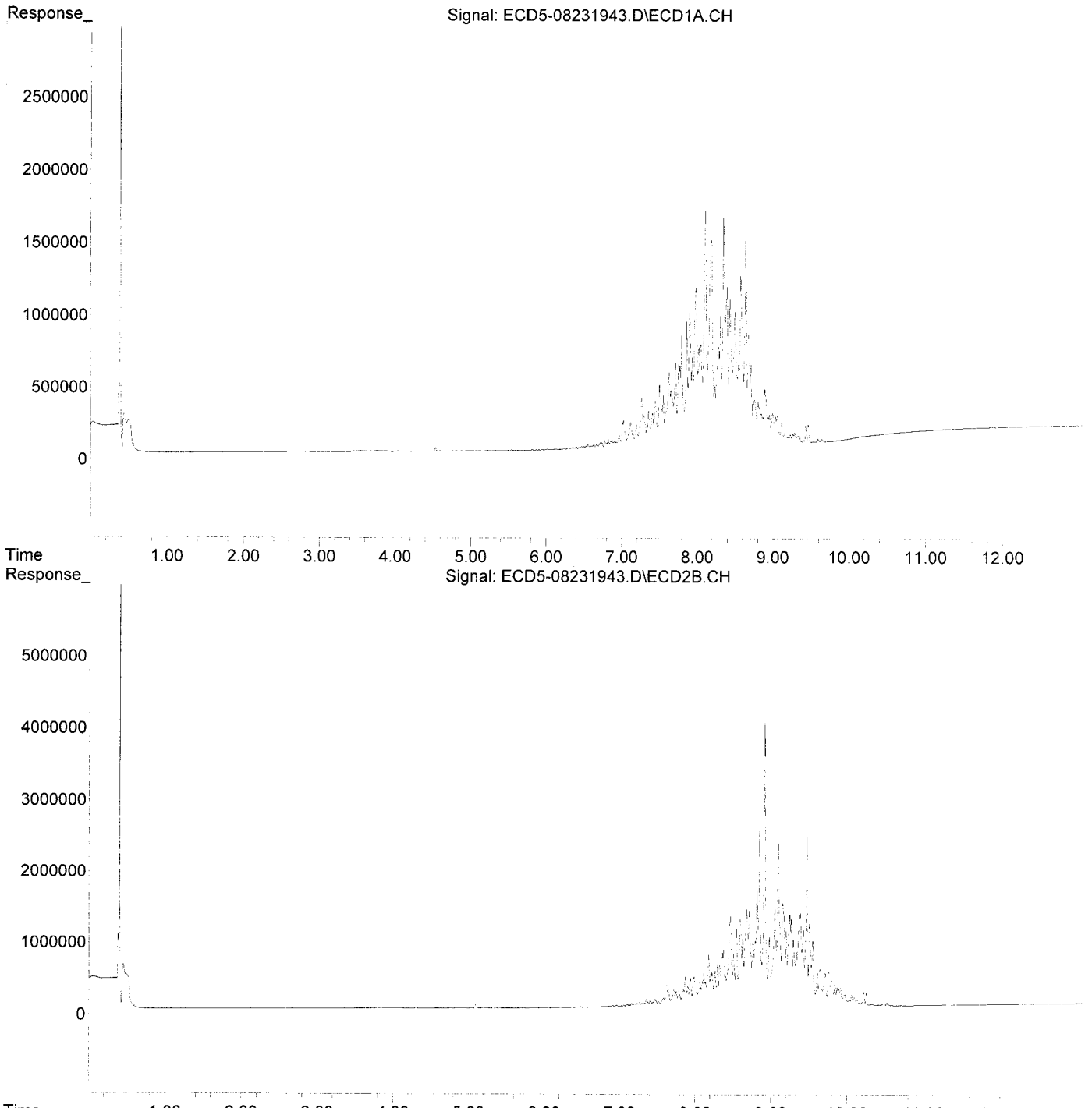
484.22 487.07

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

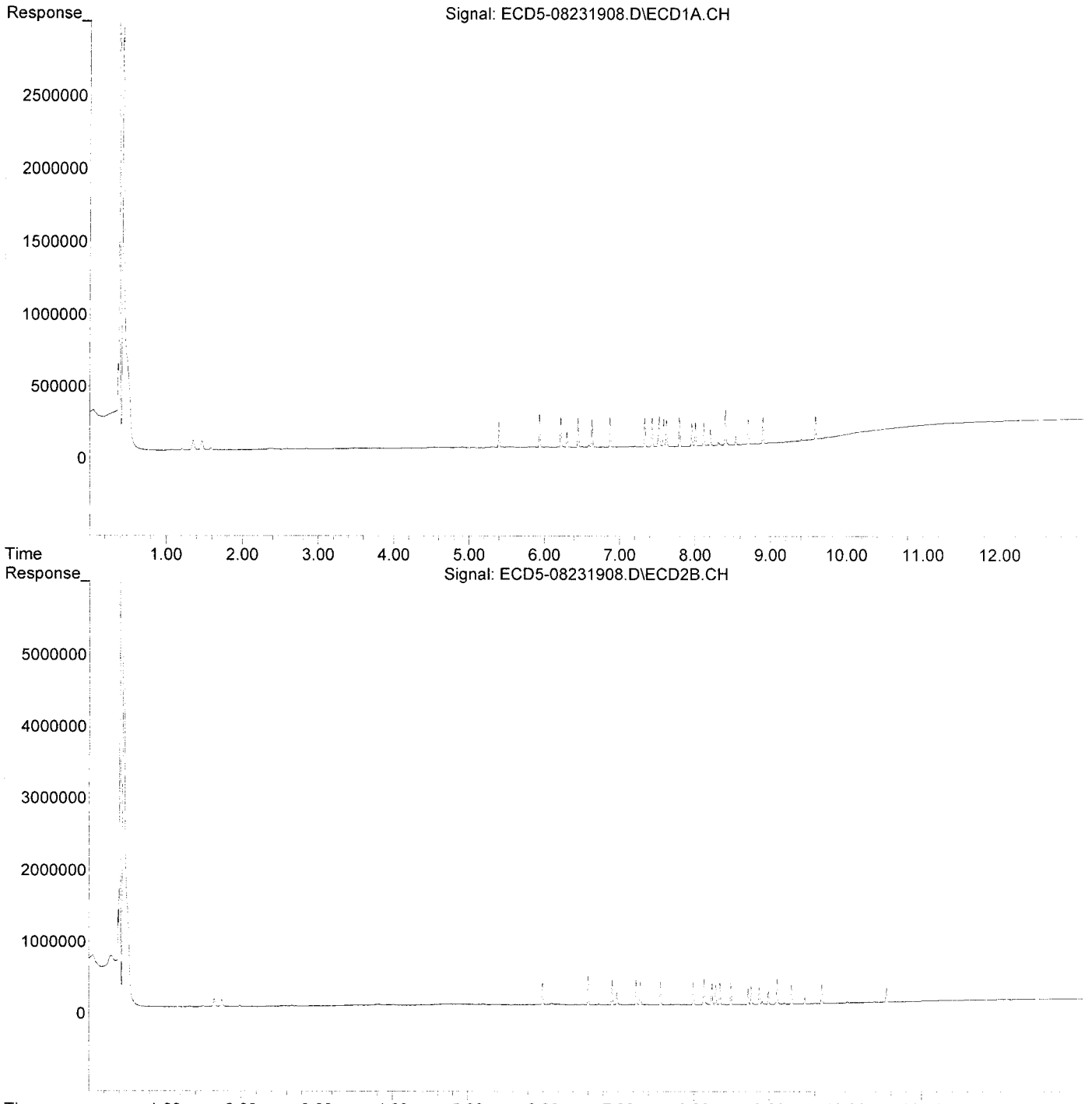
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	1.028	0.988	
4)		b-BHC	6.300	6.980	104326	176262	1.154	1.114	
5)		Heptachlor	6.635	7.292	192066	309811	1.059	1.013	
6)		d-BHC	6.450	7.234	199840	349123	1.016	0.990	
7)		Aldrin	6.875	7.557	205523	317466	1.041	0.964	
8)		Heptachlo...	7.335	7.994	200503	310098	1.089	1.031	
9)		trans-Chl...	7.433	8.135	197202	364142	1.067	1.162	
10)		cis-Chlor...	7.528	8.241	209780	299422	1.152	1.028	
11)		Endosulfa...	7.625	8.291	185217	278874	1.088	1.013	
12)		4,4'-DDE	7.586	8.346	193435	298463	1.026	0.961	
13)		Dieldrin	7.796	8.491	197721	296684	1.030	0.975	
14)		Endrin	7.961	8.718	156412	222882	1.064	0.987	
15)		4,4'-DDD	8.007	8.760	164956	251549	1.050	0.982	
16)		Endosulfa...	8.118	8.865	158139	232156	1.101	1.007	
17)		4,4'-DDT	8.205	8.986	113897	179700	0.953	1.008	
18)		Endrin Al...	8.407	9.101	241285	348624	1.050	1.058	
19)		Endosulfa...	8.708	9.292	176097	265797	1.136	1.067	
20)		Methoxychlor	8.543	9.466	59659	95155	1.019	0.994	
21)		Endrin Ke...	8.901	9.690	177552	255763	1.065	0.994	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.335	8.135	200503	364142	1.563	1.717	
27)		trans-Non...	7.528	0.000	209780	0	0.855	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	296684	N.D.	1.571	#
29)		2,4'-DDT	0.000	8.718	0	222882	N.D.	1.250	#
30)		cis-Nonac...	8.007f	8.760	164956	251549	0.795	0.750	
31)		Mirex	0.000	9.690	0	255763	N.D.	1.375	#
32)		Chlordane...	7.433	8.135	197202	364142	10.016	10.063	
33)		Chlordane...	7.528	8.241	209780	299422	8.370	9.861	
34)		Chlordane...	0.000	8.903	0	37787	N.D.	4.214	#
35)		Chlordane...	3.445	0.000	4502	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	209780	296684	234.222	113.054	#
37)		Toxaphene...	7.796	0.000	197721	0	122.432	N.D.	#
38)		Toxaphene...	8.118	8.865	158139	232156	46.960	45.805	
39)		Toxaphene...	8.312f	8.903	20859	37787	6.438	4.525	
40)		Toxaphene...	8.543f	9.101	59659	348624	24.888	74.806	#
41)		Toxaphene...	0.000	9.466	0	95155	N.D.	20.032	#
42)		Toxaphene...	3.445	0.000	4502	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

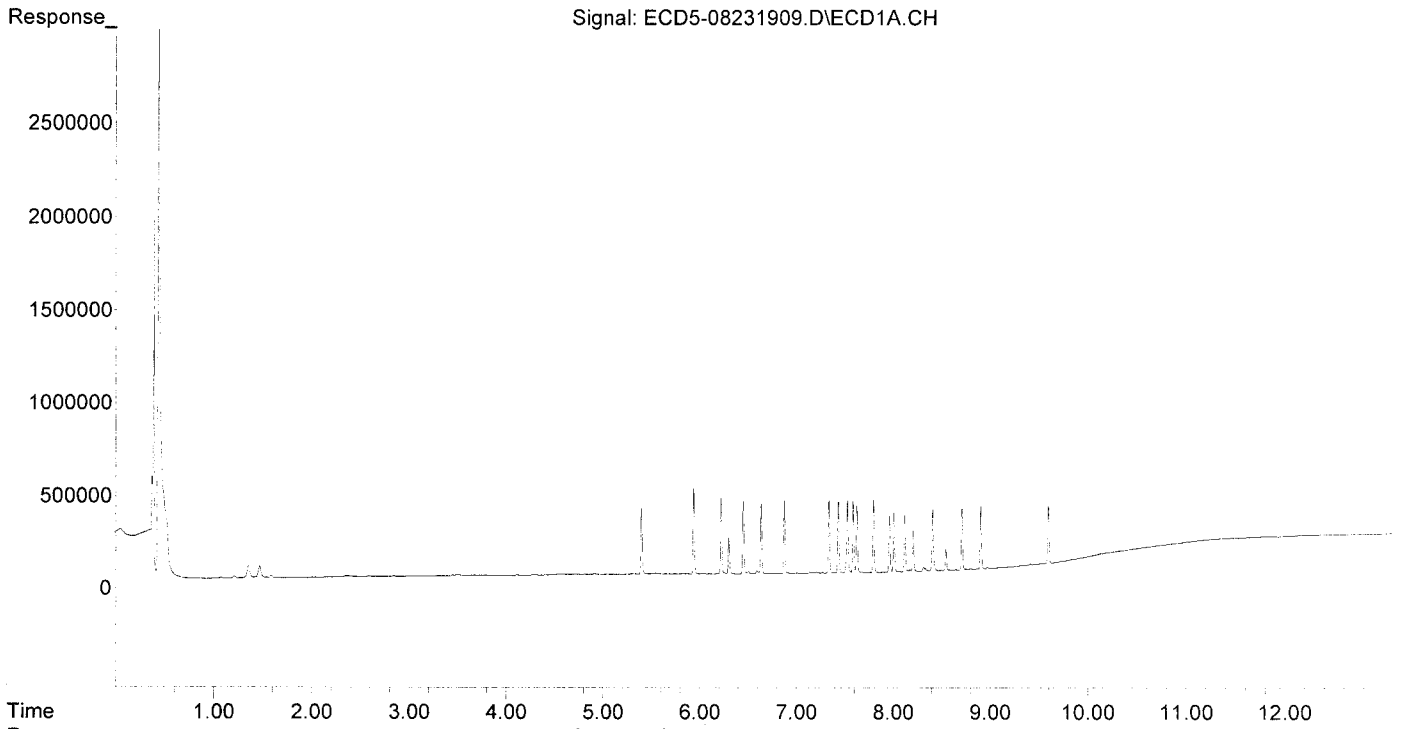
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	2.012	1.937	
4)		b-BHC	6.300	6.980	194168	335260	2.148	2.118	
5)		Heptachlor	6.635	7.291	369615	586765	2.039	1.918	
6)		d-BHC	6.450	7.233	386980	669122	1.967	1.897	
7)		Aldrin	6.875	7.556	399550	635458	2.024	1.929	
8)		Heptachlo...	7.335	7.993	392052	606240	2.129	2.015	
9)		trans-Chl...	7.432	8.135	382271	644454	2.068	2.057	
10)		cis-Chlor...	7.527	8.241	389999	579667	2.142	1.990	
11)		Endosulfa...	7.625	8.291	357368	540442	2.100	1.964	
12)		4,4'-DDE	7.586	8.345	388618	598066	2.061	1.925	
13)		Dieldrin	7.796	8.491	395728	583812	2.061	1.919	
14)		Endrin	7.960	8.718	298515	424889	2.030	1.881	
15)		4,4'-DDD	8.006	8.760	314622	488120	2.002	1.905	
16)		Endosulfa...	8.118	8.864	299106	462256	2.083	2.005	
17)		4,4'-DDT	8.204	8.986	218190	341782	1.825	1.948	
18)		Endrin Al...	8.407	9.101	328182	477694	1.795	1.763	
19)		Endosulfa...	8.707	9.291	322163	498767	2.079	2.002	
20)		Methoxychlor	8.542	9.465	111466	178074	1.903	2.018	
21)		Endrin Ke...	8.901	9.689	331269	493110	1.987	1.916	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.271	0.000	4709	0	0.029	N.D.	#
26)		2,4'-DDE	7.335	8.135	392052	644454	3.057	3.038	
27)		trans-Non...	7.527	0.000	389999	0	1.861	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	583812	N.D.	3.091	#
29)		2,4'-DDT	0.000	8.718	0	424889	N.D.	2.382	#
30)		cis-Nonac...	8.006f	8.760	314622	488120	1.515	1.455	
31)		Mirex	8.657	9.689	1737	493110	0.014	2.650	#
32)		Chlordane...	7.432	8.135	382271	644454	19.415	17.810	
33)		Chlordane...	7.527	8.241	389999	579667	15.560	19.091	
34)		Chlordane...	8.065	8.903	2900	40429	0.502	4.509	#
35)		Chlordane...	3.445	0.000	4897	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	389999	583812	435.438	222.468	#
37)		Toxaphene...	7.796	0.000	395728	0	245.042	N.D.	#
38)		Toxaphene...	8.118	8.864	299106	462256	88.822	91.205	
39)		Toxaphene...	8.312f	8.903	21365	40429	6.594	4.842	
40)		Toxaphene...	8.582	9.101	2314	477694	0.965	102.502	#
41)		Toxaphene...	8.657	9.465	1737	178074	0.549	37.488	#
42)		Toxaphene...	3.445	0.000	4897	0	NoCal	N.D.	

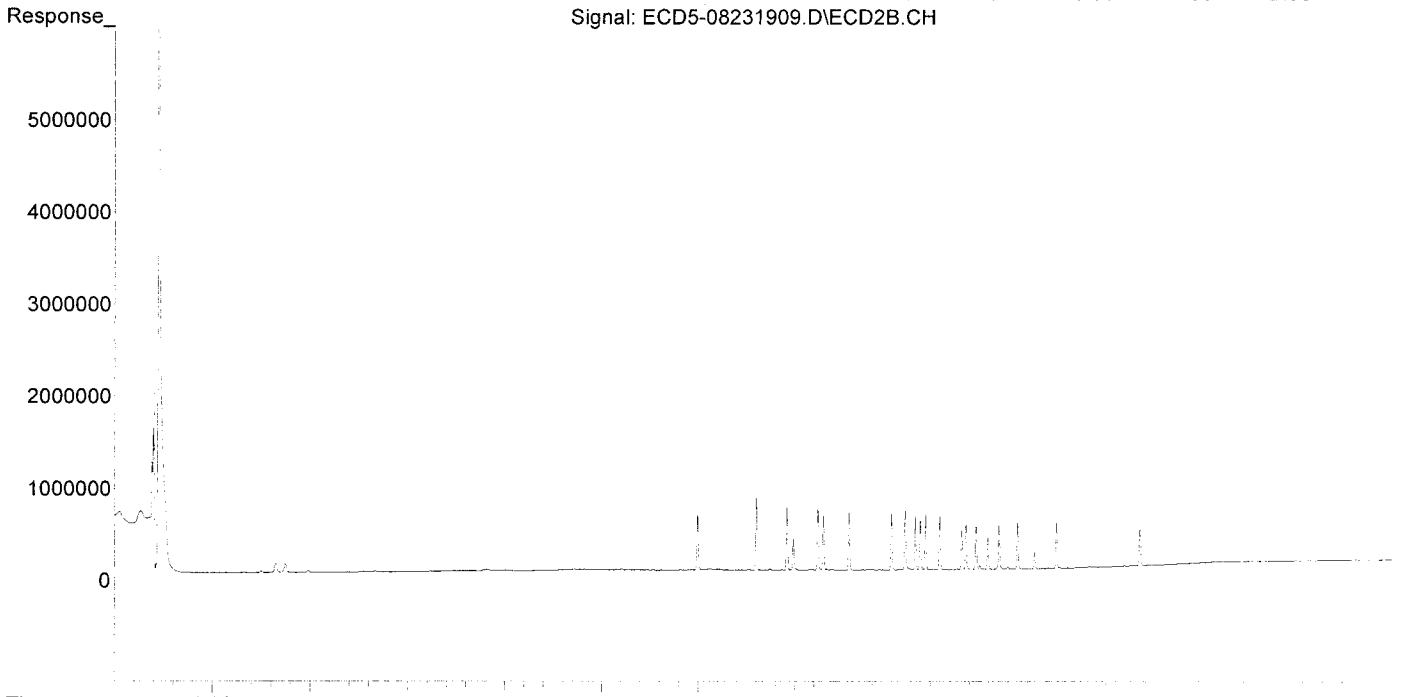
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

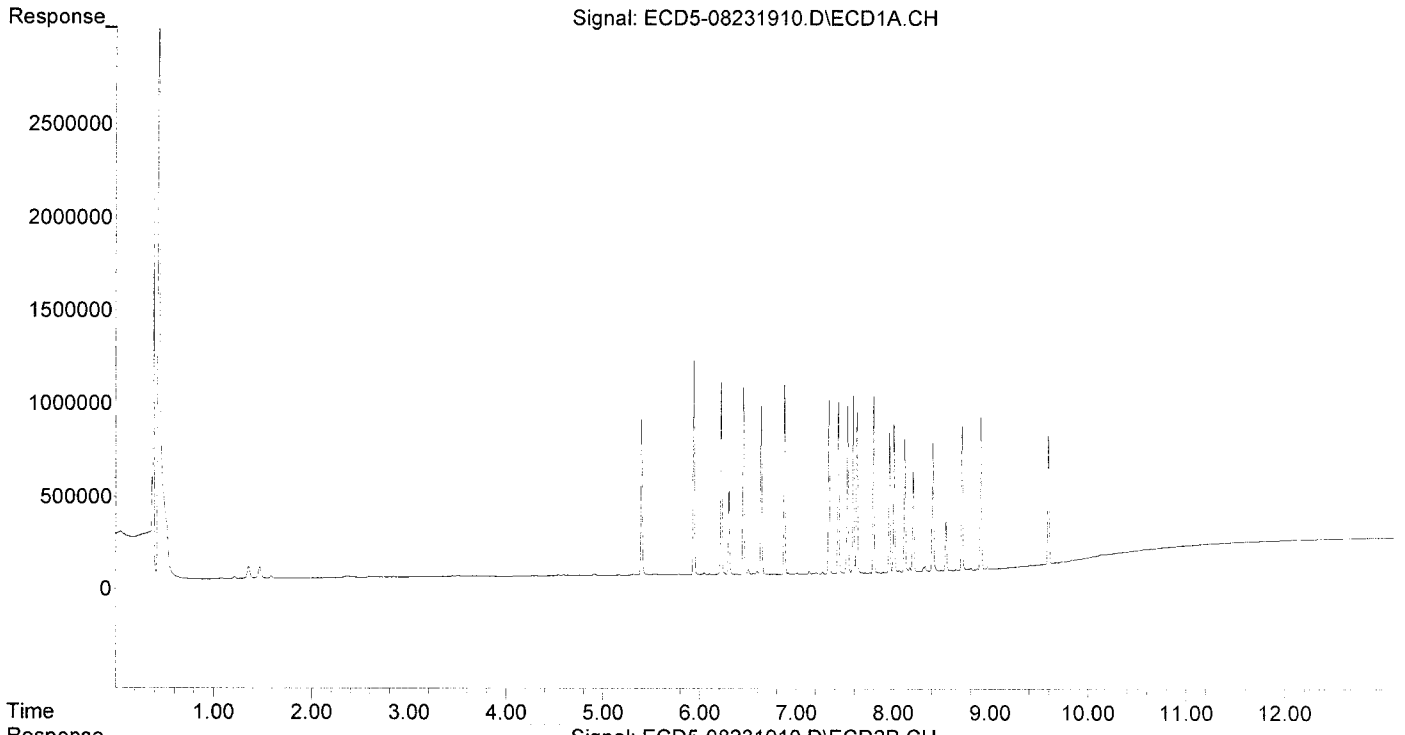
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	5.059	4.885	
4)	b-BHC	6.300	6.980	456954	788630	5.056	4.983	
5)	Heptachlor	6.635	7.291	899091	1508218	4.959	4.929	
6)	d-BHC	6.449	7.233	1004012	1717450	5.105	4.870	
7)	Aldrin	6.875	7.556	1012733	1600995	5.129	4.860	
8)	Heptachlo...	7.335	7.994	923620	1455941	5.015	4.839	
9)	trans-Chl...	7.432	8.134	926577	1502119	5.011	4.794	
10)	cis-Chlor...	7.528	8.241	908795	1434855	4.991	4.927	
11)	Endosulfa...	7.624	8.290	861509	1327191	5.062	4.823	
12)	4,4'-DDE	7.586	8.345	953351	1487999	5.057	4.790	
13)	Dieldrin	7.796	8.491	972009	1462538	5.063	4.809	
14)	Endrin	7.960	8.718	738953	1092877	5.026	4.839	
15)	4,4'-DDD	8.007	8.759	790498	1208642	5.031	4.717	
16)	Endosulfa...	8.118	8.865	709544	1096359	4.941	4.754	
17)	4,4'-DDT	8.205	8.986	553009	873653	4.625	5.010	
18)	Endrin Al...	8.407	9.101	683393	1045869	4.834	4.849	
19)	Endosulfa...	8.708	9.291	768798	1175908	4.961	4.721	
20)	Methoxychlor	8.542	9.466	270388	413802	4.616	4.904	
21)	Endrin Ke...	8.901	9.689	811384	1205004	4.866	4.683	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.782	0.000	4389	0	0.025	N.D.	#
25)	Oxychlordane	7.271	0.000	11672	0	0.071	N.D.	#
26)	2,4'-DDE	7.335	8.134	923620	1502119	7.201	7.081	
27)	trans-Non...	7.528	0.000	908795	0	4.756	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	1462538	N.D.	7.744	#
29)	2,4'-DDT	7.894	8.718	3329	1092877	0.030	6.128	#
30)	cis-Nonac...	8.007f	8.759	790498	1208642	3.808	3.603	
31)	Mirex	8.645	9.689	4292	1205004	0.034	6.476	#
32)	Chlordane...	7.432	8.134	926577	1502119	47.059	41.513	
33)	Chlordane...	7.528	8.241	908795	1434855	36.259	47.255	
34)	Chlordane...	8.063	8.903	7555	42265	1.307	4.714	#
35)	Chlordane...	3.446	0.000	4904	0	NoCal	N.D.	
36)	Toxaphene...	7.528f	8.491f	908795	1462538	1014.680	557.315	#
37)	Toxaphene...	7.796	0.000	972009	0	601.886	N.D.	#
38)	Toxaphene...	8.118	8.865	709544	1096359	210.704	216.316	
39)	Toxaphene...	8.328	8.903	27348	42265	8.440	5.062	#
40)	Toxaphene...	8.542f	9.101	270388	1045869	112.796	224.418	#
41)	Toxaphene...	8.645	9.466	4292	413802	1.356	87.113	#
42)	Toxaphene...	3.446	0.000	4904	0	NoCal	N.D.	

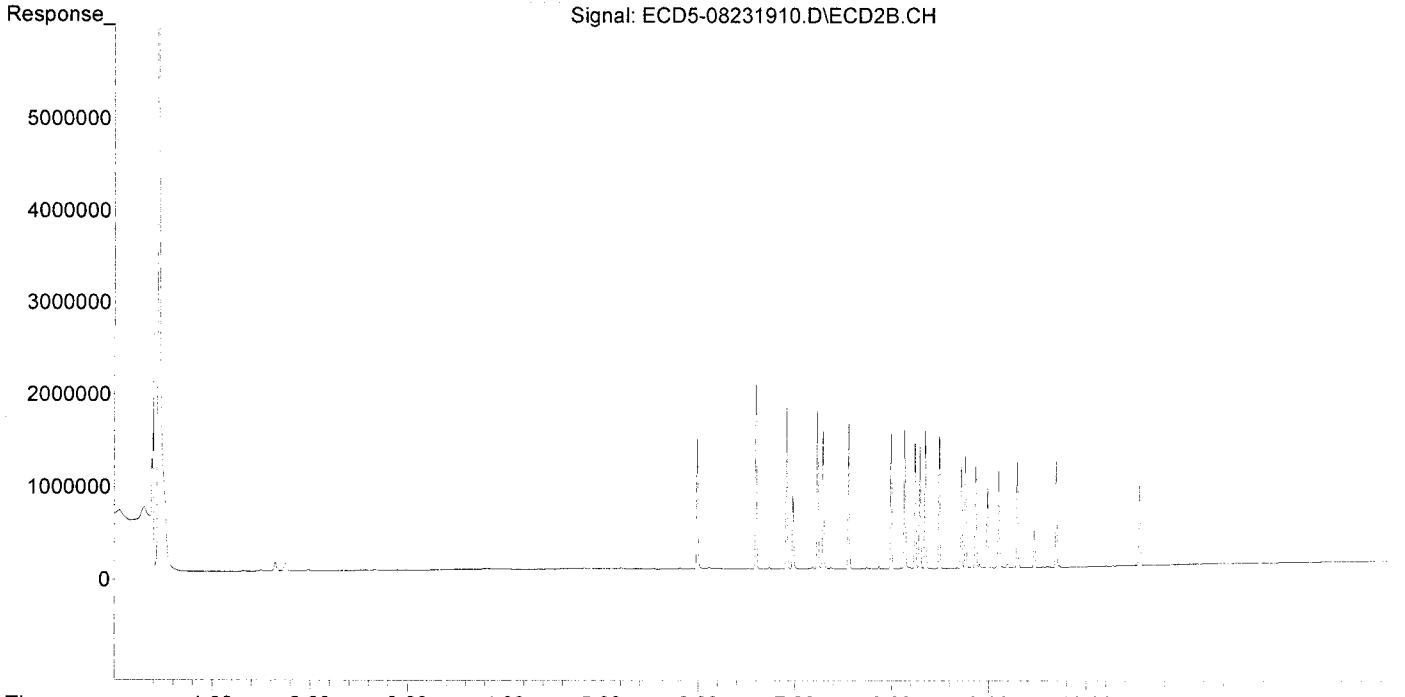
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

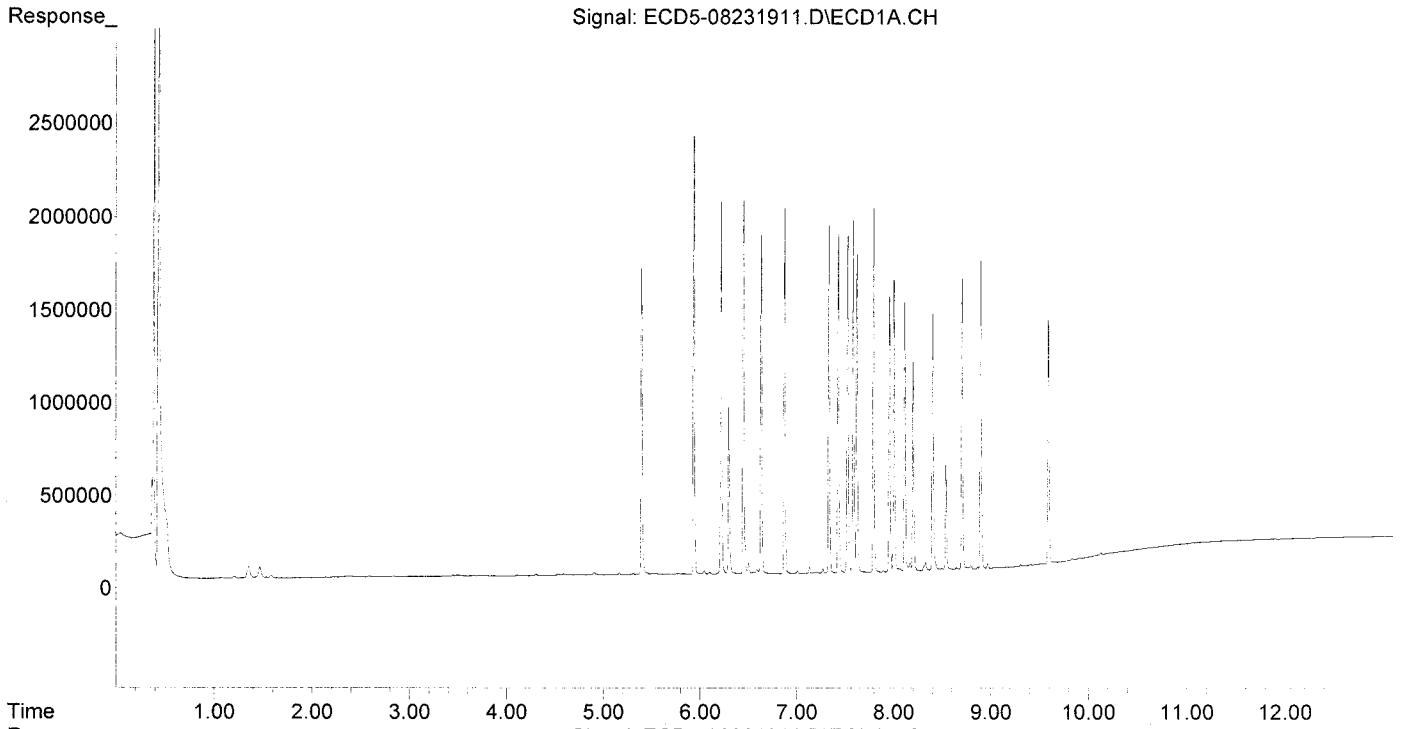
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
		Target Compounds							
2)		a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)		g-BHC	6.220	6.915	2034859	3476733	10.085	9.747	
4)		b-BHC	6.299	6.980	910875	1580847	10.078	9.989	
5)		Heptachlor	6.634	7.291	1819621	3005915	10.037	9.824	
6)		d-BHC	6.449	7.234	2006493	3613517	10.201	10.246	
7)		Aldrin	6.875	7.556	2010802	3341093	10.184	10.143	
8)		Heptachlo...	7.335	7.994	1865428	2959301	10.128	9.837	
9)		trans-Chl...	7.431	8.134	1847996	3002782	9.995	9.584	
10)		cis-Chlor...	7.527	8.241	1843346	2859573	10.124	9.818	
11)		Endosulfa...	7.623	8.291	1709332	2724272	10.044	9.900	
12)		4,4'-DDE	7.585	8.346	1890931	3049792	10.030	9.817	
13)		Dieldrin	7.795	8.491	1954890	2898866	10.183	9.531	
14)		Endrin	7.960	8.718	1475508	2244483	10.036	9.939	
15)		4,4'-DDD	8.006	8.760	1565974	2425496	9.965	9.467	
16)		Endosulfa...	8.117	8.864	1448080	2243610	10.083	9.729	
17)		4,4'-DDT	8.204	8.987	1146556	1841119	9.590	10.491	
18)		Endrin Al...	8.406	9.101	1375129	2125028	10.716	10.650	
19)		Endosulfa...	8.707	9.292	1553540	2424584	10.024	9.734	
20)		Methoxychlor	8.542	9.465	561706	883069	9.590	10.543	
21)		Endrin Ke...	8.900	9.689	1664380	2496985	9.981	9.704	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.781	0.000	6414	0	0.036	N.D.	#
25)		Oxychlordane	7.271	0.000	23125	0	0.141	N.D.	#
26)		2,4'-DDE	7.335	8.134	1865428	3002782	14.544	14.155	
27)		trans-Non...	7.527	0.000	1843346	0	9.974	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	2898866	N.D.	15.349	#
29)		2,4'-DDT	7.893	8.718	6940	2244483	0.063	12.585	#
30)		cis-Nonac...	8.006f	8.760	1565974	2425496	7.543	7.231	
31)		Mirex	8.644	9.689	9584	2496985	0.076	13.419	#
32)		Chlordane...	7.431	8.134	1847996	3002782	93.856	82.985	
33)		Chlordane...	7.527	8.241	1843346	2859573	73.545	94.176	
34)		Chlordane...	8.062	8.903	15147	46214	2.620	5.154	#
35)		Chlordane...	3.446	0.000	4445	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	1843346	2898866	2058.116	1104.642	#
37)		Toxaphene...	7.795	0.000	1954890	0	1210.504	N.D.	#
38)		Toxaphene...	8.117	8.864	1448080	2243610	430.018	442.674	
39)		Toxaphene...	8.328	8.903	47046	46214	14.520	5.535	#
40)		Toxaphene...	8.542f	9.101	561706	2125028	234.323	455.980	#
41)		Toxaphene...	8.644	9.465	9584	883069	3.029	185.901	#
42)		Toxaphene...	3.446	0.000	4445	0	NoCal	N.D.	

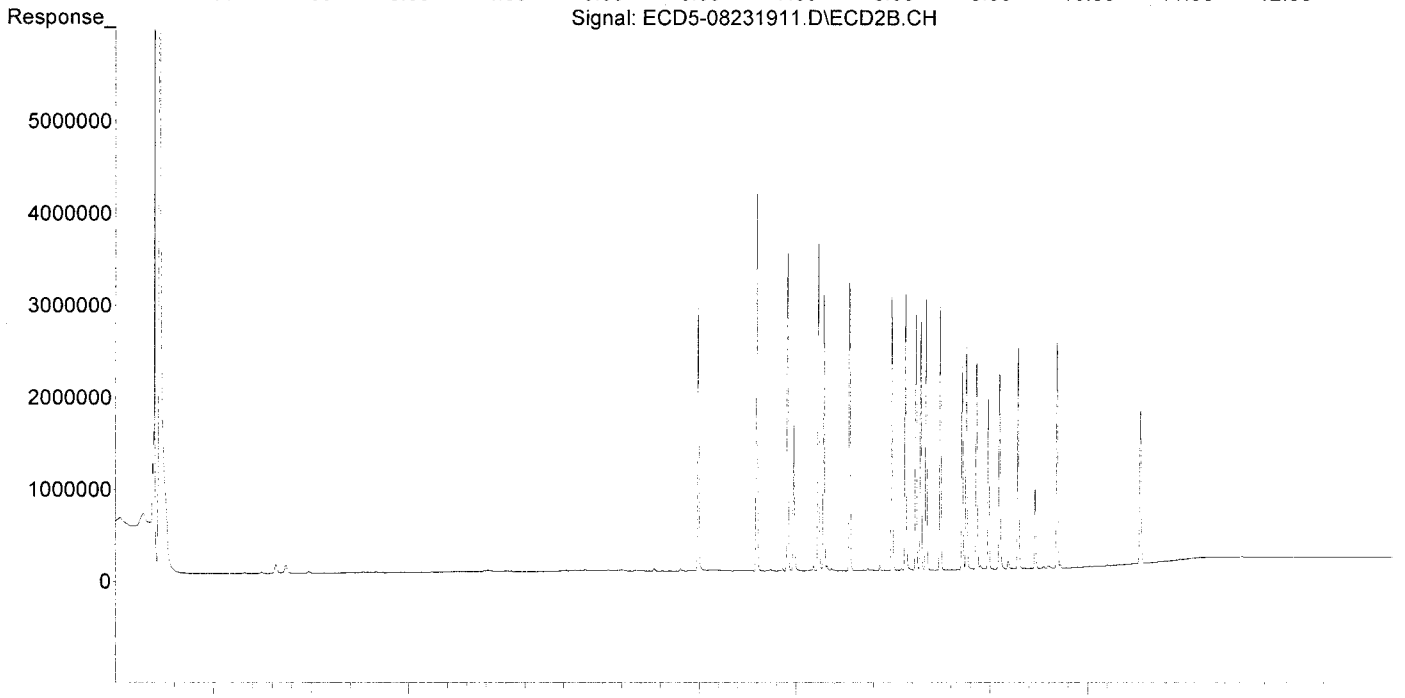
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

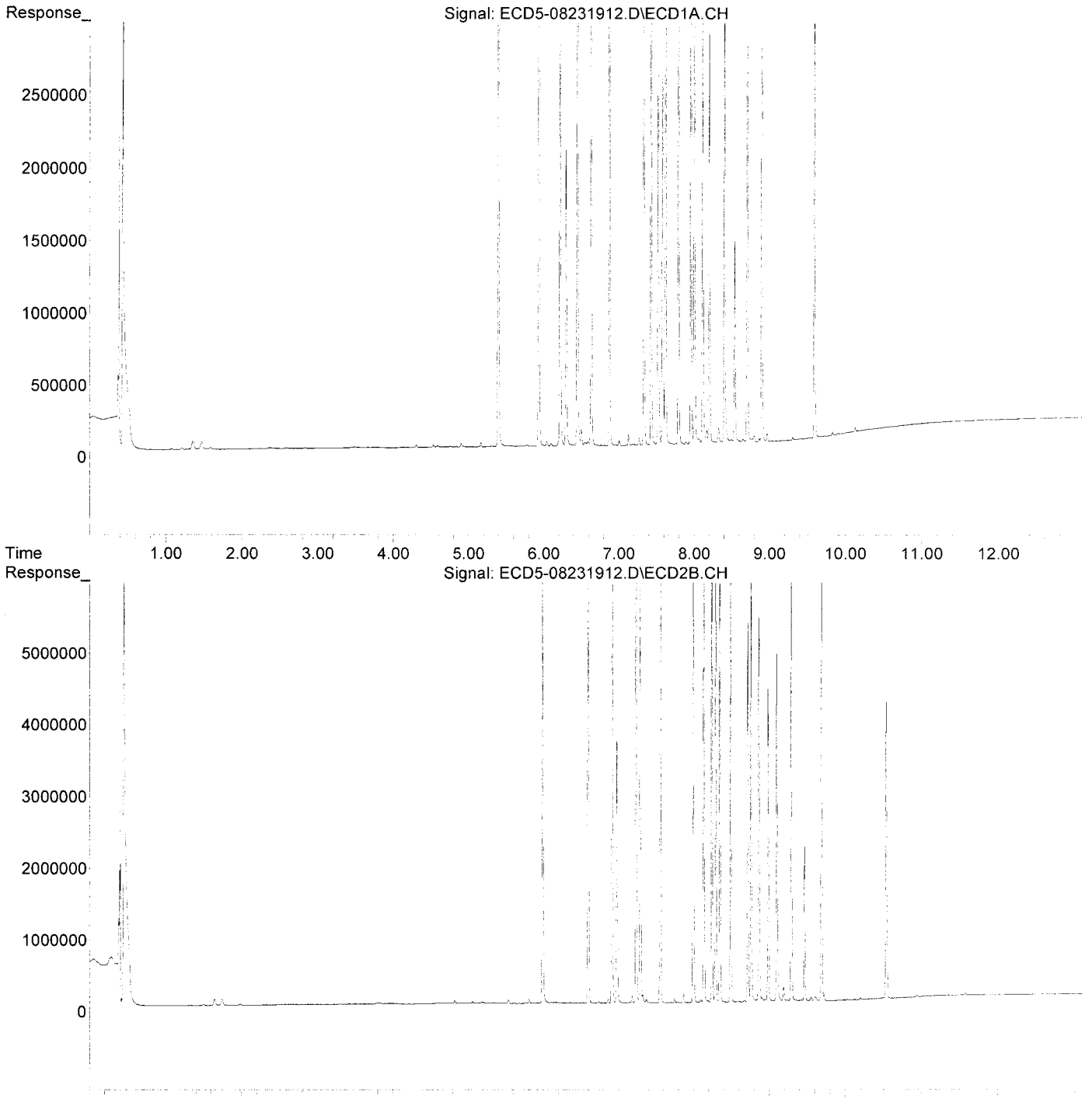
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	8508386	24.164	23.853	
4)		b-BHC	6.297	6.978	2060378	3677155	22.796	23.234	
5)		Heptachlor	6.633	7.289	4314306	7282282	23.797	23.800	
6)		d-BHC	6.447	7.232	4667166	8247775	23.729	23.387	
7)		Aldrin	6.873	7.555	4845355	7878574	24.540	23.919	
8)		Heptachlo...	7.332	7.992	4344286	7064729	23.587	23.483	
9)		trans-Chl...	7.429	8.131	4401456	7157480	23.806	22.844	
10)		cis-Chlor...	7.525	8.239	4244413	6935857	23.312	23.814	
11)		Endosulfa...	7.621	8.288	4111285	6571512	24.158	23.881	
12)		4,4'-DDE	7.583	8.343	4571066	7501047	24.246	24.144	
13)		Dieldrin	7.792	8.489	4582306	7333890	23.869	24.113	
14)		Endrin	7.957	8.716	3508904	5325883	23.866	23.584	
15)		4,4'-DDD	8.004	8.758	3727035	6146469	23.718	23.990	
16)		Endosulfa...	8.115	8.862	3371864	5447602	23.479	23.623	
17)		4,4'-DDT	8.202	8.984	2924467	4480388	24.460	24.907	
18)		Endrin Al...	8.404	9.099	3119767	4848504	25.346	24.953	
19)		Endosulfa...	8.705	9.289	3645411	5978906	23.522	24.003	
20)		Methoxychlor	8.540	9.463	1390283	2166659	23.735	25.322	
21)		Endrin Ke...	8.899	9.688	4008958	5893691	24.041	22.904	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	7817	0	0.044	N.D.	#
25)		Oxychlordane	7.269	0.000	51278	0	0.312	N.D.	#
26)		2,4'-DDE	7.332	8.131	4344286	7157480	33.871	33.740	
27)		trans-Non...	7.525	8.192	4244413	24831	23.380	0.082	#
28)		2,4'-DDD	0.000	8.489	0	7333890	N.D.	38.832	#
29)		2,4'-DDT	7.891	8.716	15573	5325883	0.142	29.864	#
30)		cis-Nonac...	8.004	8.758	3727035	6146469	17.952	18.323	
31)		Mirex	8.651	9.688	18145	5893691	0.145	31.674	#
32)		Chlordane...	7.429	8.131	4401456	7157480	223.542	197.805	
33)		Chlordane...	7.525	8.239	4244413	6935857	169.341	228.423	
34)		Chlordane...	8.059	8.901	33094	57884	5.724	6.456	
35)		Chlordane...	3.446	0.000	4689	0	NoCal	N.D.	
36)		Toxaphene...	7.525f	8.489f	4244413	7333890	4738.933	2794.653	#
37)		Toxaphene...	7.792	0.000	4582306	0	2837.449	N.D.	#
38)		Toxaphene...	8.115	8.862	3371864	5447602	1001.299	1074.835	
39)		Toxaphene...	8.326f	8.901	104762	57884	32.332	6.932	#
40)		Toxaphene...	8.540f	9.099	1390283	4848504	579.975	1040.371	#
41)		Toxaphene...	8.651	9.463	18145	2166659	5.734	456.119	#
42)		Toxaphene...	3.446	0.000	4689	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

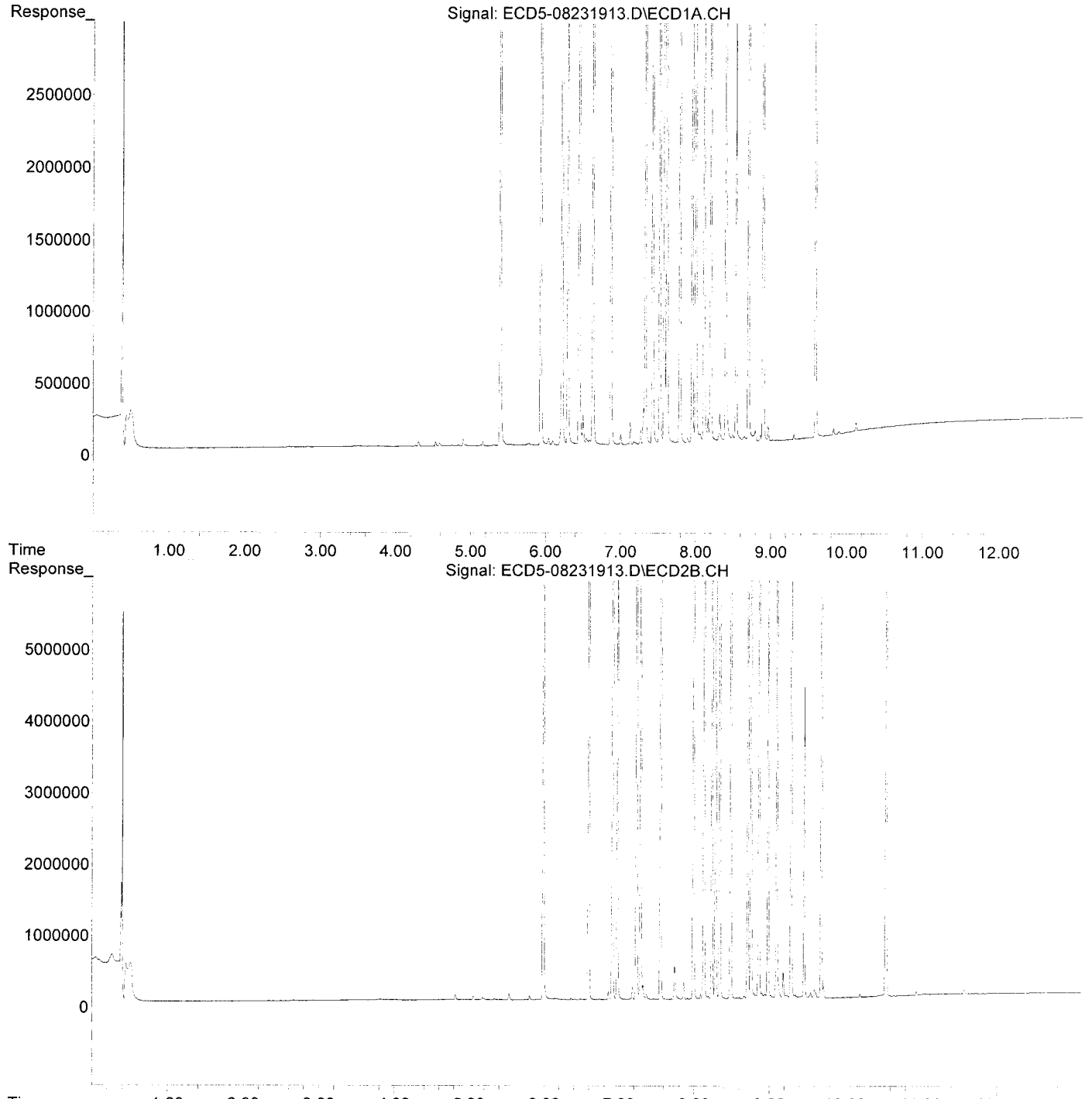
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	9785999	17381069	48.499	48.727	
4)		b-BHC	6.296	6.978	4100858	7516011	45.372	47.490	
5)		Heptachlor	6.632	7.290	8735158	14595143	48.182	47.700	
6)		d-BHC	6.447	7.232	9610742	17311258	48.862	49.087	
7)		Aldrin	6.873	7.555	9327672	16264416	47.242	49.377	
8)		Heptachlo...	7.332	7.992	8869300	14837794	48.156	49.320	
9)		trans-Chl...	7.428	8.131	8959305	14678719	48.457	46.848	
10)		cis-Chlor...	7.524	8.238	8622674	14002116	47.359	48.076	
11)		Endosulfa...	7.621	8.289	7984410	13712329	46.917	49.831	
12)		4,4'-DDE	7.583	8.344	9177389	15554706	48.679	50.067	
13)		Dieldrin	7.792	8.489	9386664	15434113	48.894	50.745	
14)		Endrin	7.957	8.716	6979572	11015379	47.471	48.778	
15)		4,4'-DDD	8.004	8.758	7726197	13159451	49.167	51.361	
16)		Endosulfa...	8.114	8.863	6840920	11534525	47.635	50.018	
17)		4,4'-DDT	8.202	8.985	6205369	9285492	51.902	49.430	
18)		Endrin Al...	8.404	9.099	6224451	10209034	50.697	51.836	
19)		Endosulfa...	8.705	9.289	7420576	12149289	47.882	48.775	
20)		Methoxychlor	8.540	9.464	2860683	4346199	48.839	48.597	
21)		Endrin Ke...	8.899	9.687	8190707	12954568	49.117	50.345	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	6.487f	17034	6623	0.097	0.021	#
25)		Oxychlordane	7.268	7.916	93115	13858	0.566	0.051	#
26)		2,4'-DDE	7.332	8.131	8869300	14678719	69.150	69.194	
27)		trans-Non...	7.524	8.193	8622674	44541	47.838	0.148	#
28)		2,4'-DDD	7.705	8.489	15706	15434113	0.138	81.721	#
29)		2,4'-DDT	7.890	8.716	32276	11015379	0.294	61.766	#
30)		cis-Nonac...	8.004	8.758	7726197	13159451	37.214	39.229	
31)		Mirex	8.653	9.687	33100	12954568	0.264	69.621	#
32)		Chlordane...	7.428	8.131	8959305	14678719	455.027	405.662	
33)		Chlordane...	7.524	8.238	8622674	14002116	344.022	461.141	
34)		Chlordane...	8.059	8.901	56505	76664	9.774	8.551	
35)		Chlordane...	3.445	0.000	3954	0	NoCal	N.D.	
36)		Toxaphene...	7.524f	8.489f	8622674	15434113	9627.309	5881.324	
37)		Toxaphene...	7.792	8.823	9386664	45987	5812.397	13.973	#
38)		Toxaphene...	8.114	8.863	6840920	11534525	2031.460	2275.810	
39)		Toxaphene...	8.325f	8.901	190344	76664	58.746	9.182	#
40)		Toxaphene...	8.540f	9.099	2860683	10209034	1193.372	2190.611	#
41)		Toxaphene...	8.653	9.464	33100	4346199	10.460	914.950	#
42)		Toxaphene...	3.445	0.000	3954	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

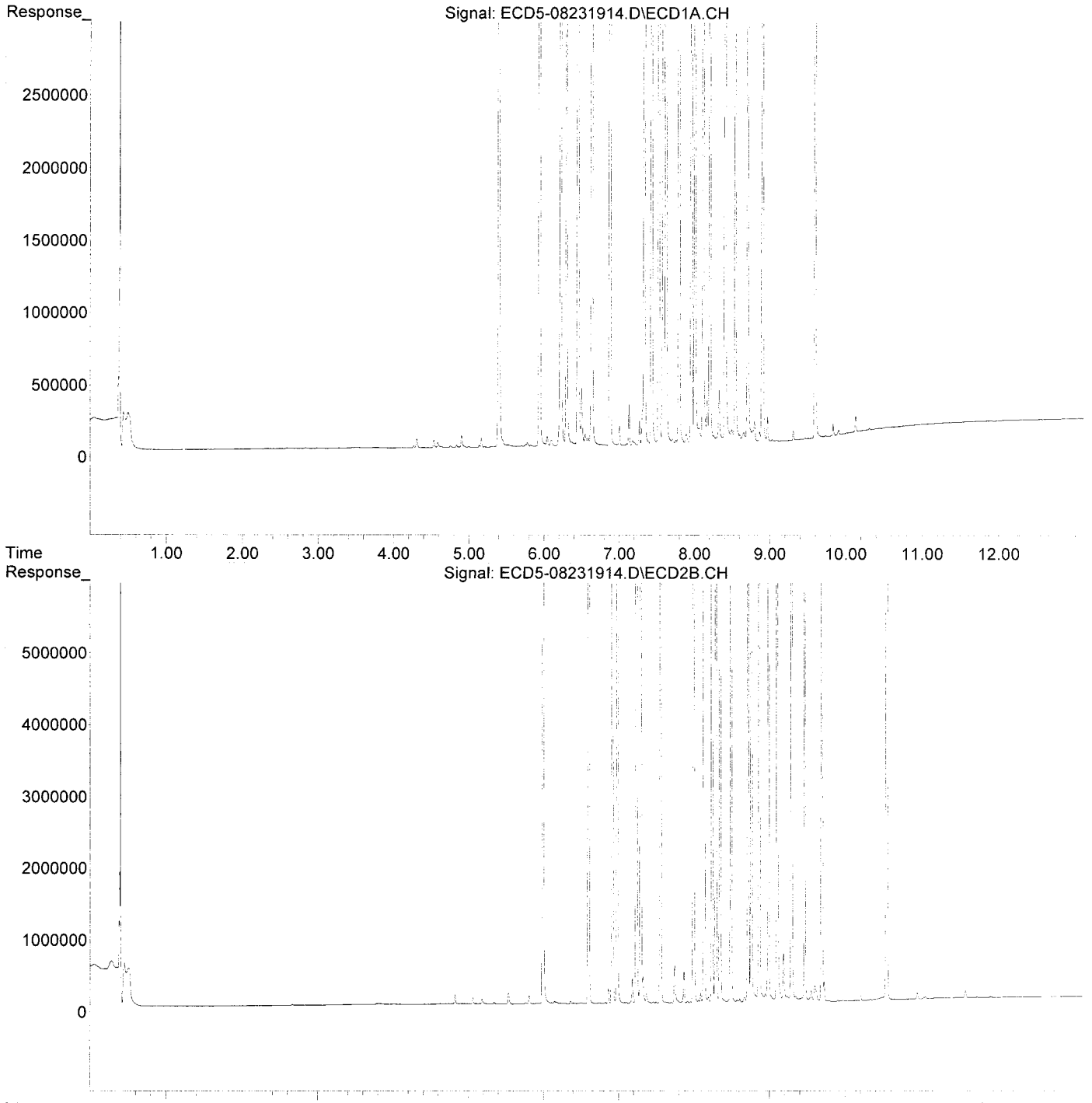
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	6.914	19595093	36788994	97.113	103.136	
4)		b-BHC	6.296	6.977	8355416	14625175	92.444	92.409	
5)		Heptachlor	6.632	7.289	17551528	30277818	96.811	98.955	
6)		d-BHC	6.446	7.232	19475580	35176633	99.016	99.745	
7)		Aldrin	6.872	7.555	19108074	33906422	96.776	102.936	
8)		Heptachlo...	7.331	7.991	17318444	30045511	94.031	99.869	
9)		trans-Chl...	7.427	8.131	17732791	30742272	95.909	98.116	
10)		cis-Chlor...	7.523	8.238	16742584	29042863	91.956	99.719	
11)		Endosulfa...	7.619	8.288	16089996	27212707	94.547	98.892	
12)		4,4'-DDE	7.582	8.344	18052552	32499603	95.754	104.609	
13)		Dieldrin	7.791	8.488	18324422	31001958	95.450	101.930	
14)		Endrin	7.957	8.715	13812708	23102413	93.947	102.301	
15)		4,4'-DDD	8.003	8.758	15437146	26297484	98.238	102.639	
16)		Endosulfa...	8.113	8.861	13543500	23016371	94.307	99.808	
17)		4,4'-DDT	8.201	8.984	12176961	19789501	101.848	97.215	
18)		Endrin Al...	8.403	9.098	12363806	20502737	98.526	99.562	
19)		Endosulfa...	8.704	9.289	14366789	24477320	92.702	98.268	
20)		Methoxychlor	8.539	9.463	5877329	9444987	100.340	96.538	
21)		Endrin Ke...	8.898	9.687	16251943	26636559	97.458	103.517	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	0.000	29252	0	0.166	N.D.	#
25)		Oxychlordane	7.267	7.915	165864	25145	1.008	0.092	#
26)		2,4'-DDE	7.331	8.131	17318444	30742272	135.025	144.916	
27)		trans-Non...	7.523	8.192	16742584	77338	93.233	0.256	#
28)		2,4'-DDD	7.704	8.488	32176	31001958	0.282	164.150	#
29)		2,4'-DDT	7.889	8.715	66298	23102413	0.604	129.542	#
30)		cis-Nonac...	8.003	8.758	15437146	26297484	74.355	78.395	
31)		Mirex	8.651	9.687	63592	26636559	0.507	143.151	#
32)		Chlordane...	7.427	8.131	17732791	30742272	900.616	849.596	
33)		Chlordane...	7.523	8.238	16742584	29042863	667.985	956.488	#
34)		Chlordane...	8.059	8.899	102306	115089	17.697	12.836	
35)		Chlordane...	3.447	0.000	5362	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.488f	16742584	31001958	18693.275	11813.609	
37)		Toxaphene...	7.791	0.000	18324422	0	11346.823	N.D.	#
38)		Toxaphene...	8.113	8.861	13543500	23016371	4021.839	4541.226	
39)		Toxaphene...	8.324f	8.899	362066	115089	111.744	13.783	#
40)		Toxaphene...	8.598f	9.098	51910	20502737	21.655	4399.391	#
41)		Toxaphene...	8.651	9.463	63592	9444987	20.095	1988.334	#
42)		Toxaphene...	3.447	0.000	5362	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

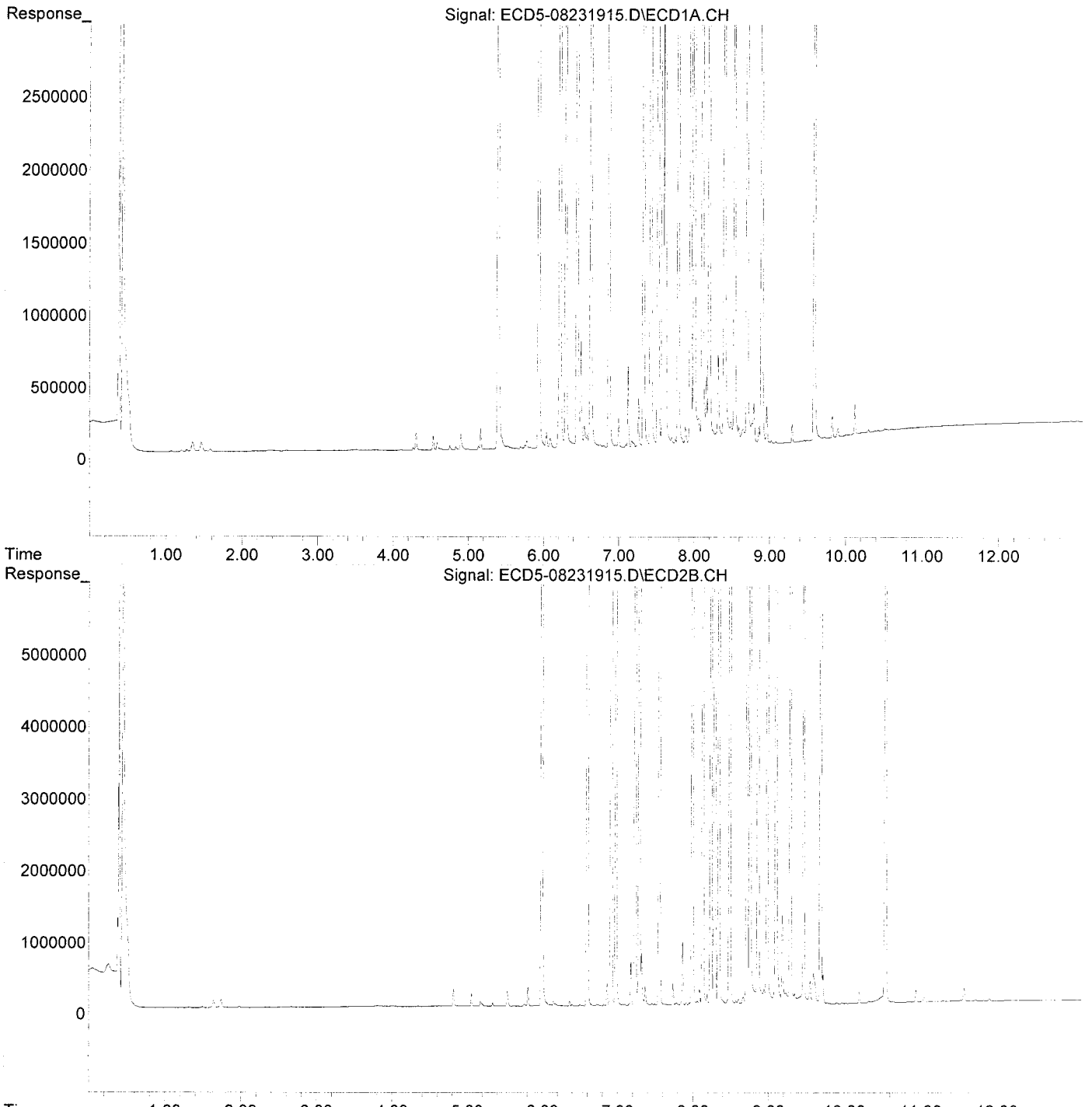
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	6.914	41889726	80765680	207.604	226.422	
4)		b-BHC	6.294	6.977	18238696	32553433	201.792	205.688	
5)		Heptachlor	6.630	7.289	37785699	71283176	208.419	232.969	
6)		d-BHC	6.445	7.232	41016592	80979751	208.534	229.622	
7)		Aldrin	6.870	7.554	39838403	73228186	201.769	222.313	
8)		Heptachlo...	7.330	7.991	36258170	65330070	196.864	217.153	
9)		trans-Chl...	7.425	8.130	37621413	66447972	203.478	212.073	
10)		cis-Chlor...	7.521	8.238	35207945	63977063	193.375	219.666	
11)		Endosulfa...	7.618	8.288	33852593	61043507	198.922	221.834	
12)		4,4'-DDE	7.581	8.344	38763081	69842351	205.607	224.807	
13)		Dieldrin	7.791	8.489	39217772	70031781	204.281	230.254	
14)		Endrin	7.955	8.715	31426311	52779585	213.745	233.717	
15)		4,4'-DDD	8.002	8.758	32436804	59560270	206.419	232.463	
16)		Endosulfa...	8.112	8.862	29471042	51834888	205.214	224.777	
17)		4,4'-DDT	8.200	8.984	29075222	48203441	243.185	202.337	
18)		Endrin Al...	8.402	9.098	26627672	45084544	200.132	198.781	
19)		Endosulfa...	8.704	9.289	31126520	54592794	200.845	219.171	
20)		Methoxychlor	8.537	9.463	14271143	23714100	243.642	203.084	
21)		Endrin Ke...	8.898	9.688	35094718	60861376	210.452	236.524	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.776	0.000	55469	0	0.315	N.D.	#
25)		Oxychlordane	7.265	7.915	336226	30124	2.043	0.110	#
26)		2,4'-DDE	7.330	8.130	36258170	66447972	282.690	313.230	
27)		trans-Non...	7.521	8.191	35207945	140624	196.641	0.466	#
28)		2,4'-DDD	7.703	8.489	57049	70031781	0.500	370.806	#
29)		2,4'-DDT	7.886	8.715	129876	52779585	1.184	295.950	#
30)		cis-Nonac...	8.002	8.758	32436804	59560270	156.235	177.554	
31)		Mirex	8.651	9.688	103310	60861376	0.824	327.083	#
32)		Chlordane...	7.425	8.130	37621413	66447972	1910.724	1836.362	
33)		Chlordane...	7.521	8.238	35207945	63977063	1404.705	2106.999	#
34)		Chlordane...	8.058	8.862f	183720	51834888	31.779	5781.350	#
35)		Chlordane...	3.445	0.000	4872	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.489f	35207945	70031781	39310.050	26686.316	
37)		Toxaphene...	7.791	0.000	39217772	0	24284.375	N.D.	#
38)		Toxaphene...	8.112	8.862	29471042	51834888	8751.637	10227.240	
39)		Toxaphene...	8.322f	8.943f	634260	207653	195.750	24.869	#
40)		Toxaphene...	8.537f	9.098	14271143	45084544	5953.399	9674.052	#
41)		Toxaphene...	8.651	9.463	103310	23714100	32.646	4992.230	#
42)		Toxaphene...	3.445	0.000	4872	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

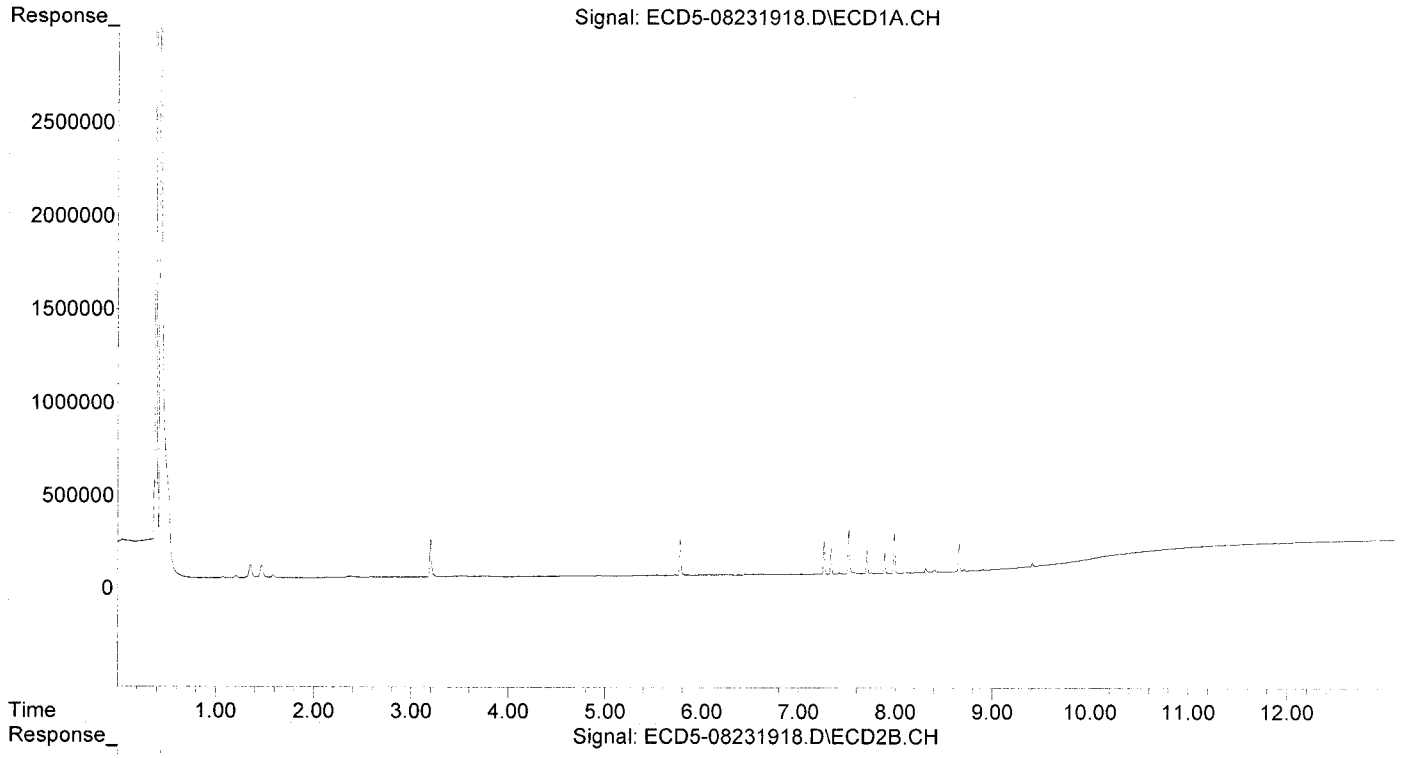
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	7.002f	0	7162	N.D.	0.045	#
5)		Heptachlor	6.601f	0.000	3572	0	0.020	N.D.	#
6)		d-BHC	6.449	7.232	5321	8483	0.027	0.024	
7)		Aldrin	0.000	7.577f	0	8990	N.D.	0.027	#
8)		Heptachlo...	7.335	0.000	137947	0	0.749	N.D.	#
9)		trans-Chl...	7.420	8.123	5532	219164	0.030	0.699	#
10)		cis-Chlor...	7.518	0.000	236836	0	1.301	N.D.	#
11)		Endosulfa...	7.582f	0.000	5522	0	0.032	N.D.	#
12)		4,4'-DDE	7.582	0.000	5522	0	0.029	N.D.	#
13)		Dieldrin	7.755f	8.495	4087	192040	0.021	0.631	#
14)		Endrin	7.987f	8.719	219220	173338	1.491	0.768	#
15)		4,4'-DDD	7.987	8.759	219220	332745	1.395	1.299	
16)		Endosulfa...	8.116	8.903f	2586	40443	0.018	0.175	#
17)		4,4'-DDT	8.202	0.000	1027	0	0.009	N.D.	#
18)		Endrin Al...	8.404	9.099	13122	17799	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.290	8041	12118	0.052	0.049	
20)		Methoxychlor	8.548	0.000	665	0	0.011	N.D.	#
21)		Endrin Ke...	8.900	9.680	3962	209783	0.024	0.815	#
23)		Hexachlor...	3.198	3.687	198207	383198	1.085	1.019	
24)		Hexachlor...	5.775	6.453	194679	328025	1.104	1.044	
25)		Oxychlordane	7.263	7.922	176844	279143	1.075	1.019	
26)		2,4'-DDE	7.335	8.123	137947	219164	1.076	1.033	
27)		trans-Non...	7.518	8.195	236836	306202	1.006	1.015	
28)		2,4'-DDD	7.707	8.495	120240	192040	1.054	1.017	
29)		2,4'-DDT	7.890	8.719	107110	173338	0.977	0.972	
30)		cis-Nonac...	7.987	8.759	219220	332745	1.056	0.992	
31)		Mirex	8.655	9.680	147356	209783	1.175	1.127	
32)		Chlordane...	7.420	8.123	5532	219164	0.281	6.057	#
33)		Chlordane...	7.518	0.000	236836	0	9.449	N.D.	#
34)		Chlordane...	0.000	8.903	0	40443	N.D.	4.511	#
35)		Chlordane...	3.444	0.000	4642	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	236836	192040	264.430	73.179	#
37)		Toxaphene...	7.755f	0.000	4087	0	2.531	N.D.	#
38)		Toxaphene...	8.116	0.000	2586	0	0.768	N.D.	#
39)		Toxaphene...	8.312f	8.903	22217	40443	6.857	4.844	
40)		Toxaphene...	8.548f	9.099	665	17799	0.277	3.819	#
41)		Toxaphene...	8.655	0.000	147356	0	46.564	N.D.	#
42)		Toxaphene...	3.444	0.000	4642	0	NoCal	N.D.	

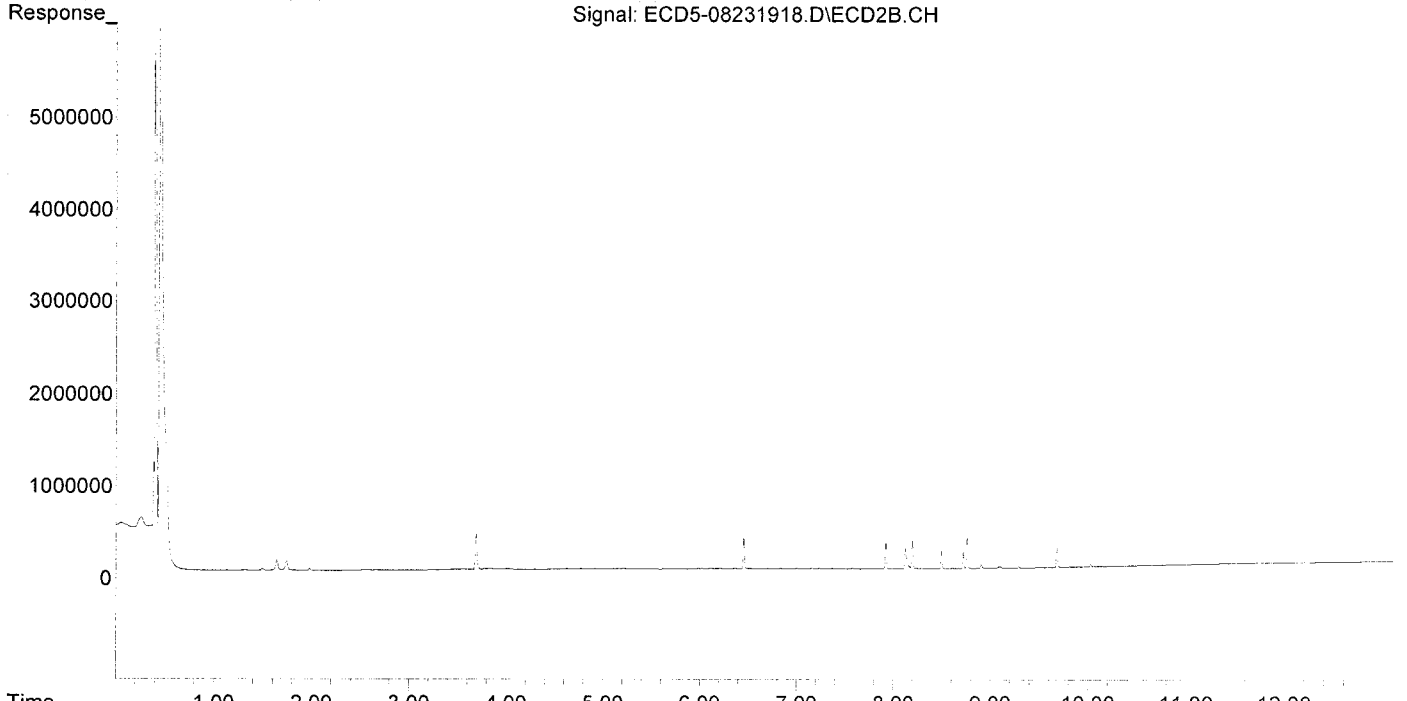
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

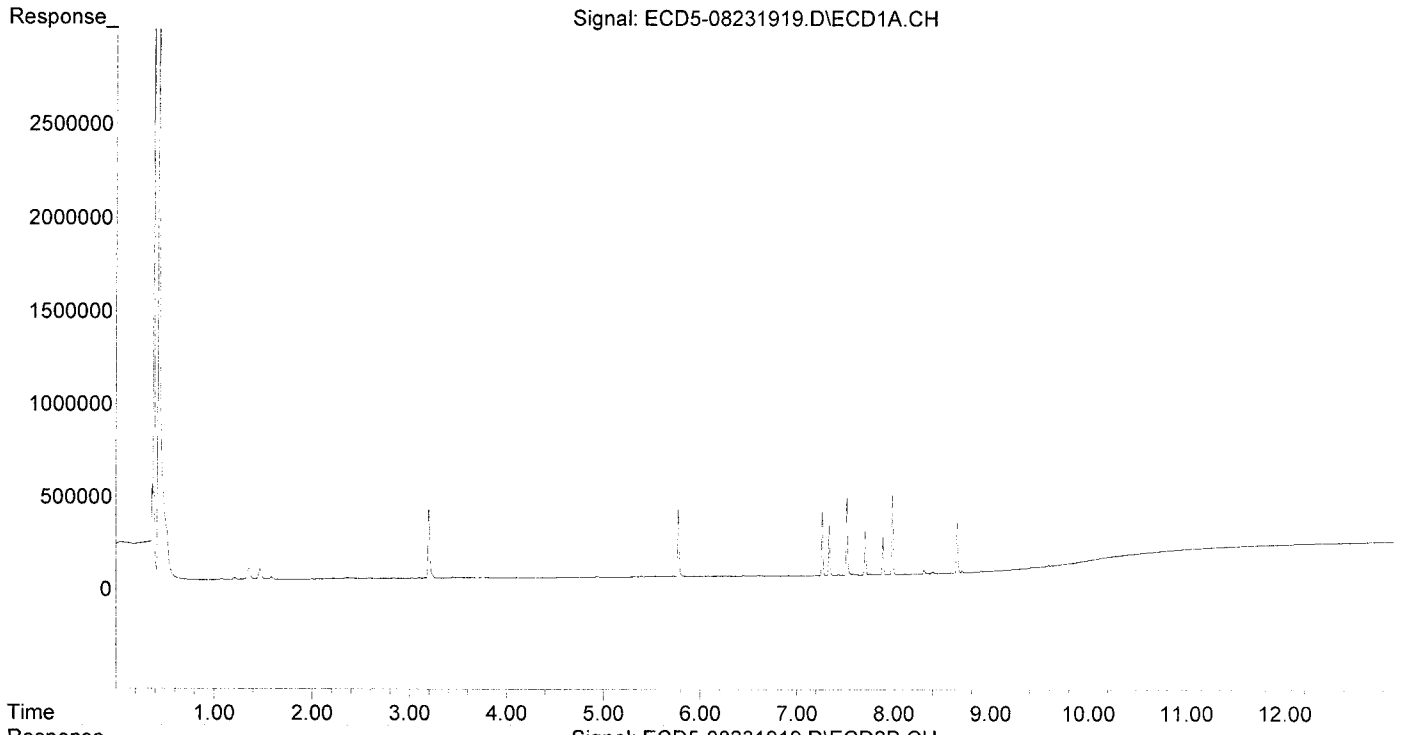
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22) S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.631	0.000	3915	0	0.022	N.D.	#
6)	d-BHC	6.449	7.231	6839	9605	0.035	0.027	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.334	0.000	265212	0	1.440	N.D.	#
9)	trans-Chl...	7.429	8.123	4955	411812	0.027	1.314	#
10)	cis-Chlor...	7.518	0.000	415126	0	2.280	N.D.	#
11)	Endosulfa...	7.582f	0.000	3811	0	0.022	N.D.	#
12)	4,4'-DDE	7.582	0.000	3811	0	0.020	N.D.	#
13)	Dieldrin	7.754f	8.495	8020	373596	0.042	1.228	#
14)	Endrin	7.986f	8.718	423442	332170	2.880	1.471	#
15)	4,4'-DDD	7.986	8.758	423442	624783	2.695	2.439	
16)	Endosulfa...	8.116	8.862	3733	5461	0.026	0.024	
17)	4,4'-DDT	8.200	0.000	1311	0	0.011	N.D.	#
18)	Endrin Al...	8.405	9.099	11160	14424	BelowCal	BelowCal	
19)	Endosulfa...	8.705	9.289	10006	14488	0.065	0.058	
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.680	5404	388199	0.032	1.509	#
23)	Hexachlor...	3.198	3.687	375794	754548	2.056	2.007	
24)	Hexachlor...	5.775	6.453	362082	632830	2.054	2.015	
25)	Oxychlordane	7.262	7.921	339370	541023	2.063	1.975	
26)	2,4'-DDE	7.334	8.123	265212	411812	2.068	1.941	
27)	trans-Non...	7.518	8.194	415126	587765	2.001	1.949	
28)	2,4'-DDD	7.707	8.495	233089	373596	2.042	1.978	
29)	2,4'-DDT	7.889	8.718	204209	332170	1.862	1.863	
30)	cis-Nonac...	7.986	8.758	423442	624783	2.040	1.863	
31)	Mirex	8.655	9.680	266770	388199	2.128	2.086	
32)	Chlordane...	7.429	8.123	4955	411812	0.252	11.381	#
33)	Chlordane...	7.518	0.000	415126	0	16.562	N.D.	#
34)	Chlordane...	0.000	8.903	0	41985	N.D.	4.683	#
35)	Chlordane...	3.444	0.000	5015	0	NoCal	N.D.	
36)	Toxaphene...	7.518	8.495f	415126	373596	463.493	142.363	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.116	8.862	3733	5461	1.108	1.077	
39)	Toxaphene...	8.312f	8.903	22876	41985	7.060	5.028	
40)	Toxaphene...	0.000	9.099	0	14424	N.D.	3.095	#
41)	Toxaphene...	8.655	0.000	266770	0	84.299	N.D.	#
42)	Toxaphene...	3.444	0.000	5015	0	NoCal	N.D.	

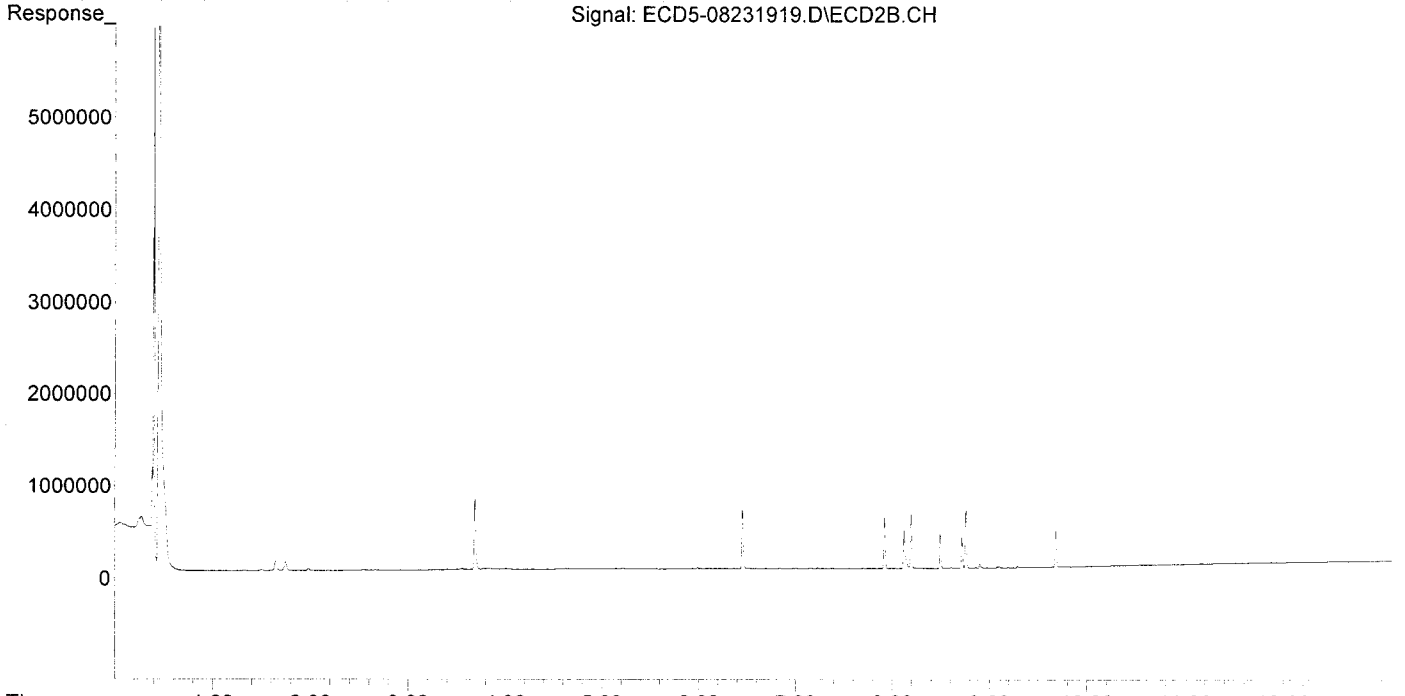
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

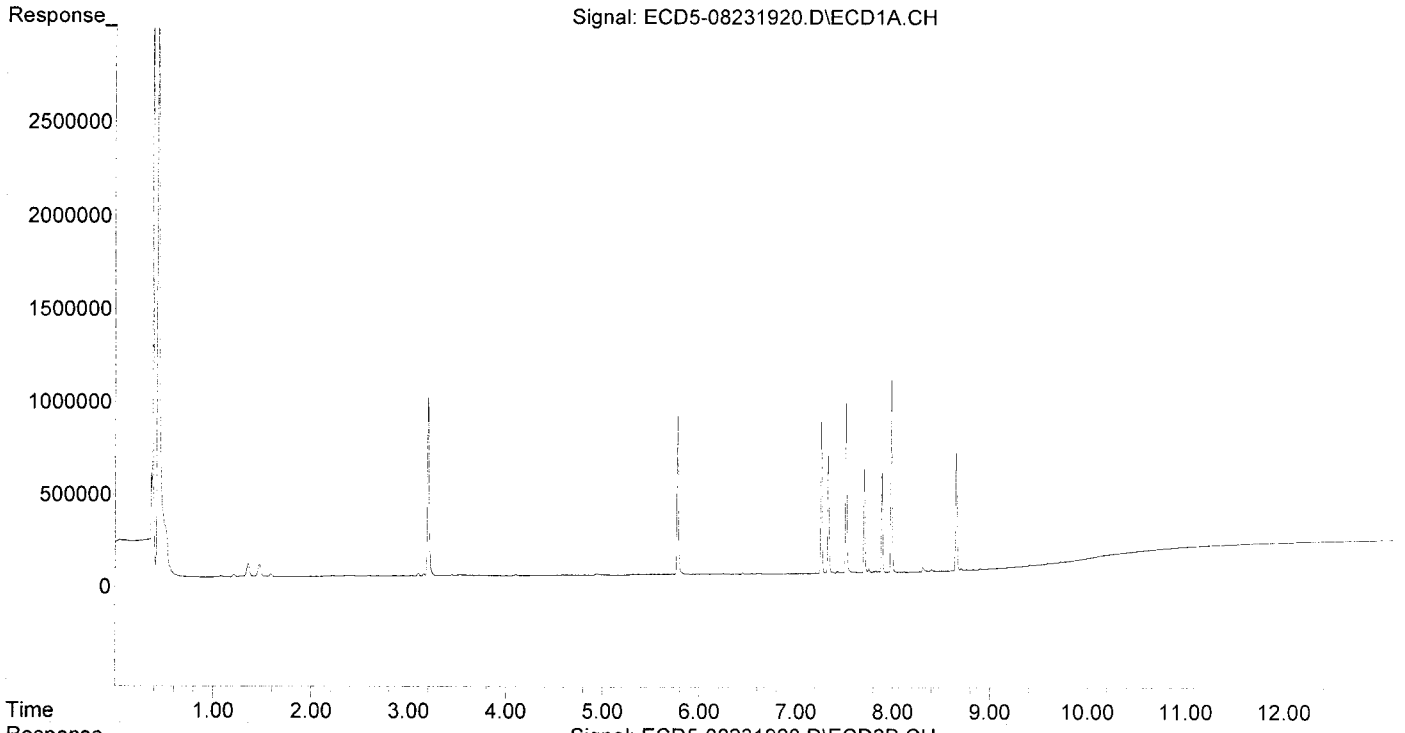
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	7.289	4685	5276	0.026	0.017	
6)		d-BHC	6.449	7.232	7597	11663	0.039	0.033	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	7.991	633168	6408	3.438	0.021	#
9)		trans-Chl...	7.429	8.123	9886	1029687	0.053	3.286	#
10)		cis-Chlor...	7.518	8.236	933222	8550	5.126	0.029	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	7.799	8.495	5522	898697	0.029	2.955	#
14)		Endrin	7.986f	8.719	1025899	873074	6.978	3.866	#
15)		4,4'-DDD	7.986	8.759	1025899	1587243	6.529	6.195	
16)		Endosulfa...	8.116	8.862	3810	5519	0.027	0.024	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	10319	12495	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10733	14179	0.069	0.057	
20)		Methoxychlor	8.550	0.000	617	0	0.011	N.D.	#
21)		Endrin Ke...	8.899	9.679	5632	895523	0.034	3.480	#
23)		Hexachlor...	3.198	3.687	959211	1877484	5.249	4.994	
24)		Hexachlor...	5.775	6.453	853793	1485583	4.843	4.730	
25)		Oxychlordane	7.262	7.921	819748	1325543	4.982	4.839	
26)		2,4'-DDE	7.334	8.123	633168	1029687	4.937	4.854	
27)		trans-Non...	7.518	8.194	933222	1467723	4.893	4.866	
28)		2,4'-DDD	7.705	8.495	560942	898697	4.915	4.758	
29)		2,4'-DDT	7.889	8.719	536967	873074	4.895	4.896	
30)		cis-Nonac...	7.986	8.759	1025899	1587243	4.941	4.732	
31)		Mirex	8.654	9.679	628618	895523	5.014	4.813	
32)		Chlordane...	7.429	8.123	9886	1029687	0.502	28.457	#
33)		Chlordane...	7.518	8.236	933222	8550	37.233	0.282	#
34)		Chlordane...	0.000	8.903	0	41570	N.D.	4.636	#
35)		Chlordane...	3.443	3.434	5083	3848	NoCal	NoCal	
36)		Toxaphene...	7.518	8.495f	933222	898697	1041.953	342.457	#
37)		Toxaphene...	7.799	0.000	5522	0	3.419	N.D.	#
38)		Toxaphene...	8.116	8.862	3810	5519	1.131	1.089	
39)		Toxaphene...	8.312f	8.903	22738	41570	7.017	4.979	
40)		Toxaphene...	8.550f	9.098	617	12495	0.257	2.681	#
41)		Toxaphene...	8.654	0.000	628618	0	198.642	N.D.	#
42)		Toxaphene...	3.443	3.434	5083	3848	NoCal	NoCal	

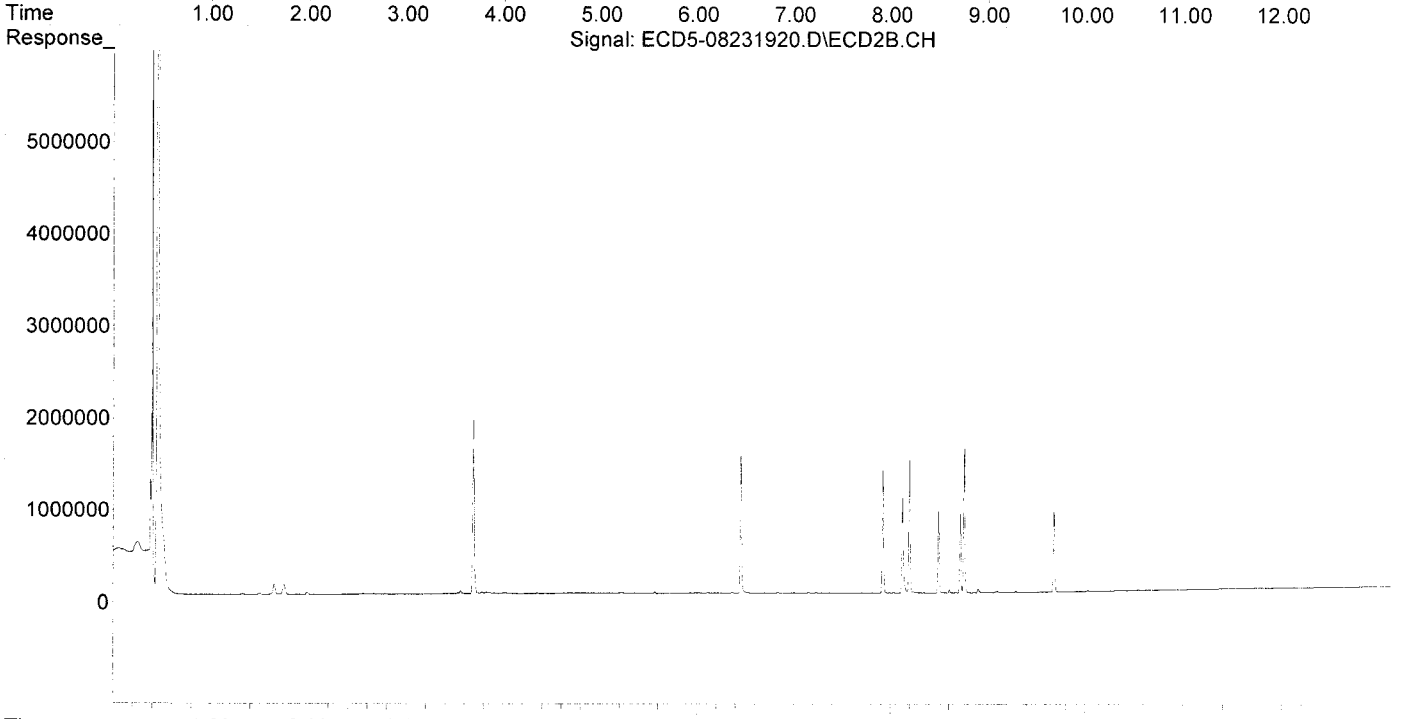
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

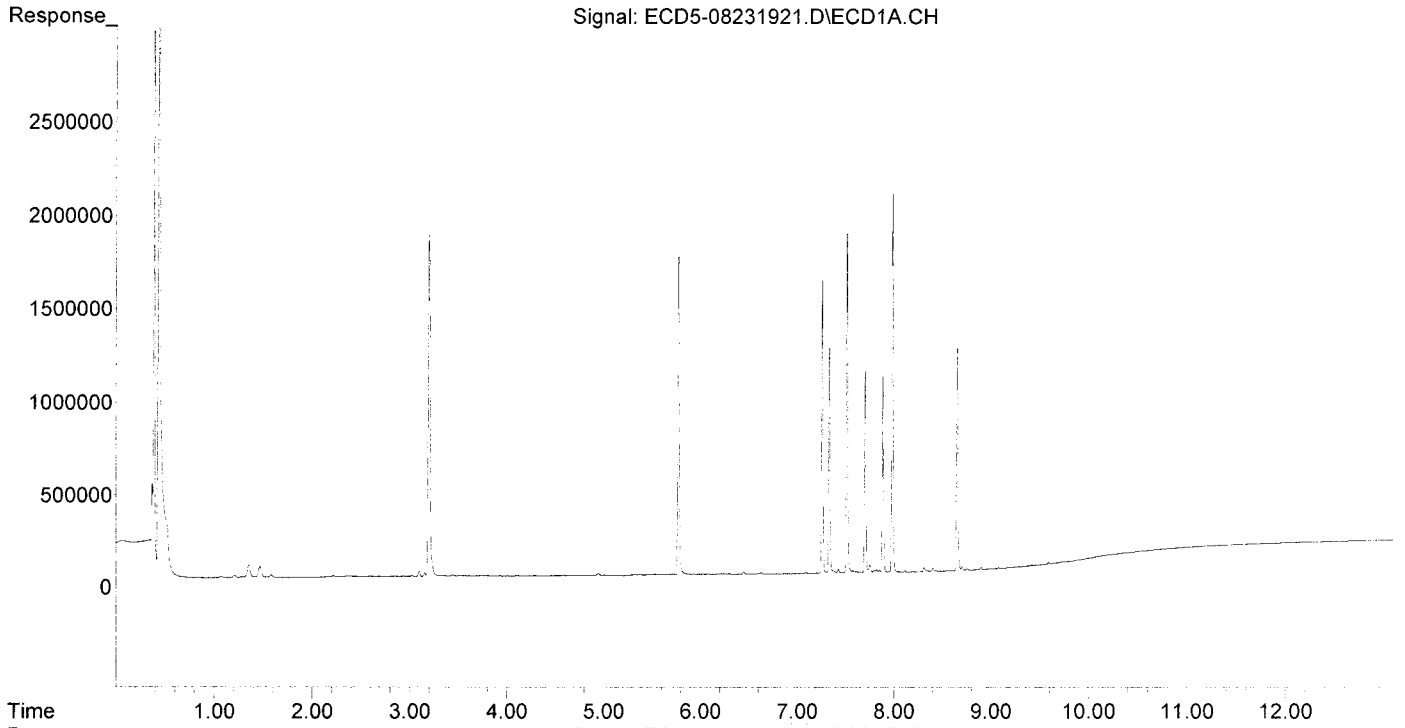
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
4)		b-BHC	6.300	6.978	6085	7741	0.067	0.049	
5)		Heptachlor	6.631	7.288	8267	12275	0.046	0.040	
6)		d-BHC	6.449	7.232	14325	24245	0.073	0.069	
7)		Aldrin	6.872	7.553	3901	5863	0.020	0.018	
8)		Heptachlo...	7.333	7.990	1245265	15714	6.761	0.052	#
9)		trans-Chl...	7.428	8.122	20597	2018331	0.111	6.442	#
10)		cis-Chlor...	7.516	8.236	1817552	21137	9.983	0.073	#
11)		Endosulfa...	7.620	8.289	8045	10794	0.047	0.039	
12)		4,4'-DDE	7.582	8.342	11334	7910	0.060	0.025	#
13)		Dieldrin	7.797	8.495	12142	1778790	0.063	5.848	#
14)		Endrin	7.986f	8.719	2032010	1702568	13.821	7.539	#
15)		4,4'-DDD	7.986	8.759	2032010	3148054	12.931	12.287	
16)		Endosulfa...	8.115	8.863	8267	13466	0.058	0.058	
17)		4,4'-DDT	8.202	0.000	2833	0	0.024	N.D.	#
18)		Endrin Al...	8.404	9.098	18899	26666	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	20232	26713	0.131	0.107	
20)		Methoxychlor	8.543	0.000	1294	0	0.022	N.D.	#
21)		Endrin Ke...	8.899	9.679	11108	1722960	0.067	6.696	#
23)		Hexachlor...	3.198	3.687	1838187	3701532	10.059	9.846	
24)		Hexachlor...	5.774	6.453	1711884	2936294	9.710	9.349	
25)		Oxychlordane	7.261	7.921	1591613	2538903	9.673	9.269	
26)		2,4'-DDE	7.333	8.122	1245265	2018331	9.709	9.514	
27)		trans-Non...	7.516	8.194	1817552	2844404	9.830	9.430	
28)		2,4'-DDD	7.705	8.495	1103587	1778790	9.670	9.418	
29)		2,4'-DDT	7.888	8.719	1051565	1702568	9.587	9.547	
30)		cis-Nonac...	7.986	8.759	2032010	3148054	9.787	9.385	
31)		Mirex	8.654	9.679	1196365	1722960	9.543	9.260	
32)		Chlordane...	7.428	8.122	20597	2018331	1.046	55.779	#
33)		Chlordane...	7.516	8.236	1817552	21137	72.516	0.696	#
34)		Chlordane...	0.000	8.903	0	42511	N.D.	4.741	#
35)		Chlordane...	3.445	3.433	6229	7261	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	1817552	1778790	2029.316	677.826	#
37)		Toxaphene...	7.797	0.000	12142	0	7.518	N.D.	#
38)		Toxaphene...	8.115	8.863	8267	13466	2.455	2.657	
39)		Toxaphene...	8.312f	8.903	23581	42511	7.278	5.091	
40)		Toxaphene...	8.582	9.098	560	26666	0.234	5.722	#
41)		Toxaphene...	8.654	0.000	1196365	0	378.048	N.D.	#
42)		Toxaphene...	3.445	3.433	6229	7261	NoCal	NoCal	

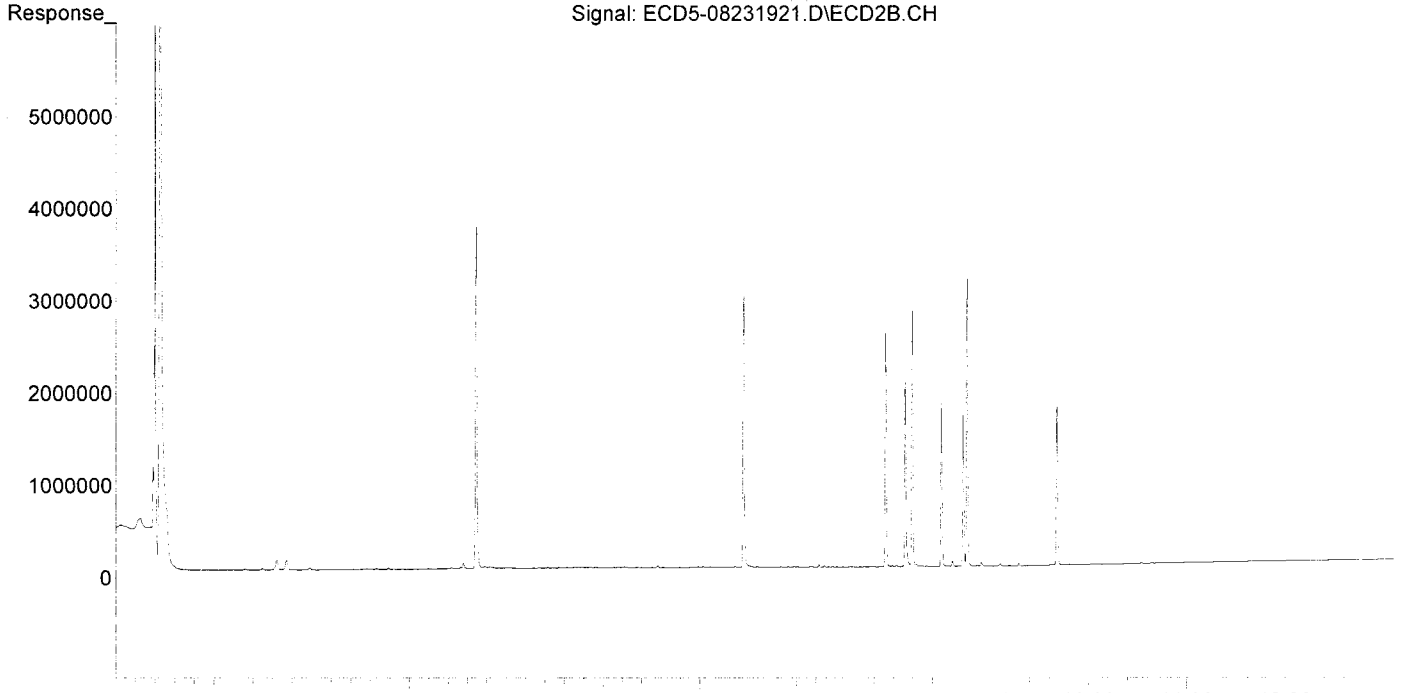
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

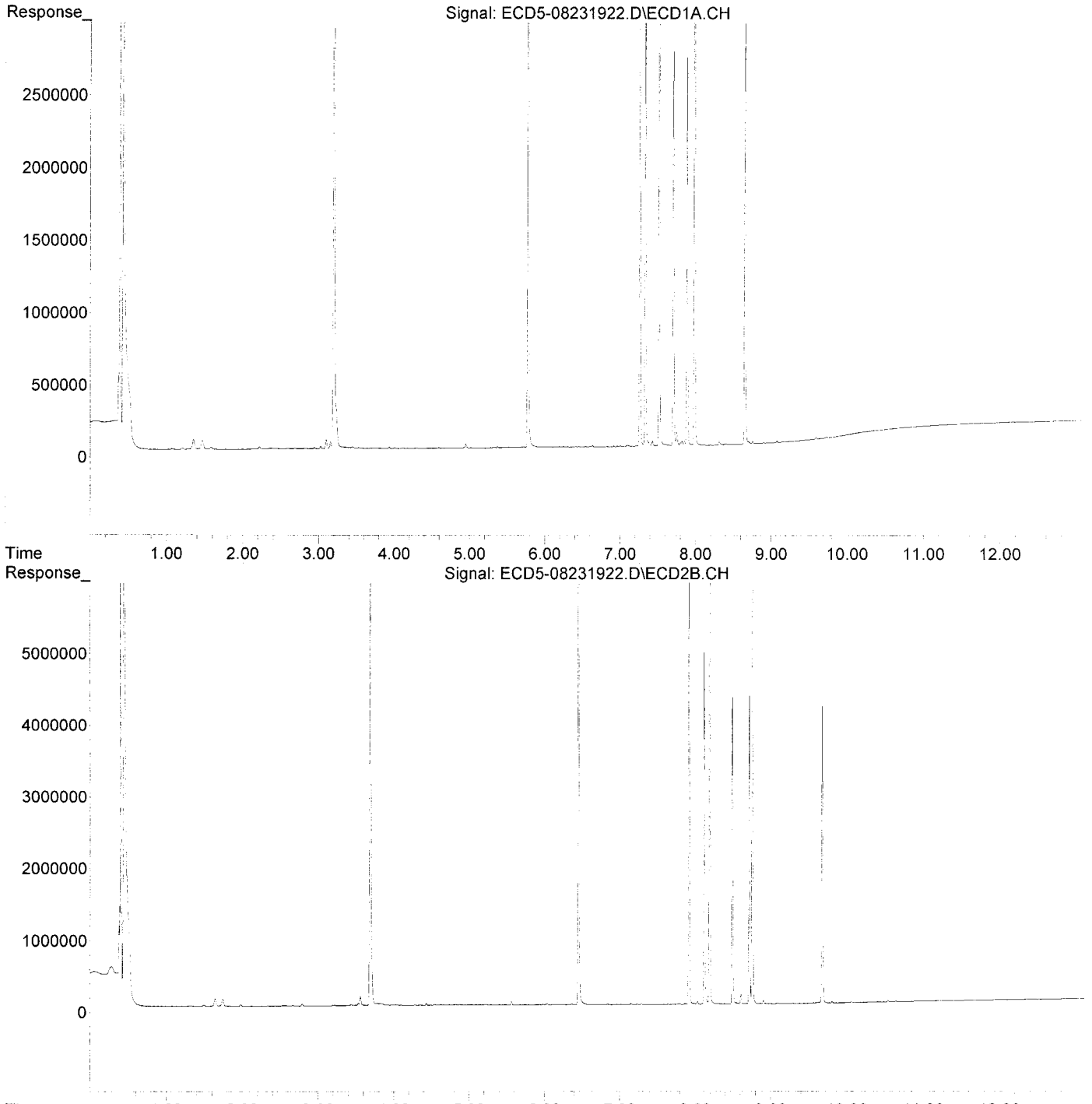
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.632	7.288	9958	12977	0.055	0.042	
6)	d-BHC	6.450	7.231	5090	7876	0.026	0.022	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.333	7.989	3059421	19960	16.611	0.066	#
9)	trans-Chl...	7.428	8.122	36083	4999232	0.195	15.955	#
10)	cis-Chlor...	7.516	8.235	4391046	27018	24.117	0.093	#
11)	Endosulfa...	7.604	8.299	11350	9999	0.067	0.036	#
12)	4,4'-DDE	7.604f	0.000	11350	0	0.060	N.D.	#
13)	Dieldrin	7.800	8.495	19961	4389185	0.104	14.431	#
14)	Endrin	7.986f	8.719	4993110	4405554	33.960	19.509	#
15)	4,4'-DDD	7.986	8.759	4993110	8219393	31.775	32.080	
16)	Endosulfa...	0.000	8.862	0	7977	N.D.	0.035	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	7779	9076	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	11382	N.D.	0.046	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.679	4709	4138115	0.028	16.082	#
23)	Hexachlor...	3.198	3.687	4363988	8892238	23.881	23.654	
24)	Hexachlor...	5.774	6.453	4184551	7416324	23.736	23.612	
25)	Oxychlordane	7.261	7.920	3881255	6202791	23.589	22.646	
26)	2,4'-DDE	7.333	8.122	3059421	4999232	23.853	23.566	
27)	trans-Non...	7.516	8.194	4391046	7092288	24.199	23.513	
28)	2,4'-DDD	7.705	8.495	2745178	4389185	24.054	23.240	
29)	2,4'-DDT	7.888	8.719	2728794	4405554	24.878	24.703	
30)	cis-Nonac...	7.986	8.759	4993110	8219393	24.050	24.503	
31)	Mirex	8.654	9.679	2910818	4138115	23.218	22.239	
32)	Chlordane...	7.428	8.122	36083	4999232	1.833	138.159	#
33)	Chlordane...	7.516	8.235	4391046	27018	175.191	0.890	#
34)	Chlordane...	0.000	8.903	0	43328	N.D.	4.833	#
35)	Chlordane...	3.444	3.433	9286	16581	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	4391046	4389185	4902.650	1672.543	#
37)	Toxaphene...	7.800	0.000	19961	0	12.360	N.D.	#
38)	Toxaphene...	0.000	8.862	0	7977	N.D.	1.574	#
39)	Toxaphene...	8.313f	8.903	24731	43328	7.633	5.189	
40)	Toxaphene...	8.607f	9.098	797	9076	0.332	1.947	#
41)	Toxaphene...	8.654	0.000	2910818	0	919.811	N.D.	#
42)	Toxaphene...	3.444	3.433	9286	16581	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

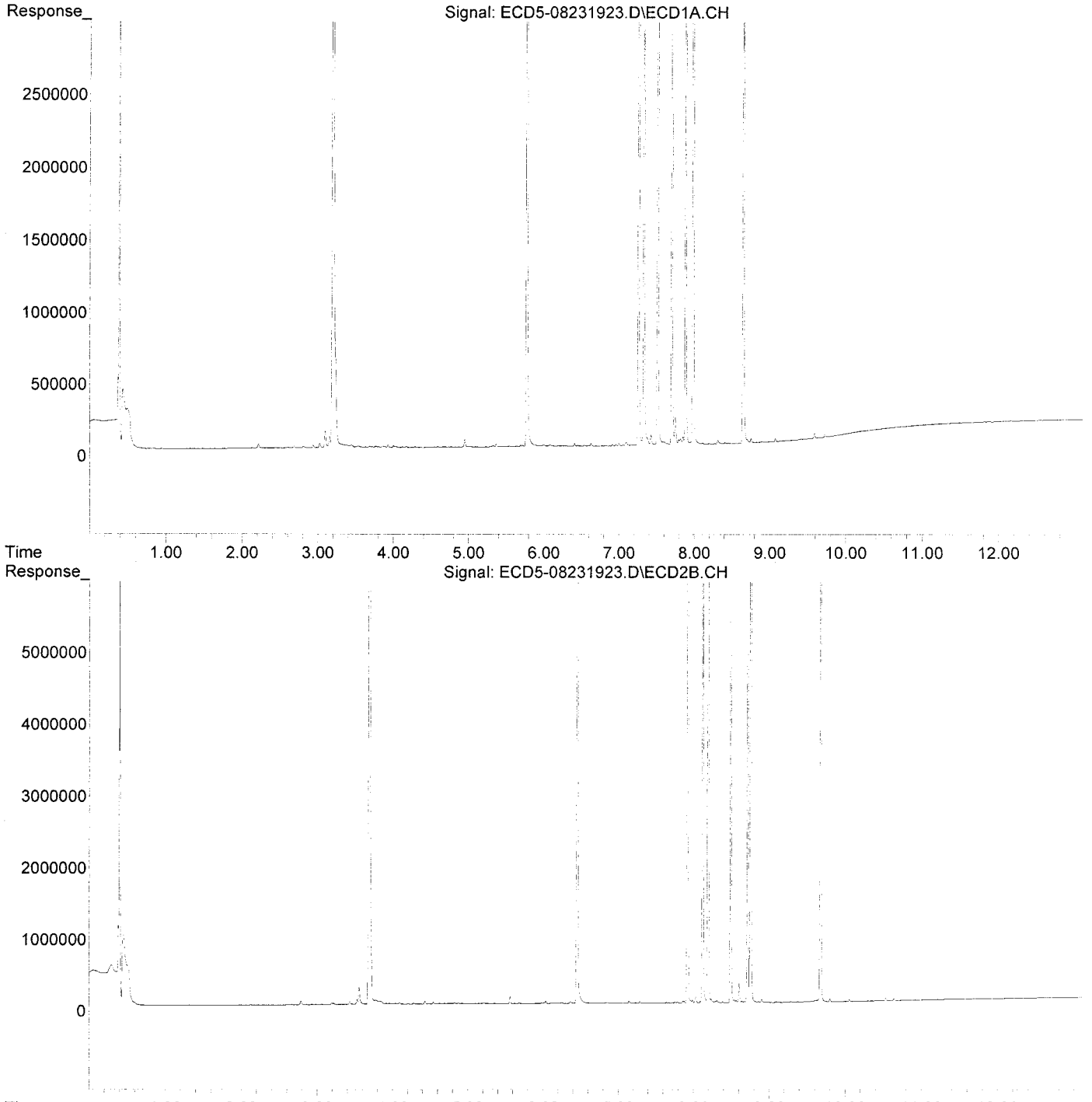
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	b-BHC	0.000	6.951f	0	3735	N.D.	0.024	#
5)	Heptachlor	6.632	7.289	17900	26152	0.099	0.085	
6)	d-BHC	6.450	7.232	4458	7173	0.023	0.020	
7)	Aldrin	0.000	7.520f	0	4998	N.D.	0.015	#
8)	Heptachlo...	7.333	7.989	6510588	39220	35.349	0.130	#
9)	trans-Chl...	7.428	8.122	71663	11006400	0.388	35.128	#
10)	cis-Chlor...	7.516	8.236	9581794	53379	52.627	0.183	#
11)	Endosulfa...	7.604	8.299	22096	24918	0.130	0.091	
12)	4,4'-DDE	7.604f	8.314f	22096	29928	0.117	0.096	
13)	Dieldrin	7.798	8.495	33203	9924934	0.173	32.632	#
14)	Endrin	7.985f	8.718	10616019	8810591	72.204	39.015	#
15)	4,4'-DDD	7.985	8.758	10616019	17721229	67.557	69.166	
16)	Endosulfa...	0.000	8.862	0	12791	N.D.	0.055	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.409	9.099	5626	7468	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	9409	N.D.	0.038	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.898	9.679	5162	9100959	0.031	35.369	#
23)	Hexachlor...	3.198	3.688	8761747	18635615	47.947	49.572	
24)	Hexachlor...	5.774	6.454	8911624	16094159	50.550	51.241	
25)	Oxychlordane	7.261	7.920	8382873	14172543	50.948	51.743	
26)	2,4'-DDE	7.333	8.122	6510588	11006400	50.760	51.883	
27)	trans-Non...	7.516	8.194	9581794	15807712	53.197	52.407	
28)	2,4'-DDD	7.705	8.495	5920095	9924934	51.874	52.551	
29)	2,4'-DDT	7.888	8.718	5687323	8810591	51.850	49.404	
30)	cis-Nonac...	7.985	8.758	10616019	17721229	51.133	52.828	
31)	Mirex	8.652	9.679	6218341	9100959	49.601	48.911	
32)	Chlordane...	7.428	8.122	71663	11006400	3.640	304.174	#
33)	Chlordane...	7.516	8.236	9581794	53379	382.289	1.758	#
34)	Chlordane...	0.000	8.903	0	43859	N.D.	4.892	#
35)	Chlordane...	3.445	3.433	16729	32384	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	9581794	9924934	10698.176	3781.996	#
37)	Toxaphene...	7.798	0.000	33203	0	20.560	N.D.	#
38)	Toxaphene...	0.000	8.862	0	12791	N.D.	2.524	#
39)	Toxaphene...	8.314f	8.903	24262	43859	7.488	5.253	
40)	Toxaphene...	8.605f	9.099	1073	7468	0.448	1.603	#
41)	Toxaphene...	8.652	0.000	6218341	0	1964.980	N.D.	#
42)	Toxaphene...	3.445	3.433	16729	32384	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

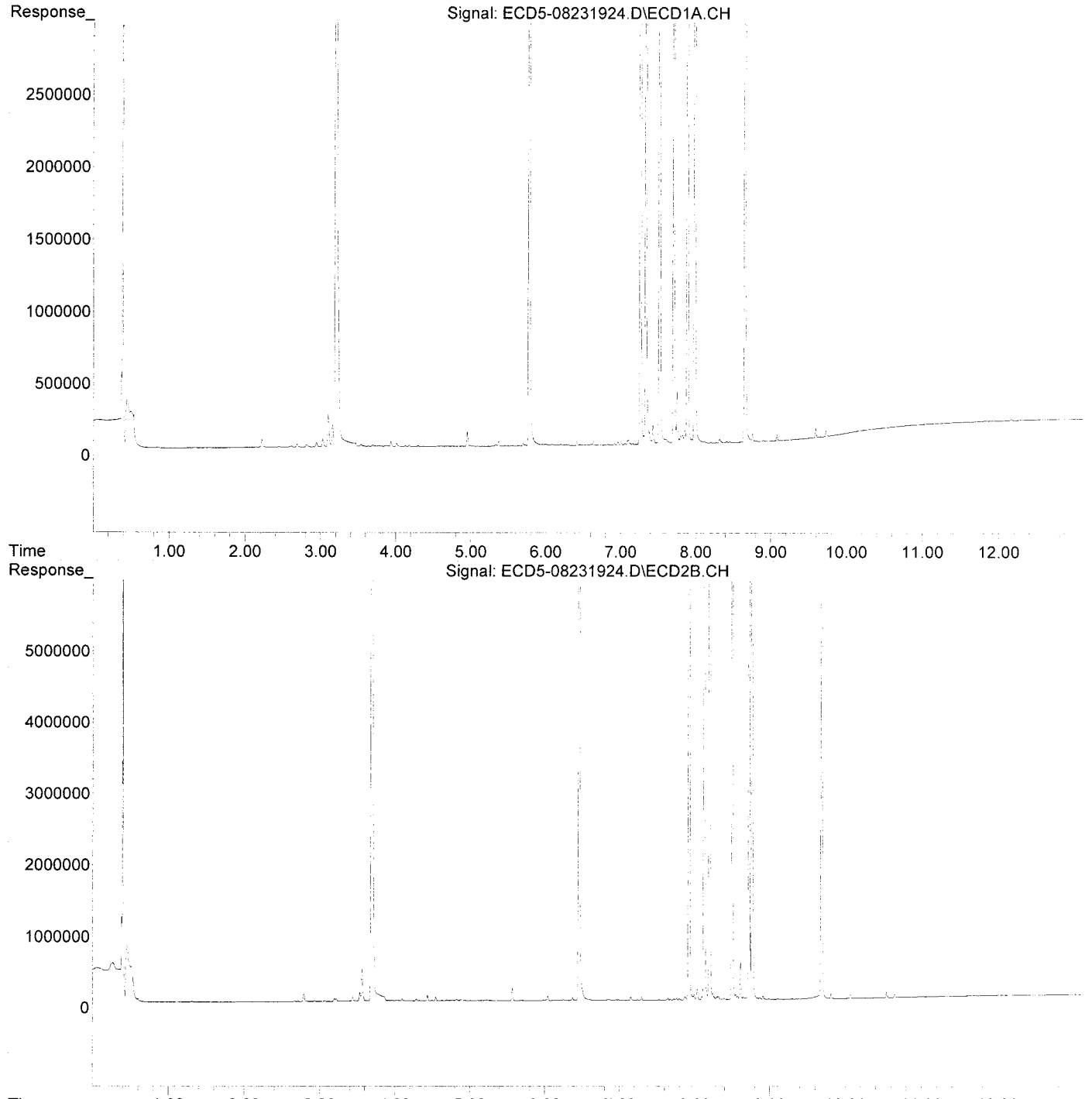
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
4)		b-BHC	6.301	6.979	5312	6852	0.059	0.043	
5)		Heptachlor	6.634	7.290	29320	42832	0.162	0.140	
6)		d-BHC	6.451	7.234	4881	8440	0.025	0.024	
7)		Aldrin	0.000	7.521f	0	8525	N.D.	0.026	#
8)		Heptachlo...	7.334	7.990	12769067	71027	69.330	0.236	#
9)		trans-Chl...	7.428	8.123	131019	22164400	0.709	70.739	#
10)		cis-Chlor...	7.516	8.237	18351251	88947	100.792	0.305	#
11)		Endosulfa...	7.604	8.299	36455	42308	0.214	0.154	
12)		4,4'-DDE	7.604f	8.315f	36455	43813	0.193	0.141	
13)		Dieldrin	7.798	8.496	56666	20118925	0.295	66.148	#
14)		Endrin	7.986f	8.721	20932641	18998968	142.373	84.131	#
15)		4,4'-DDD	7.986	8.760	20932641	36072644	133.210	140.791	
16)		Endosulfa...	8.115	8.863	14279	23343	0.099	0.101	
17)		4,4'-DDT	8.202	8.985	6473	9074	0.054	0.015	#
18)		Endrin Al...	8.415	9.101	7567	8073	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.290	0	9186	N.D.	0.037	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.680	6812	19363200	0.041	75.251	#
23)		Hexachlor...	3.199	3.690	17952134	39298885	98.239	104.537	
24)		Hexachlor...	5.776	6.455	17670025	32766708	100.231	104.324	
25)		Oxychlordane	7.261	7.922	16359215	29732149	99.425	108.550	
26)		2,4'-DDE	7.334	8.123	12769067	22164400	99.555	104.481	
27)		trans-Non...	7.516	8.195	18351251	31975271	102.232	106.006	
28)		2,4'-DDD	7.705	8.496	11587554	20118925	101.534	106.526	
29)		2,4'-DDT	7.888	8.721	11771354	18998968	107.317	106.533	
30)		cis-Nonac...	7.986	8.760	20932641	36072644	100.824	107.535	
31)		Mirex	8.653	9.680	11960753	19363200	95.406	104.062	
32)		Chlordane...	7.428	8.123	131019	22164400	6.654	612.537	#
33)		Chlordane...	7.516	8.237	18351251	88947	732.167	2.929	#
34)		Chlordane...	0.000	8.905	0	44814	N.D.	4.998	#
35)		Chlordane...	3.443	3.434	27193	63535	NoCal	NoCal	
36)		Toxaphene...	7.516	8.496f	18351251	20118925	20489.369	7666.519	#
37)		Toxaphene...	7.798	0.000	56666	0	35.089	N.D.	#
38)		Toxaphene...	8.115	8.863	14279	23343	4.240	4.606	
39)		Toxaphene...	8.316f	8.905	25592	44814	7.898	5.367	
40)		Toxaphene...	8.604f	9.101	1951	8073	0.814	1.732	#
41)		Toxaphene...	8.653	0.000	11960753	0	3779.567	N.D.	#
42)		Toxaphene...	3.443	3.434	27193	63535	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

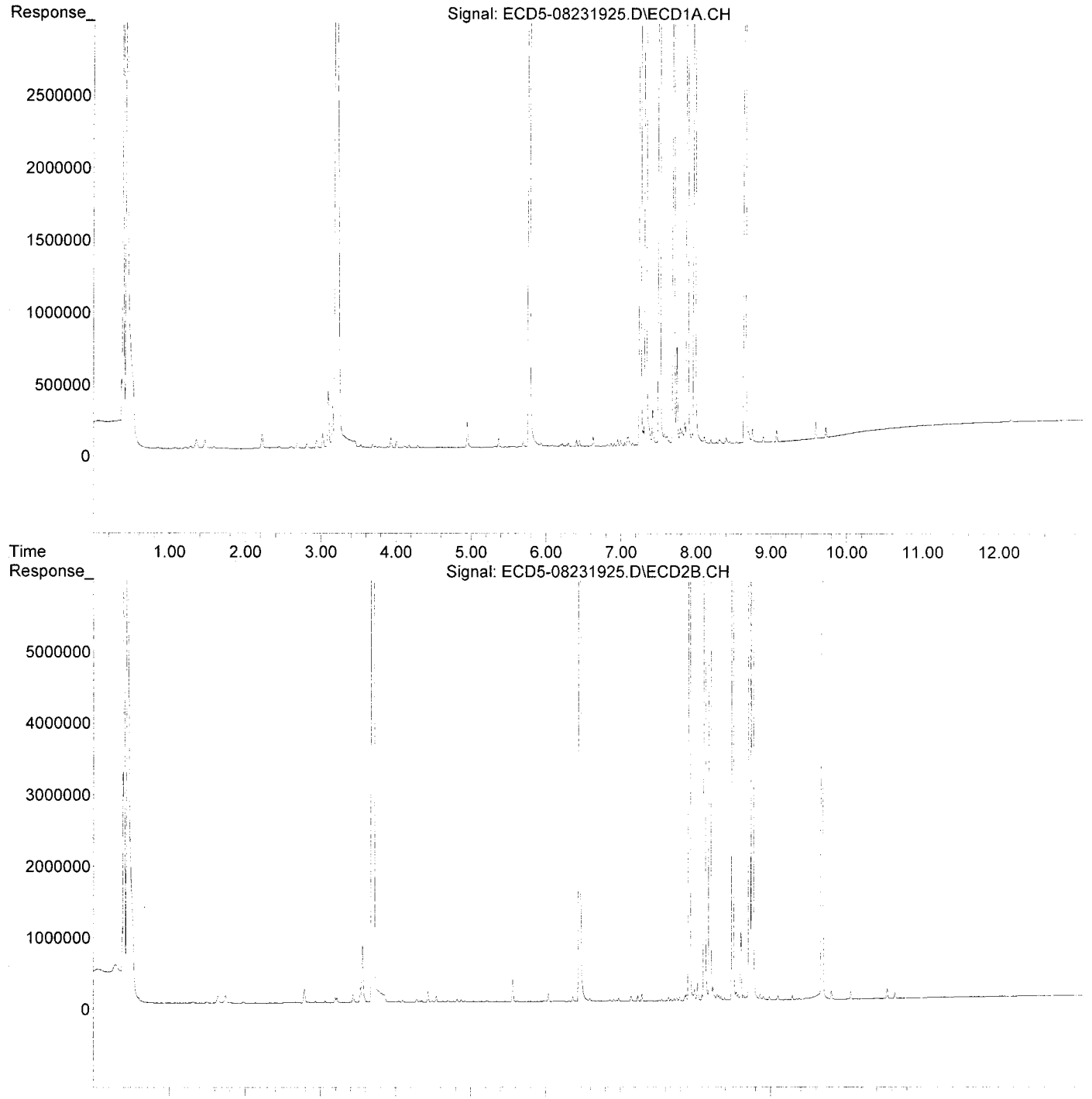
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105	0.087	
4)		b-BHC	6.299	6.977	25058	44238	0.277	0.280	
5)		Heptachlor	6.630	7.287	63252	104459	0.349	0.341	
6)		d-BHC	6.448	7.231	43545	78794	0.221	0.223	
7)		Aldrin	6.870	7.552	17012	29944	0.086	0.091	
8)		Heptachlo...	7.331	7.988	24819199	162906	134.756	0.541	#
9)		trans-Chl...	7.425	8.122	250239	44504592	1.353	142.039	#
10)		cis-Chlor...	7.514	8.235	35027918	188111	192.386	0.646	#
11)		Endosulfa...	7.581f	8.289	74592	84898	0.438	0.309	
12)		4,4'-DDE	7.581	8.341	74592	59877	0.396	0.193	#
13)		Dieldrin	7.794	8.494	114089	39839303	0.594	130.986	#
14)		Endrin	7.984f	8.719	40046185	39999231	272.373	177.123	
15)		4,4'-DDD	7.984	8.759	40046185	72455823	254.843	282.794	
16)		Endosulfa...	8.113	8.861	50946	84198	0.355	0.365	
17)		4,4'-DDT	8.201	8.983	28640	48189	0.240	0.243	
18)		Endrin Al...	8.404	9.098	39025	57504	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.289	0	61418	N.D.	0.247	#
20)		Methoxychlor	8.541	9.464	9687	26335	0.165	0.141	
21)		Endrin Ke...	8.898	9.679	37586	38425530	0.225	149.332	#
23)		Hexachlor...	3.199	3.689	34166533	75988565	186.969	202.134	
24)		Hexachlor...	5.774	6.454	34073459	66261966	193.277	210.967	
25)		Oxychlordane	7.258	7.920	32032634	58736982	194.683	214.445	
26)		2,4'-DDE	7.331	8.122	24819199	44504592	193.505	209.791	
27)		trans-Non...	7.514	8.194	35027918	63083636	195.632	209.138	
28)		2,4'-DDD	7.703	8.494	21916962	39839303	192.043	210.942	
29)		2,4'-DDT	7.887	8.719	23024956	39999231	209.914	224.287	
30)		cis-Nonac...	7.984	8.759	40046185	72455823	192.886	215.996	
31)		Mirex	8.652	9.679	23284997	38425530	185.735	206.507	
32)		Chlordane...	7.425	8.122	250239	44504592	12.709	1229.933	#
33)		Chlordane...	7.514	8.235	35027918	188111	1397.523	6.195	#
34)		Chlordane...	0.000	8.902	0	52051	N.D.	5.805	#
35)		Chlordane...	3.438	3.433	48985	106773	NoCal	NoCal	
36)		Toxaphene...	7.514	8.494f	35027918	39839303	39109.048	15181.168	#
37)		Toxaphene...	7.794	0.000	114089	0	70.646	N.D.	#
38)		Toxaphene...	8.113	8.861	50946	84198	15.129	16.613	
39)		Toxaphene...	8.313f	8.902	28693	52051	8.856	6.234	
40)		Toxaphene...	8.602f	9.098	3169	57504	1.322	12.339	#
41)		Toxaphene...	8.652	9.464	23284997	26335	7357.999	5.544	#
42)		Toxaphene...	3.438	3.433	48985	106773	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 4/26/19

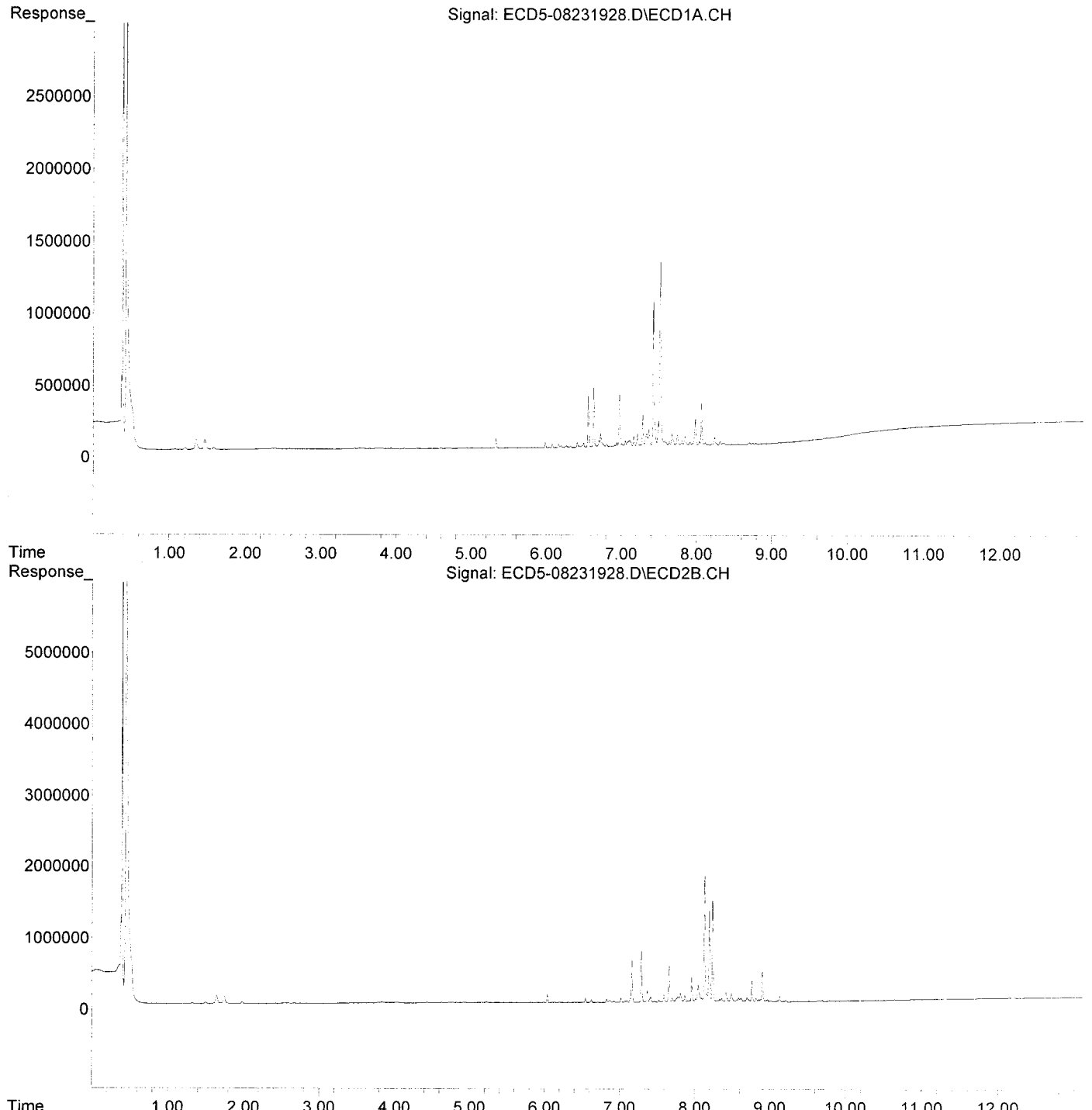
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f	7.016f	10976	62438	0.121	0.395	#
5)		Heptachlor	6.632	7.288	412192	714454	2.274	2.335	
6)		d-BHC	6.412f	0.000	34416	0	0.175	N.D.	#
7)		Aldrin	6.877	7.558	6150	10093	0.031	0.031	
8)		Heptachlo...	7.337	8.010	84467	51183	0.459	0.170	#
9)		trans-Chl...	7.429	8.131	1009143	1754707	5.458	5.600	
10)		cis-Chlor...	7.521	8.237	1286655	1472400	7.067	5.056	
11)		Endosulfa...	7.640	8.308	29794	24027	0.175	0.087	#
12)		4,4'-DDE	7.579	8.333	33953	45018	0.180	0.145	
13)		Dieldrin	7.807	8.488	35520	119533	0.185	0.393	#
14)		Endrin	7.986f	8.714	182097	37218	1.239	0.165	#
15)		4,4'-DDD	7.986	8.759	182097	301826	1.159	1.178	
16)		Endosulfa...	8.118	8.873	19535	32870	0.136	0.143	
17)		4,4'-DDT	0.000	8.994	0	11155	N.D.	0.027	#
18)		Endrin Al...	8.368f	9.128f	14946	80647	BelowCal	BelowCal	
19)		Endosulfa...	8.708	9.316f	13079	6249	0.084	0.025	#
20)		Methoxychlor	8.553	0.000	3815	0	0.065	N.D.	#
21)		Endrin Ke...	8.899	9.686	2603	18155	0.016	0.071	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.256	7.934	11579	24468	0.070	0.089	
26)		2,4'-DDE	7.337	8.131	84467	1754707	0.659	8.272	#
27)		trans-Non...	7.521	8.194	1286655	1274306	6.866	4.225	
28)		2,4'-DDD	7.675f	8.488	83034	119533	0.728	0.633	
29)		2,4'-DDT	7.914f	8.714	22312	37218	0.203	0.209	
30)		cis-Nonac...	7.986	8.759	182097	301826	0.877	0.900	
31)		Mirex	0.000	9.686	0	18155	N.D.	0.098	#
32)		Chlordane...	7.429	8.131	1009143	1754707	51.253	48.493	
33)		Chlordane...	7.521	8.237	1286655	1472400	51.334	48.492	
34)		Chlordane...	8.068	8.897	288087	439020	49.832	48.966	
35)		Chlordane...	3.446	0.000	5365	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	1286655	119533	1436.564	45.549	#
37)		Toxaphene...	7.807	8.814	35520	51904	21.995	15.771	
38)		Toxaphene...	8.118	8.851	19535	35575	5.801	7.019	
39)		Toxaphene...	8.348	8.897	14389	439020	4.441	52.578	#
40)		Toxaphene...	8.553f	9.128f	3815	80647	1.591	17.305	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	5365	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

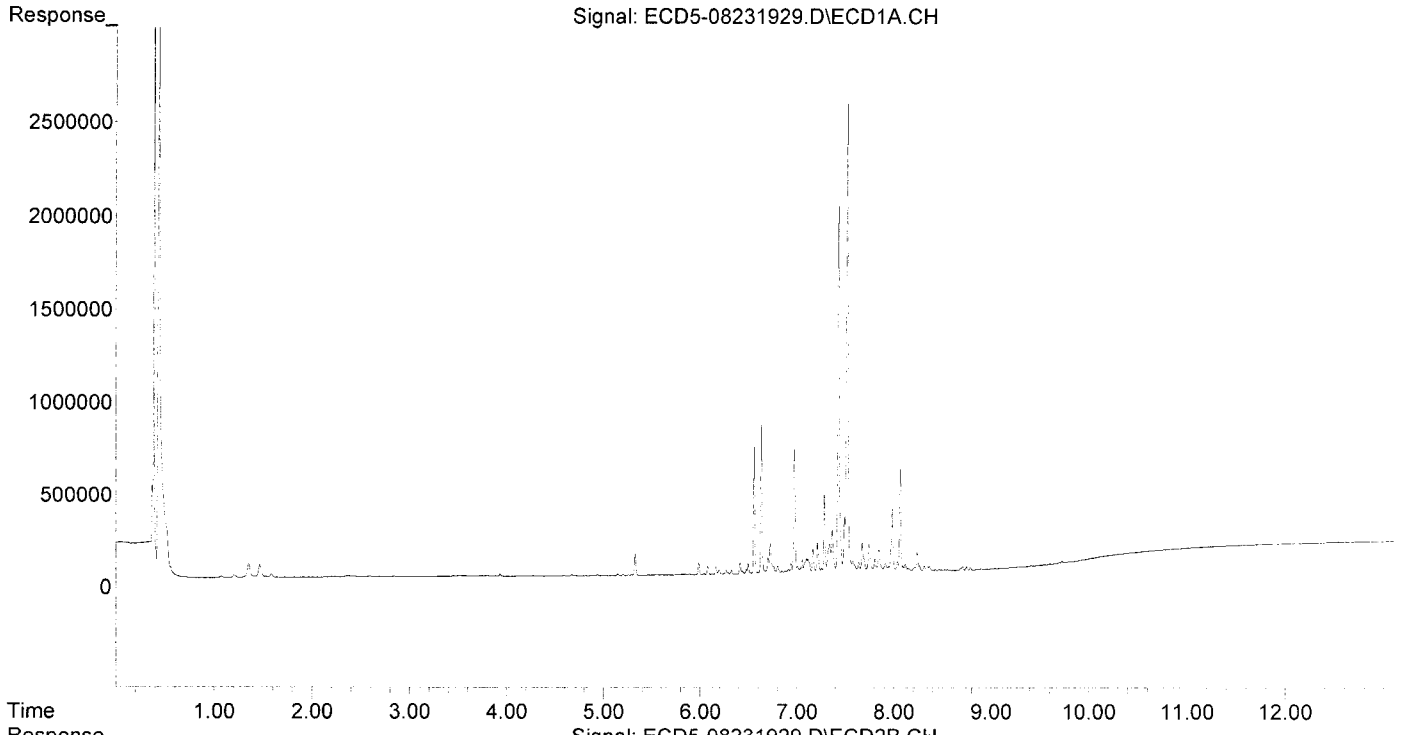
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC	6.323f	7.016f	21053	115009	0.233	0.727	#
5)		Heptachlor	6.632	7.288	802906	1372147	4.429	4.484	
6)		d-BHC	6.412f	0.000	63497	0	0.323	N.D.	#
7)		Aldrin	6.877	7.558	12864	20481	0.065	0.062	
8)		Heptachlo...	7.338	8.010	155514	93915	0.844	0.312	#
9)		trans-Chl...	7.429	8.130	1978897	3378388	10.703	10.782	
10)		cis-Chlor...	7.521	8.238	2519520	2905941	13.838	9.978	
11)		Endosulfa...	7.641f	8.309f	56850	48968	0.334	0.178	#
12)		4,4'-DDE	7.579	8.334	63125	84256	0.335	0.271	
13)		Dieldrin	7.807	8.488	69910	230931	0.364	0.759	#
14)		Endrin	7.986f	8.713	344068	89428	2.340	0.396	#
15)		4,4'-DDD	7.986	8.760	344068	593441	2.190	2.316	
16)		Endosulfa...	8.118	8.873	39271	74727	0.273	0.324	
17)		4,4'-DDT	0.000	8.995	0	22043	N.D.	0.090	#
18)		Endrin Al...	8.428f	9.128f	7592	153472	BelowCal	BelowCal	
19)		Endosulfa...	8.709	9.317f	21141	11695	0.136	0.047	#
20)		Methoxychlor	8.553	0.000	6889	0	0.118	N.D.	#
21)		Endrin Ke...	8.897	9.687	3240	29883	0.019	0.116	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	6.430f	0	7921	N.D.	0.025	#
25)		Oxychlordane	7.255	7.934	24127	50634	0.147	0.185	
26)		2,4'-DDE	7.338	8.130	155514	3378388	1.212	15.925	#
27)		trans-Non...	7.521	8.195	2519520	2542319	13.749	8.428	
28)		2,4'-DDD	7.676f	8.488	159771	230931	1.400	1.223	
29)		2,4'-DDT	7.914f	8.713	44472	89428	0.405	0.501	
30)		cis-Nonac...	7.986	8.760	344068	593441	1.657	1.769	
31)		Mirex	0.000	9.687	0	29883	N.D.	0.161	#
32)		Chlordane...	7.429	8.130	1978897	3378388	100.505	93.365	
33)		Chlordane...	7.521	8.238	2519520	2905941	100.522	95.703	
34)		Chlordane...	8.068	8.898	548196	874465	94.825	97.533	
35)		Chlordane...	3.446	0.000	4938	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	2519520	230931	2813.072	87.999	#
37)		Toxaphene...	7.807	8.815	69910	108014	43.289	32.821	
38)		Toxaphene...	8.118	8.851	39271	84269	11.662	16.627	#
39)		Toxaphene...	8.349	8.898	25383	874465	7.834	104.728	#
40)		Toxaphene...	8.553f	9.068f	6889	13931	2.874	2.989	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	4938	0	NoCal	N.D.	

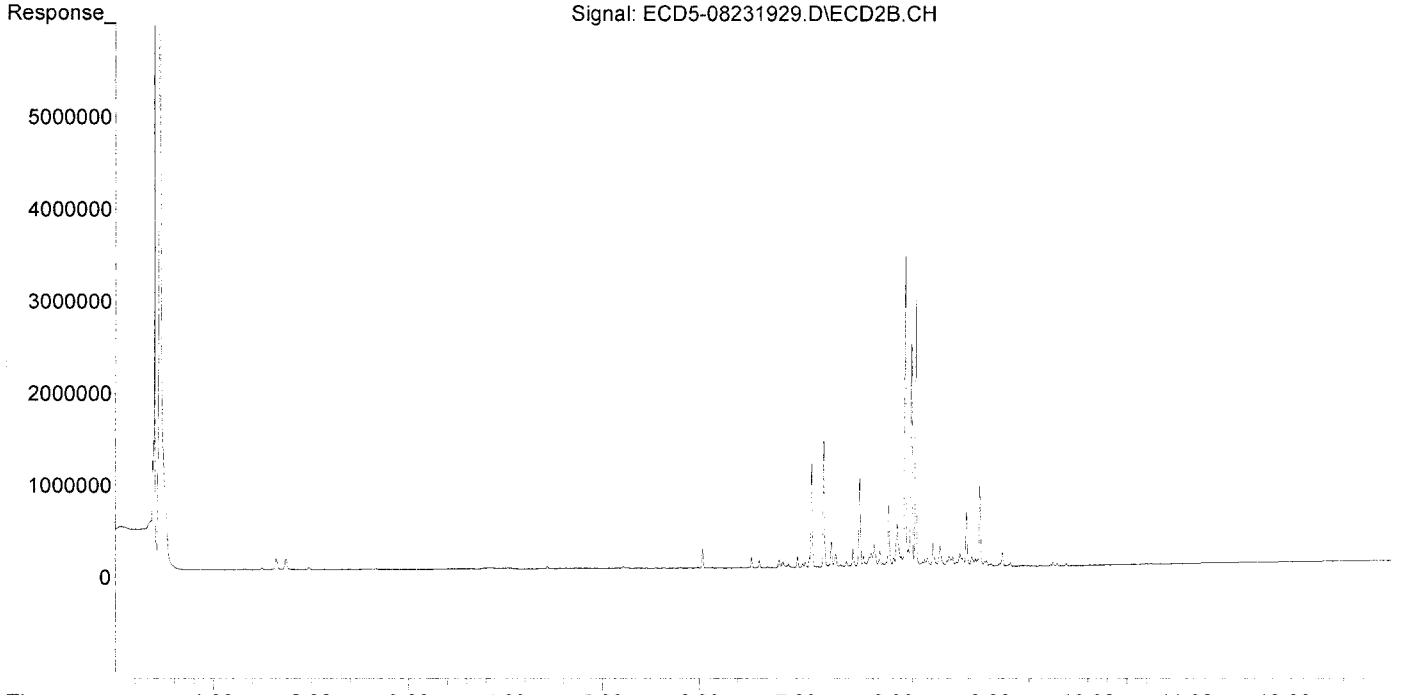
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

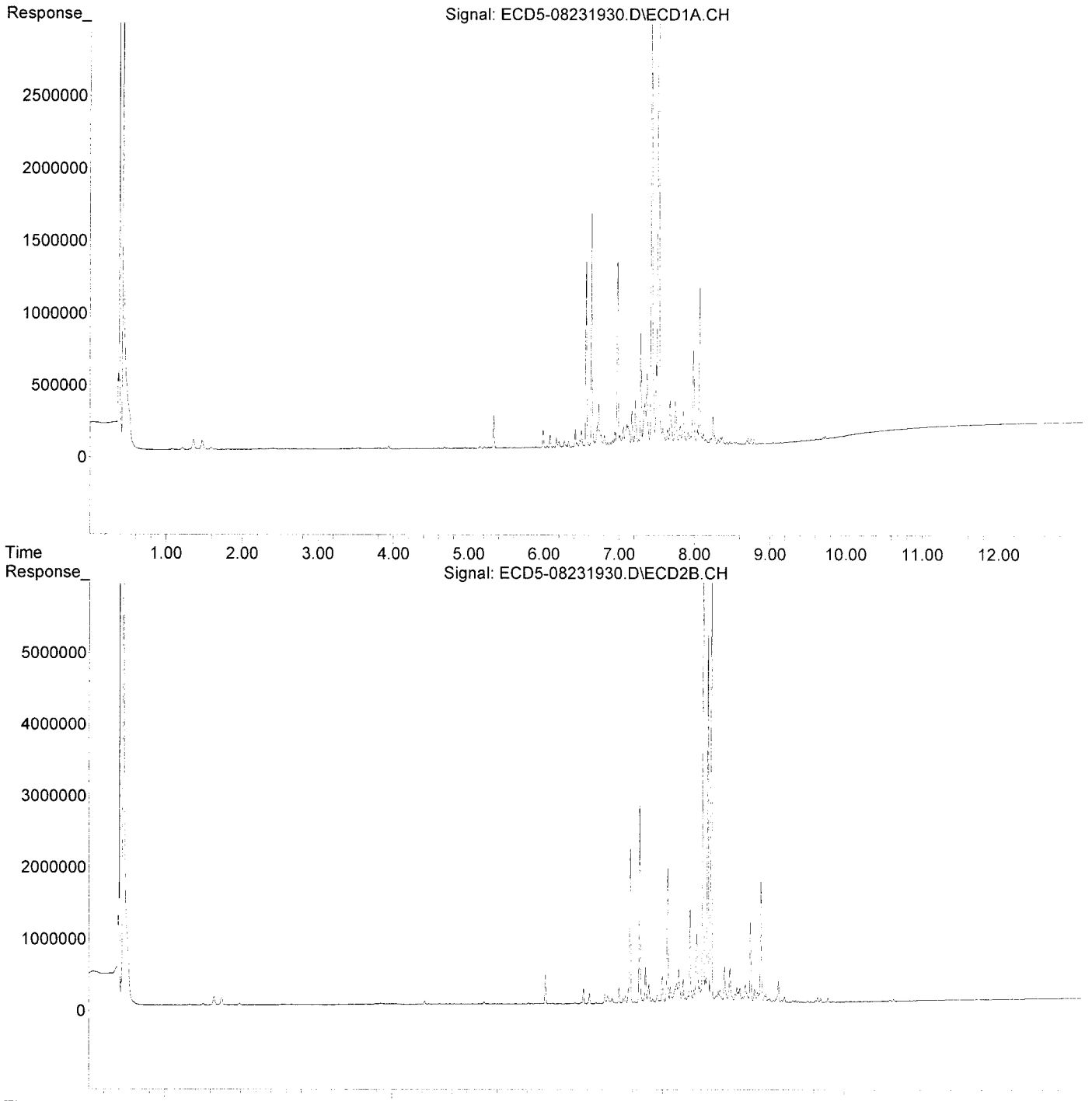
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f	0.000	45994	0	0.509	N.D.	#
5)		Heptachlor	6.633	7.290	1604459	2790294	8.850	9.119	
6)		d-BHC	6.414f	7.222	125171	21783	0.636	0.062	#
7)		Aldrin	6.878	7.559	27966	42088	0.142	0.128	
8)		Heptachlo...	7.339	8.011	296306	184421	1.609	0.613	#
9)		trans-Chl...	7.429	8.131	3849299	6751197	20.819	21.547	
10)		cis-Chlor...	7.522	8.239	4906320	5883615	26.947	20.201	
11)		Endosulfa...	7.641f	8.311f	111658	101195	0.656	0.368	#
12)		4,4'-DDE	7.579	8.334	119469	162236	0.634	0.522	
13)		Dieldrin	7.808	8.488	135995	479651	0.708	1.577	#
14)		Endrin	7.986f	8.714	662867	142098	4.508	0.629	#
15)		4,4'-DDD	7.986	8.759	662867	1113368	4.218	4.345	
16)		Endosulfa...	8.119	8.852	78177	142714	0.544	0.619	
17)		4,4'-DDT	0.000	8.995	0	47222	N.D.	0.237	#
18)		Endrin Al...	8.429f	9.129f	17160	296262	BelowCal	0.772	
19)		Endosulfa...	8.709	9.317f	39967	28714	0.258	0.115	#
20)		Methoxychlor	8.528	9.426f	15895	10981	0.271	BelowCal	#
21)		Endrin Ke...	8.895	9.688	5405	57534	0.032	0.224	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.768	6.432f	3592	14719	0.020	0.047	#
25)		Oxychlordane	7.256	7.935	46857	97946	0.285	0.358	
26)		2,4'-DDE	7.339	8.131	296306	6751197	2.310	31.825	#
27)		trans-Non...	7.522	8.196	4906320	5159253	27.077	17.104	
28)		2,4'-DDD	7.676f	8.488	310109	479651	2.717	2.540	
29)		2,4'-DDT	7.915f	8.714	90205	142098	0.822	0.797	
30)		cis-Nonac...	7.986	8.759	662867	1113368	3.193	3.319	
31)		Mirex	8.690f	9.688	25315	57534	0.202	0.309	#
32)		Chlordane...	7.429	8.131	3849299	6751197	195.499	186.577	
33)		Chlordane...	7.522	8.239	4906320	5883615	195.749	193.769	
34)		Chlordane...	8.069	8.898	1101677	1731727	190.565	193.146	
35)		Chlordane...	3.448	0.000	4503	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	8.488f	4906320	479651	5477.960	182.776	#
37)		Toxaphene...	7.808	8.815	135995	186597	84.211	56.699	
38)		Toxaphene...	8.119	8.852	78177	142714	23.215	28.158	
39)		Toxaphene...	8.349	8.898	48611	1731727	15.003	207.397	#
40)		Toxaphene...	8.553f	9.069f	15795	32796	6.589	7.037	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.448	0.000	4503	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

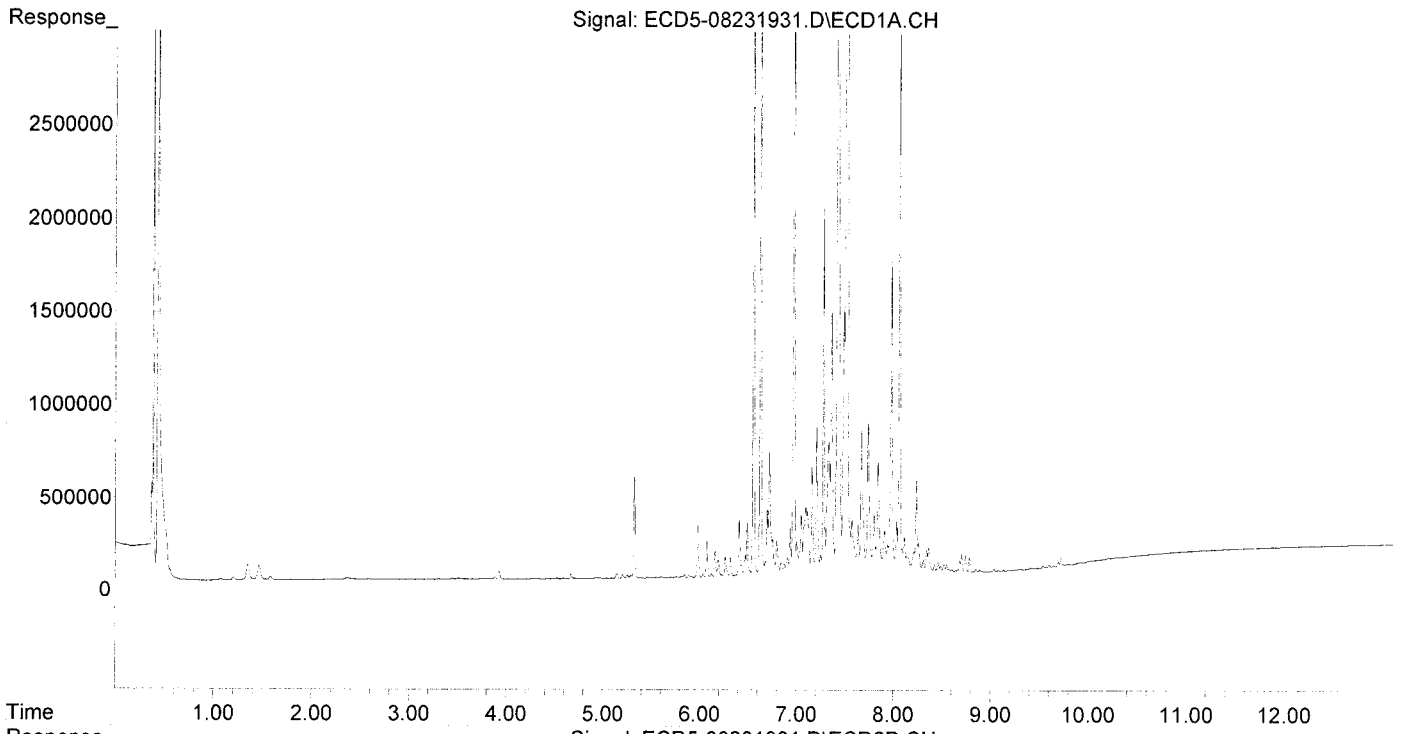
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
4)		b-BHC	6.322f	7.016f	105835	520011	1.171	3.286	#
5)		Heptachlor	6.631	7.288	4107971	7192687	22.659	23.507	
6)		d-BHC	6.412f	7.219	305503	51612	1.553	0.146	#
7)		Aldrin	6.876	7.558	67201	101902	0.340	0.309	
8)		Heptachlo...	7.336	8.009	709786	434942	3.854	1.446	#
9)		trans-Chl...	7.427	8.129	9628671	17830433	52.077	56.907	
10)		cis-Chlor...	7.520	8.237	12176524	14812273	66.878	50.858	
11)		Endosulfa...	7.639	8.308	267451	260205	1.572	0.946	
12)		4,4'-DDE	7.577	8.332	288716	403680	1.531	1.299	
13)		Dieldrin	7.806	8.487	320749	1311343	1.671	4.312	#
14)		Endrin	7.984f	8.712	1680286	346653	11.428	1.535	#
15)		4,4'-DDD	7.984	8.758	1680286	2798638	10.693	10.923	
16)		Endosulfa...	8.118	8.872	194466	323054	1.354	1.401	
17)		4,4'-DDT	0.000	8.994	0	120742	N.D.	0.665	#
18)		Endrin Al...	8.427f	9.127f	45775	749534	BelowCal	3.242	
19)		Endosulfa...	8.708	9.316f	99125	76741	0.640	0.308	#
20)		Methoxychlor	8.552	9.462	44336	19918	0.757	0.061	#
21)		Endrin Ke...	8.892	9.686	12903	140715	0.077	0.547	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	6475	34351	0.037	0.109	#
25)		Oxychlordane	7.283f	7.933	1963331	230983	11.932	0.843	#
26)		2,4'-DDE	7.336	8.129	709786	17830433	5.534	84.051	#
27)		trans-Non...	7.520	8.194	12176524	13173616	67.700	43.674	
28)		2,4'-DDD	7.674f	8.487	765105	1311343	6.704	6.943	
29)		2,4'-DDT	7.913f	8.712	230360	346653	2.100	1.944	
30)		cis-Nonac...	7.984	8.758	1680286	2798638	8.093	8.343	
31)		Mirex	8.645	9.686	12290	140715	0.098	0.756	#
32)		Chlordane...	7.427	8.129	9628671	17830433	489.023	492.763	
33)		Chlordane...	7.520	8.237	12176524	14812273	485.812	487.822	
34)		Chlordane...	8.067	8.896	2921278	4271709	505.313	476.441	
35)		Chlordane...	3.447	0.000	4056	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.487f	12176524	1311343	13595.220	499.701	#
37)		Toxaphene...	7.806	8.813	320749	462807	198.614	140.627	
38)		Toxaphene...	8.118	8.850	194466	348421	57.748	68.745	
39)		Toxaphene...	8.348	8.896	120098	4271709	37.065	511.592	#
40)		Toxaphene...	8.552f	9.067f	44336	90716	18.495	19.465	
41)		Toxaphene...	8.645	9.462	12290	19918	3.884	4.193	
42)		Toxaphene...	3.447	0.000	4056	0	NoCal	N.D.	

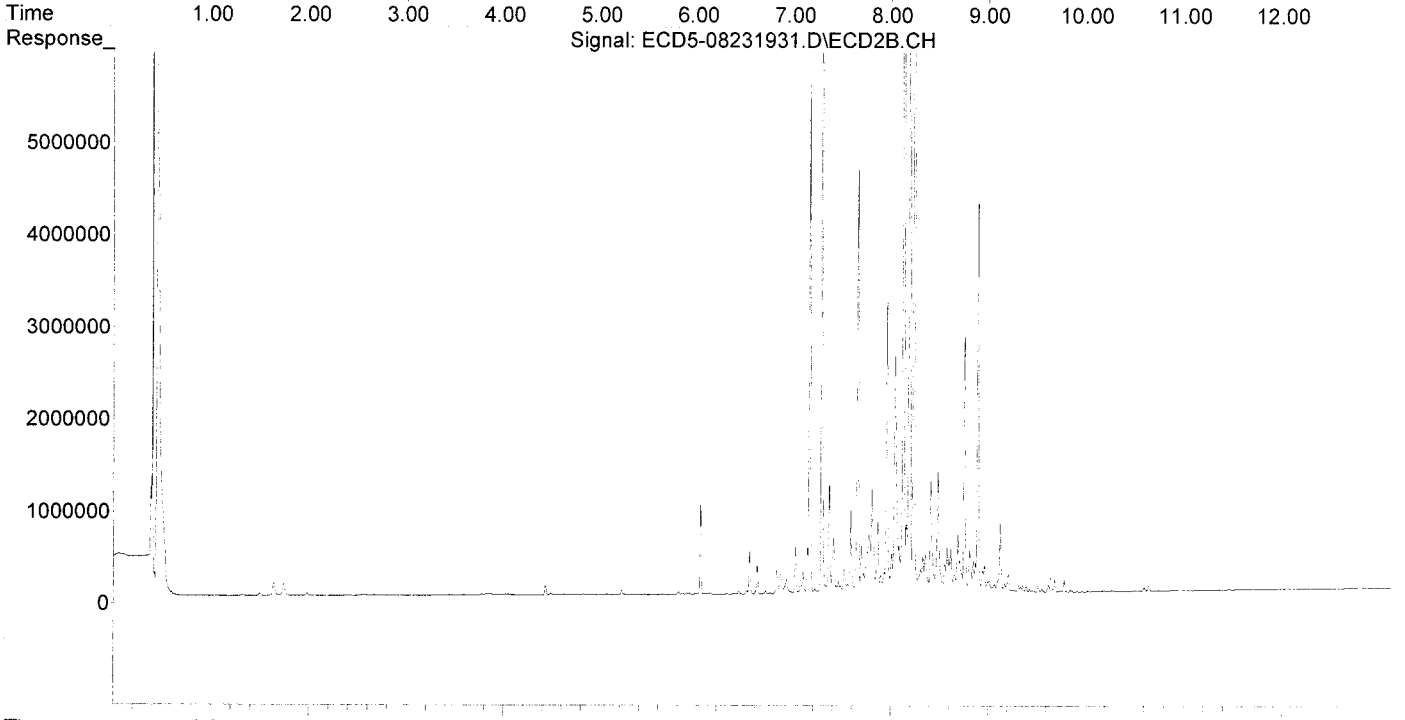
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

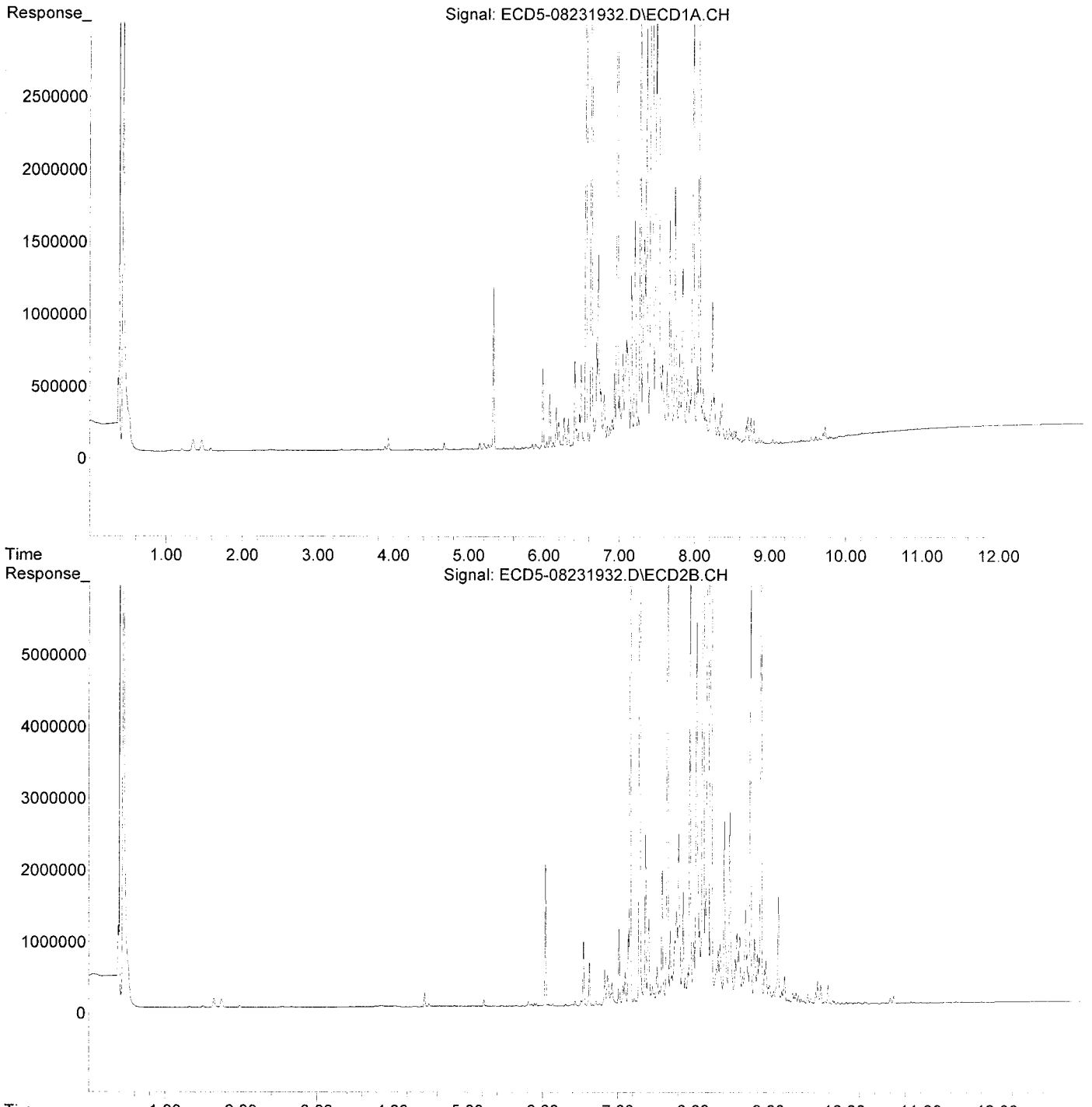
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896	
4)		b-BHC	6.322f	7.016f	206312	1070369	2.283	6.763	#
5)		Heptachlor	6.631	7.288	8491782	15019038	46.839	49.085	
6)		d-BHC	6.411f	7.241	615917	64884	3.131	0.184	#
7)		Aldrin	6.875	7.558	134371	205192	0.681	0.623	
8)		Heptachlo...	7.335	8.009	1431988	873449	7.775	2.903	#
9)		trans-Chl...	7.426	8.130	19643766	37966746	106.245	121.173	
10)		cis-Chlor...	7.519	8.237	25083239	31493677	137.766	108.134	
11)		Endosulfa...	7.638	8.309f	523226	508009	3.075	1.846	
12)		4,4'-DDE	7.576	8.332	564335	775935	2.993	2.498	
13)		Dieldrin	7.805	8.487	632206	2703774	3.293	8.890	#
14)		Endrin	7.985f	8.713	3305895	704023	22.485	3.118	#
15)		4,4'-DDD	7.985	8.758	3305895	5865563	21.038	22.893	
16)		Endosulfa...	8.118	8.872	392448	653843	2.733	2.835	
17)		4,4'-DDT	8.241f	8.994	1019486	242495	8.527	1.373	#
18)		Endrin Al...	8.427f	9.128f	96085	1500188	BelowCal	7.301	
19)		Endosulfa...	8.708	9.269	190049	57556	1.226	0.231	#
20)		Methoxychlor	8.552	9.462	93194	45695	1.591	0.381	#
21)		Endrin Ke...	8.891	9.687	25043	266287	0.150	1.035	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	12323	65416	0.070	0.208	#
25)		Oxychlordane	7.252	7.933	207847	466300	1.263	1.702	
26)		2,4'-DDE	7.335	8.130	1431988	37966746	11.165	178.972	#
27)		trans-Non...	7.519	8.194	25083239	27721467	139.911	91.904	
28)		2,4'-DDD	7.673f	8.487	1536407	2703774	13.462	14.316	
29)		2,4'-DDT	7.912f	8.713	462112	704023	4.213	3.948	
30)		cis-Nonac...	7.985	8.758	3305895	5865563	15.923	17.486	
31)		Mirex	8.645	9.687	28961	266287	0.231	1.431	#
32)		Chlordane...	7.426	8.130	19643766	37966746	997.671	1049.252	
33)		Chlordane...	7.519	8.237	25083239	31493677	1000.756	1037.202	
34)		Chlordane...	8.067	8.897	5987927	9358900	1035.773	1043.835	
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.487f	25083239	2703774	28005.706	1030.300	#
37)		Toxaphene...	7.805	8.814	632206	927954	391.474	281.965	
38)		Toxaphene...	8.118	8.850	392448	706508	116.540	139.397	
39)		Toxaphene...	8.348	8.897	233440	9358900	72.046	1120.849	#
40)		Toxaphene...	8.552f	9.067f	93194	183092	38.877	39.287	
41)		Toxaphene...	8.645	9.462	28961	45695	9.152	9.620	
42)		Toxaphene...	3.447	0.000	4825	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

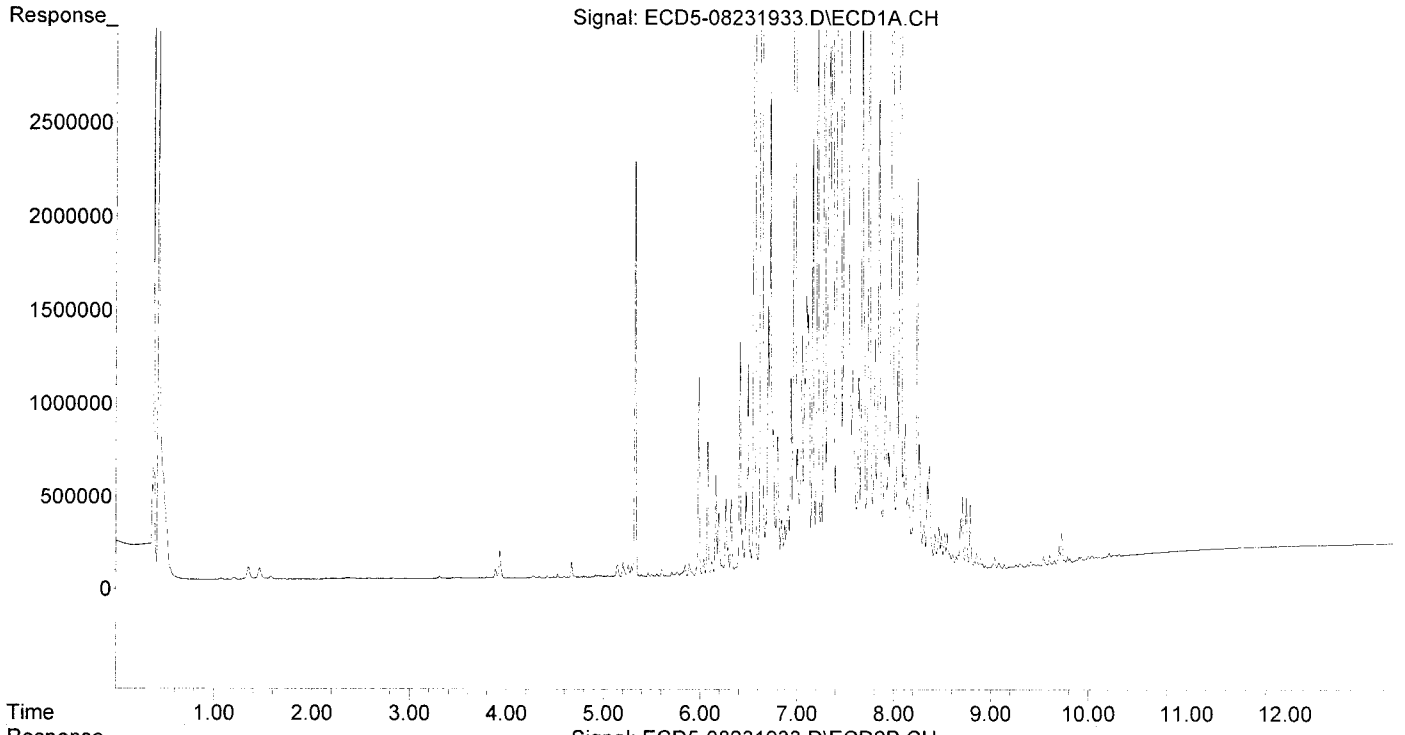
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657	1.666	
4)		b-BHC	6.321f	7.016f	403109	2092681	4.460	13.223	#
5)		Heptachlor	6.630	7.288	16898199	31950039	93.207	104.420	
6)		d-BHC	6.411f	7.240	1241284	122584	6.311	0.348	#
7)		Aldrin	6.874	7.557	258489	381283	1.309	1.158	
8)		Heptachlo...	7.335	8.008	2829322	1755780	15.362	5.836	#
9)		trans-Chl...	7.426	8.130	40036500	81691713	216.541	260.724	
10)		cis-Chlor...	7.519	8.238	50979142	66281388	279.996	227.578	
11)		Endosulfa...	7.638	8.308	1047673	1022624	6.156	3.716	
12)		4,4'-DDE	7.576	8.332	1098754	1565142	5.828	5.038	
13)		Dieldrin	7.805	8.486	1246658	5614133	6.494	18.458	#
14)		Endrin	7.984f	8.692f	6820662	2823722	46.391	12.504	#
15)		4,4'-DDD	7.984	8.759	6820662	12014776	43.405	46.894	
16)		Endosulfa...	8.118	8.872	787524	1320218	5.484	5.725	
17)		4,4'-DDT	8.242f	8.993	2107649	483614	17.628	2.768	#
18)		Endrin Al...	8.427f	9.128f	193793	3090717	0.642	15.775	#
19)		Endosulfa...	8.709	9.268f	400484	128754	2.584	0.517	#
20)		Methoxychlor	8.552	9.462	195767	96597	3.342	1.012	#
21)		Endrin Ke...	8.892	9.686	57711	528113	0.346	2.052	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.766	6.430f	22503	117032	0.128	0.373	#
25)		Oxychlordane	7.252	7.932	378689	930396	2.302	3.397	#
26)		2,4'-DDE	7.335	8.130	2829322	81691713	22.059	385.087	#
27)		trans-Non...	7.519	8.194	50979142	59315099	285.157	196.645	
28)		2,4'-DDD	7.673f	8.486	3134690	5614133	27.467	29.726	
29)		2,4'-DDT	7.912f	8.692f	956476	2823722	8.720	15.833	#
30)		cis-Nonac...	7.984	8.759	6820662	12014776	32.852	35.817	
31)		Mirex	8.645	9.686	70178	528113	0.560	2.838	#
32)		Chlordane...	7.426	8.130	40036500	81691713	2033.382	2257.639	
33)		Chlordane...	7.519	8.238	50979142	66281388	2033.935	2182.889	
34)		Chlordane...	8.067	8.897	12208306	19418517	2111.754	2165.824	
35)		Chlordane...	3.449	0.000	4939	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.486f	50979142	5614133	56918.762	2139.322	#
37)		Toxaphene...	7.805	8.814	1246658	1872513	771.954	568.976	
38)		Toxaphene...	8.118	8.850	787524	1450920	233.861	286.273	
39)		Toxaphene...	8.368f	8.897	565943	19418517	174.666	2325.617	#
40)		Toxaphene...	8.552f	9.067f	195767	367185	81.667	78.789	
41)		Toxaphene...	8.645	9.462	70178	96597	22.176	20.335	
42)		Toxaphene...	3.449	0.000	4939	0	NoCal	N.D.	

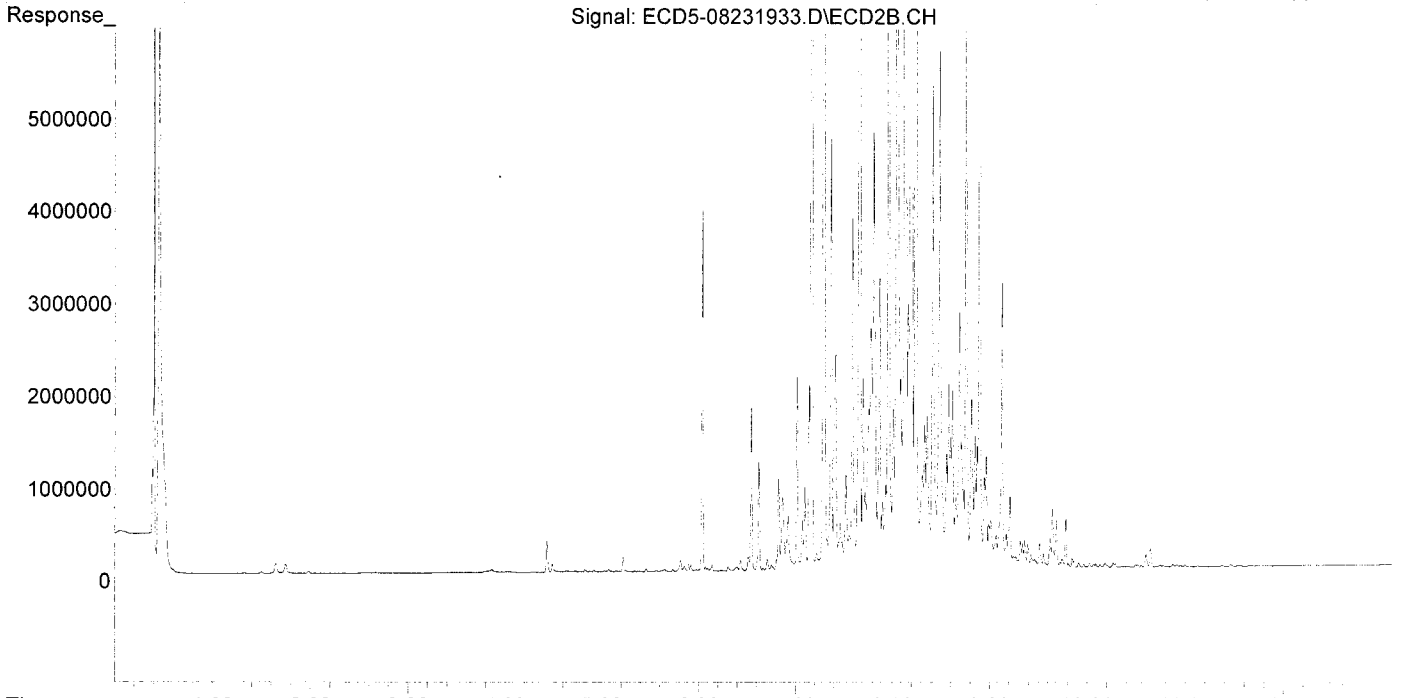
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

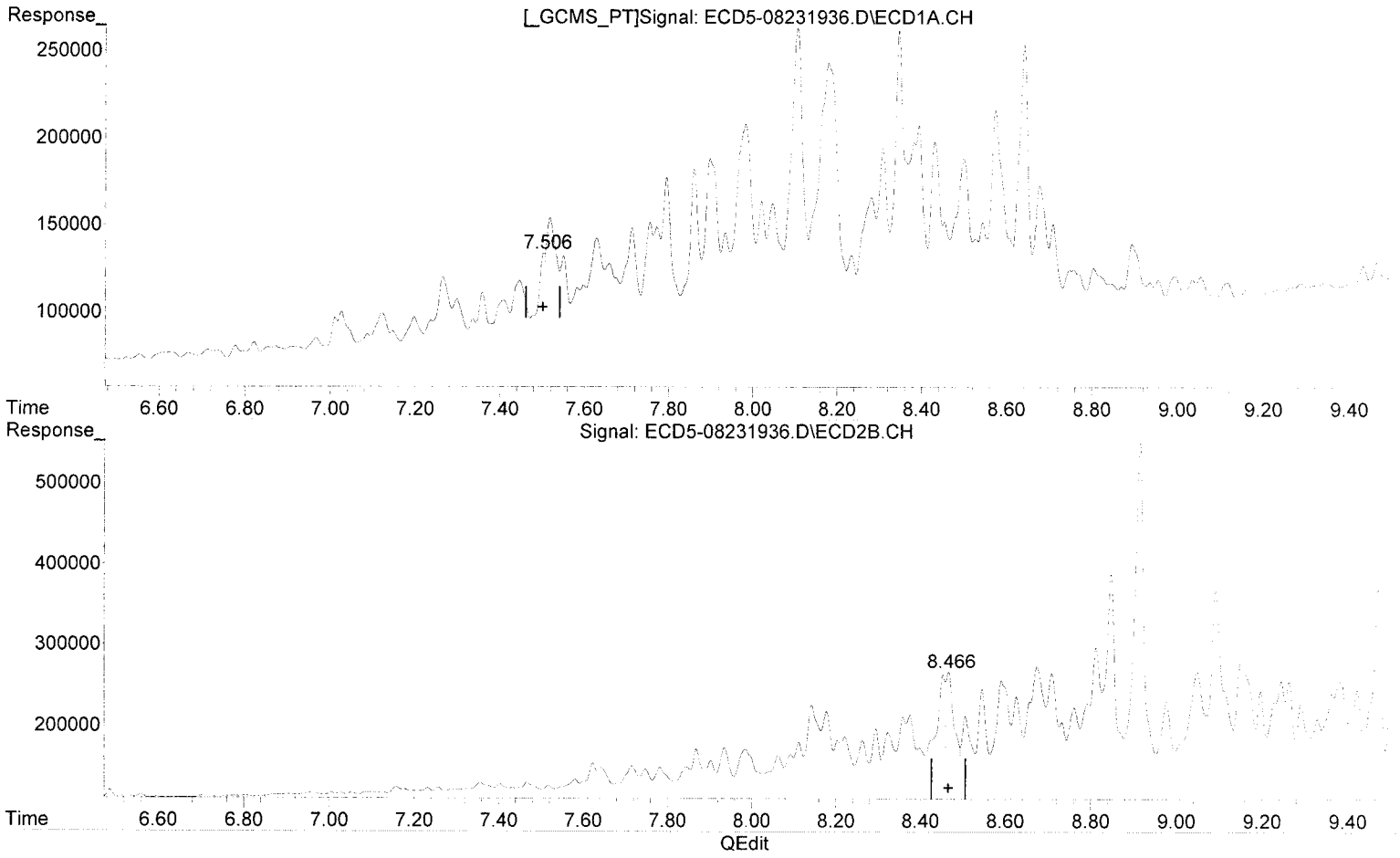
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0	0.033	N.D.	#
5)	Heptachlor	6.627	0.000	4370	0	0.024	N.D.	#
6)	d-BHC	6.469f	0.000	2958	0	0.015	N.D.	#
7)	Aldrin	6.871	7.582f	4859	11806	0.025	0.036	#
8)	Heptachlo...	7.336	7.985	13601	46078	0.074	0.153	#
9)	trans-Chl...	7.446	8.142	34060	99117	0.184	0.316	#
10)	cis-Chlor...	7.518	8.221	69068	59106	0.379	0.203	#
11)	Endosulfa...	7.629	8.294	55946	68659	0.329	0.250	
12)	4,4'-DDE	7.550f	8.359	47125	82546	0.250	0.266	
13)	Dieldrin	7.794	8.505	88321	82204	0.460	0.270	#
14)	Endrin	7.934f	8.709	54457	133121	0.370	0.589	#
15)	4,4'-DDD	8.020	8.762	70973	90688	0.452	0.354	
16)	Endosulfa...	8.105	8.847	169381	254833	1.179	1.105	
17)	4,4'-DDT	8.180f	8.977	146997	96725	1.229	0.525	#
18)	Endrin Al...	8.392	9.091	108459	233185	BelowCal	0.427	
19)	Endosulfa...	8.708	9.291	48053	90329	0.310	0.363	
20)	Methoxychlor	8.573f	9.470	114720	230922	1.959	2.668	
21)	Endrin Ke...	8.894	9.711f	33550	36259	0.201	0.141	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	6.487f	0	8846	N.D.	0.028	#
25)	Oxychlordane	7.265	7.935	38772	48452	0.236	0.177	
26)	2,4'-DDE	7.336	8.112	13601	53529	0.106	0.252	#
27)	trans-Non...	7.518	8.204	69068	54722	0.069	0.181	#
28)	2,4'-DDD	7.713	8.505	60294	82204	0.528	0.435	
29)	2,4'-DDT	7.899	8.709	96979	133121	0.884	0.746	
30)	cis-Nonac...	7.981	8.762	116026	90688	0.559	0.270	#
31)	Mirex	8.641	9.711f	153138	36259	1.222	0.195	#
32)	Chlordane...	7.446	8.142	34060	99117	1.730	2.739	#
33)	Chlordane...	7.518	8.221	69068	59106	2.756	1.947	
34)	Chlordane...	8.047f	8.915	69875	416348	12.087	46.437	#
35)	Chlordane...	3.449	0.000	4023	0	NoCal	N.D.	
36)	Toxaphene...	7.506	8.466	49110	136848	54.832m	52.147	
37)	Toxaphene...	7.794	8.813	88321	164706	54.690	50.047	
38)	Toxaphene...	8.105	8.847	169381	254833	50.299	50.280	
39)	Toxaphene...	8.346	8.915	164317	416348	50.713	49.863	
40)	Toxaphene...	8.573	9.091	114720	233185	47.857	50.036	
41)	Toxaphene...	8.641	9.470	153138	230922	48.391	48.613	
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 54.832 ng/mL m

response 49110

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

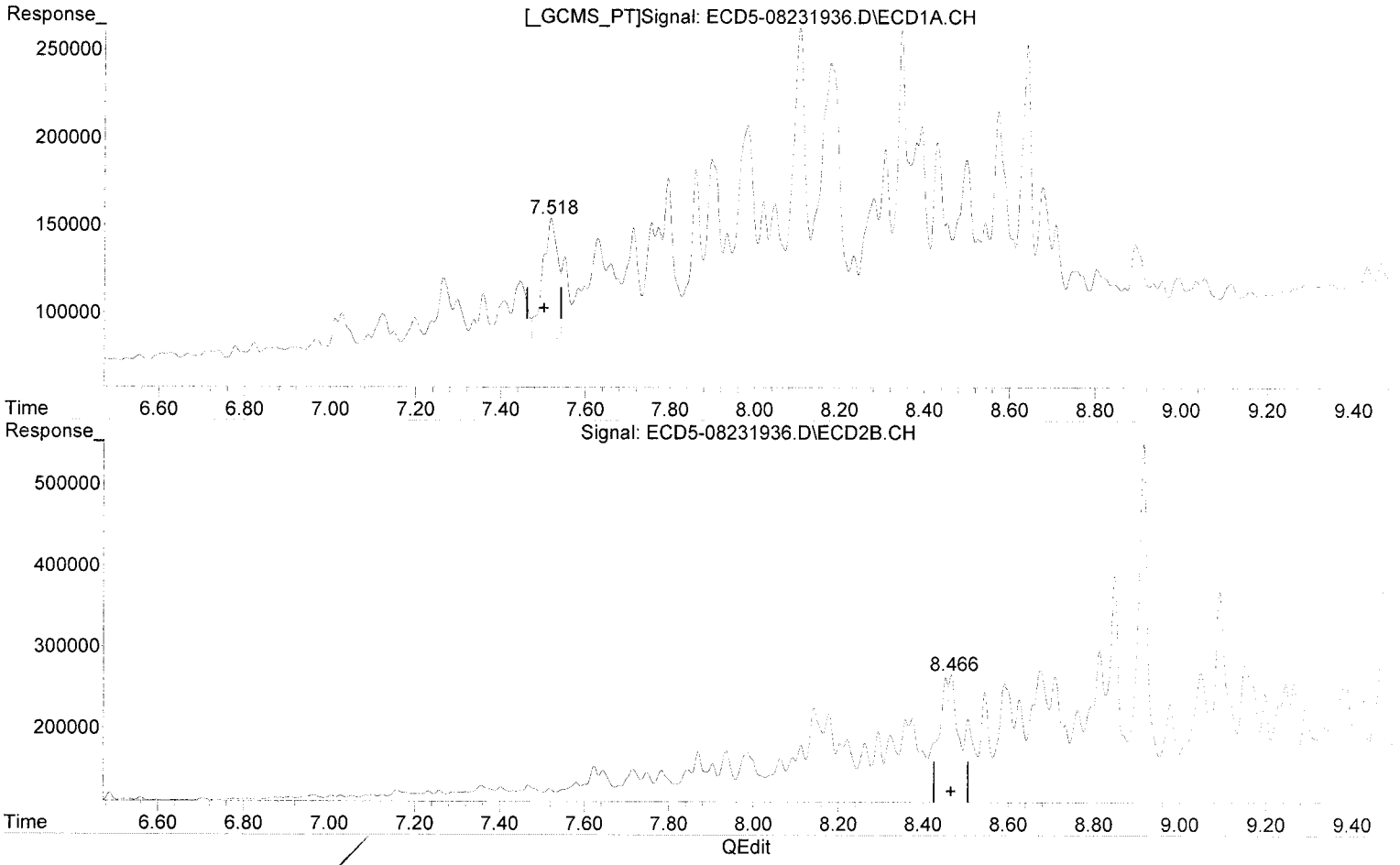
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 77.115 ng/mL

response 69068

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

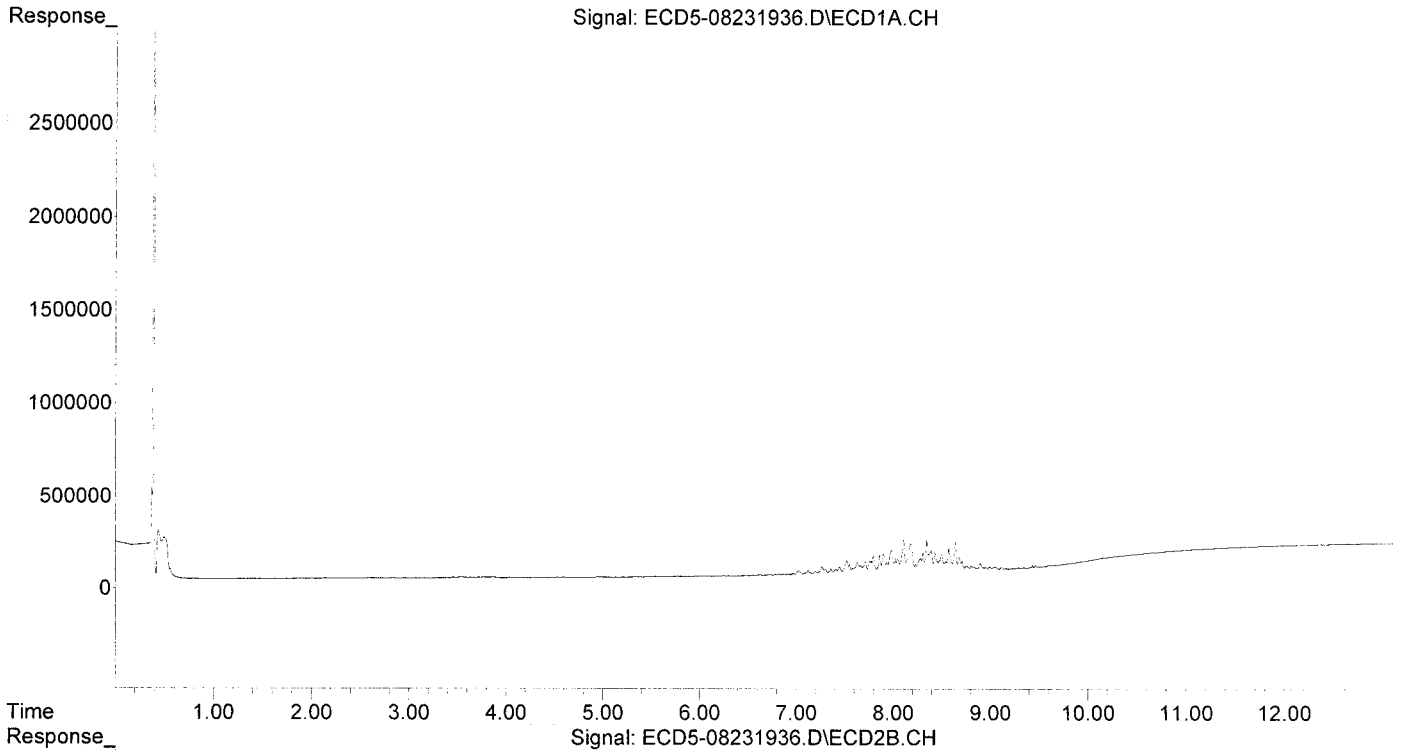
response 136848

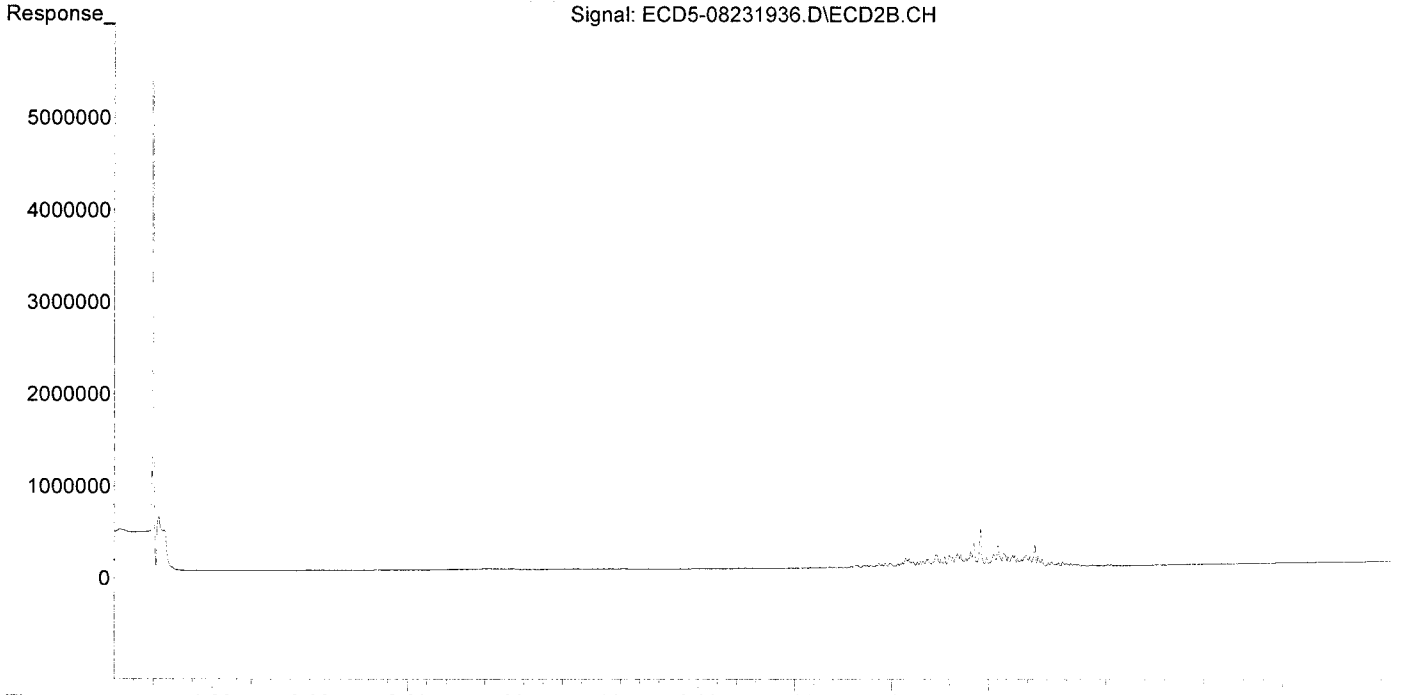
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

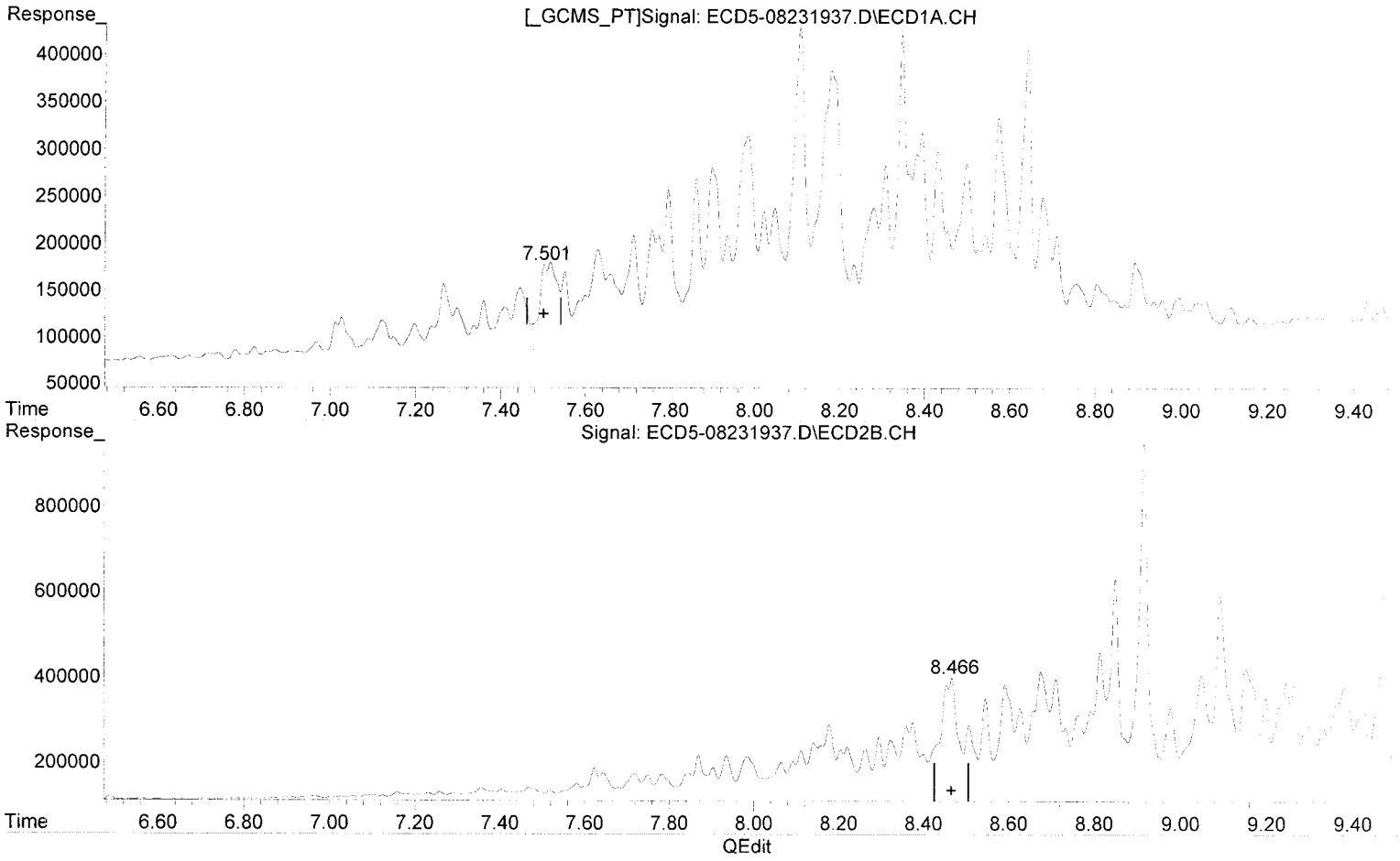
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297	6.965	3419	5803	0.038	0.037	
5)		Heptachlor	6.629	7.259f	5698	7338	0.031	0.024	
6)		d-BHC	6.470f	7.259f	3844	7338	0.020	0.021	
7)		Aldrin	6.872	7.582f	9196	24729	0.047	0.075	#
8)		Heptachlo...	7.359f	7.984	53934	87078	0.293	0.289	
9)		trans-Chl...	7.445	8.141	66985	117380	0.362	0.375	
10)		cis-Chlor...	7.517	8.220	93146	107177	0.512	0.368	
11)		Endosulfa...	7.629	8.295	104883	129689	0.616	0.471	
12)		4,4'-DDE	7.551f	8.359	82562	155356	0.438	0.500	
13)		Dieldrin	7.795	8.506	166085	156611	0.865	0.515	#
14)		Endrin	7.934f	8.710	115324	262153	0.784	1.161	#
15)		4,4'-DDD	8.021	8.762	139852	178338	0.890	0.696	
16)		Endosulfa...	8.106	8.848	332842	494430	2.318	2.144	
17)		4,4'-DDT	8.182f	8.977	285351	192921	2.387	1.085	#
18)		Endrin Al...	8.393	9.091	215405	452209	0.828	1.624	#
19)		Endosulfa...	8.710	9.291	103697	183737	0.669	0.738	
20)		Methoxychlor	8.543	9.471	105544	452485	1.802	5.374	#
21)		Endrin Ke...	8.894	9.712f	71764	83930	0.430	0.326	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.811f	6.488f	2684	8988	0.015	0.029	#
25)		Oxychlordane	7.266	7.935	73507	87358	0.447	0.319	
26)		2,4'-DDE	7.359f	8.112	53934	99205	0.420	0.468	
27)		trans-Non...	7.517	8.204	93146	102328	0.204	0.339	#
28)		2,4'-DDD	7.713	8.506	118203	156611	1.036	0.829	
29)		2,4'-DDT	7.899	8.710	187872	262153	1.713	1.470	
30)		cis-Nonac...	7.982	8.762	219963	178338	1.059	0.532	#
31)		Mirex	8.641	9.712f	302577	83930	2.414	0.451	#
32)		Chlordane...	7.410	8.141	46689	117380	2.371	3.244	
33)		Chlordane...	7.517	8.220	93146	107177	3.716	3.530	
34)		Chlordane...	8.047f	8.915	142490	811948	24.647	90.560	#
35)		Chlordane...	3.450	0.000	3536	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	91358	267534	102.002m	101.946	
37)		Toxaphene...	7.795	8.813	166085	324070	102.843	98.471	
38)		Toxaphene...	8.106	8.848	332842	494430	98.840	97.553	
39)		Toxaphene...	8.346	8.915	320313	811948	98.857	97.241	
40)		Toxaphene...	8.574	9.091	228960	452209	95.514	97.033	
41)		Toxaphene...	8.641	9.471	302577	452485	95.614	95.256	
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 102.002 ng/mL m

response 91358

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

response 267534

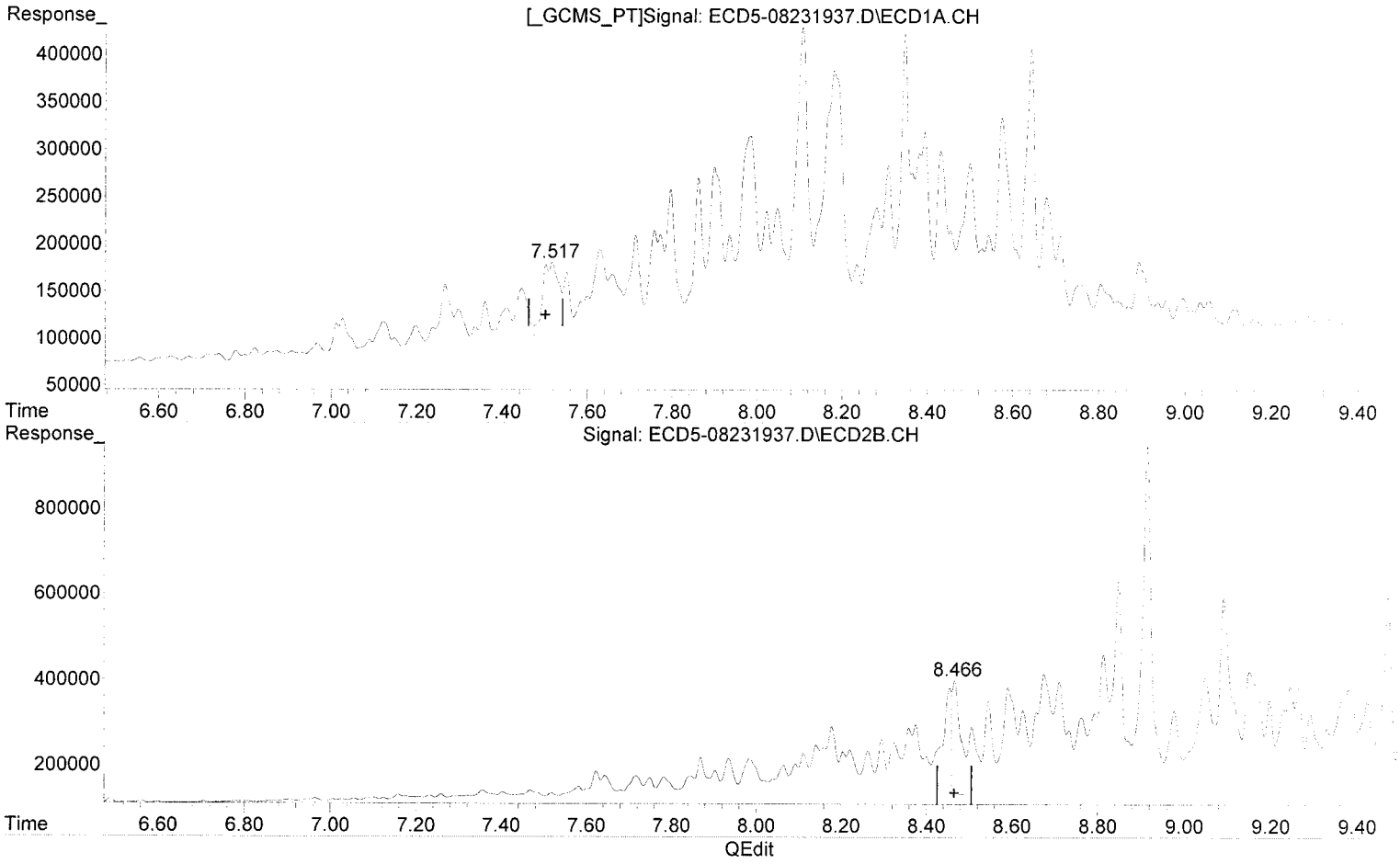
MD 6/26/19 MJB 6/26/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 103.998 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

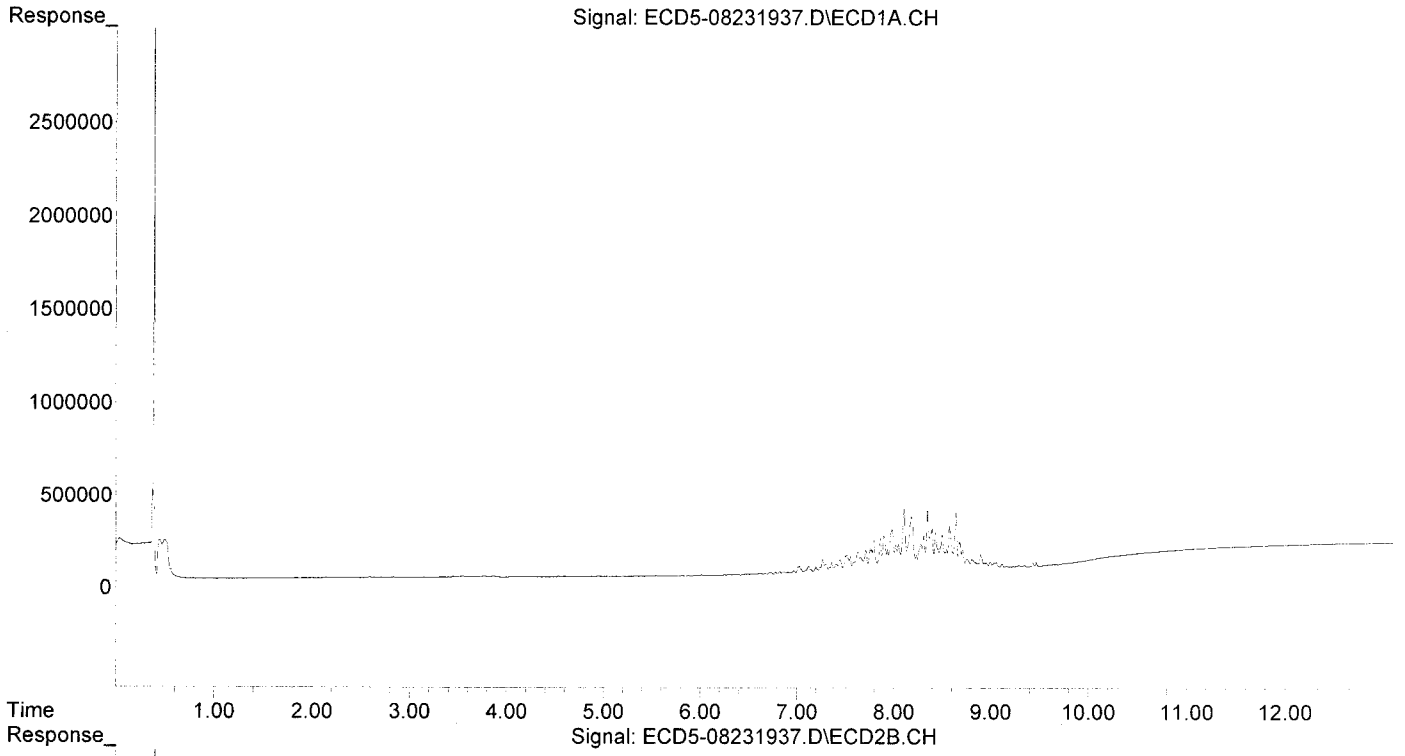
response 267534

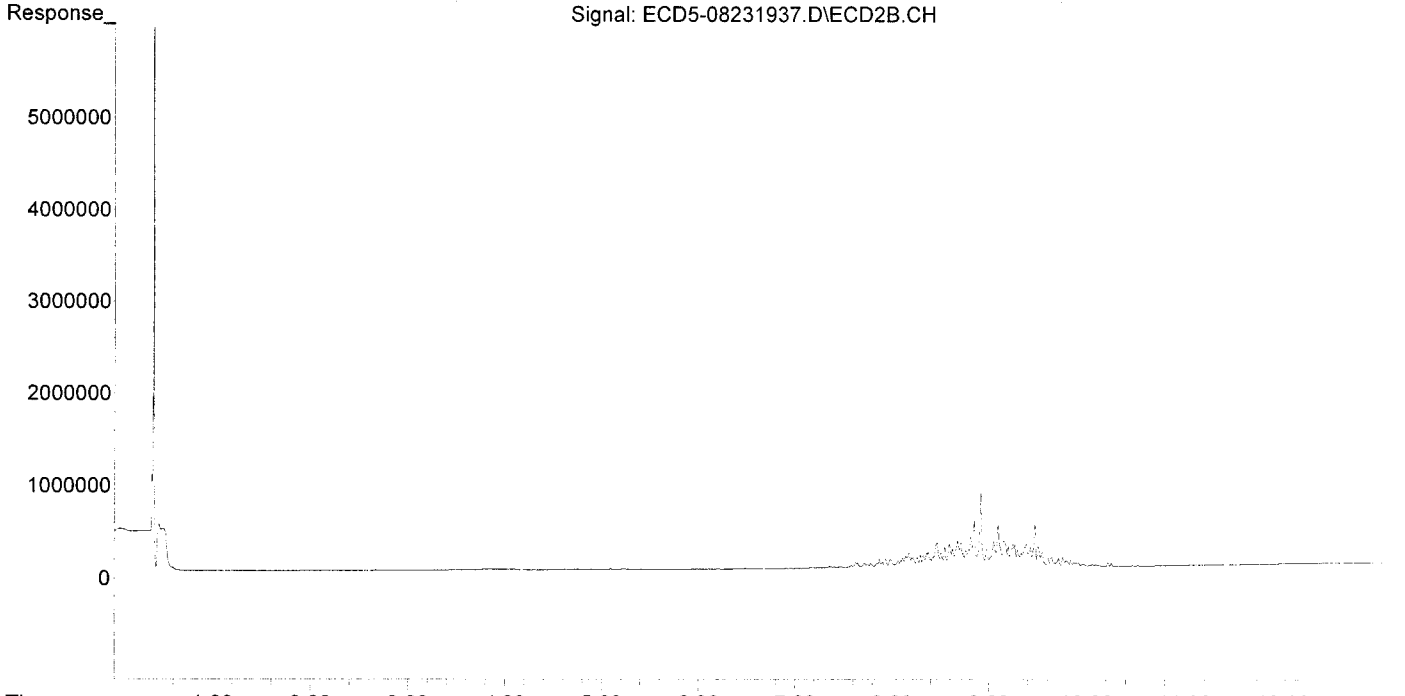
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MWB 8/26/19

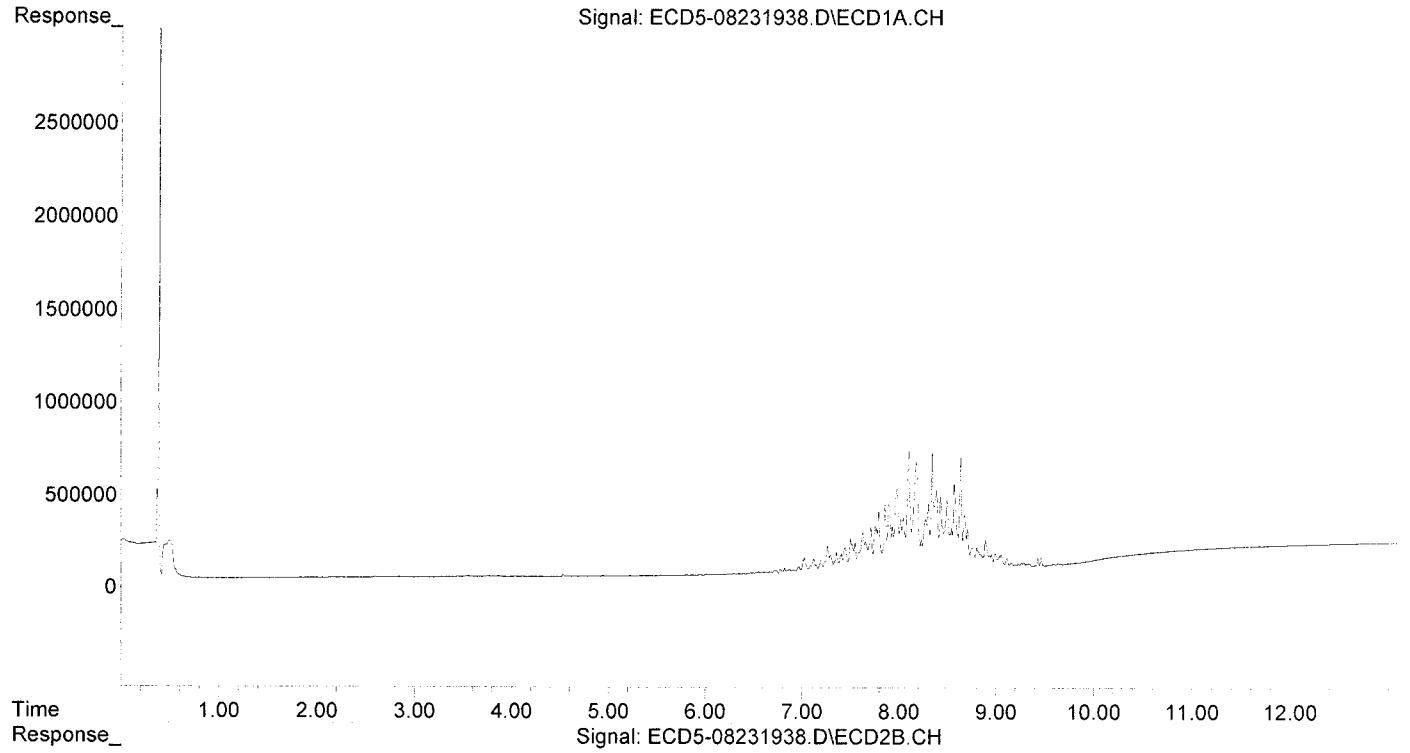
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22) S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
	Target Compounds							
2)	a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)	g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)	b-BHC	6.297	6.965	5553	11866	0.061	0.075	
5)	Heptachlor	6.630	7.292	9834	18991	0.054	0.062	
6)	d-BHC	6.469f	7.232	7279	22404	0.037	0.064	#
7)	Aldrin	6.872	7.582f	20475	52234	0.104	0.159	#
8)	Heptachlo...	7.336	7.984	58943	180203	0.320	0.599	#
9)	trans-Chl...	7.445	8.139	130754	171469	0.707	0.547	
10)	cis-Chlor...	7.502f	8.220	176047	207038	0.967	0.711	
11)	Endosulfa...	7.629	8.294	203563	255143	1.196	0.927	
12)	4,4'-DDE	7.551f	8.358	153844	307212	0.816	0.989	
13)	Dieldrin	7.795	8.506	317587	302159	1.654	0.993	
14)	Endrin	7.934f	8.709	233827	517355	1.590	2.291	#
15)	4,4'-DDD	8.021	8.761	271844	361076	1.730	1.409	
16)	Endosulfa...	8.105	8.847	644464	995555	4.488	4.317	
17)	4,4'-DDT	8.182f	8.976	572615	378347	4.789	2.160	#
18)	Endrin Al...	8.392	9.090	423151	895397	2.609	4.034	#
19)	Endosulfa...	8.709	9.290	207483	368442	1.339	1.479	
20)	Methoxychlor	8.543	9.469	215126	905244	3.673	10.806	#
21)	Endrin Ke...	8.893	9.711f	142657	173912	0.855	0.676	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.811f	6.487f	2563	8587	0.015	0.027	#
25)	Oxychlordane	7.266	7.935	140581	179085	0.854	0.654	
26)	2,4'-DDE	7.336	8.112	58943	198883	0.460	0.938	#
27)	trans-Non...	7.502	8.205	176047	199265	0.666	0.661	
28)	2,4'-DDD	7.713	8.506	232393	302159	2.036	1.600	
29)	2,4'-DDT	7.899	8.709	356627	517355	3.251	2.901	
30)	cis-Nonac...	7.982	8.761	437778	361076	2.109	1.076	#
31)	Mirex	8.640	9.711f	597991	173912	4.770	0.935	#
32)	Chlordane...	7.445	8.139	130754	171469	6.641	4.739	
33)	Chlordane...	7.502	8.220	176047	207038	7.024	6.819	
34)	Chlordane...	8.047f	8.914	280898	1580436	48.589	176.272	#
35)	Chlordane...	3.451	0.000	3919	0	NoCal	N.D.	
36)	Toxaphene...	7.502	8.466	176047	508983	196.559	193.953	
37)	Toxaphene...	7.795	8.812	317587	645322	196.656	196.085	
38)	Toxaphene...	8.105	8.847	644464	995555	191.378	196.427	
39)	Toxaphene...	8.346	8.914	632351	1580436	195.161	189.278	
40)	Toxaphene...	8.574	9.090	454431	895397	189.572	192.130	
41)	Toxaphene...	8.640	9.469	597991	905244	188.964	190.570	
42)	Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.	

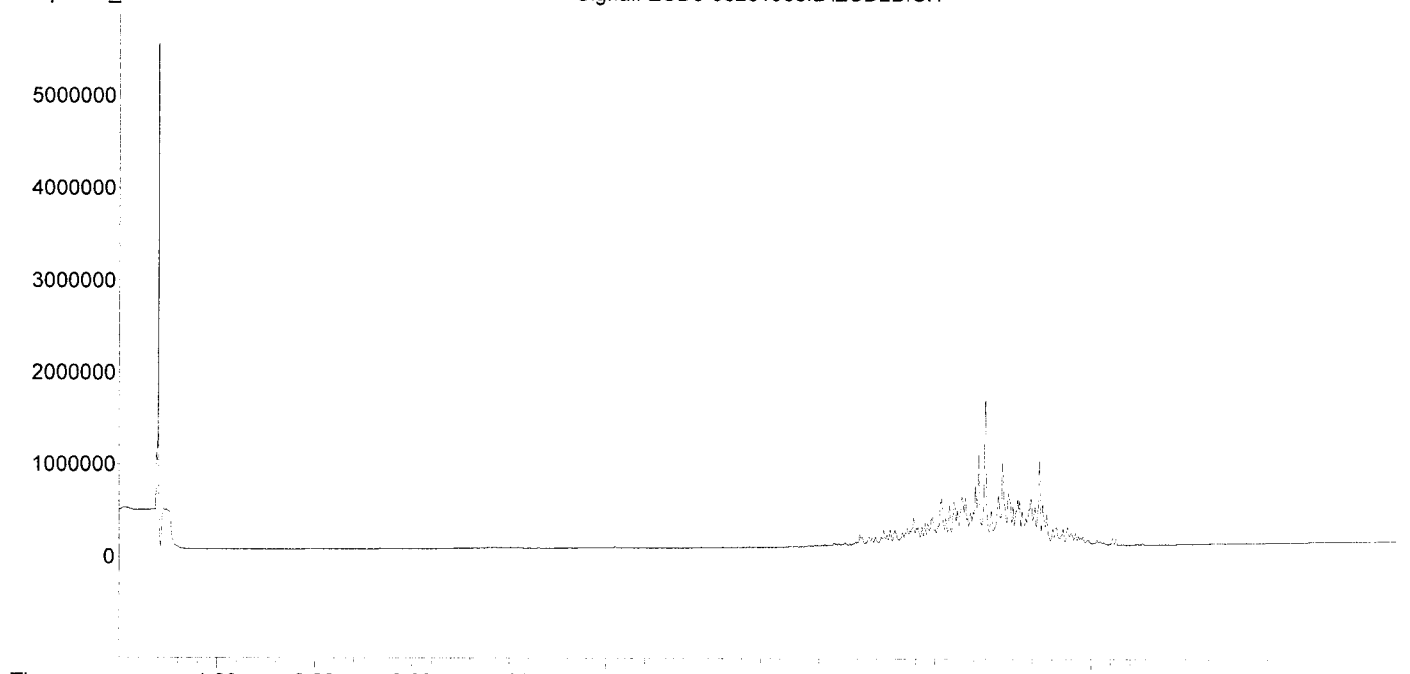
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

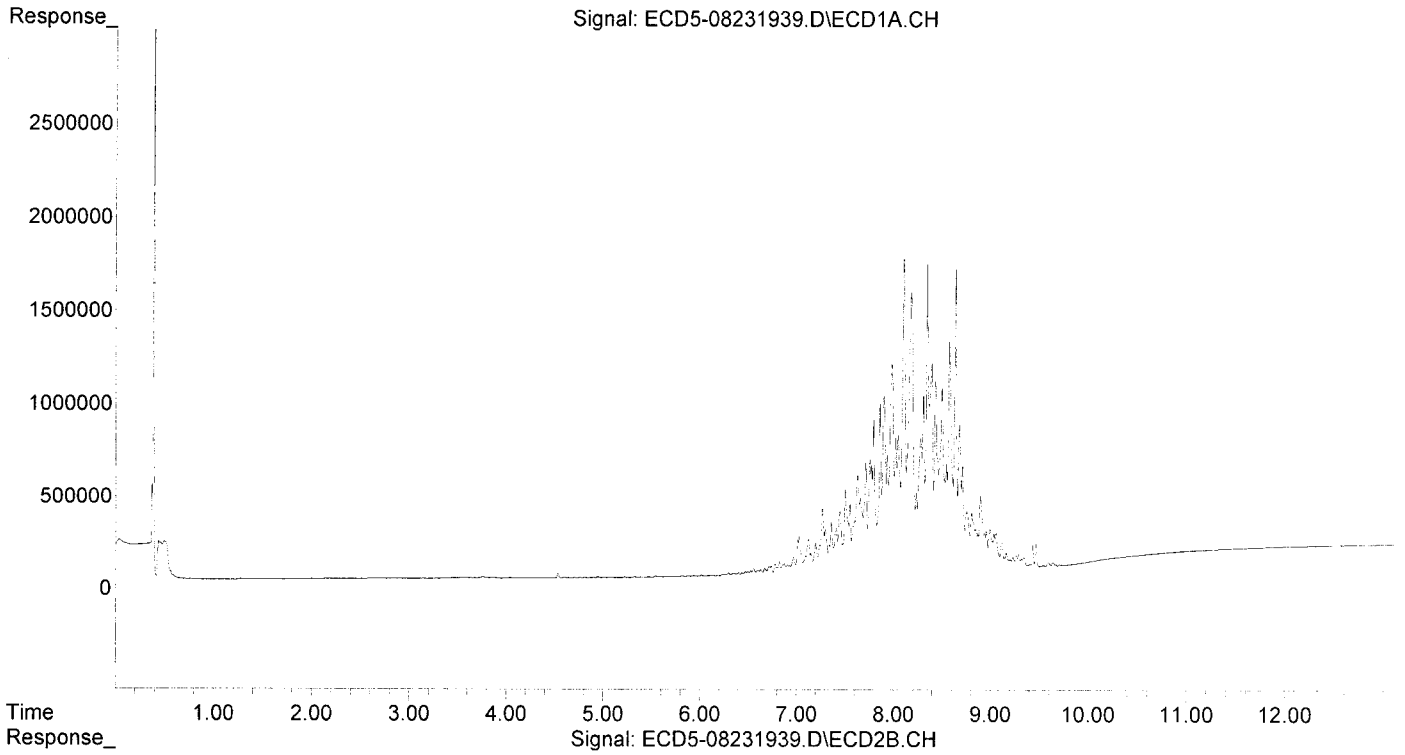
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
		Target Compounds							
2)		a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)		g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)		b-BHC	6.296	6.966	12656	26420	0.140	0.167	
5)		Heptachlor	6.631	7.291	26275	48687	0.145	0.159	
6)		d-BHC	6.434	7.233	12949	50866	0.066	0.144	#
7)		Aldrin	6.871	7.582f	54986	128738	0.278	0.391	#
8)		Heptachlo...	7.337	7.985	148782	431601	0.808	1.435	#
9)		trans-Chl...	7.445	8.136	326510	348418	1.766	1.112	
10)		cis-Chlor...	7.502f	8.220	441826	492762	2.427	1.692	
11)		Endosulfa...	7.629	8.295	523361	619890	3.075	2.253	
12)		4,4'-DDE	7.551f	8.358	370244	790371	1.964	2.544	
13)		Dieldrin	7.794	8.506	819454	752423	4.268	2.474	#
14)		Endrin	7.934f	8.711	624315	1366705	4.246	6.052	#
15)		4,4'-DDD	8.021	8.761	715456	940917	4.553	3.672	
16)		Endosulfa...	8.105	8.848	1677481	2475022	11.681	10.733	
17)		4,4'-DDT	8.182f	8.977	1480674	1000646	12.384	5.736	#
18)		Endrin Al...	8.392	9.091	1117641	2340668	8.532	11.800	
19)		Endosulfa...	8.709	9.290	555797	952729	3.586	3.825	
20)		Methoxychlor	8.574f	9.470	1221560	2369795	20.855	27.582	
21)		Endrin Ke...	8.894	9.711f	386326	477017	2.317	1.854	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.814f	6.461	4241	6767	0.024	0.022	
25)		Oxychlordane	7.265	7.936	350487	422818	2.130	1.544	
26)		2,4'-DDE	7.337	8.112	148782	485681	1.160	2.289	#
27)		trans-Non...	7.502	8.205	441826	487255	2.150	1.615	
28)		2,4'-DDD	7.713	8.506	583556	752423	5.113	3.984	
29)		2,4'-DDT	7.899	8.711	935213	1366705	8.526	7.664	
30)		cis-Nonac...	7.981	8.761	1117997	940917	5.385	2.805	#
31)		Mirex	8.640	9.711f	1623402	477017	12.949	2.564	#
32)		Chlordane...	7.408	8.136	238293	348418	12.102	9.629	
33)		Chlordane...	7.502	8.220	441826	492762	17.628	16.228	
34)		Chlordane...	8.046f	8.915	731630	4252640	126.555	474.314	#
35)		Chlordane...	3.450	0.000	4132	0	NoCal	N.D.	
36)		Toxaphene...	7.502	8.466	441826	1308994	493.303	498.805	
37)		Toxaphene...	7.794	8.812	819454	1647741	507.421	500.677	
38)		Toxaphene...	8.105	8.848	1677481	2475022	498.140	488.332	
39)		Toxaphene...	8.346	8.915	1649569	4252640	509.102	509.308	
40)		Toxaphene...	8.574	9.091	1221560	2340668	509.590	502.251	
41)		Toxaphene...	8.640	9.470	1623402	2369795	512.991	498.883	
42)		Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.	

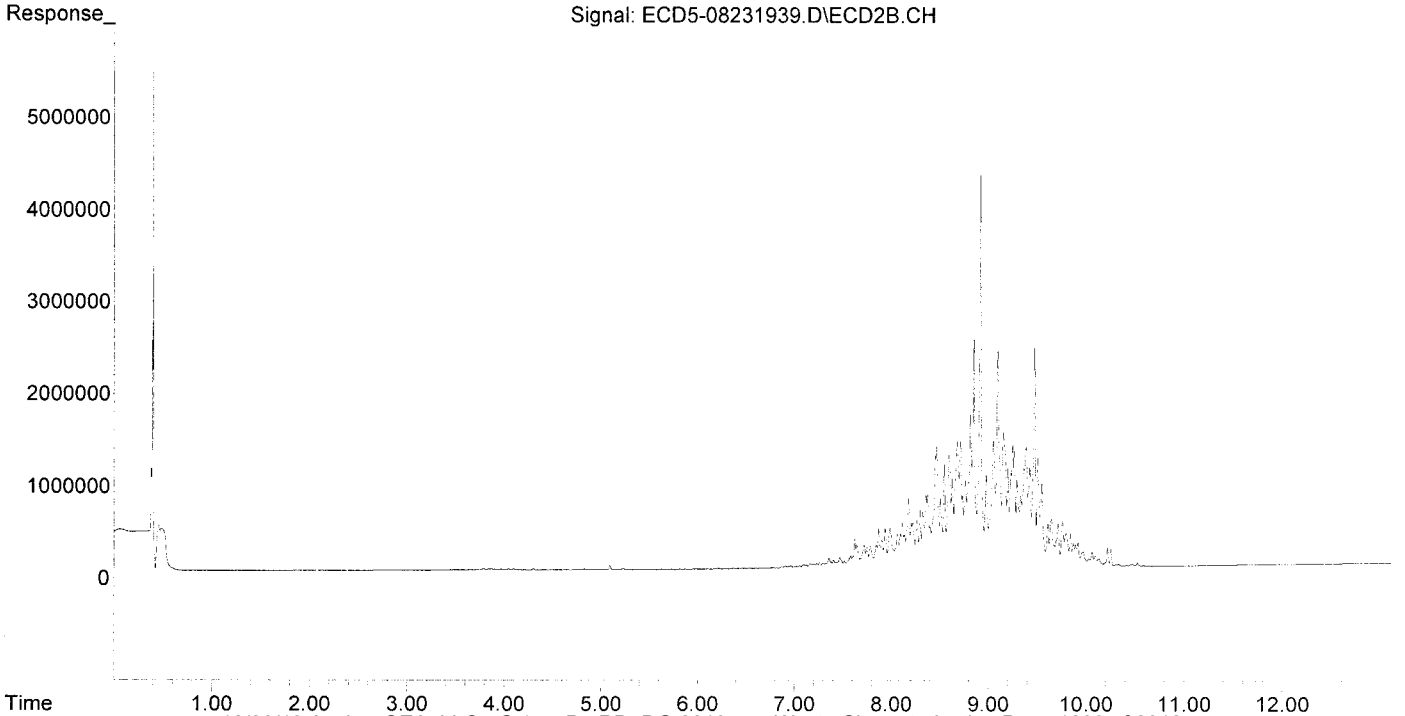
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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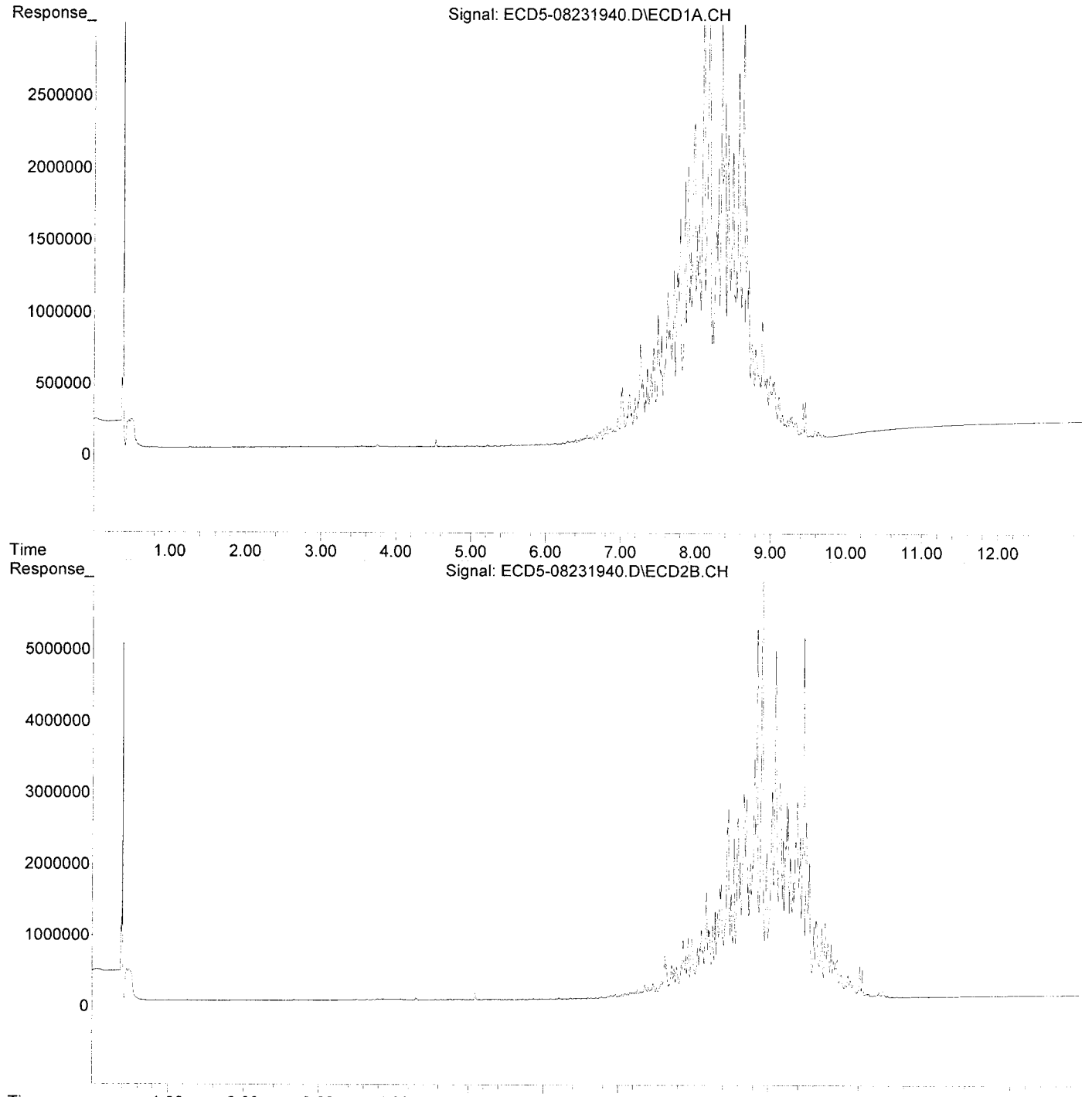
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S	DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
		Target Compounds							
2)		a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)		g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
4)		b-BHC	6.296	6.967	24041	58985	0.266	0.373	#
5)		Heptachlor	6.632	7.293	48435	95609	0.267	0.312	
6)		d-BHC	6.434	7.233	28416	100471	0.144	0.285	#
7)		Aldrin	6.871	7.551	108360	147580	0.549	0.448	
8)		Heptachlo...	7.336	7.985	294905	840940	1.601	2.795	#
9)		trans-Chl...	7.445	8.111f	659823	964498	3.569	3.078	
10)		cis-Chlor...	7.501f	8.220	871889	947518	4.789	3.253	
11)		Endosulfa...	7.628	8.295	1038833	1226540	6.104	4.457	
12)		4,4'-DDE	7.550f	8.358	746675	1543581	3.961	4.968	
13)		Dieldrin	7.793	8.506	1556013	1462579	8.105	4.809	#
14)		Endrin	7.933f	8.711	1312768	2786774	8.929	12.340	
15)		4,4'-DDD	8.020	8.762	1452045	1895471	9.240	7.398	
16)		Endosulfa...	8.105	8.848	3495877	5168269	24.343	22.412	
17)		4,4'-DDT	8.183	8.977	2996314	2028436	25.061	11.540	#
18)		Endrin Al...	8.391	9.091	2338006	4900430	18.826	25.221	
19)		Endosulfa...	8.709	9.291	1188299	2002950	7.668	8.041	
20)		Methoxychlor	8.543	9.470	1177404	5046645	20.101	55.668	#
21)		Endrin Ke...	8.893	9.712f	829327	990858	4.973	3.851	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.745f	6.463	2404	9221	0.014	0.029	#
25)		Oxychlordane	7.265	7.936	684836	845822	4.162	3.088	
26)		2,4'-DDE	7.336	8.111	294905	964498	2.299	4.547	#
27)		trans-Non...	7.501	8.204	871889	963521	4.550	3.194	
28)		2,4'-DDD	7.712	8.506	1203385	1462579	10.544	7.744	
29)		2,4'-DDT	7.898	8.711	1885482	2786774	17.190	15.626	
30)		cis-Nonac...	7.981	8.762	2207076	1895471	10.631	5.651	#
31)		Mirex	8.640	9.712f	3406737	990858	27.174	5.325	#
32)		Chlordane...	7.445	8.111	659823	964498	33.511	26.655	
33)		Chlordane...	7.501	8.220	871889	947518	34.786	31.205	
34)		Chlordane...	8.045f	8.915	1508434	8650068	260.924	964.776	#
35)		Chlordane...	3.451	0.000	2687	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.467	871889	2654886	973.473	1011.671	
37)		Toxaphene...	7.793	8.813	1556013	3384036	963.512	1028.262	
38)		Toxaphene...	8.105	8.848	3495877	5168269	1038.126	1019.721	
39)		Toxaphene...	8.345	8.915	3287014	8650068	1014.463	1035.957	
40)		Toxaphene...	8.573	9.091	2546293	4900430	1062.220	1051.514	
41)		Toxaphene...	8.640	9.470	3406737	5046645	1076.520	1062.406	
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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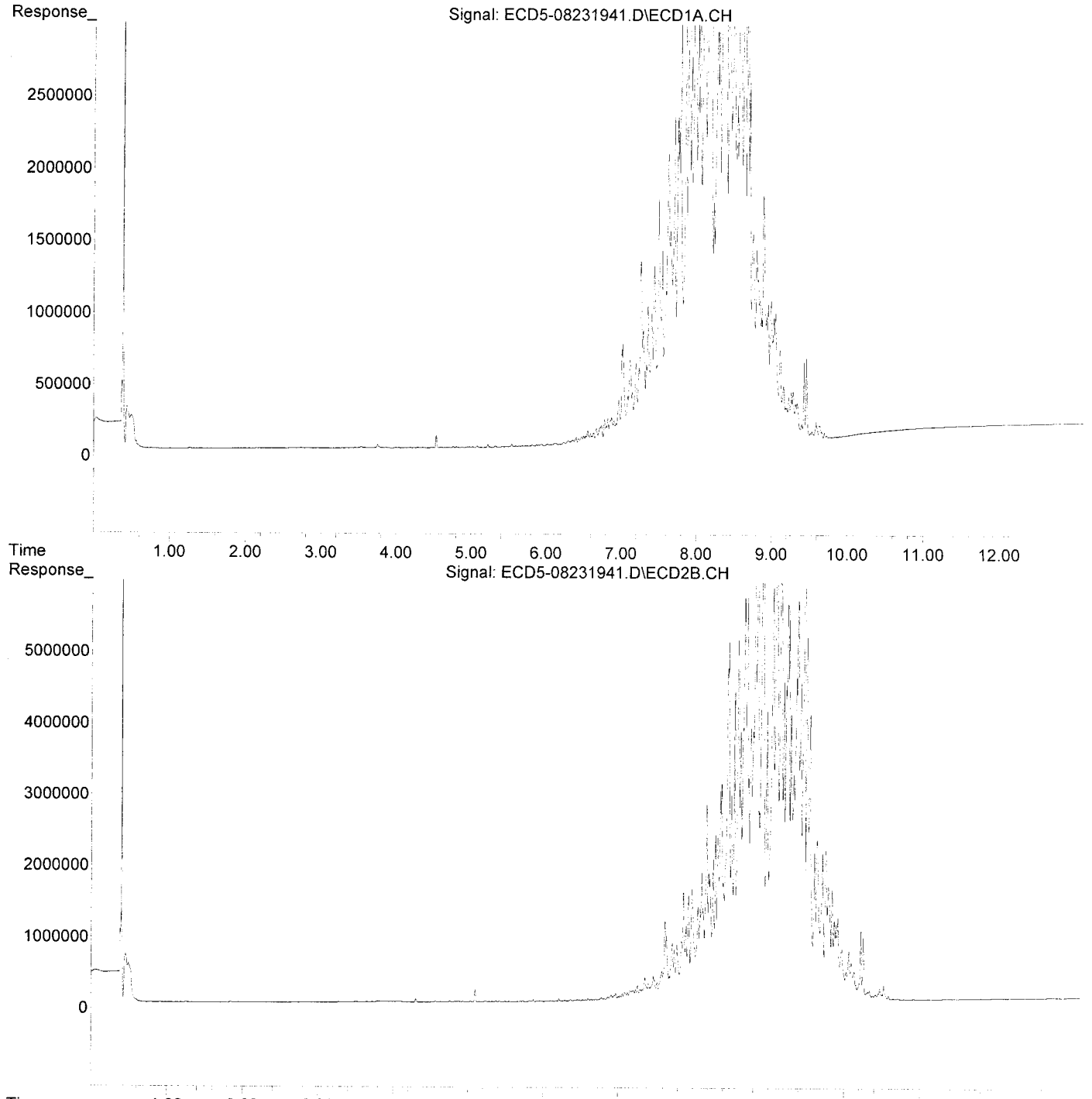
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
	Target Compounds							
2)	a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)	g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
4)	b-BHC	6.295	6.967	35592	107682	0.394	0.680	#
5)	Heptachlor	6.633	7.293	79787	161818	0.440	0.529	
6)	d-BHC	6.433	7.233	46116	159995	0.234	0.454	#
7)	Aldrin	6.871	7.581f	182635	424827	0.925	1.290	
8)	Heptachlo...	7.357f	7.984	952857	1568607	5.174	5.214	
9)	trans-Chl...	7.444	8.111f	1223688	1798529	6.618	5.740	
10)	cis-Chlor...	7.500f	8.218f	1674674	1710240	9.198	5.872	
11)	Endosulfa...	7.627	8.294	1999949	2341198	11.752	8.508	
12)	4,4'-DDE	7.549f	8.357	1335034	2938735	7.081	9.459	
13)	Dieldrin	7.792	8.505	2958997	2895788	15.413	9.521	
14)	Endrin	7.981f	8.711	4441487	5651216	30.209	25.025	
15)	4,4'-DDD	8.020	8.761	2883315	3832878	18.349	14.960	
16)	Endosulfa...	8.104	8.848	6831460	10545708	47.569	45.730	
17)	4,4'-DDT	8.183	8.977	5897786	4051156	49.329	22.612	#
18)	Endrin Al...	8.391	9.091	4718611	9435236	38.506	48.051	
19)	Endosulfa...	8.708	9.291	2483005	4046643	16.022	16.246	
20)	Methoxychlor	8.542	9.471	2322878	10090951	39.657	102.111	#
21)	Endrin Ke...	8.893	9.712f	1725359	2080010	10.346	8.083	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.744f	6.462	3614	25550	0.021	0.081	#
25)	Oxychlordane	7.264	7.935	1262060	1485955	7.670	5.425	
26)	2,4'-DDE	7.357f	8.111	952857	1798529	7.429	8.478	
27)	trans-Non...	7.500	8.204	1674674	1791431	9.032	5.939	
28)	2,4'-DDD	7.712	8.505	2255144	2895788	19.760	15.333	
29)	2,4'-DDT	7.898	8.711	3633258	5651216	33.124	31.688	
30)	cis-Nonac...	7.981	8.761	4441487	3832878	21.393	11.426	#
31)	Mirex	8.640	9.712f	6510950	2080010	51.935	11.178	#
32)	Chlordane...	7.444	8.111	1223688	1798529	62.149	49.704	
33)	Chlordane...	7.500	8.218	1674674	1710240	66.815	56.324	
34)	Chlordane...	8.044f	8.914	2935856	17190037	507.835	1917.273	#
35)	Chlordane...	3.452	0.000	4166	0	NoCal	N.D.	
36)	Toxaphene...	7.500	8.466	1674674	5030917	1869.791	1917.082	
37)	Toxaphene...	7.792	8.813	2958997	6610397	1832.266	2008.613	
38)	Toxaphene...	8.104	8.848	6831460	10545708	2028.651	2080.712	
39)	Toxaphene...	8.345	8.914	6407070	17190037	1977.398	2058.728	
40)	Toxaphene...	8.572	9.091	5074570	9435236	2116.925	2024.573	
41)	Toxaphene...	8.640	9.471	6510950	10090951	2057.443	2124.320	
42)	Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence Name: C:\msdchem\4\sequence\9H23034.s
Comment: Pesticides
Operator: MJB
Data Path: C:\MSDCHEM\4\DATA\2019-08\9H23034\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Sample	100	CONDITIONING RUN
Datafile		ECD5-08231901
Method		ECD5_AQUPEST_160111
2) Sample	100	CONDITIONING RUN
Datafile		ECD5-08231902
Method		ECD5_AQUPEST_160111
3) Sample	1	Hexane
Datafile		ECD5-08231903
Method		ECD5_AQUPEST_160111
4) Sample	2	9H23034-BKD1
Datafile		ECD5-08231904
Method		ECD5_AQUPEST_160111
5) Sample	1	Hexane
Datafile		ECD5-08231905
Method		ECD5_AQUPEST_160111
6) Sample	2	9H23034-BKD2
Datafile		ECD5-08231906
Method		ECD5_AQUPEST_160111
7) Sample	3	9H23034-ICB1
Datafile		ECD5-08231907
Method		ECD5_AQUPEST_160111
8) Sample	4	9H23034-CAL1
Datafile		ECD5-08231908
Method		ECD5_AQUPEST_160111
9) Sample	5	9H23034-CAL2
Datafile		ECD5-08231909
Method		ECD5_AQUPEST_160111
10) Sample	6	9H23034-CAL3
Datafile		ECD5-08231910
Method		ECD5_AQUPEST_160111
11) Sample	7	9H23034-CAL4
Datafile		ECD5-08231911
Method		ECD5_AQUPEST_160111
12) Sample	8	9H23034-CAL5
Datafile		ECD5-08231912
Method		ECD5_AQUPEST_160111
13) Sample	9	9H23034-CAL6
Datafile		ECD5-08231913
Method		ECD5_AQUPEST_160111
14) Sample	10	9H23034-CAL7
Datafile		ECD5-08231914
Method		ECD5_AQUPEST_160111
15) Sample	11	9H23034-CAL8
Datafile		ECD5-08231915
Method		ECD5_AQUPEST_160111
16) Sample	1	9H23034-IBL1
Datafile		ECD5-08231916
Method		ECD5_AQUPEST_160111
17) Sample	12	9H23034-ICV1
Datafile		ECD5-08231917
Method		ECD5_AQUPEST_160111
18) Sample	13	9H23034-CAL9
Datafile		ECD5-08231918
Method		ECD5_AQUPEST_160111
19) Sample	14	9H23034-CALA
Datafile		ECD5-08231919
Method		ECD5_AQUPEST_160111
20) Sample	15	9H23034-CALB

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     Datafile          ECD5-08231920
     Method            ECD5_AQUPEST_160111
21)  Sample        16  9H23034-CALC
     Datafile          ECD5-08231921
     Method            ECD5_AQUPEST_160111
22)  Sample        17  9H23034-CALD
     Datafile          ECD5-08231922
     Method            ECD5_AQUPEST_160111
23)  Sample        18  9H23034-CALE
     Datafile          ECD5-08231923
     Method            ECD5_AQUPEST_160111
24)  Sample        19  9H23034-CALF
     Datafile          ECD5-08231924
     Method            ECD5_AQUPEST_160111
25)  Sample        20  9H23034-CALG
     Datafile          ECD5-08231925
     Method            ECD5_AQUPEST_160111
26)  Sample         1  9H23034-IBL2
     Datafile          ECD5-08231926
     Method            ECD5_AQUPEST_160111
27)  Sample        21  9H23034-ICV2
     Datafile          ECD5-08231927
     Method            ECD5_AQUPEST_160111
28)  Sample        22  9H23034-CALH
     Datafile          ECD5-08231928
     Method            ECD5_AQUPEST_160111
29)  Sample        23  9H23034-CALI
     Datafile          ECD5-08231929
     Method            ECD5_AQUPEST_160111
30)  Sample        24  9H23034-CALJ
     Datafile          ECD5-08231930
     Method            ECD5_AQUPEST_160111
31)  Sample        25  9H23034-CALK
     Datafile          ECD5-08231931
     Method            ECD5_AQUPEST_160111
32)  Sample        26  9H23034-CALL
     Datafile          ECD5-08231932
     Method            ECD5_AQUPEST_160111
33)  Sample        27  9H23034-CALM
     Datafile          ECD5-08231933
     Method            ECD5_AQUPEST_160111
34)  Sample         1  9H23034-IBL3
     Datafile          ECD5-08231934
     Method            ECD5_AQUPEST_160111
35)  Sample        28  9H23034-ICV3
     Datafile          ECD5-08231935
     Method            ECD5_AQUPEST_160111
36)  Sample        29  9H23034-CALN
     Datafile          ECD5-08231936
     Method            ECD5_AQUPEST_160111
37)  Sample        30  9H23034-CALO
     Datafile          ECD5-08231937
     Method            ECD5_AQUPEST_160111
38)  Sample        31  9H23034-CALP
     Datafile          ECD5-08231938
     Method            ECD5_AQUPEST_160111
39)  Sample        32  9H23034-CALQ
     Datafile          ECD5-08231939
     Method            ECD5_AQUPEST_160111
40)  Sample        33  9H23034-CALR
     Datafile          ECD5-08231940
     Method            ECD5_AQUPEST_160111
41)  Sample        34  9H23034-CALS
     Datafile          ECD5-08231941
     Method            ECD5_AQUPEST_160111
42)  Sample         1  9H23034-IBL4
     Datafile          ECD5-08231942
     Method            ECD5_AQUPEST_160111
43)  Sample        35  9H23034-ICV4
     Datafile          ECD5-08231943
     Method            ECD5_AQUPEST_160111
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.587	1120444	NoCal	ng/mL
2)	Endrin	7.960	63253664	NoCal	ng/mL
3)	4,4'-DDD	8.007	6621952	NoCal	ng/mL
4)	4,4'-DDT	8.205	107029729	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	4202397	NoCal	ng/mL
6)	Endrin Ketone	8.901	6297738	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.347	1706439	NoCal	ng/mL
9)	Endrin [2C]	8.719	95742281	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.761	11347306	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.102	6529476	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	167003448	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	10363842	NoCal	ng/mL

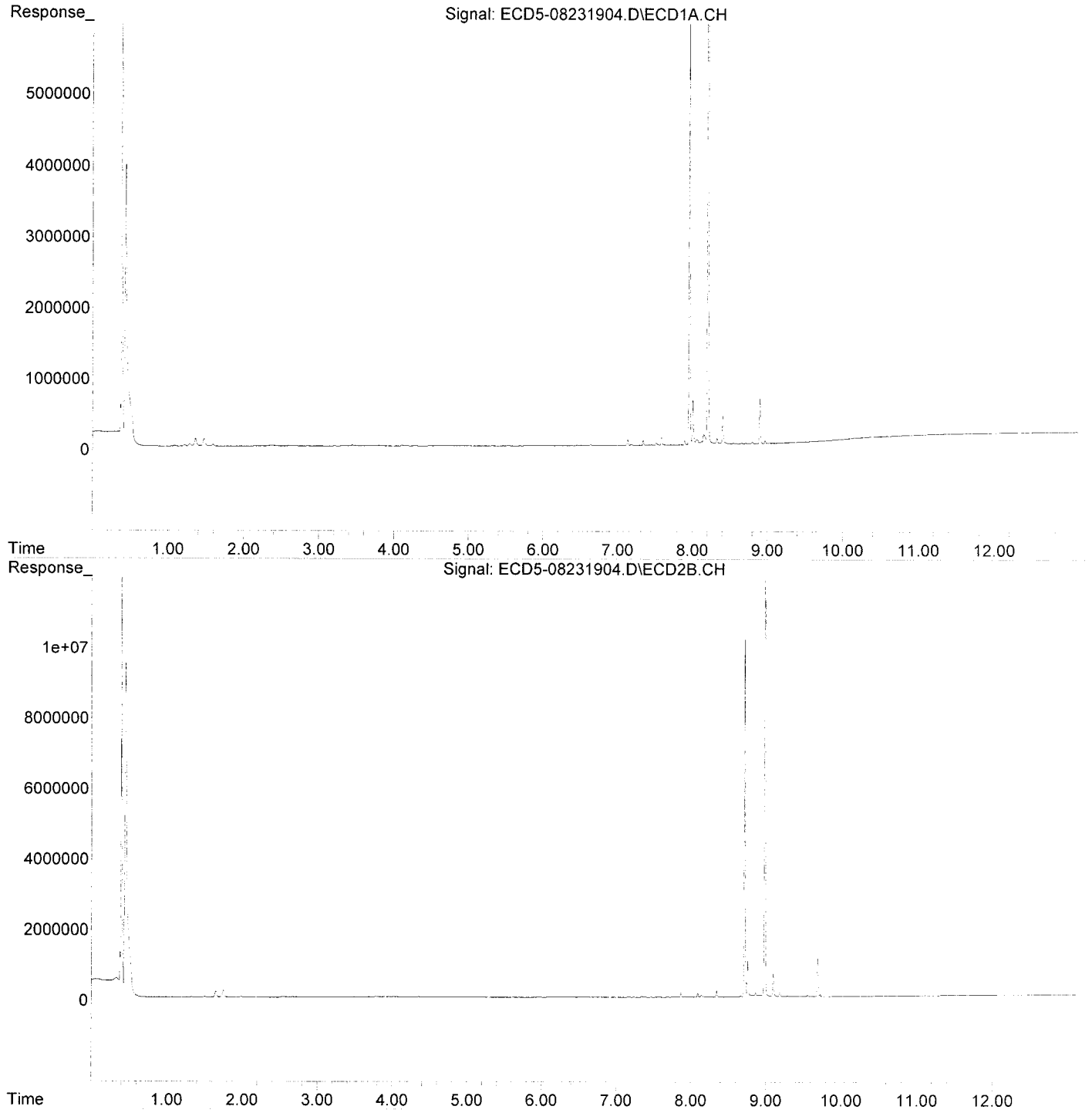
(f)=RT Delta > 1/2 Window (m)=manual int.

Breakdown passing, but ~~the~~ High. Maintenance performed
MJB 8/26/19
MJB 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Pesticide Breakdown Check (Validated 8/8/2013)

Sequence: 9H23034 BKD2
Data File: ECD5-08231906.D

First Column Area Counts		Percent Breakdown	
DDE	734891		
DDD	4530463		
DDT	125149199	**4.04**	**PASS**
Endrin	70846235	**8.91**	**PASS**
Endrin Aldehyde	2399187		
Endrin Ketone	4532548		

Second Column Area Counts		Percent Breakdown	
DDE	977816		
DDD	7819328		
DDT	188765825	**4.45**	**PASS**
Endrin	109289125	**8.73**	**PASS**
Endrin Aldehyde	3703608		
Endrin Ketone	6751447		

Breakdown must be less than 15% to accept sample data.

MJB 9/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.586	734891	NoCal	ng/mL
2)	Endrin	7.960	70846235	NoCal	ng/mL
3)	4,4'-DDD	8.007	4530463	NoCal	ng/mL
4)	4,4'-DDT	8.205	125149199	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	2399187	NoCal	ng/mL
6)	Endrin Ketone	8.902	4532548	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.345	977816	NoCal	ng/mL
9)	Endrin [2C]	8.718	109289125	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.760	7819328	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.101	3703608	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	188765825	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	6751447	NoCal	ng/mL

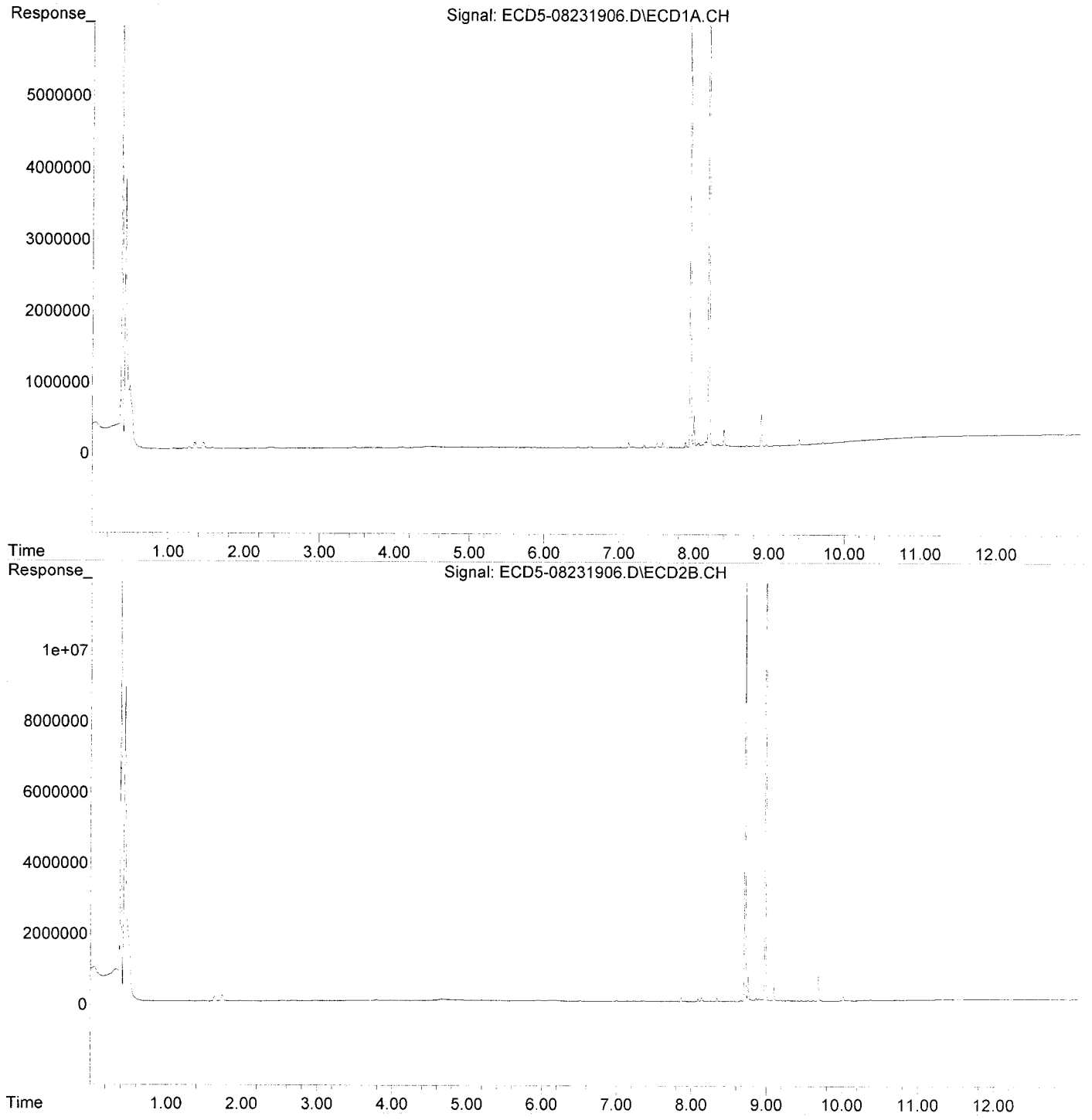
(f)=RT Delta > 1/2 Window (m)=manual int.

Swabbed in IBA w/ Hexane. MWP 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJF 8/26/19

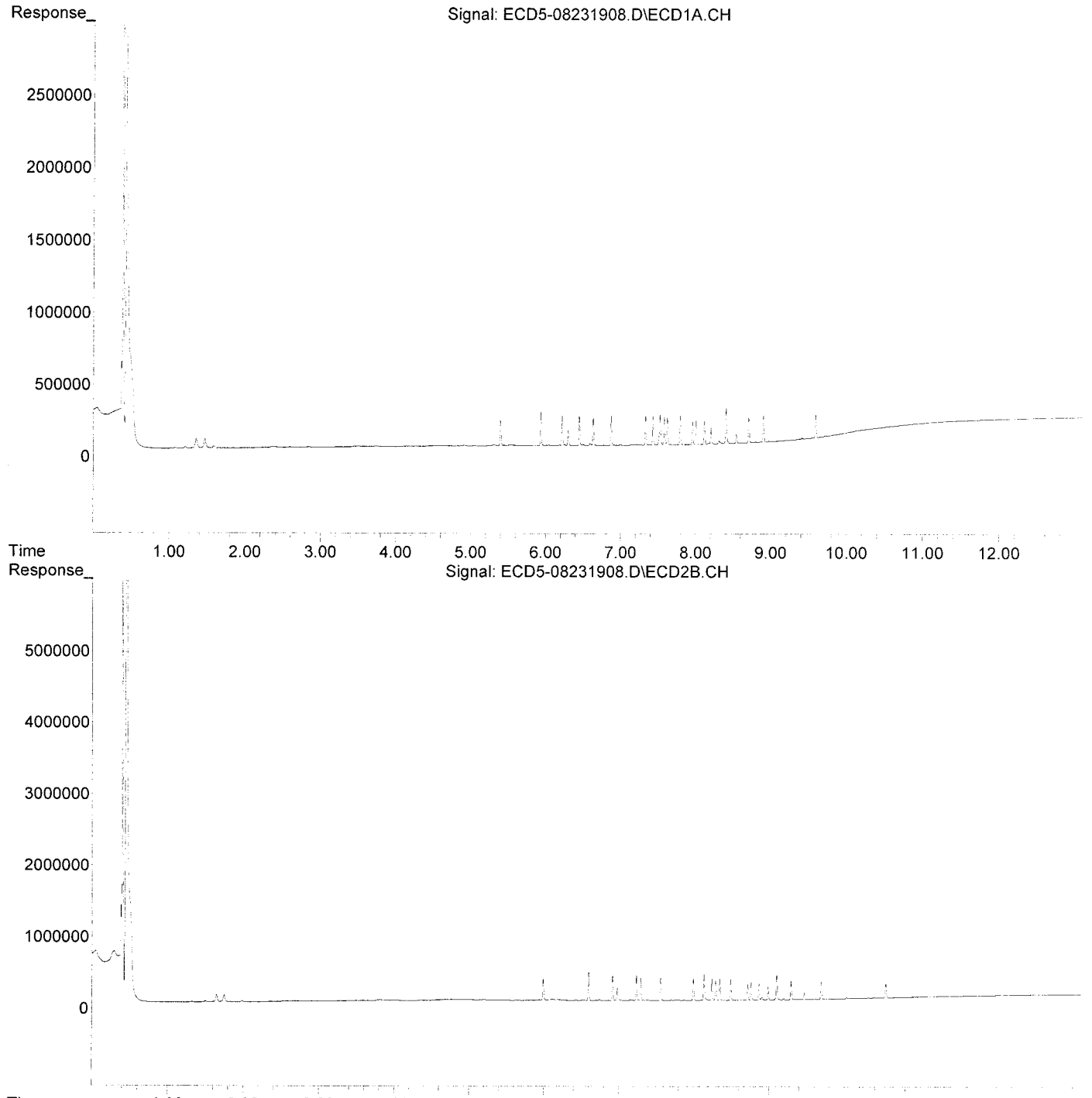
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	1.170
4)		b-BHC	6.300	6.980	104326	176262	1.760	1.450
5)		Heptachlor	6.635	7.292	192066	309811	1.183	1.054
6)		d-BHC	6.450	7.234	199840	349123	1.893	1.474
7)		Aldrin	6.875	7.557	205523	317466	1.221	1.096
8)		Heptachlo...	7.335	7.994	200503	310098	1.276	1.175
9)		trans-Chl...	7.433	8.135	197202	364142	1.276	1.384
10)		cis-Chlor...	7.528	8.241	209780	299422	1.367	1.179
11)		Endosulfa...	7.625	8.291	185217	278874	1.245	1.173
12)		4,4'-DDE	7.586	8.346	193435	298463	1.647	1.374
13)		Dieldrin	7.796	8.491	197721	296684	1.194	1.095
14)		Endrin	7.961	8.718	156412	222882	1.190	1.096
15)		4,4'-DDD	8.007	8.760	164956	251549	1.683	1.281
16)		Endosulfa...	8.118	8.865	158139	232156	1.378	1.183
17)		4,4'-DDT	8.205	8.986	113897	179700	1.686	1.607
18)		Endrin Al...	8.407	9.101	241285	348624	2.337	2.034
19)		Endosulfa...	8.708	9.292	176097	265797	1.418	1.337
20)		Methoxychlor	8.543	9.466	59659	95155	1.698	1.611
21)		Endrin Ke...	8.901	9.690	177552	255763	1.293	1.268
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

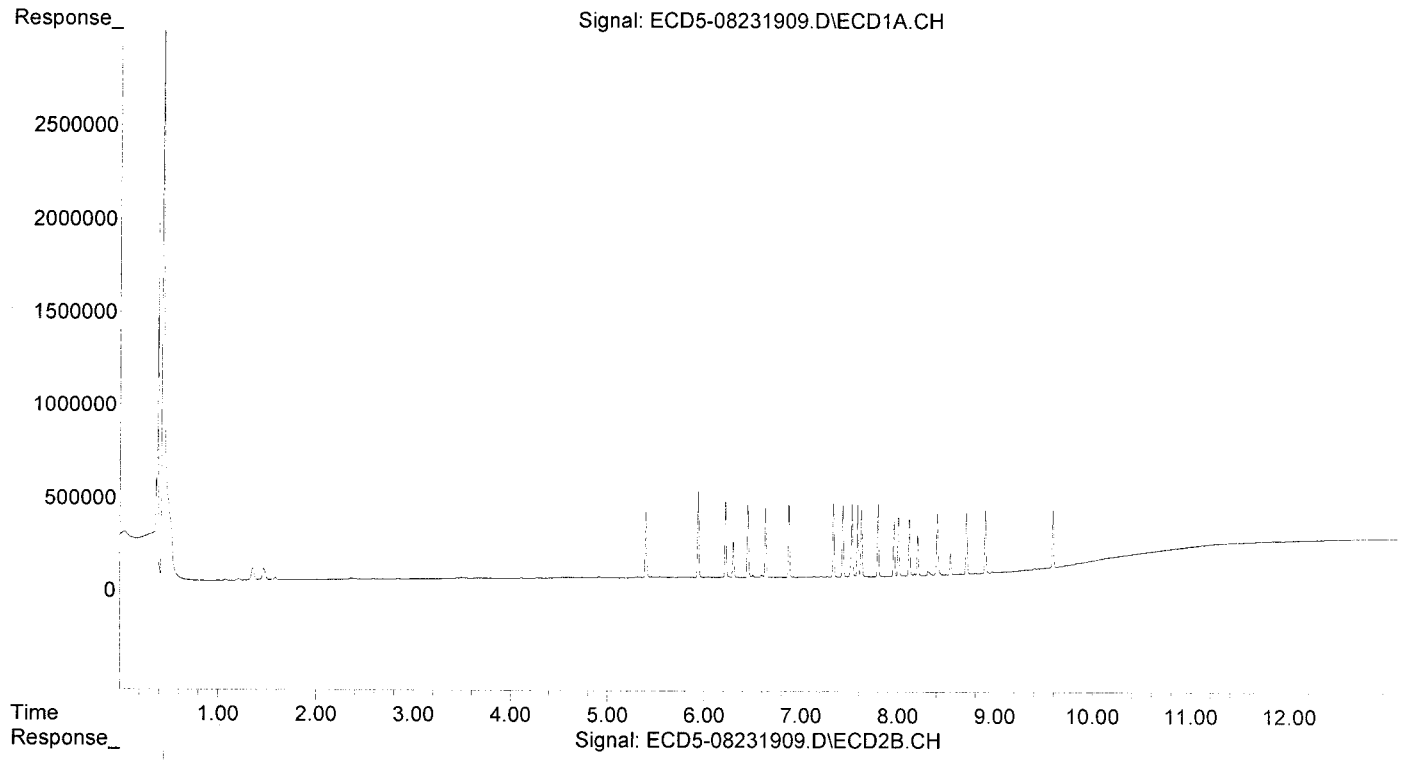
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	2.295
4)		b-BHC	6.300	6.980	194168	335260	3.275	2.757
5)		Heptachlor	6.635	7.291	369615	586765	2.276	1.995
6)		d-BHC	6.450	7.233	386980	669122	3.575	2.783
7)		Aldrin	6.875	7.556	399550	635458	2.375	2.194
8)		Heptachlo...	7.335	7.993	392052	606240	2.495	2.296
9)		trans-Chl...	7.432	8.135	382271	644454	2.473	2.449
10)		cis-Chlor...	7.527	8.241	389999	579667	2.541	2.282
11)		Endosulfa...	7.625	8.291	357368	540442	2.402	2.273
12)		4,4'-DDE	7.586	8.345	388618	598066	3.268	2.709
13)		Dieldrin	7.796	8.491	395728	583812	2.390	2.154
14)		Endrin	7.960	8.718	298515	424889	2.271	2.149
15)		4,4'-DDD	8.006	8.760	314622	488120	3.236	2.486
16)		Endosulfa...	8.118	8.864	299106	462256	2.607	2.355
17)		4,4'-DDT	8.204	8.986	218190	341782	3.052	2.875
18)		Endrin Al...	8.407	9.101	328182	477694	3.179	2.786
19)		Endosulfa...	8.707	9.291	322163	498767	2.595	2.558
20)		Methoxychlor	8.542	9.465	111466	178074	3.136	2.980
21)		Endrin Ke...	8.901	9.689	331269	493110	2.413	2.461
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

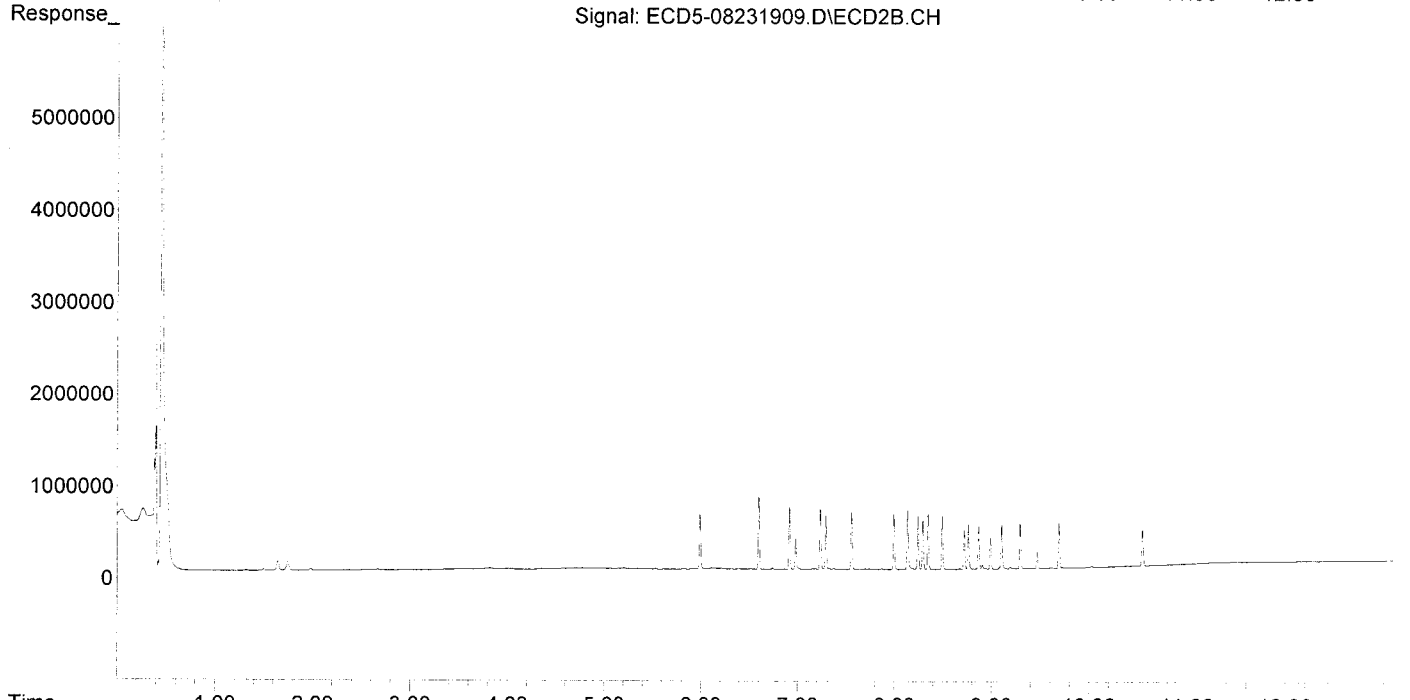
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

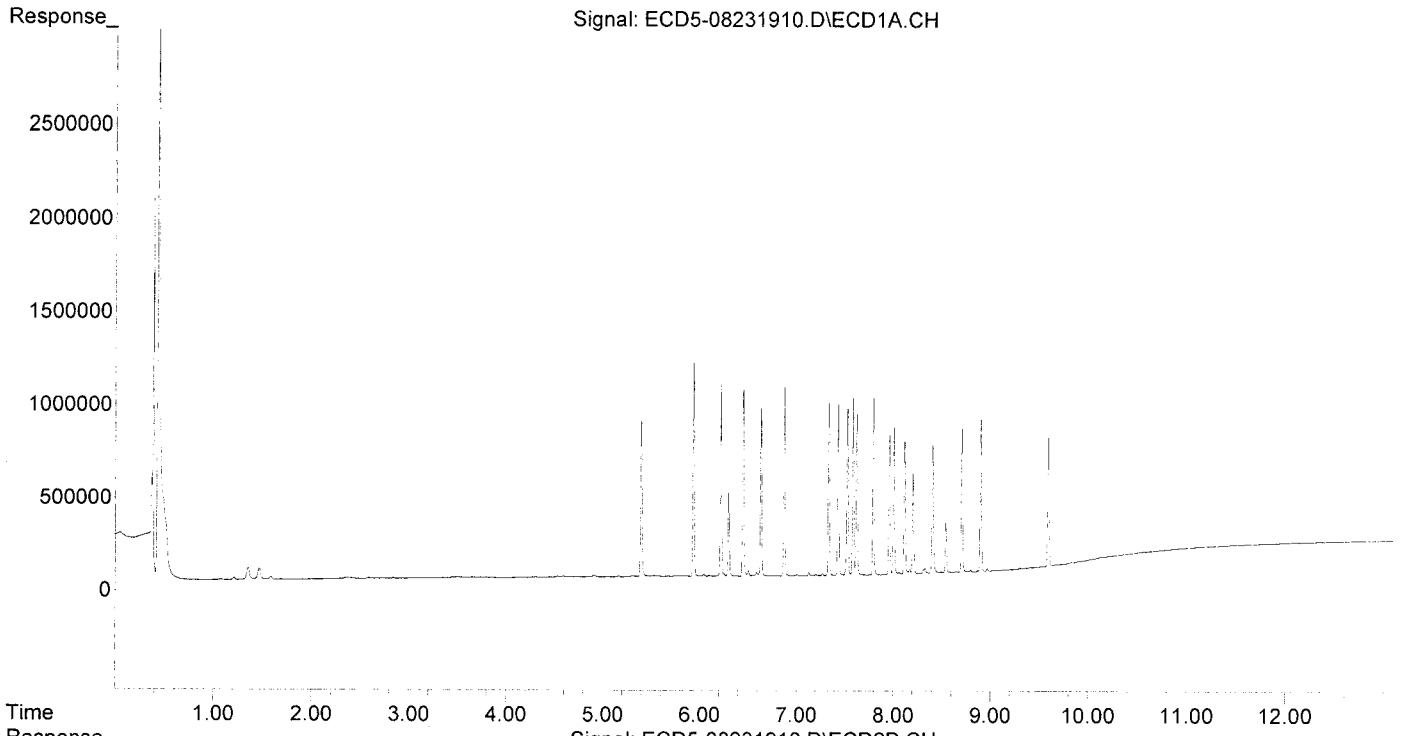
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	6.792	5.790
4)		b-BHC	6.300	6.980	456954	788630	7.708	6.486
5)		Heptachlor	6.635	7.291	899091	1508218	5.537	5.129
6)		d-BHC	6.449	7.233	1004012	1717450	9.061	7.030
7)		Aldrin	6.875	7.556	1012733	1600995	6.019	5.528
8)		Heptachlo...	7.335	7.994	923620	1455941	5.877	5.514
9)		trans-Chl...	7.432	8.134	926577	1502119	5.993	5.707
10)		cis-Chlor...	7.528	8.241	908795	1434855	5.922	5.649
11)		Endosulfa...	7.624	8.290	861509	1327191	5.790	5.583
12)		4,4'-DDE	7.586	8.345	953351	1487999	7.901	6.642
13)		Dieldrin	7.796	8.491	972009	1462538	5.870	5.397
14)		Endrin	7.960	8.718	738953	1092877	5.622	5.608
15)		4,4'-DDD	8.007	8.759	790498	1208642	8.130	6.156
16)		Endosulfa...	8.118	8.865	709544	1096359	6.185	5.586
17)		4,4'-DDT	8.205	8.986	553009	873653	7.371	6.957
18)		Endrin Al...	8.407	9.101	683393	1045869	6.620	6.101
19)		Endosulfa...	8.708	9.291	768798	1175908	6.192	6.083
20)		Methoxychlor	8.542	9.466	270388	413802	7.493	6.808
21)		Endrin Ke...	8.901	9.689	811384	1205004	5.910	6.014
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

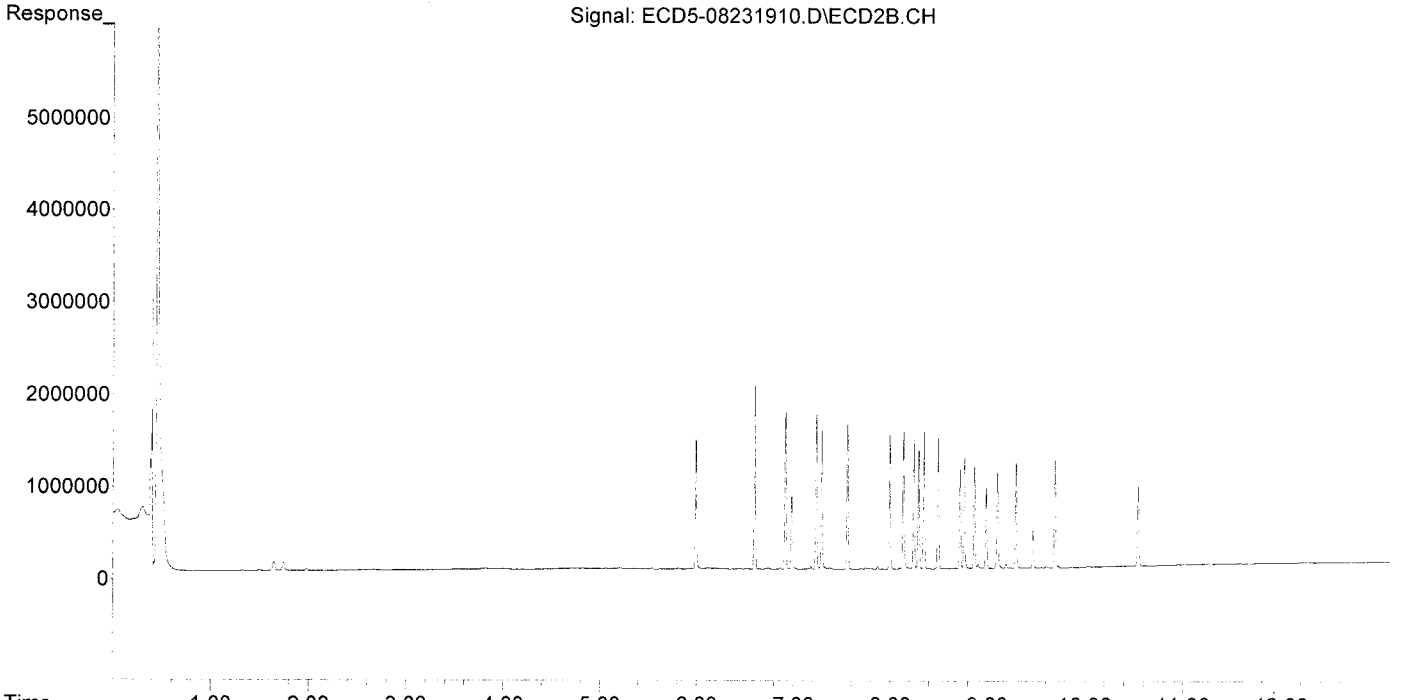
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

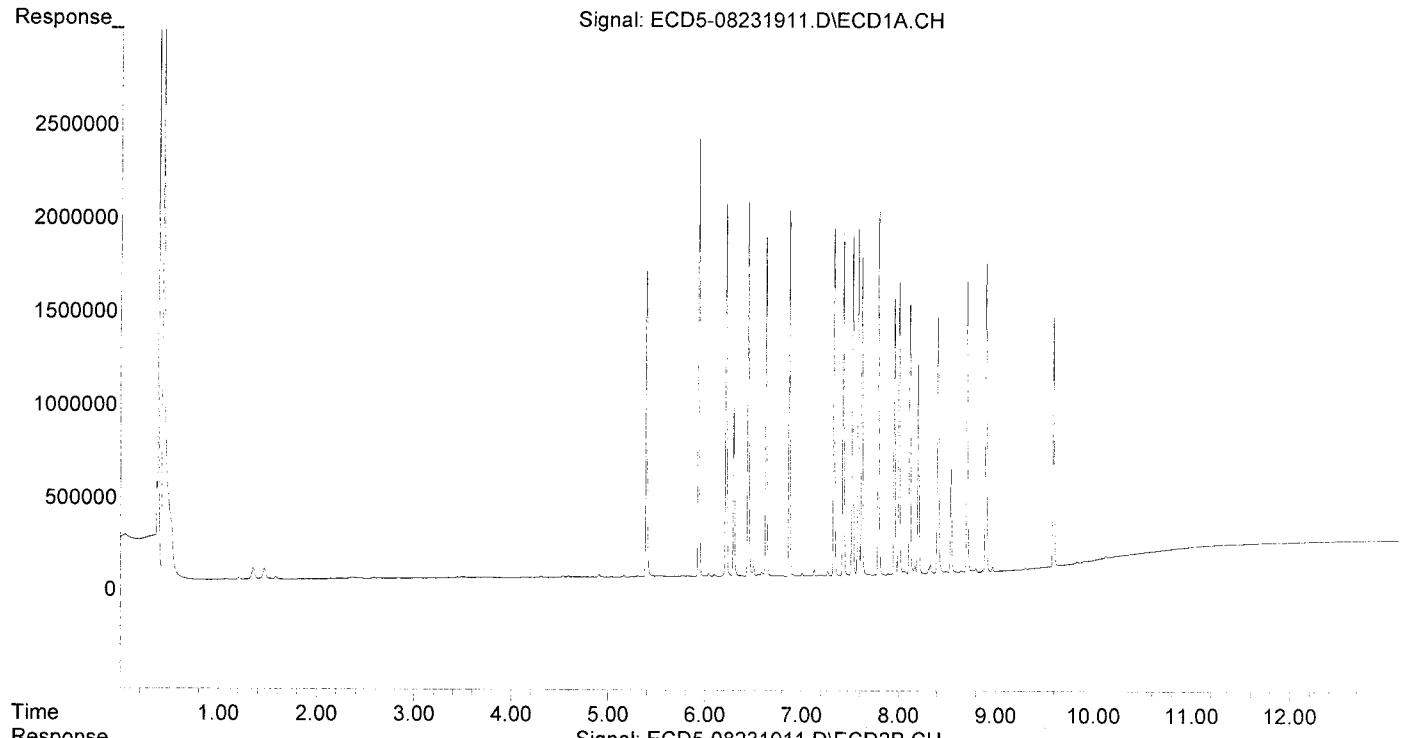
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859	3476733	13.541	11.551
4)		b-BHC	6.299	6.980	910875	1580847	15.365	13.002
5)		Heptachlor	6.634	7.291	1819621	3005915	11.206	10.223
6)		d-BHC	6.449	7.234	2006493	3613517	17.784	14.564
7)		Aldrin	6.875	7.556	2010802	3341093	11.950	11.536
8)		Heptachlo...	7.335	7.994	1865428	2959301	11.869	11.208
9)		trans-Chl...	7.431	8.134	1847996	3002782	11.953	11.409
10)		cis-Chlor...	7.527	8.241	1843346	2859573	12.012	11.257
11)		Endosulfa...	7.623	8.291	1709332	2724272	11.488	11.460
12)		4,4'-DDE	7.585	8.346	1890931	3049792	15.482	13.444
13)		Dieldrin	7.795	8.491	1954890	2898866	11.805	10.697
14)		Endrin	7.960	8.718	1475508	2244483	11.225	11.476
15)		4,4'-DDD	8.006	8.760	1565974	2425496	15.969	12.353
16)		Endosulfa...	8.117	8.864	1448080	2243610	12.623	11.432
17)		4,4'-DDT	8.204	8.987	1146556	1841119	14.788	14.109
18)		Endrin Al...	8.406	9.101	1375129	2125028	13.321	12.396
19)		Endosulfa...	8.707	9.292	1553540	2424584	12.512	12.489
20)		Methoxychlor	8.542	9.465	561706	883069	15.275	14.167
21)		Endrin Ke...	8.900	9.689	1664380	2496985	12.124	12.365
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

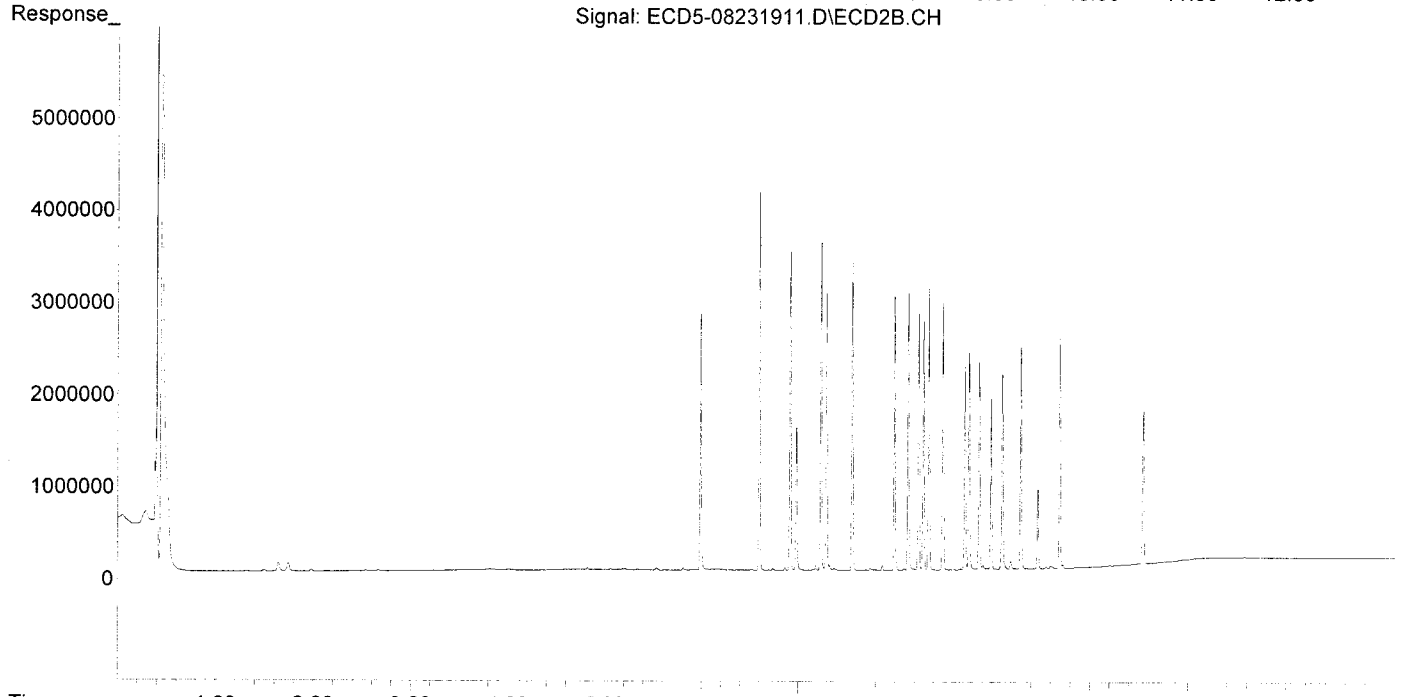
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

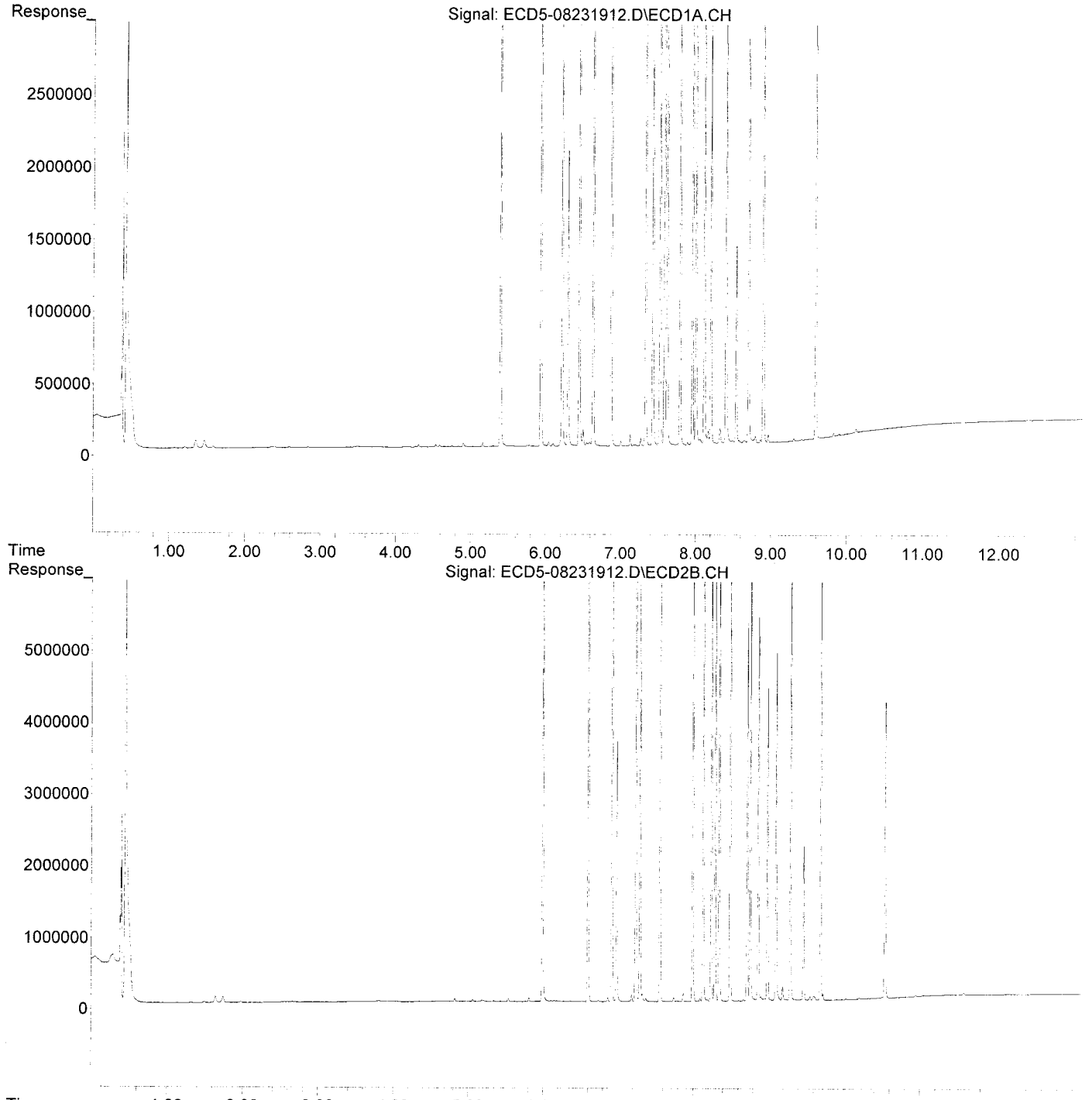
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
		Target Compounds						
2)		a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)		g-BHC	6.218	6.913	4875657	8508386	32.445	28.267
4)		b-BHC	6.297	6.978	2060378	3677155	34.755	30.244
5)		Heptachlor	6.633	7.289	4314306	7282282	26.568	24.766
6)		d-BHC	6.447	7.232	4667166	8247775	39.910	32.244
7)		Aldrin	6.873	7.555	4845355	7878574	28.797	27.203
8)		Heptachlo...	7.332	7.992	4344286	7064729	27.642	26.758
9)		trans-Chl...	7.429	8.131	4401456	7157480	28.469	27.194
10)		cis-Chlor...	7.525	8.239	4244413	6935857	27.657	27.304
11)		Endosulfa...	7.621	8.288	4111285	6571512	27.630	27.643
12)		4,4'-DDE	7.583	8.343	4571066	7501047	36.397	32.167
13)		Dieldrin	7.792	8.489	4582306	7333890	27.672	27.063
14)		Endrin	7.957	8.716	3508904	5325883	26.694	26.642
15)		4,4'-DDD	8.004	8.758	3727035	6146469	37.001	31.304
16)		Endosulfa...	8.115	8.862	3371864	5447602	29.393	27.758
17)		4,4'-DDT	8.202	8.984	2924467	4480388	36.460	32.123
18)		Endrin Al...	8.404	9.099	3119767	4848504	30.221	28.282
19)		Endosulfa...	8.705	9.289	3645411	5978906	29.360	30.102
20)		Methoxychlor	8.540	9.463	1390283	2166659	36.145	32.800
21)		Endrin Ke...	8.899	9.688	4008958	5893691	29.202	28.514
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

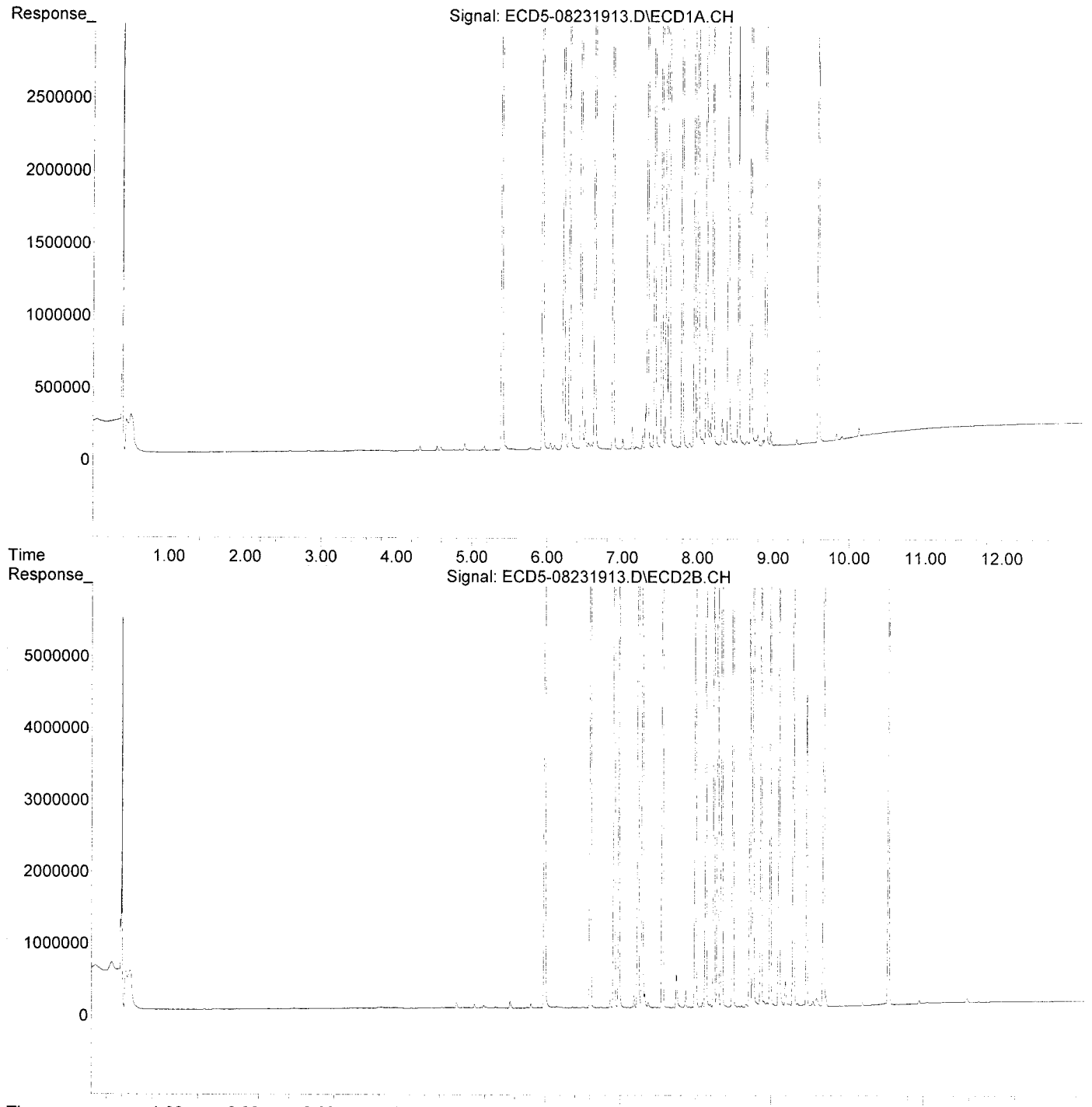
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	17381069	65.120	57.745
4)	b-BHC	6.296	6.978	4100858	7516011	69.174	61.818
5)	Heptachlor	6.632	7.290	8735158	14595143	53.793	49.636
6)	d-BHC	6.447	7.232	9610742	17311258	77.761	64.308
7)	Aldrin	6.873	7.555	9327672	16264416	55.436	56.158
8)	Heptachlo...	7.332	7.992	8869300	14837794	56.434	56.198
9)	trans-Chl...	7.428	8.131	8959305	14678719	57.950	55.771
10)	cis-Chlor...	7.524	8.238	8622674	14002116	56.187	55.122
11)	Endosulfa...	7.621	8.289	7984410	13712329	53.659	57.680
12)	4,4'-DDE	7.583	8.344	9177389	15554706	70.089	63.904
13)	Dieldrin	7.792	8.489	9386664	15434113	56.685	56.955
14)	Endrin	7.957	8.716	6979572	11015379	53.097	52.880
15)	4,4'-DDD	8.004	8.758	7726197	13159451	73.239	67.021
16)	Endosulfa...	8.114	8.863	6840920	11534525	59.632	58.774
17)	4,4'-DDT	8.202	8.985	6205369	9285492	69.085	60.834
18)	Endrin Al...	8.404	9.099	6224451	10209034	60.296	59.551
19)	Endosulfa...	8.705	9.289	7420576	12149289	59.766	58.797
20)	Methoxychlor	8.540	9.464	2860683	4346199	69.570	60.726
21)	Endrin Ke...	8.899	9.687	8190707	12954568	59.663	59.905
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

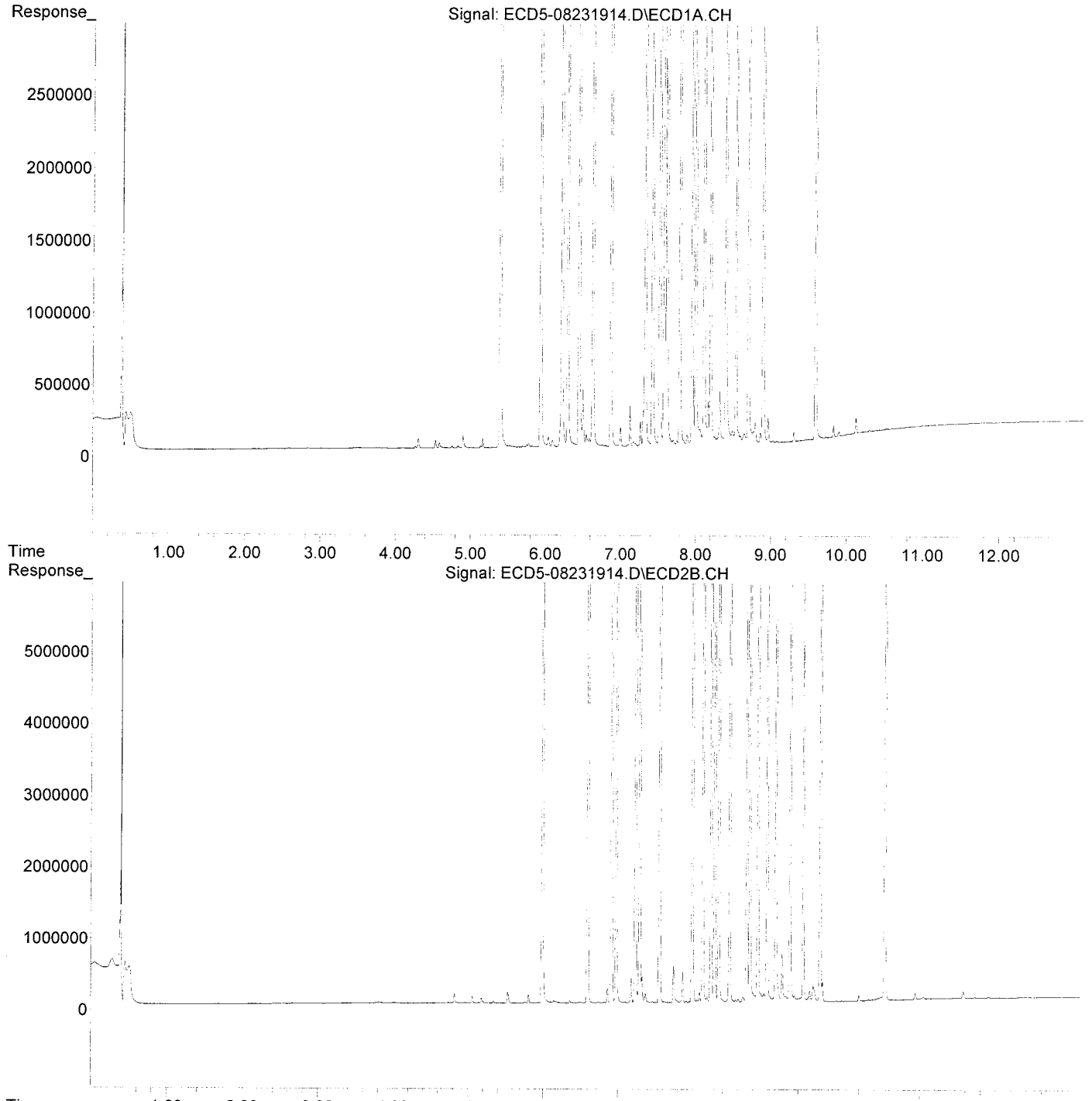
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	19595093	36788994	130.394	122.224
4)		b-BHC	6.296	6.977	8355416	14625175	140.940	120.290
5)		Heptachlor	6.632	7.289	17551528	30277818	108.086	102.970
6)		d-BHC	6.446	7.232	19475580	35176633	144.149	120.302
7)		Aldrin	6.872	7.555	19108074	33906422	113.562	117.072
8)		Heptachlo...	7.331	7.991	17318444	30045511	110.195	113.798
9)		trans-Chl...	7.427	8.131	17732791	30742272	114.698	116.803
10)		cis-Chlor...	7.523	8.238	16742584	29042863	109.098	114.333
11)		Endosulfa...	7.619	8.288	16089996	27212707	108.133	114.469
12)		4,4'-DDE	7.582	8.344	18052552	32499603	128.779	123.812
13)		Dieldrin	7.791	8.488	18324422	31001958	110.659	114.403
14)		Endrin	7.957	8.715	13812708	23102413	103.080	102.828
15)		4,4'-DDD	8.003	8.758	15437146	26297484	135.694	133.933
16)		Endosulfa...	8.113	8.861	13543500	23016371	118.059	117.279
17)		4,4'-DDT	8.201	8.984	12176961	19789501	120.685	112.516
18)		Endrin Al...	8.403	9.098	12363806	20502737	119.767	119.596
19)		Endosulfa...	8.704	9.289	14366789	24477320	115.711	110.592
20)		Methoxychlor	8.539	9.463	5877329	9444987	128.396	114.860
21)		Endrin Ke...	8.898	9.687	16251943	26636559	118.383	114.357
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

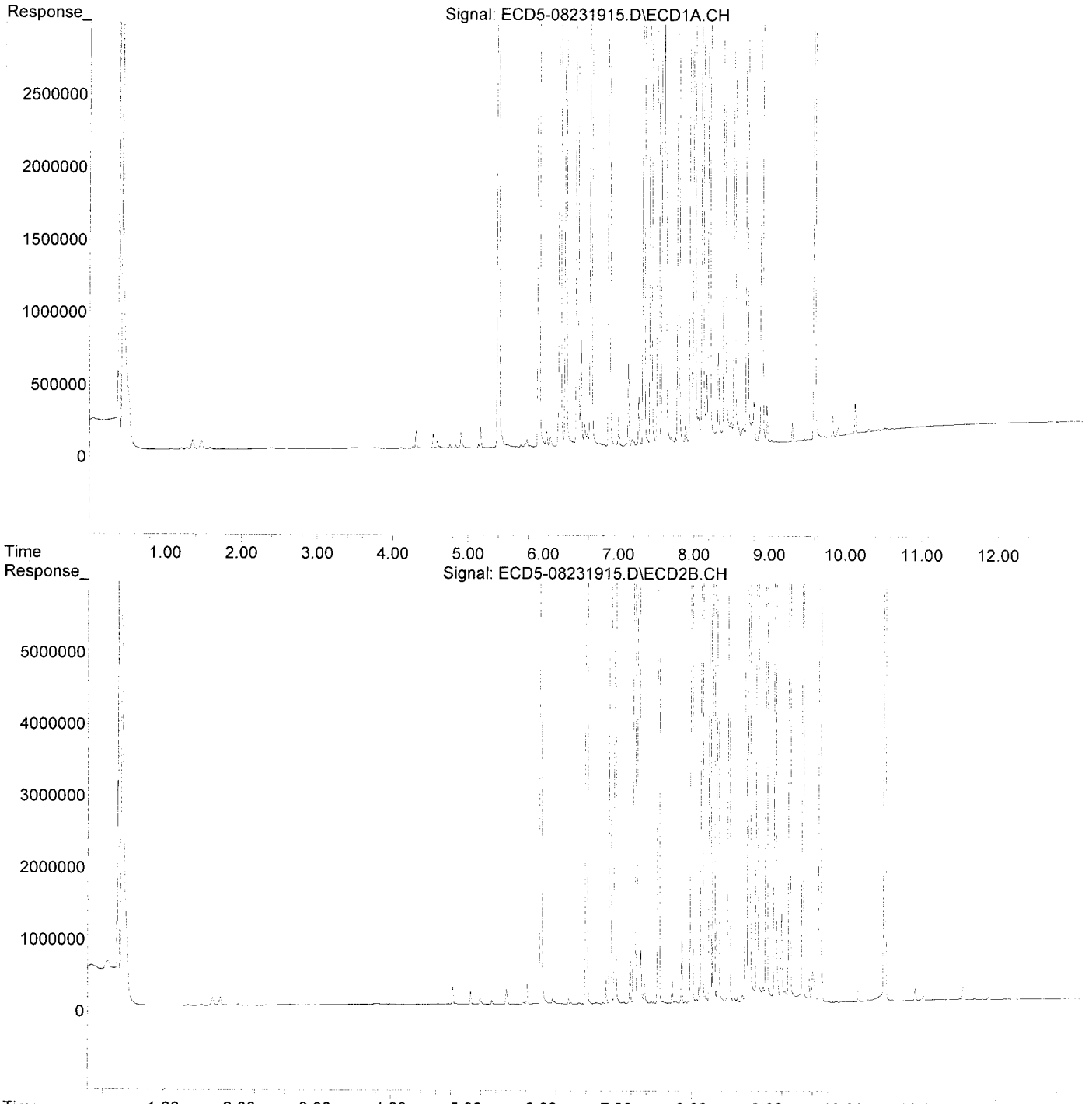
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22) S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
	Target Compounds						
2)	a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)	g-BHC	6.218	6.914	41889726	80765680	278.753	268.327
4)	b-BHC	6.294	6.977	18238696	32553433	307.652	267.747
5)	Heptachlor	6.630	7.289	37785699	71283176	232.692	242.422
6)	d-BHC	6.445	7.232	41016592	80979751	263.399	237.546
7)	Aldrin	6.870	7.554	39838403	73228186	236.765	252.843
8)	Heptachlo...	7.330	7.991	36258170	65330070	230.706	247.439
9)	trans-Chl...	7.425	8.130	37621413	66447972	243.340	252.464
10)	cis-Chlor...	7.521	8.238	35207945	63977063	229.421	251.859
11)	Endosulfa...	7.618	8.288	33852593	61043507	227.507	256.777
12)	4,4'-DDE	7.581	8.344	38763081	69842351	244.719	234.608
13)	Dieldrin	7.791	8.489	39217772	70031781	236.831	258.430
14)	Endrin	7.955	8.715	31426311	52779585	239.075	204.455
15)	4,4'-DDD	8.002	8.758	32436804	59560270	251.258	303.340
16)	Endosulfa...	8.112	8.862	29471042	51834888	256.899	264.124
17)	4,4'-DDT	8.200	8.984	29075222	48203441	232.877	216.675
18)	Endrin Al...	8.402	9.098	26627672	45084544	257.940	262.986
19)	Endosulfa...	8.704	9.289	31126520	54592794	250.696	216.937
20)	Methoxychlor	8.537	9.463	14271143	23714100	255.612	227.264
21)	Endrin Ke...	8.898	9.688	35094718	60861376	255.639	227.431
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

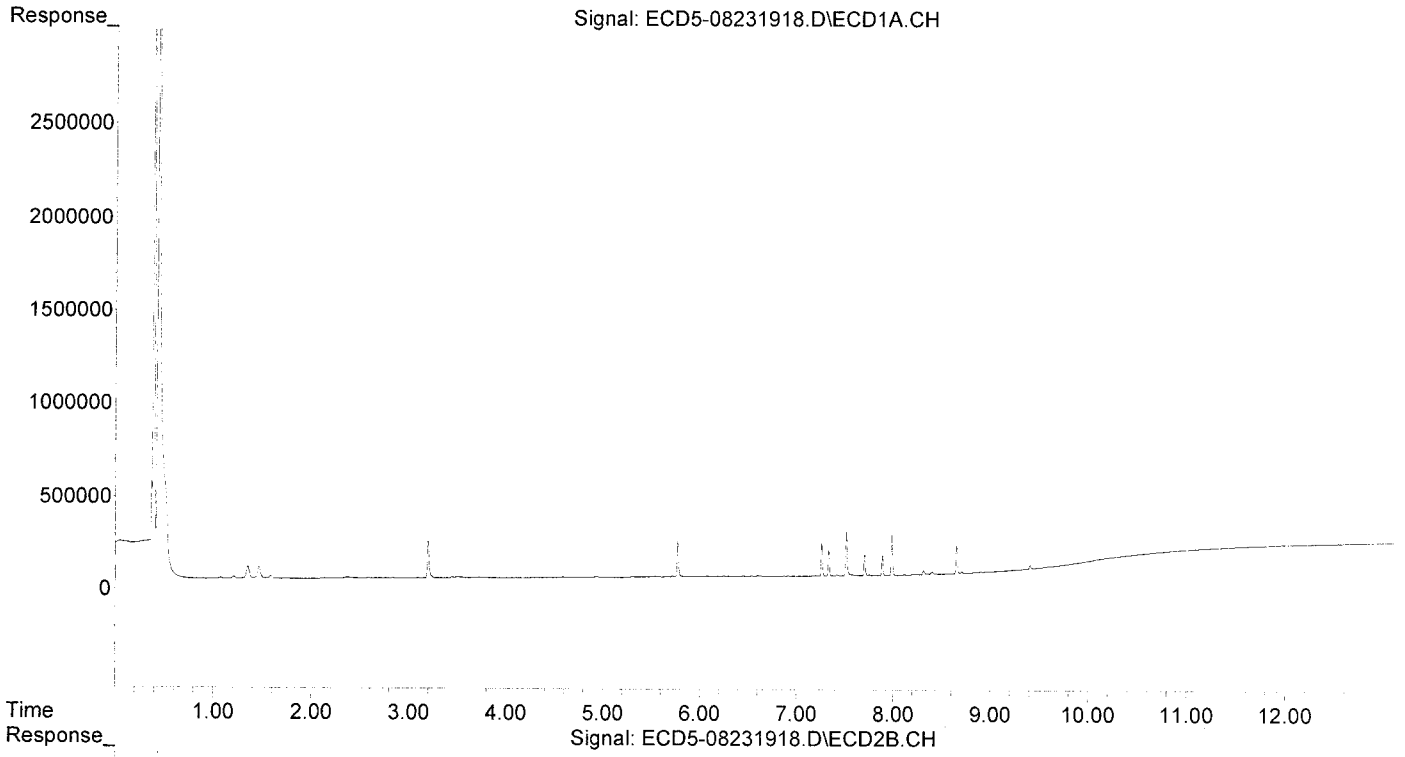
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.198	3.687	198207	383198	1.330	1.219
24)		Hexachlor...	5.775	6.453	194679	328025	1.585	1.463
25)		Oxychlordane	7.263	7.922	176844	279143	1.364	1.326
26)		2,4'-DDE	7.335	8.123	137947	219164	1.468	1.405
27)		trans-Non...	7.518	8.195	236836	306202	1.652	1.333
28)		2,4'-DDD	7.707	8.495	120240	192040	1.439	1.409
29)		2,4'-DDT	7.890	8.719	107110	173338	1.500	1.372
30)		cis-Nonac...	7.987	8.759	219220	332745	1.362	1.310
31)		Mirex	8.655	9.680	147356	209783	1.505	1.458
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

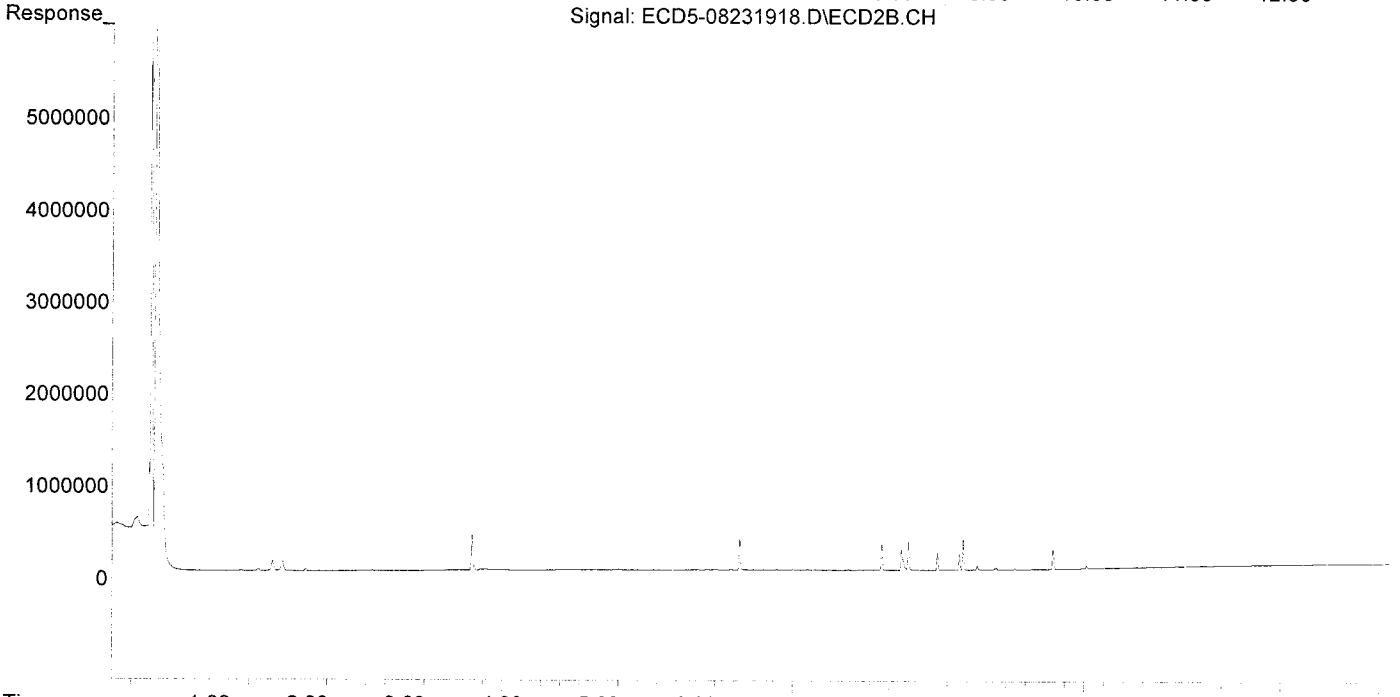
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

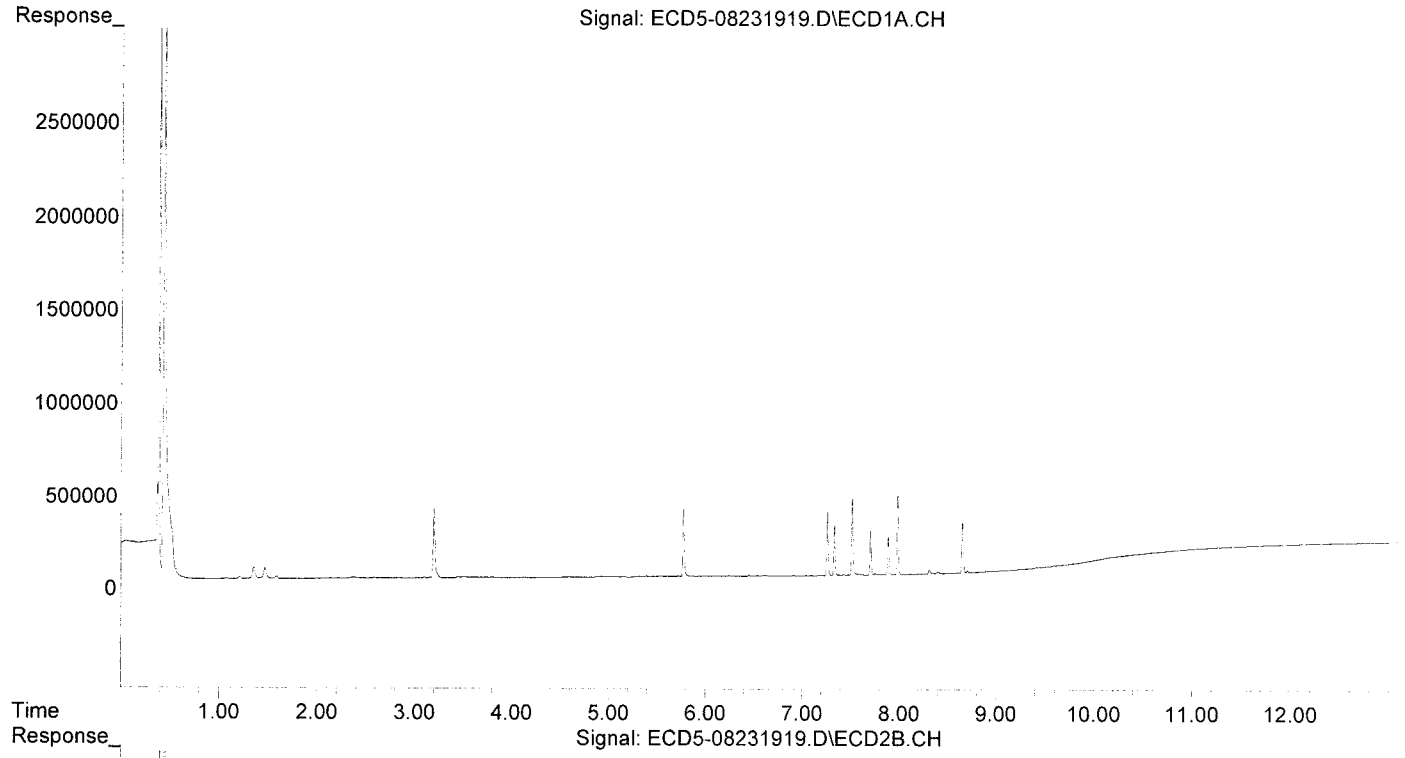
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	375794	754548	2.521	2.400
24)	Hexachlor...	5.775	6.453	362082	632830	2.948	2.823
25)	Oxychlordane	7.262	7.921	339370	541023	2.617	2.571
26)	2,4'-DDE	7.334	8.123	265212	411812	2.822	2.639
27)	trans-Non...	7.518	8.194	415126	587765	2.896	2.559
28)	2,4'-DDD	7.707	8.495	233089	373596	2.789	2.741
29)	2,4'-DDT	7.889	8.718	204209	332170	2.725	2.614
30)	cis-Nonac...	7.986	8.758	423442	624783	2.632	2.460
31)	Mirex	8.655	9.680	266770	388199	2.725	2.697
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

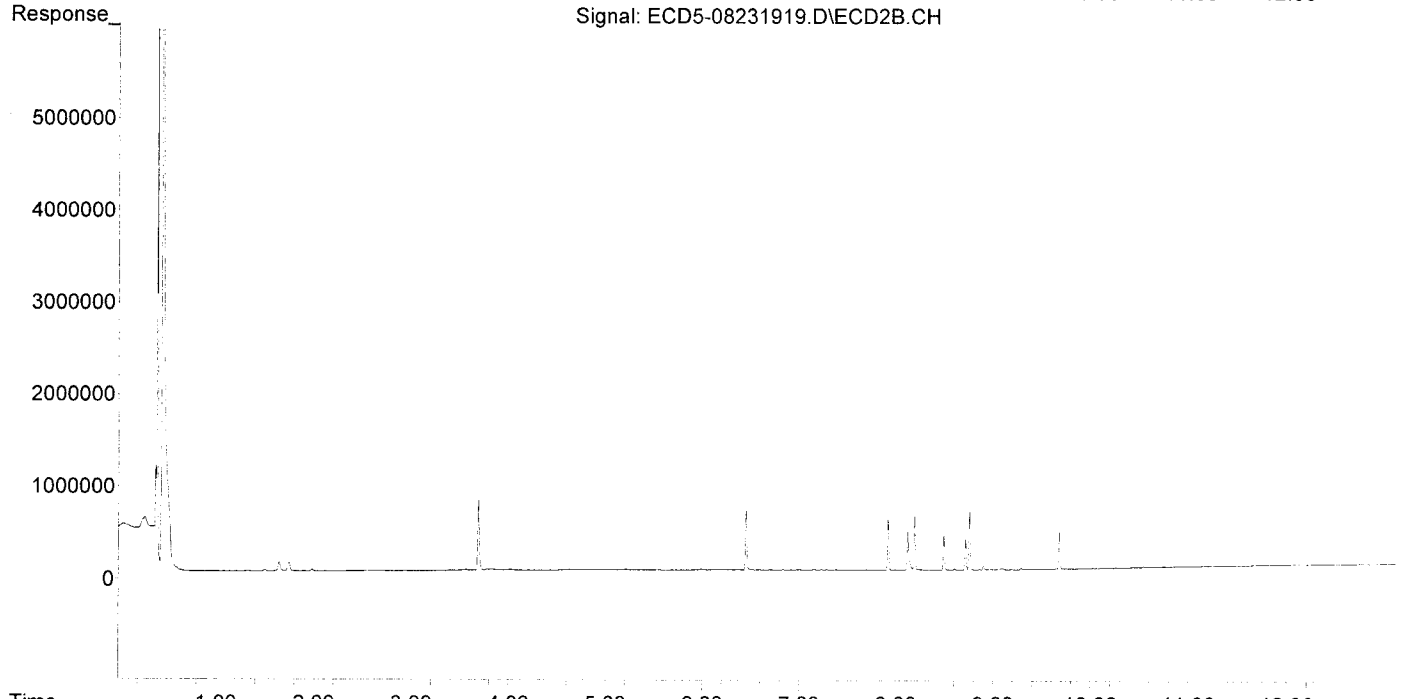
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

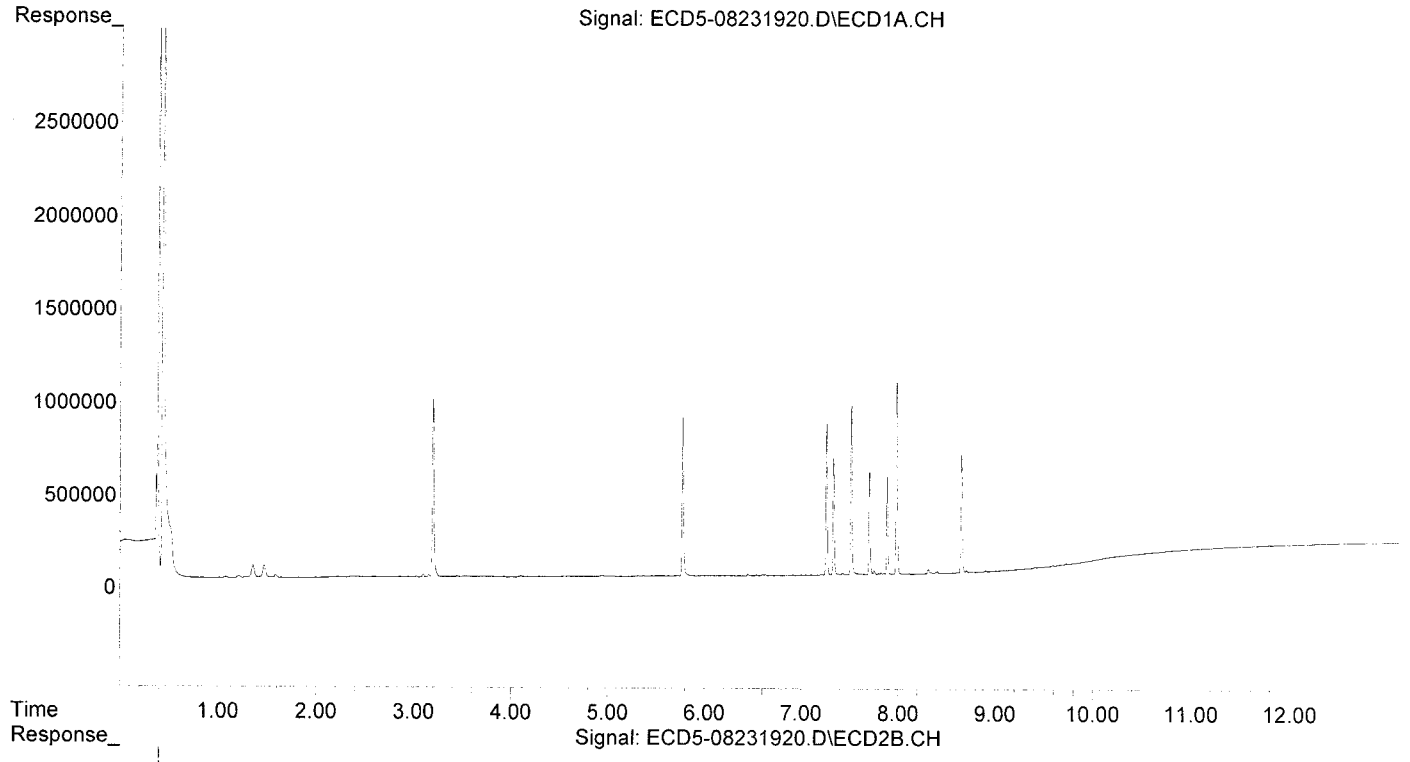
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	959211	1877484	6.435	5.971
24)	Hexachlor...	5.775	6.453	853793	1485583	6.951	6.626
25)	Oxychlordane	7.262	7.921	819748	1325543	6.321	6.298
26)	2,4'-DDE	7.334	8.123	633168	1029687	6.738	6.600
27)	trans-Non...	7.518	8.194	933222	1467723	6.510	6.390
28)	2,4'-DDD	7.705	8.495	560942	898697	6.711	6.593
29)	2,4'-DDT	7.889	8.719	536967	873074	6.892	6.802
30)	cis-Nonac...	7.986	8.759	1025899	1587243	6.376	6.249
31)	Mirex	8.654	9.679	628618	895523	6.422	6.222
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

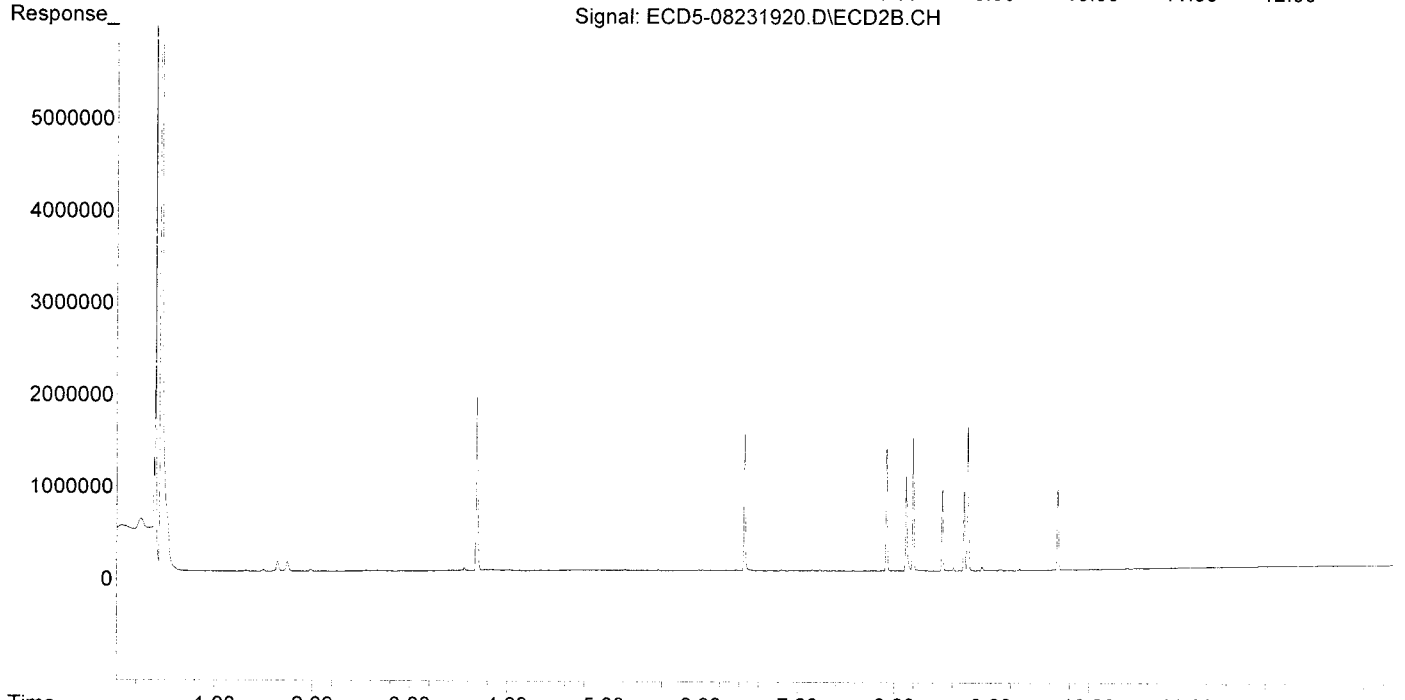
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

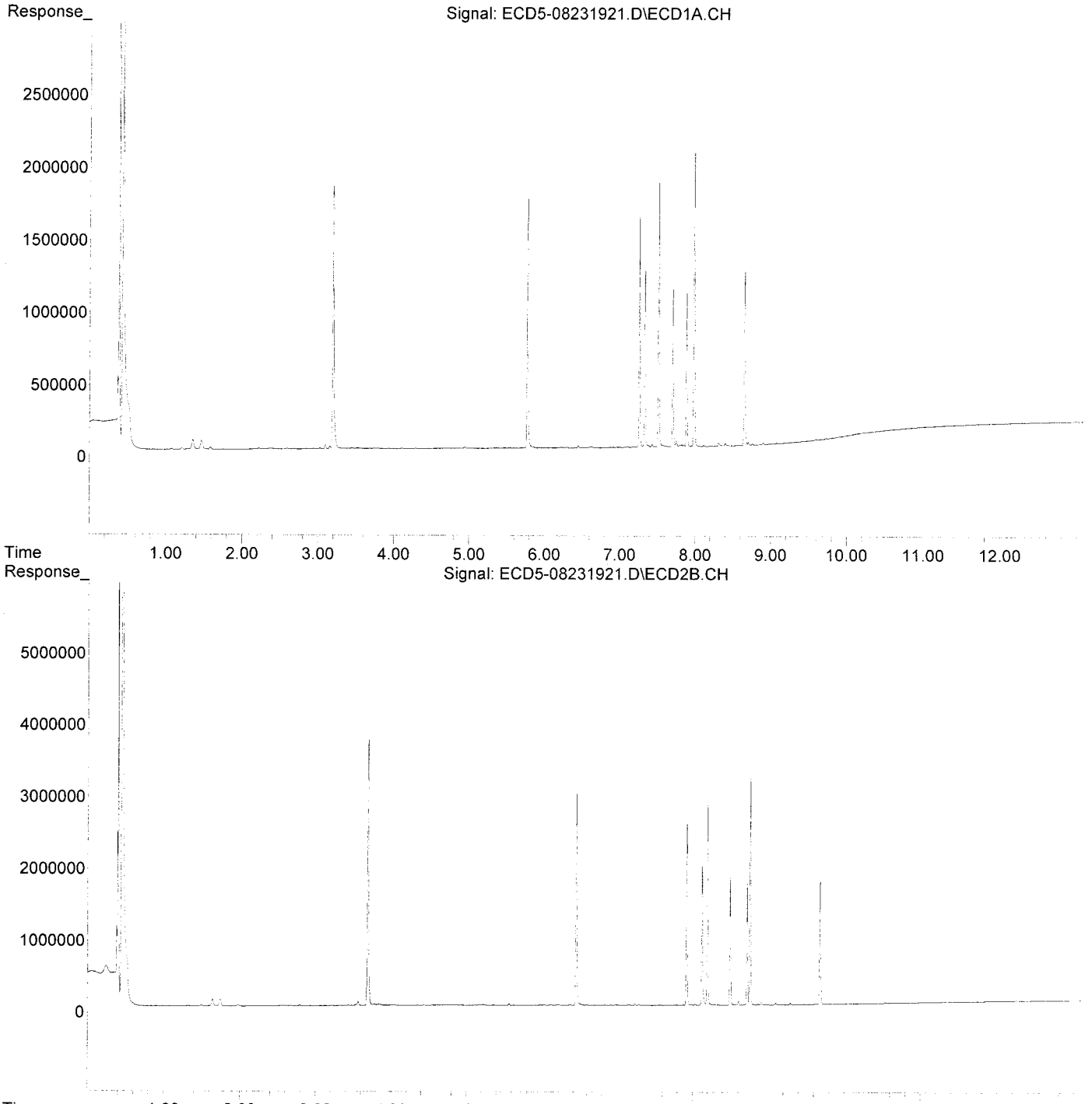
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	1838187	3701532	12.333	11.773
24)	Hexachlor...	5.774	6.453	1711884	2936294	13.936	13.097
25)	Oxychlordane	7.261	7.921	1591613	2538903	12.272	12.063
26)	2,4'-DDE	7.333	8.122	1245265	2018331	13.252	12.936
27)	trans-Non...	7.516	8.194	1817552	2844404	12.679	12.384
28)	2,4'-DDD	7.705	8.495	1103587	1778790	13.203	13.050
29)	2,4'-DDT	7.888	8.719	1051565	1702568	13.249	13.099
30)	cis-Nonac...	7.986	8.759	2032010	3148054	12.629	12.394
31)	Mirex	8.654	9.679	1196365	1722960	12.222	11.971
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

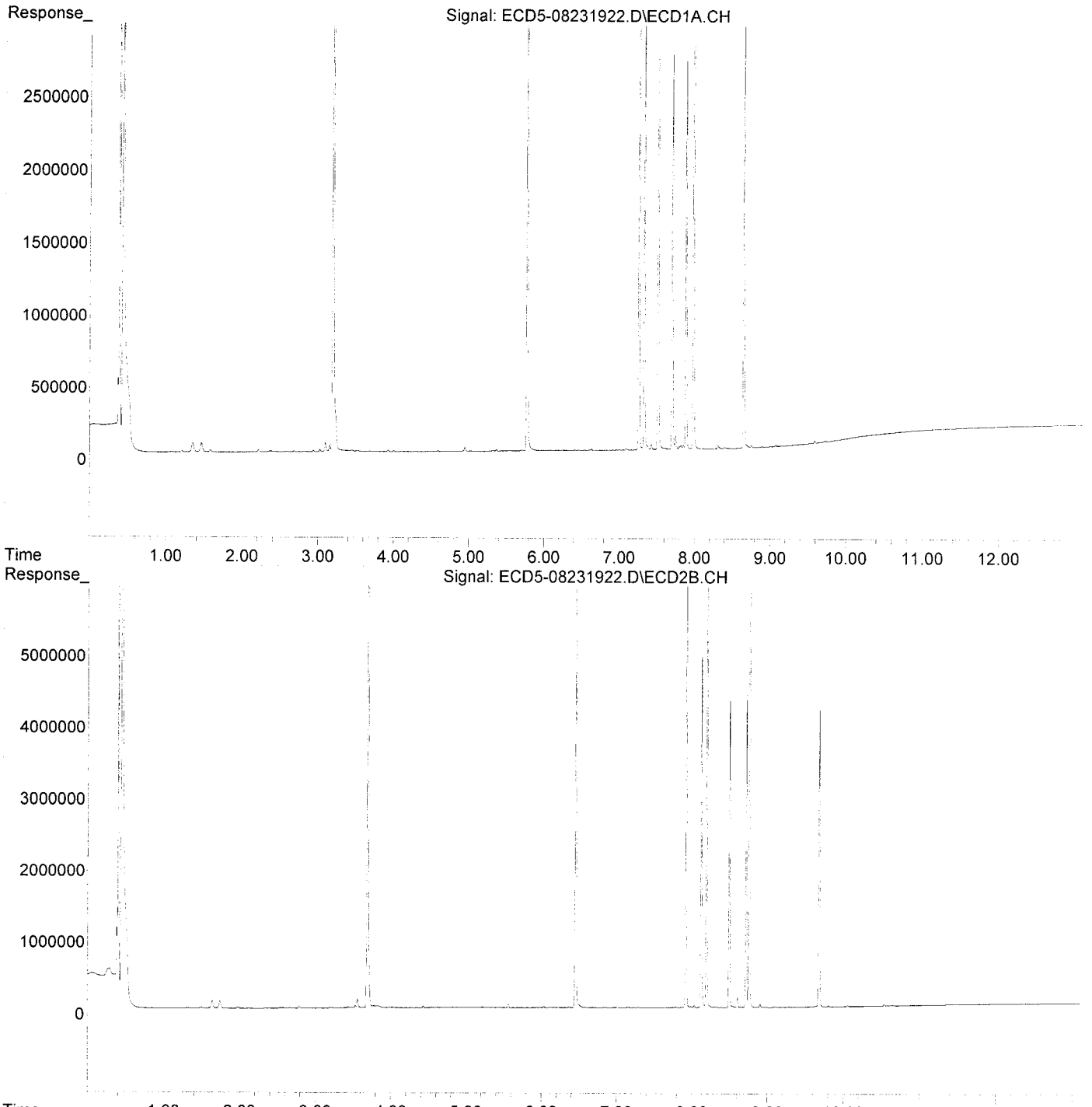
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	4363988	8892238	29.278	28.282
24)	Hexachlor...	5.774	6.453	4184551	7416324	34.066	33.080
25)	Oxychlordane	7.261	7.920	3881255	6202791	29.926	29.471
26)	2,4'-DDE	7.333	8.122	3059421	4999232	32.558	32.042
27)	trans-Non...	7.516	8.194	4391046	7092288	30.631	30.877
28)	2,4'-DDD	7.705	8.495	2745178	4389185	32.844	32.200
29)	2,4'-DDT	7.888	8.719	2728794	4405554	33.278	32.676
30)	cis-Nonac...	7.986	8.759	4993110	8219393	31.032	32.361
31)	Mirex	8.654	9.679	2910818	4138115	29.738	28.753
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

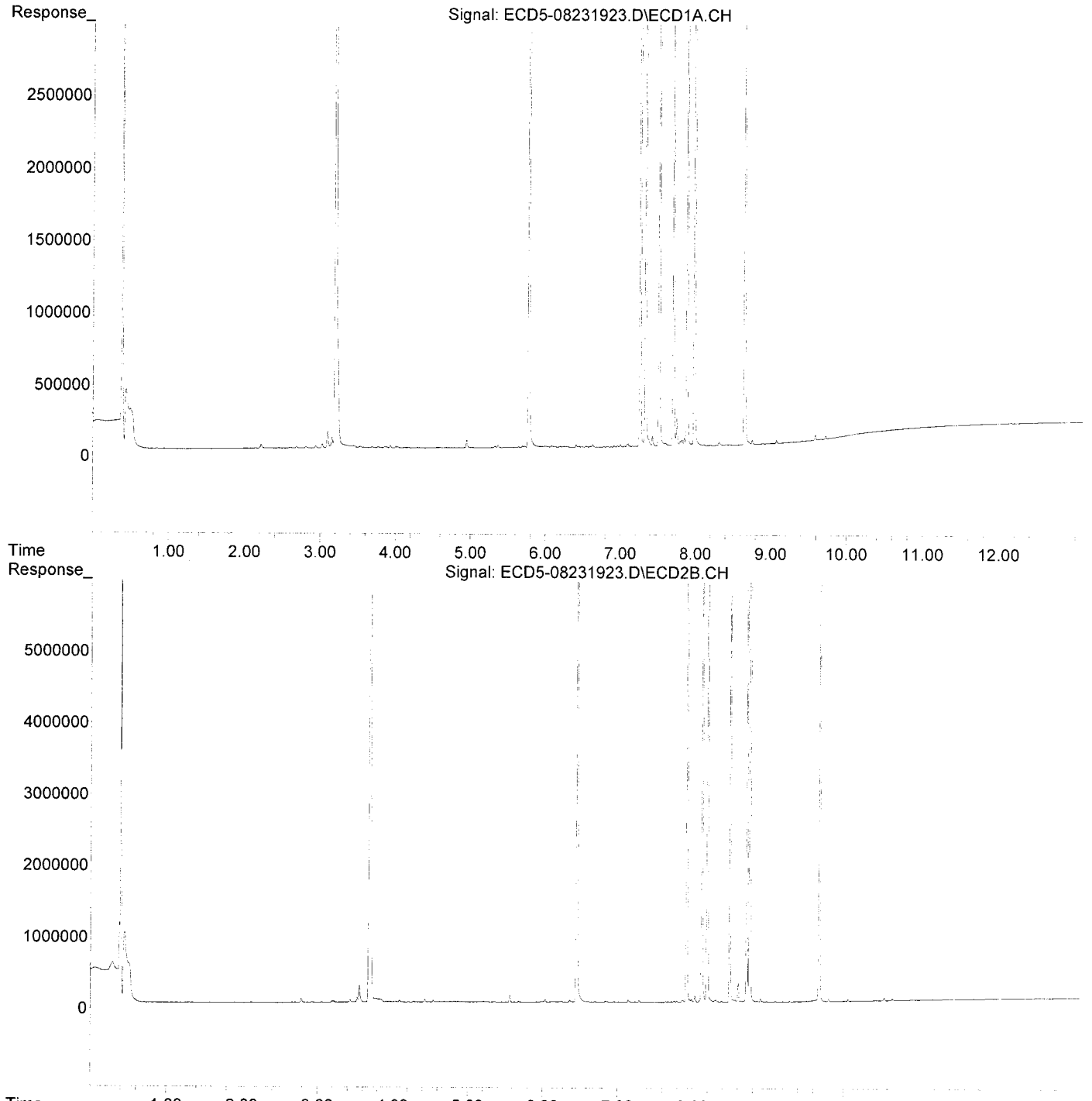
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.198	3.688	8761747	18635615	58.783	59.271
24)		Hexachlor...	5.774	6.454	8911624	16094159	72.549	71.786
25)		Oxychlordane	7.261	7.920	8382873	14172543	64.636	67.337
26)		2,4'-DDE	7.333	8.122	6510588	11006400	69.284	70.544
27)		trans-Non...	7.516	8.194	9581794	15807712	66.841	68.821
28)		2,4'-DDD	7.705	8.495	5920095	9924934	70.829	72.811
29)		2,4'-DDT	7.888	8.718	5687323	8810591	66.398	62.033
30)		cis-Nonac...	7.985	8.758	10616019	17721229	65.978	69.771
31)		Mirex	8.652	9.679	6218341	9100959	62.528	63.235
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

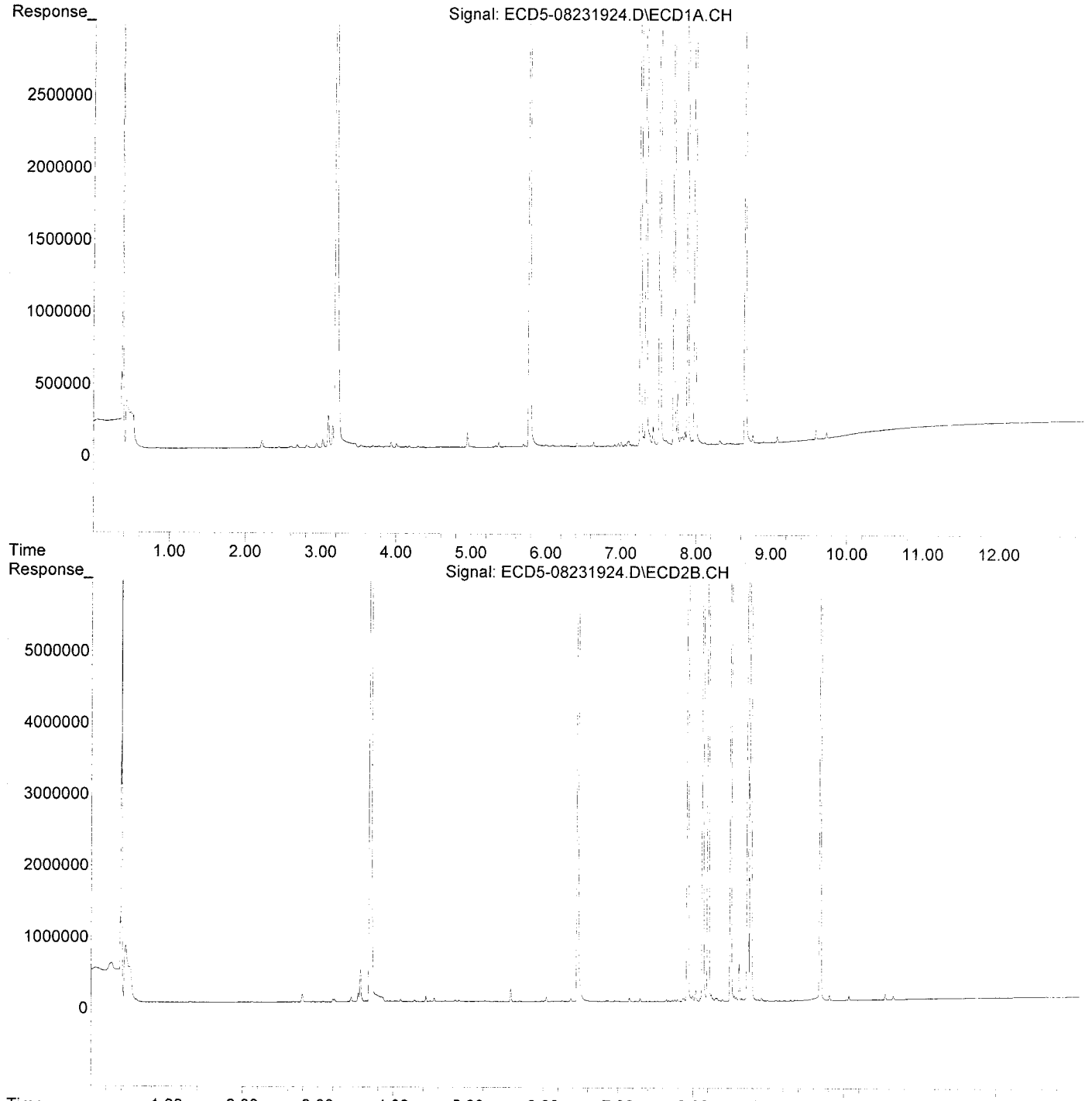
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.690	17952134	39298885	120.443	124.991
24)		Hexachlor...	5.776	6.455	17670025	32766708	143.851	146.152
25)		Oxychlordane	7.261	7.922	16359215	29732149	126.137	141.263
26)		2,4'-DDE	7.334	8.123	12769067	22164400	135.886	142.059
27)		trans-Non...	7.516	8.195	18351251	31975271	128.015	139.210
28)		2,4'-DDD	7.705	8.496	11587554	20118925	138.635	147.597
29)		2,4'-DDT	7.888	8.721	11771354	18998968	127.689	121.350
30)		cis-Nonac...	7.986	8.760	20932641	36072644	130.096	142.024
31)		Mirex	8.653	9.680	11960753	19363200	122.194	134.540
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

