

January 15, 2020

**Vista Work Order No. 1903461**

Ms. Delaney Peterson  
Anchor QEA, LLC  
720 Olive Way, Suite 1900  
Seattle, WA 98101

Dear Ms. Peterson,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 03, 2019 under your Project Name 'Gasco PDI'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.*

## **Vista Work Order No. 1903461**

### **Case Narrative**

#### **Sample Condition on Receipt:**

Seventeen sediment samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

#### **Analytical Notes:**

##### **EPA Method 1613B**

These samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-5MS GC column.

##### **Holding Times**

These samples were extracted and analyzed within the method hold times.

##### **Quality Control**

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each preparation batches. No analytes were detected above the quantitation limits in the Method Blanks. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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# Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903461-01	PDI-046SC-A-12-13-191001	01-Oct-19 08:38	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-02	PDI-046SC-A-13-13.5-191001	01-Oct-19 08:38	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-03	PDI-047SC-A-11-12-191001	01-Oct-19 10:32	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-04	PDI-047SC-A-12-13.2-191001	01-Oct-19 10:32	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-05	PDI-047SC-B-00-02-191001	01-Oct-19 10:49	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-06	PDI-047SC-B-02-04-191001	01-Oct-19 10:51	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-07	PDI-047SC-B-04-06-191001	01-Oct-19 10:51	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-08	PDI-047SC-B-06-08-191001	01-Oct-19 10:52	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-09	PDI-071SC-A-10-11-191001	01-Oct-19 13:56	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-10	PDI-071SC-A-11-11.5-191001	01-Oct-19 13:56	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-11	PDI-071SC-B-00-02-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-12	PDI-071SC-B-02-04-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-13	PDI-071SC-B-04-06-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-14	PDI-071SC-B-06-08-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-15	PDI-071SC-B-08-10-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-16	PDI-071SC-B-10-11.5-191001	01-Oct-19 14:00	03-Oct-19 09:02	Amber Glass, 120 mL
1903461-17	PDI-1071SC-B-02-04-191001	01-Oct-19 00:00	03-Oct-19 09:02	Amber Glass, 120 mL

## **ANALYTICAL RESULTS**

Sample ID: Method Blank					EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g		QC Batch: B9K0049 Date Extracted: 06-Nov-2019 9:27		Lab Sample: B9K0049-BLK1 Date Analyzed: 14-Dec-19 21:32 Column: ZB-5MS					
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.112			IS 13C-2,3,7,8-TCDD	59.3	25 - 164		
1,2,3,7,8-PeCDD	ND	0.120			13C-1,2,3,7,8-PeCDD	53.3	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.0936			13C-1,2,3,4,7,8-HxCDD	50.7	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.0835			13C-1,2,3,6,7,8-HxCDD	49.5	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.102			13C-1,2,3,7,8,9-HxCDD	54.5	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.169			13C-1,2,3,4,6,7,8-HpCDD	48.8	23 - 140		
OCDD	ND	0.310			13C-OCDD	42.5	17 - 157		
2,3,7,8-TCDF	ND	0.0793			13C-2,3,7,8-TCDF	60.2	24 - 169		
1,2,3,7,8-PeCDF	ND	0.0752			13C-1,2,3,7,8-PeCDF	52.4	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0641			13C-2,3,4,7,8-PeCDF	53.7	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.0577			13C-1,2,3,4,7,8-HxCDF	55.5	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0580			13C-1,2,3,6,7,8-HxCDF	53.5	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.0606			13C-2,3,4,6,7,8-HxCDF	56.0	28 - 136		
1,2,3,7,8,9-HxCDF	0.0380			J	13C-1,2,3,7,8,9-HxCDF	58.1	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.0693			13C-1,2,3,4,6,7,8-HpCDF	51.4	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.0851			13C-1,2,3,4,7,8,9-HpCDF	48.0	26 - 138		
OCDF	ND		0.502		13C-OCDF	45.8	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	60.4	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.00380		
<b>TOTALS</b>									
Total TCDD	ND	0.112							
Total PeCDD	ND	0.120							
Total HxCDD	ND	0.102							
Total HpCDD	ND	0.169							
Total TCDF	ND	0.0793							
Total PeCDF	ND	0.0752							
Total HxCDF	0.0380								
Total HpCDF	ND	0.0851							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: OPR					EPA Method 1613B		
Matrix: Solid Sample Size: 10.0 g		QC Batch: B9K0049 Date Extracted: 06-Nov-2019 9:27		Lab Sample: B9K0049-BS1 Date Analyzed: 14-Dec-19 19:08 Column: ZB-5MS			
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	18.8	20.0	94.2	67 - 158	IS 13C-2,3,7,8-TCDD	56.0	20 - 175
1,2,3,7,8-PeCDD	101	100	101	70 - 142	13C-1,2,3,7,8-PeCDD	55.0	21 - 227
1,2,3,4,7,8-HxCDD	103	100	103	70 - 164	13C-1,2,3,4,7,8-HxCDD	45.3	21 - 193
1,2,3,6,7,8-HxCDD	103	100	103	76 - 134	13C-1,2,3,6,7,8-HxCDD	44.2	25 - 163
1,2,3,7,8,9-HxCDD	103	100	103	64 - 162	13C-1,2,3,7,8,9-HxCDD	48.9	21 - 193
1,2,3,4,6,7,8-HpCDD	95.3	100	95.3	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	46.2	26 - 166
OCDD	211	200	106	78 - 144	13C-OCDD	32.6	13 - 199
2,3,7,8-TCDF	20.0	20.0	100	75 - 158	13C-2,3,7,8-TCDF	52.8	22 - 152
1,2,3,7,8-PeCDF	99.8	100	99.8	80 - 134	13C-1,2,3,7,8-PeCDF	53.3	21 - 192
2,3,4,7,8-PeCDF	105	100	105	68 - 160	13C-2,3,4,7,8-PeCDF	52.4	13 - 328
1,2,3,4,7,8-HxCDF	97.7	100	97.7	72 - 134	13C-1,2,3,4,7,8-HxCDF	48.2	19 - 202
1,2,3,6,7,8-HxCDF	99.7	100	99.7	84 - 130	13C-1,2,3,6,7,8-HxCDF	46.5	21 - 159
2,3,4,6,7,8-HxCDF	101	100	101	70 - 156	13C-2,3,4,6,7,8-HxCDF	50.5	22 - 176
1,2,3,7,8,9-HxCDF	101	100	101	78 - 130	13C-1,2,3,7,8,9-HxCDF	54.5	17 - 205
1,2,3,4,6,7,8-HpCDF	102	100	102	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	46.4	21 - 158
1,2,3,4,7,8,9-HpCDF	104	100	104	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	45.9	20 - 186
OCDF	186	200	93.1	63 - 170	13C-OCDF	36.9	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	53.9	31 - 191

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank					EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g		QC Batch: B9L0251 Date Extracted: 26-Dec-2019 6:05		Lab Sample: B9L0251-BLK1 Date Analyzed : 08-Jan-20 02:30 Column: ZB-5MS					
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.0390			IS 13C-2,3,7,8-TCDD	105	25 - 164		
1,2,3,7,8-PeCDD	ND	0.0683			13C-1,2,3,7,8-PeCDD	96.2	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.0976			13C-1,2,3,4,7,8-HxCDD	94.3	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.105			13C-1,2,3,6,7,8-HxCDD	81.9	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.110			13C-1,2,3,7,8,9-HxCDD	88.0	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.0755			13C-1,2,3,4,6,7,8-HpCDD	93.8	23 - 140		
OCDD	ND	0.113			13C-OCDD	82.8	17 - 157		
2,3,7,8-TCDF	ND	0.0300			13C-2,3,7,8-TCDF	97.3	24 - 169		
1,2,3,7,8-PeCDF	ND	0.0711			13C-1,2,3,7,8-PeCDF	95.0	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0717			13C-2,3,4,7,8-PeCDF	94.1	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.0304			13C-1,2,3,4,7,8-HxCDF	109	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0311			13C-1,2,3,6,7,8-HxCDF	99.2	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.0338			13C-2,3,4,6,7,8-HxCDF	98.7	28 - 136		
1,2,3,7,8,9-HxCDF	ND	0.0489			13C-1,2,3,7,8,9-HxCDF	100	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.0368			13C-1,2,3,4,6,7,8-HpCDF	99.4	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.0359			13C-1,2,3,4,7,8,9-HpCDF	103	26 - 138		
OCDF	ND	0.0820			13C-OCDF	94.1	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	99.5	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.00		
<b>TOTALS</b>									
Total TCDD	ND	0.0390							
Total PeCDD	ND	0.0683							
Total HxCDD	ND	0.104							
Total HpCDD	ND	0.0755							
Total TCDF	ND	0.0300							
Total PeCDF	ND	0.0714							
Total HxCDF	ND	0.0355							
Total HpCDF	ND	0.0364							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.



Sample ID: OPR					EPA Method 1613B		
Matrix: Solid	QC Batch: B9L0251	Lab Sample: B9L0251-BS1					
Sample Size: 10.0 g	Date Extracted: 26-Dec-2019 6:05	Date Analyzed: 08-Jan-20 00:07	Column: ZB-5MS				
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	21.8	20.0	109	67 - 158	IS 13C-2,3,7,8-TCDD	102	20 - 175
1,2,3,7,8-PeCDD	111	100	111	70 - 142	13C-1,2,3,7,8-PeCDD	96.3	21 - 227
1,2,3,4,7,8-HxCDD	108	100	108	70 - 164	13C-1,2,3,4,7,8-HxCDD	94.2	21 - 193
1,2,3,6,7,8-HxCDD	106	100	106	76 - 134	13C-1,2,3,6,7,8-HxCDD	85.2	25 - 163
1,2,3,7,8,9-HxCDD	108	100	108	64 - 162	13C-1,2,3,7,8,9-HxCDD	87.9	21 - 193
1,2,3,4,6,7,8-HpCDD	106	100	106	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	95.1	26 - 166
OCDD	213	200	106	78 - 144	13C-OCDD	88.3	13 - 199
2,3,7,8-TCDF	19.8	20.0	99.1	75 - 158	13C-2,3,7,8-TCDF	96.7	22 - 152
1,2,3,7,8-PeCDF	109	100	109	80 - 134	13C-1,2,3,7,8-PeCDF	96.9	21 - 192
2,3,4,7,8-PeCDF	107	100	107	68 - 160	13C-2,3,4,7,8-PeCDF	93.8	13 - 328
1,2,3,4,7,8-HxCDF	99.0	100	99.0	72 - 134	13C-1,2,3,4,7,8-HxCDF	110	19 - 202
1,2,3,6,7,8-HxCDF	97.9	100	97.9	84 - 130	13C-1,2,3,6,7,8-HxCDF	101	21 - 159
2,3,4,6,7,8-HxCDF	103	100	103	70 - 156	13C-2,3,4,6,7,8-HxCDF	97.8	22 - 176
1,2,3,7,8,9-HxCDF	99.1	100	99.1	78 - 130	13C-1,2,3,7,8,9-HxCDF	105	17 - 205
1,2,3,4,6,7,8-HpCDF	96.1	100	96.1	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	98.3	21 - 158
1,2,3,4,7,8,9-HpCDF	93.9	100	93.9	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	106	20 - 186
OCDF	198	200	99.0	63 - 170	13C-OCDF	97.8	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	102	31 - 191

LCL-UCL - Lower control limit - upper control limit

**Sample ID: PDI-046SC-A-12-13-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-01      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 13.2 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 8:38	% Solids: 75.8	Date Analyzed : 14-Dec-19 23:10      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0460		IS 13C-2,3,7,8-TCDD	94.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0553			13C-1,2,3,7,8-PeCDD	86.4	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0735			13C-1,2,3,4,7,8-HxCDD	79.2	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0750			13C-1,2,3,6,7,8-HxCDD	82.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.0830		13C-1,2,3,7,8,9-HxCDD	86.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.495			J	13C-1,2,3,4,6,7,8-HpCDD	75.9	23 - 140	
OCDD	5.05				13C-OCDD	71.2	17 - 157	
2,3,7,8-TCDF	ND	0.0338			13C-2,3,7,8-TCDF	97.3	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0286			13C-1,2,3,7,8-PeCDF	82.1	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0267			13C-2,3,4,7,8-PeCDF	84.1	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0258			13C-1,2,3,4,7,8-HxCDF	86.6	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0264			13C-1,2,3,6,7,8-HxCDF	83.9	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0263			13C-2,3,4,6,7,8-HxCDF	88.1	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0385			13C-1,2,3,7,8,9-HxCDF	89.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND		0.0190		13C-1,2,3,4,6,7,8-HpCDF	76.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0398			13C-1,2,3,4,7,8,9-HpCDF	78.6	26 - 138	
OCDF	ND	0.0608			13C-OCDF	83.1	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.3	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00647

<b>TOTALS</b>								
Total TCDD	ND		0.297					
Total PeCDD	ND		0.138					
Total HxCDD	0.510		0.862					
Total HpCDD	0.495		1.70					
Total TCDF	ND	0.0338						
Total PeCDF	ND	0.0286						
Total HxCDF	ND		0.0130					
Total HpCDF	ND		0.0190					

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-046SC-A-13-13.5-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-02      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 12.8 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 8:38	% Solids: 78.2	Date Analyzed: 14-Dec-19 23:57      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0581			IS 13C-2,3,7,8-TCDD	99.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0554			13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0554			13C-1,2,3,4,7,8-HxCDD	83.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0538			13C-1,2,3,6,7,8-HxCDD	84.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0621			13C-1,2,3,7,8,9-HxCDD	89.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.402		13C-1,2,3,4,6,7,8-HpCDD	91.6	23 - 140	
OCDD	7.44				13C-OCDD	67.8	17 - 157	
2,3,7,8-TCDF	ND	0.0401			13C-2,3,7,8-TCDF	99.6	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0315			13C-1,2,3,7,8-PeCDF	101	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0275			13C-2,3,4,7,8-PeCDF	99.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0202			13C-1,2,3,4,7,8-HxCDF	89.6	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0208			13C-1,2,3,6,7,8-HxCDF	85.8	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0209			13C-2,3,4,6,7,8-HxCDF	93.1	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0289			13C-1,2,3,7,8,9-HxCDF	98.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0323			13C-1,2,3,4,6,7,8-HpCDF	88.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0363			13C-1,2,3,4,7,8,9-HpCDF	90.4	26 - 138	
OCDF	ND	0.0665			13C-OCDF	78.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	97.1	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      0.00223

<b>TOTALS</b>			
Total TCDD	ND		0.110
Total PeCDD	ND	0.0554	
Total HxCDD	0.326		
Total HpCDD	ND		1.16
Total TCDF	ND	0.0401	
Total PeCDF	ND	0.0315	
Total HxCDF	ND	0.0289	
Total HpCDF	ND	0.0363	

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-047SC-A-11-12-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-03      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 12.1 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:32	% Solids: 82.9	Date Analyzed: 15-Dec-19 00:45      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0642			IS 13C-2,3,7,8-TCDD	95.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0645			13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0695			13C-1,2,3,4,7,8-HxCDD	79.6	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0644			13C-1,2,3,6,7,8-HxCDD	81.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0732			13C-1,2,3,7,8,9-HxCDD	85.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.138			13C-1,2,3,4,6,7,8-HpCDD	77.3	23 - 140	
OCDD	ND		0.611		13C-OCDD	68.7	17 - 157	
2,3,7,8-TCDF	ND	0.0360			13C-2,3,7,8-TCDF	91.7	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0356			13C-1,2,3,7,8-PeCDF	85.6	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0287			13C-2,3,4,7,8-PeCDF	93.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0267			13C-1,2,3,4,7,8-HxCDF	83.3	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0286			13C-1,2,3,6,7,8-HxCDF	81.0	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0277			13C-2,3,4,6,7,8-HxCDF	89.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0431			13C-1,2,3,7,8,9-HxCDF	90.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0314			13C-1,2,3,4,6,7,8-HpCDF	76.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0316			13C-1,2,3,4,7,8,9-HpCDF	87.8	26 - 138	
OCDF	ND	0.0611			13C-OCDF	77.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	93.6	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      0.00

<b>TOTALS</b>			
Total TCDD	ND	0.0642	
Total PeCDD	ND	0.0645	
Total HxCDD	ND		0.0670
Total HpCDD	ND	0.138	
Total TCDF	0.0190		
Total PeCDF	ND	0.0356	
Total HxCDF	ND		0.0110
Total HpCDF	ND	0.0316	

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-047SC-A-12-13.2-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-04      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 13.6 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:32	% Solids: 74.4	Date Analyzed: 15-Dec-19 01:34      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0720			IS 13C-2,3,7,8-TCDD	102	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0772			13C-1,2,3,7,8-PeCDD	95.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.127			13C-1,2,3,4,7,8-HxCDD	84.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.123			13C-1,2,3,6,7,8-HxCDD	84.1	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.139			13C-1,2,3,7,8,9-HxCDD	90.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.862			J	13C-1,2,3,4,6,7,8-HpCDD	77.5	23 - 140	
OCDD	7.68				13C-OCDD	63.7	17 - 157	
2,3,7,8-TCDF	ND	0.0388			13C-2,3,7,8-TCDF	108	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0293			13C-1,2,3,7,8-PeCDF	98.8	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0273			13C-2,3,4,7,8-PeCDF	98.9	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0259			13C-1,2,3,4,7,8-HxCDF	86.2	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0277			13C-1,2,3,6,7,8-HxCDF	84.8	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0266			13C-2,3,4,6,7,8-HxCDF	92.8	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0355			13C-1,2,3,7,8,9-HxCDF	96.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0426			13C-1,2,3,4,6,7,8-HpCDF	83.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0544			13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
OCDF	ND	0.0764			13C-OCDF	76.3	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	100	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0109

<b>TOTALS</b>								
Total TCDD	ND		0.160					
Total PeCDD	ND		0.108					
Total HxCDD	1.06		1.12					
Total HpCDD	2.60							
Total TCDF	ND	0.0388						
Total PeCDF	ND		0.0130	P				
Total HxCDF	ND	0.0355						
Total HpCDF	ND	0.0544						

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-047SC-B-00-02-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-05      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 19.7 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:49	% Solids: 51.3	Date Analyzed : 02-Jan-20 19:48 Column: DB-225 15-Dec-19 02:22 Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.154		IS 13C-2,3,7,8-TCDD	98.6	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0730			13C-1,2,3,7,8-PeCDD	104	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.209		13C-1,2,3,4,7,8-HxCDD	79.7	32 - 141	
1,2,3,6,7,8-HxCDD	1.41			J	13C-1,2,3,6,7,8-HxCDD	82.8	28 - 130	
1,2,3,7,8,9-HxCDD	0.620			J	13C-1,2,3,7,8,9-HxCDD	85.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	31.3				13C-1,2,3,4,6,7,8-HpCDD	84.6	23 - 140	
OCDD	438				13C-OCDD	72.5	17 - 157	
2,3,7,8-TCDF	14.6				13C-2,3,7,8-TCDF	95.9	24 - 169	
1,2,3,7,8-PeCDF	23.4				13C-1,2,3,7,8-PeCDF	95.7	24 - 185	
2,3,4,7,8-PeCDF	13.9				13C-2,3,4,7,8-PeCDF	95.2	21 - 178	
1,2,3,4,7,8-HxCDF	46.0				13C-1,2,3,4,7,8-HxCDF	91.0	26 - 152	
1,2,3,6,7,8-HxCDF	13.6				13C-1,2,3,6,7,8-HxCDF	88.5	26 - 123	
2,3,4,6,7,8-HxCDF	3.88				13C-2,3,4,6,7,8-HxCDF	89.0	28 - 136	
1,2,3,7,8,9-HxCDF	ND		2.12		13C-1,2,3,7,8,9-HxCDF	92.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	24.3				13C-1,2,3,4,6,7,8-HpCDF	87.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	7.49				13C-1,2,3,4,7,8,9-HpCDF	89.8	26 - 138	
OCDF	36.6				13C-OCDF	79.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	99.1	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      13.7

<b>TOTALS</b>								
Total TCDD	1.01		1.23					
Total PeCDD	0.271		2.01					
Total HxCDD	12.5		13.3					
Total HpCDD	74.3							
Total TCDF	58.0		59.3					
Total PeCDF	67.6							
Total HxCDF	83.1		89.0	B				
Total HpCDF	57.7							

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-047SC-B-02-04-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-06      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 12.5 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:51	% Solids: 80.5	Date Analyzed : 02-Jan-20 20:20      Column: DB-225 15-Dec-19 03:10      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.89				IS 13C-2,3,7,8-TCDD	98.3	25 - 164	
1,2,3,7,8-PeCDD	ND		1.81		13C-1,2,3,7,8-PeCDD	97.9	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.359		13C-1,2,3,4,7,8-HxCDD	77.9	32 - 141	
1,2,3,6,7,8-HxCDD	2.19			J	13C-1,2,3,6,7,8-HxCDD	82.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.707		13C-1,2,3,7,8,9-HxCDD	87.1	32 - 141	
1,2,3,4,6,7,8-HpCDD	41.0				13C-1,2,3,4,6,7,8-HpCDD	70.9	23 - 140	
OCDD	454				13C-OCDD	70.2	17 - 157	
2,3,7,8-TCDF	17.3				13C-2,3,7,8-TCDF	97.6	24 - 169	
1,2,3,7,8-PeCDF	39.3				13C-1,2,3,7,8-PeCDF	91.5	24 - 185	
2,3,4,7,8-PeCDF	17.4				13C-2,3,4,7,8-PeCDF	94.3	21 - 178	
1,2,3,4,7,8-HxCDF	156				13C-1,2,3,4,7,8-HxCDF	58.7	26 - 152	
1,2,3,6,7,8-HxCDF	37.1				13C-1,2,3,6,7,8-HxCDF	61.2	26 - 123	
2,3,4,6,7,8-HxCDF	4.95				13C-2,3,4,6,7,8-HxCDF	90.6	28 - 136	
1,2,3,7,8,9-HxCDF	1.54			J, B	13C-1,2,3,7,8,9-HxCDF	96.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	56.9				13C-1,2,3,4,6,7,8-HpCDF	44.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	18.0				13C-1,2,3,4,7,8,9-HpCDF	73.3	26 - 138	
OCDF	57.7				13C-OCDF	66.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	96.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      31.5

<b>TOTALS</b>								
Total TCDD	3.25		4.14					
Total PeCDD	1.13		4.21					
Total HxCDD	12.9		14.0					
Total HpCDD	87.3							
Total TCDF	79.9		92.4					
Total PeCDF	90.6		94.1					
Total HxCDF	222		231	B				
Total HpCDF	111							

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-047SC-B-04-06-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-07      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 11.8 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:51	% Solids: 84.6	Date Analyzed: 15-Dec-19 03:58      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0707			IS 13C-2,3,7,8-TCDD	114	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0667			13C-1,2,3,7,8-PeCDD	123	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0882			13C-1,2,3,4,7,8-HxCDD	90.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0820			13C-1,2,3,6,7,8-HxCDD	93.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0933			13C-1,2,3,7,8,9-HxCDD	101	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.142			13C-1,2,3,4,6,7,8-HpCDD	80.0	23 - 140	
OCDD	2.43			J	13C-OCDD	67.9	17 - 157	
2,3,7,8-TCDF	ND	0.0563			13C-2,3,7,8-TCDF	102	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0502			13C-1,2,3,7,8-PeCDF	108	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0475			13C-2,3,4,7,8-PeCDF	109	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.0780		13C-1,2,3,4,7,8-HxCDF	91.4	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0533			13C-1,2,3,6,7,8-HxCDF	90.0	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0544			13C-2,3,4,6,7,8-HxCDF	97.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0696			13C-1,2,3,7,8,9-HxCDF	111	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0640			13C-1,2,3,4,6,7,8-HpCDF	88.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0846			13C-1,2,3,4,7,8,9-HpCDF	85.9	26 - 138	
OCDF	ND		0.112		13C-OCDF	74.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	111	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.000729

<b>TOTALS</b>								
Total TCDD	ND	0.0707						
Total PeCDD	ND	0.0667						
Total HxCDD	ND		0.0240					
Total HpCDD	0.373							
Total TCDF	ND		0.0320					
Total PeCDF	ND	0.0502						
Total HxCDF	ND		0.119					
Total HpCDF	ND		0.104					

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.



**Sample ID: PDI-047SC-B-06-08-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-08      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 12.3 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 10:52	% Solids: 81.1	Date Analyzed: 15-Dec-19 04:46      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0723			IS 13C-2,3,7,8-TCDD	98.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0897			13C-1,2,3,7,8-PeCDD	108	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0903			13C-1,2,3,4,7,8-HxCDD	84.9	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0972			13C-1,2,3,6,7,8-HxCDD	85.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.110			13C-1,2,3,7,8,9-HxCDD	86.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.175			13C-1,2,3,4,6,7,8-HpCDD	86.4	23 - 140	
OCDD	ND	0.230			13C-OCDD	75.3	17 - 157	
2,3,7,8-TCDF	ND	0.0436			13C-2,3,7,8-TCDF	89.8	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0341			13C-1,2,3,7,8-PeCDF	94.1	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0299			13C-2,3,4,7,8-PeCDF	98.6	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0376			13C-1,2,3,4,7,8-HxCDF	89.2	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0402			13C-1,2,3,6,7,8-HxCDF	89.2	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0399			13C-2,3,4,6,7,8-HxCDF	93.1	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0582			13C-1,2,3,7,8,9-HxCDF	98.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0586			13C-1,2,3,4,6,7,8-HpCDF	80.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0615			13C-1,2,3,4,7,8,9-HpCDF	92.3	26 - 138	
OCDF	ND	0.0733			13C-OCDF	83.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	99.6	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      0.00

<b>TOTALS</b>			
Total TCDD	ND	0.0723	
Total PeCDD	ND		0.0877
Total HxCDD	ND	0.110	
Total HpCDD	ND	0.175	
Total TCDF	ND	0.0436	
Total PeCDF	ND	0.0341	
Total HxCDF	ND	0.0582	
Total HpCDF	ND	0.0615	

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-A-10-11-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-09      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 12.8 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 13:56	% Solids: 78.2	Date Analyzed: 15-Dec-19 05:34      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0656			IS 13C-2,3,7,8-TCDD	85.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.104			13C-1,2,3,7,8-PeCDD	88.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.121			13C-1,2,3,4,7,8-HxCDD	72.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.117			13C-1,2,3,6,7,8-HxCDD	80.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.149			13C-1,2,3,7,8,9-HxCDD	77.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.226			13C-1,2,3,4,6,7,8-HpCDD	63.4	23 - 140	
OCDD	0.836			J	13C-OCDD	61.0	17 - 157	
2,3,7,8-TCDF	ND	0.0416			13C-2,3,7,8-TCDF	82.6	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0317			13C-1,2,3,7,8-PeCDF	72.9	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0286			13C-2,3,4,7,8-PeCDF	77.0	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0370			13C-1,2,3,4,7,8-HxCDF	80.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0376			13C-1,2,3,6,7,8-HxCDF	82.1	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0389			13C-2,3,4,6,7,8-HxCDF	84.8	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0548			13C-1,2,3,7,8,9-HxCDF	86.1	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0427			13C-1,2,3,4,6,7,8-HpCDF	65.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0520			13C-1,2,3,4,7,8,9-HpCDF	65.6	26 - 138	
OCDF	ND	0.0892			13C-OCDF	66.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	90.9	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.000251

<b>TOTALS</b>			
Total TCDD	ND	0.0656	
Total PeCDD	ND	0.104	
Total HxCDD	ND	0.149	
Total HpCDD	ND	0.226	
Total TCDF	ND	0.0416	
Total PeCDF	ND	0.0317	
Total HxCDF	ND	0.0548	
Total HpCDF	ND	0.0520	

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-A-11-11.5-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-10      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 13.0 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 13:56	% Solids: 78.1	Date Analyzed: 15-Dec-19 09:44      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0982			IS 13C-2,3,7,8-TCDD	101	25 - 164	
1,2,3,7,8-PeCDD	ND	0.156			13C-1,2,3,7,8-PeCDD	107	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.247			13C-1,2,3,4,7,8-HxCDD	82.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.268			13C-1,2,3,6,7,8-HxCDD	80.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.316			13C-1,2,3,7,8,9-HxCDD	81.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.411		13C-1,2,3,4,6,7,8-HpCDD	58.9	23 - 140	
OCDD	3.52			J	13C-OCDD	55.8	17 - 157	
2,3,7,8-TCDF	ND	0.0645			13C-2,3,7,8-TCDF	107	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0470			13C-1,2,3,7,8-PeCDF	106	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0401			13C-2,3,4,7,8-PeCDF	110	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0524			13C-1,2,3,4,7,8-HxCDF	87.7	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0493			13C-1,2,3,6,7,8-HxCDF	90.8	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0529			13C-2,3,4,6,7,8-HxCDF	95.0	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0816			13C-1,2,3,7,8,9-HxCDF	93.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0657			13C-1,2,3,4,6,7,8-HpCDF	66.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0855			13C-1,2,3,4,7,8,9-HpCDF	61.5	26 - 138	
OCDF	ND	0.104			13C-OCDF	64.1	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	101	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00106

<b>TOTALS</b>								
Total TCDD	ND	0.0982						
Total PeCDD	ND		0.0382					
Total HxCDD	0.358							
Total HpCDD	0.712		1.12					
Total TCDF	ND	0.0645						
Total PeCDF	ND	0.0470						
Total HxCDF	ND	0.0816						
Total HpCDF	ND	0.0855						

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-B-00-02-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-11      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 19.3 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 14:00	% Solids: 51.7	Date Analyzed : 02-Jan-20 20:53      Column: DB-225 15-Dec-19 10:33      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.603		IS 13C-2,3,7,8-TCDD	95.2	25 - 164	
1,2,3,7,8-PeCDD	ND		0.687		13C-1,2,3,7,8-PeCDD	95.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND		1.30		13C-1,2,3,4,7,8-HxCDD	85.9	32 - 141	
1,2,3,6,7,8-HxCDD	7.10				13C-1,2,3,6,7,8-HxCDD	89.6	28 - 130	
1,2,3,7,8,9-HxCDD	2.91				13C-1,2,3,7,8,9-HxCDD	84.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	235				13C-1,2,3,4,6,7,8-HpCDD	64.6	23 - 140	
OCDD	2630				13C-OCDD	65.7	17 - 157	
2,3,7,8-TCDF	29.1				13C-2,3,7,8-TCDF	92.2	24 - 169	
1,2,3,7,8-PeCDF	49.4				13C-1,2,3,7,8-PeCDF	95.0	24 - 185	
2,3,4,7,8-PeCDF	25.9				13C-2,3,4,7,8-PeCDF	99.0	21 - 178	
1,2,3,4,7,8-HxCDF	78.0				13C-1,2,3,4,7,8-HxCDF	87.3	26 - 152	
1,2,3,6,7,8-HxCDF	21.7				13C-1,2,3,6,7,8-HxCDF	96.5	26 - 123	
2,3,4,6,7,8-HxCDF	6.19				13C-2,3,4,6,7,8-HxCDF	91.5	28 - 136	
1,2,3,7,8,9-HxCDF	0.826			J, B	13C-1,2,3,7,8,9-HxCDF	91.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	55.8				13C-1,2,3,4,6,7,8-HpCDF	66.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	12.8				13C-1,2,3,4,7,8,9-HpCDF	67.4	26 - 138	
OCDF	169				13C-OCDF	70.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.8	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      27.7

<b>TOTALS</b>			
Total TCDD	5.03		5.64
Total PeCDD	6.56		11.3
Total HxCDD	81.8		83.1
Total HpCDD	547		
Total TCDF	117		123
Total PeCDF	137		138
Total HxCDF	173		B
Total HpCDF	213		

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-B-02-04-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-12      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 16.0 g	QC Batch: B9K0049      Date Extracted: 06-Nov-2019 9:27
Date Collected: 01-Oct-2019 14:00	% Solids: 62.8	Date Analyzed : 02-Jan-20 22:30      Column: DB-225 15-Dec-19 11:21      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		1.30		IS 13C-2,3,7,8-TCDD	87.3	25 - 164	
1,2,3,7,8-PeCDD	2.02			J	13C-1,2,3,7,8-PeCDD	96.6	25 - 181	
1,2,3,4,7,8-HxCDD	2.06			J	13C-1,2,3,4,7,8-HxCDD	81.1	32 - 141	
1,2,3,6,7,8-HxCDD	11.3				13C-1,2,3,6,7,8-HxCDD	88.7	28 - 130	
1,2,3,7,8,9-HxCDD	4.69				13C-1,2,3,7,8,9-HxCDD	91.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	261				13C-1,2,3,4,6,7,8-HpCDD	71.1	23 - 140	
OCDD	2890				13C-OCDD	82.2	17 - 157	
2,3,7,8-TCDF	142				13C-2,3,7,8-TCDF	75.2	24 - 169	
1,2,3,7,8-PeCDF	283				13C-1,2,3,7,8-PeCDF	88.0	24 - 185	
2,3,4,7,8-PeCDF	138				13C-2,3,4,7,8-PeCDF	85.5	21 - 178	
1,2,3,4,7,8-HxCDF	414				13C-1,2,3,4,7,8-HxCDF	79.5	26 - 152	
1,2,3,6,7,8-HxCDF	113				13C-1,2,3,6,7,8-HxCDF	86.8	26 - 123	
2,3,4,6,7,8-HxCDF	23.7				13C-2,3,4,6,7,8-HxCDF	91.0	28 - 136	
1,2,3,7,8,9-HxCDF	38.2			B	13C-1,2,3,7,8,9-HxCDF	97.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	171				13C-1,2,3,4,6,7,8-HpCDF	72.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	74.4				13C-1,2,3,4,7,8,9-HpCDF	69.2	26 - 138	
OCDF	291				13C-OCDF	85.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	87.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      133

<b>TOTALS</b>								
Total TCDD	10.3		12.0					
Total PeCDD	13.7		18.1					
Total HxCDD	60.6		94.0					
Total HpCDD	574							
Total TCDF	519		540					
Total PeCDF	693		702					
Total HxCDF	702		705	B				
Total HpCDF	441							

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-B-04-06-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-13      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 16.6 g	QC Batch: B9L0251      Date Extracted: 26-Dec-2019 6:05
Date Collected: 01-Oct-2019 14:00	% Solids: 60.5	Date Analyzed : 08-Jan-20 04:06      Column: ZB-5MS 15-Dec-19 12:11      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.08				IS 13C-2,3,7,8-TCDD	73.8	25 - 164	
1,2,3,7,8-PeCDD	ND		1.57		13C-1,2,3,7,8-PeCDD	72.8	25 - 181	
1,2,3,4,7,8-HxCDD	1.83			J	13C-1,2,3,4,7,8-HxCDD	74.6	32 - 141	
1,2,3,6,7,8-HxCDD	11.0				13C-1,2,3,6,7,8-HxCDD	62.5	28 - 130	
1,2,3,7,8,9-HxCDD	4.75				13C-1,2,3,7,8,9-HxCDD	66.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	418				13C-1,2,3,4,6,7,8-HpCDD	63.9	23 - 140	
OCDD	3260				13C-OCDD	22.1	17 - 157	
2,3,7,8-TCDF	65.9				13C-2,3,7,8-TCDF	68.9	24 - 169	
1,2,3,7,8-PeCDF	118				13C-1,2,3,7,8-PeCDF	78.0	24 - 185	
2,3,4,7,8-PeCDF	25.0				13C-2,3,4,7,8-PeCDF	72.5	21 - 178	
1,2,3,4,7,8-HxCDF	172				13C-1,2,3,4,7,8-HxCDF	79.9	26 - 152	
1,2,3,6,7,8-HxCDF	46.5				13C-1,2,3,6,7,8-HxCDF	73.6	26 - 123	
2,3,4,6,7,8-HxCDF	13.1				13C-2,3,4,6,7,8-HxCDF	65.9	28 - 136	
1,2,3,7,8,9-HxCDF	8.21				13C-1,2,3,7,8,9-HxCDF	77.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	104				13C-1,2,3,4,6,7,8-HpCDF	69.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	31.8				13C-1,2,3,4,7,8,9-HpCDF	70.1	26 - 138	
OCDF	230				13C-OCDF	23.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	66.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      51.0

<b>TOTALS</b>			
Total TCDD	9.31		11.1
Total PeCDD	12.0		17.8
Total HxCDD	118		
Total HpCDD	962		
Total TCDF	193		
Total PeCDF	323		323
Total HxCDF	333		
Total HpCDF	295		

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-B-06-08-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-14      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 14.6 g	QC Batch: B9L0251      Date Extracted: 26-Dec-2019 6:05
Date Collected: 01-Oct-2019 14:00	% Solids: 71.4	Date Analyzed : 08-Jan-20 04:54 Column: ZB-5MS 09-Jan-20 18:29 Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.452		IS 13C-2,3,7,8-TCDD	85.0	25 - 164	
1,2,3,7,8-PeCDD	1.07			J	13C-1,2,3,7,8-PeCDD	63.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND		1.35		13C-1,2,3,4,7,8-HxCDD	70.9	32 - 141	
1,2,3,6,7,8-HxCDD	13.2				13C-1,2,3,6,7,8-HxCDD	60.8	28 - 130	
1,2,3,7,8,9-HxCDD	4.67				13C-1,2,3,7,8,9-HxCDD	60.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	794				13C-1,2,3,4,6,7,8-HpCDD	61.6	23 - 140	
OCDD	8260			D	13C-OCDD	44.3	17 - 157	D
2,3,7,8-TCDF	8.31				13C-2,3,7,8-TCDF	82.4	24 - 169	
1,2,3,7,8-PeCDF	13.6				13C-1,2,3,7,8-PeCDF	69.6	24 - 185	
2,3,4,7,8-PeCDF	6.52				13C-2,3,4,7,8-PeCDF	67.1	21 - 178	
1,2,3,4,7,8-HxCDF	20.9				13C-1,2,3,4,7,8-HxCDF	75.4	26 - 152	
1,2,3,6,7,8-HxCDF	6.03				13C-1,2,3,6,7,8-HxCDF	68.6	26 - 123	
2,3,4,6,7,8-HxCDF	3.81				13C-2,3,4,6,7,8-HxCDF	53.3	28 - 136	
1,2,3,7,8,9-HxCDF	1.48			J	13C-1,2,3,7,8,9-HxCDF	68.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	75.8				13C-1,2,3,4,6,7,8-HpCDF	61.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	5.34				13C-1,2,3,4,7,8,9-HpCDF	62.0	26 - 138	
OCDF	164				13C-OCDF	45.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	83.0	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      20.6

<b>TOTALS</b>		
Total TCDD	4.28	6.68
Total PeCDD	12.5	15.9
Total HxCDD	177	178
Total HpCDD	2220	
Total TCDF	42.5	44.0
Total PeCDF	70.1	72.1
Total HxCDF	95.6	95.9
Total HpCDF	219	

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-071SC-B-08-10-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-15      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 14.6 g	QC Batch: B9L0251      Date Extracted: 26-Dec-2019 6:05
Date Collected: 01-Oct-2019 14:00	% Solids: 71.3	Date Analyzed : 08-Jan-20 05:42      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0624			IS 13C-2,3,7,8-TCDD	101	25 - 164	
1,2,3,7,8-PeCDD	ND	0.112			13C-1,2,3,7,8-PeCDD	90.9	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.142			13C-1,2,3,4,7,8-HxCDD	79.9	32 - 141	
1,2,3,6,7,8-HxCDD	0.639			J	13C-1,2,3,6,7,8-HxCDD	65.7	28 - 130	
1,2,3,7,8,9-HxCDD	0.397			J	13C-1,2,3,7,8,9-HxCDD	69.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	18.7				13C-1,2,3,4,6,7,8-HpCDD	68.8	23 - 140	
OCDD	220				13C-OCDD	45.9	17 - 157	
2,3,7,8-TCDF	ND		0.822		13C-2,3,7,8-TCDF	92.9	24 - 169	
1,2,3,7,8-PeCDF	1.56			J	13C-1,2,3,7,8-PeCDF	86.9	24 - 185	
2,3,4,7,8-PeCDF	0.587			J	13C-2,3,4,7,8-PeCDF	81.5	21 - 178	
1,2,3,4,7,8-HxCDF	1.80			J	13C-1,2,3,4,7,8-HxCDF	85.8	26 - 152	
1,2,3,6,7,8-HxCDF	0.508			J	13C-1,2,3,6,7,8-HxCDF	78.1	26 - 123	
2,3,4,6,7,8-HxCDF	ND		0.242		13C-2,3,4,6,7,8-HxCDF	72.8	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.130		13C-1,2,3,7,8,9-HxCDF	80.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	3.65				13C-1,2,3,4,6,7,8-HpCDF	69.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.452			J	13C-1,2,3,4,7,8,9-HpCDF	72.8	26 - 138	
OCDF	7.19				13C-OCDF	54.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	95.5	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.853

<b>TOTALS</b>			
Total TCDD	ND	0.399	
Total PeCDD	ND	0.606	
Total HxCDD	5.71	6.03	
Total HpCDD	48.1		
Total TCDF	2.33	3.30	
Total PeCDF	6.22		
Total HxCDF	5.31	5.68	
Total HpCDF	9.10		

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.



**Sample ID: PDI-071SC-B-10-11.5-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-16      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 13.6 g	QC Batch: B9L0251      Date Extracted: 26-Dec-2019 6:05
Date Collected: 01-Oct-2019 14:00	% Solids: 76.1	Date Analyzed: 08-Jan-20 06:30      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0534			IS 13C-2,3,7,8-TCDD	101	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0675			13C-1,2,3,7,8-PeCDD	92.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0839			13C-1,2,3,4,7,8-HxCDD	96.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0906			13C-1,2,3,6,7,8-HxCDD	85.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0921			13C-1,2,3,7,8,9-HxCDD	91.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.557			J	13C-1,2,3,4,6,7,8-HpCDD	95.6	23 - 140	
OCDD	4.36			J	13C-OCDD	93.1	17 - 157	
2,3,7,8-TCDF	ND	0.0364			13C-2,3,7,8-TCDF	97.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0772			13C-1,2,3,7,8-PeCDF	90.6	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0734			13C-2,3,4,7,8-PeCDF	90.1	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0805			13C-1,2,3,4,7,8-HxCDF	108	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0870			13C-1,2,3,6,7,8-HxCDF	100	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.101			13C-2,3,4,6,7,8-HxCDF	97.5	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.131			13C-1,2,3,7,8,9-HxCDF	102	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0416			13C-1,2,3,4,6,7,8-HpCDF	98.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0406			13C-1,2,3,4,7,8,9-HpCDF	103	26 - 138	
OCDF	ND	0.0795			13C-OCDF	101	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	99.8	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00688

<b>TOTALS</b>			
Total TCDD	0.189		
Total PeCDD	ND	0.0675	
Total HxCDD	0.595		0.817
Total HpCDD	1.56		
Total TCDF	ND	0.0364	
Total PeCDF	ND	0.0753	
Total HxCDF	ND	0.0987	
Total HpCDF	ND	0.0412	

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-1071SC-B-02-04-191001** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 1903461-17      Date Received: 03-Oct-2019 9:02
Project: Gasco PDI	Sample Size: 13.6 g	QC Batch: B9L0251      Date Extracted: 26-Dec-2019 6:05
Date Collected: 01-Oct-2019 0:00	% Solids: 74.4	Date Analyzed : 08-Jan-20 07:18 Column: ZB-5MS 08-Jan-20 14:54 Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.27				IS 13C-2,3,7,8-TCDD	104	25 - 164	
1,2,3,7,8-PeCDD	2.13			J	13C-1,2,3,7,8-PeCDD	95.9	25 - 181	
1,2,3,4,7,8-HxCDD	1.90			J	13C-1,2,3,4,7,8-HxCDD	95.2	32 - 141	
1,2,3,6,7,8-HxCDD	11.4				13C-1,2,3,6,7,8-HxCDD	83.1	28 - 130	
1,2,3,7,8,9-HxCDD	4.86				13C-1,2,3,7,8,9-HxCDD	89.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	275				13C-1,2,3,4,6,7,8-HpCDD	96.4	23 - 140	
OCDD	3240				13C-OCDD	89.2	17 - 157	
2,3,7,8-TCDF	111				13C-2,3,7,8-TCDF	99.4	24 - 169	
1,2,3,7,8-PeCDF	195				13C-1,2,3,7,8-PeCDF	98.9	24 - 185	
2,3,4,7,8-PeCDF	65.1				13C-2,3,4,7,8-PeCDF	95.9	21 - 178	
1,2,3,4,7,8-HxCDF	307				13C-1,2,3,4,7,8-HxCDF	109	26 - 152	
1,2,3,6,7,8-HxCDF	76.7				13C-1,2,3,6,7,8-HxCDF	98.1	26 - 123	
2,3,4,6,7,8-HxCDF	18.8				13C-2,3,4,6,7,8-HxCDF	99.4	28 - 136	
1,2,3,7,8,9-HxCDF	9.04				13C-1,2,3,7,8,9-HxCDF	105	29 - 147	
1,2,3,4,6,7,8-HpCDF	149				13C-1,2,3,4,6,7,8-HpCDF	103	28 - 143	
1,2,3,4,7,8,9-HpCDF	57.7				13C-1,2,3,4,7,8,9-HpCDF	103	26 - 138	
OCDF	315				13C-OCDF	93.3	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	98.0	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      88.7

<b>TOTALS</b>								
Total TCDD	6.77		9.34					
Total PeCDD	15.2		18.1					
Total HxCDD	91.0		92.0					
Total HpCDD	605							
Total TCDF	309		320					
Total PeCDF	492		493	P				
Total HxCDF	530							
Total HpCDF	340							

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

## DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

### Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

## NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

**Project:** Gasco PDI  
**Client:** NW Natural

1903461 0.9°C

**COC ID:** VISTA-20191001-164659  
**Sample Custodian:** dep  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-046SC-A-12-13-191001	N	SE	10/01/2019	8:38	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
002	PDI-046SC-A-13-13.5-191001	N	SE	10/01/2019	8:38	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
003	PDI-047SC-A-11-12-191001	N	SE	10/01/2019	10:32	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
004	PDI-047SC-A-12-13.2-191001	N	SE	10/01/2019	10:32	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
005	PDI-047SC-B-00-02-191001	N	SE	10/01/2019	10:49	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
006	PDI-047SC-B-02-04-191001	N	SE	10/01/2019	10:51	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
007	PDI-047SC-B-04-06-191001	N	SE	10/01/2019	10:51	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
008	PDI-047SC-B-06-08-191001	N	SE	10/01/2019	10:52	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: D. Peterson	Print Name: Ashley Mason	Print Name:	Print Name:	Print Name:	Print Name:
Company: ACP	Company: Vista	Company:	Company:	Company:	Company:
Date/Time: 10.2.19 1000	Date/Time: 10/03/19 0962	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

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

**Project:** Gasco PDI  
**Client:** NW Natural

1903461

**COC ID:** VISTA-20191001-164659  
**Sample Custodian:** dep  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
008	PDI-047SC-B-06-08-191001	N	SE	10/01/2019	10:52	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
009	PDI-071SC-A-10-11-191001	N	SE	10/01/2019	13:56	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
010	PDI-071SC-A-11-11.5-191001	N	SE	10/01/2019	13:56	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
011	PDI-071SC-B-00-02-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
012	PDI-071SC-B-02-04-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
013	PDI-071SC-B-04-06-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
014	PDI-071SC-B-06-08-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
015	PDI-071SC-B-08-10-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: D. Peterson	Print Name: Ashley Mason	Print Name:	Print Name:	Print Name:	Print Name:
Company: ACP	Company: Vista	Company:	Company:	Company:	Company:
Date/Time: 10.2.19 1000	Date/Time: 10/03/19 0902	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



**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

**Project:** Gasco PDI  
**Client:** NW Natural

1903461

**COC ID:** VISTA-20191001-164659  
**Sample Custodian:** dep  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
015	PDI-071SC-B-08-10-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
016	PDI-071SC-B-10-11.5-191001	N	SE	10/01/2019	14:00	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
017	PDI-1071SC-B-02-04-191001	FD	SE	10/01/2019		1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C

Comment:					
Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: D. Peterson	Print Name: Ashley Mason	Print Name:	Print Name:	Print Name:	Print Name:
Company: AP	Company: Vista	Company:	Company:	Company:	Company:
Date/Time: 10.2.19 1000	Date/Time: 10/03/19 0902	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

# Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903461 TAT std

<b>Samples Arrival:</b>	<b>Date/Time</b> 10/03/19 0902	<b>Initials:</b> ajm	<b>Location:</b> WR-2 <b>Shelf/Rack:</b> N/A				
<b>Logged In:</b>	<b>Date/Time</b> 10/03/19 1546	<b>Initials:</b> WWS	<b>Location:</b> WR-2 <b>Shelf/Rack:</b> 2-1				
<b>Delivered By:</b>	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac	<input type="checkbox"/> GSO	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
<b>Preservation:</b>	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None			
<b>Temp °C:</b> 0.9 (uncorrected)	<b>Probe used:</b> Y / <input checked="" type="checkbox"/> N		<b>Thermometer ID:</b> IR-3				
<b>Temp °C:</b> 0.9 (corrected)							

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill <u>      </u> Trk # <u>7764 4746 7438</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Container Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			
Preservation Documented:	<input type="checkbox"/> Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	<input type="checkbox"/> Trizma	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	

Comments:

## **EXTRACTION INFORMATION**

Anchor

Process Sheet  
Workorder: 1903461

RX  
D 11/05/19

Prep Expiration: 2020-09-30  
Client: Anchor QEA, LLC

Workorder Due: 31-Oct-19 00:00

TAT: 28

Method: 1613 Full List  
Matrix: Solid  
Client Matrix: Sediment  
Also run: Percent Solids

Prep Batch: B9K0049

Prep Data Entered: AZ 11/13/19  
Date and Initials

Initial Sequence: S9L0037

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1903461-01	A	<input checked="" type="checkbox"/> PDI-046SC-A-12-13-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-02	A	<input checked="" type="checkbox"/> PDI-046SC-A-13-13.5-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-03	A	<input checked="" type="checkbox"/> PDI-047SC-A-11-12-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-04	A	<input checked="" type="checkbox"/> PDI-047SC-A-12-13.2-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-05	A	<input checked="" type="checkbox"/> PDI-047SC-B-00-02-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-06	A	<input checked="" type="checkbox"/> PDI-047SC-B-02-04-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-07	A	<input checked="" type="checkbox"/> PDI-047SC-B-04-06-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-08	A	<input checked="" type="checkbox"/> PDI-047SC-B-06-08-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-09	A	<input checked="" type="checkbox"/> PDI-071SC-A-10-11-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-10	A	<input checked="" type="checkbox"/> PDI-071SC-A-11-11.5-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-11	A	<input checked="" type="checkbox"/> PDI-071SC-B-00-02-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-12	A	<input checked="" type="checkbox"/> PDI-071SC-B-02-04-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-13	A	<input checked="" type="checkbox"/> PDI-071SC-B-04-06-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-14	A	<input checked="" type="checkbox"/> PDI-071SC-B-06-08-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-15	TL	<input checked="" type="checkbox"/> PDI-071SC-B-08-10-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-16	A	<input checked="" type="checkbox"/> PDI-071SC-B-10-11.5-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-17	TL	<input checked="" type="checkbox"/> PDI-1071SC-B-02-04-191001	03-Oct-19 09:02	WR-2 A-1	

WO Comments: ~~Test - 4g extraction (dry weight)~~  
Dioxin - 10g (dry weight)  
~~PCB - 5g extraction (dry weight)~~

Pre-Prep Check Out: NA  
Pre-Prep Check In: NA

Prep Check Out: TL 11/06/19  
Prep Check In: TL 11/06/19

Prep Reconciled Initials/Date: TL 11/06/19  
Spike Reconciled Initials/Date: GO 11/06/19  
VialBoxID: Test Aldehyde  
HE 12-19-19

PREPARATION BENCH SHEET

Matrix: Solid

B9K0049

Chemist: TL

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 06-Nov-19 09:27

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B9K0049-BLK (6)	NA	(10.00)	AO TL 11/06/19	AO AZ 11/12/19	AZ 11/12/19	AZ 11/13/19	AZ 11/13/19	AO 11/13/19	AO AZ 11/13/19
<input type="checkbox"/>	B9K0049-BSI (6)	NA	(10.00)	T	T	J	T	T	T	T
<input type="checkbox"/>	1903461-01RE1	13.19	13.21	T	T	NA	T	T	T	T
<input type="checkbox"/>	1903461-02RE1	12.78	12.80	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-03RE1	12.07	12.11	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-04RE1	13.44	13.60	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-05RE1 (C)	19.51	19.73	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-06RE1 (C)	12.42	12.49	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-07RE1	11.81	11.84	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-08RE1	12.33	12.34	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-09RE1	12.78	12.82	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-10RE1	12.80	12.95	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-11RE1 (C)	19.33	19.34	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-12RE1 (C)	15.94	15.95	T	T	T	T	T	T	T
<input type="checkbox"/>	1903461-13RE1 (C)	16.53	16.60	T	T	AZ 11/13/19	T	T	T	T

IS Name (V2)	NS Name (V5)	CRS Name (V6)	RS Name (V6)	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: Chemist/Date: TL 11/06/19
PCDD/F 19C1902 10uL	PCDD/F 18F1913 10uL	PCDD/F 19F1602 10uL	PCDD/F 19F1603 10uL	Start Date/Time 11/06/19 1340	SOLV: Toluene	Check In: Chemist/Date: TL 11/06/19
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time 11/07/19 0000	Other NA	Balance ID: HRMS-8
PAH _____	PAH _____	PAH _____	PAH _____	Final Volume(s) 20uL	Final Volume(s) 20uL	

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

PREPARATION BENCH SHEET

Matrix: Solid

B9K0049

Chemist: TL

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 06-Nov-19 09:27

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	1903461-14RE1	14.01	14.15	AO TL "10/19	AO AZ "12/19	NA	AZ 11/13/19	AZ 11/13/19	AO 11/13/19	AO AZ "13/19
<input type="checkbox"/>	1903461-15RE1 (C)	14.07	14.16	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1903461-16RE1	13.14	13.27	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1903461-17RE1	13.44	13.47	↓	↓	↓	↓	↓	↓	↓

(A) After first AP, got AZ 11/12/19 particulate from RB made sample dirty. AP x2 (AZ 11/12/19)  
Sample transferred into new RB after second AP AZ 11/12/19

(B) AP x2 AZ 11/12/19

(C) Columns were dirty AO "13/19

IS Name <u>V2</u>	NS Name <u>V3</u>	CRS Name	RS Name <u>V6</u>	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: Chemist/Date: <u>TL 11/06/19</u>
PCDD/F <u>19C1902 10uL</u>	PCDD/F <u>18F1913 10uL</u>	PCDD/F <u>19T11002, 10uL</u>	PCDD/F <u>19E11003, 10uL</u>	Start Date/Time <u>11/06/19 1340</u>	SOLV: <u>Toluene</u>	Check In: Chemist/Date: <u>TL 11/06/19</u>
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time <u>11/07/19 1600</u>	Other <u>NA</u>	Balance ID: <u>HRMS-8</u>
PAH _____	PAH _____	PAH _____	PAH _____	Final Volume(s) <u>14</u> <u>20uL</u>		

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B9J0077

Analyst: <u>AO</u>	Test Code: %Moist/%Solids	Data Entry Verified by: (Initial and Date) <u>NA</u>
Analyte:	Units: %	
Oven ID: <u>01</u> <u>02</u>	Dried at 110°C±5°C	

Inst HRMS-9      Date/Time IN: 10/09/19 1358      Date/Time OUT: 10/10/19 1127

Particle Size	SampleID	Sample Type	Initial and Date:			Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	pH Before	pH After	Acid Added	Sample Homogenized*
			Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)							
	1903461-01	Sample	1.21	8.19	6.50			Sand				X
	1903461-02	Sample	1.23	4.31	3.64			↓				X
	1903461-03	Sample	1.20	5.11	4.44			↓				X
	1903461-04	Sample	1.22	8.22	6.43			↓				X
	1903461-05	Sample	1.22	7.17	4.77			Mud				X
	1903461-06	Sample	1.24	5.81	4.92			Sand				X
	1903461-07	Sample	1.21	6.68	5.84			↓				X
	1903461-08	Sample	1.24	7.06	5.96			↓				X
	1903461-09	Sample	1.24	7.81	6.38			↓				X
	1903461-10	Sample	1.25	7.06	5.79			↓				X
	1903461-11	Sample	1.25	6.76	4.10			Mud				X
	1903461-12	Sample	1.23	6.69	4.65			Sand				X
	1903461-13	Sample	1.26	5.31	3.71			↓				X
	1903461-14	Sample	1.23	8.48	6.41			↓				X
	1903461-15	Sample	1.24	4.48	3.55			↓				X
	1903461-16	Sample	1.23	7.00	5.62			↓				X
	1903461-17	Sample	1.23	10.29	7.97			↓				X

\*Sample homogenized in sample container unless otherwise noted.

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B9J0077

Analyst: AO	Test Code: %Moist/%Solids	Data Entry Verified by: (Initial and Date) <i>AO 11/13/19</i>
Analyte: Dried at 110°C +/-5°C	Units: %	
Oven ID: 01 02		

Inst: HRMS-9 Date/Time IN: 10/09/19 1358 Date/Time OUT: 10/10/19 1127

Particle Size	SampID	SampType	Initial and Date:		Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids Raw/Val	Visual Inspection	Cl-	pH Before	pH After	Acid Added	Sample Homogenized*
			Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)									
			AO 10/09/19	AO 10/10/19									
	1903461-01	Sample	1.2100	8.1900	6.5000	5.2900	75.79	SAND	NA	NA	NA	NA	X
	1903461-02	Sample	1.2300	4.3100	3.6400	2.4100	78.25	SAND	NA	NA	NA	NA	X
	1903461-03	Sample	1.2000	5.1100	4.4400	3.2400	82.86	SAND	NA	NA	NA	NA	X
	1903461-04	Sample	1.2200	8.2200	6.4300	5.2100	74.43	SAND	NA	NA	NA	NA	X
	1903461-05	Sample	1.2200	7.1700	4.2700	3.0500	51.26	MUD	NA	NA	NA	NA	X
	1903461-06	Sample	1.2400	5.8100	4.9200	3.6800	80.53	SAND	NA	NA	NA	NA	X
	1903461-07	Sample	1.2100	6.6800	5.8400	4.6300	84.64	SAND	NA	NA	NA	NA	X
	1903461-08	Sample	1.2400	7.0600	5.9600	4.7200	81.10	SAND	NA	NA	NA	NA	X
	1903461-09	Sample	1.2400	7.8100	6.3800	5.1400	78.23	SAND	NA	NA	NA	NA	X
	1903461-10	Sample	1.2500	7.0600	5.7900	4.5400	78.14	SAND	NA	NA	NA	NA	X
	1903461-11	Sample	1.2500	6.7600	4.1000	2.8500	51.72	MUD	NA	NA	NA	NA	X
	1903461-12	Sample	1.2300	6.6800	4.6500	3.4200	62.75	SAND	NA	NA	NA	NA	X
	1903461-13	Sample	1.2600	5.3100	3.7100	2.4500	60.49	SAND	NA	NA	NA	NA	X
	1903461-14	Sample	1.2500	8.4800	6.4100	5.1600	71.37	SAND	NA	NA	NA	NA	X
	1903461-15	Sample	1.2400	4.4800	3.5500	2.3100	71.30	SAND	NA	NA	NA	NA	X
	1903461-16	Sample	1.2300	7.0000	5.6200	4.3900	76.08	SAND	NA	NA	NA	NA	X
	1903461-17	Sample	1.2300	10.2900	7.9700	6.7400	74.39	SAND	NA	NA	NA	NA	X

\*Sample homogenized in sample container unless otherwise noted.



Batch: B9K0049

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1903461-01RE1	13.21 ✓	75.78797	10.0116	20 ✓	06-Nov-19 09:27	TL ✓			Sediment	1613 Full List
1903461-02RE1	12.8 ✓	78.24676	10.0156	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-03RE1	12.11 ✓	82.86445	10.0349	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-04RE1	13.6 ✓	74.42857	10.1223	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-05RE1	19.73 ✓	51.2605	10.1137	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-06RE1	12.49 ✓	80.52517	10.0576	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-07RE1	11.84 ✓	84.64352	10.0218	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-08RE1	12.34 ✓	81.09966	10.0077	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-09RE1	12.82 ✓	78.2344	10.0297	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-10RE1	12.95 ✓	78.14114	10.1193	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-11RE1	19.34 ✓	51.72413	10.0034	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-12RE1	15.95 ✓	62.7523	10.0090	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-13RE1	16.6 ✓	60.49383	10.0420	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-14RE1	14.15 ✓	71.36929	10.0988	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-15RE1	14.16 ✓	71.2963	10.0956	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-16RE1	13.27 ✓	76.08318	10.0962	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
1903461-17RE1	13.47 ✓	74.39294	10.0207	20	06-Nov-19 09:27	TL			Sediment	1613 Full List
B9K0049-BLK1	10 ✓			20	06-Nov-19 09:27	TL				QC
B9K0049-BS1	10 ✓			20	06-Nov-19 09:27	TL	18F1913 ✓	10 ✓		QC

All bolded data on report verified against written benchsheet by (initial/date) AZ 11/13/19



Process Sheet  
 Workorder: **1903461**

RX  
 Q for HC 12/20/19

Prep Expiration: 2020-09-30  
 Client: Anchor QEA, LLC

Workorder Due: **31-Oct-19 00:00**

TAT: 28

Method: **1613 Full List**  
 Matrix: **Solid**  
 Client Matrix: **Sediment**  
 Also run: **Percent Solids**

Prep Batch: 89L0251

Prep Data Entered: RC 01/03/19  
 Date and Initials

Initial Sequence: SOA0011

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
<del>1903461-1</del>	<input type="checkbox"/>	<del>PDI-071SC-A-12-10-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-2</del>	<input type="checkbox"/>	<del>PDI-071SC-A-10-10-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-3</del>	<input type="checkbox"/>	<del>PDI-071SC-A-10-10-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-4</del>	<input type="checkbox"/>	<del>PDI-071SC-A-10-10-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-5</del>	<input type="checkbox"/>	<del>PDI-071SC-A-10-10-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-6</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-7</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-8</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-9</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-10</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-11</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
<del>1903461-12</del>	<input type="checkbox"/>	<del>PDI-071SC-B-02-04-191001</del>	03-Oct-19 09:02	WR-2 A-1	
1903461-13	<input checked="" type="checkbox"/>	✓PDI-071SC-B-04-06-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-14	<input checked="" type="checkbox"/>	✓PDI-071SC-B-06-08-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-15	<input checked="" type="checkbox"/>	✓PDI-071SC-B-08-10-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-16	<input checked="" type="checkbox"/>	✓PDI-071SC-B-10-11.5-191001	03-Oct-19 09:02	WR-2 A-1	
1903461-17	<input checked="" type="checkbox"/>	✓PDI-1071SC-B-02-04-191001	03-Oct-19 09:02	WR-2 A-1	

WO Comments: ~~Soxhlet extraction (dry weight)~~  
**Dioxin - 10g (dry weight)**  
~~Soxhlet extraction (dry weight)~~

Pre-Prep Check Out: NA      Prep Check Out: AO 12/26/19      Prep Reconciled Initials/Date: AO 12/26/19  
 Pre-Prep Check In: NP      Prep Check In: AO 12/26/19      Spike Reconciled Initials/Date: RP 12/26/19  
 VialBoxID: cherry spritz

PREPARATION BENCH SHEET

Matrix: Solid

B9L0251

Chemist: AO

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 26-Dec-19 06:05

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B9L0251-BLK1	NA	(10.00)	AO HA 12/26/19	TL 11/27/20	11/27/20	11/27/20	11/27/20	11/31/20	11/31/20
<input type="checkbox"/>	B9L0251-BS1	J	(10.00)							
<input type="checkbox"/>	1903461-13RE2	16.53	16.58							
<input type="checkbox"/>	1903461-14RE2	14.01	14.59							
<input type="checkbox"/>	1903461-15RE2	14.03	14.57							
<input type="checkbox"/>	1903461-16RE2	13.14	13.57			NA				
<input type="checkbox"/>	1903461-17RE2	13.44	13.57							
<input type="checkbox"/>	1903742-04RE1	14.62	14.85							
<input type="checkbox"/>	1903742-05RE1	14.64	15.61							
<input type="checkbox"/>	1903742-07RE1	13.13	13.21							

Ⓐ didn't have a boiling chip in it on sox ~ 01/02/2020

IS Name <u>V1</u>	NS Name <u>V3</u>	CRS Name <u>V5</u>	RS Name <u>V2</u>	Cycle Time	APP: SEFUN SOX <u>SDS</u>	Check Out: <u>AO 12/26/19</u>
PCDD/F <u>19C1902, 10ML</u>	PCDD/F <u>18F1913, 10ML</u>	PCDD/F <u>18I1602, 10ML</u>	PCDD/F <u>19E1603, 10ML</u>	Start Date/Time <u>12/26/19 1343</u>	SOLV: <u>Toluene</u>	Chemist/Date: <u>AO 12/26/19</u>
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time <u>12/19 554</u>	Other <u>NA</u>	Check In: <u>AO 12/26/19</u>
PAH _____	PAH _____	PAH _____	PAH _____	Final Volume(s) <u>C14 20ML</u>		Balance ID: <u>HRMS-8</u>

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1903461-13RE2	16.58 ✓	60.49383	10.0299	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903461-14RE2	14.59 ✓	71.36929	10.4128	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903461-15RE2	14.57 ✓	71.2963	10.3879	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903461-16RE2	13.57 ✓	76.08318	10.3245	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903461-17RE2	13.57 ✓	74.39294	10.0951	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903742-04RE1	14.85 ✓	68.40391	10.1580	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903742-05RE1	15.61 ✓	68.30709	10.6627	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
1903742-07RE1	13.21 ✓	76.16279	10.0611	20	26-Dec-19 06:05	ACO			Sediment	1613 Full List
<b>B9L0251-BLK1</b>	<b>10</b>			<b>20</b>	<b>26-Dec-19 06:05</b>	<b>ACO</b>				<b>QC</b>
<b>B9L0251-BS1</b>	<b>10</b>			<b>20</b>	<b>26-Dec-19 06:05</b>	<b>ACO</b>	<b>18F1913 ✓</b>	<b>10 ✓</b>		<b>QC</b>

All bolded data on report verified against written benchsheet by (initial/date)     *N* 01/03/20

SAMPLE DATA – EPA METHOD 1613

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-5.qld

Last Altered: Tuesday, December 17, 2019 08:27:37 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 08:29:10 Pacific Standard Time

*Hc* *12-17-19* *CT off/08/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.925	10.000	26.199		1.001				0.112	
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.000	31.291		1.001				0.120	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.000	34.603		1.000				0.0936	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.000	34.691		1.000				0.0835	
5	5 1,2,3,7,8,9-HxCDD			NO	0.978	10.000	35.000		1.001				0.102	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.04	10.000	38.455		1.000				0.169	
7	7 OCDD			NO	0.972	10.000	41.637		1.000				0.310	
8	8 2,3,7,8-TCDF			NO	0.938	10.000	25.215		1.001				0.0793	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.000	29.982		1.001				0.0752	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.000	30.978		1.001				0.0641	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.000	33.736		1.000				0.0577	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.000	33.856		1.000				0.0580	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.000	34.451		1.001				0.0606	
14	14 1,2,3,7,8,9-HxCDF	4.15e1	1.08	NO	1.07	10.000	35.306	35.31	1.000	1.000	0.038000		0.0495	0.0380
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.13	10.000	37.076		1.001				0.0693	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.000	39.047		1.000				0.0851	
17	17 OCDF	4.27e2	0.66	YES	1.10	10.000	41.834	41.86	1.000	1.001	0.59783		0.146	0.502
18	18 13C-2,3,7,8-TCDD	3.11e5	0.78	NO	1.05	10.000	26.178	26.17	1.027	1.027	118.68	59.3	0.282	
19	19 13C-1,2,3,7,8-PeCDD	1.98e5	0.62	NO	0.743	10.000	31.195	31.27	1.224	1.227	106.62	53.3	0.360	
20	20 13C-1,2,3,4,7,8-HxCDD	1.57e5	1.22	NO	0.646	10.000	34.591	34.59	1.014	1.014	101.49	50.7	0.559	
21	21 13C-1,2,3,6,7,8-HxCDD	1.84e5	1.25	NO	0.777	10.000	34.690	34.69	1.017	1.017	99.049	49.5	0.465	
22	22 13C-1,2,3,7,8,9-HxCDD	1.72e5	1.29	NO	0.659	10.000	34.963	34.97	1.025	1.025	108.95	54.5	0.547	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.24e5	1.10	NO	0.534	10.000	38.457	38.44	1.127	1.127	97.570	48.8	0.461	
24	24 13C-OCDD	1.91e5	0.92	NO	0.470	10.000	41.634	41.64	1.220	1.220	170.08	42.5	0.684	
25	25 13C-2,3,7,8-TCDF	4.34e5	0.74	NO	0.977	10.000	25.251	25.19	0.991	0.989	120.47	60.2	0.319	
26	26 13C-1,2,3,7,8-PeCDF	3.01e5	1.55	NO	0.778	10.000	29.906	29.96	1.174	1.176	104.82	52.4	0.581	
27	27 13C-2,3,4,7,8-PeCDF	2.97e5	1.58	NO	0.750	10.000	30.915	30.95	1.213	1.215	107.32	53.7	0.602	
28	28 13C-1,2,3,4,7,8-HxCDF	2.24e5	0.50	NO	0.845	10.000	33.731	33.74	0.989	0.989	111.05	55.5	0.557	
29	29 13C-1,2,3,6,7,8-HxCDF	2.62e5	0.50	NO	1.03	10.000	33.847	33.85	0.992	0.992	106.94	53.5	0.459	
30	30 13C-2,3,4,6,7,8-HxCDF	2.39e5	0.54	NO	0.893	10.000	34.421	34.42	1.009	1.009	111.97	56.0	0.528	
31	31 13C-1,2,3,7,8,9-HxCDF	2.04e5	0.54	NO	0.734	10.000	35.321	35.31	1.035	1.035	116.26	58.1	0.641	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-5.qld

Last Altered: Tuesday, December 17, 2019 08:27:37 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 08:29:10 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	1.85e5	0.43	NO	0.754	10.000	37.034	37.04	1.085	1.086	102.74	51.4	0.534	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.24e5	0.45	NO	0.539	10.000	39.058	39.05	1.145	1.144	96.000	48.0	0.747	
34	34 13C-OCDF	2.59e5	0.89	NO	0.593	10.000	41.845	41.83	1.226	1.226	183.03	45.8	0.336	
35	35 37Cl-2,3,7,8-TCDD	1.29e5			1.07	10.000	26.198	26.18	1.028	1.028	48.335	60.4	0.0635	
36	36 13C-1,2,3,4-TCDD	5.00e5	0.75	NO	1.00	10.000	25.500	25.48	1.000	1.000	200.00	100	0.296	
37	37 13C-1,2,3,4-TCDF	7.38e5	0.74	NO	1.00	10.000	23.680	23.61	1.000	1.000	200.00	100	0.312	
38	38 13C-1,2,3,4,6,9-HxCDF	4.78e5	0.51	NO	1.00	10.000	34.060	34.12	1.000	1.000	200.00	100	0.471	
39	39 Total Tetra-Dioxins				0.925	10.000	24.620		0.000				0.0618	
40	40 Total Penta-Dioxins				0.905	10.000	29.960		0.000				0.0531	
41	41 Total Hexa-Dioxins				0.967	10.000	33.635		0.000				0.0535	
42	42 Total Hepta-Dioxins				1.04	10.000	38.800		0.000				0.107	
43	43 Total Tetra-Furans				0.938	10.000	23.610		0.000				0.0357	
44	44 1st Func. Penta-Furans				0.976	10.000	27.040		0.000				0.0229	
45	45 Total Penta-Furans				0.976	10.000	29.275		0.000				0.0303	
46	46 Total Hexa-Furans				1.18	10.000	33.555		0.000		0.038000		0.0343	0.0380
47	47 Total Hepta-Furans				1.13	10.000	37.835		0.000				0.0381	

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-5.qld

Last Altered: Tuesday, December 17, 2019 08:27:37 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:29:10 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-5.qld

Last Altered: Tuesday, December 17, 2019 08:27:37 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:29:10 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hexa-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1,2,3,7,8,9-HxCDF	35.31	1.111e3	1.020e3	2.153e1	2.002e1	1.08	NO	4.155e1	0.038000	0.038000	0.0495

Hepta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Dataset: Untitled

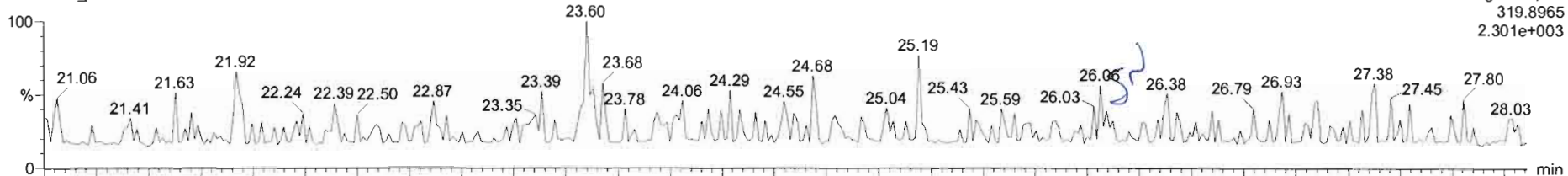
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

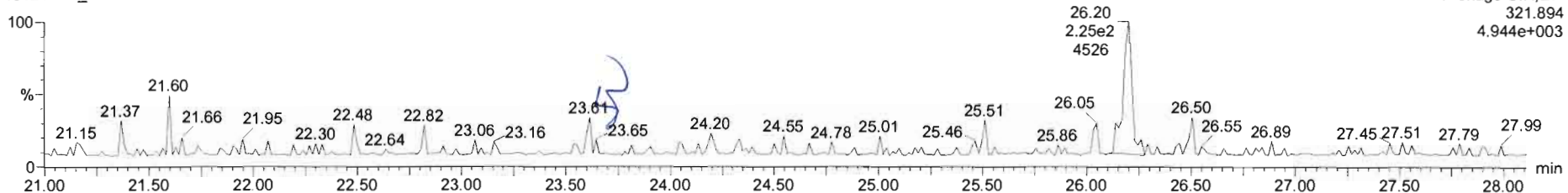
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

2,3,7,8-TCDD

191214K2\_5

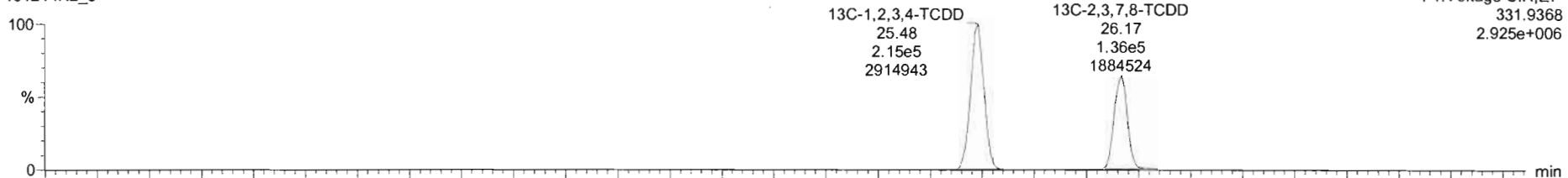


191214K2\_5

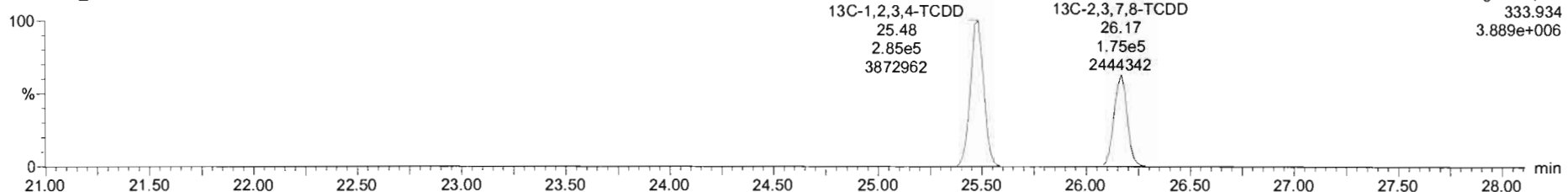


13C-2,3,7,8-TCDD

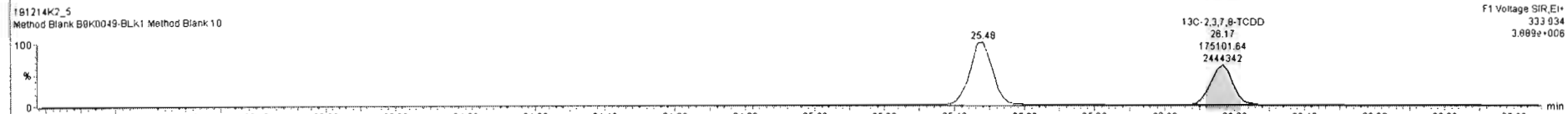
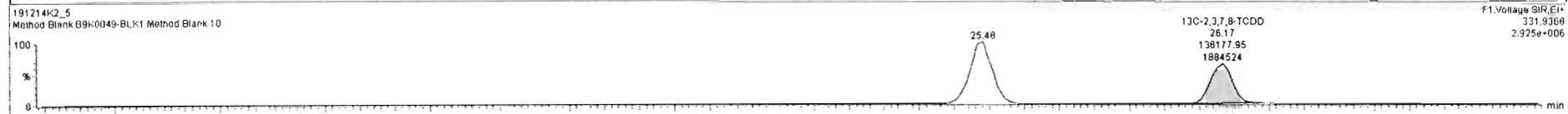
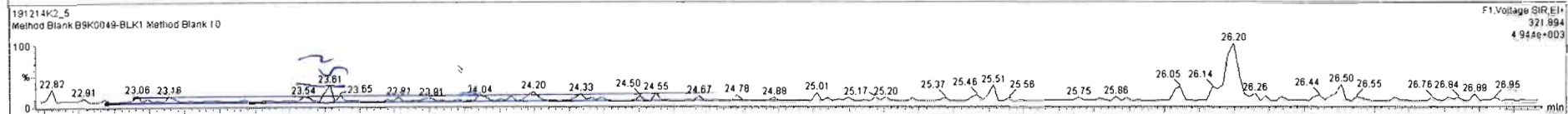
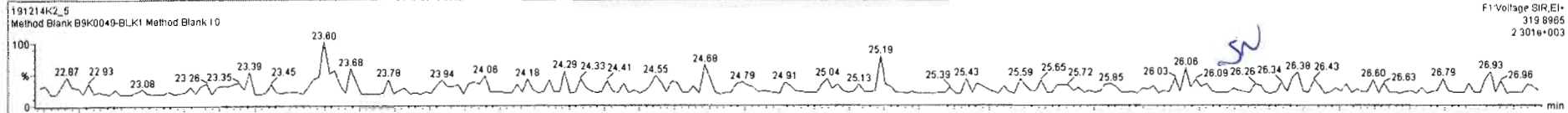
191214K2\_5



191214K2\_5



#	Name	Resp	RA	rvj	RRF	wt/Std	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.9249	10.000					0.112	
2	1,2,3,7,8-PeCDD			NO	0.9048	10.000					0.120	
3	1,2,3,4,7,8-HxCDD			NO	1.0691	10.000					0.0936	
4	1,2,3,6,7,8-HxCDD			NO	0.9675	10.000					0.0835	
5	1,2,3,7,8,9-HxCDD			NO	0.9778	10.000					0.102	
6	1,2,3,4,6,7,8-HpCDD			NO	1.0375	10.000					0.189	
7	OCDD			NO	0.9718	10.000					0.310	
8	2,3,7,8-TCDF			NO	0.9376	10.000					0.0793	
9	1,2,3,7,8-PeCDF			NO	0.9762	10.000					0.0752	
10	2,3,4,7,8-PeCDF			NO	1.0049	10.000					0.0641	
11	1,2,3,4,7,8-HxCDF			NO	1.2434	10.000					0.0577	
12	1,2,3,6,7,8-HxCDF			NO	1.0950	10.000					0.0590	
13	2,3,4,6,7,8-HxCDF			NO	1.1806	10.000					0.0606	
14	1,2,3,7,8,9-HxCDF			NO	1.0728	10.000					0.0920	
15	1,2,3,4,6,7,8-HpCDF			NO	1.1300	10.000					0.0693	
16	1,2,3,4,7,8,9-HpCDF			NO	1.2609	10.000					0.0851	
17	OCDF			NO	1.1025	10.000					0.145	



Dataset: Untitled

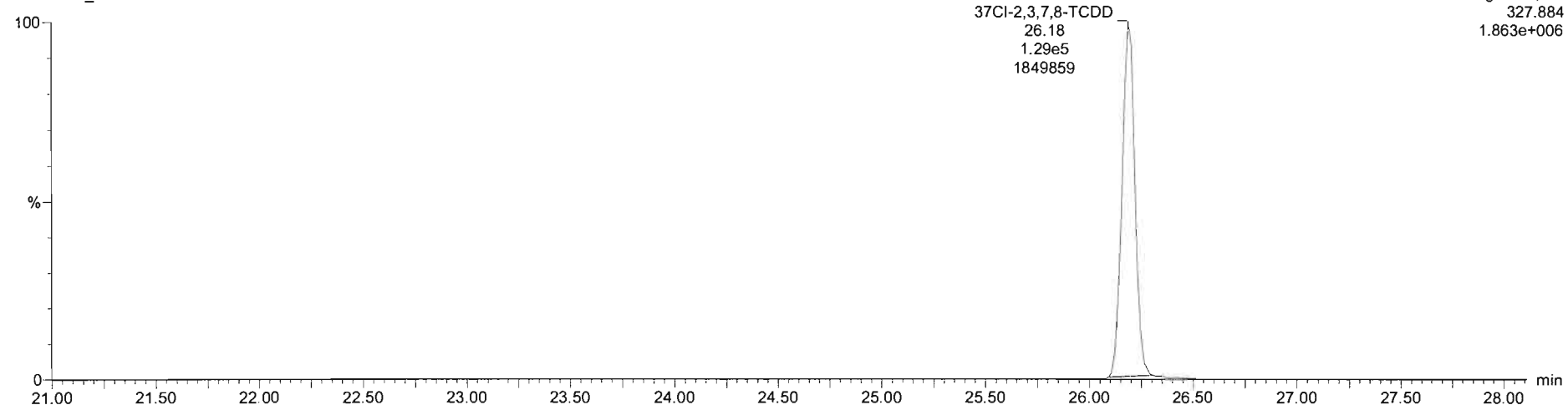
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

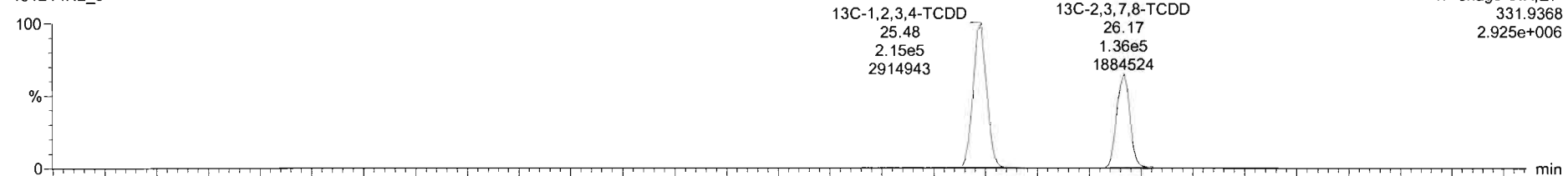
37Cl-2,3,7,8-TCDD

191214K2\_5

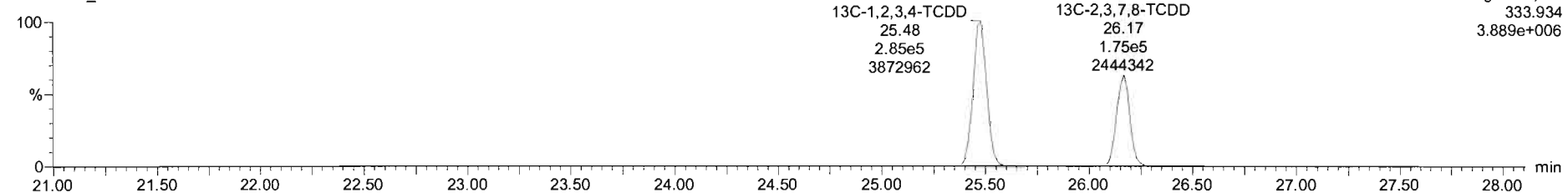


13C-1,2,3,4-TCDD

191214K2\_5



191214K2\_5



Dataset: Untitled

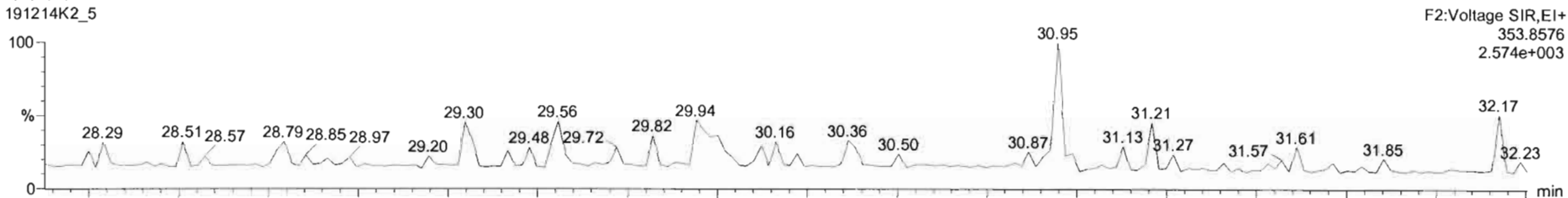
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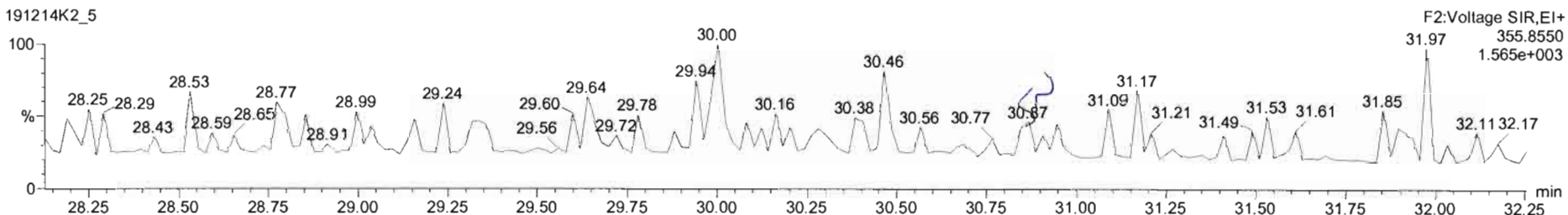
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

**1,2,3,7,8-PeCDD**

191214K2\_5

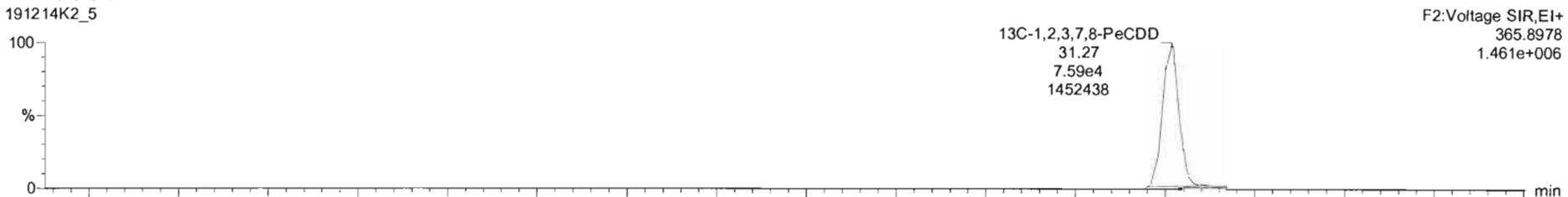


191214K2\_5

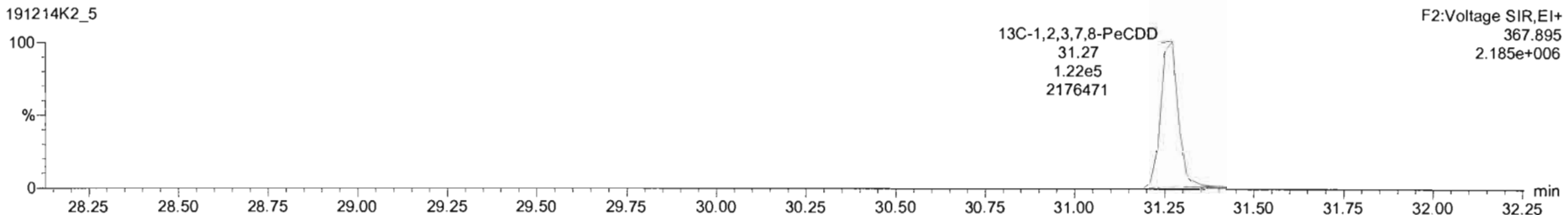


**13C-1,2,3,7,8-PeCDD**

191214K2\_5



191214K2\_5



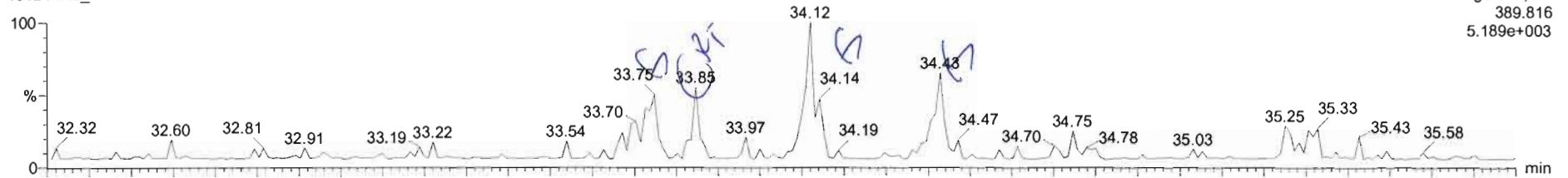
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

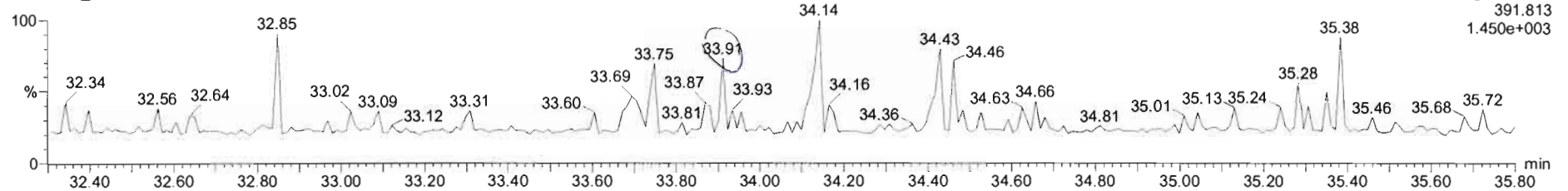
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

**1,2,3,4,7,8-HxCDD**

191214K2\_5

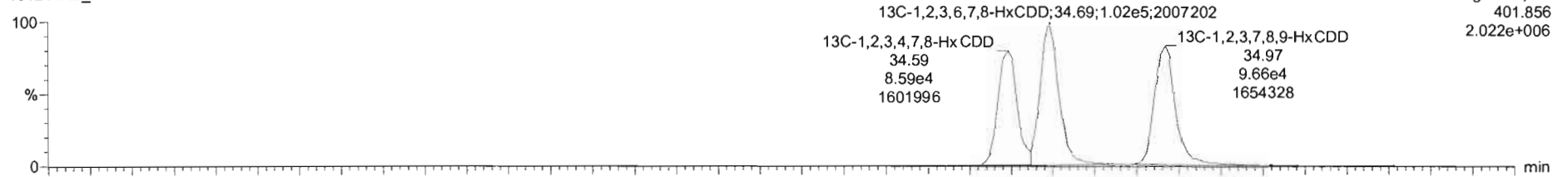


191214K2\_5

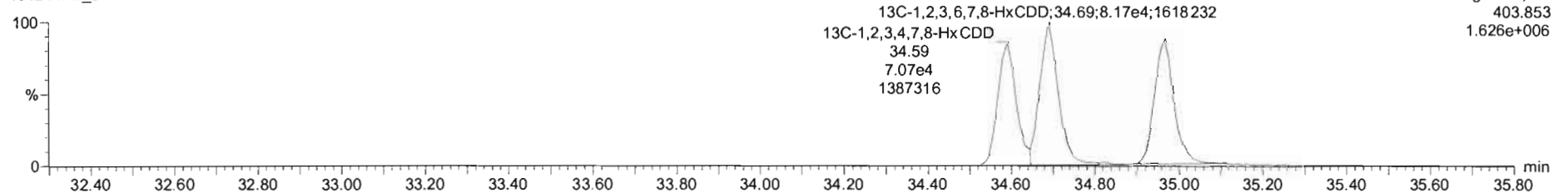


**13C-1,2,3,4,7,8-HxCDD**

191214K2\_5



191214K2\_5



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

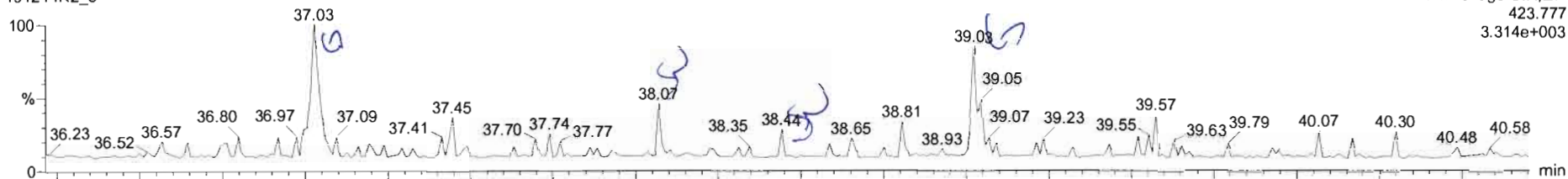
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

1,2,3,4,6,7,8-HpCDD

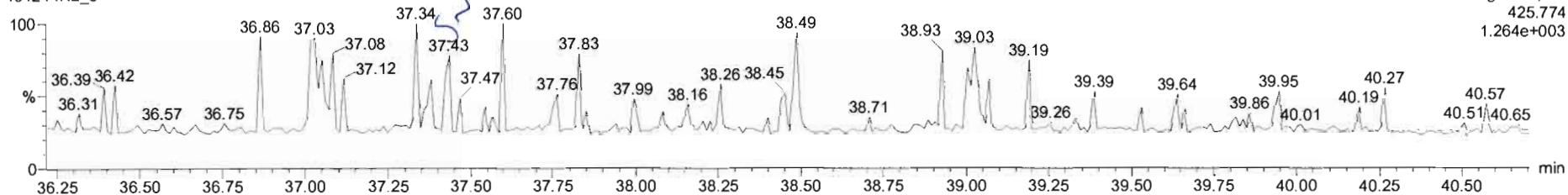
191214K2\_5

F4:Voltage SIR,EI+  
423.777  
3.314e+003



191214K2\_5

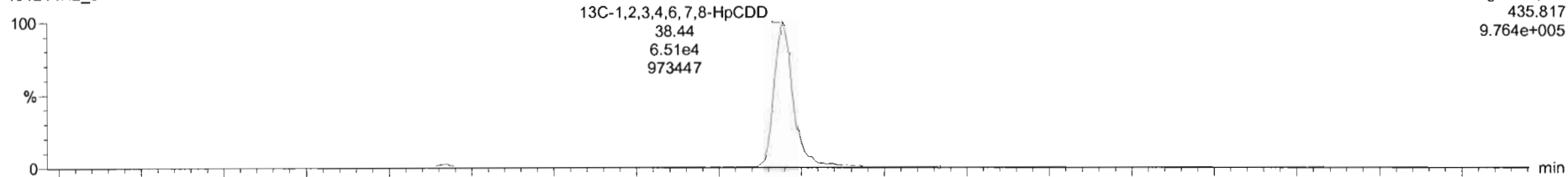
F4:Voltage SIR,EI+  
425.774  
1.264e+003



13C-1,2,3,4,6,7,8-HpCDD

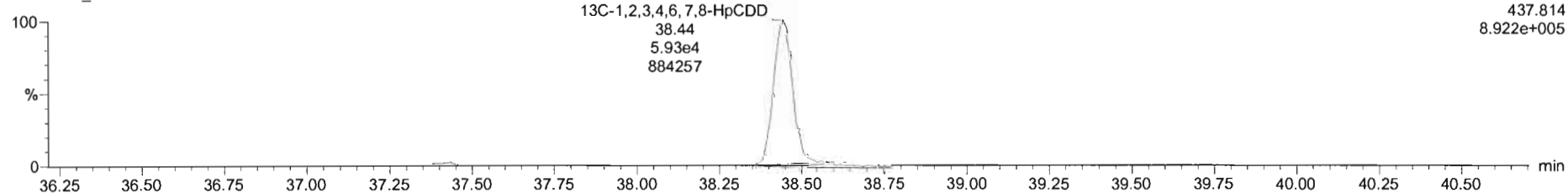
191214K2\_5

F4:Voltage SIR,EI+  
435.817  
9.764e+005



191214K2\_5

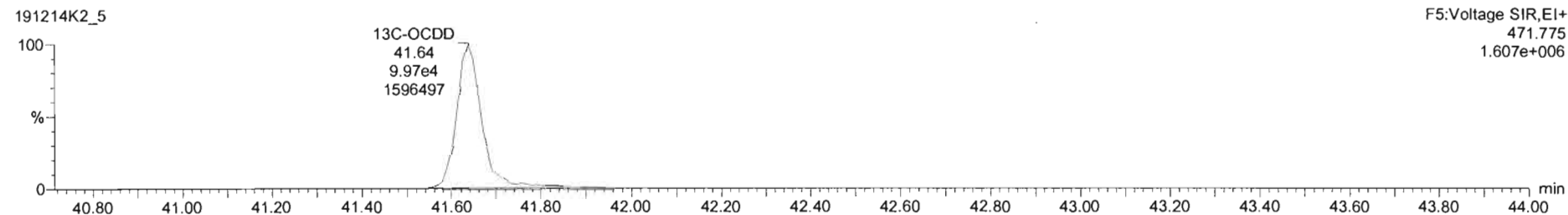
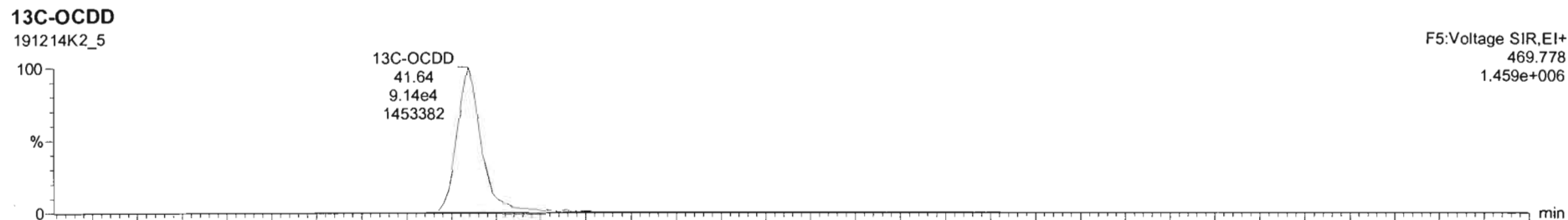
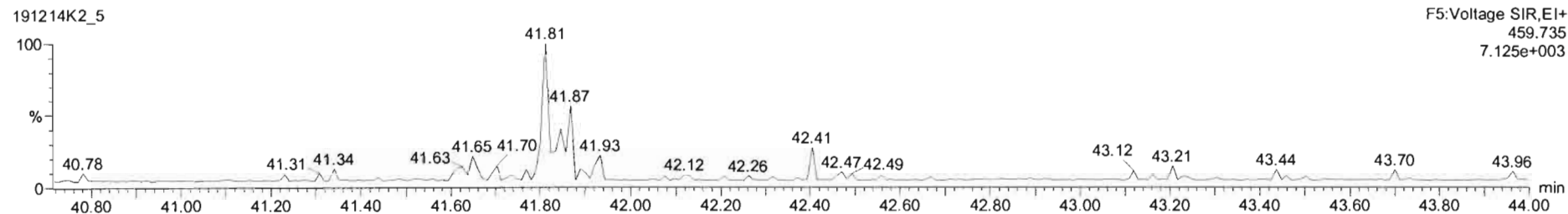
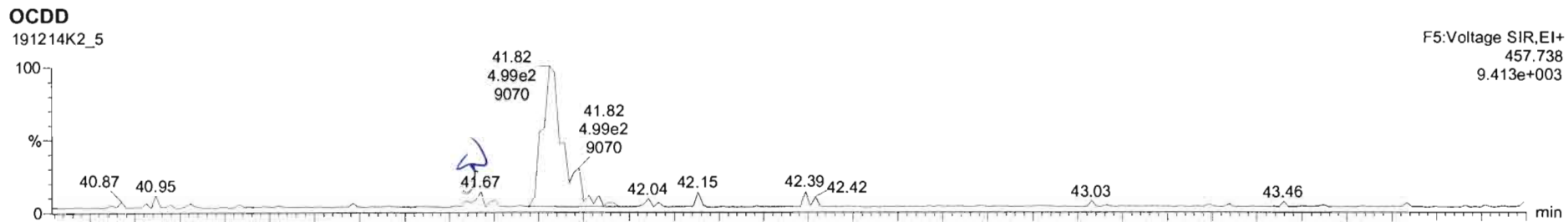
F4:Voltage SIR,EI+  
437.814  
8.922e+005