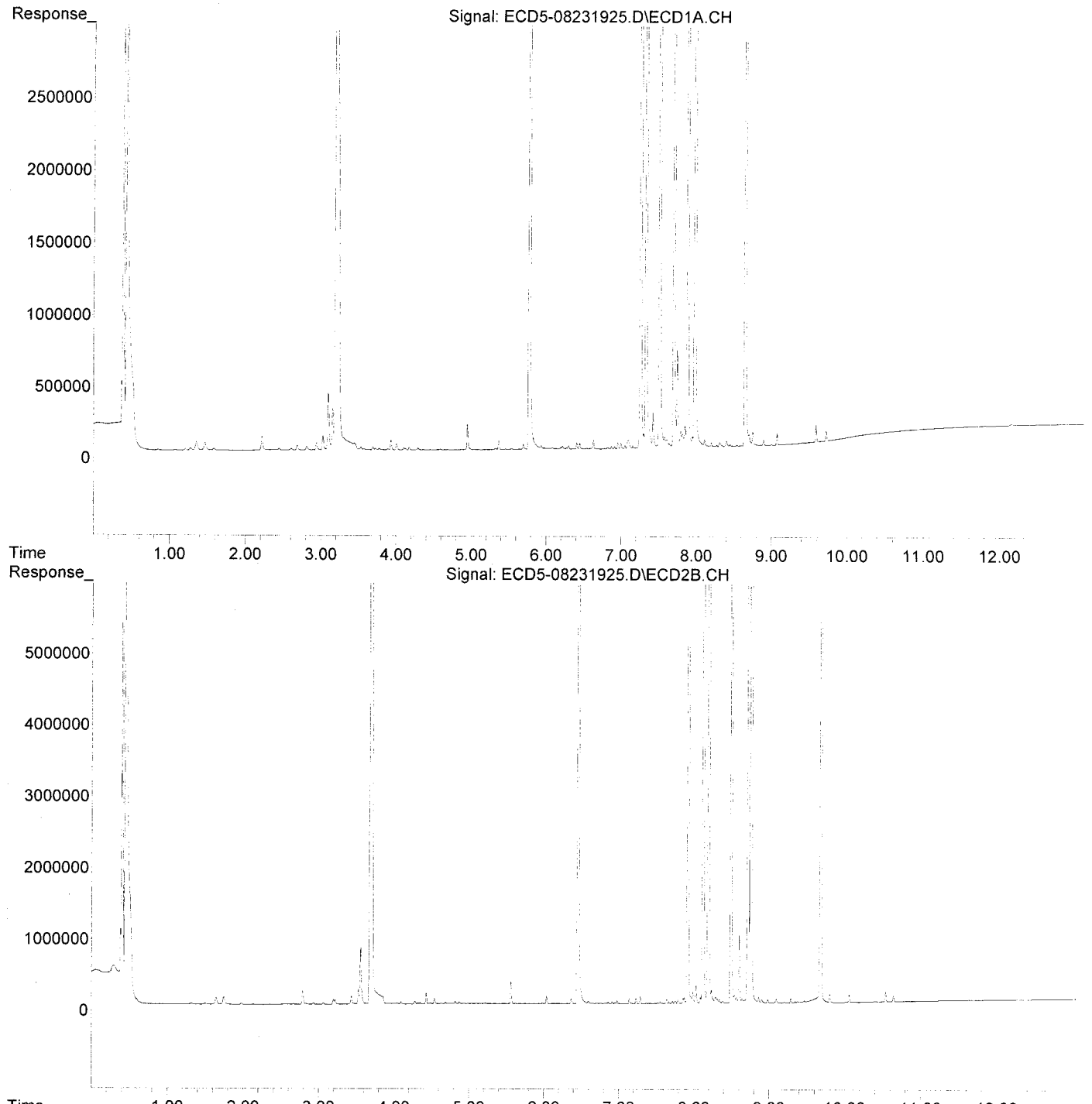
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.689	34166533	75988565	229.227	241.683
24)		Hexachlor...	5.774	6.454	34073459	66261966	277.392	295.553
25)		Oxychlordane	7.258	7.920	32032634	58736982	246.986	279.071
26)		2,4'-DDE	7.331	8.122	24819199	44504592	264.121	285.245
27)		trans-Non...	7.514	8.194	35027918	63083636	244.348	274.645
28)		2,4'-DDD	7.703	8.494	21916962	39839303	262.217	292.269
29)		2,4'-DDT	7.887	8.719	23024956	39999231	224.761	221.024
30)		cis-Nonac...	7.984	8.759	40046185	72455823	248.887	285.271
31)		Mirex	8.652	9.679	23284997	38425530	237.885	266.989
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MP 12/26/19

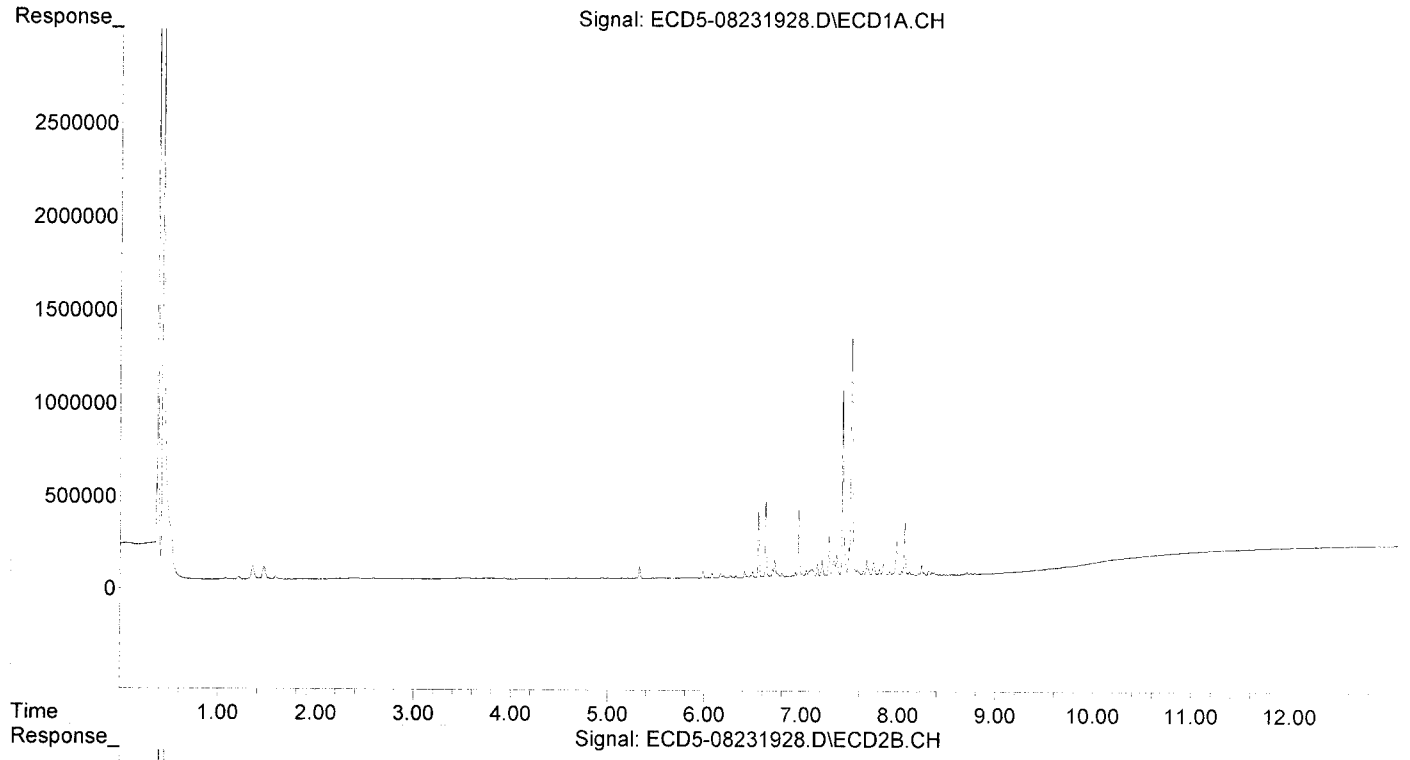
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	1009143	1754707	65.443	66.784
33)	Chlordane...	7.521	8.237	1286655	1472400	62.192	67.669
34)	Chlordane...	8.068	8.897	288087	439020	60.282	67.059
35)	Chlordane...	3.446	0.000	5365	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

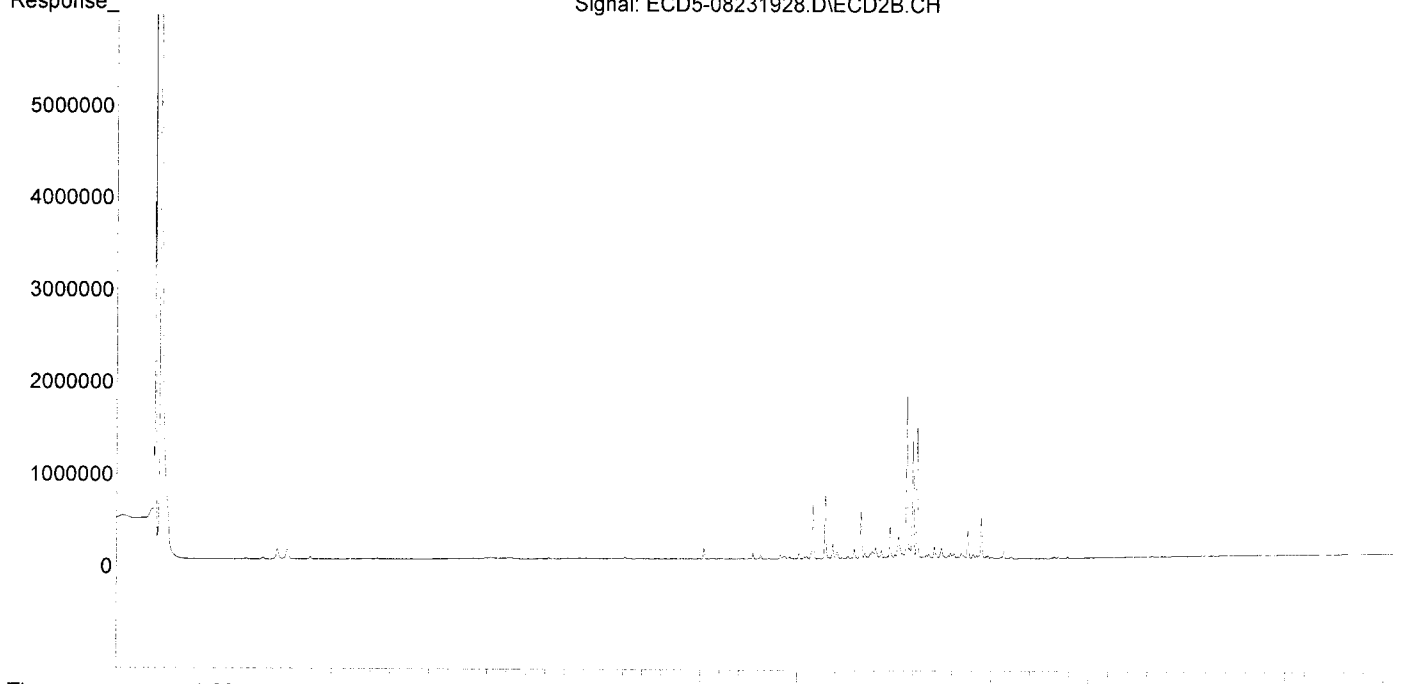
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

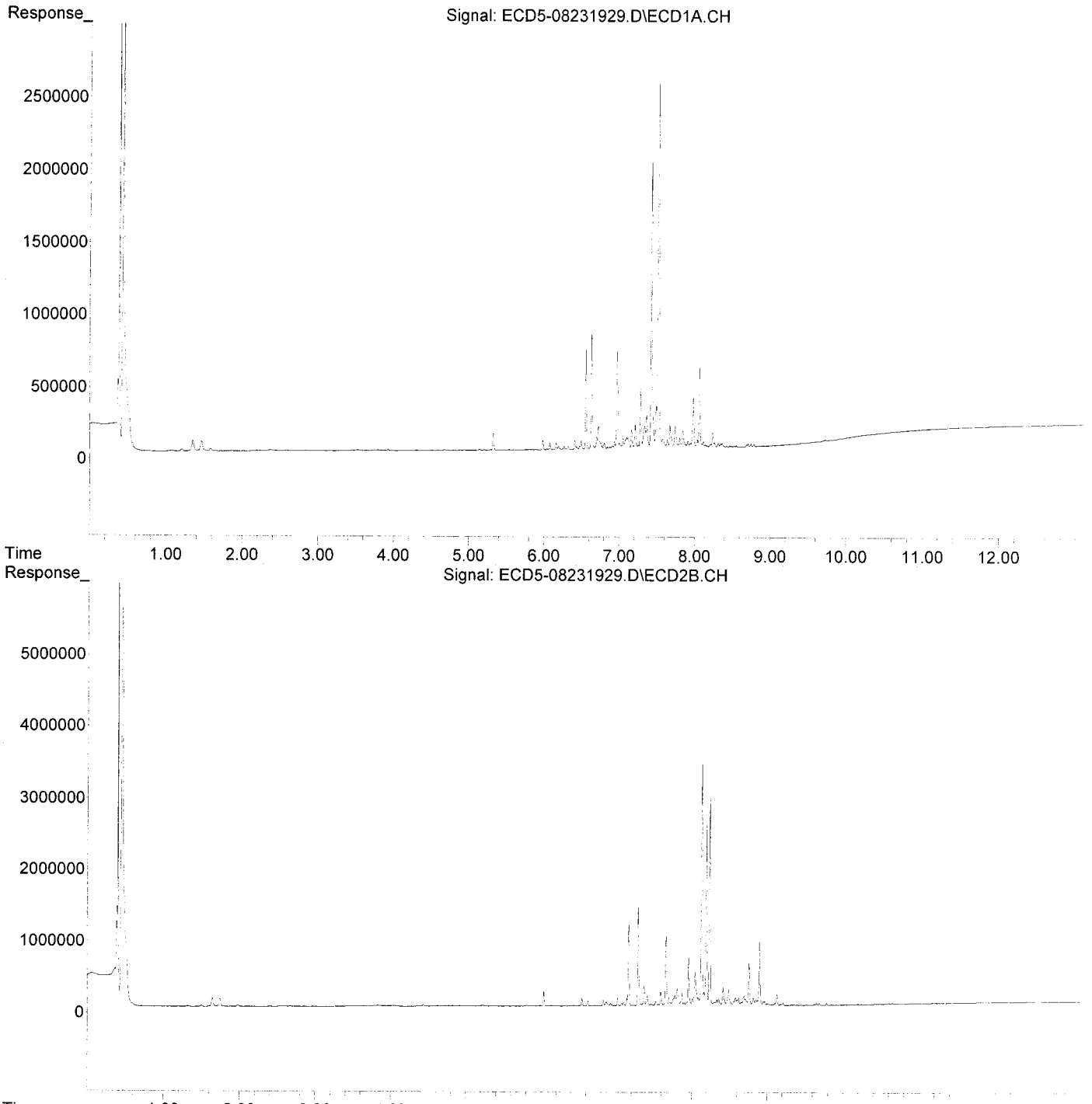
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.130	1978897	3378388	128.331	127.866
33)	Chlordane...	7.521	8.238	2519520	2905941	121.784	133.934
34)	Chlordane...	8.068	8.898	548196	874465	114.710	133.920
35)	Chlordane...	3.446	0.000	4938	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

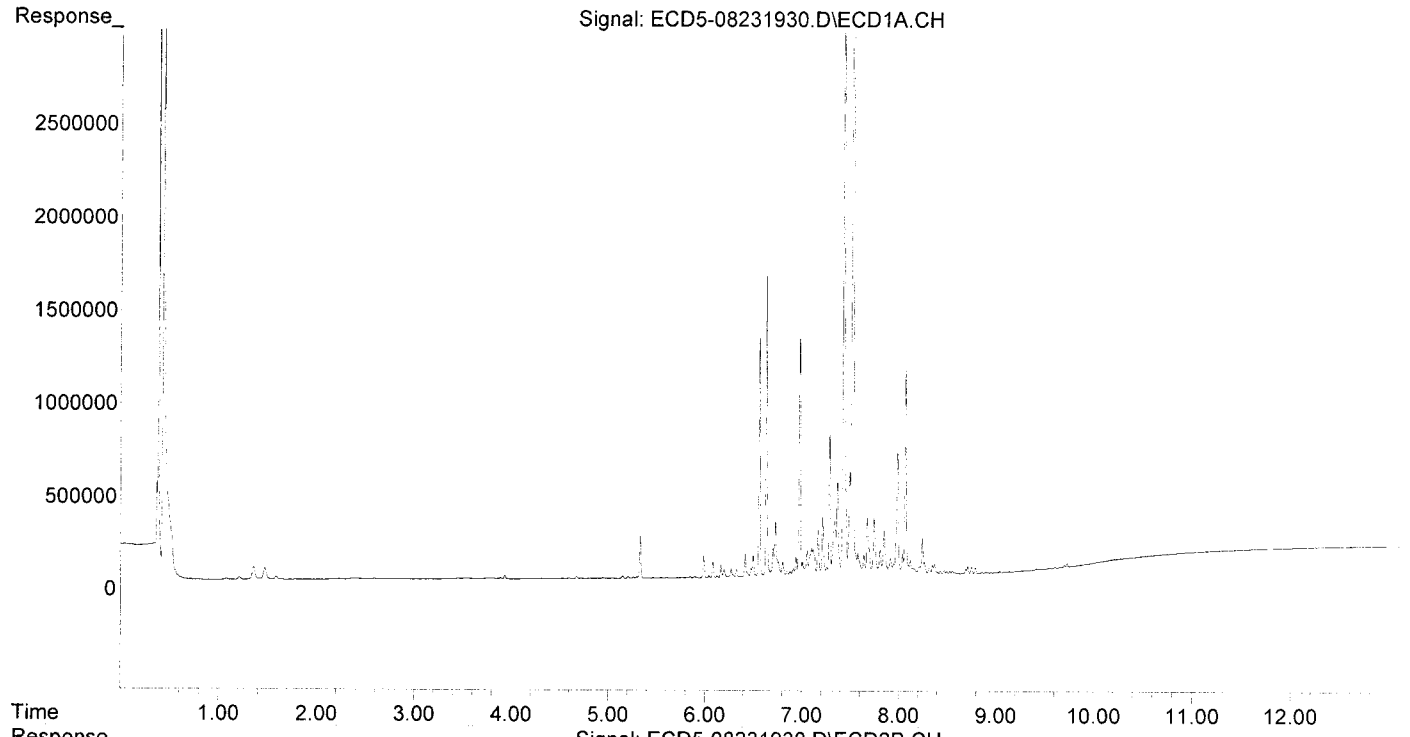
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	3849299	6751197	249.627	251.318
33)	Chlordane...	7.522	8.239	4906320	5883615	237.153	267.927
34)	Chlordane...	8.069	8.898	1101677	1731727	230.526	261.800
35)	Chlordane...	3.448	0.000	4503	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

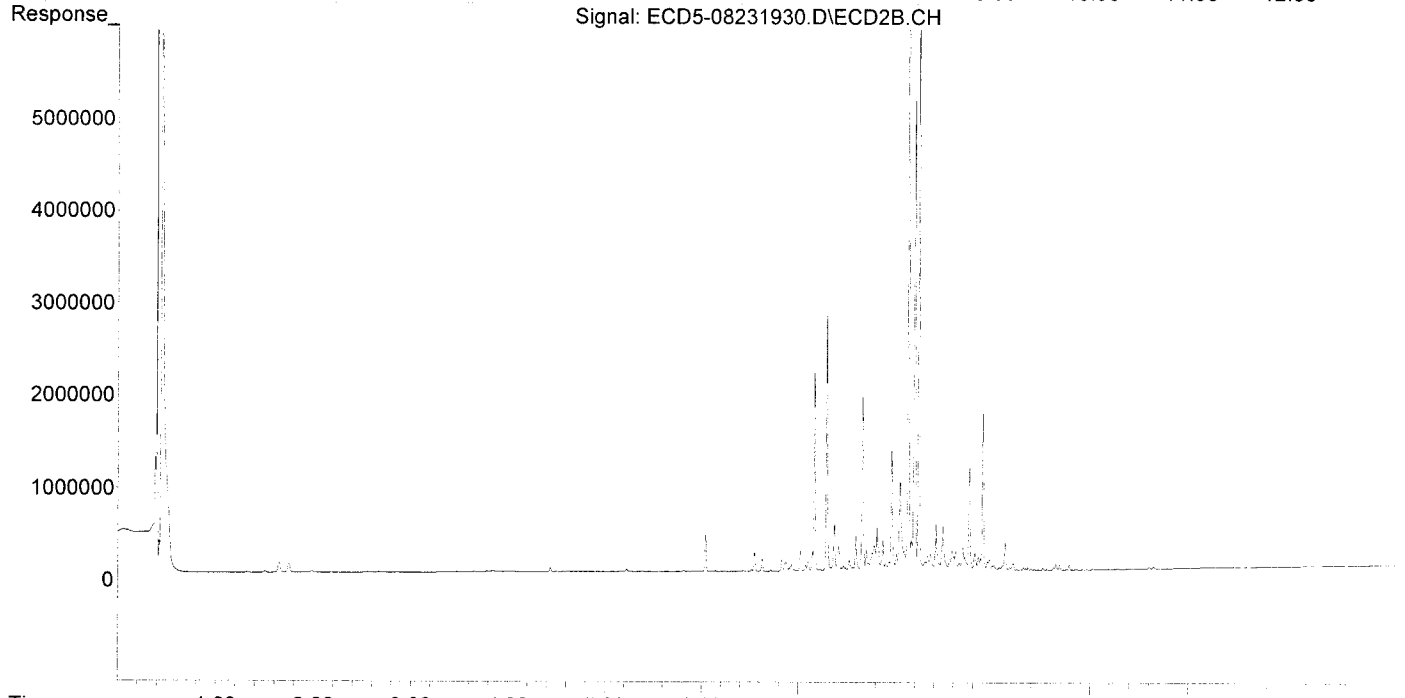
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

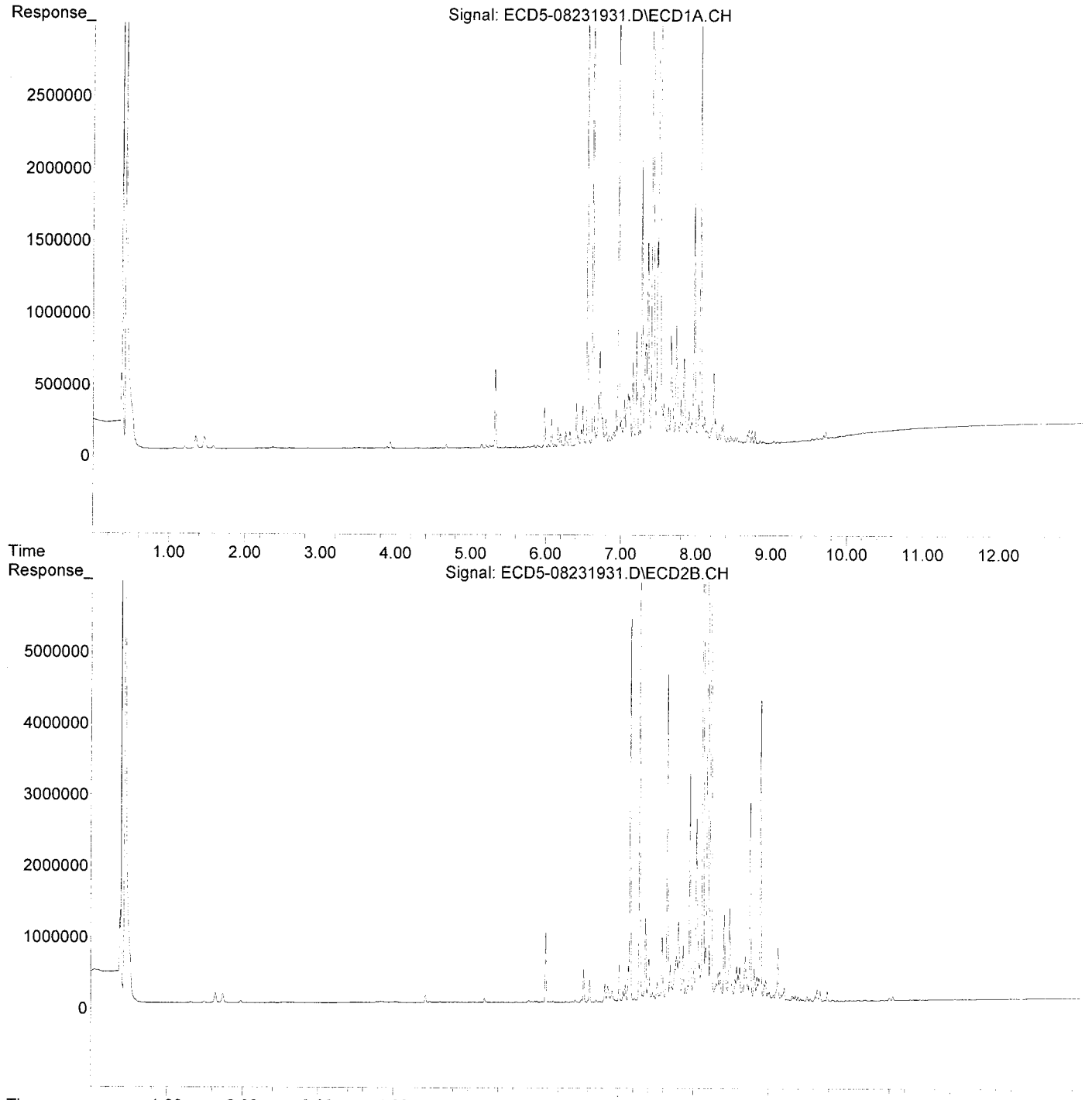
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.427	8.129	9628671	17830433	624.419	629.093
33)	Chlordane...	7.520	8.237	12176524	14812273	588.567	644.287
34)	Chlordane...	8.067	8.896	2921278	4271709	611.277	615.748
35)	Chlordane...	3.447	0.000	4056	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

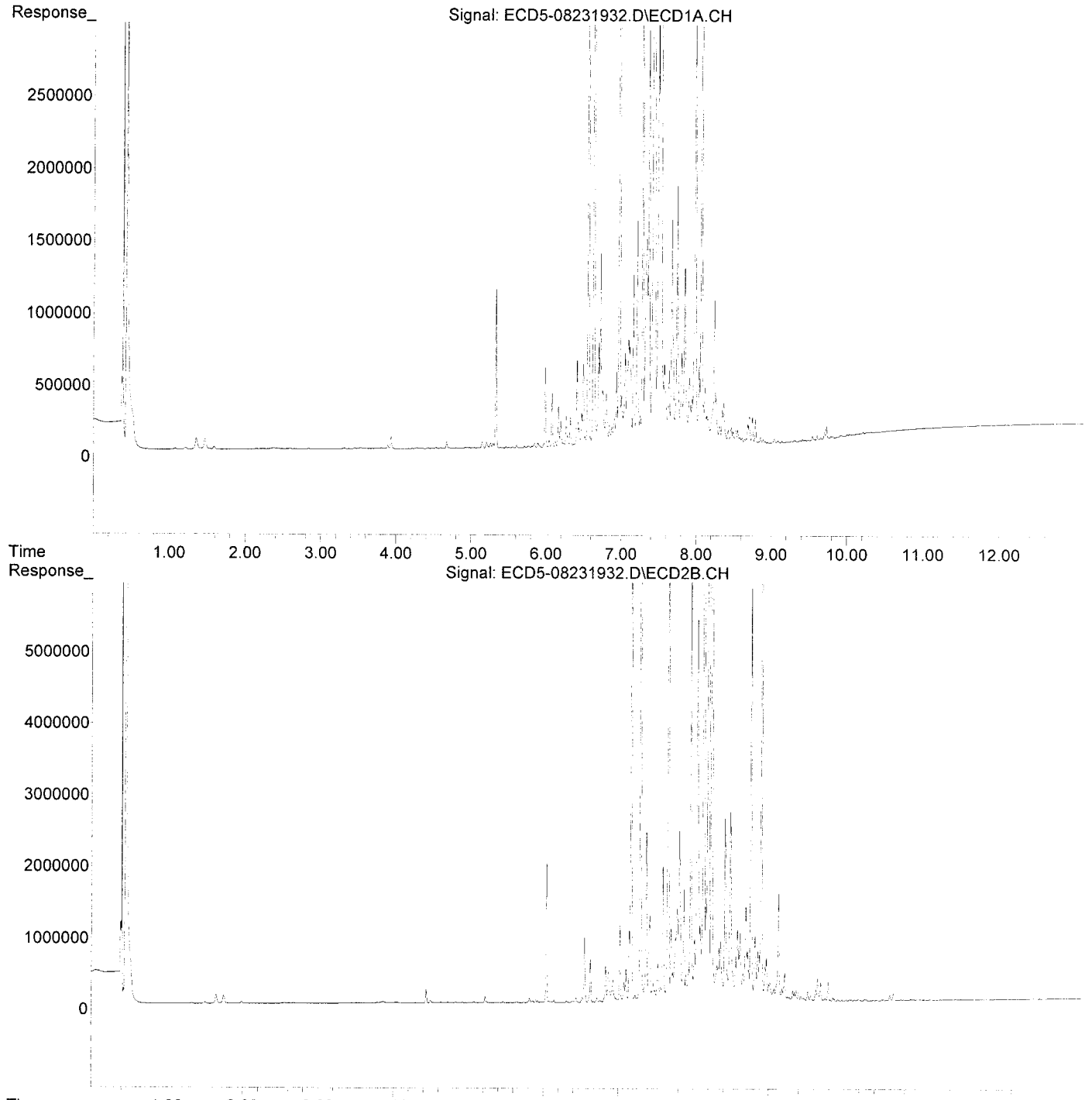
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.426	8.130	19643766	37966746	1273.898	1234.450
33)		Chlordane...	7.519	8.237	25083239	31493677	1212.428	1269.749
34)		Chlordane...	8.067	8.897	5987927	9358900	1252.974	1240.988
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

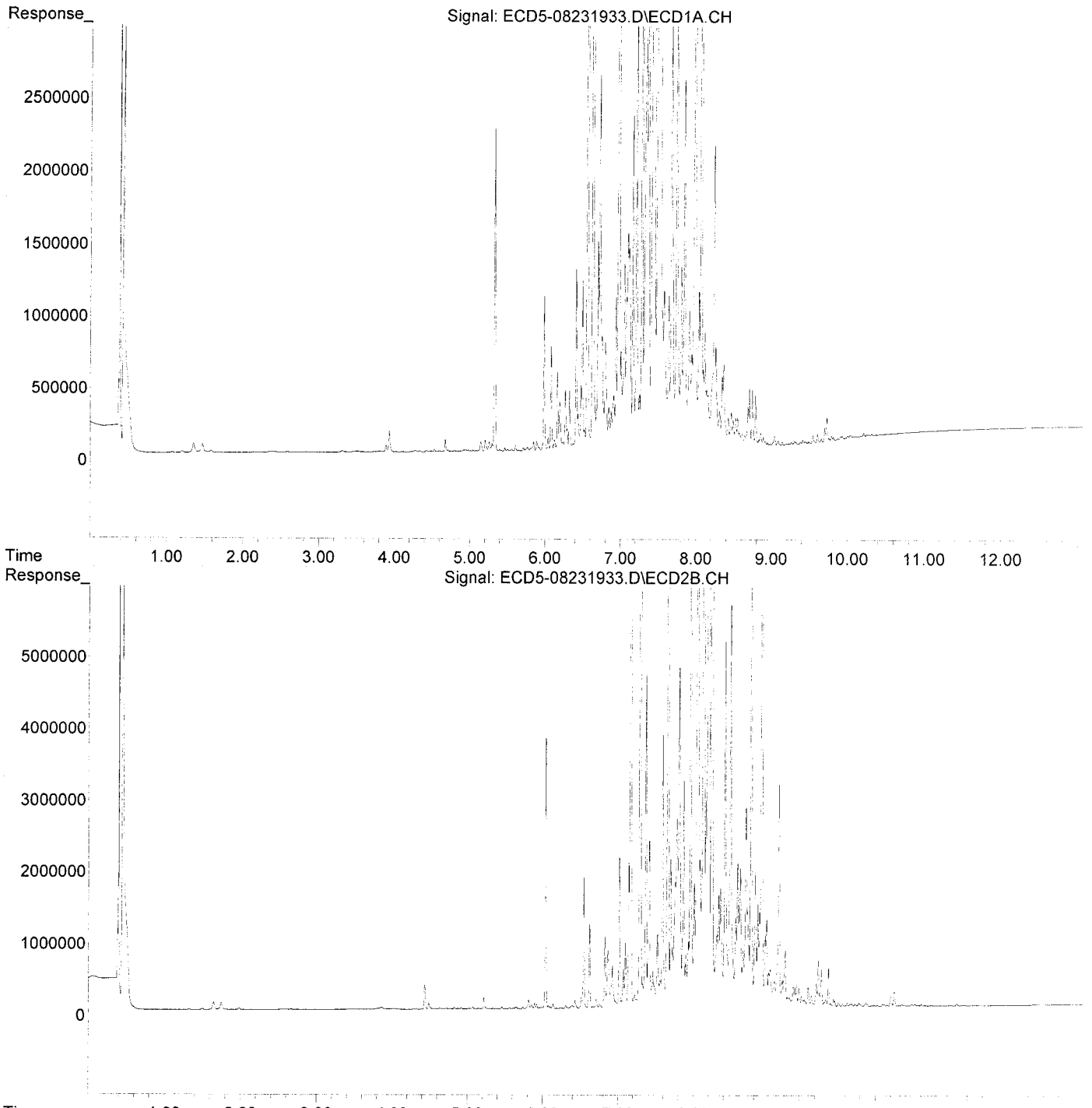
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.426	8.130	40036500	81691713	2596.366	2326.014
33)	Chlordane...	7.519	8.238	50979142	66281388	2464.138	2365.956
34)	Chlordane...	8.067	8.897	12208306	19418517	2554.588	2271.661
35)	Chlordane...	3.449	0.000	4939	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

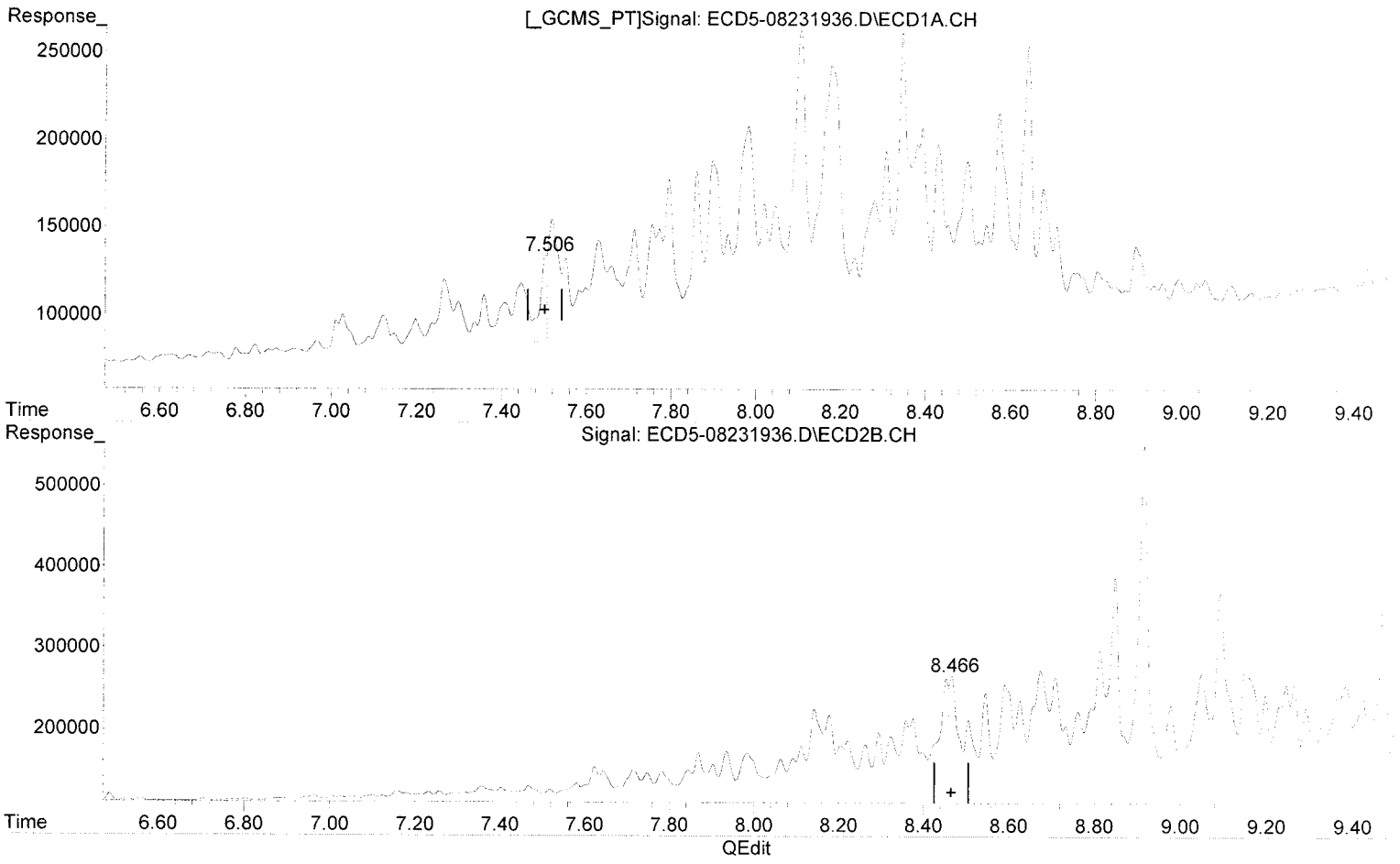
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.506	8.466	49250	136848	69.167m	65.864
37)	Toxaphene...	7.794	8.813	88321	164706	67.251	67.260
38)	Toxaphene...	8.105	8.847	169381	254833	62.397	67.028
39)	Toxaphene...	8.346	8.915	164317	416348	64.716	65.275
40)	Toxaphene...	8.573	9.091	114720	233185	60.554	65.984
41)	Toxaphene...	8.641	9.470	153138	230922	57.297	70.513
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 69.167 ng/mL (m)

response 49250

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

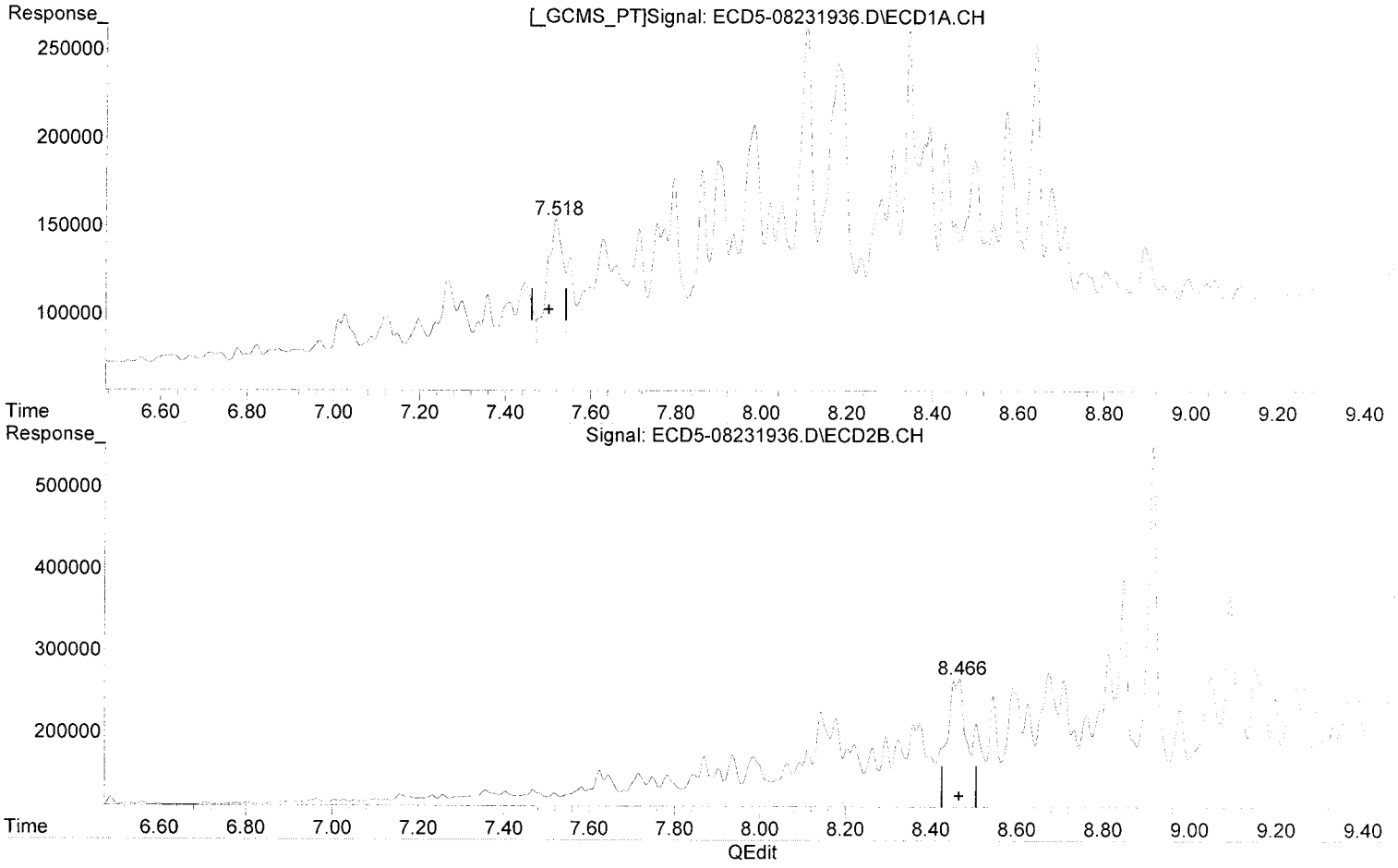
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 96.999 ng/mL

response 69068

MJB 6/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

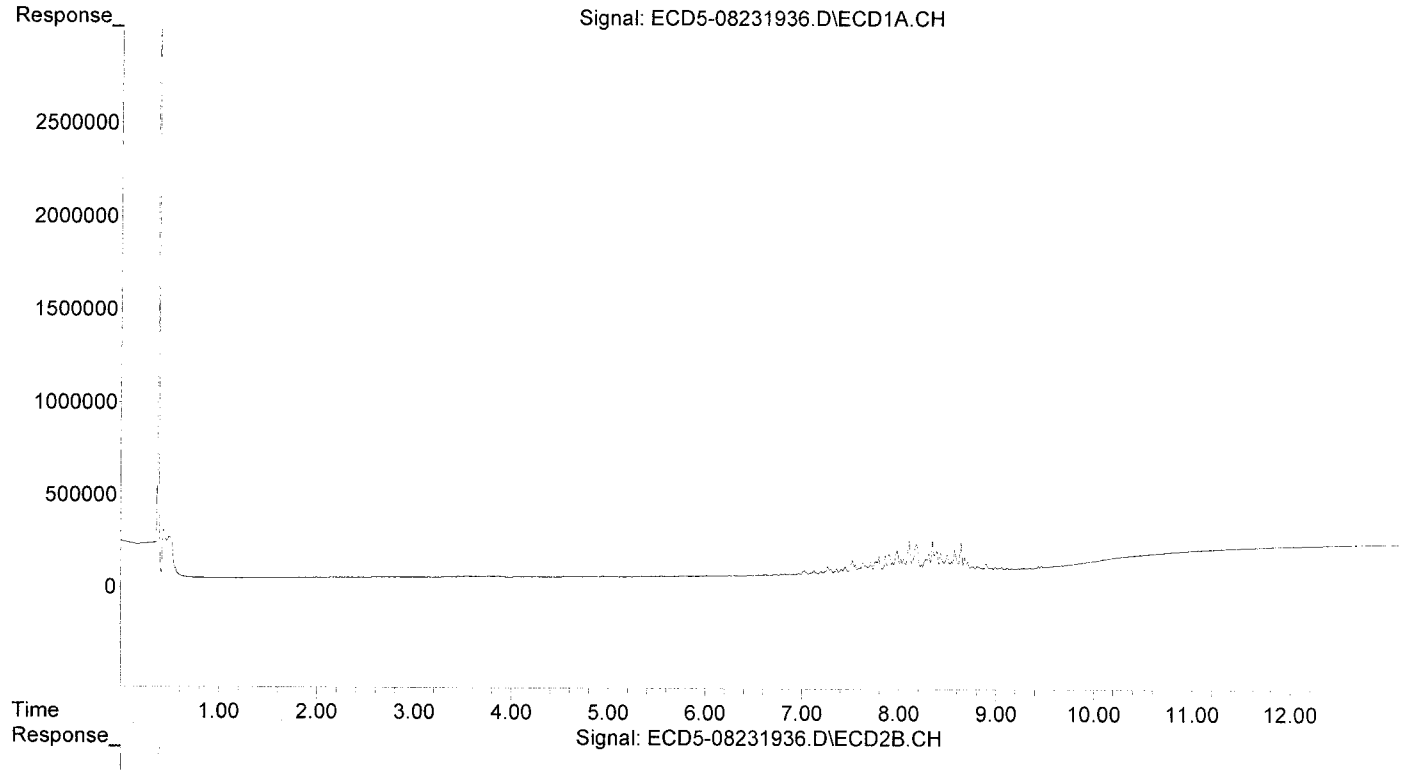
response 136848

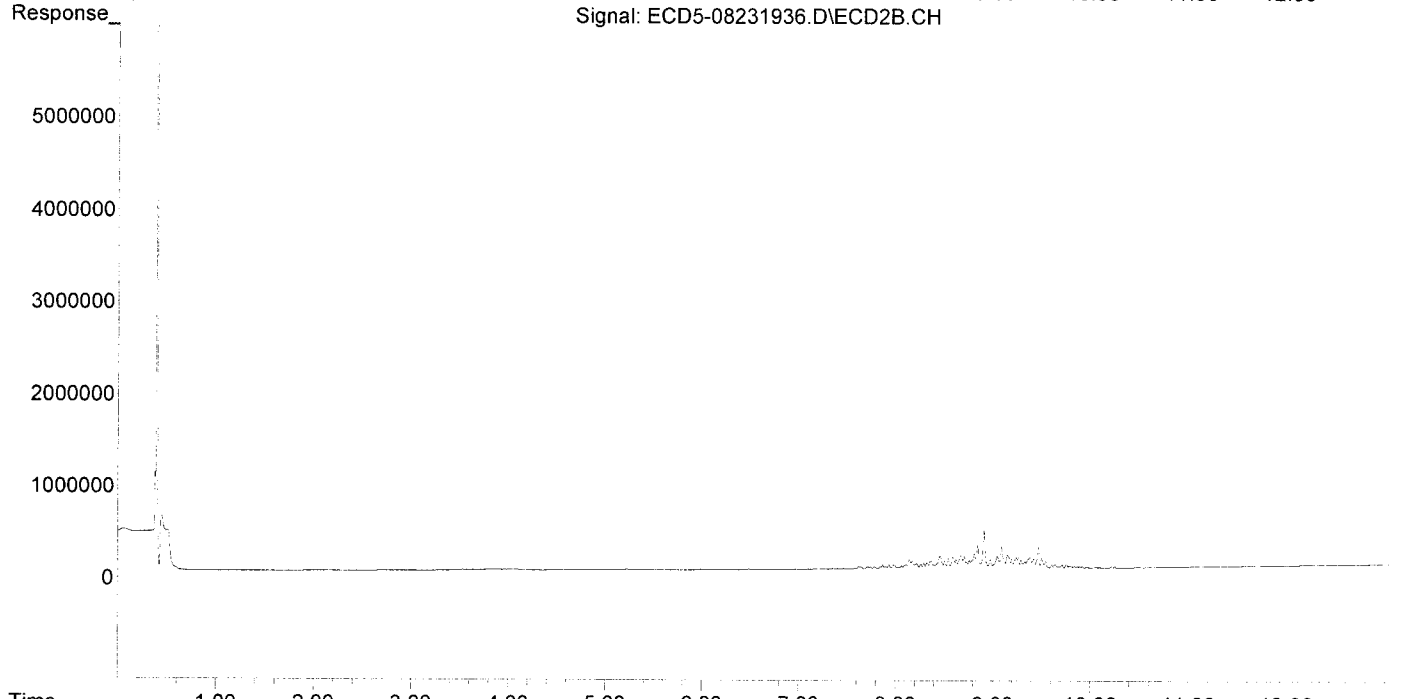
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

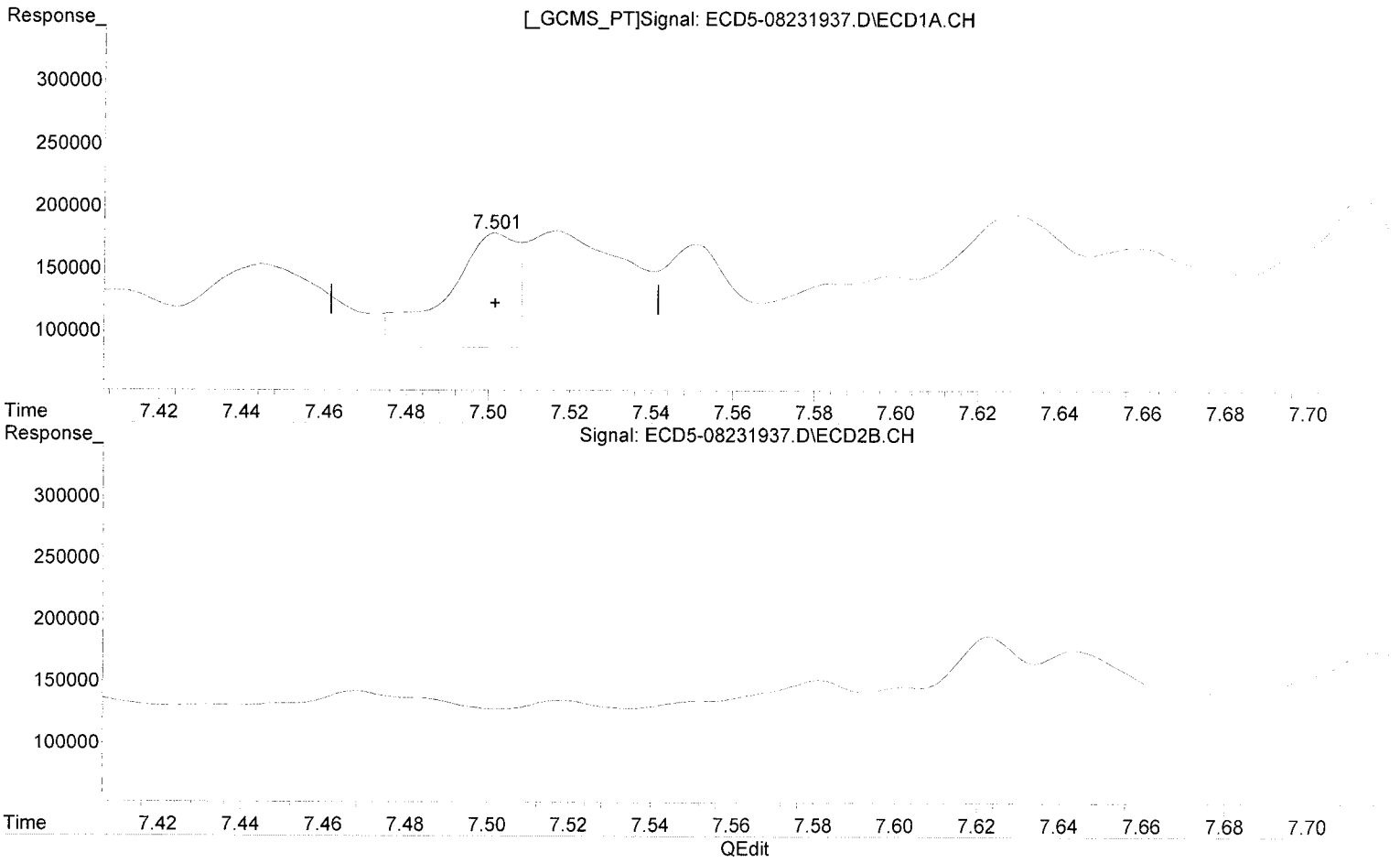
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.466	91576	267534	128.609m	128.761
37)		Toxaphene...	7.795	8.813	166085	324070	126.462	132.338
38)		Toxaphene...	8.106	8.848	332842	494430	122.613	130.048
39)		Toxaphene...	8.346	8.915	320313	811948	126.154	127.297
40)		Toxaphene...	8.574	9.091	228960	452209	120.854	127.962
41)		Toxaphene...	8.641	9.471	302577	452485	113.210	135.226
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 128.609 ng/mL m

response 91576

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

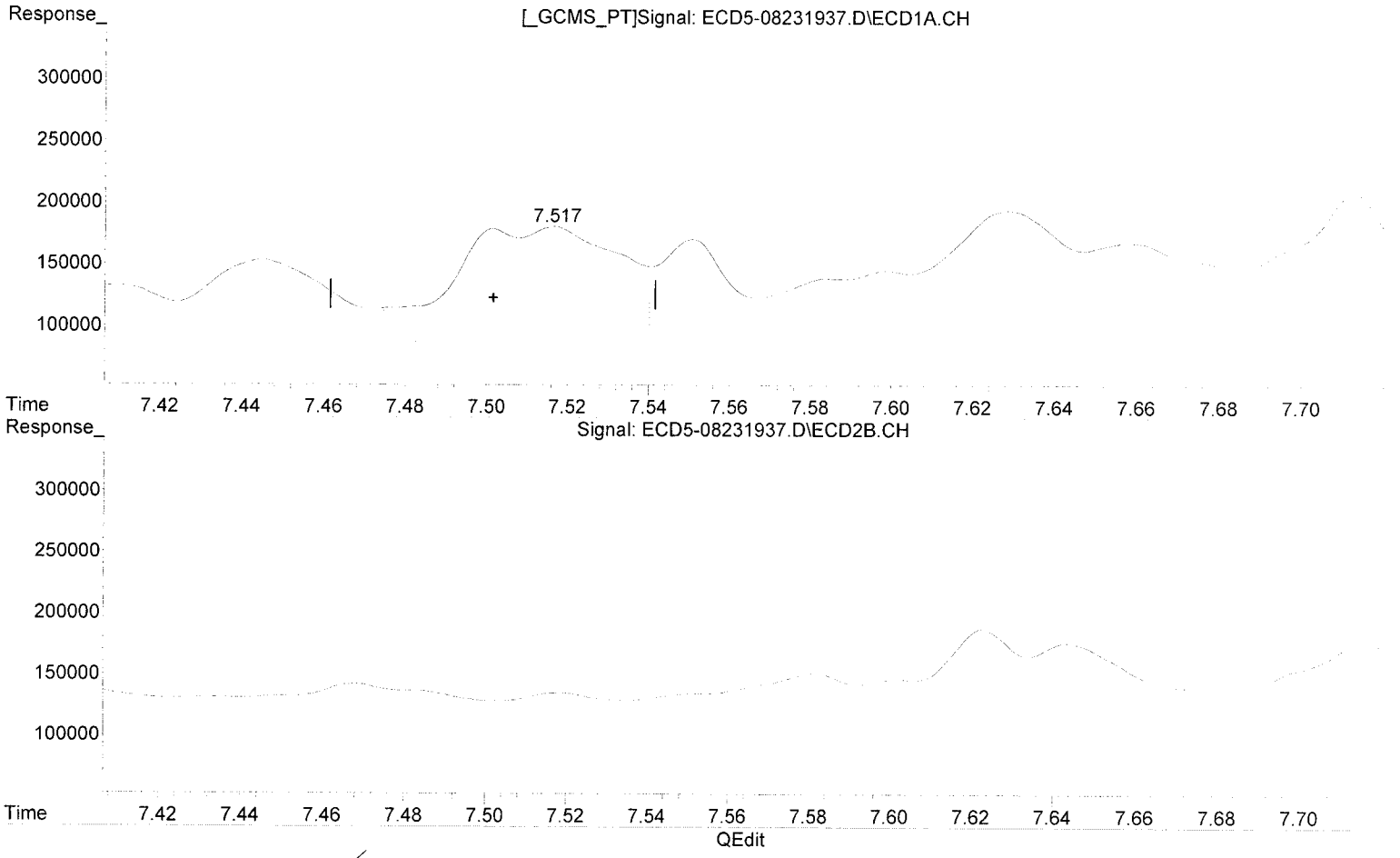
response 267534

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 130.814 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

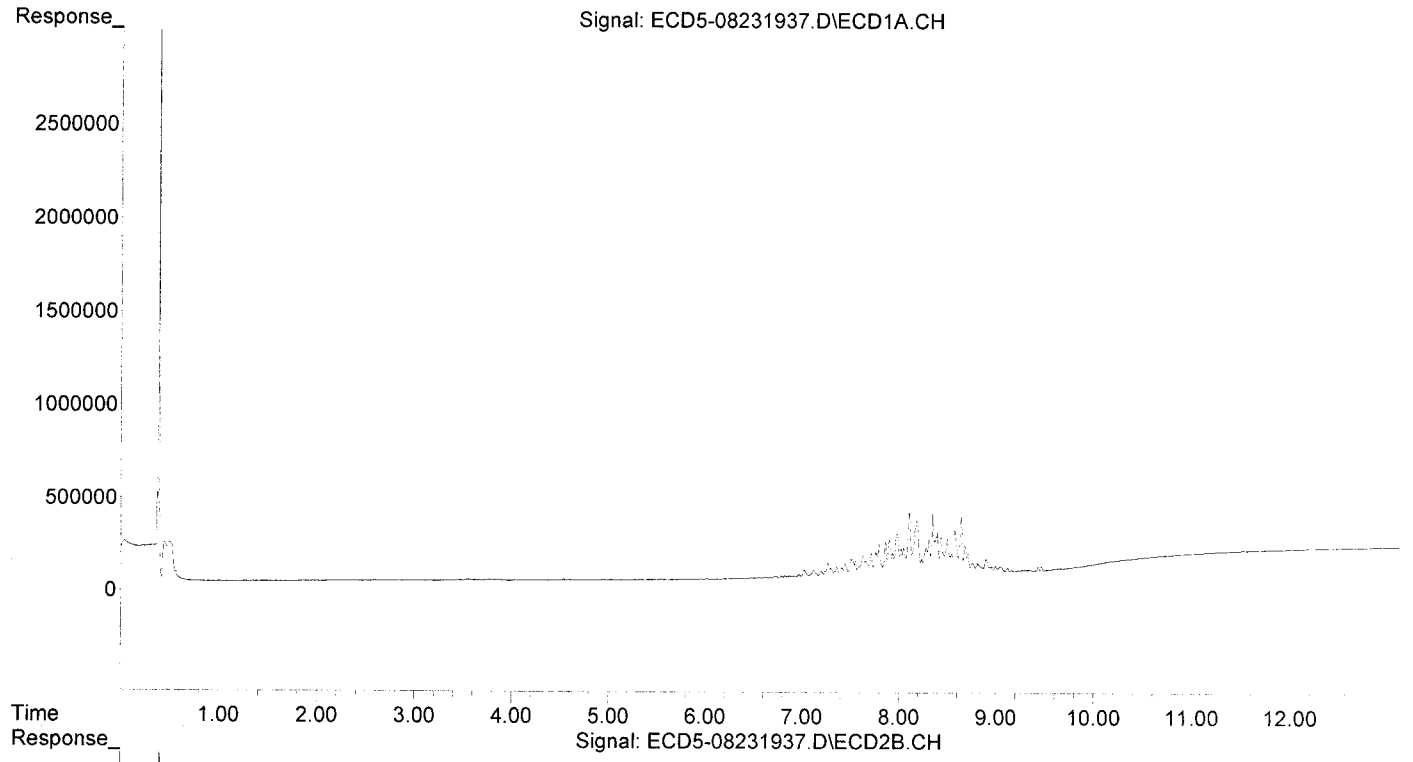
response 267534

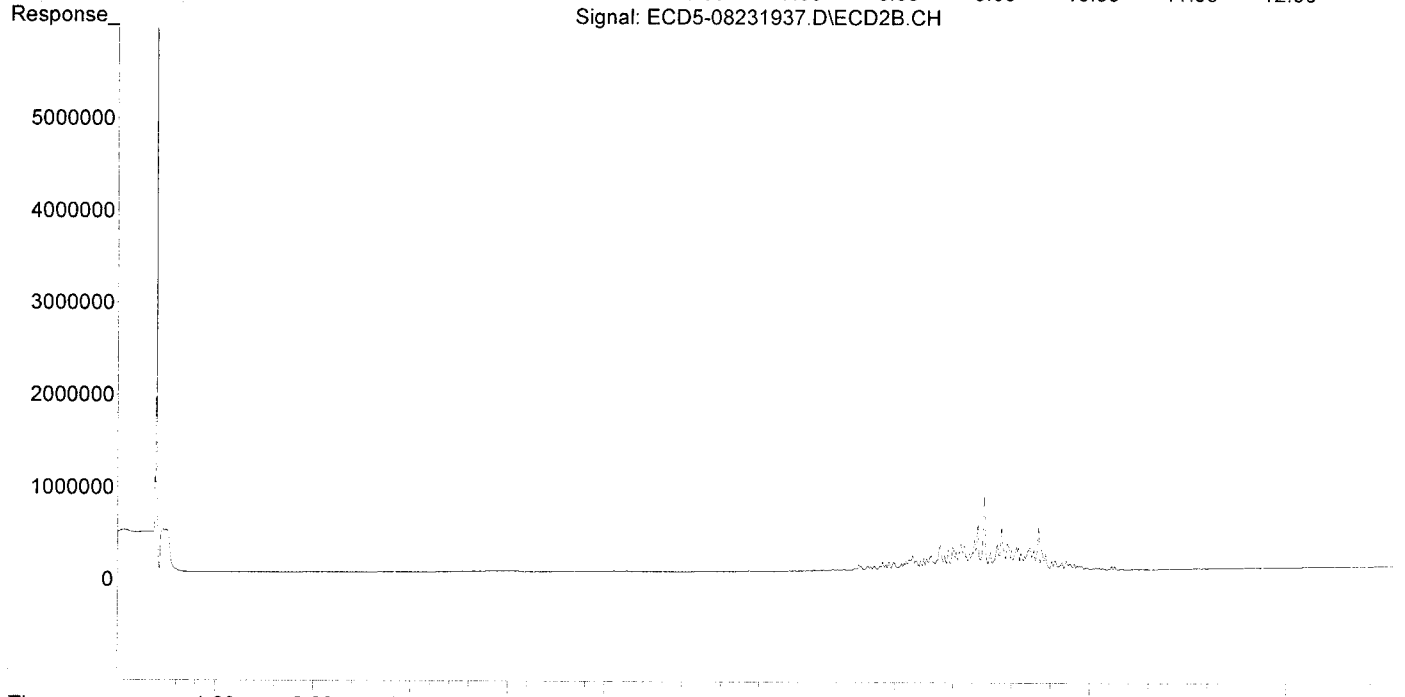
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

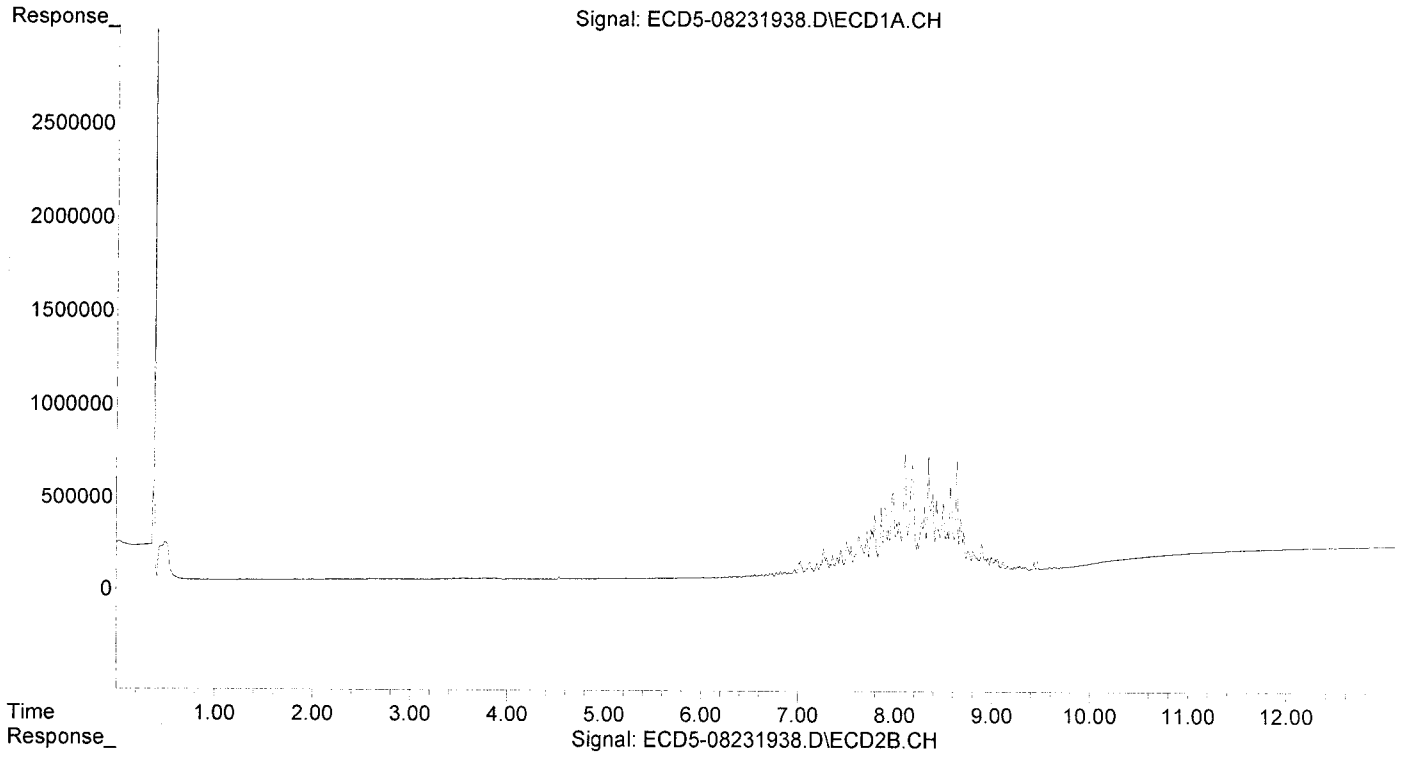
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	176047	508983	247.240	244.968
37)		Toxaphene...	7.795	8.812	317587	645322	241.821	263.525
38)		Toxaphene...	8.105	8.847	644464	995555	237.409	261.857
39)		Toxaphene...	8.346	8.914	632351	1580436	249.049	247.779
40)		Toxaphene...	8.574	9.090	454431	895397	239.867	253.371
41)		Toxaphene...	8.640	9.469	597991	905244	253.740	263.952
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.

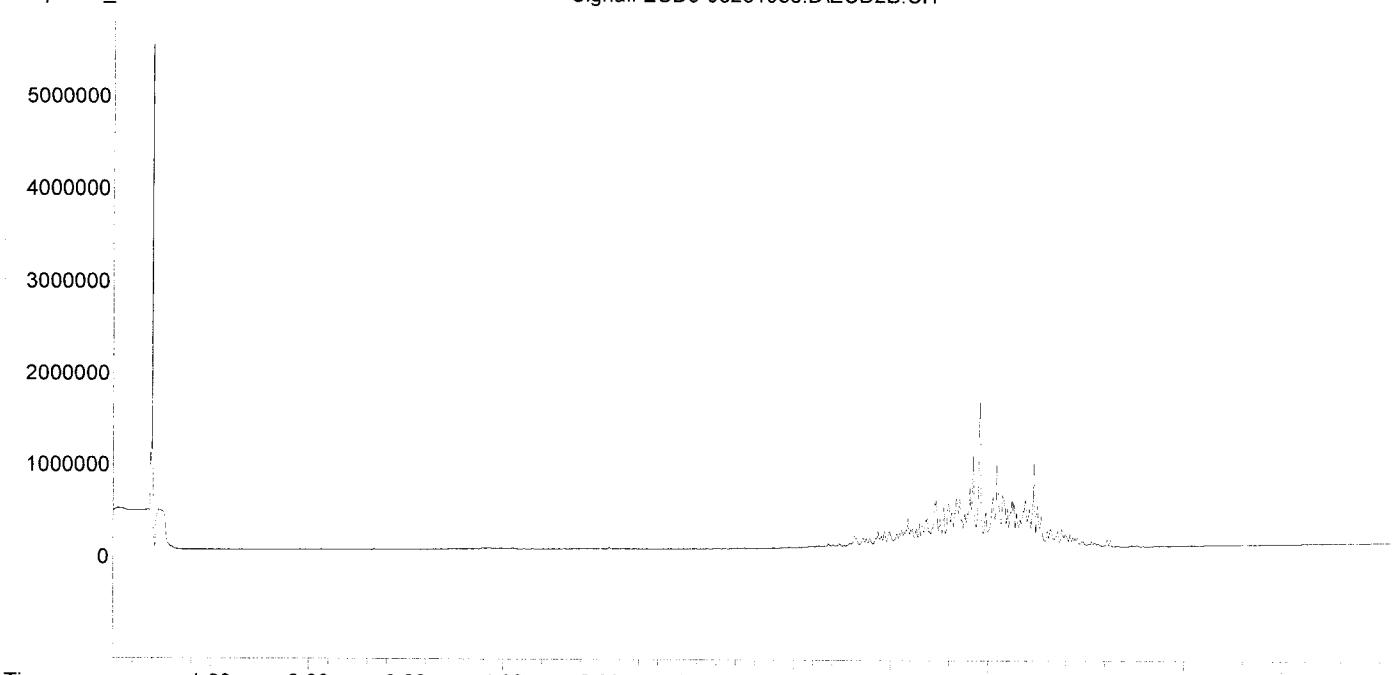
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

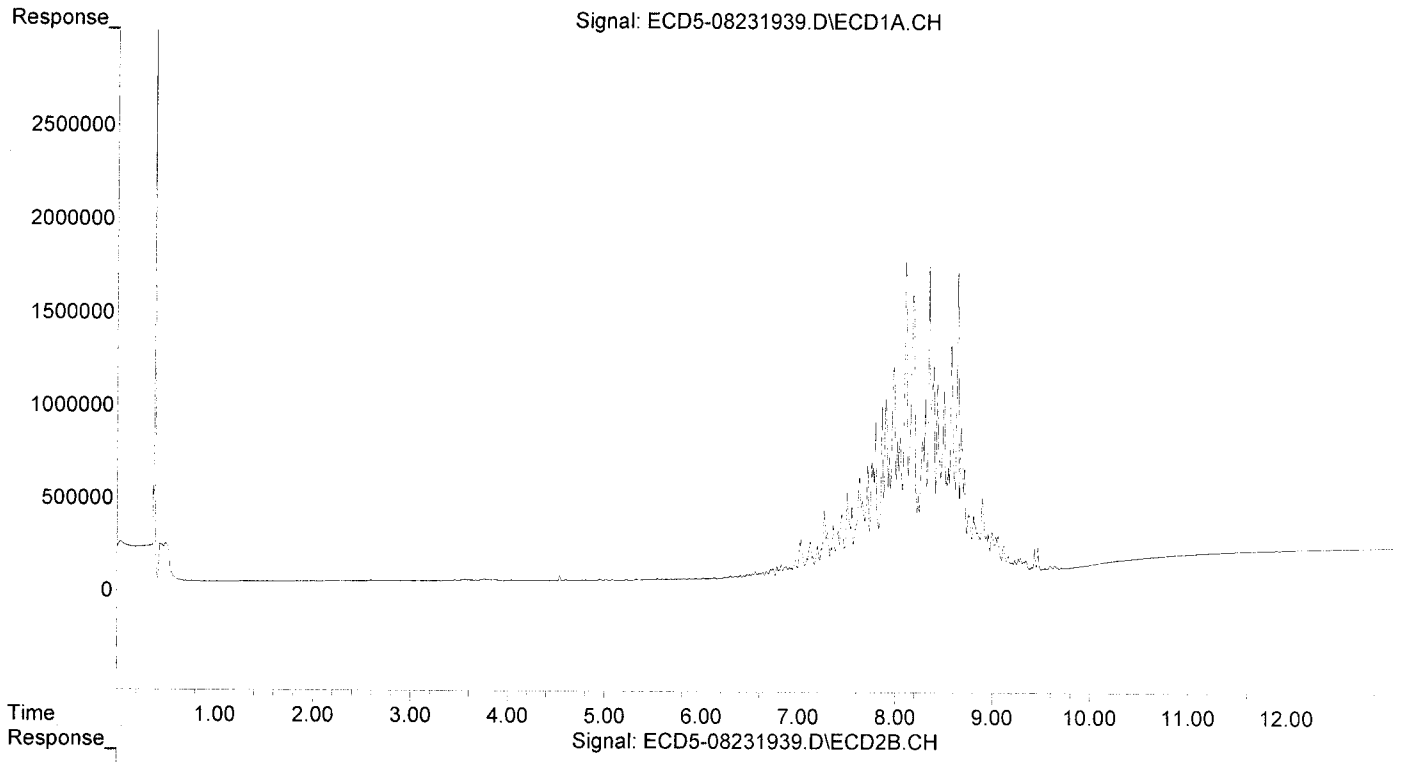
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	441826	1308994	620.497	630.004
37)		Toxaphene...	7.794	8.812	819454	1647741	623.958	672.874
38)		Toxaphene...	8.105	8.848	1677481	2475022	617.954	650.997
39)		Toxaphene...	8.346	8.915	1649569	4252640	649.677	666.725
40)		Toxaphene...	8.574	9.091	1221560	2340668	644.788	662.340
41)		Toxaphene...	8.640	9.470	1623402	2369795	607.400	652.719
42)		Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.

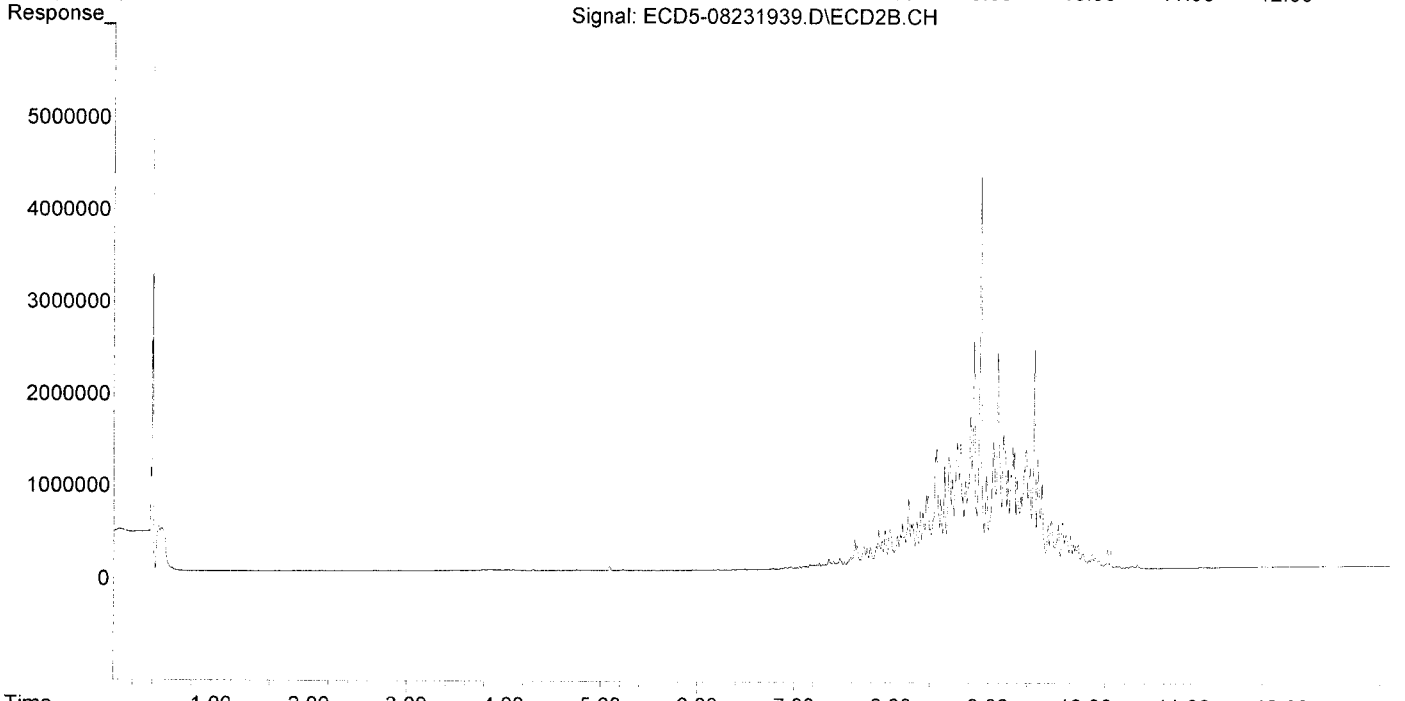
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

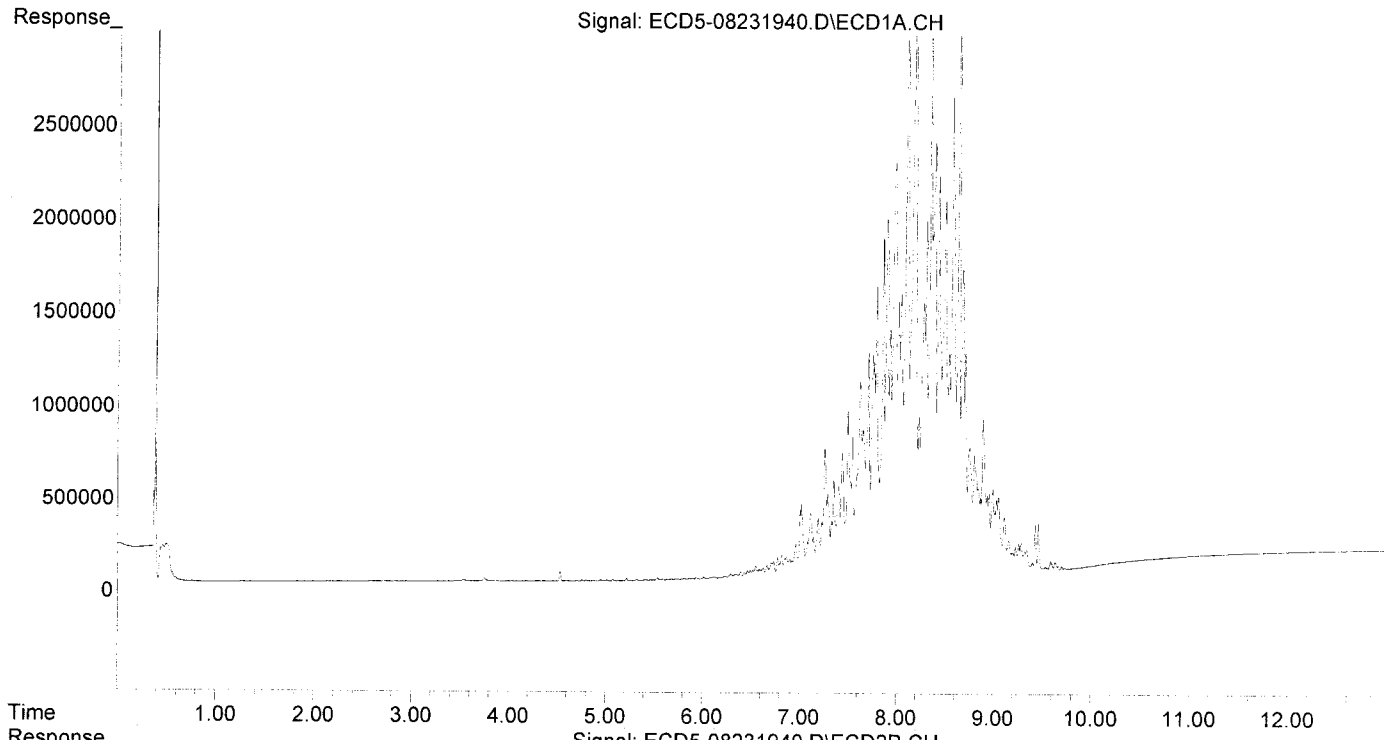
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.467	871889	2654886	1224.474	1277.768
37)		Toxaphene...	7.793	8.813	1556013	3384036	1184.797	1381.910
38)		Toxaphene...	8.105	8.848	3495877	5168269	1287.817	1359.392
39)		Toxaphene...	8.345	8.915	3287014	8650068	1294.579	1356.150
40)		Toxaphene...	8.573	9.091	2546293	4900430	1344.035	1386.677
41)		Toxaphene...	8.640	9.470	3406737	5046645	1274.639	1281.306
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.

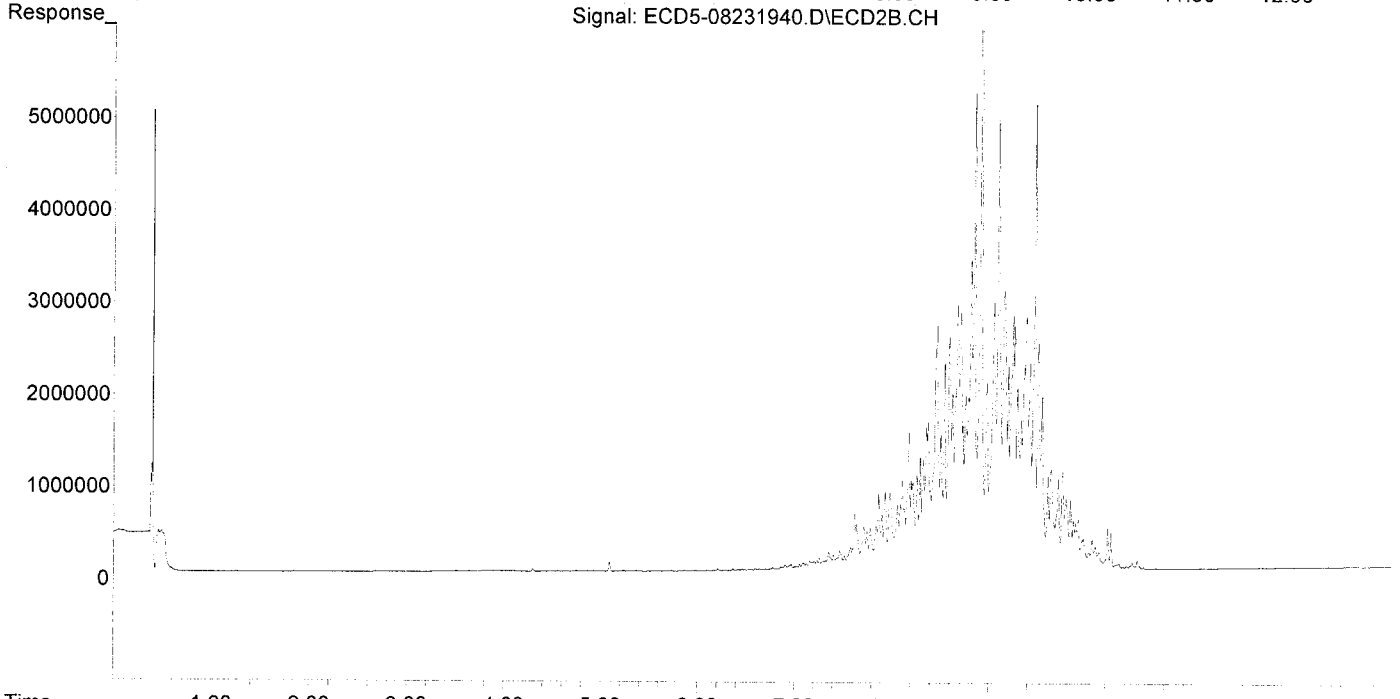
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/20/19

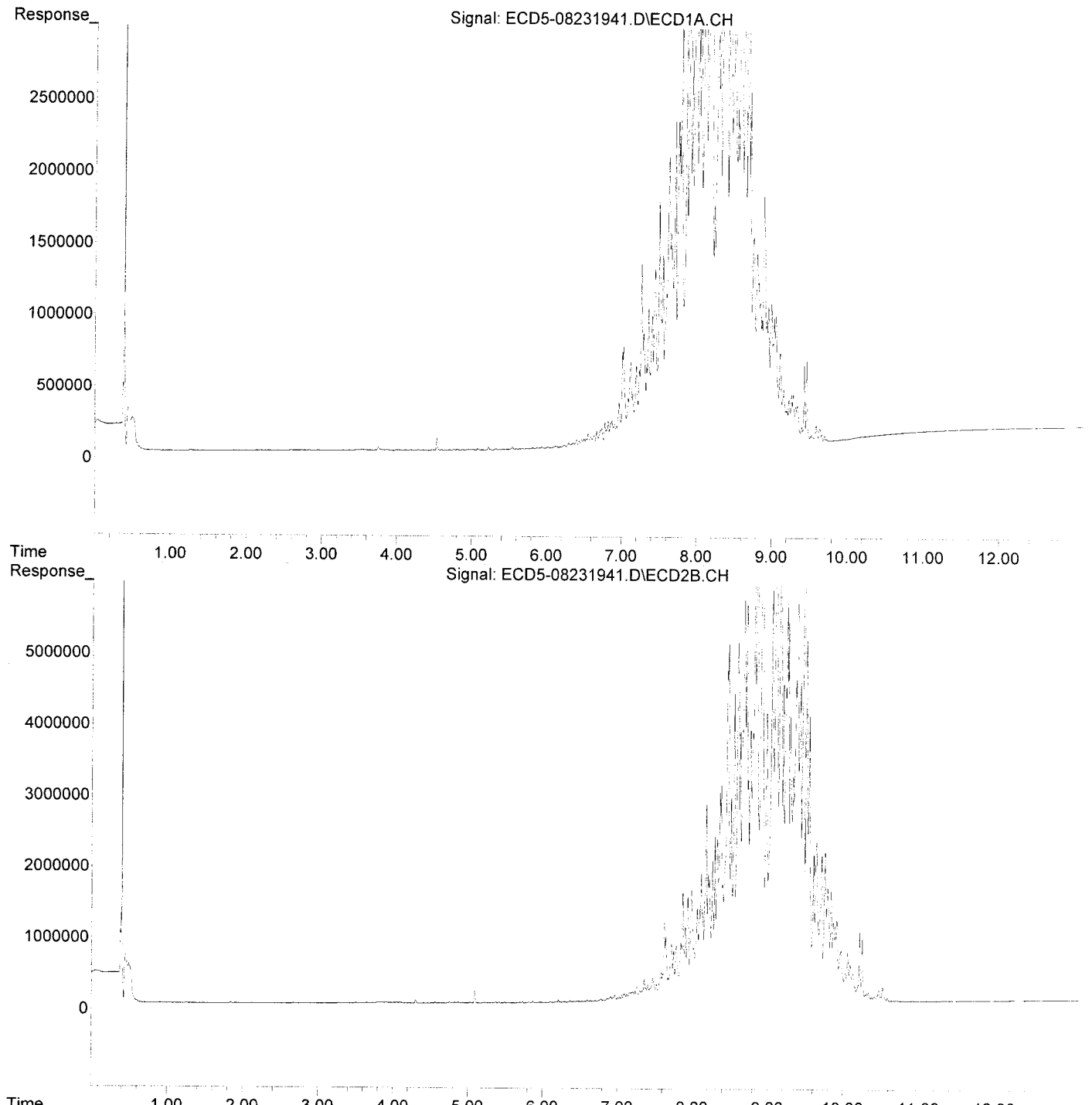
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.500	8.466	1674674	5030917	2351.899	2421.326
37)		Toxaphene...	7.792	8.813	2958997	6610397	2253.073	2699.433
38)		Toxaphene...	8.104	8.848	6831460	10545708	2516.585	2773.802
39)		Toxaphene...	8.345	8.914	6407070	17190037	2523.403	2695.039
40)		Toxaphene...	8.572	9.091	5074570	9435236	2678.561	2669.893
41)		Toxaphene...	8.640	9.471	6510950	10090951	2436.088	2281.169
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110357
Sequence 9K01021 (A9J1007-01)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110357-BLK1		QC	11/01/19 07:18	16	2				100					
	9110357-BLK2		QC	11/01/19 07:18	16	2				100		Added 11/4/2019 by ams			
	9110357-BS1		QC	11/01/19 07:18	15	2	A19J144		100	100					
	9110357-BS2		QC	11/01/19 07:18	15	2	A19J144		100	100		Added 11/4/2019 by ams			
	A9J0950-01	G	8270 SIM PAH	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	Added for BatchQC in: 9110357			
	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	custom			
	9110357-DUP1		QC	11/01/19 09:07	15.07	2		A9J0950-01		100					
	9110357-DUP2		QC	11/01/19 09:07	15.07	2		A9J0950-01		100		Added 11/4/2019 by ams			
	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	15.3	2				100	PDI-026SC-C-00 -3.9-191024	custom			
	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-037SC-C-00 -12.4-191024	custom			
	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	15.32	2				100	PDI-073SC-C-00 -13.7-191024	custom			
	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	15.55	2				100	PDI-019SC-C-00 -3.2-191025	custom			
	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	custom			
	A9J0954-02RE1	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	Added 11/4/2019 by ams			
	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	15.15	2				100	PDI-071SC-C-00 -08-191028	custom			
	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	15.22	2				100	PDI-074SC-C-00 -7.3-191028	custom			
	A9J1007-01	G	8270 SIM PAH	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	Added for BatchQC in: 9110357			
	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	custom			
	9110357-MS1		QC	11/01/19 09:07	15.15	2	A19J144	A9J1007-01	100	100					
	A9J1137-06	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15				
	A9J1137-06RE1	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15	Added 11/5/2019 by hml			
	A9J1137-12	A	8270 SIM PAH	11/01/19 09:07	10.05	5				100	PD-16				
	A9J1137-12RE1	A	8270 SIM PAH	11/01/19 09:07	10.05	5				100	PD-16	Added 11/5/2019 by hml			

Prepared By: Date

Reviewed By: 11/05/19 Date

Printed: 11/5/2019 10:28:08AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	A9J1137-18	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17				
	A9J1137-18RE1	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17	Added 11/5/2019 by hml			
	A9J1137-24	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18				
	A9J1137-24RE1	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18	Added 11/5/2019 by hml			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J144	04/05/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: _____ Date

Reviewed By: tam 11/05/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110357-BLK1		QC	11/01/19 07:18	16	2				100					
	9110357-BS1		QC	11/01/19 07:18	15	2	A19J144		100	100					
	A9J0950-01	G	8270 SIM PAH	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	Added for BatchQC in: 9110357			
	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	custom			
23	9110357-DUP1		QC	11/01/19 09:07	15.07	2		A9J0950-01		100		(S) Sand, strong odor, Product-Green			
	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	15.3	2				100	PDI-026SC-C-00 -3.9-191024	custom			
	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-037SC-C-00 -12.4-191024	custom			
	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	15.32	2				100	PDI-073SC-C-00 -13.7-191024	custom			
	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	15.55	2				100	PDI-019SC-C-00 -3.2-191025	custom			
	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	custom			
	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	15.15	2				100	PDI-071SC-C-00 -08-191028	custom			
	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	15.22	2				100	PDI-074SC-C-00 -7.3-191028	custom			
	A9J1007-01	G	8270 SIM PAH	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	Added for BatchQC in: 9110357			
	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	custom			
24	9110357-MS1		QC	11/01/19 09:07	15.15	2	A19J144	A9J1007-01	100	100		MUD, Strong odor			
25	A9J1137-06	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15	MUD, org			
26	A9J1137-12	A	8270 SIM PAH	11/01/19 09:07	10.65	5				100	PD-16	MUD, org			
27	A9J1137-18	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17	MUD, org			
28	A9J1137-24	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18	MUD, org			

Standards/Reagents

(S) = Stirring On Turbo Vap

JC 11/1/19
Prepared By: Date

CAA 11/1/19
Reviewed By: Date

Printed: 11/1/2019 9:12:39AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J144	04/05/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperture achieved.

Initial: [signature]

Witness: [signature] 11/1/19

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
1	9110357-BLK1		QC	11/01/19 07:18	~~15~~ 16.00	2				100					
2	~~9110357-BSD1~~		~~QC~~	~~11/01/19 07:18~~	~~15~~	~~2~~	~~A19H078~~	~~A19J144~~	~~100~~	~~100~~	~~ADT 11/1/19~~				
3	9110357-BS1		QC	11/01/19 07:18	15	2	~~A19H078~~ ADT 11/1/19	A19J144	100	100					
4	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.03	2				100	PDI-015SC-C-00-8.1-191024	custom odor, sand S			
5	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.30	2				100	PDI-026SC-C-00-3.9-191024	custom odor, sand S			
6	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.18	2				100	PDI-037SC-C-00-12.4-191024	custom mud, odor S			
7	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.32	2				100	PDI-073SC-C-00-13.7-191024	custom mud, odor S			
8	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.55	2				100	PDI-019SC-C-00-3.2-191025	custom sand, odor S			
9	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.18	2				100	PDI-095SC-C-00-8.8-191025	custom mud, S			
10	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.15	2				100	PDI-071SC-C-00-08-191028	custom mud, odor S			
11	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.22	2				100	PDI-074SC-C-00-7.3-191028	custom mud S			
12	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.08	2				100	PDI-083SC-C-00-08-191028	custom mud S			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
~~A19H078~~ A19J144	~~02/02/20~~ 04/15/20	~~LVI PAH Spike @2000ng/ml~~ PAH/Phenol

Surrogate(s)

Std ID	Exp. Date	Description
~~A19H13~~ A19J260	~~04/14/20~~ 4/4/20	~~8270D LL~~ PAH Only Surr. ~~(5ppm)~~ 50ppm

S - stained TurboVap

Method 3546 digestion time and temperture achieved. yes
Initial: ADT

Witness: JAG 11/1/19

ADT 11/1/19
Prepared By: Date

CAAA 11/1/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K01021**	Instrument:	**SV-GCMS9**
Date:	**11/01/19 09:28**	Calibration:	**A9J1803**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K01021-TUN1	Sediment	QC	QC			A19G233	A19J292
2	9K01021-CCV1	Sediment	QC	QC			A19G233	A19G243
3	9K01021-CCB1	Sediment	QC	QC			A19G233	
4	9110357-BLK2	Sediment	QC	QC		9110357	A19G233	
5	9110357-BS2	Sediment	QC	QC		9110357	A19G233	
6	A9J0950-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
7	9110357-DUP2	Sediment	QC	QC		9110357	A19G233	
8	A9J0950-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
9	A9J0950-03	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
10	A9J0950-04	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
11	A9J0954-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
12	A9J0954-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
13	A9J1006-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
14	A9J1006-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
15	A9J1007-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
16	9110374-BLK1	Water	QC	QC		9110374	A19G233	
17	9110374-BS1	Water	QC	QC		9110374	A19G233	
18	9110374-BSD1	Water	QC	QC		9110374	A19G233	
19	A9J1110-07	Water	8270D PCP LL (Scan)		11/13/19	9110374	A19G233	
20	A9J0954-02RE1	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
21	9K01021-IBL1	Sediment	QC	QC			A19G233	

Data Entered By: AMS 11/9/19

Data Reviewed By: [signature] 11/9/19

Comments:

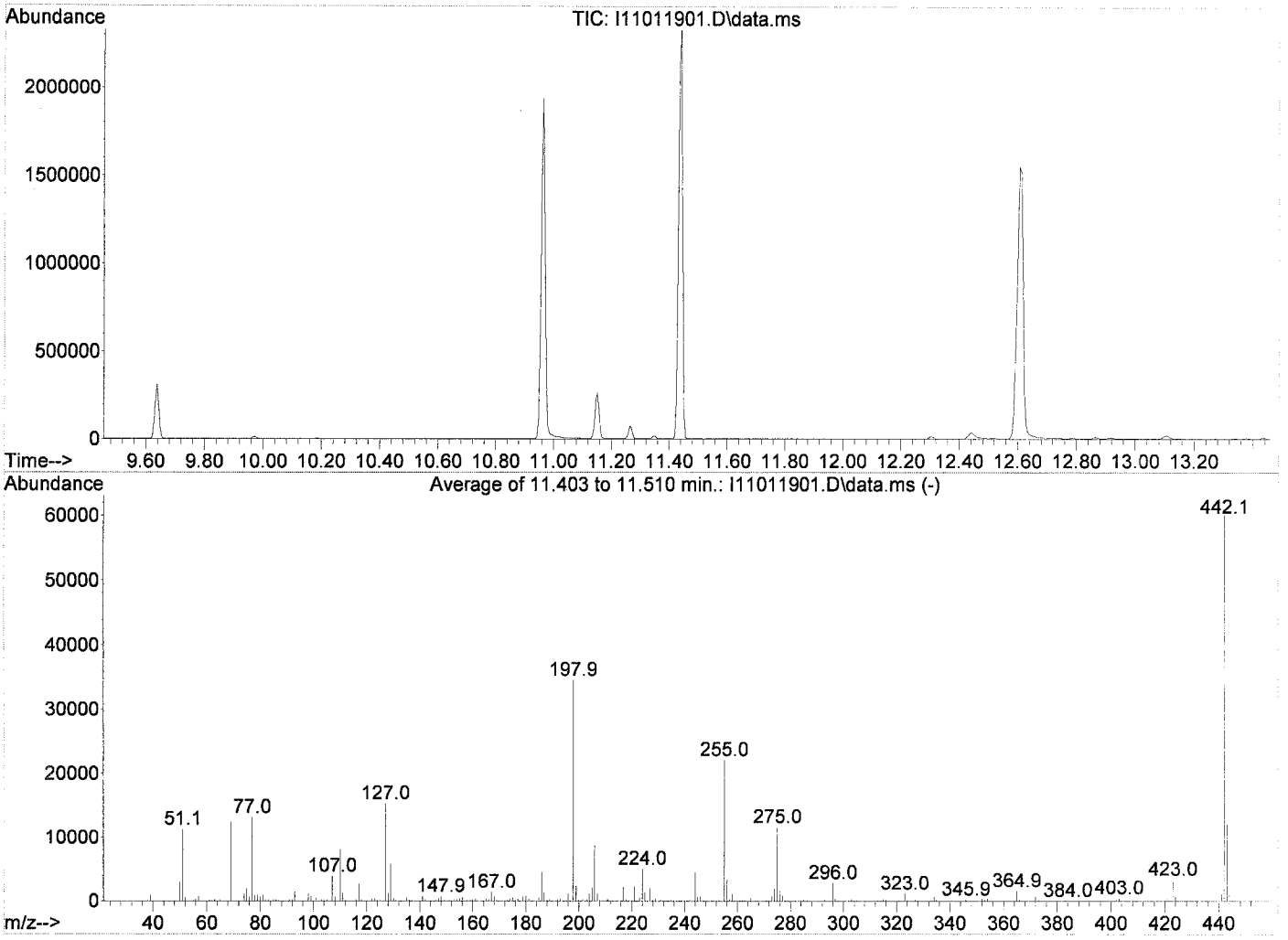
DFTPP

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 11/4 119

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Thu Oct 31 14:14:23 2019



AutoFind: Averaged scan 1480 to 1500; Bkg corrected with scan 1479)

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	3	PASS
69	69	100	100	100.0	12374	PASS
70	69	0.00	2	0.5	67	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	34488	PASS
199	198	5	9	7.0	2402	PASS
365	198	1	100	4.6	1593	PASS
441	443	0.01	150	10.5	1270	PASS
442	198	0.10	200	174.4	60134	PASS
443	442	15	24	20.1	12112	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9

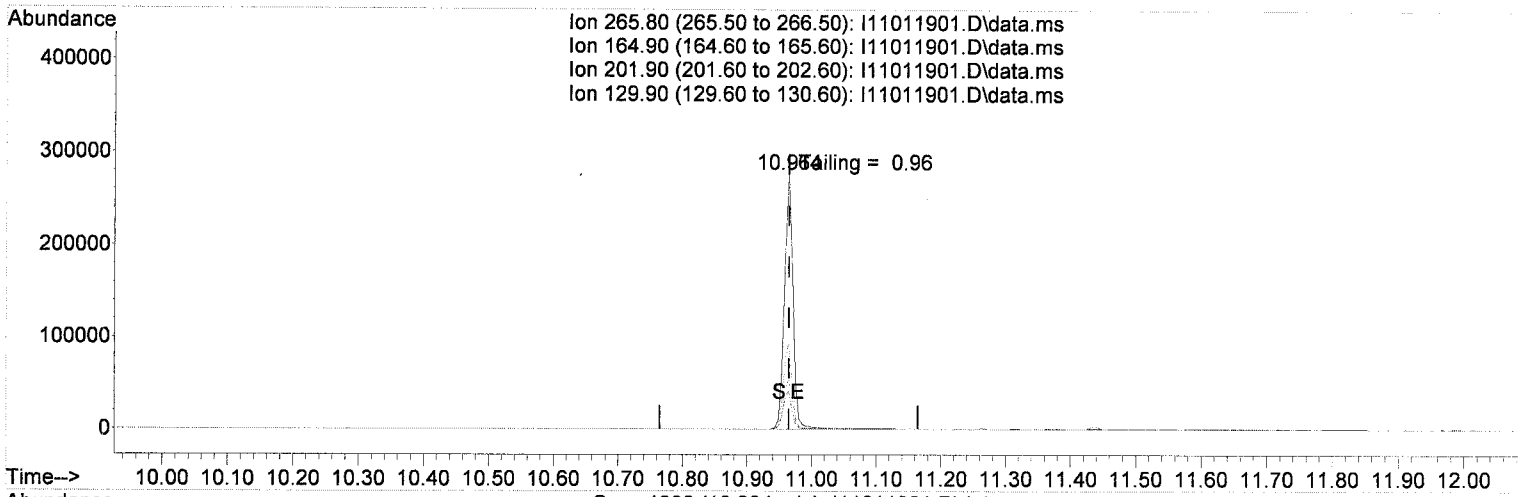
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.862	136	128793	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.638	162	64970	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.151	188	98721	2.00	ug/mL	0.00
10) Chrysene-d12	14.853	240	74372	2.00	ug/mL	0.00
11) Perylene-d12	16.987	264	67907	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	10.964	266	261454	35.87	ug/mL#	83
5) DFTPP	11.440	442	405258	48.83	ug/mL#	61
6) Benzidine	12.612	184	916966	30.85	ug/mL	87
7) 4,4-DDE	12.863	TIC	10627	No Calib	#	
8) 4,4-DDD	13.377	TIC	5701	1.39	ug/mL#	1
9) 4,4-DDT	13.933	TIC	2974349	35.75	ug/mL#	1

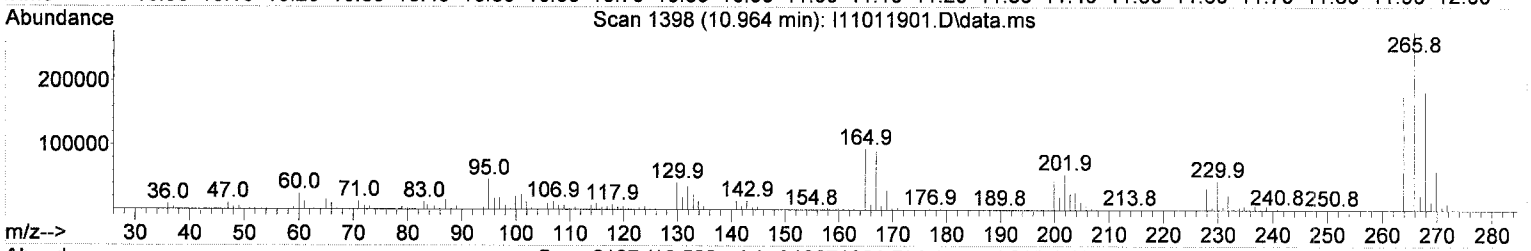
(#) = qualifier out of range (m) = manual integration (+) = signals summed

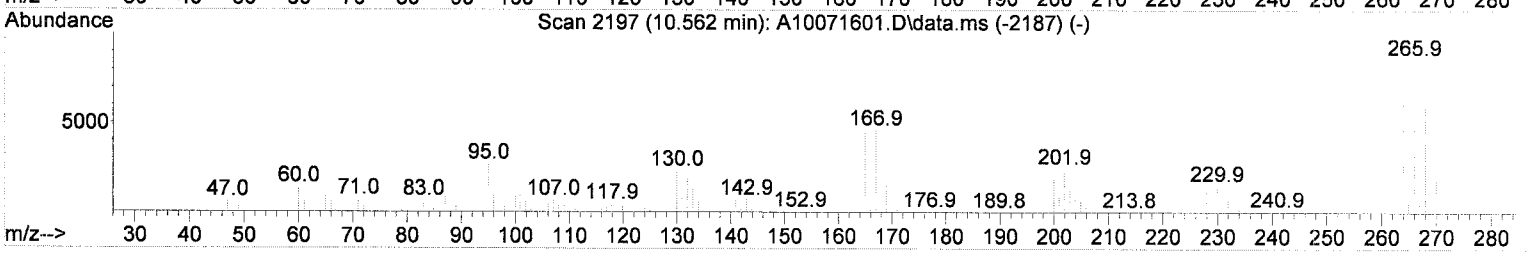
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I11011901.D\data.ms

(3) Pentachlorophenol

10.964min (-0.000) 35.87 ug/mL

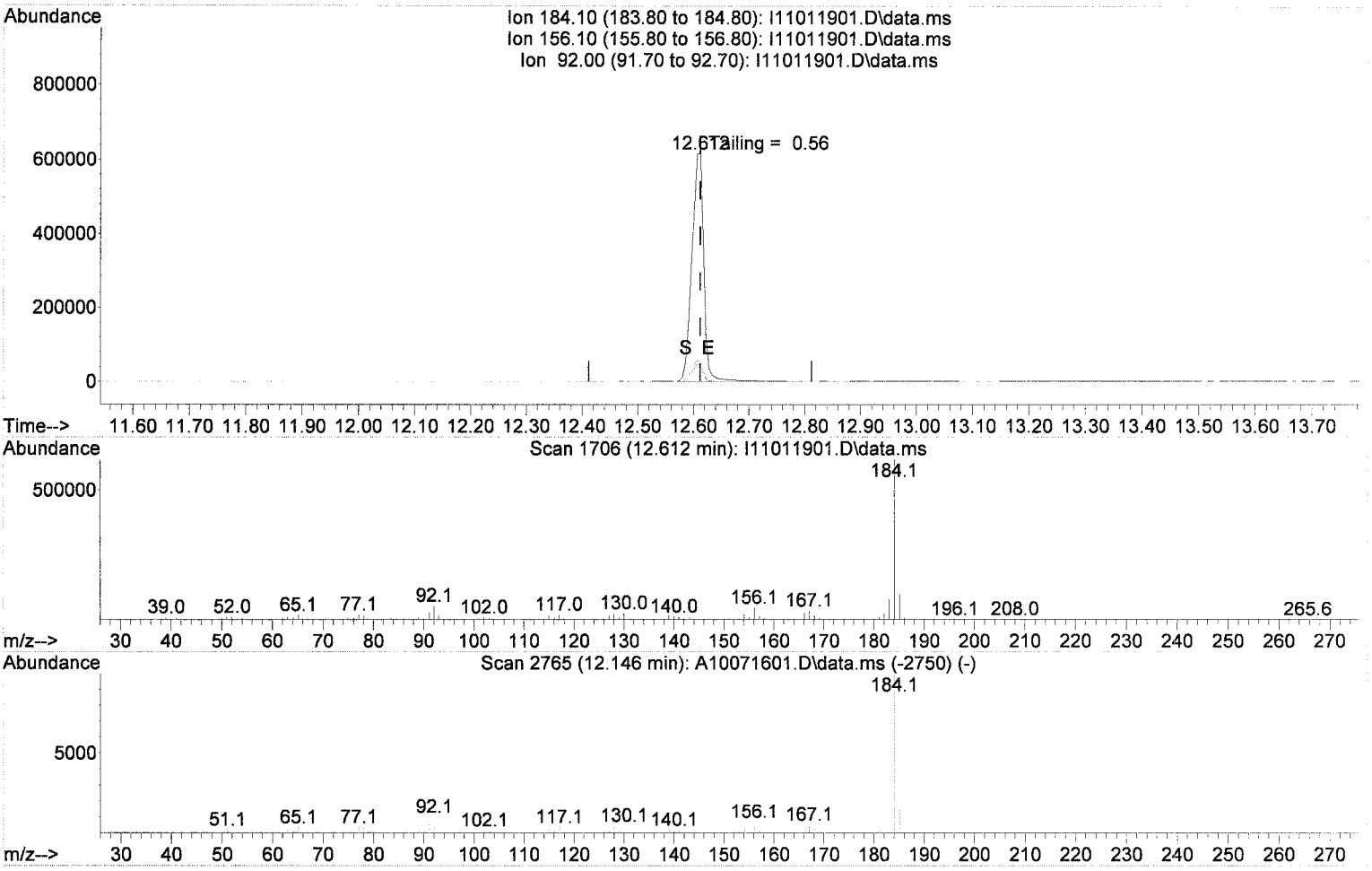
response 261454

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	33.95
201.90	26.10	19.84
129.90	22.80	15.03#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I11011901.D\data.ms

(6) Benzidine

12.612min (-0.000) 30.85 ug/mL

response 916966

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.28
92.00	15.50	8.48
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

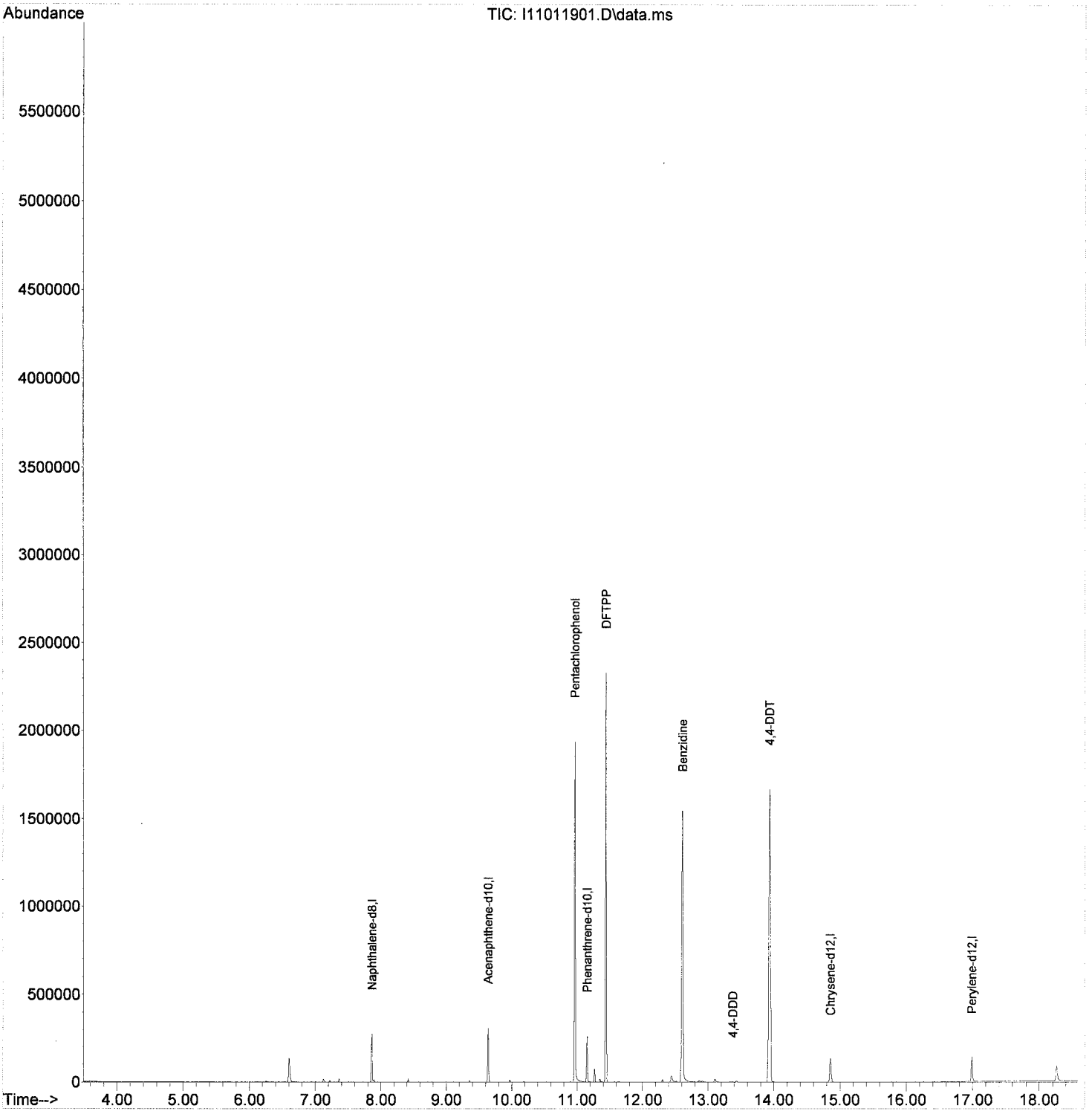
From:
9K01021-TUN1
SV-GCMS9

First Column Area Counts		Percent Breakdown	
DDE	10627		
DDD	5701		
DDT	2974349	**0.55**	**PASS**

Breakdown must be less than 20% to accept sample data.

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

AMS 10/4/19
AMS 11/4/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	93	0.00
2	T	N-Nitrosodimethylamine	1000.000	854.152	14.6	80	0.00
3	T	Pyridine	1000.000	871.380	12.9	80	0.00
4	S	2-Fluorophenol (Surr)	1000.000	956.476	4.4	87	0.00
5	S	Phenol-d6 (Surr)	1000.000	1043.704	-4.4	92	0.00
6	T	Phenol	1000.000	1063.755	-6.4	96	0.00
7	T	Aniline	1000.000	612.913	38.7#	58	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1154.810	-15.5	102	0.00
9	T	2-Chlorophenol	1000.000	1053.569	-5.4	93	0.00
10	T	1,3-Dichlorobenzene	1000.000	1010.908	-1.1	93	0.00
11	T	1,4-Dichlorobenzene	1000.000	1011.663	-1.2	93	0.00
12	T	Benzyl alcohol	1000.000	1006.465	-0.6	87	0.00
13	T	1,2-Dichlorobenzene	1000.000	1030.018	-3.0	94	0.00
14	T	2-Methylphenol	1000.000	1054.969	-5.5	91	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	784.488	21.6#	72	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	915.734	8.4	80	0.00
17	T	3+4-Methylphenol	1000.000	1099.378	-9.9	92	0.00
18	T	Hexachloroethane	1000.000	1064.074	-6.4	97	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1065.801	-6.6	92	0.00
20	T	Nitrobenzene	1000.000	1030.480	-3.0	88	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	93	0.00
22	T	Isophorone	1000.000	922.290	7.8	81	0.00
23	T	2-Nitrophenol	1000.000	1005.239	-0.5	87	0.00
24	T	2,4-Dimethylphenol	1000.000	1106.677	-10.7	94	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1009.157	-0.9	87	0.00
26	T	Benzoic acid	2000.000	2010.366	-0.5	99	0.00
27	T	2,4-Dichlorophenol	1000.000	1180.439	-18.0	102	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1078.518	-7.9	97	0.00
29	T	Naphthalene	1000.000	1023.146	-2.3	91	0.00
30	T	4-Chloroaniline	1000.000	694.638	30.5#	63	0.00
31	T	Hexachlorobutadiene	1000.000	1086.714	-8.7	100	0.00
32	T	4-Chloro-3-methylphenol	1000.000	986.196	1.4	88	0.00
33	T	2-Methylnaphthalene	1000.000	1082.425	-8.2	93	0.00
34	T	1-Methylnaphthalene	1000.000	1058.669	-5.9	93	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	94	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1171.867	-17.2	101	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1089.744	-9.0	100	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1106.884	-10.7	98	0.00
39	T	1,1'-Biphenyl	1000.000	1103.649	-10.4	94	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1090.512	-9.1	95	0.00
41	T	2-Chloronaphthalene	1000.000	1100.555	-10.1	94	0.00
42	T	2-Nitroaniline	1000.000	1076.663	-7.7	99	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1059.774	-6.0	92	0.00
44	T	1,4-Dinitrobenzene	1000.000	1319.736	-32.0#	142	0.00
45	T	Dimethyl phthalate	1000.000	1026.309	-2.6	92	0.00
46	T	1,3-Dinitrobenzene	1000.000	1176.635	-17.7	119	0.00
47	T	2,6-Dinitrotoluene	1000.000	1100.629	-10.1	99	0.00
48	T	1,2-Dinitrobenzene	1000.000	1026.961	-2.7	95	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1033.382	-3.3	92	0.00
50	T	3-Nitroaniline	1000.000	744.556	25.5#	71	0.00
51	T	Acenaphthene	1000.000	1023.628	-2.4	93	0.00
52	T	2,4-Dinitrophenol	1000.000	1411.229	-41.1#	162	0.00
53	T	4-Nitrophenol	1000.000	1121.576	-12.2	103	0.00
54	T	2,4-Dinitrotoluene	1000.000	1124.377	-12.4	105	0.00
55	T	Dibenzofuran	1000.000	1054.774	-5.5	94	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1139.580	-14.0	104	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1160.507	-16.1	101	0.00
58	T	Diethyl phthalate	1000.000	981.898	1.8	88	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1069.042	-6.9	93	0.00
60	T	Fluorene	1000.000	1028.656	-2.9	94	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1078.782	-7.9	97	0.00
62	T	4-Nitroaniline	1000.000	1245.794	-24.6#	113	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1206.883	-20.7#	127	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	95	0.00
65	T	N-Nitrosodiphenylamine	1000.000	956.366	4.4	89	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	841.711	15.8	81	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1145.256	-14.5	108	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1087.059	-8.7	102	0.00
69	T	Hexachlorobenzene	1000.000	1089.537	-9.0	103	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1113.355	-11.3	108	0.00
71	T	Phenanthrene	1000.000	1040.540	-4.1	96	0.00
72	T	Anthracene	1000.000	1062.906	-6.3	95	0.00
73	T	Carbazole	1000.000	961.679	3.8	98	0.00
74	T	Di-n-butyl phthalate	1000.000	985.914	1.4	86	0.00
75	T	Fluoranthene	1000.000	1096.704	-9.7	96	0.00
76	T	Benzidine	2000.000	627.899	68.6#	27	0.00
77	T	Pyrene	1000.000	1114.605	-11.5	97	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1047.117	-4.7	102	0.00
80	T	Butyl benzyl phthalate	1000.000	871.785	12.8	84	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	823.441	17.7	80	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1093.563	45.3#	62	0.00
83	T	Benz(a)anthracene	1000.000	997.779	0.2	99	0.00
84	T	Chrysene	1000.000	991.868	0.8	98	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	843.554	15.6	81	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	99	0.00
87	T	Di-n-octyl phthalate	1000.000	810.649	18.9	79	0.00
88	T	Benzo(b)fluoranthene	1000.000	1075.215	-7.5	99	0.00
89	T	Benzo(k)fluoranthene	1000.000	1111.547	-11.2	97	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2189.422	-9.5	98	0.00
91	T	Benzo(e)pyrene	1000.000	1068.773	-6.9	98	0.00
92	T	Benzo(a)pyrene	1000.000	999.956	0.0	95	0.00
93	T	Perylene	1000.000	1032.341	-3.2	97	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	100	-0.01

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95	T	Indeno(1,2,3-cd)pyrene	1000.000	962.662	3.7	97	0.00
96	T	Dibenz(a,h)anthracene	1000.000	1018.826	-1.9	98	0.00
97	T	Benzo(g,h,i)perylene	1000.000	1030.414	-3.0	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	100905	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	384962	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	197971	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	376095	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	404706	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	405313	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.811	292	362980	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	71067	956.48	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	93841	1043.70	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	69940	1065.80	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	158626	1090.51	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	26130	1145.26	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	205617	1047.12	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.032	74	50905	854.15	ng/ml	95
3) Pyridine	4.054	79	80743	871.38	ng/ml	94
6) Phenol	6.263	94	101301	1063.76	ng/ml	97
7) Aniline	6.289	93	60754	612.91	ng/ml	98
8) Bis(2-chloroethyl) ether	6.343	93	98980	1154.81	ng/ml	94
9) 2-Chlorophenol	6.407	128	76640	1053.57	ng/ml	96
10) 1,3-Dichlorobenzene	6.551	146	81593	1010.91	ng/ml	99
11) 1,4-Dichlorobenzene	6.621	146	77771	1011.66	ng/ml	99
12) Benzyl alcohol	6.739	108	42151	1006.47	ng/ml	94
13) 1,2-Dichlorobenzene	6.776	146	77168	1030.02	ng/ml	94
14) 2-Methylphenol	6.846	107	58504	1054.97	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	93055	784.49	ng/ml	90
16) N-Nitrosodi-n-propylamine	6.995	70	53489	915.73	ng/ml	94
17) 3+4-Methylphenol	6.995	107	74415	1099.38	ng/ml	98
18) Hexachloroethane	7.108	201	26283	1064.07	ng/ml	95
20) Nitrobenzene	7.167	77	71602	1030.48	ng/ml	95
22) Isophorone	7.397	82	140393	922.29	ng/ml	99
23) 2-Nitrophenol	7.482	139	33964	1005.24	ng/ml	93
24) 2,4-Dimethylphenol	7.520	122	60164	1106.68	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.605	93	85040	1009.16	ng/ml	99
26) Benzoic acid	7.611	105	42207	2010.37	ng/ml	98
27) 2,4-Dichlorophenol	7.723	162	59069	1180.44	ng/ml	95
28) 1,2,4-Trichlorobenzene	7.808	180	69977	1078.52	ng/ml	97
29) Naphthalene	7.883	128	202314	1023.15	ng/ml	99
30) 4-Chloroaniline	7.942	127	47069	694.64	ng/ml	97
31) Hexachlorobutadiene	8.017	225	38895	1086.71	ng/ml	98
32) 4-Chloro-3-methylphenol	8.413	107	58607	986.20	ng/ml	97
33) 2-Methylnaphthalene	8.579	142	153940	1082.42	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	143340	1058.67	ng/ml	99
36) Hexachlorocyclopentadiene	8.750	237	40485	1171.87	ng/ml	97
37) 2,4,6-Trichlorophenol	8.862	196	42234	1089.74	ng/ml	99
38) 2,4,5-Trichlorophenol	8.900	198	41455	1106.88	ng/ml	96
39) 1,1'-Biphenyl	9.049	154	176804	1103.65	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	130291	1100.56	ng/ml	98
42) 2-Nitroaniline	9.172	138	39124	1076.66	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.210	156	128310	1059.77	ng/ml	99

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

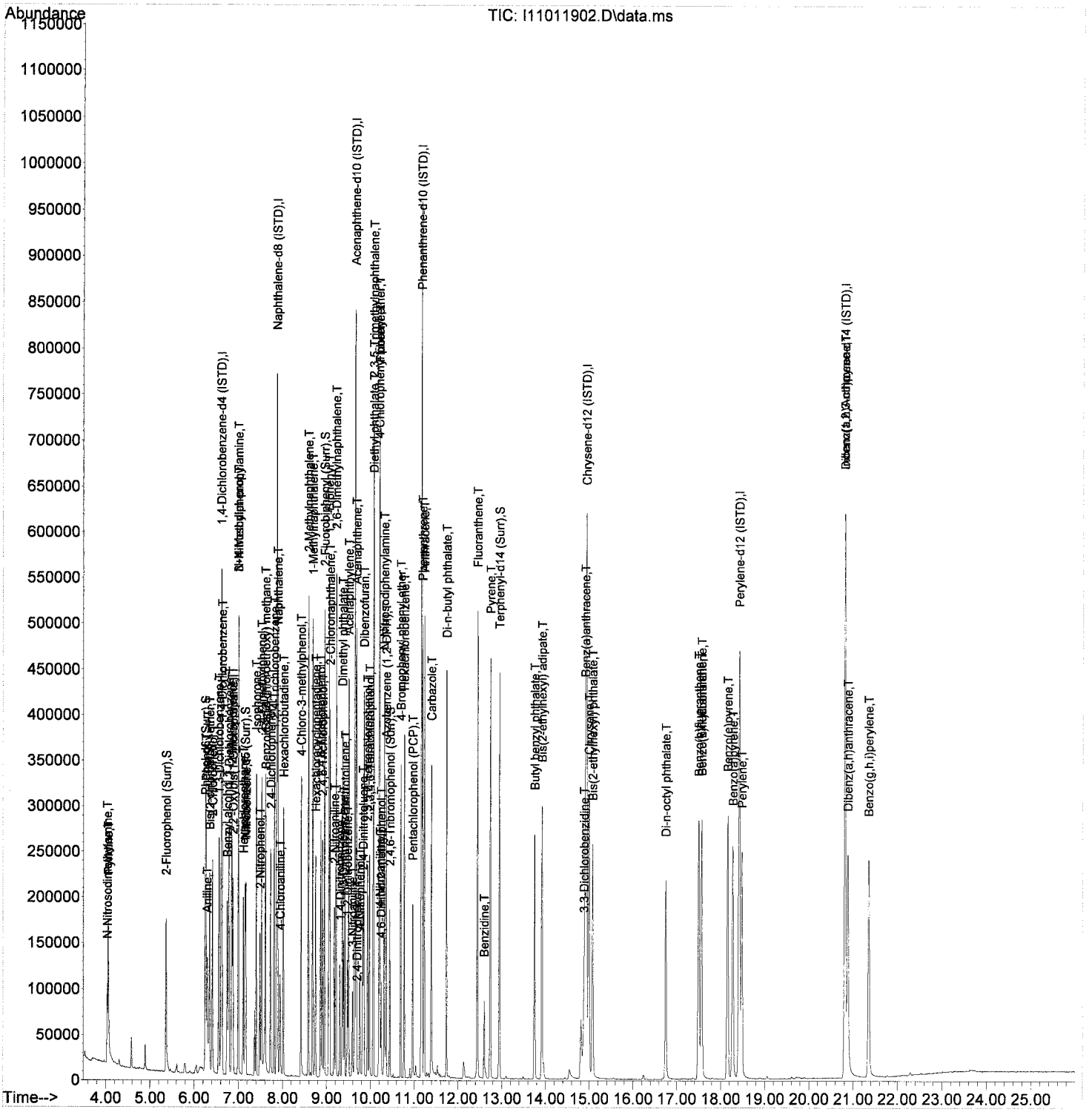
Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.301	168	17707	1319.74	ng/ml	81
45) Dimethyl phthalate	9.354	163	148262	1026.31	ng/ml	99
46) 1,3-Dinitrobenzene	9.381	168	21396	1176.64	ng/ml	90
47) 2,6-Dinitrotoluene	9.413	165	32622	1100.63	ng/ml	86
48) 1,2-Dinitrobenzene	9.466	168	14421	1026.96	ng/ml	90
49) Acenaphthylene	9.493	152	204850	1033.38	ng/ml	99
50) 3-Nitroaniline	9.590	138	20456	744.56	ng/ml	93
51) Acenaphthene	9.675	153	127591	1023.63	ng/ml	99
52) 2,4-Dinitrophenol	9.691	184	8223	1411.23	ng/ml	84
53) 4-Nitrophenol	9.755	139	23243	1121.58	ng/ml	88
54) 2,4-Dinitrotoluene	9.825	165	40270	1124.38	ng/ml	87
55) Dibenzofuran	9.846	168	180017	1054.77	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.926	232	34419	1139.58	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.975	232	37356	1160.51	ng/ml	94
58) Diethyl phthalate	10.066	149	134428	981.90	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.060	170	120826	1069.04	ng/ml	99
60) Fluorene	10.194	166	141226	1028.66	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.189	204	73370	1078.78	ng/ml	98
62) 4-Nitroaniline	10.210	138	29147	1245.79	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.237	198	14245	1206.88	ng/ml	96
65) N-Nitrosodiphenylamine	10.306	169	112899	956.37	ng/ml	99
66) Azobenzene (1,2-DPH)	10.349	77	129946	841.71	ng/ml	94
68) 4-Bromophenyl phenyl e...	10.686	248	47947	1087.06	ng/ml	98
69) Hexachlorobenzene	10.766	284	56814	1089.54	ng/ml	96
70) Pentachlorophenol (PCP)	10.959	266	26770	1113.36	ng/ml	97
71) Phenanthrene	11.178	178	204121	1040.54	ng/ml	99
72) Anthracene	11.226	178	205645	1062.91	ng/ml	100
73) Carbazole	11.387	167	165382	961.68	ng/ml	99
74) Di-n-butyl phthalate	11.734	149	231356	985.91	ng/ml	99
75) Fluoranthene	12.440	202	253589	1096.70	ng/ml	97
76) Benzidine	12.595	184	45355	627.90	ng/ml	97
77) Pyrene	12.735	202	251341	1114.60	ng/ml	99
80) Butyl benzyl phthalate	13.745	149	99962	871.78	ng/ml	90
81) Bis(2-ethylhexyl) adipate	13.917	129	84024	823.44	ng/ml	99
82) 3,3-Dichlorobenzidine	14.879	252	44958	1093.56	ng/ml	98
83) Benz(a)anthracene	14.906	228	233832	997.78	ng/ml	100
84) Chrysene	14.992	228	210229	991.87	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.072	149	125466	843.55	ng/ml	99
87) Di-n-octyl phthalate	16.746	149	206251	810.65	ng/ml	96
88) Benzo(b)fluoranthene	17.495	252	243353	1075.21	ng/ml	97
89) Benzo(k)fluoranthene	17.564	252	233907	1111.55	ng/ml	98
90) Benzo(b+k)fluoranthene	17.564	252	489576	2189.42	ng/ml	98
91) Benzo(e)pyrene	18.153	252	234902	1068.77	ng/ml	98
92) Benzo(a)pyrene	18.276	252	212937	999.96	ng/ml	98
93) Perylene	18.479	252	189866	1032.34	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.811	276	206389	962.66	ng/ml	92
96) Dibenz(a,h)anthracene	20.881	278	190976	1018.83	ng/ml	97
97) Benzo(g,h,i)perylene	21.346	276	210603	1030.41	ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	109644	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	424668	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	218592	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	392156	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	407371	2000.00	ng/ml	-0.02
86) Perylene-d12 (ISTD)	18.409	264	391878	2000.00	ng/ml	-0.02
94) Dibenz(a,h)Anthrcene-d...	20.800	292	314017	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

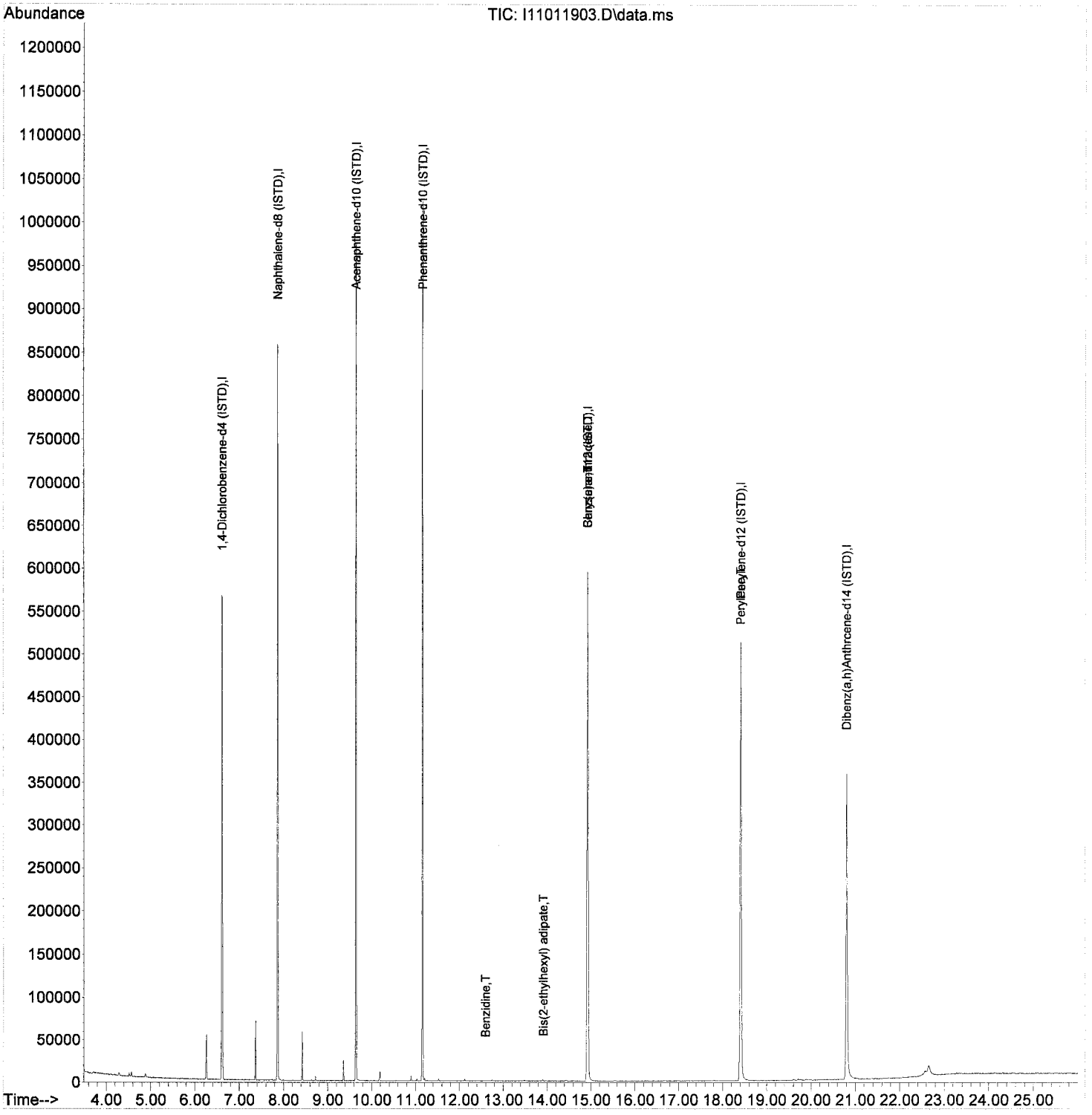
Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.151	178	151	N.D.	
72) Anthracene	11.151	178	151	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.590	184	140	110.70 ng/ml	68
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.911	129	479	4.66 ng/ml	89
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.922	228	958	4.06 ng/ml	59
84) Chrysene	14.922	228	958	4.49 ng/ml	56
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.404	252	1209	6.80 ng/ml	71
95) Indeno(1,2,3-cd)pyrene	20.806	276	116	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.605	152	114442	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	439250	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	225356	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	418613	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	449358	2000.00 ng/ml	-0.02
86) Perylene-d12 (ISTD)	18.410	264	448066	2000.00 ng/ml	-0.02
94) Dibenz(a,h)Anthrcene-d...	20.800	292	371409	2000.00 ng/ml	-0.02
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.370	112	126538	1501.60 ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	168386	1651.27 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	140658	1889.91 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	316008	1908.48 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	55010	2115.53 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	471906	2164.41 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.075	74	74	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.258	94	249	N.D.	
7) Aniline	6.327	93	138	N.D.	
8) Bis(2-chloroethyl) ether	6.327	93	138	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.140	77	490	6.22 ng/ml#	31
22) Isophorone	7.402	82	182	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	7.563	122	61	N.D.	
25) Bis(2-chloroethoxy) me...	7.605	93	51	N.D.	
26) Benzoic acid	7.568	105	95	761.34 ng/ml	79
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.884	128	9176	40.67 ng/ml	97
30) 4-Chloroaniline	7.884	127	1247	28.85 ng/ml#	27
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.579	142	922	5.68 ng/ml	93
34) 1-Methylnaphthalene	8.680	142	506	3.28 ng/ml	92
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.050	154	707	3.88 ng/ml	96
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.210	156	145	N.D.	

J

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

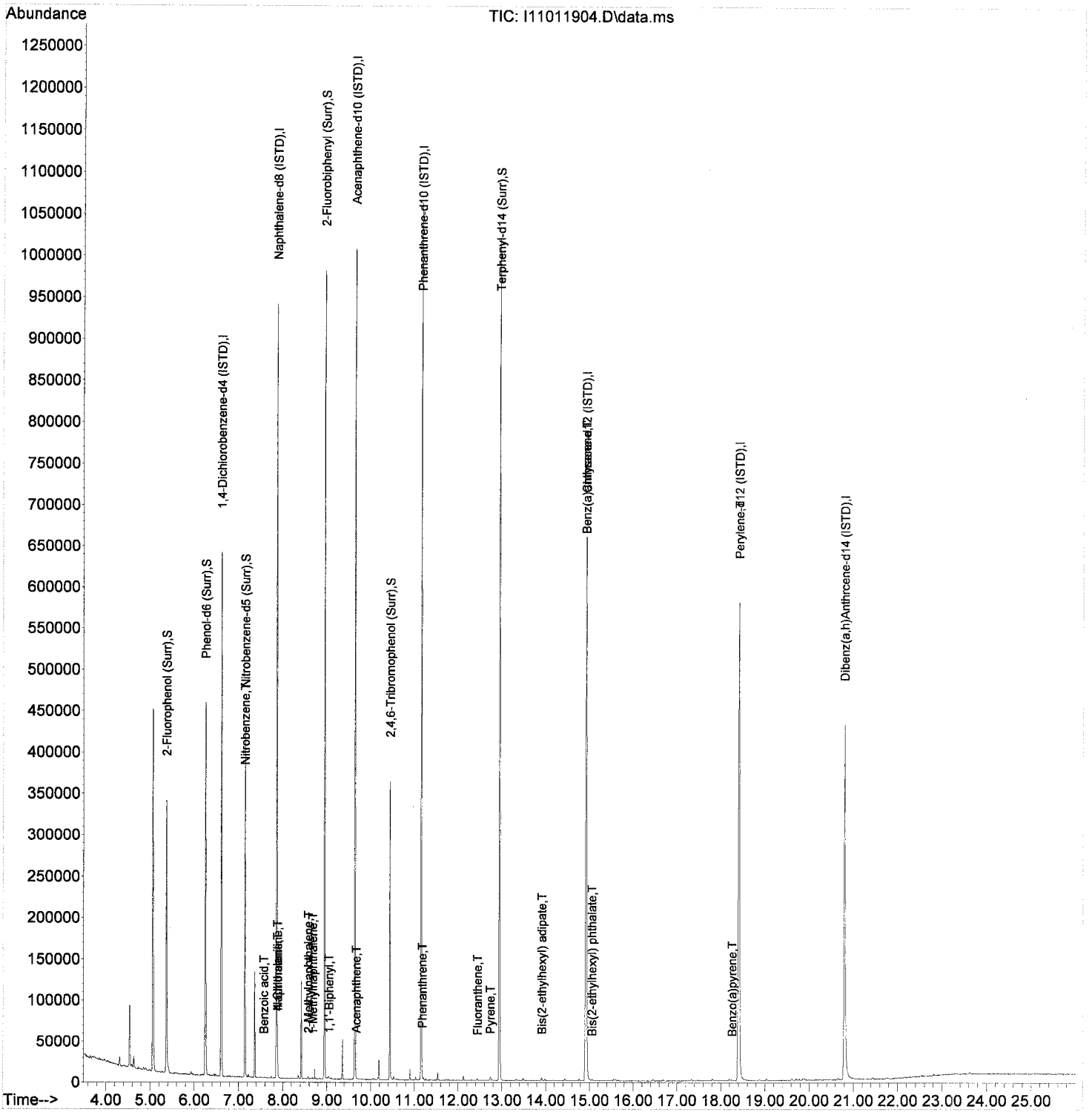
Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.	
45)	Dimethyl phthalate	9.349	163	92	N.D.	
46)	1,3-Dinitrobenzene	0.000		0	N.D.	
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.493	152	300	N.D.	
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.670	153	374	2.64 ng/ml	87
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	0.000		0	N.D.	
55)	Dibenzofuran	9.841	168	65	N.D.	
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	10.060	149	159	N.D.	
59)	2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60)	Fluorene	10.194	166	248	N.D.	
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	0.000		0	N.D.	
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	0.000		0	N.D.	
66)	Azobenzene (1,2-DPH)	10.355	77	79	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.173	178	2785	12.76 ng/ml	96
72)	Anthracene	11.226	178	369	N.D.	
73)	Carbazole	11.382	167	152	N.D.	
74)	Di-n-butyl phthalate	11.729	149	525	N.D.	
75)	Fluoranthene	12.441	202	1286	5.00 ng/ml	77
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.729	202	1648	6.57 ng/ml	98
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.911	129	1012	8.93 ng/ml	89
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.917	228	1590	6.11 ng/ml	52
84)	Chrysene	14.981	228	433	N.D.	
85)	Bis(2-ethylhexyl) phth...	15.056	149	526	3.19 ng/ml	73
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	17.479	252	298	N.D.	
89)	Benzo(k)fluoranthene	17.549	252	59	N.D.	
90)	Benzo(b+k)fluoranthene	17.549	252	59	N.D.	
91)	Benzo(e)pyrene	18.148	252	195	N.D.	
92)	Benzo(a)pyrene	18.255	252	343	10.01 ng/ml	87
93)	Perylene	18.410	252	1660	8.16 ng/ml	73
95)	Indeno(1,2,3-cd)pyrene	20.800	276	429	N.D.	
96)	Dibenz(a,h)anthracene	20.806	278	80	N.D.	
97)	Benzo(g,h,i)perylene	21.319	276	245	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	109240	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	408681	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	209161	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	403657	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	432360	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	439300	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.806	292	397565	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.370	112	39876	495.73	ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	54685	561.80	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	41405	582.82	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	96596	628.54	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	16233	677.07	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	133472	636.24	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.038	74	41444	642.34	ng/ml	95
3) Pyridine	4.065	79	49044	488.90	ng/ml	93
6) Phenol	6.263	94	98736	957.71	ng/ml	96
7) Aniline	6.290	93	64121	597.52	ng/ml	98
8) Bis(2-chloroethyl) ether	6.343	93	79089	852.33	ng/ml	95
9) 2-Chlorophenol	6.407	128	71647	909.78	ng/ml	97
10) 1,3-Dichlorobenzene	6.557	146	72248	826.83	ng/ml	98
11) 1,4-Dichlorobenzene	6.627	146	69828	839.03	ng/ml	98
12) Benzyl alcohol	6.739	108	41525	915.87	ng/ml	96
13) 1,2-Dichlorobenzene	6.776	146	68831	848.64	ng/ml	97
14) 2-Methylphenol	6.846	107	59499	991.05	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	82576	643.03	ng/ml	91
16) N-Nitrosodi-n-propylamine	6.996	70	51900	820.74	ng/ml	94
17) 3+4-Methylphenol	6.996	107	73465	1002.53	ng/ml	98
18) Hexachloroethane	7.108	201	23683	885.66	ng/ml	97
20) Nitrobenzene	7.167	77	67909	902.76	ng/ml	95
22) Isophorone	7.397	82	138854	859.24	ng/ml	98
23) 2-Nitrophenol	7.482	139	41959	1160.13	ng/ml	93
24) 2,4-Dimethylphenol	7.520	122	61105	1058.75	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.605	93	83708	935.70	ng/ml	99
26) Benzoic acid	7.595	105	22987	1410.29	ng/ml	96
27) 2,4-Dichlorophenol	7.723	162	57162	1077.88	ng/ml	94
28) 1,2,4-Trichlorobenzene	7.809	180	65215	946.79	ng/ml	99
29) Naphthalene	7.884	128	193588	922.20	ng/ml	100
30) 4-Chloroaniline	7.942	127	35559	498.20	ng/ml	96
31) Hexachlorobutadiene	8.012	225	36060	949.03	ng/ml	99
32) 4-Chloro-3-methylphenol	8.413	107	59117	938.37	ng/ml	98
33) 2-Methylnaphthalene	8.579	142	148380	982.78	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	138072	960.58	ng/ml	97
36) Hexachlorocyclopentadiene	8.750	237	36547	1001.28	ng/ml	95
37) 2,4,6-Trichlorophenol	8.862	196	43612	1065.83	ng/ml	97
38) 2,4,5-Trichlorophenol	8.900	198	42514	1075.12	ng/ml	98
39) 1,1'-Biphenyl	9.050	154	175635	1037.70	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	130254	1041.38	ng/ml	97
42) 2-Nitroaniline	9.173	138	41452	1079.50	ng/ml	85
43) 2,6-Dimethylnaphthalene	9.210	156	126013	985.12	ng/ml	98

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

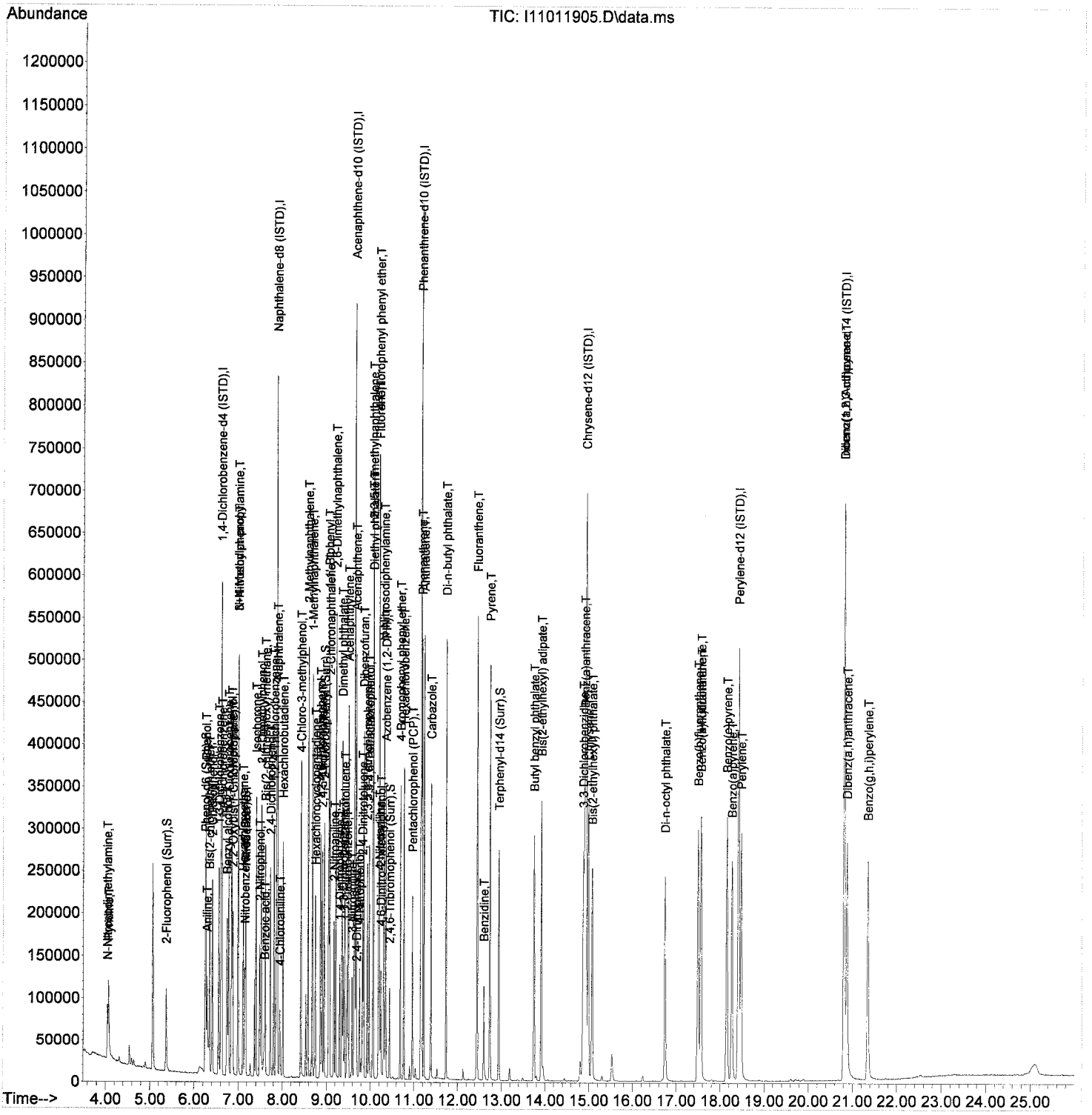
Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.296	168	18936	1333.29	ng/ml	85
45) Dimethyl phthalate	9.354	163	155623	1019.63	ng/ml	99
46) 1,3-Dinitrobenzene	9.381	168	22556	1174.36	ng/ml	92
47) 2,6-Dinitrotoluene	9.413	165	33724	1077.68	ng/ml	83
48) 1,2-Dinitrobenzene	9.467	168	15347	1034.01	ng/ml	82
49) Acenaphthylene	9.493	152	205346	980.47	ng/ml	100
50) 3-Nitroaniline	9.584	138	23232	804.66	ng/ml	96
51) Acenaphthene	9.670	153	128781	977.90	ng/ml	99
52) 2,4-Dinitrophenol	9.686	184	8729	1415.82	ng/ml	92
53) 4-Nitrophenol	9.750	139	25348	1153.38	ng/ml	92
54) 2,4-Dinitrotoluene	9.820	165	43425	1145.98	ng/ml	91
55) Dibenzofuran	9.846	168	183165	1015.80	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.927	232	35372	1110.03	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.970	232	37902	1115.89	ng/ml	96
58) Diethyl phthalate	10.066	149	141931	981.24	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.055	170	119381	999.75	ng/ml	98
60) Fluorene	10.194	166	144789	998.19	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.189	204	75508	1050.82	ng/ml	95
62) 4-Nitroaniline	10.205	138	28215	1141.44	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.237	198	18613	1434.74	ng/ml	89
65) N-Nitrosodiphenylamine	10.306	169	125480	990.36	ng/ml	99
66) Azobenzene (1,2-DPH)	10.349	77	132068	797.05	ng/ml	89
68) 4-Bromophenyl phenyl e...	10.686	248	50062	1057.51	ng/ml	97
69) Hexachlorobenzene	10.766	284	59308	1059.71	ng/ml	94
70) Pentachlorophenol (PCP)	10.959	266	28745	1113.83	ng/ml	98
71) Phenanthrene	11.173	178	212996	1011.64	ng/ml	100
72) Anthracene	11.226	178	216179	1041.06	ng/ml	99
73) Carbazole	11.387	167	169283	917.15	ng/ml	98
74) Di-n-butyl phthalate	11.729	149	248317	985.94	ng/ml	100
75) Fluoranthene	12.441	202	267621	1078.36	ng/ml	97
76) Benzidine	12.596	184	59182	740.56	ng/ml	98
77) Pyrene	12.729	202	269289	1112.66	ng/ml	99
80) Butyl benzyl phthalate	13.740	149	106426	868.92	ng/ml	92
81) Bis(2-ethylhexyl) adipate	13.911	129	94253	864.61	ng/ml	99
82) 3,3-Dichlorobenzidine	14.869	252	117181	3144.80	ng/ml	98
83) Benz(a)anthracene	14.901	228	257960	1030.33	ng/ml	98
84) Chrysene	14.987	228	223039	985.00	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.072	149	134419	845.94	ng/ml	98
87) Di-n-octyl phthalate	16.741	149	227908	825.30	ng/ml	96
88) Benzo(b)fluoranthene	17.495	252	260399	1061.52	ng/ml	98
89) Benzo(k)fluoranthene	17.559	252	255983	1122.34	ng/ml	98
90) Benzo(b+k)fluoranthene	17.559	252	530029	2186.95	ng/ml	98
91) Benzo(e)pyrene	18.148	252	250391	1051.11	ng/ml	99
92) Benzo(a)pyrene	18.265	252	216114	936.42	ng/ml	96
93) Perylene	18.474	252	239346	1200.69	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.806	276	224029	954.04	ng/ml	94
96) Dibenz(a,h)anthracene	20.875	278	206344	1005.05	ng/ml	98
97) Benzo(g,h,i)perylene	21.346	276	231907	1035.94	ng/ml	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011915.D
Acq On : 1 Nov 2019 5:37 pm
Operator : JK /AMS /DTH
Sample : A9J1007-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

R04

AMS
11/4/19

Quant Time: Nov 04 08:57:28 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	116944	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	457881	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	235075	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	428131	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	461776	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	450869	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.811	292	393350	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	6.252	99	72	0.69	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.151	82	178	2.34	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	397	2.30	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	513	2.29	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	6.996	107	179	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.135	77	93	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.611	105	68	760.55	ng/ml#	33
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.884	128	100511	427.36	ng/ml	99
30) 4-Chloroaniline	7.884	127	13311	175.19	ng/ml#	27
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	8.579	142	30175	178.39	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	19588	121.63	ng/ml	97
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.050	154	6786	35.67	ng/ml	97
41) 2-Chloronaphthalene	9.055	162	56	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.215	156	10754	74.80	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011915.D
Acq On : 1 Nov 2019 5:37 pm
Operator : JK /AMS /DTH
Sample : A9J1007-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

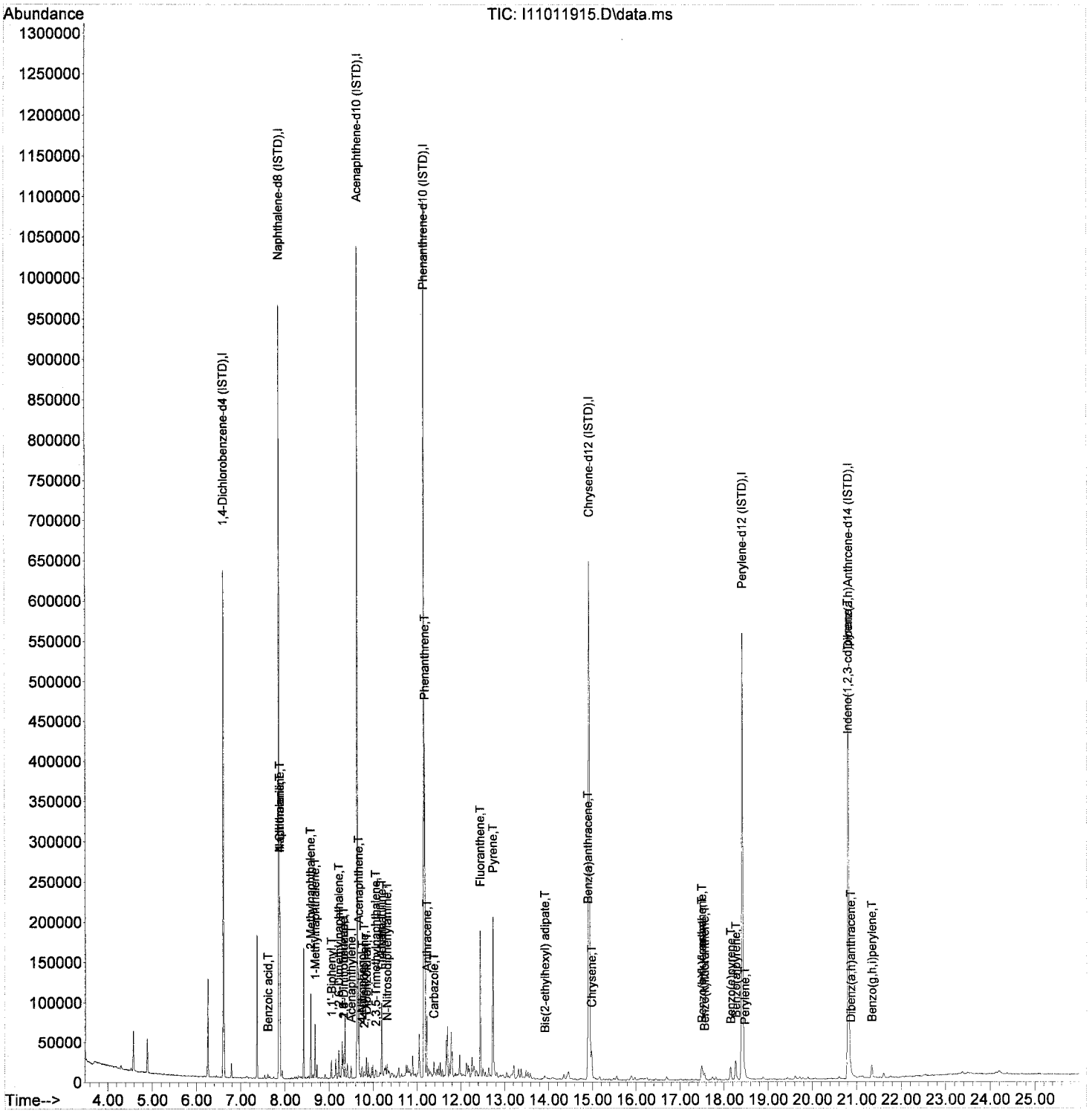
Quant Time: Nov 04 08:57:28 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	131	137.66 ng/ml#	68
45) Dimethyl phthalate	9.349	163	55	N.D.	
46) 1,3-Dinitrobenzene	9.322	168	131	129.56 ng/ml#	1
47) 2,6-Dinitrotoluene	9.322	165	53	33.43 ng/ml#	1
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.493	152	2408	10.23 ng/ml	86
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.670	153	34235	231.31 ng/ml	99
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.745	139	331	83.87 ng/ml#	61
54) 2,4-Dinitrotoluene	9.793	165	490	77.86 ng/ml#	55
55) Dibenzofuran	9.846	168	3792	18.71 ng/ml	91
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.055	170	4440	33.08 ng/ml	97
60) Fluorene	10.194	166	21468	131.69 ng/ml	97
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	10.189	138	228	8.21 ng/ml#	23
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.312	169	1304	9.70 ng/ml#	31
66) Azobenzene (1,2-DPH)	10.349	77	87	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.173	178	160434	718.44 ng/ml	100
72) Anthracene	11.226	178	33311	151.25 ng/ml	99
73) Carbazole	11.382	167	7960	40.66 ng/ml	97
74) Di-n-butyl phthalate	11.729	149	101	N.D.	
75) Fluoranthene	12.441	202	87020	330.60 ng/ml	98
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.729	202	110283	429.62 ng/ml	99
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.917	129	777	6.67 ng/ml	95
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.901	228	24795	92.73 ng/ml	81
84) Chrysene	14.981	228	25946	107.29 ng/ml	97
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	17.495	252	21392	84.97 ng/ml	94
89) Benzo(k)fluoranthene	17.554	252	6564	28.04 ng/ml	97
90) Benzo(b+k)fluoranthene	17.495	252	30211	121.45 ng/ml	93
91) Benzo(e)pyrene	18.148	252	13977	57.17 ng/ml	92
92) Benzo(a)pyrene	18.265	252	20696	94.55 ng/ml	93
93) Perylene	18.468	252	5224	25.53 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.800	276	14202	61.13 ng/ml	98
96) Dibenz(a,h)anthracene	20.865	278	1635	8.05 ng/ml	83
97) Benzo(g,h,i)perylene	21.335	276	14950	67.50 ng/ml	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011915.D
Acq On : 1 Nov 2019 5:37 pm
Operator : JK /AMS /DTH
Sample : A9J1007-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:28 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:57:31 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	117548	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	444425	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	230777	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	428133	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	473373	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	452340	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.806	292	408613	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	149938	1732.27	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	125377	1197.02	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	306243	4006.03	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	575035	3391.25	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	138286	4959.95	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.943	244	860871	3748.09	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.968	74	68	N.D.		
3) Pyridine	4.134	79	1167	10.81	ng/ml#	49
6) Phenol	6.258	94	578	5.21	ng/ml#	1
7) Aniline	6.332	93	336	2.91	ng/ml#	51
8) Bis(2-chloroethyl) ether	6.332	93	336	3.37	ng/ml#	29
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	54	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.846	107	56	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.878	45	97	N.D.		
16) N-Nitrosodi-n-propylamine	7.006	70	65	N.D.		
17) 3+4-Methylphenol	6.996	107	105	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.145	77	1152	14.23	ng/ml#	28
22) Isophorone	7.397	82	151	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.563	122	1980	31.55	ng/ml#	5
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.616	105	264	765.79	ng/ml#	54
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	7.798	180	52	N.D.		
29) Naphthalene	7.884	128	1724	7.55	ng/ml	95
30) 4-Chloroaniline	7.884	127	219	15.76	ng/ml#	1
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.424	107	111	27.33	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	540	3.29	ng/ml	92
34) 1-Methylnaphthalene	8.681	142	378	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.050	154	1303	6.98	ng/ml	98
41) 2-Chloronaphthalene	9.071	162	61	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.210	156	206	N.D.		

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

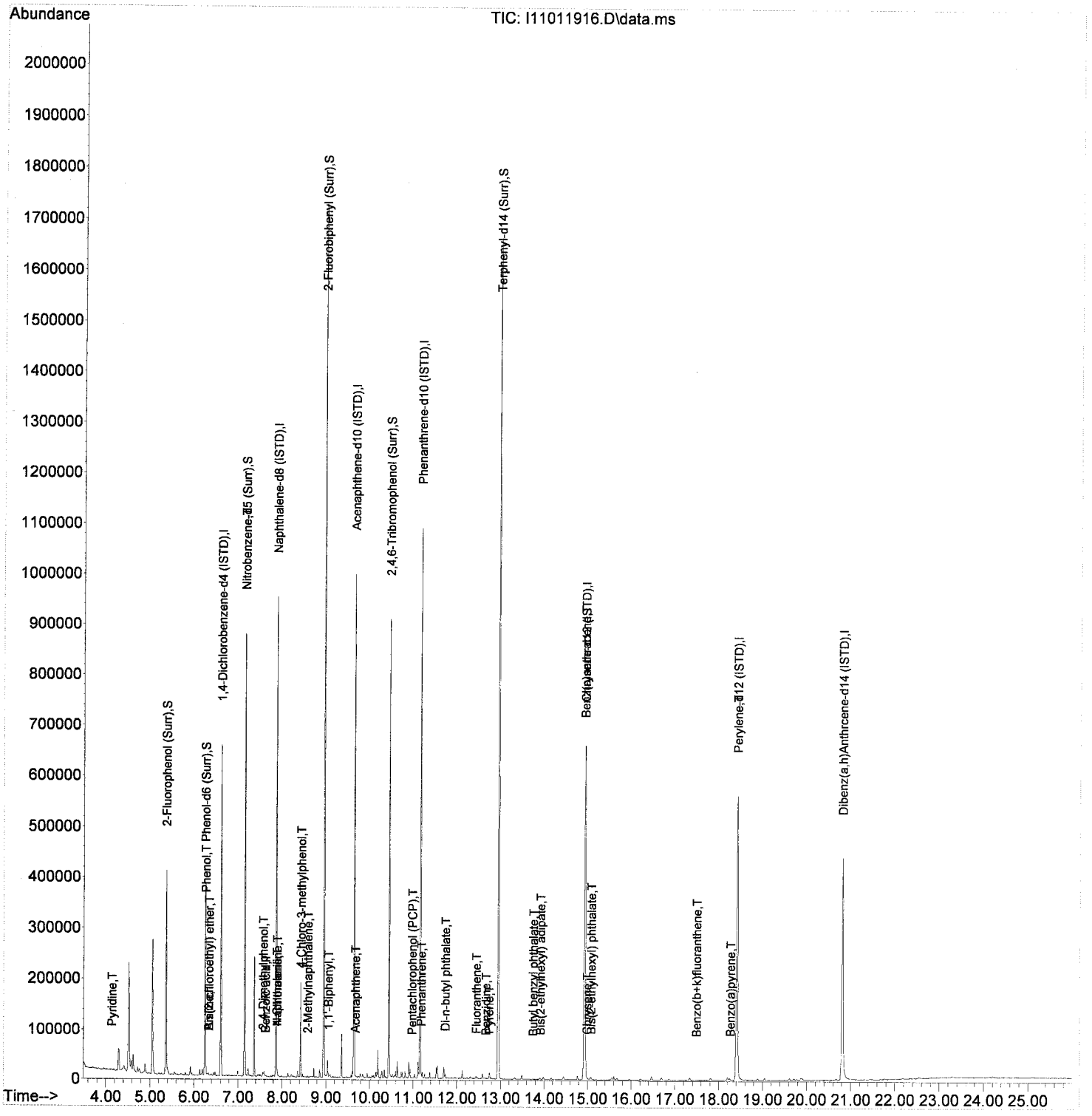
Quant Time: Nov 04 08:57:31 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	208	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.493	152	373	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.670	153	447	3.08 ng/ml	95
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.841	168	311	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.066	149	396	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.050	170	112	N.D.	
60) Fluorene	10.194	166	376	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.360	77	315	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.964	266	172	52.03 ng/ml#	42
71) Phenanthrene	11.173	178	2403	10.76 ng/ml	93
72) Anthracene	11.221	178	276	N.D.	
73) Carbazole	11.382	167	130	N.D.	
74) Di-n-butyl phthalate	11.729	149	3509	13.14 ng/ml	99
75) Fluoranthene	12.441	202	1603	6.09 ng/ml	98
76) Benzidine	12.660	184	192	111.09 ng/ml	76
77) Pyrene	12.729	202	1646	6.41 ng/ml	96
80) Butyl benzyl phthalate	13.740	149	211	27.08 ng/ml#	50
81) Bis(2-ethylhexyl) adipate	13.911	129	946	7.93 ng/ml	92
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.922	228	1803	6.58 ng/ml	79
84) Chrysene	14.981	228	780	3.15 ng/ml	81
85) Bis(2-ethylhexyl) phth...	15.072	149	2587	14.87 ng/ml	93
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	17.490	252	582	N.D.	
89) Benzo(k)fluoranthene	17.554	252	258	N.D.	
90) Benzo(b+k)fluoranthene	17.490	252	840	3.37 ng/ml	77
91) Benzo(e)pyrene	18.142	252	444	N.D.	
92) Benzo(a)pyrene	18.265	252	309	9.85 ng/ml	59
93) Perylene	18.415	252	1694	8.25 ng/ml	73
95) Indeno(1,2,3-cd)pyrene	20.801	276	529	N.D.	
96) Dibenz(a,h)anthracene	20.881	278	59	N.D.	
97) Benzo(g,h,i)perylene	21.330	276	382	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:31 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:57:34 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	121842	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	453925	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	233673	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	442134	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	464335	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	448114	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.817	292	411403	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	44127	491.84	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	38118	351.10	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	80756	1019.16	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	166727	971.08	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	33875	1258.52	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	244558	1085.49	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.016	74	16101	223.74	ng/ml	95
3) Pyridine	4.139	79	252	N.D.		
6) Phenol	6.258	94	35081	305.08	ng/ml	95
7) Aniline	6.284	93	538	4.49	ng/ml#	1
8) Bis(2-chloroethyl) ether	6.343	93	69234	668.96	ng/ml	95
9) 2-Chlorophenol	6.402	128	64472	734.00	ng/ml	96
10) 1,3-Dichlorobenzene	6.552	146	30852	316.56	ng/ml	96
11) 1,4-Dichlorobenzene	6.621	146	30844	332.28	ng/ml	99
12) Benzyl alcohol	6.734	108	23197	458.71	ng/ml	97
13) 1,2-Dichlorobenzene	6.771	146	31652	349.88	ng/ml	97
14) 2-Methylphenol	6.841	107	47463	708.80	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	75752	528.88	ng/ml	88
16) N-Nitrosodi-n-propylamine	6.996	70	50784	720.02	ng/ml	92
17) 3+4-Methylphenol	6.990	107	53086	649.50	ng/ml	98
18) Hexachloroethane	7.108	201	8377	280.87	ng/ml	92
20) Nitrobenzene	7.161	77	64156	764.66	ng/ml	95
22) Isophorone	7.397	82	129681	722.49	ng/ml	98
23) 2-Nitrophenol	7.482	139	33351	846.54	ng/ml	94
24) 2,4-Dimethylphenol	7.514	122	49821	777.20	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.605	93	78573	790.76	ng/ml	99
26) Benzoic acid	7.584	105	15881	1166.46	ng/ml	97
27) 2,4-Dichlorophenol	7.718	162	52659	897.17	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.809	180	30683	401.05	ng/ml	98
29) Naphthalene	7.883	128	119435	512.24	ng/ml	99
30) 4-Chloroaniline	7.937	127	3299	53.56	ng/ml	93
31) Hexachlorobutadiene	8.012	225	12564	297.70	ng/ml	97
32) 4-Chloro-3-methylphenol	8.413	107	52305	752.86	ng/ml	97
33) 2-Methylnaphthalene	8.579	142	88029	524.94	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	84793	531.11	ng/ml	97
36) Hexachlorocyclopentadiene	8.750	237	11446	280.69	ng/ml	98
37) 2,4,6-Trichlorophenol	8.862	196	41564	913.84	ng/ml	98
38) 2,4,5-Trichlorophenol	8.900	198	39200	891.33	ng/ml	98
39) 1,1'-Biphenyl	9.050	154	116974	618.62	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	81438	582.80	ng/ml	97
42) 2-Nitroaniline	9.173	138	37930	896.80	ng/ml	86
43) 2,6-Dimethylnaphthalene	9.210	156	76325	534.09	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:34 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

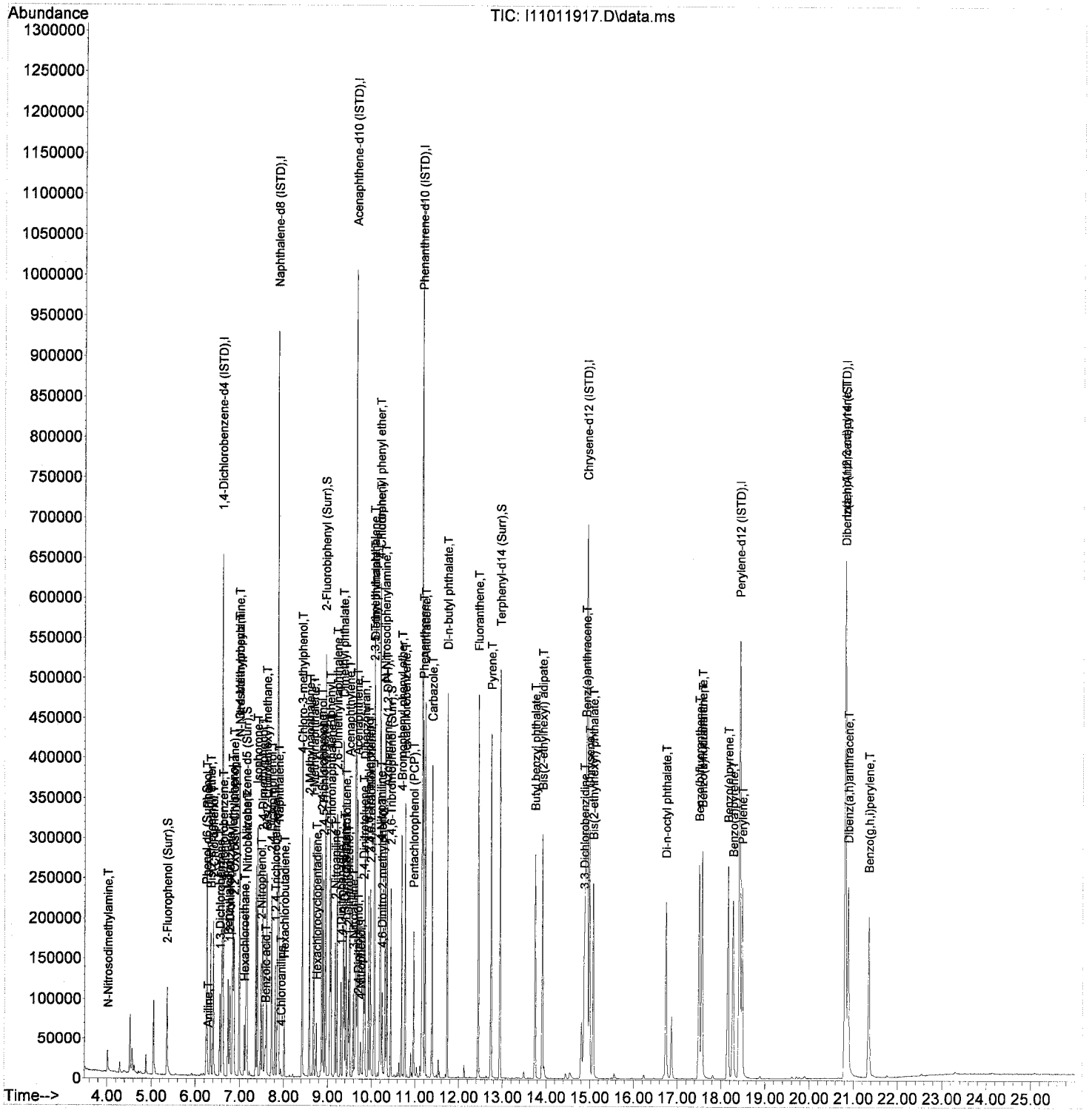
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.301	168	16677	1092.09	ng/ml#	75
45)	Dimethyl phthalate	9.354	163	144928	849.95	ng/ml	99
46)	1,3-Dinitrobenzene	9.381	168	20100	963.83	ng/ml	89
47)	2,6-Dinitrotoluene	9.413	165	30838	888.29	ng/ml	82
48)	1,2-Dinitrobenzene	9.467	168	14150	863.42	ng/ml	82
49)	Acenaphthylene	9.493	152	159324	680.92	ng/ml	99
50)	3-Nitroaniline	9.584	138	17721	540.35	ng/ml	95
51)	Acenaphthene	9.675	153	93896	638.21	ng/ml	99
52)	2,4-Dinitrophenol	9.691	184	8381	1275.61	ng/ml	77
53)	4-Nitrophenol	9.750	139	8761	420.83	ng/ml	88
54)	2,4-Dinitrotoluene	9.820	165	39482	946.86	ng/ml	90
55)	Dibenzofuran	9.846	168	144153	715.59	ng/ml	94
56)	2,3,5,6-Tetrachlorophenol	9.927	232	33921	960.28	ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	9.975	232	34795	922.42	ng/ml	90
58)	Diethyl phthalate	10.066	149	133885	828.52	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.055	170	89490	670.81	ng/ml	97
60)	Fluorene	10.194	166	118655	732.21	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.189	204	59120	736.45	ng/ml	95
62)	4-Nitroaniline	10.205	138	27765	1005.41	ng/ml	94
63)	4,6-Dinitro-2-methylph...	10.237	198	17439	1243.16	ng/ml	89
65)	N-Nitrosodiphenylamine	10.306	169	114718	826.63	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.349	77	114229	629.39	ng/ml	92
68)	4-Bromophenyl phenyl e...	10.686	248	42357	816.88	ng/ml	97
69)	Hexachlorobenzene	10.766	284	54534	889.61	ng/ml	94
70)	Pentachlorophenol (PCP)	10.959	266	26070	935.17	ng/ml	98
71)	Phenanthrene	11.178	178	188261	816.35	ng/ml	99
72)	Anthracene	11.226	178	189755	834.28	ng/ml	100
73)	Carbazole	11.387	167	183273	906.53	ng/ml	98
74)	Di-n-butyl phthalate	11.729	149	232276	841.99	ng/ml	99
75)	Fluoranthene	12.441	202	245687	903.83	ng/ml	98
76)	Benzidine	0.000		0	N.D.		
77)	Pyrene	12.735	202	249558	941.40	ng/ml	98
80)	Butyl benzyl phthalate	13.740	149	99556	761.47	ng/ml	92
81)	Bis(2-ethylhexyl) adipate	13.911	129	86904	742.30	ng/ml	99
82)	3,3-Dichlorobenzidine	14.869	252	90250	2117.62	ng/ml	98
83)	Benz(a)anthracene	14.906	228	237891	884.74	ng/ml	99
84)	Chrysene	14.986	228	207170	851.92	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	15.072	149	121625	712.72	ng/ml	98
87)	Di-n-octyl phthalate	16.741	149	213133	761.59	ng/ml	97
88)	Benzo(b)fluoranthene	17.495	252	235513	941.19	ng/ml	98
89)	Benzo(k)fluoranthene	17.565	252	227661	978.53	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.565	252	475265	1922.42	ng/ml	97
91)	Benzo(e)pyrene	18.153	252	216843	892.37	ng/ml	99
92)	Benzo(a)pyrene	18.271	252	189011	803.23	ng/ml	97
93)	Perylene	18.479	252	185175	910.67	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.811	276	186424	767.19	ng/ml	93
96)	Dibenz(a,h)anthracene	20.881	278	180449	849.36	ng/ml	97
97)	Benzo(g,h,i)perylene	21.346	276	180655	779.85	ng/ml	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:34 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Q-19

AMS 11/4/19

Quant Time: Nov 04 08:57:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	120681	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	454314	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	235287	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	447122	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	462883	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	451963	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.816	292	416168	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	34930	393.08	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	29657	275.79	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	76564	975.55	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	151415	875.85	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	33608	1235.52	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	240111	1069.10	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.027	74	12517	175.61	ng/ml	92
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.257	94	26556	233.17	ng/ml	99
7) Aniline	6.295	93	608	5.13	ng/ml	70
8) Bis(2-chloroethyl) ether	6.343	93	62651	611.17	ng/ml	94
9) 2-Chlorophenol	6.402	128	56372	647.96	ng/ml	97
10) 1,3-Dichlorobenzene	6.552	146	19523	202.25	ng/ml	99
11) 1,4-Dichlorobenzene	6.621	146	19341	210.36	ng/ml	99
12) Benzyl alcohol	6.733	108	19267	384.66	ng/ml	97
13) 1,2-Dichlorobenzene	6.776	146	20842	232.61	ng/ml	93
14) 2-Methylphenol	6.840	107	38785	584.78	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	60775	428.40	ng/ml	88
16) N-Nitrosodi-n-propylamine	6.995	70	46769	669.48	ng/ml	91
17) 3+4-Methylphenol	6.990	107	45275	559.27	ng/ml	95
18) Hexachloroethane	7.108	201	4964	168.04	ng/ml	97
20) Nitrobenzene	7.161	77	57921	696.99	ng/ml	97
22) Isophorone	7.397	82	123495	687.44	ng/ml	96
23) 2-Nitrophenol	7.482	139	30989	789.82	ng/ml	90
24) 2,4-Dimethylphenol	7.514	122	40909	637.62	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.605	93	74306	747.17	ng/ml	99
26) Benzoic acid	7.578	105	10547	1030.21	ng/ml	96
27) 2,4-Dichlorophenol	7.718	162	48669	829.78	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.803	180	18684	244.01	ng/ml	97
29) Naphthalene	7.883	128	81560	349.50	ng/ml	100
30) 4-Chloroaniline	7.937	127	2767	47.00	ng/ml	91
31) Hexachlorobutadiene	8.012	225	7595	179.81	ng/ml	97
32) 4-Chloro-3-methylphenol	8.413	107	48970	705.94	ng/ml	98
33) 2-Methylnaphthalene	8.579	142	57266	341.20	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	56289	352.27	ng/ml	98
36) Hexachlorocyclopentadiene	8.750	237	5771	140.55	ng/ml	90
37) 2,4,6-Trichlorophenol	8.862	196	38594	845.10	ng/ml	97
38) 2,4,5-Trichlorophenol	8.900	198	38520	870.40	ng/ml	97
39) 1,1'-Biphenyl	9.049	154	79821	419.24	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	55570	394.95	ng/ml	96
42) 2-Nitroaniline	9.167	138	38134	895.55	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.210	156	47752	331.85	ng/ml	100

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

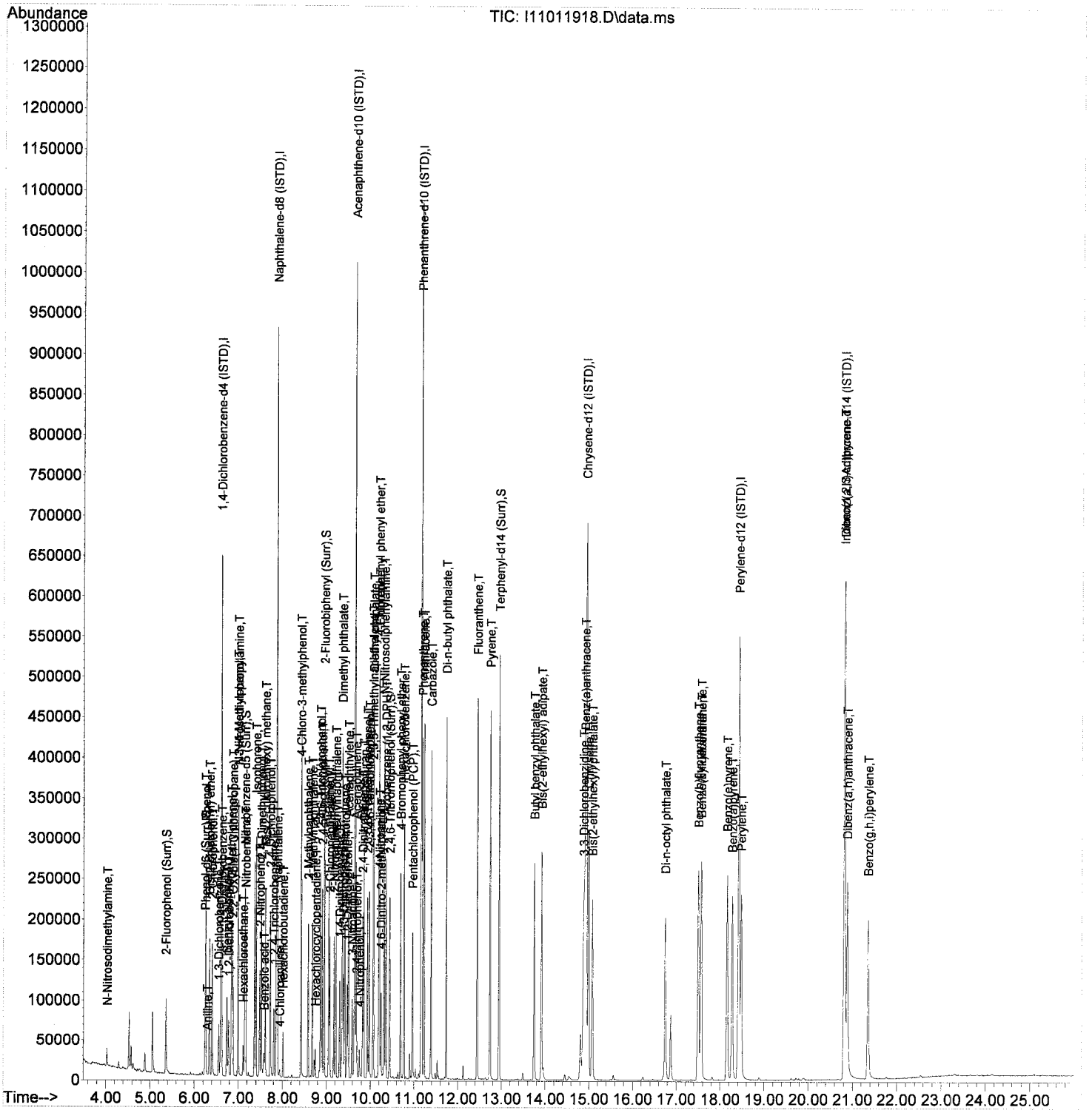
Quant Time: Nov 04 08:57:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.295	168	17422	1126.17	ng/ml	83
45)	Dimethyl phthalate	9.354	163	143627	836.54	ng/ml	99
46)	1,3-Dinitrobenzene	9.381	168	20413	970.98	ng/ml	87
47)	2,6-Dinitrotoluene	9.413	165	30452	871.81	ng/ml	82
48)	1,2-Dinitrobenzene	9.467	168	14034	851.33	ng/ml#	76
49)	Acenaphthylene	9.493	152	124159	527.00	ng/ml	100
50)	3-Nitroaniline	9.584	138	18122	548.87	ng/ml	90
51)	Acenaphthene	9.670	153	70553	476.26	ng/ml	99
52)	2,4-Dinitrophenol	9.686	184	8388	1270.30	ng/ml	92
53)	4-Nitrophenol	9.750	139	6990	349.32	ng/ml	92
54)	2,4-Dinitrotoluene	9.820	165	39661	944.81	ng/ml	85
55)	Dibenzofuran	9.846	168	114626	565.11	ng/ml	93
56)	2,3,5,6-Tetrachlorophenol	9.927	232	32814	924.48	ng/ml	97
57)	2,3,4,6-Tetrachlorophenol	9.969	232	34334	904.49	ng/ml	96
58)	Diethyl phthalate	10.066	149	132383	813.60	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.055	170	64151	477.57	ng/ml	98
60)	Fluorene	10.194	166	101511	622.12	ng/ml	98
61)	4-Chlorophenyl phenyl ...	10.189	204	44732	553.40	ng/ml	96
62)	4-Nitroaniline	10.205	138	25987	934.57	ng/ml	96
63)	4,6-Dinitro-2-methylph...	10.237	198	17361	1231.74	ng/ml	90
65)	N-Nitrosodiphenylamine	10.306	169	111056	791.31	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.349	77	103216	562.37	ng/ml	91
68)	4-Bromophenyl phenyl e...	10.686	248	35751	681.79	ng/ml	96
69)	Hexachlorobenzene	10.766	284	51080	823.97	ng/ml	93
70)	Pentachlorophenol (PCP)	10.959	266	25710	913.70	ng/ml	98
71)	Phenanthrene	11.178	178	175812	753.86	ng/ml	100
72)	Anthracene	11.226	178	180665	785.46	ng/ml	99
73)	Carbazole	11.387	167	177465	868.01	ng/ml	98
74)	Di-n-butyl phthalate	11.729	149	230806	827.33	ng/ml	99
75)	Fluoranthene	12.440	202	240256	873.99	ng/ml	98
76)	Benzidine	0.000		0	N.D.		
77)	Pyrene	12.735	202	245694	916.48	ng/ml	99
80)	Butyl benzyl phthalate	13.745	149	98029	752.56	ng/ml	90
81)	Bis(2-ethylhexyl) adipate	13.917	129	83820	718.20	ng/ml	99
82)	3,3-Dichlorobenzidine	14.874	252	99080	2372.78	ng/ml	97
83)	Benz(a)anthracene	14.906	228	235330	877.96	ng/ml	99
84)	Chrysene	14.986	228	205739	848.68	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.072	149	118478	696.45	ng/ml	99
87)	Di-n-octyl phthalate	16.746	149	202437	720.67	ng/ml	96
88)	Benzo(b)fluoranthene	17.500	252	230514	913.36	ng/ml	98
89)	Benzo(k)fluoranthene	17.564	252	224753	957.81	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.564	252	467366	1874.37	ng/ml	98
91)	Benzo(e)pyrene	18.153	252	218116	889.97	ng/ml	98
92)	Benzo(a)pyrene	18.270	252	187052	788.20	ng/ml	96
93)	Perylene	18.474	252	182795	891.31	ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.811	276	183844	747.91	ng/ml	95
96)	Dibenz(a,h)anthracene	20.881	278	178277	829.53	ng/ml	99
97)	Benzo(g,h,i)perylene	21.351	276	175075	747.11	ng/ml	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9J16053 (Cal ID A9J1803) SV-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J16053**	Instrument:	**SV-GCMS9**
Date:	**10/16/19 15:59**	Calibration:	**A9J1803**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J16053-TUN1	Water	QC	QC			A19G233	A19J016
2	9J16053-ICB1	Water	QC	QC			A19G233	
3	9J16053-CAL1	Water	QC	QC			A19G233	A19G238
4	9J16053-CAL2	Water	QC	QC			A19G233	A19G239
5	9J16053-CAL3	Water	QC	QC			A19G233	A19G240
6	9J16053-CAL4	Water	QC	QC			A19G233	A19G241
7	9J16053-CAL5	Water	QC	QC			A19G233	A19G242
8	9J16053-CAL6	Water	QC	QC			A19G233	A19G243
9	9J16053-CAL7	Water	QC	QC			A19G233	A19G244
10	9J16053-CAL8	Water	QC	QC			A19G233	A19G245
11	9J16053-CAL9	Water	QC	QC			A19G233	A19G246
12	9J16053-CALA	Water	QC	QC			A19G233	A19G247
13	9J16053-IBL1	Water	QC	QC			A19G233	
14	9J16053-ICV1	Water	QC	QC			A19G233	A19I254
15	9J16053-IBL2	Water	QC	QC			A19G233	

Data Entered By: 10/18/19

Data Reviewed By: 10/22/19

Comments:

Calibration Status Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

A9J1803

JK 10/17/19

#	ID	Conc	ISTD Conc	Path\File
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3	100	100	2000	T:\data\2019-10\9J16053\I10161914.D
4	200	200	2000	T:\data\2019-10\9J16053\I10161915.D
5	500	500	2000	T:\data\2019-10\9J16053\I10161916.D
6	1000	1000	2000	T:\data\2019-10\9J16053\I10161917.D
7	2000	2000	2000	T:\data\2019-10\9J16053\I10161918.D
8	4000	4000	2000	T:\data\2019-10\9J16053\I10161919.D
9	6000	6000	2000	T:\data\2019-10\9J16053\I10161920.D
10	8000	8000	2000	T:\data\2019-10\9J16053\I10161921.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Oct 17 11:57 2019	Oct 17 10:12 2019	16 Oct 2019 5:09 pm
2	50	Oct 17 11:57 2019	Oct 17 11:01 2019	16 Oct 2019 5:44 pm
3	100	Oct 17 11:58 2019	Oct 17 11:05 2019	16 Oct 2019 6:19 pm
4	200	Oct 17 11:58 2019	Oct 17 11:06 2019	16 Oct 2019 6:54 pm
5	500	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 7:30 pm
6	1000	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 8:05 pm
7	2000	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 8:40 pm
8	4000	Oct 17 11:58 2019	Oct 17 11:43 2019	16 Oct 2019 9:14 pm
9	6000	Oct 17 11:58 2019	Oct 17 11:45 2019	16 Oct 2019 9:49 pm
10	8000	Oct 17 11:59 2019	Oct 17 11:46 2019	16 Oct 2019 10:24 pm

SV9_101619.M Thu Oct 17 13:02:14 2019

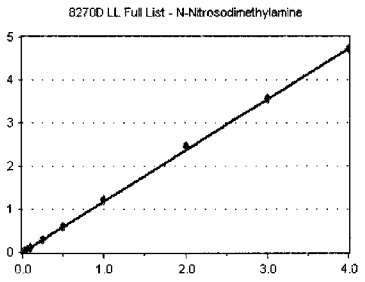
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

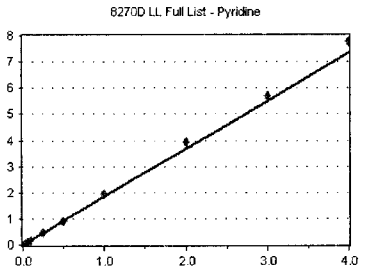


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1227	1.106	4.13
9J16053-CAL2	50	3526	1.227	4.08
9J16053-CAL3	100	6638	1.169	4.09
9J16053-CAL4	200	13447	1.119	4.06
9J16053-CAL5	500	32984	1.196	4.09
9J16053-CAL6	1000	63705	1.172	4.08
9J16053-CAL7	2000	130513	1.226	4.06
9J16053-CAL8	4000	258805	1.224	4.08
9J16053-CAL9	6000	322758	1.192	4.11
9J16053-CALA	8000	425740	1.181	4.07

AVE RF **1.181** RF RSD **3.56** AVE RT **4.08**

Pyridine

Curve Fit: **AVERAGE RF**

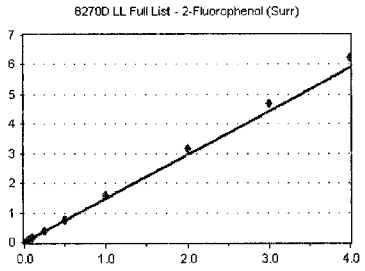


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~855~~	~~0.771~~	~~4.19~~
9J16053-CAL2	50	4710	1.639	4.12
9J16053-CAL3	100	9792	1.725	4.12
9J16053-CAL4	200	20595	1.714	4.09
9J16053-CAL5	500	50729	1.839	4.11
9J16053-CAL6	1000	100642	1.852	4.09
9J16053-CAL7	2000	206511	1.940	4.08
9J16053-CAL8	4000	416575	1.970	4.09
9J16053-CAL9	6000	514636	1.900	4.12
9J16053-CALA	8000	702998	1.950	4.08

AVE RF **1.837** RF RSD **6.45** AVE RT **4.10**

2-Fluorophenol (Surr)

Curve Fit: **AVERAGE RF**

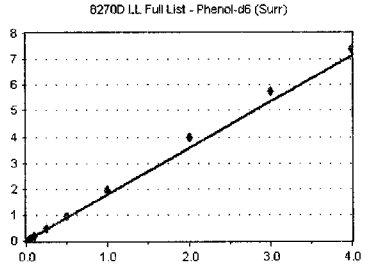


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1500	1.352	5.42
9J16053-CAL2	50	3881	1.350	5.41
9J16053-CAL3	100	7618	1.342	5.41
9J16053-CAL4	200	16598	1.381	5.40
9J16053-CAL5	500	41291	1.497	5.41
9J16053-CAL6	1000	81539	1.500	5.41
9J16053-CAL7	2000	168171	1.579	5.40
9J16053-CAL8	4000	336987	1.594	5.41
9J16053-CAL9	6000	424427	1.567	5.42
9J16053-CALA	8000	563281	1.563	5.41

AVE RF **1.473** RF RSD **7.14** AVE RT **5.41**

Phenol-d6 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1618	1.459	6.30
9J16053-CAL2	50	4604	1.602	6.29
9J16053-CAL3	100	9393	1.654	6.29
9J16053-CAL4	200	19537	1.626	6.29
9J16053-CAL5	500	51731	1.876	6.30
9J16053-CAL6	1000	102248	1.881	6.30
9J16053-CAL7	2000	209429	1.967	6.30
9J16053-CAL8	4000	419864	1.986	6.31
9J16053-CAL9	6000	520284	1.921	6.31
9J16053-CALA	8000	666322	1.849	6.31

AVE RF **1.782** RF RSD **10.17** AVE RT **6.30**

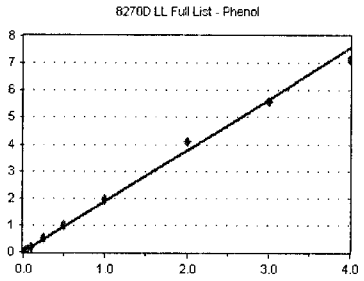
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Phenol

Curve Fit: **AVERAGE RF**

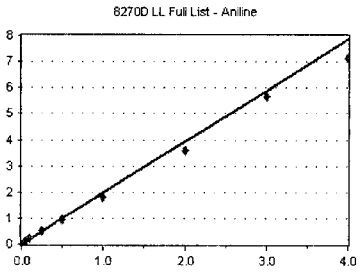


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2030	1.830	6.31
9J16053-CAL2	50	5478	1.906	6.31
9J16053-CAL3	100	10339	1.821	6.31
9J16053-CAL4	200	20713	1.724	6.30
9J16053-CAL5	500	55173	2.001	6.31
9J16053-CAL6	1000	105930	1.949	6.31
9J16053-CAL7	2000	208278	1.956	6.31
9J16053-CAL8	4000	432772	2.047	6.32
9J16053-CAL9	6000	502219	1.854	6.33
9J16053-CALA	8000	643943	1.787	6.33

AVE RF **1.888** RF RSD **5.38** AVE RT **6.31**

Aniline

Curve Fit: **AVERAGE RF**

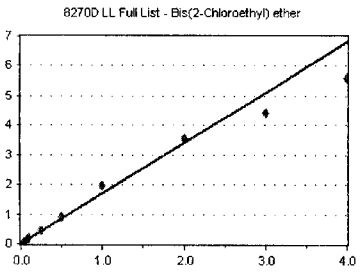


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1021~~	~~0.921~~	~~6.35~~
9J16053-CAL2	50	5932	2.064	6.34
9J16053-CAL3	100	12340	2.173	6.34
9J16053-CAL4	200	25093	2.088	6.34
9J16053-CAL5	500	59550	2.159	6.34
9J16053-CAL6	1000	104698	1.927	6.34
9J16053-CAL7	2000	193255	1.815	6.34
9J16053-CAL8	4000	377305	1.785	6.35
9J16053-CAL9	6000	510928	1.887	6.35
9J16053-CALA	8000	643142	1.784	6.35

AVE RF **1.965** RF RSD **8.08** AVE RT **6.35**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

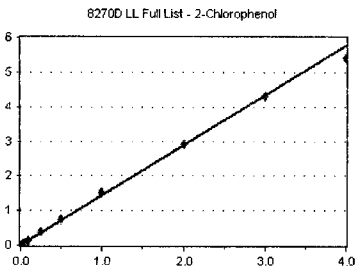


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1698	1.531	6.40
9J16053-CAL2	50	4855	1.689	6.40
9J16053-CAL3	100	10234	1.803	6.40
9J16053-CAL4	200	20574	1.712	6.39
9J16053-CAL5	500	50835	1.843	6.40
9J16053-CAL6	1000	97200	1.789	6.40
9J16053-CAL7	2000	209890	1.971	6.40
9J16053-CAL8	4000	375165	1.774	6.40
9J16053-CAL9	6000	400306	1.478	6.41
9J16053-CALA	8000	503778	1.398	6.41

AVE RF **1.699** RF RSD **10.52** AVE RT **6.40**

2-Chlorophenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1413	1.274	6.46
9J16053-CAL2	50	4117	1.432	6.46
9J16053-CAL3	100	8126	1.431	6.46
9J16053-CAL4	200	17444	1.452	6.46
9J16053-CAL5	500	42644	1.546	6.46
9J16053-CAL6	1000	82633	1.520	6.46
9J16053-CAL7	2000	161665	1.518	6.46
9J16053-CAL8	4000	308174	1.458	6.46
9J16053-CAL9	6000	388854	1.436	6.47
9J16053-CALA	8000	486600	1.350	6.47

AVE RF **1.442** RF RSD **5.67** AVE RT **6.46**

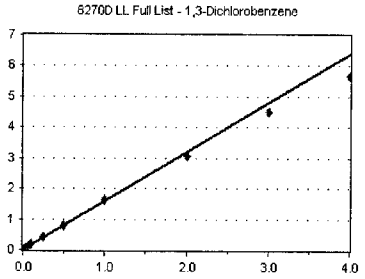
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

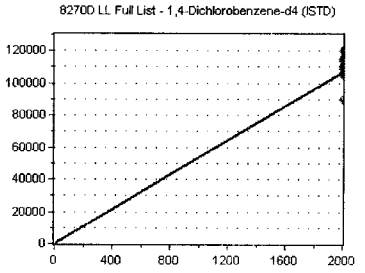


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1762	1.589	6.61
9J16053-CAL2	50	4787	1.666	6.61
9J16053-CAL3	100	9504	1.674	6.61
9J16053-CAL4	200	20472	1.704	6.61
9J16053-CAL5	500	46500	1.686	6.61
9J16053-CAL6	1000	87984	1.619	6.61
9J16053-CAL7	2000	171908	1.615	6.61
9J16053-CAL8	4000	323172	1.529	6.61
9J16053-CAL9	6000	406773	1.502	6.62
9J16053-CALA	8000	510201	1.416	6.61

AVE RF **1.600** RF RSD **5.80** AVE RT **6.61**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

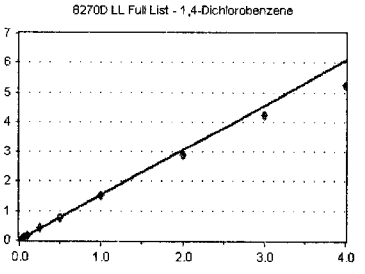


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	110906	55.453	6.66
9J16053-CAL2	2000	114962	57.481	6.66
9J16053-CAL3	2000	113552	56.776	6.66
9J16053-CAL4	2000	120155	60.078	6.66
9J16053-CAL5	2000	110317	55.159	6.66
9J16053-CAL6	2000	108692	54.346	6.66
9J16053-CAL7	2000	106472	53.236	6.66
9J16053-CAL8	2000	105713	52.856	6.66
9J16053-CAL9	2000	90276	45.138	6.66
9J16053-CALA	2000	90105	45.053	6.66

AVE RF **53.558** RF RSD **9.21** AVE RT **6.66**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

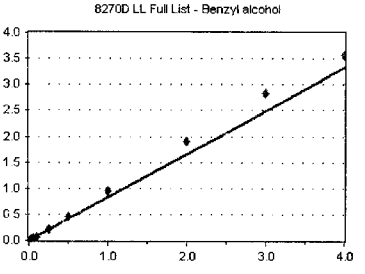


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1753	1.581	6.68
9J16053-CAL2	50	4602	1.601	6.68
9J16053-CAL3	100	9126	1.607	6.68
9J16053-CAL4	200	19398	1.614	6.68
9J16053-CAL5	500	44891	1.628	6.68
9J16053-CAL6	1000	83649	1.539	6.68
9J16053-CAL7	2000	161488	1.517	6.68
9J16053-CAL8	4000	302701	1.432	6.68
9J16053-CAL9	6000	381139	1.407	6.69
9J16053-CALA	8000	472412	1.311	6.68

AVE RF **1.524** RF RSD **7.02** AVE RT **6.68**

Benzyl alcohol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	950	0.857	6.79
9J16053-CAL2	50	1820	0.633	6.79
9J16053-CAL3	100	3764	0.663	6.79
9J16053-CAL4	200	8208	0.683	6.79
9J16053-CAL5	500	22926	0.831	6.79
9J16053-CAL6	1000	48394	0.890	6.79
9J16053-CAL7	2000	101019	0.949	6.79
9J16053-CAL8	4000	202180	0.956	6.80
9J16053-CAL9	6000	256004	0.945	6.80
9J16053-CALA	8000	321834	0.893	6.81

AVE RF **0.830** RF RSD **15.02** AVE RT **6.79**

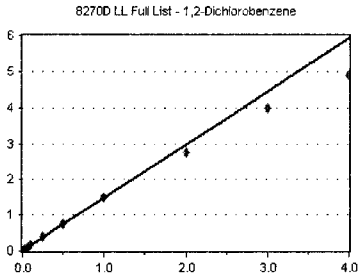
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

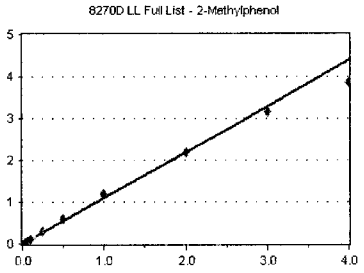


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1751	1.579	6.84
9J16053-CAL2	50	4537	1.579	6.83
9J16053-CAL3	100	8939	1.574	6.83
9J16053-CAL4	200	19037	1.584	6.82
9J16053-CAL5	500	44501	1.614	6.83
9J16053-CAL6	1000	82317	1.515	6.83
9J16053-CAL7	2000	158155	1.485	6.83
9J16053-CAL8	4000	289895	1.371	6.83
9J16053-CAL9	6000	358825	1.325	6.84
9J16053-CALA	8000	440964	1.223	6.84

AVE RF **1.485** RF RSD **8.97** AVE RT **6.83**

2-Methylphenol

Curve Fit: **AVERAGE RF**

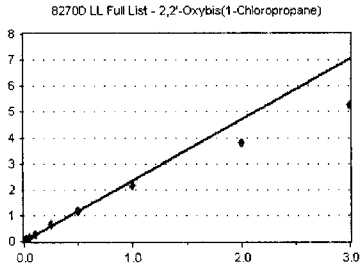


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1222	1.102	6.89
9J16053-CAL2	50	2790	0.971	6.89
9J16053-CAL3	100	6433	1.133	6.89
9J16053-CAL4	200	13130	1.093	6.89
9J16053-CAL5	500	33736	1.223	6.89
9J16053-CAL6	1000	64002	1.178	6.89
9J16053-CAL7	2000	125482	1.179	6.89
9J16053-CAL8	4000	231464	1.095	6.90
9J16053-CAL9	6000	286008	1.056	6.90
9J16053-CALA	8000	347076	0.963	6.91

AVE RF **1.099** RF RSD **7.79** AVE RT **6.90**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

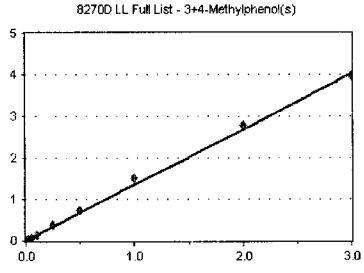


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2838	2.559	6.92
9J16053-CAL2	50	7664	2.667	6.92
9J16053-CAL3	100	14918	2.628	6.92
9J16053-CAL4	200	30514	2.540	6.92
9J16053-CAL5	500	70737	2.565	6.92
9J16053-CAL6	1000	128835	2.371	6.92
9J16053-CAL7	2000	232038	2.179	6.92
9J16053-CAL8	4000	401443	1.899	6.93
9J16053-CAL9	6000	474944	1.754	6.93
~~9J16053-CALA~~	~~8000~~	~~544410~~	~~1.610~~	~~6.93~~

AVE RF **2.351** RF RSD **14.20** AVE RT **6.92**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1259	1.135	7.04
9J16053-CAL2	50	3323	1.156	7.04
9J16053-CAL3	100	7443	1.311	7.04
9J16053-CAL4	200	15070	1.254	7.04
9J16053-CAL5	500	41942	1.521	7.04
9J16053-CAL6	1000	80497	1.481	7.04
9J16053-CAL7	2000	160363	1.506	7.04
9J16053-CAL8	4000	292865	1.385	7.05
9J16053-CAL9	6000	358777	1.325	7.06
~~9J16053-CALA~~	~~8000~~	~~435039~~	~~1.207~~	~~7.07~~

AVE RF **1.342** RF RSD **10.75** AVE RT **7.04**

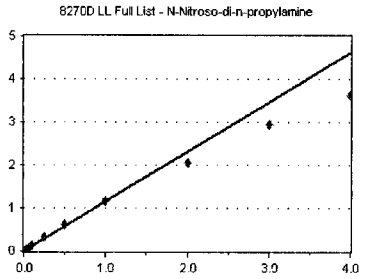
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**

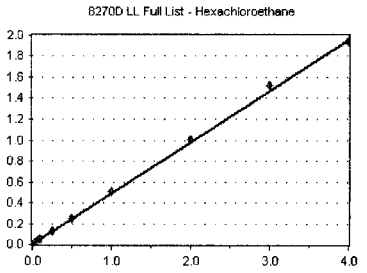


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1362	1.228	7.05
9J16053-CAL2	50	3574	1.244	7.05
9J16053-CAL3	100	7214	1.271	7.05
9J16053-CAL4	200	14701	1.224	7.04
9J16053-CAL5	500	36526	1.324	7.05
9J16053-CAL6	1000	66569	1.225	7.05
9J16053-CAL7	2000	122433	1.150	7.05
9J16053-CAL8	4000	216758	1.025	7.07
9J16053-CAL9	6000	265552	0.981	7.07
9J16053-CALA	8000	326816	0.907	7.08

AVE RF **1.158** RF RSD **12.00** AVE RT **7.06**

Hexachloroethane

Curve Fit: **AVERAGE RF**

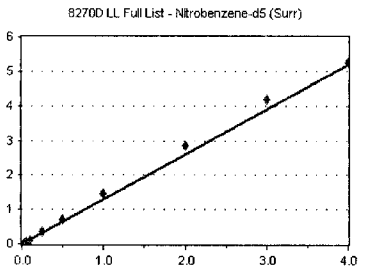


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	507	0.457	7.17
9J16053-CAL2	50	1316	0.458	7.16
9J16053-CAL3	100	2749	0.484	7.17
9J16053-CAL4	200	5953	0.495	7.16
9J16053-CAL5	500	13814	0.501	7.17
9J16053-CAL6	1000	26988	0.497	7.17
9J16053-CAL7	2000	54131	0.508	7.16
9J16053-CAL8	4000	106200	0.502	7.17
9J16053-CAL9	6000	137256	0.507	7.17
9J16053-CALA	8000	175204	0.486	7.17

AVE RF **0.490** RF RSD **3.80** AVE RT **7.17**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

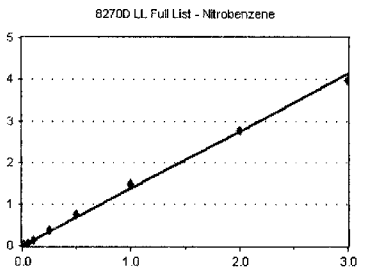


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1331	1.200	7.20
9J16053-CAL2	50	3185	1.108	7.20
9J16053-CAL3	100	6659	1.173	7.20
9J16053-CAL4	200	13464	1.121	7.20
9J16053-CAL5	500	38734	1.404	7.20
9J16053-CAL6	1000	76069	1.400	7.20
9J16053-CAL7	2000	154925	1.455	7.20
9J16053-CAL8	4000	303165	1.434	7.20
9J16053-CAL9	6000	379122	1.400	7.22
9J16053-CALA	8000	472853	1.312	7.22

AVE RF **1.301** RF RSD **10.51** AVE RT **7.20**

Nitrobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1500	1.352	7.22
9J16053-CAL2	50	3574	1.244	7.22
9J16053-CAL3	100	7135	1.257	7.22
9J16053-CAL4	200	15667	1.304	7.22
9J16053-CAL5	500	42464	1.540	7.22
9J16053-CAL6	1000	81675	1.503	7.22
9J16053-CAL7	2000	158273	1.487	7.22
9J16053-CAL8	4000	293208	1.387	7.23
9J16053-CAL9	6000	358149	1.322	7.23
~~9J16053-CALA~~	~~8000~~	~~431713~~	~~1.198~~	~~7.24~~

AVE RF **1.377** RF RSD **7.94** AVE RT **7.22**

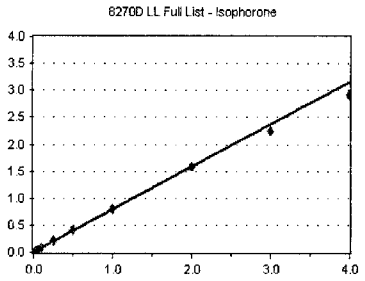
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Isophorone

Curve Fit: **AVERAGE RF**

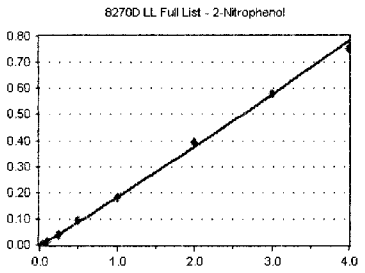


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3161	0.711	7.46
9J16053-CAL2	50	8579	0.770	7.45
9J16053-CAL3	100	18112	0.807	7.45
9J16053-CAL4	200	38056	0.850	7.45
9J16053-CAL5	500	94466	0.861	7.45
9J16053-CAL6	1000	172965	0.832	7.46
9J16053-CAL7	2000	326670	0.811	7.46
9J16053-CAL8	4000	624906	0.785	7.47
9J16053-CAL9	6000	786908	0.750	7.47
9J16053-CALA	8000	1001015	0.732	7.48

AVE RF **0.791** RF RSD **6.35** AVE RT **7.46**

2-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

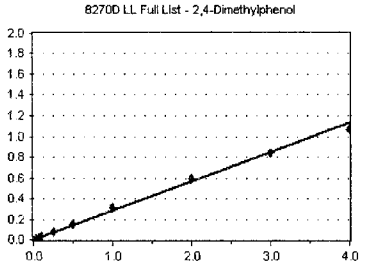


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~369~~	~~8.306~~	~~7.54~~
~~9J16053-CAL2~~	~~50~~	~~925~~	~~8.297~~	~~7.54~~
9J16053-CAL3	100	2310	0.103	7.54
9J16053-CAL4	200	5298	0.118	7.54
9J16053-CAL5	500	17473	0.159	7.54
9J16053-CAL6	1000	38840	0.187	7.54
9J16053-CAL7	2000	73325	0.182	7.54
9J16053-CAL8	4000	157209	0.198	7.54
9J16053-CAL9	6000	202850	0.193	7.55
9J16053-CALA	8000	257722	0.188	7.55

AVE RF **0.166** RF RSD **21.87** AVE RT **7.54**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

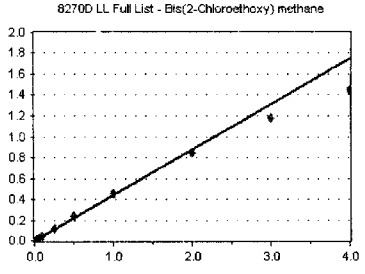


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1082	0.244	7.57
9J16053-CAL2	50	2761	0.248	7.57
9J16053-CAL3	100	6096	0.272	7.57
9J16053-CAL4	200	13189	0.294	7.57
9J16053-CAL5	500	32732	0.298	7.57
9J16053-CAL6	1000	64041	0.308	7.57
9J16053-CAL7	2000	126582	0.314	7.57
9J16053-CAL8	4000	238097	0.299	7.58
9J16053-CAL9	6000	294594	0.281	7.58
9J16053-CALA	8000	364751	0.267	7.59

AVE RF **0.282** RF RSD **8.69** AVE RT **7.57**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1914	0.431	7.66
9J16053-CAL2	50	4937	0.443	7.66
9J16053-CAL3	100	10224	0.456	7.66
9J16053-CAL4	200	20646	0.461	7.66
9J16053-CAL5	500	53184	0.485	7.66
9J16053-CAL6	1000	97637	0.470	7.66
9J16053-CAL7	2000	183878	0.456	7.66
9J16053-CAL8	4000	336452	0.423	7.67
9J16053-CAL9	6000	411142	0.392	7.68
9J16053-CALA	8000	495856	0.363	7.68

AVE RF **0.438** RF RSD **8.51** AVE RT **7.66**

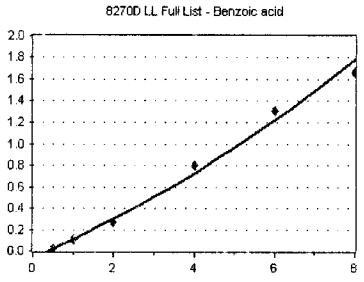
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzoic acid

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

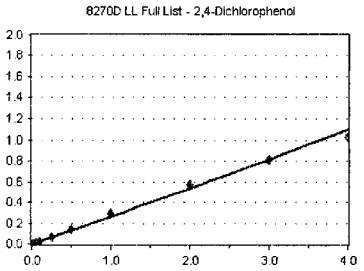


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~64~~	~~7.203~~	~~7.57~~
~~9J16053-CAL2~~	~~100~~	~~134~~	~~6.010~~	~~7.66~~
~~9J16053-CAL3~~	~~200~~	~~519~~	~~1.156~~	~~7.61~~
~~9J16053-CAL4~~	~~400~~	~~1889~~	~~2.109~~	~~7.61~~
9J16053-CAL5	1000	9988	4.553	7.63
9J16053-CAL6	2000	42834	0.103	7.65
9J16053-CAL7	4000	106896	0.133	7.69
9J16053-CAL8	8000	319266	0.201	7.74
9J16053-CAL9	12000	456773	0.218	7.77
9J16053-CALA	16000	567530	0.208	7.77

AVE RF **0.151** RF RSD **45.70** AVE RT **7.71**

2,4-Dichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

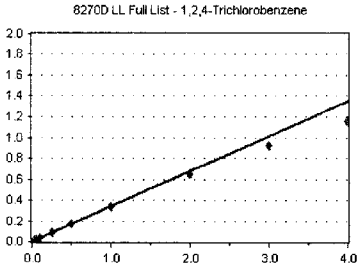


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	574	0.129	7.77
9J16053-CAL2	50	1890	0.170	7.77
9J16053-CAL3	100	4404	0.196	7.77
9J16053-CAL4	200	10420	0.233	7.77
9J16053-CAL5	500	28760	0.262	7.77
9J16053-CAL6	1000	57918	0.279	7.77
9J16053-CAL7	2000	119237	0.296	7.78
9J16053-CAL8	4000	227693	0.286	7.78
9J16053-CAL9	6000	282981	0.270	7.79
9J16053-CALA	8000	351999	0.257	7.79

AVE RF **0.238** RF RSD **23.28** AVE RT **7.78**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

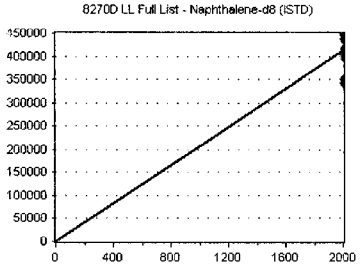


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.342	7.86
9J16053-CAL2	50	3937	0.353	7.86
9J16053-CAL3	100	7993	0.356	7.86
9J16053-CAL4	200	16256	0.363	7.86
9J16053-CAL5	500	38996	0.356	7.86
9J16053-CAL6	1000	71920	0.346	7.86
9J16053-CAL7	2000	136516	0.339	7.86
9J16053-CAL8	4000	256919	0.323	7.87
9J16053-CAL9	6000	321077	0.306	7.87
9J16053-CALA	8000	393859	0.288	7.87

AVE RF **0.337** RF RSD **7.21** AVE RT **7.86**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	444279	222.140	7.92
9J16053-CAL2	2000	445939	222.970	7.92
9J16053-CAL3	2000	448868	224.434	7.92
9J16053-CAL4	2000	447887	223.943	7.92
9J16053-CAL5	2000	438764	219.382	7.92
9J16053-CAL6	2000	415784	207.892	7.92
9J16053-CAL7	2000	403006	201.503	7.92
9J16053-CAL8	2000	397960	198.980	7.93
9J16053-CAL9	2000	349868	174.934	7.93
9J16053-CALA	2000	341834	170.917	7.93

AVE RF **206.710** RF RSD **9.75** AVE RT **7.92**

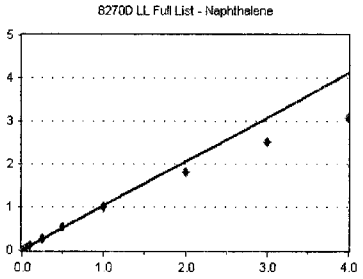
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Naphthalene

Curve Fit: **AVERAGE RF**

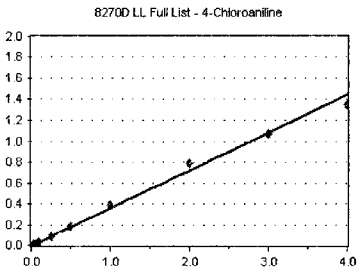


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5043	1.135	7.94
9J16053-CAL2	50	12520	1.123	7.94
9J16053-CAL3	100	25776	1.148	7.94
9J16053-CAL4	200	50856	1.135	7.94
9J16053-CAL5	500	123871	1.129	7.94
9J16053-CAL6	1000	222697	1.071	7.94
9J16053-CAL7	2000	407227	1.010	7.94
9J16053-CAL8	4000	725187	0.911	7.95
9J16053-CAL9	6000	881153	0.840	7.95
9J16053-CALA	8000	1052026	0.769	7.95

AVE RF **1.027** RF RSD **13.58** AVE RT **7.94**

4-Chloroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

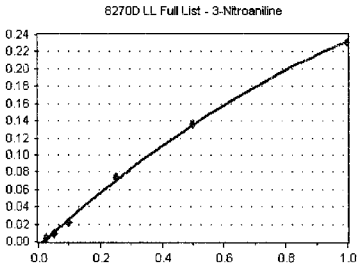


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	610	0.137	7.99
9J16053-CAL2	50	2877	0.258	7.99
9J16053-CAL3	100	6058	0.270	7.99
9J16053-CAL4	200	14311	0.320	7.99
9J16053-CAL5	500	38672	0.353	7.99
9J16053-CAL6	1000	74988	0.361	7.99
9J16053-CAL7	2000	158495	0.393	7.99
9J16053-CAL8	4000	312189	0.392	8.00
9J16053-CAL9	6000	375558	0.358	8.00
9J16053-CALA	8000	462446	0.338	8.00

AVE RF **0.318** RF RSD **24.53** AVE RT **7.99**

3-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

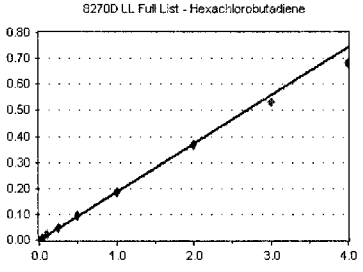


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~203~~	~~8.879~~	~~9.64~~
9J16053-CAL2	50	817	0.142	9.64
9J16053-CAL3	100	2092	0.180	9.64
9J16053-CAL4	200	5115	0.223	9.64
9J16053-CAL5	500	16475	0.294	9.64
9J16053-CAL6	1000	28849	0.274	9.64
9J16053-CAL7	2000	47185	0.231	0.00
~~9J16053-CAL8~~	~~4000~~	~~72076~~	~~0.172~~	~~0.00~~
~~9J16053-CAL9~~	~~6000~~	~~78267~~	~~0.140~~	~~0.00~~
~~9J16053-CALA~~	~~8000~~	~~117221~~	~~0.160~~	~~0.00~~

AVE RF **0.224** RF RSD **25.34** AVE RT **8.03**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	770	0.173	8.08
9J16053-CAL2	50	2120	0.190	8.07
9J16053-CAL3	100	4343	0.194	8.07
9J16053-CAL4	200	9011	0.201	8.07
9J16053-CAL5	500	21118	0.193	8.07
9J16053-CAL6	1000	38923	0.187	8.07
9J16053-CAL7	2000	75680	0.188	8.07
9J16053-CAL8	4000	146937	0.185	8.08
9J16053-CAL9	6000	186782	0.178	8.08
9J16053-CALA	8000	234083	0.171	8.08

AVE RF **0.186** RF RSD **5.07** AVE RT **8.07**

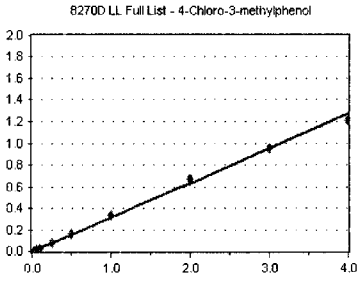
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Chloro-3-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

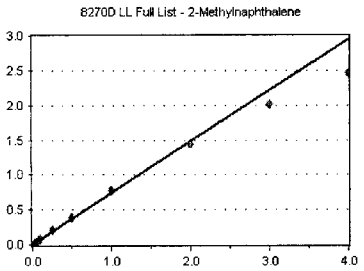


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~522~~	~~0.117~~	~~8.47~~
9J16053-CAL2	50	1947	0.175	8.47
9J16053-CAL3	100	4647	0.207	8.47
9J16053-CAL4	200	10782	0.241	8.47
9J16053-CAL5	500	33546	0.306	8.47
9J16053-CAL6	1000	66824	0.321	8.47
9J16053-CAL7	2000	134732	0.334	8.47
9J16053-CAL8	4000	266335	0.335	8.47
9J16053-CAL9	6000	333390	0.318	8.48
9J16053-CALA	8000	413423	0.302	8.48

AVE RF **0.282** RF RSD **21.03** AVE RT **8.47**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

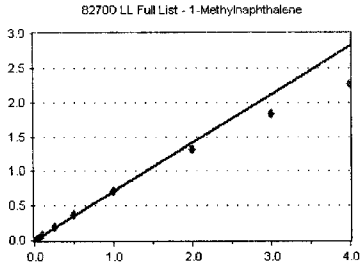


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3026	0.681	8.64
9J16053-CAL2	50	8077	0.724	8.64
9J16053-CAL3	100	17540	0.782	8.64
9J16053-CAL4	200	36226	0.809	8.64
9J16053-CAL5	500	90190	0.822	8.64
9J16053-CAL6	1000	164653	0.792	8.64
9J16053-CAL7	2000	312402	0.775	8.64
9J16053-CAL8	4000	571940	0.719	8.64
9J16053-CAL9	6000	700865	0.668	8.64
9J16053-CALA	8000	843623	0.617	8.64

AVE RF **0.739** RF RSD **9.21** AVE RT **8.64**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**

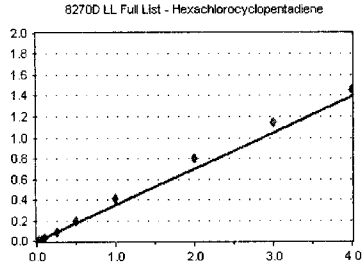


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3010	0.678	8.74
9J16053-CAL2	50	8217	0.737	8.74
9J16053-CAL3	100	17357	0.773	8.74
9J16053-CAL4	200	34216	0.764	8.74
9J16053-CAL5	500	85675	0.781	8.74
9J16053-CAL6	1000	154845	0.745	8.74
9J16053-CAL7	2000	289054	0.717	8.74
9J16053-CAL8	4000	525478	0.660	8.75
9J16053-CAL9	6000	643393	0.613	8.74
9J16053-CALA	8000	774012	0.566	8.75

AVE RF **0.703** RF RSD **10.30** AVE RT **8.74**

Hexachlorocyclopentadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	631	0.276	8.80
9J16053-CAL2	50	1631	0.283	8.80
9J16053-CAL3	100	3517	0.303	8.80
9J16053-CAL4	200	7790	0.340	8.80
9J16053-CAL5	500	19912	0.356	8.81
9J16053-CAL6	1000	40001	0.379	8.81
9J16053-CAL7	2000	83207	0.407	8.81
9J16053-CAL8	4000	167259	0.399	8.81
9J16053-CAL9	6000	214657	0.383	8.81
9J16053-CALA	8000	265581	0.364	8.81

AVE RF **0.349** RF RSD **13.53** AVE RT **8.81**

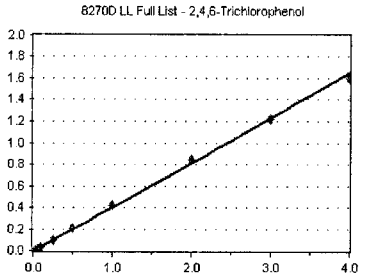
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2,4,6-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

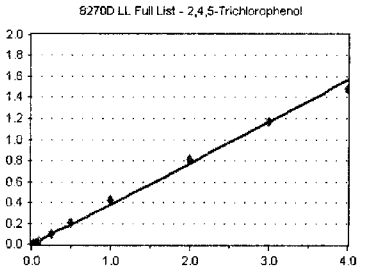


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~357~~	~~0.156~~	~~8.92~~
9J16053-CAL2	50	1180	0.205	8.92
9J16053-CAL3	100	3024	0.260	8.92
9J16053-CAL4	200	7170	0.313	8.92
9J16053-CAL5	500	21567	0.385	8.92
9J16053-CAL6	1000	42283	0.401	8.92
9J16053-CAL7	2000	86005	0.421	8.92
9J16053-CAL8	4000	176954	0.422	8.93
9J16053-CAL9	6000	227216	0.406	8.93
9J16053-CALA	8000	292625	0.401	8.93

AVE RF **0.357** RF RSD **22.07** AVE RT **8.92**

2,4,5-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

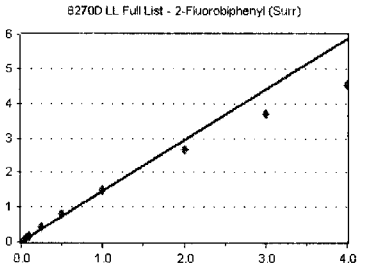


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~333~~	~~0.146~~	~~8.96~~
9J16053-CAL2	50	1507	0.262	8.95
9J16053-CAL3	100	2923	0.252	8.95
9J16053-CAL4	200	6873	0.300	8.95
9J16053-CAL5	500	21096	0.377	8.95
9J16053-CAL6	1000	42231	0.401	8.95
9J16053-CAL7	2000	85045	0.416	8.95
9J16053-CAL8	4000	169331	0.404	8.96
9J16053-CAL9	6000	218856	0.391	8.96
9J16053-CALA	8000	271144	0.371	8.96

AVE RF **0.353** RF RSD **18.09** AVE RT **8.96**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

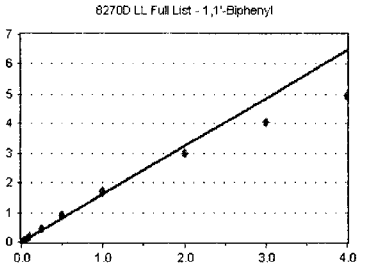


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3186	1.394	9.01
9J16053-CAL2	50	8607	1.494	9.01
9J16053-CAL3	100	19336	1.665	9.00
9J16053-CAL4	200	37977	1.659	9.00
9J16053-CAL5	500	94649	1.690	9.01
9J16053-CAL6	1000	167583	1.590	9.01
9J16053-CAL7	2000	307320	1.504	9.01
9J16053-CAL8	4000	561154	1.337	9.01
9J16053-CAL9	6000	687674	1.228	9.01
9J16053-CALA	8000	827961	1.133	9.02

AVE RF **1.470** RF RSD **13.11** AVE RT **9.01**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3294	1.441	9.11
9J16053-CAL2	50	9466	1.643	9.11
9J16053-CAL3	100	21153	1.822	9.11
9J16053-CAL4	200	42580	1.860	9.11
9J16053-CAL5	500	104830	1.872	9.11
9J16053-CAL6	1000	187524	1.779	9.11
9J16053-CAL7	2000	345569	1.691	9.11
9J16053-CAL8	4000	623340	1.486	9.11
9J16053-CAL9	6000	756255	1.350	9.12
9J16053-CALA	8000	905572	1.240	9.12

AVE RF **1.618** RF RSD **13.98** AVE RT **9.11**

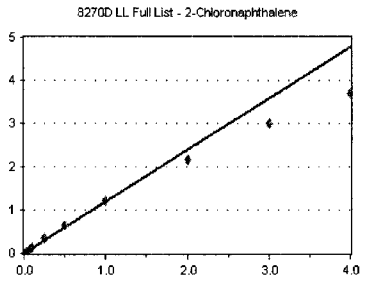
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**

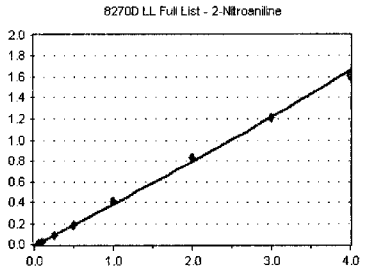


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2408	1.053	9.13
9J16053-CAL2	50	7301	1.267	9.13
9J16053-CAL3	100	15573	1.341	9.13
9J16053-CAL4	200	31240	1.365	9.13
9J16053-CAL5	500	77553	1.385	9.13
9J16053-CAL6	1000	138289	1.312	9.13
9J16053-CAL7	2000	250807	1.227	9.14
9J16053-CAL8	4000	453639	1.081	9.14
9J16053-CAL9	6000	562503	1.004	9.14
9J16053-CALA	8000	674470	0.923	9.15

AVE RF **1.196** RF RSD **13.92** AVE RT **9.13**

2-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

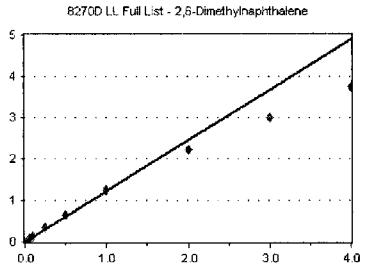


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~265~~	~~0.116~~	~~9.23~~
~~9J16053-CAL2~~	~~50~~	~~803~~	~~0.139~~	~~9.23~~
9J16053-CAL3	100	2029	0.175	9.23
9J16053-CAL4	200	5088	0.222	9.23
9J16053-CAL5	500	18180	0.325	9.23
9J16053-CAL6	1000	39518	0.375	9.23
9J16053-CAL7	2000	82868	0.406	9.23
9J16053-CAL8	4000	173545	0.414	9.24
9J16053-CAL9	6000	226292	0.404	9.24
9J16053-CALA	8000	293332	0.402	9.25

AVE RF **0.340** RF RSD **27.27** AVE RT **9.23**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**

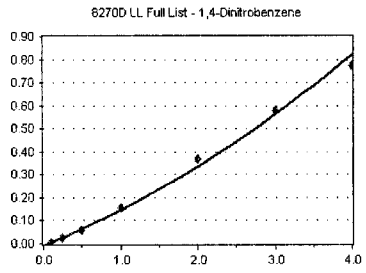


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2691	1.177	9.27
9J16053-CAL2	50	7521	1.306	9.27
9J16053-CAL3	100	15902	1.370	9.27
9J16053-CAL4	200	31242	1.365	9.27
9J16053-CAL5	500	77752	1.389	9.27
9J16053-CAL6	1000	139567	1.324	9.27
9J16053-CAL7	2000	255391	1.250	9.27
9J16053-CAL8	4000	464700	1.107	9.27
9J16053-CAL9	6000	562178	1.004	9.28
9J16053-CALA	8000	686967	0.940	9.28

AVE RF **1.223** RF RSD **13.07** AVE RT **9.27**

1,4-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~260~~	~~4.514~~	~~9.35~~
~~9J16053-CAL3~~	~~100~~	~~548~~	~~4.720~~	~~9.35~~
9J16053-CAL4	200	1277	5.580	9.35
9J16053-CAL5	500	5080	9.072	9.35
9J16053-CAL6	1000	12494	0.119	9.35
9J16053-CAL7	2000	31930	0.156	9.36
9J16053-CAL8	4000	77125	0.184	9.37
9J16053-CAL9	6000	107910	0.193	9.37
9J16053-CALA	8000	141310	0.193	9.38

AVE RF **0.142** RF RSD **38.44** AVE RT **9.36**

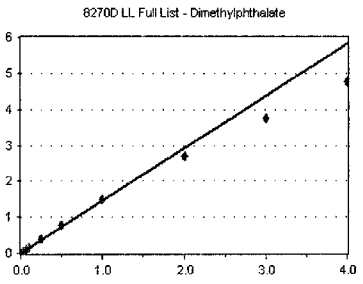
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Dimethylphthalate

Curve Fit: **AVERAGE RF**

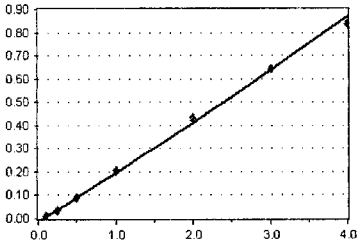


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3253	1.423	9.40
9J16053-CAL2	50	8884	1.542	9.41
9J16053-CAL3	100	18685	1.609	9.41
9J16053-CAL4	200	36622	1.600	9.41
9J16053-CAL5	500	89795	1.604	9.41
9J16053-CAL6	1000	161978	1.536	9.41
9J16053-CAL7	2000	303831	1.487	9.41
9J16053-CAL8	4000	566035	1.349	9.42
9J16053-CAL9	6000	703220	1.256	9.43
9J16053-CALA	8000	867794	1.188	9.44

AVE RF **1.459** RF RSD **10.35** AVE RT **9.42**

1,3-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

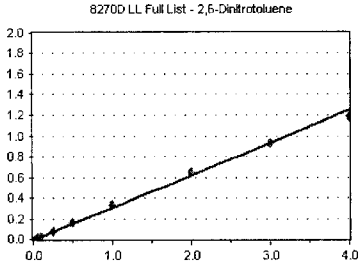


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~52~~	~~2.274~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~351~~	~~6.093~~	~~9.43~~
~~9J16053-CAL3~~	~~100~~	~~771~~	~~6.641~~	~~9.43~~
9J16053-CAL4	200	1889	8.254	9.44
9J16053-CAL5	500	7846	0.140	9.43
9J16053-CAL6	1000	18022	0.171	9.43
9J16053-CAL7	2000	41890	0.205	9.44
9J16053-CAL8	4000	91162	0.217	9.45
9J16053-CAL9	6000	120068	0.214	9.46
9J16053-CALA	8000	152836	0.209	9.47

AVE RF **0.177** RF RSD **28.39** AVE RT **9.45**

2,6-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

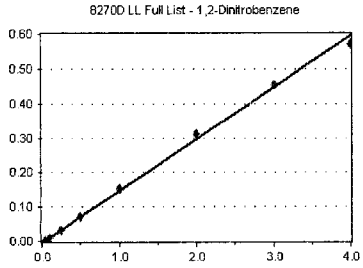


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~213~~	~~9.316~~	~~9.47~~
9J16053-CAL2	50	792	0.137	9.47
9J16053-CAL3	100	1977	0.170	9.47
9J16053-CAL4	200	5062	0.221	9.47
9J16053-CAL5	500	16561	0.296	9.47
9J16053-CAL6	1000	33104	0.314	9.47
9J16053-CAL7	2000	67679	0.331	9.47
9J16053-CAL8	4000	135556	0.323	9.48
9J16053-CAL9	6000	174146	0.311	9.49
9J16053-CALA	8000	216715	0.297	9.49

AVE RF **0.267** RF RSD **26.95** AVE RT **9.47**

1,2-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~309~~	~~5.364~~	~~9.52~~
9J16053-CAL3	100	825	7.106	9.52
9J16053-CAL4	200	2119	9.259	9.52
9J16053-CAL5	500	7179	0.128	9.53
9J16053-CAL6	1000	15130	0.144	9.53
9J16053-CAL7	2000	31248	0.153	9.53
9J16053-CAL8	4000	65220	0.155	9.54
9J16053-CAL9	6000	84556	0.151	9.55
9J16053-CALA	8000	103981	0.142	9.56

AVE RF **0.130** RF RSD **24.09** AVE RT **9.53**

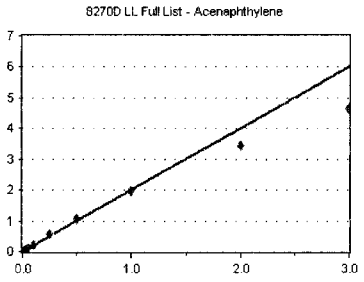
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Acenaphthylene

Curve Fit: **AVERAGE RF**

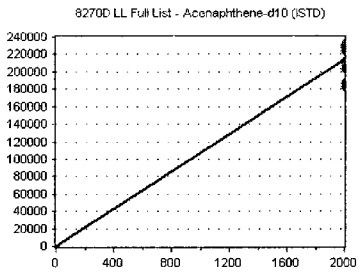


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4331	1.894	9.55
9J16053-CAL2	50	12047	2.091	9.55
9J16053-CAL3	100	25781	2.220	9.55
9J16053-CAL4	200	50685	2.215	9.55
9J16053-CAL5	500	125650	2.244	9.55
9J16053-CAL6	1000	223232	2.117	9.55
9J16053-CAL7	2000	401818	1.967	9.56
9J16053-CAL8	4000	722393	1.722	9.56
9J16053-CAL9	6000	869974	1.554	9.56
~~9J16053-CALA~~	~~8000~~	~~1014724~~	~~1.389~~	~~9.57~~

AVE RF **2.003** RF RSD **12.04** AVE RT **9.56**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

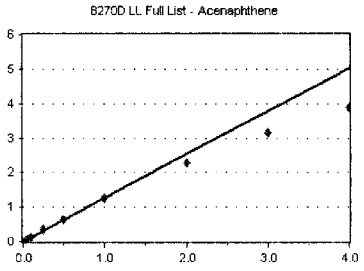


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	228631	114.315	9.70
9J16053-CAL2	2000	230418	115.209	9.70
9J16053-CAL3	2000	232211	116.105	9.70
9J16053-CAL4	2000	228870	114.435	9.70
9J16053-CAL5	2000	223981	111.990	9.70
9J16053-CAL6	2000	210848	105.424	9.70
9J16053-CAL7	2000	204324	102.162	9.70
9J16053-CAL8	2000	209804	104.902	9.70
9J16053-CAL9	2000	186669	93.335	9.71
9J16053-CALA	2000	182625	91.313	9.71

AVE RF **106.919** RF RSD **8.52** AVE RT **9.70**

Acenaphthene

Curve Fit: **AVERAGE RF**

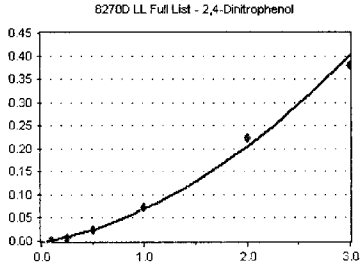


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3082	1.348	9.73
9J16053-CAL2	50	7881	1.368	9.73
9J16053-CAL3	100	16496	1.421	9.73
9J16053-CAL4	200	31461	1.375	9.73
9J16053-CAL5	500	76410	1.365	9.73
9J16053-CAL6	1000	137686	1.306	9.73
9J16053-CAL7	2000	257901	1.262	9.73
9J16053-CAL8	4000	473473	1.128	9.74
9J16053-CAL9	6000	584734	1.044	9.75
9J16053-CALA	8000	712568	0.975	9.75

AVE RF **1.259** RF RSD **12.31** AVE RT **9.73**

2,4-Dinitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL3~~	~~100~~	~~103~~	~~8.871~~	~~9.74~~
9J16053-CAL4	200	310	1.354	9.74
9J16053-CAL5	500	1553	0.028	9.75
9J16053-CAL6	1000	5088	4.826	9.75
9J16053-CAL7	2000	15123	0.074	9.75
9J16053-CAL8	4000	47179	0.112	9.76
9J16053-CAL9	6000	71059	0.127	9.76
~~9J16053-CALA~~	~~8000~~	~~97114~~	~~0.133~~	~~9.77~~

AVE RF **6.715** RF RSD **68.09** AVE RT **9.75**

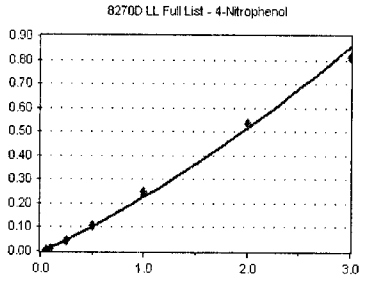
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

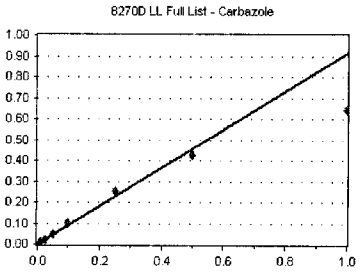


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~149~~	~~6.517~~	~~9.80~~
~~9J16053-CAL2~~	~~50~~	~~379~~	~~6.579~~	~~9.80~~
9J16053-CAL3	100	907	7.812	9.80
9J16053-CAL4	200	2397	0.105	9.80
9J16053-CAL5	500	9787	0.175	9.80
9J16053-CAL6	1000	22603	0.214	9.80
9J16053-CAL7	2000	50566	0.247	9.80
9J16053-CAL8	4000	112553	0.268	9.81
9J16053-CAL9	6000	152030	0.271	9.83
~~9J16053-CALA~~	~~8000~~	~~187194~~	~~0.256~~	~~9.83~~

AVE RF **0.194** RF RSD **40.20** AVE RT **9.80**

Carbazole

Curve Fit: **AVERAGE RF**

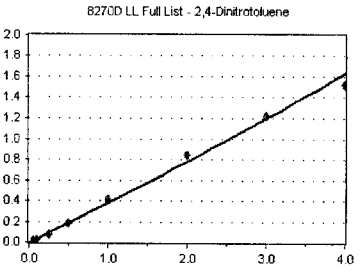


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3762	0.896	11.45
9J16053-CAL2	50	10074	0.970	11.45
9J16053-CAL3	100	21180	1.005	11.45
9J16053-CAL4	200	41597	1.024	11.45
9J16053-CAL5	500	104447	1.007	11.45
9J16053-CAL6	1000	168399	0.854	11.45
9J16053-CAL7	2000	254192	0.644	0.00
~~9J16053-CAL8~~	~~4000~~	~~377741~~	~~0.452~~	~~0.00~~
~~9J16053-CAL9~~	~~6000~~	~~424787~~	~~0.376~~	~~0.00~~
~~9J16053-CALA~~	~~8000~~	~~578961~~	~~0.385~~	~~0.00~~

AVE RF **0.915** RF RSD **14.72** AVE RT **9.81**

2,4-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

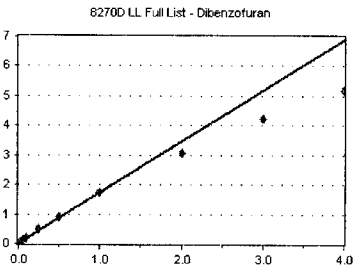


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~307~~	~~0.134~~	~~9.87~~
~~9J16053-CAL2~~	~~50~~	~~711~~	~~0.123~~	~~9.88~~
9J16053-CAL3	100	1827	0.157	9.88
9J16053-CAL4	200	4451	0.194	9.88
9J16053-CAL5	500	17286	0.309	9.88
9J16053-CAL6	1000	38193	0.362	9.88
9J16053-CAL7	2000	83801	0.410	9.88
9J16053-CAL8	4000	177218	0.422	9.90
9J16053-CAL9	6000	227357	0.406	9.90
9J16053-CALA	8000	277426	0.380	9.91

AVE RF **0.330** RF RSD **30.91** AVE RT **9.89**

Dibenzofuran

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3969	1.736	9.91
9J16053-CAL2	50	10908	1.894	9.91
9J16053-CAL3	100	22990	1.980	9.91
9J16053-CAL4	200	43819	1.915	9.91
9J16053-CAL5	500	107652	1.923	9.91
9J16053-CAL6	1000	190719	1.809	9.91
9J16053-CAL7	2000	356546	1.745	9.91
9J16053-CAL8	4000	645432	1.538	9.91
9J16053-CAL9	6000	787795	1.407	9.92
9J16053-CALA	8000	946729	1.296	9.92

AVE RF **1.724** RF RSD **13.62** AVE RT **9.91**

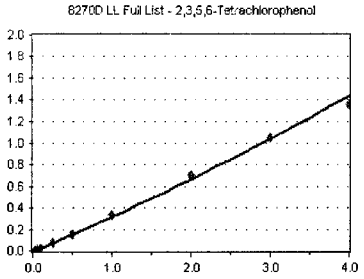
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2,3,5,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

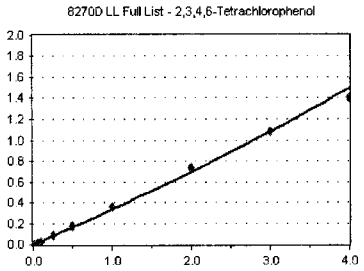


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~254~~	~~0.111~~	~~9.99~~
9J16053-CAL2	50	786	0.136	9.99
9J16053-CAL3	100	2308	0.199	9.99
9J16053-CAL4	200	5028	0.220	9.99
9J16053-CAL5	500	16246	0.290	9.99
9J16053-CAL6	1000	32998	0.313	9.99
9J16053-CAL7	2000	69287	0.339	9.99
9J16053-CAL8	4000	147371	0.351	9.99
9J16053-CAL9	6000	195876	0.350	10.00
9J16053-CALA	8000	249690	0.342	10.00

AVE RF **0.282** RF RSD **27.80** AVE RT **9.99**

2,3,4,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

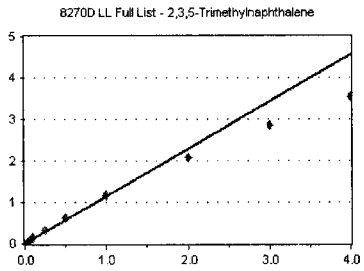


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	405	0.177	10.03
9J16053-CAL2	50	1166	0.202	10.03
9J16053-CAL3	100	3124	0.269	10.03
9J16053-CAL4	200	6167	0.269	10.03
9J16053-CAL5	500	19007	0.339	10.03
9J16053-CAL6	1000	37050	0.351	10.03
9J16053-CAL7	2000	73600	0.360	10.03
9J16053-CAL8	4000	154291	0.368	10.04
9J16053-CAL9	6000	201184	0.359	10.04
9J16053-CALA	8000	257264	0.352	10.04

AVE RF **0.305** RF RSD **23.18** AVE RT **10.03**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

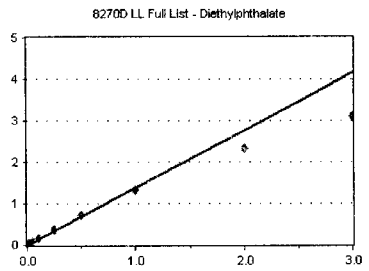


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2603	1.139	10.11
9J16053-CAL2	50	6964	1.209	10.11
9J16053-CAL3	100	14732	1.269	10.11
9J16053-CAL4	200	28442	1.243	10.11
9J16053-CAL5	500	72192	1.289	10.11
9J16053-CAL6	1000	129295	1.226	10.12
9J16053-CAL7	2000	238990	1.170	10.12
9J16053-CAL8	4000	434174	1.035	10.13
9J16053-CAL9	6000	535500	0.956	10.13
9J16053-CALA	8000	644885	0.883	10.13

AVE RF **1.142** RF RSD **12.16** AVE RT **10.12**

Diethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3227	1.411	10.12
9J16053-CAL2	50	8435	1.464	10.12
9J16053-CAL3	100	17844	1.537	10.12
9J16053-CAL4	200	35198	1.538	10.12
9J16053-CAL5	500	85721	1.531	10.12
9J16053-CAL6	1000	152181	1.444	10.12
9J16053-CAL7	2000	272344	1.333	10.13
9J16053-CAL8	4000	484945	1.156	10.14
9J16053-CAL9	6000	579238	1.034	10.14
~~9J16053-CALA~~	~~8000~~	~~698054~~	~~0.956~~	~~10.15~~

AVE RF **1.383** RF RSD **12.94** AVE RT **10.13**

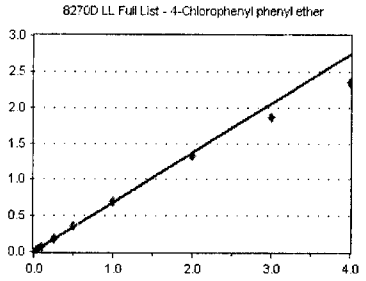
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**

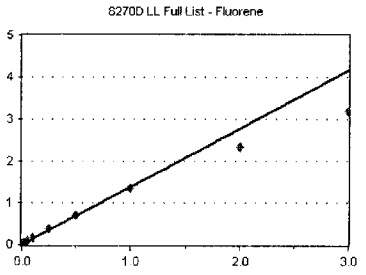


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.664	10.25
9J16053-CAL2	50	4054	0.704	10.25
9J16053-CAL3	100	8661	0.746	10.25
9J16053-CAL4	200	16535	0.722	10.25
9J16053-CAL5	500	41485	0.741	10.25
9J16053-CAL6	1000	75441	0.716	10.25
9J16053-CAL7	2000	144104	0.705	10.25
9J16053-CAL8	4000	278225	0.663	10.25
9J16053-CAL9	6000	348928	0.623	10.26
9J16053-CALA	8000	428718	0.587	10.26

AVE RF **0.687** RF RSD **7.56** AVE RT **10.25**

Fluorene

Curve Fit: **AVERAGE RF**

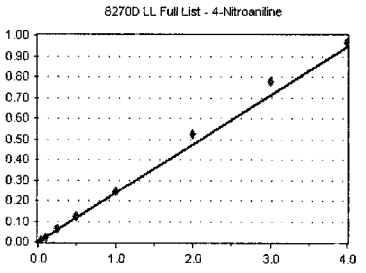


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3175	1.389	10.25
9J16053-CAL2	50	8492	1.474	10.25
9J16053-CAL3	100	18324	1.578	10.25
9J16053-CAL4	200	34530	1.509	10.25
9J16053-CAL5	500	85310	1.524	10.25
9J16053-CAL6	1000	150523	1.428	10.26
9J16053-CAL7	2000	274932	1.346	10.26
9J16053-CAL8	4000	491882	1.172	10.26
9J16053-CAL9	6000	595819	1.064	10.27
~~9J16053-CALA~~	~~8000~~	~~721314~~	~~0.987~~	~~10.27~~

AVE RF **1.387** RF RSD **12.26** AVE RT **10.26**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

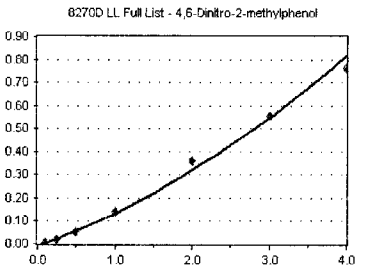


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~246~~	~~0.108~~	~~10.26~~
~~9J16053-CAL2~~	~~50~~	~~819~~	~~0.142~~	~~10.26~~
9J16053-CAL3	100	2067	0.178	10.26
9J16053-CAL4	200	4513	0.197	10.26
9J16053-CAL5	500	14782	0.264	10.26
9J16053-CAL6	1000	25826	0.245	10.26
9J16053-CAL7	2000	49921	0.244	10.27
9J16053-CAL8	4000	109557	0.261	10.28
9J16053-CAL9	6000	145167	0.259	10.29
9J16053-CALA	8000	176836	0.242	10.30

AVE RF **0.236** RF RSD **13.38** AVE RT **10.27**

4,6-Dinitro-2-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~104~~	~~1.805~~	~~10.30~~
~~9J16053-CAL3~~	~~100~~	~~341~~	~~2.937~~	~~10.29~~
9J16053-CAL4	200	920	4.020	10.29
9J16053-CAL5	500	3988	7.122	10.30
9J16053-CAL6	1000	11200	0.106	10.30
9J16053-CAL7	2000	29002	0.142	10.30
9J16053-CAL8	4000	75505	0.180	10.31
9J16053-CAL9	6000	103747	0.185	10.32
9J16053-CALA	8000	139599	0.191	10.33

AVE RF **0.131** RF RSD **45.75** AVE RT **10.31**

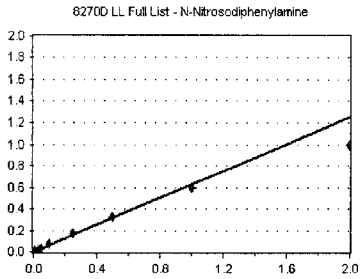
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**

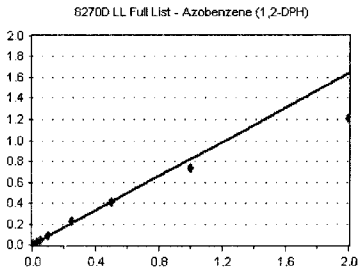


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2298	0.548	10.37
9J16053-CAL2	50	6622	0.638	10.37
9J16053-CAL3	100	14732	0.699	10.37
9J16053-CAL4	200	28901	0.711	10.37
9J16053-CAL5	500	72014	0.694	10.37
9J16053-CAL6	1000	126925	0.644	10.37
9J16053-CAL7	2000	232578	0.590	10.37
9J16053-CAL8	4000	416136	0.498	10.38
~~9J16053-CAL9~~	~~6000~~	~~498648~~	~~0.442~~	~~10.38~~
~~9J16053-CALA~~	~~8000~~	~~622397~~	~~0.414~~	~~10.39~~

AVE RF **0.628** RF RSD **12.27** AVE RT **10.37**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

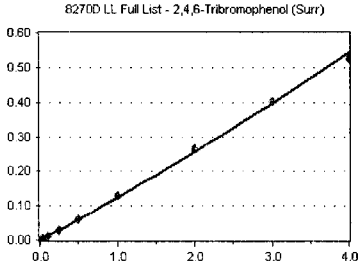


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3383	0.806	10.41
9J16053-CAL2	50	9368	0.902	10.41
9J16053-CAL3	100	18843	0.894	10.41
9J16053-CAL4	200	37095	0.913	10.41
9J16053-CAL5	500	92532	0.892	10.41
9J16053-CAL6	1000	160071	0.812	10.41
9J16053-CAL7	2000	291944	0.740	10.41
9J16053-CAL8	4000	507476	0.608	10.42
~~9J16053-CAL9~~	~~6000~~	~~608650~~	~~0.539~~	~~10.42~~
~~9J16053-CALA~~	~~8000~~	~~730839~~	~~0.486~~	~~10.42~~

AVE RF **0.821** RF RSD **12.85** AVE RT **10.41**

2,4,6-Tribromophenol (Surr)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

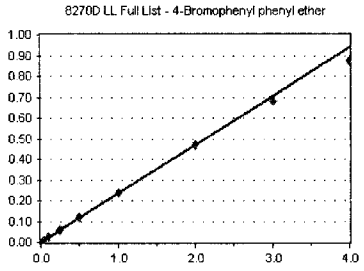


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~334~~	~~7.959~~	~~10.50~~
9J16053-CAL2	50	730	7.031	10.50
9J16053-CAL3	100	1877	8.906	10.50
9J16053-CAL4	200	4109	0.101	10.50
9J16053-CAL5	500	12089	0.117	10.50
9J16053-CAL6	1000	24117	0.122	10.50
9J16053-CAL7	2000	50890	0.129	10.50
9J16053-CAL8	4000	111317	0.133	10.51
9J16053-CAL9	6000	151399	0.134	10.51
9J16053-CALA	8000	197030	0.131	10.52

AVE RF **0.114** RF RSD **19.75** AVE RT **10.50**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	987	0.235	10.75
9J16053-CAL2	50	2354	0.227	10.75
9J16053-CAL3	100	4920	0.233	10.75
9J16053-CAL4	200	9944	0.245	10.75
9J16053-CAL5	500	25602	0.247	10.75
9J16053-CAL6	1000	46996	0.238	10.75
9J16053-CAL7	2000	94009	0.238	10.75
9J16053-CAL8	4000	197154	0.236	10.76
9J16053-CAL9	6000	256100	0.227	10.76
9J16053-CALA	8000	329177	0.219	10.76

AVE RF **0.235** RF RSD **3.64** AVE RT **10.75**

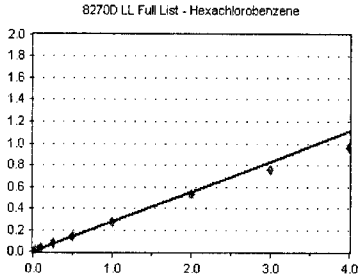
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

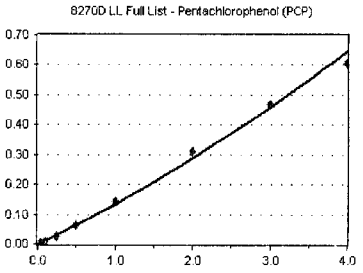


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1216	0.290	10.83
9J16053-CAL2	50	2891	0.278	10.83
9J16053-CAL3	100	6222	0.295	10.83
9J16053-CAL4	200	12268	0.302	10.83
9J16053-CAL5	500	30369	0.293	10.83
9J16053-CAL6	1000	55109	0.280	10.83
9J16053-CAL7	2000	108673	0.275	10.83
9J16053-CAL8	4000	222237	0.266	10.84
9J16053-CAL9	6000	285495	0.253	10.84
9J16053-CALA	8000	361957	0.241	10.84

AVE RF **0.277** RF RSD **7.02** AVE RT **10.83**

Pentachlorophenol (PCP)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

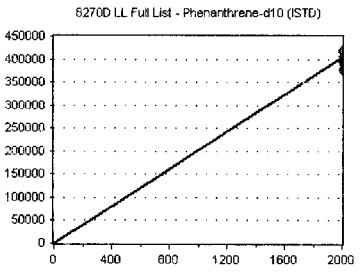


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~898~~	~~0.214~~	~~11.02~~
~~9J16053-CAL2~~	~~50~~	~~808~~	~~7.783~~	~~11.02~~
9J16053-CAL3	100	1663	7.891	11.02
9J16053-CAL4	200	3400	8.370	11.02
9J16053-CAL5	500	11494	0.111	11.02
9J16053-CAL6	1000	24901	0.126	11.02
9J16053-CAL7	2000	57124	0.145	11.02
9J16053-CAL8	4000	129749	0.155	11.02
9J16053-CAL9	6000	176453	0.156	11.03
9J16053-CALA	8000	227516	0.151	11.03

AVE RF **0.126** RF RSD **25.12** AVE RT **11.02**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

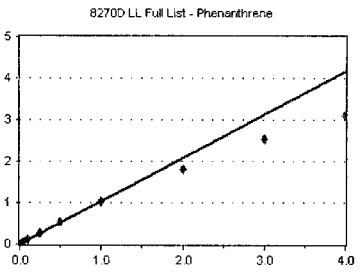


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	419652	209.826	11.22
9J16053-CAL2	2000	415279	207.640	11.21
9J16053-CAL3	2000	421494	210.747	11.21
9J16053-CAL4	2000	406200	203.100	11.21
9J16053-CAL5	2000	414839	207.420	11.22
9J16053-CAL6	2000	394261	197.130	11.22
9J16053-CAL7	2000	394462	197.231	11.22
9J16053-CAL8	2000	417540	208.770	11.22
9J16053-CAL9	2000	376380	188.190	11.22
9J16053-CALA	2000	376032	188.016	11.22

AVE RF **201.807** RF RSD **4.30** AVE RT **11.22**

Phenanthrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4821	1.149	11.24
9J16053-CAL2	50	12134	1.169	11.24
9J16053-CAL3	100	24650	1.170	11.24
9J16053-CAL4	200	47219	1.162	11.24
9J16053-CAL5	500	117198	1.130	11.24
9J16053-CAL6	1000	213306	1.082	11.24
9J16053-CAL7	2000	408903	1.037	11.24
9J16053-CAL8	4000	758865	0.909	11.24
9J16053-CAL9	6000	956105	0.847	11.25
9J16053-CALA	8000	1170165	0.778	11.25

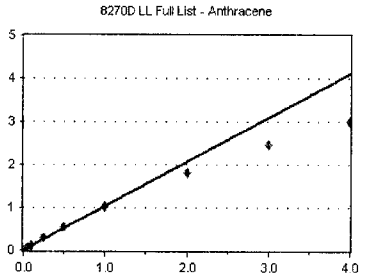
AVE RF **1.043** RF RSD **14.05** AVE RT **11.24**

Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Anthracene

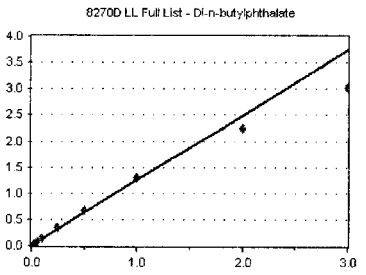


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4322	1.030	11.29
9J16053-CAL2	50	11800	1.137	11.29
9J16053-CAL3	100	24793	1.176	11.29
9J16053-CAL4	200	47420	1.167	11.29
9J16053-CAL5	500	120664	1.163	11.29
9J16053-CAL6	1000	215829	1.095	11.29
9J16053-CAL7	2000	409728	1.039	11.29
9J16053-CAL8	4000	757506	0.907	11.30
9J16053-CAL9	6000	928594	0.822	11.30
9J16053-CALA	8000	1130706	0.752	11.31

AVE RF **1.029** RF RSD **14.83** AVE RT **11.29**

Di-n-butylphthalate

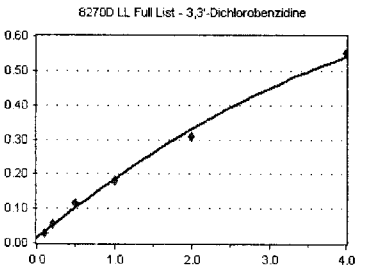


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~4261~~	~~1.015~~	~~11.79~~
9J16053-CAL2	50	12651	1.219	11.79
9J16053-CAL3	100	26455	1.255	11.79
9J16053-CAL4	200	54476	1.341	11.79
9J16053-CAL5	500	143903	1.388	11.79
9J16053-CAL6	1000	267688	1.358	11.79
9J16053-CAL7	2000	509487	1.292	11.79
9J16053-CAL8	4000	936406	1.121	11.79
9J16053-CAL9	6000	1140087	1.010	11.80
~~9J16053-CALA~~	~~8000~~	~~1371594~~	~~0.912~~	~~11.80~~

AVE RF **1.248** RF RSD **10.31** AVE RT **11.79**

3,3'-Dichlorobenzidine

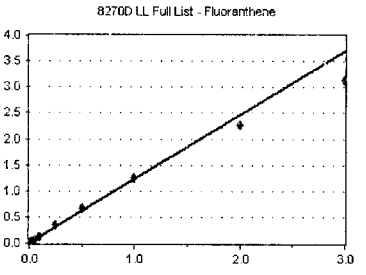


Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~1592~~	~~0.184~~	~~0.00~~
~~9J16053-CAL2~~	~~100~~	~~5122~~	~~0.244~~	~~0.00~~
9J16053-CAL3	200	12358	0.284	0.00
9J16053-CAL4	400	23382	0.281	14.99
9J16053-CAL5	1000	50303	0.237	14.99
9J16053-CAL6	2000	72934	0.180	14.99
9J16053-CAL7	4000	117183	0.154	15.00
9J16053-CAL8	8000	209588	0.137	15.01
~~9J16053-CAL9~~	~~12000~~	~~276349~~	~~0.138~~	~~15.02~~
~~9J16053-CALA~~	~~16000~~	~~336424~~	~~0.132~~	~~15.02~~

AVE RF **0.212** RF RSD **30.11** AVE RT **12.50**

Fluoranthene



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4669	1.113	12.52
9J16053-CAL2	50	12524	1.206	12.52
9J16053-CAL3	100	27171	1.289	12.52
9J16053-CAL4	200	53527	1.318	12.52
9J16053-CAL5	500	141254	1.362	12.52
9J16053-CAL6	1000	263203	1.335	12.52
9J16053-CAL7	2000	497259	1.261	12.52
9J16053-CAL8	4000	949333	1.137	12.53
9J16053-CAL9	6000	1181210	1.046	12.53
~~9J16053-CALA~~	~~8000~~	~~1449379~~	~~0.964~~	~~12.54~~

AVE RF **1.230** RF RSD **8.98** AVE RT **12.52**

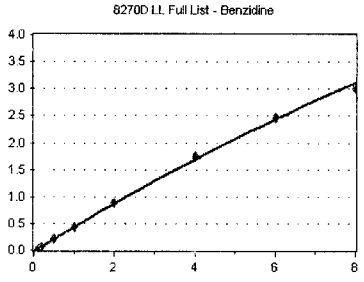
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

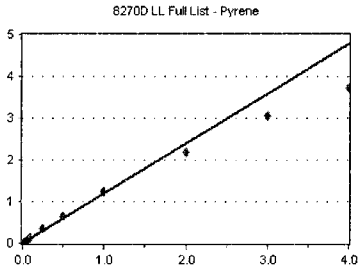


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~3612~~	~~0.430~~	~~12.67~~
~~9J16053-CAL2~~	~~100~~	~~3389~~	~~0.163~~	~~12.67~~
9J16053-CAL3	200	10054	0.239	12.67
9J16053-CAL4	400	22390	0.276	12.67
9J16053-CAL5	1000	90422	0.436	12.67
9J16053-CAL6	2000	169900	0.431	12.68
9J16053-CAL7	4000	351632	0.446	12.68
9J16053-CAL8	8000	735075	0.440	12.69
9J16053-CAL9	12000	924428	0.409	12.69
9J16053-CALA	16000	1130941	0.376	12.70

AVE RF **0.382** RF RSD **21.12** AVE RT **12.68**

Pyrene

Curve Fit: **AVERAGE RF**

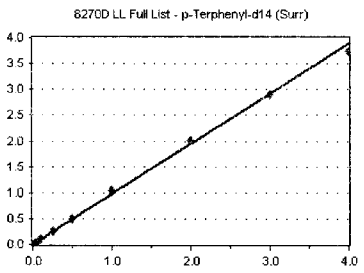


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4626	1.102	12.81
9J16053-CAL2	50	12834	1.236	12.81
9J16053-CAL3	100	27657	1.312	12.81
9J16053-CAL4	200	55550	1.368	12.81
9J16053-CAL5	500	142947	1.378	12.82
9J16053-CAL6	1000	259464	1.316	12.82
9J16053-CAL7	2000	487359	1.236	12.82
9J16053-CAL8	4000	913548	1.094	12.83
9J16053-CAL9	6000	1149431	1.018	12.83
9J16053-CALA	8000	1400570	0.931	12.84

AVE RF **1.199** RF RSD **12.88** AVE RT **12.82**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

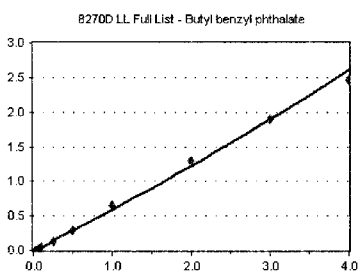


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3719	0.862	13.02
9J16053-CAL2	50	9501	0.904	13.02
9J16053-CAL3	100	20875	0.960	13.02
9J16053-CAL4	200	41737	1.002	13.02
9J16053-CAL5	500	110622	1.041	13.02
9J16053-CAL6	1000	202564	1.001	13.02
9J16053-CAL7	2000	390228	1.029	13.02
9J16053-CAL8	4000	763944	1.002	13.03
9J16053-CAL9	6000	969928	0.968	13.03
9J16053-CALA	8000	1194810	0.936	13.04

AVE RF **0.970** RF RSD **5.84** AVE RT **13.02**

Butyl benzyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1220~~	~~0.283~~	~~13.84~~
9J16053-CAL2	50	3359	0.320	13.85
9J16053-CAL3	100	8298	0.382	13.85
9J16053-CAL4	200	18256	0.438	13.85
9J16053-CAL5	500	58303	0.549	13.85
9J16053-CAL6	1000	118464	0.585	13.85
9J16053-CAL7	2000	243686	0.642	13.85
9J16053-CAL8	4000	495582	0.650	13.86
9J16053-CAL9	6000	631913	0.631	13.87
9J16053-CALA	8000	788952	0.618	13.87

AVE RF **0.535** RF RSD **23.15** AVE RT **13.85**

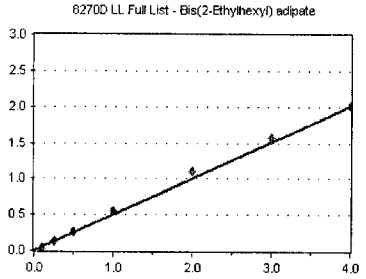
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Bis(2-Ethylhexyl) adipate

Curve Fit: **AVERAGE RF**

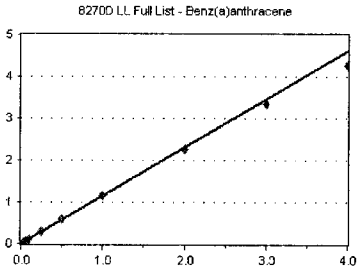


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1272~~	~~0.295~~	~~14.03~~
~~9J16053-CAL2~~	~~50~~	~~3024~~	~~0.288~~	~~14.02~~
~~9J16053-CAL3~~	~~100~~	~~7171~~	~~0.330~~	~~14.02~~
9J16053-CAL4	200	16213	0.389	14.02
9J16053-CAL5	500	52124	0.491	14.02
9J16053-CAL6	1000	104759	0.517	14.02
9J16053-CAL7	2000	211290	0.557	14.03
9J16053-CAL8	4000	417409	0.547	14.03
9J16053-CAL9	6000	525912	0.525	14.05
9J16053-CALA	8000	642531	0.503	14.05

AVE RF **0.504** RF RSD **11.05** AVE RT **14.03**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

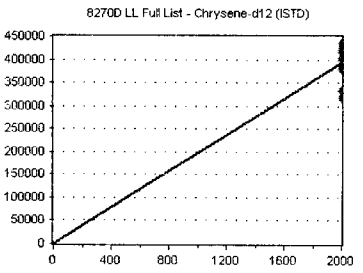


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5352	1.240	15.02
9J16053-CAL2	50	11999	1.142	15.02
9J16053-CAL3	100	25078	1.153	15.02
9J16053-CAL4	200	48775	1.171	15.02
9J16053-CAL5	500	128384	1.208	15.02
9J16053-CAL6	1000	235737	1.164	15.03
9J16053-CAL7	2000	445654	1.175	15.03
9J16053-CAL8	4000	866011	1.136	15.05
9J16053-CAL9	6000	1123403	1.121	15.06
9J16053-CALA	8000	1366845	1.070	15.06

AVE RF **1.158** RF RSD **4.04** AVE RT **15.03**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

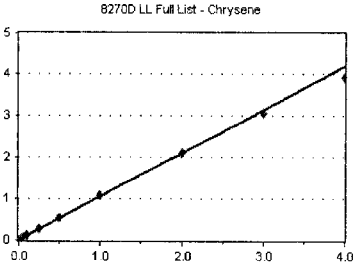


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	431513	215.757	15.05
9J16053-CAL2	2000	420433	210.217	15.05
9J16053-CAL3	2000	434926	217.463	15.05
9J16053-CAL4	2000	416387	208.193	15.05
9J16053-CAL5	2000	424974	212.487	15.05
9J16053-CAL6	2000	404897	202.448	15.05
9J16053-CAL7	2000	379303	189.652	15.06
9J16053-CAL8	2000	381197	190.598	15.07
9J16053-CAL9	2000	334077	167.038	15.08
9J16053-CALA	2000	319256	159.628	15.09

AVE RF **197.348** RF RSD **10.31** AVE RT **15.06**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4336	1.005	15.10
9J16053-CAL2	50	11098	1.056	15.10
9J16053-CAL3	100	23115	1.063	15.10
9J16053-CAL4	200	44508	1.069	15.10
9J16053-CAL5	500	116526	1.097	15.10
9J16053-CAL6	1000	213742	1.056	15.11
9J16053-CAL7	2000	410860	1.083	15.12
9J16053-CAL8	4000	798796	1.048	15.14
9J16053-CAL9	6000	1022308	1.020	15.15
9J16053-CALA	8000	1249315	0.978	15.16

AVE RF **1.047** RF RSD **3.47** AVE RT **15.12**

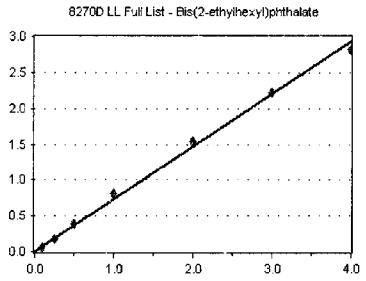
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

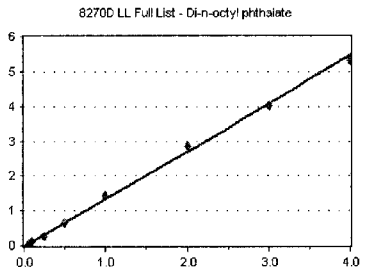


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1364~~	~~0.316~~	~~15.19~~
~~9J16053-CAL2~~	~~50~~	~~3999~~	~~0.380~~	~~15.20~~
~~9J16053-CAL3~~	~~100~~	~~10525~~	~~0.484~~	~~15.20~~
9J16053-CAL4	200	25222	0.606	15.20
9J16053-CAL5	500	78522	0.739	15.20
9J16053-CAL6	1000	155751	0.769	15.20
9J16053-CAL7	2000	308465	0.813	15.20
9J16053-CAL8	4000	590135	0.774	15.21
9J16053-CAL9	6000	739674	0.738	15.22
9J16053-CALA	8000	901223	0.706	15.22

AVE RF **0.735** RF RSD **9.03** AVE RT **15.21**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

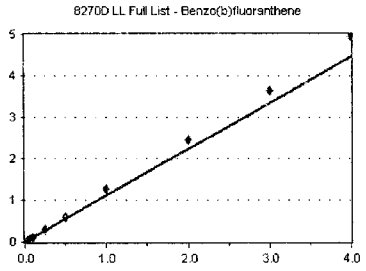


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1789~~	~~0.415~~	~~16.87~~
~~9J16053-CAL2~~	~~50~~	~~4878~~	~~0.461~~	~~16.87~~
9J16053-CAL3	100	13641	0.631	16.87
9J16053-CAL4	200	35211	0.851	16.87
9J16053-CAL5	500	120881	1.102	16.87
9J16053-CAL6	1000	261927	1.278	16.87
9J16053-CAL7	2000	571058	1.433	16.88
9J16053-CAL8	4000	1176050	1.434	16.89
9J16053-CAL9	6000	1499067	1.335	16.90
9J16053-CALA	8000	1811511	1.328	16.91

AVE RF **1.174** RF RSD **24.91** AVE RT **16.88**

Benzo(b)fluoranthene

Curve Fit: **AVERAGE RF**

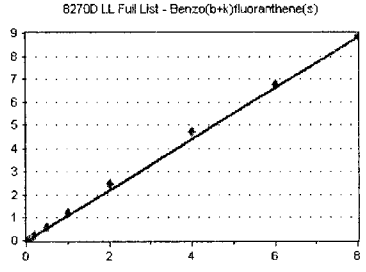


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3489	0.809	17.62
9J16053-CAL2	50	9380	0.887	17.62
9J16053-CAL3	100	21892	1.013	17.62
9J16053-CAL4	200	47123	1.139	17.62
9J16053-CAL5	500	128872	1.175	17.62
9J16053-CAL6	1000	246144	1.201	17.63
9J16053-CAL7	2000	501132	1.258	17.63
9J16053-CAL8	4000	1011072	1.233	17.66
9J16053-CAL9	6000	1366285	1.217	17.68
9J16053-CALA	8000	1686661	1.236	17.69

AVE RF **1.117** RF RSD **14.22** AVE RT **17.64**

Benzo(b+k)fluoranthene(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	40	6917	0.802	17.62
9J16053-CAL2	100	19673	0.930	17.68
9J16053-CAL3	200	45830	1.061	17.62
9J16053-CAL4	400	96090	1.161	17.69
9J16053-CAL5	1000	264478	1.206	17.69
9J16053-CAL6	2000	498931	1.217	17.70
9J16053-CAL7	4000	980351	1.230	17.71
9J16053-CAL8	8000	1939096	1.182	17.74
9J16053-CAL9	12000	2538483	1.130	17.75
9J16053-CALA	16000	3039542	1.114	17.76

AVE RF **1.103** RF RSD **12.56** AVE RT **17.70**

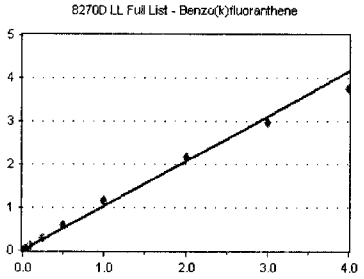
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzo(k)fluoranthene

Curve Fit: **AVERAGE RF**

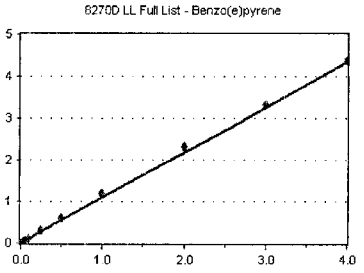


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3429	0.795	17.69
9J16053-CAL2	50	9507	0.899	17.68
9J16053-CAL3	100	22282	1.031	17.69
9J16053-CAL4	200	46458	1.123	17.69
9J16053-CAL5	500	130011	1.186	17.69
9J16053-CAL6	1000	241628	1.179	17.70
9J16053-CAL7	2000	460821	1.157	17.71
9J16053-CAL8	4000	889038	1.084	17.74
9J16053-CAL9	6000	1115022	0.993	17.75
9J16053-CALA	8000	1278627	0.937	17.76

AVE RF **1.038** RF RSD **12.67** AVE RT **17.71**

Benzo(e)pyrene

Curve Fit: **AVERAGE RF**

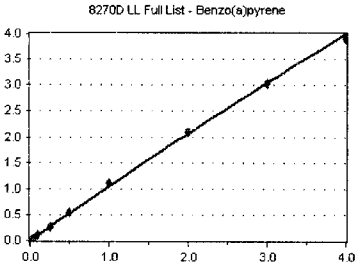


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3566	0.826	18.27
9J16053-CAL2	50	10258	0.970	18.27
9J16053-CAL3	100	22306	1.032	18.27
9J16053-CAL4	200	46317	1.120	18.28
9J16053-CAL5	500	127706	1.165	18.28
9J16053-CAL6	1000	240269	1.172	18.29
9J16053-CAL7	2000	475633	1.194	18.30
9J16053-CAL8	4000	952442	1.161	18.32
9J16053-CAL9	6000	1247052	1.111	18.34
9J16053-CALA	8000	1492293	1.094	18.34

AVE RF **1.085** RF RSD **10.48** AVE RT **18.30**

Benzo(a)pyrene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

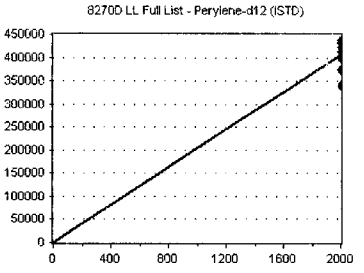


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2850	0.661	18.39
9J16053-CAL2	50	8352	0.790	18.39
9J16053-CAL3	100	19477	0.901	18.39
9J16053-CAL4	200	42344	1.024	18.39
9J16053-CAL5	500	117701	1.073	18.40
9J16053-CAL6	1000	223821	1.092	18.40
9J16053-CAL7	2000	440842	1.106	18.42
9J16053-CAL8	4000	863983	1.053	18.44
9J16053-CAL9	6000	1130687	1.007	18.47
9J16053-CALA	8000	1326605	0.972	18.47

AVE RF **0.968** RF RSD **14.94** AVE RT **18.42**

Perylene-d12 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	431467	215.733	18.55
9J16053-CAL2	2000	422859	211.430	18.55
9J16053-CAL3	2000	432129	216.065	18.54
9J16053-CAL4	2000	413647	206.823	18.55
9J16053-CAL5	2000	438576	219.288	18.55
9J16053-CAL6	2000	409934	204.967	18.55
9J16053-CAL7	2000	398414	199.207	18.56
9J16053-CAL8	2000	410166	205.083	18.57
9J16053-CAL9	2000	374258	187.129	18.59
9J16053-CALA	2000	341068	170.534	18.58

AVE RF **203.626** RF RSD **7.34** AVE RT **18.56**

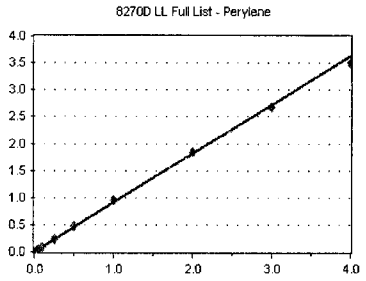
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Perylene

Curve Fit: **AVERAGE RF**

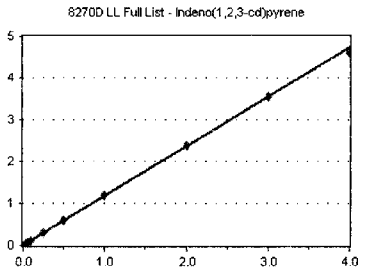


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3674	0.852	18.60
9J16053-CAL2	50	9122	0.863	18.60
9J16053-CAL3	100	19207	0.889	18.60
9J16053-CAL4	200	38182	0.923	18.60
9J16053-CAL5	500	104561	0.954	18.61
9J16053-CAL6	1000	194782	0.950	18.61
9J16053-CAL7	2000	380066	0.954	18.62
9J16053-CAL8	4000	755087	0.920	18.65
9J16053-CAL9	6000	1004144	0.894	18.67
9J16053-CALA	8000	1195430	0.876	18.67

AVE RF **0.908** RF RSD **4.21** AVE RT **18.62**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

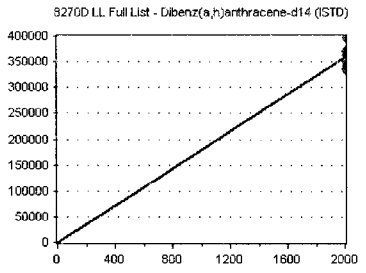


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4048	1.156	20.93
9J16053-CAL2	50	9841	1.176	20.93
9J16053-CAL3	100	20486	1.170	20.93
9J16053-CAL4	200	40566	1.201	20.94
9J16053-CAL5	500	114261	1.227	20.95
9J16053-CAL6	1000	213608	1.175	20.95
9J16053-CAL7	2000	439827	1.183	20.96
9J16053-CAL8	4000	948237	1.192	20.99
9J16053-CAL9	6000	1311636	1.183	21.02
9J16053-CALA	8000	1567885	1.150	21.02

AVE RF **1.181** RF RSD **1.88** AVE RT **20.96**

Dibenz(a,h)anthracene-d14 (ISTD

Curve Fit: **AVERAGE RF**

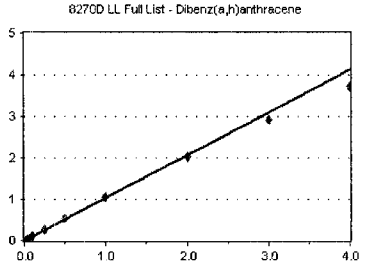


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	350266	175.133	20.95
9J16053-CAL2	2000	334828	167.414	20.95
9J16053-CAL3	2000	350177	175.088	20.95
9J16053-CAL4	2000	337729	168.865	20.95
9J16053-CAL5	2000	372459	186.230	20.95
9J16053-CAL6	2000	363670	181.835	20.95
9J16053-CAL7	2000	371696	185.848	20.96
9J16053-CAL8	2000	397776	198.888	20.98
9J16053-CAL9	2000	369437	184.718	21.00
9J16053-CALA	2000	340856	170.428	21.00

AVE RF **179.445** RF RSD **5.49** AVE RT **20.96**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3500	0.999	21.00
9J16053-CAL2	50	8473	1.012	21.00
9J16053-CAL3	100	18545	1.059	21.00
9J16053-CAL4	200	37109	1.099	21.00
9J16053-CAL5	500	103626	1.113	21.01
9J16053-CAL6	1000	194682	1.071	21.02
9J16053-CAL7	2000	396150	1.066	21.03
9J16053-CAL8	4000	801452	1.007	21.06
9J16053-CAL9	6000	1076200	0.971	21.08
9J16053-CALA	8000	1269410	0.931	21.08

AVE RF **1.033** RF RSD **5.62** AVE RT **21.03**

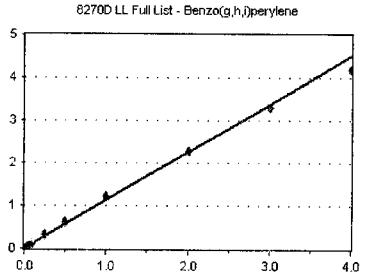
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3150	0.899	21.47
9J16053-CAL2	50	8620	1.030	21.47
9J16053-CAL3	100	19859	1.134	21.47
9J16053-CAL4	200	40711	1.205	21.47
9J16053-CAL5	500	117149	1.258	21.49
9J16053-CAL6	1000	223060	1.227	21.49
9J16053-CAL7	2000	452012	1.216	21.50
9J16053-CAL8	4000	907373	1.141	21.54
9J16053-CAL9	6000	1221971	1.103	21.57
9J16053-CALA	8000	1429981	1.049	21.57

AVE RF **1.126** RF RSD **9.79** AVE RT **21.50**

Compound List Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

Total Cpnds : 97

10/17/19

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.659	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	4.075	0.612	A	2	A	R
3	T	Pyridine	79	4.091	0.614	A	2	A	R
4	S	2-Fluorophenol (Surr)	112	5.407	0.812	A	1	A	R
5	S	Phenol-d6 (Surr)	99	6.295	0.945	A	2	A	R
6	T	Phenol	94	6.306	0.947	A	2	A	R
7	T	Aniline	93	6.342	0.952	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.396	0.961	A	2	A	R
9	T	2-Chlorophenol	128	6.461	0.970	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.610	0.993	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.680	1.003	A	2	A	R
12	T	Benzyl alcohol	108	6.786	1.019	A	2	A	R
13	T	1,2-Dichlorobenzene	146	6.830	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.894	1.035	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.920	1.039	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	7.049	1.059	A	2	A	R
17	T	3+4-Methylphenol	107	7.043	1.058	A	3	A	R
18	T	Hexachloroethane	201	7.167	1.076	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.199	1.081	A	2	A	R
20	T	Nitrobenzene	77	7.220	1.084	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.921	1.000	A	1	A	R
22	T	Isophorone	82	7.455	0.941	A	2	A	R
23	T	2-Nitrophenol	139	7.535	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.568	0.955	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.664	0.968	A	2	A	R
26	T	Benzoic acid	105	7.653	0.966	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.771	0.981	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.862	0.993	A	2	A	R
29	T	Naphthalene	128	7.942	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.990	1.009	Q	2	A	R
31	T	Hexachlorobutadiene	225	8.071	1.019	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.466	1.069	Q	2	A	R
33	T	2-Methylnaphthalene	142	8.637	1.090	A	2	A	R
34	T	1-Methylnaphthalene	142	8.739	1.103	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.702	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.809	0.908	A	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.920	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.953	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.108	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	9.007	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.130	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.225	0.951	Q	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.269	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.354	0.964	Q	2	A	R
45	T	Dimethyl phthalate	163	9.408	0.970	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.434	0.972	Q	2	A	R
47	T	2,6-Dinitrotoluene	165	9.466	0.976	Q	2	A	R
48	T	1,2-Dinitrobenzene	168	9.525	0.982	Q	2	A	R
49	T	Acenaphthylene	152	9.552	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.643	0.994	Q	2	A	R
51	T	Acenaphthene	153	9.734	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.744	1.004	Q	2	A	R
53	T	4-Nitrophenol	139	9.798	1.010	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.878	1.018	Q	2	A	R

55	T	Dibenzofuran	168	9.905	1.021	A	1/a2	2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.985	1.029	Q	1/a2	2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	10.028	1.034	Q	1/a2	2	A	R
58	T	Diethyl phthalate	149	10.124	1.044	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.119	1.043	A		2	A	R
60	T	Fluorene	166	10.258	1.057	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.247	1.056	A		2	A	R
62	T	4-Nitroaniline	138	10.263	1.058	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.295	1.061	Q	1/a2	2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.216	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.365	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.407	0.928	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.498	0.936	Q	1/a2	2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.750	0.959	A		2	A	R
69	T	Hexachlorobenzene	284	10.825	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	11.022	0.983	Q	1/a2	2	A	R
71	T	Phenanthrene	178	11.237	1.002	A		2	A	R
72	T	Anthracene	178	11.290	1.007	A		2	A	R
73	T	Carbazole	167	11.445	1.020	A		2	A	R
74	T	Di-n-butyl phthalate	149	11.793	1.051	A		2	A	R
75	T	Fluoranthene	202	12.520	1.116	A		2	A	R
76	T	Benzidine	184	12.675	1.130	Q	1/a2	2	A	R
77	T	Pyrene	202	12.815	1.143	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	15.051	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	13.023	0.865	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.847	0.920	Q	1/a2	2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	14.023	0.932	A		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.991	0.996	Q	1/a	2	A	R
83	T	Benz(a)anthracene	228	15.029	0.999	A		2	A	R
84	T	Chrysene	228	15.109	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.200	1.010	A		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.554	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.874	0.909	Q	1/a2	2	A	R
88	T	Benzo(b)fluoranthene	252	17.634	0.950	A		2	A	R
89	T	Benzo(k)fluoranthene	252	17.698	0.954	A		2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.698	0.954	A		2	A	R
91	T	Benzo(e)pyrene	252	18.286	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.404	0.992	Q	1/a2	2	A	R
93	T	Perylene	252	18.613	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.950	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.945	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	21.020	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.490	1.026	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV9_101619.M Thu Oct 17 12:36:38 2019

Response Factor Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

10/17/19

Calibration Files
20 =I10161912.D 50 =I10161913.D 100 =I10161914.D 200 =I10161915.D 500 =I10161916.D 1000=I10161917.D 2000=I10161918.D
4000=I10161919.D 6000=I10161920.D 8000=I10161921.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
														9.21
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											
2)	T	N-Nitrosodimet...	1.106	1.227	1.169	1.119	1.196	1.172	1.226	1.224	1.192	1.181	1.181	3.56
3)	T	Pyridine		1.639	1.725	1.714	1.839	1.852	1.940	1.970	1.900	1.950	1.837	6.45
4)	S	2-Fluorophenol...	1.352	1.350	1.342	1.381	1.497	1.500	1.579	1.594	1.567	1.563	1.473	7.14
5)	S	Phenol-d6 (Surr)	1.459	1.602	1.654	1.626	1.876	1.881	1.967	1.986	1.921	1.849	1.782	10.17
6)	T	Phenol	1.830	1.906	1.821	1.724	2.001	1.949	1.956	2.047	1.854	1.787	1.888	5.38
7)	T	Aniline		2.064	2.173	2.088	2.159	1.927	1.815	1.785	1.887	1.784	1.965	8.08
8)	T	Bis(2-chloroet...	1.531	1.689	1.803	1.712	1.843	1.789	1.971	1.774	1.478	1.398	1.699	10.52
9)	T	2-Chlorophenol	1.274	1.432	1.431	1.452	1.546	1.520	1.518	1.458	1.436	1.350	1.442	5.67
10)	T	1,3-Dichlorobe...	1.589	1.666	1.674	1.704	1.686	1.619	1.615	1.529	1.502	1.416	1.600	5.80
11)	T	1,4-Dichlorobe...	1.581	1.601	1.607	1.614	1.628	1.539	1.517	1.432	1.407	1.311	1.524	7.02
12)	T	Benzyl alcohol	0.857	0.633	0.663	0.683	0.831	0.890	0.949	0.956	0.945	0.893	0.830	15.02
13)	T	1,2-Dichlorobe...	1.579	1.579	1.574	1.584	1.614	1.515	1.485	1.371	1.325	1.223	1.485	8.97
14)	T	2-Methylphenol	1.102	0.971	1.133	1.093	1.223	1.178	1.179	1.095	1.056	0.963	1.099	7.79
15)	T	2,2'-Oxybis(1-...	2.559	2.667	2.628	2.540	2.565	2.371	2.179	1.899	1.754		2.351	14.20
16)	T	N-Nitrosodi-n-...	1.228	1.244	1.271	1.224	1.324	1.225	1.150	1.025	0.981	0.907	1.158	12.00
17)	T	3+4-Methylphenol	1.135	1.156	1.311	1.254	1.521	1.481	1.506	1.385	1.325		1.342	10.75
18)	T	Hexachloroethane	0.457	0.458	0.484	0.495	0.501	0.497	0.508	0.502	0.507	0.486	0.490	3.80
19)	S	Nitrobenzene-d...	1.200	1.108	1.173	1.121	1.404	1.400	1.455	1.434	1.400	1.312	1.301	10.51
20)	T	Nitrobenzene	1.352	1.244	1.257	1.304	1.540	1.503	1.487	1.387	1.322		1.377	7.94
														9.75
21)	I	Naphthalene-d8 (ISTD)	----------ISTD----------											
22)	T	Isophorone	0.711	0.770	0.807	0.850	0.861	0.832	0.811	0.785	0.750	0.732	0.791	6.35
23)	T	2-Nitrophenol			0.103	0.118	0.159	0.187	0.182	0.198	0.193	0.188	0.166	21.87
24)	T	2,4-Dimethylph...	0.244	0.248	0.272	0.294	0.298	0.308	0.314	0.299	0.281	0.267	0.282	8.69
25)	T	Bis(2-chloroet...	0.431	0.443	0.456	0.461	0.485	0.470	0.456	0.423	0.392	0.363	0.438	8.51
26)	T	Benzoic acid					0.046	0.103	0.133	0.201	0.218	0.208	0.151	45.70
27)	T	2,4-Dichloroph...	0.129	0.170	0.196	0.233	0.262	0.279	0.296	0.286	0.270	0.257	0.238	23.28
28)	T	1,2,4-Trichlor...	0.342	0.353	0.356	0.363	0.356	0.346	0.339	0.323	0.306	0.288	0.337	7.21
29)	T	Naphthalene	1.135	1.123	1.148	1.135	1.129	1.071	1.010	0.911	0.840	0.769	1.027	13.58
30)	T	4-Chloroaniline	0.137	0.258	0.270	0.320	0.353	0.361	0.393	0.392	0.358	0.338	0.318	24.53
31)	T	Hexachlorobuta...	0.173	0.190	0.194	0.201	0.193	0.187	0.188	0.185	0.178	0.171	0.186	5.07
32)	T	4-Chloro-3-met...		0.175	0.207	0.241	0.306	0.321	0.334	0.335	0.318	0.302	0.282	21.03
33)	T	2-Methylnaphth...	0.681	0.724	0.782	0.809	0.822	0.792	0.775	0.719	0.668	0.617	0.739	9.21
34)	T	1-Methylnaphth...	0.678	0.737	0.773	0.764	0.781	0.745	0.717	0.660	0.613	0.566	0.703	10.30
														8.52
35)	I	Acenaphthene-d10 (...	----------ISTD----------											
36)	T	Hexachlorocycl...	0.276	0.283	0.303	0.340	0.356	0.379	0.407	0.399	0.383	0.364	0.349	13.53
37)	T	2,4,6-Trichlor...		0.205	0.260	0.313	0.385	0.401	0.421	0.422	0.406	0.401	0.357	22.07
38)	T	2,4,5-Trichlor...		0.262	0.252	0.300	0.377	0.401	0.416	0.404	0.391	0.371	0.353	18.09
39)	T	1,1'-Biphenyl	1.441	1.643	1.822	1.860	1.872	1.779	1.691	1.486	1.350	1.240	1.618	13.98

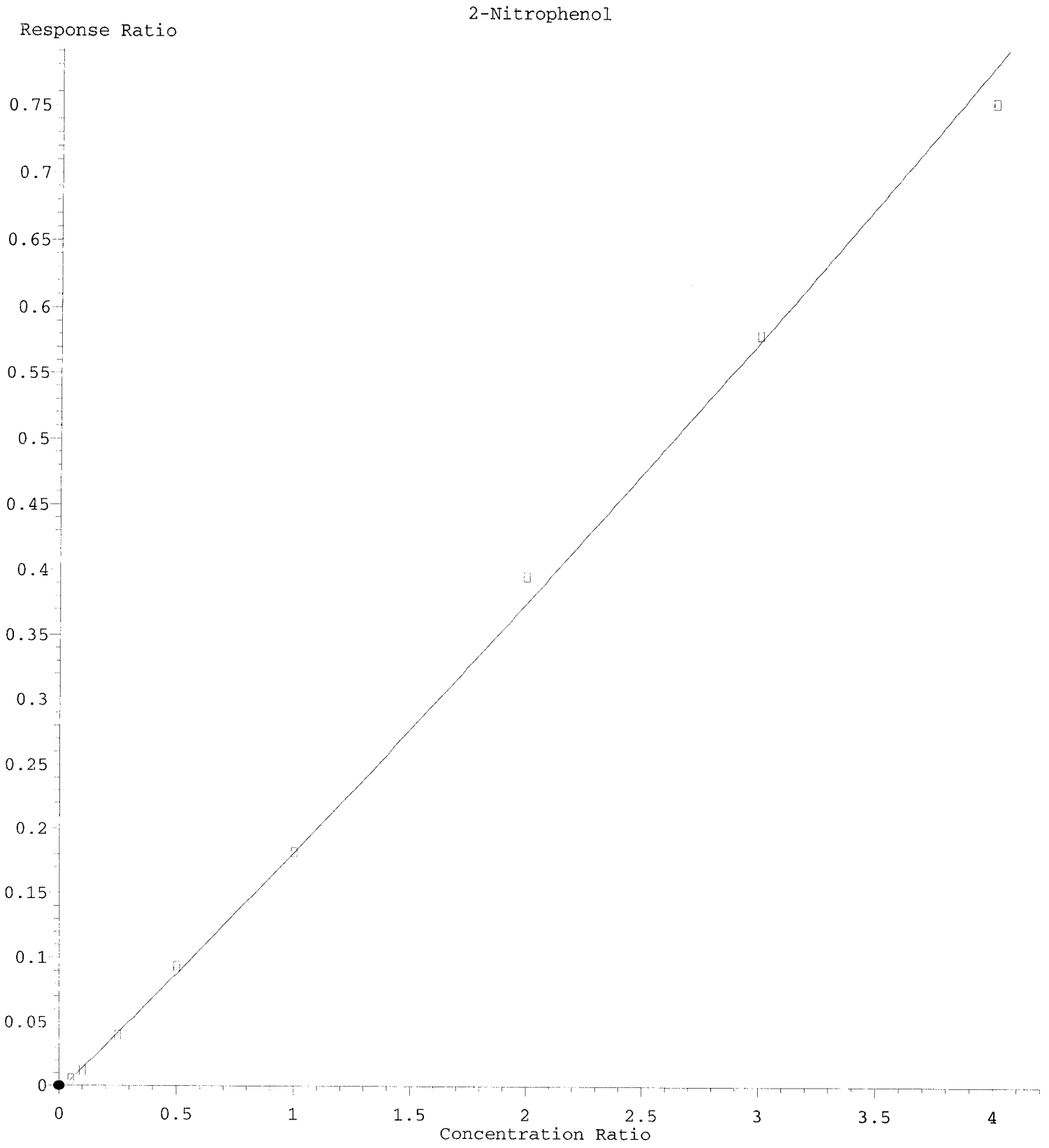
Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.394	1.494	1.665	1.659	1.690	1.590	1.504	1.337	1.228	1.133	1.470	13.11
41)	T	2-Chloronaphth...	1.053	1.267	1.341	1.365	1.385	1.312	1.227	1.081	1.004	0.923	1.196	13.92
42)	T	2-Nitroaniline			0.175	0.222	0.325	0.375	0.406	0.414	0.404	0.402	0.340	27.27
43)	T	2,6-Dimethylna...	1.177	1.306	1.370	1.365	1.389	1.324	1.250	1.107	1.004	0.940	1.223	13.07
44)	T	1,4-Dinitroben...				0.056	0.091	0.119	0.156	0.184	0.193	0.193	0.142	38.44
45)	T	Dimethyl phtha...	1.423	1.542	1.609	1.600	1.604	1.536	1.487	1.349	1.256	1.188	1.459	10.35
46)	T	1,3-Dinitroben...				0.083	0.140	0.171	0.205	0.217	0.214	0.209	0.177	28.39
47)	T	2,6-Dinitrotol...		0.137	0.170	0.221	0.296	0.314	0.331	0.323	0.311	0.297	0.267	26.95
48)	T	1,2-Dinitroben...			0.071	0.093	0.128	0.144	0.153	0.155	0.151	0.142	0.130	24.09
49)	T	Acenaphthylene	1.894	2.091	2.220	2.215	2.244	2.117	1.967	1.722	1.554		2.003	12.04
50)	T	3-Nitroaniline		0.142	0.180	0.223	0.294	0.274	0.231				0.224	25.34
51)	T	Acenaphthene	1.348	1.368	1.421	1.375	1.365	1.306	1.262	1.128	1.044	0.975	1.259	12.31
52)	T	2,4-Dinitrophenol				0.014	0.028	0.048	0.074	0.112	0.127		0.067	68.09
53)	T	4-Nitrophenol			0.078	0.105	0.175	0.214	0.247	0.268	0.271		0.194	40.20
54)	T	2,4-Dinitrotol...			0.157	0.194	0.309	0.362	0.410	0.422	0.406	0.380	0.330	30.91
55)	T	Dibenzofuran	1.736	1.894	1.980	1.915	1.923	1.809	1.745	1.538	1.407	1.296	1.724	13.62
56)	T	2,3,5,6-Tetrac...		0.136	0.199	0.220	0.290	0.313	0.339	0.351	0.350	0.342	0.282	27.80
57)	T	2,3,4,6-Tetrac...	0.177	0.202	0.269	0.269	0.339	0.351	0.360	0.368	0.359	0.352	0.305	23.18
58)	T	Diethyl phthalate	1.411	1.464	1.537	1.538	1.531	1.444	1.333	1.156	1.034		1.383	12.94
59)	T	2,3,5-Trimethy...	1.139	1.209	1.269	1.243	1.289	1.226	1.170	1.035	0.956	0.883	1.142	12.16
60)	T	Fluorene	1.389	1.474	1.578	1.509	1.524	1.428	1.346	1.172	1.064		1.387	12.26
61)	T	4-Chlorophenyl...	0.664	0.704	0.746	0.722	0.741	0.716	0.705	0.663	0.623	0.587	0.687	7.56
62)	T	4-Nitroaniline			0.178	0.197	0.264	0.245	0.244	0.261	0.259	0.242	0.236	13.38
63)	T	4,6-Dinitro-2-...				0.040	0.071	0.106	0.142	0.180	0.185	0.191	0.131	45.75
64)	I	Phenanthrene-d10 (...	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	----------	----------	4.30
65)	T	N-Nitrosodiphe...	0.548	0.638	0.699	0.711	0.694	0.644	0.590	0.498			0.628	12.27
66)	T	Azobenzene (1,...	0.806	0.902	0.894	0.913	0.892	0.812	0.740	0.608			0.821	12.85
67)	S	2,4,6-Tribromo...		0.070	0.089	0.101	0.117	0.122	0.129	0.133	0.134	0.131	0.114	19.75
68)	T	4-Bromophenyl ...	0.235	0.227	0.233	0.245	0.247	0.238	0.238	0.236	0.227	0.219	0.235	3.64
69)	T	Hexachlorobenzene	0.290	0.278	0.295	0.302	0.293	0.280	0.275	0.266	0.253	0.241	0.277	7.02
70)	T	Pentachlorophe...			0.079	0.084	0.111	0.126	0.145	0.155	0.156	0.151	0.126	25.12
71)	T	Phenanthrene	1.149	1.169	1.170	1.162	1.130	1.082	1.037	0.909	0.847	0.778	1.043	14.05
72)	T	Anthracene	1.030	1.137	1.176	1.167	1.163	1.095	1.039	0.907	0.822	0.752	1.029	14.83
73)	T	Carbazole	0.896	0.970	1.005	1.024	1.007	0.854	0.644				0.915	14.72
74)	T	Di-n-butyl pht...		1.219	1.255	1.341	1.388	1.358	1.292	1.121	1.010		1.248	10.31
75)	T	Fluoranthene	1.113	1.206	1.289	1.318	1.362	1.335	1.261	1.137	1.046		1.230	8.98
76)	T	Benzidine			0.239	0.276	0.436	0.431	0.446	0.440	0.409	0.376	0.382	21.12
77)	T	Pyrene	1.102	1.236	1.312	1.368	1.378	1.316	1.236	1.094	1.018	0.931	1.199	12.88
78)	I	Chrysene-d12 (ISTD)	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	----------	----------	10.31
79)	S	Terphenyl-d14 ...	0.862	0.904	0.960	1.002	1.041	1.001	1.029	1.002	0.968	0.936	0.970	5.84
80)	T	Butyl benzyl p...		0.320	0.382	0.438	0.549	0.585	0.642	0.650	0.631	0.618	0.535	23.15
81)	T	Bis(2-ethylhex...				0.389	0.491	0.517	0.557	0.547	0.525	0.503	0.504	11.05
82)	T	3,3-Dichlorobe...			0.284	0.281	0.237	0.180	0.154	0.137			0.212	30.11
83)	T	Benz(a)anthracene	1.240	1.142	1.153	1.171	1.208	1.164	1.175	1.136	1.121	1.070	1.158	4.04
84)	T	Chrysene	1.005	1.056	1.063	1.069	1.097	1.056	1.083	1.048	1.020	0.978	1.047	3.47
85)	T	Bis(2-ethylhex...				0.606	0.739	0.769	0.813	0.774	0.738	0.706	0.735	9.03
86)	I	Perylene-d12 (ISTD)	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	----------	----------	7.34
87)	T	Di-n-octyl pht...			0.631	0.851	1.102	1.278	1.433	1.434	1.335	1.328	1.174	24.91

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics

88)	T	Benzo(b)fluora...	0.809	0.887	1.013	1.139	1.175	1.201	1.258	1.233	1.217	1.236	1.117	14.22
89)	T	Benzo(k)fluora...	0.795	0.899	1.031	1.123	1.186	1.179	1.157	1.084	0.993	0.937	1.038	12.67
90)	T	Benzo(b+k)fluo...	0.802	0.930	1.061	1.161	1.206	1.217	1.230	1.182	1.130	1.114	1.103	12.56
91)	T	Benzo(e)pyrene	0.826	0.970	1.032	1.120	1.165	1.172	1.194	1.161	1.111	1.094	1.085	10.48
92)	T	Benzo(a)pyrene	0.661	0.790	0.901	1.024	1.073	1.092	1.106	1.053	1.007	0.972	0.968	14.94
93)	T	Perylene	0.852	0.863	0.889	0.923	0.954	0.950	0.954	0.920	0.894	0.876	0.908	4.21
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											5.49
95)	T	Indeno(1,2,3-c...	1.156	1.176	1.170	1.201	1.227	1.175	1.183	1.192	1.183	1.150	1.181	1.88
96)	T	Dibenz(a,h)ant...	0.999	1.012	1.059	1.099	1.113	1.071	1.066	1.007	0.971	0.931	1.033	5.62
97)	T	Benzo(g,h,i)pe...	0.899	1.030	1.134	1.205	1.258	1.227	1.216	1.141	1.103	1.049	1.126	9.79

(#) = Out of Range

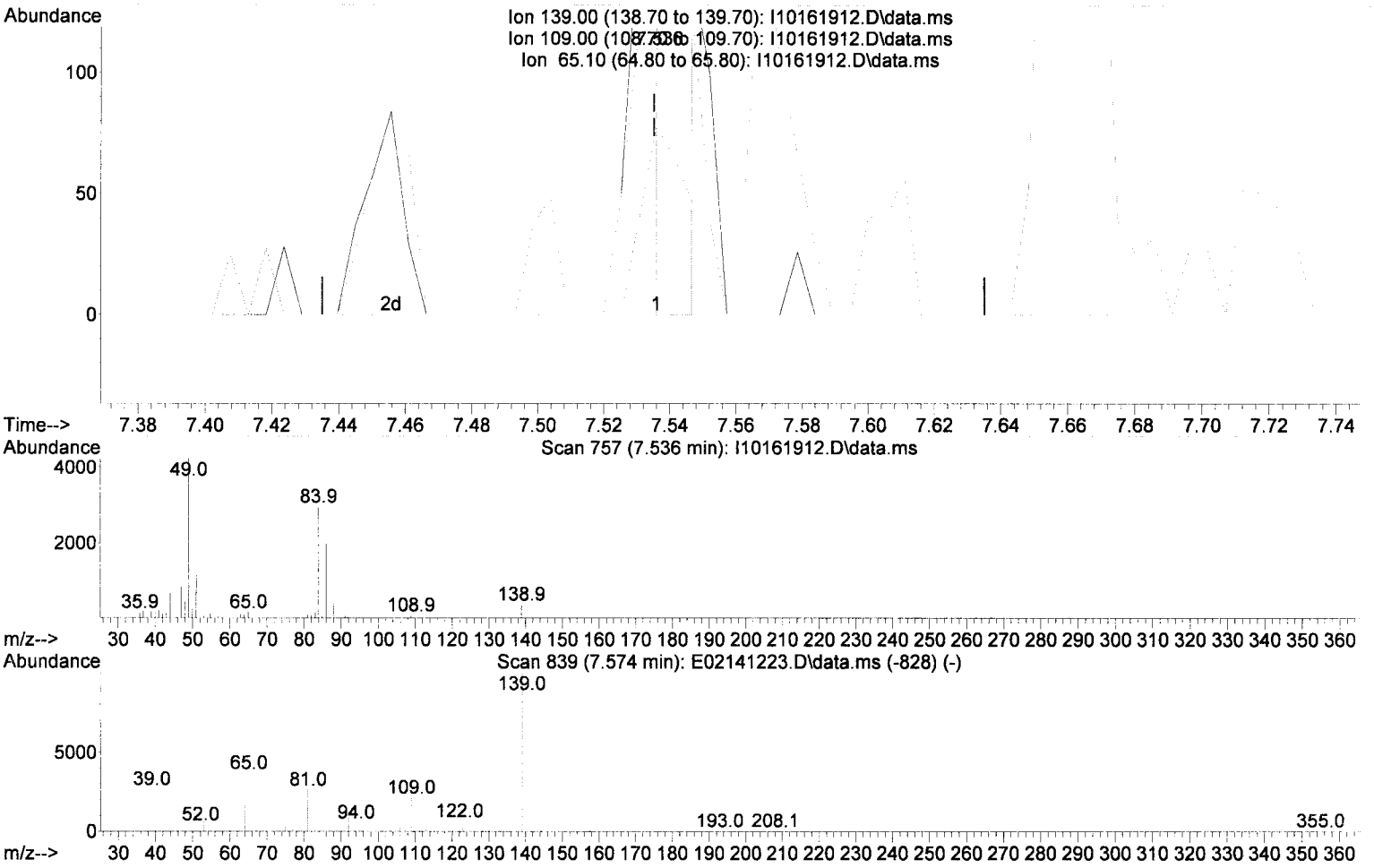


R = 3.47e-003 A*A + 1.83e-001 A - 4.49e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



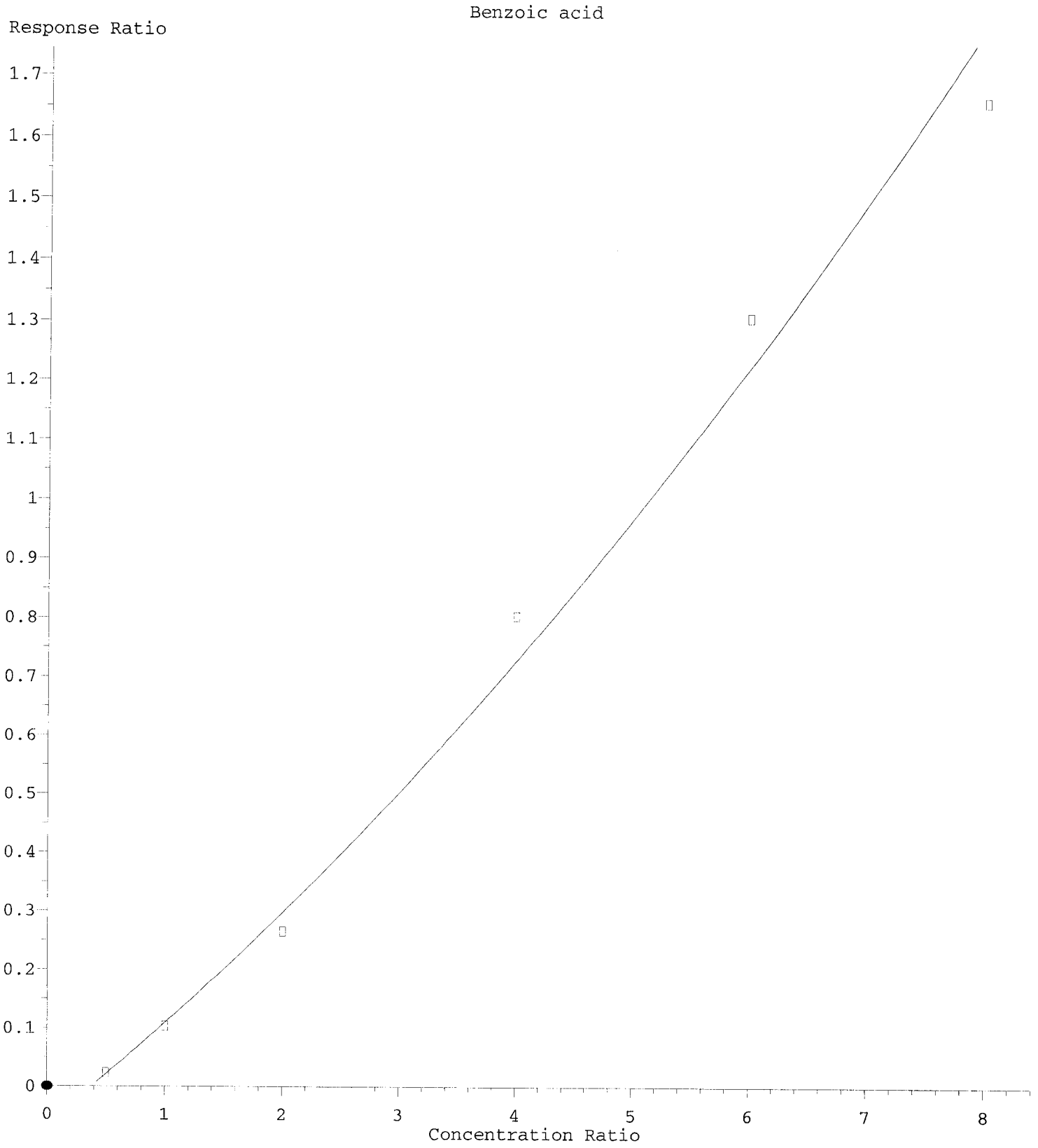
TIC: I10161912.D\data.ms

(23) 2-Nitrophenol (T)

7.536min (+ 0.001) 52.76 ng/ml m ✓

response 147

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	23.30	21.14
65.10	47.80	44.17
0.00	0.00	0.00

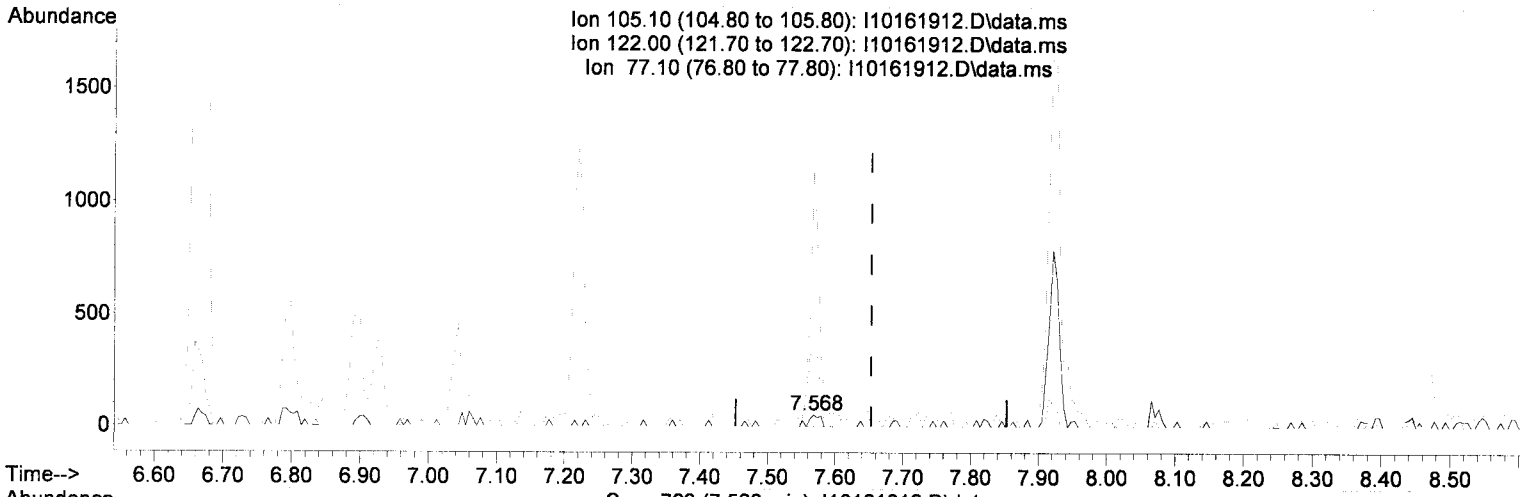


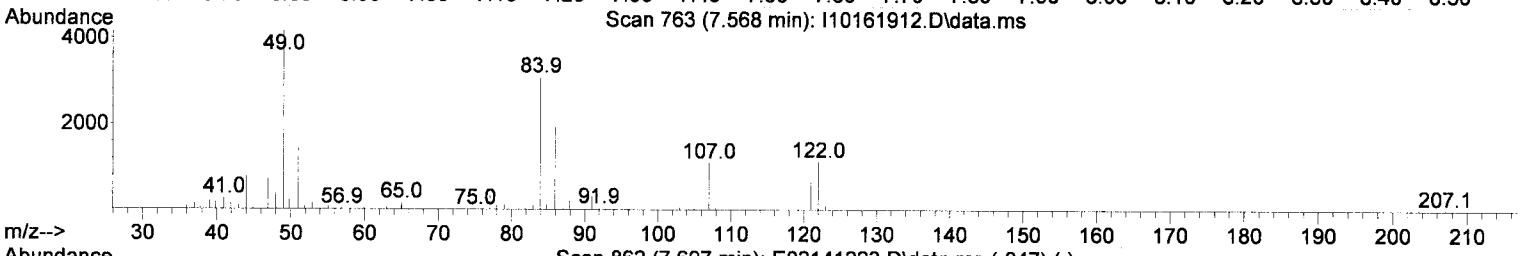
R = 8.44e-003 A*A + 1.64e-001 A - 6.33e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

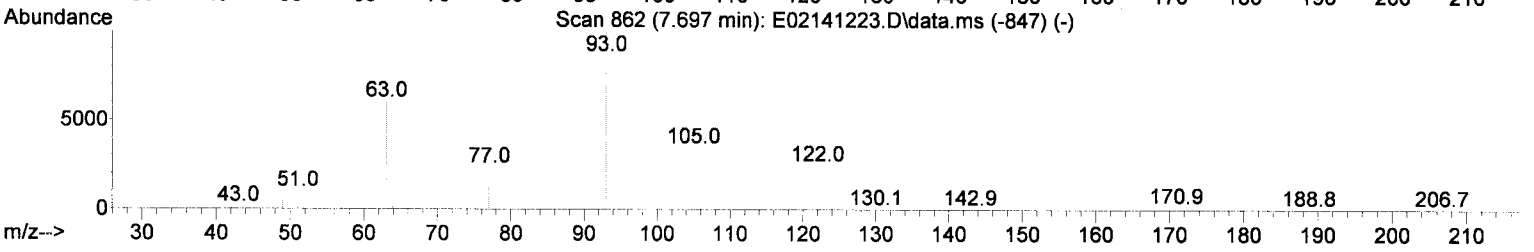
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







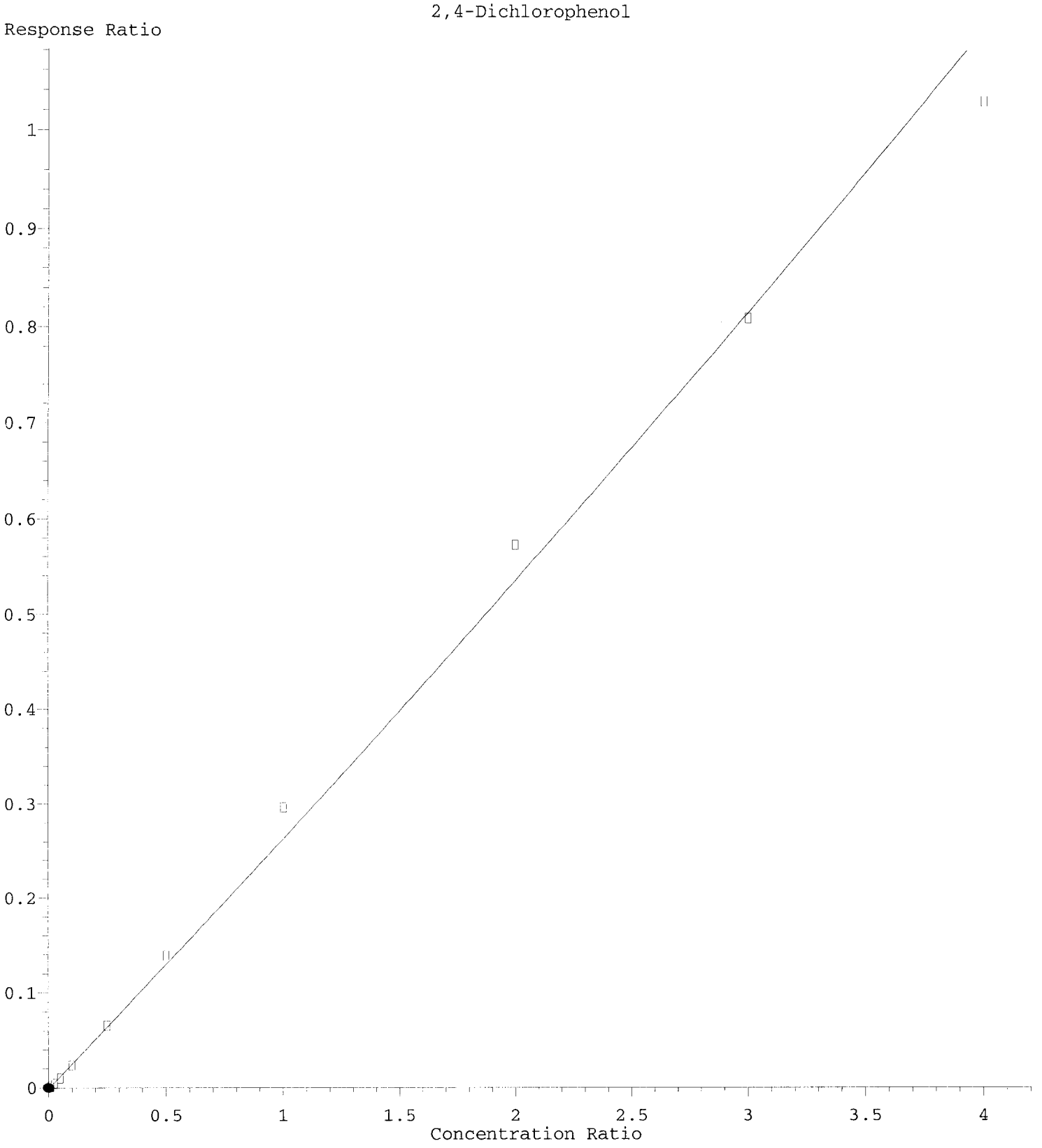
TIC: I10161912.D\data.ms

(26) Benzoic acid (T)

7.568min (-0.085) 762.03 ng/ml m

response 122

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2182.69#
77.10	77.80	640.38#
0.00	0.00	0.00

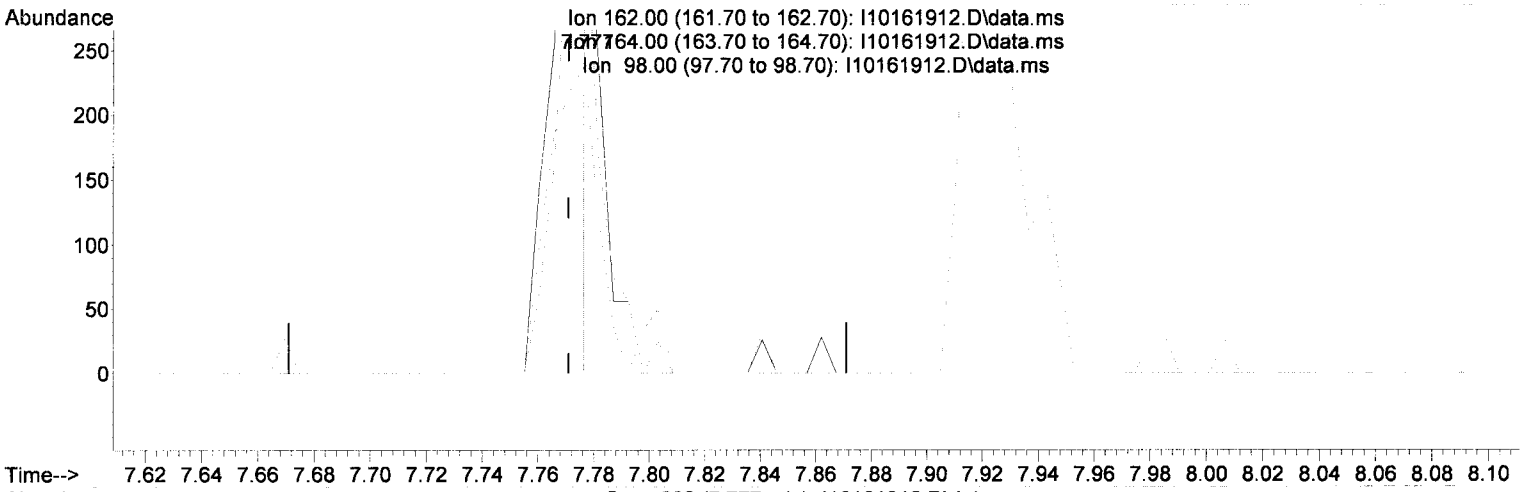


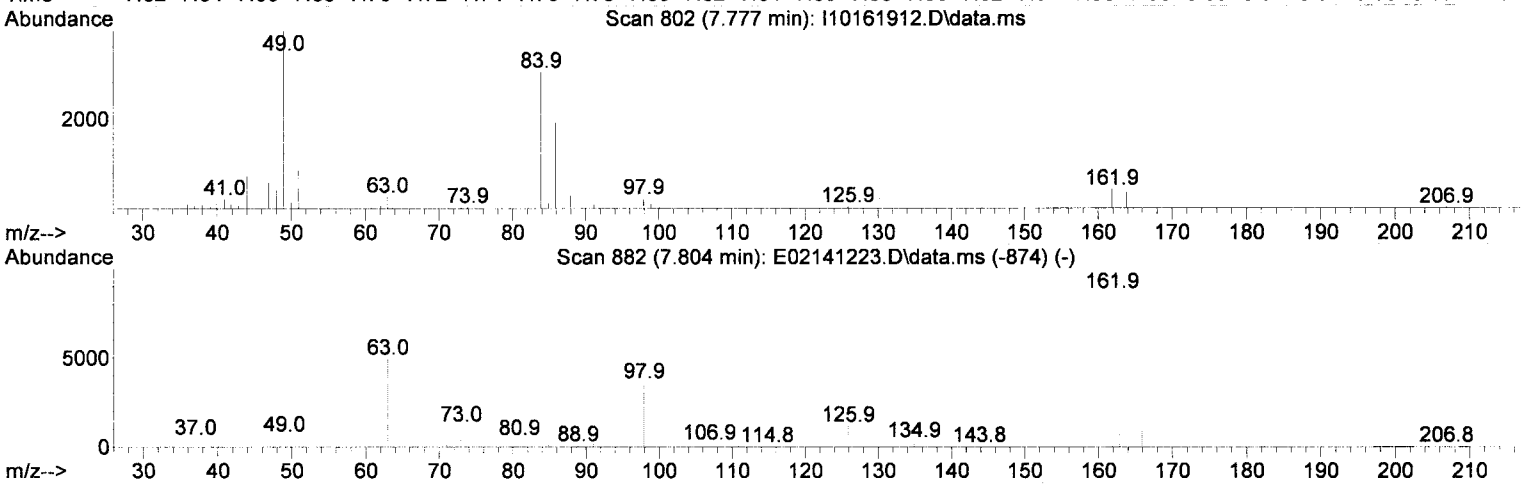
R = 3.95e-003 A*A + 2.60e-001 A - 1.50e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





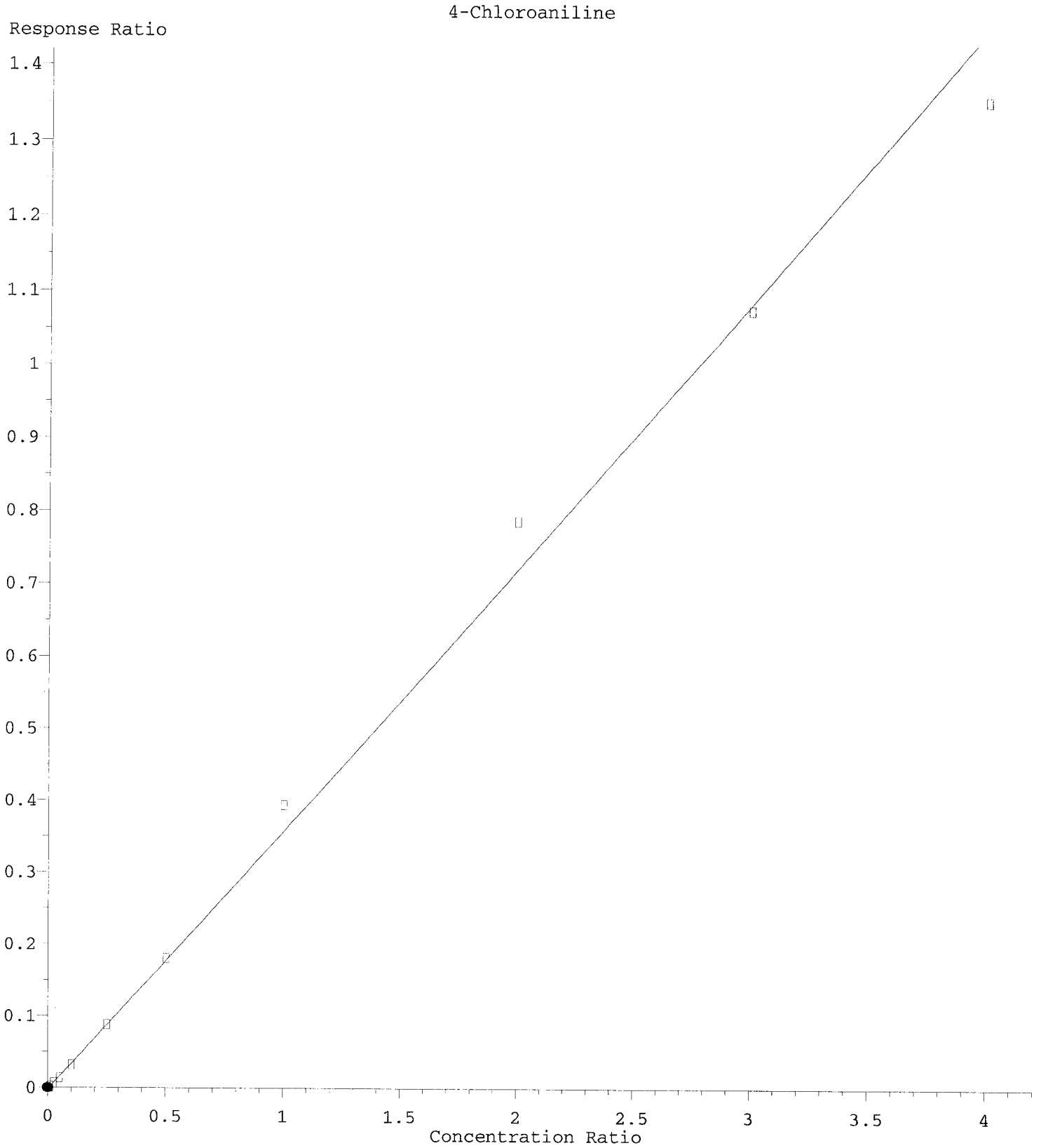
TIC: I10161912.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.777min (+ 0.005) 13.48 ng/ml m

response 111

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	63.40	86.79
98.00	39.00	54.21
0.00	0.00	0.00

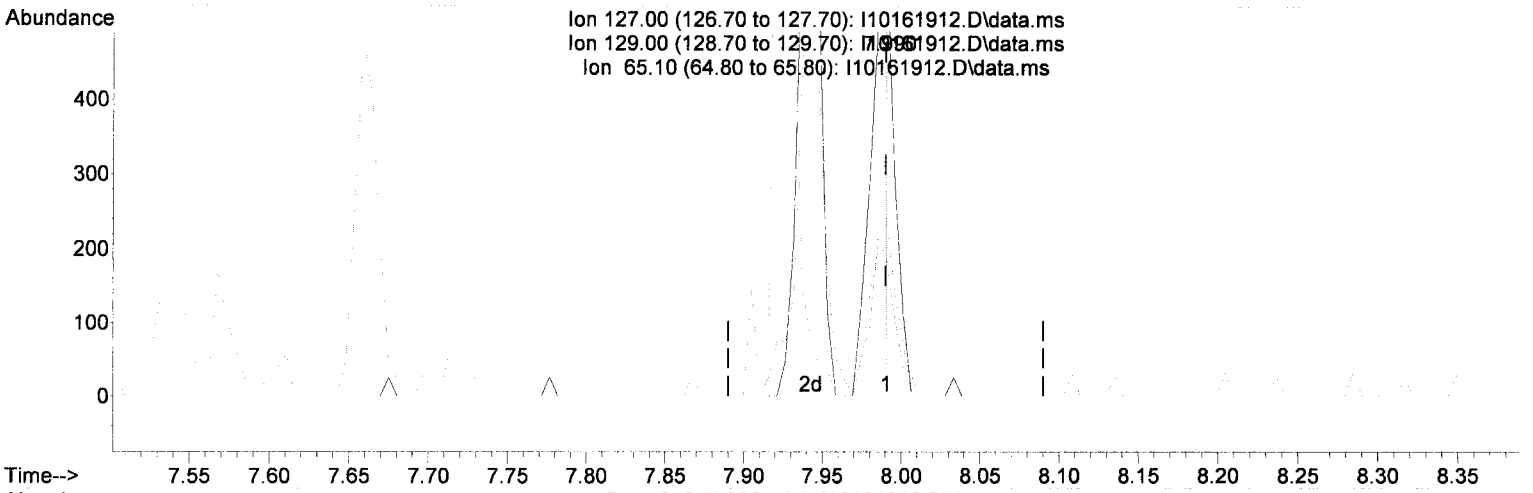


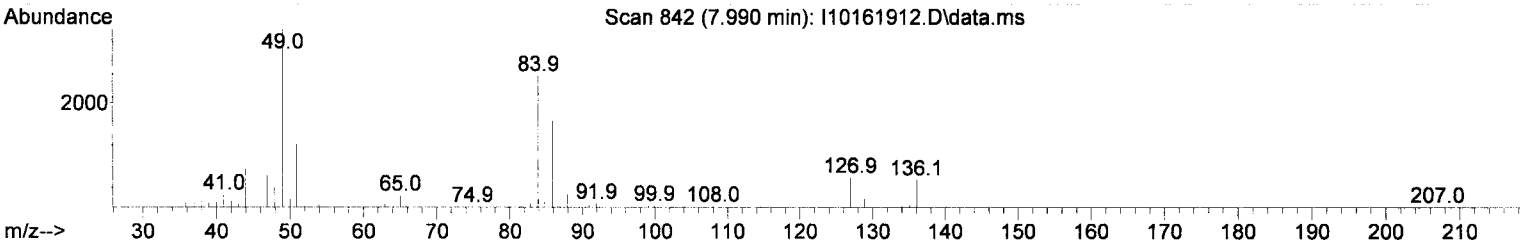
R = 9.86e-004 A*A + 3.58e-001 A - 2.33e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

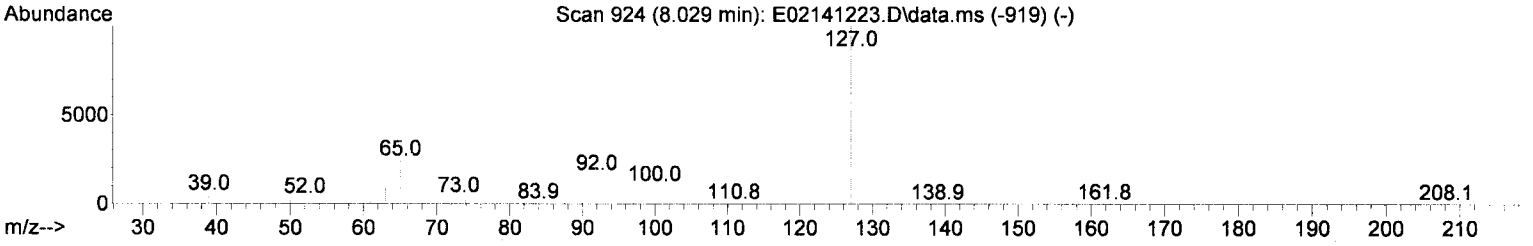
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







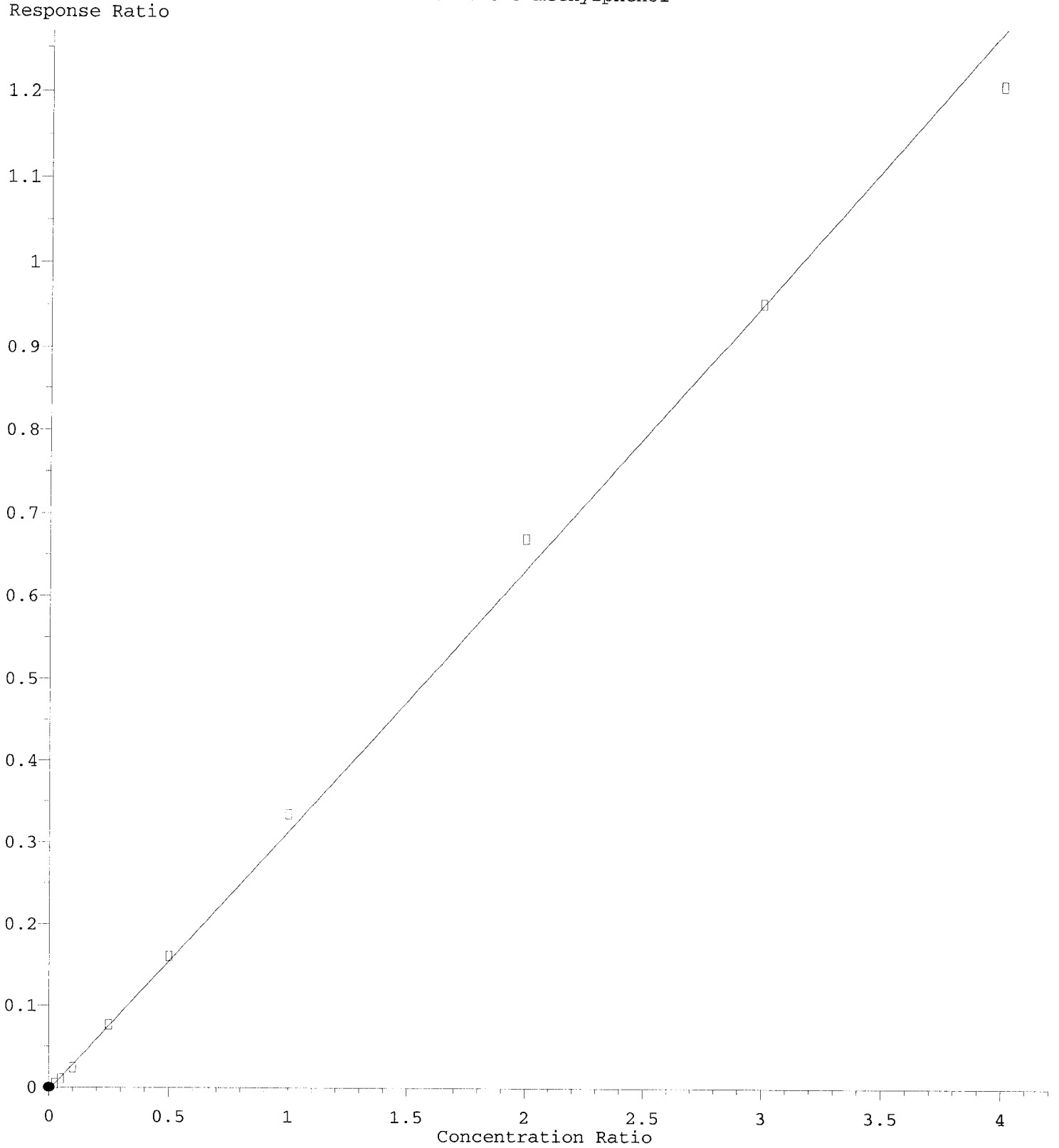
TIC: I10161912.D\data.ms

(30) 4-Chloroaniline (T)

7.990min (+ 0.000) 14.62 ng/ml m

response 128

Ion	Exp%	Act%
127.00	100.00	100.00
129.00	32.60	32.25
65.10	30.90	41.68
0.00	0.00	0.00

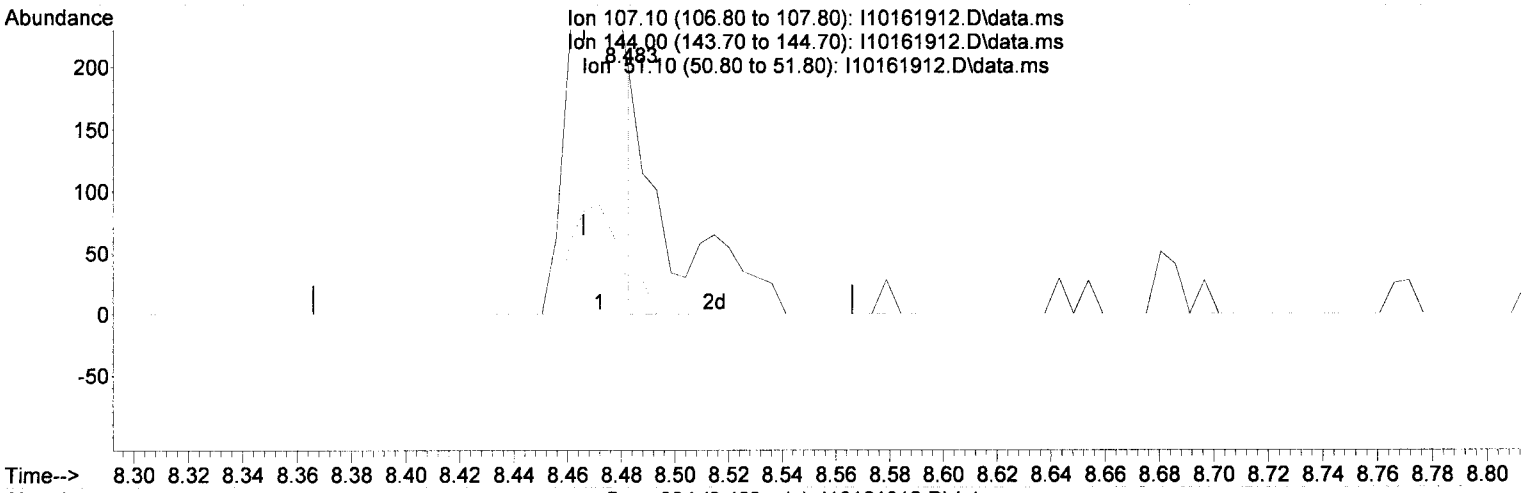


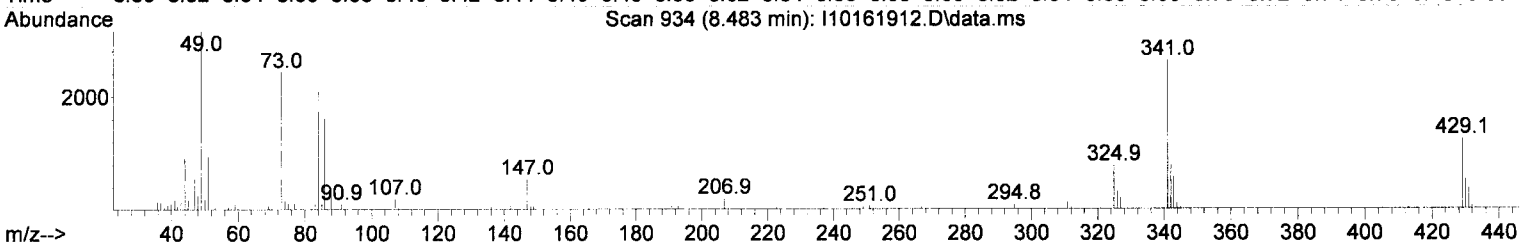
R = 6.09e-004 A*A + 3.17e-001 A - 4.08e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

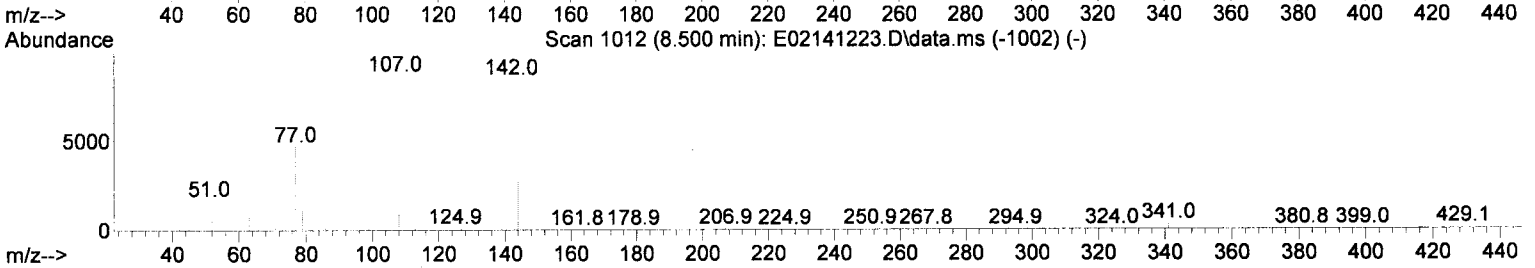
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







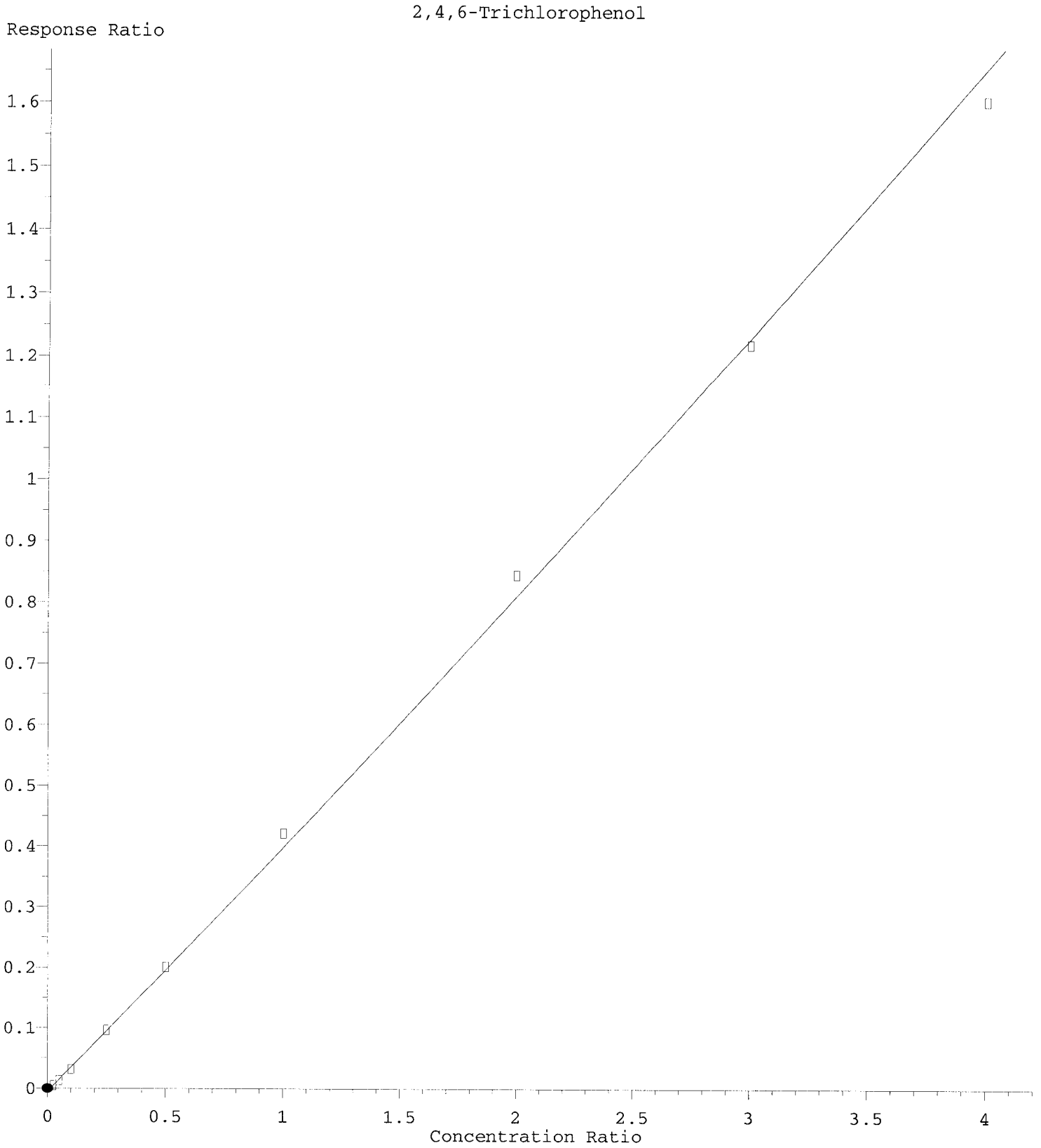
TIC: I10161912.D\data.ms

(32) 4-Chloro-3-methylphenol (T)

8.483min (+ 0.017) 28.26 ng/ml m

response 176

Ion	Exp%	Act%
107.10	100.00	100.00
144.00	26.80	12.50
51.10	22.20	477.00#
0.00	0.00	0.00

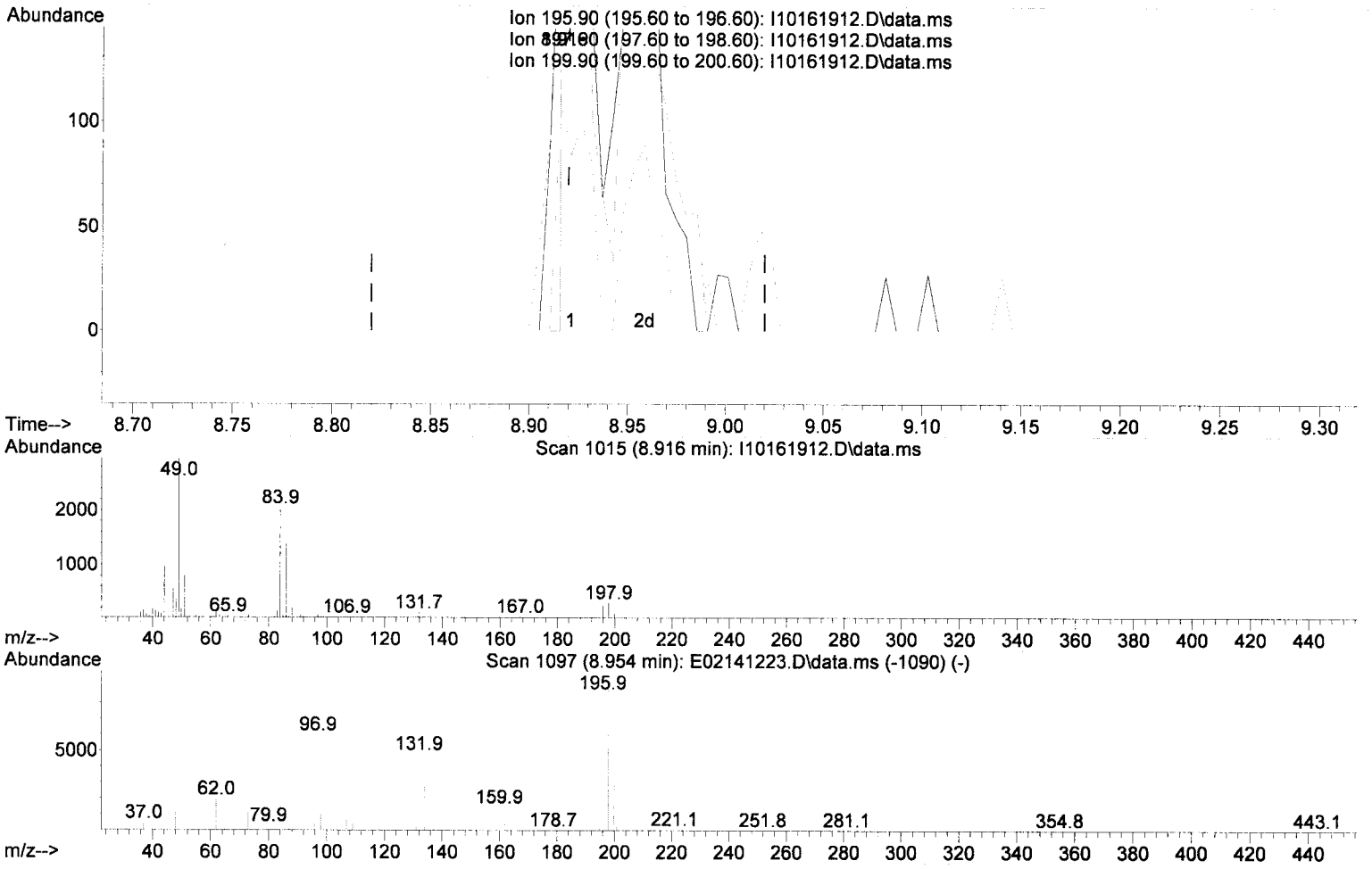


R = 3.81e-003 A*A + 3.99e-001 A - 5.41e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



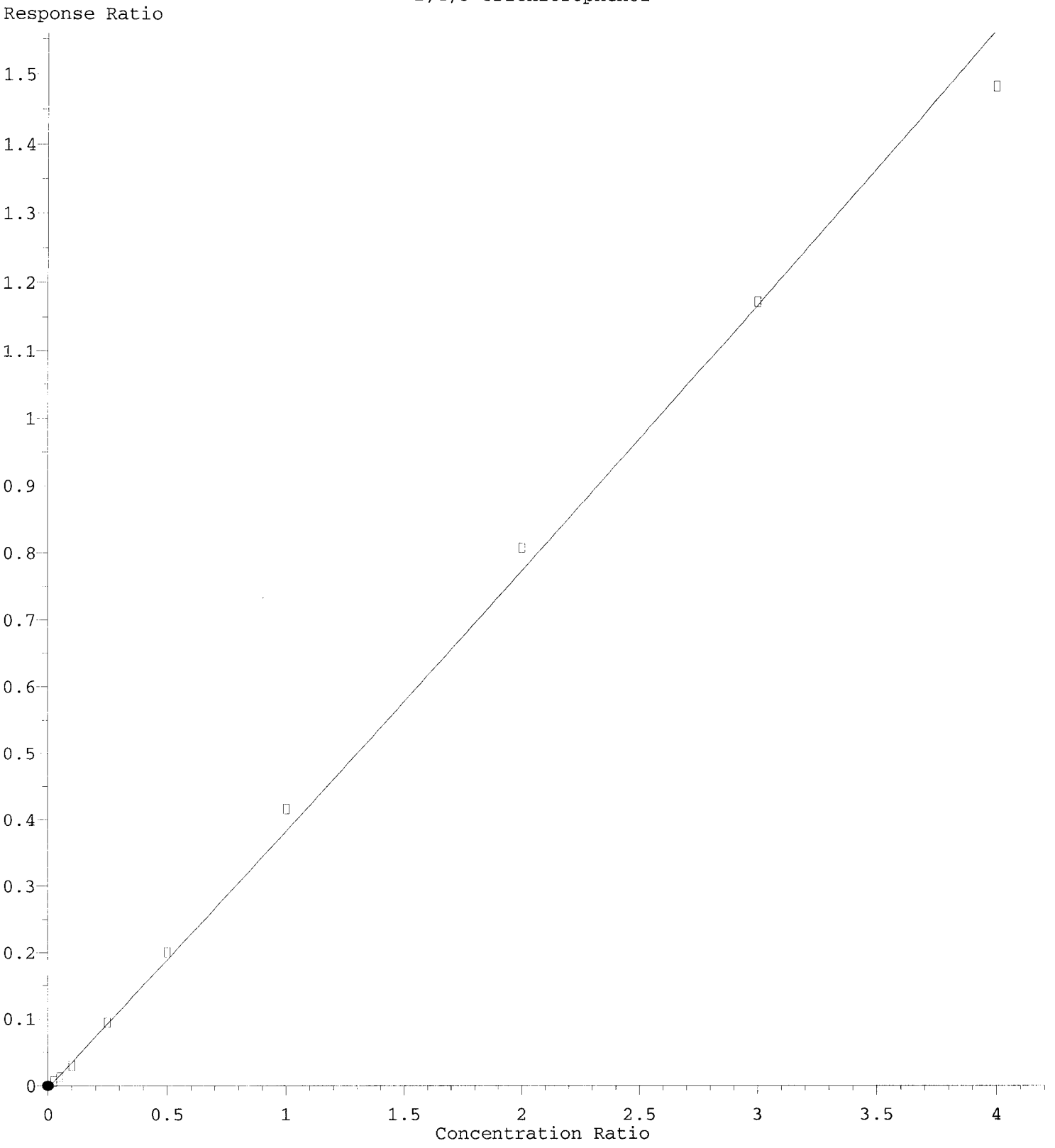
TIC: I10161912.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.916min (-0.004) 29.38 ng/ml m

response 105

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	98.10	125.21
199.90	32.40	45.80
0.00	0.00	0.00

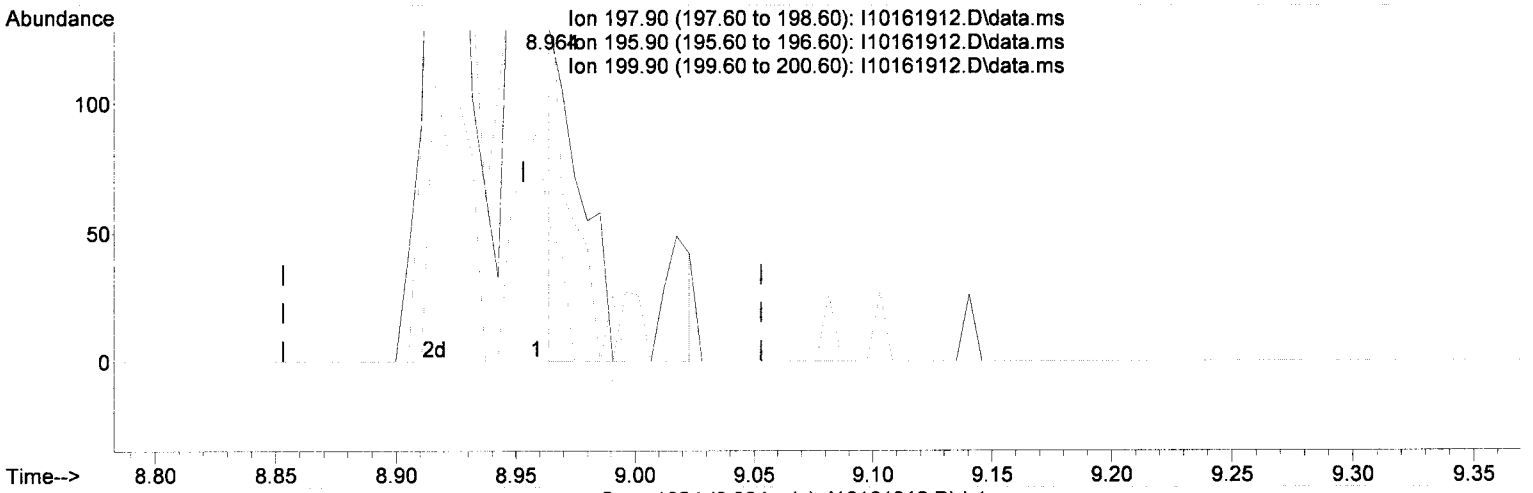


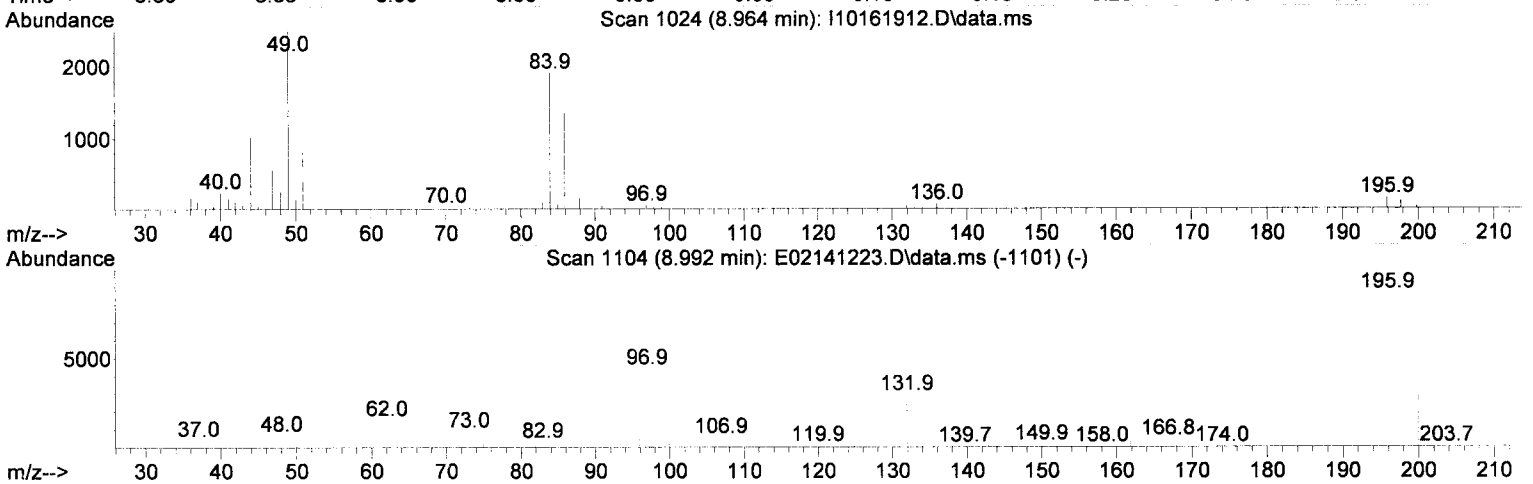
R = 1.98e-003 A*A + 3.84e-001 A - 3.95e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





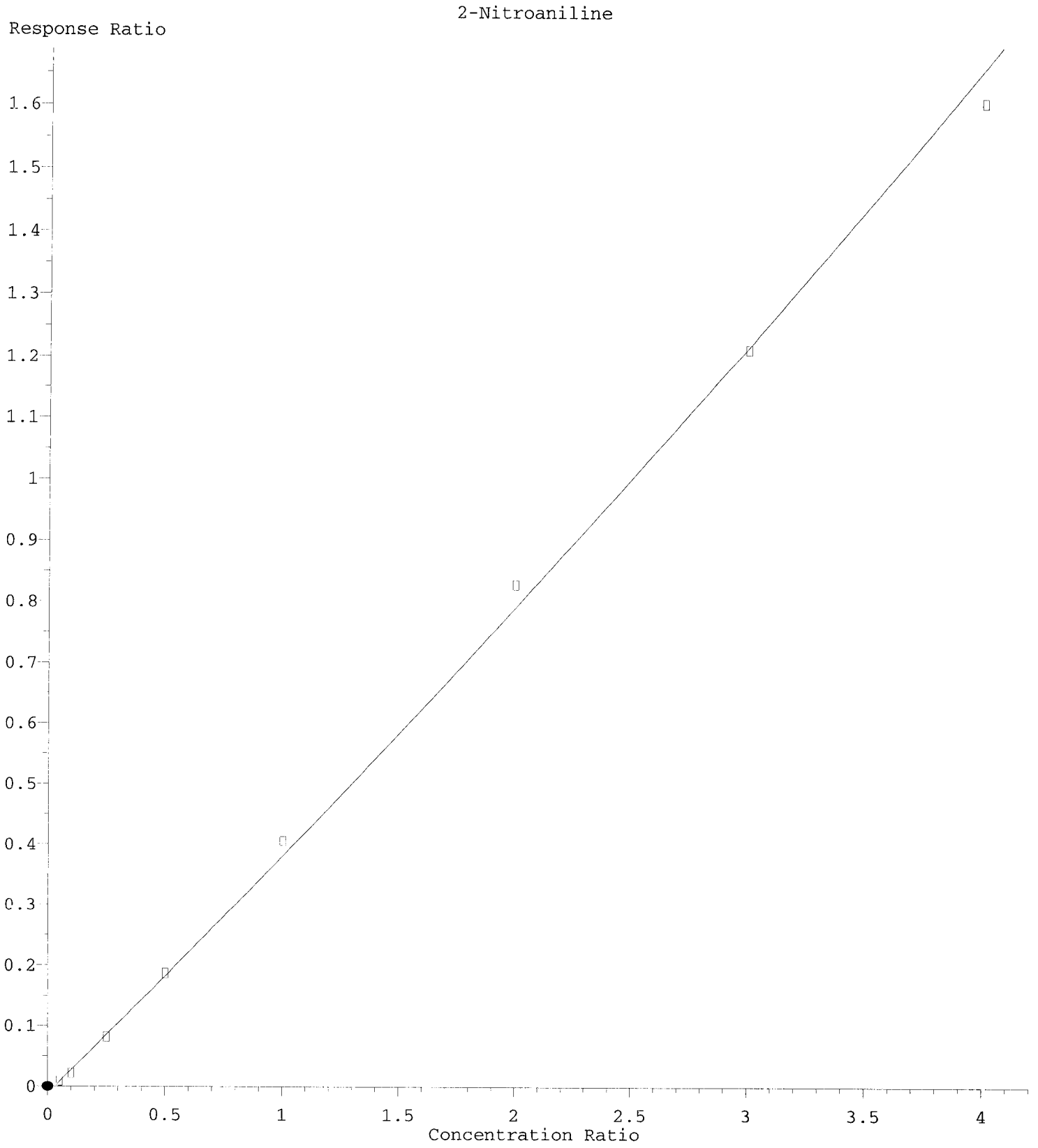
TIC: I10161912.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.964min (+ 0.011) 23.56 ng/ml m

response 132

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	130.00
199.90	30.90	41.54
0.00	0.00	0.00

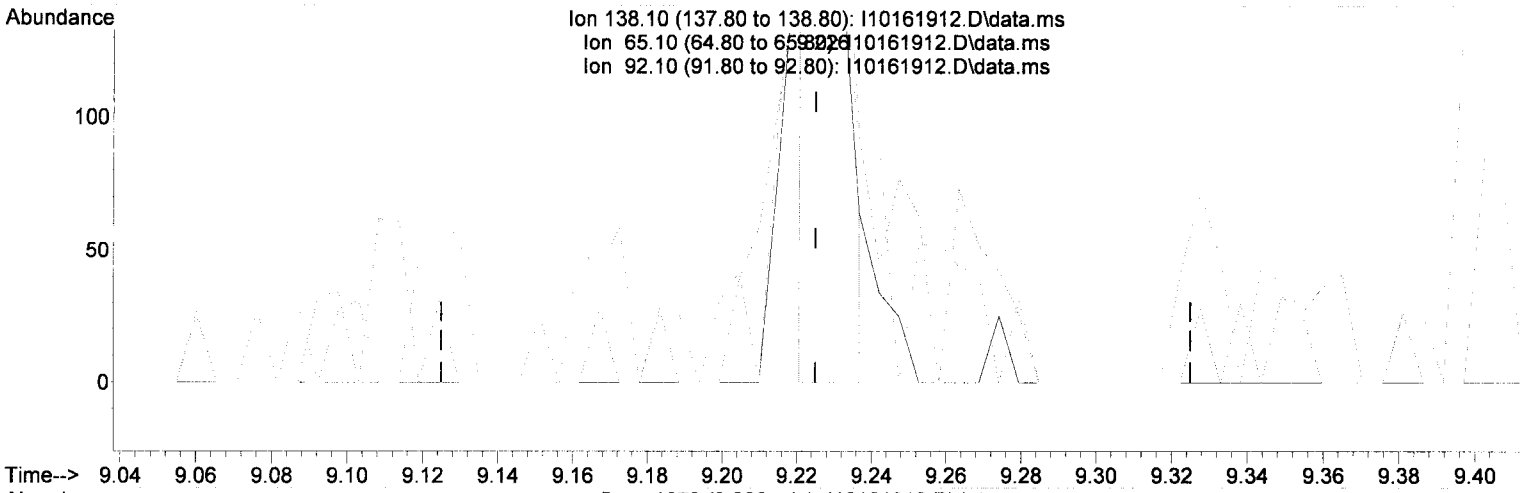


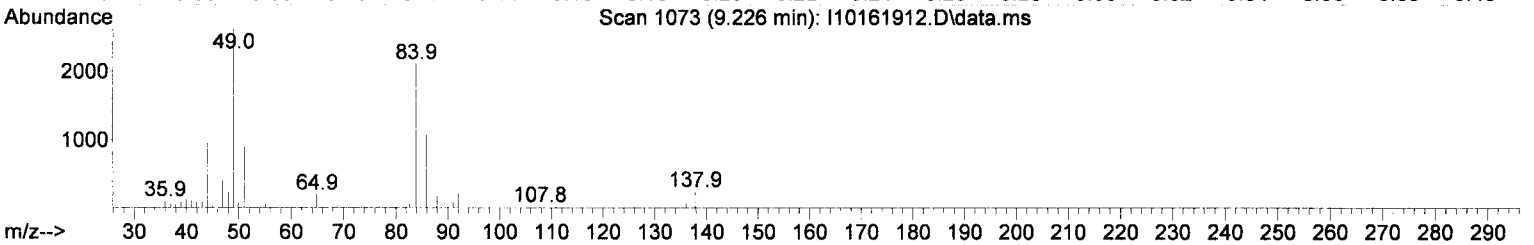
R = 8.44e-003 A*A + 3.84e-001 A - 1.17e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

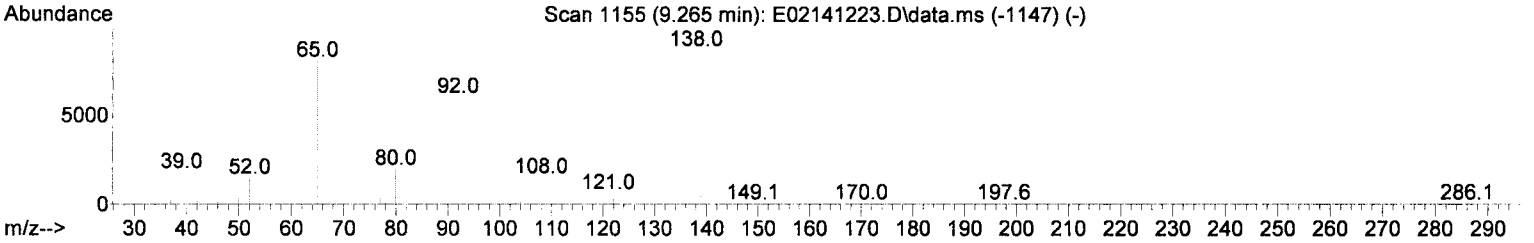
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







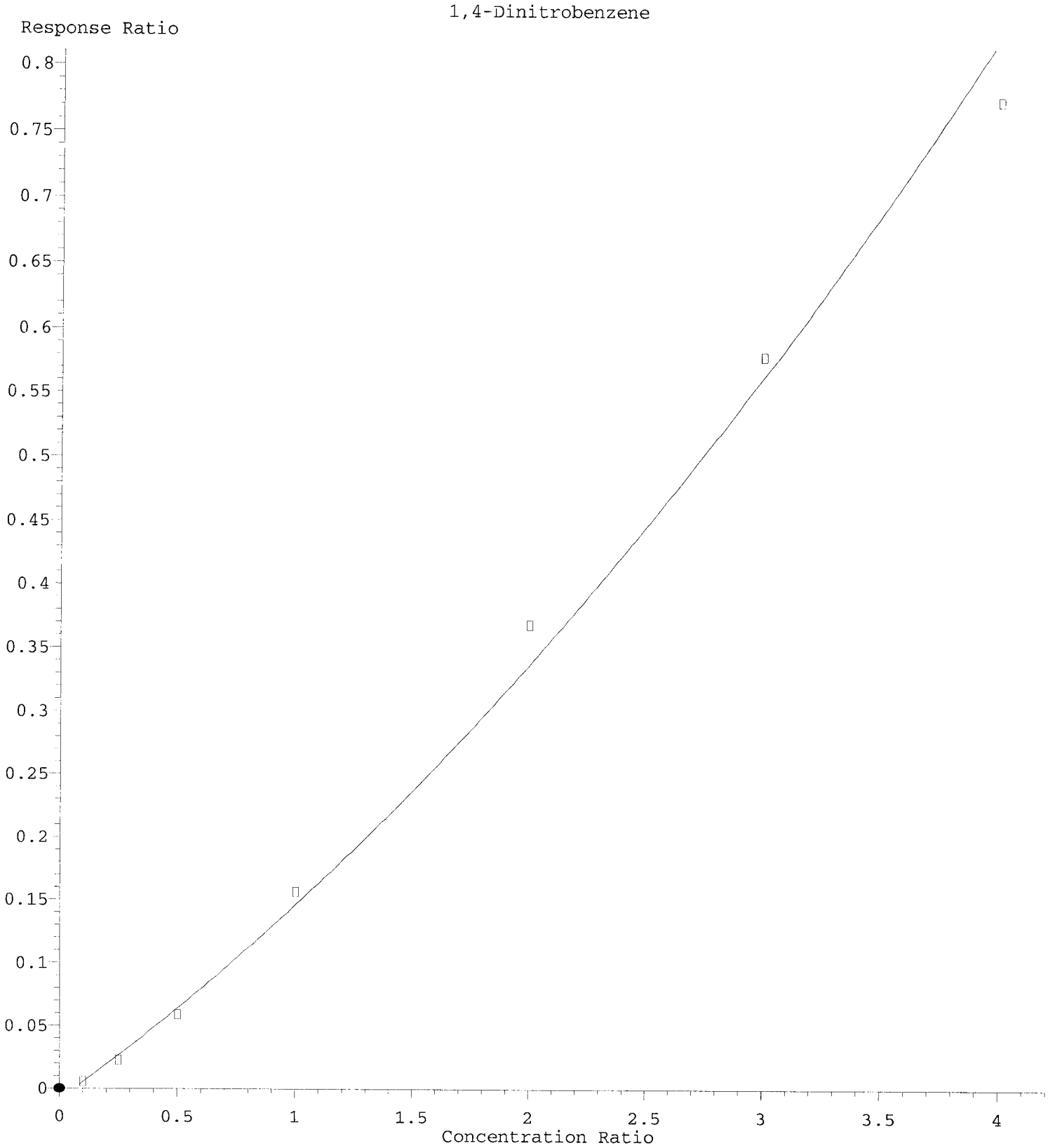
TIC: I10161912.D\data.ms

(42) 2-Nitroaniline (T)

9.226min (+ 0.001) 64.29 ng/ml m

response 157

Ion	Exp%	Act%
138.10	100.00	100.00
65.10	95.80	83.20
92.10	63.00	89.84
0.00	0.00	0.00

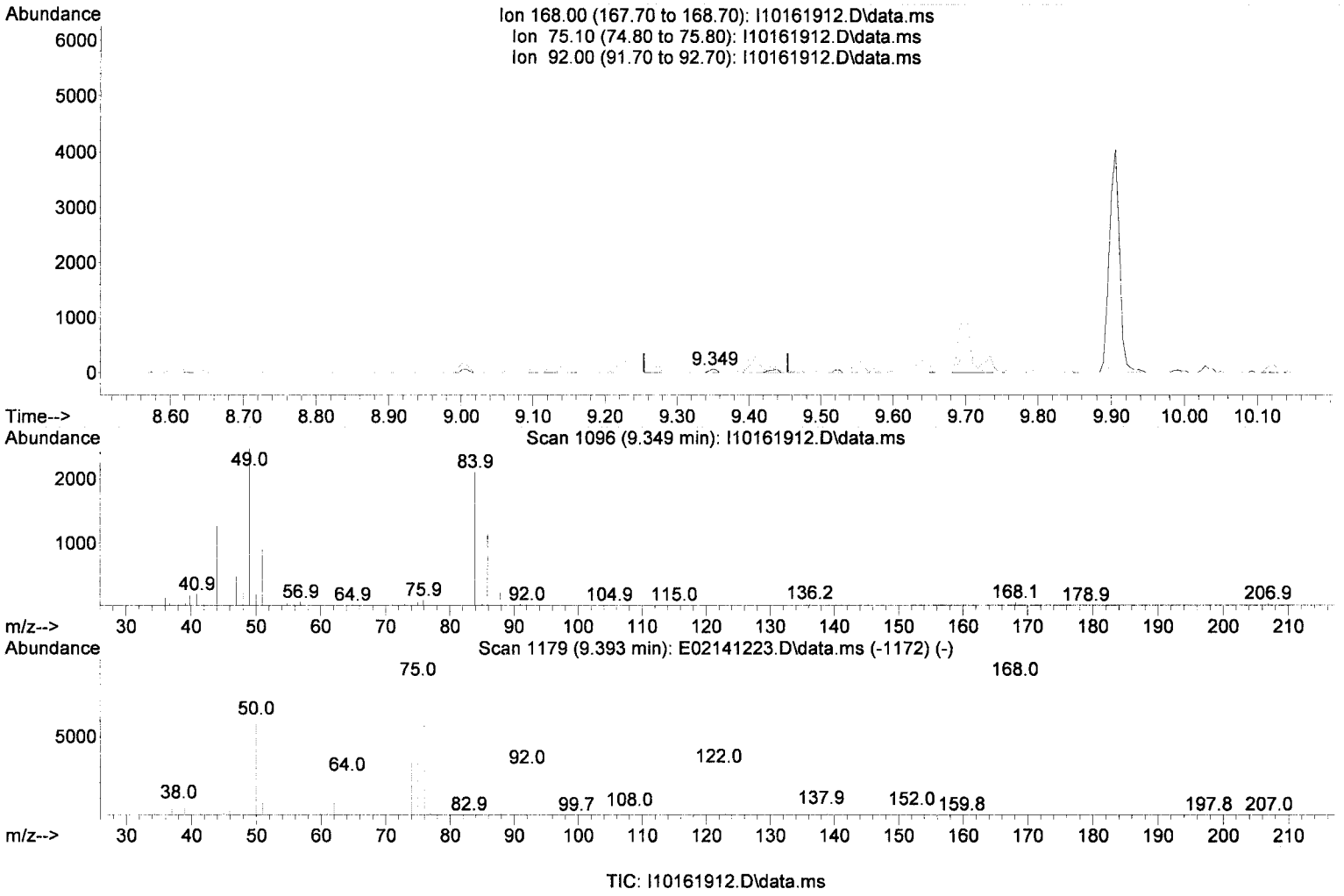


R = 1.76e-002 A*A + 1.38e-001 A - 8.99e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



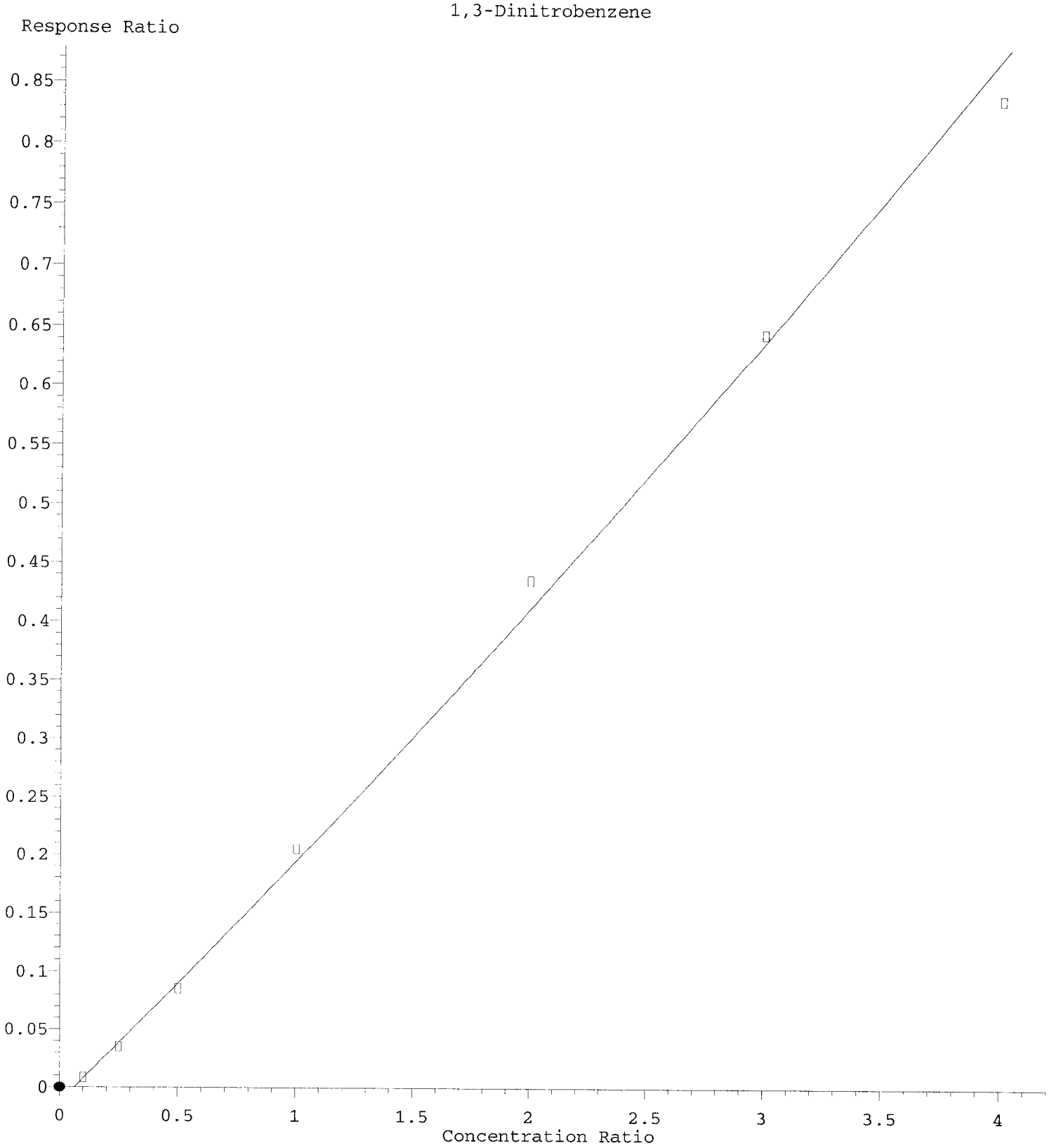
TIC: I10161912.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.349min (-0.005) 137.95 ng/ml m

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
75.10	130.80	107.58
92.00	42.80	57.58
0.00	0.00	0.00

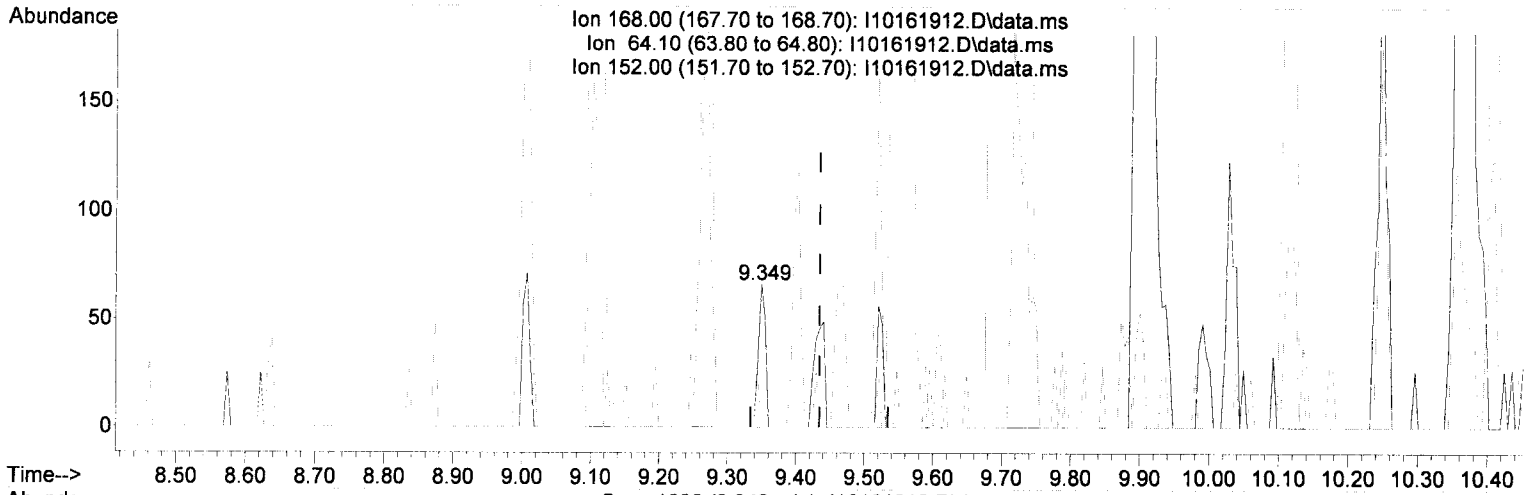


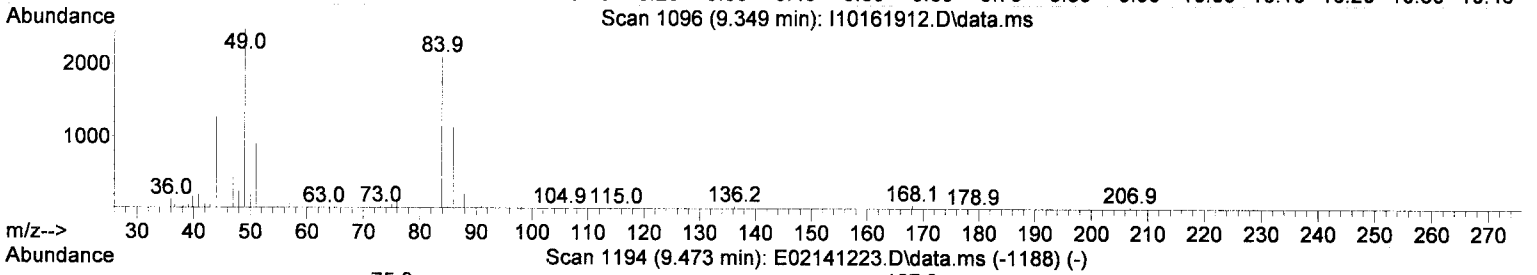
R = 4.65e-003 A*A + 2.02e-001 A - 1.26e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

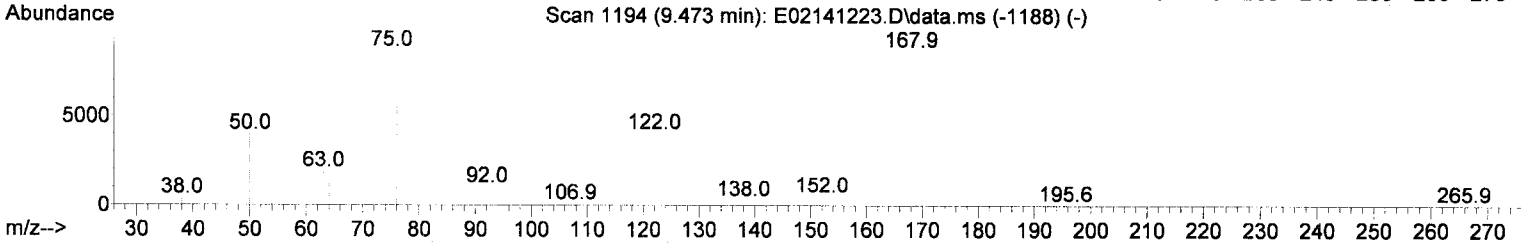
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







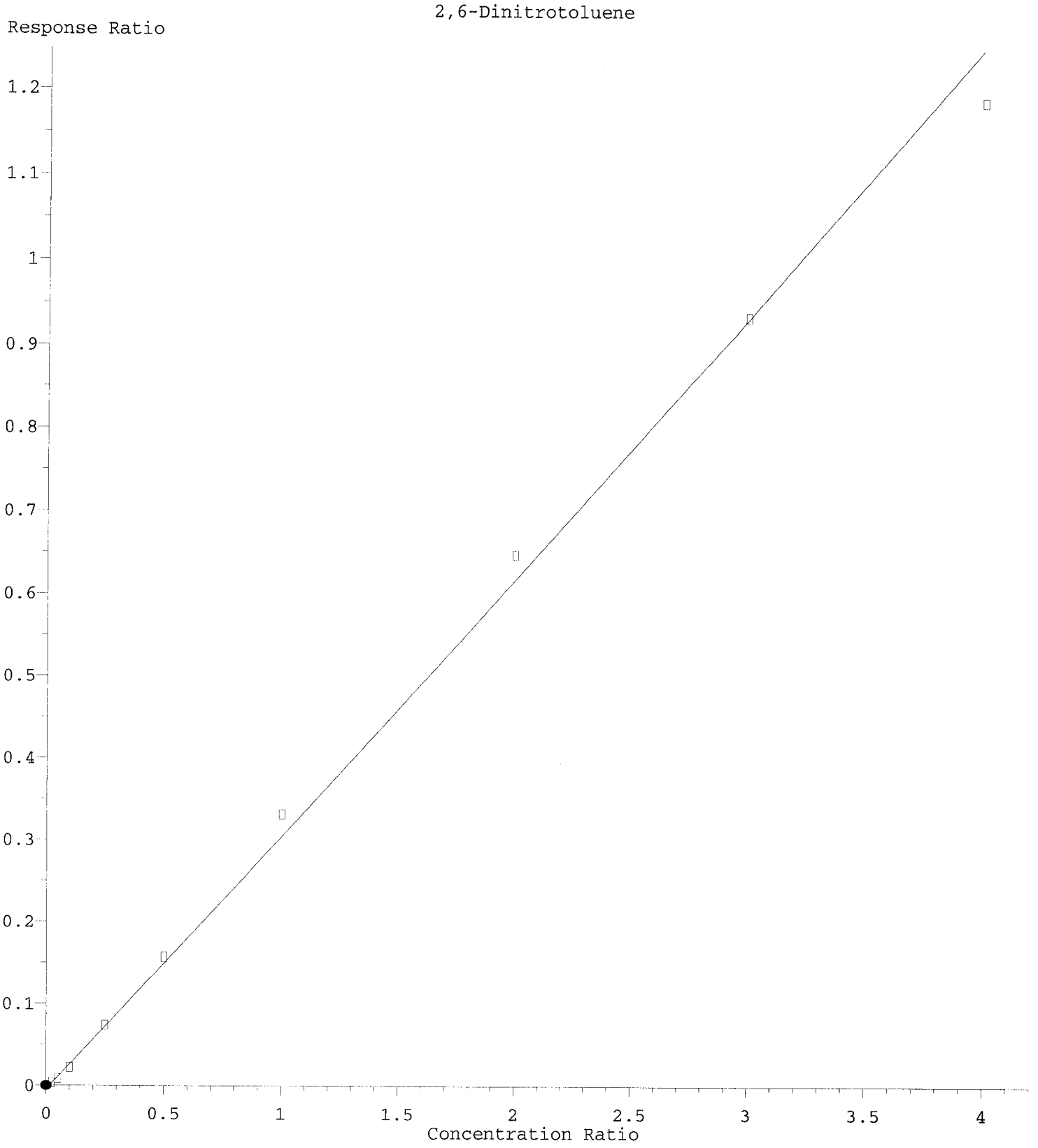
TIC: I10161912.D\data.ms

(46) 1,3-Dinitrobenzene (T)

9.349min (-0.085) 129.76 ng/ml m

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
64.10	30.80	0.00#
152.00	7.90	0.00
0.00	0.00	0.00

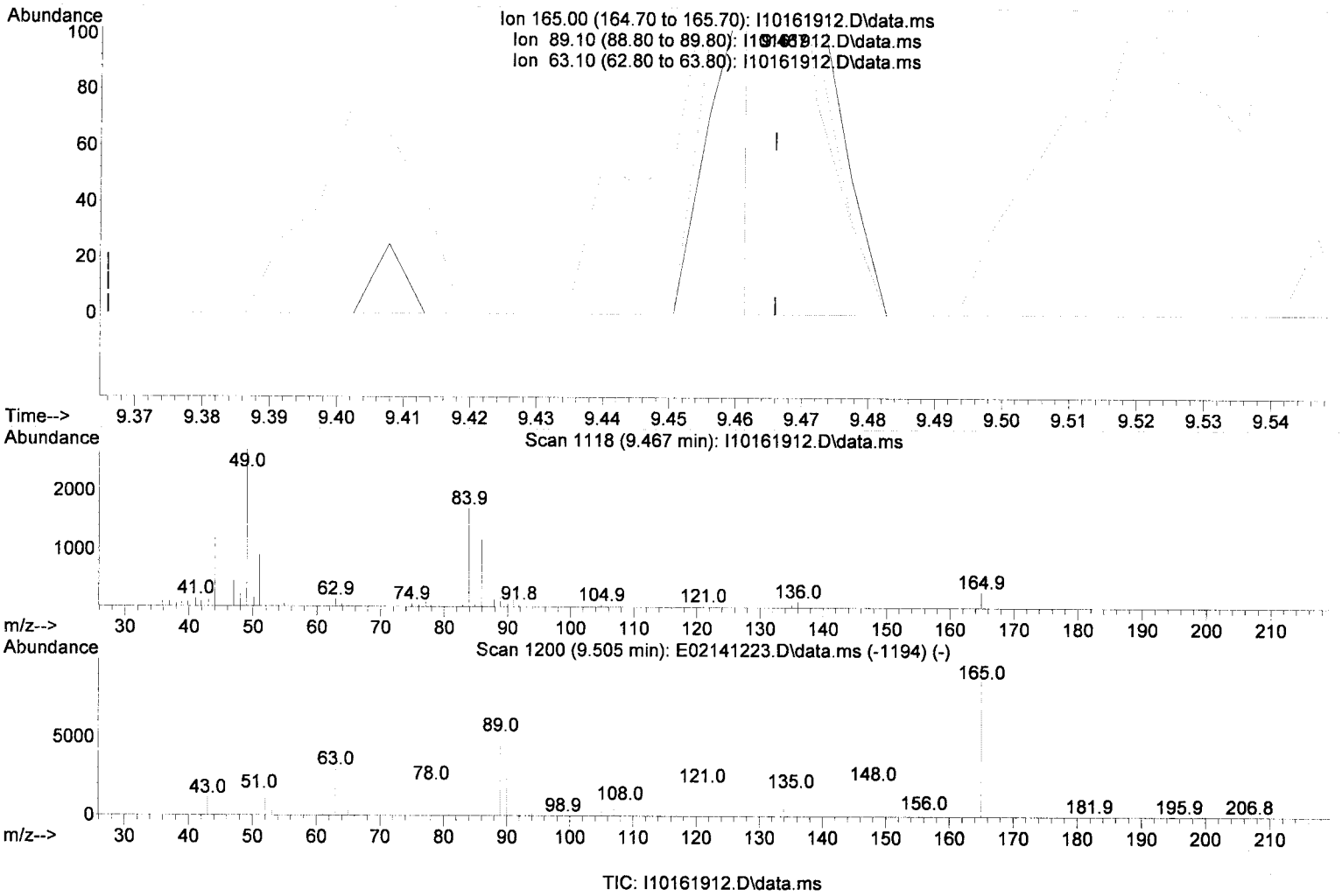


R = 1.53e-003 A*A + 3.08e-001 A - 4.92e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



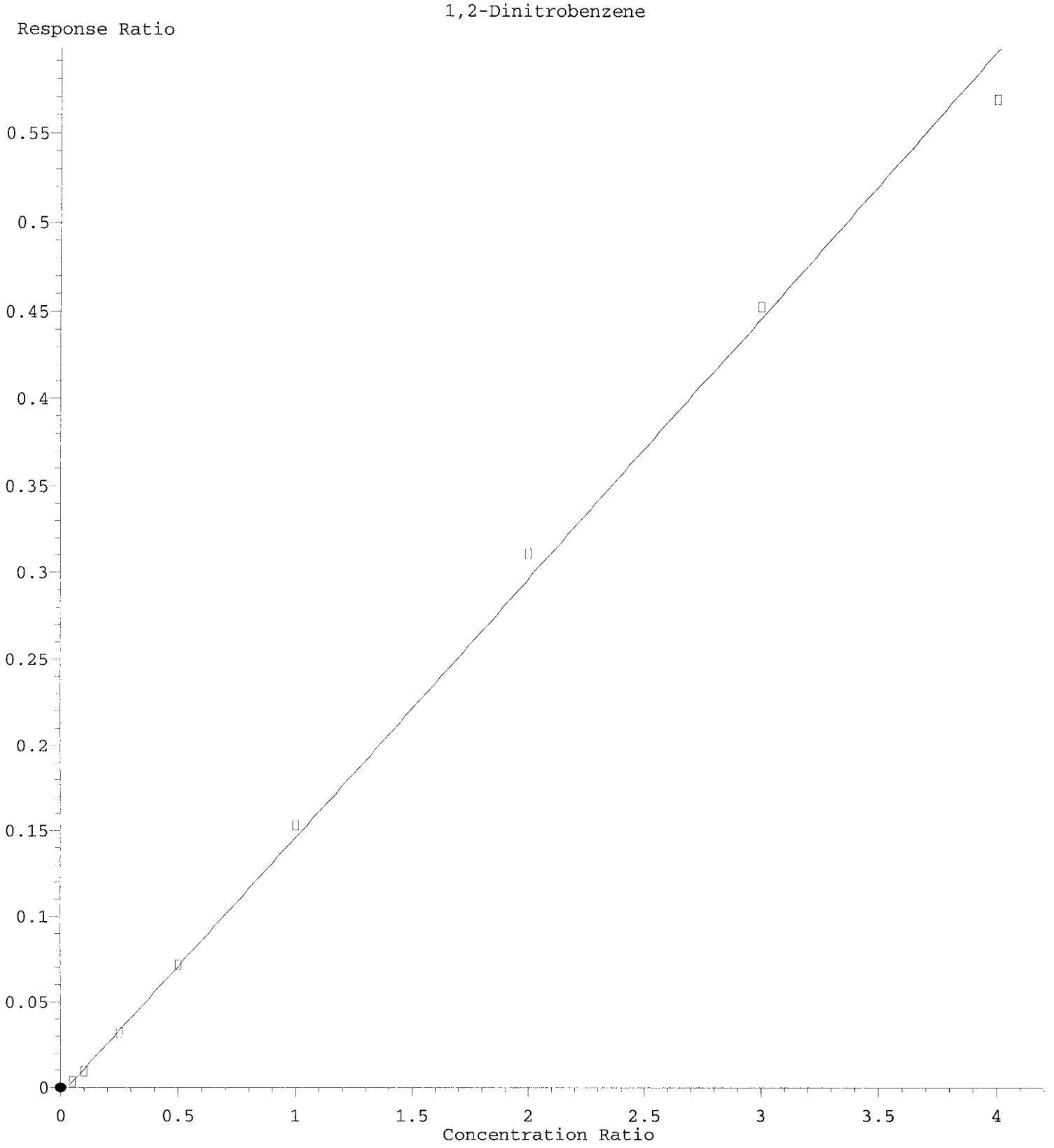
TIC: I10161912.D\data.ms

(47) 2,6-Dinitrotoluene (T)

9.467min (+ 0.001) 36.20 ng/ml m

response 149

Ion	Exp%	Act%
165.00	100.00	100.00
89.10	57.40	73.56
63.10	60.10	51.53
0.00	0.00	0.00

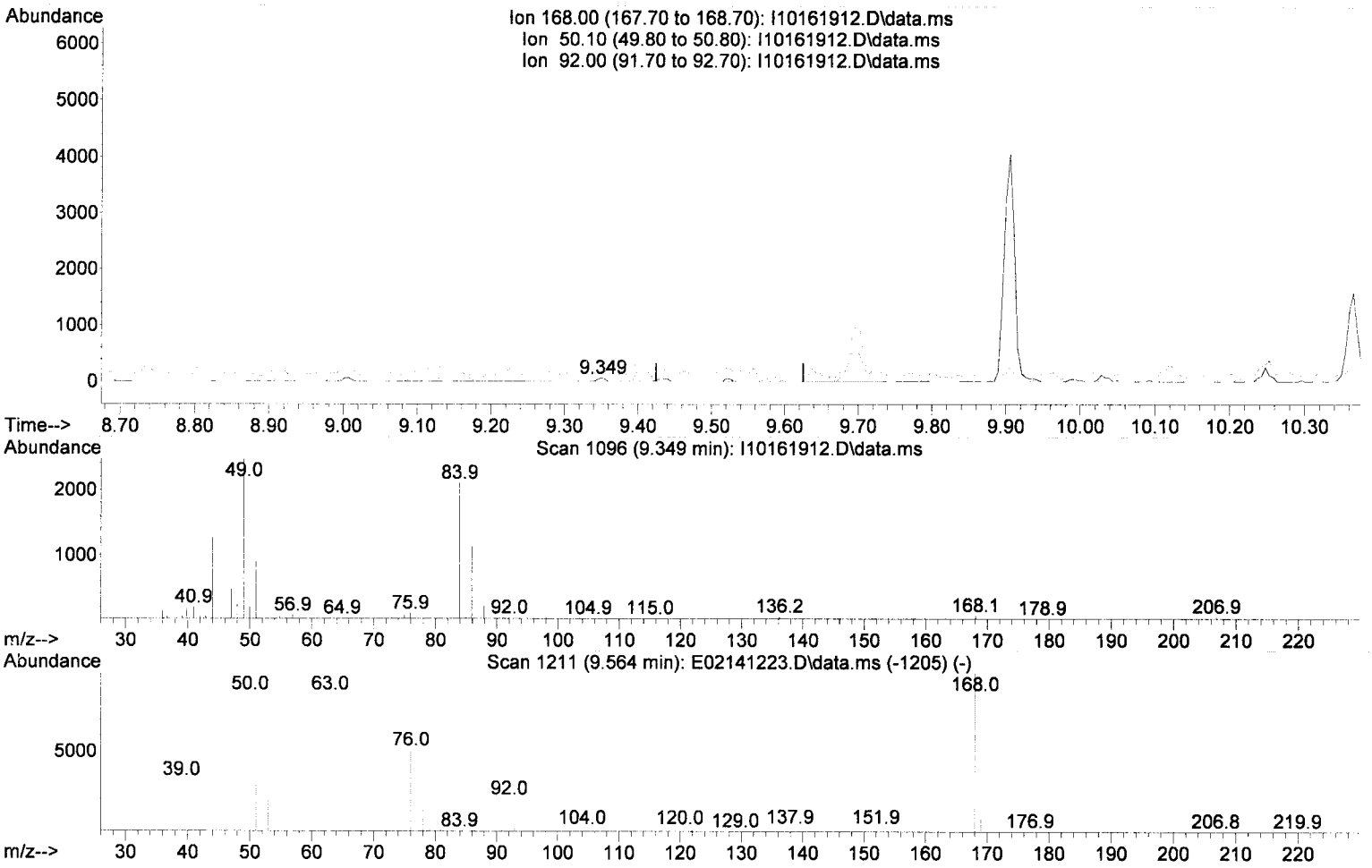


R = -3.71e-005 A*A + 1.50e-001 A - 4.34e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



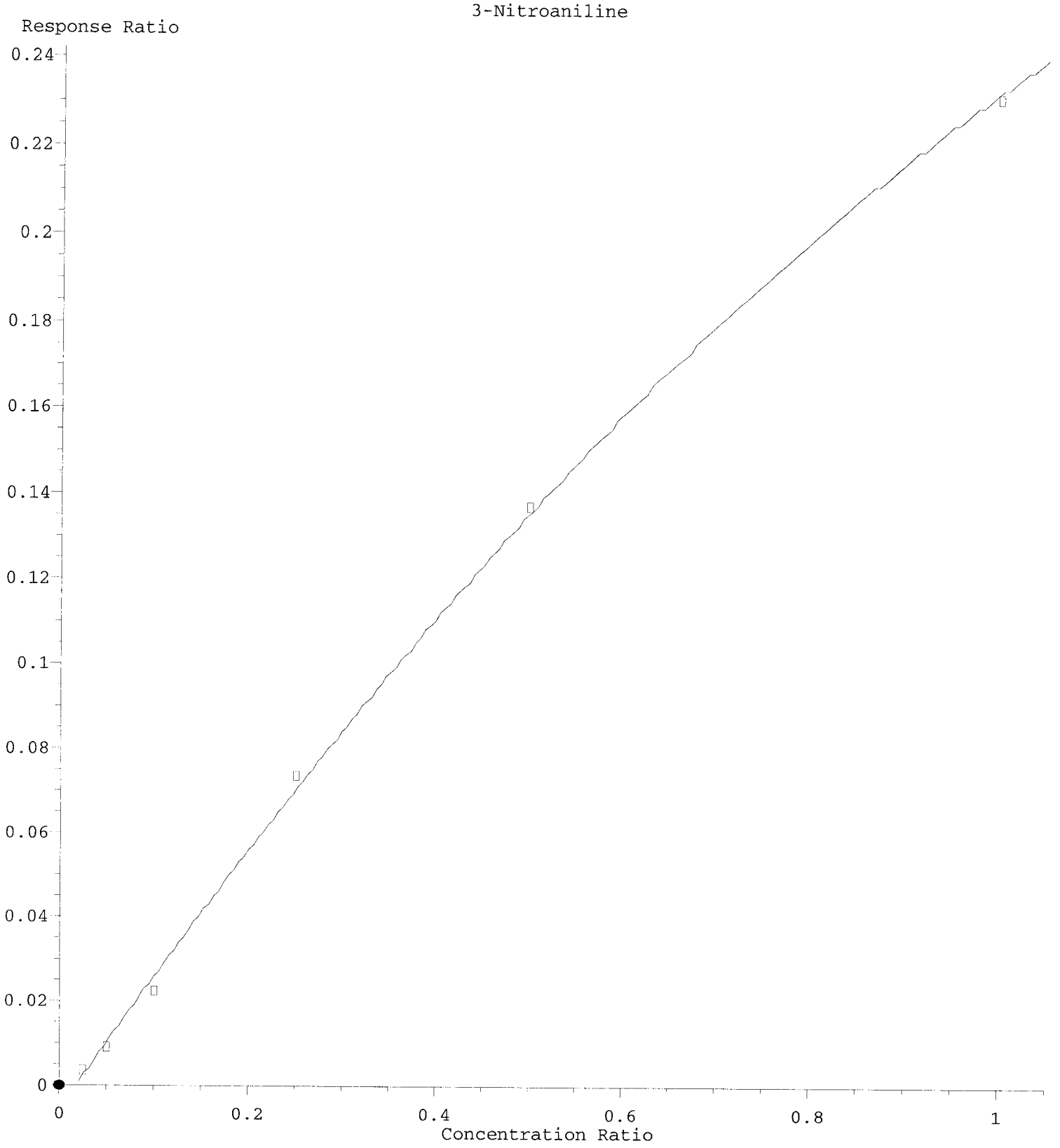
TIC: I10161912.D\data.ms

(48) 1,2-Dinitrobenzene (T)

9.349min (-0.176) 65.38 ng/ml m ✓

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
50.10	125.70	304.55#
92.00	20.70	57.58#
0.00	0.00	0.00

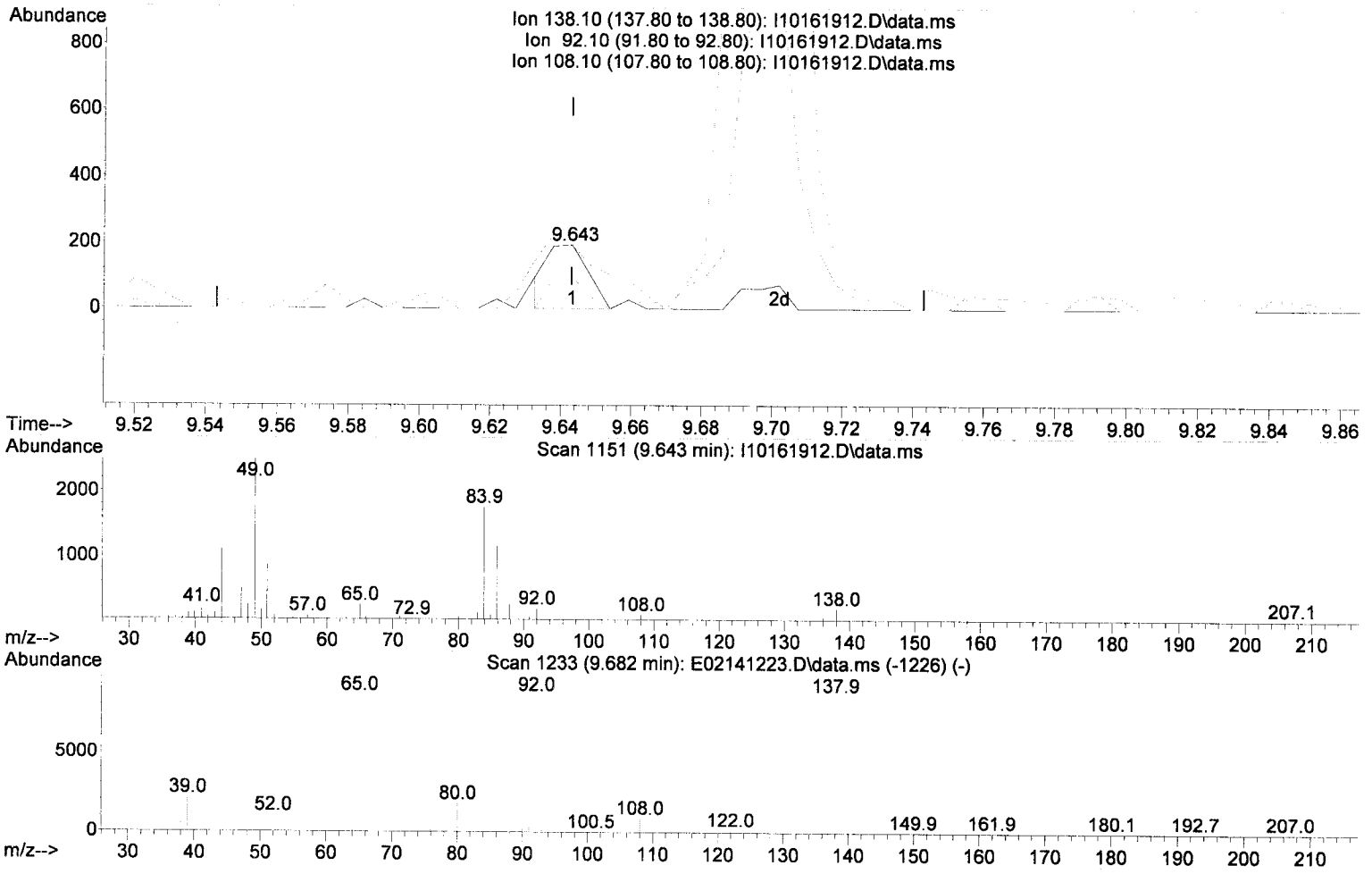


R = -8.76e-002 A*A + 3.26e-001 A - 5.72e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



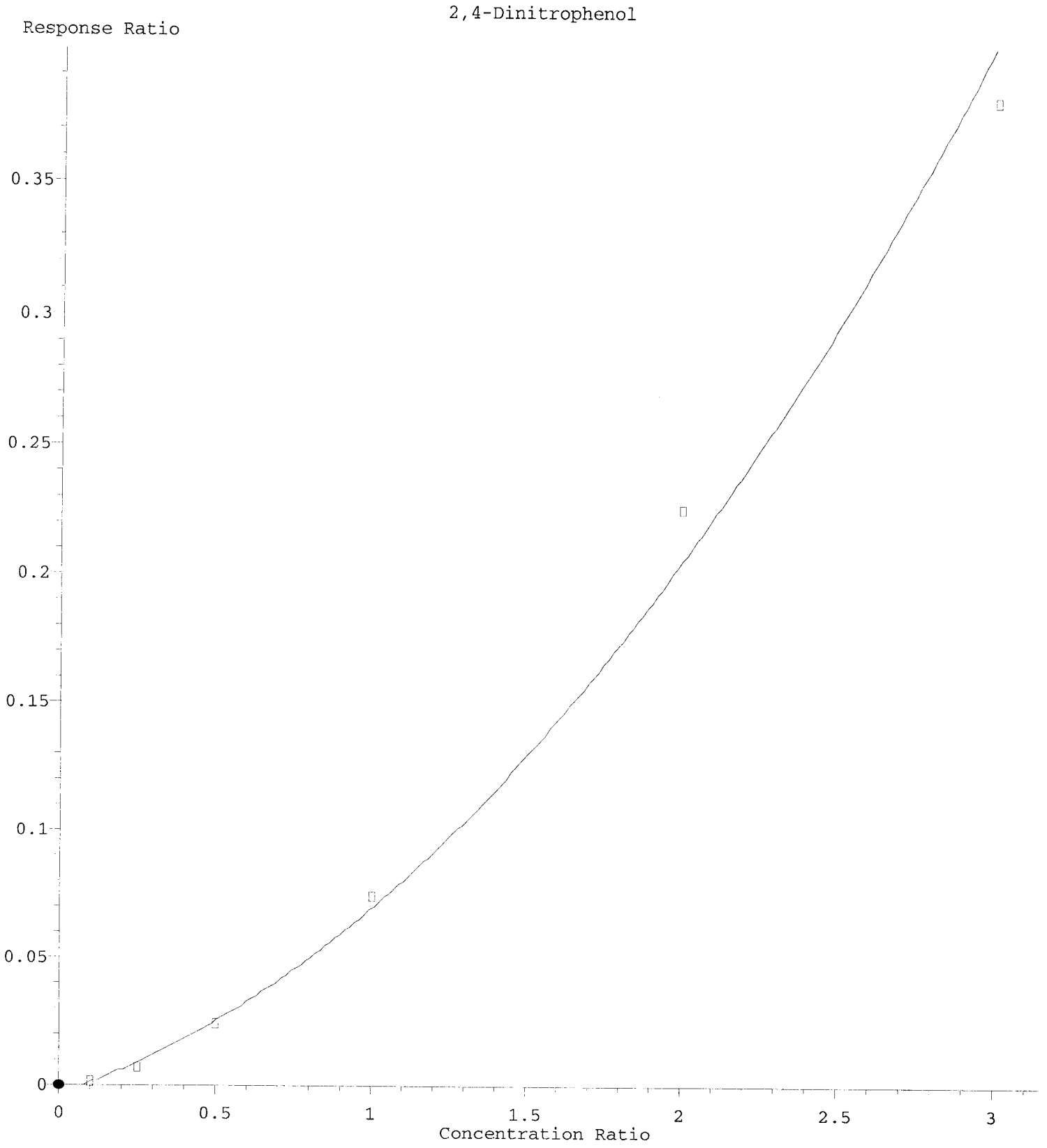
TIC: I10161912.D\data.ms

(50) 3-Nitroaniline (T)

9.643min (+ 0.000) 39.50 ng/ml m

response 155

Ion	Exp%	Act%
138.10	100.00	100.00
92.10	112.80	98.97
108.10	12.60	50.00#
0.00	0.00	0.00

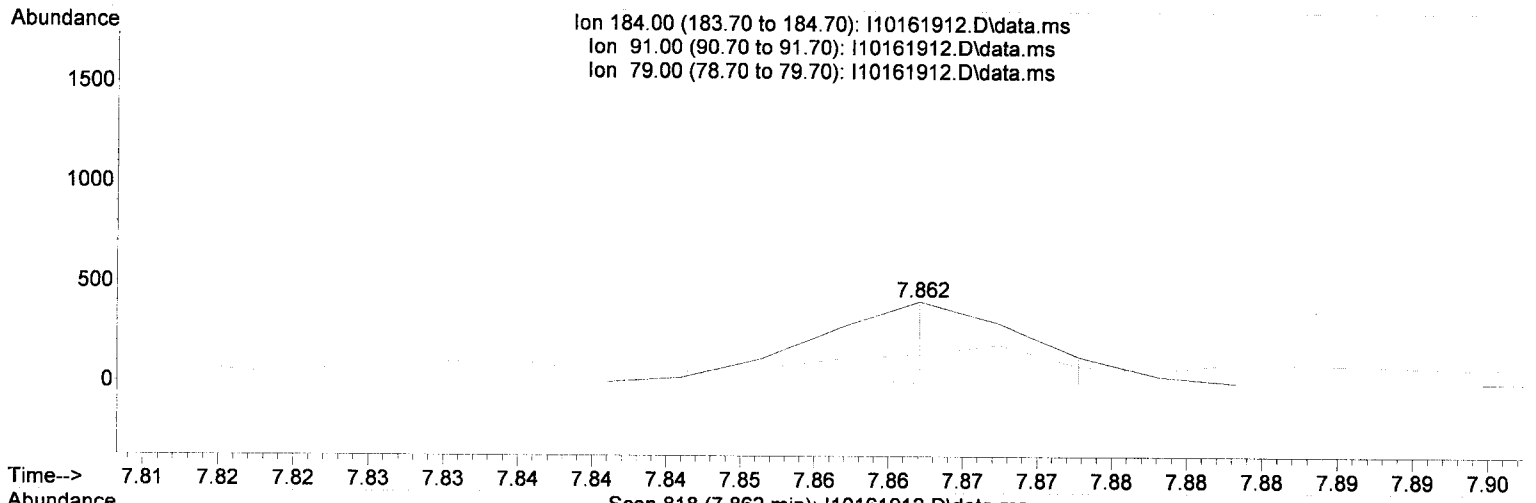


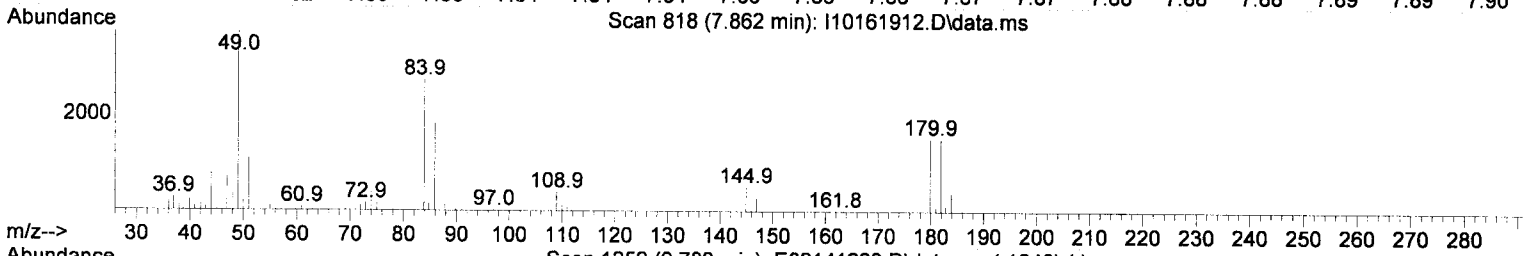
R = 3.12e-002 A*A + 4.17e-002 A - 3.42e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

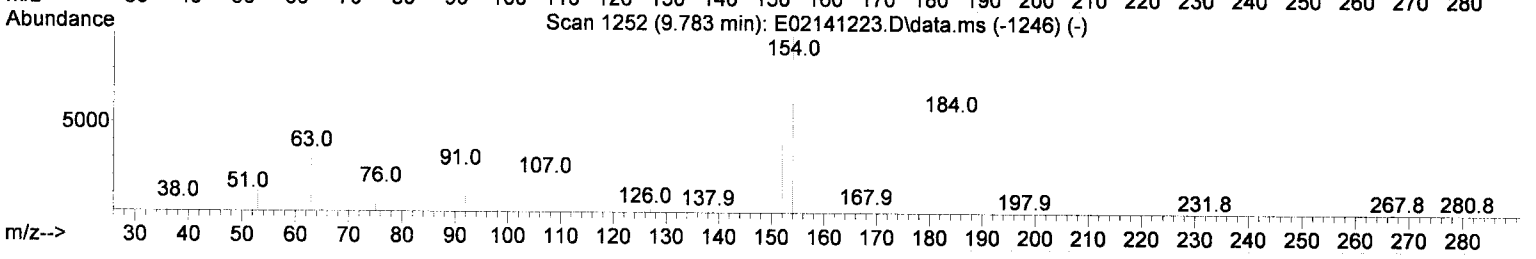
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







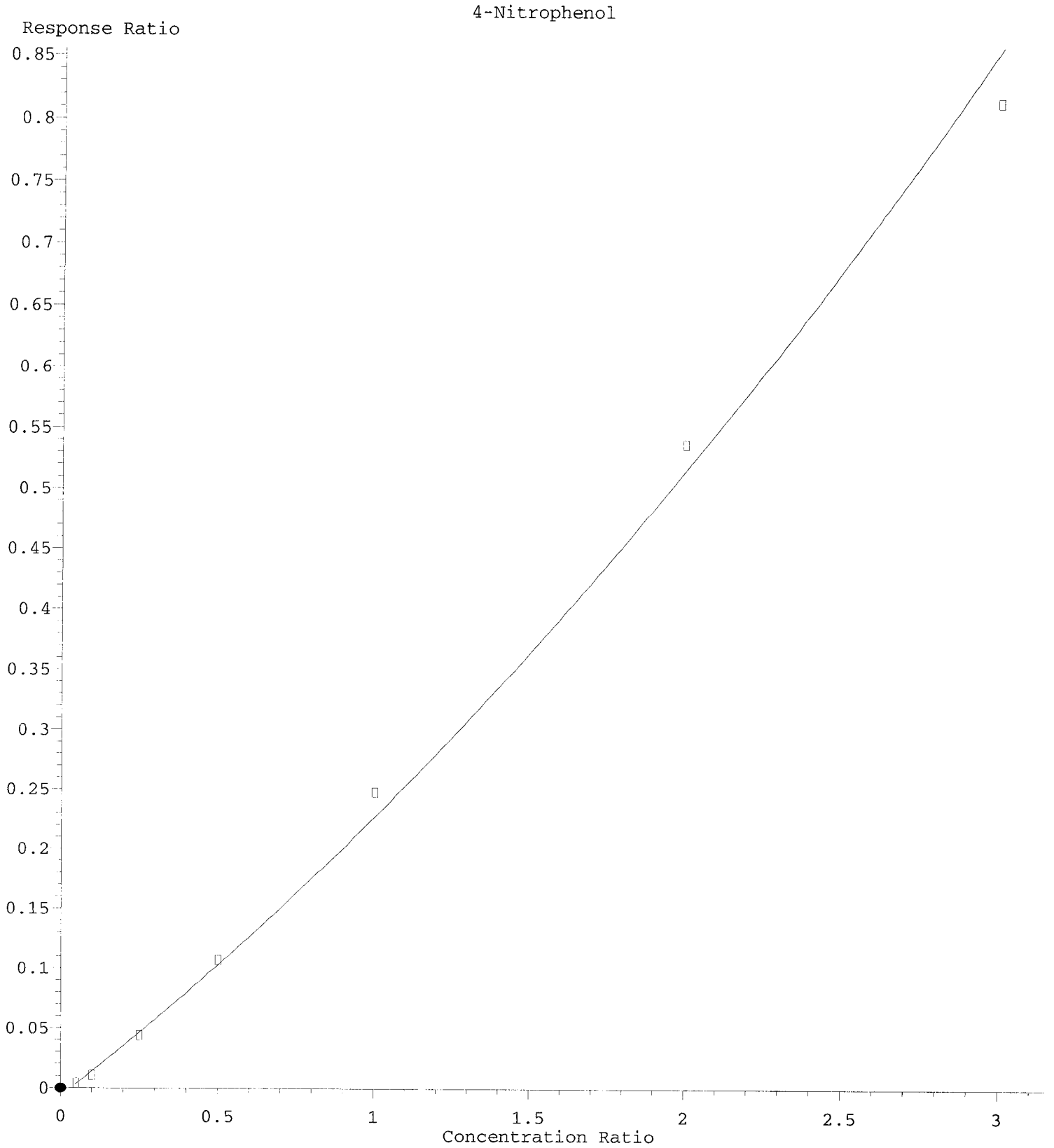
TIC: I10161912.D\data.ms

(52) 2,4-Dinitrophenol (T)

7.862min (-1.882) 181.07 ng/ml m

response 139

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	48.80	35.12
79.00	36.60	0.00#
0.00	0.00	0.00

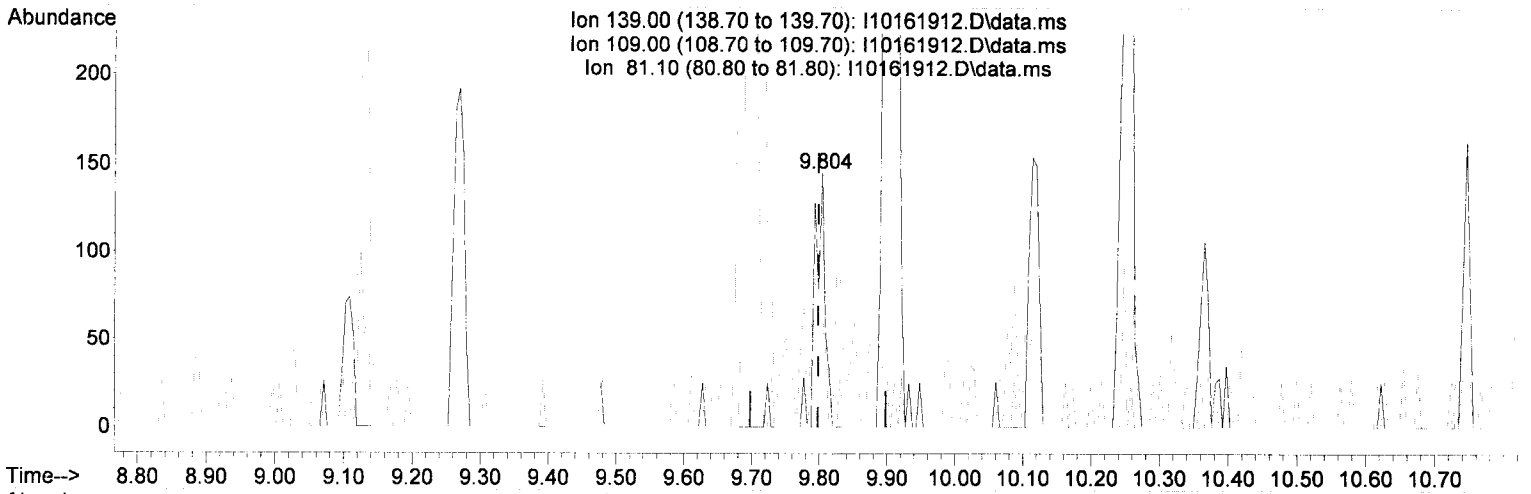


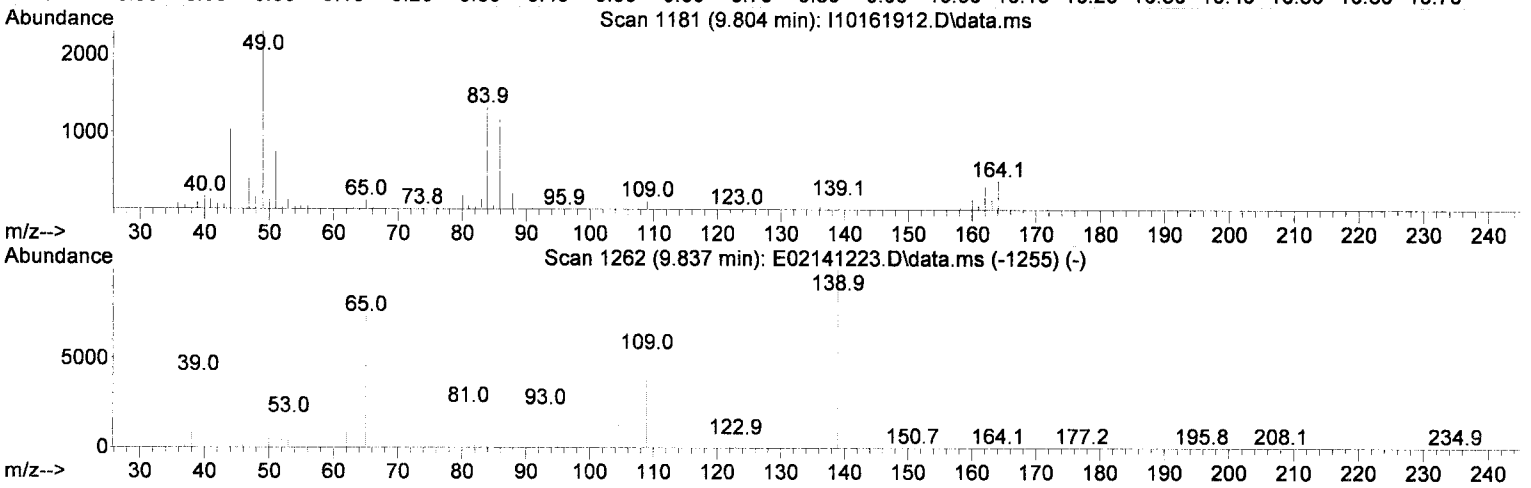
R = 2.68e-002 A*A + 2.07e-001 A - 7.34e-003
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





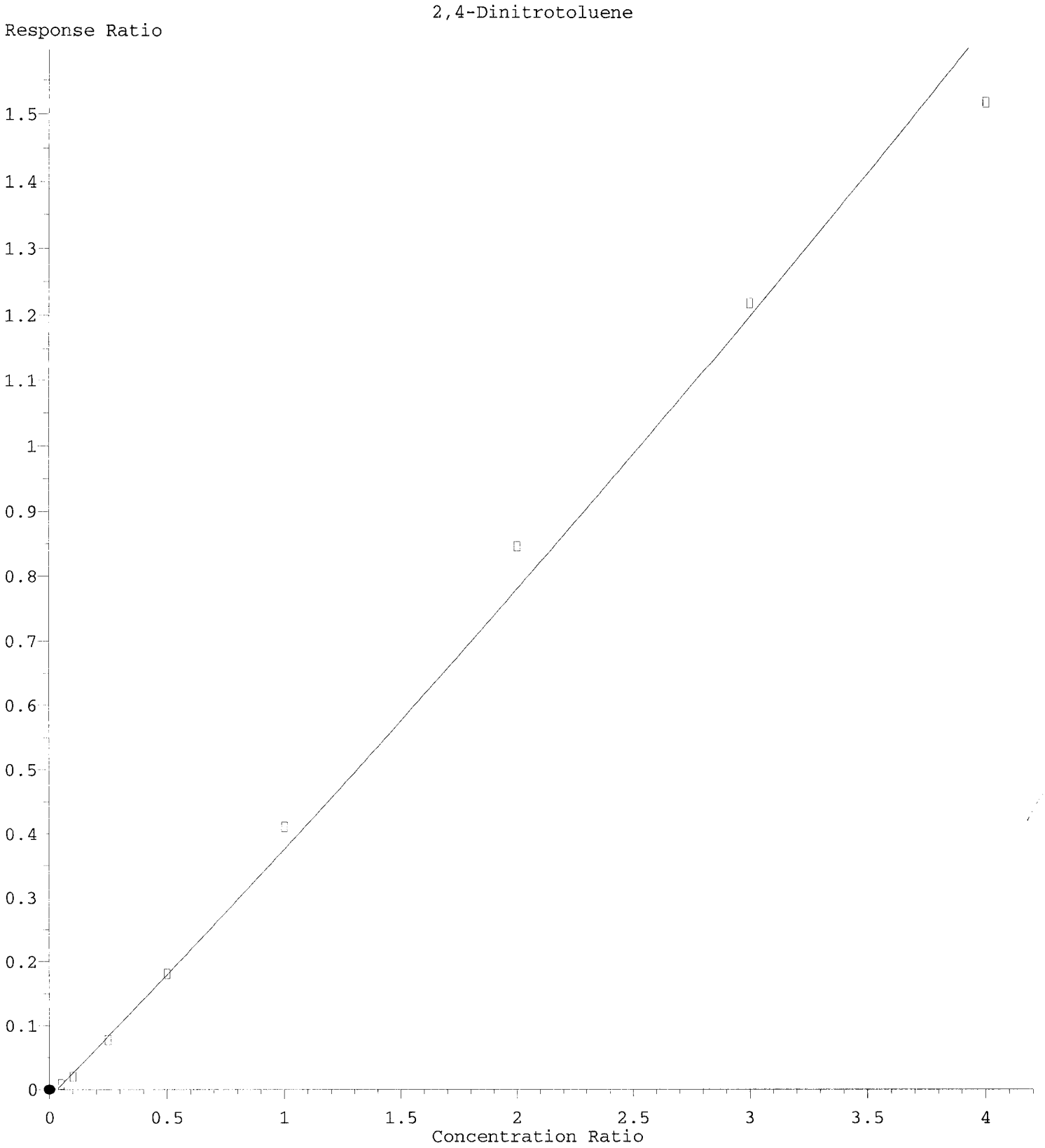
TIC: I10161912.D\data.ms

(53) 4-Nitrophenol (T)

9.804min (+ 0.006) 76.65 ng/ml

response 149

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	61.50	86.90
81.10	31.00	44.14
0.00	0.00	0.00

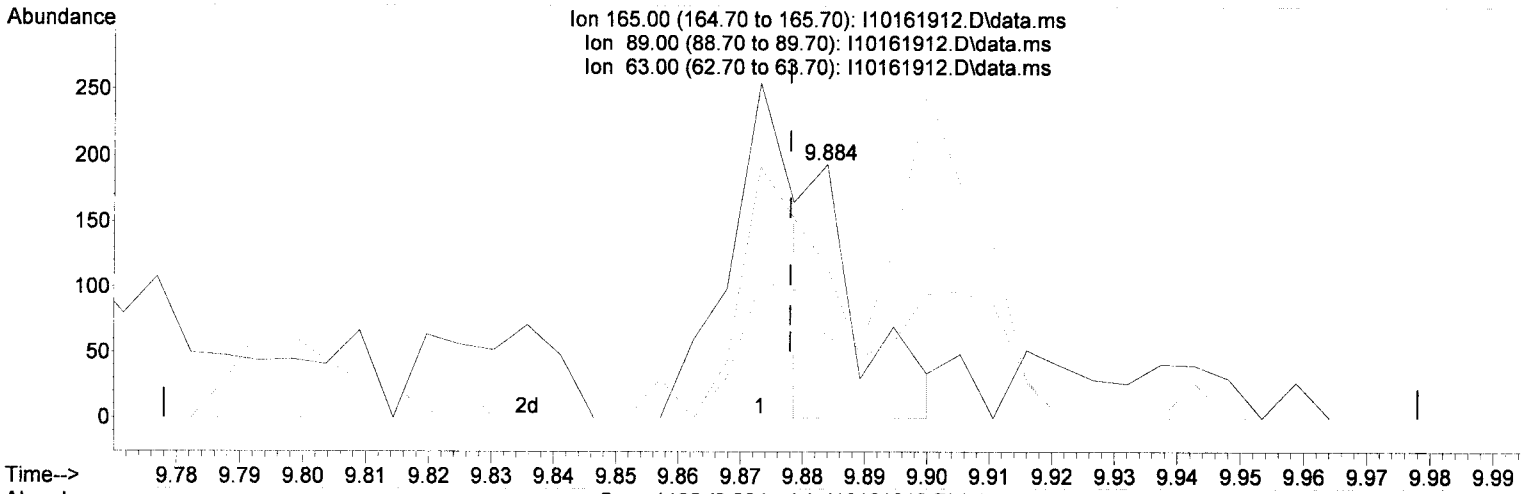


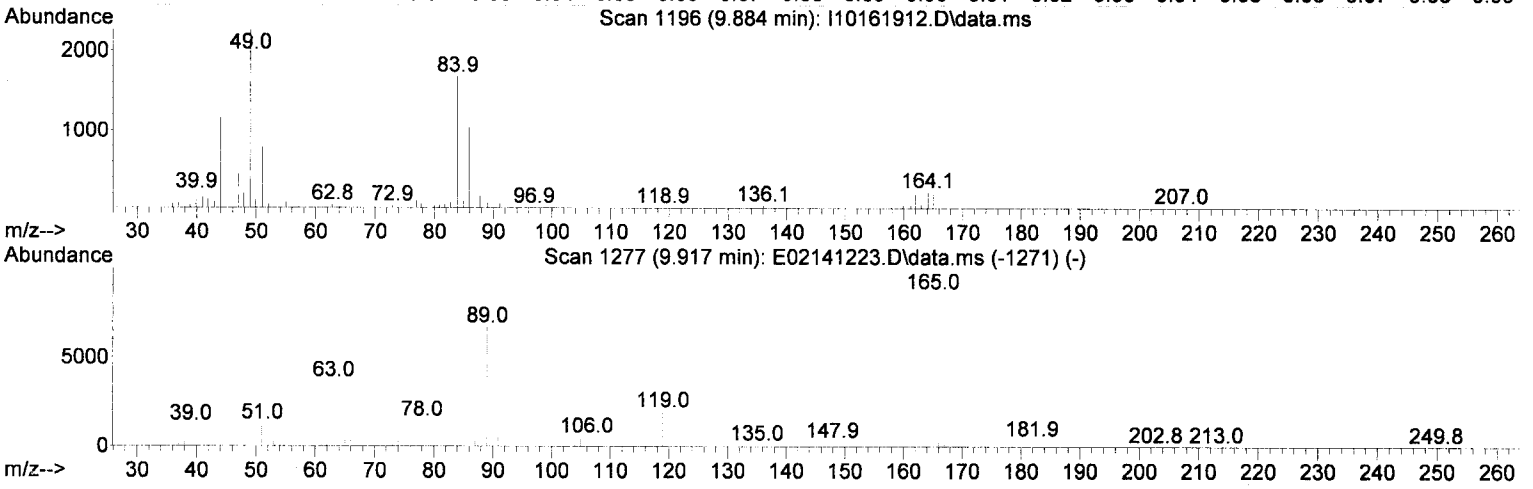
R = 7.80e-003 A*A + 3.80e-001 A - 1.27e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





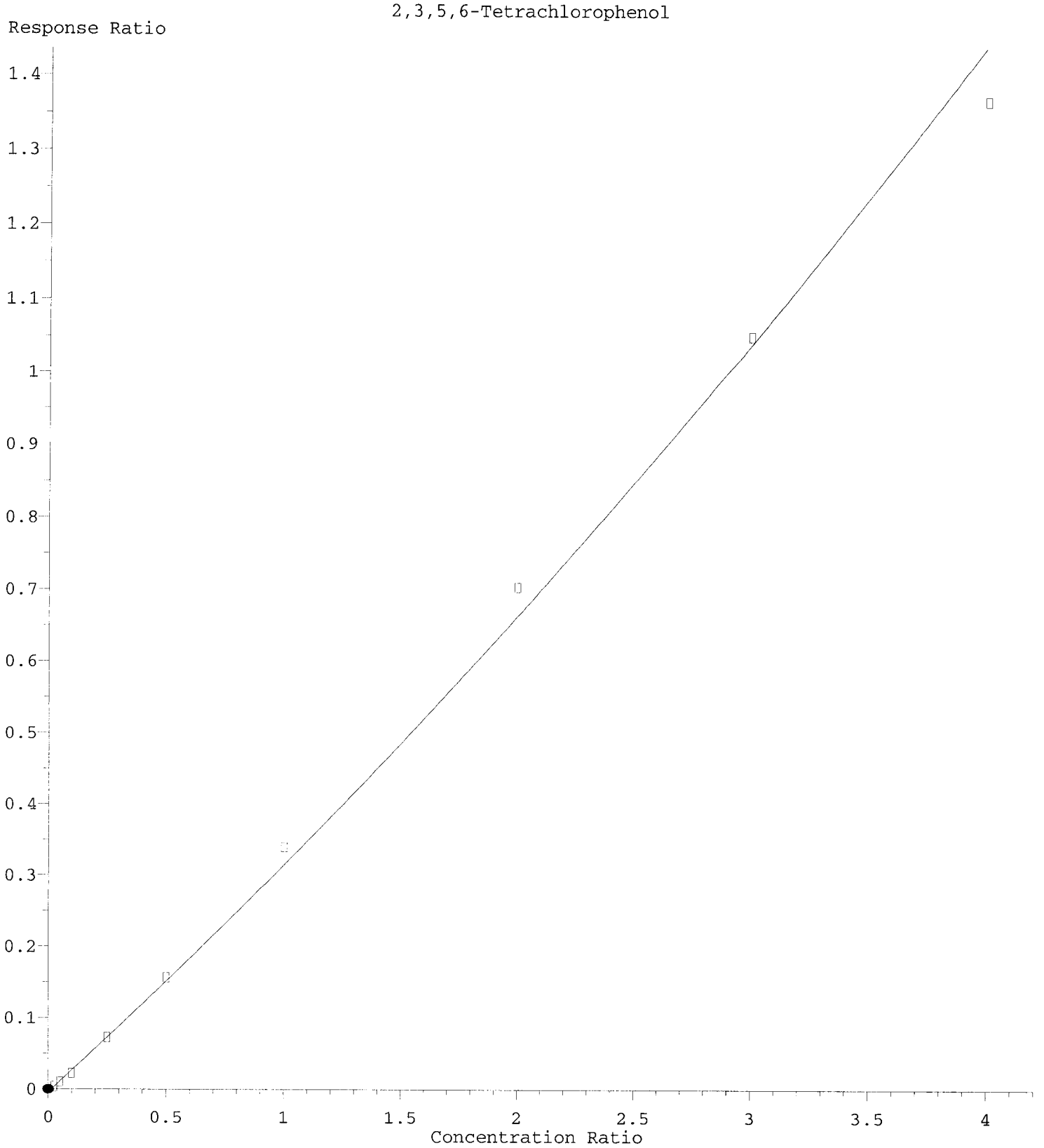
TIC: I10161912.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.884min (+ 0.006) 69.32 ng/ml m

response 105

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	59.79
63.00	45.90	31.96
0.00	0.00	0.00

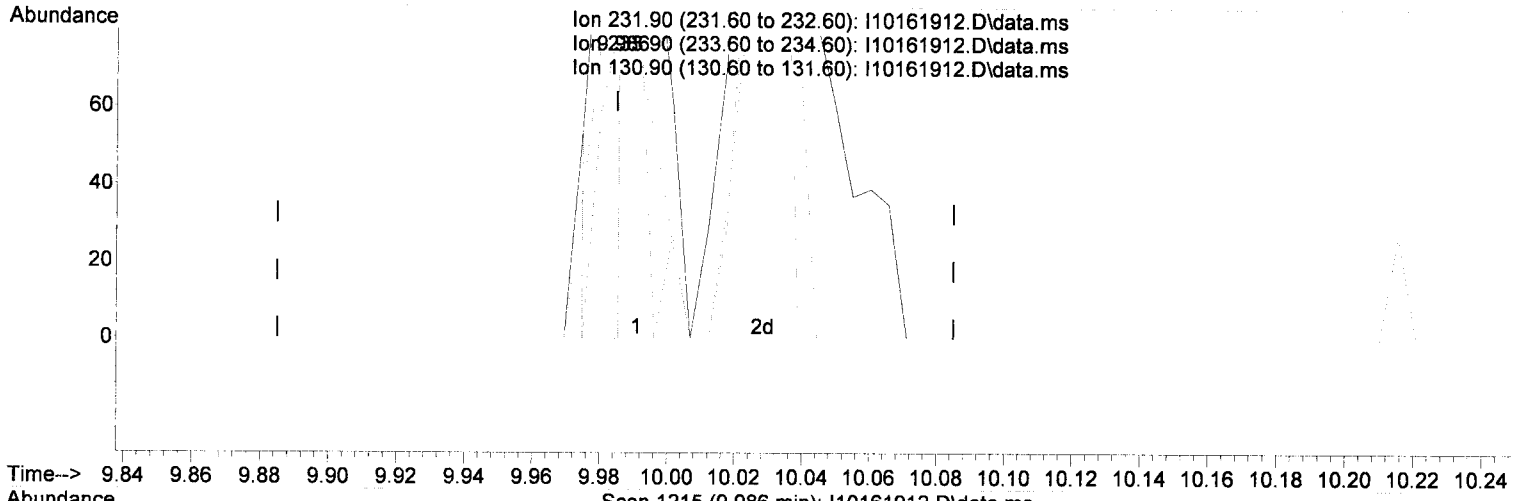


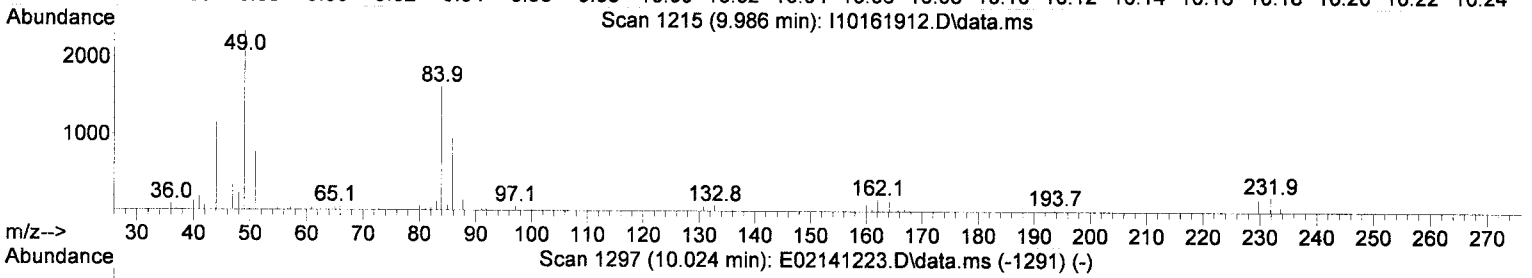
R = 1.42e-002 A*A + 3.05e-001 A - 4.63e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

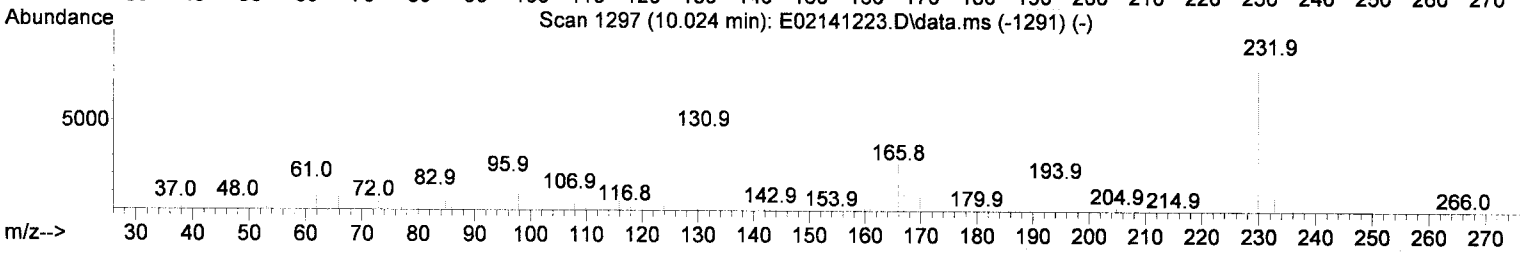
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







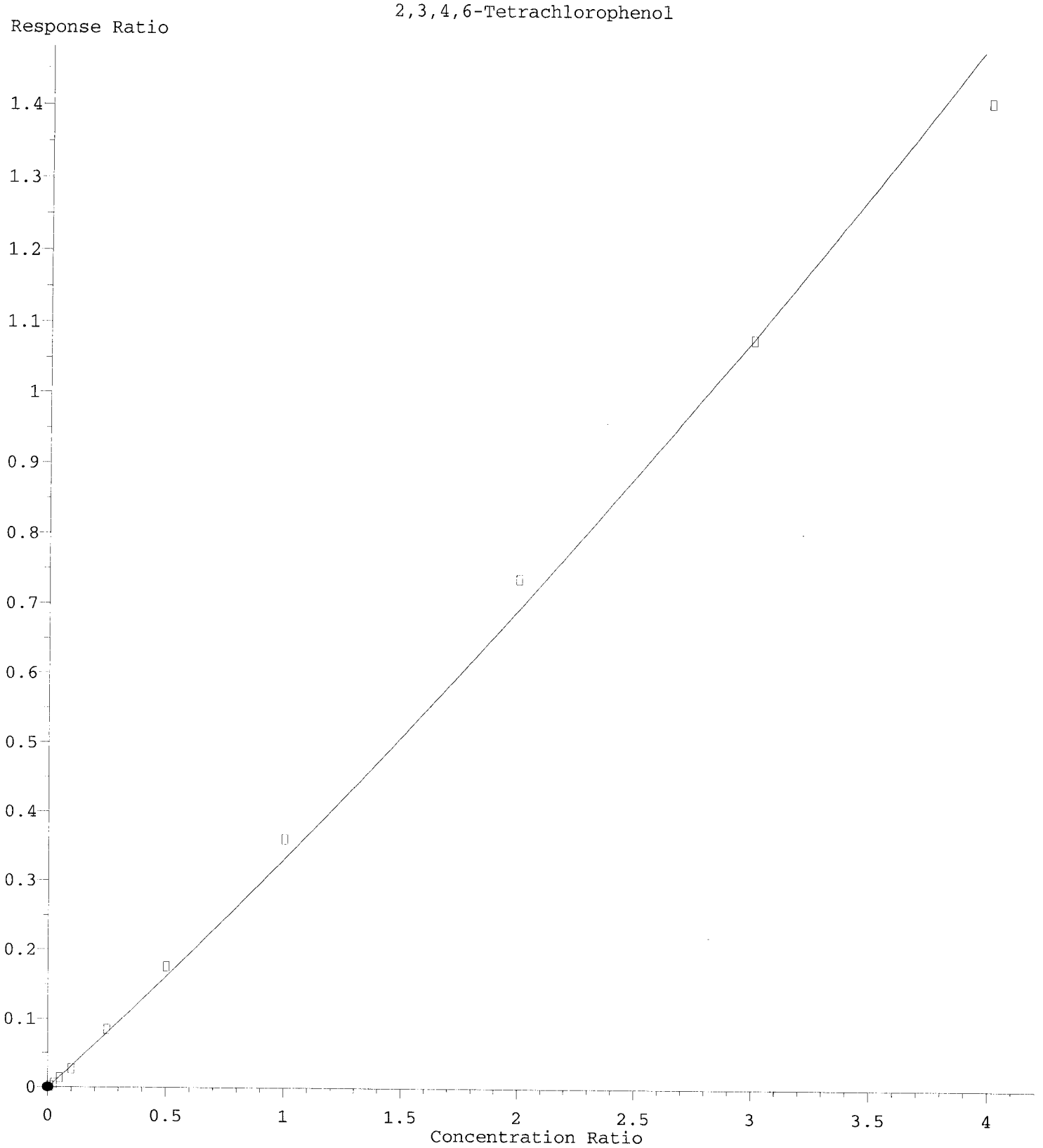
TIC: I10161912.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.986min (+ 0.001) 33.47 ng/ml m

response 110

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	49.20	39.53
130.90	41.10	41.86
0.00	0.00	0.00

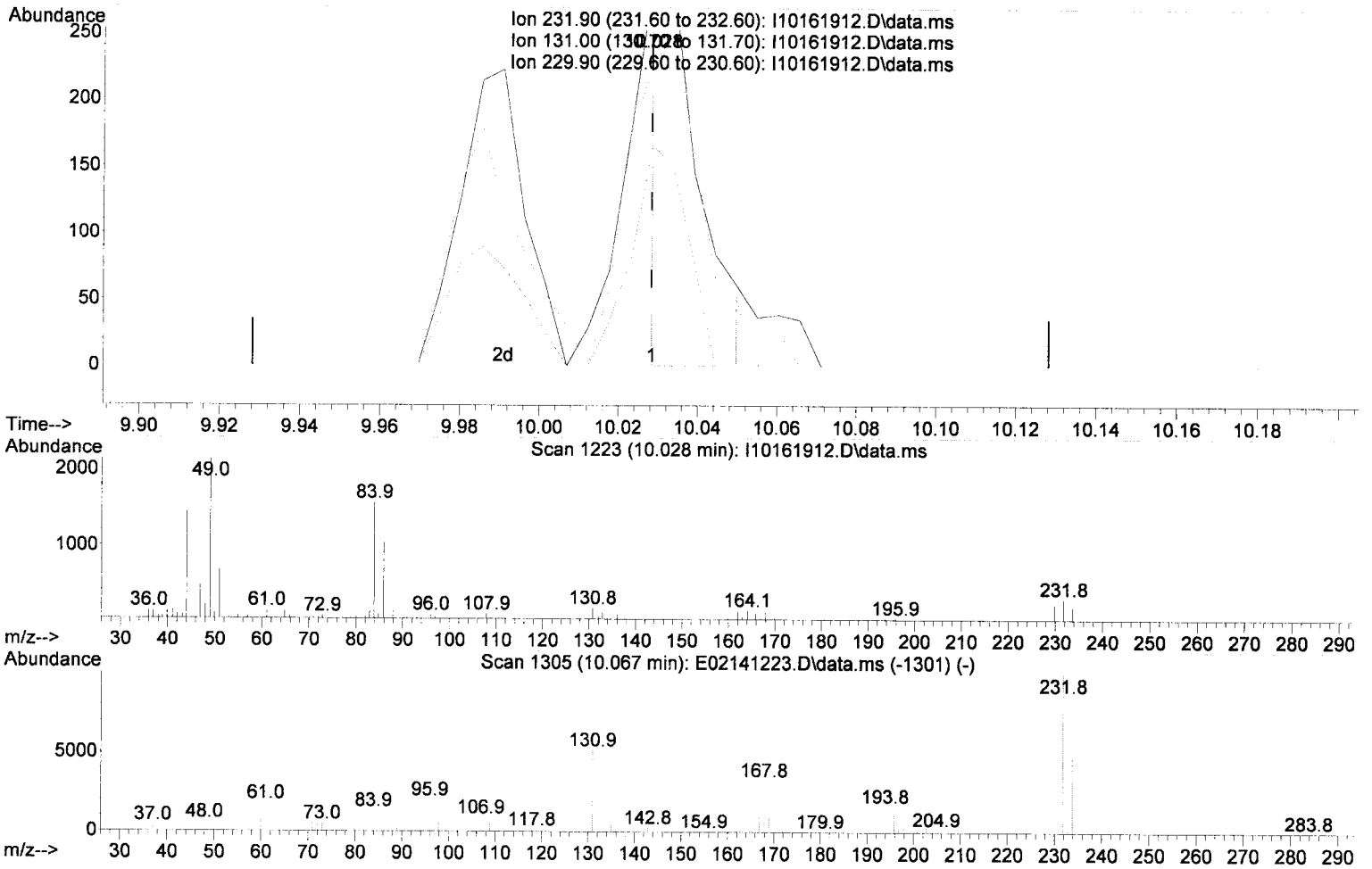


R = 1.33e-002 A*A + 3.20e-001 A - 1.69e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



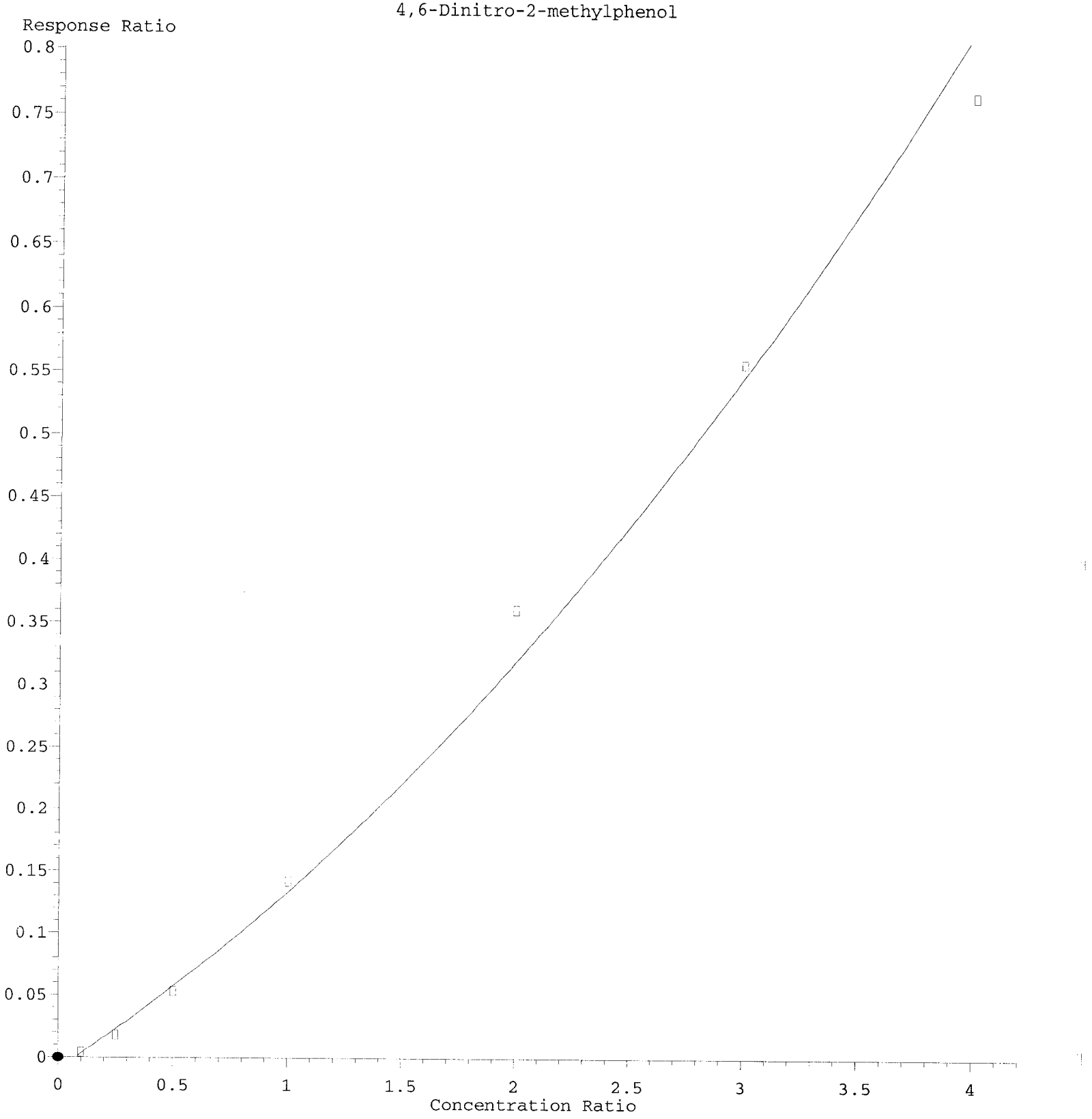
TIC: I10161912.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

10.028min (+ 0.000) 15.60 ng/ml m

response 185

Ion	Exp%	Act%
231.90	100.00	100.00
131.00	47.70	56.27
229.90	78.50	76.95
0.00	0.00	0.00

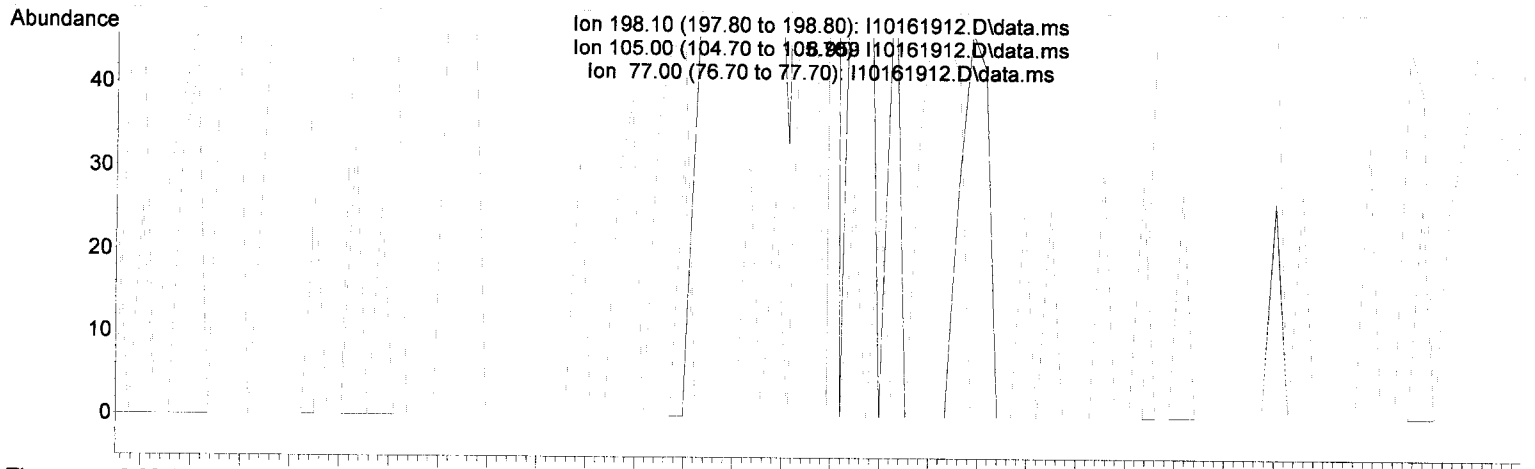


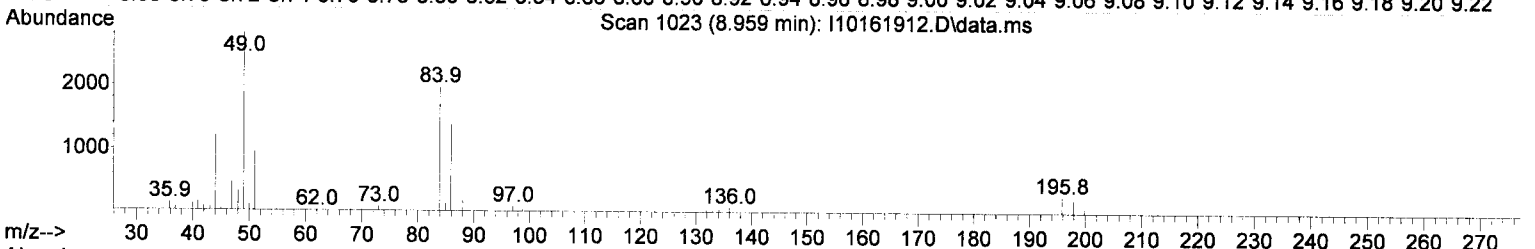
R = 2.12e-002 A*A + 1.22e-001 A - 9.10e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

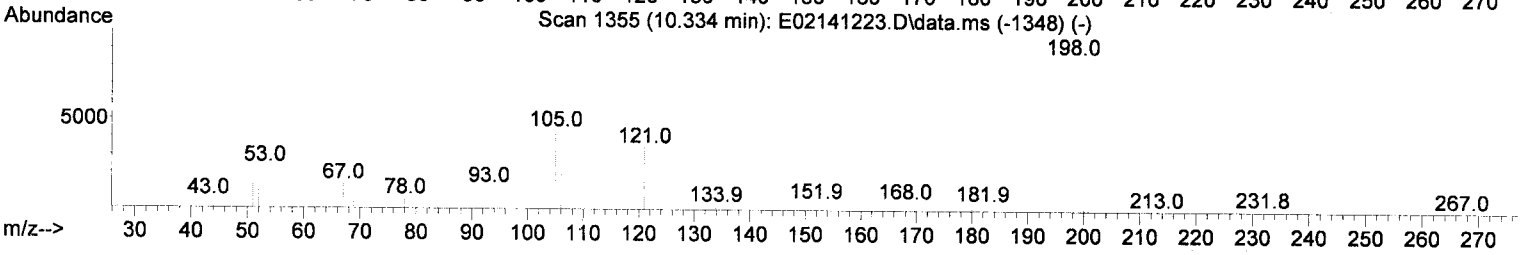
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







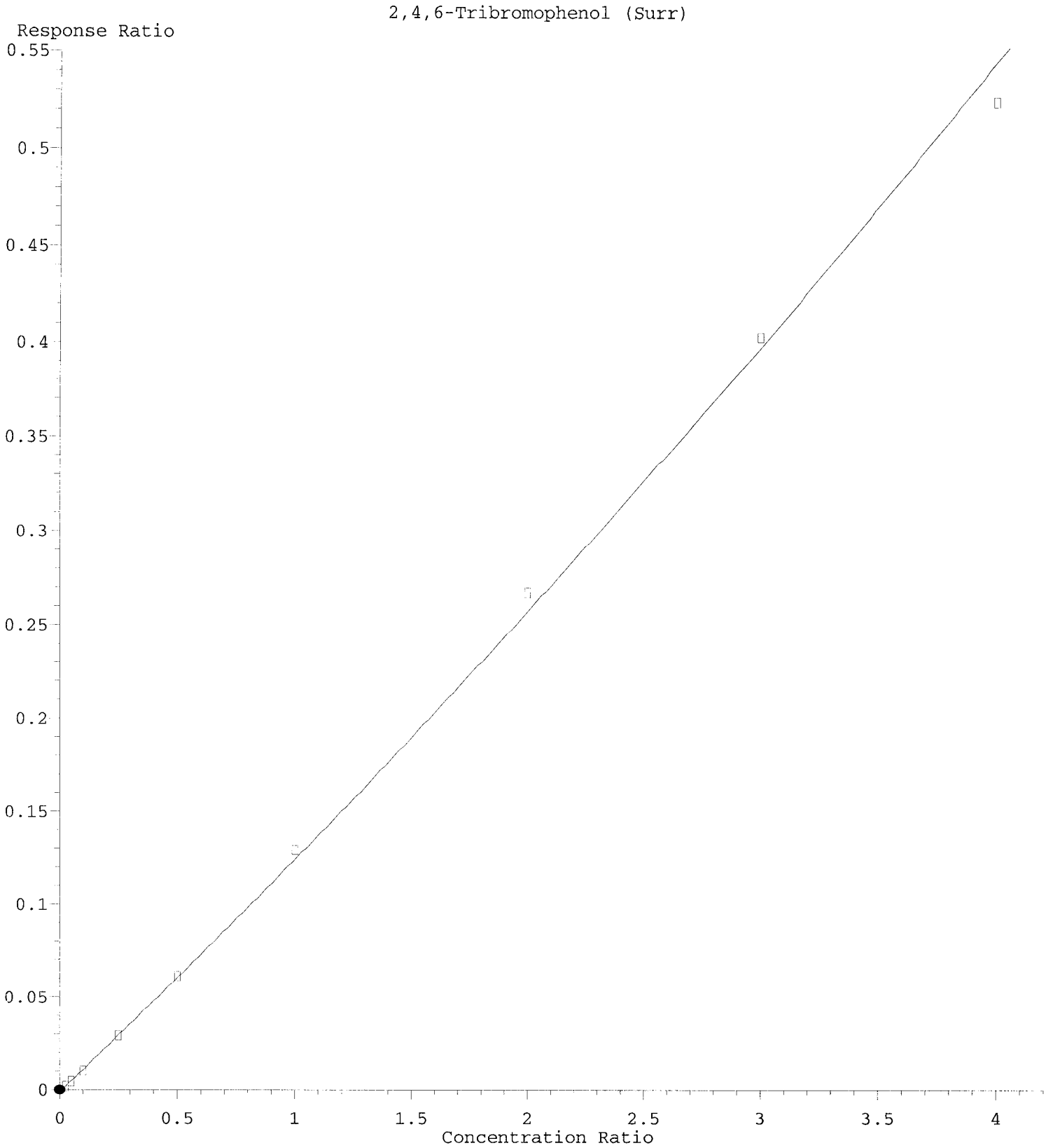
TIC: I10161912.D\data.ms

(63) 4,6-Dinitro-2-methylphenol (T)

8.959min (-1.336) 155.89 ng/ml m

response 114

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	46.50	0.00#
77.00	25.30	0.00
0.00	0.00	0.00

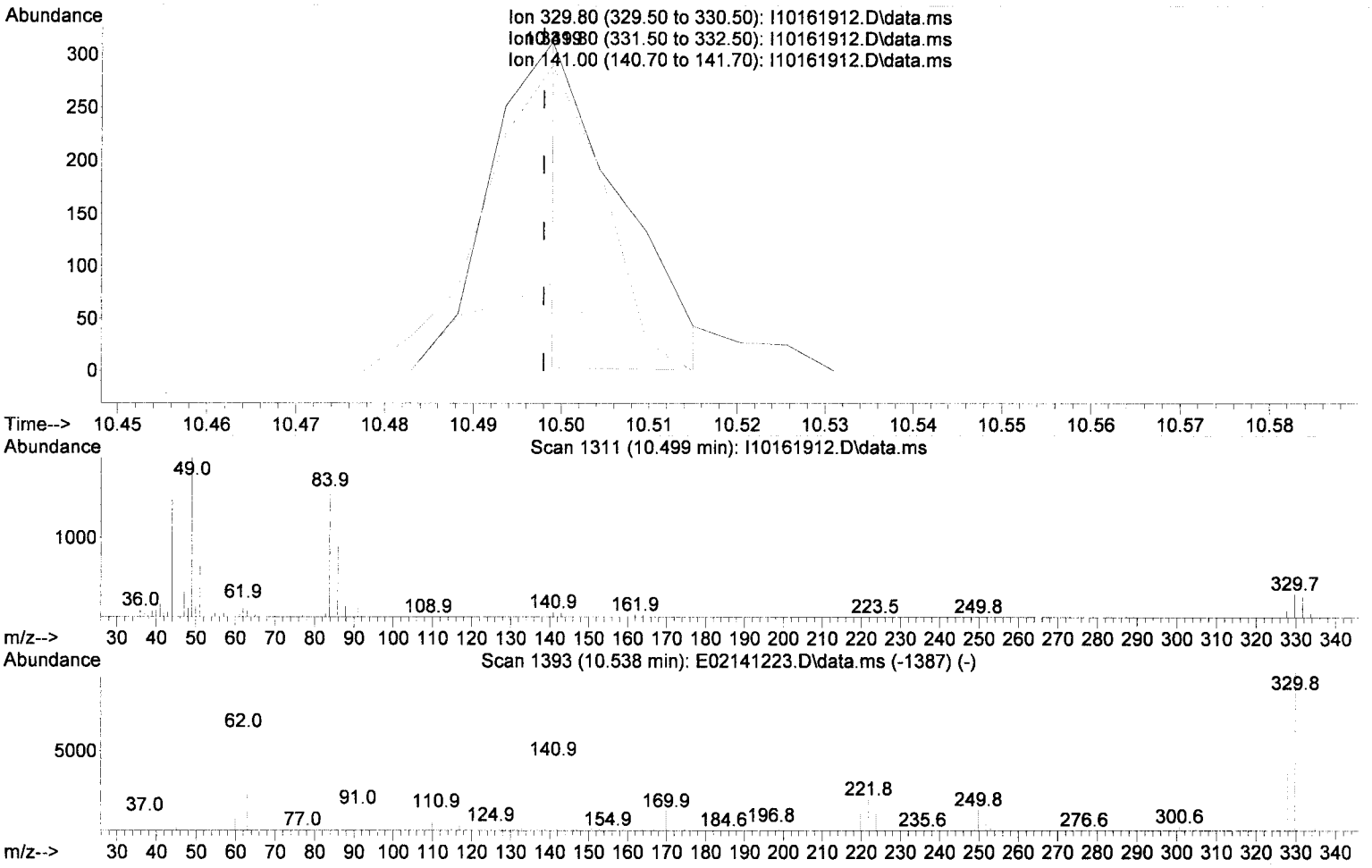


R = 3.70e-003 A*A + 1.22e-001 A - 1.39e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



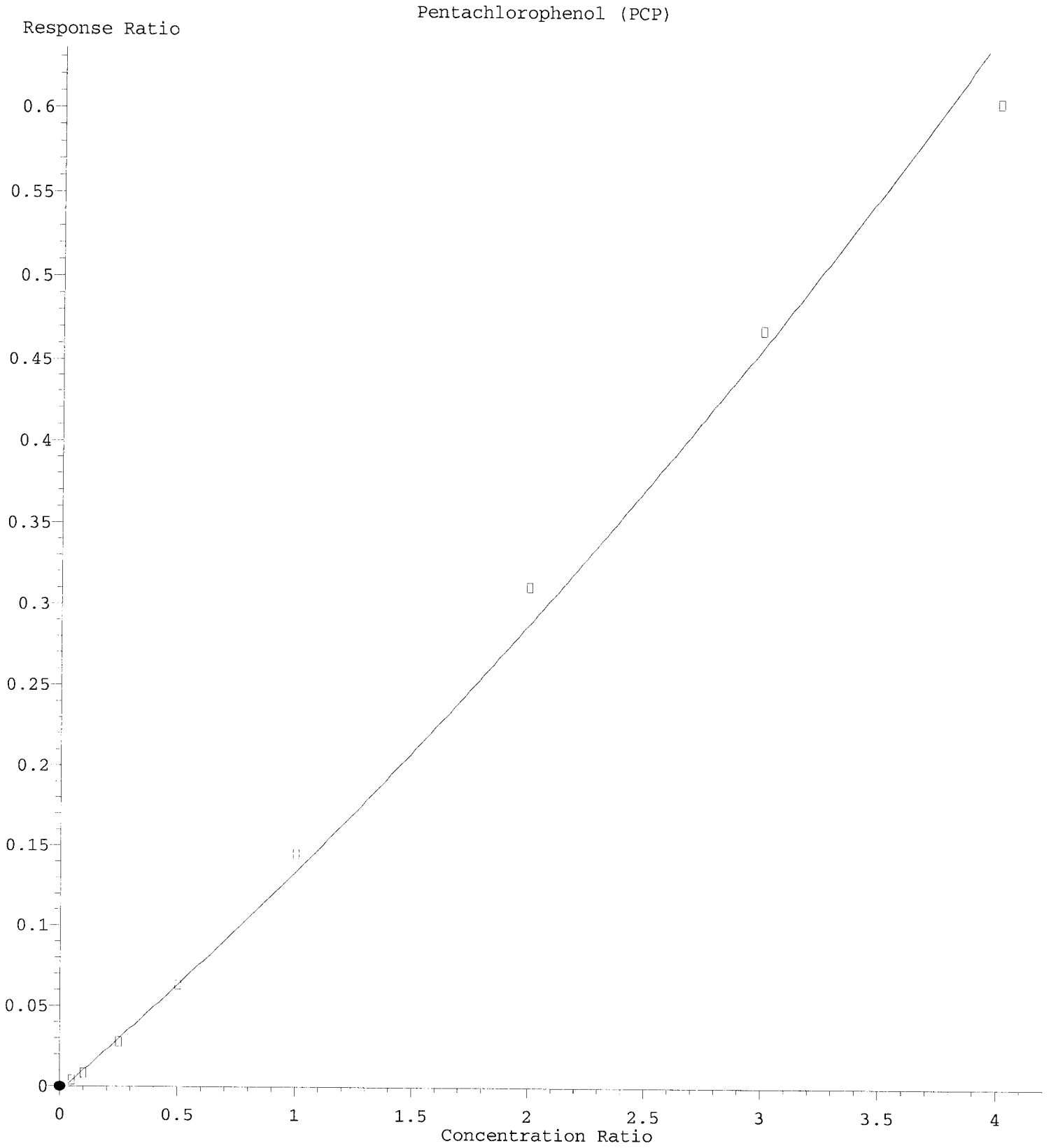
TIC: I10161912.D\data.ms

(67) 2,4,6-Tribromophenol (Surr) (S)

10.499min (+ 0.001) 27.33 ng/ml m

response 116

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	99.50	92.65
141.00	32.90	26.84
0.00	0.00	0.00

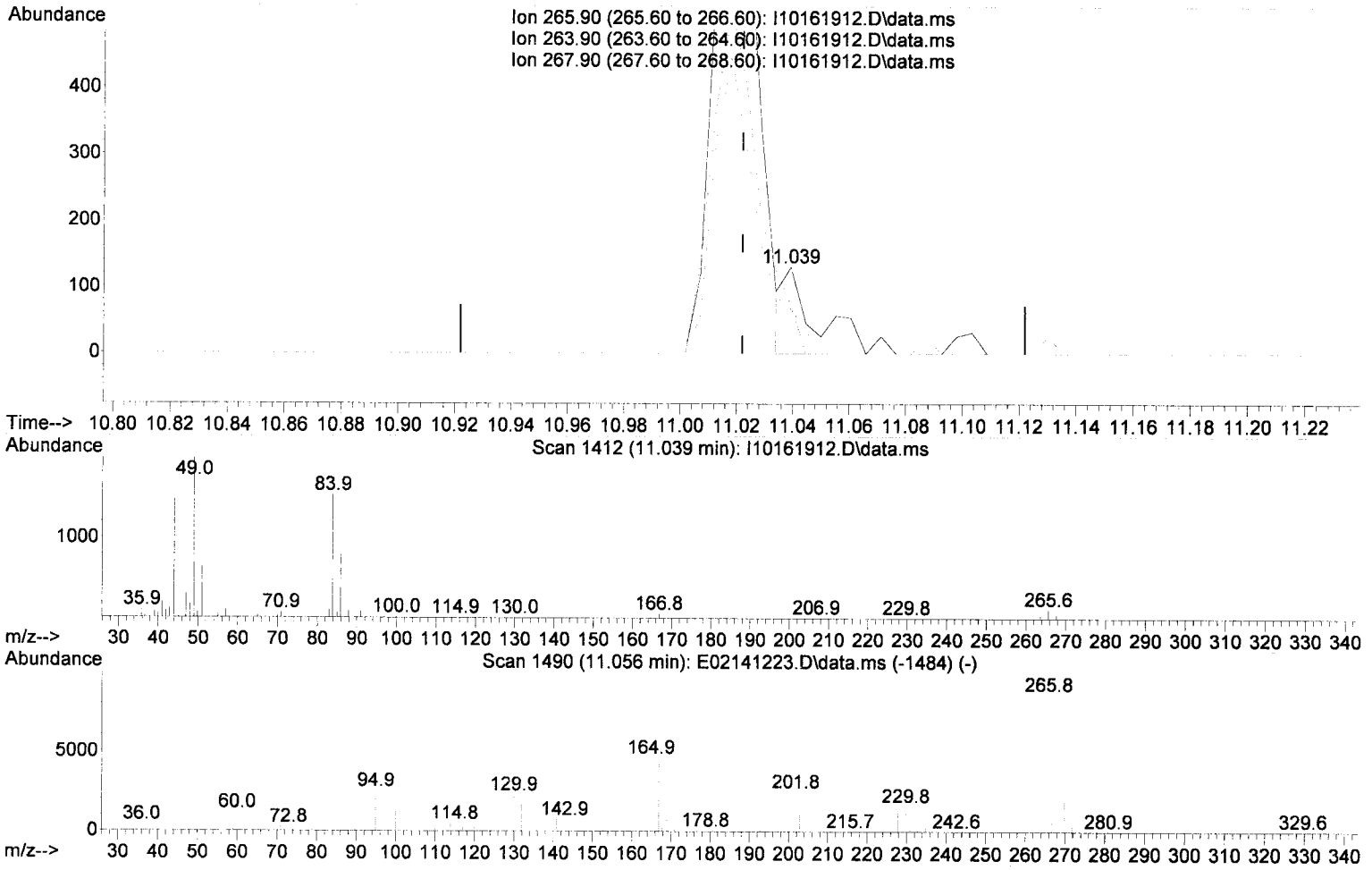


R = 8.44e-003 A*A + 1.28e-001 A - 2.95e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



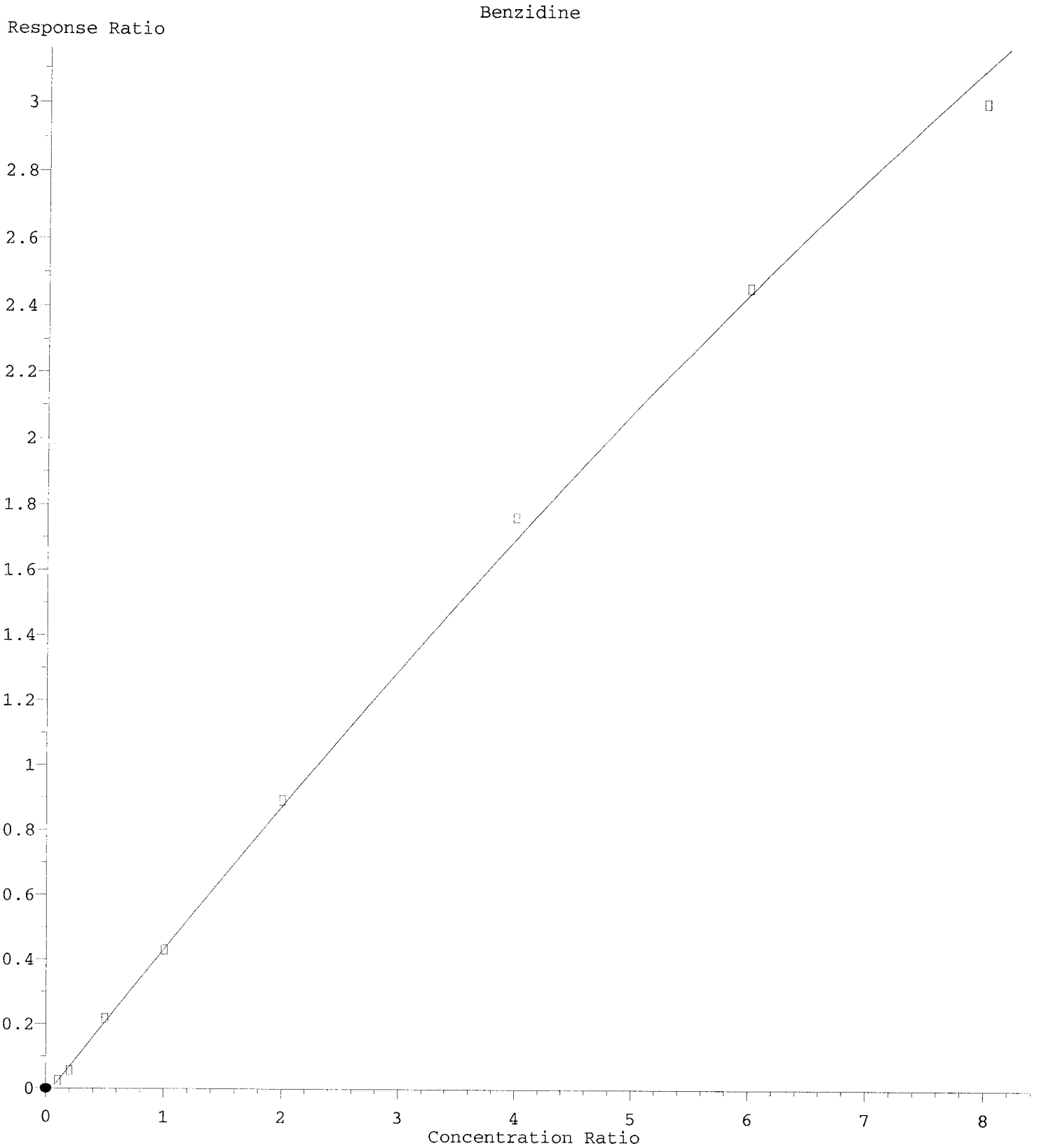
TIC: I10161912.D\data.ms

(70) Pentachlorophenol (PCP) (T)

11.039min (+ 0.017) 49.49 ng/ml m

response 100

Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.10	55.73
267.90	66.50	51.15
0.00	0.00	0.00

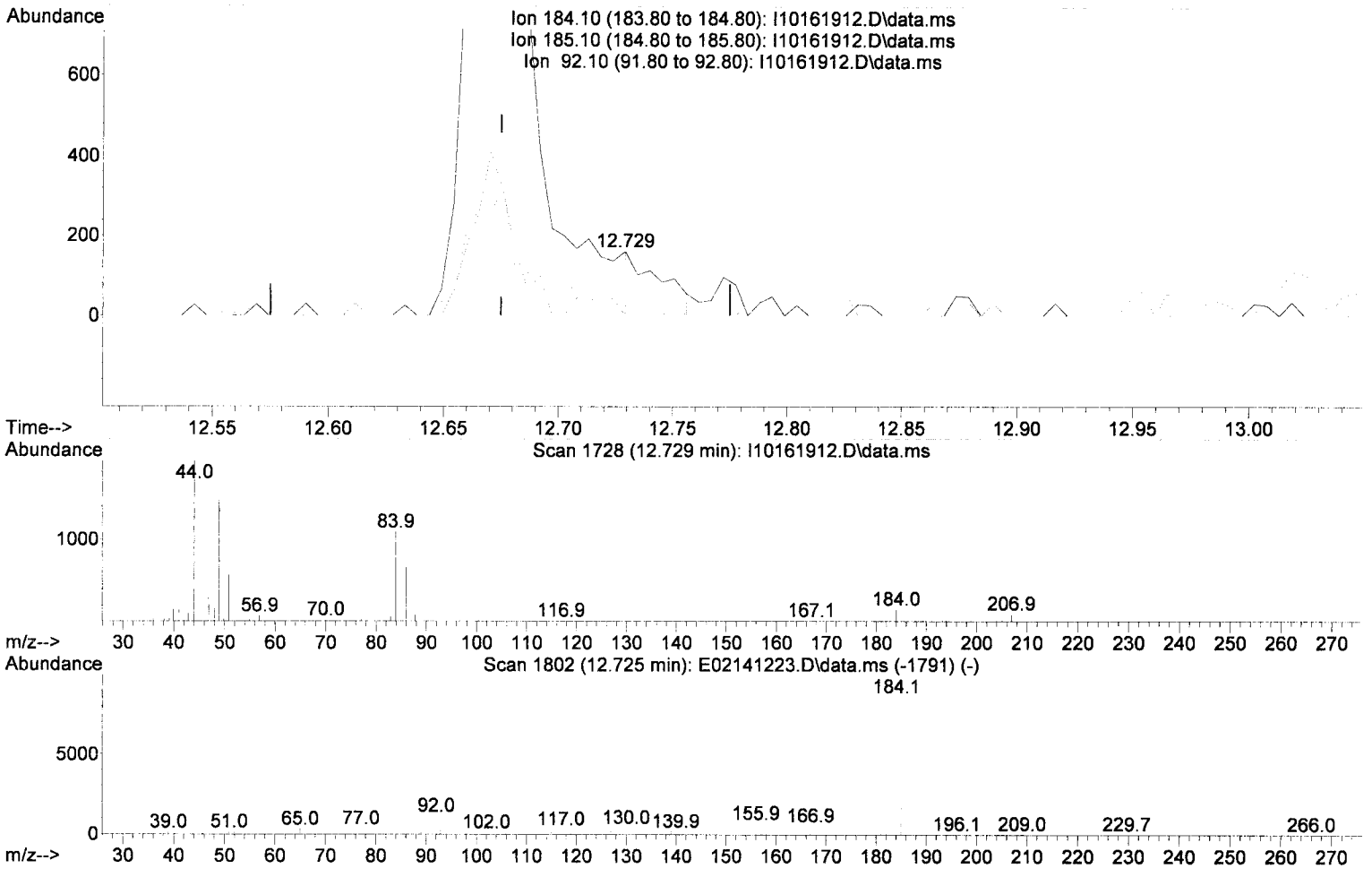


R = -9.61e-003 A*A + 4.69e-001 A - 2.55e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



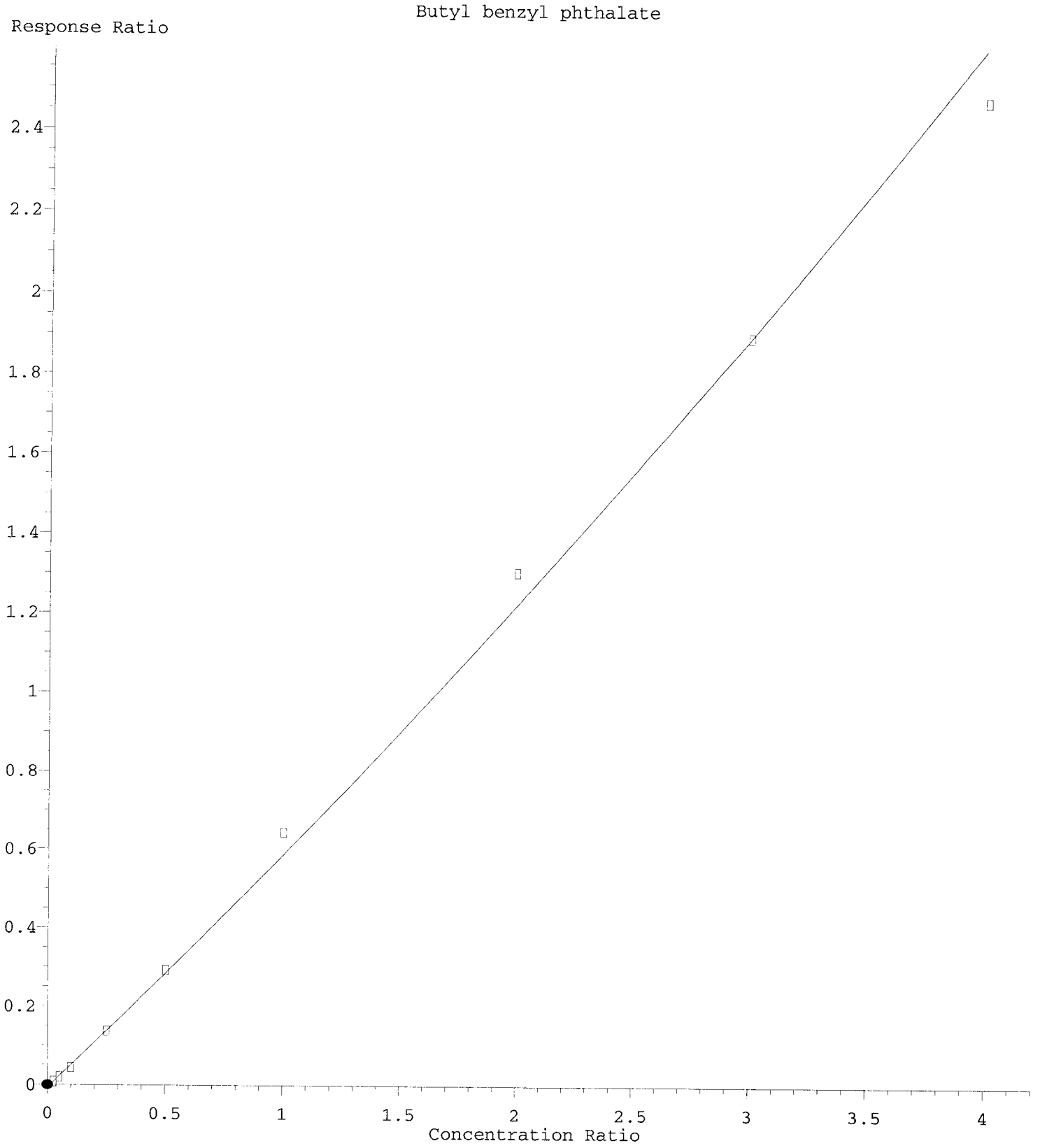
TIC: I10161912.D\data.ms

(76) Benzidine (T)

12.729min (+ 0.054) 110.62 ng/ml m

response 142

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	14.70	0.00
92.10	9.90	15.63
0.00	0.00	0.00

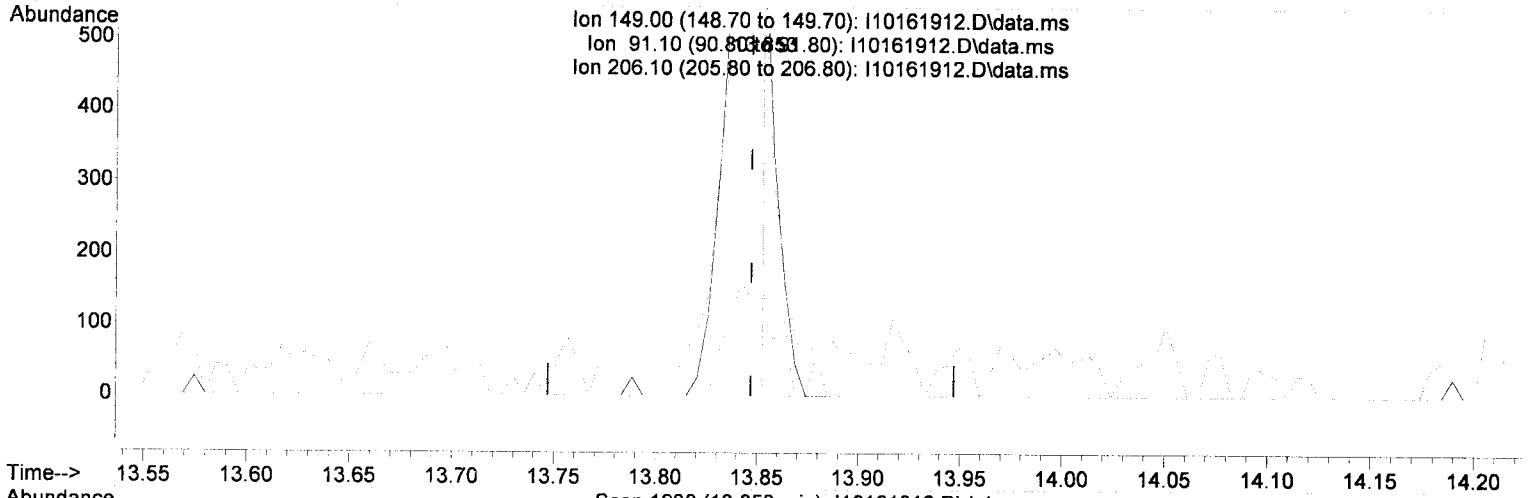


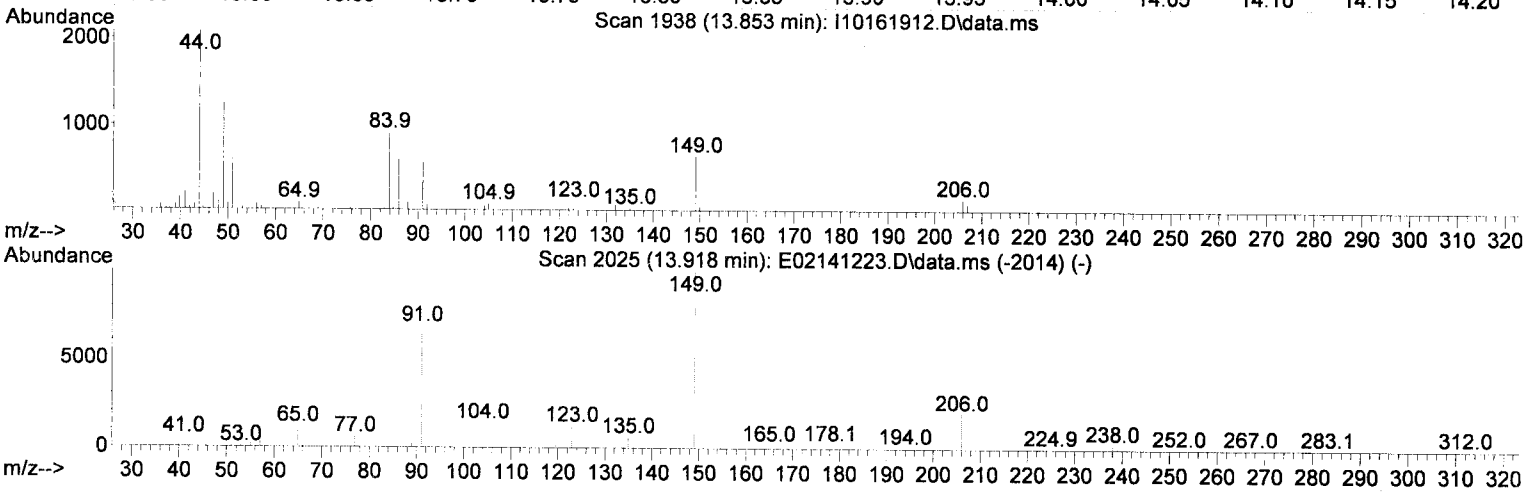
R = 1.95e-002 A*A + 5.75e-001 A - 7.34e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





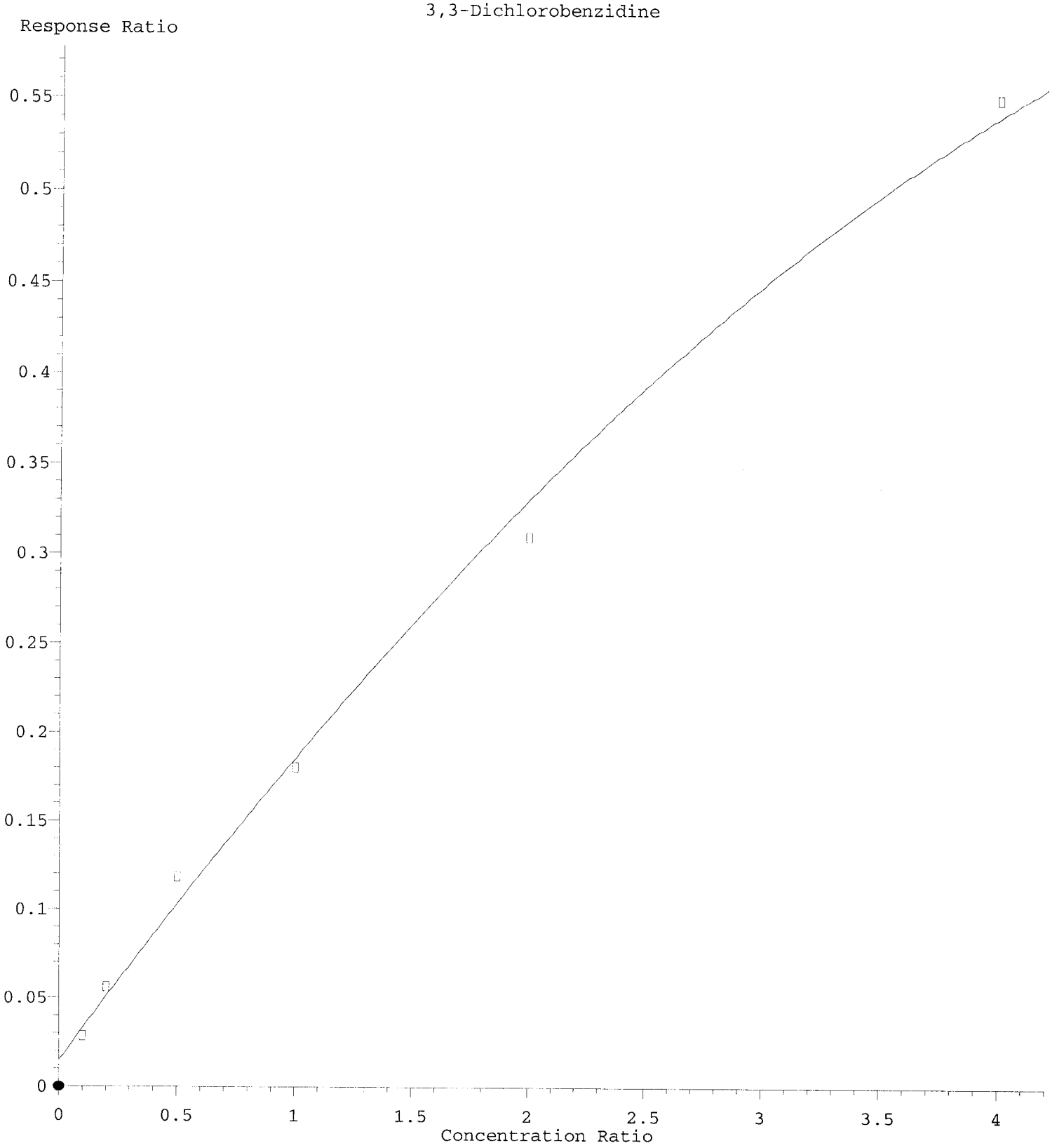
TIC: I10161912.D\data.ms

(80) Butyl benzyl phthalate (T)

13.853min (+ 0.006) 26.93 ng/ml m

response 174

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	73.80	87.93
206.10	20.40	22.91
0.00	0.00	0.00

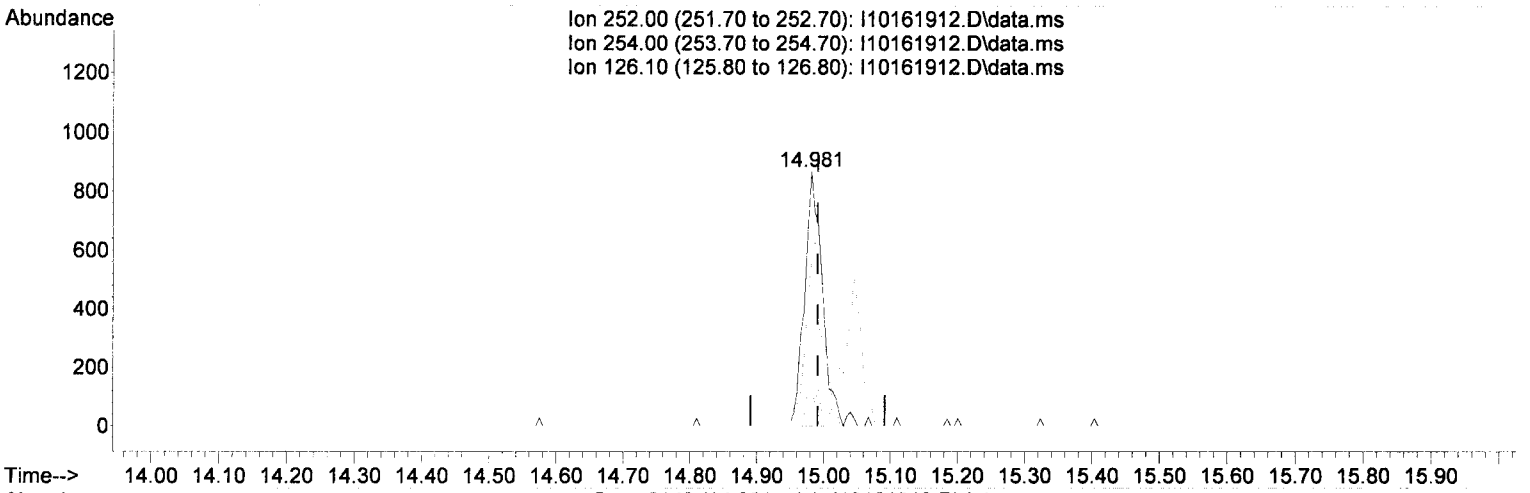


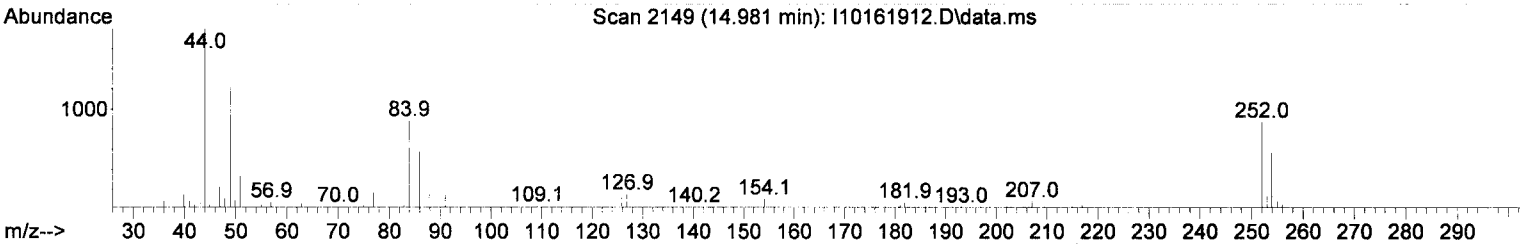
R = -1.30e-002 A*A + 1.84e-001 A + 1.46e-002
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

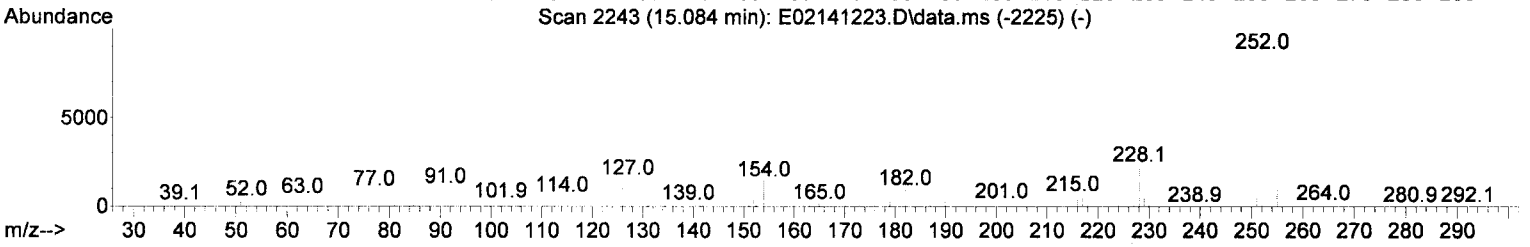
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







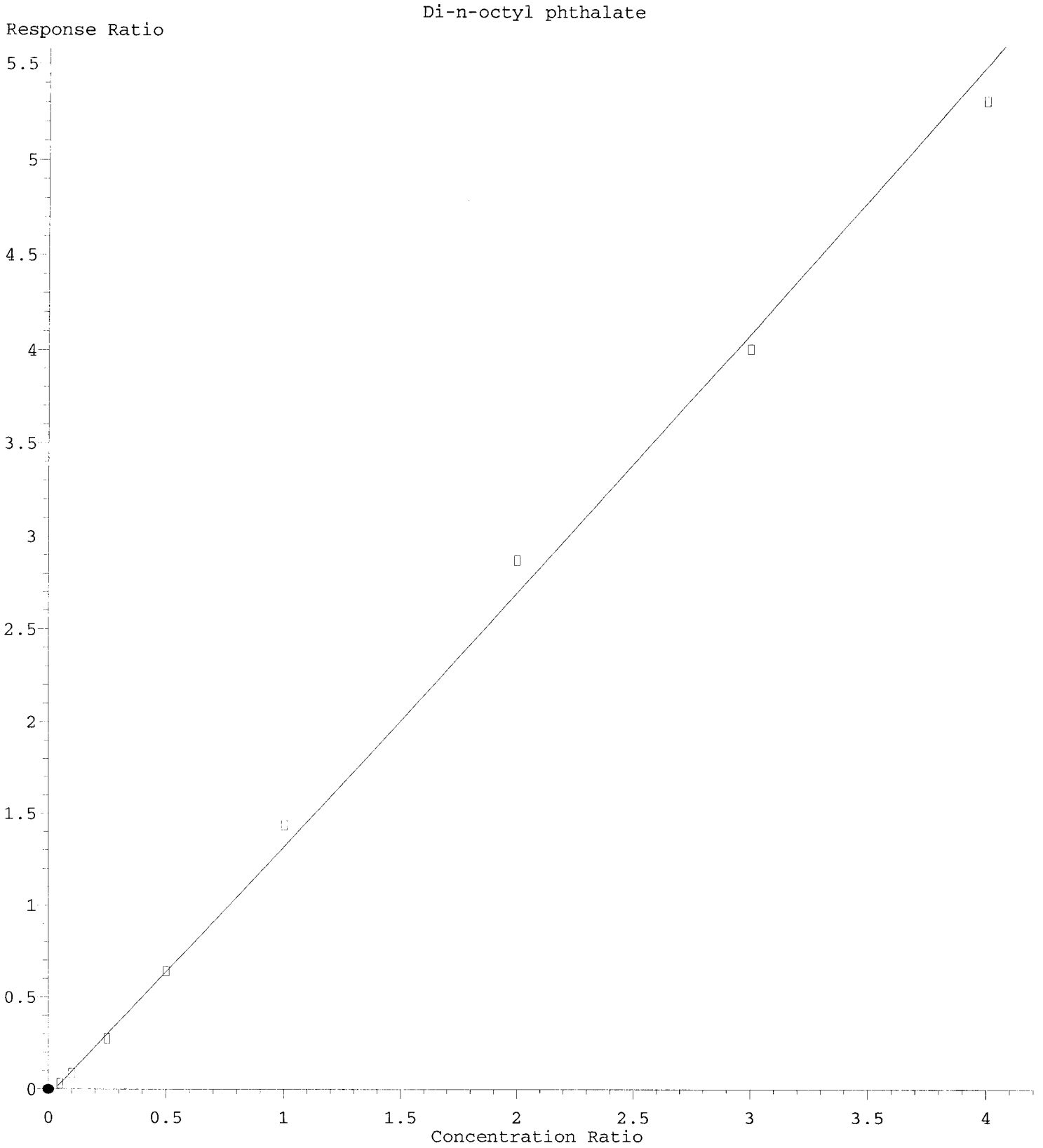
TIC: I10161912.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.981min (-0.010) -1.00 ng/ml

response 1592

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.28
126.10	14.00	14.07
0.00	0.00	0.00

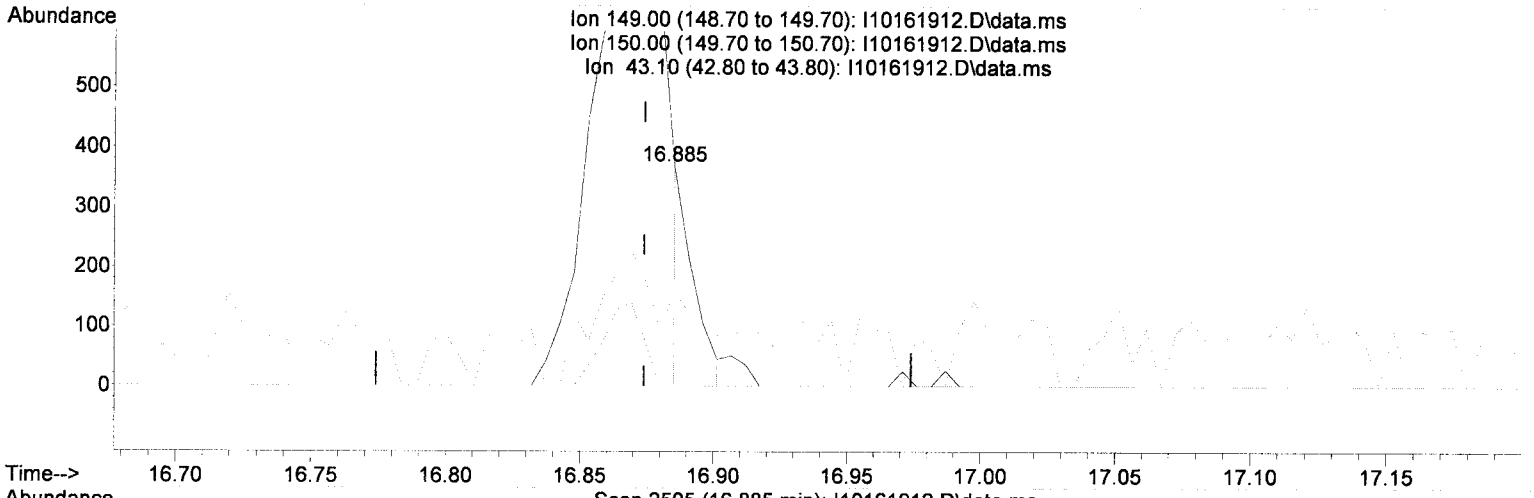


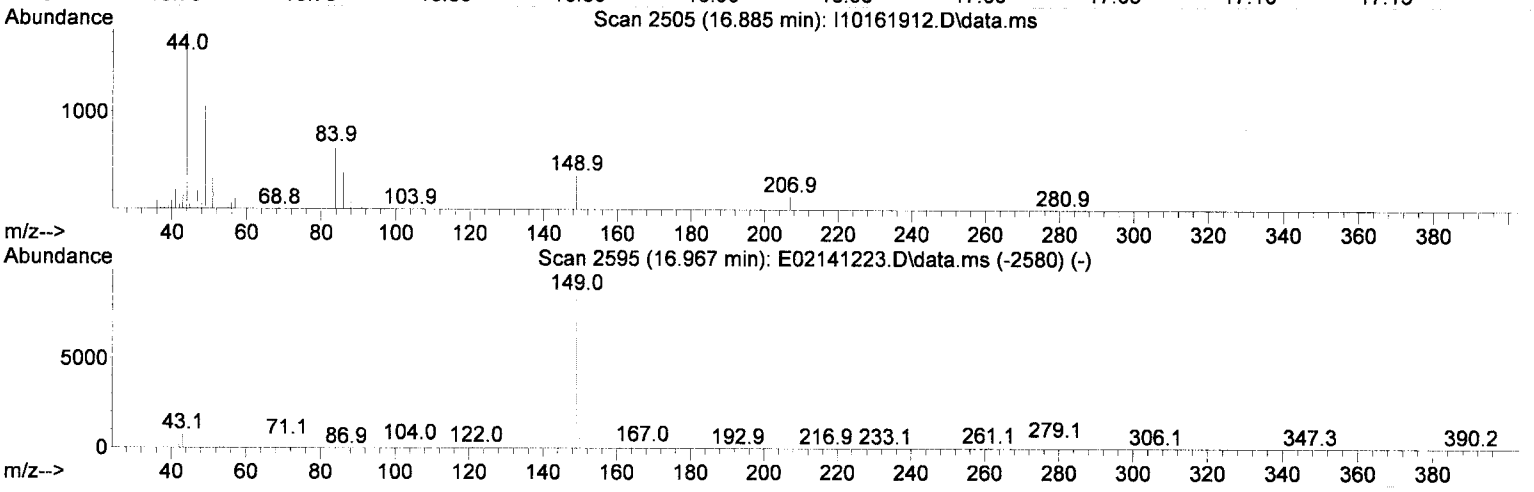
R = 8.70e-003 A*A + 1.35e+000 A - 3.91e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





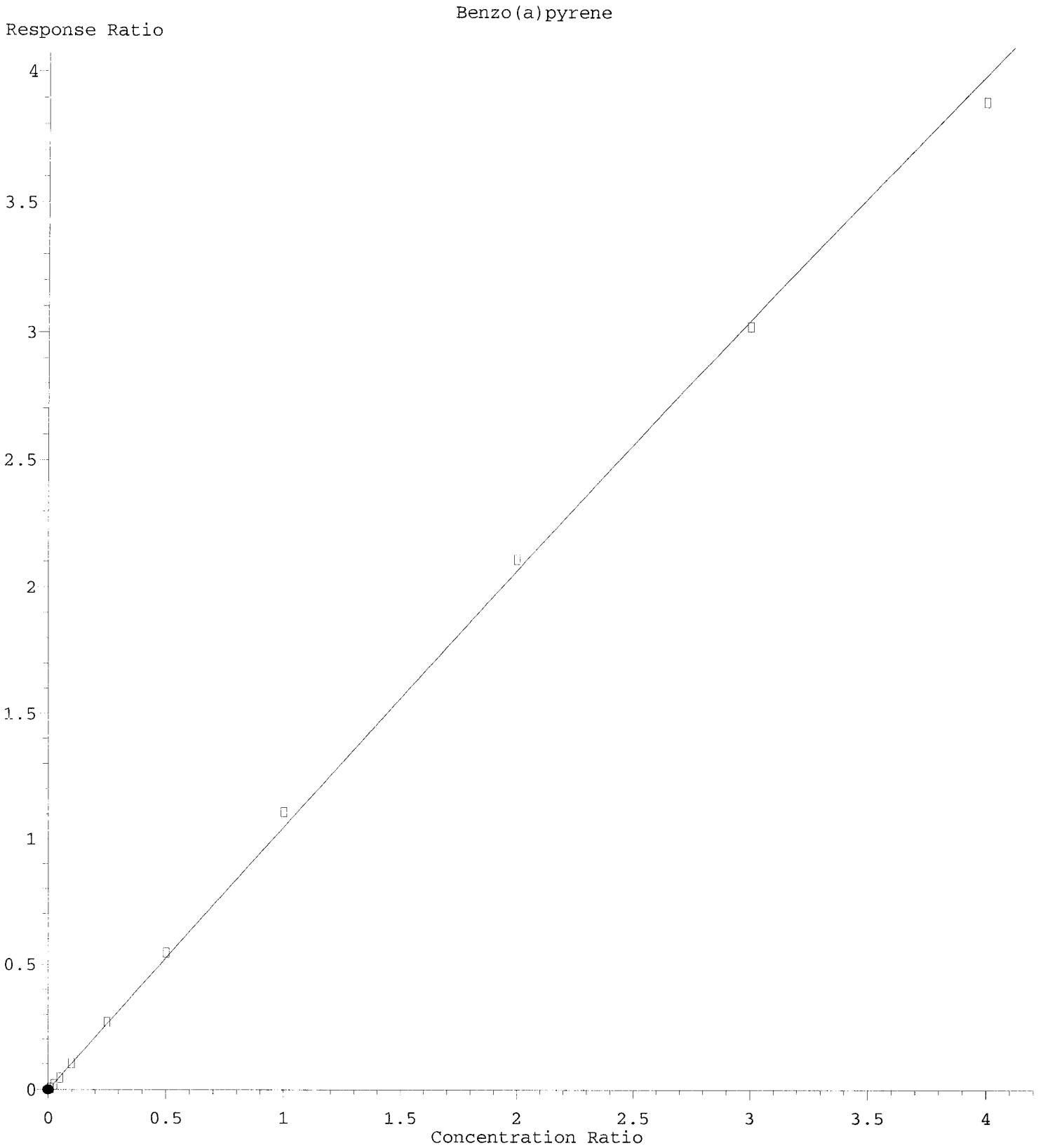
TIC: I10161912.D\data.ms

(87) Di-n-octyl phthalate (T)

16.885min (+ 0.011) 58.40 ng/ml m

response 119

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.20	0.00
43.10	10.80	43.36#
0.00	0.00	0.00

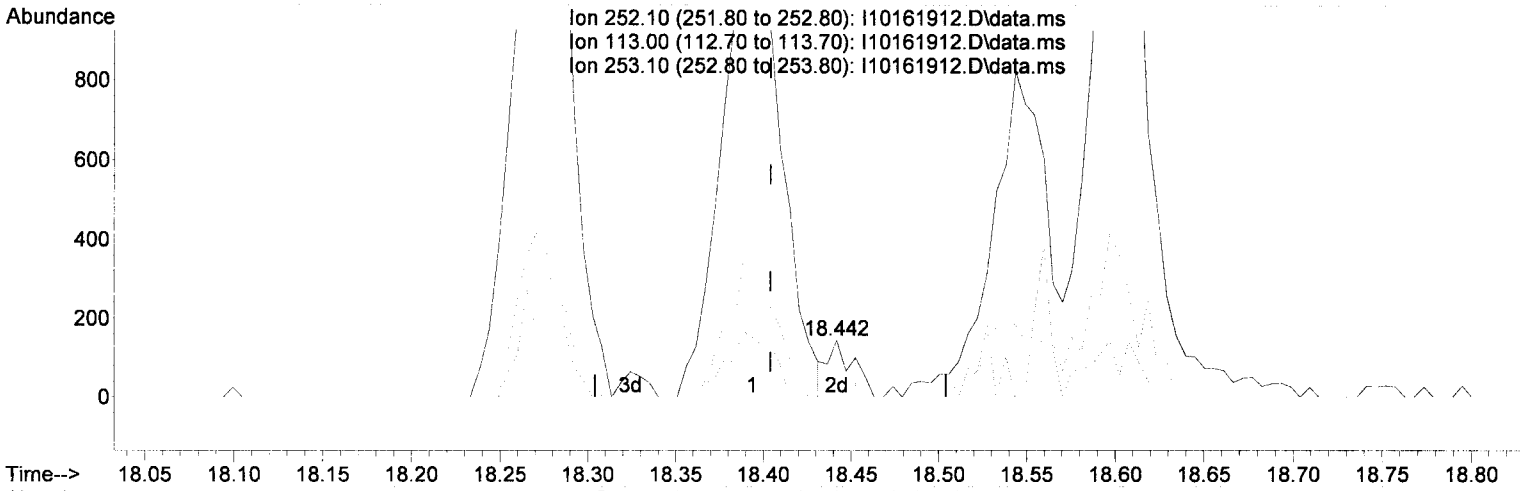


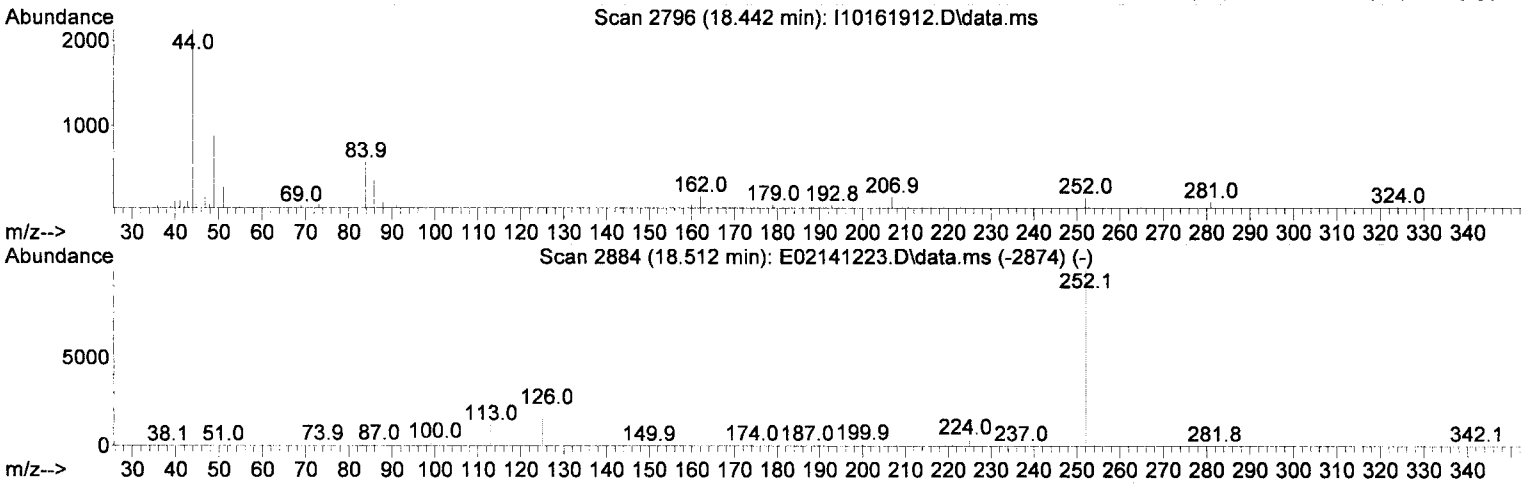
R = -1.74e-002 A*A + 1.07e+000 A - 4.58e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161912.D\data.ms

(92) Benzo(a)pyrene (T)

18.442min (+ 0.038) 9.13 ng/ml m

response 128

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	10.80	0.00
253.10	22.90	19.31
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J16053

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed	
9J16053-TUN1	MS Tune	Soil	A19J016	A19G233	10/16/2019	4:07:00PM
9J16053-ICB1	Initial Cal Blank	Soil		A19G233	10/16/2019	4:34:00PM
9J16053-CAL1	Cal Standard	Soil	A19G238	"	10/16/2019	5:09:00PM
9J16053-CAL2	Cal Standard	Soil	A19G239	"	10/16/2019	5:44:00PM
9J16053-CAL3	Cal Standard	Soil	A19G240	"	10/16/2019	6:19:00PM
9J16053-CAL4	Cal Standard	Soil	A19G241	"	10/16/2019	6:54:00PM
9J16053-CAL5	Cal Standard	Soil	A19G242	"	10/16/2019	7:30:00PM
9J16053-CAL6	Cal Standard	Soil	A19G243	"	10/16/2019	8:05:00PM
9J16053-CAL7	Cal Standard	Soil	A19G244	"	10/16/2019	8:40:00PM
9J16053-CAL8	Cal Standard	Soil	A19G245	"	10/16/2019	9:14:00PM
9J16053-CAL9	Cal Standard	Soil	A19G246	"	10/16/2019	9:49:00PM
9J16053-CALA	Cal Standard	Soil	A19G247	"	10/16/2019	10:24:00PM
9J16053-ICV1	Initial Cal Check	Soil	A19I254	"	10/16/2019	11:33:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Soil**

9J16053-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J16053

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Soil**

9J16053-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J16053

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J16053-TUN1	MS Tune	Water	A19J016	A19G233	10/16/2019 4:07:00PM
9J16053-ICB1	Initial Cal Blank	Water		A19G233	10/16/2019 4:34:00PM
9J16053-CAL1	Cal Standard	Water	A19G238	"	10/16/2019 5:09:00PM
9J16053-CAL2	Cal Standard	Water	A19G239	"	10/16/2019 5:44:00PM
9J16053-CAL3	Cal Standard	Water	A19G240	"	10/16/2019 6:19:00PM
9J16053-CAL4	Cal Standard	Water	A19G241	"	10/16/2019 6:54:00PM
9J16053-CAL5	Cal Standard	Water	A19G242	"	10/16/2019 7:30:00PM
9J16053-CAL6	Cal Standard	Water	A19G243	"	10/16/2019 8:05:00PM
9J16053-CAL7	Cal Standard	Water	A19G244	"	10/16/2019 8:40:00PM
9J16053-CAL8	Cal Standard	Water	A19G245	"	10/16/2019 9:14:00PM
9J16053-CAL9	Cal Standard	Water	A19G246	"	10/16/2019 9:49:00PM
9J16053-CALA	Cal Standard	Water	A19G247	"	10/16/2019 10:24:00PM
9J16053-ICV1	Initial Cal Check	Water	A19I254	"	10/16/2019 11:33:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Water**

9J16053-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J16053

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Water**

9J16053-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	98	0.00
2	T	N-Nitrosodimethylamine	1000.000	962.446	3.8	95	0.00
3	T	Pyridine	1000.000	870.093	13.0	85	0.01
4	S	2-Fluorophenol (Surr)	1000.000	979.880	2.0	94	0.00
5	S	Phenol-d6 (Surr)	1000.000	1034.035	-3.4	96	0.00
6	T	Phenol	1000.000	1017.510	-1.8	97	0.00
7	T	Aniline	1000.000	919.514	8.0	92	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1054.557	-5.5	98	0.00
9	T	2-Chlorophenol	1000.000	1063.881	-6.4	99	0.00
10	T	1,3-Dichlorobenzene	1000.000	1008.128	-0.8	98	0.00
11	T	1,4-Dichlorobenzene	1000.000	997.215	0.3	97	0.00
12	T	Benzyl alcohol	1000.000	972.384	2.8	89	0.00
13	T	1,2-Dichlorobenzene	1000.000	1014.944	-1.5	97	0.00
14	T	2-Methylphenol	1000.000	1103.297	-10.3	101	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	942.252	5.8	92	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1022.292	-2.2	95	0.00
17	T	3+4-Methylphenol	1000.000	1061.213	-6.1	94	0.00
18	T	Hexachloroethane	1000.000	1021.570	-2.2	99	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1123.585	-12.4	102	0.00
20	T	Nitrobenzene	1000.000	1086.148	-8.6	97	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	99	0.00
22	T	Isophorone	1000.000	1027.168	-2.7	97	0.00
23	T	2-Nitrophenol	1000.000	1122.187	-12.2	105	0.00
24	T	2,4-Dimethylphenol	1000.000	1039.762	-4.0	94	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1041.105	-4.1	96	0.00
26	T	Benzoic acid	2000.000	1748.344	12.6	83	0.00
27	T	2,4-Dichlorophenol	1000.000	1054.418	-5.4	97	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1029.385	-2.9	99	0.00
29	T	Naphthalene	1000.000	1028.989	-2.9	98	0.00
30	T	4-Chloroaniline	1000.000	927.481	7.3	90	0.00
31	T	Hexachlorobutadiene	1000.000	1016.945	-1.7	100	0.00
32	T	4-Chloro-3-methylphenol	1000.000	994.599	0.5	95	0.00
33	T	2-Methylnaphthalene	1000.000	1066.214	-6.6	98	0.00
34	T	1-Methylnaphthalene	1000.000	1059.020	-5.9	99	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	99	0.00
36	T	Hexachlorocyclopentadiene	1000.000	994.036	0.6	91	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1015.450	-1.5	98	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1032.606	-3.3	97	0.00
39	T	1,1'-Biphenyl	1000.000	1063.192	-6.3	96	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1073.638	-7.4	99	0.00
41	T	2-Chloronaphthalene	1000.000	1066.440	-6.6	97	0.00
42	T	2-Nitroaniline	1000.000	1029.228	-2.9	100	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1040.044	-4.0	95	0.00
44	T	1,4-Dinitrobenzene	1000.000	1003.651	-0.4	108	0.00
45	T	Dimethyl phthalate	1000.000	1036.771	-3.7	98	0.00
46	T	1,3-Dinitrobenzene	1000.000	998.654	0.1	104	0.00
47	T	2,6-Dinitrotoluene	1000.000	1046.423	-4.6	99	0.00
48	T	1,2-Dinitrobenzene	1000.000	991.160	0.9	97	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1039.761	-4.0	98	0.00
50	T	3-Nitroaniline	1000.000	869.325	13.1	87	0.00
51	T	Acenaphthene	1000.000	1024.424	-2.4	98	0.00
52	T	2,4-Dinitrophenol	1000.000	966.046	3.4	99	0.00
53	T	4-Nitrophenol	1000.000	979.868	2.0	93	0.00
54	T	2,4-Dinitrotoluene	1000.000	993.559	0.6	98	0.00
55	T	Dibenzofuran	1000.000	1028.254	-2.8	97	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1002.754	-0.3	96	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1003.972	-0.4	92	0.00
58	T	Diethyl phthalate	1000.000	1019.702	-2.0	97	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1039.964	-4.0	96	0.00
60	T	Fluorene	1000.000	1004.883	-0.5	97	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1027.798	-2.8	98	0.00
62	T	4-Nitroaniline	1000.000	933.765	6.6	89	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1015.341	-1.5	109	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	98	0.00
65	T	N-Nitrosodiphenylamine	1000.000	983.980	1.6	94	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	949.430	5.1	94	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	991.893	0.8	96	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1008.027	-0.8	97	0.00
69	T	Hexachlorobenzene	1000.000	1061.983	-6.2	103	0.00
70	T	Pentachlorophenol (PCP)	1000.000	976.185	2.4	96	0.00
71	T	Phenanthrene	1000.000	1020.754	-2.1	96	0.00
72	T	Anthracene	1000.000	1026.292	-2.6	94	0.00
73	T	Carbazole	1000.000	832.589	16.7	87	0.00
74	T	Di-n-butyl phthalate	1000.000	1062.496	-6.2	96	0.00
75	T	Fluoranthene	1000.000	1051.634	-5.2	95	0.00
76	T	Benzidine	2000.000	1525.647	23.7	74	0.00
77	T	Pyrene	1000.000	1066.742	-6.7	95	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	94	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1042.443	-4.2	95	0.00
80	T	Butyl benzyl phthalate	1000.000	996.013	0.4	91	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1010.502	-1.1	93	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1766.404	11.7	87	0.00
83	T	Benz(a)anthracene	1000.000	1026.777	-2.7	96	0.00
84	T	Chrysene	1000.000	999.031	0.1	93	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1028.727	-2.9	93	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	94	0.00
87	T	Di-n-octyl phthalate	1000.000	966.334	3.4	90	0.00
88	T	Benzo(b)fluoranthene	1000.000	1047.954	-4.8	91	0.00
89	T	Benzo(k)fluoranthene	1000.000	1120.667	-12.1	92	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2155.044	-7.8	91	0.00
91	T	Benzo(e)pyrene	1000.000	1038.228	-3.8	90	0.00
92	T	Benzo(a)pyrene	1000.000	951.211	4.9	86	0.00
93	T	Perylene	1000.000	1199.802	-20.0	107	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	92	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	981.169	1.9	91	0.01
96 T	Dibenz(a,h)anthracene	1000.000	1003.353	-0.3	89	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1065.457	-6.5	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9

9/2 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.921	136	133481	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.697	162	65336	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.210	188	97755	2.00	ug/mL	0.00
10) Chrysene-d12	14.949	240	85323	2.00	ug/mL	0.00
11) Perylene-d12	17.035	264	78474	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	11.023	266	276241	37.69	ug/mL	87
5) DFTPP	11.504	442	395830	48.17	ug/mL#	55
6) Benzidine	12.686	184	1012337	34.40	ug/mL	91
7) 4,4-DDE	12.949	TIC	12045	No Calib	#	
8) 4,4-DDD	13.467	TIC	8168	2.02	ug/mL#	1
9) 4,4-DDT	14.045	TIC	3561767	43.23	ug/mL#	1

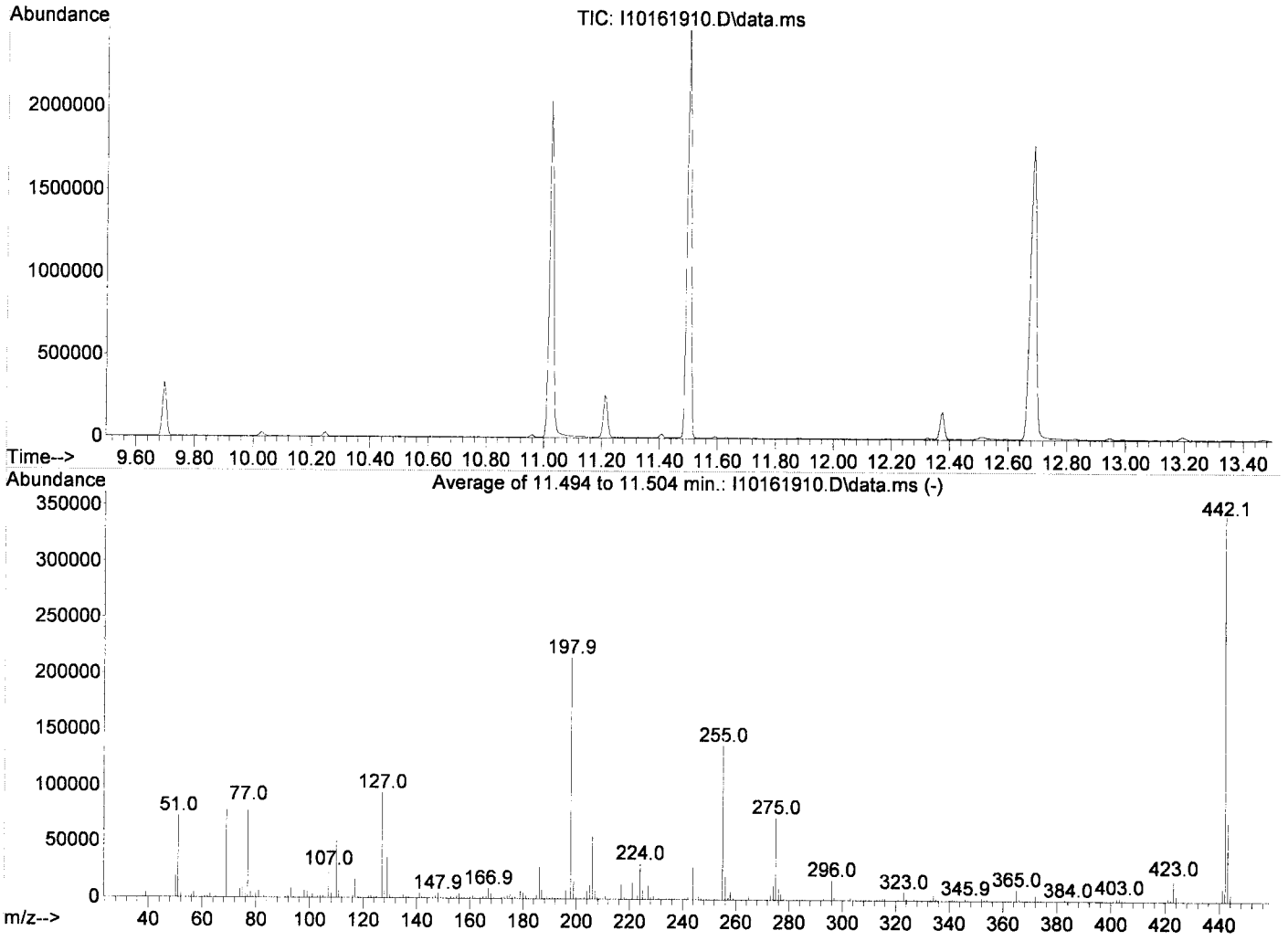
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Thu Oct 17 09:26:26 2019

10/17/19



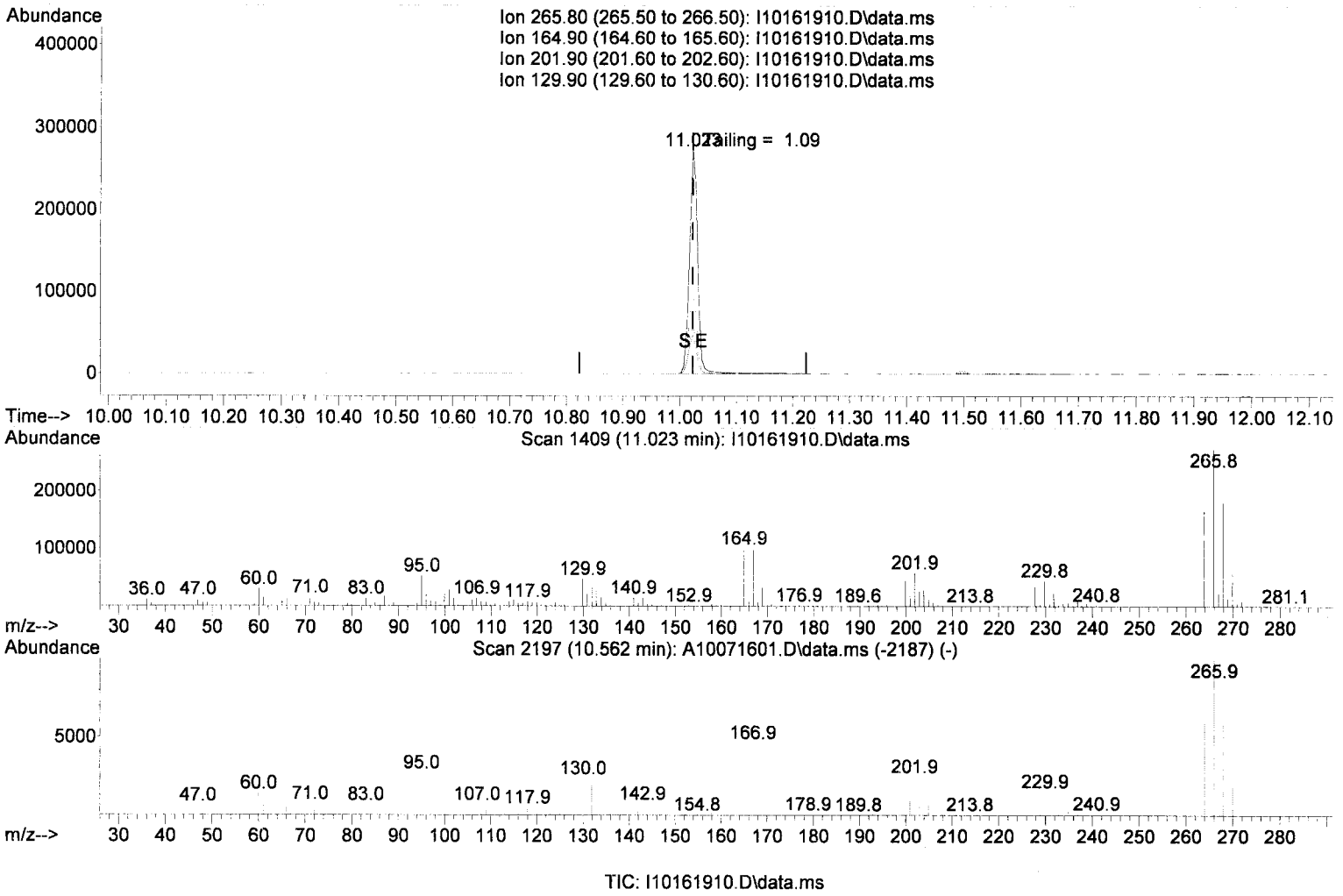
AutoFind: Scans 1497, 1498, 1499; Background Corrected with Scan 1490

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	77934	PASS
70	69	0.00	2	0.5	381	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	214955	PASS
199	198	5	9	7.2	15571	PASS
365	198	1	100	4.5	9699	PASS
441	443	0.01	150	16.4	11437	PASS
442	198	0.10	200	159.9	343659	PASS
443	442	15	24	20.4	69936	PASS

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161910.D\data.ms

(3) Pentachlorophenol

11.023min (0.000) 37.69 ug/mL

response 276241

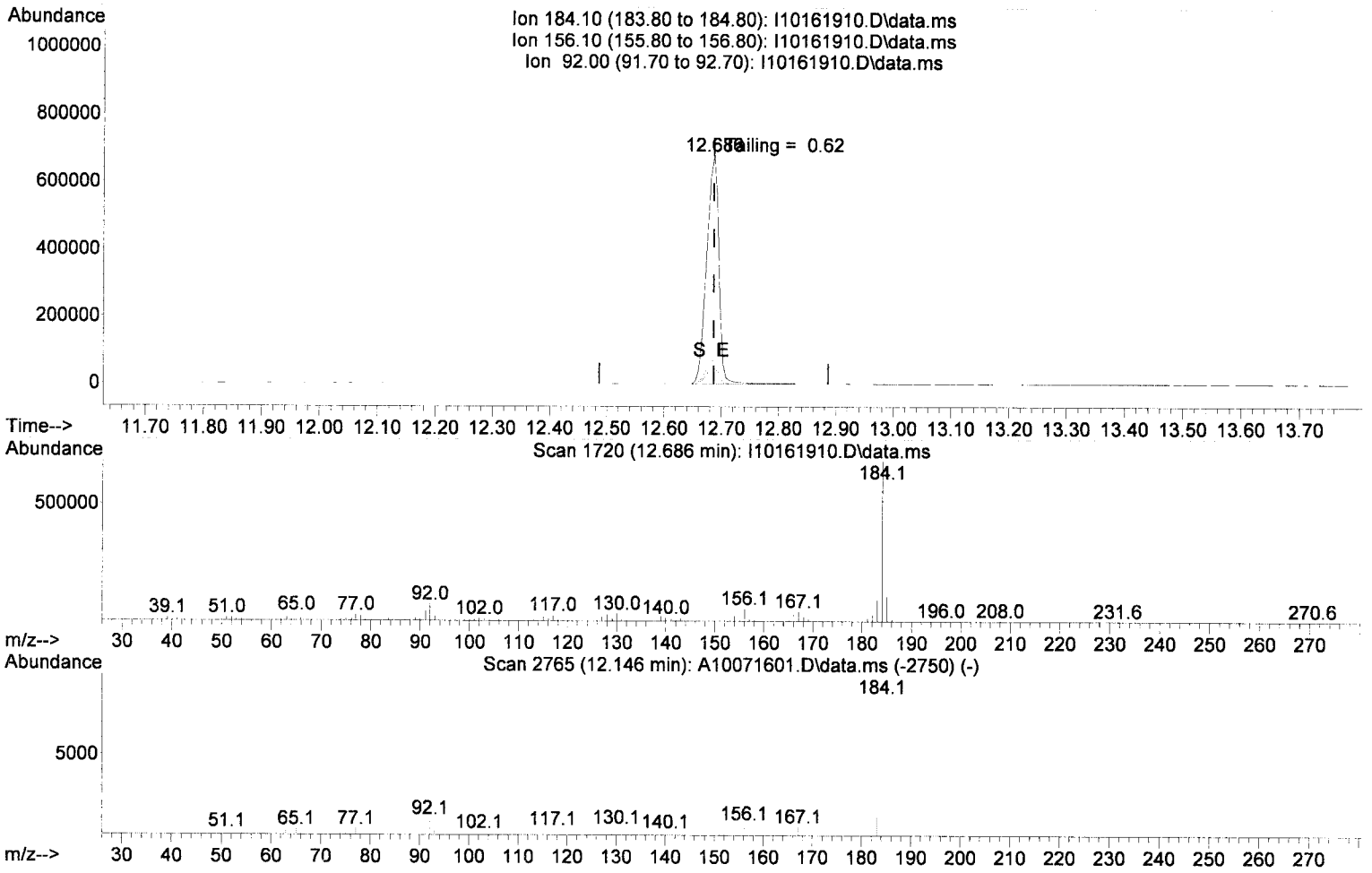
Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	36.72
201.90	26.10	21.28
129.90	22.80	17.33

JK 10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161910.D\data.ms

(6) Benzidine

12.686min (0.000) 34.40 ug/mL

response 1012337

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.62
92.00	15.50	10.38
0.00	0.00	0.00

10/17/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9J16053-TUN1
SV-GCMS9

First Column	Area Counts	Percent Breakdown	
DDE	12045		
DDD	8168		
DDT	3561767	**0.56**	**PASS**

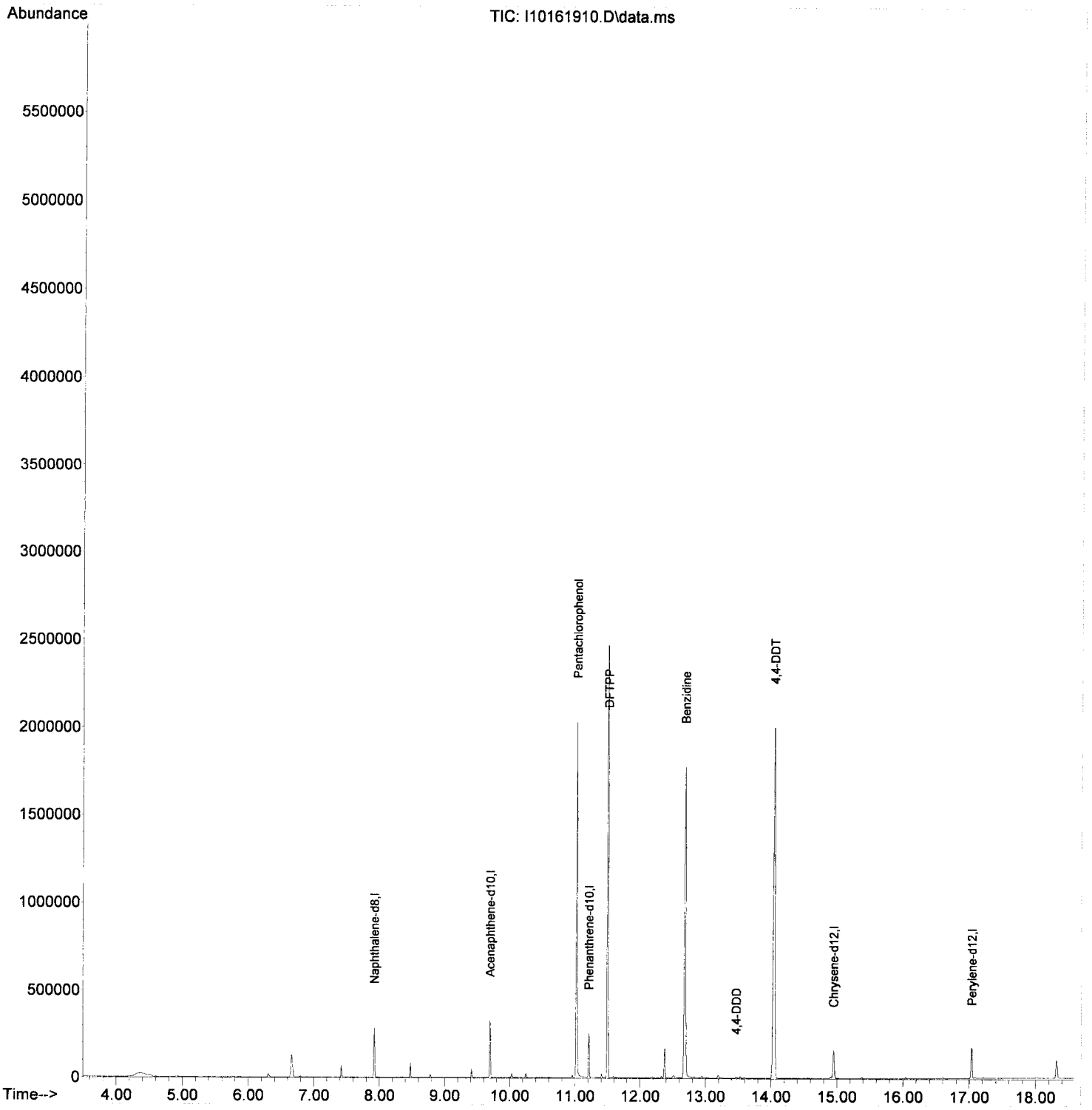
10/17/19

Breakdown must be less than 20% to accept sample data.

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

GH 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	111120	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	441084	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	229361	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	410587	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	414594	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	407095	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.939	292	322955	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.803	108	127	33.63	ng/ml#	45
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.177	77	61	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.578	122	81	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

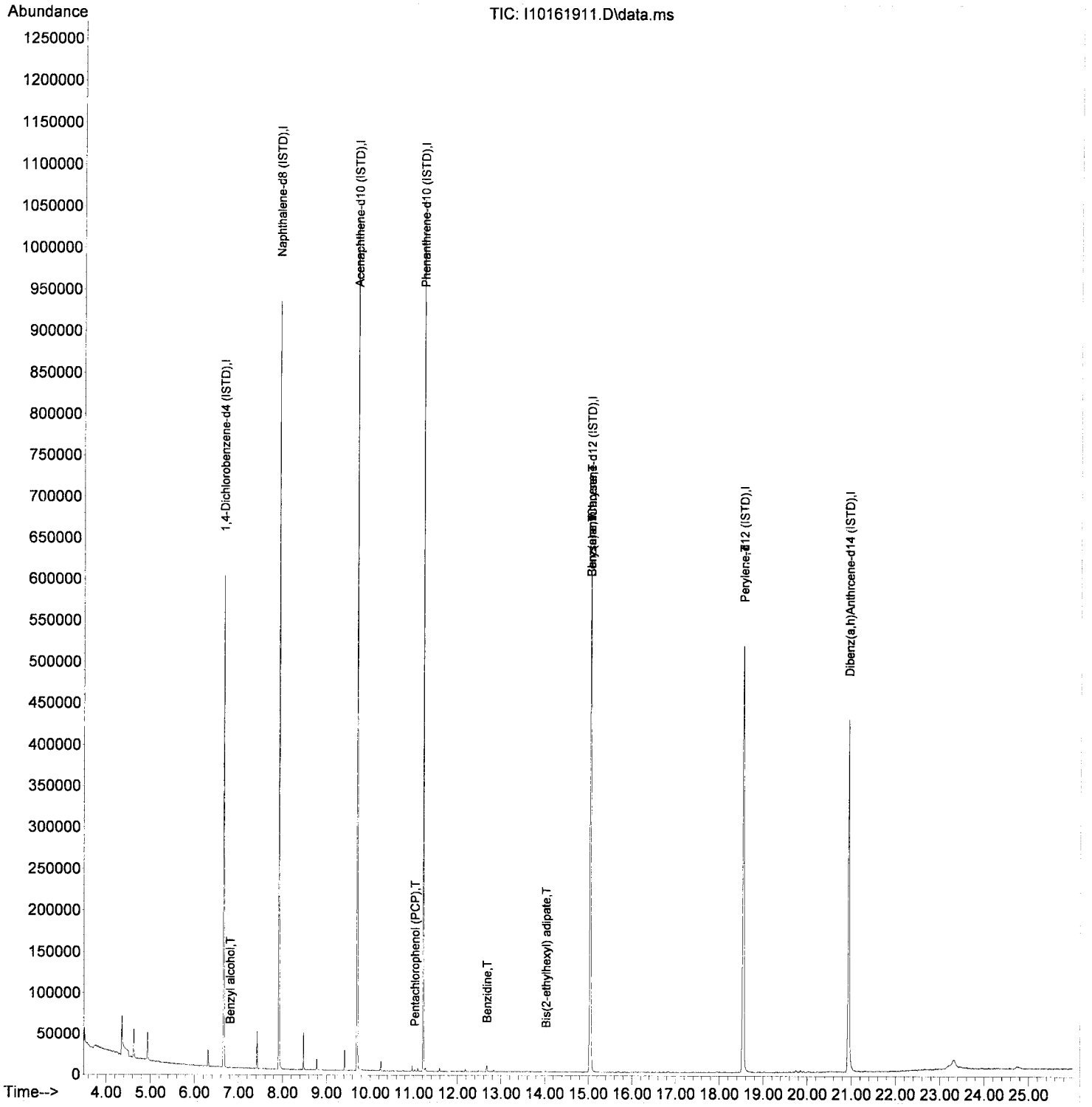
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.328	77	82	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	11.018	266	377	33.68 ng/ml	88
71) Phenanthrene	11.210	178	142	N.D.	
72) Anthracene	11.210	178	142	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.670	184	4346	66.79 ng/ml	95
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	14.029	129	284	2.93 ng/ml	80
82) 3,3-Dichlorobenzidine	14.981	252	134	Below Cal	88
83) Benz(a)anthracene	15.040	228	1055	4.44 ng/ml	69
84) Chrysene	15.040	228	1056	4.86 ng/ml	65
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.543	252	1547	8.22 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.934	276	59	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Final Reagent

JK 10/17/19

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	111120	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	441084	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	229361	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	410587	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	414594	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	407095	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.939	292	322955	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.803	108	127	2.75	ng/ml#	45
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.177	77	61	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.578	122	81	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

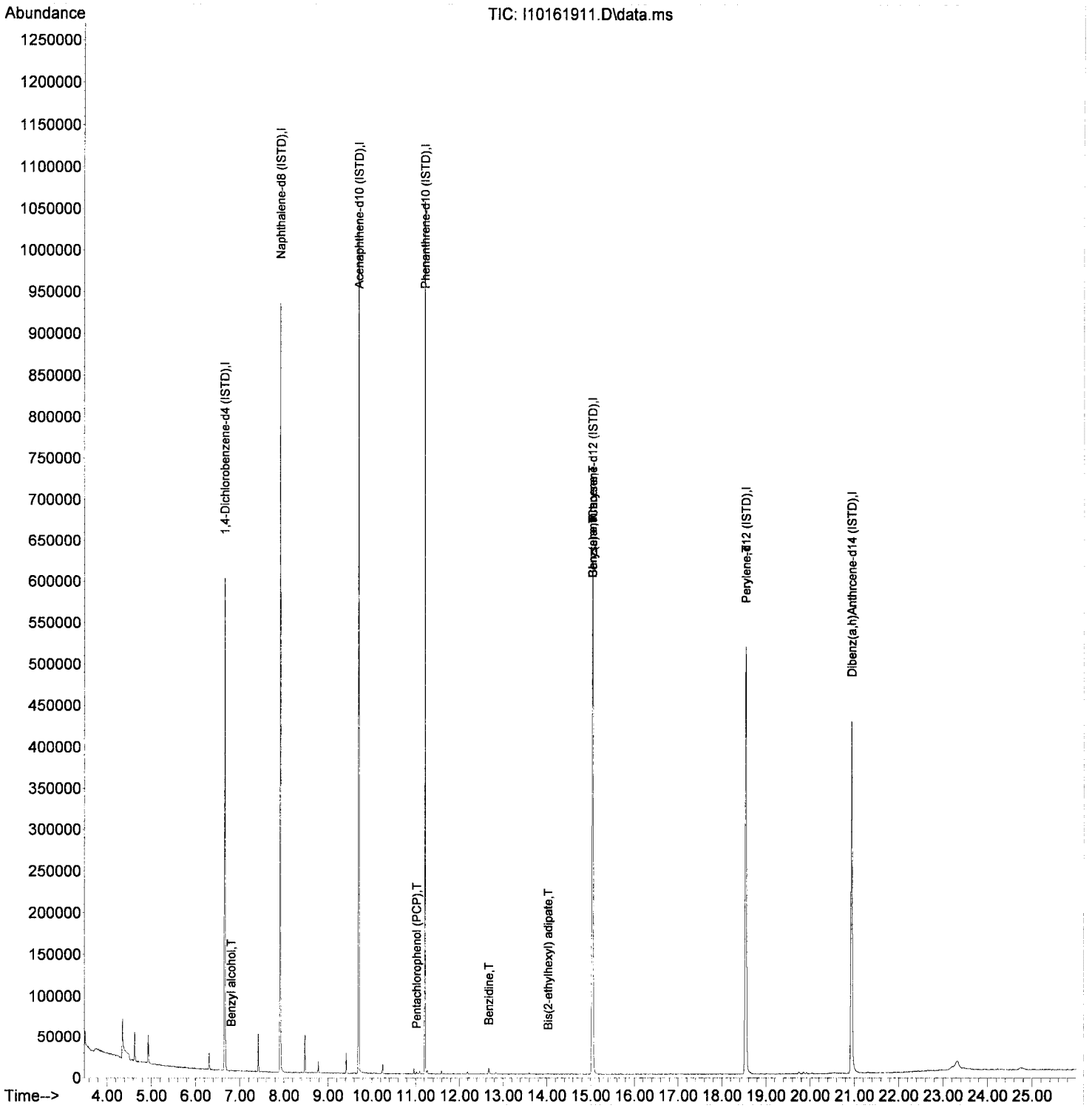
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.328	77	82	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	11.018	266	377	60.04 ng/ml	88
71) Phenanthrene	11.210	178	142	N.D.	
72) Anthracene	11.210	178	142	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.670	184	4346	154.48 ng/ml	95
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	14.029	129	284	2.72 ng/ml	80
82) 3,3-Dichlorobenzidine	14.981	252	134	Below Cal	88
83) Benz(a)anthracene	15.040	228	1055	4.39 ng/ml	69
84) Chrysene	15.040	228	1056	4.86 ng/ml	65
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.543	252	1547	8.37 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.934	276	59	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	110906	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	444279	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	228631	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	419652	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	431513	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	431467	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	350266	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.418	112	1500	20.64	ng/ml	0.01
5) Phenol-d6 (Surr)	6.295	99	1618	18.62	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	1331	19.02	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	3186	19.06	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	334	26.40	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	3719	17.99	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.129	74	1227	24.23	ng/ml	69
3) Pyridine	4.193	79	855	21.35	ng/ml#	7
6) Phenol	6.311	94	2030	22.76	ng/ml	94
7) Aniline	6.348	93	1021	12.34	ng/ml	86
8) Bis(2-chloroethyl) ether	6.402	93	1698	20.58	ng/ml	92
9) 2-Chlorophenol	6.461	128	1413	18.40	ng/ml	97
10) 1,3-Dichlorobenzene	6.611	146	1762	20.10	ng/ml	91
11) 1,4-Dichlorobenzene	6.680	146	1753	20.55	ng/ml	88
12) Benzyl alcohol	6.792	108	950	53.34	ng/ml	82
13) 1,2-Dichlorobenzene	6.835	146	1751	21.20	ng/ml	99
14) 2-Methylphenol	6.894	107	1222	22.56	ng/ml	91
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	2838	33.30	ng/ml	95
16) N-Nitrosodi-n-propylamine	7.049	70	1362	27.29	ng/ml	94
17) 3+4-Methylphenol	7.044	107	1259	26.81	ng/ml	88
18) Hexachloroethane	7.167	201	507	18.65	ng/ml	90
20) Nitrobenzene	7.220	77	1500	21.48	ng/ml	90
22) Isophorone	7.456	82	3161	21.19	ng/ml	99
23) 2-Nitrophenol	7.536	139	369	8.33	ng/ml	95
24) 2,4-Dimethylphenol	7.568	122	1082	16.73	ng/ml	89
25) Bis(2-chloroethoxy) me...	7.664	93	1914	21.31	ng/ml	97
26) Benzoic acid	7.568	105	64	689.17	ng/ml#	1
27) 2,4-Dichlorophenol	7.771	162	574	32.97	ng/ml	93
28) 1,2,4-Trichlorobenzene	7.862	180	1518	19.84	ng/ml	97
29) Naphthalene	7.942	128	5043	22.08	ng/ml	97
30) 4-Chloroaniline	7.990	127	610	23.52	ng/ml	83
31) Hexachlorobutadiene	8.076	225	770	18.86	ng/ml	90
32) 4-Chloro-3-methylphenol	8.472	107	522	49.09	ng/ml#	1
33) 2-Methylnaphthalene	8.638	142	3026	18.47	ng/ml	96
34) 1-Methylnaphthalene	8.739	142	3010	19.27	ng/ml	93
36) Hexachlorocyclopentadiene	8.803	237	631	14.46	ng/ml	85
37) 2,4,6-Trichlorophenol	8.921	196	357	40.14	ng/ml	80
38) 2,4,5-Trichlorophenol	8.959	198	333	33.56	ng/ml	80
39) 1,1'-Biphenyl	9.108	154	3294	17.48	ng/ml	93
41) 2-Chloronaphthalene	9.130	162	2408	17.54	ng/ml	91
42) 2-Nitroaniline	9.226	138	265	5.68	ng/ml	78
43) 2,6-Dimethylnaphthalene	9.269	156	2691	19.11	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

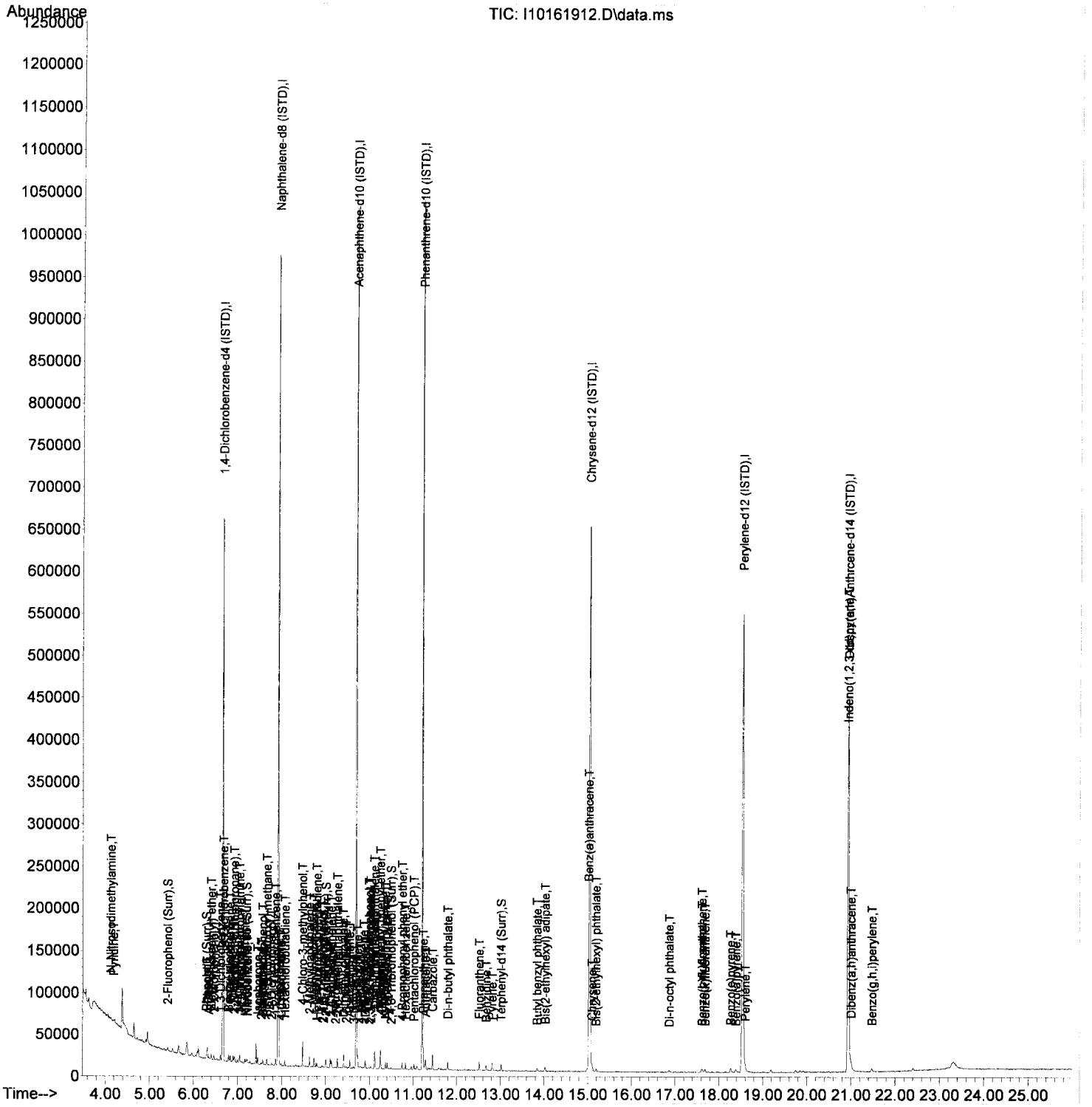
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.		
45)	Dimethyl phthalate	9.402	163	3253	19.56	ng/ml	97
46)	1,3-Dinitrobenzene	9.440	168	52	N.D.		
47)	2,6-Dinitrotoluene	9.467	165	213	5.54	ng/ml	84
48)	1,2-Dinitrobenzene	0.000		0	N.D.		
49)	Acenaphthylene	9.552	152	4331	19.41	ng/ml	97
50)	3-Nitroaniline	9.643	138	203	27.60	ng/ml#	79
51)	Acenaphthene	9.729	153	3082	21.45	ng/ml	91
52)	2,4-Dinitrophenol	0.000		0	N.D.		
53)	4-Nitrophenol	9.804	139	149	66.50	ng/ml	70
54)	2,4-Dinitrotoluene	9.873	165	307	6.39	ng/ml	95
55)	Dibenzofuran	9.905	168	3969	19.87	ng/ml#	72
56)	2,3,5,6-Tetrachlorophenol	9.991	232	254	36.72	ng/ml	91
57)	2,3,4,6-Tetrachlorophenol	10.028	232	405	22.64	ng/ml	94
58)	Diethyl phthalate	10.119	149	3227	20.84	ng/ml	95
59)	2,3,5-Trimethylnaphtha...	10.114	170	2603	19.20	ng/ml	98
60)	Fluorene	10.253	166	3175	19.83	ng/ml	98
61)	4-Chlorophenyl phenyl ...	10.248	204	1518	18.63	ng/ml	95
62)	4-Nitroaniline	10.258	138	246	7.30	ng/ml#	61
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65)	N-Nitrosodiphenylamine	10.365	169	2298	17.80	ng/ml	97
66)	Azobenzene (1,2-DPH)	10.408	77	3383	26.10	ng/ml	99
68)	4-Bromophenyl phenyl e...	10.750	248	987	20.33	ng/ml	98
69)	Hexachlorobenzene	10.825	284	1216	21.86	ng/ml	94
70)	Pentachlorophenol (PCP)	11.018	266	898	52.21	ng/ml	91
71)	Phenanthrene	11.237	178	4821	21.73	ng/ml	97
72)	Anthracene	11.285	178	4322	20.04	ng/ml	97
73)	Carbazole	11.446	167	3762	21.24	ng/ml	97
74)	Di-n-butyl phthalate	11.793	149	4261	17.18	ng/ml	96
75)	Fluoranthene	12.515	202	4669	18.59	ng/ml	97
76)	Benzidine	12.671	184	3612	54.31	ng/ml	94
77)	Pyrene	12.810	202	4626	18.31	ng/ml	99
80)	Butyl benzyl phthalate	13.842	149	1220	35.17	ng/ml	88
81)	Bis(2-ethylhexyl) adipate	14.029	129	1272	12.61	ng/ml	95
82)	3,3-Dichlorobenzidine	14.981	252	1592	Below Cal		99
83)	Benz(a)anthracene	15.024	228	5352	21.62	ng/ml	95
84)	Chrysene	15.099	228	4336	19.18	ng/ml	93
85)	Bis(2-ethylhexyl) phth...	15.190	149	1364	9.24	ng/ml	92
87)	Di-n-octyl phthalate	16.869	149	1789	63.80	ng/ml	82
88)	Benzo(b)fluoranthene	17.618	252	3489	14.40	ng/ml	91
89)	Benzo(k)fluoranthene	17.688	252	3429	15.01	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.618	252	6917	28.71	ng/ml	91
91)	Benzo(e)pyrene	18.271	252	3566	15.08	ng/ml	94
92)	Benzo(a)pyrene	18.394	252	2850	21.60	ng/ml	99
93)	Perylene	18.602	252	3674	18.41	ng/ml	98
95)	Indeno(1,2,3-cd)pyrene	20.934	276	4048	19.13	ng/ml	52
96)	Dibenz(a,h)anthracene	21.004	278	3500	18.99	ng/ml	88
97)	Benzo(g,h,i)perylene	21.474	276	3150	15.56	ng/ml	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	114962	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	445939	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	230418	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	415279	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	420433	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	422859	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	334828	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	3881	51.53	ng/ml	0.00
5) Phenol-d6 (Surr)	6.289	99	4604	51.10	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	3185	43.91	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	8607	51.08	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	730	43.22	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	9501	47.17	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.080	74	3526	67.17	ng/ml	90
3) Pyridine	4.123	79	4710	70.91	ng/ml	83
6) Phenol	6.306	94	5478	59.26	ng/ml	93
7) Aniline	6.343	93	5932	69.17	ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	4855	56.77	ng/ml	92
9) 2-Chlorophenol	6.455	128	4117	51.73	ng/ml	96
10) 1,3-Dichlorobenzene	6.605	146	4787	52.68	ng/ml	91
11) 1,4-Dichlorobenzene	6.675	146	4602	52.04	ng/ml	96
12) Benzyl alcohol	6.792	108	1820	72.61	ng/ml	91
13) 1,2-Dichlorobenzene	6.830	146	4537	53.00	ng/ml	94
14) 2-Methylphenol	6.894	107	2790	49.68	ng/ml	91
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	7664	86.75	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	3574	69.09	ng/ml	98
17) 3+4-Methylphenol	7.038	107	3323	53.48	ng/ml	97
18) Hexachloroethane	7.161	201	1316	46.69	ng/ml	90
20) Nitrobenzene	7.215	77	3574	49.37	ng/ml	90
22) Isophorone	7.450	82	8579	57.29	ng/ml	98
23) 2-Nitrophenol	7.536	139	925	20.81	ng/ml	85
24) 2,4-Dimethylphenol	7.568	122	2761	42.54	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.659	93	4937	54.77	ng/ml	98
26) Benzoic acid	7.659	105	134	690.78	ng/ml#	64
27) 2,4-Dichlorophenol	7.771	162	1890	54.39	ng/ml	93
28) 1,2,4-Trichlorobenzene	7.862	180	3937	51.27	ng/ml	97
29) Naphthalene	7.942	128	12520	54.62	ng/ml	97
30) 4-Chloroaniline	7.990	127	2877	62.07	ng/ml	96
31) Hexachlorobutadiene	8.071	225	2120	51.74	ng/ml	92
32) 4-Chloro-3-methylphenol	8.466	107	1947	71.54	ng/ml#	63
33) 2-Methylnaphthalene	8.638	142	8077	49.12	ng/ml	96
34) 1-Methylnaphthalene	8.739	142	8217	52.41	ng/ml	93
36) Hexachlorocyclopentadiene	8.803	237	1631	37.10	ng/ml	92
37) 2,4,6-Trichlorophenol	8.921	196	1180	57.50	ng/ml	85
38) 2,4,5-Trichlorophenol	8.953	198	1380	56.28	ng/ml	91
39) 1,1'-Biphenyl	9.108	154	9466	49.85	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	7301	52.77	ng/ml	97
42) 2-Nitroaniline	9.226	138	803	17.08	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.269	156	7521	53.01	ng/ml	96

See MJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

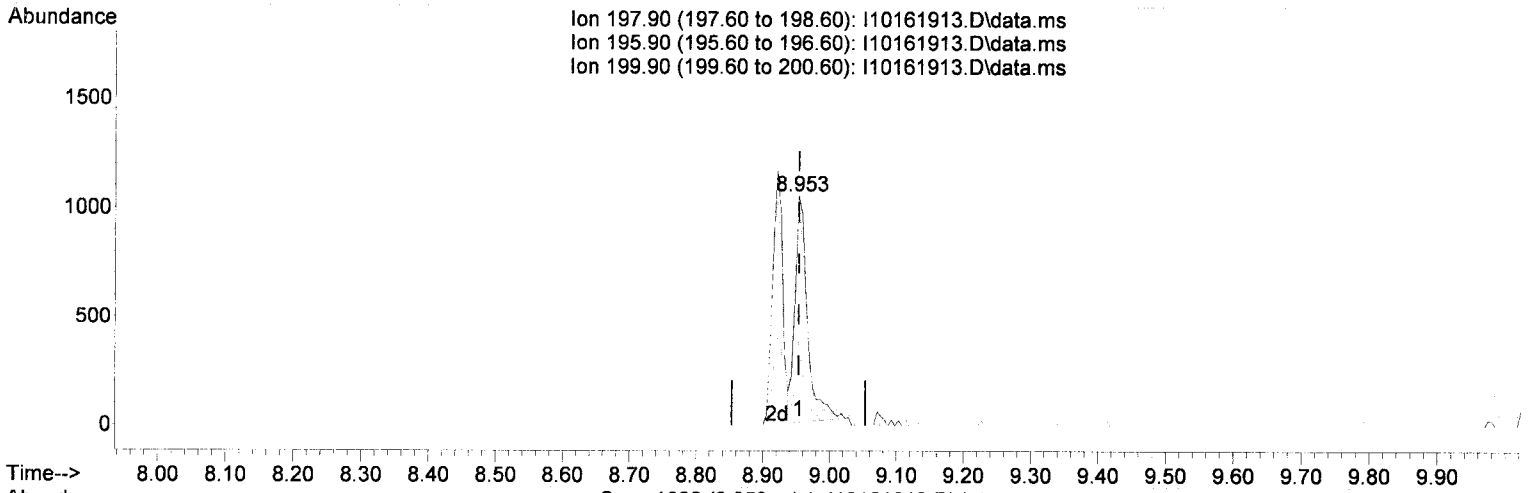
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.349	168	260	73.59	ng/ml	80
45) Dimethyl phthalate	9.408	163	8884	53.00	ng/ml	97
46) 1,3-Dinitrobenzene	9.434	168	351	12.68	ng/ml	55
47) 2,6-Dinitrotoluene	9.467	165	792	20.42	ng/ml	90
48) 1,2-Dinitrobenzene	9.520	168	309	16.43	ng/ml	87
49) Acenaphthylene	9.552	152	12047	53.56	ng/ml	98
50) 3-Nitroaniline	9.638	138	817	42.51	ng/ml	92
51) Acenaphthene	9.729	153	7881	54.42	ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.804	139	379	74.08	ng/ml	80
54) 2,4-Dinitrotoluene	9.878	165	711	14.67	ng/ml	93
55) Dibenzofuran	9.905	168	10908	54.20	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.985	232	786	50.55	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	10.028	232	1166	42.00	ng/ml	95
58) Diethyl phthalate	10.119	149	8435	54.05	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.114	170	6964	50.96	ng/ml	97
60) Fluorene	10.253	166	8492	52.63	ng/ml	94
61) 4-Chlorophenyl phenyl ...	10.247	204	4054	49.87	ng/ml	95
62) 4-Nitroaniline	10.258	138	819	24.11	ng/ml	84
63) 4,6-Dinitro-2-methylph...	10.296	198	104	79.94	ng/ml#	54
65) N-Nitrosodiphenylamine	10.365	169	6622	51.83	ng/ml	98
66) Azobenzene (1,2-DPH)	10.408	77	9368	73.03	ng/ml	98
68) 4-Bromophenyl phenyl e...	10.745	248	2354	49.00	ng/ml	91
69) Hexachlorobenzene	10.825	284	2891	52.51	ng/ml	93
70) Pentachlorophenol (PCP)	11.023	266	808	49.26	ng/ml	90
71) Phenanthrene	11.237	178	12134	55.27	ng/ml	99
72) Anthracene	11.285	178	11800	55.30	ng/ml	99
73) Carbazole	11.446	167	10074	49.84	ng/ml	98
74) Di-n-butyl phthalate	11.793	149	12651	51.56	ng/ml	99
75) Fluoranthene	12.515	202	12524	50.39	ng/ml	99
76) Benzidine	12.670	184	3389	51.49	ng/ml	89
77) Pyrene	12.809	202	12834	51.32	ng/ml	98
80) Butyl benzyl phthalate	13.847	149	3359	54.50	ng/ml	95
81) Bis(2-ethylhexyl) adipate	14.018	129	3024	30.76	ng/ml	89
82) 3,3-Dichlorobenzidine	14.981	252	5122	Below	Cal	89
83) Benz(a)anthracene	15.024	228	11999	49.74	ng/ml	100
84) Chrysene	15.104	228	11098	50.38	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.195	149	3999	27.80	ng/ml	97
87) Di-n-octyl phthalate	16.869	149	4878	75.82	ng/ml	90
88) Benzo(b)fluoranthene	17.618	252	9380	39.51	ng/ml	97
89) Benzo(k)fluoranthene	17.682	252	9507	42.47	ng/ml	95
90) Benzo(b+k)fluoranthene	17.682	252	19673	83.31	ng/ml	95
91) Benzo(e)pyrene	18.270	252	10258	44.28	ng/ml	99
92) Benzo(a)pyrene	18.393	252	8352	46.78	ng/ml	94
93) Perylene	18.597	252	9122	46.65	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.934	276	9841	48.66	ng/ml	87
96) Dibenz(a,h)anthracene	21.004	278	8473	48.08	ng/ml	98
97) Benzo(g,h,i)perylene	21.469	276	8620	44.58	ng/ml	92

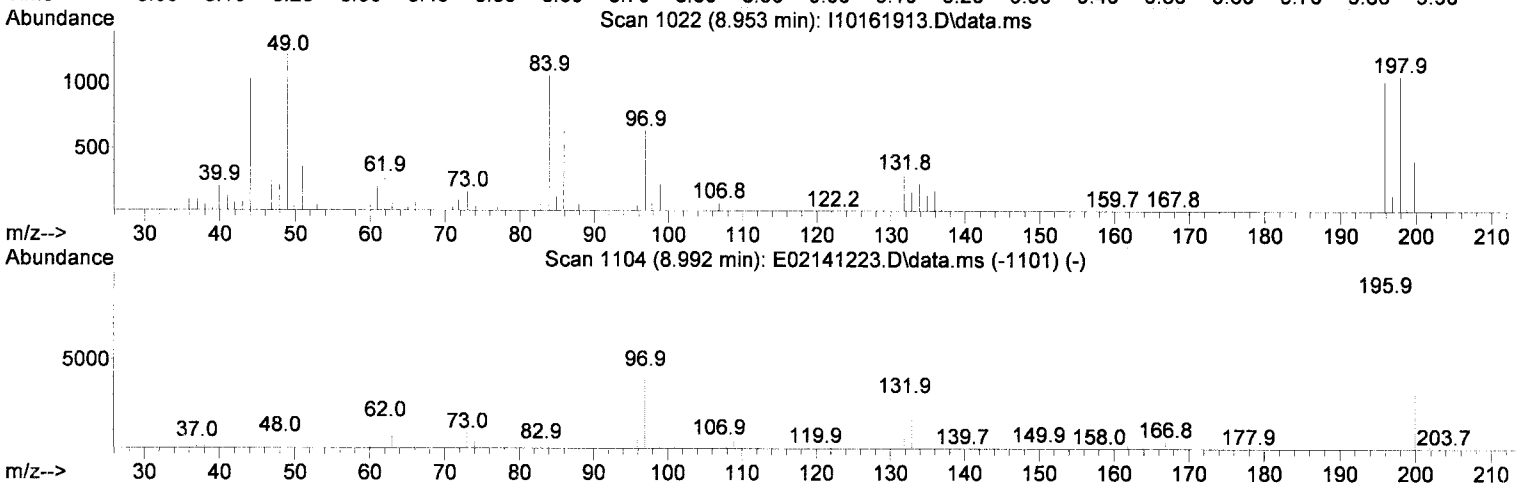
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.953min (+ 0.000) 56.28 ng/ml

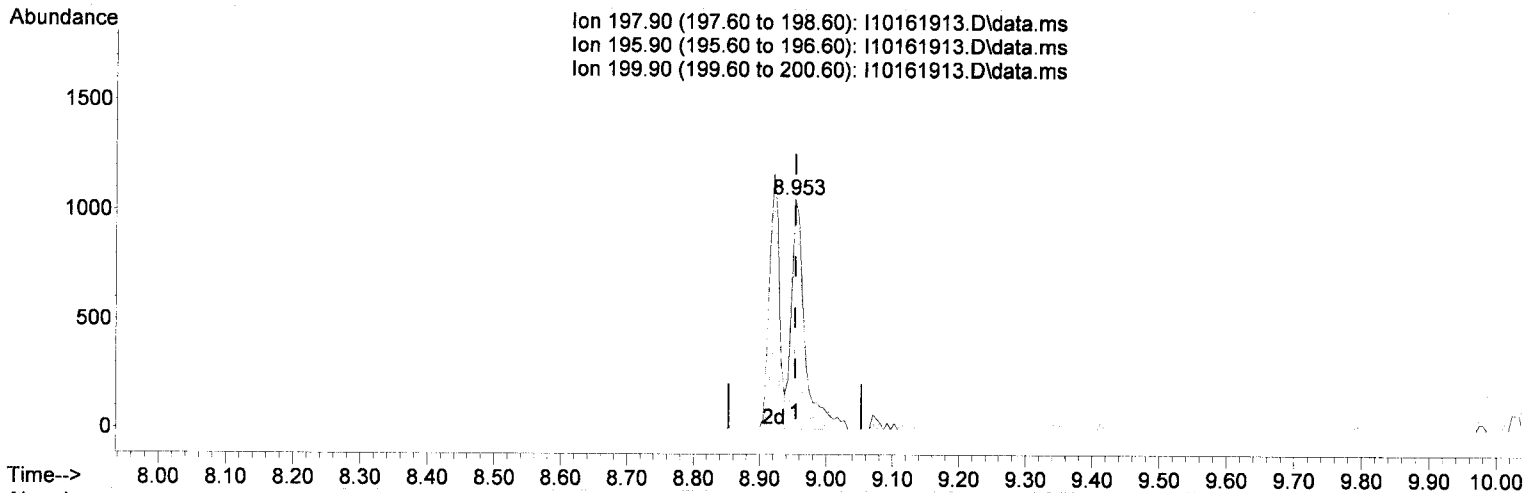
response 1380

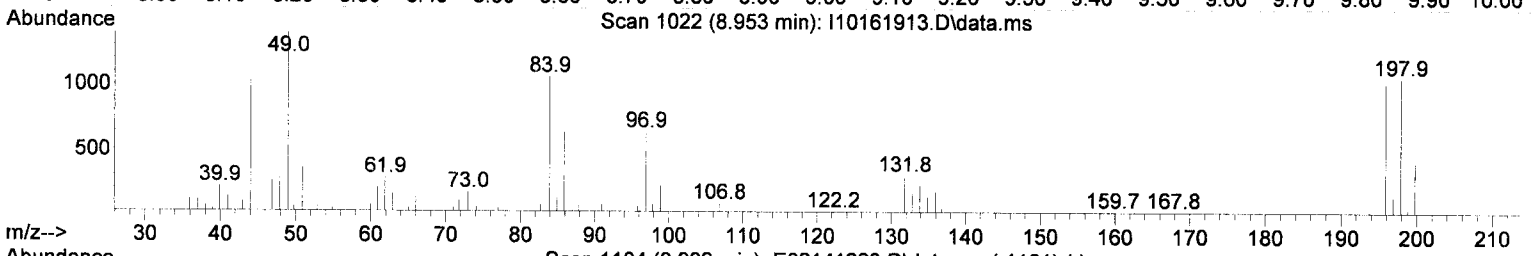
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

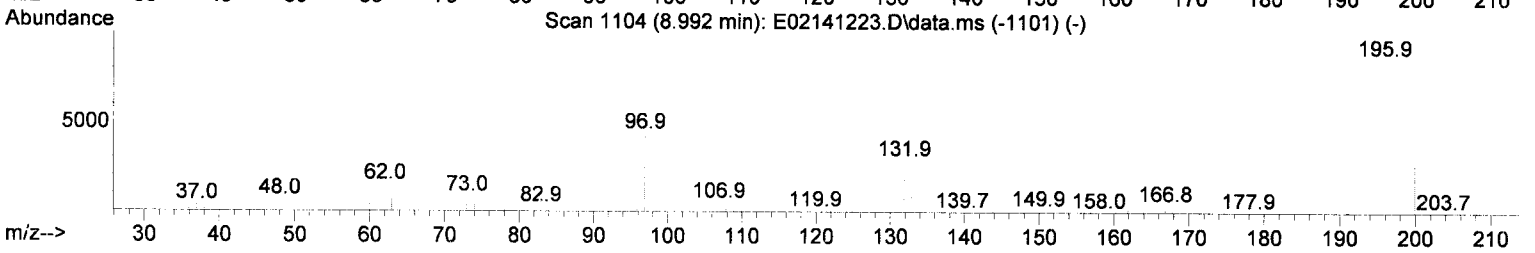
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.953min (+ 0.000) 59.05 ng/ml m

response 1507

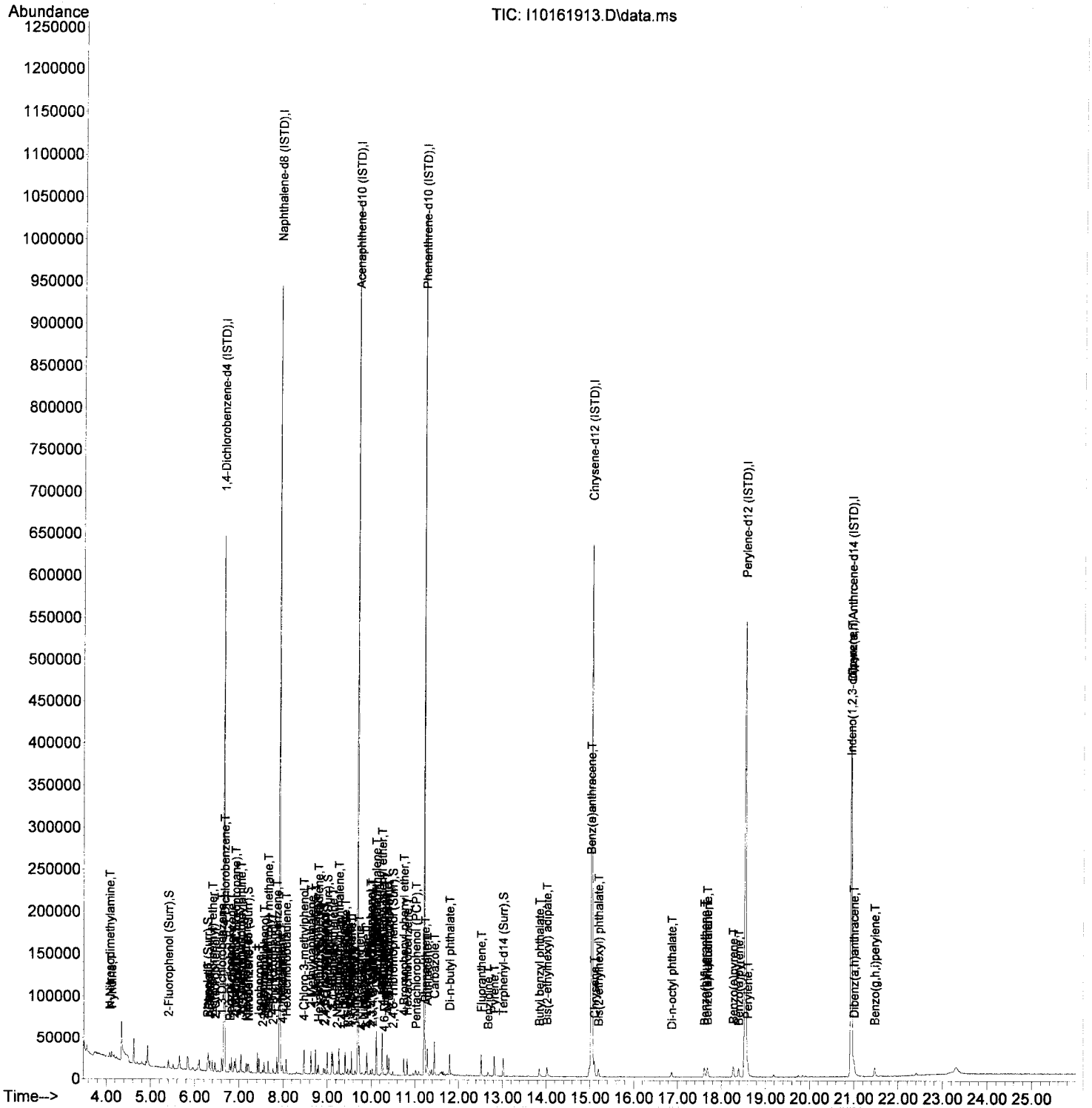
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

10/17/19

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	113552	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	448868	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	232211	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	421494	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	434926	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	432129	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.945	292	350177	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	7618	102.40	ng/ml	0.00
5) Phenol-d6 (Surr)	6.289	99	9393	105.55	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	6659	92.95	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.001	172	19336	113.88	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	1877	90.32	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	20875	100.19	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.091	74	6638	128.02	ng/ml	94
3) Pyridine	4.123	79	9792	138.13	ng/ml	92
6) Phenol	6.306	94	10339	113.24	ng/ml	95
7) Aniline	6.343	93	12340	145.68	ng/ml	94
8) Bis(2-chloroethyl) ether	6.396	93	10234	121.15	ng/ml	95
9) 2-Chlorophenol	6.461	128	8126	103.37	ng/ml	98
10) 1,3-Dichlorobenzene	6.610	146	9504	105.89	ng/ml	96
11) 1,4-Dichlorobenzene	6.680	146	9126	104.49	ng/ml	96
12) Benzyl alcohol	6.787	108	3764	118.45	ng/ml	94
13) 1,2-Dichlorobenzene	6.830	146	8939	105.72	ng/ml	98
14) 2-Methylphenol	6.894	107	6433	115.98	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	14918	170.96	ng/ml	99
16) N-Nitrosodi-n-propylamine	7.049	70	7214	141.18	ng/ml	96
17) 3+4-Methylphenol	7.038	107	7443	109.18	ng/ml	99
18) Hexachloroethane	7.167	201	2749	98.74	ng/ml	96
20) Nitrobenzene	7.220	77	7135	99.79	ng/ml	99
22) Isophorone	7.450	82	18112	120.16	ng/ml	99
23) 2-Nitrophenol	7.536	139	2310	51.62	ng/ml	91
24) 2,4-Dimethylphenol	7.568	122	6096	93.32	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.659	93	10224	112.68	ng/ml	97
26) Benzoic acid	7.685	105	73	689.36	ng/ml#	52
27) 2,4-Dichlorophenol	7.771	162	4404	94.88	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.862	180	7993	103.40	ng/ml	99
29) Naphthalene	7.942	128	25776	111.72	ng/ml	99
30) 4-Chloroaniline	7.985	127	6058	115.49	ng/ml	94
31) Hexachlorobutadiene	8.071	225	4343	105.31	ng/ml	96
32) 4-Chloro-3-methylphenol	8.466	107	4647	113.63	ng/ml	82
33) 2-Methylnaphthalene	8.638	142	17540	105.97	ng/ml	97
34) 1-Methylnaphthalene	8.739	142	17357	109.97	ng/ml	99
36) Hexachlorocyclopentadiene	8.803	237	3517	79.37	ng/ml	96
37) 2,4,6-Trichlorophenol	8.921	196	3024	96.02	ng/ml	94
38) 2,4,5-Trichlorophenol	8.953	198	2923	89.37	ng/ml	94
39) 1,1'-Biphenyl	9.108	154	21153	110.53	ng/ml	98
41) 2-Chloronaphthalene	9.130	162	15573	111.68	ng/ml	99
42) 2-Nitroaniline	9.226	138	2029	42.84	ng/ml	79
43) 2,6-Dimethylnaphthalene	9.269	156	15902	111.21	ng/ml	98

See NI

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

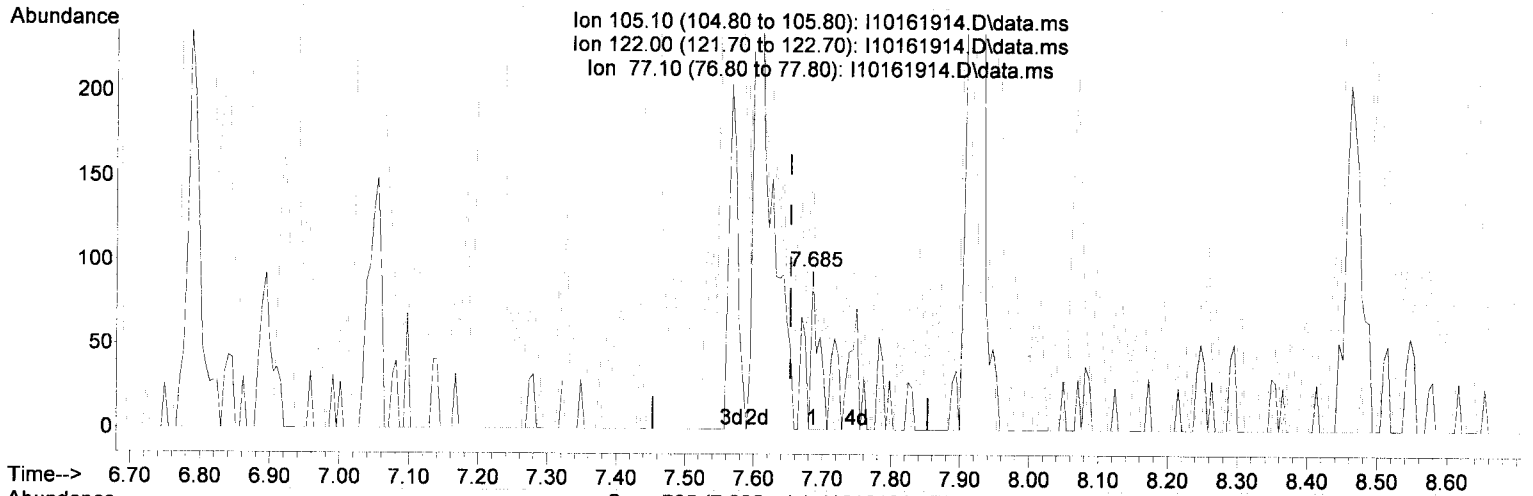
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	548	84.88	ng/ml	94
45) Dimethyl phthalate	9.408	163	18685	110.60	ng/ml	98
46) 1,3-Dinitrobenzene	9.434	168	771	27.65	ng/ml	74
47) 2,6-Dinitrotoluene	9.467	165	1977	50.59	ng/ml	94
48) 1,2-Dinitrobenzene	9.520	168	825	43.54	ng/ml	74
49) Acenaphthylene	9.552	152	25781	113.74	ng/ml	99
50) 3-Nitroaniline	9.638	138	2092	73.69	ng/ml	90
51) Acenaphthene	9.729	153	16496	113.02	ng/ml	96
52) 2,4-Dinitrophenol	9.739	184	103	164.16	ng/ml#	37
53) 4-Nitrophenol	9.798	139	907	91.33	ng/ml	78
54) 2,4-Dinitrotoluene	9.878	165	1827	37.42	ng/ml	92
55) Dibenzofuran	9.905	168	22990	113.35	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.985	232	2308	89.78	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	10.028	232	3124	91.39	ng/ml	92
58) Diethyl phthalate	10.119	149	17844	113.46	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.114	170	14732	106.97	ng/ml	100
60) Fluorene	10.253	166	18324	112.69	ng/ml	97
61) 4-Chlorophenyl phenyl ...	10.247	204	8661	104.66	ng/ml	99
62) 4-Nitroaniline	10.258	138	2067	60.39	ng/ml	92
63) 4,6-Dinitro-2-methylph...	10.290	198	341	89.81	ng/ml	90
65) N-Nitrosodiphenylamine	10.365	169	14732	113.61	ng/ml	99
66) Azobenzene (1,2-DPH)	10.408	77	18843	144.73	ng/ml	98
68) 4-Bromophenyl phenyl e...	10.745	248	4920	100.90	ng/ml	91
69) Hexachlorobenzene	10.825	284	6222	111.34	ng/ml	94
70) Pentachlorophenol (PCP)	11.018	266	1663	79.57	ng/ml	91
71) Phenanthrene	11.237	178	24650	110.63	ng/ml	99
72) Anthracene	11.285	178	24793	114.47	ng/ml	98
73) Carbazole	11.446	167	21180	99.27	ng/ml	99
74) Di-n-butyl phthalate	11.788	149	26455	106.22	ng/ml	100
75) Fluoranthene	12.515	202	27171	107.72	ng/ml	98
76) Benzidine	12.670	184	10054	150.51	ng/ml	94
77) Pyrene	12.809	202	27657	108.96	ng/ml	98
80) Butyl benzyl phthalate	13.847	149	8298	95.98	ng/ml	93
81) Bis(2-ethylhexyl) adipate	14.024	129	7171	70.51	ng/ml	98
82) 3,3-Dichlorobenzidine	14.986	252	12358	Below Cal		96
83) Benz(a)anthracene	15.018	228	25078	100.49	ng/ml	98
84) Chrysene	15.104	228	23115	101.44	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	10525	70.73	ng/ml	95
87) Di-n-octyl phthalate	16.869	149	13641	108.39	ng/ml	96
88) Benzo(b)fluoranthene	17.618	252	21892	90.23	ng/ml	99
89) Benzo(k)fluoranthene	17.687	252	22282	97.40	ng/ml	98
90) Benzo(b+k)fluoranthene	17.618	252	45830	189.93	ng/ml	99
91) Benzo(e)pyrene	18.270	252	22306	94.21	ng/ml	98
92) Benzo(a)pyrene	18.393	252	19477	95.30	ng/ml	97
93) Perylene	18.602	252	19207	96.12	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.934	276	20486	96.85	ng/ml	97
96) Dibenz(a,h)anthracene	21.004	278	18545	100.62	ng/ml	96
97) Benzo(g,h,i)perylene	21.474	276	19859	98.10	ng/ml	96

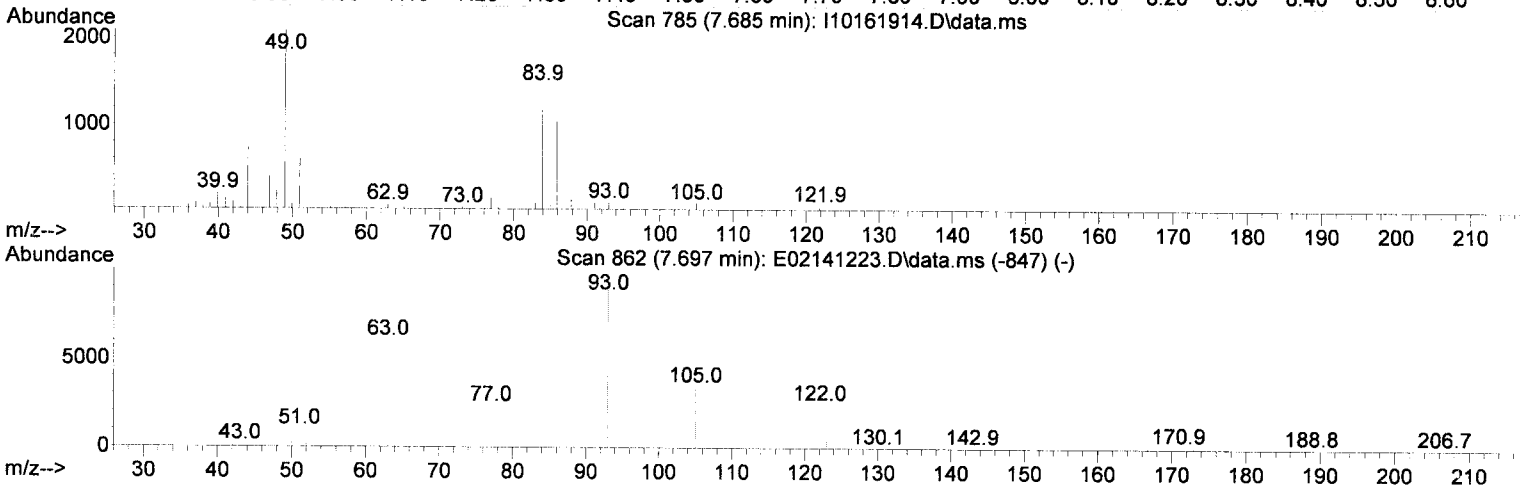
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161914.D\data.ms

(26) Benzoic acid (T)

7.685min (+ 0.032) 689.36 ng/ml

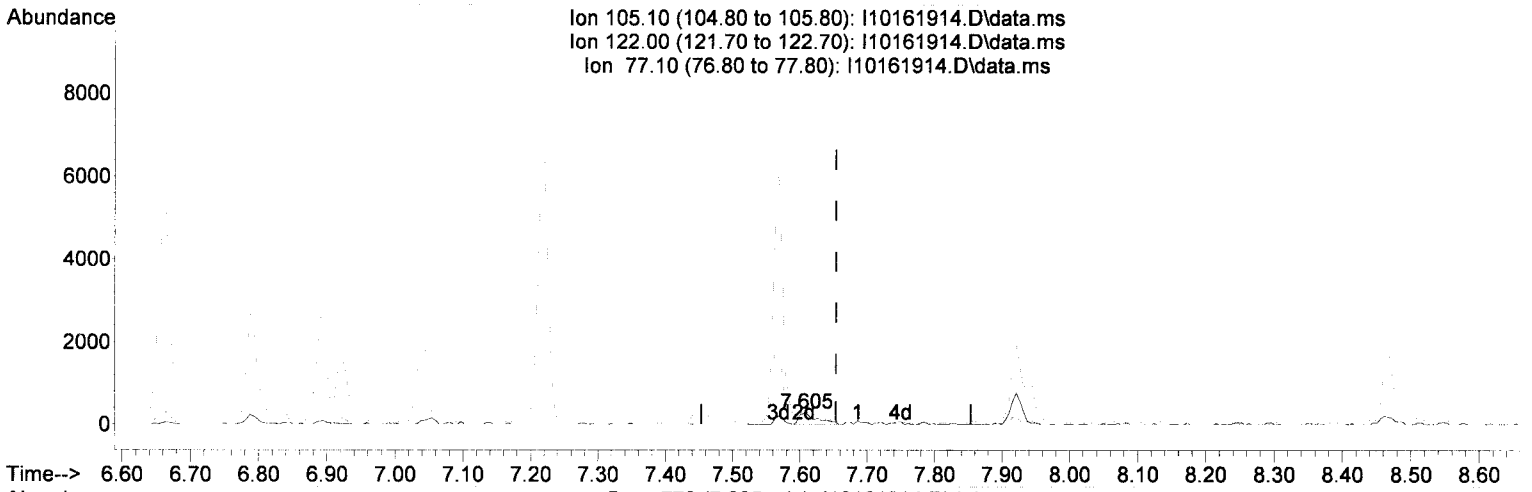
response 73

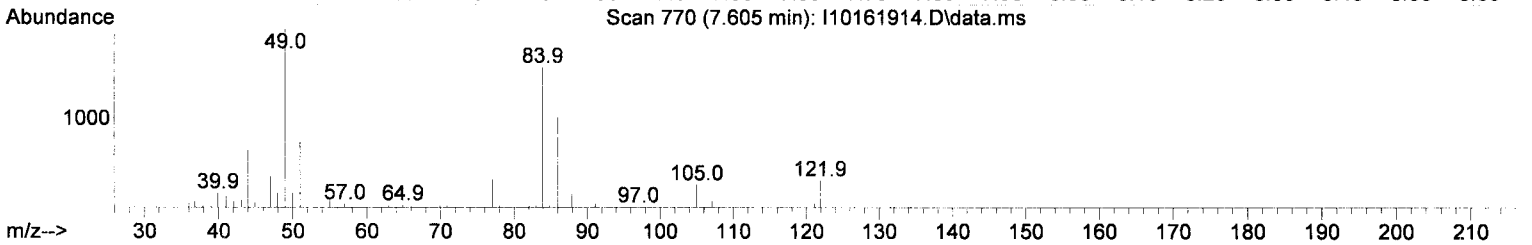
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	76.60
77.10	77.80	158.51#
0.00	0.00	0.00

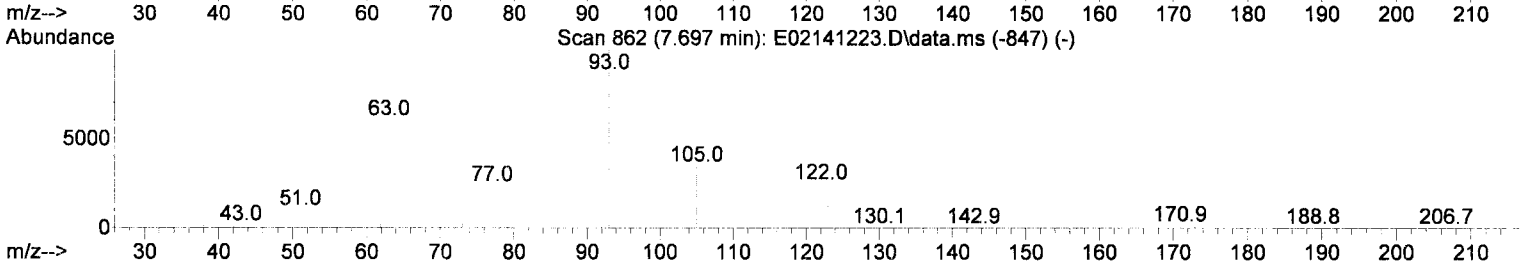
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161914.D\data.ms

(26) Benzoic acid (T)

7.605min (-0.048) 699.54 ng/ml m

10/17/19

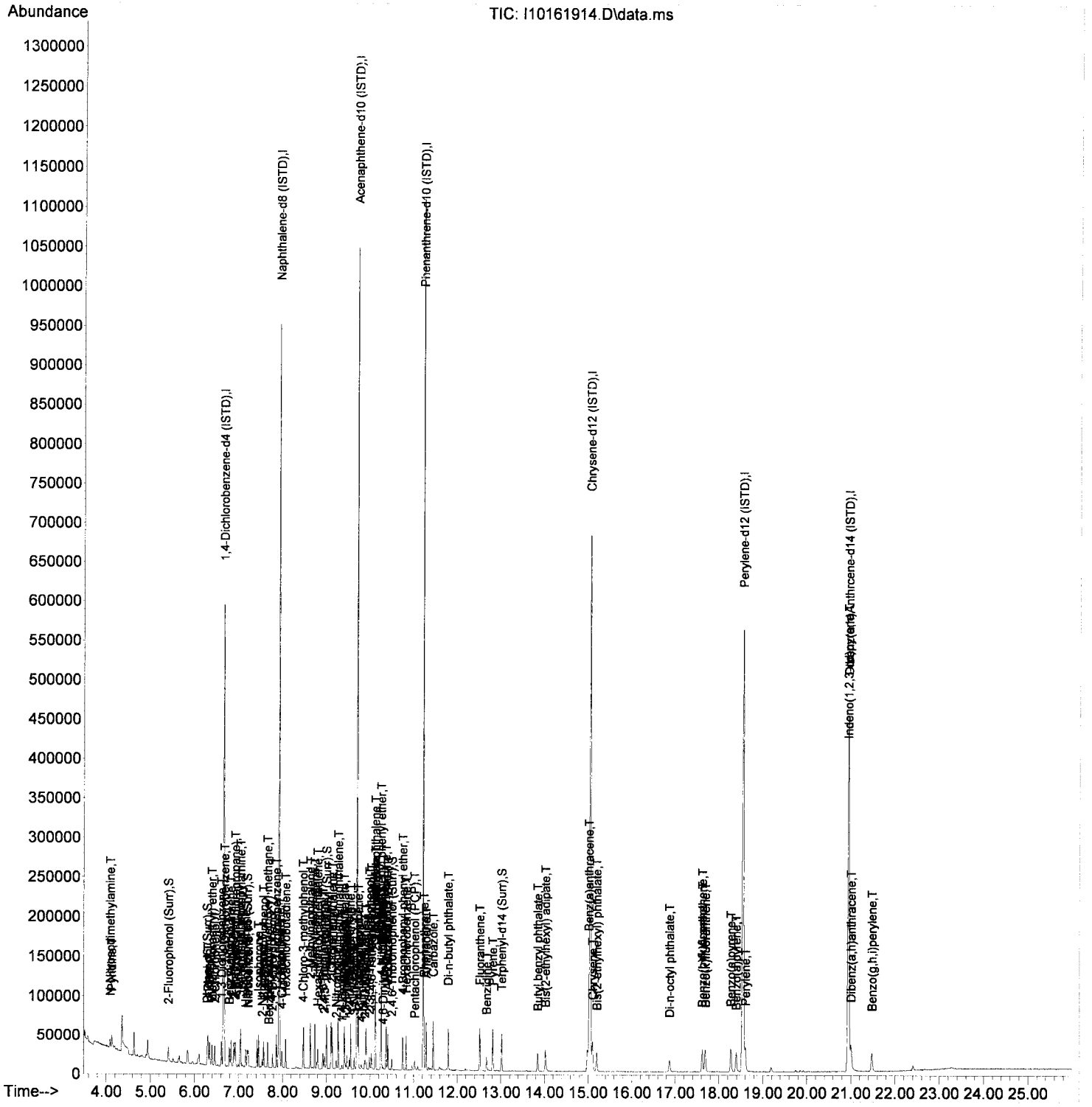
response 519

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	116.92#
77.10	77.80	121.80#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	120155	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	447887	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	228870	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	406200	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	416387	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	413647	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	337729	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	16598	210.85	ng/ml	0.00
5) Phenol-d6 (Surr)	6.290	99	19537	207.48	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	13464	177.60	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.001	172	37977	226.93	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	4109	189.13	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	41737	209.23	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.059	74	13447	245.08	ng/ml	98
3) Pyridine	4.091	79	20595	263.90	ng/ml	97
6) Phenol	6.300	94	20713	214.40	ng/ml	99
7) Aniline	6.338	93	25093	279.96	ng/ml	95
8) Bis(2-chloroethyl) ether	6.391	93	20574	230.17	ng/ml	96
9) 2-Chlorophenol	6.455	128	17444	209.70	ng/ml	97
10) 1,3-Dichlorobenzene	6.605	146	20472	215.55	ng/ml	99
11) 1,4-Dichlorobenzene	6.675	146	19398	209.89	ng/ml	96
12) Benzyl alcohol	6.787	108	8208	211.19	ng/ml	93
13) 1,2-Dichlorobenzene	6.824	146	19037	212.77	ng/ml	99
14) 2-Methylphenol	6.889	107	13130	223.71	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	30514	330.48	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.044	70	14701	271.89	ng/ml	98
17) 3+4-Methylphenol	7.038	107	15070	200.27	ng/ml	97
18) Hexachloroethane	7.161	201	5953	202.07	ng/ml	95
20) Nitrobenzene	7.215	77	15667	207.08	ng/ml	96
22) Isophorone	7.450	82	38056	253.02	ng/ml	96
23) 2-Nitrophenol	7.536	139	5298	118.66	ng/ml	91
24) 2,4-Dimethylphenol	7.568	122	13189	202.34	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.659	93	20646	228.05	ng/ml	99
26) Benzoic acid	7.691	105	160	691.36	ng/ml	87
27) 2,4-Dichlorophenol	7.771	162	10420	192.56	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.862	180	16256	210.76	ng/ml	98
29) Naphthalene	7.942	128	50856	220.91	ng/ml	99
30) 4-Chloroaniline	7.985	127	14311	255.23	ng/ml	97
31) Hexachlorobutadiene	8.071	225	9011	218.98	ng/ml	95
32) 4-Chloro-3-methylphenol	8.467	107	10782	209.92	ng/ml	96
33) 2-Methylnaphthalene	8.638	142	36226	219.35	ng/ml	98
34) 1-Methylnaphthalene	8.739	142	34216	217.27	ng/ml	99
36) Hexachlorocyclopentadiene	8.803	237	7790	178.37	ng/ml	94
37) 2,4,6-Trichlorophenol	8.921	196	7170	185.24	ng/ml	98
38) 2,4,5-Trichlorophenol	8.953	198	6873	176.84	ng/ml	91
39) 1,1'-Biphenyl	9.108	154	42580	225.74	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	31240	227.31	ng/ml	99
42) 2-Nitroaniline	9.226	138	5088	108.98	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	31242	221.68	ng/ml	99

See MI

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

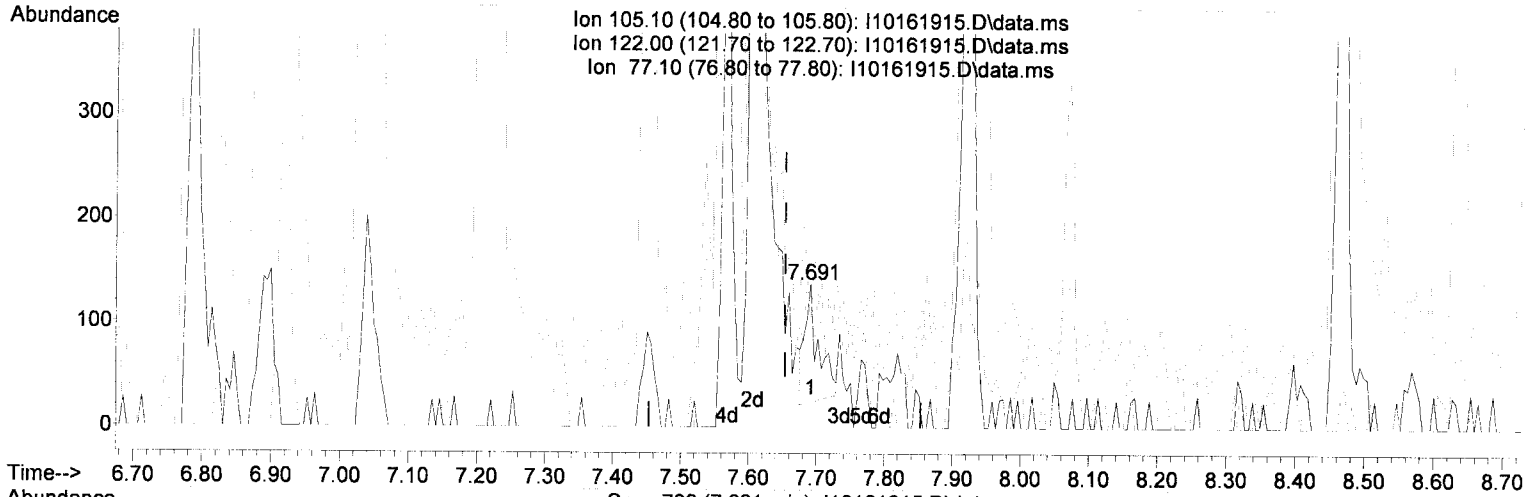
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	1277	114.39	ng/ml	92
45) Dimethyl phthalate	9.408	163	36622	219.94	ng/ml	98
46) 1,3-Dinitrobenzene	9.435	168	1889	68.72	ng/ml	91
47) 2,6-Dinitrotoluene	9.467	165	5062	131.41	ng/ml	97
48) 1,2-Dinitrobenzene	9.520	168	2119	113.46	ng/ml	88
49) Acenaphthylene	9.552	152	50685	226.88	ng/ml	98
50) 3-Nitroaniline	9.638	138	5115	151.93	ng/ml	91
51) Acenaphthene	9.729	153	31461	218.69	ng/ml	99
52) 2,4-Dinitrophenol	9.739	184	310	176.90	ng/ml	65
53) 4-Nitrophenol	9.798	139	2397	141.39	ng/ml	93
54) 2,4-Dinitrotoluene	9.879	165	4451	92.48	ng/ml	95
55) Dibenzofuran	9.905	168	43819	219.19	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.986	232	5028	162.01	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	10.028	232	6167	170.70	ng/ml	96
58) Diethyl phthalate	10.119	149	35198	227.07	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.114	170	28442	209.54	ng/ml	98
60) Fluorene	10.253	166	34530	215.45	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.248	204	16535	202.72	ng/ml	99
62) 4-Nitroaniline	10.258	138	4513	133.78	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.290	198	920	114.54	ng/ml	82
65) N-Nitrosodiphenylamine	10.365	169	28901	231.26	ng/ml	98
66) Azobenzene (1,2-DPH)	10.408	77	37095	295.66	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.745	248	9944	211.60	ng/ml	95
69) Hexachlorobenzene	10.825	284	12268	227.81	ng/ml	97
70) Pentachlorophenol (PCP)	11.018	266	3400	146.52	ng/ml	97
71) Phenanthrene	11.237	178	47219	219.90	ng/ml	99
72) Anthracene	11.285	178	47420	227.19	ng/ml	99
73) Carbazole	11.446	167	41597	201.89	ng/ml	99
74) Di-n-butyl phthalate	11.793	149	54476	226.97	ng/ml	99
75) Fluoranthene	12.515	202	53527	220.19	ng/ml	99
76) Benzidine	12.671	184	22390	347.80	ng/ml	94
77) Pyrene	12.810	202	55550	227.10	ng/ml	100
80) Butyl benzyl phthalate	13.847	149	18256	188.31	ng/ml	99
81) Bis(2-ethylhexyl) adipate	14.024	129	16213	166.51	ng/ml	98
82) 3,3-Dichlorobenzidine	14.987	252	23382	373.54	ng/ml	98
83) Benz(a)anthracene	15.019	228	48775	204.16	ng/ml	99
84) Chrysene	15.104	228	44508	204.03	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.195	149	25222	177.04	ng/ml	98
87) Di-n-octyl phthalate	16.869	149	35211	195.29	ng/ml	97
88) Benzo(b)fluoranthene	17.618	252	47123	202.90	ng/ml	99
89) Benzo(k)fluoranthene	17.688	252	46458	212.15	ng/ml	96
90) Benzo(b+k)fluoranthene	17.688	252	96090	416.00	ng/ml	96
91) Benzo(e)pyrene	18.276	252	46317	204.36	ng/ml	97
92) Benzo(a)pyrene	18.394	252	42344	205.19	ng/ml	99
93) Perylene	18.602	252	38182	199.61	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.940	276	40566	198.85	ng/ml	96
96) Dibenz(a,h)anthracene	21.004	278	37109	208.76	ng/ml	96
97) Benzo(g,h,i)perylene	21.469	276	40711	208.51	ng/ml	99

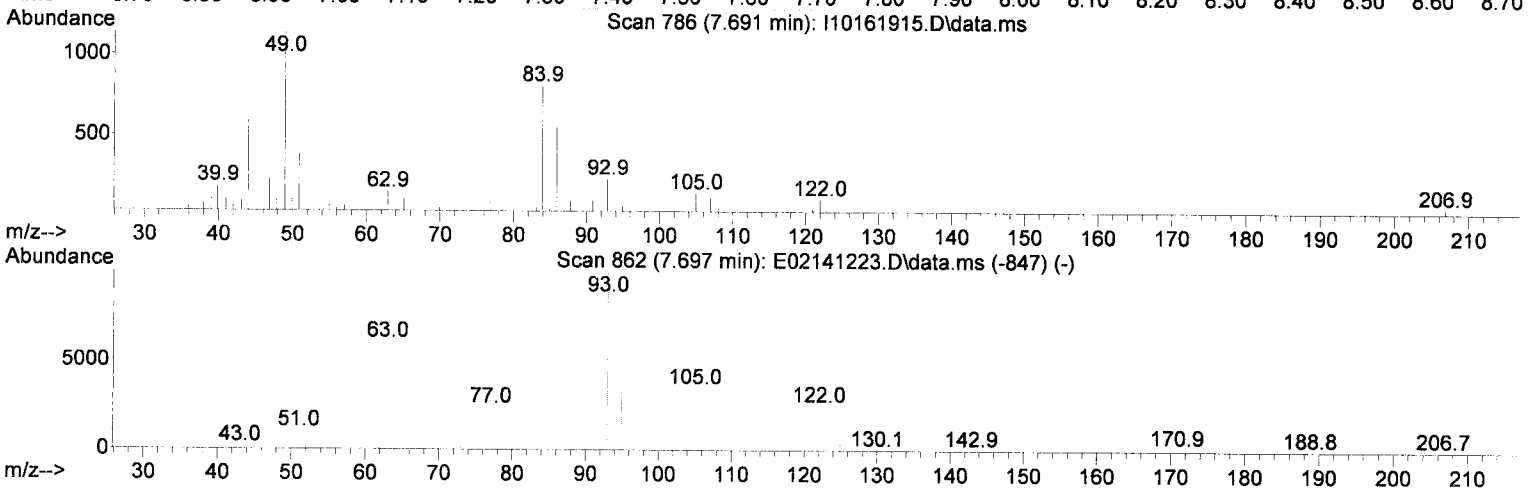
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161915.D\data.ms

(26) Benzoic acid (T)

7.691min (+ 0.038) 691.36 ng/ml

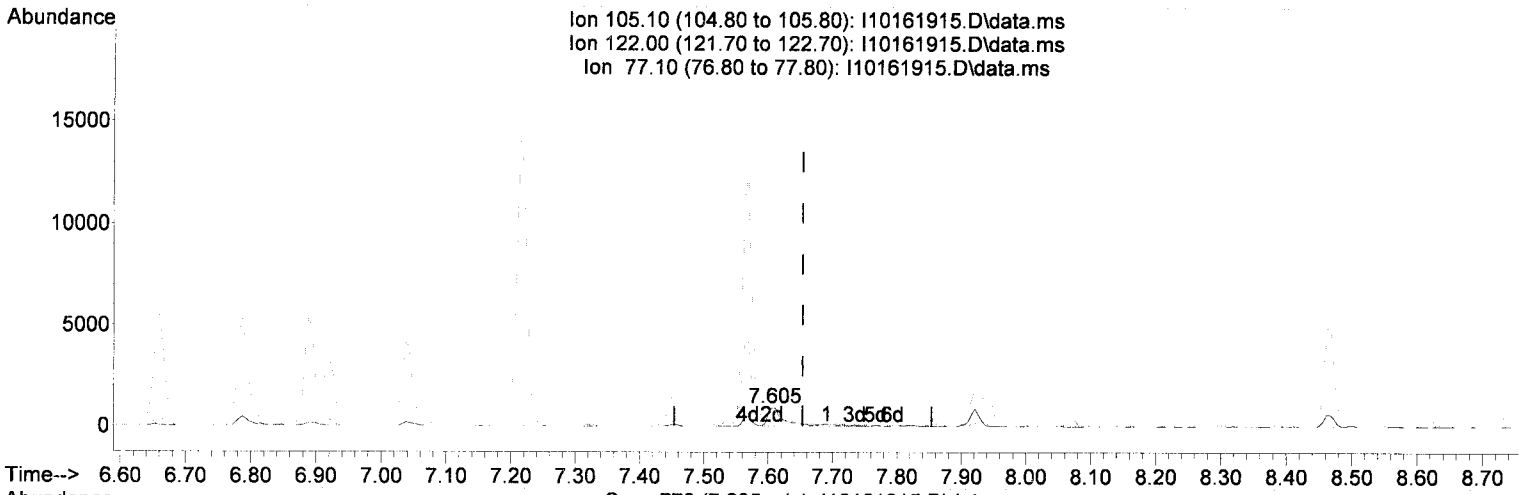
response 160

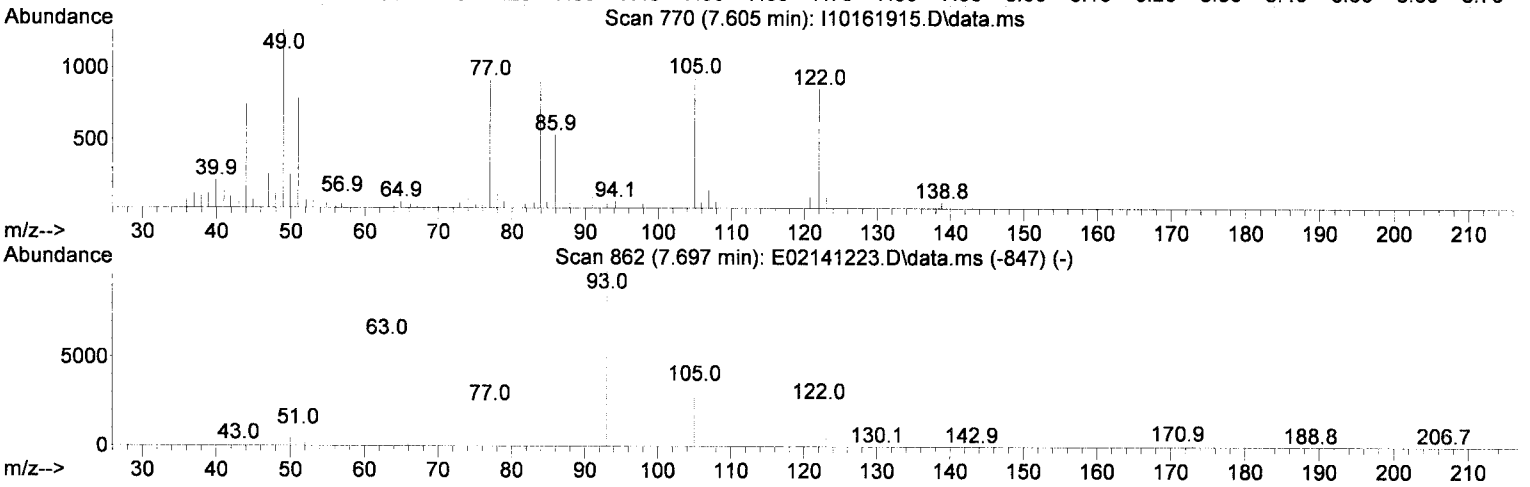
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	71.74
77.10	77.80	63.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161915.D\data.ms

(26) Benzoic acid (T)

7.605min (-0.048) 730.87 ng/ml m 10/17/19

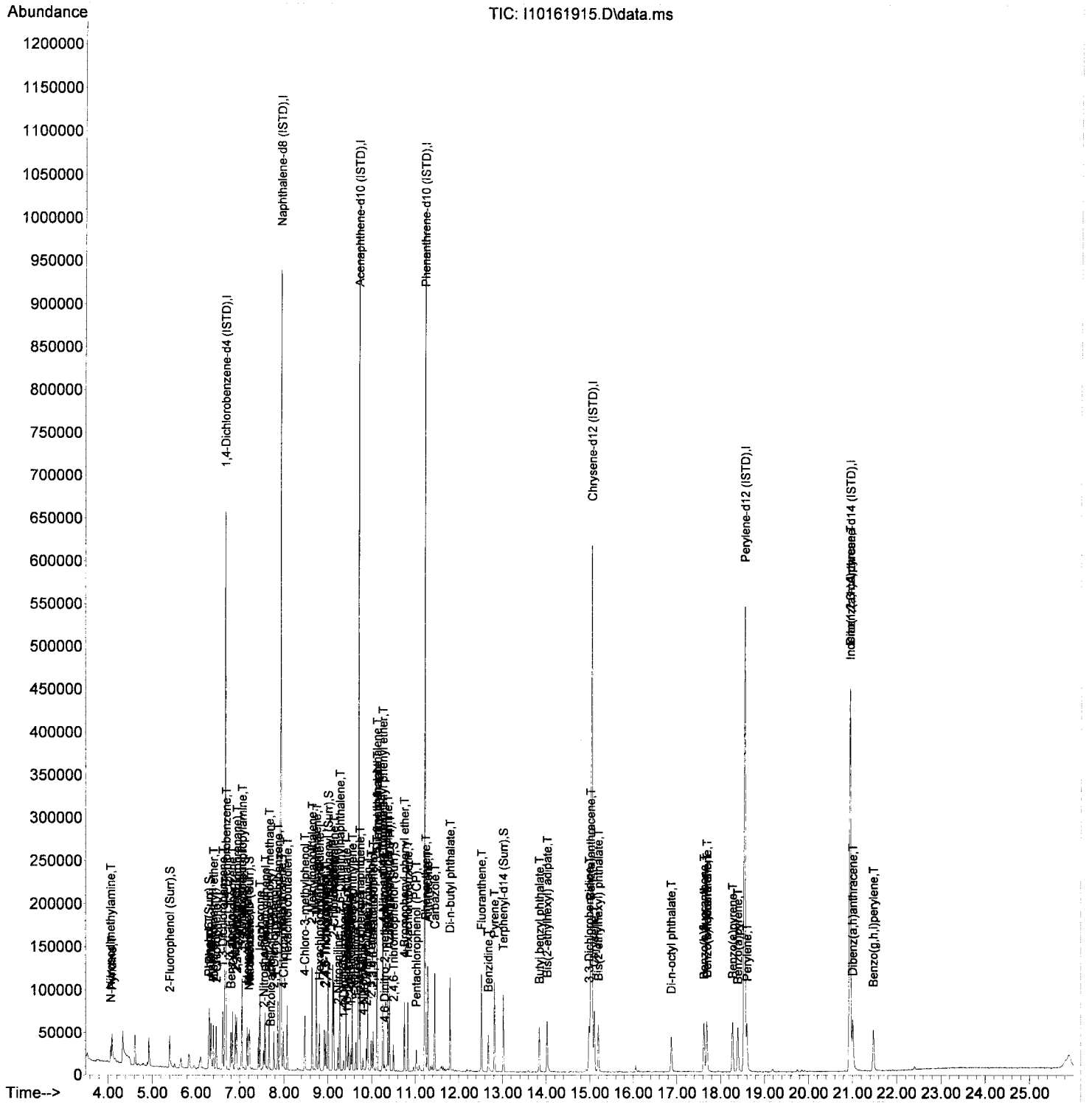
response 1889

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	91.60
77.10	77.80	98.28
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JJ2 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	110317	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	438764	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	223981	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	414839	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.051	240	424974	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.554	264	438576	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.950	292	372459	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	41291	571.31	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	51731	598.36	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	38734	556.51	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	94649	577.90	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	12089	519.69	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	110622	543.35	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.086	74	32984	654.77	ng/ml	99
3) Pyridine	4.107	79	50729	683.06	ng/ml	96
6) Phenol	6.306	94	55173	622.03	ng/ml	97
7) Aniline	6.343	93	59550	723.63	ng/ml	96
8) Bis(2-chloroethyl) ether	6.396	93	50835	619.43	ng/ml	97
9) 2-Chlorophenol	6.461	128	42644	558.35	ng/ml	97
10) 1,3-Dichlorobenzene	6.610	146	46500	533.26	ng/ml	99
11) 1,4-Dichlorobenzene	6.680	146	44891	529.06	ng/ml	99
12) Benzyl alcohol	6.787	108	22926	574.58	ng/ml	97
13) 1,2-Dichlorobenzene	6.830	146	44501	541.74	ng/ml	99
14) 2-Methylphenol	6.894	107	33736	626.04	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	70737	834.43	ng/ml	100
16) N-Nitrosodi-n-propylamine	7.049	70	36526	735.78	ng/ml	99
17) 3+4-Methylphenol	7.044	107	41942	589.01	ng/ml	98
18) Hexachloroethane	7.167	201	13814	510.73	ng/ml	97
20) Nitrobenzene	7.220	77	42464	611.33	ng/ml	97
22) Isophorone	7.450	82	94466	641.14	ng/ml	95
23) 2-Nitrophenol	7.536	139	17473	399.47	ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	32732	512.60	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.659	93	53184	599.67	ng/ml	98
26) Benzoic acid	7.627	105	9988	920.18	ng/ml	95
27) 2,4-Dichlorophenol	7.771	162	28760	498.98	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.862	180	38996	516.10	ng/ml	97
29) Naphthalene	7.942	128	123871	549.27	ng/ml	100
30) 4-Chloroaniline	7.990	127	38672	678.60	ng/ml	97
31) Hexachlorobutadiene	8.071	225	21118	523.87	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	33546	575.28	ng/ml	98
33) 2-Methylnaphthalene	8.638	142	90190	557.45	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	85675	555.34	ng/ml	98
36) Hexachlorocyclopentadiene	8.809	237	19912	465.89	ng/ml	95
37) 2,4,6-Trichlorophenol	8.921	196	21567	501.50	ng/ml	99
38) 2,4,5-Trichlorophenol	8.953	198	21096	498.53	ng/ml	99
39) 1,1'-Biphenyl	9.108	154	104830	567.88	ng/ml	100
41) 2-Chloronaphthalene	9.130	162	77553	576.62	ng/ml	99
42) 2-Nitroaniline	9.226	138	18180	397.91	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	77752	563.73	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

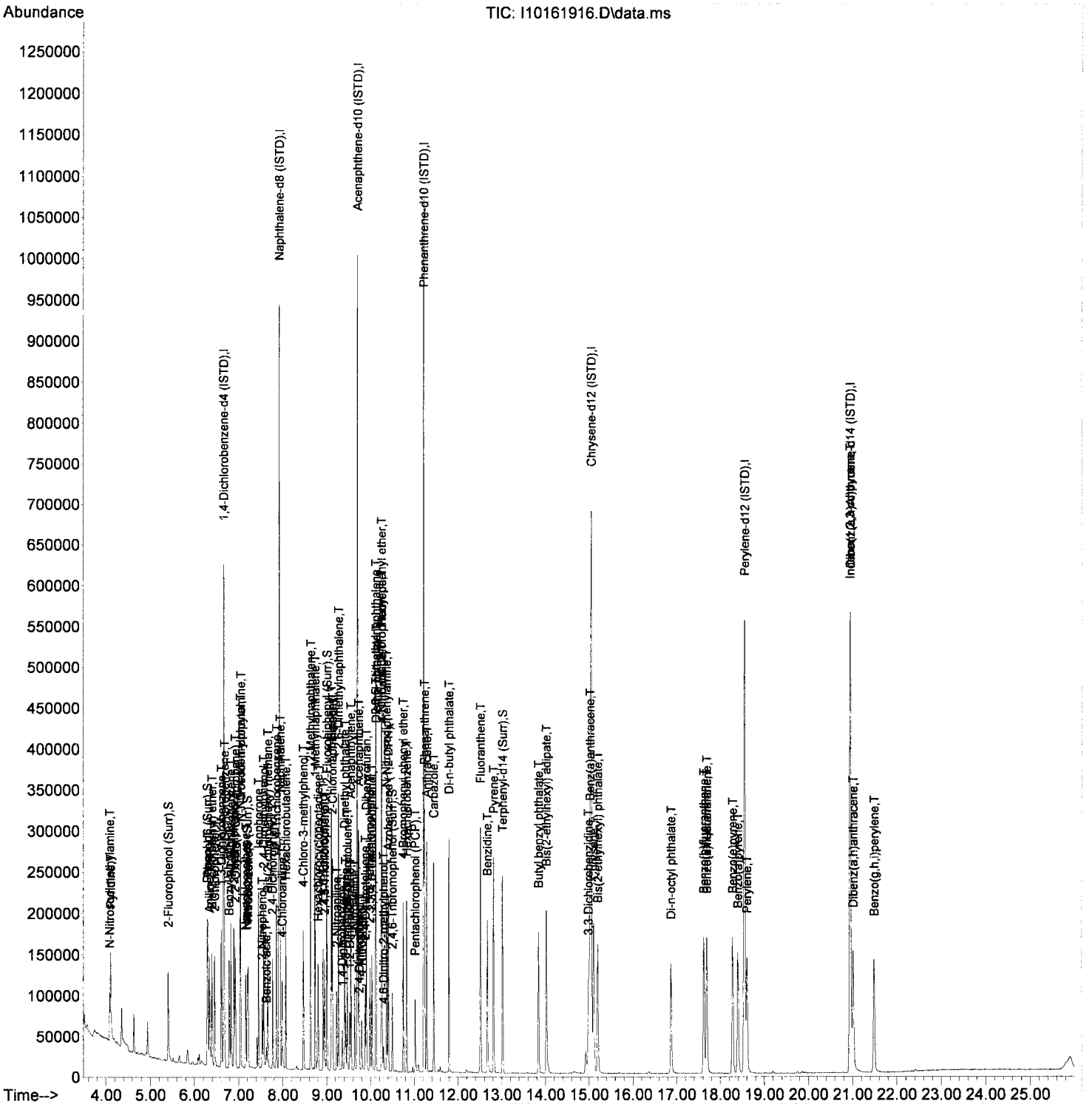
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.354	168	5080	270.73	ng/ml	99
45)	Dimethyl phthalate	9.408	163	89795	551.05	ng/ml	99
46)	1,3-Dinitrobenzene	9.434	168	7846	291.68	ng/ml	95
47)	2,6-Dinitrotoluene	9.467	165	16561	439.32	ng/ml	96
48)	1,2-Dinitrobenzene	9.525	168	7179	392.78	ng/ml	93
49)	Acenaphthylene	9.552	152	125650	574.71	ng/ml	99
50)	3-Nitroaniline	9.638	138	16475	486.95	ng/ml	90
51)	Acenaphthene	9.729	153	76410	542.74	ng/ml	99
52)	2,4-Dinitrophenol	9.745	184	1553	254.53	ng/ml	93
53)	4-Nitrophenol	9.798	139	9787	393.46	ng/ml	98
54)	2,4-Dinitrotoluene	9.878	165	17286	367.01	ng/ml	99
55)	Dibenzofuran	9.905	168	107652	550.26	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.985	232	16246	464.74	ng/ml	98
57)	2,3,4,6-Tetrachlorophenol	10.028	232	19007	510.11	ng/ml	97
58)	Diethyl phthalate	10.124	149	85721	565.07	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.114	170	72192	543.46	ng/ml	100
60)	Fluorene	10.253	166	85310	543.90	ng/ml	97
61)	4-Chlorophenyl phenyl ...	10.247	204	41485	519.71	ng/ml	98
62)	4-Nitroaniline	10.258	138	14782	447.75	ng/ml	96
63)	4,6-Dinitro-2-methylph...	10.296	198	3988	247.54	ng/ml	93
65)	N-Nitrosodiphenylamine	10.365	169	72014	564.24	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.408	77	92532	722.14	ng/ml	99
68)	4-Bromophenyl phenyl e...	10.745	248	25602	533.45	ng/ml	94
69)	Hexachlorobenzene	10.825	284	30369	552.18	ng/ml	99
70)	Pentachlorophenol (PCP)	11.018	266	11494	437.29	ng/ml	94
71)	Phenanthrene	11.237	178	117198	534.44	ng/ml	99
72)	Anthracene	11.290	178	120664	566.06	ng/ml	99
73)	Carbazole	11.446	167	104447	527.45	ng/ml	99
74)	Di-n-butyl phthalate	11.793	149	143903	587.08	ng/ml	99
75)	Fluoranthene	12.515	202	141254	568.97	ng/ml	99
76)	Benzidine	12.670	184	90422	1375.35	ng/ml	98
77)	Pyrene	12.815	202	142947	572.23	ng/ml	99
80)	Butyl benzyl phthalate	13.847	149	58303	532.64	ng/ml	96
81)	Bis(2-ethylhexyl) adipate	14.024	129	52124	524.49	ng/ml	98
82)	3,3-Dichlorobenzidine	14.986	252	50303	1440.52	ng/ml	97
83)	Benz(a)anthracene	15.024	228	128384	526.52	ng/ml	97
84)	Chrysene	15.104	228	116526	523.37	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.200	149	78522	540.04	ng/ml	99
87)	Di-n-octyl phthalate	16.874	149	120881	502.40	ng/ml	99
88)	Benzo(b)fluoranthene	17.623	252	128872	523.34	ng/ml	100
89)	Benzo(k)fluoranthene	17.693	252	130011	559.94	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.693	252	264478	1079.92	ng/ml	99
91)	Benzo(e)pyrene	18.281	252	127706	531.45	ng/ml	98
92)	Benzo(a)pyrene	18.399	252	117701	524.26	ng/ml	97
93)	Perylene	18.607	252	104561	515.56	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.945	276	114261	507.87	ng/ml	99
96)	Dibenz(a,h)anthracene	21.014	278	103626	528.61	ng/ml	99
97)	Benzo(g,h,i)perylene	21.485	276	117149	544.05	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	108692	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	415784	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	210848	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	394261	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.051	240	404897	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.554	264	409934	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.950	292	363670	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	81539	1145.06	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	102248	1200.35	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	76069	1109.26	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	167583	1086.96	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	24117	1071.37	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	202564	1044.29	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.075	74	63705	1283.53	ng/ml	100
3) Pyridine	4.091	79	100642	1339.80	ng/ml	100
6) Phenol	6.306	94	105930	1212.12	ng/ml	100
7) Aniline	6.343	93	104698	1291.28	ng/ml	100
8) Bis(2-chloroethyl) ether	6.396	93	97200	1202.09	ng/ml	100
9) 2-Chlorophenol	6.461	128	82633	1098.12	ng/ml	100
10) 1,3-Dichlorobenzene	6.610	146	87984	1024.08	ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	83649	1000.58	ng/ml	100
12) Benzyl alcohol	6.787	108	48394	1177.28	ng/ml	100
13) 1,2-Dichlorobenzene	6.830	146	82317	1017.07	ng/ml	100
14) 2-Methylphenol	6.894	107	64002	1205.45	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	128835	1542.49	ng/ml	100
16) N-Nitrosodi-n-propylamine	7.049	70	66569	1361.02	ng/ml	100
17) 3+4-Methylphenol	7.044	107	80497	1142.08	ng/ml	100
18) Hexachloroethane	7.167	201	26988	1012.72	ng/ml	100
20) Nitrobenzene	7.220	77	81675	1193.41	ng/ml	100
22) Isophorone	7.455	82	172965	1238.79	ng/ml	100
23) 2-Nitrophenol	7.536	139	38840	937.04	ng/ml	100
24) 2,4-Dimethylphenol	7.568	122	64041	1058.36	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.664	93	97637	1161.74	ng/ml	100
26) Benzoic acid	7.653	105	42834	1729.87	ng/ml	100
27) 2,4-Dichlorophenol	7.771	162	57918	1031.32	ng/ml	100
28) 1,2,4-Trichlorobenzene	7.862	180	71920	1004.45	ng/ml	100
29) Naphthalene	7.942	128	222697	1042.06	ng/ml	100
30) 4-Chloroaniline	7.990	127	74988	1366.94	ng/ml	100
31) Hexachlorobutadiene	8.071	225	38923	1018.91	ng/ml	100
32) 4-Chloro-3-methylphenol	8.466	107	66824	1155.77	ng/ml	100
33) 2-Methylnaphthalene	8.637	142	164653	1073.94	ng/ml	100
34) 1-Methylnaphthalene	8.739	142	154845	1059.17	ng/ml	100
36) Hexachlorocyclopentadiene	8.809	237	40001	994.21	ng/ml	100
37) 2,4,6-Trichlorophenol	8.921	196	42283	1007.90	ng/ml	100
38) 2,4,5-Trichlorophenol	8.953	198	42231	1030.52	ng/ml	100
39) 1,1'-Biphenyl	9.108	154	187524	1079.13	ng/ml	100
41) 2-Chloronaphthalene	9.130	162	138289	1092.25	ng/ml	100
42) 2-Nitroaniline	9.226	138	39518	918.81	ng/ml	100
43) 2,6-Dimethylnaphthalene	9.269	156	139567	1074.94	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

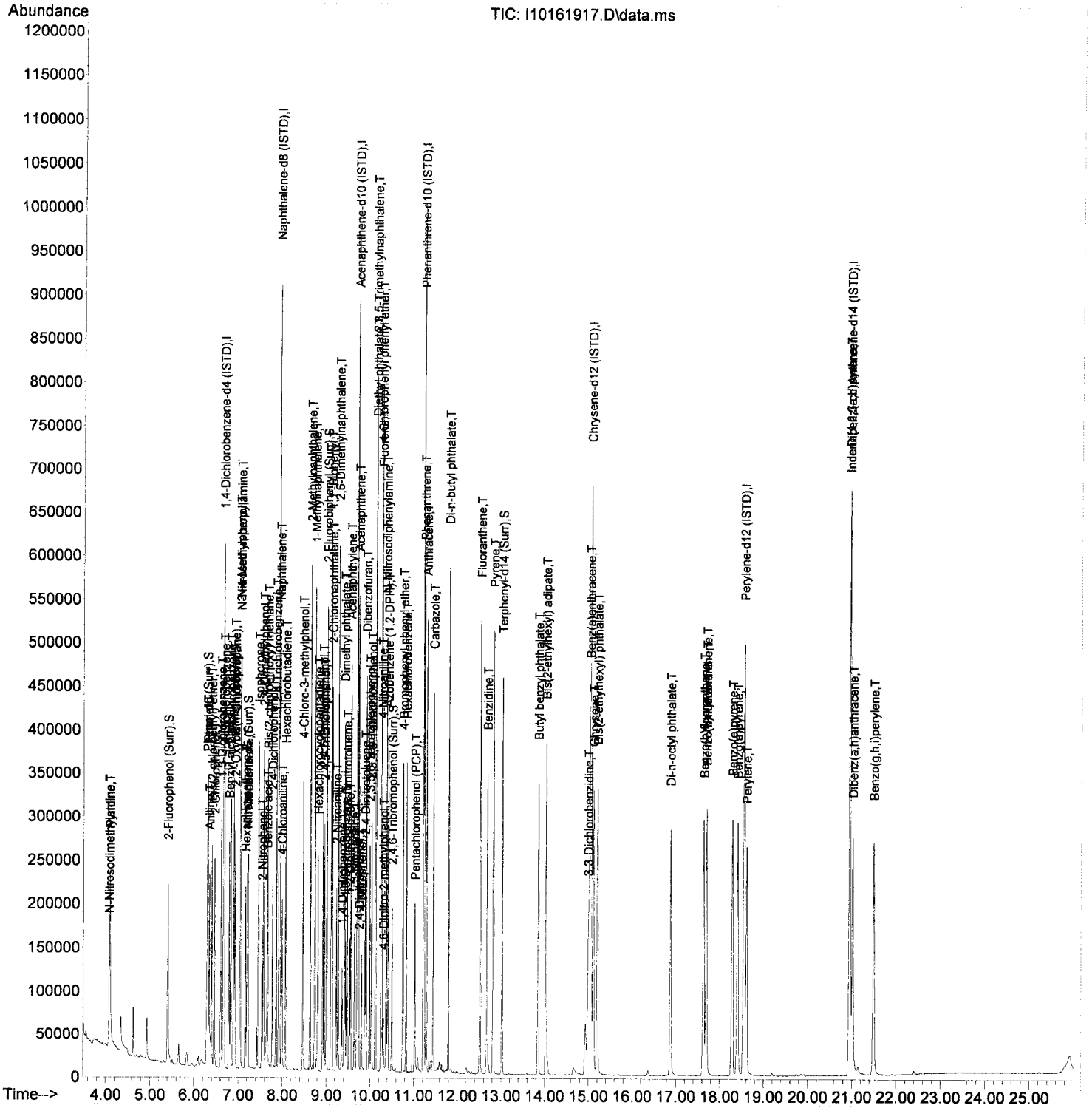
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	12494	603.08	ng/ml	100
45) Dimethyl phthalate	9.408	163	161978	1055.98	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18022	711.71	ng/ml	100
47) 2,6-Dinitrotoluene	9.467	165	33104	932.85	ng/ml	100
48) 1,2-Dinitrobenzene	9.525	168	15130	879.35	ng/ml	100
49) Acenaphthylene	9.552	152	223232	1084.65	ng/ml	100
50) 3-Nitroaniline	9.643	138	28849	1036.99	ng/ml	100
51) Acenaphthene	9.734	153	137686	1038.90	ng/ml	100
52) 2,4-Dinitrophenol	9.745	184	5088	489.75	ng/ml	100
53) 4-Nitrophenol	9.798	139	22603	869.99	ng/ml	100
54) 2,4-Dinitrotoluene	9.878	165	38193	861.41	ng/ml	100
55) Dibenzofuran	9.905	168	190719	1035.57	ng/ml	100
56) 2,3,5,6-Tetrachlorophenol	9.985	232	32998	964.43	ng/ml	100
57) 2,3,4,6-Tetrachlorophenol	10.028	232	37050	1039.19	ng/ml	100
58) Diethyl phthalate	10.124	149	152181	1065.65	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.119	170	129295	1033.95	ng/ml	100
60) Fluorene	10.258	166	150523	1019.45	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.247	204	75441	1003.96	ng/ml	100
62) 4-Nitroaniline	10.263	138	25826	831.00	ng/ml	100
63) 4,6-Dinitro-2-methylph...	10.296	198	11200	583.51	ng/ml	100
65) N-Nitrosodiphenylamine	10.365	169	126925	1046.39	ng/ml	100
66) Azobenzene (1,2-DPH)	10.408	77	160071	1314.43	ng/ml	100
68) 4-Bromophenyl phenyl e...	10.750	248	46996	1030.33	ng/ml	100
69) Hexachlorobenzene	10.825	284	55109	1054.31	ng/ml	100
70) Pentachlorophenol (PCP)	11.023	266	24901	962.91	ng/ml	100
71) Phenanthrene	11.237	178	213306	1023.47	ng/ml	100
72) Anthracene	11.290	178	215829	1065.34	ng/ml	100
73) Carbazole	11.446	167	168399	1006.71	ng/ml	100
74) Di-n-butyl phthalate	11.793	149	267688	1149.08	ng/ml	100
75) Fluoranthene	12.521	202	263203	1115.51	ng/ml	100
76) Benzidine	12.676	184	169900	2719.13	ng/ml	100
77) Pyrene	12.815	202	259464	1092.86	ng/ml	100
80) Butyl benzyl phthalate	13.847	149	118464	1093.51	ng/ml	100
81) Bis(2-ethylhexyl) adipate	14.024	129	104759	1106.39	ng/ml	100
82) 3,3-Dichlorobenzidine	14.992	252	72934	2501.65	ng/ml	100
83) Benz(a)anthracene	15.029	228	235737	1014.72	ng/ml	100
84) Chrysene	15.109	228	213742	1007.62	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.200	149	155751	1124.30	ng/ml	100
87) Di-n-octyl phthalate	16.874	149	261927	1079.83	ng/ml	100
88) Benzo(b)fluoranthene	17.634	252	246144	1069.42	ng/ml	100
89) Benzo(k)fluoranthene	17.698	252	241628	1113.37	ng/ml	100
90) Benzo(b+k)fluoranthene	17.698	252	498931	2179.58	ng/ml	100
91) Benzo(e)pyrene	18.286	252	240269	1069.74	ng/ml	100
92) Benzo(a)pyrene	18.404	252	223821	1060.23	ng/ml	100
93) Perylene	18.613	252	194782	1027.52	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.945	276	213608	972.39	ng/ml	100
96) Dibenz(a,h)anthracene	21.020	278	194682	1017.09	ng/ml	100
97) Benzo(g,h,i)perylene	21.490	276	223060	1060.95	ng/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	106472	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	403006	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	204324	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	394462	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	379303	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	398414	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.961	292	371696	2000.00	ng/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	168171	2410.88	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	209429	2509.88	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.204	82	154925	2306.26	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	307320	2056.94	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.504	330	50890	2220.74	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	390228	2147.52	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.059	74	130513	2684.40	ng/ml	99
3) Pyridine	4.075	79	206511	2691.42	ng/ml	98
6) Phenol	6.305	94	208278	2432.94	ng/ml	98
7) Aniline	6.343	93	193255	2438.18	ng/ml	96
8) Bis(2-chloroethyl) ether	6.396	93	209890	2649.88	ng/ml	98
9) 2-Chlorophenol	6.455	128	161665	2193.18	ng/ml	98
10) 1,3-Dichlorobenzene	6.605	146	171908	2042.62	ng/ml	99
11) 1,4-Dichlorobenzene	6.675	146	161488	1971.93	ng/ml	98
12) Benzyl alcohol	6.792	108	101019	2397.02	ng/ml	98
13) 1,2-Dichlorobenzene	6.830	146	158155	1994.84	ng/ml	98
14) 2-Methylphenol	6.894	107	125482	2412.68	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	232038	2836.02	ng/ml	97
16) N-Nitrosodi-n-propylamine	7.054	70	122433	2555.37	ng/ml	97
17) 3+4-Methylphenol	7.044	107	160363	2329.50	ng/ml	99
18) Hexachloroethane	7.161	201	54131	2073.61	ng/ml	94
20) Nitrobenzene	7.220	77	158273	2360.86	ng/ml	98
22) Isophorone	7.455	82	326670	2413.82	ng/ml	99
23) 2-Nitrophenol	7.536	139	73325	1825.10	ng/ml	98
24) 2,4-Dimethylphenol	7.573	122	126582	2158.25	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.664	93	183878	2257.26	ng/ml	99
26) Benzoic acid	7.685	105	106896	3322.04	ng/ml	99
27) 2,4-Dichlorophenol	7.776	162	119237	2152.69	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.862	180	136516	1967.06	ng/ml	99
29) Naphthalene	7.942	128	407227	1965.94	ng/ml	99
30) 4-Chloroaniline	7.990	127	158495	2926.81	ng/ml	100
31) Hexachlorobutadiene	8.071	225	75680	2043.94	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	134732	2325.11	ng/ml	99
33) 2-Methylnaphthalene	8.637	142	312402	2102.28	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	289054	2039.88	ng/ml	100
36) Hexachlorocyclopentadiene	8.809	237	83207	2134.12	ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	86005	2073.95	ng/ml	98
38) 2,4,5-Trichlorophenol	8.953	198	85045	2113.03	ng/ml	99
39) 1,1'-Biphenyl	9.108	154	345569	2052.11	ng/ml	100
41) 2-Chloronaphthalene	9.135	162	250807	2044.20	ng/ml	100
42) 2-Nitroaniline	9.231	138	82868	1988.24	ng/ml	96
43) 2,6-Dimethylnaphthalene	9.269	156	255391	2029.81	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

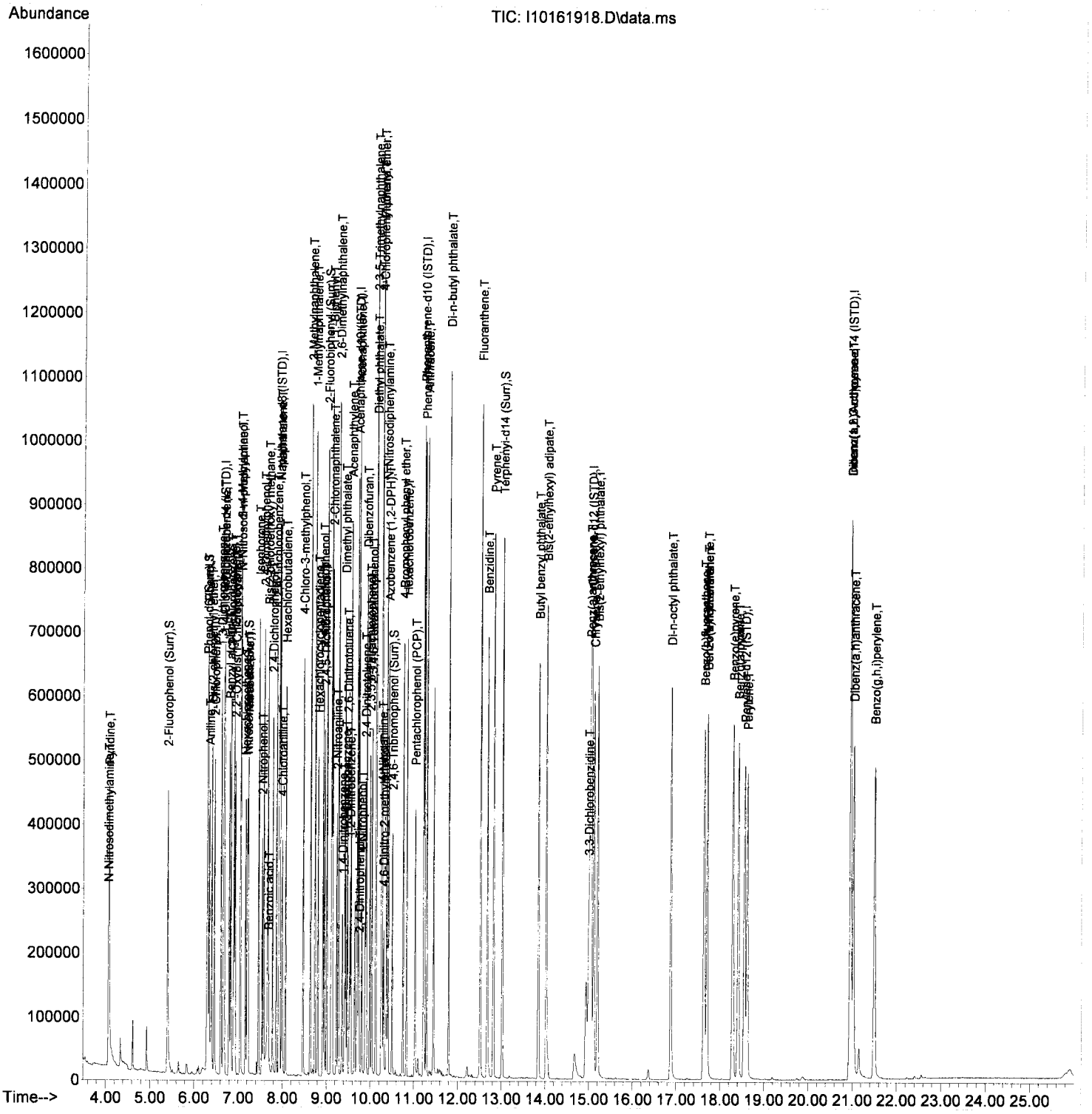
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.360	168	31930	1471.63	ng/ml	91
45) Dimethyl phthalate	9.413	163	303831	2043.92	ng/ml	99
46) 1,3-Dinitrobenzene	9.440	168	41890	1707.10	ng/ml	97
47) 2,6-Dinitrotoluene	9.472	165	67679	1968.05	ng/ml	96
48) 1,2-Dinitrobenzene	9.531	168	31248	1874.11	ng/ml	94
49) Acenaphthylene	9.557	152	401818	2014.70	ng/ml	100
50) 3-Nitroaniline	9.643	138	47185	Below Cal		97
51) Acenaphthene	9.734	153	257901	2008.11	ng/ml	99
52) 2,4-Dinitrophenol	9.750	184	15123	1140.61	ng/ml	95
53) 4-Nitrophenol	9.803	139	50566	1899.28	ng/ml	96
54) 2,4-Dinitrotoluene	9.884	165	83801	1950.41	ng/ml	98
55) Dibenzofuran	9.910	168	356546	1997.79	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.985	232	69287	2038.37	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	10.033	232	73600	2101.07	ng/ml	96
58) Diethyl phthalate	10.130	149	272344	1967.98	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	10.119	170	238990	1972.18	ng/ml	97
60) Fluorene	10.258	166	274932	1921.50	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.253	204	144104	1978.96	ng/ml	96
62) 4-Nitroaniline	10.269	138	49921	1657.59	ng/ml	98
63) 4,6-Dinitro-2-methylph...	10.301	198	29002	1400.61	ng/ml	96
65) N-Nitrosodiphenylamine	10.370	169	232578	1916.43	ng/ml	100
66) Azobenzene (1,2-DPH)	10.413	77	291944	2396.10	ng/ml	95
68) 4-Bromophenyl phenyl e...	10.750	248	94009	2059.99	ng/ml	99
69) Hexachlorobenzene	10.830	284	108673	2078.00	ng/ml	97
70) Pentachlorophenol (PCP)	11.023	266	57124	2139.27	ng/ml	98
71) Phenanthrene	11.242	178	408903	1960.97	ng/ml	99
72) Anthracene	11.290	178	409728	2021.40	ng/ml	99
73) Carbazole	11.446	167	254192	Below Cal		99
74) Di-n-butyl phthalate	11.793	149	509487	2185.92	ng/ml	99
75) Fluoranthene	12.521	202	497259	2106.42	ng/ml	99
76) Benzidine	12.676	184	351632	5624.75	ng/ml	97
77) Pyrene	12.820	202	487359	2051.71	ng/ml	99
80) Butyl benzyl phthalate	13.852	149	243686	2305.47	ng/ml	98
81) Bis(2-ethylhexyl) adipate	14.029	129	211290	2382.07	ng/ml	99
82) 3,3-Dichlorobenzidine	14.997	252	117183	4720.80	ng/ml	99
83) Benz(a)anthracene	15.029	228	445654	2047.75	ng/ml	98
84) Chrysene	15.115	228	410860	2067.56	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	308465	2376.93	ng/ml	99
87) Di-n-octyl phthalate	16.880	149	571058	2306.81	ng/ml	98
88) Benzo(b)fluoranthene	17.634	252	501132	2240.22	ng/ml	99
89) Benzo(k)fluoranthene	17.709	252	460821	2184.77	ng/ml	98
90) Benzo(b+k)fluoranthene	17.709	252	980351	4406.49	ng/ml	98
91) Benzo(e)pyrene	18.297	252	475633	2178.87	ng/ml	99
92) Benzo(a)pyrene	18.415	252	440842	2151.48	ng/ml	99
93) Perylene	18.618	252	380066	2062.91	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.961	276	439827	1958.96	ng/ml	100
96) Dibenz(a,h)anthracene	21.030	278	396150	2024.95	ng/ml	99
97) Benzo(g,h,i)perylene	21.501	276	452012	2103.49	ng/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	105713	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	397960	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209804	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	417540	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.072	240	381197	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.570	264	410166	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.982	292	397776	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	336987	4865.69	ng/ml	0.00
5) Phenol-d6 (Surr)	6.306	99	419864	5067.94	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.204	82	303165	4545.41	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.012	172	561154	3657.80	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.510	330	111317	4477.71	ng/ml	0.01
79) Terphenyl-d14 (Surr)	13.029	244	763944	4183.27	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.075	74	258805	5361.35	ng/ml	99
3) Pyridine	4.086	79	416575	5115.18	ng/ml	98
6) Phenol	6.316	94	432772	5091.61	ng/ml	97
7) Aniline	6.348	93	377305	4784.58	ng/ml	96
8) Bis(2-chloroethyl) ether	6.402	93	375165	4770.50	ng/ml	98
9) 2-Chlorophenol	6.461	128	308174	4210.77	ng/ml	98
10) 1,3-Dichlorobenzene	6.611	146	323172	3867.52	ng/ml	98
11) 1,4-Dichlorobenzene	6.680	146	302701	3722.82	ng/ml	100
12) Benzyl alcohol	6.798	108	202180	4549.20	ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	289895	3682.75	ng/ml	99
14) 2-Methylphenol	6.899	107	231464	4482.38	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.926	45	401443	4941.76	ng/ml	93
16) N-Nitrosodi-n-propylamine	7.065	70	216758	4556.56	ng/ml	94
17) 3+4-Methylphenol	7.054	107	292865	4329.71	ng/ml	98
18) Hexachloroethane	7.167	201	106200	4097.43	ng/ml	97
20) Nitrobenzene	7.226	77	293208	4405.01	ng/ml	96
22) Isophorone	7.466	82	624906	4676.08	ng/ml	98
23) 2-Nitrophenol	7.541	139	157209	3962.63	ng/ml	98
24) 2,4-Dimethylphenol	7.579	122	238097	4111.08	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.670	93	336452	4182.61	ng/ml	98
26) Benzoic acid	~~7.579~~	~~105~~	~~8424~~	~~903.92~~	~~ng/ml#~~	~~1~~
27) 2,4-Dichlorophenol	7.782	162	227693	4103.34	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.867	180	256919	3748.89	ng/ml	100
29) Naphthalene	7.948	128	725187	3545.32	ng/ml	97
30) 4-Chloroaniline	7.996	127	312189	5693.61	ng/ml	99
31) Hexachlorobutadiene	8.076	225	146937	4018.74	ng/ml	99
32) 4-Chloro-3-methylphenol	8.472	107	266335	4489.42	ng/ml	97
33) 2-Methylnaphthalene	8.643	142	571940	3897.52	ng/ml	98
34) 1-Methylnaphthalene	8.745	142	525478	3755.36	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	167259	4177.86	ng/ml	98
37) 2,4,6-Trichlorophenol	8.926	196	176954	4100.87	ng/ml	98
38) 2,4,5-Trichlorophenol	8.959	198	169331	4071.96	ng/ml	99
39) 1,1'-Biphenyl	9.114	154	623340	3604.93	ng/ml	97
41) 2-Chloronaphthalene	9.135	162	453639	3600.81	ng/ml	98
42) 2-Nitroaniline	9.237	138	173545	4055.08	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.274	156	464700	3596.90	ng/ml	97

See MJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

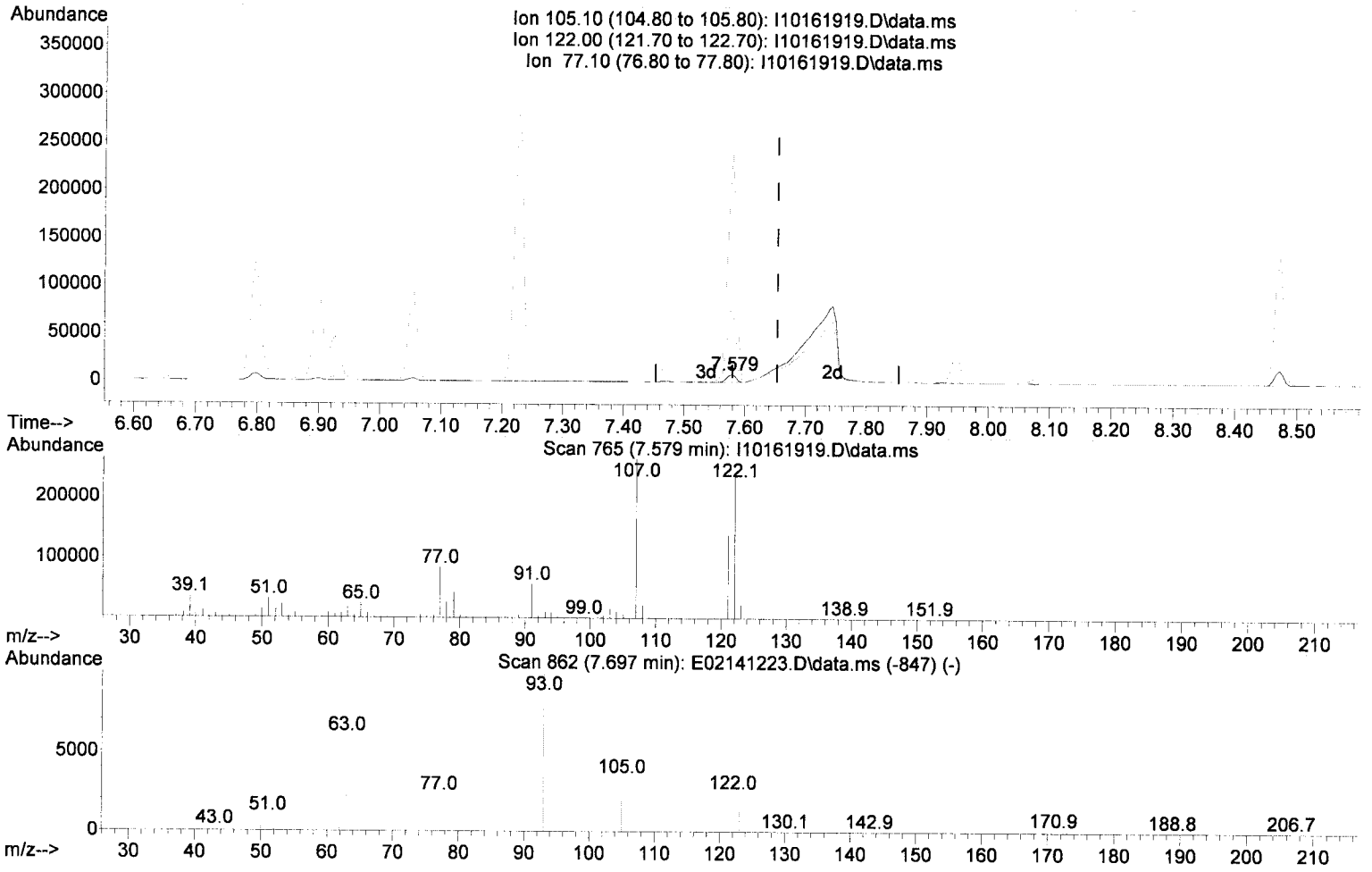
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.365	168	77125	3303.00	ng/ml	90
45) Dimethyl phthalate	9.424	163	566035	3708.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.451	168	91162	3618.00	ng/ml	95
47) 2,6-Dinitrotoluene	9.483	165	135556	3838.90	ng/ml	87
48) 1,2-Dinitrobenzene	9.542	168	65220	3809.43	ng/ml	95
49) Acenaphthylene	9.563	152	722393	3527.45	ng/ml	97
50) 3-Nitroaniline	9.654	138	72076	Below Cal		97
51) Acenaphthene	9.739	153	473473	3590.34	ng/ml	99
52) 2,4-Dinitrophenol	9.756	184	47179	2890.39	ng/ml	96
53) 4-Nitrophenol	9.814	139	112553	3928.24	ng/ml	96
54) 2,4-Dinitrotoluene	9.895	165	177218	4016.90	ng/ml	94
55) Dibenzofuran	9.911	168	645432	3522.01	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.991	232	147371	4126.12	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.039	232	154291	4211.84	ng/ml	94
58) Diethyl phthalate	10.135	149	484945	3412.73	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.125	170	434174	3489.29	ng/ml	98
60) Fluorene	10.264	166	491882	3347.97	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.253	204	278225	3721.02	ng/ml	97
62) 4-Nitroaniline	10.280	138	109557	3542.74	ng/ml	98
63) 4,6-Dinitro-2-methylph...	10.312	198	75505	3262.41	ng/ml	91
65) N-Nitrosodiphenylamine	10.376	169	416136	3239.42	ng/ml	100
66) Azobenzene (1,2-DPH)	10.419	77	507476	3934.84	ng/ml	88
68) 4-Bromophenyl phenyl e...	10.756	248	197154	4081.39	ng/ml	97
69) Hexachlorobenzene	10.836	284	222237	4014.65	ng/ml	95
70) Pentachlorophenol (PCP)	11.023	266	129749	4400.30	ng/ml	99
71) Phenanthrene	11.242	178	758865	3438.13	ng/ml	97
72) Anthracene	11.296	178	757506	3530.61	ng/ml	97
73) Carbazole	11.451	167	377741	Below Cal		99
74) Di-n-butyl phthalate	11.793	149	936406	3795.53	ng/ml	97
75) Fluoranthene	12.526	202	949333	3799.17	ng/ml	98
76) Benzidine	12.687	184	735075	11108.44	ng/ml	99
77) Pyrene	12.826	202	913548	3633.34	ng/ml	97
80) Butyl benzyl phthalate	13.858	149	495582	4422.98	ng/ml	94
81) Bis(2-ethylhexyl) adipate	14.034	129	417409	4682.46	ng/ml	98
82) 3,3-Dichlorobenzidine	15.008	252	209588	8892.65	ng/ml	98
83) Benz(a)anthracene	15.045	228	866011	3959.49	ng/ml	97
84) Chrysene	15.136	228	798796	3999.79	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.211	149	590135	4524.80	ng/ml	97
87) Di-n-octyl phthalate	16.891	149	1176050	4412.22	ng/ml	98
88) Benzo(b)fluoranthene	17.661	252	1011072	4390.31	ng/ml	99
89) Benzo(k)fluoranthene	17.736	252	889038	4094.20	ng/ml	98
90) Benzo(b+k)fluoranthene	17.736	252	1939096	8466.14	ng/ml	98
91) Benzo(e)pyrene	18.319	252	952442	4238.12	ng/ml	99
92) Benzo(a)pyrene	18.442	252	863983	4129.87	ng/ml	100
93) Perylene	18.645	252	755087	3981.01	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.993	276	948237	3946.49	ng/ml	98
96) Dibenz(a,h)anthracene	21.057	278	801452	3828.08	ng/ml	99
97) Benzo(g,h,i)perylene	21.539	276	907373	3945.72	ng/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161919.D\data.ms

(26) Benzoic acid (T)

7.579min (-0.075) 903.92 ng/ml

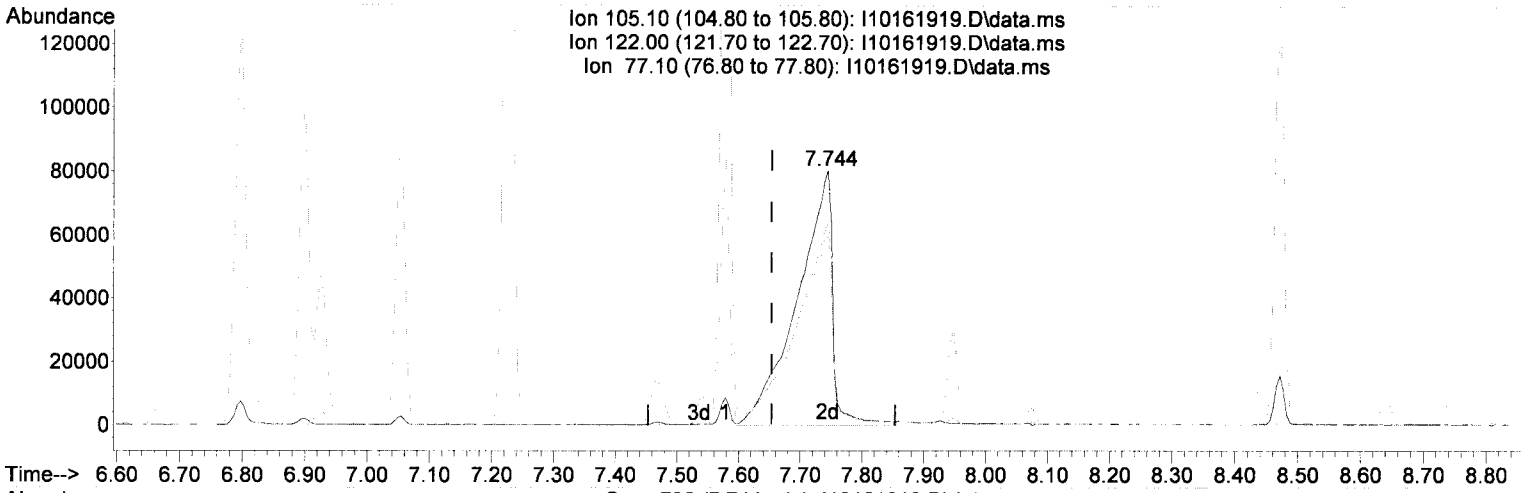
response 8424

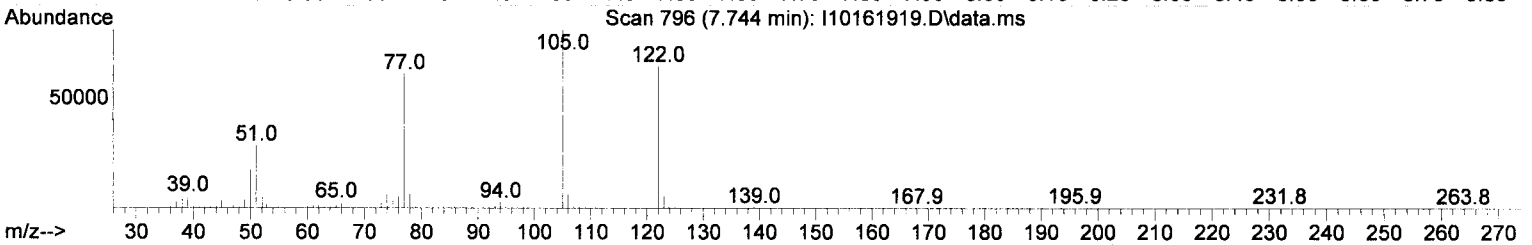
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2779.75#
77.10	77.80	979.43#
0.00	0.00	0.00

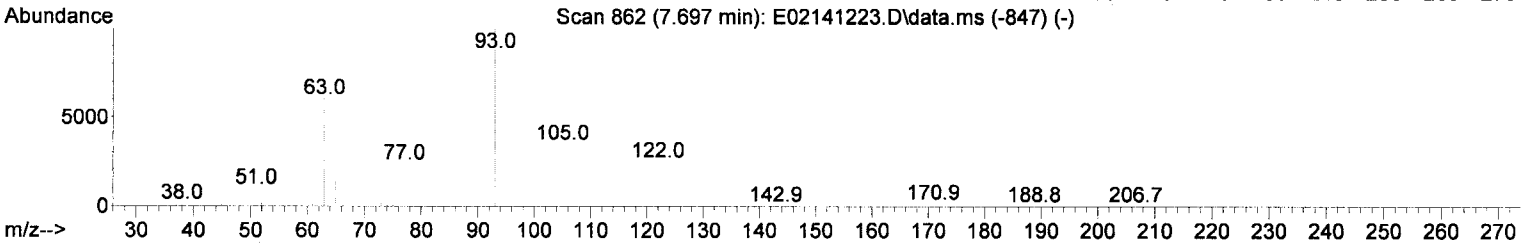
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161919.D\data.ms

(26) Benzoic acid (T)

7.744min (+ 0.091) 8231.04 ng/ml m

10/17/19

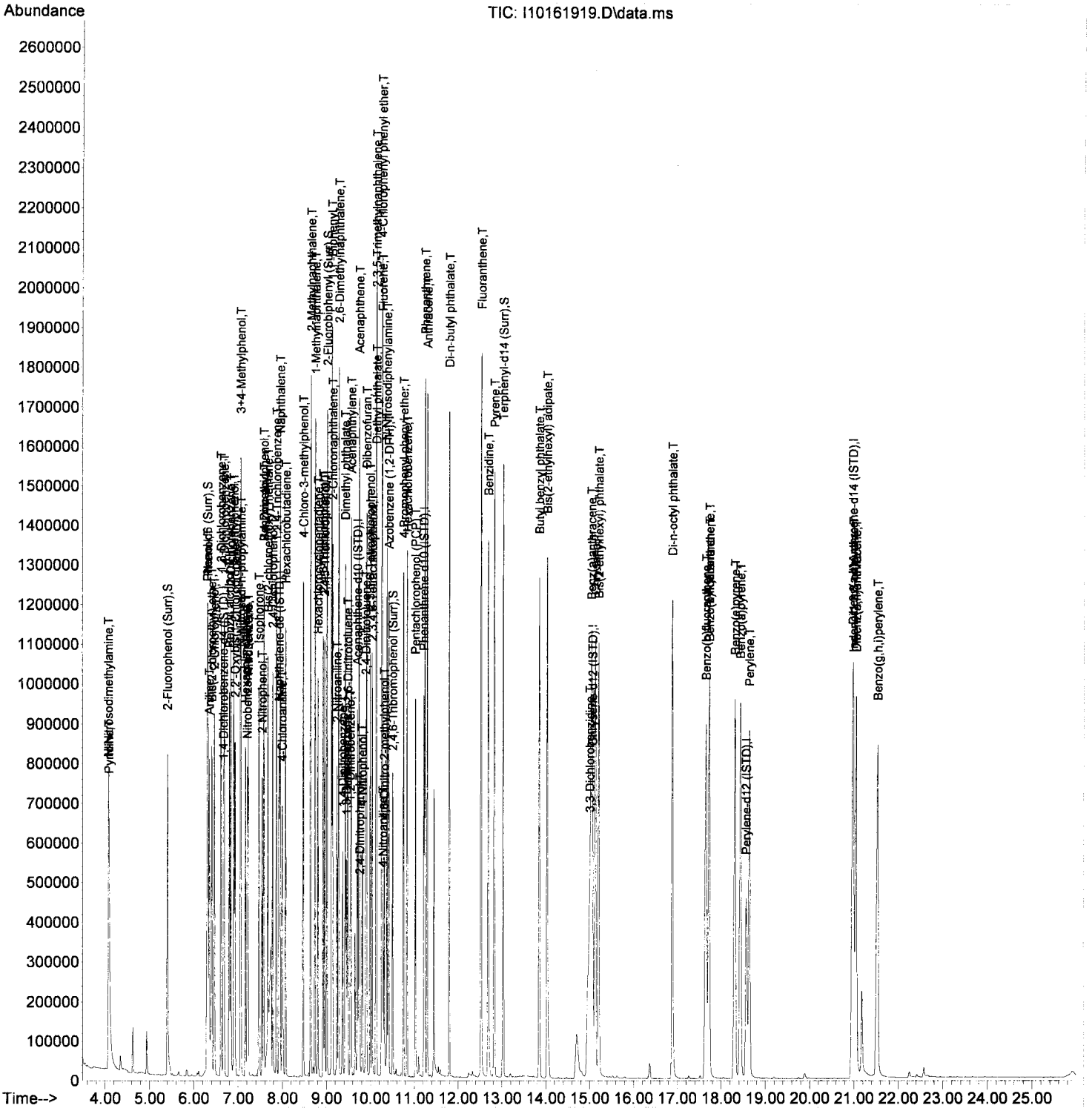
response 319266

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.64
77.10	77.80	75.24
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.664	152	90276	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	349868	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.707	162	186669	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.221	188	376380	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.083	240	334077	2000.00 ng/ml	0.03
86) Perylene-d12 (ISTD)	18.586	264	374258	2000.00 ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	21.004	292	369437	2000.00 ng/ml	0.05
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.423	112	424427	7176.13 ng/ml	0.02
5) Phenol-d6 (Surr)	6.311	99	520284	7353.93 ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.215	82	379122	6656.24 ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	9.012	172	687674	5038.04 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.509	330	151399	6615.18 ng/ml	0.01
79) Terphenyl-d14 (Surr)	13.034	244	969928	6060.34 ng/ml	0.01
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	~~4.059~~	~~74~~	72	N.D.	
3) Pyridine	~~4.075~~	~~79~~	~~352~~	~~15.66 ng/ml#~~	~~1~~
6) Phenol	6.327	94	502219	6919.03 ng/ml	98
7) Aniline	6.354	93	510928	7586.94 ng/ml	96
8) Bis(2-chloroethyl) ether	6.412	93	400306	5960.59 ng/ml	98
9) 2-Chlorophenol	6.466	128	388854	6221.68 ng/ml	99
10) 1,3-Dichlorobenzene	6.616	146	406773	5700.42 ng/ml	97
11) 1,4-Dichlorobenzene	6.685	146	381139	5489.06 ng/ml	99
12) Benzyl alcohol	6.803	108	256004	6434.60 ng/ml	100
13) 1,2-Dichlorobenzene	6.835	146	358825	5337.90 ng/ml	98
14) 2-Methylphenol	6.904	107	286008	6485.75 ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.931	45	474944	6846.30 ng/ml	90
16) N-Nitrosodi-n-propylamine	7.070	70	265552	6536.84 ng/ml	94
17) 3+4-Methylphenol	7.060	107	358777	6282.94 ng/ml	97
18) Hexachloroethane	7.167	201	137256	6201.19 ng/ml	98
20) Nitrobenzene	7.231	77	358149	6300.73 ng/ml	94
22) Isophorone	7.471	82	786908	6697.71 ng/ml	97
23) 2-Nitrophenol	7.546	139	202850	5815.89 ng/ml	96
24) 2,4-Dimethylphenol	7.584	122	294594	5785.76 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.675	93	411142	5813.68 ng/ml	97
26) Benzoic acid	~~7.584~~	~~105~~	10798	1002.59 ng/ml#	1
27) 2,4-Dichlorophenol	7.787	162	282981	5746.99 ng/ml	96
28) 1,2,4-Trichlorobenzene	7.867	180	321077	5329.06 ng/ml	99
29) Naphthalene	7.953	128	881153	4899.95 ng/ml	96
30) 4-Chloroaniline	8.001	127	375558	7662.85 ng/ml	99
31) Hexachlorobutadiene	8.076	225	186782	5810.71 ng/ml	98
32) 4-Chloro-3-methylphenol	8.477	107	333390	6238.84 ng/ml	96
33) 2-Methylnaphthalene	8.643	142	700865	5432.59 ng/ml	98
34) 1-Methylnaphthalene	8.744	142	643393	5230.09 ng/ml	98
36) Hexachlorocyclopentadiene	8.809	237	214657	6026.30 ng/ml	98
37) 2,4,6-Trichlorophenol	8.926	196	227216	5876.17 ng/ml	98
38) 2,4,5-Trichlorophenol	8.964	198	218856	5902.35 ng/ml	98
39) 1,1'-Biphenyl	9.119	154	756255	4915.66 ng/ml	97
41) 2-Chloronaphthalene	9.140	162	562503	5018.29 ng/ml	98
42) 2-Nitroaniline	9.242	138	226292	5942.90 ng/ml	91
43) 2,6-Dimethylnaphthalene	9.279	156	562178	4890.70 ng/ml	96

See MJ

See MJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.370	168	107910	5052.56 ng/ml	85
45) Dimethyl phthalate	9.434	163	703220	5178.09 ng/ml	98
46) 1,3-Dinitrobenzene	9.456	168	120068	5355.80 ng/ml	95
47) 2,6-Dinitrotoluene	9.488	165	174146	5542.98 ng/ml	87
48) 1,2-Dinitrobenzene	9.552	168	84556	5550.92 ng/ml	86
49) Acenaphthylene	9.563	152	869974	4774.58 ng/ml	97
50) 3-Nitroaniline	9.659	138	78267	Below Cal	96
51) Acenaphthene	9.745	153	584734	4983.57 ng/ml	98
52) 2,4-Dinitrophenol	9.761	184	71059	4457.18 ng/ml	94
53) 4-Nitrophenol	9.825	139	152030	5778.61 ng/ml	95
54) 2,4-Dinitrotoluene	9.900	165	227357	5792.06 ng/ml	95
55) Dibenzofuran	9.916	168	787795	4831.64 ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.996	232	195876	6062.93 ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.039	232	201184	6084.80 ng/ml	97
58) Diethyl phthalate	10.140	149	579238	4581.50 ng/ml	95
59) 2,3,5-Trimethylnaphtha...	10.130	170	535500	4836.98 ng/ml	99
60) Fluorene	10.269	166	595819	4558.02 ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.258	204	348928	5244.97 ng/ml	95
62) 4-Nitroaniline	10.290	138	145167	5276.04 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.317	198	103747	4797.03 ng/ml	94
65) N-Nitrosodiphenylamine	10.381	169	498648	4306.23 ng/ml	100
66) Azobenzene (1,2-DPH)	10.419	77	608650	5235.41 ng/ml	89
68) 4-Bromophenyl phenyl e...	10.756	248	256100	5881.44 ng/ml	98
69) Hexachlorobenzene	10.836	284	285495	5721.39 ng/ml	97
70) Pentachlorophenol (PCP)	11.028	266	176453	6418.22 ng/ml	98
71) Phenanthrene	11.248	178	956105	4805.46 ng/ml	96
72) Anthracene	11.301	178	928594	4801.32 ng/ml	96
73) Carbazole	11.451	167	424787	Below Cal	98
74) Di-n-butyl phthalate	11.799	149	1140087	5126.46 ng/ml	96
75) Fluoranthene	12.531	202	1181210	5244.08 ng/ml	98
76) Benzidine	12.692	184	924428	15497.66 ng/ml	98
77) Pyrene	12.831	202	1149431	5071.42 ng/ml	97
80) Butyl benzyl phthalate	13.868	149	631913	6183.11 ng/ml	93
81) Bis(2-ethylhexyl) adipate	14.045	129	525912	6731.75 ng/ml	98
82) 3,3-Dichlorobenzidine	15.024	252	197737	9624.37 ng/ml	98
83) Benz(a)anthracene	15.056	228	1123403	5860.76 ng/ml	96
84) Chrysene	15.152	228	1022308	5840.98 ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.222	149	739674	6471.29 ng/ml	95
87) Di-n-octyl phthalate	16.901	149	1499067	5996.73 ng/ml	98
88) Benzo(b)fluoranthene	17.677	252	1366285	6501.94 ng/ml	98
89) Benzo(k)fluoranthene	17.752	252	1115022	5627.56 ng/ml	97
90) Benzo(b+k)fluoranthene	17.752	252	2538483	12146.44 ng/ml	97
91) Benzo(e)pyrene	18.340	252	1247052	6081.46 ng/ml	97
92) Benzo(a)pyrene	18.468	252	1130687	5977.03 ng/ml	100
93) Perylene	18.666	252	1004144	5802.05 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	21.020	276	1311636	5877.67 ng/ml	99
96) Dibenz(a,h)anthracene	21.078	278	1076200	5534.71 ng/ml	99
97) Benzo(g,h,i)perylene	21.565	276	1221971	5721.36 ng/ml	98

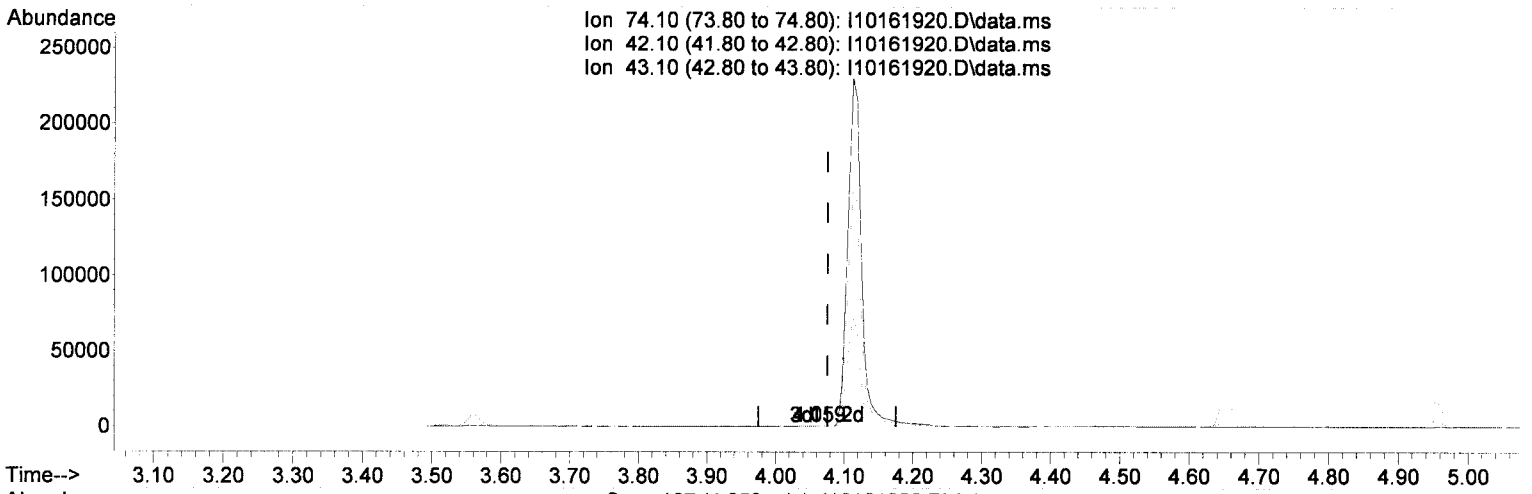
See NJ

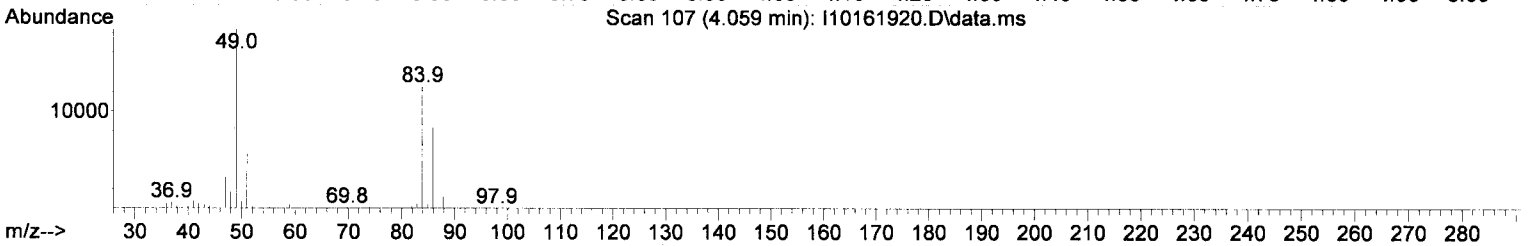
(#) = qualifier out of range (m) = manual integration (+) = signals summed

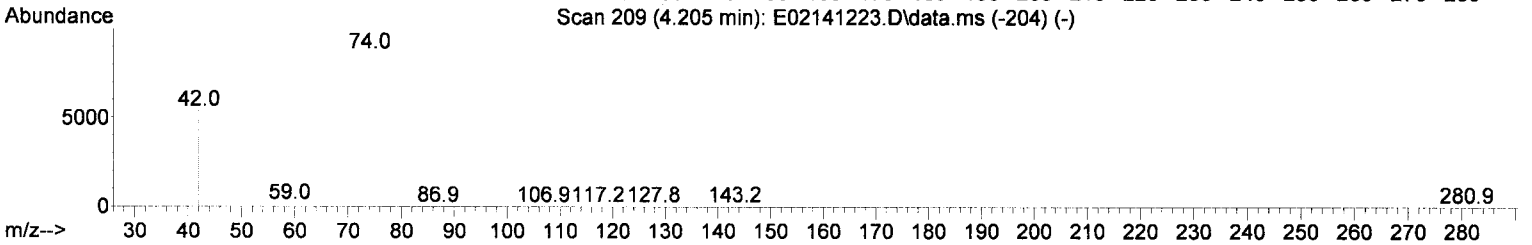
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161920.D\data.ms

(2) N-Nitrosodimethylamine (T)