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank



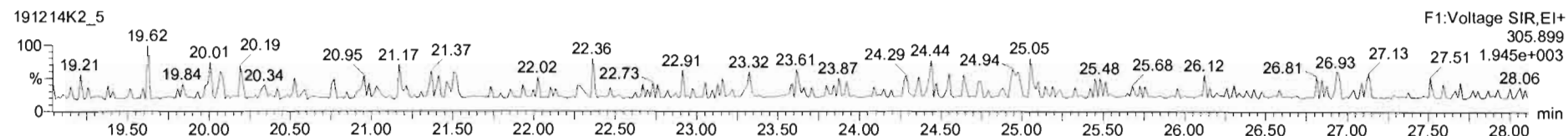
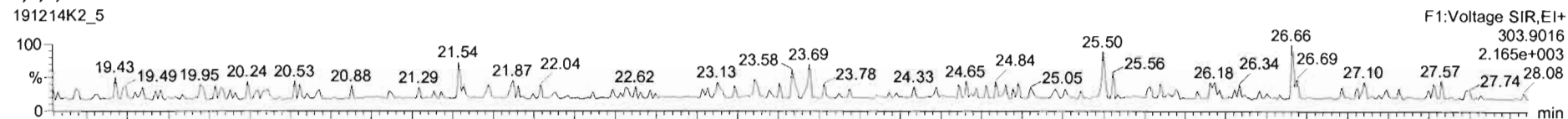


Dataset: Untitled

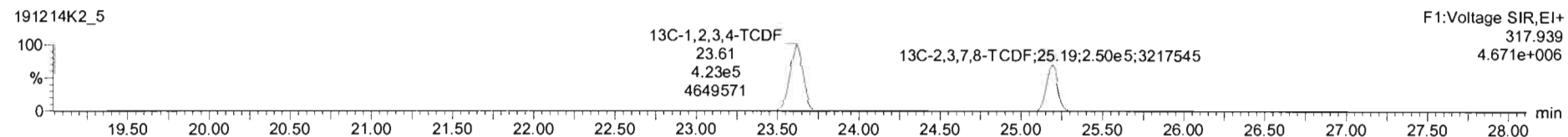
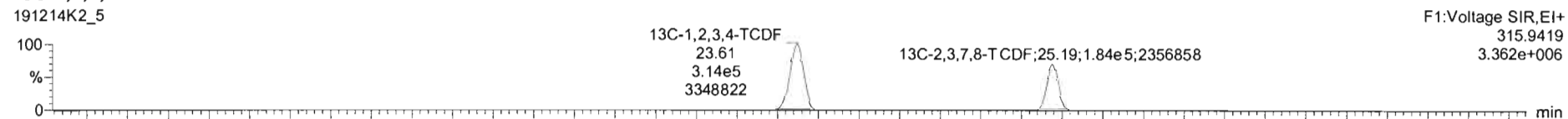
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

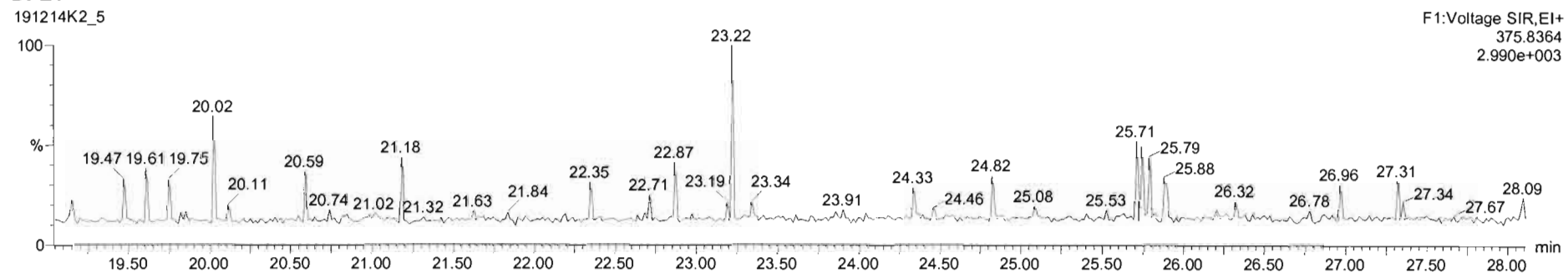
### 2,3,7,8-TCDF



### 13C-2,3,7,8-TCDF



### DPE1



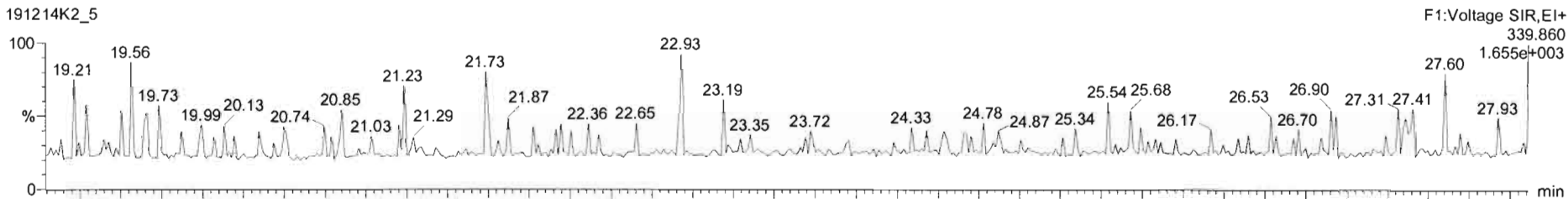
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

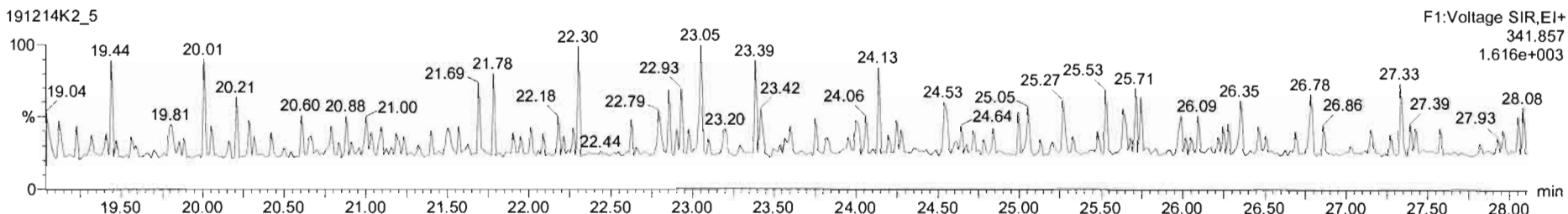
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans

191214K2\_5

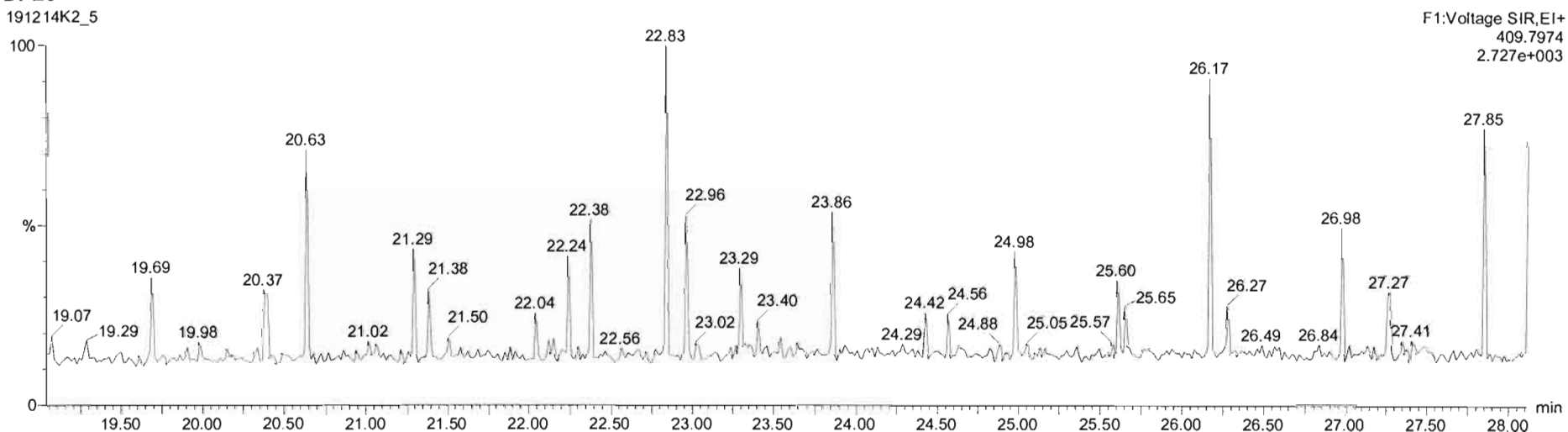


191214K2\_5



DPE6

191214K2\_5



Dataset: Untitled

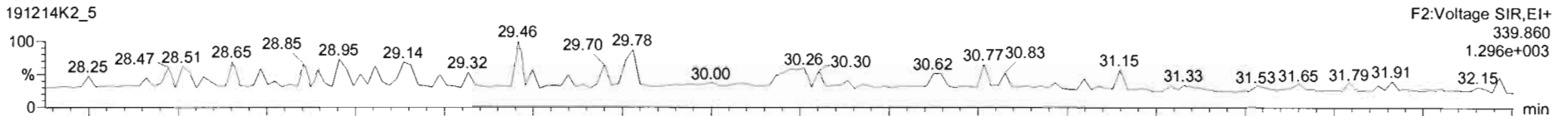
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

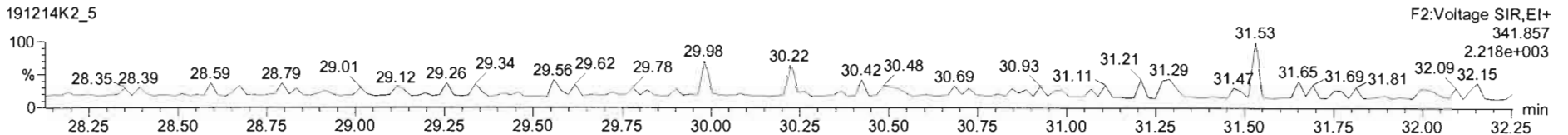
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

1,2,3,7,8-PeCDF

191214K2\_5

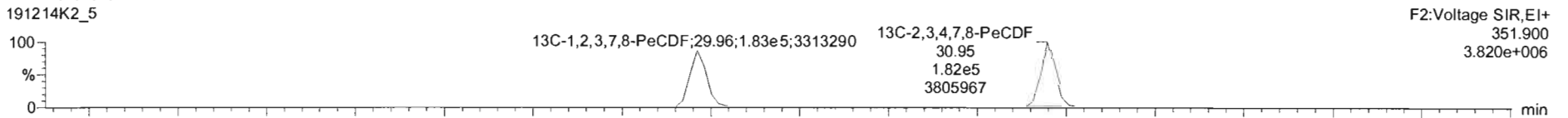


191214K2\_5

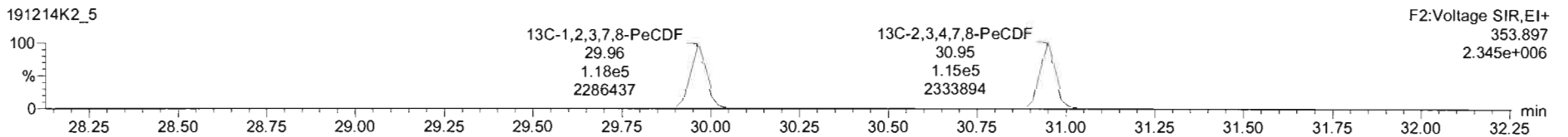


13C-1,2,3,7,8-PeCDF

191214K2\_5

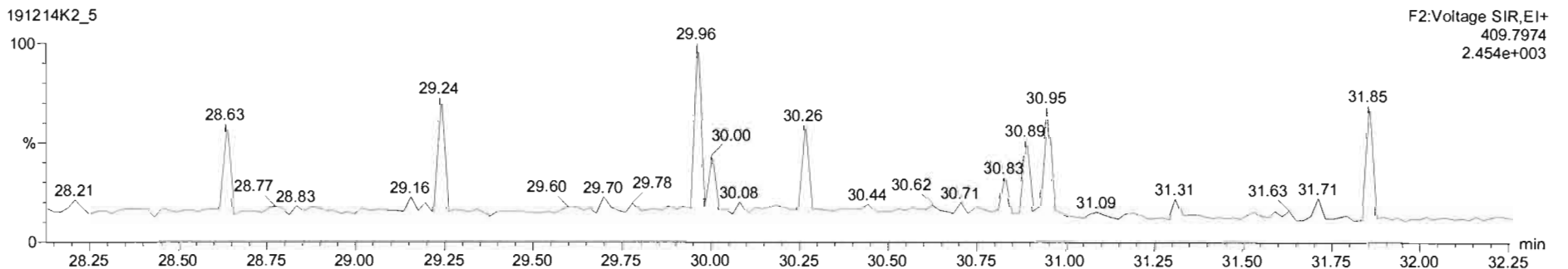


191214K2\_5



DPE2

191214K2\_5



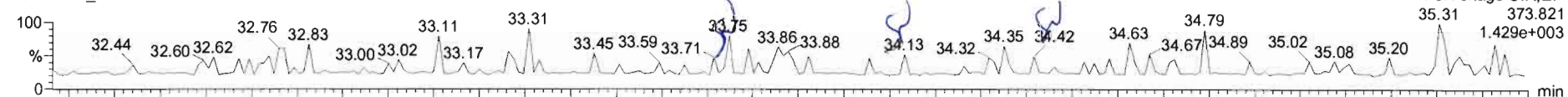
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

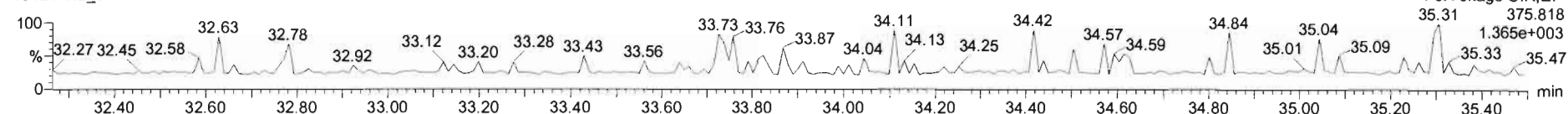
Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

1,2,3,4,7,8-HxCDF

191214K2\_5

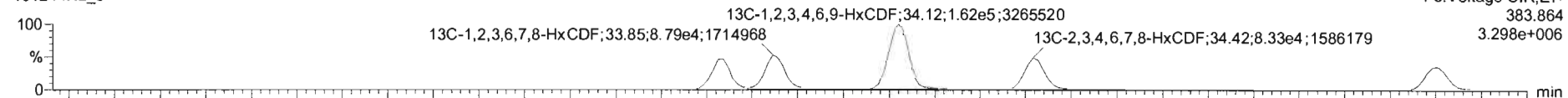


191214K2\_5

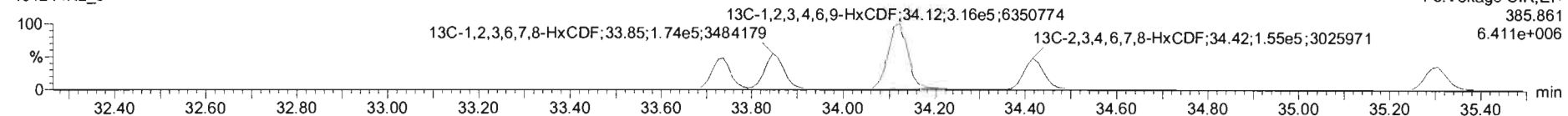


13C-1,2,3,4,7,8-HxCDF

191214K2\_5

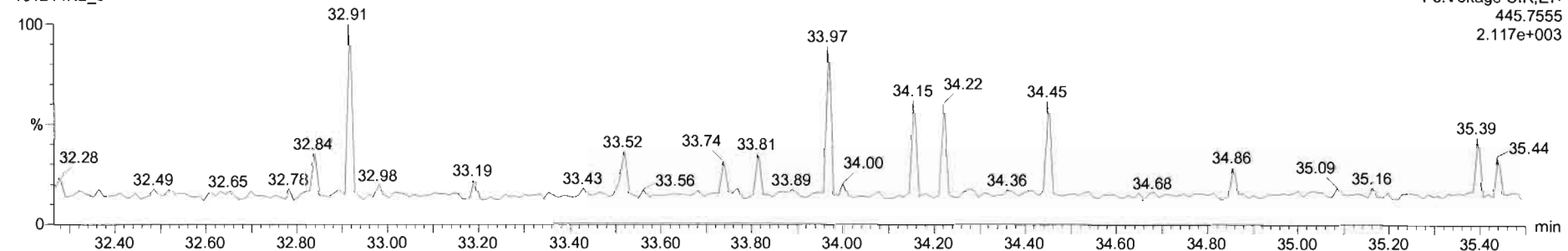


191214K2\_5

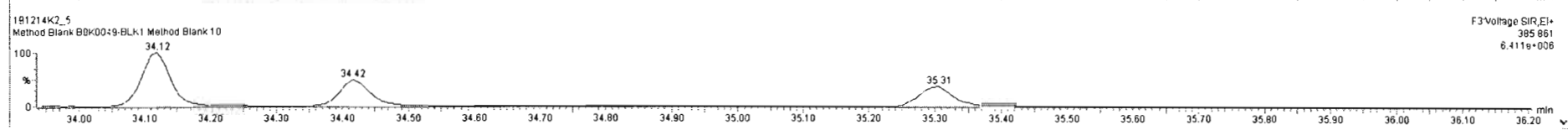
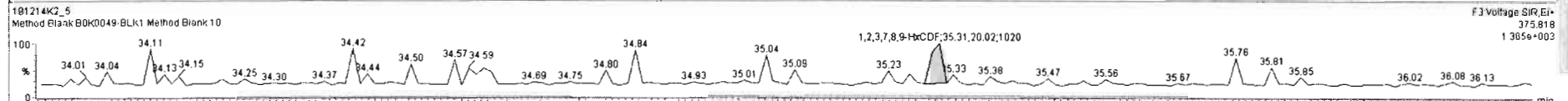
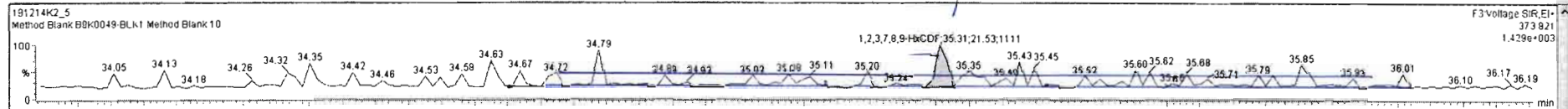


DPE3

191214K2\_5



Name	Resp	RA	n/y	RRF	withd	RT	RRT	Conc.	%Rec	DL	EMPC
40	Total Penta-Dioxins			0.9046	10.000					0.0531	
41	Total Hexa-Dioxins			0.9675	10.000					0.0535	
42	Total Hepta-Dioxins			1.0375	10.000					0.107	
43	Total Tetra-Furans			0.9376	10.000					0.0357	
44	1st Func. Penta-Furans			0.9762	10.000					0.0229	
45	Total Penta-Furans			0.9762	10.000					0.0303	
46	Total Hexa-Furans			1.1806	10.000			0.0380	0.0343	0.0380	
47	Total Hepta-Furans			1.1300	10.000					0.0381	
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										
58	DPE6										

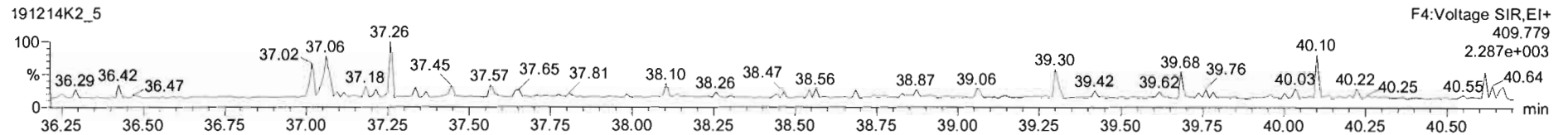
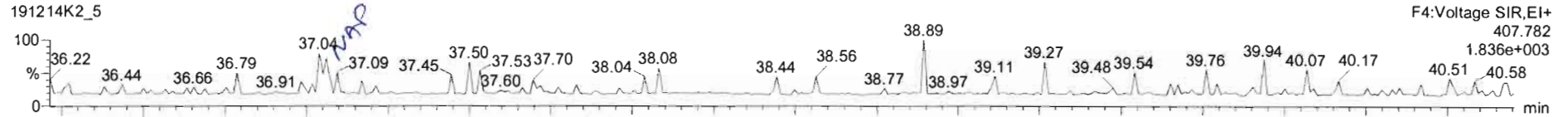


Dataset: Untitled

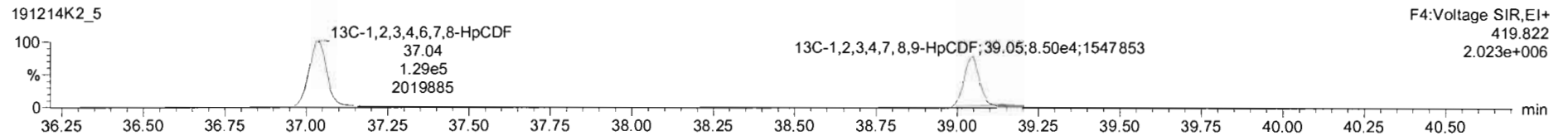
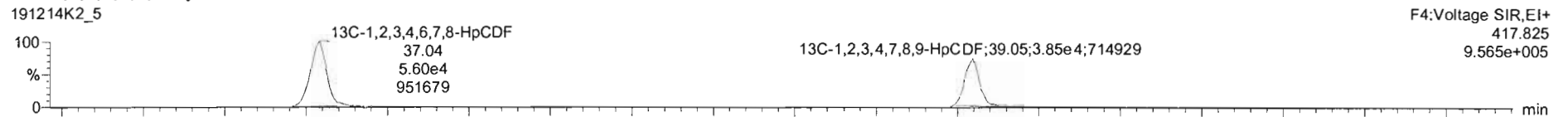
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank

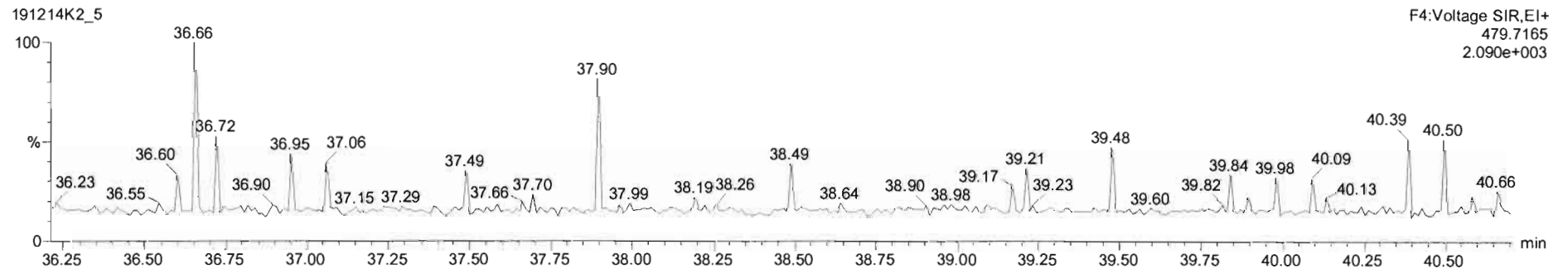
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



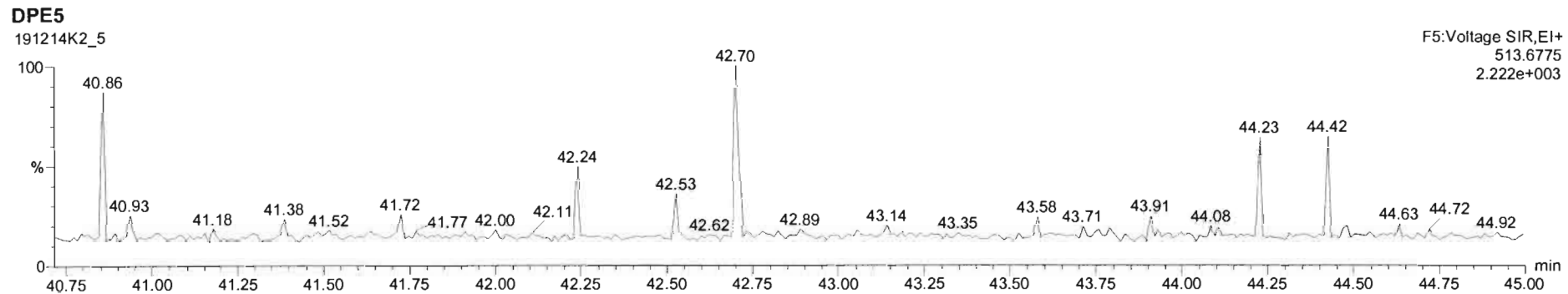
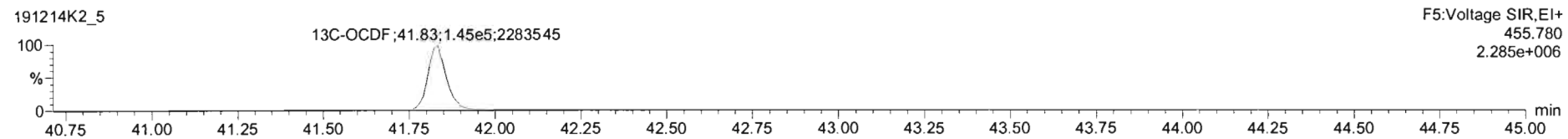
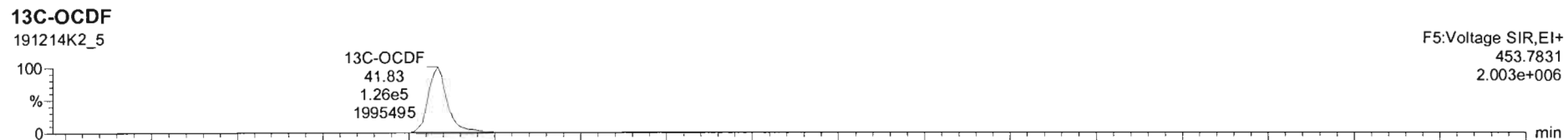
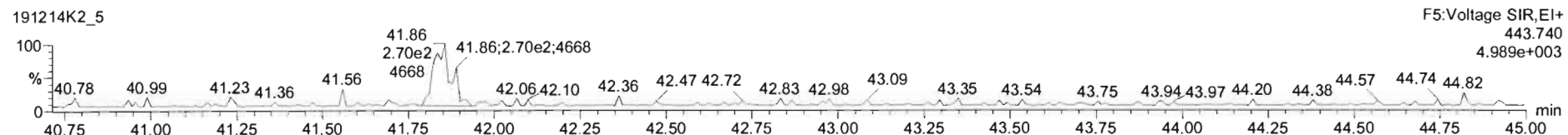
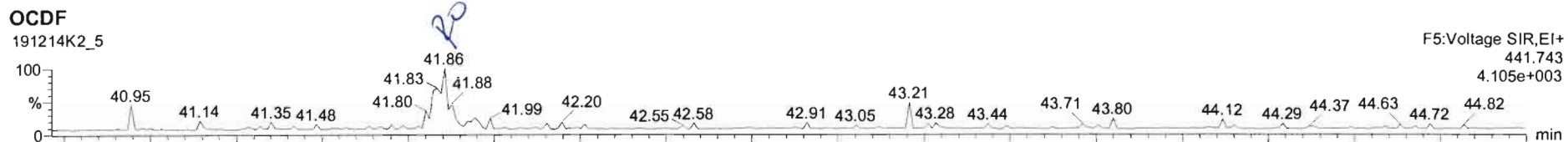
**DPE4**



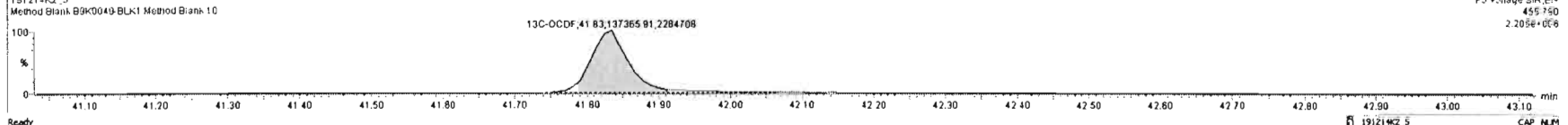
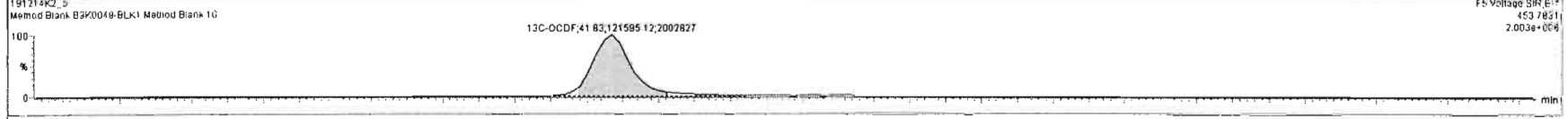
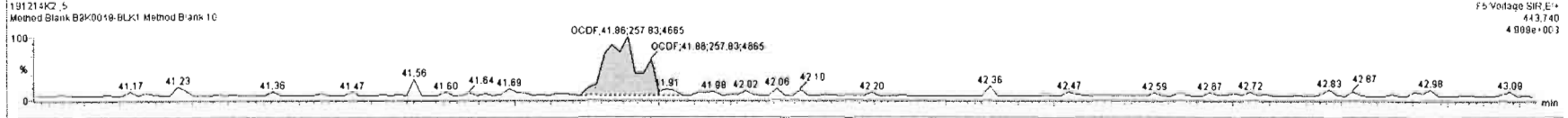
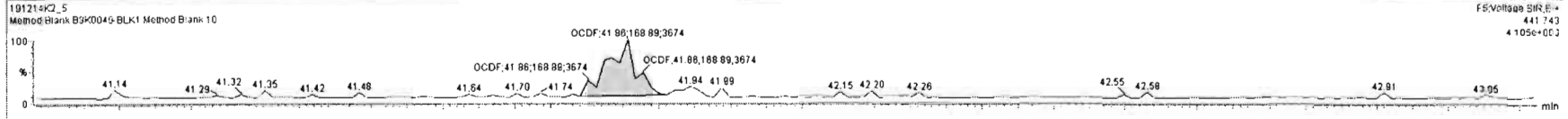
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank



#	Name	Resp	RA	nNy	RPF	wtVcd	RT	RRT	Conc	%Rec	DL	EMPC
14	1,2,3,7,8-HxCDF			NO	1.0728	10.000					0.0920	
15	1,2,3,4,6,7,8-HpCDF			NO	1.1300	10.000					0.0693	
16	1,2,3,4,7,8-HpCDF			NO	1.2608	10.000					0.0851	
17	OCDF	4.27e2	0.88	YES	1.1025	10.000	41.86	1.001	0.598		0.148	0.502
18	13C-2,3,7,8-TCDD	3.11e5	0.78	NO	1.0489	10.000	26.17	1.027	119	59.3	0.282	
19	13C-1,2,3,7,8-PeCDD	1.98e5	0.62	NO	0.7429	10.000	31.27	1.227	107	53.3	0.360	
20	13C-1,2,3,4,7,8-HxCDD	1.57e5	1.22	NO	0.6463	10.000	34.59	1.014	101	50.7	0.559	
21	13C-1,2,3,6,7,8-HxCDD	1.84e5	1.25	NO	0.7767	10.000	34.69	1.017	99.0	49.5	0.465	
22	13C-1,2,3,7,8-HxCDD	1.72e5	1.29	NO	0.6596	10.000	34.97	1.025	109	54.5	0.547	
23	13C-1,2,3,4,6,7,8-HpCDD	1.24e5	1.10	NO	0.5342	10.000	38.44	1.127	97.8	48.8	0.461	
24	13C-OCDD	1.91e5	0.92	NO	0.4704	10.000	41.84	1.220	170	42.5	0.894	
25	13C-2,3,7,8-TCDF	4.34e5	0.74	NO	0.9775	10.000	25.19	0.989	120	60.2	0.319	
26	13C-1,2,3,7,8-PeCDF	3.01e5	1.55	NO	0.7778	10.000	29.96	1.176	106	52.4	0.581	
27	13C-1,2,3,4,7,8-HpCDF	2.97e5	1.58	NO	0.7498	10.000	30.95	1.216	107	53.7	0.602	
28	13C-1,2,3,4,6,7,8-HpCDF	2.24e5	0.50	NO	0.8452	10.000	33.74	0.989	111	55.5	0.557	
29	13C-1,2,3,6,7,8-HxCDF	2.62e5	0.50	NO	1.0767	10.000	33.85	0.992	107	53.5	0.458	
30	13C-2,3,4,6,7,8-HxCDF	2.39e5	0.54	NO	0.8829	10.000	34.42	1.008	112	56.0	0.528	



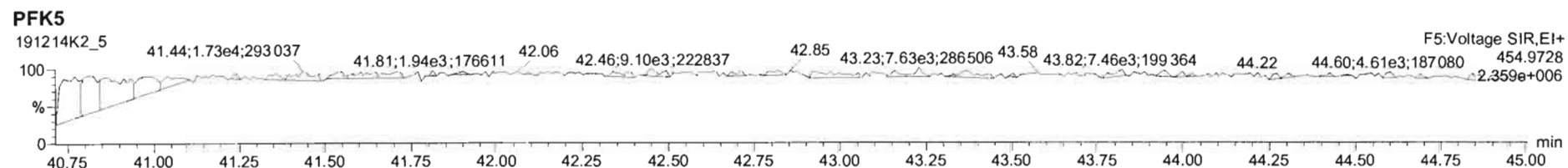
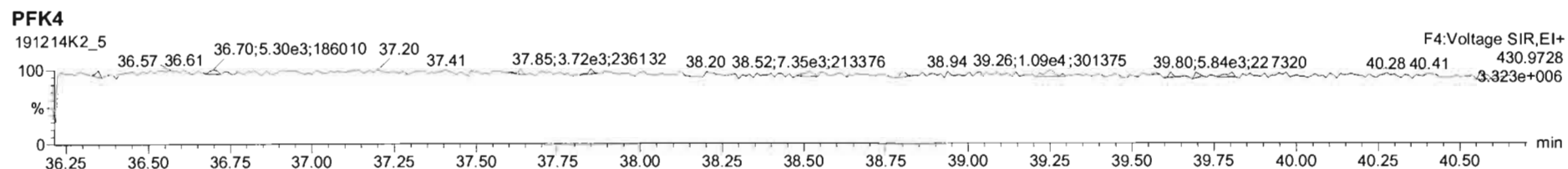
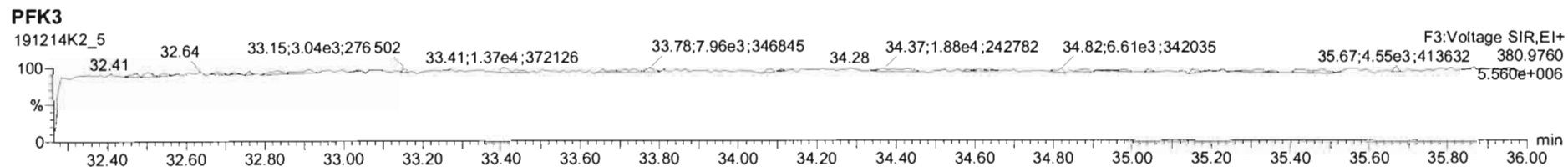
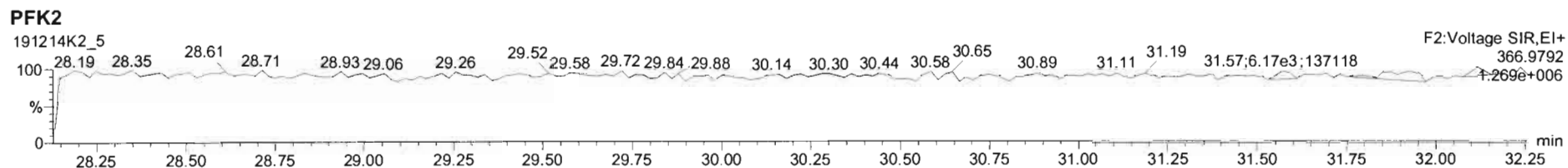
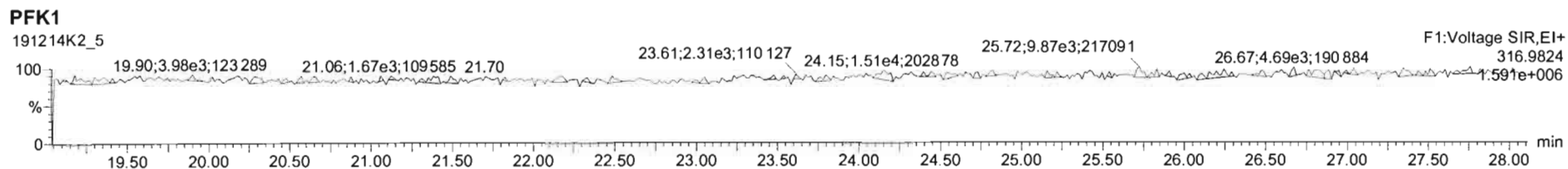


Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_5, Date: 14-Dec-2019, Time: 21:32:13, ID: B9K0049-BLK1 Method Blank 10, Description: Method Blank



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-2.qld

Last Altered: Tuesday, December 17, 2019 08:17:39 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:18:08 Pacific Standard Time

*HZ 12-17-19 C7 01/08/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	2.36e4	0.73	NO	0.925	10.000	26.199	26.18	1.001	1.001	18.839		0.208	18.8
2	2 1,2,3,7,8-PeCDD	8.62e4	0.62	NO	0.905	10.000	31.291	31.29	1.001	1.001	101.29		0.226	101
3	3 1,2,3,4,7,8-HxCDD	7.66e4	1.26	NO	1.07	10.000	34.603	34.60	1.000	1.000	103.33		0.658	103
4	4 1,2,3,6,7,8-HxCDD	8.11e4	1.26	NO	0.967	10.000	34.691	34.71	1.000	1.001	103.26		0.709	103
5	5 1,2,3,7,8,9-HxCDD	7.70e4	1.26	NO	0.978	10.000	35.000	34.98	1.001	1.000	103.25		0.735	103
6	6 1,2,3,4,6,7,8-HpCDD	5.78e4	1.06	NO	1.04	10.000	38.466	38.48	1.000	1.001	95.342		0.645	95.3
7	7 OCDD	7.45e4	0.87	NO	0.972	10.000	41.637	41.65	1.000	1.000	211.21		1.16	211
8	8 2,3,7,8-TCDF	3.41e4	0.78	NO	0.938	10.000	25.215	25.22	1.001	1.001	19.999		0.149	20.0
9	9 1,2,3,7,8-PeCDF	1.42e5	1.55	NO	0.976	10.000	29.982	29.98	1.001	1.001	99.844		0.264	99.8
10	10 2,3,4,7,8-PeCDF	1.46e5	1.58	NO	1.00	10.000	30.978	30.97	1.001	1.001	104.99		0.257	105
11	11 1,2,3,4,7,8-HxCDF	1.17e5	1.27	NO	1.24	10.000	33.736	33.75	1.000	1.000	97.670		0.535	97.7
12	12 1,2,3,6,7,8-HxCDF	1.23e5	1.28	NO	1.10	10.000	33.856	33.87	1.000	1.001	99.652		0.585	99.7
13	13 2,3,4,6,7,8-HxCDF	1.28e5	1.24	NO	1.18	10.000	34.451	34.44	1.001	1.001	101.22		0.543	101
14	14 1,2,3,7,8,9-HxCDF	1.02e5	1.28	NO	1.07	10.000	35.306	35.32	1.000	1.000	100.60		0.744	101
15	15 1,2,3,4,6,7,8-HpCDF	9.55e4	1.02	NO	1.13	10.000	37.076	37.05	1.001	1.000	102.02		0.498	102
16	16 1,2,3,4,7,8,9-HpCDF	7.67e4	1.04	NO	1.26	10.000	39.036	39.06	1.000	1.001	103.81		0.588	104
17	17 OCDF	1.06e5	0.90	NO	1.10	10.000	41.834	41.85	1.000	1.000	186.30		0.650	186
18	18 13C-2,3,7,8-TCDD	2.70e5	0.77	NO	1.05	10.000	26.178	26.17	1.027	1.027	111.98	56.0	0.342	
19	19 13C-1,2,3,7,8-PeCDD	1.88e5	0.61	NO	0.743	10.000	31.195	31.27	1.224	1.227	110.00	55.0	0.405	
20	20 13C-1,2,3,4,7,8-HxCDD	1.39e5	1.21	NO	0.646	10.000	34.591	34.59	1.014	1.014	90.652	45.3	0.464	
21	21 13C-1,2,3,6,7,8-HxCDD	1.62e5	1.23	NO	0.777	10.000	34.690	34.69	1.017	1.017	88.310	44.2	0.386	
22	22 13C-1,2,3,7,8,9-HxCDD	1.53e5	1.22	NO	0.659	10.000	34.963	34.97	1.025	1.025	97.713	48.9	0.455	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.17e5	1.10	NO	0.534	10.000	38.457	38.45	1.127	1.127	92.475	46.2	0.436	
24	24 13C-OCDD	1.45e5	0.91	NO	0.470	10.000	41.634	41.64	1.220	1.220	130.34	32.6	1.04	
25	25 13C-2,3,7,8-TCDF	3.63e5	0.70	NO	0.977	10.000	25.250	25.19	0.991	0.989	105.56	52.8	0.436	
26	26 13C-1,2,3,7,8-PeCDF	2.92e5	1.52	NO	0.778	10.000	29.905	29.96	1.174	1.176	106.52	53.3	0.634	
27	27 13C-2,3,4,7,8-PeCDF	2.77e5	1.57	NO	0.750	10.000	30.914	30.95	1.213	1.215	104.77	52.4	0.657	
28	28 13C-1,2,3,4,7,8-HxCDF	1.93e5	0.53	NO	0.845	10.000	33.731	33.74	0.989	0.989	96.438	48.2	0.755	
29	29 13C-1,2,3,6,7,8-HxCDF	2.26e5	0.51	NO	1.03	10.000	33.847	33.85	0.992	0.992	93.079	46.5	0.622	
30	30 13C-2,3,4,6,7,8-HxCDF	2.14e5	0.54	NO	0.893	10.000	34.421	34.42	1.009	1.009	101.08	50.5	0.715	
31	31 13C-1,2,3,7,8,9-HxCDF	1.90e5	0.52	NO	0.734	10.000	35.321	35.31	1.035	1.035	109.03	54.5	0.869	

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Last Altered: Tuesday, December 17, 2019 08:17:39 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:18:08 Pacific Standard Time

Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	1.66e5	0.44	NO	0.754	10.000	37.034	37.04	1.085	1.086	92.844	46.4	0.514	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.17e5	0.42	NO	0.539	10.000	39.058	39.04	1.145	1.144	91.891	45.9	0.719	
34	34 13C-OCDF	2.07e5	0.91	NO	0.593	10.000	41.845	41.83	1.226	1.226	147.64	36.9	0.537	
35	35 37Cl-2,3,7,8-TCDD	1.06e5			1.07	10.000	26.198	26.18	1.028	1.028	43.081	53.9	0.0698	
36	36 13C-1,2,3,4-TCDD	4.60e5	0.77	NO	1.00	10.000	25.500	25.48	1.000	1.000	200.00	100	0.359	
37	37 13C-1,2,3,4-TCDF	7.04e5	0.74	NO	1.00	10.000	23.680	23.60	1.000	1.000	200.00	100	0.427	
38	38 13C-1,2,3,4,6,9-HxCDF	4.73e5	0.52	NO	1.00	10.000	34.060	34.12	1.000	1.000	200.00	100	0.638	

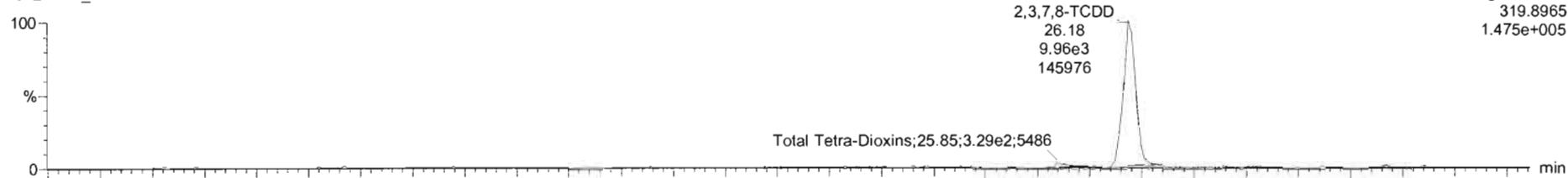
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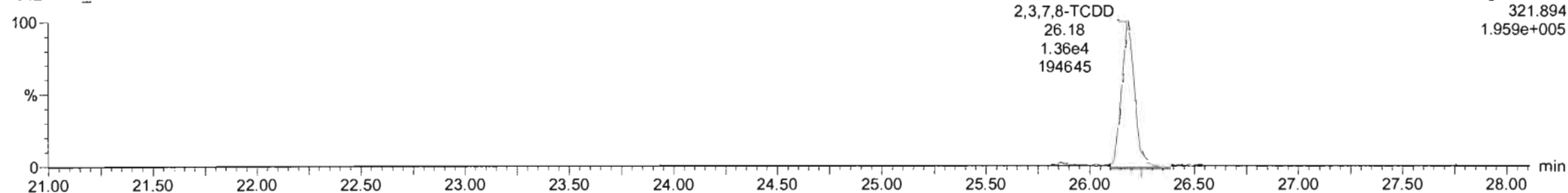
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**2,3,7,8-TCDD**

191214K2\_2

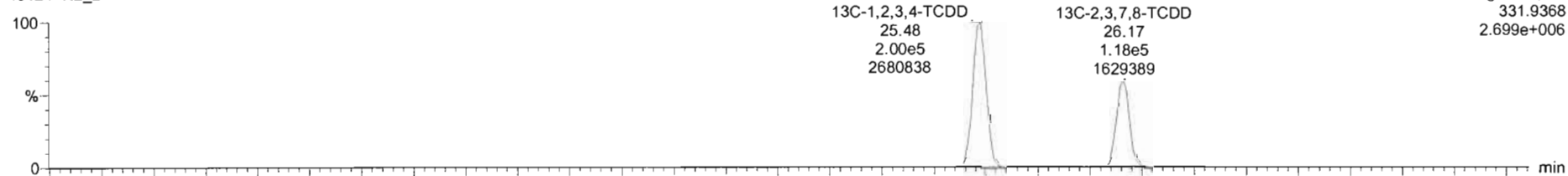


191214K2\_2

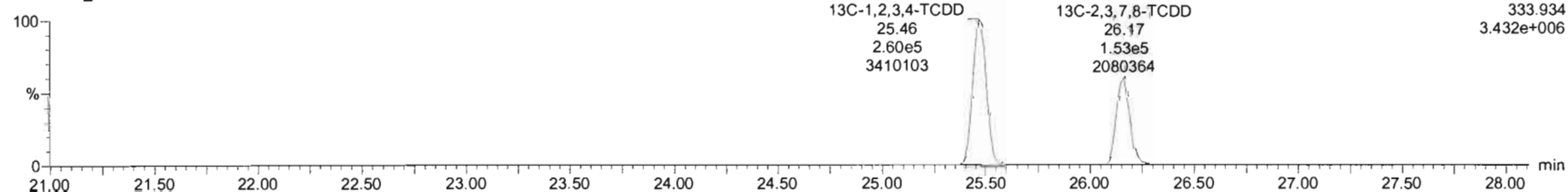


**13C-2,3,7,8-TCDD**

191214K2\_2



191214K2\_2



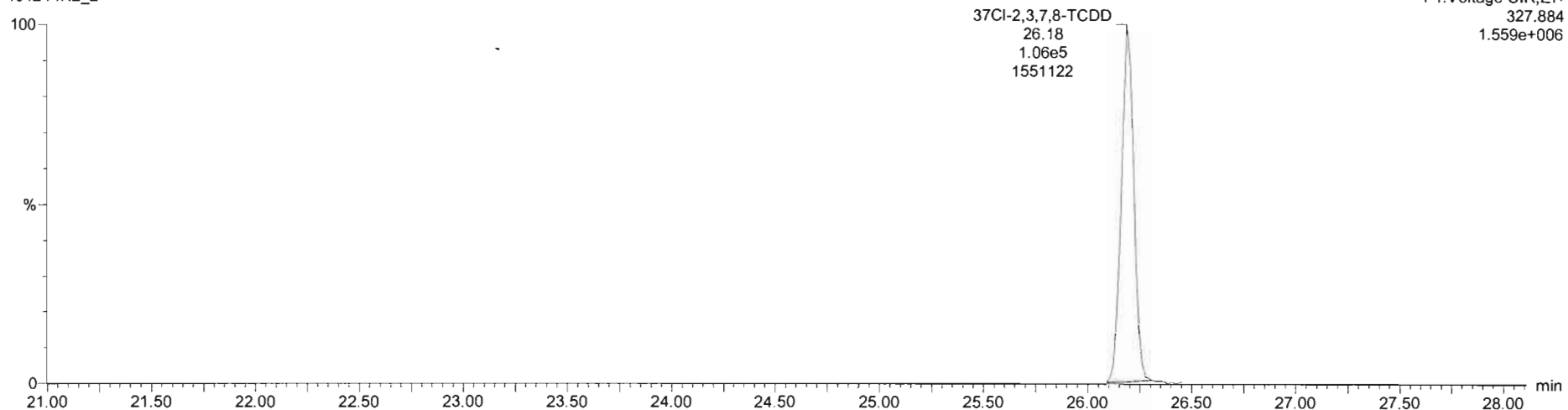
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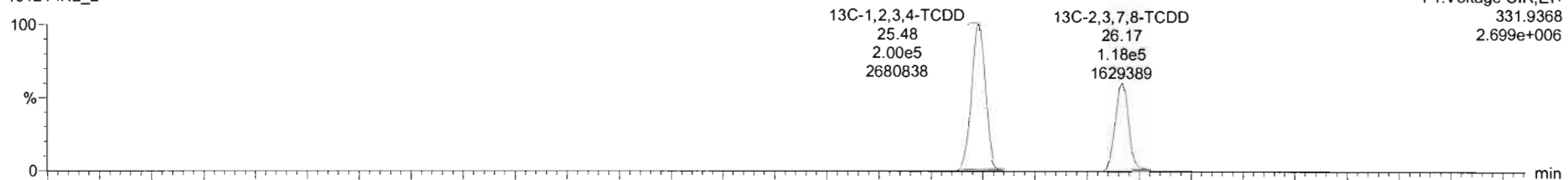
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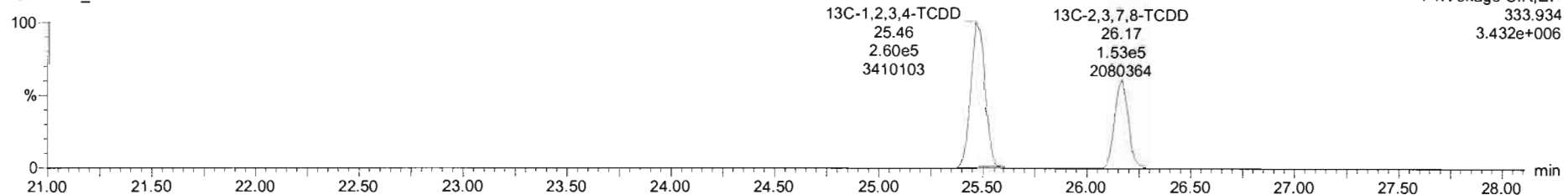