4.059min (-0.016) 1.75 ng/ml

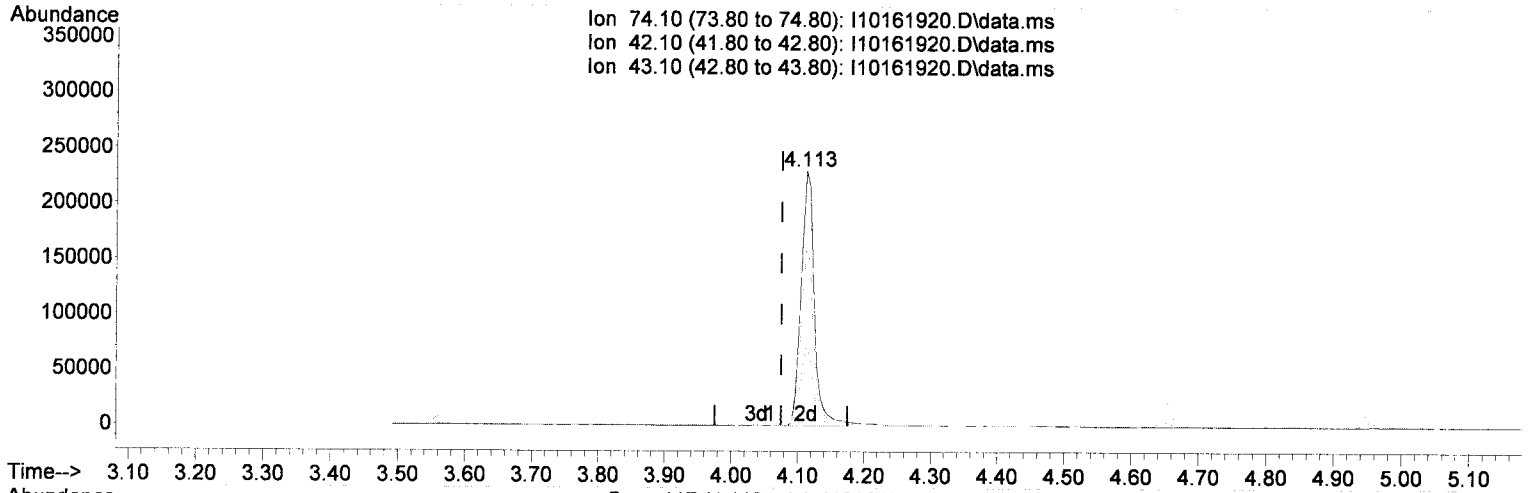
response 72

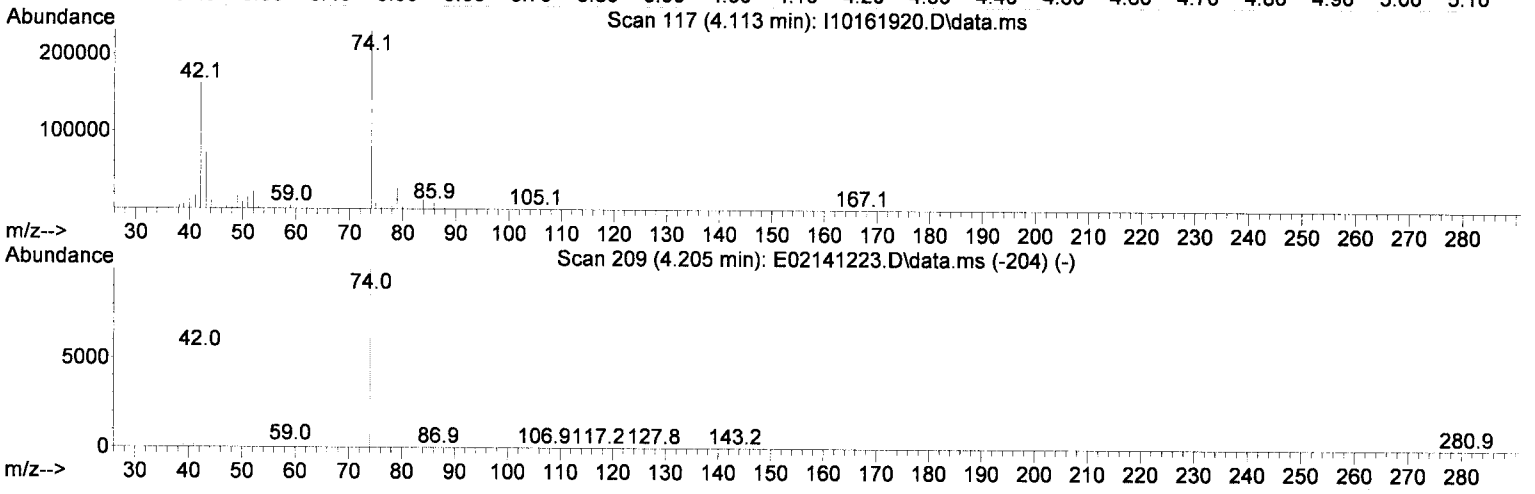
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	71.00	422.14#
43.10	31.00	293.13#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161920.D\data.ms

(2) N-Nitrosodimethylamine (T)

4.113min (+ 0.037) 7829.50 ng/ml m

GK 10/17/19

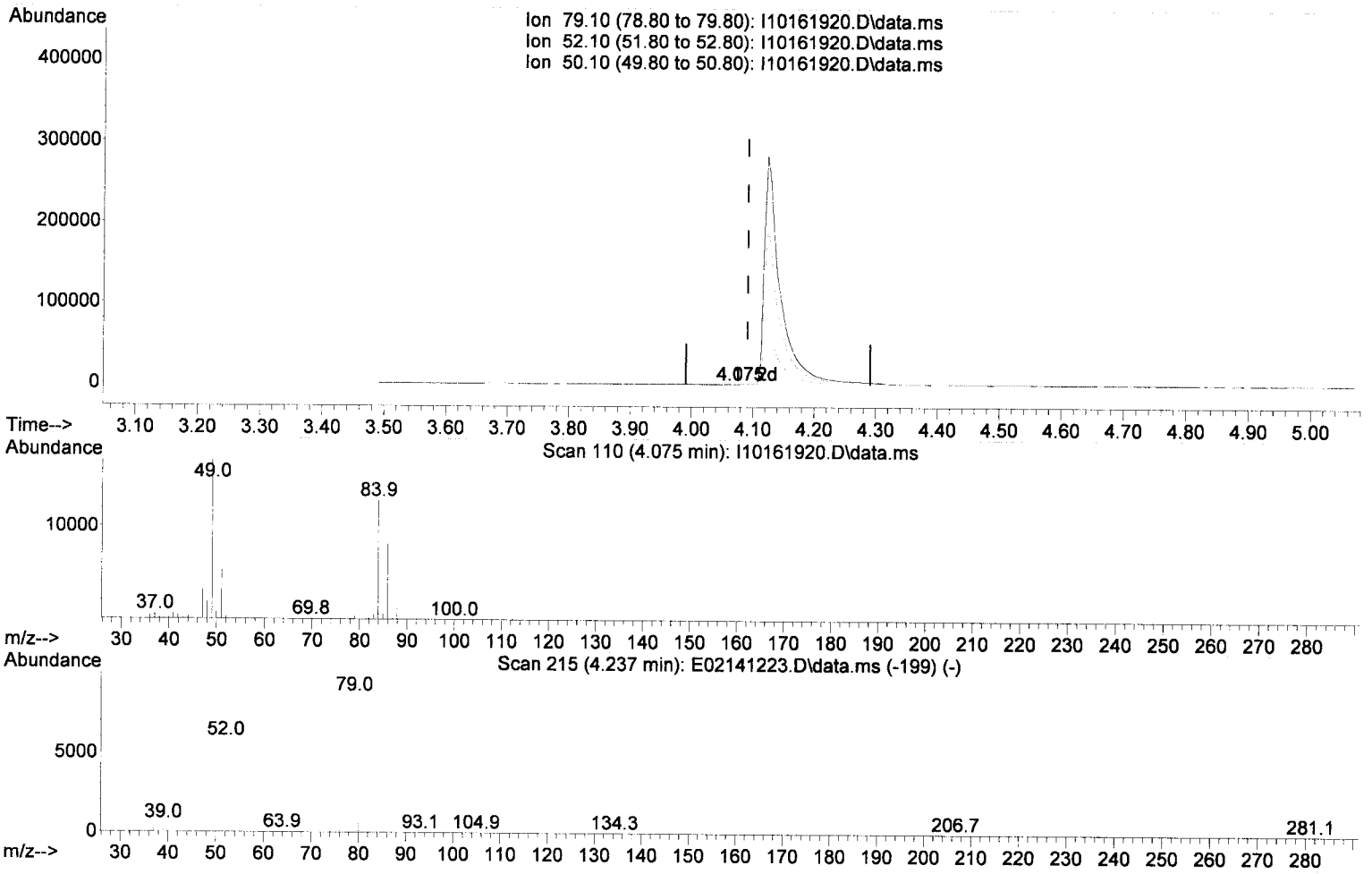
response 322758

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	71.00	70.54
43.10	31.00	31.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(3) Pyridine (T)

4.075min (-0.016) 15.66 ng/ml

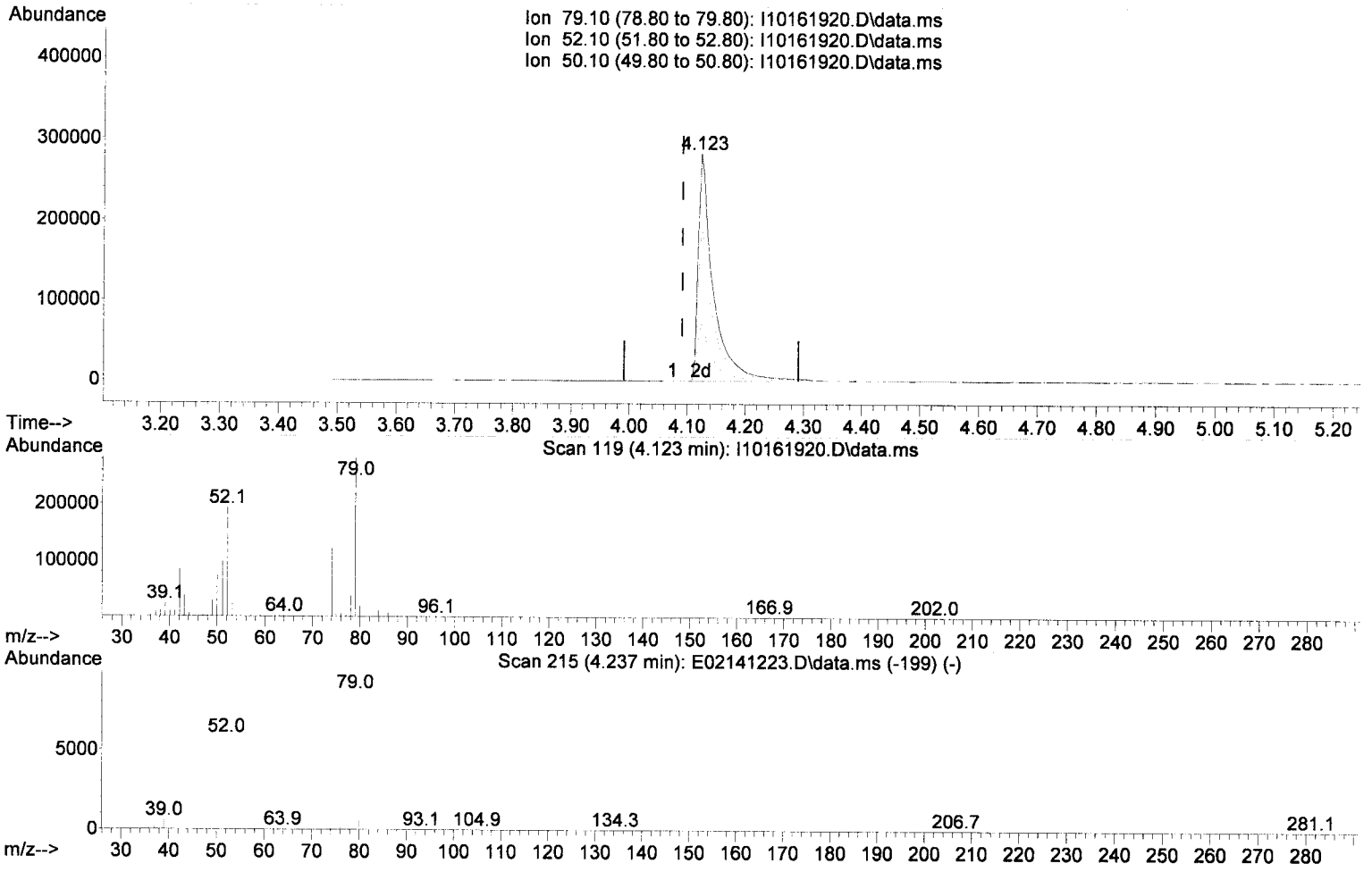
response 352

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	86.15
50.10	25.60	236.62#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(3) Pyridine (T)

4.123min (+ 0.032) 7043.41 ng/ml m

JK 10/17/19

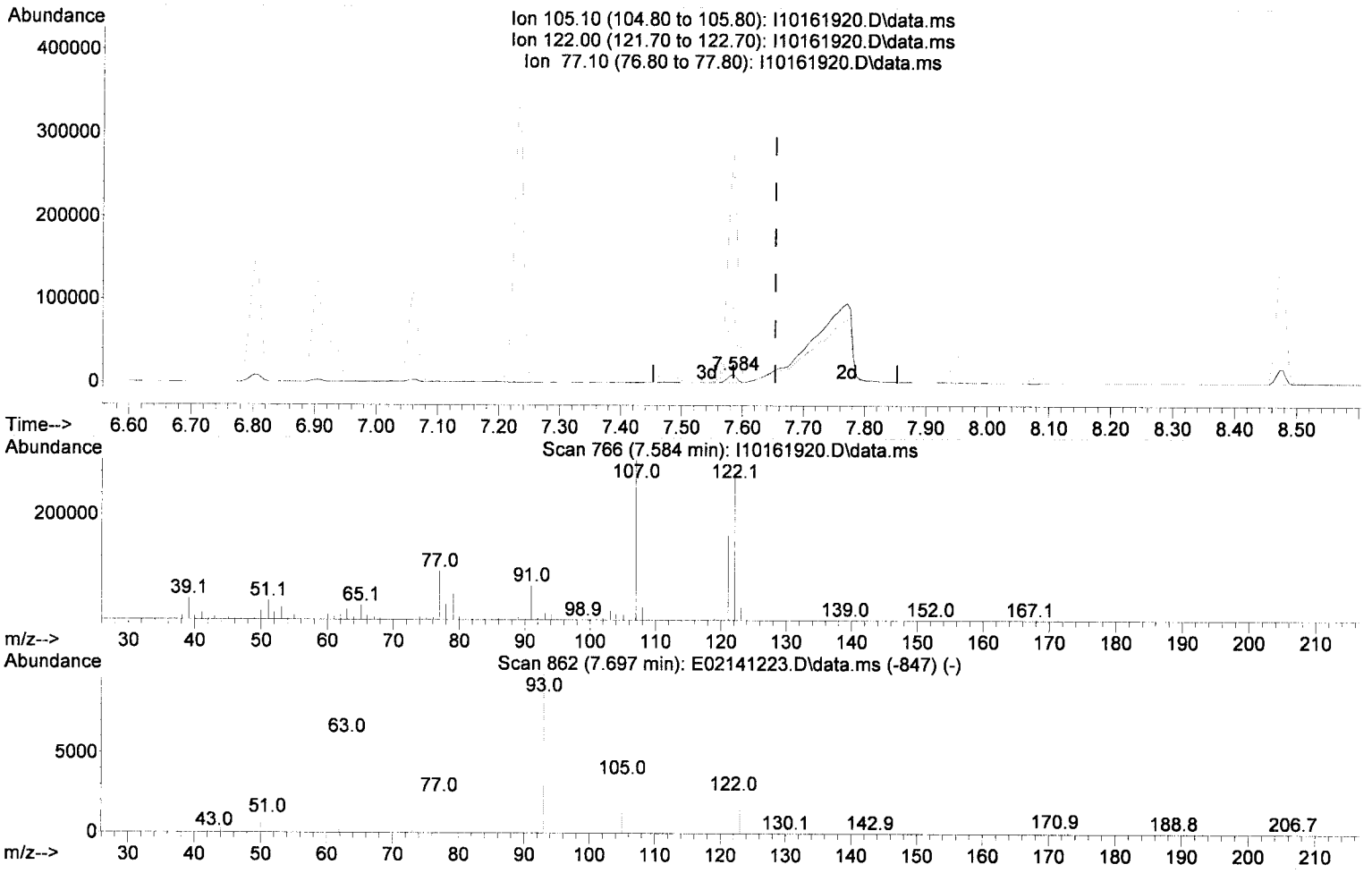
response 514636

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	68.21
50.10	25.60	25.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(26) Benzoic acid (T)

7.584min (-0.070) 1002.59 ng/ml

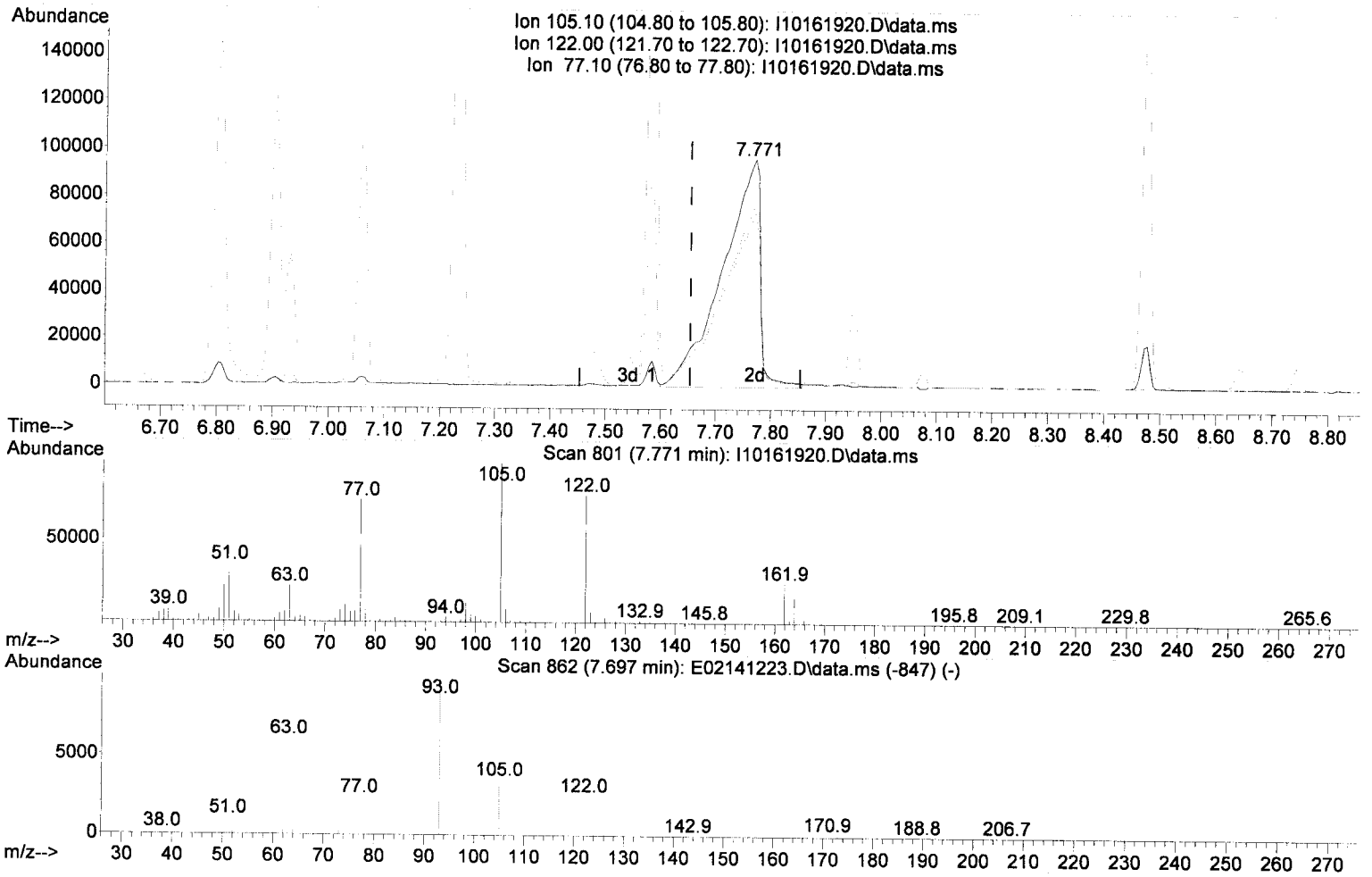
response 10798

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2567.77#
77.10	77.80	861.21#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(26) Benzoic acid (T)

7.771min (+ 0.118) 12428.66 ng/ml m

response 456773

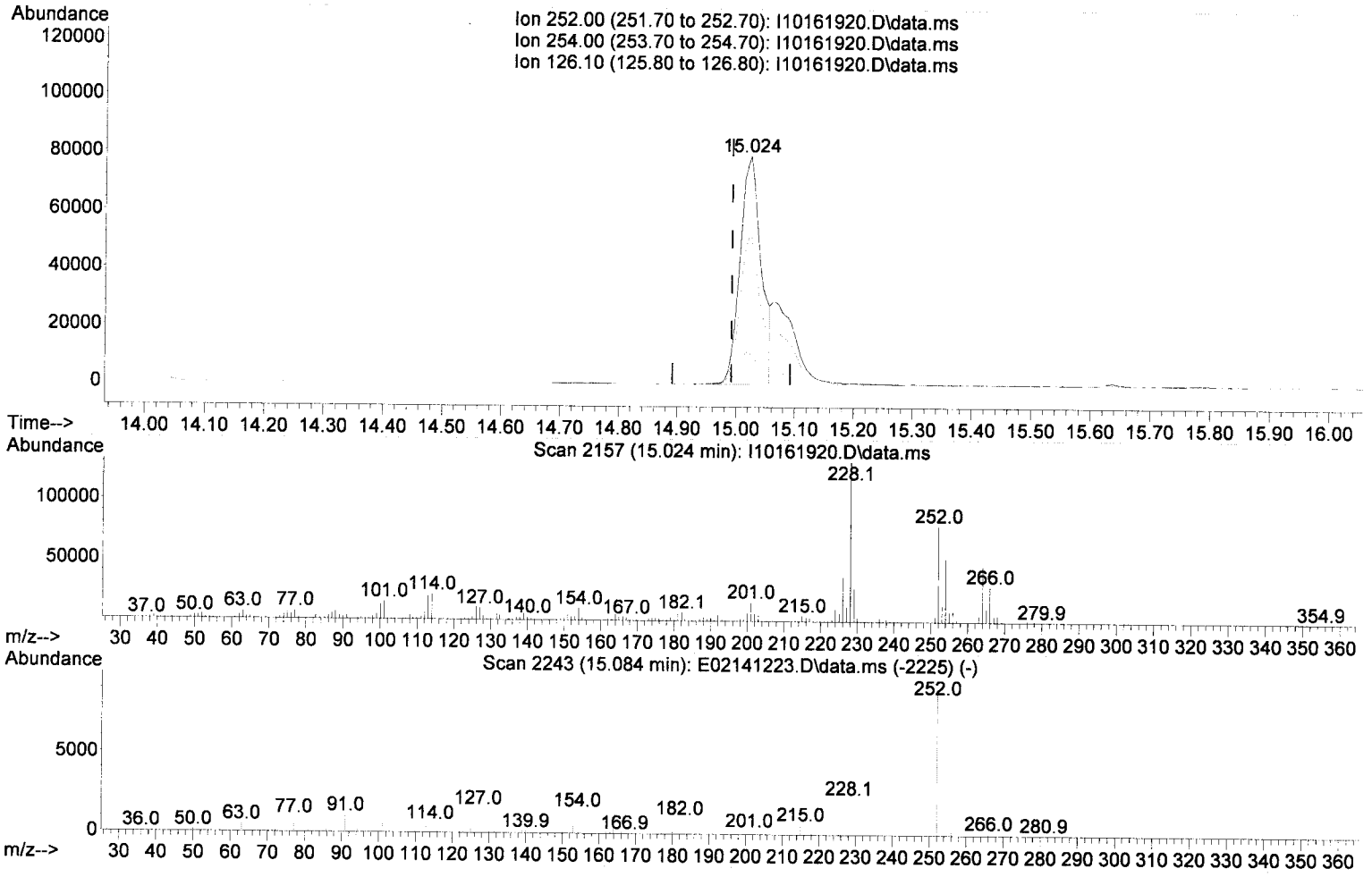
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.95
77.10	77.80	76.64
0.00	0.00	0.00

10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 9624.37 ng/ml

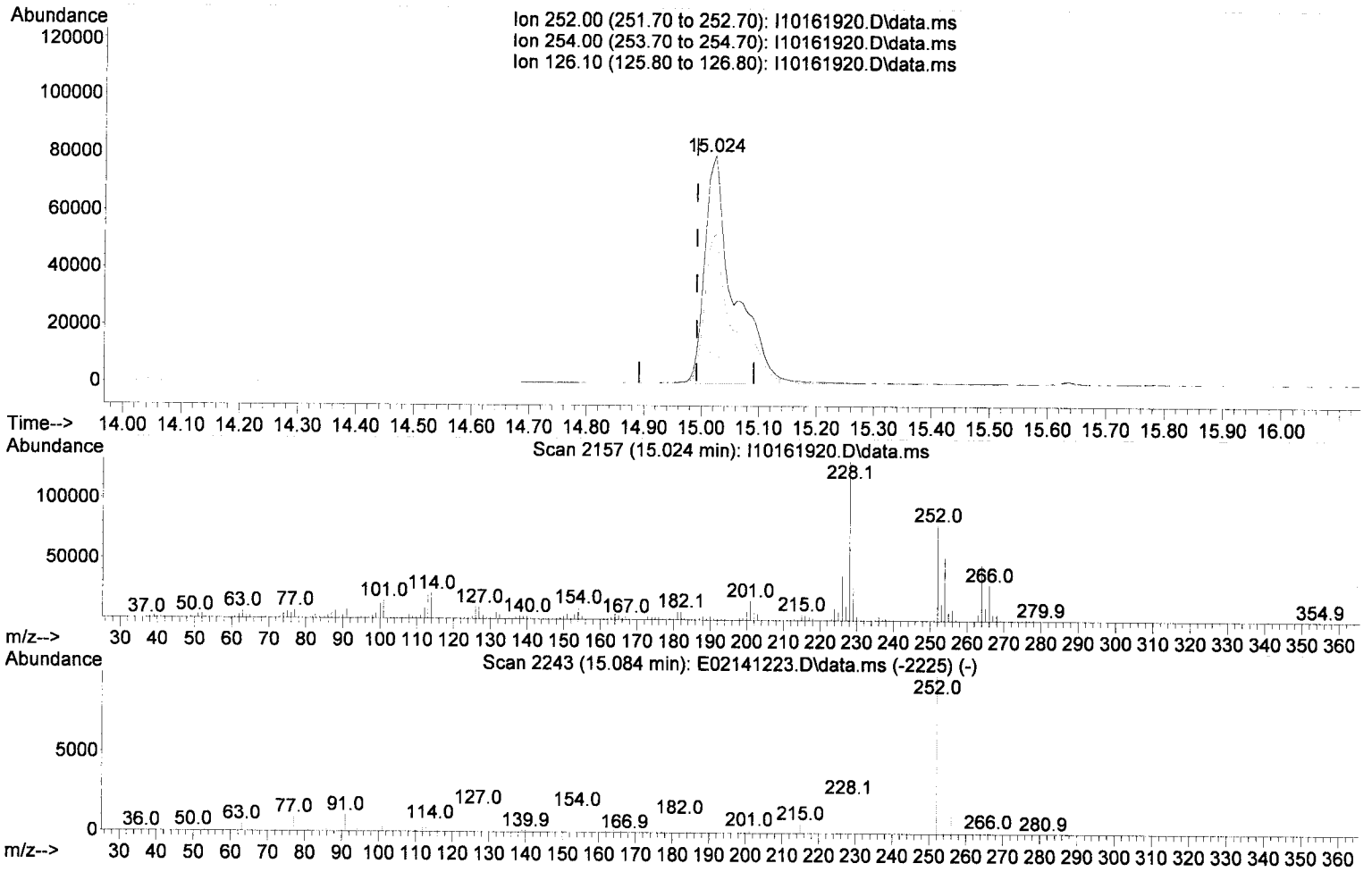
response 197737

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.76
126.10	14.00	13.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 13733.38 ng/ml m JK 10/17/19

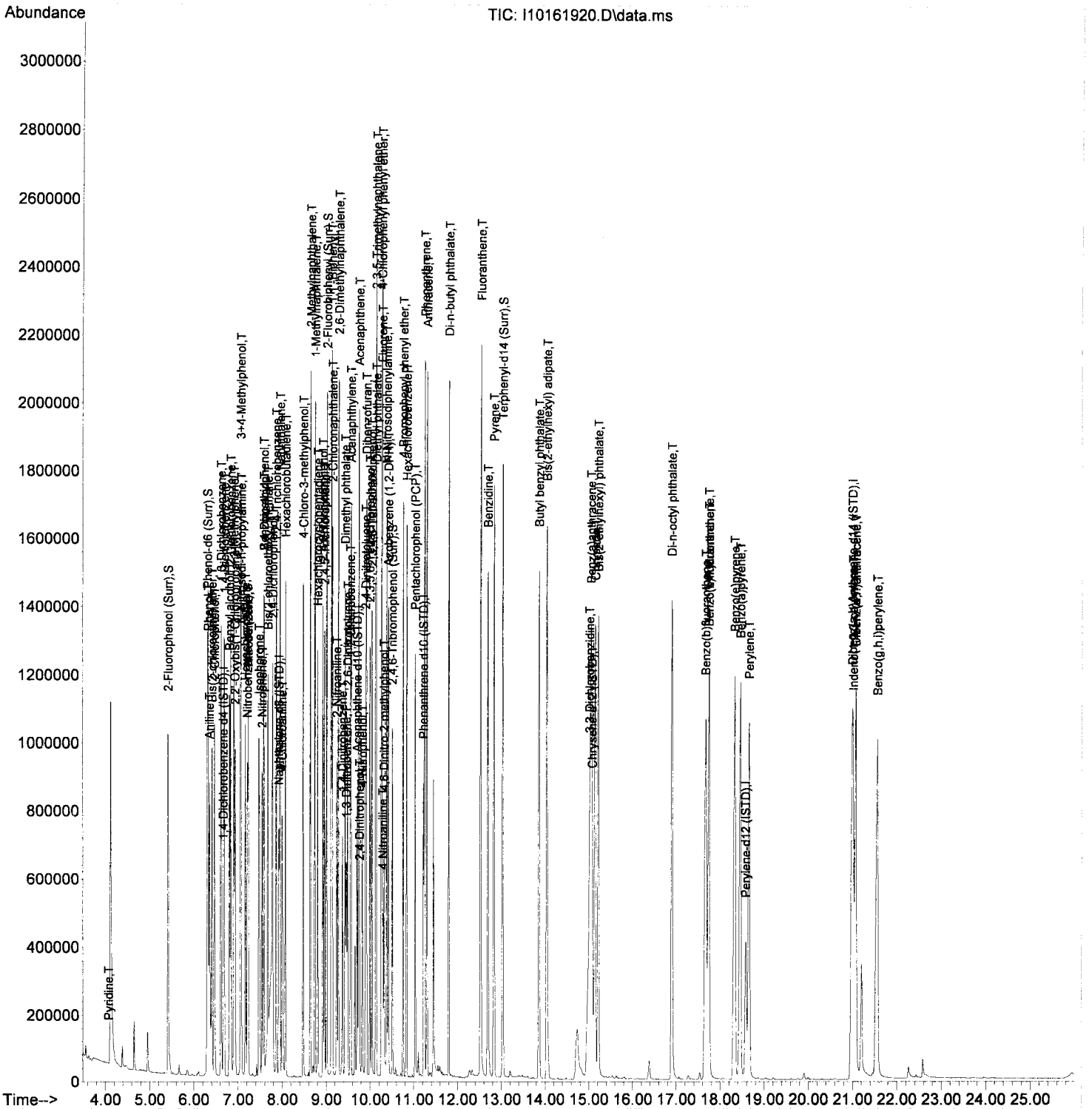
response 276349

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.76
126.10	14.00	13.46
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	90105	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	341834	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.707	162	182625	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.221	188	376032	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.088	240	319256	2000.00	ng/ml	0.04
86) Perylene-d12 (ISTD)	18.581	264	341068	2000.00	ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	21.004	292	340856	2000.00	ng/ml	0.05
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	563281	9541.92	ng/ml	0.00
5) Phenol-d6 (Surr)	6.311	99	666322	9435.97	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.215	82	472853	8317.63	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	9.017	172	827961	6200.13	ng/ml	0.01
67) 2,4,6-Tribromophenol (...	10.515	330	197030	8466.97	ng/ml	0.02
79) Terphenyl-d14 (Surr)	13.039	244	1194810	7812.03	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.070	74	425740	10347.25	ng/ml	100
3) Pyridine	4.075	79	702998	9157.82	ng/ml	97
6) Phenol	6.327	94	643943	8888.38	ng/ml	94
7) Aniline	6.354	93	643142	9568.35	ng/ml	96
8) Bis(2-chloroethyl) ether	6.407	93	503778	7515.54	ng/ml	98
9) 2-Chlorophenol	6.466	128	486600	7800.40	ng/ml	96
10) 1,3-Dichlorobenzene	6.610	146	510201	7163.40	ng/ml	98
11) 1,4-Dichlorobenzene	6.680	146	472412	6816.45	ng/ml	98
12) Benzyl alcohol	6.808	108	321834	7839.63	ng/ml	97
13) 1,2-Dichlorobenzene	6.835	146	440964	6572.25	ng/ml	99
14) 2-Methylphenol	6.905	107	347076	7885.51	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.931	45	544410	7862.54	ng/ml	85
16) N-Nitrosodi-n-propylamine	7.076	70	326816	8060.19	ng/ml	92
17) 3+4-Methylphenol	7.065	107	435039	7699.18	ng/ml	97
18) Hexachloroethane	7.167	201	175204	7930.69	ng/ml	94
20) Nitrobenzene	7.236	77	431713	7609.32	ng/ml	89
22) Isophorone	7.482	82	1001015	8720.31	ng/ml	96
23) 2-Nitrophenol	7.546	139	257722	7562.78	ng/ml	96
24) 2,4-Dimethylphenol	7.589	122	364751	7332.00	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.675	93	495856	7176.36	ng/ml	96
26) Benzoic acid	7.589	105	12763	1068.35	ng/ml#	1
27) 2,4-Dichlorophenol	7.787	162	351999	7259.50	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.873	180	393859	6690.69	ng/ml	100
29) Naphthalene	7.953	128	1052026	5987.65	ng/ml	95
30) 4-Chloroaniline	8.001	127	462446	9512.71	ng/ml	98
31) Hexachlorobutadiene	8.076	225	234083	7453.37	ng/ml	99
32) 4-Chloro-3-methylphenol	8.477	107	413423	7762.86	ng/ml	96
33) 2-Methylnaphthalene	8.643	142	843623	6692.84	ng/ml	98
34) 1-Methylnaphthalene	8.750	142	774012	6439.75	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	265581	7621.05	ng/ml	99
37) 2,4,6-Trichlorophenol	8.932	196	292625	7688.16	ng/ml	99
38) 2,4,5-Trichlorophenol	8.964	198	271144	7466.42	ng/ml	99
39) 1,1'-Biphenyl	9.119	154	905572	6016.56	ng/ml	96
41) 2-Chloronaphthalene	9.146	162	674470	6150.43	ng/ml	97
42) 2-Nitroaniline	9.247	138	293332	7874.09	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.279	156	686967	6108.64	ng/ml	95

See NJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.376	168	141310	6619.98	ng/ml	82
45) Dimethyl phthalate	9.440	163	867794	6531.41	ng/ml	97
46) 1,3-Dinitrobenzene	9.467	168	152836	6968.42	ng/ml	95
47) 2,6-Dinitrotoluene	9.493	165	216715	7050.68	ng/ml	86
48) 1,2-Dinitrobenzene	9.557	168	103981	6977.29	ng/ml	91
49) Acenaphthylene	9.568	152	1014724	5692.31	ng/ml	95
50) 3-Nitroaniline	9.664	138	117221	Below Cal		94
51) Acenaphthene	9.745	153	712568	6207.56	ng/ml	97
52) 2,4-Dinitrophenol	9.766	184	97114	5817.14	ng/ml	92
53) 4-Nitrophenol	9.830	139	187194	7122.97	ng/ml	97
54) 2,4-Dinitrotoluene	9.905	165	277426	7224.10	ng/ml	96
55) Dibenzofuran	9.921	168	946729	5934.98	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.996	232	249690	7793.09	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.044	232	257264	7850.89	ng/ml	95
58) Diethyl phthalate	10.146	149	698054	5643.54	ng/ml	93
59) 2,3,5-Trimethylnaphtha...	10.130	170	644885	5954.01	ng/ml	98
60) Fluorene	10.274	166	721314	5640.25	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.258	204	428718	6587.05	ng/ml	98
62) 4-Nitroaniline	10.296	138	176836	6569.36	ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.328	198	139599	6317.83	ng/ml	86
65) N-Nitrosodiphenylamine	10.387	169	622397	5379.88	ng/ml	99
66) Azobenzene (1,2-DPH)	10.424	77	730839	6292.26	ng/ml	83
68) 4-Bromophenyl phenyl e...	10.761	248	329177	7566.68	ng/ml	96
69) Hexachlorobenzene	10.841	284	361957	7260.42	ng/ml	96
70) Pentachlorophenol (PCP)	11.028	266	227516	8068.03	ng/ml	98
71) Phenanthrene	11.253	178	1170165	5886.79	ng/ml	95
72) Anthracene	11.306	178	1130706	5851.76	ng/ml	95
73) Carbazole	11.456	167	578961	Below Cal		98
74) Di-n-butyl phthalate	11.804	149	1371594	6173.15	ng/ml	95
75) Fluoranthene	12.537	202	1449379	6440.59	ng/ml	96
76) Benzidine	12.697	184	1130941	18977.32	ng/ml	97
77) Pyrene	12.836	202	1400570	6185.19	ng/ml	96
80) Butyl benzyl phthalate	13.868	149	788952	7801.41	ng/ml	92
81) Bis(2-ethylhexyl) adipate	14.045	129	642531	8606.30	ng/ml	97
82) 3,3-Dichlorobenzidine	15.024	252	309217	16215.48	ng/ml	98
83) Benz(a)anthracene	15.061	228	1366845	7461.83	ng/ml	96
84) Chrysene	15.157	228	1249315	7469.36	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.222	149	901223	8250.69	ng/ml	95
87) Di-n-octyl phthalate	16.906	149	1811511	7733.59	ng/ml	98
88) Benzo(b)fluoranthene	17.687	252	1686661	8807.64	ng/ml	97
89) Benzo(k)fluoranthene	17.757	252	1278627	7081.27	ng/ml	98
90) Benzo(b+k)fluoranthene	17.757	252	3039542	15959.27	ng/ml	98
91) Benzo(e)pyrene	18.340	252	1492293	7985.60	ng/ml	97
92) Benzo(a)pyrene	18.474	252	1326605	7765.80	ng/ml	99
93) Perylene	18.672	252	1195430	7579.48	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	21.020	276	1567885	7615.10	ng/ml	98
96) Dibenz(a,h)anthracene	21.084	278	1269410	7075.76	ng/ml	100
97) Benzo(g,h,i)perylene	21.570	276	1429981	7256.69	ng/ml	98

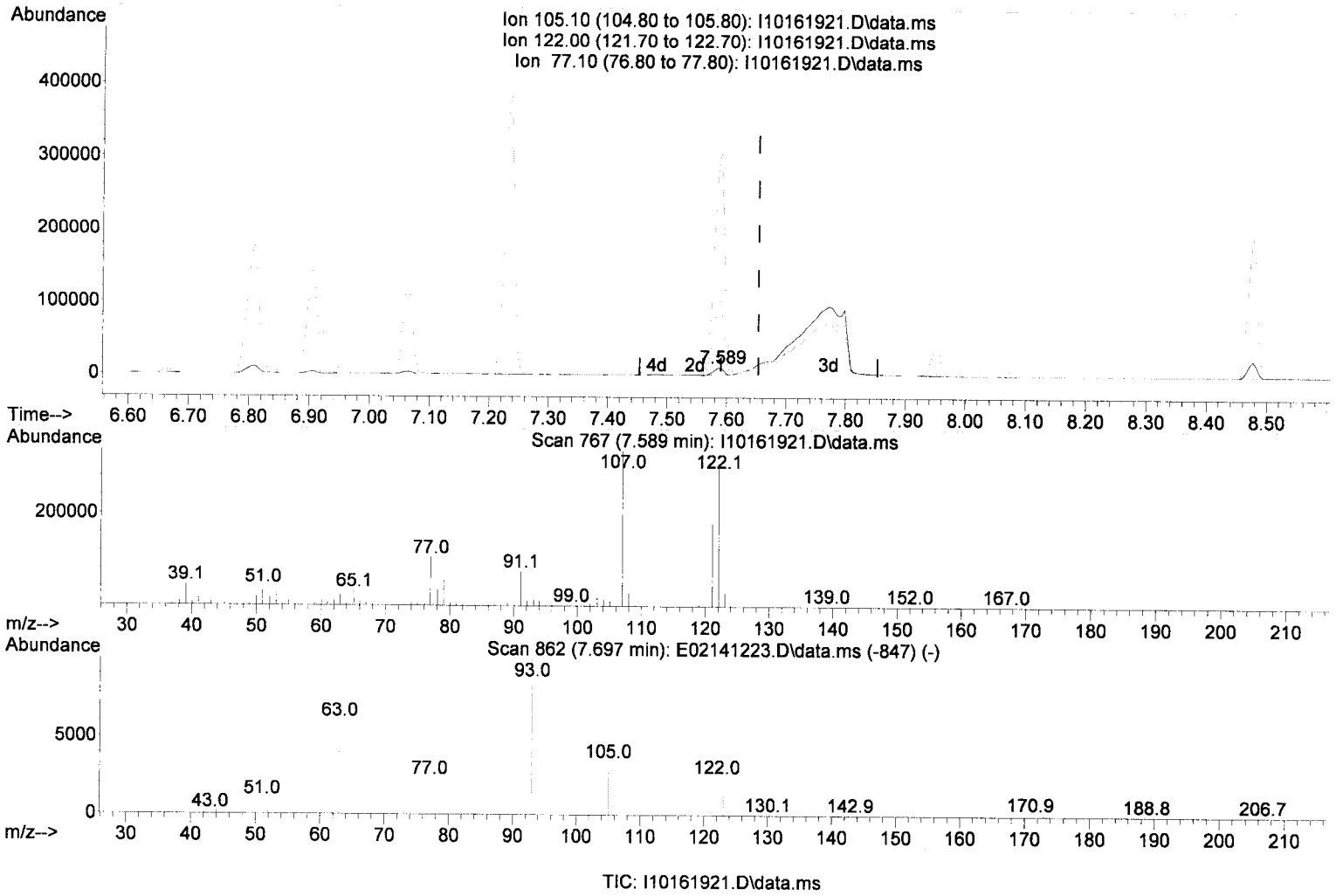
See m1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(26) Benzoic acid (T)

7.589min (-0.064) 1068.35 ng/ml

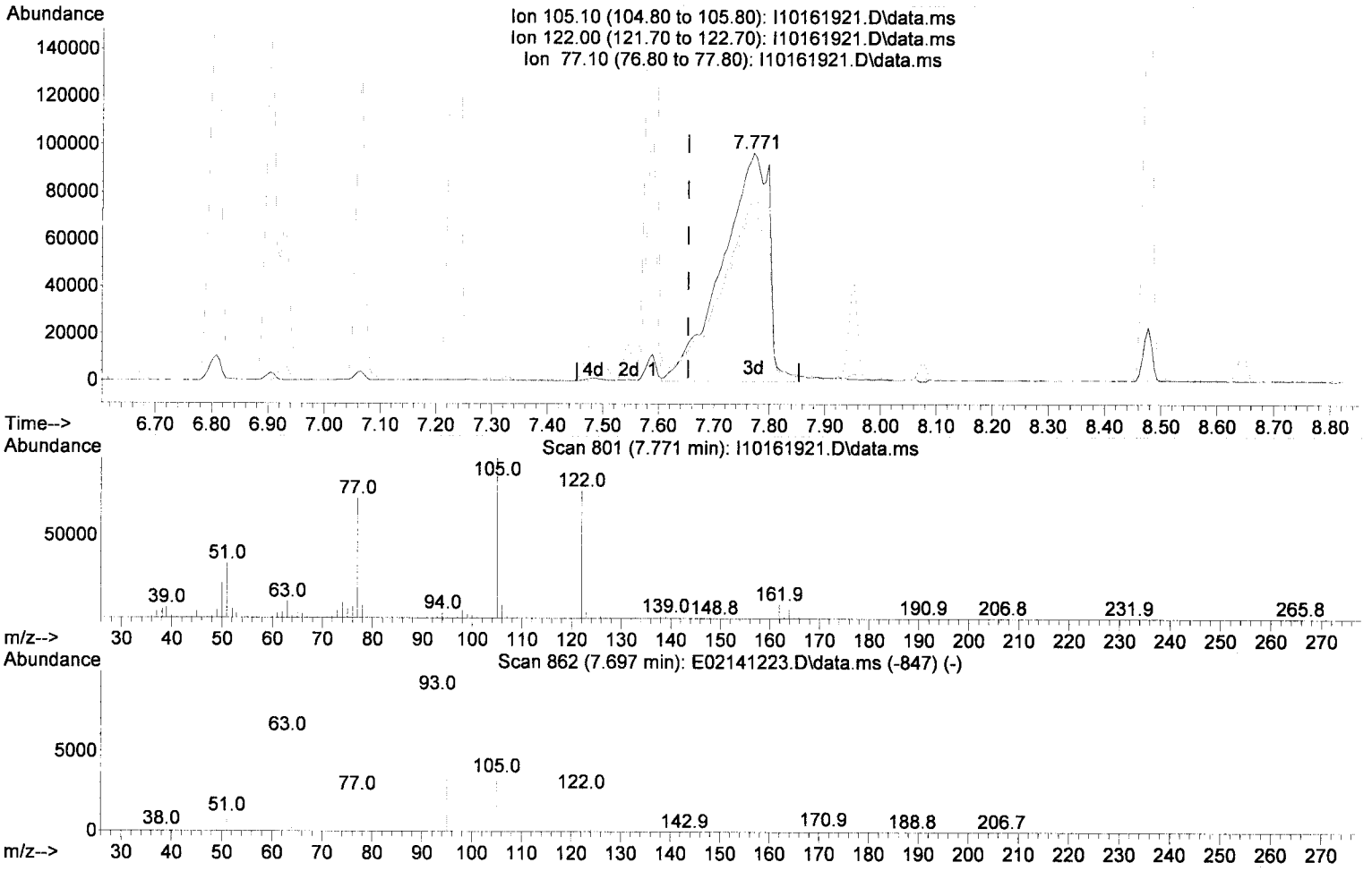
response 12763

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2695.39#
77.10	77.80	917.94#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(26) Benzoic acid (T)

7.771min (+ 0.118) 15200.89 ng/ml m

response 567530

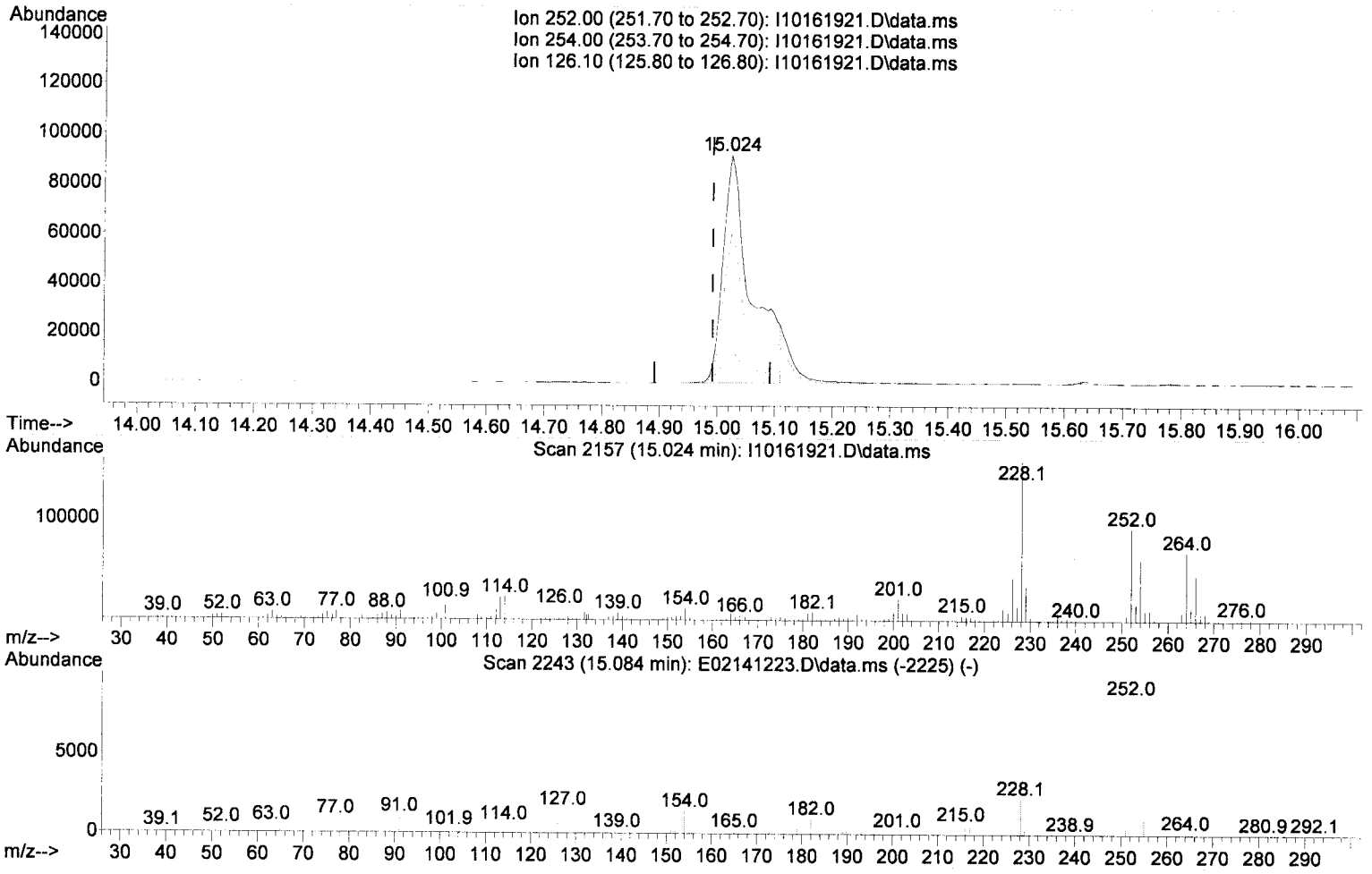
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.63
77.10	77.80	74.83
0.00	0.00	0.00

10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 16215.48 ng/ml

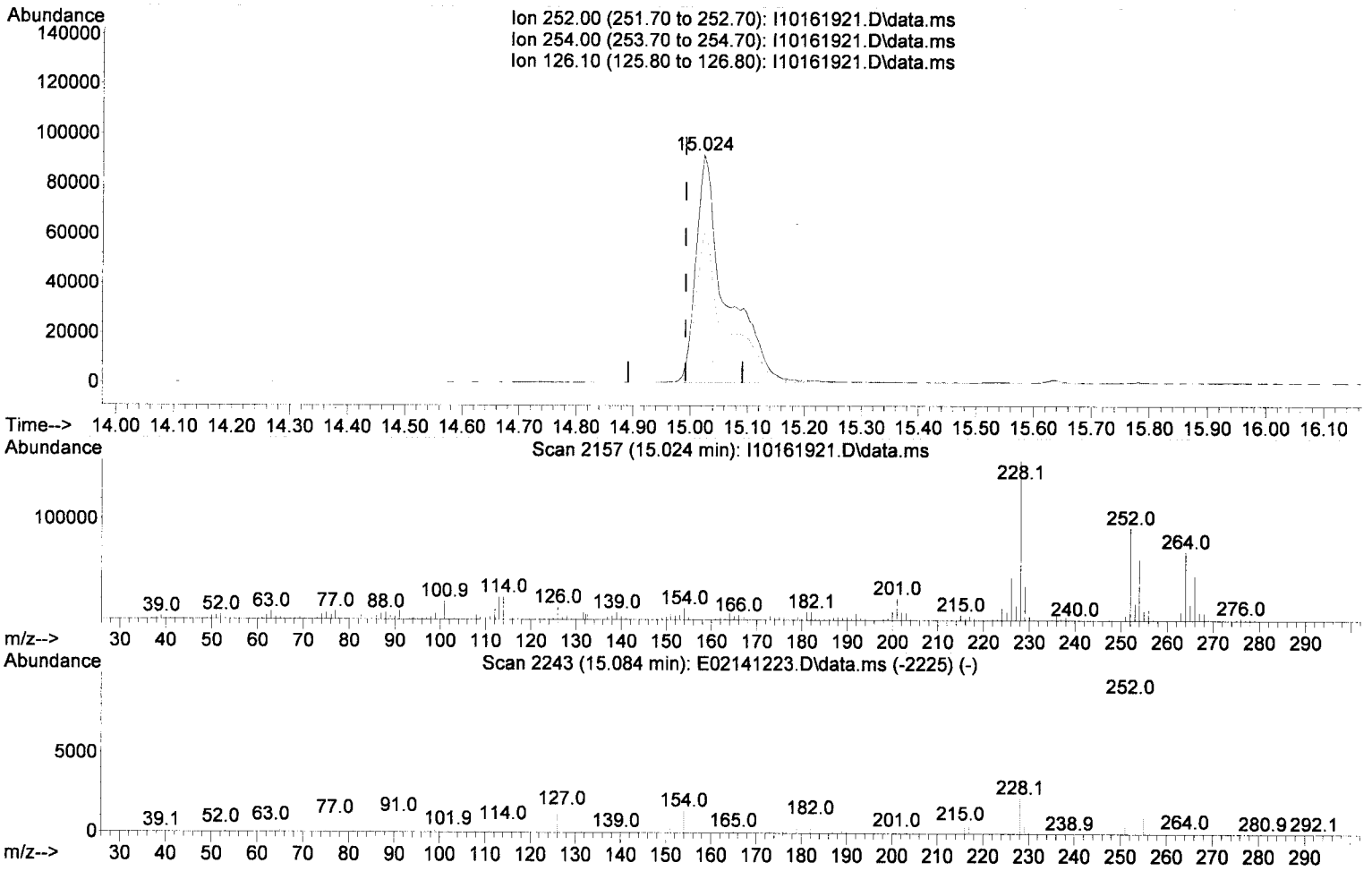
response 309217

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.81
126.10	14.00	13.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 17716.98 ng/ml m

response 336424

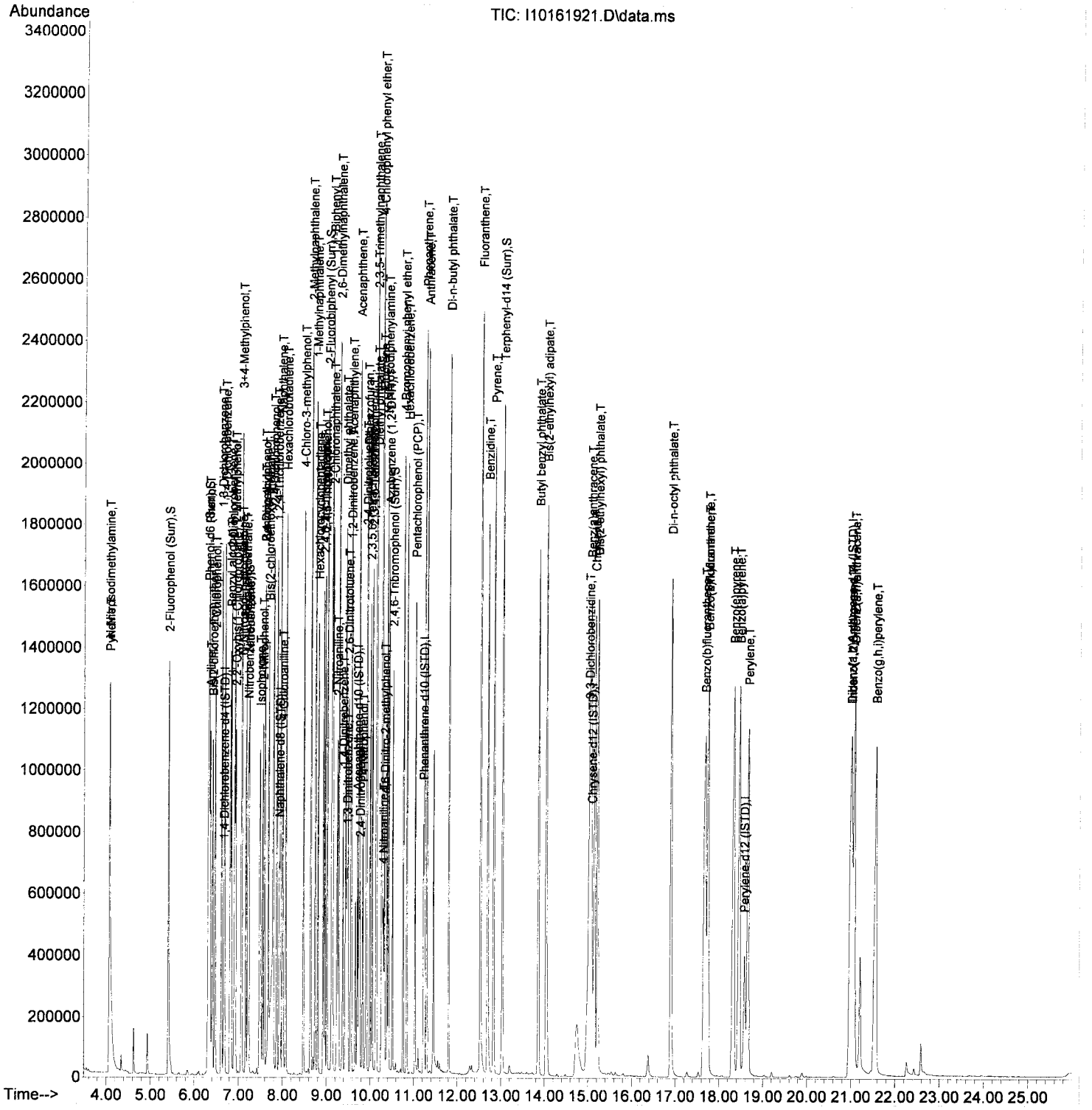
Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.81
126.10	14.00	13.07
0.00	0.00	0.00

10/17/19

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	106471	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	411521	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209383	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	386084	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	381801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	383841	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.955	292	334585	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	76822	1101.32	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	98100	1175.68	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	77799	1158.15	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	165174	1078.83	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	23106	1048.70	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	193114	1055.80	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.080	74	60523	1244.85	ng/ml	99
3) Pyridine	4.102	79	85071	1163.34	ng/ml	98
6) Phenol	6.306	94	102242	1194.32	ng/ml	99
7) Aniline	6.343	93	96704	1217.57	ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	95373	1204.10	ng/ml	98
9) 2-Chlorophenol	6.461	128	81659	1107.81	ng/ml	99
10) 1,3-Dichlorobenzene	6.610	146	85857	1020.17	ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	80889	987.74	ng/ml	99
12) Benzyl alcohol	6.787	108	42970	1072.91	ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	80233	1012.00	ng/ml	98
14) 2-Methylphenol	6.894	107	64559	1241.31	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	117934	1441.43	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	63007	1315.07	ng/ml	99
17) 3+4-Methylphenol	7.044	107	75794	1097.87	ng/ml	99
18) Hexachloroethane	7.167	201	26625	1019.94	ng/ml	98
20) Nitrobenzene	7.220	77	79633	1187.85	ng/ml	98
22) Isophorone	7.450	82	167145	1209.51	ng/ml	97
23) 2-Nitrophenol	7.536	139	40793	994.35	ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	60426	1008.96	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.659	93	93785	1127.47	ng/ml	99
26) Benzoic acid	7.648	105	35448	1560.83	ng/ml	96
27) 2,4-Dichlorophenol	7.771	162	56283	1013.10	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.862	180	71397	1007.47	ng/ml	98
29) Naphthalene	7.942	128	217507	1028.31	ng/ml	100
30) 4-Chloroaniline	7.990	127	67526	1246.11	ng/ml	100
31) Hexachlorobutadiene	8.071	225	38909	1029.10	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	63199	1106.90	ng/ml	99
33) 2-Methylnaphthalene	8.637	142	162096	1068.21	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	153280	1059.33	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	36321	909.06	ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	41531	997.28	ng/ml	95
38) 2,4,5-Trichlorophenol	8.953	198	40839	1004.22	ng/ml	100
39) 1,1'-Biphenyl	9.108	154	180141	1043.90	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	133530	1062.04	ng/ml	99
42) 2-Nitroaniline	9.226	138	39427	923.11	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	133180	1032.92	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

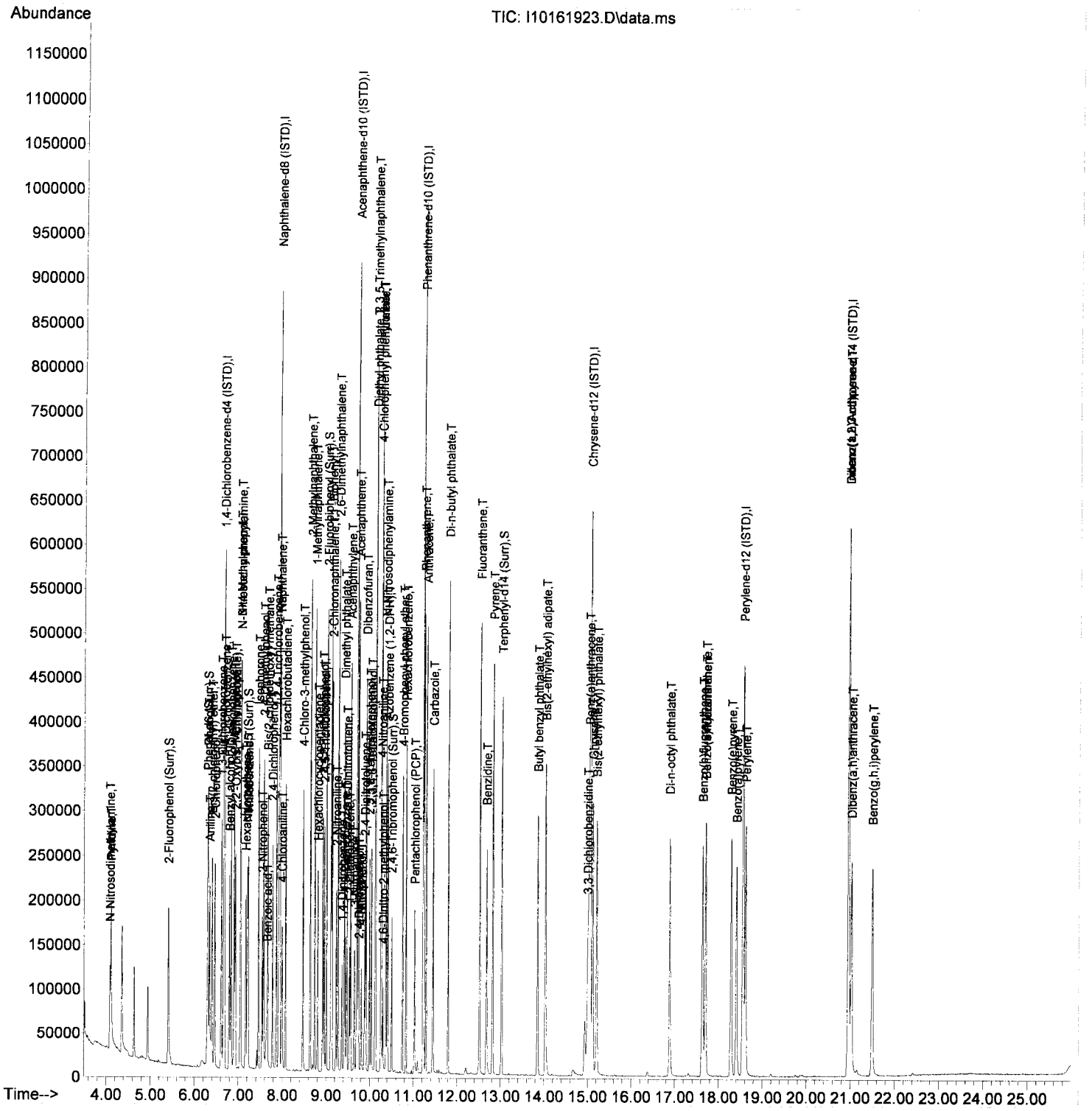
Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	13499	650.23	ng/ml	95
45) Dimethyl phthalate	9.408	163	158407	1039.88	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18765	746.24	ng/ml	99
47) 2,6-Dinitrotoluene	9.467	165	32748	929.28	ng/ml	97
48) 1,2-Dinitrobenzene	9.525	168	14689	859.69	ng/ml	91
49) Acenaphthylene	9.552	152	217996	1066.62	ng/ml	100
50) 3-Nitroaniline	9.643	138	24964	859.43	ng/ml	98
51) Acenaphthene	9.734	153	135051	1026.15	ng/ml	99
52) 2,4-Dinitrophenol	9.745	184	5025	487.97	ng/ml	96
53) 4-Nitrophenol	9.798	139	21088	821.64	ng/ml	98
54) 2,4-Dinitrotoluene	9.878	165	37273	846.54	ng/ml	99
55) Dibenzofuran	9.905	168	185607	1014.86	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.985	232	31814	937.39	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.028	232	34023	962.42	ng/ml	99
58) Diethyl phthalate	10.124	149	147651	1041.16	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.119	170	124315	1001.08	ng/ml	99
60) Fluorene	10.253	166	145915	995.16	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.247	204	73932	990.77	ng/ml	99
62) 4-Nitroaniline	10.263	138	23106	748.68	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.296	198	12157	630.01	ng/ml	99
65) N-Nitrosodiphenylamine	10.365	169	119244	1003.89	ng/ml	100
66) Azobenzene (1,2-DPH)	10.408	77	150469	1261.76	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.750	248	45642	1021.84	ng/ml	97
69) Hexachlorobenzene	10.825	284	56848	1110.61	ng/ml	97
70) Pentachlorophenol (PCP)	11.023	266	23846	942.40	ng/ml	99
71) Phenanthrene	11.237	178	205558	1007.18	ng/ml	99
72) Anthracene	11.290	178	203835	1027.45	ng/ml	99
73) Carbazole	11.446	167	146985	864.73	ng/ml	99
74) Di-n-butyl phthalate	11.793	149	255949	1121.96	ng/ml	100
75) Fluoranthene	12.521	202	249626	1080.38	ng/ml	98
76) Benzidine	12.676	184	125960	2058.59	ng/ml	99
77) Pyrene	12.815	202	246937	1062.13	ng/ml	99
80) Butyl benzyl phthalate	13.852	149	108372	1062.38	ng/ml	97
81) Bis(2-ethylhexyl) adipate	14.029	129	97276	1089.51	ng/ml	99
82) 3,3-Dichlorobenzidine	14.997	252	63598	2268.59	ng/ml	99
83) Benz(a)anthracene	15.029	228	227009	1036.27	ng/ml	99
84) Chrysene	15.115	228	199763	998.68	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	144348	1105.02	ng/ml	99
87) Di-n-octyl phthalate	16.880	149	235845	1041.21	ng/ml	98
88) Benzo(b)fluoranthene	17.634	252	224618	1042.24	ng/ml	99
89) Benzo(k)fluoranthene	17.703	252	223333	1099.03	ng/ml	99
90) Benzo(b+k)fluoranthene	17.703	252	456360	2129.13	ng/ml	99
91) Benzo(e)pyrene	18.292	252	216100	1027.54	ng/ml	99
92) Benzo(a)pyrene	18.409	252	191818	970.72	ng/ml	97
93) Perylene	18.618	252	208975	1177.33	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.955	276	193901	959.41	ng/ml	98
96) Dibenz(a,h)anthracene	21.025	278	173363	984.45	ng/ml	99
97) Benzo(g,h,i)perylene	21.496	276	200730	1037.73	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Final Reqmnt

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

10/17/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.659	152	106471	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	411521	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209383	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	386084	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	381801	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	383841	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.955	292	334585	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.407	112	76822	979.88 ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	98100	1034.03 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	77799	1123.58 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	165174	1073.64 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	23106	991.89 ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	193114	1042.44 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.080	74	60523	962.45 ng/ml	99
3) Pyridine	4.102	79	85071	870.09 ng/ml	98
6) Phenol	6.306	94	102242	1017.51 ng/ml	99
7) Aniline	6.343	93	96173	919.51 ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	95373	1054.56 ng/ml	98
9) 2-Chlorophenol	6.461	128	81659	1063.88 ng/ml	99
10) 1,3-Dichlorobenzene	6.610	146	85857	1008.13 ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	80889	997.22 ng/ml	99
12) Benzyl alcohol	6.787	108	42970	972.38 ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	80233	1014.94 ng/ml	98
14) 2-Methylphenol	6.894	107	64559	1103.30 ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	117934	942.25 ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	63007	1022.29 ng/ml	99
17) 3+4-Methylphenol	7.044	107	75794	1061.21 ng/ml	99
18) Hexachloroethane	7.167	201	26625	1021.57 ng/ml	98
20) Nitrobenzene	7.220	77	79633	1086.15 ng/ml	98
22) Isophorone	7.450	82	167145	1027.17 ng/ml	97
23) 2-Nitrophenol	7.536	139	40793	1122.19 ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	60426	1039.76 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.659	93	93785	1041.11 ng/ml	99
26) Benzoic acid	7.648	105	35448	1748.34 ng/ml	96
27) 2,4-Dichlorophenol	7.771	162	56283	1054.42 ng/ml	98
28) 1,2,4-Trichlorobenzene	7.862	180	71397	1029.38 ng/ml	98
29) Naphthalene	7.942	128	217507	1028.99 ng/ml	100
30) 4-Chloroaniline	7.990	127	67526	927.48 ng/ml	100
31) Hexachlorobutadiene	8.071	225	38909	1016.95 ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	63199	994.60 ng/ml	99
33) 2-Methylnaphthalene	8.637	142	162096	1066.21 ng/ml	99
34) 1-Methylnaphthalene	8.739	142	153280	1059.02 ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	36321	994.04 ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	41531	1015.45 ng/ml	95
38) 2,4,5-Trichlorophenol	8.953	198	40839	1032.61 ng/ml	100
39) 1,1'-Biphenyl	9.108	154	180141	1063.19 ng/ml	99
41) 2-Chloronaphthalene	9.130	162	133530	1066.44 ng/ml	99
42) 2-Nitroaniline	9.226	138	39427	1029.23 ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	133180	1040.04 ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

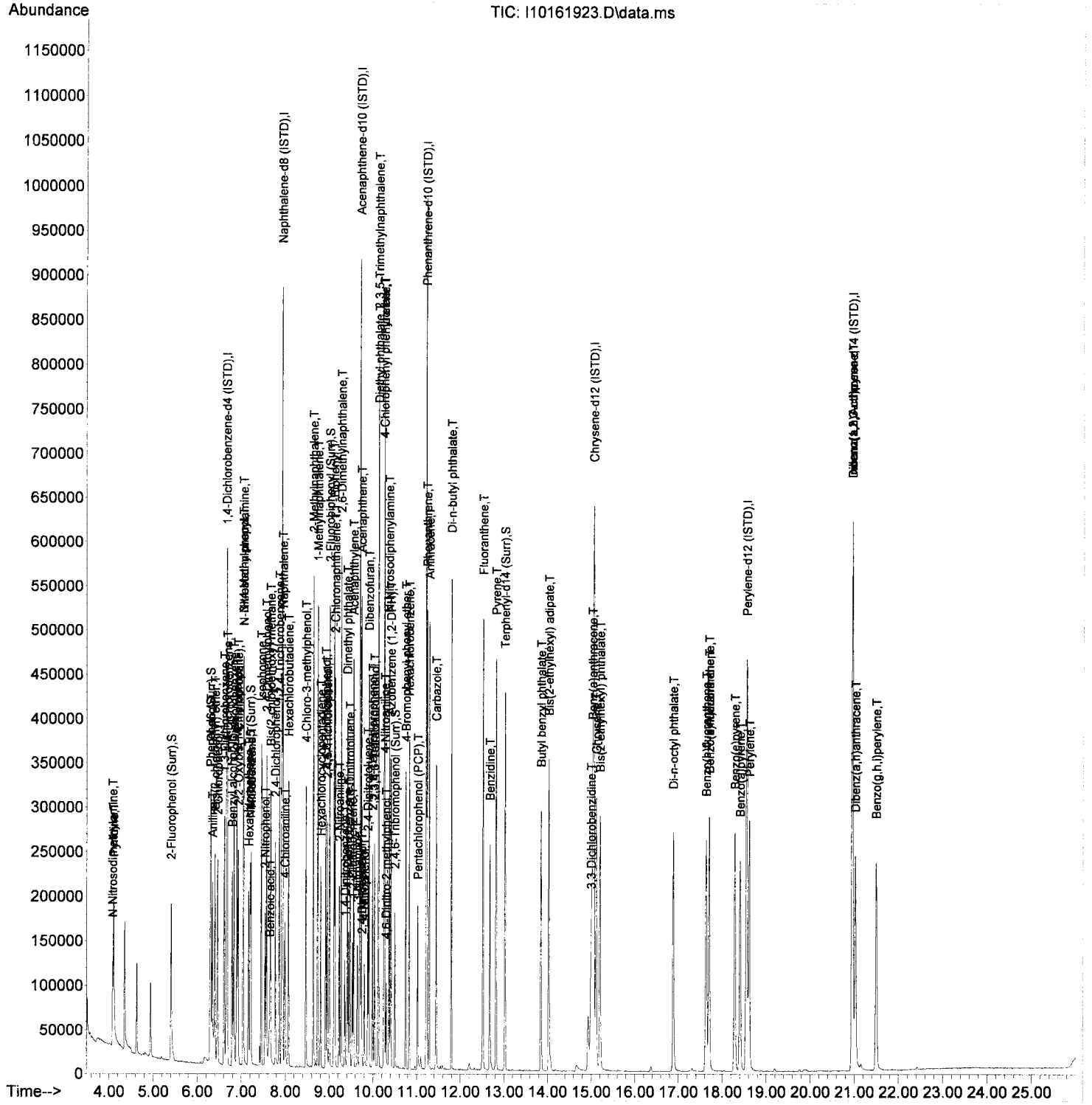
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	13499	1003.65	ng/ml	95
45) Dimethyl phthalate	9.408	163	158407	1036.77	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18765	998.65	ng/ml	99
47) 2,6-Dinitrotoluene	9.467	165	32748	1046.42	ng/ml	97
48) 1,2-Dinitrobenzene	9.525	168	14689	991.16	ng/ml	91
49) Acenaphthylene	9.552	152	217996	1039.76	ng/ml	100
50) 3-Nitroaniline	9.643	138	24964	869.33	ng/ml	98
51) Acenaphthene	9.734	153	135051	1024.42	ng/ml	99
52) 2,4-Dinitrophenol	9.745	184	5025	966.05	ng/ml	96
53) 4-Nitrophenol	9.798	139	21088	979.87	ng/ml	98
54) 2,4-Dinitrotoluene	9.878	165	37273	993.56	ng/ml	99
55) Dibenzofuran	9.905	168	185607	1028.25	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.985	232	31814	1002.75	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.028	232	34023	1003.97	ng/ml	99
58) Diethyl phthalate	10.124	149	147651	1019.70	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.119	170	124315	1039.96	ng/ml	99
60) Fluorene	10.253	166	145915	1004.88	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.247	204	73932	1027.80	ng/ml	99
62) 4-Nitroaniline	10.263	138	23106	933.76	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.296	198	12157	1015.34	ng/ml	99
65) N-Nitrosodiphenylamine	10.365	169	119244	983.98	ng/ml	100
66) Azobenzene (1,2-DPH)	10.408	77	150469	949.43	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.750	248	45642	1008.03	ng/ml	97
69) Hexachlorobenzene	10.825	284	56848	1061.98	ng/ml	97
70) Pentachlorophenol (PCP)	11.023	266	23846	976.19	ng/ml	99
71) Phenanthrene	11.237	178	205558	1020.75	ng/ml	99
72) Anthracene	11.290	178	203835	1026.29	ng/ml	99
73) Carbazole	11.446	167	146985	832.59	ng/ml	99
74) Di-n-butyl phthalate	11.793	149	255949	1062.50	ng/ml	100
75) Fluoranthene	12.521	202	249626	1051.63	ng/ml	98
76) Benzidine	12.676	184	125960	1525.65	ng/ml	99
77) Pyrene	12.815	202	246937	1066.74	ng/ml	99
80) Butyl benzyl phthalate	13.852	149	108372	996.01	ng/ml	97
81) Bis(2-ethylhexyl) adipate	14.029	129	97276	1010.50	ng/ml	99
82) 3,3-Dichlorobenzidine	14.997	252	63598	1766.40	ng/ml	99
83) Benz(a)anthracene	15.029	228	227009	1026.78	ng/ml	99
84) Chrysene	15.115	228	199763	999.03	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	144348	1028.73	ng/ml	99
87) Di-n-octyl phthalate	16.880	149	235845	966.33	ng/ml	98
88) Benzo(b)fluoranthene	17.634	252	224618	1047.95	ng/ml	99
89) Benzo(k)fluoranthene	17.703	252	223333	1120.67	ng/ml	99
90) Benzo(b+k)fluoranthene	17.703	252	456360	2155.04	ng/ml	99
91) Benzo(e)pyrene	18.292	252	216100	1038.23	ng/ml	99
92) Benzo(a)pyrene	18.409	252	191818	951.21	ng/ml	97
93) Perylene	18.618	252	208975	1199.80	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.955	276	193901	981.17	ng/ml	98
96) Dibenz(a,h)anthracene	21.025	278	173363	1003.35	ng/ml	99
97) Benzo(g,h,i)perylene	21.496	276	200730	1065.46	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110594
Sequence 9K11044 (A9J1007-01RE1)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110594 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110594-BLK1		QC	11/08/19 10:05	200	2				100					
	9110594-BSD1		QC	11/08/19 10:05	200	2	A19J490		100	100					
	9110594-BS1		QC	11/08/19 10:05	200	2	A19J490		100	100					
	A9J1006-01	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-071SC-C-00 -08-191028				
	A9J1006-02	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-074SC-C-00 -7.3-191028				
	A9J1006-02RE1	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-074SC-C-00 -7.3-191028	Added 11/11/2019 By DTH			
	A9J1007-01	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-083SC-C-00 -08-191028				
	A9J1007-01RE1	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-083SC-C-00 -08-191028	Added 11/11/2019 By DTH			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J490	04/28/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J495	04/28/20	PAH Soil and Water Surr. (50ppm)

Witness:_____

Prepared By: _____ Date _____

Reviewed By: DTH 11/11/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110594 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110594-BLK1		QC	11/08/19 10:05	200	2				100					
	9110594-BSD1		QC	11/08/19 10:05	200	2	A19J490		100	100					
	9110594-BS1		QC	11/08/19 10:05	200	2	A19J490		100	100					
	A9J1006-01	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-071SC-C-00 -08-191028				
	A9J1006-02	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-074SC-C-00 -7.3-191028				
	A9J1007-01	A	1311/8270D TCLP SVOC Reg List	11/08/19 10:05	200	2				100	PDI-083SC-C-00 -08-191028				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

~~Std ID~~	Exp. Date	Description
A19J490	04/28/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

~~Std ID~~	Exp. Date	Description
A19J~~260~~ 495	04/14/20	PAH Soil and Water Surr. (50ppm)

11/8/19

* = No BLK fluid added

Witness: AJJ 11-8-19

Prepared By: _____ Date: 11/8/19

Reviewed By: CAH Date: 11/8/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K11044**	Instrument:	**SV-GCMS10**
Date:	**11/11/19 12:26**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K11044-TUN1	Soil	QC	QC			A19G233	A19K083
2	9K11044-CCV1	Soil	QC	QC			A19G233	A19G243
3	9K11044-CCB1	Soil	QC	QC			A19G233	
4	A9J1006-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/11/19	9110594	A19G233	
5	A9J1007-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/11/19	9110594	A19G233	

Data Entered By: DH 11/11/19

Data Reviewed By: [signature] 11/12/19

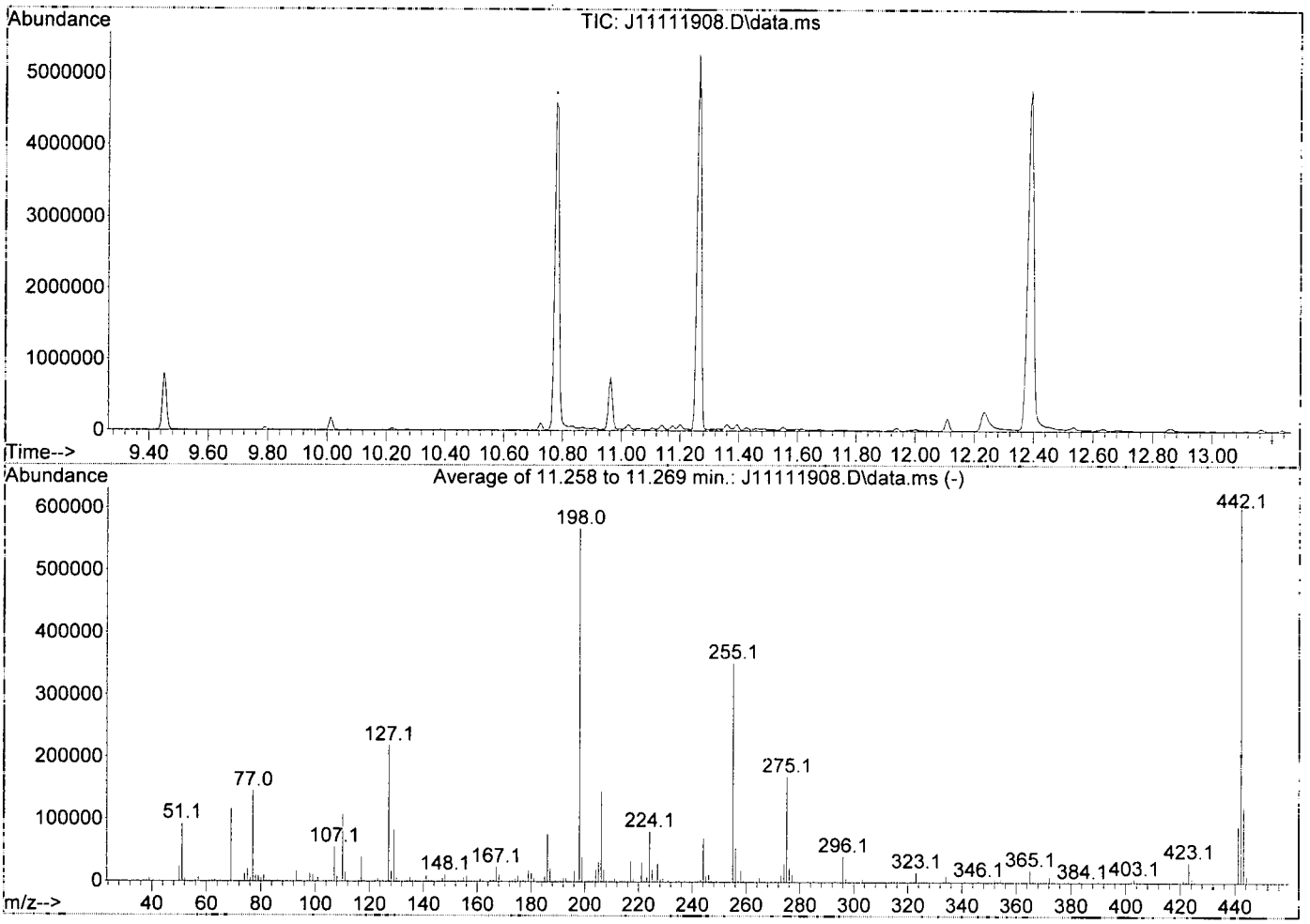
Comments:

Data Path : R:\data\2019-11\9K11044\
Data File : J11111908.D
Acq On : 11 Nov 2019 12:33 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

DTH 11/11/19

Method : R:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Mon Nov 11 08:41:49 2019



AutoFind: Scans 1453, 1454, 1455; Background Corrected with Scan 1448

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.4	1671	PASS
69	198	0.01	100	20.5	116401	PASS
70	69	0.00	2	0.5	600	PASS
197	198	0.00	2	0.1	602	PASS
198	198	100	100	100.0	566571	PASS
199	198	5	9	7.0	39495	PASS
365	198	1	100	3.4	19296	PASS
441	443	0.01	150	75.6	90699	PASS
442	198	0.10	200	106.3	602197	PASS
443	442	15	24	19.9	119995	PASS

✓

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111908.D
Acq On : 11 Nov 2019 12:33 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 19:42:59 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

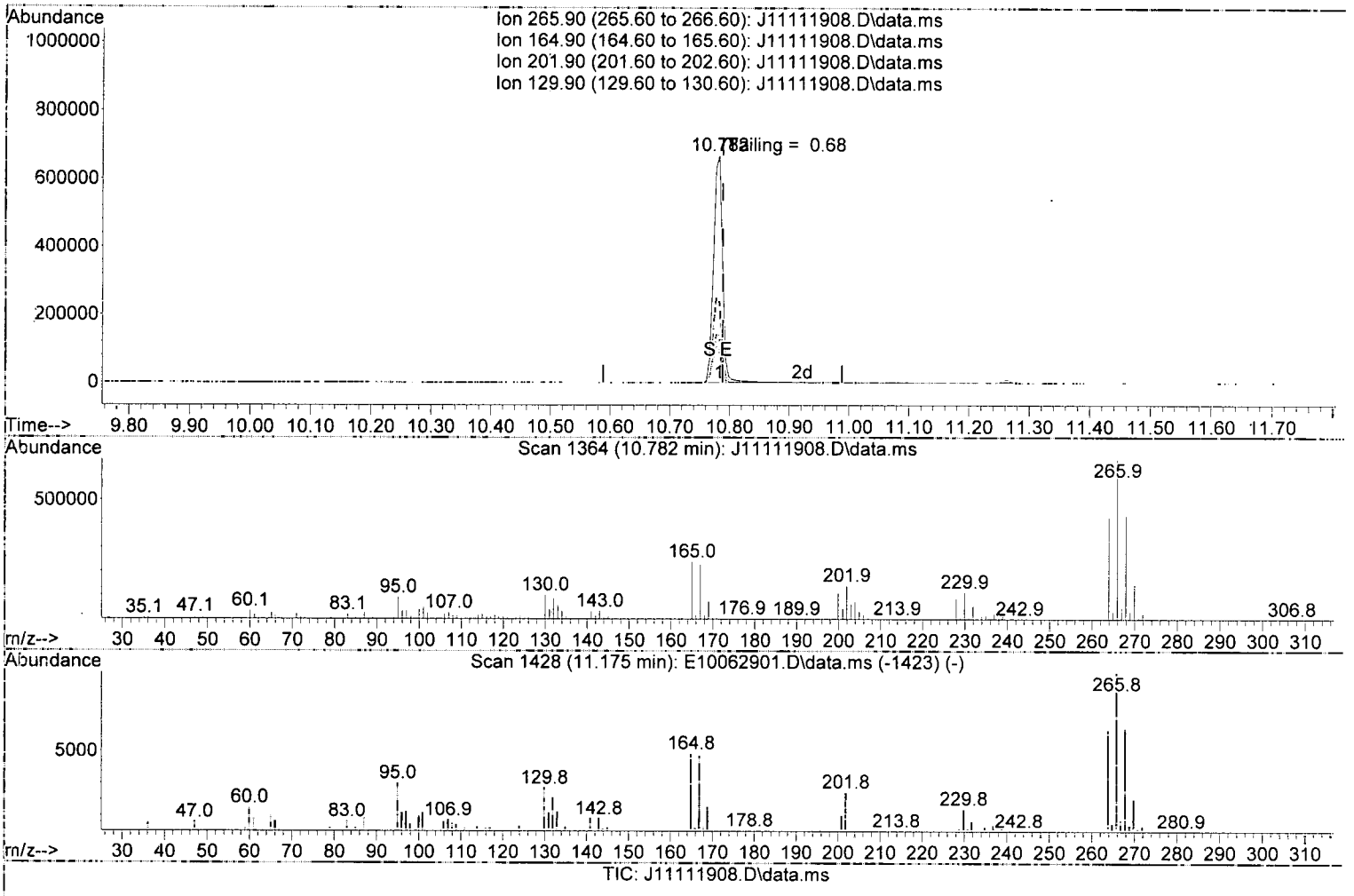
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.418	150	140967	2.00	ug/mL	0.00
2) Naphthalene-d8	7.675	136	356299	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.451	162	178987	2.00	ug/mL	0.00
5) Phenanthrene-d10	10.964	188	292564	2.00	ug/mL	0.00
11) Chrysene-d12	14.559	240	234916	2.00	ug/mL	-0.02
12) Perylene-d12	16.939	264	481	2.00	ug/mL	# 0.03
Target Compounds						Qvalue
4) Pentachlorophenol	10.782	266	689807	40.81	ug/mL	81
6) DFTPP	11.269	442	708029	29.98	ug/mL	72
7) Benzidine	12.392	184	2889512	27.76	ug/mL	97
8) 4,4-DDE	12.633	TIC	36573	No Calib		
9) 4,4-DDD	13.114	TIC	14803	No Calib		
10) 4,4-DDT	13.633	TIC	9417352	31.39	ug/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111908.D
Acq On : 11 Nov 2019 12:33 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 19:42:59 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11111908.D\data.ms

(4) Pentachlorophenol

10.782min (-0.005) 40.81 ug/mL

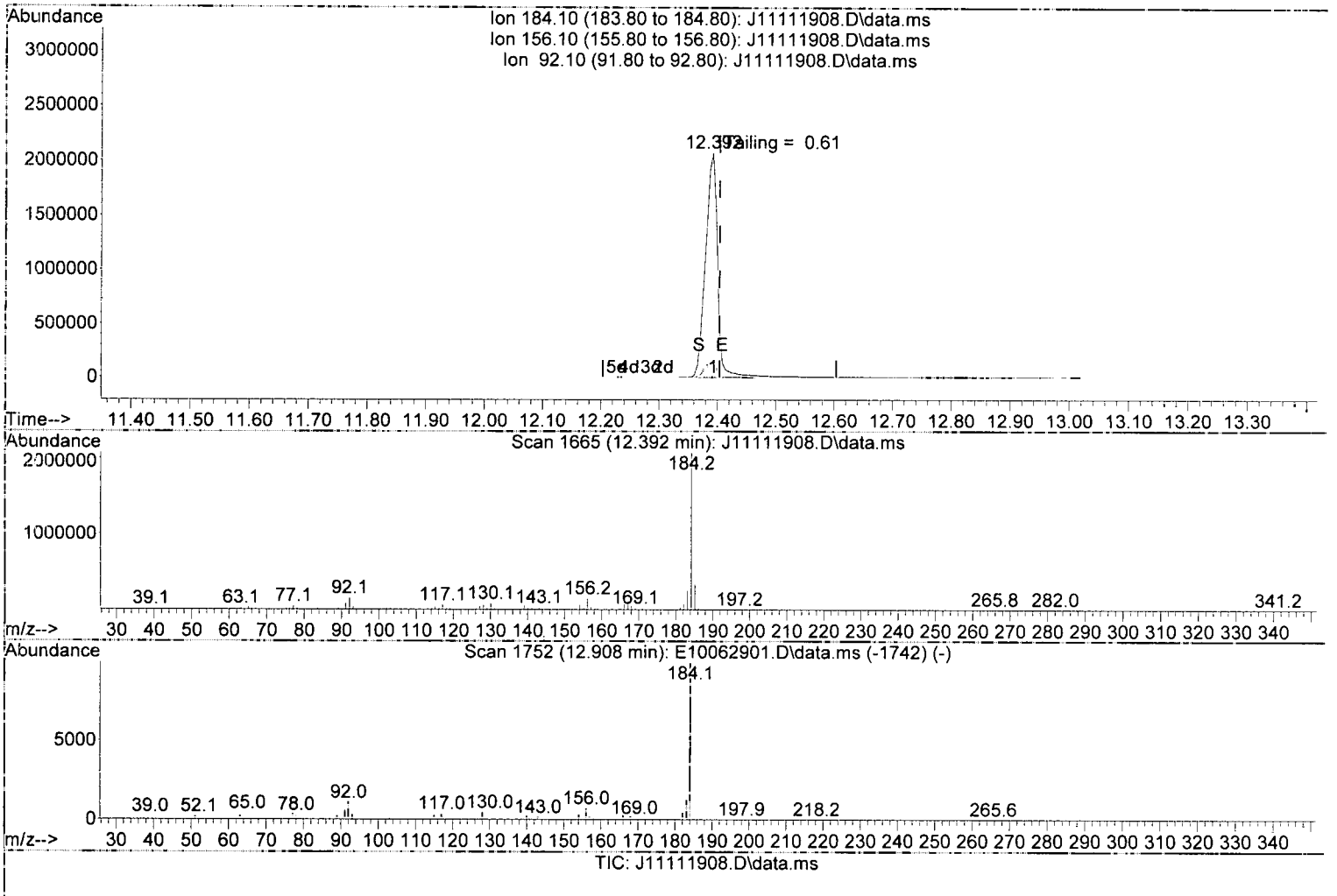
response 689807

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	35.83
201.90	25.80	20.94
129.90	27.30	15.04

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111908.D
Acq On : 11 Nov 2019 12:33 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 19:42:59 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



(7) Benzidine

12.392min (-0.011) 27.76 ug/mL

response 2889512

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	6.98
92.10	8.20	7.28
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9K11044-TUN1
SV-GCMS10

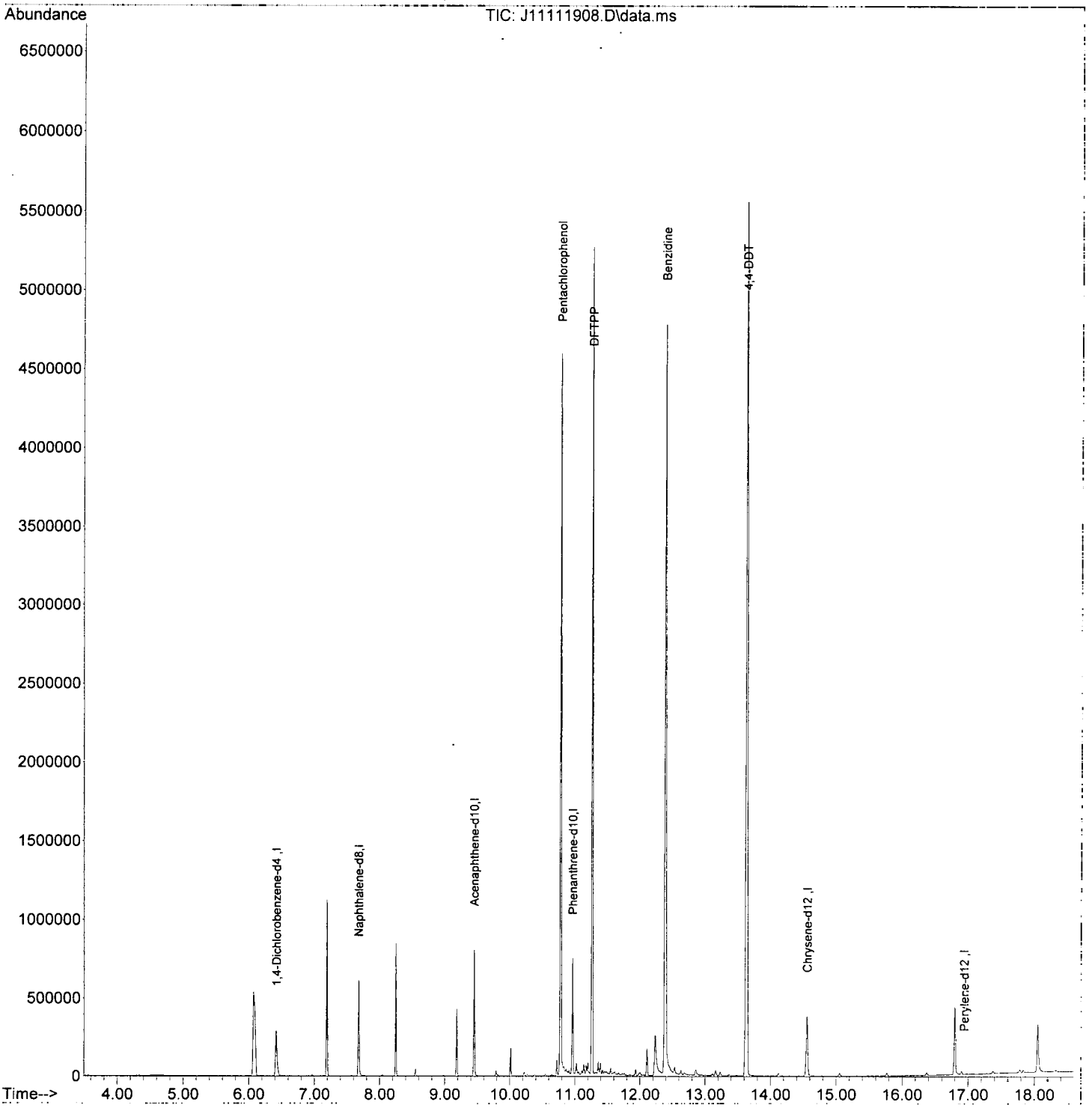
First Column Area Counts		Percent Breakdown
DDE	36573	
DDD	14803	
DDT	941352	0.54 PASS

Breakdown must be less than 20% to accept sample data.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111908.D
Acq On : 11 Nov 2019 12:33 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 19:42:59 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Evaluate Continuing Calibration Report

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	125	0.00
2	TG	N-Nitrosodimethylamine	1000.000	921.415	7.9	119	-0.06
3	TG	Pyridine	1000.000	806.909	19.3	102	-0.06
4	S	2-Fluorophenol (Surr)	1000.000	995.205	0.5	120	-0.02
5	S	Phenol-d6(Surr)	1000.000	934.858	6.5	108	0.00
6	T	Phenol	1000.000	888.758	11.1	103	0.00
7	T	Aniline	1000.000	532.846	46.7#	74	-0.01
8	T	Bis(2-chloroethyl) ether	1000.000	1043.357	-4.3	120	0.00
9	T	2-Chlorophenol	1000.000	1002.012	-0.2	118	0.00
10	T	1,3-Dichlorobenzene	1000.000	1023.616	-2.4	126	-0.01
11	T	1,4-Dichlorobenzene	1000.000	1012.916	-1.3	122	-0.01
12	T	Benzyl alcohol	1000.000	901.430	9.9	107	0.00
13	T	1,2-Dichlorobenzene	1000.000	1026.346	-2.6	124	0.00
14	T	2-Methylphenol	1000.000	967.687	3.2	109	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	769.610	23.0#	91	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	852.049	14.8	99	0.00
17	T	3+4-Methylphenol	1000.000	968.008	3.2	106	0.00
18	T	Hexachloroethane	1000.000	1074.727	-7.5	134	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	906.970	9.3	104	0.00
20	T	Nitrobenzene	1000.000	893.661	10.6	103	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	116	0.00
22	T	Isophorone	1000.000	929.936	7.0	104	0.00
23	T	2-Nitrophenol	1000.000	1295.034	-29.5#	142	0.00
24	T	2,4-Dimethylphenol	1000.000	984.387	1.6	107	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	963.132	3.7	105	0.00
26	T	Benzoic acid	2000.000	1780.832	11.0	108	0.00
27	T	2,4-Dichlorophenol	1000.000	1023.354	-2.3	117	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1095.432	-9.5	123	0.00
29	T	Naphthalene	1000.000	1038.926	-3.9	113	0.00
30	T	4-Chloroaniline	1000.000	491.099	50.9#	54	-0.01
31	T	Hexachlorobutadiene	1000.000	1091.092	-9.1	120	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1001.617	-0.2	108	0.00
33	T	2-Methylnaphthalene	1000.000	1060.632	-6.1	114	0.00
34	T	1-Methylnaphthalene	1000.000	1033.378	-3.3	113	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	120	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1160.139	-16.0	126	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1084.747	-8.5	125	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1063.513	-6.4	125	0.00
39	T	1,1'-Biphenyl	1000.000	1025.075	-2.5	116	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1031.823	-3.2	117	0.00
41	T	2-Chloronaphthalene	1000.000	1079.670	-8.0	121	0.00
42	T	2-Nitroaniline	1000.000	1097.399	-9.7	126	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1041.134	-4.1	118	0.00
44	T	1,4-Dinitrobenzene	1000.000	1241.924	-24.2#	155	0.00
45	T	Dimethyl phthalate	1000.000	1040.974	-4.1	117	0.00
46	T	1,3-Dinitrobenzene	1000.000	1107.764	-10.8	135	0.00
47	T	2,6-Dinitrotoluene	1000.000	1057.070	-5.7	124	0.00

Evaluate Continuing Calibration Report

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48	T	1,2-Dinitrobenzene	1000.000	1075.487	-7.5	122	0.00
49	T	Acenaphthylene	1000.000	1060.907	-6.1	119	0.00
50	T	3-Nitroaniline	1000.000	958.413	4.2	112	0.00
51	T	Acenaphthene	1000.000	1007.370	-0.7	118	0.00
52	T	2,4-Dinitrophenol	1000.000	1181.178	-18.1	183	0.00
53	T	4-Nitrophenol	1000.000	1028.558	-2.9	121	0.00
54	T	2,4-Dinitrotoluene	1000.000	1056.140	-5.6	129	0.00
55	T	Dibenzofuran	1000.000	1065.994	-6.6	121	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1055.679	-5.6	124	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1029.871	-3.0	120	0.00
58	T	Diethyl phthalate	1000.000	1052.271	-5.2	115	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1084.567	-8.5	121	0.00
60	T	Fluorene	1000.000	1014.387	-1.4	117	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1065.553	-6.6	122	0.00
62	T	4-Nitroaniline	1000.000	1191.162	-19.1	142	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1202.077	-20.2#	159	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	120	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1052.010	-5.2	118	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	885.585	11.4	100	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	946.395	5.4	112	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1033.114	-3.3	119	0.00
69	T	Hexachlorobenzene	1000.000	1021.293	-2.1	116	0.00
70	T	Pentachlorophenol (PCP)	1000.000	910.112	9.0	120	0.00
71	T	Phenanthrene	1000.000	1004.234	-0.4	118	0.00
72	T	Anthracene	1000.000	1037.370	-3.7	118	0.00
73	T	Carbazole	1000.000	1101.978	-10.2	126	0.00
74	T	Di-n-butyl phthalate	1000.000	1013.168	-1.3	112	0.00
75	T	Fluoranthene	1000.000	1056.819	-5.7	116	0.00
76	T	Benzidine	2000.000	1247.643	37.6#	70	0.00
77	T	Pyrene	1000.000	1064.701	-6.5	117	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	111	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1072.328	-7.2	114	0.00
80	T	Butyl benzyl phthalate	1000.000	1052.456	-5.2	113	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1021.824	-2.2	112	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1935.407	3.2	103	0.01
83	T	Benz(a)anthracene	1000.000	1032.004	-3.2	117	0.00
84	T	Chrysene	1000.000	1052.692	-5.3	116	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1051.129	-5.1	113	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	110	0.00
87	T	Di-n-octyl phthalate	1000.000	986.096	1.4	109	0.00
88	T	Benzo(b)fluoranthene	1000.000	1051.085	-5.1	115	0.00
89	T	Benzo(k)fluoranthene	1000.000	1025.313	-2.5	112	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2070.089	-3.5	114	0.00
91	T	Benzo(e)pyrene	1000.000	1108.491	-10.8	113	0.00
92	T	Benzo(a)pyrene	1000.000	1066.258	-6.6	114	0.00
93	T	Perylene	1000.000	1078.085	-7.8	117	0.00

Evaluate Continuing Calibration Report

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	108	0.00
95	T	Indeno(1,2,3-cd)pyrene	1000.000	997.741	0.2	111	0.00
96	T	Dibenz(a,h)anthracene	1000.000	1051.922	-5.2	112	0.00
97	T	Benzo(g,h,i)perylene	1000.000	1097.566	-9.8	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/12/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	354889	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1325771	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	701244	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1280504	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.527	240	1168241	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	1146258	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.357	292	957864	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.134	112	214326	995.21	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	257698	934.86	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	193956	906.97	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	566264	1031.82	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	72964	946.39	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	577310	1072.33	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.760	74	124557m	921.42	ng/ml	
3) Pyridine	3.776	79	185959	806.91	ng/ml	94
6) Phenol	6.054	94	269387	888.76	ng/ml	95
7) Aniline	6.070	93	139344	532.85	ng/ml	99
8) Bis(2-chloroethyl) ether	6.129	93	285411	1043.36	ng/ml	97
9) 2-Chlorophenol	6.188	128	251792	1002.01	ng/ml	98
10) 1,3-Dichlorobenzene	6.332	146	289118	1023.62	ng/ml	99
11) 1,4-Dichlorobenzene	6.402	146	281187	1012.92	ng/ml	98
12) Benzyl alcohol	6.525	108	133744	901.43	ng/ml	93
13) 1,2-Dichlorobenzene	6.557	146	280981	1026.35	ng/ml	97
14) 2-Methylphenol	6.637	107	176886	967.69	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	185790	769.61	ng/ml	86
16) N-Nitrosodi-n-propylamine	6.787	70	135322	852.05	ng/ml	91
17) 3+4-Methylphenol	6.787	107	219408	968.01	ng/ml	93
18) Hexachloroethane	6.889	201	91669	1074.73	ng/ml	96
20) Nitrobenzene	6.947	77	193626	893.66	ng/ml	95
22) Isophorone	7.183	82	393053	929.94	ng/ml	98
23) 2-Nitrophenol	7.268	139	163586	1295.03	ng/ml	87
24) 2,4-Dimethylphenol	7.311	122	174977	984.39	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.402	93	247481	963.13	ng/ml	98
26) Benzoic acid	7.402	105	107727	1780.83	ng/ml	95
27) 2,4-Dichlorophenol	7.509	162	203314	1023.35	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.595	180	254179	1095.43	ng/ml	96
29) Naphthalene	7.670	128	724580	1038.93	ng/ml	99
30) 4-Chloroaniline	7.728	127	107124	491.10	ng/ml	94
31) Hexachlorobutadiene	7.803	225	136808	1091.09	ng/ml	99
32) 4-Chloro-3-methylphenol	8.215	107	176203	1001.62	ng/ml	90
33) 2-Methylnaphthalene	8.365	142	516843	1060.63	ng/ml	99
34) 1-Methylnaphthalene	8.467	142	487480	1033.38	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	125803	1160.14	ng/ml	98
37) 2,4,6-Trichlorophenol	8.654	196	147312	1084.75	ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	142421	1063.51	ng/ml	99
39) 1,1'-Biphenyl	8.841	154	617843	1025.08	ng/ml	98
41) 2-Chloronaphthalene	8.857	162	469981	1079.67	ng/ml	97
42) 2-Nitroaniline	8.964	138	142902	1097.40	ng/ml	84

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

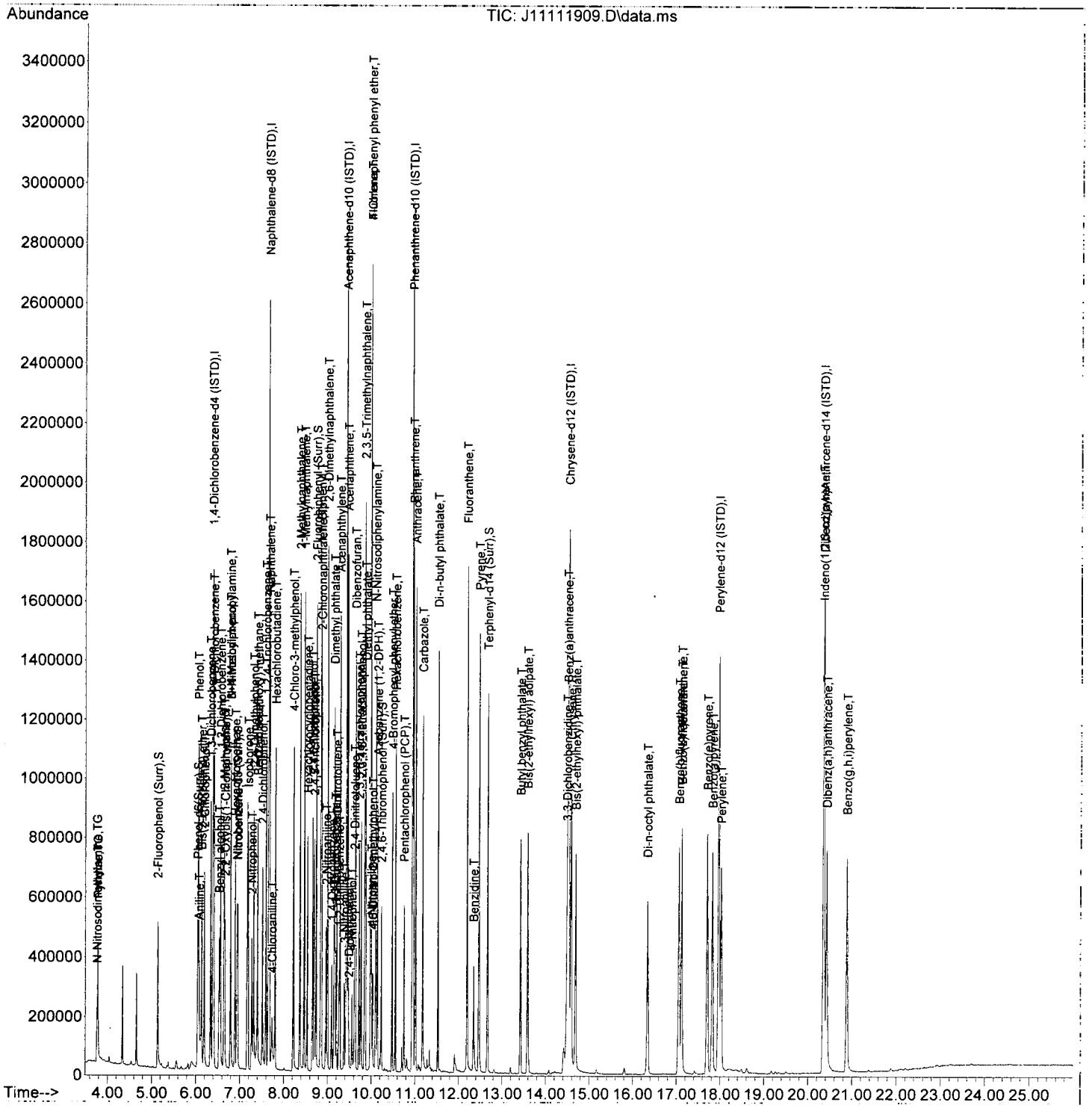
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) 2,6-Dimethylnaphthalene	8.996	156	460357	1041.13	ng/ml	97
44) 1,4-Dinitrobenzene	9.092	168	68633	1241.92	ng/ml	81
45) Dimethyl phthalate	9.146	163	527170	1040.97	ng/ml	98
46) 1,3-Dinitrobenzene	9.173	168	77413	1107.76	ng/ml	86
47) 2,6-Dinitrotoluene	9.205	165	120529	1057.07	ng/ml	89
48) 1,2-Dinitrobenzene	9.258	168	55178	1075.49	ng/ml	85
49) Acenaphthylene	9.280	152	756270	1060.91	ng/ml	100
50) 3-Nitroaniline	9.381	138	85408	958.41	ng/ml	85
51) Acenaphthene	9.456	153	471553	1007.37	ng/ml	98
52) 2,4-Dinitrophenol	9.483	184	33014	1181.18	ng/ml	87
53) 4-Nitrophenol	9.552	139	70892	1028.56	ng/ml	93
54) 2,4-Dinitrotoluene	9.611	165	150410	1056.14	ng/ml	90
55) Dibenzofuran	9.633	168	665177	1065.99	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	113480	1055.68	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.761	232	121250	1029.87	ng/ml	97
58) Diethyl phthalate	9.863	149	490532	1052.27	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	9.846	170	430959	1084.57	ng/ml	95
60) Fluorene	9.980	166	498127	1014.39	ng/ml	99
61) 4-Chlorophenyl phenyl ...	9.980	204	255092	1065.55	ng/ml	91
62) 4-Nitroaniline	9.996	138	89764	1191.16	ng/ml	92
63) 4,6-Dinitro-2-methylph...	10.028	198	61904	1202.08	ng/ml	91
65) N-Nitrosodiphenylamine	10.098	169	415357	1052.01	ng/ml	99
66) Azobenzene (1,2-DPH)	10.141	77	353834	885.58	ng/ml	84
68) 4-Bromophenyl phenyl e...	10.478	248	149275	1033.11	ng/ml	96
69) Hexachlorobenzene	10.552	284	177030	1021.29	ng/ml	96
70) Pentachlorophenol (PCP)	10.745	266	78295	910.11	ng/ml	96
71) Phenanthrene	10.959	178	721411	1004.23	ng/ml	99
72) Anthracene	11.012	178	716330	1037.37	ng/ml	99
73) Carbazole	11.173	167	578402	1101.98	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	767254	1013.17	ng/ml	99
75) Fluoranthene	12.195	202	778106	1056.82	ng/ml	98
76) Benzidine	12.344	184	212759	1247.64	ng/ml	98
77) Pyrene	12.467	202	797748	1064.70	ng/ml	99
80) Butyl benzyl phthalate	13.419	149	315430	1052.46	ng/ml	90
81) Bis(2-ethylhexyl) adipate	13.580	129	276867	1021.82	ng/ml	97
82) 3,3-Dichlorobenzidine	14.484	252	179420	1935.41	ng/ml	98
83) Benz(a)anthracene	14.500	228	673131	1032.00	ng/ml	97
84) Chrysene	14.580	228	643456	1052.69	ng/ml	99
85) Bis(2-ethylhexyl) phth...	14.687	149	441715	1051.13	ng/ml	99
87) Di-n-octyl phthalate	16.334	149	647317	986.10	ng/ml	97
88) Benzo(b)fluoranthene	17.056	252	664653	1051.09	ng/ml	99
89) Benzo(k)fluoranthene	17.121	252	653177	1025.31	ng/ml	98
90) Benzo(b+k)fluoranthene	17.121	252	1344093	2070.09	ng/ml	98
91) Benzo(e)pyrene	17.704	252	653065	1108.49	ng/ml	100
92) Benzo(a)pyrene	17.821	252	612302	1066.26	ng/ml	98
93) Perylene	18.019	252	557311	1078.08	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.346	276	565142	997.74	ng/ml	99
96) Dibenz(a,h)anthracene	20.421	278	547052	1051.92	ng/ml	96
97) Benzo(g,h,i)perylene	20.881	276	597145	1097.57	ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111909.D
Acq On : 11 Nov 2019 1:01 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:47:22 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111910.D
Acq On : 11 Nov 2019 1:37 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:35 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	398439	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1504804	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	792283	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1436811	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1457139	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	1445941	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	1197960	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00 ng/ml	
5) Phenol-d6(Surr)	0.000	99	0	0.00 ng/ml	
19) Nitrobenzene-d5 (Surr)	6.953	82	52	0.22 ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	8.793	172	108	0.17 ng/ml	0.05
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00 ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00 ng/ml	
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	3.824	79	164	N.D.	
6) Phenol	0.000		0	N.D.	
7) Aniline	0.000		0	N.D.	
8) Bis(2-chloroethyl) ether	0.000		0	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	6.728	70	55	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.926	77	68	N.D.	
22) Isophorone	7.188	82	51	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	0.000		0	N.D.	
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.648	128	85	N.D.	
30) 4-Chloroaniline	0.000		0	N.D.	
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	0.000		0	N.D.	
34) 1-Methylnaphthalene	0.000		0	N.D.	
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	0.000		0	N.D.	
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111910.D
Acq On : 11 Nov 2019 1:37 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:35 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

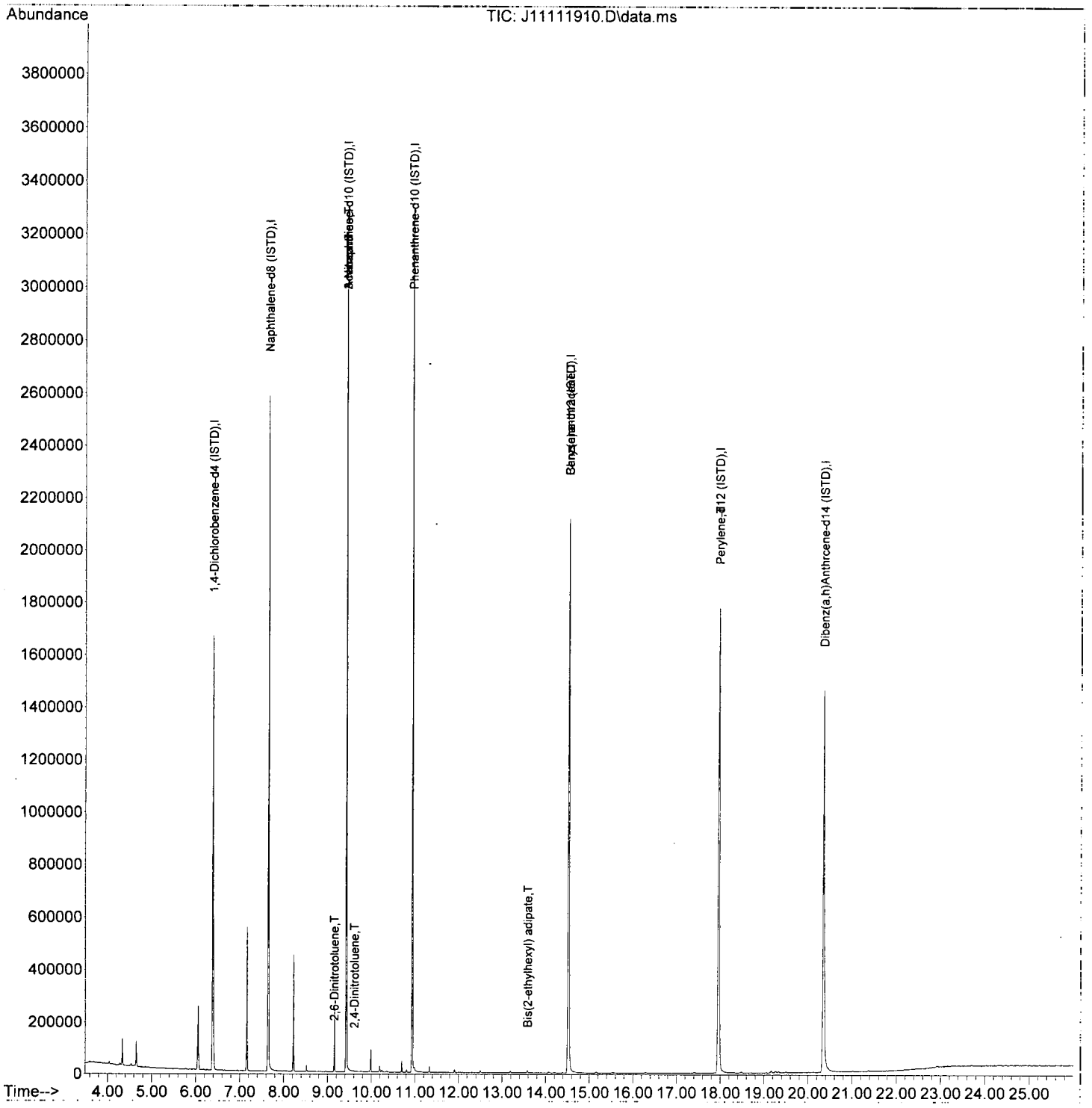
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.	
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.151	163	161	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	9.146	165	57	25.50 ng/ml#	34
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	9.424	138	144	30.87 ng/ml#	1
51) Acenaphthene	9.424	153	223	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.606	165	74	54.18 ng/ml#	27
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.948	170	116	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.162	77	67	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	10.938	178	668	N.D.	
72) Anthracene	10.938	178	647	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	11.526	149	106	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.580	129	3269	9.67 ng/ml	94
82) 3,3-Dichlorobenzidine	14.500	252	87	Below Cal #	1
83) Benz(a)anthracene	14.526	228	3292	4.05 ng/ml	65
84) Chrysene	14.580	228	52	N.D.	
85) Bis(2-ethylhexyl) phth...	14.682	149	213	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	17.966	252	4510	6.92 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.356	276	588	N.D.	
96) Dibenz(a,h)anthracene	20.362	278	257	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111910.D
Acq On : 11 Nov 2019 1:37 pm
Operator : JK/ AMS/ DTH
Sample : 9K11044-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:35 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111912.D
Acq On : 11 Nov 2019 2:59 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:47 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/12/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	428749	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.653	136	1503060	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	809623	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1442340	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1539806	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1540003	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	1316514	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.134	112	16161	62.11	ng/ml	-0.02
5) Phenol-d6(Surr)	6.044	99	12229	36.72	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	34075	131.89	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.734	172	116334	183.60	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	14924	190.60	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	157910	222.53	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.776	79	171	N.D.		
6) Phenol	6.065	94	633	N.D.		
7) Aniline	6.097	93	194	N.D.		
8) Bis(2-chloroethyl) ether	6.129	93	314	N.D.		
9) 2-Chlorophenol	6.129	128	182	N.D.		
10) 1,3-Dichlorobenzene	6.332	146	56	N.D.		
11) 1,4-Dichlorobenzene	6.332	146	56	N.D.		
12) Benzyl alcohol	6.568	108	123	25.15	ng/ml#	1
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.637	107	108	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	167	N.D.		
16) N-Nitrosodi-n-propylamine	6.787	70	79	N.D.		
17) 3+4-Methylphenol	6.792	107	139	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.942	77	1781	6.80	ng/ml#	1
22) Isophorone	7.188	82	310	N.D.		
23) 2-Nitrophenol	7.279	139	117	43.09	ng/ml#	1
24) 2,4-Dimethylphenol	7.333	122	184	N.D.		
25) Bis(2-chloroethoxy) me...	7.397	93	595	N.D.		
26) Benzoic acid	7.391	105	4579	843.52	ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.680	128	5488385	6941.21	ng/ml	93
30) 4-Chloroaniline	7.680	127	783491	3374.13	ng/ml#	23
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.210	107	155	N.D.		
33) 2-Methylnaphthalene	8.370	142	1283260	2322.81	ng/ml	100
34) 1-Methylnaphthalene	8.466	142	944366	1765.77	ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	8.835	154	211478	303.90	ng/ml	100
41) 2-Chloronaphthalene	8.841	162	2652	5.28	ng/ml#	1
42) 2-Nitroaniline	8.964	138	106	31.16	ng/ml#	75

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111912.D
Acq On : 11 Nov 2019 2:59 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:47 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

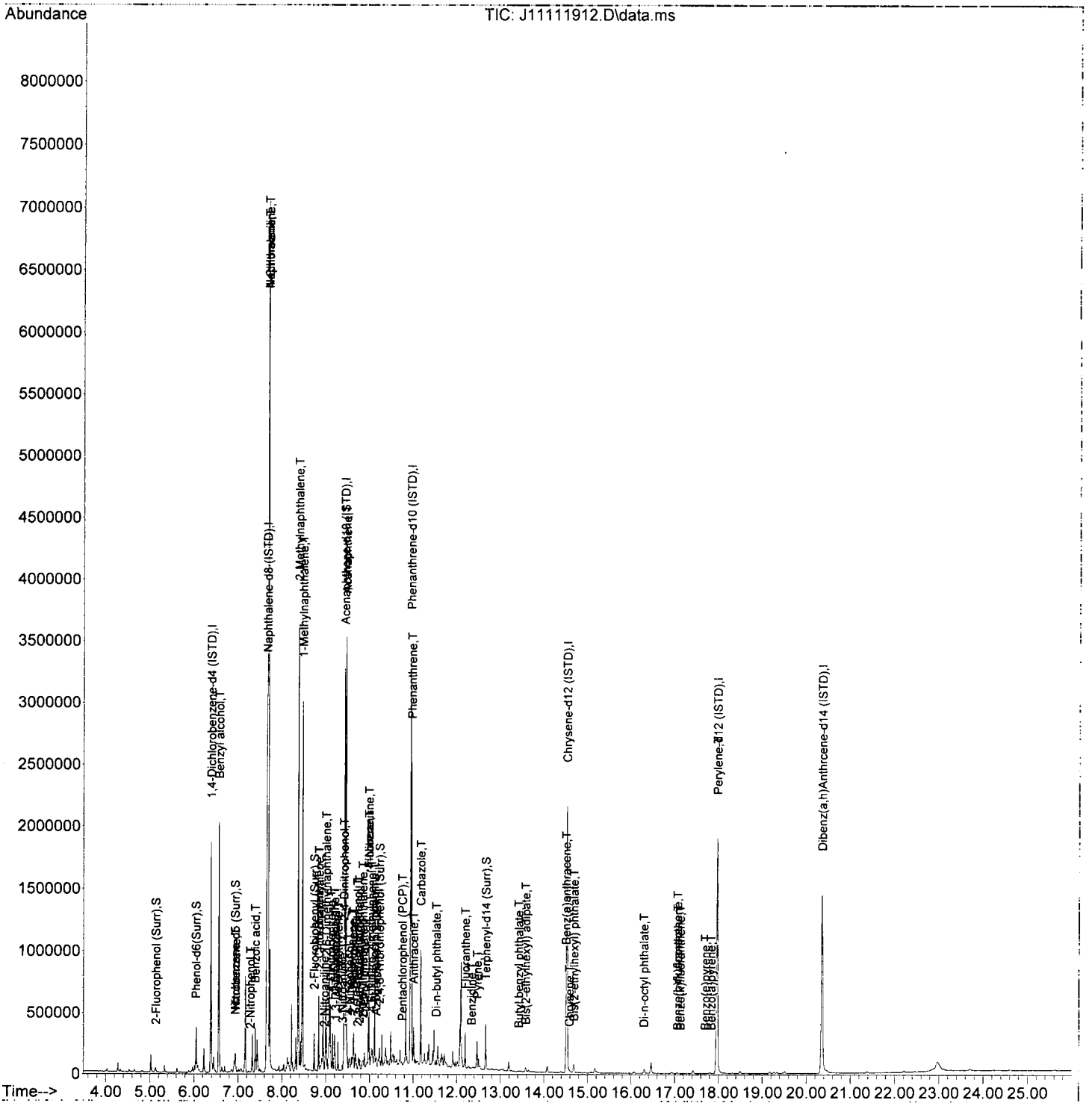
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) 2,6-Dimethylnaphthalene	9.007	156	175181	343.15	ng/ml	98
44) 1,4-Dinitrobenzene	9.114	168	5828	157.53	ng/ml#	24
45) Dimethyl phthalate	9.140	163	1237	N.D.		
46) 1,3-Dinitrobenzene	9.221	168	98	59.05	ng/ml#	1
47) 2,6-Dinitrotoluene	9.199	165	164	26.28	ng/ml#	1
48) 1,2-Dinitrobenzene	9.274	168	68	N.D.		
49) Acenaphthylene	9.279	152	11719	14.24	ng/ml#	34
50) 3-Nitroaniline	9.381	138	92	30.44	ng/ml#	1
51) Acenaphthene	9.456	153	992373	1836.20	ng/ml	99
52) 2,4-Dinitrophenol	9.413	184	75	229.79	ng/ml#	1
53) 4-Nitrophenol	9.536	139	2039	99.05	ng/ml#	54
54) 2,4-Dinitrotoluene	9.606	165	5293	83.98	ng/ml#	53
55) Dibenzofuran	9.632	168	86824	120.52	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.723	232	76	36.13	ng/ml#	1
57) 2,3,4,6-Tetrachlorophenol	9.766	232	124	29.28	ng/ml#	1
58) Diethyl phthalate	9.857	149	1751	3.25	ng/ml	54
59) 2,3,5-Trimethylnaphtha...	9.841	170	31420	68.49	ng/ml	89
60) Fluorene	9.980	166	385001	679.07	ng/ml	98
61) 4-Chlorophenyl phenyl ...	9.985	204	146	N.D.		
62) 4-Nitroaniline	9.980	138	3883	44.63	ng/ml#	31
63) 4,6-Dinitro-2-methylph...	10.039	198	60	159.66	ng/ml#	1
65) N-Nitrosodiphenylamine	10.103	169	6775	15.23	ng/ml#	1
66) Azobenzene (1,2-DPH)	10.151	77	2960	6.58	ng/ml#	1
68) 4-Bromophenyl phenyl e...	10.510	248	76	N.D.		
69) Hexachlorobenzene	0.000		0	N.D.		
70) Pentachlorophenol (PCP)	10.750	266	626	82.50	ng/ml	87
71) Phenanthrene	10.959	178	998969	1234.58	ng/ml	99
72) Anthracene	11.007	178	134569	173.01	ng/ml	99
73) Carbazole	11.173	167	436860	658.21	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	4936	5.79	ng/ml	86
75) Fluoranthene	12.194	202	120164	144.89	ng/ml	98
76) Benzidine	12.339	184	164	123.77	ng/ml#	13
77) Pyrene	12.467	202	127309	150.85	ng/ml	98
80) Butyl benzyl phthalate	13.419	149	1743	33.73	ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.580	129	6406	17.94	ng/ml	84
82) 3,3-Dichlorobenzidine	0.000		0	N.D.		
83) Benz(a)anthracene	14.505	228	9192	10.69	ng/ml	90
84) Chrysene	14.580	228	4789	5.94	ng/ml	90
85) Bis(2-ethylhexyl) phth...	14.687	149	37059	66.91	ng/ml	95
87) Di-n-octyl phthalate	16.291	149	1226	59.26	ng/ml	75
88) Benzo(b)fluoranthene	17.062	252	2722	11.17	ng/ml	90
89) Benzo(k)fluoranthene	17.126	252	1600	10.28	ng/ml	92
90) Benzo(b+k)fluoranthene	17.062	252	4322	20.62	ng/ml	89
91) Benzo(e)pyrene	17.693	252	1981	2.50	ng/ml	99
92) Benzo(a)pyrene	17.827	252	1383	11.62	ng/ml	75
93) Perylene	17.971	252	5061	7.29	ng/ml	71
95) Indeno(1,2,3-cd)pyrene	20.362	276	1128	N.D.		
96) Dibenz(a,h)anthracene	20.421	278	363	N.D.		
97) Benzo(g,h,i)perylene	20.881	276	460	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K11044\
Data File : J11111912.D
Acq On : 11 Nov 2019 2:59 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 19:48:47 2019
Quant Method : R:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Sequence 9K08049 (QC Only)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K08049**	Instrument:	**SV-GCMS10**
Date:	**11/08/19 14:37**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K08049-TUN1	Soil	QC	QC			A19G233	A19K083
2	9K08049-CCV1	Soil	QC	QC			A19G233	A19G243
3	9K08049-CCB1	Soil	QC	QC			A19G233	
4	9110594-BLK1	Soil	QC	QC		9110594	A19G233	
5	9110594-BS1	Soil	QC	QC		9110594	A19G233	
6	9110594-BSD1	Soil	QC	QC		9110594	A19G233	
7	A9J1006-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/11/19	9110594	A19G233	
8	A9J1006-02	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/11/19	9110594	A19G233	
9	A9J1007-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/11/19	9110594	A19G233	
10	9K08049-IBL1	Soil	QC	QC			A19G233	

Data Entered By: 11/11/19

Data Reviewed By: 11/11/19

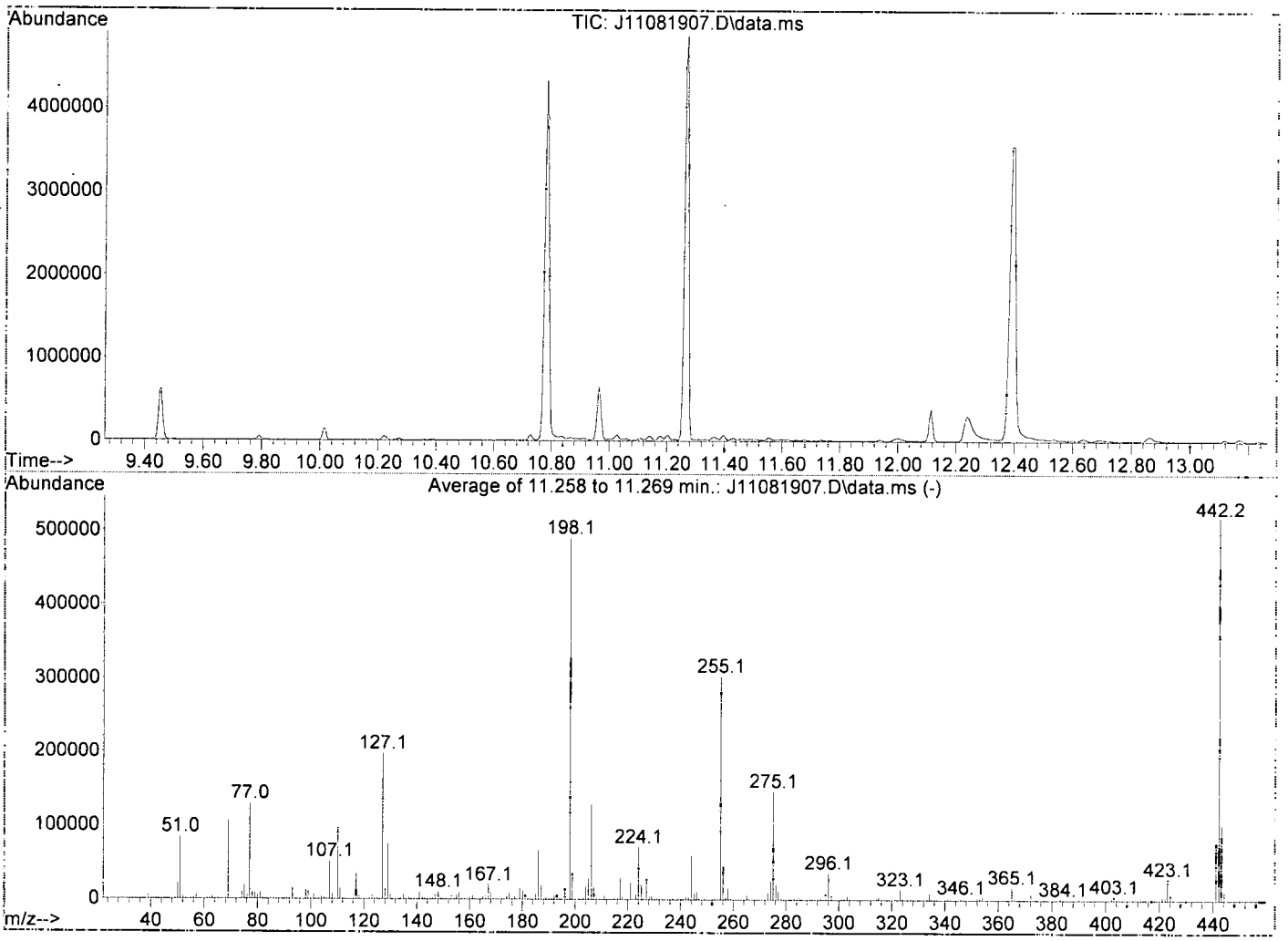
Comments:

Data Path : T:\data\2019-11\9K08049\
Data File : J11081907.D
Acq On : 8 Nov 2019 2:42 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 11/11/19

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Mon Nov 11 08:41:49 2019



AutoFind: Scans 1453, 1454, 1455; Background Corrected with Scan 1449

J

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.7	1797	PASS
69	198	0.01	100	21.6	105785	PASS
70	69	0.00	2	0.5	521	PASS
197	198	0.00	2	0.1	626	PASS
198	198	100	100	100.0	489536	PASS
199	198	5	9	7.1	34720	PASS
365	198	1	100	3.4	16580	PASS
441	443	0.01	150	77.0	78720	PASS
442	198	0.10	200	106.2	520064	PASS
443	442	15	24	19.7	102299	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081907.D
Acq On : 8 Nov 2019 2:42 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 08:45:52 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10

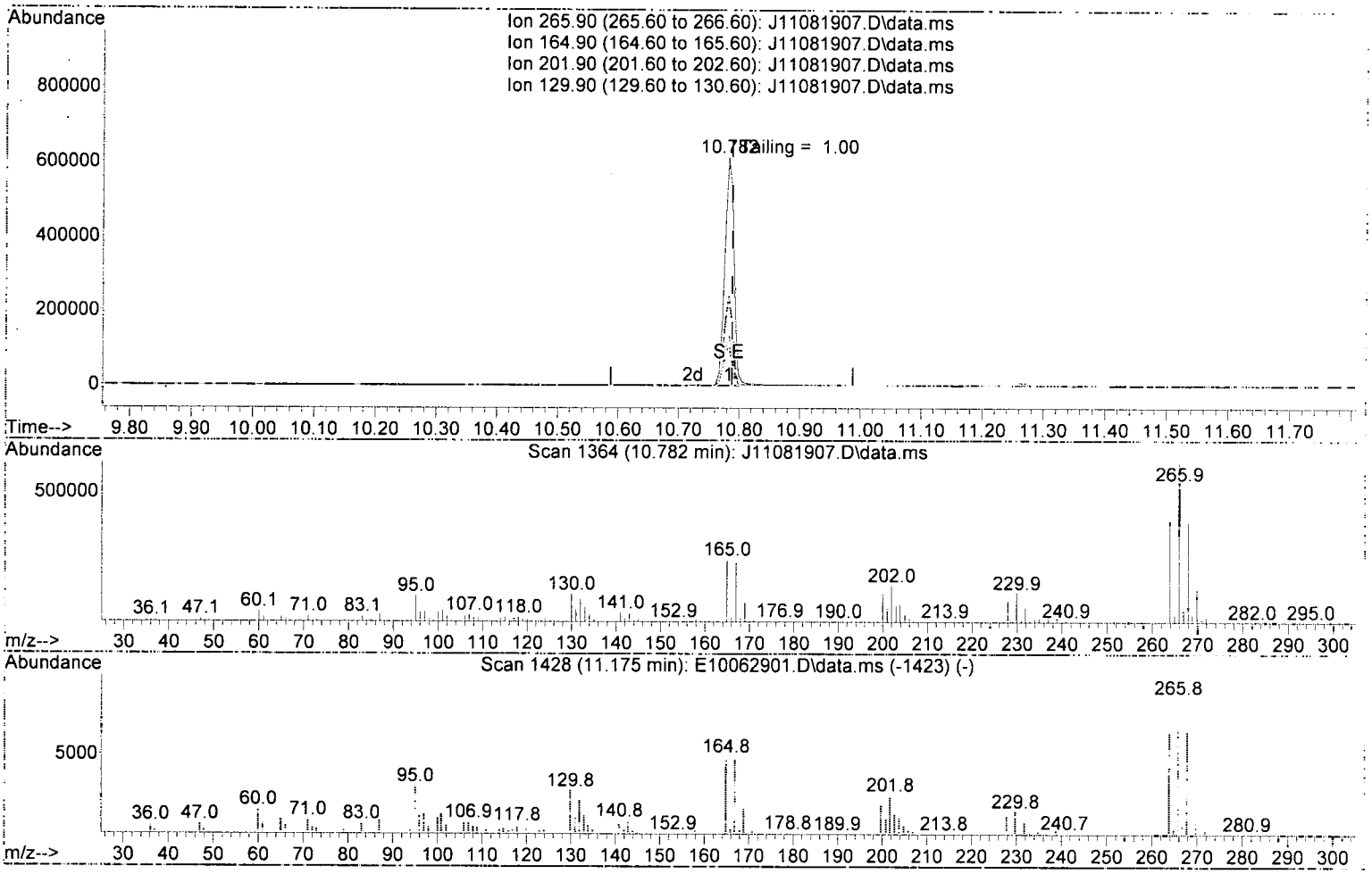
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.412	150	122245	2.00	ug/mL	0.00
2) Naphthalene-d8	7.675	136	287256	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.450	162	146507	2.00	ug/mL	0.00
5) Phenanthrene-d10	10.964	188	252610	2.00	ug/mL	0.00
11) Chrysene-d12	14.558	240	214555	2.00	ug/mL	-0.02
12) Perylene-d12	16.944	264	540	2.00	ug/mL	# 0.03
Target Compounds						Qvalue
4) Pentachlorophenol	10.782	266	649777	46.97	ug/mL	85
6) DFTPP	11.269	442	716436	35.13	ug/mL	74
7) Benzidine	12.398	184	2330795	25.94	ug/mL	95
8) 4,4-DDE	12.638	TIC	30921	No Calib		
9) 4,4-DDD	13.120	TIC	21767	No Calib		
10) 4,4-DDT	13.644	TIC	8245445	31.83	ug/mL	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081907.D
Acq On : 8 Nov 2019 2:42 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 08:45:52 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11081907.D\data.ms

(4) Pentachlorophenol

10.782min (-0.005) 46.97 ug/mL

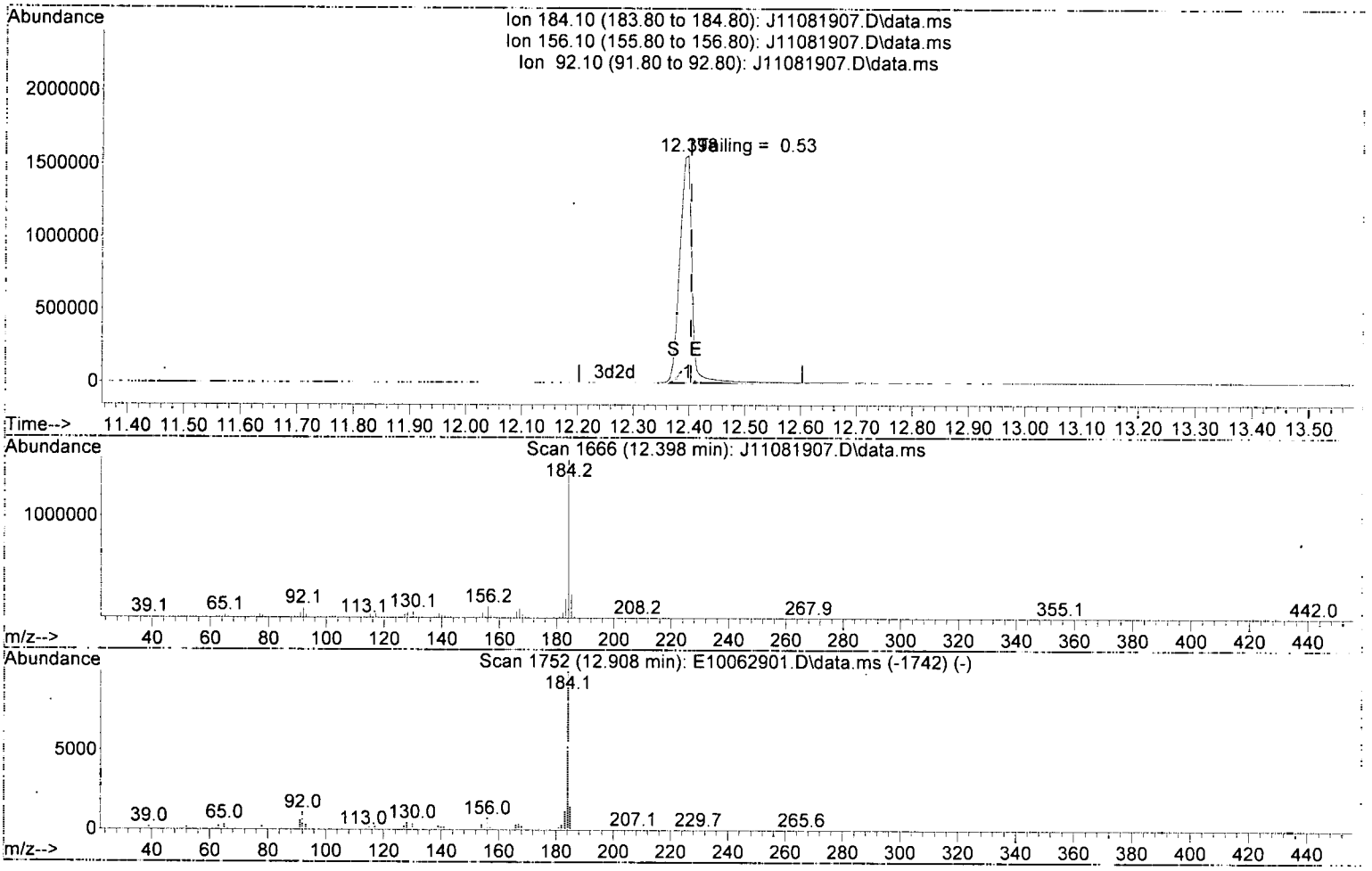
response 649777

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	38.79
201.90	25.80	22.49
129.90	27.30	17.23

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081907.D
Acq On : 8 Nov 2019 2:42 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 08:45:52 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11081907.D\data.ms

(7) Benzidine

12.398min (-0.006) 25.94 ug/mL

response 2330795

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.10
92.10	8.20	6.12
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9K08049-TUN1
SV-GCMS10

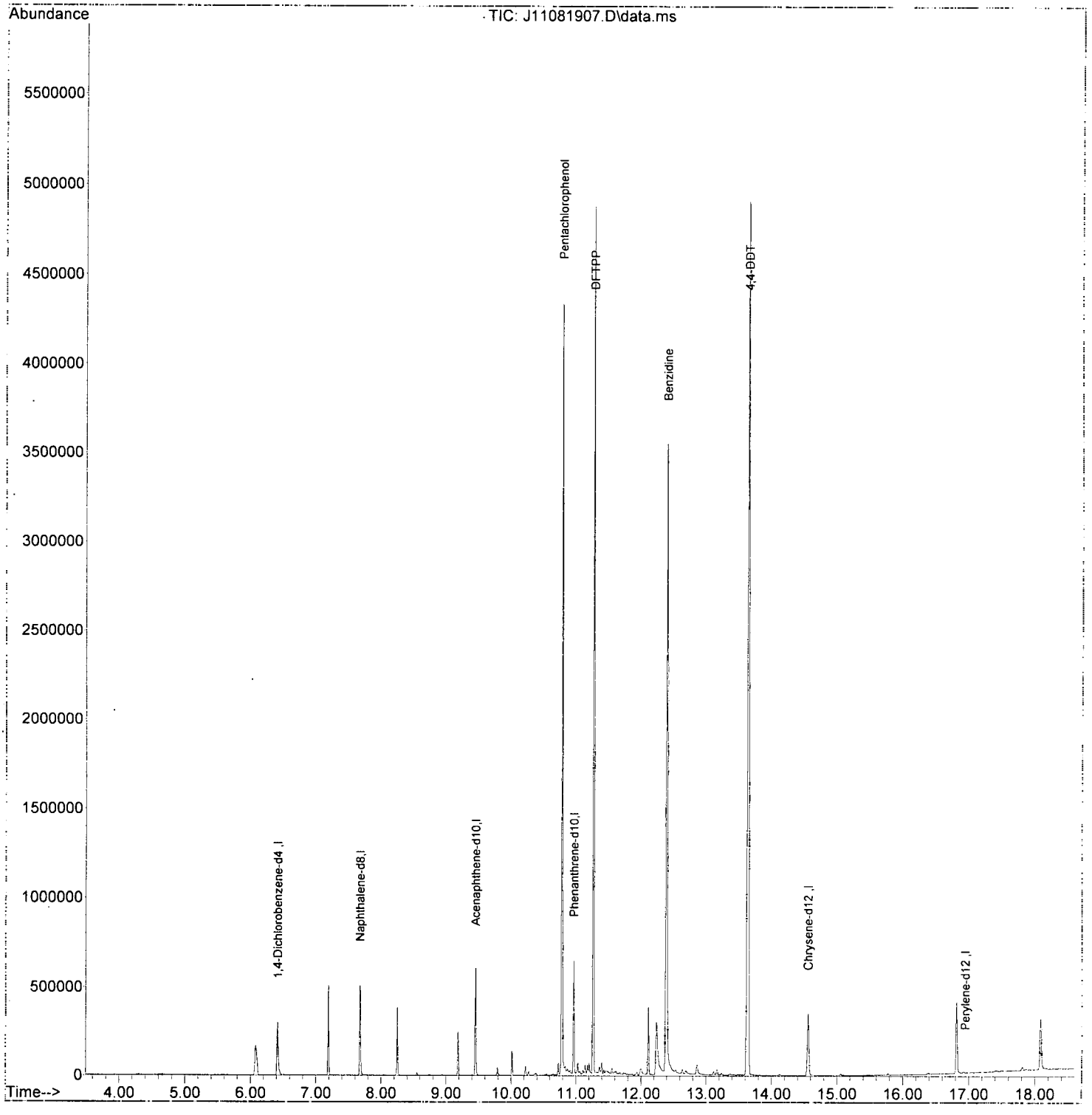
First Column Area Counts		Percent Breakdown	
DDE	30921		
DDD	21767		
DDT	8245445	0.63	PASS

Breakdown must be less than 20% to accept sample data.

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081907.D
Acq On : 8 Nov 2019 2:42 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 11 08:45:52 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

AMS 11/11/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	92	0.00
2	TG	N-Nitrosodimethylamine	1000.000	9.537	99.0#	1	0.03
3	TG	Pyridine	1000.000	798.497	20.2#	74	-0.10
4	S	2-Fluorophenol (Surr)	1000.000	1065.301	-6.5	94	-0.02
5	S	Phenol-d6(Surr)	1000.000	897.633	10.2	76	0.00
6	T	Phenol	1000.000	851.556	14.8	72	0.00
7	T	Aniline	1000.000	451.913	54.8#	46	-0.01
8	T	Bis(2-chloroethyl) ether	1000.000	1060.917	-6.1	89	0.00
9	T	2-Chlorophenol	1000.000	1008.748	-0.9	87	0.00
10	T	1,3-Dichlorobenzene	1000.000	1014.327	-1.4	91	-0.01
11	T	1,4-Dichlorobenzene	1000.000	1025.066	-2.5	91	-0.01
12	T	Benzyl alcohol	1000.000	859.941	14.0	75	0.00
13	T	1,2-Dichlorobenzene	1000.000	1033.981	-3.4	91	0.00
14	T	2-Methylphenol	1000.000	931.589	6.8	77	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	681.714	31.8#	59	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	810.684	18.9	69	0.00
17	T	3+4-Methylphenol	1000.000	952.466	4.8	77	0.00
18	T	Hexachloroethane	1000.000	1130.037	-13.0	103	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	873.970	12.6	73	0.00
20	T	Nitrobenzene	1000.000	844.862	15.5	71	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	84	0.00
22	T	Isophorone	1000.000	892.297	10.8	73	0.00
23	T	2-Nitrophenol	1000.000	1273.741	-27.4#	102	0.00
24	T	2,4-Dimethylphenol	1000.000	1002.682	-0.3	79	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	926.397	7.4	73	0.00
26	T	Benzoic acid	2000.000	2044.455	-2.2	101	0.00
27	T	2,4-Dichlorophenol	1000.000	1039.121	-3.9	87	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1117.955	-11.8	91	0.00
29	T	Naphthalene	1000.000	1023.178	-2.3	81	0.00
30	T	4-Chloroaniline	1000.000	563.703	43.6#	45	0.00
31	T	Hexachlorobutadiene	1000.000	1144.296	-14.4	92	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1024.352	-2.4	81	0.00
33	T	2-Methylnaphthalene	1000.000	1063.942	-6.4	83	0.00
34	T	1-Methylnaphthalene	1000.000	1040.287	-4.0	83	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	88	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1205.872	-20.6#	96	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1122.721	-12.3	95	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1112.024	-11.2	96	0.00
39	T	1,1'-Biphenyl	1000.000	1018.295	-1.8	84	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1055.560	-5.6	88	0.00
41	T	2-Chloronaphthalene	1000.000	1089.856	-9.0	90	0.00
42	T	2-Nitroaniline	1000.000	1082.517	-8.3	91	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1033.766	-3.4	86	0.00
44	T	1,4-Dinitrobenzene	1000.000	1208.650	-20.9#	110	0.00
45	T	Dimethyl phthalate	1000.000	1044.520	-4.5	86	0.00
46	T	1,3-Dinitrobenzene	1000.000	1106.669	-10.7	99	0.00
47	T	2,6-Dinitrotoluene	1000.000	1082.234	-8.2	93	0.00
48	T	1,2-Dinitrobenzene	1000.000	1094.370	-9.4	91	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1048.061	-4.8	86	0.00
50	T	3-Nitroaniline	1000.000	819.714	18.0	72	0.00
51	T	Acenaphthene	1000.000	1002.048	-0.2	86	0.00
52	T	2,4-Dinitrophenol	1000.000	1209.861	-21.0#	139	0.00
53	T	4-Nitrophenol	1000.000	975.679	2.4	83	0.00
54	T	2,4-Dinitrotoluene	1000.000	1078.319	-7.8	97	0.00
55	T	Dibenzofuran	1000.000	1067.307	-6.7	89	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1071.553	-7.2	92	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1058.243	-5.8	90	0.00
58	T	Diethyl phthalate	1000.000	1068.761	-6.9	86	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1092.428	-9.2	89	0.00
60	T	Fluorene	1000.000	1004.123	-0.4	85	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1042.023	-4.2	87	0.00
62	T	4-Nitroaniline	1000.000	1071.778	-7.2	94	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1197.894	-19.8	116	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	89	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1020.212	-2.0	85	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	835.068	16.5	69	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	985.198	1.5	86	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1062.896	-6.3	90	0.00
69	T	Hexachlorobenzene	1000.000	1071.400	-7.1	90	0.00
70	T	Pentachlorophenol (PCP)	1000.000	929.384	7.1	91	0.00
71	T	Phenanthrene	1000.000	988.137	1.2	86	0.00
72	T	Anthracene	1000.000	1031.227	-3.1	86	0.00
73	T	Carbazole	1000.000	1032.626	-3.3	89	0.00
74	T	Di-n-butyl phthalate	1000.000	994.573	0.5	81	0.00
75	T	Fluoranthene	1000.000	1041.277	-4.1	85	0.00
76	T	Benzidine	2000.000	1263.707	36.8#	53	0.00
77	T	Pyrene	1000.000	1025.997	-2.6	83	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	79	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1090.705	-9.1	82	0.00
80	T	Butyl benzyl phthalate	1000.000	1058.034	-5.8	80	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	996.407	0.4	77	0.00
82	T	3,3-Dichlorobenzidine	2000.000	2219.429	-11.0	81	0.00
83	T	Benz(a)anthracene	1000.000	1015.671	-1.6	81	0.00
84	T	Chrysene	1000.000	1059.239	-5.9	82	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1033.295	-3.3	79	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	76	0.00
87	T	Di-n-octyl phthalate	1000.000	1049.190	-4.9	81	0.00
88	T	Benzo(b)fluoranthene	1000.000	1079.192	-7.9	81	0.00
89	T	Benzo(k)fluoranthene	1000.000	1065.524	-6.6	80	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2133.393	-6.7	81	0.00
91	T	Benzo(e)pyrene	1000.000	1126.911	-12.7	79	0.00
92	T	Benzo(a)pyrene	1000.000	1108.291	-10.8	82	0.00
93	T	Perylene	1000.000	1093.328	-9.3	82	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	77	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95	T	Indeno(1,2,3-cd)pyrene	1000.000	991.160	0.9	79	0.00
96	T	Dibenz(a,h)anthracene	1000.000	1049.392	-4.9	80	0.00
97	T	Benzo(g,h,i)perylene	1000.000	1089.453	-8.9	79	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/11/19

Quant Time: Nov 11 08:47:20 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	260132	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	965320	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.429	162	513617	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	945673	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	825397	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	790395	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	685007	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.129	112	168165	1065.30 ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	181370	897.63 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	136996	873.97 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	424294	1055.56 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	56136	985.20 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	414877	1090.71 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.845	74	945m	9.54 ng/ml	
3) Pyridine	~~3.931~~	~~79~~	~~193~~	N.D.	MI
6) Phenol	6.054	94	189194	851.56 ng/ml	97
7) Aniline	6.070	93	86625	451.91 ng/ml	91
8) Bis(2-chloroethyl) ether	6.129	93	212726	1060.92 ng/ml	93
9) 2-Chlorophenol	6.188	128	185803	1008.75 ng/ml	94
10) 1,3-Dichlorobenzene	6.332	146	209999	1014.33 ng/ml	97
11) 1,4-Dichlorobenzene	6.402	146	208581	1025.07 ng/ml	98
12) Benzyl alcohol	6.525	108	93353	859.94 ng/ml	93
13) 1,2-Dichlorobenzene	6.557	146	207490	1033.98 ng/ml	97
14) 2-Methylphenol	6.637	107	124820	931.59 ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	120630	681.71 ng/ml	80
16) N-Nitrosodi-n-propylamine	6.782	70	94375	810.68 ng/ml	94
17) 3+4-Methylphenol	6.787	107	158243	952.47 ng/ml	96
18) Hexachloroethane	6.888	201	70651	1130.04 ng/ml	93
20) Nitrobenzene	6.947	77	134177	844.86 ng/ml	89
22) Isophorone	7.183	82	274606	892.30 ng/ml	100
23) 2-Nitrophenol	7.268	139	117079	1273.74 ng/ml	88
24) 2,4-Dimethylphenol	7.311	122	129772	1002.68 ng/ml	97
25) Bis(2-chloroethoxy) me...	7.402	93	173323	926.40 ng/ml	99
26) Benzoic acid	7.407	105	100355	2044.46 ng/ml	89
27) 2,4-Dichlorophenol	7.509	162	150347	1039.12 ng/ml	97
28) 1,2,4-Trichlorobenzene	7.595	180	188878	1117.96 ng/ml	99
29) Naphthalene	7.669	128	519584	1023.18 ng/ml	100
30) 4-Chloroaniline	7.734	127	89663	563.70 ng/ml	94
31) Hexachlorobutadiene	7.803	225	104470	1144.30 ng/ml	99
32) 4-Chloro-3-methylphenol	8.215	107	131209	1024.35 ng/ml	91
33) 2-Methylnaphthalene	8.365	142	377498	1063.94 ng/ml	99
34) 1-Methylnaphthalene	8.466	142	357317	1040.29 ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	95775	1205.87 ng/ml	99
37) 2,4,6-Trichlorophenol	8.654	196	111776	1122.72 ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	109174	1112.02 ng/ml	98
39) 1,1'-Biphenyl	8.841	154	449538	1018.30 ng/ml	98
41) 2-Chloronaphthalene	8.857	162	347479	1089.86 ng/ml	98
42) 2-Nitroaniline	8.964	138	103182	1082.52 ng/ml	83
43) 2,6-Dimethylnaphthalene	8.996	156	334796	1033.77 ng/ml	97

J

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:20 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

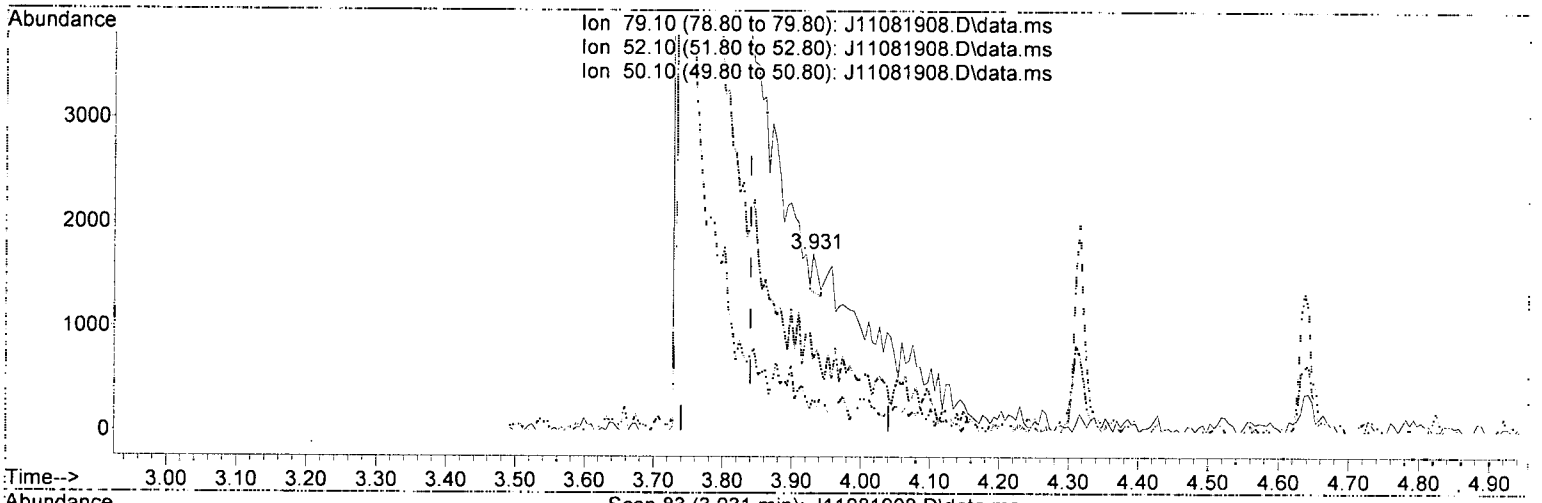
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	48768	1208.65	ng/ml	78
45) Dimethyl phthalate	9.146	163	387434	1044.52	ng/ml	99
46) 1,3-Dinitrobenzene	9.172	168	56640	1106.67	ng/ml	88
47) 2,6-Dinitrotoluene	9.204	165	90418	1082.23	ng/ml	87
48) 1,2-Dinitrobenzene	9.258	168	41124	1094.37	ng/ml	80
49) Acenaphthylene	9.279	152	547213	1048.06	ng/ml	100
50) 3-Nitroaniline	9.381	138	54762	819.71	ng/ml	84
51) Acenaphthene	9.456	153	343558	1002.05	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	25004	1209.86	ng/ml	83
53) 4-Nitrophenol	9.557	139	48881	975.68	ng/ml	94
54) 2,4-Dinitrotoluene	9.616	165	112576	1078.32	ng/ml	83
55) Dibenzofuran	9.632	168	487800	1067.31	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	84425	1071.55	ng/ml	94
57) 2,3,4,6-Tetrachlorophenol	9.761	232	91318	1058.24	ng/ml	96
58) Diethyl phthalate	9.862	149	364914	1068.76	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.846	170	317938	1092.43	ng/ml	96
60) Fluorene	9.980	166	361155	1004.12	ng/ml	100
61) 4-Chlorophenyl phenyl ...	9.980	204	182713	1042.02	ng/ml	90
62) 4-Nitroaniline	10.001	138	59157	1071.78	ng/ml	93
63) 4,6-Dinitro-2-methylph...	10.028	198	45149	1197.89	ng/ml	91
65) N-Nitrosodiphenylamine	10.098	169	297476	1020.21	ng/ml	99
66) Azobenzene (1,2-DPH)	10.140	77	246406	835.07	ng/ml	84
68) 4-Bromophenyl phenyl e...	10.477	248	113420	1062.90	ng/ml	96
69) Hexachlorobenzene	10.552	284	137154	1071.40	ng/ml	97
70) Pentachlorophenol (PCP)	10.750	266	59155	929.38	ng/ml	99
71) Phenanthrene	10.959	178	524234	988.14	ng/ml	99
72) Anthracene	11.012	178	525889	1031.23	ng/ml	99
73) Carbazole	11.173	167	408050	1032.63	ng/ml	98
74) Di-n-butyl phthalate	11.526	149	556230	994.57	ng/ml	99
75) Fluoranthene	12.194	202	566193	1041.28	ng/ml	97
76) Benzidine	12.344	184	159389	1263.71	ng/ml	95
77) Pyrene	12.467	202	567733	1026.00	ng/ml	99
80) Butyl benzyl phthalate	13.419	149	224101	1058.03	ng/ml	90
81) Bis(2-ethylhexyl) adipate	13.585	129	190749	996.41	ng/ml	98
82) 3,3-Dichlorobenzidine	14.478	252	142270	2219.43	ng/ml	98
83) Benz(a)anthracene	14.505	228	468060	1015.67	ng/ml	97
84) Chrysene	14.580	228	457448	1059.24	ng/ml	99
85) Bis(2-ethylhexyl) phth...	14.687	149	306790	1033.30	ng/ml	95
87) Di-n-octyl phthalate	16.340	149	477081	1049.19	ng/ml	97
88) Benzo(b)fluoranthene	17.056	252	470774	1079.19	ng/ml	98
89) Benzo(k)fluoranthene	17.120	252	467687	1065.52	ng/ml	98
90) Benzo(b+k)fluoranthene	17.120	252	955193	2133.39	ng/ml	98
91) Benzo(e)pyrene	17.703	252	457800	1126.91	ng/ml	99
92) Benzo(a)pyrene	17.821	252	439012	1108.29	ng/ml	99
93) Perylene	18.024	252	389724	1093.33	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.351	276	401490	991.16	ng/ml	98
96) Dibenz(a,h)anthracene	20.421	278	390278	1049.39	ng/ml	97
97) Benzo(g,h,i)perylene	20.886	276	423886	1089.45	ng/ml	97

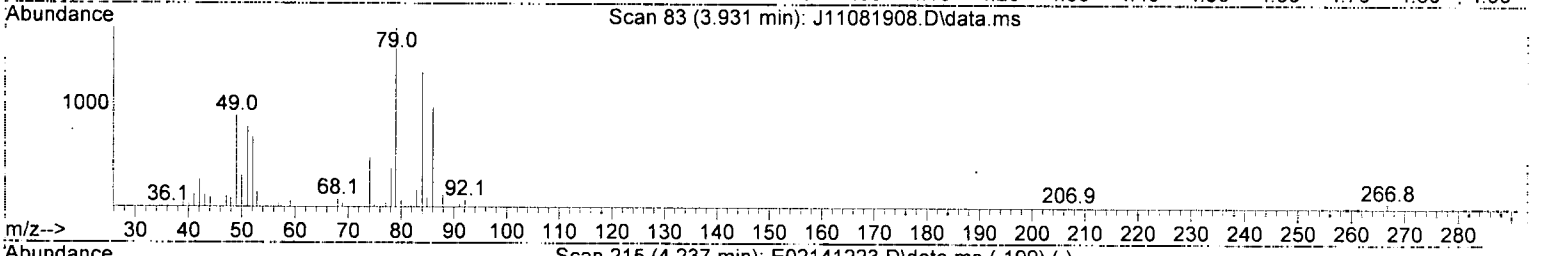
(#) = qualifier out of range (m) = manual integration (+) = signals summed

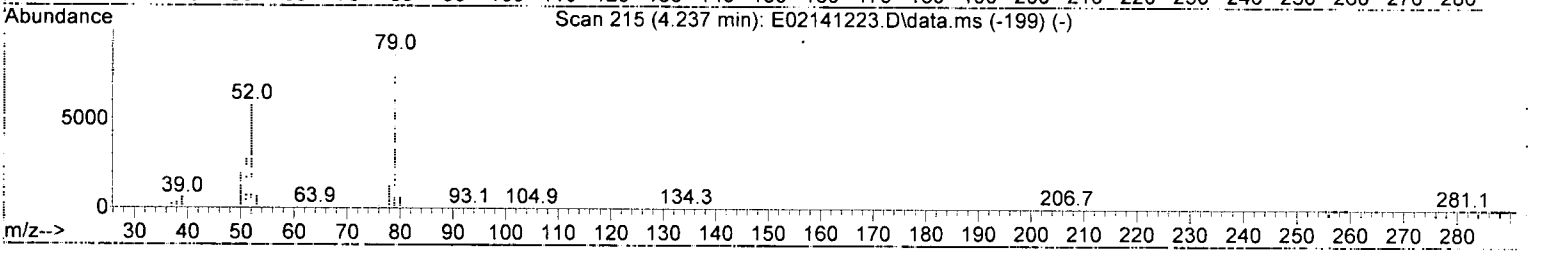
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:20 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11081908.D\data.ms

(3) Pyridine (TG)

3.931min (+ 0.091) 1.14 ng/ml

response 193

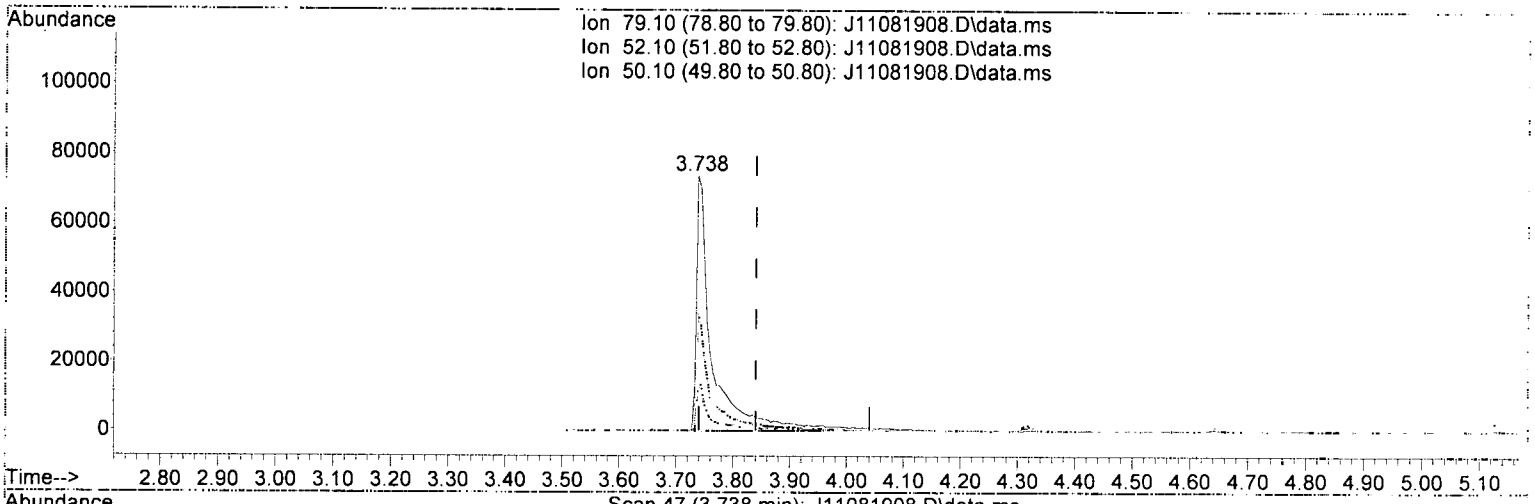
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	40.36
50.10	18.70	18.86
0.00	0.00	0.00

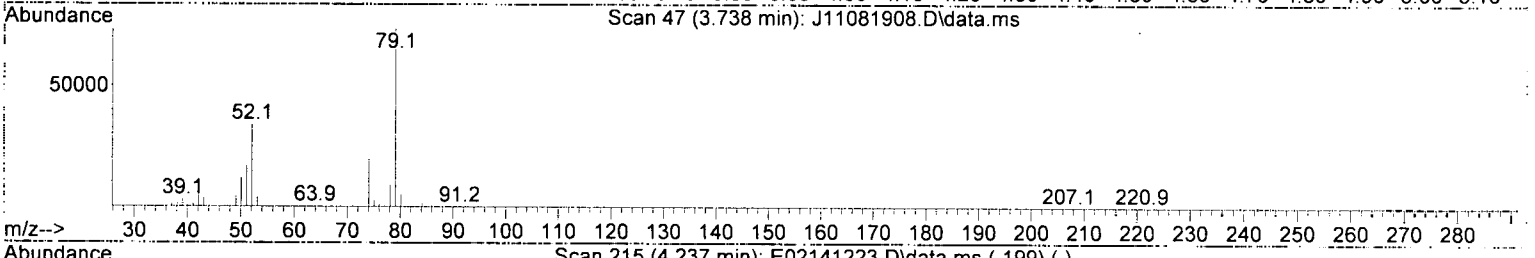
AMS 11/11/19

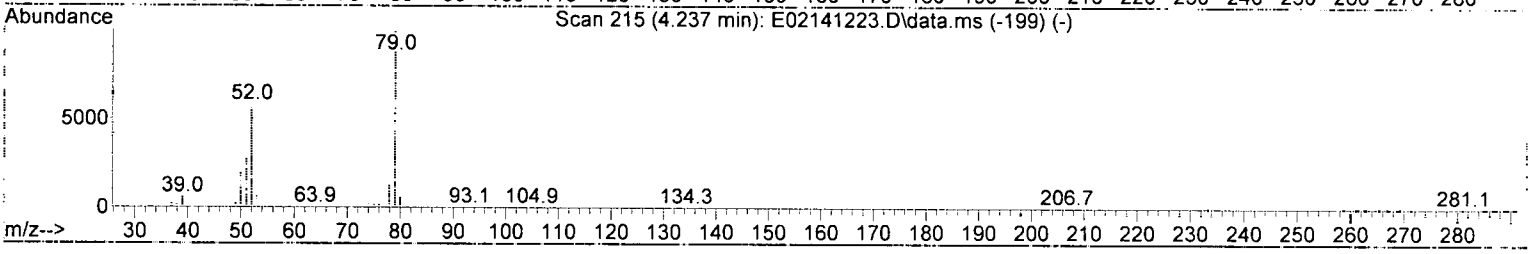
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:20 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11081908.D\data.ms

(3) Pyridine (TG)

3.738min (-0.102) 798.50 ng/ml m

response 134886

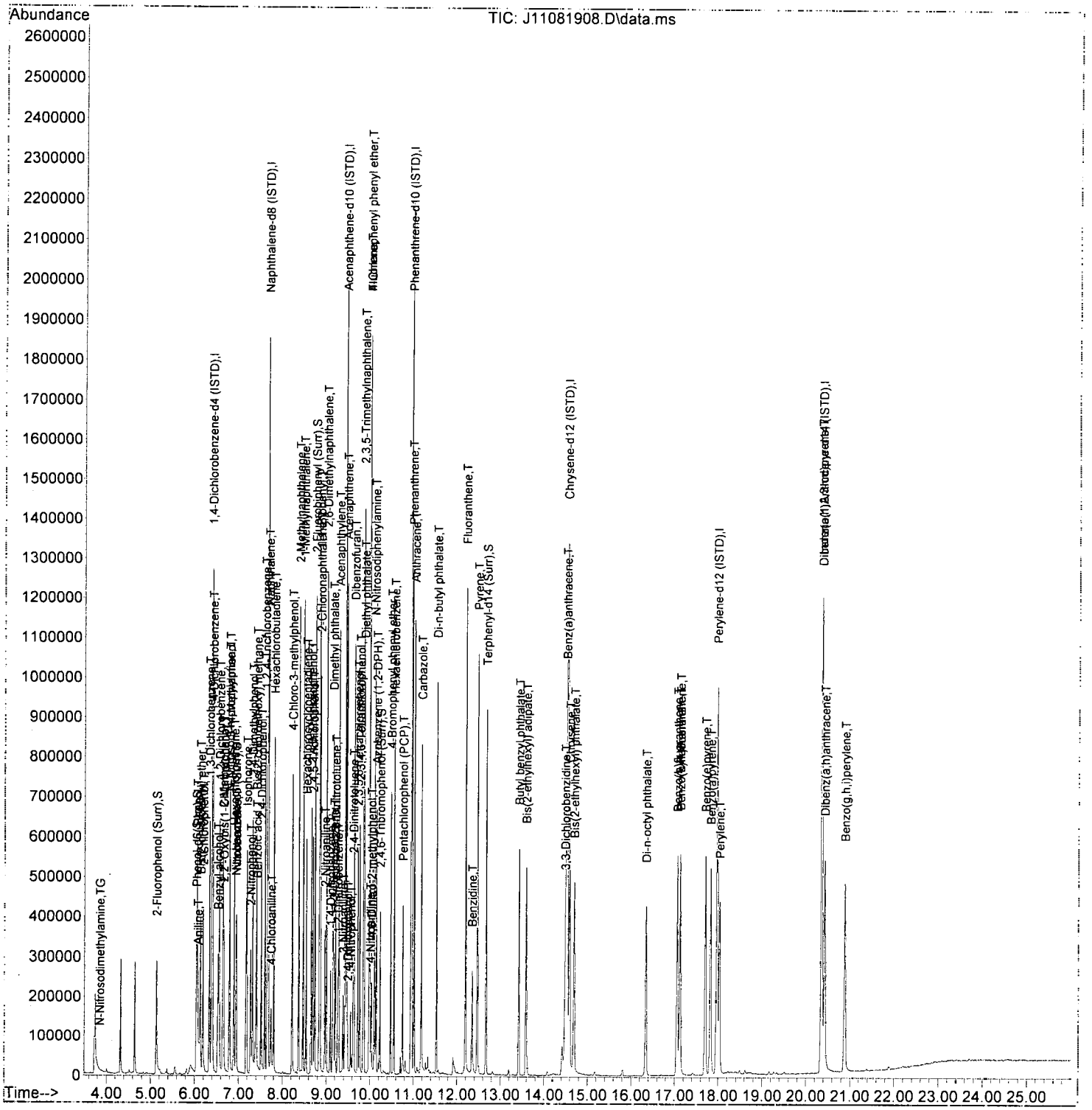
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	46.30
50.10	18.70	16.13
0.00	0.00	0.00

AMS 11/11/19

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081908.D
Acq On : 8 Nov 2019 3:10 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:47:20 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081909.D
Acq On : 8 Nov 2019 3:46 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

AMS 11/11/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.391	152	267909	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1032386	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	546312	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	981779	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1015044	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	1029044	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	892658	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.915	79	56	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.947	77	56	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	8.536	142	65	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : T:\data\2019-11\9K08049\
Data File : J11081909.D
Acq On : 8 Nov 2019 3:46 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

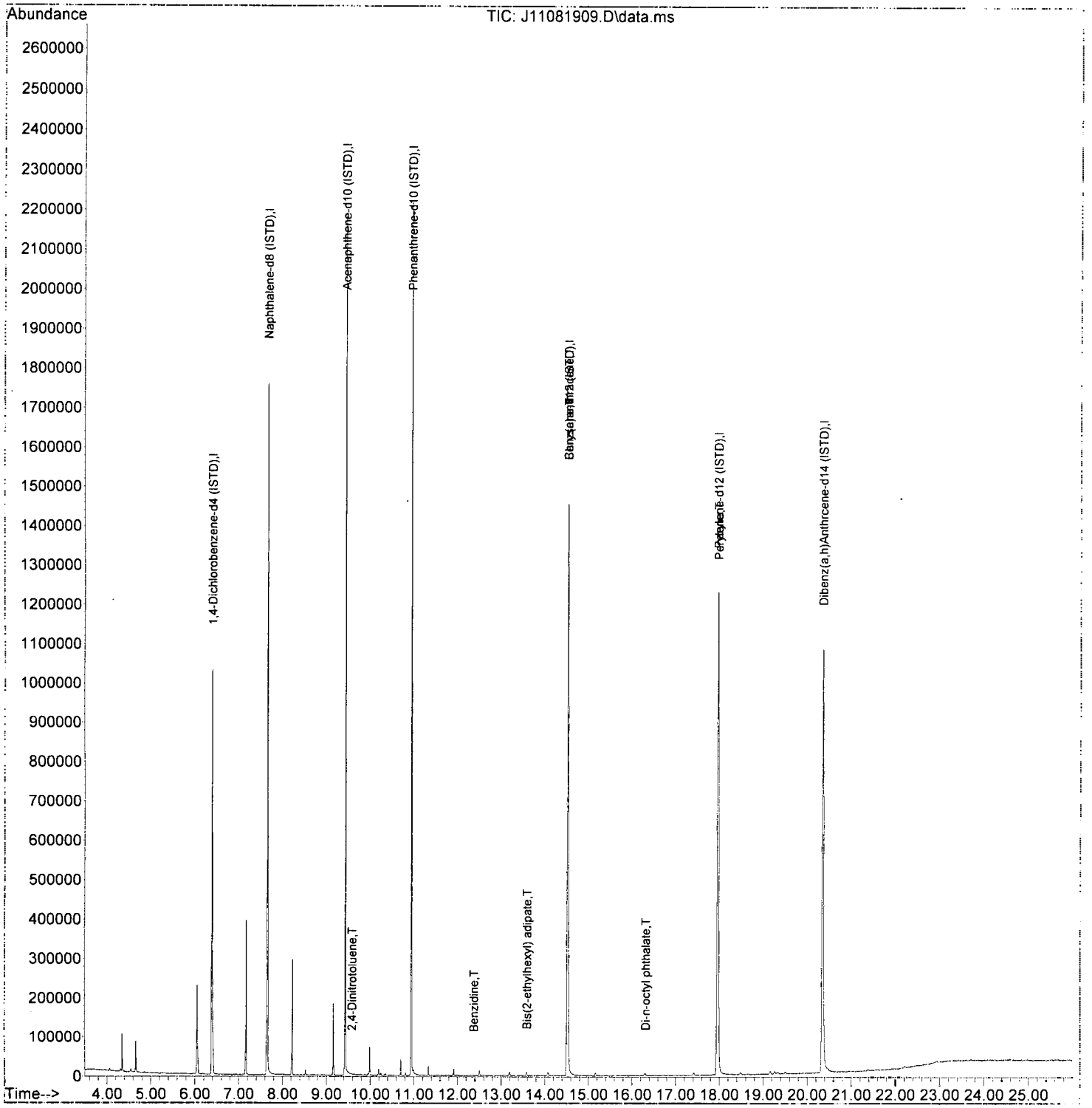
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.429	153	91	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.579	165	57	54.23 ng/ml#	27
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.953	170	134	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.141	77	65	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	10.938	178	310	N.D.	
72) Anthracene	11.066	178	54	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.371	184	93	123.64 ng/ml	52
77) Pyrene	12.462	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.585	129	3199	13.59 ng/ml	88
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.521	228	2275	4.01 ng/ml	70
84) Chrysene	14.521	228	2275	4.28 ng/ml	69
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	16.308	149	150	58.18 ng/ml	77
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	17.463	252	54	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	17.966	252	3469	7.47 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.351	276	323	N.D.	
96) Dibenz(a,h)anthracene	20.356	278	161	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081909.D
Acq On : 8 Nov 2019 3:46 pm
Operator : JK/ AMS/ DTH
Sample : 9K08049-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081910.D
Acq On : 8 Nov 2019 4:22 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:24 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	280621	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	999012	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	530345	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	941423	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	998583	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1010786	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	920754	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.134	112	143104	840.35 ng/ml	-0.02
5) Phenol-d6(Surr)	6.043	99	96338	441.98 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	234874	1388.98 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	652904	1573.06 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	127155	2231.24 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.670	244	994392	2160.85 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.744	74	166	N.D.	
3) Pyridine	3.856	79	1734m	9.52 ng/ml	
6) Phenol	6.060	94	4567	19.06 ng/ml	83
7) Aniline	6.108	93	1132	5.47 ng/ml	52
8) Bis(2-chloroethyl) ether	6.150	93	196	N.D.	
9) 2-Chlorophenol	6.188	128	225	N.D.	
10) 1,3-Dichlorobenzene	6.327	146	99	N.D.	
11) 1,4-Dichlorobenzene	6.402	146	244	N.D.	
12) Benzyl alcohol	6.536	108	1028	33.08 ng/ml#	80
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.637	107	507	3.51 ng/ml#	53
15) 2,2'-Oxybis(1-Chloropr...	6.648	45	229	N.D.	
16) N-Nitrosodi-n-propylamine	6.771	70	571	4.55 ng/ml	60
17) 3+4-Methylphenol	6.808	107	483	2.69 ng/ml#	48
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.931	77	1668	9.74 ng/ml#	32
22) Isophorone	7.188	82	897	2.82 ng/ml	73
23) 2-Nitrophenol	7.274	139	540	47.80 ng/ml#	1
24) 2,4-Dimethylphenol	7.327	122	718	5.36 ng/ml#	1
25) Bis(2-chloroethoxy) me...	7.397	93	420	N.D.	
26) Benzoic acid	7.397	105	14903	988.87 ng/ml	87
27) 2,4-Dichlorophenol	7.525	162	222	26.34 ng/ml#	18
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.669	128	586046	1115.14 ng/ml MM	99
30) 4-Chloroaniline	7.739	127	74	13.69 ng/ml#	1
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.231	107	1397	10.54 ng/ml	72
33) 2-Methylnaphthalene	8.365	142	24983	68.04 ng/ml M	97
34) 1-Methylnaphthalene	8.466	142	15446	43.45 ng/ml I	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	8.659	196	307	26.68 ng/ml#	64
38) 2,4,5-Trichlorophenol	8.664	198	167	24.38 ng/ml#	60
39) 1,1'-Biphenyl	8.835	154	5458	11.97 ng/ml	93
41) 2-Chloronaphthalene	8.846	162	425	N.D.	
42) 2-Nitroaniline	8.964	138	114	31.61 ng/ml#	71
43) 2,6-Dimethylnaphthalene	8.996	156	2694	8.06 ng/ml	99

Data Path : T:\data\2019-11\9K08049\
Data File : J11081910.D
Acq On : 8 Nov 2019 4:22 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:24 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

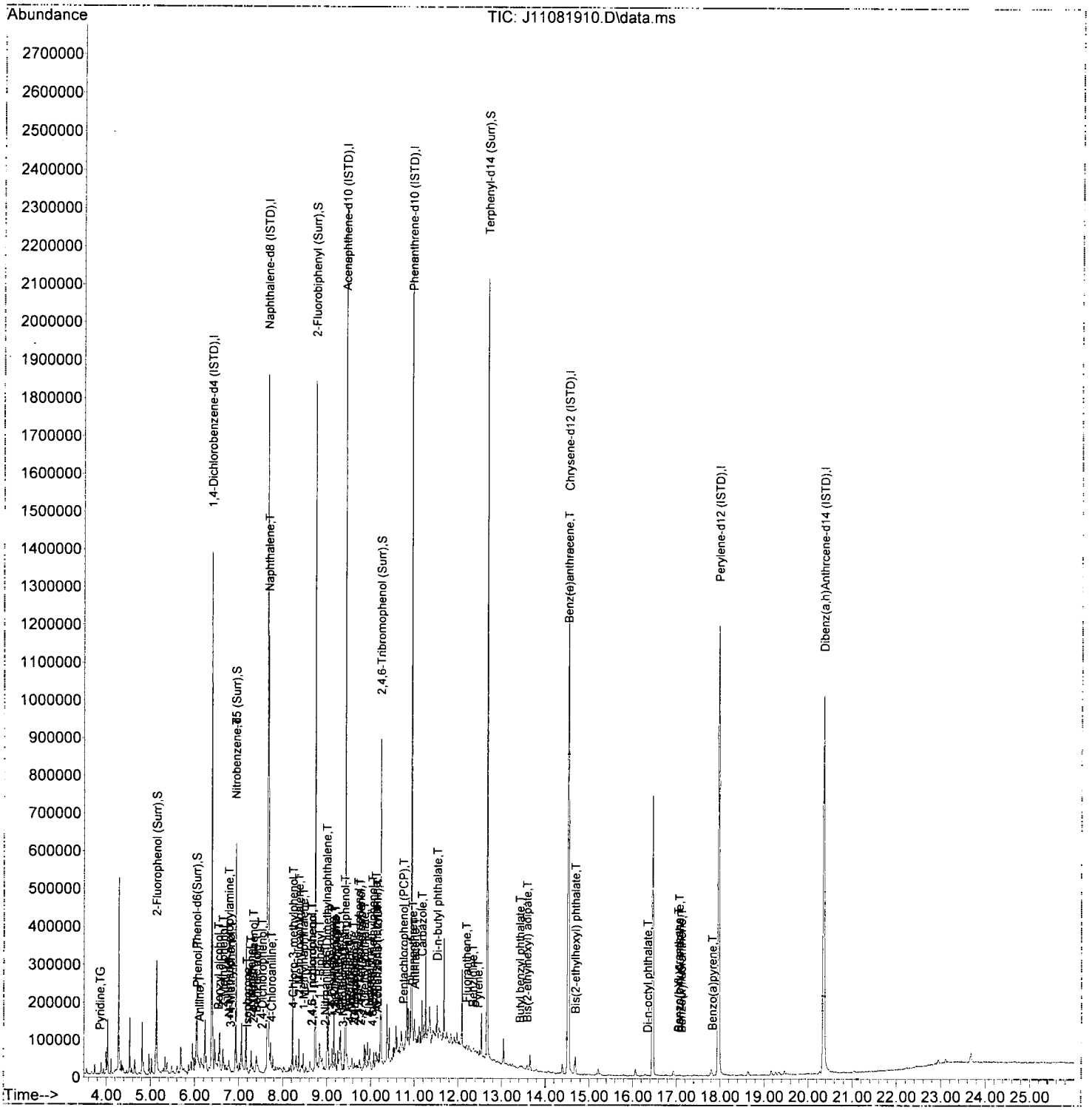
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.114	168	127	69.33 ng/ml#	14
45) Dimethyl phthalate	9.146	163	627	N.D.	
46) 1,3-Dinitrobenzene	9.172	168	121	60.08 ng/ml#	1
47) 2,6-Dinitrotoluene	9.199	165	414	29.73 ng/ml#	62
48) 1,2-Dinitrobenzene	9.172	168	110	2.83 ng/ml#	1
49) Acenaphthylene	9.279	152	5014	9.30 ng/ml	96
50) 3-Nitroaniline	9.365	138	467	35.34 ng/ml#	30
51) Acenaphthene	9.456	153	6564	18.54 ng/ml	94
52) 2,4-Dinitrophenol	9.408	184	89	231.54 ng/ml#	1
53) 4-Nitrophenol	9.536	139	181	77.18 ng/ml#	32
54) 2,4-Dinitrotoluene	9.616	165	194	55.44 ng/ml	81
55) Dibenzofuran	9.632	168	1348	2.86 ng/ml#	75
56) 2,3,5,6-Tetrachlorophenol	9.723	232	200	37.93 ng/ml#	25
57) 2,3,4,6-Tetrachlorophenol	9.771	232	471	33.52 ng/ml#	60
58) Diethyl phthalate	9.857	149	4416	12.53 ng/ml	88
59) 2,3,5-Trimethylnaphtha...	9.830	170	732	N.D.	
60) Fluorene	9.975	166	2623	7.06 ng/ml	77
61) 4-Chlorophenyl phenyl ...	9.996	204	61	N.D.	
62) 4-Nitroaniline	9.969	138	326	5.72 ng/ml#	58
63) 4,6-Dinitro-2-methylph...	10.039	198	104	161.18 ng/ml#	1
65) N-Nitrosodiphenylamine	10.114	169	1514	5.22 ng/ml	85
66) Azobenzene (1,2-DPH)	10.151	77	2766	9.42 ng/ml#	1
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.750	266	1703	101.19 ng/ml	85
71) Phenanthrene	10.959	178	11973	22.67 ng/ml	88
72) Anthracene	11.012	178	1453	2.86 ng/ml	85
73) Carbazole	11.173	167	2968	11.44 ng/ml	66
74) Di-n-butyl phthalate	11.526	149	14086	25.30 ng/ml	99
75) Fluoranthene	12.194	202	3326	6.14 ng/ml	98
76) Benzidine	12.339	184	235	124.70 ng/ml#	1
77) Pyrene	12.462	202	4220	7.66 ng/ml	93
80) Butyl benzyl phthalate	13.419	149	1406	34.80 ng/ml	85
81) Bis(2-ethylhexyl) adipate	13.580	129	4317	18.64 ng/ml	88
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.516	228	3691	6.62 ng/ml	71
84) Chrysene	14.580	228	980	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	28405	79.08 ng/ml	99
87) Di-n-octyl phthalate	16.340	149	140	58.17 ng/ml#	1
88) Benzo(b)fluoranthene	17.046	252	358	8.60 ng/ml	57
89) Benzo(k)fluoranthene	17.115	252	230	8.87 ng/ml	54
90) Benzo(b+k)fluoranthene	17.067	252	1013	17.48 ng/ml	61
91) Benzo(e)pyrene	17.698	252	759	N.D.	
92) Benzo(a)pyrene	17.821	252	506	10.83 ng/ml#	38
93) Perylene	17.821	252	506	N.D.	
95) Indeno(1,2,3-cd)pyrene	20.356	276	806	N.D.	
96) Dibenz(a,h)anthracene	20.426	278	118	N.D.	
97) Benzo(g,h,i)perylene	20.859	276	474	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081910.D
Acq On : 8 Nov 2019 4:22 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:24 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081911.D
Acq On : 8 Nov 2019 4:57 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BS1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:31 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	280126	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1004551	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	543063	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1000338	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	975998	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	978559	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	857817	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.134	112	44575	262.22	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	33030	151.80	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	71559	423.93	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	228442	537.50	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	34043	573.41	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	267946	595.73	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.743	74	43817m	410.65	ng/ml#	
3) Pyridine	3.765	79	60740m	333.90	ng/ml	
6) Phenol	6.054	94	66350	277.32	ng/ml	96
7) Aniline	~~6.070~~	~~93~~	~~56684~~	~~274.61~~	~~ng/ml~~	~~97~~
8) Bis(2-chloroethyl) ether	~~6.129~~	~~93~~	~~184754~~	~~855.65~~	~~ng/ml~~	~~95~~
9) 2-Chlorophenol	6.188	128	145386	732.98	ng/ml	96
10) 1,3-Dichlorobenzene	6.332	146	157363	705.84	ng/ml	99
11) 1,4-Dichlorobenzene	6.402	146	152727	697.00	ng/ml	98
12) Benzyl alcohol	6.525	108	67877	590.26	ng/ml	100
13) 1,2-Dichlorobenzene	6.557	146	155102	717.75	ng/ml	96
14) 2-Methylphenol	6.637	107	92859	643.58	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	101646	533.43	ng/ml	77
16) N-Nitrosodi-n-propylamine	6.782	70	84992	677.97	ng/ml	93
17) 3+4-Methylphenol	6.792	107	107052	598.36	ng/ml	98
18) Hexachloroethane	6.888	201	51956	771.70	ng/ml	93
20) Nitrobenzene	6.947	77	115209	673.65	ng/ml	91
22) Isophorone	7.188	82	252733	789.15	ng/ml	97
23) 2-Nitrophenol	7.268	139	104414	1098.14	ng/ml	91
24) 2,4-Dimethylphenol	7.311	122	117975	875.93	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.402	93	155210	797.19	ng/ml	99
26) Benzoic acid	7.391	105	39933	1289.29	ng/ml	94
27) 2,4-Dichlorophenol	7.514	162	129438	862.24	ng/ml	95
28) 1,2,4-Trichlorobenzene	7.595	180	142721	811.76	ng/ml	97
29) Naphthalene	7.669	128	540682	1023.14	ng/ml	100
30) 4-Chloroaniline	7.734	127	73934	447.97	ng/ml	96
31) Hexachlorobutadiene	7.803	225	80295	845.15	ng/ml	98
32) 4-Chloro-3-methylphenol	8.215	107	118003	885.27	ng/ml	90
33) 2-Methylnaphthalene	8.365	142	325141	880.59	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	304081	850.72	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	68326	813.62	ng/ml	93
37) 2,4,6-Trichlorophenol	8.654	196	103708	988.65	ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	100124	967.49	ng/ml	96
39) 1,1'-Biphenyl	8.841	154	393344	842.69	ng/ml	99
41) 2-Chloronaphthalene	8.857	162	301212	893.52	ng/ml	98
42) 2-Nitroaniline	8.958	138	101340	1008.87	ng/ml	86
43) 2,6-Dimethylnaphthalene	8.996	156	295764	863.73	ng/ml	97

Analytes not reported

Data Path : T:\data\2019-11\9K08049\
Data File : J11081911.D
Acq On : 8 Nov 2019 4:57 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BS1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:31 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

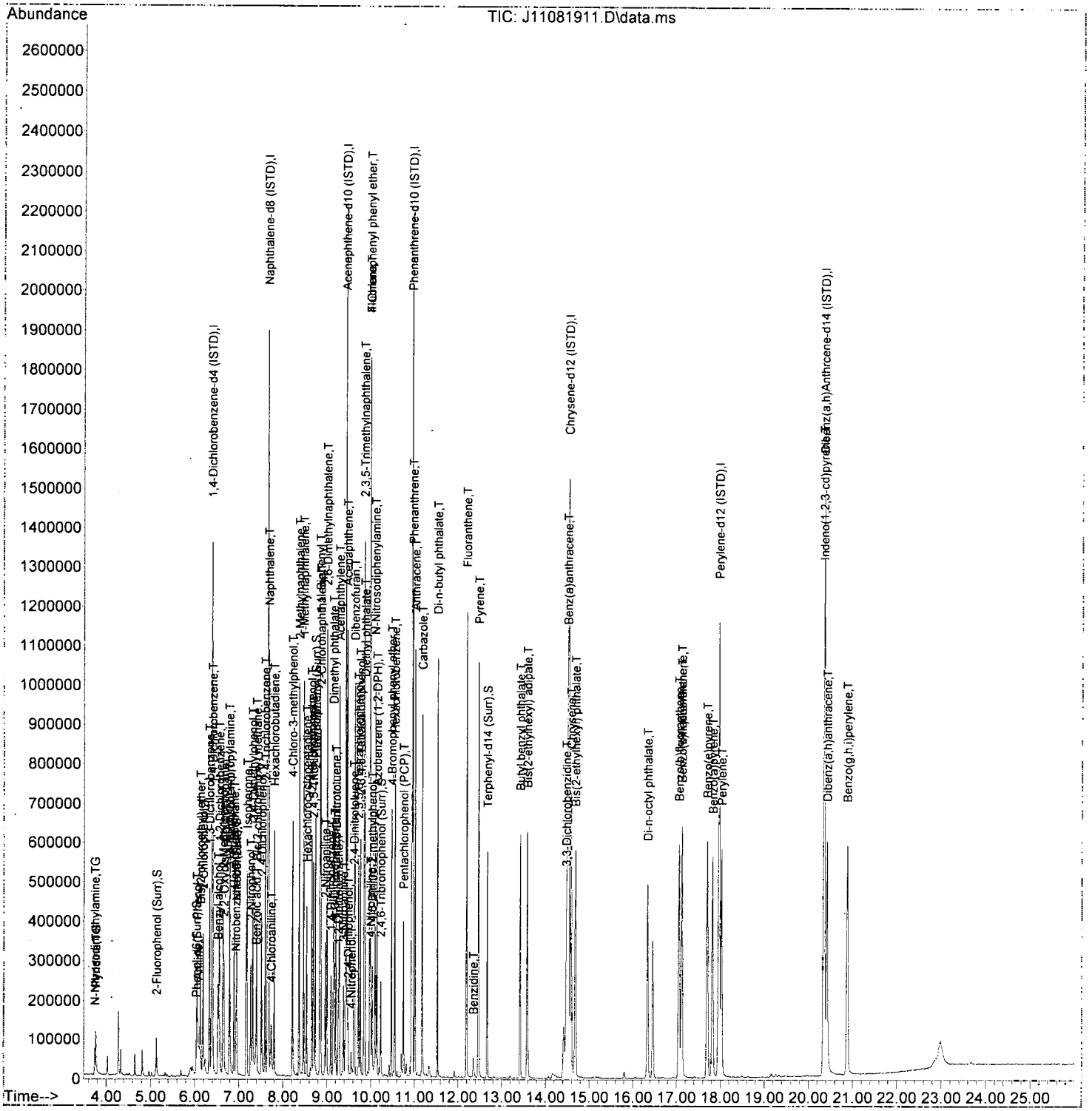
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	47654	1126.26	ng/ml	76
45) Dimethyl phthalate	9.146	163	372990	951.05	ng/ml	98
46) 1,3-Dinitrobenzene	9.172	168	53602	998.25	ng/ml	86
47) 2,6-Dinitrotoluene	9.204	165	85873	974.00	ng/ml	89
48) 1,2-Dinitrobenzene	9.258	168	37582	945.88	ng/ml	87
49) Acenaphthylene	9.279	152	485414	879.29	ng/ml	99
50) 3-Nitroaniline	9.376	138	60053	855.01	ng/ml	86
51) Acenaphthene	9.456	153	310854	857.50	ng/ml	98
52) 2,4-Dinitrophenol	9.483	184	27916	1258.13	ng/ml	85
53) 4-Nitrophenol	9.557	139	18022	400.41	ng/ml	94
54) 2,4-Dinitrotoluene	9.616	165	106951	973.29	ng/ml	82
55) Dibenzofuran	9.632	168	447857	926.78	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.718	232	83881	1009.72	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.761	232	88274	969.75	ng/ml	96
58) Diethyl phthalate	9.862	149	355298	984.17	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	9.846	170	299042	971.79	ng/ml	97
60) Fluorene	9.980	166	338080	889.00	ng/ml	99
61) 4-Chlorophenyl phenyl ...	9.980	204	174267	939.97	ng/ml	93
62) 4-Nitroaniline	9.996	138	64577	1106.54	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.028	198	51544	1276.13	ng/ml	90
65) N-Nitrosodiphenylamine	10.098	169	289574	938.84	ng/ml	99
66) Azobenzene (1,2-DPH)	10.140	77	233997	749.68	ng/ml	83
68) 4-Bromophenyl phenyl e...	10.477	248	109200	967.43	ng/ml	93
69) Hexachlorobenzene	10.552	284	128437	948.48	ng/ml	98
70) Pentachlorophenol (PCP)	10.750	266	59547	888.00	ng/ml	98
71) Phenanthrene	10.959	178	510439	909.56	ng/ml	99
72) Anthracene	11.012	178	504721	935.63	ng/ml	100
73) Carbazole	11.173	167	439285	1058.41	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	583462	986.25	ng/ml	99
75) Fluoranthene	12.194	202	577393	1003.85	ng/ml	97
76) Benzidine	12.349	184	33886	353.78	ng/ml	98
77) Pyrene	12.467	202	594441	1015.56	ng/ml	99
80) Butyl benzyl phthalate	13.419	149	247310	990.71	ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.580	129	218684	966.06	ng/ml	99
82) 3,3-Dichlorobenzidine	14.473	252	177940	2370.90	ng/ml	96
83) Benz(a)anthracene	14.505	228	532051	976.38	ng/ml	98
84) Chrysene	14.580	228	501431	981.92	ng/ml	99
85) Bis(2-ethylhexyl) phth...	14.681	149	358029	1019.80	ng/ml	99
87) Di-n-octyl phthalate	16.334	149	561526	1000.89	ng/ml	97
88) Benzo(b)fluoranthene	17.051	252	529310	981.64	ng/ml	98
89) Benzo(k)fluoranthene	17.115	252	533440	980.02	ng/ml	99
90) Benzo(b+k)fluoranthene	17.115	252	1084296	1956.37	ng/ml	99
91) Benzo(e)pyrene	17.698	252	519297	1032.49	ng/ml	99
92) Benzo(a)pyrene	17.821	252	465528	950.69	ng/ml	96
93) Perylene	18.024	252	453875	1028.46	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.346	276	465449	917.57	ng/ml	99
96) Dibenz(a,h)anthracene	20.421	278	459983	987.66	ng/ml	99
97) Benzo(g,h,i)perylene	20.881	276	501830	1029.95	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081911.D
Acq On : 8 Nov 2019 4:57 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BS1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:31 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081912.D
Acq On : 8 Nov 2019 5:33 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BSD1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Q19
DTH 11/11/19

Quant Time: Nov 11 08:48:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	279065	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1007302	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	537728	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1011749	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.527	240	1014102	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1033364	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	907833	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.129	112	49241	290.77 ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	36366	167.77 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	74044	440.32 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	233307	554.40 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	34255	570.58 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	282855	605.25 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	~~3.733~~	~~74~~	~~32740m~~	~~308.00 ng/ml#~~	~~mf~~ NR
3) Pyridine	~~3.754~~	~~79~~	~~52236m~~	~~288.25 ng/ml~~	~~mf~~
6) Phenol	6.054	94	73199	307.11 ng/ml	95
7) Aniline	~~6.070~~	~~93~~	~~66994~~	~~325.79 ng/ml~~	~~97 mf~~
8) Bis(2-chloroethyl) ether	~~6.129~~	~~93~~	~~185812~~	~~863.82 ng/ml~~	~~94 mf~~ NR
9) 2-Chlorophenol	6.188	128	149939	758.81 ng/ml	94
10) 1,3-Dichlorobenzene	6.332	146	163699	737.05 ng/ml	98
11) 1,4-Dichlorobenzene	6.402	146	160971	737.42 ng/ml	97
12) Benzyl alcohol	6.525	108	73435	638.59 ng/ml	94
13) 1,2-Dichlorobenzene	6.557	146	160935	747.57 ng/ml	98
14) 2-Methylphenol	6.637	107	99633	693.16 ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	100372	528.75 ng/ml	79
16) N-Nitrosodi-n-propylamine	6.782	70	87234	698.50 ng/ml	94
17) 3+4-Methylphenol	6.787	107	113508	636.85 ng/ml	96
18) Hexachloroethane	6.889	201	55828	832.37 ng/ml	92
20) Nitrobenzene	6.948	77	118751	697.00 ng/ml	87
22) Isophorone	7.183	82	259800	809.00 ng/ml	99
23) 2-Nitrophenol	7.268	139	107750	1128.80 ng/ml	90
24) 2,4-Dimethylphenol	7.311	122	116700	864.10 ng/ml	97
25) Bis(2-chloroethoxy) me...	7.402	93	161028	824.81 ng/ml	99
26) Benzoic acid	7.391	105	46013	1360.28 ng/ml	95
27) 2,4-Dichlorophenol	7.509	162	137427	912.01 ng/ml	96
28) 1,2,4-Trichlorobenzene	7.595	180	150286	852.46 ng/ml	98
29) Naphthalene	7.670	128	505268	953.52 ng/ml	100
30) 4-Chloroaniline	7.728	127	90414	544.89 ng/ml	96
31) Hexachlorobutadiene	7.803	225	83649	878.05 ng/ml	98
32) 4-Chloro-3-methylphenol	8.215	107	123136	921.26 ng/ml	92
33) 2-Methylnaphthalene	8.365	142	331872	896.37 ng/ml	99
34) 1-Methylnaphthalene	8.467	142	314514	877.51 ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	78283	941.44 ng/ml	98
37) 2,4,6-Trichlorophenol	8.654	196	109580	1053.12 ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	104001	1013.84 ng/ml	98
39) 1,1'-Biphenyl	8.836	154	408455	883.75 ng/ml	98
41) 2-Chloronaphthalene	8.857	162	313183	938.24 ng/ml	98
42) 2-Nitroaniline	8.959	138	100569	1011.03 ng/ml	87
43) 2,6-Dimethylnaphthalene	8.996	156	303346	894.66 ng/ml	100

J

Data Path : T:\data\2019-11\9K08049\
Data File : J11081912.D
Acq On : 8 Nov 2019 5:33 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BSD1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

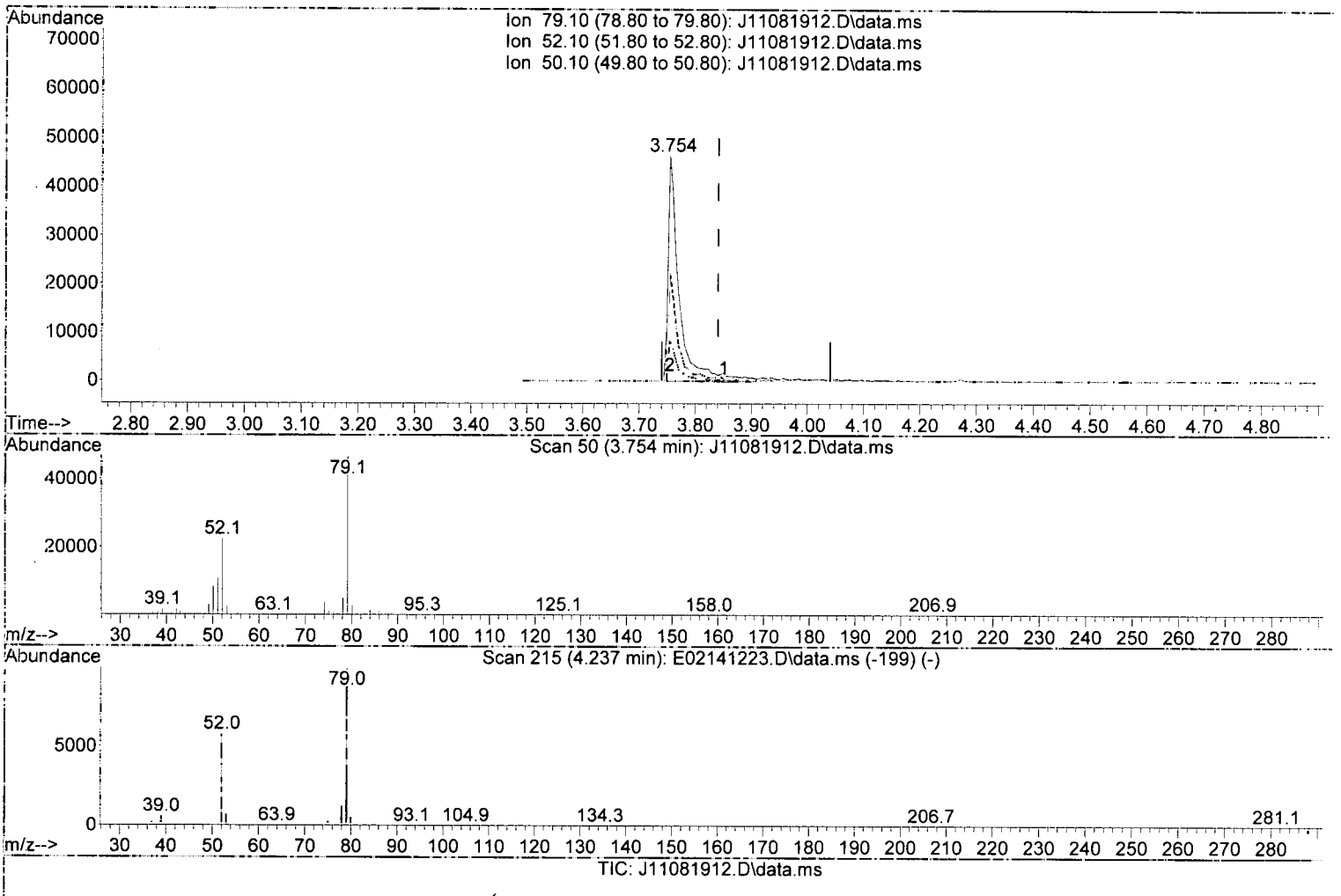
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	50483	1196.47	ng/ml	77
45) Dimethyl phthalate	9.146	163	385483	992.66	ng/ml	99
46) 1,3-Dinitrobenzene	9.173	168	57248	1070.98	ng/ml	86
47) 2,6-Dinitrotoluene	9.205	165	86507	990.59	ng/ml	88
48) 1,2-Dinitrobenzene	9.258	168	38150	969.71	ng/ml	89
49) Acenaphthylene	9.280	152	499863	914.45	ng/ml	100
50) 3-Nitroaniline	9.376	138	66672	979.30	ng/ml	90
51) Acenaphthene	9.456	153	315706	879.52	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	30210	1341.53	ng/ml	83
53) 4-Nitrophenol	9.558	139	21947	473.54	ng/ml	92
54) 2,4-Dinitrotoluene	9.611	165	109809	1007.58	ng/ml	90
55) Dibenzofuran	9.633	168	453693	948.17	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.718	232	86047	1044.41	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.761	232	89084	987.85	ng/ml	97
58) Diethyl phthalate	9.863	149	360505	1008.50	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.847	170	301787	990.44	ng/ml	94
60) Fluorene	9.980	166	349505	928.16	ng/ml	97
61) 4-Chlorophenyl phenyl ...	9.975	204	177348	966.07	ng/ml	98
62) 4-Nitroaniline	9.996	138	71691	1240.62	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.028	198	55276	1363.39	ng/ml	90
65) N-Nitrosodiphenylamine	10.098	169	297836	954.74	ng/ml	99
66) Azobenzene (1,2-DPH)	10.141	77	240283	761.14	ng/ml	84
68) 4-Bromophenyl phenyl e...	10.472	248	111745	978.81	ng/ml	97
69) Hexachlorobenzene	10.553	284	128661	939.42	ng/ml	96
70) Pentachlorophenol (PCP)	10.750	266	62783	922.55	ng/ml	98
71) Phenanthrene	10.959	178	513831	905.28	ng/ml	100
72) Anthracene	11.007	178	520809	954.57	ng/ml	99
73) Carbazole	11.173	167	451032	1081.31	ng/ml	98
74) Di-n-butyl phthalate	11.526	149	596871	997.54	ng/ml	99
75) Fluoranthene	12.195	202	591252	1016.35	ng/ml	96
76) Benzidine	12.344	184	149547	1124.39	ng/ml	96
77) Pyrene	12.467	202	601622	1016.23	ng/ml	100
80) Butyl benzyl phthalate	13.414	149	260401	1003.31	ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.580	129	220021	935.45	ng/ml	97
82) 3,3-Dichlorobenzidine	14.478	252	187328	2407.66	ng/ml	97
83) Benz(a)anthracene	14.500	228	566502	1000.54	ng/ml	97
84) Chrysene	14.580	228	528219	995.51	ng/ml	100
85) Bis(2-ethylhexyl) phth...	14.687	149	382727	1049.19	ng/ml	99
87) Di-n-octyl phthalate	16.334	149	600786	1013.16	ng/ml	98
88) Benzo(b)fluoranthene	17.056	252	556863	978.03	ng/ml	96
89) Benzo(k)fluoranthene	17.121	252	562809	979.12	ng/ml	99
90) Benzo(b+k)fluoranthene	17.121	252	1139726	1947.34	ng/ml	99
91) Benzo(e)pyrene	17.698	252	549356	1034.33	ng/ml	99
92) Benzo(a)pyrene	17.821	252	485162	938.37	ng/ml	97
93) Perylene	18.025	252	493427	1058.78	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.351	276	499761	930.94	ng/ml	93
96) Dibenz(a,h)anthracene	20.421	278	494454	1003.18	ng/ml	98
97) Benzo(g,h,i)perylene	20.881	276	536038	1039.55	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K08049\
Data File : J11081912.D
Acq On : 8 Nov 2019 5:33 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BSD1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



(3) Pyridine (TG)

3.754min (-0.086) 288.25 ng/ml m

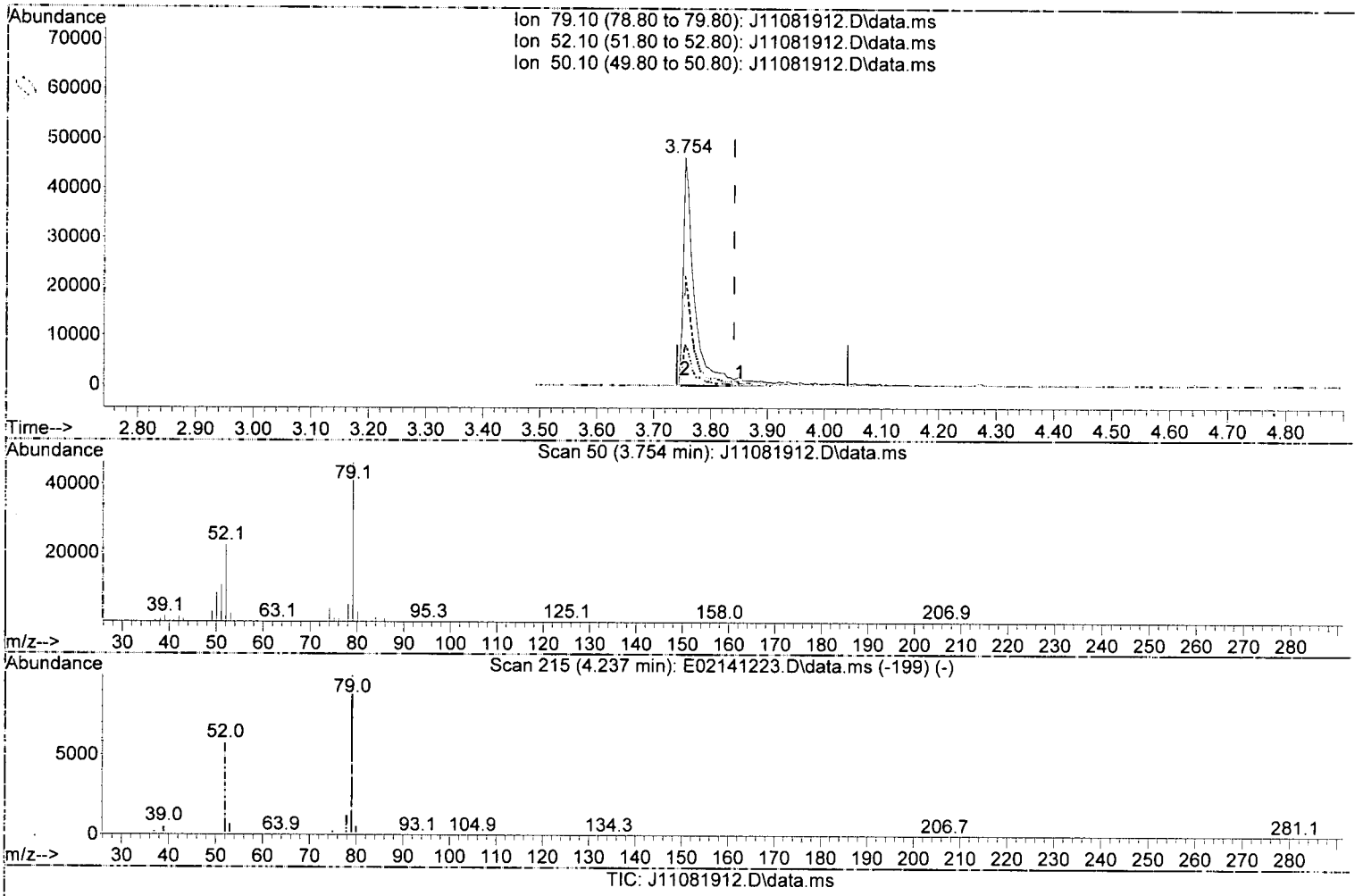
response 52236

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	47.63
50.10	18.70	18.09
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K08049\
Data File : J11081912.D
Acq On : 8 Nov 2019 5:33 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BSD1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



(3) Pyridine (TG)

3.754min (-0.086) 359.01 ng/ml (m)

response 65059

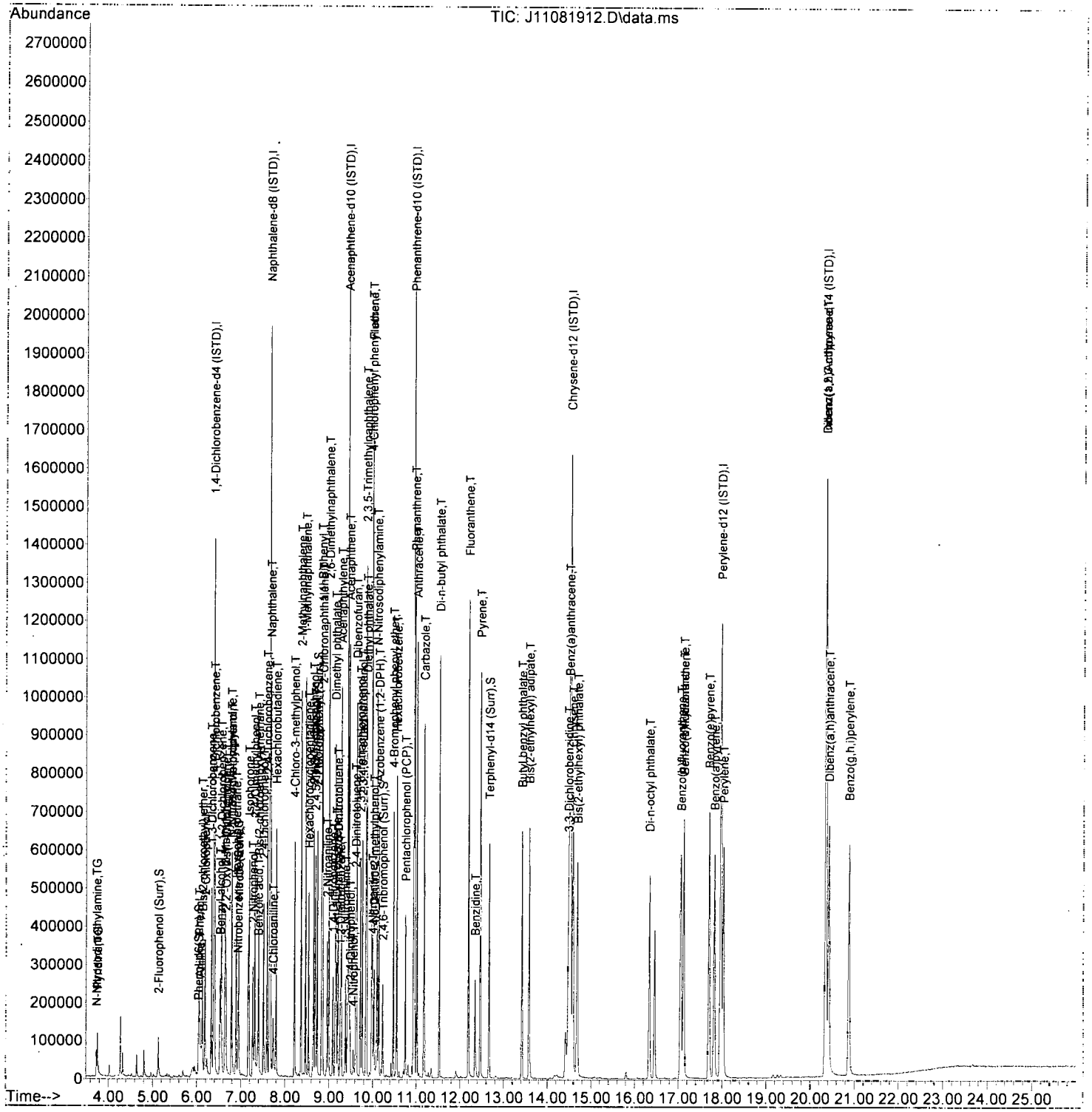
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	48.28
50.10	18.70	18.06
0.00	0.00	0.00

JMT 11/11/19

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081912.D
Acq On : 8 Nov 2019 5:33 pm
Operator : JK/ AMS/ DTH
Sample : 9110594-BSD1@4
Misc : 4x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:38 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K08049\
Data File : J11081915.D
Acq On : 8 Nov 2019 7:21 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01@50
Misc : 50x, 8270D TCLP REG LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

RM

Quant Time: Nov 11 08:48:56 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DTH 11/11/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	268665	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	956474	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	499766	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	835354	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.527	240	774032	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.976	264	764377	2000.00 ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.362	292	641092	2000.00 ng/ml	0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.140	112	1682	10.32 ng/ml	-0.01
5) Phenol-d6(Surr)	6.054	99	672	3.22 ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	6.937	82	3674	22.69 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	14039	35.89 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.232	330	1343	49.89 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.671	244	16089	45.10 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.097	94	55	N.D.	
7) Aniline	6.097	93	95	N.D.	
8) Bis(2-chloroethyl) ether	6.097	93	95	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	6.718	45	53	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.937	77	325	N.D.	
22) Isophorone	7.194	82	81	N.D.	
23) 2-Nitrophenol	7.338	139	107	43.44 ng/ml#	43
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	7.397	93	72	N.D.	
26) Benzoic acid	7.397	105	517	812.69 ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.670	128	1370734	2724.25 ng/ml	98
30) 4-Chloroaniline	7.739	127	876	18.60 ng/ml#	30
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.365	142	186631	530.87 ng/ml	99
34) 1-Methylnaphthalene	8.467	142	138353	406.52 ng/ml	97
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	8.836	154	25508	59.38 ng/ml	99
41) 2-Chloronaphthalene	8.841	162	270	N.D.	
42) 2-Nitroaniline	8.937	138	57	31.07 ng/ml#	1
43) 2,6-Dimethylnaphthalene	9.007	156	21151	67.12 ng/ml	93

Data Path : T:\data\2019-11\9K08049\
Data File : J11081915.D
Acq On : 8 Nov 2019 7:21 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01@50
Misc : 50x, 8270D TCLP REG LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

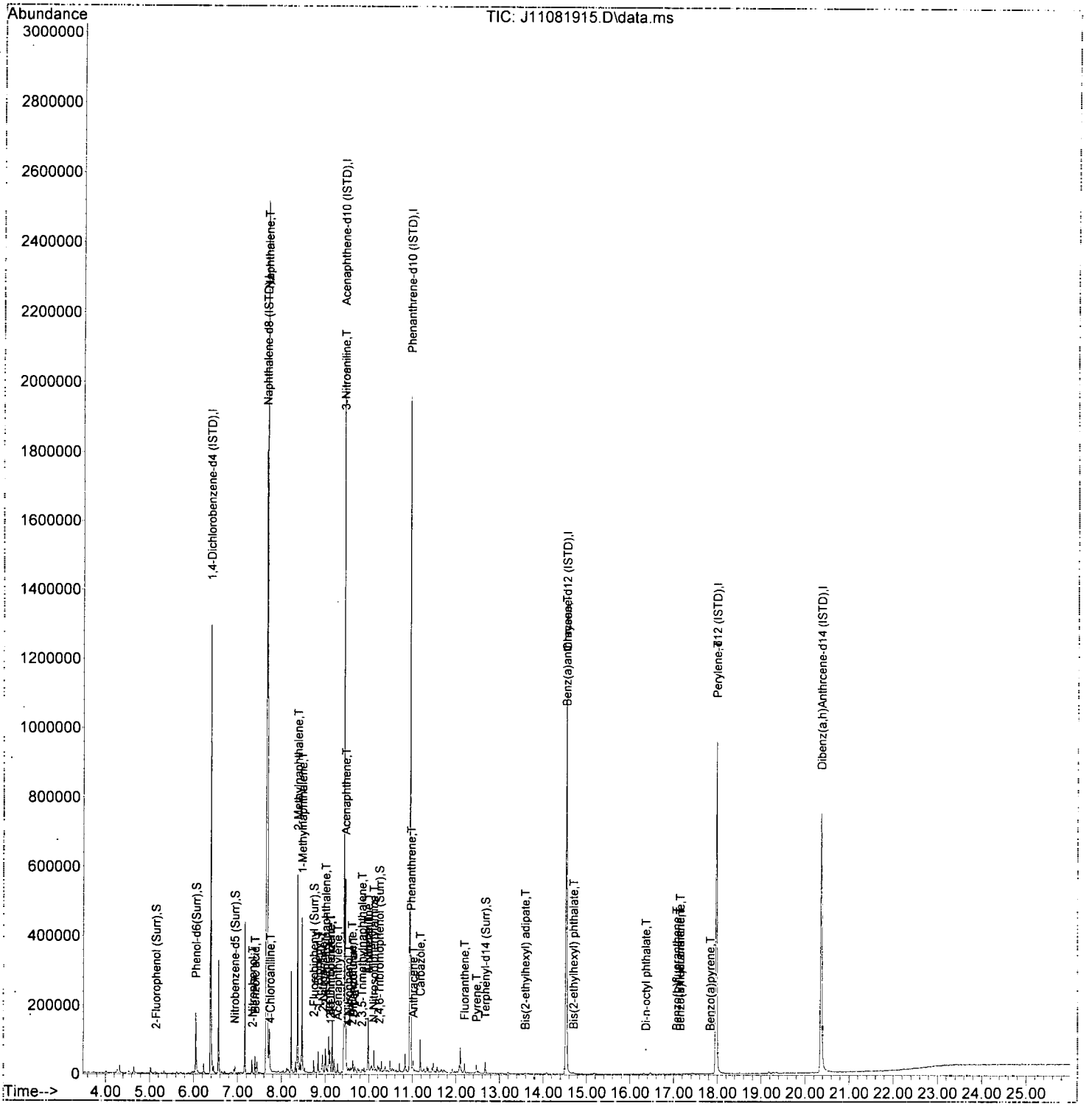
Quant Time: Nov 11 08:48:56 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.119	168	680	83.59 ng/ml#	15
45) Dimethyl phthalate	9.140	163	175	N.D.	
46) 1,3-Dinitrobenzene	9.119	168	680	71.04 ng/ml#	56
47) 2,6-Dinitrotoluene	9.114	165	247	28.02 ng/ml	70
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.280	152	1736	3.42 ng/ml#	52
50) 3-Nitroaniline	9.429	138	69	30.59 ng/ml#	1
51) Acenaphthene	9.456	153	147373	441.75 ng/ml	98
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.526	139	296	79.70 ng/ml#	28
54) 2,4-Dinitrotoluene	9.611	165	598	59.28 ng/ml#	56
55) Dibenzofuran	9.633	168	10438	23.47 ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	9.857	149	182	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.836	170	3942	13.92 ng/ml	86
60) Fluorene	9.980	166	45145	129.00 ng/ml	95
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	9.980	138	466	8.68 ng/ml#	26
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.103	169	1070	4.15 ng/ml#	1
66) Azobenzene (1,2-DPH)	10.151	77	318	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	10.959	178	130371	278.19 ng/ml	99
72) Anthracene	11.013	178	15117	33.56 ng/ml	95
73) Carbazole	11.173	167	44571	106.48 ng/ml	98
74) Di-n-butyl phthalate	11.531	149	575	N.D.	
75) Fluoranthene	12.195	202	12468	25.96 ng/ml	97
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.467	202	13458	27.53 ng/ml	95
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.585	129	492	2.74 ng/ml	63
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.521	228	2728	6.31 ng/ml	72
84) Chrysene	14.580	228	524	N.D.	
85) Bis(2-ethylhexyl) phth...	14.692	149	2181	7.83 ng/ml	89
87) Di-n-octyl phthalate	16.356	149	112	58.18 ng/ml	77
88) Benzo(b)fluoranthene	17.062	252	103	8.20 ng/ml	57
89) Benzo(k)fluoranthene	17.142	252	96	8.70 ng/ml	57
90) Benzo(b+k)fluoranthene	17.142	252	96	15.95 ng/ml	57
91) Benzo(e)pyrene	17.704	252	220	N.D.	
92) Benzo(a)pyrene	17.832	252	81	10.05 ng/ml	59
93) Perylene	17.976	252	2345	6.80 ng/ml	74
95) Indeno(1,2,3-cd)pyrene	20.362	276	289	N.D.	
96) Dibenz(a,h)anthracene	20.378	278	145	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-11\9K08049\
Data File : J11081915.D
Acq On : 8 Nov 2019 7:21 pm
Operator : JK/ AMS/ DTH
Sample : A9J1007-01@50
Misc : 50x, 8270D TCLP REG LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 11 08:48:56 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9I19035 (Cal ID A9I2405) SV-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9I19035**	Instrument:	**SV-GCMS10**
Date:	**09/19/19 17:44**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9I19035-IBL1	Water	QC	QC			A19I086	
2	9I19035-TUN1	Water	QC	QC			A19I086	A19I165
3	9I19035-ICB1	Water	QC	QC			A19I086	
4	9I19035-CAL1	Water	QC	QC			A19I086	A19G238
5	9I19035-CAL2	Water	QC	QC			A19I086	A19G239
6	9I19035-CAL3	Water	QC	QC			A19I086	A19G240
7	9I19035-CAL4	Water	QC	QC			A19I086	A19G241
8	9I19035-CAL5	Water	QC	QC			A19I086	A19G242
9	9I19035-CAL6	Water	QC	QC			A19I086	A19G243
10	9I19035-CAL7	Water	QC	QC			A19I086	A19G244
11	9I19035-CAL8	Water	QC	QC			A19I086	A19G245
12	9I19035-CAL9	Water	QC	QC			A19I086	A19G246
13	9I19035-CALA	Water	QC	QC			A19I086	A19G247
14	9I19035-IBL2	Water	QC	QC			A19I086	
15	9I19035-ICV1	Water	QC	QC			A19I086	A19I254
16	9I19035-IBL3	Water	QC	QC			A19I086	

Data Entered By: 9/24/19

Data Reviewed By: 9/26/19

Comments:

Calibration Status Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

A9I 2405

9/23/19

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	C:\msdchem\1\data\2019-09\9I19035\J09191918.D
2	50	50	2000	C:\msdchem\1\data\2019-09\9I19035\J09191919.D
3	100	100	2000	C:\msdchem\1\data\2019-09\9I19035\J09191920.D
4	200	200	2000	C:\msdchem\1\data\2019-09\9I19035\J09191921.D
5	500	500	2000	C:\msdchem\1\data\2019-09\9I19035\J09191922.D
6	1000	1000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191923.D
7	2000	2000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191924.D
8	4000	4000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191925.D
9	6000	6000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191926.D
10	8000	8000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191927.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Sep 20 10:40 2019	Sep 20 10:14 2019	20 Sep 2019 1:24 am
2	50	Sep 20 10:40 2019	Sep 20 10:17 2019	20 Sep 2019 1:59 am
3	100	Sep 20 10:40 2019	Sep 20 10:18 2019	20 Sep 2019 2:34 am
4	200	Sep 20 10:40 2019	Sep 20 10:21 2019	20 Sep 2019 3:09 am
5	500	Sep 20 10:40 2019	Sep 20 10:22 2019	20 Sep 2019 3:44 am
6	1000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:19 am
7	2000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:54 am
8	4000	Sep 20 10:40 2019	Sep 20 10:28 2019	20 Sep 2019 5:29 am
9	6000	Sep 20 10:40 2019	Sep 20 10:29 2019	20 Sep 2019 6:04 am
10	8000	Sep 20 10:41 2019	Sep 20 10:30 2019	20 Sep 2019 6:39 am

SV10_091919.M Fri Sep 20 14:11:04 2019

Compound List Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/20/19

Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.568	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	3.883	0.591	A	2	A	A
3	T	Pyridine	79	3.904	0.594	A	2	A	A
4	S	2-Fluorophenol (Surr)	112	5.289	0.805	A	1	A	R
5	S	Phenol-d6(Surr)	99	6.204	0.945	A	2	A	R
6	T	Phenol	94	6.215	0.946	A	2	A	R
7	T	Aniline	93	6.241	0.950	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.305	0.960	A	2	A	R
9	T	2-Chlorophenol	128	6.364	0.969	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.514	0.992	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.584	1.002	A	2	A	R
12	T	Benzyl alcohol	108	6.701	1.020	Q	2	A	R
13	T	1,2-Dichlorobenzene	146	6.739	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.808	1.037	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.835	1.041	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	6.963	1.060	A	2	A	R
17	T	3+4-Methylphenol	107	6.958	1.059	A	3	A	R
18	T	Hexachloroethane	201	7.076	1.077	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.113	1.083	A	2	A	R
20	T	Nitrobenzene	77	7.129	1.085	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.835	1.000	A	1	A	R
22	T	Isophorone	82	7.370	0.941	A	2	A	R
23	T	2-Nitrophenol	139	7.450	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.487	0.956	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.579	0.967	A	2	A	R
26	T	Benzoic acid	105	7.578	0.967	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.690	0.981	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.782	0.993	A	2	A	R
29	T	Naphthalene	128	7.857	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.904	1.009	Q	2	A	R
31	T	Hexachlorobutadiene	225	7.990	1.020	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.386	1.070	A	2	A	R
33	T	2-Methylnaphthalene	142	8.557	1.092	A	2	A	R
34	T	1-Methylnaphthalene	142	8.659	1.105	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.616	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.728	0.908	A	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.840	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.872	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.028	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	8.926	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.049	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.145	0.951	Q	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.188	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.274	0.964	Q	2	A	R
45	T	Dimethyl phthalate	163	9.333	0.971	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.354	0.973	Q	2	A	R
47	T	2,6-Dinitrotoluene	165	9.391	0.977	Q	2	A	R
48	T	1,2-Dinitrobenzene	168	9.445	0.982	A	2	A	R
49	T	Acenaphthylene	152	9.471	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.562	0.994	Q	2	A	R
51	T	Acenaphthene	153	9.648	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.664	1.005	Q	2	A	R
53	T	4-Nitrophenol	139	9.723	1.011	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.798	1.019	Q	2	A	R

55	T	Dibenzofuran	168	9.825	1.022	A		2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.905	1.030	Q	1/a²	2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	9.947	1.034	Q	1/a²	2	A	R
58	T	Diethyl phthalate	149	10.050	1.045	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.039	1.044	A		2	A	R
60	T	Fluorene	166	10.172	1.058	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.167	1.057	A		2	A	R
62	T	4-Nitroaniline	138	10.183	1.059	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.215	1.062	Q	1/a²	2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.135	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.284	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.327	0.927	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.418	0.936	Q	1/a²	2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.670	0.958	A		2	A	R
69	T	Hexachlorobenzene	284	10.745	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	10.942	0.983	Q	1/a	2	A	R
71	T	Phenanthrene	178	11.156	1.002	A		2	A	R
72	T	Anthracene	178	11.210	1.007	A		2	A	R
73	T	Carbazole	167	11.365	1.021	Q	1/a²	2	A	R
74	T	Di-n-butyl phthalate	149	11.718	1.052	A		2	A	R
75	T	Fluoranthene	202	12.424	1.116	A		2	A	R
76	T	Benzidine	184	12.579	1.130	Q	1/a²	2	A	R
77	T	Pyrene	202	12.713	1.142	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	14.917	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	12.922	0.866	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.734	0.921	Q	1/a²	2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	13.911	0.933	A		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.863	0.996	Q	1/a²	2	A	R
83	T	Benz(a)anthracene	228	14.890	0.998	A		2	A	R
84	T	Chrysene	228	14.976	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.071	1.010	A		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.399	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.746	0.910	Q	1/a²	2	A	R
88	T	Benzo(b)fluoranthene	252	17.478	0.950	Q	1/a²	2	A	R
89	T	Benzo(k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
91	T	Benzo(e)pyrene	252	18.137	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.254	0.992	Q	1/a²	2	A	R
93	T	Perylene	252	18.458	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.795	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.790	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	20.865	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.325	1.025	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV10_091919.M Fri Sep 20 12:56:52 2019

Response Factor Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/23/19

Calibration Files
20 =J09191918.D 50 =J09191919.D 100 =J09191920.D 200 =J09191921.D 500 =J09191922.D 1000=J09191923.D 2000=J09191924.D
4000=J09191925.D 6000=J09191926.D 8000=J09191927.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
														3.51
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											
2)	TG	N-Nitrosodimet...	0.759	0.758	0.808	0.697	0.702	0.739	0.762	0.786	0.804	0.804	0.762	5.28
3)	TG	Pyridine		1.053	1.277	1.346	1.118	1.285	1.376	1.417	1.443	1.375	1.299	10.27
4)	S	2-Fluorophenol...	0.940	1.045	0.952	1.217	1.280	1.263	1.333	1.381	1.371	1.354	1.214	14.15
5)	S	Phenol-d6(Surr)	1.197	1.305	1.446	1.602	1.667	1.682	1.674	1.705	1.659	1.598	1.553	11.41
6)	T	Phenol	1.542	1.562	1.608	1.797	1.827	1.843	1.776	1.794	1.708	1.625	1.708	6.71
7)	T	Aniline		1.505	1.592	1.714	1.671	1.336	1.129	1.375	1.569	1.374	1.474	12.65
8)	T	Bis(2-chloroet...	1.409	1.401	1.477	1.489	1.547	1.678	1.759	1.573			1.542	8.18
9)	T	2-Chlorophenol	1.231	1.299	1.339	1.474	1.520	1.505	1.485	1.475	1.445	1.389	1.416	6.89
10)	T	1,3-Dichlorobe...	1.526	1.590	1.641	1.679	1.688	1.625	1.631	1.578	1.503	1.457	1.592	4.80
11)	T	1,4-Dichlorobe...	1.540	1.656	1.606	1.633	1.652	1.622	1.590	1.515	1.433	1.397	1.564	5.83
12)	T	Benzyl alcohol		0.475	0.613	0.639	0.793	0.881	0.917	0.951	0.916	0.866	0.783	21.39
13)	T	1,2-Dichlorobe...	1.431	1.680	1.634	1.675	1.672	1.602	1.552	1.481	1.383	1.318	1.543	8.56
14)	T	2-Methylphenol	0.930	0.880	0.981	1.077	1.155	1.148	1.117	1.057	1.001	0.957	1.030	9.22
15)	T	2,2'-Oxybis(1-...	1.500	1.454	1.504	1.552	1.511	1.442	1.285	1.209	1.125	1.024	1.360	13.68
16)	T	N-Nitrosodi-n-...	0.922	0.898	0.938	0.991	0.999	0.963	0.901	0.825	0.768	0.745	0.895	9.91
17)	T	3+4-Methylphenol	1.065	1.133	1.160	1.345	1.441	1.458	1.401	1.305	1.189		1.277	11.32
18)	T	Hexachloroethane	0.434	0.455	0.452	0.472	0.494	0.484	0.503	0.510	0.500	0.503	0.481	5.45
19)	S	Nitrobenzene-d...	0.981	1.085	1.135	1.209	1.313	1.322	1.282	1.286	1.246	1.193	1.205	9.14
20)	T	Nitrobenzene	1.076	1.183	1.189	1.302	1.341	1.327	1.281	1.234	1.165	1.113	1.221	7.44
														4.83
21)	I	Naphthalene-d8 (ISTD)	----------ISTD----------											
22)	T	Isophorone	0.569	0.605	0.640	0.652	0.683	0.661	0.671	0.637	0.632	0.627	0.638	5.17
23)	T	2-Nitrophenol			0.122	0.135	0.180	0.201	0.189	0.201	0.201	0.195	0.178	17.69
24)	T	2,4-Dimethylph...		0.198	0.249	0.265	0.283	0.287	0.304	0.287	0.284	0.256	0.268	11.73
25)	T	Bis(2-chloroet...	0.388	0.385	0.394	0.408	0.432	0.413	0.411	0.376	0.348	0.321	0.388	8.46
26)	T	Benzoic acid					0.037	0.087	0.142	0.188	0.195	0.216	0.144	48.51
27)	T	2,4-Dichloroph...		0.170	0.214	0.252	0.295	0.303	0.320	0.305	0.287	0.272	0.269	18.30
28)	T	1,2,4-Trichlor...	0.357	0.371	0.359	0.374	0.372	0.362	0.355	0.336	0.317	0.297	0.350	7.29
29)	T	Naphthalene	1.146	1.151	1.167	1.173	1.186	1.117	1.076	0.925	0.826	0.754	1.052	15.05
30)	T	4-Chloroaniline	0.125	0.244	0.255	0.320	0.351	0.349	0.340	0.277	0.276	0.276	0.281	23.94
31)	T	Hexachlorobuta...	0.184	0.200	0.195	0.200	0.201	0.199	0.191	0.185	0.174	0.163	0.189	6.74
32)	T	4-Chloro-3-met...			0.197	0.220	0.278	0.284	0.309	0.291	0.278	0.266	0.265	14.24
33)	T	2-Methylnaphth...	0.706	0.774	0.776	0.819	0.833	0.793	0.783	0.679	0.620	0.570	0.735	12.00
34)	T	1-Methylnaphth...	0.737	0.770	0.777	0.793	0.804	0.752	0.740	0.635	0.577	0.532	0.712	13.43
														3.37
35)	I	Acenaphthene-d10 (...	----------ISTD----------											
36)	T	Hexachlorocycl...		0.218	0.261	0.286	0.327	0.342	0.363	0.328	0.338	0.320	0.309	14.82
37)	T	2,4,6-Trichlor...		0.237	0.257	0.307	0.384	0.402	0.423	0.419	0.401	0.389	0.358	19.99
38)	T	2,4,5-Trichlor...		0.237	0.270	0.301	0.381	0.390	0.418	0.406	0.393	0.366	0.351	18.51
39)	T	1,1'-Biphenyl	1.593	1.862	1.891	1.926	1.923	1.827	1.723	1.451	1.275		1.719	13.51

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.477	1.610	1.735	1.751	1.740	1.652	1.564	1.351	1.207		1.565	12.07
41)	T	2-Chloronaphth...	1.194	1.263	1.356	1.408	1.432	1.325	1.296	1.154	1.045	0.943	1.242	12.73
42)	T	2-Nitroaniline		0.177	0.224	0.264	0.357	0.389	0.424	0.415	0.416	0.398	0.340	27.55
43)	T	2,6-Dimethylna...	1.108	1.335	1.410	1.426	1.405	1.336	1.263	1.089	0.979		1.261	12.95
44)	T	1,4-Dinitroben...			0.065	0.084	0.127	0.151	0.184	0.203	0.205	0.206	0.153	36.62
45)	T	Dimethyl phtha...	1.435	1.460	1.596	1.570	1.600	1.540	1.481	1.346	1.249	1.166	1.444	10.30
46)	T	1,3-Dinitroben...			0.099	0.125	0.180	0.196	0.220	0.228	0.229	0.221	0.187	26.72
47)	T	2,6-Dinitrotol...		0.189	0.212	0.275	0.327	0.334	0.344	0.334	0.324	0.306	0.294	19.32
48)	T	1,2-Dinitroben...				0.119	0.146	0.155	0.160	0.159	0.150	0.136	0.146	10.12
49)	T	Acenaphthylene	1.944	2.090	2.211	2.226	2.309	2.184	2.067	1.748	1.519		2.033	12.60
50)	T	3-Nitroaniline		0.137	0.196	0.256	0.282	0.261	0.196				0.221	24.71
51)	T	Acenaphthene	1.387	1.465	1.444	1.458	1.436	1.370	1.314	1.127	1.013		1.335	12.00
52)	T	2,4-Dinitrophenol				0.013	0.029	0.062	0.100	0.137	0.153		0.082	69.44
53)	T	4-Nitrophenol			0.068	0.095	0.164	0.201	0.242	0.257	0.263		0.184	42.54
54)	T	2,4-Dinitrotol...			0.221	0.277	0.369	0.398	0.439	0.437	0.413	0.366	0.365	21.35
55)	T	Dibenzofuran	1.822	1.907	2.037	2.018	1.983	1.887	1.852	1.604	1.422	1.264	1.780	14.79
56)	T	2,3,5,6-Tetrac...		0.109	0.184	0.216	0.296	0.315	0.344	0.342	0.335	0.322	0.274	30.66
57)	T	2,3,4,6-Tetrac...		0.163	0.236	0.262	0.323	0.347	0.364	0.355	0.339	0.326	0.302	22.30
58)	T	Diethyl phthalate	1.254	1.388	1.556	1.505	1.488	1.460	1.384	1.206	1.077	0.976	1.330	14.62
59)	T	2,3,5-Trimethy...	1.191	1.238	1.255	1.278	1.274	1.217	1.168	1.004	0.895	0.813	1.133	14.83
60)	T	Fluorene	1.423	1.444	1.592	1.562	1.562	1.460	1.385	1.151	1.025		1.401	13.79
61)	T	4-Chlorophenyl...	0.710	0.743	0.775	0.749	0.750	0.718	0.704	0.618	0.558	0.502	0.683	13.46
62)	T	4-Nitroaniline			0.181	0.210	0.234	0.216	0.220	0.221	0.217	0.220	0.215	7.13
63)	T	4,6-Dinitro-2-...				0.041	0.091	0.133	0.174	0.203	0.212	0.212	0.152	43.85
														4.15
64)	I	Phenanthrene-d10 (...	----------	ISTD	----------									
65)	T	N-Nitrosodiphe...	0.518	0.605	0.660	0.703	0.703	0.658	0.604	0.483			0.617	13.21
66)	T	Azobenzene (1,...	0.596	0.640	0.676	0.698	0.710	0.667	0.627	0.537	0.465		0.624	12.85
67)	S	2,4,6-Tribromo...		0.071	0.086	0.099	0.120	0.122	0.130	0.125	0.118	0.112	0.109	18.24
68)	T	4-Bromophenyl ...	0.208	0.233	0.237	0.239	0.238	0.236	0.235	0.223	0.211	0.198	0.226	6.56
69)	T	Hexachlorobenzene	0.300	0.280	0.292	0.278	0.295	0.286	0.279	0.252	0.231	0.215	0.271	10.61
70)	T	Pentachlorophe...			0.078	0.070	0.108	0.122	0.142	0.148	0.145	0.138	0.119	26.11
71)	T	Phenanthrene	1.195	1.197	1.225	1.228	1.225	1.146	1.091	0.940	0.851		1.122	12.26
72)	T	Anthracene	0.995	1.126	1.166	1.205	1.196	1.143	1.088	0.944	0.844		1.079	11.55
73)	T	Carbazole	0.798	0.900	0.979	1.011	1.002	0.861	0.592				0.878	16.89
74)	T	Di-n-butyl pht...		1.071	1.257	1.259	1.318	1.283	1.235	1.082	0.958		1.183	10.85
75)	T	Fluoranthene	1.065	1.146	1.256	1.262	1.316	1.257	1.229	1.088	0.992	0.891	1.150	12.02
76)	T	Benzidine			0.114	0.197	0.271	0.284	0.275	0.307	0.320	0.323	0.261	27.45
77)	T	Pyrene	1.099	1.203	1.242	1.308	1.336	1.283	1.225	1.094	0.997	0.915	1.170	11.89
														4.74
78)	I	Chrysene-d12 (ISTD)	----------	ISTD	----------									
79)	S	Terphenyl-d14 ...	0.821	0.902	0.977	0.959	0.995	0.969	0.953	0.924	0.880	0.837	0.922	6.53
80)	T	Butyl benzyl p...		0.243	0.334	0.380	0.487	0.533	0.570	0.590	0.580	0.569	0.476	26.60
81)	T	Bis(2-ethylhex...				0.336	0.441	0.473	0.506	0.520	0.488	0.482	0.464	13.26
82)	T	3,3-Dichlorobe...				0.241	0.193	0.167	0.129	0.122	0.119	0.117	0.155	30.50
83)	T	Benz(a)anthracene	1.161	1.070	1.154	1.114	1.143	1.102	1.125	1.115	1.107	1.076	1.117	2.72
84)	T	Chrysene	0.995	1.051	1.094	1.080	1.094	1.062	1.054	1.041	1.009	0.985	1.046	3.74
85)	T	Bis(2-ethylhex...				0.521	0.706	0.743	0.776	0.790	0.763	0.737	0.719	12.78
														4.02
86)	I	Perylene-d12 (ISTD)	----------	ISTD	----------									
87)	T	Di-n-octyl pht...			0.597	0.694	0.979	1.136	1.337	1.352	1.295	1.229	1.077	27.27

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics

88)	T	Benzo(b)fluora...	0.716	0.795	1.016	1.038	1.109	1.109	1.178	1.183	1.177	1.128	1.045	15.65
89)	T	Benzo(k)fluora...	0.705	0.864	1.038	1.065	1.120	1.117	1.168	1.078	0.973	0.854	0.998	14.77
90)	T	Benzo(b+k)fluo...	0.734	0.871	1.068	1.079	1.136	1.134	1.191	1.148	1.113	1.060	1.053	13.45
91)	T	Benzo(e)pyrene	0.747	0.896	1.032	1.039	1.102	1.105	1.133	1.110	1.089	1.027	1.028	11.67
92)	T	Benzo(a)pyrene	0.574	0.677	0.889	0.917	1.028	1.027	1.091	1.049	1.010	0.968	0.923	18.38
93)	T	Perylene	0.801	0.900	0.892	0.920	0.951	0.914	0.954	0.913	0.908	0.867	0.902	4.87
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											6.05
95)	T	Indeno(1,2,3-c...	1.102	1.169	1.176	1.156	1.171	1.152	1.205	1.224	1.230	1.241	1.183	3.60
96)	T	Dibenz(a,h)ant...	0.958	1.019	1.091	1.097	1.135	1.105	1.145	1.152	1.103	1.054	1.086	5.57
97)	T	Benzo(g,h,i)pe...	0.850	0.944	1.107	1.165	1.222	1.214	1.250	1.243	1.204	1.158	1.136	11.87

(#) = Out of Range

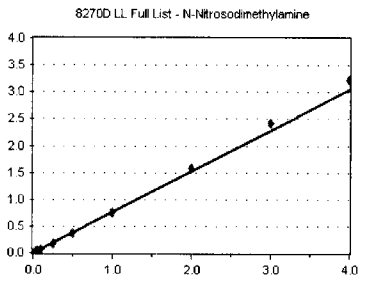
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

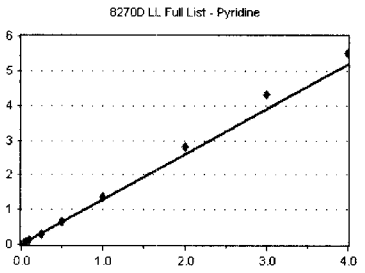


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2214	0.759	3.97
9I19035-CAL2	50	5516	0.758	3.95
9I19035-CAL3	100	11734	0.808	3.95
9I19035-CAL4	200	19941	0.697	3.92
9I19035-CAL5	500	52485	0.702	3.93
9I19035-CAL6	1000	104763	0.739	3.88
9I19035-CAL7	2000	217151	0.762	3.94
9I19035-CAL8	4000	480484	0.786	3.93
9I19035-CAL9	6000	674636	0.804	3.88
9I19035-CALA	8000	866525	0.804	3.96

AVE RF **0.762** RF RSD **5.28** AVE RT **3.93**

Pyridine

Curve Fit: **AVERAGE RF**

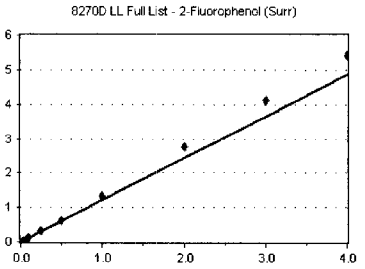


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2206~~	~~0.756~~	~~4.05~~
9I19035-CAL2	50	7667	1.053	4.00
9I19035-CAL3	100	18548	1.277	3.99
9I19035-CAL4	200	38499	1.346	3.95
9I19035-CAL5	500	83583	1.118	3.96
9I19035-CAL6	1000	182180	1.285	3.90
9I19035-CAL7	2000	392152	1.376	3.96
9I19035-CAL8	4000	866960	1.417	3.94
9I19035-CAL9	6000	1210013	1.443	3.89
9I19035-CALA	8000	1480958	1.375	3.96

AVE RF **1.299** RF RSD **10.27** AVE RT **3.95**

2-Fluorophenol (Surr)

Curve Fit: **AVERAGE RF**

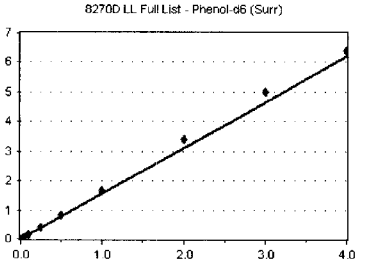


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2742	0.940	5.32
9I19035-CAL2	50	7611	1.045	5.31
9I19035-CAL3	100	13834	0.952	5.31
9I19035-CAL4	200	34817	1.217	5.30
9I19035-CAL5	500	95687	1.280	5.31
9I19035-CAL6	1000	179108	1.263	5.29
9I19035-CAL7	2000	379802	1.333	5.31
9I19035-CAL8	4000	844515	1.381	5.31
9I19035-CAL9	6000	1150405	1.371	5.30
9I19035-CALA	8000	1458990	1.354	5.32

AVE RF **1.214** RF RSD **14.15** AVE RT **5.31**

Phenol-d6 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3493	1.197	6.20
9I19035-CAL2	50	9501	1.305	6.20
9I19035-CAL3	100	21003	1.446	6.20
9I19035-CAL4	200	45844	1.602	6.20
9I19035-CAL5	500	124621	1.667	6.20
9I19035-CAL6	1000	238398	1.682	6.20
9I19035-CAL7	2000	477001	1.674	6.21
9I19035-CAL8	4000	1043086	1.705	6.22
9I19035-CAL9	6000	1391310	1.659	6.22
9I19035-CALA	8000	1721904	1.598	6.23

AVE RF **1.553** RF RSD **11.41** AVE RT **6.21**

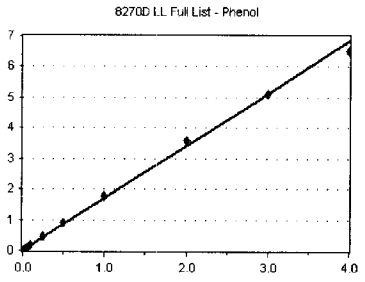
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Phenol

Curve Fit: **AVERAGE RF**

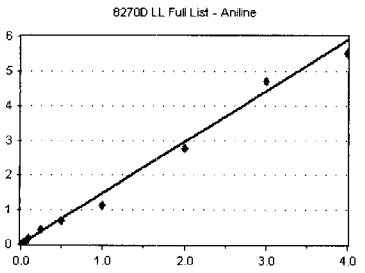


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4498	1.542	6.22
9I19035-CAL2	50	11373	1.562	6.22
9I19035-CAL3	100	23364	1.608	6.22
9I19035-CAL4	200	51417	1.797	6.22
9I19035-CAL5	500	136576	1.827	6.22
9I19035-CAL6	1000	261231	1.843	6.22
9I19035-CAL7	2000	506313	1.776	6.22
9I19035-CAL8	4000	1097096	1.794	6.23
9I19035-CAL9	6000	1432862	1.708	6.23
9I19035-CALA	8000	1750392	1.625	6.25

AVE RF **1.708** RF RSD **6.71** AVE RT **6.22**

Aniline

Curve Fit: **AVERAGE RF**

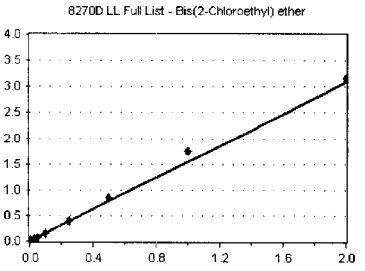


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2038~~	~~0.699~~	~~6.25~~
9I19035-CAL2	50	10955	1.505	6.25
9I19035-CAL3	100	23125	1.592	6.25
9I19035-CAL4	200	49031	1.714	6.25
9I19035-CAL5	500	124901	1.671	6.25
9I19035-CAL6	1000	189393	1.336	6.24
9I19035-CAL7	2000	321662	1.129	6.25
9I19035-CAL8	4000	840844	1.375	6.25
9I19035-CAL9	6000	1316393	1.569	6.25
9I19035-CALA	8000	1480736	1.374	6.26

AVE RF **1.474** RF RSD **12.65** AVE RT **6.25**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

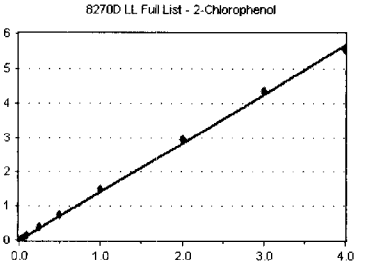


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4110	1.409	6.31
9I19035-CAL2	50	10198	1.401	6.31
9I19035-CAL3	100	21464	1.477	6.31
9I19035-CAL4	200	42595	1.489	6.31
9I19035-CAL5	500	115667	1.547	6.31
9I19035-CAL6	1000	237931	1.678	6.31
9I19035-CAL7	2000	501220	1.759	6.31
9I19035-CAL8	4000	962255	1.573	6.32
~~9I19035-CAL9~~	~~6000~~	~~1158478~~	~~1.381~~	~~6.32~~
~~9I19035-CALA~~	~~8000~~	~~1435010~~	~~1.332~~	~~6.32~~

AVE RF **1.542** RF RSD **8.18** AVE RT **6.31**

2-Chlorophenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3591	1.231	6.37
9I19035-CAL2	50	9461	1.299	6.36
9I19035-CAL3	100	19462	1.339	6.37
9I19035-CAL4	200	42160	1.474	6.36
9I19035-CAL5	500	113634	1.520	6.37
9I19035-CAL6	1000	213396	1.505	6.36
9I19035-CAL7	2000	423147	1.485	6.37
9I19035-CAL8	4000	902056	1.475	6.37
9I19035-CAL9	6000	1211719	1.445	6.37
9I19035-CALA	8000	1496104	1.389	6.38

AVE RF **1.416** RF RSD **6.89** AVE RT **6.37**

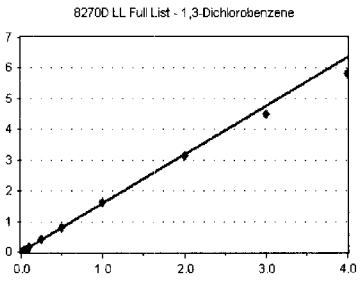
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

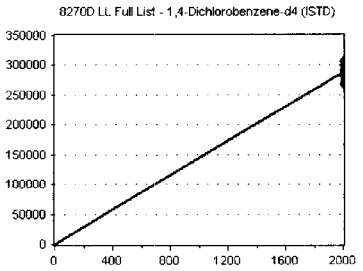


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4452	1.526	6.52
9I19035-CAL2	50	11576	1.590	6.52
9I19035-CAL3	100	23840	1.641	6.52
9I19035-CAL4	200	48050	1.679	6.51
9I19035-CAL5	500	126152	1.688	6.51
9I19035-CAL6	1000	230358	1.625	6.51
9I19035-CAL7	2000	464902	1.631	6.52
9I19035-CAL8	4000	965051	1.578	6.52
9I19035-CAL9	6000	1260484	1.503	6.52
9I19035-CALA	8000	1570022	1.457	6.53

AVE RF **1.592** RF RSD **4.80** AVE RT **6.52**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

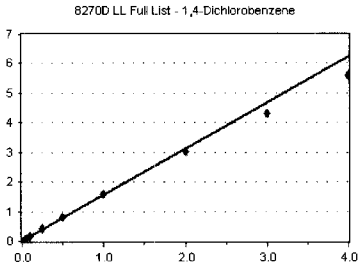


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	291746	145.873	6.57
9I19035-CAL2	2000	291253	145.626	6.57
9I19035-CAL3	2000	290594	145.297	6.57
9I19035-CAL4	2000	286105	143.053	6.57
9I19035-CAL5	2000	299020	149.510	6.57
9I19035-CAL6	2000	283511	141.755	6.57
9I19035-CAL7	2000	285023	142.511	6.57
9I19035-CAL8	2000	305814	152.907	6.57
9I19035-CAL9	2000	279602	139.801	6.57
9I19035-CALA	2000	269345	134.673	6.58

AVE RF **144.101** RF RSD **3.51** AVE RT **6.57**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

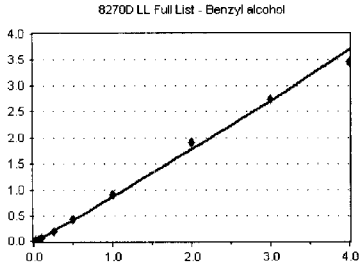


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4492	1.540	6.59
9I19035-CAL2	50	12059	1.656	6.59
9I19035-CAL3	100	23338	1.606	6.59
9I19035-CAL4	200	46724	1.633	6.58
9I19035-CAL5	500	123497	1.652	6.59
9I19035-CAL6	1000	229877	1.622	6.58
9I19035-CAL7	2000	453326	1.590	6.59
9I19035-CAL8	4000	926647	1.515	6.59
9I19035-CAL9	6000	1202300	1.433	6.59
9I19035-CALA	8000	1504749	1.397	6.59

AVE RF **1.564** RF RSD **5.83** AVE RT **6.59**

Benzyl alcohol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1506~~	~~0.516~~	~~6.72~~
9I19035-CAL2	50	3460	0.475	6.71
9I19035-CAL3	100	8907	0.613	6.71
9I19035-CAL4	200	18281	0.639	6.70
9I19035-CAL5	500	59263	0.793	6.70
9I19035-CAL6	1000	124850	0.881	6.70
9I19035-CAL7	2000	261354	0.917	6.71
9I19035-CAL8	4000	581465	0.951	6.71
9I19035-CAL9	6000	768204	0.916	6.71
9I19035-CALA	8000	932774	0.866	6.72

AVE RF **0.783** RF RSD **21.39** AVE RT **6.71**

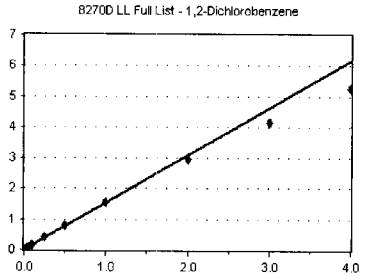
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

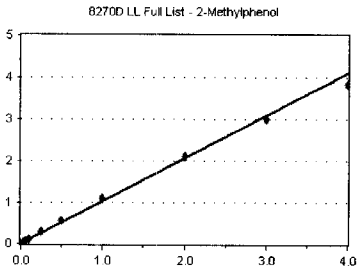


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4176	1.431	6.74
9I19035-CAL2	50	12229	1.680	6.74
9I19035-CAL3	100	23746	1.634	6.74
9I19035-CAL4	200	47924	1.675	6.74
9I19035-CAL5	500	124976	1.672	6.74
9I19035-CAL6	1000	227139	1.602	6.74
9I19035-CAL7	2000	442316	1.552	6.74
9I19035-CAL8	4000	906070	1.481	6.74
9I19035-CAL9	6000	1159865	1.383	6.74
9I19035-CALA	8000	1419977	1.318	6.74

AVE RF **1.543** RF RSD **8.56** AVE RT **6.74**

2-Methylphenol

Curve Fit: **AVERAGE RF**

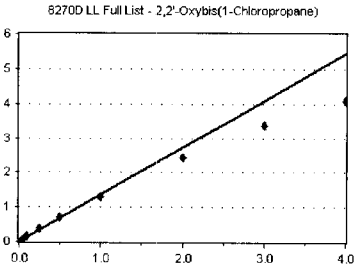


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2712	0.930	6.81
9I19035-CAL2	50	6405	0.880	6.81
9I19035-CAL3	100	14254	0.981	6.81
9I19035-CAL4	200	30801	1.077	6.81
9I19035-CAL5	500	86329	1.155	6.81
9I19035-CAL6	1000	162716	1.148	6.81
9I19035-CAL7	2000	318341	1.117	6.81
9I19035-CAL8	4000	646688	1.057	6.81
9I19035-CAL9	6000	839569	1.001	6.82
9I19035-CALA	8000	1030806	0.957	6.82

AVE RF **1.030** RF RSD **9.22** AVE RT **6.81**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

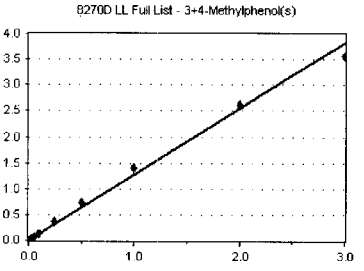


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4376	1.500	6.84
9I19035-CAL2	50	10585	1.454	6.84
9I19035-CAL3	100	21848	1.504	6.84
9I19035-CAL4	200	44401	1.552	6.84
9I19035-CAL5	500	112933	1.511	6.84
9I19035-CAL6	1000	204366	1.442	6.84
9I19035-CAL7	2000	366117	1.285	6.84
9I19035-CAL8	4000	739481	1.209	6.84
9I19035-CAL9	6000	943818	1.125	6.84
9I19035-CALA	8000	1103589	1.024	6.85

AVE RF **1.360** RF RSD **13.68** AVE RT **6.84**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3108	1.065	6.96
9I19035-CAL2	50	8248	1.133	6.96
9I19035-CAL3	100	16854	1.160	6.96
9I19035-CAL4	200	38484	1.345	6.96
9I19035-CAL5	500	107685	1.441	6.96
9I19035-CAL6	1000	206745	1.458	6.96
9I19035-CAL7	2000	399183	1.401	6.96
9I19035-CAL8	4000	797964	1.305	6.97
9I19035-CAL9	6000	997248	1.189	6.97
~~9I19035-CALA~~	~~8000~~	~~1205305~~	~~1.119~~	~~6.99~~

AVE RF **1.277** RF RSD **11.32** AVE RT **6.96**

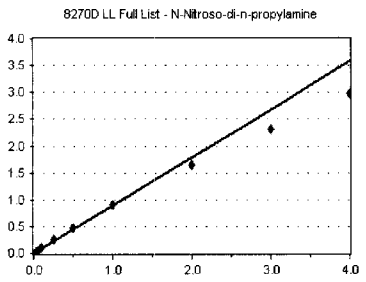
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**

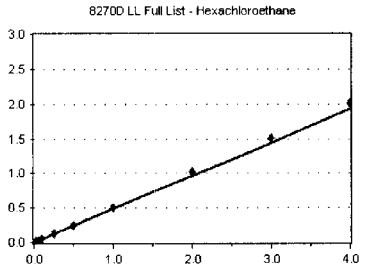


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2691	0.922	6.96
9I19035-CAL2	50	6538	0.898	6.96
9I19035-CAL3	100	13631	0.938	6.96
9I19035-CAL4	200	28365	0.991	6.96
9I19035-CAL5	500	74700	0.999	6.96
9I19035-CAL6	1000	136460	0.963	6.96
9I19035-CAL7	2000	256713	0.901	6.97
9I19035-CAL8	4000	504346	0.825	6.98
9I19035-CAL9	6000	644101	0.768	6.99
9I19035-CALA	8000	803148	0.745	7.00

AVE RF **0.895** RF RSD **9.91** AVE RT **6.97**

Hexachloroethane

Curve Fit: **AVERAGE RF**

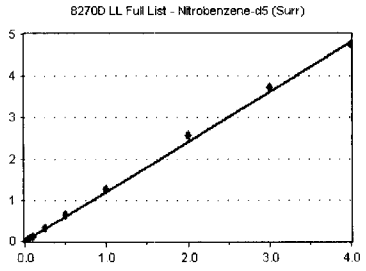


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1267	0.434	7.08
9I19035-CAL2	50	3313	0.455	7.08
9I19035-CAL3	100	6562	0.452	7.08
9I19035-CAL4	200	13490	0.472	7.08
9I19035-CAL5	500	36961	0.494	7.08
9I19035-CAL6	1000	68545	0.484	7.08
9I19035-CAL7	2000	143490	0.503	7.08
9I19035-CAL8	4000	311702	0.510	7.08
9I19035-CAL9	6000	419784	0.500	7.08
9I19035-CALA	8000	541884	0.503	7.08

AVE RF **0.481** RF RSD **5.45** AVE RT **7.08**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

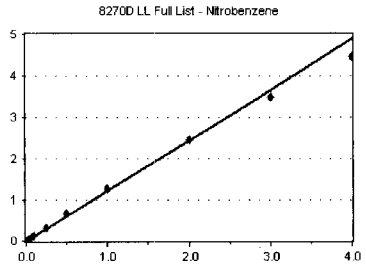


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2861	0.981	7.11
9I19035-CAL2	50	7903	1.085	7.11
9I19035-CAL3	100	16492	1.135	7.11
9I19035-CAL4	200	34591	1.209	7.11
9I19035-CAL5	500	98184	1.313	7.11
9I19035-CAL6	1000	187377	1.322	7.11
9I19035-CAL7	2000	365358	1.282	7.11
9I19035-CAL8	4000	786633	1.286	7.12
9I19035-CAL9	6000	1045001	1.246	7.12
9I19035-CALA	8000	1284804	1.193	7.13

AVE RF **1.205** RF RSD **9.14** AVE RT **7.12**

Nitrobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3138	1.076	7.14
9I19035-CAL2	50	8614	1.183	7.14
9I19035-CAL3	100	17280	1.189	7.14
9I19035-CAL4	200	37240	1.302	7.13
9I19035-CAL5	500	100238	1.341	7.13
9I19035-CAL6	1000	188065	1.327	7.13
9I19035-CAL7	2000	365107	1.281	7.14
9I19035-CAL8	4000	754990	1.234	7.14
9I19035-CAL9	6000	977466	1.165	7.15
9I19035-CALA	8000	1198679	1.113	7.15

AVE RF **1.221** RF RSD **7.44** AVE RT **7.14**

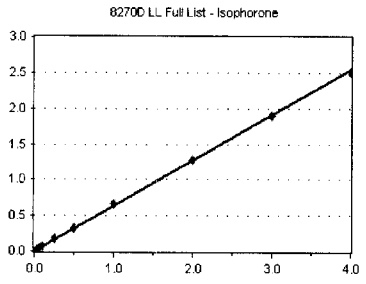
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Isophorone

Curve Fit: **AVERAGE RF**

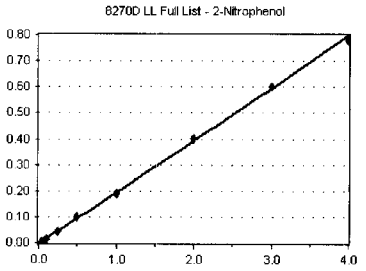


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6954	0.569	7.37
9I19035-CAL2	50	18082	0.605	7.37
9I19035-CAL3	100	37997	0.640	7.37
9I19035-CAL4	200	78525	0.652	7.37
9I19035-CAL5	500	207804	0.683	7.37
9I19035-CAL6	1000	377941	0.661	7.37
9I19035-CAL7	2000	734609	0.671	7.38
9I19035-CAL8	4000	1524753	0.637	7.38
9I19035-CAL9	6000	2075603	0.632	7.39
9I19035-CALA	8000	2693969	0.627	7.40

AVE RF **0.638** RF RSD **5.17** AVE RT **7.38**

2-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

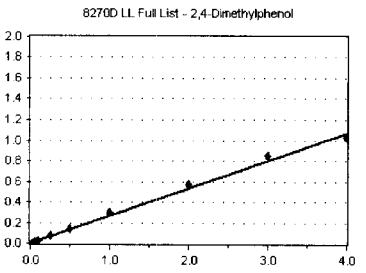


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1053~~	~~0.086~~	~~7.46~~
~~9I19035-CAL2~~	~~50~~	~~3400~~	~~0.114~~	~~7.46~~
9I19035-CAL3	100	7240	0.122	7.45
9I19035-CAL4	200	16298	0.135	7.45
9I19035-CAL5	500	54694	0.180	7.45
9I19035-CAL6	1000	114845	0.201	7.45
9I19035-CAL7	2000	207149	0.189	7.46
9I19035-CAL8	4000	481353	0.201	7.46
9I19035-CAL9	6000	659170	0.201	7.46
9I19035-CALA	8000	838038	0.195	7.46

AVE RF **0.178** RF RSD **17.69** AVE RT **7.45**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

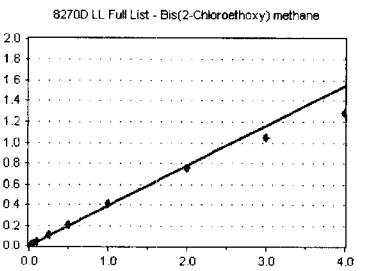


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2375~~	~~0.194~~	~~7.49~~
9I19035-CAL2	50	5922	0.198	7.49
9I19035-CAL3	100	14806	0.249	7.49
9I19035-CAL4	200	31880	0.265	7.49
9I19035-CAL5	500	86093	0.283	7.49
9I19035-CAL6	1000	164250	0.287	7.49
9I19035-CAL7	2000	333523	0.304	7.49
9I19035-CAL8	4000	686286	0.287	7.50
9I19035-CAL9	6000	932922	0.284	7.50
9I19035-CALA	8000	1099526	0.256	7.51

AVE RF **0.268** RF RSD **11.73** AVE RT **7.49**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4738	0.388	7.58
9I19035-CAL2	50	11523	0.385	7.58
9I19035-CAL3	100	23395	0.394	7.58
9I19035-CAL4	200	49149	0.408	7.58
9I19035-CAL5	500	131344	0.432	7.58
9I19035-CAL6	1000	236290	0.413	7.58
9I19035-CAL7	2000	449978	0.411	7.58
9I19035-CAL8	4000	900203	0.376	7.59
9I19035-CAL9	6000	1142883	0.348	7.59
9I19035-CALA	8000	1380842	0.321	7.60

AVE RF **0.388** RF RSD **8.46** AVE RT **7.58**

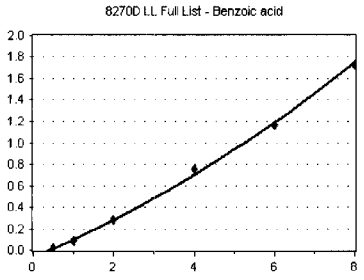
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzoic acid

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

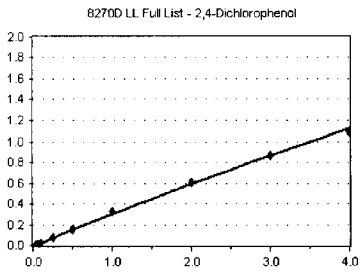


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~229~~	~~9.372~~	~~7.55~~
~~9I19035-CAL2~~	~~100~~	~~200~~	~~3.345~~	~~7.57~~
~~9I19035-CAL3~~	~~200~~	~~2086~~	~~0.018~~	~~7.54~~
~~9I19035-CAL4~~	~~400~~	~~3335~~	~~1.385~~	~~7.54~~
9I19035-CAL5	1000	22389	0.037	7.55
9I19035-CAL6	2000	99342	8.684	7.58
9I19035-CAL7	4000	311714	0.142	7.61
9I19035-CAL8	8000	902544	0.188	7.67
9I19035-CAL9	12000	1277463	0.195	7.69
9I19035-CALA	16000	1853462	0.216	7.73

AVE RF **0.144** RF RSD **48.51** AVE RT **7.64**

2,4-Dichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

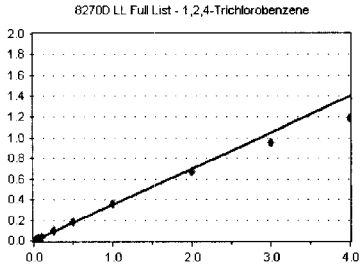


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1603~~	~~0.131~~	~~7.69~~
9I19035-CAL2	50	5068	0.170	7.69
9I19035-CAL3	100	12689	0.214	7.69
9I19035-CAL4	200	30346	0.252	7.69
9I19035-CAL5	500	89833	0.295	7.69
9I19035-CAL6	1000	173249	0.303	7.69
9I19035-CAL7	2000	350635	0.320	7.69
9I19035-CAL8	4000	731346	0.305	7.70
9I19035-CAL9	6000	943067	0.287	7.70
9I19035-CALA	8000	1167761	0.272	7.71

AVE RF **0.269** RF RSD **18.30** AVE RT **7.70**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

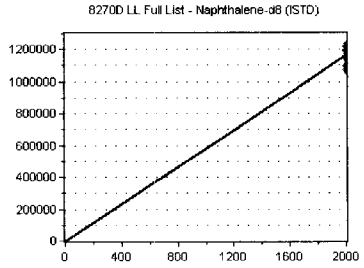


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4361	0.357	7.78
9I19035-CAL2	50	11103	0.371	7.78
9I19035-CAL3	100	21292	0.359	7.78
9I19035-CAL4	200	45007	0.374	7.78
9I19035-CAL5	500	113367	0.372	7.78
9I19035-CAL6	1000	206953	0.362	7.78
9I19035-CAL7	2000	388384	0.355	7.78
9I19035-CAL8	4000	805154	0.336	7.78
9I19035-CAL9	6000	1041502	0.317	7.79
9I19035-CALA	8000	1277566	0.297	7.79

AVE RF **0.350** RF RSD **7.29** AVE RT **7.78**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1221708	610.854	7.84
9I19035-CAL2	2000	1195757	597.878	7.84
9I19035-CAL3	2000	1186873	593.437	7.84
9I19035-CAL4	2000	1204364	602.182	7.84
9I19035-CAL5	2000	1217422	608.711	7.84
9I19035-CAL6	2000	1143968	571.984	7.84
9I19035-CAL7	2000	1095362	547.681	7.84
9I19035-CAL8	2000	1197569	598.784	7.84
9I19035-CAL9	2000	1094080	547.040	7.84
9I19035-CALA	2000	1074761	537.381	7.85

AVE RF **581.593** RF RSD **4.83** AVE RT **7.84**

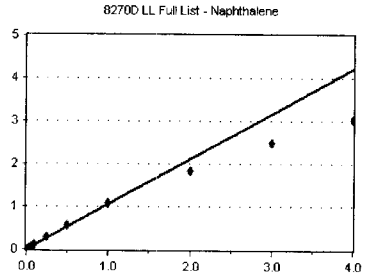
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Naphthalene

Curve Fit: **AVERAGE RF**

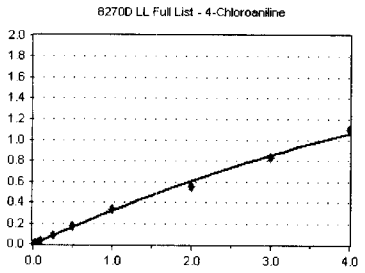


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	14004	1.146	7.86
9I19035-CAL2	50	34402	1.151	7.86
9I19035-CAL3	100	69263	1.167	7.86
9I19035-CAL4	200	141239	1.173	7.86
9I19035-CAL5	500	361018	1.186	7.86
9I19035-CAL6	1000	638989	1.117	7.86
9I19035-CAL7	2000	1178988	1.076	7.86
9I19035-CAL8	4000	2214900	0.925	7.86
9I19035-CAL9	6000	2711030	0.826	7.87
9I19035-CALA	8000	3240737	0.754	7.87

AVE RF **1.052** RF RSD **15.05** AVE RT **7.86**

4-Chloroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

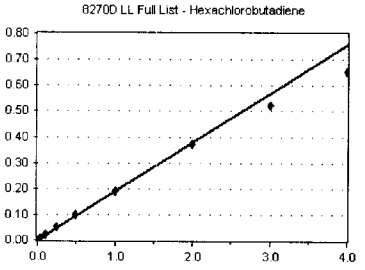


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1531	0.125	7.91
9I19035-CAL2	50	7306	0.244	7.91
9I19035-CAL3	100	15139	0.255	7.91
9I19035-CAL4	200	38526	0.320	7.91
9I19035-CAL5	500	106945	0.351	7.91
9I19035-CAL6	1000	199585	0.349	7.91
9I19035-CAL7	2000	372183	0.340	7.92
9I19035-CAL8	4000	663200	0.277	7.93
9I19035-CAL9	6000	906180	0.276	7.93
9I19035-CALA	8000	1186251	0.276	7.93

AVE RF **0.281** RF RSD **23.94** AVE RT **7.91**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

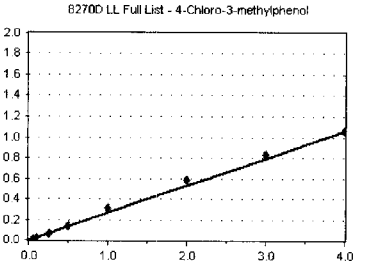


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2247	0.184	7.99
9I19035-CAL2	50	5972	0.200	7.99
9I19035-CAL3	100	11598	0.195	7.99
9I19035-CAL4	200	24136	0.200	7.99
9I19035-CAL5	500	61063	0.201	7.99
9I19035-CAL6	1000	113762	0.199	7.99
9I19035-CAL7	2000	208693	0.191	7.99
9I19035-CAL8	4000	442903	0.185	7.99
9I19035-CAL9	6000	570722	0.174	8.00
9I19035-CALA	8000	701350	0.163	8.00

AVE RF **0.189** RF RSD **6.74** AVE RT **7.99**

4-Chloro-3-methylphenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1917~~	~~0.157~~	~~8.39~~
~~9I19035-CAL2~~	~~50~~	~~5211~~	~~0.174~~	~~8.39~~
9I19035-CAL3	100	11698	0.197	8.39
9I19035-CAL4	200	26469	0.220	8.39
9I19035-CAL5	500	84667	0.278	8.39
9I19035-CAL6	1000	162469	0.284	8.39
9I19035-CAL7	2000	338452	0.309	8.39
9I19035-CAL8	4000	698064	0.291	8.39
9I19035-CAL9	6000	912303	0.278	8.40
9I19035-CALA	8000	1141605	0.266	8.40

AVE RF **0.265** RF RSD **14.24** AVE RT **8.39**

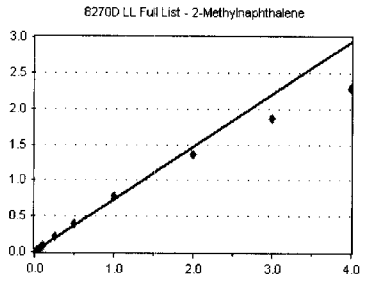
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

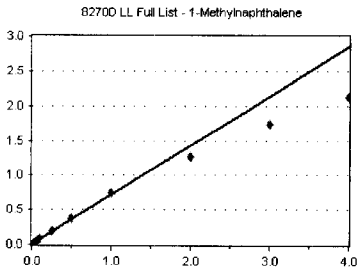


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8620	0.706	8.55
9I19035-CAL2	50	23135	0.774	8.56
9I19035-CAL3	100	46039	0.776	8.56
9I19035-CAL4	200	98607	0.819	8.56
9I19035-CAL5	500	253485	0.833	8.56
9I19035-CAL6	1000	453493	0.793	8.56
9I19035-CAL7	2000	857631	0.783	8.56
9I19035-CAL8	4000	1625949	0.679	8.56
9I19035-CAL9	6000	2034929	0.620	8.56
9I19035-CALA	8000	2448839	0.570	8.56

AVE RF **0.735** RF RSD **12.00** AVE RT **8.56**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**

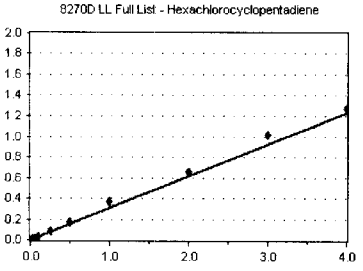


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9000	0.737	8.65
9I19035-CAL2	50	23006	0.770	8.65
9I19035-CAL3	100	46134	0.777	8.66
9I19035-CAL4	200	95459	0.793	8.65
9I19035-CAL5	500	244797	0.804	8.66
9I19035-CAL6	1000	430139	0.752	8.66
9I19035-CAL7	2000	810434	0.740	8.66
9I19035-CAL8	4000	1521185	0.635	8.66
9I19035-CAL9	6000	1893325	0.577	8.66
9I19035-CALA	8000	2286875	0.532	8.66

AVE RF **0.712** RF RSD **13.43** AVE RT **8.66**

Hexachlorocyclopentadiene

Curve Fit: **AVERAGE RF**

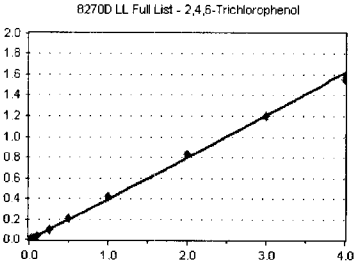


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1303~~	~~0.203~~	~~8.72~~
9I19035-CAL2	50	3356	0.218	8.72
9I19035-CAL3	100	8031	0.261	8.72
9I19035-CAL4	200	17504	0.286	8.73
9I19035-CAL5	500	51180	0.327	8.72
9I19035-CAL6	1000	99801	0.342	8.73
9I19035-CAL7	2000	213088	0.363	8.72
9I19035-CAL8	4000	417829	0.328	8.73
9I19035-CAL9	6000	601203	0.338	8.73
9I19035-CALA	8000	759063	0.320	8.73

AVE RF **0.309** RF RSD **14.82** AVE RT **8.73**

2,4,6-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1119~~	~~0.175~~	~~8.84~~
9I19035-CAL2	50	3644	0.237	8.84
9I19035-CAL3	100	7912	0.257	8.84
9I19035-CAL4	200	18771	0.307	8.84
9I19035-CAL5	500	59985	0.384	8.84
9I19035-CAL6	1000	117480	0.402	8.84
9I19035-CAL7	2000	248218	0.423	8.84
9I19035-CAL8	4000	532499	0.419	8.85
9I19035-CAL9	6000	713503	0.401	8.85
9I19035-CALA	8000	922776	0.389	8.85

AVE RF **0.358** RF RSD **19.99** AVE RT **8.84**

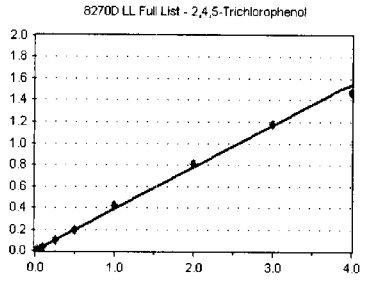
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,4,5-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

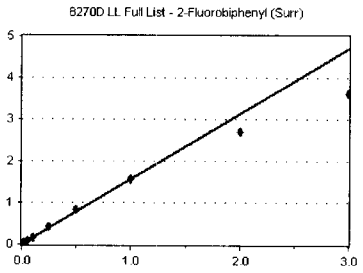


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1218~~	~~0.190~~	~~8.87~~
9I19035-CAL2	50	3657	0.237	8.87
9I19035-CAL3	100	8310	0.270	8.87
9I19035-CAL4	200	18422	0.301	8.87
9I19035-CAL5	500	59608	0.381	8.87
9I19035-CAL6	1000	113799	0.390	8.87
9I19035-CAL7	2000	245074	0.418	8.87
9I19035-CAL8	4000	516958	0.406	8.88
9I19035-CAL9	6000	699105	0.393	8.88
9I19035-CALA	8000	870124	0.366	8.88

AVE RF **0.351** RF RSD **18.51** AVE RT **8.88**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

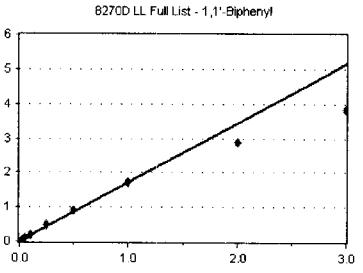


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9460	1.477	8.93
9I19035-CAL2	50	24802	1.610	8.93
9I19035-CAL3	100	53353	1.735	8.93
9I19035-CAL4	200	107137	1.751	8.93
9I19035-CAL5	500	272047	1.740	8.93
9I19035-CAL6	1000	482290	1.652	8.93
9I19035-CAL7	2000	917452	1.564	8.93
9I19035-CAL8	4000	1718307	1.351	8.93
9I19035-CAL9	6000	2148364	1.207	8.93
~~9I19035-CALA~~	~~8000~~	~~2595271~~	~~1.093~~	~~8.94~~

AVE RF **1.565** RF RSD **12.07** AVE RT **8.93**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**

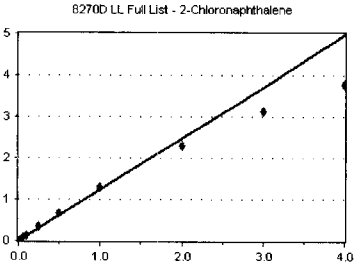


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10205	1.593	9.03
9I19035-CAL2	50	28683	1.862	9.03
9I19035-CAL3	100	58168	1.891	9.03
9I19035-CAL4	200	117826	1.926	9.03
9I19035-CAL5	500	300735	1.923	9.03
9I19035-CAL6	1000	533233	1.827	9.03
9I19035-CAL7	2000	1010736	1.723	9.03
9I19035-CAL8	4000	1845876	1.451	9.03
9I19035-CAL9	6000	2268485	1.275	9.04
~~9I19035-CALA~~	~~8000~~	~~2706900~~	~~1.140~~	~~9.04~~

AVE RF **1.719** RF RSD **13.51** AVE RT **9.03**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7646	1.194	9.05
9I19035-CAL2	50	19450	1.263	9.05
9I19035-CAL3	100	41705	1.356	9.05
9I19035-CAL4	200	86117	1.408	9.05
9I19035-CAL5	500	223930	1.432	9.05
9I19035-CAL6	1000	386877	1.325	9.05
9I19035-CAL7	2000	759926	1.296	9.05
9I19035-CAL8	4000	1467799	1.154	9.06
9I19035-CAL9	6000	1860060	1.045	9.06
9I19035-CALA	8000	2240055	0.943	9.06

AVE RF **1.242** RF RSD **12.73** AVE RT **9.05**

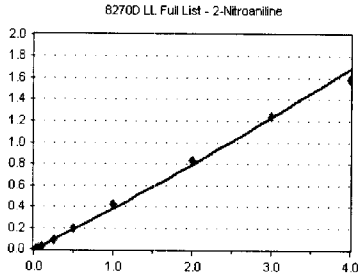
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

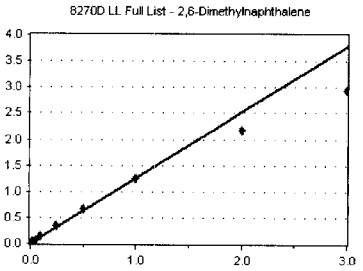


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~939~~	~~0.147~~	~~9.15~~
9I19035-CAL2	50	2728	0.177	9.15
9I19035-CAL3	100	6877	0.224	9.15
9I19035-CAL4	200	16161	0.264	9.15
9I19035-CAL5	500	55795	0.357	9.15
9I19035-CAL6	1000	113482	0.389	9.15
9I19035-CAL7	2000	248865	0.424	9.15
9I19035-CAL8	4000	528406	0.415	9.16
9I19035-CAL9	6000	739914	0.416	9.16
9I19035-CALA	8000	944974	0.398	9.17

AVE RF **0.340** RF RSD **27.55** AVE RT **9.15**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**

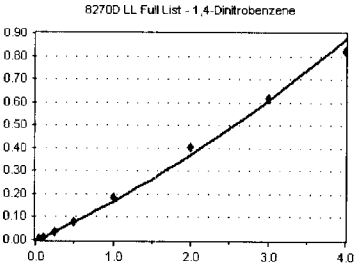


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7097	1.108	9.19
9I19035-CAL2	50	20566	1.335	9.19
9I19035-CAL3	100	43362	1.410	9.19
9I19035-CAL4	200	87215	1.426	9.19
9I19035-CAL5	500	219677	1.405	9.19
9I19035-CAL6	1000	389863	1.336	9.19
9I19035-CAL7	2000	740663	1.263	9.19
9I19035-CAL8	4000	1385514	1.089	9.19
9I19035-CAL9	6000	1742370	0.979	9.20
~~9I19035-CALA~~	~~8000~~	~~2089018~~	~~0.880~~	~~9.20~~

AVE RF **1.261** RF RSD **12.95** AVE RT **9.19**

1,4-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

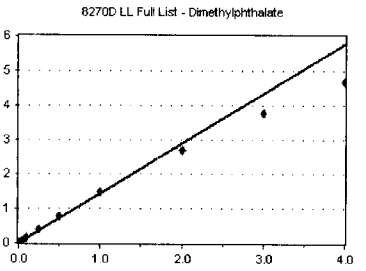


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~381~~	~~5.948~~	~~9.27~~
~~9I19035-CAL2~~	~~50~~	~~915~~	~~5.939~~	~~9.27~~
9I19035-CAL3	100	2006	0.065	9.27
9I19035-CAL4	200	5164	8.441	9.27
9I19035-CAL5	500	19841	0.127	9.27
9I19035-CAL6	1000	44207	0.151	9.27
9I19035-CAL7	2000	108019	0.184	9.28
9I19035-CAL8	4000	258106	0.203	9.29
9I19035-CAL9	6000	365105	0.205	9.29
9I19035-CALA	8000	488295	0.206	9.30

AVE RF **0.153** RF RSD **36.62** AVE RT **9.28**

Dimethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9190	1.435	9.33
9I19035-CAL2	50	22486	1.460	9.33
9I19035-CAL3	100	49089	1.596	9.33
9I19035-CAL4	200	96043	1.570	9.33
9I19035-CAL5	500	250192	1.600	9.33
9I19035-CAL6	1000	449574	1.540	9.33
9I19035-CAL7	2000	868820	1.481	9.34
9I19035-CAL8	4000	1712764	1.346	9.35
9I19035-CAL9	6000	2223667	1.249	9.35
9I19035-CALA	8000	2768841	1.166	9.36

AVE RF **1.444** RF RSD **10.30** AVE RT **9.34**

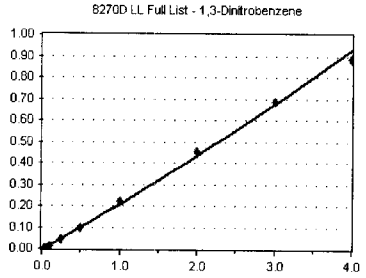
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

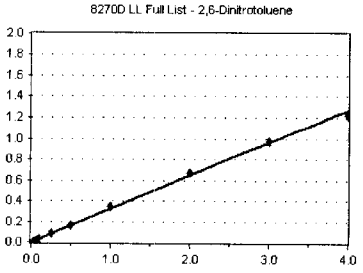


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~417~~	~~6.510~~	~~9.35~~
~~9I19035-CAL2~~	~~50~~	~~1390~~	~~9.023~~	~~9.35~~
9I19035-CAL3	100	3033	9.862	9.35
9I19035-CAL4	200	7621	0.125	9.35
9I19035-CAL5	500	28132	0.180	9.35
9I19035-CAL6	1000	57342	0.196	9.35
9I19035-CAL7	2000	128986	0.220	9.36
9I19035-CAL8	4000	289563	0.228	9.37
9I19035-CAL9	6000	407082	0.229	9.38
9I19035-CALA	8000	525829	0.221	9.39

AVE RF **0.187** RF RSD **26.72** AVE RT **9.36**

2,6-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

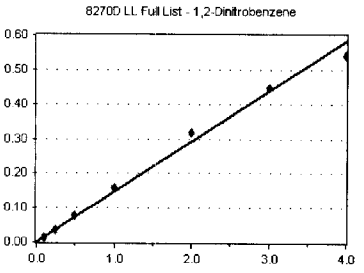


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1042~~	~~0.163~~	~~9.39~~
9I19035-CAL2	50	2915	0.189	9.39
9I19035-CAL3	100	6526	0.212	9.39
9I19035-CAL4	200	16812	0.275	9.39
9I19035-CAL5	500	51160	0.327	9.39
9I19035-CAL6	1000	97373	0.334	9.39
9I19035-CAL7	2000	201552	0.344	9.39
9I19035-CAL8	4000	424265	0.334	9.40
9I19035-CAL9	6000	575872	0.324	9.41
9I19035-CALA	8000	727325	0.306	9.41

AVE RF **0.294** RF RSD **19.32** AVE RT **9.39**

1,2-Dinitrobenzene

Curve Fit: **AVERAGE RF**

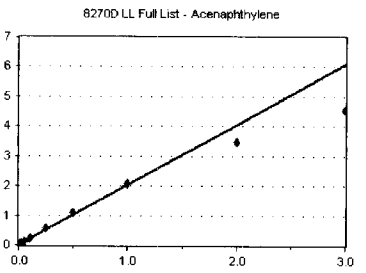


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~304~~	~~4.746~~	~~9.44~~
~~9I19035-CAL2~~	~~50~~	~~1349~~	~~8.757~~	~~9.44~~
~~9I19035-CAL3~~	~~100~~	~~2742~~	~~8.915~~	~~9.45~~
9I19035-CAL4	200	7269	0.119	9.44
9I19035-CAL5	500	22807	0.146	9.45
9I19035-CAL6	1000	45222	0.155	9.45
9I19035-CAL7	2000	94079	0.160	9.45
9I19035-CAL8	4000	202294	0.159	9.47
9I19035-CAL9	6000	266233	0.150	9.47
9I19035-CALA	8000	322227	0.136	9.48

AVE RF **0.146** RF RSD **10.12** AVE RT **9.46**

Acenaphthylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12450	1.944	9.47
9I19035-CAL2	50	32192	2.090	9.47
9I19035-CAL3	100	68008	2.211	9.47
9I19035-CAL4	200	136163	2.226	9.47
9I19035-CAL5	500	361152	2.309	9.47
9I19035-CAL6	1000	637470	2.184	9.47
9I19035-CAL7	2000	1211941	2.067	9.48
9I19035-CAL8	4000	2224222	1.748	9.48
9I19035-CAL9	6000	2704211	1.519	9.48
~~9I19035-CALA~~	~~8000~~	~~3146686~~	~~1.325~~	~~9.49~~

AVE RF **2.033** RF RSD **12.60** AVE RT **9.48**

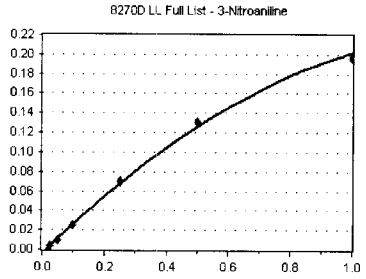
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

3-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

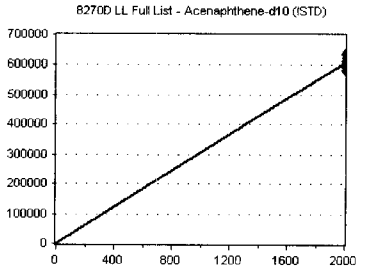


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~592~~	~~9.242~~	~~9.56~~
9I19035-CAL2	50	2106	0.137	9.56
9I19035-CAL3	100	6036	0.196	9.56
9I19035-CAL4	200	15637	0.256	9.56
9I19035-CAL5	500	44178	0.282	9.56
9I19035-CAL6	1000	76212	0.261	9.56
9I19035-CAL7	2000	114743	0.196	9.56
~~9I19035-CAL8~~	~~4000~~	~~123216~~	~~9.686~~	~~9.57~~
~~9I19035-CAL9~~	~~6000~~	~~180797~~	~~0.102~~	~~0.00~~
~~9I19035-CALA~~	~~8000~~	~~174843~~	~~7.362~~	~~0.00~~

AVE RF **0.221** RF RSD **24.71** AVE RT **9.56**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

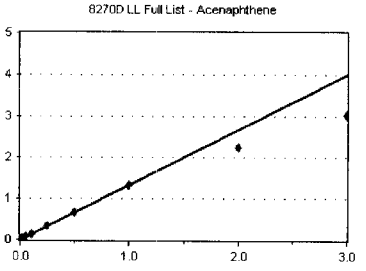


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	640527	320.263	9.62
9I19035-CAL2	2000	616226	308.113	9.62
9I19035-CAL3	2000	615111	307.555	9.62
9I19035-CAL4	2000	611745	305.873	9.62
9I19035-CAL5	2000	625555	312.778	9.62
9I19035-CAL6	2000	583825	291.913	9.62
9I19035-CAL7	2000	586466	293.233	9.62
9I19035-CAL8	2000	636039	318.020	9.62
9I19035-CAL9	2000	593235	296.618	9.62
9I19035-CALA	2000	593771	296.885	9.63

AVE RF **305.125** RF RSD **3.32** AVE RT **9.62**

Acenaphthene

Curve Fit: **AVERAGE RF**

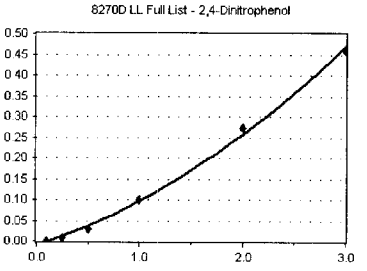


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8885	1.387	9.65
9I19035-CAL2	50	22572	1.465	9.65
9I19035-CAL3	100	44425	1.444	9.65
9I19035-CAL4	200	89211	1.458	9.65
9I19035-CAL5	500	224540	1.436	9.65
9I19035-CAL6	1000	399993	1.370	9.65
9I19035-CAL7	2000	770675	1.314	9.65
9I19035-CAL8	4000	1433796	1.127	9.66
9I19035-CAL9	6000	1803278	1.013	9.66
~~9I19035-CALA~~	~~8000~~	~~2204696~~	~~0.928~~	~~9.66~~

AVE RF **1.335** RF RSD **12.00** AVE RT **9.65**

2,4-Dinitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL3~~	~~100~~	~~169~~	~~5.495~~	~~9.67~~
9I19035-CAL4	200	796	1.301	9.67
9I19035-CAL5	500	4568	2.921	9.67
9I19035-CAL6	1000	18042	6.181	9.66
9I19035-CAL7	2000	58400	9.958	9.67
9I19035-CAL8	4000	174238	0.137	9.68
9I19035-CAL9	6000	272053	0.153	9.68
~~9I19035-CALA~~	~~8000~~	~~388560~~	~~0.164~~	~~9.69~~

AVE RF **8.224** RF RSD **69.44** AVE RT **9.67**

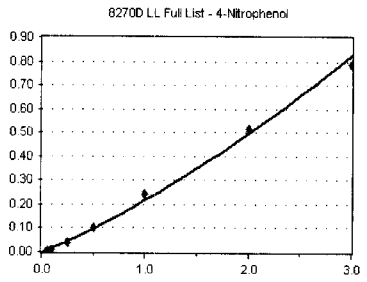
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

4-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

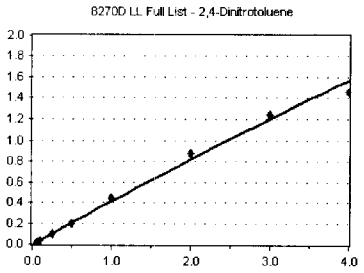


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~120~~	~~1.873~~	~~9.72~~
~~9I19035-CAL2~~	~~50~~	~~699~~	~~4.537~~	~~9.72~~
9I19035-CAL3	100	2106	6.848	9.72
9I19035-CAL4	200	5790	9.465	9.72
9I19035-CAL5	500	25654	0.164	9.72
9I19035-CAL6	1000	58727	0.201	9.72
9I19035-CAL7	2000	141903	0.242	9.73
9I19035-CAL8	4000	326661	0.257	9.74
9I19035-CAL9	6000	467183	0.263	9.75
~~9I19035-CALA~~	~~8000~~	~~610739~~	~~0.257~~	~~9.76~~

AVE RF **0.184** RF RSD **42.54** AVE RT **9.73**

2,4-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

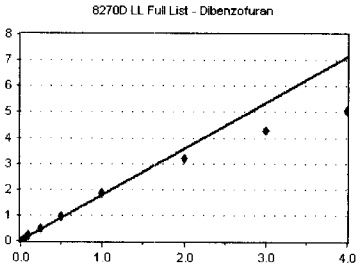


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1027~~	~~0.160~~	~~9.80~~
~~9I19035-CAL2~~	~~50~~	~~2508~~	~~0.163~~	~~9.80~~
9I19035-CAL3	100	6812	0.221	9.80
9I19035-CAL4	200	16915	0.277	9.80
9I19035-CAL5	500	57760	0.369	9.80
9I19035-CAL6	1000	116247	0.398	9.80
9I19035-CAL7	2000	257547	0.439	9.80
9I19035-CAL8	4000	555824	0.437	9.81
9I19035-CAL9	6000	734363	0.413	9.82
9I19035-CALA	8000	868405	0.366	9.83

AVE RF **0.365** RF RSD **21.35** AVE RT **9.81**

Dibenzofuran

Curve Fit: **AVERAGE RF**

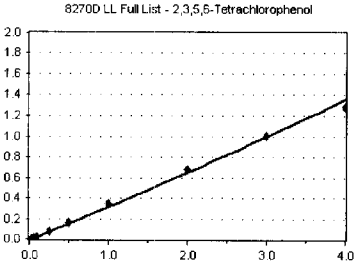


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11668	1.822	9.83
9I19035-CAL2	50	29377	1.907	9.83
9I19035-CAL3	100	62656	2.037	9.83
9I19035-CAL4	200	123476	2.018	9.83
9I19035-CAL5	500	310051	1.983	9.83
9I19035-CAL6	1000	550893	1.887	9.83
9I19035-CAL7	2000	1086183	1.852	9.83
9I19035-CAL8	4000	2040744	1.604	9.83
9I19035-CAL9	6000	2531005	1.422	9.84
9I19035-CALA	8000	3003141	1.264	9.84

AVE RF **1.780** RF RSD **14.79** AVE RT **9.83**

2,3,5,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~774~~	~~0.121~~	~~9.91~~
9I19035-CAL2	50	1678	0.109	9.91
9I19035-CAL3	100	5673	0.184	9.91
9I19035-CAL4	200	13193	0.216	9.91
9I19035-CAL5	500	46260	0.296	9.91
9I19035-CAL6	1000	91879	0.315	9.91
9I19035-CAL7	2000	201504	0.344	9.91
9I19035-CAL8	4000	434819	0.342	9.91
9I19035-CAL9	6000	597064	0.335	9.92
9I19035-CALA	8000	763806	0.322	9.92

AVE RF **0.274** RF RSD **30.66** AVE RT **9.91**

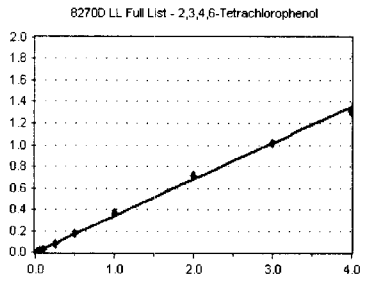
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,3,4,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

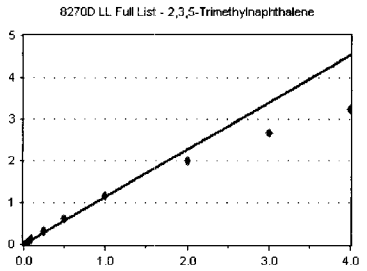


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~856~~	~~0.134~~	~~9.95~~
9I19035-CAL2	50	2513	0.163	9.95
9I19035-CAL3	100	7263	0.236	9.95
9I19035-CAL4	200	16040	0.262	9.95
9I19035-CAL5	500	50476	0.323	9.95
9I19035-CAL6	1000	101167	0.347	9.95
9I19035-CAL7	2000	213539	0.364	9.95
9I19035-CAL8	4000	451267	0.355	9.96
9I19035-CAL9	6000	603345	0.339	9.96
9I19035-CALA	8000	773723	0.326	9.96

AVE RF **0.302** RF RSD **22.30** AVE RT **9.95**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

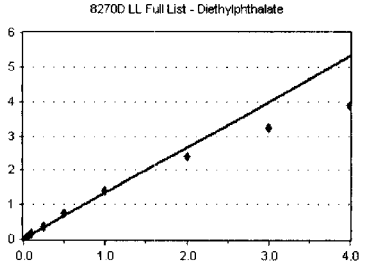


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7629	1.191	10.03
9I19035-CAL2	50	19066	1.238	10.03
9I19035-CAL3	100	38608	1.255	10.03
9I19035-CAL4	200	78195	1.278	10.04
9I19035-CAL5	500	199252	1.274	10.03
9I19035-CAL6	1000	355247	1.217	10.04
9I19035-CAL7	2000	685050	1.168	10.04
9I19035-CAL8	4000	1276533	1.004	10.04
9I19035-CAL9	6000	1592300	0.895	10.05
9I19035-CALA	8000	1931750	0.813	10.05

AVE RF **1.133** RF RSD **14.83** AVE RT **10.04**

Diethylphthalate

Curve Fit: **AVERAGE RF**

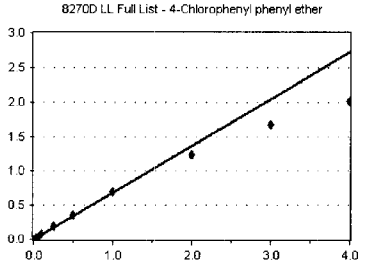


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8035	1.254	10.04
9I19035-CAL2	50	21378	1.388	10.04
9I19035-CAL3	100	47870	1.556	10.04
9I19035-CAL4	200	92047	1.505	10.04
9I19035-CAL5	500	232776	1.488	10.04
9I19035-CAL6	1000	426259	1.460	10.05
9I19035-CAL7	2000	811497	1.384	10.06
9I19035-CAL8	4000	1534521	1.206	10.06
9I19035-CAL9	6000	1916805	1.077	10.07
9I19035-CALA	8000	2319061	0.976	10.07

AVE RF **1.330** RF RSD **14.62** AVE RT **10.05**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4548	0.710	10.17
9I19035-CAL2	50	11449	0.743	10.17
9I19035-CAL3	100	23837	0.775	10.17
9I19035-CAL4	200	45790	0.749	10.17
9I19035-CAL5	500	117369	0.750	10.17
9I19035-CAL6	1000	209713	0.718	10.17
9I19035-CAL7	2000	412942	0.704	10.17
9I19035-CAL8	4000	786385	0.618	10.17
9I19035-CAL9	6000	992417	0.558	10.18
9I19035-CALA	8000	1192807	0.502	10.18

AVE RF **0.683** RF RSD **13.46** AVE RT **10.17**

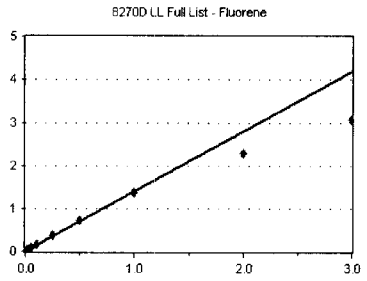
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Fluorene

Curve Fit: **AVERAGE RF**

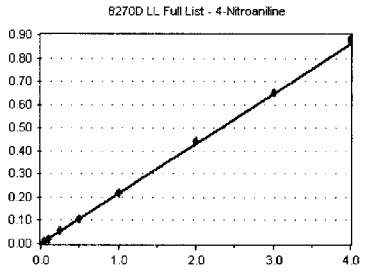


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9113	1.423	10.17
9I19035-CAL2	50	22247	1.444	10.17
9I19035-CAL3	100	48968	1.592	10.17
9I19035-CAL4	200	95574	1.562	10.17
9I19035-CAL5	500	244304	1.562	10.17
9I19035-CAL6	1000	426158	1.460	10.17
9I19035-CAL7	2000	812478	1.385	10.18
9I19035-CAL8	4000	1464263	1.151	10.18
9I19035-CAL9	6000	1824399	1.025	10.19
~~9I19035-CALA~~	~~8000~~	~~2171368~~	~~0.914~~	~~10.19~~

AVE RF **1.401** RF RSD **13.79** AVE RT **10.18**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

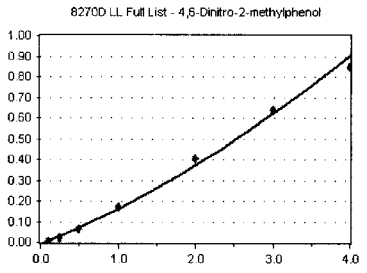


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~719~~	~~0.112~~	~~10.18~~
~~9I19035-CAL2~~	~~50~~	~~2192~~	~~0.142~~	~~10.18~~
9I19035-CAL3	100	5563	0.181	10.18
9I19035-CAL4	200	12832	0.210	10.18
9I19035-CAL5	500	36541	0.234	10.18
9I19035-CAL6	1000	63138	0.216	10.18
9I19035-CAL7	2000	129234	0.220	10.19
9I19035-CAL8	4000	281600	0.221	10.20
9I19035-CAL9	6000	385746	0.217	10.21
9I19035-CALA	8000	523369	0.220	10.21

AVE RF **0.215** RF RSD **7.13** AVE RT **10.19**

4,6-Dinitro-2-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

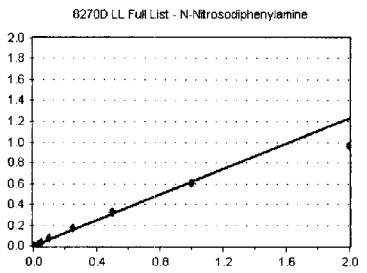


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~206~~	~~1.337~~	~~10.22~~
~~9I19035-CAL3~~	~~100~~	~~761~~	~~0.025~~	~~10.21~~
9I19035-CAL4	200	2504	4.093	10.22
9I19035-CAL5	500	14208	9.085	10.22
9I19035-CAL6	1000	38878	0.133	10.22
9I19035-CAL7	2000	101854	0.174	10.22
9I19035-CAL8	4000	258196	0.203	10.23
9I19035-CAL9	6000	377769	0.212	10.24
9I19035-CALA	8000	504056	0.212	10.24

AVE RF **0.152** RF RSD **43.85** AVE RT **10.23**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	5957	0.518	10.29
9I19035-CAL2	50	16461	0.605	10.29
9I19035-CAL3	100	36899	0.660	10.29
9I19035-CAL4	200	77183	0.703	10.29
9I19035-CAL5	500	197334	0.703	10.29
9I19035-CAL6	1000	350586	0.658	10.29
9I19035-CAL7	2000	659355	0.604	10.29
9I19035-CAL8	4000	1182676	0.483	10.30
~~9I19035-CAL9~~	~~6000~~	~~1569352~~	~~0.455~~	~~10.30~~
~~9I19035-CALA~~	~~8000~~	~~1760214~~	~~0.377~~	~~10.31~~

AVE RF **0.617** RF RSD **13.21** AVE RT **10.29**

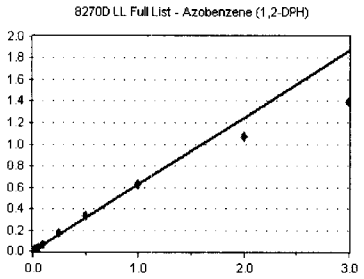
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

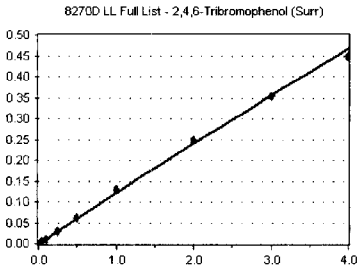


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6853	0.596	10.33
9I19035-CAL2	50	17404	0.640	10.33
9I19035-CAL3	100	37821	0.676	10.33
9I19035-CAL4	200	76676	0.698	10.33
9I19035-CAL5	500	199437	0.710	10.33
9I19035-CAL6	1000	355316	0.667	10.33
9I19035-CAL7	2000	684303	0.627	10.33
9I19035-CAL8	4000	1316342	0.537	10.34
9I19035-CAL9	6000	1601806	0.465	10.34
~~9I19035-CALA~~	~~8000~~	~~1950077~~	~~0.418~~	~~10.34~~

AVE RF **0.624** RF RSD **12.85** AVE RT **10.33**

2,4,6-Tribromophenol (Surr)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

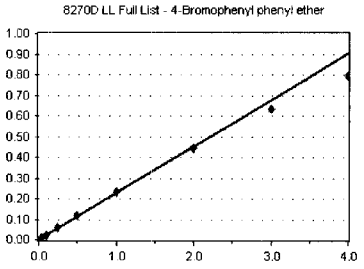


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~762~~	~~6.623~~	~~10.41~~
9I19035-CAL2	50	1929	7.093	10.42
9I19035-CAL3	100	4809	8.598	10.42
9I19035-CAL4	200	10829	9.862	10.42
9I19035-CAL5	500	33701	0.120	10.42
9I19035-CAL6	1000	65055	0.122	10.42
9I19035-CAL7	2000	142266	0.130	10.42
9I19035-CAL8	4000	305471	0.125	10.43
9I19035-CAL9	6000	407389	0.118	10.43
9I19035-CALA	8000	524653	0.112	10.44

AVE RF **0.109** RF RSD **18.24** AVE RT **10.42**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**

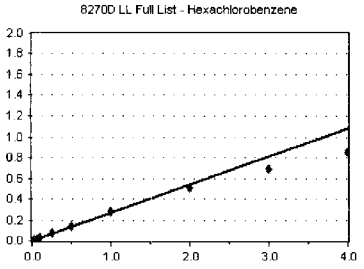


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2390	0.208	10.67
9I19035-CAL2	50	6326	0.233	10.67
9I19035-CAL3	100	13242	0.237	10.67
9I19035-CAL4	200	26212	0.239	10.67
9I19035-CAL5	500	66857	0.238	10.67
9I19035-CAL6	1000	125621	0.236	10.67
9I19035-CAL7	2000	256334	0.235	10.67
9I19035-CAL8	4000	546207	0.223	10.68
9I19035-CAL9	6000	726568	0.211	10.68
9I19035-CALA	8000	926306	0.198	10.68

AVE RF **0.226** RF RSD **6.56** AVE RT **10.67**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3454	0.300	10.75
9I19035-CAL2	50	7615	0.280	10.75
9I19035-CAL3	100	16314	0.292	10.75
9I19035-CAL4	200	30519	0.278	10.75
9I19035-CAL5	500	82813	0.295	10.75
9I19035-CAL6	1000	152211	0.286	10.75
9I19035-CAL7	2000	304969	0.279	10.75
9I19035-CAL8	4000	617226	0.252	10.75
9I19035-CAL9	6000	795928	0.231	10.76
9I19035-CALA	8000	1001688	0.215	10.76

AVE RF **0.271** RF RSD **10.61** AVE RT **10.75**

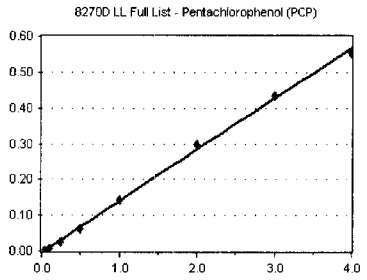
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pentachlorophenol (PCP)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

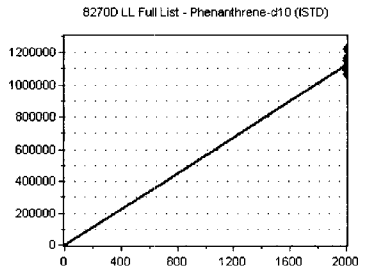


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1000~~	~~8.692~~	~~10.94~~
~~9I19035-CAL2~~	~~50~~	~~1392~~	~~5.118~~	~~10.94~~
9I19035-CAL3	100	4341	7.762	10.94
9I19035-CAL4	200	7638	6.956	10.94
9I19035-CAL5	500	30348	0.108	10.94
9I19035-CAL6	1000	65122	0.122	10.94
9I19035-CAL7	2000	154858	0.142	10.94
9I19035-CAL8	4000	363768	0.148	10.94
9I19035-CAL9	6000	500914	0.145	10.95
9I19035-CALA	8000	646595	0.138	10.95

AVE RF **0.119** RF RSD **26.11** AVE RT **10.94**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

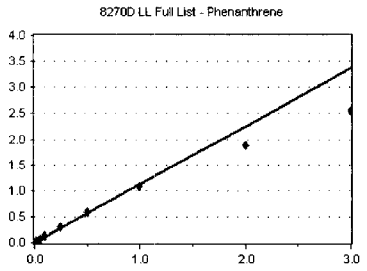


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1150535	575.268	11.13
9I19035-CAL2	2000	1087898	543.949	11.13
9I19035-CAL3	2000	1118597	559.298	11.13
9I19035-CAL4	2000	1098102	549.051	11.13
9I19035-CAL5	2000	1123094	561.547	11.13
9I19035-CAL6	2000	1065192	532.596	11.14
9I19035-CAL7	2000	1091855	545.928	11.14
9I19035-CAL8	2000	1224924	612.462	11.14
9I19035-CAL9	2000	1148482	574.241	11.14
9I19035-CALA	2000	1167219	583.609	11.14

AVE RF **563.795** RF RSD **4.15** AVE RT **11.13**

Phenanthrene

Curve Fit: **AVERAGE RF**

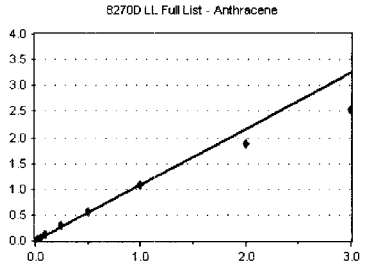


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13749	1.195	11.16
9I19035-CAL2	50	32566	1.197	11.16
9I19035-CAL3	100	68493	1.225	11.15
9I19035-CAL4	200	134878	1.228	11.15
9I19035-CAL5	500	343840	1.225	11.16
9I19035-CAL6	1000	610421	1.146	11.16
9I19035-CAL7	2000	1191270	1.091	11.16
9I19035-CAL8	4000	2302690	0.940	11.16
9I19035-CAL9	6000	2932288	0.851	11.17
~~9I19035-CALA~~	~~8000~~	~~3584429~~	~~0.768~~	~~11.17~~

AVE RF **1.122** RF RSD **12.26** AVE RT **11.16**

Anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11450	0.995	11.21
9I19035-CAL2	50	30636	1.126	11.21
9I19035-CAL3	100	65192	1.166	11.21
9I19035-CAL4	200	132343	1.205	11.21
9I19035-CAL5	500	335865	1.196	11.21
9I19035-CAL6	1000	608748	1.143	11.21
9I19035-CAL7	2000	1187408	1.088	11.21
9I19035-CAL8	4000	2312152	0.944	11.22
9I19035-CAL9	6000	2907155	0.844	11.22
~~9I19035-CALA~~	~~8000~~	~~3477728~~	~~0.745~~	~~11.22~~

AVE RF **1.079** RF RSD **11.55** AVE RT **11.21**

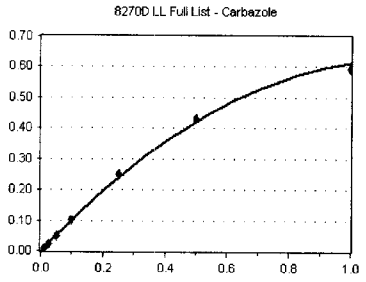
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Carbazole

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

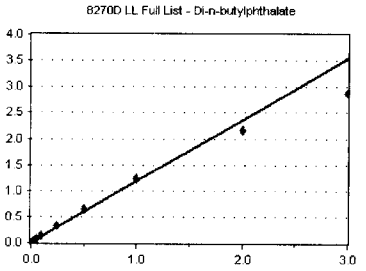


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9186	0.798	11.37
9I19035-CAL2	50	24489	0.900	11.37
9I19035-CAL3	100	54742	0.979	11.37
9I19035-CAL4	200	110985	1.011	11.37
9I19035-CAL5	500	281210	1.002	11.37
9I19035-CAL6	1000	458747	0.861	11.37
9I19035-CAL7	2000	646631	0.592	11.37
~~9I19035-CAL8~~	~~4000~~	~~858655~~	~~0.350~~	~~11.37~~
~~9I19035-CAL9~~	~~6000~~	~~1156567~~	~~0.336~~	~~11.37~~
~~9I19035-CALA~~	~~8000~~	~~1165062~~	~~0.250~~	~~11.37~~

AVE RF **0.878** RF RSD **16.89** AVE RT **11.37**

Di-n-butylphthalate

Curve Fit: **AVERAGE RF**

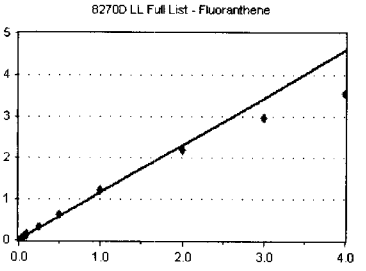


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~11697~~	~~1.017~~	~~11.72~~
9I19035-CAL2	50	29117	1.071	11.72
9I19035-CAL3	100	70280	1.257	11.72
9I19035-CAL4	200	138215	1.259	11.72
9I19035-CAL5	500	369981	1.318	11.72
9I19035-CAL6	1000	683398	1.283	11.72
9I19035-CAL7	2000	1348435	1.235	11.72
9I19035-CAL8	4000	2651399	1.082	11.72
9I19035-CAL9	6000	3301933	0.958	11.73
~~9I19035-CALA~~	~~8000~~	~~4037361~~	~~0.865~~	~~11.72~~

AVE RF **1.183** RF RSD **10.85** AVE RT **11.72**

Fluoranthene

Curve Fit: **AVERAGE RF**

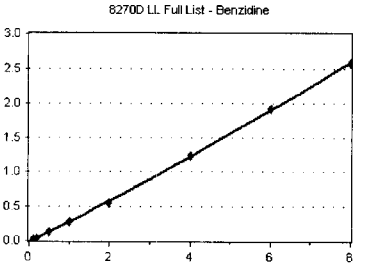


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12248	1.065	12.43
9I19035-CAL2	50	31166	1.146	12.42
9I19035-CAL3	100	70234	1.256	12.42
9I19035-CAL4	200	138551	1.262	12.42
9I19035-CAL5	500	369455	1.316	12.43
9I19035-CAL6	1000	669325	1.257	12.42
9I19035-CAL7	2000	1341415	1.229	12.43
9I19035-CAL8	4000	2665095	1.088	12.44
9I19035-CAL9	6000	3417993	0.992	12.44
9I19035-CALA	8000	4158773	0.891	12.44

AVE RF **1.150** RF RSD **12.02** AVE RT **12.43**

Benzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3398~~	~~0.148~~	~~12.58~~
~~9I19035-CAL2~~	~~100~~	~~5652~~	~~0.104~~	~~12.58~~
9I19035-CAL3	200	12748	0.114	12.58
9I19035-CAL4	400	43242	0.197	12.58
9I19035-CAL5	1000	152022	0.271	12.58
9I19035-CAL6	2000	302104	0.284	12.58
9I19035-CAL7	4000	601547	0.275	12.59
9I19035-CAL8	8000	1506619	0.307	12.60
9I19035-CAL9	12000	2204013	0.320	12.60
9I19035-CALA	16000	3017555	0.323	12.60

AVE RF **0.261** RF RSD **27.45** AVE RT **12.59**

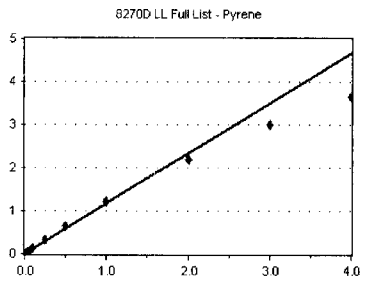
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pyrene

Curve Fit: **AVERAGE RF**

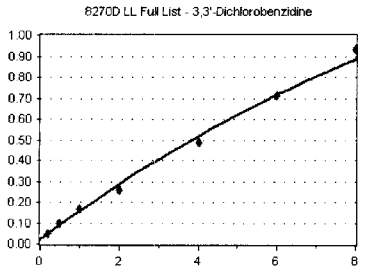


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12641	1.099	12.71
9I19035-CAL2	50	32717	1.203	12.71
9I19035-CAL3	100	69474	1.242	12.71
9I19035-CAL4	200	143586	1.308	12.71
9I19035-CAL5	500	375136	1.336	12.71
9I19035-CAL6	1000	683508	1.283	12.71
9I19035-CAL7	2000	1337637	1.225	12.72
9I19035-CAL8	4000	2681088	1.094	12.73
9I19035-CAL9	6000	3436590	0.997	12.74
9I19035-CALA	8000	4271888	0.915	12.73

AVE RF **1.170** RF RSD **11.89** AVE RT **12.72**

3,3'-Dichlorobenzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

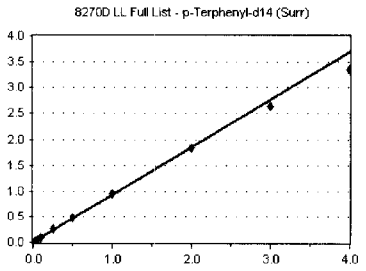


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3617~~	~~0.156~~	~~0.00~~
~~9I19035-CAL2~~	~~100~~	~~11318~~	~~0.203~~	~~0.00~~
~~9I19035-CAL3~~	~~200~~	~~24584~~	~~0.219~~	~~14.85~~
9I19035-CAL4	400	53778	0.241	14.86
9I19035-CAL5	1000	110907	0.193	14.86
9I19035-CAL6	2000	174855	0.167	14.86
9I19035-CAL7	4000	281736	0.129	14.86
9I19035-CAL8	8000	555604	0.122	14.88
9I19035-CAL9	12000	730056	0.119	14.89
9I19035-CALA	16000	945543	0.117	0.00

AVE RF **0.155** RF RSD **30.50** AVE RT **12.74**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

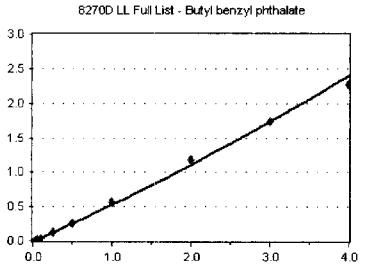


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9512	0.821	12.92
9I19035-CAL2	50	25113	0.902	12.92
9I19035-CAL3	100	54871	0.977	12.92
9I19035-CAL4	200	107135	0.959	12.92
9I19035-CAL5	500	285146	0.995	12.92
9I19035-CAL6	1000	507926	0.969	12.92
9I19035-CAL7	2000	1038865	0.953	12.93
9I19035-CAL8	4000	2102593	0.924	12.94
9I19035-CAL9	6000	2699067	0.880	12.94
9I19035-CALA	8000	3392009	0.837	12.93

AVE RF **0.922** RF RSD **6.53** AVE RT **12.93**

Butyl benzyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2535~~	~~0.219~~	~~13.73~~
9I19035-CAL2	50	6765	0.243	13.74
9I19035-CAL3	100	18774	0.334	13.74
9I19035-CAL4	200	42397	0.380	13.74
9I19035-CAL5	500	139695	0.487	13.74
9I19035-CAL6	1000	279356	0.533	13.74
9I19035-CAL7	2000	621242	0.570	13.74
9I19035-CAL8	4000	1344154	0.590	13.75
9I19035-CAL9	6000	1779167	0.580	13.76
9I19035-CALA	8000	2308181	0.569	13.75

AVE RF **0.476** RF RSD **26.60** AVE RT **13.74**

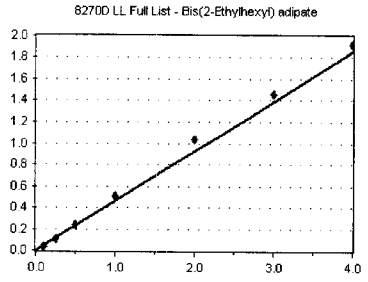
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-Ethylhexyl) adipate

Curve Fit: **AVERAGE RF**

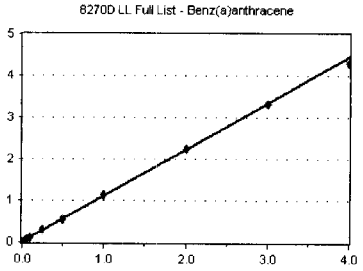


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2762~~	~~0.238~~	~~13.91~~
~~9I19035-CAL2~~	~~50~~	~~6924~~	~~0.249~~	~~13.91~~
~~9I19035-CAL3~~	~~100~~	~~18358~~	~~0.327~~	~~13.91~~
9I19035-CAL4	200	37581	0.336	13.91
9I19035-CAL5	500	126449	0.441	13.91
9I19035-CAL6	1000	247877	0.473	13.91
9I19035-CAL7	2000	551677	0.506	13.92
9I19035-CAL8	4000	1183408	0.520	13.92
9I19035-CAL9	6000	1497303	0.488	13.93
9I19035-CALA	8000	1955106	0.482	13.92

AVE RF **0.464** RF RSD **13.26** AVE RT **13.92**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

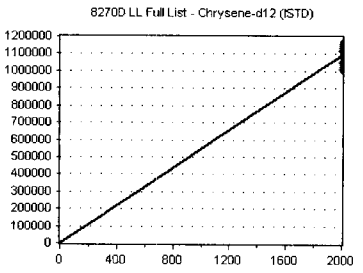


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13459	1.161	14.89
9I19035-CAL2	50	29779	1.070	14.89
9I19035-CAL3	100	64818	1.154	14.89
9I19035-CAL4	200	124472	1.114	14.89
9I19035-CAL5	500	327557	1.143	14.89
9I19035-CAL6	1000	577553	1.102	14.89
9I19035-CAL7	2000	1225586	1.125	14.90
9I19035-CAL8	4000	2538581	1.115	14.91
9I19035-CAL9	6000	3394067	1.107	14.92
9I19035-CALA	8000	4360504	1.076	14.91

AVE RF **1.117** RF RSD **2.72** AVE RT **14.90**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

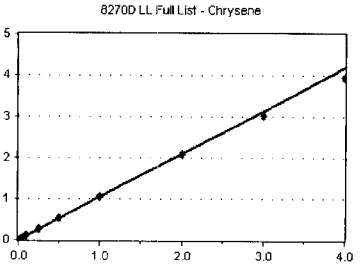


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1159268	579.634	14.91
9I19035-CAL2	2000	1113286	556.643	14.91
9I19035-CAL3	2000	1122909	561.454	14.91
9I19035-CAL4	2000	1116848	558.424	14.91
9I19035-CAL5	2000	1146727	573.363	14.92
9I19035-CAL6	2000	1048464	524.232	14.92
9I19035-CAL7	2000	1089712	544.856	14.92
9I19035-CAL8	2000	1138264	569.132	14.94
9I19035-CAL9	2000	1022230	511.115	14.94
9I19035-CALA	2000	1013392	506.696	14.93

AVE RF **548.555** RF RSD **4.74** AVE RT **14.92**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11530	0.995	14.97
9I19035-CAL2	50	29254	1.051	14.96
9I19035-CAL3	100	61418	1.094	14.97
9I19035-CAL4	200	120574	1.080	14.97
9I19035-CAL5	500	313539	1.094	14.97
9I19035-CAL6	1000	556735	1.062	14.98
9I19035-CAL7	2000	1148470	1.054	14.98
9I19035-CAL8	4000	2370714	1.041	15.00
9I19035-CAL9	6000	3095456	1.009	15.01
9I19035-CALA	8000	3992263	0.985	15.00

AVE RF **1.046** RF RSD **3.74** AVE RT **14.98**

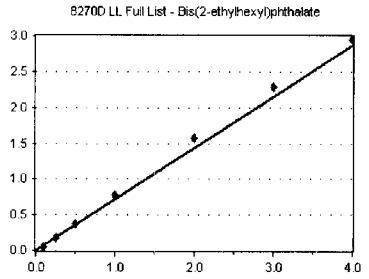
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

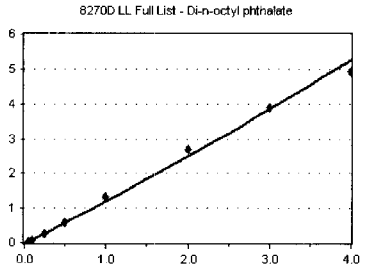


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2659~~	~~0.229~~	~~15.08~~
~~9I19035-CAL2~~	~~50~~	~~8694~~	~~0.312~~	~~15.07~~
~~9I19035-CAL3~~	~~100~~	~~26668~~	~~0.475~~	~~15.07~~
9I19035-CAL4	200	58143	0.521	15.07
9I19035-CAL5	500	202494	0.706	15.08
9I19035-CAL6	1000	389483	0.743	15.07
9I19035-CAL7	2000	846014	0.776	15.08
9I19035-CAL8	4000	1799096	0.790	15.09
9I19035-CAL9	6000	2338505	0.763	15.09
9I19035-CALA	8000	2986931	0.737	15.08

AVE RF **0.719** RF RSD **12.78** AVE RT **15.08**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

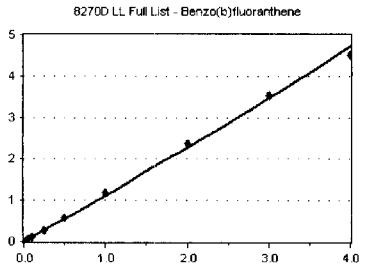


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~3334~~	~~0.288~~	~~16.74~~
~~9I19035-CAL2~~	~~50~~	~~9861~~	~~0.359~~	~~16.74~~
9I19035-CAL3	100	33665	0.597	16.74
9I19035-CAL4	200	75567	0.694	16.74
9I19035-CAL5	500	281414	0.979	16.75
9I19035-CAL6	1000	592055	1.136	16.75
9I19035-CAL7	2000	1439135	1.337	16.75
9I19035-CAL8	4000	3203842	1.352	16.76
9I19035-CAL9	6000	4149203	1.295	16.77
9I19035-CALA	8000	5450180	1.229	16.75

AVE RF **1.077** RF RSD **27.27** AVE RT **16.75**

Benzo(b)fluoranthene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

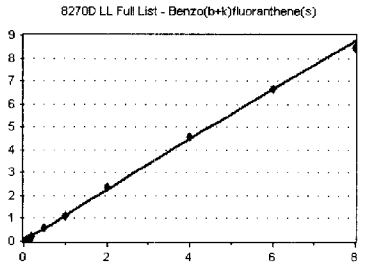


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8297	0.716	17.46
9I19035-CAL2	50	21819	0.795	17.47
9I19035-CAL3	100	57260	1.016	17.47
9I19035-CAL4	200	113080	1.038	17.48
9I19035-CAL5	500	318669	1.109	17.48
9I19035-CAL6	1000	578435	1.109	17.48
9I19035-CAL7	2000	1267321	1.178	17.49
9I19035-CAL8	4000	2803227	1.183	17.52
9I19035-CAL9	6000	3768759	1.177	17.52
9I19035-CALA	8000	5003892	1.128	17.52

AVE RF **1.045** RF RSD **15.65** AVE RT **17.49**

Benzo(b+k)fluoranthene(s)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	40	17019	0.734	17.46
9I19035-CAL2	100	47809	0.871	17.47
9I19035-CAL3	200	120376	1.068	17.54
9I19035-CAL4	400	234995	1.079	17.48
9I19035-CAL5	1000	653019	1.136	17.54
9I19035-CAL6	2000	1182652	1.134	17.55
9I19035-CAL7	4000	2563432	1.191	17.55
9I19035-CAL8	8000	5439284	1.148	17.59
9I19035-CAL9	12000	7129046	1.113	17.60
9I19035-CALA	16000	9407940	1.060	17.59

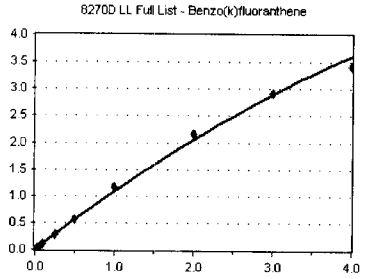
AVE RF **1.053** RF RSD **13.45** AVE RT **17.54**

Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzo(k)fluoranthene

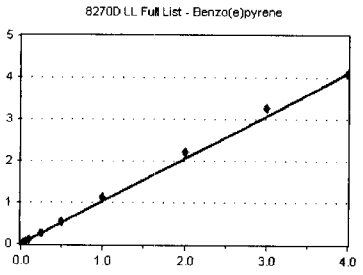


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8174	0.705	17.54
9I19035-CAL2	50	23687	0.864	17.54
9I19035-CAL3	100	58523	1.038	17.54
9I19035-CAL4	200	115987	1.065	17.54
9I19035-CAL5	500	321918	1.120	17.54
9I19035-CAL6	1000	582389	1.117	17.55
9I19035-CAL7	2000	1256906	1.168	17.55
9I19035-CAL8	4000	2555733	1.078	17.59
9I19035-CAL9	6000	3115398	0.973	17.60
9I19035-CALA	8000	3789489	0.854	17.59

AVE RF **0.998** RF RSD **14.77** AVE RT **17.56**

Benzo(e)pyrene

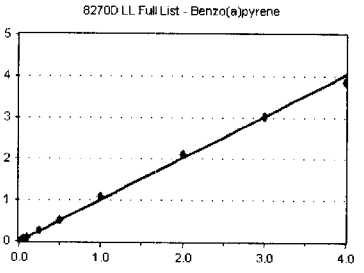


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8657	0.747	18.13
9I19035-CAL2	50	24570	0.896	18.12
9I19035-CAL3	100	58165	1.032	18.12
9I19035-CAL4	200	113143	1.039	18.13
9I19035-CAL5	500	316818	1.102	18.13
9I19035-CAL6	1000	576088	1.105	18.14
9I19035-CAL7	2000	1218818	1.133	18.14
9I19035-CAL8	4000	2630004	1.110	18.17
9I19035-CAL9	6000	3489142	1.089	18.19
9I19035-CALA	8000	4556103	1.027	18.17

AVE RF **1.028** RF RSD **11.67** AVE RT **18.14**

Benzo(a)pyrene

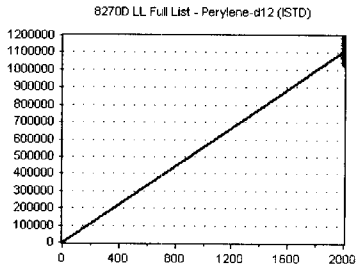


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6648	0.574	18.24
9I19035-CAL2	50	18583	0.677	18.24
9I19035-CAL3	100	50114	0.889	18.24
9I19035-CAL4	200	99882	0.917	18.24
9I19035-CAL5	500	295305	1.028	18.25
9I19035-CAL6	1000	535317	1.027	18.25
9I19035-CAL7	2000	1174506	1.091	18.26
9I19035-CAL8	4000	2485829	1.049	18.29
9I19035-CAL9	6000	3235783	1.010	18.31
9I19035-CALA	8000	4292201	0.968	18.30

AVE RF **0.923** RF RSD **18.38** AVE RT **18.26**

Perylene-d12 (ISTD)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1158997	579.498	18.39
9I19035-CAL2	2000	1097209	548.604	18.39
9I19035-CAL3	2000	1127380	563.690	18.39
9I19035-CAL4	2000	1089238	544.619	18.40
9I19035-CAL5	2000	1149483	574.742	18.40
9I19035-CAL6	2000	1042709	521.354	18.40
9I19035-CAL7	2000	1076142	538.071	18.40
9I19035-CAL8	2000	1185024	592.512	18.42
9I19035-CAL9	2000	1067597	533.798	18.43
9I19035-CALA	2000	1108960	554.480	18.41

AVE RF **555.137** RF RSD **4.02** AVE RT **18.40**

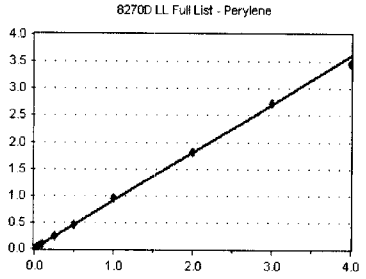
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Perylene

Curve Fit: **AVERAGE RF**

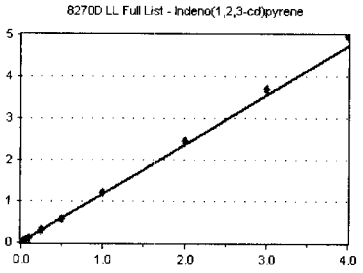


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9278	0.801	18.45
9I19035-CAL2	50	24689	0.900	18.45
9I19035-CAL3	100	50289	0.892	18.45
9I19035-CAL4	200	100217	0.920	18.45
9I19035-CAL5	500	273199	0.951	18.45
9I19035-CAL6	1000	476752	0.914	18.46
9I19035-CAL7	2000	1026574	0.954	18.47
9I19035-CAL8	4000	2164033	0.913	18.50
9I19035-CAL9	6000	2908580	0.908	18.51
9I19035-CALA	8000	3844220	0.867	18.50

AVE RF **0.902** RF RSD **4.87** AVE RT **18.47**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

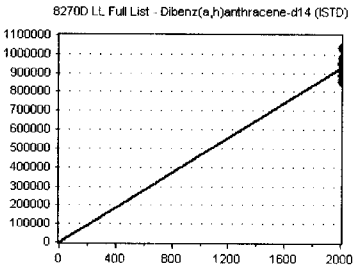


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10072	1.102	20.77
9I19035-CAL2	50	25006	1.169	20.78
9I19035-CAL3	100	52504	1.176	20.78
9I19035-CAL4	200	100411	1.156	20.78
9I19035-CAL5	500	279363	1.171	20.78
9I19035-CAL6	1000	510691	1.152	20.79
9I19035-CAL7	2000	1143875	1.205	20.80
9I19035-CAL8	4000	2539375	1.224	20.84
9I19035-CAL9	6000	3489319	1.230	20.85
9I19035-CALA	8000	4879339	1.241	20.84

AVE RF **1.183** RF RSD **3.60** AVE RT **20.80**

Dibenz(a,h)anthracene-d14 (ISTD)

Curve Fit: **AVERAGE RF**

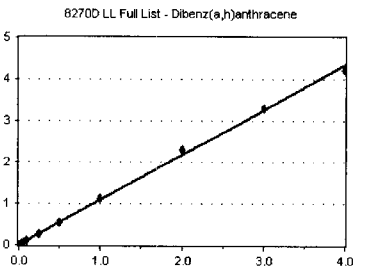


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	913932	456.966	20.80
9I19035-CAL2	2000	855339	427.669	20.79
9I19035-CAL3	2000	892958	446.479	20.79
9I19035-CAL4	2000	868590	434.295	20.80
9I19035-CAL5	2000	954508	477.254	20.80
9I19035-CAL6	2000	886236	443.118	20.80
9I19035-CAL7	2000	949148	474.574	20.80
9I19035-CAL8	2000	1037191	518.596	20.83
9I19035-CAL9	2000	945822	472.911	20.84
9I19035-CALA	2000	982889	491.444	20.82

AVE RF **464.331** RF RSD **6.05** AVE RT **20.80**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8754	0.958	20.85
9I19035-CAL2	50	21791	1.019	20.85
9I19035-CAL3	100	48705	1.091	20.85
9I19035-CAL4	200	95316	1.097	20.85
9I19035-CAL5	500	270778	1.135	20.86
9I19035-CAL6	1000	489557	1.105	20.87
9I19035-CAL7	2000	1087002	1.145	20.88
9I19035-CAL8	4000	2389624	1.152	20.90
9I19035-CAL9	6000	3129173	1.103	20.91
9I19035-CALA	8000	4143300	1.054	20.90

AVE RF **1.086** RF RSD **5.57** AVE RT **20.87**

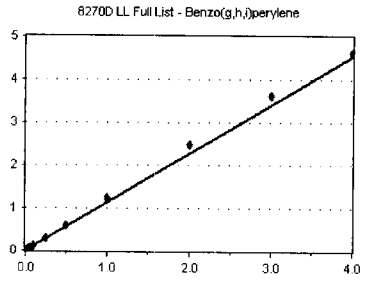
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

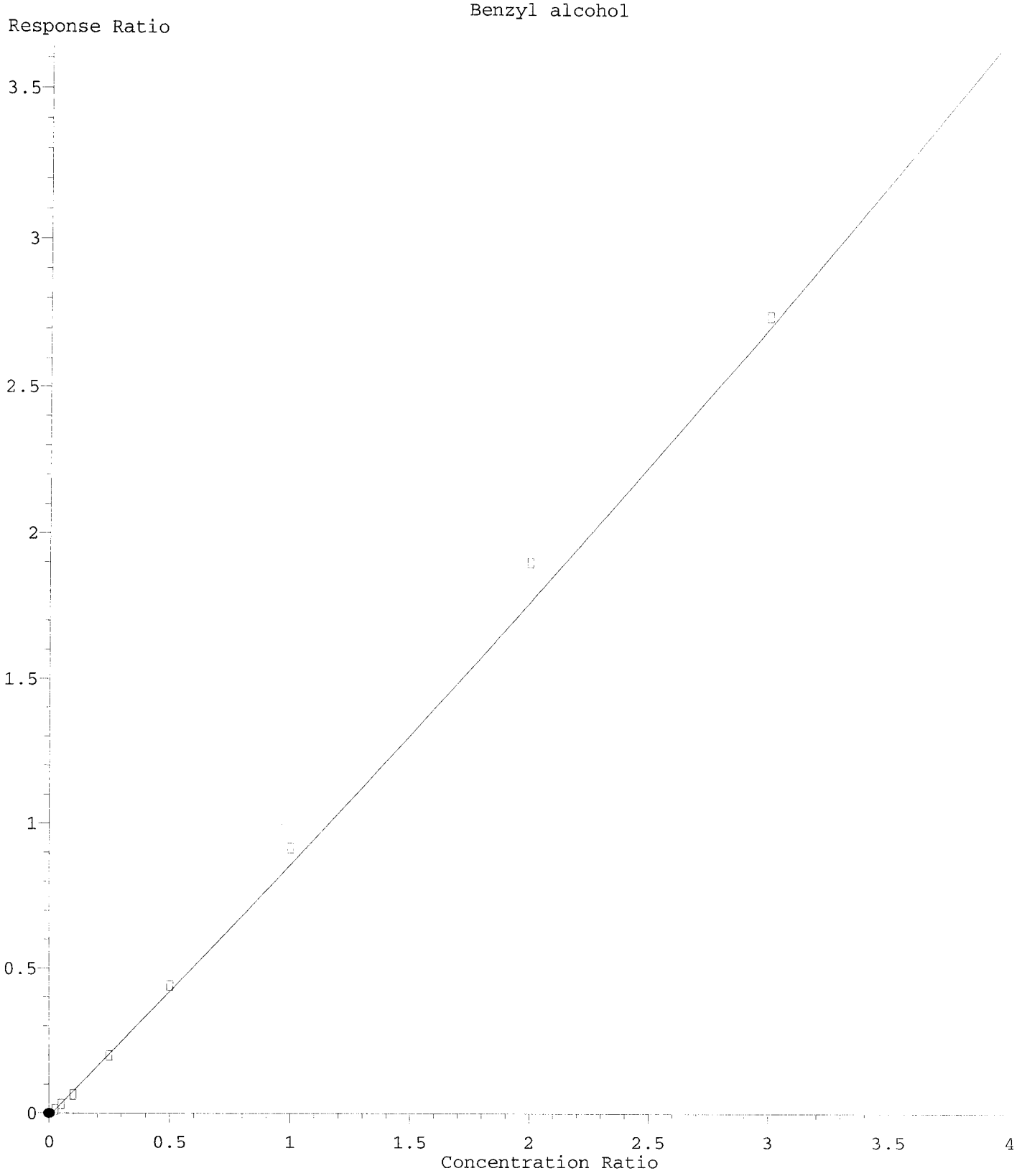
Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7772	0.850	21.32
9I19035-CAL2	50	20181	0.944	21.31
9I19035-CAL3	100	49447	1.107	21.31
9I19035-CAL4	200	101188	1.165	21.32
9I19035-CAL5	500	291609	1.222	21.33
9I19035-CAL6	1000	538150	1.214	21.33
9I19035-CAL7	2000	1186793	1.250	21.34
9I19035-CAL8	4000	2579448	1.243	21.38
9I19035-CAL9	6000	3417702	1.204	21.39
9I19035-CALA	8000	4554601	1.158	21.38

AVE RF **1.136** RF RSD **11.87** AVE RT **21.34**

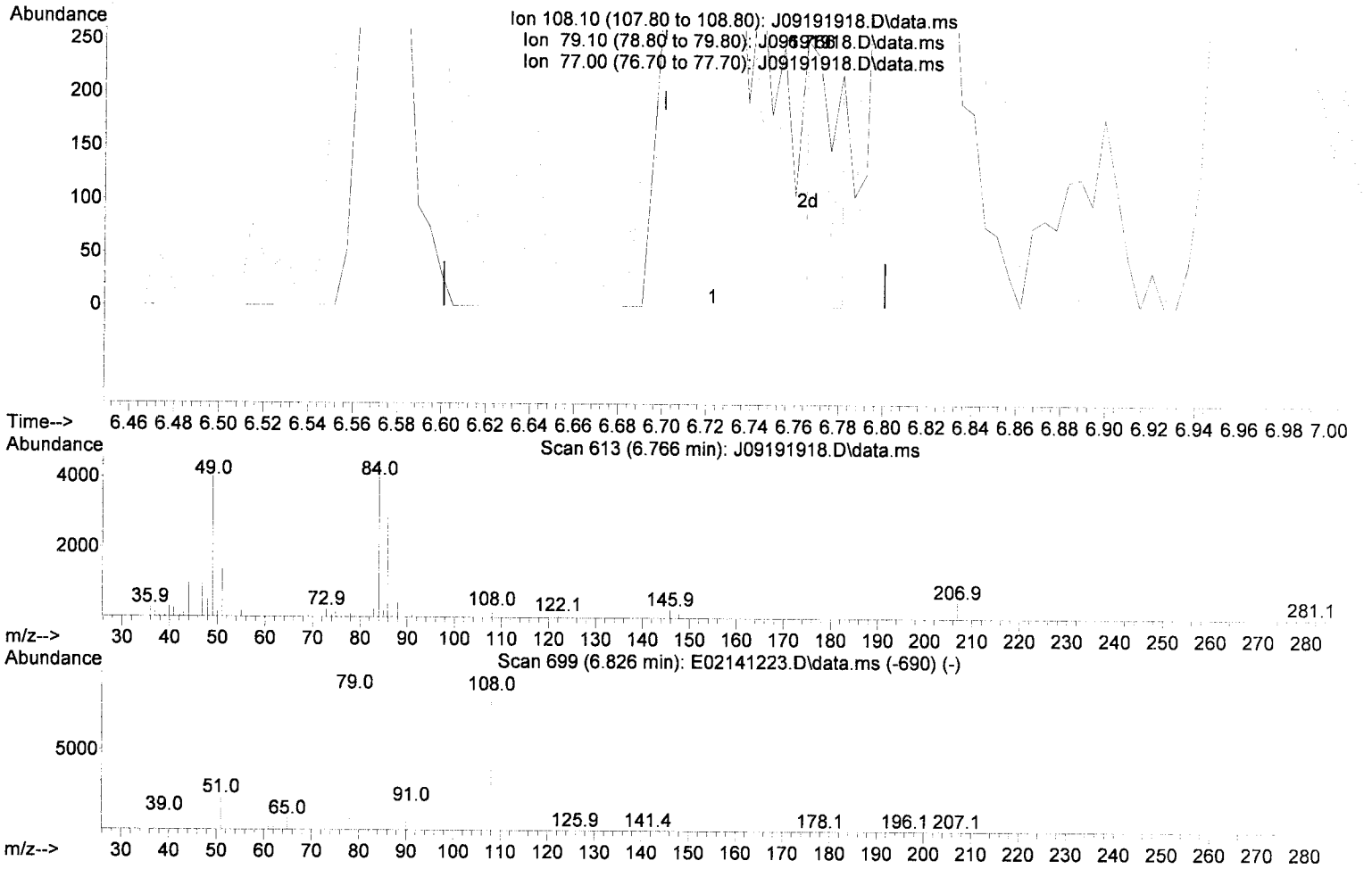


R = 1.89e-002 A*A + 8.51e-001 A - 1.04e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



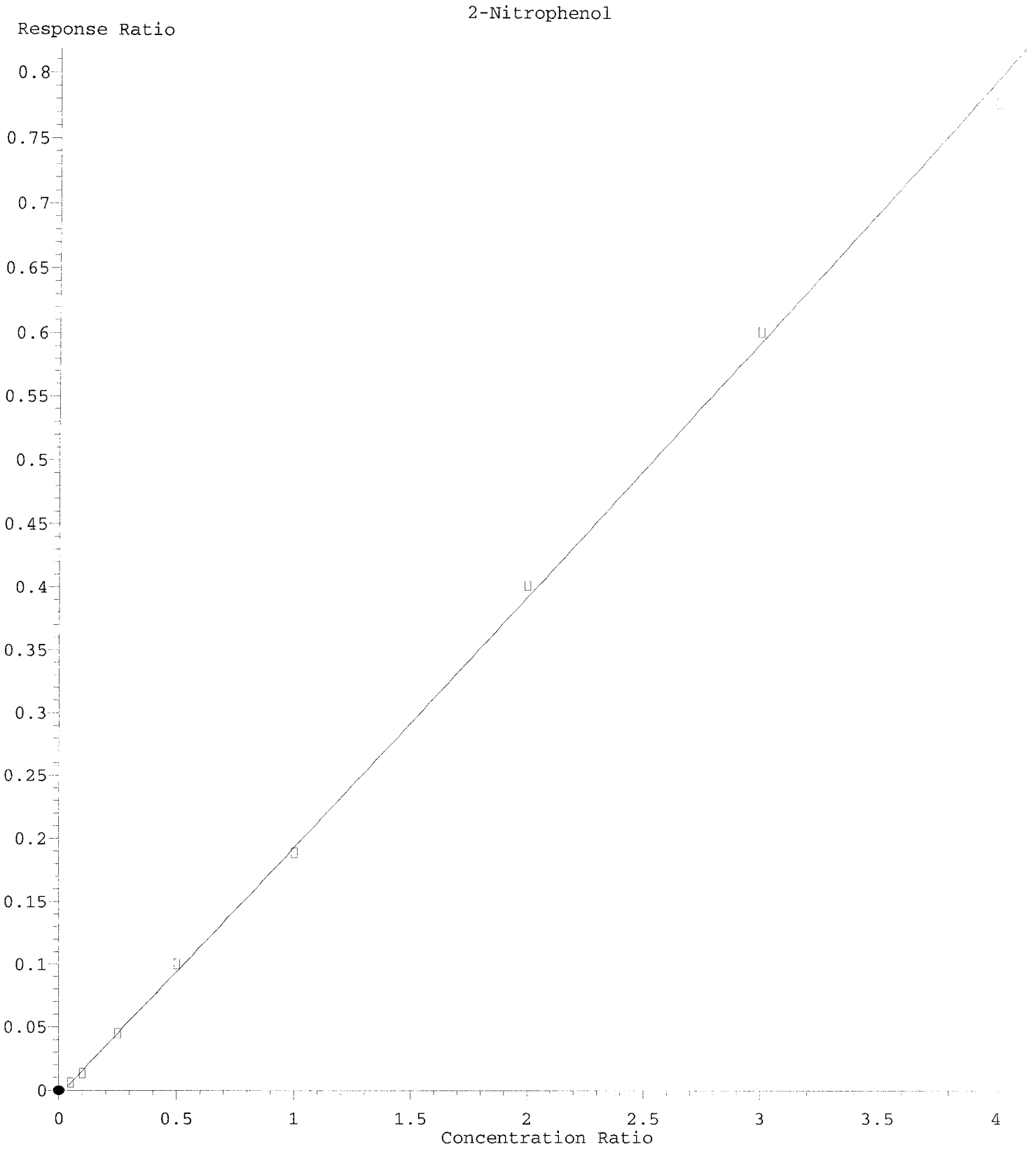
TIC: J09191918.D\data.ms

(12) Benzyl alcohol (T)

6.766min (+ 0.065) 26.03 ng/ml m

response 193

Ion	Exp%	Act%
108.10	100.00	100.00
79.10	108.60	31.35#
77.00	68.40	50.40
0.00	0.00	0.00

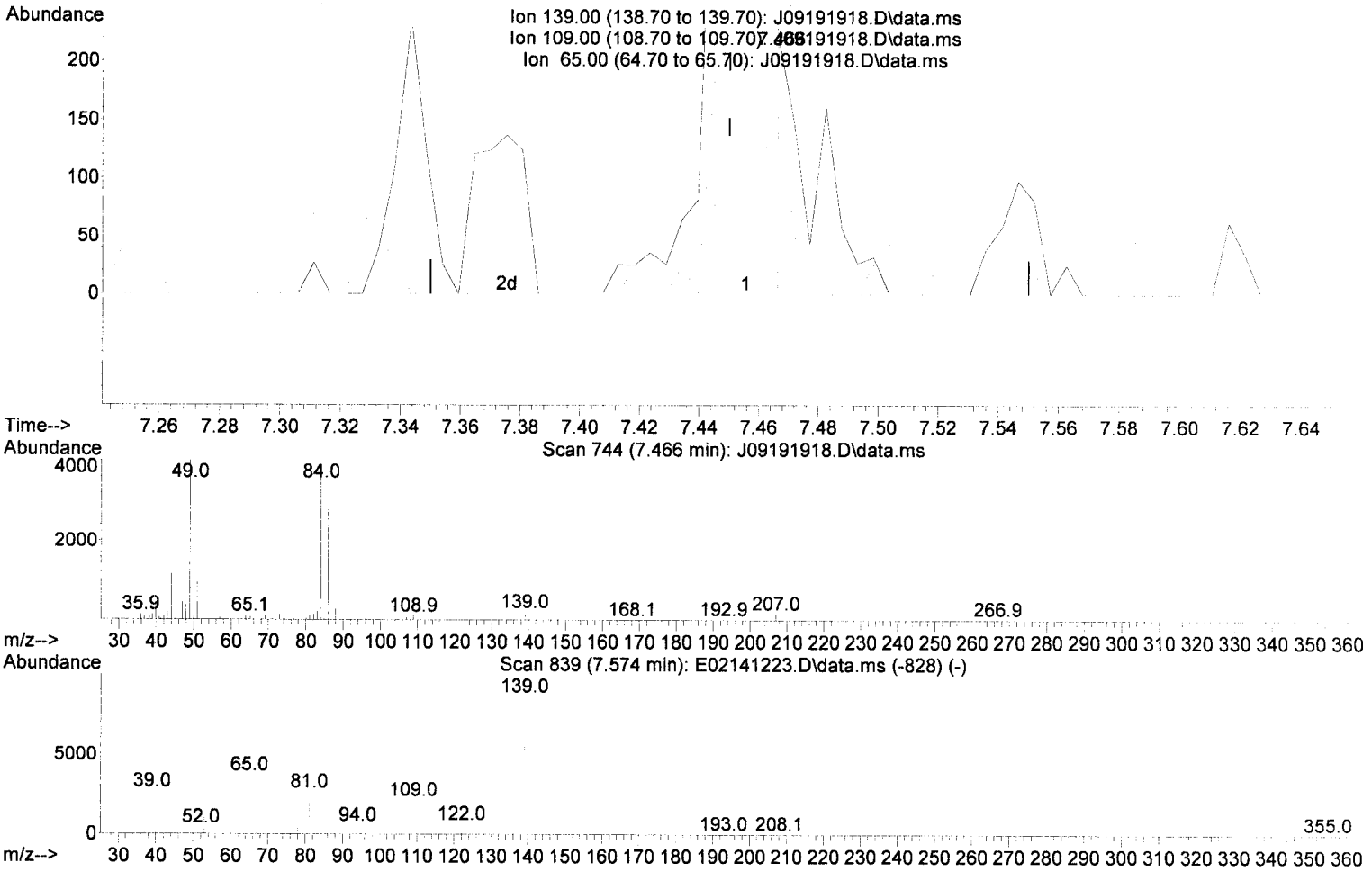


R = 1.05e-003 A*A + 1.96e-001 A - 4.15e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



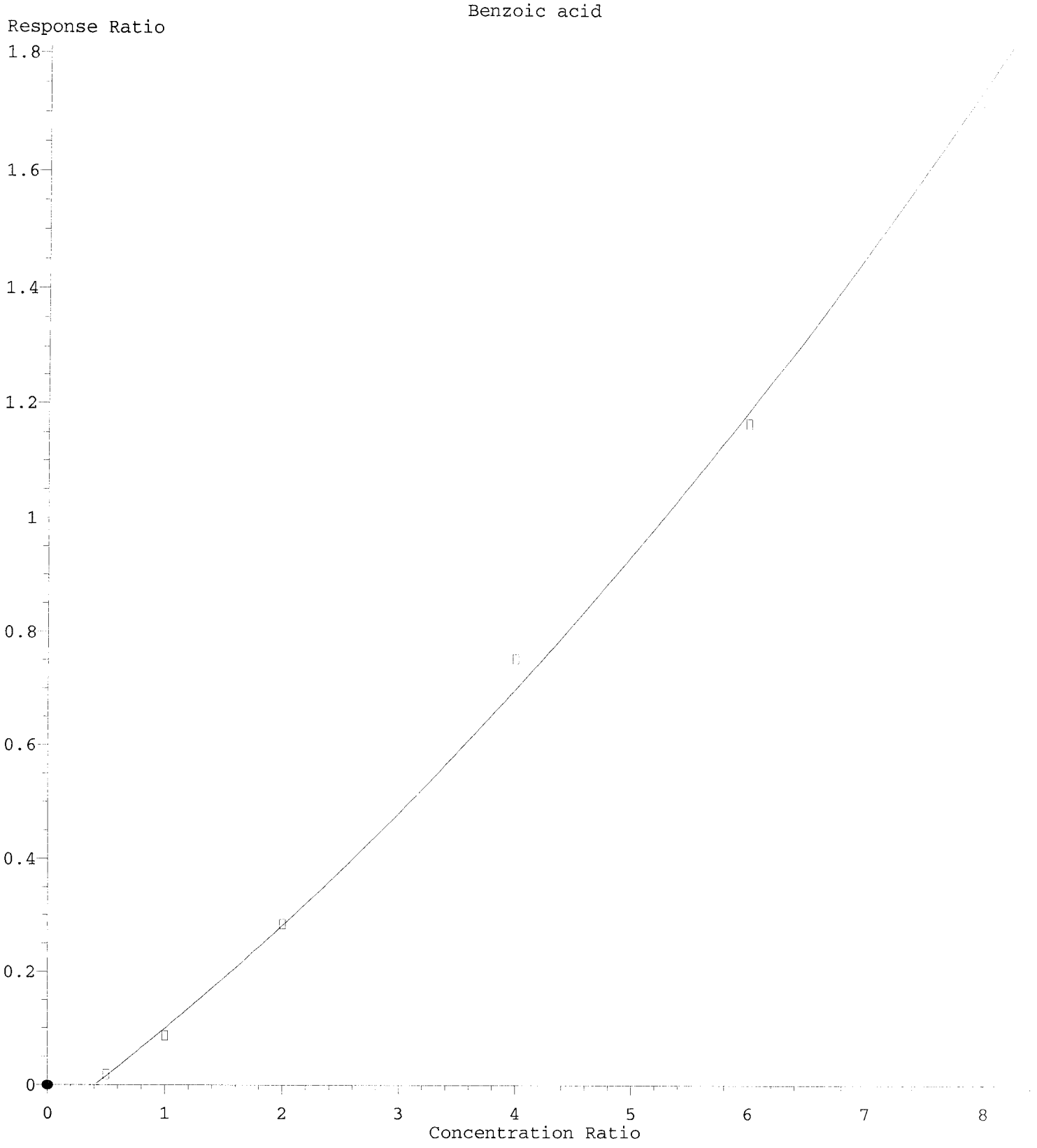
TIC: J09191918.D\data.ms

(23) 2-Nitrophenol (T)

7.466min (+ 0.016) 43.56 ng/ml m

response 151

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	25.20	53.85
65.00	38.40	58.82
0.00	0.00	0.00

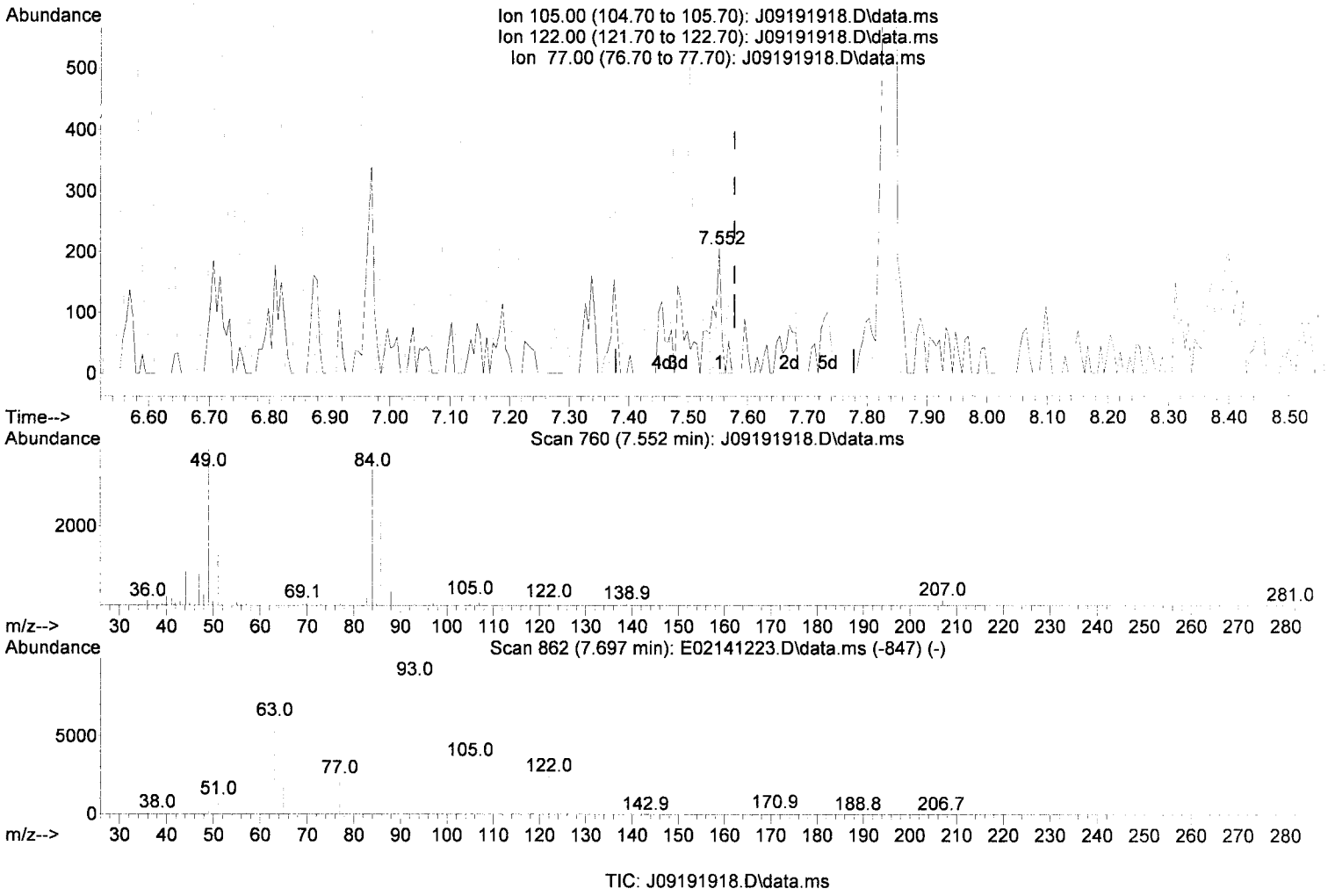


R = 8.94e-003 A*A + 1.55e-001 A - 6.40e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



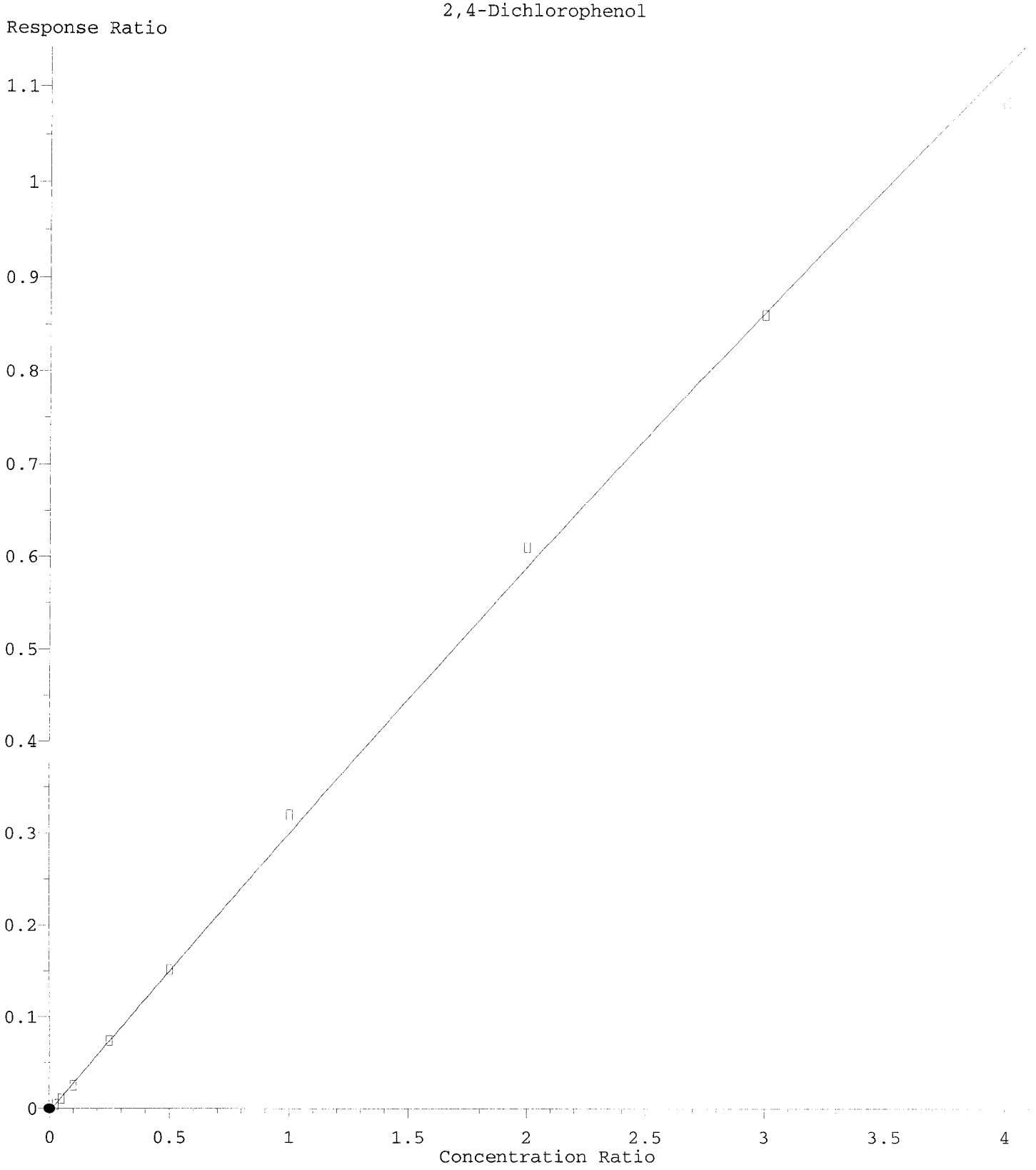
TIC: J09191918.D\data.ms

(26) Benzoic acid (T)

7.552min (-0.026) 807.68 ng/ml m

response 164

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	63.41
77.00	72.00	38.05#
0.00	0.00	0.00

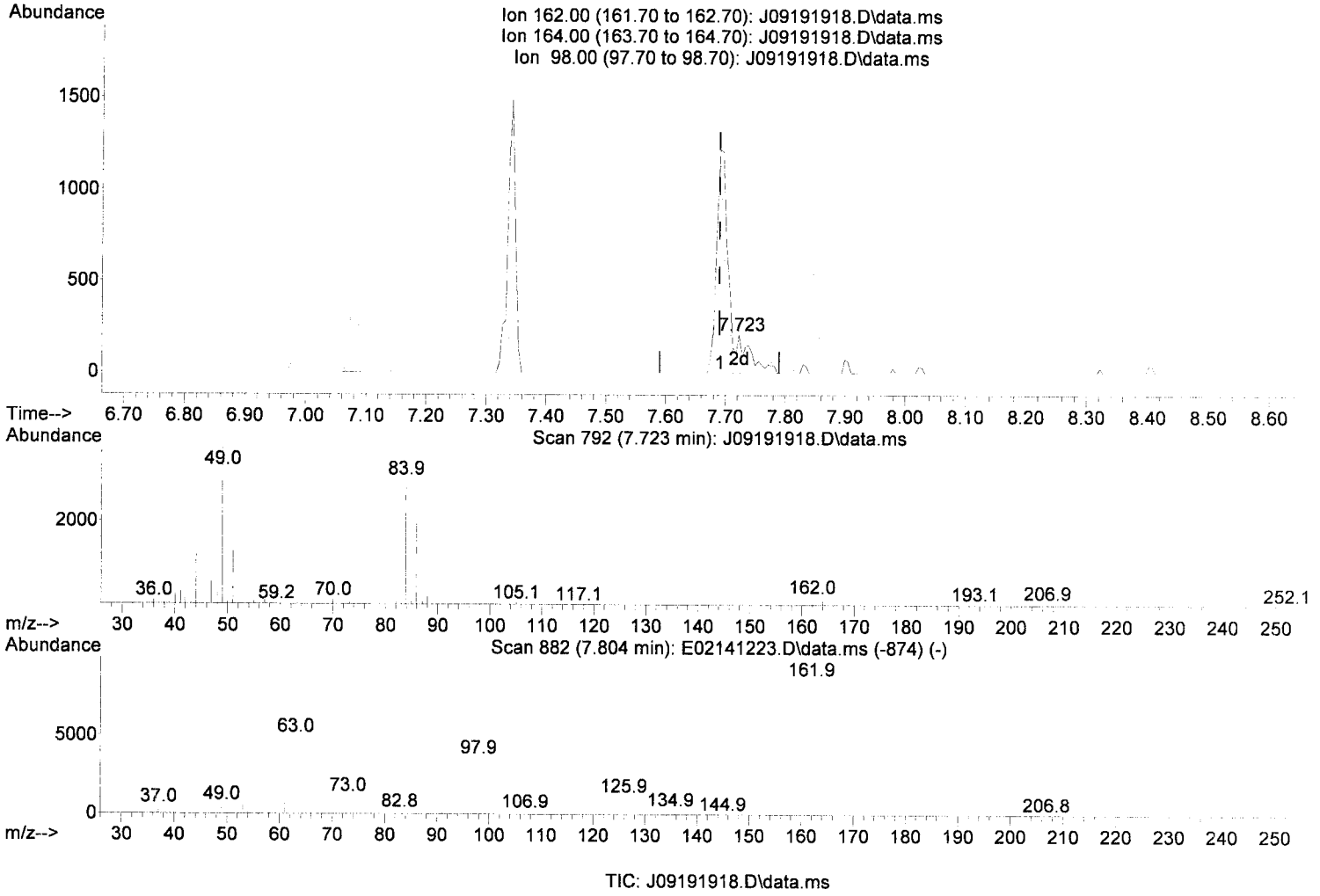


R = -7.18e-003 A*A + 3.11e-001 A - 3.87e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



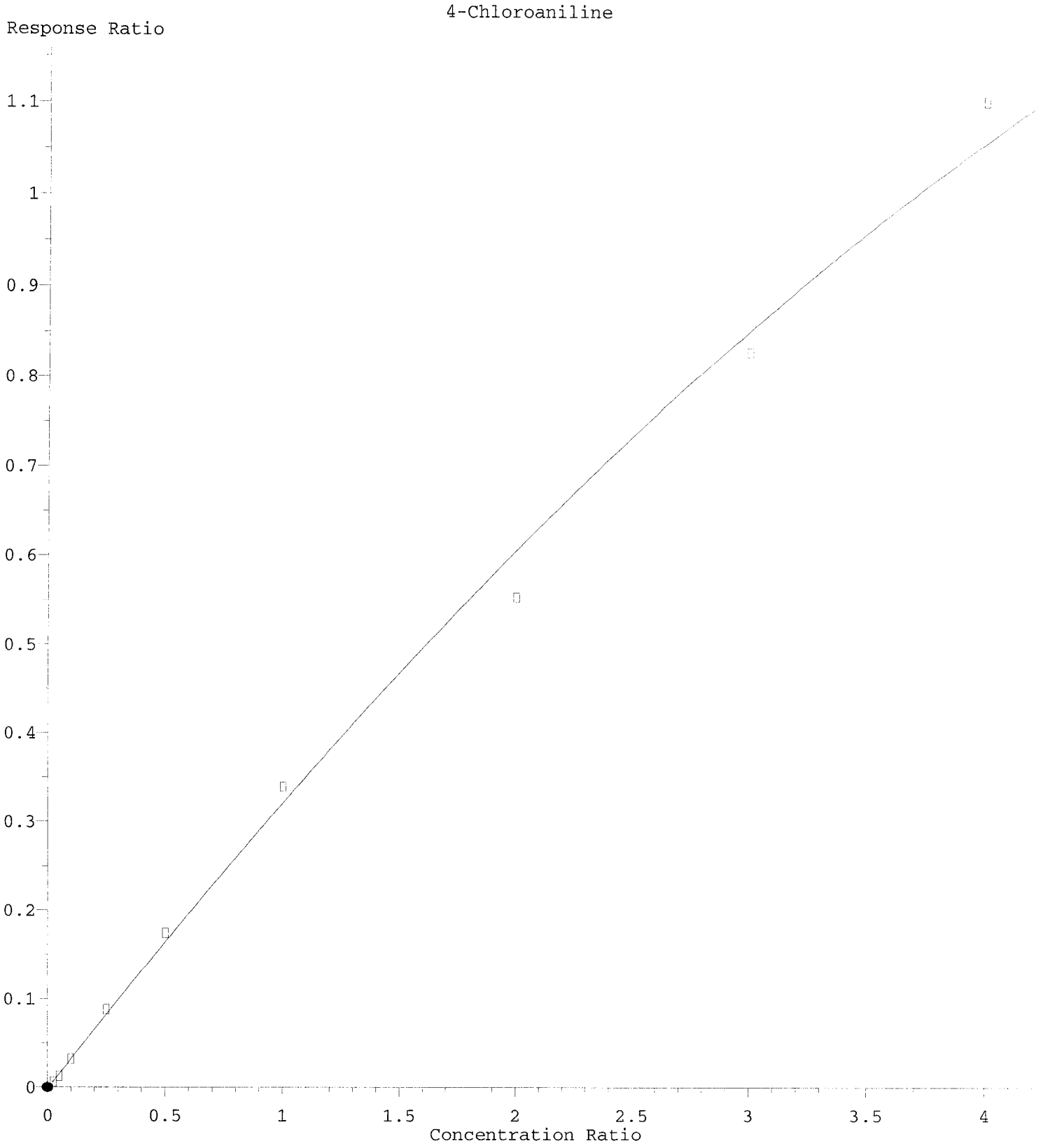
TIC: J09191918.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.723min (+ 0.033) 25.85 ng/ml m

response 177

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	64.50	62.20
98.00	33.60	0.00#
0.00	0.00	0.00

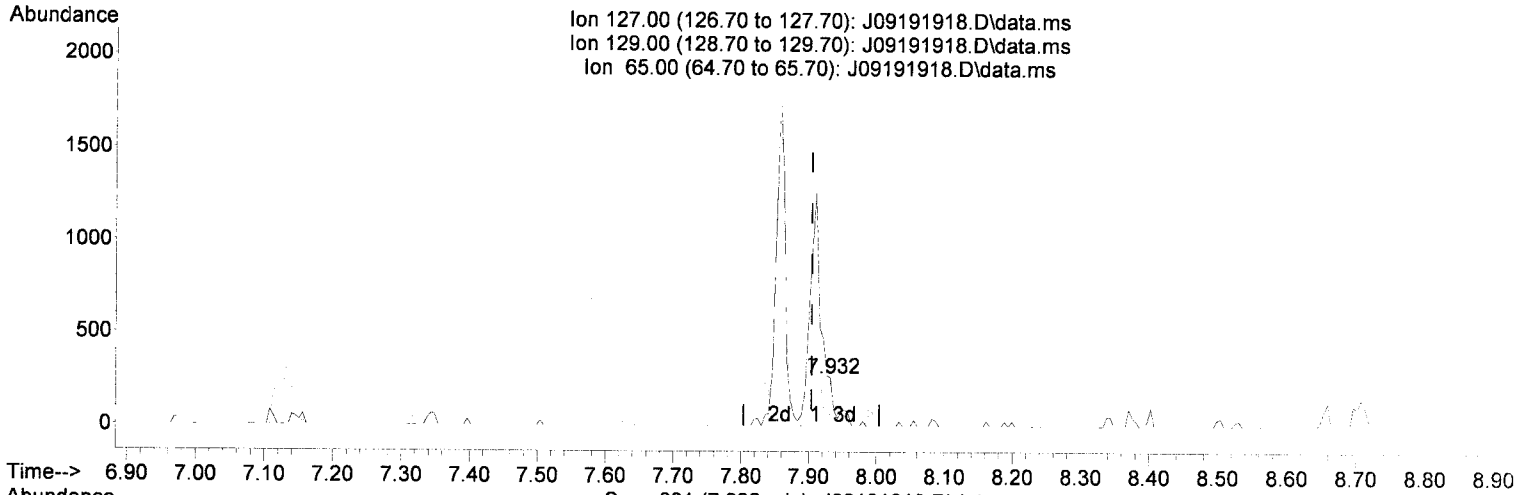


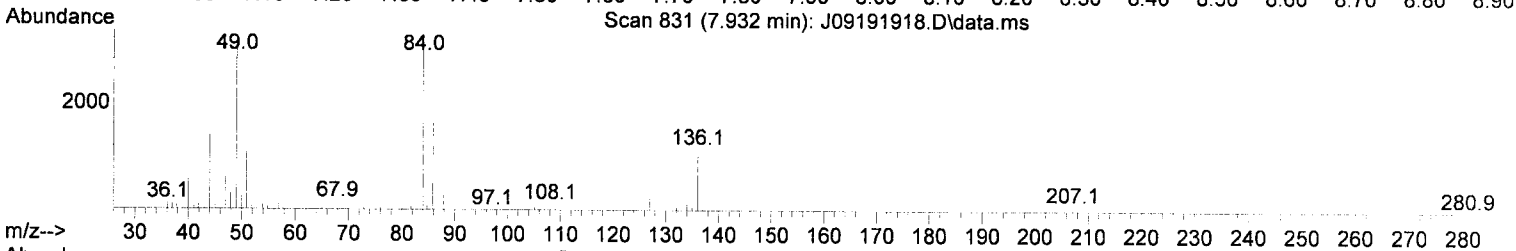
R = -1.94e-002 A*A + 3.43e-001 A - 2.27e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

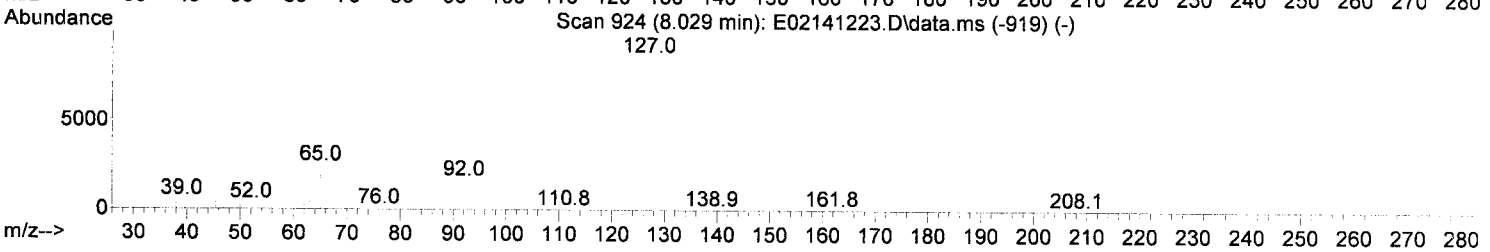
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







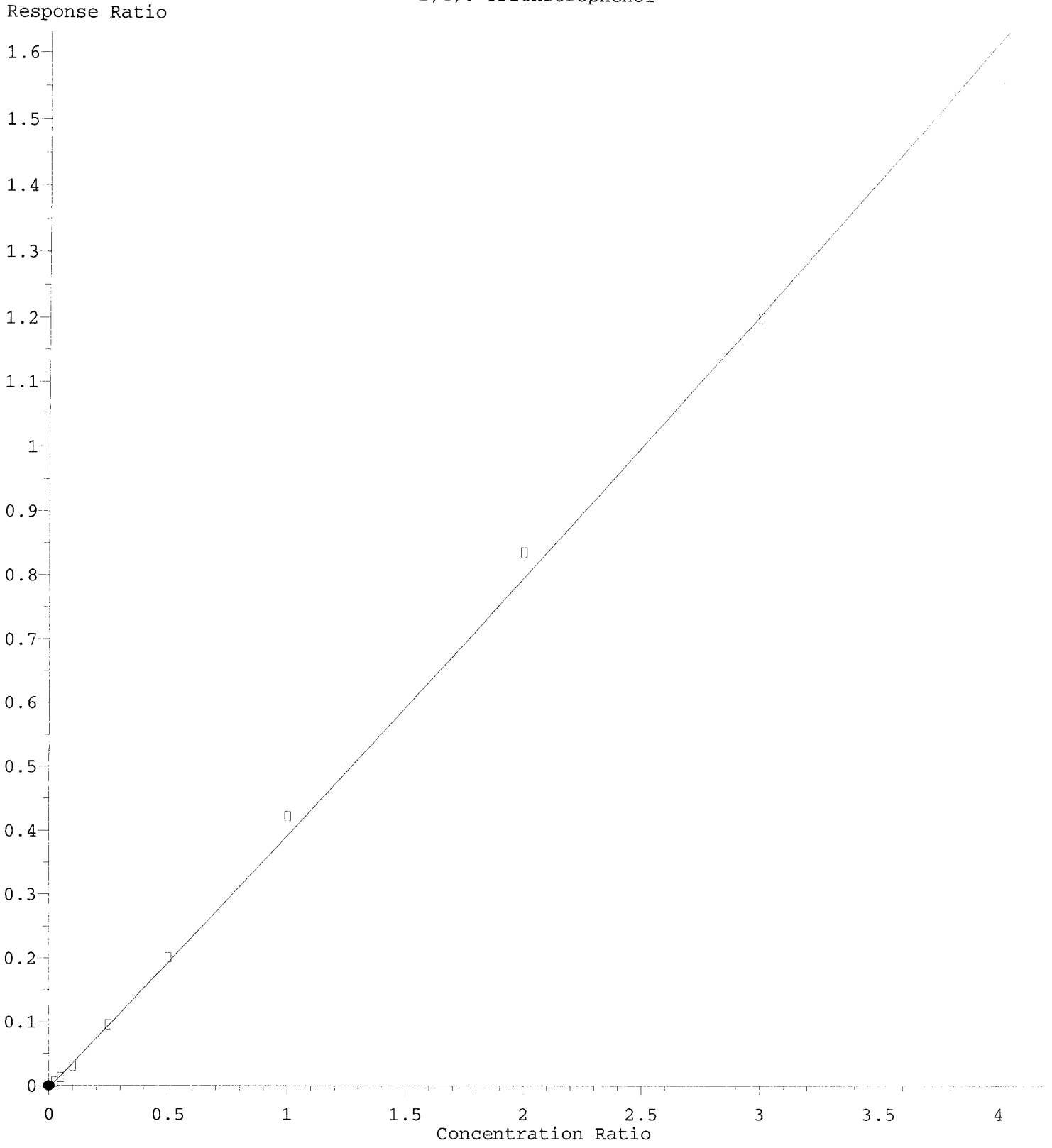
TIC: J09191918.D\data.ms

(30) 4-Chloroaniline (T)

7.932min (+ 0.028) 14.02 ng/ml m

response 160

Ion	Exp%	Act%
127.00	100.00	100.00
129.00	33.00	0.00#
65.00	23.50	18.01
0.00	0.00	0.00

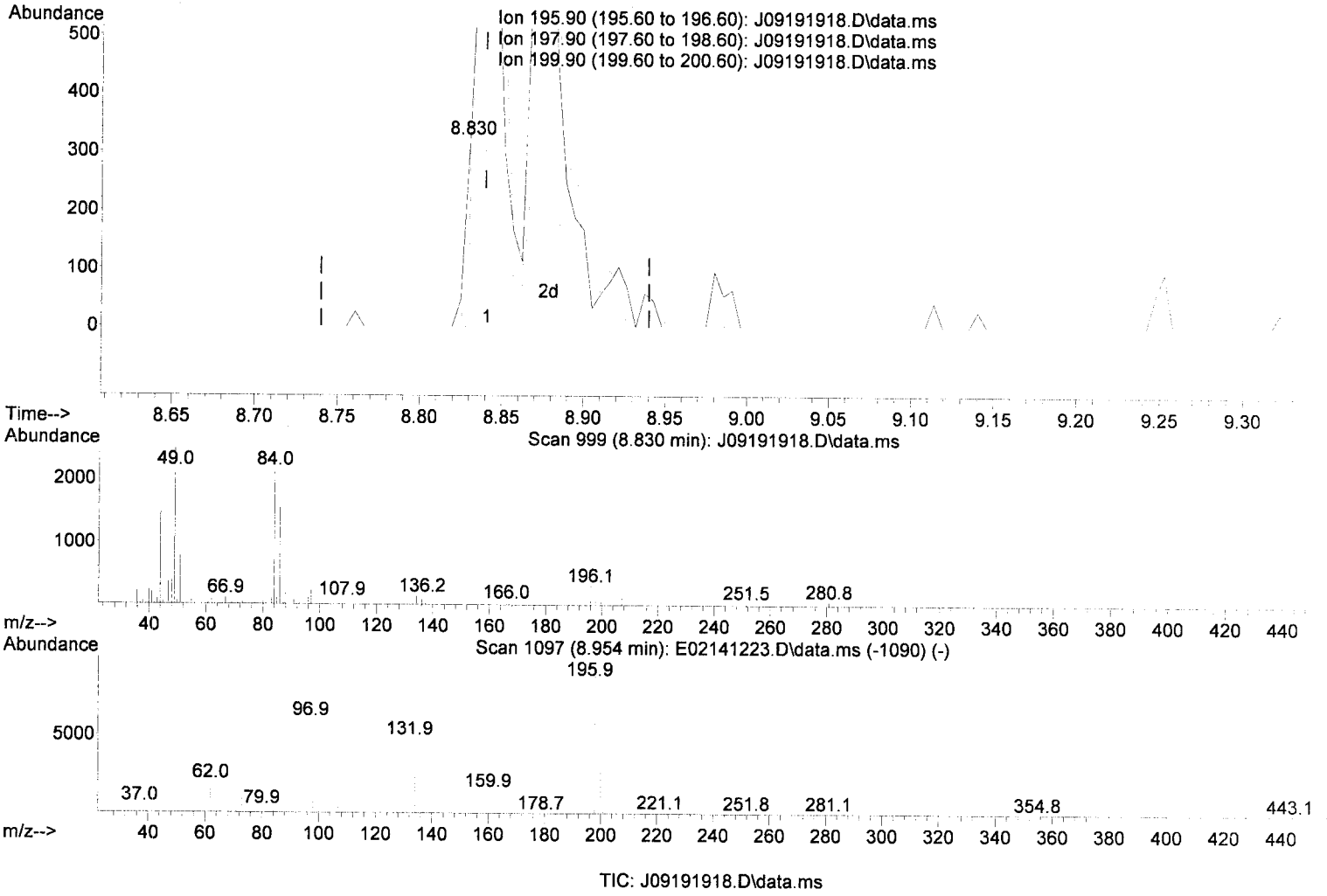


R = 3.29e-003 A*A + 3.94e-001 A - 4.68e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



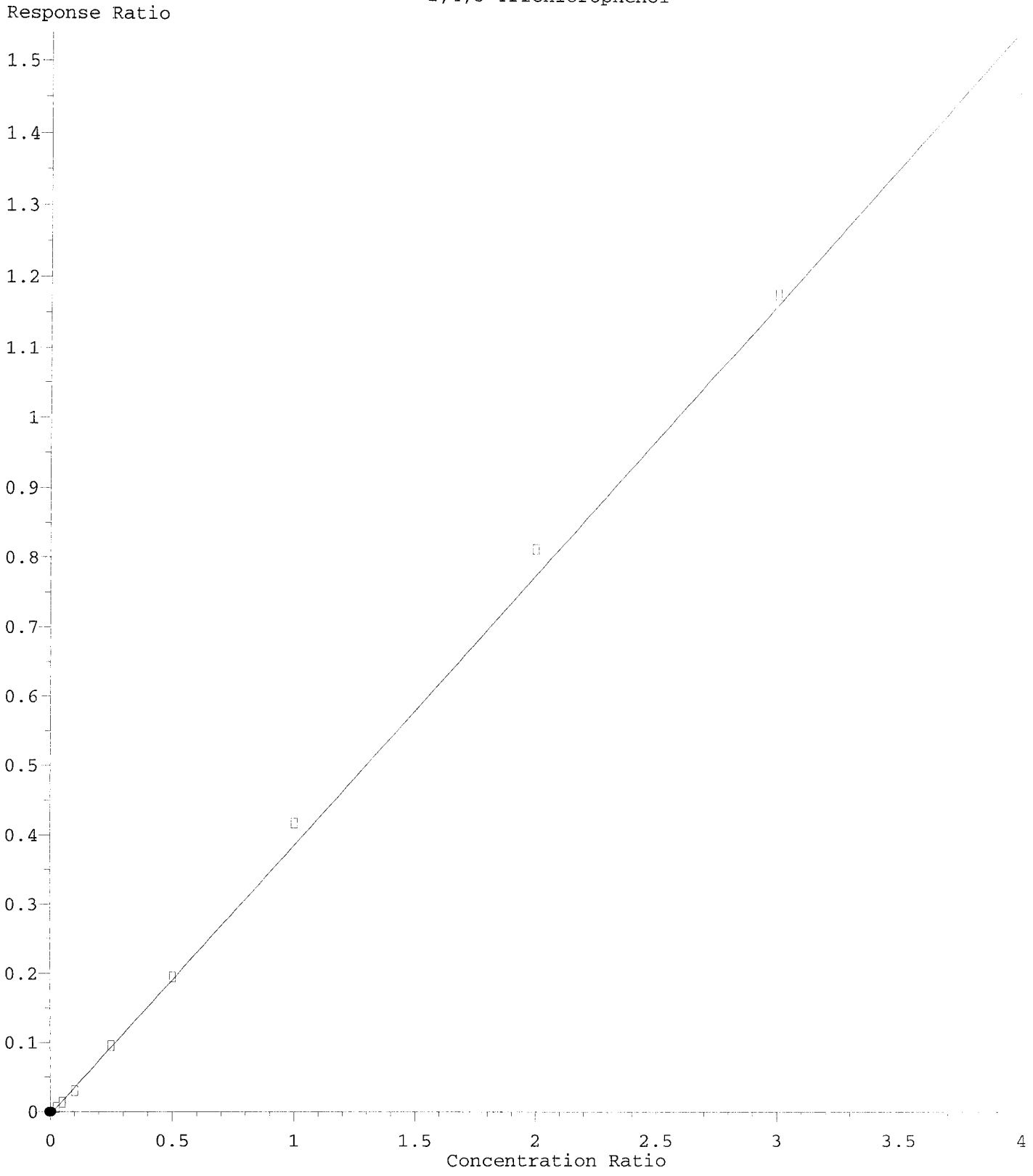
TIC: J09191918.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.830min (-0.010) 24.69 ng/ml m

response 119

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	94.40	61.61#
199.90	29.80	21.67
0.00	0.00	0.00

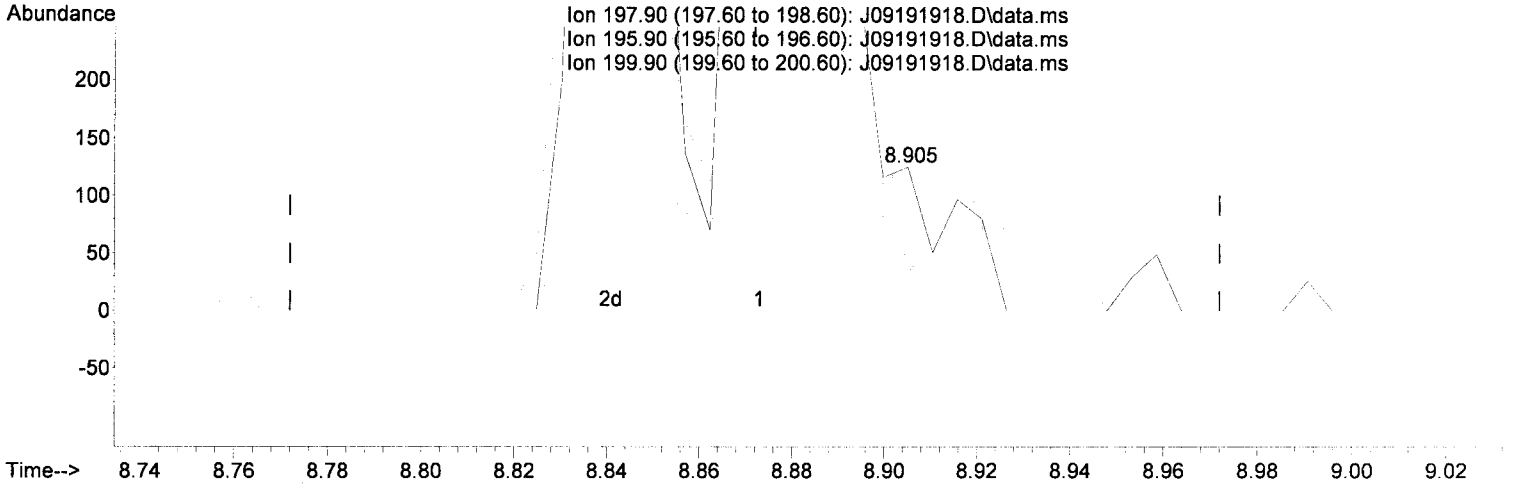


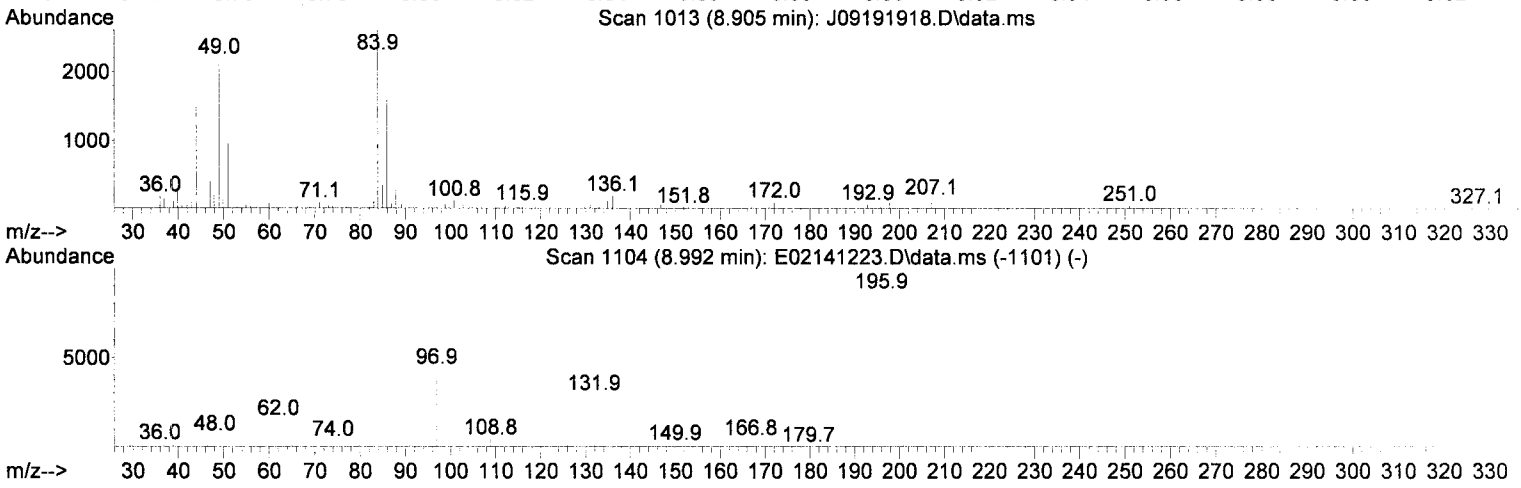
R = -3.95e-004 A*A + 3.91e-001 A - 4.45e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





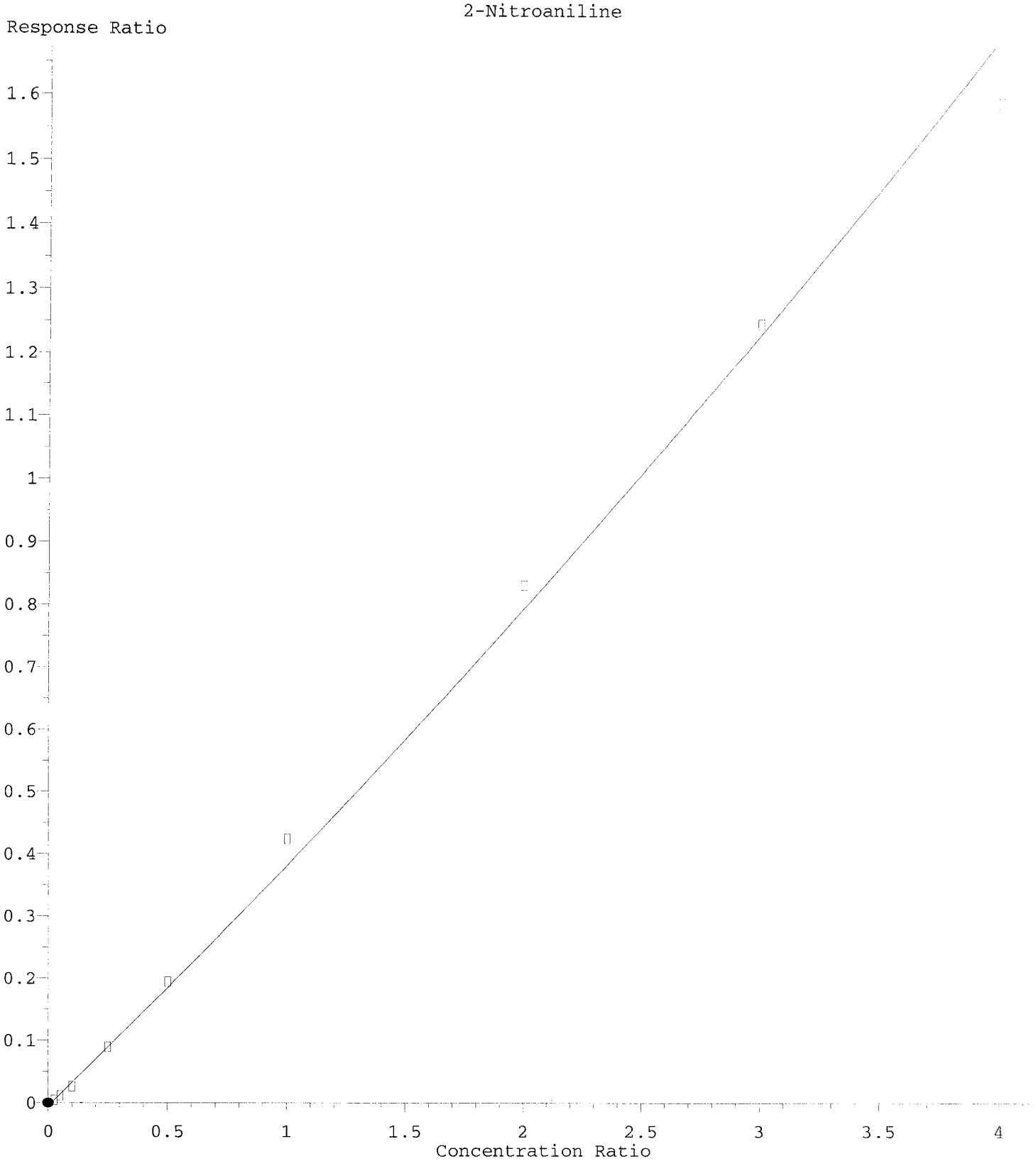
TIC: J09191918.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.905min (+ 0.033) 23.67 ng/ml m

response 113

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.40	26.40#
199.90	32.90	21.60
0.00	0.00	0.00

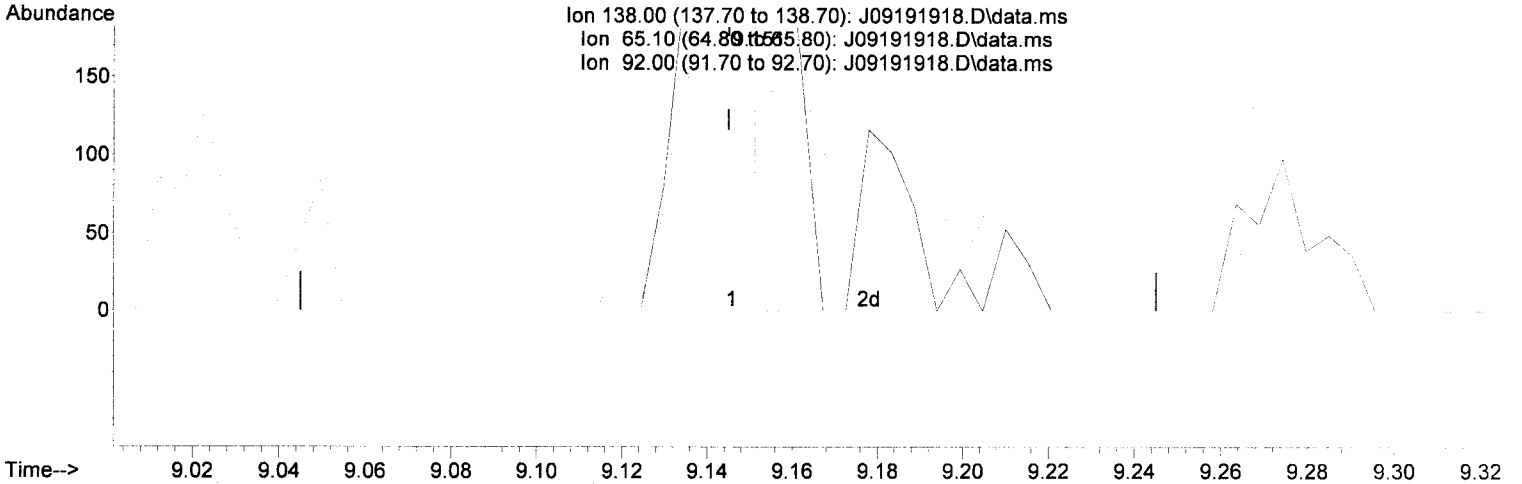


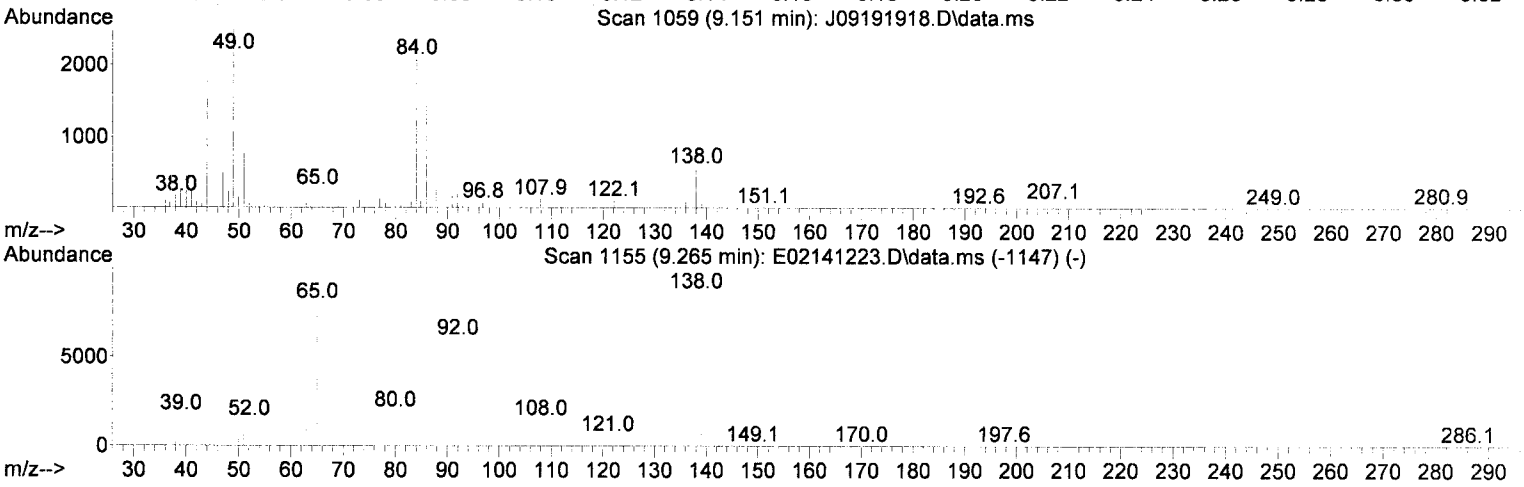
R = 1.23e-002 A*A + 3.75e-001 A - 5.72e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





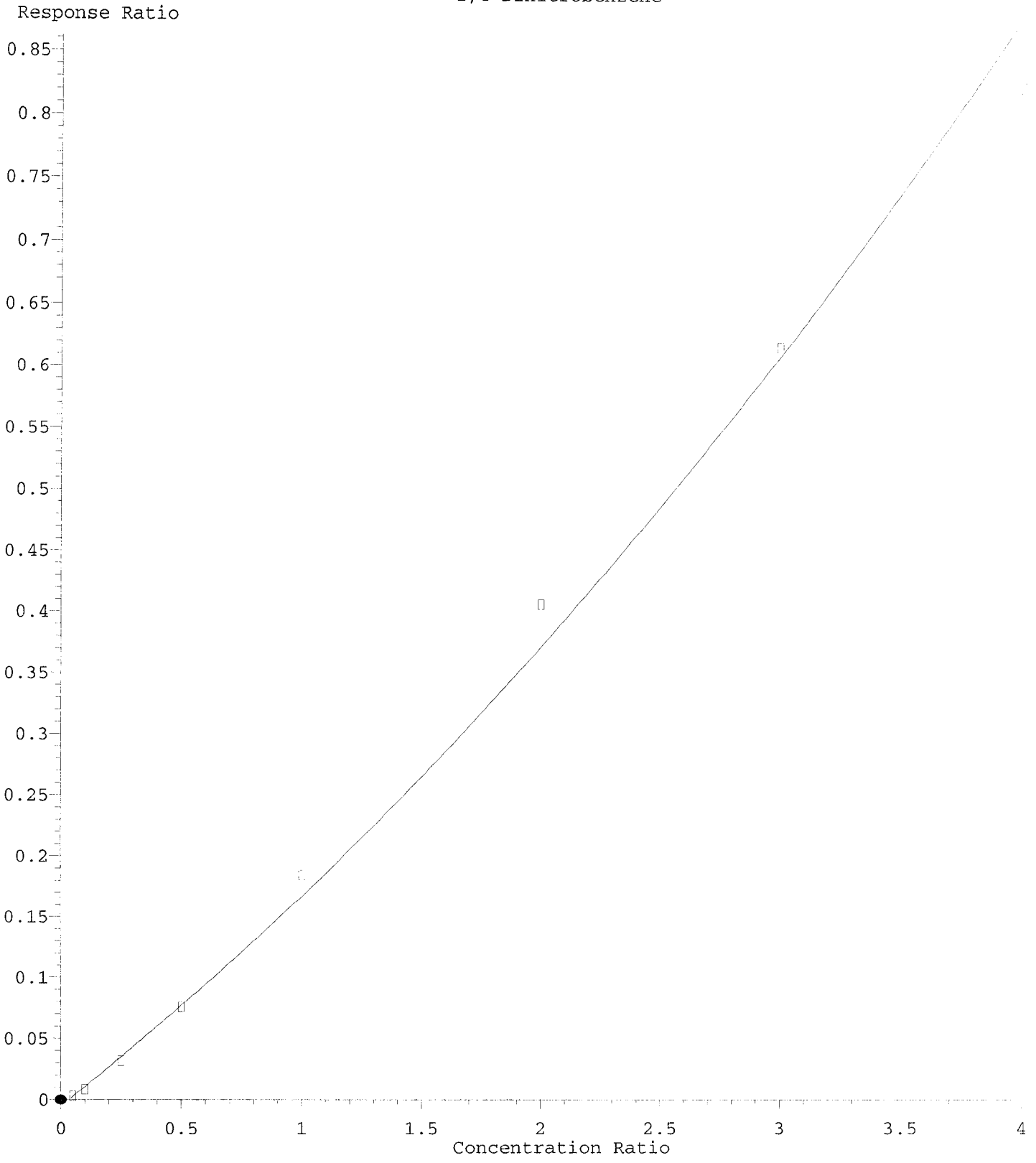
TIC: J09191918.D\data.ms

(42) 2-Nitroaniline (T)

9.151min (+ 0.006) 31.75 ng/ml m

response 155

Ion	Exp%	Act%
138.00	100.00	100.00
65.10	69.90	48.28
92.00	55.20	48.97
0.00	0.00	0.00

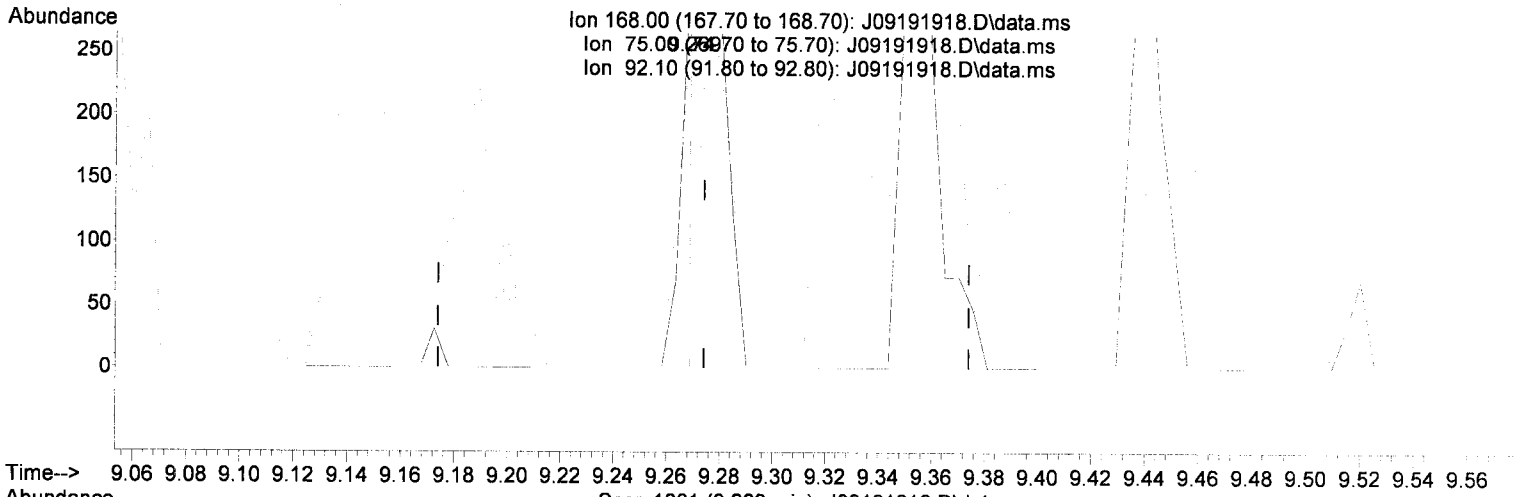


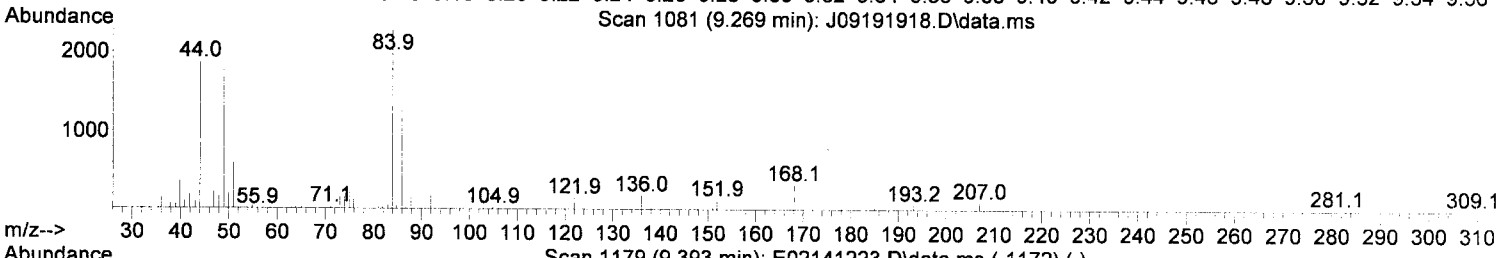
R = 1.61e-002 A*A + 1.56e-001 A - 5.19e-003
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

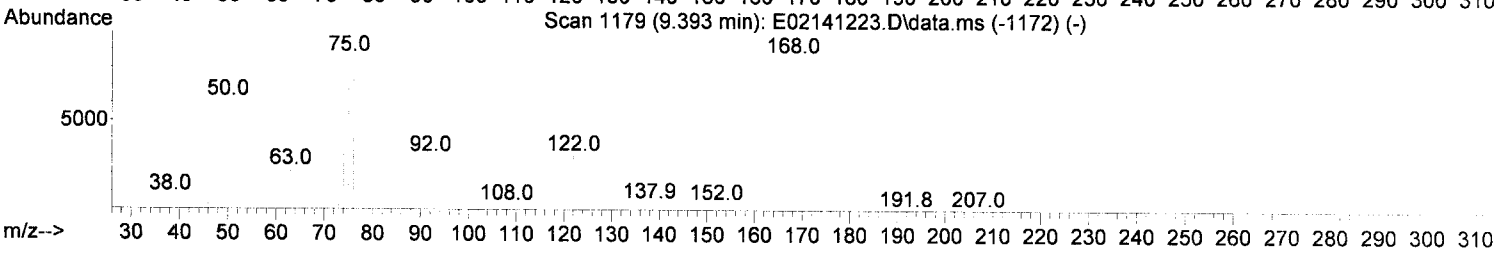
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







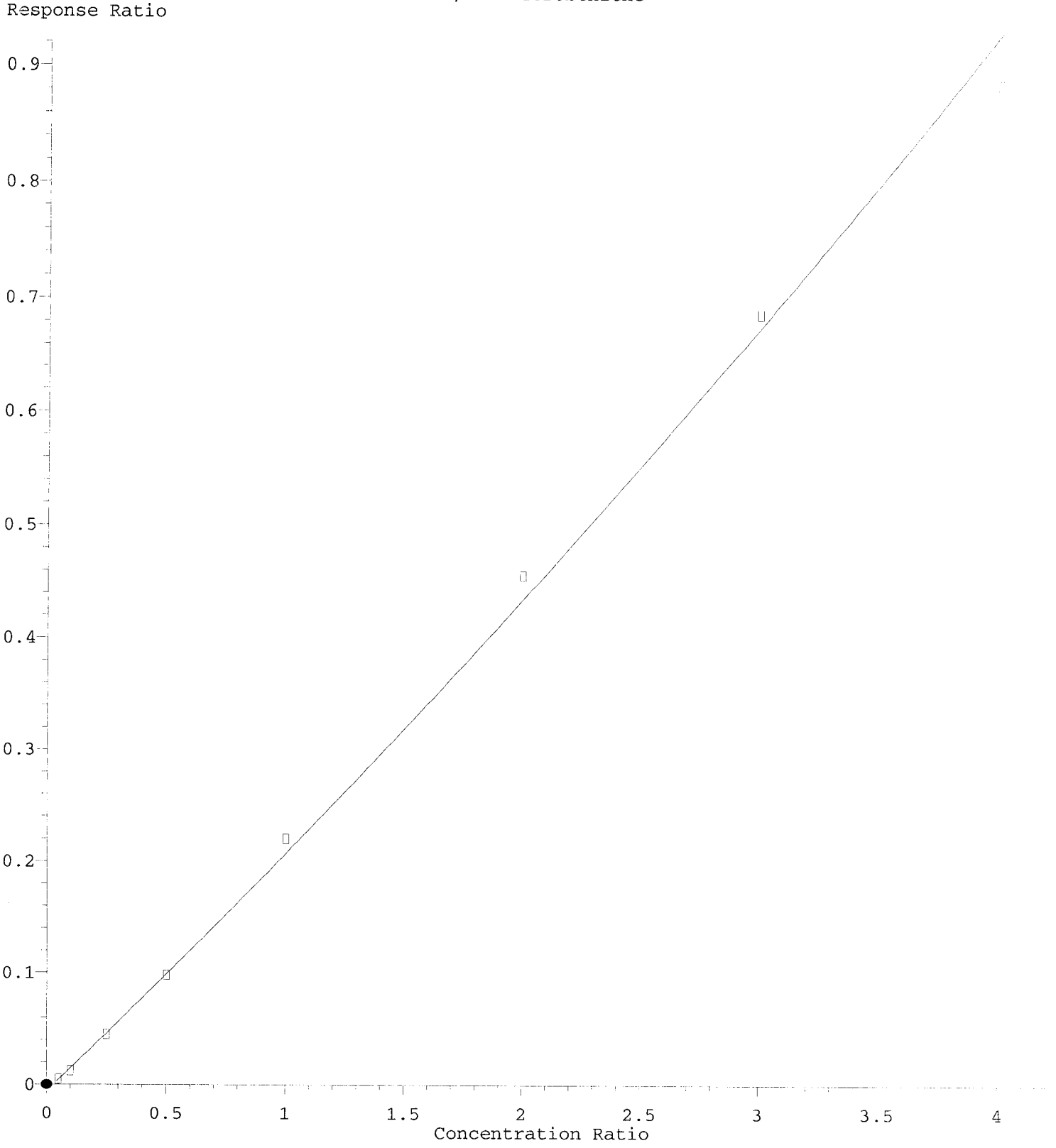
TIC: J09191918.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.269min (-0.005) 68.86 ng/ml m

response 130

Ion	Exp%	Act%
168.00	100.00	100.00
75.00	102.70	80.36
92.10	34.10	55.06
0.00	0.00	0.00

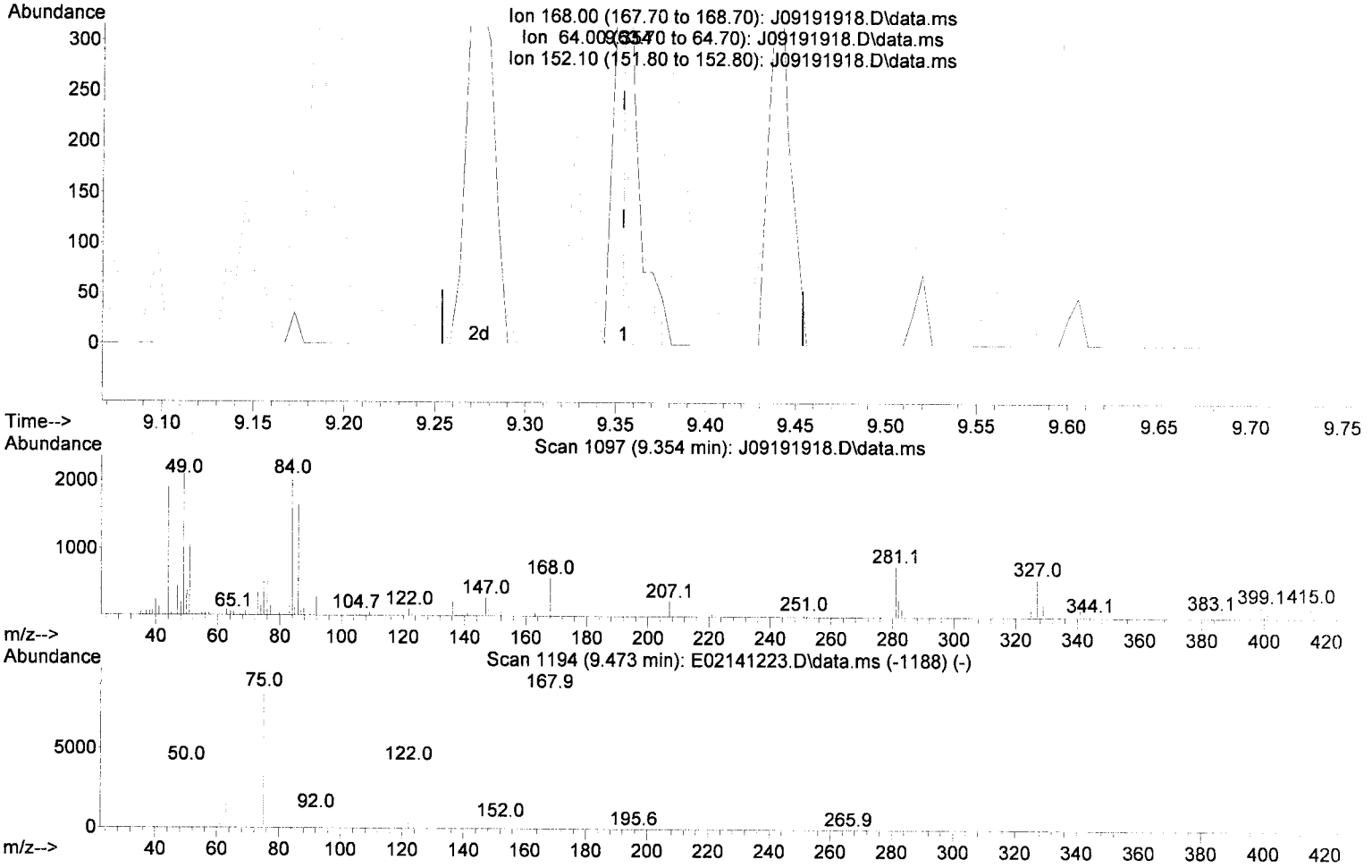


R = 6.81e-003 A*A + 2.06e-001 A - 5.98e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



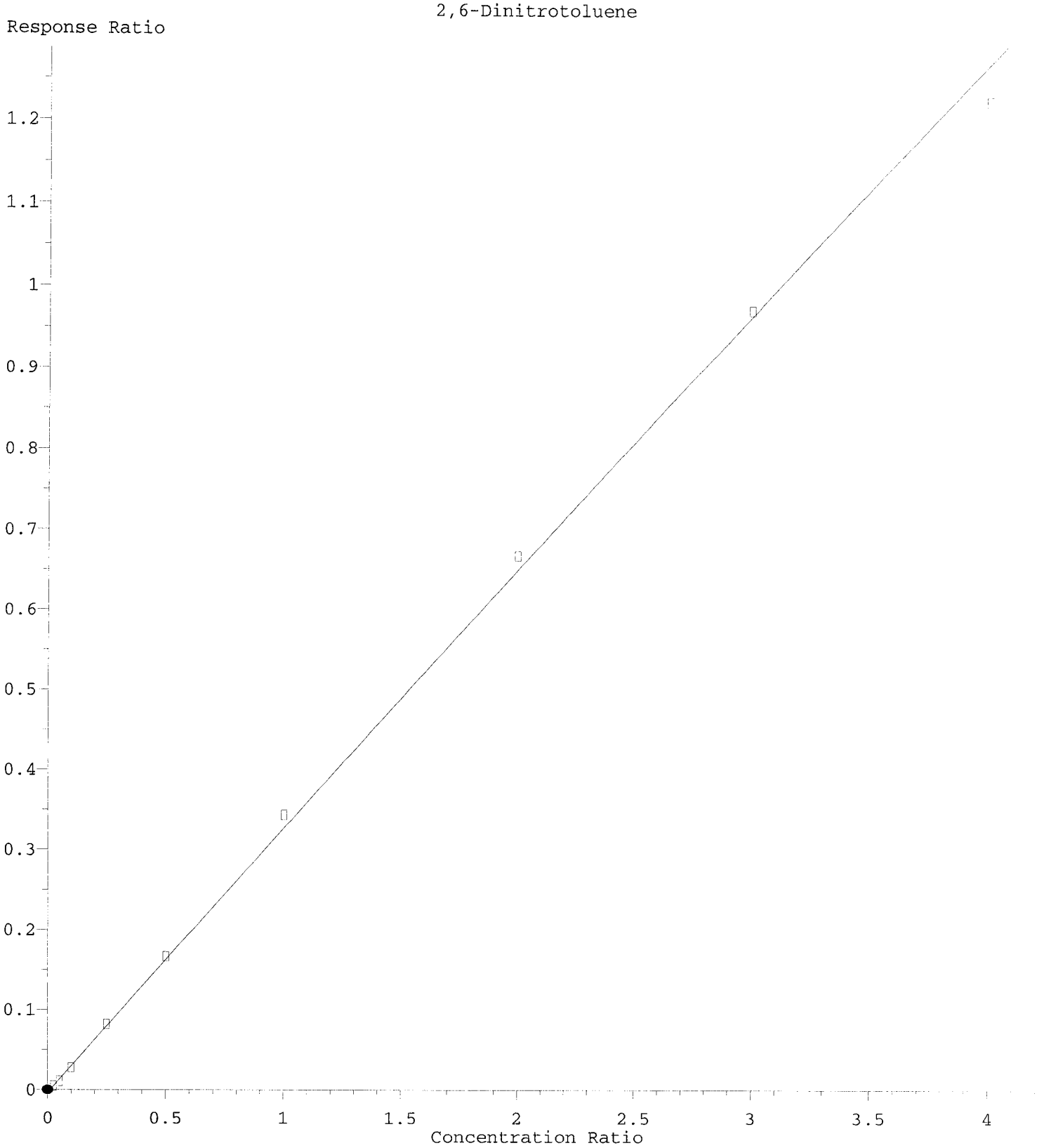
TIC: J09191918.D\data.ms

(46) 1,3-Dinitrobenzene (T)

9.354min (+ 0.000) 60.01 ng/ml m

response 141

Ion	Exp%	Act%
168.00	100.00	100.00
64.00	23.30	14.38
152.10	9.60	34.76
0.00	0.00	0.00

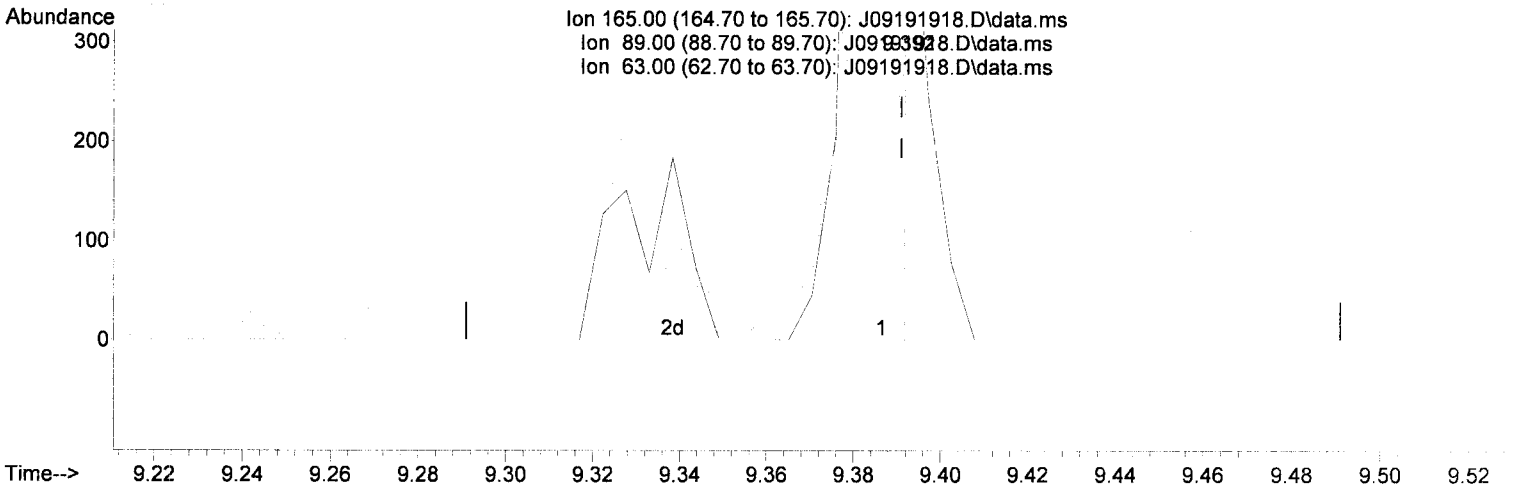


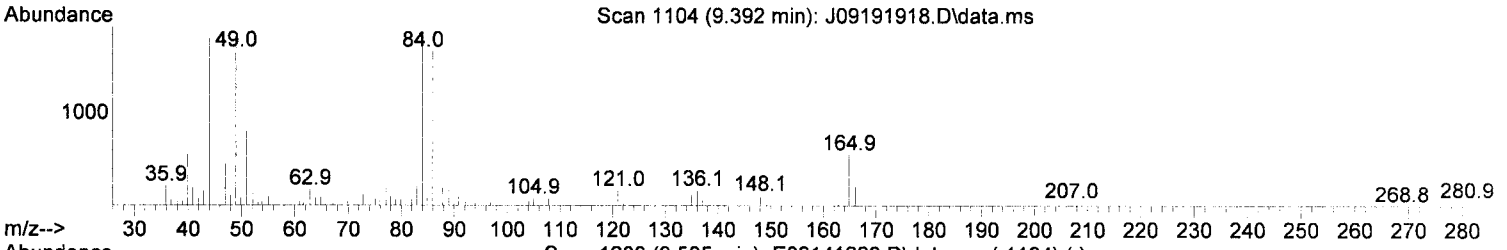
R = -4.24e-003 A*A + 3.35e-001 A - 4.20e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

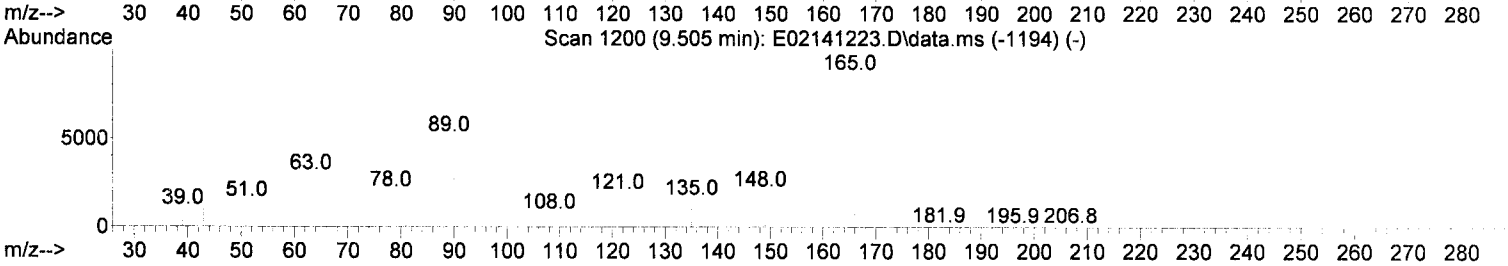
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







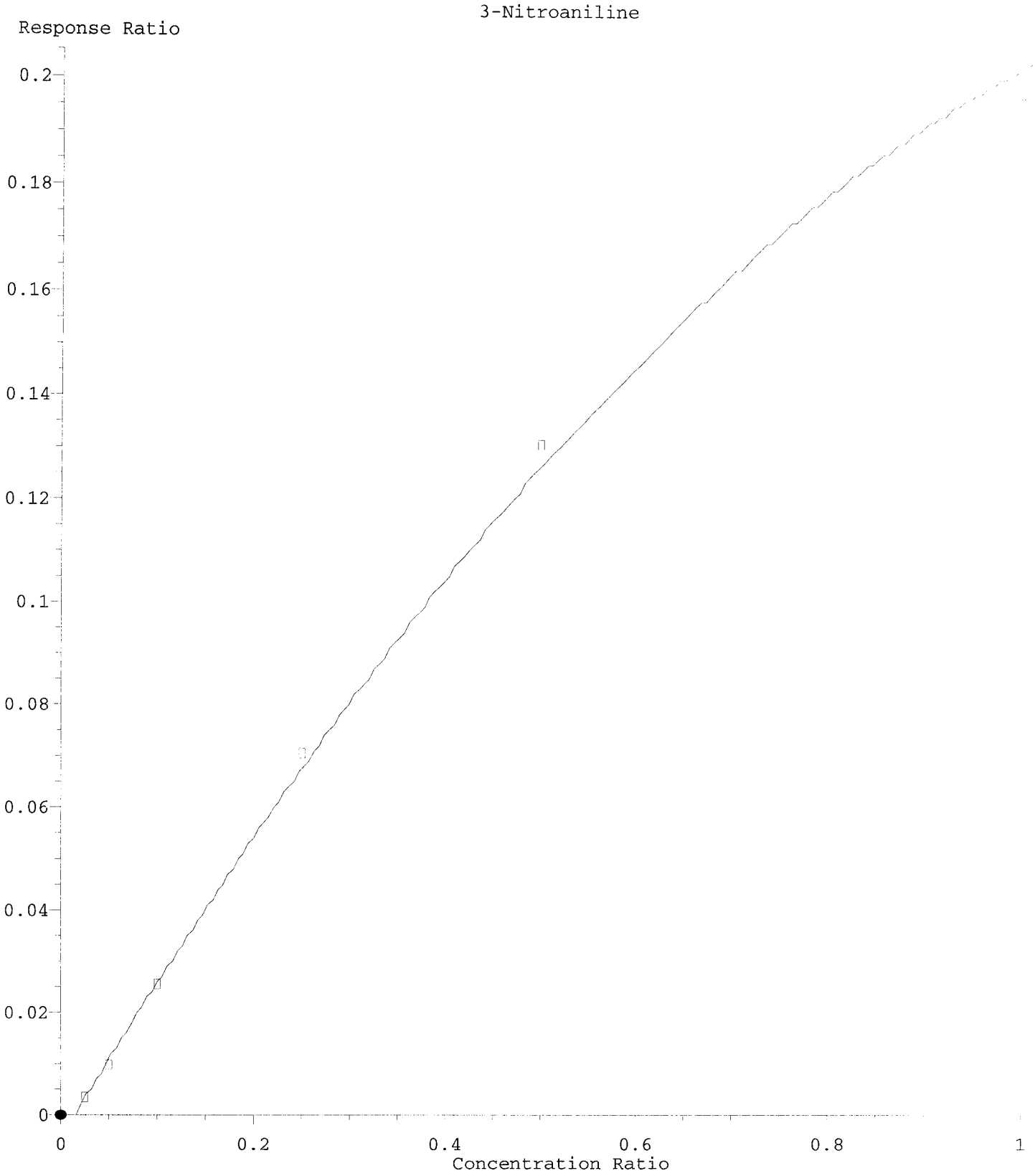
TIC: J09191918.D\data.ms

(47) 2,6-Dinitrotoluene (T)

9.392min (+ 0.001) 26.03 ng/ml m

response 103

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	46.30	43.52
63.00	36.80	34.46
0.00	0.00	0.00

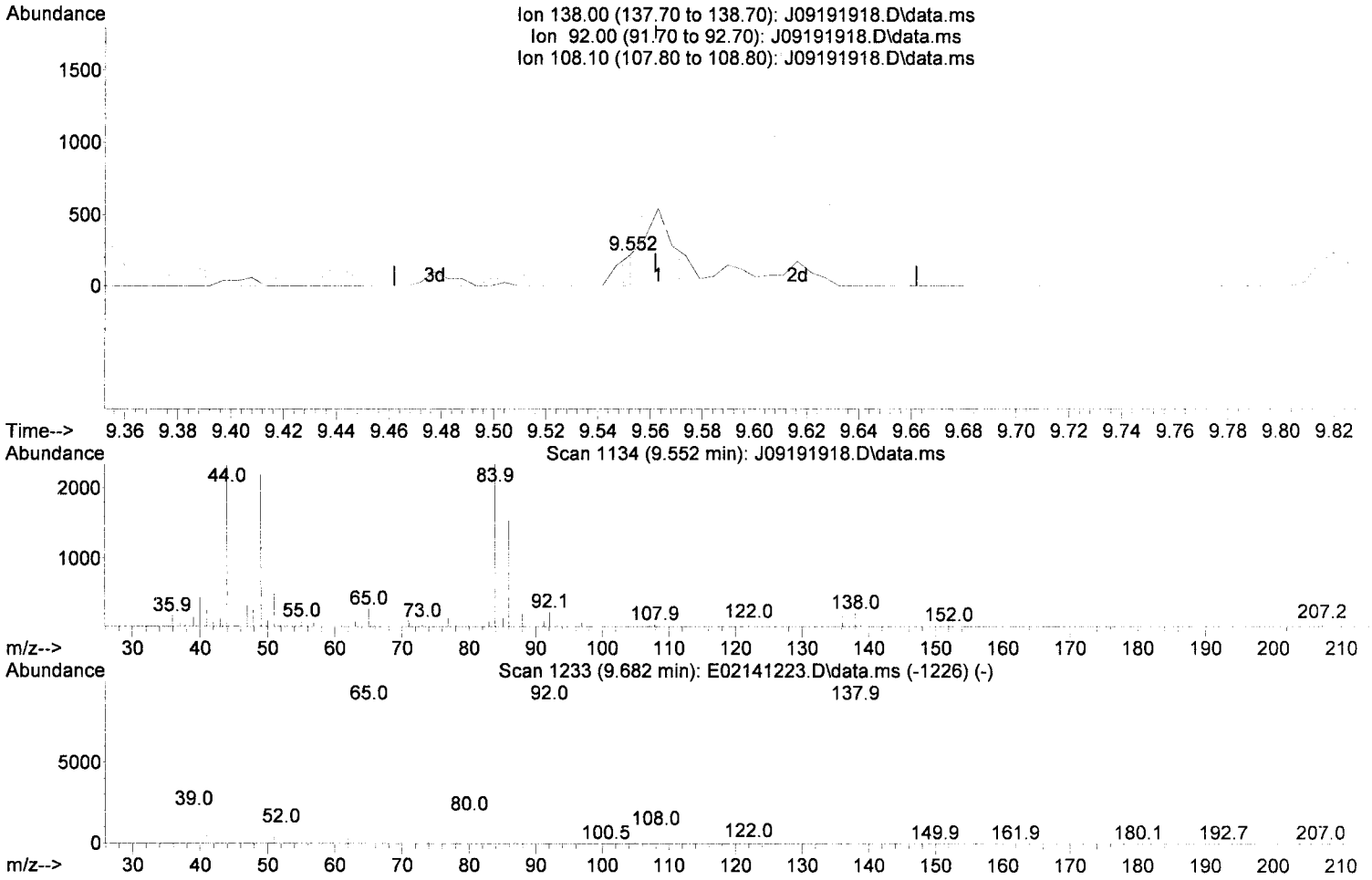


R = -1.10e-001 A*A + 3.17e-001 A - 4.68e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



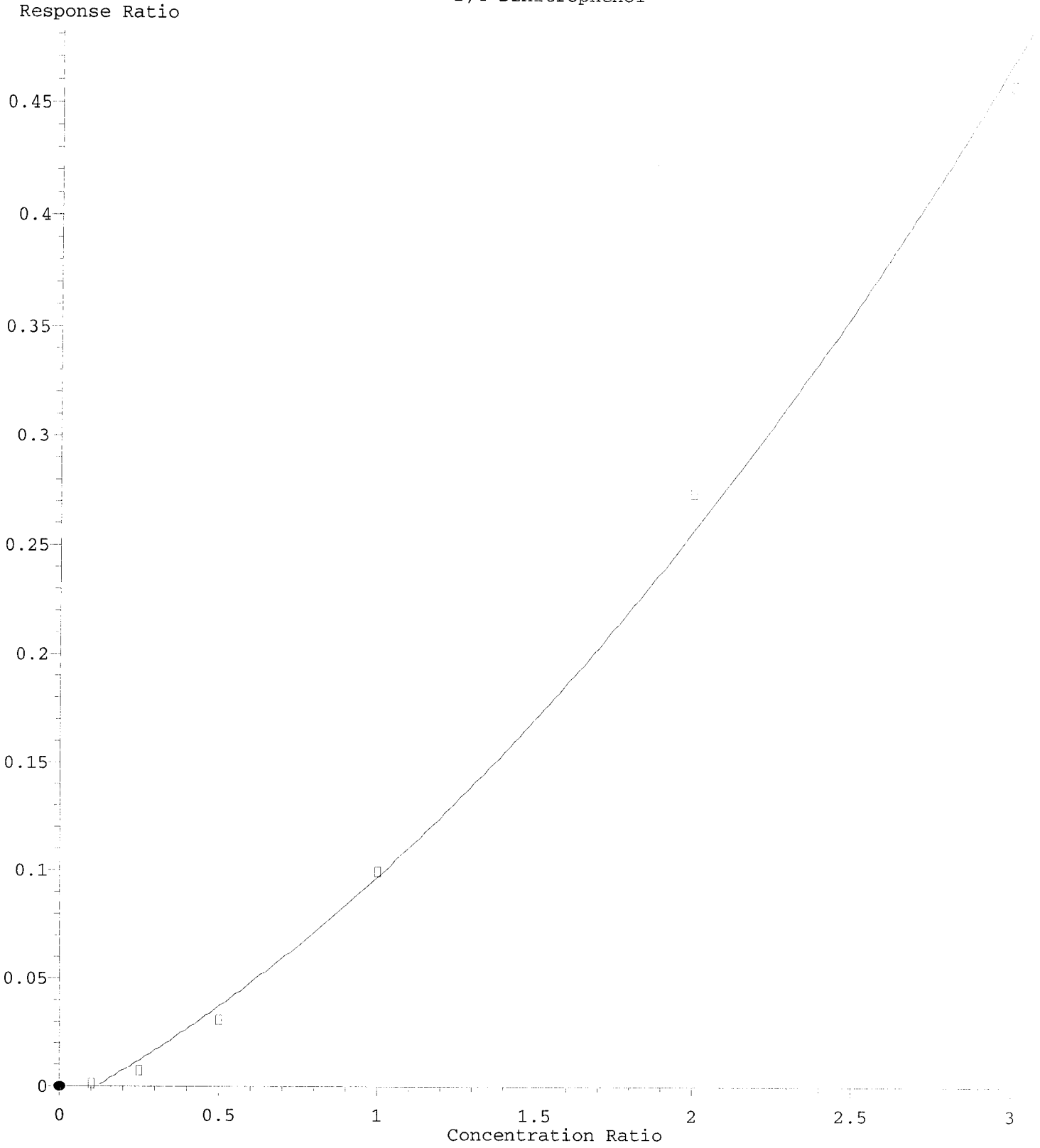
TIC: J09191918.D\data.ms

(50) 3-Nitroaniline (T)

9.552min (-0.010) 30.87 ng/ml m

response 116

Ion	Exp%	Act%
138.00	100.00	100.00
92.00	100.10	107.34
108.10	10.00	24.31
0.00	0.00	0.00

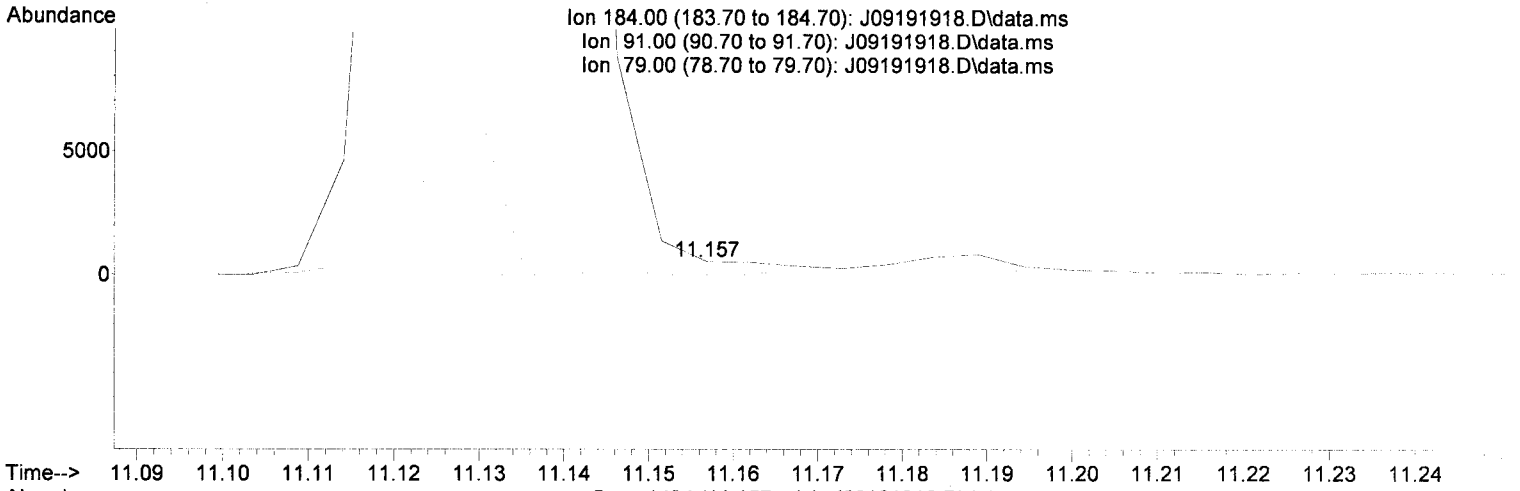


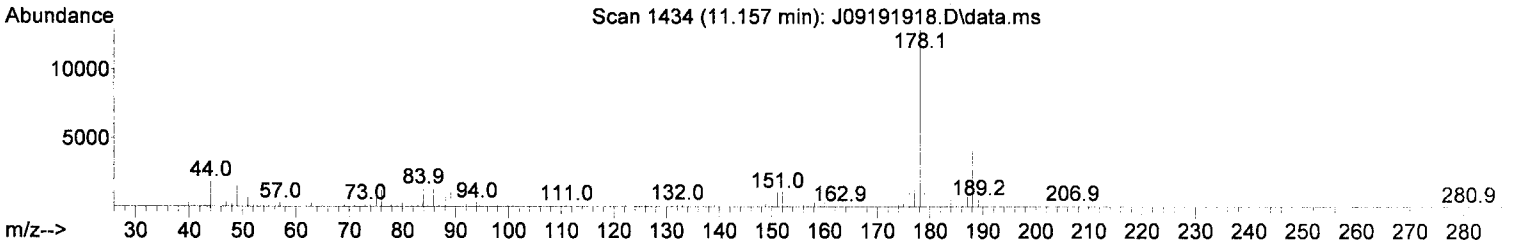
R = 2.65e-002 A*A + 8.01e-002 A - 9.46e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

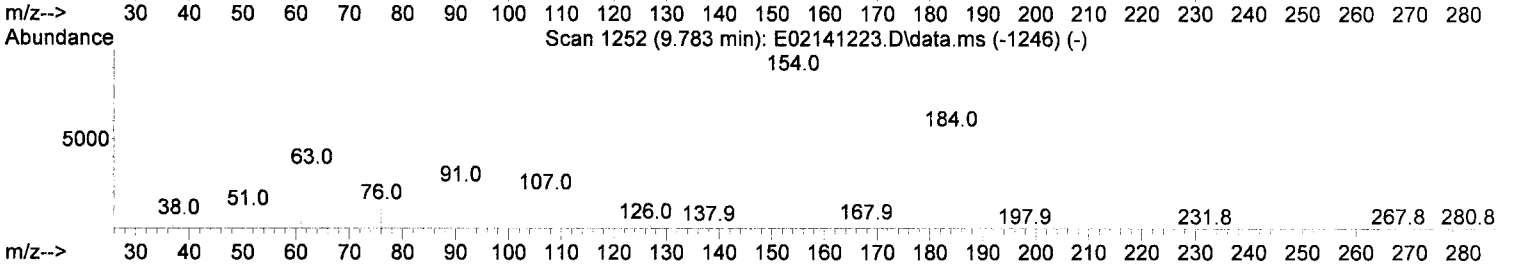
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







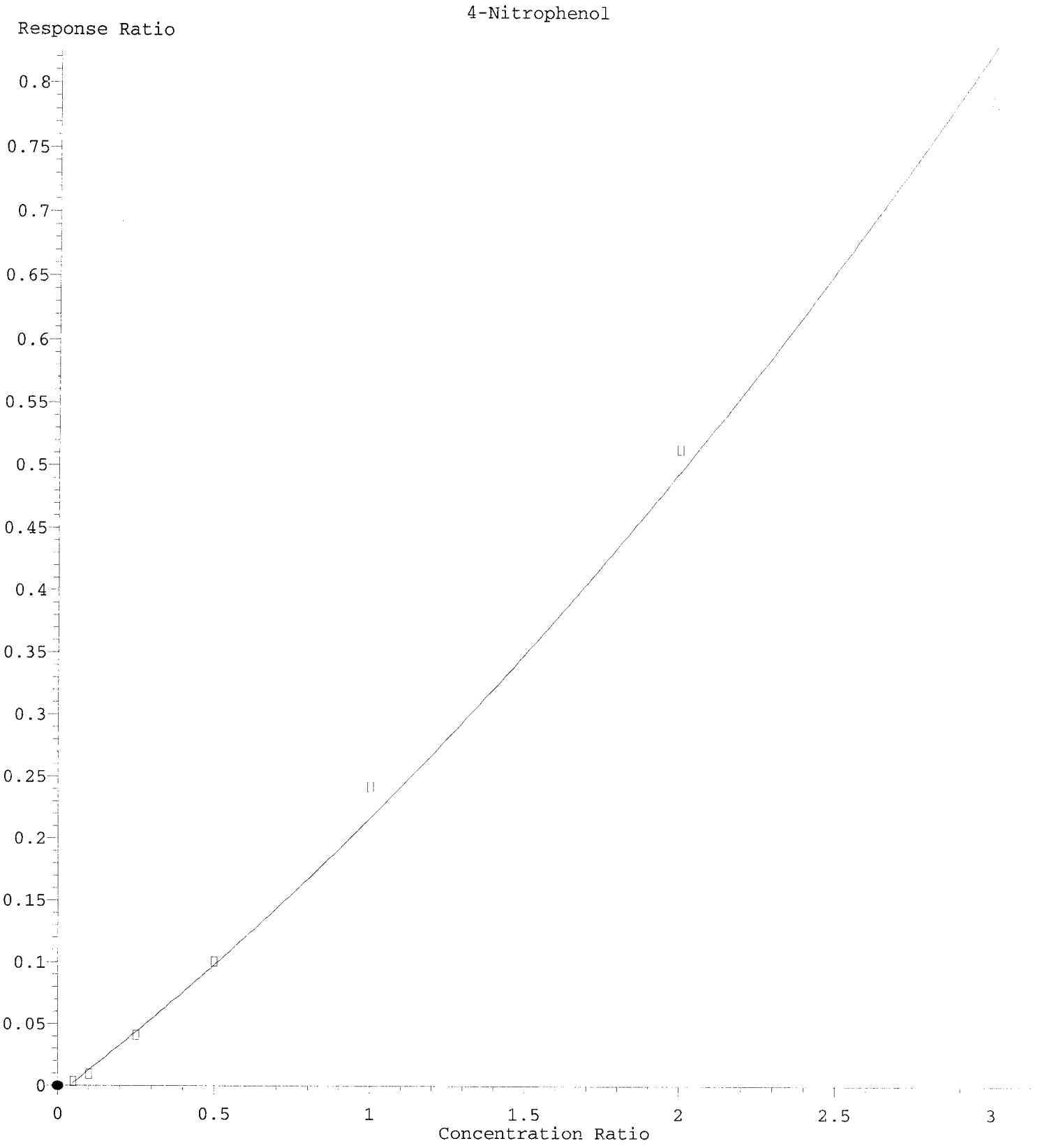
TIC: J09191918.D\data.ms

(52) 2,4-Dinitrophenol (T)

11.157min (+ 1.493) 233.65 ng/ml m

response 166

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	42.80	6.68#
79.00	26.10	17.15
0.00	0.00	0.00

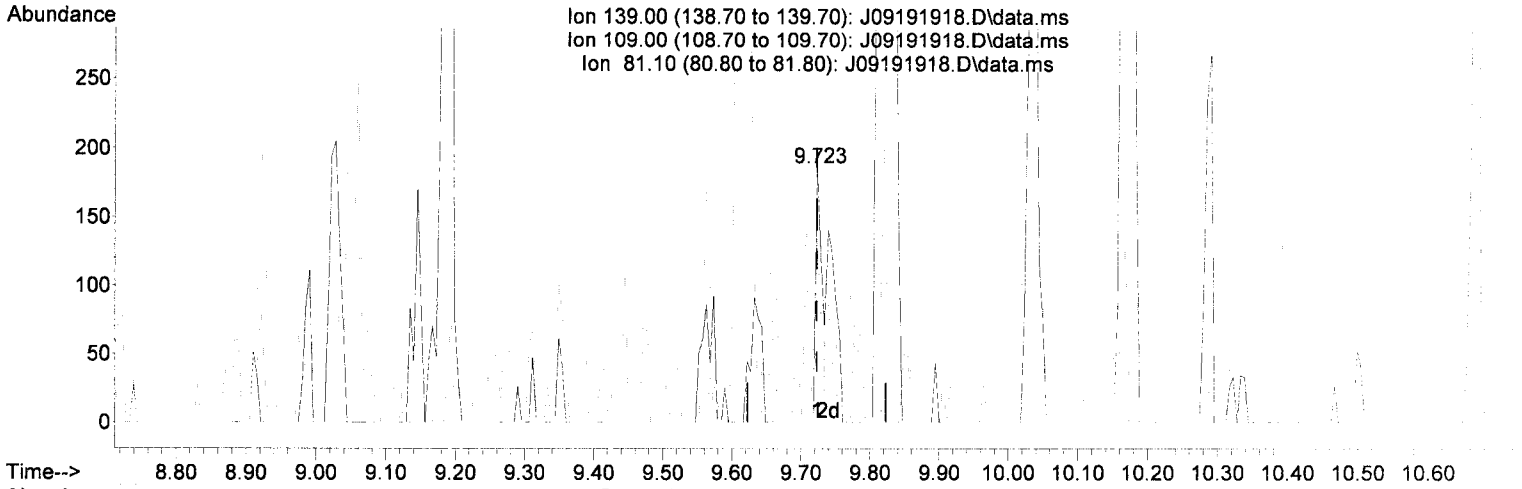


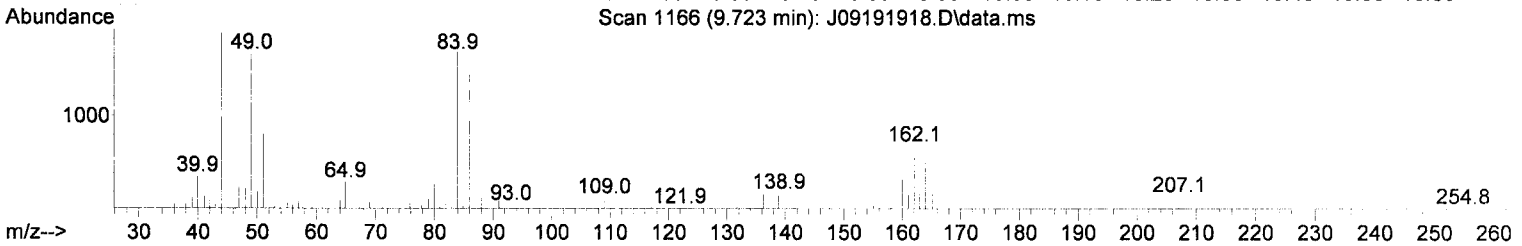
R = 2.73e-002 A*A + 1.97e-001 A - 7.29e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

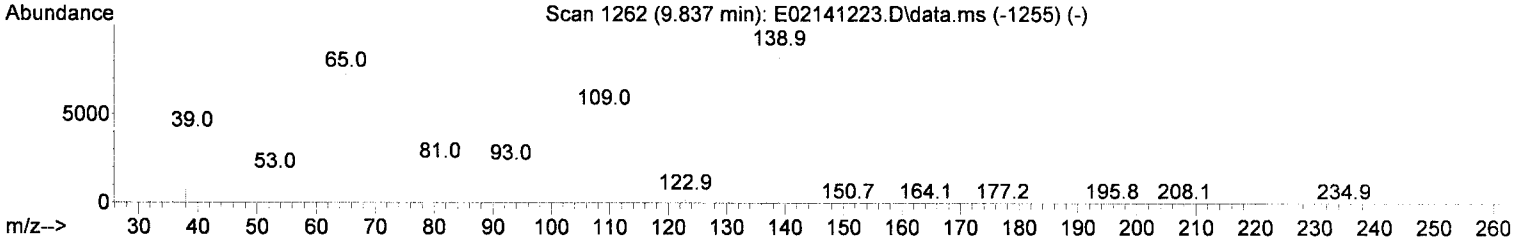
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







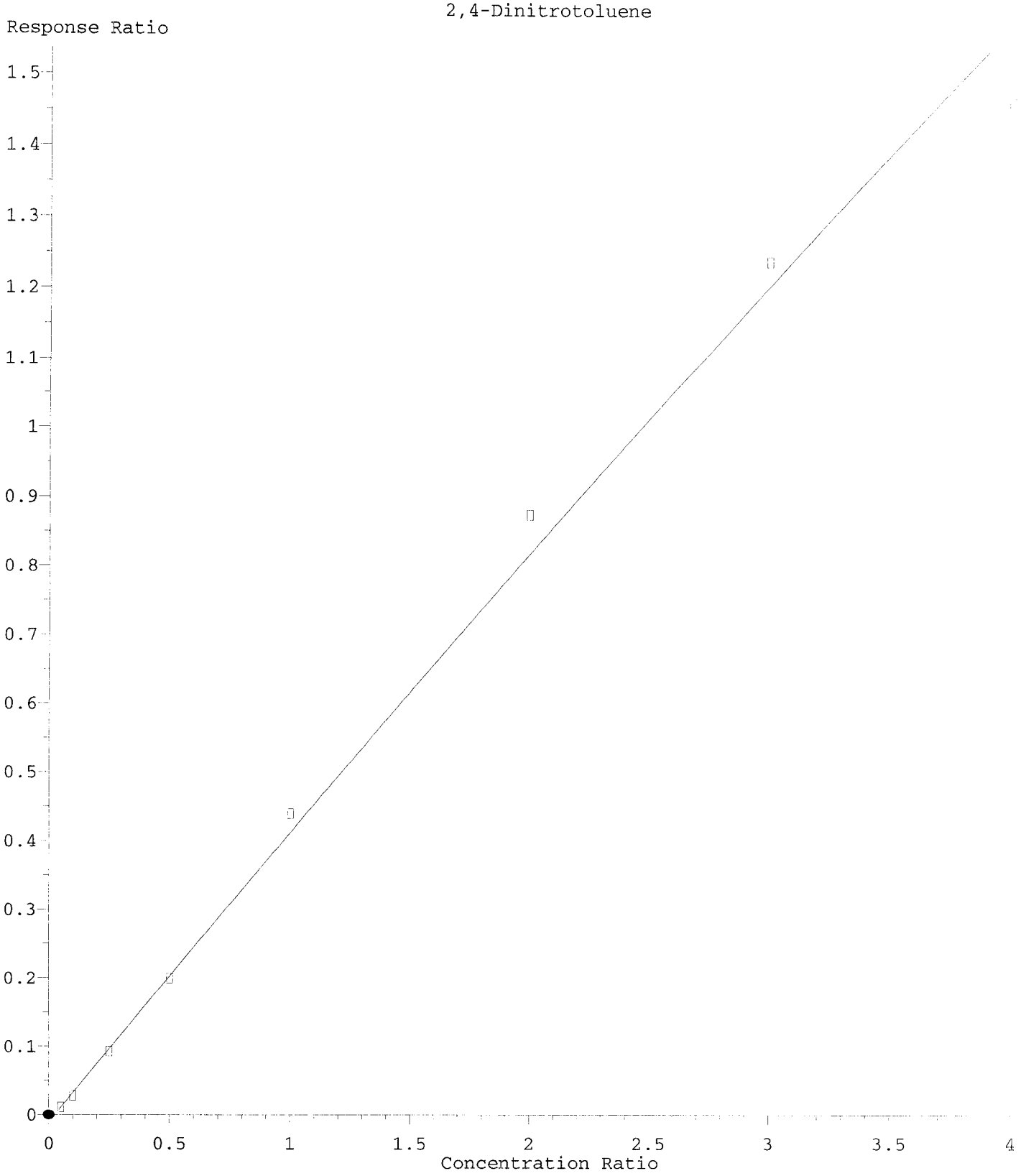
TIC: J09191918.D\data.ms

(53) 4-Nitrophenol (T)

9.723min (+ 0.000) 75.63 ng/ml

response 120

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	58.50	72.04
81.10	23.90	27.42
0.00	0.00	0.00

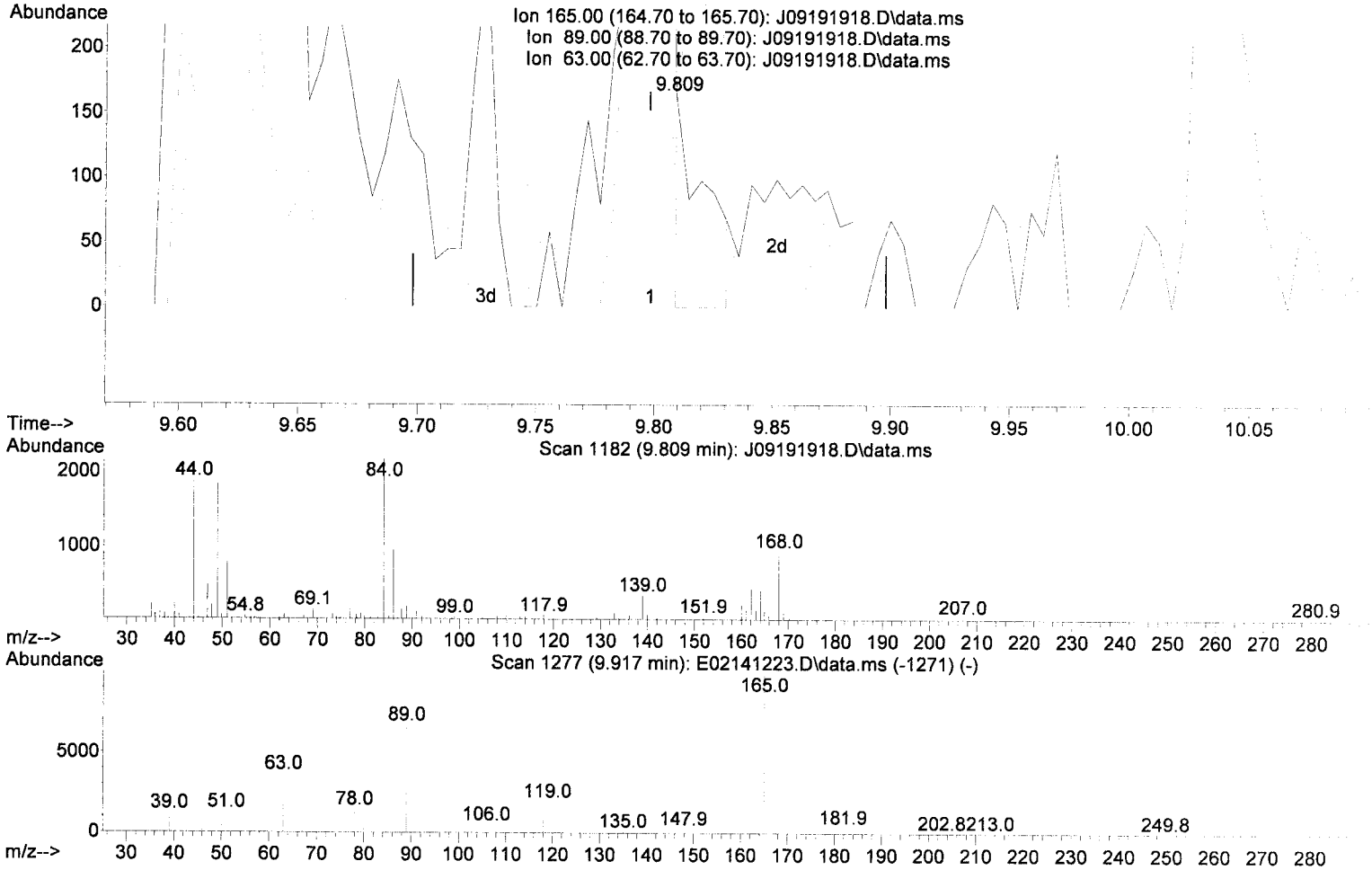


R = -9.39e-003 A*A + 4.33e-001 A - 1.16e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



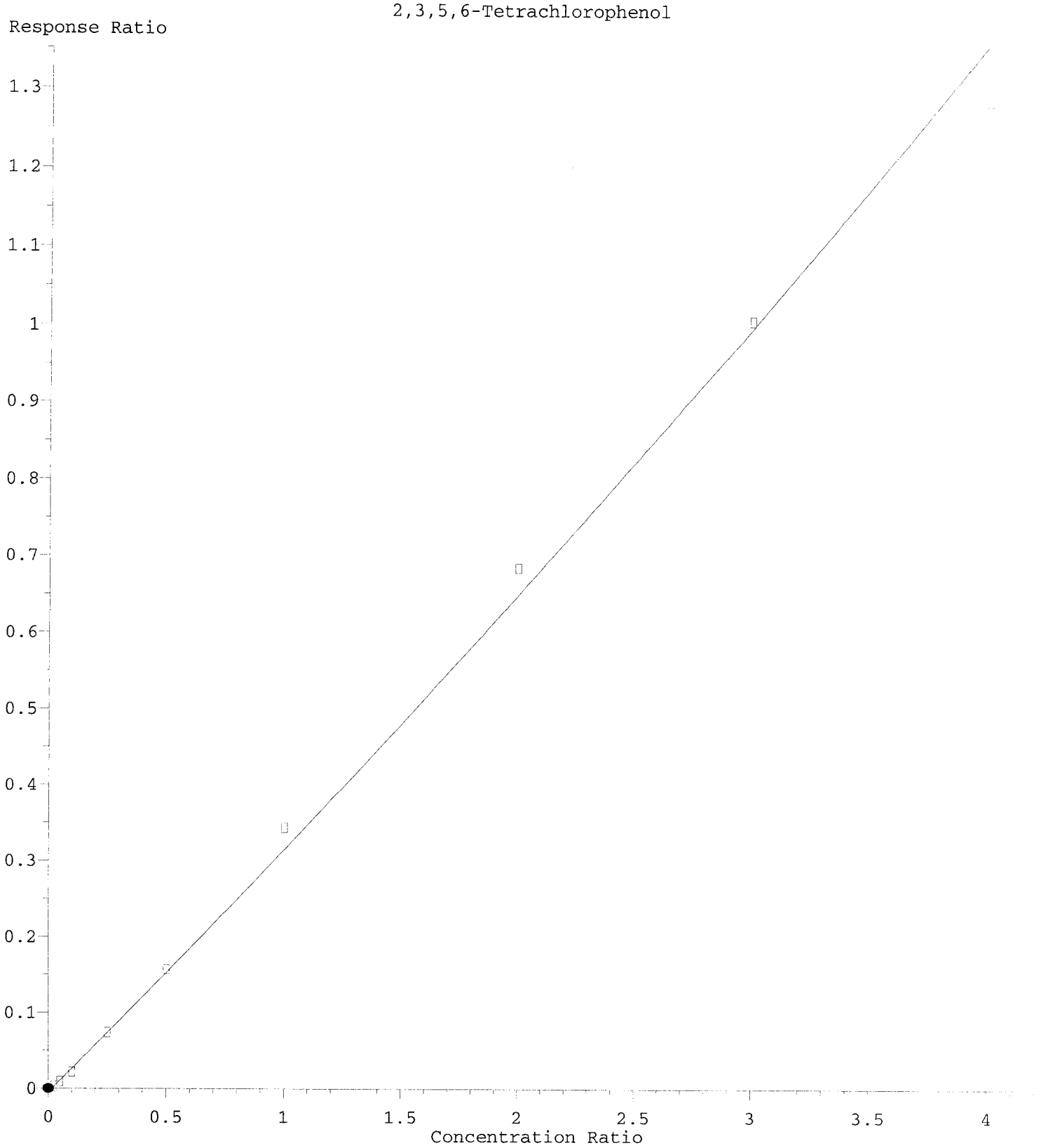
TIC: J09191918.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.809min (+ 0.011) 54.53 ng/ml m

response 109

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	61.80	135.76#
63.00	32.90	55.76
0.00	0.00	0.00

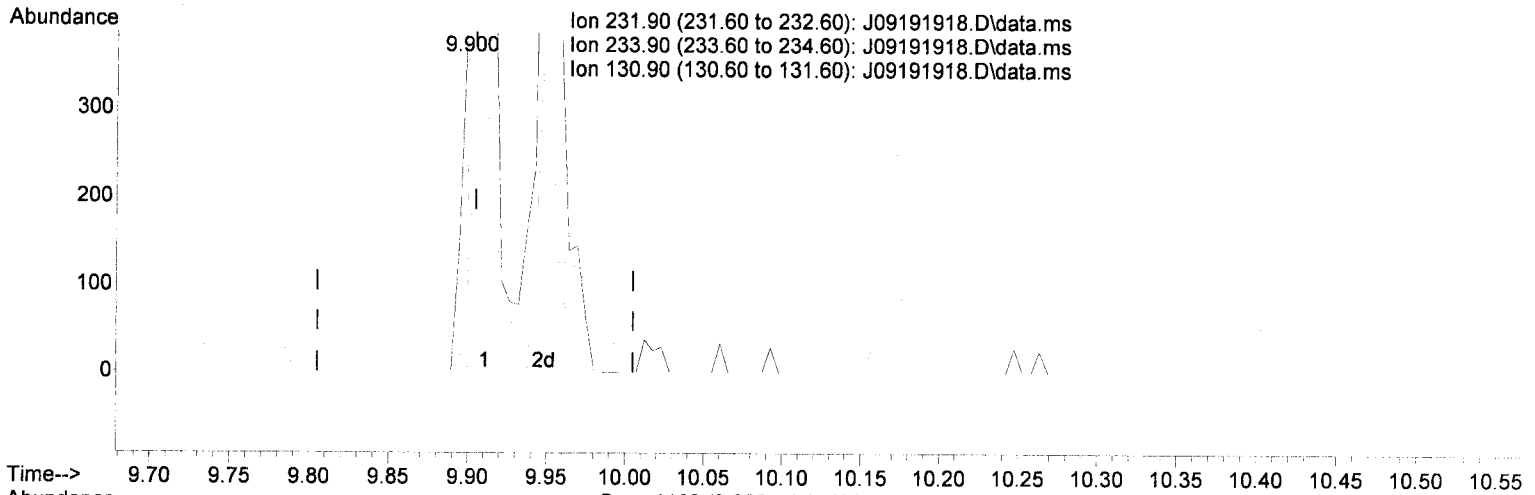


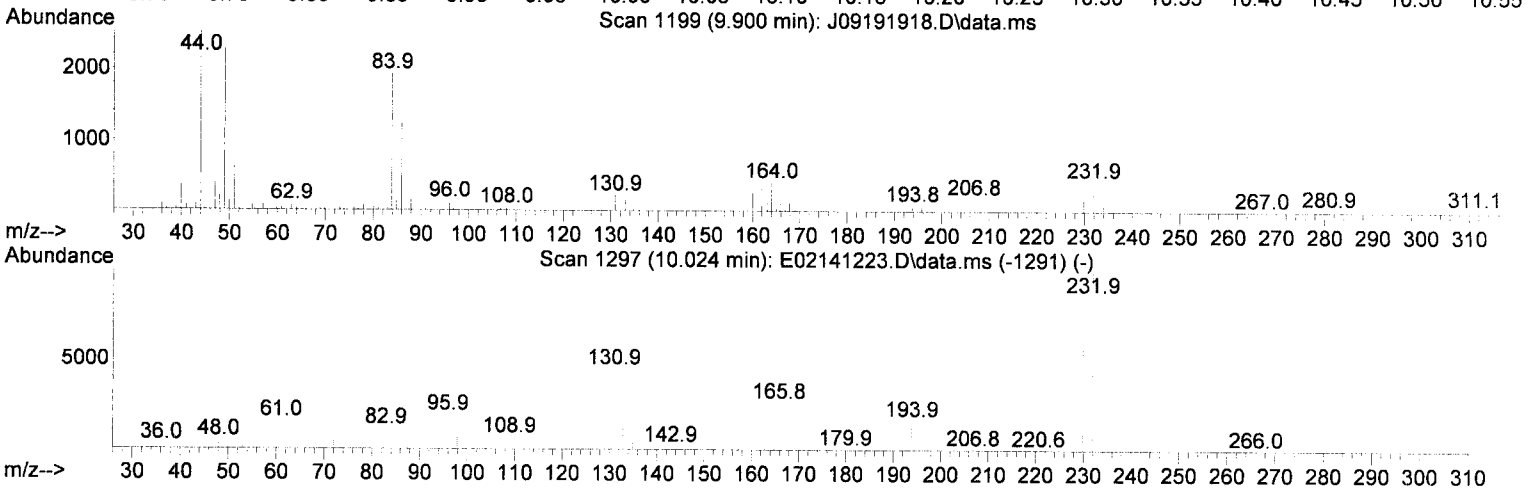
R = 6.93e-003 A*A + 3.13e-001 A - 5.57e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\sv10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





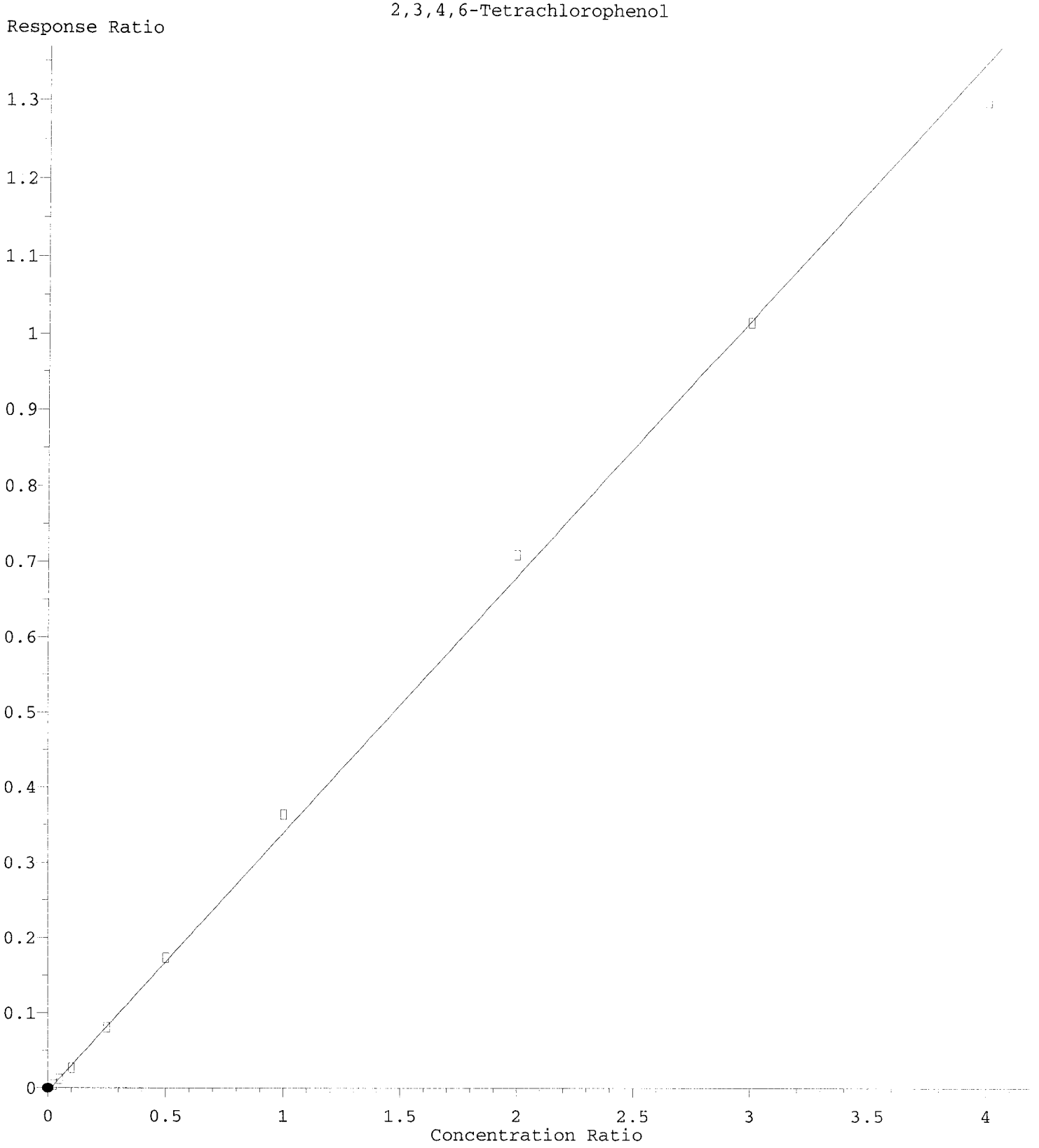
TIC: J09191918.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.900min (-0.005) 37.40 ng/ml m

response 188

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	48.30	24.72
130.90	40.60	55.10
0.00	0.00	0.00

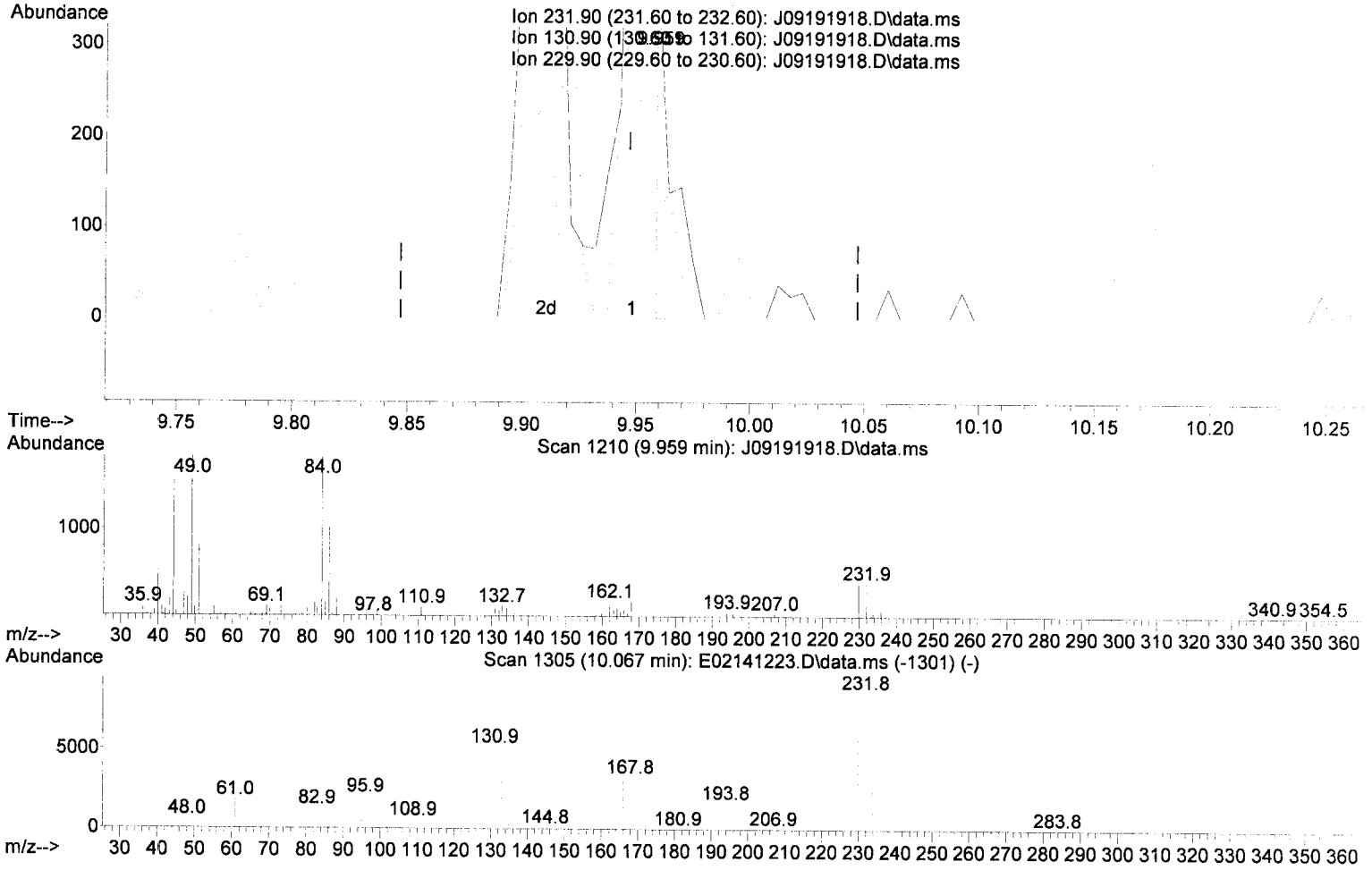


R = -1.57e-003 A*A + 3.46e-001 A - 4.91e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



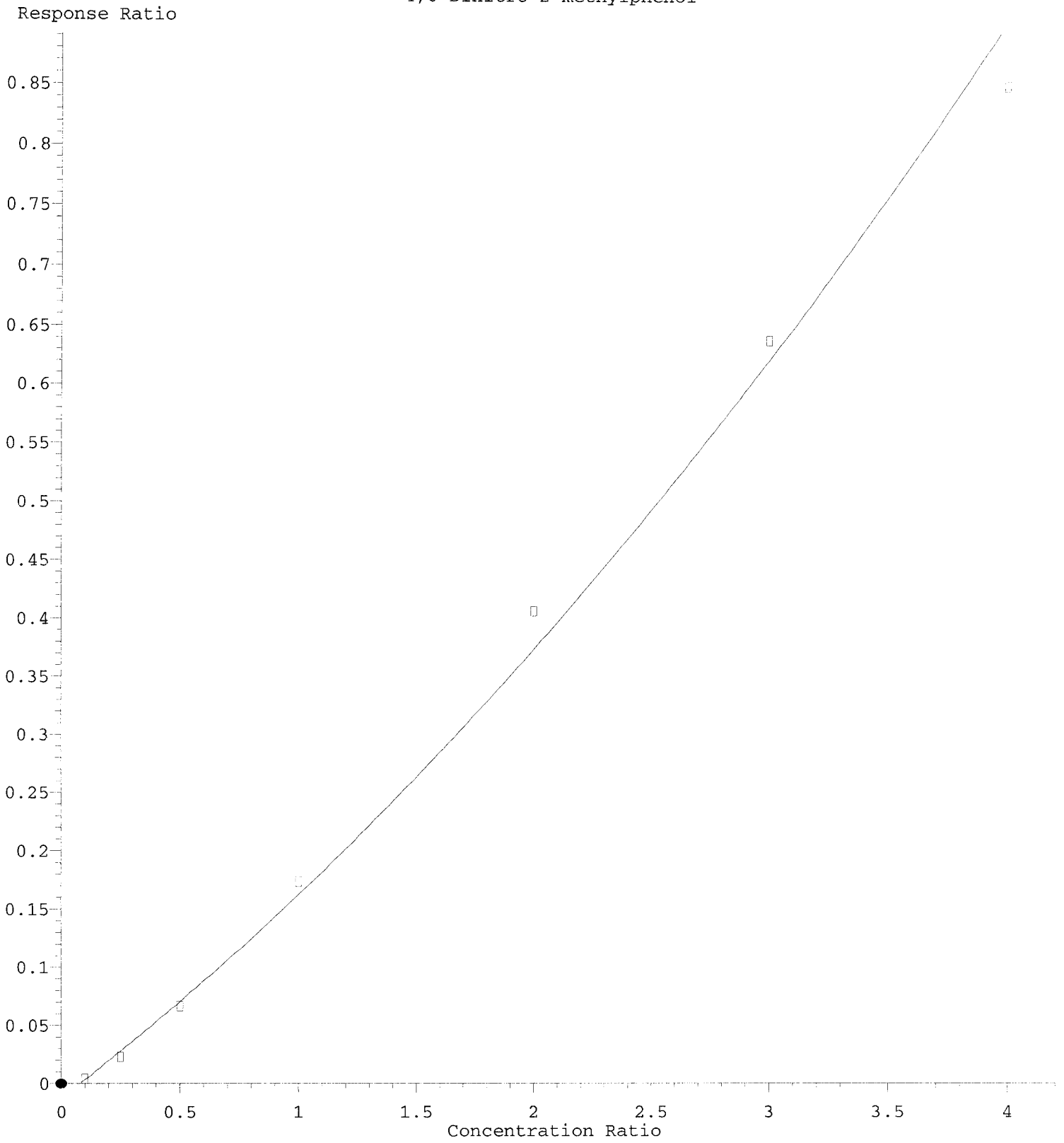
TIC: J09191918.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

9.959min (+ 0.012) 29.40 ng/ml m

response 112

Ion	Exp%	Act%
231.90	100.00	100.00
130.90	45.50	28.97
229.90	77.80	98.74
0.00	0.00	0.00

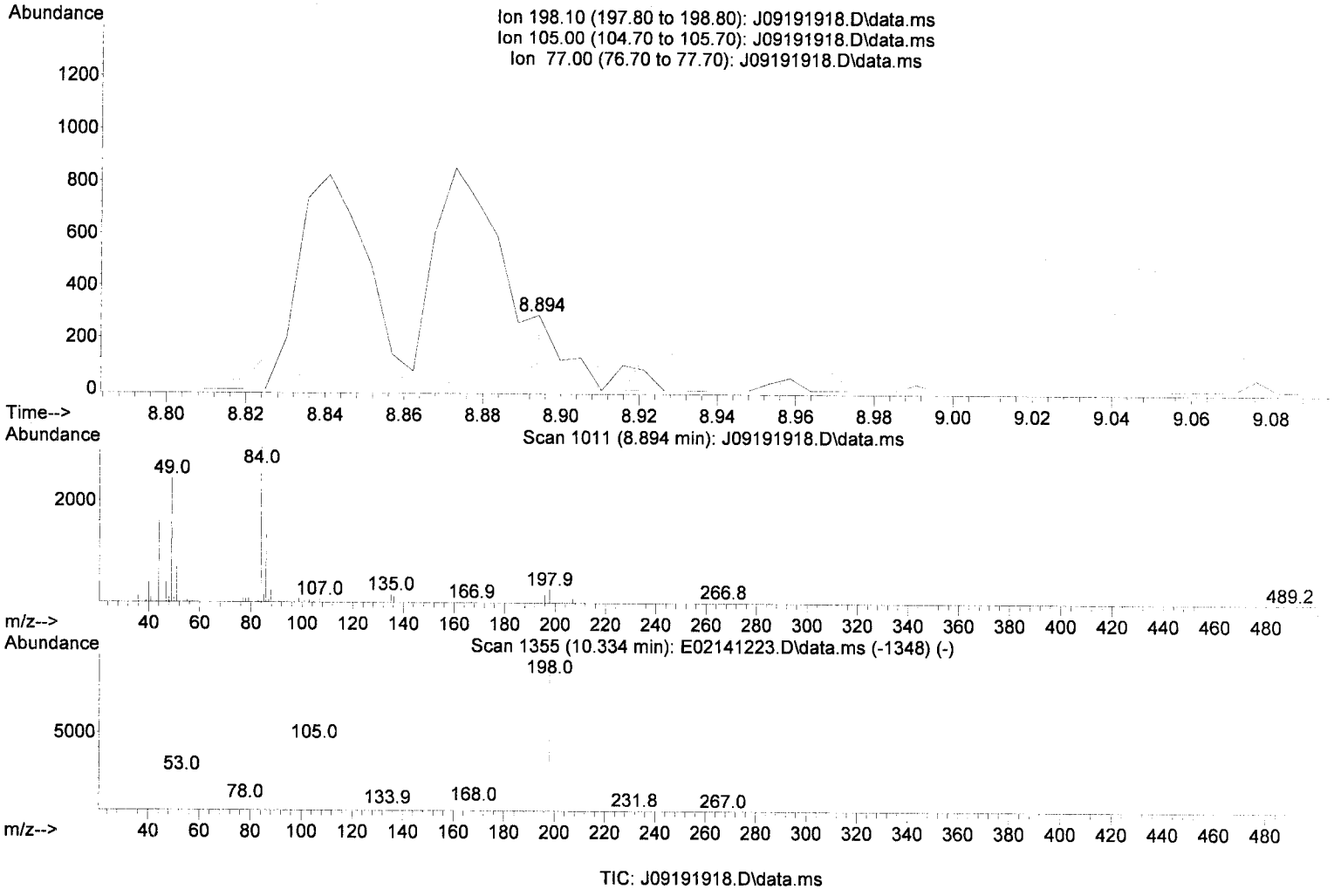


R = 1.79e-002 A*A + 1.57e-001 A - 1.26e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



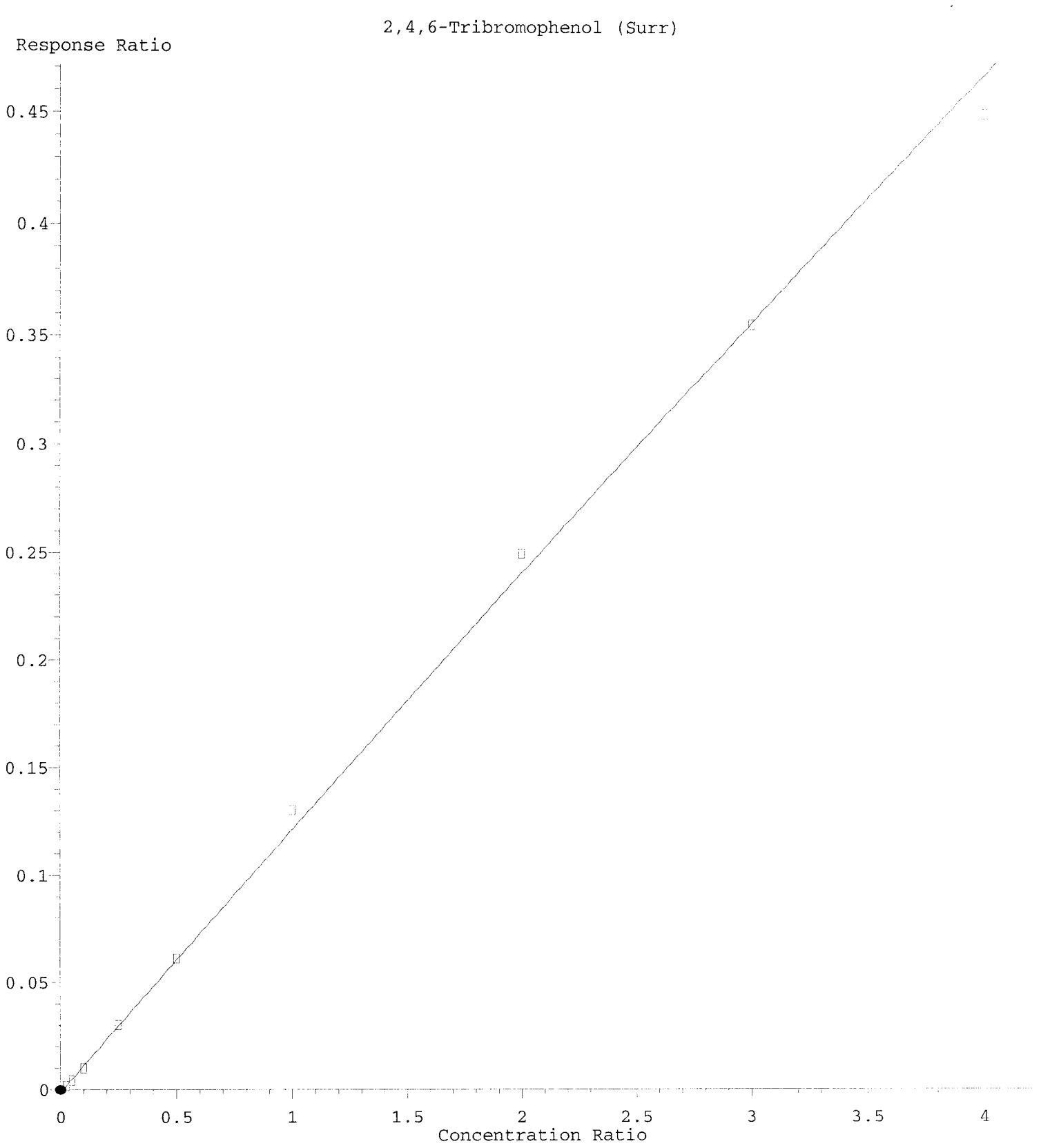
TIC: J09191918.D\data.ms

(63) 4,6-Dinitro-2-methylphenol (T)

8.894min (-1.321) 161.35 ng/ml m

response 134

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	40.70	9.00#
77.00	20.00	37.37
0.00	0.00	0.00

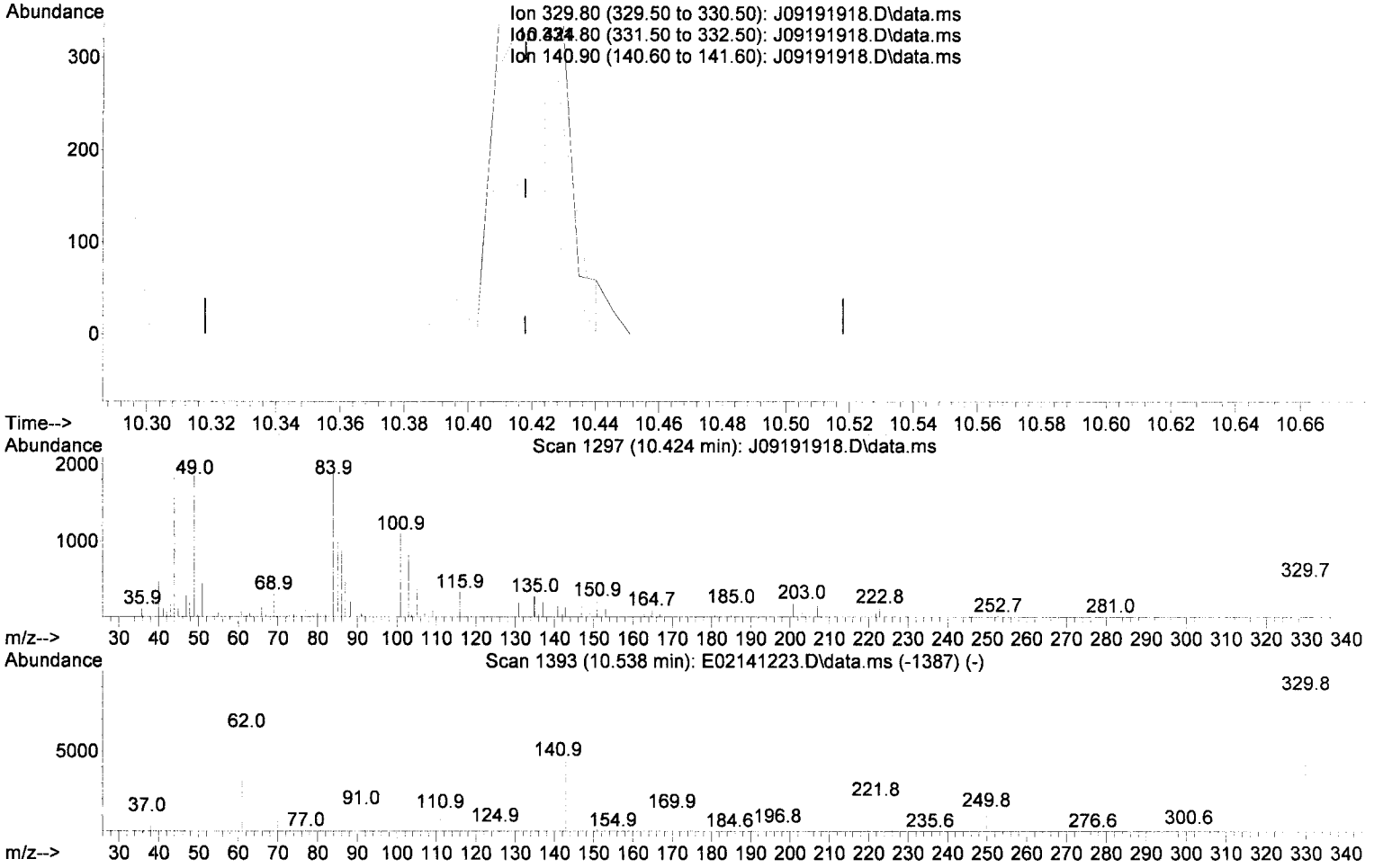


R = -1.82e-003 A*A + 1.24e-001 A - 1.50e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_0919I9.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



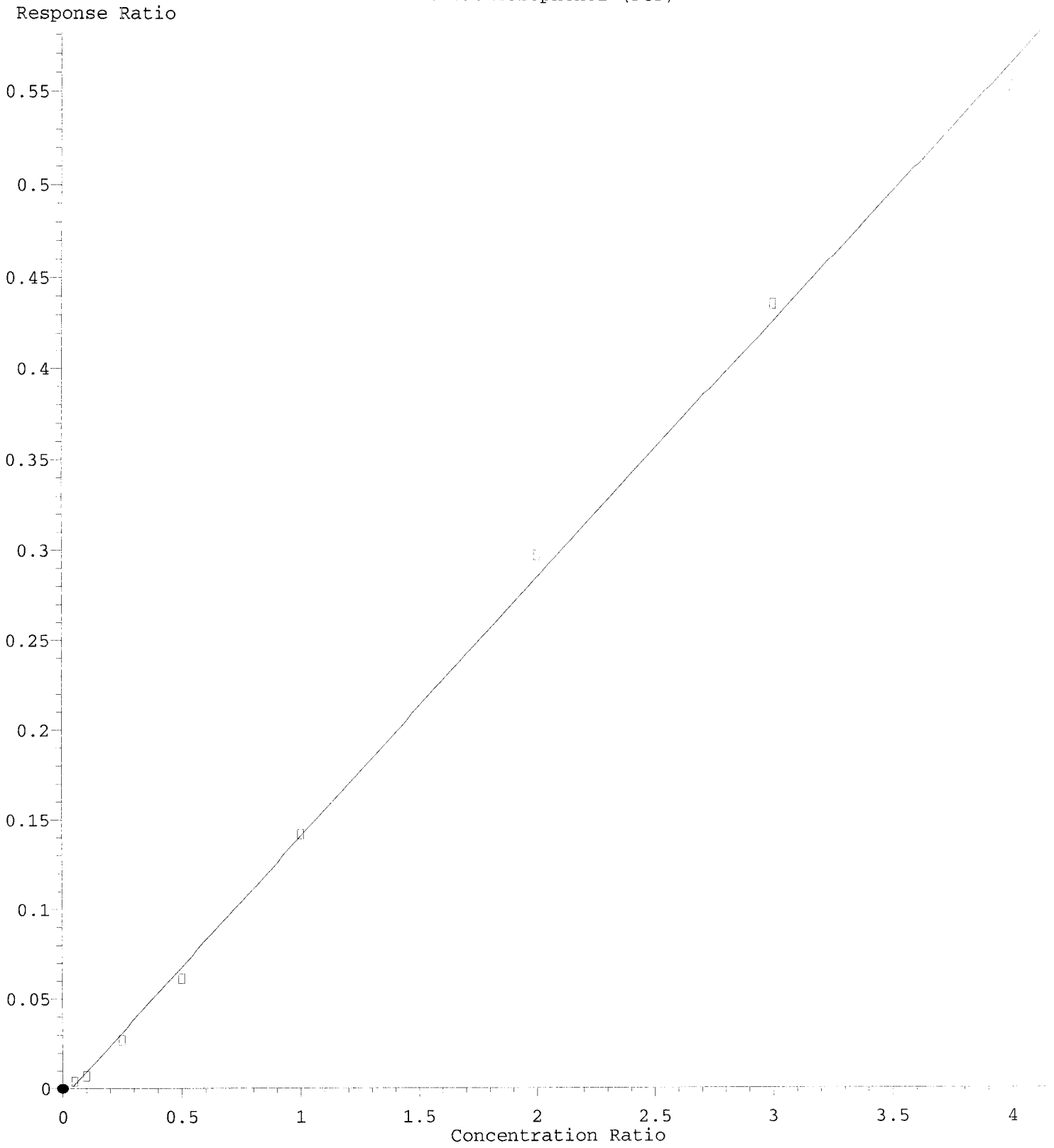
TIC: J09191918.D\data.ms

(67) 2,4,6-Tribromophenol (Surr) (S)

10.424min (+ 0.006) 26.15 ng/ml m

response 151

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	97.00	81.25
140.90	32.90	37.90
0.00	0.00	0.00

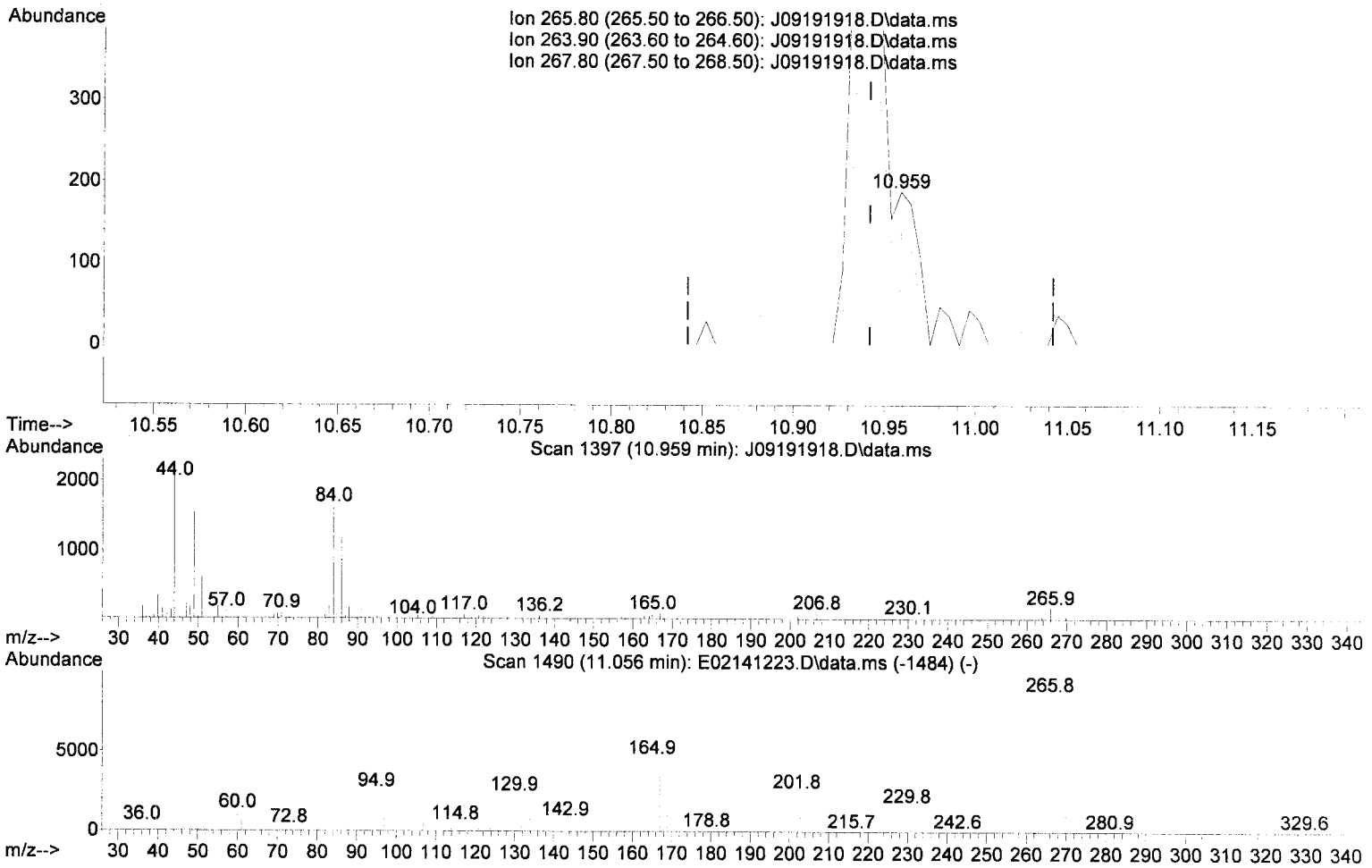


R = -1.05e-003 A*A + 1.47e-001 A - 5.64e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



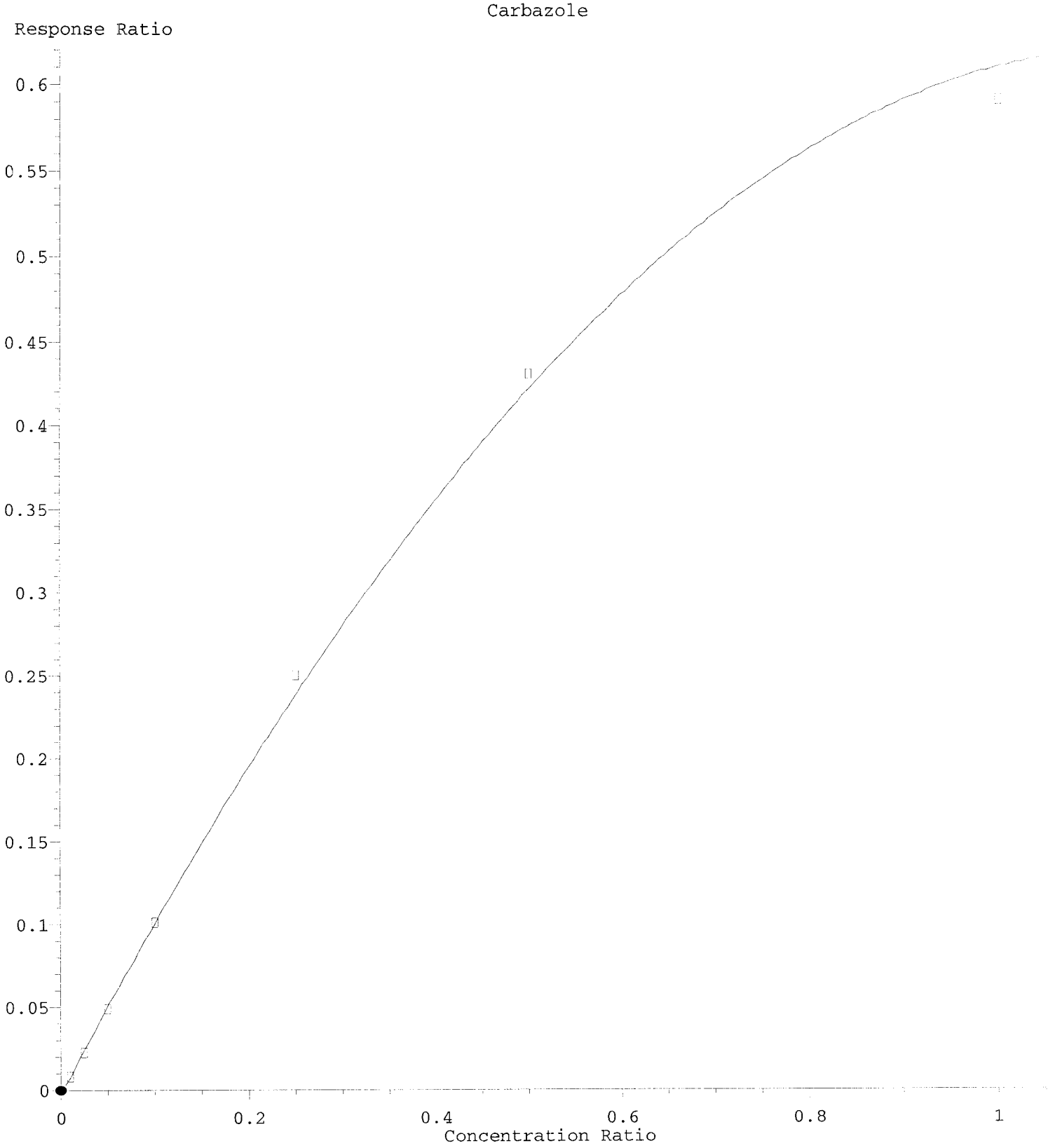
TIC: J09191918.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.959min (+ 0.017) 77.97 ng/ml m

response 116

Ion	Exp%	Act%
265.80	100.00	100.00
263.90	63.30	32.28#
267.80	64.70	0.00#
0.00	0.00	0.00

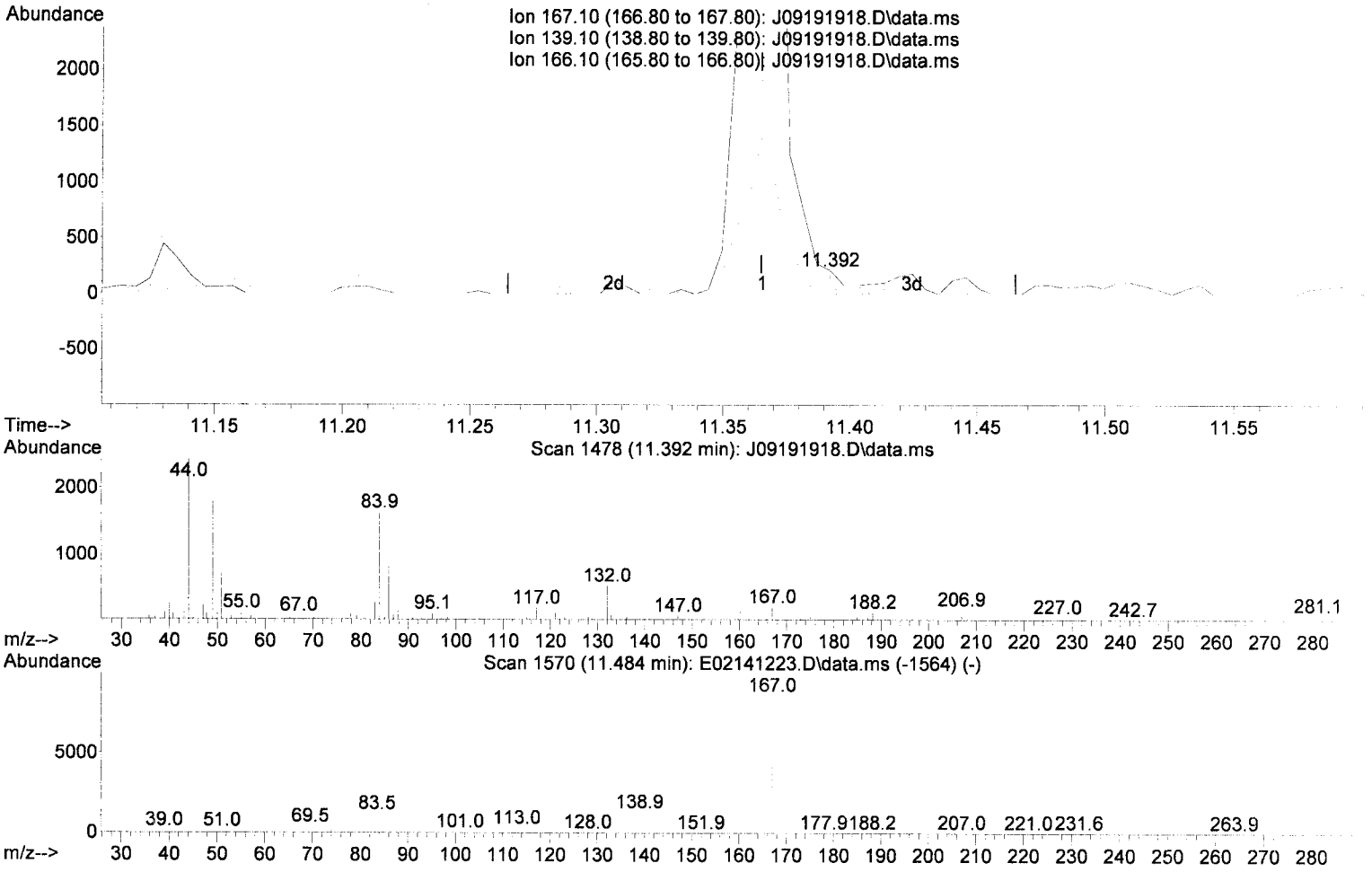


R = -4.70e-001 A*A + 1.08e+000 A - 3.03e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



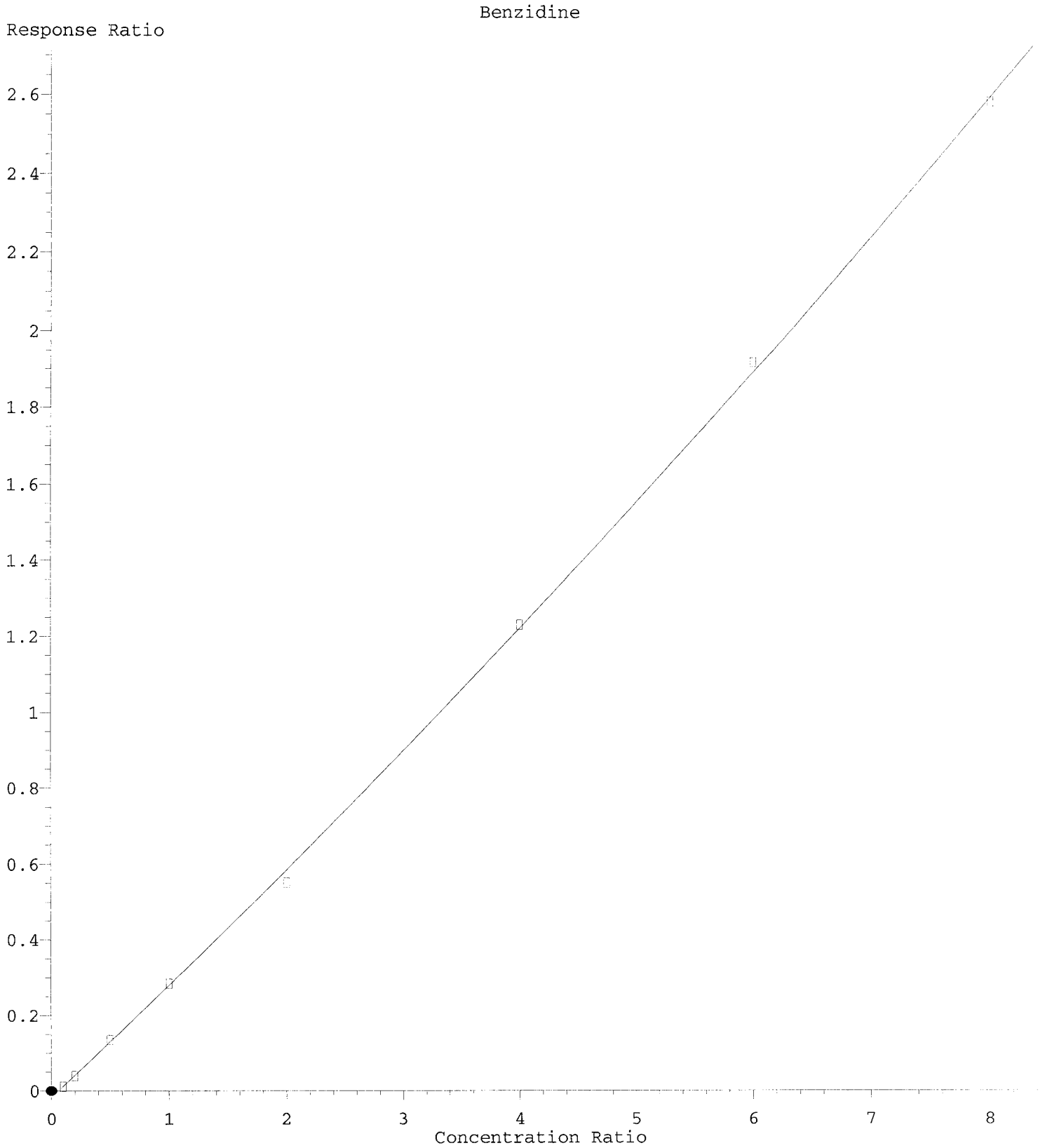
TIC: J09191918.D\data.ms

(73) Carbazole (T)

11.392min (+ 0.027) 5.78 ng/ml m

response 115

Ion	Exp%	Act%
167.10	100.00	100.00
139.10	12.90	18.22
166.10	20.90	15.42
0.00	0.00	0.00

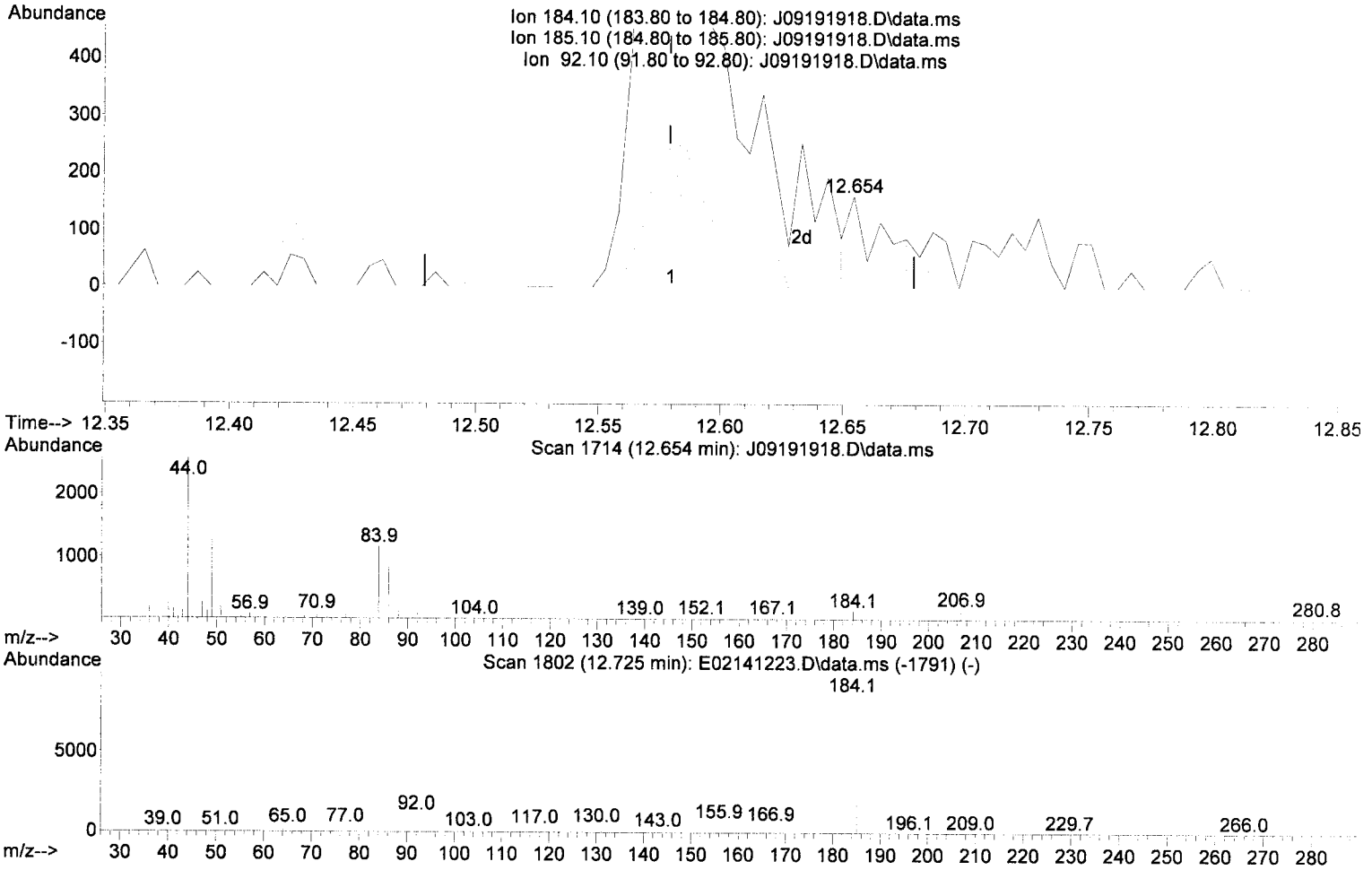


R = 4.30e-003 A*A + 2.93e-001 A - 1.80e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



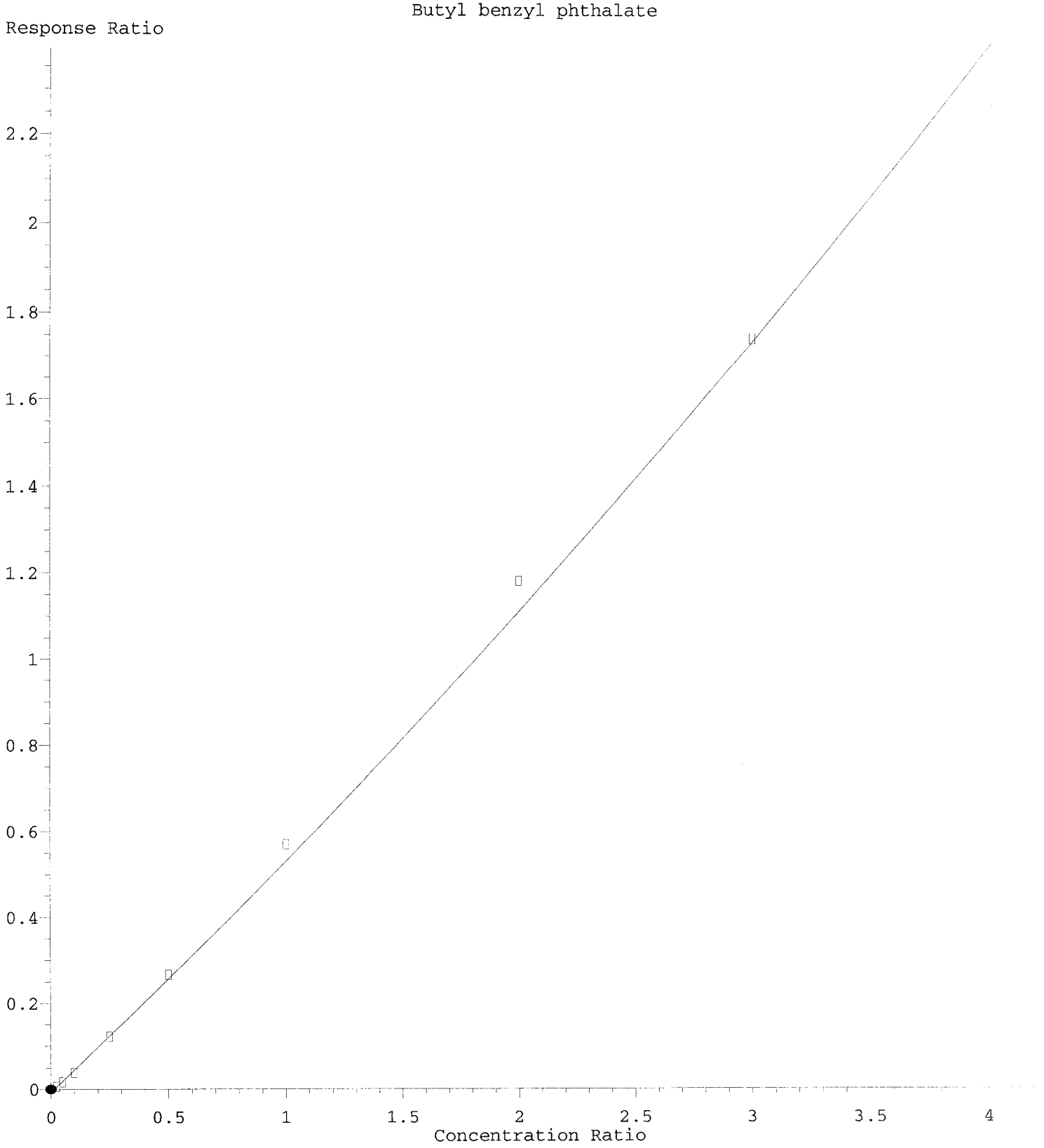
TIC: J09191918.D\data.ms

(76) Benzidine (T)

12.654min (+ 0.075) 123.93 ng/ml m

response 158

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	15.50	0.00
92.10	9.10	70.99#
0.00	0.00	0.00

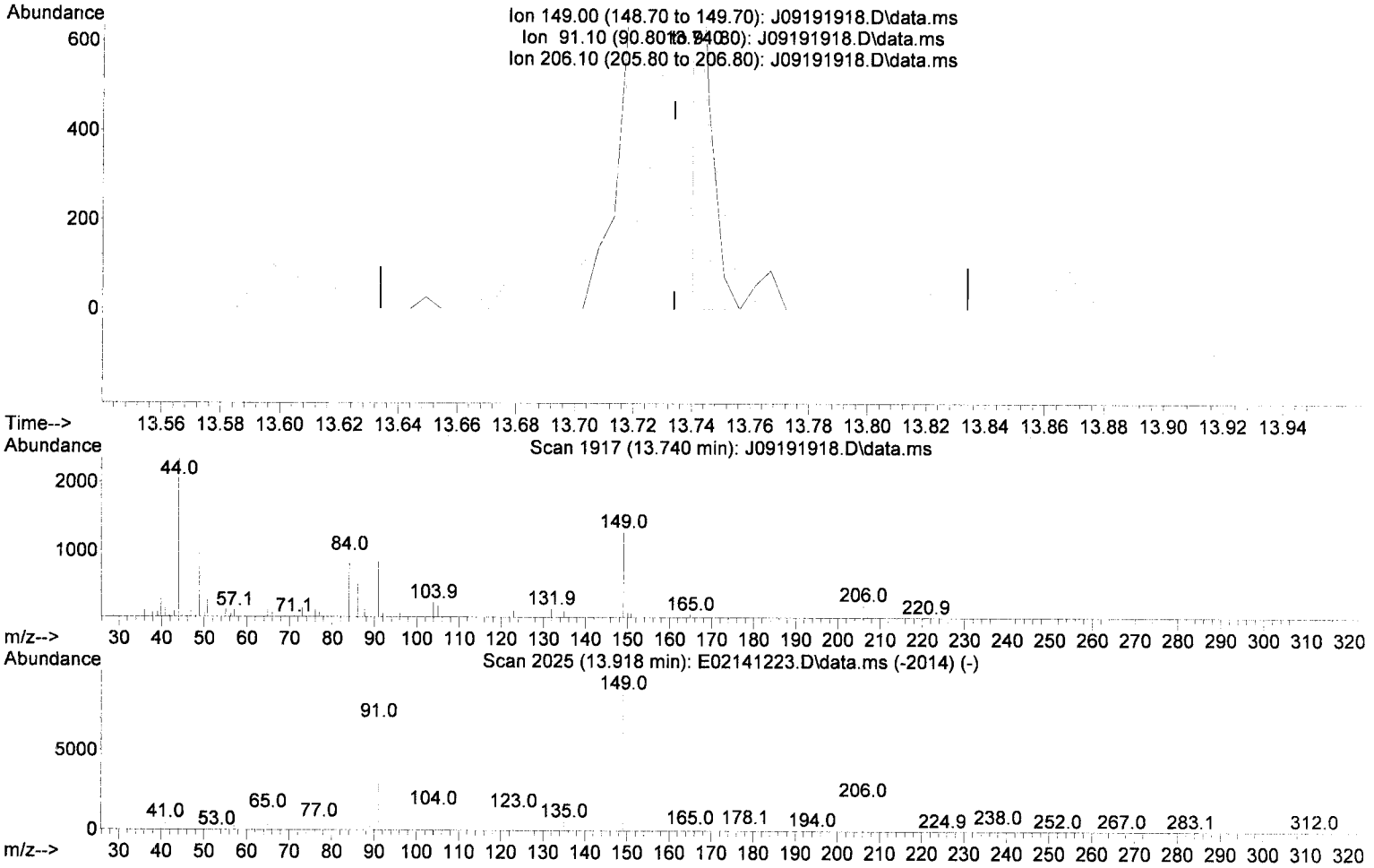


R = 2.13e-002 A*A + 5.16e-001 A - 7.58e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/x^2)
Method Name: C:\msdchem\1\methods\SV10_0919I9.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



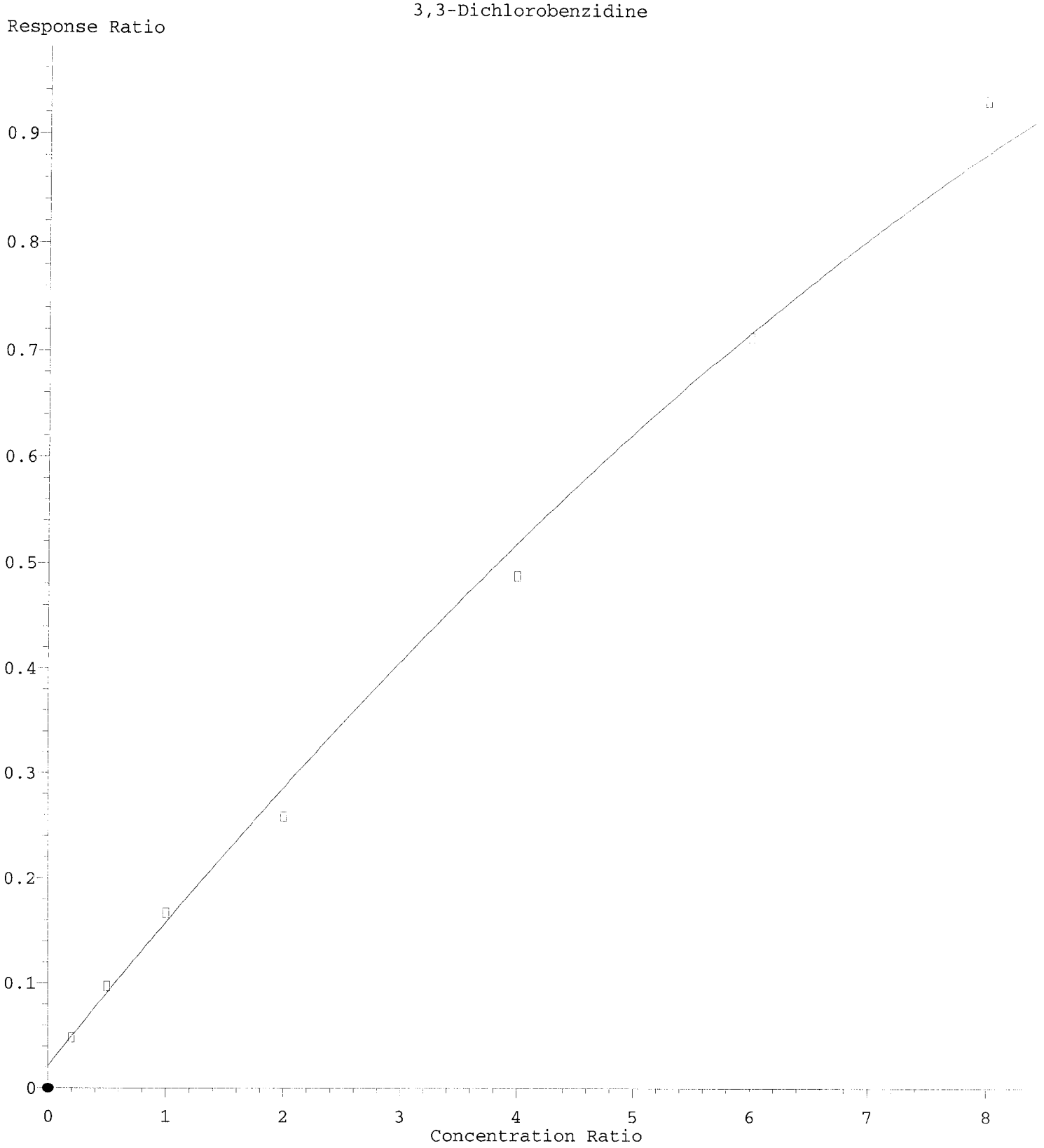
TIC: J09191918.D\data.ms

(80) Butyl benzyl phthalate (T)

13.740min (+ 0.006) 29.98 ng/ml m

response 188

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	64.60	66.02
206.10	20.40	16.13
0.00	0.00	0.00

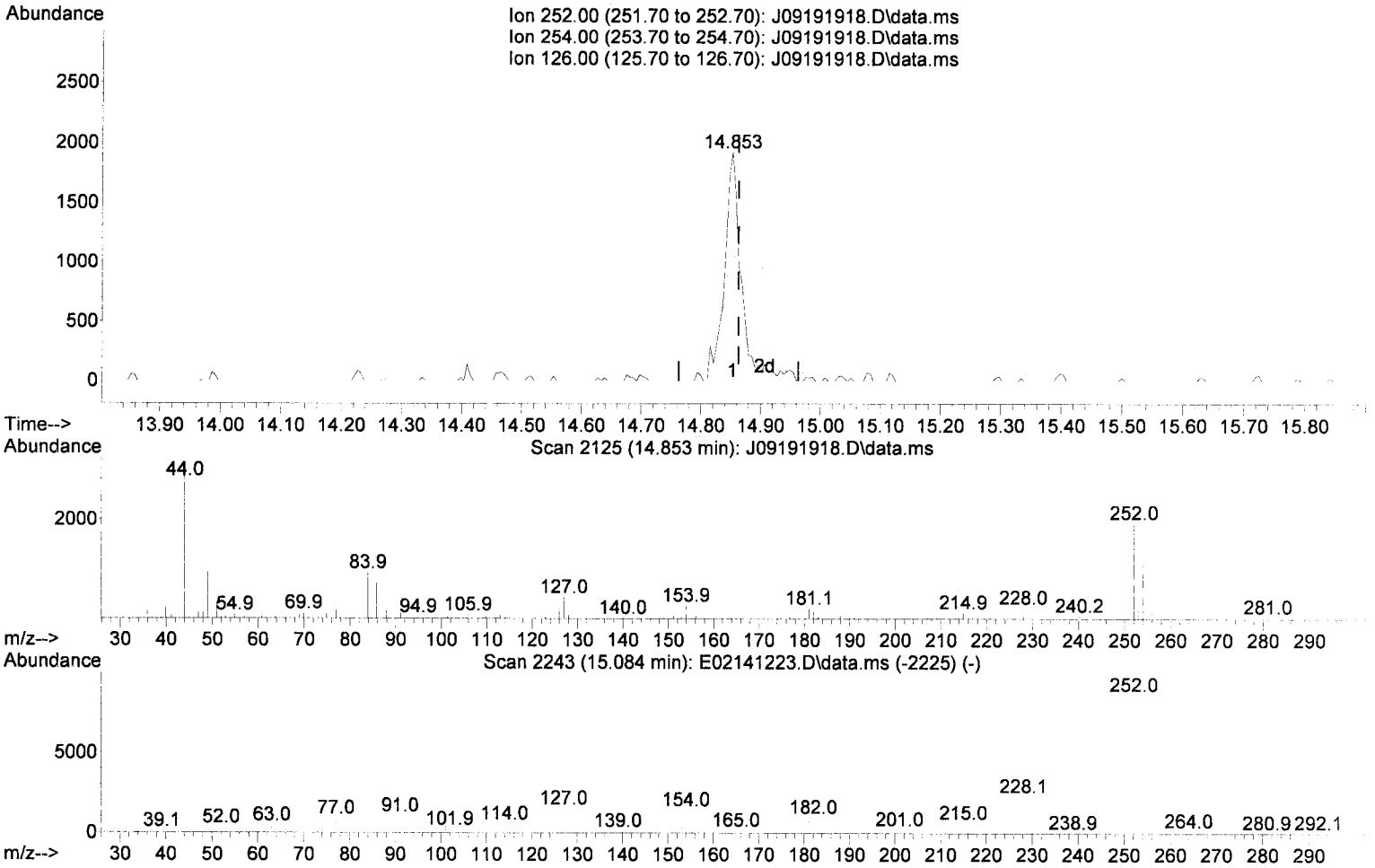


R = -4.11e-003 A*A + 1.41e-001 A + 2.12e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



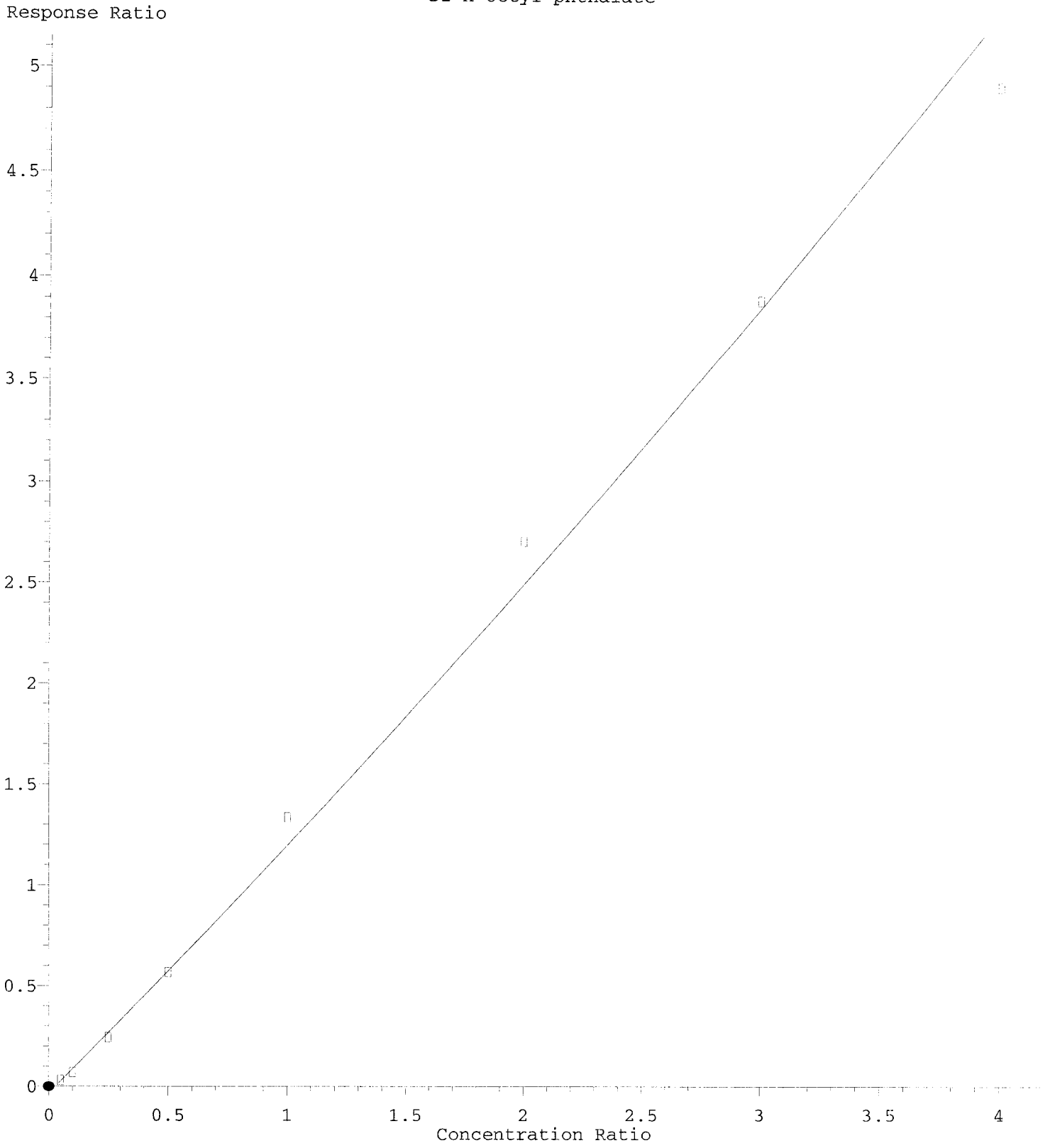
TIC: J09191918.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.853min (-0.010) -1.00 ng/ml m

response 3954

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	62.09
126.00	12.00	11.91
0.00	0.00	0.00

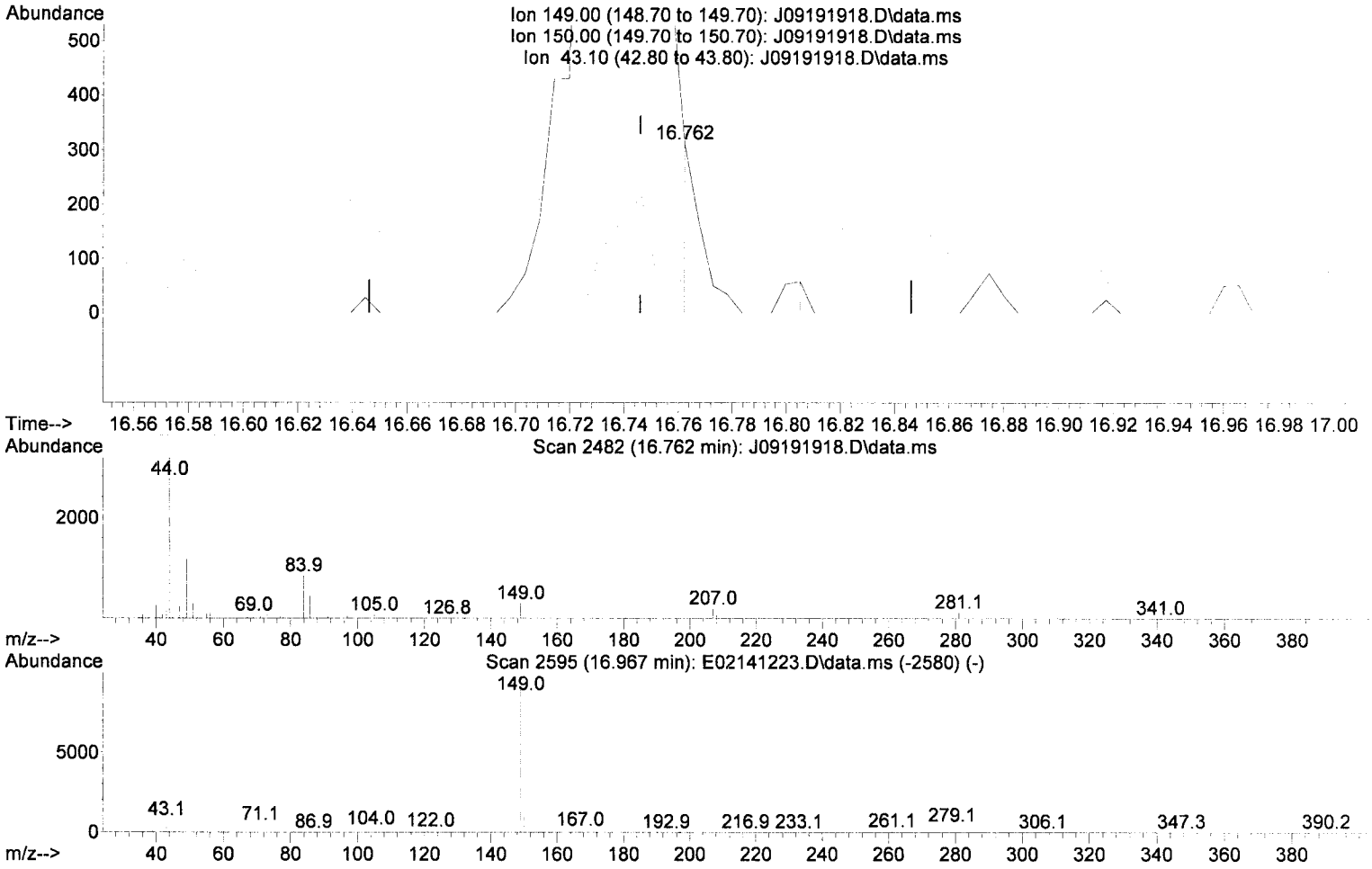


R = 3.12e-002 A*A + 1.20e+000 A - 3.48e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



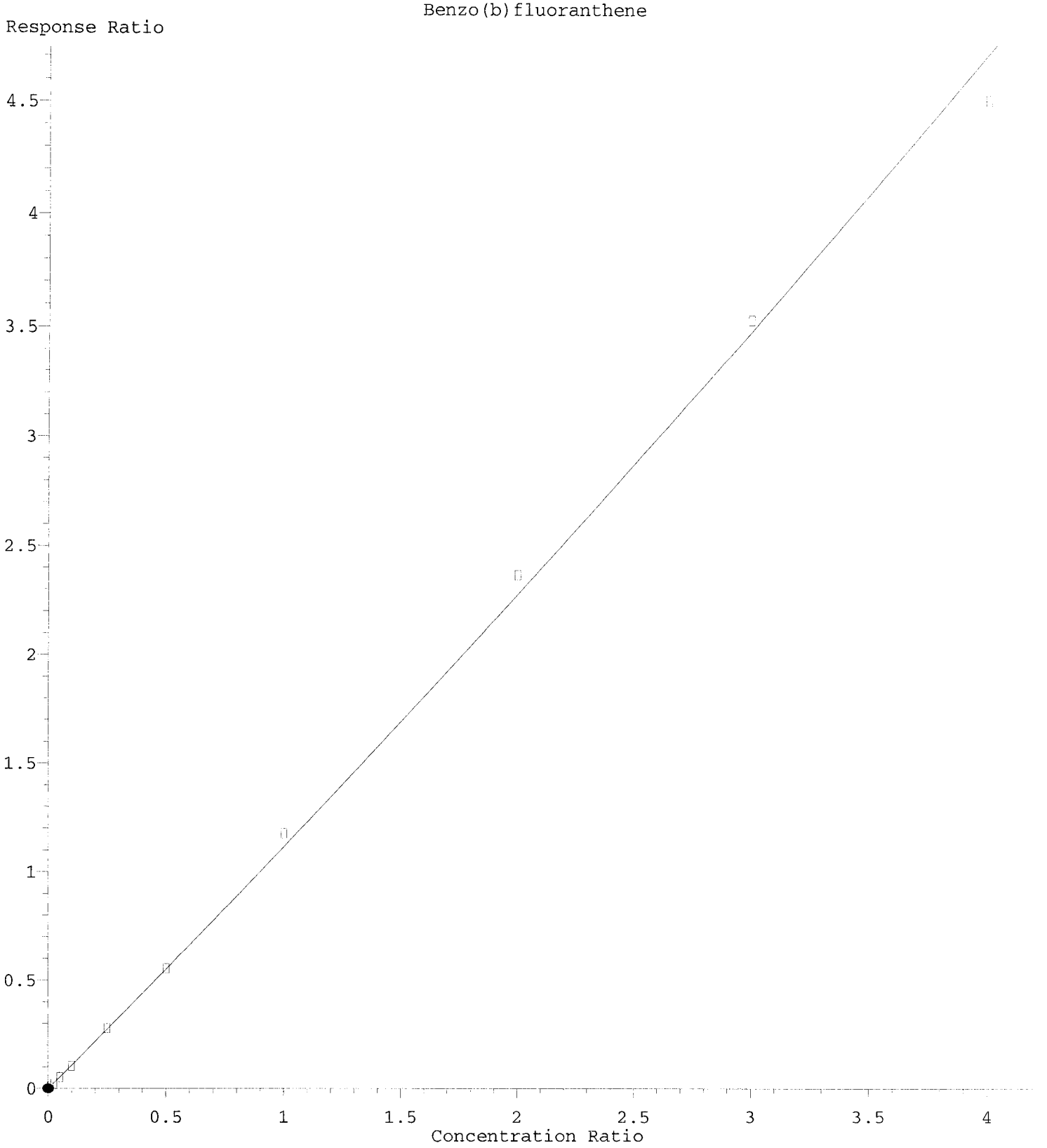
TIC: J09191918.D\data.ms

(87) Di-n-octyl phthalate (T)

16.762min (+ 0.016) 58.11 ng/ml m ✓

response 117

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.90	19.81
43.10	5.60	52.08#
0.00	0.00	0.00

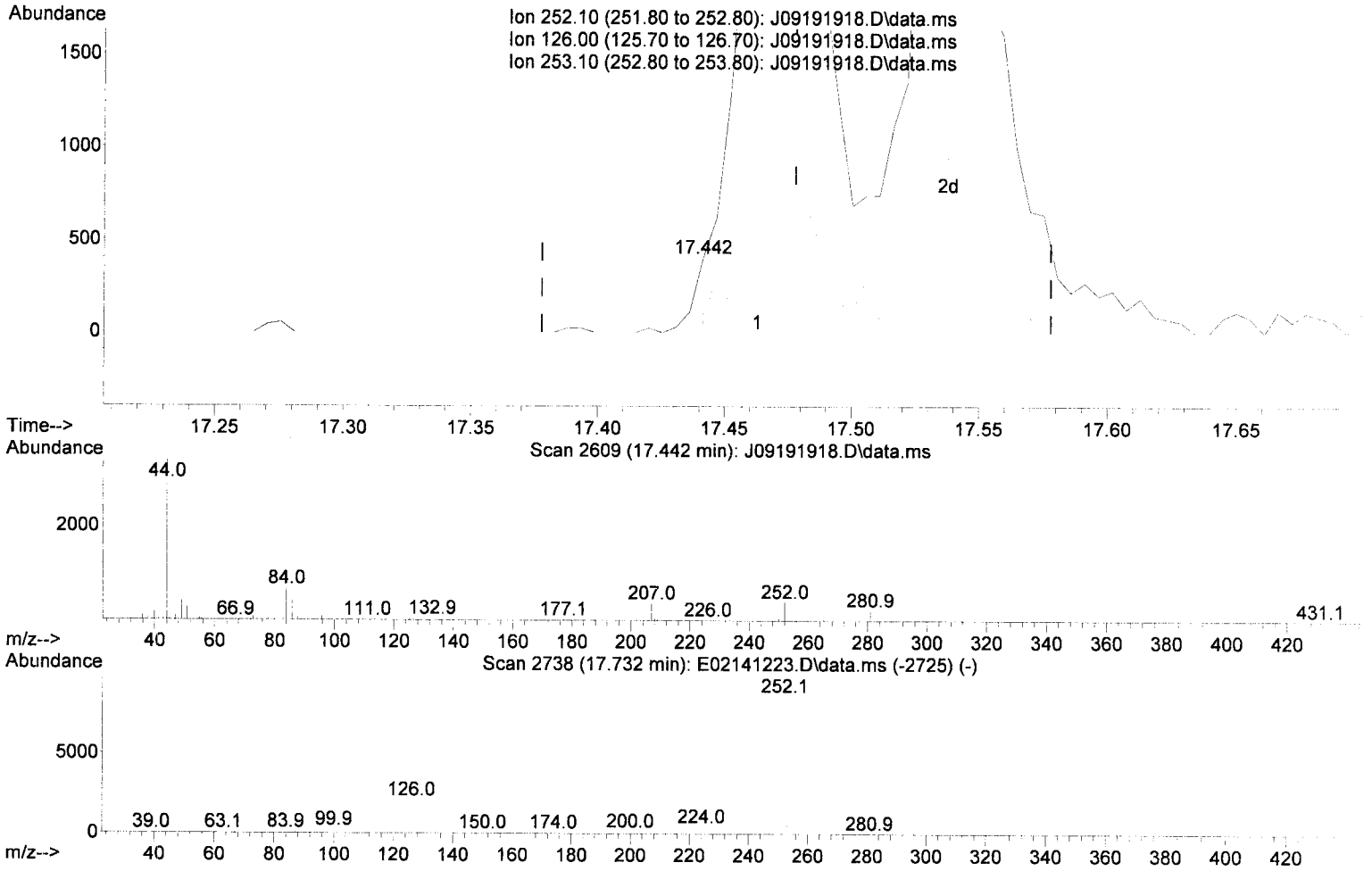


R = 1.98e-002 A*A + 1.10e+000 A - 4.38e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(88) Benzo(b)fluoranthene (T)

17.442min (-0.036) 8.23 ng/ml m

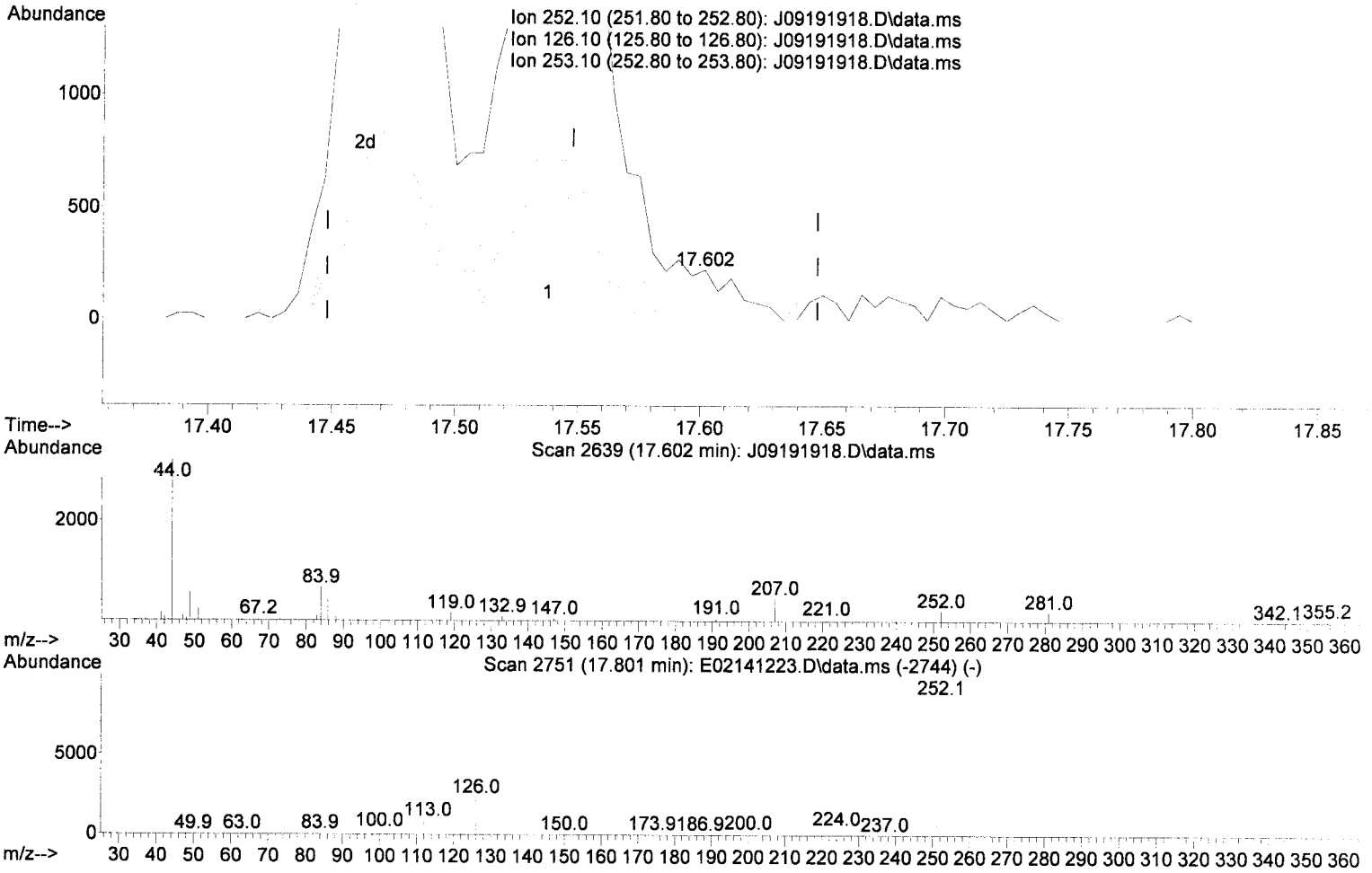
response 176

Ion	Exp%	Act%
252.10	100.00	100.00
126.00	16.50	12.07
253.10	21.90	8.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



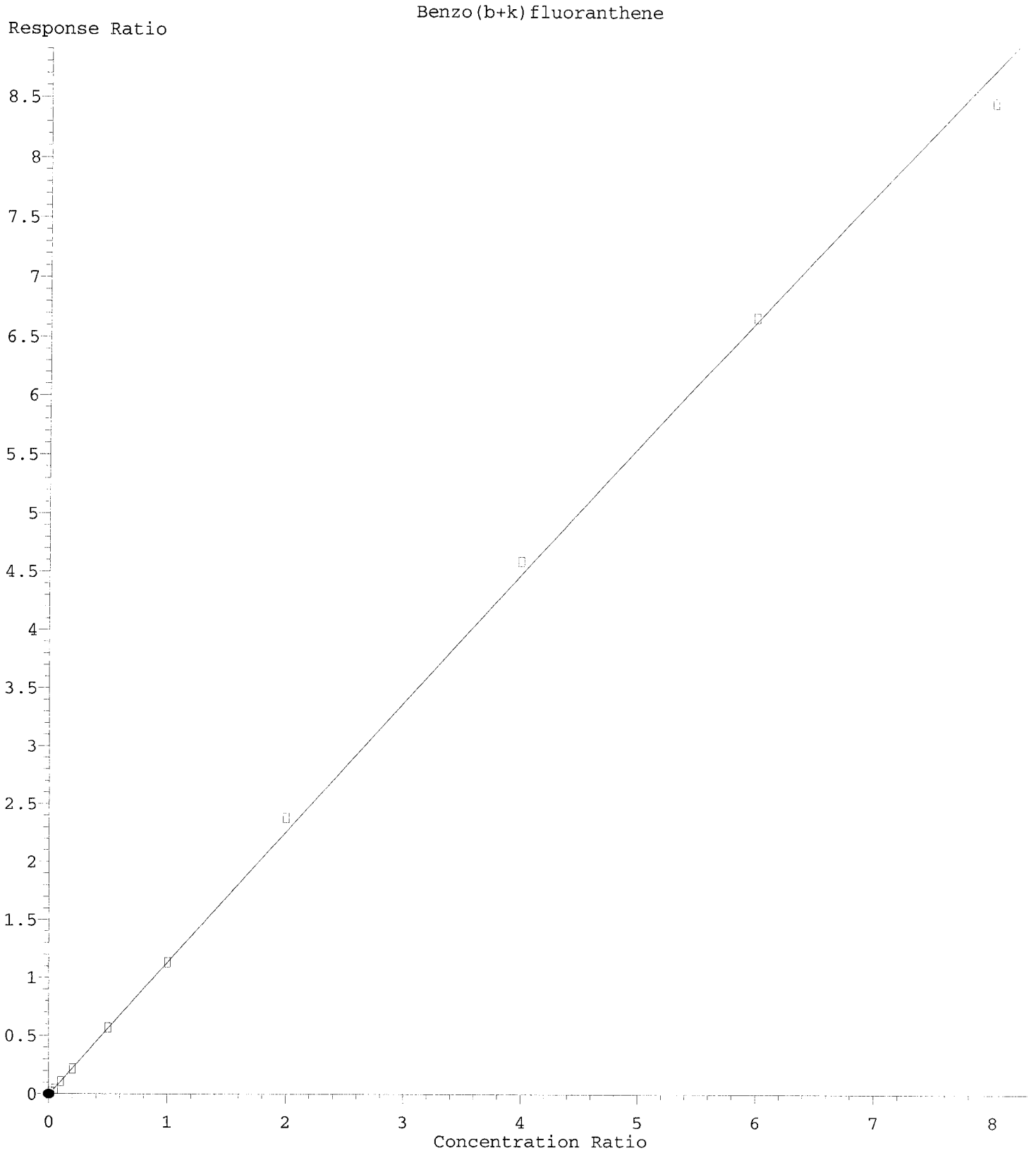
TIC: J09191918.D\data.ms

(89) Benzo(k)fluoranthene (T)

17.602min (+ 0.054) 8.71 ng/ml m J

response 154

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

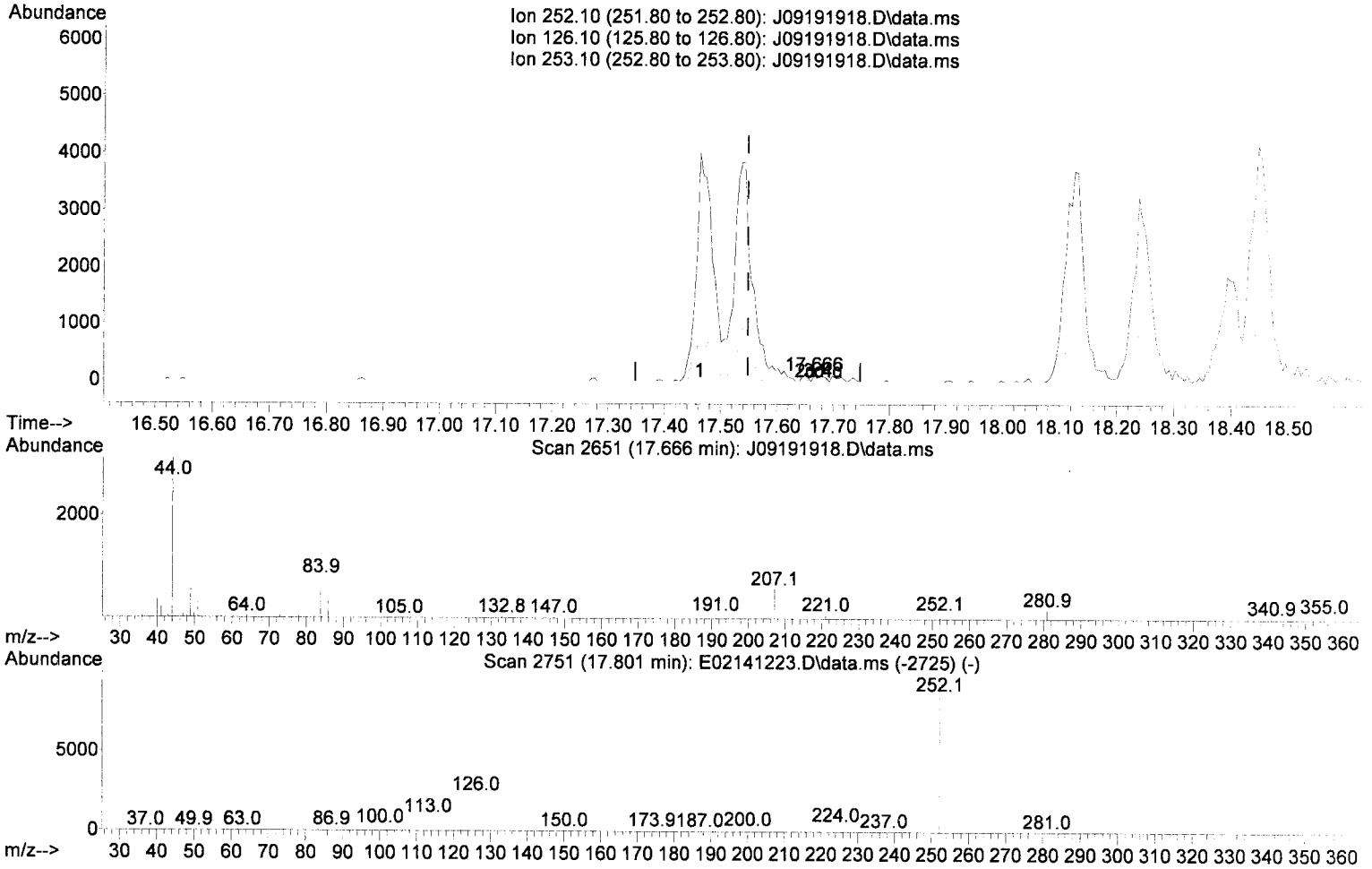


R = -6.69e-003 A*A + 1.15e+000 A - 9.04e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\sv10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



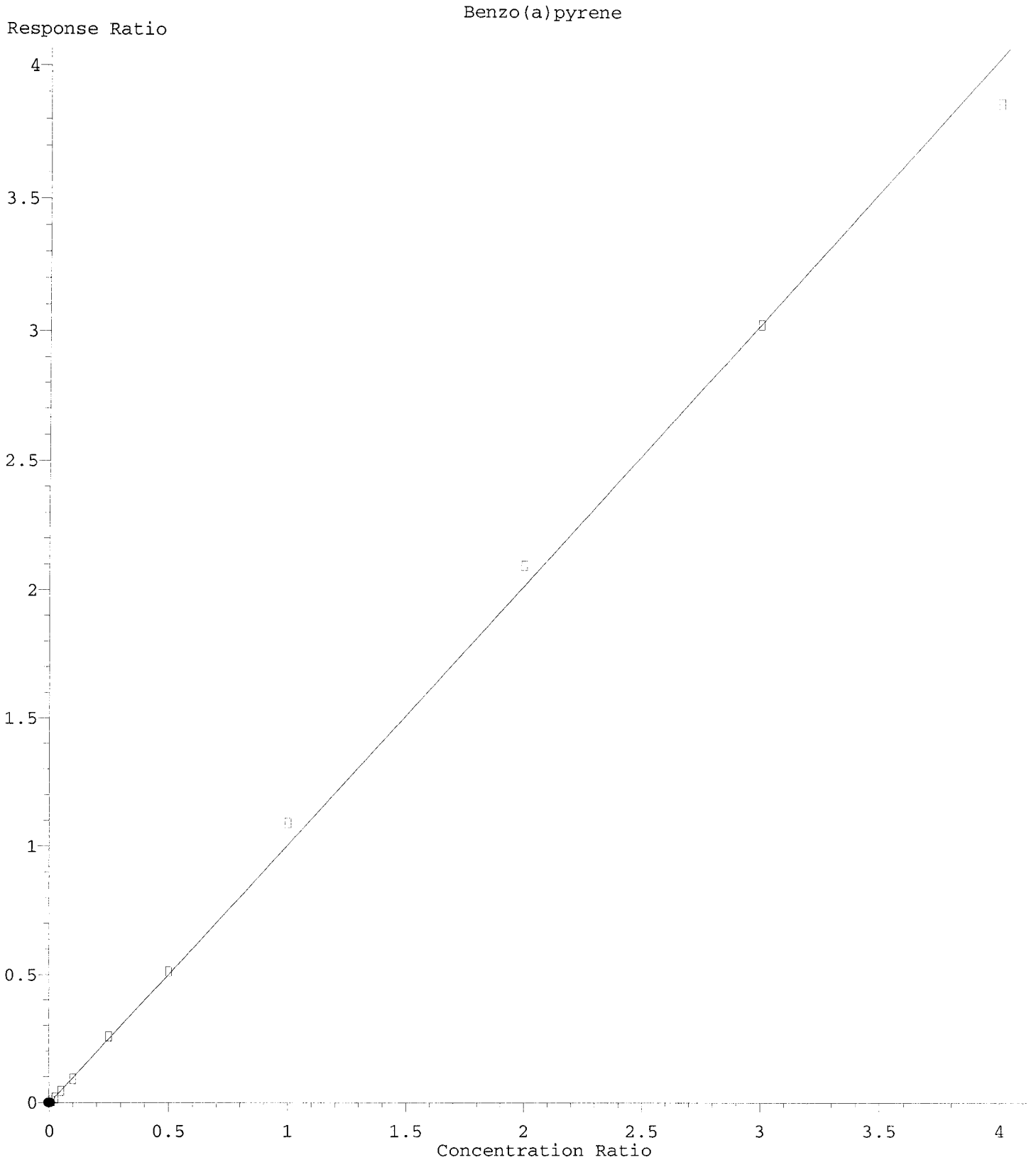
TIC: J09191918.D\data.ms

(90) Benzo(b+k)fluoranthene (T)

17.666min (+ 0.118) 15.95 ng/ml m

response 140

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

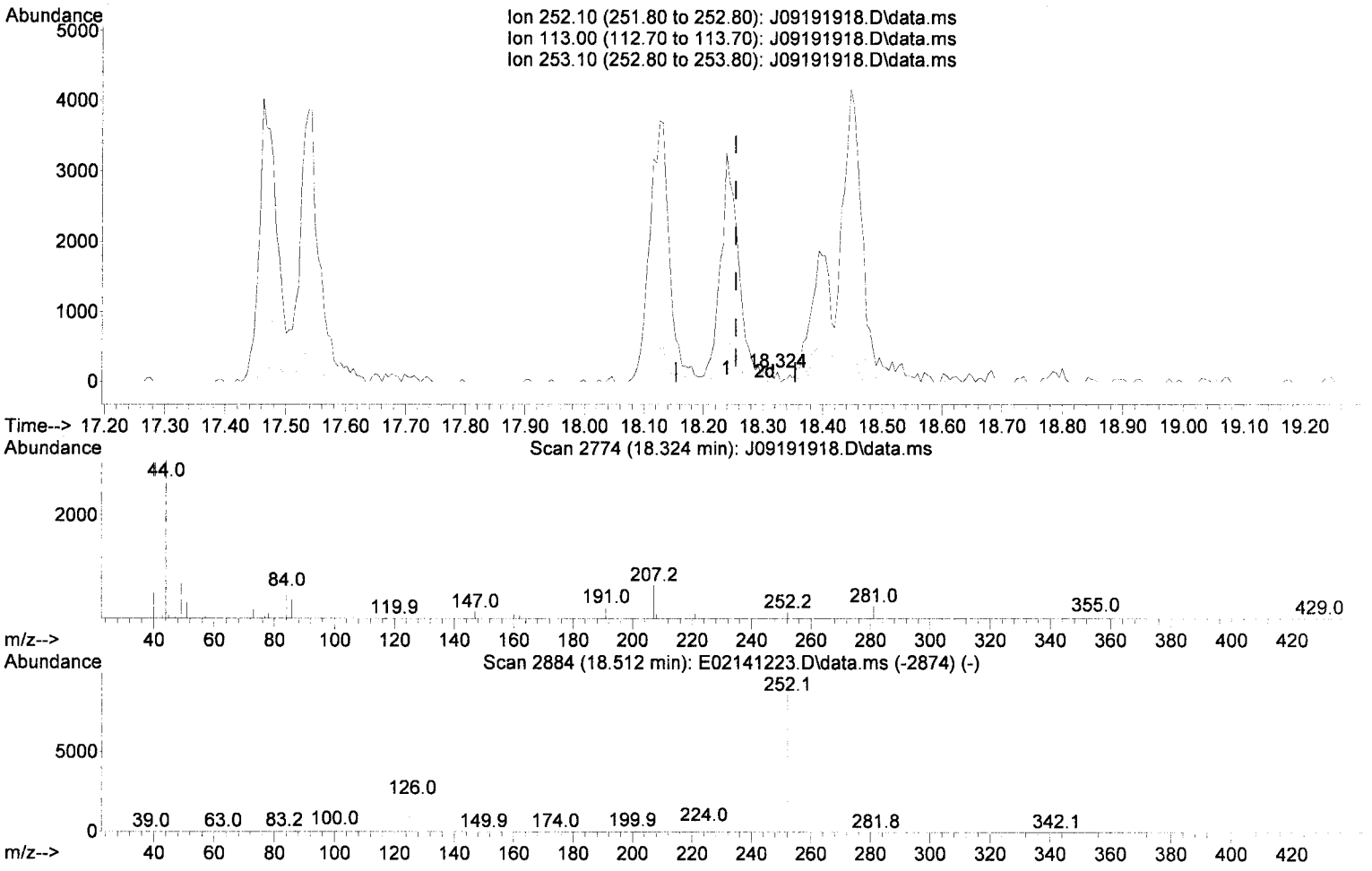


R = 4.44e-004 A*A + 1.01e+000 A - 4.97e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(92) Benzo(a)pyrene (T)

18.324min (+ 0.070) 10.04 ng/ml m ✓

response 116

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	9.90	0.00
253.10	22.50	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Soil	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Soil		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Soil	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Soil	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Soil	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Soil	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Soil	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Soil	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Soil	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Soil	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Soil	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Soil	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Soil	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Water	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Water		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Water	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Water	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Water	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Water	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Water	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Water	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Water	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Water	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Water	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Water	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Water	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/23/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	106	0.00
2	TG	N-Nitrosodimethylamine	1000.000	1045.350	-4.5	114	0.09
3	TG	Pyridine	1000.000	896.190	10.4	96	0.10
4	S	2-Fluorophenol (Surr)	1000.000	981.272	1.9	100	0.03
5	S	Phenol-d6(Surr)	1000.000	1015.692	-1.6	99	0.00
6	T	Phenol	1000.000	989.661	1.0	97	0.01
7	T	Aniline	1000.000	836.204	16.4	97	0.02
8	T	Bis(2-chloroethyl) ether	1000.000	1091.651	-9.2	106	0.00
9	T	2-Chlorophenol	1000.000	1008.898	-0.9	100	0.00
10	T	1,3-Dichlorobenzene	1000.000	1009.723	-1.0	105	0.00
11	T	1,4-Dichlorobenzene	1000.000	1002.987	-0.3	102	0.00
12	T	Benzyl alcohol	1000.000	910.785	8.9	91	0.00
13	T	1,2-Dichlorobenzene	1000.000	1024.110	-2.4	104	0.00
14	T	2-Methylphenol	1000.000	1052.523	-5.3	100	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	970.278	3.0	97	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1043.262	-4.3	102	0.00
17	T	3+4-Methylphenol	1000.000	1067.423	-6.7	99	0.00
18	T	Hexachloroethane	1000.000	1040.964	-4.1	109	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1065.680	-6.6	103	0.00
20	T	Nitrobenzene	1000.000	1058.009	-5.8	103	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	102	0.00
22	T	Isophorone	1000.000	1048.414	-4.8	103	0.00
23	T	2-Nitrophenol	1000.000	968.550	3.1	93	0.00
24	T	2,4-Dimethylphenol	1000.000	967.663	3.2	92	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1057.133	-5.7	101	0.00
26	T	Benzoic acid	2000.000	1974.824	1.3	115	0.00
27	T	2,4-Dichlorophenol	1000.000	968.833	3.1	98	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	999.393	0.1	99	0.00
29	T	Naphthalene	1000.000	1048.170	-4.8	101	0.00
30	T	4-Chloroaniline	1000.000	939.273	6.1	90	0.00
31	T	Hexachlorobutadiene	1000.000	1037.179	-3.7	101	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1056.418	-5.6	101	0.00
33	T	2-Methylnaphthalene	1000.000	1097.134	-9.7	104	0.00
34	T	1-Methylnaphthalene	1000.000	1073.196	-7.3	104	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	105	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1072.195	-7.2	102	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1033.651	-3.4	105	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1048.469	-4.8	108	0.00
39	T	1,1'-Biphenyl	1000.000	1032.434	-3.2	102	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1062.096	-6.2	106	0.00
41	T	2-Chloronaphthalene	1000.000	1056.535	-5.7	104	0.00
42	T	2-Nitroaniline	1000.000	1106.583	-10.7	111	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1034.190	-3.4	103	0.00
44	T	1,4-Dinitrobenzene	1000.000	1114.508	-11.5	121	0.00
45	T	Dimethyl phthalate	1000.000	1061.398	-6.1	105	0.00
46	T	1,3-Dinitrobenzene	1000.000	1081.705	-8.2	115	0.00
47	T	2,6-Dinitrotoluene	1000.000	1043.999	-4.4	107	0.00
48	T	1,2-Dinitrobenzene	1000.000	1063.484	-6.3	106	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1059.382	-5.9	104	0.00
50	T	3-Nitroaniline	1000.000	1060.772	-6.1	107	0.00
51	T	Acenaphthene	1000.000	1001.616	-0.2	103	0.00
52	T	2,4-Dinitrophenol	1000.000	972.001	2.8	122	0.00
53	T	4-Nitrophenol	1000.000	1106.887	-10.7	115	0.00
54	T	2,4-Dinitrotoluene	1000.000	1048.405	-4.8	113	0.00
55	T	Dibenzofuran	1000.000	1071.222	-7.1	106	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1077.305	-7.7	111	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1013.999	-1.4	103	0.00
58	T	Diethyl phthalate	1000.000	1087.436	-8.7	104	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1037.334	-3.7	102	0.00
60	T	Fluorene	1000.000	1045.897	-4.6	106	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1051.565	-5.2	105	0.00
62	T	4-Nitroaniline	1000.000	1080.738	-8.1	113	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1157.716	-15.8	133	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	108	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1064.375	-6.4	108	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1037.259	-3.7	105	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1040.672	-4.1	111	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1032.582	-3.3	107	0.00
69	T	Hexachlorobenzene	1000.000	1010.042	-1.0	104	0.00
70	T	Pentachlorophenol (PCP)	1000.000	975.756	2.4	117	0.00
71	T	Phenanthrene	1000.000	1015.497	-1.5	108	0.00
72	T	Anthracene	1000.000	1058.253	-5.8	108	0.00
73	T	Carbazole	1000.000	964.910	3.5	103	0.00
74	T	Di-n-butyl phthalate	1000.000	1057.534	-5.8	106	0.00
75	T	Fluoranthene	1000.000	1088.446	-8.8	108	0.00
76	T	Benzidine	2000.000	1842.776	7.9	97	0.00
77	T	Pyrene	1000.000	1070.616	-7.1	106	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	109	-0.01
79	S	Terphenyl-d14 (Surr)	1000.000	1060.782	-6.1	110	0.00
80	T	Butyl benzyl phthalate	1000.000	1003.995	-0.4	105	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1058.578	-5.9	113	-0.01
82	T	3,3-Dichlorobenzidine	2000.000	2062.773	-3.1	106	-0.01
83	T	Benz(a)anthracene	1000.000	1029.118	-2.9	114	-0.01
84	T	Chrysene	1000.000	1009.528	-1.0	108	-0.01
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1039.182	-3.9	110	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	111	-0.01
87	T	Di-n-octyl phthalate	1000.000	1013.796	-1.4	114	-0.02
88	T	Benzo(b)fluoranthene	1000.000	1008.508	-0.9	112	-0.02
89	T	Benzo(k)fluoranthene	1000.000	992.118	0.8	110	-0.02
90	T	Benzo(b+k)fluoranthene	2000.000	1987.636	0.6	111	-0.02
91	T	Benzo(e)pyrene	1000.000	1042.799	-4.3	108	-0.02
92	T	Benzo(a)pyrene	1000.000	971.420	2.9	105	-0.02
93	T	Perylene	1000.000	1215.264	-21.5	134	-0.02
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	113	-0.02

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	973.509	2.6	113	-0.02
96 T	Dibenz(a,h)anthracene	1000.000	1019.307	-1.9	113	-0.02
97 T	Benzo(g,h,i)perylene	1000.000	1054.879	-5.5	111	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.600	150	134967	2.00	ug/mL	0.00
2) Naphthalene-d8	7.867	136	357596	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.648	162	174398	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.162	188	269663	2.00	ug/mL	0.00
11) Chrysene-d12	14.885	240	230198	2.00	ug/mL	0.00
12) Perylene-d12	17.126	264	213465	2.00	ug/mL	#-0.03
Target Compounds						Qvalue
4) Pentachlorophenol	10.975	266	684363	41.56	ug/mL	84
6) DFTPP	11.456	442	746382	34.29	ug/mL	85
7) Benzidine	12.628	184	2478643	25.84	ug/mL	98
8) 4,4-DDE	12.890	TIC	40067	No Calib		
9) 4,4-DDD	13.403	TIC	23267	No Calib		
10) 4,4-DDT	13.975	TIC	9144669	33.07	ug/mL	95

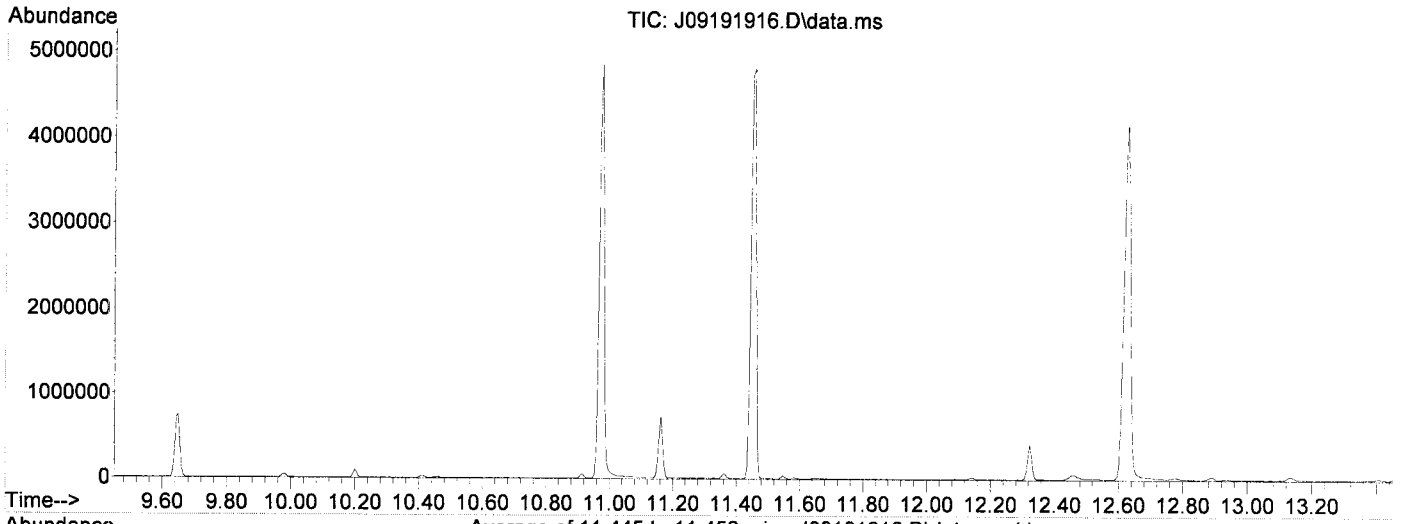
(#) = qualifier out of range (m) = manual integration (+) = signals summed

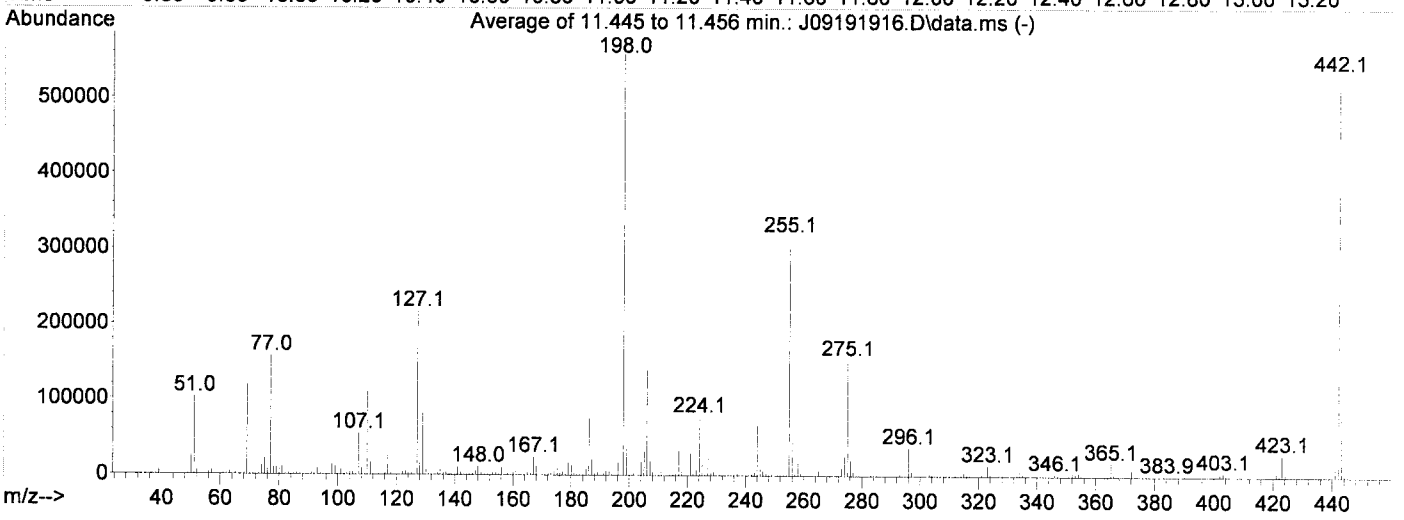
Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 19 15:09:10 2019

JK 9/20/19





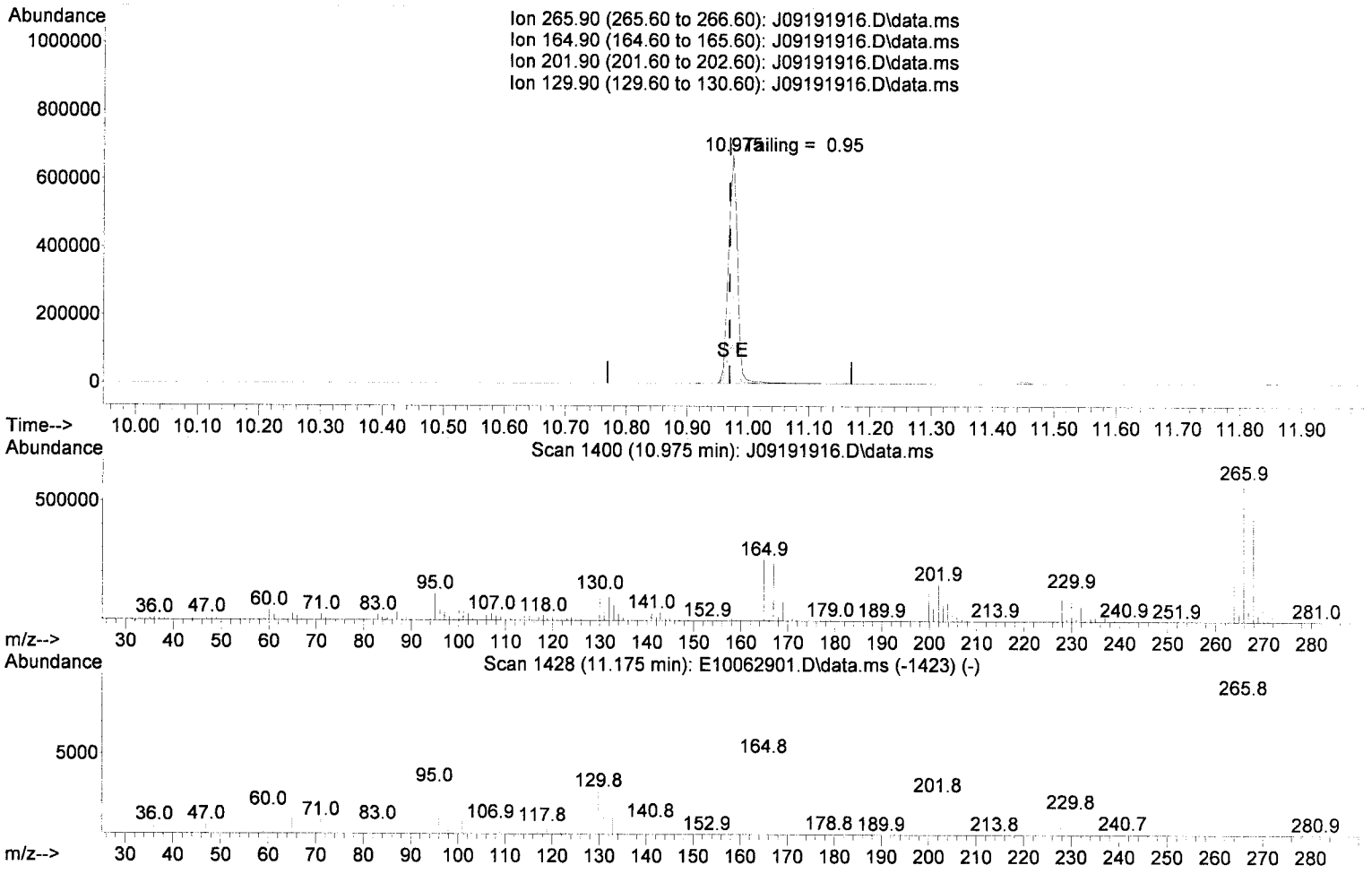
AutoFind: Scans 1488, 1489, 1490; Background Corrected with Scan 1483

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	1920	PASS
69	198	0.01	100	21.3	118967	PASS
70	69	0.00	2	0.5	611	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	557760	PASS
199	198	5	9	6.9	38464	PASS
365	198	1	100	3.2	17707	PASS
441	443	0.01	150	73.9	77592	PASS
442	198	0.10	200	95.5	532779	PASS
443	442	15	24	19.7	104995	PASS

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191916.D\data.ms

(4) Pentachlorophenol

10.975min (+ 0.005) 41.56 ug/mL

response 684363

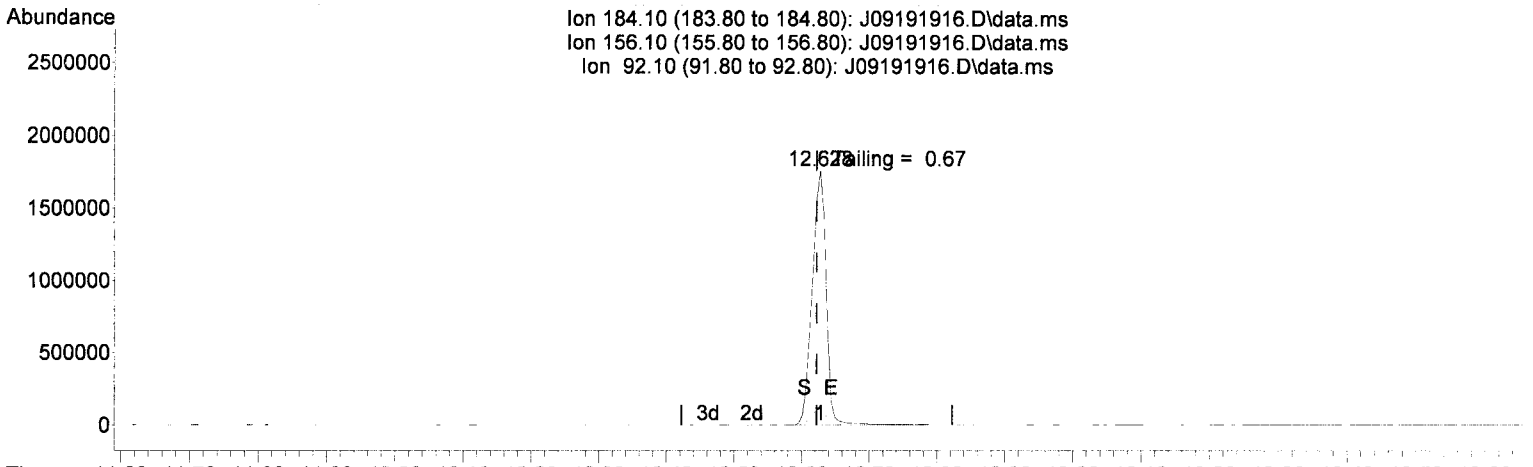
Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	38.07
201.90	25.80	22.85
129.90	27.30	16.90

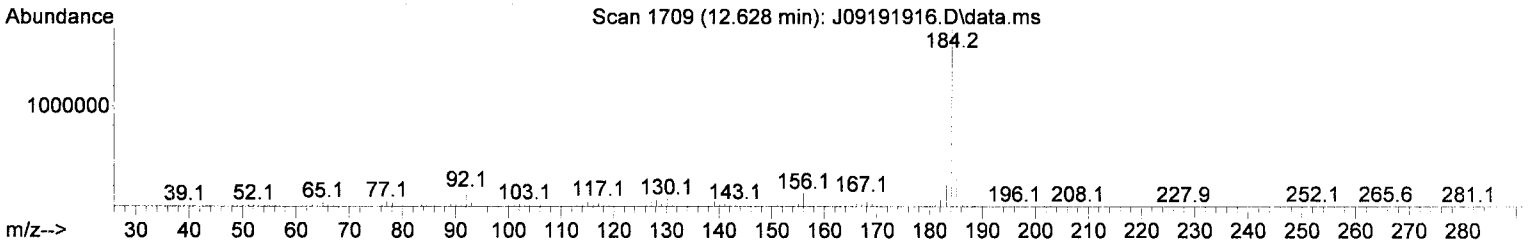
9/20/19

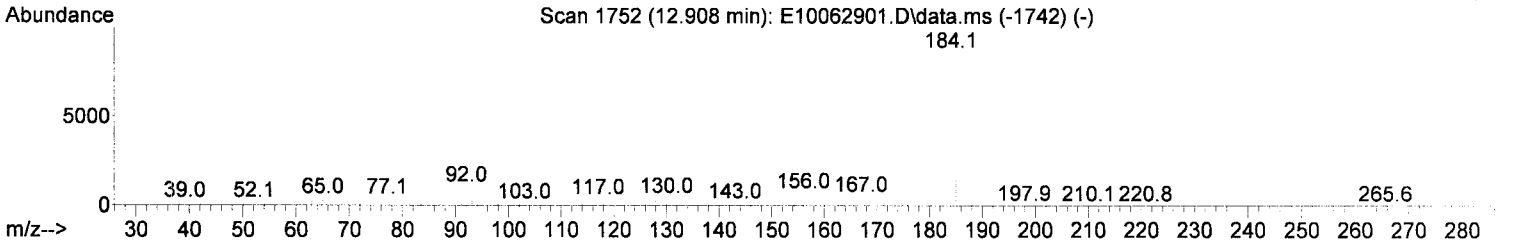
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191916.D\data.ms

(7) Benzidine

12.628min (+ 0.005) 25.84 ug/mL

response 2478643

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.27
92.10	8.20	8.38
0.00	0.00	0.00

JK 9/20/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9I19035-TUN1
SV-GCMS10

First Column Area Counts		Percent Breakdown	
DDE	40067		
DDD	23267		
DDT	9144669	**0.69**	**PASS**

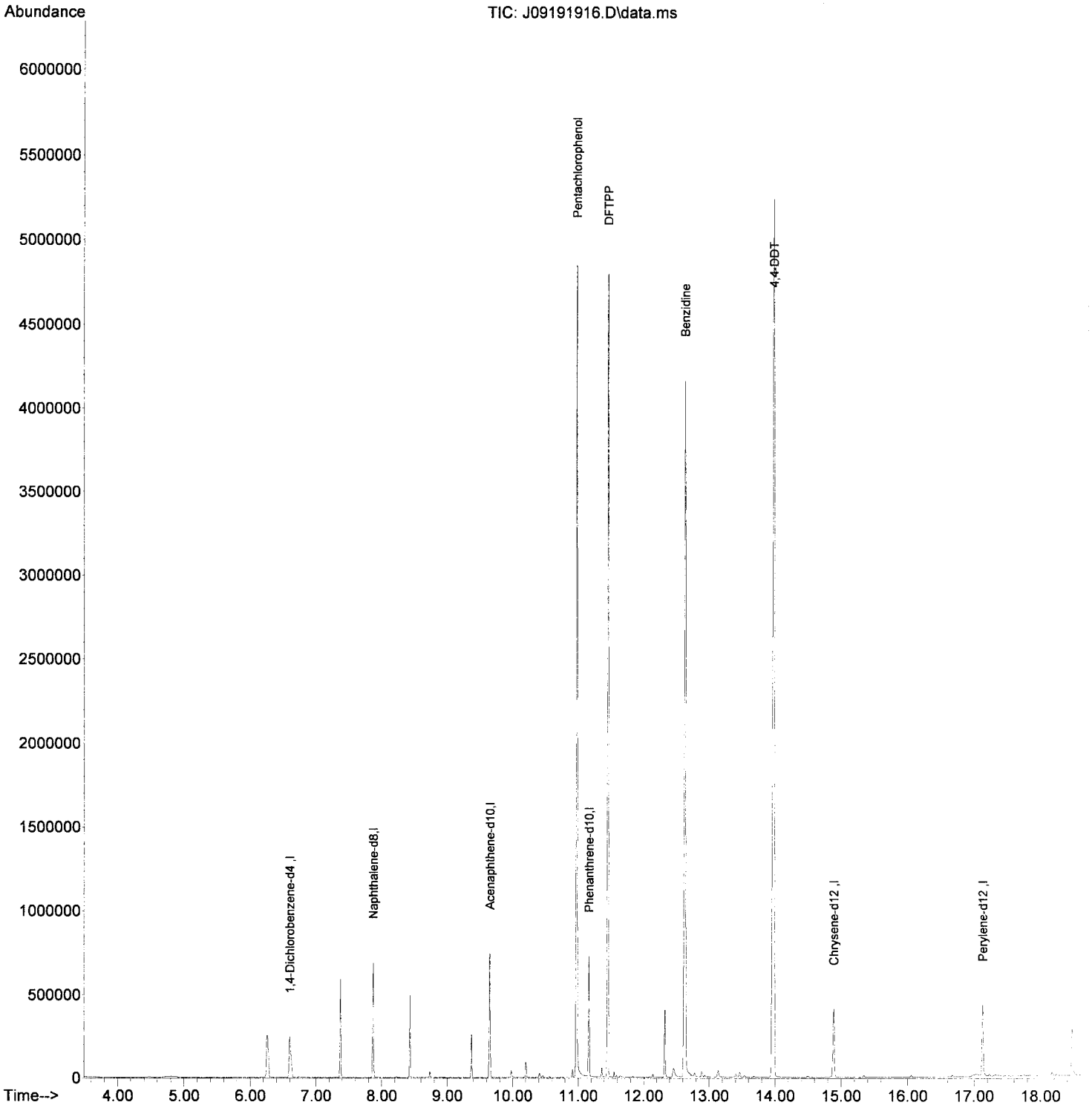
Breakdown must be less than 20% to accept sample data.

9/9/2019

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.37	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.42	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	78	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.563	105	152	305.02	ng/ml#	28
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

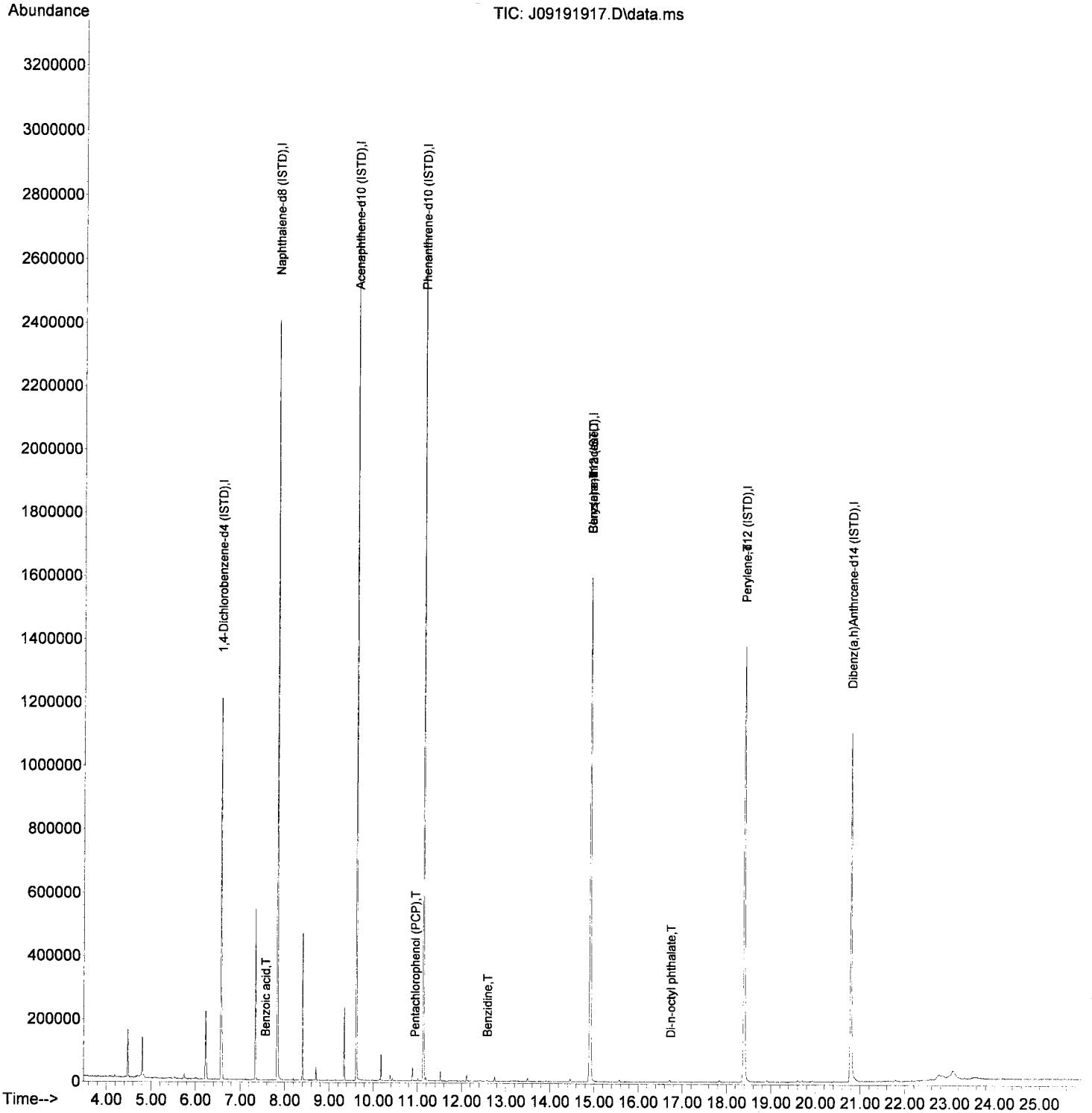
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	194	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.483	152	84	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.648	153	78	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.777	165	228	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.039	149	103	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.146	170	164	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.338	77	165	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.938	266	325	35.51 ng/ml	76
71) Phenanthrene	11.135	178	418	N.D.	
72) Anthracene	11.135	178	418	N.D.	
73) Carbazole	11.381	167	91	N.D.	
74) Di-n-butyl phthalate	11.718	149	81	N.D.	
75) Fluoranthene	12.414	202	105	N.D.	
76) Benzidine	12.580	184	2179	68.20 ng/ml	91
77) Pyrene	12.724	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.906	129	791	N.D.	
82) 3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83) Benz(a)anthracene	14.912	228	2854	4.30 ng/ml	67
84) Chrysene	14.912	228	2826	4.62 ng/ml	66
85) Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87) Di-n-octyl phthalate	16.735	149	81	30.90 ng/ml#	1
88) Benzo(b)fluoranthene	17.468	252	54	N.D.	
89) Benzo(k)fluoranthene	17.538	252	89	N.D.	
90) Benzo(b+k)fluoranthene	17.538	252	89	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.399	252	3568	6.28 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96) Dibenz(a,h)anthracene	20.790	278	242	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Segment
9/27/19

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.42	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.55	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	78	25.17	ng/ml#	41
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.563	105	152	807.53	ng/ml#	28
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

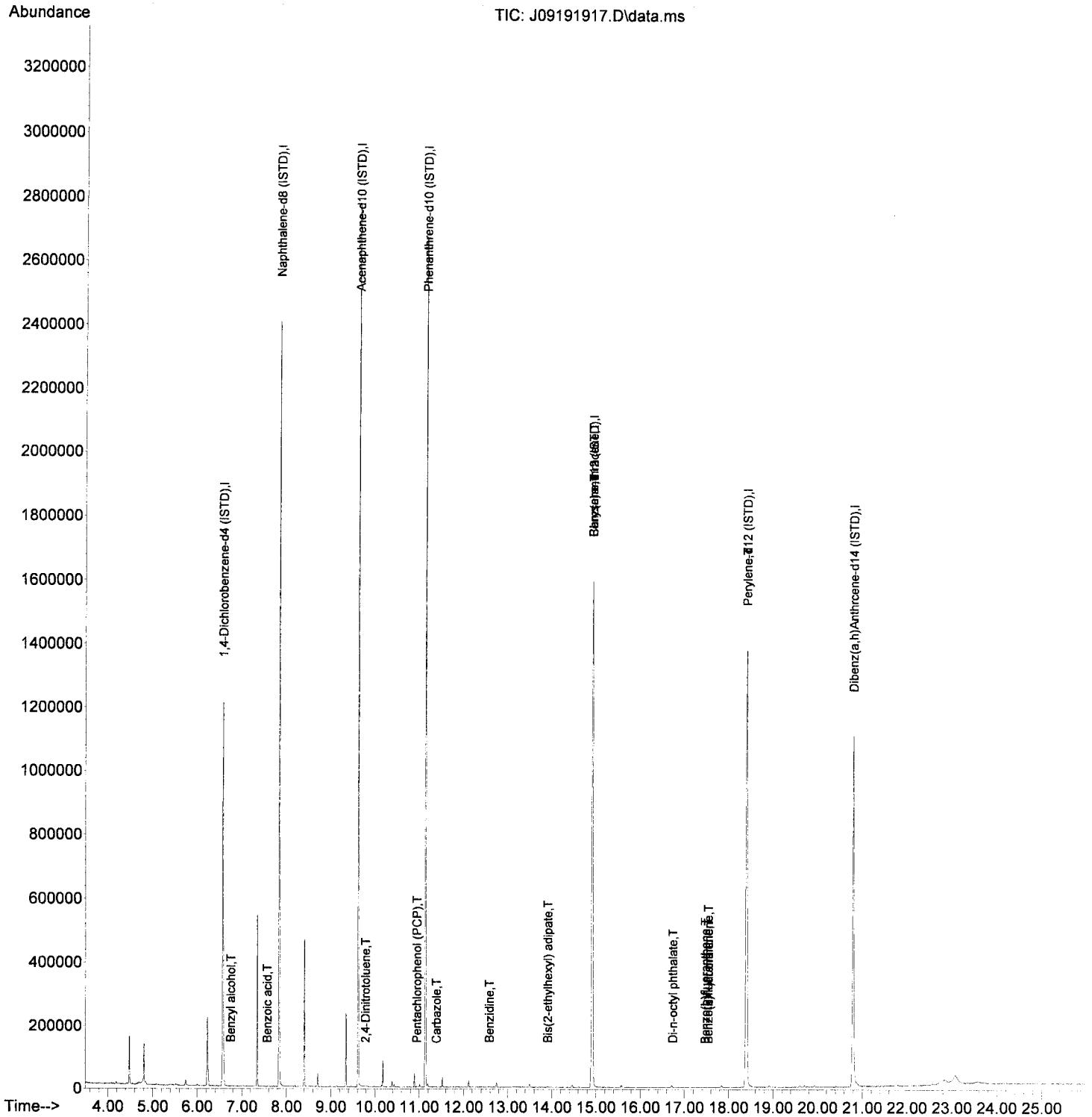
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	194	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.483	152	84	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.648	153	78	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.777	165	228	55.41 ng/ml#	54
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.039	149	103	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.146	170	164	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.338	77	165	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.938	266	325	80.48 ng/ml	76
71) Phenanthrene	11.135	178	418	N.D.	
72) Anthracene	11.135	178	418	N.D.	
73) Carbazole	11.381	167	91	5.75 ng/ml	60
74) Di-n-butyl phthalate	11.718	149	81	N.D.	
75) Fluoranthene	12.414	202	105	N.D.	
76) Benzidine	12.580	184	2179	136.03 ng/ml	91
77) Pyrene	12.724	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.906	129	791	3.01 ng/ml	88
82) 3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83) Benz(a)anthracene	14.912	228	2854	4.52 ng/ml	67
84) Chrysene	14.912	228	2826	4.77 ng/ml	66
85) Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87) Di-n-octyl phthalate	16.735	149	81	58.06 ng/ml#	1
88) Benzo(b)fluoranthene	17.468	252	54	8.05 ng/ml	57
89) Benzo(k)fluoranthene	17.538	252	89	8.62 ng/ml	57
90) Benzo(b+k)fluoranthene	17.538	252	89	15.88 ng/ml	57
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.399	252	3568	7.20 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96) Dibenz(a,h)anthracene	20.790	278	242	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291746	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1221708	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	640527	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1150535	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1159268	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1158997	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	913932	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	2742	13.86	ng/ml	0.03
5) Phenol-d6(Surr)	6.204	99	3493	13.74	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	2861	12.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	9460	20.11	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.413	330	762	14.12	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	9512	16.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~0.000~~		~~0~~	N.D.		See MJ
3) Pyridine	~~3.840~~	~~79~~	~~55~~	N.D.		See MJ
6) Phenol	6.220	94	4498	15.57	ng/ml	89
7) Aniline	6.252	93	2038	7.89	ng/ml	96
8) Bis(2-chloroethyl) ether	6.311	93	4110	15.97	ng/ml	98
9) 2-Chlorophenol	6.370	128	3591	17.25	ng/ml	95
10) 1,3-Dichlorobenzene	6.520	146	4452	19.78	ng/ml	92
11) 1,4-Dichlorobenzene	6.589	146	4492	20.57	ng/ml	93
12) Benzyl alcohol	6.723	108	1506	11.29	ng/ml	96
13) 1,2-Dichlorobenzene	6.744	146	4176	19.02	ng/ml	90
14) 2-Methylphenol	6.808	107	2712	16.21	ng/ml	89
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	4376	13.18	ng/ml	93
16) N-Nitrosodi-n-propylamine	6.964	70	2691	15.96	ng/ml	91
17) 3+4-Methylphenol	6.958	107	3108	15.07	ng/ml	89
18) Hexachloroethane	7.081	201	1267	21.07	ng/ml	89
20) Nitrobenzene	7.135	77	3138	13.45	ng/ml	95
22) Isophorone	7.370	82	6954	15.68	ng/ml	93
23) 2-Nitrophenol	7.456	139	1053	38.03	ng/ml	91
24) 2,4-Dimethylphenol	7.488	122	2375	14.05	ng/ml	83
25) Bis(2-chloroethoxy) me...	7.579	93	4738	19.18	ng/ml	96
26) Benzoic acid	7.552	105	229	305.92	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	1603	10.94	ng/ml	76
28) 1,2,4-Trichlorobenzene	7.782	180	4361	24.59	ng/ml	82
29) Naphthalene	7.857	128	14004	22.32	ng/ml	100
30) 4-Chloroaniline	7.910	127	1531	18.26	ng/ml	90
31) Hexachlorobutadiene	7.990	225	2247	23.76	ng/ml	84
32) 4-Chloro-3-methylphenol	8.392	107	1917	10.87	ng/ml#	53
33) 2-Methylnaphthalene	8.552	142	8620	20.12	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	9000	21.86	ng/ml	91
36) Hexachlorocyclopentadiene	8.723	237	1303	12.86	ng/ml	74
37) 2,4,6-Trichlorophenol	8.841	196	1119	20.94	ng/ml	79
38) 2,4,5-Trichlorophenol	8.873	198	1218	11.18	ng/ml	91
39) 1,1'-Biphenyl	9.028	154	10205	19.18	ng/ml	95
41) 2-Chloronaphthalene	9.050	162	7646	19.58	ng/ml	99
42) 2-Nitroaniline	9.146	138	939	7.22	ng/ml	82
43) 2,6-Dimethylnaphthalene	9.189	156	7097	17.82	ng/ml	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

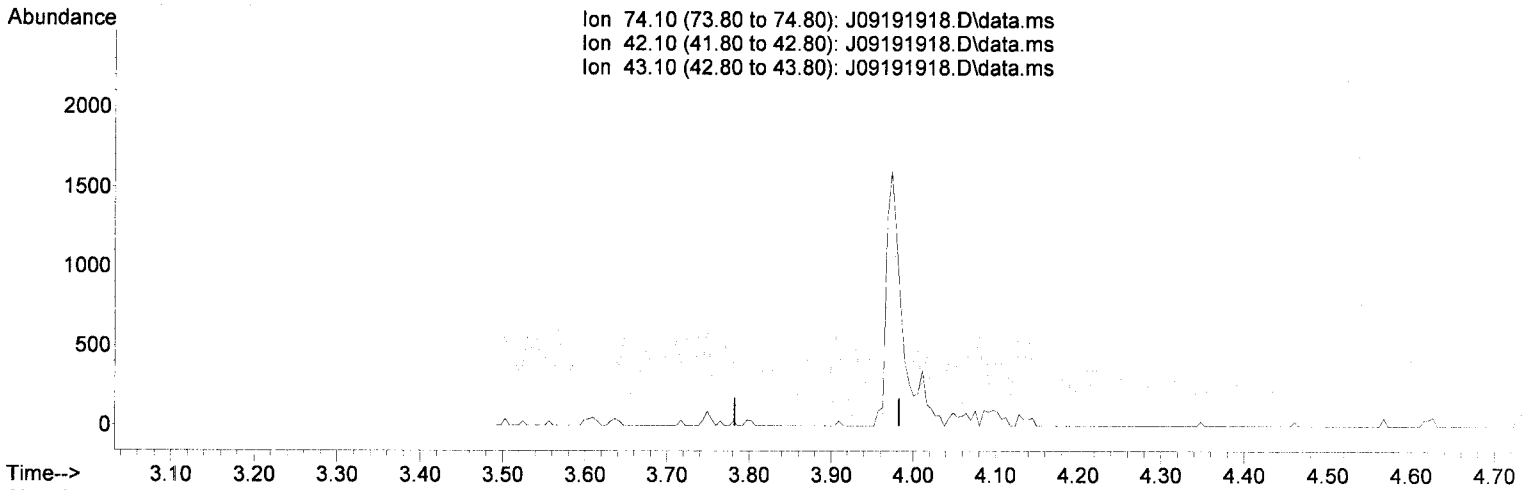
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	381	6.28	ng/ml#	63
45) Dimethyl phthalate	9.328	163	9190	20.06	ng/ml	91
46) 1,3-Dinitrobenzene	9.354	168	417	5.99	ng/ml	67
47) 2,6-Dinitrotoluene	9.386	165	1042	10.58	ng/ml	99
48) 1,2-Dinitrobenzene	9.440	168	304	6.59	ng/ml#	34
49) Acenaphthylene	9.472	152	12450	19.89	ng/ml	95
50) 3-Nitroaniline	9.563	138	592	27.61	ng/ml	93
51) Acenaphthene	9.649	153	8885	21.89	ng/ml	96
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	120	34.89	ng/ml	85
54) 2,4-Dinitrotoluene	9.798	165	1027	8.10	ng/ml#	60
55) Dibenzofuran	9.825	168	11668	21.08	ng/ml	90
56) 2,3,5,6-Tetrachlorophenol	9.911	232	774	34.62	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.948	232	856	19.53	ng/ml	77
58) Diethyl phthalate	10.044	149	8035	18.39	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	10.034	170	7629	21.57	ng/ml	95
60) Fluorene	10.173	166	9113	20.91	ng/ml	94
61) 4-Chlorophenyl phenyl ...	10.167	204	4548	22.45	ng/ml	95
62) 4-Nitroaniline	10.183	138	719	8.15	ng/ml	91
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65) N-Nitrosodiphenylamine	10.285	169	5957	16.84	ng/ml	88
66) Azobenzene (1,2-DPH)	10.328	77	6853	14.60	ng/ml	95
68) 4-Bromophenyl phenyl e...	10.670	248	2390	20.18	ng/ml	86
69) Hexachlorobenzene	10.745	284	3454	25.35	ng/ml	83
70) Pentachlorophenol (PCP)	10.938	266	1000	46.06	ng/ml	93
71) Phenanthrene	11.157	178	13749	21.85	ng/ml	98
72) Anthracene	11.205	178	11450	18.50	ng/ml	96
73) Carbazole	11.365	167	9186	17.97	ng/ml	96
74) Di-n-butyl phthalate	11.718	149	11697	16.31	ng/ml	94
75) Fluoranthene	12.425	202	12248	18.61	ng/ml	96
76) Benzidine	12.580	184	3398	75.33	ng/ml	91
77) Pyrene	12.708	202	12641	19.23	ng/ml	93
80) Butyl benzyl phthalate	13.730	149	2535	6.98	ng/ml	75
81) Bis(2-ethylhexyl) adipate	13.906	129	2762	8.49	ng/ml	94
82) 3,3-Dichlorobenzidine	14.853	252	3617	Below	Cal	95
83) Benz(a)anthracene	14.890	228	13459	19.80	ng/ml	92
84) Chrysene	14.970	228	11530	18.39	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.077	149	2659	5.54	ng/ml	99
87) Di-n-octyl phthalate	16.741	149	3334	34.72	ng/ml	97
88) Benzo(b)fluoranthene	17.463	252	8297	11.82	ng/ml	98
89) Benzo(k)fluoranthene	17.538	252	8174	12.27	ng/ml	92
90) Benzo(b+k)fluoranthene	17.463	252	17019	24.40	ng/ml	98
91) Benzo(e)pyrene	18.126	252	8657	12.60	ng/ml	95
92) Benzo(a)pyrene	18.238	252	6648	10.53	ng/ml	84
93) Perylene	18.447	252	9278	15.50	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.774	276	10072	19.60	ng/ml	76
96) Dibenz(a,h)anthracene	20.854	278	8754	19.00	ng/ml	94
97) Benzo(g,h,i)perylene	21.319	276	7772	15.71	ng/ml	96

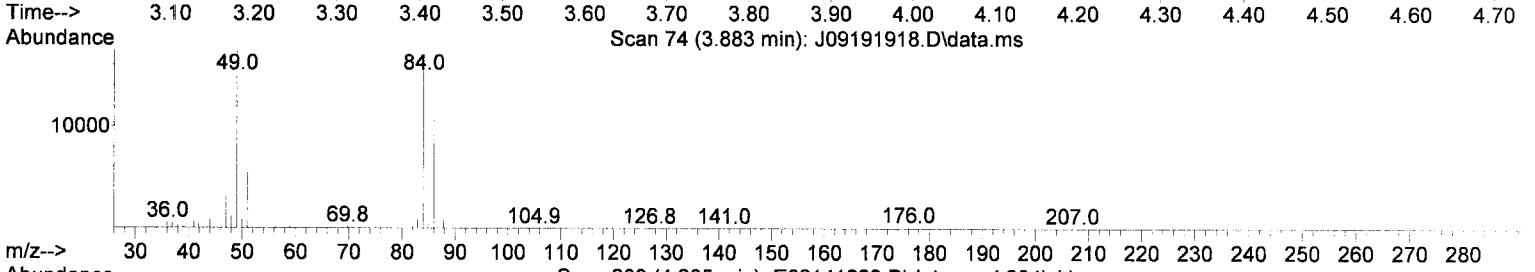
(#) = qualifier out of range (m) = manual integration (+) = signals summed

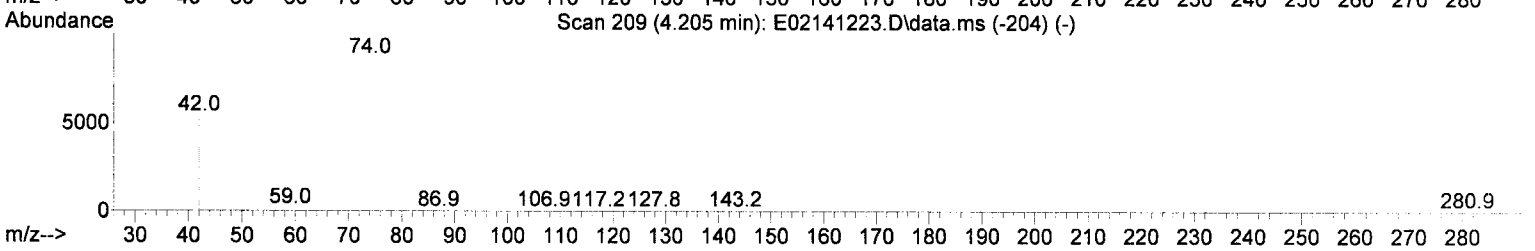
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

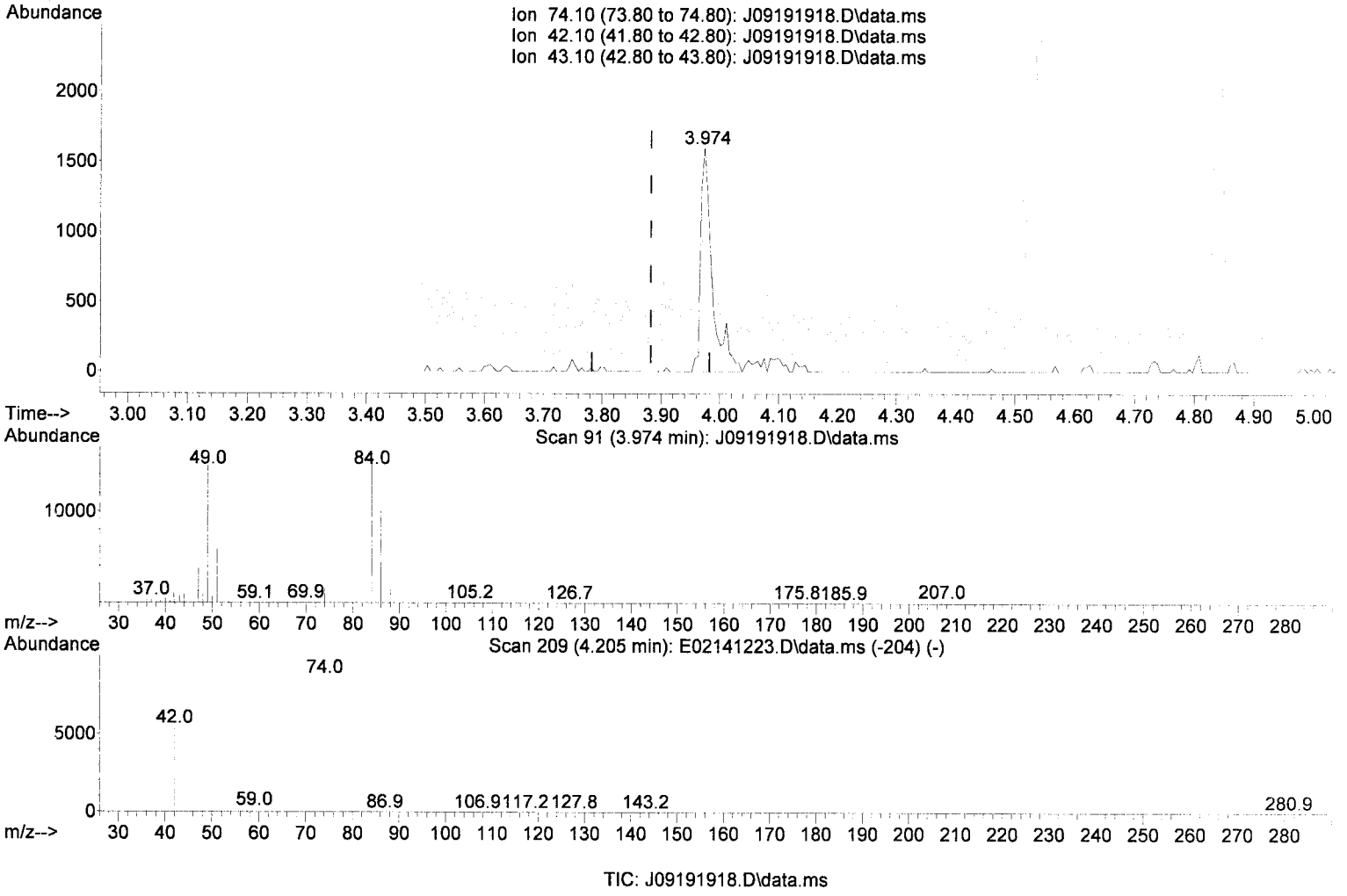
response 0

Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 16.33 ng/ml (m)

response 2214

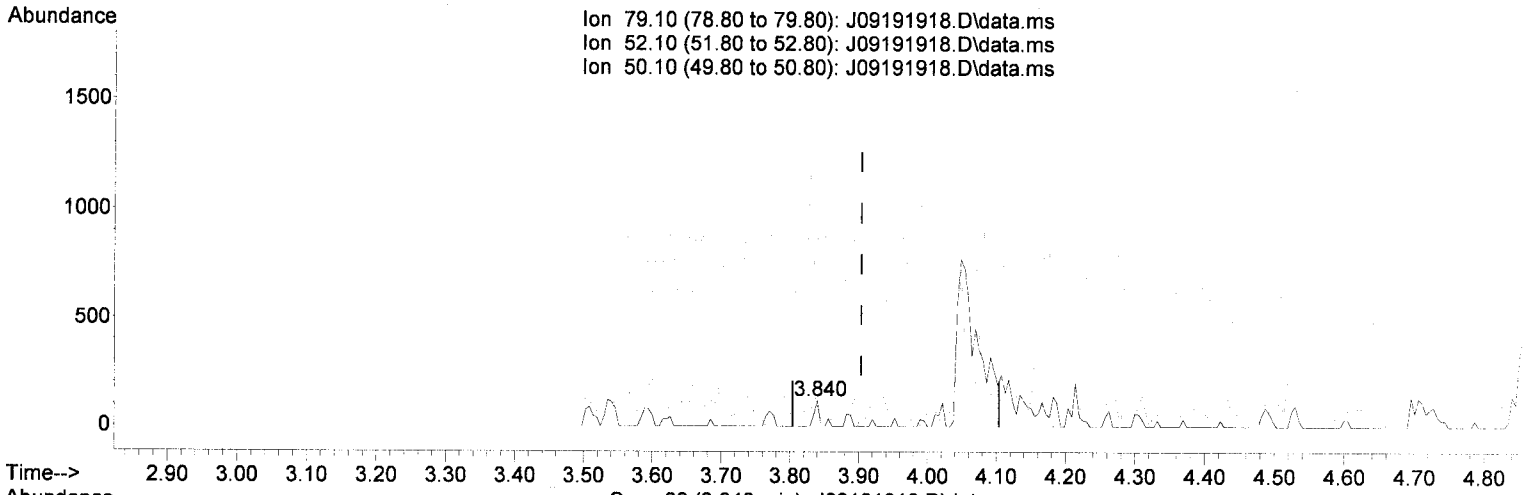
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	66.21
43.10	22.20	47.47
0.00	0.00	0.00

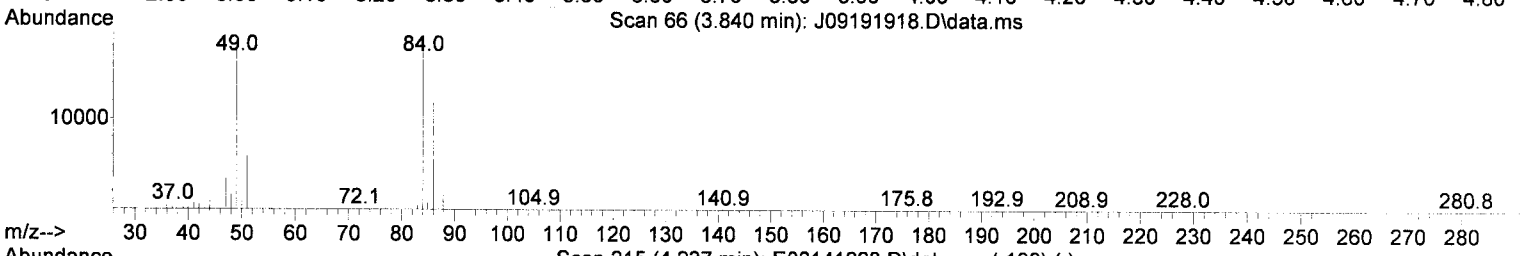
9/20/19

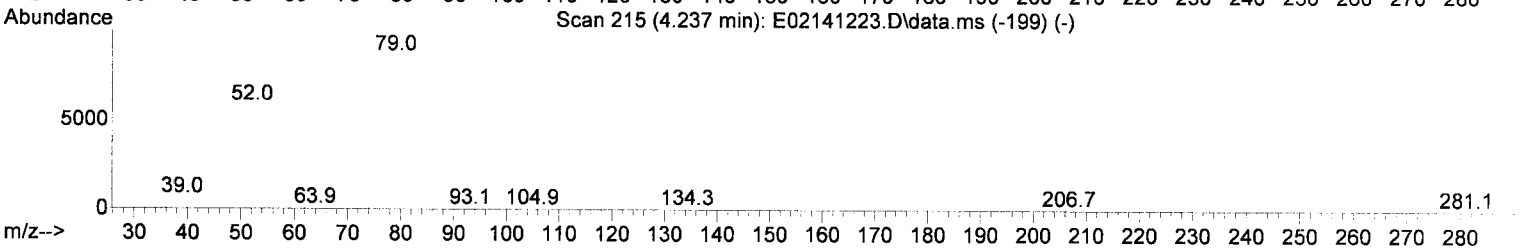
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(3) Pyridine (TG)

3.840min (-0.064) 0.24 ng/ml

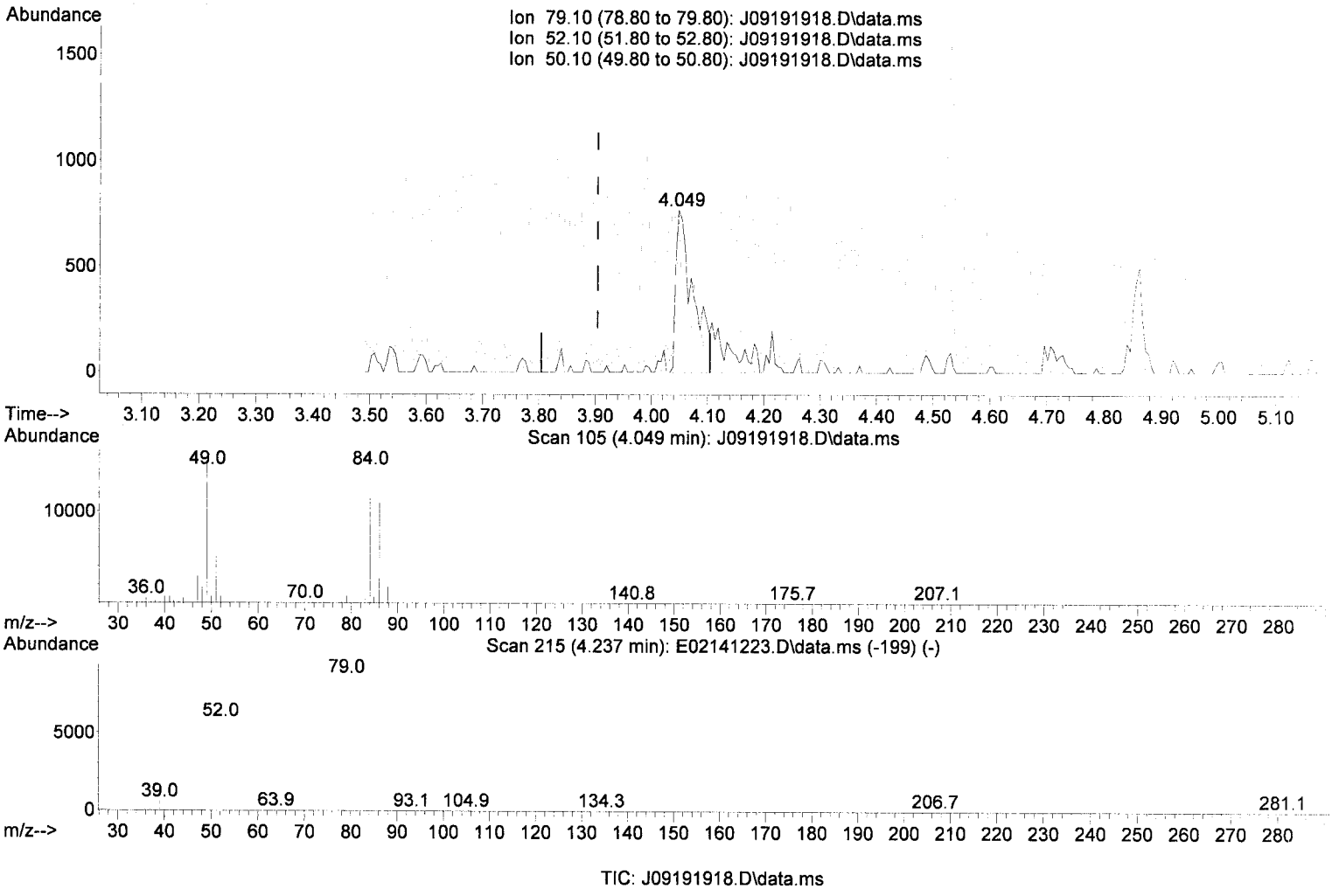
response 55

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	81.20#
50.10	18.70	146.15#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(3) Pyridine (TG)

4.049min (+ 0.145) 9.55 ng/ml m

response 2206

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	96.24#
50.10	18.70	93.39#
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
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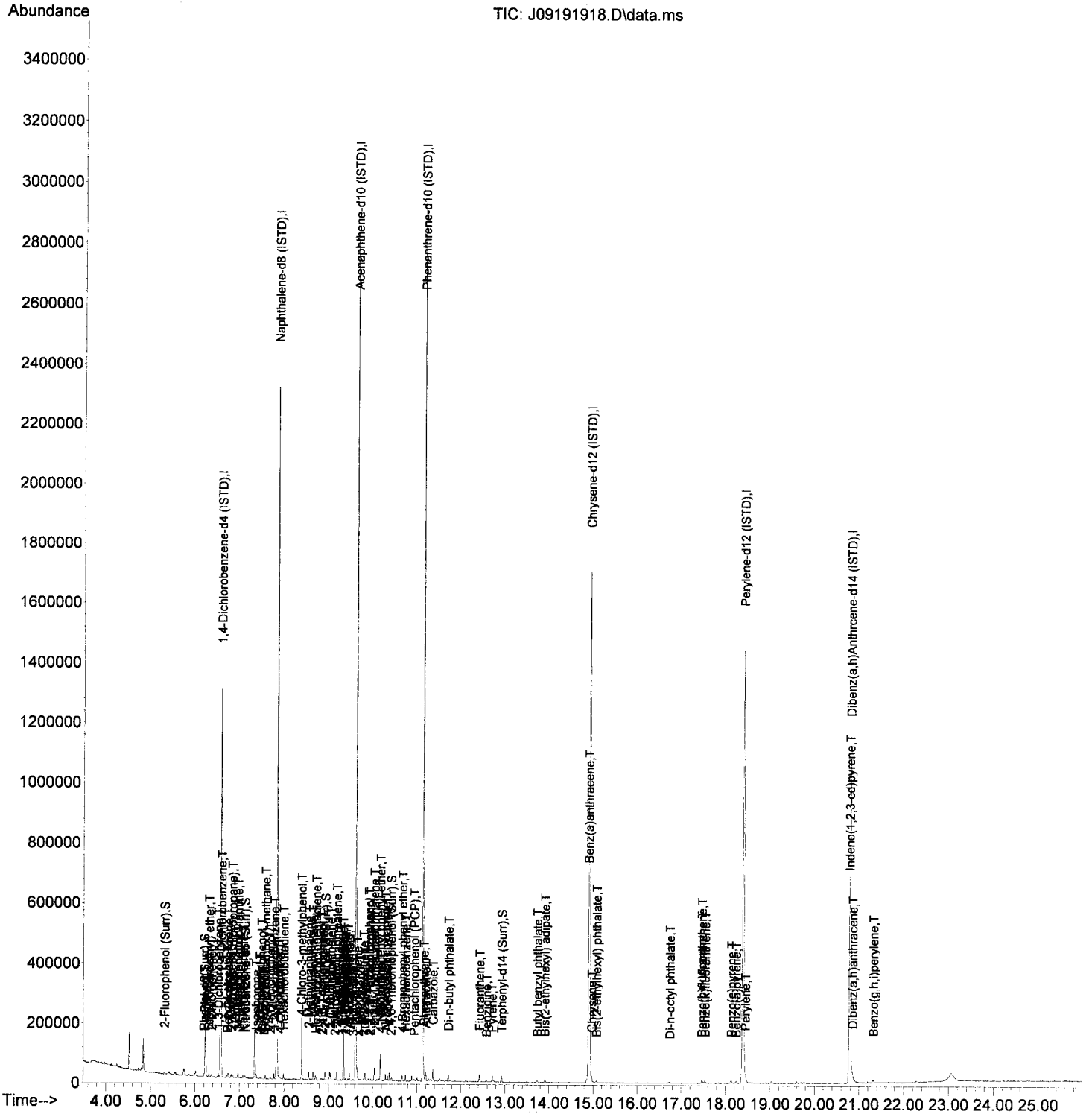


Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291253	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1195757	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	616226	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1087898	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1113286	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.393	264	1097209	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	855339	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	7611	38.53	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	9501	37.44	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	7903	33.99	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	24802	54.81	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	1929	37.79	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	25113	46.14	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~3.952~~	~~74~~	~~4569~~	~~33.76~~	~~ng/ml~~	93
3) Pyridine	4.000	79	7667m	33.23	ng/ml#	
6) Phenol	6.215	94	11373	39.43	ng/ml	93
7) Aniline	6.252	93	10955	42.49	ng/ml	95
8) Bis(2-chloroethyl) ether	6.306	93	10198	39.70	ng/ml	95
9) 2-Chlorophenol	6.364	128	9461	45.54	ng/ml	88
10) 1,3-Dichlorobenzene	6.519	146	11576	51.52	ng/ml	97
11) 1,4-Dichlorobenzene	6.589	146	12059	55.30	ng/ml	94
12) Benzyl alcohol	6.707	108	3460	25.97	ng/ml	94
13) 1,2-Dichlorobenzene	6.739	146	12229	55.79	ng/ml	98
14) 2-Methylphenol	6.808	107	6405	38.35	ng/ml	90
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	10585	31.94	ng/ml	90
16) N-Nitrosodi-n-propylamine	6.963	70	6538	38.84	ng/ml	98
17) 3+4-Methylphenol	6.958	107	8248	40.07	ng/ml	95
18) Hexachloroethane	7.076	201	3313	55.18	ng/ml	93
20) Nitrobenzene	7.135	77	8614	36.98	ng/ml	95
22) Isophorone	7.370	82	18082	41.67	ng/ml	97
23) 2-Nitrophenol	7.455	139	3400	54.77	ng/ml	93
24) 2,4-Dimethylphenol	7.488	122	5922	35.79	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	11523	47.66	ng/ml	92
26) Benzoic acid	7.573	105	200	305.64	ng/ml#	58
27) 2,4-Dichlorophenol	7.691	162	5068	35.35	ng/ml	91
28) 1,2,4-Trichlorobenzene	7.776	180	11103	63.97	ng/ml	92
29) Naphthalene	7.857	128	34402	56.01	ng/ml	99
30) 4-Chloroaniline	7.905	127	7306	53.73	ng/ml	92
31) Hexachlorobutadiene	7.990	225	5972	64.52	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	5211	30.18	ng/ml	82
33) 2-Methylnaphthalene	8.557	142	23135	55.17	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	23006	57.09	ng/ml	92
36) Hexachlorocyclopentadiene	8.723	237	3356	34.42	ng/ml	95
37) 2,4,6-Trichlorophenol	8.835	196	3644	44.63	ng/ml	82
38) 2,4,5-Trichlorophenol	8.873	198	3657	34.90	ng/ml	96
39) 1,1'-Biphenyl	9.028	154	28683	56.03	ng/ml	96
41) 2-Chloronaphthalene	9.049	162	19450	51.76	ng/ml	98
42) 2-Nitroaniline	9.146	138	2728	21.81	ng/ml	70
43) 2,6-Dimethylnaphthalene	9.188	156	20566	53.66	ng/ml	99

See mJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

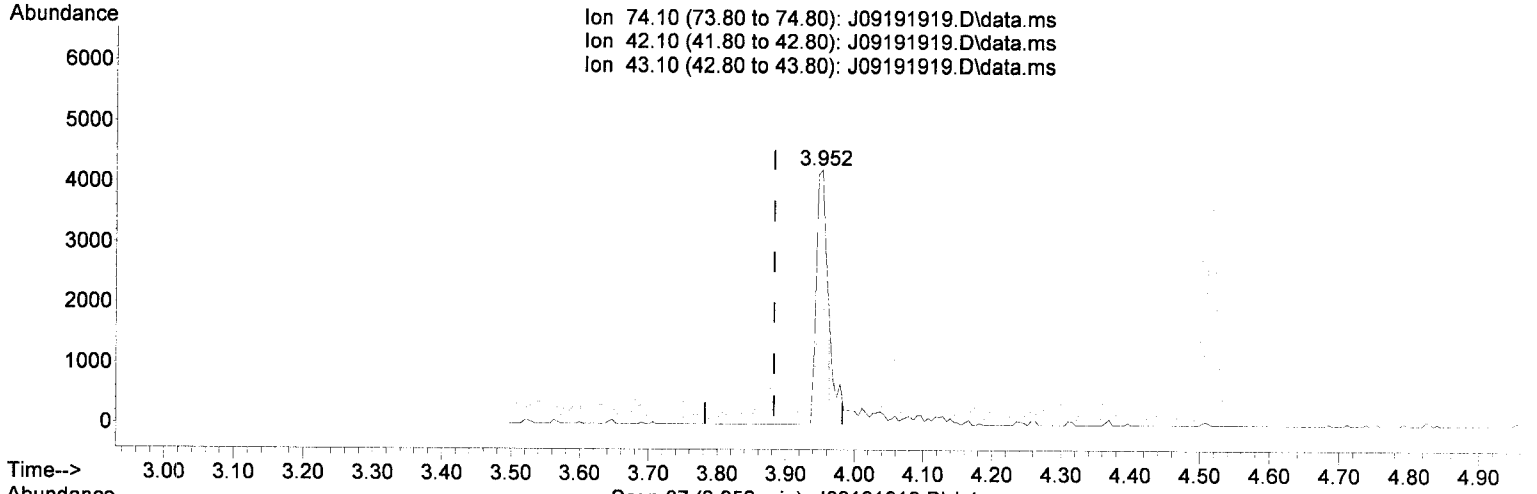
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	915	15.67	ng/ml#	75
45) Dimethyl phthalate	9.328	163	22486	51.02	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	1390	20.76	ng/ml	79
47) 2,6-Dinitrotoluene	9.386	165	2915	30.76	ng/ml	88
48) 1,2-Dinitrobenzene	9.440	168	1349	30.38	ng/ml	98
49) Acenaphthylene	9.472	152	32192	53.45	ng/ml	98
50) 3-Nitroaniline	9.563	138	2106	41.58	ng/ml#	68
51) Acenaphthene	9.648	153	22572	57.81	ng/ml	99
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	699	42.87	ng/ml	71
54) 2,4-Dinitrotoluene	9.798	165	2508	20.56	ng/ml	84
55) Dibenzofuran	9.825	168	29377	55.18	ng/ml	94
56) 2,3,5,6-Tetrachlorophenol	9.905	232	1678	45.25	ng/ml	83
57) 2,3,4,6-Tetrachlorophenol	9.948	232	2513	38.75	ng/ml	86
58) Diethyl phthalate	10.044	149	21378	50.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.034	170	19066	56.02	ng/ml	97
60) Fluorene	10.173	166	22247	53.06	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.167	204	11449	58.75	ng/ml	94
62) 4-Nitroaniline	10.178	138	2192	25.82	ng/ml	87
63) 4,6-Dinitro-2-methylph...	10.215	198	206	74.51	ng/ml#	65
65) N-Nitrosodiphenylamine	10.285	169	16461	49.20	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	17404	39.22	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.665	248	6326	56.49	ng/ml	91
69) Hexachlorobenzene	10.745	284	7615	59.10	ng/ml	98
70) Pentachlorophenol (PCP)	10.937	266	1392	53.47	ng/ml#	61
71) Phenanthrene	11.157	178	32566	54.75	ng/ml	95
72) Anthracene	11.205	178	30636	52.34	ng/ml	98
73) Carbazole	11.365	167	24489	50.68	ng/ml	93
74) Di-n-butyl phthalate	11.718	149	29117	42.93	ng/ml	99
75) Fluoranthene	12.424	202	31166	50.09	ng/ml	93
76) Benzidine	12.579	184	5652	90.66	ng/ml	93
77) Pyrene	12.713	202	32717	52.64	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	6765	19.40	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	6924	22.16	ng/ml	92
82) 3,3-Dichlorobenzidine	14.847	252	11318	Below Cal		86
83) Benz(a)anthracene	14.890	228	29779	45.62	ng/ml	97
84) Chrysene	14.960	228	29254	48.57	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.072	149	8694	18.85	ng/ml	93
87) Di-n-octyl phthalate	16.735	149	9861	43.05	ng/ml	94
88) Benzo(b)fluoranthene	17.468	252	21819	32.83	ng/ml	93
89) Benzo(k)fluoranthene	17.543	252	23687	37.57	ng/ml	95
90) Benzo(b+k)fluoranthene	17.468	252	47809	72.40	ng/ml	93
91) Benzo(e)pyrene	18.121	252	24570	37.78	ng/ml	95
92) Benzo(a)pyrene	18.238	252	18583	31.08	ng/ml	97
93) Perylene	18.447	252	24689	43.56	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	25006	52.00	ng/ml	88
96) Dibenz(a,h)anthracene	20.848	278	21791	50.52	ng/ml	94
97) Benzo(g,h,i)perylene	21.308	276	20181	43.59	ng/ml	97

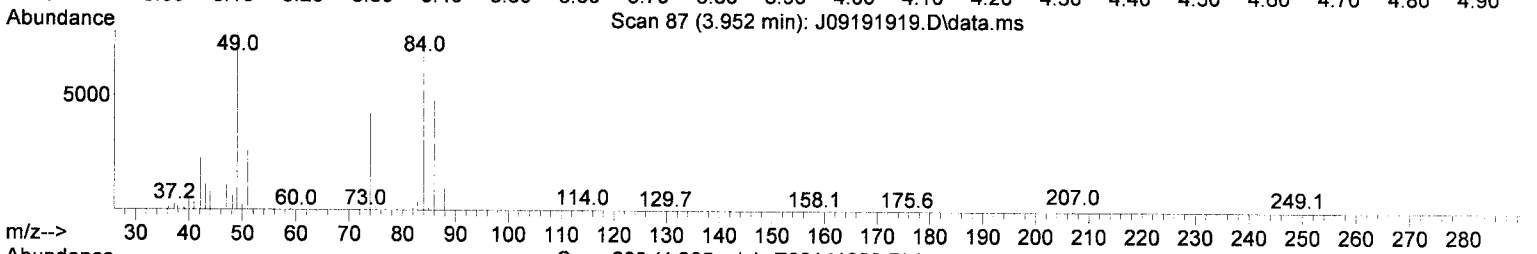
(#) = qualifier out of range (m) = manual integration (+) = signals summed

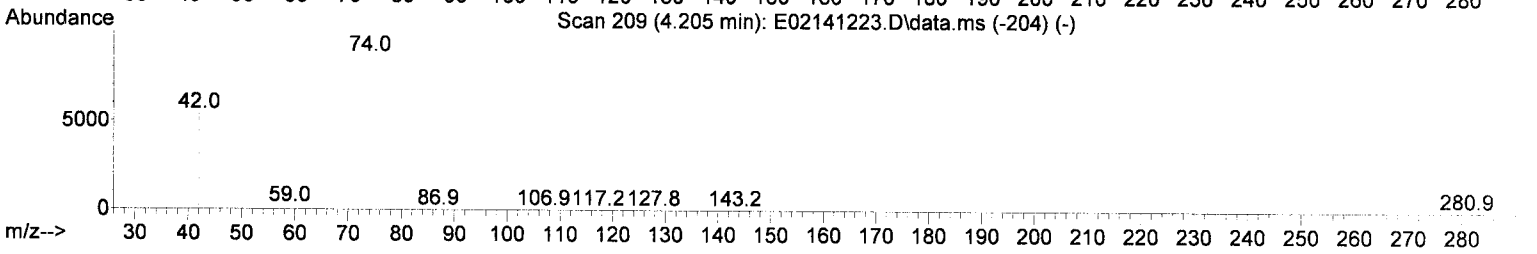
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 33.76 ng/ml

response 4569

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
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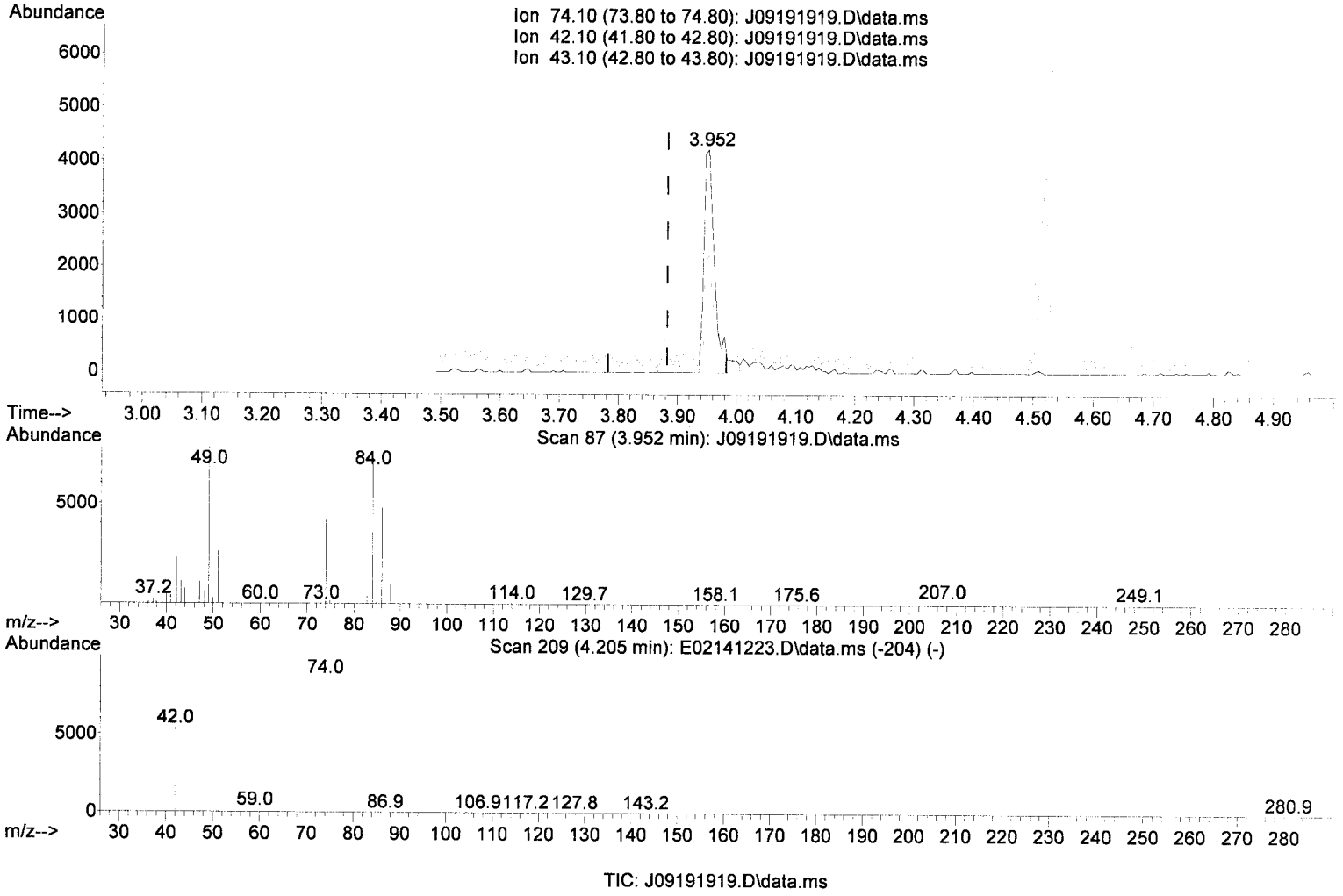
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 40.76 ng/ml m 9/20/19

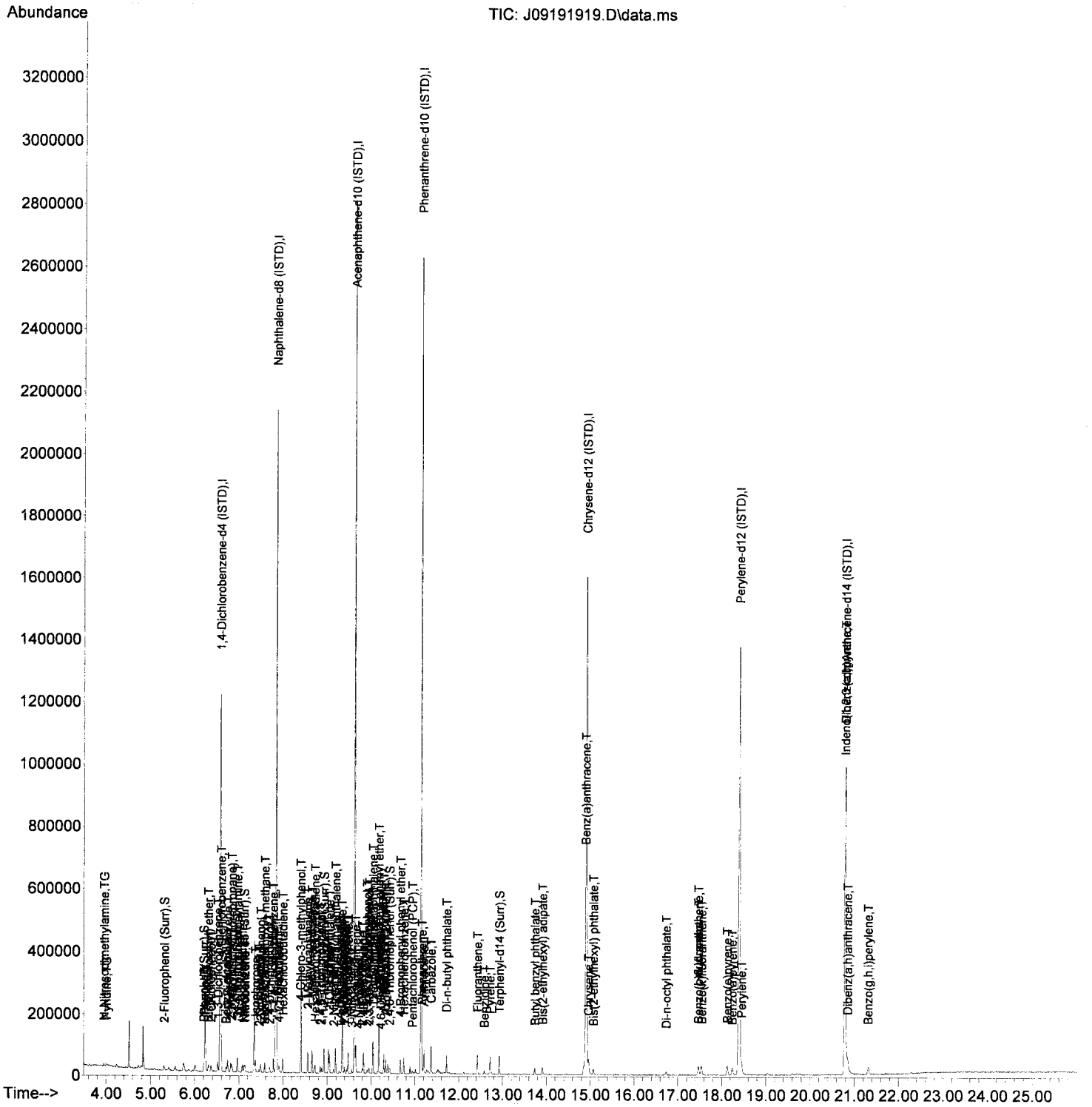
response 5516

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	290594	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1186873	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	615111	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1118597	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1122909	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1127380	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	892958	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	13834	70.19	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	21003	82.96	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	16492	71.09	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	53353	118.12	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	4809	91.63	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	54871	99.96	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	9178	67.07	ng/ml	91
3) Pyridine	3.990	79	18548m	80.58	ng/ml#	
6) Phenol	6.220	94	23364	81.19	ng/ml	97
7) Aniline	6.252	93	23125	89.89	ng/ml	94
8) Bis(2-chloroethyl) ether	6.311	93	21464	83.74	ng/ml	93
9) 2-Chlorophenol	6.370	128	19462	93.88	ng/ml	97
10) 1,3-Dichlorobenzene	6.520	146	23840	106.35	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	23338	107.27	ng/ml	92
12) Benzyl alcohol	6.707	108	8907	67.02	ng/ml	96
13) 1,2-Dichlorobenzene	6.739	146	23746	108.58	ng/ml	95
14) 2-Methylphenol	6.808	107	14254	85.54	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	21848	66.08	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	13631	81.17	ng/ml	98
17) 3+4-Methylphenol	6.958	107	16854	82.07	ng/ml	89
18) Hexachloroethane	7.076	201	6562	109.55	ng/ml	86
20) Nitrobenzene	7.135	77	17280	74.35	ng/ml	100
22) Isophorone	7.370	82	37997	88.22	ng/ml	97
23) 2-Nitrophenol	7.450	139	7240	82.31	ng/ml	87
24) 2,4-Dimethylphenol	7.488	122	14806	90.15	ng/ml	90
25) Bis(2-chloroethoxy) me...	7.579	93	23395	97.49	ng/ml	95
26) Benzoic acid	7.605	105	129	304.84	ng/ml#	68
27) 2,4-Dichlorophenol	7.691	162	12689	89.17	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.776	180	21292	123.58	ng/ml	98
29) Naphthalene	7.857	128	69263	113.61	ng/ml	96
30) 4-Chloroaniline	7.905	127	15139	102.27	ng/ml	96
31) Hexachlorobutadiene	7.990	225	11598	126.23	ng/ml	93
32) 4-Chloro-3-methylphenol	8.386	107	11698	68.25	ng/ml	89
33) 2-Methylnaphthalene	8.557	142	46039	110.62	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	46134	115.33	ng/ml	98
36) Hexachlorocyclopentadiene	8.723	237	8031	82.51	ng/ml	94
37) 2,4,6-Trichlorophenol	8.841	196	7912	84.10	ng/ml	95
38) 2,4,5-Trichlorophenol	8.873	198	8310	79.46	ng/ml	93
39) 1,1'-Biphenyl	9.028	154	58168	113.83	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	41705	111.19	ng/ml	97
42) 2-Nitroaniline	9.146	138	6877	55.07	ng/ml	89
43) 2,6-Dimethylnaphthalene	9.189	156	43362	113.35	ng/ml	96

See MJ

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

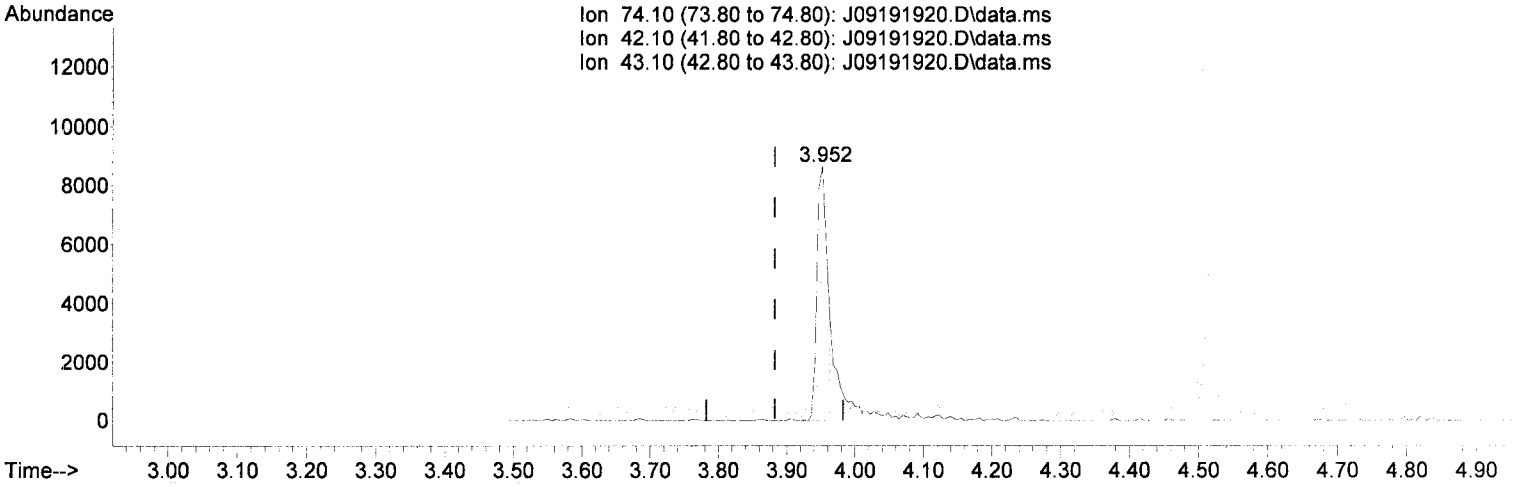
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	2006	34.41	ng/ml	84
45) Dimethyl phthalate	9.328	163	49089	111.58	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	3033	45.87	ng/ml	81
47) 2,6-Dinitrotoluene	9.386	165	6526	68.97	ng/ml	84
48) 1,2-Dinitrobenzene	9.445	168	2742	61.87	ng/ml	83
49) Acenaphthylene	9.472	152	68008	113.12	ng/ml	97
50) 3-Nitroaniline	9.558	138	6036	77.71	ng/ml	97
51) Acenaphthene	9.649	153	44425	113.99	ng/ml	98
52) 2,4-Dinitrophenol	9.670	184	169	146.81	ng/ml	80
53) 4-Nitrophenol	9.723	139	2106	62.15	ng/ml	64
54) 2,4-Dinitrotoluene	9.798	165	6812	55.94	ng/ml	98
55) Dibenzofuran	9.825	168	62656	117.90	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.905	232	5673	90.84	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.948	232	7263	92.88	ng/ml	95
58) Diethyl phthalate	10.044	149	47870	114.11	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	38608	113.65	ng/ml	97
60) Fluorene	10.173	166	48968	116.99	ng/ml	96
61) 4-Chlorophenyl phenyl ...	10.167	204	23837	122.54	ng/ml	99
62) 4-Nitroaniline	10.178	138	5563	65.64	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.210	198	761	84.48	ng/ml	74
65) N-Nitrosodiphenylamine	10.285	169	36899	107.27	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	37821	82.88	ng/ml	96
68) 4-Bromophenyl phenyl e...	10.665	248	13242	115.00	ng/ml	94
69) Hexachlorobenzene	10.745	284	16314	123.13	ng/ml	97
70) Pentachlorophenol (PCP)	10.938	266	4341	100.38	ng/ml	92
71) Phenanthrene	11.151	178	68493	111.98	ng/ml	98
72) Anthracene	11.205	178	65192	108.32	ng/ml	98
73) Carbazole	11.365	167	54742	110.17	ng/ml	98
74) Di-n-butyl phthalate	11.718	149	70280	100.78	ng/ml	99
75) Fluoranthene	12.424	202	70234	109.79	ng/ml	96
76) Benzidine	12.580	184	12748	133.02	ng/ml	98
77) Pyrene	12.713	202	69474	108.72	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	18774	53.39	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	18358	58.24	ng/ml	95
82) 3,3-Dichlorobenzidine	14.853	252	24584	98.99	ng/ml	93
83) Benz(a)anthracene	14.885	228	64818	98.44	ng/ml	99
84) Chrysene	14.965	228	61418	101.11	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	26668	57.33	ng/ml	98
87) Di-n-octyl phthalate	16.741	149	33665	71.49	ng/ml	95
88) Benzo(b)fluoranthene	17.468	252	57260	83.86	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	58523	90.33	ng/ml	99
90) Benzo(b+k)fluoranthene	17.538	252	120376	177.42	ng/ml	99
91) Benzo(e)pyrene	18.121	252	58165	87.04	ng/ml	93
92) Benzo(a)pyrene	18.244	252	50114	81.58	ng/ml	96
93) Perylene	18.447	252	50289	86.35	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	52504	104.59	ng/ml	97
96) Dibenz(a,h)anthracene	20.854	278	48705	108.17	ng/ml	97
97) Benzo(g,h,i)perylene	21.309	276	49447	102.31	ng/ml	98

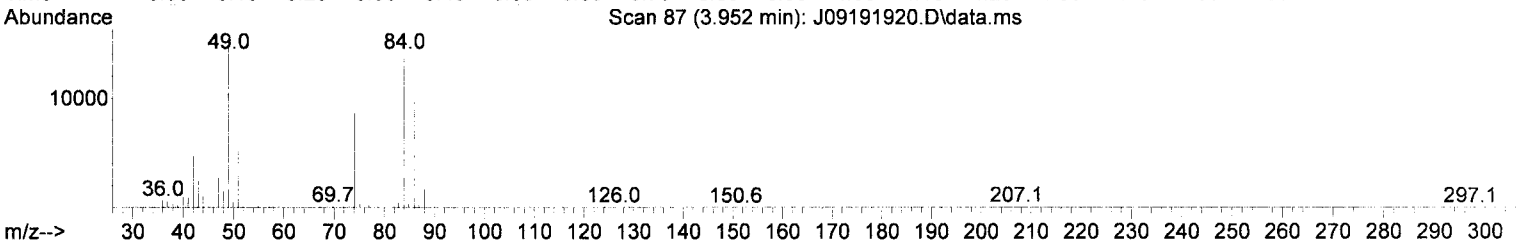
(#) = qualifier out of range (m) = manual integration (+) = signals summed

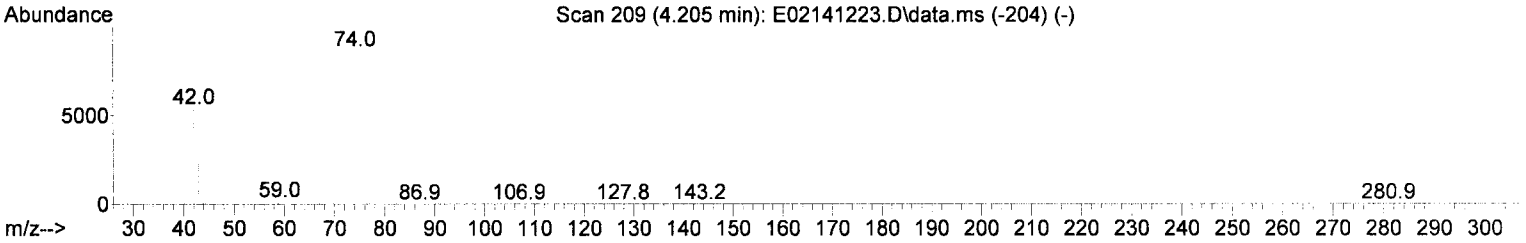
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 67.97 ng/ml

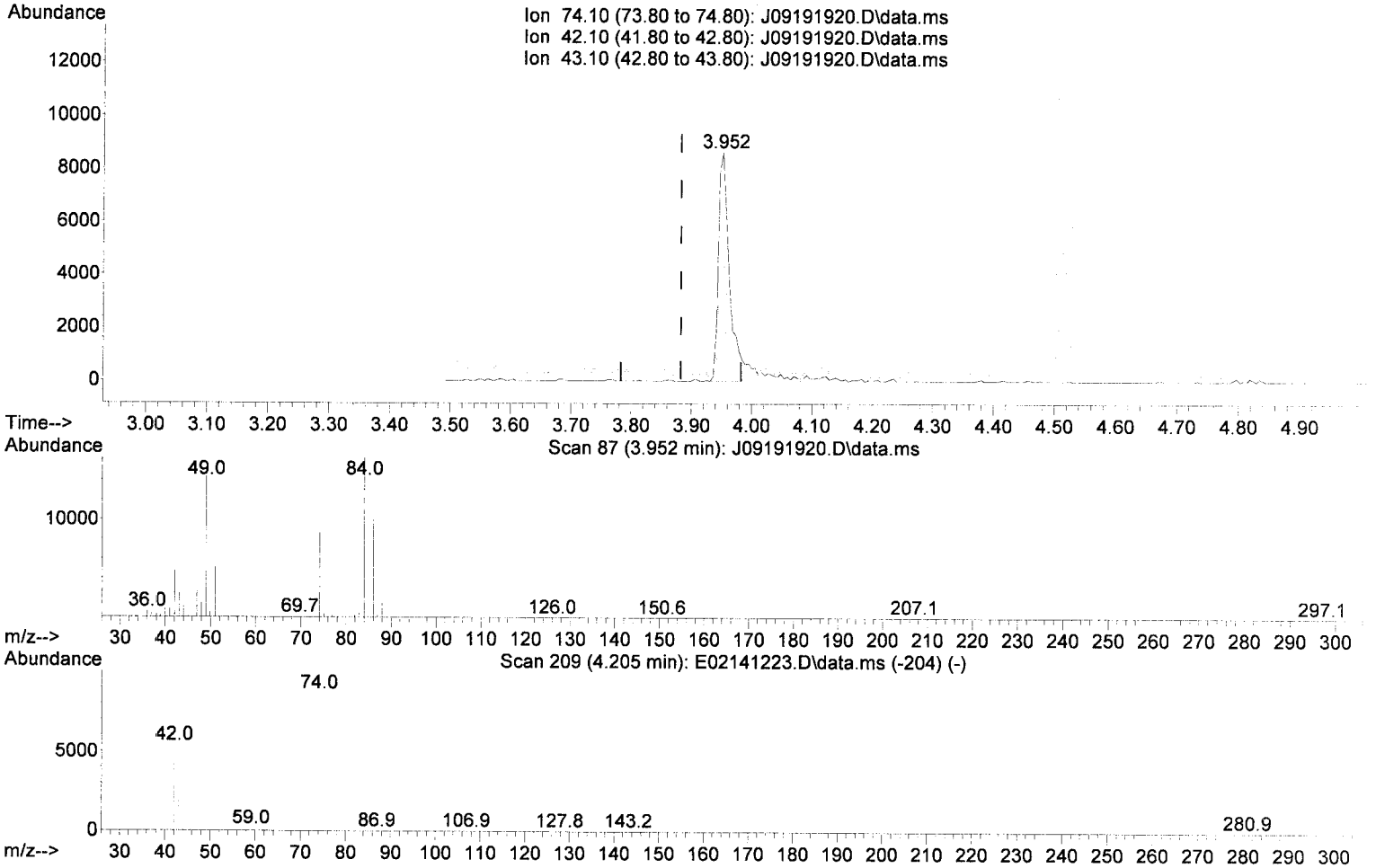
response 9178

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 86.90 ng/ml m

response 11734

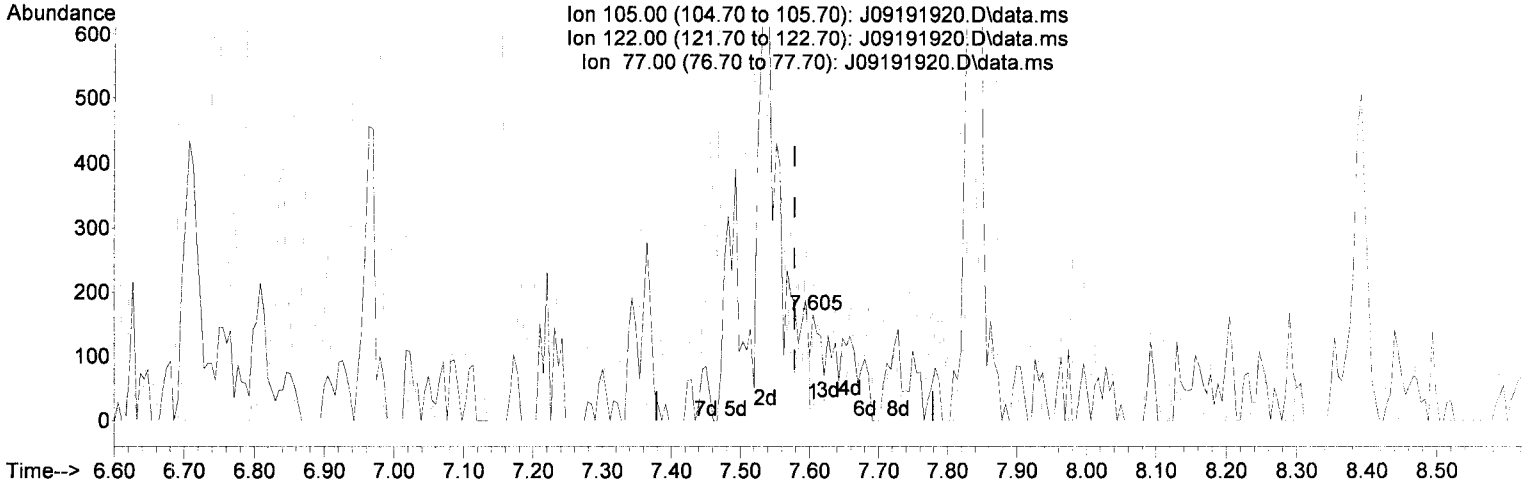
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

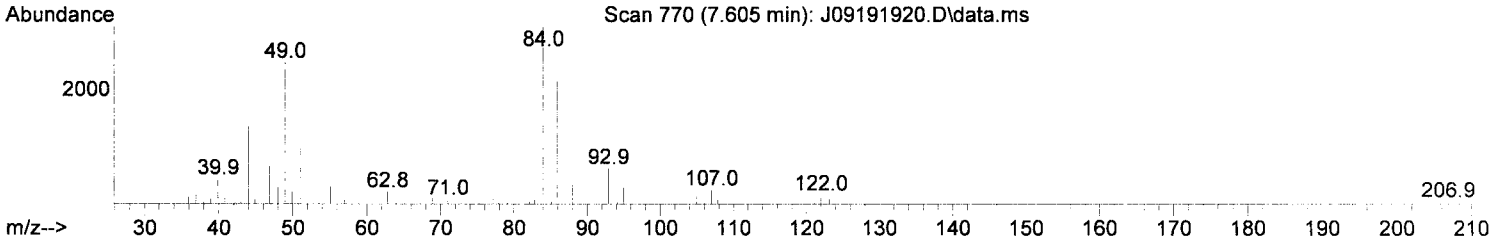
9/20/19

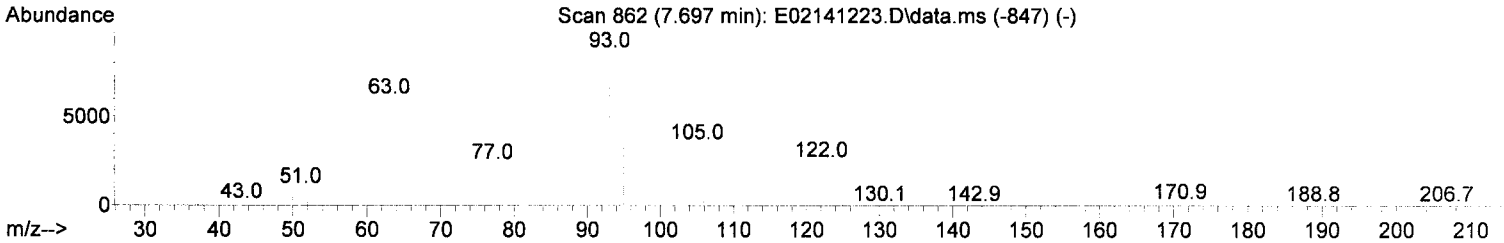
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 304.84 ng/ml

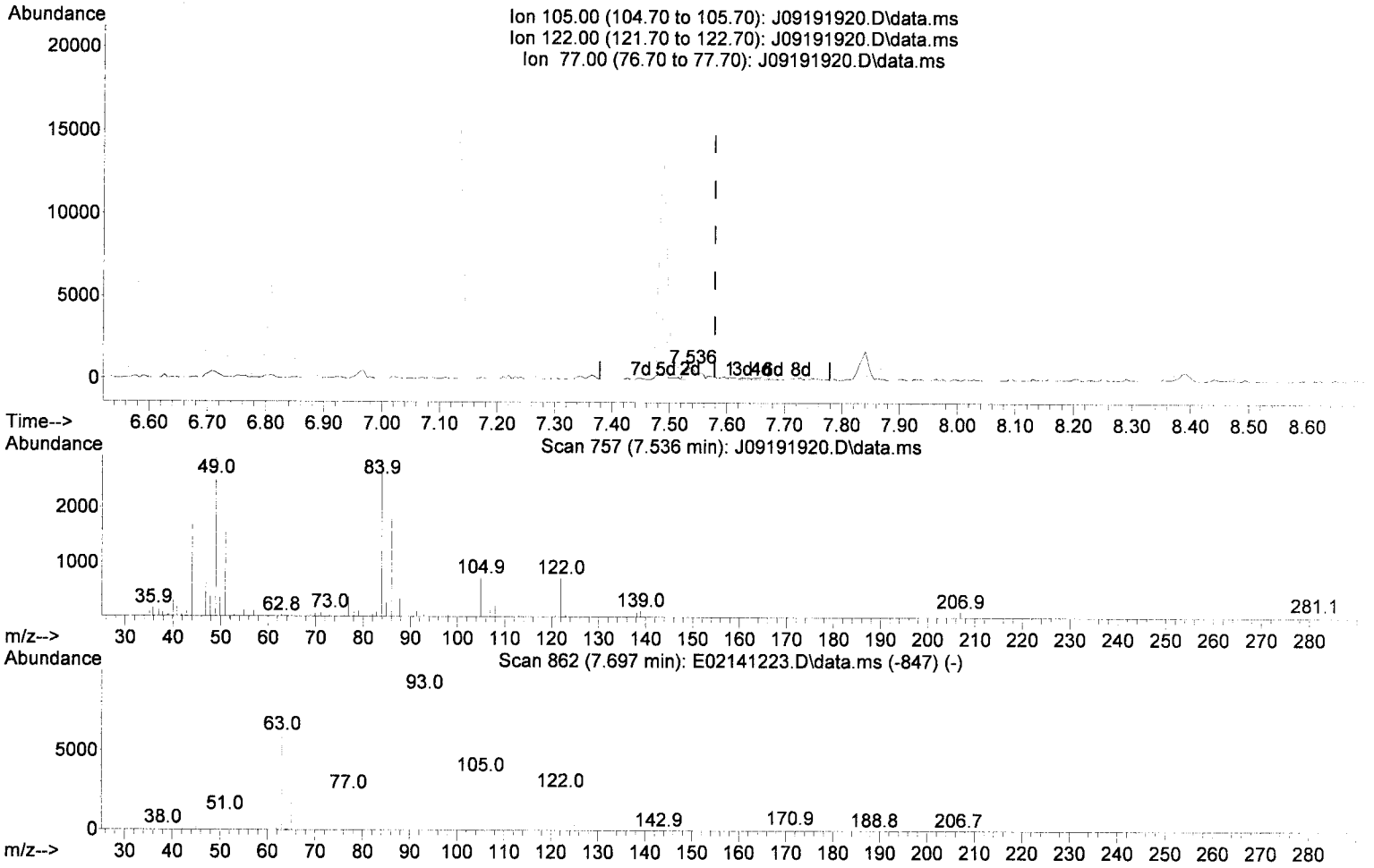
response 129

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	108.48
77.00	72.00	113.33#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 327.42 ng/ml m GL 9/20/19

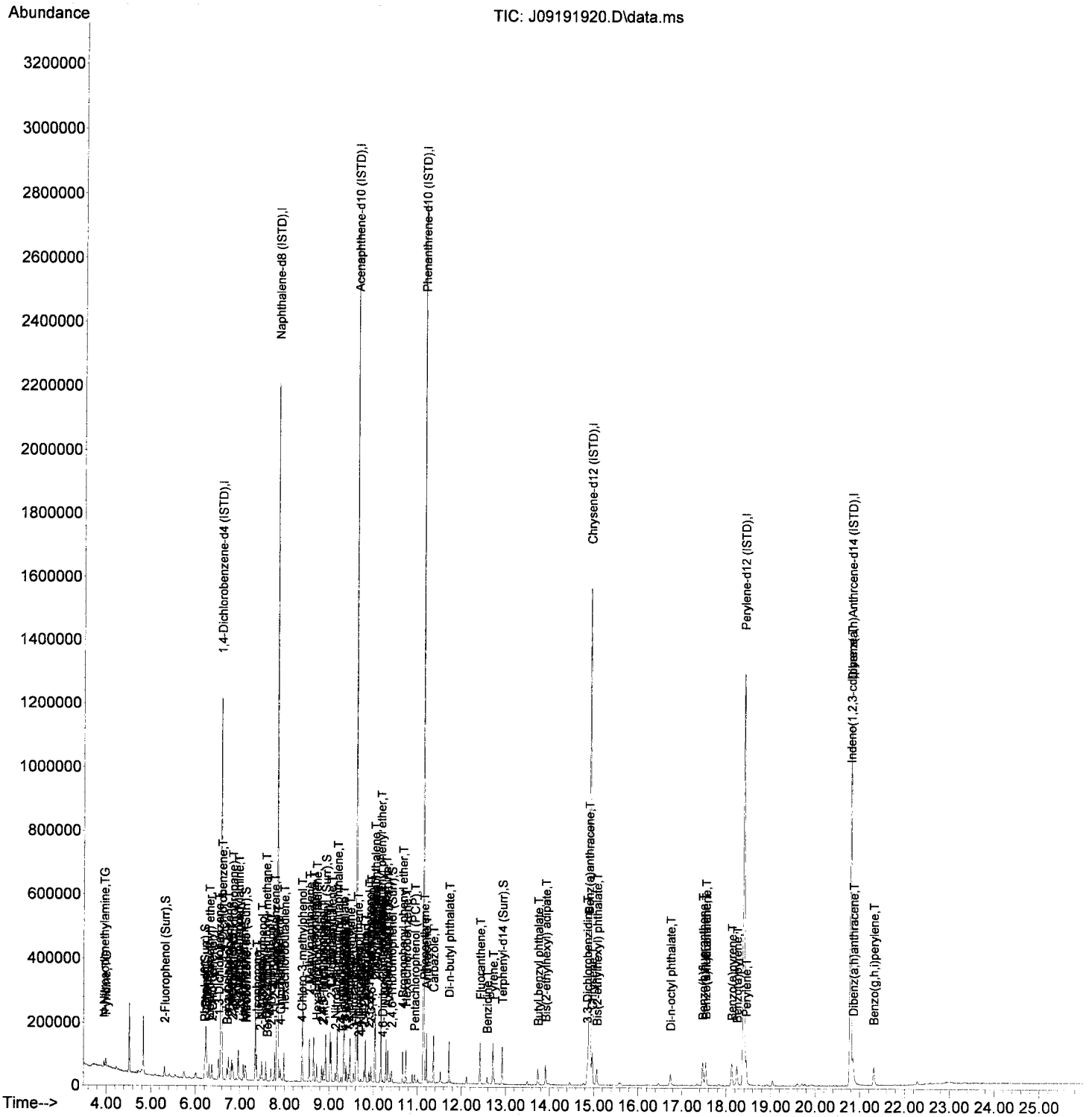
response 2086

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	99.19
77.00	72.00	54.47
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	286105	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1204364	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	611745	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1098102	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1116848	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1089238	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	868590	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.300	112	34817	179.42	ng/ml	0.01
5) Phenol-d6(Surr)	6.204	99	45844	183.93	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	34591	151.44	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	107137	238.50	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	10829	210.19	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	107135	196.23	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.915	74	19941	150.00	ng/ml	98
3) Pyridine	3.947	79	38499m	169.88	ng/ml#	
6) Phenol	6.215	94	51417	181.47	ng/ml	97
7) Aniline	6.247	93	49031	193.59	ng/ml	96
8) Bis(2-chloroethyl) ether	6.306	93	42595	168.79	ng/ml	93
9) 2-Chlorophenol	6.364	128	42160	206.57	ng/ml	96
10) 1,3-Dichlorobenzene	6.514	146	48050	217.71	ng/ml	98
11) 1,4-Dichlorobenzene	6.584	146	46724	218.13	ng/ml	96
12) Benzyl alcohol	6.701	108	18281	139.70	ng/ml	91
13) 1,2-Dichlorobenzene	6.739	146	47924	222.58	ng/ml	95
14) 2-Methylphenol	6.808	107	30801	187.74	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	44401	136.40	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	28365	171.56	ng/ml	98
17) 3+4-Methylphenol	6.958	107	38484	190.34	ng/ml	97
18) Hexachloroethane	7.076	201	13490	228.75	ng/ml	98
20) Nitrobenzene	7.129	77	37240	162.74	ng/ml	98
22) Isophorone	7.365	82	78525	179.67	ng/ml	96
23) 2-Nitrophenol	7.450	139	16298	145.34	ng/ml	96
24) 2,4-Dimethylphenol	7.488	122	31880	191.29	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.579	93	49149	201.85	ng/ml	96
26) Benzoic acid	7.573	105	338	307.20	ng/ml	78
27) 2,4-Dichlorophenol	7.691	162	30346	210.14	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.776	180	45007	257.44	ng/ml	95
29) Naphthalene	7.857	128	141239	228.31	ng/ml	99
30) 4-Chloroaniline	7.905	127	38526	242.70	ng/ml	98
31) Hexachlorobutadiene	7.990	225	24136	258.88	ng/ml	95
32) 4-Chloro-3-methylphenol	8.386	107	26469	152.19	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	98607	233.48	ng/ml	98
34) 1-Methylnaphthalene	8.654	142	95459	235.18	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	17504	180.83	ng/ml	95
37) 2,4,6-Trichlorophenol	8.841	196	18771	185.20	ng/ml	90
38) 2,4,5-Trichlorophenol	8.873	198	18422	177.11	ng/ml	88
39) 1,1'-Biphenyl	9.028	154	117826	231.84	ng/ml	99
41) 2-Chloronaphthalene	9.049	162	86117	230.86	ng/ml	100
42) 2-Nitroaniline	9.146	138	16161	130.13	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.188	156	87215	229.24	ng/ml	96

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

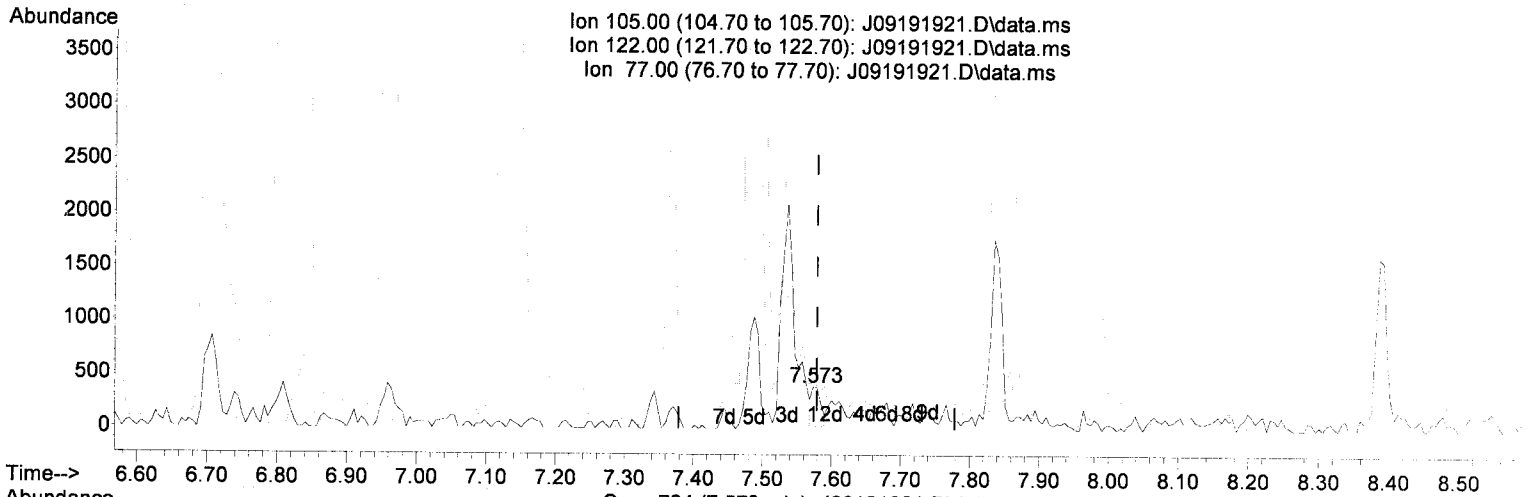
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	5164	89.07	ng/ml	88
45) Dimethyl phthalate	9.328	163	96043	219.51	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	7621	114.64	ng/ml	85
47) 2,6-Dinitrotoluene	9.386	165	16812	178.66	ng/ml	87
48) 1,2-Dinitrobenzene	9.440	168	7269	164.92	ng/ml	83
49) Acenaphthylene	9.472	152	136163	227.72	ng/ml	99
50) 3-Nitroaniline	9.558	138	15637	168.60	ng/ml	93
51) Acenaphthene	9.648	153	89211	230.16	ng/ml	98
52) 2,4-Dinitrophenol	9.665	184	796	162.82	ng/ml	85
53) 4-Nitrophenol	9.723	139	5790	112.91	ng/ml	91
54) 2,4-Dinitrotoluene	9.798	165	16915	139.67	ng/ml	99
55) Dibenzofuran	9.825	168	123476	233.62	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	13193	177.32	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.948	232	16040	193.66	ng/ml	99
58) Diethyl phthalate	10.044	149	92047	220.62	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	78195	231.45	ng/ml	96
60) Fluorene	10.173	166	95574	229.60	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.167	204	45790	236.70	ng/ml	98
62) 4-Nitroaniline	10.178	138	12832	152.25	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.215	198	2504	115.96	ng/ml	91
65) N-Nitrosodiphenylamine	10.285	169	77183	228.56	ng/ml	96
66) Azobenzene (1,2-DPH)	10.328	77	76676	171.16	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	26212	231.88	ng/ml	97
69) Hexachlorobenzene	10.745	284	30519	234.65	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	7638	155.67	ng/ml	93
71) Phenanthrene	11.151	178	134878	224.63	ng/ml	96
72) Anthracene	11.205	178	132343	224.01	ng/ml	97
73) Carbazole	11.365	167	110985	227.54	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	138215	201.89	ng/ml	98
75) Fluoranthene	12.424	202	138551	220.63	ng/ml	99
76) Benzidine	12.580	184	43242	323.12	ng/ml	97
77) Pyrene	12.713	202	143586	228.88	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	42397	121.22	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.911	129	37581	119.87	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	53778	529.15	ng/ml	97
83) Benz(a)anthracene	14.885	228	124472	190.07	ng/ml	97
84) Chrysene	14.965	228	120574	199.57	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	58143	125.67	ng/ml	100
87) Di-n-octyl phthalate	16.741	149	75567	125.21	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	113080	171.41	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	115987	185.29	ng/ml	97
90) Benzo(b+k)fluoranthene	17.479	252	234995	358.49	ng/ml	95
91) Benzo(e)pyrene	18.126	252	113143	175.23	ng/ml	91
92) Benzo(a)pyrene	18.244	252	99882	168.29	ng/ml	97
93) Perylene	18.447	252	100217	178.11	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.784	276	100411	205.68	ng/ml	96
96) Dibenz(a,h)anthracene	20.854	278	95316	217.63	ng/ml	99
97) Benzo(g,h,i)perylene	21.319	276	101188	215.24	ng/ml	98