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191214K2\_2



191214K2\_2



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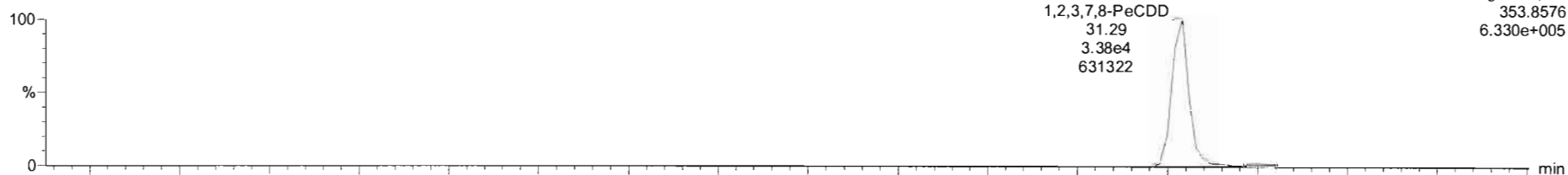
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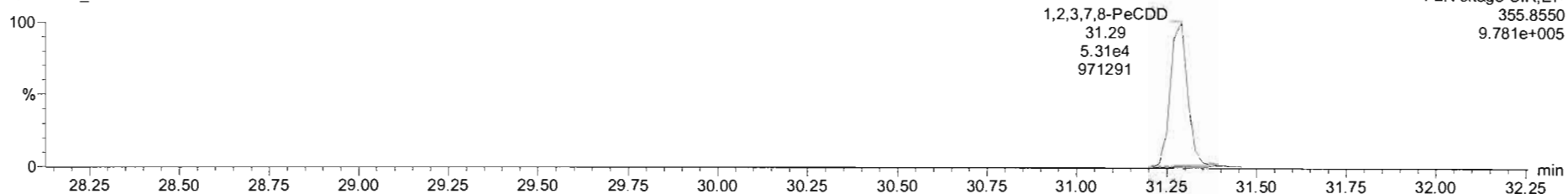
**1,2,3,7,8-PeCDD**

191214K2\_2



F2:Voltage SIR,EI+  
353.8576  
6.330e+005

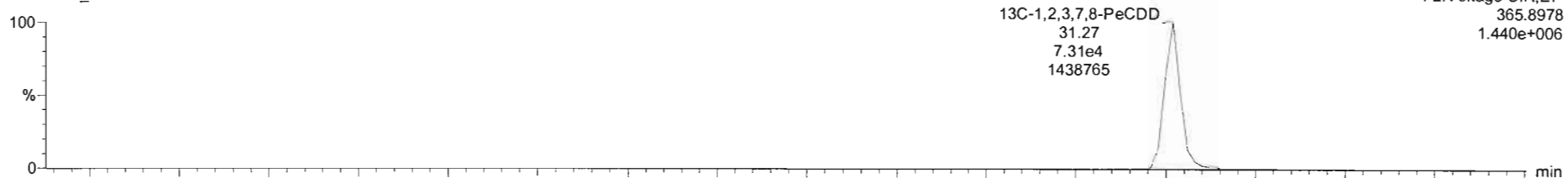
191214K2\_2



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9.781e+005

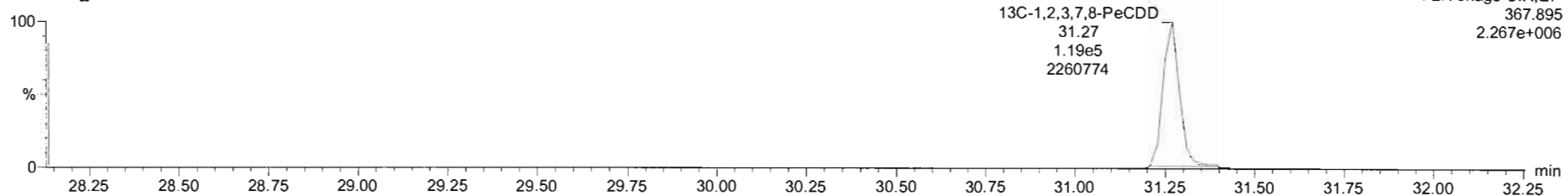
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191214K2\_2



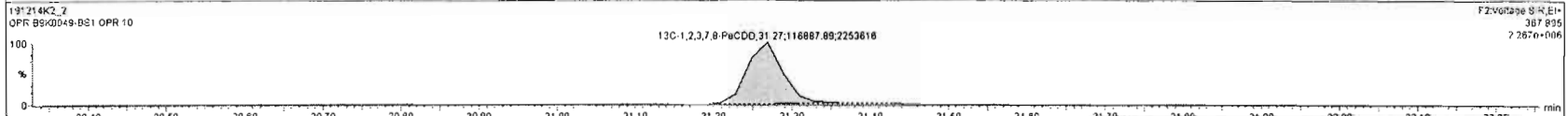
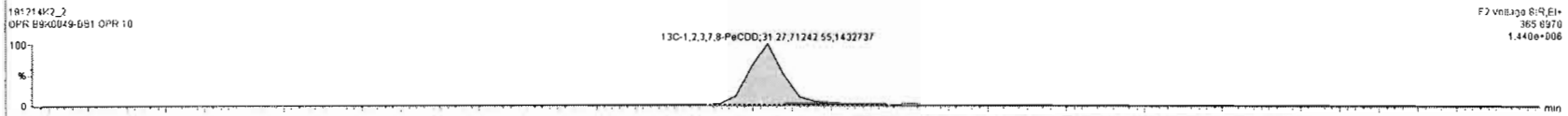
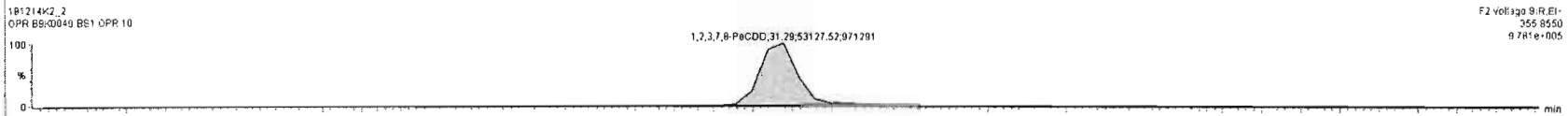
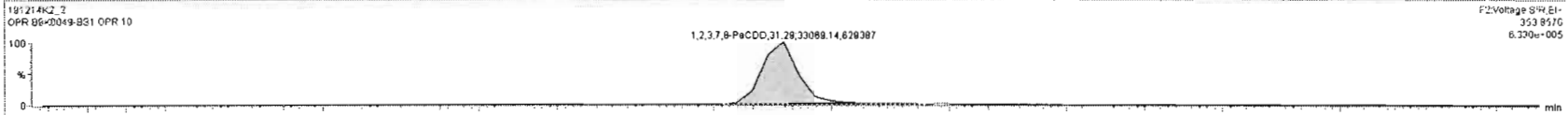
F2:Voltage SIR,EI+  
365.8978  
1.440e+006

191214K2\_2



F2:Voltage SIR,EI+  
367.895  
2.267e+006

#	Name	Resp	RA	nly	RRF	WtAdj	RT	RRT	Conc	%Rec	DL	EMC
1	2,3,7,8-TCDD	2.36e4	0.73	NO	0.9249	10.000	26.18	1.001	18.8		0.206	18.8
2	1,2,3,7,8-PeCDD	8.82e4	0.82	NO	0.9046	10.000	31.29	1.001	101		0.228	101
3	1,2,3,4,7,8-HxCDD	7.66e4	1.26	NO	1.0691	10.000	34.60	1.000	103		0.658	103
4	1,2,3,6,7,8-HxCDD	8.11e4	1.26	NO	0.9675	10.000	34.71	1.001	103		0.709	103
5	1,2,3,7,8,9-HxCDD	7.70e4	1.26	NO	0.9778	10.000	34.98	1.000	103		0.735	103
6	1,2,3,4,6,7,8-HpCDD	5.97e4	1.05	NO	1.0375	10.000	38.48	1.001	95.8		0.642	95.8
7	OCDD	7.71e4	0.86	NO	0.9718	10.000	41.65	1.000	206		1.13	206
8	2,3,7,8-TCDF	3.41e4	0.78	NO	0.9376	10.000	25.22	1.001	20.0		0.149	20.0
9	1,2,3,7,8-PeCDF	1.42e5	1.55	NO	0.9782	10.000	29.99	1.001	99.8		0.264	99.8
10	2,3,4,7,8-PeCDF	1.46e5	1.58	NO	1.0049	10.000	30.97	1.001	105		0.257	105
11	1,2,3,4,7,8-HxCDF	1.17e5	1.27	NO	1.2434	10.000	33.75	1.000	97.7		0.535	97.7
12	1,2,3,6,7,8-HxCDF	1.24e5	1.26	NO	1.0950	10.000	33.87	1.001	99.4		0.587	99.4
13	2,3,4,6,7,8-HxCDF	1.29e5	1.24	NO	1.1806	10.000	34.44	1.001	101		0.543	101
14	1,2,3,7,8,9-HxCDF	1.02e5	1.38	NO	1.0720	10.000	35.32	1.000	101		0.744	101
15	1,2,3,4,6,7,8-HpCDF	9.87e4	1.04	NO	1.1300	10.000	37.05	1.000	101		0.497	101
16	1,2,3,4,7,8,9-HpCDF	7.67e4	1.04	NO	1.2609	10.000	39.06	1.001	104		0.588	104
17	OCDF	1.09e5	0.90	NO	1.1025	10.000	41.85	1.000	181		0.652	181



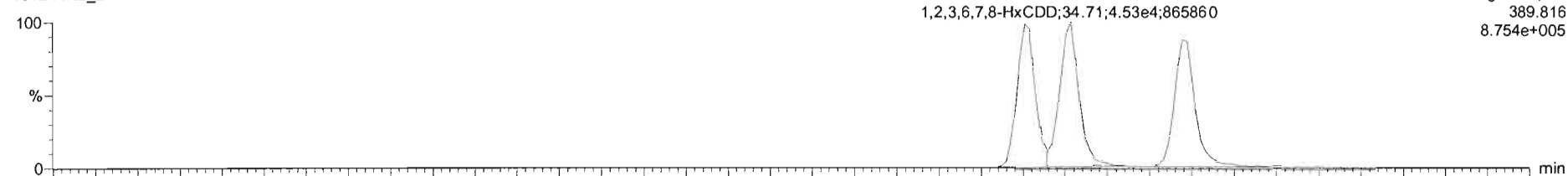
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

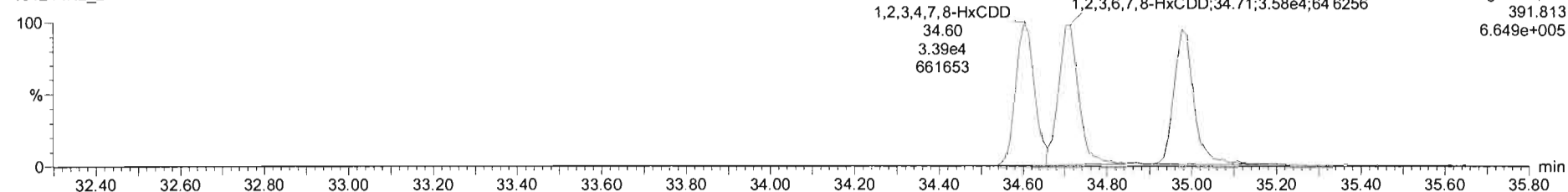
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**1,2,3,4,7,8-HxCDD**

191214K2\_2

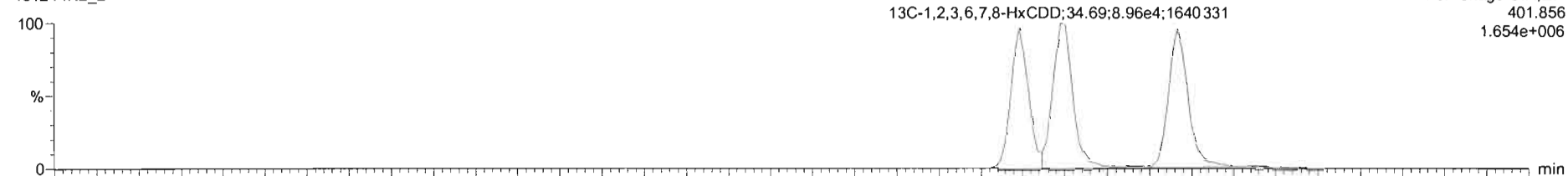


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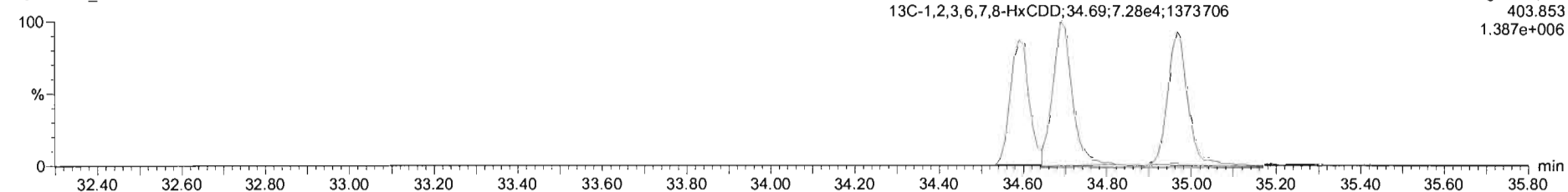


**13C-1,2,3,4,7,8-HxCDD**

191214K2\_2



191214K2\_2





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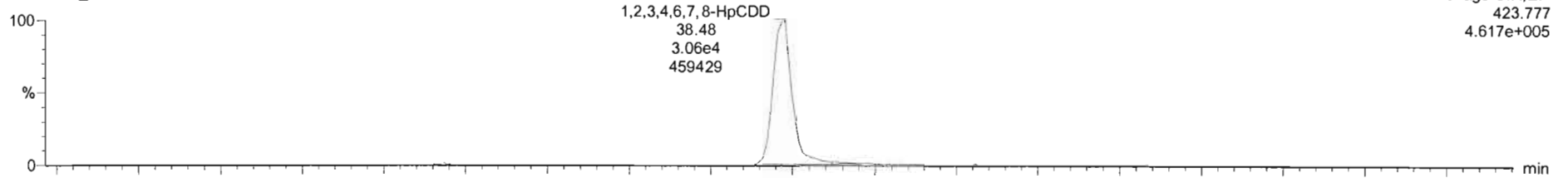
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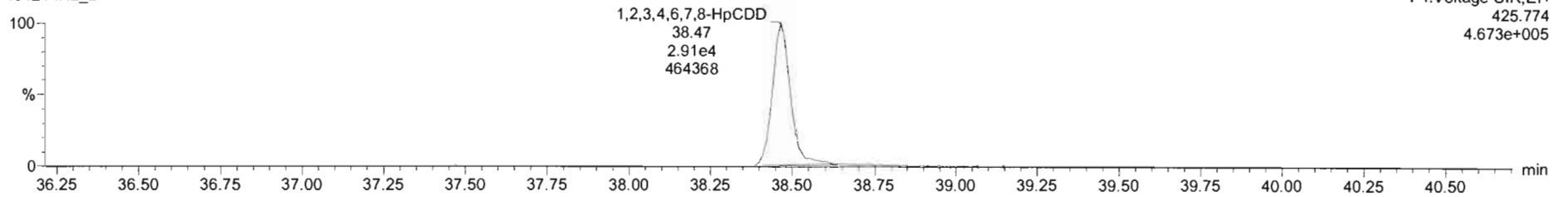
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**1,2,3,4,6,7,8-HpCDD**

191214K2\_2

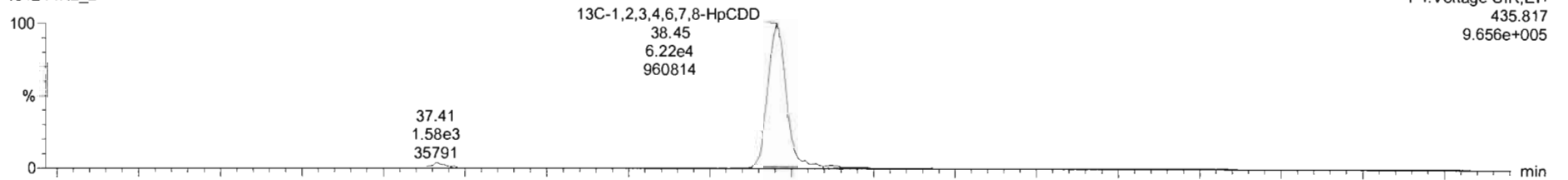


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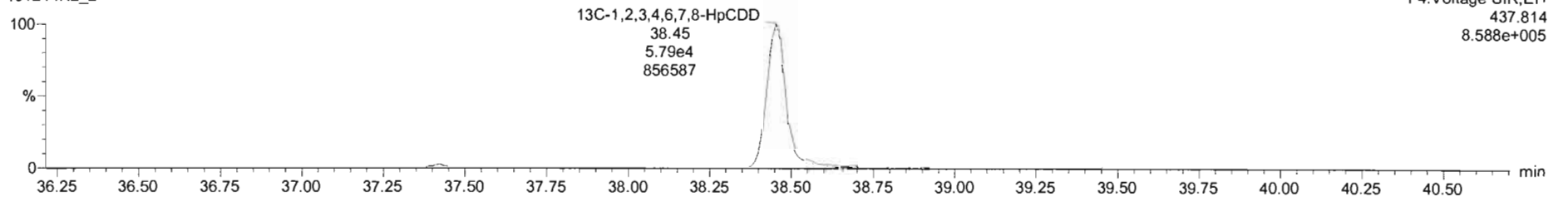


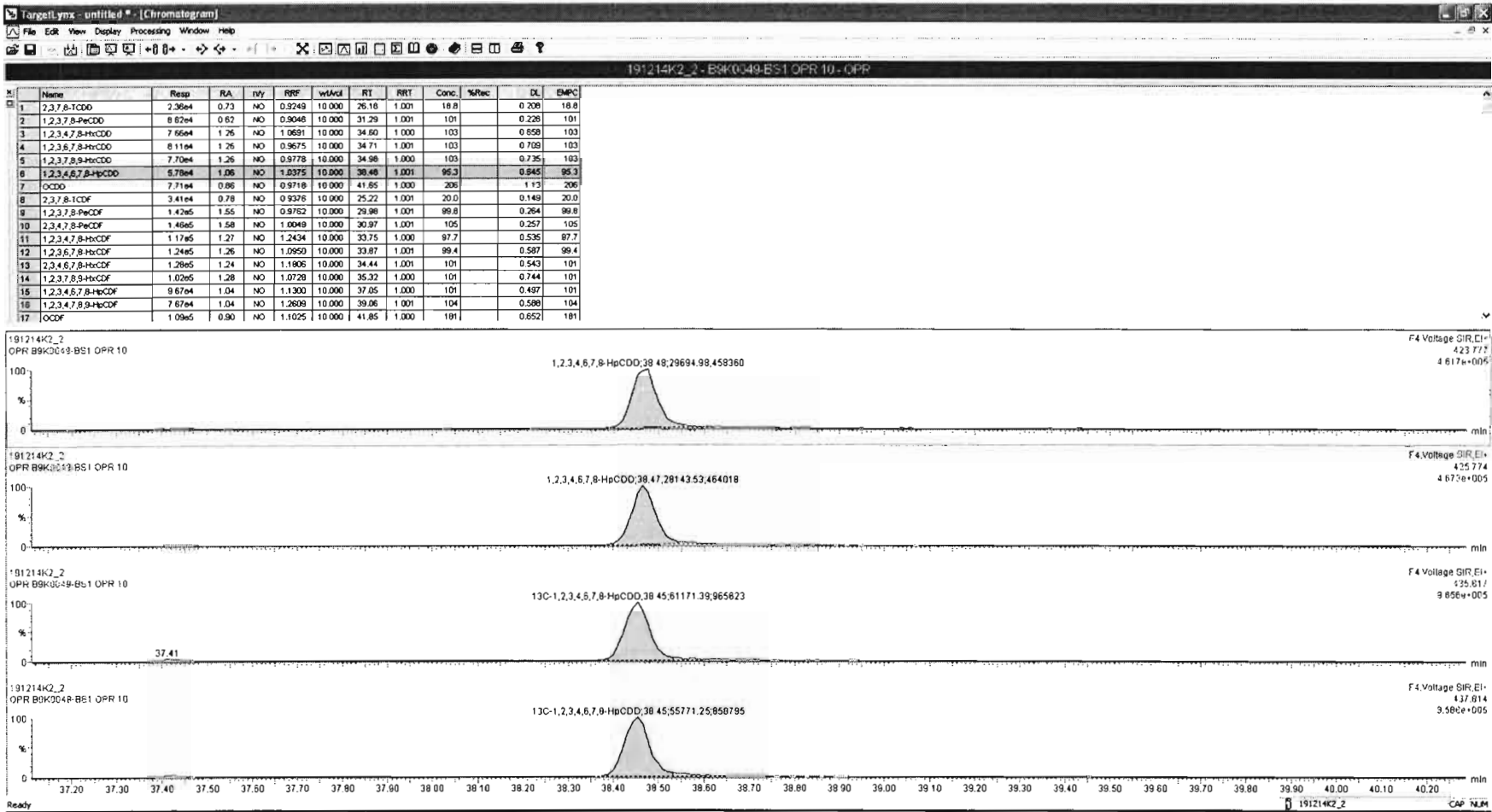
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191214K2\_2



191214K2\_2





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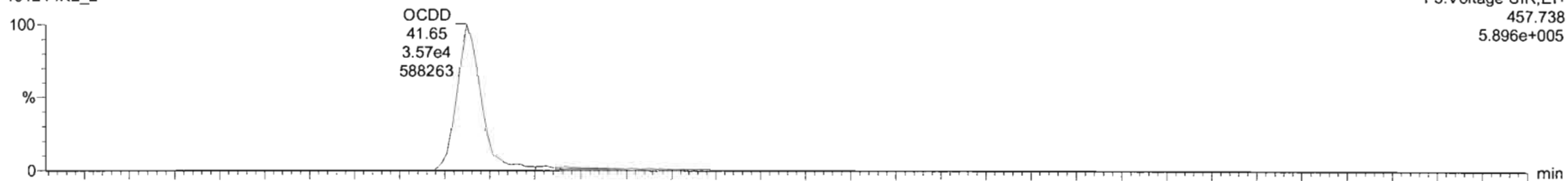
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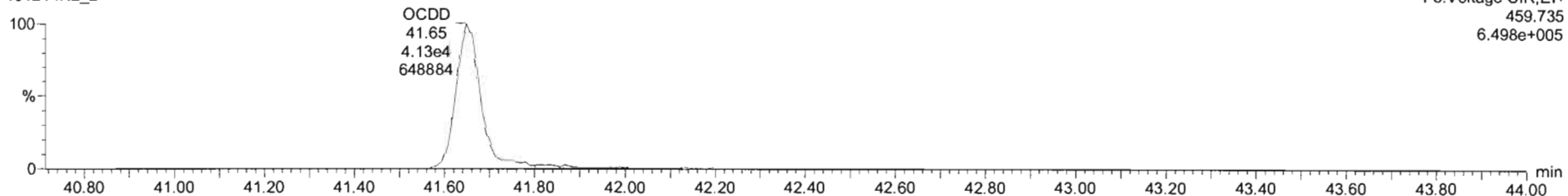
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**OCDD**

191214K2\_2

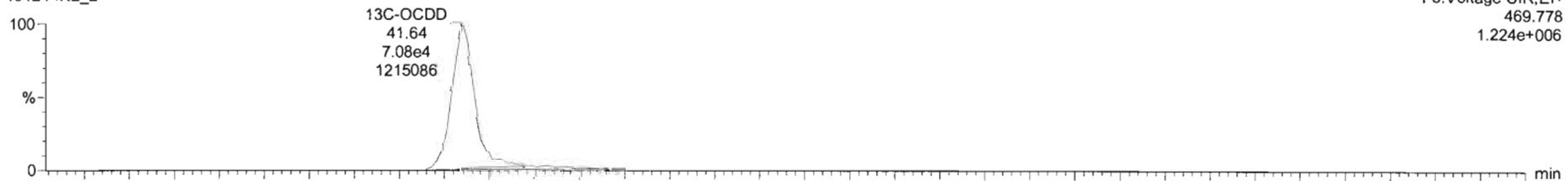


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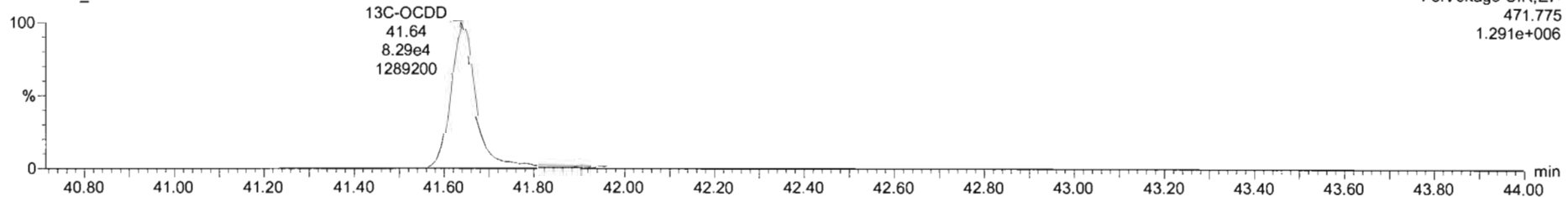


**13C-OCDD**

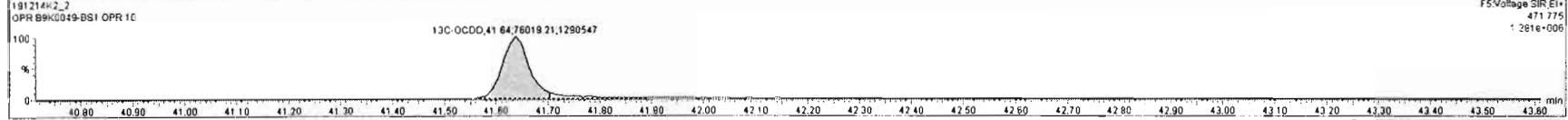
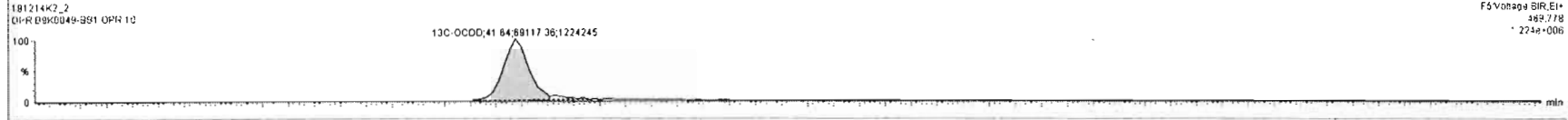
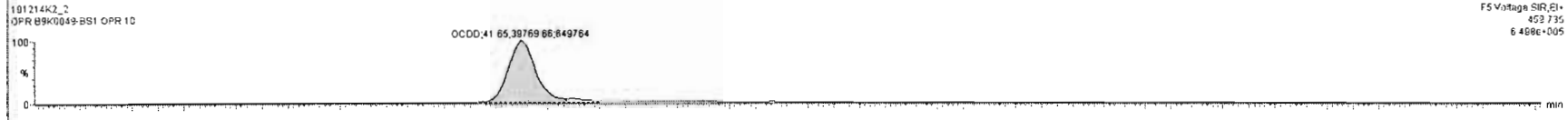
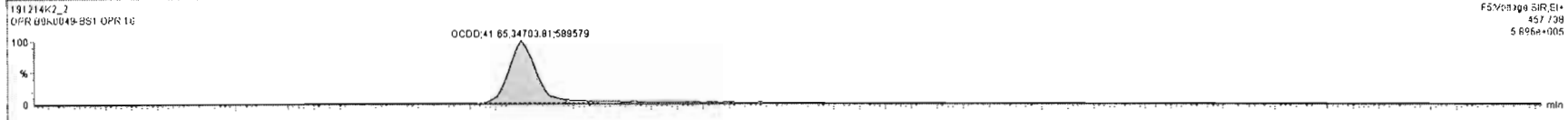
191214K2\_2



191214K2\_2



Peak	Name	Resp	RA	n/y	RF	w/wal	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.364	0.73	NO	0.9249	10.000	26.18	1.001	10.0		0.200	10.0
2	1,2,3,7,8-PeCDD	8.624	0.62	NO	0.9046	10.000	31.29	1.001	101		0.226	101
3	1,2,3,4,7,8-HxCDD	7.664	1.26	NO	1.0691	10.000	34.60	1.000	103		0.659	103
4	1,2,3,6,7,8-HxCDD	8.114	1.26	NO	0.9675	10.000	34.71	1.001	103		0.709	103
5	1,2,3,7,8,9-HxCDD	7.704	1.26	NO	0.9778	10.000	34.98	1.000	103		0.735	103
6	1,2,3,4,6,7,8-HpCDD	5.784	1.06	NO	1.0375	10.000	38.48	1.001	95.3		0.845	95.3
7	OCDD	7.454	0.87	NO	0.9718	10.000	41.85	1.000	211		1.16	211
8	2,3,7,8-TCDF	3.414	0.78	NO	0.9376	10.000	25.22	1.001	20.0		0.149	20.0
9	1,2,3,7,8-PeCDF	1.425	1.55	NO	0.9762	10.000	29.98	1.001	99.8		0.264	99.8
10	2,3,4,7,8-PeCDF	1.465	1.58	NO	1.0049	10.000	30.97	1.001	105		0.257	105
11	1,2,3,4,7,8-HxCDF	1.176	1.27	NO	1.2434	10.000	33.75	1.000	97.7		0.525	97.7
12	1,2,3,6,7,8-HxCDF	1.245	1.26	NO	1.0950	10.000	33.97	1.001	98.4		0.587	98.4
13	2,3,4,6,7,8-HxCDF	1.205	1.24	NO	1.1806	10.000	34.44	1.001	101		0.543	101
14	1,2,3,7,8,9-HxCDF	1.025	1.28	NO	1.0728	10.000	35.32	1.000	101		0.744	101
15	1,2,3,4,6,7,8-HpCDF	9.674	1.04	NO	1.1300	10.000	37.05	1.000	101		0.497	101
16	1,2,3,4,7,8,9-HpCDF	7.674	1.04	NO	1.2608	10.000	39.06	1.001	104		0.580	104
17	OCDF	1.095	0.90	NO	1.1025	10.000	41.85	1.000	181		0.652	181



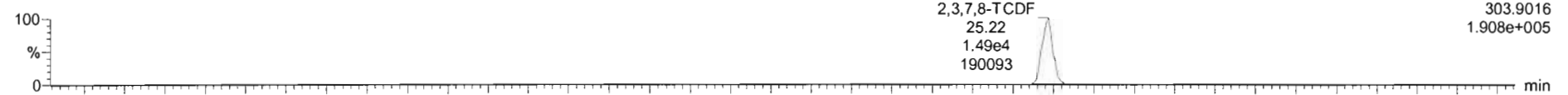
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

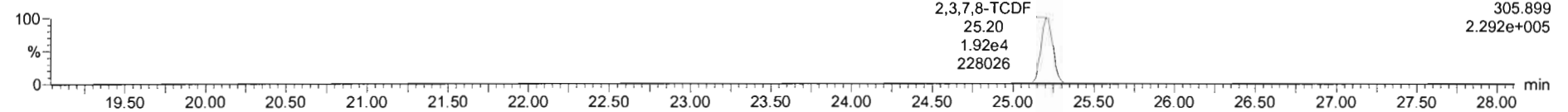
Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

**2,3,7,8-TCDF**

191214K2\_2

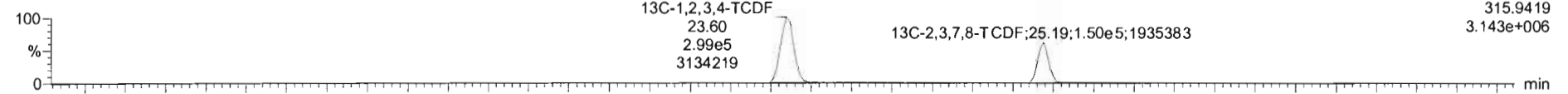


191214K2\_2

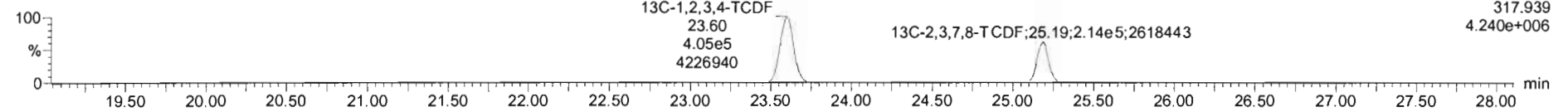


**13C-2,3,7,8-TCDF**

191214K2\_2

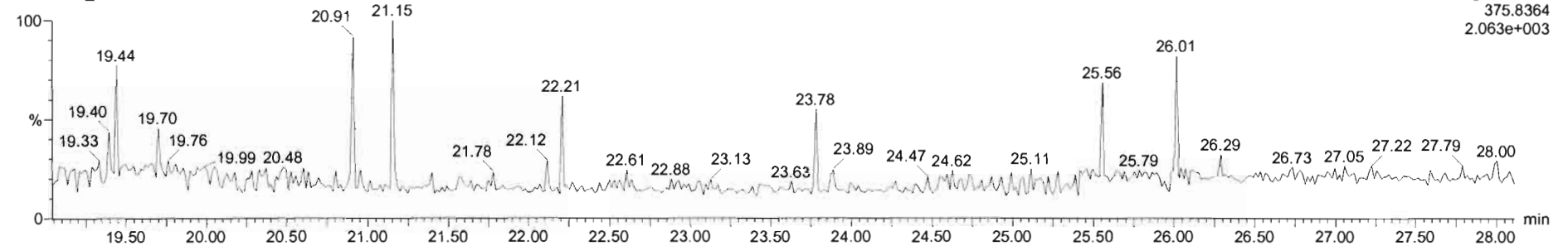


191214K2\_2



**DPE1**

191214K2\_2



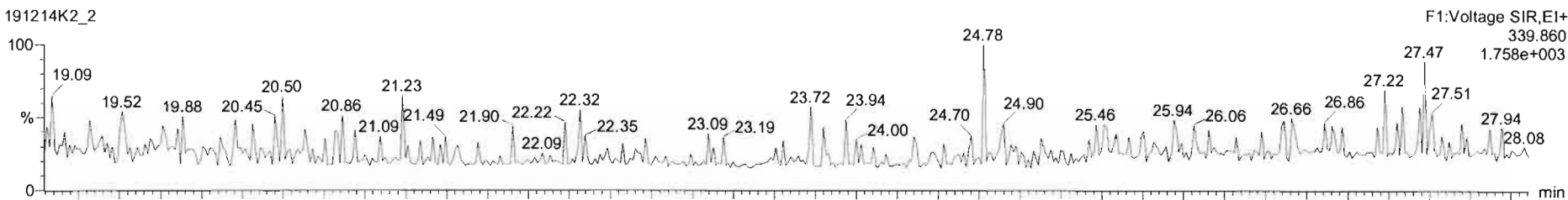
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

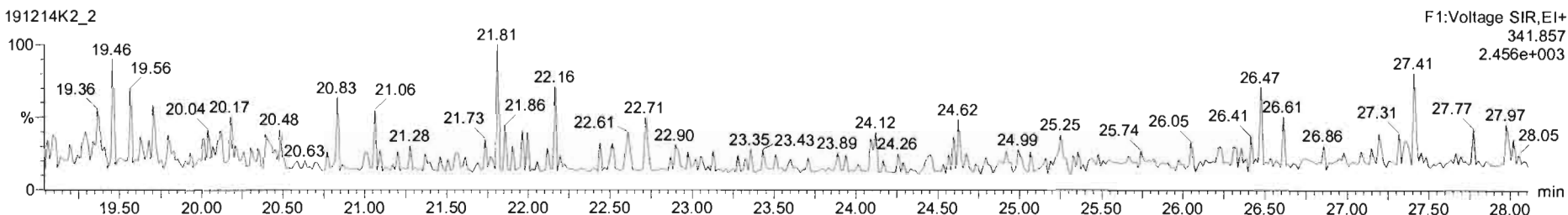
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191214K2\_2

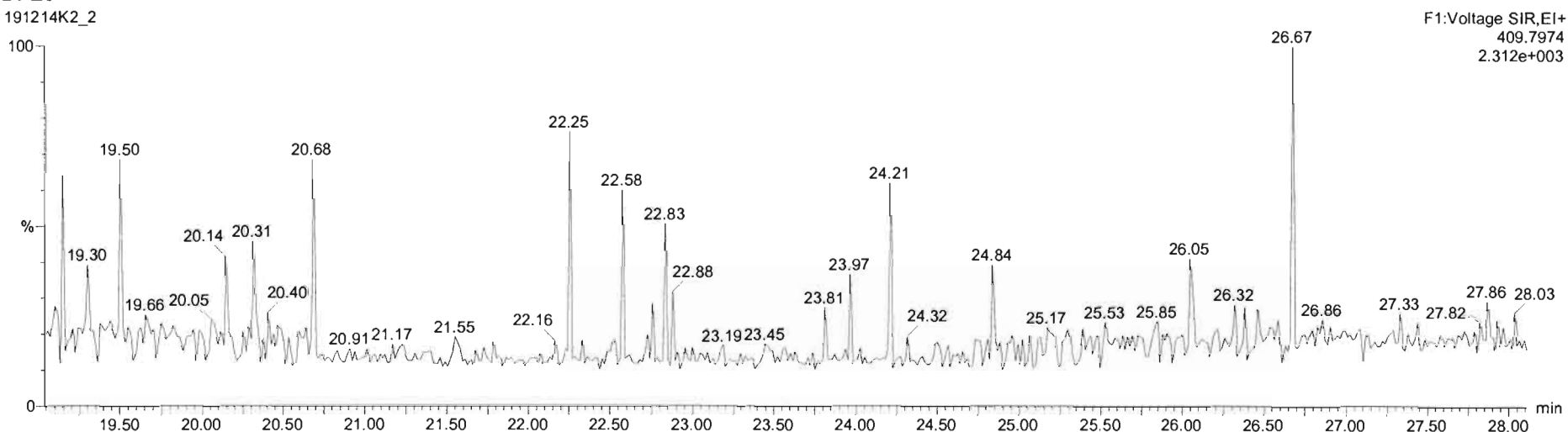


191214K2\_2



DPE6

191214K2\_2



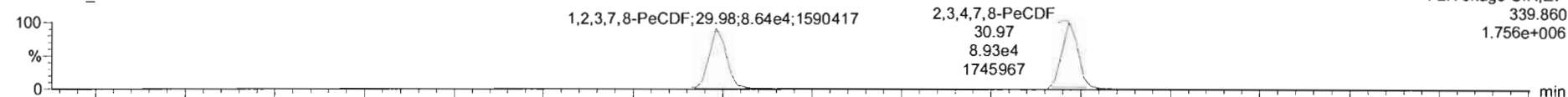
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

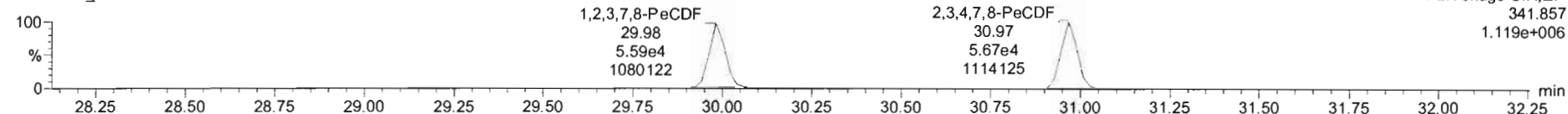
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**1,2,3,7,8-PeCDF**

191214K2\_2

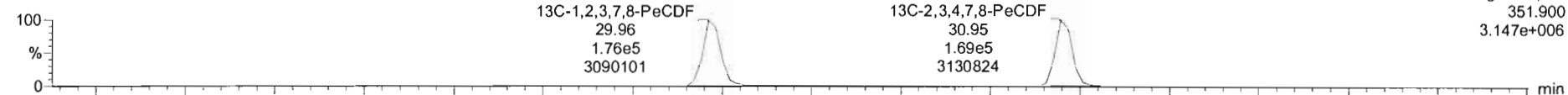


191214K2\_2

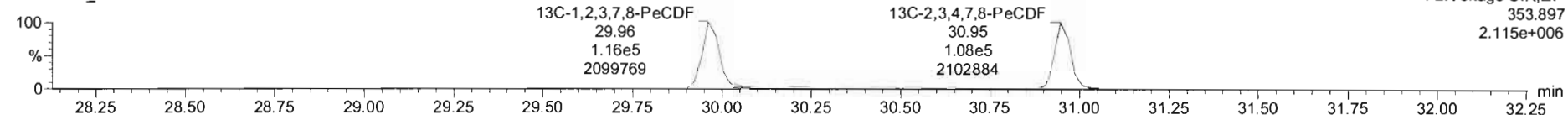


**13C-1,2,3,7,8-PeCDF**

191214K2\_2

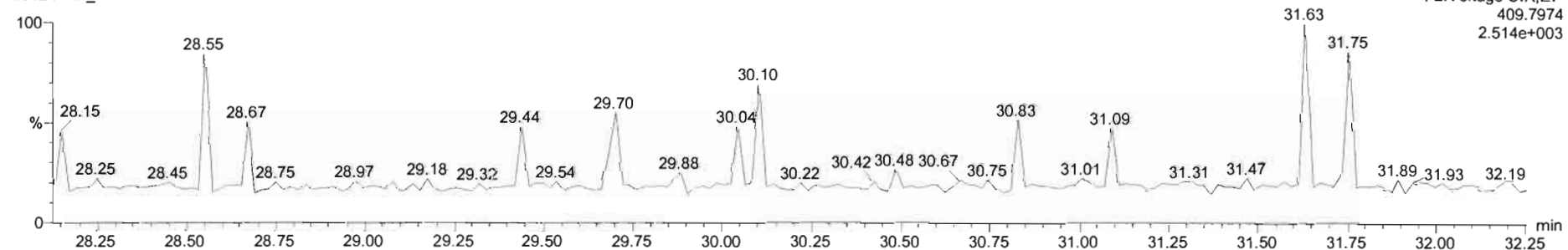


191214K2\_2



**DPE2**

191214K2\_2

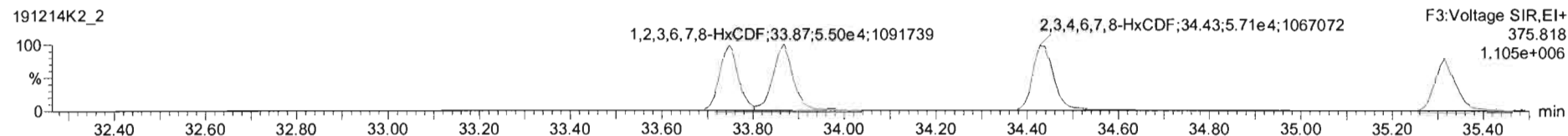
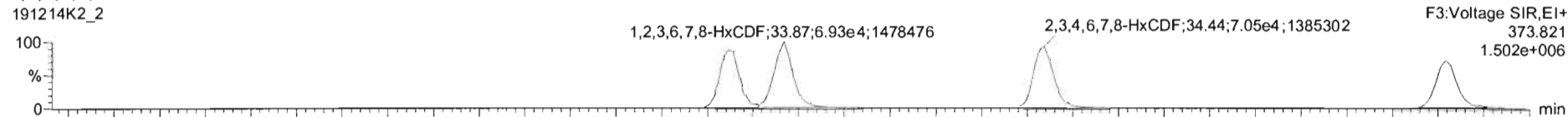


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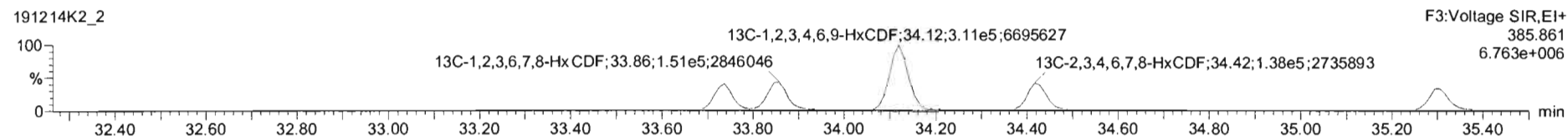
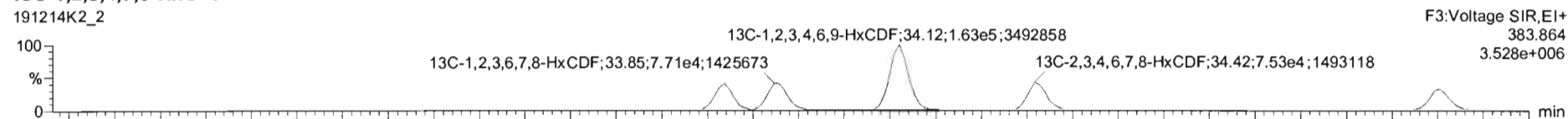
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

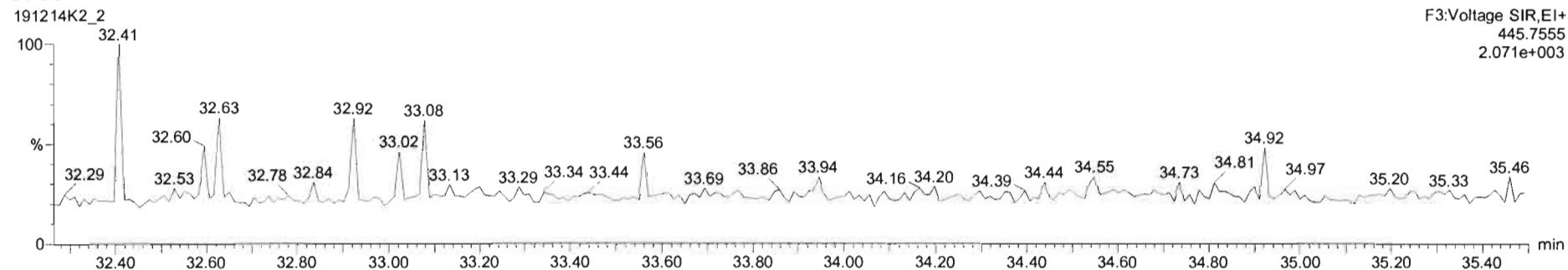
**1,2,3,4,7,8-HxCDF**



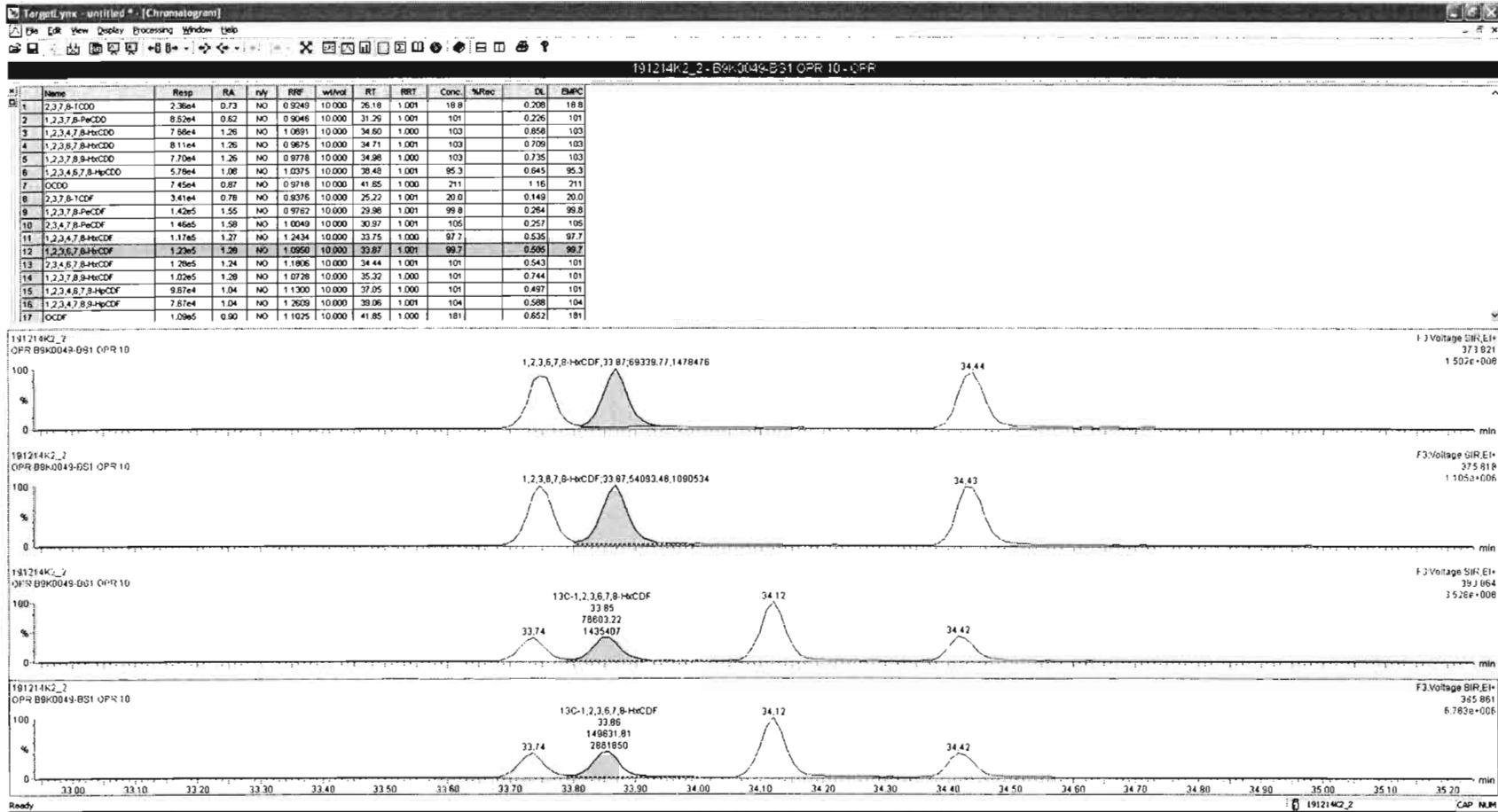
**13C-1,2,3,4,7,8-HxCDF**



**DPE3**







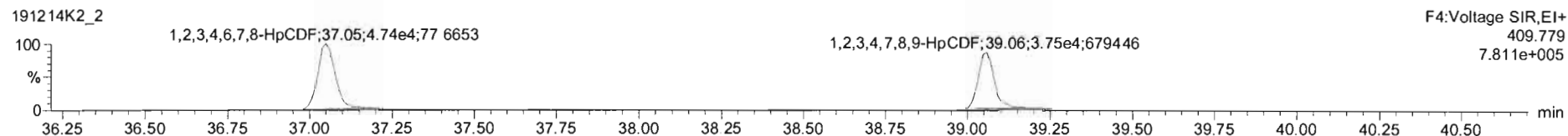
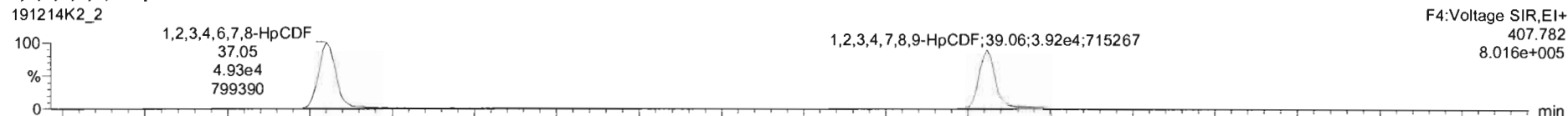
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

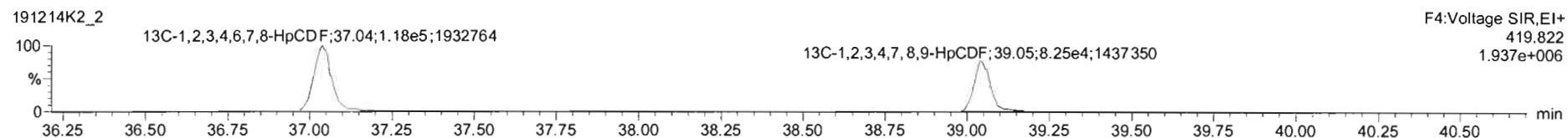
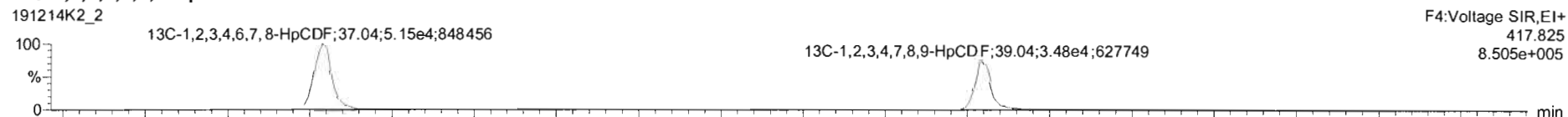
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

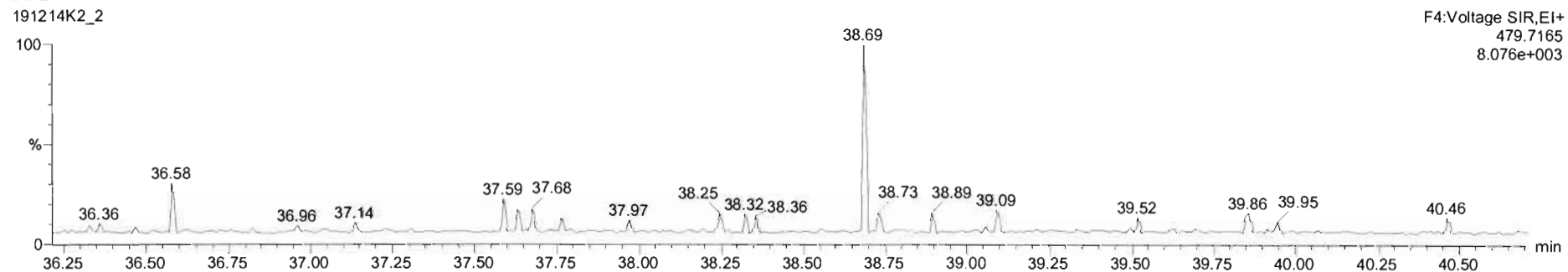
### 1,2,3,4,6,7,8-HpCDF



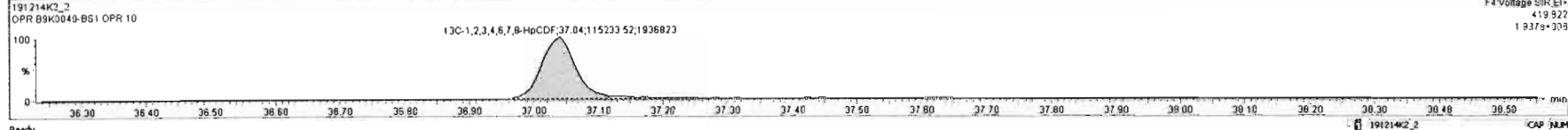
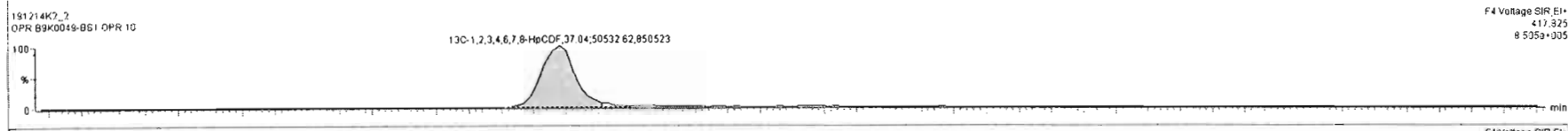
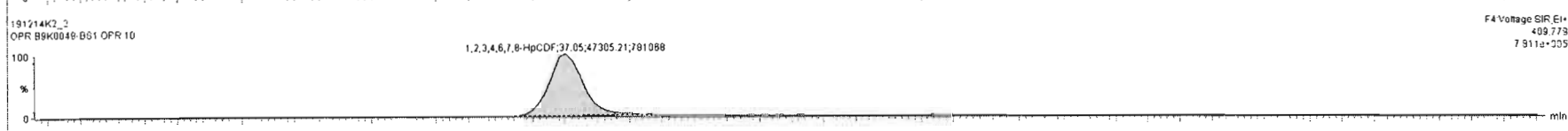
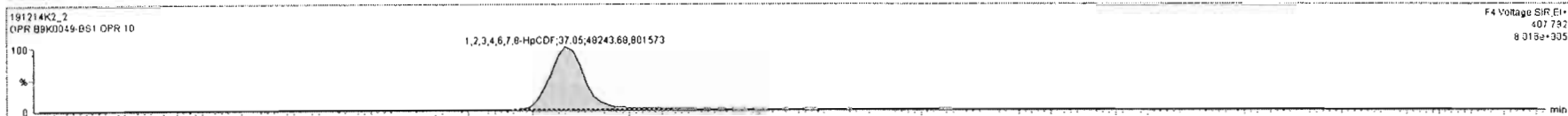
### 13C-1,2,3,4,6,7,8-HpCDF



### DPE4



#	Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.36e4	0.73	NO	0.9749	10.000	26.18	1.001	18.8		0.708	18.8
2	1,2,3,7,8-PeCDD	8.82e4	0.62	NO	0.9046	10.000	31.29	1.001	101		0.226	101
3	1,2,3,4,7,8-HxCDD	7.85e4	1.26	NO	1.0691	10.000	34.60	1.000	103		0.658	103
4	1,2,3,6,7,8-HxCDD	8.11e4	1.36	NO	0.9675	10.000	34.71	1.001	103		0.709	103
5	1,2,3,7,8,9-HxCDD	7.70e4	1.26	NO	0.9778	10.000	34.98	1.000	103		0.735	103
6	1,2,3,4,6,7,8-HpCDD	5.78e4	1.06	NO	1.0375	10.000	36.48	1.001	95.9		0.645	95.3
7	OCDD	7.45e4	0.87	NO	0.9718	10.000	41.65	1.000	211		1.16	211
8	2,3,7,8-TCDF	3.41e4	0.78	NO	0.9376	10.000	25.22	1.001	20.0		0.149	20.0
9	1,2,3,7,8-PeCDF	1.42e5	1.55	NO	0.9762	10.000	29.98	1.001	99.8		0.264	99.8
10	2,3,4,7,8-PeCDF	1.46e5	1.58	NO	1.0049	10.000	30.97	1.001	105		0.257	105
11	1,2,3,4,7,8-HxCDF	1.17e5	1.27	NO	1.2434	10.000	33.75	1.000	97.7		0.535	97.7
12	1,2,3,6,7,8-HxCDF	1.23e5	1.28	NO	1.0950	10.000	33.87	1.001	99.7		0.585	99.7
13	2,3,4,6,7,8-HxCDF	1.28e5	1.24	NO	1.1806	10.000	34.44	1.001	101		0.543	101
14	1,2,3,7,8,9-HxCDF	1.02e5	1.20	NO	1.0728	10.000	35.32	1.000	101		0.744	101
15	1,2,3,4,6,7,8-HpCDF	8.55e4	1.02	NO	1.1300	10.000	37.05	1.000	102		0.498	102
16	1,2,3,4,7,8,9-HpCDF	7.67e4	1.04	NO	1.2609	10.000	39.06	1.001	104		0.588	104
17	OCDF	1.09e5	0.90	NO	1.1025	10.000	41.85	1.000	181		0.652	181



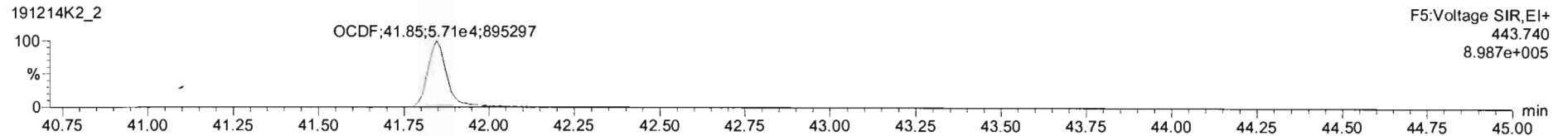
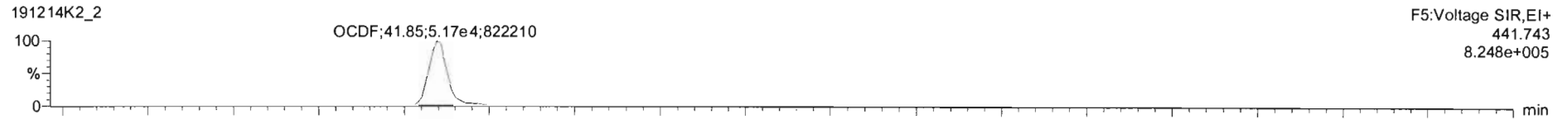
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

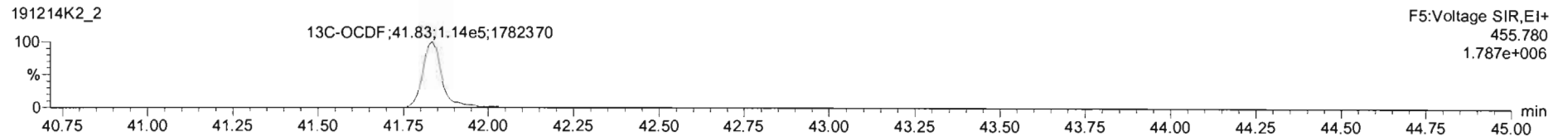
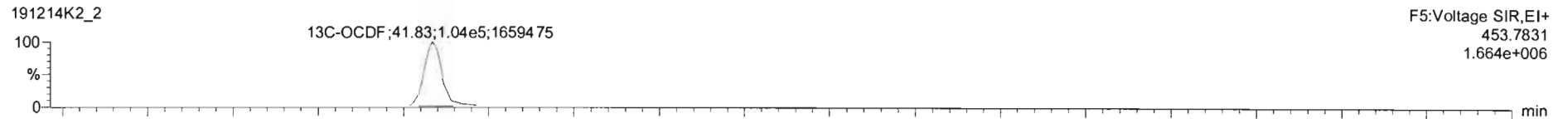
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Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR

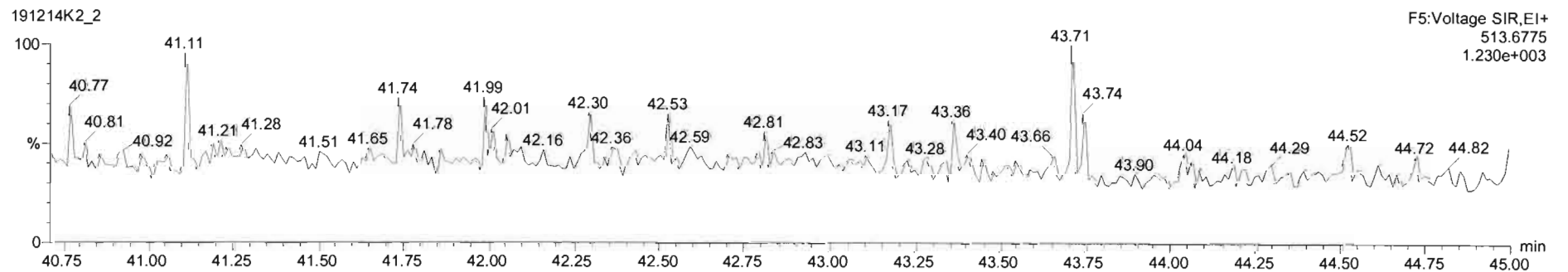
**OCDF**



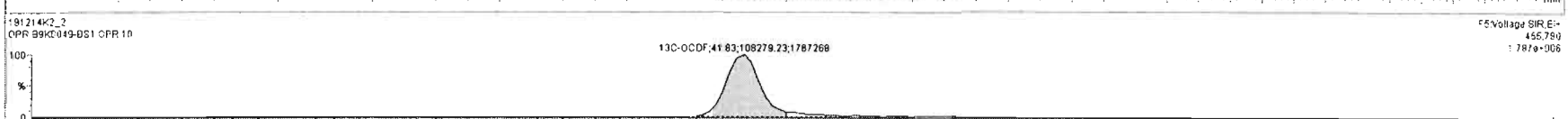
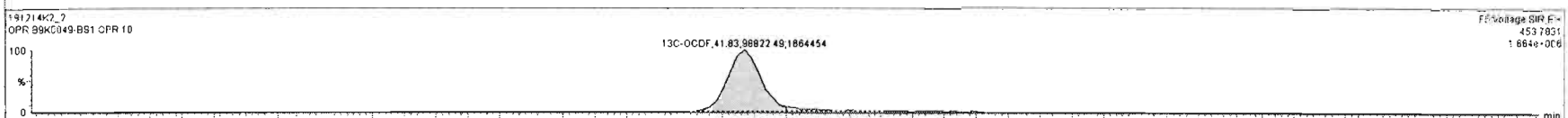
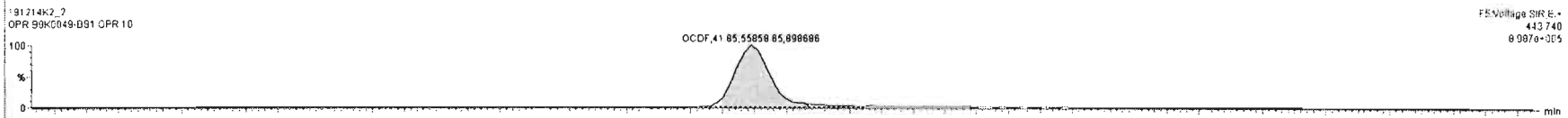
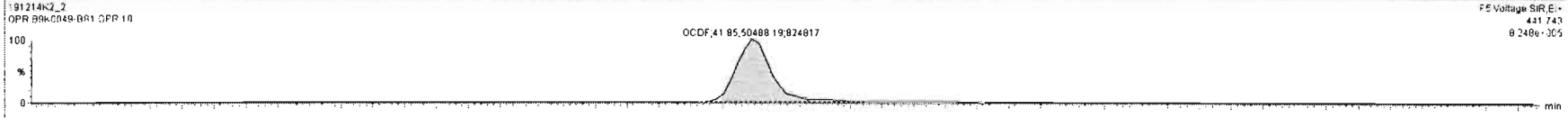
**13C-OCDF**



**DPE5**



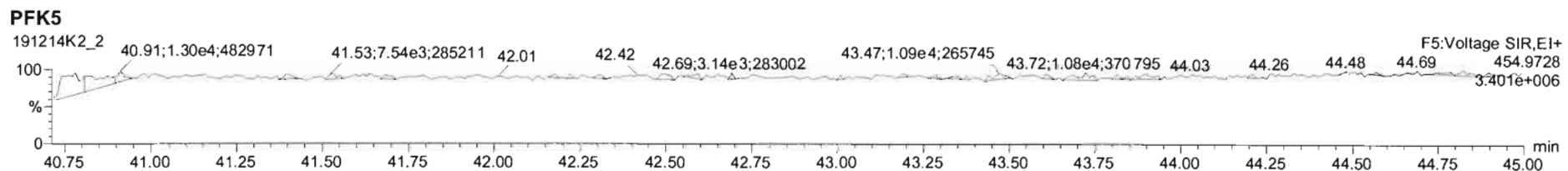
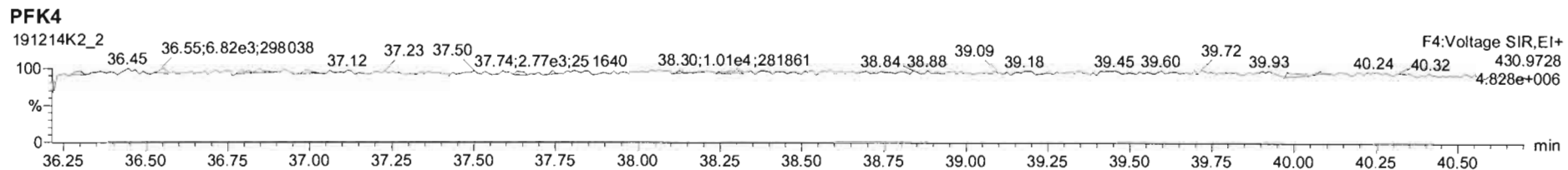
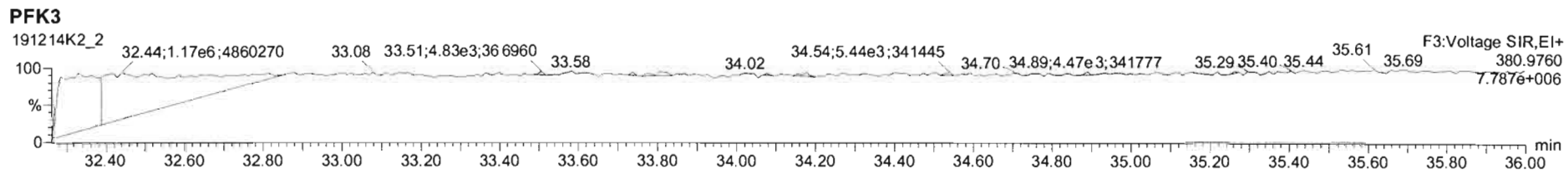
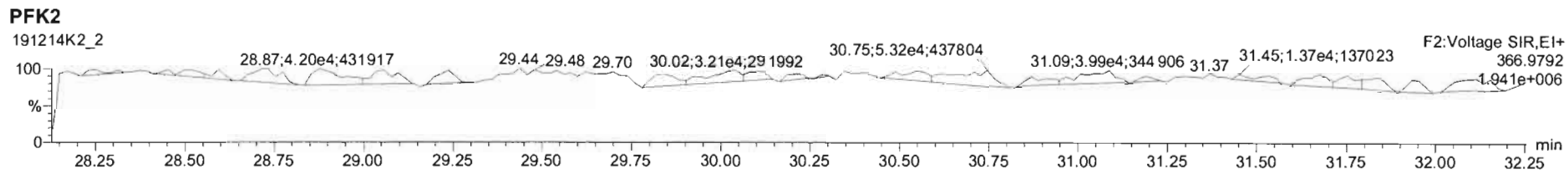
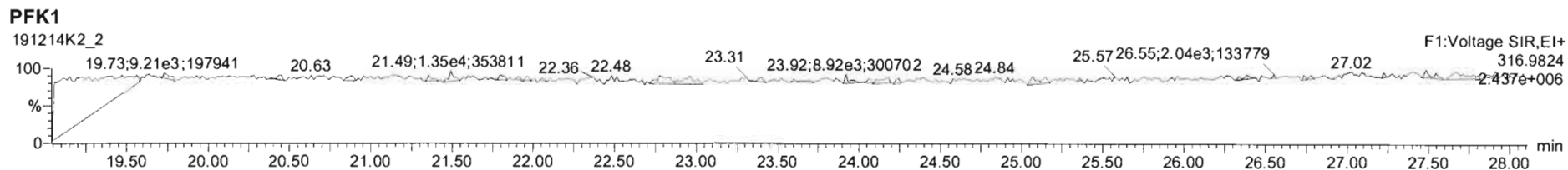
Name	Resp	RA	n/y	RF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.26e4	0.73	NO	0.9249	10.000	26.16	1.001	18.8	0.200	18.8	
2 1,2,3,7,8-PeCDD	8.62e4	0.62	NO	0.9046	10.000	31.29	1.001	101	0.226	101	
3 1,2,3,4,7,8-HxCDD	7.66e4	1.26	NO	1.0691	10.000	34.60	1.000	103	0.658	103	
4 1,2,3,6,7,8-HxCDD	8.11e4	1.26	NO	0.9675	10.000	34.71	1.001	103	0.709	103	
5 1,2,3,7,8,9-HxCDD	7.70e4	1.26	NO	0.8778	10.000	34.98	1.000	103	0.735	103	
6 1,2,3,4,6,7,8-HpCDD	5.78e4	1.06	NO	1.0375	10.000	38.48	1.001	95.3	0.645	95.3	
7 OCDD	7.45e4	0.87	NO	0.9718	10.000	41.65	1.000	211	1.16	211	
8 2,3,7,8-TCDF	3.41e4	0.78	NO	0.9376	10.000	25.22	1.001	20.0	0.149	20.0	
9 1,2,3,7,8-PeCDF	1.42e5	1.55	NO	0.9762	10.000	29.98	1.001	99.8	0.264	99.8	
10 2,3,4,7,8-PeCDF	1.46e5	1.58	NO	1.0049	10.000	30.97	1.001	105	0.257	105	
11 1,2,3,4,7,8-HxCDF	1.17e5	1.27	NO	1.2434	10.000	33.75	1.000	97.7	0.535	97.7	
12 1,2,3,6,7,8-HxCDF	1.23e5	1.26	NO	1.0960	10.000	33.67	1.001	99.7	0.585	99.7	
13 2,3,4,6,7,8-HxCDF	1.28e5	1.24	NO	1.1806	10.000	34.44	1.001	101	0.543	101	
14 1,2,3,7,8,9-HxCDF	1.02e5	1.29	NO	1.0728	10.000	35.32	1.000	101	0.744	101	
15 1,2,3,4,6,7,8-HpCDF	9.55e4	1.02	NO	1.1300	10.000	37.05	1.000	102	0.498	102	
16 1,2,3,4,7,8,9-HpCDF	7.87e4	1.04	NO	1.2609	10.000	39.06	1.001	104	0.598	104	
17 OCDF	1.06e5	0.90	NO	1.1025	10.000	41.85	1.000	196	0.850	196	



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_2, Date: 14-Dec-2019, Time: 19:08:41, ID: B9K0049-BS1 OPR 10, Description: OPR



Client ID: Method Blank  
Lab ID: B9L0251-BLK1

Filename: 200107D2 S:6 Acq: 8-JAN-20 02:30:42  
GC Column ID: ZB-5MS ICal: 1613VG7-10-9-19 wt/vol:10.000

ConCal: ST200107D2-1  
EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	*	* n	0.91	Not F $\eta$	*		142 2.5	0.0390	
	1,2,3,7,8-PeCDD	*	* n	0.90	Not F $\eta$	*		219 2.5	0.0683	
	1,2,3,4,7,8-HxCDD	*	* n	1.10	Not F $\eta$	*		228 2.5	0.0976	
	1,2,3,6,7,8-HxCDD	*	* n	0.94	Not F $\eta$	*		228 2.5	0.105	
	1,2,3,7,8,9-HxCDD	*	* n	0.96	Not F $\eta$	*		228 2.5	0.110	
	1,2,3,4,6,7,8-HpCDD	*	* n	0.98	Not F $\eta$	*		164 2.5	0.0755	
	OCDD	*	* n	0.96	Not F $\eta$	*		165 2.5	0.113	
	2,3,7,8-TCDF	*	* n	0.95	Not F $\eta$	*		161 2.5	0.0300	
	1,2,3,7,8-PeCDF	*	* n	0.96	Not F $\eta$	*		284 2.5	0.0711	
	2,3,4,7,8-PeCDF	*	* n	1.01	Not F $\eta$	*		284 2.5	0.0717	
	1,2,3,4,7,8-HxCDF	*	* n	1.18	Not F $\eta$	*		174 2.5	0.0304	
	1,2,3,6,7,8-HxCDF	*	* n	1.07	Not F $\eta$	*		174 2.5	0.0311	
	2,3,4,6,7,8-HxCDF	*	* n	1.11	Not F $\eta$	*		174 2.5	0.0338	
	1,2,3,7,8,9-HxCDF	*	* n	1.06	Not F $\eta$	*		174 2.5	0.0489	
	1,2,3,4,6,7,8-HpCDF	*	* n	1.13	Not F $\eta$	*		124 2.5	0.0368	
	1,2,3,4,7,8,9-HpCDF	*	* n	1.28	Not F $\eta$	*		124 2.5	0.0359	
	OCDF	*	* n	0.95	Not F $\eta$	*		163 2.5	0.0820	
IS	13C-2,3,7,8-TCDD	1.35e+07	0.79 y	1.10	26:01	210.28				
IS	13C-1,2,3,7,8-PeCDD	9.94e+06	0.66 y	0.88	30:35	192.34				
IS	13C-1,2,3,4,7,8-HxCDD	8.56e+06	1.29 y	0.64	33:53	188.60				
IS	13C-1,2,3,6,7,8-HxCDD	9.91e+06	1.26 y	0.86	33:60	163.80				
IS	13C-1,2,3,7,8,9-HxCDD	1.00e+07	1.26 y	0.81	34:18	175.94				
IS	13C-1,2,3,4,6,7,8-HpCDD	8.67e+06	1.03 y	0.65	37:46	187.55				
IS	13C-OCDD	1.36e+07	0.91 y	0.58	41:02	331.30				
IS	13C-2,3,7,8-TCDF	2.03e+07	0.80 y	1.03	25:15	194.69				
IS	13C-1,2,3,7,8-PeCDF	1.63e+07	1.58 y	0.85	29:24	190.01				
IS	13C-2,3,4,7,8-PeCDF	1.60e+07	1.58 y	0.85	30:18	188.20				
IS	13C-1,2,3,4,7,8-HxCDF	1.28e+07	0.51 y	0.83	33:00	217.03				
IS	13C-1,2,3,6,7,8-HxCDF	1.45e+07	0.52 y	1.03	33:08	198.33				
IS	13C-2,3,4,6,7,8-HxCDF	1.33e+07	0.52 y	0.95	33:44	197.32				
IS	13C-1,2,3,7,8,9-HxCDF	1.17e+07	0.53 y	0.83	34:41	200.54				
IS	13C-1,2,3,4,6,7,8-HpCDF	1.06e+07	0.44 y	0.76	36:31	198.72				
IS	13C-1,2,3,4,7,8,9-HpCDF	8.45e+06	0.44 y	0.58	38:18	205.69				
IS	13C-OCDF	1.83e+07	0.90 y	0.69	41:15	376.40				
C/Up	37C1-2,3,7,8-TCDD	5.59e+06		1.20	26:03	79.569				
RS/RT	13C-1,2,3,4-TCDD	1.17e+07	0.83 y	1.00	25:28	200.00				
RS	13C-1,2,3,4-TCDF	2.01e+07	0.80 y	1.00	24:01	200.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.41e+07	0.51 y	1.00	33:25	200.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		142 0.0390	
Total Penta-Dioxins	*	*		219 0.0683	
Total Hexa-Dioxins	*	*		228 0.104	
Total Hepta-Dioxins	*	*		164 0.0755	
Total Tetra-Furans	*	*		161 0.0300	
Total Penta-Furans	0.0000	0.0000		284 0.0714	
Total Hexa-Furans	*	*		174 0.0355	
Total Hepta-Furans	*	*		124 0.0364	

Rec Qual

105  
96.2  
94.3  
81.9  
88.0  
93.8  
82.8  
97.3  
95.0  
94.1  
109  
99.2  
98.7  
100  
99.4  
103  
94.1

99.5

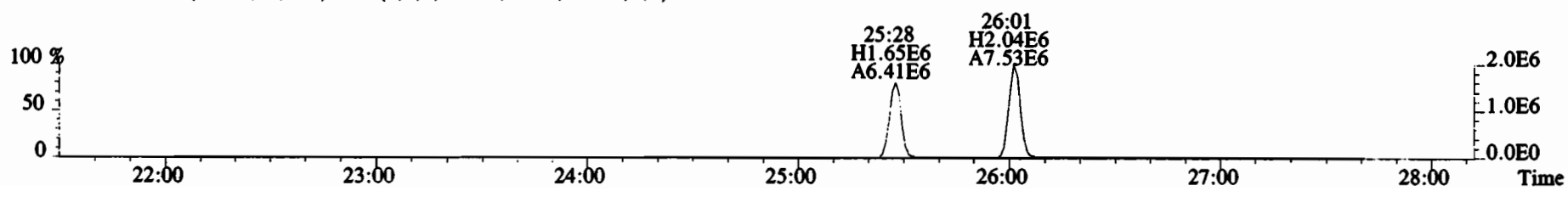
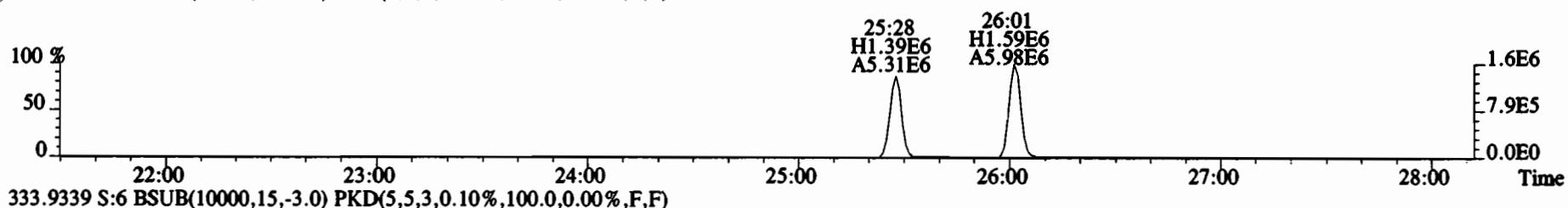
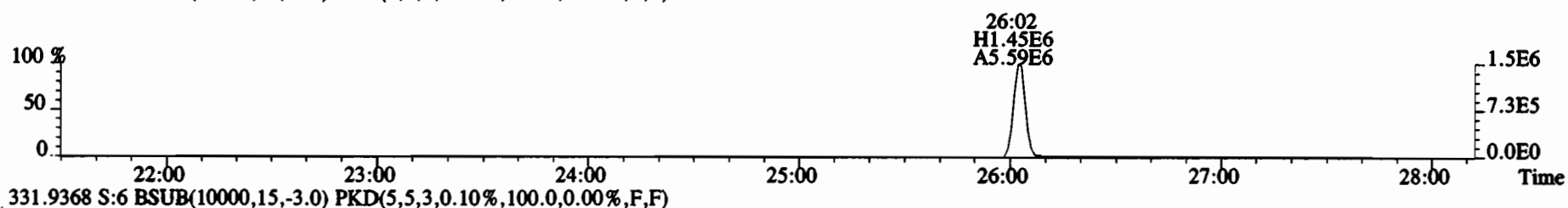
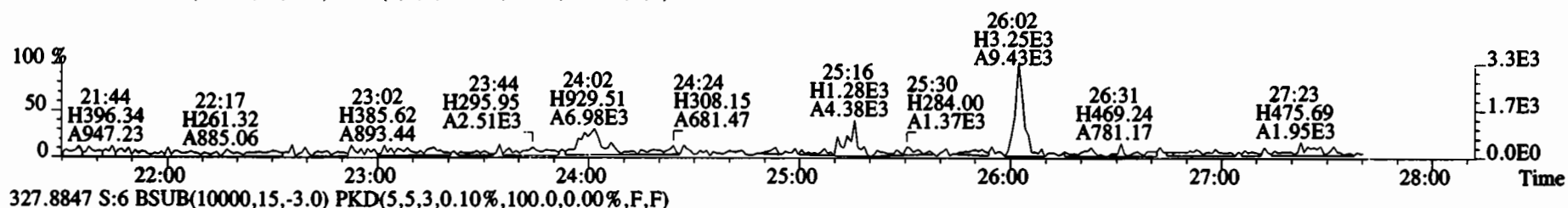
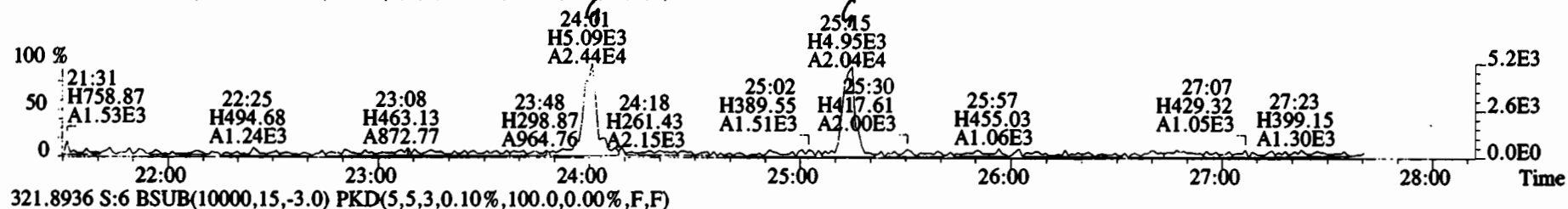
Integrations  
by  
Analyst: DB

Reviewed  
by  
Analyst: CT

Date: 1/8/20

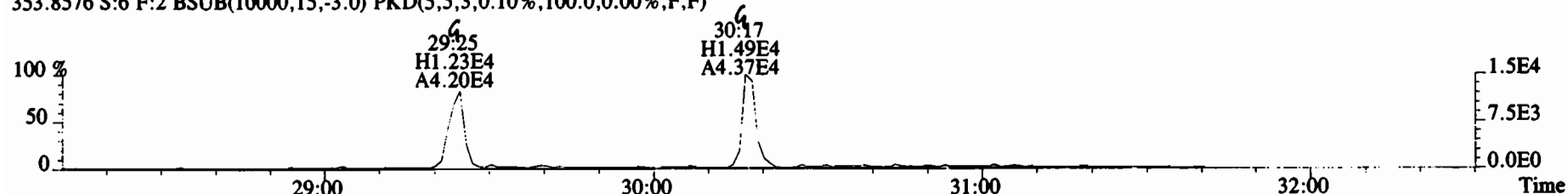
Date: 01/09/2000

File:200107D2 #1-492 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text: Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

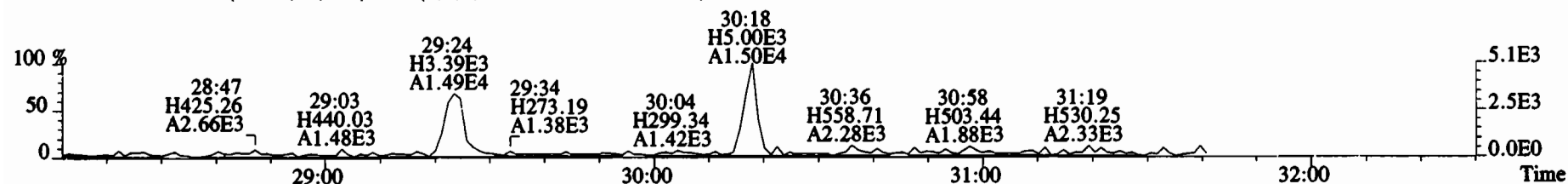




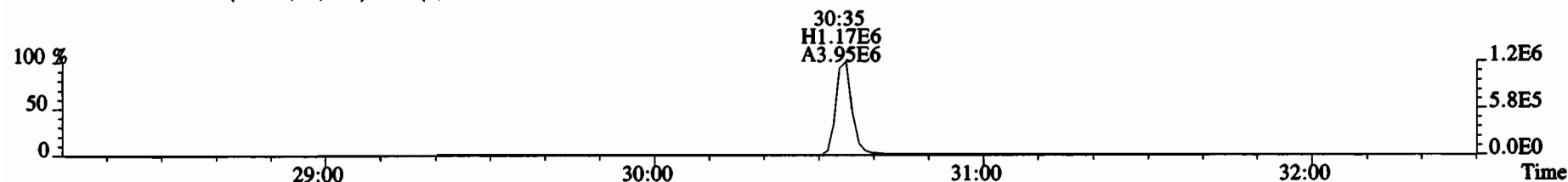
File:200107D2 #1-211 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text: Vista Analytical Laboratory VG7 Text: B9L0251-BLK1 Method Blank 10 Exp: OCDD\_DB5  
 353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



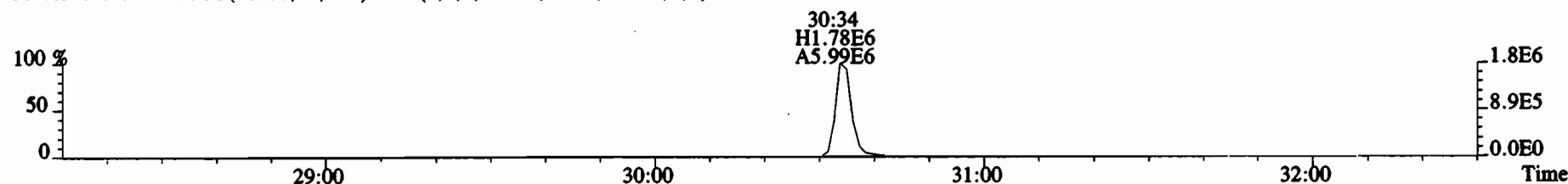
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



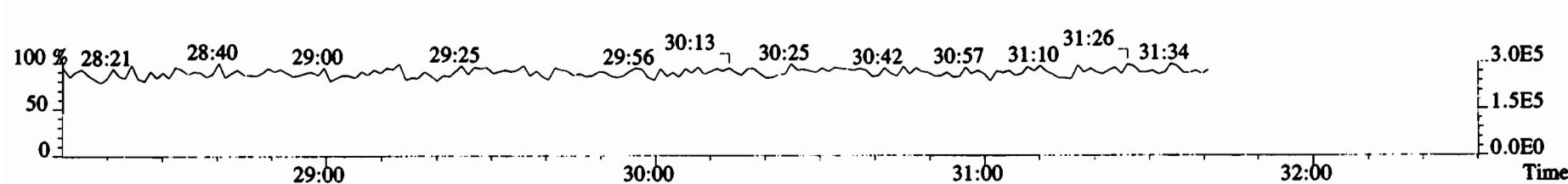
365.8978 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



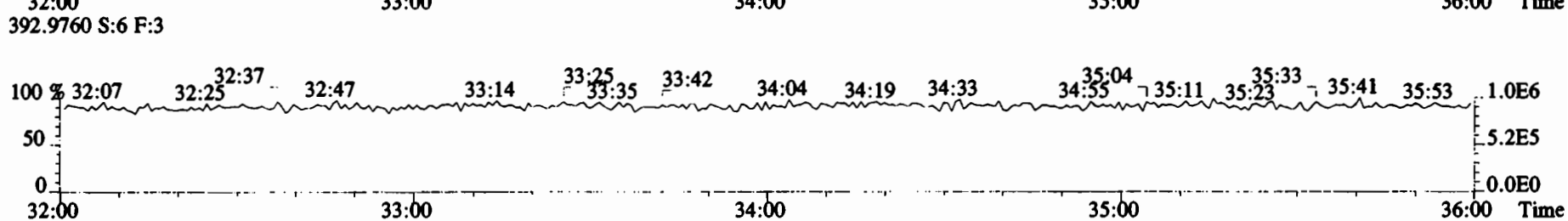
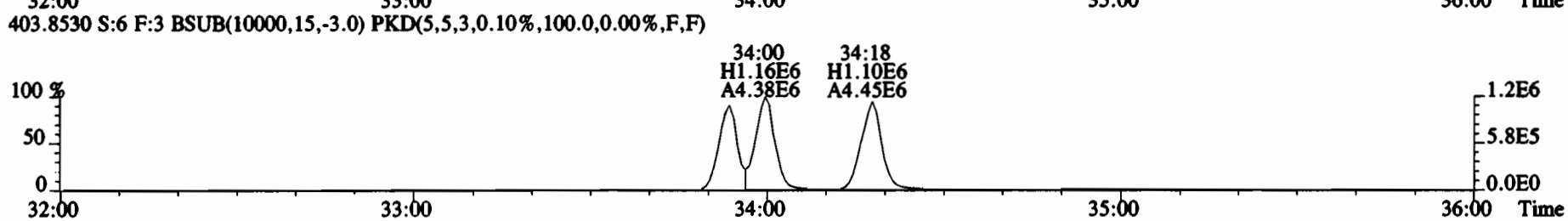
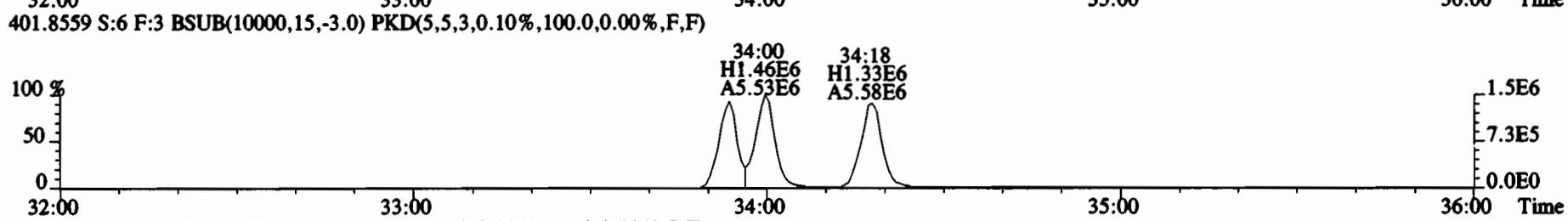
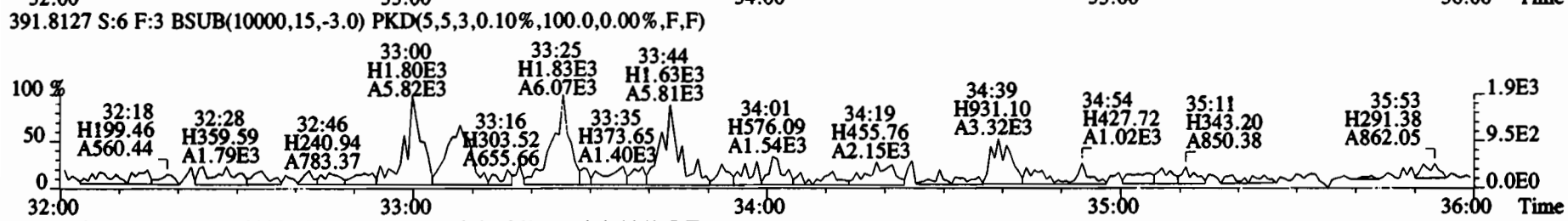
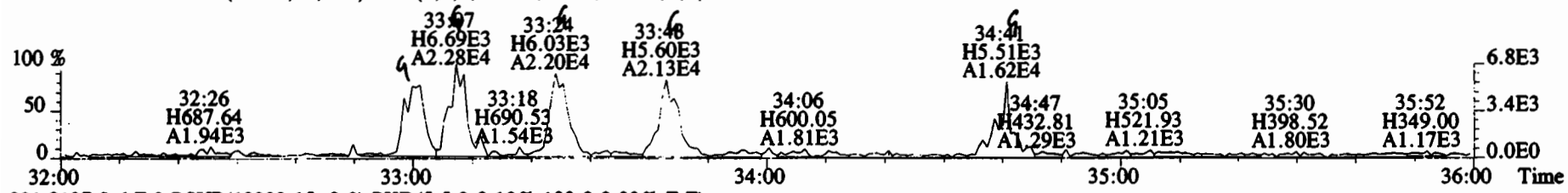
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



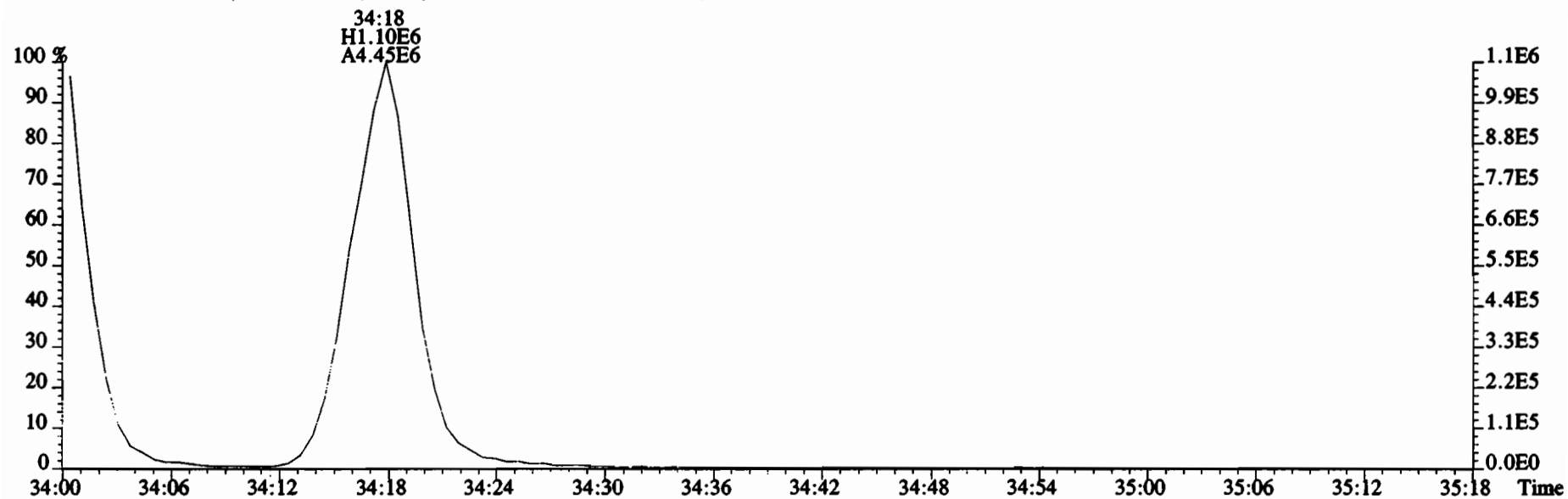
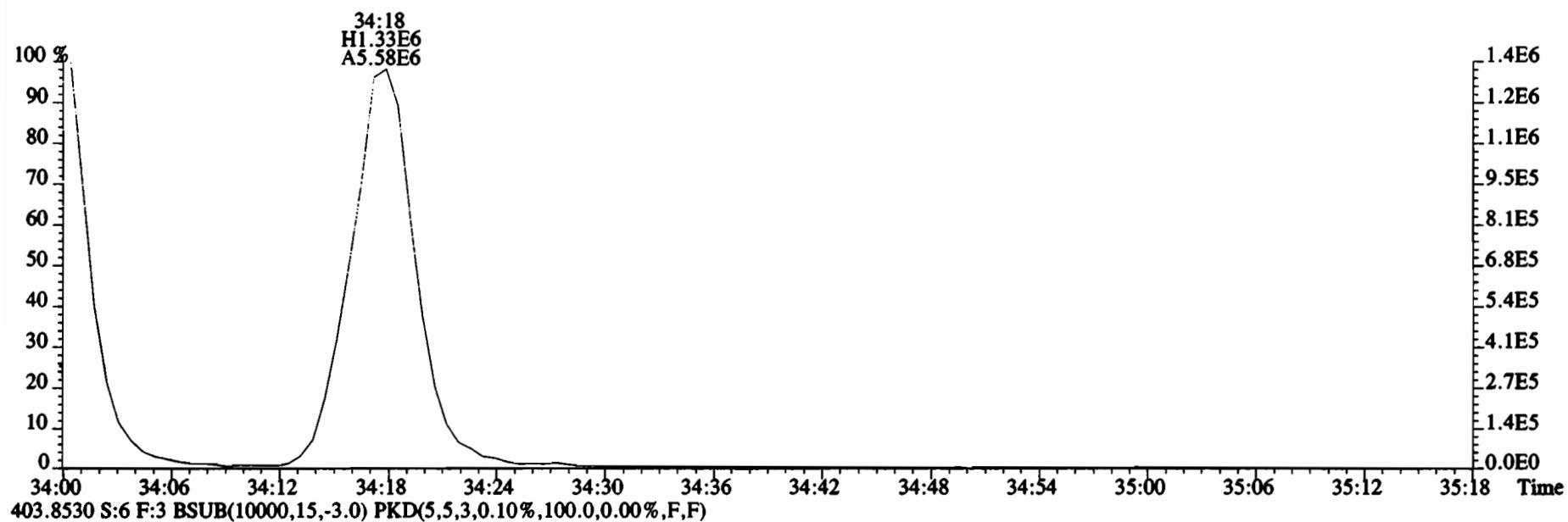
366.9792 S:6 F:2