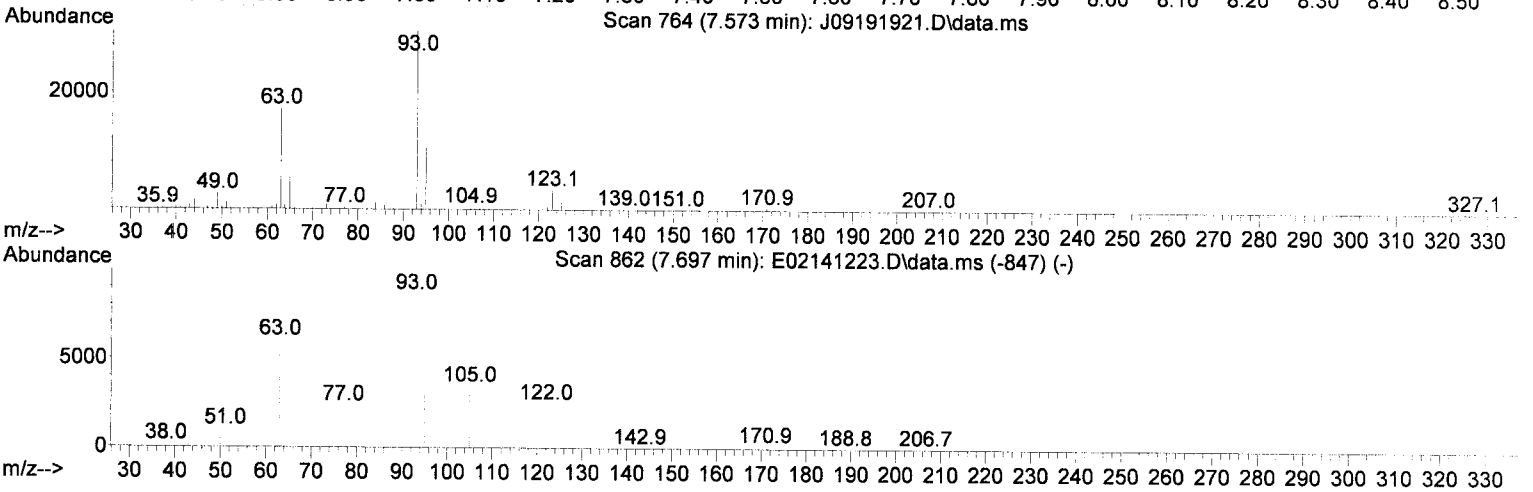
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.573min (-0.005) 307.20 ng/ml

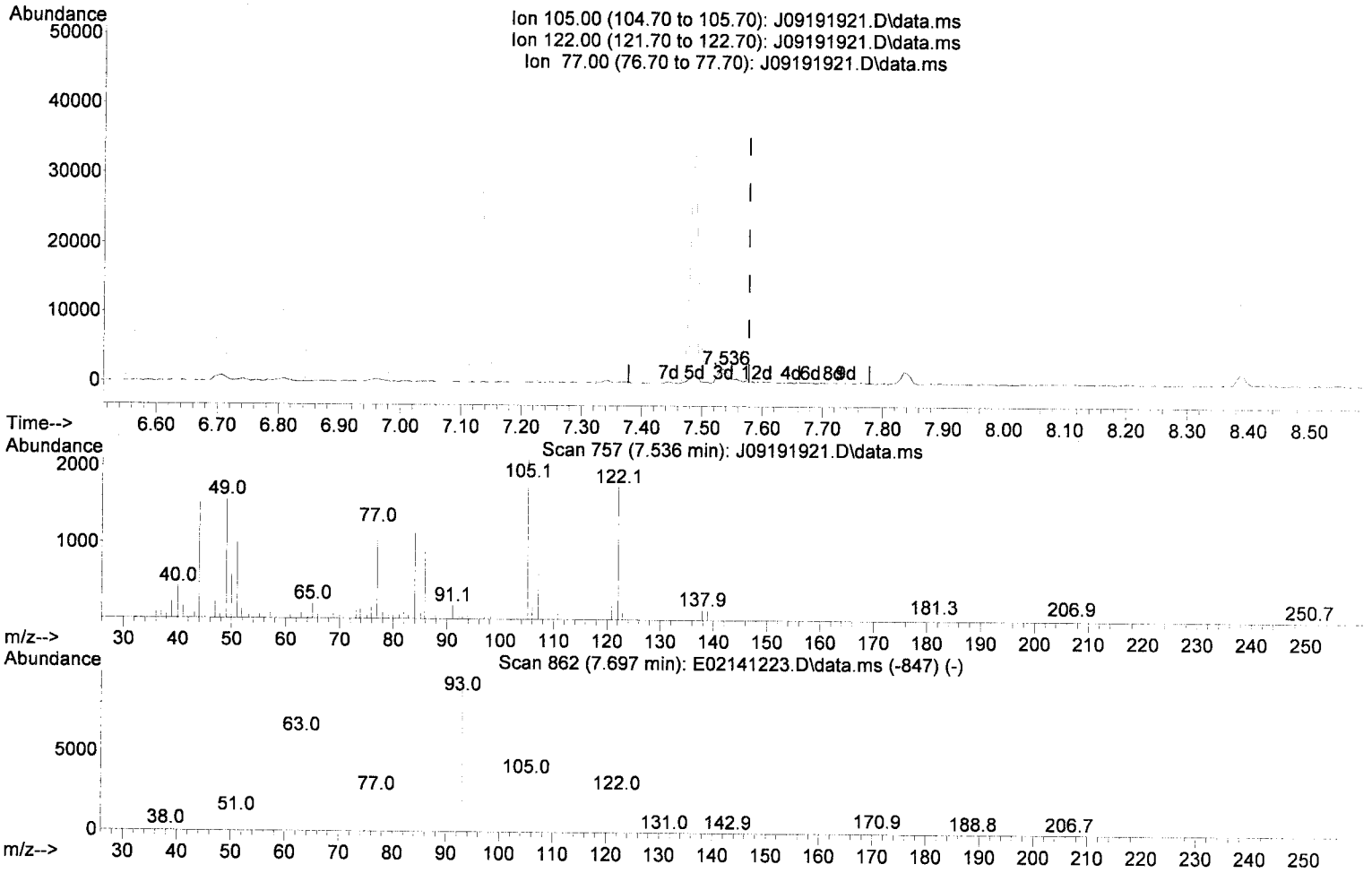
response 338

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	119.23
77.00	72.00	82.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 341.24 ng/ml m

response 3335

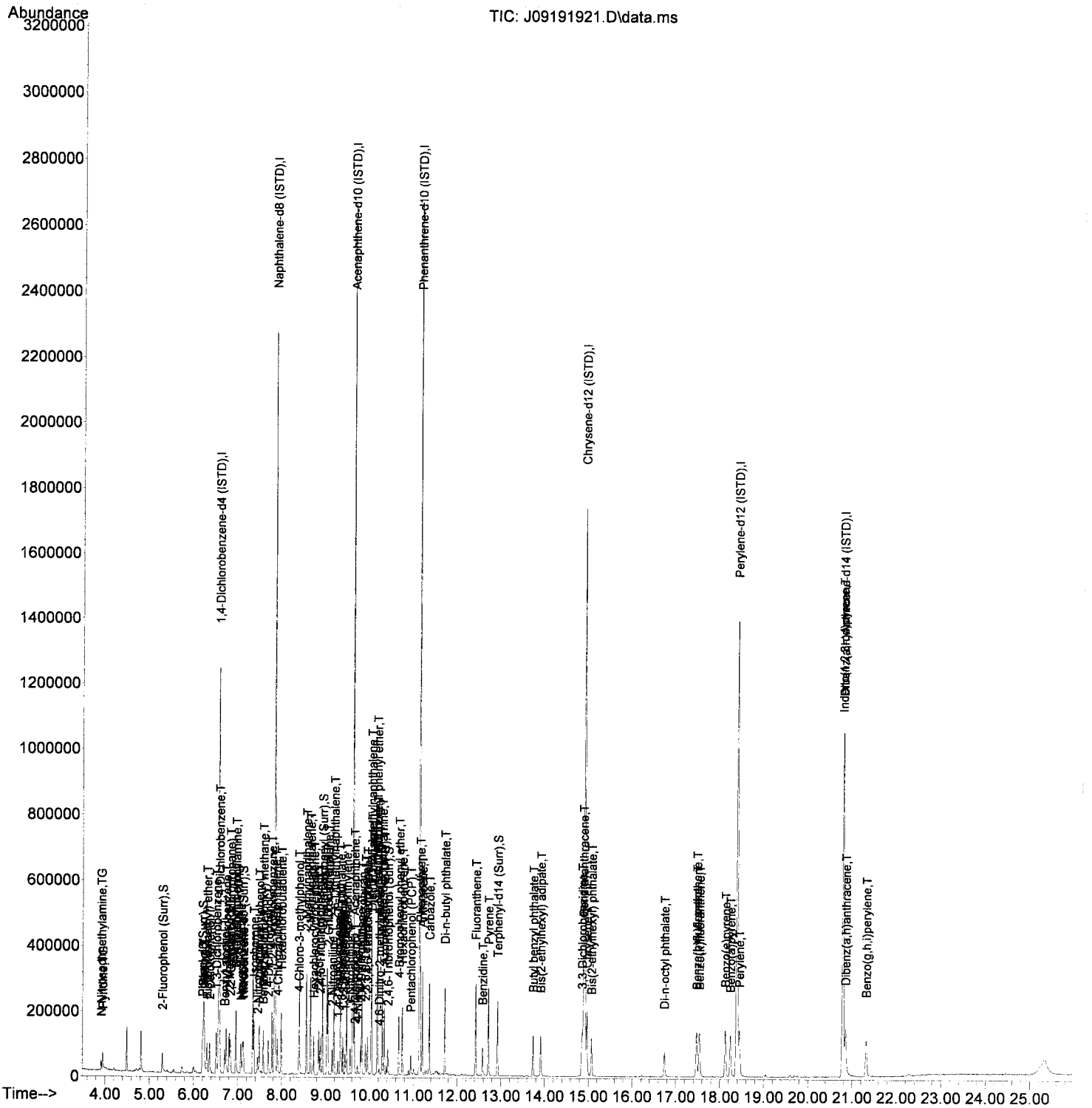
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.48
77.00	72.00	58.50
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299020	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1217422	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	625555	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1123094	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1146727	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1149483	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	954508	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.306	112	95687	471.80	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	124621	478.38	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	98184	411.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	272047	592.23	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	33701	639.58	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	285146	508.67	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.931	74	52485m	377.75	ng/ml#	
3) Pyridine	3.958	79	83583	352.88	ng/ml	96
6) Phenol	6.215	94	136576	461.22	ng/ml	97
7) Aniline	6.247	93	124901	471.84	ng/ml	97
8) Bis(2-chloroethyl) ether	6.306	93	115667	438.55	ng/ml	97
9) 2-Chlorophenol	6.365	128	113634	532.72	ng/ml	95
10) 1,3-Dichlorobenzene	6.514	146	126152	546.89	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	123497	551.64	ng/ml	99
12) Benzyl alcohol	6.702	108	59263	433.38	ng/ml	97
13) 1,2-Dichlorobenzene	6.739	146	124976	555.38	ng/ml	99
14) 2-Methylphenol	6.808	107	86329	503.48	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	112933	331.95	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.964	70	74700	432.29	ng/ml	99
17) 3+4-Methylphenol	6.958	107	107685	509.59	ng/ml	99
18) Hexachloroethane	7.076	201	36961	599.67	ng/ml	99
20) Nitrobenzene	7.129	77	100238	419.13	ng/ml	95
22) Isophorone	7.370	82	207804	470.36	ng/ml	99
23) 2-Nitrophenol	7.450	139	54694	414.23	ng/ml	98
24) 2,4-Dimethylphenol	7.488	122	86093	511.06	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	131344	533.62	ng/ml	98
26) Benzoic acid	7.605	105	979	314.37	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	89833	615.41	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.777	180	113367	641.50	ng/ml	99
29) Naphthalene	7.857	128	361018	577.32	ng/ml	99
30) 4-Chloroaniline	7.905	127	106945	650.30	ng/ml	98
31) Hexachlorobutadiene	7.991	225	61063	647.92	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	84667	481.59	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	253485	593.76	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	244797	596.63	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	51180	517.04	ng/ml	98
37) 2,4,6-Trichlorophenol	8.841	196	59985	553.45	ng/ml	98
38) 2,4,5-Trichlorophenol	8.873	198	59608	560.44	ng/ml	98
39) 1,1'-Biphenyl	9.028	154	300735	578.68	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	223930	587.06	ng/ml	97
42) 2-Nitroaniline	9.146	138	55795	439.35	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	219677	564.67	ng/ml	99

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

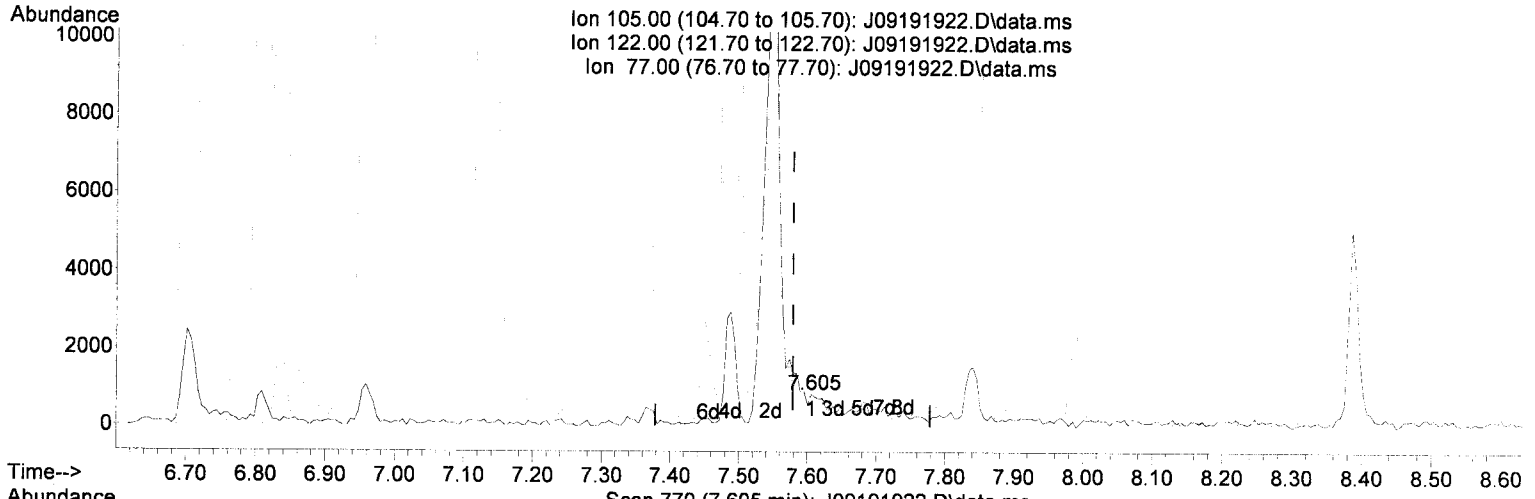
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	19841	334.66	ng/ml	93
45) Dimethyl phthalate	9.328	163	250192	559.21	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	28132	413.82	ng/ml	96
47) 2,6-Dinitrotoluene	9.387	165	51160	531.66	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	22807	506.03	ng/ml	94
49) Acenaphthylene	9.472	152	361152	590.67	ng/ml	99
50) 3-Nitroaniline	9.558	138	44178	446.02	ng/ml	100
51) Acenaphthene	9.649	153	224540	566.51	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	4568	255.77	ng/ml	95
53) 4-Nitrophenol	9.723	139	25654	375.44	ng/ml	94
54) 2,4-Dinitrotoluene	9.798	165	57760	466.41	ng/ml	98
55) Dibenzofuran	9.825	168	310051	573.66	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	46260	542.89	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.948	232	50476	572.73	ng/ml	99
58) Diethyl phthalate	10.044	149	232776	545.61	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	199252	576.75	ng/ml	99
60) Fluorene	10.173	166	244304	573.93	ng/ml	97
61) 4-Chlorophenyl phenyl ...	10.167	204	117369	593.31	ng/ml	99
62) 4-Nitroaniline	10.178	138	36541	423.99	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.216	198	14208	319.68	ng/ml	90
65) N-Nitrosodiphenylamine	10.285	169	197334	571.35	ng/ml	99
66) Azobenzene (1,2-DPH)	10.328	77	199437	435.30	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	66857	578.28	ng/ml	97
69) Hexachlorobenzene	10.745	284	82813	622.55	ng/ml	99
70) Pentachlorophenol (PCP)	10.938	266	30348	512.59	ng/ml	94
71) Phenanthrene	11.157	178	343840	559.91	ng/ml	98
72) Anthracene	11.205	178	335865	555.84	ng/ml	99
73) Carbazole	11.366	167	281210	563.69	ng/ml	99
74) Di-n-butyl phthalate	11.719	149	369981	528.41	ng/ml	99
75) Fluoranthene	12.425	202	369455	575.22	ng/ml	98
76) Benzidine	12.580	184	152022	962.70	ng/ml	100
77) Pyrene	12.713	202	375136	584.68	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	139695	388.99	ng/ml	98
81) Bis(2-ethylhexyl) adipate	13.911	129	126449	392.82	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	110907	1341.90	ng/ml	97
83) Benz(a)anthracene	14.890	228	327557	487.16	ng/ml	98
84) Chrysene	14.970	228	313539	505.43	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	202494	426.28	ng/ml	96
87) Di-n-octyl phthalate	16.746	149	281414	361.89	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	318669	457.74	ng/ml	99
89) Benzo(k)fluoranthene	17.543	252	321918	487.31	ng/ml	99
90) Benzo(b+k)fluoranthene	17.543	252	653019	943.99	ng/ml	99
91) Benzo(e)pyrene	18.132	252	316818	464.95	ng/ml	99
92) Benzo(a)pyrene	18.249	252	295305	471.49	ng/ml	97
93) Perylene	18.452	252	273199	460.10	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.784	276	279363	520.62	ng/ml	99
96) Dibenz(a,h)anthracene	20.859	278	270778	562.60	ng/ml	97
97) Benzo(g,h,i)perylene	21.325	276	291609	564.45	ng/ml	96

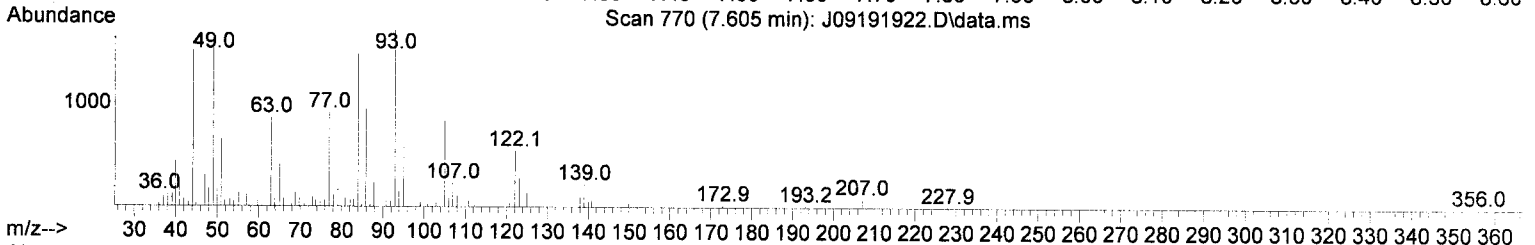
(#) = qualifier out of range (m) = manual integration (+) = signals summed

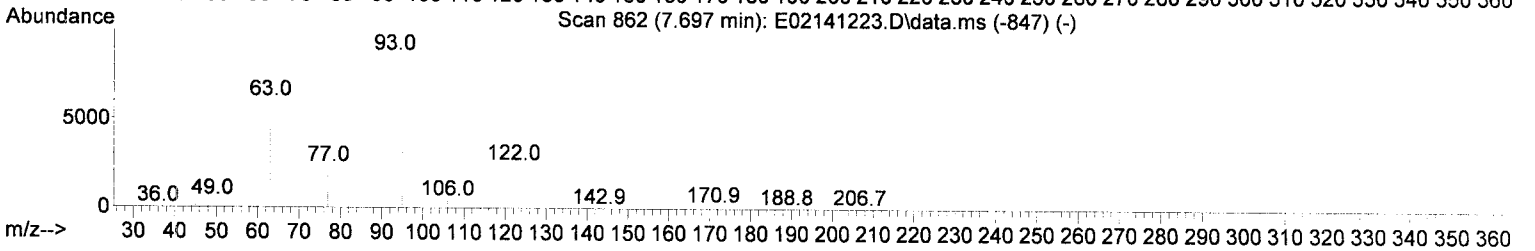
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 314.37 ng/ml

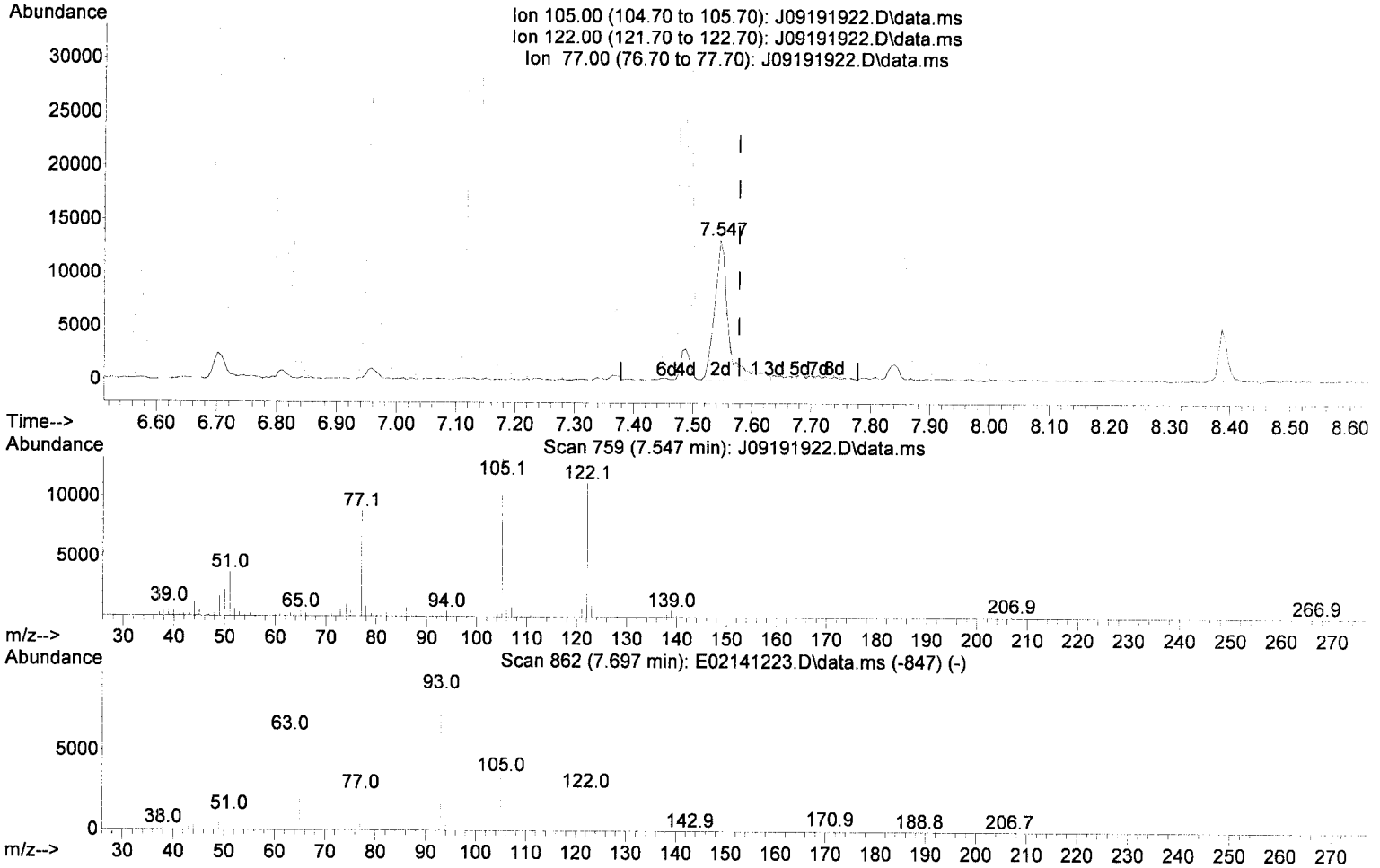
response 979

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	66.67
77.00	72.00	109.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.547min (-0.032) 552.34 ng/ml m

response 22389

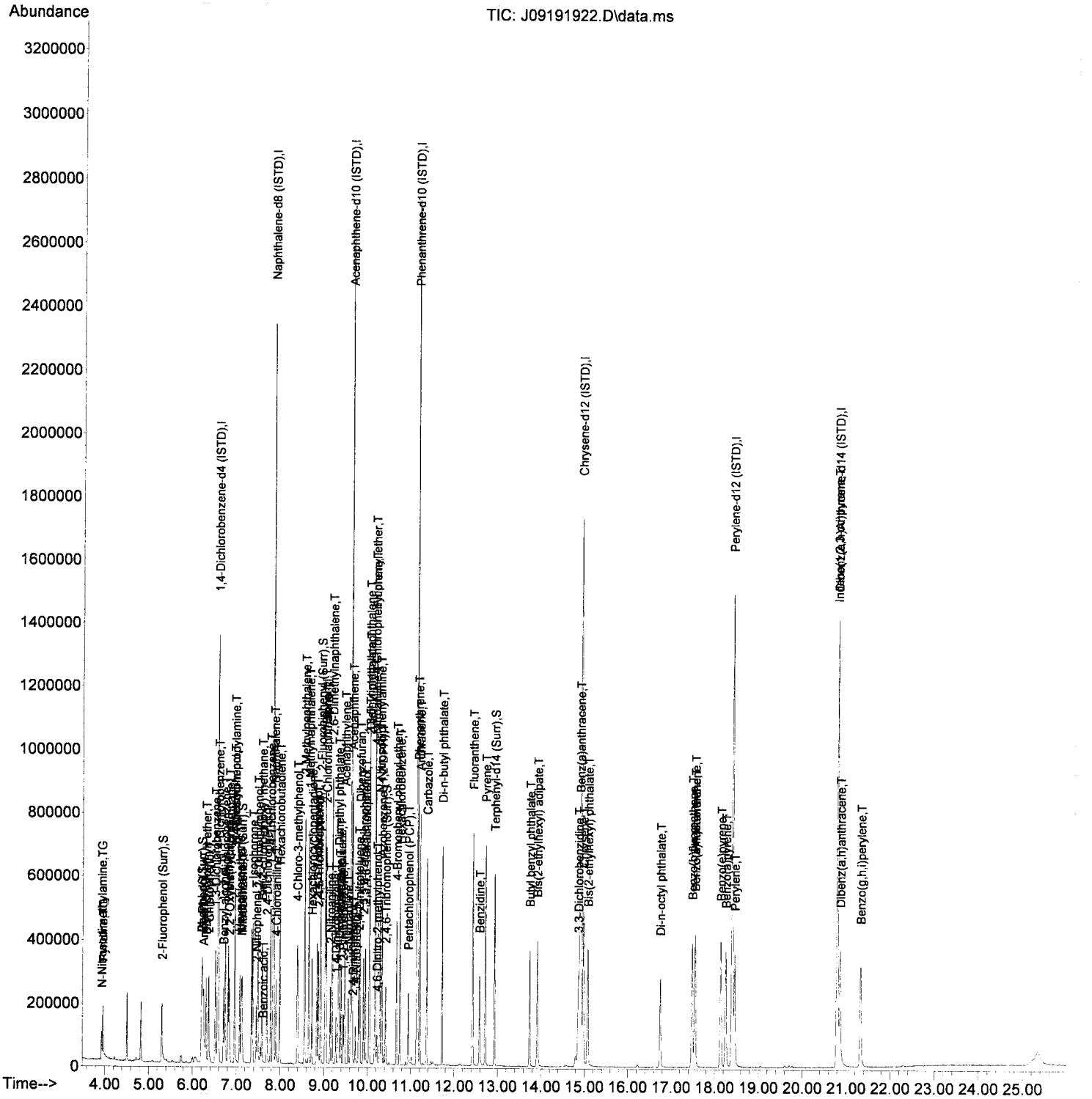
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.94
77.00	72.00	66.43
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JJ2 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	283511	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1143968	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	583825	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1065192	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1048464	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1042709	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	886236	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.289	112	179108	931.44	ng/ml	0.00
5) Phenol-d6(Surr)	6.204	99	238398	965.20	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	187377	827.84	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	482290	1124.97	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	65055	1301.74	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	507926	991.00	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	104763m	795.26	ng/ml	
3) Pyridine	3.904	79	182180	811.23	ng/ml	100
6) Phenol	6.215	94	261231	930.43	ng/ml	100
7) Aniline	6.241	93	189393	754.62	ng/ml	100
8) Bis(2-chloroethyl) ether	6.306	93	237931	951.45	ng/ml	100
9) 2-Chlorophenol	6.364	128	213396	1055.12	ng/ml	100
10) 1,3-Dichlorobenzene	6.514	146	230358	1053.27	ng/ml	100
11) 1,4-Dichlorobenzene	6.584	146	229877	1082.99	ng/ml	100
12) Benzyl alcohol	6.701	108	124850	962.84	ng/ml	100
13) 1,2-Dichlorobenzene	6.739	146	227139	1064.59	ng/ml	100
14) 2-Methylphenol	6.808	107	162716	1000.89	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	204366	633.56	ng/ml	100
16) N-Nitrosodi-n-propylamine	6.963	70	136460	832.90	ng/ml	100
17) 3+4-Methylphenol	6.958	107	206745	1031.88	ng/ml	100
18) Hexachloroethane	7.076	201	68545	1172.94	ng/ml	100
20) Nitrobenzene	7.129	77	188065	829.39	ng/ml	100
22) Isophorone	7.370	82	377941	910.39	ng/ml	100
23) 2-Nitrophenol	7.450	139	114845	900.33	ng/ml	100
24) 2,4-Dimethylphenol	7.488	122	164250	1037.61	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.579	93	236290	1021.63	ng/ml	100
26) Benzoic acid	7.579	105	99342	1429.28	ng/ml	100
27) 2,4-Dichlorophenol	7.691	162	173249	1263.07	ng/ml	100
28) 1,2,4-Trichlorobenzene	7.782	180	206953	1246.26	ng/ml	100
29) Naphthalene	7.857	128	638989	1087.45	ng/ml	100
30) 4-Chloroaniline	7.905	127	199585	1281.62	ng/ml	100
31) Hexachlorobutadiene	7.990	225	113762	1284.60	ng/ml	100
32) 4-Chloro-3-methylphenol	8.386	107	162469	983.46	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	453493	1130.47	ng/ml	100
34) 1-Methylnaphthalene	8.659	142	430139	1115.66	ng/ml	100
36) Hexachlorocyclopentadiene	8.728	237	99801	1080.30	ng/ml	100
37) 2,4,6-Trichlorophenol	8.841	196	117480	1142.89	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	113799	1146.42	ng/ml	100
39) 1,1'-Biphenyl	9.028	154	533233	1099.40	ng/ml	100
41) 2-Chloronaphthalene	9.049	162	386877	1086.74	ng/ml	100
42) 2-Nitroaniline	9.146	138	113482	957.47	ng/ml	100
43) 2,6-Dimethylnaphthalene	9.188	156	389863	1073.75	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

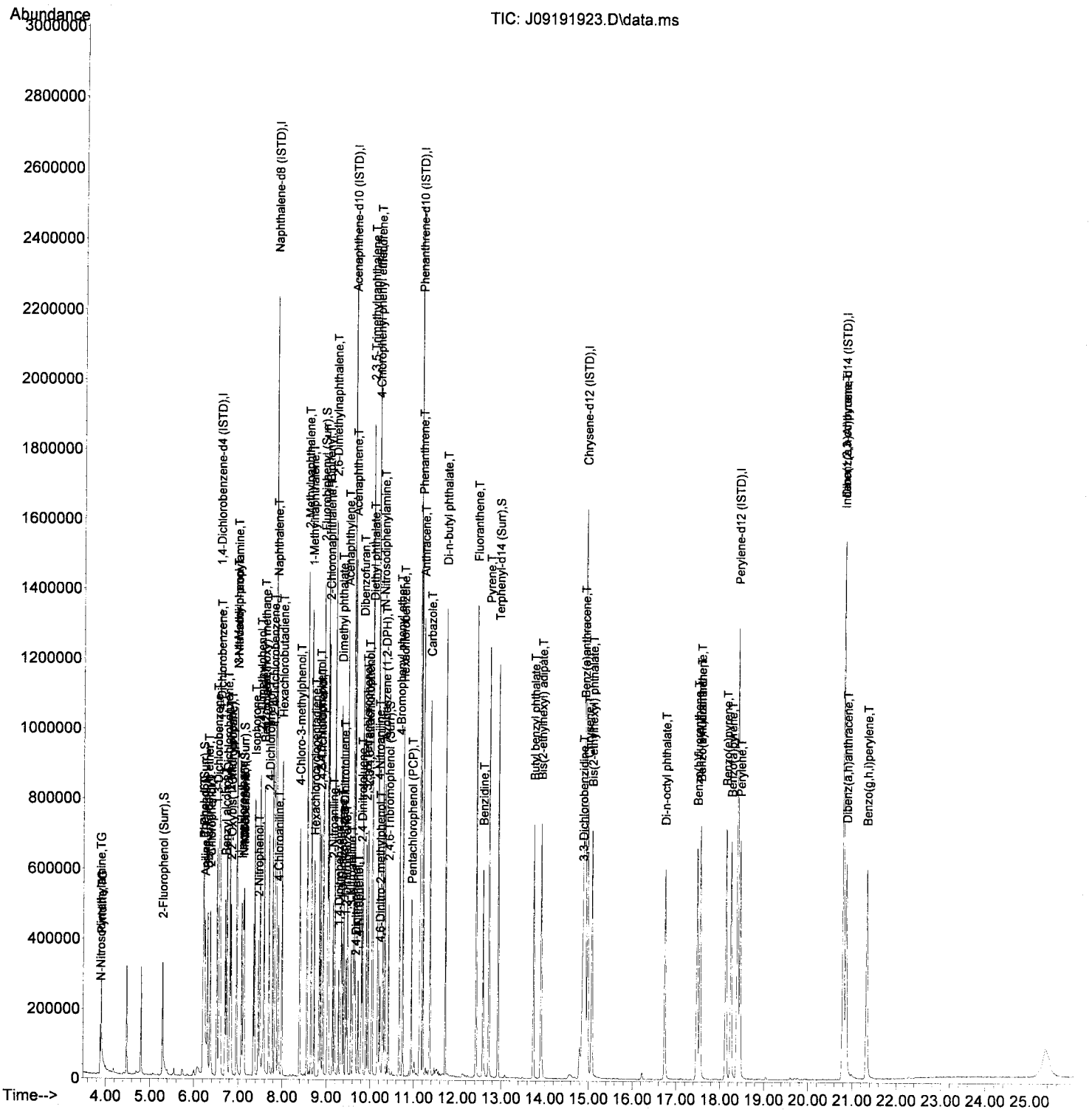
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	44207	798.94	ng/ml	100
45) Dimethyl phthalate	9.333	163	449574	1076.67	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	57342	903.80	ng/ml	100
47) 2,6-Dinitrotoluene	9.392	165	97373	1084.24	ng/ml	100
48) 1,2-Dinitrobenzene	9.445	168	45222	1075.08	ng/ml	100
49) Acenaphthylene	9.472	152	637470	1117.11	ng/ml	100
50) 3-Nitroaniline	9.563	138	76212	868.39	ng/ml	100
51) Acenaphthene	9.648	153	399993	1081.31	ng/ml	100
52) 2,4-Dinitrophenol	9.664	184	18042	611.46	ng/ml	100
53) 4-Nitrophenol	9.723	139	58727	860.32	ng/ml	100
54) 2,4-Dinitrotoluene	9.798	165	116247	1005.79	ng/ml	100
55) Dibenzofuran	9.825	168	550893	1092.13	ng/ml	100
56) 2,3,5,6-Tetrachlorophenol	9.905	232	91879	1120.36	ng/ml	100
57) 2,3,4,6-Tetrachlorophenol	9.948	232	101167	1210.65	ng/ml	100
58) Diethyl phthalate	10.050	149	426259	1070.54	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.039	170	355247	1101.79	ng/ml	100
60) Fluorene	10.173	166	426158	1072.71	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	209713	1135.90	ng/ml	100
62) 4-Nitroaniline	10.183	138	63138	784.97	ng/ml	100
63) 4,6-Dinitro-2-methylph...	10.215	198	38878	789.70	ng/ml	100
65) N-Nitrosodiphenylamine	10.285	169	350586	1070.25	ng/ml	100
66) Azobenzene (1,2-DPH)	10.328	77	355316	817.68	ng/ml	100
68) 4-Bromophenyl phenyl e...	10.670	248	125621	1145.62	ng/ml	100
69) Hexachlorobenzene	10.745	284	152211	1206.46	ng/ml	100
70) Pentachlorophenol (PCP)	10.943	266	65122	1104.57	ng/ml	100
71) Phenanthrene	11.157	178	610421	1048.04	ng/ml	100
72) Anthracene	11.210	178	608748	1062.21	ng/ml	100
73) Carbazole	11.365	167	458747	969.56	ng/ml	100
74) Di-n-butyl phthalate	11.718	149	683398	1029.09	ng/ml	100
75) Fluoranthene	12.424	202	669325	1098.75	ng/ml	100
76) Benzidine	12.579	184	302104	1915.60	ng/ml	100
77) Pyrene	12.713	202	683508	1123.21	ng/ml	100
80) Butyl benzyl phthalate	13.735	149	279356	850.79	ng/ml	100
81) Bis(2-ethylhexyl) adipate	13.911	129	247877	842.20	ng/ml	100
82) 3,3-Dichlorobenzidine	14.863	252	174855	2557.16	ng/ml	100
83) Benz(a)anthracene	14.890	228	577553	939.46	ng/ml	100
84) Chrysene	14.976	228	556735	981.53	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.072	149	389483	896.77	ng/ml	100
87) Di-n-octyl phthalate	16.746	149	592055	790.12	ng/ml	100
88) Benzo(b)fluoranthene	17.479	252	578435	915.96	ng/ml	100
89) Benzo(k)fluoranthene	17.548	252	582389	971.88	ng/ml	100
90) Benzo(b+k)fluoranthene	17.548	252	1182652	1884.67	ng/ml	100
91) Benzo(e)pyrene	18.137	252	576088	932.03	ng/ml	100
92) Benzo(a)pyrene	18.254	252	535317	942.21	ng/ml	100
93) Perylene	18.458	252	476752	885.12	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.790	276	510691	1025.03	ng/ml	100
96) Dibenz(a,h)anthracene	20.865	278	489557	1095.51	ng/ml	100
97) Benzo(g,h,i)perylene	21.325	276	538150	1121.91	ng/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	285023	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1095362	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	586466	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1091855	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	1089712	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.404	264	1076142	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.800	292	949148	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	379802	1964.65	ng/ml	0.02
5) Phenol-d6(Surr)	6.209	99	477001	1920.99	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	365358	1605.60	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	917452	2130.37	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.424	330	142266	2777.20	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.927	244	1038865	1950.18	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	217151	1639.66	ng/ml	99
3) Pyridine	3.958	79	392152m	1736.94	ng/ml	
6) Phenol	6.220	94	506313	1793.78	ng/ml	98
7) Aniline	6.252	93	321662	1274.83	ng/ml	97
8) Bis(2-chloroethyl) ether	6.311	93	501220	1993.67	ng/ml	99
9) 2-Chlorophenol	6.370	128	423147	2081.13	ng/ml	99
10) 1,3-Dichlorobenzene	6.519	146	464902	2114.40	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	453326	2124.37	ng/ml	99
12) Benzyl alcohol	6.707	108	261354	2004.87	ng/ml	98
13) 1,2-Dichlorobenzene	6.744	146	442316	2062.13	ng/ml	99
14) 2-Methylphenol	6.814	107	318341	1947.77	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	366117	1128.98	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.969	70	256713	1558.56	ng/ml	99
17) 3+4-Methylphenol	6.963	107	399183	1981.79	ng/ml	98
18) Hexachloroethane	7.076	201	143490	2442.36	ng/ml	97
20) Nitrobenzene	7.135	77	365107	1601.63	ng/ml	98
22) Isophorone	7.375	82	734609	1848.05	ng/ml	100
23) 2-Nitrophenol	7.456	139	207149	1710.18	ng/ml	94
24) 2,4-Dimethylphenol	7.493	122	333523	2200.44	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.584	93	449978	2031.87	ng/ml	99
26) Benzoic acid	7.611	105	311714	3637.31	ng/ml	96
27) 2,4-Dichlorophenol	7.691	162	350635	2669.74	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	388384	2442.61	ng/ml	100
29) Naphthalene	7.862	128	1178988	2095.46	ng/ml	99
30) 4-Chloroaniline	7.915	127	372183	2483.94	ng/ml	99
31) Hexachlorobutadiene	7.990	225	208693	2461.13	ng/ml	98
32) 4-Chloro-3-methylphenol	8.392	107	338452	2139.63	ng/ml	97
33) 2-Methylnaphthalene	8.557	142	857631	2232.77	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	810434	2195.32	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	213088	2296.19	ng/ml	97
37) 2,4,6-Trichlorophenol	8.841	196	248218	2364.26	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	245074	2457.78	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	1010736	2074.51	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	759926	2125.02	ng/ml	100
42) 2-Nitroaniline	9.151	138	248865	2090.27	ng/ml	95
43) 2,6-Dimethylnaphthalene	9.188	156	740663	2030.74	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

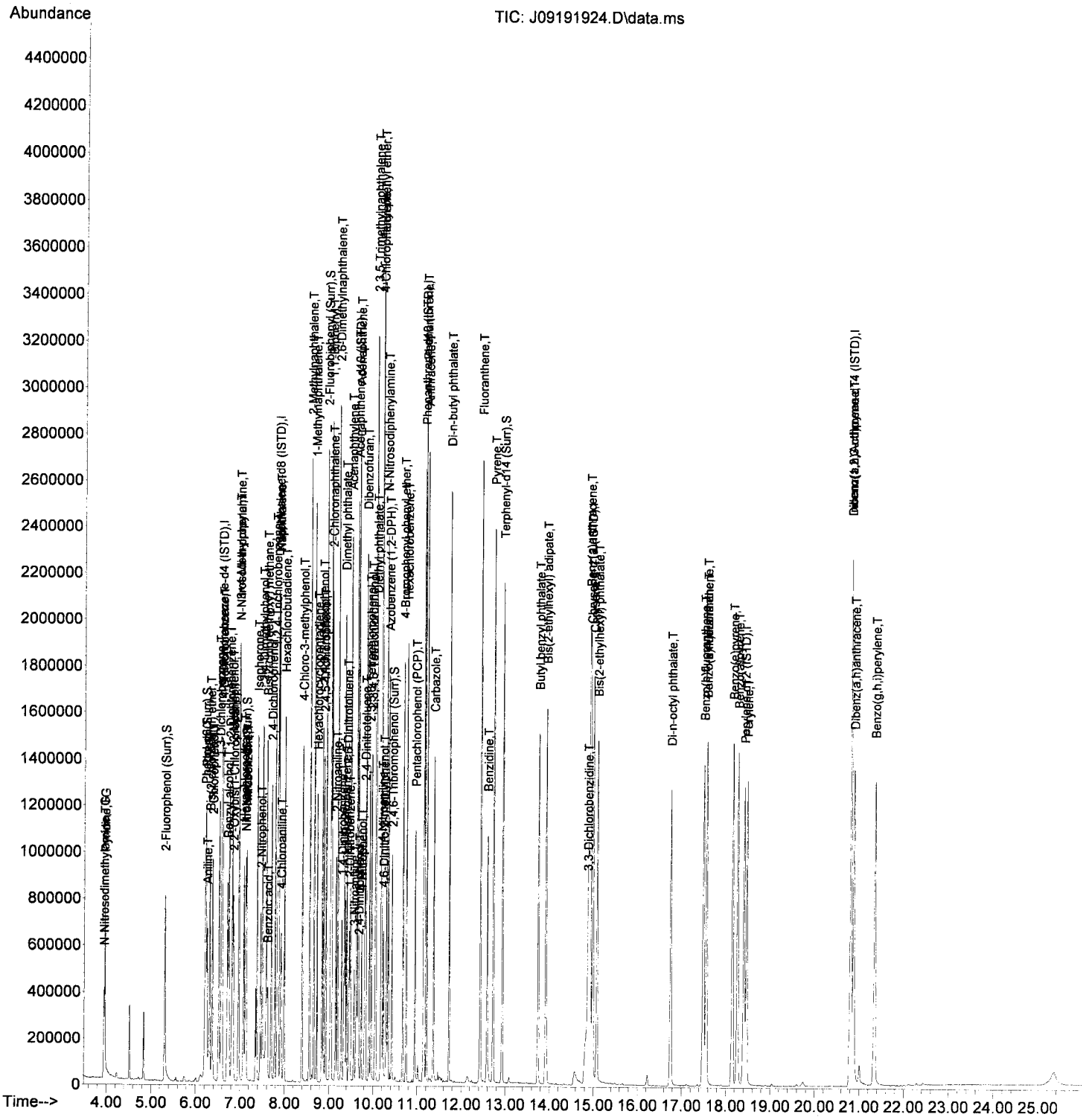
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.279	168	108019	1943.39	ng/ml	94
45) Dimethyl phthalate	9.338	163	868820	2071.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.360	168	128986	2023.86	ng/ml	95
47) 2,6-Dinitrotoluene	9.392	165	201552	2234.16	ng/ml	96
48) 1,2-Dinitrobenzene	9.451	168	94079	2226.50	ng/ml	97
49) Acenaphthylene	9.477	152	1211941	2114.25	ng/ml	99
50) 3-Nitroaniline	9.563	138	114743	1447.64	ng/ml	96
51) Acenaphthene	9.654	153	770675	2074.00	ng/ml	99
52) 2,4-Dinitrophenol	9.670	184	58400	1570.56	ng/ml	93
53) 4-Nitrophenol	9.729	139	141903	1959.29	ng/ml	98
54) 2,4-Dinitrotoluene	9.804	165	257547	2218.31	ng/ml	97
55) Dibenzofuran	9.825	168	1086183	2143.62	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	201504	2389.21	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.953	232	213539	2500.78	ng/ml	97
58) Diethyl phthalate	10.055	149	811497	2028.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	685050	2115.10	ng/ml	99
60) Fluorene	10.178	166	812478	2035.94	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.173	204	412942	2226.61	ng/ml	94
62) 4-Nitroaniline	10.189	138	129234	1599.47	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.221	198	101854	1883.45	ng/ml	99
65) N-Nitrosodiphenylamine	10.290	169	659355	1963.69	ng/ml	97
66) Azobenzene (1,2-DPH)	10.333	77	684303	1536.81	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.670	248	256334	2280.59	ng/ml	96
69) Hexachlorobenzene	10.750	284	304969	2358.22	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	154858	2438.76	ng/ml	99
71) Phenanthrene	11.157	178	1191270	1995.35	ng/ml	99
72) Anthracene	11.210	178	1187408	2021.38	ng/ml	98
73) Carbazole	11.365	167	646631	1333.27	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	1348435	1980.94	ng/ml	100
75) Fluoranthene	12.430	202	1341415	2148.26	ng/ml	98
76) Benzidine	12.585	184	601547	3540.61	ng/ml	100
77) Pyrene	12.719	202	1337637	2144.45	ng/ml	98
80) Butyl benzyl phthalate	13.740	149	621242	1820.39	ng/ml	96
81) Bis(2-ethylhexyl) adipate	13.917	129	551677	1803.46	ng/ml	99
82) 3,3-Dichlorobenzidine	14.863	252	281736	4236.61	ng/ml	94
83) Benz(a)anthracene	14.895	228	1225586	1918.11	ng/ml	99
84) Chrysene	14.981	228	1148470	1948.23	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	846014	1874.18	ng/ml	98
87) Di-n-octyl phthalate	16.746	149	1439135	1774.42	ng/ml	99
88) Benzo(b)fluoranthene	17.490	252	1267321	1944.46	ng/ml	99
89) Benzo(k)fluoranthene	17.554	252	1256906	2032.34	ng/ml	98
90) Benzo(b+k)fluoranthene	17.554	252	2563432	3958.17	ng/ml	98
91) Benzo(e)pyrene	18.142	252	1218818	1910.61	ng/ml	98
92) Benzo(a)pyrene	18.260	252	1174506	2003.02	ng/ml	99
93) Perylene	18.468	252	1026574	1846.69	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.800	276	1143875	2143.74	ng/ml	99
96) Dibenz(a,h)anthracene	20.875	278	1087002	2271.22	ng/ml	97
97) Benzo(g,h,i)perylene	21.341	276	1186793	2310.18	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	305814	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1197569	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	636039	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1224924	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.938	240	1138264	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.420	264	1185024	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.827	292	1037191	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	844515	4071.54	ng/ml	0.02
5) Phenol-d6(Surr)	6.215	99	1043086	3915.14	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	786633	3221.91	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	1718307	3679.02	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	305471	5315.35	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2102593	3778.67	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.925	74	480484	3381.37	ng/ml	99
3) Pyridine	3.942	79	866960	3578.93	ng/ml	99
6) Phenol	6.231	94	1097096	3622.58	ng/ml	98
7) Aniline	6.252	93	840844	3105.93	ng/ml	96
8) Bis(2-chloroethyl) ether	6.316	93	962255	3567.28	ng/ml	99
9) 2-Chlorophenol	6.370	128	902056	4134.88	ng/ml	98
10) 1,3-Dichlorobenzene	6.520	146	965051	4090.70	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	926647	4047.22	ng/ml	99
12) Benzyl alcohol	6.712	108	581465	4157.22	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	906070	3937.01	ng/ml	99
14) 2-Methylphenol	6.814	107	646688	3687.77	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	739481	2125.28	ng/ml	94
16) N-Nitrosodi-n-propylamine	6.980	70	504346	2853.83	ng/ml	95
17) 3+4-Methylphenol	6.969	107	797964	3692.25	ng/ml	97
18) Hexachloroethane	7.076	201	311702	4944.82	ng/ml	98
20) Nitrobenzene	7.140	77	754990	3086.77	ng/ml	95
22) Isophorone	7.381	82	1524753	3508.45	ng/ml	100
23) 2-Nitrophenol	7.456	139	481353	3856.12	ng/ml	95
24) 2,4-Dimethylphenol	7.498	122	686286	4141.39	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	900203	3717.94	ng/ml	99
26) Benzoic acid	~~7.498~~	~~105~~	~~22439~~	~~556.08~~	~~ng/ml#~~	1
27) 2,4-Dichlorophenol	7.702	162	731346	5093.24	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	805154	4631.57	ng/ml	99
29) Naphthalene	7.862	128	2214900	3600.66	ng/ml	97
30) 4-Chloroaniline	7.926	127	663200	4035.49	ng/ml	99
31) Hexachlorobutadiene	7.990	225	442903	4777.41	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	698064	4036.41	ng/ml	97
33) 2-Methylnaphthalene	8.563	142	1625949	3871.75	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1521185	3768.94	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	417829	4151.52	ng/ml	96
37) 2,4,6-Trichlorophenol	8.846	196	532499	4570.85	ng/ml	99
38) 2,4,5-Trichlorophenol	8.878	198	516958	4780.35	ng/ml	99
39) 1,1'-Biphenyl	9.033	154	1845876	3493.33	ng/ml	96
41) 2-Chloronaphthalene	9.055	162	1467799	3784.57	ng/ml	99
42) 2-Nitroaniline	9.156	138	528406	4092.28	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.194	156	1385514	3502.70	ng/ml	97

See MS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.285	168	258106	4281.72	ng/ml	92
45) Dimethyl phthalate	9.349	163	1712764	3765.11	ng/ml	98
46) 1,3-Dinitrobenzene	9.370	168	289563	4189.29	ng/ml	93
47) 2,6-Dinitrotoluene	9.402	165	424265	4336.35	ng/ml	97
48) 1,2-Dinitrobenzene	9.467	168	202294	4414.41	ng/ml	92
49) Acenaphthylene	9.483	152	2224222	3577.77	ng/ml	97
50) 3-Nitroaniline	9.574	138	123216	1427.55	ng/ml	97
51) Acenaphthene	9.659	153	1433796	3557.81	ng/ml	99
52) 2,4-Dinitrophenol	9.675	184	174238	3652.38	ng/ml	99
53) 4-Nitrophenol	9.739	139	326661	3903.35	ng/ml	98
54) 2,4-Dinitrotoluene	9.814	165	555824	4414.31	ng/ml	93
55) Dibenzofuran	9.830	168	2040744	3713.59	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.911	232	434819	4639.23	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.959	232	451267	4758.24	ng/ml	95
58) Diethyl phthalate	10.060	149	1534521	3537.53	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.044	170	1276533	3634.12	ng/ml	98
60) Fluorene	10.183	166	1464263	3383.22	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.173	204	786385	3909.75	ng/ml	95
62) 4-Nitroaniline	10.199	138	281600	3213.60	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.232	198	258196	4046.65	ng/ml	96
65) N-Nitrosodiphenylamine	10.296	169	1182676	3139.61	ng/ml	98
66) Azobenzene (1,2-DPH)	10.338	77	1316342	2634.24	ng/ml	87
68) 4-Bromophenyl phenyl e...	10.675	248	546207	4331.66	ng/ml	97
69) Hexachlorobenzene	10.750	284	617226	4254.30	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	363768	4791.33	ng/ml	99
71) Phenanthrene	11.162	178	2302690	3437.96	ng/ml	97
72) Anthracene	11.216	178	2312152	3508.40	ng/ml	96
73) Carbazole	11.371	167	858655	1578.11	ng/ml	99
74) Di-n-butyl phthalate	11.724	149	2651399	3471.94	ng/ml	98
75) Fluoranthene	12.435	202	2665095	3804.46	ng/ml	97
76) Benzidine	12.596	184	1506619	7251.57	ng/ml	99
77) Pyrene	12.729	202	2681088	3831.29	ng/ml	95
80) Butyl benzyl phthalate	13.751	149	1344154	3770.70	ng/ml	94
81) Bis(2-ethylhexyl) adipate	13.922	129	1183408	3703.61	ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.879~~	~~252~~	~~448650~~	~~6944.09~~	~~ng/ml~~	~~96~~
83) Benz(a)anthracene	14.912	228	2538581	3803.56	ng/ml	99
84) Chrysene	15.003	228	2370714	3850.07	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.088	149	1799096	3815.54	ng/ml	97
87) Di-n-octyl phthalate	16.762	149	3203842	3414.68	ng/ml	99
88) Benzo(b)fluoranthene	17.516	252	2803227	3905.83	ng/ml	98
89) Benzo(k)fluoranthene	17.586	252	2555733	3752.77	ng/ml	99
90) Benzo(b+k)fluoranthene	17.586	252	5439284	7627.06	ng/ml	99
91) Benzo(e)pyrene	18.174	252	2630004	3743.97	ng/ml	99
92) Benzo(a)pyrene	18.292	252	2485829	3849.85	ng/ml	99
93) Perylene	18.500	252	2164033	3535.17	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.838	276	2539375	4355.08	ng/ml	98
96) Dibenz(a,h)anthracene	20.902	278	2389624	4569.13	ng/ml	98
97) Benzo(g,h,i)perylene	21.378	276	2579448	4594.87	ng/ml	98

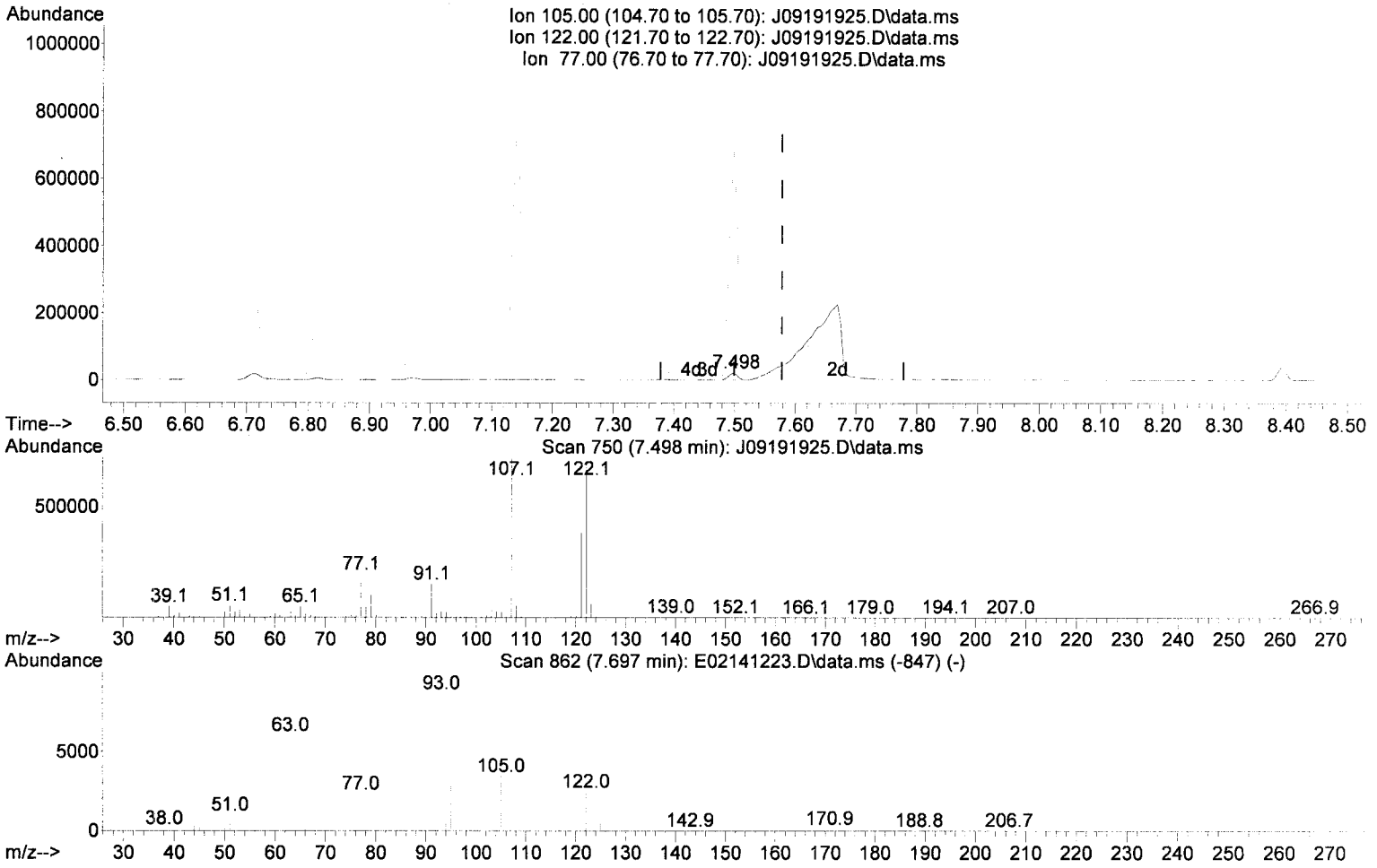
See MJ

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.498min (-0.080) 556.98 ng/ml

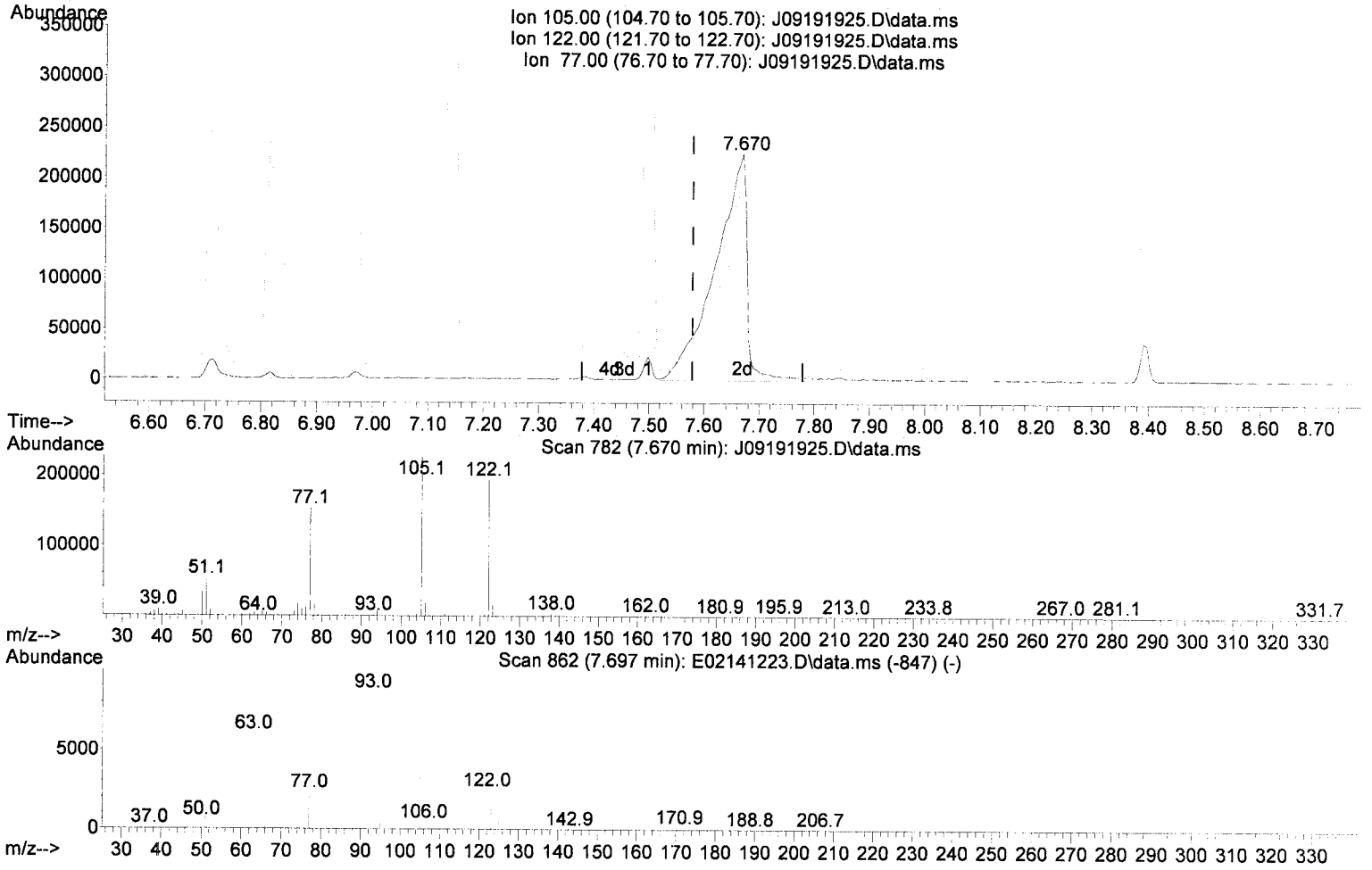
response 22439

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2944.12#
77.00	72.00	841.49#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.670min (+ 0.091) 7780.16 ng/ml m

response 902544

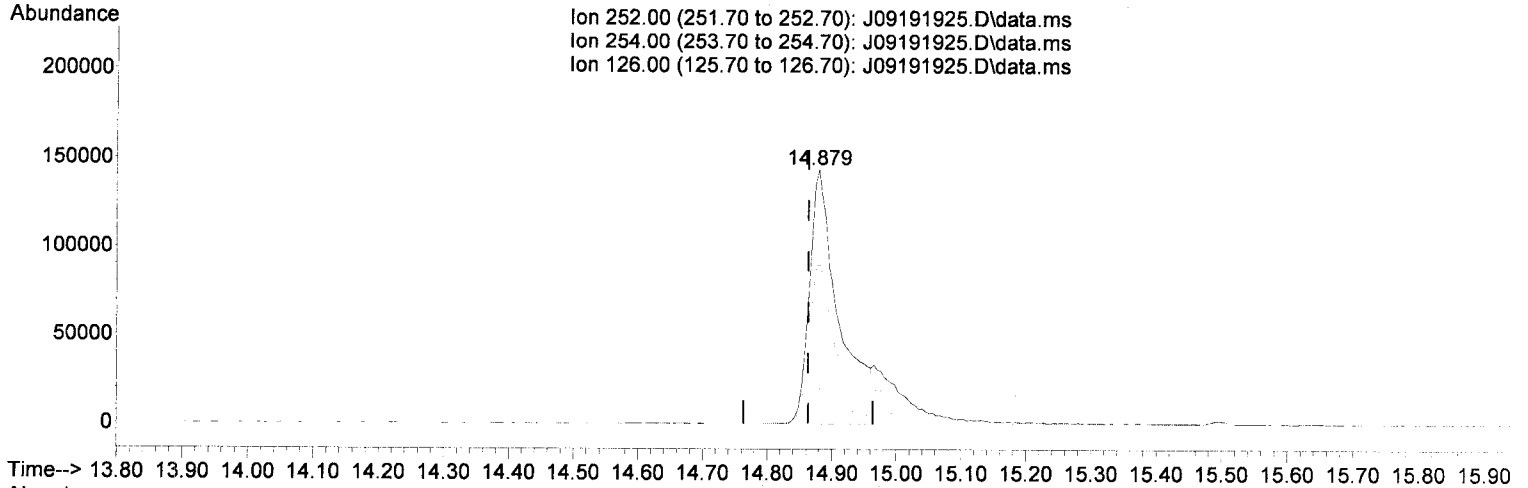
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	85.67
77.00	72.00	68.01
0.00	0.00	0.00

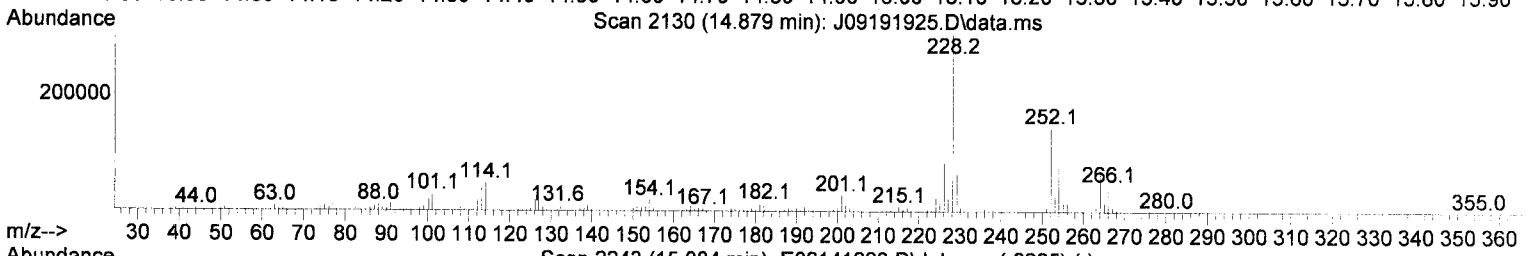
9/20/19

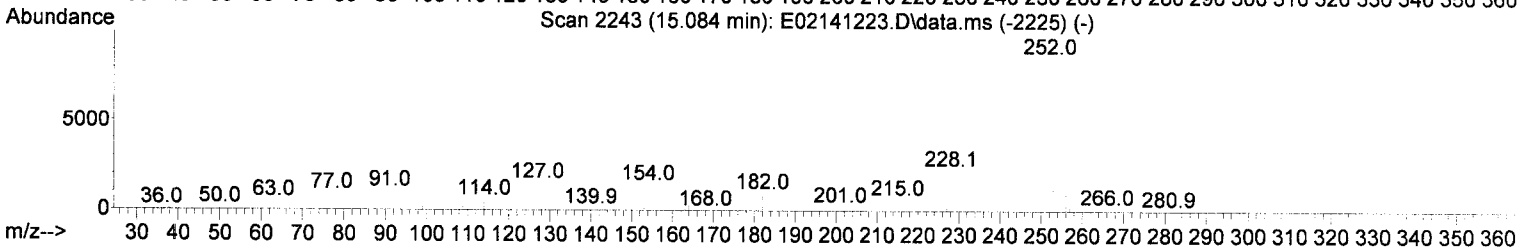
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 6944.09 ng/ml

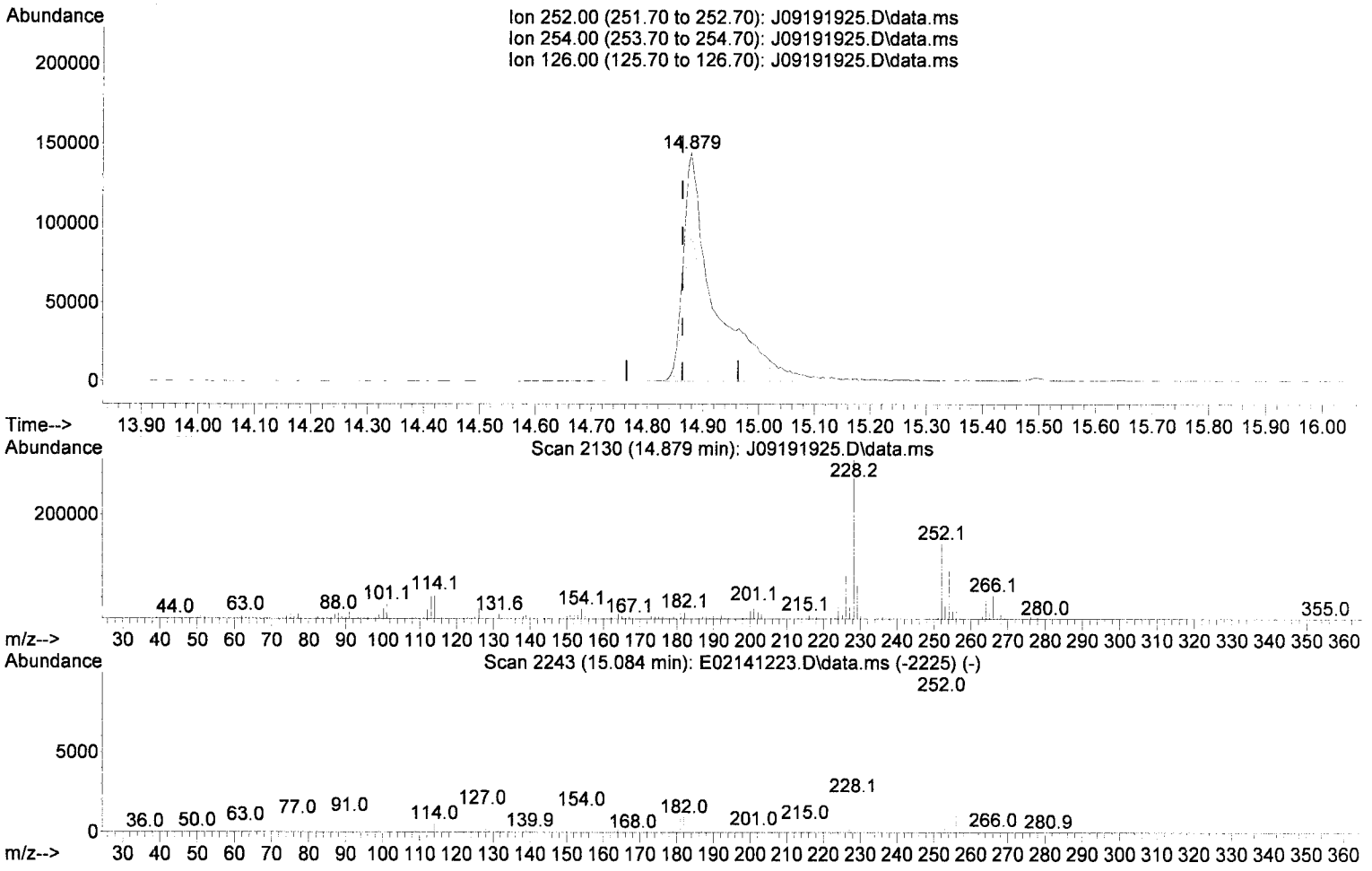
response 448650

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 9026.86 ng/ml

response 555604

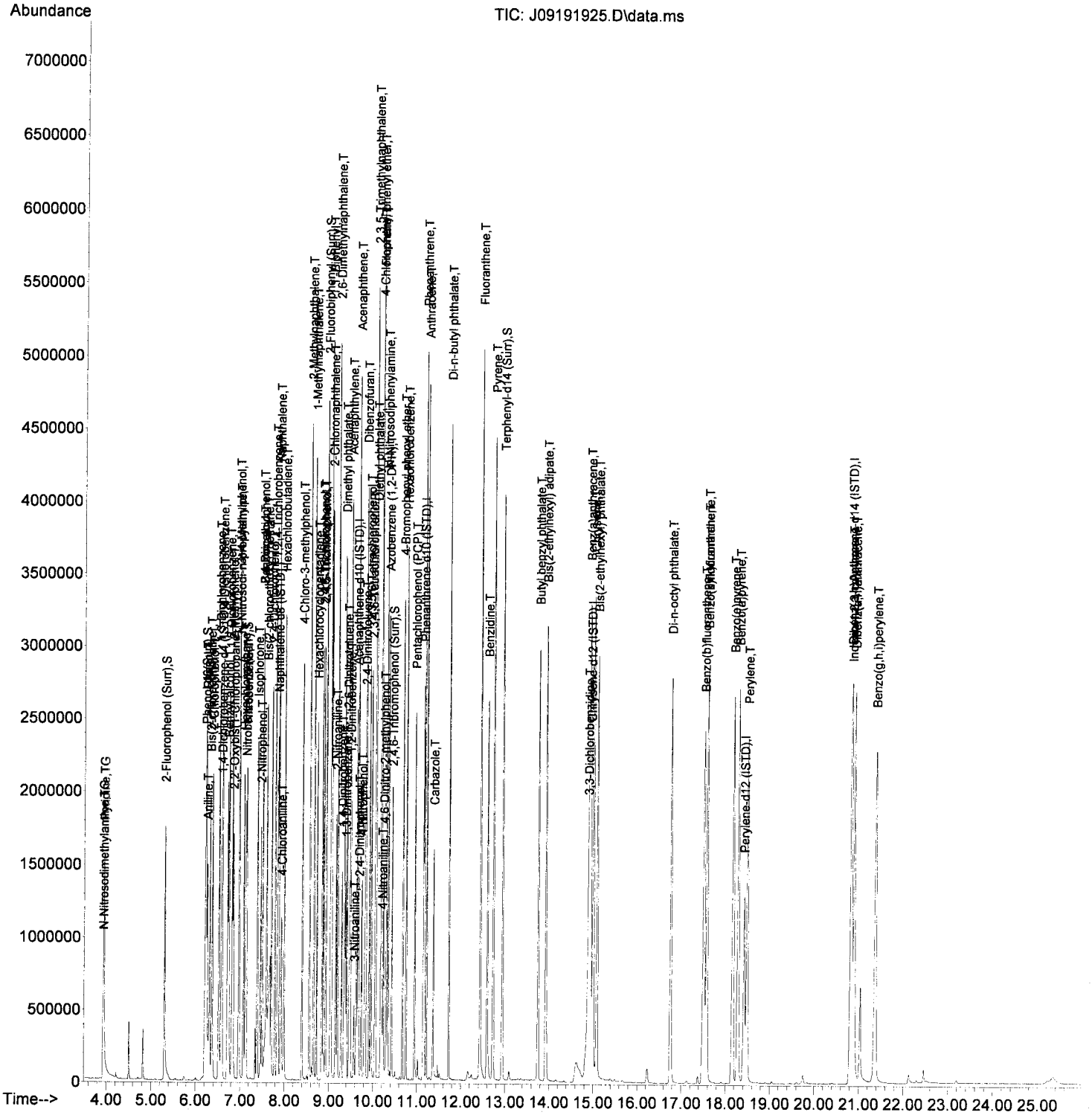
Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	279602	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1094080	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	593235	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.141	188	1148482	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.944	240	1022230	2000.00	ng/ml	0.03
86) Perylene-d12 (ISTD)	18.426	264	1067597	2000.00	ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	20.838	292	945822	2000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.295	112	1150405	6066.23	ng/ml	0.00
5) Phenol-d6(Surr)	6.215	99	1391310	5711.74	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	1045001	4681.39	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	2148364	4931.70	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	407389	7560.59	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2699067	5401.22	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	674636m	5192.78	ng/ml	
3) Pyridine	3.893	79	1210013m	5463.38	ng/ml	
6) Phenol	6.231	94	1432862	5174.81	ng/ml	98
7) Aniline	6.252	93	1316393	5318.37	ng/ml	95
8) Bis(2-chloroethyl) ether	6.316	93	1158478	4697.35	ng/ml	99
9) 2-Chlorophenol	6.370	128	1211719	6075.04	ng/ml	99
10) 1,3-Dichlorobenzene	6.520	146	1260484	5843.89	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	1202300	5743.45	ng/ml	99
12) Benzyl alcohol	6.712	108	768204	6007.21	ng/ml	98
13) 1,2-Dichlorobenzene	6.739	146	1159865	5512.26	ng/ml	99
14) 2-Methylphenol	6.819	107	839569	5236.51	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	943818	2966.84	ng/ml	91
16) N-Nitrosodi-n-propylamine	6.985	70	644101	3986.31	ng/ml	94
17) 3+4-Methylphenol	6.974	107	997248	5046.94	ng/ml	99
18) Hexachloroethane	7.076	201	419784	7283.73	ng/ml	95
20) Nitrobenzene	7.145	77	977466	4371.02	ng/ml	92
22) Isophorone	7.386	82	2075603	5227.70	ng/ml	100
23) 2-Nitrophenol	7.461	139	659170	6267.16	ng/ml	93
24) 2,4-Dimethylphenol	7.504	122	932922	6162.28	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	1142883	5166.72	ng/ml	98
26) Benzoic acid	7.579	105	96795	1449.32	ng/ml	96 See MJ
27) 2,4-Dichlorophenol	7.702	162	943067	7188.94	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.787	180	1041502	6557.84	ng/ml	100
29) Naphthalene	7.867	128	2711030	4824.07	ng/ml	95
30) 4-Chloroaniline	7.926	127	906180	6017.35	ng/ml	100
31) Hexachlorobutadiene	7.996	225	570722	6738.45	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	912303	5774.18	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2034929	5303.97	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1893325	5134.69	ng/ml	98
36) Hexachlorocyclopentadiene	8.729	237	601203	6404.52	ng/ml	95
37) 2,4,6-Trichlorophenol	8.846	196	713503	6449.67	ng/ml	99
38) 2,4,5-Trichlorophenol	8.884	198	699105	6931.12	ng/ml	99
39) 1,1'-Biphenyl	9.039	154	2268485	4602.89	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	1860060	5142.02	ng/ml	98
42) 2-Nitroaniline	9.162	138	739914	6143.79	ng/ml	93
43) 2,6-Dimethylnaphthalene	9.199	156	1742370	4722.69	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

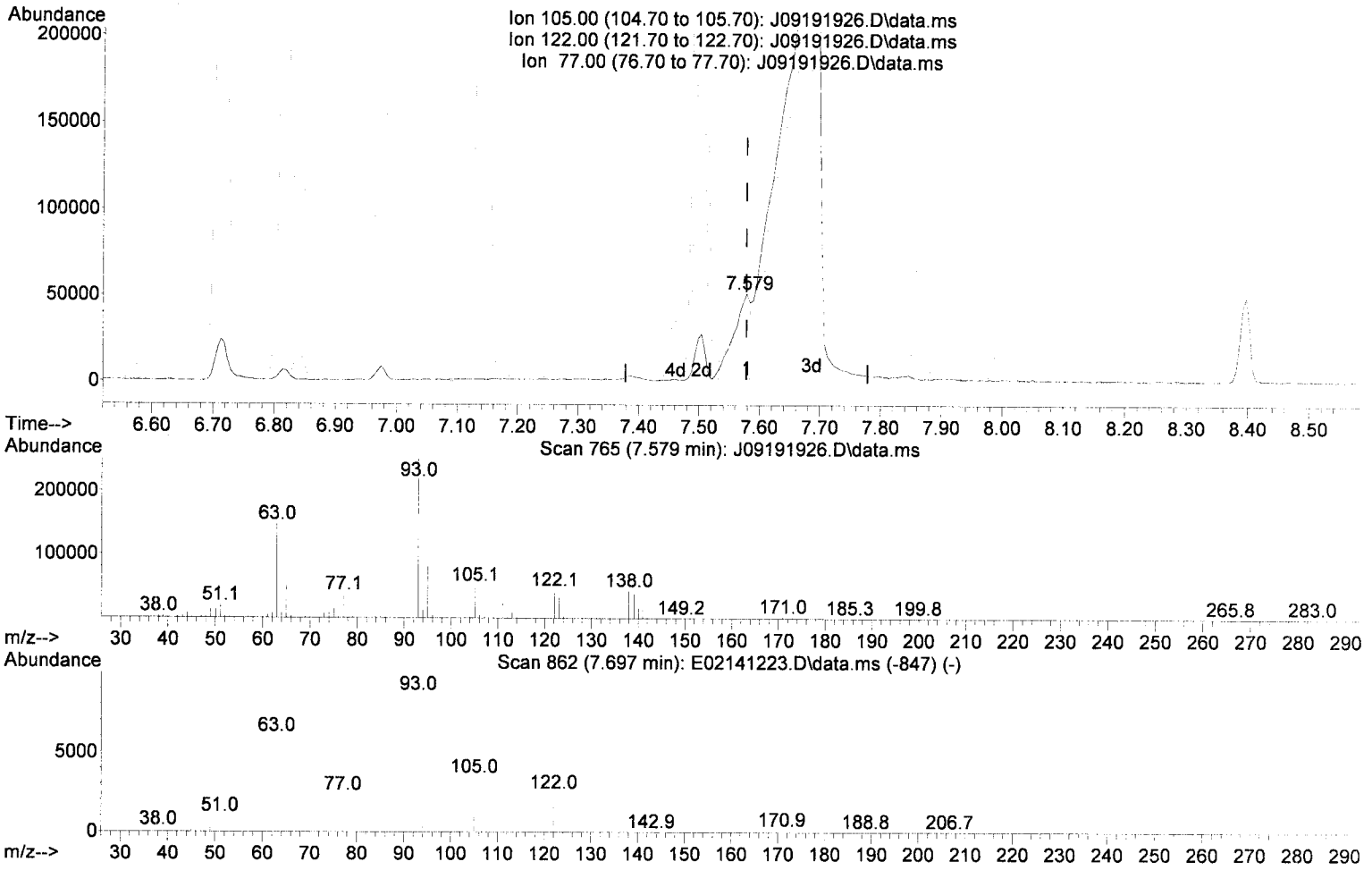
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.290	168	365105	6493.74 ng/ml	88
45) Dimethyl phthalate	9.354	163	2223667	5240.92 ng/ml	97
46) 1,3-Dinitrobenzene	9.381	168	407082	6314.46 ng/ml	91
47) 2,6-Dinitrotoluene	9.408	165	575872	6310.58 ng/ml	96
48) 1,2-Dinitrobenzene	9.472	168	266233	6228.85 ng/ml	93
49) Acenaphthylene	9.483	152	2704211	4663.72 ng/ml	95
50) 3-Nitroaniline	9.579	138	180797	Below Cal	97
51) Acenaphthene	9.659	153	1803278	4797.51 ng/ml	99
52) 2,4-Dinitrophenol	9.681	184	272053	5508.37 ng/ml	97
53) 4-Nitrophenol	9.745	139	467183	5690.24 ng/ml	97
54) 2,4-Dinitrotoluene	9.820	165	734363	6253.07 ng/ml	93
55) Dibenzofuran	9.836	168	2531005	4938.04 ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.916	232	597064	6702.12 ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.959	232	603345	6692.46 ng/ml	96
58) Diethyl phthalate	10.066	149	1916805	4737.64 ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1592300	4860.15 ng/ml	97
60) Fluorene	10.189	166	1824399	4519.48 ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.178	204	992417	5290.11 ng/ml	95
62) 4-Nitroaniline	10.205	138	385746	4719.73 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.237	198	377769	5981.86 ng/ml	95
65) N-Nitrosodiphenylamine	10.301	169	1569352	4443.39 ng/ml	97
66) Azobenzene (1,2-DPH)	10.339	77	1601806	3418.86 ng/ml	88
68) 4-Bromophenyl phenyl e...	10.681	248	726568	6145.51 ng/ml	92
69) Hexachlorobenzene	10.756	284	795928	5851.17 ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	500914	6716.78 ng/ml	99
71) Phenanthrene	11.168	178	2932288	4669.35 ng/ml	96
72) Anthracene	11.221	178	2907155	4704.86 ng/ml	96
73) Carbazole	11.371	167	1156567	2267.12 ng/ml	99
74) Di-n-butyl phthalate	11.729	149	3301933	4611.59 ng/ml	97
75) Fluoranthene	12.441	202	3417993	5203.99 ng/ml	96
76) Benzidine	12.601	184	2204013	10575.22 ng/ml	99
77) Pyrene	12.735	202	3436590	5237.78 ng/ml	95
80) Butyl benzyl phthalate	13.756	149	1779167	5557.56 ng/ml	93
81) Bis(2-ethylhexyl) adipate	13.933	129	1497303	5217.89 ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.890~~	~~252~~	~~494238~~	~~8919.45 ng/ml~~	97 See MS
83) Benz(a)anthracene	14.917	228	3394067	5662.58 ng/ml	99
84) Chrysene	15.013	228	3095456	5597.68 ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.093	149	2338505	5522.48 ng/ml	96
87) Di-n-octyl phthalate	16.773	149	4149203	4742.46 ng/ml	99
88) Benzo(b)fluoranthene	17.522	252	3768759	5828.72 ng/ml	99
89) Benzo(k)fluoranthene	17.602	252	3115398	5077.74 ng/ml	99
90) Benzo(b+k)fluoranthene	17.602	252	7129046	11096.00 ng/ml	99
91) Benzo(e)pyrene	18.185	252	3489142	5513.34 ng/ml	99
92) Benzo(a)pyrene	18.308	252	3235783	5562.53 ng/ml	100
93) Perylene	18.511	252	2908580	5274.09 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.854	276	3489319	6562.35 ng/ml	97
96) Dibenz(a,h)anthracene	20.913	278	3129173	6561.19 ng/ml	99
97) Benzo(g,h,i)perylene	21.389	276	3417702	6676.22 ng/ml	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.579min (+ 0.000) 1449.32 ng/ml

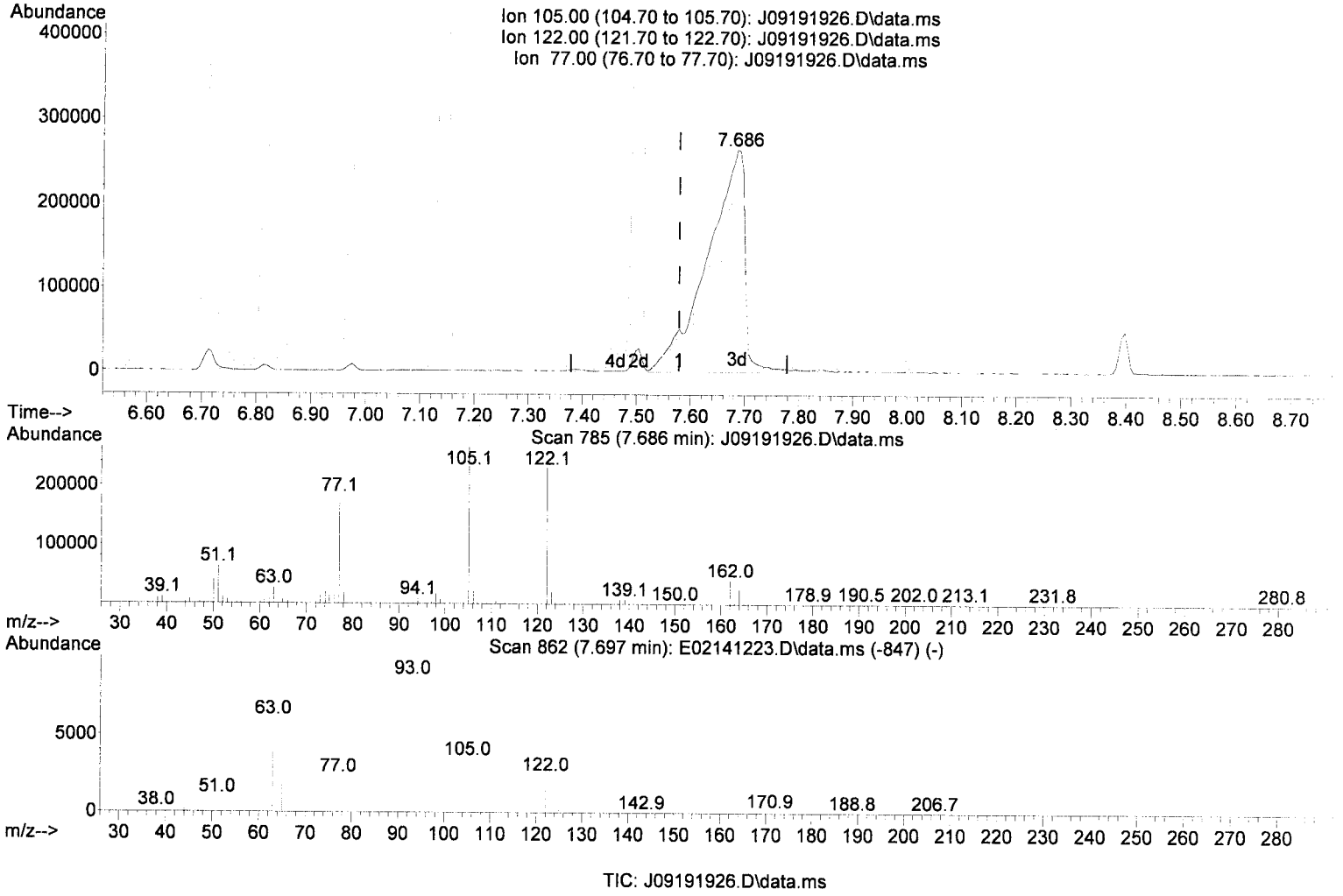
response 96795

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	84.66
77.00	72.00	72.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.686min (+ 0.107) 10743.23 ng/ml m 9/20/19

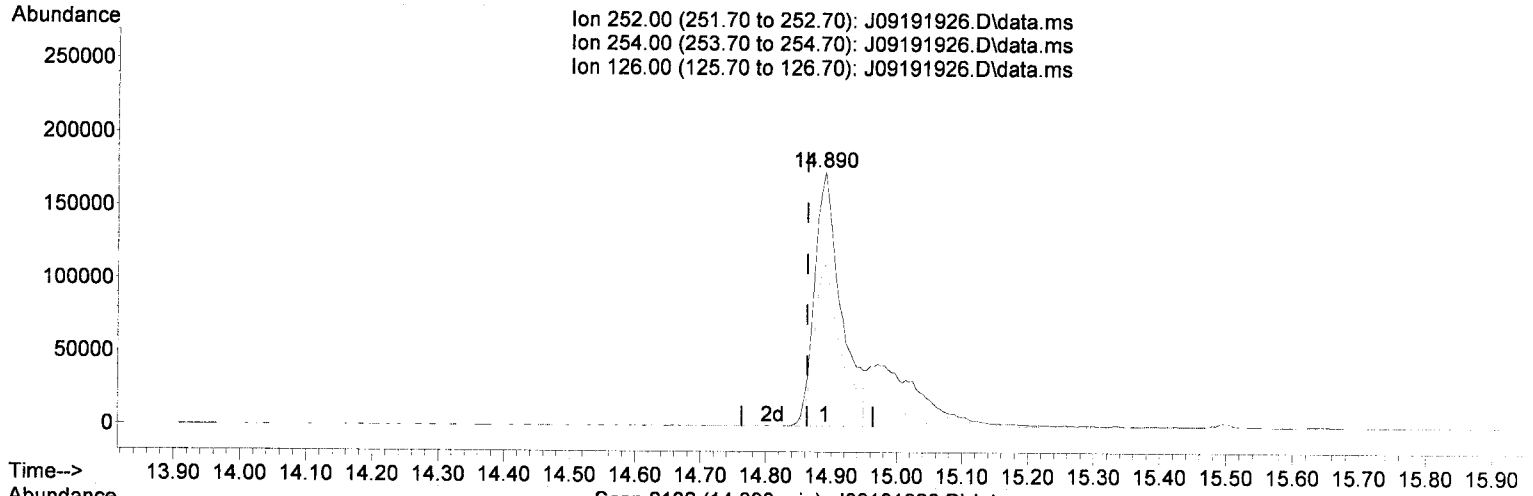
response 1277463

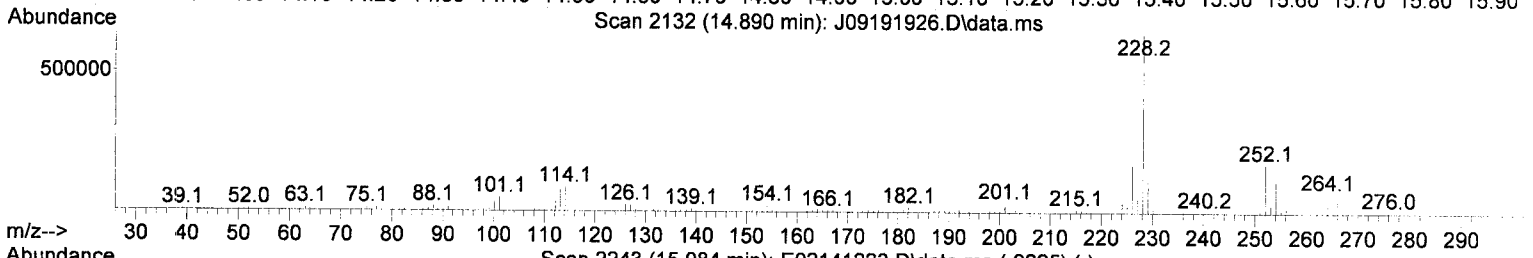
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.78
0.00	0.00	0.00

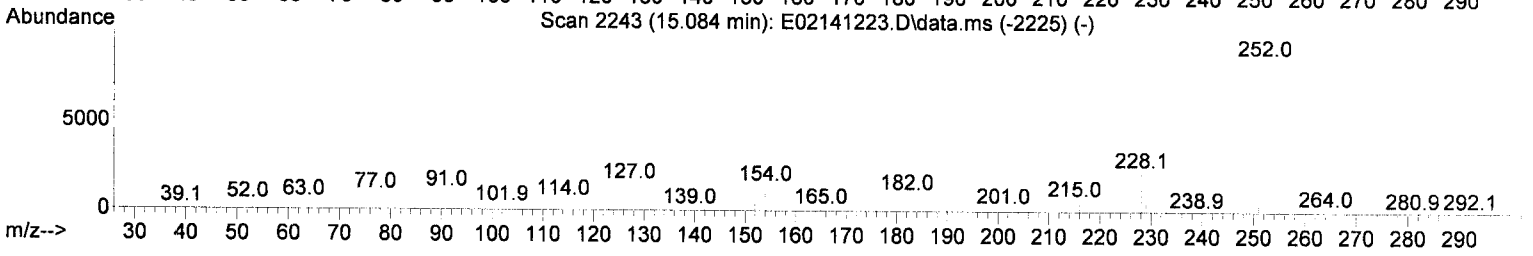
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 8919.45 ng/ml

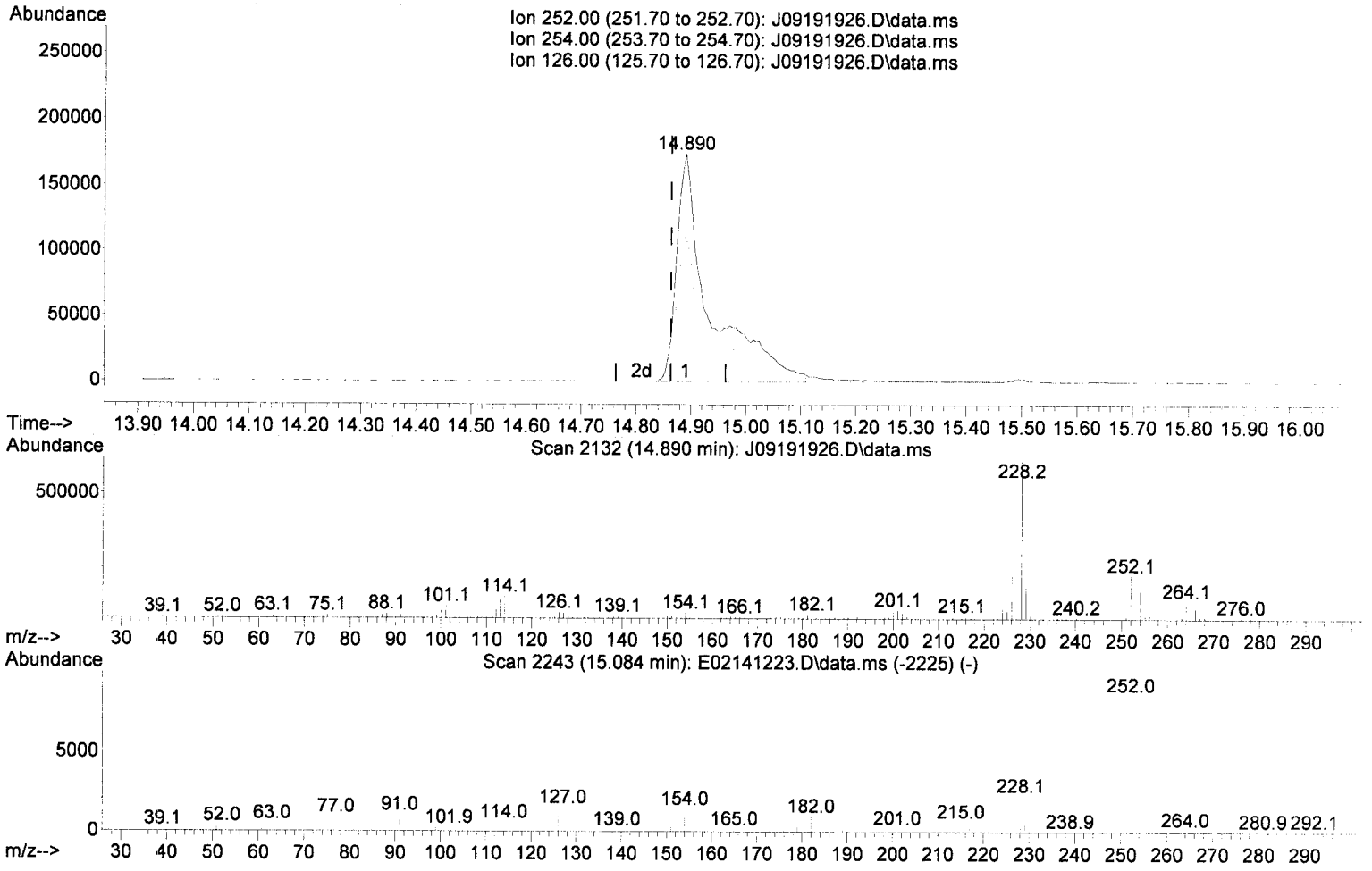
response 494238

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 15215.95 ng/ml 9/20/19

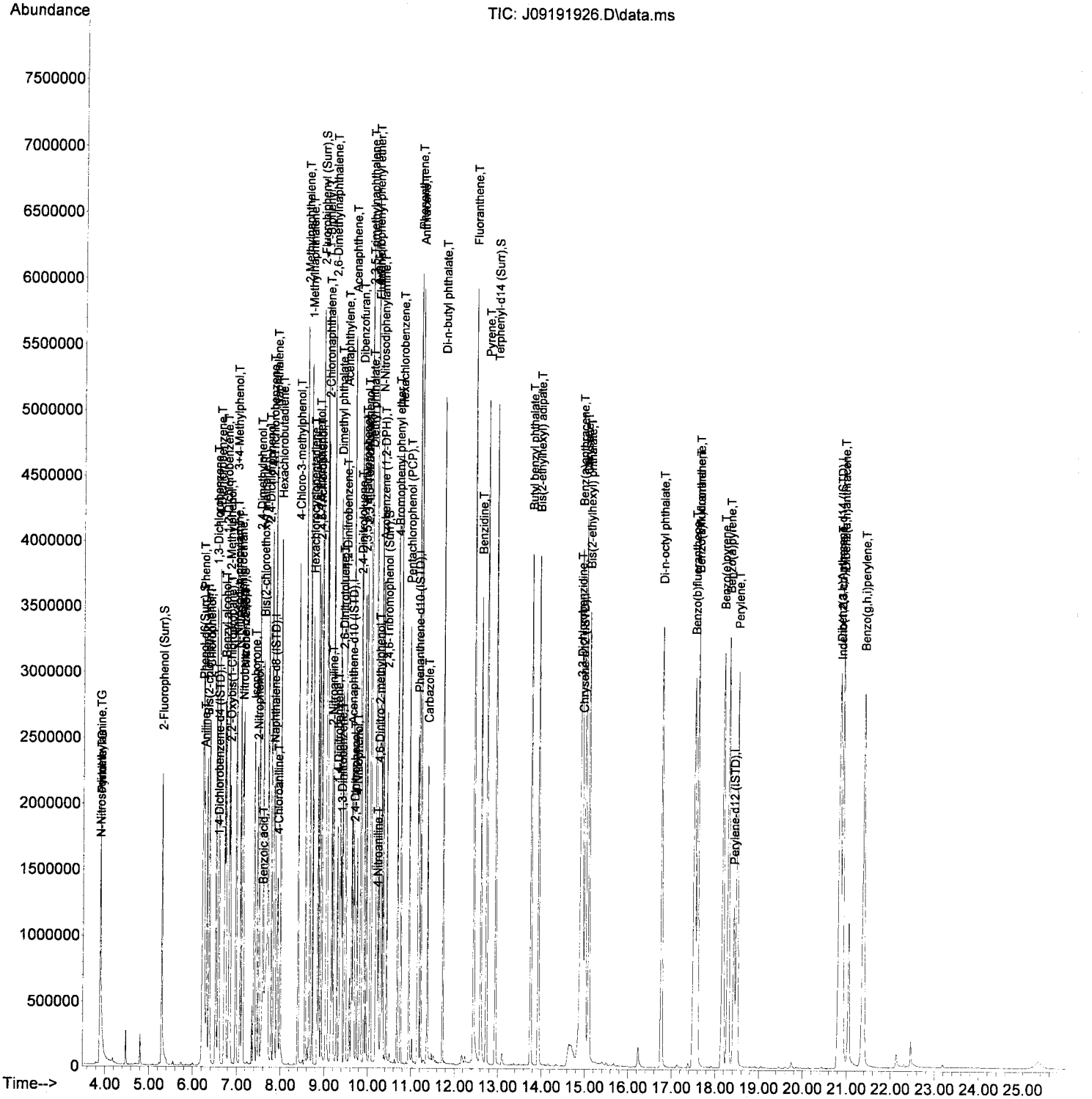
response 730056

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

GJL 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.578	152	269345	2000.00	ng/ml	0.01
21) Naphthalene-d8 (ISTD)	7.846	136	1074761	2000.00	ng/ml	0.01
35) Acenaphthene-d10 (ISTD)	9.627	162	593771	2000.00	ng/ml	0.01
64) Phenanthrene-d10 (ISTD)	11.135	188	1167219	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	1013392	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.409	264	1108960	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.822	292	982889	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	1458990	7986.41	ng/ml	0.03
5) Phenol-d6(Surr)	6.225	99	1721904	7338.12	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.129	82	1284804	5974.84	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	8.937	172	2595271	5952.22	ng/ml	0.01
67) 2,4,6-Tribromophenol (...	10.435	330	524653	9580.55	ng/ml	0.02
79) Terphenyl-d14 (Surr)	12.932	244	3392009	6847.09	ng/ml	0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.957	74	799031	6384.48	ng/ml	95
3) Pyridine	3.963	79	1480958m	6941.37	ng/ml#	
6) Phenol	6.247	94	1750392	6562.31	ng/ml	93
7) Aniline	6.263	93	1480736	6210.15	ng/ml	95
8) Bis(2-chloroethyl) ether	6.322	93	1435010	6040.20	ng/ml	98
9) 2-Chlorophenol	6.375	128	1496104	7786.46	ng/ml	98
10) 1,3-Dichlorobenzene	6.525	146	1570022	7556.17	ng/ml	99
11) 1,4-Dichlorobenzene	6.594	146	1504749	7462.00	ng/ml	99
12) Benzyl alcohol	6.723	108	932774	7571.89	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	1419977	7005.43	ng/ml	100
14) 2-Methylphenol	6.824	107	1030806	6674.12	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.846	45	1103589	3601.18	ng/ml	87
16) N-Nitrosodi-n-propylamine	6.995	70	803148	5159.93	ng/ml	94
17) 3+4-Methylphenol	6.985	107	1205305	6332.18	ng/ml	99
18) Hexachloroethane	7.081	201	541884	9760.36	ng/ml	92
20) Nitrobenzene	7.151	77	1198679	5564.36	ng/ml	91
22) Isophorone	7.397	82	2693969	6907.11	ng/ml	99
23) 2-Nitrophenol	7.461	139	838038	8987.28	ng/ml	94
24) 2,4-Dimethylphenol	7.509	122	1099526	7393.25	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.595	93	1380842	6354.69	ng/ml	98
26) Benzoic acid	7.509	105	38011	776.83	ng/ml#	1
27) 2,4-Dichlorophenol	7.707	162	1167761	9061.78	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.787	180	1277566	8188.82	ng/ml	99
29) Naphthalene	7.867	128	3240737	5870.30	ng/ml	95
30) 4-Chloroaniline	7.931	127	1186251	7997.52	ng/ml	100
31) Hexachlorobutadiene	7.996	225	701350	8429.61	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	1141605	7355.36	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2448839	6497.55	ng/ml	98
34) 1-Methylnaphthalene	8.664	142	2286875	6313.48	ng/ml	98
36) Hexachlorocyclopentadiene	8.728	237	759063	8078.87	ng/ml	96
37) 2,4,6-Trichlorophenol	8.851	196	922776	8200.21	ng/ml	98
38) 2,4,5-Trichlorophenol	8.884	198	870124	8618.86	ng/ml	98
39) 1,1'-Biphenyl	9.039	154	2706900	5487.50	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	2240055	6186.91	ng/ml	98
42) 2-Nitroaniline	9.167	138	944974	7839.40	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.199	156	2089018	5657.17	ng/ml	98

See MI

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.295	168	488295	8676.95	ng/ml	84
45) Dimethyl phthalate	9.360	163	2768841	6519.94	ng/ml	96
46) 1,3-Dinitrobenzene	9.386	168	525829	8149.05	ng/ml	91
47) 2,6-Dinitrotoluene	9.413	165	727325	7963.06	ng/ml	93
48) 1,2-Dinitrobenzene	9.477	168	322227	7532.10	ng/ml	94
49) Acenaphthylene	9.488	152	3146686	5421.92	ng/ml	95
50) 3-Nitroaniline	9.584	138	174843	Below Cal		96
51) Acenaphthene	9.664	153	2204696	5860.16	ng/ml	99
52) 2,4-Dinitrophenol	9.686	184	388560	7229.26	ng/ml	93
53) 4-Nitrophenol	9.755	139	610739	7150.14	ng/ml	97
54) 2,4-Dinitrotoluene	9.825	165	868405	7387.76	ng/ml	92
55) Dibenzofuran	9.836	168	3003141	5853.90	ng/ml	93
56) 2,3,5,6-Tetrachlorophenol	9.916	232	763806	8438.44	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.964	232	773723	8433.64	ng/ml	95
58) Diethyl phthalate	10.066	149	2319061	5726.69	ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1931750	5890.92	ng/ml	99
60) Fluorene	10.189	166	2171368	5374.15	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.178	204	1192807	6352.55	ng/ml	94
62) 4-Nitroaniline	10.210	138	523369	6397.82	ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.242	198	504056	7617.61	ng/ml	93
65) N-Nitrosodiphenylamine	10.306	169	1760214	4903.79	ng/ml	97
66) Azobenzene (1,2-DPH)	10.344	77	1950077	4095.39	ng/ml	78
68) 4-Bromophenyl phenyl e...	10.681	248	926306	7709.18	ng/ml	93
69) Hexachlorobenzene	10.756	284	1001688	7245.58	ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	646595	8238.97	ng/ml	98
71) Phenanthrene	11.167	178	3584429	5616.19	ng/ml	96
72) Anthracene	11.221	178	3477728	5537.91	ng/ml	95
73) Carbazole	11.371	167	1165062	2247.11	ng/ml	99
74) Di-n-butyl phthalate	11.724	149	4037361	5548.19	ng/ml	96
75) Fluoranthene	12.435	202	4158773	6230.20	ng/ml	95
76) Benzidine	12.595	184	3017555	13485.44	ng/ml	99
77) Pyrene	12.729	202	4271888	6406.36	ng/ml	95
80) Butyl benzyl phthalate	13.745	149	2308181	7272.91	ng/ml	91
81) Bis(2-ethylhexyl) adipate	13.917	129	1955106	6872.69	ng/ml	99
82) 3,3-Dichlorobenzidine	14.874	252	572542	10901.24	ng/ml	98
83) Benz(a)anthracene	14.906	228	4360504	7338.40	ng/ml	98
84) Chrysene	15.002	228	3992263	7282.39	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.083	149	2986931	7115.28	ng/ml	95
87) Di-n-octyl phthalate	16.751	149	5450180	5838.44	ng/ml	98
88) Benzo(b)fluoranthene	17.522	252	5003892	7450.31	ng/ml	98
89) Benzo(k)fluoranthene	17.591	252	3789489	5946.05	ng/ml	98
90) Benzo(b+k)fluoranthene	17.591	252	9407940	14096.81	ng/ml	98
91) Benzo(e)pyrene	18.174	252	4556103	6930.76	ng/ml	96
92) Benzo(a)pyrene	18.302	252	4292201	7103.37	ng/ml	100
93) Perylene	18.500	252	3844220	6710.68	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.838	276	4879339	8830.49	ng/ml	97
96) Dibenz(a,h)anthracene	20.902	278	4143300	8359.97	ng/ml	98
97) Benzo(g,h,i)perylene	21.383	276	4554601	8561.53	ng/ml	98

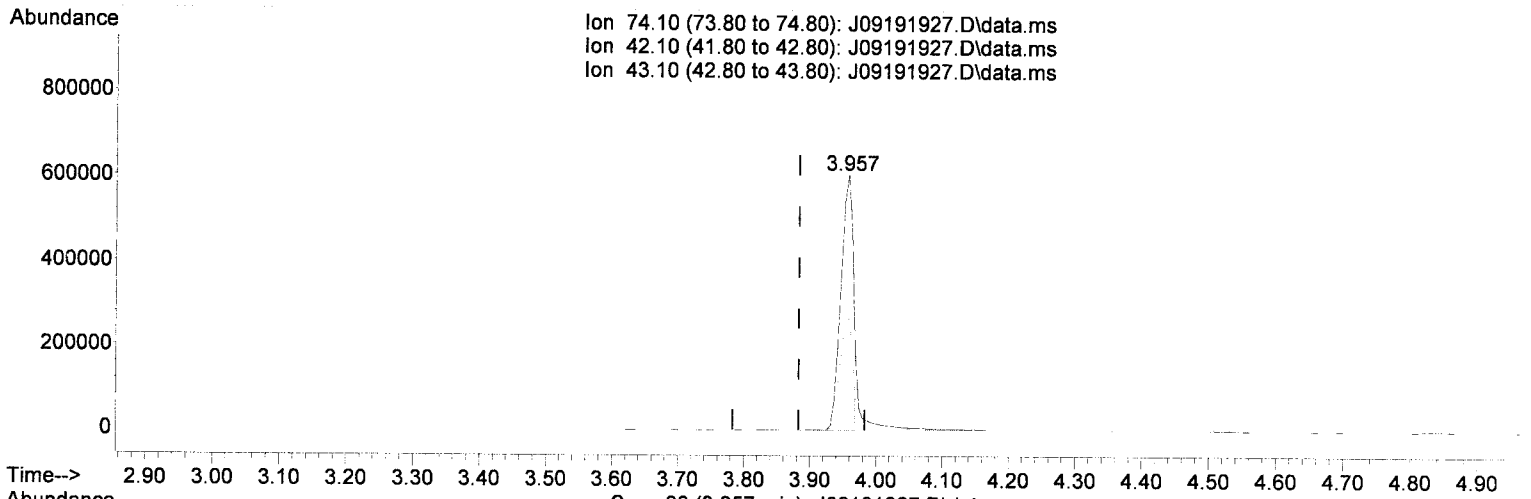
See MS

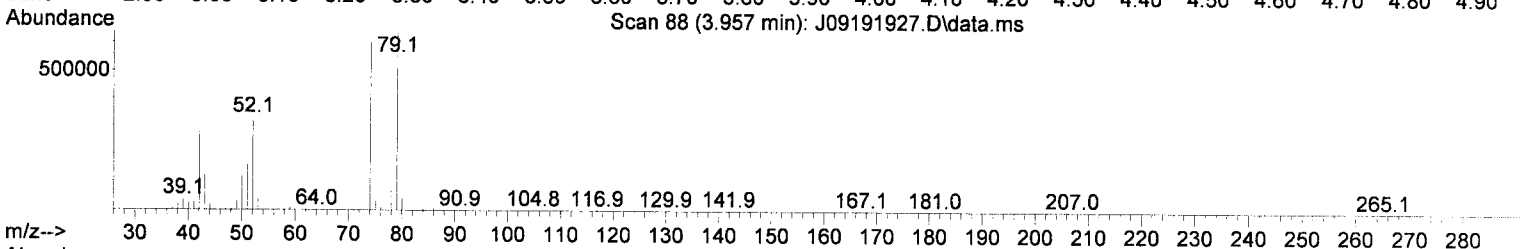
(#) = qualifier out of range (m) = manual integration (+) = signals summed

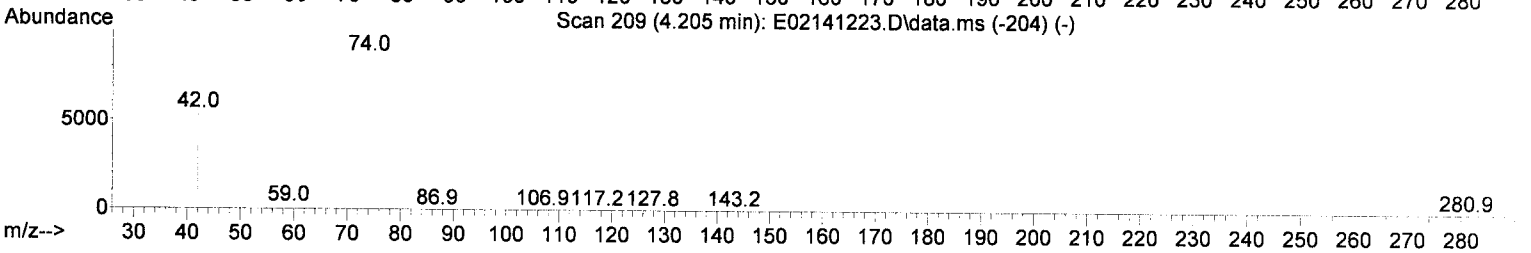
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6384.48 ng/ml

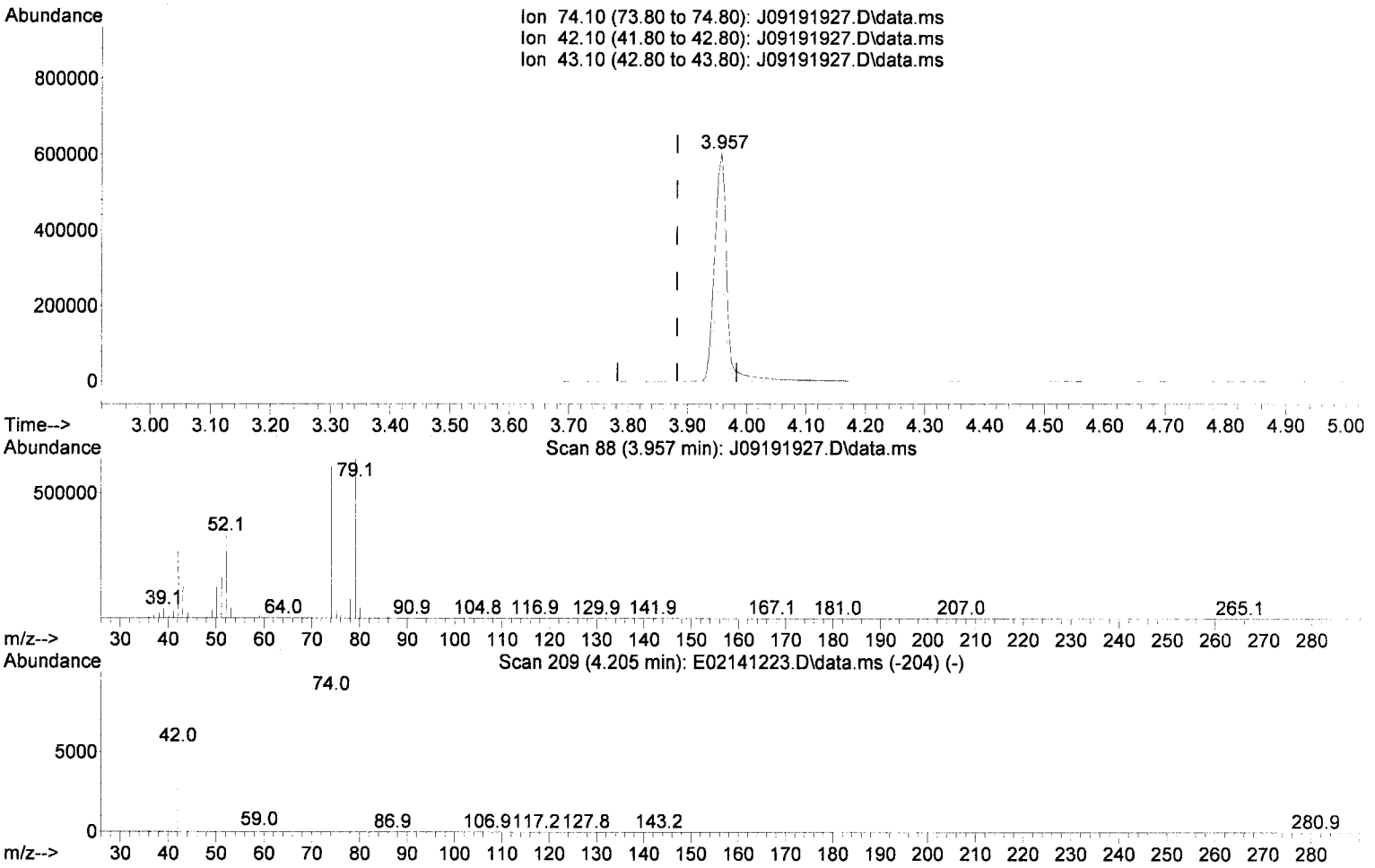
response 799081

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6923.78 ng/ml m 9/20/19

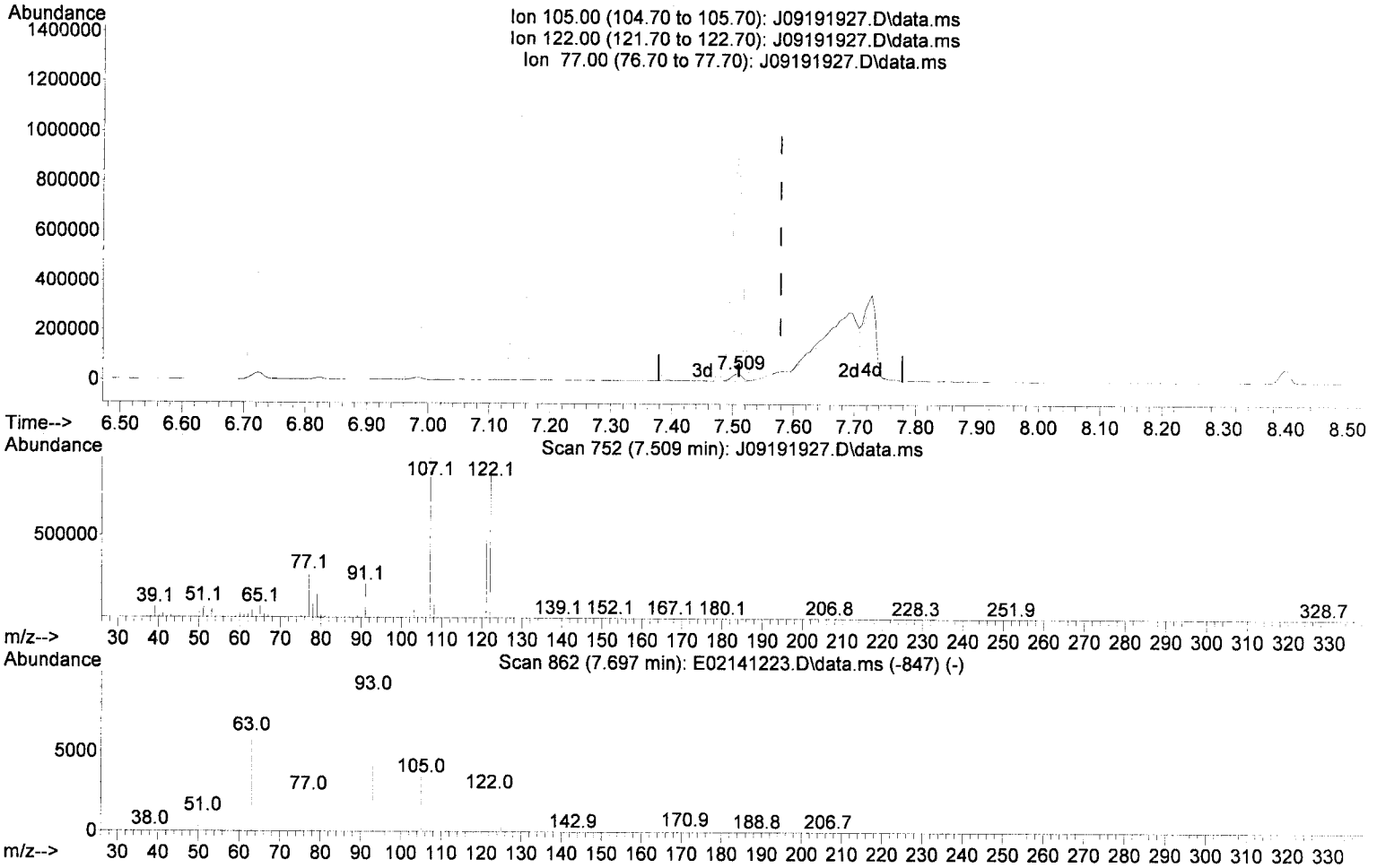
response 866525

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.509min (-0.070) 776.83 ng/ml

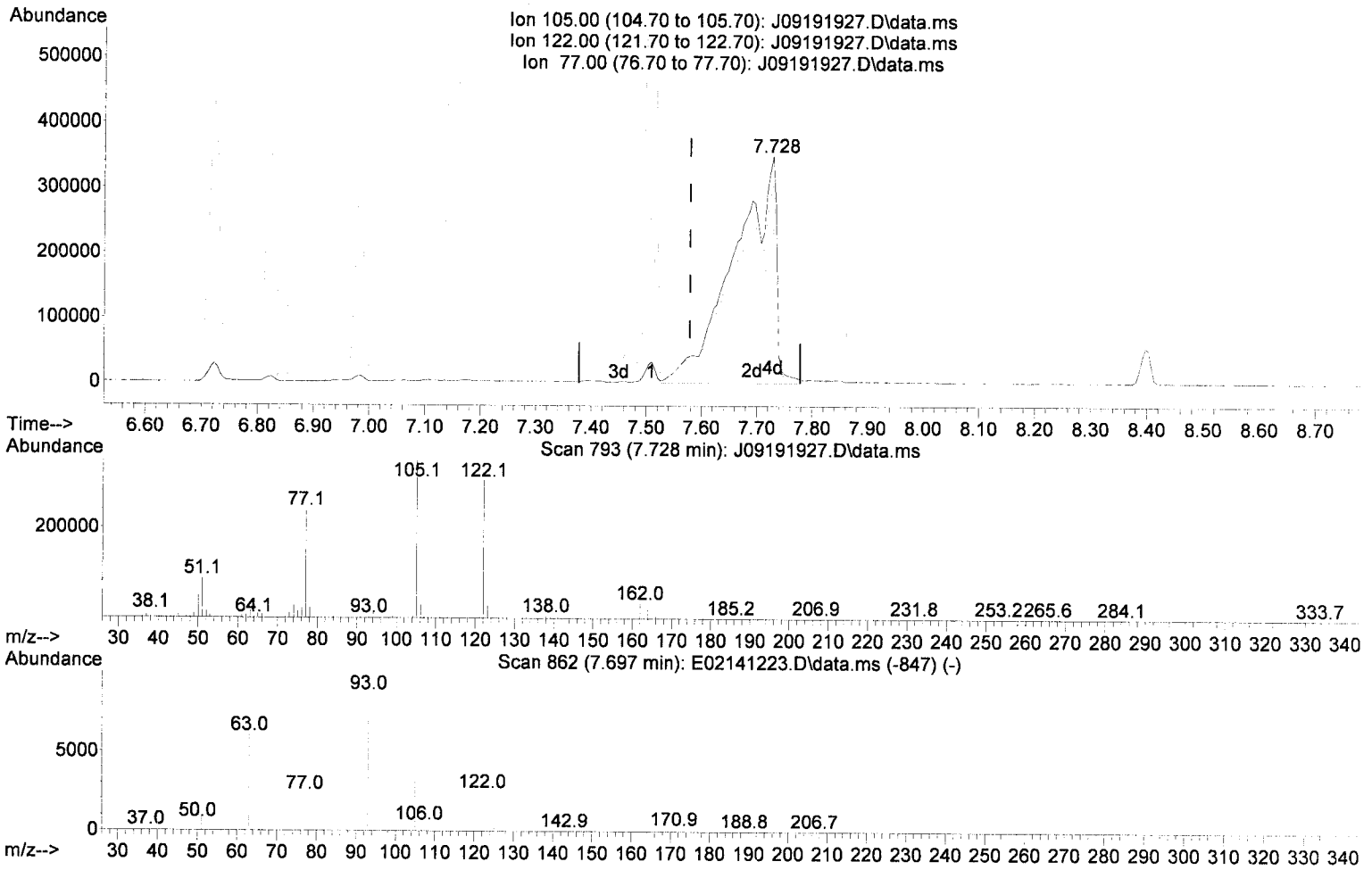
response 38011

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2797.37#
77.00	72.00	828.09#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.728min (+ 0.150) 14150.47 ng/ml m

9/20/19

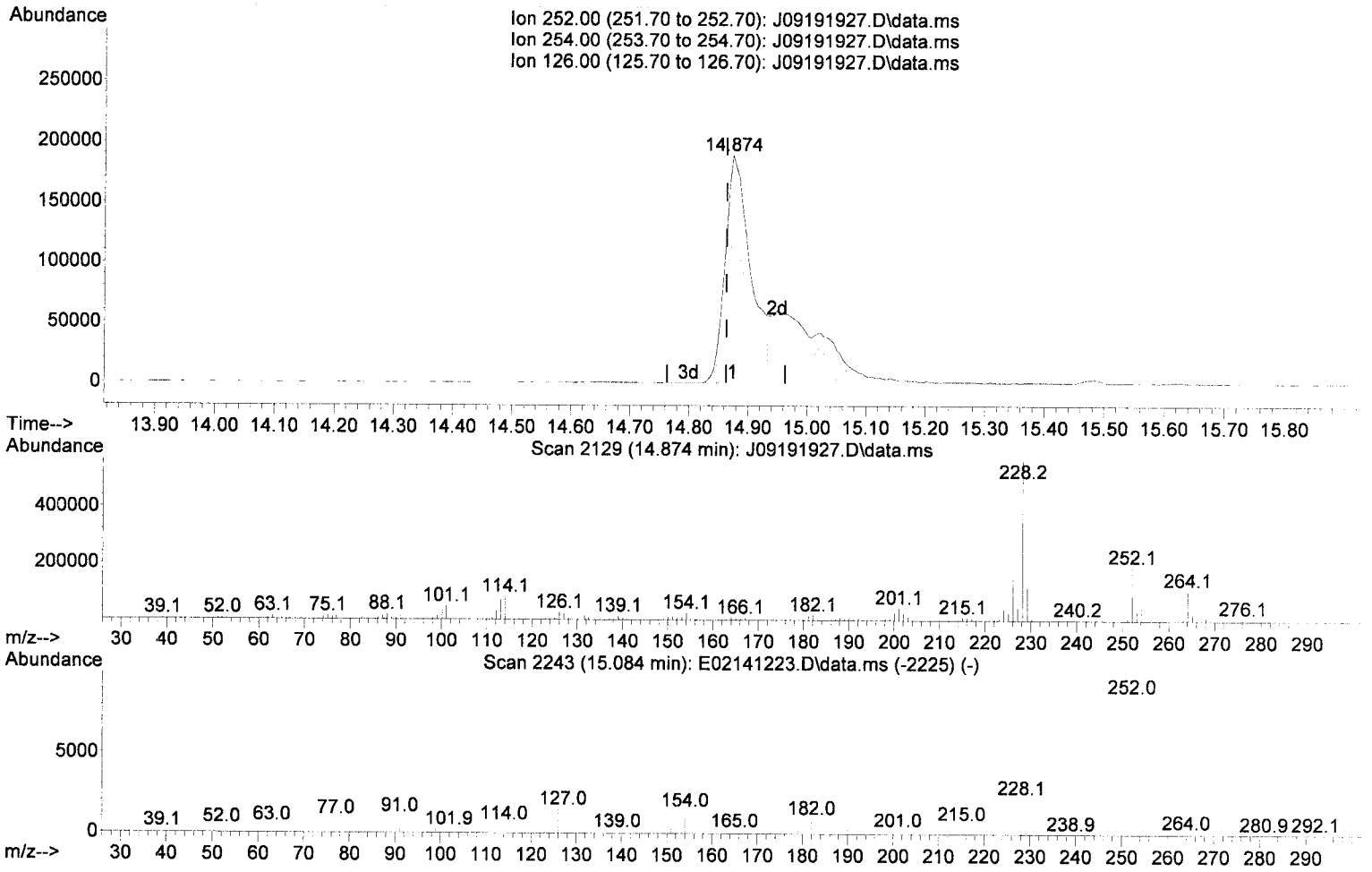
response 1853462

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) 10901.24 ng/ml

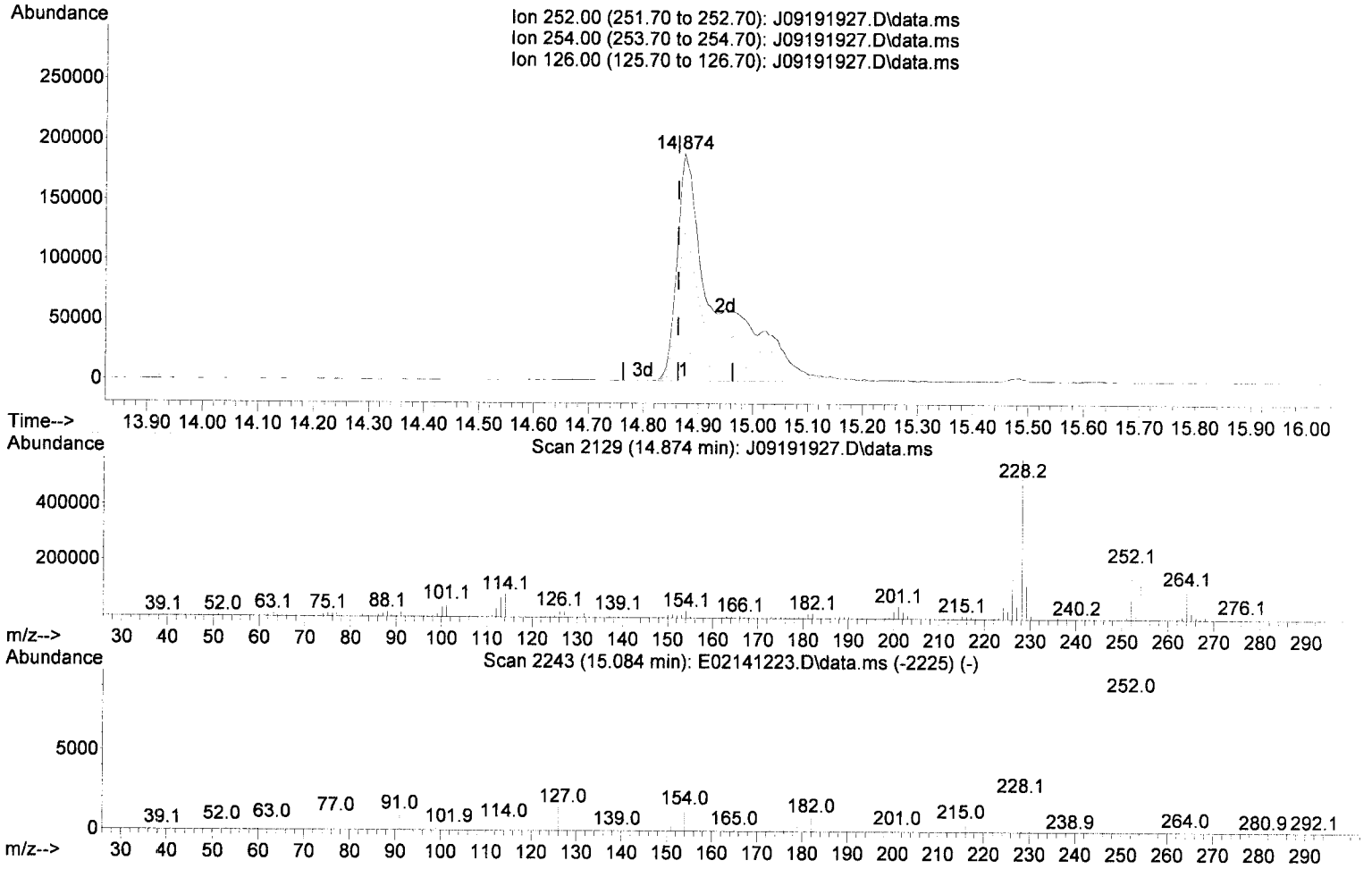
response 572542

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) -2000.00 ng/ml m

9/20/19

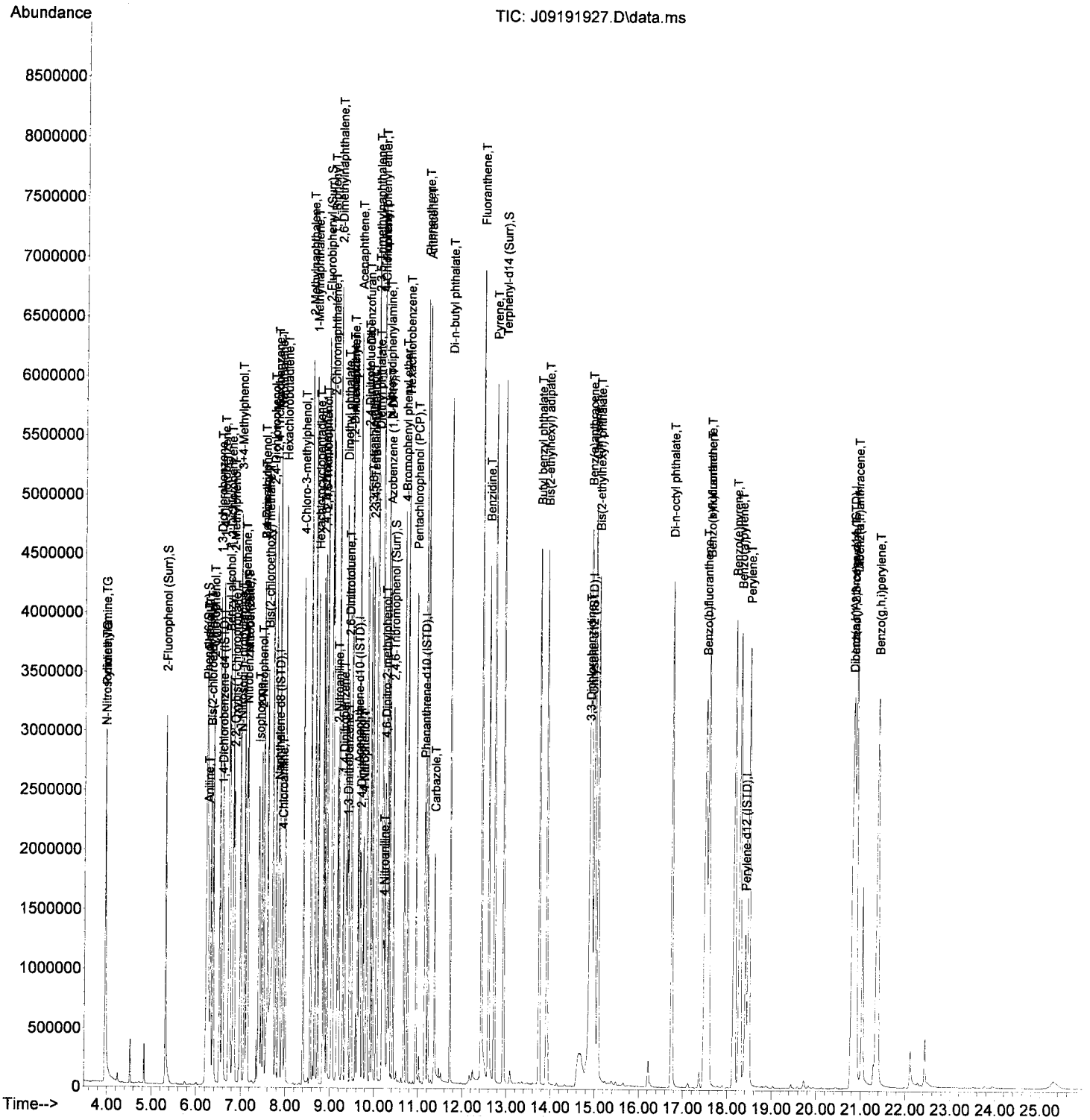
response 945543

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00 ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00 ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00 ng/ml	-0.02
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.316	112	178387	877.95 ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	905.57 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	804.35 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1131.94 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1337.71 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1000.00 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	~~0.000~~		0	N.D.	See MS
3) Pyridine	4.000	79	174343m	734.70 ng/ml#	
6) Phenol	6.225	94	253216	853.53 ng/ml	99
7) Aniline	6.258	93	184591	696.05 ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252838	956.85 ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1001.41 ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1041.72 ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1047.91 ng/ml	99
12) Benzyl alcohol	6.707	108	114114	832.86 ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1049.78 ng/ml	100
14) 2-Methylphenol	6.814	107	162406	945.42 ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	580.10 ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	807.91 ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	964.68 ng/ml	99
18) Hexachloroethane	7.081	201	74950	1213.77 ng/ml	97
20) Nitrobenzene	7.135	77	193505	807.62 ng/ml	99
22) Isophorone	7.370	82	390447	921.04 ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	818.33 ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	937.59 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1013.40 ng/ml	99
26) Benzoic acid	7.579	105	114401	1564.85 ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	1209.93 ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	1204.96 ng/ml	98
29) Naphthalene	7.857	128	644117	1073.48 ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	1136.69 ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1267.13 ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	970.69 ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1149.97 ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1133.04 ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1047.80 ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1135.59 ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1177.26 ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1068.16 ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1075.57 ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1012.60 ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1048.56 ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

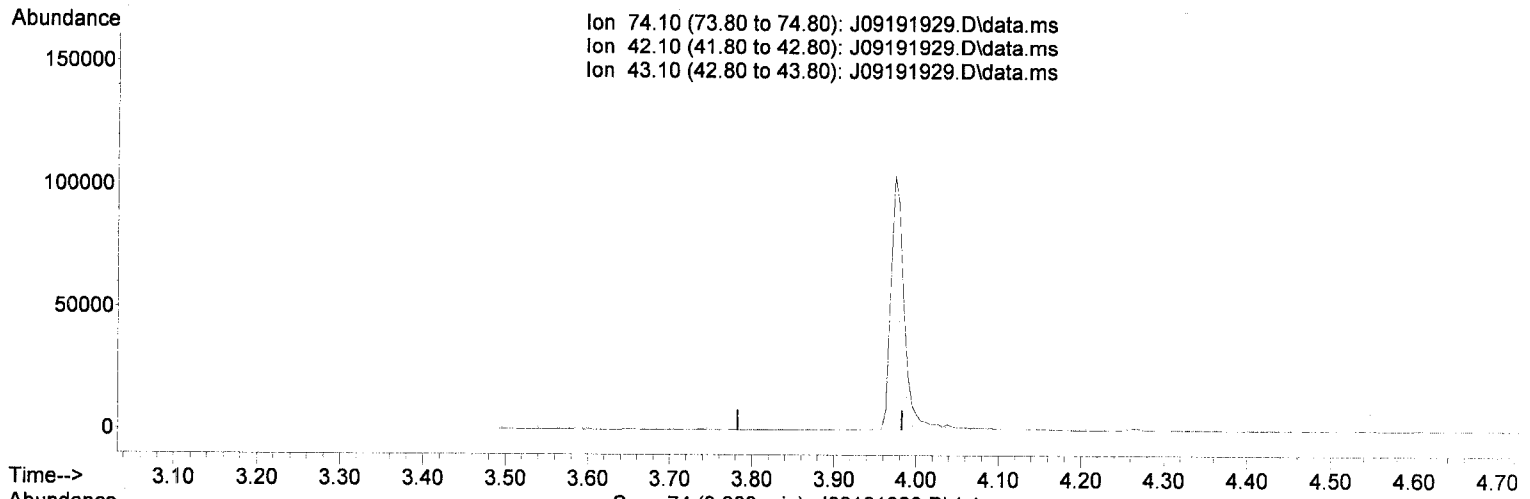
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	915.09	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1071.73	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	990.21	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1103.30	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1079.93	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1101.80	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	882.15	ng/ml	95
51) Acenaphthene	9.649	153	411344	1055.24	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	682.22	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	935.18	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1075.20	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1103.27	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1174.90	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1189.35	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1059.95	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1064.34	ng/ml	98
60) Fluorene	10.173	166	450597	1076.35	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1135.24	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	843.00	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	975.85	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1067.17	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	793.36	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1131.85	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1154.38	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	1186.58	ng/ml	99
71) Phenanthrene	11.157	178	656765	1041.88	ng/ml	99
72) Anthracene	11.205	178	657889	1060.69	ng/ml	100
73) Carbazole	11.366	167	473433	924.53	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1003.18	ng/ml	100
75) Fluoranthene	12.419	202	721487	1094.34	ng/ml	99
76) Benzidine	12.574	184	294532	1737.87	ng/ml	98
77) Pyrene	12.708	202	722196	1096.56	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	820.52	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	874.62	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2473.10	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	979.93	ng/ml	98
84) Chrysene	14.965	228	602768	976.42	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	902.38	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	808.44	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	917.98	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	960.05	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1870.70	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	904.16	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	892.33	ng/ml	98
93) Perylene	18.442	252	636474	1060.98	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.774	276	575136	1024.01	ng/ml	100
96) Dibenz(a,h)anthracene	20.843	278	552893	1097.51	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1107.02	ng/ml	98

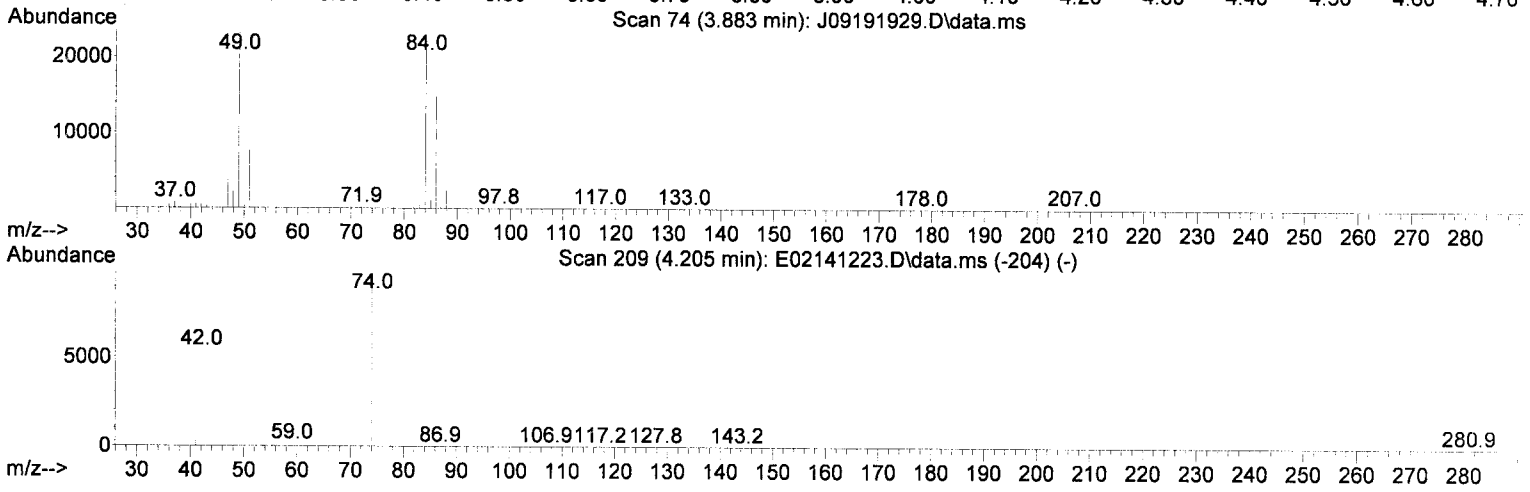
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

response 0

Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
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ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

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QLast Update : Fri Sep 20 09:45:16 2019
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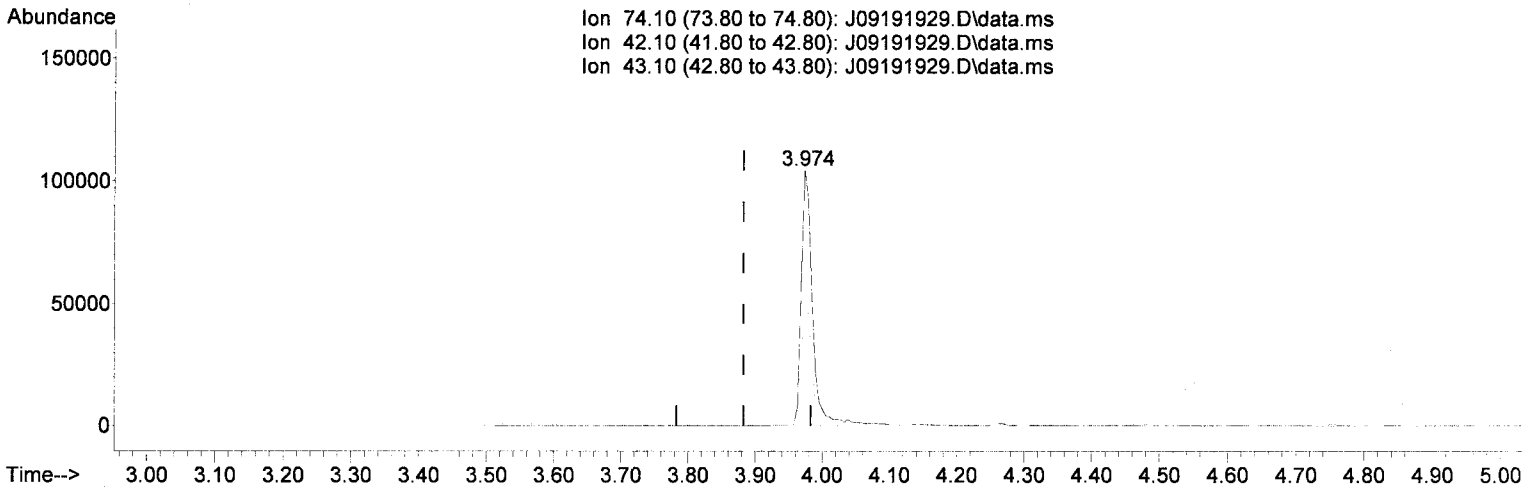
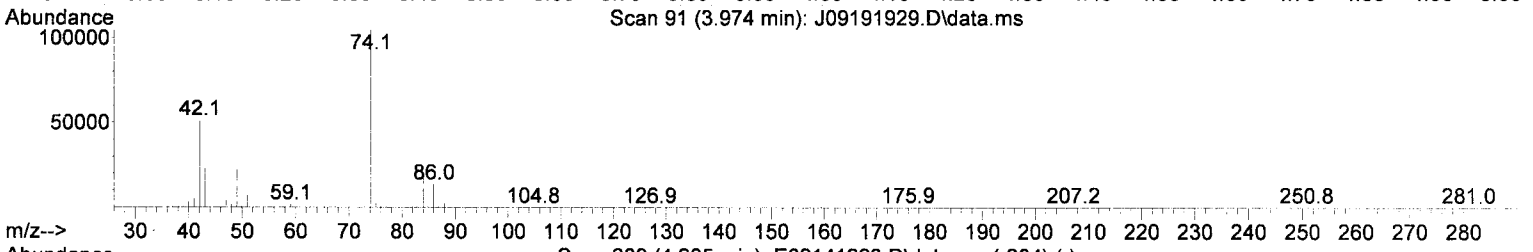
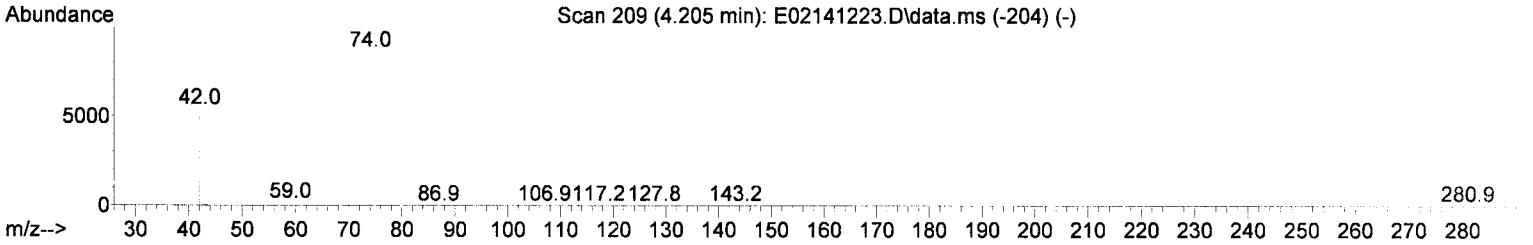
InstName : SV-GCMS10







TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 856.94 ng/ml m

response 119285

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	49.08
43.10	22.20	22.06
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
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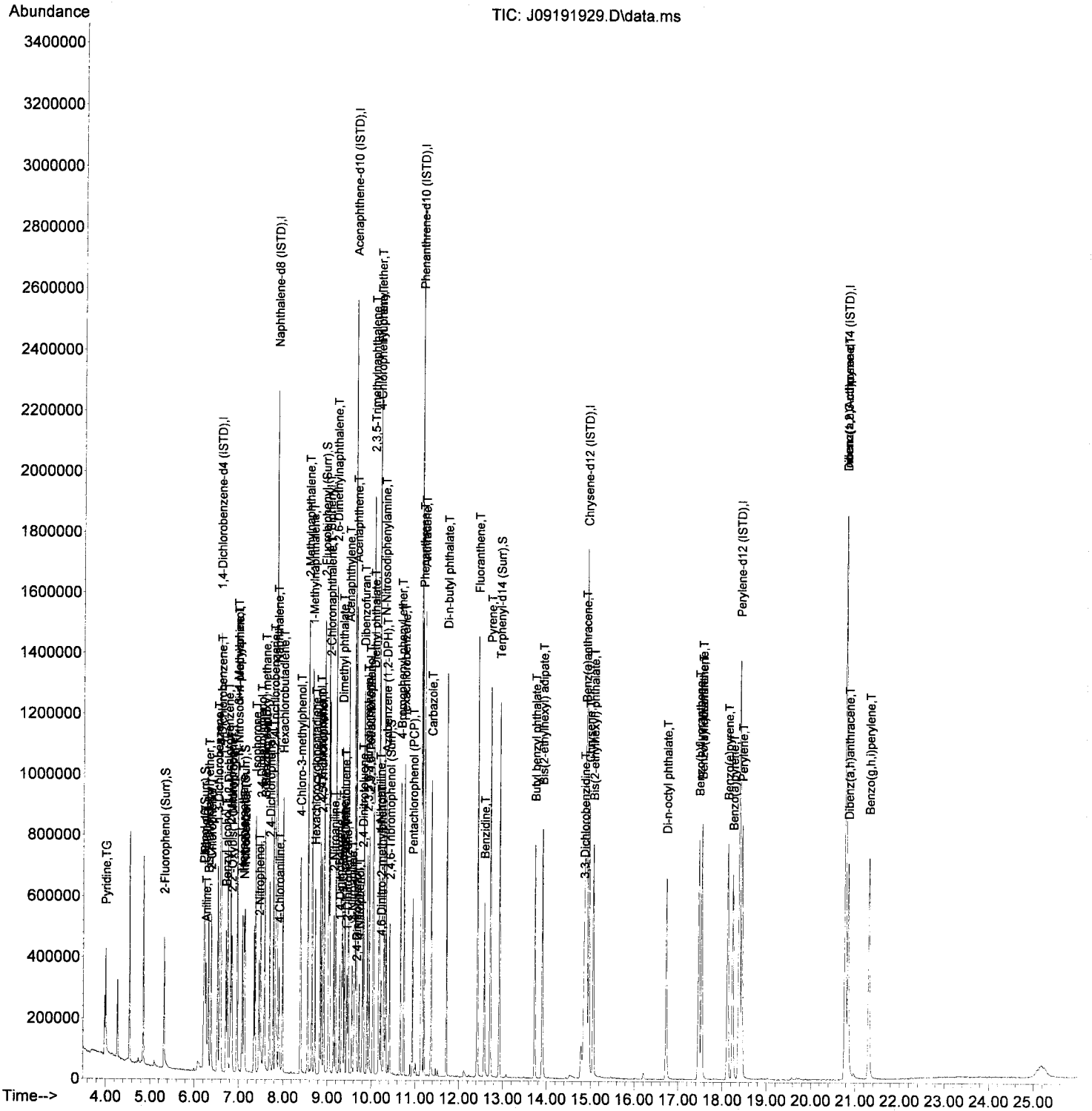
InstName : SV-GCMS10



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Reqmnt
9/23/19

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	178387	981.27	ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	1015.69	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	1065.68	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1062.10	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1040.67	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1060.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.974	74	119285m	1045.35	ng/ml	
3) Pyridine	4.000	79	174343m	896.19	ng/ml#	
6) Phenol	6.225	94	253216	989.66	ng/ml	99
7) Aniline	6.258	93	184591	836.20	ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252077	1091.65	ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1008.90	ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1009.72	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1002.99	ng/ml	99
12) Benzyl alcohol	6.707	108	114114	910.79	ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1024.11	ng/ml	100
14) 2-Methylphenol	6.814	107	162406	1052.52	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	970.28	ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	1043.26	ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	1067.42	ng/ml	99
18) Hexachloroethane	7.081	201	74950	1040.96	ng/ml	97
20) Nitrobenzene	7.135	77	193505	1058.01	ng/ml	99
22) Isophorone	7.370	82	390447	1048.41	ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	968.55	ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	967.66	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1057.13	ng/ml	99
26) Benzoic acid	7.579	105	114401	1974.82	ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	968.83	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	999.39	ng/ml	98
29) Naphthalene	7.857	128	644117	1048.17	ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	939.27	ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1037.18	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	1056.42	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1097.13	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1073.20	ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1072.19	ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1033.65	ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1048.47	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1032.43	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1056.54	ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1106.58	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1034.19	ng/ml	98

Quantitation Report (QT Reviewed)

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Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
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ALS Vial : 13 Sample Multiplier: 1
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Quant Time: Sep 20 14:32:58 2019
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Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	1114.51	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1061.40	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	1081.70	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1044.00	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1063.48	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1059.38	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	1060.77	ng/ml	95
51) Acenaphthene	9.649	153	411344	1001.62	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	972.00	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	1106.89	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1048.40	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1071.22	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1077.31	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1014.00	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1087.44	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1037.33	ng/ml	98
60) Fluorene	10.173	166	450597	1045.90	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1051.57	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	1080.74	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	1157.72	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1064.38	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	1037.26	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1032.58	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1010.04	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	975.76	ng/ml	99
71) Phenanthrene	11.157	178	656765	1015.50	ng/ml	99
72) Anthracene	11.205	178	657889	1058.25	ng/ml	100
73) Carbazole	11.366	167	473433	964.91	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1057.53	ng/ml	100
75) Fluoranthene	12.419	202	721487	1088.45	ng/ml	99
76) Benzidine	12.574	184	294175	1842.78	ng/ml	98
77) Pyrene	12.708	202	722196	1070.62	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	1004.00	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	1058.58	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2062.77	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	1029.12	ng/ml	98
84) Chrysene	14.965	228	602768	1009.53	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	1039.18	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	1013.80	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	1008.51	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	992.12	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1987.64	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	1042.80	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	971.42	ng/ml	98
93) Perylene	18.442	252	636474	1215.26	ng/ml	100
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96) Dibenz(a,h)anthracene	20.843	278	552893	1019.31	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1054.88	ng/ml	98

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Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
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Quant Time: Sep 20 14:32:58 2019
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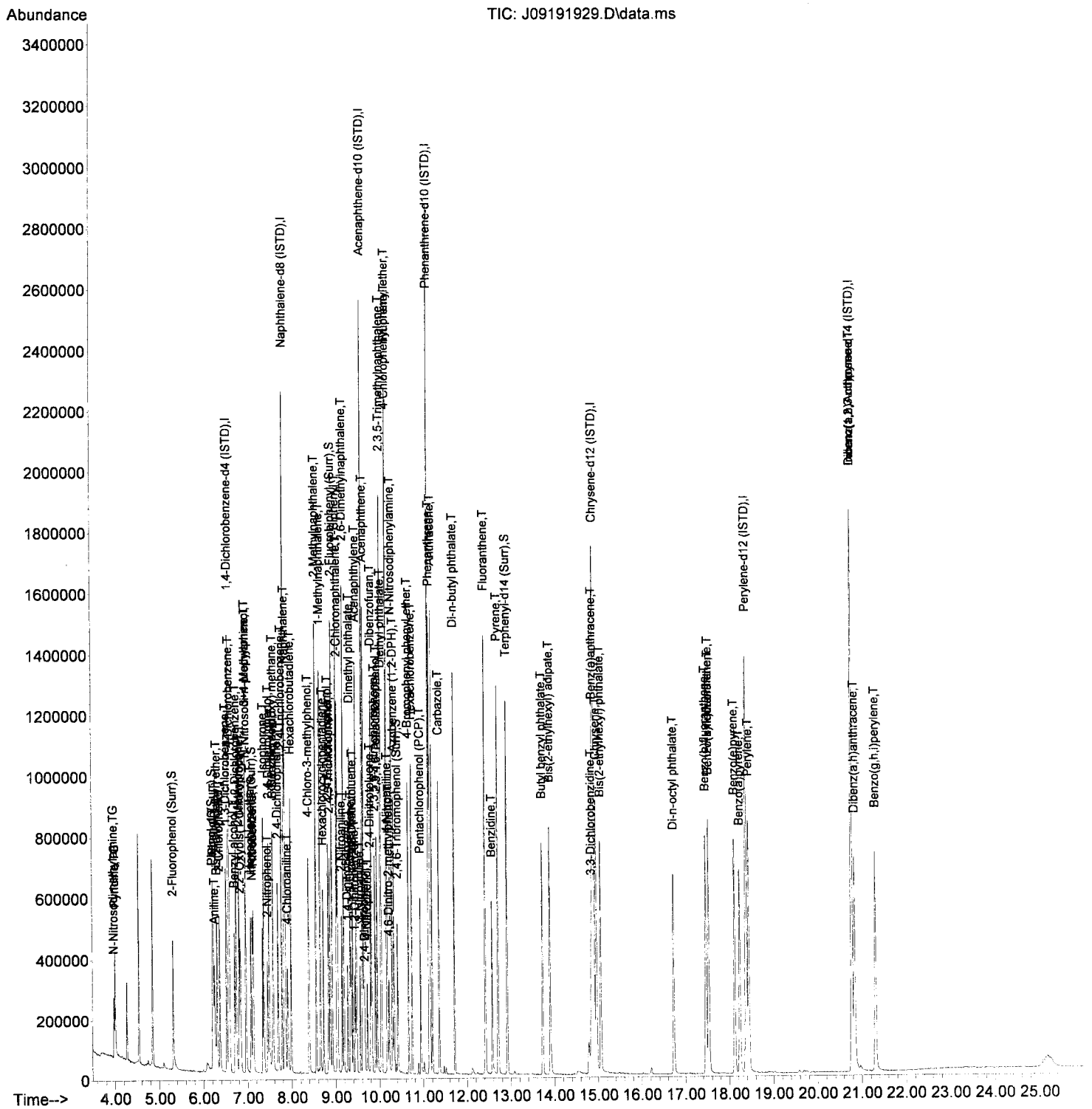
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Batch 9110369
Sequence 9K01022

APEX LABORATORIES

Ag (Silver) - 6020 - Total
As (Arsenic) - 6020 - Total
Ba (Barium) - 6020 - Total
Cd (Cadmium) - 6020 - Total
Cr (Chromium) - 6020 - Total
Hg (Mercury) - 6020 - Total
Pb (Lead) - 6020 - Total
Se (Selenium) - 6020 - Total

PREPARATION BENCH SHEET

9110369

NOV 1 1 2019

Apex Laboratories

BATCH #: 9110369 (Sediment)

Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9110369-BLK1		11/01/19 10:01	0.5	50	QC Sample		
9110369-BS1		11/01/19 10:01	0.5	50	QC Sample		
	Spike 1: 2500 uL of A19J430	Spike 2: 250 uL of A19I359					
A9J0954-01	11/07/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-019SC-C-00-3.2-19102	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J0954-02	11/07/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-095SC-C-00-8.8-19102	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J1007-01	11/11/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-083SC-C-00-08-19102	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J1137-06	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-15	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
9110369-DUP1		11/01/19 10:01	0.5	50	QC Sample		
	Source: A9J1137-06						
9110369-MS1		11/01/19 10:01	0.5	50	QC Sample		
	Source: A9J1137-06	Spike 1: 2500 uL of A19J430	Spike 2: 250 uL of A19I359				
A9J1137-12	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-16	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J1137-18	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-17	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J1137-24	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-18	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							

Prepared By: 11/1/19 Date

Reviewed By: ESS 11/4/19 Date

11/1/19

APEX LABORATORIES

Apex Laboratories
BATCH #: 9110369 (Sediment)
Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A17E426	05/31/20	Mars-4 Microwave
A19I299	02/28/20	30% hydrogen peroxide
A19I314	03/22/20	Conc. HCl - Omnitrace
A19J277	04/15/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I359	03/08/20	Hg Spiking Standard LCT 11/1/19
A19J430	12/11/19	**Combo Spike** A+B+C

LCT 11/1/19
A.) A19J351, 1250uL
B.) A19J308, 625uL
C.) A19J309, 625uL

Digestion time and temperature achieved? YES
Initials: LCT 11/1/19

Prepared By: Date 11/1/19

Reviewed By: Date

Batch #: 9110369

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 11/01/19 Prepared by: KT

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	S69	9110369-BLK1	186.78	186.75	n/a
2	S65	9110369-BS1	186.03	186.02	n/a
3	S35	A9J0954-01	185.92	185.92	n/a
4	S95	A9J0954-02	187.71	187.70	n/a
5	S38	A9J1007-01	186.25	186.24	n/a
6	S18	A9J1137-06	186.39	186.38	n/a
7	S13	9110369-DUP1	186.23	186.23	n/a
8	S31	9110369-MS1	185.61	185.55	n/a
9	S6	A9J1137-12	185.55	185.55	n/a
10	S25	A9J1137-18	185.62	185.61	n/a
11	S94	A9J1137-24	183.81	183.80	n/a
12					n/a
13					n/a
14					n/a
15					n/a
16					n/a
17					n/a
18					n/a
19					n/a
20					n/a
21					n/a
22					n/a
23					n/a
24					n/a
25					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K01022-CAL1	Water	QC	QC			A19J130	A19J368
2	9K01022-CAL2	Water	QC	QC			A19J130	A19J369
3	9K01022-CAL3	Water	QC	QC			A19J130	A19J370
4	9K01022-CAL4	Water	QC	QC			A19J130	A19J371
5	9K01022-CAL5	Water	QC	QC			A19J130	A19J373
6	9K01022-CAL6	Water	QC	QC			A19J130	A19J372
7	9K01022-CAL7	Water	QC	QC			A19J130	A19J374
8	9K01022-CAL8	Water	QC	QC			A19J130	A19J188
9	9K01022-CAL9	Water	QC	QC			A19J130	A19J189
10	9K01022-ICV1	Water	QC	QC			A19J130	A19J138
11	9K01022-ICB1	Water	QC	QC			A19J130	
12	9K01022-CRL1	Water	QC	QC			A19J130	A19J368
13	9K01022-CRL2	Water	QC	QC			A19J130	A19J369
14	9K01022-CRL3	Water	QC	QC			A19J130	A19J370
15	9K01022-IFA1	Water	QC	QC			A19J130	A19J465
16	9K01022-IFB1	Water	QC	QC			A19J130	A19J466
17	9110362-BLK1	Solid	QC	QC		9110362	A19J130	
18	9110362-BS1	Solid	QC	QC		9110362	A19J130	
19	A9J1060-01	Solid	Ag (Silver) - 6020 - TCLP		11/12/19	9110362	A19J130	
20	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
21	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
22	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
23	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
24	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
25	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
26	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
27	9110362-MS2	Solid	QC	QC		9110362	A19J130	
28	A9J1065-01	Solid	Ag (Silver) - 6020 - TCLP		11/12/19	9110362	A19J130	
29	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
30	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
31	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
32	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
33	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
34	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
35	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
36	9110362-MS1	Solid	QC	QC		9110362	A19J130	
37	A9J1087-01	Solid	Ag (Silver) - 6020 - TCLP		11/01/19	9110362	A19J130	
38	"	Solid	As (Arsenic) - 6020 - TCLP		11/01/19	9110362	A19J130	
39	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
40	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
41	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
42	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
43	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
44	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
45	A9J1094-01	Solid	Ag (Silver) - 6020 - TCLP		11/08/19	9110362	A19J130	
46	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
47	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
48	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
49	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
50	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
51	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/08/19	9110362	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
53	9110363-BLK1	Solid	QC	QC		9110363	A19J130	
54	9110363-BS1	Solid	QC	QC		9110363	A19J130	
55	9K01022-CCV1	Water	QC	QC			A19J130	A19J138
56	9K01022-CCV2	Water	QC	QC			A19J130	A19J138
57	9K01022-CCB1	Water	QC	QC			A19J130	
58	A9J1019-01	Solid	Cd (Cadmium) - 6020 - TCLP		11/04/19	9110363	A19J130	
59	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
60	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
61	A9J1019-02	Solid	Cd (Cadmium) - 6020 - TCLP		11/04/19	9110363	A19J130	
62	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
63	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
64	9110363-MS1	Solid	QC	QC		9110363	A19J130	
65	9101831-BLK1	Water	QC	QC		9101831	A19J130	
66	9101831-BS1	Water	QC	QC		9101831	A19J130	
67	A9J1076-01	Water	Ag (Silver) - 200.8 - Total		11/05/19	9101831	A19J130	
68	"	Water	As (Arsenic) - 200.8 - Total	"	11/05/19	9101831	A19J130	
69	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
70	"	Water	Co (Cobalt) - 200.8 - Total	"	11/05/19	9101831	A19J130	
71	"	Water	Cr (Chromium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
72	"	Water	Cu (Copper) - 200.8 - Total	"	11/05/19	9101831	A19J130	
73	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/05/19	9101831	A19J130	
74	"	Water	Ni (Nickel) - 200.8 - Total	"	11/05/19	9101831	A19J130	
75	"	Water	Pb (Lead) - 200.8 - Total	"	11/05/19	9101831	A19J130	
76	"	Water	Se (Selenium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
77	"	Water	Zn (Zinc) - 200.8 - Total	"	11/05/19	9101831	A19J130	
78	A9J1111-01	Water	Ag (Silver) - 200.8 - Total		11/08/19	9101831	A19J130	
79	"	Water	As (Arsenic) - 200.8 - Total	"	11/08/19	9101831	A19J130	
80	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
81	"	Water	Cr (Chromium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
82	"	Water	Cu (Copper) - 200.8 - Total	"	11/08/19	9101831	A19J130	
83	"	Water	Hg (Mercury) - 200.8 - Total	"	11/08/19	9101831	A19J130	
84	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/08/19	9101831	A19J130	
85	"	Water	Ni (Nickel) - 200.8 - Total	"	11/08/19	9101831	A19J130	
86	"	Water	Pb (Lead) - 200.8 - Total	"	11/08/19	9101831	A19J130	
87	"	Water	Se (Selenium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
88	"	Water	Zn (Zinc) - 200.8 - Total	"	11/08/19	9101831	A19J130	
89	A9J1115-01	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
90	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
91	A9J1115-02	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9101831	A19J130	
92	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9101831	A19J130	
93	"	Water	Ba (Barium) - 200.8 - Total	(QC Source)		9101831	A19J130	
94	"	Water	Be (Beryllium) - 200.8 - Total	(QC Source)		9101831	A19J130	
95	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
96	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9101831	A19J130	
97	"	Water	Co (Cobalt) - 200.8 - Total	(QC Source)		9101831	A19J130	
98	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9101831	A19J130	
99	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9101831	A19J130	
100	"	Water	Hg (Mercury) - 200.8 - Total	(QC Source)		9101831	A19J130	
101	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
102	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9101831	A19J130	
103	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9101831	A19J130	
104	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9101831	A19J130	
105	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9101831	A19J130	
106	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9101831	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Water	Tl (Thallium) - 200.8 - Total	(QC Source)		9101831	A19J130	
108	"	Water	V (Vanadium) - 200.8 - Total	(QC Source)		9101831	A19J130	
109	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9101831	A19J130	
110	9101831-DUP1	Water	QC	QC		9101831	A19J130	
111	9K01022-CCV3	Water	QC	QC			A19J130	A19J138
112	9K01022-CCV4	Water	QC	QC			A19J130	A19J138
113	9K01022-CCB2	Water	QC	QC			A19J130	
114	9K01022-CCB3	Water	QC	QC			A19J130	
115	9K01022-CRL4	Water	QC	QC			A19J130	A19J368
116	9K01022-CRL5	Water	QC	QC			A19J130	A19J369
117	9K01022-CRL6	Water	QC	QC			A19J130	A19J370
118	9K01022-CRL7	Water	QC	QC			A19J130	A19J371
119	9101831-MS1	Water	QC	QC		9101831	A19J130	
120	A9J1115-03	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
121	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
122	A9J1115-04	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
123	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
124	A9J1115-05	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
125	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
126	A9J1116-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
127	"	Water	As (Arsenic) - 200.8 - Total	"	11/13/19	9101831	A19J130	
128	"	Water	Ba (Barium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
129	"	Water	Be (Beryllium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
130	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
131	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
132	"	Water	Co (Cobalt) - 200.8 - Total	"	11/13/19	9101831	A19J130	
133	"	Water	Cr (Chromium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
134	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
135	"	Water	Hg (Mercury) - 200.8 - Total	"	11/13/19	9101831	A19J130	
136	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
137	"	Water	Ni (Nickel) - 200.8 - Total	"	11/13/19	9101831	A19J130	
138	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
139	"	Water	Sb (Antimony) - 200.8 - Total	"	11/13/19	9101831	A19J130	
140	"	Water	Se (Selenium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
141	"	Water	Tl (Thallium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
142	"	Water	V (Vanadium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
143	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	
144	A9J1116-02	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
145	"	Water	As (Arsenic) - 200.8 - Total	"	11/13/19	9101831	A19J130	
146	"	Water	Ba (Barium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
147	"	Water	Be (Beryllium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
148	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
149	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
150	"	Water	Co (Cobalt) - 200.8 - Total	"	11/13/19	9101831	A19J130	
151	"	Water	Cr (Chromium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
152	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
153	"	Water	Hg (Mercury) - 200.8 - Total	"	11/13/19	9101831	A19J130	
154	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
155	"	Water	Ni (Nickel) - 200.8 - Total	"	11/13/19	9101831	A19J130	
156	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
157	"	Water	Sb (Antimony) - 200.8 - Total	"	11/13/19	9101831	A19J130	
158	"	Water	Se (Selenium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
159	"	Water	Tl (Thallium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
160	"	Water	V (Vanadium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
161	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	A9J1117-01	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
163	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
164	A9J1117-02	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9101831	A19J130	
165	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9101831	A19J130	
166	"	Water	Ba (Barium) - 200.8 - Total	(QC Source)		9101831	A19J130	
167	"	Water	Be (Beryllium) - 200.8 - Total	(QC Source)		9101831	A19J130	
168	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
169	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9101831	A19J130	
170	"	Water	Co (Cobalt) - 200.8 - Total	(QC Source)		9101831	A19J130	
171	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9101831	A19J130	
172	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9101831	A19J130	
173	"	Water	Hg (Mercury) - 200.8 - Total	(QC Source)		9101831	A19J130	
174	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
175	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9101831	A19J130	
176	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9101831	A19J130	
177	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9101831	A19J130	
178	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9101831	A19J130	
179	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9101831	A19J130	
180	"	Water	Tl (Thallium) - 200.8 - Total	(QC Source)		9101831	A19J130	
181	"	Water	V (Vanadium) - 200.8 - Total	(QC Source)		9101831	A19J130	
182	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9101831	A19J130	
183	9101831-MS2	Water	QC	QC		9101831	A19J130	
184	A9J1131-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
185	9K01022-CCV5	Water	QC	QC			A19J130	A19J138
186	9K01022-CCB4	Water	QC	QC			A19J130	
187	A9J1133-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
188	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
189	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
190	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	
191	A9J1104-02RE1	Soil	Pb (Lead) - 6020 - Total		11/05/19	9101790	A19J130	
192	A9J1061-02RE1	Water	Ca (Calcium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
193	"	Water	K (Potassium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
194	"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
195	A9J1061-06RE1	Water	Ca (Calcium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
196	"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
197	A9J1062-03RE1	Water	Na (Sodium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
198	9110393-BLK1	Solid	QC	QC		9110393	A19J130	
199	9110393-BS1	Solid	QC	QC		9110393	A19J130	
200	A9K0019-01	Solid	Ag (Silver) - 6020 - Total		11/04/19	9110393	A19J130	
201	"	Solid	As (Arsenic) - 6020 - Total		11/04/19	9110393	A19J130	
202	"	Solid	Ba (Barium) - 6020 - Total	"	11/04/19	9110393	A19J130	
203	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/04/19	9110393	A19J130	
204	"	Solid	Cr (Chromium) - 6020 - Total	"	11/04/19	9110393	A19J130	
205	"	Solid	Hg (Mercury) - 6020 - Total	"	11/04/19	9110393	A19J130	
206	"	Solid	Pb (Lead) - 6020 - Total	"	11/04/19	9110393	A19J130	
207	"	Solid	Se (Selenium) - 6020 - Total	"	11/04/19	9110393	A19J130	
208	9110393-DUP1	Solid	QC	QC		9110393	A19J130	
209	9110393-MS1	Solid	QC	QC		9110393	A19J130	
210	9K01022-CCV6	Water	QC	QC			A19J130	A19J138
211	9K01022-CCB5	Water	QC	QC			A19J130	
212	9K01022-CRL8	Water	QC	QC			A19J130	A19J368
213	9K01022-CRL9	Water	QC	QC			A19J130	A19J369
214	9K01022-CRLA	Water	QC	QC			A19J130	A19J370
215	9K01022-CRLB	Water	QC	QC			A19J130	A19J371
216	9110363-BS2	Solid	QC	QC		9110363	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	9110393-BS2	Solid	QC	QC		9110393	A19J130	
218	9101805-BLK1	Sediment	QC	QC		9101805	A19J130	
219	9101805-BS1	Sediment	QC	QC		9101805	A19J130	
220	A9J0950-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
221	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
222	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
223	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
224	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
225	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
226	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
227	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
228	A9J0950-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
229	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
230	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
231	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
232	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
233	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
234	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
235	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
236	A9J0950-03	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
237	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
238	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
239	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
240	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
241	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
242	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
243	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
244	A9J0950-04	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
245	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
246	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
247	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
248	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
249	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
250	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
251	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
252	9101805-DUP1	Sediment	QC	QC		9101805	A19J130	
253	9101805-MS1	Sediment	QC	QC		9101805	A19J130	
254	9K01022-CCV7	Water	QC	QC			A19J130	A19J138
255	9K01022-CCB6	Water	QC	QC			A19J130	
256	A9J1006-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
257	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9101805	A19J130	
258	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9101805	A19J130	
259	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9101805	A19J130	
260	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9101805	A19J130	
261	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9101805	A19J130	
262	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9101805	A19J130	
263	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9101805	A19J130	
264	A9J1006-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
265	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9101805	A19J130	
266	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9101805	A19J130	
267	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9101805	A19J130	
268	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9101805	A19J130	
269	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9101805	A19J130	
270	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9101805	A19J130	
271	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9101805	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	9110369-BLK1	Sediment	QC	QC		9110369	A19J130	
273	9110369-BS1	Sediment	QC	QC		9110369	A19J130	
274	A9J0954-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
275	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9110369	A19J130	
276	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9110369	A19J130	
277	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9110369	A19J130	
278	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9110369	A19J130	
279	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9110369	A19J130	
280	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9110369	A19J130	
281	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9110369	A19J130	
282	A9J0954-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
283	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9110369	A19J130	
284	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9110369	A19J130	
285	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9110369	A19J130	
286	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9110369	A19J130	
287	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9110369	A19J130	
288	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9110369	A19J130	
289	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9110369	A19J130	
290	A9J1007-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9110369	A19J130	
291	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9110369	A19J130	
292	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9110369	A19J130	
293	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110369	A19J130	
294	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9110369	A19J130	
295	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9110369	A19J130	
296	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9110369	A19J130	
297	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9110369	A19J130	
298	A9J1137-06	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
299	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
300	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
301	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
302	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
303	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
304	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
305	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
306	9110369-DUP1	Sediment	QC	QC		9110369	A19J130	
307	9110369-MS1	Sediment	QC	QC		9110369	A19J130	
308	9K01022-CCV8	Water	QC	QC			A19J130	A19J138
309	9K01022-CCB7	Water	QC	QC			A19J130	
310	A9J1137-12	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
311	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
312	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
313	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
314	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
315	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
316	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
317	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
318	A9J1137-18	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
319	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
320	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
321	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
322	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
323	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
324	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
325	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
326	A9J1137-24	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
327	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
328	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
329	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
330	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
331	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
332	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
333	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
334	A9J1029-02RE1	Water	Ag (Silver) - 6020 - Total		11/04/19	9101795	A19J130	
335	"	Water	As (Arsenic) - 6020 - Total	"	11/04/19	9101795	A19J130	
336	"	Water	Ba (Barium) - 6020 - Total	"	11/04/19	9101795	A19J130	
337	"	Water	Cd (Cadmium) - 6020 - Total	"	11/04/19	9101795	A19J130	
338	"	Water	Cr (Chromium) - 6020 - Total	"	11/04/19	9101795	A19J130	
339	"	Water	Hg (Mercury) - 6020 - Total	"	11/04/19	9101795	A19J130	
340	"	Water	Pb (Lead) - 6020 - Total	"	11/04/19	9101795	A19J130	
341	"	Water	Se (Selenium) - 6020 - Total	"	11/04/19	9101795	A19J130	
342	A9J1076-02RE1	Water	Ag (Silver) - 6020 - Total	(QC Source)		9101795	A19J130	
343	"	Water	Ag (Silver) - 200.8 - Total	"	11/05/19	9101795	A19J130	
344	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/05/19	9101795	A19J130	
345	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9101795	A19J130	
346	"	Water	Se (Selenium) - 200.8 - Total	"	11/05/19	9101795	A19J130	
347	9101795-DUP2	Water	QC	QC		9101795	A19J130	
348	9101795-MS3	Water	QC	QC		9101795	A19J130	
349	9K01022-CCV9	Water	QC	QC			A19J130	A19J138
350	9K01022-CCB8	Water	QC	QC			A19J130	
351	9K01022-CRLC	Water	QC	QC			A19J130	A19J368
352	9K01022-CRLD	Water	QC	QC			A19J130	A19J369
353	9K01022-CRLE	Water	QC	QC			A19J130	A19J370
354	9K01022-CRLF	Water	QC	QC			A19J130	A19J371

Data Entered By: ESS 11/4/19 Comments:

Data Reviewed By: [illegible] 11/04/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K01022.b
Acq. Date-Time	11/1/2019 10:08
Report Comment	9K01022 EPA Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		3700	36995.62	1000.00	
89		18483	184827.86	1000.00	
78		8			

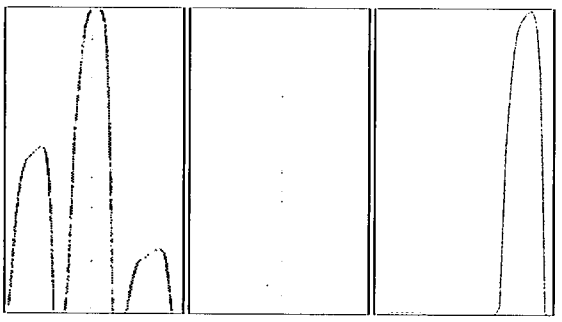
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.65	5.00	
89	0.85	5.00	
78	27.08		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	3631	3651	3697	3744	3776
89	18625	18317	18648	18494	18330
78	9	7	5	8	10

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	642.98	59.00	58.9 - 59.1		0.60	0.771	0.900	

Tune Report

89	3289.93	89.05	88.9 - 89.1	0.59	0.753	0.900
78			-			

Integration Time [sec] 0.1 **Acquisition Time [sec]** 100.35 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		5082	50822.15	1000.00	
89		4581	45809.49	1000.00	
205		5562	55624.16	1000.00	
75		30			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.12	5.00	
89	3.11	5.00	
205	1.79	5.00	
75	13.66		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			

Tune Report

205
75

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	5015	4967	5177	5037	5215
89	4423	4462	4627	4615	4778
205	5515	5469	5502	5613	5713
75	24	29	35	31	32

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	878.14	59.00	58.9 - 59.1		0.60	0.772	0.900	
89	822.46	89.10	88.9 - 89.1		0.58	0.741	0.900	
205	990.18	205.05	204.9 - 205.1		0.57	0.808	0.900	
75	4.95	75.10	-		0.62	0.735		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7		8281	82809.73	1000.00	
89		19400	194002.91	1000.00	
205		11935	119351.51	1000.00	
102		1			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	0.99	5.00	
89	1.69	5.00	
205	1.02	5.00	
102	61.24		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
7	8142	8301	8360	8304	8297
89	18937	19288	19413	19827	19536
205	11790	11881	11969	11918	12119
102	1	1	1	1	2

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	1358.97	7.00	6.9 - 7.1		0.63	0.819	0.900	
89	3355.01	89.05	88.9 - 89.1		0.60	0.757	0.900	
205	2099.28	205.05	204.9 - 205.1		0.57	0.811	0.900	
102			-					

Integration Time [sec] 0.1 **Acquisition Time [sec]** 135.3 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V

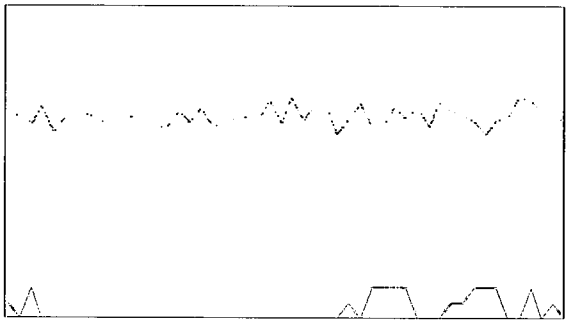
Tune Report

He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K01022.b
Acq. Date-Time	11/1/2019 09:55
Report Comment	9K01022 Std Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	652	6517.99	1000.00	
89	5000	3305	33051.58	1000.00	
78	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.82	5.00	
89	2.42	5.00	
78	171.29		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec]	0.1	**Sampling Period [sec]**	0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	863	8629.29	1000.00	
89	1000	789	7893.79	1000.00	
205	2000	975	9751.19	1000.00	
75	20	4			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.70	5.00	
89	4.39	5.00	
205	5.03	5.00	[F]
75	58.94		

See EPA report for RSDs ESS 11/4/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec]	0.1	**Sampling Period [sec]**	0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7	2000	1357	13570.95	1000.00	
89	5000	3374	33736.69	1000.00	
205	5000	2113	21132.63	1000.00	
102	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	
89		-	
205		-	
102		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	3.60	5.00	
89	2.47	5.00	
205	2.93	5.00	
102	522.73		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.121 %	✓
Ratio (2+)	69/138	2.228 %	✓

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.413

Tune Report

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

P/A Factor Tuning Report

========== Current Sample ==========
Sample Name: 9K01022-ICV1
Data File: 013_ICV.d
Acquired: 11/1/2019 11:59:50

========= Detector Parameters and P/A Factors =========
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 10:35:14

Mass[u]	Element	P/A Factor
6	Li	0.090004
7	Li	0.094505
11	B	0.102443
28	Si	0.098675
31	P	0.124270
45	Sc	0.126554
74	Ge	0.139907
88	Sr	0.140736
90	Zr	0.138257
103	Rh	0.144407
118	Sn	0.146234
159	Tb	0.148391
209	Bi	0.152692
197	Au	Signal too low
238	U	Signal too low

=== Independent Detector Parameters and P/A Factors ===
Tune Mode Name: H2
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:43:23

Mass[u]	Element	P/A Factor
23	Na	0.108829
44	Ca	0.120426
45	Sc	0.120127
56	Fe	0.124783
57	Fe	0.124454
74	Ge	0.128609
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:54:02

Mass[u]	Element	P/A Factor
23	Na	0.109168
24	Mg	0.112965
27	Al	0.116808
39	K	0.119383
44	Ca	0.118452
51	V	0.121784
52	Cr	0.123656
55	Mn	0.123469
59	Co	0.126155
60	Ni	0.127325
65	Cu	0.128081
66	Zn	0.126519
111	Cd	0.130958

138	Ba	0.130917
159	Tb	0.135041
205	Tl	0.133690
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low
103	Rh	Signal too low
107	Ag	Signal too low
121	Sb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:55:24

Mass[u]	Element	P/A Factor
6	Li	0.087497
45	Sc	0.119467
47	Ti	0.117916
65	Cu	0.126142
74	Ge	0.130207
103	Rh	0.131931
111	Cd	0.129976
159	Tb	0.133897
182	W	0.132485
206	Pb	0.134073
207	Pb	0.134316
208	Pb	0.134436
209	Bi	0.137296
7	Li	Signal too low
9	Be	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Created: 11/4/2019 10:28:39

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Rinse
Acq Time:	11/1/2019 10:59:15	I.S. Reference File:	---
Comment:	**cal blank check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		32	0.18	
Na	23	45	He		ppb		3,973	90	
Mg	24	45	He		ppb		424	90	
Al	27	45	He		ppb		109	45	
K	39	45	He		ppb		25,768	90	
Ca	44	45	H2		ppb		471	90	
[Ca]	44	45	He		ppb		191		
Ti	47	45	NoGas		ppb		32	0.9	
V	51	74	He		ppb		1,560	0.9	
Cr	52	74	He		ppb		264	0.9	
Mn	55	74	He		ppb		48	0.9	
Fe	56	74	H2		ppb		6,763	45	
Co	59	74	He		ppb		36	0.18	
Ni	60	74	He		ppb		58	0.9	
Cu	65	74	He		ppb		68	0.9	
Zn	66	74	He		ppb		34	3.6	
As	75	74	He		ppb		37	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		20	0.9	
Ag	107	103	He		ppb		12	0.18	
Cd	111	103	He		ppb		5		
[Cd]	111	103	NoGas		ppb		20	0.18	
Sb	121	103	He		ppb		94	0.9	
Ba	138	159	He		ppb		96	0.9	
W	182	159	NoGas		ppb		53		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		9	0.18	
Pb	208	159	NoGas		ppb		827	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	960,245	0.8	0	Analog		
Sc	45	H2	2,175,823	0.1	0	Analog		
Sc	45	He	333,701	1.2	0	Pulse		
Sc	45	NoGas	3,002,929	2.0	0	Analog		
Ge	74	H2	695,295	0.6	0	Pulse		
Ge	74	He	197,286	1.7	0	Pulse		
Ge	74	NoGas	795,982	1.0	0	Pulse		
Rh	103	He	460,124	0.8	0	Pulse		
Rh	103	NoGas	828,872	0.5	0	Pulse		
Tb	159	He	595,531	1.3	0	Pulse		
Tb	159	NoGas	1,379,763	1.2	0	Analog		
Bi	209	He	335,912	0.8	0	Pulse		
Bi	209	NoGas	801,694	0.6	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL0**	Total Dilution:	**1.0000**
File Name:	002CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalBlk
Acq Time:	11/1/2019 11:03:57		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	14	48.0	
Na	23	45	He	0	ppb	N/A	4,204	8.3	
Mg	24	45	He	0	ppb	N/A	429	8.6	
Al	27	45	He	0	ppb	N/A	104	26.8	
K	39	45	He	0	ppb	N/A	27,317	1.4	
Ca	44	45	H2	0	ppb	N/A	444	16.8	
[Ca]	44	45	He	0	ppb	N/A	237	6.5	
Ti	47	45	NoGas	0	ppb	N/A	37	15.7	
V	51	74	He	0	ppb	N/A	1,820	3.2	
Cr	52	74	He	0	ppb	N/A	254	11.7	
Mn	55	74	He	0	ppb	N/A	34	72.6	
Fe	56	74	H2	0	ppb	N/A	6,322	5.5	
Co	59	74	He	0	ppb	N/A	19	40.7	
Ni	60	74	He	0	ppb	N/A	61	41.7	
Cu	65	74	He	0	ppb	N/A	71	11.8	
Zn	66	74	He	0	ppb	N/A	40	22.0	
As	75	74	He	0	ppb	N/A	30	33.3	
Se	78	74	H2	0	ppb	N/A	2	173.2	
Mo	95	103	He	0	ppb	N/A	11	91.7	
Ag	107	103	He	0	ppb	N/A	7	86.6	
Cd	111	103	He	0	ppb	N/A	8	49.4	
[Cd]	111	103	NoGas	0	ppb	N/A	21	26.9	
Sb	121	103	He	0	ppb	N/A	63	15.8	
Ba	138	159	He	0	ppb	N/A	119	20.3	
W	182	159	NoGas	0	ppb	N/A	28	38.6	
Hg	201	159	NoGas	0	ppt	N/A	6	14.4	
Tl	205	159	He	0	ppb	N/A	13	43.3	
Pb	208	159	NoGas	0	ppb	N/A	758	4.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	975,380	1.6	975380.393333333	Analog	100.0	
Sc	45	H2	2,277,281	1.0	2277280.85	Analog	100.0	
Sc	45	He	348,791	1.3	348790.796666667	Pulse	100.0	
Sc	45	NoGas	3,065,554	0.6	3065554.46333333	Analog	100.0	
Ge	74	H2	718,037	0.1	718037.156666667	Pulse	100.0	
Ge	74	He	204,920	0.7	204919.68	Pulse	100.0	
Ge	74	NoGas	806,775	0.8	806774.886666667	Pulse	100.0	
Rh	103	He	466,758	0.4	466758.146666667	Pulse	100.0	
Rh	103	NoGas	832,260	0.5	832259.633333333	Pulse	100.0	
Tb	159	He	600,194	0.9	600193.66	Pulse	100.0	
Tb	159	NoGas	1,409,745	1.8	1409745.36	Analog	100.0	
Bi	209	He	341,192	0.6	341192.286666667	Pulse	100.0	
Bi	209	NoGas	809,398	0.6	809398.153333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL1**	Total Dilution:	**1.0000**
File Name:	003CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:08:39		
Comment:	**A19J368 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.195	ppb	8.0	439	5.2	
Na	23	45	He	8.764	ppb	4.0	14,335	3.4	
Mg	24	45	He	9.176	ppb	4.9	6,281	4.0	
Al	27	45	He	8.6	ppb	5.4	2,973	5.4	
K	39	45	He	9.549	ppb	8.0	32,819	1.9	
Ca	44	45	H2	9.674	ppb	2.2	2,596	2.3	
[Ca]	44	45	He	10.028	ppb	22.4	512	12.2	
Ti	47	45	NoGas	0.222	ppb	43.0	252	24.5	
V	51	74	He	0.196	ppb	7.5	2,608	2.4	
Cr	52	74	He	0.201	ppb	2.5	1,173	2.3	
Mn	55	74	He	0.21	ppb	3.7	674	2.9	
Fe	56	74	H2	9.149	ppb	0.9	114,061	0.9	
Co	59	74	He	0.196	ppb	6.9	1,237	6.2	
Ni	60	74	He	0.175	ppb	11.8	327	10.4	
Cu	65	74	He	0.188	ppb	11.7	427	10.3	
Zn	66	74	He	0.194	ppb	26.4	183	21.0	
As	75	74	He	0.212	ppb	15.2	123	11.8	
Se	78	74	H2	0.209	ppb	12.4	66	11.8	
Mo	95	103	He	0.206	ppb	9.3	380	8.9	
Ag	107	103	He	0.183	ppb	7.8	942	8.2	
Cd	111	103	He	0.174	ppb	3.2	154	3.6	
[Cd]	111	103	NoGas	0.174	ppb	16.3	352	2.6	
Sb	121	103	He	0.158	ppb	10.4	409	9.0	
Ba	138	159	He	0.189	ppb	5.7	948	6.0	
W	182	159	NoGas	0.002	ppb	71.6	36	14.3	
Hg	201	159	NoGas	4.438	ppt	109.0	10	52.9	
Tl	205	159	He	0.184	ppb	5.4	1,370	5.9	
Pb	208	159	NoGas	0.204	ppb	14.1	4,717	1.4	

NR - re-running for RSDs ESS of 11/4/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	913,906	12.2	975380.393333333	Analog	93.7	
Sc	45	H2	2,287,236	0.6	2277280.85	Analog	100.4	
Sc	45	He	353,183	0.7	348790.796666667	Pulse	101.3	
Sc	45	NoGas	2,912,062	11.4	3065554.46333333	Analog	95.0	
Ge	74	H2	722,122	0.2	718037.156666667	Pulse	100.6	
Ge	74	He	208,350	0.8	204919.68	Pulse	101.7	
Ge	74	NoGas	756,238	13.0	806774.886666667	Pulse	93.7	
Rh	103	He	471,007	0.8	466758.146666667	Pulse	100.9	
Rh	103	NoGas	779,522	12.2	832259.633333333	Pulse	93.7	
Tb	159	He	607,006	1.2	600193.66	Pulse	101.1	
Tb	159	NoGas	1,297,995	12.5	1409745.36	Mix	92.1	
Bi	209	He	340,600	0.8	341192.286666667	Pulse	99.8	
Bi	209	NoGas	752,825	12.7	809398.153333333	Pulse	93.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL2**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:13:39		
Comment:	**A19J369 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.849	ppb	4.6	2,043	4.0	
Na	23	45	He	44.816	ppb	0.3	55,613	0.8	
Mg	24	45	He	46.017	ppb	2.0	29,666	1.1	
Al	27	45	He	44.62	ppb	0.8	14,932	0.6	
K	39	45	He	45.763	ppb	1.8	52,211	0.6	
Ca	44	45	H2	46.589	ppb	1.1	10,825	1.0	
[Ca]	44	45	He	48.269	ppb	6.3	1,546	4.6	
Ti	47	45	NoGas	0.886	ppb	8.1	981	5.8	
V	51	74	He	0.912	ppb	2.6	5,393	1.2	
Cr	52	74	He	0.938	ppb	1.2	4,528	0.7	
Mn	55	74	He	0.923	ppb	4.9	2,849	4.9	
Fe	56	74	H2	45.715	ppb	0.9	545,448	0.5	
Co	59	74	He	0.942	ppb	4.8	5,882	4.6	
Ni	60	74	He	0.969	ppb	5.2	1,526	4.5	
Cu	65	74	He	0.985	ppb	6.2	1,937	6.5	
Zn	66	74	He	0.918	ppb	8.0	719	7.8	
As	75	74	He	0.989	ppb	4.3	466	3.9	
Se	78	74	H2	0.947	ppb	5.0	293	5.2	
Mo	95	103	He	0.911	ppb	3.7	1,633	3.3	
Ag	107	103	He	0.884	ppb	5.4	4,498	5.3	
Cd	111	103	He	0.857	ppb	0.3	725	0.9	
[Cd]	111	103	NoGas	0.852	ppb	6.0	1,773	5.7	
Sb	121	103	He	0.856	ppb	5.5	1,920	5.4	
Ba	138	159	He	0.969	ppb	1.3	4,345	2.4	
W	182	159	NoGas	0.003	ppb	11.7	48	4.0	
Hg	201	159	NoGas	33.08	ppt	10.5	38	8.8	
Tl	205	159	He	0.902	ppb	3.7	6,618	2.5	
Pb	208	159	NoGas	0.91	ppb	1.4	20,318	2.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	993,278	0.6	975380.393333333	Analog	101.8	
Sc	45	H2	2,293,568	0.2	2277280.85	Analog	100.7	
Sc	45	He	352,074	1.0	348790.796666667	Pulse	100.9	
Sc	45	NoGas	3,077,189	2.0	3065554.46333333	Analog	100.4	
Ge	74	H2	723,420	0.6	718037.156666667	Pulse	100.7	
Ge	74	He	208,797	0.6	204919.68	Pulse	101.9	
Ge	74	NoGas	813,013	1.1	806774.886666667	Pulse	100.8	
Rh	103	He	469,037	0.8	466758.146666667	Pulse	100.5	
Rh	103	NoGas	830,411	0.4	832259.633333333	Pulse	99.8	
Tb	159	He	604,690	1.2	600193.66	Pulse	100.7	
Tb	159	NoGas	1,399,598	1.1	1409745.36	Analog	99.3	
Bi	209	He	341,194	1.3	341192.286666667	Pulse	100.0	
Bi	209	NoGas	813,902	0.4	809398.153333333	Pulse	100.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL1**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:18:39		
Comment:	**A19J368 - ESS 11/1 (rerun for RSDs)**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.167	ppb	14.7	414	14.4	
Na	23	45	He	8.741	ppb	0.5	14,320	0.4	
Mg	24	45	He	9.206	ppb	3.9	6,309	4.2	
Al	27	45	He	8.879	ppb	8.3	3,069	8.3	
K	39	45	He	9.051	ppb	5.9	32,581	0.8	
Ca	44	45	H2	9.568	ppb	4.6	2,559	3.4	
[Ca]	44	45	He	8.214	ppb	11.9	463	5.9	
Ti	47	45	NoGas	0.224	ppb	17.7	277	15.4	
V	51	74	He	0.207	ppb	5.1	2,641	2.3	
Cr	52	74	He	0.186	ppb	4.7	1,100	2.9	
Mn	55	74	He	0.191	ppb	2.4	614	2.7	
Fe	56	74	H2	9.098	ppb	0.7	113,732	0.4	
Co	59	74	He	0.181	ppb	7.1	1,139	6.7	
Ni	60	74	He	0.176	ppb	10.5	327	8.0	
Cu	65	74	He	0.176	ppb	6.8	403	5.2	
Zn	66	74	He	0.157	ppb	14.8	156	10.8	
As	75	74	He	0.201	ppb	4.0	118	3.4	
Se	78	74	H2	0.221	ppb	10.9	70	10.3	
Mo	95	103	He	0.192	ppb	24.3	352	23.8	
Ag	107	103	He	0.181	ppb	7.7	924	7.4	
Cd	111	103	He	0.187	ppb	4.1	164	4.0	
[Cd]	111	103	NoGas	0.175	ppb	22.6	380	20.5	
Sb	121	103	He	0.169	ppb	17.9	430	15.1	
Ba	138	159	He	0.181	ppb	5.8	904	4.8	
W	182	159	NoGas	0.002	ppb	30.7	44	11.5	
Hg	201	159	NoGas	7.222	ppt	31.8	13	16.8	
Tl	205	159	He	0.178	ppb	3.4	1,313	3.1	
Pb	208	159	NoGas	0.18	ppb	5.5	4,646	4.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	992,255	0.9	975380.393333333	Analog	101.7	
Sc	45	H2	2,275,915	0.6	2277280.85	Analog	99.9	
Sc	45	He	353,540	0.6	348790.796666667	Pulse	101.4	
Sc	45	NoGas	3,087,536	0.9	3065554.46333333	Analog	100.7	
Ge	74	H2	723,924	0.5	718037.156666667	Pulse	100.8	
Ge	74	He	207,630	0.7	204919.68	Pulse	101.3	
Ge	74	NoGas	810,726	0.7	806774.886666667	Pulse	100.5	
Rh	103	He	468,420	0.2	466758.146666667	Pulse	100.4	
Rh	103	NoGas	827,553	0.9	832259.633333333	Pulse	99.4	
Tb	159	He	602,883	0.3	600193.66	Pulse	100.4	
Tb	159	NoGas	1,409,937	0.4	1409745.36	Analog	100.0	
Bi	209	He	338,617	0.5	341192.286666667	Pulse	99.2	
Bi	209	NoGas	807,476	0.7	809398.153333333	Pulse	99.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:23:38		
Comment:	**A19J370 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.796	ppb	2.8	4,226	1.6	
Na	23	45	He	88.737	ppb	0.8	106,067	1.1	
Mg	24	45	He	91.407	ppb	1.9	58,562	1.1	
Al	27	45	He	90.062	ppb	1.2	30,064	1.7	
K	39	45	He	91.668	ppb	2.0	77,001	0.5	
Ca	44	45	H2	91.733	ppb	1.0	20,742	0.3	
[Ca]	44	45	He	90.485	ppb	9.7	2,691	8.6	
Ti	47	45	NoGas	1.857	ppb	4.3	2,016	3.9	
V	51	74	He	1.804	ppb	0.8	8,813	1.1	
Cr	52	74	He	1.857	ppb	2.3	8,671	3.0	
Mn	55	74	He	1.895	ppb	3.1	5,783	2.2	
Fe	56	74	H2	90.486	ppb	0.7	1,072,835	0.9	
Co	59	74	He	1.88	ppb	0.6	11,671	1.2	
Ni	60	74	He	1.933	ppb	3.7	2,968	3.6	
Cu	65	74	He	1.965	ppb	2.6	3,773	1.7	
Zn	66	74	He	1.833	ppb	4.6	1,388	3.8	
As	75	74	He	1.949	ppb	4.3	885	3.4	
Se	78	74	H2	1.881	ppb	4.8	580	4.4	
Mo	95	103	He	1.748	ppb	2.0	3,107	2.0	
Ag	107	103	He	1.779	ppb	6.0	9,004	5.3	
Cd	111	103	He	1.835	ppb	2.1	1,537	2.3	
[Cd]	111	103	NoGas	1.739	ppb	5.9	3,577	5.7	
Sb	121	103	He	1.767	ppb	4.1	3,876	4.7	
Ba	138	159	He	1.959	ppb	1.8	8,583	2.1	
W	182	159	NoGas	0.002	ppb	171.8	47	68.1	
Hg	201	159	NoGas	67.108	ppt	9.2	72	8.9	
Tl	205	159	He	1.801	ppb	3.0	13,096	3.6	
Pb	208	159	NoGas	1.766	ppb	1.3	39,544	1.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	974,530	1.2	975380.393333333	Analog	99.9	
Sc	45	H2	2,278,691	1.1	2277280.85	Analog	100.1	
Sc	45	He	352,430	0.9	348790.796666667	Pulse	101.0	
Sc	45	NoGas	3,073,166	0.6	3065554.46333333	Analog	100.2	
Ge	74	H2	723,010	0.5	718037.156666667	Pulse	100.7	
Ge	74	He	207,831	0.9	204919.68	Pulse	101.4	
Ge	74	NoGas	812,915	1.1	806774.886666667	Pulse	100.8	
Rh	103	He	466,717	0.7	466758.146666667	Pulse	100.0	
Rh	103	NoGas	825,866	0.5	832259.633333333	Pulse	99.2	
Tb	159	He	599,357	0.8	600193.66	Pulse	99.9	
Tb	159	NoGas	1,429,591	0.8	1409745.36	Analog	101.4	
Bi	209	He	339,733	1.1	341192.286666667	Pulse	99.6	
Bi	209	NoGas	806,364	0.5	809398.153333333	Pulse	99.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:28:36		
Comment:	**A19J371 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.57	ppb	1.2	8,453	1.8	
Na	23	45	He	178.718	ppb	1.1	208,986	0.2	
Mg	24	45	He	182.093	ppb	0.4	116,068	0.9	
Al	27	45	He	181.038	ppb	1.7	60,228	0.8	
K	39	45	He	184.376	ppb	0.7	126,780	1.0	
Ca	44	45	H2	181.777	ppb	1.7	41,149	1.3	
[Ca]	44	45	He	186.168	ppb	2.3	5,279	3.4	
Ti	47	45	NoGas	3.706	ppb	0.8	4,030	1.0	
V	51	74	He	3.622	ppb	0.7	15,844	1.5	
Cr	52	74	He	3.609	ppb	1.3	16,614	1.7	
Mn	55	74	He	3.667	ppb	1.2	11,163	1.4	
Fe	56	74	H2	186.276	ppb	0.2	2,198,330	0.8	
Co	59	74	He	3.702	ppb	0.7	22,973	1.7	
Ni	60	74	He	3.916	ppb	4.6	5,952	3.9	
Cu	65	74	He	3.945	ppb	1.4	7,505	1.9	
Zn	66	74	He	3.693	ppb	3.2	2,757	3.8	
As	75	74	He	3.579	ppb	2.9	1,602	3.5	
Se	78	74	H2	3.583	ppb	4.6	1,101	4.0	
Mo	95	103	He	3.593	ppb	4.2	6,322	3.5	
Ag	107	103	He	3.61	ppb	2.0	18,118	1.2	
Cd	111	103	He	3.571	ppb	2.3	2,959	2.4	
[Cd]	111	103	NoGas	3.576	ppb	1.7	7,271	2.1	
Sb	121	103	He	3.534	ppb	1.5	7,626	1.9	
Ba	138	159	He	3.852	ppb	3.2	16,733	4.3	
W	182	159	NoGas	0.003	ppb	93.1	47	37.8	
Hg	201	159	NoGas	137.791	ppt	7.6	140	7.3	
Tl	205	159	He	3.594	ppb	0.5	26,053	0.8	
Pb	208	159	NoGas	3.561	ppb	0.7	77,774	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	982,176	0.8	975380.393333333	Analog	100.7	
Sc	45	H2	2,305,677	0.4	2277280.85	Analog	101.2	
Sc	45	He	351,907	1.3	348790.796666667	Pulse	100.9	
Sc	45	NoGas	3,106,368	0.2	3065554.46333333	Analog	101.3	
Ge	74	H2	721,863	0.7	718037.156666667	Pulse	100.5	
Ge	74	He	207,922	1.0	204919.68	Pulse	101.5	
Ge	74	NoGas	808,452	0.6	806774.886666667	Pulse	100.2	
Rh	103	He	462,920	0.9	466758.146666667	Pulse	99.2	
Rh	103	NoGas	818,888	0.7	832259.633333333	Pulse	98.4	
Tb	159	He	597,996	1.1	600193.66	Pulse	99.6	
Tb	159	NoGas	1,408,536	0.1	1409745.36	Analog	99.9	
Bi	209	He	337,145	0.7	341192.286666667	Pulse	98.8	
Bi	209	NoGas	798,961	0.9	809398.153333333	Pulse	98.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:33:33		
Comment:	**A19J373 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.116	ppb	4.5	23,386	3.3	
Na	23	45	He	403.486	ppb	0.5	459,095	0.2	
Mg	24	45	He	408.192	ppb	0.6	255,516	0.2	
Al	27	45	He	404.466	ppb	1.1	132,306	1.3	
K	39	45	He	412.771	ppb	1.1	245,713	0.5	
Ca	44	45	H2	404.457	ppb	0.4	90,248	1.1	
[Ca]	44	45	He	413.781	ppb	2.5	11,257	2.9	
Ti	47	45	NoGas	21.099	ppb	2.4	22,313	2.0	
V	51	74	He	20.22	ppb	0.4	78,784	0.2	
Cr	52	74	He	20.306	ppb	0.8	90,893	1.1	
Mn	55	74	He	20.643	ppb	0.8	61,750	1.4	
Fe	56	74	H2	411.569	ppb	0.2	4,820,399	0.2	
Co	59	74	He	20.622	ppb	1.5	125,956	1.3	
Ni	60	74	He	21.737	ppb	1.1	32,277	1.2	
Cu	65	74	He	22.081	ppb	0.9	41,054	1.4	
Zn	66	74	He	20.433	ppb	0.4	14,844	0.7	
As	75	74	He	20.844	ppb	0.9	9,045	1.5	
Se	78	74	H2	10.326	ppb	1.4	3,152	1.2	
Mo	95	103	He	10.264	ppb	1.7	17,765	1.6	
Ag	107	103	He	10.193	ppb	2.3	50,353	1.6	
Cd	111	103	He	20.122	ppb	0.3	16,385	0.6	
[Cd]	111	103	NoGas	19.621	ppb	0.7	39,435	0.8	
Sb	121	103	He	9.814	ppb	2.2	20,748	3.0	
Ba	138	159	He	21.839	ppb	1.1	93,488	0.9	
W	182	159	NoGas	0.002	ppb	102.4	40	30.0	
Hg	201	159	NoGas	389.145	ppt	2.2	383	0.6	
Tl	205	159	He	10.137	ppb	0.3	72,846	0.1	
Pb	208	159	NoGas	19.822	ppb	2.2	428,915	0.3	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	960,475	2.2	975380.393333333	Analog	98.5	
Sc	45	H2	2,286,427	1.1	2277280.85	Analog	100.4	
Sc	45	He	346,301	0.5	348790.796666667	Pulse	99.3	
Sc	45	NoGas	3,043,775	0.5	3065554.46333333	Analog	99.3	
Ge	74	H2	717,552	0.4	718037.156666667	Pulse	99.9	
Ge	74	He	204,826	0.5	204919.68	Pulse	100.0	
Ge	74	NoGas	798,835	1.1	806774.886666667	Pulse	99.0	
Rh	103	He	455,803	0.8	466758.146666667	Pulse	97.7	
Rh	103	NoGas	811,251	0.5	832259.633333333	Pulse	97.5	
Tb	159	He	592,934	0.4	600193.66	Pulse	98.8	
Tb	159	NoGas	1,407,136	1.9	1409745.36	Analog	99.8	
Bi	209	He	335,752	1.0	341192.286666667	Pulse	98.4	
Bi	209	NoGas	796,487	0.7	809398.153333333	Pulse	98.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:38:28		
Comment:	**A19J372**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	50.229	ppb	0.4	111,753	0.4	
Na	23	45	He	2480.844	ppb	1.2	2,714,631	1.2	
Mg	24	45	He	2543.677	ppb	0.6	1,540,864	0.5	
Al	27	45	He	2452.882	ppb	0.2	777,022	0.2	
K	39	45	He	2579.67	ppb	1.0	1,350,166	0.8	
Ca	44	45	H2	2487.233	ppb	0.9	535,387	0.5	
[Ca]	44	45	He	2540.831	ppb	1.7	65,810	1.8	
Ti	47	45	NoGas	50.374	ppb	2.9	50,987	2.0	
V	51	74	He	49.79	ppb	1.1	184,604	0.1	
Cr	52	74	He	49.774	ppb	0.6	214,611	0.6	
Mn	55	74	He	51.041	ppb	1.3	147,256	1.0	
Fe	56	74	H2	2499.884	ppb	0.7	28,485,724	0.3	
Co	59	74	He	50.679	ppb	1.4	298,627	0.8	
Ni	60	74	He	53.287	ppb	0.9	76,255	0.7	
Cu	65	74	He	53.136	ppb	0.7	95,222	0.9	
Zn	66	74	He	50.926	ppb	0.8	35,641	1.6	
As	75	74	He	51.184	ppb	0.4	21,388	1.4	
Se	78	74	H2	49.403	ppb	1.3	14,679	0.7	
Mo	95	103	He	49.901	ppb	1.0	83,002	0.4	
Ag	107	103	He	49.721	ppb	0.6	236,150	0.7	
Cd	111	103	He	50.297	ppb	0.5	39,368	0.7	
[Cd]	111	103	NoGas	48.7	ppb	0.4	92,541	0.2	
Sb	121	103	He	49.095	ppb	0.9	99,539	1.2	
Ba	138	159	He	53.238	ppb	0.5	223,712	0.6	
W	182	159	NoGas	0.014	ppb	45.2	129	36.2	
Hg	201	159	NoGas	1931.963	ppt	3.0	1,817	2.7	
Tl	205	159	He	49.415	ppb	0.2	348,799	0.4	
Pb	208	159	NoGas	49.019	ppb	0.7	1,025,313	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	924,373	0.1	975380.393333333	Analog	94.8	
Sc	45	H2	2,214,928	0.7	2277280.85	Analog	97.3	
Sc	45	He	335,585	0.1	348790.796666667	Pulse	96.2	
Sc	45	NoGas	2,916,250	0.9	3065554.46333333	Analog	95.1	
Ge	74	H2	698,880	0.6	718037.156666667	Pulse	97.3	
Ge	74	He	197,629	1.0	204919.68	Pulse	96.4	
Ge	74	NoGas	761,126	0.7	806774.886666667	Pulse	94.3	
Rh	103	He	438,255	1.1	466758.146666667	Pulse	93.9	
Rh	103	NoGas	767,237	0.3	832259.633333333	Pulse	92.2	
Tb	159	He	582,468	0.2	600193.66	Pulse	97.0	
Tb	159	NoGas	1,361,289	0.8	1409745.36	Analog	96.6	
Bi	209	He	328,550	0.4	341192.286666667	Pulse	96.3	
Bi	209	NoGas	771,568	0.2	809398.153333333	Pulse	95.3	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:43:22		
Comment:	**A19J374**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	99.876	ppb	0.1	209,339	0.4	
Na	23	45	He	3999.032	ppb	0.1	4,052,668	0.4	
Mg	24	45	He	4070.973	ppb	0.6	2,284,920	0.2	
Al	27	45	He	3988.807	ppb	0.8	1,170,837	0.8	
K	39	45	He	4122.173	ppb	1.2	1,984,683	1.1	
Ca	44	45	H2	4016.614	ppb	0.5	818,270	0.4	
[Ca]	44	45	He	4034.149	ppb	0.8	96,698	0.5	
Ti	47	45	NoGas	203.424	ppb	0.9	188,800	0.4	
V	51	74	He	197.097	ppb	0.1	676,689	0.4	
Cr	52	74	He	197.611	ppb	0.4	793,905	0.5	
Mn	55	74	He	200.41	ppb	0.7	539,123	0.4	
Fe	56	74	H2	4000.933	ppb	0.4	43,156,103	0.3	
Co	59	74	He	199.517	ppb	0.3	1,096,389	0.3	
Ni	60	74	He	210.071	ppb	0.5	280,188	0.7	
Cu	65	74	He	208.471	ppb	0.8	348,206	0.7	
Zn	66	74	He	203.411	ppb	0.7	132,642	0.6	
As	75	74	He	201.549	ppb	0.8	78,458	0.6	
Se	78	74	H2	100.264	ppb	1.3	28,203	1.4	
Mo	95	103	He	100.024	ppb	1.0	155,949	1.5	
Ag	107	103	He	100.121	ppb	0.5	445,717	0.3	
Cd	111	103	He	200.296	ppb	0.8	146,926	0.2	
[Cd]	111	103	NoGas	196.624	ppb	0.4	343,882	0.2	
Sb	121	103	He	100.475	ppb	0.7	190,881	0.4	
Ba	138	159	He	209.75	ppb	0.7	842,057	0.9	
W	182	159	NoGas	0.023	ppb	22.8	181	19.7	
Hg	201	159	NoGas	4035.442	ppt	2.2	3,494	1.7	
Tl	205	159	He	100.279	ppb	1.2	676,452	0.7	
Pb	208	159	NoGas	201.845	ppb	0.7	3,891,959	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	870,870	0.3	975380.393333333	Analog	89.3	
Sc	45	H2	2,096,878	0.8	2277280.85	Analog	92.1	
Sc	45	He	310,973	0.4	348790.796666667	Pulse	89.2	
Sc	45	NoGas	2,675,094	0.9	3065554.46333333	Analog	87.3	
Ge	74	H2	661,613	0.3	718037.156666667	Pulse	92.1	
Ge	74	He	184,298	0.3	204919.68	Pulse	89.9	
Ge	74	NoGas	703,151	0.9	806774.886666667	Pulse	87.2	
Rh	103	He	410,785	0.9	466758.146666667	Pulse	88.0	
Rh	103	NoGas	706,263	0.2	832259.633333333	Pulse	84.9	
Tb	159	He	556,687	0.5	600193.66	Pulse	92.8	
Tb	159	NoGas	1,255,555	0.7	1409745.36	Pulse	89.1	
Bi	209	He	314,107	0.8	341192.286666667	Pulse	92.1	
Bi	209	NoGas	720,656	0.5	809398.153333333	Pulse	89.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:48:12		
Comment:	**A19J188**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.017	ppb	84.5	46	62.2	
Na	23	45	He	9949.889	ppb	0.9	9,591,685	0.9	
Mg	24	45	He	10023.399	ppb	0.4	5,354,070	0.4	
Al	27	45	He	10005.641	ppb	0.8	2,795,194	0.8	
K	39	45	He	10091.047	ppb	0.7	4,590,680	0.7	
Ca	44	45	H2	10278.144	ppb	0.8	1,951,076	1.3	
[Ca]	44	45	He	10031.299	ppb	0.7	228,559	0.7	
Ti	47	45	NoGas	503.336	ppb	0.3	451,983	0.4	
V	51	74	He	501.173	ppb	0.3	1,645,112	0.3	
Cr	52	74	He	500.146	ppb	0.5	1,923,613	0.5	
Mn	55	74	He	507.978	ppb	1.5	1,308,382	1.4	
Fe	56	74	H2	9917.67	ppb	0.4	99,154,881	0.6	
Co	59	74	He	500.099	ppb	0.1	2,631,335	0.3	
Ni	60	74	He	508.624	ppb	0.4	649,482	0.6	
Cu	65	74	He	507.321	ppb	0.5	811,273	0.3	
Zn	66	74	He	499.73	ppb	0.8	311,970	0.8	
As	75	74	He	499.228	ppb	0.8	186,042	0.9	
Se	78	74	H2	0.119	ppb	30.9	33	28.9	
Mo	95	103	He	0.092	ppb	15.8	144	15.4	
Ag	107	103	He	0.029	ppb	23.6	128	22.2	
Cd	111	103	He	503.65	ppb	0.4	348,364	0.3	
[Cd]	111	103	NoGas	500.469	ppb	0.7	835,828	0.9	
Sb	121	103	He	0.064	ppb	25.7	167	17.3	
Ba	138	159	He	518.441	ppb	1.0	2,013,123	1.5	
W	182	159	NoGas	100	ppb	0.6	655,228	0.6	
Hg	201	159	NoGas	90.894	ppt	11.0	82	10.1	
Tl	205	159	He	0.028	ppb	28.3	192	26.9	
Pb	208	159	NoGas	499.368	ppb	1.0	9,445,601	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	813,919	0.2	975380.393333333	Pulse	83.4	
Sc	45	H2	1,954,437	1.1	2277280.85	Analog	85.8	
Sc	45	He	295,975	0.1	348790.796666667	Pulse	84.9	
Sc	45	NoGas	2,588,372	0.3	3065554.46333333	Analog	84.4	
Ge	74	H2	613,281	0.5	718037.156666667	Pulse	85.4	
Ge	74	He	176,465	0.2	204919.68	Pulse	86.1	
Ge	74	NoGas	665,594	1.0	806774.886666667	Pulse	82.5	
Rh	103	He	387,341	0.7	466758.146666667	Pulse	83.0	
Rh	103	NoGas	674,439	0.5	832259.633333333	Pulse	81.0	
Tb	159	He	538,469	0.5	600193.66	Pulse	89.7	
Tb	159	NoGas	1,231,847	1.0	1409745.36	Pulse	87.4	
Bi	209	He	300,983	0.6	341192.286666667	Pulse	88.2	
Bi	209	NoGas	694,873	0.8	809398.153333333	Pulse	85.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:53:06		
Comment:	**A19J189**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.013	ppb	62.5	37	41.7	
Na	23	45	He	50011.037	ppb	0.5	47,258,693	0.4	
Mg	24	45	He	49987.382	ppb	0.8	26,179,862	0.4	
Al	27	45	He	50002.084	ppb	1.0	13,696,335	0.7	
K	39	45	He	49967.912	ppb	1.6	22,199,412	1.5	
Ca	44	45	H2	49943.634	ppb	0.8	9,200,490	0.3	
[Ca]	44	45	He	49988.83	ppb	0.9	1,116,041	0.9	
Ti	47	45	NoGas	2499.042	ppb	0.9	2,211,824	0.4	
V	51	74	He	-0.036	ppb	N/A	1,361	2.7	
Cr	52	74	He	1000.41	ppb	0.6	3,616,604	1.1	
Mn	55	74	He	2498.346	ppb	0.3	6,048,726	0.7	
Fe	56	74	H2	50016.281	ppb	0.0	462,256,158	0.4	
Co	59	74	He	0.218	ppb	4.5	1,096	4.3	
Ni	60	74	He	993.473	ppb	0.3	1,192,404	0.4	
Cu	65	74	He	994.445	ppb	0.2	1,494,791	1.0	
Zn	66	74	He	2499.759	ppb	0.5	1,466,803	1.2	
As	75	74	He	0.135	ppb	22.4	71	15.4	
Se	78	74	H2	0.141	ppb	17.3	36	16.9	
Mo	95	103	He	0.112	ppb	30.1	160	28.9	
Ag	107	103	He	0.025	ppb	34.7	102	33.0	
Cd	111	103	He	998.099	ppb	0.1	633,842	0.5	
[Cd]	111	103	NoGas	1000.513	ppb	0.7	1,522,964	1.4	
Sb	121	103	He	0.022	ppb	80.2	84	34.0	
Ba	138	159	He	2495.452	ppb	0.3	9,099,711	0.7	
W	182	159	NoGas	0.274	ppb	2.3	1,735	1.6	
Hg	201	159	NoGas	39.193	ppt	17.7	37	15.0	
Tl	205	159	He	0.006	ppb	30.4	46	22.4	
Pb	208	159	NoGas	0.182	ppb	3.6	3,911	3.7	

ISTD Table:

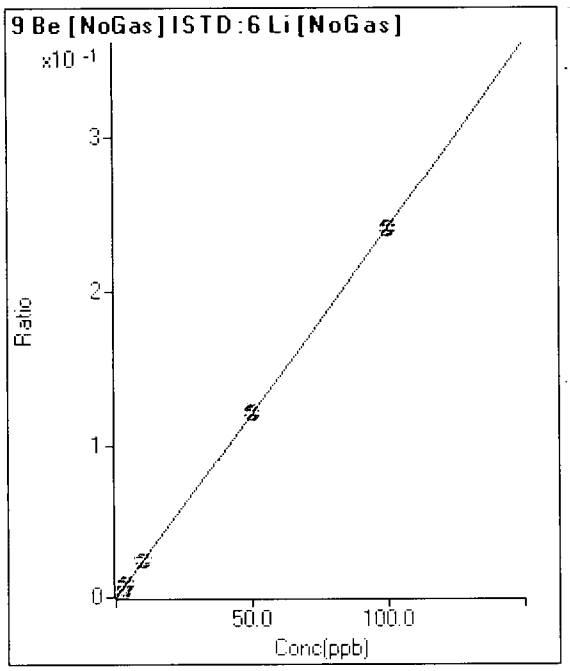
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	817,567	1.1	975380.393333333	Mix	83.8	
Sc	45	H2	1,897,017	0.6	2277280.85	Analog	83.3	
Sc	45	He	290,220	0.5	348790.796666667	Pulse	83.2	
Sc	45	NoGas	2,551,512	1.3	3065554.46333333	Analog	83.2	
Ge	74	H2	566,952	0.4	718037.156666667	Pulse	79.0	
Ge	74	He	165,876	0.8	204919.68	Pulse	80.9	
Ge	74	NoGas	627,888	0.6	806774.886666667	Pulse	77.8	
Rh	103	He	355,627	0.6	466758.146666667	Pulse	76.2	
Rh	103	NoGas	614,700	0.7	832259.633333333	Pulse	73.9	
Tb	159	He	505,720	1.0	600193.66	Pulse	84.3	
Tb	159	NoGas	1,173,915	0.7	1409745.36	Pulse	83.3	
Bi	209	He	271,184	0.9	341192.286666667	Pulse	79.5	
Bi	209	NoGas	646,312	0.5	809398.153333333	Pulse	79.9	

Calibration for 013_ICV.d

Batch Folder:	C:\Agilent\ICPMH\1\DATA\9K01022.b\
Analysis File:	9K01022.batch.bin
DA Date-Time:	11/1/2019 15:02:45
Calibration Title:	
Calibration Method:	External Calibration
VIS Interpolation Fit:	

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	9K01022-CAL0	11/1/2019 11:03:57
2	005CALS.d	9K01022-CAL1	11/1/2019 11:18:39
3	004CALS.d	9K01022-CAL2	11/1/2019 11:13:39
4	006CALS.d	9K01022-CAL3	11/1/2019 11:23:38
5	007CALS.d	9K01022-CAL4	11/1/2019 11:28:36
6	008CALS.d	9K01022-CAL5	11/1/2019 11:33:33
7	009CALS.d	9K01022-CAL6	11/1/2019 11:38:28
8	010CALS.d	9K01022-CAL7	11/1/2019 11:43:22
9	011CALS.d	9K01022-CAL8	11/1/2019 11:48:12
10	012CALS.d	9K01022-CAL9	11/1/2019 11:53:06

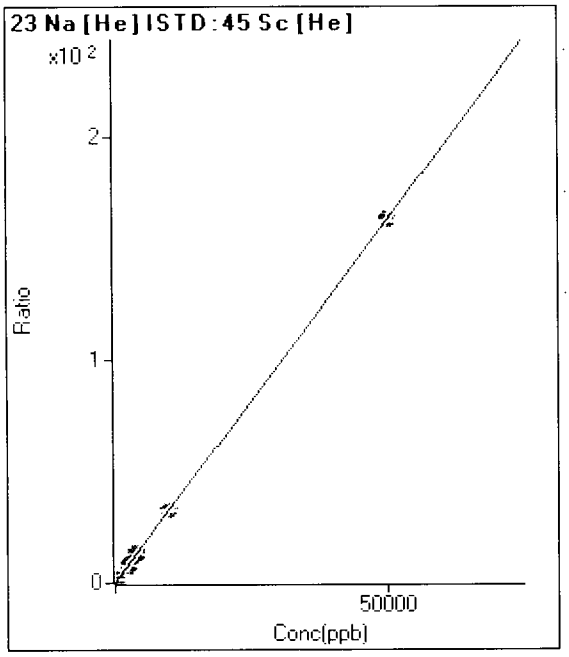
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14	0.000	P	47.5
2	☐	0.180	0.167	414	0.000	P	14.2
3	☐	0.900	0.849	2,043	0.002	P	4.5
4	☐	1.800	1.796	4,226	0.004	P	2.8
5	☐	3.600	3.570	8,453	0.009	P	1.2
6	☐	10.000	10.116	23,386	0.024	P	4.5
7	☐	50.000	50.229	111,753	0.121	P	0.4
8	☐	100.000	99.876	209,339	0.240	P	0.1
9	☐			46	0.000	P	62.1
10	☐			37	0.000	P	41.9

y = 0.0024 * x + 1.4796E-005
R = 1.0000
DL = 0.008767
BEC = 0.006148

Weight: <None>
Min Conc: <None>

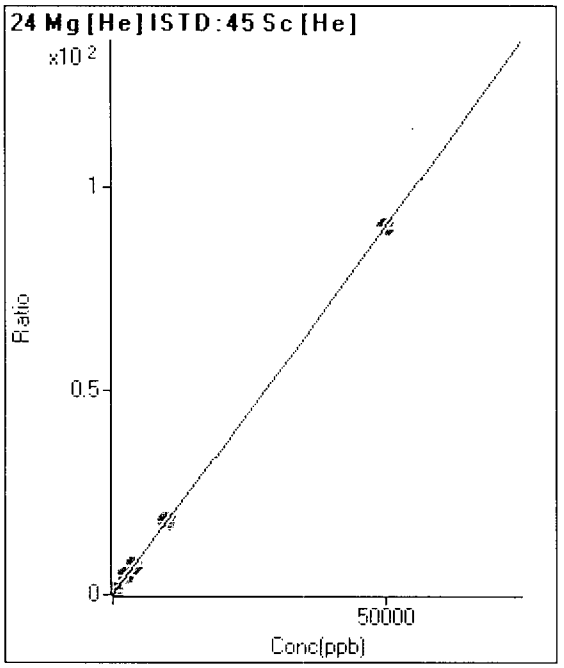


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4,204	0.012	P	7.4
2	☐			14,320	0.041	P	0.4
3	☐	45.000	44.816	55,613	0.158	P	0.3
4	☐	90.000	88.737	106,067	0.301	P	0.8
5	☐	180.000	178.718	208,986	0.594	P	1.1
6	☐	400.000	403.486	459,095	1.326	P	0.5
7	☐	2500.000	2480.844	2,714,631	8.089	A	1.2
8	☐	4000.000	3999.032	4,052,668	13.032	A	0.1
9	☐	10000.000	9949.889	9,591,685	32.407	A	0.9
10	☐	50000.000	50011.037	47,258,693	162.840	A	0.5

y = 0.0033 * x + 0.0120
R = 1.0000
DL = 0.8198
BEC = 3.7

Weight: <None>
Min Conc: <None>

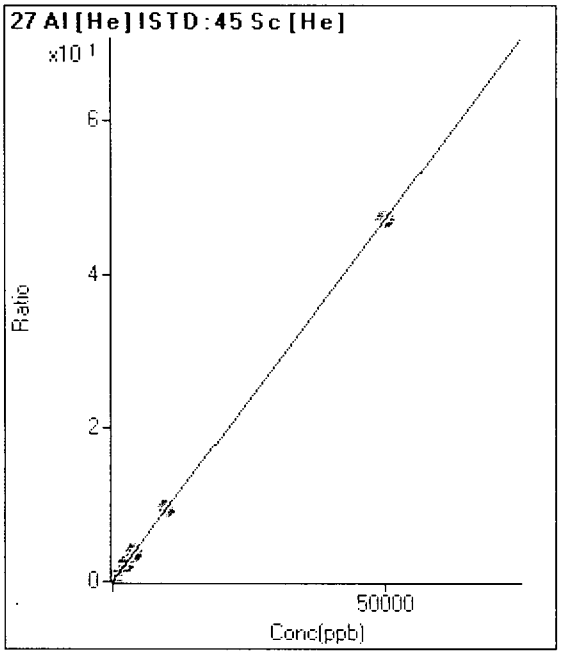
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	429	0.001	P	7.3
2	☐			6,309	0.018	P	3.6
3	☐	45.000	46.017	29,666	0.084	P	2.0
4	☐	90.000	91.407	58,562	0.166	P	1.8
5	☐	180.000	182.093	116,068	0.330	P	0.4
6	☐	400.000	408.192	255,516	0.738	P	0.6
7	☐	2500.000	2543.677	1,540,864	4.592	A	0.6
8	☐	4000.000	4070.973	2,284,920	7.348	A	0.6
9	☐	10000.000	10023.399	5,354,070	18.090	A	0.4
10	☐	50000.000	49987.382	26,179,862	90.209	A	0.8

y = 0.0018 * x + 0.0012
R = 1.0000
DL = 0.1492
BEC = 0.681

Weight: <None>
Min Conc: <None>

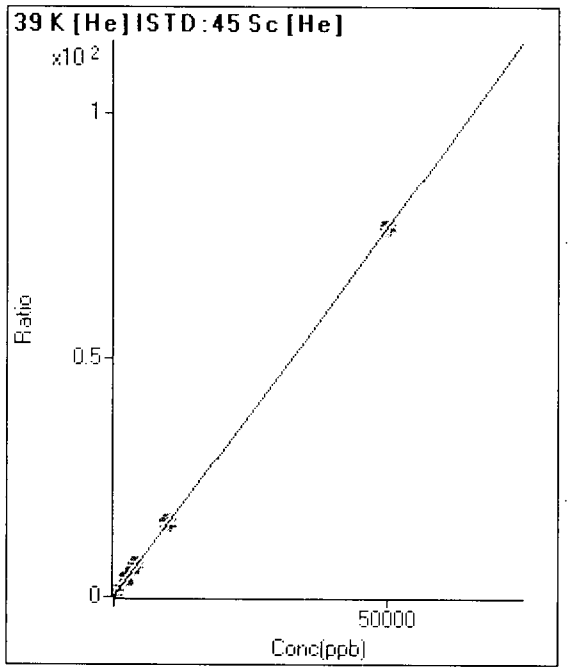


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104	0.000	P	26.3
2	☐			3,069	0.009	P	8.0
3	☐	45.000	44.620	14,932	0.042	P	0.7
4	☐	90.000	90.062	30,064	0.085	P	1.2
5	☐	180.000	181.038	60,228	0.171	P	1.7
6	☐	400.000	404.466	132,306	0.382	P	1.1
7	☐	2500.000	2452.882	777,022	2.315	P	0.2
8	☐	4000.000	3988.807	1,170,837	3.765	A	0.8
9	☐	10000.000	10005.641	2,795,194	9.444	A	0.8
10	☐	50000.000	50002.084	13,696,335	47.194	A	1.0

y = 9.4384E-004 * x + 2.9925E-004
R = 1.0000
DL = 0.2498
BEC = 0.3171

Weight: <None>
Min Conc: <None>

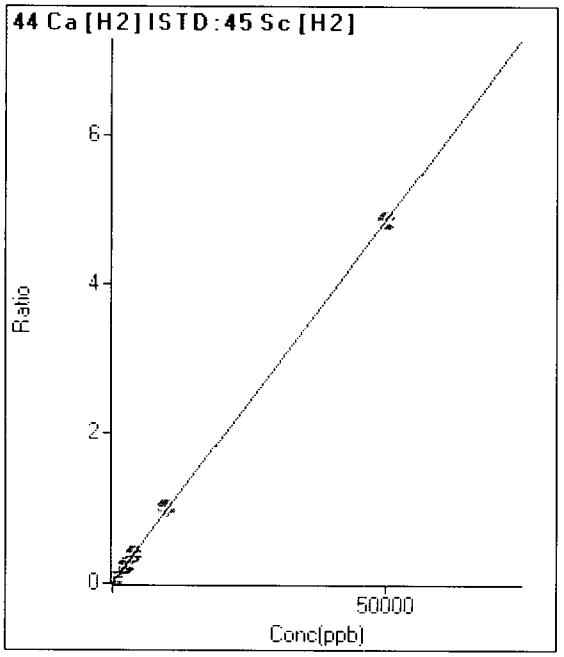
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27,317	0.078	P	0.1
2	☐			32,581	0.092	P	0.9
3	☐	45.000	45.763	52,211	0.148	P	0.8
4	☐	90.000	91.668	77,001	0.219	P	1.3
5	☐	180.000	184.376	126,780	0.360	P	0.6
6	☐	400.000	412.771	245,713	0.710	P	0.9
7	☐	2500.000	2579.670	1,350,166	4.023	A	0.9
8	☐	4000.000	4122.173	1,984,683	6.382	A	1.2
9	☐	10000.000	10091.047	4,590,680	15.510	A	0.7
10	☐	50000.000	49967.912	22,199,412	76.493	A	1.6

y = 0.0015 * x + 0.0783
R = 1.0000
DL = 0.203
BEC = 51.21

Weight: <None>
Min Conc: <None>

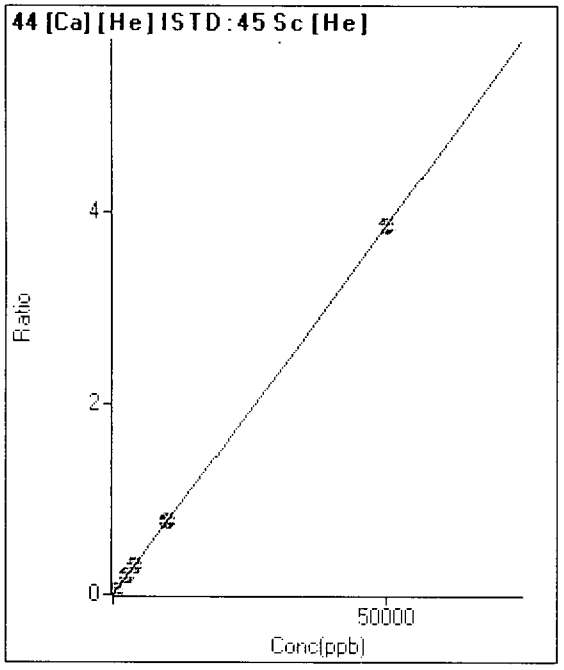


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444	0.000	P	17.7
2	☐			2,559	0.001	P	3.8
3	☐	45.000	46.589	10,825	0.005	P	1.0
4	☐	90.000	91.733	20,742	0.009	P	1.0
5	☐	180.000	181.777	41,149	0.018	P	1.6
6	☐	400.000	404.457	90,248	0.039	P	0.4
7	☐	2500.000	2487.233	535,387	0.242	P	0.9
8	☐	4000.000	4016.614	818,270	0.390	P	0.5
9	☐	10000.000	10278.144	1,951,076	0.998	A	0.8
10	☐	50000.000	49943.634	9,200,490	4.850	A	0.8

y = 9.7108E-005 * x + 1.9540E-004
R = 1.0000
DL = 1.066
BEC = 2.012

Weight: <None>
Min Conc: <None>

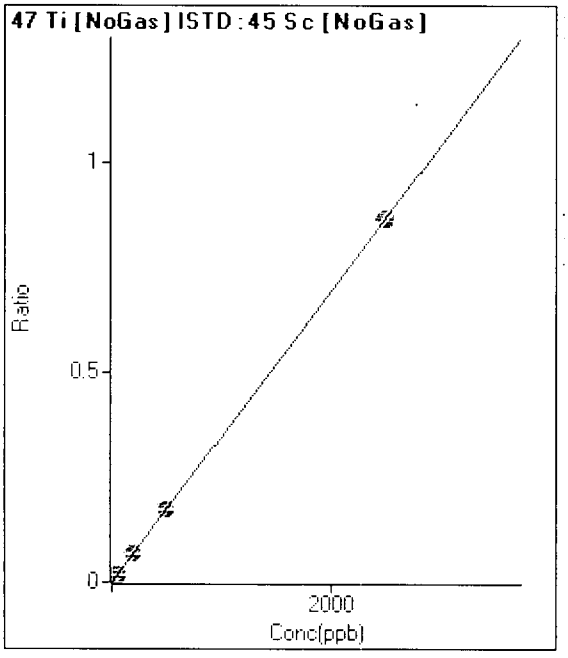
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	237	0.001	P	6.9
2	☐			463	0.001	P	5.8
3	☐	45.000	48.269	1,546	0.004	P	5.3
4	☐	90.000	90.485	2,691	0.008	P	8.9
5	☐	180.000	186.168	5,279	0.015	P	2.2
6	☐	400.000	413.781	11,257	0.033	P	2.5
7	☐	2500.000	2540.831	65,810	0.196	P	1.7
8	☐	4000.000	4034.149	96,698	0.311	P	0.8
9	☐	10000.000	10031.299	228,559	0.772	P	0.7
10	☐	50000.000	49988.830	1,116,041	3.846	P	0.9

y = 7.6914E-005 * x + 6.7876E-004
R = 1.0000
DL = 1.835
BEC = 8.825

Weight: <None>
Min Conc: <None>

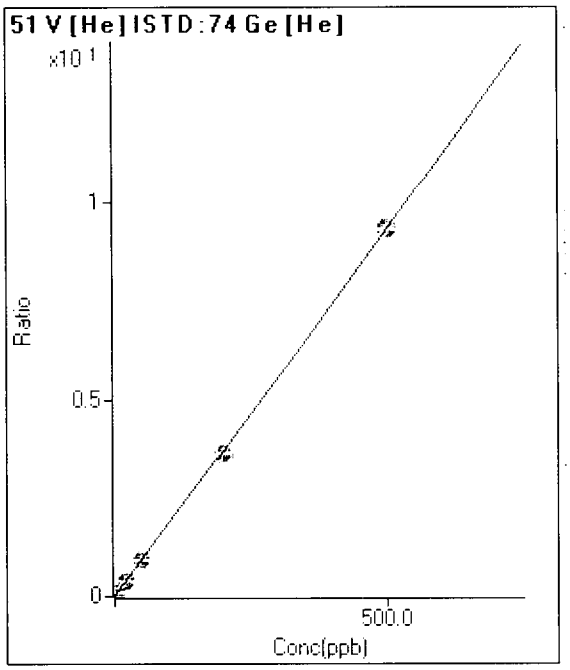


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37	0.000	P	15.2
2	☐	0.180	0.224	277	0.000	P	15.3
3	☐	0.900	0.886	981	0.000	P	7.8
4	☐	1.800	1.857	2,016	0.001	P	4.3
5	☐	3.600	3.706	4,030	0.001	P	0.8
6	☐	20.000	21.099	22,313	0.007	P	2.4
7	☐	50.000	50.374	50,987	0.017	P	2.9
8	☐	200.000	203.424	188,800	0.071	P	0.9
9	☐	500.000	503.336	451,983	0.175	P	0.3
10	☐	2500.000	2499.042	2,211,824	0.867	A	0.9

y = 3.4690E-004 * x + 1.1948E-005
R = 1.0000
DL = 0.0157
BEC = 0.03444

Weight: <None>
Min Conc: <None>

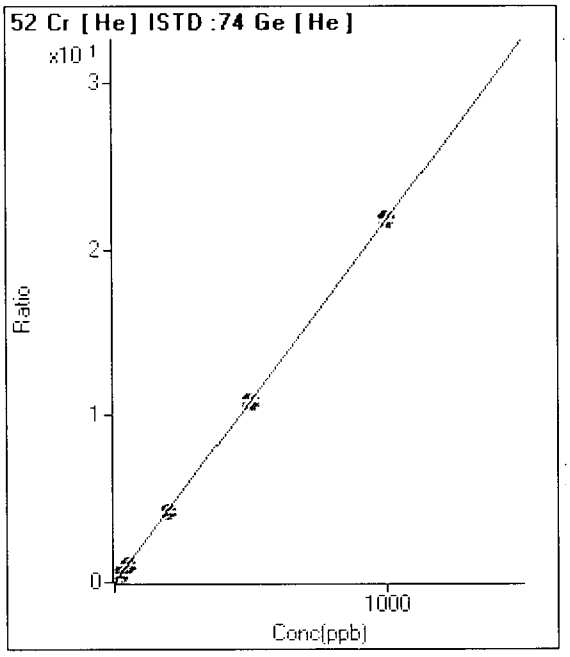
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1,820	0.009	P	2.5
2	☐	0.180	0.207	2,641	0.013	P	1.5
3	☐	0.900	0.912	5,393	0.026	P	1.7
4	☐	1.800	1.804	8,813	0.042	P	0.6
5	☐	3.600	3.622	15,844	0.076	P	0.6
6	☐	20.000	20.220	78,784	0.385	P	0.4
7	☐	50.000	49.790	184,604	0.934	P	1.1
8	☐	200.000	197.097	676,689	3.672	P	0.1
9	☐	500.000	501.173	1,645,112	9.323	A	0.3
10	☐			1,361	0.008	P	3.4

y = 0.0186 * x + 0.0089
R = 1.0000
DL = 0.03523
BEC = 0.4778

Weight: <None>
Min Conc: <None>

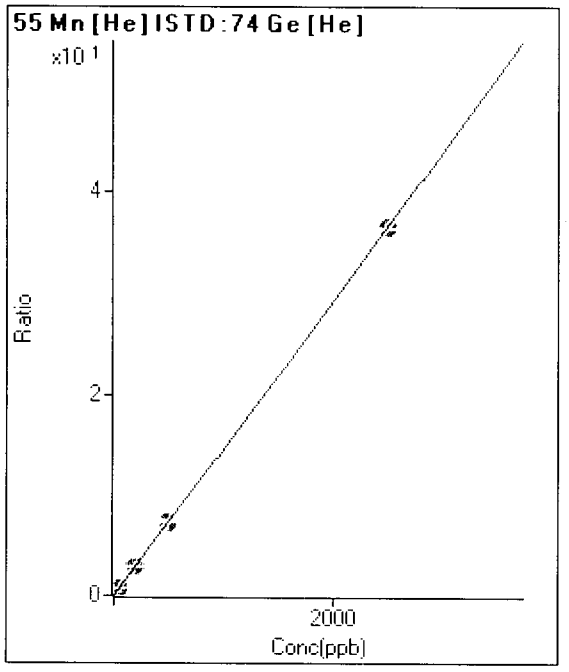


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	254	0.001	P	12.0
2	☐	0.180	0.186	1,100	0.005	P	3.6
3	☐	0.900	0.938	4,528	0.022	P	1.1
4	☐	1.800	1.857	8,671	0.042	P	2.2
5	☐	3.600	3.609	16,614	0.080	P	1.3
6	☐	20.000	20.306	90,893	0.444	P	0.8
7	☐	50.000	49.774	214,611	1.086	P	0.6
8	☐	200.000	197.611	793,905	4.308	P	0.4
9	☐	500.000	500.146	1,923,613	10.901	A	0.5
10	☐	1000.000	1000.410	3,616,604	21.803	A	0.6

y = 0.0218 * x + 0.0012
R = 1.0000
DL = 0.02057
BEC = 0.05699

Weight: <None>
Min Conc: <None>

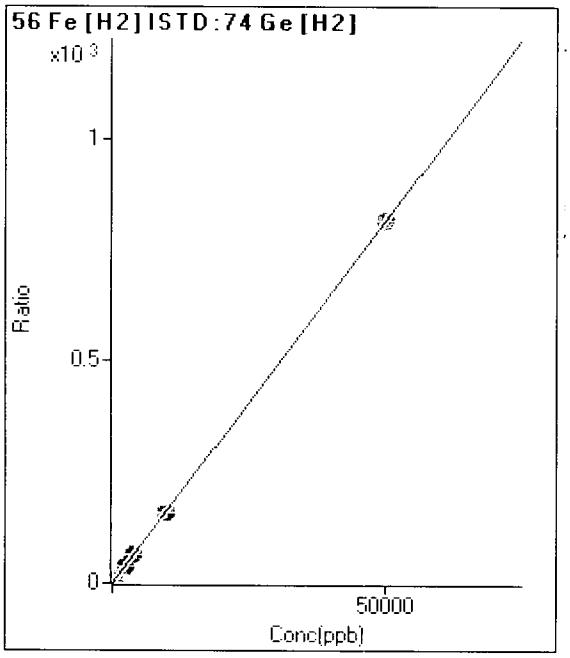
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34	0.000	P	72.4
2	☐	0.180	0.191	614	0.003	P	2.2
3	☐	0.900	0.923	2,849	0.014	P	4.9
4	☐	1.800	1.895	5,783	0.028	P	3.1
5	☐	3.600	3.667	11,163	0.054	P	1.2
6	☐	20.000	20.643	61,750	0.301	P	0.8
7	☐	50.000	51.041	147,256	0.745	P	1.3
8	☐	200.000	200.410	539,123	2.925	P	0.7
9	☐	500.000	507.978	1,308,382	7.415	A	1.5
10	☐	2500.000	2498.346	6,048,726	36.466	A	0.3

y = 0.0146 * x + 1.6789E-004
R = 1.0000
DL = 0.02498
BEC = 0.0115

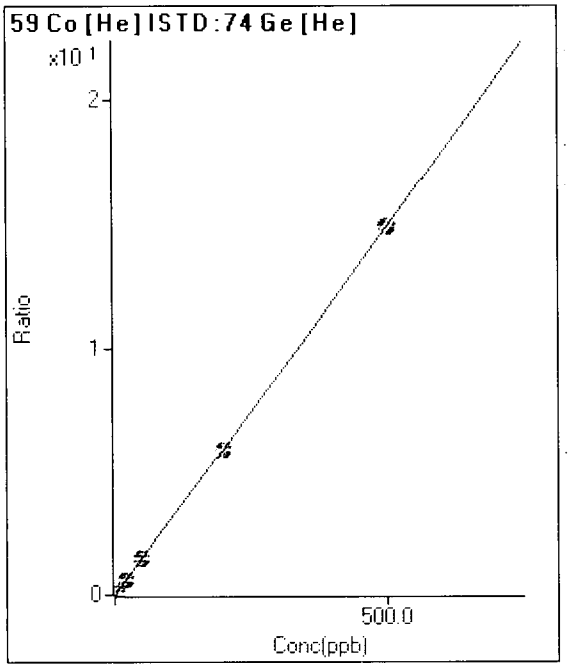
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6,322	0.009	P	5.5
2	☐			113,732	0.157	P	0.7
3	☐	45.000	45.715	545,448	0.754	P	0.9
4	☐	90.000	90.486	1,072,835	1.484	P	0.7
5	☐	180.000	186.276	2,198,330	3.045	A	0.2
6	☐	400.000	411.569	4,820,399	6.718	A	0.2
7	☐	2500.000	2499.884	28,485,724	40.760	A	0.7
8	☐	4000.000	4000.933	43,156,103	65.229	A	0.4
9	☐	10000.000	9917.670	99,154,881	161.679	A	0.4
10	☐	50000.000	50016.281	462,256,158	815.336	A	0.0

y = 0.0163 * x + 0.0088
R = 1.0000
DL = 0.08838
BEC = 0.5401

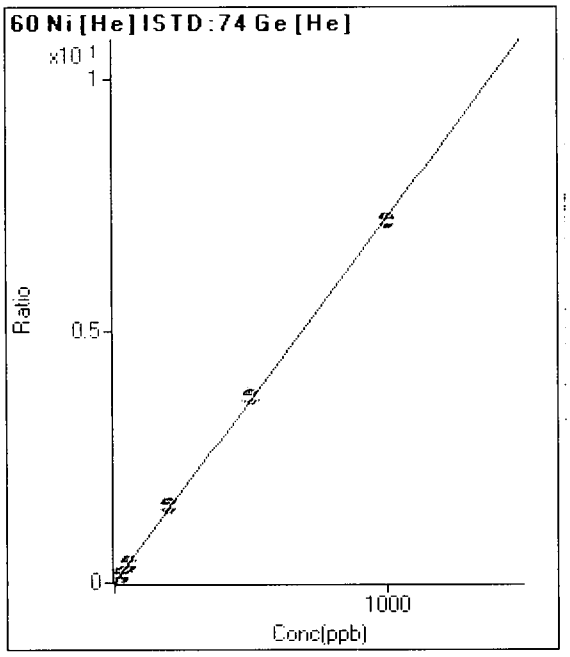
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19	0.000	P	40.3
2	☐	0.180	0.181	1,139	0.005	P	7.0
3	☐	0.900	0.942	5,882	0.028	P	4.8
4	☐	1.800	1.880	11,671	0.056	P	0.6
5	☐	3.600	3.702	22,973	0.110	P	0.7
6	☐	20.000	20.622	125,956	0.615	P	1.5
7	☐	50.000	50.679	298,627	1.511	P	1.4
8	☐	200.000	199.517	1,096,389	5.949	P	0.3
9	☐	500.000	500.099	2,631,335	14.911	A	0.1
10	☐			1,096	0.007	P	4.5

y = 0.0298 * x + 9.1987E-005
R = 1.0000
DL = 0.003727
BEC = 0.003085

Weight: <None>
Min Conc: <None>

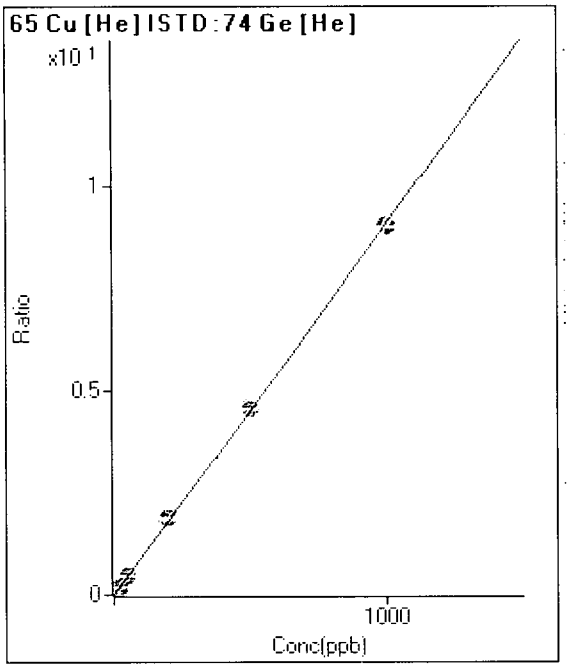


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61	0.000	P	41.7
2	☐	0.180	0.176	327	0.002	P	8.5
3	☐	0.900	0.969	1,526	0.007	P	5.0
4	☐	1.800	1.933	2,968	0.014	P	3.6
5	☐	3.600	3.916	5,952	0.029	P	4.6
6	☐	20.000	21.737	32,277	0.158	P	1.1
7	☐	50.000	53.287	76,255	0.386	P	0.9
8	☐	200.000	210.071	280,188	1.520	P	0.5
9	☐	500.000	508.624	649,482	3.680	P	0.4
10	☐	1000.000	993.473	1,192,404	7.189	P	0.3

y = 0.0072 * x + 2.9847E-004
R = 0.9999
DL = 0.05166
BEC = 0.04125

Weight: <None>
Min Conc: <None>

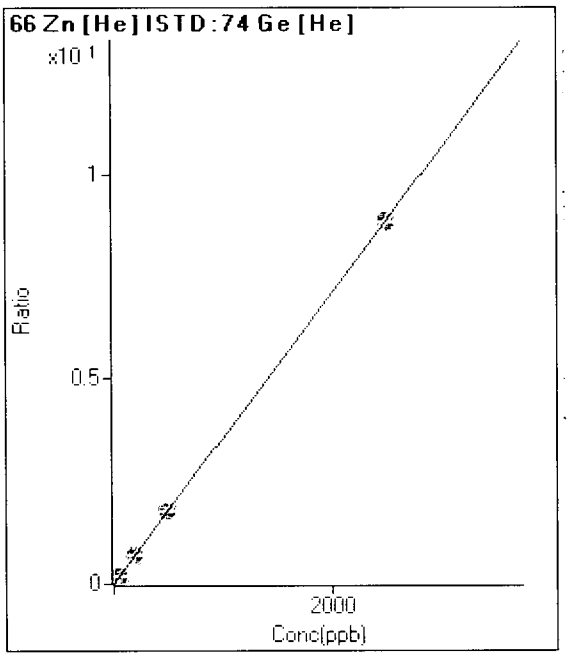
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71	0.000	P	11.5
2	☐	0.180	0.176	403	0.002	P	5.6
3	☐	0.900	0.985	1,937	0.009	P	6.0
4	☐	1.800	1.965	3,773	0.018	P	2.5
5	☐	3.600	3.945	7,505	0.036	P	1.3
6	☐	20.000	22.081	41,054	0.200	P	0.9
7	☐	50.000	53.136	95,222	0.482	P	0.7
8	☐	200.000	208.471	348,206	1.889	P	0.8
9	☐	500.000	507.321	811,273	4.597	P	0.5
10	☐	1000.000	994.445	1,494,791	9.011	A	0.2

y = 0.0091 * x + 3.4697E-004
R = 0.9999
DL = 0.01326
BEC = 0.03829

Weight: <None>
Min Conc: <None>

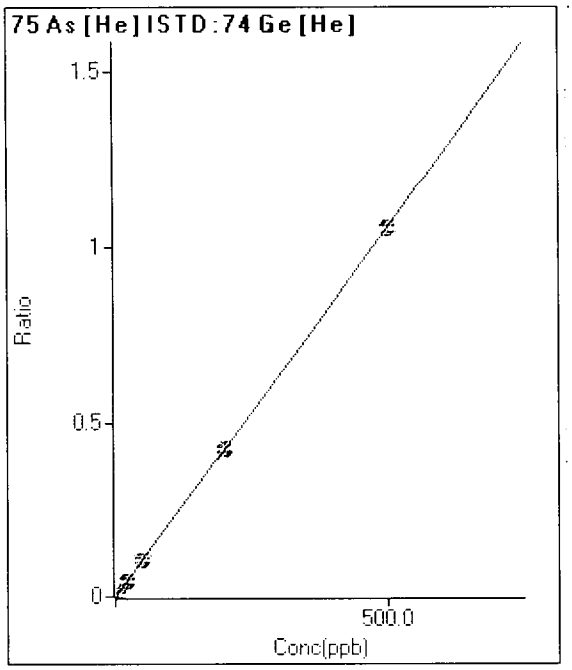


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	21.5
2	☐	0.180	0.157	156	0.001	P	10.9
3	☐	0.900	0.918	719	0.003	P	7.6
4	☐	1.800	1.833	1,388	0.007	P	4.5
5	☐	3.600	3.693	2,757	0.013	P	3.1
6	☐	20.000	20.433	14,844	0.072	P	0.4
7	☐	50.000	50.926	35,641	0.180	P	0.8
8	☐	200.000	203.411	132,642	0.720	P	0.7
9	☐	500.000	499.730	311,970	1.768	P	0.8
10	☐	2500.000	2499.759	1,466,803	8.843	A	0.5

y = 0.0035 * x + 1.9504E-004
R = 1.0000
DL = 0.03549
BEC = 0.05514

Weight: <None>
Min Conc: <None>

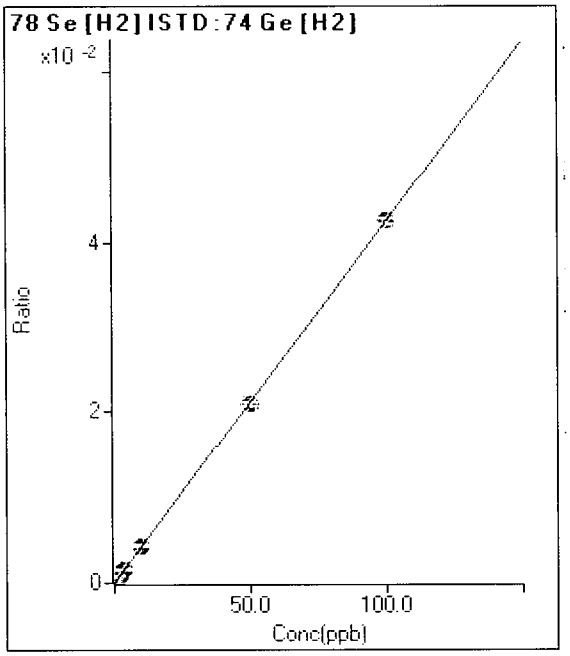
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30	0.000	P	33.0
2	☐	0.180	0.201	118	0.001	P	3.0
3	☐	0.900	0.989	466	0.002	P	4.0
4	☐	1.800	1.949	885	0.004	P	4.2
5	☐	3.600	3.579	1,602	0.008	P	2.8
6	☐	20.000	20.844	9,045	0.044	P	0.9
7	☐	50.000	51.184	21,388	0.108	P	0.4
8	☐	200.000	201.549	78,458	0.426	P	0.8
9	☐	500.000	499.228	186,042	1.054	P	0.8
10	☐			71	0.000	P	14.9

y = 0.0021 * x + 1.4472E-004
R = 1.0000
DL = 0.06792
BEC = 0.06854

Weight: <None>
Min Conc: <None>

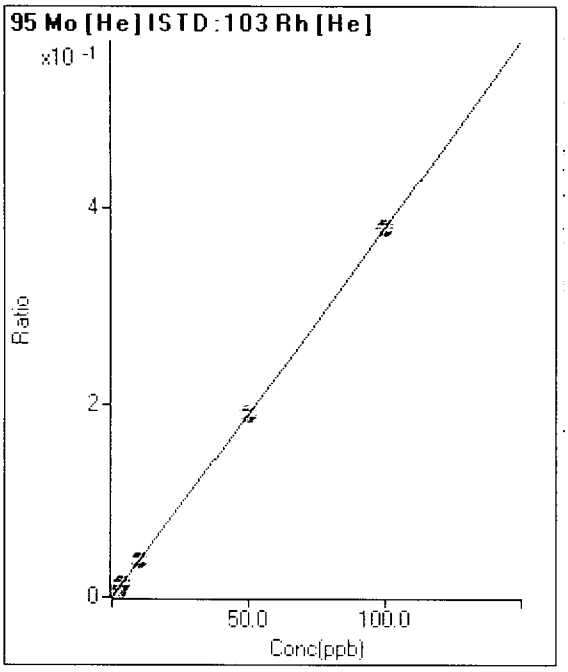


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	173.2
2	☐	0.180	0.221	70	0.000	P	10.6
3	☐	0.900	0.947	293	0.000	P	5.0
4	☐	1.800	1.881	580	0.001	P	4.8
5	☐	3.600	3.583	1,101	0.002	P	4.6
6	☐	10.000	10.326	3,152	0.004	P	1.4
7	☐	50.000	49.403	14,679	0.021	P	1.3
8	☐	100.000	100.264	28,203	0.043	P	1.3
9	☐			33	0.000	P	29.3
10	☐			36	0.000	P	16.5

y = 4.2512E-004 * x + 2.7815E-006
R = 1.0000
DL = 0.034
BEC = 0.006543

Weight: <None>
Min Conc: <None>

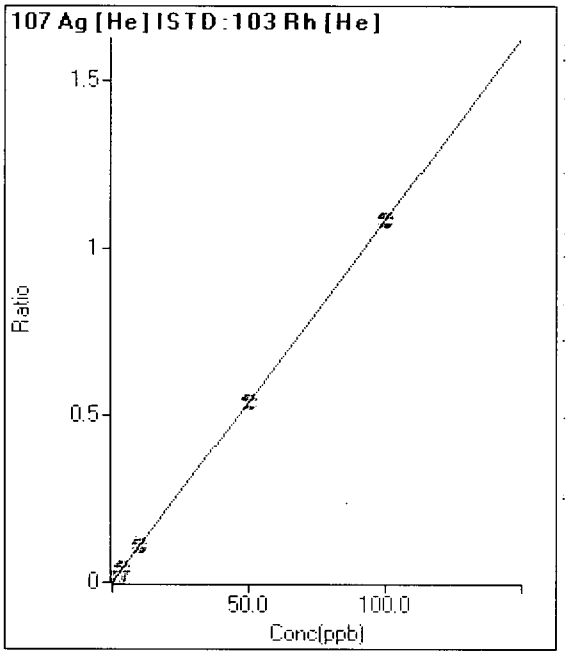
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11	0.000	P	91.8
2	☐	0.180	0.192	352	0.001	P	23.5
3	☐	0.900	0.911	1,633	0.003	P	3.7
4	☐	1.800	1.748	3,107	0.007	P	1.9
5	☐	3.600	3.593	6,322	0.014	P	4.2
6	☐	10.000	10.264	17,765	0.039	P	1.7
7	☐	50.000	49.901	83,002	0.189	P	1.0
8	☐	100.000	100.024	155,949	0.380	P	1.0
9	☐			144	0.000	P	14.8
10	☐			160	0.000	P	28.5

y = 0.0038 * x + 2.3858E-005
R = 1.0000
DL = 0.01731
BEC = 0.006286

Weight: <None>
Min Conc: <None>

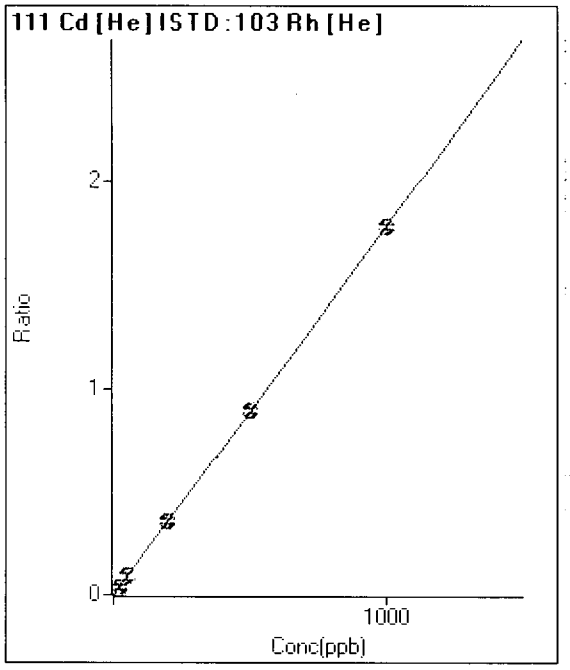


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7	0.000	P	86.6
2	☐	0.180	0.181	924	0.002	P	7.7
3	☐	0.900	0.884	4,498	0.010	P	5.4
4	☐	1.800	1.779	9,004	0.019	P	6.0
5	☐	3.600	3.610	18,118	0.039	P	2.0
6	☐	10.000	10.193	50,353	0.110	P	2.3
7	☐	50.000	49.721	236,150	0.539	P	0.6
8	☐	100.000	100.121	445,717	1.085	P	0.5
9	☐			128	0.000	P	22.6
10	☐			102	0.000	P	33.0

y = 0.0108 * x + 1.4288E-005
R = 1.0000
DL = 0.003425
BEC = 0.001318

Weight: <None>
Min Conc: <None>

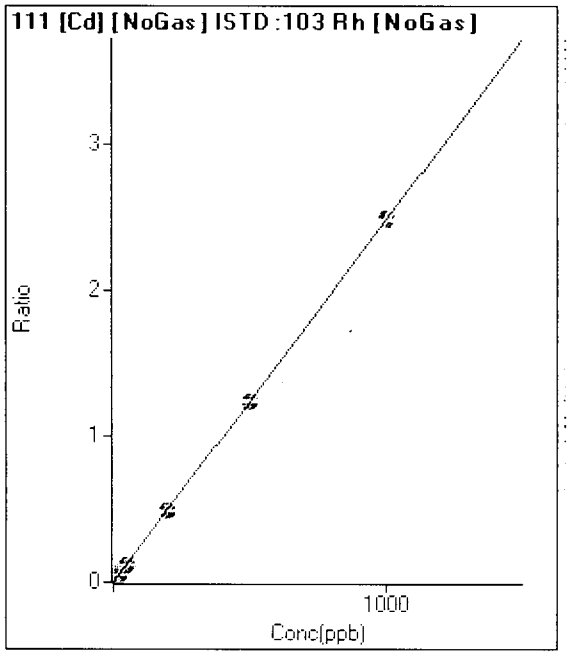
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8	0.000	P	49.3
2	☐	0.180	0.187	164	0.000	P	3.9
3	☐	0.900	0.857	725	0.002	P	0.3
4	☐	1.800	1.835	1,537	0.003	P	2.1
5	☐	3.600	3.571	2,959	0.006	P	2.3
6	☐	20.000	20.122	16,385	0.036	P	0.3
7	☐	50.000	50.297	39,368	0.090	P	0.5
8	☐	200.000	200.296	146,926	0.358	P	0.8
9	☐	500.000	503.650	348,364	0.899	P	0.4
10	☐	1000.000	998.099	633,842	1.782	P	0.1

y = 0.0018 * x + 1.6425E-005
R = 1.0000
DL = 0.01361
BEC = 0.009198

Weight: <None>
Min Conc: <None>

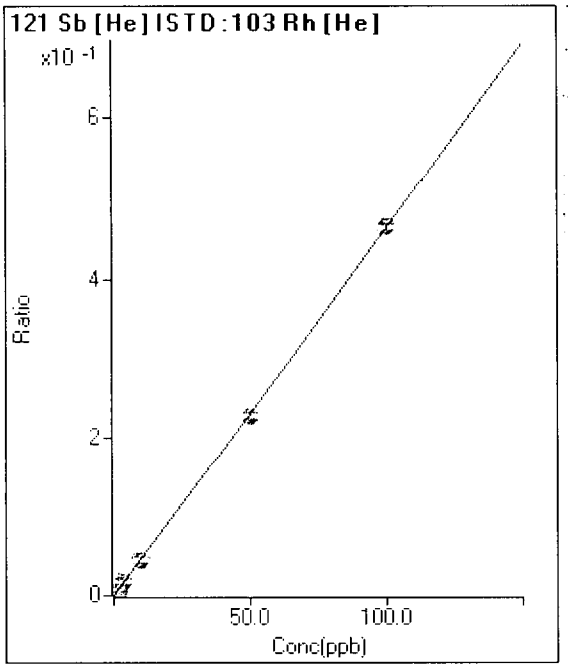


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21	0.000	P	27.1
2	☐	0.180	0.175	380	0.000	P	21.3
3	☐	0.900	0.852	1,773	0.002	P	5.9
4	☐	1.800	1.739	3,577	0.004	P	5.9
5	☐	3.600	3.576	7,271	0.009	P	1.7
6	☐	20.000	19.621	39,435	0.049	P	0.7
7	☐	50.000	48.700	92,541	0.121	P	0.4
8	☐	200.000	196.624	343,882	0.487	P	0.4
9	☐	500.000	500.469	835,828	1.239	P	0.7
10	☐	1000.000	1000.513	1,522,964	2.477	A	0.7

y = 0.0025 * x + 2.5443E-005
R = 1.0000
DL = 0.008345
BEC = 0.01027

Weight: <None>
Min Conc: <None>

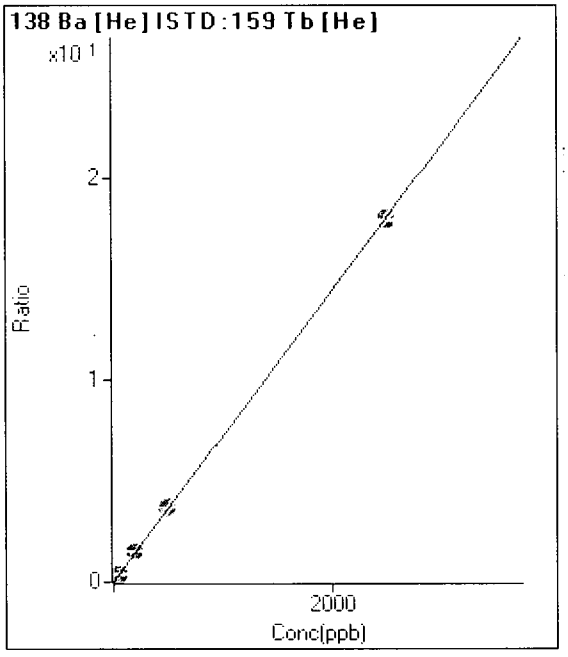
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63	0.000	P	16.2
2	☐	0.180	0.169	430	0.001	P	15.2
3	☐	0.900	0.856	1,920	0.004	P	5.3
4	☐	1.800	1.767	3,876	0.008	P	4.1
5	☐	3.600	3.534	7,626	0.016	P	1.5
6	☐	10.000	9.814	20,748	0.046	P	2.2
7	☐	50.000	49.095	99,539	0.227	P	0.9
8	☐	100.000	100.475	190,881	0.465	P	0.7
9	☐			167	0.000	P	17.6
10	☐			84	0.000	P	34.4

y = 0.0046 * x + 1.3575E-004
R = 0.9999
DL = 0.01426
BEC = 0.02936

Weight: <None>
Min Conc: <None>

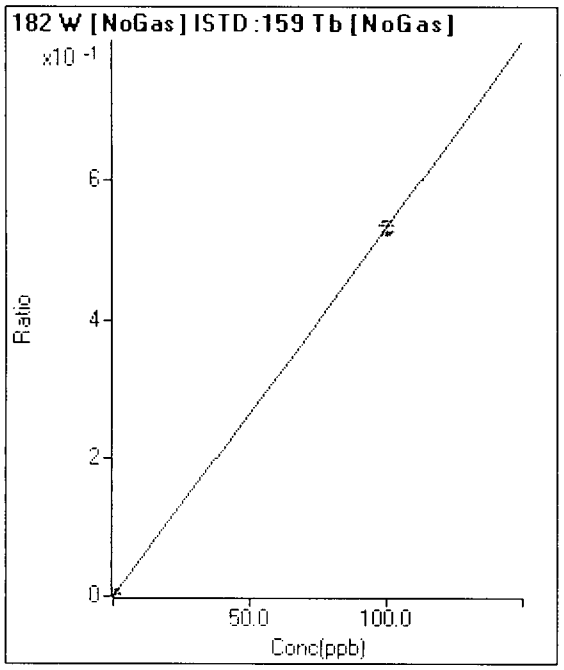


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119	0.000	P	19.6
2	☐	0.180	0.181	904	0.002	P	5.0
3	☐	0.900	0.969	4,345	0.007	P	1.2
4	☐	1.800	1.959	8,583	0.014	P	1.8
5	☐	3.600	3.852	16,733	0.028	P	3.2
6	☐	20.000	21.839	93,488	0.158	P	1.1
7	☐	50.000	53.238	223,712	0.384	P	0.5
8	☐	200.000	209.750	842,057	1.513	P	0.7
9	☐	500.000	518.441	2,013,123	3.738	A	1.0
10	☐	2500.000	2495.452	9,099,711	17.994	A	0.3

y = 0.0072 * x + 1.9793E-004
R = 1.0000
DL = 0.01615
BEC = 0.02745

Weight: <None>
Min Conc: <None>

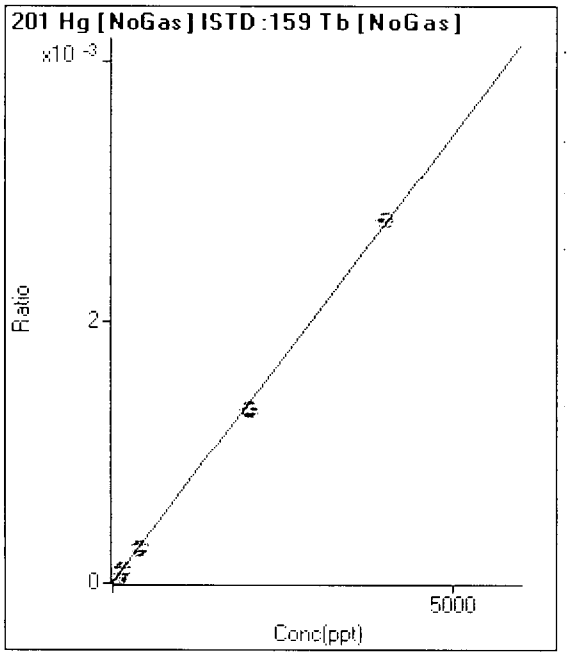
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28	0.000	P	38.0
2	☐			44	0.000	P	11.5
3	☐			48	0.000	P	4.9
4	☐			47	0.000	P	68.0
5	☐			47	0.000	P	37.8
6	☐			40	0.000	P	31.8
7	☐			129	0.000	P	35.8
8	☐			181	0.000	P	19.7
9	☐	100.000	100.000	655,228	0.532	P	0.6
10	☐			1,735	0.001	P	2.2

y = 0.0053 * x + 1.9673E-005
R = 1.0000
DL = 0.004219
BEC = 0.003699

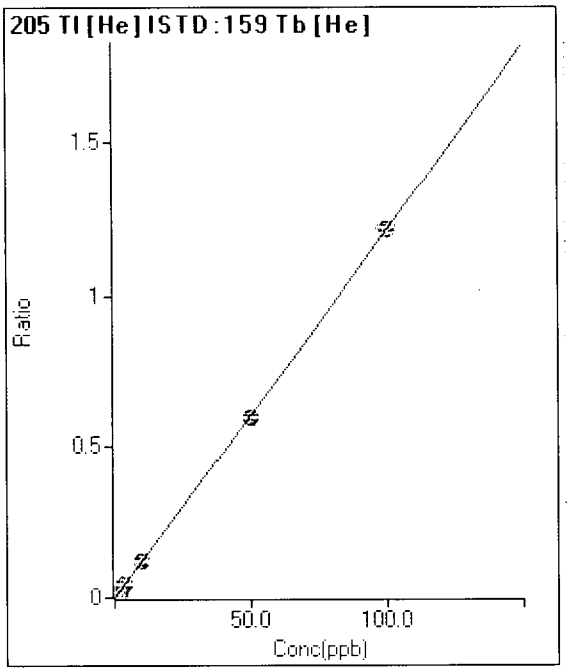
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	13.0
2	☐			13	0.000	P	17.1
3	☐	36.000	33.080	38	0.000	P	8.9
4	☐	72.000	67.108	72	0.000	P	8.5
5	☐	144.000	137.791	140	0.000	P	7.2
6	☐	400.000	389.145	383	0.000	P	2.1
7	☐	2000.000	1931.963	1,817	0.001	P	3.0
8	☐	4000.000	4035.442	3,494	0.003	P	2.2
9	☐			82	0.000	P	10.3
10	☐			37	0.000	P	15.3

y = 6.8868E-007 * x + 4.2515E-006
R = 0.9998
DL = 2.413
BEC = 6.173

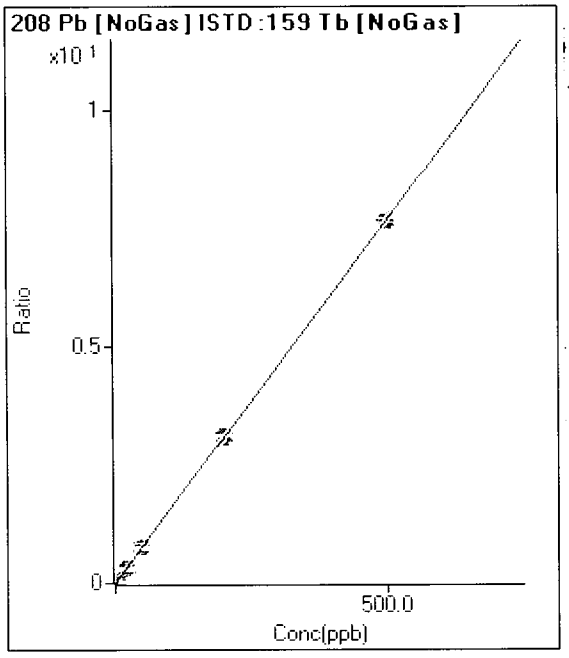
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13	0.000	P	44.3
2	☐	0.180	0.178	1,313	0.002	P	3.3
3	☐	0.900	0.902	6,618	0.011	P	3.7
4	☐	1.800	1.801	13,096	0.022	P	3.0
5	☐	3.600	3.594	26,053	0.044	P	0.5
6	☐	10.000	10.137	72,846	0.123	P	0.3
7	☐	50.000	49.415	348,799	0.599	P	0.2
8	☐	100.000	100.279	676,452	1.215	P	1.2
9	☐			192	0.000	P	26.5
10	☐			46	0.000	P	22.9

y = 0.0121 * x + 2.2274E-005
R = 1.0000
DL = 0.002444
BEC = 0.001838

Weight: <None>
Min Conc: <None>

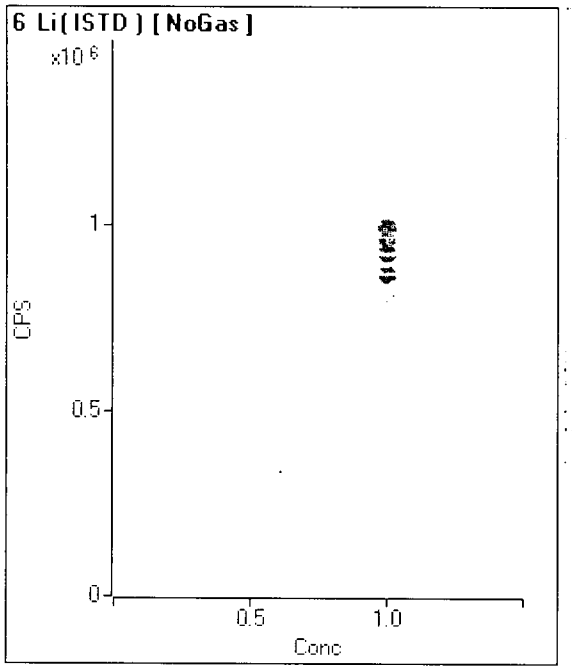


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	758	0.001	P	6.0
2	☐	0.180	0.180	4,646	0.003	P	4.6
3	☐	0.900	0.910	20,318	0.015	P	1.3
4	☐	1.800	1.766	39,544	0.028	P	1.3
5	☐	3.600	3.561	77,774	0.055	P	0.7
6	☐	20.000	19.822	428,915	0.305	P	2.2
7	☐	50.000	49.019	1,025,313	0.753	P	0.7
8	☐	200.000	201.845	3,891,959	3.100	A	0.7
9	☐	500.000	499.368	9,445,601	7.668	A	1.0
10	☐			3,911	0.003	P	3.0

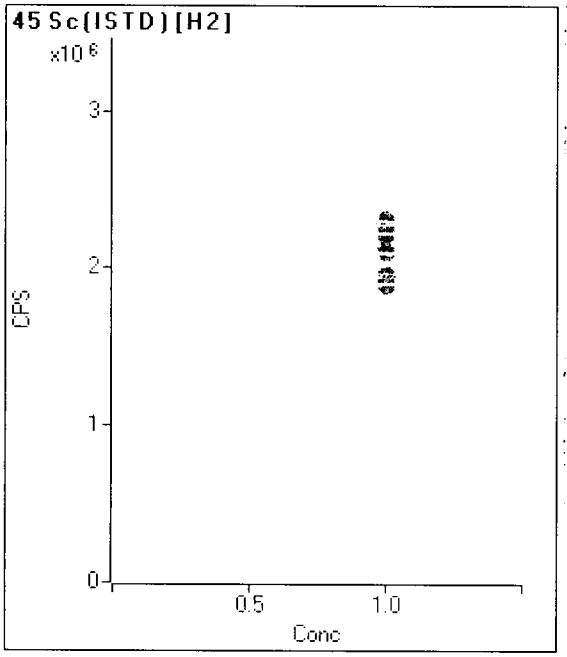
y = 0.0154 * x + 5.3793E-004
R = 1.0000
DL = 0.006291
BEC = 0.03503

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

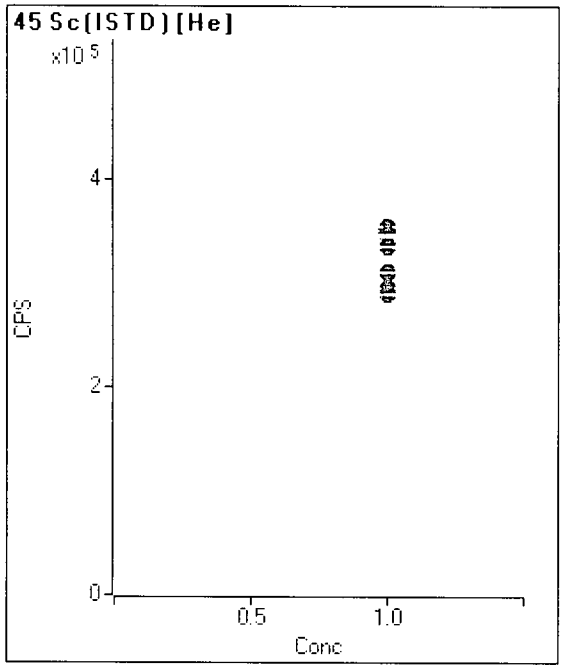


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		975,380		A	1.6
2	☐	1.000		992,255		A	0.9
3	☐	1.000		993,278		A	0.6
4	☐	1.000		974,530		A	1.2
5	☐	1.000		982,176		A	0.8
6	☐	1.000		960,475		A	2.2
7	☐	1.000		924,373		A	0.1
8	☐	1.000		870,870		A	0.3
9	☐	1.000		813,919		P	0.2
10	☐	1.000		817,567		M	1.1

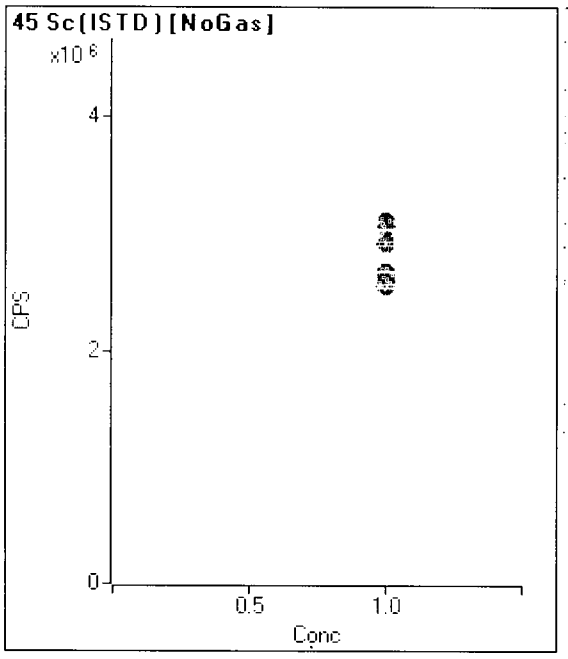


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2,277,281		A	1.0
2	☐	1.000		2,275,915		A	0.6
3	☐	1.000		2,293,568		A	0.2
4	☐	1.000		2,278,691		A	1.1
5	☐	1.000		2,305,677		A	0.4
6	☐	1.000		2,286,427		A	1.1
7	☐	1.000		2,214,928		A	0.7
8	☐	1.000		2,096,878		A	0.8
9	☐	1.000		1,954,437		A	1.1
10	☐	1.000		1,897,017		A	0.6

Calibration for 013_ICV.d

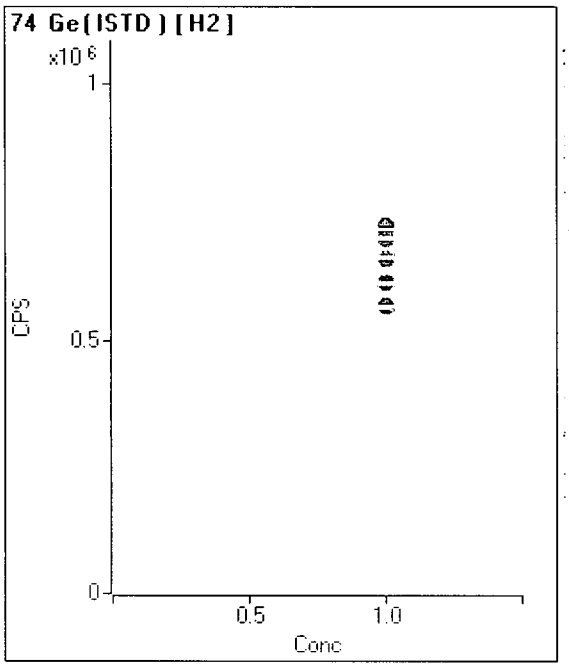


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		348,791		P	1.3
2	☐	1.000		353,540		P	0.6
3	☐	1.000		352,074		P	1.0
4	☐	1.000		352,430		P	0.9
5	☐	1.000		351,907		P	1.3
6	☐	1.000		346,301		P	0.5
7	☐	1.000		335,585		P	0.1
8	☐	1.000		310,973		P	0.4
9	☐	1.000		295,975		P	0.1
10	☐	1.000		290,220		P	0.5

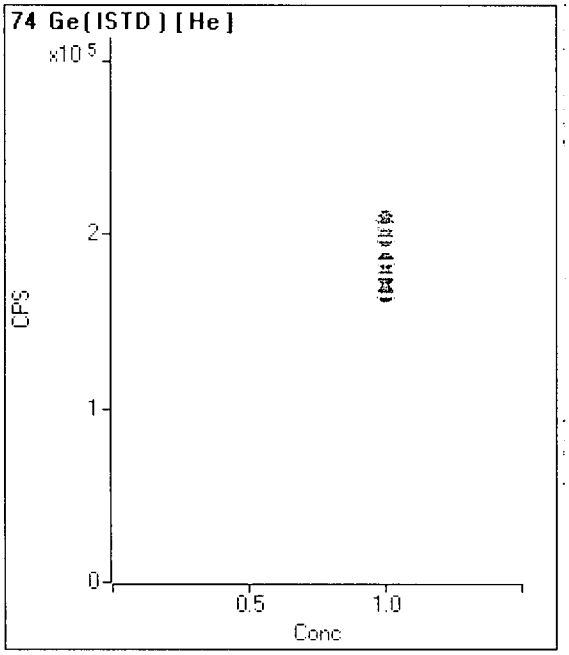


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3,065,554		A	0.6
2	☐	1.000		3,087,536		A	0.9
3	☐	1.000		3,077,189		A	2.0
4	☐	1.000		3,073,166		A	0.6
5	☐	1.000		3,106,368		A	0.2
6	☐	1.000		3,043,775		A	0.5
7	☐	1.000		2,916,250		A	0.9
8	☐	1.000		2,675,094		A	0.9
9	☐	1.000		2,588,372		A	0.3
10	☐	1.000		2,551,512		A	1.3

Calibration for 013_ICV.d

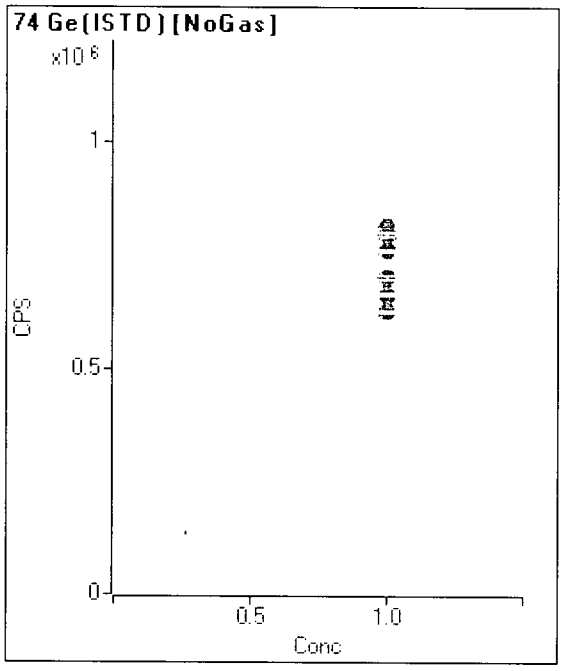


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		718,037		P	0.1
2	☐	1.000		723,924		P	0.5
3	☐	1.000		723,420		P	0.6
4	☐	1.000		723,010		P	0.5
5	☐	1.000		721,863		P	0.7
6	☐	1.000		717,552		P	0.4
7	☐	1.000		698,880		P	0.6
8	☐	1.000		661,613		P	0.3
9	☐	1.000		613,281		P	0.5
10	☐	1.000		566,952		P	0.4

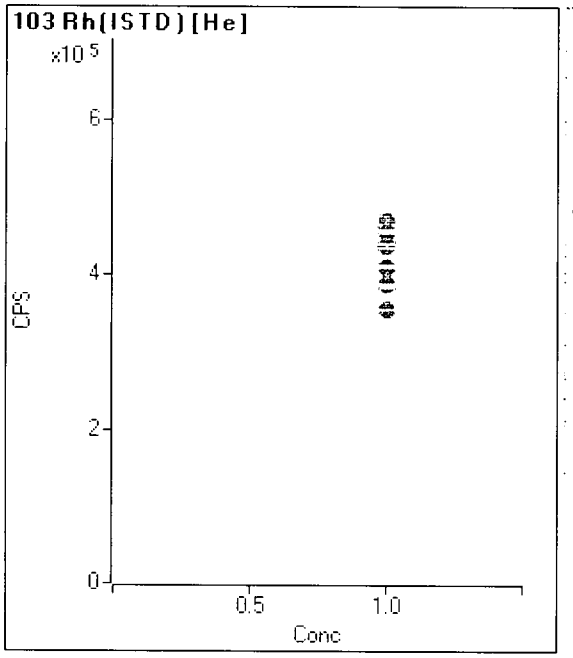


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		204,920		P	0.7
2	☐	1.000		207,630		P	0.7
3	☐	1.000		208,797		P	0.6
4	☐	1.000		207,831		P	0.9
5	☐	1.000		207,922		P	1.0
6	☐	1.000		204,826		P	0.5
7	☐	1.000		197,629		P	1.0
8	☐	1.000		184,298		P	0.3
9	☐	1.000		176,465		P	0.2
10	☐	1.000		165,876		P	0.8

Calibration for 013_ICV.d

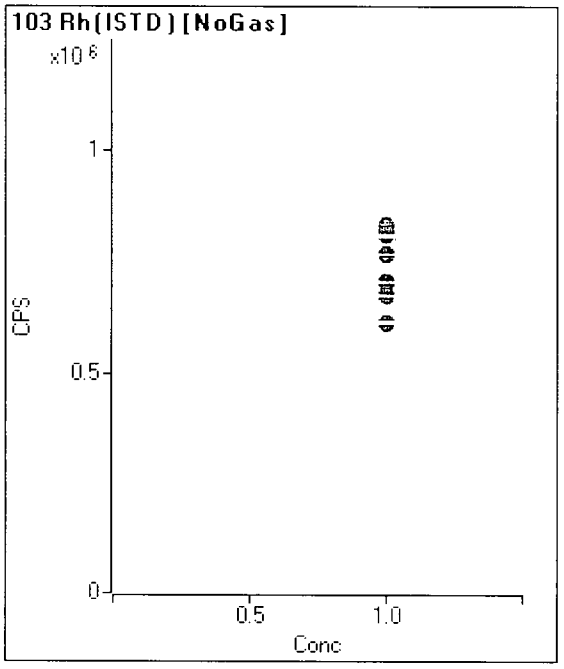


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		806,775		P	0.8
2	☐	1.000		810,726		P	0.7
3	☐	1.000		813,013		P	1.1
4	☐	1.000		812,915		P	1.1
5	☐	1.000		808,452		P	0.6
6	☐	1.000		798,835		P	1.1
7	☐	1.000		761,126		P	0.7
8	☐	1.000		703,151		P	0.9
9	☐	1.000		665,594		P	1.0
10	☐	1.000		627,888		P	0.6

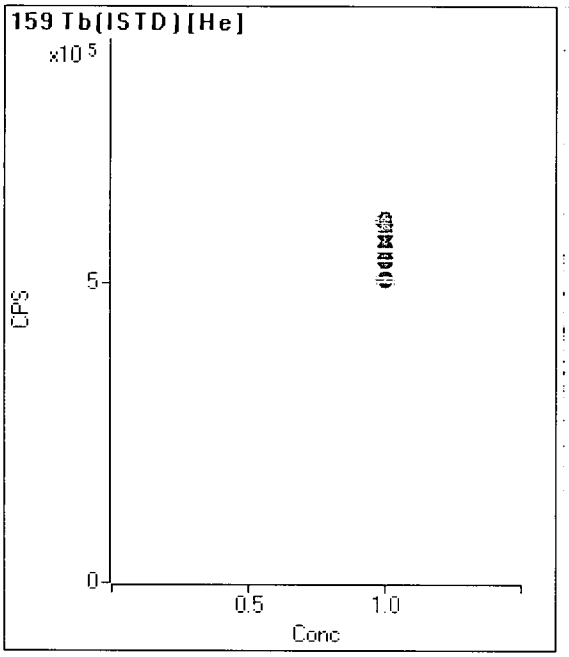


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		466,758		P	0.4
2	☐	1.000		468,420		P	0.2
3	☐	1.000		469,037		P	0.8
4	☐	1.000		466,717		P	0.7
5	☐	1.000		462,920		P	0.9
6	☐	1.000		455,803		P	0.8
7	☐	1.000		438,255		P	1.1
8	☐	1.000		410,785		P	0.9
9	☐	1.000		387,341		P	0.7
10	☐	1.000		355,627		P	0.6

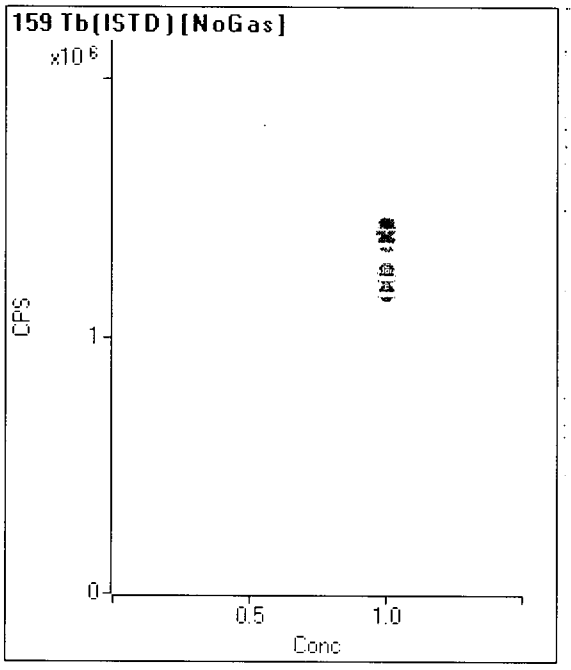
Calibration for 013_ICV.d



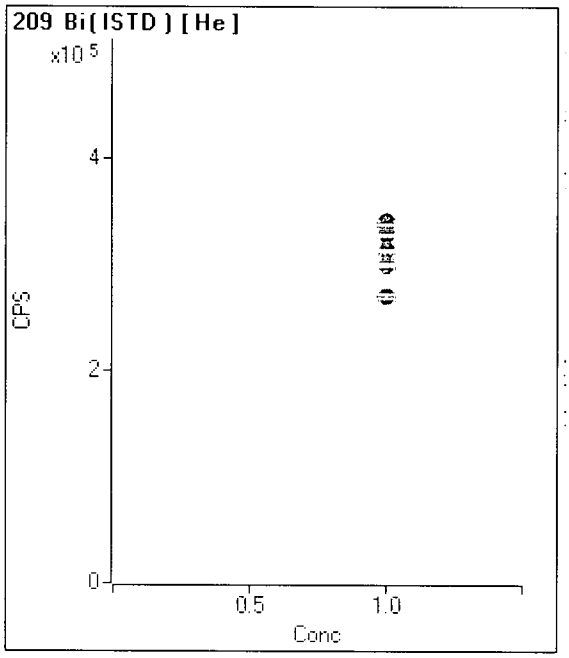
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		832,260		P	0.5
2		1.000		827,553		P	0.9
3		1.000		830,411		P	0.4
4		1.000		825,866		P	0.5
5		1.000		818,888		P	0.7
6		1.000		811,251		P	0.5
7		1.000		767,237		P	0.3
8		1.000		706,263		P	0.2
9		1.000		674,439		P	0.5
10		1.000		614,700		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		600,194		P	0.9
2		1.000		602,883		P	0.3
3		1.000		604,690		P	1.2
4		1.000		599,357		P	0.8
5		1.000		597,996		P	1.1
6		1.000		592,934		P	0.4
7		1.000		582,468		P	0.2
8		1.000		556,687		P	0.5
9		1.000		538,469		P	0.5
10		1.000		505,720		P	1.0

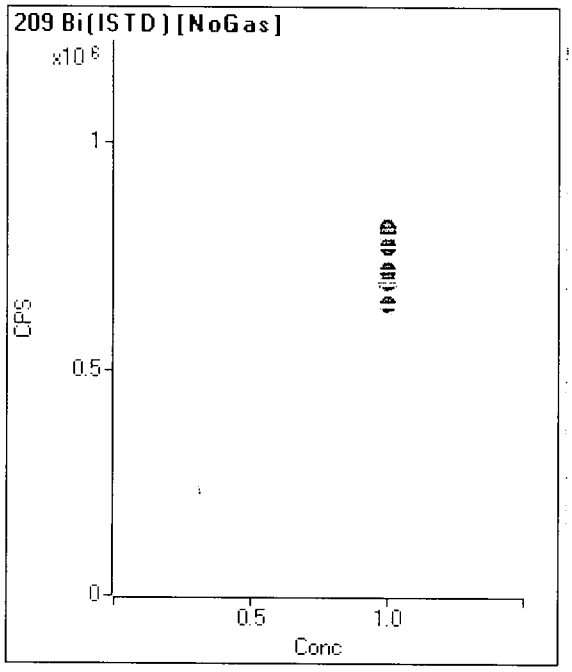


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,409,745		A	1.8
2	☐	1.000		1,409,937		A	0.4
3	☐	1.000		1,399,598		A	1.1
4	☐	1.000		1,429,591		A	0.8
5	☐	1.000		1,408,536		A	0.1
6	☐	1.000		1,407,136		A	1.9
7	☐	1.000		1,361,289		A	0.8
8	☐	1.000		1,255,555		P	0.7
9	☐	1.000		1,231,847		P	1.0
10	☐	1.000		1,173,915		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		341,192		P	0.6
2	☐	1.000		338,617		P	0.5
3	☐	1.000		341,194		P	1.3
4	☐	1.000		339,733		P	1.1
5	☐	1.000		337,145		P	0.7
6	☐	1.000		335,752		P	1.0
7	☐	1.000		328,550		P	0.4
8	☐	1.000		314,107		P	0.8
9	☐	1.000		300,983		P	0.6
10	☐	1.000		271,184		P	0.9

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		809,398		P	0.6
2	☐	1.000		807,476		P	0.7
3	☐	1.000		813,902		P	0.4
4	☐	1.000		806,364		P	0.5
5	☐	1.000		798,961		P	0.9
6	☐	1.000		796,487		P	0.7
7	☐	1.000		771,568		P	0.2
8	☐	1.000		720,656		P	0.5
9	☐	1.000		694,873		P	0.8
10	☐	1.000		646,312		P	0.5

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 11:59:50
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.732	ppb	1.6	83,231	40	99.33	
Na	23	45	He	4070.718	ppb	1.2	4,092,648	4000	101.77	
Mg	24	45	He	4319.535	ppb	0.8	2,405,345	4000	107.99	
Al	27	45	He	4153.137	ppb	0.1	1,209,448	4000	103.83	
K	39	45	He	4222.063	ppb	1.2	2,016,136	4000	105.55	
Ca	44	45	H2	4032.368	ppb	1.3	819,495	4000	100.81	
[Ca]	44	45	He	4180.251	ppb	0.7	99,402	4000	104.51	
Ti	47	45	NoGas	99.696	ppb	0.5	92,820	100	99.7	
V	51	74	He	98.327	ppb	0.8	333,981	100	98.33	
Cr	52	74	He	99.512	ppb	0.6	394,682	100	99.51	
Mn	55	74	He	104.354	ppb	0.7	277,076	100	104.35	
Fe	56	74	H2	4154.027	ppb	0.8	43,830,188	4000	103.85	
Co	59	74	He	102.810	ppb	0.6	557,596	100	102.81	
Ni	60	74	He	108.371	ppb	1.4	142,678	100	108.37	
Cu	65	74	He	105.158	ppb	0.8	173,385	100	105.16	
Zn	66	74	He	100.711	ppb	1.2	64,833	100	100.71	
As	75	74	He	99.943	ppb	1.0	38,411	100	99.94	
Se	78	74	H2	40.173	ppb	0.7	11,055	40	100.43	
Mo	95	103	He	40.252	ppb	1.9	61,843	40	100.63	
Ag	107	103	He	40.894	ppb	1.1	179,401	40	102.23	
Cd	111	103	He	98.723	ppb	1.6	71,364	100	98.72	
[Cd]	111	103	NoGas	97.839	ppb	0.9	167,795	100	97.84	
Sb	121	103	He	40.801	ppb	0.7	76,418	40	102	
Ba	138	159	He	105.397	ppb	0.5	420,839	100	105.4	
Hg	201	159	NoGas	829.016	ppt	2.5	720	800	103.63	
Tl	205	159	He	40.405	ppb	0.9	271,072	40	101.01	
Pb	208	159	NoGas	101.361	ppb	0.6	1,948,700	100	101.36	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	870,378	975380.393333333	89.2	
Sc	45	H2	Analog	1.7	2,092,068	2277280.85	91.9	
Sc	45	He	Pulse	0.4	308,517	348790.796666667	88.5	
Sc	45	NoGas	Analog	0.8	2,682,865	3065554.46333333	87.5	
Ge	74	H2	Pulse	0.2	647,181	718037.156666667	90.1	
Ge	74	He	Pulse	0.4	181,895	204919.68	88.8	
Ge	74	NoGas	Pulse	0.7	688,741	806774.886666667	85.4	
Rh	103	He	Pulse	0.7	404,801	466758.146666667	86.7	
Rh	103	NoGas	Pulse	0.6	692,548	832259.633333333	83.2	
Tb	159	He	Pulse	0.1	553,611	600193.66	92.2	
Tb	159	NoGas	Pulse	0.5	1,251,645	1409745.36	88.8	
Bi	209	He	Pulse	0.4	310,497	341192.286666667	91.0	
Bi	209	NoGas	Pulse	0.8	729,635	809398.153333333	90.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-ICB1**	Total Dilution:	1.0000
File Name:	014_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:04:27
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.013	ppb	18.9	42	
Na	23	45	He	2.284	ppb	6.5	6,024	
Mg	24	45	He	1.472	ppb	22.0	1,202	
Al	27	45	He	1.286	ppb	9.6	468	
K	39	45	He	2.367	ppb	20.9	25,340	
Ca	44	45	H2	2.358	ppb	15.9	872	
[Ca]	44	45	He	0.054	ppb	946.2	211	
Ti	47	45	NoGas	0.054	ppb	12.6	83	
V	51	74	He	-0.097	ppb	N/A	1,300	
Cr	52	74	He	0.047	ppb	50.7	417	
Mn	55	74	He	0.064	ppb	37.0	201	
Fe	56	74	H2	2.151	ppb	5.0	28,272	
Co	59	74	He	0.013	ppb	21.3	87	
Ni	60	74	He	0.037	ppb	32.0	104	
Cu	65	74	He	0.058	ppb	48.8	160	
Zn	66	74	He	0.090	ppb	36.8	94	
As	75	74	He	0.055	ppb	30.1	48	
Se	78	74	H2	0.047	ppb	24.0	15	
Mo	95	103	He	0.033	ppb	31.3	62	
Ag	107	103	He	0.009	ppb	41.1	44	
Cd	111	103	He	0.069	ppb	21.5	58	
[Cd]	111	103	NoGas	0.048	ppb	26.3	103	
Sb	121	103	He	0.188	ppb	29.0	418	
Ba	138	159	He	0.063	ppb	15.3	363	
Hg	201	159	NoGas	4.603	ppt	31.6	9	
Tl	205	159	He	0.004	ppb	42.5	37	
Pb	208	159	NoGas	0.072	ppb	7.4	2,073	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	896,487	975380.393333333	91.9	
Sc	45	H2	Analog	0.7	2,056,038	2277280.85	90.3	
Sc	45	He	Pulse	1.3	309,270	348790.796666667	88.7	
Sc	45	NoGas	Analog	0.8	2,724,034	3065554.46333333	88.9	
Ge	74	H2	Pulse	0.2	644,360	718037.156666667	89.7	
Ge	74	He	Pulse	0.7	183,844	204919.68	89.7	
Ge	74	NoGas	Pulse	0.6	705,923	806774.886666667	87.5	
Rh	103	He	Pulse	0.6	416,814	466758.146666667	89.3	
Rh	103	NoGas	Pulse	0.4	715,767	832259.633333333	86.0	
Tb	159	He	Pulse	0.9	557,659	600193.66	92.9	
Tb	159	NoGas	Pulse	0.1	1,257,652	1409745.36	89.2	
Bi	209	He	Pulse	0.9	318,693	341192.286666667	93.4	
Bi	209	NoGas	Pulse	0.2	739,232	809398.153333333	91.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL1**	Total Dilution:	1.0000
File Name:	015CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:09:09
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.176	ppb	7.9	400	97.78		
Na	23	45	He	10.431	ppb	1.9	14,390	115.9		
Mg	24	45	He	10.000	ppb	2.4	6,029	111.11		
Al	27	45	He	9.663	ppb	8.5	2,946	107.37		
K	39	45	He	11.791	ppb	3.9	30,135	131.01	R-11	< MRL
Ca	44	45	H2	9.738	ppb	3.4	2,342	108.2		
[Ca]	44	45	He	10.342	ppb	21.5	461	114.91		
Ti	47	45	NoGas	0.174	ppb	13.2	200	96.67		
V	51	74	He	0.096	ppb	0.9	1,987	53.33	R-11	< MRL
Cr	52	74	He	0.192	ppb	2.6	1,012	106.67		
Mn	55	74	He	0.232	ppb	4.0	661	128.89		
Fe	56	74	H2	9.584	ppb	0.2	107,296	106.49		
Co	59	74	He	0.194	ppb	2.9	1,097	107.78		
Ni	60	74	He	0.185	ppb	18.5	306	102.78		
Cu	65	74	He	0.213	ppb	5.0	424	118.33		
Zn	66	74	He	0.232	ppb	27.1	189	128.89		
As	75	74	He	0.209	ppb	7.0	109	116.11		
Se	78	74	H2	0.236	ppb	3.7	67	131.11	R-11	< MRL
Mo	95	103	He	0.187	ppb	8.6	310	103.89		
Ag	107	103	He	0.167	ppb	8.6	770	92.78		
Cd	111	103	He	0.230	ppb	7.3	181	127.78		
[Cd]	111	103	NoGas	0.215	ppb	18.7	406	119.44		
Sb	121	103	He	0.213	ppb	11.4	472	118.33		
Ba	138	159	He	0.210	ppb	7.8	960	116.67		
Hg	201	159	NoGas	8.204	ppt	48.1	13	113.94		
Tl	205	159	He	0.180	ppb	3.0	1,239	100		
Pb	208	159	NoGas	0.232	ppb	4.7	5,248	128.89		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	912,439	975380.393333333	93.5	
Sc	45	H2	Analog	0.5	2,052,850	2277280.85	90.1	
Sc	45	He	Pulse	0.2	312,765	348790.796666667	89.7	
Sc	45	NoGas	Analog	0.5	2,757,126	3065554.46333333	89.9	
Ge	74	H2	Pulse	0.6	650,128	718037.156666667	90.5	
Ge	74	He	Pulse	0.7	186,261	204919.68	90.9	
Ge	74	NoGas	Pulse	0.9	715,606	806774.886666667	88.7	
Rh	103	He	Pulse	0.8	422,087	466758.146666667	90.4	
Rh	103	NoGas	Pulse	0.5	728,926	832259.633333333	87.6	
Tb	159	He	Pulse	0.6	561,329	600193.66	93.5	
Tb	159	NoGas	Pulse	0.3	1,278,689	1409745.36	90.7	
Bi	209	He	Pulse	0.5	318,067	341192.286666667	93.2	
Bi	209	NoGas	Pulse	0.2	746,504	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL2**	Total Dilution:	1.0000
File Name:	016_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:13:50
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.908	ppb	4.4	2,047	100.89	
Na	23	45	He	46.602	ppb	1.6	51,838	103.56	
Mg	24	45	He	46.849	ppb	1.8	27,148	104.11	
Al	27	45	He	45.288	ppb	0.9	13,625	100.64	
K	39	45	He	47.731	ppb	1.3	47,895	106.07	
Ca	44	45	H2	46.026	ppb	3.8	9,730	102.28	
[Ca]	44	45	He	44.915	ppb	7.9	1,308	99.81	
Ti	47	45	NoGas	1.027	ppb	2.9	1,016	114.11	
V	51	74	He	0.869	ppb	1.6	4,693	96.56	
Cr	52	74	He	0.879	ppb	3.0	3,826	97.67	
Mn	55	74	He	0.921	ppb	6.3	2,552	102.33	
Fe	56	74	H2	45.369	ppb	0.7	491,354	100.82	
Co	59	74	He	0.936	ppb	2.7	5,250	104	
Ni	60	74	He	0.973	ppb	9.7	1,376	108.11	
Cu	65	74	He	0.965	ppb	13.6	1,705	107.22	
Zn	66	74	He	0.936	ppb	12.6	658	104	
As	75	74	He	0.952	ppb	10.9	404	105.78	
Se	78	74	H2	0.856	ppb	1.5	241	95.11	
Mo	95	103	He	0.824	ppb	3.9	1,332	91.56	
Ag	107	103	He	0.926	ppb	4.9	4,251	102.89	
Cd	111	103	He	0.923	ppb	4.4	704	102.56	
[Cd]	111	103	NoGas	0.885	ppb	4.0	1,616	98.33	
Sb	121	103	He	0.905	ppb	3.9	1,828	100.56	
Ba	138	159	He	0.956	ppb	3.9	4,002	106.22	
Hg	201	159	NoGas	37.177	ppt	11.0	38	103.27	
Tl	205	159	He	0.917	ppb	1.1	6,280	101.89	
Pb	208	159	NoGas	0.972	ppb	0.5	19,586	108	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	930,141	975380.393333333	95.4	
Sc	45	H2	Analog	1.7	2,085,850	2277280.85	91.6	
Sc	45	He	Pulse	1.1	316,550	348790.796666667	90.8	
Sc	45	NoGas	Analog	1.0	2,760,254	3065554.46333333	90.0	
Ge	74	H2	Pulse	0.1	656,556	718037.156666667	91.4	
Ge	74	He	Pulse	0.8	187,501	204919.68	91.5	
Ge	74	NoGas	Pulse	0.9	719,478	806774.886666667	89.2	
Rh	103	He	Pulse	0.4	422,941	466758.146666667	90.6	
Rh	103	NoGas	Pulse	0.5	729,413	832259.633333333	87.6	
Tb	159	He	Pulse	1.2	564,068	600193.66	94.0	
Tb	159	NoGas	Pulse	0.2	1,267,165	1409745.36	89.9	
Bi	209	He	Pulse	1.0	320,395	341192.286666667	93.9	
Bi	209	NoGas	Pulse	0.0	749,982	809398.153333333	92.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL3**	Total Dilution:	1.0000
File Name:	017CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:19:17
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.756	ppb	2.6	3,878	97.56	
Na	23	45	He	91.118	ppb	1.1	98,407	101.24	
Mg	24	45	He	92.893	ppb	0.7	53,830	103.21	
Al	27	45	He	91.538	ppb	1.2	27,637	101.71	
K	39	45	He	95.510	ppb	0.7	71,529	106.12	
Ca	44	45	H2	91.820	ppb	4.4	19,093	102.02	
[Ca]	44	45	He	90.419	ppb	6.4	2,434	100.47	
Ti	47	45	NoGas	1.987	ppb	4.3	1,968	110.39	
V	51	74	He	1.803	ppb	0.8	8,036	100.17	
Cr	52	74	He	1.777	ppb	2.4	7,578	98.72	
Mn	55	74	He	1.928	ppb	3.3	5,366	107.11	
Fe	56	74	H2	90.433	ppb	0.5	980,055	100.48	
Co	59	74	He	1.866	ppb	1.3	10,566	103.67	
Ni	60	74	He	1.947	ppb	1.5	2,727	108.17	
Cu	65	74	He	2.016	ppb	3.7	3,528	112	
Zn	66	74	He	2.076	ppb	1.1	1,429	115.33	
As	75	74	He	1.810	ppb	1.7	752	100.56	
Se	78	74	H2	1.872	ppb	6.8	528	104	
Mo	95	103	He	1.768	ppb	1.5	2,873	98.22	
Ag	107	103	He	1.824	ppb	1.6	8,441	101.33	
Cd	111	103	He	1.795	ppb	2.2	1,375	99.72	
[Cd]	111	103	NoGas	1.800	ppb	5.4	3,321	100	
Sb	121	103	He	1.759	ppb	1.3	3,527	97.72	
Ba	138	159	He	1.926	ppb	4.0	7,967	107	
Hg	201	159	NoGas	73.321	ppt	10.7	72	101.83	
Tl	205	159	He	1.825	ppb	2.4	12,520	101.39	
Pb	208	159	NoGas	1.850	ppb	1.9	38,139	102.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	914,509	975380.393333333	93.8	
Sc	45	H2	Analog	2.5	2,096,721	2277280.85	92.1	
Sc	45	He	Pulse	0.7	318,782	348790.796666667	91.4	
Sc	45	NoGas	Analog	0.7	2,806,354	3065554.46333333	91.5	
Ge	74	H2	Pulse	0.7	660,889	718037.156666667	92.0	
Ge	74	He	Pulse	0.8	189,580	204919.68	92.5	
Ge	74	NoGas	Pulse	1.1	729,615	806774.886666667	90.4	
Rh	103	He	Pulse	0.6	426,592	466758.146666667	91.4	
Rh	103	NoGas	Pulse	0.2	740,828	832259.633333333	89.0	
Tb	159	He	Pulse	0.1	565,434	600193.66	94.2	
Tb	159	NoGas	Mix	2.3	1,317,866	1409745.36	93.5	
Bi	209	He	Pulse	0.1	320,669	341192.286666667	94.0	
Bi	209	NoGas	Pulse	0.4	760,287	809398.153333333	93.9	

Quantitation Report ICPMS5

File Name	020ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K01022.b		
Acq Time	11/1/2019 12:33:22	Sample Type	
Sample Name	**9K01022-IFA1**	ICSA	
Comment	**A19J465**	Last Calib	11/01/2019 15:02:45
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.006	0.006	ppb	127.6		
Na	23	45	He	272458.628	272458.628	ppb	7.5		
Mg	24	45	He	109510.125	109510.125	ppb	7.8	100000	
Al	27	45	He	107692.118	107692.118	ppb	7.5	100000	
K	39	45	He	105280.206	105280.206	ppb	9.7	100000	
Ca	44	45	H2	285403.123	285403.123	ppb	0.5		
[Ca]	44	45	He	321040.735	321040.735	ppb	8.2		
Ti	47	45	NoGas	2090.521	2090.521	ppb	0.7		
V	51	74	He	0.145	0.145	ppb	22.7	2	
Cr	52	74	He	1.899	1.899	ppb	5.0	2	
Mn	55	74	He	2.416	2.416	ppb	7.3	2	> CRI
Fe	56	74	H2	250397.958	250397.958	ppb	0.5		
Co	59	74	He	0.846	0.846	ppb	6.9		
Ni	60	74	He	0.796	0.796	ppb	13.6	2	
Cu	65	74	He	1.281	1.281	ppb	3.4	2	
Zn	66	74	He	2.667	2.667	ppb	12.8	2	> CRI
As	75	74	He	0.271	0.271	ppb	6.9	0.9	
Se	78	74	H2	0.146	0.146	ppb	19.7	0.9	
Mo	95	103	He	2465.62	2465.620	ppb	8.3	2000	> CRI
Ag	107	103	He	0.363	0.363	ppb	10.4		
Cd	111	103	He	6.288	6.288	ppb	9.0		
[Cd]	111	103	NoGas	0.449	0.449	ppb	23.7		
Sb	121	103	He	0.166	0.166	ppb	7.5	0.9	
Ba	138	159	He	1.712	1.712	ppb	5.1	2	
W	182	159	NoGas	101.6	101.600	ppb	0.5		
Hg	201	159	NoGas	89.287	89.287	ppt	14.5		
Tl	205	159	He	0.006	0.006	ppb	19.5	0.9	
Pb	208	159	NoGas	0.851	0.851	ppb	1.3		

ok, Mo exceeds LDR - est. ESS 11/4/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	770,143	0.8	975380.393333333	Pulse	79.0	
Sc	45	H2	1,748,961	0.6	2277280.85	Analog	76.8	
Sc	45	He	247,589	7.4	348790.796666667	Pulse	71.0	
Sc	45	NoGas	2,377,401	0.5	3065554.46333333	Analog	77.6	
Ge	74	H2	481,927	0.5	718037.156666667	Pulse	67.1	IS Q-06
Ge	74	He	138,342	7.0	204919.68	Pulse	67.5	IS Q-06
Ge	74	NoGas	558,853	1.0	806774.886666667	Pulse	69.3	IS Q-06
Rh	103	He	280,016	7.1	466758.146666667	Pulse	60.0	IS Q-06
Rh	103	NoGas	521,585	0.6	832259.633333333	Pulse	62.7	IS Q-06
Tb	159	He	421,434	6.4	600193.66	Pulse	70.2	
Tb	159	NoGas	1,054,282	0.4	1409745.36	Pulse	74.8	
Bi	209	He	211,248	6.6	341192.286666667	Pulse	61.9	IS Q-06
Bi	209	NoGas	550,129	0.4	809398.153333333	Pulse	68.0	IS Q-06

Quantitation Report ICPMS5

File Name	021ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K01022.b		
Acq Time	11/1/2019 12:37:54	Sample Type	
Sample Name	**9K01022-IFB1**	ICSB	
Comment	**A19J466**	Last Calib	11/01/2019 15:02:45
Prep Dilution	1.0000	Vial:	1112
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.008	0.008	ppb	48.7		
Na	23	45	He	263163.918	263163.918	ppb	1.0		
Mg	24	45	He	105911.185	105911.185	ppb	1.4	100000	
Al	27	45	He	103164.355	103164.355	ppb	0.7	100000	
K	39	45	He	100156.891	100156.891	ppb	0.4	100000	
Ca	44	45	H2	292101.243	292101.243	ppb	1.1		
[Ca]	44	45	He	305591.672	305591.672	ppb	0.8		
Ti	47	45	NoGas	2118.772	2118.772	ppb	0.6		
V	51	74	He	213.497	213.497	ppb	0.9	200	
Cr	52	74	He	205.325	205.325	ppb	0.8	200	
Mn	55	74	He	213.68	213.680	ppb	0.2	200	
Fe	56	74	H2	258983.099	258983.099	ppb	0.2		
Co	59	74	He	199.145	199.145	ppb	0.3		
Ni	60	74	He	199.06	199.060	ppb	0.5	200	
Cu	65	74	He	194.038	194.038	ppb	0.3	200	
Zn	66	74	He	96.858	96.858	ppb	0.4	100	
As	75	74	He	102.187	102.187	ppb	0.9	100	
Se	78	74	H2	104.045	104.045	ppb	0.5	100	
Mo	95	103	He	2324.098	2324.098	ppb	0.9	2000	
Ag	107	103	He	52.32	52.320	ppb	0.9	50	
Cd	111	103	He	107.059	107.059	ppb	0.8		
[Cd]	111	103	NoGas	103.13	103.130	ppb	0.5		
Sb	121	103	He	0.158	0.158	ppb	9.7	0.9	
Ba	138	159	He	1.685	1.685	ppb	2.9	2	> +/- 10%
W	182	159	NoGas	101.648	101.648	ppb	0.4		
Hg	201	159	NoGas	2109.368	2109.368	ppt	3.6		
Tl	205	159	He	0.003	0.003	ppb	44.9	0.9	
Pb	208	159	NoGas	0.807	0.807	ppb	0.8		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	756,756	0.2	975380.393333333	Pulse	77.6	
Sc	45	H2	1,737,216	1.0	2277280.85	Analog	76.3	
Sc	45	He	254,989	1.3	348790.796666667	Pulse	73.1	
Sc	45	NoGas	2,330,017	0.7	3065554.46333333	Analog	76.0	
Ge	74	H2	478,705	0.8	718037.156666667	Pulse	66.7	IS Q-06
Ge	74	He	141,606	0.9	204919.68	Pulse	69.1	IS Q-06
Ge	74	NoGas	544,900	0.8	806774.886666667	Pulse	67.5	IS Q-06
Rh	103	He	288,551	0.6	466758.146666667	Pulse	61.8	IS Q-06
Rh	103	NoGas	510,839	0.5	832259.633333333	Pulse	61.4	IS Q-06
Tb	159	He	429,798	0.8	600193.66	Pulse	71.6	
Tb	159	NoGas	1,037,748	0.2	1409745.36	Pulse	73.6	
Bi	209	He	216,963	0.1	341192.286666667	Pulse	63.6	IS Q-06
Bi	209	NoGas	538,540	0.4	809398.153333333	Pulse	66.5	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV1**	Total Dilution:	1.0000
File Name:	033_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:33:59
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.458	ppb	3.0	80,679	40	101.14	
Na	23	45	He	4148.638	ppb	0.6	3,858,814	4000	103.72	
Mg	24	45	He	4458.764	ppb	1.8	2,297,047	4000	111.47	< +/- 10%
Al	27	45	He	4059.951	ppb	2.0	1,093,887	4000	101.5	
K	39	45	He	4302.014	ppb	1.7	1,900,215	4000	107.55	
Ca	44	45	H2	4030.377	ppb	0.8	735,039	4000	100.76	
[Ca]	44	45	He	4245.136	ppb	0.8	93,388	4000	106.13	
Ti	47	45	NoGas	99.607	ppb	1.6	87,526	100	99.61	
V	51	74	He	97.447	ppb	0.9	309,908	100	97.45	
Cr	52	74	He	98.786	ppb	0.7	366,830	100	98.79	
Mn	55	74	He	104.203	ppb	0.5	259,040	100	104.2	
Fe	56	74	H2	4202.432	ppb	0.7	39,925,891	4000	105.06	
Co	59	74	He	102.677	ppb	0.4	521,393	100	102.68	
Ni	60	74	He	107.425	ppb	0.7	132,425	100	107.42	
Cu	65	74	He	104.410	ppb	0.4	161,181	100	104.41	
Zn	66	74	He	101.985	ppb	1.5	61,464	100	101.98	
As	75	74	He	99.569	ppb	0.7	35,828	100	99.57	
Se	78	74	H2	40.456	ppb	2.1	10,024	40	101.14	
Mo	95	103	He	40.693	ppb	1.5	58,637	40	101.73	
Ag	107	103	He	41.123	ppb	1.1	169,188	40	102.81	
Cd	111	103	He	100.045	ppb	0.3	67,826	100	100.04	
[Cd]	111	103	NoGas	100.255	ppb	1.0	160,901	100	100.26	
Sb	121	103	He	41.628	ppb	0.2	73,119	40	104.07	
Ba	138	159	He	105.004	ppb	0.3	401,810	100	105	
Hg	201	159	NoGas	827.989	ppt	2.2	679	800	103.5	
Tl	205	159	He	40.779	ppb	0.4	262,188	40	101.95	
Pb	208	159	NoGas	103.823	ppb	0.3	1,884,918	100	103.82	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Mix	2.4	828,859	975380.393333333	85.0	
Sc	45	H2	Analog	1.0	1,877,212	2277280.85	82.4	
Sc	45	He	Pulse	0.5	285,424	348790.796666667	81.8	
Sc	45	NoGas	Analog	1.6	2,532,587	3065554.46333333	82.6	
Ge	74	H2	Pulse	0.5	582,752	718037.156666667	81.2	
Ge	74	He	Pulse	1.0	170,304	204919.68	83.1	
Ge	74	NoGas	Pulse	0.5	647,892	806774.886666667	80.3	
Rh	103	He	Pulse	0.6	379,619	466758.146666667	81.3	
Rh	103	NoGas	Pulse	0.5	648,092	832259.633333333	77.9	
Tb	159	He	Pulse	0.7	530,548	600193.66	88.4	
Tb	159	NoGas	Pulse	0.3	1,181,962	1409745.36	83.8	
Bi	209	He	Pulse	0.6	301,248	341192.286666667	88.3	
Bi	209	NoGas	Pulse	0.2	694,099	809398.153333333	85.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV2**	Total Dilution:	1.0000
File Name:	034_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:38:36
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.376	ppb	4.2	80,014	40	100.94	
Na	23	45	He	4130.447	ppb	0.6	3,888,930	4000	103.26	
Mg	24	45	He	4388.170	ppb	1.4	2,288,259	4000	109.7	
Al	27	45	He	4009.449	ppb	0.9	1,093,443	4000	100.24	
K	39	45	He	4327.584	ppb	1.4	1,934,680	4000	108.19	
Ca	44	45	H2	4043.905	ppb	1.8	751,713	4000	101.1	
[Ca]	44	45	He	4199.852	ppb	0.9	93,525	4000	105	
Ti	47	45	NoGas	98.913	ppb	2.6	87,694	100	98.91	
V	51	74	He	97.349	ppb	0.4	312,003	100	97.35	
Cr	52	74	He	98.514	ppb	0.3	368,660	100	98.51	
Mn	55	74	He	103.624	ppb	0.4	259,602	100	103.62	
Fe	56	74	H2	4215.362	ppb	0.6	40,905,694	4000	105.38	
Co	59	74	He	102.556	ppb	0.4	524,814	100	102.56	
Ni	60	74	He	106.664	ppb	1.1	132,501	100	106.66	
Cu	65	74	He	104.046	ppb	0.6	161,866	100	104.05	
Zn	66	74	He	100.461	ppb	0.4	61,022	100	100.46	
As	75	74	He	100.264	ppb	0.6	36,359	100	100.26	
Se	78	74	H2	41.044	ppb	1.3	10,388	40	102.61	
Mo	95	103	He	40.297	ppb	1.7	58,503	40	100.74	
Ag	107	103	He	41.061	ppb	0.1	170,222	40	102.65	
Cd	111	103	He	99.778	ppb	0.6	68,159	100	99.78	
[Cd]	111	103	NoGas	98.924	ppb	0.9	158,998	100	98.92	
Sb	121	103	He	41.707	ppb	1.1	73,811	40	104.27	
Ba	138	159	He	104.802	ppb	0.5	401,739	100	104.8	
Hg	201	159	NoGas	808.463	ppt	4.3	667	800	101.06	
Tl	205	159	He	40.686	ppb	0.5	262,049	40	101.72	
Pb	208	159	NoGas	102.718	ppb	1.0	1,875,925	100	102.72	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Mix	2.5	823,883	975380.393333333	84.5	
Sc	45	H2	Analog	0.9	1,913,463	2277280.85	84.0	
Sc	45	He	Pulse	0.7	288,931	348790.796666667	82.8	
Sc	45	NoGas	Analog	1.5	2,555,329	3065554.46333333	83.4	
Ge	74	H2	Pulse	0.3	595,210	718037.156666667	82.9	
Ge	74	He	Pulse	0.5	171,621	204919.68	83.8	
Ge	74	NoGas	Pulse	0.6	651,278	806774.886666667	80.7	
Rh	103	He	Pulse	0.8	382,512	466758.146666667	82.0	
Rh	103	NoGas	Pulse	0.8	649,052	832259.633333333	78.0	
Tb	159	He	Pulse	0.5	531,488	600193.66	88.6	
Tb	159	NoGas	Pulse	0.4	1,188,998	1409745.36	84.3	
Bi	209	He	Pulse	0.6	299,857	341192.286666667	87.9	
Bi	209	NoGas	Pulse	0.7	694,814	809398.153333333	85.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB1**	Total Dilution:	1.0000
File Name:	035_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:43:15
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	70.0	27	
Na	23	45	He	5.276	ppb	9.0	8,567	
Mg	24	45	He	1.547	ppb	5.1	1,179	
Al	27	45	He	0.987	ppb	17.2	361	
K	39	45	He	1.648	ppb	57.7	23,696	
Ca	44	45	H2	2.397	ppb	9.9	826	
[Ca]	44	45	He	0.595	ppb	332.0	212	
Ti	47	45	NoGas	0.039	ppb	49.8	60	
V	51	74	He	-0.038	ppb	N/A	1,430	
Cr	52	74	He	0.018	ppb	57.1	287	
Mn	55	74	He	0.029	ppb	29.9	103	
Fe	56	74	H2	2.208	ppb	1.8	27,230	
Co	59	74	He	0.019	ppb	11.2	118	
Ni	60	74	He	-0.010	ppb	N/A	40	
Cu	65	74	He	0.033	ppb	41.2	113	
Zn	66	74	He	0.024	ppb	85.2	49	
As	75	74	He	0.050	ppb	46.0	44	
Se	78	74	H2	0.048	ppb	14.0	14	
Mo	95	103	He	0.050	ppb	9.7	84	
Ag	107	103	He	0.010	ppb	12.9	48	
Cd	111	103	He	0.019	ppb	26.7	20	
[Cd]	111	103	NoGas	0.017	ppb	35.8	43	
Sb	121	103	He	0.232	ppb	7.1	477	
Ba	138	159	He	0.029	ppb	27.6	219	
Hg	201	159	NoGas	10.378	ppt	54.0	13	
Tl	205	159	He	0.007	ppb	48.8	60	
Pb	208	159	NoGas	0.053	ppb	15.3	1,512	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Mix	11.5	792,951	975380.393333333	81.3	
Sc	45	H2	Analog	2.8	1,926,442	2277280.85	84.6	
Sc	45	He	Pulse	1.3	293,169	348790.796666667	84.1	
Sc	45	NoGas	Analog	9.6	2,399,765	3065554.46333333	78.3	
Ge	74	H2	Pulse	0.4	607,829	718037.156666667	84.7	
Ge	74	He	Pulse	0.8	175,161	204919.68	85.5	
Ge	74	NoGas	Pulse	10.2	622,292	806774.886666667	77.1	
Rh	103	He	Pulse	0.8	394,970	466758.146666667	84.6	
Rh	103	NoGas	Pulse	9.7	632,729	832259.633333333	76.0	
Tb	159	He	Pulse	1.0	537,446	600193.66	89.5	
Tb	159	NoGas	Pulse	9.7	1,125,288	1409745.36	79.8	
Bi	209	He	Pulse	1.5	305,338	341192.286666667	89.5	
Bi	209	NoGas	Pulse	9.6	668,918	809398.153333333	82.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV3**	Total Dilution:	1.0000
File Name:	046_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 14:55:11
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.170	ppb	1.2	92,843	40	95.43	
Na	23	45	He	4355.641	ppb	0.6	4,572,673	4000	108.89	
Mg	24	45	He	4541.235	ppb	1.1	2,640,636	4000	113.53	> +/- 10%
Al	27	45	He	4285.784	ppb	0.6	1,303,310	4000	107.14	
K	39	45	He	4338.307	ppb	1.4	2,162,662	4000	108.46	
Ca	44	45	H2	4131.674	ppb	0.5	867,206	4000	103.29	
[Ca]	44	45	He	4192.923	ppb	0.8	104,117	4000	104.82	
Ti	47	45	NoGas	99.125	ppb	0.8	98,696	100	99.12	
V	51	74	He	100.806	ppb	0.3	343,983	100	100.81	
Cr	52	74	He	101.752	ppb	0.5	405,471	100	101.75	
Mn	55	74	He	107.068	ppb	1.0	285,620	100	107.07	
Fe	56	74	H2	4332.226	ppb	0.5	45,847,388	4000	108.31	
Co	59	74	He	104.566	ppb	0.8	569,791	100	104.57	
Ni	60	74	He	107.990	ppb	0.9	142,849	100	107.99	
Cu	65	74	He	104.922	ppb	0.7	173,811	100	104.92	
Zn	66	74	He	102.363	ppb	0.9	66,210	100	102.36	
As	75	74	He	101.378	ppb	1.4	39,147	100	101.38	
Se	78	74	H2	40.146	ppb	0.8	11,081	40	100.36	
Mo	95	103	He	41.129	ppb	1.1	62,806	40	102.82	
Ag	107	103	He	41.168	ppb	0.3	179,490	40	102.92	
Cd	111	103	He	99.218	ppb	0.7	71,281	100	99.22	
[Cd]	111	103	NoGas	97.741	ppb	0.4	168,642	100	97.74	
Sb	121	103	He	41.323	ppb	0.8	76,915	40	103.31	
Ba	138	159	He	106.455	ppb	0.5	417,653	100	106.45	
Hg	201	159	NoGas	788.105	ppt	1.8	678	800	98.51	
Tl	205	159	He	40.115	ppb	0.2	264,435	40	100.29	
Pb	208	159	NoGas	100.638	ppb	0.3	1,915,024	100	100.64	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,010,670	975380.393333333	103.6	
Sc	45	H2	Analog	0.2	2,160,388	2277280.85	94.9	
Sc	45	He	Pulse	0.1	322,173	348790.796666667	92.4	
Sc	45	NoGas	Analog	1.1	2,869,321	3065554.46333333	93.6	
Ge	74	H2	Pulse	0.5	649,133	718037.156666667	90.4	
Ge	74	He	Pulse	0.5	182,753	204919.68	89.2	
Ge	74	NoGas	Pulse	0.9	706,163	806774.886666667	87.5	
Rh	103	He	Pulse	0.6	402,296	466758.146666667	86.2	
Rh	103	NoGas	Pulse	0.3	696,723	832259.633333333	83.7	
Tb	159	He	Pulse	0.0	543,959	600193.66	90.6	
Tb	159	NoGas	Pulse	0.2	1,238,830	1409745.36	87.9	
Bi	209	He	Pulse	0.4	300,774	341192.286666667	88.2	
Bi	209	NoGas	Pulse	0.7	710,052	809398.153333333	87.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV4**	Total Dilution:	1.0000
File Name:	047_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 14:59:48
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.399	ppb	2.0	91,267	40	98.5	
Na	23	45	He	4310.157	ppb	0.8	4,405,512	4000	107.75	
Mg	24	45	He	4539.100	ppb	1.6	2,569,664	4000	113.48	+/- 10%
Al	27	45	He	4334.686	ppb	1.2	1,283,367	4000	108.37	
K	39	45	He	4339.795	ppb	1.2	2,106,313	4000	108.49	
Ca	44	45	H2	4042.636	ppb	0.6	829,028	4000	101.07	
[Ca]	44	45	He	4209.482	ppb	1.7	101,766	4000	105.24	
Ti	47	45	NoGas	100.580	ppb	2.0	96,370	100	100.58	
V	51	74	He	100.021	ppb	0.4	336,084	100	100.02	
Cr	52	74	He	100.847	ppb	1.0	395,696	100	100.85	
Mn	55	74	He	106.095	ppb	1.1	278,686	100	106.1	
Fe	56	74	H2	4310.218	ppb	0.4	44,131,842	4000	107.76	
Co	59	74	He	103.130	ppb	0.5	553,361	100	103.13	
Ni	60	74	He	107.296	ppb	0.2	139,759	100	107.3	
Cu	65	74	He	104.358	ppb	0.2	170,233	100	104.36	
Zn	66	74	He	101.031	ppb	0.3	64,346	100	101.03	
As	75	74	He	99.356	ppb	0.2	37,778	100	99.36	
Se	78	74	H2	40.217	ppb	0.6	10,739	40	100.54	
Mo	95	103	He	40.887	ppb	1.3	61,224	40	102.22	
Ag	107	103	He	41.292	ppb	0.8	176,545	40	103.23	
Cd	111	103	He	100.227	ppb	0.8	70,613	100	100.23	
[Cd]	111	103	NoGas	99.739	ppb	1.1	168,463	100	99.74	
Sb	121	103	He	41.703	ppb	0.6	76,125	40	104.26	
Ba	138	159	He	107.085	ppb	0.3	412,562	100	107.08	
Hg	201	159	NoGas	823.488	ppt	1.1	699	800	102.94	
Tl	205	159	He	40.890	ppb	0.9	264,682	40	102.22	
Pb	208	159	NoGas	101.639	ppb	1.0	1,910,346	100	101.64	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.0	962,647	975380.393333333	98.7	
Sc	45	H2	Analog	0.7	2,110,786	2277280.85	92.7	
Sc	45	He	Pulse	0.5	313,675	348790.796666667	89.9	
Sc	45	NoGas	Analog	1.0	2,761,405	3065554.46333333	90.1	
Ge	74	H2	Pulse	0.0	628,026	718037.156666667	87.5	
Ge	74	He	Pulse	0.5	179,952	204919.68	87.8	
Ge	74	NoGas	Pulse	0.7	690,287	806774.886666667	85.6	
Rh	103	He	Pulse	0.8	394,518	466758.146666667	84.5	
Rh	103	NoGas	Pulse	0.6	682,061	832259.633333333	82.0	
Tb	159	He	Pulse	1.0	534,175	600193.66	89.0	
Tb	159	NoGas	Pulse	0.8	1,223,695	1409745.36	86.8	
Bi	209	He	Pulse	0.8	300,617	341192.286666667	88.1	
Bi	209	NoGas	Pulse	1.0	701,077	809398.153333333	86.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB2**	Total Dilution:	1.0000
File Name:	048_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:04:26
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.010	ppb	71.7	36	
Na	23	45	He	49.524	ppb	2.4	51,914	> 1/2 MRL
Mg	24	45	He	2.628	ppb	8.6	1,789	
Al	27	45	He	0.799	ppb	13.9	316	
K	39	45	He	6.019	ppb	8.1	26,222	
Ca	44	45	H2	5.580	ppb	3.5	1,482	
[Ca]	44	45	He	1.973	ppb	80.5	249	
Ti	47	45	NoGas	0.243	ppb	13.0	257	
V	51	74	He	-0.120	ppb	N/A	1,165	
Cr	52	74	He	0.001	ppb	936.7	221	
Mn	55	74	He	0.032	ppb	31.9	110	
Fe	56	74	H2	2.574	ppb	5.9	31,094	
Co	59	74	He	0.018	ppb	25.5	108	
Ni	60	74	He	0.004	ppb	216.7	58	
Cu	65	74	He	0.070	ppb	30.7	172	
Zn	66	74	He	0.058	ppb	24.4	70	
As	75	74	He	0.013	ppb	342.3	30	
Se	78	74	H2	0.034	ppb	31.8	11	
Mo	95	103	He	0.086	ppb	10.6	138	
Ag	107	103	He	0.018	ppb	9.9	84	
Cd	111	103	He	0.015	ppb	76.2	17	
[Cd]	111	103	NoGas	-0.003	ppb	N/A	12	
Sb	121	103	He	0.182	ppb	4.4	386	
Ba	138	159	He	0.048	ppb	19.4	289	
Hg	201	159	NoGas	5.281	ppt	0.5	10	
Tl	205	159	He	0.010	ppb	60.9	78	
Pb	208	159	NoGas	0.027	ppb	14.3	1,143	

Na. MRL ↑ 200 ppb

~~No B-02~~

ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.2	924,370	975380.393333333	94.8	
Sc	45	H2	Analog	2.4	2,010,544	2277280.85	88.3	
Sc	45	He	Pulse	0.6	299,604	348790.796666667	85.9	
Sc	45	NoGas	Analog	0.3	2,669,417	3065554.46333333	87.1	
Ge	74	H2	Pulse	0.3	612,447	718037.156666667	85.3	
Ge	74	He	Pulse	0.6	175,091	204919.68	85.4	
Ge	74	NoGas	Pulse	0.8	669,552	806774.886666667	83.0	
Rh	103	He	Pulse	0.2	394,099	466758.146666667	84.4	
Rh	103	NoGas	Pulse	0.3	678,285	832259.633333333	81.5	
Tb	159	He	Pulse	1.0	532,935	600193.66	88.8	
Tb	159	NoGas	Pulse	0.2	1,204,313	1409745.36	85.4	
Bi	209	He	Pulse	1.5	303,866	341192.286666667	89.1	
Bi	209	NoGas	Pulse	0.2	702,936	809398.153333333	86.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB3**	Total Dilution:	1.0000
File Name:	049_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:09:10
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	29.8	31	
Na	23	45	He	41.240	ppb	1.2	43,808	
Mg	24	45	He	1.310	ppb	4.6	1,076	
Al	27	45	He	0.190	ppb	57.2	143	
K	39	45	He	3.960	ppb	15.4	25,260	
Ca	44	45	H2	2.721	ppb	5.7	930	
[Ca]	44	45	He	0.246	ppb	354.5	209	
Ti	47	45	NoGas	0.182	ppb	29.1	202	
V	51	74	He	-0.136	ppb	N/A	1,113	
Cr	52	74	He	-0.004	ppb	N/A	202	
Mn	55	74	He	0.006	ppb	68.0	46	
Fe	56	74	H2	0.871	ppb	1.5	14,019	
Co	59	74	He	0.005	ppb	47.6	40	
Ni	60	74	He	-0.011	ppb	N/A	38	
Cu	65	74	He	0.052	ppb	24.6	143	
Zn	66	74	He	-0.007	ppb	N/A	30	
As	75	74	He	0.023	ppb	30.4	34	
Se	78	74	H2	0.004	ppb	58.7	3	
Mo	95	103	He	0.050	ppb	5.0	84	
Ag	107	103	He	0.007	ppb	46.8	36	
Cd	111	103	He	0.005	ppb	73.6	10	
[Cd]	111	103	NoGas	0.003	ppb	187.6	23	
Sb	121	103	He	0.060	ppb	36.2	163	
Ba	138	159	He	0.022	ppb	13.4	190	
Hg	201	159	NoGas	0.607	ppt	52.6	6	
Tl	205	159	He	0.001	ppb	119.7	18	
Pb	208	159	NoGas	0.007	ppb	10.3	783	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	941,355	975380.393333333	96.5	
Sc	45	H2	Analog	4.3	2,021,804	2277280.85	88.8	
Sc	45	He	Pulse	0.2	299,395	348790.796666667	85.8	
Sc	45	NoGas	Analog	0.2	2,689,506	3065554.46333333	87.7	
Ge	74	H2	Pulse	0.4	609,561	718037.156666667	84.9	
Ge	74	He	Pulse	0.7	175,414	204919.68	85.6	
Ge	74	NoGas	Pulse	1.0	674,643	806774.886666667	83.6	
Rh	103	He	Pulse	0.4	394,767	466758.146666667	84.6	
Rh	103	NoGas	Pulse	0.7	684,933	832259.633333333	82.3	
Tb	159	He	Pulse	0.5	537,620	600193.66	89.6	
Tb	159	NoGas	Pulse	0.4	1,213,371	1409745.36	86.1	
Bi	209	He	Pulse	0.7	305,359	341192.286666667	89.5	
Bi	209	NoGas	Pulse	1.4	710,102	809398.153333333	87.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL4**	Total Dilution:	1.0000
File Name:	050CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:13:52
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.160	ppb	4.6	374	88.89	
Na	23	45	He	45.931	ppb	0.7	48,406	510.34	R-11
Mg	24	45	He	10.603	ppb	0.4	6,100	117.81	
Al	27	45	He	9.483	ppb	7.0	2,770	105.37	
K	39	45	He	13.262	ppb	3.2	29,536	147.36	R-11
Ca	44	45	H2	10.780	ppb	0.6	2,484	119.78	
[Ca]	44	45	He	9.457	ppb	21.0	421	105.08	
Ti	47	45	NoGas	0.325	ppb	10.4	337	180.56	R-11
V	51	74	He	0.047	ppb	18.0	1,714	26.11	R-11
Cr	52	74	He	0.199	ppb	3.3	979	110.56	
Mn	55	74	He	0.228	ppb	9.1	616	126.67	
Fe	56	74	H2	9.538	ppb	1.5	99,943	105.98	
Co	59	74	He	0.191	ppb	2.5	1,016	106.11	
Ni	60	74	He	0.160	ppb	22.1	256	88.89	
Cu	65	74	He	0.210	ppb	7.1	396	116.67	
Zn	66	74	He	0.227	ppb	9.4	176	126.11	
As	75	74	He	0.179	ppb	11.9	92	99.44	
Se	78	74	H2	0.178	ppb	3.7	48	98.89	
Mo	95	103	He	0.217	ppb	17.7	334	120.56	
Ag	107	103	He	0.184	ppb	7.9	793	102.22	
Cd	111	103	He	0.194	ppb	7.1	143	107.78	
[Cd]	111	103	NoGas	0.164	ppb	17.6	295	91.11	
Sb	121	103	He	0.189	ppb	14.6	399	105	
Ba	138	159	He	0.188	ppb	1.4	833	104.44	
Hg	201	159	NoGas	6.734	ppt	35.8	11	93.53	
Tl	205	159	He	0.183	ppb	8.4	1,202	101.67	
Pb	208	159	NoGas	0.188	ppb	4.8	4,181	104.44	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.2	935,413	975380.393333333	95.9	
Sc	45	H2	Analog	4.5	1,999,260	2277280.85	87.8	
Sc	45	He	Pulse	0.4	299,556	348790.796666667	85.9	
Sc	45	NoGas	Analog	1.5	2,702,343	3065554.46333333	88.2	
Ge	74	H2	Pulse	0.4	608,352	718037.156666667	84.7	
Ge	74	He	Pulse	0.3	175,758	204919.68	85.8	
Ge	74	NoGas	Pulse	1.3	677,805	806774.886666667	84.0	
Rh	103	He	Pulse	0.3	394,394	466758.146666667	84.5	
Rh	103	NoGas	Pulse	0.2	683,214	832259.633333333	82.1	
Tb	159	He	Pulse	0.7	536,971	600193.66	89.5	
Tb	159	NoGas	Pulse	0.0	1,218,768	1409745.36	86.5	
Bi	209	He	Pulse	0.7	305,236	341192.286666667	89.5	
Bi	209	NoGas	Pulse	0.4	711,429	809398.153333333	87.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL5**	Total Dilution:	1.0000
File Name:	051_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:18:45
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.849	ppb	6.6	1,937	94.33	
Na	23	45	He	80.185	ppb	1.4	82,365	178.19	R-11
Mg	24	45	He	48.420	ppb	2.9	26,719	107.6	
Al	27	45	He	46.960	ppb	1.6	13,456	104.36	
K	39	45	He	51.190	ppb	1.1	47,227	113.76	
Ca	44	45	H2	45.549	ppb	3.2	9,276	101.22	
[Ca]	44	45	He	43.355	ppb	8.1	1,210	96.34	
Ti	47	45	NoGas	0.993	ppb	10.3	968	110.33	
V	51	74	He	0.791	ppb	1.6	4,193	87.89	
Cr	52	74	He	0.894	ppb	2.6	3,686	99.33	
Mn	55	74	He	0.957	ppb	0.7	2,514	106.33	
Fe	56	74	H2	45.569	ppb	0.3	461,040	101.26	
Co	59	74	He	0.902	ppb	4.0	4,797	100.22	
Ni	60	74	He	0.962	ppb	9.5	1,290	106.89	
Cu	65	74	He	0.957	ppb	7.0	1,603	106.33	
Zn	66	74	He	0.883	ppb	4.7	590	98.11	
As	75	74	He	0.984	ppb	6.9	395	109.33	
Se	78	74	H2	0.856	ppb	6.4	225	95.11	
Mo	95	103	He	0.943	ppb	6.2	1,429	104.78	
Ag	107	103	He	0.913	ppb	4.1	3,930	101.44	
Cd	111	103	He	0.978	ppb	2.1	699	108.67	
[Cd]	111	103	NoGas	0.908	ppb	5.6	1,571	100.89	
Sb	121	103	He	0.926	ppb	6.9	1,751	102.89	
Ba	138	159	He	0.967	ppb	4.4	3,866	107.44	
Hg	201	159	NoGas	42.271	ppt	13.0	41	117.42	
Tl	205	159	He	0.949	ppb	0.3	6,214	105.44	
Pb	208	159	NoGas	0.936	ppb	1.6	18,185	104	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.6	940,680	975380.393333333	96.4	
Sc	45	H2	Analog	0.9	2,008,067	2277280.85	88.2	
Sc	45	He	Pulse	0.7	301,580	348790.796666667	86.5	
Sc	45	NoGas	Analog	0.7	2,715,728	3065554.46333333	88.6	
Ge	74	H2	Pulse	0.3	613,388	718037.156666667	85.4	
Ge	74	He	Pulse	0.7	177,797	204919.68	86.8	
Ge	74	NoGas	Pulse	0.4	686,758	806774.886666667	85.1	
Rh	103	He	Pulse	0.7	396,578	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.4	690,853	832259.633333333	83.0	
Tb	159	He	Pulse	0.7	539,137	600193.66	89.8	
Tb	159	NoGas	Pulse	0.3	1,219,183	1409745.36	86.5	
Bi	209	He	Pulse	0.9	307,560	341192.286666667	90.1	
Bi	209	NoGas	Pulse	0.2	714,527	809398.153333333	88.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL6**	Total Dilution:	1.0000
File Name:	052CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:23:26
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.761	ppb	6.2	3,989	97.83	
Na	23	45	He	123.665	ppb	1.3	125,349	137.41	R-11
Mg	24	45	He	95.315	ppb	1.0	52,368	105.91	
Al	27	45	He	95.162	ppb	0.3	27,243	105.74	
K	39	45	He	97.685	ppb	1.5	68,833	108.54	
Ca	44	45	H2	89.178	ppb	5.2	17,849	99.09	
[Ca]	44	45	He	95.882	ppb	6.5	2,434	106.54	
Ti	47	45	NoGas	2.007	ppb	8.8	1,926	111.5	
V	51	74	He	1.678	ppb	1.1	7,102	93.22	
Cr	52	74	He	1.812	ppb	2.0	7,217	100.67	
Mn	55	74	He	1.939	ppb	4.2	5,045	107.72	
Fe	56	74	H2	90.552	ppb	0.3	912,316	100.61	
Co	59	74	He	1.811	ppb	3.0	9,586	100.61	
Ni	60	74	He	1.756	ppb	5.4	2,305	97.56	
Cu	65	74	He	2.039	ppb	2.8	3,336	113.28	
Zn	66	74	He	1.959	ppb	8.4	1,262	108.83	
As	75	74	He	1.875	ppb	3.4	727	104.17	
Se	78	74	H2	1.832	ppb	7.7	480	101.78	
Mo	95	103	He	1.746	ppb	2.4	2,638	97	
Ag	107	103	He	1.906	ppb	2.7	8,201	105.89	
Cd	111	103	He	1.914	ppb	1.6	1,363	106.33	
[Cd]	111	103	NoGas	1.778	ppb	3.6	3,060	98.78	
Sb	121	103	He	1.825	ppb	6.6	3,402	101.39	
Ba	138	159	He	1.880	ppb	1.7	7,416	104.44	
Hg	201	159	NoGas	87.385	ppt	0.4	79	121.37	
Tl	205	159	He	1.867	ppb	1.0	12,209	103.72	
Pb	208	159	NoGas	1.897	ppb	0.8	36,293	105.39	

Na MRL ↑
200 ppb
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	938,586	975380.393333333	96.2	
Sc	45	H2	Analog	4.6	2,018,721	2277280.85	88.6	
Sc	45	He	Pulse	1.1	302,303	348790.796666667	86.7	
Sc	45	NoGas	Analog	1.6	2,719,344	3065554.46333333	88.7	
Ge	74	H2	Pulse	0.5	614,394	718037.156666667	85.6	
Ge	74	He	Pulse	1.1	177,237	204919.68	86.5	
Ge	74	NoGas	Pulse	0.9	686,663	806774.886666667	85.1	
Rh	103	He	Pulse	0.9	396,671	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.4	691,022	832259.633333333	83.0	
Tb	159	He	Pulse	1.1	539,315	600193.66	89.9	
Tb	159	NoGas	Pulse	0.6	1,223,495	1409745.36	86.8	
Bi	209	He	Pulse	1.0	306,185	341192.286666667	89.7	
Bi	209	NoGas	Pulse	0.1	718,608	809398.153333333	88.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL7**	Total Dilution:	1.0000
File Name:	053CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:28:07
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.583	ppb	2.1	8,133	99.53	
Na	23	45	He	215.686	ppb	0.7	215,794	119.83	
Mg	24	45	He	189.252	ppb	0.6	103,549	105.14	
Al	27	45	He	188.818	ppb	2.4	53,923	104.9	
K	39	45	He	192.074	ppb	1.0	112,399	106.71	
Ca	44	45	H2	180.661	ppb	0.2	36,025	100.37	
[Ca]	44	45	He	187.651	ppb	2.8	4,565	104.25	
Ti	47	45	NoGas	3.600	ppb	1.0	3,420	100	
V	51	74	He	3.467	ppb	0.4	13,061	96.31	
Cr	52	74	He	3.586	ppb	2.5	14,148	99.61	
Mn	55	74	He	3.765	ppb	0.8	9,822	104.58	
Fe	56	74	H2	192.319	ppb	0.7	1,930,943	106.84	
Co	59	74	He	3.656	ppb	3.0	19,437	101.56	
Ni	60	74	He	3.835	ppb	2.8	4,996	106.53	
Cu	65	74	He	3.911	ppb	2.7	6,377	108.64	
Zn	66	74	He	3.833	ppb	3.0	2,450	106.47	
As	75	74	He	3.595	ppb	2.5	1,379	99.86	
Se	78	74	H2	3.791	ppb	4.6	991	105.31	
Mo	95	103	He	3.556	ppb	1.4	5,364	98.78	
Ag	107	103	He	3.665	ppb	1.7	15,765	101.81	
Cd	111	103	He	3.725	ppb	3.1	2,645	103.47	
[Cd]	111	103	NoGas	3.645	ppb	2.0	6,245	101.25	
Sb	121	103	He	3.765	ppb	3.7	6,960	104.58	
Ba	138	159	He	3.859	ppb	1.2	15,162	107.19	
Hg	201	159	NoGas	157.878	ppt	11.0	138	109.64	
Tl	205	159	He	3.713	ppb	1.6	24,360	103.14	
Pb	208	159	NoGas	3.763	ppb	0.3	71,321	104.53	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	941,751	975380.393333333	96.6	
Sc	45	H2	Analog	0.4	2,030,798	2277280.85	89.2	
Sc	45	He	Pulse	1.3	302,125	348790.796666667	86.6	
Sc	45	NoGas	Analog	1.2	2,712,669	3065554.46333333	88.5	
Ge	74	H2	Pulse	0.2	614,203	718037.156666667	85.5	
Ge	74	He	Pulse	0.8	178,179	204919.68	87.0	
Ge	74	NoGas	Pulse	0.8	684,948	806774.886666667	84.9	
Rh	103	He	Pulse	0.5	396,793	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.3	689,927	832259.633333333	82.9	
Tb	159	He	Pulse	1.3	541,071	600193.66	90.1	
Tb	159	NoGas	Pulse	0.4	1,222,872	1409745.36	86.7	
Bi	209	He	Pulse	1.1	308,606	341192.286666667	90.4	
Bi	209	NoGas	Pulse	0.1	718,420	809398.153333333	88.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV5**	Total Dilution:	1.0000
File Name:	064_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 16:19:00
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.107	ppb	0.8	83,812	40	95.27	
Na	23	45	He	4344.208	ppb	0.8	4,083,007	4000	108.61	
Mg	24	45	He	4529.092	ppb	0.2	2,357,810	4000	113.23	+/- 10%
Al	27	45	He	4342.976	ppb	1.3	1,182,406	4000	108.57	
K	39	45	He	4455.070	ppb	0.2	1,987,718	4000	111.38	+/- 10%
Ca	44	45	H2	4080.120	ppb	0.2	770,268	4000	102	
[Ca]	44	45	He	4271.442	ppb	0.3	94,955	4000	106.79	
Ti	47	45	NoGas	97.295	ppb	1.7	87,346	100	97.3	
V	51	74	He	97.668	ppb	0.4	308,152	100	97.67	
Cr	52	74	He	98.690	ppb	0.6	363,578	100	98.69	
Mn	55	74	He	105.712	ppb	0.4	260,716	100	105.71	
Fe	56	74	H2	4310.973	ppb	0.1	41,506,935	4000	107.77	
Co	59	74	He	101.795	ppb	0.8	512,807	100	101.79	
Ni	60	74	He	105.215	ppb	0.6	128,670	100	105.22	
Cu	65	74	He	102.677	ppb	0.8	157,246	100	102.68	
Zn	66	74	He	101.500	ppb	0.3	60,694	100	101.5	
As	75	74	He	99.771	ppb	0.8	35,618	100	99.77	
Se	78	74	H2	40.533	ppb	0.7	10,178	40	101.33	
Mo	95	103	He	40.494	ppb	0.7	57,499	40	101.24	
Ag	107	103	He	41.286	ppb	0.5	167,381	40	103.22	
Cd	111	103	He	100.600	ppb	0.4	67,207	100	100.6	
[Cd]	111	103	NoGas	99.037	ppb	0.9	158,365	100	99.04	
Sb	121	103	He	42.549	ppb	0.3	73,646	40	106.37	
Ba	138	159	He	105.584	ppb	0.1	401,009	100	105.58	
Hg	201	159	NoGas	802.981	ppt	1.6	667	800	100.37	
Tl	205	159	He	41.105	ppb	0.2	262,307	40	102.76	
Pb	208	159	NoGas	101.417	ppb	0.9	1,863,534	100	101.42	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	913,751	975380.393333333	93.7	
Sc	45	H2	Analog	0.7	1,943,118	2277280.85	85.3	
Sc	45	He	Pulse	0.9	288,436	348790.796666667	82.7	
Sc	45	NoGas	Analog	1.2	2,587,276	3065554.46333333	84.4	
Ge	74	H2	Pulse	0.4	590,567	718037.156666667	82.2	
Ge	74	He	Pulse	0.7	168,952	204919.68	82.4	
Ge	74	NoGas	Pulse	0.5	649,882	806774.886666667	80.6	
Rh	103	He	Pulse	0.5	374,086	466758.146666667	80.1	
Rh	103	NoGas	Pulse	0.5	645,706	832259.633333333	77.6	
Tb	159	He	Pulse	0.6	526,588	600193.66	87.7	
Tb	159	NoGas	Pulse	0.6	1,196,296	1409745.36	84.9	
Bi	209	He	Pulse	1.1	297,038	341192.286666667	87.1	
Bi	209	NoGas	Pulse	0.5	697,179	809398.153333333	86.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB4**	Total Dilution:	1.0000
File Name:	065_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 16:23:38
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	71.2	38	
Na	23	45	He	37.179	ppb	1.8	38,744	
Mg	24	45	He	1.077	ppb	10.7	923	
Al	27	45	He	0.491	ppb	40.6	222	
K	39	45	He	4.866	ppb	28.8	24,962	
Ca	44	45	H2	2.714	ppb	18.8	897	
[Ca]	44	45	He	-0.546	ppb	N/A	186	
Ti	47	45	NoGas	0.074	ppb	27.3	100	
V	51	74	He	-0.085	ppb	N/A	1,255	
Cr	52	74	He	-0.004	ppb	N/A	200	
Mn	55	74	He	0.009	ppb	56.3	52	
Fe	56	74	H2	1.207	ppb	5.8	16,881	
Co	59	74	He	0.014	ppb	40.4	89	
Ni	60	74	He	-0.006	ppb	N/A	43	
Cu	65	74	He	0.028	ppb	36.1	103	
Zn	66	74	He	0.014	ppb	288.5	42	
As	75	74	He	0.044	ppb	30.4	41	
Se	78	74	H2	0.027	ppb	67.3	8	
Mo	95	103	He	0.042	ppb	64.7	71	
Ag	107	103	He	0.009	ppb	35.5	44	
Cd	111	103	He	0.009	ppb	10.4	13	
[Cd]	111	103	NoGas	0.003	ppb	120.3	22	
Sb	121	103	He	0.181	ppb	3.2	376	
Ba	138	159	He	0.020	ppb	28.7	186	
Hg	201	159	NoGas	-0.600	ppt	N/A	5	
Tl	205	159	He	0.005	ppb	37.0	43	
Pb	208	159	NoGas	0.015	ppb	20.8	927	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.6	942,907	975380.393333333	96.7	
Sc	45	H2	Analog	0.3	1,954,114	2277280.85	85.8	
Sc	45	He	Pulse	1.2	291,136	348790.796666667	83.5	
Sc	45	NoGas	Analog	0.8	2,647,278	3065554.46333333	86.4	
Ge	74	H2	Pulse	0.3	592,843	718037.156666667	82.6	
Ge	74	He	Pulse	1.1	171,868	204919.68	83.9	
Ge	74	NoGas	Pulse	1.5	665,830	806774.886666667	82.5	
Rh	103	He	Pulse	0.9	386,896	466758.146666667	82.9	
Rh	103	NoGas	Pulse	0.6	671,198	832259.633333333	80.6	
Tb	159	He	Pulse	1.3	537,639	600193.66	89.6	
Tb	159	NoGas	Pulse	0.4	1,215,107	1409745.36	86.2	
Bi	209	He	Pulse	1.0	306,456	341192.286666667	89.8	
Bi	209	NoGas	Pulse	0.6	716,233	809398.153333333	88.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV6**	Total Dilution:	1.0000
File Name:	076_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:33:01
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.421	ppb	0.6	90,413	40	98.55	
Na	23	45	He	4203.851	ppb	0.6	4,274,850	4000	105.1	
Mg	24	45	He	4463.194	ppb	1.0	2,513,787	4000	111.58	> +/- 10%
Al	27	45	He	4269.714	ppb	1.3	1,257,595	4000	106.74	
K	39	45	He	4412.522	ppb	0.5	2,130,160	4000	110.31	> +/- 10%
Ca	44	45	H2	4106.215	ppb	1.0	835,322	4000	102.66	
[Ca]	44	45	He	4218.859	ppb	0.9	101,473	4000	105.47	
Ti	47	45	NoGas	99.318	ppb	0.7	95,062	100	99.32	
V	51	74	He	98.562	ppb	0.3	334,051	100	98.56	
Cr	52	74	He	99.436	ppb	0.3	393,532	100	99.44	
Mn	55	74	He	105.278	ppb	0.4	278,922	100	105.28	
Fe	56	74	H2	4272.234	ppb	0.5	44,449,835	4000	106.81	
Co	59	74	He	102.139	ppb	0.4	552,773	100	102.14	
Ni	60	74	He	106.780	ppb	0.6	140,285	100	106.78	
Cu	65	74	He	103.889	ppb	0.7	170,929	100	103.89	
Zn	66	74	He	101.223	ppb	0.9	65,021	100	101.22	
As	75	74	He	99.977	ppb	0.8	38,341	100	99.98	
Se	78	74	H2	40.484	ppb	1.0	10,985	40	101.21	
Mo	95	103	He	40.423	ppb	1.1	61,174	40	101.06	
Ag	107	103	He	40.936	ppb	0.8	176,877	40	102.34	
Cd	111	103	He	100.512	ppb	0.9	71,566	100	100.51	
[Cd]	111	103	NoGas	99.698	ppb	0.2	170,760	100	99.7	
Sb	121	103	He	41.672	ppb	0.9	76,871	40	104.18	
Ba	138	159	He	107.218	ppb	0.6	427,086	100	107.22	
Hg	201	159	NoGas	799.958	ppt	4.6	715	800	99.99	
Tl	205	159	He	40.499	ppb	0.1	271,053	40	101.25	
Pb	208	159	NoGas	99.500	ppb	2.5	1,968,504	100	99.5	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	952,918	975380.393333333	97.7	
Sc	45	H2	Analog	1.5	2,094,011	2277280.85	92.0	
Sc	45	He	Pulse	1.0	312,062	348790.796666667	89.5	
Sc	45	NoGas	Analog	0.5	2,758,200	3065554.46333333	90.0	
Ge	74	H2	Pulse	0.7	638,160	718037.156666667	88.9	
Ge	74	He	Pulse	0.8	181,500	204919.68	88.6	
Ge	74	NoGas	Pulse	0.1	701,367	806774.886666667	86.9	
Rh	103	He	Pulse	0.4	398,681	466758.146666667	85.4	
Rh	103	NoGas	Pulse	0.1	691,626	832259.633333333	83.1	
Tb	159	He	Pulse	0.4	552,283	600193.66	92.0	
Tb	159	NoGas	Mix	2.9	1,288,581	1409745.36	91.4	
Bi	209	He	Pulse	0.6	311,267	341192.286666667	91.2	
Bi	209	NoGas	Pulse	0.2	725,703	809398.153333333	89.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB5**	Total Dilution:	1.0000
File Name:	077_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:37:39
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	28.4	33	
Na	23	45	He	15.946	ppb	1.6	19,635	
Mg	24	45	He	0.709	ppb	24.4	770	
Al	27	45	He	0.749	ppb	13.9	309	
K	39	45	He	3.738	ppb	9.8	25,798	
Ca	44	45	H2	2.617	ppb	6.4	929	
[Ca]	44	45	He	1.202	ppb	99.8	237	
Ti	47	45	NoGas	0.061	ppb	22.5	90	
V	51	74	He	-0.143	ppb	N/A	1,128	
Cr	52	74	He	0.000	ppb	N/A	224	
Mn	55	74	He	0.023	ppb	26.1	92	
Fe	56	74	H2	1.742	ppb	5.3	23,472	
Co	59	74	He	0.007	ppb	44.6	54	
Ni	60	74	He	0.008	ppb	408.5	64	
Cu	65	74	He	0.074	ppb	6.5	184	
Zn	66	74	He	0.033	ppb	109.8	57	
As	75	74	He	0.012	ppb	106.8	31	
Se	78	74	H2	0.038	ppb	29.0	12	
Mo	95	103	He	0.040	ppb	36.8	71	
Ag	107	103	He	0.012	ppb	29.6	58	
Cd	111	103	He	0.013	ppb	29.1	16	
[Cd]	111	103	NoGas	0.003	ppb	241.6	23	
Sb	121	103	He	0.071	ppb	41.6	188	
Ba	138	159	He	0.026	ppb	32.6	214	
Hg	201	159	NoGas	2.368	ppt	145.8	8	
Tl	205	159	He	0.007	ppb	12.8	61	
Pb	208	159	NoGas	0.021	ppb	19.7	1,098	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.9	953,655	975380.393333333	97.8	
Sc	45	H2	Analog	0.5	2,066,945	2277280.85	90.8	
Sc	45	He	Pulse	0.4	306,989	348790.796666667	88.0	
Sc	45	NoGas	Analog	0.7	2,708,995	3065554.46333333	88.4	
Ge	74	H2	Pulse	0.5	631,066	718037.156666667	87.9	
Ge	74	He	Pulse	0.5	181,095	204919.68	88.4	
Ge	74	NoGas	Pulse	1.6	695,698	806774.886666667	86.2	
Rh	103	He	Pulse	0.7	405,070	466758.146666667	86.8	
Rh	103	NoGas	Pulse	0.8	701,331	832259.633333333	84.3	
Tb	159	He	Pulse	1.2	552,993	600193.66	92.1	
Tb	159	NoGas	Mix	1.8	1,269,944	1409745.36	90.1	
Bi	209	He	Pulse	0.6	315,295	341192.286666667	92.4	
Bi	209	NoGas	Pulse	0.8	738,921	809398.153333333	91.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL8**	Total Dilution:	1.0000
File Name:	078CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:42:21
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.167	ppb	17.0	399	92.78		
Na	23	45	He	26.552	ppb	7.6	29,092	295.02	R-11	<MRL
Mg	24	45	He	10.421	ppb	2.0	5,928	115.79		
Al	27	45	He	9.886	ppb	6.6	2,845	109.84		
K	39	45	He	15.620	ppb	22.5	30,200	173.56	R-11	<MRL
Ca	44	45	H2	10.107	ppb	5.4	2,418	112.3		
[Ca]	44	45	He	9.240	ppb	26.6	411	102.67		
Ti	47	45	NoGas	0.597	ppb	94.4	596	331.67	R-11	<MRL
V	51	74	He	0.050	ppb	74.0	1,707	27.78	R-11	
Cr	52	74	He	0.184	ppb	6.5	916	102.22		
Mn	55	74	He	0.213	ppb	19.3	572	118.33		
Fe	56	74	H2	9.613	ppb	0.7	104,764	106.81		
Co	59	74	He	0.198	ppb	7.7	1,047	110		
Ni	60	74	He	0.169	ppb	29.1	263	93.89		
Cu	65	74	He	0.236	ppb	7.8	432	131.11	R-11	<MRL
Zn	66	74	He	0.189	ppb	41.6	149	105		
As	75	74	He	0.204	ppb	11.0	100	113.33		
Se	78	74	H2	0.194	ppb	22.6	54	107.78		
Mo	95	103	He	0.212	ppb	19.2	323	117.78		
Ag	107	103	He	0.205	ppb	5.1	876	113.89		
Cd	111	103	He	0.181	ppb	6.7	133	100.56		
[Cd]	111	103	NoGas	0.181	ppb	11.0	331	100.56		
Sb	121	103	He	0.199	ppb	21.8	411	110.56		
Ba	138	159	He	0.184	ppb	5.2	811	102.22		
Hg	201	159	NoGas	5.169	ppt	98.5	10	71.79		
Tl	205	159	He	0.190	ppb	7.6	1,235	105.56		
Pb	208	159	NoGas	0.191	ppb	3.2	4,385	106.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.8	953,888	975380.393333333	97.8	
Sc	45	H2	Analog	1.6	2,055,536	2277280.85	90.3	
Sc	45	He	Pulse	5.6	296,069	348790.796666667	84.9	
Sc	45	NoGas	Analog	0.1	2,717,968	3065554.46333333	88.7	
Ge	74	H2	Pulse	0.7	633,010	718037.156666667	88.2	
Ge	74	He	Pulse	6.2	174,607	204919.68	85.2	
Ge	74	NoGas	Pulse	0.4	696,835	806774.886666667	86.4	
Rh	103	He	Pulse	6.4	391,662	466758.146666667	83.9	
Rh	103	NoGas	Pulse	0.1	699,537	832259.633333333	84.1	
Tb	159	He	Pulse	5.9	533,598	600193.66	88.9	
Tb	159	NoGas	Mix	0.7	1,261,379	1409745.36	89.5	
Bi	209	He	Pulse	6.2	303,164	341192.286666667	88.9	
Bi	209	NoGas	Pulse	0.2	735,823	809398.153333333	90.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL9**	Total Dilution:	1.0000
File Name:	079_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:47:03
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.887	ppb	4.4	2,008	98.56	
Na	23	45	He	63.659	ppb	1.3	67,191	141.46	R-11
Mg	24	45	He	48.147	ppb	2.1	26,994	106.99	
Al	27	45	He	46.922	ppb	1.9	13,660	104.27	
K	39	45	He	51.405	ppb	1.4	48,079	114.23	
Ca	44	45	H2	46.553	ppb	5.3	9,786	103.45	
[Ca]	44	45	He	47.347	ppb	7.3	1,323	105.22	
Ti	47	45	NoGas	0.890	ppb	7.3	870	98.89	
V	51	74	He	0.759	ppb	3.3	4,154	84.33	
Cr	52	74	He	0.895	ppb	4.3	3,752	99.44	
Mn	55	74	He	0.982	ppb	2.7	2,621	109.11	
Fe	56	74	H2	45.941	ppb	1.0	478,428	102.09	
Co	59	74	He	0.945	ppb	2.6	5,111	105	
Ni	60	74	He	0.976	ppb	3.3	1,331	108.44	
Cu	65	74	He	1.001	ppb	6.0	1,702	111.22	
Zn	66	74	He	0.992	ppb	8.8	670	110.22	
As	75	74	He	0.891	ppb	2.1	366	99	
Se	78	74	H2	0.932	ppb	7.0	252	103.56	
Mo	95	103	He	0.890	ppb	5.5	1,380	98.89	
Ag	107	103	He	0.927	ppb	4.9	4,082	103	
Cd	111	103	He	0.910	ppb	1.7	666	101.11	
[Cd]	111	103	NoGas	0.885	ppb	6.1	1,544	98.33	
Sb	121	103	He	0.898	ppb	3.2	1,740	99.78	
Ba	138	159	He	1.000	ppb	3.4	4,072	111.11	
Hg	201	159	NoGas	40.941	ppt	8.4	41	113.72	
Tl	205	159	He	0.934	ppb	1.7	6,228	103.78	
Pb	208	159	NoGas	0.948	ppb	1.5	18,923	105.33	

<MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.2	934,295	975380.393333333	95.8	
Sc	45	H2	Analog	0.6	2,075,442	2277280.85	91.1	
Sc	45	He	Pulse	0.8	306,364	348790.796666667	87.8	
Sc	45	NoGas	Analog	0.5	2,712,822	3065554.46333333	88.5	
Ge	74	H2	Pulse	0.3	631,431	718037.156666667	87.9	
Ge	74	He	Pulse	0.5	180,789	204919.68	88.2	
Ge	74	NoGas	Pulse	1.0	695,369	806774.886666667	86.2	
Rh	103	He	Pulse	0.4	405,588	466758.146666667	86.9	
Rh	103	NoGas	Pulse	0.3	696,909	832259.633333333	83.7	
Tb	159	He	Pulse	1.2	549,390	600193.66	91.5	
Tb	159	NoGas	Pulse	0.5	1,253,517	1409745.36	88.9	
Bi	209	He	Pulse	0.6	313,150	341192.286666667	91.8	
Bi	209	NoGas	Pulse	0.7	734,597	809398.153333333	90.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLA**	Total Dilution:	1.0000
File Name:	080CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:51:44
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.727	ppb	4.3	3,940	95.94	
Na	23	45	He	110.345	ppb	0.6	113,783	122.61	
Mg	24	45	He	95.996	ppb	0.6	53,460	106.66	
Al	27	45	He	95.185	ppb	0.6	27,623	105.76	
K	39	45	He	98.767	ppb	1.9	70,284	109.74	
Ca	44	45	H2	92.915	ppb	2.1	18,856	103.24	
[Ca]	44	45	He	97.113	ppb	7.8	2,496	107.9	
Ti	47	45	NoGas	1.974	ppb	10.5	1,899	109.67	
V	51	74	He	1.635	ppb	4.0	7,059	90.83	
Cr	52	74	He	1.759	ppb	1.0	7,116	97.72	
Mn	55	74	He	1.927	ppb	5.6	5,090	107.06	
Fe	56	74	H2	91.141	ppb	0.3	938,391	101.27	
Co	59	74	He	1.858	ppb	0.6	9,977	103.22	
Ni	60	74	He	1.934	ppb	1.8	2,569	107.44	
Cu	65	74	He	2.089	ppb	6.1	3,465	116.06	
Zn	66	74	He	1.923	ppb	4.3	1,258	106.83	
As	75	74	He	1.811	ppb	4.8	714	100.61	
Se	78	74	H2	1.941	ppb	8.1	520	107.83	
Mo	95	103	He	1.810	ppb	2.0	2,774	100.56	
Ag	107	103	He	1.833	ppb	1.9	8,001	101.83	
Cd	111	103	He	1.880	ppb	2.8	1,358	104.44	
[Cd]	111	103	NoGas	1.795	ppb	2.8	3,104	99.72	
Sb	121	103	He	1.791	ppb	2.7	3,388	99.5	
Ba	138	159	He	1.961	ppb	1.6	7,884	108.94	
Hg	201	159	NoGas	76.311	ppt	11.9	71	105.99	
Tl	205	159	He	1.863	ppb	1.9	12,425	103.5	
Pb	208	159	NoGas	1.903	ppb	1.8	37,194	105.72	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	944,910	975380.393333333	96.9	
Sc	45	H2	Analog	0.6	2,045,408	2277280.85	89.8	
Sc	45	He	Pulse	1.2	306,432	348790.796666667	87.9	
Sc	45	NoGas	Analog	0.2	2,725,498	3065554.46333333	88.9	
Ge	74	H2	Pulse	0.3	627,888	718037.156666667	87.4	
Ge	74	He	Pulse	1.3	179,815	204919.68	87.7	
Ge	74	NoGas	Pulse	0.6	691,714	806774.886666667	85.7	
Rh	103	He	Pulse	0.7	402,462	466758.146666667	86.2	
Rh	103	NoGas	Pulse	0.6	694,531	832259.633333333	83.5	
Tb	159	He	Pulse	0.6	549,884	600193.66	91.6	
Tb	159	NoGas	Pulse	0.2	1,249,784	1409745.36	88.7	
Bi	209	He	Pulse	0.6	315,082	341192.286666667	92.3	
Bi	209	NoGas	Pulse	0.9	734,616	809398.153333333	90.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLB**	Total Dilution:	1.0000
File Name:	081CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:56:26
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.444	ppb	4.4	7,917	95.67	
Na	23	45	He	204.453	ppb	0.9	207,735	113.58	
Mg	24	45	He	191.987	ppb	1.3	106,571	106.66	
Al	27	45	He	190.075	ppb	1.4	55,082	105.6	
K	39	45	He	194.400	ppb	0.3	115,131	108	
Ca	44	45	H2	181.574	ppb	1.6	36,680	100.87	
[Ca]	44	45	He	182.504	ppb	0.8	4,511	101.39	
Ti	47	45	NoGas	3.607	ppb	6.0	3,472	100.19	
V	51	74	He	3.441	ppb	2.8	13,178	95.58	
Cr	52	74	He	3.496	ppb	2.3	14,009	97.11	
Mn	55	74	He	3.770	ppb	1.3	9,987	104.72	
Fe	56	74	H2	190.302	ppb	1.5	1,962,660	105.72	
Co	59	74	He	3.598	ppb	1.6	19,430	99.94	
Ni	60	74	He	3.877	ppb	4.8	5,131	107.69	
Cu	65	74	He	3.888	ppb	0.5	6,438	108	
Zn	66	74	He	3.713	ppb	7.3	2,412	103.14	
As	75	74	He	3.800	ppb	2.5	1,478	105.56	
Se	78	74	H2	3.639	ppb	3.7	978	101.08	
Mo	95	103	He	3.591	ppb	3.7	5,523	99.75	
Ag	107	103	He	3.638	ppb	0.7	15,959	101.06	
Cd	111	103	He	3.741	ppb	3.4	2,710	103.92	
[Cd]	111	103	NoGas	3.717	ppb	0.4	6,456	103.25	
Sb	121	103	He	3.602	ppb	2.5	6,794	100.06	
Ba	138	159	He	3.976	ppb	0.5	15,990	110.44	
Hg	201	159	NoGas	139.622	ppt	2.9	127	96.96	
Tl	205	159	He	3.719	ppb	0.7	24,972	103.31	
Pb	208	159	NoGas	3.754	ppb	2.8	73,490	104.28	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	953,780	975380.393333333	97.8	
Sc	45	H2	Analog	1.1	2,057,725	2277280.85	90.4	
Sc	45	He	Pulse	0.4	306,520	348790.796666667	87.9	
Sc	45	NoGas	Analog	1.0	2,747,655	3065554.46333333	89.6	
Ge	74	H2	Pulse	0.5	630,881	718037.156666667	87.9	
Ge	74	He	Pulse	1.0	180,959	204919.68	88.3	
Ge	74	NoGas	Pulse	0.5	695,932	806774.886666667	86.3	
Rh	103	He	Pulse	0.9	404,635	466758.146666667	86.7	
Rh	103	NoGas	Pulse	0.6	699,438	832259.633333333	84.0	
Tb	159	He	Pulse	0.9	553,893	600193.66	92.3	
Tb	159	NoGas	Mix	2.0	1,263,509	1409745.36	89.6	
Bi	209	He	Pulse	1.5	315,372	341192.286666667	92.4	
Bi	209	NoGas	Pulse	0.2	740,168	809398.153333333	91.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV7**	Total Dilution:	1.0000
File Name:	092_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 18:47:17
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.849	ppb	1.2	96,850	40	99.62	
Na	23	45	He	4290.736	ppb	0.9	4,643,191	4000	107.27	
Mg	24	45	He	4586.677	ppb	1.3	2,749,148	4000	114.67	> +/- 10%
Al	27	45	He	4395.997	ppb	0.8	1,377,961	4000	109.9	
K	39	45	He	4466.009	ppb	0.5	2,294,116	4000	111.65	> +/- 10%
Ca	44	45	H2	4100.179	ppb	0.5	905,526	4000	102.5	
[Ca]	44	45	He	4243.659	ppb	0.4	108,618	4000	106.09	
Ti	47	45	NoGas	99.985	ppb	1.2	103,725	100	99.98	
V	51	74	He	100.466	ppb	0.3	359,999	100	100.47	
Cr	52	74	He	101.142	ppb	0.2	423,230	100	101.14	
Mn	55	74	He	106.638	ppb	0.2	298,726	100	106.64	
Fe	56	74	H2	4350.976	ppb	0.3	48,407,375	4000	108.77	
Co	59	74	He	104.799	ppb	0.2	599,671	100	104.8	
Ni	60	74	He	109.165	ppb	0.9	151,636	100	109.16	
Cu	65	74	He	104.979	ppb	0.3	182,618	100	104.98	
Zn	66	74	He	100.516	ppb	0.2	68,270	100	100.52	
As	75	74	He	102.862	ppb	0.1	41,708	100	102.86	
Se	78	74	H2	40.595	ppb	0.7	11,779	40	101.49	
Mo	95	103	He	40.967	ppb	0.9	64,913	40	102.42	
Ag	107	103	He	41.273	ppb	0.7	186,731	40	103.18	
Cd	111	103	He	99.400	ppb	0.4	74,104	100	99.4	
[Cd]	111	103	NoGas	99.166	ppb	0.6	179,833	100	99.17	
Sb	121	103	He	42.901	ppb	0.7	82,862	40	107.25	
Ba	138	159	He	108.043	ppb	0.4	443,777	100	108.04	
Hg	201	159	NoGas	766.034	ppt	4.4	746	800	95.75	
Tl	205	159	He	39.993	ppb	0.7	275,996	40	99.98	
Pb	208	159	NoGas	94.202	ppb	1.0	2,029,917	100	94.2	

Mg Q-41
K Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,009,819	975380.393333333	103.5	
Sc	45	H2	Analog	0.4	2,273,184	2277280.85	99.8	
Sc	45	He	Pulse	0.5	332,094	348790.796666667	95.2	
Sc	45	NoGas	Analog	0.6	2,989,594	3065554.46333333	97.5	
Ge	74	H2	Pulse	0.3	682,414	718037.156666667	95.0	
Ge	74	He	Pulse	0.2	191,905	204919.68	93.6	
Ge	74	NoGas	Pulse	0.9	748,957	806774.886666667	92.8	
Rh	103	He	Pulse	0.2	417,449	466758.146666667	89.4	
Rh	103	NoGas	Pulse	0.3	732,284	832259.633333333	88.0	
Tb	159	He	Pulse	0.6	569,481	600193.66	94.9	
Tb	159	NoGas	Analog	1.1	1,402,931	1409745.36	99.5	
Bi	209	He	Pulse	0.8	314,198	341192.286666667	92.1	
Bi	209	NoGas	Pulse	0.7	742,435	809398.153333333	91.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB6**	Total Dilution:	1.0000
File Name:	093_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 18:51:55
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	27.8	36	
Na	23	45	He	9.984	ppb	4.0	15,249	
Mg	24	45	He	1.396	ppb	4.7	1,282	
Al	27	45	He	2.077	ppb	4.7	773	
K	39	45	He	5.295	ppb	11.4	29,570	
Ca	44	45	H2	3.169	ppb	9.7	1,160	
[Ca]	44	45	He	0.372	ppb	536.5	242	
Ti	47	45	NoGas	0.189	ppb	6.5	242	
V	51	74	He	-0.092	ppb	N/A	1,426	
Cr	52	74	He	0.006	ppb	86.0	274	
Mn	55	74	He	0.068	ppb	19.3	229	
Fe	56	74	H2	4.741	ppb	3.0	59,785	
Co	59	74	He	0.014	ppb	41.7	102	
Ni	60	74	He	-0.006	ppb	N/A	51	
Cu	65	74	He	0.038	ppb	25.7	137	
Zn	66	74	He	0.065	ppb	97.3	84	
As	75	74	He	0.035	ppb	46.7	43	
Se	78	74	H2	0.047	ppb	33.1	16	
Mo	95	103	He	0.034	ppb	24.6	67	
Ag	107	103	He	0.005	ppb	43.9	29	
Cd	111	103	He	0.018	ppb	34.1	21	
[Cd]	111	103	NoGas	0.014	ppb	63.1	47	
Sb	121	103	He	0.020	ppb	45.2	100	
Ba	138	159	He	0.041	ppb	41.3	283	
Hg	201	159	NoGas	1.129	ppt	243.8	7	
Tl	205	159	He	0.016	ppb	39.6	122	
Pb	208	159	NoGas	0.035	ppb	12.7	1,530	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,065,175	975380.393333333	109.2	
Sc	45	H2	Analog	0.1	2,305,535	2277280.85	101.2	
Sc	45	He	Pulse	0.9	342,192	348790.796666667	98.1	
Sc	45	NoGas	Analog	0.3	3,115,505	3065554.46333333	101.6	
Ge	74	H2	Pulse	0.2	694,478	718037.156666667	96.7	
Ge	74	He	Pulse	1.0	198,655	204919.68	96.9	
Ge	74	NoGas	Pulse	1.4	776,551	806774.886666667	96.3	
Rh	103	He	Pulse	1.4	439,098	466758.146666667	94.1	
Rh	103	NoGas	Pulse	0.1	777,476	832259.633333333	93.4	
Tb	159	He	Pulse	0.8	576,881	600193.66	96.1	
Tb	159	NoGas	Analog	1.6	1,421,598	1409745.36	100.8	
Bi	209	He	Pulse	0.7	317,725	341192.286666667	93.1	
Bi	209	NoGas	Pulse	1.0	767,547	809398.153333333	94.8	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BLK1**	Total Dilution:	**5.0000**
File Name:	096SMPL.d	Vial:	3413
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:05:46	I.S. Reference File:	002CALB.d
Comment:	**9110369 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.006	ppb	62.5	30	100	
Na	23	45	He	7.83	ppb	2.8	13,091	50000	
Mg	24	45	He	1.809	ppb	6.8	1,567	50000	
Al	27	45	He	4.677	ppb	2.5	1,643	50000	
K	39	45	He	1.437	ppb	65.2	28,073	50000	
Ca	44	45	H2	6.073	ppb	3.3	1,835	50000	
[Ca]	44	45	He	5.388	ppb	10.8	381	50000	
Ti	47	45	NoGas	0.439	ppb	9.4	516	2500	
V	51	74	He	0.042	ppb	28.1	1,912	500	
Cr	52	74	He	0.018	ppb	42.0	322	1000	
Mn	55	74	He	0.102	ppb	7.2	329	2500	
Fe	56	74	H2	13.365	ppb	8.0	156,421	50000	
Co	59	74	He	0.007	ppb	20.0	58	500	
Ni	60	74	He	-0.006	ppb	N/A	50	1000	
Cu	65	74	He	0.013	ppb	26.5	91	1000	
Zn	66	74	He	0.065	ppb	70.6	84	2500	
As	75	74	He	0.01	ppb	220.3	33	500	
Se	78	74	H2	0.005	ppb	147.3	3	100	
Mo	95	103	He	0.008	ppb	70.3	23	100	
Ag	107	103	He	0.003	ppb	65.8	19	100	
Cd	111	103	He	-0.006	ppb	N/A	3	1000	
[Cd]	111	103	NoGas	0	ppb	231.0	20	1000	
Sb	121	103	He	-0.001	ppb	N/A	58	100	
Ba	138	159	He	0.021	ppb	46.8	202	2500	
W	182	159	NoGas	0.001	ppb	126.6	34	40	
Hg	201	159	NoGas	-1.338	ppt	N/A	5	4000	
Tl	205	159	He	0.002	ppb	177.9	24	100	
Pb	208	159	NoGas	0.01	ppb	22.9	1,008	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,050,389	1.4	975380.393333333	Analog	107.7	
Sc	45	H2	2,336,424	0.9	2277280.85	Analog	102.6	
Sc	45	He	348,704	0.8	348790.796666667	Pulse	100.0	
Sc	45	NoGas	3,142,972	0.3	3065554.46333333	Analog	102.5	
Ge	74	H2	690,060	0.3	718037.156666667	Pulse	96.1	
Ge	74	He	197,746	0.9	204919.68	Pulse	96.5	
Ge	74	NoGas	777,204	1.2	806774.886666667	Pulse	96.3	
Rh	103	He	441,306	0.8	466758.146666667	Pulse	94.5	
Rh	103	NoGas	784,588	0.7	832259.633333333	Pulse	94.3	
Tb	159	He	581,846	0.7	600193.66	Pulse	96.9	
Tb	159	NoGas	1,451,029	2.1	1409745.36	Analog	102.9	
Bi	209	He	318,179	0.8	341192.286666667	Pulse	93.3	
Bi	209	NoGas	761,769	0.1	809398.153333333	Pulse	94.1	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BS1**	Total Dilution:	**5.0000**
File Name:	097SMPL.d	Vial:	3414
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:10:27	I.S. Reference File:	002CALB.d
Comment:	**9110369 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	25.638	ppb	1.5	63,202	100	
Na	23	45	He	2856.005	ppb	0.9	3,174,587	50000	
Mg	24	45	He	2890.988	ppb	0.1	1,779,307	50000	
Al	27	45	He	2727.757	ppb	0.7	877,931	50000	
K	39	45	He	2932.165	ppb	0.8	1,555,616	50000	
Ca	44	45	H2	2590.435	ppb	0.6	588,082	50000	
[Ca]	44	45	He	2763.954	ppb	0.5	72,717	50000	
Ti	47	45	NoGas	53.201	ppb	2.1	56,623	2500	
V	51	74	He	54.361	ppb	0.9	199,292	500	
Cr	52	74	He	53.986	ppb	0.4	230,318	1000	
Mn	55	74	He	55.665	ppb	0.5	158,925	2500	
Fe	56	74	H2	2815.863	ppb	0.5	31,411,020	50000	
Co	59	74	He	54.827	ppb	0.5	319,711	500	
Ni	60	74	He	56.65	ppb	0.8	80,219	1000	
Cu	65	74	He	55.808	ppb	0.1	98,967	1000	
Zn	66	74	He	52.036	ppb	0.3	36,035	2500	
As	75	74	He	52.767	ppb	0.9	21,817	500	
Se	78	74	H2	25.032	ppb	0.8	7,283	100	
Mo	95	103	He	26.966	ppb	1.2	44,140	100	
Ag	107	103	He	27.987	ppb	1.0	130,791	100	
Cd	111	103	He	52.073	ppb	1.2	40,103	1000	
[Cd]	111	103	NoGas	50.982	ppb	1.3	95,607	1000	
Sb	121	103	He	25.674	ppb	1.4	51,241	100	
Ba	138	159	He	57.197	ppb	0.3	238,027	2500	
W	182	159	NoGas	0.012	ppb	24.5	123	40	
Hg	201	159	NoGas	936.261	ppt	2.3	933	4000	
Tl	205	159	He	25.913	ppb	0.4	181,149	100	
Pb	208	159	NoGas	49.107	ppb	1.4	1,084,479	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,024,320	2.3	975380.393333333	Analog	105.0	
Sc	45	H2	2,336,018	0.7	2277280.85	Analog	102.6	
Sc	45	He	340,972	0.6	348790.796666667	Pulse	97.8	
Sc	45	NoGas	3,066,478	1.2	3065554.46333333	Analog	100.0	
Ge	74	H2	684,178	0.4	718037.156666667	Pulse	95.3	
Ge	74	He	195,566	1.0	204919.68	Pulse	95.4	
Ge	74	NoGas	759,154	0.3	806774.886666667	Pulse	94.1	
Rh	103	He	431,201	1.1	466758.146666667	Pulse	92.4	
Rh	103	NoGas	757,171	0.2	832259.633333333	Pulse	91.0	
Tb	159	He	576,859	0.6	600193.66	Pulse	96.1	
Tb	159	NoGas	1,437,289	0.7	1409745.36	Analog	102.0	
Bi	209	He	313,325	0.5	341192.286666667	Pulse	91.8	
Bi	209	NoGas	753,082	0.5	809398.153333333	Pulse	93.0	

Quantitation Report - ICPMS5

Sample Name:	**A9J1007-01**	Total Dilution:	**5.0000**
File Name:	100SMPL.d	Vial:	3502
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:24:13	I.S. Reference File:	002CALB.d
Comment:	**9110369 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.917	ppb	5.7	2,186	100	
Na	23	45	He	778.102	ppb	1.3	891,057	50000	
Mg	24	45	He	8128.505	ppb	1.5	5,135,503	50000	
Al	27	45	He	41508.031	ppb	0.4	13,714,985	50000	
K	39	45	He	1615.634	ppb	0.5	892,382	50000	
Ca	44	45	H2	8227.585	ppb	0.5	1,894,112	50000	
[Ca]	44	45	He	8406.933	ppb	0.6	226,599	50000	
Ti	47	45	NoGas	2944.478	ppb	0.8	3,246,718	2500	>LDR RR-2
V	51	74	He	151.546	ppb	0.2	516,041	500	
Cr	52	74	He	51.629	ppb	0.6	205,737	1000	
Mn	55	74	He	881.859	ppb	1.3	2,351,280	2500	
Fe	56	74	H2	54001.376	ppb	1.1	555,497,836	50000	>LDR RR-2
Co	59	74	He	22.165	ppb	0.8	120,731	500	
Ni	60	74	He	41.328	ppb	0.9	54,674	1000	
Cu	65	74	He	65.121	ppb	0.5	107,851	1000	
Zn	66	74	He	187.172	ppb	1.3	120,972	2500	
As	75	74	He	7.006	ppb	1.6	2,729	500	
Se	78	74	H2	0.461	ppb	3.9	125	100	
Mo	95	103	He	0.559	ppb	7.5	857	100	
Ag	107	103	He	0.762	ppb	3.7	3,302	100	
Cd	111	103	He	0.507	ppb	6.9	368	1000	
[Cd]	111	103	NoGas	1.208	ppb	7.8	2,156	1000	
Sb	121	103	He	0.557	ppb	4.9	1,082	100	
Ba	138	159	He	238.664	ppb	0.8	954,458	2500	
W	182	159	NoGas	0.078	ppb	9.1	618	40	
Hg	201	159	NoGas	384.809	ppt	2.2	382	4000	
Tl	205	159	He	0.164	ppb	4.2	1,116	100	
Pb	208	159	NoGas	32.048	ppb	0.3	699,221	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	984,809	2.0	975380.393333333	Analog	101.0	
Sc	45	H2	2,370,155	0.3	2277280.85	Analog	104.1	
Sc	45	He	350,080	0.5	348790.796666667	Pulse	100.4	
Sc	45	NoGas	3,178,591	1.0	3065554.46333333	Analog	103.7	
Ge	74	H2	631,052	0.5	718037.156666667	Pulse	87.9	
Ge	74	He	182,660	0.8	204919.68	Pulse	89.1	
Ge	74	NoGas	722,289	0.5	806774.886666667	Pulse	89.5	
Rh	103	He	399,216	0.9	466758.146666667	Pulse	85.5	
Rh	103	NoGas	714,905	0.2	832259.633333333	Pulse	85.9	
Tb	159	He	554,562	0.8	600193.66	Pulse	92.4	
Tb	159	NoGas	1,419,366	0.5	1409745.36	Analog	100.7	
Bi	209	He	295,780	0.7	341192.286666667	Pulse	86.7	
Bi	209	NoGas	722,368	0.8	809398.153333333	Pulse	89.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV8**	Total Dilution:	1.0000
File Name:	104_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 19:42:33
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.030	ppb	1.1	97,391	40	100.08	
Na	23	45	He	4260.980	ppb	0.7	4,659,598	4000	106.52	
Mg	24	45	He	4494.546	ppb	0.6	2,722,290	4000	112.36	> +/- 10%
Al	27	45	He	4314.640	ppb	0.5	1,366,702	4000	107.87	
K	39	45	He	4428.535	ppb	0.7	2,298,989	4000	110.71	> +/- 10%
Ca	44	45	H2	4058.881	ppb	0.9	903,949	4000	101.47	
[Ca]	44	45	He	4222.709	ppb	0.2	109,221	4000	105.57	
Ti	47	45	NoGas	100.237	ppb	1.3	105,726	100	100.24	
V	51	74	He	100.451	ppb	0.4	365,080	100	100.45	
Cr	52	74	He	100.717	ppb	0.6	427,461	100	100.72	
Mn	55	74	He	105.913	ppb	0.3	300,935	100	105.91	
Fe	56	74	H2	4376.303	ppb	0.9	48,543,080	4000	109.41	
Co	59	74	He	103.728	ppb	0.5	602,008	100	103.73	
Ni	60	74	He	107.618	ppb	0.5	151,623	100	107.62	
Cu	65	74	He	104.769	ppb	0.4	184,858	100	104.77	
Zn	66	74	He	100.833	ppb	0.6	69,464	100	100.83	
As	75	74	He	100.429	ppb	0.7	41,305	100	100.43	
Se	78	74	H2	40.167	ppb	0.5	11,620	40	100.42	
Mo	95	103	He	41.059	ppb	1.5	65,723	40	102.65	
Ag	107	103	He	41.131	ppb	0.3	187,981	40	102.83	
Cd	111	103	He	99.359	ppb	0.6	74,827	100	99.36	
[Cd]	111	103	NoGas	98.932	ppb	0.8	182,318	100	98.93	
Sb	121	103	He	41.876	ppb	1.0	81,705	40	104.69	
Ba	138	159	He	108.851	ppb	0.7	446,368	100	108.85	
Hg	201	159	NoGas	706.928	ppt	4.8	696	800	88.37	> +/- 10%
Tl	205	159	He	40.009	ppb	0.1	275,679	40	100.02	
Pb	208	159	NoGas	92.991	ppb	0.5	2,024,772	100	92.99	

Mg, K
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Hg Q-31
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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,010,830	975380.393333333	103.6	
Sc	45	H2	Analog	0.6	2,292,351	2277280.85	100.7	
Sc	45	He	Pulse	0.3	335,585	348790.796666667	96.2	
Sc	45	NoGas	Analog	1.6	3,039,879	3065554.46333333	99.2	
Ge	74	H2	Pulse	0.2	680,376	718037.156666667	94.8	
Ge	74	He	Pulse	0.5	194,645	204919.68	95.0	
Ge	74	NoGas	Pulse	0.7	759,739	806774.886666667	94.2	
Rh	103	He	Pulse	0.2	421,697	466758.146666667	90.3	
Rh	103	NoGas	Pulse	0.7	744,167	832259.633333333	89.4	
Tb	159	He	Pulse	0.8	568,583	600193.66	94.7	
Tb	159	NoGas	Analog	0.4	1,417,507	1409745.36	100.6	
Bi	209	He	Pulse	0.6	312,875	341192.286666667	91.7	
Bi	209	NoGas	Pulse	0.6	740,673	809398.153333333	91.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB7**	Total Dilution:	1.0000
File Name:	105_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 19:47:11
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	75.8	36	
Na	23	45	He	6.224	ppb	4.2	11,179	
Mg	24	45	He	1.406	ppb	12.7	1,303	
Al	27	45	He	2.886	ppb	8.7	1,046	
K	39	45	He	5.118	ppb	8.7	29,809	
Ca	44	45	H2	2.606	ppb	5.3	1,047	
[Ca]	44	45	He	0.903	ppb	25.6	259	
Ti	47	45	NoGas	0.274	ppb	35.8	337	
V	51	74	He	-0.098	ppb	N/A	1,408	
Cr	52	74	He	0.010	ppb	169.0	292	
Mn	55	74	He	0.072	ppb	6.5	242	
Fe	56	74	H2	5.563	ppb	2.6	69,115	
Co	59	74	He	0.018	ppb	28.7	123	
Ni	60	74	He	0.007	ppb	231.8	70	
Cu	65	74	He	0.023	ppb	31.1	111	
Zn	66	74	He	0.035	ppb	25.6	63	
As	75	74	He	0.023	ppb	89.0	38	
Se	78	74	H2	0.034	ppb	49.6	12	
Mo	95	103	He	0.036	ppb	24.1	70	
Ag	107	103	He	0.010	ppb	4.2	56	
Cd	111	103	He	0.020	ppb	15.7	23	
[Cd]	111	103	NoGas	0.016	ppb	60.2	52	
Sb	121	103	He	0.087	ppb	13.0	236	
Ba	138	159	He	0.038	ppb	9.0	272	
Hg	201	159	NoGas	5.663	ppt	40.8	12	
Tl	205	159	He	0.009	ppb	30.8	76	
Pb	208	159	NoGas	0.044	ppb	8.5	1,767	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,046,215	975380.393333333	107.3	
Sc	45	H2	Analog	0.5	2,333,939	2277280.85	102.5	
Sc	45	He	Pulse	0.9	346,019	348790.796666667	99.2	
Sc	45	NoGas	Analog	1.4	3,136,815	3065554.46333333	102.3	
Ge	74	H2	Pulse	0.5	694,741	718037.156666667	96.8	
Ge	74	He	Pulse	1.2	199,336	204919.68	97.3	
Ge	74	NoGas	Pulse	1.2	786,254	806774.886666667	97.5	
Rh	103	He	Pulse	0.8	438,595	466758.146666667	94.0	
Rh	103	NoGas	Pulse	0.6	785,755	832259.633333333	94.4	
Tb	159	He	Pulse	0.5	575,016	600193.66	95.8	
Tb	159	NoGas	Analog	1.7	1,448,897	1409745.36	102.8	
Bi	209	He	Pulse	1.0	318,171	341192.286666667	93.3	
Bi	209	NoGas	Pulse	0.8	764,928	809398.153333333	94.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV9**	Total Dilution:	1.0000
File Name:	113_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:30:28
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.770	ppb	0.7	97,701	40	99.43	
Na	23	45	He	4258.035	ppb	1.0	4,628,417	4000	106.45	
Mg	24	45	He	4532.554	ppb	1.2	2,728,794	4000	113.31	> +/- 10%
Al	27	45	He	4281.238	ppb	2.8	1,347,821	4000	107.03	
K	39	45	He	4417.907	ppb	0.8	2,279,808	4000	110.45	> +/- 10%
Ca	44	45	H2	4094.523	ppb	1.3	916,438	4000	102.36	
[Ca]	44	45	He	4230.861	ppb	1.0	108,776	4000	105.77	
Ti	47	45	NoGas	98.740	ppb	1.2	104,681	100	98.74	
V	51	74	He	101.484	ppb	0.1	360,530	100	101.48	
Cr	52	74	He	101.831	ppb	0.6	422,473	100	101.83	
Mn	55	74	He	107.209	ppb	0.5	297,767	100	107.21	
Fe	56	74	H2	4393.858	ppb	0.9	48,765,555	4000	109.85	
Co	59	74	He	104.372	ppb	0.7	592,142	100	104.37	
Ni	60	74	He	107.661	ppb	0.6	148,274	100	107.66	
Cu	65	74	He	105.132	ppb	0.4	181,325	100	105.13	
Zn	66	74	He	101.107	ppb	1.1	68,086	100	101.11	
As	75	74	He	101.190	ppb	0.7	40,681	100	101.19	
Se	78	74	H2	40.368	ppb	1.2	11,684	40	100.92	
Mo	95	103	He	41.583	ppb	0.7	65,078	40	103.96	
Ag	107	103	He	41.234	ppb	0.4	184,257	40	103.08	
Cd	111	103	He	100.309	ppb	0.4	73,862	100	100.31	
[Cd]	111	103	NoGas	99.212	ppb	1.7	180,732	100	99.21	
Sb	121	103	He	41.976	ppb	1.0	80,081	40	104.94	
Ba	138	159	He	109.616	ppb	0.1	439,314	100	109.62	
Hg	201	159	NoGas	756.729	ppt	3.4	726	800	94.59	
Tl	205	159	He	39.938	ppb	0.4	268,939	40	99.84	
Pb	208	159	NoGas	93.571	ppb	0.5	1,987,166	100	93.57	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,020,640	975380.393333333	104.6	
Sc	45	H2	Analog	1.1	2,303,942	2277280.85	101.2	
Sc	45	He	Pulse	1.0	333,587	348790.796666667	95.6	
Sc	45	NoGas	Analog	0.7	3,055,003	3065554.46333333	99.7	
Ge	74	H2	Pulse	0.1	680,754	718037.156666667	94.8	
Ge	74	He	Pulse	0.2	190,269	204919.68	92.9	
Ge	74	NoGas	Pulse	0.5	748,643	806774.886666667	92.8	
Rh	103	He	Pulse	0.4	412,319	466758.146666667	88.3	
Rh	103	NoGas	Pulse	0.5	735,632	832259.633333333	88.4	
Tb	159	He	Pulse	0.5	555,674	600193.66	92.6	
Tb	159	NoGas	Analog	0.8	1,382,588	1409745.36	98.1	
Bi	209	He	Pulse	0.4	305,154	341192.286666667	89.4	
Bi	209	NoGas	Pulse	0.5	730,488	809398.153333333	90.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB8**	Total Dilution:	1.0000
File Name:	114_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:35:05
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	99.0	38	
Na	23	45	He	15.150	ppb	7.1	19,783	
Mg	24	45	He	2.143	ppb	20.4	1,636	
Al	27	45	He	3.940	ppb	14.6	1,290	
K	39	45	He	10.310	ppb	40.7	30,312	
Ca	44	45	H2	7.966	ppb	8.2	2,236	
[Ca]	44	45	He	7.609	ppb	20.6	407	
Ti	47	45	NoGas	0.249	ppb	19.9	305	
V	51	74	He	0.117	ppb	62.9	2,046	
Cr	52	74	He	0.022	ppb	44.1	318	
Mn	55	74	He	0.125	ppb	16.8	370	
Fe	56	74	H2	6.575	ppb	3.3	78,972	
Co	59	74	He	0.018	ppb	66.3	114	
Ni	60	74	He	0.010	ppb	240.3	68	
Cu	65	74	He	0.058	ppb	8.4	162	
Zn	66	74	He	0.176	ppb	21.3	151	
As	75	74	He	0.063	ppb	56.1	51	
Se	78	74	H2	0.042	ppb	8.3	14	
Mo	95	103	He	0.032	ppb	36.5	59	
Ag	107	103	He	0.013	ppb	39.1	64	
Cd	111	103	He	0.024	ppb	65.1	24	
[Cd]	111	103	NoGas	0.030	ppb	2.3	76	
Sb	121	103	He	0.087	ppb	31.2	220	
Ba	138	159	He	0.076	ppb	23.7	399	
Hg	201	159	NoGas	1.732	ppt	134.0	8	
Tl	205	159	He	0.010	ppb	38.5	73	
Pb	208	159	NoGas	0.056	ppb	4.8	1,975	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,035,981	975380.393333333	106.2	
Sc	45	H2	Analog	0.3	2,307,700	2277280.85	101.3	
Sc	45	He	Pulse	7.5	323,262	348790.796666667	92.7	
Sc	45	NoGas	Analog	1.2	3,094,627	3065554.46333333	100.9	
Ge	74	H2	Pulse	0.3	680,912	718037.156666667	94.8	
Ge	74	He	Pulse	7.9	186,319	204919.68	90.9	
Ge	74	NoGas	Pulse	0.7	765,815	806774.886666667	94.9	
Rh	103	He	Pulse	7.4	411,767	466758.146666667	88.2	
Rh	103	NoGas	Pulse	0.2	764,522	832259.633333333	91.9	
Tb	159	He	Pulse	7.4	538,471	600193.66	89.7	
Tb	159	NoGas	Analog	1.2	1,405,405	1409745.36	99.7	
Bi	209	He	Pulse	7.4	299,537	341192.286666667	87.8	
Bi	209	NoGas	Pulse	0.2	746,567	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLC**	Total Dilution:	1.0000
File Name:	115CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:39:47
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.179	ppb	8.4	461	99.44		
Na	23	45	He	22.443	ppb	1.3	28,460	249.37	R-11	< MRL
Mg	24	45	He	10.742	ppb	5.8	6,891	119.36		
Al	27	45	He	11.863	ppb	1.6	3,844	131.81	R-11	
K	39	45	He	16.143	ppb	3.5	34,441	179.37	R-11	
Ca	44	45	H2	13.137	ppb	2.3	3,376	145.97	R-11	< MRL
[Ca]	44	45	He	12.092	ppb	13.8	538	134.36	R-11	
Ti	47	45	NoGas	0.356	ppb	9.2	415	197.78	R-11	
V	51	74	He	0.305	ppb	5.0	2,822	169.44	R-11	
Cr	52	74	He	0.183	ppb	2.5	1,013	101.67		
Mn	55	74	He	0.268	ppb	8.1	792	148.89	R-11	< MRL
Fe	56	74	H2	13.071	ppb	0.4	150,711	145.23	R-11	
Co	59	74	He	0.196	ppb	7.2	1,151	108.89		
Ni	60	74	He	0.178	ppb	10.3	308	98.89		
Cu	65	74	He	0.211	ppb	20.2	439	117.22		
Zn	66	74	He	0.308	ppb	28.5	249	171.11	R-11	< MRL
As	75	74	He	0.223	ppb	20.9	119	123.89		
Se	78	74	H2	0.219	ppb	16.6	65	121.67		
Mo	95	103	He	0.170	ppb	14.3	286	94.44		
Ag	107	103	He	0.204	ppb	7.2	953	113.33		
Cd	111	103	He	0.171	ppb	2.0	138	95		
[Cd]	111	103	NoGas	0.165	ppb	18.4	327	91.67		
Sb	121	103	He	0.193	ppb	12.8	439	107.22		
Ba	138	159	He	0.230	ppb	5.7	1,042	127.78		
Hg	201	159	NoGas	6.958	ppt	27.3	13	96.64		
Tl	205	159	He	0.193	ppb	2.2	1,329	107.22		
Pb	208	159	NoGas	0.211	ppb	7.6	5,225	117.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,034,630	975380.393333333	106.1	
Sc	45	H2	Analog	0.8	2,294,596	2277280.85	100.8	
Sc	45	He	Pulse	0.4	334,362	348790.796666667	95.9	
Sc	45	NoGas	Analog	0.4	3,064,125	3065554.46333333	100.0	
Ge	74	H2	Pulse	0.6	679,262	718037.156666667	94.6	
Ge	74	He	Pulse	0.7	193,939	204919.68	94.6	
Ge	74	NoGas	Pulse	0.8	755,227	806774.886666667	93.6	
Rh	103	He	Pulse	0.9	427,788	466758.146666667	91.7	
Rh	103	NoGas	Pulse	0.3	755,998	832259.633333333	90.8	
Tb	159	He	Pulse	0.7	561,875	600193.66	93.6	
Tb	159	NoGas	Analog	0.7	1,382,317	1409745.36	98.1	
Bi	209	He	Pulse	0.9	312,766	341192.286666667	91.7	
Bi	209	NoGas	Pulse	0.8	748,328	809398.153333333	92.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLD**	Total Dilution:	1.0000
File Name:	116_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:44:27
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.876	ppb	5.8	2,188	97.33	
Na	23	45	He	59.544	ppb	1.0	68,767	132.32	R-11
Mg	24	45	He	49.267	ppb	1.5	30,103	109.48	
Al	27	45	He	48.980	ppb	1.3	15,539	108.84	
K	39	45	He	53.572	ppb	2.8	53,516	119.05	
Ca	44	45	H2	47.785	ppb	0.8	11,001	106.19	
[Ca]	44	45	He	55.327	ppb	1.5	1,648	122.95	
Ti	47	45	NoGas	1.042	ppb	10.1	1,136	115.78	
V	51	74	He	1.077	ppb	1.0	5,570	119.67	
Cr	52	74	He	0.938	ppb	6.7	4,179	104.22	
Mn	55	74	He	0.986	ppb	4.8	2,806	109.56	
Fe	56	74	H2	48.940	ppb	0.6	546,489	108.76	
Co	59	74	He	0.937	ppb	5.0	5,408	104.11	
Ni	60	74	He	0.904	ppb	3.2	1,319	100.44	
Cu	65	74	He	1.004	ppb	7.0	1,820	111.56	
Zn	66	74	He	0.961	ppb	4.5	693	106.78	
As	75	74	He	0.987	ppb	9.9	430	109.67	
Se	78	74	H2	0.942	ppb	9.7	273	104.67	
Mo	95	103	He	0.883	ppb	7.3	1,447	98.11	
Ag	107	103	He	0.930	ppb	2.6	4,325	103.33	
Cd	111	103	He	0.914	ppb	6.7	706	101.56	
[Cd]	111	103	NoGas	0.904	ppb	7.7	1,705	100.44	
Sb	121	103	He	0.841	ppb	4.4	1,726	93.44	
Ba	138	159	He	1.027	ppb	2.7	4,260	114.11	
Hg	201	159	NoGas	32.299	ppt	6.0	37	89.72	
Tl	205	159	He	0.889	ppb	2.3	6,046	98.78	
Pb	208	159	NoGas	0.875	ppb	1.3	19,600	97.22	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,029,814	975380.393333333	105.6	
Sc	45	H2	Analog	0.9	2,274,940	2277280.85	99.9	
Sc	45	He	Pulse	0.4	333,966	348790.796666667	95.7	
Sc	45	NoGas	Analog	0.6	3,042,251	3065554.46333333	99.2	
Ge	74	H2	Pulse	0.4	677,537	718037.156666667	94.4	
Ge	74	He	Pulse	0.9	192,808	204919.68	94.1	
Ge	74	NoGas	Pulse	0.9	751,840	806774.886666667	93.2	
Rh	103	He	Pulse	0.5	428,616	466758.146666667	91.8	
Rh	103	NoGas	Pulse	0.5	753,519	832259.633333333	90.5	
Tb	159	He	Pulse	1.0	559,898	600193.66	93.3	
Tb	159	NoGas	Analog	1.2	1,402,307	1409745.36	99.5	
Bi	209	He	Pulse	1.0	313,975	341192.286666667	92.0	
Bi	209	NoGas	Pulse	0.6	746,391	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLE**	Total Dilution:	1.0000
File Name:	117CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:49:08
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.726	ppb	4.5	4,231	95.89	
Na	23	45	He	107.572	ppb	0.9	119,402	119.52	
Mg	24	45	He	96.187	ppb	1.0	57,614	106.87	
Al	27	45	He	95.728	ppb	1.1	29,877	106.36	
K	39	45	He	102.508	ppb	0.7	77,479	113.9	
Ca	44	45	H2	92.847	ppb	0.8	20,716	103.16	
[Ca]	44	45	He	94.145	ppb	0.9	2,610	104.61	
Ti	47	45	NoGas	1.940	ppb	9.1	2,069	107.78	
V	51	74	He	1.976	ppb	0.2	8,726	109.78	
Cr	52	74	He	1.834	ppb	3.1	7,887	101.89	
Mn	55	74	He	1.948	ppb	4.5	5,475	108.22	
Fe	56	74	H2	94.489	ppb	0.3	1,042,271	104.99	
Co	59	74	He	1.835	ppb	1.1	10,488	101.94	
Ni	60	74	He	1.883	ppb	1.4	2,665	104.61	
Cu	65	74	He	2.160	ppb	1.0	3,813	120	
Zn	66	74	He	2.120	ppb	6.1	1,472	117.78	
As	75	74	He	1.837	ppb	4.4	770	102.06	
Se	78	74	H2	1.811	ppb	4.0	520	100.61	
Mo	95	103	He	1.856	ppb	3.2	2,991	103.11	
Ag	107	103	He	1.843	ppb	0.7	8,460	102.39	
Cd	111	103	He	1.906	ppb	3.4	1,448	105.89	
[Cd]	111	103	NoGas	1.804	ppb	0.7	3,369	100.22	
Sb	121	103	He	1.796	ppb	4.8	3,572	99.78	
Ba	138	159	He	2.007	ppb	1.4	8,219	111.5	
Hg	201	159	NoGas	75.880	ppt	10.8	78	105.39	
Tl	205	159	He	1.802	ppb	0.4	12,243	100.11	
Pb	208	159	NoGas	1.744	ppb	1.5	37,745	96.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,014,782	975380.393333333	104.0	
Sc	45	H2	Analog	1.6	2,248,934	2277280.85	98.8	
Sc	45	He	Pulse	0.3	329,585	348790.796666667	94.5	
Sc	45	NoGas	Analog	1.0	3,018,450	3065554.46333333	98.5	
Ge	74	H2	Pulse	0.5	672,829	718037.156666667	93.7	
Ge	74	He	Pulse	0.9	191,377	204919.68	93.4	
Ge	74	NoGas	Pulse	1.0	748,853	806774.886666667	92.8	
Rh	103	He	Pulse	0.5	423,233	466758.146666667	90.7	
Rh	103	NoGas	Pulse	0.9	750,084	832259.633333333	90.1	
Tb	159	He	Pulse	0.5	560,151	600193.66	93.3	
Tb	159	NoGas	Analog	1.6	1,381,849	1409745.36	98.0	
Bi	209	He	Pulse	1.0	311,743	341192.286666667	91.4	
Bi	209	NoGas	Pulse	0.4	746,346	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLF**	Total Dilution:	1.0000
File Name:	118CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:53:49
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.608	ppb	3.2	8,791	100.22	
Na	23	45	He	199.377	ppb	0.1	218,874	110.76	
Mg	24	45	He	190.856	ppb	1.2	114,418	106.03	
Al	27	45	He	187.940	ppb	0.4	58,820	104.41	
K	39	45	He	196.596	ppb	0.6	125,451	109.22	
Ca	44	45	H2	182.480	ppb	1.5	40,489	101.38	
[Ca]	44	45	He	191.072	ppb	3.4	5,090	106.15	
Ti	47	45	NoGas	3.765	ppb	1.6	3,962	104.58	
V	51	74	He	3.869	ppb	1.2	15,399	107.47	
Cr	52	74	He	3.663	ppb	1.8	15,455	101.75	
Mn	55	74	He	3.881	ppb	2.2	10,832	107.81	
Fe	56	74	H2	197.472	ppb	1.0	2,171,341	109.71	
Co	59	74	He	3.647	ppb	0.7	20,750	101.31	
Ni	60	74	He	3.849	ppb	0.9	5,366	106.92	
Cu	65	74	He	3.834	ppb	5.0	6,688	106.5	
Zn	66	74	He	3.804	ppb	5.7	2,602	105.67	
As	75	74	He	3.865	ppb	3.6	1,583	107.36	
Se	78	74	H2	3.700	ppb	1.7	1,060	102.78	
Mo	95	103	He	3.660	ppb	2.2	5,847	101.67	
Ag	107	103	He	3.619	ppb	1.4	16,487	100.53	
Cd	111	103	He	3.714	ppb	1.8	2,794	103.17	
[Cd]	111	103	NoGas	3.628	ppb	4.3	6,711	100.78	
Sb	121	103	He	3.653	ppb	1.6	7,154	101.47	
Ba	138	159	He	4.088	ppb	3.3	16,486	113.56	
Hg	201	159	NoGas	132.855	ppt	6.2	132	92.26	
Tl	205	159	He	3.628	ppb	2.0	24,434	100.78	
Pb	208	159	NoGas	3.489	ppb	1.5	74,801	96.92	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,010,630	975380.393333333	103.6	
Sc	45	H2	Analog	1.0	2,259,965	2277280.85	99.2	
Sc	45	He	Pulse	0.4	331,034	348790.796666667	94.9	
Sc	45	NoGas	Analog	0.7	3,006,201	3065554.46333333	98.1	
Ge	74	H2	Pulse	0.3	672,688	718037.156666667	93.7	
Ge	74	He	Pulse	1.0	190,651	204919.68	93.0	
Ge	74	NoGas	Pulse	0.9	749,087	806774.886666667	92.8	
Rh	103	He	Pulse	1.0	420,176	466758.146666667	90.0	
Rh	103	NoGas	Pulse	0.6	744,701	832259.633333333	89.5	
Tb	159	He	Pulse	0.8	555,592	600193.66	92.6	
Tb	159	NoGas	Analog	0.6	1,382,329	1409745.36	98.1	
Bi	209	He	Pulse	0.3	311,974	341192.286666667	91.4	
Bi	209	NoGas	Pulse	0.6	745,921	809398.153333333	92.2	

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Sequence 9K04033

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9K04033	Instrument:	ICPMS5
Date:	11/04/19 10:05	Calibration:	UNASSIGNED

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
9K04033-CAL1	Water	QC	QC			A19J130	A19J368
9K04033-CAL2	Water	QC	QC			A19J130	A19J369
9K04033-CAL3	Water	QC	QC			A19J130	A19J370
9K04033-CAL4	Water	QC	QC			A19J130	A19J371
9K04033-CAL5	Water	QC	QC			A19J130	A19J373
9K04033-CAL6	Water	QC	QC			A19J130	A19J372
9K04033-CAL7	Water	QC	QC			A19J130	A19J374
9K04033-CAL8	Water	QC	QC			A19J130	A19J188
9K04033-CAL9	Water	QC	QC			A19J130	A19J189
9K04033-ICV1	Water	QC	QC			A19J130	A19J138
9K04033-ICB1	Water	QC	QC			A19J130	
9K04033-ICB2	Water	QC	QC			A19J130	
9K04033-CRL1	Water	QC	QC			A19J130	A19J368
9K04033-CRL2	Water	QC	QC			A19J130	A19J369
9K04033-CRL3	Water	QC	QC			A19J130	A19J370
9K04033-IFA1	Water	QC	QC			A19J130	A19J465
9K04033-IFB1	Water	QC	QC			A19J130	A19J466
A9J1115-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-02RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
9101831-DUP2	Water	QC	QC		9101831	A19J130	
9101831-MS3	Water	QC	QC		9101831	A19J130	
A9J1115-03RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-04RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-05RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
A9J1116-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1116-02RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
A9J1117-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
9K04033-CCV1	Water	QC	QC			A19J130	A19J138
9K04033-CCB1	Water	QC	QC			A19J130	
A9J1117-02RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
9101831-MS4	Water	QC	QC		9101831	A19J130	
A9J1133-01RE1	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1076-01RE1	Water	Mo (Molybdenum) - 200.8 - Total		11/05/19	9101831	A19J130	
9110369-BLK2	Sediment	QC	QC		9110369	A19J130	
9110369-BS2	Sediment	QC	QC		9110369	A19J130	
A9J0954-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
A9J0954-02RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
A9J1007-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9110369	A19J130	
A9J1137-06RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
9K04033-CCV2	Water	QC	QC			A19J130	A19J138
9K04033-CCB2	Water	QC	QC			A19J130	
9110369-DUP2	Sediment	QC	QC		9110369	A19J130	
9110369-MS2	Sediment	QC	QC		9110369	A19J130	
A9J1137-12RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1137-18RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1137-24RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1006-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
A9J1006-02RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9J1029-02RE2	Water	Hg (Mercury) - 6020 - Total	NWFF	11/04/19	9101795	A19J130	
A9J1061-02RE2	Water	K (Potassium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
9K04033-CCV3	Water	QC	QC			A19J130	A19J138
9K04033-CCV4	Water	QC	QC			A19J130	A19J138
9K04033-CCB3	Water	QC	QC			A19J130	
9101835-BLK1	Water	QC	QC		9101835	A19J130	
9101835-BS1	Water	QC	QC		9101835	A19J130	
A9J1115-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9110416-BLK1	Soil	QC	QC		9110416	A19J130	
9110416-BS1	Soil	QC	QC		9110416	A19J130	
A9K0017-04	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
9110416-DUP1	Soil	QC	QC		9110416	A19J130	
9110416-MS1	Soil	QC	QC		9110416	A19J130	
A9K0052-05	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110416	A19J130	
A9K0052-10	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110416	A19J130	
9K04033-CCV5	Water	QC	QC			A19J130	A19J138
9K04033-CCB4	Water	QC	QC			A19J130	
9K04033-CRL4	Water	QC	QC			A19J130	A19J368
9K04033-CRL5	Water	QC	QC			A19J130	A19J369
9K04033-CRL6	Water	QC	QC			A19J130	A19J370
A9J0579-13	Soil	Cd (Cadmium) - 6020 - Total		11/11/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110416	A19J130	
A9K0017-01	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

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Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
A9K0017-03	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
A9J1115-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1115-03	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1115-04	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9101835-DUP1	Water	QC	QC		9101835	A19J130	
9101835-MS1	Water	QC	QC		9101835	A19J130	
A9J1115-05	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1116-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9K04033-CCV6	Water	QC	QC			A19J130	A19J138
9K04033-CCB5	Water	QC	QC			A19J130	
A9J1116-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	

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Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1117-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1117-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9110409-BLK1	Solid	QC	QC		9110409	A19J130	
9110409-BS1	Solid	QC	QC		9110409	A19J130	
A9J1112-01	Solid	Al (Aluminum) - 6020 - Total		11/13/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	"	11/13/19	9110409	A19J130	
A9J1123-01	Solid	Ag (Silver) - 6020 - Total		11/06/19	9110409	A19J130	
"	Solid	Al (Aluminum) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Be (Beryllium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Co (Cobalt) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Mo (Molybdenum) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Ni (Nickel) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Sb (Antimony) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Tl (Thallium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	V (Vanadium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	(QC Source)		9110409	A19J130	
9110409-DUP1	Solid	QC	QC		9110409	A19J130	
9110409-MS1	Solid	QC	QC		9110409	A19J130	
A9K0045-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
9K04033-CCV7	Water	QC	QC			A19J130	A19J138
9K04033-CCB6	Water	QC	QC			A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

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Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9K0046-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
A9K0048-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Be (Beryllium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Co (Cobalt) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Mo (Molybdenum) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ni (Nickel) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Sb (Antimony) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Tl (Thallium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	V (Vanadium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	"	11/08/19	9110409	A19J130	
A9K0051-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
9110442-BLK1	Water	QC	QC		9110442	A19J130	
9110442-BS1	Water	QC	QC		9110442	A19J130	
A9J0579-08	Water	Cd (Cadmium) - 6020 - Total		11/11/19	9110442	A19J130	
"	Water	Cr (Chromium) - 6020 - Total	"	11/11/19	9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/11/19	9110442	A19J130	
A9J1131-01RE1	Water	Ag (Silver) - 200.8 - Total		11/13/19	9110442	A19J130	
A9K0022-01	Water	Ag (Silver) - 200.8 - Total		11/14/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	"	11/14/19	9110442	A19J130	
A9K0022-02	Water	Ag (Silver) - 200.8 - Total		11/14/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	"	11/14/19	9110442	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9K0044-01	Water	Cu (Copper) - 6020 - Total		11/08/19	9110442	A19J130	
"	Water	Fe (Iron) - 6020 - Total	"	11/08/19	9110442	A19J130	
"	Water	Hg (Mercury) - 6020 - Total	"	11/08/19	9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/08/19	9110442	A19J130	
9K04033-CCV8	Water	QC	QC			A19J130	A19J138
9K04033-CCB7	Water	QC	QC			A19J130	
9K04033-CCB8	Water	QC	QC			A19J130	
A9K0050-01	Water	Ag (Silver) - 6020 - Total		11/06/19	9110442	A19J130	
"	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	As (Arsenic) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Ba (Barium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Cr (Chromium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Fe (Iron) - 6020 - Total	(QC Source)		9110442	A19J130	
"	Water	Hg (Mercury) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Se (Selenium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9110442	A19J130	
9110442-DUP1	Water	QC	QC		9110442	A19J130	
9110442-MS1	Water	QC	QC		9110442	A19J130	
9K04033-CCV9	Water	QC	QC			A19J130	A19J138
9K04033-CCB9	Water	QC	QC			A19J130	
9K04033-CRL7	Water	QC	QC			A19J130	A19J368
9K04033-CRL8	Water	QC	QC			A19J130	A19J369
9K04033-CRL9	Water	QC	QC			A19J130	A19J370
9K04033-CRLA	Water	QC	QC			A19J130	A19J371

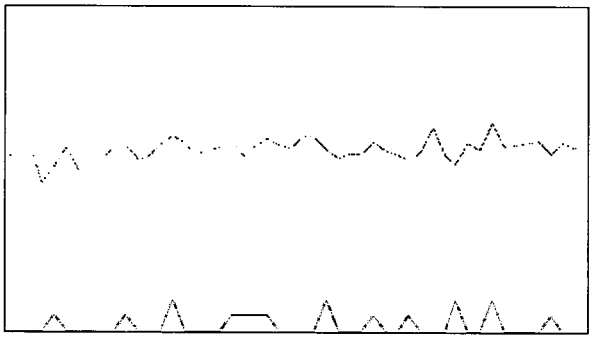
Data Entered By: ESS 11/5/19 Comments:

Data Reviewed By: [signature] 11/05/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K04033.b
Acq. Date-Time	11/4/2019 10:52
Report Comment	9K04033 Std Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	564	5640.09	1000.00	
89	5000	2732	27322.67	1000.00	
78	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	6.03	5.00	[F]
89	4.38	5.00	
78	184.20		

see EPA report for RSDs
ESS 11/5/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	717	7171.25	1000.00	
89	1000	681	6805.94	1000.00	
205	1000	804	8036.44	1000.00	
75	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	6.76	5.00	[F]
89	7.09	5.00	[F]
205	6.33	5.00	[F]
75	44.58		

See EPA report for RSDs ESS 11/5/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7	2000	1258	12575.45	1000.00	
89	5000	2829	28293.61	1000.00	
205	2000	1701	17014.30	1000.00	
102	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	
89		-	
205		-	
102		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	3.98	5.00	
89	3.34	5.00	
205	4.21	5.00	
102	342.56		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.226 %	✓
Ratio (2+)	69/138	2.026 %	✓

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.413

Tune Report

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K04033.b
Acq. Date-Time	11/4/2019 11:01
Report Comment	9K04033 EPA Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		2982	29818.44	1000.00	
89		14702	147015.83	1000.00	
78		10			

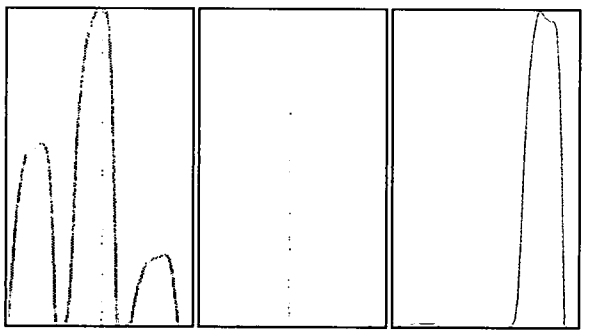
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.21	5.00	
89	1.63	5.00	
78	30.48		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	2910	3048	3033	2913	3004
89	14441	14890	14816	14444	14916
78	7	15	12	8	12

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	519.54	59.05	58.9 - 59.1		0.60	0.771	0.900	

Tune Report

89	2543.12	89.00	88.9 - 89.1	0.59	0.758	0.900
78			-			

Integration Time [sec] 0.1 **Acquisition Time [sec]** 100.35 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		4052	40515.49	1000.00	
89		3837	38368.54	1000.00	
205		4472	44724.71	1000.00	
75		30			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.00	5.00	
89	1.74	5.00	
205	1.55	5.00	
75	22.55		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			

Tune Report

205
75

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	3913	4081	4074	4128	4062
89	3728	3839	3871	3840	3906
205	4408	4410	4466	4572	4508
75	21	39	33	33	26

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	707.11	59.00	58.9 - 59.1		0.59	0.767	0.900	
89	676.90	89.05	88.9 - 89.1		0.59	0.741	0.900	
205	786.91	205.05	204.9 - 205.1		0.57	0.779	0.900	
75	4.85	75.10	-		0.63	0.696		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7		7371	73707.23	1000.00	
89		15949	159489.58	1000.00	
205		9511	95105.39	1000.00	
102		2			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1.58	5.00	
89	0.79	5.00	
205	0.91	5.00	
102	62.36		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
7	7488	7283	7310	7267	7505
89	15910	16021	15873	15812	16129
205	9451	9525	9608	9397	9572
102	1	2	2	1	3

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	1235.73	7.00	6.9 - 7.1		0.62	0.784	0.900	
89	2759.80	89.05	88.9 - 89.1		0.60	0.760	0.900	
205	1669.86	205.05	204.9 - 205.1		0.58	0.781	0.900	
102			-					

Integration Time [sec] 0.1 **Acquisition Time [sec]** 135.3 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-50 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V

Tune Report

He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

P/A Factor Tuning Report

========== Current Sample ==========
Sample Name: 9K04033-ICV1
Data File: 013_ICV.d
Acquired: 11/4/2019 12:26:33

========= Detector Parameters and P/A Factors =========
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:55:24

Mass[u]	Element	P/A Factor
6	Li	0.090004
7	Li	0.094505
11	B	0.102443
28	Si	0.098675
31	P	0.124270
45	Sc	0.126554
74	Ge	0.139907
88	Sr	0.140736
90	Zr	0.138257
103	Rh	0.144407
118	Sn	0.146234
159	Tb	0.148391
209	Bi	0.152692
197	Au	Signal too low
238	U	Signal too low

=== Independent Detector Parameters and P/A Factors ===
Tune Mode Name: H2
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/4/2019 12:06:05

Mass[u]	Element	P/A Factor
23	Na	0.114595
44	Ca	0.129744
45	Sc	0.128332
56	Fe	0.136471
57	Fe	0.134717
74	Ge	0.141524
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/4/2019 12:21:13

Mass[u]	Element	P/A Factor
23	Na	0.114467
24	Mg	0.119411
27	Al	0.124308
39	K	0.127179
44	Ca	0.126980
51	V	0.129829
52	Cr	0.132309
55	Mn	0.134308
59	Co	0.137314
60	Ni	0.138418
65	Cu	0.140870
66	Zn	0.138696
103	Rh	0.144968

107	Ag	0.146496
111	Cd	0.143768
138	Ba	0.145644
159	Tb	0.150764
205	Tl	0.150316
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low
121	Sb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/4/2019 12:17:58

Mass[u]	Element	P/A Factor
6	Li	0.089568
45	Sc	0.127612
47	Ti	0.127101
65	Cu	0.140445
74	Ge	0.141951
103	Rh	0.144568
111	Cd	0.144517
159	Tb	0.150054
182	W	0.146914
206	Pb	0.151220
207	Pb	0.152160
208	Pb	0.153333
209	Bi	0.156296
7	Li	Signal too low
9	Be	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Created: 11/5/2019 10:21:21

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Rinse
Acq Time:	11/4/2019 11:27:11	I.S. Reference File:	---
Comment:	**cal blank check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		859	0.18	
Na	23	45	He		ppb		8,558	90	
Mg	24	45	He		ppb		719	90	
Al	27	45	He		ppb		450	45	
K	39	45	He		ppb		42,664	90	
Ca	44	45	H2		ppb		891	90	
[Ca]	44	45	He		ppb		382		
Ti	47	45	NoGas		ppb		97	0.9	
V	51	74	He		ppb		3,070	0.9	
Cr	52	74	He		ppb		1,907	0.9	
Mn	55	74	He		ppb		316	0.9	
Fe	56	74	H2		ppb		47,035	45	
Co	59	74	He		ppb		1,610	0.18	
Ni	60	74	He		ppb		750	0.9	
Cu	65	74	He		ppb		251	0.9	
Zn	66	74	He		ppb		244	3.6	
As	75	74	He		ppb		47	0.9	
Se	78	74	H2		ppb		1	0.9	
Mo	95	103	He		ppb		67	0.9	
Ag	107	103	He		ppb		0	0.18	
Cd	111	103	He		ppb		5		
[Cd]	111	103	NoGas		ppb		21	0.18	
Sb	121	103	He		ppb		63	0.9	
Ba	138	159	He		ppb		2,486	0.9	
W	182	159	NoGas		ppb		230		
Hg	201	159	NoGas		ppt		2	72	
Tl	205	159	He		ppb		1,879	0.18	
Pb	208	159	NoGas		ppb		853	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	269,654	168.9	0	Mix		Note RSD; OK < 20%
Sc	45	H2	3,086	1.5	0	Pulse		
Sc	45	He	98	30.6	0	Pulse		Note RSD; OK < 20%
Sc	45	NoGas	789,644	172.8	0	Mix		Note RSD; OK < 20%
Ge	74	H2	280	4.0	0	Pulse		
Ge	74	He	78	5.4	0	Pulse		
Ge	74	NoGas	225,259	172.9	0	Pulse		Note RSD; OK < 20%
Rh	103	He	280	8.3	0	Pulse		
Rh	103	NoGas	228,647	172.8	0	Pulse		Note RSD; OK < 20%
Tb	159	He	32	48.9	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	314,667	173.2	0	Mix		Note RSD; OK < 20%
Bi	209	He	140	15.6	0	Pulse		Note RSD; OK < 20%
Bi	209	NoGas	207,215	172.8	0	Pulse		Note RSD; OK < 20%

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Rinse
Acq Time:	11/4/2019 11:31:55	I.S. Reference File:	---
Comment:	**cal blank check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		11	0.18	
Na	23	45	He		ppb		6,222	90	
Mg	24	45	He		ppb		524	90	
Al	27	45	He		ppb		129	45	
K	39	45	He		ppb		44,209	90	
Ca	44	45	H2		ppb		677	90	
[Ca]	44	45	He		ppb		404		
Ti	47	45	NoGas		ppb		53	0.9	
V	51	74	He		ppb		3,026	0.9	
Cr	52	74	He		ppb		437	0.9	
Mn	55	74	He		ppb		116	0.9	
Fe	56	74	H2		ppb		13,995	45	
Co	59	74	He		ppb		54	0.18	
Ni	60	74	He		ppb		67	0.9	
Cu	65	74	He		ppb		43	0.9	
Zn	66	74	He		ppb		57	3.6	
As	75	74	He		ppb		56	0.9	
Se	78	74	H2		ppb		4	0.9	
Mo	95	103	He		ppb		11	0.9	
Ag	107	103	He		ppb		2	0.18	
Cd	111	103	He		ppb		1		
[Cd]	111	103	NoGas		ppb		3	0.18	
Sb	121	103	He		ppb		48	0.9	
Ba	138	159	He		ppb		51	0.9	
W	182	159	NoGas		ppb		50		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		17	0.18	
Pb	208	159	NoGas		ppb		747	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,338,878	0.6	0	Analog		
Sc	45	H2	2,824,616	0.1	0	Analog		
Sc	45	He	492,223	0.7	0	Pulse		
Sc	45	NoGas	4,077,198	1.6	0	Analog		
Ge	74	H2	938,982	0.5	0	Pulse		
Ge	74	He	284,034	1.2	0	Pulse		
Ge	74	NoGas	1,119,503	0.8	0	Pulse		
Rh	103	He	621,063	0.8	0	Pulse		
Rh	103	NoGas	1,143,327	0.1	0	Pulse		
Tb	159	He	793,862	0.7	0	Pulse		
Tb	159	NoGas	1,645,165	2.3	0	Analog		
Bi	209	He	449,578	0.8	0	Pulse		
Bi	209	NoGas	1,042,077	0.3	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalBlk
Acq Time:	11/4/2019 11:36:38		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	23	71.4	
Na	23	45	He	0	ppb	N/A	6,027	1.9	
Mg	24	45	He	0	ppb	N/A	537	10.9	
Al	27	45	He	0	ppb	N/A	113	10.6	
K	39	45	He	0	ppb	N/A	44,462	2.0	
Ca	44	45	H2	0	ppb	N/A	539	7.7	
[Ca]	44	45	He	0	ppb	N/A	384	10.3	
Ti	47	45	NoGas	0	ppb	N/A	35	24.7	
V	51	74	He	0	ppb	N/A	3,040	4.5	
Cr	52	74	He	0	ppb	N/A	373	6.2	
Mn	55	74	He	0	ppb	N/A	138	12.4	
Fe	56	74	H2	0	ppb	N/A	9,917	4.4	
Co	59	74	He	0	ppb	N/A	38	58.7	
Ni	60	74	He	0	ppb	N/A	43	33.5	
Cu	65	74	He	0	ppb	N/A	39	40.5	
Zn	66	74	He	0	ppb	N/A	38	18.4	
As	75	74	He	0	ppb	N/A	57	14.4	
Se	78	74	H2	0	ppb	N/A	6	112.1	
Mo	95	103	He	0	ppb	N/A	6	91.6	
Ag	107	103	He	0	ppb	N/A	1	173.2	
Cd	111	103	He	0	ppb	N/A	4	63.0	
[Cd]	111	103	NoGas	0	ppb	N/A	6	120.7	
Sb	121	103	He	0	ppb	N/A	40	52.0	
Ba	138	159	He	0	ppb	N/A	66	33.1	
W	182	159	NoGas	0	ppb	N/A	22	110.6	
Hg	201	159	NoGas	0	ppt	N/A	6	22.2	
Tl	205	159	He	0	ppb	N/A	16	24.8	
Pb	208	159	NoGas	0	ppb	N/A	781	7.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,328,006	1.5	1328005.7	Analog	100.0	
Sc	45	H2	2,880,502	0.5	2880501.55333333	Analog	100.0	
Sc	45	He	495,175	0.4	495174.883333333	Pulse	100.0	
Sc	45	NoGas	4,124,212	1.8	4124211.75	Analog	100.0	
Ge	74	H2	948,676	0.2	948676.153333333	Pulse	100.0	
Ge	74	He	284,256	1.0	284255.65	Pulse	100.0	
Ge	74	NoGas	1,128,393	0.9	1128393.34666667	Pulse	100.0	
Rh	103	He	616,443	1.3	616442.69	Pulse	100.0	
Rh	103	NoGas	1,143,555	0.4	1143555.12333333	Pulse	100.0	
Tb	159	He	794,731	0.4	794731.056666667	Pulse	100.0	
Tb	159	NoGas	1,665,549	0.7	1665548.91666667	Analog	100.0	
Bi	209	He	446,100	0.6	446099.653333333	Pulse	100.0	
Bi	209	NoGas	1,052,566	0.9	1052566.13	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:41:19		
Comment:	**A19J368 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.166	ppb	7.6	626	6.4	
Na	23	45	He	9.243	ppb	3.1	21,327	1.7	
Mg	24	45	He	9.037	ppb	1.9	8,939	1.2	
Al	27	45	He	9.235	ppb	1.2	4,653	0.9	
K	39	45	He	10.685	ppb	8.7	53,459	1.3	
Ca	44	45	H2	10.634	ppb	3.8	3,915	3.5	
[Ca]	44	45	He	10.144	ppb	9.9	799	4.2	
Ti	47	45	NoGas	0.407	ppb	71.2	739	66.2	
V	51	74	He	0.171	ppb	5.5	3,987	0.7	
Cr	52	74	He	0.197	ppb	7.0	1,613	4.7	
Mn	55	74	He	0.184	ppb	6.4	957	6.1	
Fe	56	74	H2	9.149	ppb	0.7	159,100	0.8	
Co	59	74	He	0.184	ppb	6.3	1,607	5.5	
Ni	60	74	He	0.245	ppb	5.8	554	5.0	
Cu	65	74	He	0.237	ppb	4.1	638	4.3	
Zn	66	74	He	0.256	ppb	3.2	293	3.0	
As	75	74	He	0.188	ppb	13.4	173	9.0	
Se	78	74	H2	0.198	ppb	18.0	88	17.2	
Mo	95	103	He	0.179	ppb	11.3	441	10.7	
Ag	107	103	He	0.185	ppb	7.6	1,282	7.8	
Cd	111	103	He	0.174	ppb	5.6	207	5.6	
[Cd]	111	103	NoGas	0.152	ppb	19.7	478	19.4	
Sb	121	103	He	0.162	ppb	10.1	530	9.8	
Ba	138	159	He	0.199	ppb	3.8	1,298	3.9	
W	182	159	NoGas	0.004	ppb	135.8	62	81.1	
Hg	201	159	NoGas	7.538	ppt	35.5	16	20.3	
Tl	205	159	He	0.18	ppb	0.3	1,791	0.2	
Pb	208	159	NoGas	0.187	ppb	1.1	6,113	1.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,360,333	1.2	1328005.7	Analog	102.4	
Sc	45	H2	3,044,665	0.7	2880501.55333333	Analog	105.7	
Sc	45	He	496,972	1.2	495174.883333333	Pulse	100.4	
Sc	45	NoGas	4,461,976	1.3	4124211.75	Analog	108.2	
Ge	74	H2	945,285	0.5	948676.153333333	Pulse	99.6	
Ge	74	He	286,831	0.8	284255.65	Pulse	100.9	
Ge	74	NoGas	1,135,979	1.0	1128393.34666667	Pulse	100.7	
Rh	103	He	619,578	0.5	616442.69	Pulse	100.5	
Rh	103	NoGas	1,139,932	0.6	1143555.12333333	Pulse	99.7	
Tb	159	He	797,839	0.3	794731.056666667	Pulse	100.4	
Tb	159	NoGas	1,883,901	0.8	1665548.91666667	Analog	113.1	
Bi	209	He	445,705	0.4	446099.653333333	Pulse	99.9	
Bi	209	NoGas	1,047,796	0.4	1052566.13	Pulse	99.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:46:19		
Comment:	**A19J369 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.906	ppb	2.8	3,257	4.6	
Na	23	45	He	44.658	ppb	0.5	80,503	1.0	
Mg	24	45	He	44.447	ppb	1.4	42,186	1.2	
Al	27	45	He	45.674	ppb	2.5	22,740	2.6	
K	39	45	He	46.15	ppb	1.1	83,449	0.9	
Ca	44	45	H2	46.173	ppb	2.6	15,255	2.1	
[Ca]	44	45	He	48.479	ppb	4.1	2,380	3.9	
Ti	47	45	NoGas	0.842	ppb	1.8	1,501	1.0	
V	51	74	He	0.876	ppb	3.2	7,791	1.3	
Cr	52	74	He	0.929	ppb	3.3	6,235	3.7	
Mn	55	74	He	0.886	ppb	1.1	4,078	1.7	
Fe	56	74	H2	45.583	ppb	0.6	751,954	0.6	
Co	59	74	He	0.967	ppb	1.1	8,318	0.3	
Ni	60	74	He	0.935	ppb	2.1	2,005	2.0	
Cu	65	74	He	0.952	ppb	7.3	2,450	6.3	
Zn	66	74	He	1.015	ppb	13.4	1,052	12.0	
As	75	74	He	0.929	ppb	6.9	632	6.4	
Se	78	74	H2	0.857	ppb	2.9	362	2.7	
Mo	95	103	He	0.902	ppb	6.9	2,197	7.3	
Ag	107	103	He	0.935	ppb	2.3	6,470	3.0	
Cd	111	103	He	0.914	ppb	2.0	1,072	2.1	
[Cd]	111	103	NoGas	0.796	ppb	5.1	2,489	5.3	
Sb	121	103	He	0.895	ppb	2.4	2,741	1.7	
Ba	138	159	He	0.977	ppb	6.7	6,146	7.9	
W	182	159	NoGas	0.001	ppb	275.6	39	99.0	
Hg	201	159	NoGas	34.636	ppt	13.5	49	11.7	
Tl	205	159	He	0.903	ppb	0.6	8,953	0.6	
Pb	208	159	NoGas	0.95	ppb	1.0	27,133	1.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,340,615	1.8	1328005.7	Analog	100.9	
Sc	45	H2	3,077,212	0.5	2880501.55333333	Analog	106.8	
Sc	45	He	500,846	0.5	495174.883333333	Pulse	101.1	
Sc	45	NoGas	4,467,684	1.3	4124211.75	Analog	108.3	
Ge	74	H2	943,610	0.2	948676.153333333	Pulse	99.5	
Ge	74	He	287,850	1.0	284255.65	Pulse	101.3	
Ge	74	NoGas	1,134,363	0.5	1128393.34666667	Pulse	100.5	
Rh	103	He	619,802	0.7	616442.69	Pulse	100.5	
Rh	103	NoGas	1,141,887	0.3	1143555.12333333	Pulse	99.9	
Tb	159	He	800,892	1.2	794731.056666667	Pulse	100.8	
Tb	159	NoGas	1,865,604	0.2	1665548.91666667	Analog	112.0	
Bi	209	He	449,982	0.8	446099.653333333	Pulse	100.9	
Bi	209	NoGas	1,050,375	0.1	1052566.13	Pulse	99.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:51:17		
Comment:	**A19J370 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.819	ppb	3.9	6,641	2.4	
Na	23	45	He	89.823	ppb	0.3	154,604	0.4	
Mg	24	45	He	90.183	ppb	0.1	84,412	0.6	
Al	27	45	He	90.699	ppb	1.5	44,709	0.9	
K	39	45	He	91.123	ppb	0.9	120,054	0.9	
Ca	44	45	H2	92.93	ppb	1.4	30,001	1.5	
[Ca]	44	45	He	91.465	ppb	5.8	4,115	5.3	
Ti	47	45	NoGas	1.739	ppb	2.1	3,039	3.6	
V	51	74	He	1.819	ppb	0.9	12,820	0.6	
Cr	52	74	He	1.808	ppb	1.6	11,740	2.4	
Mn	55	74	He	1.799	ppb	1.3	8,109	0.8	
Fe	56	74	H2	92.133	ppb	0.7	1,515,483	1.5	
Co	59	74	He	1.89	ppb	1.2	16,157	1.5	
Ni	60	74	He	1.977	ppb	4.0	4,173	3.0	
Cu	65	74	He	2.071	ppb	1.6	5,264	2.2	
Zn	66	74	He	1.896	ppb	1.2	1,926	1.7	
As	75	74	He	1.898	ppb	2.7	1,228	3.5	
Se	78	74	H2	1.745	ppb	4.8	734	4.0	
Mo	95	103	He	1.817	ppb	2.0	4,383	2.9	
Ag	107	103	He	1.834	ppb	1.8	12,585	2.6	
Cd	111	103	He	1.798	ppb	1.9	2,087	1.0	
[Cd]	111	103	NoGas	1.679	ppb	5.3	5,168	4.7	
Sb	121	103	He	1.766	ppb	3.3	5,320	4.0	
Ba	138	159	He	2.022	ppb	2.0	12,517	1.4	
W	182	159	NoGas	0.002	ppb	74.1	46	34.6	
Hg	201	159	NoGas	79.957	ppt	4.1	105	3.2	
Tl	205	159	He	1.82	ppb	0.6	17,832	1.6	
Pb	208	159	NoGas	1.875	ppb	1.6	52,466	1.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,367,632	1.6	1328005.7	Analog	103.0	
Sc	45	H2	3,065,246	1.9	2880501.55333333	Analog	106.4	
Sc	45	He	497,152	0.6	495174.883333333	Pulse	100.4	
Sc	45	NoGas	4,438,571	1.9	4124211.75	Analog	107.6	
Ge	74	H2	947,126	0.8	948676.153333333	Pulse	99.8	
Ge	74	He	286,769	0.9	284255.65	Pulse	100.9	
Ge	74	NoGas	1,124,572	1.1	1128393.34666667	Pulse	99.7	
Rh	103	He	614,332	0.9	616442.69	Pulse	99.7	
Rh	103	NoGas	1,125,424	0.6	1143555.12333333	Pulse	98.4	
Tb	159	He	792,637	1.0	794731.056666667	Pulse	99.7	
Tb	159	NoGas	1,858,479	1.1	1665548.91666667	Analog	111.6	
Bi	209	He	445,640	0.7	446099.653333333	Pulse	99.9	
Bi	209	NoGas	1,031,296	1.0	1052566.13	Pulse	98.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:56:14		
Comment:	**A19J371 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.55	ppb	2.9	13,016	2.4	
Na	23	45	He	179.056	ppb	0.6	301,940	0.1	
Mg	24	45	He	178.546	ppb	0.5	166,463	0.9	
Al	27	45	He	182.01	ppb	1.0	89,539	0.9	
K	39	45	He	182.042	ppb	0.7	195,145	0.7	
Ca	44	45	H2	181.989	ppb	0.8	58,537	0.7	
[Ca]	44	45	He	177.133	ppb	2.1	7,602	2.2	
Ti	47	45	NoGas	3.431	ppb	3.5	5,998	3.2	
V	51	74	He	3.7	ppb	1.6	22,849	1.6	
Cr	52	74	He	3.679	ppb	3.6	23,422	2.7	
Mn	55	74	He	3.639	ppb	2.3	16,217	1.2	
Fe	56	74	H2	185.313	ppb	0.4	3,034,056	0.0	
Co	59	74	He	3.708	ppb	1.2	31,588	1.5	
Ni	60	74	He	3.867	ppb	4.0	8,098	2.9	
Cu	65	74	He	4.047	ppb	2.2	10,223	1.5	
Zn	66	74	He	3.798	ppb	2.3	3,809	2.3	
As	75	74	He	3.786	ppb	0.7	2,386	0.3	
Se	78	74	H2	3.55	ppb	0.9	1,485	0.8	
Mo	95	103	He	3.638	ppb	4.0	8,770	4.1	
Ag	107	103	He	3.621	ppb	1.6	24,848	1.5	
Cd	111	103	He	3.61	ppb	2.3	4,188	2.3	
[Cd]	111	103	NoGas	3.277	ppb	3.8	10,140	3.9	
Sb	121	103	He	3.504	ppb	3.8	10,520	4.0	
Ba	138	159	He	3.939	ppb	1.9	24,298	2.7	
W	182	159	NoGas	0	ppb	N/A	23	42.9	
Hg	201	159	NoGas	150.252	ppt	2.5	195	3.0	
Tl	205	159	He	3.626	ppb	1.0	35,479	0.5	
Pb	208	159	NoGas	3.7	ppb	0.7	104,251	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,375,569	0.6	1328005.7	Analog	103.6	
Sc	45	H2	3,082,517	0.1	2880501.55333333	Analog	107.0	
Sc	45	He	496,764	0.6	495174.883333333	Pulse	100.3	
Sc	45	NoGas	4,468,940	0.7	4124211.75	Analog	108.4	
Ge	74	H2	945,891	0.4	948676.153333333	Pulse	99.7	
Ge	74	He	286,016	1.0	284255.65	Pulse	100.6	
Ge	74	NoGas	1,131,554	1.1	1128393.34666667	Pulse	100.3	
Rh	103	He	614,512	0.4	616442.69	Pulse	99.7	
Rh	103	NoGas	1,131,753	0.8	1143555.12333333	Pulse	99.0	
Tb	159	He	791,883	0.8	794731.056666667	Pulse	99.6	
Tb	159	NoGas	1,886,178	0.5	1665548.91666667	Analog	113.2	
Bi	209	He	444,222	0.8	446099.653333333	Pulse	99.6	
Bi	209	NoGas	1,037,773	0.1	1052566.13	Pulse	98.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:01:08		
Comment:	**A19J373 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.084	ppb	1.7	36,705	1.2	
Na	23	45	He	404.067	ppb	0.5	666,017	0.2	
Mg	24	45	He	403.821	ppb	0.1	371,479	0.4	
Al	27	45	He	407.324	ppb	0.3	197,933	0.1	
K	39	45	He	407.13	ppb	0.5	376,887	0.0	
Ca	44	45	H2	408.431	ppb	0.8	131,027	0.3	
[Ca]	44	45	He	407.006	ppb	0.9	16,770	0.7	
Ti	47	45	NoGas	19.081	ppb	0.9	32,701	1.2	
V	51	74	He	20.563	ppb	0.6	111,392	0.6	
Cr	52	74	He	20.538	ppb	0.1	127,200	0.8	
Mn	55	74	He	20.34	ppb	1.8	88,713	1.1	
Fe	56	74	H2	408.781	ppb	0.8	6,681,942	0.4	
Co	59	74	He	20.84	ppb	0.9	174,763	0.3	
Ni	60	74	He	21.715	ppb	1.0	44,626	0.7	
Cu	65	74	He	22.561	ppb	0.8	55,994	1.0	
Zn	66	74	He	21.253	ppb	1.3	20,841	2.2	
As	75	74	He	20.813	ppb	1.6	12,674	2.4	
Se	78	74	H2	10	ppb	2.9	4,174	2.6	
Mo	95	103	He	10.024	ppb	1.8	23,787	1.9	
Ag	107	103	He	10.174	ppb	0.6	68,742	1.1	
Cd	111	103	He	20.097	ppb	0.2	22,942	0.7	
[Cd]	111	103	NoGas	18.463	ppb	0.4	56,208	0.3	
Sb	121	103	He	10.065	ppb	0.9	29,678	1.5	
Ba	138	159	He	22.042	ppb	0.4	135,273	0.4	
W	182	159	NoGas	0.007	ppb	122.5	88	88.0	
Hg	201	159	NoGas	419.935	ppt	8.0	528	8.1	
Tl	205	159	He	10.091	ppb	1.3	98,435	0.6	
Pb	208	159	NoGas	20.792	ppb	0.1	576,277	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,367,298	1.1	1328005.7	Analog	103.0	
Sc	45	H2	3,091,352	0.6	2880501.55333333	Analog	107.3	
Sc	45	He	491,038	0.4	495174.883333333	Pulse	99.2	
Sc	45	NoGas	4,402,783	0.7	4124211.75	Analog	106.8	
Ge	74	H2	946,046	0.4	948676.153333333	Pulse	99.7	
Ge	74	He	281,881	0.9	284255.65	Pulse	99.2	
Ge	74	NoGas	1,113,381	0.7	1128393.34666667	Pulse	98.7	
Rh	103	He	605,090	0.7	616442.69	Pulse	98.2	
Rh	103	NoGas	1,113,933	0.2	1143555.12333333	Pulse	97.4	
Tb	159	He	789,655	0.7	794731.056666667	Pulse	99.4	
Tb	159	NoGas	1,868,481	0.7	1665548.91666667	Analog	112.2	
Bi	209	He	443,428	0.6	446099.653333333	Pulse	99.4	
Bi	209	NoGas	1,032,048	0.2	1052566.13	Pulse	98.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:06:03		
Comment:	**A19J372**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	49.518	ppb	1.0	174,481	0.5	
Na	23	45	He	2471.726	ppb	1.3	3,915,731	1.1	
Mg	24	45	He	2519.79	ppb	0.6	2,242,030	0.6	
Al	27	45	He	2465.418	ppb	0.5	1,159,631	0.5	
K	39	45	He	2512.096	ppb	0.3	2,031,290	0.6	
Ca	44	45	H2	2489.845	ppb	0.9	776,927	0.5	
[Ca]	44	45	He	2463.296	ppb	0.3	96,430	1.0	
Ti	47	45	NoGas	46.667	ppb	1.3	77,043	1.1	
V	51	74	He	50.645	ppb	0.4	261,140	0.6	
Cr	52	74	He	50.189	ppb	0.3	300,182	0.5	
Mn	55	74	He	50.245	ppb	0.7	211,818	0.2	
Fe	56	74	H2	2497.725	ppb	0.4	39,665,772	0.3	
Co	59	74	He	50.741	ppb	0.8	411,590	0.2	
Ni	60	74	He	52.578	ppb	0.8	104,469	0.6	
Cu	65	74	He	53.197	ppb	0.3	127,674	0.8	
Zn	66	74	He	51.374	ppb	0.2	48,679	0.9	
As	75	74	He	50.703	ppb	0.3	29,788	0.5	
Se	78	74	H2	49.524	ppb	0.1	20,089	0.3	
Mo	95	103	He	49.651	ppb	1.1	112,836	1.2	
Ag	107	103	He	49.894	ppb	1.1	322,908	1.1	
Cd	111	103	He	49.981	ppb	0.6	54,646	0.6	
[Cd]	111	103	NoGas	45.561	ppb	0.7	131,658	0.4	
Sb	121	103	He	49.247	ppb	1.2	138,939	1.2	
Ba	138	159	He	53.349	ppb	1.0	319,417	0.7	
W	182	159	NoGas	0.012	ppb	23.0	133	19.5	
Hg	201	159	NoGas	2028.926	ppt	3.1	2,456	1.9	
Tl	205	159	He	49.437	ppb	0.7	470,597	0.8	
Pb	208	159	NoGas	51.271	ppb	1.0	1,379,309	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,324,276	0.5	1328005.7	Analog	99.7	
Sc	45	H2	3,018,009	0.5	2880501.55333333	Analog	104.8	
Sc	45	He	475,533	0.9	495174.883333333	Pulse	96.0	
Sc	45	NoGas	4,244,490	1.6	4124211.75	Analog	102.9	
Ge	74	H2	920,247	0.4	948676.153333333	Pulse	97.0	
Ge	74	He	272,685	0.7	284255.65	Pulse	95.9	
Ge	74	NoGas	1,070,509	1.0	1128393.34666667	Pulse	94.9	
Rh	103	He	579,600	0.2	616442.69	Pulse	94.0	
Rh	103	NoGas	1,057,444	0.6	1143555.12333333	Pulse	92.5	
Tb	159	He	770,604	0.7	794731.056666667	Pulse	97.0	
Tb	159	NoGas	1,815,354	1.2	1665548.91666667	Analog	109.0	
Bi	209	He	432,361	0.7	446099.653333333	Pulse	96.9	
Bi	209	NoGas	1,004,346	0.7	1052566.13	Pulse	95.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:10:55		
Comment:	**A19J374**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.234	ppb	1.6	326,796	0.4	
Na	23	45	He	3996.502	ppb	0.3	5,901,308	0.2	
Mg	24	45	He	4062.49	ppb	0.7	3,370,746	0.7	
Al	27	45	He	4056.355	ppb	0.9	1,779,284	0.9	
K	39	45	He	4046.113	ppb	0.5	3,026,870	0.7	
Ca	44	45	H2	3961.51	ppb	1.0	1,180,747	0.7	
[Ca]	44	45	He	3989.059	ppb	0.5	145,418	0.8	
Ti	47	45	NoGas	184.922	ppb	1.7	281,688	0.1	
V	51	74	He	200.423	ppb	0.6	964,034	0.3	
Cr	52	74	He	199.486	ppb	0.3	1,121,380	0.5	
Mn	55	74	He	199.245	ppb	0.5	789,780	0.3	
Fe	56	74	H2	4006.054	ppb	0.3	60,467,596	0.7	
Co	59	74	He	206.965	ppb	0.5	1,579,165	0.2	
Ni	60	74	He	206.64	ppb	0.6	386,113	0.3	
Cu	65	74	He	210.349	ppb	0.3	474,793	0.3	
Zn	66	74	He	204.796	ppb	0.5	182,441	0.9	
As	75	74	He	202.029	ppb	0.1	111,498	0.5	
Se	78	74	H2	100.241	ppb	1.2	38,643	0.5	
Mo	95	103	He	100.171	ppb	0.8	216,458	0.8	
Ag	107	103	He	100.034	ppb	0.4	615,607	0.5	
Cd	111	103	He	199.673	ppb	0.5	207,577	0.6	
[Cd]	111	103	NoGas	183.923	ppb	0.2	494,282	0.6	
Sb	121	103	He	100.374	ppb	0.4	269,231	0.4	
Ba	138	159	He	210.616	ppb	1.1	1,220,678	0.2	
W	182	159	NoGas	0.02	ppb	14.0	202	12.6	
Hg	201	159	NoGas	3983.187	ppt	1.5	4,691	1.4	
Tl	205	159	He	100.271	ppb	0.5	924,112	0.8	
Pb	208	159	NoGas	204.362	ppb	0.8	5,351,496	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,225,541	1.4	1328005.7	Analog	92.3	
Sc	45	H2	2,883,551	0.7	2880501.55333333	Analog	100.1	
Sc	45	He	443,471	0.4	495174.883333333	Pulse	89.6	
Sc	45	NoGas	3,918,041	1.7	4124211.75	Analog	95.0	
Ge	74	H2	874,743	0.8	948676.153333333	Pulse	92.2	
Ge	74	He	256,511	0.4	284255.65	Pulse	90.2	
Ge	74	NoGas	992,541	1.1	1128393.34666667	Pulse	88.0	
Rh	103	He	551,125	0.1	616442.69	Pulse	89.4	
Rh	103	NoGas	983,438	0.7	1143555.12333333	Pulse	86.0	
Tb	159	He	746,109	1.3	794731.056666667	Pulse	93.9	
Tb	159	NoGas	1,767,773	0.4	1665548.91666667	Analog	106.1	
Bi	209	He	417,805	0.6	446099.653333333	Pulse	93.7	
Bi	209	NoGas	957,218	0.6	1052566.13	Pulse	90.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:15:42		
Comment:	**A19J188**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.025	ppb	31.6	100	25.2	
Na	23	45	He	9975.991	ppb	0.5	13,893,548	0.6	
Mg	24	45	He	9969.931	ppb	0.8	7,805,573	0.3	
Al	27	45	He	10096.437	ppb	1.0	4,179,021	0.4	
K	39	45	He	9978.194	ppb	0.6	6,988,957	0.2	
Ca	44	45	H2	10131.988	ppb	0.4	2,826,259	1.1	
[Ca]	44	45	He	9873.024	ppb	0.9	339,152	0.5	
Ti	47	45	NoGas	466.119	ppb	0.5	668,749	0.3	
V	51	74	He	499.743	ppb	1.1	2,267,494	1.2	
Cr	52	74	He	506.608	ppb	0.3	2,690,405	0.3	
Mn	55	74	He	510.456	ppb	0.5	1,911,710	0.3	
Fe	56	74	H2	9921.413	ppb	0.7	139,217,468	0.9	
Co	59	74	He	497.105	ppb	0.7	3,583,916	0.4	
Ni	60	74	He	502.031	ppb	0.4	886,331	0.3	
Cu	65	74	He	511.435	ppb	0.4	1,090,740	0.5	
Zn	66	74	He	508.226	ppb	0.7	427,744	0.5	
As	75	74	He	499.084	ppb	0.3	260,191	0.3	
Se	78	74	H2	0.115	ppb	13.9	46	12.1	
Mo	95	103	He	0.114	ppb	18.3	234	18.1	
Ag	107	103	He	0.022	ppb	18.9	130	17.9	
Cd	111	103	He	500.366	ppb	0.5	485,450	0.3	
[Cd]	111	103	NoGas	469.023	ppb	0.7	1,181,722	0.4	
Sb	121	103	He	0.061	ppb	13.7	187	10.7	
Ba	138	159	He	519.232	ppb	1.5	2,883,110	1.5	
W	182	159	NoGas	100	ppb	1.2	874,621	0.1	
Hg	201	159	NoGas	87.846	ppt	9.0	107	8.6	
Tl	205	159	He	0.035	ppb	20.9	322	19.2	
Pb	208	159	NoGas	498.095	ppb	1.0	12,802,185	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,188,352	0.6	1328005.7	Analog	89.5	
Sc	45	H2	2,699,337	1.0	2880501.55333333	Analog	93.7	
Sc	45	He	418,497	0.6	495174.883333333	Pulse	84.5	
Sc	45	NoGas	3,689,860	0.5	4124211.75	Analog	89.5	
Ge	74	H2	813,251	0.3	948676.153333333	Pulse	85.7	
Ge	74	He	242,377	0.3	284255.65	Pulse	85.3	
Ge	74	NoGas	927,218	0.6	1128393.34666667	Pulse	82.2	
Rh	103	He	514,353	0.8	616442.69	Pulse	83.4	
Rh	103	NoGas	922,009	0.4	1143555.12333333	Pulse	80.6	
Tb	159	He	714,789	0.8	794731.056666667	Pulse	89.9	
Tb	159	NoGas	1,735,369	1.4	1665548.91666667	Analog	104.2	
Bi	209	He	400,209	0.5	446099.653333333	Pulse	89.7	
Bi	209	NoGas	909,920	0.3	1052566.13	Pulse	86.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:20:17		
Comment:	**A19J189**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.017	ppb	26.6	68	29.6	
Na	23	45	He	50006.467	ppb	0.4	67,200,623	0.3	
Mg	24	45	He	49384.325	ppb	1.2	37,316,553	0.9	
Al	27	45	He	49977.866	ppb	0.6	19,966,539	0.2	
K	39	45	He	48921.025	ppb	0.3	32,932,496	0.7	
Ca	44	45	H2	49977.108	ppb	1.5	13,184,000	0.9	
[Ca]	44	45	He	50028.054	ppb	0.4	1,657,492	0.2	
Ti	47	45	NoGas	2508.057	ppb	12.5	3,249,215	1.6	
V	51	74	He	-0.085	ppb	N/A	2,055	1.4	
Cr	52	74	He	996.778	ppb	0.4	4,928,659	0.7	
Mn	55	74	He	2497.961	ppb	0.3	8,710,526	0.8	
Fe	56	74	H2	50015.253	ppb	0.8	638,127,604	0.7	
Co	59	74	He	0.235	ppb	1.9	1,610	2.4	
Ni	60	74	He	997.492	ppb	1.3	1,639,763	1.5	
Cu	65	74	He	992	ppb	0.6	1,969,867	0.1	
Zn	66	74	He	2497.933	ppb	1.7	1,957,341	1.1	
As	75	74	He	0.14	ppb	7.5	113	4.9	
Se	78	74	H2	0.106	ppb	7.9	39	6.8	
Mo	95	103	He	0.134	ppb	19.8	248	19.5	
Ag	107	103	He	0.031	ppb	17.1	160	17.1	
Cd	111	103	He	999.882	ppb	0.1	875,310	0.1	
[Cd]	111	103	NoGas	1018.958	ppb	13.2	2,137,023	1.0	
Sb	121	103	He	0.049	ppb	27.0	140	21.2	
Ba	138	159	He	2495.22	ppb	0.3	12,946,859	0.6	
W	182	159	NoGas	0.318	ppb	20.2	2,358	4.7	
Hg	201	159	NoGas	38.828	ppt	21.5	43	5.4	
Tl	205	159	He	0.011	ppb	27.2	102	23.6	
Pb	208	159	NoGas	0.219	ppb	20.6	5,423	3.5	

ISTD Table:

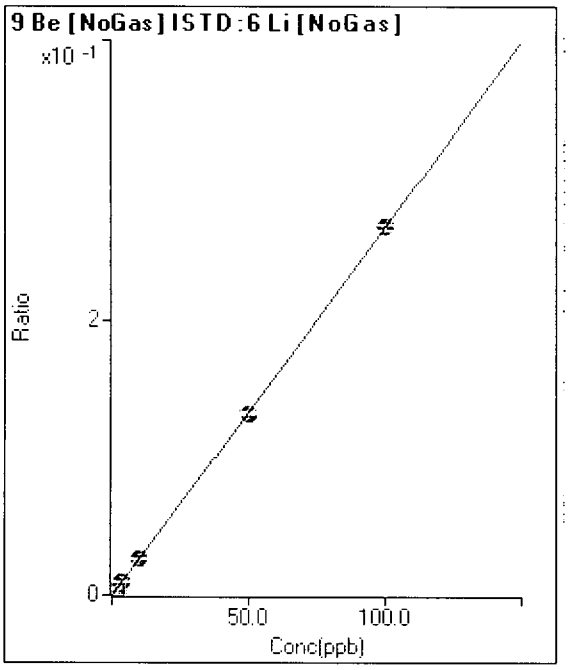
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,079,605	13.3	1328005.7	Analog	81.3	
Sc	45	H2	2,553,443	1.5	2880501.55333333	Analog	88.6	
Sc	45	He	403,934	0.4	495174.883333333	Pulse	81.6	
Sc	45	NoGas	3,363,641	11.4	4124211.75	Analog	81.6	
Ge	74	H2	739,500	0.2	948676.153333333	Pulse	78.0	
Ge	74	He	225,685	0.7	284255.65	Pulse	79.4	
Ge	74	NoGas	804,416	12.0	1128393.34666667	Pulse	71.3	
Rh	103	He	464,098	0.1	616442.69	Pulse	75.3	
Rh	103	NoGas	775,770	12.2	1143555.12333333	Pulse	67.8	IS Q-06
Tb	159	He	667,923	0.3	794731.056666667	Pulse	84.0	
Tb	159	NoGas	1,485,670	14.2	1665548.91666667	Mix	89.2	
Bi	209	He	356,718	0.7	446099.653333333	Pulse	80.0	
Bi	209	NoGas	777,321	12.1	1052566.13	Pulse	73.9	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K04033.b\
Analysis File: 9K04033.batch.bin
DA Date-Time: 11/5/2019 10:07:05
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9K04033-CAL0	11/4/2019 11:36:38
2	004CALS.d	9K04033-CAL1	11/4/2019 11:41:19
3	005CALS.d	9K04033-CAL2	11/4/2019 11:46:19
4	006CALS.d	9K04033-CAL3	11/4/2019 11:51:17
5	007CALS.d	9K04033-CAL4	11/4/2019 11:56:14
6	008CALS.d	9K04033-CAL5	11/4/2019 12:01:08
7	009CALS.d	9K04033-CAL6	11/4/2019 12:06:03
8	010CALS.d	9K04033-CAL7	11/4/2019 12:10:55
9	011CALS.d	9K04033-CAL8	11/4/2019 12:15:42
10	012CALS.d	9K04033-CAL9	11/4/2019 12:20:17

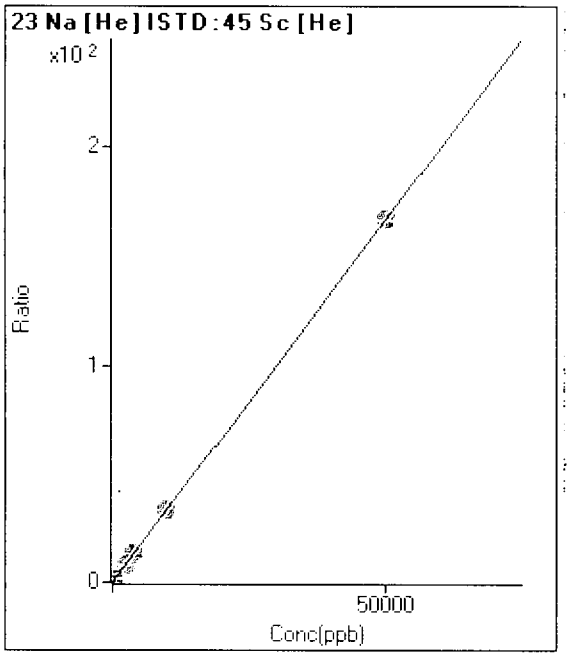
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23	0.000	P	70.6
2	☐	0.180	0.166	626	0.000	P	7.3
3	☐	0.900	0.906	3,257	0.002	P	2.8
4	☐	1.800	1.819	6,641	0.005	P	3.9
5	☐	3.600	3.550	13,016	0.009	P	2.9
6	☐	10.000	10.084	36,705	0.027	P	1.7
7	☐	50.000	49.518	174,481	0.132	P	1.0
8	☐	100.000	100.234	326,798	0.267	P	1.6
9	☐			100	0.000	P	25.0
10	☐			68	0.000	P	19.1

y = 0.0027 * x + 1.7448E-005
R = 1.0000
DL = 0.01388
BEC = 0.006558

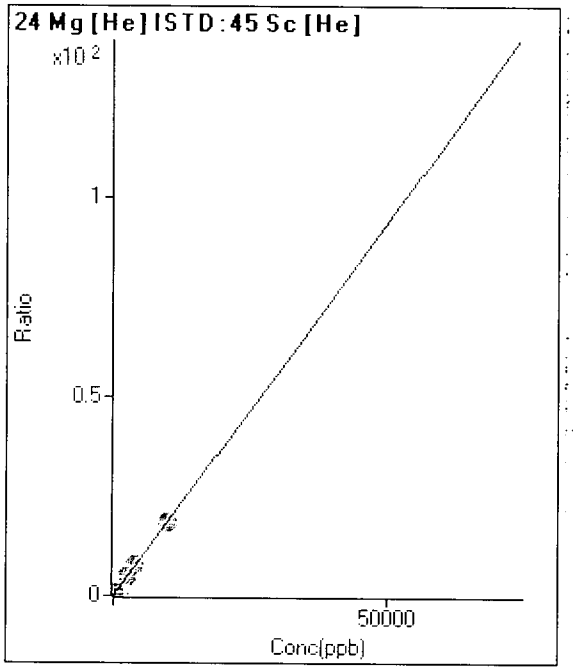
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6,027	0.012	P	1.9
2	☐			21,327	0.043	P	2.2
3	☐	45.000	44.658	80,503	0.161	P	0.5
4	☐	90.000	89.823	154,604	0.311	P	0.3
5	☐	180.000	179.056	301,940	0.608	P	0.6
6	☐	400.000	404.067	666,017	1.356	P	0.5
7	☐	2500.000	2471.726	3,915,731	8.235	A	1.3
8	☐	4000.000	3996.502	5,901,308	13.307	A	0.3
9	☐	10000.000	9975.991	13,893,548	33.199	A	0.5
10	☐	50000.000	50006.467	67,200,623	166.367	A	0.4

y = 0.0033 * x + 0.0122
R = 1.0000
DL = 0.2064
BEC = 3.659

Weight: <None>
Min Conc: <None>

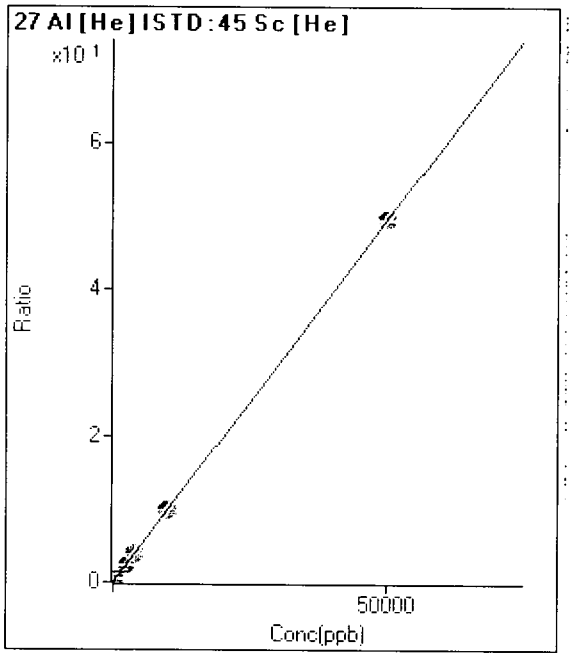


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	537	0.001	P	10.7
2	☐			8,939	0.018	P	1.8
3	☐	45.000	44.447	42,186	0.084	P	1.4
4	☐	90.000	90.183	84,412	0.170	P	0.1
5	☐	180.000	178.546	166,463	0.335	P	0.5
6	☐	400.000	403.821	371,479	0.757	P	0.1
7	☐	2500.000	2519.790	2,242,030	4.715	A	0.6
8	☐	4000.000	4062.490	3,370,746	7.601	A	0.7
9	☐	10000.000	9969.931	7,805,573	18.652	A	0.8
10	☑	50000.000		37,316,553	92.385	A	1.2

y = 0.0019 * x + 0.0011
R = 1.0000
DL = 0.1855
BEC = 0.5793

Mg LDR = 10,000 ppb
ESS 11/5/19

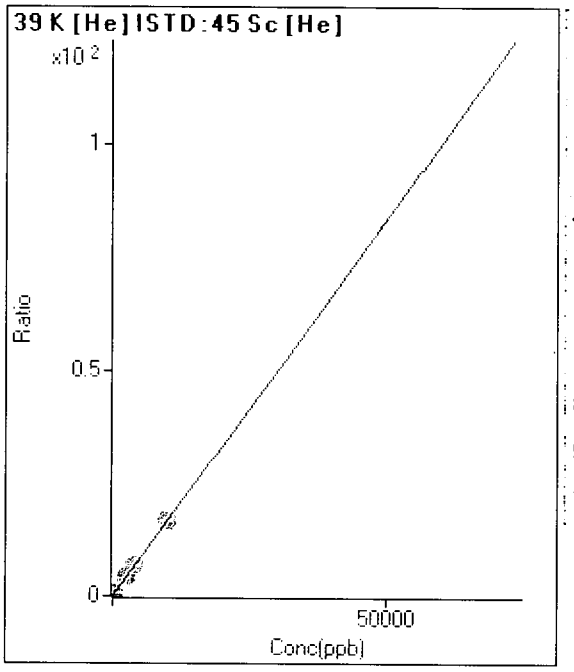
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113	0.000	P	10.9
2	☐			4,653	0.009	P	1.2
3	☐	45.000	45.674	22,740	0.045	P	2.5
4	☐	90.000	90.699	44,709	0.090	P	1.5
5	☐	180.000	182.010	89,539	0.180	P	1.0
6	☐	400.000	407.324	197,933	0.403	P	0.3
7	☐	2500.000	2465.418	1,159,631	2.439	P	0.5
8	☐	4000.000	4056.355	1,779,284	4.012	A	0.9
9	☐	10000.000	10096.437	4,179,021	9.986	A	1.0
10	☐	50000.000	49977.866	19,966,539	49.431	A	0.6

y = 9.8905E-004 * x + 2.2893E-004
R = 1.0000
DL = 0.07563
BEC = 0.2315

Weight: <None>
Min Conc: <None>

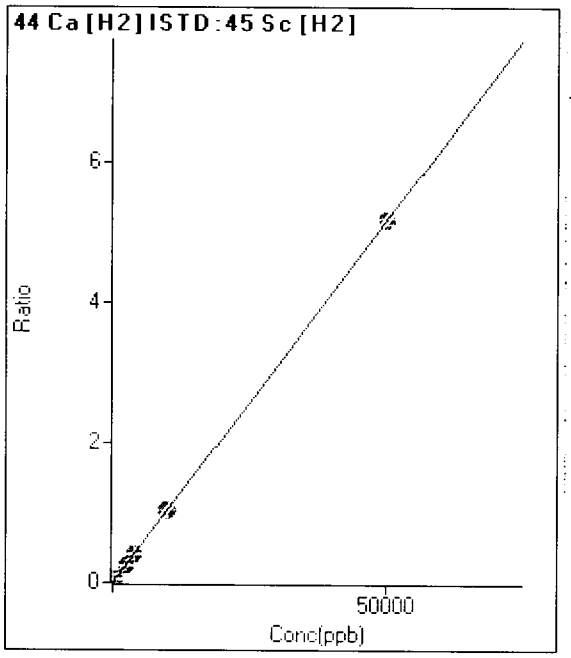


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44,462	0.090	P	1.6
2	☐			53,459	0.108	P	1.4
3	☐	45.000	46.150	83,449	0.167	P	0.5
4	☐	90.000	91.123	120,054	0.241	P	0.5
5	☐	180.000	182.042	195,145	0.393	P	0.6
6	☐	400.000	407.130	376,887	0.768	P	0.4
7	☐	2500.000	2512.096	2,031,290	4.272	A	0.3
8	☐	4000.000	4046.113	3,026,870	6.825	A	0.5
9	☐	10000.000	9978.194	6,988,957	16.701	A	0.6
10	☑	50000.000		32,932,496	81.529	A	0.3

y = 0.0017 * x + 0.0898
R = 1.0000
DL = 2.633
BEC = 53.94

K LDR = 10,000 ppb
ESS 11/5/19

Weight: <None>
Min Conc: <None>

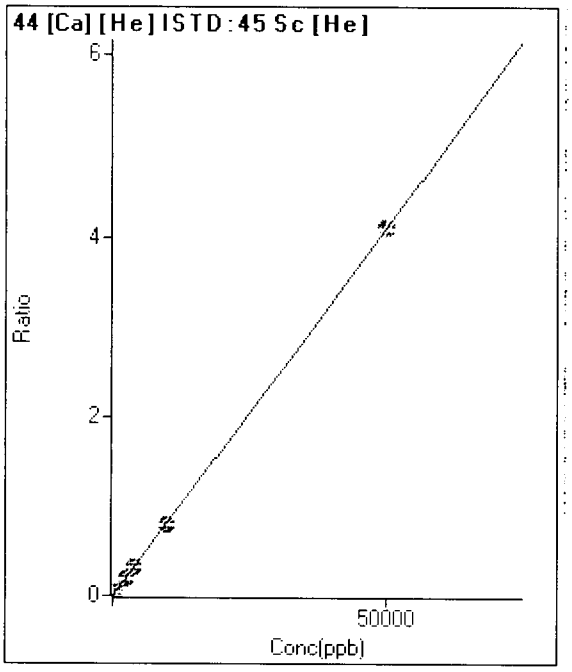


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	539	0.000	P	7.3
2	☐			3,915	0.001	P	3.3
3	☐	45.000	46.173	15,255	0.005	P	2.5
4	☐	90.000	92.930	30,001	0.010	P	1.4
5	☐	180.000	181.989	58,537	0.019	P	0.8
6	☐	400.000	408.431	131,027	0.042	P	0.7
7	☐	2500.000	2489.845	776,927	0.257	P	0.9
8	☐	4000.000	3961.510	1,180,747	0.409	P	1.0
9	☐	10000.000	10131.988	2,826,259	1.047	A	0.4
10	☐	50000.000	49977.108	13,184,000	5.164	A	1.5

y = 1.0332E-004 * x + 1.8705E-004
R = 1.0000
DL = 0.3954
BEC = 1.81

Weight: <None>
Min Conc: <None>

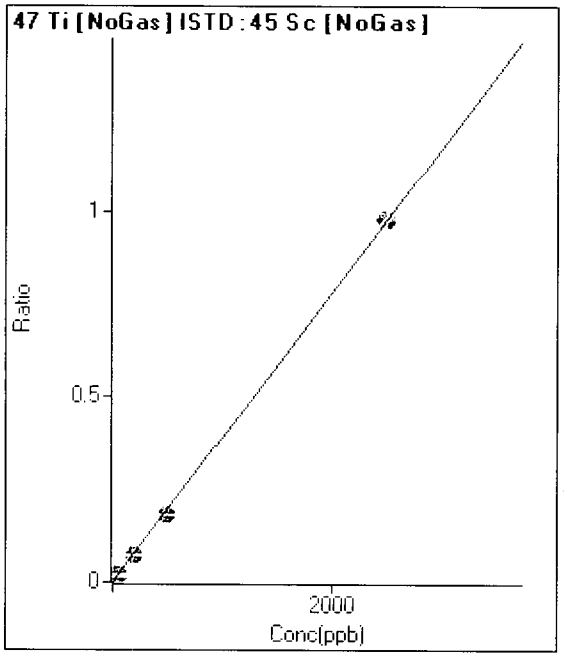
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	384	0.001	P	10.1
2	☐			799	0.002	P	5.1
3	☐	45.000	48.479	2,380	0.005	P	3.5
4	☐	90.000	91.465	4,115	0.008	P	5.2
5	☐	180.000	177.133	7,602	0.015	P	2.0
6	☐	400.000	407.006	16,770	0.034	P	0.9
7	☐	2500.000	2463.296	96,430	0.203	P	0.3
8	☐	4000.000	3989.059	145,418	0.328	P	0.5
9	☐	10000.000	9873.024	339,152	0.810	P	0.9
10	☐	50000.000	50028.054	1,657,492	4.103	A	0.4

y = 8.2007E-005 * x + 7.7626E-004
R = 1.0000
DL = 2.86
BEC = 9.466

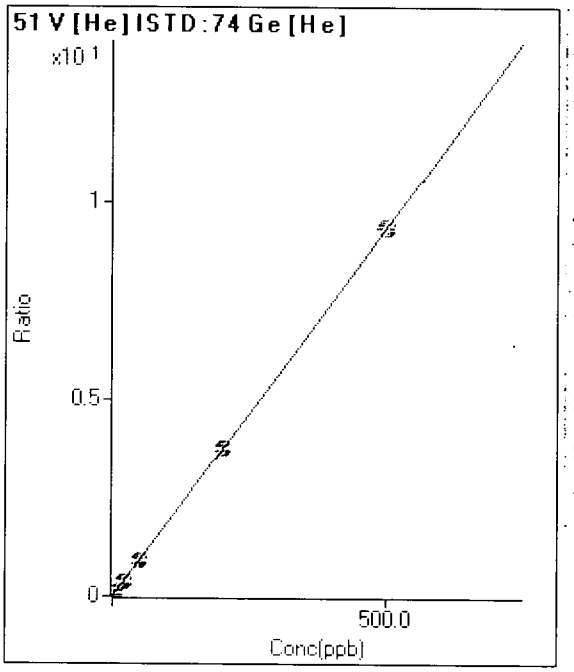
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35	0.000	P	23.0
2	☐	0.180	0.407	739	0.000	P	67.6
3	☐	0.900	0.842	1,501	0.000	P	1.7
4	☐	1.800	1.739	3,039	0.001	P	2.1
5	☐	3.600	3.431	5,998	0.001	P	3.5
6	☐	20.000	19.081	32,701	0.007	P	0.9
7	☐	50.000	46.667	77,043	0.018	P	1.3
8	☐	200.000	184.922	281,688	0.072	P	1.7
9	☐	500.000	466.119	668,749	0.181	P	0.5
10	☐	2500.000	2508.057	3,249,215	0.975	A	12.5

y = 3.8881E-004 * x + 8.4634E-006
R = 0.9999
DL = 0.01505
BEC = 0.02177

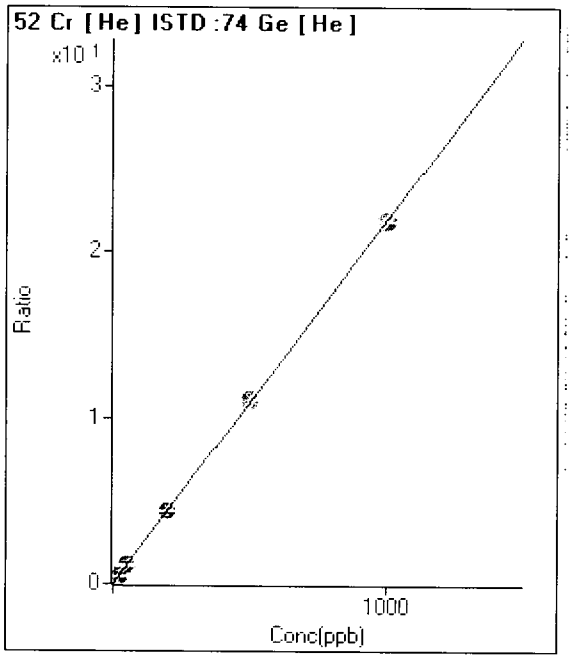
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3,040	0.011	P	4.5
2	☐	0.180	0.171	3,987	0.014	P	1.3
3	☐	0.900	0.876	7,791	0.027	P	1.9
4	☐	1.800	1.819	12,820	0.045	P	0.7
5	☐	3.600	3.700	22,849	0.080	P	1.4
6	☐	20.000	20.563	111,392	0.395	P	0.5
7	☐	50.000	50.645	261,140	0.958	P	0.4
8	☐	200.000	200.423	964,034	3.758	P	0.6
9	☐	500.000	499.743	2,267,494	9.355	A	1.1
10	☐			2,055	0.009	P	2.0

y = 0.0187 * x + 0.0107
R = 1.0000
DL = 0.0764
BEC = 0.5719

Weight: <None>
Min Conc: <None>

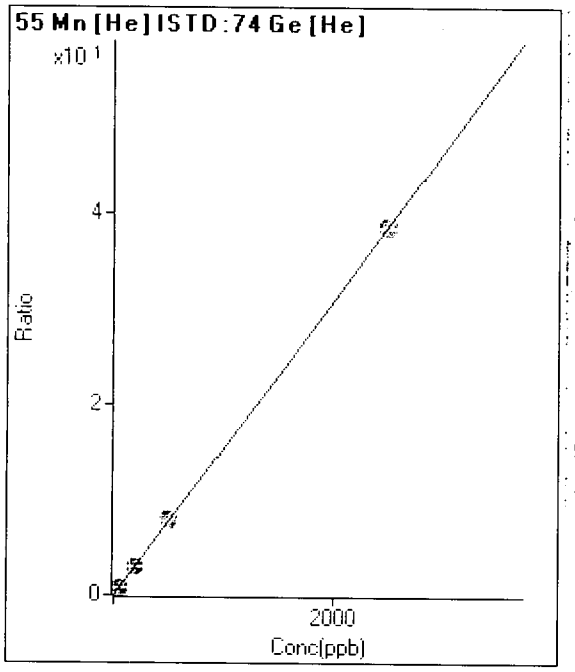


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373	0.001	P	7.1
2	☐	0.180	0.197	1,613	0.006	P	5.4
3	☐	0.900	0.929	6,235	0.022	P	3.1
4	☐	1.800	1.808	11,740	0.041	P	1.5
5	☐	3.600	3.679	23,422	0.082	P	3.6
6	☐	20.000	20.538	127,200	0.451	P	0.1
7	☐	50.000	50.189	300,182	1.101	P	0.3
8	☐	200.000	199.486	1,121,380	4.372	P	0.3
9	☐	500.000	506.608	2,690,405	11.100	A	0.3
10	☐	1000.000	996.778	4,928,659	21.839	A	0.4

y = 0.0219 * x + 0.0013
R = 1.0000
DL = 0.01278
BEC = 0.05998

Weight: <None>
Min Conc: <None>

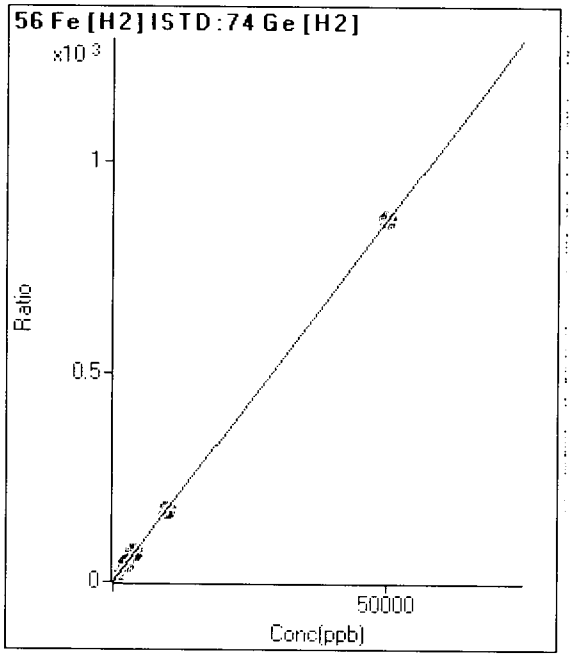
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138	0.000	P	11.5
2	☐	0.180	0.184	957	0.003	P	5.5
3	☐	0.900	0.886	4,078	0.014	P	1.0
4	☐	1.800	1.799	8,109	0.028	P	1.3
5	☐	3.600	3.639	16,217	0.057	P	2.2
6	☐	20.000	20.340	88,713	0.315	P	1.8
7	☐	50.000	50.245	211,818	0.777	P	0.7
8	☐	200.000	199.245	789,780	3.079	P	0.5
9	☐	500.000	510.456	1,911,710	7.887	A	0.5
10	☐	2500.000	2497.961	8,710,526	38.596	A	0.3

y = 0.0155 * x + 4.8438E-004
R = 1.0000
DL = 0.0108
BEC = 0.03135

Weight: <None>
Min Conc: <None>

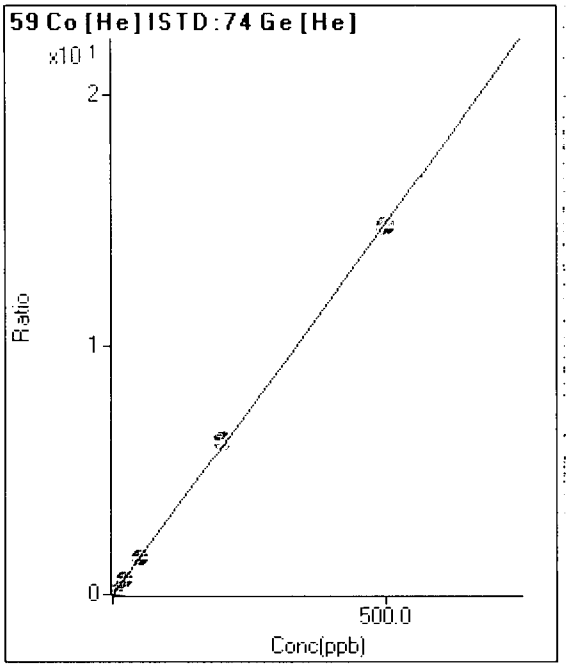


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9,917	0.010	P	4.2
2	☐			159,100	0.168	P	0.7
3	☐	45.000	45.583	751,954	0.797	P	0.6
4	☐	90.000	92.133	1,515,483	1.600	A	0.7
5	☐	180.000	185.313	3,034,056	3.208	A	0.4
6	☐	400.000	408.781	6,681,942	7.063	A	0.8
7	☐	2500.000	2497.725	39,665,772	43.104	A	0.4
8	☐	4000.000	4006.054	60,467,596	69.127	A	0.3
9	☐	10000.000	9921.413	139,217,468	171.185	A	0.7
10	☐	50000.000	50015.253	638,127,604	862.924	A	0.8

y = 0.0173 * x + 0.0105
R = 1.0000
DL = 0.07644
BEC = 0.6059

Weight: <None>
Min Conc: <None>

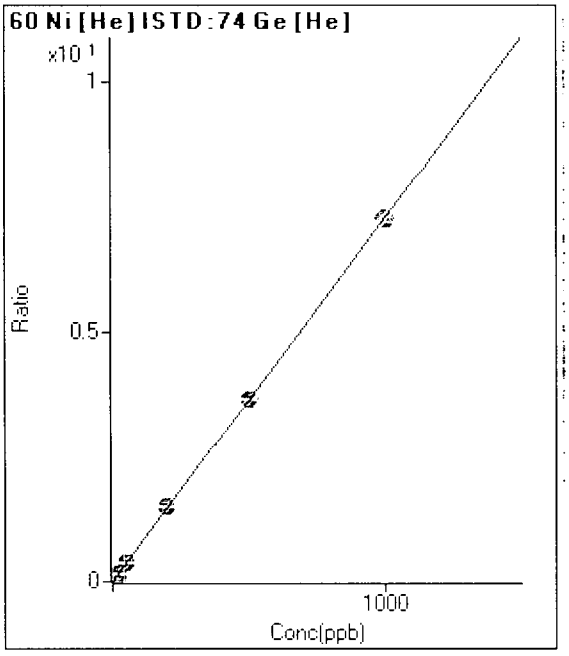
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38	0.000	P	58.6
2	☐	0.180	0.184	1,607	0.006	P	6.1
3	☐	0.900	0.967	8,318	0.029	P	1.1
4	☐	1.800	1.890	16,157	0.056	P	1.2
5	☐	3.600	3.708	31,588	0.110	P	1.2
6	☐	20.000	20.840	174,763	0.620	P	0.9
7	☐	50.000	50.741	411,590	1.509	P	0.8
8	☐	200.000	206.965	1,579,165	6.156	A	0.5
9	☐	500.000	497.105	3,583,916	14.787	A	0.7
10	☐			1,610	0.007	P	1.8

y = 0.0297 * x + 1.3282E-004
R = 0.9999
DL = 0.007856
BEC = 0.004465

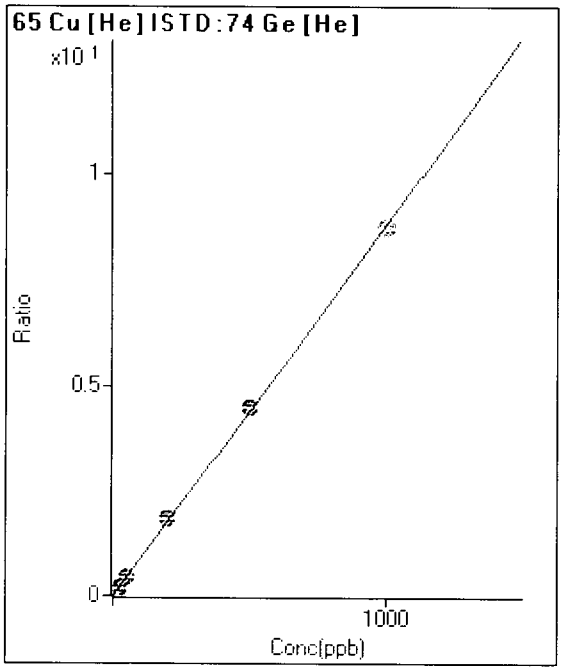
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43	0.000	P	32.9
2	☐	0.180	0.245	554	0.002	P	5.3
3	☐	0.900	0.935	2,005	0.007	P	2.1
4	☐	1.800	1.977	4,173	0.015	P	3.9
5	☐	3.600	3.867	8,098	0.028	P	4.0
6	☐	20.000	21.715	44,626	0.158	P	1.0
7	☐	50.000	52.578	104,469	0.383	P	0.8
8	☐	200.000	206.640	386,113	1.505	P	0.6
9	☐	500.000	502.031	886,331	3.657	P	0.4
10	☐	1000.000	997.492	1,639,763	7.266	A	1.3

y = 0.0073 * x + 1.5217E-004
R = 1.0000
DL = 0.02065
BEC = 0.02089

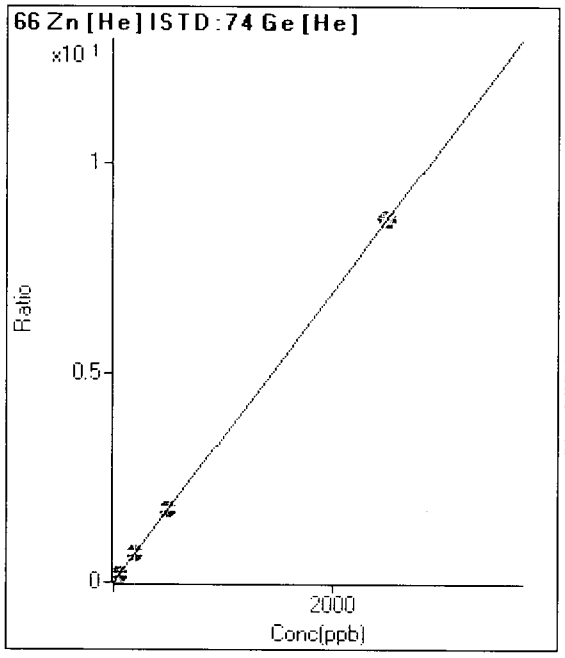
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39	0.000	P	41.4
2	☐	0.180	0.237	638	0.002	P	3.8
3	☐	0.900	0.952	2,450	0.009	P	7.2
4	☐	1.800	2.071	5,264	0.018	P	1.6
5	☐	3.600	4.047	10,223	0.036	P	2.2
6	☐	20.000	22.561	55,994	0.199	P	0.8
7	☐	50.000	53.197	127,674	0.468	P	0.3
8	☐	200.000	210.349	474,793	1.851	P	0.3
9	☐	500.000	511.435	1,090,740	4.500	P	0.4
10	☐	1000.000	992.000	1,969,867	8.729	A	0.6

y = 0.0088 * x + 1.3711E-004
R = 0.9999
DL = 0.01936
BEC = 0.01558

Weight: <None>
Min Conc: <None>

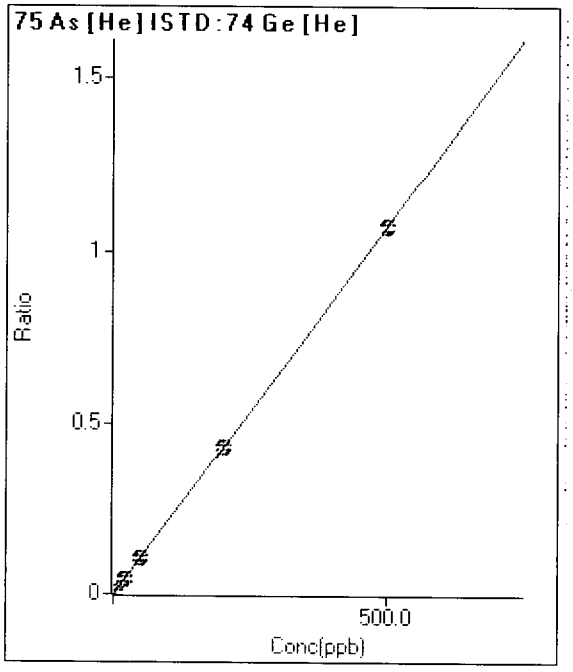


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38	0.000	P	18.2
2	☐	0.180	0.256	293	0.001	P	2.8
3	☐	0.900	1.015	1,052	0.004	P	12.9
4	☐	1.800	1.896	1,926	0.007	P	1.2
5	☐	3.600	3.798	3,809	0.013	P	2.3
6	☐	20.000	21.253	20,841	0.074	P	1.3
7	☐	50.000	51.374	48,679	0.179	P	0.2
8	☐	200.000	204.796	182,441	0.711	P	0.5
9	☐	500.000	508.226	427,744	1.765	P	0.7
10	☐	2500.000	2497.933	1,957,341	8.674	A	1.7

y = 0.0035 * x + 1.3288E-004
R = 1.0000
DL = 0.02089
BEC = 0.03827

Weight: <None>
Min Conc: <None>

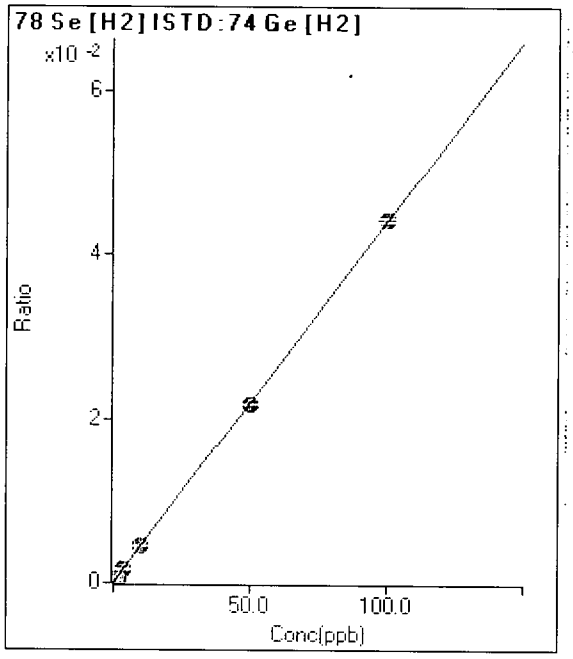
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57	0.000	P	15.3
2	☐	0.180	0.188	173	0.001	P	9.0
3	☐	0.900	0.929	632	0.002	P	6.3
4	☐	1.800	1.898	1,228	0.004	P	2.6
5	☐	3.600	3.786	2,386	0.008	P	0.7
6	☐	20.000	20.813	12,674	0.045	P	1.6
7	☐	50.000	50.703	29,788	0.109	P	0.3
8	☐	200.000	202.029	111,498	0.435	P	0.1
9	☐	500.000	499.084	260,191	1.074	P	0.3
10	☐			113	0.001	P	4.5

y = 0.0022 * x + 1.9956E-004
R = 1.0000
DL = 0.04249
BEC = 0.09279

Weight: <None>
Min Conc: <None>

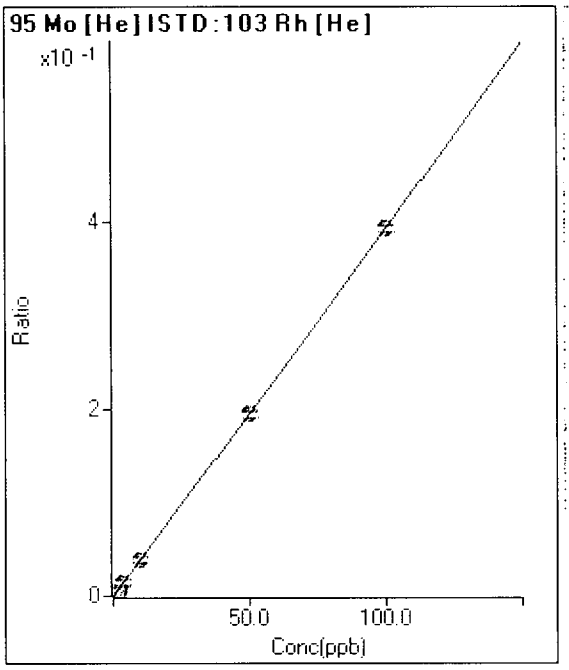


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	112.2
2	☐	0.180	0.198	88	0.000	P	16.8
3	☐	0.900	0.857	362	0.000	P	2.8
4	☐	1.800	1.745	734	0.001	P	4.7
5	☐	3.600	3.550	1,485	0.002	P	0.9
6	☐	10.000	10.000	4,174	0.004	P	2.9
7	☐	50.000	49.524	20,089	0.022	P	0.1
8	☐	100.000	100.241	38,643	0.044	P	1.2
9	☐			46	0.000	P	12.4
10	☐			39	0.000	P	7.0

y = 4.4066E-004 * x + 5.9829E-006
R = 1.0000
DL = 0.04572
BEC = 0.01358

Weight: <None>
Min Conc: <None>

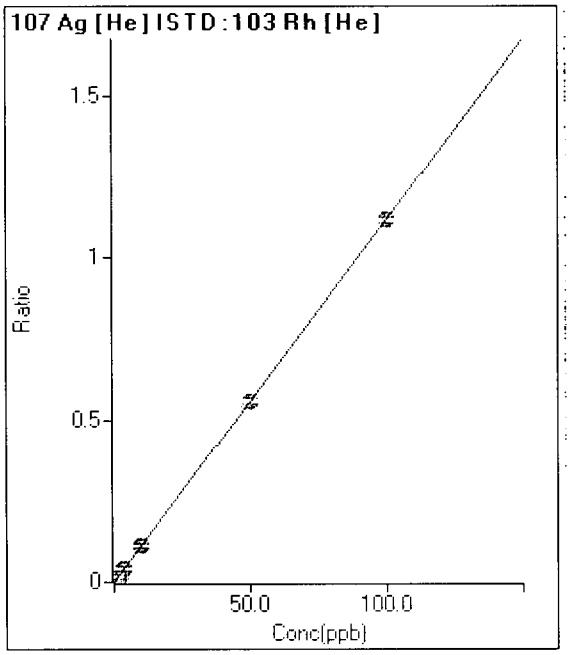
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	91.9
2	☐	0.180	0.179	441	0.001	P	11.1
3	☐	0.900	0.902	2,197	0.004	P	6.9
4	☐	1.800	1.817	4,383	0.007	P	2.0
5	☐	3.600	3.638	8,770	0.014	P	4.0
6	☐	10.000	10.024	23,787	0.039	P	1.8
7	☐	50.000	49.651	112,836	0.195	P	1.1
8	☐	100.000	100.171	216,458	0.393	P	0.8
9	☐			234	0.000	P	18.0
10	☐			248	0.001	P	19.5

y = 0.0039 * x + 8.9670E-006
R = 1.0000
DL = 0.006307
BEC = 0.002287

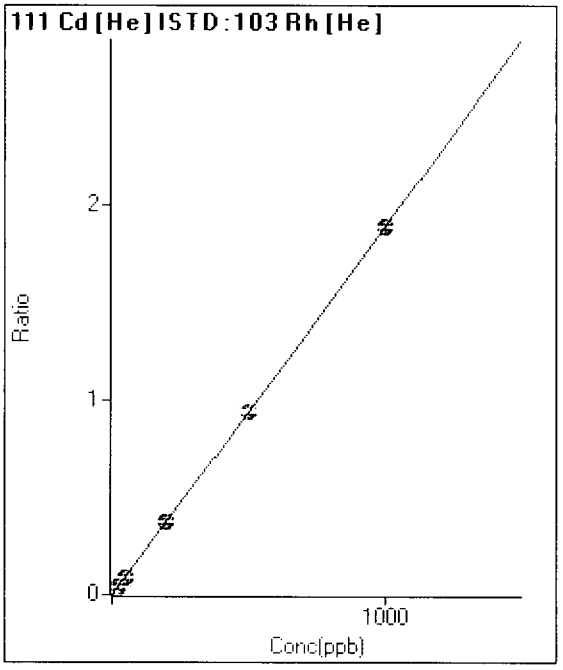
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.185	1,282	0.002	P	7.6
3	☐	0.900	0.935	6,470	0.010	P	2.3
4	☐	1.800	1.834	12,585	0.020	P	1.8
5	☐	3.600	3.621	24,848	0.040	P	1.6
6	☐	10.000	10.174	68,742	0.114	P	0.6
7	☐	50.000	49.894	322,908	0.557	P	1.1
8	☐	100.000	100.034	615,607	1.117	P	0.4
9	☐			130	0.000	P	18.7
10	☐			160	0.000	P	17.0

y = 0.0112 * x + 1.8243E-006
R = 1.0000
DL = 0.000849
BEC = 0.0001634

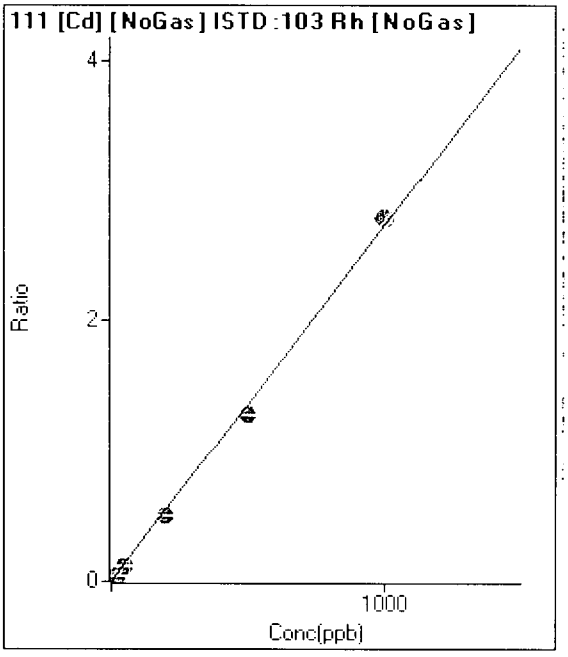
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4	0.000	P	63.4
2	☐	0.180	0.174	207	0.000	P	5.5
3	☐	0.900	0.914	1,072	0.002	P	2.0
4	☐	1.800	1.798	2,087	0.003	P	1.9
5	☐	3.600	3.610	4,188	0.007	P	2.3
6	☐	20.000	20.097	22,942	0.038	P	0.2
7	☐	50.000	49.981	54,646	0.094	P	0.6
8	☐	200.000	199.673	207,577	0.377	P	0.5
9	☐	500.000	500.366	485,450	0.944	P	0.5
10	☐	1000.000	999.882	875,310	1.886	P	0.1

y = 0.0019 * x + 5.9758E-006
R = 1.0000
DL = 0.006025
BEC = 0.003168

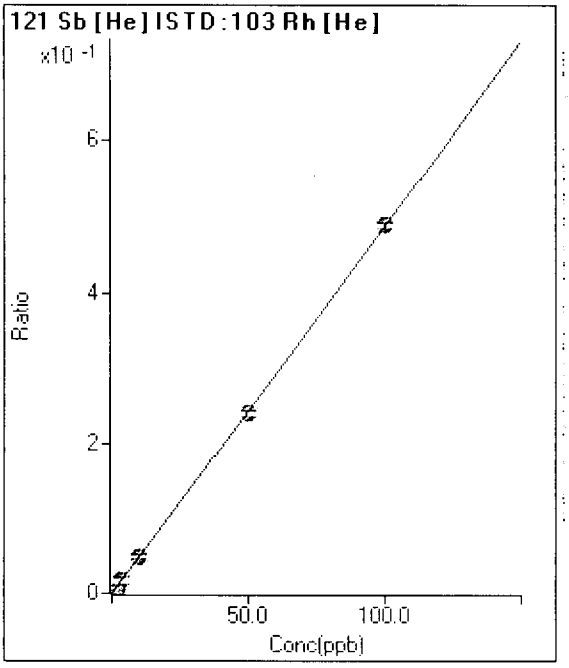
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	120.4
2	☐	0.180	0.152	478	0.000	P	19.4
3	☐	0.900	0.796	2,489	0.002	P	5.1
4	☐	1.800	1.679	5,168	0.005	P	5.3
5	☐	3.600	3.277	10,140	0.009	P	3.8
6	☐	20.000	18.463	56,208	0.050	P	0.4
7	☐	50.000	45.561	131,658	0.125	P	0.7
8	☐	200.000	183.923	494,282	0.503	P	0.2
9	☐	500.000	469.023	1,181,722	1.282	P	0.7
10	☐	1000.000	1018.958	2,137,023	2.785	A	13.2

y = 0.0027 * x + 4.9284E-006
R = 0.9993
DL = 0.006515
BEC = 0.001803

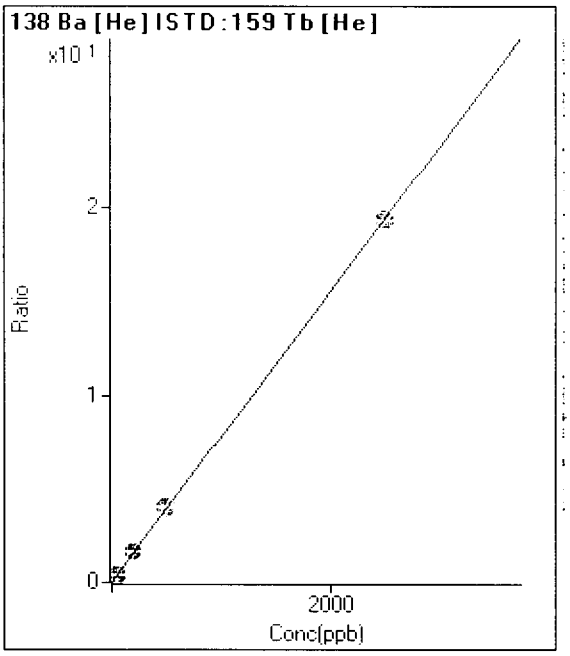
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	53.3
2	☐	0.180	0.162	530	0.001	P	9.3
3	☐	0.900	0.895	2,741	0.004	P	2.4
4	☐	1.800	1.766	5,320	0.009	P	3.3
5	☐	3.600	3.504	10,520	0.017	P	3.8
6	☐	10.000	10.065	29,678	0.049	P	0.9
7	☐	50.000	49.247	138,939	0.240	P	1.2
8	☐	100.000	100.374	269,231	0.489	P	0.4
9	☐			187	0.000	P	11.2
10	☐			140	0.000	P	21.2

y = 0.0049 * x + 6.5169E-005
R = 1.0000
DL = 0.0214
BEC = 0.01339

Weight: <None>
Min Conc: <None>

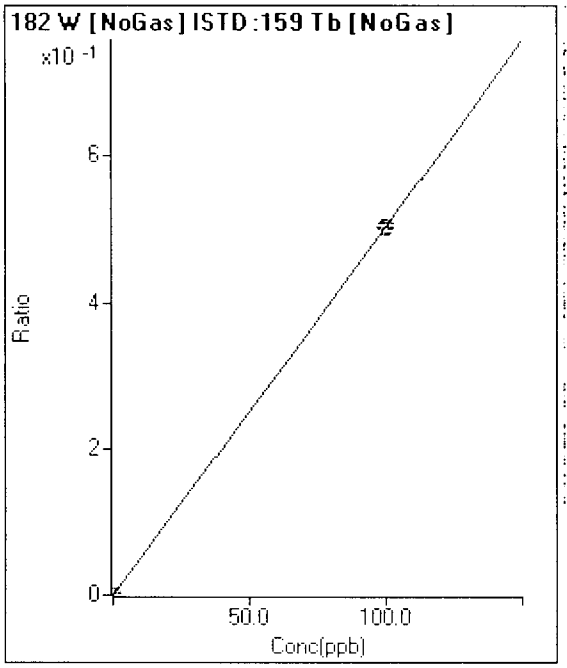


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66	0.000	P	33.4
2	☐	0.180	0.199	1,298	0.002	P	3.6
3	☐	0.900	0.977	6,146	0.008	P	6.6
4	☐	1.800	2.022	12,517	0.016	P	2.0
5	☐	3.600	3.939	24,298	0.031	P	1.9
6	☐	20.000	22.042	135,273	0.171	P	0.4
7	☐	50.000	53.349	319,417	0.415	P	1.0
8	☐	200.000	210.616	1,220,678	1.636	P	1.1
9	☐	500.000	519.232	2,883,110	4.034	A	1.5
10	☐	2500.000	2495.220	12,946,859	19.384	A	0.3

y = 0.0078 * x + 8.2555E-005
R = 1.0000
DL = 0.01066
BEC = 0.01063

Weight: <None>
Min Conc: <None>

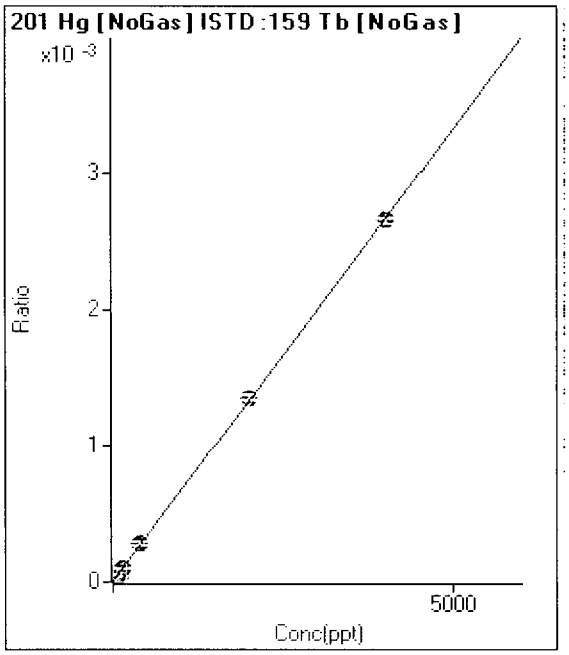
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22	0.000	P	111.0
2	☐			62	0.000	P	80.7
3	☐			39	0.000	P	99.1
4	☐			46	0.000	P	33.6
5	☐			23	0.000	P	43.3
6	☐			88	0.000	P	87.5
7	☐			133	0.000	P	18.8
8	☐			202	0.000	P	12.3
9	☐	100.000	100.000	874,621	0.504	P	1.2
10	☐			2,358	0.002	P	20.0

y = 0.0050 * x + 1.3365E-005
R = 1.0000
DL = 0.008831
BEC = 0.002652

Weight: <None>
Min Conc: <None>

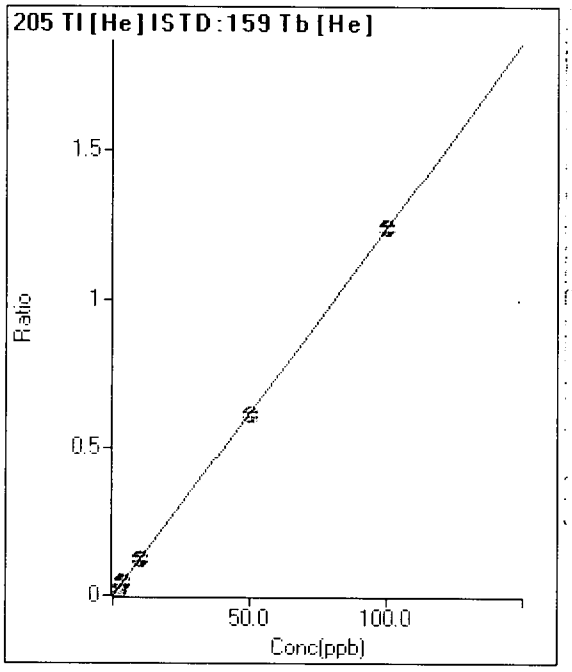


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	21.5
2	☐			16	0.000	P	21.2
3	☐	36.000	34.636	49	0.000	P	11.8
4	☐	72.000	79.957	105	0.000	P	3.8
5	☐	144.000	150.252	195	0.000	P	2.5
6	☐	400.000	419.935	528	0.000	P	7.9
7	☐	2000.000	2028.926	2,456	0.001	P	3.1
8	☐	4000.000	3983.187	4,691	0.003	P	1.5
9	☐			107	0.000	P	8.5
10	☐			43	0.000	P	19.0

y = 6.6536E-007 * x + 3.3990E-006
R = 1.0000
DL = 3.292
BEC = 5.108

Weight: <None>
Min Conc: <None>

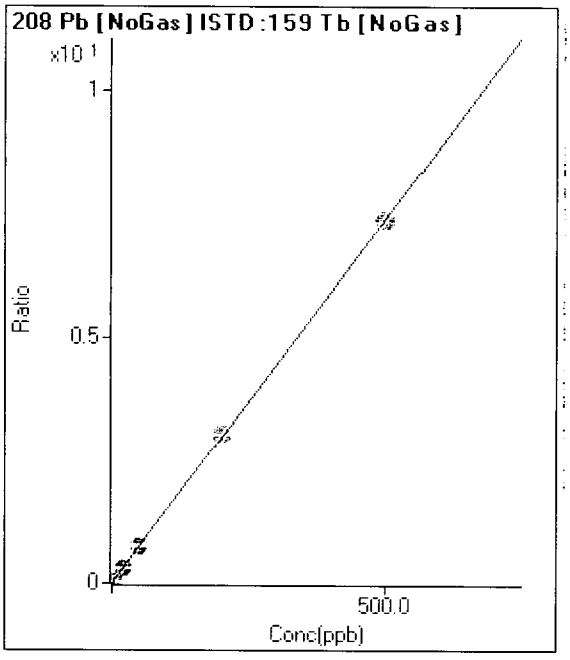
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16	0.000	P	24.6
2	☐	0.180	0.180	1,791	0.002	P	0.3
3	☐	0.900	0.903	8,953	0.011	P	0.6
4	☐	1.800	1.820	17,832	0.022	P	0.6
5	☐	3.600	3.626	35,479	0.045	P	1.0
6	☐	10.000	10.091	98,435	0.125	P	1.3
7	☐	50.000	49.437	470,597	0.611	P	0.7
8	☐	100.000	100.271	924,112	1.239	P	0.5
9	☐			322	0.000	P	20.0
10	☐			102	0.000	P	23.7

y = 0.0124 * x + 1.9567E-005
R = 1.0000
DL = 0.00117
BEC = 0.001584

Weight: <None>
Min Conc: <None>

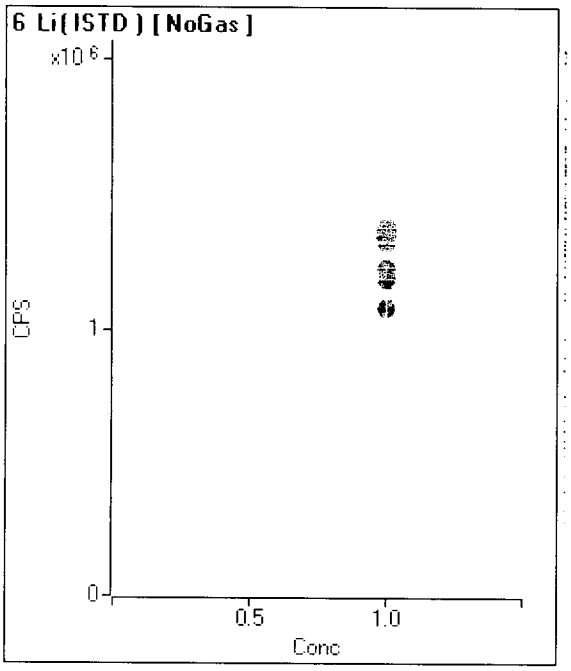


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	781	0.000	P	7.1
2	☐	0.180	0.187	6,113	0.003	P	1.0
3	☐	0.900	0.950	27,133	0.015	P	1.0
4	☐	1.800	1.875	52,466	0.028	P	1.6
5	☐	3.600	3.700	104,251	0.055	P	0.7
6	☐	20.000	20.792	576,277	0.308	P	0.1
7	☐	50.000	51.271	1,379,309	0.760	P	1.0
8	☐	200.000	204.362	5,351,496	3.027	A	0.8
9	☐	500.000	498.095	12,802,185	7.378	A	1.0
10	☐			5,423	0.004	P	18.0

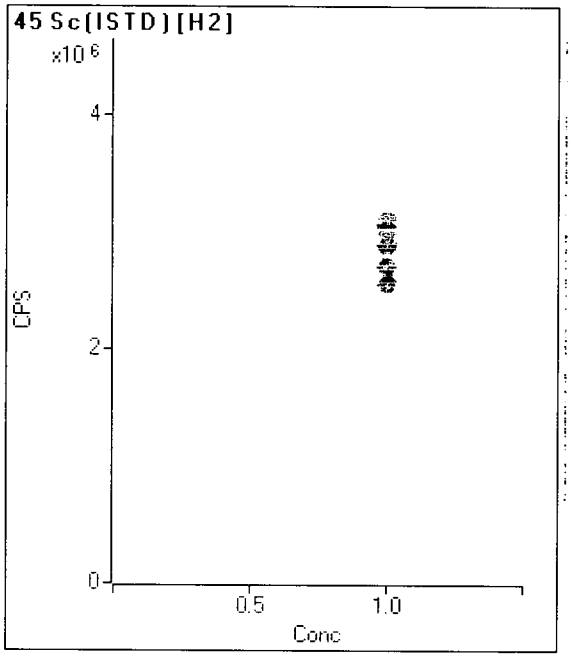
y = 0.0148 * x + 4.6886E-004
R = 1.0000
DL = 0.006705
BEC = 0.03166

Weight: <None>
Min Conc: <None>

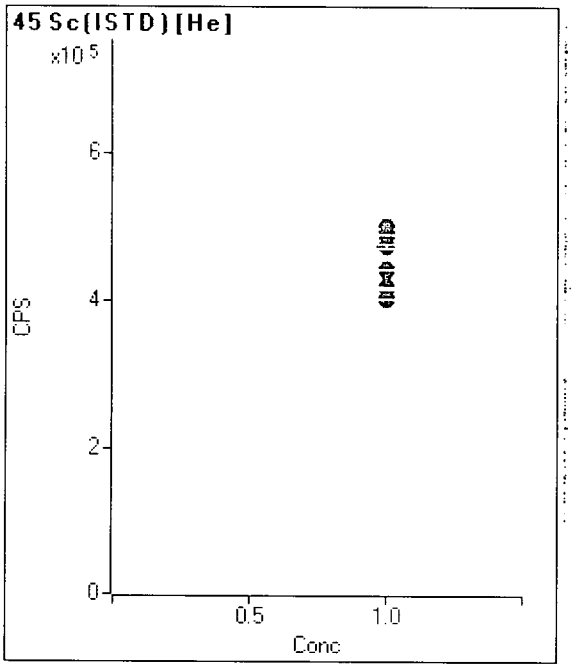
Calibration for 013_ICV.d



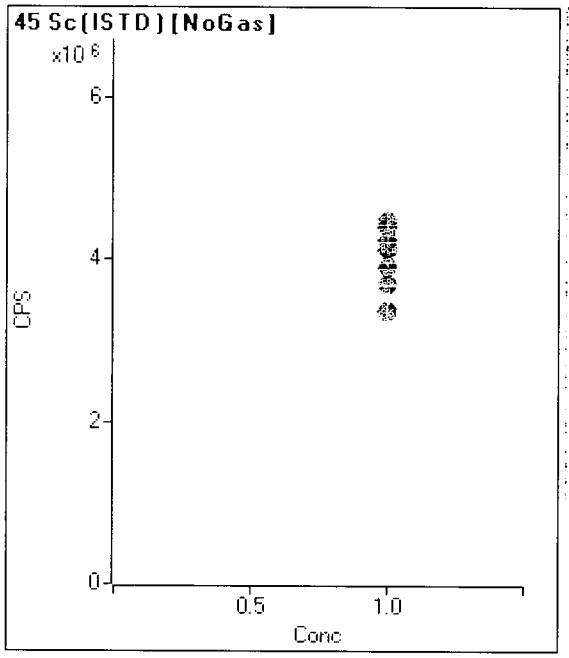
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,328,006		A	1.5
2		1.000		1,360,333		A	1.2
3		1.000		1,340,615		A	1.8
4		1.000		1,367,632		A	1.6
5		1.000		1,375,569		A	0.6
6		1.000		1,367,298		A	1.1
7		1.000		1,324,276		A	0.5
8		1.000		1,225,541		A	1.4
9		1.000		1,188,352		A	0.6
10		1.000		1,079,605		A	13.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		2,880,502		A	0.5
2		1.000		3,044,665		A	0.7
3		1.000		3,077,212		A	0.5
4		1.000		3,065,246		A	1.9
5		1.000		3,082,517		A	0.1
6		1.000		3,091,352		A	0.6
7		1.000		3,018,009		A	0.5
8		1.000		2,883,551		A	0.7
9		1.000		2,699,337		A	1.0
10		1.000		2,553,443		A	1.5

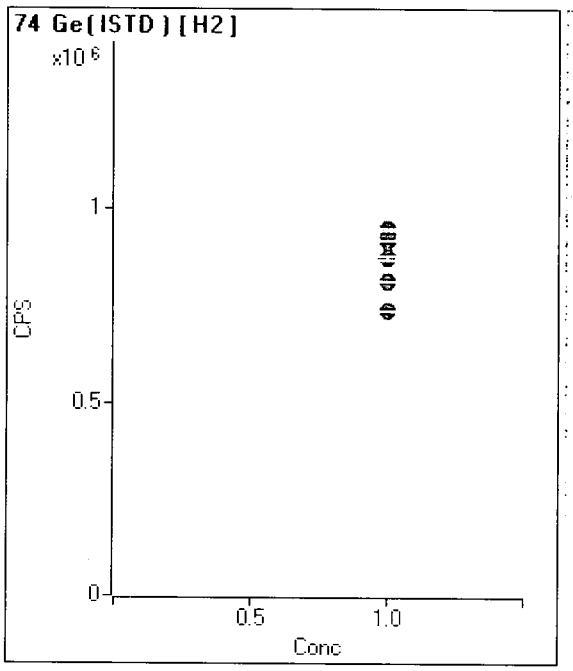


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		495,175		P	0.4
2		1.000		496,972		P	1.2
3		1.000		500,846		P	0.5
4		1.000		497,152		P	0.6
5		1.000		496,764		P	0.6
6		1.000		491,038		P	0.4
7		1.000		475,533		P	0.9
8		1.000		443,471		P	0.4
9		1.000		418,497		P	0.6
10		1.000		403,934		P	0.4

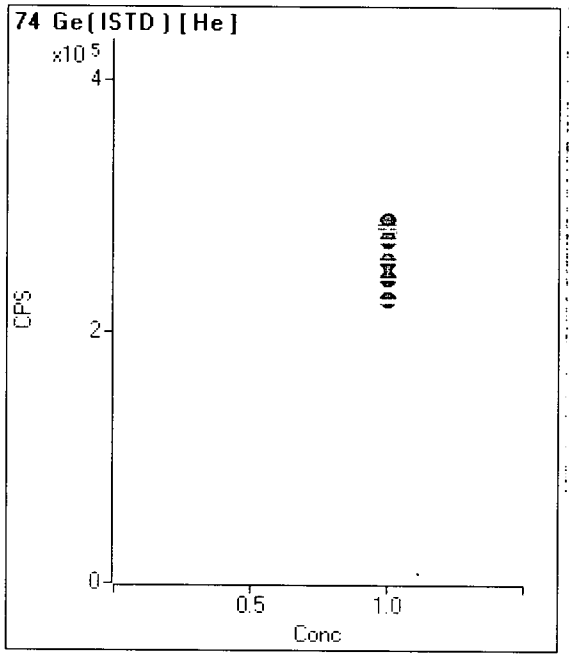


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		4,124,212		A	1.8
2		1.000		4,461,976		A	1.3
3		1.000		4,467,684		A	1.3
4		1.000		4,438,571		A	1.9
5		1.000		4,468,940		A	0.7
6		1.000		4,402,783		A	0.7
7		1.000		4,244,490		A	1.6
8		1.000		3,918,041		A	1.7
9		1.000		3,689,860		A	0.5
10		1.000		3,363,641		A	11.4

Calibration for 013_ICV.d

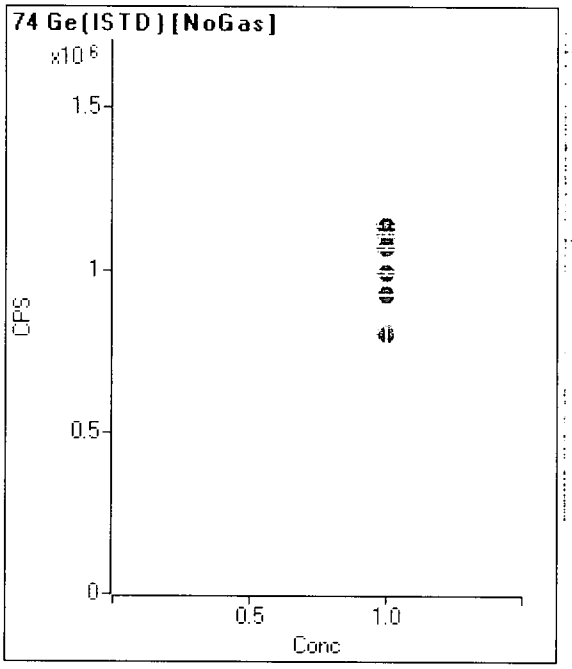


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		948,676		P	0.2
2		1.000		945,285		P	0.5
3		1.000		943,610		P	0.2
4		1.000		947,126		P	0.8
5		1.000		945,891		P	0.4
6		1.000		946,046		P	0.4
7		1.000		920,247		P	0.4
8		1.000		874,743		P	0.8
9		1.000		813,251		P	0.3
10		1.000		739,500		P	0.2

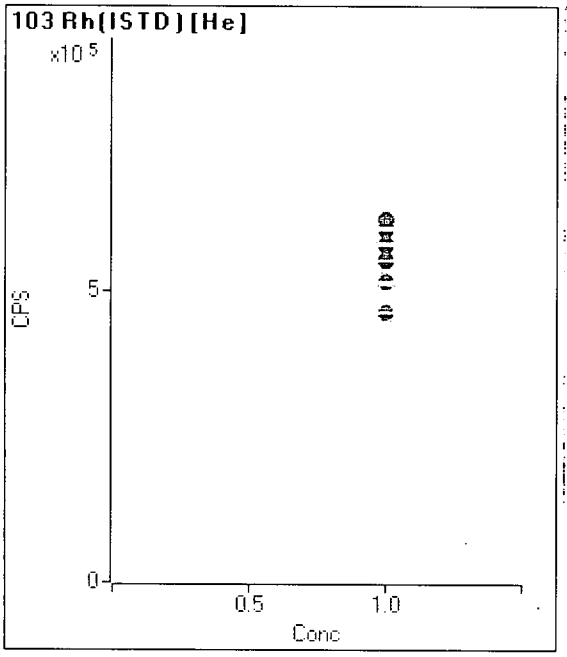


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		284,256		P	1.0
2		1.000		286,831		P	0.8
3		1.000		287,850		P	1.0
4		1.000		286,769		P	0.9
5		1.000		286,016		P	1.0
6		1.000		281,881		P	0.9
7		1.000		272,685		P	0.7
8		1.000		256,511		P	0.4
9		1.000		242,377		P	0.3
10		1.000		225,685		P	0.7

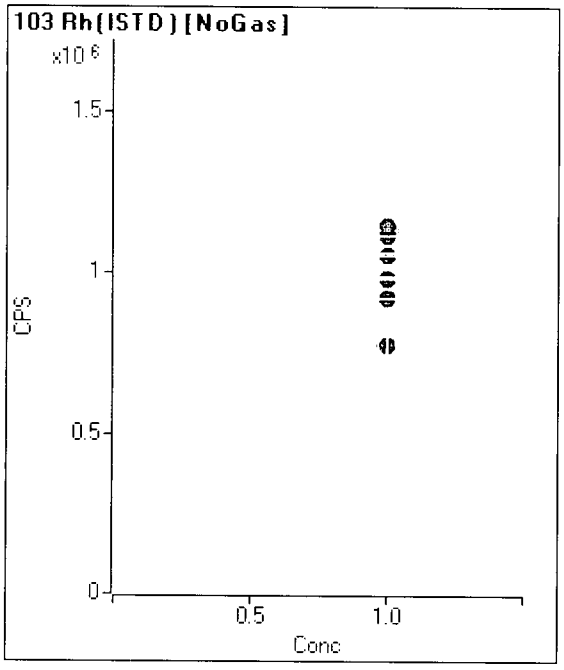
Calibration for 013_ICV.d



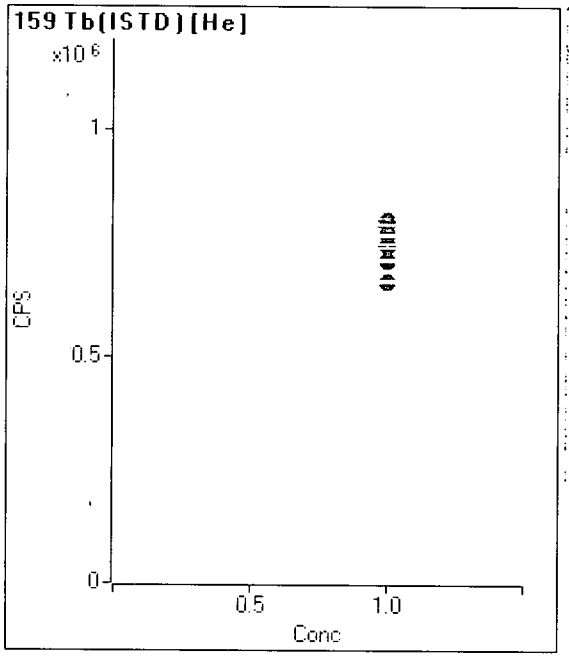
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,128,393		P	0.9
2		1.000		1,135,979		P	1.0
3		1.000		1,134,363		P	0.5
4		1.000		1,124,572		P	1.1
5		1.000		1,131,554		P	1.1
6		1.000		1,113,381		P	0.7
7		1.000		1,070,509		P	1.0
8		1.000		992,541		P	1.1
9		1.000		927,218		P	0.6
10		1.000		804,416		P	12.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		616,443		P	1.3
2		1.000		619,578		P	0.5
3		1.000		619,802		P	0.7
4		1.000		614,332		P	0.9
5		1.000		614,512		P	0.4
6		1.000		605,090		P	0.7
7		1.000		579,600		P	0.2
8		1.000		551,125		P	0.1
9		1.000		514,353		P	0.8
10		1.000		464,098		P	0.1

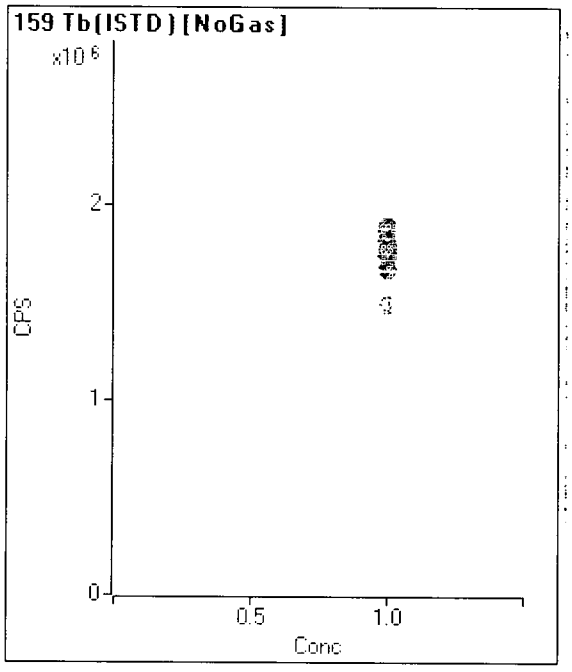


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,143,555		P	0.4
2		1.000		1,139,932		P	0.6
3		1.000		1,141,887		P	0.3
4		1.000		1,125,424		P	0.6
5		1.000		1,131,753		P	0.8
6		1.000		1,113,933		P	0.2
7		1.000		1,057,444		P	0.6
8		1.000		983,438		P	0.7
9		1.000		922,009		P	0.4
10		1.000		775,770		P	12.2

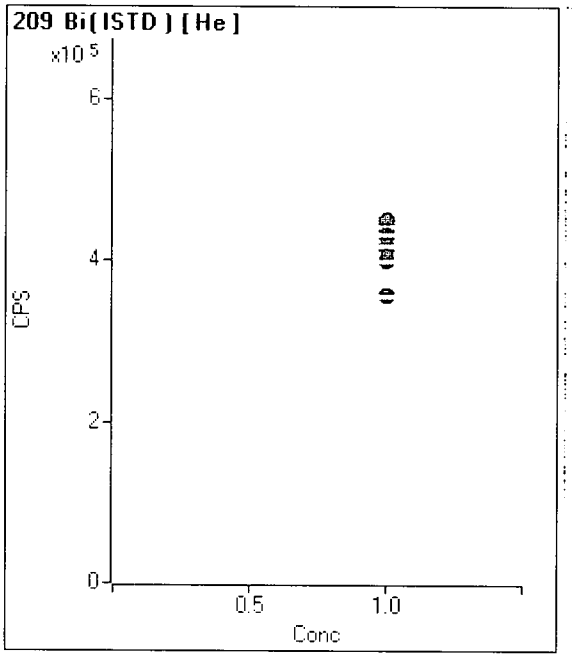


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		794,731		P	0.4
2		1.000		797,839		P	0.3
3		1.000		800,892		P	1.2
4		1.000		792,637		P	1.0
5		1.000		791,883		P	0.8
6		1.000		789,655		P	0.7
7		1.000		770,604		P	0.7
8		1.000		746,109		P	1.3
9		1.000		714,789		P	0.8
10		1.000		667,923		P	0.3

Calibration for 013_ICV.d

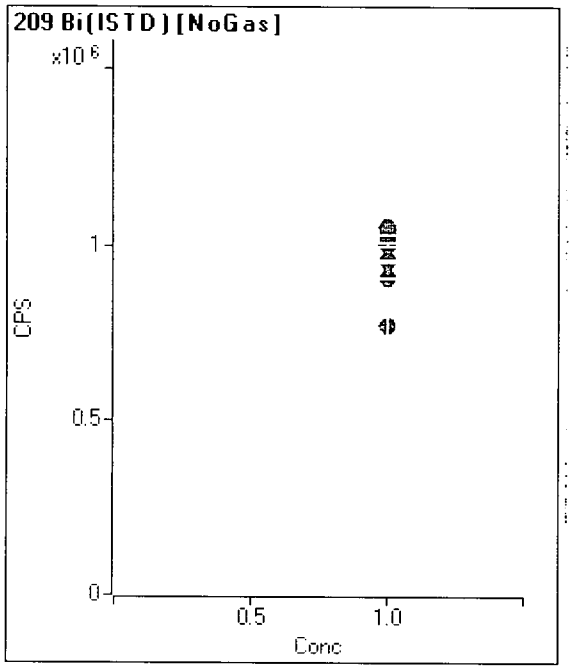


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,665,549		A	0.7
2		1.000		1,883,901		A	0.8
3		1.000		1,865,604		A	0.2
4		1.000		1,858,479		A	1.1
5		1.000		1,886,178		A	0.5
6		1.000		1,868,481		A	0.7
7		1.000		1,815,354		A	1.2
8		1.000		1,767,773		A	0.4
9		1.000		1,735,369		A	1.4
10		1.000		1,485,670		M	14.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		446,100		P	0.6
2		1.000		445,705		P	0.4
3		1.000		449,982		P	0.8
4		1.000		445,640		P	0.7
5		1.000		444,222		P	0.8
6		1.000		443,428		P	0.6
7		1.000		432,361		P	0.7
8		1.000		417,805		P	0.6
9		1.000		400,209		P	0.5
10		1.000		356,718		P	0.7

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,052,566		P	0.9
2	☐	1.000		1,047,796		P	0.4
3	☐	1.000		1,050,375		P	0.1
4	☐	1.000		1,031,296		P	1.0
5	☐	1.000		1,037,773		P	0.1
6	☐	1.000		1,032,048		P	0.2
7	☐	1.000		1,004,346		P	0.7
8	☐	1.000		957,218		P	0.6
9	☐	1.000		909,920		P	0.3
10	☐	1.000		777,321		P	12.1

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:26:33
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.634	ppb	1.1	126,894	40	99.08	
Na	23	45	He	4098.207	ppb	0.6	5,804,097	4000	102.46	
Mg	24	45	He	4266.233	ppb	2.1	3,394,883	4000	106.66	
Al	27	45	He	4151.617	ppb	1.0	1,746,651	4000	103.79	
K	39	45	He	4139.201	ppb	1.4	2,968,952	4000	103.48	
Ca	44	45	H2	4097.383	ppb	1.7	1,155,947	4000	102.43	
[Ca]	44	45	He	4121.542	ppb	1.7	144,092	4000	103.04	
Ti	47	45	NoGas	91.273	ppb	0.8	134,523	100	91.27	
V	51	74	He	98.516	ppb	0.6	455,170	100	98.52	
Cr	52	74	He	98.734	ppb	0.8	531,712	100	98.73	
Mn	55	74	He	102.429	ppb	0.5	388,913	100	102.43	
Fe	56	74	H2	4150.965	ppb	0.4	59,505,171	4000	103.77	
Co	59	74	He	102.302	ppb	0.4	747,599	100	102.3	
Ni	60	74	He	104.092	ppb	0.6	186,301	100	104.09	
Cu	65	74	He	105.310	ppb	0.2	227,671	100	105.31	
Zn	66	74	He	102.245	ppb	1.1	87,247	100	102.24	
As	75	74	He	98.759	ppb	1.0	52,225	100	98.76	
Se	78	74	H2	39.483	ppb	0.7	14,459	40	98.71	
Mo	95	103	He	40.494	ppb	0.7	84,214	40	101.24	
Ag	107	103	He	41.162	ppb	1.0	243,770	40	102.9	
Cd	111	103	He	98.567	ppb	1.1	98,611	100	98.57	
[Cd]	111	103	NoGas	91.651	ppb	0.6	236,378	100	91.65	
Sb	121	103	He	41.262	ppb	0.8	106,533	40	103.16	
Ba	138	159	He	104.314	ppb	1.0	595,320	100	104.31	
Hg	201	159	NoGas	821.145	ppt	2.4	951	800	102.64	
Tl	205	159	He	40.563	ppb	1.3	368,061	40	101.41	
Pb	208	159	NoGas	101.376	ppb	0.4	2,598,611	100	101.38	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,203,276	1328005.7	90.6	
Sc	45	H2	Analog	1.6	2,729,837	2880501.55333333	94.8	
Sc	45	He	Pulse	0.7	425,358	495174.883333333	85.9	
Sc	45	NoGas	Analog	0.8	3,789,891	4124211.75	91.9	
Ge	74	H2	Pulse	0.5	830,772	948676.153333333	87.6	
Ge	74	He	Pulse	0.5	245,668	284255.65	86.4	
Ge	74	NoGas	Pulse	1.0	958,482	1128393.34666667	84.9	
Rh	103	He	Pulse	0.9	530,405	616442.69	86.0	
Rh	103	NoGas	Pulse	0.4	943,786	1143555.12333333	82.5	
Tb	159	He	Pulse	0.5	734,577	794731.056666667	92.4	
Tb	159	NoGas	Analog	0.1	1,730,139	1665548.91666667	103.9	
Bi	209	He	Pulse	0.4	407,962	446099.653333333	91.5	
Bi	209	NoGas	Pulse	0.1	950,738	1052566.13	90.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-ICB2**	Total Dilution:	1.0000
File Name:	015_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:35:48
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	71.6	47	
Na	23	45	He	2.663	ppb	3.0	9,151	
Mg	24	45	He	1.913	ppb	3.7	2,029	
Al	27	45	He	1.799	ppb	11.0	873	
K	39	45	He	2.112	ppb	17.1	40,603	
Ca	44	45	H2	1.830	ppb	10.0	1,036	
[Ca]	44	45	He	0.248	ppb	255.6	347	
Ti	47	45	NoGas	0.092	ppb	12.3	173	
V	51	74	He	-0.110	ppb	N/A	2,180	
Cr	52	74	He	0.058	ppb	13.0	650	
Mn	55	74	He	0.068	ppb	15.2	387	
Fe	56	74	H2	1.795	ppb	0.4	34,903	
Co	59	74	He	0.015	ppb	6.8	147	
Ni	60	74	He	0.056	ppb	22.0	141	
Cu	65	74	He	0.063	ppb	37.2	174	
Zn	66	74	He	0.129	ppb	7.6	147	
As	75	74	He	0.009	ppb	295.0	55	
Se	78	74	H2	0.005	ppb	51.7	7	
Mo	95	103	He	0.009	ppb	19.3	24	
Ag	107	103	He	0.004	ppb	18.9	28	
Cd	111	103	He	0.065	ppb	11.6	71	
[Cd]	111	103	NoGas	0.060	ppb	4.5	169	
Sb	121	103	He	0.043	ppb	14.5	152	
Ba	138	159	He	0.071	ppb	11.9	474	
Hg	201	159	NoGas	2.205	ppt	96.3	9	
Tl	205	159	He	0.004	ppb	60.6	54	
Pb	208	159	NoGas	0.060	ppb	2.3	2,408	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,249,505	1328005.7	94.1	
Sc	45	H2	Analog	1.4	2,754,617	2880501.55333333	95.6	
Sc	45	He	Pulse	0.8	435,182	495174.883333333	87.9	
Sc	45	NoGas	Analog	1.4	3,911,706	4124211.75	94.8	
Ge	74	H2	Pulse	0.4	842,590	948676.153333333	88.8	
Ge	74	He	Pulse	0.7	252,204	284255.65	88.7	
Ge	74	NoGas	Pulse	0.8	991,235	1128393.34666667	87.8	
Rh	103	He	Pulse	0.4	553,016	616442.69	89.7	
Rh	103	NoGas	Pulse	0.4	998,959	1143555.12333333	87.4	
Tb	159	He	Pulse	0.4	743,969	794731.056666667	93.6	
Tb	159	NoGas	Analog	0.3	1,780,875	1665548.91666667	106.9	
Bi	209	He	Pulse	0.7	422,970	446099.653333333	94.8	
Bi	209	NoGas	Pulse	0.7	983,266	1052566.13	93.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL1**	Total Dilution:	1.0000
File Name:	016CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:40:30
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.191	ppb	4.6	664	106.11		
Na	23	45	He	11.330	ppb	1.9	21,878	125.89		
Mg	24	45	He	10.592	ppb	2.9	9,168	117.69		
Al	27	45	He	10.404	ppb	6.2	4,614	115.6		
K	39	45	He	10.671	ppb	12.3	47,186	118.57		
Ca	44	45	H2	11.757	ppb	8.4	3,883	130.63	R-11	<MRL
[Ca]	44	45	He	10.299	ppb	2.0	711	114.43		
Ti	47	45	NoGas	0.242	ppb	17.9	405	134.44	R-11	<MRL
V	51	74	He	0.122	ppb	7.3	3,296	67.78	R-11	
Cr	52	74	He	0.218	ppb	12.1	1,547	121.11		
Mn	55	74	He	0.247	ppb	11.5	1,091	137.22	R-11	<MRL
Fe	56	74	H2	10.313	ppb	1.5	160,149	114.59		
Co	59	74	He	0.200	ppb	5.2	1,541	111.11		
Ni	60	74	He	0.257	ppb	6.9	514	142.78	R-11	
Cu	65	74	He	0.286	ppb	12.3	674	158.89	R-11	<MRL
Zn	66	74	He	0.380	ppb	20.4	369	211.11	R-11	
As	75	74	He	0.178	ppb	17.8	148	98.89		
Se	78	74	H2	0.187	ppb	6.9	75	103.89		
Mo	95	103	He	0.191	ppb	17.2	419	106.11		
Ag	107	103	He	0.183	ppb	10.3	1,130	101.67		
Cd	111	103	He	0.229	ppb	12.3	242	127.22		
[Cd]	111	103	NoGas	0.208	ppb	12.9	576	115.56		
Sb	121	103	He	0.207	ppb	13.7	594	115		
Ba	138	159	He	0.275	ppb	3.0	1,660	152.78	R-11	<MRL
Hg	201	159	NoGas	7.748	ppt	14.3	15	107.61		
Tl	205	159	He	0.187	ppb	1.6	1,741	103.89		
Pb	208	159	NoGas	0.231	ppb	1.8	6,912	128.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,264,379	1328005.7	95.2	
Sc	45	H2	Analog	0.9	2,769,215	2880501.55333333	96.1	
Sc	45	He	Pulse	1.1	438,787	495174.883333333	88.6	
Sc	45	NoGas	Analog	0.8	3,940,403	4124211.75	95.5	
Ge	74	H2	Pulse	0.5	850,147	948676.153333333	89.6	
Ge	74	He	Pulse	0.7	253,974	284255.65	89.3	
Ge	74	NoGas	Pulse	1.4	994,818	1128393.34666667	88.2	
Rh	103	He	Pulse	1.2	553,164	616442.69	89.7	
Rh	103	NoGas	Pulse	0.8	1,003,707	1143555.12333333	87.8	
Tb	159	He	Pulse	1.1	748,509	794731.056666667	94.2	
Tb	159	NoGas	Analog	2.0	1,775,004	1665548.91666667	106.6	
Bi	209	He	Pulse	0.6	424,238	446099.653333333	95.1	
Bi	209	NoGas	Pulse	1.2	978,939	1052566.13	93.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL2**	Total Dilution:	1.0000
File Name:	017_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:45:11
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.936	ppb	3.7	3,187	104	
Na	23	45	He	46.810	ppb	1.2	74,284	104.02	
Mg	24	45	He	46.946	ppb	0.8	39,337	104.32	
Al	27	45	He	47.199	ppb	2.5	20,754	104.89	
K	39	45	He	46.342	ppb	1.6	73,862	102.98	
Ca	44	45	H2	46.006	ppb	1.8	13,878	102.24	
[Ca]	44	45	He	45.443	ppb	7.8	1,992	100.98	
Ti	47	45	NoGas	0.880	ppb	9.0	1,401	97.78	
V	51	74	He	0.882	ppb	3.1	6,986	98	
Cr	52	74	He	0.949	ppb	2.3	5,680	105.44	
Mn	55	74	He	0.900	ppb	3.4	3,698	100	
Fe	56	74	H2	45.664	ppb	0.2	682,103	101.48	
Co	59	74	He	0.907	ppb	2.0	6,969	100.78	
Ni	60	74	He	0.954	ppb	0.6	1,826	106	
Cu	65	74	He	1.018	ppb	9.2	2,338	113.11	
Zn	66	74	He	1.077	ppb	8.8	996	119.67	
As	75	74	He	0.909	ppb	11.0	554	101	
Se	78	74	H2	0.916	ppb	7.2	350	101.78	
Mo	95	103	He	0.857	ppb	4.8	1,875	95.22	
Ag	107	103	He	0.918	ppb	1.5	5,704	102	
Cd	111	103	He	0.988	ppb	6.0	1,040	109.78	
[Cd]	111	103	NoGas	0.869	ppb	6.6	2,411	96.56	
Sb	121	103	He	0.903	ppb	7.3	2,479	100.33	
Ba	138	159	He	1.029	ppb	4.3	6,059	114.33	
Hg	201	159	NoGas	37.554	ppt	15.3	51	104.32	
Tl	205	159	He	0.907	ppb	0.7	8,418	100.78	
Pb	208	159	NoGas	0.970	ppb	0.8	26,664	107.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,271,053	1328005.7	95.7	
Sc	45	H2	Analog	0.8	2,808,847	2880501.55333333	97.5	
Sc	45	He	Pulse	0.4	442,455	495174.883333333	89.4	
Sc	45	NoGas	Analog	1.1	3,996,788	4124211.75	96.9	
Ge	74	H2	Pulse	0.6	854,450	948676.153333333	90.1	
Ge	74	He	Pulse	0.7	257,019	284255.65	90.4	
Ge	74	NoGas	Pulse	0.7	1,005,843	1128393.34666667	89.1	
Rh	103	He	Pulse	0.8	556,209	616442.69	90.2	
Rh	103	NoGas	Pulse	0.8	1,013,632	1143555.12333333	88.6	
Tb	159	He	Pulse	0.8	750,361	794731.056666667	94.4	
Tb	159	NoGas	Analog	0.6	1,797,542	1665548.91666667	107.9	
Bi	209	He	Pulse	0.7	425,253	446099.653333333	95.3	
Bi	209	NoGas	Pulse	0.7	984,543	1052566.13	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL3**	Total Dilution:	1.0000
File Name:	018CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:49:50
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.778	ppb	2.6	6,098	98.78	
Na	23	45	He	92.131	ppb	0.6	141,977	102.37	
Mg	24	45	He	91.585	ppb	1.1	76,812	101.76	
Al	27	45	He	92.732	ppb	1.3	40,962	103.04	
K	39	45	He	92.607	ppb	0.6	108,692	102.9	
Ca	44	45	H2	90.487	ppb	2.2	27,061	100.54	
[Ca]	44	45	He	94.198	ppb	3.4	3,787	104.66	
Ti	47	45	NoGas	1.765	ppb	4.2	2,804	98.06	
V	51	74	He	1.787	ppb	1.9	11,428	99.28	
Cr	52	74	He	1.824	ppb	1.6	10,699	101.33	
Mn	55	74	He	1.864	ppb	3.1	7,587	103.56	
Fe	56	74	H2	93.147	ppb	0.2	1,393,548	103.5	
Co	59	74	He	1.845	ppb	2.1	14,257	102.5	
Ni	60	74	He	1.858	ppb	7.7	3,547	103.22	
Cu	65	74	He	2.043	ppb	0.6	4,695	113.5	
Zn	66	74	He	1.972	ppb	3.1	1,809	109.56	
As	75	74	He	1.827	ppb	4.8	1,070	101.5	
Se	78	74	H2	1.745	ppb	6.0	668	96.94	
Mo	95	103	He	1.743	ppb	4.6	3,834	96.83	
Ag	107	103	He	1.771	ppb	0.4	11,079	98.39	
Cd	111	103	He	1.849	ppb	0.8	1,957	102.72	
[Cd]	111	103	NoGas	1.754	ppb	2.7	4,886	97.44	
Sb	121	103	He	1.720	ppb	2.4	4,725	95.56	
Ba	138	159	He	1.971	ppb	2.1	11,652	109.5	
Hg	201	159	NoGas	67.850	ppt	1.1	88	94.24	
Tl	205	159	He	1.799	ppb	0.9	16,836	99.94	
Pb	208	159	NoGas	1.901	ppb	2.1	51,672	105.61	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.7	1,284,839	1328005.7	96.7	
Sc	45	H2	Analog	0.7	2,838,021	2880501.55333333	98.5	
Sc	45	He	Pulse	0.9	445,540	495174.883333333	90.0	
Sc	45	NoGas	Analog	1.8	4,033,976	4124211.75	97.8	
Ge	74	H2	Pulse	0.4	861,539	948676.153333333	90.8	
Ge	74	He	Pulse	0.9	259,156	284255.65	91.2	
Ge	74	NoGas	Pulse	1.4	1,014,684	1128393.34666667	89.9	
Rh	103	He	Pulse	0.6	560,190	616442.69	90.9	
Rh	103	NoGas	Pulse	0.5	1,018,234	1143555.12333333	89.0	
Tb	159	He	Pulse	0.9	756,961	794731.056666667	95.2	
Tb	159	NoGas	Analog	1.7	1,805,762	1665548.91666667	108.4	
Bi	209	He	Pulse	0.5	428,317	446099.653333333	96.0	
Bi	209	NoGas	Pulse	0.8	987,462	1052566.13	93.8	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K04033.b		
Acq Time	11/4/2019 12:54:31	Sample Type	
Sample Name	**9K04033-IFA1**	ICSA	
Comment	**A19J465**	Last Calib	11/05/2019 10:07:05
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.012	0.012	ppb	14.3		
Na	23	45	He	249079.681	249079.681	ppb	0.4		
Mg	24	45	He	98123.072	98123.072	ppb	0.4	100000	
Al	27	45	He	99861.326	99861.326	ppb	0.2	100000	
K	39	45	He	95272.268	95272.268	ppb	1.3	100000	
Ca	44	45	H2	284201.522	284201.522	ppb	0.6		
[Ca]	44	45	He	292365.752	292365.752	ppb	0.5		
Ti	47	45	NoGas	1923.328	1923.328	ppb	1.4		
V	51	74	He	0.108	0.108	ppb	22.9	2	
Cr	52	74	He	1.84	1.840	ppb	2.4	2	
Mn	55	74	He	2.364	2.364	ppb	2.5	2	> CRI
Fe	56	74	H2	246697.221	246697.221	ppb	0.1		
Co	59	74	He	0.851	0.851	ppb	0.3		
Ni	60	74	He	0.792	0.792	ppb	3.5	2	
Cu	65	74	He	1.1	1.100	ppb	2.9	2	
Zn	66	74	He	2.589	2.589	ppb	1.5	2	> CRI
As	75	74	He	0.215	0.215	ppb	18.1	0.9	
Se	78	74	H2	0.207	0.207	ppb	8.4	0.9	
Mo	95	103	He	2243.664	2243.664	ppb	0.4	2000	
Ag	107	103	He	0.326	0.326	ppb	3.8		
Cd	111	103	He	6.28	6.280	ppb	3.2		
[Cd]	111	103	NoGas	0.485	0.485	ppb	12.6		
Sb	121	103	He	0.158	0.158	ppb	12.9	0.9	
Ba	138	159	He	1.666	1.666	ppb	2.2	2	
W	182	159	NoGas	105.612	105.612	ppb	1.0		
Hg	201	159	NoGas	91.486	91.486	ppt	13.6		
Tl	205	159	He	0.007	0.007	ppb	30.6	0.9	
Pb	208	159	NoGas	0.826	0.826	ppb	1.3		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	1,080,637	0.4	1328005.7	Analog	81.4	
Sc	45	H2	2,359,833	1.4	2880501.55333333	Analog	81.9	
Sc	45	He	370,454	0.9	495174.883333333	Pulse	74.8	
Sc	45	NoGas	3,316,037	2.1	4124211.75	Analog	80.4	
Ge	74	H2	633,618	0.5	948676.153333333	Pulse	66.8	IS Q-06
Ge	74	He	199,483	1.3	284255.65	Pulse	70.2	
Ge	74	NoGas	776,724	0.9	1128393.34666667	Pulse	68.8	IS Q-06
Rh	103	He	387,988	1.1	616442.69	Pulse	62.9	IS Q-06
Rh	103	NoGas	712,705	1.1	1143555.12333333	Pulse	62.3	IS Q-06
Tb	159	He	591,918	0.5	794731.056666667	Pulse	74.5	
Tb	159	NoGas	1,390,964	0.8	1665548.91666667	Pulse	83.5	
Bi	209	He	295,217	0.7	446099.653333333	Pulse	66.2	IS Q-06
Bi	209	NoGas	716,993	0.7	1052566.13	Pulse	68.1	IS Q-06

Quantitation Report ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K04033.b		
Acq Time	11/4/2019 13:01:32	Sample Type	
Sample Name	**9K04033-IFB1**		ICSB
Comment	**A19J466**	Last Calib	11/05/2019 10:07:05
Prep Dilution	1.0000	Vial:	1112
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.003	0.003	ppb	220.8		
Na	23	45	He	249056.189	249056.189	ppb	0.5		
Mg	24	45	He	98453.56	98453.560	ppb	0.5	100000	
Al	27	45	He	100376.216	100376.216	ppb	0.7	100000	
K	39	45	He	96523.013	96523.013	ppb	1.5	100000	
Ca	44	45	H2	286098.544	286098.544	ppb	1.1		
[Ca]	44	45	He	292488.179	292488.179	ppb	0.6		
Ti	47	45	NoGas	1919.17	1919.170	ppb	1.1		
V	51	74	He	208.832	208.832	ppb	0.3	200	
Cr	52	74	He	199.27	199.270	ppb	0.6	200	
Mn	55	74	He	207.204	207.204	ppb	0.6	200	
Fe	56	74	H2	246558.194	246558.194	ppb	0.4		
Co	59	74	He	192.823	192.823	ppb	0.2		
Ni	60	74	He	188.423	188.423	ppb	0.3	200	
Cu	65	74	He	188.021	188.021	ppb	0.5	200	
Zn	66	74	He	94.142	94.142	ppb	0.5	100	
As	75	74	He	99.101	99.101	ppb	1.1	100	
Se	78	74	H2	99.557	99.557	ppb	0.9	100	
Mo	95	103	He	2262	2262.000	ppb	0.7	2000	
Ag	107	103	He	50.642	50.642	ppb	0.4	50	
Cd	111	103	He	105.247	105.247	ppb	1.0		
[Cd]	111	103	NoGas	92.953	92.953	ppb	0.5		
Sb	121	103	He	0.155	0.155	ppb	20.4	0.9	
Ba	138	159	He	1.717	1.717	ppb	4.6	2	> +/- 10%
W	182	159	NoGas	104.661	104.661	ppb	0.8		
Hg	201	159	NoGas	2101.415	2101.415	ppt	1.1		
Tl	205	159	He	0.004	0.004	ppb	37.3	0.9	
Pb	208	159	NoGas	0.826	0.826	ppb	1.3		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	1,087,256	1.0	1328005.7	Analog	81.9	
Sc	45	H2	2,298,838	1.2	2880501.55333333	Analog	79.8	
Sc	45	He	359,517	0.2	495174.883333333	Pulse	72.6	
Sc	45	NoGas	3,267,978	0.5	4124211.75	Analog	79.2	
Ge	74	H2	620,516	0.6	948676.153333333	Pulse	65.4	IS Q-06
Ge	74	He	193,692	0.7	284255.65	Pulse	68.1	IS Q-06
Ge	74	NoGas	759,902	1.1	1128393.34666667	Pulse	67.3	IS Q-06
Rh	103	He	378,612	0.2	616442.69	Pulse	61.4	IS Q-06
Rh	103	NoGas	703,689	0.6	1143555.12333333	Pulse	61.5	IS Q-06
Tb	159	He	579,221	0.3	794731.056666667	Pulse	72.9	
Tb	159	NoGas	1,375,208	0.6	1665548.91666667	Pulse	82.6	
Bi	209	He	290,219	0.9	446099.653333333	Pulse	65.1	IS Q-06
Bi	209	NoGas	703,002	0.4	1052566.13	Pulse	66.8	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV1**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 14:02:42
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.351	ppb	0.9	115,774	40	98.38	
Na	23	45	He	4143.456	ppb	0.9	5,147,198	4000	103.59	
Mg	24	45	He	4344.532	ppb	0.6	3,032,751	4000	108.61	
Al	27	45	He	4199.689	ppb	1.6	1,549,788	4000	104.99	
K	39	45	He	4190.549	ppb	1.0	2,636,190	4000	104.76	
Ca	44	45	H2	4037.311	ppb	0.4	1,022,862	4000	100.93	
[Ca]	44	45	He	4119.162	ppb	0.7	126,321	4000	102.98	
Ti	47	45	NoGas	90.661	ppb	0.5	120,455	100	90.66	
V	51	74	He	96.871	ppb	0.5	398,699	100	96.87	
Cr	52	74	He	97.883	ppb	0.8	469,527	100	97.88	
Mn	55	74	He	101.955	ppb	0.1	344,811	100	101.96	
Fe	56	74	H2	4200.569	ppb	0.2	54,092,329	4000	105.01	
Co	59	74	He	100.628	ppb	0.1	655,011	100	100.63	
Ni	60	74	He	103.271	ppb	0.2	164,633	100	103.27	
Cu	65	74	He	104.219	ppb	0.7	200,694	100	104.22	
Zn	66	74	He	102.302	ppb	0.3	77,757	100	102.3	
As	75	74	He	97.862	ppb	0.4	46,097	100	97.86	
Se	78	74	H2	39.859	ppb	0.5	13,112	40	99.65	
Mo	95	103	He	40.180	ppb	0.8	75,270	40	100.45	
Ag	107	103	He	41.485	ppb	0.4	221,310	40	103.71	
Cd	111	103	He	99.589	ppb	0.8	89,751	100	99.59	
[Cd]	111	103	NoGas	92.317	ppb	0.7	217,562	100	92.32	
Sb	121	103	He	42.048	ppb	0.7	97,789	40	105.12	
Ba	138	159	He	101.516	ppb	1.0	549,676	100	101.52	
Hg	201	159	NoGas	797.640	ppt	1.5	895	800	99.7	
Tl	205	159	He	40.721	ppb	0.6	350,593	40	101.8	
Pb	208	159	NoGas	100.550	ppb	0.5	2,497,219	100	100.55	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,105,653	1328005.7	83.3	
Sc	45	H2	Analog	0.6	2,451,060	2880501.55333333	85.1	
Sc	45	He	Pulse	0.4	373,101	495174.883333333	75.3	
Sc	45	NoGas	Analog	1.3	3,416,311	4124211.75	82.8	
Ge	74	H2	Pulse	0.1	746,277	948676.153333333	78.7	
Ge	74	He	Pulse	0.5	218,822	284255.65	77.0	
Ge	74	NoGas	Pulse	0.5	865,731	1128393.34666667	76.7	
Rh	103	He	Pulse	0.5	477,756	616442.69	77.5	
Rh	103	NoGas	Pulse	0.6	862,386	1143555.12333333	75.4	
Tb	159	He	Pulse	0.4	696,959	794731.056666667	87.7	
Tb	159	NoGas	Analog	0.6	1,676,304	1665548.91666667	100.6	
Bi	209	He	Pulse	0.5	392,035	446099.653333333	87.9	
Bi	209	NoGas	Pulse	0.4	902,250	1052566.13	85.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 14:07:18
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.002	ppb	123.8	27	
Na	23	45	He	5.018	ppb	4.3	10,741	
Mg	24	45	He	1.764	ppb	6.0	1,631	
Al	27	45	He	0.789	ppb	11.7	376	
K	39	45	He	-0.574	ppb	N/A	33,063	
Ca	44	45	H2	3.848	ppb	3.8	1,398	
[Ca]	44	45	He	1.048	ppb	204.9	321	
Ti	47	45	NoGas	0.043	ppb	50.4	87	
V	51	74	He	-0.159	ppb	N/A	1,696	
Cr	52	74	He	-0.005	ppb	N/A	262	
Mn	55	74	He	0.010	ppb	29.6	140	
Fe	56	74	H2	1.664	ppb	7.2	28,959	
Co	59	74	He	0.013	ppb	7.6	114	
Ni	60	74	He	0.005	ppb	73.9	42	
Cu	65	74	He	0.053	ppb	15.6	133	
Zn	66	74	He	0.018	ppb	168.9	43	
As	75	74	He	-0.002	ppb	N/A	43	
Se	78	74	H2	0.032	ppb	77.3	15	
Mo	95	103	He	0.049	ppb	39.0	98	
Ag	107	103	He	0.008	ppb	35.7	46	
Cd	111	103	He	0.023	ppb	29.5	24	
[Cd]	111	103	NoGas	0.015	ppb	14.0	40	
Sb	121	103	He	0.220	ppb	13.8	554	
Ba	138	159	He	0.017	ppb	24.6	147	
Hg	201	159	NoGas	2.638	ppt	71.6	9	
Tl	205	159	He	0.006	ppb	45.6	67	
Pb	208	159	NoGas	0.024	ppb	7.1	1,401	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,129,018	1328005.7	85.0	
Sc	45	H2	Analog	0.8	2,390,644	2880501.55333333	83.0	
Sc	45	He	Pulse	1.2	372,211	495174.883333333	75.2	
Sc	45	NoGas	Analog	1.0	3,440,886	4124211.75	83.4	
Ge	74	H2	Pulse	0.1	739,436	948676.153333333	77.9	
Ge	74	He	Pulse	1.0	219,560	284255.65	77.2	
Ge	74	NoGas	Pulse	0.9	873,790	1128393.34666667	77.4	
Rh	103	He	Pulse	0.9	489,564	616442.69	79.4	
Rh	103	NoGas	Pulse	0.3	886,062	1143555.12333333	77.5	
Tb	159	He	Pulse	0.4	695,833	794731.056666667	87.6	
Tb	159	NoGas	Analog	1.2	1,684,800	1665548.91666667	101.2	
Bi	209	He	Pulse	0.5	400,110	446099.653333333	89.7	
Bi	209	NoGas	Pulse	0.5	924,000	1052566.13	87.8	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BLK2**	Total Dilution:	**5.0000**
File Name:	038SMPL.d	Vial:	3213
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:37:54	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.002	ppb	97.4	24	100	
Na	23	45	He	4.318	ppb	6.7	9,903	50000	
Mg	24	45	He	1.172	ppb	9.5	1,222	50000	
Al	27	45	He	1.274	ppb	9.1	556	50000	
K	39	45	He	0.436	ppb	157.0	33,782	50000	
Ca	44	45	H2	7.052	ppb	3.4	2,169	50000	
[Ca]	44	45	He	4.949	ppb	9.6	441	50000	
Ti	47	45	NoGas	0.094	ppb	19.7	152	2500	
V	51	74	He	0.166	ppb	8.5	3,014	500	
Cr	52	74	He	0.016	ppb	27.0	366	1000	
Mn	55	74	He	-0.003	ppb	N/A	97	2500	
Fe	56	74	H2	0.922	ppb	4.5	18,895	50000	
Co	59	74	He	0	ppb	N/A	28	500	
Ni	60	74	He	-0.001	ppb	N/A	32	1000	
Cu	65	74	He	0.061	ppb	23.6	148	1000	
Zn	66	74	He	0.076	ppb	44.5	87	2500	
As	75	74	He	0.026	ppb	131.0	56	500	
Se	78	74	H2	0.001	ppb	405.1	5	100	
Mo	95	103	He	0.018	ppb	49.4	38	100	
Ag	107	103	He	0.003	ppb	94.3	16	100	
Cd	111	103	He	0.006	ppb	20.2	8	1000	
[Cd]	111	103	NoGas	0.003	ppb	106.3	12	1000	
Sb	121	103	He	0.018	ppb	10.6	74	100	
Ba	138	159	He	0.037	ppb	19.1	261	2500	
W	182	159	NoGas	0.026	ppb	53.1	243	40	
Hg	201	159	NoGas	-0.976	ppt	N/A	5	4000	
Tl	205	159	He	0	ppb	121.7	18	100	
Pb	208	159	NoGas	0.003	ppb	216.7	863	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,109,279	0.8	1328005.7	Analog	83.5	
Sc	45	H2	2,369,269	0.9	2880501.55333333	Analog	82.3	
Sc	45	He	373,263	1.1	495174.883333333	Pulse	75.4	
Sc	45	NoGas	3,371,716	0.2	4124211.75	Analog	81.8	
Ge	74	H2	716,856	0.4	948676.153333333	Pulse	75.6	
Ge	74	He	218,561	0.9	284255.65	Pulse	76.9	
Ge	74	NoGas	852,049	0.9	1128393.34666667	Pulse	75.5	
Rh	103	He	486,158	1.0	616442.69	Pulse	78.9	
Rh	103	NoGas	874,005	0.9	1143555.12333333	Pulse	76.4	
Tb	159	He	701,276	1.2	794731.056666667	Pulse	88.2	
Tb	159	NoGas	1,697,068	0.7	1665548.91666667	Analog	101.9	
Bi	209	He	398,334	0.7	446099.653333333	Pulse	89.3	
Bi	209	NoGas	903,435	1.0	1052566.13	Pulse	85.8	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BS2**	Total Dilution:	**5.0000**
File Name:	039SMPL.d	Vial:	3214
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:42:34	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	23.93	ppb	0.8	69,605	100	
Na	23	45	He	2656.346	ppb	0.1	3,216,030	50000	
Mg	24	45	He	2681.578	ppb	0.9	1,823,517	50000	
Al	27	45	He	2560.918	ppb	0.1	920,629	50000	
K	39	45	He	2662.117	ppb	1.1	1,643,257	50000	
Ca	44	45	H2	2503.582	ppb	1.1	605,273	50000	
[Ca]	44	45	He	2566.735	ppb	0.8	76,783	50000	
Ti	47	45	NoGas	45.623	ppb	1.5	59,096	2500	
V	51	74	He	49.76	ppb	0.2	200,610	500	
Cr	52	74	He	49.099	ppb	0.2	229,561	1000	
Mn	55	74	He	51.231	ppb	0.7	168,828	2500	
Fe	56	74	H2	2591.823	ppb	0.9	31,768,350	50000	
Co	59	74	He	50.668	ppb	0.7	321,287	500	
Ni	60	74	He	51.005	ppb	0.5	79,223	1000	
Cu	65	74	He	52.502	ppb	0.7	98,499	1000	
Zn	66	74	He	51.273	ppb	0.1	37,977	2500	
As	75	74	He	49.297	ppb	1.4	22,641	500	
Se	78	74	H2	24.105	ppb	0.9	7,549	100	
Mo	95	103	He	25.339	ppb	0.0	46,939	100	
Ag	107	103	He	27.087	ppb	0.4	142,889	100	
Cd	111	103	He	50.614	ppb	0.1	45,106	1000	
[Cd]	111	103	NoGas	47.183	ppb	0.8	108,743	1000	
Sb	121	103	He	25.559	ppb	1.0	58,792	100	
Ba	138	159	He	51.753	ppb	0.3	277,642	2500	
W	182	159	NoGas	0.022	ppb	17.0	202	40	
Hg	201	159	NoGas	1006.21	ppt	0.5	1,107	4000	
Tl	205	159	He	25.949	ppb	0.5	221,329	100	
Pb	208	159	NoGas	52.397	ppb	0.7	1,277,677	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,093,027	1.3	1328005.7	Analog	82.3	
Sc	45	H2	2,338,381	0.9	2880501.55333333	Analog	81.2	
Sc	45	He	363,436	0.4	495174.883333333	Pulse	73.4	
Sc	45	NoGas	3,330,222	1.2	4124211.75	Analog	80.7	
Ge	74	H2	710,273	0.3	948676.153333333	Pulse	74.9	
Ge	74	He	213,156	0.3	284255.65	Pulse	75.0	
Ge	74	NoGas	836,082	1.0	1128393.34666667	Pulse	74.1	
Rh	103	He	472,430	0.7	616442.69	Pulse	76.6	
Rh	103	NoGas	843,394	1.0	1143555.12333333	Pulse	73.8	
Tb	159	He	690,449	0.5	794731.056666667	Pulse	86.9	
Tb	159	NoGas	1,645,410	0.7	1665548.91666667	Analog	98.8	
Bi	209	He	388,300	0.6	446099.653333333	Pulse	87.0	
Bi	209	NoGas	891,378	0.4	1052566.13	Pulse	84.7	

Quantitation Report - ICPMS5

Sample Name:	**A9J1007-01RE1**	Total Dilution:	**5.0000**
File Name:	042SMPL.d	Vial:	3302
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:56:15	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.954	ppb	5.8	2,974	100	
Na	23	45	He	785.537	ppb	1.2	1,120,408	50000	
Mg	24	45	He	8076.254	ppb	0.2	6,447,526	50000	
Al	27	45	He	42133.344	ppb	0.9	17,782,290	50000	
K	39	45	He	1585.528	ppb	0.3	1,164,635	50000	
Ca	44	45	H2	8482.02	ppb	0.2	2,413,599	50000	
[Ca]	44	45	He	8443.957	ppb	0.4	295,827	50000	
Ti	47	45	NoGas	2847.571	ppb	0.2	4,359,855	2500	>LDR RR-2
V	51	74	He	155.186	ppb	0.2	649,296	500	
Cr	52	74	He	52.421	ppb	0.8	256,329	1000	
Mn	55	74	He	894.282	ppb	1.2	3,080,615	2500	
Fe	56	74	H2	54470.602	ppb	0.2	694,686,470	50000	>LDR RR-2
Co	59	74	He	22.917	ppb	0.9	152,000	500	
Ni	60	74	He	41.656	ppb	0.9	67,674	1000	
Cu	65	74	He	67.325	ppb	0.4	132,098	1000	
Zn	66	74	He	197.259	ppb	0.5	152,723	2500	
As	75	74	He	7.01	ppb	3.1	3,406	500	
Se	78	74	H2	0.445	ppb	2.0	149	100	
Mo	95	103	He	0.643	ppb	7.3	1,211	100	
Ag	107	103	He	0.784	ppb	2.5	4,193	100	
Cd	111	103	He	0.578	ppb	7.9	526	1000	
[Cd]	111	103	NoGas	1.311	ppb	6.0	3,208	1000	
Sb	121	103	He	0.603	ppb	4.6	1,436	100	
Ba	138	159	He	237.531	ppb	0.8	1,301,875	2500	
W	182	159	NoGas	0.086	ppb	6.4	794	40	
Hg	201	159	NoGas	427.632	ppt	1.5	513	4000	
Tl	205	159	He	0.166	ppb	2.8	1,463	100	
Pb	208	159	NoGas	35.992	ppb	0.7	949,997	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,164,028	1.0	1328005.7	Analog	87.7	
Sc	45	H2	2,753,547	0.7	2880501.55333333	Analog	95.6	
Sc	45	He	426,725	1.0	495174.883333333	Pulse	86.2	
Sc	45	NoGas	3,937,822	1.1	4124211.75	Analog	95.5	
Ge	74	H2	739,188	0.6	948676.153333333	Pulse	77.9	
Ge	74	He	222,937	0.4	284255.65	Pulse	78.4	
Ge	74	NoGas	897,888	0.6	1128393.34666667	Pulse	79.6	
Rh	103	He	479,008	1.0	616442.69	Pulse	77.7	
Rh	103	NoGas	894,598	0.8	1143555.12333333	Pulse	78.2	
Tb	159	He	705,509	0.5	794731.056666667	Pulse	88.8	
Tb	159	NoGas	1,780,593	0.9	1665548.91666667	Analog	106.9	
Bi	209	He	380,749	1.0	446099.653333333	Pulse	85.4	
Bi	209	NoGas	901,568	0.5	1052566.13	Pulse	85.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV2**	Total Dilution:	1.0000
File Name:	044_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 15:05:25
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.388	ppb	1.6	127,664	40	98.47	
Na	23	45	He	4087.145	ppb	0.5	5,624,086	4000	102.18	
Mg	24	45	He	4320.180	ppb	1.0	3,340,487	4000	108	
Al	27	45	He	4233.938	ppb	1.5	1,730,700	4000	105.85	
K	39	45	He	4173.838	ppb	0.3	2,908,619	4000	104.35	
Ca	44	45	H2	4006.512	ppb	0.2	1,114,700	4000	100.16	
[Ca]	44	45	He	4106.066	ppb	0.4	139,481	4000	102.65	
Ti	47	45	NoGas	90.639	ppb	0.9	135,873	100	90.64	
V	51	74	He	97.918	ppb	0.4	441,871	100	97.92	
Cr	52	74	He	98.119	ppb	1.1	516,055	100	98.12	
Mn	55	74	He	101.529	ppb	1.2	376,484	100	101.53	
Fe	56	74	H2	4251.011	ppb	0.4	59,178,805	4000	106.28	
Co	59	74	He	101.581	ppb	0.7	725,004	100	101.58	
Ni	60	74	He	104.327	ppb	0.9	182,357	100	104.33	
Cu	65	74	He	104.470	ppb	0.2	220,587	100	104.47	
Zn	66	74	He	101.458	ppb	0.2	84,558	100	101.46	
As	75	74	He	98.268	ppb	0.6	50,754	100	98.27	
Se	78	74	H2	39.998	ppb	0.9	14,225	40	99.99	
Mo	95	103	He	40.172	ppb	1.1	81,429	40	100.43	
Ag	107	103	He	41.066	ppb	0.7	237,053	40	102.66	
Cd	111	103	He	98.095	ppb	0.8	95,657	100	98.1	
[Cd]	111	103	NoGas	90.292	ppb	0.4	234,999	100	90.29	
Sb	121	103	He	41.398	ppb	0.8	104,180	40	103.5	
Ba	138	159	He	103.897	ppb	0.3	586,592	100	103.9	
Hg	201	159	NoGas	789.481	ppt	2.3	941	800	98.69	
Tl	205	159	He	40.573	ppb	0.2	364,232	40	101.43	
Pb	208	159	NoGas	98.549	ppb	1.8	2,600,112	100	98.55	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.1	1,218,334	1328005.7	91.7	
Sc	45	H2	Analog	1.3	2,691,640	2880501.55333333	93.4	
Sc	45	He	Pulse	0.3	413,273	495174.883333333	83.5	
Sc	45	NoGas	Analog	0.8	3,854,721	4124211.75	93.5	
Ge	74	H2	Pulse	0.7	806,766	948676.153333333	85.0	
Ge	74	He	Pulse	0.9	239,940	284255.65	84.4	
Ge	74	NoGas	Pulse	0.9	960,411	1128393.34666667	85.1	
Rh	103	He	Pulse	0.5	516,961	616442.69	83.9	
Rh	103	NoGas	Pulse	0.6	952,391	1143555.12333333	83.3	
Tb	159	He	Pulse	0.7	726,712	794731.056666667	91.4	
Tb	159	NoGas	Analog	2.3	1,781,275	1665548.91666667	106.9	
Bi	209	He	Pulse	0.9	404,534	446099.653333333	90.7	
Bi	209	NoGas	Pulse	0.2	949,116	1052566.13	90.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB2**	Total Dilution:	1.0000
File Name:	045_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 15:10:00
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	58.4	42	
Na	23	45	He	1.759	ppb	3.6	7,777	
Mg	24	45	He	1.767	ppb	18.5	1,895	
Al	27	45	He	3.930	ppb	7.3	1,776	
K	39	45	He	0.279	ppb	62.5	38,949	
Ca	44	45	H2	2.607	ppb	9.5	1,276	
[Ca]	44	45	He	0.518	ppb	346.2	353	
Ti	47	45	NoGas	0.251	ppb	21.4	430	
V	51	74	He	-0.129	ppb	N/A	2,078	
Cr	52	74	He	0.005	ppb	161.3	357	
Mn	55	74	He	0.073	ppb	6.7	404	
Fe	56	74	H2	6.179	ppb	1.6	97,346	
Co	59	74	He	0.012	ppb	23.3	120	
Ni	60	74	He	0.003	ppb	78.5	44	
Cu	65	74	He	0.030	ppb	40.8	100	
Zn	66	74	He	0.053	ppb	71.6	79	
As	75	74	He	0.008	ppb	290.8	54	
Se	78	74	H2	0.017	ppb	44.8	11	
Mo	95	103	He	0.031	ppb	20.5	70	
Ag	107	103	He	0.007	ppb	8.9	42	
Cd	111	103	He	0.026	ppb	3.1	30	
[Cd]	111	103	NoGas	0.020	ppb	43.9	60	
Sb	121	103	He	0.127	ppb	28.9	372	
Ba	138	159	He	0.041	ppb	14.4	294	
Hg	201	159	NoGas	3.394	ppt	43.9	10	
Tl	205	159	He	0.006	ppb	30.2	73	
Pb	208	159	NoGas	0.031	ppb	1.7	1,703	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.4	1,275,107	1328005.7	96.0	
Sc	45	H2	Analog	0.9	2,795,517	2880501.55333333	97.0	
Sc	45	He	Pulse	0.6	431,567	495174.883333333	87.2	
Sc	45	NoGas	Analog	1.2	4,062,017	4124211.75	98.5	
Ge	74	H2	Pulse	0.5	831,575	948676.153333333	87.7	
Ge	74	He	Pulse	0.9	250,702	284255.65	88.2	
Ge	74	NoGas	Pulse	1.6	1,007,611	1128393.34666667	89.3	
Rh	103	He	Pulse	0.6	544,626	616442.69	88.3	
Rh	103	NoGas	Pulse	0.8	1,010,980	1143555.12333333	88.4	
Tb	159	He	Pulse	0.6	738,724	794731.056666667	93.0	
Tb	159	NoGas	Analog	0.6	1,827,725	1665548.91666667	109.7	
Bi	209	He	Pulse	0.7	412,938	446099.653333333	92.6	
Bi	209	NoGas	Pulse	0.5	975,954	1052566.13	92.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV3**	Total Dilution:	1.0000
File Name:	056_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 16:02:07
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.380	ppb	0.8	130,961	40	98.45	
Na	23	45	He	4189.219	ppb	1.0	5,907,248	4000	104.73	
Mg	24	45	He	4369.291	ppb	1.3	3,462,080	4000	109.23	
Al	27	45	He	4315.265	ppb	0.8	1,807,667	4000	107.88	
K	39	45	He	4320.703	ppb	0.9	3,084,315	4000	108.02	
Ca	44	45	H2	4107.500	ppb	5.8	1,214,875	4000	102.69	
[Ca]	44	45	He	4119.236	ppb	0.9	143,393	4000	102.98	
Ti	47	45	NoGas	91.207	ppb	1.5	137,521	100	91.21	
V	51	74	He	99.593	ppb	0.6	454,345	100	99.59	
Cr	52	74	He	99.383	ppb	0.5	528,497	100	99.38	
Mn	55	74	He	103.131	ppb	1.1	386,657	100	103.13	
Fe	56	74	H2	4327.948	ppb	0.5	62,653,934	4000	108.2	
Co	59	74	He	102.713	ppb	1.0	741,175	100	102.71	
Ni	60	74	He	105.473	ppb	0.8	186,402	100	105.47	
Cu	65	74	He	105.643	ppb	0.3	225,529	100	105.64	
Zn	66	74	He	101.165	ppb	0.0	85,245	100	101.17	
As	75	74	He	99.017	ppb	0.2	51,706	100	99.02	
Se	78	74	H2	39.878	ppb	1.0	14,748	40	99.7	
Mo	95	103	He	40.229	ppb	0.5	82,311	40	100.57	
Ag	107	103	He	40.931	ppb	0.4	238,495	40	102.33	
Cd	111	103	He	98.131	ppb	0.1	96,594	100	98.13	
[Cd]	111	103	NoGas	90.445	ppb	0.1	234,476	100	90.44	
Sb	121	103	He	41.482	ppb	1.1	105,370	40	103.7	
Ba	138	159	He	105.673	ppb	0.2	589,554	100	105.67	
Hg	201	159	NoGas	773.703	ppt	2.1	933	800	96.71	
Tl	205	159	He	40.343	ppb	0.3	357,871	40	100.86	
Pb	208	159	NoGas	95.867	ppb	1.0	2,557,084	100	95.87	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,249,805	1328005.7	94.1	
Sc	45	H2	Analog	2.7	2,863,508	2880501.55333333	99.4	
Sc	45	He	Pulse	0.5	423,525	495174.883333333	85.5	
Sc	45	NoGas	Analog	1.5	3,877,551	4124211.75	94.0	
Ge	74	H2	Pulse	0.3	838,968	948676.153333333	88.4	
Ge	74	He	Pulse	0.6	242,590	284255.65	85.3	
Ge	74	NoGas	Pulse	0.8	962,390	1128393.34666667	85.3	
Rh	103	He	Pulse	0.6	521,827	616442.69	84.7	
Rh	103	NoGas	Pulse	0.4	948,661	1143555.12333333	83.0	
Tb	159	He	Pulse	0.5	718,107	794731.056666667	90.4	
Tb	159	NoGas	Analog	1.2	1,800,435	1665548.91666667	108.1	
Bi	209	He	Pulse	0.8	397,335	446099.653333333	89.1	
Bi	209	NoGas	Pulse	0.9	928,364	1052566.13	88.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB3**	Total Dilution:	1.0000
File Name:	058_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 16:11:17
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	22.0	44	
Na	23	45	He	3.871	ppb	6.7	10,260	
Mg	24	45	He	2.093	ppb	5.2	2,047	
Al	27	45	He	2.828	ppb	10.5	1,239	
K	39	45	He	3.248	ppb	36.4	38,982	
Ca	44	45	H2	3.819	ppb	1.6	1,570	
[Ca]	44	45	He	-0.203	ppb	N/A	311	
Ti	47	45	NoGas	0.213	ppb	14.0	353	
V	51	74	He	-0.145	ppb	N/A	1,881	
Cr	52	74	He	0.025	ppb	11.5	438	
Mn	55	74	He	0.059	ppb	20.9	329	
Fe	56	74	H2	6.133	ppb	1.3	92,291	
Co	59	74	He	0.018	ppb	13.6	159	
Ni	60	74	He	0.017	ppb	37.3	66	
Cu	65	74	He	0.054	ppb	6.9	144	
Zn	66	74	He	0.068	ppb	26.7	87	
As	75	74	He	0.010	ppb	122.4	52	
Se	78	74	H2	0.051	ppb	30.1	23	
Mo	95	103	He	0.045	ppb	22.6	97	
Ag	107	103	He	0.016	ppb	7.1	91	
Cd	111	103	He	0.027	ppb	23.2	30	
[Cd]	111	103	NoGas	0.017	ppb	17.9	51	
Sb	121	103	He	0.174	ppb	5.5	474	
Ba	138	159	He	0.041	ppb	18.4	282	
Hg	201	159	NoGas	4.908	ppt	69.2	12	
Tl	205	159	He	0.010	ppb	9.4	102	
Pb	208	159	NoGas	0.043	ppb	7.5	1,962	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,255,249	1328005.7	94.5	
Sc	45	H2	Analog	1.2	2,699,354	2880501.55333333	93.7	
Sc	45	He	Pulse	0.7	409,537	495174.883333333	82.7	
Sc	45	NoGas	Analog	2.4	3,882,607	4124211.75	94.1	
Ge	74	H2	Pulse	0.5	793,870	948676.153333333	83.7	
Ge	74	He	Pulse	0.6	235,865	284255.65	83.0	
Ge	74	NoGas	Pulse	1.2	955,526	1128393.34666667	84.7	
Rh	103	He	Pulse	0.6	519,130	616442.69	84.2	
Rh	103	NoGas	Pulse	0.9	960,738	1143555.12333333	84.0	
Tb	159	He	Pulse	0.8	707,805	794731.056666667	89.1	
Tb	159	NoGas	Analog	0.4	1,774,302	1665548.91666667	106.5	
Bi	209	He	Pulse	1.1	398,518	446099.653333333	89.3	
Bi	209	NoGas	Pulse	0.7	934,050	1052566.13	88.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV5**	Total Dilution:	1.0000
File Name:	069_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:02:05
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.813	ppb	2.0	135,912	40	99.53	
Na	23	45	He	4104.941	ppb	0.6	6,008,478	4000	102.62	
Mg	24	45	He	4297.081	ppb	1.3	3,534,284	4000	107.43	
Al	27	45	He	4276.585	ppb	1.6	1,859,520	4000	106.91	
K	39	45	He	4320.258	ppb	0.8	3,201,119	4000	108.01	
Ca	44	45	H2	4182.854	ppb	3.0	1,250,077	4000	104.57	
[Ca]	44	45	He	4108.091	ppb	0.9	148,440	4000	102.7	
Ti	47	45	NoGas	89.862	ppb	1.4	145,467	100	89.86	> +/- 10%
V	51	74	He	100.399	ppb	0.5	471,687	100	100.4	
Cr	52	74	He	100.048	ppb	0.5	547,930	100	100.05	
Mn	55	74	He	103.995	ppb	0.1	401,561	100	104	
Fe	56	74	H2	4350.706	ppb	0.7	63,749,051	4000	108.77	
Co	59	74	He	102.975	ppb	0.6	765,281	100	102.98	
Ni	60	74	He	105.656	ppb	0.1	192,310	100	105.66	
Cu	65	74	He	105.554	ppb	1.2	232,063	100	105.55	
Zn	66	74	He	101.528	ppb	0.3	88,109	100	101.53	
As	75	74	He	101.964	ppb	0.6	54,833	100	101.96	
Se	78	74	H2	39.998	ppb	0.8	14,972	40	99.99	
Mo	95	103	He	41.028	ppb	0.5	85,180	40	102.57	
Ag	107	103	He	41.050	ppb	0.2	242,704	40	102.62	
Cd	111	103	He	98.752	ppb	0.3	98,631	100	98.75	
[Cd]	111	103	NoGas	89.346	ppb	1.0	244,328	100	89.35	> +/- 10% → NR
Sb	121	103	He	42.693	ppb	0.2	110,038	40	106.73	
Ba	138	159	He	107.430	ppb	0.3	606,991	100	107.43	
Hg	201	159	NoGas	751.084	ppt	0.5	933	800	93.89	
Tl	205	159	He	39.684	ppb	1.5	356,495	40	99.21	
Pb	208	159	NoGas	95.922	ppb	0.8	2,635,685	100	95.92	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,283,141	1328005.7	96.6	
Sc	45	H2	Analog	1.0	2,890,823	2880501.55333333	100.4	
Sc	45	He	Pulse	0.2	439,608	495174.883333333	88.8	
Sc	45	NoGas	Analog	1.6	4,162,887	4124211.75	100.9	
Ge	74	H2	Pulse	0.6	849,181	948676.153333333	89.5	
Ge	74	He	Pulse	0.7	249,840	284255.65	87.9	
Ge	74	NoGas	Pulse	0.7	1,012,020	1128393.34666667	89.7	
Rh	103	He	Pulse	0.4	529,486	616442.69	85.9	
Rh	103	NoGas	Pulse	0.6	1,000,725	1143555.12333333	87.5	
Tb	159	He	Pulse	0.9	727,272	794731.056666667	91.5	
Tb	159	NoGas	Analog	1.4	1,854,583	1665548.91666667	111.3	
Bi	209	He	Pulse	0.9	400,839	446099.653333333	89.9	
Bi	209	NoGas	Pulse	0.2	937,918	1052566.13	89.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB4**	Total Dilution:	1.0000
File Name:	070_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:06:40
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.015	ppb	37.2	76	
Na	23	45	He	0.660	ppb	4.5	6,464	
Mg	24	45	He	1.062	ppb	12.7	1,381	
Al	27	45	He	3.070	ppb	2.3	1,469	
K	39	45	He	2.459	ppb	24.4	42,239	
Ca	44	45	H2	2.002	ppb	3.4	1,149	
[Ca]	44	45	He	0.775	ppb	146.6	378	
Ti	47	45	NoGas	0.159	ppb	24.9	307	
V	51	74	He	-0.141	ppb	N/A	2,082	
Cr	52	74	He	0.016	ppb	33.3	432	
Mn	55	74	He	0.071	ppb	12.6	407	
Fe	56	74	H2	7.083	ppb	3.5	114,007	
Co	59	74	He	0.015	ppb	29.1	153	
Ni	60	74	He	0.006	ppb	258.1	51	
Cu	65	74	He	0.030	ppb	15.9	104	
Zn	66	74	He	0.031	ppb	47.3	62	
As	75	74	He	0.002	ppb	1357.6	53	
Se	78	74	H2	0.022	ppb	81.7	14	
Mo	95	103	He	0.040	ppb	24.7	92	
Ag	107	103	He	0.008	ppb	21.6	53	
Cd	111	103	He	0.023	ppb	9.2	27	
[Cd]	111	103	NoGas	0.022	ppb	42.6	71	
Sb	121	103	He	0.040	ppb	22.5	146	
Ba	138	159	He	0.030	ppb	10.0	234	
Hg	201	159	NoGas	1.755	ppt	126.3	9	
Tl	205	159	He	0.011	ppb	24.2	117	
Pb	208	159	NoGas	0.032	ppb	14.0	1,803	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,335,643	1328005.7	100.6	
Sc	45	H2	Analog	0.2	2,916,689	2880501.55333333	101.3	
Sc	45	He	Pulse	0.7	449,934	495174.883333333	90.9	
Sc	45	NoGas	Analog	1.3	4,355,696	4124211.75	105.6	
Ge	74	H2	Pulse	0.7	859,493	948676.153333333	90.6	
Ge	74	He	Pulse	1.0	258,505	284255.65	90.9	
Ge	74	NoGas	Pulse	1.0	1,072,248	1128393.34666667	95.0	
Rh	103	He	Pulse	0.7	556,521	616442.69	90.3	
Rh	103	NoGas	Pulse	0.4	1,073,325	1143555.12333333	93.9	
Tb	159	He	Pulse	1.1	736,844	794731.056666667	92.7	
Tb	159	NoGas	Analog	0.7	1,900,702	1665548.91666667	114.1	
Bi	209	He	Pulse	1.0	408,512	446099.653333333	91.6	
Bi	209	NoGas	Pulse	0.7	975,802	1052566.13	92.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL4**	Total Dilution:	1.0000
File Name:	071CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:11:21
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.186	ppb	6.5	696	103.33		
Na	23	45	He	9.685	ppb	1.3	20,694	107.61		
Mg	24	45	He	9.683	ppb	1.1	8,950	107.59		
Al	27	45	He	11.596	ppb	0.9	5,454	128.84		
K	39	45	He	10.610	ppb	9.4	50,093	117.89		
Ca	44	45	H2	11.382	ppb	8.1	4,102	126.47		
[Ca]	44	45	He	11.569	ppb	11.5	804	128.54		
Ti	47	45	NoGas	0.291	ppb	11.9	538	161.67	R-11	
V	51	74	He	0.084	ppb	15.3	3,258	46.67	R-11	< MRL
Cr	52	74	He	0.183	ppb	5.6	1,411	101.67		
Mn	55	74	He	0.236	ppb	15.6	1,097	131.11	R-11	< MRL
Fe	56	74	H2	14.005	ppb	0.7	222,259	155.61	R-11	
Co	59	74	He	0.180	ppb	3.2	1,457	100		
Ni	60	74	He	0.264	ppb	2.1	550	146.67	R-11	
Cu	65	74	He	0.255	ppb	2.8	632	141.67	R-11	< MRL
Zn	66	74	He	0.328	ppb	4.8	338	182.22	R-11	
As	75	74	He	0.174	ppb	17.2	152	96.67		
Se	78	74	H2	0.182	ppb	23.4	76	101.11		
Mo	95	103	He	0.201	ppb	16.6	451	111.67		
Ag	107	103	He	0.182	ppb	7.2	1,148	101.11		
Cd	111	103	He	0.201	ppb	3.6	217	111.67		
[Cd]	111	103	NoGas	0.175	ppb	2.2	522	97.22		
Sb	121	103	He	0.202	ppb	13.0	592	112.22		
Ba	138	159	He	0.216	ppb	8.4	1,313	120		
Hg	201	159	NoGas	9.392	ppt	21.8	18	130.44	R-11	< MRL
Tl	205	159	He	0.184	ppb	7.5	1,707	102.22		
Pb	208	159	NoGas	0.200	ppb	4.8	6,467	111.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	1,358,269	1328005.7	102.3	
Sc	45	H2	Analog	0.3	3,009,168	2880501.55333333	104.5	
Sc	45	He	Pulse	0.8	466,215	495174.883333333	94.2	
Sc	45	NoGas	Analog	0.8	4,430,313	4124211.75	107.4	
Ge	74	H2	Pulse	0.3	881,671	948676.153333333	92.9	
Ge	74	He	Pulse	0.8	265,512	284255.65	93.4	
Ge	74	NoGas	Pulse	1.2	1,083,262	1128393.34666667	96.0	
Rh	103	He	Pulse	0.5	565,709	616442.69	91.8	
Rh	103	NoGas	Pulse	1.0	1,081,859	1143555.12333333	94.6	
Tb	159	He	Pulse	0.5	744,985	794731.056666667	93.7	
Tb	159	NoGas	Analog	1.2	1,881,301	1665548.91666667	113.0	
Bi	209	He	Pulse	0.6	411,965	446099.653333333	92.3	
Bi	209	NoGas	Pulse	1.0	971,139	1052566.13	92.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL5**	Total Dilution:	1.0000
File Name:	072_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:16:59
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.879	ppb	3.9	3,267	97.67	
Na	23	45	He	44.729	ppb	0.8	75,580	99.4	
Mg	24	45	He	45.952	ppb	0.3	40,872	102.12	
Al	27	45	He	47.813	ppb	0.7	22,311	106.25	
K	39	45	He	49.334	ppb	1.1	80,720	109.63	
Ca	44	45	H2	45.585	ppb	0.3	14,957	101.3	
[Ca]	44	45	He	47.380	ppb	3.8	2,189	105.29	
Ti	47	45	NoGas	0.861	ppb	2.4	1,541	95.67	
V	51	74	He	0.832	ppb	2.2	7,034	92.44	
Cr	52	74	He	0.910	ppb	3.4	5,697	101.11	
Mn	55	74	He	0.947	ppb	3.2	4,052	105.22	
Fe	56	74	H2	47.962	ppb	0.1	746,644	106.58	
Co	59	74	He	0.929	ppb	1.9	7,443	103.22	
Ni	60	74	He	0.962	ppb	2.7	1,919	106.89	
Cu	65	74	He	0.995	ppb	7.1	2,384	110.56	
Zn	66	74	He	0.918	ppb	7.1	890	102	
As	75	74	He	0.901	ppb	6.7	572	100.11	
Se	78	74	H2	0.880	ppb	4.6	351	97.78	
Mo	95	103	He	0.911	ppb	5.7	2,045	101.22	
Ag	107	103	He	0.898	ppb	3.5	5,726	99.78	
Cd	111	103	He	0.903	ppb	3.5	975	100.33	
[Cd]	111	103	NoGas	0.818	ppb	4.7	2,442	90.89	
Sb	121	103	He	0.898	ppb	3.7	2,530	99.78	
Ba	138	159	He	1.022	ppb	2.6	5,992	113.56	
Hg	201	159	NoGas	32.565	ppt	20.0	48	90.46	
Tl	205	159	He	0.898	ppb	4.8	8,300	99.78	
Pb	208	159	NoGas	0.876	ppb	2.5	25,645	97.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,387,406	1328005.7	104.5	
Sc	45	H2	Analog	0.5	3,054,287	2880501.55333333	106.0	
Sc	45	He	Pulse	0.9	469,529	495174.883333333	94.8	
Sc	45	NoGas	Analog	1.3	4,490,506	4124211.75	108.9	
Ge	74	H2	Pulse	0.7	891,041	948676.153333333	93.9	
Ge	74	He	Pulse	1.1	268,062	284255.65	94.3	
Ge	74	NoGas	Pulse	1.1	1,099,332	1128393.34666667	97.4	
Rh	103	He	Pulse	0.9	570,699	616442.69	92.6	
Rh	103	NoGas	Pulse	0.6	1,090,032	1143555.12333333	95.3	
Tb	159	He	Pulse	0.9	747,028	794731.056666667	94.0	
Tb	159	NoGas	Analog	1.8	1,908,366	1665548.91666667	114.6	
Bi	209	He	Pulse	1.1	414,294	446099.653333333	92.9	
Bi	209	NoGas	Pulse	0.6	986,624	1052566.13	93.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL6**	Total Dilution:	1.0000
File Name:	073CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:21:49
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.827	ppb	1.5	6,744	101.5	
Na	23	45	He	89.713	ppb	0.4	145,422	99.68	
Mg	24	45	He	91.349	ppb	1.1	80,512	101.5	
Al	27	45	He	93.349	ppb	0.7	43,334	103.72	
K	39	45	He	94.585	ppb	0.7	115,753	105.09	
Ca	44	45	H2	89.752	ppb	2.6	28,976	99.72	
[Ca]	44	45	He	85.329	ppb	1.1	3,639	94.81	
Ti	47	45	NoGas	1.748	ppb	3.5	3,090	97.11	
V	51	74	He	1.768	ppb	3.2	11,606	98.22	
Cr	52	74	He	1.819	ppb	0.8	10,921	101.06	
Mn	55	74	He	1.829	ppb	3.8	7,622	101.61	
Fe	56	74	H2	99.539	ppb	0.9	1,549,596	110.6	
Co	59	74	He	1.896	ppb	1.0	14,994	105.33	
Ni	60	74	He	1.902	ppb	1.9	3,716	105.67	
Cu	65	74	He	2.001	ppb	2.7	4,706	111.17	
Zn	66	74	He	1.840	ppb	7.0	1,731	102.22	
As	75	74	He	1.884	ppb	4.3	1,127	104.67	
Se	78	74	H2	1.855	ppb	1.3	738	103.06	
Mo	95	103	He	1.870	ppb	1.9	4,176	103.89	
Ag	107	103	He	1.801	ppb	1.7	11,443	100.06	
Cd	111	103	He	1.809	ppb	0.9	1,945	100.5	
[Cd]	111	103	NoGas	1.623	ppb	1.3	4,874	90.17	
Sb	121	103	He	1.799	ppb	0.8	5,016	99.94	
Ba	138	159	He	2.011	ppb	0.6	11,759	111.72	
Hg	201	159	NoGas	68.924	ppt	0.6	95	95.73	
Tl	205	159	He	1.792	ppb	1.7	16,590	99.56	
Pb	208	159	NoGas	1.734	ppb	0.7	50,441	96.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,382,119	1328005.7	104.1	
Sc	45	H2	Analog	0.9	3,063,418	2880501.55333333	106.4	
Sc	45	He	Pulse	0.9	468,179	495174.883333333	94.5	
Sc	45	NoGas	Analog	2.1	4,494,034	4124211.75	109.0	
Ge	74	H2	Pulse	0.3	896,851	948676.153333333	94.5	
Ge	74	He	Pulse	1.3	265,292	284255.65	93.3	
Ge	74	NoGas	Pulse	1.4	1,102,456	1128393.34666667	97.7	
Rh	103	He	Pulse	0.6	568,911	616442.69	92.3	
Rh	103	NoGas	Pulse	1.0	1,097,978	1143555.12333333	96.0	
Tb	159	He	Pulse	1.2	748,764	794731.056666667	94.2	
Tb	159	NoGas	Analog	1.1	1,928,556	1665548.91666667	115.8	
Bi	209	He	Pulse	1.1	412,484	446099.653333333	92.5	
Bi	209	NoGas	Pulse	1.1	982,409	1052566.13	93.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV6**	Total Dilution:	1.0000
File Name:	084_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 18:12:22
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.334	ppb	1.3	122,011	40	95.84	
Na	23	45	He	4178.771	ppb	1.1	5,500,868	4000	104.47	
Mg	24	45	He	4370.445	ppb	0.9	3,232,725	4000	109.26	
Al	27	45	He	4308.941	ppb	0.3	1,684,977	4000	107.72	
K	39	45	He	4310.875	ppb	1.1	2,872,757	4000	107.77	
Ca	44	45	H2	3952.056	ppb	1.8	1,083,699	4000	98.8	
[Ca]	44	45	He	4143.621	ppb	1.0	134,644	4000	103.59	
Ti	47	45	NoGas	88.344	ppb	1.5	128,358	100	88.34	> +/- 10%
V	51	74	He	97.976	ppb	0.6	421,338	100	97.98	
Cr	52	74	He	97.695	ppb	1.3	489,667	100	97.7	
Mn	55	74	He	103.151	ppb	1.3	364,515	100	103.15	
Fe	56	74	H2	4324.875	ppb	0.7	57,745,071	4000	108.12	
Co	59	74	He	101.059	ppb	0.6	687,368	100	101.06	
Ni	60	74	He	102.338	ppb	0.1	170,478	100	102.34	
Cu	65	74	He	103.354	ppb	0.5	207,972	100	103.35	
Zn	66	74	He	100.997	ppb	0.7	80,214	100	101	
As	75	74	He	98.442	ppb	0.8	48,451	100	98.44	
Se	78	74	H2	40.457	ppb	0.7	13,800	40	101.14	
Mo	95	103	He	40.178	ppb	0.5	77,906	40	100.44	
Ag	107	103	He	41.070	ppb	1.1	226,775	40	102.68	
Cd	111	103	He	99.102	ppb	1.4	92,439	100	99.1	
[Cd]	111	103	NoGas	89.612	ppb	1.3	224,442	100	89.61	> +/- 10% → NR
Sb	121	103	He	42.269	ppb	0.2	101,752	40	105.67	
Ba	138	159	He	104.183	ppb	0.2	568,585	100	104.18	
Hg	201	159	NoGas	765.768	ppt	4.8	913	800	95.72	
Tl	205	159	He	40.425	ppb	0.6	350,804	40	101.06	
Pb	208	159	NoGas	94.679	ppb	1.2	2,496,565	100	94.68	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,196,187	1328005.7	90.1	
Sc	45	H2	Analog	1.6	2,653,305	2880501.55333333	92.1	
Sc	45	He	Pulse	0.5	395,350	495174.883333333	79.8	
Sc	45	NoGas	Analog	0.7	3,736,112	4124211.75	90.6	
Ge	74	H2	Pulse	0.6	773,798	948676.153333333	81.6	
Ge	74	He	Pulse	0.7	228,657	284255.65	80.4	
Ge	74	NoGas	Pulse	0.9	927,043	1128393.34666667	82.2	
Rh	103	He	Pulse	0.9	494,532	616442.69	80.2	
Rh	103	NoGas	Pulse	0.4	916,538	1143555.12333333	80.1	
Tb	159	He	Pulse	0.5	702,476	794731.056666667	88.4	
Tb	159	NoGas	Analog	0.9	1,779,848	1665548.91666667	106.9	
Bi	209	He	Pulse	0.6	388,349	446099.653333333	87.1	
Bi	209	NoGas	Pulse	0.7	916,042	1052566.13	87.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB5**	Total Dilution:	1.0000
File Name:	085_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 18:16:59
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	68.0	39	
Na	23	45	He	5.278	ppb	5.3	11,965	
Mg	24	45	He	2.102	ppb	8.6	2,020	
Al	27	45	He	0.662	ppb	15.2	356	
K	39	45	He	1.195	ppb	79.1	36,945	
Ca	44	45	H2	5.515	ppb	7.9	1,983	
[Ca]	44	45	He	3.729	ppb	21.6	436	
Ti	47	45	NoGas	0.030	ppb	12.9	77	
V	51	74	He	-0.203	ppb	N/A	1,602	
Cr	52	74	He	-0.001	ppb	N/A	301	
Mn	55	74	He	0.014	ppb	77.8	162	
Fe	56	74	H2	1.671	ppb	5.0	30,512	
Co	59	74	He	0.009	ppb	31.5	92	
Ni	60	74	He	0.002	ppb	54.3	39	
Cu	65	74	He	0.040	ppb	6.7	114	
Zn	66	74	He	0.015	ppb	71.8	43	
As	75	74	He	0.011	ppb	218.9	52	
Se	78	74	H2	0.017	ppb	66.2	10	
Mo	95	103	He	0.037	ppb	27.8	78	
Ag	107	103	He	0.007	ppb	15.6	43	
Cd	111	103	He	0.021	ppb	32.5	23	
[Cd]	111	103	NoGas	0.011	ppb	73.5	34	
Sb	121	103	He	0.105	ppb	17.2	292	
Ba	138	159	He	0.029	ppb	38.1	217	
Hg	201	159	NoGas	0.227	ppt	778.4	6	
Tl	205	159	He	0.004	ppb	56.6	50	
Pb	208	159	NoGas	0.027	ppb	1.8	1,541	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.1	1,199,693	1328005.7	90.3	
Sc	45	H2	Analog	1.1	2,621,354	2880501.55333333	91.0	
Sc	45	He	Pulse	1.0	402,534	495174.883333333	81.3	
Sc	45	NoGas	Analog	1.0	3,817,762	4124211.75	92.6	
Ge	74	H2	Pulse	0.3	776,760	948676.153333333	81.9	
Ge	74	He	Pulse	0.4	232,445	284255.65	81.8	
Ge	74	NoGas	Pulse	1.2	939,058	1128393.34666667	83.2	
Rh	103	He	Pulse	0.4	506,368	616442.69	82.1	
Rh	103	NoGas	Pulse	1.2	945,826	1143555.12333333	82.7	
Tb	159	He	Pulse	1.0	706,402	794731.056666667	88.9	
Tb	159	NoGas	Analog	1.2	1,788,660	1665548.91666667	107.4	
Bi	209	He	Pulse	1.0	398,579	446099.653333333	89.3	
Bi	209	NoGas	Pulse	0.6	934,182	1052566.13	88.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV7**	Total Dilution:	1.0000
File Name:	096_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 19:07:55
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.150	ppb	1.2	121,830	40	97.88	
Na	23	45	He	4165.041	ppb	0.4	5,495,501	4000	104.13	
Mg	24	45	He	4386.699	ppb	0.4	3,252,386	4000	109.67	
Al	27	45	He	4299.131	ppb	1.5	1,685,083	4000	107.48	
K	39	45	He	4347.695	ppb	0.5	2,903,681	4000	108.69	
Ca	44	45	H2	3968.600	ppb	1.0	1,097,002	4000	99.22	
[Ca]	44	45	He	4152.265	ppb	0.9	135,246	4000	103.81	
Ti	47	45	NoGas	87.825	ppb	0.2	125,957	100	87.82	> +/- 10%
V	51	74	He	97.507	ppb	0.6	419,268	100	97.51	
Cr	52	74	He	98.089	ppb	0.9	491,580	100	98.09	
Mn	55	74	He	103.180	ppb	1.0	364,570	100	103.18	
Fe	56	74	H2	4335.436	ppb	0.5	58,269,836	4000	108.39	
Co	59	74	He	101.259	ppb	0.4	688,625	100	101.26	
Ni	60	74	He	103.632	ppb	0.9	172,602	100	103.63	
Cu	65	74	He	103.216	ppb	1.0	207,656	100	103.22	
Zn	66	74	He	101.485	ppb	0.5	80,590	100	101.48	
As	75	74	He	97.804	ppb	0.8	48,131	100	97.8	
Se	78	74	H2	40.114	ppb	0.6	13,773	40	100.28	
Mo	95	103	He	40.228	ppb	1.5	77,575	40	100.57	
Ag	107	103	He	41.219	ppb	0.8	226,359	40	103.05	
Cd	111	103	He	99.974	ppb	0.3	92,746	100	99.97	
[Cd]	111	103	NoGas	90.954	ppb	0.3	224,158	100	90.95	
Sb	121	103	He	42.375	ppb	0.6	101,445	40	105.94	
Ba	138	159	He	104.043	ppb	0.7	567,913	100	104.04	
Hg	201	159	NoGas	753.787	ppt	2.4	896	800	94.22	
Tl	205	159	He	40.485	ppb	0.7	351,389	40	101.21	
Pb	208	159	NoGas	96.055	ppb	0.5	2,525,578	100	96.06	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.1	1,169,552	1328005.7	88.1	
Sc	45	H2	Analog	0.5	2,674,255	2880501.55333333	92.8	
Sc	45	He	Pulse	0.1	396,278	495174.883333333	80.0	
Sc	45	NoGas	Analog	0.8	3,687,697	4124211.75	89.4	
Ge	74	H2	Pulse	0.1	778,904	948676.153333333	82.1	
Ge	74	He	Pulse	0.5	228,621	284255.65	80.4	
Ge	74	NoGas	Pulse	0.7	903,831	1128393.34666667	80.1	
Rh	103	He	Pulse	0.1	491,804	616442.69	79.8	
Rh	103	NoGas	Pulse	0.5	901,832	1143555.12333333	78.9	
Tb	159	He	Pulse	0.5	702,601	794731.056666667	88.4	
Tb	159	NoGas	Analog	1.0	1,774,681	1665548.91666667	106.6	
Bi	209	He	Pulse	0.8	391,152	446099.653333333	87.7	
Bi	209	NoGas	Pulse	1.1	915,346	1052566.13	87.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB6**	Total Dilution:	1.0000
File Name:	097_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 19:12:32
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	50.7	42	
Na	23	45	He	1.612	ppb	7.0	6,722	
Mg	24	45	He	0.973	ppb	5.6	1,113	
Al	27	45	He	0.672	ppb	22.2	342	
K	39	45	He	-2.283	ppb	N/A	32,970	
Ca	44	45	H2	11.782	ppb	5.5	3,589	
[Ca]	44	45	He	9.110	ppb	23.4	584	
Ti	47	45	NoGas	0.032	ppb	24.1	75	
V	51	74	He	-0.252	ppb	N/A	1,326	
Cr	52	74	He	-0.002	ppb	N/A	281	
Mn	55	74	He	0.041	ppb	22.2	249	
Fe	56	74	H2	2.614	ppb	1.5	41,947	
Co	59	74	He	0.011	ppb	16.0	104	
Ni	60	74	He	0.005	ppb	85.2	42	
Cu	65	74	He	0.064	ppb	10.3	154	
Zn	66	74	He	0.057	ppb	31.0	73	
As	75	74	He	-0.013	ppb	N/A	38	
Se	78	74	H2	0.036	ppb	11.6	17	
Mo	95	103	He	0.029	ppb	24.4	61	
Ag	107	103	He	0.011	ppb	0.8	60	
Cd	111	103	He	0.016	ppb	39.9	18	
[Cd]	111	103	NoGas	0.017	ppb	39.2	45	
Sb	121	103	He	0.104	ppb	9.5	280	
Ba	138	159	He	0.018	ppb	24.1	152	
Hg	201	159	NoGas	-0.136	ppt	N/A	6	
Tl	205	159	He	0.009	ppb	40.7	88	
Pb	208	159	NoGas	0.032	ppb	6.1	1,656	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,157,452	1328005.7	87.2	
Sc	45	H2	Analog	0.8	2,555,996	2880501.55333333	88.7	
Sc	45	He	Pulse	0.7	383,482	495174.883333333	77.4	
Sc	45	NoGas	Analog	1.1	3,580,714	4124211.75	86.8	
Ge	74	H2	Pulse	0.8	755,100	948676.153333333	79.6	
Ge	74	He	Pulse	0.7	221,910	284255.65	78.1	
Ge	74	NoGas	Pulse	0.7	888,230	1128393.34666667	78.7	
Rh	103	He	Pulse	0.8	491,228	616442.69	79.7	
Rh	103	NoGas	Pulse	0.4	901,527	1143555.12333333	78.8	
Tb	159	He	Pulse	0.8	691,961	794731.056666667	87.1	
Tb	159	NoGas	Analog	1.9	1,764,166	1665548.91666667	105.9	
Bi	209	He	Pulse	0.5	391,506	446099.653333333	87.8	
Bi	209	NoGas	Pulse	0.8	919,323	1052566.13	87.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV8**	Total Dilution:	1.0000
File Name:	108_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:03:25
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.324	ppb	2.7	127,408	40	95.81	
Na	23	45	He	4414.978	ppb	0.6	5,998,593	4000	110.37	> +/- 10%
Mg	24	45	He	4500.601	ppb	2.2	3,436,030	4000	112.52	> +/- 10%
Al	27	45	He	4387.431	ppb	1.6	1,770,883	4000	109.69	
K	39	45	He	4378.026	ppb	1.3	3,010,735	4000	109.45	
Ca	44	45	H2	3965.784	ppb	2.4	1,149,289	4000	99.14	
[Ca]	44	45	He	4161.117	ppb	1.2	139,569	4000	104.03	
Ti	47	45	NoGas	88.062	ppb	1.0	132,939	100	88.06	> +/- 10%
V	51	74	He	99.846	ppb	0.7	432,592	100	99.85	
Cr	52	74	He	100.180	ppb	1.3	505,933	100	100.18	
Mn	55	74	He	104.905	ppb	0.9	373,532	100	104.9	
Fe	56	74	H2	4468.896	ppb	0.6	61,515,084	4000	111.72	> +/- 10%
Co	59	74	He	101.818	ppb	0.4	697,791	100	101.82	
Ni	60	74	He	103.732	ppb	1.1	174,104	100	103.73	
Cu	65	74	He	103.673	ppb	0.9	210,192	100	103.67	
Zn	66	74	He	100.864	ppb	0.4	80,718	100	100.86	
As	75	74	He	97.907	ppb	0.3	48,556	100	97.91	
Se	78	74	H2	40.576	ppb	0.3	14,269	40	101.44	
Mo	95	103	He	40.508	ppb	0.3	78,565	40	101.27	
Ag	107	103	He	41.000	ppb	0.5	226,457	40	102.5	
Cd	111	103	He	98.599	ppb	0.4	91,998	100	98.6	
[Cd]	111	103	NoGas	90.194	ppb	1.4	226,923	100	90.19	
Sb	121	103	He	41.594	ppb	0.2	100,152	40	103.98	
Ba	138	159	He	104.391	ppb	0.7	558,392	100	104.39	
Hg	201	159	NoGas	743.872	ppt	3.9	884	800	92.98	
Tl	205	159	He	40.157	ppb	0.9	341,535	40	100.39	
Pb	208	159	NoGas	94.777	ppb	1.1	2,491,386	100	94.78	

Mg, Fe
Q-41
ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.7	1,249,738	1328005.7	94.1	
Sc	45	H2	Analog	2.5	2,804,735	2880501.55333333	97.4	
Sc	45	He	Pulse	0.7	408,098	495174.883333333	82.4	
Sc	45	NoGas	Analog	1.6	3,881,939	4124211.75	94.1	
Ge	74	H2	Pulse	0.2	797,739	948676.153333333	84.1	
Ge	74	He	Pulse	0.7	230,394	284255.65	81.1	
Ge	74	NoGas	Pulse	0.8	929,752	1128393.34666667	82.4	
Rh	103	He	Pulse	0.2	494,644	616442.69	80.2	
Rh	103	NoGas	Pulse	0.7	920,715	1143555.12333333	80.5	
Tb	159	He	Pulse	0.8	688,529	794731.056666667	86.6	
Tb	159	NoGas	Analog	1.1	1,774,330	1665548.91666667	106.5	
Bi	209	He	Pulse	0.3	377,908	446099.653333333	84.7	
Bi	209	NoGas	Pulse	0.4	900,756	1052566.13	85.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB7**	Total Dilution:	1.0000
File Name:	109_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:08:03
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	28.9	46	
Na	23	45	He	85.535	ppb	1.5	117,045	> 1/2 MRL
Mg	24	45	He	1.632	ppb	13.5	1,631	
Al	27	45	He	0.819	ppb	0.3	410	
K	39	45	He	-0.024	ppb	N/A	35,403	
Ca	44	45	H2	3.503	ppb	4.7	1,437	
[Ca]	44	45	He	1.977	ppb	42.2	370	
Ti	47	45	NoGas	0.012	ppb	167.9	50	
V	51	74	He	-0.185	ppb	N/A	1,637	
Cr	52	74	He	-0.009	ppb	N/A	252	
Mn	55	74	He	0.018	ppb	131.2	171	
Fe	56	74	H2	1.564	ppb	6.7	28,654	
Co	59	74	He	0.007	ppb	6.9	78	
Ni	60	74	He	0.003	ppb	414.4	40	
Cu	65	74	He	0.122	ppb	11.2	273	
Zn	66	74	He	0.049	ppb	53.0	69	
As	75	74	He	0.001	ppb	2167.4	46	
Se	78	74	H2	0.016	ppb	64.2	10	
Mo	95	103	He	0.032	ppb	19.7	67	
Ag	107	103	He	0.012	ppb	48.7	66	
Cd	111	103	He	0.017	ppb	22.8	19	
[Cd]	111	103	NoGas	0.015	ppb	21.7	41	
Sb	121	103	He	0.147	ppb	17.2	387	
Ba	138	159	He	0.035	ppb	20.3	242	
Hg	201	159	NoGas	-0.006	ppt	N/A	6	
Tl	205	159	He	0.005	ppb	56.5	57	
Pb	208	159	NoGas	0.076	ppb	2.5	2,820	

Na - B-02
ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.6	1,212,086	1328005.7	91.3	
Sc	45	H2	Analog	1.0	2,617,196	2880501.55333333	90.9	
Sc	45	He	Pulse	1.0	394,504	495174.883333333	79.7	
Sc	45	NoGas	Analog	1.5	3,769,531	4124211.75	91.4	
Ge	74	H2	Pulse	0.3	765,563	948676.153333333	80.7	
Ge	74	He	Pulse	1.0	226,302	284255.65	79.6	
Ge	74	NoGas	Pulse	0.9	920,599	1128393.34666667	81.6	
Rh	103	He	Pulse	1.0	496,030	616442.69	80.5	
Rh	103	NoGas	Pulse	0.3	929,200	1143555.12333333	81.3	
Tb	159	He	Pulse	1.3	684,848	794731.056666667	86.2	
Tb	159	NoGas	Analog	1.5	1,766,371	1665548.91666667	106.1	
Bi	209	He	Pulse	1.0	386,384	446099.653333333	86.6	
Bi	209	NoGas	Pulse	0.6	914,612	1052566.13	86.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB8**	Total Dilution:	1.0000
File Name:	110_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:12:46
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.003	ppb	73.6	31	
Na	23	45	He	60.819	ppb	0.7	84,436	> 1/2 MRL
Mg	24	45	He	1.118	ppb	12.5	1,250	
Al	27	45	He	0.462	ppb	12.5	270	
K	39	45	He	-0.828	ppb	N/A	34,803	
Ca	44	45	H2	2.317	ppb	21.2	1,116	
[Ca]	44	45	He	-0.249	ppb	N/A	298	
Ti	47	45	NoGas	0.023	ppb	50.2	65	
V	51	74	He	-0.171	ppb	N/A	1,693	
Cr	52	74	He	-0.004	ppb	N/A	279	
Mn	55	74	He	0.011	ppb	59.3	149	
Fe	56	74	H2	0.534	ppb	1.2	15,009	
Co	59	74	He	0.002	ppb	131.0	47	
Ni	60	74	He	-0.009	ppb	N/A	19	
Cu	65	74	He	0.109	ppb	7.5	248	
Zn	66	74	He	0.033	ppb	28.3	56	
As	75	74	He	-0.026	ppb	N/A	32	
Se	78	74	H2	-0.001	ppb	N/A	4	
Mo	95	103	He	0.007	ppb	13.6	18	
Ag	107	103	He	0.005	ppb	22.7	31	
Cd	111	103	He	0.010	ppb	12.0	13	
[Cd]	111	103	NoGas	0.013	ppb	60.4	38	
Sb	121	103	He	0.035	ppb	38.0	116	
Ba	138	159	He	0.018	ppb	3.7	156	
Hg	201	159	NoGas	0.361	ppt	713.8	7	
Tl	205	159	He	0.001	ppb	24.6	21	
Pb	208	159	NoGas	0.051	ppb	6.1	2,203	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,209,344	1328005.7	91.1	
Sc	45	H2	Analog	1.3	2,615,898	2880501.55333333	90.8	
Sc	45	He	Pulse	0.6	393,663	495174.883333333	79.5	
Sc	45	NoGas	Analog	1.5	3,762,338	4124211.75	91.2	
Ge	74	H2	Pulse	0.1	763,218	948676.153333333	80.5	
Ge	74	He	Pulse	0.5	225,721	284255.65	79.4	
Ge	74	NoGas	Pulse	1.1	920,341	1128393.34666667	81.6	
Rh	103	He	Pulse	0.7	495,559	616442.69	80.4	
Rh	103	NoGas	Pulse	0.9	929,460	1143555.12333333	81.3	
Tb	159	He	Pulse	0.5	687,859	794731.056666667	86.6	
Tb	159	NoGas	Analog	0.8	1,789,477	1665548.91666667	107.4	
Bi	209	He	Pulse	0.6	387,873	446099.653333333	86.9	
Bi	209	NoGas	Pulse	0.7	918,104	1052566.13	87.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV9**	Total Dilution:	1.0000
File Name:	114_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:31:20
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.266	ppb	0.8	119,298	40	98.16	
Na	23	45	He	4252.268	ppb	0.8	5,416,621	4000	106.31	
Mg	24	45	He	4398.485	ppb	1.2	3,148,341	4000	109.96	
Al	27	45	He	4338.343	ppb	1.1	1,641,676	4000	108.46	
K	39	45	He	4377.956	ppb	0.6	2,822,736	4000	109.45	
Ca	44	45	H2	3956.526	ppb	1.3	1,058,304	4000	98.91	
[Ca]	44	45	He	4158.910	ppb	0.8	130,779	4000	103.97	
Ti	47	45	NoGas	88.748	ppb	2.2	124,913	100	88.75	> +/- 10%
V	51	74	He	97.936	ppb	0.3	404,910	100	97.94	
Cr	52	74	He	98.148	ppb	0.4	472,969	100	98.15	
Mn	55	74	He	103.949	ppb	0.2	353,170	100	103.95	
Fe	56	74	H2	4415.749	ppb	0.4	57,140,070	4000	110.39	> +/- 10%
Co	59	74	He	101.252	ppb	0.3	662,103	100	101.25	
Ni	60	74	He	103.667	ppb	0.4	166,023	100	103.67	
Cu	65	74	He	102.863	ppb	0.2	198,991	100	102.86	
Zn	66	74	He	102.686	ppb	0.4	78,408	100	102.69	
As	75	74	He	98.543	ppb	0.5	46,630	100	98.54	
Se	78	74	H2	41.192	ppb	1.0	13,616	40	102.98	
Mo	95	103	He	40.525	ppb	1.4	75,130	40	101.31	
Ag	107	103	He	41.571	ppb	1.2	219,470	40	103.93	
Cd	111	103	He	100.375	ppb	1.3	89,520	100	100.37	
[Cd]	111	103	NoGas	90.256	ppb	0.1	217,453	100	90.26	
Sb	121	103	He	42.689	ppb	0.9	98,251	40	106.72	
Ba	138	159	He	103.954	ppb	0.4	552,059	100	103.95	
Hg	201	159	NoGas	730.466	ppt	3.8	860	800	91.31	
Tl	205	159	He	40.387	ppb	0.1	341,028	40	100.97	
Pb	208	159	NoGas	94.262	ppb	1.9	2,453,984	100	94.26	

Fe rounds to 110%. ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	1,141,801	1328005.7	86.0	
Sc	45	H2	Analog	1.4	2,588,013	2880501.55333333	89.8	
Sc	45	He	Pulse	1.0	382,598	495174.883333333	77.3	
Sc	45	NoGas	Analog	1.8	3,620,053	4124211.75	87.8	
Ge	74	H2	Pulse	0.5	749,907	948676.153333333	79.0	
Ge	74	He	Pulse	0.1	219,827	284255.65	77.3	
Ge	74	NoGas	Pulse	1.1	887,015	1128393.34666667	78.6	
Rh	103	He	Pulse	1.1	472,844	616442.69	76.7	
Rh	103	NoGas	Pulse	0.6	881,641	1143555.12333333	77.1	
Tb	159	He	Pulse	0.4	683,554	794731.056666667	86.0	
Tb	159	NoGas	Analog	1.5	1,757,423	1665548.91666667	105.5	
Bi	209	He	Pulse	0.6	376,390	446099.653333333	84.4	
Bi	209	NoGas	Pulse	0.6	890,779	1052566.13	84.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB9**	Total Dilution:	1.0000
File Name:	115_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:35:57
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.002	ppb	150.8	26	
Na	23	45	He	31.637	ppb	0.9	44,045	
Mg	24	45	He	1.644	ppb	12.9	1,560	
Al	27	45	He	0.703	ppb	6.3	347	
K	39	45	He	-0.991	ppb	N/A	33,061	
Ca	44	45	H2	2.470	ppb	6.4	1,102	
[Ca]	44	45	He	1.083	ppb	48.6	324	
Ti	47	45	NoGas	0.032	ppb	19.8	75	
V	51	74	He	-0.220	ppb	N/A	1,424	
Cr	52	74	He	-0.012	ppb	N/A	228	
Mn	55	74	He	0.015	ppb	31.7	156	
Fe	56	74	H2	2.021	ppb	2.4	32,989	
Co	59	74	He	0.008	ppb	17.9	78	
Ni	60	74	He	0.004	ppb	127.3	40	
Cu	65	74	He	0.089	ppb	26.4	200	
Zn	66	74	He	0.068	ppb	47.8	80	
As	75	74	He	0.015	ppb	13.6	50	
Se	78	74	H2	0.034	ppb	45.9	15	
Mo	95	103	He	0.035	ppb	5.3	70	
Ag	107	103	He	0.008	ppb	31.2	46	
Cd	111	103	He	0.026	ppb	15.0	27	
[Cd]	111	103	NoGas	0.015	ppb	81.1	40	
Sb	121	103	He	0.245	ppb	1.5	602	
Ba	138	159	He	0.031	ppb	23.1	218	
Hg	201	159	NoGas	1.942	ppt	112.4	8	
Tl	205	159	He	0.005	ppb	26.6	58	
Pb	208	159	NoGas	0.039	ppb	4.0	1,820	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,142,839	1328005.7	86.1	
Sc	45	H2	Analog	1.4	2,492,996	2880501.55333333	86.5	
Sc	45	He	Pulse	0.4	375,110	495174.883333333	75.8	
Sc	45	NoGas	Analog	1.7	3,573,380	4124211.75	86.6	
Ge	74	H2	Pulse	0.1	727,853	948676.153333333	76.7	
Ge	74	He	Pulse	0.7	216,565	284255.65	76.2	
Ge	74	NoGas	Pulse	0.9	875,112	1128393.34666667	77.6	
Rh	103	He	Pulse	0.2	478,610	616442.69	77.6	
Rh	103	NoGas	Pulse	0.6	883,176	1143555.12333333	77.2	
Tb	159	He	Pulse	1.1	677,555	794731.056666667	85.3	
Tb	159	NoGas	Analog	0.7	1,743,428	1665548.91666667	104.7	
Bi	209	He	Pulse	0.4	381,858	446099.653333333	85.6	
Bi	209	NoGas	Pulse	0.3	897,887	1052566.13	85.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL7**	Total Dilution:	1.0000
File Name:	116CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:40:40
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.183	ppb	13.8	589	101.67		
Na	23	45	He	36.928	ppb	2.3	50,926	410.31	R-11	< MRL
Mg	24	45	He	10.488	ppb	2.8	7,808	116.53		
Al	27	45	He	10.308	ppb	5.9	3,932	114.53		
K	39	45	He	9.082	ppb	18.0	39,567	100.91		
Ca	44	45	H2	12.599	ppb	4.9	3,715	139.99	R-11	< MRL
[Ca]	44	45	He	11.571	ppb	12.7	651	128.57		
Ti	47	45	NoGas	0.186	ppb	4.2	293	103.33		
V	51	74	He	-0.043	ppb	N/A	2,157	-23.89	R-11	< MRL
Cr	52	74	He	0.173	ppb	13.5	1,115	96.11		
Mn	55	74	He	0.209	ppb	12.8	809	116.11		
Fe	56	74	H2	10.010	ppb	0.8	133,800	111.22		
Co	59	74	He	0.189	ppb	7.9	1,257	105		
Ni	60	74	He	0.195	ppb	15.2	342	108.33		
Cu	65	74	He	0.323	ppb	4.2	649	179.44	R-11	< MRL
Zn	66	74	He	0.394	ppb	10.6	327	218.89	R-11	
As	75	74	He	0.146	ppb	14.0	112	81.11		
Se	78	74	H2	0.196	ppb	13.6	67	108.89		
Mo	95	103	He	0.189	ppb	11.1	361	105		
Ag	107	103	He	0.185	ppb	1.6	992	102.78		
Cd	111	103	He	0.186	ppb	3.9	172	103.33		
[Cd]	111	103	NoGas	0.178	ppb	1.2	445	98.89		
Sb	121	103	He	0.281	ppb	4.6	689	156.11	R-11	< MRL
Ba	138	159	He	0.220	ppb	3.3	1,220	122.22		
Hg	201	159	NoGas	6.166	ppt	50.7	13	85.64		
Tl	205	159	He	0.191	ppb	2.4	1,622	106.11		
Pb	208	159	NoGas	0.222	ppb	3.0	6,683	123.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	1,165,097	1328005.7	87.7	
Sc	45	H2	Analog	0.8	2,495,063	2880501.55333333	86.6	
Sc	45	He	Pulse	1.2	377,243	495174.883333333	76.2	
Sc	45	NoGas	Analog	1.9	3,632,366	4124211.75	88.1	
Ge	74	H2	Pulse	0.4	730,530	948676.153333333	77.0	
Ge	74	He	Pulse	0.8	217,926	284255.65	76.7	
Ge	74	NoGas	Pulse	0.6	891,044	1128393.34666667	79.0	
Rh	103	He	Pulse	0.5	480,428	616442.69	77.9	
Rh	103	NoGas	Pulse	0.8	904,531	1143555.12333333	79.1	
Tb	159	He	Pulse	0.4	680,566	794731.056666667	85.6	
Tb	159	NoGas	Analog	0.6	1,779,217	1665548.91666667	106.8	
Bi	209	He	Pulse	0.6	382,807	446099.653333333	85.8	
Bi	209	NoGas	Pulse	0.4	905,462	1052566.13	86.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL8**	Total Dilution:	1.0000
File Name:	117_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:45:19
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.895	ppb	2.7	2,851	99.44	
Na	23	45	He	69.331	ppb	0.2	93,448	154.07	R-11
Mg	24	45	He	46.355	ppb	0.3	33,792	103.01	
Al	27	45	He	47.818	ppb	1.9	18,288	106.26	
K	39	45	He	45.575	ppb	2.6	63,752	101.28	
Ca	44	45	H2	45.991	ppb	2.0	12,668	102.2	
[Ca]	44	45	He	46.432	ppb	6.2	1,765	103.18	
Ti	47	45	NoGas	0.853	ppb	8.6	1,261	94.78	
V	51	74	He	0.697	ppb	2.6	5,279	77.44	
Cr	52	74	He	0.867	ppb	7.4	4,516	96.33	
Mn	55	74	He	0.935	ppb	2.4	3,321	103.89	
Fe	56	74	H2	45.671	ppb	0.7	596,351	101.49	
Co	59	74	He	0.905	ppb	1.8	6,016	100.56	
Ni	60	74	He	0.879	ppb	4.8	1,458	97.67	
Cu	65	74	He	1.005	ppb	2.3	1,998	111.67	
Zn	66	74	He	0.928	ppb	3.3	747	103.11	
As	75	74	He	0.872	ppb	1.2	461	96.89	
Se	78	74	H2	0.966	ppb	8.5	322	107.33	
Mo	95	103	He	0.873	ppb	2.4	1,663	97	
Ag	107	103	He	0.876	ppb	3.1	4,743	97.33	
Cd	111	103	He	0.958	ppb	3.7	879	106.44	
[Cd]	111	103	NoGas	0.849	ppb	1.7	2,135	94.33	
Sb	121	103	He	0.944	ppb	2.3	2,258	104.89	
Ba	138	159	He	0.953	ppb	1.1	5,121	105.89	
Hg	201	159	NoGas	30.466	ppt	28.1	42	84.63	
Tl	205	159	He	0.930	ppb	1.0	7,872	103.33	
Pb	208	159	NoGas	0.894	ppb	1.3	24,325	99.33	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,188,364	1328005.7	89.5	
Sc	45	H2	Analog	0.7	2,565,121	2880501.55333333	89.1	
Sc	45	He	Pulse	0.7	384,862	495174.883333333	77.7	
Sc	45	NoGas	Analog	0.6	3,706,380	4124211.75	89.9	
Ge	74	H2	Pulse	0.4	746,933	948676.153333333	78.7	
Ge	74	He	Pulse	0.9	222,471	284255.65	78.3	
Ge	74	NoGas	Pulse	1.2	910,330	1128393.34666667	80.7	
Rh	103	He	Pulse	0.8	484,662	616442.69	78.6	
Rh	103	NoGas	Pulse	0.5	918,459	1143555.12333333	80.3	
Tb	159	He	Pulse	0.8	684,374	794731.056666667	86.1	
Tb	159	NoGas	Analog	1.1	1,774,019	1665548.91666667	106.5	
Bi	209	He	Pulse	0.5	384,844	446099.653333333	86.3	
Bi	209	NoGas	Pulse	1.1	915,915	1052566.13	87.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL9**	Total Dilution:	1.0000
File Name:	118CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:50:00
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.755	ppb	1.1	5,667	97.5	
Na	23	45	He	113.959	ppb	0.6	153,496	126.62	
Mg	24	45	He	92.692	ppb	0.5	68,449	102.99	
Al	27	45	He	91.975	ppb	2.1	35,778	102.19	
K	39	45	He	90.752	ppb	0.6	94,489	100.84	
Ca	44	45	H2	89.952	ppb	1.2	24,528	99.95	
[Ca]	44	45	He	93.942	ppb	4.6	3,327	104.38	
Ti	47	45	NoGas	1.634	ppb	4.4	2,427	90.78	
V	51	74	He	1.574	ppb	0.3	9,082	87.44	
Cr	52	74	He	1.765	ppb	2.1	9,047	98.06	
Mn	55	74	He	1.892	ppb	2.1	6,725	105.11	
Fe	56	74	H2	89.614	ppb	0.3	1,180,074	99.57	
Co	59	74	He	1.807	ppb	0.5	12,192	100.39	
Ni	60	74	He	1.784	ppb	1.2	2,975	99.11	
Cu	65	74	He	2.024	ppb	0.9	4,062	112.44	
Zn	66	74	He	1.888	ppb	5.7	1,513	104.89	
As	75	74	He	1.818	ppb	3.2	930	101	
Se	78	74	H2	1.730	ppb	5.0	582	96.11	
Mo	95	103	He	1.751	ppb	2.7	3,398	97.28	
Ag	107	103	He	1.827	ppb	0.9	10,084	101.5	
Cd	111	103	He	1.831	ppb	5.3	1,710	101.72	
[Cd]	111	103	NoGas	1.745	ppb	5.4	4,461	96.94	
Sb	121	103	He	1.895	ppb	3.9	4,591	105.28	
Ba	138	159	He	1.999	ppb	1.7	10,748	111.06	
Hg	201	159	NoGas	63.685	ppt	10.9	83	88.45	
Tl	205	159	He	1.818	ppb	1.4	15,481	101	
Pb	208	159	NoGas	1.728	ppb	0.4	47,279	96	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,208,871	1328005.7	91.0	
Sc	45	H2	Analog	0.7	2,587,052	2880501.55333333	89.8	
Sc	45	He	Pulse	0.4	392,297	495174.883333333	79.2	
Sc	45	NoGas	Analog	0.3	3,770,371	4124211.75	91.4	
Ge	74	H2	Pulse	0.4	758,127	948676.153333333	79.9	
Ge	74	He	Pulse	0.3	226,297	284255.65	79.6	
Ge	74	NoGas	Pulse	0.9	928,519	1128393.34666667	82.3	
Rh	103	He	Pulse	0.3	494,267	616442.69	80.2	
Rh	103	NoGas	Pulse	0.7	934,397	1143555.12333333	81.7	
Tb	159	He	Pulse	1.0	688,577	794731.056666667	86.6	
Tb	159	NoGas	Analog	0.9	1,813,578	1665548.91666667	108.9	
Bi	209	He	Pulse	0.7	384,244	446099.653333333	86.1	
Bi	209	NoGas	Pulse	0.8	920,510	1052566.13	87.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRLA**	Total Dilution:	1.0000
File Name:	119CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:54:40
Comment:	A19J371 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.438	ppb	0.6	11,097	95.5	
Na	23	45	He	201.034	ppb	0.7	267,276	111.69	
Mg	24	45	He	183.174	ppb	1.0	134,923	101.76	
Al	27	45	He	184.183	ppb	1.2	71,591	102.32	
K	39	45	He	182.689	ppb	0.3	154,616	101.49	
Ca	44	45	H2	174.599	ppb	1.0	47,949	97	
[Ca]	44	45	He	183.370	ppb	1.9	6,207	101.87	
Ti	47	45	NoGas	3.282	ppb	1.9	4,836	91.17	
V	51	74	He	3.344	ppb	0.6	16,568	92.89	
Cr	52	74	He	3.453	ppb	3.2	17,413	95.92	
Mn	55	74	He	3.658	ppb	3.0	12,899	101.61	
Fe	56	74	H2	196.861	ppb	0.6	2,604,846	109.37	
Co	59	74	He	3.595	ppb	1.0	24,229	99.86	
Ni	60	74	He	3.622	ppb	1.5	6,004	100.61	
Cu	65	74	He	3.871	ppb	4.2	7,737	107.53	
Zn	66	74	He	3.578	ppb	3.9	2,841	99.39	
As	75	74	He	3.678	ppb	1.4	1,835	102.17	
Se	78	74	H2	3.680	ppb	4.5	1,245	102.22	
Mo	95	103	He	3.487	ppb	3.6	6,716	96.86	
Ag	107	103	He	3.667	ppb	0.8	20,100	101.86	
Cd	111	103	He	3.737	ppb	0.3	3,463	103.81	
[Cd]	111	103	NoGas	3.312	ppb	1.2	8,384	92	
Sb	121	103	He	3.716	ppb	0.8	8,908	103.22	
Ba	138	159	He	3.815	ppb	0.6	20,448	105.97	
Hg	201	159	NoGas	120.299	ppt	3.9	150	83.54	
Tl	205	159	He	3.679	ppb	2.5	31,276	102.19	
Pb	208	159	NoGas	3.465	ppb	1.6	93,319	96.25	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,210,853	1328005.7	91.2	
Sc	45	H2	Analog	0.6	2,630,793	2880501.55333333	91.3	
Sc	45	He	Pulse	0.7	392,519	495174.883333333	79.3	
Sc	45	NoGas	Analog	1.0	3,765,061	4124211.75	91.3	
Ge	74	H2	Pulse	0.3	764,585	948676.153333333	80.6	
Ge	74	He	Pulse	0.7	226,275	284255.65	79.6	
Ge	74	NoGas	Pulse	1.2	920,146	1128393.34666667	81.5	
Rh	103	He	Pulse	0.8	490,894	616442.69	79.6	
Rh	103	NoGas	Pulse	1.0	926,000	1143555.12333333	81.0	
Tb	159	He	Pulse	0.5	688,047	794731.056666667	86.6	
Tb	159	NoGas	Analog	1.3	1,802,069	1665548.91666667	108.2	
Bi	209	He	Pulse	0.4	387,767	446099.653333333	86.9	
Bi	209	NoGas	Pulse	0.9	921,586	1052566.13	87.6	

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Batch 9110573
Sequence 9K07021

APEX LABORATORIES

Ag (Silver) - 6020 - TCLP
As (Arsenic) - 6020 - TCLP
Ba (Barium) - 6020 - TCLP
Cd (Cadmium) - 6020 - TCLP
Cr (Chromium) - 6020 - TCLP
Hg (Mercury) - 6020 - TCLP
Pb (Lead) - 6020 - TCLP
Se (Selenium) - 6020 - TCLP

PREPARATION BENCH SHEET

9110573

Apex Laboratories

BATCH #: 9110573 (Sediment)

Prep Method: EPA 1311/3015

Lab Number	Due	Prepared	Initial (mL)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9110573-BLK1		11/07/19 12:52	10	50	QC Sample		
9110573-BS1		11/07/19 12:52	10	50	QC Sample		
Spike 1: 250 uL of A19J064 Spike 2: 1000 uL of A19J206							
A9J1006-01	11/11/19	11/07/19 12:52	10	50	Anchor QEA, LLC	PDI-071SC-C-00-08-19102	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
A9J1006-02	11/11/19	11/07/19 12:52	10	50	Anchor QEA, LLC	PDI-074SC-C-00-7.5-19102	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
A9J1007-01	11/11/19	11/07/19 12:52	10	50	Anchor QEA, LLC	PDI-083SC-C-00-08-19102	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
9110573-MS1		11/07/19 12:52	10	50	QC Sample		
Source: A9J1007-01 Spike 1: 250 uL of A19J064 Spike 2: 1000 uL of A19J206							

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A17F264	06/23/23	Mars-6 Microwave
A19I314	03/22/20	Conc. HCl - Omnitrace
A19J492	04/28/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J064	12/28/19	###TCLP 1 Spk
A19J206	01/30/20	Hg Sb TCLP Spk Standard

CRL 11/7/19

Fluid ID: A19K090
Extraction Batch: 9110529
Digestion time and temperature achieved? YES
Initials: CRL

CRL 11/7/19
Prepared By: Date

ESS 11/8/19
Reviewed By: Date

Batch #: 9110573

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 11/07/19 Prepared by: CRL

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	567	9110573-BLK1	206.71	206.69	n/a
2	509	9110573-BS1	209.92	209.90	n/a
3	538	A9J1006-01	207.39	207.38	n/a
4	583	A9J1006-02	207.66	207.63	n/a
5	53	A9J1007-01	204.23	204.21	n/a
6	518	9110573-MS1	208.17	208.14	n/a
7					n/a
8					n/a
9					n/a
10					n/a
11					n/a
12					n/a
13					n/a
14					n/a
15					n/a
16					n/a
17					n/a
18					n/a
19					n/a
20					n/a
21					n/a
22					n/a
23					n/a
24					n/a
					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K07021** Instrument: **ICPMS5**

Date: **11/07/19 10:11** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K07021-CAL1	Water	QC	QC			A19J130	A19J368
2	9K07021-CAL2	Water	QC	QC			A19J130	A19J369
3	9K07021-CAL3	Water	QC	QC			A19J130	A19J370
4	9K07021-CAL4	Water	QC	QC			A19J130	A19J371
5	9K07021-CAL5	Water	QC	QC			A19J130	A19J373
6	9K07021-CAL6	Water	QC	QC			A19J130	A19J372
7	9K07021-CAL7	Water	QC	QC			A19J130	A19J374
8	9K07021-CAL8	Water	QC	QC			A19J130	A19J188
9	9K07021-CAL9	Water	QC	QC			A19J130	A19J189
10	9K07021-ICV1	Water	QC	QC			A19J130	A19J138
11	9K07021-ICB1	Water	QC	QC			A19J130	
12	9K07021-CRL1	Water	QC	QC			A19J130	A19J368
13	9K07021-CRL2	Water	QC	QC			A19J130	A19J369
14	9K07021-CRL3	Water	QC	QC			A19J130	A19J370
15	9K07021-CRL4	Water	QC	QC			A19J130	A19J368
16	9K07021-IFA1	Water	QC	QC			A19J130	A19J465
17	9K07021-IFB1	Water	QC	QC			A19J130	A19J466
18	9110571-BLK1	Solid	QC	QC		9110571	A19J130	
19	9110571-BS1	Solid	QC	QC		9110571	A19J130	
20	A9K0125-01	Solid	Ag (Silver) - 6020 - TCLP		11/07/19	9110571	A19J130	
21	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
22	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
23	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
24	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
25	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
26	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
27	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110571	A19J130	
28	9110571-MS1	Solid	QC	QC		9110571	A19J130	
29	9110572-BLK1	Solid	QC	QC		9110572	A19J130	
30	9110572-BS1	Solid	QC	QC		9110572	A19J130	
31	A9K0142-01	Solid	Pb (Lead) - 6020 - TCLP		11/07/19	9110572	A19J130	
32	A9K0143-01	Solid	Pb (Lead) - 6020 - TCLP		11/07/19	9110572	A19J130	
33	9110572-MS1	Solid	QC	QC		9110572	A19J130	
34	9110561-BLK1	Soil	QC	QC		9110561	A19J130	
35	9K07021-CCV1	Water	QC	QC			A19J130	A19J138
36	9K07021-CCB1	Water	QC	QC			A19J130	
37	9110561-BS1	Soil	QC	QC		9110561	A19J130	
38	A9J0913-03	Soil	Ag (Silver) - 6020 - Total		11/08/19	9110561	A19J130	
39	"	Soil	As (Arsenic) - 6020 - Total	"	11/08/19	9110561	A19J130	
40	"	Soil	Ba (Barium) - 6020 - Total	"	11/08/19	9110561	A19J130	
41	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110561	A19J130	
42	"	Soil	Cr (Chromium) - 6020 - Total	"	11/08/19	9110561	A19J130	
43	"	Soil	Hg (Mercury) - 6020 - Total	"	11/08/19	9110561	A19J130	
44	"	Soil	Pb (Lead) - 6020 - Total	"	11/08/19	9110561	A19J130	
45	"	Soil	Se (Selenium) - 6020 - Total	"	11/08/19	9110561	A19J130	
46	9110574-BLK1	DW	QC	QC		9110574	A19J130	
47	9110574-BS1	DW	QC	QC		9110574	A19J130	
48	A9K0071-01	DW	Pb (Lead) - 200.8 - Total		11/08/19	9110574	A19J130	
49	9110574-DUP1	DW	QC	QC		9110574	A19J130	
50	9110574-MS1	DW	QC	QC		9110574	A19J130	
51	A9K0078-01	Water	Ag (Silver) - 6020 - Total		11/08/19	9110585	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

Date: **11/07/19 10:11** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Water	Al (Aluminum) - 6020 - Total	"	11/08/19	9110585	A19J130	
53	"	Water	As (Arsenic) - 6020 - Total	"	11/08/19	9110585	A19J130	
54	"	Water	Ba (Barium) - 6020 - Total	"	11/08/19	9110585	A19J130	
55	"	Water	Be (Beryllium) - 6020 - Total	"	11/08/19	9110585	A19J130	
56	"	Water	Ca (Calcium) - 6020 - Total	"	11/08/19	9110585	A19J130	
57	"	Water	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110585	A19J130	
58	"	Water	Co (Cobalt) - 6020 - Total	"	11/08/19	9110585	A19J130	
59	"	Water	Cr (Chromium) - 6020 - Total	"	11/08/19	9110585	A19J130	
60	"	Water	Cu (Copper) - 6020 - Total	"	11/08/19	9110585	A19J130	
61	"	Water	Fe (Iron) - 6020 - Total	"	11/08/19	9110585	A19J130	
62	"	Water	Hg (Mercury) - 6020 - Total	"	11/08/19	9110585	A19J130	
63	"	Water	K (Potassium) - 6020 - Total	"	11/08/19	9110585	A19J130	
64	"	Water	Mg (Magnesium) - 6020 - Total	"	11/08/19	9110585	A19J130	
65	"	Water	Mn (Manganese) - 6020 - Total	"	11/08/19	9110585	A19J130	
66	"	Water	Mo (Molybdenum) - 6020 - Total	"	11/08/19	9110585	A19J130	
67	"	Water	Na (Sodium) - 6020 - Total	"	11/08/19	9110585	A19J130	
68	"	Water	Ni (Nickel) - 6020 - Total	"	11/08/19	9110585	A19J130	
69	"	Water	Pb (Lead) - 6020 - Total	"	11/08/19	9110585	A19J130	
70	"	Water	Sb (Antimony) - 6020 - Total	"	11/08/19	9110585	A19J130	
71	"	Water	Se (Selenium) - 6020 - Total	"	11/08/19	9110585	A19J130	
72	"	Water	Ti (Titanium) - 6020 - Total	"	11/08/19	9110585	A19J130	
73	"	Water	Tl (Thallium) - 6020 - Total	"	11/08/19	9110585	A19J130	
74	"	Water	V (Vanadium) - 6020 - Total	"	11/08/19	9110585	A19J130	
75	"	Water	Zn (Zinc) - 6020 - Total	"	11/08/19	9110585	A19J130	
76	A9K0078-02	Water	Ag (Silver) - 6020 - Total		11/08/19	9110585	A19J130	
77	"	Water	Al (Aluminum) - 6020 - Total	"	11/08/19	9110585	A19J130	
78	"	Water	As (Arsenic) - 6020 - Total	"	11/08/19	9110585	A19J130	
79	"	Water	Ba (Barium) - 6020 - Total	"	11/08/19	9110585	A19J130	
80	"	Water	Be (Beryllium) - 6020 - Total	"	11/08/19	9110585	A19J130	
81	"	Water	Ca (Calcium) - 6020 - Total	"	11/08/19	9110585	A19J130	
82	"	Water	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110585	A19J130	
83	"	Water	Co (Cobalt) - 6020 - Total	"	11/08/19	9110585	A19J130	
84	"	Water	Cr (Chromium) - 6020 - Total	"	11/08/19	9110585	A19J130	
85	"	Water	Cu (Copper) - 6020 - Total	"	11/08/19	9110585	A19J130	
86	"	Water	Fe (Iron) - 6020 - Total	"	11/08/19	9110585	A19J130	
87	"	Water	Hg (Mercury) - 6020 - Total	"	11/08/19	9110585	A19J130	
88	"	Water	K (Potassium) - 6020 - Total	"	11/08/19	9110585	A19J130	
89	"	Water	Mg (Magnesium) - 6020 - Total	"	11/08/19	9110585	A19J130	
90	"	Water	Mn (Manganese) - 6020 - Total	"	11/08/19	9110585	A19J130	
91	"	Water	Mo (Molybdenum) - 6020 - Total	"	11/08/19	9110585	A19J130	
92	"	Water	Na (Sodium) - 6020 - Total	"	11/08/19	9110585	A19J130	
93	"	Water	Ni (Nickel) - 6020 - Total	"	11/08/19	9110585	A19J130	
94	"	Water	Pb (Lead) - 6020 - Total	"	11/08/19	9110585	A19J130	
95	"	Water	Sb (Antimony) - 6020 - Total	"	11/08/19	9110585	A19J130	
96	"	Water	Se (Selenium) - 6020 - Total	"	11/08/19	9110585	A19J130	
97	"	Water	Ti (Titanium) - 6020 - Total	"	11/08/19	9110585	A19J130	
98	"	Water	Tl (Thallium) - 6020 - Total	"	11/08/19	9110585	A19J130	
99	"	Water	V (Vanadium) - 6020 - Total	"	11/08/19	9110585	A19J130	
100	"	Water	Zn (Zinc) - 6020 - Total	"	11/08/19	9110585	A19J130	
101	9K07021-CCV2	Water	QC	QC			A19J130	A19J138
102	9K07021-CCB2	Water	QC	QC			A19J130	
103	9K07021-CRL5	Water	QC	QC			A19J130	A19J368
104	9K07021-CRL6	Water	QC	QC			A19J130	A19J369
105	9K07021-CRL7	Water	QC	QC			A19J130	A19J370
106	A9K0164-01	Soil	As (Arsenic) - 6020 - Total		11/12/19	9110561	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

Date: **11/07/19 10:11** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/12/19	9110561	A19J130	
108	"	Soil	Cr (Chromium) - 6020 - Total	"	11/12/19	9110561	A19J130	
109	A9K0164-02	Soil	Ag (Silver) - 6020 - Total	(QC Source)		9110561	A19J130	
110	"	Soil	As (Arsenic) - 6020 - Total	"	11/12/19	9110561	A19J130	
111	"	Soil	Ba (Barium) - 6020 - Total	(QC Source)		9110561	A19J130	
112	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/12/19	9110561	A19J130	
113	"	Soil	Cr (Chromium) - 6020 - Total	"	11/12/19	9110561	A19J130	
114	"	Soil	Hg (Mercury) - 6020 - Total	(QC Source)		9110561	A19J130	
115	"	Soil	Pb (Lead) - 6020 - Total	(QC Source)		9110561	A19J130	
116	"	Soil	Se (Selenium) - 6020 - Total	(QC Source)		9110561	A19J130	
117	9110561-DUP1	Soil	QC	QC		9110561	A19J130	
118	9110561-MS1	Soil	QC	QC		9110561	A19J130	
119	9K07021-CCV3	Water	QC	QC			A19J130	A19J138
120	9K07021-CCB3	Water	QC	QC			A19J130	
121	A9K0136-01RE1	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
122	A9K0136-03RE1	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
123	A9K0098-01RE1	Solid	Ag (Silver) - 6020 - Total		11/11/19	9110466	A19J130	
124	"	Solid	As (Arsenic) - 6020 - Total	"	11/11/19	9110466	A19J130	
125	"	Solid	Ba (Barium) - 6020 - Total	"	11/11/19	9110466	A19J130	
126	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110466	A19J130	
127	"	Solid	Cu (Copper) - 6020 - Total	"	11/11/19	9110466	A19J130	
128	"	Solid	Hg (Mercury) - 6020 - Total	"	11/11/19	9110466	A19J130	
129	"	Solid	Pb (Lead) - 6020 - Total	"	11/11/19	9110466	A19J130	
130	"	Solid	Se (Selenium) - 6020 - Total	"	11/11/19	9110466	A19J130	
131	"	Solid	Zn (Zinc) - 6020 - Total	"	11/11/19	9110466	A19J130	
132	A9K0163-01	Soil	Ag (Silver) - 6020 - Total		11/12/19	9110561	A19J130	
133	"	Soil	As (Arsenic) - 6020 - Total	"	11/12/19	9110561	A19J130	
134	"	Soil	Ba (Barium) - 6020 - Total	"	11/12/19	9110561	A19J130	
135	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/12/19	9110561	A19J130	
136	"	Soil	Cr (Chromium) - 6020 - Total	"	11/12/19	9110561	A19J130	
137	"	Soil	Hg (Mercury) - 6020 - Total	"	11/12/19	9110561	A19J130	
138	"	Soil	Pb (Lead) - 6020 - Total	"	11/12/19	9110561	A19J130	
139	"	Soil	Se (Selenium) - 6020 - Total	"	11/12/19	9110561	A19J130	
140	A9K0183-01	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110561	A19J130	
141	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110561	A19J130	
142	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110561	A19J130	
143	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110561	A19J130	
144	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110561	A19J130	
145	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110561	A19J130	
146	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110561	A19J130	
147	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110561	A19J130	
148	9110573-BLK1	Sediment	QC	QC		9110573	A19J130	
149	9110573-BS1	Sediment	QC	QC		9110573	A19J130	
150	9K07021-CCV4	Water	QC	QC			A19J130	A19J138
151	9K07021-CCB4	Water	QC	QC			A19J130	
152	A9J1006-01	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/11/19	9110573	A19J130	
153	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
154	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
155	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
156	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
157	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
158	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
159	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
160	A9J1006-02	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/11/19	9110573	A19J130	
161	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/11/19	9110573	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
163	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
164	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
165	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
166	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
167	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
168	A9J1007-01	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/11/19	9110573	A19J130	
169	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
170	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
171	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
172	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
173	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
174	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
175	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/11/19	9110573	A19J130	
176	9110573-MS1	Sediment	QC	QC		9110573	A19J130	
177	9110576-BLK1	Solid	QC	QC		9110576	A19J130	
178	9110576-BS1	Solid	QC	QC		9110576	A19J130	
179	A9J1126-01RE1	Solid	Ag (Silver) - 6020 - TCLP		11/13/19	9110576	A19J130	
180	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
181	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
182	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
183	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
184	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
185	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
186	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/13/19	9110576	A19J130	
187	9110576-MS1	Solid	QC	QC		9110576	A19J130	
188	9110575-BLK1	Liquid	QC	QC		9110575	A19J130	
189	9110575-BS1	Liquid	QC	QC		9110575	A19J130	
190	9K07021-CCV5	Water	QC	QC			A19J130	A19J138
191	9K07021-CCB5	Water	QC	QC			A19J130	
192	A9J1126-01RE2	Liquid	Ag (Silver) - 6020 - TCLP		11/13/19	9110575	A19J130	
193	"	Liquid	As (Arsenic) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
194	"	Liquid	Ba (Barium) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
195	"	Liquid	Cd (Cadmium) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
196	"	Liquid	Cr (Chromium) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
197	"	Liquid	Hg (Mercury) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
198	"	Liquid	Pb (Lead) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
199	"	Liquid	Se (Selenium) - 6020 - TCLP	"	11/13/19	9110575	A19J130	
200	9110575-DUP1	Liquid	QC	QC		9110575	A19J130	
201	9110575-MS1	Liquid	QC	QC		9110575	A19J130	
202	9110559-BLK1	Water	QC	QC		9110559	A19J130	
203	9110559-BS1	Water	QC	QC		9110559	A19J130	
204	9K07021-CCV6	Water	QC	QC			A19J130	A19J138
205	9K07021-CCB6	Water	QC	QC			A19J130	
206	9K07021-CRL8	Water	QC	QC			A19J130	A19J368
207	9K07021-CRL9	Water	QC	QC			A19J130	A19J369
208	9K07021-CRLA	Water	QC	QC			A19J130	A19J370
209	9K07021-CRLB	Water	QC	QC			A19J130	A19J371
210	A9K0097-01	Water	Ag (Silver) - 6020 - Total		11/11/19	9110559	A19J130	
211	"	Water	As (Arsenic) - 6020 - Total	"	11/11/19	9110559	A19J130	
212	"	Water	Ba (Barium) - 6020 - Total	"	11/11/19	9110559	A19J130	
213	"	Water	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110559	A19J130	
214	"	Water	Cr (Chromium) - 6020 - Total	"	11/11/19	9110559	A19J130	
215	"	Water	Cu (Copper) - 6020 - Total	"	11/11/19	9110559	A19J130	
216	"	Water	Hg (Mercury) - 6020 - Total	"	11/11/19	9110559	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	"	Water	Ni (Nickel) - 6020 - Total	"	11/11/19	9110559	A19J130	
218	"	Water	Pb (Lead) - 6020 - Total	"	11/11/19	9110559	A19J130	
219	"	Water	Se (Selenium) - 6020 - Total	"	11/11/19	9110559	A19J130	
220	"	Water	Zn (Zinc) - 6020 - Total	"	11/11/19	9110559	A19J130	
221	A9K0127-02	Water	Cd (Cadmium) - 200.8 - Total		11/19/19	9110559	A19J130	
222	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
223	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
224	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
225	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
226	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
227	A9K0130-01	Water	Mo (Molybdenum) - 200.8 - Total		11/19/19	9110559	A19J130	
228	A9K0135-01	Water	Ag (Silver) - 6020 - Total	(QC Source)		9110559	A19J130	
229	"	Water	Ag (Silver) - 200.8 - Total	"	11/19/19	9110559	A19J130	
230	"	Water	As (Arsenic) - 6020 - Total	(QC Source)		9110559	A19J130	
231	"	Water	As (Arsenic) - 200.8 - Total	"	11/19/19	9110559	A19J130	
232	"	Water	Ba (Barium) - 6020 - Total	(QC Source)		9110559	A19J130	
233	"	Water	Cd (Cadmium) - 6020 - Total	(QC Source)		9110559	A19J130	
234	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
235	"	Water	Cr (Chromium) - 6020 - Total	(QC Source)		9110559	A19J130	
236	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
237	"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110559	A19J130	
238	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
239	"	Water	Fe (Iron) - 200.8 - Total	(QC Source)		9110559	A19J130	
240	"	Water	Hg (Mercury) - 6020 - Total	(QC Source)		9110559	A19J130	
241	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/19/19	9110559	A19J130	
242	"	Water	Ni (Nickel) - 6020 - Total	(QC Source)		9110559	A19J130	
243	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
244	"	Water	Pb (Lead) - 6020 - Total	(QC Source)		9110559	A19J130	
245	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
246	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9110559	A19J130	
247	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9110559	A19J130	
248	"	Water	Se (Selenium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
249	"	Water	Zn (Zinc) - 6020 - Total	(QC Source)		9110559	A19J130	
250	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
251	9110559-DUP1	Water	QC	QC		9110559	A19J130	
252	9110559-MS1	Water	QC	QC		9110559	A19J130	
253	A9K0146-02	Water	As (Arsenic) - 200.8 - Total		11/19/19	9110559	A19J130	
254	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
255	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
256	"	Water	Fe (Iron) - 200.8 - Total	"	11/19/19	9110559	A19J130	
257	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
258	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
259	"	Water	Sb (Antimony) - 200.8 - Total	"	11/19/19	9110559	A19J130	
260	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
261	A9K0146-03	Water	Fe (Iron) - 200.8 - Total		11/19/19	9110559	A19J130	
262	A9K0147-01	Water	Cu (Copper) - 200.8 - Total		11/19/19	9110559	A19J130	
263	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
264	A9K0148-01	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
265	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
266	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
267	9K07021-CCV7	Water	QC	QC			A19J130	A19J138
268	9K07021-CCB7	Water	QC	QC			A19J130	
269	9K07021-CCB8	Water	QC	QC			A19J130	
270	A9K0151-01	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
271	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/19/19	9110559	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

Date: **11/07/19 10:11** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
273	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
274	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
275	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
276	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
277	A9K0154-01	Water	Ag (Silver) - 200.8 - Total		11/11/19	9110559	A19J130	
278	"	Water	As (Arsenic) - 200.8 - Total	"	11/11/19	9110559	A19J130	
279	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/11/19	9110559	A19J130	
280	"	Water	Cr (Chromium) - 200.8 - Total	"	11/11/19	9110559	A19J130	
281	"	Water	Cu (Copper) - 200.8 - Total	"	11/11/19	9110559	A19J130	
282	"	Water	Ni (Nickel) - 200.8 - Total	"	11/11/19	9110559	A19J130	
283	"	Water	Pb (Lead) - 200.8 - Total	"	11/11/19	9110559	A19J130	
284	"	Water	Zn (Zinc) - 200.8 - Total	"	11/11/19	9110559	A19J130	
285	A9K0156-01	Water	Ag (Silver) - 6020 - Total	(QC Source)		9110559	A19J130	
286	"	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110559	A19J130	
287	"	Water	As (Arsenic) - 6020 - Total	(QC Source)		9110559	A19J130	
288	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9110559	A19J130	
289	"	Water	Ba (Barium) - 6020 - Total	(QC Source)		9110559	A19J130	
290	"	Water	Cd (Cadmium) - 6020 - Total	(QC Source)		9110559	A19J130	
291	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110559	A19J130	
292	"	Water	Cr (Chromium) - 6020 - Total	(QC Source)		9110559	A19J130	
293	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
294	"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110559	A19J130	
295	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
296	"	Water	Fe (Iron) - 200.8 - Total	(QC Source)		9110559	A19J130	
297	"	Water	Hg (Mercury) - 6020 - Total	(QC Source)		9110559	A19J130	
298	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9110559	A19J130	
299	"	Water	Ni (Nickel) - 6020 - Total	(QC Source)		9110559	A19J130	
300	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
301	"	Water	Pb (Lead) - 6020 - Total	(QC Source)		9110559	A19J130	
302	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9110559	A19J130	
303	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9110559	A19J130	
304	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9110559	A19J130	
305	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9110559	A19J130	
306	"	Water	Zn (Zinc) - 6020 - Total	(QC Source)		9110559	A19J130	
307	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
308	9110559-MS2	Water	QC	QC		9110559	A19J130	
309	A9K0167-01	Water	Ag (Silver) - 200.8 - Total		11/12/19	9110559	A19J130	
310	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
311	"	Water	Cr (Chromium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
312	"	Water	Cu (Copper) - 200.8 - Total	"	11/12/19	9110559	A19J130	
313	"	Water	Ni (Nickel) - 200.8 - Total	"	11/12/19	9110559	A19J130	
314	"	Water	Pb (Lead) - 200.8 - Total	"	11/12/19	9110559	A19J130	
315	"	Water	Zn (Zinc) - 200.8 - Total	"	11/12/19	9110559	A19J130	
316	A9K0167-02	Water	Ag (Silver) - 200.8 - Total		11/12/19	9110559	A19J130	
317	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
318	"	Water	Cr (Chromium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
319	"	Water	Cu (Copper) - 200.8 - Total	"	11/12/19	9110559	A19J130	
320	"	Water	Ni (Nickel) - 200.8 - Total	"	11/12/19	9110559	A19J130	
321	"	Water	Pb (Lead) - 200.8 - Total	"	11/12/19	9110559	A19J130	
322	"	Water	Zn (Zinc) - 200.8 - Total	"	11/12/19	9110559	A19J130	
323	A9K0167-03	Water	Ag (Silver) - 200.8 - Total		11/12/19	9110559	A19J130	
324	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
325	"	Water	Cr (Chromium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
326	"	Water	Cu (Copper) - 200.8 - Total	"	11/12/19	9110559	A19J130	

Sequence: **9K07021** Instrument: **ICPMS5**

Date: **11/07/19 10:11** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
327	"	Water	Ni (Nickel) - 200.8 - Total	"	11/12/19	9110559	A19J130	
328	"	Water	Pb (Lead) - 200.8 - Total	"	11/12/19	9110559	A19J130	
329	"	Water	Zn (Zinc) - 200.8 - Total	"	11/12/19	9110559	A19J130	
330	A9K0167-04	Water	Ag (Silver) - 200.8 - Total		11/12/19	9110559	A19J130	
331	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
332	"	Water	Cr (Chromium) - 200.8 - Total	"	11/12/19	9110559	A19J130	
333	"	Water	Cu (Copper) - 200.8 - Total	"	11/12/19	9110559	A19J130	
334	"	Water	Ni (Nickel) - 200.8 - Total	"	11/12/19	9110559	A19J130	
335	"	Water	Pb (Lead) - 200.8 - Total	"	11/12/19	9110559	A19J130	
336	"	Water	Zn (Zinc) - 200.8 - Total	"	11/12/19	9110559	A19J130	
337	A9K0171-02	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
338	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
339	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
340	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
341	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
342	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
343	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
344	A9K0171-04	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
345	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
346	"	Water	Cr (Chromium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
347	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
348	"	Water	Ni (Nickel) - 200.8 - Total	"	11/19/19	9110559	A19J130	
349	"	Water	Pb (Lead) - 200.8 - Total	"	11/19/19	9110559	A19J130	
350	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
351	9K07021-CCV8	Water	QC	QC			A19J130	A19J138
352	9K07021-CCV9	Water	QC	QC			A19J130	A19J138
353	9K07021-CCB9	Water	QC	QC			A19J130	
354	A9K0173-01	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
355	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
356	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/19/19	9110559	A19J130	
357	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
358	A9K0173-03	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
359	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
360	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/19/19	9110559	A19J130	
361	"	Water	Se (Selenium) - 200.8 - Total	"	11/19/19	9110559	A19J130	
362	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
363	A9K0173-05	Water	Ag (Silver) - 200.8 - Total		11/19/19	9110559	A19J130	
364	"	Water	Cu (Copper) - 200.8 - Total	"	11/19/19	9110559	A19J130	
365	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/19/19	9110559	A19J130	
366	"	Water	Zn (Zinc) - 200.8 - Total	"	11/19/19	9110559	A19J130	
367	9K07021-CCVA	Water	QC	QC			A19J130	A19J138
368	9K07021-CCBA	Water	QC	QC			A19J130	
369	9K07021-CRLC	Water	QC	QC			A19J130	A19J368
370	9K07021-CRLD	Water	QC	QC			A19J130	A19J369
371	9K07021-CRLE	Water	QC	QC			A19J130	A19J370
372	9K07021-CRLF	Water	QC	QC			A19J130	A19J371

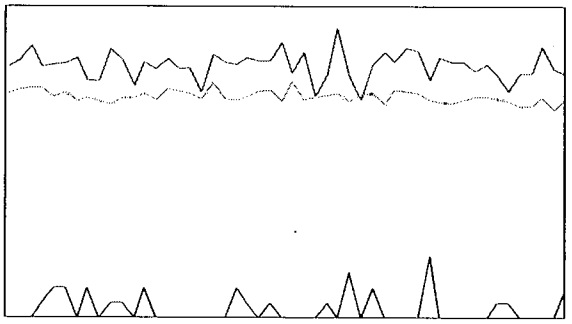
Data Entered By: ESS 11/8/19 Comments:

Data Reviewed By: [signature] 11/08/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K07021.b
Acq. Date-Time	11/7/2019 10:32
Report Comment	9K07021 Std Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	816	8161.27	1000.00	
89	5000	3589	35894.61	1000.00	
78	20	1			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	5.45	5.00	(F)
89	2.61	5.00	
78	163.71		

see EPA report for RSDS ESS 11/6/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec]	0.1	**Sampling Period [sec]**	0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1077	10772.46	1000.00	
89	2000	1051	10508.58	1000.00	
205	2000	1151	11506.77	1000.00	
75	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	5.65	5.00	[F]
89	4.90	5.00	
205	4.39	5.00	
75	50.81		

see EPA ~~report~~ report for RSPS ESS 11/6/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7	2000	1674	16739.52	1000.00	
89	5000	3710	37101.74	1000.00	
205	5000	2268	22681.36	1000.00	
102	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	
89		-	
205		-	
102		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	2.94	5.00	
89	2.49	5.00	
205	3.05	5.00	
102	260.55		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.238 %	✓
Ratio (2+)	69/138	2.487 %	✓

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.413

Tune Report

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K07021.b
Acq. Date-Time	11/7/2019 10:49
Report Comment	9K07021 EPA Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		3902	39018.27	1000.00	
89		19456	194564.63	1000.00	
78		10			

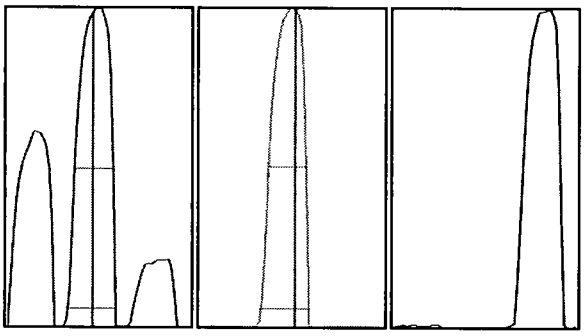
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.27	5.00	
89	0.50	5.00	
78	28.07		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	3758	3878	3945	3978	3951
89	19311	19429	19480	19575	19487
78	6	12	10	13	12

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	660.69	58.95	58.9 - 59.1		0.61	0.771	0.900	

Tune Report

89	3419.69	89.05	88.9 - 89.1	0.59	0.769	0.900
78			-			

Integration Time [sec] 0.1 **Acquisition Time [sec]** 100.35 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		5374	53736.37	1000.00	
89		4828	48276.44	1000.00	
205		5571	55707.67	1000.00	
75		24			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.25	5.00	
89	2.01	5.00	
205	2.12	5.00	
75	10.59		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			

Tune Report

205
75

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	5207	5500	5294	5410	5458
89	4673	4804	4850	4893	4919
205	5409	5640	5481	5654	5671
75	28	25	22	22	26

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	914.50	59.00	58.9 - 59.1		0.61	0.771	0.900	
89	853.13	89.05	88.9 - 89.1		0.59	0.760	0.900	
205	1020.10	205.00	204.9 - 205.1		0.55	0.737	0.900	
75	4.65	75.10	-		0.59	0.695		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7		9883	98828.26	1000.00	
89		20874	208741.20	1000.00	
205		12115	121154.47	1000.00	
102		3			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	0.81	5.00	
89	2.35	5.00	
205	2.26	5.00	
102	63.82		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
7	9835	10000	9860	9923	9797
89	20079	20723	21106	21220	21242
205	11631	12250	12247	12281	12168
102	4	3	2	1	6

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	1639.96	7.05	6.9 - 7.1		0.62	0.770	0.900	
89	3628.32	89.00	88.9 - 89.1		0.60	0.771	0.900	
205	2206.48	205.00	204.9 - 205.1		0.56	0.737	0.900	
102			-					

Integration Time [sec] 0.1 **Acquisition Time [sec]** 135.3 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V

Tune Report

He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

P/A Factor Tuning Report

========== Current Sample ==========
Sample Name: 9K07021-ICV1
Data File: 013_ICV.d
Acquired: 11/7/2019 12:00:30

========= Detector Parameters and P/A Factors =========
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/6/2019 11:29:32

Mass[u]	Element	P/A Factor
6	Li	0.090004
7	Li	0.094505
11	B	0.102443
28	Si	0.098675
31	P	0.124270
45	Sc	0.126554
74	Ge	0.139907
88	Sr	0.140736
90	Zr	0.138257
103	Rh	0.144407
118	Sn	0.146234
159	Tb	0.148391
209	Bi	0.152692
197	Au	Signal too low
238	U	Signal too low

=== Independent Detector Parameters and P/A Factors ===
Tune Mode Name: H2
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/7/2019 11:34:18

Mass[u]	Element	P/A Factor
23	Na	0.109188
44	Ca	0.118990
45	Sc	0.119054
56	Fe	0.124702
57	Fe	0.124241
74	Ge	0.127652
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/7/2019 11:49:31

Mass[u]	Element	P/A Factor
23	Na	0.107941
24	Mg	0.112595
27	Al	0.115603
39	K	0.118373
44	Ca	0.117582
51	V	0.120456
52	Cr	0.122031
55	Mn	0.122578
59	Co	0.124484
60	Ni	0.125646
65	Cu	0.126167
66	Zn	0.125511
111	Cd	0.129091

138	Ba	0.129184
159	Tb	0.132298
205	Tl	0.131299
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low
103	Rh	Signal too low
107	Ag	Signal too low
121	Sb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/7/2019 11:50:51

Mass[u]	Element	P/A Factor
6	Li	0.087236
45	Sc	0.118096
47	Ti	0.117006
65	Cu	0.126258
74	Ge	0.127868
103	Rh	0.129259
111	Cd	0.128525
159	Tb	0.132353
182	W	0.130414
206	Pb	0.131995
207	Pb	0.131588
208	Pb	0.134269
209	Bi	0.135750
7	Li	Signal too low
9	Be	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Created: 11/8/2019 09:42:12

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Rinse
Acq Time:	11/7/2019 10:55:13	I.S. Reference File:	---
Comment:	**cal blank check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		978	0.18	
Na	23	45	He		ppb		7,765	90	
Mg	24	45	He		ppb		831	90	
Al	27	45	He		ppb		562	45	
K	39	45	He		ppb		32,020	90	
Ca	44	45	H2		ppb		908	90	
[Ca]	44	45	He		ppb		263		
Ti	47	45	NoGas		ppb		128	0.9	
V	51	74	He		ppb		2,364	0.9	
Cr	52	74	He		ppb		1,847	0.9	
Mn	55	74	He		ppb		399	0.9	
Fe	56	74	H2		ppb		53,980	45	
Co	59	74	He		ppb		1,387	0.18	
Ni	60	74	He		ppb		704	0.9	
Cu	65	74	He		ppb		708	0.9	
Zn	66	74	He		ppb		180	3.6	
As	75	74	He		ppb		42	0.9	
Se	78	74	H2		ppb		2	0.9	
Mo	95	103	He		ppb		66	0.9	
Ag	107	103	He		ppb		4	0.18	
Cd	111	103	He		ppb		3		
[Cd]	111	103	NoGas		ppb		18	0.18	
Sb	121	103	He		ppb		68	0.9	
Ba	138	159	He		ppb		2,248	0.9	
W	182	159	NoGas		ppb		60		
Hg	201	159	NoGas		ppt		4	72	
Tl	205	159	He		ppb		1,538	0.18	
Pb	208	159	NoGas		ppb		640	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	6,985	2.1	0	Pulse		
Sc	45	H2	2,235	8.6	0	Pulse		
Sc	45	He	104	12.9	0	Pulse		
Sc	45	NoGas	1,569	6.0	0	Pulse		
Ge	74	H2	321	2.7	0	Pulse		
Ge	74	He	83	7.5	0	Pulse		
Ge	74	NoGas	380	16.2	0	Pulse		Note RSD; OK < 20%
Rh	103	He	520	5.2	0	Pulse		
Rh	103	NoGas	857	5.7	0	Pulse		
Tb	159	He	53	16.5	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	157	35.2	0	Pulse		Note RSD; OK < 20%
Bi	209	He	202	9.4	0	Pulse		
Bi	209	NoGas	451	9.8	0	Pulse		