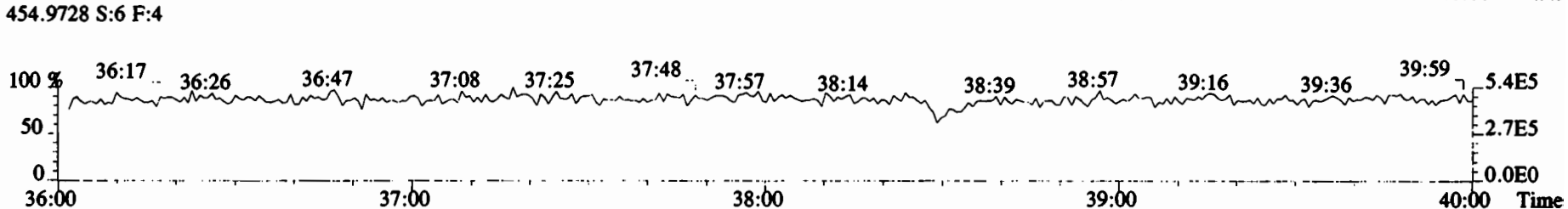
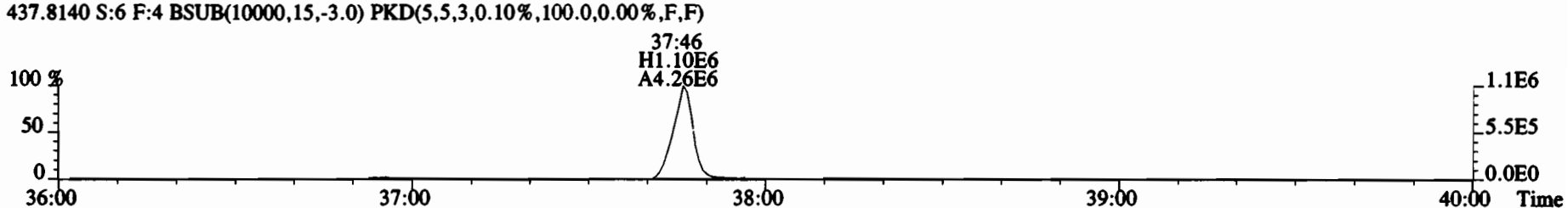
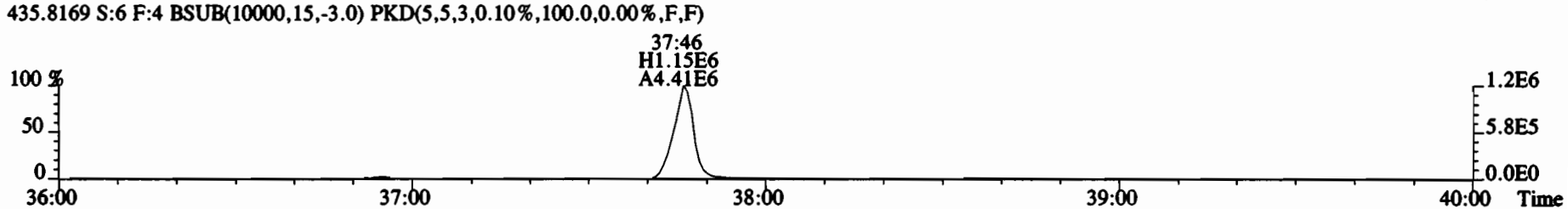
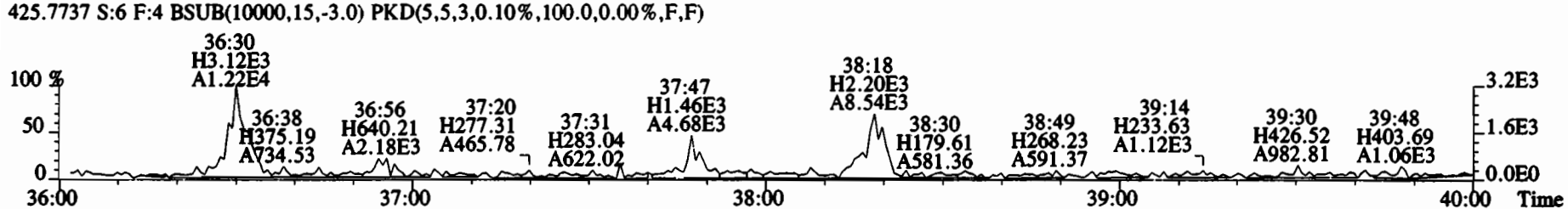
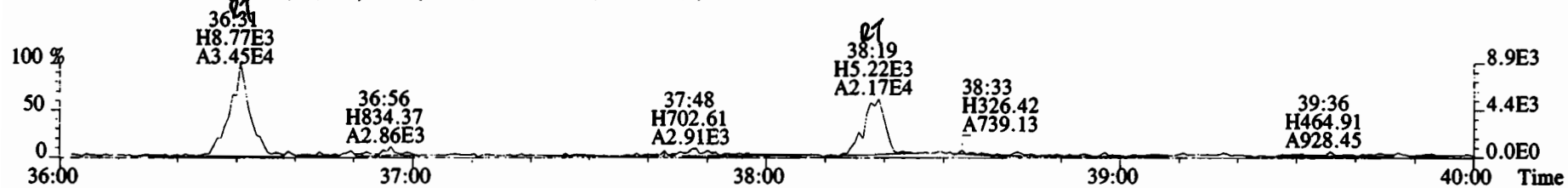
File:200107D2 #1-384 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text: Vista Analytical Laboratory VG7 Text: B9L0251-BLK1 Method Blank 10 Exp: OCDD\_DB5  
 389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



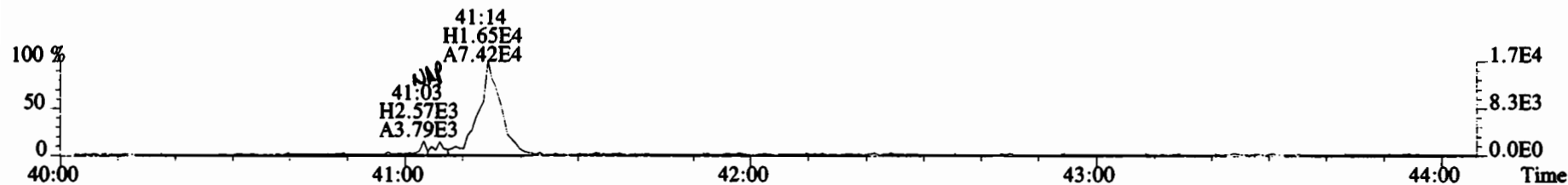
File:200107D2 #1-384 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



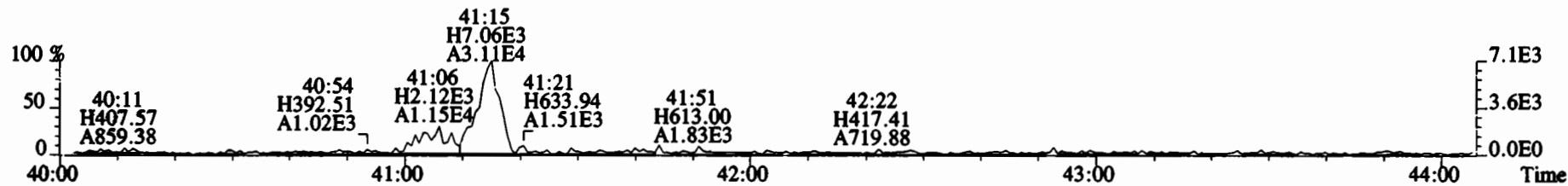
File:200107D2 #1-356 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



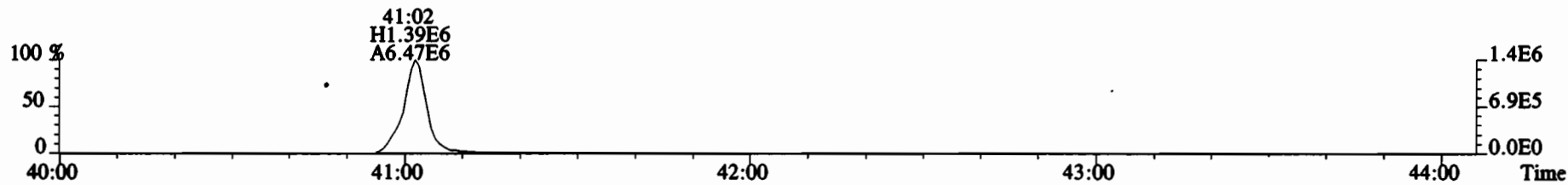
File:200107D2 #1-431 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



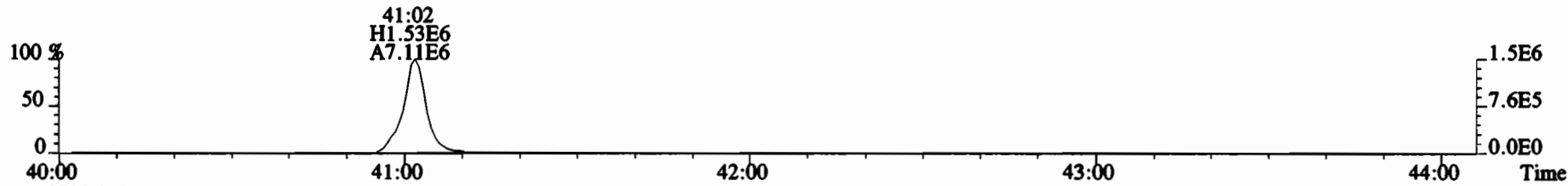
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



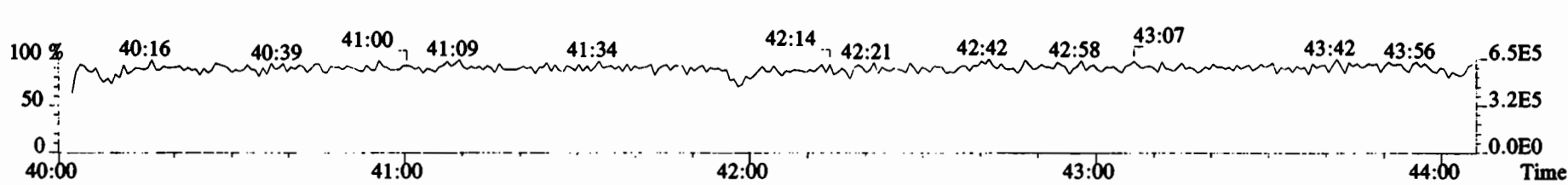
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



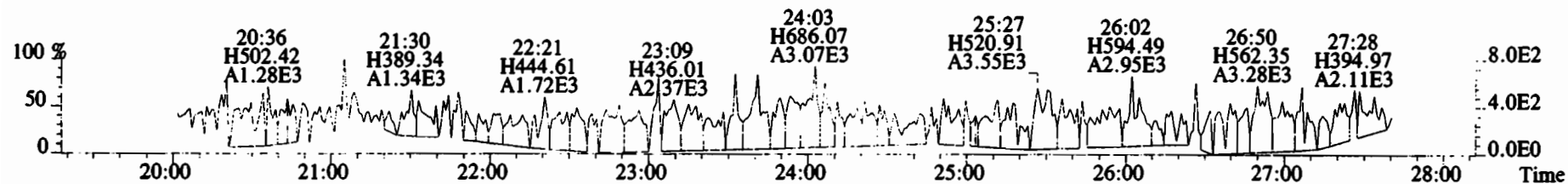
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



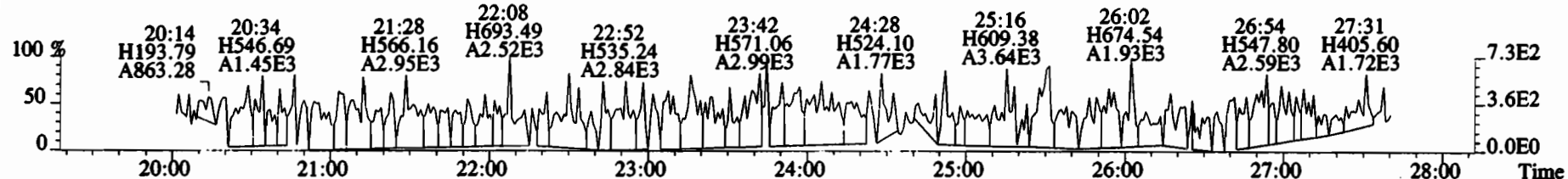
454.9728 S:6 F:5



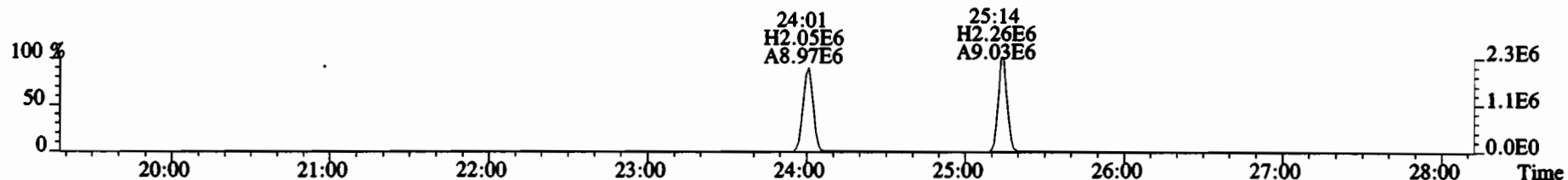
File:200107D2 #1-492 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



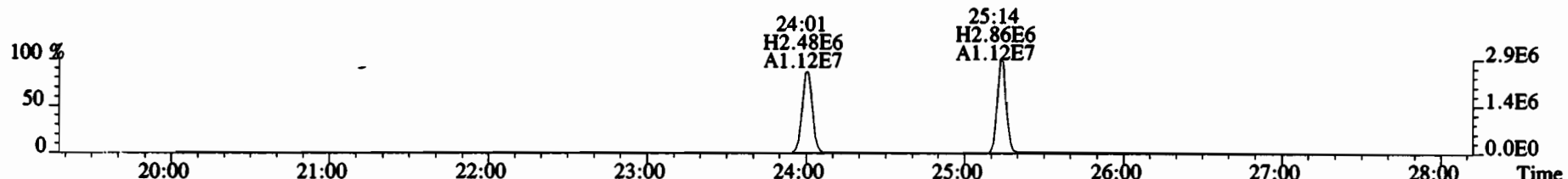
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



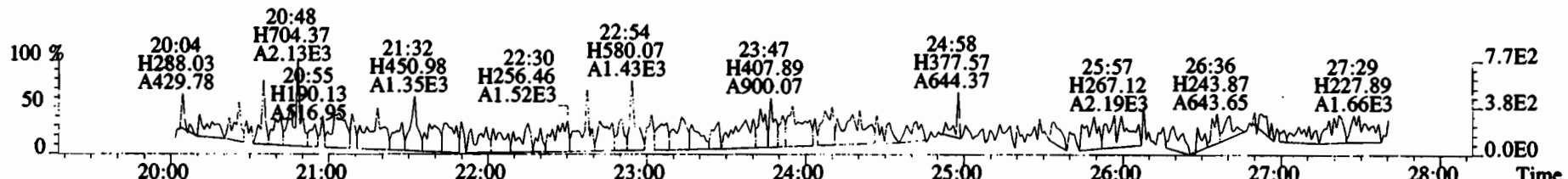
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



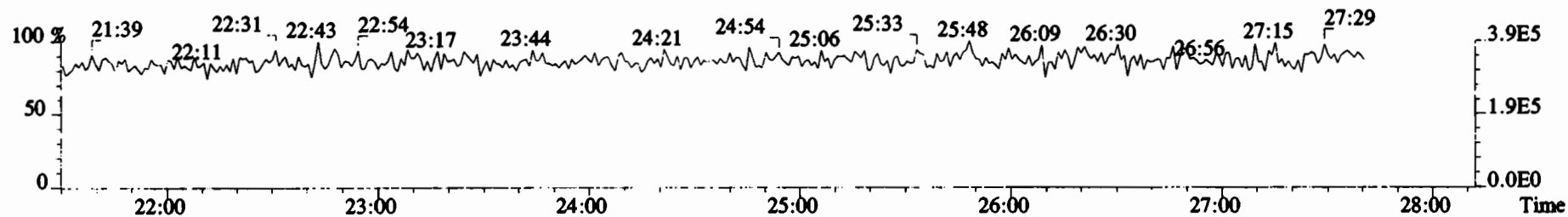
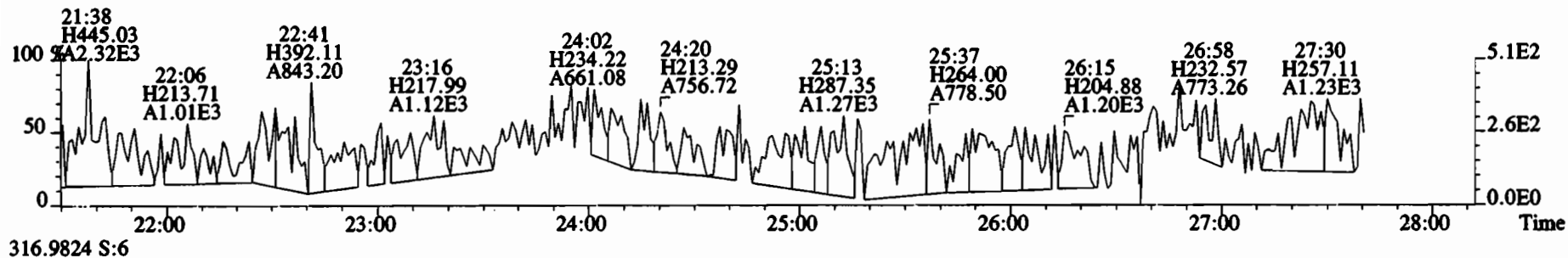
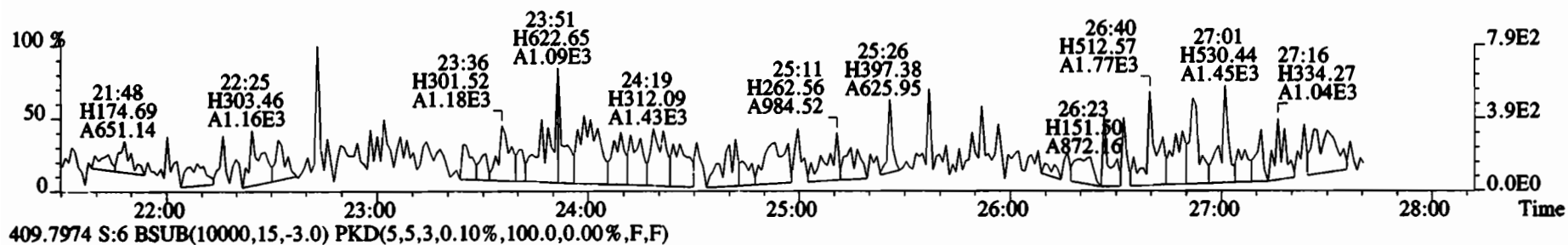
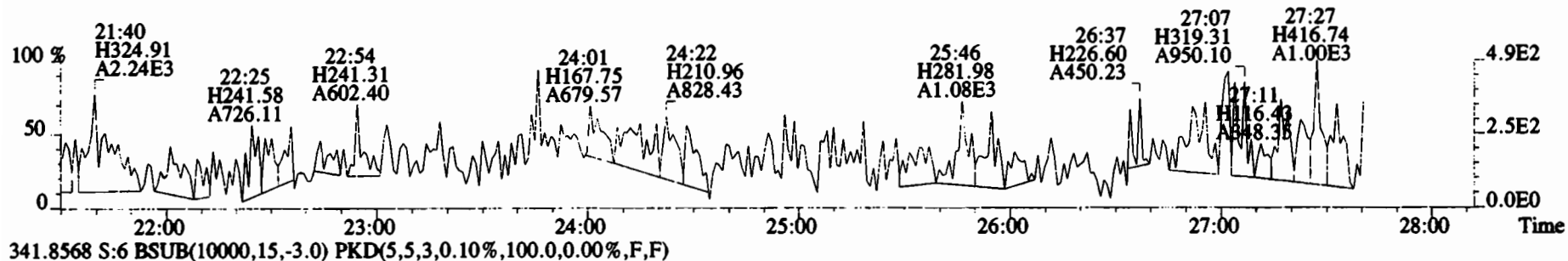
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



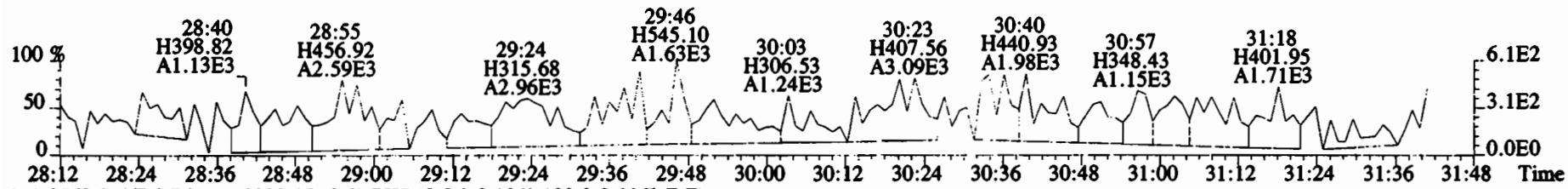
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



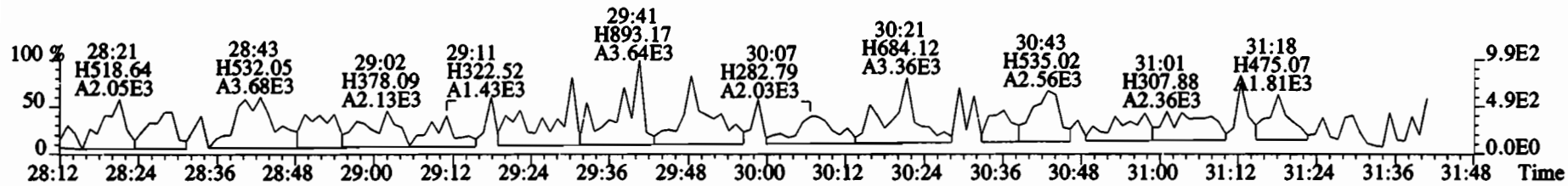
File:200107D2 #1-492 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



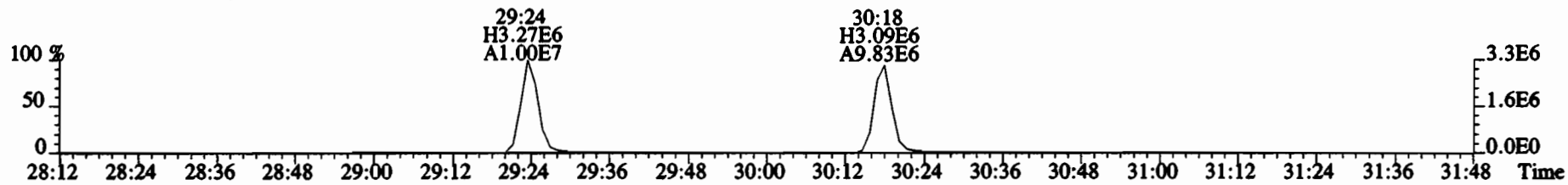
File:200107D2 #1-211 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



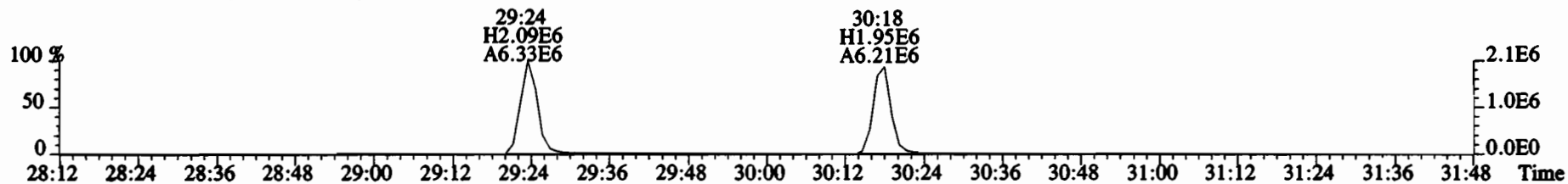
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



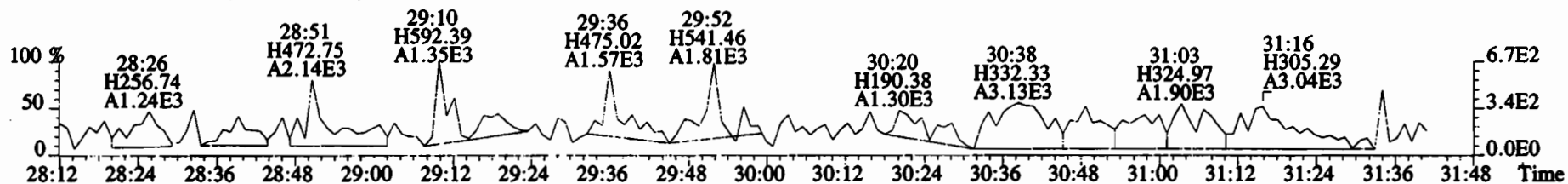
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

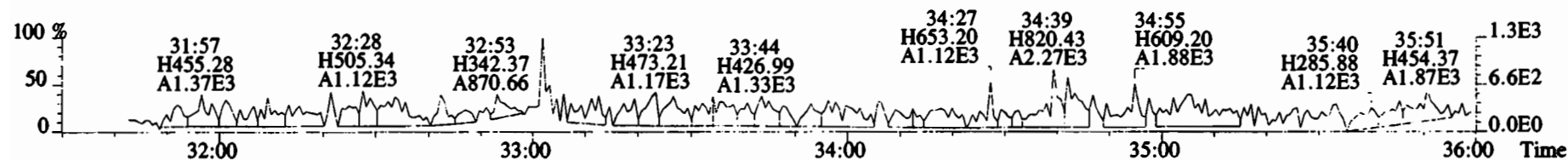


409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

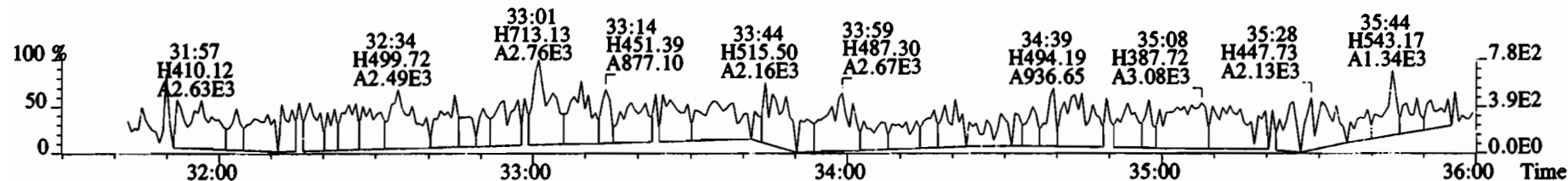




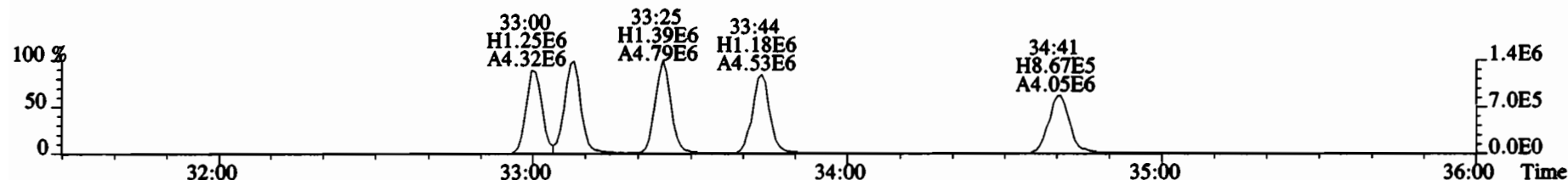
File:200107D2 #1-384 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



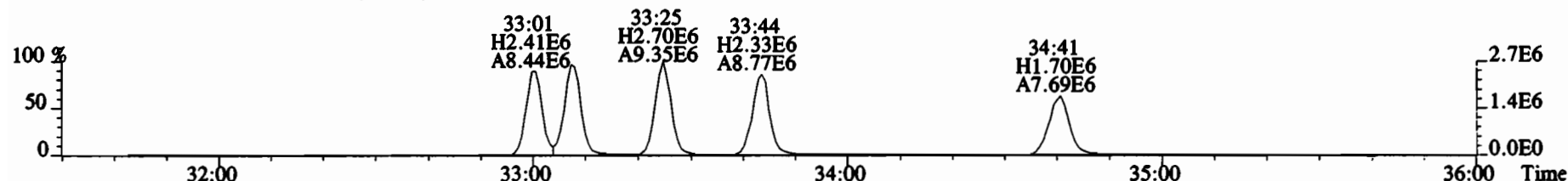
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



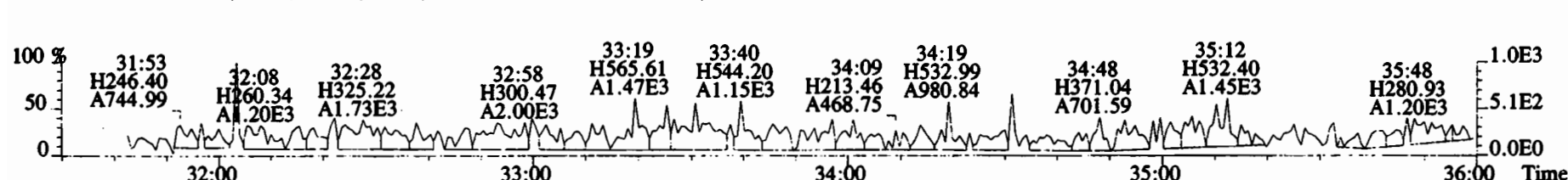
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



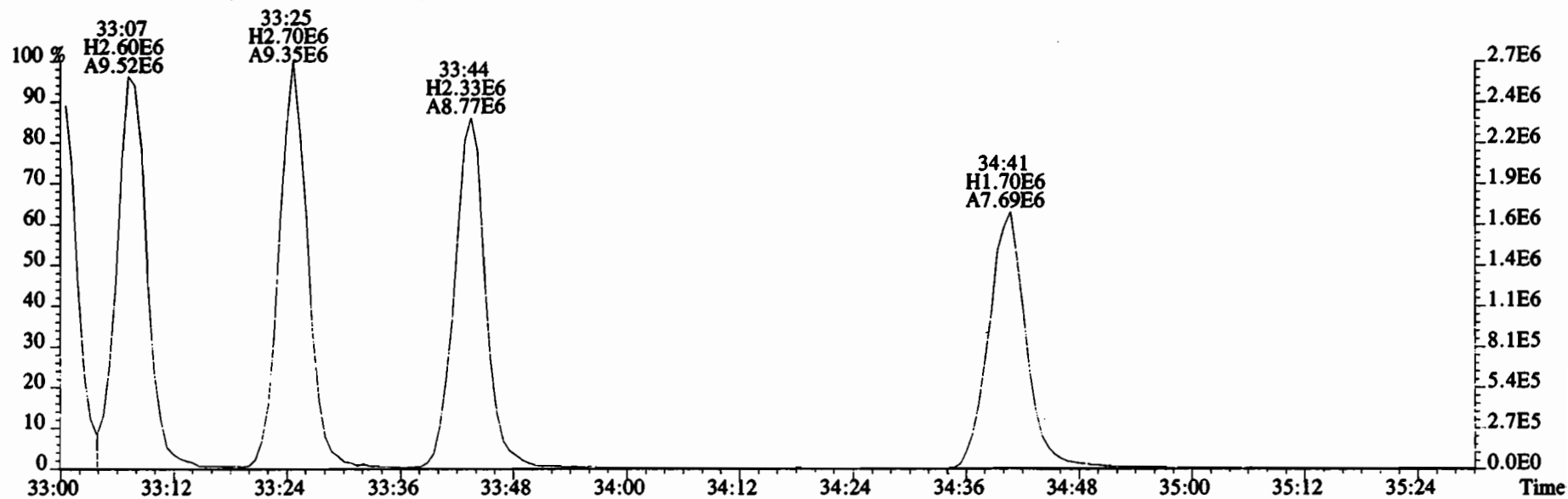
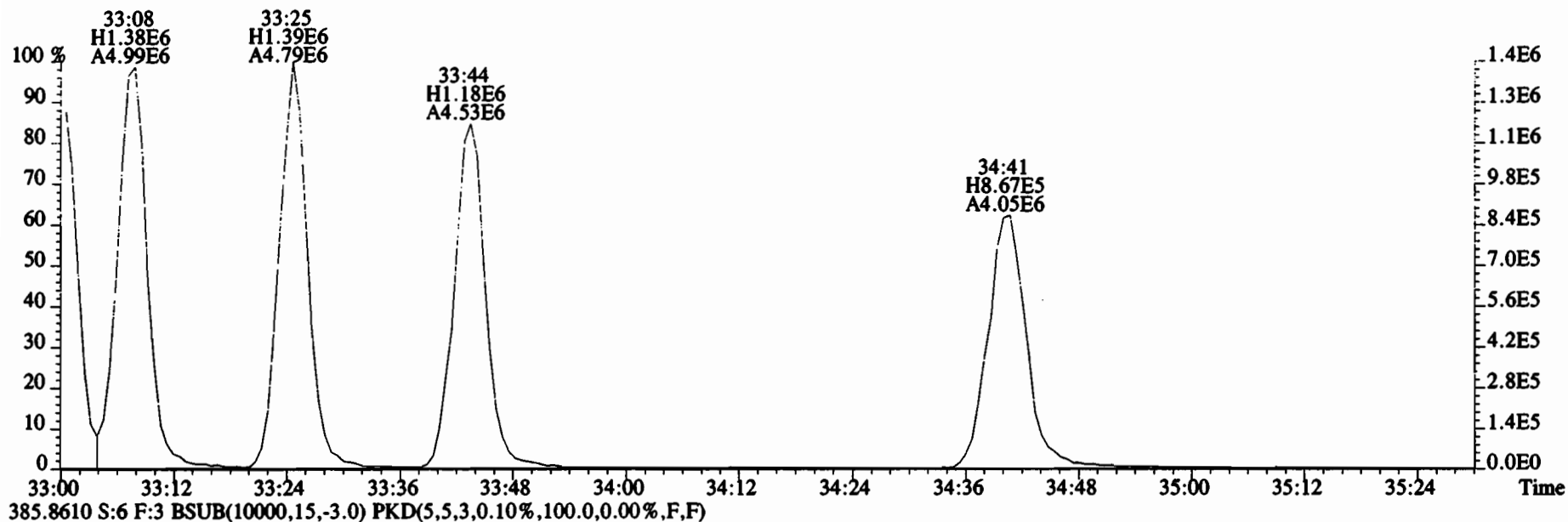
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



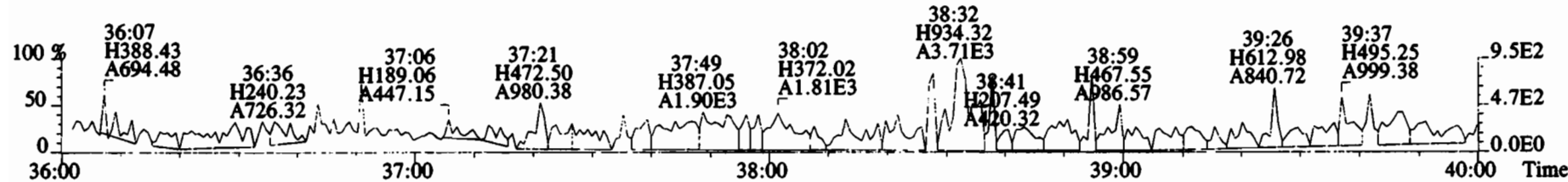
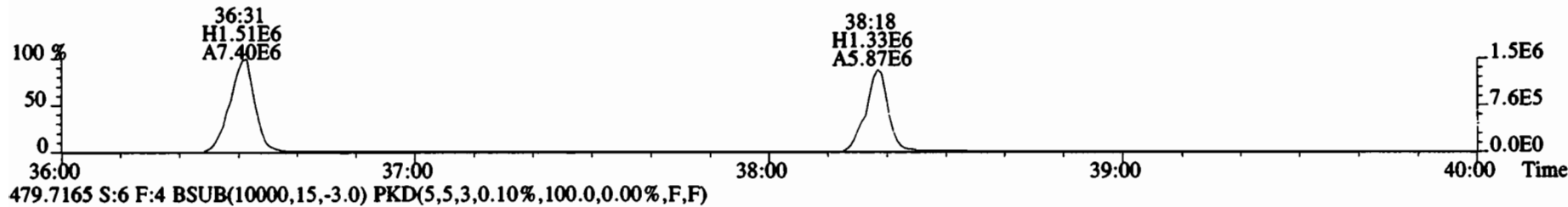
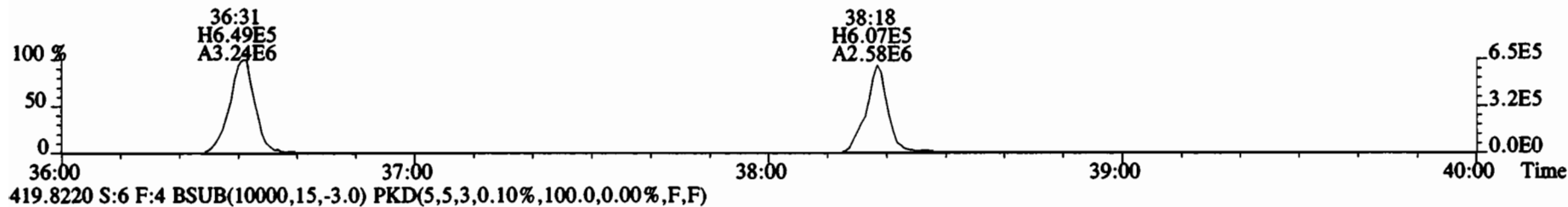
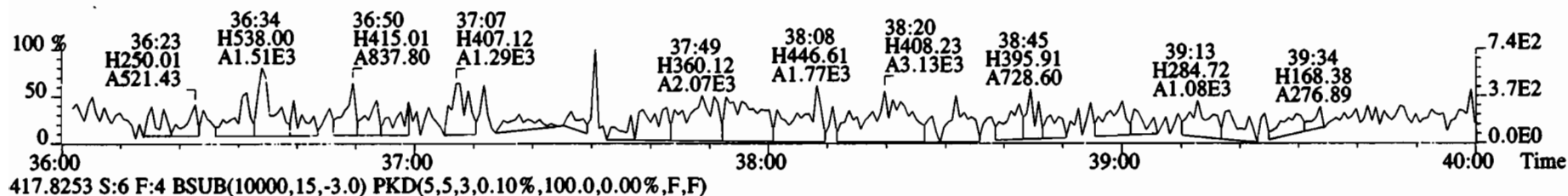
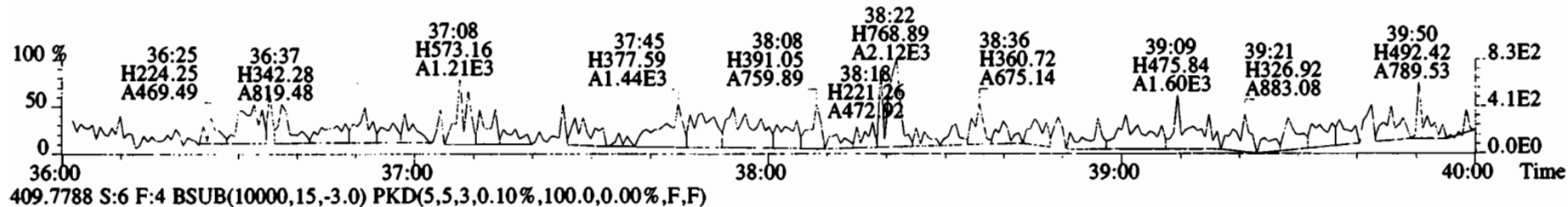
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



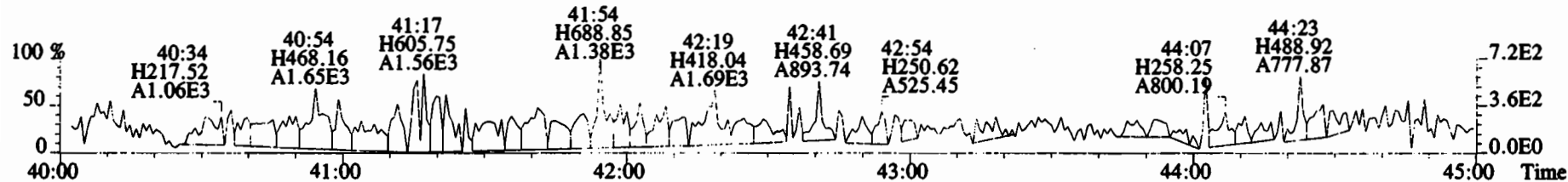
File:200107D2 #1-384 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



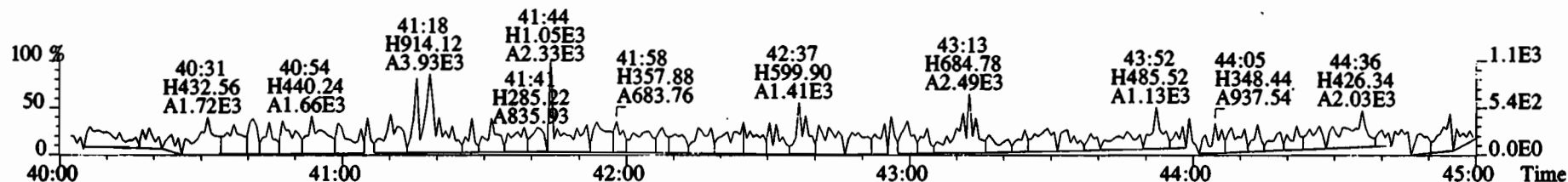
File:200107D2 #1-356 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



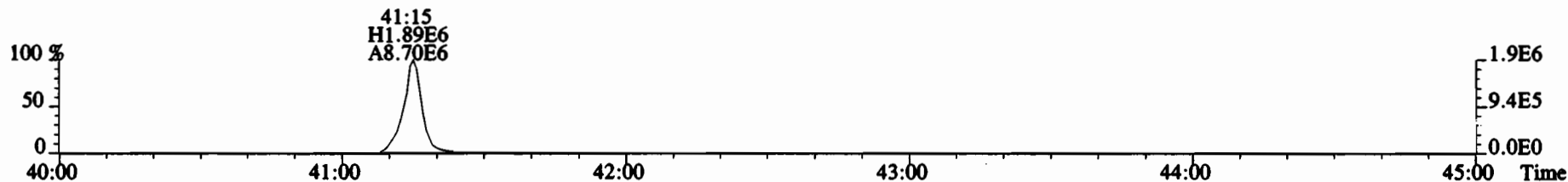
File:200107D2 #1-431 Acq: 8-JAN-2020 02:30:42 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BLK1 Method Blank 10 Exp:OCDD\_DB5  
 441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



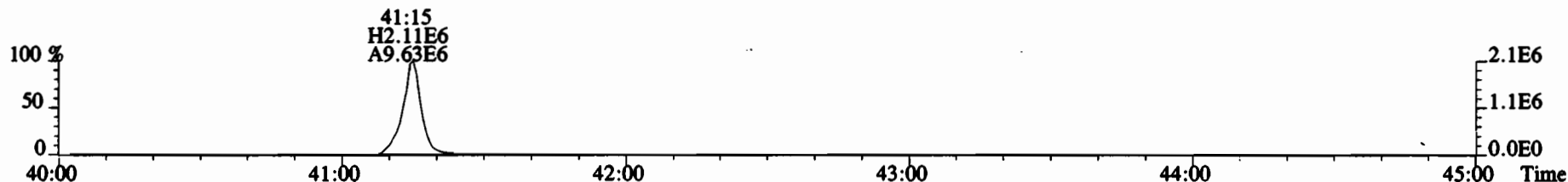
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



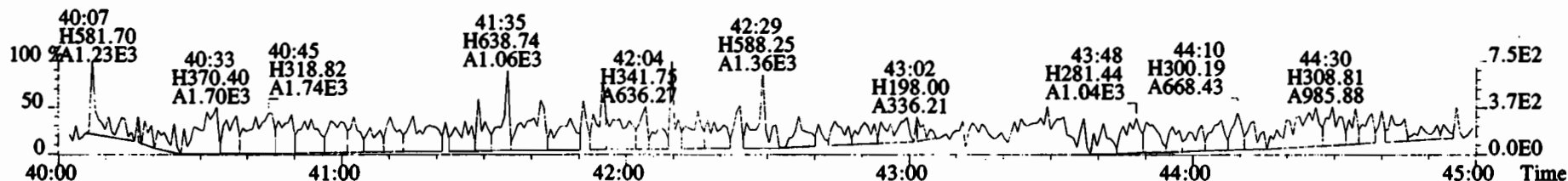
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



FORM 8A  
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory      Extraction Batch: B9L0251-BS1

Contract No.:                      SAS No.:

Matrix (aqueous/solid/leachate): SOLID      OPR Data Filename: 200107D2-3

Ext. Date:                      Shift: Day      Analysis Date: 8-JAN-20      Time: 00:07:13

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
2,3,7,8-TCDD	10	10.9	6.7 - 15.8 7.3 - 14.6 (2)
1,2,3,7,8-PeCDD	50	55.4	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	53.8	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	52.8	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	54.0	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	53.0	35.0 - 70.0
OCDD	100	106	78.0 - 144.0
2,3,7,8-TCDF	10	9.91	7.5 - 15.8 8.0 - 14.7 (2)
1,2,3,7,8-PeCDF	50	54.6	40.0 - 67.0
2,3,4,7,8-PeCDF	50	53.4	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	49.5	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	49.0	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	51.4	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	49.6	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	48.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	47.0	39.0 - 69.0
OCDF	100	99.0	63.0 - 170.0

(1) Contract-required concentration limits for OPR  
as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR  
as specified in Table 6a, Method 1613. 10/94

Analyst: DB

Date: 1/8/20

FORM 8B  
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory      Extraction Batch: B9L0251-BS1

Contract No.:                      SAS No.:

Matrix (aqueous/solid/leachate): SOLID      OPR Data Filename: 200107D2-3

Ext. Date:                      Shift: Day      Analysis Date: 8-JAN-20      Time: 00:07:13

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
13C-2,3,7,8-TCDD	100	102	20.0 - 175.0 25.0 - 141.0 (2)
13C-1,2,3,7,8-PeCDD	100	96.3	21.0 - 227.0
13C-1,2,3,4,7,8-HxCDD	100	94.2	21.0 - 193.0
13C-1,2,3,6,7,8-HxCDD	100	85.2	25.0 - 163.0
13C-1,2,3,7,8,9-HxCDD	100	87.9	21.0 - 193.0
13C-1,2,3,4,6,7,8-HpCDD	100	95.1	26.0 - 166.0
13C-OCDD	200	177	26.0 - 397.0
13C-2,3,7,8-TCDF	100	96.7	22.0 - 152.0 26.0 - 126.0 (2)
13C-1,2,3,7,8-PeCDF	100	96.9	21.0 - 192.0
13C-2,3,4,7,8-PeCDF	100	93.8	13.0 - 328.0
13C-1,2,3,4,7,8-HxCDF	100	110	19.0 - 202.0
13C-1,2,3,6,7,8-HxCDF	100	101	21.0 - 159.0
13C-2,3,4,6,7,8-HxCDF	100	97.8	22.0 - 176.0
13C-1,2,3,7,8,9-HxCDF	100	105	17.0 - 205.0
13C-1,2,3,4,6,7,8-HpCDF	100	98.3	21.0 - 158.0
13C-1,2,3,4,7,8,9-HpCDF	100	106	20.0 - 186.0
13C-OCDF	200	196	26.0 - 397.0
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	40.9	12.4 - 76.4

(1) Contract-required concentration limits for OPR  
as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR  
as specified in Table 6a, Method 1613. 10/94

Analyst: DB

Date: 1/8/20

Client ID: OPR  
Lab ID: B9L0251-BS1

Filename: 200107D2 S:3 Acq: 8-JAN-20 00:07:13  
GC Column ID: ZB-5MS ICAL: 1613VG7-10-9-19 wt/vol: 1.000