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Rinse
Acq Time:	11/7/2019 10:59:57	I.S. Reference File:	---
Comment:	**cal blank check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		16	0.18	
Na	23	45	He		ppb		5,013	90	
Mg	24	45	He		ppb		653	90	
Al	27	45	He		ppb		188	45	
K	39	45	He		ppb		33,692	90	
Ca	44	45	H2		ppb		533	90	
[Ca]	44	45	He		ppb		246		
Ti	47	45	NoGas		ppb		28	0.9	
V	51	74	He		ppb		2,225	0.9	
Cr	52	74	He		ppb		331	0.9	
Mn	55	74	He		ppb		151	0.9	
Fe	56	74	H2		ppb		12,979	45	
Co	59	74	He		ppb		43	0.18	
Ni	60	74	He		ppb		120	0.9	
Cu	65	74	He		ppb		124	0.9	
Zn	66	74	He		ppb		51	3.6	
As	75	74	He		ppb		57	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		8	0.9	
Ag	107	103	He		ppb		3	0.18	
Cd	111	103	He		ppb		3		
[Cd]	111	103	NoGas		ppb		15	0.18	
Sb	121	103	He		ppb		33	0.9	
Ba	138	159	He		ppb		73	0.9	
W	182	159	NoGas		ppb		23		
Hg	201	159	NoGas		ppt		4	72	
Tl	205	159	He		ppb		28	0.18	
Pb	208	159	NoGas		ppb		658	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,189,644	2.6	0	Analog		
Sc	45	H2	2,614,392	1.1	0	Analog		
Sc	45	He	399,410	0.7	0	Pulse		
Sc	45	NoGas	3,636,492	0.8	0	Analog		
Ge	74	H2	787,013	0.2	0	Pulse		
Ge	74	He	228,743	1.1	0	Pulse		
Ge	74	NoGas	904,894	0.7	0	Pulse		
Rh	103	He	508,482	1.2	0	Pulse		
Rh	103	NoGas	930,526	0.4	0	Pulse		
Tb	159	He	645,541	1.6	0	Pulse		
Tb	159	NoGas	1,564,404	0.4	0	Analog		
Bi	209	He	361,472	0.9	0	Pulse		
Bi	209	NoGas	854,187	0.5	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalBlk
Acq Time:	11/7/2019 11:04:38		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	9	43.3	
Na	23	45	He	0	ppb	N/A	5,057	1.5	
Mg	24	45	He	0	ppb	N/A	528	7.9	
Al	27	45	He	0	ppb	N/A	169	7.5	
K	39	45	He	0	ppb	N/A	33,434	1.7	
Ca	44	45	H2	0	ppb	N/A	581	15.4	
[Ca]	44	45	He	0	ppb	N/A	244	25.0	
Ti	47	45	NoGas	0	ppb	N/A	20	25.0	
V	51	74	He	0	ppb	N/A	2,209	1.7	
Cr	52	74	He	0	ppb	N/A	312	10.7	
Mn	55	74	He	0	ppb	N/A	131	14.0	
Fe	56	74	H2	0	ppb	N/A	12,346	0.9	
Co	59	74	He	0	ppb	N/A	46	33.8	
Ni	60	74	He	0	ppb	N/A	136	22.8	
Cu	65	74	He	0	ppb	N/A	252	25.4	
Zn	66	74	He	0	ppb	N/A	69	27.5	
As	75	74	He	0	ppb	N/A	44	21.7	
Se	78	74	H2	0	ppb	N/A	2	24.7	
Mo	95	103	He	0	ppb	N/A	9	94.4	
Ag	107	103	He	0	ppb	N/A	8	24.7	
Cd	111	103	He	0	ppb	N/A	2	24.7	
[Cd]	111	103	NoGas	0	ppb	N/A	1	1107.4	
Sb	121	103	He	0	ppb	N/A	20	0.0	
Ba	138	159	He	0	ppb	N/A	49	17.2	
W	182	159	NoGas	0	ppb	N/A	31	43.3	
Hg	201	159	NoGas	0	ppt	N/A	4	20.8	
Tl	205	159	He	0	ppb	N/A	23	14.3	
Pb	208	159	NoGas	0	ppb	N/A	626	6.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,197,342	1.1	1197342.19	Analog	100.0	
Sc	45	H2	2,614,166	0.7	2614165.65666667	Analog	100.0	
Sc	45	He	399,684	0.4	399684.306666667	Pulse	100.0	
Sc	45	NoGas	3,641,989	0.7	3641989.32	Analog	100.0	
Ge	74	H2	786,642	0.2	786642.216666667	Pulse	100.0	
Ge	74	He	229,100	0.7	229100.463333333	Pulse	100.0	
Ge	74	NoGas	911,055	1.2	911055.243333333	Pulse	100.0	
Rh	103	He	507,559	1.0	507558.653333333	Pulse	100.0	
Rh	103	NoGas	929,987	0.2	929986.61	Pulse	100.0	
Tb	159	He	639,729	1.1	639728.706666667	Pulse	100.0	
Tb	159	NoGas	1,581,995	0.6	1581995.13333333	Analog	100.0	
Bi	209	He	362,402	1.3	362402.373333333	Pulse	100.0	
Bi	209	NoGas	853,236	0.5	853236.23	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:09:19		
Comment:	**A19J368 - ESS 11/7**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.186	ppb	10.9	563	10.3	
Na	23	45	He	9.112	ppb	0.8	17,648	1.1	
Mg	24	45	He	8.777	ppb	1.2	7,296	0.8	
Al	27	45	He	8.498	ppb	6.2	3,593	5.2	
K	39	45	He	8.1	ppb	5.6	38,764	1.3	
Ca	44	45	H2	9.851	ppb	7.3	3,170	6.5	
[Ca]	44	45	He	10.231	ppb	14.4	579	8.6	
Ti	47	45	NoGas	0.17	ppb	16.8	247	15.5	
V	51	74	He	0.164	ppb	5.5	2,964	2.0	
Cr	52	74	He	0.182	ppb	1.4	1,279	0.7	
Mn	55	74	He	0.172	ppb	17.6	748	13.9	
Fe	56	74	H2	8.863	ppb	0.5	133,779	0.5	
Co	59	74	He	0.18	ppb	5.9	1,341	5.3	
Ni	60	74	He	0.171	ppb	16.6	440	11.9	
Cu	65	74	He	0.25	ppb	14.2	794	9.6	
Zn	66	74	He	0.208	ppb	12.1	242	9.0	
As	75	74	He	0.176	ppb	16.4	134	10.9	
Se	78	74	H2	0.189	ppb	1.7	69	1.7	
Mo	95	103	He	0.186	ppb	12.7	386	11.7	
Ag	107	103	He	0.183	ppb	4.6	1,057	5.3	
Cd	111	103	He	0.181	ppb	10.5	175	10.3	
[Cd]	111	103	NoGas	0.189	ppb	13.7	453	13.8	
Sb	121	103	He	0.159	ppb	13.9	407	13.0	
Ba	138	159	He	0.202	ppb	3.1	1,053	3.1	
W	182	159	NoGas	-0.001	ppb	N/A	26	49.4	
Hg	201	159	NoGas	8.416	ppt	41.0	13	30.2	
Tl	205	159	He	0.167	ppb	1.3	1,395	0.8	
Pb	208	159	NoGas	0.177	ppb	6.4	4,746	4.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,177,891	0.8	1197342.19	Analog	98.4	
Sc	45	H2	2,576,571	0.5	2614165.65666667	Analog	98.6	
Sc	45	He	400,446	0.7	399684.306666667	Pulse	100.2	
Sc	45	NoGas	3,609,614	0.6	3641989.32	Analog	99.1	
Ge	74	H2	789,324	0.2	786642.216666667	Pulse	100.3	
Ge	74	He	230,088	0.6	229100.463333333	Pulse	100.4	
Ge	74	NoGas	912,033	0.7	911055.243333333	Pulse	100.1	
Rh	103	He	509,036	0.8	507558.653333333	Pulse	100.3	
Rh	103	NoGas	929,291	0.1	929986.61	Pulse	99.9	
Tb	159	He	648,425	0.9	639728.706666667	Pulse	101.4	
Tb	159	NoGas	1,524,062	1.5	1581995.13333333	Analog	96.3	
Bi	209	He	361,311	0.6	362402.373333333	Pulse	99.7	
Bi	209	NoGas	855,104	0.3	853236.23	Pulse	100.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:14:19		
Comment:	**A19J369 - ESS 11/7**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.891	ppb	2.4	2,695	1.9	
Na	23	45	He	43.849	ppb	2.4	65,486	2.5	
Mg	24	45	He	44.661	ppb	2.9	34,894	2.2	
Al	27	45	He	44.911	ppb	0.9	18,236	1.5	
K	39	45	He	44.887	ppb	0.1	62,567	0.6	
Ca	44	45	H2	43.984	ppb	4.4	12,251	4.0	
[Ca]	44	45	He	45.29	ppb	9.5	1,720	8.6	
Ti	47	45	NoGas	0.91	ppb	11.1	1,231	10.0	
V	51	74	He	0.894	ppb	3.9	6,275	3.1	
Cr	52	74	He	0.879	ppb	5.0	4,967	5.0	
Mn	55	74	He	0.941	ppb	8.0	3,487	6.9	
Fe	56	74	H2	44.212	ppb	0.7	616,656	0.9	
Co	59	74	He	0.912	ppb	3.0	6,590	3.4	
Ni	60	74	He	0.942	ppb	4.4	1,809	3.8	
Cu	65	74	He	1.026	ppb	2.1	2,468	2.4	
Zn	66	74	He	0.843	ppb	5.5	769	5.9	
As	75	74	He	0.943	ppb	5.5	522	5.8	
Se	78	74	H2	0.902	ppb	1.1	319	1.2	
Mo	95	103	He	0.825	ppb	3.2	1,683	4.3	
Ag	107	103	He	0.879	ppb	3.8	5,031	3.1	
Cd	111	103	He	0.902	ppb	5.0	858	6.0	
[Cd]	111	103	NoGas	0.839	ppb	8.2	1,999	7.7	
Sb	121	103	He	0.802	ppb	0.9	1,962	2.0	
Ba	138	159	He	0.949	ppb	1.6	4,726	1.4	
W	182	159	NoGas	-0.001	ppb	N/A	24	79.9	
Hg	201	159	NoGas	34.484	ppt	10.4	40	8.7	
Tl	205	159	He	0.901	ppb	1.9	7,372	2.2	
Pb	208	159	NoGas	0.908	ppb	2.5	21,766	1.9	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,192,799	1.9	1197342.19	Analog	99.6	
Sc	45	H2	2,594,159	0.9	2614165.65666667	Analog	99.2	
Sc	45	He	399,702	0.7	399684.306666667	Pulse	100.0	
Sc	45	NoGas	3,610,982	1.1	3641989.32	Analog	99.1	
Ge	74	H2	787,670	0.2	786642.216666667	Pulse	100.1	
Ge	74	He	229,625	0.9	229100.463333333	Pulse	100.2	
Ge	74	NoGas	910,682	1.1	911055.243333333	Pulse	100.0	
Rh	103	He	508,588	1.2	507558.653333333	Pulse	100.2	
Rh	103	NoGas	923,037	0.5	929986.61	Pulse	99.3	
Tb	159	He	643,231	0.4	639728.706666667	Pulse	100.5	
Tb	159	NoGas	1,518,573	0.9	1581995.13333333	Analog	96.0	
Bi	209	He	360,597	0.7	362402.373333333	Pulse	99.5	
Bi	209	NoGas	851,177	0.4	853236.23	Pulse	99.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:19:18		
Comment:	**A19J370 - ESS 11/7**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.733	ppb	3.2	5,263	2.1	
Na	23	45	He	87.658	ppb	0.2	126,242	0.3	
Mg	24	45	He	87.702	ppb	1.7	68,232	2.0	
Al	27	45	He	87.468	ppb	0.9	35,464	1.1	
K	39	45	He	89.213	ppb	1.1	91,616	0.8	
Ca	44	45	H2	88.633	ppb	2.5	23,843	2.3	
[Ca]	44	45	He	85.924	ppb	2.8	3,053	2.4	
Ti	47	45	NoGas	1.836	ppb	0.7	2,476	1.2	
V	51	74	He	1.772	ppb	2.3	10,338	0.9	
Cr	52	74	He	1.809	ppb	2.7	9,955	2.5	
Mn	55	74	He	1.785	ppb	4.4	6,548	5.2	
Fe	56	74	H2	89.507	ppb	2.1	1,240,979	2.2	
Co	59	74	He	1.837	ppb	2.0	13,318	1.6	
Ni	60	74	He	1.898	ppb	3.0	3,532	1.6	
Cu	65	74	He	1.84	ppb	3.9	4,253	3.5	
Zn	66	74	He	1.688	ppb	3.2	1,480	4.3	
As	75	74	He	1.777	ppb	4.6	952	5.2	
Se	78	74	H2	1.742	ppb	4.2	616	4.3	
Mo	95	103	He	1.734	ppb	4.4	3,518	4.2	
Ag	107	103	He	1.812	ppb	1.7	10,340	1.4	
Cd	111	103	He	1.777	ppb	2.4	1,684	2.1	
[Cd]	111	103	NoGas	1.727	ppb	4.5	4,144	3.8	
Sb	121	103	He	1.769	ppb	2.8	4,295	2.8	
Ba	138	159	He	1.935	ppb	0.7	9,627	0.6	
W	182	159	NoGas	-0.001	ppb	N/A	21	77.9	
Hg	201	159	NoGas	72.194	ppt	6.9	81	8.0	
Tl	205	159	He	1.779	ppb	3.1	14,601	3.5	
Pb	208	159	NoGas	1.823	ppb	0.4	43,576	1.9	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,200,294	1.4	1197342.19	Analog	100.2	
Sc	45	H2	2,566,174	0.7	2614165.65666667	Analog	98.2	
Sc	45	He	400,930	0.5	399684.306666667	Pulse	100.3	
Sc	45	NoGas	3,623,578	0.7	3641989.32	Analog	99.5	
Ge	74	H2	790,997	0.0	786642.216666667	Pulse	100.6	
Ge	74	He	231,242	1.3	229100.463333333	Pulse	100.9	
Ge	74	NoGas	922,294	1.4	911055.243333333	Pulse	101.2	
Rh	103	He	507,245	0.4	507558.653333333	Pulse	99.9	
Rh	103	NoGas	930,000	0.7	929986.61	Pulse	100.0	
Tb	159	He	646,231	0.5	639728.706666667	Pulse	101.0	
Tb	159	NoGas	1,534,697	1.9	1581995.13333333	Analog	97.0	
Bi	209	He	362,915	0.9	362402.373333333	Pulse	100.1	
Bi	209	NoGas	857,259	0.9	853236.23	Pulse	100.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:24:16		
Comment:	**A19J371 - ESS 11/7**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.38	ppb	1.5	10,291	1.8	
Na	23	45	He	175.786	ppb	0.9	246,675	0.4	
Mg	24	45	He	178.212	ppb	0.8	137,331	0.9	
Al	27	45	He	177.321	ppb	0.3	71,323	0.9	
K	39	45	He	180.336	ppb	1.8	150,089	0.3	
Ca	44	45	H2	178.816	ppb	0.8	47,275	0.9	
[Ca]	44	45	He	179.507	ppb	2.9	6,078	3.9	
Ti	47	45	NoGas	3.712	ppb	5.1	4,957	4.5	
V	51	74	He	3.533	ppb	0.5	18,346	0.5	
Cr	52	74	He	3.521	ppb	0.8	19,025	0.2	
Mn	55	74	He	3.609	ppb	1.1	13,062	0.8	
Fe	56	74	H2	180.316	ppb	0.5	2,472,021	0.4	
Co	59	74	He	3.663	ppb	0.6	26,433	0.3	
Ni	60	74	He	3.722	ppb	3.7	6,774	3.2	
Cu	65	74	He	3.813	ppb	0.5	8,517	0.4	
Zn	66	74	He	3.562	ppb	5.0	3,037	4.1	
As	75	74	He	3.651	ppb	2.1	1,903	2.7	
Se	78	74	H2	3.596	ppb	2.5	1,261	2.3	
Mo	95	103	He	3.557	ppb	2.9	7,194	2.6	
Ag	107	103	He	3.6	ppb	0.4	20,485	0.1	
Cd	111	103	He	3.589	ppb	1.7	3,393	1.8	
[Cd]	111	103	NoGas	3.382	ppb	1.4	8,064	1.6	
Sb	121	103	He	3.406	ppb	2.8	8,232	3.1	
Ba	138	159	He	3.849	ppb	1.7	19,088	2.7	
W	182	159	NoGas	-0.001	ppb	N/A	22	52.7	
Hg	201	159	NoGas	138.986	ppt	13.7	151	11.2	
Tl	205	159	He	3.541	ppb	0.5	29,019	1.1	
Pb	208	159	NoGas	3.588	ppb	3.5	84,666	1.3	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,203,862	1.0	1197342.19	Analog	100.5	
Sc	45	H2	2,552,705	0.2	2614165.65666667	Analog	97.6	
Sc	45	He	398,715	1.2	399684.306666667	Pulse	99.8	
Sc	45	NoGas	3,603,520	0.6	3641989.32	Analog	98.9	
Ge	74	H2	786,108	0.3	786642.216666667	Pulse	99.9	
Ge	74	He	230,579	0.8	229100.463333333	Pulse	100.6	
Ge	74	NoGas	910,269	0.8	911055.243333333	Pulse	99.9	
Rh	103	He	506,148	0.4	507558.653333333	Pulse	99.7	
Rh	103	NoGas	924,236	0.4	929986.61	Pulse	99.4	
Tb	159	He	645,751	1.0	639728.706666667	Pulse	100.9	
Tb	159	NoGas	1,526,636	2.1	1581995.13333333	Analog	96.5	
Bi	209	He	362,333	0.4	362402.373333333	Pulse	100.0	
Bi	209	NoGas	849,031	0.4	853236.23	Pulse	99.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:29:21		
Comment:	**A19J373 - ESS 11/7**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	9.975	ppb	2.9	29,673	1.8	
Na	23	45	He	392.371	ppb	1.2	543,194	0.7	
Mg	24	45	He	393.299	ppb	0.8	301,776	0.4	
Al	27	45	He	394.31	ppb	0.3	158,048	0.6	
K	39	45	He	403.166	ppb	1.1	293,719	1.2	
Ca	44	45	H2	398.798	ppb	0.8	104,423	0.6	
[Ca]	44	45	He	399.2	ppb	1.6	13,185	1.1	
Ti	47	45	NoGas	20.325	ppb	0.5	26,504	0.7	
V	51	74	He	19.745	ppb	0.9	91,583	0.7	
Cr	52	74	He	20.014	ppb	0.9	105,818	0.4	
Mn	55	74	He	20.173	ppb	0.5	71,817	0.7	
Fe	56	74	H2	398.626	ppb	1.2	5,423,829	1.1	
Co	59	74	He	20.348	ppb	0.3	145,455	0.4	
Ni	60	74	He	21.048	ppb	1.6	37,372	1.6	
Cu	65	74	He	21.753	ppb	0.6	47,011	0.1	
Zn	66	74	He	20.294	ppb	0.7	16,843	1.0	
As	75	74	He	20.264	ppb	0.3	10,275	0.9	
Se	78	74	H2	9.927	ppb	0.8	3,459	1.0	
Mo	95	103	He	9.873	ppb	2.0	19,877	1.9	
Ag	107	103	He	10.069	ppb	0.8	57,075	0.8	
Cd	111	103	He	19.629	ppb	1.0	18,478	1.0	
[Cd]	111	103	NoGas	19.154	ppb	1.2	44,909	1.3	
Sb	121	103	He	9.829	ppb	0.3	23,630	0.3	
Ba	138	159	He	21.504	ppb	0.5	105,515	0.6	
W	182	159	NoGas	0.001	ppb	94.3	39	21.6	
Hg	201	159	NoGas	390.175	ppt	3.8	418	3.7	
Tl	205	159	He	10.068	ppb	1.5	81,767	1.3	
Pb	208	159	NoGas	20.096	ppb	0.2	470,688	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,177,227	1.2	1197342.19	Analog	98.3	
Sc	45	H2	2,545,109	0.5	2614165.65666667	Analog	97.4	
Sc	45	He	397,831	0.5	399684.306666667	Pulse	99.5	
Sc	45	NoGas	3,530,214	0.4	3641989.32	Analog	96.9	
Ge	74	H2	782,345	0.2	786642.216666667	Pulse	99.5	
Ge	74	He	228,721	0.5	229100.463333333	Pulse	99.8	
Ge	74	NoGas	899,380	0.5	911055.243333333	Pulse	98.7	
Rh	103	He	504,267	0.0	507558.653333333	Pulse	99.4	
Rh	103	NoGas	908,956	0.1	929986.61	Pulse	97.7	
Tb	159	He	640,352	0.2	639728.706666667	Pulse	100.1	
Tb	159	NoGas	1,523,324	0.2	1581995.13333333	Analog	96.3	
Bi	209	He	363,076	0.3	362402.373333333	Pulse	100.2	
Bi	209	NoGas	845,731	0.8	853236.23	Pulse	99.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:34:17		
Comment:	**A19J372**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	48.234	ppb	1.6	139,929	1.0	
Na	23	45	He	2481.486	ppb	1.0	3,249,910	0.6	
Mg	24	45	He	2529.611	ppb	1.2	1,847,881	0.7	
Al	27	45	He	2435.04	ppb	0.5	929,751	0.1	
K	39	45	He	2564.195	ppb	0.9	1,611,107	1.4	
Ca	44	45	H2	2469.384	ppb	0.5	628,519	0.2	
[Ca]	44	45	He	2473.562	ppb	0.7	76,694	0.8	
Ti	47	45	NoGas	50.654	ppb	1.2	63,275	1.2	
V	51	74	He	49.601	ppb	0.2	216,349	0.3	
Cr	52	74	He	49.622	ppb	0.3	249,917	0.4	
Mn	55	74	He	50.358	ppb	0.2	170,880	0.4	
Fe	56	74	H2	2472.115	ppb	0.3	32,610,960	0.6	
Co	59	74	He	50.542	ppb	0.1	344,699	0.4	
Ni	60	74	He	52.017	ppb	1.0	87,943	1.0	
Cu	65	74	He	53.516	ppb	0.6	110,012	1.0	
Zn	66	74	He	50.858	ppb	1.3	40,177	1.2	
As	75	74	He	50.696	ppb	0.9	24,466	0.4	
Se	78	74	H2	49.155	ppb	0.8	16,627	1.0	
Mo	95	103	He	49.351	ppb	0.5	94,431	0.5	
Ag	107	103	He	49.648	ppb	0.9	267,519	1.0	
Cd	111	103	He	49.645	ppb	0.6	44,425	0.1	
[Cd]	111	103	NoGas	47.91	ppb	1.0	106,307	0.6	
Sb	121	103	He	49.133	ppb	0.8	112,219	0.6	
Ba	138	159	He	52.992	ppb	0.4	254,862	1.1	
W	182	159	NoGas	0.011	ppb	44.3	116	32.8	
Hg	201	159	NoGas	1965.759	ppt	0.7	2,036	0.5	
Tl	205	159	He	49.454	ppb	0.8	393,694	0.4	
Pb	208	159	NoGas	50.139	ppb	0.5	1,142,394	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,148,165	0.7	1197342.19	Analog	95.9	
Sc	45	H2	2,485,267	0.6	2614165.65666667	Analog	95.1	
Sc	45	He	379,316	0.5	399684.306666667	Pulse	94.9	
Sc	45	NoGas	3,383,175	0.3	3641989.32	Analog	92.9	
Ge	74	H2	759,922	0.4	786642.216666667	Pulse	96.6	
Ge	74	He	218,251	0.5	229100.463333333	Pulse	95.3	
Ge	74	NoGas	860,109	1.0	911055.243333333	Pulse	94.4	
Rh	103	He	479,419	0.7	507558.653333333	Pulse	94.5	
Rh	103	NoGas	860,261	0.4	929986.61	Pulse	92.5	
Tb	159	He	627,830	1.2	639728.706666667	Pulse	98.1	
Tb	159	NoGas	1,483,048	0.4	1581995.13333333	Analog	93.7	
Bi	209	He	350,570	0.8	362402.373333333	Pulse	96.7	
Bi	209	NoGas	819,302	0.3	853236.23	Pulse	96.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:39:10		
Comment:	**A19J374**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.895	ppb	2.5	269,016	0.1	
Na	23	45	He	3973.242	ppb	1.1	4,883,264	0.6	
Mg	24	45	He	4054.601	ppb	0.6	2,780,869	0.3	
Al	27	45	He	3999.957	ppb	1.3	1,433,954	1.2	
K	39	45	He	4100.077	ppb	1.9	2,400,801	1.3	
Ca	44	45	H2	4000.124	ppb	1.1	962,735	0.3	
[Ca]	44	45	He	3990.656	ppb	0.5	116,047	0.6	
Ti	47	45	NoGas	201.324	ppb	0.5	233,567	0.4	
V	51	74	He	196.609	ppb	0.3	803,017	0.1	
Cr	52	74	He	197.333	ppb	0.3	936,610	0.1	
Mn	55	74	He	201.055	ppb	0.4	643,164	0.1	
Fe	56	74	H2	3983.506	ppb	0.8	49,951,655	0.6	
Co	59	74	He	201.279	ppb	2.4	1,294,682	2.4	
Ni	60	74	He	205.552	ppb	0.2	327,438	0.3	
Cu	65	74	He	211.685	ppb	0.6	409,780	0.3	
Zn	66	74	He	204.65	ppb	0.3	152,311	0.1	
As	75	74	He	201.347	ppb	1.0	91,541	1.2	
Se	78	74	H2	100.431	ppb	0.7	32,294	0.6	
Mo	95	103	He	100.341	ppb	1.0	182,330	0.7	
Ag	107	103	He	100.169	ppb	0.4	512,589	0.6	
Cd	111	103	He	198.086	ppb	0.4	168,341	0.8	
[Cd]	111	103	NoGas	194.982	ppb	0.5	405,310	0.6	
Sb	121	103	He	100.459	ppb	1.2	217,891	1.2	
Ba	138	159	He	208.922	ppb	0.7	973,942	1.0	
W	182	159	NoGas	0.02	ppb	15.8	174	11.7	
Hg	201	159	NoGas	4018.294	ppt	1.9	3,951	1.8	
Tl	205	159	He	100.269	ppb	0.4	773,815	0.5	
Pb	208	159	NoGas	207.357	ppb	3.6	4,486,720	0.9	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD%	QC Flag
Li	6	NoGas	1,055,655	2.4	1197342.19	Analog	88.2	
Sc	45	H2	2,350,961	1.1	2614165.65666667	Analog	89.9	
Sc	45	He	356,163	0.6	399684.306666667	Pulse	89.1	
Sc	45	NoGas	3,142,806	0.3	3641989.32	Analog	86.3	
Ge	74	H2	722,480	0.2	786642.216666667	Pulse	91.8	
Ge	74	He	205,864	0.3	229100.463333333	Pulse	89.9	
Ge	74	NoGas	805,040	0.6	911055.243333333	Pulse	88.4	
Rh	103	He	455,309	0.9	507558.653333333	Pulse	89.7	
Rh	103	NoGas	805,893	0.2	929986.61	Pulse	86.7	
Tb	159	He	608,620	0.4	639728.706666667	Pulse	95.1	
Tb	159	NoGas	1,409,880	2.9	1581995.13333333	Analog	89.1	
Bi	209	He	338,312	0.5	362402.373333333	Pulse	93.4	
Bi	209	NoGas	783,569	0.5	853236.23	Pulse	91.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:43:58		
Comment:	**A19J188**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.028	ppb	34.2	82	30.7	
Na	23	45	He	9983.448	ppb	0.2	11,596,541	0.1	
Mg	24	45	He	10018.158	ppb	0.9	6,496,663	0.8	
Al	27	45	He	9964.907	ppb	1.0	3,377,829	0.9	
K	39	45	He	10121.996	ppb	1.1	5,563,532	1.1	
Ca	44	45	H2	10169.991	ppb	0.7	2,317,358	1.0	
[Ca]	44	45	He	9940.031	ppb	0.6	273,023	0.6	
Ti	47	45	NoGas	503.54	ppb	0.9	554,999	0.6	
V	51	74	He	501.407	ppb	0.7	1,926,364	1.6	
Cr	52	74	He	503.888	ppb	1.1	2,252,418	0.4	
Mn	55	74	He	507.017	ppb	1.8	1,527,715	2.0	
Fe	56	74	H2	9915.848	ppb	0.3	115,626,442	0.4	
Co	59	74	He	499.419	ppb	1.2	3,026,090	1.4	
Ni	60	74	He	500.697	ppb	0.3	751,174	0.6	
Cu	65	74	He	512.809	ppb	0.2	934,836	0.7	
Zn	66	74	He	506.897	ppb	0.5	355,291	0.5	
As	75	74	He	499.381	ppb	0.2	213,817	0.8	
Se	78	74	H2	0.098	ppb	9.8	31	9.8	
Mo	95	103	He	0.127	ppb	6.5	221	6.3	
Ag	107	103	He	0.027	ppb	19.6	132	18.6	
Cd	111	103	He	504.322	ppb	0.8	397,324	0.5	
[Cd]	111	103	NoGas	498.177	ppb	0.7	968,195	0.7	
Sb	121	103	He	0.082	ppb	7.5	181	7.0	
Ba	138	159	He	523.647	ppb	0.6	2,333,083	1.0	
W	182	159	NoGas	100	ppb	0.4	745,702	0.4	
Hg	201	159	NoGas	94.95	ppt	8.7	96	7.9	
Tl	205	159	He	0.038	ppb	12.6	304	12.1	
Pb	208	159	NoGas	497.039	ppb	0.8	10,736,413	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,043,984	1.3	1197342.19	Analog	87.2	
Sc	45	H2	2,226,349	0.5	2614165.65666667	Analog	85.2	
Sc	45	He	336,789	0.1	399684.306666667	Pulse	84.3	
Sc	45	NoGas	2,985,971	0.4	3641989.32	Analog	82.0	
Ge	74	H2	671,936	0.6	786642.216666667	Pulse	85.4	
Ge	74	He	193,928	0.9	229100.463333333	Pulse	84.6	
Ge	74	NoGas	747,405	0.7	911055.243333333	Pulse	82.0	
Rh	103	He	422,095	0.3	507558.653333333	Pulse	83.2	
Rh	103	NoGas	753,471	0.2	929986.61	Pulse	81.0	
Tb	159	He	581,705	0.6	639728.706666667	Pulse	90.9	
Tb	159	NoGas	1,406,665	0.6	1581995.13333333	Analog	88.9	
Bi	209	He	326,117	0.5	362402.373333333	Pulse	90.0	
Bi	209	NoGas	743,650	0.0	853236.23	Pulse	87.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9K07021-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	CalStd
Acq Time:	11/7/2019 11:48:34		
Comment:	**A19J189**	Last Calib:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.023	ppb	25.3	67	22.9	
Na	23	45	He	50006.458	ppb	1.2	55,167,409	0.9	
Mg	24	45	He	49990.584	ppb	0.3	30,798,238	0.9	
Al	27	45	He	50010.33	ppb	1.6	16,103,783	0.7	
K	39	45	He	49964.36	ppb	0.8	25,985,324	0.6	
Ca	44	45	H2	49967.54	ppb	1.8	10,535,859	0.4	
[Ca]	44	45	He	50014.078	ppb	1.0	1,304,448	2.0	
Ti	47	45	NoGas	2499.17	ppb	1.9	2,667,717	0.3	
V	51	74	He	-0.051	ppb	N/A	1,545	2.8	
Cr	52	74	He	998.608	ppb	0.6	4,120,381	0.6	
Mn	55	74	He	2498.504	ppb	0.5	6,948,738	0.7	
Fe	56	74	H2	50019.556	ppb	0.6	521,843,881	0.6	
Co	59	74	He	0.246	ppb	3.4	1,410	3.7	
Ni	60	74	He	998.418	ppb	1.3	1,382,540	1.3	
Cu	65	74	He	991.047	ppb	0.5	1,667,460	0.1	
Zn	66	74	He	2498.229	ppb	0.5	1,616,153	0.7	
As	75	74	He	0.148	ppb	15.1	93	9.4	
Se	78	74	H2	0.144	ppb	15.3	40	14.1	
Mo	95	103	He	0.133	ppb	10.1	210	9.9	
Ag	107	103	He	0.029	ppb	21.1	130	20.4	
Cd	111	103	He	998.247	ppb	0.3	712,630	0.1	
[Cd]	111	103	NoGas	1002.037	ppb	1.4	1,767,028	1.0	
Sb	121	103	He	0.047	ppb	17.3	100	14.5	
Ba	138	159	He	2494.485	ppb	0.6	10,365,616	0.0	
W	182	159	NoGas	0.307	ppb	5.5	2,121	3.2	
Hg	201	159	NoGas	49.064	ppt	14.3	47	11.2	
Tl	205	159	He	0.008	ppb	42.6	74	31.5	
Pb	208	159	NoGas	0.204	ppb	5.2	4,550	2.3	

ISTD Table:

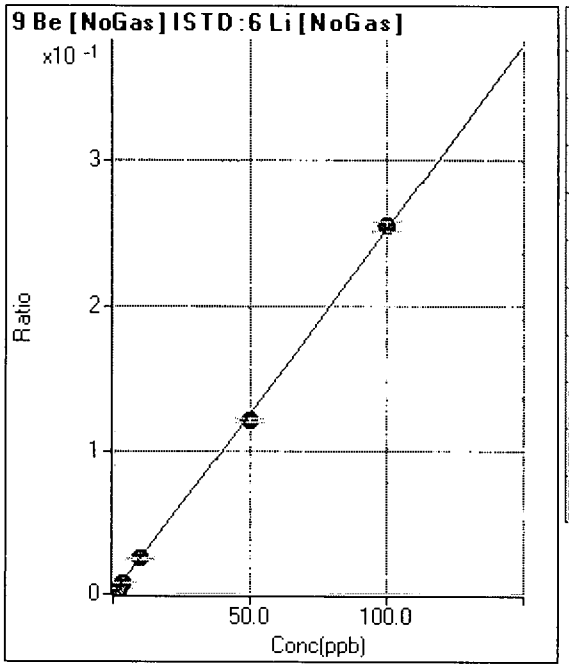
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,012,318	0.5	1197342.19	Analog	84.5	
Sc	45	H2	2,060,948	1.8	2614165.65666667	Analog	78.8	
Sc	45	He	319,981	1.2	399684.306666667	Pulse	80.1	
Sc	45	NoGas	2,892,502	1.9	3641989.32	Analog	79.4	
Ge	74	H2	601,217	0.5	786642.216666667	Pulse	76.4	
Ge	74	He	179,006	0.4	229100.463333333	Pulse	78.1	
Ge	74	NoGas	698,936	0.6	911055.243333333	Pulse	76.7	
Rh	103	He	382,469	0.2	507558.653333333	Pulse	75.4	
Rh	103	NoGas	683,691	0.3	929986.61	Pulse	73.5	
Tb	159	He	542,557	0.6	639728.706666667	Pulse	84.8	
Tb	159	NoGas	1,289,706	2.6	1581995.13333333	Mix	81.5	
Bi	209	He	291,009	0.4	362402.373333333	Pulse	80.3	
Bi	209	NoGas	680,205	0.7	853236.23	Pulse	79.7	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K07021.b\
Analysis File: 9K07021.batch.bin
DA Date-Time: 11/7/2019 12:03:13
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9K07021-CAL0	11/7/2019 11:04:38
2	004CALS.d	9K07021-CAL1	11/7/2019 11:09:19
3	005CALS.d	9K07021-CAL2	11/7/2019 11:14:19
4	006CALS.d	9K07021-CAL3	11/7/2019 11:19:18
5	007CALS.d	9K07021-CAL4	11/7/2019 11:24:16
6	008CALS.d	9K07021-CAL5	11/7/2019 11:29:21
7	009CALS.d	9K07021-CAL6	11/7/2019 11:34:17
8	010CALS.d	9K07021-CAL7	11/7/2019 11:39:10
9	011CALS.d	9K07021-CAL8	11/7/2019 11:43:58
10	012CALS.d	9K07021-CAL9	11/7/2019 11:48:34

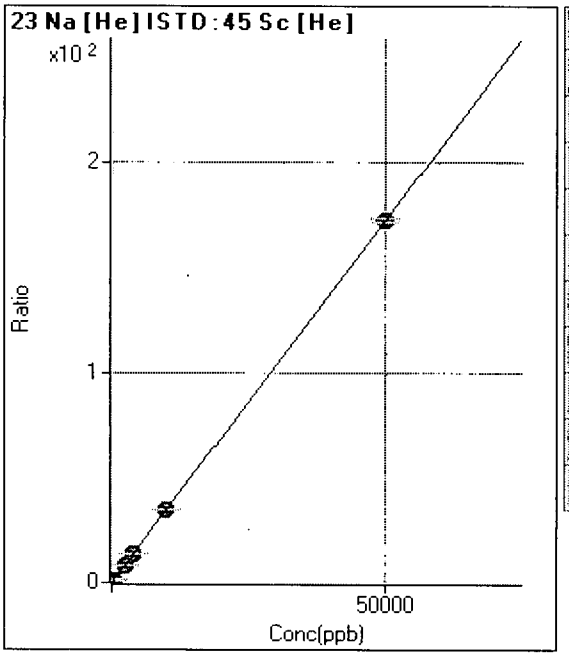
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	9	0.000	P	44.1
2		0.180	0.186	563	0.000	P	10.7
3		0.900	0.891	2,695	0.002	P	2.4
4		1.800	1.733	5,263	0.004	P	3.2
5		3.600	3.380	10,291	0.009	P	1.5
6		10.000	9.975	29,673	0.025	P	2.9
7		50.000	48.234	139,929	0.122	P	1.6
8		100.000	100.895	269,016	0.255	P	2.5
9				82	0.000	P	31.0
10				67	0.000	P	22.4

y = 0.0025 * x + 7.4423E-006
R = 0.9998
DL = 0.003901
BEC = 0.002945

Weight: <None>
Min Conc: <None>

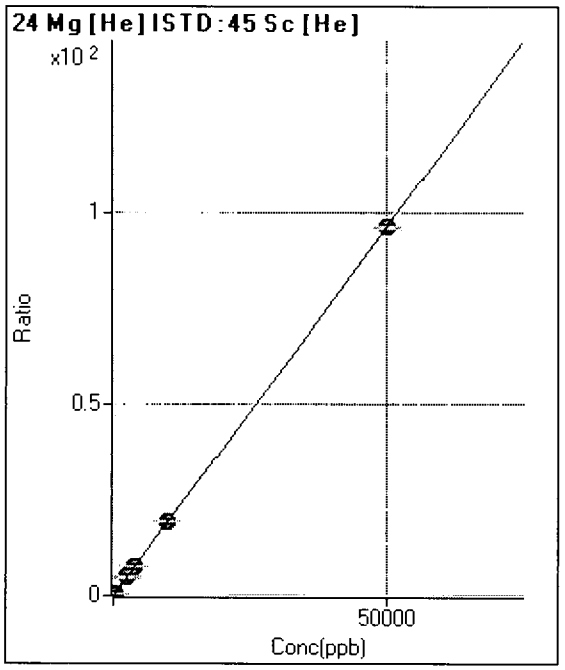


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	5,057	0.013	P	1.1
2				17,648	0.044	P	0.6
3		45.000	43.849	65,486	0.164	P	2.2
4		90.000	87.658	126,242	0.315	P	0.1
5		180.000	175.786	246,675	0.619	P	0.8
6		400.000	392.371	543,194	1.365	P	1.2
7		2500.000	2481.486	3,249,910	8.568	A	1.0
8		4000.000	3973.242	4,883,264	13.711	A	1.1
9		10000.000	9983.448	11,596,541	34.433	A	0.2
10		50000.000	50006.458	55,167,409	172.421	A	1.2

y = 0.0034 * x + 0.0127
R = 1.0000
DL = 0.1265
BEC = 3.67

Weight: <None>
Min Conc: <None>

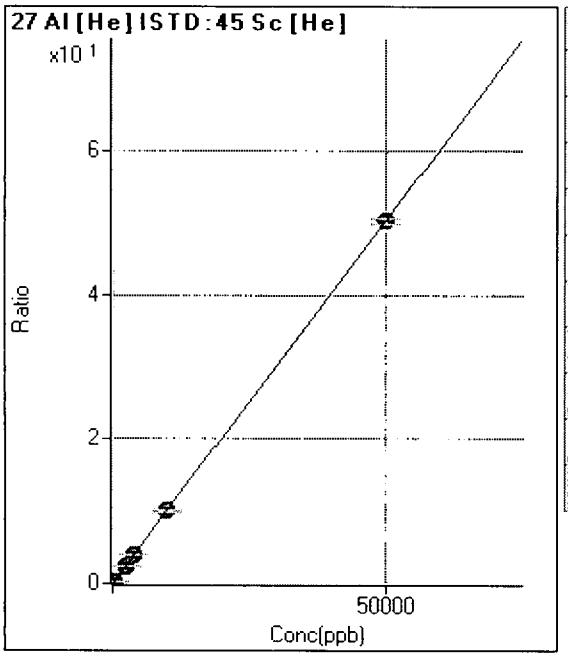
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	528	0.001	P	8.2
2	☐			7,296	0.018	P	1.2
3	☐	45.000	44.661	34,894	0.087	P	2.8
4	☐	90.000	87.702	68,232	0.170	P	1.7
5	☐	180.000	178.212	137,331	0.344	P	0.8
6	☐	400.000	393.299	301,776	0.759	P	0.8
7	☐	2500.000	2529.611	1,847,881	4.872	A	1.2
8	☐	4000.000	4054.601	2,780,869	7.808	A	0.6
9	☐	10000.000	10018.158	6,496,663	19.290	A	0.9
10	☐	50000.000	49990.584	30,798,238	96.253	A	0.3

y = 0.0019 * x + 0.0013
R = 1.0000
DL = 0.1685
BEC = 0.686

Weight: <None>
Min Conc: <None>

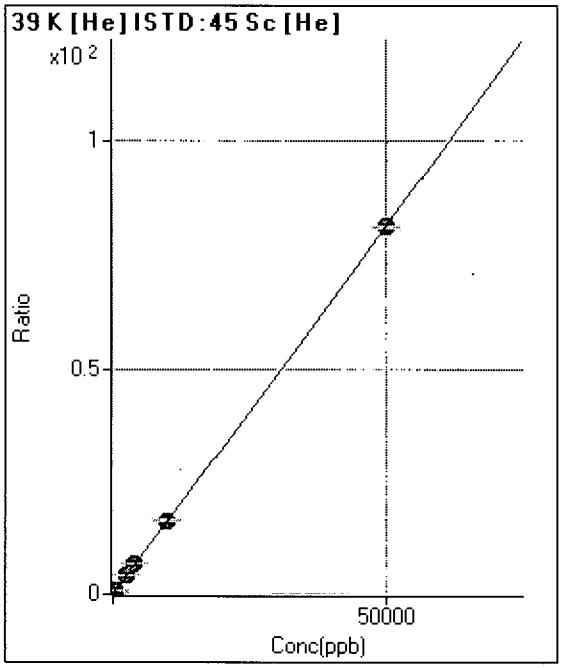


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	169	0.000	P	7.2
2	☐			3,593	0.009	P	5.9
3	☐	45.000	44.911	18,236	0.046	P	0.9
4	☐	90.000	87.468	35,464	0.088	P	0.9
5	☐	180.000	177.321	71,323	0.179	P	0.3
6	☐	400.000	394.310	158,048	0.397	P	0.3
7	☐	2500.000	2435.040	929,751	2.451	P	0.5
8	☐	4000.000	3999.957	1,433,954	4.026	A	1.3
9	☐	10000.000	9964.907	3,377,829	10.030	A	1.0
10	☐	50000.000	50010.330	16,103,783	50.333	A	1.6

y = 0.0010 * x + 4.2251E-004
R = 1.0000
DL = 0.09026
BEC = 0.4198

Weight: <None>
Min Conc: <None>

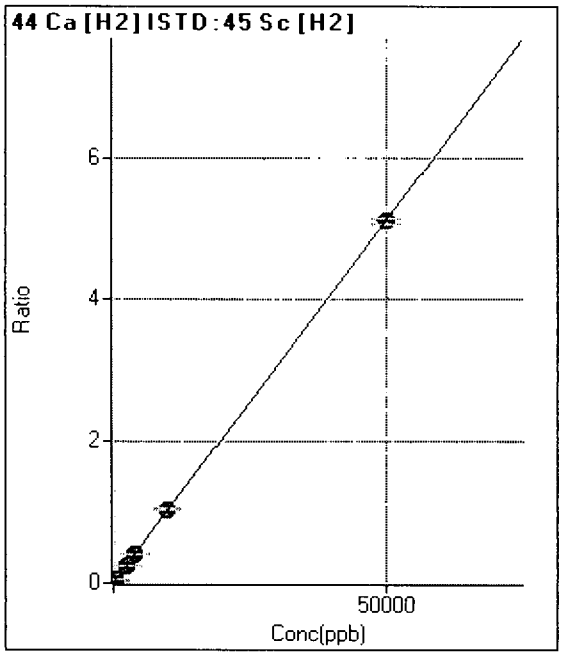
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33,434	0.084	P	1.4
2	☐			38,764	0.097	P	0.8
3	☐	45.000	44.887	62,567	0.157	P	0.1
4	☐	90.000	89.213	91,616	0.229	P	0.7
5	☐	180.000	180.336	150,089	0.376	P	1.4
6	☐	400.000	403.166	293,719	0.738	P	0.9
7	☐	2500.000	2564.195	1,611,107	4.247	A	0.9
8	☐	4000.000	4100.077	2,400,801	6.741	A	1.9
9	☐	10000.000	10121.996	5,563,532	16.519	A	1.1
10	☐	50000.000	49964.360	25,985,324	81.214	A	0.8

y = 0.0016 * x + 0.0836
R = 1.0000
DL = 2.233
BEC = 51.52

Weight: <None>
Min Conc: <None>

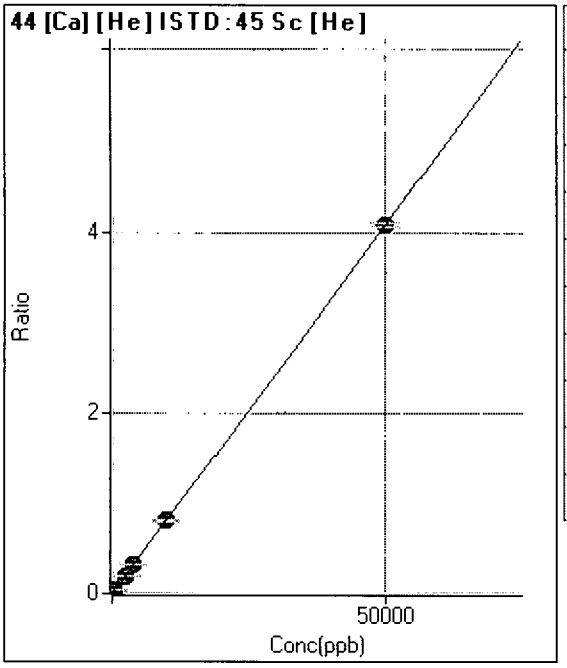


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	581	0.000	P	14.8
2	☐			3,170	0.001	P	6.0
3	☐	45.000	43.984	12,251	0.005	P	4.2
4	☐	90.000	88.633	23,843	0.009	P	2.4
5	☐	180.000	178.816	47,275	0.019	P	0.8
6	☐	400.000	398.798	104,423	0.041	P	0.8
7	☐	2500.000	2469.384	628,519	0.253	P	0.5
8	☐	4000.000	4000.124	962,735	0.410	P	1.1
9	☐	10000.000	10169.991	2,317,358	1.041	A	0.7
10	☐	50000.000	49967.540	10,535,859	5.113	A	1.8

y = 1.0233E-004 * x + 2.2216E-004
R = 1.0000
DL = 0.9652
BEC = 2.171

Weight: <None>
Min Conc: <None>

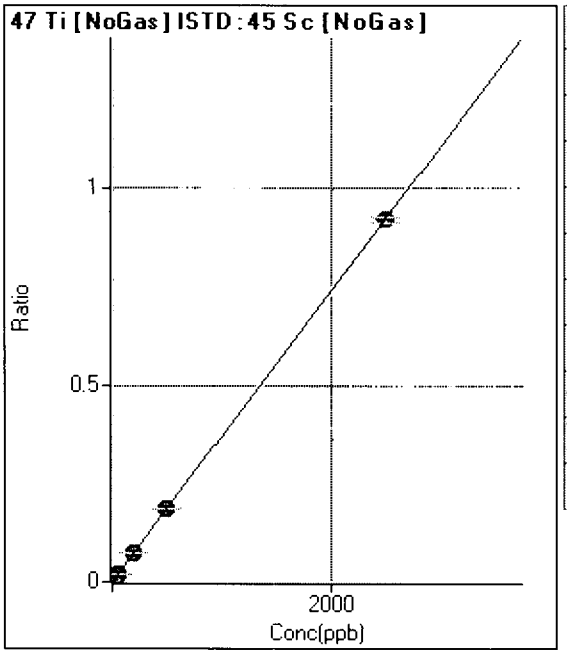
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	244	0.001	P	25.0
2	☐			579	0.001	P	8.3
3	☐	45.000	45.290	1,720	0.004	P	8.1
4	☐	90.000	85.924	3,053	0.008	P	2.6
5	☐	180.000	179.507	6,078	0.015	P	2.8
6	☐	400.000	399.200	13,185	0.033	P	1.6
7	☐	2500.000	2473.562	76,694	0.202	P	0.7
8	☐	4000.000	3990.656	116,047	0.326	P	0.5
9	☐	10000.000	9940.031	273,023	0.811	P	0.6
10	☐	50000.000	50014.078	1,304,448	4.076	A	1.0

y = 8.1494E-005 * x + 6.1166E-004
R = 1.0000
DL = 5.632
BEC = 7.506

Weight: <None>
Min Conc: <None>

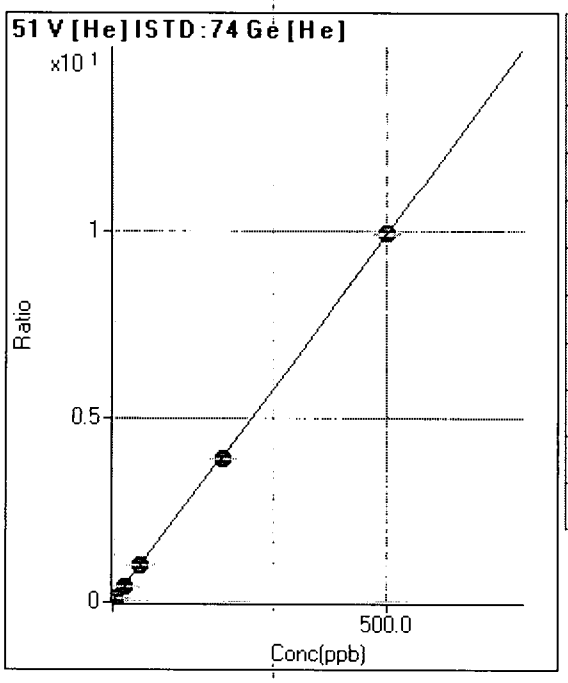


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20	0.000	P	24.6
2	☐	0.180	0.170	247	0.000	P	15.5
3	☐	0.900	0.910	1,231	0.000	P	10.9
4	☐	1.800	1.836	2,476	0.001	P	0.7
5	☐	3.600	3.712	4,957	0.001	P	5.1
6	☐	20.000	20.325	26,504	0.008	P	0.5
7	☐	50.000	50.654	63,275	0.019	P	1.2
8	☐	200.000	201.324	233,567	0.074	P	0.5
9	☐	500.000	503.540	554,999	0.186	P	0.9
10	☐	2500.000	2499.170	2,667,717	0.923	A	1.9

y = 3.6912E-004 * x + 5.4841E-006
R = 1.0000
DL = 0.01096
BEC = 0.01486

Weight: <None>
Min Conc: <None>

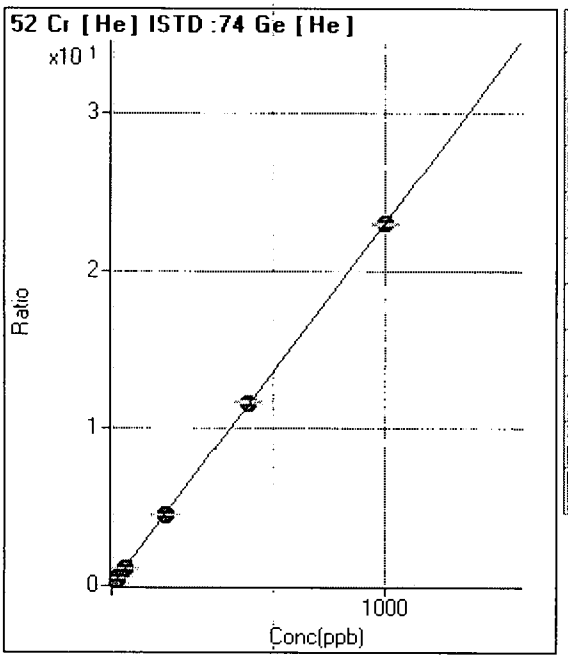
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2,209	0.010	P	1.0
2	☐	0.180	0.164	2,964	0.013	P	1.4
3	☐	0.900	0.894	6,275	0.027	P	2.5
4	☐	1.800	1.772	10,338	0.045	P	1.8
5	☐	3.600	3.533	18,346	0.080	P	0.4
6	☐	20.000	19.745	91,583	0.400	P	0.8
7	☐	50.000	49.601	216,349	0.991	P	0.2
8	☐	200.000	196.609	803,017	3.901	P	0.3
9	☐	500.000	501.407	1,926,364	9.933	A	0.7
10	☐			1,545	0.009	P	2.5

y = 0.0198 * x + 0.0096
R = 1.0000
DL = 0.015
BEC = 0.4871

Weight: <None>
Min Conc: <None>

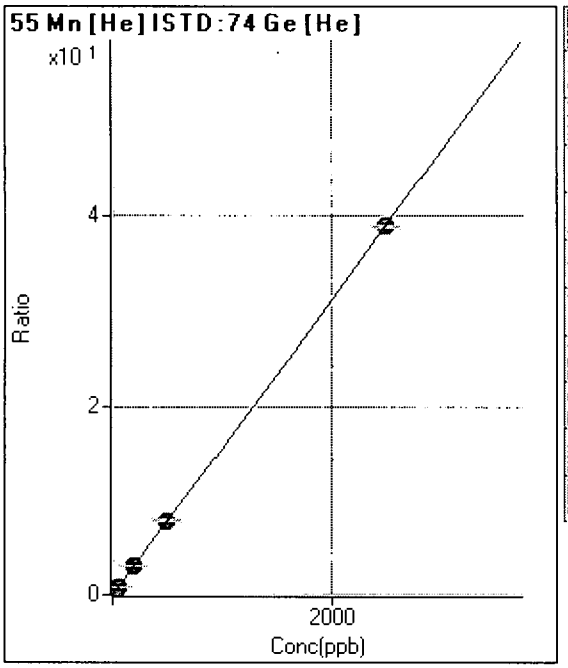


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	312	0.001	P	10.2
2	☐	0.180	0.182	1,279	0.006	P	1.1
3	☐	0.900	0.879	4,967	0.022	P	4.7
4	☐	1.800	1.809	9,955	0.043	P	2.7
5	☐	3.600	3.521	19,025	0.083	P	0.7
6	☐	20.000	20.014	105,818	0.463	P	0.9
7	☐	50.000	49.622	249,917	1.145	P	0.3
8	☐	200.000	197.333	936,610	4.550	P	0.3
9	☐	500.000	503.888	2,252,418	11.615	A	1.1
10	☐	1000.000	998.608	4,120,381	23.018	A	0.6

y = 0.0230 * x + 0.0014
R = 1.0000
DL = 0.01802
BEC = 0.05911

Weight: <None>
Min Conc: <None>

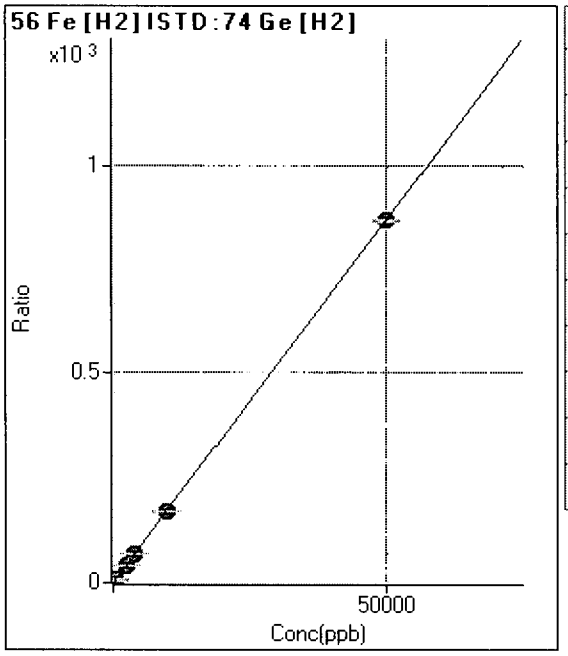
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	131	0.001	P	14.7
2	☐	0.180	0.172	748	0.003	P	14.5
3	☐	0.900	0.941	3,487	0.015	P	7.7
4	☐	1.800	1.785	6,548	0.028	P	4.3
5	☐	3.600	3.609	13,062	0.057	P	1.1
6	☐	20.000	20.173	71,817	0.314	P	0.5
7	☐	50.000	50.358	170,880	0.783	P	0.2
8	☐	200.000	201.055	643,164	3.124	P	0.4
9	☐	500.000	507.017	1,527,715	7.878	A	1.8
10	☐	2500.000	2498.504	6,948,738	38.818	A	0.5

y = 0.0155 * x + 5.7266E-004
R = 1.0000
DL = 0.01621
BEC = 0.03686

Weight: <None>
Min Conc: <None>

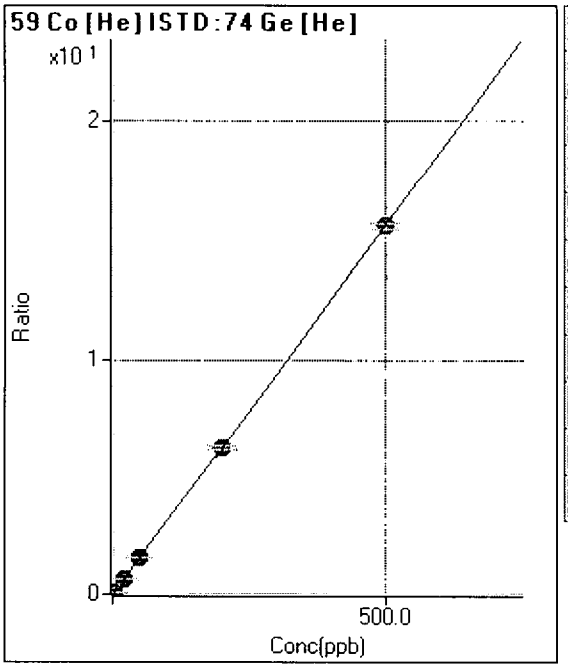


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12,346	0.016	P	0.8
2	☐			133,779	0.169	P	0.5
3	☐	45.000	44.212	616,656	0.783	P	0.7
4	☐	90.000	89.507	1,240,979	1.569	A	2.1
5	☐	180.000	180.316	2,472,021	3.145	A	0.5
6	☐	400.000	398.626	5,423,829	6.933	A	1.2
7	☐	2500.000	2472.115	32,610,960	42.913	A	0.3
8	☐	4000.000	3983.506	49,951,655	69.140	A	0.8
9	☐	10000.000	9915.848	115,626,442	172.081	A	0.3
10	☐	50000.000	50019.556	521,843,881	867.985	A	0.6

y = 0.0174 * x + 0.0157
R = 1.0000
DL = 0.02187
BEC = 0.9044

Weight: <None>
Min Conc: <None>

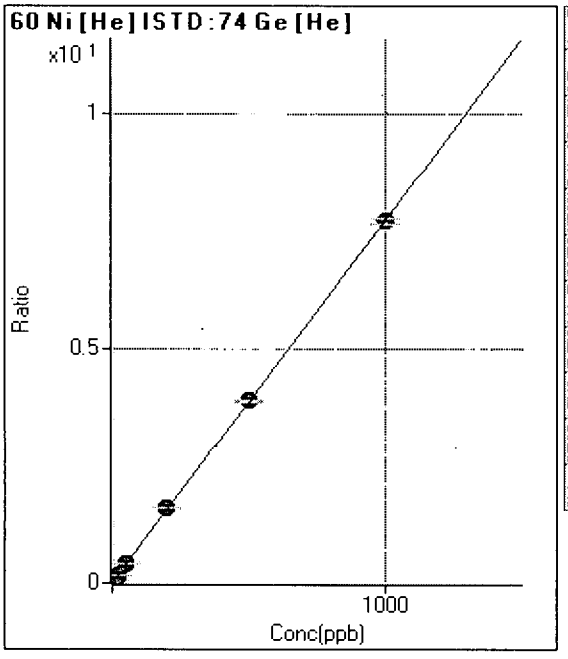
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46	0.000	P	33.3
2	☐	0.180	0.180	1,341	0.006	P	5.7
3	☐	0.900	0.912	6,590	0.029	P	3.0
4	☐	1.800	1.837	13,318	0.058	P	2.0
5	☐	3.600	3.663	26,433	0.115	P	0.6
6	☐	20.000	20.348	145,455	0.636	P	0.3
7	☐	50.000	50.542	344,699	1.579	P	0.1
8	☐	200.000	201.279	1,294,682	6.289	A	2.4
9	☐	500.000	499.419	3,026,090	15.604	A	1.2
10	☐			1,410	0.008	P	3.3

y = 0.0312 * x + 1.9867E-004
R = 1.0000
DL = 0.006354
BEC = 0.006359

Weight: <None>
Min Conc: <None>

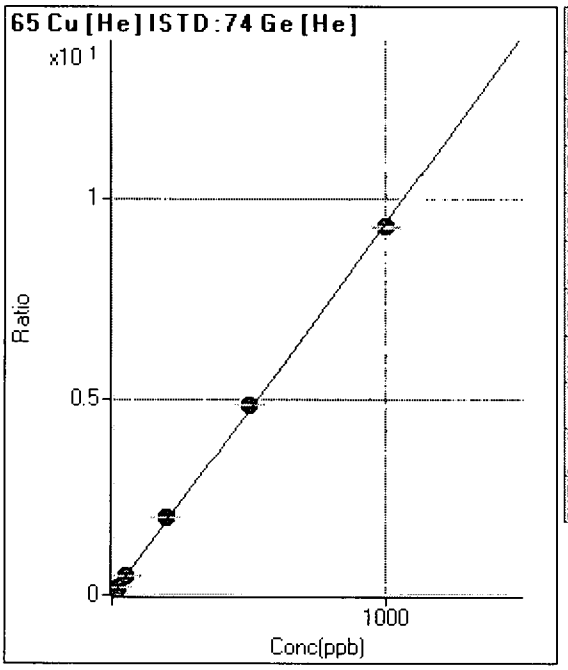


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136	0.001	P	22.8
2	☐	0.180	0.171	440	0.002	P	11.5
3	☐	0.900	0.942	1,809	0.008	P	4.1
4	☐	1.800	1.898	3,532	0.015	P	2.9
5	☐	3.600	3.722	6,774	0.029	P	3.6
6	☐	20.000	21.048	37,372	0.163	P	1.6
7	☐	50.000	52.017	87,943	0.403	P	1.0
8	☐	200.000	205.552	327,438	1.591	P	0.2
9	☐	500.000	500.697	751,174	3.874	P	0.3
10	☐	1000.000	998.418	1,382,540	7.723	A	1.3

y = 0.0077 * x + 5.9168E-004
R = 1.0000
DL = 0.05222
BEC = 0.07649

Weight: <None>
Min Conc: <None>

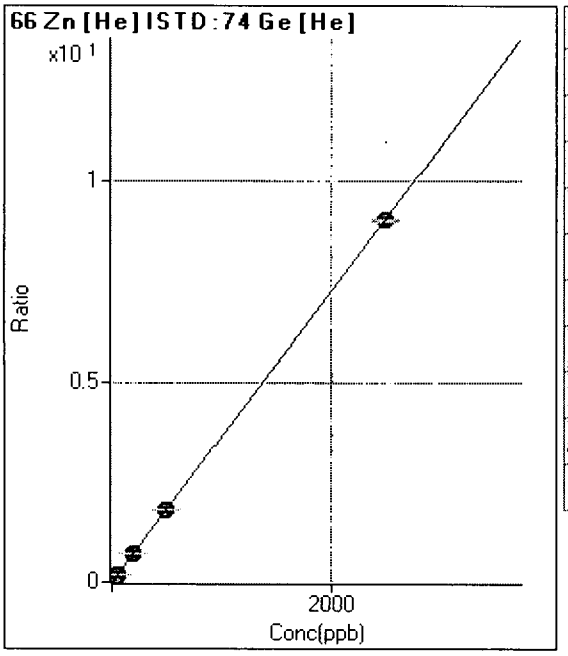
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	252	0.001	P	25.3
2	☐	0.180	0.250	794	0.003	P	9.7
3	☐	0.900	1.026	2,468	0.011	P	1.9
4	☐	1.800	1.840	4,253	0.018	P	3.7
5	☐	3.600	3.813	8,517	0.037	P	0.5
6	☐	20.000	21.753	47,011	0.206	P	0.6
7	☐	50.000	53.516	110,012	0.504	P	0.6
8	☐	200.000	211.685	409,780	1.991	P	0.6
9	☐	500.000	512.809	934,836	4.821	P	0.2
10	☐	1000.000	991.047	1,667,460	9.315	A	0.5

y = 0.0094 * x + 0.0011
R = 0.9998
DL = 0.08888
BEC = 0.1171

Weight: <None>
Min Conc: <None>

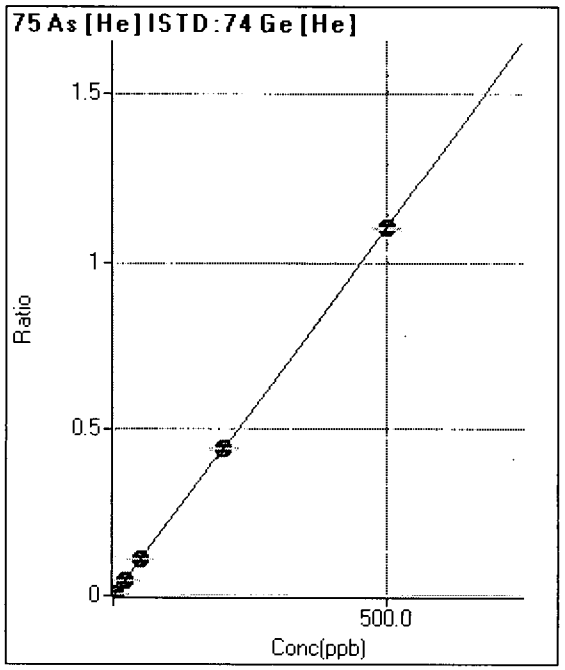


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69	0.000	P	27.4
2	☐	0.180	0.208	242	0.001	P	8.6
3	☐	0.900	0.843	769	0.003	P	5.0
4	☐	1.800	1.688	1,480	0.006	P	3.1
5	☐	3.600	3.562	3,037	0.013	P	4.8
6	☐	20.000	20.294	16,843	0.074	P	0.7
7	☐	50.000	50.858	40,177	0.184	P	1.3
8	☐	200.000	204.650	152,311	0.740	P	0.3
9	☐	500.000	506.897	355,291	1.832	P	0.5
10	☐	2500.000	2498.229	1,616,153	9.028	A	0.5

y = 0.0036 * x + 3.0067E-004
R = 1.0000
DL = 0.06841
BEC = 0.0832

Weight: <None>
Min Conc: <None>

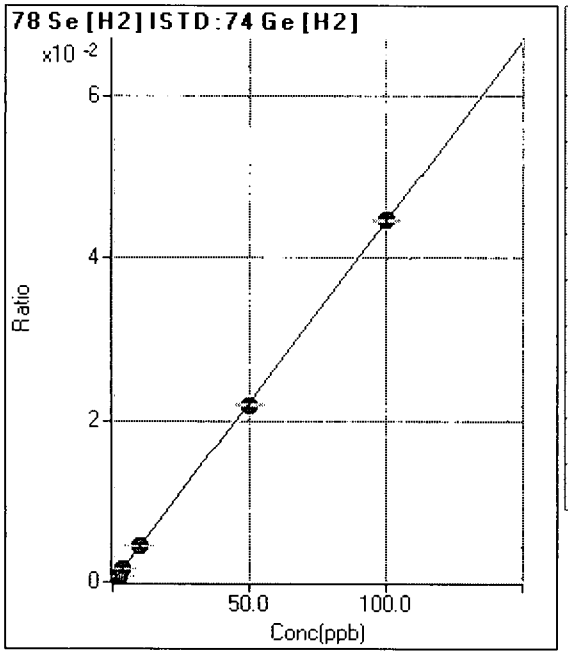
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44	0.000	P	21.8
2	☐	0.180	0.176	134	0.001	P	11.0
3	☐	0.900	0.943	522	0.002	P	5.1
4	☐	1.800	1.777	952	0.004	P	4.4
5	☐	3.600	3.651	1,903	0.008	P	2.1
6	☐	20.000	20.264	10,275	0.045	P	0.3
7	☐	50.000	50.696	24,466	0.112	P	0.9
8	☐	200.000	201.347	91,541	0.445	P	1.0
9	☐	500.000	499.381	213,817	1.103	P	0.2
10	☐			93	0.001	P	9.5

y = 0.0022 * x + 1.9213E-004
R = 1.0000
DL = 0.05692
BEC = 0.08703

Weight: <None>
Min Conc: <None>

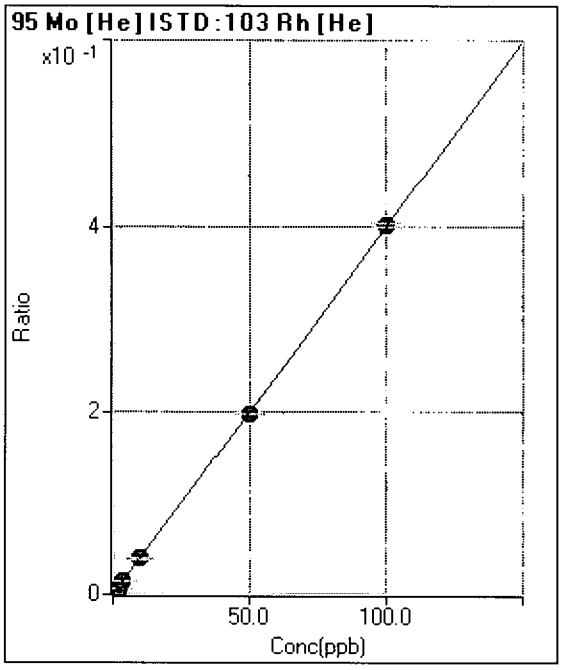


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	24.7
2	☐	0.180	0.189	69	0.000	P	1.6
3	☐	0.900	0.902	319	0.000	P	1.0
4	☐	1.800	1.742	616	0.001	P	4.2
5	☐	3.600	3.596	1,261	0.002	P	2.5
6	☐	10.000	9.927	3,459	0.004	P	0.8
7	☐	50.000	49.155	16,627	0.022	P	0.8
8	☐	100.000	100.431	32,294	0.045	P	0.7
9	☐			31	0.000	P	9.2
10	☐			40	0.000	P	14.6

y = 4.4505E-004 * x + 2.9661E-006
R = 1.0000
DL = 0.004945
BEC = 0.006665

Weight: <None>
Min Conc: <None>

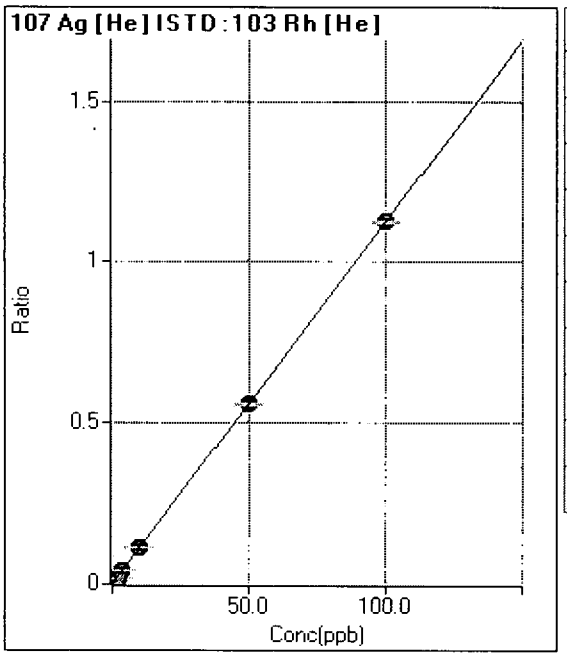
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9	0.000	P	94.2
2	☐	0.180	0.186	386	0.001	P	12.4
3	☐	0.900	0.825	1,683	0.003	P	3.2
4	☐	1.800	1.734	3,518	0.007	P	4.4
5	☐	3.600	3.557	7,194	0.014	P	2.9
6	☐	10.000	9.873	19,877	0.039	P	2.0
7	☐	50.000	49.351	94,431	0.197	P	0.5
8	☐	100.000	100.341	182,330	0.400	P	1.0
9	☐			221	0.001	P	6.3
10	☐			210	0.001	P	9.8

y = 0.0040 * x + 1.7406E-005
R = 1.0000
DL = 0.01232
BEC = 0.004361

Weight: <None>
Min Conc: <None>

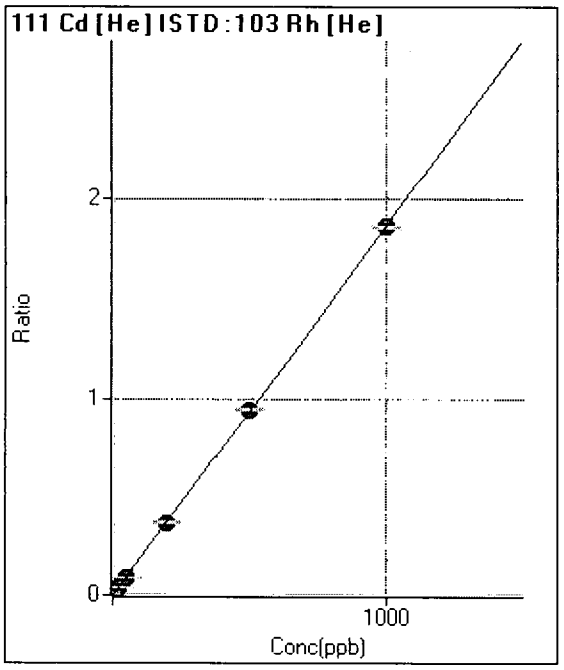


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8	0.000	P	25.8
2	☐	0.180	0.183	1,057	0.002	P	4.6
3	☐	0.900	0.879	5,031	0.010	P	3.8
4	☐	1.800	1.812	10,340	0.020	P	1.7
5	☐	3.600	3.600	20,485	0.040	P	0.4
6	☐	10.000	10.069	57,075	0.113	P	0.8
7	☐	50.000	49.648	267,519	0.558	P	0.9
8	☐	100.000	100.169	512,589	1.126	P	0.4
9	☐			132	0.000	P	18.6
10	☐			130	0.000	P	20.2

y = 0.0112 * x + 1.5353E-005
R = 1.0000
DL = 0.001056
BEC = 0.001366

Weight: <None>
Min Conc: <None>

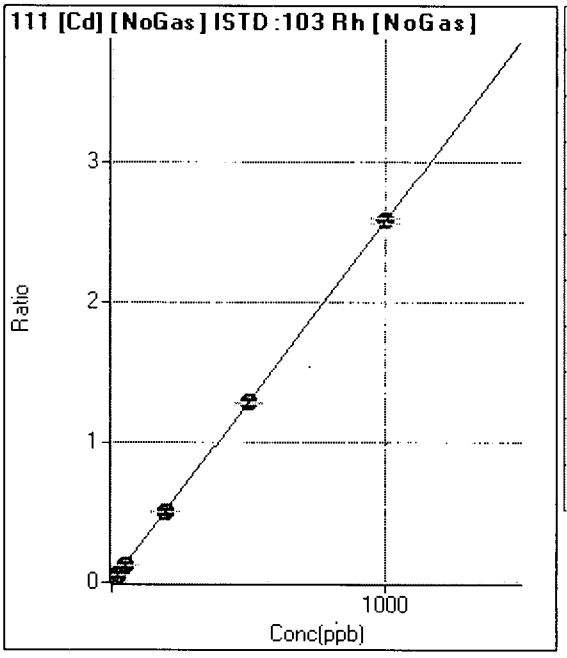
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2	0.000	P	24.5
2	☐	0.180	0.181	175	0.000	P	10.3
3	☐	0.900	0.902	858	0.002	P	4.9
4	☐	1.800	1.777	1,684	0.003	P	2.3
5	☐	3.600	3.589	3,393	0.007	P	1.7
6	☐	20.000	19.629	18,478	0.037	P	1.0
7	☐	50.000	49.645	44,425	0.093	P	0.6
8	☐	200.000	198.086	168,341	0.370	P	0.4
9	☐	500.000	504.322	397,324	0.941	P	0.8
10	☐	1000.000	998.247	712,630	1.863	P	0.3

y = 0.0019 * x + 4.5960E-006
R = 1.0000
DL = 0.001813
BEC = 0.002462

Weight: <None>
Min Conc: <None>

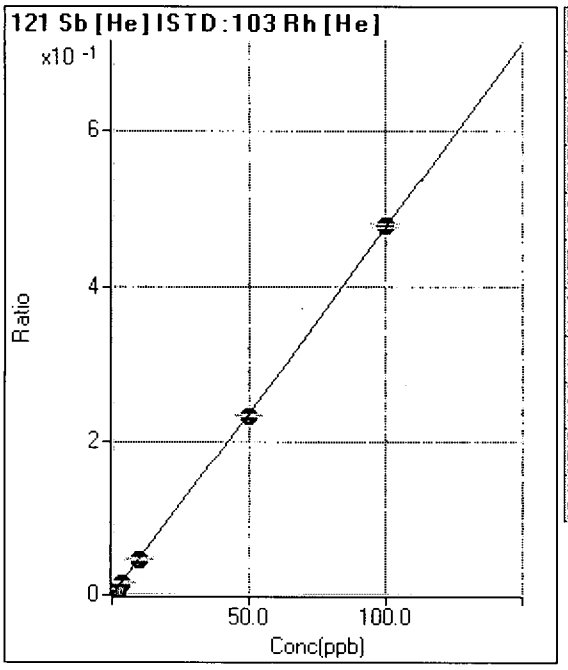


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1	0.000	P	1110.5
2	☐	0.180	0.189	453	0.000	P	13.7
3	☐	0.900	0.839	1,999	0.002	P	8.2
4	☐	1.800	1.727	4,144	0.004	P	4.5
5	☐	3.600	3.382	8,064	0.009	P	1.4
6	☐	20.000	19.154	44,909	0.049	P	1.2
7	☐	50.000	47.910	106,307	0.124	P	1.0
8	☐	200.000	194.982	405,310	0.503	P	0.5
9	☐	500.000	498.177	968,195	1.285	P	0.7
10	☐	1000.000	1002.037	1,767,028	2.585	A	1.4

y = 0.0026 * x + 1.1037E-006
R = 1.0000
DL = 0.01426
BEC = 0.0004279

Weight: <None>
Min Conc: <None>

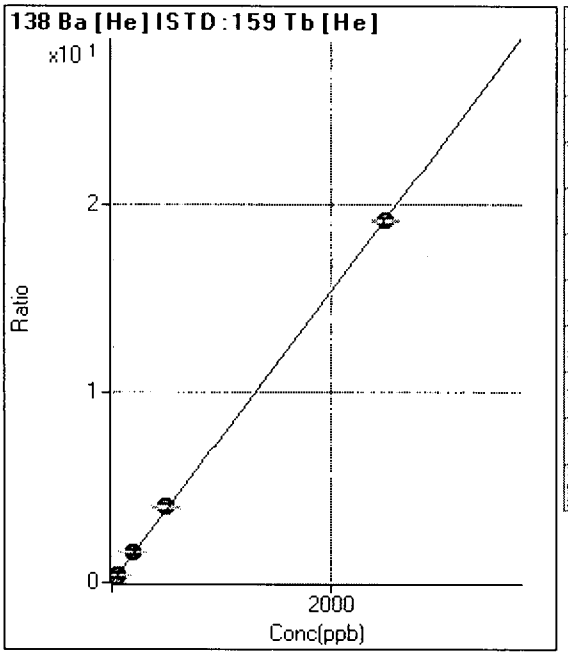
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20	0.000	P	1.0
2	☐	0.180	0.159	407	0.001	P	13.3
3	☐	0.900	0.802	1,962	0.004	P	0.9
4	☐	1.800	1.769	4,295	0.008	P	2.8
5	☐	3.600	3.406	8,232	0.016	P	2.8
6	☐	10.000	9.829	23,630	0.047	P	0.3
7	☐	50.000	49.133	112,219	0.234	P	0.8
8	☐	100.000	100.459	217,891	0.479	P	1.2
9	☐			181	0.000	P	6.9
10	☐			100	0.000	P	14.7

y = 0.0048 * x + 3.9407E-005
R = 1.0000
DL = 0.0002499
BEC = 0.008273

Weight: <None>
Min Conc: <None>

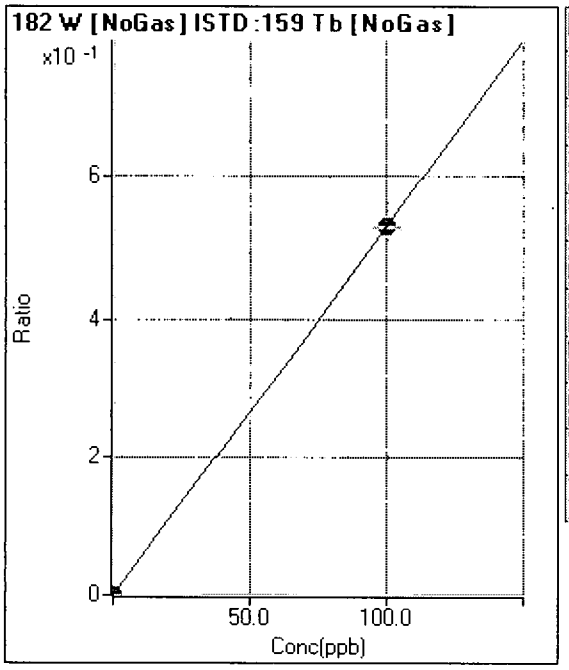


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	49	0.000	P	17.9
2	☐	0.180	0.202	1,053	0.002	P	2.9
3	☐	0.900	0.949	4,726	0.007	P	1.6
4	☐	1.800	1.935	9,627	0.015	P	0.7
5	☐	3.600	3.849	19,088	0.030	P	1.7
6	☐	20.000	21.504	105,515	0.165	P	0.5
7	☐	50.000	52.992	254,862	0.406	P	0.4
8	☐	200.000	208.922	973,942	1.600	P	0.7
9	☐	500.000	523.647	2,333,083	4.011	A	0.6
10	☐	2500.000	2494.485	10,365,616	19.106	A	0.6

y = 0.0077 * x + 7.6487E-005
R = 0.9999
DL = 0.005361
BEC = 0.009986

Weight: <None>
Min Conc: <None>

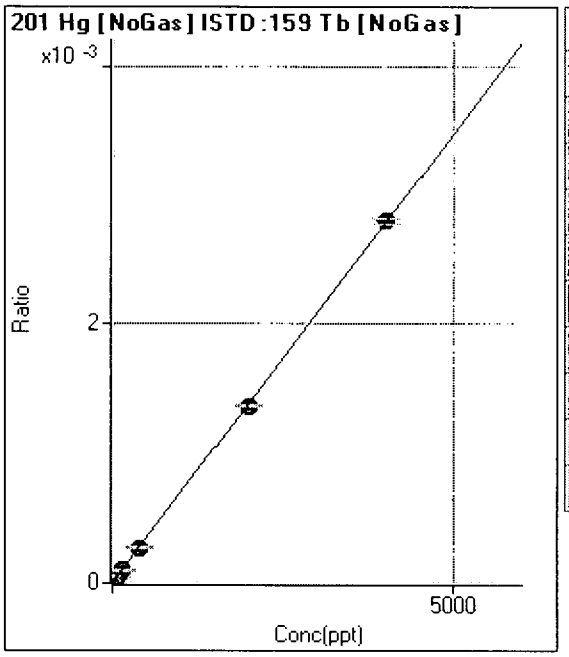
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31	0.000	P	43.4
2	☐			26	0.000	P	48.9
3	☐			24	0.000	P	80.6
4	☐			21	0.000	P	78.5
5	☐			22	0.000	P	52.2
6	☐			39	0.000	P	21.7
7	☐			116	0.000	P	33.1
8	☐			174	0.000	P	13.3
9	☐	100.000	100.000	745,702	0.530	P	0.4
10	☐			2,121	0.002	P	5.4

y = 0.0053 * x + 1.9664E-005
R = 1.0000
DL = 0.004831
BEC = 0.003709

Weight: <None>
Min Conc: <None>

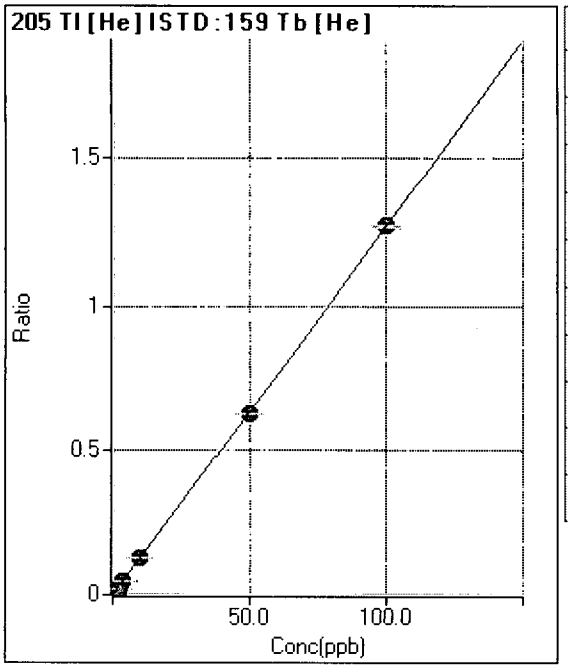


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4	0.000	P	21.0
2	☐			13	0.000	P	29.4
3	☐	36.000	34.484	40	0.000	P	9.5
4	☐	72.000	72.194	81	0.000	P	6.6
5	☐	144.000	138.986	151	0.000	P	13.4
6	☐	400.000	390.175	418	0.000	P	3.8
7	☐	2000.000	1965.759	2,036	0.001	P	0.7
8	☐	4000.000	4018.294	3,951	0.003	P	1.9
9	☐			96	0.000	P	8.4
10	☐			47	0.000	P	13.4

y = 6.9705E-007 * x + 2.3180E-006
R = 0.9999
DL = 2.091
BEC = 3.325

Weight: <None>
Min Conc: <None>

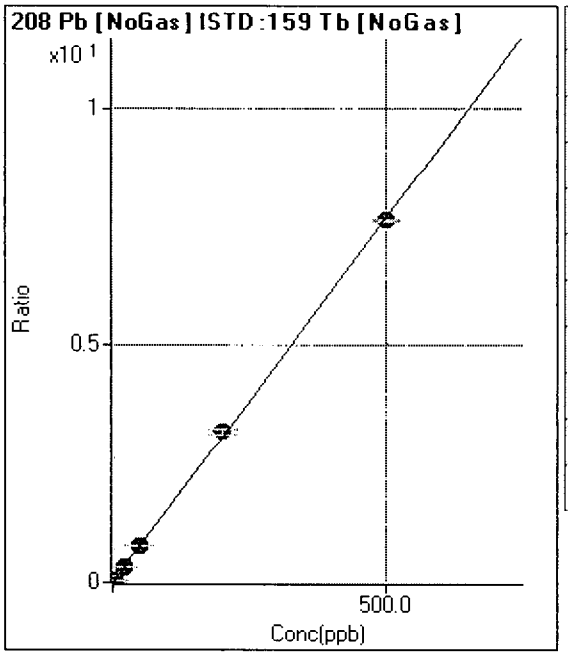
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23	0.000	P	14.5
2	☐	0.180	0.167	1,395	0.002	P	1.3
3	☐	0.900	0.901	7,372	0.011	P	1.9
4	☐	1.800	1.779	14,601	0.023	P	3.0
5	☐	3.600	3.541	29,019	0.045	P	0.5
6	☐	10.000	10.068	81,767	0.128	P	1.5
7	☐	50.000	49.454	393,694	0.627	P	0.8
8	☐	100.000	100.269	773,815	1.271	P	0.4
9	☐			304	0.001	P	11.7
10	☐			74	0.000	P	31.2

y = 0.0127 * x + 3.6487E-005
R = 1.0000
DL = 0.001255
BEC = 0.002878

Weight: <None>
Min Conc: <None>

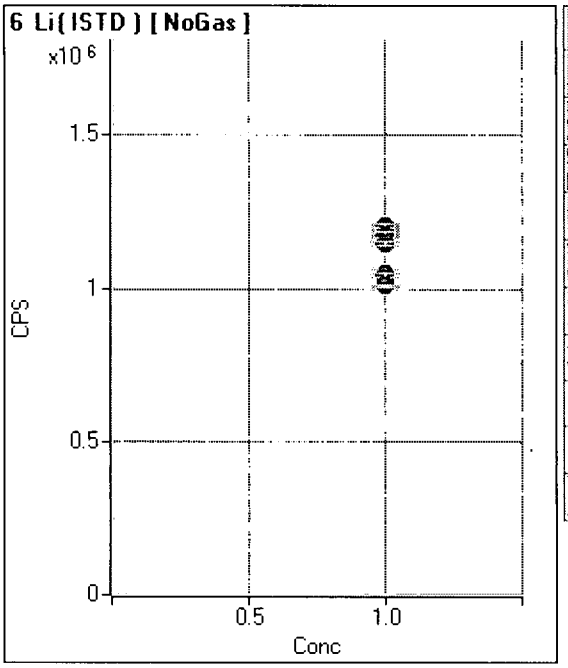


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	626	0.000	P	6.4
2	☐	0.180	0.177	4,746	0.003	P	5.6
3	☐	0.900	0.908	21,766	0.014	P	2.4
4	☐	1.800	1.823	43,576	0.028	P	0.4
5	☐	3.600	3.588	84,666	0.055	P	3.5
6	☐	20.000	20.096	470,688	0.309	P	0.2
7	☐	50.000	50.139	1,142,394	0.770	P	0.5
8	☐	200.000	207.357	4,486,720	3.184	A	3.6
9	☐	500.000	497.039	10,736,413	7.633	A	0.8
10	☐			4,550	0.004	P	4.6

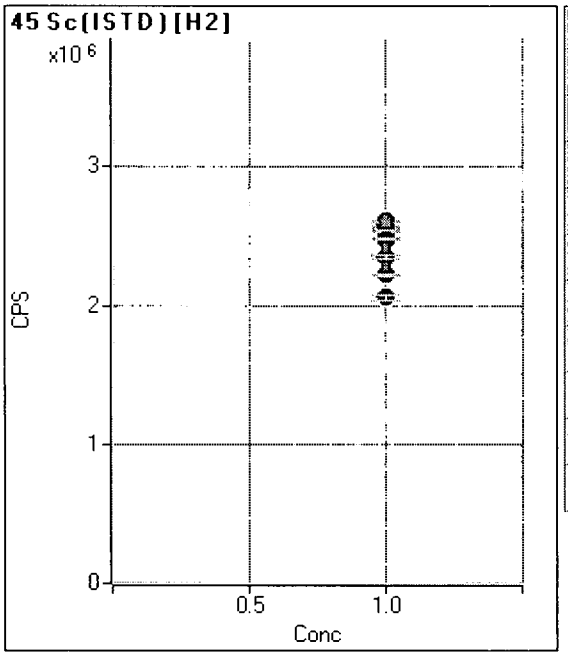
y = 0.0154 * x + 3.9544E-004
R = 0.9999
DL = 0.004964
BEC = 0.02575

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

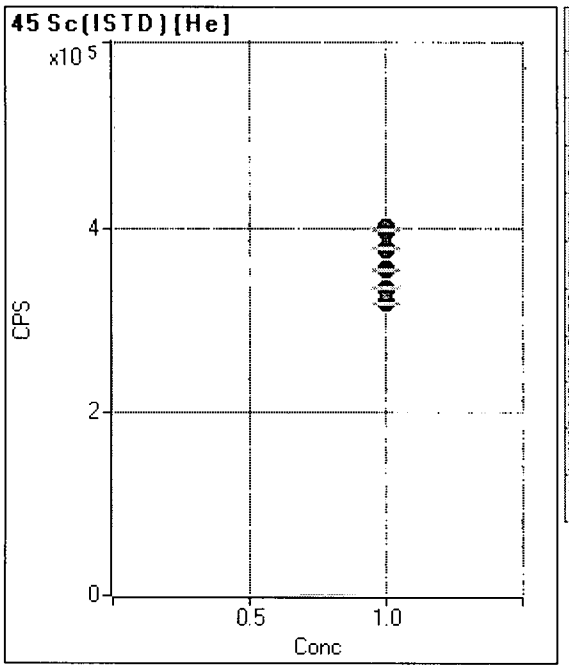


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		1,197,342		A	1.1
2	☐	1.000		1,177,891		A	0.8
3	☐	1.000		1,192,799		A	1.9
4	☐	1.000		1,200,294		A	1.4
5	☐	1.000		1,203,862		A	1.0
6	☐	1.000		1,177,227		A	1.2
7	☐	1.000		1,148,165		A	0.7
8	☐	1.000		1,055,655		A	2.4
9	☐	1.000		1,043,984		A	1.3
10	☐	1.000		1,012,318		A	0.5

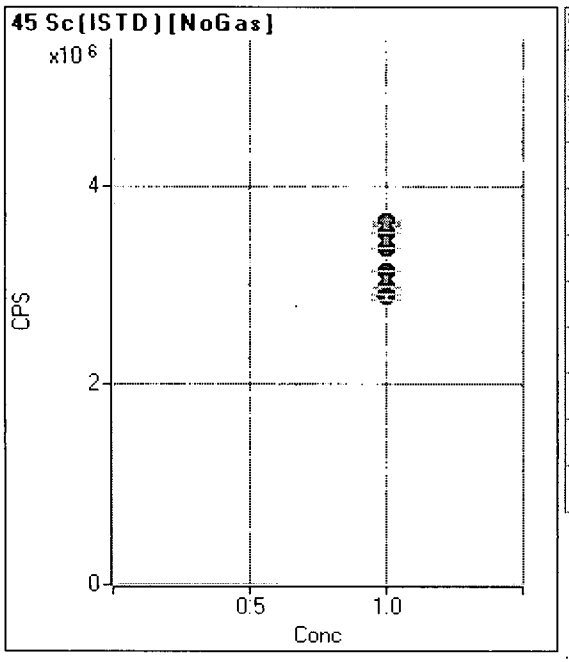


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		2,614,166		A	0.7
2	☐	1.000		2,576,571		A	0.5
3	☐	1.000		2,594,159		A	0.9
4	☐	1.000		2,566,174		A	0.7
5	☐	1.000		2,552,705		A	0.2
6	☐	1.000		2,545,109		A	0.5
7	☐	1.000		2,485,267		A	0.6
8	☐	1.000		2,350,961		A	1.1
9	☐	1.000		2,226,349		A	0.5
10	☐	1.000		2,060,948		A	1.8

Calibration for 013_ICV.d

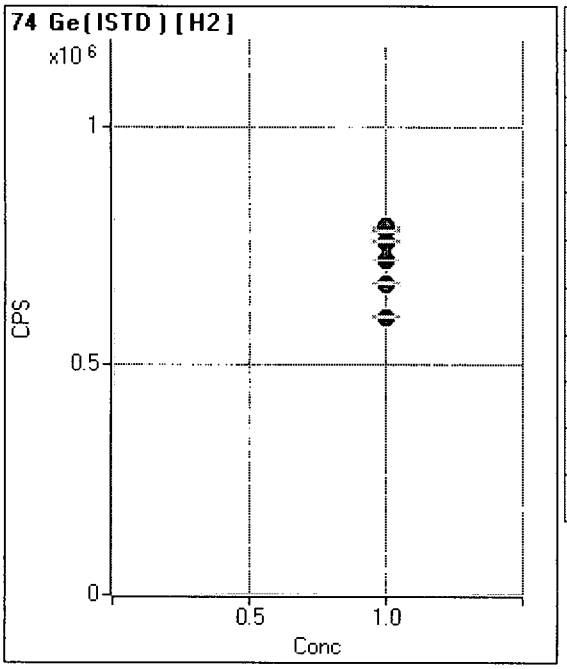


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		399,684		P	0.4
2	☐	1.000		400,446		P	0.7
3	☐	1.000		399,702		P	0.7
4	☐	1.000		400,930		P	0.5
5	☐	1.000		398,715		P	1.2
6	☐	1.000		397,831		P	0.5
7	☐	1.000		379,316		P	0.5
8	☐	1.000		356,163		P	0.6
9	☐	1.000		336,789		P	0.1
10	☐	1.000		319,981		P	1.2

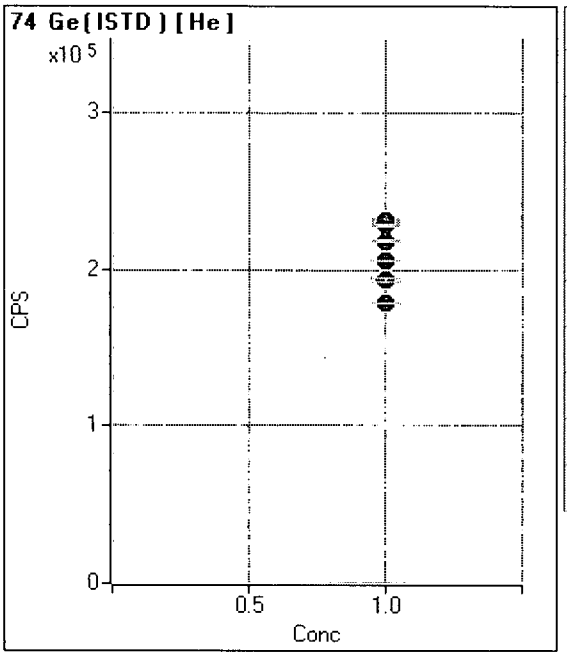


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		3,641,989		A	0.7
2	☐	1.000		3,609,614		A	0.6
3	☐	1.000		3,610,982		A	1.1
4	☐	1.000		3,623,578		A	0.7
5	☐	1.000		3,603,520		A	0.6
6	☐	1.000		3,530,214		A	0.4
7	☐	1.000		3,383,175		A	0.3
8	☐	1.000		3,142,806		A	0.3
9	☐	1.000		2,985,971		A	0.4
10	☐	1.000		2,892,502		A	1.9

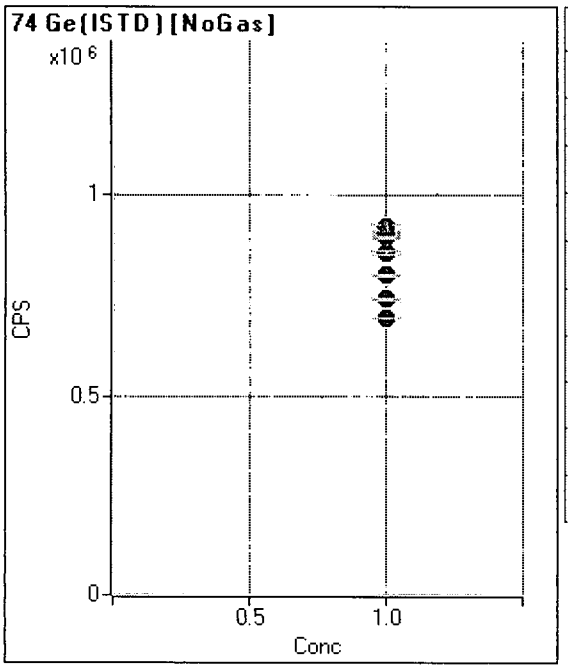
Calibration for 013_ICV.d



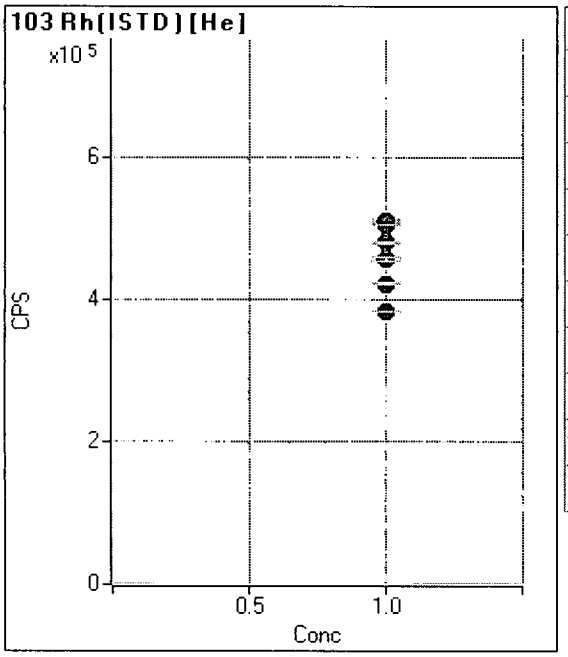
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		786,642		P	0.2
2	☐	1.000		789,324		P	0.2
3	☐	1.000		787,670		P	0.2
4	☐	1.000		790,997		P	0.0
5	☐	1.000		786,108		P	0.3
6	☐	1.000		782,345		P	0.2
7	☐	1.000		759,922		P	0.4
8	☐	1.000		722,480		P	0.2
9	☐	1.000		671,936		P	0.6
10	☐	1.000		601,217		P	0.5



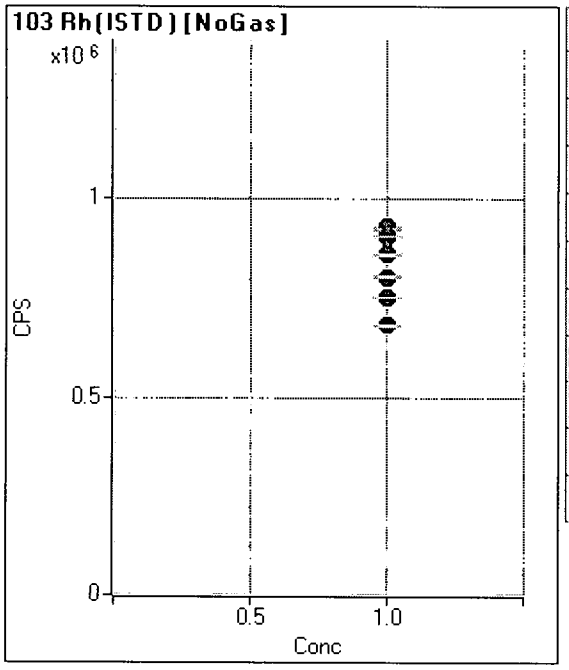
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		229,100		P	0.7
2	☐	1.000		230,088		P	0.6
3	☐	1.000		229,625		P	0.9
4	☐	1.000		231,242		P	1.3
5	☐	1.000		230,579		P	0.8
6	☐	1.000		228,721		P	0.5
7	☐	1.000		218,251		P	0.5
8	☐	1.000		205,864		P	0.3
9	☐	1.000		193,928		P	0.9
10	☐	1.000		179,006		P	0.4



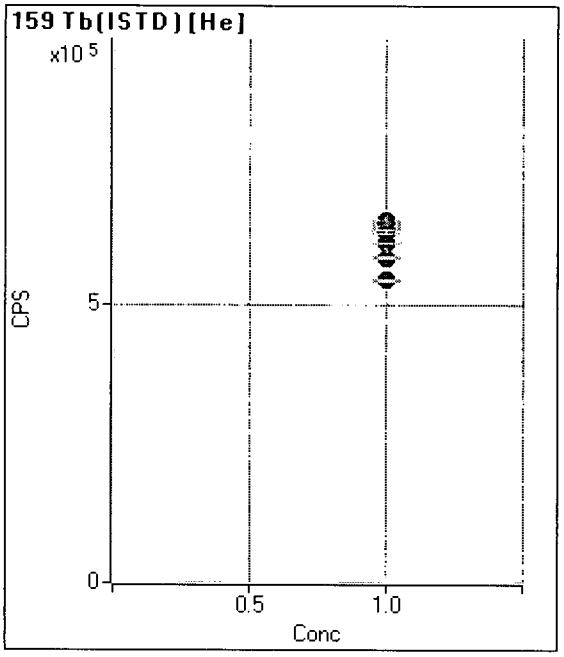
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		911,055		P	1.2
2	☐	1.000		912,033		P	0.7
3	☐	1.000		910,682		P	1.1
4	☐	1.000		922,294		P	1.4
5	☐	1.000		910,269		P	0.8
6	☐	1.000		899,380		P	0.5
7	☐	1.000		860,109		P	1.0
8	☐	1.000		805,040		P	0.6
9	☐	1.000		747,405		P	0.7
10	☐	1.000		698,936		P	0.6



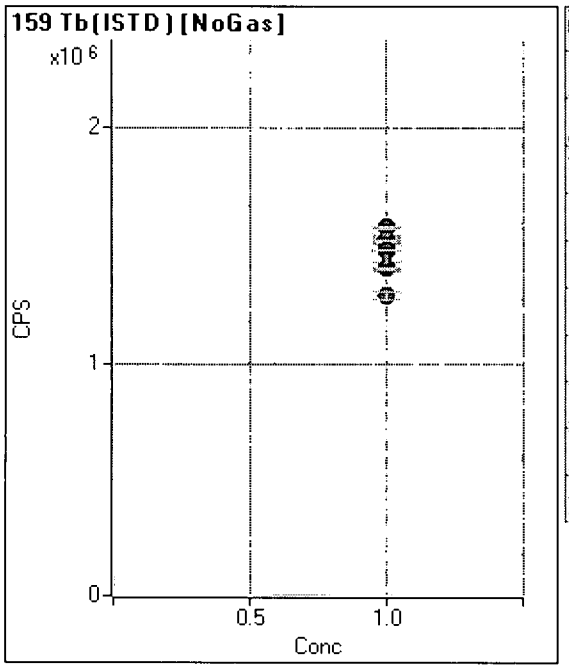
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		507,559		P	1.0
2	☐	1.000		509,036		P	0.8
3	☐	1.000		508,588		P	1.2
4	☐	1.000		507,245		P	0.4
5	☐	1.000		506,148		P	0.4
6	☐	1.000		504,267		P	0.0
7	☐	1.000		479,419		P	0.7
8	☐	1.000		455,309		P	0.9
9	☐	1.000		422,095		P	0.3
10	☐	1.000		382,469		P	0.2



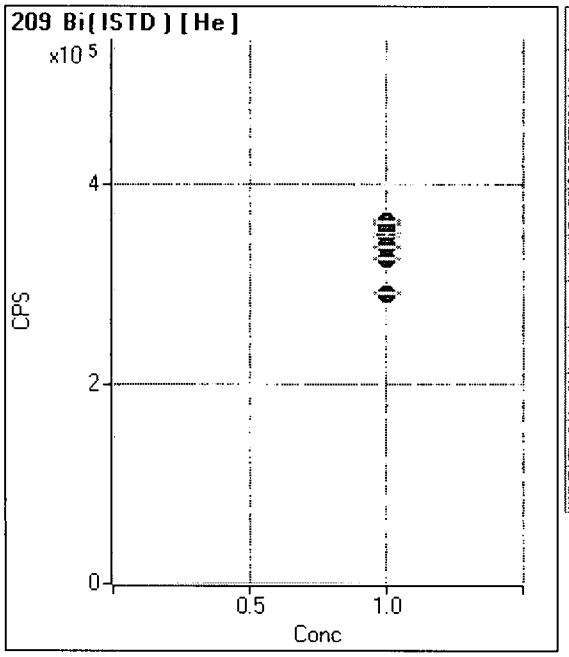
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		929,987		P	0.2
2	☐	1.000		929,291		P	0.1
3	☐	1.000		923,037		P	0.5
4	☐	1.000		930,000		P	0.7
5	☐	1.000		924,236		P	0.4
6	☐	1.000		908,956		P	0.1
7	☐	1.000		860,261		P	0.4
8	☐	1.000		805,893		P	0.2
9	☐	1.000		753,471		P	0.2
10	☐	1.000		683,691		P	0.3



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		639,729		P	1.1
2	☐	1.000		648,425		P	0.9
3	☐	1.000		643,231		P	0.4
4	☐	1.000		646,231		P	0.5
5	☐	1.000		645,751		P	1.0
6	☐	1.000		640,352		P	0.2
7	☐	1.000		627,830		P	1.2
8	☐	1.000		608,620		P	0.4
9	☐	1.000		581,705		P	0.6
10	☐	1.000		542,557		P	0.6

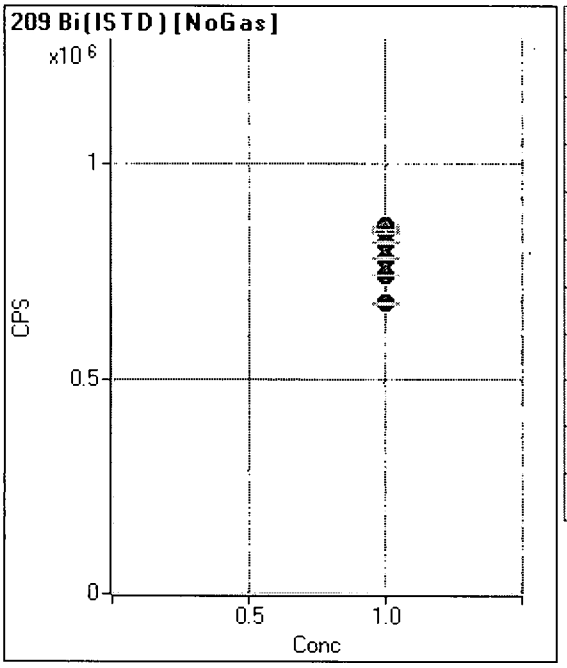


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,581,995		A	0.6
2	☐	1.000		1,524,062		A	1.5
3	☐	1.000		1,518,573		A	0.9
4	☐	1.000		1,534,697		A	1.9
5	☐	1.000		1,526,636		A	2.1
6	☐	1.000		1,523,324		A	0.2
7	☐	1.000		1,483,048		A	0.4
8	☐	1.000		1,409,880		A	2.9
9	☐	1.000		1,406,665		A	0.6
10	☐	1.000		1,289,706		M	2.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		362,402		P	1.3
2	☐	1.000		361,311		P	0.6
3	☐	1.000		360,597		P	0.7
4	☐	1.000		362,915		P	0.9
5	☐	1.000		362,333		P	0.4
6	☐	1.000		363,076		P	0.3
7	☐	1.000		350,570		P	0.8
8	☐	1.000		338,312		P	0.5
9	☐	1.000		326,117		P	0.5
10	☐	1.000		291,009		P	0.4

Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		853,236		P	0.5
2	☐	1.000		855,104		P	0.3
3	☐	1.000		851,177		P	0.4
4	☐	1.000		857,259		P	0.9
5	☐	1.000		849,031		P	0.4
6	☐	1.000		845,731		P	0.8
7	☐	1.000		819,302		P	0.3
8	☐	1.000		783,569		P	0.5
9	☐	1.000		743,650		P	0.0
10	☐	1.000		680,205		P	0.7

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 12:00:30
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.363	ppb	2.1	104,324	40	98.41	
Na	23	45	He	3915.192	ppb	0.5	4,675,298	4000	97.88	
Mg	24	45	He	4164.871	ppb	1.6	2,775,071	4000	104.12	
Al	27	45	He	4016.068	ppb	1.1	1,398,754	4000	100.4	
K	39	45	He	4122.884	ppb	1.1	2,345,600	4000	103.07	
Ca	44	45	H2	4027.056	ppb	0.5	922,878	4000	100.68	
[Ca]	44	45	He	4028.305	ppb	0.3	113,809	4000	100.71	
Ti	47	45	NoGas	99.678	ppb	1.3	111,785	100	99.68	
V	51	74	He	95.102	ppb	0.6	381,577	100	95.1	
Cr	52	74	He	96.872	ppb	0.7	450,632	100	96.87	
Mn	55	74	He	101.506	ppb	0.5	318,206	100	101.51	
Fe	56	74	H2	4031.366	ppb	0.7	47,897,030	4000	100.78	
Co	59	74	He	100.864	ppb	0.4	635,701	100	100.86	
Ni	60	74	He	103.325	ppb	0.2	161,328	100	103.32	
Cu	65	74	He	102.769	ppb	0.5	195,039	100	102.77	
Zn	66	74	He	99.872	ppb	0.3	72,861	100	99.87	
As	75	74	He	97.341	ppb	0.5	43,380	100	97.34	
Se	78	74	H2	39.998	ppb	0.8	12,187	40	99.99	
Mo	95	103	He	39.784	ppb	1.0	70,181	40	99.46	
Ag	107	103	He	40.864	ppb	0.5	202,994	40	102.16	
Cd	111	103	He	98.172	ppb	0.8	80,989	100	98.17	
[Cd]	111	103	NoGas	95.670	ppb	0.2	193,671	100	95.67	
Sb	121	103	He	41.069	ppb	0.6	86,479	40	102.67	
Ba	138	159	He	104.302	ppb	0.4	483,322	100	104.3	
Hg	201	159	NoGas	804.398	ppt	0.8	800	800	100.55	
Tl	205	159	He	40.120	ppb	1.1	307,752	40	100.3	
Pb	208	159	NoGas	100.994	ppb	1.0	2,204,446	100	100.99	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,049,096	1197342.19	87.6	
Sc	45	H2	Analog	1.1	2,238,479	2614165.65666667	85.6	
Sc	45	He	Pulse	1.0	346,042	399684.306666667	86.6	
Sc	45	NoGas	Analog	1.1	3,038,024	3641989.32	83.4	
Ge	74	H2	Pulse	0.5	684,536	786642.216666667	87.0	
Ge	74	He	Pulse	0.8	201,707	229100.463333333	88.0	
Ge	74	NoGas	Pulse	1.3	777,260	911055.243333333	85.3	
Rh	103	He	Pulse	0.3	441,974	507558.653333333	87.1	
Rh	103	NoGas	Pulse	0.6	784,832	929986.61	84.4	
Tb	159	He	Pulse	1.6	604,988	639728.706666667	94.6	
Tb	159	NoGas	Analog	0.9	1,421,189	1581995.13333333	89.8	
Bi	209	He	Pulse	0.7	338,905	362402.373333333	93.5	
Bi	209	NoGas	Pulse	1.0	793,049	853236.23	92.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-ICB1**	Total Dilution:	1.0000
File Name:	014_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 12:05:08
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.012	ppb	38.5	41	
Na	23	45	He	2.718	ppb	5.0	7,690	
Mg	24	45	He	1.890	ppb	11.1	1,731	
Al	27	45	He	1.991	ppb	16.0	847	
K	39	45	He	2.208	ppb	41.0	30,455	
Ca	44	45	H2	2.285	ppb	5.1	1,029	
[Ca]	44	45	He	1.902	ppb	61.1	268	
Ti	47	45	NoGas	0.088	ppb	5.3	120	
V	51	74	He	-0.114	ppb	N/A	1,498	
Cr	52	74	He	0.037	ppb	30.6	450	
Mn	55	74	He	0.088	ppb	29.6	392	
Fe	56	74	H2	2.792	ppb	4.6	44,519	
Co	59	74	He	0.025	ppb	34.8	197	
Ni	60	74	He	0.030	ppb	99.3	168	
Cu	65	74	He	-0.052	ppb	N/A	124	
Zn	66	74	He	0.102	ppb	45.4	136	
As	75	74	He	0.028	ppb	21.6	51	
Se	78	74	H2	0.046	ppb	24.6	16	
Mo	95	103	He	0.024	ppb	15.7	53	
Ag	107	103	He	0.007	ppb	49.8	41	
Cd	111	103	He	0.074	ppb	9.3	66	
[Cd]	111	103	NoGas	0.067	ppb	20.3	144	
Sb	121	103	He	0.215	ppb	16.9	493	
Ba	138	159	He	0.081	ppb	11.4	426	
Hg	201	159	NoGas	5.346	ppt	29.6	9	
Tl	205	159	He	0.007	ppb	5.0	73	
Pb	208	159	NoGas	0.069	ppb	8.6	2,123	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,106,733	1197342.19	92.4	
Sc	45	H2	Analog	1.0	2,256,607	2614165.65666667	86.3	
Sc	45	He	Pulse	0.8	349,146	399684.306666667	87.4	
Sc	45	NoGas	Analog	1.1	3,146,160	3641989.32	86.4	
Ge	74	H2	Pulse	0.2	694,075	786642.216666667	88.2	
Ge	74	He	Pulse	0.7	203,013	229100.463333333	88.6	
Ge	74	NoGas	Pulse	1.2	806,001	911055.243333333	88.5	
Rh	103	He	Pulse	0.9	463,561	507558.653333333	91.3	
Rh	103	NoGas	Pulse	0.7	826,449	929986.61	88.9	
Tb	159	He	Pulse	1.3	609,779	639728.706666667	95.3	
Tb	159	NoGas	Analog	0.5	1,461,695	1581995.13333333	92.4	
Bi	209	He	Pulse	1.2	348,633	362402.373333333	96.2	
Bi	209	NoGas	Pulse	0.4	814,448	853236.23	95.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL2**	Total Dilution:	1.0000
File Name:	016_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 12:14:29
Comment:	A19J369 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.853	ppb	4.2	2,445	94.78	
Na	23	45	He	46.837	ppb	0.8	61,461	104.08	
Mg	24	45	He	46.629	ppb	1.2	32,153	103.62	
Al	27	45	He	45.745	ppb	2.6	16,398	101.66	
K	39	45	He	45.904	ppb	2.7	55,830	102.01	
Ca	44	45	H2	43.388	ppb	0.1	10,786	96.42	
[Ca]	44	45	He	47.200	ppb	2.6	1,573	104.89	
Ti	47	45	NoGas	0.947	ppb	3.2	1,143	105.22	
V	51	74	He	0.834	ppb	0.9	5,370	92.67	
Cr	52	74	He	0.907	ppb	1.9	4,577	100.78	
Mn	55	74	He	0.910	ppb	1.8	3,020	101.11	
Fe	56	74	H2	44.908	ppb	0.9	563,024	99.8	
Co	59	74	He	0.927	ppb	3.8	5,991	103	
Ni	60	74	He	0.967	ppb	7.0	1,658	107.44	
Cu	65	74	He	0.891	ppb	7.3	1,947	99	
Zn	66	74	He	1.057	ppb	17.5	846	117.44	
As	75	74	He	0.928	ppb	3.1	460	103.11	
Se	78	74	H2	0.952	ppb	4.7	302	105.78	
Mo	95	103	He	0.861	ppb	7.9	1,606	95.67	
Ag	107	103	He	0.885	ppb	5.1	4,631	98.33	
Cd	111	103	He	0.899	ppb	6.8	782	99.89	
[Cd]	111	103	NoGas	0.955	ppb	2.2	2,057	106.11	
Sb	121	103	He	0.940	ppb	5.5	2,100	104.44	
Ba	138	159	He	0.998	ppb	5.7	4,716	110.89	
Hg	201	159	NoGas	44.188	ppt	14.7	49	122.74	
Tl	205	159	He	0.916	ppb	4.8	7,114	101.78	
Pb	208	159	NoGas	0.969	ppb	0.6	22,439	107.67	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,130,333	1197342.19	94.4	
Sc	45	H2	Analog	1.2	2,313,586	2614165.65666667	88.5	
Sc	45	He	Pulse	0.6	352,959	399684.306666667	88.3	
Sc	45	NoGas	Analog	1.1	3,220,785	3641989.32	88.4	
Ge	74	H2	Pulse	0.6	708,217	786642.216666667	90.0	
Ge	74	He	Pulse	1.0	205,440	229100.463333333	89.7	
Ge	74	NoGas	Pulse	0.9	816,656	911055.243333333	89.6	
Rh	103	He	Pulse	1.2	464,849	507558.653333333	91.6	
Rh	103	NoGas	Pulse	0.7	834,709	929986.61	89.8	
Tb	159	He	Pulse	1.4	611,011	639728.706666667	95.5	
Tb	159	NoGas	Analog	0.9	1,469,315	1581995.13333333	92.9	
Bi	209	He	Pulse	1.1	350,072	362402.373333333	96.6	
Bi	209	NoGas	Pulse	0.9	820,333	853236.23	96.1	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL3**	Total Dilution:	1.0000
File Name:	017CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 12:19:22
Comment:	A19J370 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.752	ppb	2.8	5,002	97.33	
Na	23	45	He	89.729	ppb	0.9	115,366	99.7	
Mg	24	45	He	90.403	ppb	2.0	62,835	100.45	
Al	27	45	He	89.075	ppb	1.8	32,269	98.97	
K	39	45	He	91.005	ppb	1.8	82,913	101.12	
Ca	44	45	H2	88.806	ppb	1.3	21,748	98.67	
[Ca]	44	45	He	87.730	ppb	7.4	2,780	97.48	
Ti	47	45	NoGas	1.831	ppb	3.7	2,202	101.72	
V	51	74	He	1.740	ppb	0.9	9,187	96.67	
Cr	52	74	He	1.807	ppb	3.6	8,964	100.39	
Mn	55	74	He	1.814	ppb	0.4	5,992	100.78	
Fe	56	74	H2	88.720	ppb	0.4	1,109,838	98.58	
Co	59	74	He	1.777	ppb	1.4	11,613	98.72	
Ni	60	74	He	1.814	ppb	2.8	3,048	100.78	
Cu	65	74	He	1.935	ppb	4.2	4,021	107.5	
Zn	66	74	He	1.736	ppb	4.5	1,370	96.44	
As	75	74	He	1.757	ppb	4.0	848	97.61	
Se	78	74	H2	1.780	ppb	3.7	567	98.89	
Mo	95	103	He	1.801	ppb	5.3	3,386	100.06	
Ag	107	103	He	1.847	ppb	2.9	9,762	102.61	
Cd	111	103	He	1.825	ppb	1.6	1,603	101.39	
[Cd]	111	103	NoGas	1.766	ppb	3.6	3,841	98.11	
Sb	121	103	He	1.754	ppb	4.1	3,945	97.44	
Ba	138	159	He	1.904	ppb	1.5	9,003	105.78	
Hg	201	159	NoGas	72.496	ppt	9.4	78	100.69	
Tl	205	159	He	1.831	ppb	0.9	14,278	101.72	
Pb	208	159	NoGas	1.889	ppb	2.3	43,210	104.94	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,128,343	1197342.19	94.2	
Sc	45	H2	Analog	0.9	2,336,225	2614165.65666667	89.4	
Sc	45	He	Pulse	0.5	358,275	399684.306666667	89.6	
Sc	45	NoGas	Analog	1.0	3,233,755	3641989.32	88.8	
Ge	74	H2	Pulse	0.6	713,618	786642.216666667	90.7	
Ge	74	He	Pulse	0.8	208,413	229100.463333333	91.0	
Ge	74	NoGas	Pulse	1.1	825,457	911055.243333333	90.6	
Rh	103	He	Pulse	0.9	470,039	507558.653333333	92.6	
Rh	103	NoGas	Pulse	0.6	843,342	929986.61	90.7	
Tb	159	He	Pulse	0.8	613,958	639728.706666667	96.0	
Tb	159	NoGas	Analog	0.9	1,470,054	1581995.13333333	92.9	
Bi	209	He	Pulse	0.5	351,441	362402.373333333	97.0	
Bi	209	NoGas	Pulse	0.3	821,852	853236.23	96.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL4**	Total Dilution:	1.0000
File Name:	018CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 12:24:04
Comment:	A19J368 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.168	ppb	10.5	492	93.33		
Na	23	45	He	9.916	ppb	1.5	16,973	110.18		
Mg	24	45	He	9.472	ppb	0.5	7,086	105.24		
Al	27	45	He	9.178	ppb	2.3	3,500	101.98		
K	39	45	He	8.702	ppb	8.5	35,430	96.69		
Ca	44	45	H2	8.583	ppb	5.9	2,611	95.37		
[Ca]	44	45	He	8.677	ppb	5.5	478	96.41		
Ti	47	45	NoGas	0.215	ppb	24.8	275	119.44		
V	51	74	He	0.139	ppb	15.5	2,593	77.22		
Cr	52	74	He	0.179	ppb	6.6	1,149	99.44		
Mn	55	74	He	0.181	ppb	5.9	707	100.56		
Fe	56	74	H2	9.214	ppb	0.2	126,119	102.38		
Co	59	74	He	0.194	ppb	4.3	1,308	107.78		
Ni	60	74	He	0.187	ppb	12.8	427	103.89		
Cu	65	74	He	0.113	ppb	10.2	452	62.78	R-11	< MRL
Zn	66	74	He	0.196	ppb	6.2	211	108.89		
As	75	74	He	0.169	ppb	12.5	118	93.89		
Se	78	74	H2	0.174	ppb	10.6	58	96.67		
Mo	95	103	He	0.156	ppb	14.2	302	86.67		
Ag	107	103	He	0.178	ppb	3.4	956	98.89		
Cd	111	103	He	0.172	ppb	6.8	154	95.56		
[Cd]	111	103	NoGas	0.212	ppb	5.5	464	117.78		
Sb	121	103	He	0.188	ppb	5.7	443	104.44		
Ba	138	159	He	0.209	ppb	5.9	1,032	116.11		
Hg	201	159	NoGas	10.670	ppt	30.4	14	148.19	R-11	< MRL
Tl	205	159	He	0.179	ppb	6.0	1,421	99.44		
Pb	208	159	NoGas	0.212	ppb	3.0	5,306	117.78		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.0	1,137,641	1197342.19	95.0	
Sc	45	H2	Analog	1.2	2,372,825	2614165.65666667	90.8	
Sc	45	He	Pulse	0.8	362,326	399684.306666667	90.7	
Sc	45	NoGas	Analog	1.0	3,240,969	3641989.32	89.0	
Ge	74	H2	Pulse	0.6	718,313	786642.216666667	91.3	
Ge	74	He	Pulse	1.1	209,139	229100.463333333	91.3	
Ge	74	NoGas	Pulse	0.8	828,562	911055.243333333	90.9	
Rh	103	He	Pulse	0.6	473,594	507558.653333333	93.3	
Rh	103	NoGas	Pulse	0.2	846,041	929986.61	91.0	
Tb	159	He	Pulse	1.0	616,682	639728.706666667	96.4	
Tb	159	NoGas	Analog	0.9	1,454,197	1581995.13333333	91.9	
Bi	209	He	Pulse	0.9	353,648	362402.373333333	97.6	
Bi	209	NoGas	Pulse	0.0	822,144	853236.23	96.4	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K07021.b		
Acq Time	11/7/2019 12:28:47	Sample Type	ICSA
Sample Name	**9K07021-IFA1**	Last Calib	11/07/2019 11:59:17
Comment	**A19J465**		
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc '	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.012	0.012	ppb	44.8		
Na	23	45	He	256910.277	256910.277	ppb	0.4		
Mg	24	45	He	102699.389	102699.389	ppb	0.3	100000	
Al	27	45	He	101713.954	101713.954	ppb	0.2	100000	
K	39	45	He	99804.499	99804.499	ppb	1.0	100000	
Ca	44	45	H2	293595.17	293595.170	ppb	0.2		
[Ca]	44	45	He	300167.155	300167.155	ppb	0.4		
Ti	47	45	NoGas	2122.487	2122.487	ppb	0.6		
V	51	74	He	0.107	0.107	ppb	15.8	2	
Cr	52	74	He	1.846	1.846	ppb	2.6	2	
Mn	55	74	He	2.85	2.850	ppb	1.2	2	> CRI
Fe	56	74	H2	251231.783	251231.783	ppb	0.2		
Co	59	74	He	0.852	0.852	ppb	5.9		
Ni	60	74	He	0.828	0.828	ppb	4.1	2	
Cu	65	74	He	0.797	0.797	ppb	3.8	2	
Zn	66	74	He	2.646	2.646	ppb	2.7	2	> CRI
As	75	74	He	0.17	0.170	ppb	28.9	0.9	
Se	78	74	H2	0.197	0.197	ppb	21.0	0.9	
Mo	95	103	He	2322.642	2322.642	ppb	0.7	2000	
Ag	107	103	He	0.315	0.315	ppb	3.2		
Cd	111	103	He	6.202	6.202	ppb	0.6		
[Cd]	111	103	NoGas	0.368	0.368	ppb	35.4		
Sb	121	103	He	0.164	0.164	ppb	1.9	0.9	
Ba	138	159	He	1.769	1.769	ppb	1.6	2	
W	182	159	NoGas	108.392	108.392	ppb	0.1		
Hg	201	159	NoGas	95.779	95.779	ppt	8.0		
Tl	205	159	He	0.004	0.004	ppb	39.4	0.9	
Pb	208	159	NoGas	0.84	0.840	ppb	0.7		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	974,363	1.3	1197342.19	Analog	81.4	
Sc	45	H2	1,841,693	0.4	2614165.65666667	Analog	70.5	
Sc	45	He	289,300	0.9	399684.306666667	Pulse	72.4	
Sc	45	NoGas	2,730,013	0.9	3641989.32	Analog	75.0	
Ge	74	H2	506,781	0.4	786642.216666667	Pulse	64.4	IS Q-06
Ge	74	He	156,495	1.1	229100.463333333	Pulse	68.3	IS Q-06
Ge	74	NoGas	633,775	1.4	911055.243333333	Pulse	69.6	IS Q-06
Rh	103	He	314,313	1.1	507558.653333333	Pulse	61.9	IS Q-06
Rh	103	NoGas	593,256	0.6	929986.61	Pulse	63.8	IS Q-06
Tb	159	He	471,367	0.6	639728.706666667	Pulse	73.7	
Tb	159	NoGas	1,146,146	0.2	1581995.13333333	Pulse	72.4	
Bi	209	He	235,006	0.9	362402.373333333	Pulse	64.8	IS Q-06
Bi	209	NoGas	586,896	0.2	853236.23	Pulse	68.8	IS Q-06

Quantitation Report ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K07021.b		
Acq Time	11/7/2019 12:33:18	Sample Type	ICSB
Sample Name	**9K07021-IFB1**	Last Calib	11/07/2019 11:59:17
Comment	**A19J466**		
Prep Dilution	1.0000	Vial:	1112
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.008	0.008	ppb	106.5		
Na	23	45	He	262352.354	262352.354	ppb	1.0		
Mg	24	45	He	104125.664	104125.664	ppb	0.6	100000	
Al	27	45	He	102403.571	102403.571	ppb	1.1	100000	
K	39	45	He	99361.677	99361.677	ppb	0.8	100000	
Ca	44	45	H2	287862.13	287862.130	ppb	1.0		
[Ca]	44	45	He	299946.861	299946.861	ppb	0.6		
Ti	47	45	NoGas	2154.606	2154.606	ppb	1.9		
V	51	74	He	215.419	215.419	ppb	0.4	200	
Cr	52	74	He	207.772	207.772	ppb	0.5	200	
Mn	55	74	He	216.836	216.836	ppb	0.4	200	
Fe	56	74	H2	256933.045	256933.045	ppb	0.9		
Co	59	74	He	202.051	202.051	ppb	0.7		
Ni	60	74	He	197.033	197.033	ppb	0.7	200	
Cu	65	74	He	196.846	196.846	ppb	0.5	200	
Zn	66	74	He	96.763	96.763	ppb	0.7	100	
As	75	74	He	101.783	101.783	ppb	0.4	100	
Se	78	74	H2	104.808	104.808	ppb	0.3	100	
Mo	95	103	He	2324.46	2324.460	ppb	1.1	2000	
Ag	107	103	He	52.907	52.907	ppb	1.2	50	
Cd	111	103	He	106.769	106.769	ppb	0.2		
[Cd]	111	103	NoGas	102.135	102.135	ppb	0.5		
Sb	121	103	He	0.171	0.171	ppb	16.2	0.9	
Ba	138	159	He	1.687	1.687	ppb	3.6	2	> +/- 10%
W	182	159	NoGas	107.332	107.332	ppb	0.3		
Hg	201	159	NoGas	2115.676	2115.676	ppt	1.3		
Tl	205	159	He	0.003	0.003	ppb	42.9	0.9	
Pb	208	159	NoGas	0.841	0.841	ppb	2.4		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	967,218	1.0	1197342.19	Analog	80.8	
Sc	45	H2	1,910,554	1.1	2614165.65666667	Analog	73.1	
Sc	45	He	285,570	1.0	399684.306666667	Pulse	71.4	
Sc	45	NoGas	2,652,421	1.5	3641989.32	Analog	72.8	
Ge	74	H2	509,103	0.7	786642.216666667	Pulse	64.7	IS Q-06
Ge	74	He	152,751	1.1	229100.463333333	Pulse	66.7	IS Q-06
Ge	74	NoGas	618,915	1.2	911055.243333333	Pulse	67.9	IS Q-06
Rh	103	He	310,344	1.2	507558.653333333	Pulse	61.1	IS Q-06
Rh	103	NoGas	580,529	0.2	929986.61	Pulse	62.4	IS Q-06
Tb	159	He	456,133	0.9	639728.706666667	Pulse	71.3	
Tb	159	NoGas	1,126,120	0.5	1581995.13333333	Pulse	71.2	
Bi	209	He	228,780	0.3	362402.373333333	Pulse	63.1	IS Q-06
Bi	209	NoGas	571,072	0.7	853236.23	Pulse	66.9	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV1**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 13:48:30
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.346	ppb	1.0	104,161	40	98.36	
Na	23	45	He	3919.049	ppb	0.1	4,567,276	4000	97.98	
Mg	24	45	He	4189.368	ppb	0.9	2,724,459	4000	104.73	
Al	27	45	He	4020.577	ppb	1.0	1,366,677	4000	100.51	
K	39	45	He	4099.328	ppb	0.8	2,276,154	4000	102.48	
Ca	44	45	H2	4009.298	ppb	0.9	901,719	4000	100.23	
[Ca]	44	45	He	4024.590	ppb	0.3	110,967	4000	100.61	
Ti	47	45	NoGas	100.383	ppb	0.8	112,196	100	100.38	
V	51	74	He	95.537	ppb	0.4	373,823	100	95.54	
Cr	52	74	He	97.376	ppb	0.5	441,754	100	97.38	
Mn	55	74	He	102.320	ppb	0.8	312,812	100	102.32	
Fe	56	74	H2	4001.373	ppb	0.6	47,077,947	4000	100.03	
Co	59	74	He	100.911	ppb	0.7	620,226	100	100.91	
Ni	60	74	He	103.193	ppb	0.7	157,133	100	103.19	
Cu	65	74	He	103.808	ppb	0.9	192,131	100	103.81	
Zn	66	74	He	101.142	ppb	1.1	71,960	100	101.14	
As	75	74	He	98.342	ppb	0.9	42,741	100	98.34	
Se	78	74	H2	39.783	ppb	1.2	12,004	40	99.46	
Mo	95	103	He	39.631	ppb	1.5	69,485	40	99.08	
Ag	107	103	He	41.078	ppb	1.1	202,809	40	102.7	
Cd	111	103	He	98.431	ppb	1.1	80,707	100	98.43	
[Cd]	111	103	NoGas	97.419	ppb	0.1	197,810	100	97.42	
Sb	121	103	He	42.208	ppb	2.3	88,336	40	105.52	
Ba	138	159	He	103.029	ppb	0.3	476,668	100	103.03	
Hg	201	159	NoGas	799.629	ppt	1.0	804	800	99.95	
Tl	205	159	He	40.275	ppb	0.4	308,473	40	100.69	
Pb	208	159	NoGas	101.237	ppb	0.7	2,234,052	100	101.24	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,047,707	1197342.19	87.5	
Sc	45	H2	Analog	0.7	2,196,850	2614165.65666667	84.0	
Sc	45	He	Pulse	0.3	337,706	399684.306666667	84.5	
Sc	45	NoGas	Analog	1.2	3,027,691	3641989.32	83.1	
Ge	74	H2	Pulse	0.2	677,873	786642.216666667	86.2	
Ge	74	He	Pulse	0.6	196,707	229100.463333333	85.9	
Ge	74	NoGas	Pulse	0.6	781,802	911055.243333333	85.8	
Rh	103	He	Pulse	0.6	439,295	507558.653333333	86.6	
Rh	103	NoGas	Pulse	0.2	787,206	929986.61	84.6	
Tb	159	He	Pulse	0.7	604,002	639728.706666667	94.4	
Tb	159	NoGas	Analog	0.5	1,436,758	1581995.13333333	90.8	
Bi	209	He	Pulse	0.6	341,939	362402.373333333	94.4	
Bi	209	NoGas	Pulse	0.2	795,514	853236.23	93.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 13:53:06
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.016	ppb	29.0	50	
Na	23	45	He	5.559	ppb	4.6	10,886	
Mg	24	45	He	0.826	ppb	17.0	996	
Al	27	45	He	0.695	ppb	26.3	383	
K	39	45	He	-1.255	ppb	N/A	27,927	
Ca	44	45	H2	1.286	ppb	23.3	783	
[Ca]	44	45	He	-0.443	ppb	N/A	197	
Ti	47	45	NoGas	0.031	ppb	65.5	52	
V	51	74	He	-0.097	ppb	N/A	1,541	
Cr	52	74	He	0.016	ppb	111.4	344	
Mn	55	74	He	-0.006	ppb	N/A	94	
Fe	56	74	H2	1.629	ppb	9.3	30,273	
Co	59	74	He	0.010	ppb	30.9	101	
Ni	60	74	He	-0.027	ppb	N/A	77	
Cu	65	74	He	-0.080	ppb	N/A	69	
Zn	66	74	He	-0.005	ppb	N/A	57	
As	75	74	He	0.011	ppb	180.9	43	
Se	78	74	H2	0.054	ppb	34.3	19	
Mo	95	103	He	0.038	ppb	9.7	77	
Ag	107	103	He	0.008	ppb	21.4	50	
Cd	111	103	He	0.021	ppb	11.6	20	
[Cd]	111	103	NoGas	0.022	ppb	41.7	46	
Sb	121	103	He	0.092	ppb	9.2	219	
Ba	138	159	He	0.023	ppb	16.8	154	
Hg	201	159	NoGas	7.584	ppt	24.2	11	
Tl	205	159	He	0.008	ppb	36.3	82	
Pb	208	159	NoGas	0.059	ppb	2.8	1,889	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,052,563	1197342.19	87.9	
Sc	45	H2	Analog	0.7	2,215,115	2614165.65666667	84.7	
Sc	45	He	Pulse	1.2	342,170	399684.306666667	85.6	
Sc	45	NoGas	Analog	0.6	3,082,802	3641989.32	84.6	
Ge	74	H2	Pulse	0.1	688,765	786642.216666667	87.6	
Ge	74	He	Pulse	0.7	199,564	229100.463333333	87.1	
Ge	74	NoGas	Pulse	1.2	795,961	911055.243333333	87.4	
Rh	103	He	Pulse	0.7	456,003	507558.653333333	89.8	
Rh	103	NoGas	Pulse	0.5	815,341	929986.61	87.7	
Tb	159	He	Pulse	1.0	607,412	639728.706666667	94.9	
Tb	159	NoGas	Analog	1.4	1,448,552	1581995.13333333	91.6	
Bi	209	He	Pulse	1.0	349,904	362402.373333333	96.6	
Bi	209	NoGas	Pulse	1.0	813,164	853236.23	95.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV2**	Total Dilution:	1.0000
File Name:	043_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 14:39:30
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.708	ppb	1.1	102,315	40	96.77	
Na	23	45	He	3922.464	ppb	0.2	4,492,161	4000	98.06	
Mg	24	45	He	4206.176	ppb	1.0	2,688,095	4000	105.15	
Al	27	45	He	4037.801	ppb	0.5	1,348,810	4000	100.95	
K	39	45	He	4131.959	ppb	0.3	2,254,282	4000	103.3	
Ca	44	45	H2	4009.321	ppb	1.0	898,273	4000	100.23	
[Ca]	44	45	He	4034.792	ppb	1.1	109,319	4000	100.87	
Ti	47	45	NoGas	97.627	ppb	0.2	107,251	100	97.63	
V	51	74	He	95.909	ppb	0.9	367,142	100	95.91	
Cr	52	74	He	97.017	ppb	0.8	430,598	100	97.02	
Mn	55	74	He	102.359	ppb	0.9	306,151	100	102.36	
Fe	56	74	H2	4051.885	ppb	0.4	47,018,567	4000	101.3	
Co	59	74	He	101.454	ppb	0.4	610,089	100	101.45	
Ni	60	74	He	102.798	ppb	0.7	153,139	100	102.8	
Cu	65	74	He	103.034	ppb	1.0	186,562	100	103.03	
Zn	66	74	He	100.075	ppb	1.4	69,653	100	100.08	
As	75	74	He	98.003	ppb	1.2	41,670	100	98	
Se	78	74	H2	40.475	ppb	1.9	12,046	40	101.19	
Mo	95	103	He	39.818	ppb	0.5	67,783	40	99.54	
Ag	107	103	He	40.874	ppb	0.7	195,936	40	102.19	
Cd	111	103	He	98.345	ppb	1.0	78,292	100	98.34	
[Cd]	111	103	NoGas	96.062	ppb	0.9	188,410	100	96.06	
Sb	121	103	He	41.855	ppb	0.7	85,048	40	104.64	
Ba	138	159	He	103.349	ppb	0.4	468,414	100	103.35	
Hg	201	159	NoGas	785.682	ppt	3.7	773	800	98.21	
Tl	205	159	He	40.250	ppb	0.4	302,000	40	100.63	
Pb	208	159	NoGas	99.094	ppb	1.4	2,139,908	100	99.09	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,046,059	1197342.19	87.4	
Sc	45	H2	Analog	0.7	2,188,447	2614165.65666667	83.7	
Sc	45	He	Pulse	1.1	331,860	399684.306666667	83.0	
Sc	45	NoGas	Analog	0.6	2,975,756	3641989.32	81.7	
Ge	74	H2	Pulse	0.6	668,572	786642.216666667	85.0	
Ge	74	He	Pulse	1.2	192,457	229100.463333333	84.0	
Ge	74	NoGas	Pulse	0.2	758,524	911055.243333333	83.3	
Rh	103	He	Pulse	0.7	426,491	507558.653333333	84.0	
Rh	103	NoGas	Pulse	0.6	760,412	929986.61	81.8	
Tb	159	He	Pulse	0.7	591,699	639728.706666667	92.5	
Tb	159	NoGas	Analog	0.9	1,406,051	1581995.13333333	88.9	
Bi	209	He	Pulse	0.6	332,363	362402.373333333	91.7	
Bi	209	NoGas	Pulse	0.3	771,949	853236.23	90.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB2**	Total Dilution:	1.0000
File Name:	044_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 14:44:07
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.015	ppb	54.2	48	
Na	23	45	He	3.133	ppb	8.5	8,015	
Mg	24	45	He	0.920	ppb	13.7	1,057	
Al	27	45	He	0.411	ppb	24.2	286	
K	39	45	He	0.172	ppb	314.0	28,682	
Ca	44	45	H2	1.963	ppb	17.2	934	
[Ca]	44	45	He	0.954	ppb	96.3	236	
Ti	47	45	NoGas	0.038	ppb	41.3	60	
V	51	74	He	0.070	ppb	34.6	2,177	
Cr	52	74	He	0.013	ppb	112.6	330	
Mn	55	74	He	-0.003	ppb	N/A	104	
Fe	56	74	H2	1.257	ppb	7.6	25,569	
Co	59	74	He	0.011	ppb	46.3	108	
Ni	60	74	He	-0.031	ppb	N/A	70	
Cu	65	74	He	-0.064	ppb	N/A	98	
Zn	66	74	He	0.004	ppb	523.0	62	
As	75	74	He	0.017	ppb	319.4	45	
Se	78	74	H2	0.041	ppb	45.1	14	
Mo	95	103	He	0.029	ppb	59.4	59	
Ag	107	103	He	0.007	ppb	36.2	40	
Cd	111	103	He	0.022	ppb	15.6	20	
[Cd]	111	103	NoGas	0.018	ppb	23.5	38	
Sb	121	103	He	0.138	ppb	9.2	312	
Ba	138	159	He	0.017	ppb	24.8	126	
Hg	201	159	NoGas	3.524	ppt	25.4	7	
Tl	205	159	He	0.003	ppb	50.0	47	
Pb	208	159	NoGas	0.045	ppb	9.1	1,552	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,071,744	1197342.19	89.5	
Sc	45	H2	Analog	1.8	2,207,779	2614165.65666667	84.5	
Sc	45	He	Pulse	0.3	341,748	399684.306666667	85.5	
Sc	45	NoGas	Analog	0.9	3,053,129	3641989.32	83.8	
Ge	74	H2	Pulse	0.4	681,664	786642.216666667	86.7	
Ge	74	He	Pulse	0.8	197,408	229100.463333333	86.2	
Ge	74	NoGas	Pulse	1.0	781,217	911055.243333333	85.7	
Rh	103	He	Pulse	0.2	447,843	507558.653333333	88.2	
Rh	103	NoGas	Pulse	0.7	797,541	929986.61	85.8	
Tb	159	He	Pulse	0.8	604,043	639728.706666667	94.4	
Tb	159	NoGas	Analog	2.8	1,428,973	1581995.13333333	90.3	
Bi	209	He	Pulse	0.3	340,697	362402.373333333	94.0	
Bi	209	NoGas	Pulse	0.9	797,482	853236.23	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL5**	Total Dilution:	1.0000
File Name:	045CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 14:48:49
Comment:	A19J368 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.179	ppb	8.3	497	99.44		
Na	23	45	He	11.492	ppb	1.4	17,908	127.69		
Mg	24	45	He	9.590	ppb	2.0	6,778	106.56		
Al	27	45	He	9.220	ppb	1.8	3,324	102.44		
K	39	45	He	7.552	ppb	3.0	32,857	83.91		
Ca	44	45	H2	10.205	ppb	0.7	2,808	113.39		
[Ca]	44	45	He	12.037	ppb	11.5	546	133.74	R-11	< MRL
Ti	47	45	NoGas	0.210	ppb	28.3	253	116.67		
V	51	74	He	0.268	ppb	7.3	2,966	148.89	R-11	< MRL
Cr	52	74	He	0.174	ppb	16.2	1,068	96.67		
Mn	55	74	He	0.202	ppb	18.0	738	112.22		
Fe	56	74	H2	8.941	ppb	1.4	117,007	99.34		
Co	59	74	He	0.171	ppb	7.1	1,098	95		
Ni	60	74	He	0.166	ppb	23.9	372	92.22		
Cu	65	74	He	0.134	ppb	20.0	468	74.44		
Zn	66	74	He	0.200	ppb	18.1	203	111.11		
As	75	74	He	0.194	ppb	26.6	123	107.78		
Se	78	74	H2	0.174	ppb	13.6	55	96.67		
Mo	95	103	He	0.180	ppb	19.9	329	100		
Ag	107	103	He	0.182	ppb	7.8	920	101.11		
Cd	111	103	He	0.184	ppb	8.3	155	102.22		
[Cd]	111	103	NoGas	0.175	ppb	4.8	360	97.22		
Sb	121	103	He	0.215	ppb	11.1	474	119.44		
Ba	138	159	He	0.187	ppb	2.9	911	103.89		
Hg	201	159	NoGas	8.868	ppt	35.3	12	123.17		
Tl	205	159	He	0.182	ppb	5.2	1,418	101.11		
Pb	208	159	NoGas	0.198	ppb	3.0	4,913	110		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.0	1,080,425	1197342.19	90.2	
Sc	45	H2	Analog	0.8	2,217,467	2614165.65666667	84.8	
Sc	45	He	Pulse	0.4	342,576	399684.306666667	85.7	
Sc	45	NoGas	Analog	0.8	3,053,013	3641989.32	83.8	
Ge	74	H2	Pulse	0.4	684,869	786642.216666667	87.1	
Ge	74	He	Pulse	0.5	198,529	229100.463333333	86.7	
Ge	74	NoGas	Pulse	0.8	776,774	911055.243333333	85.3	
Rh	103	He	Pulse	0.6	447,053	507558.653333333	88.1	
Rh	103	NoGas	Pulse	0.4	794,379	929986.61	85.4	
Tb	159	He	Pulse	0.8	604,712	639728.706666667	94.5	
Tb	159	NoGas	Analog	0.6	1,430,195	1581995.13333333	90.4	
Bi	209	He	Pulse	0.2	341,671	362402.373333333	94.3	
Bi	209	NoGas	Pulse	0.9	793,845	853236.23	93.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL6**	Total Dilution:	1.0000
File Name:	046_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 14:53:29
Comment:	A19J369 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.918	ppb	2.2	2,481	102	
Na	23	45	He	47.265	ppb	1.7	59,948	105.03	
Mg	24	45	He	46.204	ppb	0.8	30,819	102.68	
Al	27	45	He	44.325	ppb	0.7	15,373	98.5	
K	39	45	He	43.652	ppb	2.7	52,752	97	
Ca	44	45	H2	46.107	ppb	1.4	10,989	102.46	
[Ca]	44	45	He	43.461	ppb	2.2	1,418	96.58	
Ti	47	45	NoGas	0.975	ppb	4.2	1,106	108.33	
V	51	74	He	0.976	ppb	0.6	5,759	108.44	
Cr	52	74	He	0.859	ppb	3.9	4,207	95.44	
Mn	55	74	He	0.879	ppb	5.4	2,830	97.67	
Fe	56	74	H2	43.719	ppb	0.6	532,126	97.15	
Co	59	74	He	0.885	ppb	1.6	5,542	98.33	
Ni	60	74	He	0.945	ppb	3.4	1,571	105	
Cu	65	74	He	0.919	ppb	4.7	1,938	102.11	
Zn	66	74	He	0.960	ppb	13.7	750	106.67	
As	75	74	He	0.902	ppb	9.7	434	100.22	
Se	78	74	H2	0.912	ppb	6.3	281	101.33	
Mo	95	103	He	0.830	ppb	5.1	1,488	92.22	
Ag	107	103	He	0.903	ppb	4.2	4,543	100.33	
Cd	111	103	He	0.940	ppb	2.6	786	104.44	
[Cd]	111	103	NoGas	0.893	ppb	3.5	1,822	99.22	
Sb	121	103	He	0.931	ppb	6.2	2,000	103.44	
Ba	138	159	He	0.951	ppb	4.2	4,421	105.67	
Hg	201	159	NoGas	34.151	ppt	11.0	38	94.86	
Tl	205	159	He	0.900	ppb	0.9	6,875	100	
Pb	208	159	NoGas	0.908 .	ppb	1.2	20,685	100.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	1,065,755	1197342.19	89.0	
Sc	45	H2	Analog	0.6	2,224,483	2614165.65666667	85.1	
Sc	45	He	Pulse	0.9	341,380	399684.306666667	85.4	
Sc	45	NoGas	Analog	0.5	3,028,965	3641989.32	83.2	
Ge	74	H2	Pulse	0.6	687,217	786642.216666667	87.4	
Ge	74	He	Pulse	0.4	198,914	229100.463333333	86.8	
Ge	74	NoGas	Pulse	1.0	779,014	911055.243333333	85.5	
Rh	103	He	Pulse	0.6	446,713	507558.653333333	88.0	
Rh	103	NoGas	Pulse	0.9	790,770	929986.61	85.0	
Tb	159	He	Pulse	0.7	600,713	639728.706666667	93.9	
Tb	159	NoGas	Analog	1.0	1,442,048	1581995.13333333	91.2	
Bi	209	He	Pulse	0.5	341,733	362402.373333333	94.3	
Bi	209	NoGas	Pulse	0.5	792,735	853236.23	92.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL7**	Total Dilution:	1.0000
File Name:	047CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 14:58:10
Comment:	A19J370 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.735	ppb	3.5	4,679	96.39	
Na	23	45	He	91.090	ppb	1.0	111,392	101.21	
Mg	24	45	He	89.780	ppb	0.9	59,388	99.76	
Al	27	45	He	89.229	ppb	1.4	30,763	99.14	
K	39	45	He	88.651	ppb	1.6	77,600	98.5	
Ca	44	45	H2	89.093	ppb	1.0	20,893	98.99	
[Ca]	44	45	He	88.590	ppb	8.0	2,670	98.43	
Ti	47	45	NoGas	1.907	ppb	9.4	2,137	105.94	
V	51	74	He	1.890	ppb	1.5	9,316	105	
Cr	52	74	He	1.781	ppb	1.8	8,397	98.94	
Mn	55	74	He	1.814	ppb	4.2	5,694	100.78	
Fe	56	74	H2	87.572	ppb	0.5	1,053,115	97.3	
Co	59	74	He	1.805	ppb	2.1	11,205	100.28	
Ni	60	74	He	1.879	ppb	3.3	2,995	104.39	
Cu	65	74	He	1.799	ppb	2.7	3,567	99.94	
Zn	66	74	He	1.700	ppb	1.9	1,276	94.44	
As	75	74	He	1.782	ppb	4.4	817	99	
Se	78	74	H2	1.732	ppb	2.0	531	96.22	
Mo	95	103	He	1.826	ppb	1.8	3,270	101.44	
Ag	107	103	He	1.762	ppb	1.9	8,872	97.89	
Cd	111	103	He	1.766	ppb	2.2	1,478	98.11	
[Cd]	111	103	NoGas	1.705	ppb	3.7	3,447	94.72	
Sb	121	103	He	1.768	ppb	5.0	3,787	98.22	
Ba	138	159	He	1.899	ppb	2.9	8,831	105.5	
Hg	201	159	NoGas	76.604	ppt	1.5	79	106.39	
Tl	205	159	He	1.772	ppb	1.6	13,596	98.44	
Pb	208	159	NoGas	1.837	ppb	2.3	40,720	102.06	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,065,567	1197342.19	89.0	
Sc	45	H2	Analog	0.3	2,237,169	2614165.65666667	85.6	
Sc	45	He	Pulse	0.1	340,951	399684.306666667	85.3	
Sc	45	NoGas	Analog	1.2	3,014,842	3641989.32	82.8	
Ge	74	H2	Pulse	0.0	685,937	786642.216666667	87.2	
Ge	74	He	Pulse	0.7	198,011	229100.463333333	86.4	
Ge	74	NoGas	Pulse	1.1	775,979	911055.243333333	85.2	
Rh	103	He	Pulse	0.8	447,623	507558.653333333	88.2	
Rh	103	NoGas	Pulse	0.3	783,815	929986.61	84.3	
Tb	159	He	Pulse	0.8	603,986	639728.706666667	94.4	
Tb	159	NoGas	Analog	1.3	1,423,891	1581995.13333333	90.0	
Bi	209	He	Pulse	1.0	342,536	362402.373333333	94.5	
Bi	209	NoGas	Pulse	0.3	790,518	853236.23	92.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV3**	Total Dilution:	1.0000
File Name:	058_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 15:48:56
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.302	ppb	3.8	107,536	40	95.76	
Na	23	45	He	3931.841	ppb	0.6	4,652,022	4000	98.3	
Mg	24	45	He	4151.767	ppb	1.1	2,741,103	4000	103.79	
Al	27	45	He	4034.060	ppb	0.8	1,392,145	4000	100.85	
K	39	45	He	4142.743	ppb	0.6	2,335,001	4000	103.57	
Ca	44	45	H2	4028.622	ppb	0.7	920,938	4000	100.72	
[Ca]	44	45	He	4032.035	ppb	0.6	112,868	4000	100.8	
Ti	47	45	NoGas	97.984	ppb	1.3	110,570	100	97.98	
V	51	74	He	95.934	ppb	0.7	374,677	100	95.93	
Cr	52	74	He	96.941	ppb	0.7	438,977	100	96.94	
Mn	55	74	He	102.606	ppb	0.9	313,104	100	102.61	
Fe	56	74	H2	4047.850	ppb	0.5	47,754,120	4000	101.2	
Co	59	74	He	101.390	ppb	0.4	622,044	100	101.39	
Ni	60	74	He	102.813	ppb	0.9	156,259	100	102.81	
Cu	65	74	He	102.418	ppb	0.4	189,212	100	102.42	
Zn	66	74	He	100.241	ppb	0.8	71,184	100	100.24	
As	75	74	He	98.066	ppb	0.6	42,542	100	98.07	
Se	78	74	H2	40.448	ppb	1.9	12,238	40	101.12	
Mo	95	103	He	39.424	ppb	0.7	68,309	40	98.56	
Ag	107	103	He	40.418	ppb	0.6	197,207	40	101.04	
Cd	111	103	He	97.905	ppb	0.0	79,332	100	97.9	
[Cd]	111	103	NoGas	96.002	ppb	1.0	192,792	100	96	
Sb	121	103	He	41.635	ppb	0.5	86,111	40	104.09	
Ba	138	159	He	103.632	ppb	0.2	475,525	100	103.63	
Hg	201	159	NoGas	767.317	ppt	2.3	774	800	95.91	
Tl	205	159	He	40.084	ppb	0.2	304,496	40	100.21	
Pb	208	159	NoGas	97.982	ppb	0.6	2,168,202	100	97.98	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	3.6	1,112,100	1197342.19	92.9	
Sc	45	H2	Analog	0.9	2,232,897	2614165.65666667	85.4	
Sc	45	He	Pulse	0.9	342,866	399684.306666667	85.8	
Sc	45	NoGas	Analog	1.2	3,056,962	3641989.32	83.9	
Ge	74	H2	Pulse	0.1	679,713	786642.216666667	86.4	
Ge	74	He	Pulse	0.9	196,350	229100.463333333	85.7	
Ge	74	NoGas	Pulse	1.4	779,513	911055.243333333	85.6	
Rh	103	He	Pulse	0.4	434,111	507558.653333333	85.5	
Rh	103	NoGas	Pulse	0.7	778,596	929986.61	83.7	
Tb	159	He	Pulse	0.8	599,049	639728.706666667	93.6	
Tb	159	NoGas	Analog	0.6	1,440,715	1581995.13333333	91.1	
Bi	209	He	Pulse	1.3	333,312	362402.373333333	92.0	
Bi	209	NoGas	Pulse	0.4	785,284	853236.23	92.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB3**	Total Dilution:	1.0000
File Name:	059_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 15:53:33
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.010	ppb	40.5	37	
Na	23	45	He	3.152	ppb	5.0	8,229	
Mg	24	45	He	1.193	ppb	13.9	1,266	
Al	27	45	He	0.571	ppb	12.5	349	
K	39	45	He	0.314	ppb	106.5	29,446	
Ca	44	45	H2	2.793	ppb	13.0	1,159	
[Ca]	44	45	He	1.961	ppb	48.7	270	
Ti	47	45	NoGas	0.098	ppb	16.9	130	
V	51	74	He	0.119	ppb	12.2	2,425	
Cr	52	74	He	0.010	ppb	64.0	323	
Mn	55	74	He	0.017	ppb	91.9	169	
Fe	56	74	H2	1.707	ppb	5.2	31,445	
Co	59	74	He	0.006	ppb	11.1	77	
Ni	60	74	He	-0.023	ppb	N/A	84	
Cu	65	74	He	-0.077	ppb	N/A	77	
Zn	66	74	He	0.025	ppb	47.5	79	
As	75	74	He	0.005	ppb	87.2	41	
Se	78	74	H2	0.044	ppb	22.4	16	
Mo	95	103	He	0.027	ppb	37.9	57	
Ag	107	103	He	0.007	ppb	14.8	41	
Cd	111	103	He	0.023	ppb	10.0	22	
[Cd]	111	103	NoGas	0.016	ppb	59.0	35	
Sb	121	103	He	0.207	ppb	2.9	468	
Ba	138	159	He	0.025	ppb	16.3	163	
Hg	201	159	NoGas	2.326	ppt	59.7	6	
Tl	205	159	He	0.001	ppb	58.6	33	
Pb	208	159	NoGas	0.090	ppb	3.5	2,640	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.2	1,144,024	1197342.19	95.5	
Sc	45	H2	Analog	0.2	2,281,576	2614165.65666667	87.3	
Sc	45	He	Pulse	0.5	349,882	399684.306666667	87.5	
Sc	45	NoGas	Analog	1.0	3,123,250	3641989.32	85.8	
Ge	74	H2	Pulse	0.2	693,935	786642.216666667	88.2	
Ge	74	He	Pulse	1.3	202,106	229100.463333333	88.2	
Ge	74	NoGas	Pulse	1.0	811,198	911055.243333333	89.0	
Rh	103	He	Pulse	0.5	456,860	507558.653333333	90.0	
Rh	103	NoGas	Pulse	0.7	828,838	929986.61	89.1	
Tb	159	He	Pulse	0.6	607,203	639728.706666667	94.9	
Tb	159	NoGas	Analog	4.0	1,489,550	1581995.13333333	94.2	
Bi	209	He	Pulse	1.0	347,288	362402.373333333	95.8	
Bi	209	NoGas	Pulse	0.6	816,360	853236.23	95.7	

Quantitation Report - ICPMS5

Sample Name:	**9110573-BLK1**	Total Dilution:	**10.0000**
File Name:	068SMPL.d	Vial:	3308
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Sample
Acq Time:	11/7/2019 16:35:56	I.S. Reference File:	003CALB.d
Comment:	**9110573 TCLP RCRA**	Last Calibration:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.005	ppb	62.4	22	100	
Na	23	45	He	30172.706	ppb	0.8	38,903,610	50000	
Mg	24	45	He	7.655	ppb	3.7	6,004	50000	
Al	27	45	He	3.035	ppb	4.6	1,300	50000	
K	39	45	He	5.3	ppb	18.5	34,498	50000	
Ca	44	45	H2	36.729	ppb	1.6	9,702	50000	
[Ca]	44	45	He	35.01	ppb	3.6	1,296	50000	
Ti	47	45	NoGas	0.103	ppb	15.4	148	2500	
V	51	74	He	-0.046	ppb	N/A	1,858	500	
Cr	52	74	He	0.064	ppb	5.8	604	1000	
Mn	55	74	He	0.263	ppb	6.8	993	2500	
Fe	56	74	H2	8.015	ppb	1.2	113,774	50000	
Co	59	74	He	0	ppb	N/A	41	500	
Ni	60	74	He	0.579	ppb	8.6	1,080	1000	
Cu	65	74	He	0.073	ppb	56.2	381	1000	
Zn	66	74	He	1.15	ppb	12.1	950	2500	
As	75	74	He	-0.008	ppb	N/A	37	500	
Se	78	74	H2	0.003	ppb	123.2	3	100	
Mo	95	103	He	0.004	ppb	140.3	17	100	
Ag	107	103	He	-0.001	ppb	N/A	3	100	
Cd	111	103	He	0.003	ppb	23.5	5	1000	
[Cd]	111	103	NoGas	-0.002	ppb	N/A	-2	1000	
Sb	121	103	He	0.006	ppb	37.5	31	100	
Ba	138	159	He	1.66	ppb	3.1	7,983	2500	
W	182	159	NoGas	0.004	ppb	61.1	59	40	
Hg	201	159	NoGas	1.112	ppt	367.4	5	4000	
Tl	205	159	He	-0.001	ppb	N/A	11	100	
Pb	208	159	NoGas	0.024	ppb	9.7	1,149	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,174,839	0.4	1197342.19	Analog	98.1	
Sc	45	H2	2,437,418	0.6	2614165.65666667	Analog	93.2	
Sc	45	He	373,919	0.8	399684.306666667	Pulse	93.6	
Sc	45	NoGas	3,416,229	1.6	3641989.32	Analog	93.8	
Ge	74	H2	735,100	0.5	786642.216666667	Pulse	93.4	
Ge	74	He	213,050	1.1	229100.463333333	Pulse	93.0	
Ge	74	NoGas	862,854	0.5	911055.243333333	Pulse	94.7	
Rh	103	He	470,932	1.3	507558.653333333	Pulse	92.8	
Rh	103	NoGas	854,576	0.7	929986.61	Pulse	91.9	
Tb	159	He	624,079	0.8	639728.706666667	Pulse	97.6	
Tb	159	NoGas	1,513,584	2.0	1581995.13333333	Analog	95.7	
Bi	209	He	347,007	0.5	362402.373333333	Pulse	95.8	
Bi	209	NoGas	823,266	0.4	853236.23	Pulse	96.5	

Quantitation Report - ICPMS5

Sample Name:	**9110573-BS1**	Total Dilution:	**10.0000**
File Name:	069SMPL.d	Vial:	3309
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Sample
Acq Time:	11/7/2019 16:40:35	I.S. Reference File:	003CALB.d
Comment:	**9110573 TCLP RCRA**	Last Calibration:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	49.122	ppb	0.7	146,644	100	
Na	23	45	He	29683.972	ppb	0.3	38,019,234	50000	
Mg	24	45	He	8.013	ppb	3.4	6,220	50000	
Al	27	45	He	0.874	ppb	13.7	483	50000	
K	39	45	He	5.223	ppb	8.5	34,223	50000	
Ca	44	45	H2	40.371	ppb	1.1	10,718	50000	
[Ca]	44	45	He	41.69	ppb	7.1	1,489	50000	
Ti	47	45	NoGas	0.232	ppb	97.1	309	2500	
V	51	74	He	50.598	ppb	0.8	214,396	500	
Cr	52	74	He	102.903	ppb	1.5	503,199	1000	
Mn	55	74	He	53.033	ppb	0.8	174,841	2500	
Fe	56	74	H2	4.996	ppb	0.6	75,603	50000	
Co	59	74	He	52.489	ppb	0.8	347,810	500	
Ni	60	74	He	53.113	ppb	1.1	87,241	1000	
Cu	65	74	He	54.838	ppb	1.2	109,520	1000	
Zn	66	74	He	108.531	ppb	0.4	83,236	2500	
As	75	74	He	104.087	ppb	0.6	48,766	500	
Se	78	74	H2	20.739	ppb	2.0	6,818	100	
Mo	95	103	He	0.006	ppb	124.1	20	100	
Ag	107	103	He	21.626	ppb	1.2	113,818	100	
Cd	111	103	He	20.658	ppb	0.6	18,056	1000	
[Cd]	111	103	NoGas	20.165	ppb	0.7	43,982	1000	
Sb	121	103	He	21.977	ppb	1.6	49,031	100	
Ba	138	159	He	221.885	ppb	0.7	1,049,514	2500	
W	182	159	NoGas	0.005	ppb	46.7	69	40	
Hg	201	159	NoGas	1911.013	ppt	3.1	2,016	4000	
Tl	205	159	He	52.432	ppb	0.4	410,576	100	
Pb	208	159	NoGas	101.602	ppb	0.1	2,357,774	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,181,455	0.6	1197342.19	Analog	98.7	
Sc	45	H2	2,462,086	0.8	2614165.65666667	Analog	94.2	
Sc	45	He	371,452	1.1	399684.306666667	Pulse	92.9	
Sc	45	NoGas	3,375,736	0.7	3641989.32	Analog	92.7	
Ge	74	H2	738,436	0.2	786642.216666667	Pulse	93.9	
Ge	74	He	212,065	1.3	229100.463333333	Pulse	92.6	
Ge	74	NoGas	852,531	1.4	911055.243333333	Pulse	93.6	
Rh	103	He	468,240	1.1	507558.653333333	Pulse	92.3	
Rh	103	NoGas	845,574	0.4	929986.61	Pulse	90.9	
Tb	159	He	617,519	0.6	639728.706666667	Pulse	96.5	
Tb	159	NoGas	1,510,846	0.5	1581995.13333333	Analog	95.5	
Bi	209	He	344,774	1.1	362402.373333333	Pulse	95.1	
Bi	209	NoGas	814,312	0.8	853236.23	Pulse	95.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV4**	Total Dilution:	1.0000
File Name:	070_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 16:45:15
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.218	ppb	1.0	110,526	40	95.55	
Na	23	45	He	3958.772	ppb	0.9	4,979,103	4000	98.97	
Mg	24	45	He	4178.515	ppb	0.7	2,932,791	4000	104.46	
Al	27	45	He	3977.089	ppb	1.8	1,458,947	4000	99.43	
K	39	45	He	4155.613	ppb	0.4	2,489,888	4000	103.89	
Ca	44	45	H2	3987.259	ppb	0.6	1,009,637	4000	99.68	
[Ca]	44	45	He	4037.411	ppb	0.7	120,142	4000	100.94	
Ti	47	45	NoGas	97.750	ppb	0.3	117,478	100	97.75	
V	51	74	He	96.940	ppb	0.5	401,750	100	96.94	
Cr	52	74	He	98.237	ppb	1.0	472,041	100	98.24	
Mn	55	74	He	103.361	ppb	0.2	334,715	100	103.36	
Fe	56	74	H2	4139.098	ppb	0.5	53,206,703	4000	103.48	
Co	59	74	He	102.292	ppb	1.0	665,944	100	102.29	
Ni	60	74	He	104.531	ppb	0.9	168,589	100	104.53	
Cu	65	74	He	103.744	ppb	0.4	203,380	100	103.74	
Zn	66	74	He	100.392	ppb	0.6	75,653	100	100.39	
As	75	74	He	97.669	ppb	0.4	44,962	100	97.67	
Se	78	74	H2	40.447	ppb	0.4	13,334	40	101.12	
Mo	95	103	He	39.079	ppb	0.8	72,406	40	97.7	
Ag	107	103	He	40.860	ppb	0.5	213,173	40	102.15	
Cd	111	103	He	97.192	ppb	0.1	84,210	100	97.19	
[Cd]	111	103	NoGas	95.048	ppb	0.9	203,302	100	95.05	
Sb	121	103	He	40.603	ppb	1.1	89,794	40	101.51	
Ba	138	159	He	104.337	ppb	0.3	493,637	100	104.34	
Hg	201	159	NoGas	772.918	ppt	0.3	802	800	96.61	
Tl	205	159	He	40.093	ppb	0.3	314,025	40	100.23	
Pb	208	159	NoGas	98.814	ppb	1.4	2,248,405	100	98.81	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	1,144,586	1197342.19	95.6	
Sc	45	H2	Analog	0.7	2,473,333	2614165.65666667	94.6	
Sc	45	He	Pulse	0.6	364,475	399684.306666667	91.2	
Sc	45	NoGas	Analog	0.5	3,255,362	3641989.32	89.4	
Ge	74	H2	Pulse	0.2	740,635	786642.216666667	94.2	
Ge	74	He	Pulse	0.8	208,361	229100.463333333	90.9	
Ge	74	NoGas	Pulse	0.8	829,528	911055.243333333	91.1	
Rh	103	He	Pulse	0.5	464,185	507558.653333333	91.5	
Rh	103	NoGas	Pulse	0.3	829,264	929986.61	89.2	
Tb	159	He	Pulse	0.8	617,655	639728.706666667	96.5	
Tb	159	NoGas	Analog	1.0	1,481,540	1581995.13333333	93.7	
Bi	209	He	Pulse	0.9	347,171	362402.373333333	95.8	
Bi	209	NoGas	Pulse	0.3	814,317	853236.23	95.4	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB4**	Total Dilution:	1.0000
File Name:	071_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 16:49:52
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.013	ppb	20.5	46	
Na	23	45	He	6.564	ppb	2.5	13,142	
Mg	24	45	He	1.370	ppb	8.7	1,475	
Al	27	45	He	0.778	ppb	6.0	449	
K	39	45	He	0.060	ppb	1252.3	31,193	
Ca	44	45	H2	2.822	ppb	13.2	1,249	
[Ca]	44	45	He	2.087	ppb	56.1	291	
Ti	47	45	NoGas	0.046	ppb	62.8	75	
V	51	74	He	-0.044	ppb	N/A	1,862	
Cr	52	74	He	0.017	ppb	28.3	373	
Mn	55	74	He	0.100	ppb	5.8	451	
Fe	56	74	H2	3.857	ppb	4.1	60,750	
Co	59	74	He	0.009	ppb	54.7	104	
Ni	60	74	He	-0.021	ppb	N/A	91	
Cu	65	74	He	-0.078	ppb	N/A	78	
Zn	66	74	He	-0.014	ppb	N/A	53	
As	75	74	He	0.028	ppb	124.9	54	
Se	78	74	H2	0.024	ppb	25.6	10	
Mo	95	103	He	0.035	ppb	15.4	76	
Ag	107	103	He	0.005	ppb	29.9	37	
Cd	111	103	He	0.017	ppb	60.7	17	
[Cd]	111	103	NoGas	0.019	ppb	31.9	42	
Sb	121	103	He	0.115	ppb	7.3	281	
Ba	138	159	He	0.035	ppb	5.5	213	
Hg	201	159	NoGas	3.883	ppt	75.2	8	
Tl	205	159	He	0.008	ppb	22.8	86	
Pb	208	159	NoGas	0.047	ppb	4.1	1,671	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	1,163,366	1197342.19	97.2	
Sc	45	H2	Analog	0.4	2,443,974	2614165.65666667	93.5	
Sc	45	He	Pulse	0.2	372,466	399684.306666667	93.2	
Sc	45	NoGas	Analog	0.9	3,363,146	3641989.32	92.3	
Ge	74	H2	Pulse	0.2	735,323	786642.216666667	93.5	
Ge	74	He	Pulse	0.9	212,423	229100.463333333	92.7	
Ge	74	NoGas	Pulse	0.7	851,395	911055.243333333	93.5	
Rh	103	He	Pulse	0.9	477,483	507558.653333333	94.1	
Rh	103	NoGas	Pulse	0.3	854,975	929986.61	91.9	
Tb	159	He	Pulse	1.0	620,831	639728.706666667	97.0	
Tb	159	NoGas	Analog	0.0	1,492,597	1581995.13333333	94.3	
Bi	209	He	Pulse	1.1	345,943	362402.373333333	95.5	
Bi	209	NoGas	Pulse	0.6	821,699	853236.23	96.3	

Quantitation Report - ICPMS5

Sample Name:	**A9J1007-01**	Total Dilution:	**10.0000**
File Name:	074SMPL.d	Vial:	3312
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Sample
Acq Time:	11/7/2019 17:05:26	I.S. Reference File:	003CALB.d
Comment:	**9110573 TCLP RCRA**	Last Calibration:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.025	ppb	7.4	82	100	
Na	23	45	He	26809.304	ppb	0.7	34,161,633	50000	
Mg	24	45	He	252.268	ppb	0.7	179,984	50000	
Al	27	45	He	11.231	ppb	2.4	4,333	50000	
K	39	45	He	90.787	ppb	0.9	85,392	50000	
Ca	44	45	H2	955.758	ppb	0.9	238,083	50000	
[Ca]	44	45	He	986.263	ppb	0.8	29,928	50000	
Ti	47	45	NoGas	0.162	ppb	19.6	215	2500	
V	51	74	He	-0.001	ppb	N/A	2,031	500	
Cr	52	74	He	0.044	ppb	29.3	502	1000	
Mn	55	74	He	34.455	ppb	1.2	113,234	2500	
Fe	56	74	H2	9.624	ppb	0.6	133,374	50000	
Co	59	74	He	0.973	ppb	2.3	6,469	500	
Ni	60	74	He	0.631	ppb	15.0	1,157	1000	
Cu	65	74	He	0.457	ppb	8.9	1,141	1000	
Zn	66	74	He	16.963	ppb	0.7	13,018	2500	
As	75	74	He	0.237	ppb	5.7	151	500	
Se	78	74	H2	0.011	ppb	100.4	6	100	
Mo	95	103	He	0.003	ppb	190.5	13	100	
Ag	107	103	He	0.001	ppb	36.8	12	100	
Cd	111	103	He	0.077	ppb	9.0	68	1000	
[Cd]	111	103	NoGas	0.08	ppb	4.7	172	1000	
Sb	121	103	He	0.026	ppb	19.3	77	100	
Ba	138	159	He	12.054	ppb	0.2	56,801	2500	
W	182	159	NoGas	0.001	ppb	195.3	38	40	
Hg	201	159	NoGas	3.862	ppt	62.1	8	4000	
Tl	205	159	He	0	ppb	430.5	26	100	
Pb	208	159	NoGas	0.127	ppb	2.7	3,538	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,149,714	2.0	1197342.19	Analog	96.0	
Sc	45	H2	2,429,055	1.0	2614165.65666667	Analog	92.9	
Sc	45	He	369,549	0.6	399684.306666667	Pulse	92.5	
Sc	45	NoGas	3,284,562	2.3	3641989.32	Analog	90.2	
Ge	74	H2	730,013	0.1	786642.216666667	Pulse	92.8	
Ge	74	He	211,322	1.1	229100.463333333	Pulse	92.2	
Ge	74	NoGas	838,027	1.0	911055.243333333	Pulse	92.0	
Rh	103	He	463,336	0.6	507558.653333333	Pulse	91.3	
Rh	103	NoGas	831,585	0.6	929986.61	Pulse	89.4	
Tb	159	He	614,761	0.9	639728.706666667	Pulse	96.1	
Tb	159	NoGas	1,506,958	3.2	1581995.13333333	Analog	95.3	
Bi	209	He	343,153	0.5	362402.373333333	Pulse	94.7	
Bi	209	NoGas	809,760	0.3	853236.23	Pulse	94.9	

Quantitation Report - ICPMS5

Sample Name:	**9110573-MS1**	Total Dilution:	**10.0000**
File Name:	075SMPL.d	Vial:	3313
File Path:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Sample Type:	Sample
Acq Time:	11/7/2019 17:10:04	I.S. Reference File:	003CALB.d
Comment:	**9110573 TCLP RCRA**	Last Calibration:	11/07/2019 11:59:17

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	52.697	ppb	5.0	147,125	100	
Na	23	45	He	27998.113	ppb	0.4	35,050,844	50000	
Mg	24	45	He	263.807	ppb	0.7	184,887	50000	
Al	27	45	He	13.067	ppb	2.2	4,929	50000	
K	39	45	He	96.073	ppb	2.4	87,015	50000	
Ca	44	45	H2	980.167	ppb	0.5	243,434	50000	
[Ca]	44	45	He	1037.902	ppb	0.6	30,931	50000	
Ti	47	45	NoGas	0.142	ppb	5.1	188	2500	
V	51	74	He	51.107	ppb	0.3	211,243	500	
Cr	52	74	He	103.922	ppb	0.3	495,807	1000	
Mn	55	74	He	88.453	ppb	0.6	284,412	2500	
Fe	56	74	H2	9.731	ppb	0.6	133,496	50000	
Co	59	74	He	53.396	ppb	0.5	345,177	500	
Ni	60	74	He	53.737	ppb	1.1	86,113	1000	
Cu	65	74	He	55.619	ppb	0.3	108,366	1000	
Zn	66	74	He	126.246	ppb	0.5	94,444	2500	
As	75	74	He	105.713	ppb	0.5	48,317	500	
Se	78	74	H2	20.738	ppb	1.2	6,678	100	
Mo	95	103	He	0.005	ppb	157.1	18	100	
Ag	107	103	He	22.041	ppb	1.0	113,605	100	
Cd	111	103	He	20.975	ppb	0.8	17,955	1000	
[Cd]	111	103	NoGas	20.818	ppb	0.8	43,372	1000	
Sb	121	103	He	22.218	ppb	0.7	48,552	100	
Ba	138	159	He	231.665	ppb	0.2	1,080,463	2500	
W	182	159	NoGas	0.001	ppb	149.9	39	40	
Hg	201	159	NoGas	2021.622	ppt	0.6	2,050	4000	
Tl	205	159	He	52.867	ppb	0.3	408,206	100	
Pb	208	159	NoGas	105.405	ppb	0.6	2,351,702	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,106,502	4.3	1197342.19	Analog	92.4	
Sc	45	H2	2,421,833	1.0	2614165.65666667	Analog	92.6	
Sc	45	He	363,069	0.7	399684.306666667	Pulse	90.8	
Sc	45	NoGas	3,252,992	0.9	3641989.32	Analog	89.3	
Ge	74	H2	723,337	0.7	786642.216666667	Pulse	92.0	
Ge	74	He	206,878	0.7	229100.463333333	Pulse	90.3	
Ge	74	NoGas	818,763	0.5	911055.243333333	Pulse	89.9	
Rh	103	He	458,586	0.8	507558.653333333	Pulse	90.4	
Rh	103	NoGas	807,688	0.5	929986.61	Pulse	86.8	
Tb	159	He	608,910	0.2	639728.706666667	Pulse	95.2	
Tb	159	NoGas	1,452,628	0.5	1581995.13333333	Analog	91.8	
Bi	209	He	338,070	0.9	362402.373333333	Pulse	93.3	
Bi	209	NoGas	795,514	0.4	853236.23	Pulse	93.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV5**	Total Dilution:	1.0000
File Name:	082_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 17:42:48
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.377	ppb	2.1	107,115	40	98.44	
Na	23	45	He	3960.642	ppb	1.2	4,896,128	4000	99.02	
Mg	24	45	He	4197.229	ppb	1.3	2,895,250	4000	104.93	
Al	27	45	He	4013.378	ppb	0.5	1,447,103	4000	100.33	
K	39	45	He	4121.125	ppb	0.9	2,427,143	4000	103.03	
Ca	44	45	H2	3983.931	ppb	0.5	989,103	4000	99.6	
[Ca]	44	45	He	3999.204	ppb	0.5	116,971	4000	99.98	
Ti	47	45	NoGas	97.366	ppb	2.9	114,385	100	97.37	
V	51	74	He	96.694	ppb	0.5	392,961	100	96.69	
Cr	52	74	He	98.501	ppb	0.3	464,145	100	98.5	
Mn	55	74	He	102.982	ppb	0.4	327,029	100	102.98	
Fe	56	74	H2	4120.378	ppb	0.3	52,002,725	4000	103.01	
Co	59	74	He	102.027	ppb	0.8	651,359	100	102.03	
Ni	60	74	He	104.548	ppb	1.0	165,346	100	104.55	
Cu	65	74	He	104.120	ppb	0.5	200,157	100	104.12	
Zn	66	74	He	100.654	ppb	0.5	74,380	100	100.65	
As	75	74	He	98.741	ppb	0.6	44,574	100	98.74	
Se	78	74	H2	39.922	ppb	0.7	12,921	40	99.8	
Mo	95	103	He	39.593	ppb	1.4	71,733	40	98.98	
Ag	107	103	He	40.488	ppb	0.6	206,565	40	101.22	
Cd	111	103	He	97.142	ppb	0.5	82,303	100	97.14	
[Cd]	111	103	NoGas	95.047	ppb	0.1	196,035	100	95.05	
Sb	121	103	He	41.508	ppb	0.8	89,766	40	103.77	
Ba	138	159	He	103.611	ppb	0.7	485,826	100	103.61	
Hg	201	159	NoGas	786.758	ppt	4.5	789	800	98.34	
Tl	205	159	He	39.826	ppb	0.7	309,147	40	99.56	
Pb	208	159	NoGas	100.508	ppb	3.1	2,211,325	100	100.51	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,076,818	1197342.19	89.9	
Sc	45	H2	Analog	0.4	2,425,021	2614165.65666667	92.8	
Sc	45	He	Pulse	0.7	358,230	399684.306666667	89.6	
Sc	45	NoGas	Analog	2.0	3,183,419	3641989.32	87.4	
Ge	74	H2	Pulse	0.3	727,157	786642.216666667	92.4	
Ge	74	He	Pulse	0.8	204,319	229100.463333333	89.2	
Ge	74	NoGas	Pulse	1.0	801,130	911055.243333333	87.9	
Rh	103	He	Pulse	0.4	453,914	507558.653333333	89.4	
Rh	103	NoGas	Pulse	0.7	799,617	929986.61	86.0	
Tb	159	He	Pulse	0.2	612,145	639728.706666667	95.7	
Tb	159	NoGas	Analog	3.3	1,433,398	1581995.13333333	90.6	
Bi	209	He	Pulse	0.4	341,353	362402.373333333	94.2	
Bi	209	NoGas	Pulse	0.7	795,565	853236.23	93.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB5**	Total Dilution:	1.0000
File Name:	083_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 17:47:24
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.013	ppb	42.1	47	
Na	23	45	He	4.789	ppb	0.4	10,513	
Mg	24	45	He	0.441	ppb	17.7	782	
Al	27	45	He	0.346	ppb	14.9	278	
K	39	45	He	-0.557	ppb	N/A	29,829	
Ca	44	45	H2	1.040	ppb	48.7	784	
[Ca]	44	45	He	-0.670	ppb	N/A	201	
Ti	47	45	NoGas	0.024	ppb	68.6	47	
V	51	74	He	-0.088	ppb	N/A	1,638	
Cr	52	74	He	0.006	ppb	179.1	311	
Mn	55	74	He	0.010	ppb	29.3	152	
Fe	56	74	H2	1.537	ppb	7.6	30,399	
Co	59	74	He	0.013	ppb	61.3	126	
Ni	60	74	He	-0.033	ppb	N/A	70	
Cu	65	74	He	-0.076	ppb	N/A	81	
Zn	66	74	He	0.092	ppb	41.6	131	
As	75	74	He	0.008	ppb	152.4	43	
Se	78	74	H2	0.040	ppb	49.3	15	
Mo	95	103	He	0.031	ppb	19.2	66	
Ag	107	103	He	0.008	ppb	45.3	47	
Cd	111	103	He	0.025	ppb	17.6	24	
[Cd]	111	103	NoGas	0.020	ppb	33.8	45	
Sb	121	103	He	0.052	ppb	25.4	133	
Ba	138	159	He	0.027	ppb	22.3	176	
Hg	201	159	NoGas	6.363	ppt	67.4	10	
Tl	205	159	He	0.008	ppb	38.8	88	
Pb	208	159	NoGas	0.055	ppb	2.0	1,862	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.1	1,145,192	1197342.19	95.6	
Sc	45	H2	Analog	1.6	2,390,402	2614165.65666667	91.4	
Sc	45	He	Pulse	1.0	360,472	399684.306666667	90.2	
Sc	45	NoGas	Analog	1.4	3,209,992	3641989.32	88.1	
Ge	74	H2	Pulse	0.7	717,498	786642.216666667	91.2	
Ge	74	He	Pulse	1.0	207,472	229100.463333333	90.6	
Ge	74	NoGas	Pulse	0.9	822,764	911055.243333333	90.3	
Rh	103	He	Pulse	1.1	466,027	507558.653333333	91.8	
Rh	103	NoGas	Pulse	0.5	832,933	929986.61	89.6	
Tb	159	He	Pulse	1.0	618,803	639728.706666667	96.7	
Tb	159	NoGas	Analog	1.5	1,499,530	1581995.13333333	94.8	
Bi	209	He	Pulse	0.9	347,866	362402.373333333	96.0	
Bi	209	NoGas	Pulse	0.5	815,320	853236.23	95.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV6**	Total Dilution:	1.0000
File Name:	089_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:15:17
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.674	ppb	3.6	107,153	40	96.68	
Na	23	45	He	4009.909	ppb	1.0	4,897,601	4000	100.25	
Mg	24	45	He	4211.919	ppb	1.2	2,870,679	4000	105.3	
Al	27	45	He	4024.834	ppb	0.2	1,433,896	4000	100.62	
K	39	45	He	4135.902	ppb	0.7	2,406,606	4000	103.4	
Ca	44	45	H2	3988.863	ppb	0.4	981,025	4000	99.72	
[Ca]	44	45	He	4014.491	ppb	0.6	116,010	4000	100.36	
Ti	47	45	NoGas	97.274	ppb	1.2	113,257	100	97.27	
V	51	74	He	96.950	ppb	0.8	389,639	100	96.95	
Cr	52	74	He	98.918	ppb	0.6	460,953	100	98.92	
Mn	55	74	He	103.552	ppb	0.5	325,190	100	103.55	
Fe	56	74	H2	4158.538	ppb	0.2	51,638,246	4000	103.96	
Co	59	74	He	102.600	ppb	0.6	647,776	100	102.6	
Ni	60	74	He	104.652	ppb	1.3	163,680	100	104.65	
Cu	65	74	He	105.324	ppb	0.5	200,237	100	105.32	
Zn	66	74	He	101.280	ppb	0.6	74,019	100	101.28	
As	75	74	He	97.462	ppb	0.3	43,511	100	97.46	
Se	78	74	H2	40.669	ppb	1.4	12,951	40	101.67	
Mo	95	103	He	39.714	ppb	0.5	71,287	40	99.28	
Ag	107	103	He	40.597	ppb	0.3	205,203	40	101.49	
Cd	111	103	He	97.706	ppb	0.7	82,018	100	97.71	
[Cd]	111	103	NoGas	95.640	ppb	0.5	196,122	100	95.64	
Sb	121	103	He	41.135	ppb	0.8	88,138	40	102.84	
Ba	138	159	He	103.697	ppb	0.2	486,235	100	103.7	
Hg	201	159	NoGas	761.355	ppt	5.7	778	800	95.17	
Tl	205	159	He	40.040	ppb	1.2	310,790	40	100.1	
Pb	208	159	NoGas	98.953	ppb	4.5	2,218,909	100	98.95	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	3.1	1,097,259	1197342.19	91.6	
Sc	45	H2	Analog	0.2	2,402,212	2614165.65666667	91.9	
Sc	45	He	Pulse	0.6	353,945	399684.306666667	88.6	
Sc	45	NoGas	Analog	0.7	3,153,942	3641989.32	86.6	
Ge	74	H2	Pulse	0.3	715,438	786642.216666667	90.9	
Ge	74	He	Pulse	0.8	202,062	229100.463333333	88.2	
Ge	74	NoGas	Pulse	0.9	795,416	911055.243333333	87.3	
Rh	103	He	Pulse	0.6	449,722	507558.653333333	88.6	
Rh	103	NoGas	Pulse	0.1	795,012	929986.61	85.5	
Tb	159	He	Pulse	1.3	612,156	639728.706666667	95.7	
Tb	159	NoGas	Analog	4.4	1,461,825	1581995.13333333	92.4	
Bi	209	He	Pulse	0.5	338,434	362402.373333333	93.4	
Bi	209	NoGas	Pulse	0.3	798,206	853236.23	93.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB6**	Total Dilution:	1.0000
File Name:	090_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:19:51
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.014	ppb	63.9	48	
Na	23	45	He	2.434	ppb	1.6	7,436	
Mg	24	45	He	0.511	ppb	11.8	814	
Al	27	45	He	0.652	ppb	11.3	381	
K	39	45	He	-0.518	ppb	N/A	29,258	
Ca	44	45	H2	0.992	ppb	24.9	762	
[Ca]	44	45	He	-0.557	ppb	N/A	200	
Ti	47	45	NoGas	0.045	ppb	30.0	70	
V	51	74	He	-0.116	ppb	N/A	1,500	
Cr	52	74	He	0.002	ppb	681.6	287	
Mn	55	74	He	0.004	ppb	86.3	130	
Fe	56	74	H2	1.402	ppb	5.3	28,377	
Co	59	74	He	0.011	ppb	34.2	111	
Ni	60	74	He	-0.033	ppb	N/A	69	
Cu	65	74	He	-0.081	ppb	N/A	70	
Zn	66	74	He	0.127	ppb	15.9	156	
As	75	74	He	0.021	ppb	28.1	49	
Se	78	74	H2	0.039	ppb	46.5	14	
Mo	95	103	He	0.037	ppb	17.4	77	
Ag	107	103	He	0.009	ppb	50.6	52	
Cd	111	103	He	0.026	ppb	19.6	25	
[Cd]	111	103	NoGas	0.013	ppb	45.7	30	
Sb	121	103	He	0.195	ppb	14.3	449	
Ba	138	159	He	0.019	ppb	42.0	138	
Hg	201	159	NoGas	4.775	ppt	85.4	8	
Tl	205	159	He	0.009	ppb	9.2	91	
Pb	208	159	NoGas	0.049	ppb	4.0	1,690	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.3	1,132,915	1197342.19	94.6	
Sc	45	H2	Analog	0.5	2,354,959	2614165.65666667	90.1	
Sc	45	He	Pulse	0.8	353,348	399684.306666667	88.4	
Sc	45	NoGas	Analog	1.5	3,187,124	3641989.32	87.5	
Ge	74	H2	Pulse	0.1	709,117	786642.216666667	90.1	
Ge	74	He	Pulse	1.3	204,216	229100.463333333	89.1	
Ge	74	NoGas	Pulse	0.8	813,853	911055.243333333	89.3	
Rh	103	He	Pulse	0.6	464,039	507558.653333333	91.4	
Rh	103	NoGas	Pulse	0.0	827,681	929986.61	89.0	
Tb	159	He	Pulse	1.5	610,760	639728.706666667	95.5	
Tb	159	NoGas	Analog	0.8	1,475,755	1581995.13333333	93.3	
Bi	209	He	Pulse	0.9	344,311	362402.373333333	95.0	
Bi	209	NoGas	Pulse	0.4	814,672	853236.23	95.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL8**	Total Dilution:	1.0000
File Name:	091CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:24:34
Comment:	A19J368 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.174	ppb	4.6	517	96.67		
Na	23	45	He	11.234	ppb	3.4	18,489	124.82		
Mg	24	45	He	9.489	ppb	0.4	7,048	105.43		
Al	27	45	He	9.156	ppb	0.9	3,467	101.73		
K	39	45	He	8.223	ppb	15.4	34,891	91.37		
Ca	44	45	H2	9.405	ppb	4.0	2,829	104.5		
[Ca]	44	45	He	9.891	ppb	6.6	510	109.9		
Ti	47	45	NoGas	0.202	ppb	25.8	260	112.22		
V	51	74	He	0.097	ppb	12.7	2,383	53.89	R-11	< MRL
Cr	52	74	He	0.170	ppb	6.2	1,088	94.44		
Mn	55	74	He	0.172	ppb	9.2	669	95.56		
Fe	56	74	H2	9.550	ppb	0.2	130,490	106.11		
Co	59	74	He	0.194	ppb	4.5	1,288	107.78		
Ni	60	74	He	0.141	ppb	28.8	348	78.33		
Cu	65	74	He	0.109	ppb	37.3	438	60.56	R-11	< MRL
Zn	66	74	He	0.220	ppb	20.1	226	122.22		
As	75	74	He	0.196	ppb	13.7	129	108.89		
Se	78	74	H2	0.209	ppb	8.6	69	116.11		
Mo	95	103	He	0.161	ppb	11.6	307	89.44		
Ag	107	103	He	0.187	ppb	2.2	982	103.89		
Cd	111	103	He	0.179	ppb	7.3	157	99.44		
[Cd]	111	103	NoGas	0.189	ppb	10.8	408	105		
Sb	121	103	He	0.258	ppb	6.5	589	143.33	R-11	< MRL
Ba	138	159	He	0.194	ppb	6.1	956	107.78		
Hg	201	159	NoGas	11.635	ppt	10.6	16	161.6	R-11	< MRL
Tl	205	159	He	0.185	ppb	1.1	1,457	102.78		
Pb	208	159	NoGas	0.211	ppb	4.0	5,457	117.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.4	1,156,604	1197342.19	96.6	
Sc	45	H2	Analog	0.7	2,388,749	2614165.65666667	91.4	
Sc	45	He	Pulse	1.3	359,747	399684.306666667	90.0	
Sc	45	NoGas	Analog	1.5	3,249,855	3641989.32	89.2	
Ge	74	H2	Pulse	0.5	719,291	786642.216666667	91.4	
Ge	74	He	Pulse	1.0	206,115	229100.463333333	90.0	
Ge	74	NoGas	Pulse	1.6	822,345	911055.243333333	90.3	
Rh	103	He	Pulse	0.6	464,963	507558.653333333	91.6	
Rh	103	NoGas	Pulse	0.9	836,119	929986.61	89.9	
Tb	159	He	Pulse	0.4	612,888	639728.706666667	95.8	
Tb	159	NoGas	Analog	1.4	1,502,657	1581995.13333333	95.0	
Bi	209	He	Pulse	0.4	343,479	362402.373333333	94.8	
Bi	209	NoGas	Pulse	1.1	821,676	853236.23	96.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRL9**	Total Dilution:	1.0000
File Name:	092_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:29:14
Comment:	A19J369 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.834	ppb	2.7	2,395	92.67	
Na	23	45	He	46.854	ppb	0.3	63,122	104.12	
Mg	24	45	He	44.535	ppb	2.0	31,549	98.97	
Al	27	45	He	44.329	ppb	2.0	16,320	98.51	
K	39	45	He	43.054	ppb	2.8	55,643	95.68	
Ca	44	45	H2	43.958	ppb	0.6	11,352	97.68	
[Ca]	44	45	He	43.741	ppb	9.2	1,513	97.2	
Ti	47	45	NoGas	0.920	ppb	12.0	1,115	102.22	
V	51	74	He	0.820	ppb	1.8	5,397	91.11	
Cr	52	74	He	0.873	ppb	1.0	4,485	97	
Mn	55	74	He	0.929	ppb	4.2	3,131	103.22	
Fe	56	74	H2	44.115	ppb	0.3	566,823	98.03	
Co	59	74	He	0.893	ppb	3.4	5,867	99.22	
Ni	60	74	He	0.873	ppb	3.7	1,533	97	
Cu	65	74	He	0.832	ppb	6.4	1,861	92.44	
Zn	66	74	He	0.937	ppb	2.9	769	104.11	
As	75	74	He	0.867	ppb	2.4	439	96.33	
Se	78	74	H2	0.912	ppb	9.8	297	101.33	
Mo	95	103	He	0.843	ppb	7.0	1,593	93.67	
Ag	107	103	He	0.878	ppb	4.1	4,654	97.56	
Cd	111	103	He	0.914	ppb	2.7	806	101.56	
[Cd]	111	103	NoGas	0.820	ppb	2.3	1,780	91.11	
Sb	121	103	He	0.930	ppb	4.8	2,107	103.33	
Ba	138	159	He	0.969	ppb	0.2	4,657	107.67	
Hg	201	159	NoGas	35.336	ppt	9.5	40	98.16	
Tl	205	159	He	0.896	ppb	4.8	7,074	99.56	
Pb	208	159	NoGas	0.908	ppb	2.3	21,428	100.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,131,944	1197342.19	94.5	
Sc	45	H2	Analog	0.5	2,404,908	2614165.65666667	92.0	
Sc	45	He	Pulse	0.7	362,367	399684.306666667	90.7	
Sc	45	NoGas	Analog	0.5	3,229,917	3641989.32	88.7	
Ge	74	H2	Pulse	0.2	725,576	786642.216666667	92.2	
Ge	74	He	Pulse	0.8	208,672	229100.463333333	91.1	
Ge	74	NoGas	Pulse	0.9	829,191	911055.243333333	91.0	
Rh	103	He	Pulse	1.0	471,230	507558.653333333	92.8	
Rh	103	NoGas	Pulse	0.7	840,904	929986.61	90.4	
Tb	159	He	Pulse	0.6	620,942	639728.706666667	97.1	
Tb	159	NoGas	Analog	2.3	1,495,461	1581995.13333333	94.5	
Bi	209	He	Pulse	0.9	350,509	362402.373333333	96.7	
Bi	209	NoGas	Pulse	0.5	824,761	853236.23	96.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLA**	Total Dilution:	1.0000
File Name:	093CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:33:54
Comment:	A19J370 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.678	ppb	3.5	4,780	93.22	
Na	23	45	He	89.919	ppb	1.5	117,011	99.91	
Mg	24	45	He	87.989	ppb	0.5	61,920	97.77	
Al	27	45	He	87.067	ppb	2.4	31,929	96.74	
K	39	45	He	87.014	ppb	0.6	81,577	96.68	
Ca	44	45	H2	88.873	ppb	1.0	22,311	98.75	
[Ca]	44	45	He	84.627	ppb	3.3	2,722	94.03	
Ti	47	45	NoGas	1.730	ppb	3.4	2,107	96.11	
V	51	74	He	1.677	ppb	2.4	8,960	93.17	
Cr	52	74	He	1.705	ppb	3.3	8,502	94.72	
Mn	55	74	He	1.708	ppb	3.7	5,669	94.89	
Fe	56	74	H2	87.027	ppb	0.3	1,107,565	96.7	
Co	59	74	He	1.841	ppb	1.1	12,072	102.28	
Ni	60	74	He	1.653	ppb	3.6	2,798	91.83	
Cu	65	74	He	1.888	ppb	1.6	3,941	104.89	
Zn	66	74	He	1.961	ppb	6.3	1,545	108.94	
As	75	74	He	1.803	ppb	3.0	873	100.17	
Se	78	74	H2	1.798	ppb	7.9	583	99.89	
Mo	95	103	He	1.707	ppb	3.2	3,241	94.83	
Ag	107	103	He	1.725	ppb	2.3	9,212	95.83	
Cd	111	103	He	1.739	ppb	0.0	1,542	96.61	
[Cd]	111	103	NoGas	1.662	ppb	3.9	3,580	92.33	
Sb	121	103	He	1.790	ppb	1.2	4,066	99.44	
Ba	138	159	He	1.823	ppb	1.5	8,730	101.28	
Hg	201	159	NoGas	67.425	ppt	6.3	74	93.65	
Tl	205	159	He	1.752	ppb	1.7	13,840	97.33	
Pb	208	159	NoGas	1.759	ppb	2.3	40,923	97.72	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,125,470	1197342.19	94.0	
Sc	45	H2	Analog	0.9	2,394,990	2614165.65666667	91.6	
Sc	45	He	Pulse	0.9	362,662	399684.306666667	90.7	
Sc	45	NoGas	Analog	0.0	3,272,642	3641989.32	89.9	
Ge	74	H2	Pulse	0.8	725,864	786642.216666667	92.3	
Ge	74	He	Pulse	1.1	209,133	229100.463333333	91.3	
Ge	74	NoGas	Pulse	1.0	823,191	911055.243333333	90.4	
Rh	103	He	Pulse	0.5	474,600	507558.653333333	93.5	
Rh	103	NoGas	Pulse	0.5	835,023	929986.61	89.8	
Tb	159	He	Pulse	0.9	621,818	639728.706666667	97.2	
Tb	159	NoGas	Analog	0.5	1,493,488	1581995.13333333	94.4	
Bi	209	He	Pulse	0.4	351,122	362402.373333333	96.9	
Bi	209	NoGas	Pulse	0.9	819,837	853236.23	96.1	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLB**	Total Dilution:	1.0000
File Name:	094CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 18:38:34
Comment:	A19J371 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.428	ppb	1.4	9,962	95.22	
Na	23	45	He	180.840	ppb	1.3	230,362	100.47	
Mg	24	45	He	179.816	ppb	0.8	125,854	99.9	
Al	27	45	He	176.696	ppb	0.6	64,554	98.16	
K	39	45	He	180.078	ppb	0.9	136,191	100.04	
Ca	44	45	H2	181.830	ppb	7.1	43,965	101.02	
[Ca]	44	45	He	178.209	ppb	4.4	5,482	99	
Ti	47	45	NoGas	3.624	ppb	2.4	4,403	100.67	
V	51	74	He	3.428	ppb	1.0	16,198	95.22	
Cr	52	74	He	3.551	ppb	2.1	17,396	98.64	
Mn	55	74	He	3.625	ppb	1.4	11,894	100.69	
Fe	56	74	H2	195.328	ppb	9.4	2,360,153	108.52	
Co	59	74	He	3.617	ppb	1.6	23,666	100.47	
Ni	60	74	He	3.700	ppb	3.5	6,107	102.78	
Cu	65	74	He	3.848	ppb	3.9	7,794	106.89	
Zn	66	74	He	3.671	ppb	5.8	2,838	101.97	
As	75	74	He	3.579	ppb	1.1	1,692	99.42	
Se	78	74	H2	3.879	ppb	10.9	1,198	107.75	
Mo	95	103	He	3.559	ppb	2.8	6,631	98.86	
Ag	107	103	He	3.565	ppb	2.2	18,689	99.03	
Cd	111	103	He	3.667	ppb	0.7	3,194	101.86	
[Cd]	111	103	NoGas	3.560	ppb	1.0	7,671	98.89	
Sb	121	103	He	3.521	ppb	1.5	7,839	97.81	
Ba	138	159	He	3.731	ppb	0.5	17,614	103.64	
Hg	201	159	NoGas	139.990	ppt	17.4	150	97.22	
Tl	205	159	He	3.560	ppb	1.5	27,780	98.89	
Pb	208	159	NoGas	3.600	ppb	2.6	83,645	100	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,149,210	1197342.19	96.0	
Sc	45	H2	Analog	5.9	2,341,545	2614165.65666667	89.6	
Sc	45	He	Pulse	1.0	362,151	399684.306666667	90.6	
Sc	45	NoGas	Analog	2.0	3,278,050	3641989.32	90.0	
Ge	74	H2	Pulse	9.1	697,094	786642.216666667	88.6	
Ge	74	He	Pulse	1.4	209,070	229100.463333333	91.3	
Ge	74	NoGas	Pulse	1.5	825,830	911055.243333333	90.6	
Rh	103	He	Pulse	1.0	466,279	507558.653333333	91.9	
Rh	103	NoGas	Pulse	0.9	835,435	929986.61	89.8	
Tb	159	He	Pulse	1.3	614,829	639728.706666667	96.1	
Tb	159	NoGas	Analog	1.8	1,502,657	1581995.13333333	95.0	
Bi	209	He	Pulse	0.4	347,219	362402.373333333	95.8	
Bi	209	NoGas	Pulse	1.1	818,868	853236.23	96.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV7**	Total Dilution:	1.0000
File Name:	105_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 19:29:13
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.526	ppb	1.3	110,262	40	96.32	
Na	23	45	He	4151.218	ppb	1.0	4,995,328	4000	103.78	
Mg	24	45	He	4357.857	ppb	0.6	2,926,433	4000	108.95	
Al	27	45	He	4129.962	ppb	1.3	1,449,643	4000	103.25	
K	39	45	He	4184.070	ppb	2.1	2,398,273	4000	104.6	
Ca	44	45	H2	3995.426	ppb	0.3	949,650	4000	99.89	
[Ca]	44	45	He	4009.603	ppb	0.5	114,160	4000	100.24	
Ti	47	45	NoGas	96.648	ppb	2.0	113,577	100	96.65	
V	51	74	He	98.430	ppb	0.1	381,015	100	98.43	
Cr	52	74	He	100.168	ppb	0.4	449,610	100	100.17	
Mn	55	74	He	104.636	ppb	0.1	316,513	100	104.64	
Fe	56	74	H2	4230.943	ppb	0.5	50,280,866	4000	105.77	
Co	59	74	He	102.714	ppb	0.2	624,658	100	102.71	
Ni	60	74	He	104.590	ppb	0.3	157,574	100	104.59	
Cu	65	74	He	104.274	ppb	1.0	190,952	100	104.27	
Zn	66	74	He	101.340	ppb	0.9	71,338	100	101.34	
As	75	74	He	97.180	ppb	0.6	41,791	100	97.18	
Se	78	74	H2	40.491	ppb	1.1	12,341	40	101.23	
Mo	95	103	He	39.383	ppb	2.4	68,268	40	98.46	
Ag	107	103	He	40.814	ppb	0.7	199,217	40	102.04	
Cd	111	103	He	97.321	ppb	1.2	78,888	100	97.32	
[Cd]	111	103	NoGas	95.955	ppb	0.8	192,924	100	95.96	
Sb	121	103	He	40.891	ppb	0.3	84,605	40	102.23	
Ba	138	159	He	103.217	ppb	0.3	460,623	100	103.22	
Hg	201	159	NoGas	723.719	ppt	3.6	731	800	90.46	
Tl	205	159	He	40.115	ppb	0.3	296,365	40	100.29	
Pb	208	159	NoGas	96.085	ppb	0.5	2,129,043	100	96.08	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,132,687	1197342.19	94.6	
Sc	45	H2	Analog	0.5	2,321,560	2614165.65666667	88.8	
Sc	45	He	Pulse	0.2	348,720	399684.306666667	87.2	
Sc	45	NoGas	Analog	1.1	3,183,406	3641989.32	87.4	
Ge	74	H2	Pulse	0.3	684,714	786642.216666667	87.0	
Ge	74	He	Pulse	0.6	194,628	229100.463333333	85.0	
Ge	74	NoGas	Pulse	0.5	780,725	911055.243333333	85.7	
Rh	103	He	Pulse	0.4	434,279	507558.653333333	85.6	
Rh	103	NoGas	Pulse	0.6	779,488	929986.61	83.8	
Tb	159	He	Pulse	0.3	582,604	639728.706666667	91.1	
Tb	159	NoGas	Analog	0.8	1,442,627	1581995.13333333	91.2	
Bi	209	He	Pulse	1.1	324,788	362402.373333333	89.6	
Bi	209	NoGas	Pulse	0.4	768,630	853236.23	90.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB7**	Total Dilution:	1.0000
File Name:	106_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 19:33:49
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	54.6	40	
Na	23	45	He	50.088	ppb	1.6	64,501	> 1/2 MRL
Mg	24	45	He	1.135	ppb	11.2	1,220	
Al	27	45	He	0.475	ppb	16.4	313	
K	39	45	He	1.115	ppb	81.5	29,741	
Ca	44	45	H2	2.381	ppb	3.6	1,080	
[Ca]	44	45	He	0.213	ppb	576.7	219	
Ti	47	45	NoGas	0.030	ppb	88.6	53	
V	51	74	He	0.080	ppb	3.0	2,219	
Cr	52	74	He	0.006	ppb	290.8	294	
Mn	55	74	He	0.040	ppb	37.5	237	
Fe	56	74	H2	2.377	ppb	5.7	39,262	
Co	59	74	He	0.010	ppb	25.7	102	
Ni	60	74	He	-0.041	ppb	N/A	54	
Cu	65	74	He	-0.063	ppb	N/A	100	
Zn	66	74	He	-0.016	ppb	N/A	48	
As	75	74	He	0.030	ppb	70.2	51	
Se	78	74	H2	0.028	ppb	17.3	11	
Mo	95	103	He	0.027	ppb	24.8	57	
Ag	107	103	He	0.008	ppb	22.5	47	
Cd	111	103	He	0.022	ppb	12.4	21	
[Cd]	111	103	NoGas	0.017	ppb	45.6	37	
Sb	121	103	He	0.193	ppb	5.7	429	
Ba	138	159	He	0.157	ppb	1.7	753	
Hg	201	159	NoGas	4.669	ppt	56.0	8	
Tl	205	159	He	0.003	ppb	105.7	42	
Pb	208	159	NoGas	0.024	ppb	5.2	1,119	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.3	1,145,668	1197342.19	95.7	
Sc	45	H2	Analog	0.8	2,318,414	2614165.65666667	88.7	
Sc	45	He	Pulse	1.1	348,050	399684.306666667	87.1	
Sc	45	NoGas	Analog	0.2	3,198,592	3641989.32	87.8	
Ge	74	H2	Pulse	0.5	689,462	786642.216666667	87.6	
Ge	74	He	Pulse	1.1	197,802	229100.463333333	86.3	
Ge	74	NoGas	Pulse	0.8	788,229	911055.243333333	86.5	
Rh	103	He	Pulse	1.0	447,214	507558.653333333	88.1	
Rh	103	NoGas	Pulse	0.1	803,277	929986.61	86.4	
Tb	159	He	Pulse	1.2	587,667	639728.706666667	91.9	
Tb	159	NoGas	Analog	1.4	1,461,257	1581995.13333333	92.4	
Bi	209	He	Pulse	0.7	332,017	362402.373333333	91.6	
Bi	209	NoGas	Pulse	0.7	781,083	853236.23	91.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB8**	Total Dilution:	1.0000
File Name:	107_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 19:38:32
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.004	ppb	102.4	19	
Na	23	45	He	42.788	ppb	2.2	55,014	
Mg	24	45	He	0.535	ppb	25.7	807	
Al	27	45	He	0.210	ppb	26.9	218	
K	39	45	He	0.493	ppb	248.9	29,004	
Ca	44	45	H2	1.642	ppb	27.1	898	
[Ca]	44	45	He	0.436	ppb	227.7	222	
Ti	47	45	NoGas	0.020	ppb	101.3	40	
V	51	74	He	0.123	ppb	9.3	2,366	
Cr	52	74	He	-0.006	ppb	N/A	240	
Mn	55	74	He	0.030	ppb	30.9	202	
Fe	56	74	H2	1.239	ppb	0.8	25,499	
Co	59	74	He	0.004	ppb	65.8	62	
Ni	60	74	He	-0.038	ppb	N/A	58	
Cu	65	74	He	-0.071	ppb	N/A	84	
Zn	66	74	He	-0.028	ppb	N/A	39	
As	75	74	He	0.017	ppb	108.8	45	
Se	78	74	H2	0.014	ppb	35.7	6	
Mo	95	103	He	0.009	ppb	46.6	24	
Ag	107	103	He	0.002	ppb	70.2	19	
Cd	111	103	He	0.010	ppb	68.3	11	
[Cd]	111	103	NoGas	0.007	ppb	63.4	16	
Sb	121	103	He	0.061	ppb	31.8	148	
Ba	138	159	He	0.130	ppb	5.5	629	
Hg	201	159	NoGas	0.943	ppt	237.9	4	
Tl	205	159	He	0.001	ppb	117.6	32	
Pb	208	159	NoGas	0.016	ppb	12.1	929	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,137,534	1197342.19	95.0	
Sc	45	H2	Analog	1.0	2,301,276	2614165.65666667	88.0	
Sc	45	He	Pulse	0.8	343,486	399684.306666667	85.9	
Sc	45	NoGas	Analog	0.7	3,129,627	3641989.32	85.9	
Ge	74	H2	Pulse	0.5	685,521	786642.216666667	87.1	
Ge	74	He	Pulse	0.6	195,980	229100.463333333	85.5	
Ge	74	NoGas	Pulse	0.6	782,122	911055.243333333	85.8	
Rh	103	He	Pulse	0.5	446,521	507558.653333333	88.0	
Rh	103	NoGas	Pulse	0.9	796,318	929986.61	85.6	
Tb	159	He	Pulse	0.1	588,405	639728.706666667	92.0	
Tb	159	NoGas	Analog	0.6	1,459,631	1581995.13333333	92.3	
Bi	209	He	Pulse	0.9	331,824	362402.373333333	91.6	
Bi	209	NoGas	Pulse	0.5	781,173	853236.23	91.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV8**	Total Dilution:	1.0000
File Name:	118_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 20:29:36
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	37.341	ppb	0.7	102,129	40	93.35	
Na	23	45	He	4140.255	ppb	1.3	4,687,263	4000	103.51	
Mg	24	45	He	4351.825	ppb	1.1	2,749,382	4000	108.8	
Al	27	45	He	4172.770	ppb	0.8	1,377,972	4000	104.32	
K	39	45	He	4213.692	ppb	1.7	2,272,143	4000	105.34	
Ca	44	45	H2	3947.538	ppb	0.1	896,524	4000	98.69	
[Ca]	44	45	He	4043.962	ppb	0.2	108,324	4000	101.1	
Ti	47	45	NoGas	95.643	ppb	0.2	104,965	100	95.64	
V	51	74	He	96.677	ppb	0.3	359,680	100	96.68	
Cr	52	74	He	98.656	ppb	0.7	425,564	100	98.66	
Mn	55	74	He	103.645	ppb	0.7	301,290	100	103.64	
Fe	56	74	H2	4240.949	ppb	0.8	48,261,757	4000	106.02	
Co	59	74	He	102.305	ppb	0.2	597,910	100	102.3	
Ni	60	74	He	103.769	ppb	0.7	150,239	100	103.77	
Cu	65	74	He	103.997	ppb	0.8	183,016	100	104	
Zn	66	74	He	100.920	ppb	1.2	68,269	100	100.92	
As	75	74	He	96.557	ppb	0.4	39,904	100	96.56	
Se	78	74	H2	40.759	ppb	0.9	11,896	40	101.9	
Mo	95	103	He	39.560	ppb	0.8	66,065	40	98.9	
Ag	107	103	He	40.953	ppb	0.3	192,593	40	102.38	
Cd	111	103	He	97.915	ppb	0.0	76,471	100	97.92	
[Cd]	111	103	NoGas	96.409	ppb	0.4	183,086	100	96.41	
Sb	121	103	He	40.841	ppb	0.5	81,416	40	102.1	
Ba	138	159	He	102.009	ppb	0.8	447,115	100	102.01	
Hg	201	159	NoGas	717.985	ppt	4.0	707	800	89.75	> +/- 10%
Tl	205	159	He	40.611	ppb	0.6	294,676	40	101.53	
Pb	208	159	NoGas	96.500	ppb	2.4	2,084,677	100	96.5	

Hg rounds to 90%.

ESS 11/8/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	1,082,373	1197342.19	90.4	
Sc	45	H2	Analog	0.5	2,218,264	2614165.65666667	84.9	
Sc	45	He	Pulse	0.3	328,086	399684.306666667	82.1	
Sc	45	NoGas	Analog	1.3	2,972,779	3641989.32	81.6	
Ge	74	H2	Pulse	0.2	655,666	786642.216666667	83.3	
Ge	74	He	Pulse	0.7	187,043	229100.463333333	81.6	
Ge	74	NoGas	Pulse	1.1	741,856	911055.243333333	81.4	
Rh	103	He	Pulse	0.7	418,413	507558.653333333	82.4	
Rh	103	NoGas	Pulse	0.7	736,258	929986.61	79.2	
Tb	159	He	Pulse	0.4	572,206	639728.706666667	89.4	
Tb	159	NoGas	Analog	2.5	1,407,020	1581995.13333333	88.9	
Bi	209	He	Pulse	0.9	319,401	362402.373333333	88.1	
Bi	209	NoGas	Pulse	0.9	752,770	853236.23	88.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCV9**	Total Dilution:	1.0000
File Name:	119_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 20:34:12
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.182	ppb	0.9	101,927	40	95.46	
Na	23	45	He	4116.309	ppb	1.7	4,616,627	4000	102.91	
Mg	24	45	He	4322.028	ppb	1.3	2,705,210	4000	108.05	
Al	27	45	He	4160.483	ppb	4.3	1,360,916	4000	104.01	
K	39	45	He	4198.169	ppb	2.1	2,242,681	4000	104.95	
Ca	44	45	H2	3959.148	ppb	0.7	890,002	4000	98.98	
[Ca]	44	45	He	4046.511	ppb	0.6	107,382	4000	101.16	
Ti	47	45	NoGas	96.565	ppb	0.8	105,024	100	96.56	
V	51	74	He	96.979	ppb	0.4	357,142	100	96.98	
Cr	52	74	He	98.767	ppb	0.5	421,737	100	98.77	
Mn	55	74	He	103.589	ppb	0.5	298,089	100	103.59	
Fe	56	74	H2	4230.784	ppb	0.7	47,769,631	4000	105.77	
Co	59	74	He	101.936	ppb	0.7	589,717	100	101.94	
Ni	60	74	He	104.558	ppb	0.1	149,854	100	104.56	
Cu	65	74	He	104.281	ppb	0.4	181,666	100	104.28	
Zn	66	74	He	101.021	ppb	0.7	67,652	100	101.02	
As	75	74	He	96.881	ppb	0.5	39,632	100	96.88	
Se	78	74	H2	40.770	ppb	1.1	11,806	40	101.92	
Mo	95	103	He	40.013	ppb	0.8	66,518	40	100.03	
Ag	107	103	He	41.038	ppb	0.5	192,113	40	102.6	
Cd	111	103	He	98.210	ppb	1.0	76,352	100	98.21	
[Cd]	111	103	NoGas	97.078	ppb	0.4	184,139	100	97.08	
Sb	121	103	He	41.242	ppb	0.7	81,838	40	103.1	
Ba	138	159	He	101.786	ppb	0.2	446,065	100	101.79	
Hg	201	159	NoGas	773.919	ppt	3.4	757	800	96.74	
Tl	205	159	He	40.497	ppb	0.4	293,806	40	101.24	
Pb	208	159	NoGas	97.436	ppb	1.4	2,090,637	100	97.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,056,494	1197342.19	88.2	
Sc	45	H2	Analog	0.8	2,195,757	2614165.65666667	84.0	
Sc	45	He	Pulse	0.9	325,033	399684.306666667	81.3	
Sc	45	NoGas	Analog	1.0	2,945,999	3641989.32	80.9	
Ge	74	H2	Pulse	0.3	650,539	786642.216666667	82.7	
Ge	74	He	Pulse	0.8	185,152	229100.463333333	80.8	
Ge	74	NoGas	Pulse	0.5	735,709	911055.243333333	80.8	
Rh	103	He	Pulse	0.6	416,508	507558.653333333	82.1	
Rh	103	NoGas	Pulse	0.2	735,375	929986.61	79.1	
Tb	159	He	Pulse	0.6	572,120	639728.706666667	89.4	
Tb	159	NoGas	Analog	1.0	1,397,049	1581995.13333333	88.3	
Bi	209	He	Pulse	0.1	320,926	362402.373333333	88.6	
Bi	209	NoGas	Pulse	0.4	748,698	853236.23	87.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCB9**	Total Dilution:	1.0000
File Name:	120_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 20:38:49
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.016	ppb	47.6	51	
Na	23	45	He	27.479	ppb	1.1	35,248	
Mg	24	45	He	1.013	ppb	6.4	1,073	
Al	27	45	He	0.896	ppb	14.9	434	
K	39	45	He	1.195	ppb	43.8	28,092	
Ca	44	45	H2	2.160	ppb	4.9	977	
[Ca]	44	45	He	0.594	ppb	124.0	217	
Ti	47	45	NoGas	0.221	ppb	17.9	262	
V	51	74	He	0.059	ppb	47.7	2,044	
Cr	52	74	He	0.009	ppb	85.8	299	
Mn	55	74	He	0.015	ppb	69.5	152	
Fe	56	74	H2	1.842	ppb	4.7	31,408	
Co	59	74	He	0.011	ppb	33.8	101	
Ni	60	74	He	-0.025	ppb	N/A	76	
Cu	65	74	He	-0.065	ppb	N/A	92	
Zn	66	74	He	-0.026	ppb	N/A	39	
As	75	74	He	0.017	ppb	93.0	43	
Se	78	74	H2	0.051	ppb	37.2	17	
Mo	95	103	He	0.047	ppb	25.7	88	
Ag	107	103	He	0.011	ppb	18.7	61	
Cd	111	103	He	0.025	ppb	15.1	22	
[Cd]	111	103	NoGas	0.032	ppb	41.7	63	
Sb	121	103	He	0.222	ppb	8.1	474	
Ba	138	159	He	0.045	ppb	22.7	244	
Hg	201	159	NoGas	4.284	ppt	53.8	8	
Tl	205	159	He	0.007	ppb	73.5	73	
Pb	208	159	NoGas	0.033	ppb	3.7	1,308	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.3	1,079,274	1197342.19	90.1	
Sc	45	H2	Analog	0.1	2,204,030	2614165.65666667	84.3	
Sc	45	He	Pulse	0.3	328,217	399684.306666667	82.1	
Sc	45	NoGas	Analog	0.4	2,999,679	3641989.32	82.4	
Ge	74	H2	Pulse	0.2	659,152	786642.216666667	83.8	
Ge	74	He	Pulse	1.4	189,069	229100.463333333	82.5	
Ge	74	NoGas	Pulse	0.8	753,523	911055.243333333	82.7	
Rh	103	He	Pulse	1.2	432,685	507558.653333333	85.2	
Rh	103	NoGas	Pulse	0.3	766,142	929986.61	82.4	
Tb	159	He	Pulse	1.0	577,765	639728.706666667	90.3	
Tb	159	NoGas	Analog	1.9	1,440,633	1581995.13333333	91.1	
Bi	209	He	Pulse	0.7	329,330	362402.373333333	90.9	
Bi	209	NoGas	Pulse	0.3	770,571	853236.23	90.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K07021-CCVA**	Total Dilution:	1.0000
File Name:	124_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 20:57:27
Comment:	A19J138 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.924	ppb	0.7	104,374	40	97.31	
Na	23	45	He	4127.404	ppb	0.6	4,688,043	4000	103.19	
Mg	24	45	He	4308.553	ppb	0.9	2,731,084	4000	107.71	
Al	27	45	He	4135.414	ppb	1.2	1,370,098	4000	103.39	
K	39	45	He	4210.561	ppb	0.3	2,277,977	4000	105.26	
Ca	44	45	H2	3959.708	ppb	0.9	904,299	4000	98.99	
[Ca]	44	45	He	4056.344	ppb	0.5	109,011	4000	101.41	
Ti	47	45	NoGas	96.948	ppb	1.0	107,736	100	96.95	
V	51	74	He	96.724	ppb	0.5	361,344	100	96.72	
Cr	52	74	He	98.578	ppb	0.6	426,997	100	98.58	
Mn	55	74	He	103.430	ppb	0.5	301,914	100	103.43	
Fe	56	74	H2	4201.766	ppb	0.8	48,173,826	4000	105.04	
Co	59	74	He	102.162	ppb	0.1	599,561	100	102.16	
Ni	60	74	He	103.982	ppb	0.7	151,182	100	103.98	
Cu	65	74	He	103.628	ppb	0.8	183,125	100	103.63	
Zn	66	74	He	99.882	ppb	0.7	67,852	100	99.88	
As	75	74	He	97.034	ppb	0.7	40,268	100	97.03	
Se	78	74	H2	40.586	ppb	0.3	11,934	40	101.46	
Mo	95	103	He	39.718	ppb	0.2	66,492	40	99.3	
Ag	107	103	He	40.832	ppb	0.6	192,493	40	102.08	
Cd	111	103	He	98.336	ppb	0.6	76,987	100	98.34	
[Cd]	111	103	NoGas	97.330	ppb	0.5	186,782	100	97.33	
Sb	121	103	He	41.218	ppb	1.1	82,366	40	103.05	
Ba	138	159	He	101.646	ppb	0.6	448,955	100	101.65	
Hg	201	159	NoGas	767.475	ppt	2.4	764	800	95.93	
Tl	205	159	He	40.235	ppb	0.5	294,194	40	100.59	
Pb	208	159	NoGas	96.653	ppb	0.6	2,110,543	100	96.65	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,061,156	1197342.19	88.6	
Sc	45	H2	Analog	0.9	2,230,685	2614165.65666667	85.3	
Sc	45	He	Pulse	0.7	329,158	399684.306666667	82.4	
Sc	45	NoGas	Analog	0.9	3,010,281	3641989.32	82.7	
Ge	74	H2	Pulse	0.6	660,562	786642.216666667	84.0	
Ge	74	He	Pulse	0.8	187,821	229100.463333333	82.0	
Ge	74	NoGas	Pulse	0.3	742,545	911055.243333333	81.5	
Rh	103	He	Pulse	0.7	419,423	507558.653333333	82.6	
Rh	103	NoGas	Pulse	0.6	744,013	929986.61	80.0	
Tb	159	He	Pulse	0.7	576,628	639728.706666667	90.1	
Tb	159	NoGas	Analog	0.3	1,421,674	1581995.13333333	89.9	
Bi	209	He	Pulse	1.1	322,584	362402.373333333	89.0	
Bi	209	NoGas	Pulse	0.3	757,634	853236.23	88.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K07021-CCBA**	Total Dilution:	1.0000
File Name:	125_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 21:02:03
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.017	ppb	9.4	53	
Na	23	45	He	26.483	ppb	1.2	34,163	
Mg	24	45	He	0.773	ppb	10.0	923	
Al	27	45	He	0.619	ppb	22.7	343	
K	39	45	He	0.829	ppb	66.6	27,931	
Ca	44	45	H2	1.879	ppb	14.2	916	
[Ca]	44	45	He	0.793	ppb	67.2	222	
Ti	47	45	NoGas	0.110	ppb	8.9	138	
V	51	74	He	0.075	ppb	12.8	2,103	
Cr	52	74	He	0.008	ppb	100.1	292	
Mn	55	74	He	0.021	ppb	37.8	169	
Fe	56	74	H2	1.731	ppb	8.8	30,178	
Co	59	74	He	0.013	ppb	14.9	113	
Ni	60	74	He	-0.038	ppb	N/A	56	
Cu	65	74	He	-0.075	ppb	N/A	74	
Zn	66	74	He	-0.038	ppb	N/A	31	
As	75	74	He	0.036	ppb	26.2	51	
Se	78	74	H2	0.048	ppb	28.8	16	
Mo	95	103	He	0.033	ppb	34.3	66	
Ag	107	103	He	0.010	ppb	7.6	53	
Cd	111	103	He	0.019	ppb	31.7	17	
[Cd]	111	103	NoGas	0.011	ppb	55.3	22	
Sb	121	103	He	0.189	ppb	16.3	407	
Ba	138	159	He	0.047	ppb	26.5	252	
Hg	201	159	NoGas	3.208	ppt	59.2	7	
Tl	205	159	He	0.006	ppb	9.6	68	
Pb	208	159	NoGas	0.030	ppb	14.3	1,220	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.9	1,069,894	1197342.19	89.4	
Sc	45	H2	Analog	0.4	2,208,864	2614165.65666667	84.5	
Sc	45	He	Pulse	0.6	328,633	399684.306666667	82.2	
Sc	45	NoGas	Analog	1.3	3,005,631	3641989.32	82.5	
Ge	74	H2	Pulse	0.3	659,798	786642.216666667	83.9	
Ge	74	He	Pulse	0.8	189,196	229100.463333333	82.6	
Ge	74	NoGas	Pulse	1.1	755,727	911055.243333333	83.0	
Rh	103	He	Pulse	0.5	433,898	507558.653333333	85.5	
Rh	103	NoGas	Pulse	0.6	770,454	929986.61	82.8	
Tb	159	He	Pulse	1.1	580,703	639728.706666667	90.8	
Tb	159	NoGas	Analog	1.5	1,431,477	1581995.13333333	90.5	
Bi	209	He	Pulse	0.3	330,263	362402.373333333	91.1	
Bi	209	NoGas	Pulse	0.6	772,092	853236.23	90.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLC**	Total Dilution:	1.0000
File Name:	126CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 21:06:45
Comment:	A19J368 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.167	ppb	8.9	463	92.78		
Na	23	45	He	31.864	ppb	3.3	40,351	354.04	R-11	<MRL
Mg	24	45	He	9.964	ppb	2.7	6,756	110.71		
Al	27	45	He	9.482	ppb	2.3	3,283	105.36		
K	39	45	He	8.220	ppb	5.4	31,950	91.33		
Ca	44	45	H2	9.203	ppb	7.8	2,589	102.26		
[Ca]	44	45	He	9.591	ppb	12.0	459	106.57		
Ti	47	45	NoGas	0.281	ppb	15.0	327	156.11	R-11	<MRL
V	51	74	He	0.280	ppb	2.1	2,880	155.56	R-11	
Cr	52	74	He	0.178	ppb	4.5	1,036	98.89		
Mn	55	74	He	0.192	ppb	14.2	674	106.67		
Fe	56	74	H2	9.692	ppb	1.2	121,833	107.69		
Co	59	74	He	0.185	ppb	7.2	1,131	102.78		
Ni	60	74	He	0.163	ppb	20.6	351	90.56		
Cu	65	74	He	0.114	ppb	13.8	411	63.33	R-11	<MRL
Zn	66	74	He	0.184	ppb	5.5	183	102.22		
As	75	74	He	0.177	ppb	20.9	111	98.33		
Se	78	74	H2	0.185	ppb	18.1	56	102.78		
Mo	95	103	He	0.181	ppb	16.0	321	100.56		
Ag	107	103	He	0.173	ppb	6.6	851	96.11		
Cd	111	103	He	0.185	ppb	4.3	152	102.78		
[Cd]	111	103	NoGas	0.208	ppb	13.8	410	115.56		
Sb	121	103	He	0.227	ppb	15.6	488	126.11		
Ba	138	159	He	0.221	ppb	10.8	1,024	122.78		
Hg	201	159	NoGas	9.318	ppt	33.0	13	129.42		
Tl	205	159	He	0.187	ppb	6.1	1,390	103.89		
Pb	208	159	NoGas	0.190	ppb	6.6	4,755	105.56		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,080,964	1197342.19	90.3	
Sc	45	H2	Analog	1.7	2,226,187	2614165.65666667	85.2	
Sc	45	He	Pulse	0.9	329,407	399684.306666667	82.4	
Sc	45	NoGas	Analog	1.4	2,998,093	3641989.32	82.3	
Ge	74	H2	Pulse	0.8	662,591	786642.216666667	84.2	
Ge	74	He	Pulse	1.1	189,550	229100.463333333	82.7	
Ge	74	NoGas	Pulse	1.2	749,867	911055.243333333	82.3	
Rh	103	He	Pulse	1.0	434,050	507558.653333333	85.5	
Rh	103	NoGas	Pulse	0.3	763,228	929986.61	82.1	
Tb	159	He	Pulse	1.5	578,740	639728.706666667	90.5	
Tb	159	NoGas	Analog	2.7	1,435,211	1581995.13333333	90.7	
Bi	209	He	Pulse	1.7	329,893	362402.373333333	91.0	
Bi	209	NoGas	Pulse	0.2	771,220	853236.23	90.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLD**	Total Dilution:	1.0000
File Name:	127_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 21:11:26
Comment:	A19J369 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.848	ppb	4.6	2,265	94.22	
Na	23	45	He	65.014	ppb	0.8	77,854	144.48	R-11
Mg	24	45	He	44.599	ppb	0.5	28,669	99.11	
Al	27	45	He	45.235	ppb	0.2	15,108	100.52	
K	39	45	He	43.271	ppb	0.4	50,604	96.16	
Ca	44	45	H2	44.015	ppb	2.0	10,408	97.81	
[Ca]	44	45	He	44.784	ppb	12.2	1,400	99.52	
Ti	47	45	NoGas	0.955	ppb	4.0	1,063	106.11	
V	51	74	He	1.001	ppb	1.8	5,550	111.22	
Cr	52	74	He	0.863	ppb	2.1	4,006	95.89	
Mn	55	74	He	0.934	ppb	4.4	2,843	103.78	
Fe	56	74	H2	44.446	ppb	0.3	520,155	98.77	
Co	59	74	He	0.903	ppb	3.9	5,352	100.33	
Ni	60	74	He	0.830	ppb	2.1	1,321	92.22	
Cu	65	74	He	0.880	ppb	2.6	1,767	97.78	
Zn	66	74	He	0.826	ppb	3.9	619	91.78	
As	75	74	He	0.904	ppb	4.4	412	100.44	
Se	78	74	H2	0.947	ppb	15.9	281	105.22	
Mo	95	103	He	0.889	ppb	3.9	1,539	98.78	
Ag	107	103	He	0.871	ppb	4.0	4,237	96.78	
Cd	111	103	He	0.863	ppb	3.3	697	95.89	
[Cd]	111	103	NoGas	0.871	ppb	2.9	1,709	96.78	
Sb	121	103	He	0.960	ppb	3.3	1,992	106.67	
Ba	138	159	He	0.970	ppb	0.6	4,353	107.78	
Hg	201	159	NoGas	40.928	ppt	19.8	44	113.69	
Tl	205	159	He	0.886	ppb	2.9	6,535	98.44	
Pb	208	159	NoGas	0.891	ppb	0.9	20,008	99	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	1,053,411	1197342.19	88.0	
Sc	45	H2	Analog	0.4	2,202,223	2614165.65666667	84.2	
Sc	45	He	Pulse	1.3	328,788	399684.306666667	82.3	
Sc	45	NoGas	Analog	1.3	2,969,689	3641989.32	81.5	
Ge	74	H2	Pulse	0.3	660,975	786642.216666667	84.0	
Ge	74	He	Pulse	0.9	188,469	229100.463333333	82.3	
Ge	74	NoGas	Pulse	0.7	746,906	911055.243333333	82.0	
Rh	103	He	Pulse	0.6	431,863	507558.653333333	85.1	
Rh	103	NoGas	Pulse	0.5	760,524	929986.61	81.8	
Tb	159	He	Pulse	1.1	579,792	639728.706666667	90.6	
Tb	159	NoGas	Analog	0.7	1,421,246	1581995.13333333	89.8	
Bi	209	He	Pulse	0.8	329,887	362402.373333333	91.0	
Bi	209	NoGas	Pulse	0.4	770,953	853236.23	90.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLE**	Total Dilution:	1.0000
File Name:	128CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 21:16:07
Comment:	A19J370 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.736	ppb	2.7	4,617	96.44	
Na	23	45	He	108.075	ppb	1.1	126,053	120.08	
Mg	24	45	He	88.793	ppb	1.4	56,364	98.66	
Al	27	45	He	85.986	ppb	0.8	28,450	95.54	
K	39	45	He	86.807	ppb	0.5	73,484	96.45	
Ca	44	45	H2	86.852	ppb	2.1	20,123	96.5	
[Ca]	44	45	He	86.999	ppb	4.3	2,520	96.67	
Ti	47	45	NoGas	1.617	ppb	10.5	1,784	89.83	
V	51	74	He	1.824	ppb	1.0	8,634	101.33	
Cr	52	74	He	1.763	ppb	2.1	7,926	97.94	
Mn	55	74	He	1.763	ppb	1.5	5,279	97.94	
Fe	56	74	H2	87.288	ppb	0.3	1,007,328	96.99	
Co	59	74	He	1.811	ppb	1.8	10,717	100.61	
Ni	60	74	He	1.717	ppb	4.4	2,620	95.39	
Cu	65	74	He	1.766	ppb	2.9	3,341	98.11	
Zn	66	74	He	1.717	ppb	4.5	1,228	95.39	
As	75	74	He	1.900	ppb	3.9	828	105.56	
Se	78	74	H2	1.826	ppb	5.2	537	101.44	
Mo	95	103	He	1.717	ppb	3.4	2,959	95.39	
Ag	107	103	He	1.762	ppb	1.6	8,538	97.89	
Cd	111	103	He	1.794	ppb	1.8	1,444	99.67	
[Cd]	111	103	NoGas	1.756	ppb	4.0	3,448	97.56	
Sb	121	103	He	1.774	ppb	3.6	3,658	98.56	
Ba	138	159	He	1.813	ppb	3.5	8,078	100.72	
Hg	201	159	NoGas	69.036	ppt	11.0	72	95.88	
Tl	205	159	He	1.797	ppb	1.6	13,201	99.83	
Pb	208	159	NoGas	1.763	ppb	1.8	39,356	97.94	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	1,050,896	1197342.19	87.8	
Sc	45	H2	Analog	0.6	2,209,205	2614165.65666667	84.5	
Sc	45	He	Pulse	0.8	327,169	399684.306666667	81.9	
Sc	45	NoGas	Analog	1.1	2,962,653	3641989.32	81.3	
Ge	74	H2	Pulse	0.6	658,230	786642.216666667	83.7	
Ge	74	He	Pulse	1.2	188,772	229100.463333333	82.4	
Ge	74	NoGas	Pulse	0.7	746,133	911055.243333333	81.9	
Rh	103	He	Pulse	0.9	430,797	507558.653333333	84.9	
Rh	103	NoGas	Pulse	0.5	761,163	929986.61	81.8	
Tb	159	He	Pulse	1.3	578,343	639728.706666667	90.4	
Tb	159	NoGas	Analog	1.2	1,433,160	1581995.13333333	90.6	
Bi	209	He	Pulse	1.0	329,832	362402.373333333	91.0	
Bi	209	NoGas	Pulse	0.5	773,482	853236.23	90.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K07021-CRLF**	Total Dilution:	1.0000
File Name:	129CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K07021.b	Acq Time:	11/7/2019 21:20:48
Comment:	A19J371 - ESS 11/7		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.351	ppb	5.9	8,955	93.08	
Na	23	45	He	198.458	ppb	1.5	226,636	110.25	
Mg	24	45	He	180.778	ppb	0.9	113,631	100.43	
Al	27	45	He	177.172	ppb	0.4	58,137	98.43	
K	39	45	He	177.333	ppb	0.7	120,863	98.52	
Ca	44	45	H2	173.328	ppb	0.3	39,937	96.29	
[Ca]	44	45	He	181.323	ppb	2.8	5,004	100.74	
Ti	47	45	NoGas	3.551	ppb	1.6	3,915	98.64	
V	51	74	He	3.636	ppb	0.5	15,280	101	
Cr	52	74	He	3.530	ppb	0.8	15,489	98.06	
Mn	55	74	He	3.597	ppb	2.0	10,571	99.92	
Fe	56	74	H2	185.580	ppb	1.0	2,136,861	103.1	
Co	59	74	He	3.580	ppb	2.0	20,986	99.44	
Ni	60	74	He	3.554	ppb	3.0	5,260	98.72	
Cu	65	74	He	3.647	ppb	1.9	6,625	101.31	
Zn	66	74	He	3.544	ppb	5.8	2,454	98.44	
As	75	74	He	3.498	ppb	1.4	1,482	97.17	
Se	78	74	H2	3.574	ppb	3.2	1,052	99.28	
Mo	95	103	He	3.481	ppb	2.9	5,978	96.69	
Ag	107	103	He	3.527	ppb	0.9	17,040	97.97	
Cd	111	103	He	3.528	ppb	3.4	2,832	98	
[Cd]	111	103	NoGas	3.509	ppb	0.4	6,838	97.47	
Sb	121	103	He	3.459	ppb	2.5	7,097	96.08	
Ba	138	159	He	3.722	ppb	2.1	16,521	103.39	
Hg	201	159	NoGas	135.364	ppt	5.0	137	94	
Tl	205	159	He	3.567	ppb	0.3	26,158	99.08	
Pb	208	159	NoGas	3.517	ppb	0.3	77,254	97.69	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	3.1	1,057,961	1197342.19	88.4	
Sc	45	H2	Analog	0.6	2,223,941	2614165.65666667	85.1	
Sc	45	He	Pulse	1.4	325,256	399684.306666667	81.4	
Sc	45	NoGas	Analog	1.5	2,974,396	3641989.32	81.7	
Ge	74	H2	Pulse	0.3	660,345	786642.216666667	83.9	
Ge	74	He	Pulse	1.1	187,266	229100.463333333	81.7	
Ge	74	NoGas	Pulse	0.7	746,884	911055.243333333	82.0	
Rh	103	He	Pulse	0.9	429,716	507558.653333333	84.7	
Rh	103	NoGas	Pulse	0.3	755,432	929986.61	81.2	
Tb	159	He	Pulse	1.1	577,922	639728.706666667	90.3	
Tb	159	NoGas	Analog	1.0	1,420,236	1581995.13333333	89.8	
Bi	209	He	Pulse	1.0	330,937	362402.373333333	91.3	
Bi	209	NoGas	Pulse	0.5	776,265	853236.23	91.0	

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Metals IFA/IFB Metals Internal Standards Recovery Summary

A19J465 IFA
A19J466 IFB
A9J1007 (I.S Tables)

Analytical Standard Record

Apex Laboratories

A19J465

Description:	ICSA working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/30/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Marshall Pattee
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/08/19 12:49 by jsj

Analyte	CAS Number	Concentration	Units
Aluminum	7429-90-5	100	ug/mL
Calcium	7440-70-2	300	ug/mL
Carbon	7440-44-0	200	ug/mL
Chlorine	7782-50-5	2000	ug/mL
Iron	7439-89-6	250	ug/mL
Magnesium	7439-95-4	100	ug/mL
Molybdenum	7439-98-7	2	ug/mL
Phosphorus	7723-14-0	100	ug/mL
Potassium	7440-09-7	100	ug/mL
Sodium	7440-23-5	250	ug/mL
Sulfur	7704-34-9	100	ug/mL
Titanium	7440-32-6	2	ug/mL
Tungsten	7440-33-7	0.1	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
A18L138	6020A ICS Interferents A	12/11/18	John P. Beck	12/03/19	07/23/19 16:48 by arf	5
A19H398	Conc. HCl - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:38 by jsj	0.2
A19J277	Conc. HNO3 - Omnitrace	10/18/19	Kevin Taucher	04/15/20	10/28/19 13:30 by jsj	1.75
A19J281	1 W 10 ppm	10/18/19	Emily S. Stefansson	04/15/20	10/28/19 12:35 by jsj	0.5

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19J466

Description:	ICSA+B working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/30/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Marshall Pattee
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/08/19 12:49 by jsj

Analyte	CAS Number	Concentration	Units
Aluminum	7429-90-5	100	ug/mL
Arsenic	7440-38-2	0.1	ug/mL
Cadmium	7440-43-9	0.1	ug/mL
Calcium	7440-70-2	300	ug/mL
Carbon	7440-44-0	200	ug/mL
Chlorine	7782-50-5	2000	ug/mL
Chromium	7440-47-3	0.2	ug/mL
Cobalt	7440-48-4	0.2	ug/mL
Copper	7440-50-8	0.2	ug/mL
Iron	7439-89-6	250	ug/mL
Magnesium	7439-95-4	100	ug/mL
Manganese	7439-96-5	0.2	ug/mL
Mercury	7439-97-6	0.002	ug/mL
Molybdenum	7439-98-7	2	ug/mL
Nickel	7440-02-0	0.2	ug/mL
Phosphorus	7723-14-0	100	ug/mL
Potassium	7440-09-7	100	ug/mL
Selenium	7782-49-2	0.1	ug/mL
Silver	7440-22-4	0.05	ug/mL
Sodium	7440-23-5	250	ug/mL
Sulfur	7704-34-9	100	ug/mL
Titanium	7440-32-6	2	ug/mL
Tungsten	7440-33-7	0.1	ug/mL
Vanadium	7440-62-2	0.2	ug/mL
Zinc	7440-66-6	0.1	ug/mL

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19J466

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
A18L138	6020A ICS Interferents A	12/11/18	John P. Beck	12/03/19	07/23/19 16:48 by arf	5
A18L139	6020A & CLP-M ICS Analytes B	12/11/18	John P. Beck	12/03/19	12/18/18 13:34 by jsj	0.5
A19H398	Conc. HCl - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:38 by jsj	0.2
A19J028	Hg Stock 1.00ppm Std Primary	10/02/19	Emily S. Stefansson	03/30/20	10/23/19 17:40 by jsj	0.1
A19J277	Conc. HNO3 - Omnitrace	10/18/19	Kevin Taucher	04/15/20	10/28/19 13:30 by jsj	1.75
A19J281	1 W 10 ppm	10/18/19	Emily S. Stefansson	04/15/20	10/28/19 12:35 by jsj	0.5

Reviewed By Date

		6 Li (ISTD) [NoGas]	45 Sc (ISTD) [H2]	45 Sc (ISTD) [He]	45 Sc (ISTD) [NoGas]	74 Ge (ISTD) [H2]	74 Ge (ISTD) [He]	74 Ge (ISTD) [NoGas]	103 Rh (ISTD) [He]	103 Rh (ISTD) [NoGas]	159 Tb (ISTD) [He]	159 Tb (ISTD) [NoGas]	209 Bi (ISTD) [He]	209 Bi (ISTD) [NoGas]
Acq. Date-Time	Sample Name	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value
11/1/2019 10:59 AM	Rinse													
11/1/2019 11:03 AM	9K01022-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/1/2019 11:08 AM	9K01022-CAL1	93.69742474	100.4371518	101.2592926	94.99300724	100.5689186	101.6739827	93.73594574	100.9102301	93.66329914	101.1350531	92.07298378	99.82643414	93.01043624
11/1/2019 11:13 AM	9K01022-CAL2	101.8349118	100.7152043	100.9413465	100.3795335	100.7496144	101.8918827	100.7731934	100.4881507	99.77789824	100.7491854	99.28019034	100.0004699	100.5564913
11/1/2019 11:18 AM	9K01022-CAL3	101.730044	99.94001062	101.3615564	100.717051	100.8198215	101.3228207	100.4896975	100.3559431	99.43442008	100.4481031	100.0135973	99.24526723	99.76257173
11/1/2019 11:23 AM	9K01022-CAL4	99.91278865	100.0610252	101.0434679	100.2482965	100.6925593	101.4203387	100.7610971	99.99118887	99.23174134	99.86052002	101.4077356	99.62507698	99.62507698
11/1/2019 11:28 AM	9K01022-CAL4	100.6966721	101.246926	100.8933493	101.3313732	100.5328536	101.4650228	100.2079254	99.17769477	98.39334192	99.63769887	99.91418758	98.81367189	98.7105102
11/1/2019 11:33 AM	9K01022-CAL5	98.47185603	100.4016326	99.2862111	99.28955723	99.93237444	99.95410072	99.01587707	97.65283154	97.47569438	98.79044818	99.81488123	98.40557748	98.40483781
11/1/2019 11:38 AM	9K01022-CAL6	94.77054316	97.26195315	96.213885519	95.12961048	97.33205822	96.44214748	94.34181735	93.8934492	92.18724614	97.04664935	96.56276956	96.2947736	95.32615069
11/1/2019 11:43 AM	9K01022-CAL7	89.28513559	92.07814633	89.1574318	87.2629731	92.14193451	89.93673359	87.15583512	88.00820216	84.86086613	92.7512491	89.06250677	92.06147548	89.03602515
11/1/2019 11:48 AM	9K01022-CAL8	83.44628881	85.8232816	84.85750661	84.43406158	85.4107536	86.11434653	82.50056751	82.98543248	81.03713108	89.71580551	87.38078982	88.21503351	85.85058134
11/1/2019 11:53 AM	9K01022-CAL9	83.82031861	83.30182536	83.20736655	83.23166104	78.95857636	80.94665025	77.82695897	76.19092583	73.85921196	84.2595496	83.2271403	79.48136889	79.85091812
11/1/2019 11:59 AM	9K01022-ICV1	89.23477165	91.86690946	88.45322171	87.51647449	90.13197957	88.763944	85.36961484	86.72597495	83.21301818	92.02386232	88.78515408	91.00344746	90.14540129
11/1/2019 12:04 PM	9K01022-ICB1	91.91155944	90.28476337	88.66917924	88.85943753	89.73913778	89.71525494	87.49933903	89.29979112	86.00281547	92.91320349	89.21128919	93.40567644	91.33104444
11/1/2019 12:09 PM	9K01022-CRL1	93.54701471	90.14479996	89.67113037	89.93888522	90.54239565	90.89474309	88.69957843	90.42955679	87.58394426	93.52459005	90.70352299	93.22223931	92.22946337
11/1/2019 12:13 PM	9K01022-CRL2	95.36188237	91.59390258	90.75629949	90.04094669	91.43756335	91.49958494	89.17954462	90.61237381	87.6424945	93.98096663	89.88609357	93.90464532	92.65926461
11/1/2019 12:19 PM	9K01022-CRL3	93.75919244	92.0712315	91.39640812	91.54476045	92.04107344	92.51431911	90.43597647	91.39473902	89.01407369	94.20856539	93.48253929	93.9849539	93.93235334
11/1/2019 12:24 PM	A19J494	96.60597511	91.35134841	92.46434245	95.59714232	90.94247523	93.38662511	93.37309648	90.95874306	91.83538038	94.95882823	97.86557884	94.83131926	95.24369724
11/1/2019 12:28 PM	A19J497	96.20217709	96.10930612	93.20206165	94.44991343	92.57560009	93.50726099	93.79814855	92.27983909	93.01186701	94.92345076	97.75851695	94.39797711	95.03046432
11/1/2019 12:33 PM	9K01022-IFA1	78.95821623	76.80042597	70.98498843	77.55208294	67.11734096	67.51029477	69.26996191	59.9916335	62.67100303	70.21638316	74.78524372	61.91474766	67.96761821
11/1/2019 12:37 PM	9K01022-IFB1	77.58573324	76.28465969	73.10656582	76.00638975	66.66852203	69.10332868	67.540584	61.82020219	61.37970727	71.60994892	73.61246738	63.58977283	66.53589474
11/1/2019 12:42 PM	Rinse	77.23499896	81.64542053	76.58403238	76.27162931	79.79738207	77.88230166	74.55869412	79.50276304	74.25020093	85.04218288	80.48082362	86.17677817	84.09188735
11/1/2019 12:47 PM	9110362-BLK1	77.28504269	78.60151271	76.6054349	76.80677416	77.86725308	77.94177049	74.78922232	77.42045124	72.79195647	85.01350825	80.48271521	82.63211794	82.63211794
11/1/2019 12:51 PM	9110362-BS1	76.84681058	78.45420925	76.78882398	74.98979682	77.68569516	77.78414287	74.43711498	77.12648886	72.34921803	84.74888533	80.36388737	84.91688548	82.06628599
11/1/2019 12:56 PM	A9J1060-01	79.13874614	78.98606494	78.04046989	79.07274249	78.1280706	79.27600707	76.42477105	77.3995889	73.82195156	85.60458025	81.35841781	85.48135213	83.06250686
11/1/2019 1:01 PM	9110362-MS2	79.97474168	80.47562952	79.8919809	80.0604892	79.26181833	80.66766452	77.4467546	78.58890433	74.74878532	86.58427515	82.14383719	85.62398333	82.81462845
11/1/2019 1:05 PM	A9J1065-01	78.64055589	80.397877	77.69792836	77.29270528	79.21933121	79.44919688	75.74627571	77.93373633	73.19535703	85.7187493	80.95808333	85.45404592	82.80033305
11/1/2019 1:10 PM	9110362-MS1	78.48343428	78.96791576	77.85626205	78.28210955	78.21625545	79.09438306	75.90931045	77.56269621	73.05994816	85.7819069	80.96196725	85.40129463	82.84556007
11/1/2019 1:15 PM	A9J1087-01	78.85048529	79.43102089	77.89898585	77.9480946	78.3899693	79.20953875	76.13905855	77.57872093	73.77078793	85.80766581	80.84640974	85.85588287	83.03289886
11/1/2019 1:19 PM	A9J1094-01	79.2108011	80.19665339	78.5664184	77.59309977	78.7387363	79.88094327	76.09931719	78.27922789	73.96111286	86.14330026	81.24472706	85.84623924	83.41144267
11/1/2019 1:24 PM	9110363-BLK1	79.23831139	81.01796359	78.10994707	77.44899762	79.72599626	80.28648428	76.46634274	80.85267771	75.4391368	87.23625527	81.5955883	88.09966454	84.84851003
11/1/2019 1:29 PM	9110363-BS1	78.80556023	80.79055349	77.91614131	78.26673713	79.56863022	79.85519985	76.20703373	80.71182532	74.90698796	86.8763102	81.14663251	88.37752936	85.04570388
11/1/2019 1:33 PM	9K01022-CCV1	84.97800506	82.43215617	81.83254147	82.6143153	81.15899917	83.10755381	80.30641724	81.33098466	77.87140463	88.39606758	83.84222902	88.29280685	85.7549502
11/1/2019 1:38 PM	9K01022-CCV2	84.46786016	84.02403404	82.83783558	83.35616674	82.89398691	83.75045123	80.72614895	81.95087144	77.98677288	88.55280366	84.34131513	87.88514328	85.84325285
11/1/2019 1:43 PM	9K01022-CCB1	81.2965887	84.09382021	82.1645344	78.28158817	84.66151249	85.47182244	77.13300533	84.61993422	76.02547346	89.54548492	79.82204578	89.49155318	82.64385382
11/1/2019 1:47 PM	A9J1019-01	87.42754032	85.49963099	83.54323168	84.05001262	84.23813926	85.29849679	81.57776197	83.91640999	80.48200784	89.38415533	85.21038154	90.35027521	87.93705921
11/1/2019 1:52 PM	A9J1019-02	87.93720575	86.54618921	83.52342898	82.98377136	83.97339948	84.99613767	81.20311471	84.41583494	80.21318548	89.2300634	84.33552898	89.98649889	86.78124404
11/1/2019 1:57 PM	9110363-MS1	82.81525637	86.34585687	81.36421394	81.40509501	83.35389254	82.78982445	79.16622847	82.60457571	78.03112562	87.95911195	83.43848802	89.37898518	86.52060387
11/1/2019 2:13 PM	9101831-BLK1	83.245191888	83.00384792	82.36098431	81.12059857	81.9493176	83.77679652	79.35486804	83.61625954	77.91142219	89.81425651	83.61758254	90.38926105	86.19521437
11/1/2019 2:27 PM	9101831-BS1	87.4234543	85.47794343	85.25048907	83.44397391	83.51111096	86.43849792	82.16160596	84.4277119	79.70405149	91.91926708	85.90522003	91.25580369	87.5274318
11/1/2019 2:32 PM	A9J1076-01	93.65669397	75.45906719	81.14634504	89.4992325	64.94574582	70.50995948	73.30468095	58.88150754	63.77480721	64.580891	69.40324102	54.76365302	59.94573021
11/1/2019 2:36 PM	A9J1111-01	113.591984	104.9643932	99.0377852	101.4744454	95.17645621	93.44201104	91.8664168	87.41610252	85.77286199	89.60546668	87.93583474	84.99429344	85.62831208
11/1/2019 2:41 PM	A9J1115-01	113.9774503	103.1379552	100.1589463	102.9850043	96.37096311	96.26912847	93.6037391	90.7568812	88.24906042	92.9944456	93.75148005	89.96803718	90.24840045
11/1/2019 2:46 PM	A9J1115-02	104.8037566	93.43476073	91.36090164	95.00940699	82.85031136	85.40956144	85.15826096	78.1360681	77.64838649	84.15558183	84.32447569	76.19899301	77.68344427
11/1/2019 2:50 PM	9101831-DUP1	105.8511938	94.80766766	91.22646365	96.73218539	83.39844084	85.86377843	85.82893007	78.54401384	79.08049087	84.32372645	85.20277024	76.31205242	78.20407473
11/1/2019 2:55 PM	9K01022-CCV3	103.6183065	94.86698241	92.36854959	93.59875712	90.40380812	89.18293093	87.52910033	86.19937299	83.71465611	90.63062412	87.87616297	88.15384318	87.72591591
11/1/2019 2:59 PM	9K01022-CCV4	98.69452642	92.68887469	89.93203653	90.07849846	87.46429125	87.81610597	85.56134407	84.52310891	81.95293504	89.0049028	86.80257287	88.10778216	86.61701913
11/1/2019 3:04 PM	9K01022-CCB2	94.77022739	88.2870591	85.89805012	87.07777604	85.29466862	85.4437716	82.99117483	84.43324439	81.49925049	88.79382309	85.42771039	89.06002232	86.84681168
11/1/2019 3:09 PM	9K01022-CCB3	96.51153127	88.78150258	85.83791379	87.73311263	84.89261932	85.60153747	83.62218728	84.57625135	82.29803208	89.5740726	86.07019025	89.49760549	87.73212875
11/1/2019 3:13 PM	9K01022-CRL4	95.90234809	87.79156159	85.88418794	88.15186461	84.72434344	85.76924871	84.01418304	84.4963557	82.09141586	89.46622106	86.45309202	89.46157399	87.8960489
11/1/2019 3:18 PM	9K01022-CRL5	96.44238492	88.17827483	86.46439725	88.58848861	85.4256572	86.76410354	85.12381558	84.9643567	83.09931813	89.82713957	86.48247652	90.14284184	88.27885597
11/1/2019 3:23 PM	9K01022-CRL6	96.22768646	88.64611012	86.67161602	88.70643943	85.56576787	86.49111203	85.11204856	84.9620638	83.02956061	89.85689219	86.78834713	89.73960685	88.78298775
11/1/2019 3:28 PM	9K01022-CRL7	96.55216875	89.17642562	86.6205711	88.48869003	85.53922049	86.95077993	84.8995341	85.01046766	82.89803074	90.14936668	86.7441914	90.44936792	88.75973344
11/1/2019 3:32 PM	9101831-MS1	97.65480864	87.43567385	86.21416224	91.2498112	78.13884813	82.64889118	82.1384227	75.63622171	76.36592196	84.16923631	84.03502838	76.75477443	77.2326097
11/1/2019 3:37 PM	A9J1115-03	92.60131734	87.94465074	84.30383183	85.45100018	83.3141699	83.10896575	80.65671942	81.81054065	78.0250506	87.9832586	84.23307596	87.33036032	85.46834877
11/1/2019 3:42 PM	A9J1115-04	95.84318382	85.88271066	85.11332185	89.4759197	82.94663321	84.74354277	83.84402612	81.8026672	79.72101014	89.0075538	85.02690229	87.38671662	86.36460442
11/1/2019 3:46 PM	A9J1115-05	90.61819382	88.36029305	83.36962247	84.35255847	81.17259902	81.33883283	77.76275725	80.56274882	77.79310514	86.68927821	83.20566827	79.77091823	78.50637892
11/1/2019 3:51 PM	A9J1116-01	89.91089931	83.85992268	79.90568348	82.17915259	79.14601281	80.07989439	78.04037083	77.19977592	74.31231656	86.12647513	82.37931187	85.04664027	83.64050752
11/1/2019 3:55 PM	A9J1116-02	89.90177808	84.11945413	81.14019331	82.34666258	77.96217621	80.10161835	77.37915747	74.16664122	71.05526044	85.14564116	81.69314374	80.29639318	79.10796032
11/1/2019 4:00 PM	A9J1117-01	94.50020043	85.36060378	82.9150729	84.81871935	80.8635892	81.91327451	80.2471975	78.26647111	76.15506203	87.72881295	83.79664987	85.15362198	83.64413079
11/1/2019 4:05 PM	A9J1117-02	93.20419529	85.52471427	81.75985798	83.72346778	80.60320852	81.6763638	79.21453025	77.87391306	75.1954336	86.69253576	84.2208922	83.88638543	82.96882532
11/1/2019 4:09 PM	9101831-MS2	91.04166054	82.88360378	80.56552314	82.69435705	78.91799165	80.17931546	78.33145162	76.9776159	73.9464003	85.79744633	83.490605	83.20631926	82.6395708
11/1/2019 4:14 PM	A9J1131-01	97.84718726	85.6935147	84.8957559	89.45884442	82.0867284	84.12370154	83.82612025	78.55030118	78.37007714	87.45136028	85.64026579	83.29060827	83.39065027
11/1/2019 4:19 PM	9K01022-CCV5	93.68150241	85.32625551	82.69588421	84.39831753	82.24744423	82.44814424	80.55307712	80.1455437	77.5847032	87.7363644	84.85903511	87.05868067	86.13542838
11/1/2019 4:23 PM	9K01022-CCB4	96.67072933	85.80909787	83.470013	86.3555976	82.56435819	83.8707016	82.529883	82.88993692	80.64761241	89.57759067	86.19339051	89.81923155	88.48952649
11/1/2019 4:28 PM	A9J1133-01	96.63504548	86.59143791	85.7007867	88.52416822	83.56806716	85.5285235	84.88127126	83.28834453	81.75950261	90.4663116	87.74562757	90.49593417	
11/1/2019 4:33 PM	A9J1104-02RE1	95.10621665	87.77245313	84.32686379	86.22626744	84.36171272	84.57157133	82.83163962	82.70945301	80.52932881	90.35926226	86.55039848	90.87264927	89.00492467
11/1/2019 4:56 PM	A9J1061-02RE1	95.32621662	88.00080177	88.17232171	87.93238131	84.87478691	88.18185903	85.35426731	83.74484005	81.93536996	92.72096943	88.7883679	90.91686774	88.59903255
11/1/2019 5:00 PM	A9J1061-06RE1	96.19980981	87.63295913	86.49648621	87.83231263	85.30328934	87.26275745	84.10958855	81.94027593	82.15004093	88.63137288	91.96020903	90.07526399	
11/1/2019 5:05 PM	A9J1062-03RE1	97.75411247	87.24741322	86.13883438	88.86781176	85.40570976	86.79235364	87.22622981	83.66397518	82.47291981	91.30145094	90.67496602	90.12728	
11/1/2019 5:09 PM	9110393-BLK1	98.57671666	90.4779442	89.7776352	90.65060921	90.93981839	89.4772072	88.46425793	87.94496385	86.57327727	93.46220851	92.61187283	91.85308175	91.52215964
11/1/2019 5:14 PM	9110393-BS1	95.54596303	88.20078282	87.0268968	87.66808491	85.5114211	86.30347103	84.50032402	83.97889845	81.34997056	92.0255139	88.10196758	90.79403866	89.14183834
11/1/2019 5:19 PM	A9K0019-01	96.02763254	90.30867551	87.02621158	88.39941221	85.35029619	86.24212179	84.70135738	82.77078099	80.95360226	91.24104099	89.78221925	89.68859847	89.27338628
11/1/2019 5:24 PM	9110393-DUP1	95.23913156	86.78960248	86.66023326	88.43211303	84.72233067	85.84651964	83.53720574	82.1067256	80.46279536	89.90335445	88.21330672	89.47445396	88.67281165
11/1/2019 5:28 PM	9110393-MS1	96.05542409	89.87788338	86.93549435	89.38923239	84.97624545	85.66166998	84.6841349	82.67427205	80.75931393	90.37703375	87.952804	88.8539821	88.27123179
11/1/2019 5:33 PM	9K01022-CCV6	97.69705712	91.96224896	89.46971928	89.973945	88.87565554	88.57145883	86.93461356	85.41494123	83.10222503	92.01738652	91.40522796	91.22912665	89.65964324
11/1/2019 5:37 PM	9K01022-CCB5	97.77260781	90.7637305	88.01518071	88.36884232	87.88761428	88.37363172	86.23204418	86.78374933	84.26833589	92.13577498	90.08323839	92.40972485	91.29260801
11/1/2019 5:42 PM	9K01022-CRL8	97.79654788	90.26272422	84.88430013	88.66153913	88.15835468	88.25730008	86.37285504	83.91116887	84.06272489	92.49764237	88.85423221	90.90990348	
11/1/2019 5:47 PM	9K01022-CRL9	95.78777569	91.13685165	87.83615363	89.49368945	87.9384863	88.22450988	86.19118354	86.89457475	83.736922	91.5354654	88.918001	91.78100705	90.75838802
11/1/2019 5:51 PM	9K01022-CRL10	96.87607981	89.81798241	87.8566228	88.90715985	87.44004387	87.74977723	85.73820691	86.22491317	83.45128287	91.61780175	88.65213851	91.92.34737389	90.76082244
11/1/2019 5:56 PM	9K01022-CRL11	97.78539462	90.35884573	87.8807993	89.6299448	87.86191506	88.30710973	86.26103409	86.69045548	84.04087322	92.28566549	89.6267446	92.43237191	91.44665621
11/1/2019 6:01 PM	9110363-BS2	97.33190796	90.76549181	88.02940318	88.99327085	87.72548758	88.20934947	86.13893683	86.58625733	83.66557407	92.44785314	88.40134221	92.59375012	91.46256598
11/1/2019 6:05 PM	9110393-BS2	97.57585312	89.71154524	88.83815732	89.4513086	86.5541248	87.73931816	86.15617997	84.91366592	83.02899948	92.30516641	89.26485868	90.20790193	89.63485198
11/1/2019 6:10 PM	9101805-BLK1	96.68857126	89.45166074	86.97430176	88.05006986	85.95028464	86.38929327	83.94491134	86.37040965	82.5771497	91.71318748	87.65724778	89.83264725	88.73032722
11/1/2019 6:15 PM	9101805-BS1	97.07173835	91.70596576	89.3537374	90.3825957	86.81396511	87.89845205	86.00848367	85.78060312	82.95709965	93.05942852	91.75045272	90.55043898	89.36737999
11/1/2019 6:19 PM	A9J0950-01	103.2833283	98.37814163	98.08810322	100.7447697	89.21371604	91.26564327	90.96666519	87.46038527	87.50474301	94.77071062	100.0786698	89.4591941	91.23730478
11/1/2019 6:24 PM	A9J0950-02	103.6478185	99.7824663	97.40165449	100.3698677	90.27766191	91.18645575	90.99981074	87.96758798	87.60404095	94.60750774	101.2315697	89.63131992	91.31919237
11/1/2019 6:28 PM	A9J0950-03	103.1810341	101.1207934	97.66428948	101.3993249	90.15507679	90.79493487	90.70087523	87.78025685	87.16617198	94.48353831	100.6634586	89.24473635	90.34231468
11/1/2019 6:33 PM	A9J0950-04	103.5023211	102.5711853	99.68210744	102.448815	89.75489973	90.59137219	91.03294473	87.75807405	87.45469012	93.96524004	100.9228889	88.46143024	90.62670253
11/1/2019 6:38 PM	9101805-DUP1	103.4874226	103.8991958	99.82083625	101.4861016	90.48763479	91.44502861	90.51870545	88.10088757	87.14052294	94.53453185	102.8493734	89.08253065	90.33812638
11/1/2019 6:42 PM	9101805-MS1	104.2481108	103.6529316	99.86016737	101.1612759	89.54220202	90.47945478	89.15208218	86.65838962	85.61864969	93.45195738	99.20700976	87.49946026	88.83708309
11/1/2019 6:47 PM	9K01022-CCV7	103.5307767	99.82009421	95.21288497	97.52213732	95.03883799	93.64896855	92.83342467	89.4357309	87.9874902	94.88292551	99.51664581	92.08812907	91.72677505
11/1/2019 6:51 PM	9K01022-CCB6	109.2060944	101.2407114	98.10821748	101.6294258	96.71889728	96.9429746	96.2537844	94.07402595	93.41752167	96.11581146	100.8407942	93.12209539	94.82933752
11/1/2019 6:56 PM	A9J1006-01	99.39078708	102.8116072	98.89646171	102.7080102	89.88810454	90.11447802	89.60311754	86.51506343	86.36749373	92.83237569	100.6208852	88.04955204	89.20264524
11/1/2019 7:01 PM	A9J1006-02	103.9143439	103.0127602	99.99727822	104.1026117	90.04099635	91.12990514	90.69074931	87.41427073	87.76500034	93.56292101	100.1789886	88.40526153	89.75058653
11/1/2019 7:05 PM	9110369-BLK1	107.6901676	102.5970888	99.97518283	102.5253995	96.10368864	96.49915681	96.33467479	94.5469311	94.2719866	96.9430479	102.9284274	93.25496573	94.11546265
11/1/2019 7:10 PM	9110369-BS1	106.0174431	102.5792724	99.7583204	100.0301173	95.28446265	95.43535301	94.09731833	92.38200263	90.97772534	96.11216597	101.9513638141	91.83228507	93.04223806
11/1/2019 7:15 PM	A9J0954-01	101.3210487	104.4420552	99.06605525	101.5784877	90.63241931	90.49705882	89.97951911	86.68019392	86.54856263	93.48814625	99.21800913	87.38454677	89.44869226
11/1/2019 7:19 PM	A9J0954-02	99.77696121	105.6364292	100.7719976	104.2173532	87.67252792	89.2006159	88.48470147	85.15910781	84.96262605	92.40078833	99.54274414	86.61846556	88.18823555
11/1/2019 7:24 PM	A9J1007-01	100.9666478	104.0783112	100.3695482	103.6873053	87.8857518	89.13729028	89.52791606	85.52949663	85.89923841	92.39714173	100.6824112	86.69012213	89.24756504
11/1/2019 7:28 PM	A9J1137-06	98.40512309	98.16960536	94.75233669	96.37213872	87.75838838	88.60976977	88.01356674	85.88472985	85.73640662	92.71230834	102.5433288	88.6663302	89.32871546
11/1/2019 7:33 PM	9110369-DUP1	97.20458703	97.9305896	94.58064065	96.50666773	87.74458501	88.33827803	87.76464394	85.68629589	84.99884071	92.67729464	100.2366023	87.98353355	88.9090662
11/1/2019 7:37 PM	9110369-MS1	96.04691186	98.1676961	94.73659373	97.91421593	87.15857727	88.54035558	88.25486605	85.21461697	85.06596092	93.47469171	100.7880737	87.28895552	88.2852842
11/1/2019 7:42 PM	9K01022-CCV8	103.634462	100.6617496	96.21373897	99.16246364	94.7549576	94.9860534	94.16994413	90.34588463	89.41529865	94.73332935	100.5505687	91.70052652	91.50909932
11/1/2019 7:47 PM	9K01022-CCB7	107.2623024	102.4879544	99.2053785	102.32457	96.75563169	97.27496646	97.45643421	93.96632134	94.41221047	95.8051484	102.7771883	93.2525536	94.50576788
11/1/2019 7:51 PM	A9J1137-12	94.9460945	97.87455465	94.79483208	96.55761273	87.57252706	87.62187214	86.73759495	84.43905967	83.65655806	92.15138494	97.8672458	87.08846837	88.09480811
11/1/2019 7:56 PM	A9J1137-18	97.09344851	97.77562145	93.96756063	97.3706041	85.70579358	86.58041531	86.61915629	82.93139308	82.99322139	91.35815374	96.24448347	85.68346787	86.52794307
11/1/2019 8:01 PM	A9J1137-24	94.56707598	96.33191107	93.71480645	96.23312591	86.81916726	87.94796739	87.36473574	84.8547697	84.60677598	92.2892321	99.89954381	87.66271055	88.66717372
11/1/2019 8:12 PM	A9J1029-02RE1	104.4770557	96.72284544	97.9050766	102.1764035	88.76443288	93.77001597	93.19287975	86.18691347	87.2571448	92.12802581	97.67617844	85.1060574	86.95655578
11/1/2019 8:16 PM	A9J1076-02RE1	104.8185331	107.5509056	101.0721976	109.2388361	89.40024817	91.9559117	92.06516534	84.15485467	85.50881538	91.84060303	97.37015059	86.24813285	87.72615394
11/1/2019 8:21 PM	9101795-DUP2	103.8148911	105.2364673	98.29949355	106.8912835	87.94782472	89.90290895	91.00749318	83.04549714	84.23806649	90.10868259	94.36978226	85.15383105	86.42017452
11/1/2019 8:25 PM	9101795-MS3	103.3066477	102.9069079	96.36923046	105.1779128	86.50694293	87.57666744	89.03489087	80.53471789	82.93398026	88.4220653	94.98504799	83.13646813	84.81645412
11/1/2019 8:30 PM	9K01022-CCV9	104.6401647	101.1707274	95.64109103	99.65581996	84.80758672	85.85055979	92.7944927	88.33665921	88.38975049	92.58249635	98.07362657	89.43747908	90.25080388
11/1/2019 8:35 PM	9K01022-CCB8	106.2130587	101.3357779	92.68070806	100.9483635	94.82956516	90.9227961	94.92305136	88.21839882	91.86103303	89.71628924	99.69208387	87.7912451	92.23730335
11/1/2019 8:39 PM	9K01022-CRLC	106.0745569	100.7603344	95.86321654	99.95335634	94.59983424	94.64152329	93.61064313	91.65082382	90.83676572	93.6155679	98.05437818	91.66853772	92.45491154
11/1/2019 8:44 PM	9K01022-CRLD	105.5807099	99.89722524	95.74958968	99.23982311	94.35965911	94.08976402	93.19081226	91.82836545	90.53898805	93.28620032	99.47234466	92.02301525	92.21551679
11/1/2019 8:49 PM	9K01022-CRLE	104.0396161	98.7552483	94.49372035	98.46343762	93.70399109	93.39127571	92.82050781	90.67497868	90.12625307	93.32836227	98.0218637	91.36878495	92.21002835
11/1/2019 8:53 PM	9K01022-CRLF	103.613937	99.23961099	94.90902374	98.0638465	93.68424096	93.03674331	92.84961836	90.02015205	89.47945211	92.56879854	98.0552093	91.43642911	92.1574366

		6 Li (ISTD) [NoGas]	45 Sc (STD) [H2]	45 Sc (ISTD) [He]	45 Sc (ISTD) [NoGas]	74 Ge (ISTD) [H2]	74 Ge (ISTD) [He]	74 Ge (ISTD) [NoGas]	103 Rh (ISTD) [He]	103 Rh (ISTD) [NoGas]	159 Tb (ISTD) [He]	159 Tb (ISTD) [NoGas]	209 Bi (ISTD) [He]	209 Bi (ISTD) [NoGas]
Acq. Date-Time	Sample Name	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value
11/4/2019 11:27 AM	Rinse													
11/4/2019 11:31 AM	Rinse													
11/4/2019 11:36 AM	9K04033-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/4/2019 11:41 AM	9K04033-CAL1	102.4342456	105.6991136	100.3629196	108.1897807	99.64257806	100.9061679	100.6722635	100.5086777	99.68318857	100.3910728	113.1099088	99.91144729	99.54683892
11/4/2019 11:46 AM	9K04033-CAL2	100.9494861	106.8290493	101.1452042	108.326195	99.46599199	101.2644944	100.5290188	100.5449855	99.85412043	100.7752254	112.0113552	100.8702704	99.79181514
11/4/2019 11:51 AM	9K04033-CAL3	102.9838757	106.4136279	100.3991869	107.6222904	99.83663797	100.8841114	99.66135568	99.65766485	98.41449736	99.73656791	111.5835715	99.89693409	97.97922066
11/4/2019 11:56 AM	9K04033-CAL4	103.5815511	107.0132016	100.3210139	108.3586338	99.79064499	100.6191739	100.2801408	99.68683815	98.36796405	99.64160077	113.2466315	99.57914785	98.59454418
11/4/2019 12:01 PM	9K04033-CAL5	102.9587393	107.3199154	99.16465136	106.7545256	99.72280319	99.16468268	98.6895393	98.15831974	97.40963281	99.36133824	112.1840815	99.40120405	98.05063523
11/4/2019 12:06 PM	9K04033-CAL6	99.71918343	104.7737177	96.03326946	102.9163874	97.00326257	95.92942949	94.87019042	94.02329301	92.46983946	96.96413609	108.9943383	96.92029575	95.41884904
11/4/2019 12:10 PM	9K04033-CAL7	92.28429416	100.1058507	89.55844388	95.00097596	92.20666086	90.23954434	87.96056915	89.40405798	85.99833915	93.88195001	106.1375337	93.65722813	90.94133971
11/4/2019 12:15 PM	9K04033-CAL8	89.48391989	93.71065478	84.51495167	89.46825059	85.72477557	85.26724212	82.17149774	83.43891033	80.62655059	89.94098788	104.1919946	89.71300478	86.44778927
11/4/2019 12:20 PM	9K04033-CAL9	81.29522034	88.64577931	81.57392003	81.55839169	77.95073912	79.39509382	71.28863137	75.28644769	67.83845257	84.04386755	89.2000332	79.96365924	73.85011999
11/4/2019 12:26 PM	9K04033-ICV1	90.60772405	94.76950545	85.90063719	91.89369678	87.57173461	86.42506021	84.9421616	86.04291612	82.53089371	92.4308285	103.8779922	91.45095502	90.32569859
11/4/2019 12:31 PM	9K04033-ICB1	94.80854061	94.84316647	87.21221018	94.19039731	88.48104105	88.59209659	87.20412371	89.35232568	87.27320205	94.07362198	106.5310506	94.48816055	93.50567076
11/4/2019 12:35 PM	9K04033-ICB2	94.08881277	95.62975668	87.88455984	94.84735049	88.81742138	88.72441644	87.84478506	89.71087158	87.35555226	93.61266604	106.9242177	94.81513757	93.41611977
11/4/2019 12:40 PM	9K04033-CRL1	95.20882453	96.1365646	88.61248112	95.54317283	89.61408172	89.34696519	88.16233808	89.73488949	87.77079998	94.183944	106.5716843	95.09929082	93.00495162
11/4/2019 12:45 PM	9K04033-CRL2	95.71143056	97.51243055	89.35325644	96.91034786	90.06762111	90.41842675	89.13943703	90.22876725	88.63866166	94.41698971	107.9248812	95.32688795	93.53737328
11/4/2019 12:49 PM	9K04033-CRL3	96.74947331	98.52524479	89.97623875	97.81204429	90.81487189	91.16987238	89.92290378	90.87460993	89.04111624	95.24747401	108.4184228	96.01381966	93.81472212
11/4/2019 12:54 PM	9K04033-IFA1	81.37288818	81.92436489	74.81271549	80.40414648	66.78974321	70.17726355	68.83449602	62.93982711	62.32361742	74.48026495	83.51381974	66.17732857	68.11853142
11/4/2019 1:01 PM	9K04033-IFB1	81.87136948	79.80685727	72.60403858	79.23885981	65.40862104	68.14001879	67.34371298	61.41892715	61.53519689	72.8826658	82.56788235	65.0569257	66.78934463
11/4/2019 1:11 PM	Rinse	78.37952202	81.04718594	74.3860494	79.35458479	76.39084677	76.52648241	74.43125595	78.97175648	74.94604552	87.98823839	98.03520311	90.75874422	87.60483106
11/4/2019 1:16 PM	A8J1115-01RE1	86.72134364	83.51853588	78.43810737	87.91034958	77.64292842	80.67981176	82.28668688	81.05242138	81.15725114	90.34297041	103.3841706	91.69099332	90.55659936
11/4/2019 1:21 PM	A8J1115-02RE1	84.24061081	86.590152	77.5685284	85.18429176	79.88313968	79.77962092	79.72038409	79.71579753	78.30361899	89.77087163	101.6755329	89.16294234	87.18778996
11/4/2019 1:25 PM	9J10831-DUP2	84.7764756	86.36392369	79.04492665	86.03532687	80.09452337	80.52597723	79.7296412	79.60522873	77.69859408	89.99388544	101.5925076	89.10011333	86.91754345
11/4/2019 1:30 PM	9J10831-MS3	86.35206762	87.89403916	80.105801	87.52411658	80.24070357	81.39691858	80.49958755	80.44043802	78.89894665	89.66551607	101.5607269	89.114634	87.59198975
11/4/2019 1:35 PM	A8J1115-03RE1	81.6596854	83.44358805	74.81327691	82.66314211	76.82692604	76.54069614	76.79120458	77.89778533	75.74688026	87.63577533	100.9337448	89.31585286	86.95563575
11/4/2019 1:44 PM	A8J1115-04RE1	88.03032271	83.15974362	78.38768882	87.81513154	77.91609399	80.09505411	81.32470349	80.04777865	78.99224634	89.52268075	105.0937964	89.38765969	87.64945154
11/4/2019 1:44 PM	A8J1115-05RE1	89.99509892	91.21326667	82.26617983	89.99124249	84.26867242	84.39979293	83.86753397	83.79848039	82.02612807	92.41024166	105.3809615	91.64936585	90.11318431
11/4/2019 1:48 PM	A8J1116-01RE1	83.58290656	84.28473046	77.53830002	84.93016377	77.33983099	78.62187788	78.27796775	78.14995746	75.98255441	87.67987663	101.0618998	87.76231134	85.84729177
11/4/2019 1:53 PM	A8J1116-02RE1	86.57789797	86.1844297	78.39100078	87.48161335	80.66056971	80.65216294	81.05166985	80.15439683	79.20691227	89.1948588	102.421575	90.13749887	88.78496847
11/4/2019 1:58 PM	A8J1117-01RE1	85.3989954	85.2305213	77.08526412	84.84446796	77.84654901	78.2835498	77.59004718	77.12939165	74.95380524	87.25171291	100.917602	85.88152755	83.95195432
11/4/2019 2:02 PM	9K04033-CCV1	83.25662859	85.09142041	75.34723978	82.8354923	78.66509072	76.98080466	76.72242301	77.50208918	75.4127168	87.6974289	100.6457195	87.88065112	85.71908161
11/4/2019 2:07 PM	9K04033-CCB1	85.01603444	82.9940101	75.16762781	83.43136196	77.94393806	77.24031753	77.43666006	79.41758381	77.48311722	87.55579566	101.1558366	89.69067121	87.78544584
11/4/2019 2:12 PM	A8J1117-02RE1	84.54700207	82.61373419	76.58793747	83.98116068	75.43384861	77.46261039	77.00145751	76.58008673	74.2795477	86.60918108	100.3715962	85.77646368	83.52288991
11/4/2019 2:16 PM	9J10831-MS4	82.67494635	83.40503612	72.11445734	80.85879772	74.97503656	75.92747305	74.44319357	75.1850417	71.49466519	83.10734361	97.56636888	81.11830409	81.52702882
11/4/2019 2:21 PM	A8J1133-01RE1	85.12353072	85.05191629	76.22426797	84.01304039	76.46962743	76.93678795	76.39896518	76.27808245	74.19228504	86.12302249	101.4342054	90.7097335	89.4984736
11/4/2019 2:25 PM	A8J1076-01RE1	87.12072245	88.25946545	77.34272602	84.58690674	80.38976692	78.87274712	78.22616253	80.42254342	78.00660779	88.31706535	101.8323383	90.73644651	88.27792828
11/4/2019 2:37 PM	9I10369-BLK2	83.52971201	82.25197347	75.38001944	81.75418232	75.56385504	76.88878538	75.50996608	78.86513938	76.42879084	88.24065669	101.8924296	89.29271155	85.83164746
11/4/2019 2:42 PM	9I10369-BS2	82.30589999	81.17965408	73.39557846	80.7480838	74.86991363	74.98738196	74.09489039	76.6381343	73.75190807	86.87826247	98.79085369	87.04329039	84.68618689
11/4/2019 2:47 PM	A8J0954-01RE1	87.08978533	89.29881234	82.59143865	92.71812656	74.73896695	77.39882157	78.72341644	77.70689815	77.8552763	88.69540382	105.3248647	85.20305807	85.33005683
11/4/2019 2:51 PM	A8J0954-02RE1	87.28644664	96.04518271	86.59275563	95.38803571	78.53322697	78.95963764	79.2191496	78.8256908	77.88980742	89.24385644	104.9112071	86.56739373	85.85455244
11/4/2019 2:56 PM	A8J1007-01RE1	87.65231304	95.59263317	86.17672416	95.48058616	77.9178944	78.42851203	79.57228414	77.70520998	78.22954589	88.77327461	106.9072592	85.35065439	85.65426573
11/4/2019 3:00 PM	A8J1137-06RE1	86.10764823	91.17326704	81.41882129	90.75438816	78.28633836	78.52051959	79.0322396	79.18616138	78.48749731	89.32057925	105.5726403	86.72295165	86.21892922
11/4/2019 3:05 PM	9K04033-CCV1	91.74161301	93.44343917	83.46009472	93.46564258	85.04129541	84.40996805	85.1130949	83.86197588	83.28335882	91.44128242	106.9482022	90.6824653	90.17160914
11/4/2019 3:10 PM	9K04033-CCB2	96.01667121	97.04967838	87.1544454	98.49196443	87.65639399	88.19513377	89.29607537	88.34981345	88.40672997	92.95275894	109.7370738	92.56628803	92.72137989
11/4/2019 3:14 PM	9I10369-DUP2	85.0487961	91.963717	81.19227237	89.79195746	78.75167735	78.59114146	78.31153055	79.14634892	77.49996235	88.4167217	104.1529258	86.43517514	84.8437146
11/4/2019 3:20 PM	9I10369-MS2	85.63439223	89.14070435	80.60300043	89.52857088	77.12811944	78.17164936	78.14249962	77.93861097	77.38120725	88.2998826	104.3363728	85.6341329	84.09900573
11/4/2019 3:25 PM	A8J1137-12RE1	86.87078251	90.55181797	80.58094021	90.0157911	77.37342795	77.64733729	78.19064211	78.19435521	77.42601663	88.44734087	105.2803381	85.93086032	84.89337894
11/4/2019 3:30 PM	A8J1137-18RE1	85.33983024	91.05564979	81.47862979	91.33620786	77.53884337	77.99010503	78.17019032	78.28540666	78.01065337	88.44384912	105.5115661	85.80971923	84.57472406
11/4/2019 3:34 PM	A8J1137-24RE1	86.67378109	90.80596029	80.53657003	91.11724586	77.58297329	77.60855413	79.11449283	78.3632854	78.48347448	88.29354922	106.8173971	85.42979291	85.39377252
11/4/2019 3:39 PM	A8J1006-01RE1	87.36137503	94.14627475	84.50525678	94.8734699	78.48746354	79.04374226	80.16024843	78.8690581	79.30477009	89.25637934	106.7452935	85.51234173	85.71904899
11/4/2019 3:43 PM	A8J1006-02RE1	87.80329131	94.89188009	84.52101821	95.01180721	78.9878194	79.17712805	80.31736212	79.1605787	79.40288038	89.00520884	107.3425585	85.89545941	85.91188122
11/4/2019 3:48 PM	A8J1029-02RE2	97.62107949	93.76668901	84.60550756	98.65019338	81.35542222	83.07681014	86.2097512	79.52149399	82.20438853	86.97511662	105.8023171	82.2771341	83.84389207
11/4/2019 3:52 PM	A8J1061-02RE2	97.51026671	99.69250633	88.9018092	99.14055835	88.57845645	88.03206902	89.3108672	86.65511198	86.58950873	91.44108403	109.8286986	89.60832638	88.87756851
11/4/2019 3:57 PM	A19K028	97.83420307	98.40693021	87.16582993	98.82767764	87.68254833	86.98923076	88.51650443	87.4136437	88.07452328	91.30260783	109.9162189	90.13712153	89.69110441
11/4/2019 4:02 PM	9K04033-CCV3	94.11142512	99.41004684	85.53046562	94.01921349	88.43665078	85.34211838	85.28848557	84.65136746	82.95720576	90.35853961	108.0986207	89.06873319	88.20003072
11/4/2019 4:06 PM	9K04033-CCV4	91.05504838	94.24993089	77.79304032	91.05790225	84.09473846	77.80447049	82.11015979	77.68799831	80.18999513	84.16823206	105.5777779	83.80480771	85.79212438
11/4/2019 4:11 PM	9K04033-CCB3	94.52132422	93.71124912	82.7054307	94.14179489	83.68185784	82.97639115	84.68025027	84.21381881	84.01330847	89.06222729	106.5295498	89.33381895	88.74027358
11/4/2019 4:16 PM	9I10835-BLK1	92.78579979	93.57115859	83.18188594	93.57758526	83.4269015	83.52418794	84.45943779	84.21469588	84.14851373	89.53262448	106.359835	88.07113397	88.28190301
11/4/2019 4:20 PM	9I10835-BS1	91.56733414	93.39928216	82.43534296	92.44699119	83.25572823	82.02947241	82.65124711	82.11458662	81.61431233	88.7199249	105.4499142	87.74512087	86.79498551
11/4/2019 4:25 PM	A8J1115-01	96.79730566	92.10905546	84.23481428	94.69063618	82.89576697	83.90676022	85.22912654	83.49414498	83.22939378	88.50860387	108.012513	88.53912731	88.45357742
11/4/2019 4:29 PM	9I10416-BLK1	94.35763642	93.97083806	83.97775897	93.8319967	84.19262153	83.67040022	84.761996	84.92299314	83.78051602	89.44277825	106.8773089	88.6223561	87.35342611
11/4/2019 4:34 PM	9I10416-BS1	91.67299909	93.49789473	81.97287335	91.26283801	82.90291131	82.28128095	82.24171557	81.74964272	80.81623974	88.62063974	104.9158718	87.61238819	86.52121554
11/4/2019 4:39 PM	A8K0017-04	90.6736063	93.27236074	83.12761286	93.93708289	79.47539463	79.52784404	81.15781901	79.1094188	79.58625035	87.58260389	106.4016287	84.61938654	85.34674333
11/4/2019 4:43 PM	9I10416-DUP1	90.99391391	93.94737467	83.58064203	94.61426837	79.58465039	79.65266126	81.40042797	79.26653274	79.78469553	86.96929997	107.9016468	84.29631	84.87525783
11/4/2019 4:48 PM	9I10416-MS1	89.85948228	95.28175594	83.83225482	94.84611469	80.11584747	79.99371692	81.91860838	78.96796213	79.99573651	87.23083415	107.02486	83.98405465	84.30567018
11/4/2019 4:52 PM	A8K0052-05	92.18488846	87.07735257	87.60457593	99.45233704	71.58953182	82.00624801	83.55151031	81.61257672	81.90953523	87.92850833	107.5802171	85.1549171	86.36259526
11/4/2019 4:57 PM	A8K0052-10	96.85208086	101.7529862	91.59536533	106.6518313	83.02254925	85.00106154	88.96888834	83.17868825	86.6358461	89.46802746	111.0080155	86.69402986	87.97212295
11/4/2019 5:02 PM	9K04033-CCV5	96.62165657	100.3583143	88.77834912	100.9377697	89.51216215	87.8926917	88.68628918	85.89384035	87.50999314	91.51171986	111.3492396	89.85416308	89.10074027
11/4/2019 5:06 PM	9K04033-CCB4	100.5750834	101.2562856	90.86375039	105.6128213	90.59922718	90.94087546	95.02434825	90.27950189	93.85861116	92.71619548	114.1186727	91.57420477	92.70694184
11/4/2019 5:11 PM	9K04033-CRL4	102.2788484	104.4668025	94.15159149	107.4220429	92.93696417	93.40622195	96.00042484	91.76994539	94.60488156	93.74057472	112.9537987	92.34810509	92.26391315
11/4/2019 5:16 PM	9K04033-CRL5	104.4728935	106.0331519	94.82088433	108.881562	93.92472449	94.3031364	97.42455175	92.57948645	95.31954672	93.99759374	114.5787873	92.87017529	93.73512427
11/4/2019 5:21 PM	9K04033-CRL6	104.0747707	106.350166	94.54827559	108.9671126	94.53707852	93.32853953	97.70142477	92.28940217	96.01442708	94.21604836	115.791018	92.46445279	93.33466519
11/4/2019 5:26 PM	A8J0573-19	90.3768769	95.53409612	82.43627529	92.00023444	82.60663412	81.39264754	82.96003754	81.71113877	80.7755405	89.6188137	98.33909363	106.2229191	85.0370985
11/4/2019 5:31 PM	A8K0017-01	94.2183574	99.48766642	87.47074106	100.3477323	84.97974753	85.72212842	87.84680829	84.45287644	85.82700766	90.52324858	110.803246	87.52852875	87.44264838
11/4/2019 5:35 PM	A8K0017-03	99.35231076	105.1481485	91.86076313	104.702769	88.15859241	87.18968999	89.03417143	85.68909842	87.70167433	91.85108311	110.3874463	87.60598603	88.63832052
11/4/2019 5:40 PM	A9J1115-02	98.34549756	99.12174346	87.42590438	101.2295408	85.55462299	83.4387062	86.06060108	78.16495967	80.67488815	85.02964422	104.8137167	77.43275538	79.15329716
11/4/2019 5:44 PM	A9J1115-03	93.60722046	95.63203372	83.37540141	94.65101075	85.10265389	83.16715135	84.44472188	83.5715558	83.34305336	89.24994152	107.7932151	88.39758196	88.05900142
11/4/2019 5:49 PM	A9J1115-04	92.91810118	96.42060437	83.81127637	94.87703511	84.52204199	83.37254041	84.30368123	82.17271098	81.65453689	88.86317001	106.6552203	87.28685331	86.63825806
11/4/2019 5:53 PM	9I10835-DUP1	92.66102196	94.07129649	82.38188845	93.50723213	83.13012313	81.85205581	83.42659287	80.25016784	80.46315632	88.51017349	105.4624358	86.44393851	86.19600279
11/4/2019 5:58 PM	9I10835-MS1	88.12766416	91.86491152	80.0691594	89.6207742	80.81768585	79.55962177	80.30676531	78.12298442	77.57877097	87.10539046	103.9226659	84.96972381	84.1426581
11/4/2019 6:03 PM	A9J1115-05	90.8475689	92.84426446	81.3760842	92.69680047	79.39621096	79.76949154	81.50925438	76.08739698	77.12222796	86.09455919	104.0480356	79.83695138	80.430948
11/4/2019 6:07 PM	A9J1116-01	85.27252255	88.13967057	76.71491348	86.74376665	77.49937504	76.92574624	78.11781113	76.78729605	76.32458715	85.67446026	103.9979154	85.07029999	84.92908691
11/4/2019 6:12 PM	9K04033-CCV6	90.07396755	92.11262104	79.84040251	90.5897238	81.56604203	80.44064677	82.15598778	80.22351599	80.14808568	88.39162894	106.8625452	87.0543507	87.02938472
11/4/2019 6:16 PM	9K04033-CCB5	90.33797671	91.00337533	81.29123606	92.56990204	81.87826484	81.77335086	83.22078639	82.14360906	82.70925678	88.88560401	107.3916206	89.34757896	88.75279504
11/4/2019 6:21 PM	A9J1116-02	83.32322319	88.89121435	76.59255402	85.80395013	76.05111686	75.88335359	78.08217673	72.03870214	70.53820816	83.83178658	99.8593434	78.86658673	77.59856686
11/4/2019 6:26 PM	A8J1117-01	86.67409435	89.98056086	78.60880599	87.2396893	78.68788143	78.05453764	78.1948797	76.55757207	75.24201901	86.05666839	104.0657349	83.80806632	82.93953464
11/4/2019 6:30 PM	A8J1117-02	86.81887711	88.58340777	78.11655431	87.77159078	78.15155826	77.87826205	78.05819776	76.33649448	75.61053033	86.27450476	103.662775	83.56012397	83.38742099
11/4/2019 6:35 PM	9I10409-BLK1	89.67683096	90.71458199	80.54518988	90.67541824	80.96695351	80.5396492	80.7699906	81.41970126	80.66071539	89.35513644	106.2235644	88.33191352	87.5542591
11/4/2019 6:40 PM	9I10409-BS1	84.46880963	86.3633131	76.95944056	86.46208285	77.28214953	77.26602913	77.98939137	77.28202871	76.54681109	86.79146246	103.6798969	86.14127967	85.97616
11/4/2019 6:44 PM	A9J1113-01	90.01059492	90.58231318	82.54284717	94.12561055	84.08968581	81.05170117	82.39603502	80.24176501	80.513374	86.63667424	106.5312718	86.19072301	86.41855242
11/4/2019 6:49 PM	A9J1123-01	85.68332751	88.18432067	77.42134942	86.33778346	74.58377981	75.61822254	75.28797759	73.46919824	72.40317875	84.21528487	101.2595947	80.92000086	80.89860001
11/4/2019 6:54 PM	9I10409-DUP1	86.3505626	88.52271718	77.92695867	87.91371224	75.8365656	76.04486314	77.00778302	74.04652978	73.94013949	84.02268387	103.0466212	80.37900515	81.47024358
11/4/2019 6:58 PM	9I10409-MS1	84.06762612	88.45579214	75.92187447	85.45412134	74.6436984	73.88898104	74.65812838	72.28720016	71.45162514	83.45571135	98.44668727	79.41877949	80.25181689
11/4/2019 7:03 PM	A9K0045-01	86.91692312	88.63201828	77.60671356	88.11450447	78.4888019	77.79617514	78.61874194	79.62878917	78.38055596	87.21082696	105.0883717	87.27676363	87.82620401
11/4/2019 7:07 PM	9K04033-CCV7	88.06827159	92.8399099	80.02791404	89.41580146	82.10425942	80.42812048	80.09895421	79.78100013	78.86211793	88.40736634	106.5522929	87.68272748	86.96329956
11/4/2019 7:12 PM	9K04033-CCB6	87.15713642	88.73439189	77.44377382	86.82173777	79.5951011	78.06769559	78.71638402	78.6757647	78.83548258	87.06885642	105.9209729	87.76196239	87.3411485
11/4/2019 7:17 PM	A8K0046-01	82.5840868	86.07077393	75.22721484	85.0983909	75.43453659	74.88204485	75.57219881	74.92630337	74.03550058	84.91044415	101.7828351	83.30106675	83.1671992
11/4/2019 7:21 PM	A8K0048-01	84.45738699	89.80888463	77.85312078	88.06000104	78.43817662	76.46914904	77.38684942	78.50105147	77.26745614	88.29897118	106.7486166	87.05674403	86.95771068
11/4/2019 7:26 PM	A8K0051-01	97.0702051	95.28096754	85.16741947	97.95634814	83.14446476	83.4843576	87.01606577	83.14872439	86.77542223	88.84352143	113.2561504	117.2609549	116.9012788
11/4/2019 7:31 PM	9I10442-BLK1	87.95050403	91.62255049	80.4104496	91.62262833	81.69482852	80.6619886	82.17354578	82.26958616	82.07098526	88.85152079	106.8361573	88.58677735	88.92484662
11/4/2019 7:35 PM	9I10442-BS1	88.28000312	92.39468766	79.97777755	90.17966122	81.66231514	79.76039057	80.74864048	80.56345243	79.79150703	86.87826247	106.3752496	86.77473006	86.70058891
11/4/2019 7:40 PM	A8J0579-08	95.40966144	99.14728533	83.15086391	99.04273118	76.33602476	77.86479061	80.4147829	71.24452436	73.29371783	102.6277409	74.55240881	75.250762	
11/4/2019 7:44 PM	A8J1131-01RE1	85.28899863	89.46969555	77.17286751	86.51274521	79.13018375	77.03002796	77.31646143	76.04924041	74.71626124	85.62335576	104.3512898	83.2086726	82.92084033
11/4/2019 7:49 PM	A9K0022-01	95.24779801	83.97989454	80.23209376	94.07303145	67.83790103	72.87678421	75.88650883	65.31492436	68.80190824	73.03709919	91.19164187	64.02733138	67.43858713
11/4/2019 7:54 PM	A9K0022-02	98.12464836	98.41782357	84.09111421	95.81602351	85.32523283	82.24866595	83.33635631	82.2486975	82.43264455	86.78094988	108.3578988	86.32938637	87.81099198
11/4/2019 7:58 PM	A9K0044-01	95.42753318	90.45172024	80.00982548	94.93585532	72.61550856	74.85778383	78.7409316	68.70931668	72.13437141	77.94725416	96.86219983	70.31154608	72.82702861
11/4/2019 8:03 PM	9K04033-CCV8	94.10653492	97.36961155	82.41647717	94.12561055	84.08968581	81.05170117	82.39603502	80.24176501	80.513374	86.63667424	106.5312718	84.7138602	85.57716432
11/4/2019 8:08 PM	9K04033-CCB7	91.27116272	90.85902593	79.66968505	91.40003105	80.69801206	79.61220589	81.58496291	80.46655724	81.25538108	86.17356999	106.0533971	86.61377574	86.8935098
11/4/2019 8:12 PM	9K04033-CCB8	91.06463424	90.81398123	79.49972086	91.2256252	80.45085361	79.40763886	81.56210504	80.3901165	81.27814139	86.55241513	107.4407025	86.94755617	87.22533092
11/4/2019 8:17 PM	A9K0050-01	88.38034731	90.7074514	77.69810821	89.29823232	77.95765155	76.81915792	78.23824136	76.58205888	77.04205846	85.9025521	106.1864664	84.61876934	84.90695022
11/4/2019 8:22 PM	9I10442-DUP1	87.48442571	86.48768026	77.36200742	89.37144841	77.08598705	76.71728014	77.65137035	76.40144131	76.40044561	85.91115165	106.0717062	84.75341563	84.64648392
11/4/2019 8:26 PM	9I10442-MS1	86.49717367	89.85135825	77.35049836	89.43986917	77.3245725	76.88138946	78.56847135	76.9411741	77.40021464	85.84978372	106.231011	84.35390326	84.70948076
11/4/2019 8:31 PM	9K04033-CCV9	85.97863875	89.84591348	77.26517564	87.77564375	79.0476902	77.33413684	78.60865592	76.7052299	77.09647181	86.01075055	105.5161336	84.37344896	84.62922705
11/4/2019 8:35 PM	9K04033-CCB9	86.05680056	86.54728122	75.75300349	86.64395024	76.72297381	76.18653021	77.55376964	77.64069357	77.23077375	85.25584485	104.6758555	85.59920647	85.30455089
11/4/2019 8:40 PM	9K04033-CRL7	87.73284708	86.61905923	76.18385801	88.07419866	77.00522011	76.6653445	78.96576101	77.93554229	79.09818905	85.63475752	106.8246351	85.81200795	86.02420987
11/4/2019 8:45 PM	9K04033-CRL8	89.48483655	89.05120465	77.7223589	89.86880236	78.7342225	78.26454696	80.67488724	78.62237823	80.31614316	86.11390536	106.5125727	86.26869814	87.0173253
11/4/2019 8:50 PM	9K04033-CRL9	91.02902319	89.81254741	79.2238567	91.4203909	79.91422862	79.61034841	82.28679353	80.18049226	81.70981392	86.64282601	108.8877177	86.13411685	87.45391513
11/4/2019 8:54 PM	9K04033-CRLA	91.17827833	91.33107798	79.26883542	91.29164904	80.59498147	79.60247052	81.54475973	79.63337516	80.97550272	86.5760768	108.1967207	86.92391646	87.56608036

		6 Li (ISTD) [NoGas]	45 Sc (ISTD) [H2]	45 Sc (ISTD) [He]	45 Sc (ISTD) [NoGas]	74 Ge (ISTD) [H2]	74 Ge (ISTD) [He]	74 Ge (ISTD) [NoGas]	103 Rh (ISTD) [He]	103 Rh (ISTD) [NoGas]	159 Tb (ISTD) [He]	159 Tb (ISTD) [NoGas]	209 Bi (ISTD) [He]	209 Bi (ISTD) [NoGas]
Acq. Date-Time	Sample Name	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value
11/7/2019 10:55 AM	Rinse													
11/7/2019 10:59 AM	Rinse													
11/7/2019 11:04 AM	9K07021-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/7/2019 11:09 AM	9K07021-CAL1	98.37549782	98.56188379	100.1906738	99.11105386	100.3408525	100.4309201	100.1072708	100.2911276	99.92516774	101.3594414	96.33799716	99.69874829	100.2189202
11/7/2019 11:14 AM	9K07021-CAL2	99.62060108	99.23468852	100.0043684	99.14862683	100.1307032	100.2287468	99.95900724	100.202795	99.25268673	100.5474279	95.99101422	99.50184837	99.75862996
11/7/2019 11:19 AM	9K07021-CAL3	100.2465436	98.16415026	100.3115767	99.49447664	100.5535397	100.9349115	101.2336149	99.93820156	100.0014036	101.0163569	97.01019455	100.1413438	100.4714146
11/7/2019 11:24 AM	9K07021-CAL4	100.5445155	97.64892188	99.75754531	98.94373102	99.93203051	100.6452628	99.91375203	99.72199469	99.3816825	100.9413402	96.50065632	99.98074608	99.50710446
11/7/2019 11:29 AM	9K07021-CAL5	98.3200411	97.35836621	99.53623064	96.9309262	99.45375082	99.83420665	98.71846337	99.35138596	97.73863805	100.097496	96.29130633	100.1858855	99.12034248
11/7/2019 11:34 AM	9K07021-CAL6	95.89280043	95.06923087	94.90391133	92.89360784	96.60325587	95.26424499	94.40794247	94.45589986	92.50254008	98.14005585	93.74539901	96.73490457	96.02282711
11/7/2019 11:39 AM	9K07021-CAL7	88.16655468	89.9316021	89.1111228	86.29366674	91.84349649	89.85736374	88.36345354	89.70570272	86.65637813	95.13717356	89.12038394	93.35245247	91.83490056
11/7/2019 11:43 AM	9K07021-CAL8	87.19176456	85.16479032	84.26373458	81.98736783	85.41825866	84.64753432	82.03732088	83.16185671	81.01955791	90.92997765	88.91717598	89.9876318	87.15644904
11/7/2019 11:48 AM	9K07021-CAL9	84.54713045	78.83770786	80.05838058	79.42094569	76.42830001	78.13436984	76.7171938	75.35467297	73.51624593	84.81050915	81.52404325	80.29998185	79.72060914
11/7/2019 12:00 PM	9K07021-ICV1	87.6187525	85.62881064	86.57885842	83.41659799	87.02000039	88.04305052	85.31420266	87.07837812	84.39169965	94.56938549	89.83525444	93.51608735	92.94596839
11/7/2019 12:05 PM	9K07021-ICB1	92.43243599	86.32225866	87.3555389	86.3857622	88.23258172	88.61295916	88.46897038	91.33149249	88.86679311	95.31830399	92.39566182	96.20045995	95.45401942
11/7/2019 12:09 PM	9K07021-CRL1	92.19321086	87.78992158	84.46754043	86.91279889	89.85025276	85.97920775	89.05962464	88.1059986	89.42043119	91.95622257	92.38155347	92.76646937	95.31557632
11/7/2019 12:14 PM	9K07021-CRL2	94.40347347	88.50189113	88.30938087	88.43478423	90.0303537	89.67252489	89.63849331	91.58537053	89.75499192	95.51096066	92.87732217	96.59748917	96.14366079
11/7/2019 12:19 PM	9K07021-CRL3	94.2372865	89.36789796	89.63950815	88.7909026	90.71694495	90.97002845	90.60444498	92.60785992	90.68325905	95.97169554	92.92404271	96.97544843	96.32168339
11/7/2019 12:24 PM	9K07021-CRL4	95.01384061	90.76795219	90.65308727	88.98897247	91.3137635	91.28707567	90.94528198	93.30814417	90.9734747	96.39744216	91.92170987	97.58446118	96.35593924
11/7/2019 12:28 PM	9K07021-IFA1	81.37717673	70.45049238	72.38217142	74.95939408	64.42336757	68.30863386	69.56489316	61.92639897	63.7919389	73.68234822	72.44937627	64.84659519	68.78474441
11/7/2019 12:33 PM	9K07021-IFB1	80.78040748	73.08466018	71.44882229	72.82891108	64.71852208	66.67434355	67.93386217	61.14455567	62.42338228	71.30100545	71.18350722	63.12863919	66.93005953
11/7/2019 12:56 PM	Rinse	78.73813472	75.63530866	78.46353354	74.52165611	79.3884115	81.13076274	79.21573567	84.11905643	79.86255164	93.11298844	84.41594953	94.92240448	91.50452859
11/7/2019 1:01 PM	9110571-BLK1	81.1754207	77.01775523	78.95166295	76.09521939	79.4313425	80.55356617	79.55911331	81.6782423	78.24842697	91.93317217	83.84155607	91.43079287	89.01092296
11/7/2019 1:05 PM	9110571-BS1	80.97245756	77.36144564	79.17746783	76.32835453	80.4821099	81.05024347	79.91011032	81.79988669	78.58867954	91.7607694	83.25599969	91.27173854	89.07902055
11/7/2019 1:10 PM	A9K0125-01	85.99301591	78.96907367	83.42248064	81.34861756	81.62460854	84.57419823	85.51239701	84.21591617	83.02663376	93.41716686	89.63658548	92.37054389	91.69409782
11/7/2019 1:16 PM	9110571-MS1	86.93807602	73.82794092	84.21328893	82.85464476	76.65108193	85.62448855	85.87984491	85.75900088	83.73295289	94.13888008	89.40578052	94.04482101	93.10950107
11/7/2019 1:20 PM	9110572-BLK1	85.86502493	82.73032511	84.01626761	81.96114104	84.98456891	85.48157308	85.26581226	86.06621858	83.91327663	94.15609519	89.41045562	93.81695182	92.4569061
11/7/2019 1:25 PM	9110572-BS1	83.94675961	81.30466042	82.37180307	80.13010071	83.99521358	83.82560379	82.96413185	84.91216936	82.00165269	92.90737315	87.70839982	93.15522327	91.13893816
11/7/2019 1:29 PM	A9K0142-01	85.22719168	81.15609422	82.56846412	80.60181599	84.12342985	84.83737244	83.74676277	84.92227788	82.15081469	92.96041699	87.41024783	92.78485042	91.12783924
11/7/2019 1:34 PM	A9K0143-01	85.62528033	81.60412461	82.83577008	81.10686762	84.45716226	84.64815559	84.5091483	84.895766	82.76629166	92.71332423	89.65801264	92.16236277	90.46131769
11/7/2019 1:39 PM	9110572-MS1	85.24025422	81.18564603	82.51631212	79.61973321	84.29254909	83.6428499	83.56657538	83.92926096	82.050562	92.30389703	87.83854266	91.80949716	89.4858813
11/7/2019 1:43 PM	9110561-BLK1	84.29737116	80.79175911	81.62849893	78.82867771	82.58997033	82.88042455	82.15316274	86.41038701	83.23070336	92.91976486	88.94848518	93.92176258	92.58411823
11/7/2019 1:48 PM	9K07021-CCV1	87.50268765	84.03636297	84.49315815	83.13289132	86.1729266	85.86066733	85.81279958	86.55052845	84.64702734	94.41528475	90.8193978	94.35353036	93.23490205
11/7/2019 1:53 PM	9K07021-CCB1	87.9083155	84.73507424	85.61007966	84.64610819	87.55753447	87.10752789	87.36698122	89.84238577	87.67235477	94.94833727	91.56489841	96.55124959	95.30347651
11/7/2019 1:57 PM	9110561-BS1	81.73720803	83.0452697	84.17862574	78.29402531	85.28038276	85.1813409	80.36714115	87.2808342	80.20619852	94.09619271	84.68100176	94.34000395	88.59504946
11/7/2019 2:02 PM	A9J0913-03	87.92704281	84.46890901	86.25045674	84.88167112	85.73589183	86.57386245	86.8215679	88.62648689	87.00604338	95.41695362	92.97458226	95.59685555	94.55131904
11/7/2019 2:07 PM	9110574-BLK1	89.90666458	87.63973408	87.81435351	85.23211705	89.20779678	89.41426555	88.5039635	91.28719416	88.82295986	95.66361912	91.71686664	96.32735941	95.2123048
11/7/2019 2:11 PM	9110574-BS1	90.20715234	86.33187384	87.53344765	85.83394528	88.22657899	88.49321693	87.99492704	91.04190494	88.83012807	95.715538	92.92764997	96.13246738	95.71764004
11/7/2019 2:16 PM	A9K0071-01	91.35598181	86.89446762	88.18681914	86.74936175	87.39839139	88.45526269	87.32445178	88.22328882	85.37085245	94.89614587	91.64168478	94.09720753	93.5644294
11/7/2019 2:20 PM	9110574-DUP1	91.10940708	87.12136716	85.62570032	85.00259322	86.84243597	85.86502058	85.70012291	85.94685569	83.53050409	93.21655057	90.61729815	93.08983922	92.48376971
11/7/2019 2:25 PM	9110574-MS1	89.79352483	85.38338702	84.00002312	84.46053808	84.57397733	84.16313257	84.55172347	85.1939785	83.43622567	93.19039469	89.2839959	92.9275224	91.99566026
11/7/2019 2:30 PM	A9K0078-01	92.18645869	88.75540567	87.5276831	86.72486607	92.447764	90.28241453	90.4801437	91.93033953	89.87892668	97.60600082	94.40943287	100.3840418	98.83981915
11/7/2019 2:34 PM	A9K0078-02	90.98661094	87.33541391	86.06728884	84.85207895	91.00206949	88.99313007	88.9733485	90.58579082	88.39437054	96.069054	92.68594126	99.4050968	98.06485948
11/7/2019 2:39 PM	9K07021-CCV2	87.36505421	83.71493652	83.03041287	81.70689355	84.99066867	84.005714	83.25773351	84.02797993	81.76587331	92.49215652	88.87831197	91.71117459	90.47302957
11/7/2019 2:44 PM	9K07021-CCB2	89.51021568	84.45443505	85.50440126	83.83134248	86.65494497	86.166667	85.74859674	88.2347095	85.75835732	94.42166766	90.32725132	94.01081553	93.46556697
11/7/2019 2:48 PM	9K07021-CRL5	90.23524901	84.82504737	85.71154724	83.82817928	87.06234704	86.65597053	85.26089927	88.07913931	85.41829758	94.52638757	90.40448987	94.27954997	93.0393466
11/7/2019 2:53 PM	9K07021-CRL6	89.01003369	85.09344021	85.41239948	83.16788145	87.36074911	86.82377319	85.50681447	88.0120666	85.03022246	93.90124132	91.15377557	94.29651638	92.90923414
11/7/2019 2:58 PM	9K07021-CRL7	88.99439405	85.57871244	85.30515567	82.780077	87.19804448	86.42975537	85.17359977	88.19145605	84.28242065	94.41281703	90.00603795	94.51819263	92.64932956
11/7/2019 3:02 PM	A9K0164-01	84.24947285	85.73234183	84.33193674	81.67823412	82.28705922	82.28227503	81.10264173	83.4690304	80.74567762	92.42861448	89.15715607	90.97908869	88.54618296
11/7/2019 3:07 PM	A9K0164-02	88.96304823	86.28258775	87.34533168	87.44494067	82.95424394	83.82700346	85.26056559	84.39295121	84.54527318	91.89638158	93.47119273	93.31848563	93.10527441
11/7/2019 3:12 PM	9110561-DUP1	86.01701045	87.39370874	86.3263458	83.91044421	83.37465234	83.17678799	82.95890824	83.62975009	82.00723091	92.40386336	90.75391804	90.48552497	88.5711358
11/7/2019 3:16 PM	9110561-MS1	88.99631107	86.7140205	86.54953778	85.66985922	83.05551573	83.49208926	84.46742964	84.23022059	83.4068654	92.27339504	92.34250847	91.37392515	89.82403697
11/7/2019 3:21 PM	A9J0943-01	93.47168721	90.63173396	88.999031	88.63658694	92.15827916	90.74709132	90.92755418	89.67223532	87.83737076	96.59490295	93.18828562	98.58667316	97.4350761
11/7/2019 3:25 PM	A9J0943-03	90.33638189	89.8497292	86.93885754	86.51745451	90.73179711	88.89177279	89.18841193	87.74651371	86.39212415	95.59927361	91.24811867	96.94680899	96.02708502
11/7/2019 3:30 PM	A9J0943-04	90.40772797	86.93363193	86.23600867	86.01469842	88.63916342	87.81035348	87.70876986	86.55143738	84.61667242	95.06330788	91.19050282	96.12571982	94.44291725
11/7/2019 3:35 PM	A9J0943-05	91.07318825	86.89183504	86.05816414	86.04221653	88.94290888	88.26389395	88.21463673	87.14983127	84.94017063	95.40276271	91.62754441	96.26248217	95.03890343
11/7/2019 3:39 PM	A9J0943-06	91.9325026	87.58953808	86.45382641	85.54773201	89.38879054	87.82834122	87.81729273	86.88553013	84.8654502	95.09870517	91.13407808	95.84864934	94.95900801
11/7/2019 3:44 PM	A9J0943-07	91.41538171	87.40615427	85.84683068	85.86454724	89.38889563	88.18124171	88.00904839	85.93718325	84.20426612	95.25040802	91.10938942	95.69877081	93.89442906
11/7/2019 3:48 PM	9K07021-CCV3	92.88068239	85.41526781	85.78432218	83.93659366	86.40687837	85.70473719	85.5615671	85.52917523	83.72119644	93.64113211	91.06952015	91.97292876	92.03592343
11/7/2019 3:53 PM	9K07021-CCB3	95.54695471	87.27742473	87.53968841	85.75671377	88.21487142	88.21741071	89.03941072	90.01133636	89.12367315	94.91573334	94.15642092	95.82950119	95.6780246
11/7/2019 3:58 PM	A9J0943-08	92.76801201	88.56119737	87.55332	85.9889105	90.49279222	89.45819824	89.43256836	87.36431683	85.90192892	96.3805673	93.20744328	96.83105736	95.44879226
11/7/2019 4:03 PM	A9J0943-09	92.832195	89.99556196	88.59462767	86.74562331	92.85682883	91.02661498	89.81446251	91.69740816	88.7350034	97.16657809	92.52681793	98.90633351	97.51875828
11/7/2019 4:07 PM	A9J0943-10	94.55333929	88.75358737	87.97644144	86.35264806	91.32375195	90.00008279	90.40450577	91.51759315	89.88784796	96.84384389	95.17412085	100.7645231	99.50898358
11/7/2019 4:12 PM	A9K0136-01RE1	84.33941818	80.55362538	78.82014415	80.85046261	77.93602314	78.49596667	79.33028086	77.16128519	76.09450492	87.25181381	83.21986304	84.0297799	85.40977567
11/7/2019 4:16 PM	A9K0136-03RE1	78.15408086	76.82020705	74.58596156	75.36178314	73.79880599	74.65835476	75.45897482	72.3984826	71.69692547	83.69396815	78.87525634	79.4604362	80.50244342
11/7/2019 4:21 PM	A9K0098-01RE1	88.47296221	102.7524437	100.0797571	99.47730489	86.04527221	84.70863998	85.78157498	83.25307375	82.89976992	95.26396481	94.86799369	88.05531001	90.17176052
11/7/2019 4:26 PM	A9K0163-01	98.28315774	89.84679378	92.40436944	95.59753331	91.01212701	92.69385298	97.10626878	94.11057491	96.56541901	97.48125627	100.1216356	97.78341499	100.5659609
11/7/2019 4:31 PM	A9K0183-01	91.56337449	90.05011308	89.35735213	88.50526054	89.88260885	89.19696205	90.01703493	90.04807628	88.43589838	96.59912036	94.47030242	95.53533277	95.07889548
11/7/2019 4:35 PM	9110573-BLK1	98.12055121	93.23885222	93.55370737	93.8011873	93.44779466	92.994123	94.70931095	92.78381068	91.89125099	97.55369948	95.67566516	95.7518343	96.48747569
11/7/2019 4:40 PM	9110573-BS1	98.67313621	94.1824777	92.93643186	92.68935455	93.87186377	92.56403366	93.57621647	92.25342797	90.92322845	96.52829555	95.5025696	95.13572906	95.43800627
11/7/2019 4:45 PM	9K07021-CCV4	95.59386054	94.61269782	91.19060066	89.38417755	94.15138517	90.94753904	91.05136153	91.45453114	89.16946772	96.54945347	93.65007086	95.7972056	95.43860751
11/7/2019 4:49 PM	9K07021-CCB4	97.16235005	93.48963612	93.18996863	92.34364696	93.47622648	92.72033773	93.45155627	94.07445429	91.93415663	97.04601813	94.34900137	95.45824442	96.30377041
11/7/2019 4:54 PM	A9J1006-01	97.44065451	93.57454543	92.95441189	91.45201438	93.56577799	91.91734211	92.33063339	91.55766602	90.16921616	96.55247871	94.29126626	94.35318084	95.16975035
11/7/2019 5:00 PM	A9J1006-02	96.19503149	94.09594863	89.40289308	92.34968313	93.54818083	88.00030944	92.25944524	87.56596643	89.96869034	92.32443751	91.86163046	90.83085751	94.71982923
11/7/2019 5:05 PM	A9J1007-01	96.02218393	92.91894581	92.46029358	90.18593955	92.80116312	92.23993567	91.98426288	91.28721255	89.41897561	96.0972149	95.25681685	94.68831569	94.90456471
11/7/2019 5:10 PM	9110573-MS1	92.41318697	92.64265804	90.83891393	89.31908922	91.95243928	90.30001816	89.86968968	90.35126029	86.84940779	95.18259803	91.82253237	93.28576233	93.23492315
11/7/2019 5:15 PM	9110576-BLK1	96.20527306	91.45452421	90.1731218	89.56622714	90.6975952	89.97523197	90.4671079	89.83557999	88.10576818	94.84628672	95.01018166	93.72983043	93.95909774
11/7/2019 5:19 PM	9110576-BS1	94.15200567	91.93696112	89.71102043	88.66395779	91.16557457	89.26822773	88.97032307	89.39466937	86.91572201	94.67152618	93.95991694	93.33417353	92.77874585
11/7/2019 5:24 PM	A9J1126-01RE1	99.72141604	93.38397691	93.19978054	93.37602204	92.81386691	92.85611368	94.19444462	91.35624562	90.66704842	96.23928241	96.79335107	93.03991681	94.51165906
11/7/2019 5:28 PM	9110576-MS1	96.65268901	94.08764936	92.21276239	91.32355437	93.47186702	91.31165005	92.85506884	90.53881825	89.18939596	95.07408224	94.56692134	92.70845559	92.7981211
11/7/2019 5:33 PM	9110575-BLK1	97.32152455	92.76531706	91.55004601	91.55431744	91.38509496	90.53374386	92.3375982	93.48229613	92.76973712	96.32988957	95.69318776	94.89736969	95.62294723
11/7/2019 5:38 PM	9110575-BS1	94.79355299	92.9537596	91.68018456	90.70464316	91.74939823	90.43686497	90.12523108	92.20761849	89.56037084	96.61618541	95.28910961	94.64924586	94.84967565
11/7/2019 5:42 PM	9K07021-CCV5	89.93403493	92.76460849	89.62822675	87.40880629	92.43804887	89.18322572	87.93433723	89.43075058	85.98157057	95.68817015	90.60698016	94.19179944	93.2408332
11/7/2019 5:47 PM	9K07021-CCB5	95.64447793	91.44035308	90.18907356	88.13843053	91.21014969	90.55931343	90.30888405	91.81732271	89.56393576	96.72891392	94.78725029	95.9888195	95.55618534
11/7/2019 5:52 PM	A9J1126-01RE2	94.90214211	92.84708975	92.34250061	89.67700863	91.2454135	90.77122629	89.92630937	93.6833967	90.9939456	98.43730425	96.82641649	95.78478938	96.16940121
11/7/2019 5:56 PM	9110575-DUP1	96.41387758	92.27954104	92.11060176	92.62987222	91.10107087	90.79870186	91.6154316	93.85768985	91.97409376	98.11939865	96.77210069	96.57411276	97.23637888
11/7/2019 6:01 PM	9110575-MS1	93.83289862	94.06649768	93.0655054	91.70532988	92.29469187	91.47826254	90.9344579	92.33143603	90.02248753	98.59571619	98.20959858	96.01998743	96.34763204
11/7/2019 6:05 PM	9110559-BLK1	95.00838631	92.89840006	92.08825495	90.40081955	92.97473123	91.71129714	91.09654906	93.4235154	90.67701738	98.25223934	96.96280355	96.21085079	95.99506223
11/7/2019 6:10 PM	9110559-BS1	87.01145521	92.53973394	90.54893841	83.30789989	91.73679402	90.05941484	83.44359491	91.37185629	82.26368908	97.36381534	88.38758733	95.33477117	88.45656183
11/7/2019 6:15 PM	9K07021-CCV6	91.64120994	91.89212922	88.55616815	86.59942428	90.94835087	88.19811495	87.30706169	88.60492288	85.48633942	95.68992298	92.40387107	93.38616914	93.55044929
11/7/2019 6:19 PM	9K07021-CCB6	94.61916592	90.08452228	88.40679442	87.51053348	90.14477971	89.13805921	89.33079517	91.42568981	88.99923229	95.47177373	93.28443046	95.00784818	95.48025443
11/7/2019 6:24 PM	9K07021-CRL8	96.59760089	91.37709938	90.00771375	89.2329536	91.43814957	89.96711472	90.26294794	91.60764842	89.90654249	95.80438191	94.98493379	94.77836569	96.30106815
11/7/2019 6:29 PM	9K07021-CRL9	94.53807437	91.99525454	90.66320526	88.68550911	92.23707313	91.08313894	91.0143184	92.8425369	90.4211352	97.06331088	94.53008199	96.71830884	96.66264523
11/7/2019 6:33 PM	9K07021-CRLA	93.9973459	91.61584273	90.73711442	89.85862512	92.2736891	91.28429523	90.35572826	93.50650811	89.78873936	97.20030801	94.40535173	96.88734562	96.08554402
11/7/2019 6:38 PM	9K07021-CRLB	95.98004366	89.57141848	90.60938194	90.00712464	88.61634195	91.25685604	90.64543591	91.86709561	89.833021	96.10772143	94.98492579	95.81031993	95.97197094
11/7/2019 6:43 PM	A9K0097-01	106.182329	85.17268142	87.04601962	93.19526817	78.45606091	81.30898877	86.10833306	75.23075297	79.30922145	82.69871137	86.95023883	75.53461294	80.0329568
11/7/2019 6:47 PM	A9K0127-02	101.9222422	91.09292114	89.39281846	93.24886497	86.99031981	86.633986	89.37473653	84.95523893	85.40569167	91.75182863	93.5597246	87.24072098	90.11116808
11/7/2019 6:52 PM	A9K0130-01	96.30564592	85.53934347	84.77422748	90.36001402	76.29907184	78.77912192	82.76361785	72.76625619	75.84062922	82.21056278	81.62212046	73.70848528	76.75446615
11/7/2019 6:56 PM	A9K0135-01	105.6061593	96.87683501	94.8976614	97.35206637	86.82725584	88.44791366	90.52198382	84.39595973	84.79305059	90.60410149	91.14079744	83.02876365	84.69944172
11/7/2019 7:01 PM	9110559-DUP1	103.3801676	98.12265812	94.29009439	96.96691834	87.23432188	87.73374807	89.46236714	83.47784318	84.03002455	91.47582726	92.50899634	82.65644728	84.2930779
11/7/2019 7:06 PM	9110559-MS1	102.2640673	94.36292686	91.42849758	94.23999867	84.73895619	85.67828446	87.60871921	81.18793771	82.57597028	88.9796827	91.53064483	81.04069352	83.11882592
11/7/2019 7:10 PM	A9K0146-02	102.136279	91.3957224	90.90801597	94.61056364	83.67160945	84.64345896	87.41636095	78.60898126	80.03979685	84.1297164	86.50074103	75.97069912	78.29309202
11/7/2019 7:15 PM	A9K0146-03	102.7520451	97.50268326	92.70843859	93.39663769	93.93455386	89.40086677	90.04830271	90.61308947	88.82220896	92.7391581	93.25268552	92.21594318	93.76731108
11/7/2019 7:19 PM	A9K0147-01	98.01509096	89.6412484	86.9635145	89.5713228	81.41187778	82.03429939	83.39020188	77.10674896	77.35165958	84.93980771	84.69784568	77.95851815	79.84215735
11/7/2019 7:24 PM	A9K0148-01	99.12664956	92.67129879	88.69552313	89.74051595	88.80544995	86.77592373	87.30153513	86.48234586	84.69861231	90.86381992	92.16551762	89.55108388	90.38631541
11/7/2019 7:29 PM	9K07021-CCV7	94.60008059	88.80691974	87.24898231	87.40844614	87.04266847	84.95315279	85.69461831	85.56237336	83.81715266	91.0704398	91.19034374	89.62072379	90.08410016
11/7/2019 7:33 PM	9K07021-CCB7	95.68423237	88.68659059	87.08128662	87.82541963	87.64622621	86.33857848	86.51825186	88.11084993	86.37507372	91.86188727	92.36797083	91.61570336	91.54362093
11/7/2019 7:38 PM	9K07021-CCB8	95.00494146	88.03098983	85.93945045	85.93179162	87.14525132	85.54308031	85.8478999	87.97417147	85.62684109	91.97730963	92.26522505	91.56229036	91.55415767
11/7/2019 7:43 PM	A9K0151-01	94.50974495	85.3493814	84.72700855	88.28549494	80.8939227	82.40194305	83.8334626	78.30136623	78.34629468	86.794162	87.36784167	81.26344776	82.07545055
11/7/2019 7:47 PM	A9K0154-01	95.04948595	88.57607426	85.89296042	86.30725007	86.96389187	85.17140639	85.4324615	84.6618817	82.6077883	90.01618561	90.82498589	89.45986851	89.6334059
11/7/2019 7:52 PM	A9K0156-01	91.79791201	86.06813781	84.1652627	84.7945992	83.17205791	82.1290715	83.02240677	81.30531791	79.60804977	88.81704605	88.69380066	86.76720403	86.24762883
11/7/2019 7:57 PM	9110559-MS2	92.43712137	85.55300774	84.21815361	84.92923752	83.33987457	82.76136616	82.48142969	81.69201279	79.57325214	89.34325661	87.71149401	87.13533535	86.09777349
11/7/2019 8:01 PM	A9K0167-01	91.31950241	86.83445472	83.43659678	84.07388346	84.66935699	82.70601344	82.62092654	84.51881647	82.03676144	90.12597642	90.22504431	89.91761386	89.10022023
11/7/2019 8:06 PM	A9K0167-02	92.27796024	85.27975485	83.84984459	85.12364181	82.79490763	82.29962113	82.49669404	80.55539144	78.63921109	88.41363651	88.95067018	85.18744616	85.8968897
11/7/2019 8:11 PM	A9K0167-03	90.78521293	86.65724445	82.7559204	82.11309115	84.04126628	82.03051357	81.65027336	82.99800701	80.34482418	89.37252735	90.25054312	88.32579389	88.00258986
11/7/2019 8:15 PM	A9K0167-04	95.72111044	85.14636901	83.43637577	86.1698087	82.02328577	82.15843853	82.90869577	79.73736448	78.60419876	88.34725524	87.74512834	83.74656983	84.76577661
11/7/2019 8:20 PM	A9K0171-02	94.26030916	87.17712963	85.09089073	86.83536319	83.73329612	82.41495481	83.0315716	81.68195024	79.48192609	89.08006275	89.41825611	85.26952344	84.68916477
11/7/2019 8:24 PM	A9K0171-04	90.5646934	87.20425212	83.40800671	82.81592975	85.72873229	82.64881001	81.64024287	84.17496524	80.8698769	90.49109734	89.78266747	90.82694657	90.36254356
11/7/2019 8:29 PM	9K07021-CCV8	90.39796162	84.8555077	82.08631692	81.62513814	83.34994564	81.64254549	81.42823597	82.43638325	79.16861477	89.44511906	88.93958081	88.13427657	88.22528864
11/7/2019 8:34 PM	9K07021-CCV9	88.23658284	83.99456825	81.32233313	80.88983367	82.69825505	80.81691934	80.75344886	82.06107556	79.07369835	89.43171911	88.30928072	88.55523408	87.74803706
11/7/2019 8:38 PM	9K07021-CCB9	90.13916314	84.31102983	82.11918453	82.36375013	83.79315518	82.52660307	82.70881949	85.24833741	82.38203164	90.31407334	91.06434145	90.87423563	90.31157331
11/7/2019 8:43 PM	A9K0173-01	88.10962916	83.52174091	81.03797204	81.67412885	82.77225269	81.86882031	81.48952094	82.69786567	79.62241162	90.01418789	91.01387354	88.6376995	88.10879296
11/7/2019 8:48 PM	A9K0173-03	94.25871201	83.7936728	83.62448923	85.70642871	81.37249266	81.36156105	82.50227146	79.50204323	78.44883021	87.91988241	88.73840973	83.20495454	83.4540582
11/7/2019 8:52 PM	A9K0173-05	91.68642313	87.37741266	84.00496452	83.76460185	85.27122358	83.27300196	82.72886621	84.96808408	81.77787993	90.64315555	90.39091945	90.50313247	90.53048181
11/7/2019 8:57 PM	9K07021-CCVA	88.62592406	85.33066083	82.35457698	82.65485111	83.97238151	81.98187552	81.50381609	82.63545187	80.00252032	90.13630788	89.86587359	89.01258575	88.79538359
11/7/2019 9:02 PM	9K07021-CCBA	89.35574104	84.49593115	82.22314908	82.5271902	83.87528994	82.58211438	82.95076603	85.48717417	82.84571717	90.77333729	90.4855331	91.13153987	90.48978577
11/7/2019 9:06 PM	9K07021-CRLC	90.2803077	85.15861524	82.41686364	82.32021321	84.23033614	82.73661719	82.30748817	85.51717399	82.06867337	90.46648587	90.72158692	91.02958137	90.38767259
11/7/2019 9:11 PM	9K07021-CRLD	87.97909365	84.24191052	82.26204812	81.54029183	84.02481281	82.26488382	81.98255984	85.0863581	81.77790395	90.63093995	89.8388617	91.02785677	90.356278
11/7/2019 9:16 PM	9K07021-CRLE	87.76904092	84.50898426	81.85683247	81.34710886	83.67593798	82.39708783	81.89762133	84.87637777	81.84670852	90.40442831	90.5919483	91.01260485	90.65272267
11/7/2019 9:20 PM	9K07021-CRLF	88.35909669	85.07269261	81.37821723	81.66953713	83.94477727	81.73958298	81.98010408	84.66322605	81.23045807	90.33854934	89.77498077	91.31755778	90.97888323

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Solids by SM 2540G
Benchsheet Data

Batch 9101715 (A9J1007-01)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

NOV 1 1 2019

Percent Solids + Dry Weight Worksheet

BATCH #: 9101715 (Matrix: Sediment)

Lab Number	Analysis	QC Source ID	Prepared (Time In)	Weighed (Time Out)	Tare Wt. (g)	Wet Weight (+Tare) (g)	Dry Weight (+Tare) (g)	% Solids (Calc)	LogComments
A9J1007-01	Dry Weight		10/29/19 14:08		1.254	26.524	15.197	55.2	Use Results from TS. Make NR once completed.
A9J1007-01	Solids, Total (SM 254		10/29/19 14:08		1.254	26.524	15.197	55.2	Use Result for Dry Weight.
9101715-DUP1	QC	A9J1007-01	10/29/19 14:08		1.261	26.975	15.461	55.2	

NRP — Prepared By: — 11/1/19 Date

James S. Johnson — Reviewed By: — 11/06/19 Date

Batch #: 9101715

Total Solids Worksheet

Date: 10/29/2019

Analyst: nrp

Method: SM 2540 G

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g)			Comments
				1st weighing	2nd Weighing	3rd Weighing	
A9J1007-01	1.254	1007-01	26.524	15.217	15.197		
9101715-DUP1	1.261	1007-01DUP	26.975	15.482	15.461		source: A9J1007-01

Date/time first in oven:	**Oven temp. (°C; in/out):**	**104.1/104.1**	**104.5/104.4**	/	
10/30/19@19:50	**Time of weighing:**	11/1@10:22	11/1@15:49		

APEX LABORATORIES, LLC
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TCLP Extraction by EPA 1311
Benchsheet Data

Batch 9110443 (A9J1007-01) (ZHE)
Batch 9110529 (A9J1007-01)

PREPARATION BENCH SHEET

BATCH #: 9110443 (Solid)

Apex Laboratories

Prep Method: EPA 1311 TCLP/ZHE

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J0954-01	C	TCLP/ZHE Extraction	11/04/19 15:35	25.1	500					PDI-019SC-C-00-3.2-191025		
A9J0954-02	C	TCLP/ZHE Extraction	11/04/19 15:35	24.9	500					PDI-095SC-C-00-8.8-191025		
A9J1007-01	C	TCLP/ZHE Extraction	11/04/19 15:35	20.3	400					PDI-083SC-C-00-08-191028		
A9K0045-01	A	TCLP/ZHE Extraction	11/04/19 15:35	20.3	400					BF-110419-108		
A9K0046-01	A	TCLP/ZHE Extraction	11/04/19 15:35	19.9	400					FC-110419-1210		
A9K0048-01	A	TCLP/ZHE Extraction	11/04/19 15:35	19.9	400					Vapor Carbon-T125-110119		

*pH <2 verified_____

Standards/Reagents

Reagent(s)			**Analyte Spike(s)**			**Surrogate(s)**		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description

TCLP Fluid #1
Fluid ID: A19K009
Start: 11/04/19 1535
Stop: 11/05/19 0935
Temp:21.4 to 23.0 C
A19F218 Metals Balance

Prepared By: _____ Date 11/5/19

Reviewed By: _____ Date 11/5/19

APEX LABS ZHE WORKSHEET

Batch # 9110443

Analyst [signature]

Sample ID	ZHE #	Matrix	Weight of Sample in Pan (g)	Weight of Sample Remaining in Pan (g)	Weight of Sample Added (g)	TCLP Fluid #1 (g)	Initial PSI (5-10)	Final PSI *	Comments
A9J0954-01	1	Solid	NA	NA	25.1	500	10	10	
A9J0954-02	2	↓	↓	↓	24.9	500	10	10	
A9J1007-01	12	↓	↓	↓	20.3	400	10	10	
A9K0045-01	13	↓	↓	↓	20.3	400	10	12	
↓ 46-01	24	↓	↓	↓	19.9	400	10	10	
↓ 48-01	26	↓	↓	↓	19.9	400	10	10	

*Re-extract if pressure reads 0 PSI

Start

Date/Initals 11/4/19

Time (18+/- 2h) 1535

RPM (30) 30

Stop

Date/Initials 11/5/19 EM

Time 0935

Temp (23+/- 2°C) Min: 21.4 **Max:** 23.0 **(For thermometer SN _EU6200919)** _____ **C.F.** __0

Comments: **TCLP Fluid # 1 Lot #** A19K009 **Temp before C.F.** NA

Apex Laboratories
BATCH #: 9110529 (Matrix: Solid)
TCLP Leachate Bench Sheet

#	Lab Number	Analysis	Initial (g)	Final (mL)	Start Time	Stop Time	Sample pH	TCLP Fluid	Client / Sample
	9110529-BLK1	QC	50	1000	11/06/19 17:15	11/7/19 0920	4.97	#1	
	A9J1006-01	TCLP Extraction - Metals	100.1	2002	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-071SC-C-00-08-191028
	A9J1006-01	TCLP Extraction - Organics	100.1	2002	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-071SC-C-00-08-191028
	A9J1006-02	TCLP Extraction - Metals	100.1	2002	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-074SC-C-00-7.3-191028
	A9J1006-02	TCLP Extraction - Organics	100.1	2002	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-074SC-C-00-7.3-191028
	A9J1007-01	TCLP Extraction - Metals	100.3	2006	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-083SC-C-00-08-191028
	A9J1007-01	TCLP Extraction - Organics	100.3	2006	11/06/19 17:15	11/7/19 0920	4.5	#1	Anchor QEA, LLC / PDI-083SC-C-00-08-191028

Fluid ID: A19K090
Syringe Filter Lot: A19G155
% Solids Filter Lot: A19C193

CRL 11/7/19
Prepared By: Date

ESS 11/8/19
Reviewed By: Date

TCLP \ SPLP* (circle one) Batch # 9110529/9110530/9110539 Prepared By: CRL

*For SPLP, the FD pre-test is not performed. If the sample is water or waste (not soil) then use fluid #1. If the sample is soil, FD is based on sample origination: east of the Mississippi R. - use fluid #1, west of the Mississippi R. - use fluid #2.

Fluid Determination (FD)

Sample ID	Weight 5 g	+DI H2O 96.5 mL (19.3 mL/g)	pH after 5 min stir	If pH >5, add 3.5 mL 1N HCl** (0.7mL/g)	Heat to 50° for 10 min.	pH @ room temp	Fluid #	% Solids	Size Reduction
	(g)	(mL)	(s.u.)	(mL or "NA")	("✓" or NA")	(s.u. or "NA")	("1" or "2")	(%)	("Y" or "N")
A9J1006-01	5	96.5	4.5	NA			1	100	N
A9J1006-02	5	96.5	4.5	NA			1	100	N
A9J1007-01	5	96.5	4.5	NA			1	56.84	N
A9J1126-01	5	96.5	4.5	NA			1	100	N
A9K0125-01	5	96.5	4.5	NA			1	100	N

**pH<5, FD is done, use fluid #1

Extraction

Weight*20

Sample ID	Tare Weight	Weight 100±0.1	Fluid 2000±1%	Fluid #	Fluid ID	Extract pH (to nearest 0.5)
	(g)	(g)	(g)	("1" or "2")		(s.u.)
9110529-BLK1	—	50	1000	1	A9K0040	4.97
9110530-BLK1	—	50	1000	1		4.97
A9J1006-01	1161.1	100.1	2002	1		4.5 ~~4.5~~ CRL 11/7/19
A9J1006-02	1169.3	100.1	2002	1		4.5
A9J1007-01	1172.5	100.3	2006	1		4.5
A9J1126-01	110.6	~~100~~	~~2000~~	1		5.5
A9K0125-01	109.8	~~100~~	~~2000~~ 2000	1		5
9110539-BLK1	—	42.67	853	1		4.97

CRL 11/6/19 — 530

moved to batch 9110539

42.67 CRL 100 — 852 11/6/19

Extraction Start/Stop

	Date	Time	Intl.
START	11/6/19	1715	CRL
STOP	11/7/19	0920	CRL

Stop time window:

RPM 32

Reset Min/Max Temp ☒

	Min Temp	Max Temp
As read:	21.6	22.8
Corr factor:	-0	-0
Actual:	21.6	22.8

Thermometer ID: S/N RC-5-001

APEX LABORATORIES, LLC
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Balance Checksheets

Extractions November 2019
Dry Weight October 2019
Wet Chem October 2019
Metals October 2019
Metals November 2019
Sample Rec. October 2019

Balance Challenge Log

Extractions
AND FX-2000
ID# 5210177

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10077	0.5g	0.48	0.52
1000143395	300g	294.00	306.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Alternate Weight/ID used:

Date Range:

Month: November
Year: 2019

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1 07:40	JAG		.48		~~299.98~~
2					
3					
4 07:25	JAG		.51		300.00
5 07:25	JAG		.50		299.98
6 07:55	JAG		.51		299.99
7 07:20	JAG		.49		~~299.95~~
8 0734	AJJ		0.51		~~299.98~~
9					
10					
11 07:15	JAG		.50		299.98
12 10:20	CmM		0.49		299.99
13					
14 07:20	JAG		.50		299.97
15 0710	AJJ		0.50		299.97
16		0.50g		300.00g	
17					
18 0720	AJJ		0.49		299.95
19 9/5	xc		0.50		299.96
20 0718	AJJ		0.50		299.98
21 0724	AJJ		0.51		299.96
22 0733	AJJ		0.50		299.97
23 ~~0~~					
24					
25 07:20	JAG		~~JAG 11/25/19 49.99~~ .49		299.95
26 08:05	JAG		.49		299.97
27					
28					
29					
30					
31					

Balance Challenge Log

Dry Wt Balance 3
Mettler PG403-S
ID# 1120240743

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10077	0.5g	0.480	0.520
10077 and 02-J60965-11	100g (50+50)	98.000	102.000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Alternate Weight/ID used:

Date Range:

Month: October
Year: 2019

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1 0735	MEB		0.498		100.002
2 0800	MEB		0.499		99.999
3 0844	MEB		0.501		100.000
4 0755	MEB		0.499		100.003
5					
6					
7 MEB 10/7/19 0~~0.498~~ 0725	MEB		0.498		99.997
8 0705	JAG		.485		99.798
9 0750	MEB		0.500		100.004
10 0835	MEB		0.499		100.000
11 0750	MEB		0.501		100.000
12					
13					
14 0740	MEB		0.501		100.166
15 0830	MEB		0.499		100.002
16 0820	MEB	0.50g	0.498	100.00g	99.999
17 0803	~~AJJ~~		0.497		100.001
18 0805	MEB		0.500		99.998
19					
20					
21 0735	MEB		0.495		100.014
22 0816	MEB		0.501		100.008
23 0830	MEB		0.499		100.001
24 0830	MEB		0.501		100.006
25 0825	MEB		0.496		100.009
26					
27					
28 0725	MEB		0.504		100.005
29 0820	MEB		0.504		100.001
30 0810	MEB		0.499		100.158
31 0835	MEB		0.503		100.007

Balance Challenge Log

Wet Chem Balance 1
Ohaus Adventurer Pro
ID# 8C30461093

Weight ID	weight (g)	acceptance range (g)	
	<0.5000g	± 0.5mg	
	>/=0.5000g	± 0.1%	
1000015949	0.005g	0.0045	0.0055
66067	0.100g	0.0995	0.1005
66067	100g	99.9000	100.1000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: Oct
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 09:02	MRF		100.0031		0.1000		0.0051
2 0830	MRF		100.0023		0.1000		0.0050
3 0802	MRF		100.0013		0.1000		0.0050
4 1625	MAS		100.0015		0.0999		0.0051
5							
6							
7 10:07	MRF		100.0017		0.1001		0.0051
8 8:00	MRF		100.0017		.1000		0.0050
9 9:29	MRF		100.0018		0.1001		0.0051
10 9:01	MRF		100.0011		0.1000		0.0049
11 12:50	MAS		100.0007		0.1000		0.0049
12							
13							
14 9:54	MRF		100.0006		0.1001		0.0051
15 9:17	MRF		100.0007		0.1000		0.0050
16 10:21	MRF	100.0000g	100.0006	0.1000g	0.1000	.0050g	0.0050
17 9:15	MRF		100.0008		0.1000		0.0051
18							
19							
20							
21 12:09	MRF		100.0016		0.1000		0.0050
22 08:44	MRF		100.0017		0.1000		0.0050
23 09:31	MRF		100.0018		0.1002		0.0051
24 08:24	MRF		100.0013		0.1000		0.0050
25							
26							
27							
28 10:06	MRF		100.0008		0.1000		0.0049
29 10:25	MRF		100.0001		0.1000		0.0050
30 10:00	MRF		99.9996		0.1001		0.0049
31 10:19	MRF		99.9998		0.1000		0.0050

Balance Challenge Log

Dredd
Intelli-lab PC-6001
ID# 190408014

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
03-J68814-10	10.0	9.8	10.2
15477	200.0	196.0	204.0
15477 + 1000139353	1 kg + 2kg	2940.0	3060.0

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2019

Alternate Weight/ID used: | Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							
2 ~~820~~	ICT		10.0		200.1		3002.4
3			~~10.0~~		~~200.0~~	MJG 10/7/19	~~3002.6~~
4							
5							
6							
7 803	MJG		10.0		200.0		3002.6
8 0902	MJG		10.0		200.1		3002.4
9 800	ICT		9.9		200.1		3002.3
10 735	MJG		9.9		200.1		3002.2
11 800	ICT		9.9		200.1		3002.1
12							
13							
14 805	MJG		10.0		200.1		3002.1
15 800	ICT		9.9		200.1		3002.2
16 ~~7~~815	ICT	10.0 g	10.0	200.0 g	200.1	3000.0 g	3002.4
17 804	ICT		9.9		200.1		3002.4
18 800	ICT		10.0		200.1		3002.4
19 ~~805~~	ICT		~~10.0~~		~~200.1~~		3002.4 ICT 10/11/19
20							
21 ~~805~~	ICT		10.0		200.1		3002.4
22 828	MJG		10.0		200.1		3002.5
23 800	ICT		9.9		200.1		3002.5
24 810	MJG		9.9		200.1		3002.3
25 819	MJG		10.0		200.0		3002.3
26							
27							
28 820	ICT		9.9		200.1		3002.3
29 800	ICT		10.0		200.8		3001.8
30 ~~750~~	ICT		10.0		200.0		3001.9
31 740	ICT		10.0		200.1		3001.9

Balance Challenge Log

Metals Prep Balance 2
Sartorius LC 620 P
40020073

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
03-J68049-19	0.100g	0.080	0.120
03-J68814-10	10g	9.800	10.200
15477 (100g + 500g)	600g	588.000	612.000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 920	CRL		600.005		10.002		0.099
2 820	KT		599.995		9.992		0.099
3 830	KT		600.000		10.000		0.100
4 718	MJG		600.005		10.001		0.100
5							
6							
7 758	MJG		600.005		10.002		0.101
8 0903	MJG		600.005		10.000		0.098
9 800	KT		599.990		10.000		0.100
10 733	MJG		599.995		9.999		0.100
11 800	KT		600.000		9.994		0.098
12							
13							
14 802	MJG		599.995		9.999		0.098
15 800	KT		599.995		10.000		0.102
16 745	KT	600.000g	599.995	10.000g	10.000	0.100g	0.100
17 809	KT		600.000		10.002		0.104
18 800	KT		600.000		9.999		0.099
~~19 805~~	~~KT~~		~~600.005~~		~~9.998~~		~~0.100~~
20							
21 805	KT		600.005		9.998		0.100
22 825	MJG		600.005		10.000		0.100
23 800	KT		600.005		9.999		0.097
24 807	MJG		600.000		10.001		0.102
25 819	MJG		600.005		10.006		0.105
26							
27							
28 820	KT		599.990		10.001		0.100
29 800	KT		599.990		9.999		0.100
30 750	KT		599.985		9.998		0.097
31 740	KT		599.985		9.998		0.098

KT 10/22/19

Balance Challenge Log

Metals Prep Balance 2
Sartorius LC 620 P
40020073

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
03-J68049-19	0.100g	0.080	0.120
03-J68814-10	10g	9.800	10.200
15477 (100g + 500g)	600g	588.000	612.000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: November
Year: 2019

~~WHICH~~ ICT 11/4/19

Alternate Weight/ID used:	

Date Range:	

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 750	ICT		599.990		9.998		0.097
2 ~~8~~							
3							
4 800	ICT		599.985		10.000		0.099
5 805	MJG		599.980		9.999		0.100
6 748	MJG		599.985		9.998		0.099
7 757	MJG		599.985		10.000		0.100
8 805	MJG		599.980		9.997		0.098
9							
10							
11 748	MJG		599.990		9.999		0.099
12 813	MJG		599.990		10.004		0.103
13 750	ICT		599.995		10.001		0.100
14 813	MJG		599.990		9.999		0.099
15 720	ICT		599.990		10.000		0.099
16		600.000g		10.000g		0.100g	
17							
18 800	ICT		600.000		9.999		0.098
19 942	MJG		600.000		10.000		0.101
20 810	MJG		600.000		10.001		0.101
21 800	ICT		599.995		10.001		0.101
22 815	MJG		599.990		9.999		0.100
23							
24							
25 800	ICT		599.990		10.000		0.100
26 737	MJG		599.990		10.001		0.101
27 834	MJG		599.985		10.000		0.100
28							
29							
30							
31							

Balance Challenge Log

Dredd
Intelli-lab PC-6001
ID# 190408014

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
03-J68814-10	10.0	9.8	10.2
15477	200.0	196.0	204.0
15477 + 1000139353	1 kg + 2kg	2940.0	3060.0

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: November
Year: 2019

KT 11/4/19

Alternate Weight/ID used:

Date Range:

	Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1	750	KT		9.9		200.0		3002.1
2	~~800~~	~~KT~~						~~3002.3~~
3								
4	800	KT		9.9		200.1		3002.3
5	807	MJG		10.0		200.1		3002.1
6	750	MJG		10.0		200.1		3002.2
7	759	MJG		10.0		200.0		3002.2
8	806	MJG		10.0		200.1		3002.1
9								
10								
11	750	MJG		10.0		200.1		3002.2
12	815	MJG		10.0		200.1		3002.3
13	750	KT		10.0		200.1		3002.3
14	815	MJG		10.0		200.1		3002.2
15	720	KT		10.0		200.1		3002.3
16			10.0 g		200.0 g		3000.0 g	
17								
18	800	KT		9.9		200.1		3002.3
19	945	MJG		9.9		200.1	11/19/19 MJG	~~3002.4~~ 3002.4
20	812	MJG		9.9		200.1		3002.3
21	800	~~KT~~		10.0		200.1		3002.3
22	817	MJG		10.0		200.1		3002.1
23								
24								
25	800	KT		10.0		200.1		3002.3
26	740	MJG		9.9		200.2		3002.2
27	835	MJG		9.9		199.9		2999.9
28								
29								
30								
31								

Balance Challenge Log

BalanceName
Lady Justice
S/N 593312

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
10660	0.10g	0.08	0.12
10581	50.00g	49.00	51.00
15477	500.00g	490.00	510.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed	
1 9:10	[illegible]		0.10		49.98	ONLY	499.80	TAEJ 10-1-19 14:26
2 7:40	[illegible]		0.09		49.98	NEEDED		
3 9:00	[illegible]		0.09		49.98	WHEN		
4 7:53	[illegible]		0.10		49.98	WEIGHING		
5 9:10	[illegible]		0.09		49.98	OVER		
6						50 g		
7 7:00	[illegible]		0.10		49.98	KEPT	499.76	TAEJ 10-7-19
8 8:07	[illegible]		0.09		49.97	IN METALS		
9 8:10	[illegible]		0.09		49.97	DEPT.		
10 8:20	[illegible]		0.09		49.98			
11 7:37	TAEJ		0.10		49.98	500.00g		
12 11:05	[illegible]		0.10		49.98			
13								
14 8:20	[illegible]		0.10		49.97			
15 9:00	[illegible]		0.10		49.98			
16 7:45	[illegible]	0.10g	0.10	50.00g	49.98		499.81	
17 10:00	JS		0.10		49.98		499.76	KS 10/17 10:23
18 7:31	[illegible]		0.09		49.98			
19 9:30	[illegible]		0.10		49.98			
20			~~0.10~~ 20 opela					
21 10:00	[illegible]		0.10		49.98			
22 9:16	[illegible]		0.10		49.98			
23 8:26	[illegible]		0.10		49.97			
24 8:27	[illegible]		0.09		49.98			
25 7:38	[illegible]		0.09		49.98			
26 8:51	[illegible]		0.10		49.97			
27								
28 7:46	[illegible]		0.09		49.98			
29 8:07	[illegible]		0.09		49.97			
30 8:20	[illegible]		0.09		49.98		499.57	KMS 10/30/19 10:00
31 7:46	[illegible]		0.10		49.97			