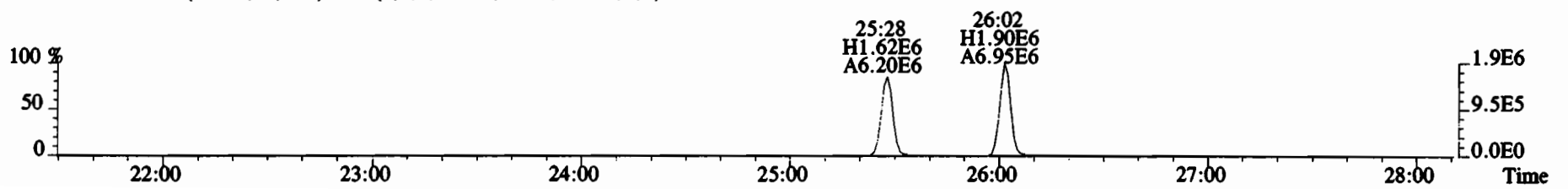
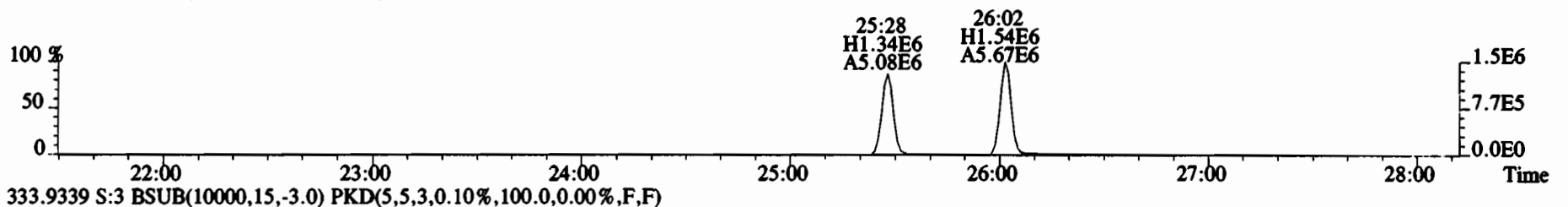
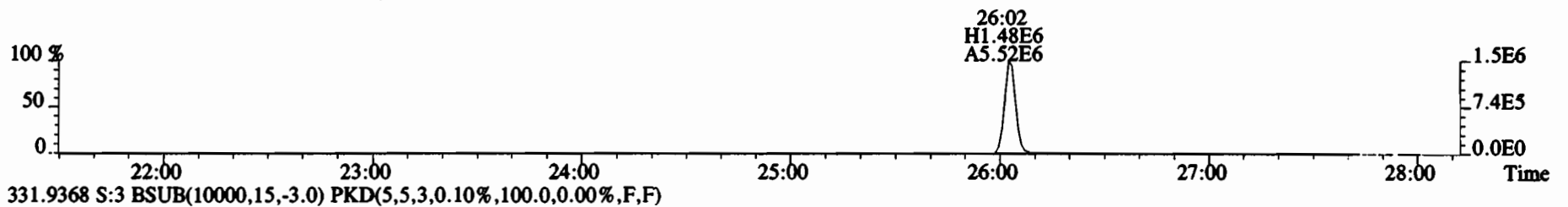
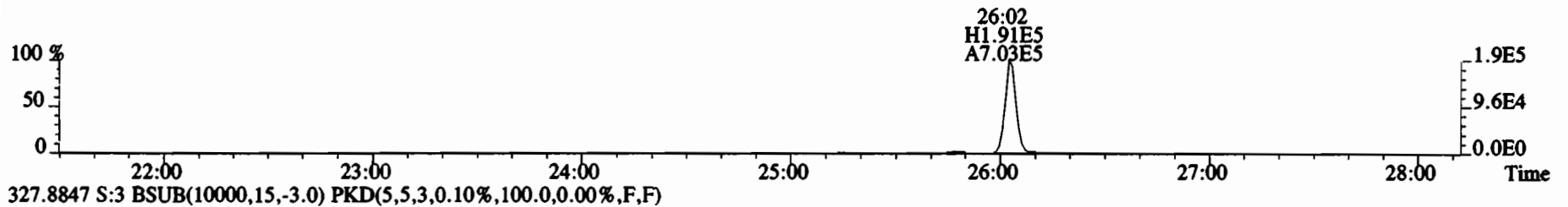
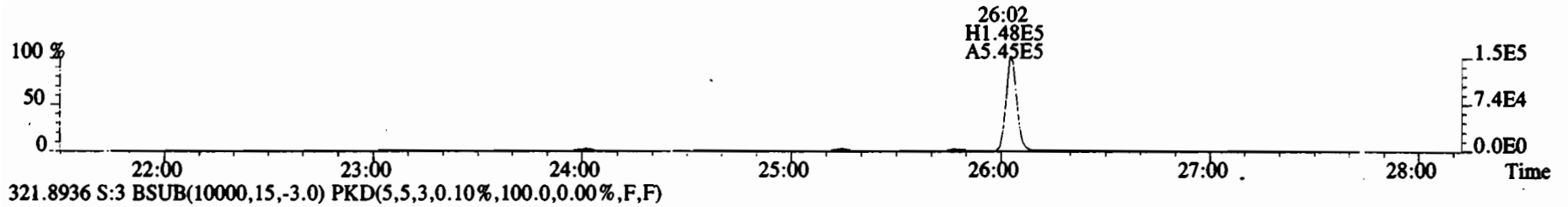
ConCal: ST200107D2-1  
EndCAL: NA

Page 3 of 3

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	1.25e+06	0.78 y	0.91	26:03	10.920		* 2.5		*	Total Tetra-Dioxins	11.1	12.0		*	*
1,2,3,7,8-PeCDD	4.79e+06	0.63 y	0.90	30:36	55.406		* 2.5		*	Total Penta-Dioxins	55.4	56.0		*	*
1,2,3,4,7,8-HxCDD	4.78e+06	1.24 y	1.10	33:54	53.785		* 2.5		*	Total Hexa-Dioxins	161	161		*	*
1,2,3,6,7,8-HxCDD	4.81e+06	1.25 y	0.94	34:01	52.776		* 2.5		*	Total Hepta-Dioxins	53.6	54.7		*	*
1,2,3,7,8,9-HxCDD	4.91e+06	1.25 y	0.96	34:18	53.956		* 2.5		*	Total Tetra-Furans	10.2	10.9		*	*
1,2,3,4,6,7,8-HpCDD	4.30e+06	1.04 y	0.98	37:47	52.983		* 2.5		*	Total Penta-Furans	108.41	109.73		*	*
OCDD	6.96e+06	0.90 y	0.96	41:02	106.37		* 2.5		*	Total Hexa-Furans	200	200		*	*
										Total Hepta-Furans	95.2	96.8		*	*
2,3,7,8-TCDF	1.79e+06	0.78 y	0.95	25:16	9.9066		* 2.5		*						
1,2,3,7,8-PeCDF	8.27e+06	1.64 y	0.96	29:25	54.579		* 2.5		*						
2,3,4,7,8-PeCDF	8.20e+06	1.60 y	1.01	30:19	53.382		* 2.5		*						
1,2,3,4,7,8-HxCDF	7.11e+06	1.25 y	1.18	33:01	49.523		* 2.5		*						
1,2,3,6,7,8-HxCDF	7.27e+06	1.21 y	1.07	33:08	48.964		* 2.5		*						
2,3,4,6,7,8-HxCDF	7.12e+06	1.23 y	1.11	33:44	51.383		* 2.5		*						
1,2,3,7,8,9-HxCDF	6.08e+06	1.24 y	1.06	34:41	49.550		* 2.5		*						
1,2,3,4,6,7,8-HpCDF	5.38e+06	1.02 y	1.13	36:31	48.075		* 2.5		*						
1,2,3,4,7,8,9-HpCDF	4.95e+06	1.00 y	1.28	38:19	46.965		* 2.5		*						
OCDF	8.43e+06	0.91 y	0.95	41:16	99.031		* 2.5		*						
IS	13C-2,3,7,8-TCDD	1.26e+07	0.82 y	1.10	26:02	102.11				Rec					
IS	13C-1,2,3,7,8-PeCDD	9.58e+06	0.63 y	0.88	30:35	96.293				102					
IS	13C-1,2,3,4,7,8-HxCDD	8.07e+06	1.26 y	0.64	33:53	94.242				96.3					
IS	13C-1,2,3,6,7,8-HxCDD	9.71e+06	1.26 y	0.86	33:60	85.159				94.2					
IS	13C-1,2,3,7,8,9-HxCDD	9.46e+06	1.23 y	0.81	34:18	87.937				85.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	8.29e+06	1.05 y	0.65	37:46	95.097				87.9					
IS	13C-OCDD	1.36e+07	0.89 y	0.58	41:02	176.56				95.1					
IS	13C-2,3,7,8-TCDF	1.91e+07	0.77 y	1.03	25:15	96.659				88.3					
IS	13C-1,2,3,7,8-PeCDF	1.58e+07	1.60 y	0.85	29:24	96.915				96.7					
IS	13C-2,3,4,7,8-PeCDF	1.51e+07	1.58 y	0.85	30:18	93.844				96.9					
IS	13C-1,2,3,4,7,8-HxCDF	1.22e+07	0.51 y	0.83	33:00	110.08				93.8					
IS	13C-1,2,3,6,7,8-HxCDF	1.39e+07	0.51 y	1.03	33:08	100.78				110					
IS	13C-2,3,4,6,7,8-HxCDF	1.24e+07	0.52 y	0.95	33:43	97.847				101					
IS	13C-1,2,3,7,8,9-HxCDF	1.16e+07	0.51 y	0.83	34:41	104.80				97.8					
IS	13C-1,2,3,4,6,7,8-HpCDF	9.93e+06	0.44 y	0.76	36:31	98.329				105					
IS	13C-1,2,3,4,7,8,9-HpCDF	8.23e+06	0.44 y	0.58	38:18	106.25				98.3					
IS	13C-OCDF	1.80e+07	0.90 y	0.69	41:15	195.59				106					
C/Up	37C1-2,3,7,8-TCDD	5.52e+06		1.20	26:03	40.864				97.8					
RS/RT	13C-1,2,3,4-TCDD	1.13e+07	0.82 y	1.00	25:28	100.00				102					
RS	13C-1,2,3,4-TCDF	1.90e+07	0.80 y	1.00	24:01	100.00									
RS/RT	13C-1,2,3,4,6,9-RxCDF	1.33e+07	0.51 y	1.00	33:25	100.00									

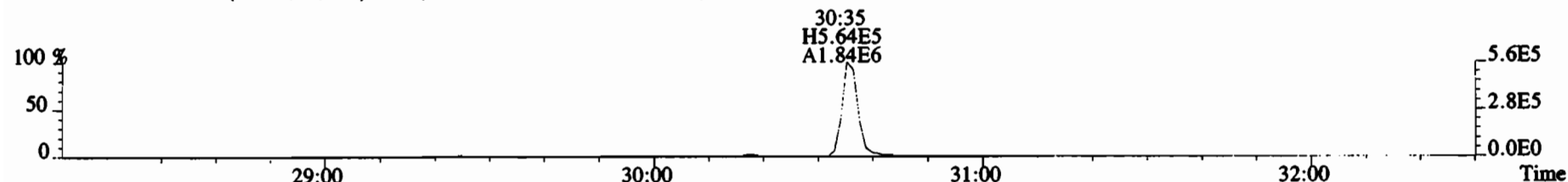
Integrations  
by DB  
Analyst: DB  
Date: 1/8/20  
Reviewed  
by CR  
Analyst: CR  
Date: 01/09/2020

File:200107D2 #1-492 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

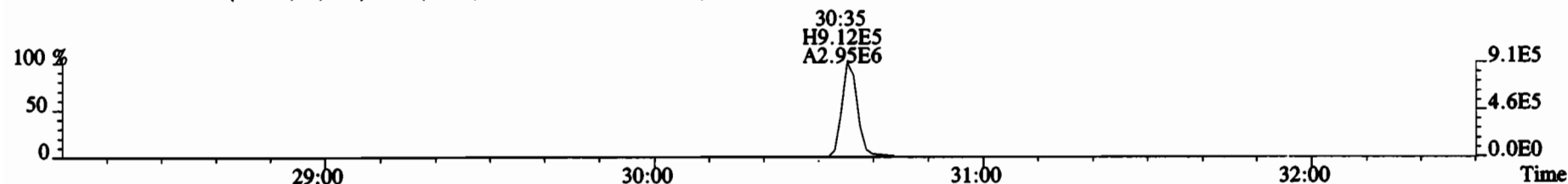




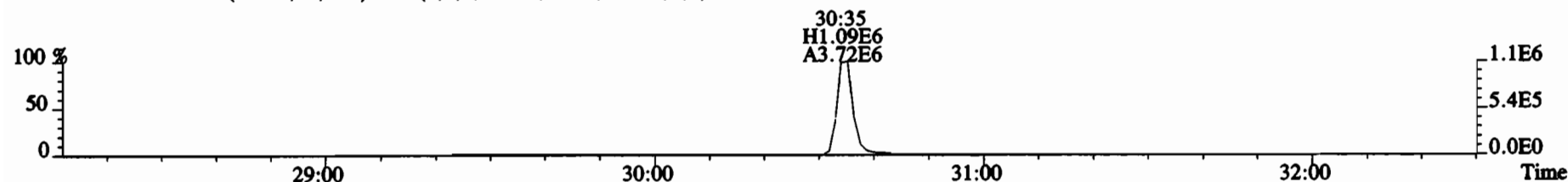
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Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
353.8576 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



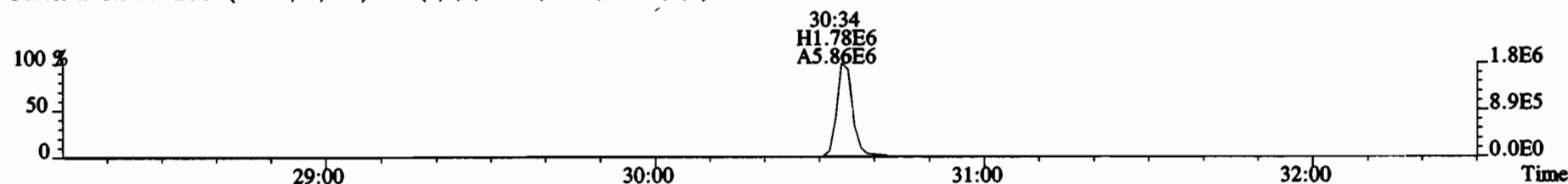
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



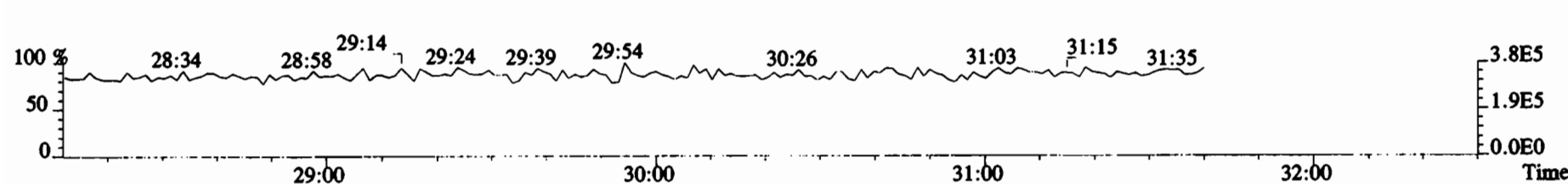
365.8978 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



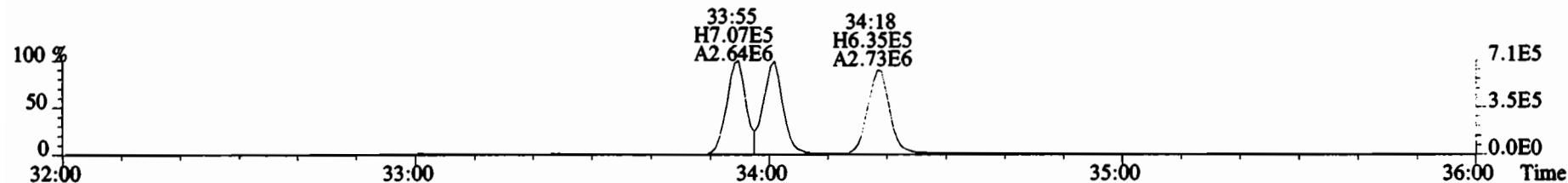
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



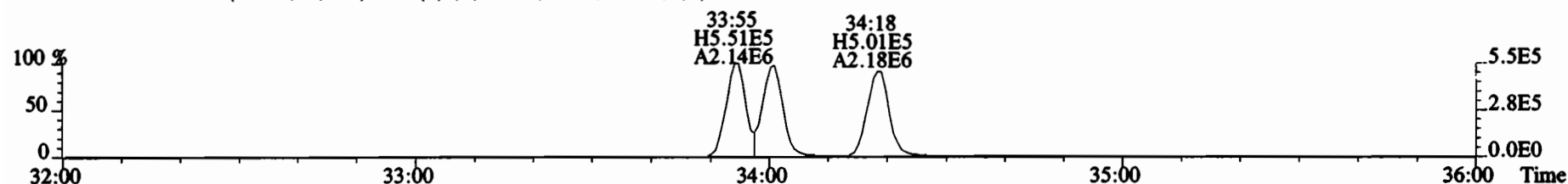
366.9792 S:3 F:2



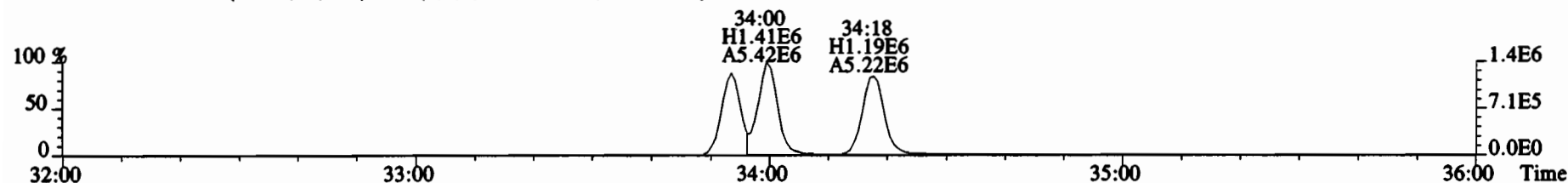
File:200107D2 #1-386 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



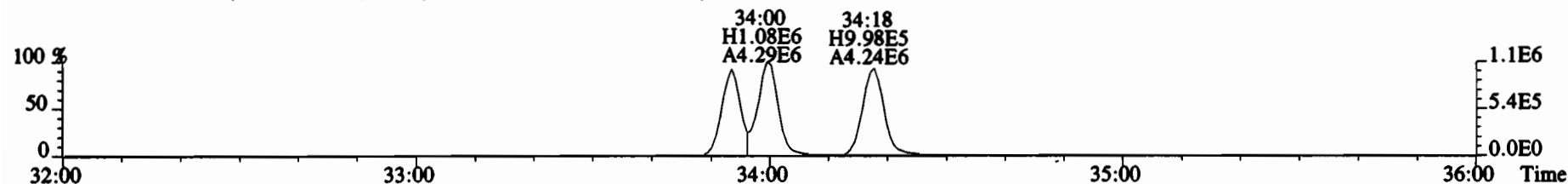
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



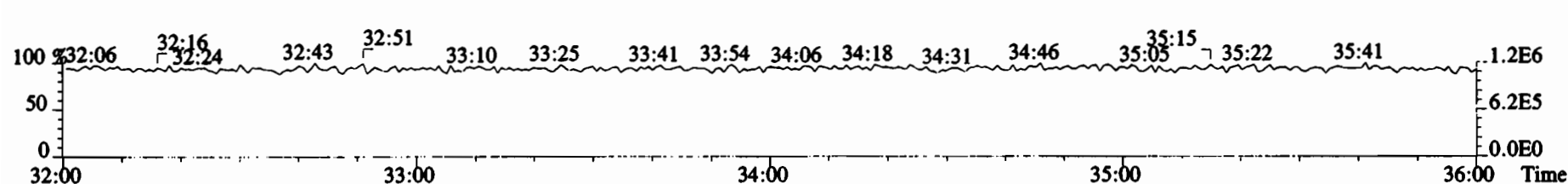
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



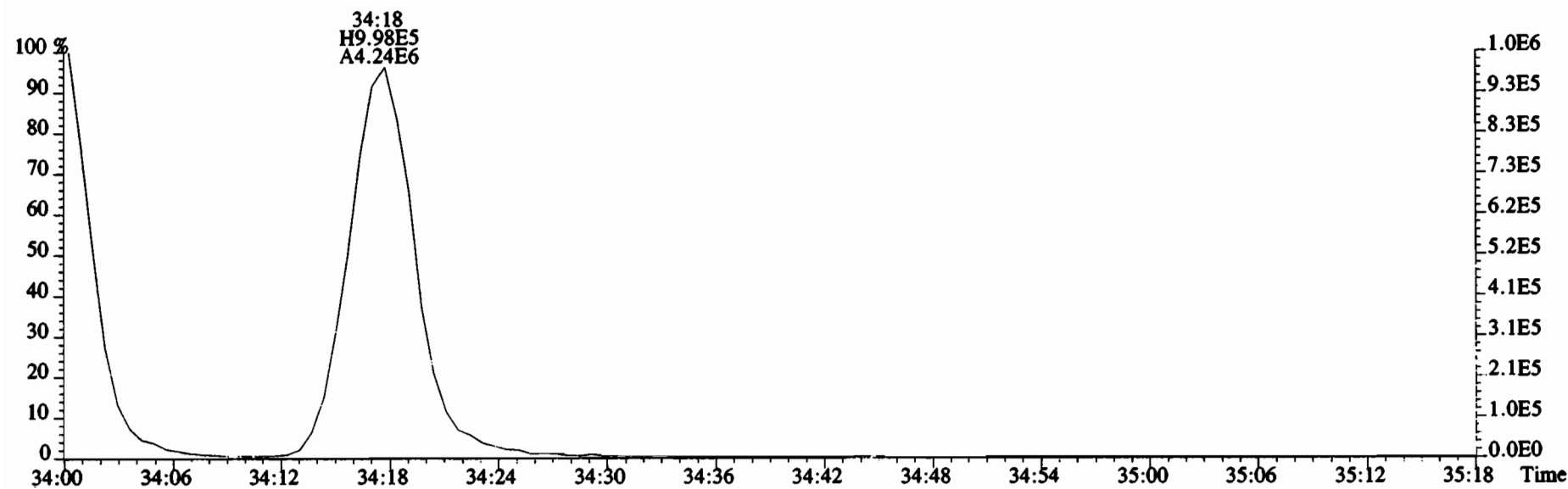
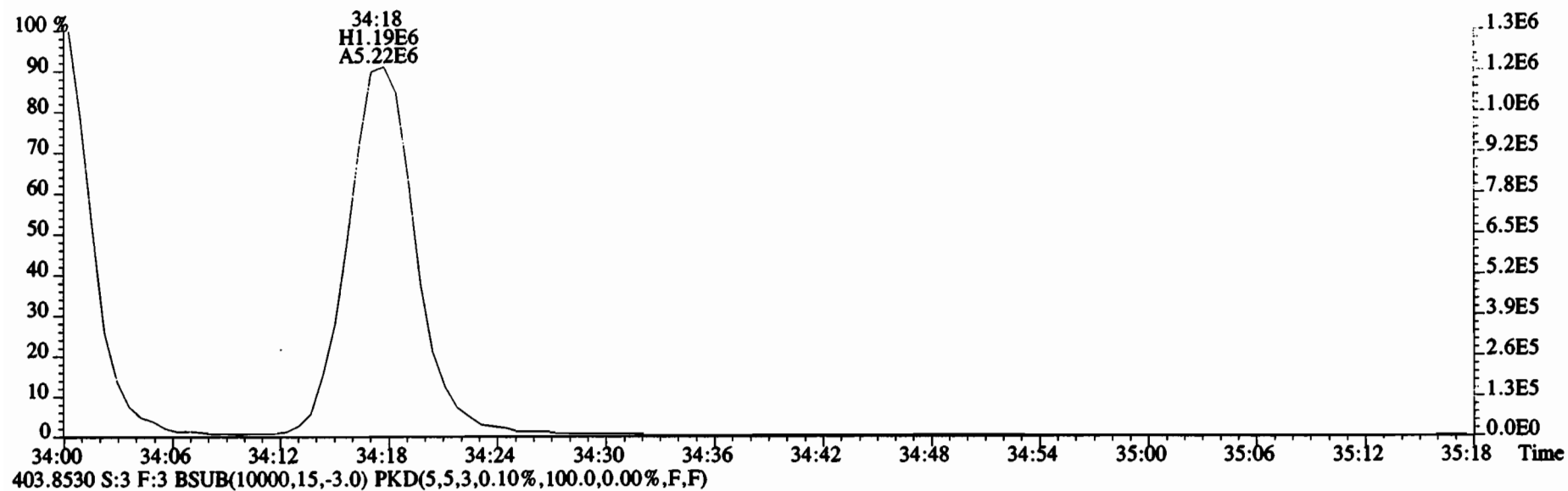
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



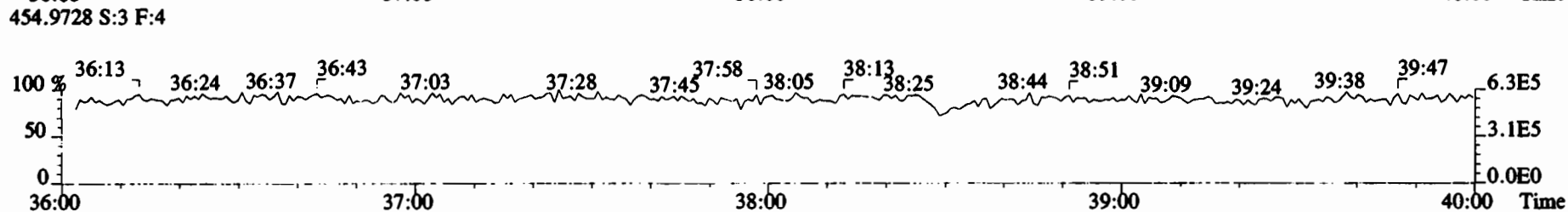
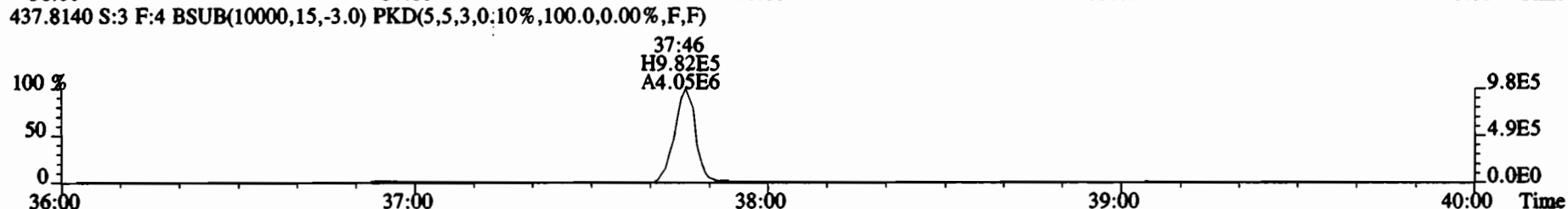
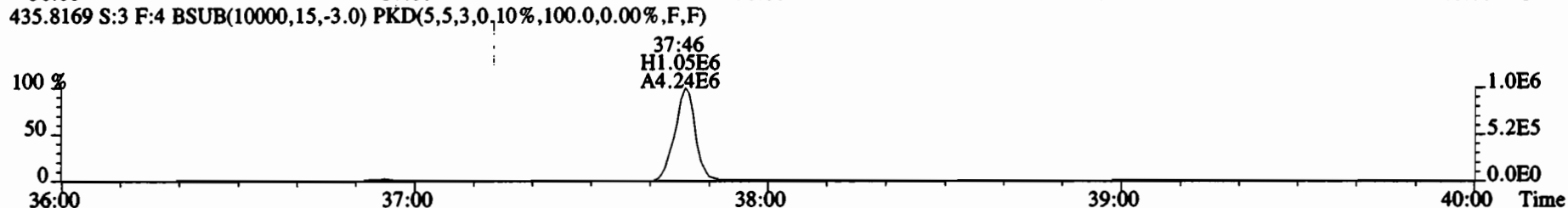
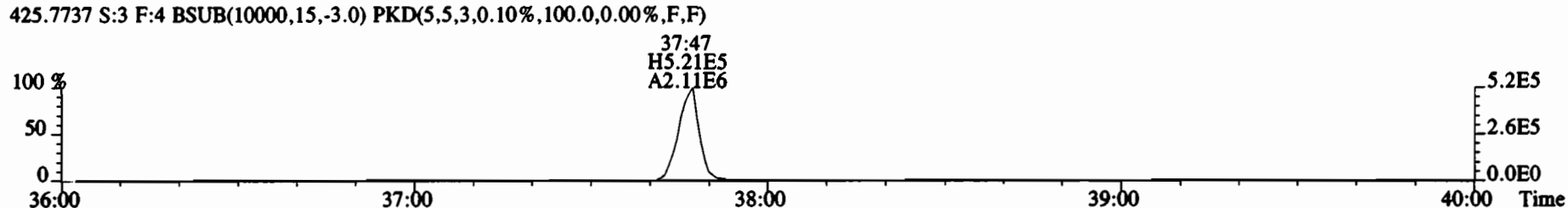
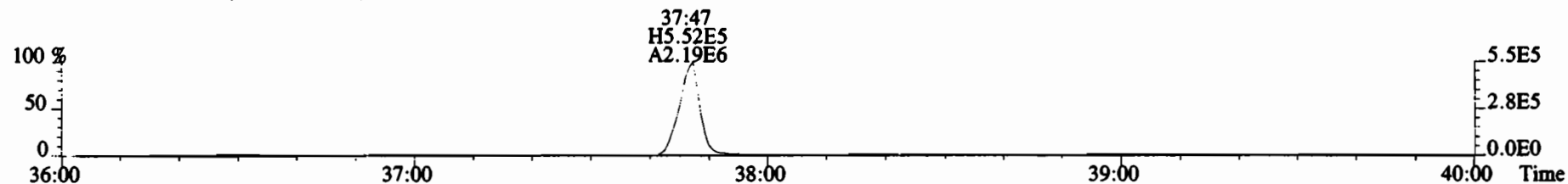
392.9760 S:3 F:3



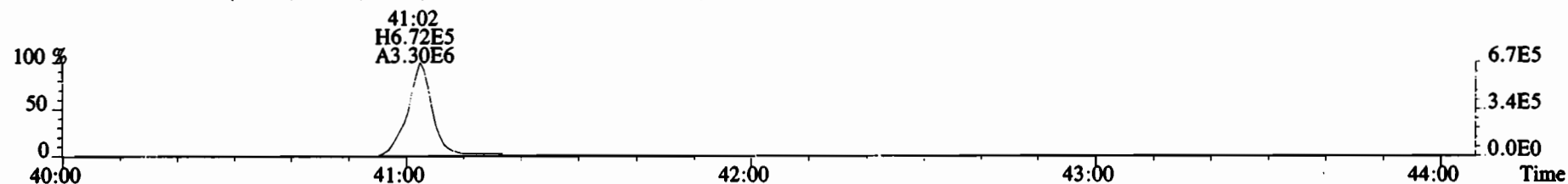
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Sample#3 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



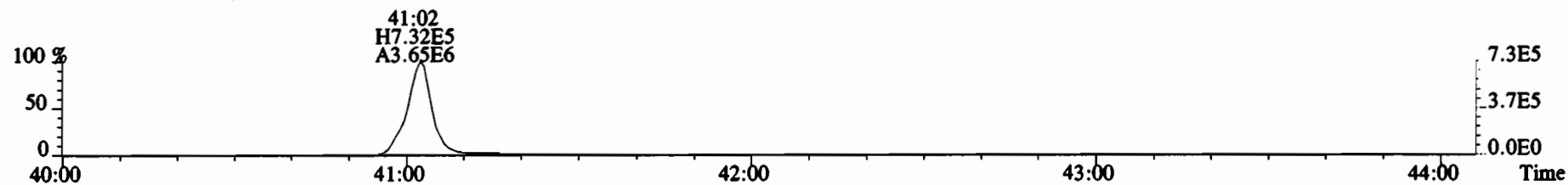
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Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



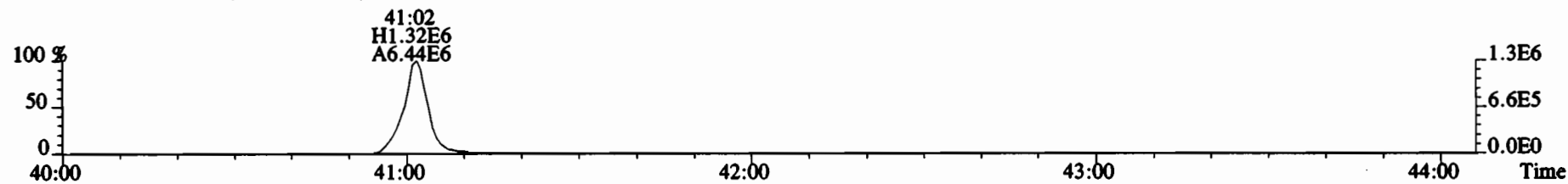
File:200107D2 #1-432 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



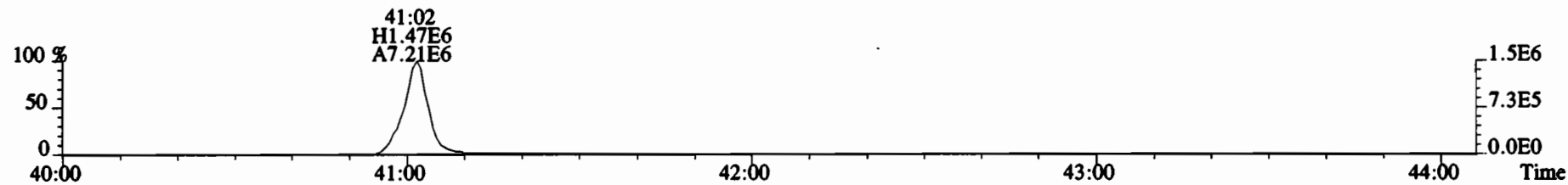
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



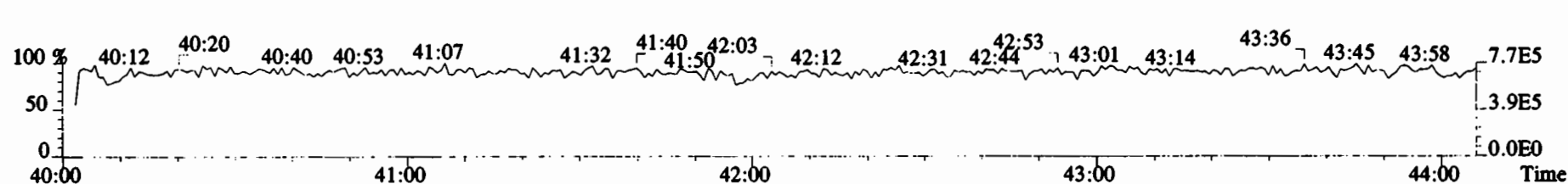
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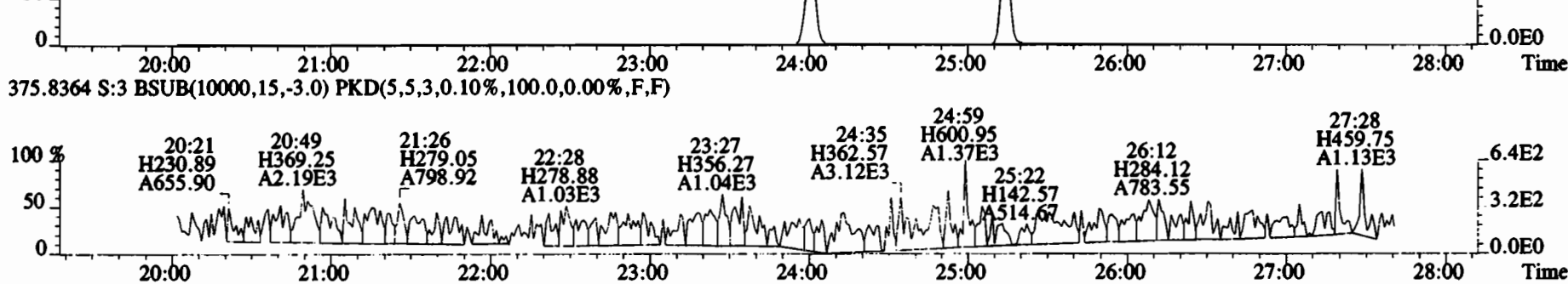
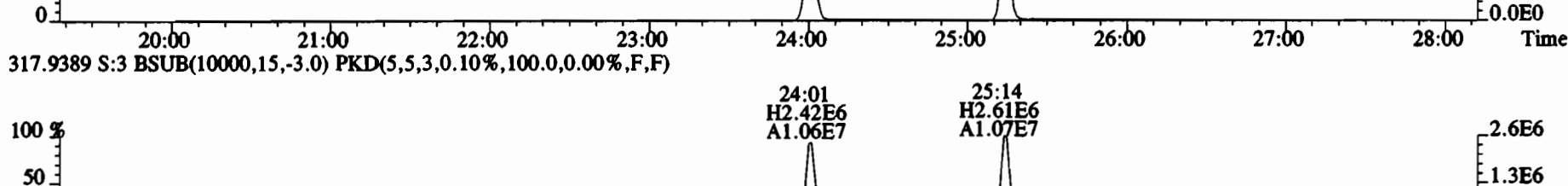
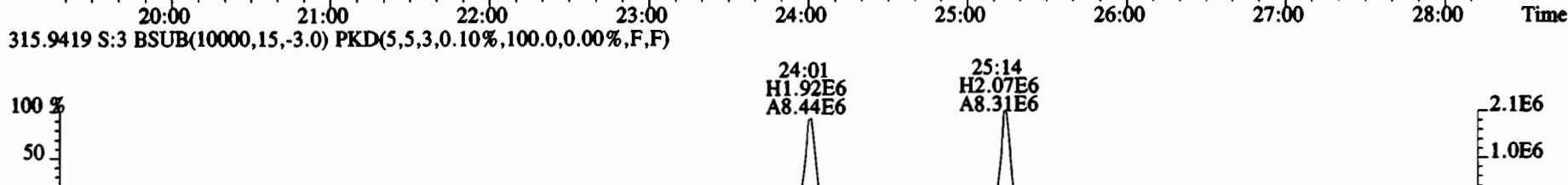
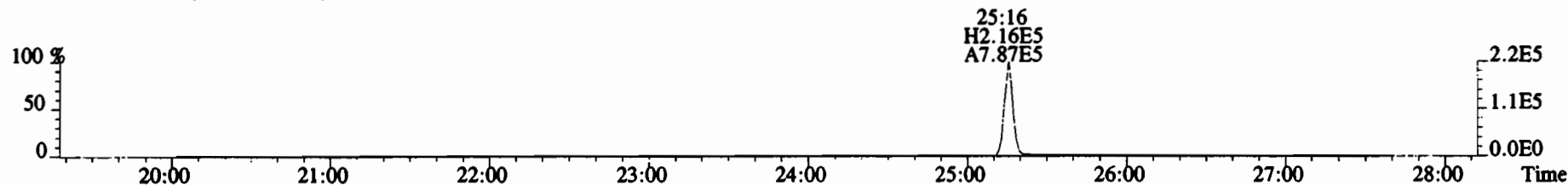
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



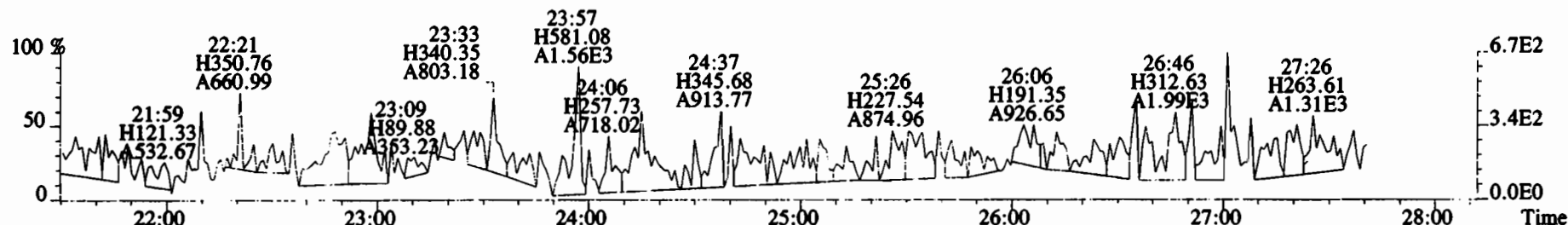
454.9728 S:3 F:5



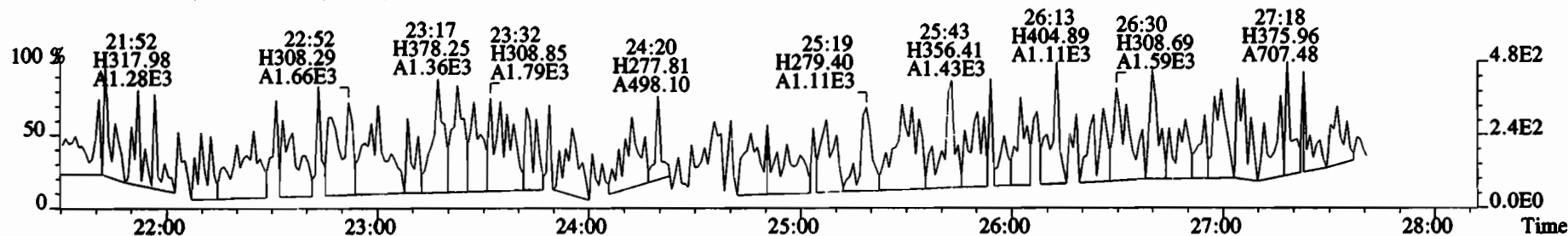
File:200107D2 #1-492 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
 303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



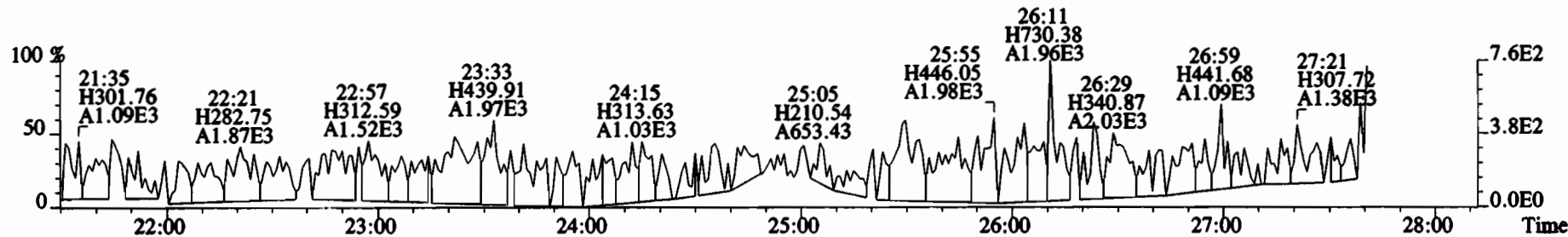
File:200107D2 #1-492 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
 339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



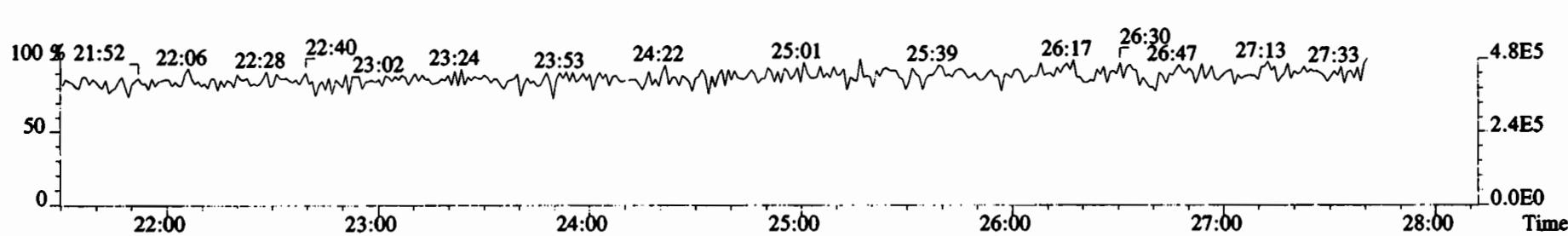
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



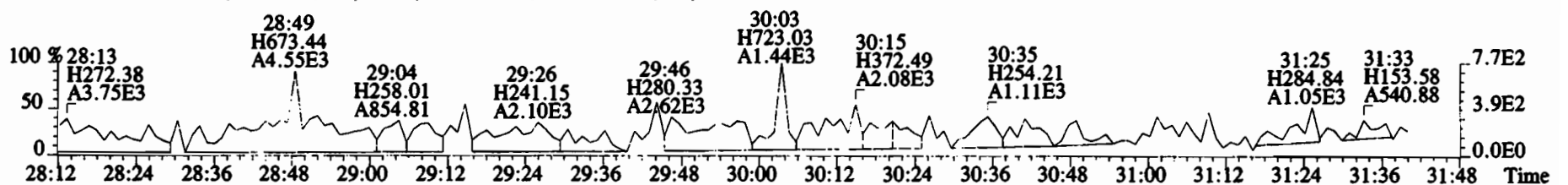
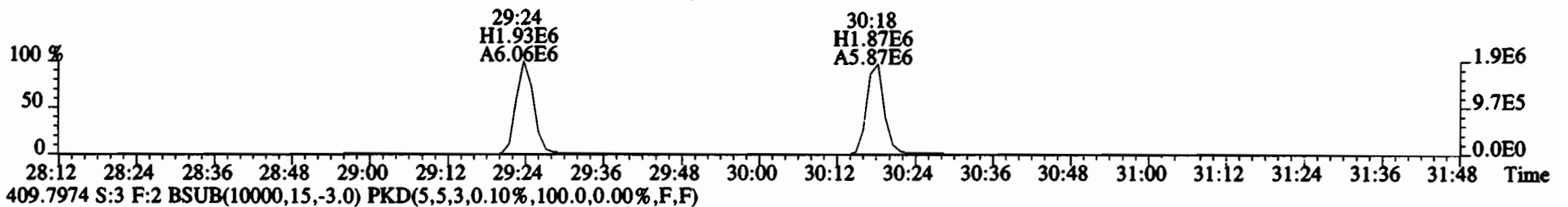
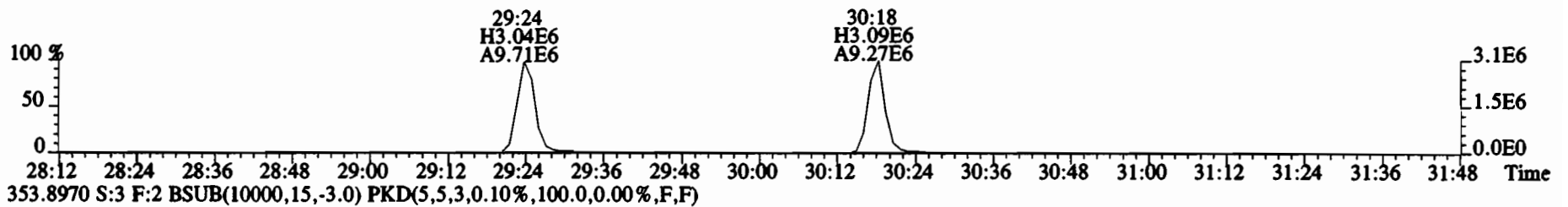
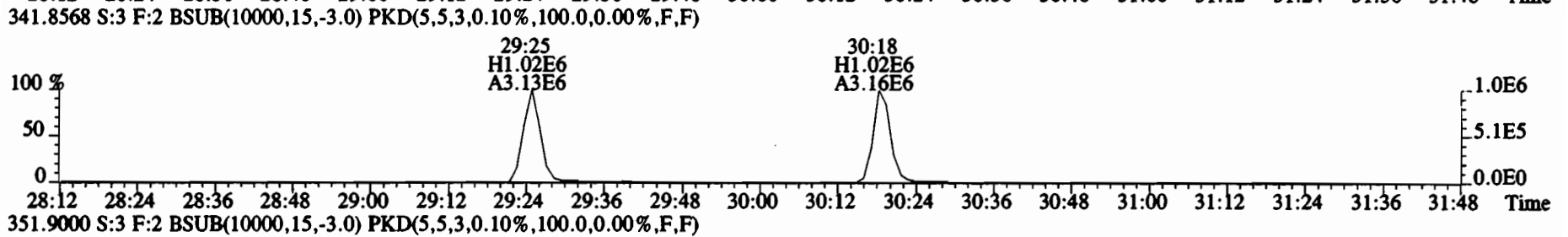
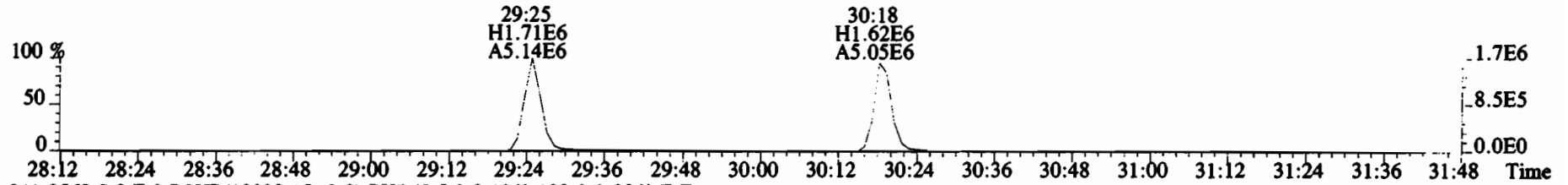
409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



316.9824 S:3

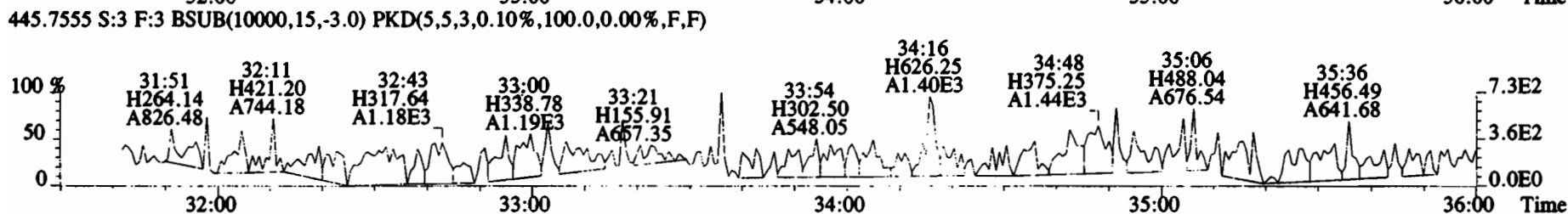
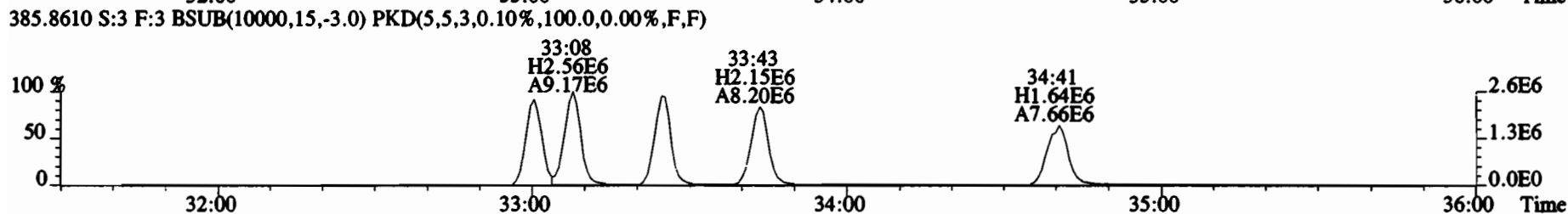
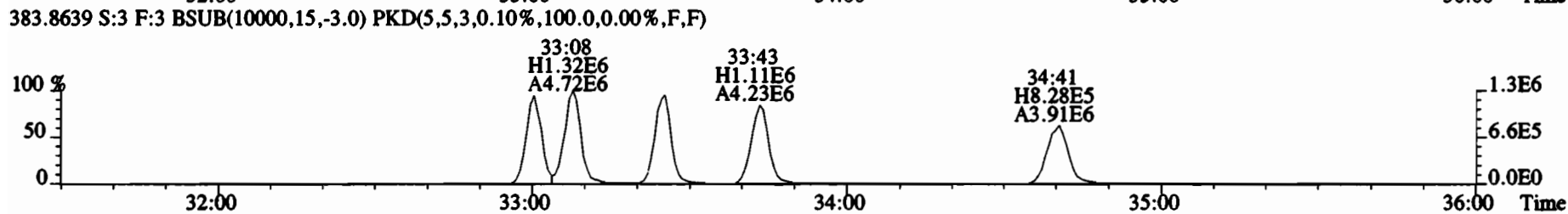
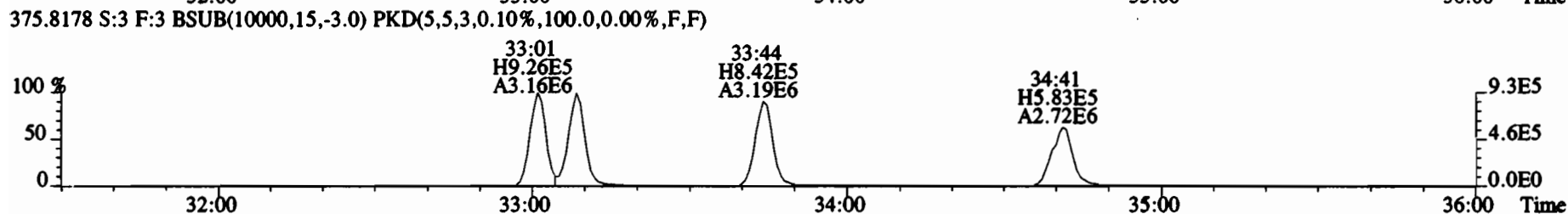
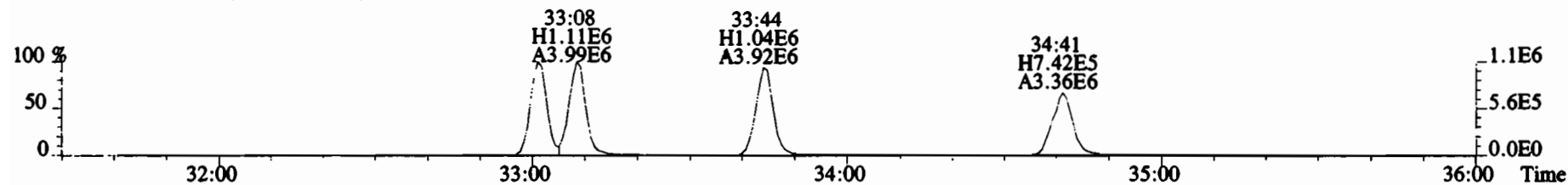


File:200107D2 #1-210 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
 339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

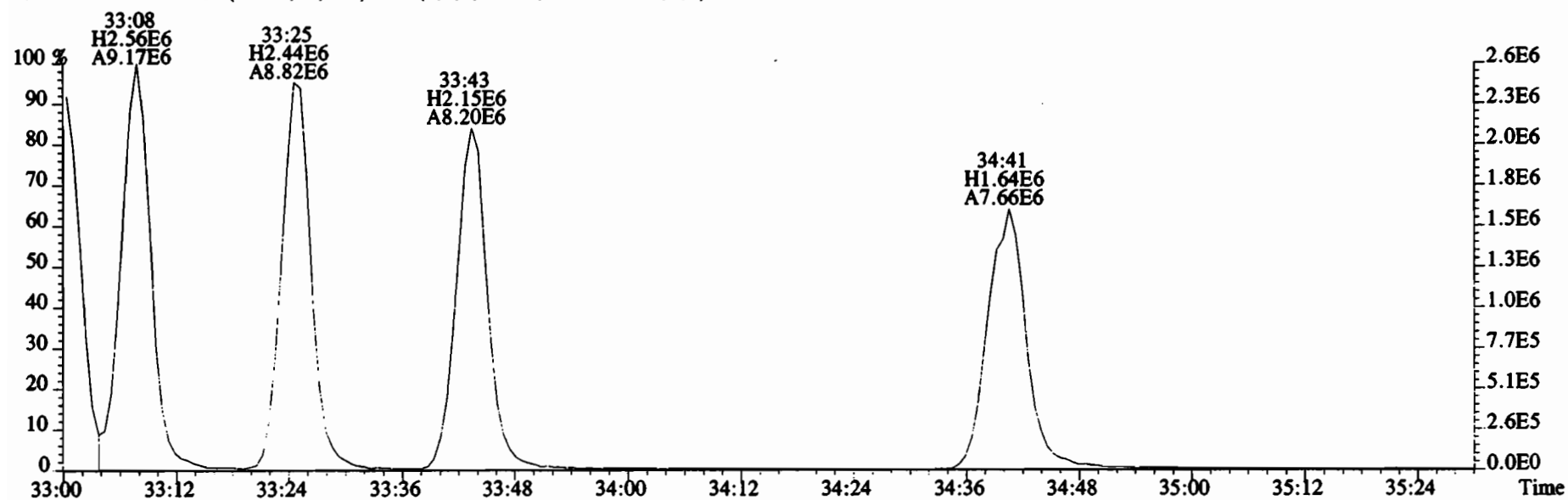
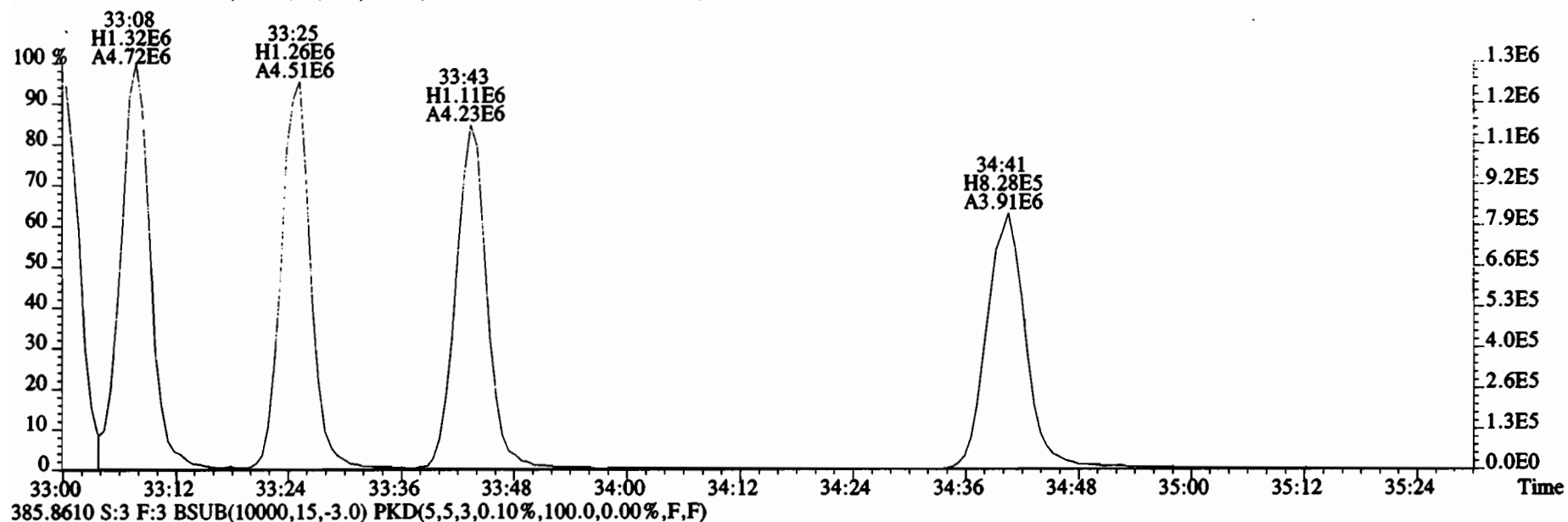




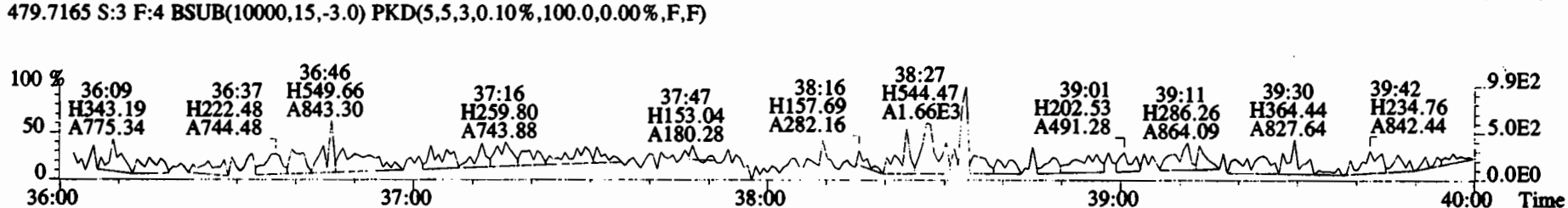
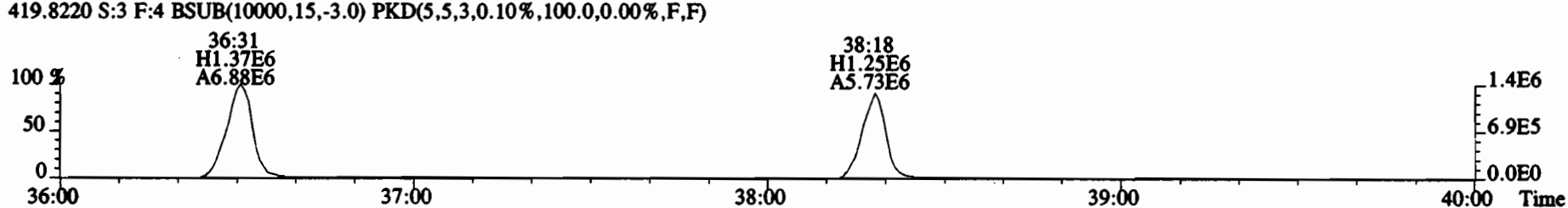
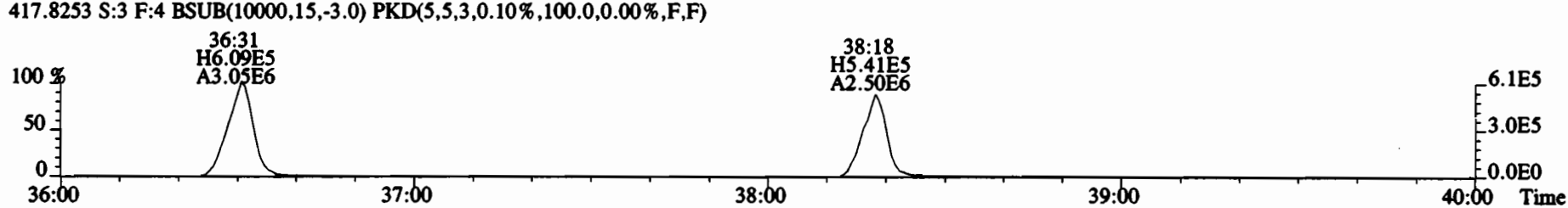
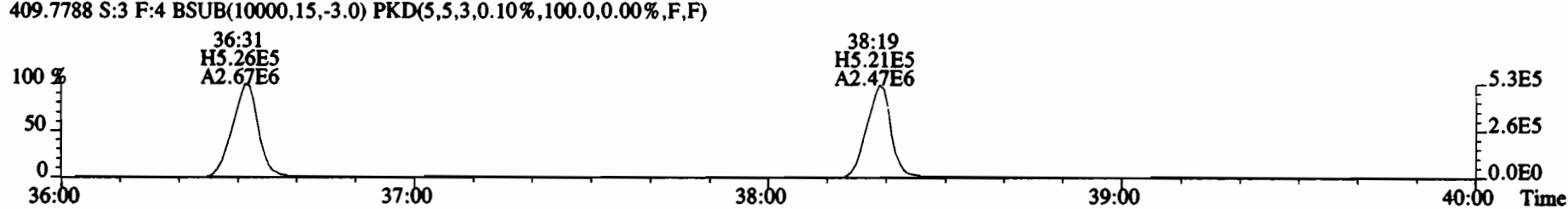
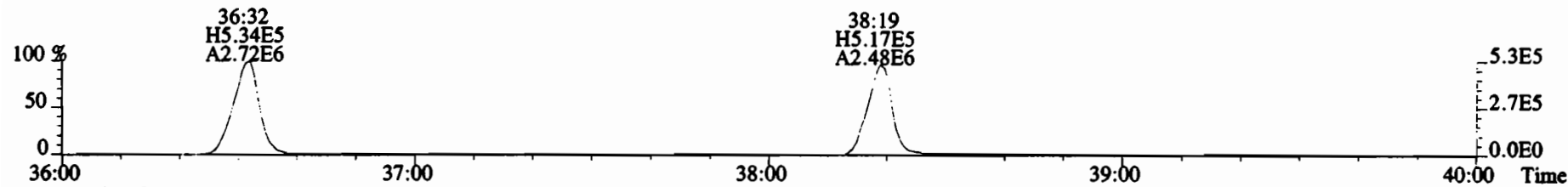
File:200107D2 #1-386 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
 373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



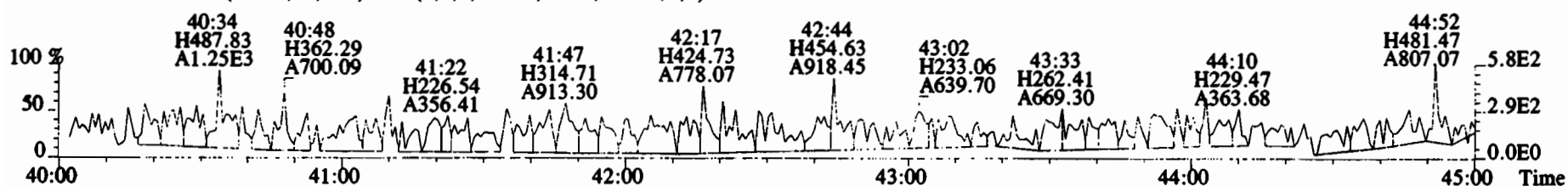
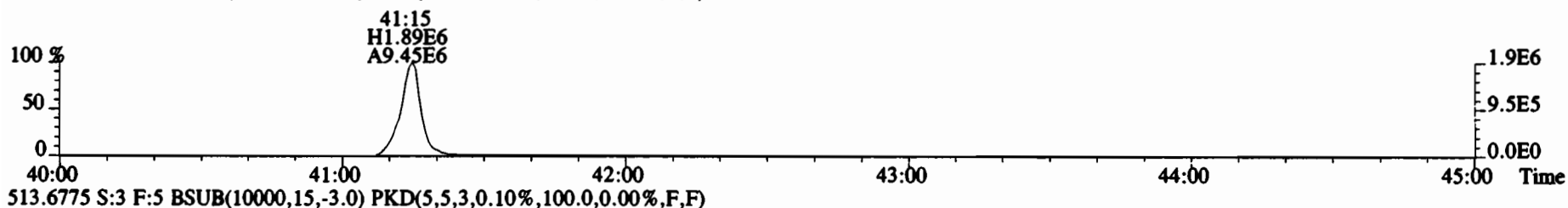
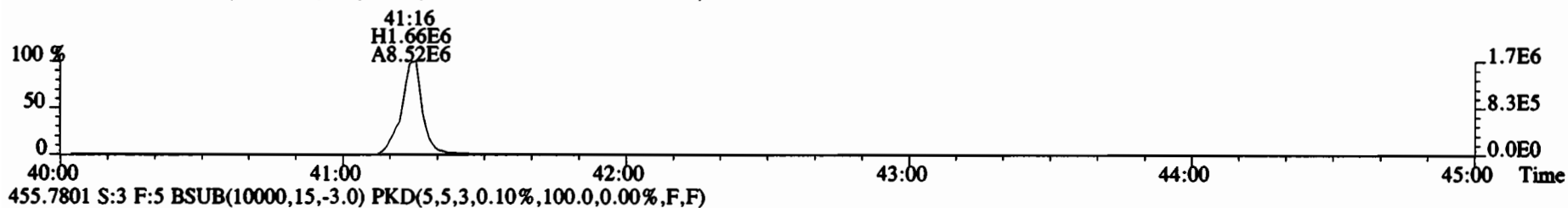
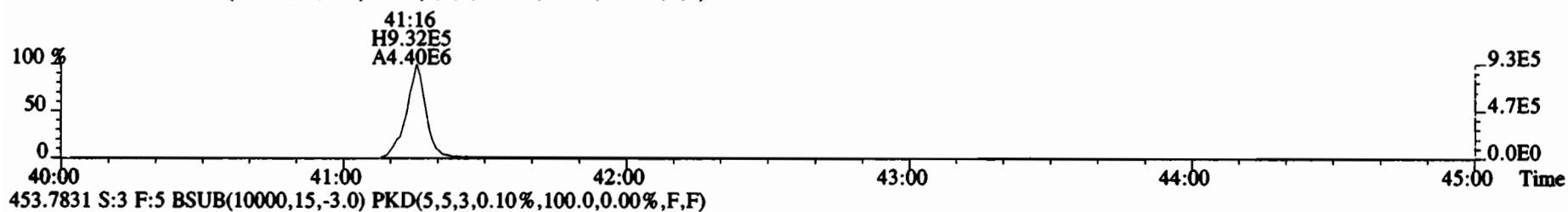
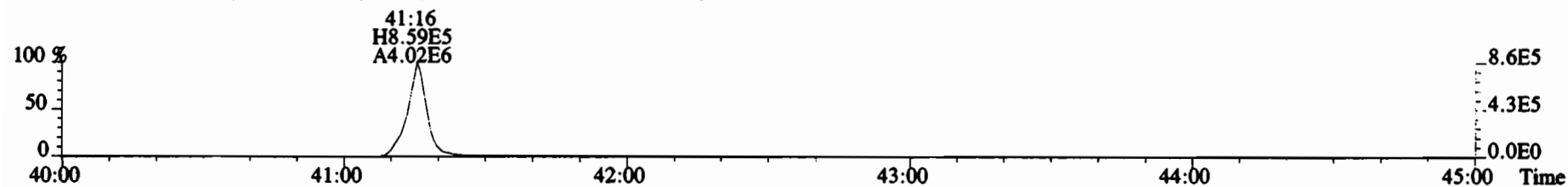
File:200107D2 #1-386 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-355 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
 407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-432 Acq: 8-JAN-2020 00:07:13 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text: Vista\_Analytical\_Laboratory\_VG7 Text:B9L0251-BS1 OPR 10 Exp:OCDD\_DB5  
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-7.qld

Last Altered: Tuesday, December 17, 2019 08:50:55 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 08:51:16 Pacific Standard Time

*Hr 12.17.19*

*CT 01/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	3.79e2	0.21	YES	0.925	10.012	26.184	26.20	1.001	1.002	0.11620		0.0560	0.0460
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.012	31.271		1.001				0.0553	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.012	34.592		1.000				0.0735	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.012	34.680		1.000				0.0750	
5	5 1,2,3,7,8,9-HxCDD	1.88e2	1.53	YES	0.978	10.012	34.989	34.98	1.001	1.001	0.092929		0.0821	0.0830
6	6 1,2,3,4,6,7,8-HpCDD	7.47e2	1.09	NO	1.04	10.012	38.444	38.47	1.000	1.001	0.49464		0.192	0.495
7	7 OCDD	5.90e3	0.92	NO	0.972	10.012	41.626	41.65	1.000	1.001	5.0510		0.191	5.05
8	8 2,3,7,8-TCDF			NO	0.938	10.012	25.215		1.001				0.0338	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.012	29.982		1.001				0.0286	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.012	30.978		1.001				0.0267	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.012	33.725		1.000				0.0258	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.012	33.856		1.000				0.0264	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.012	34.440		1.001				0.0263	
14	14 1,2,3,7,8,9-HxCDF			NO	1.07	10.012	35.283		1.000				0.0385	
15	15 1,2,3,4,6,7,8-HpCDF	5.15e1	1.31	YES	1.13	10.012	37.065	37.03	1.001	1.000	0.021892		0.0241	0.0194
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.012	39.036		1.000				0.0398	
17	17 OCDF			NO	1.10	10.012	41.824		1.000				0.0608	
18	18 13C-2,3,7,8-TCDD	7.04e5	0.78	NO	1.05	10.012	26.162	26.15	1.027	1.027	188.38	94.3	0.207	
19	19 13C-1,2,3,7,8-PeCDD	4.57e5	0.63	NO	0.743	10.012	31.176	31.25	1.224	1.227	172.61	86.4	0.378	
20	20 13C-1,2,3,4,7,8-HxCDD	3.67e5	1.28	NO	0.646	10.012	34.580	34.58	1.014	1.014	158.22	79.2	0.435	
21	21 13C-1,2,3,6,7,8-HxCDD	4.58e5	1.25	NO	0.777	10.012	34.679	34.68	1.017	1.017	164.28	82.2	0.362	
22	22 13C-1,2,3,7,8,9-HxCDD	4.08e5	1.25	NO	0.659	10.012	34.952	34.95	1.025	1.025	172.29	86.2	0.427	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.91e5	1.13	NO	0.534	10.012	38.445	38.43	1.127	1.127	151.61	75.9	0.643	
24	24 13C-OCDD	4.80e5	0.90	NO	0.470	10.012	41.620	41.63	1.220	1.220	284.30	71.2	0.732	
25	25 13C-2,3,7,8-TCDF	1.02e6	0.73	NO	0.977	10.012	25.235	25.19	0.991	0.989	194.32	97.3	0.295	
26	26 13C-1,2,3,7,8-PeCDF	6.87e5	1.57	NO	0.778	10.012	29.888	29.96	1.174	1.177	163.94	82.1	0.713	
27	27 13C-2,3,4,7,8-PeCDF	6.79e5	1.56	NO	0.750	10.012	30.896	30.95	1.213	1.215	167.95	84.1	0.740	
28	28 13C-1,2,3,4,7,8-HxCDF	5.25e5	0.53	NO	0.845	10.012	33.720	33.73	0.989	0.989	173.09	86.6	0.595	
29	29 13C-1,2,3,6,7,8-HxCDF	6.18e5	0.54	NO	1.03	10.012	33.836	33.85	0.992	0.992	167.70	83.9	0.490	
30	30 13C-2,3,4,6,7,8-HxCDF	5.64e5	0.54	NO	0.893	10.012	34.409	34.41	1.009	1.009	175.90	88.1	0.563	
31	31 13C-1,2,3,7,8,9-HxCDF	4.71e5	0.52	NO	0.734	10.012	35.310	35.28	1.035	1.034	178.77	89.5	0.685	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-7.qld

Last Altered: Tuesday, December 17, 2019 08:50:55 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:51:16 Pacific Standard Time

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	4.16e5	0.46	NO	0.754	10.012	37.022	37.03	1.085	1.086	153.62	76.9	0.518	
33	13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.46	NO	0.539	10.012	39.045	39.04	1.145	1.144	156.99	78.6	0.725	
34	13C-OCDF	7.07e5	0.92	NO	0.593	10.012	41.832	41.82	1.226	1.226	332.01	83.1	0.542	
35	37Cl-2,3,7,8-TCDD	2.87e5			1.07	10.012	26.183	26.18	1.028	1.028	75.315	94.3	0.0580	
36	13C-1,2,3,4-TCDD	7.12e5	0.80	NO	1.00	10.012	25.500	25.46	1.000	1.000	199.77	100	0.217	
37	13C-1,2,3,4-TCDF	1.08e6	0.75	NO	1.00	10.012	23.680	23.61	1.000	1.000	199.77	100	0.288	
38	13C-1,2,3,4,6,9-HxCDF	7.17e5	0.52	NO	1.00	10.012	34.060	34.11	1.000	1.000	199.77	100	0.503	
39	Total Tetra-Dioxins				0.925	10.012	24.620		0.000		0.00000		0.0261	0.297
40	Total Penta-Dioxins				0.905	10.012	29.960		0.000		0.00000		0.0253	0.138
41	Total Hexa-Dioxins				0.967	10.012	33.635		0.000		0.50954		0.0795	0.862
42	Total Hepta-Dioxins				1.04	10.012	38.800		0.000		0.49464		0.192	1.70
43	Total Tetra-Furans				0.938	10.012	23.610		0.000				0.0175	
44	1st Func. Penta-Furans				0.976	10.012	27.040		0.000				0.0105	
45	Total Penta-Furans				0.976	10.012	29.275		0.000				0.0134	
46	Total Hexa-Furans				1.18	10.012	33.555		0.000		0.00000		0.0169	0.0130
47	Total Hepta-Furans				1.13	10.012	37.835		0.000		0.00000		0.0262	0.0194

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-7.qld

Last Altered: Tuesday, December 17, 2019 08:50:55 Pacific Standard Time  
 Printed: Tuesday, December 17, 2019 08:51:16 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
 Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.84	5.174e3	7.176e3	4.254e2	4.614e2	0.92	YES	0.000e0	0.00000	0.25051	0.0560
2	2,3,7,8-TCDD	26.20	1.153e3	4.108e3	6.526e1	3.135e2	0.21	YES	3.788e2	0.00000	0.046022	0.0560

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.52	1.580e3	1.938e3	9.912e1	1.061e2	0.93	YES	0.000e0	0.00000	0.083589	0.0253
2	Total Penta-Dioxins	29.94	4.684e3	1.019e3	1.393e2	6.850e1	2.03	YES	0.000e0	0.00000	0.053961	0.0253

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.13	1.079e4	9.866e3	5.848e2	4.299e2	1.36	NO	1.015e3	0.50954	0.50954	0.0795
2	Total Hexa-Dioxins	33.91	1.059e4	4.142e3	4.050e2	2.397e2	1.69	YES	0.000e0	0.00000	0.26968	0.0795
3	1,2,3,7,8,9-HxCDD	34.98	2.405e3	2.645e3	1.136e2	7.403e1	1.53	YES	1.876e2	0.00000	0.083028	0.0821

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.42	1.281e4	1.715e4	8.516e2	1.011e3	0.84	YES	0.000e0	0.00000	1.1059	0.192
2	Total Hepta-Dioxins	38.39	5.127e3	2.264e3	9.825e1	6.996e1	1.40	YES	0.000e0	0.00000	0.094481	0.192
3	1,2,3,4,6,7,8-HpCDD	38.47	7.309e3	1.024e4	3.900e2	3.571e2	1.09	NO	7.472e2	0.49464	0.49464	0.192

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-7.qld

Last Altered: Tuesday, December 17, 2019 08:50:55 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:51:16 Pacific Standard Time

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.76	1.453e3	1.408e3	2.323e1	2.500e1	0.93	YES	0.000e0	0.00000	0.013037	0.0169

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	37.03	1.028e3	9.740e2	2.920e1	2.233e1	1.31	YES	5.152e1	0.00000	0.019354	0.0241

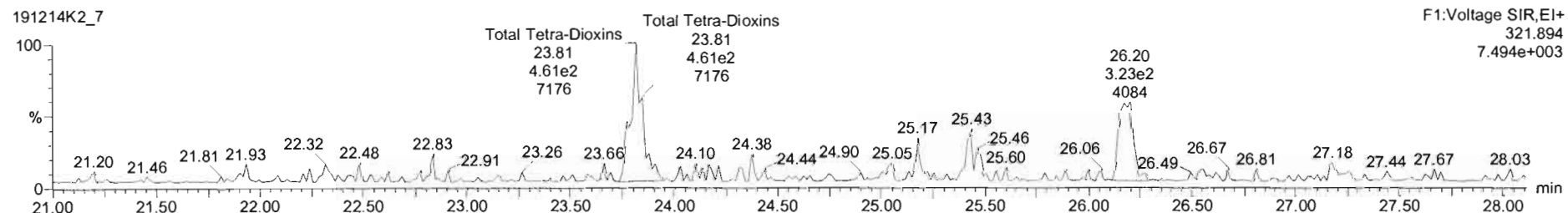
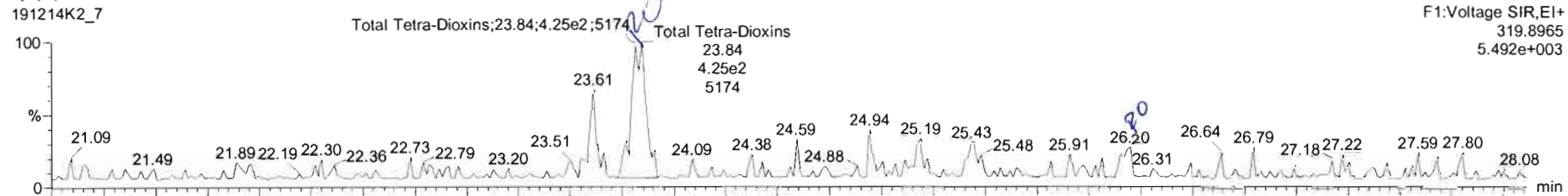


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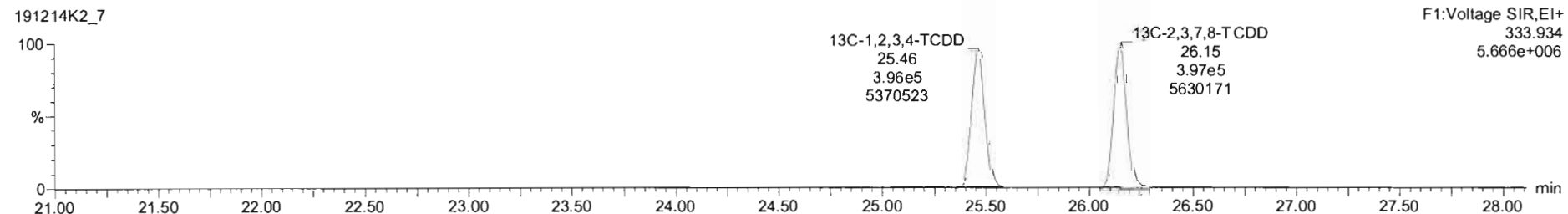
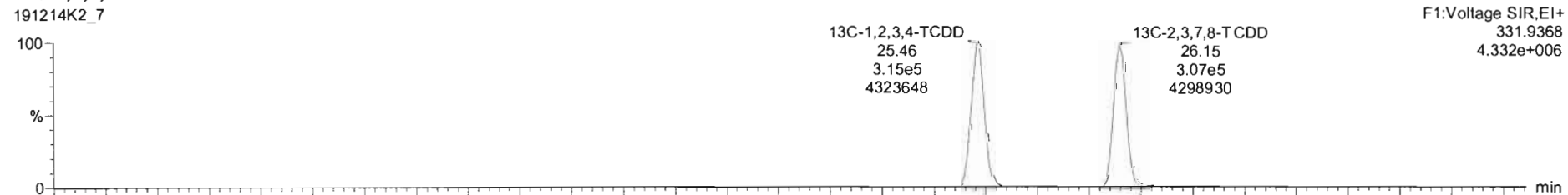
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Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

**2,3,7,8-TCDD**



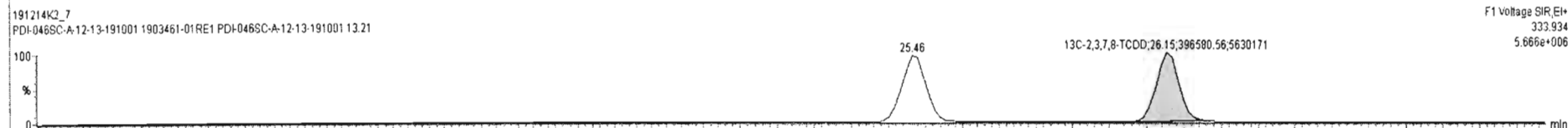
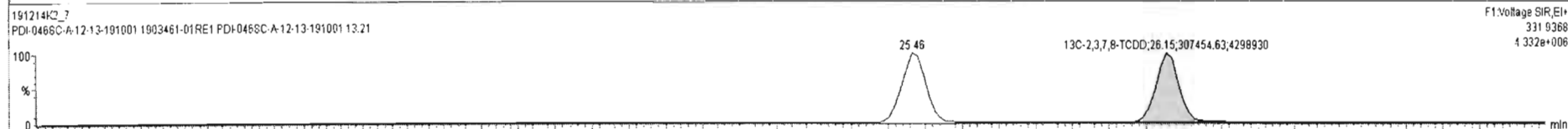
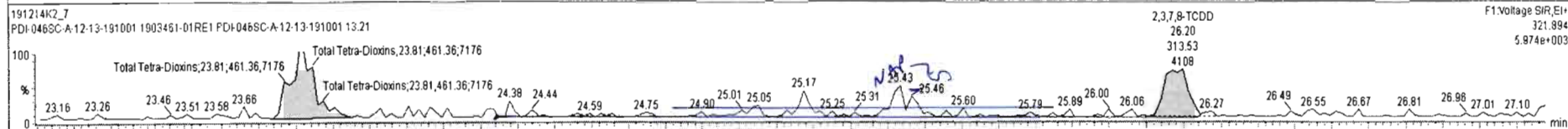
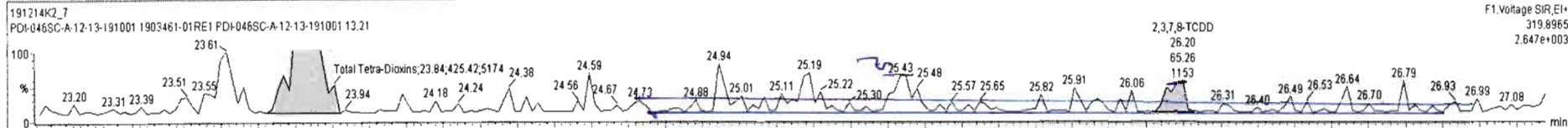
**13C-2,3,7,8-TCDD**



191214K2\_7 - 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21 - PDI-046SC-A-12-13-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
22	13C-1,2,3,7,8-HxCDD	4.08e5	1.25	NO	0.6595	10.012	34.95	1.025	172	86.2	0.427
23	13C-1,2,3,4,6,7,8-HpCDD	2.91e5	1.13	NO	0.5342	10.012	38.43	1.127	152	75.9	0.643
24	13C-OCDD	4.80e5	0.90	NO	0.4704	10.012	41.63	1.220	284	71.2	0.732
25	13C-2,3,7,8-TCDF	1.02e5	0.73	NO	0.9775	10.012	25.19	0.989	194	97.3	0.295
26	13C-1,2,3,7,8-PeCDF	6.87e5	1.57	NO	0.7778	10.012	29.96	1.177	164	82.1	0.713
27	13C-2,3,4,7,8-PeCDF	6.79e5	1.56	NO	0.7498	10.012	30.95	1.215	168	84.1	0.740
28	13C-1,2,3,4,7,8-HxCDF	5.25e5	0.53	NO	0.8452	10.012	33.73	0.989	173	86.6	0.595
29	13C-1,2,3,6,7,8-HxCDF	6.18e5	0.54	NO	1.0267	10.012	33.85	0.992	168	83.9	0.490
30	13C-2,3,4,6,7,8-HxCDF	5.64e5	0.54	NO	0.8929	10.012	34.41	1.009	176	88.1	0.563
31	13C-1,2,3,7,8,9-HxCDF	4.71e5	0.52	NO	0.7343	10.012	35.28	1.034	179	89.5	0.685
32	13C-1,2,3,4,6,7,8-HpCDF	4.18e5	0.46	NO	0.7542	10.012	37.03	1.086	154	76.9	0.518

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Tetra-Dioxins	23.84	4.254e2	4.614e2	0.92	YES	0.25051	0.00000
2	2,3,7,8-TCDD	26.20	6.526e1	3.135e2	0.21	YES	0.046022	0.00000



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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

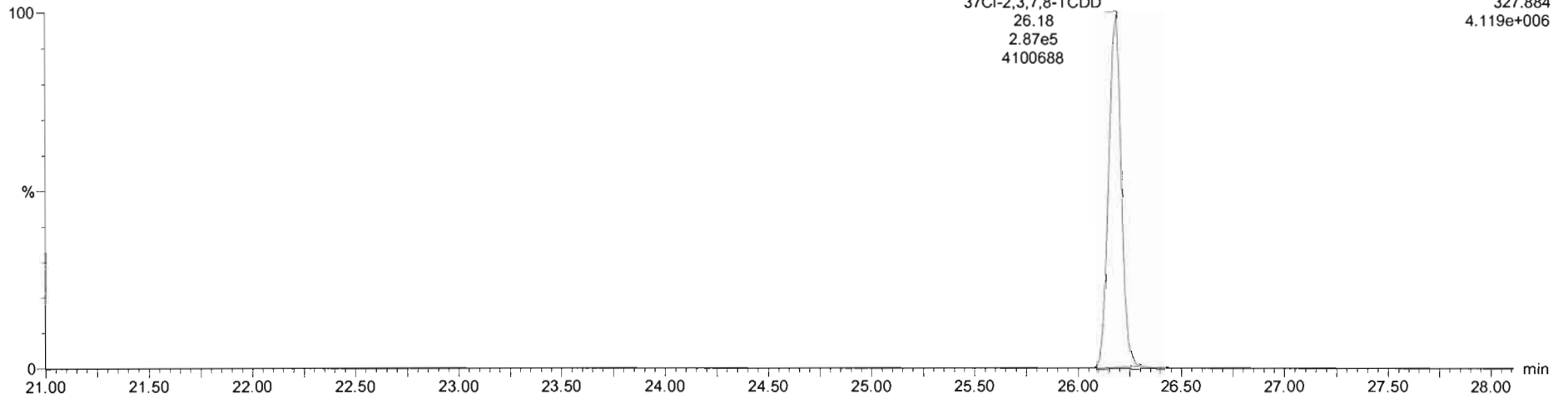
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**37Cl-2,3,7,8-TCDD**

191214K2\_7

37Cl-2,3,7,8-TCDD  
26.18  
2.87e5  
4100688

F1:Voltage SIR,EI+  
327.884  
4.119e+006



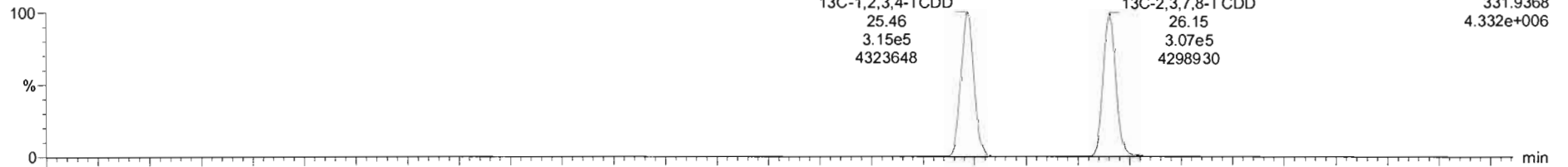
**13C-1,2,3,4-TCDD**

191214K2\_7

13C-1,2,3,4-TCDD  
25.46  
3.15e5  
4323648

13C-2,3,7,8-TCDD  
26.15  
3.07e5  
4298930

F1:Voltage SIR,EI+  
331.9368  
4.332e+006

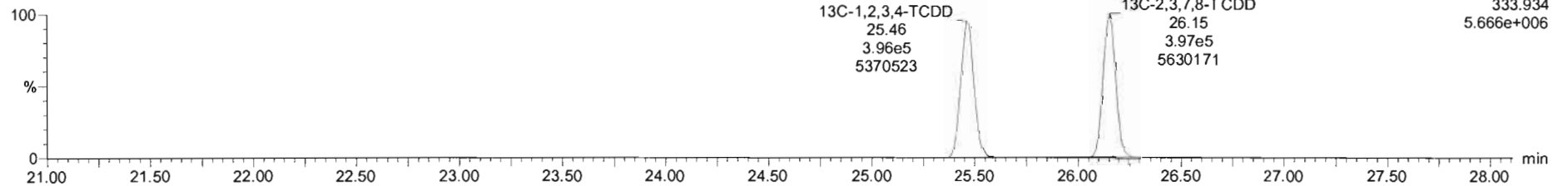


191214K2\_7

13C-1,2,3,4-TCDD  
25.46  
3.96e5  
5370523

13C-2,3,7,8-TCDD  
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5630171

F1:Voltage SIR,EI+  
333.934  
5.666e+006



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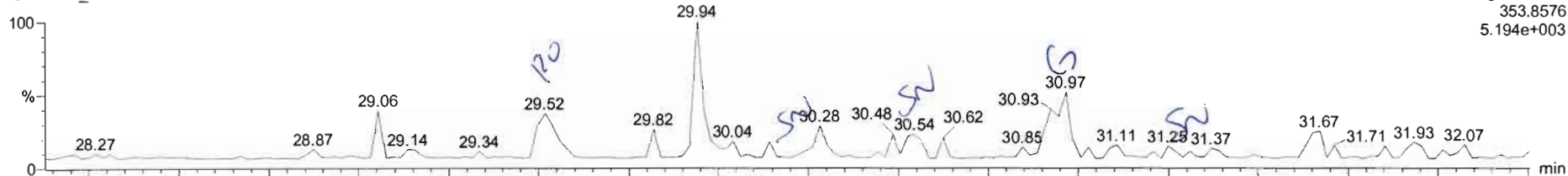
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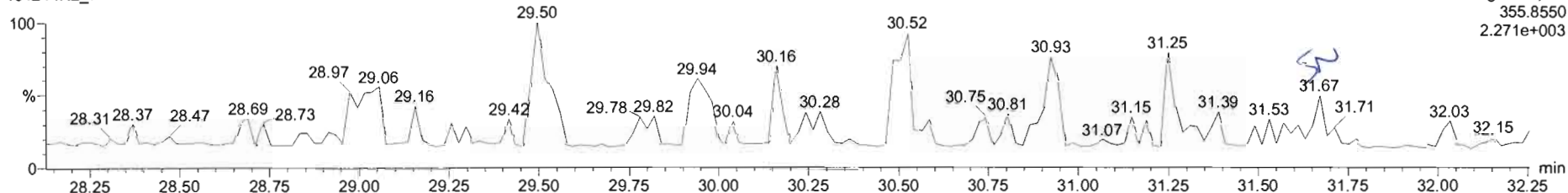
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**1,2,3,7,8-PeCDD**

191214K2\_7

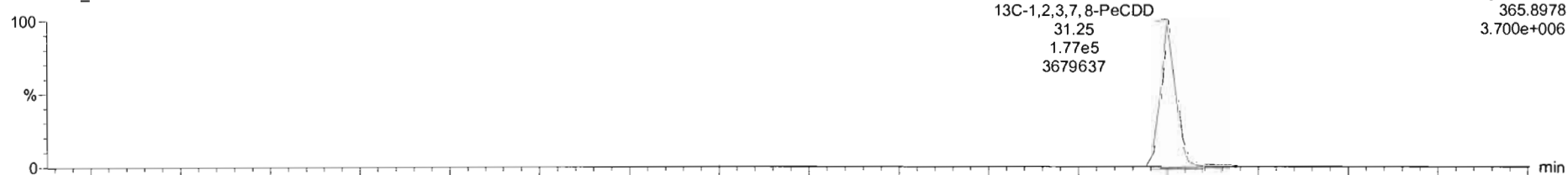


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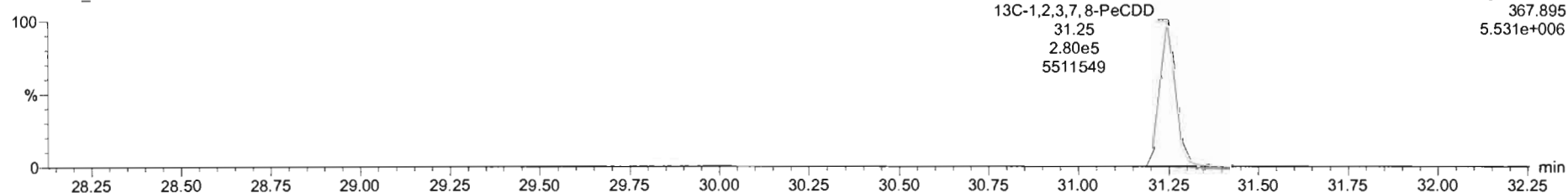


**13C-1,2,3,7,8-PeCDD**

191214K2\_7

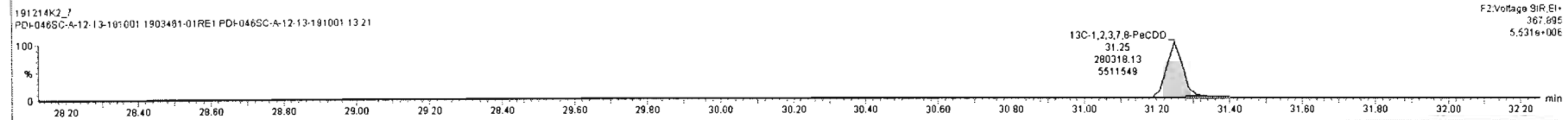
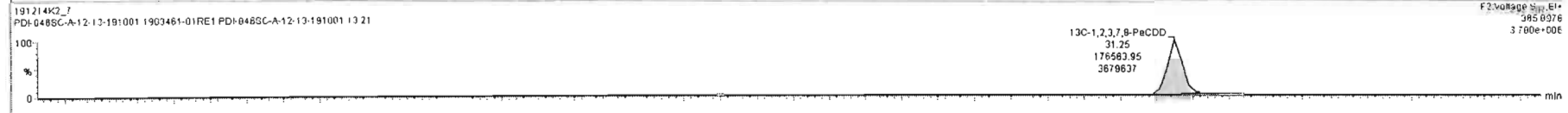
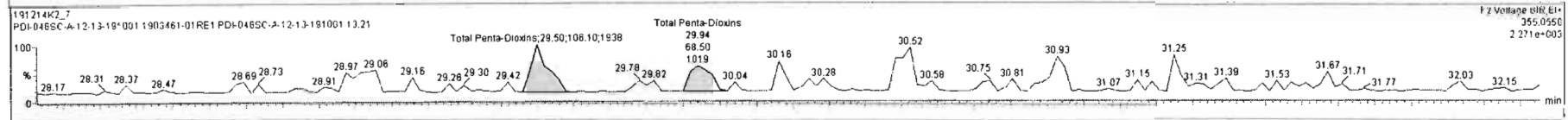
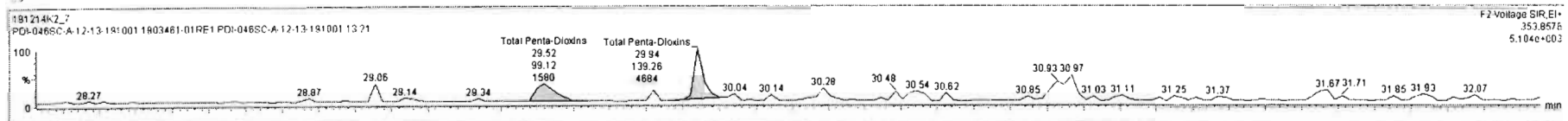


191214K2\_7



Name	Resp	RA	n/y	RRF	wt/vst	RT	RRT	Conc.	%Rec	DL	EMPC
25	13C-2,3,7,8-TCDF	1.02e6	0.73	NO	0.9775	10.012	25.19	0.989	194	97.3	0.295
26	13C-1,2,3,7,8-PeCDF	6.87e5	1.57	NO	0.7778	10.012	29.96	1.177	164	82.1	0.713
27	13C-2,3,4,7,8-PeCDF	6.79e5	1.56	NO	0.7489	10.012	30.95	1.215	168	84.1	0.740
28	13C-1,2,3,4,7,8-HxCDF	5.25e5	0.53	NO	0.8452	10.012	33.73	0.989	173	86.6	0.595
29	13C-1,2,3,6,7,8-HxCDF	6.18e5	0.54	NO	1.0267	10.012	33.85	0.992	168	83.9	0.490
30	13C-2,3,4,6,7,8-HxCDF	5.84e5	0.54	NO	0.8929	10.012	34.41	1.009	176	88.1	0.563
31	13C-1,2,3,7,8,9-HxCDF	4.71e5	0.52	NO	0.7343	10.012	35.28	1.034	179	86.5	0.685
32	13C-1,2,3,4,6,7,8-HpCDF	4.16e5	0.46	NO	0.7542	10.012	37.03	1.086	154	76.9	0.516
33	13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.46	NO	0.5390	10.012	38.04	1.144	157	78.6	0.725
34	13C-OCDF	7.07e5	0.92	NO	0.5925	10.012	41.82	1.226	332	83.1	0.542
35	17C-2,3,7,8-TCDD	2.87e5			1.0695	10.012	26.18	1.028	75.3	94.3	0.0580

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Penta-Dioxins	29.94	1.393e2	6.850e1	2.03	YES	0.053961	0.00000
2	Total Penta-Dioxins	29.52	9.912e1	1.061e2	0.93	YES	0.083589	0.00000



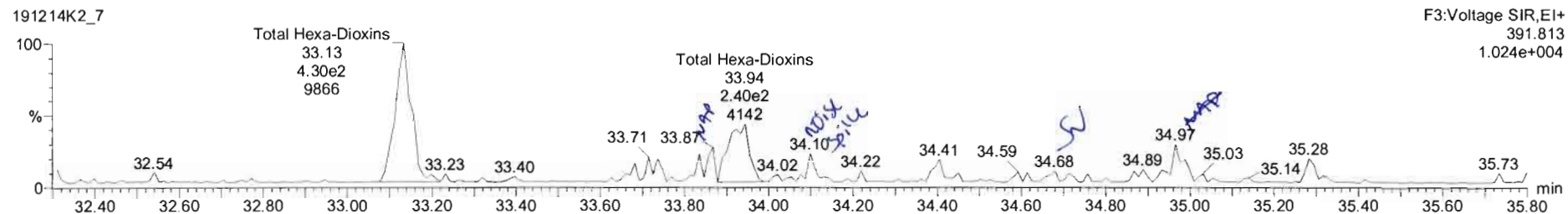
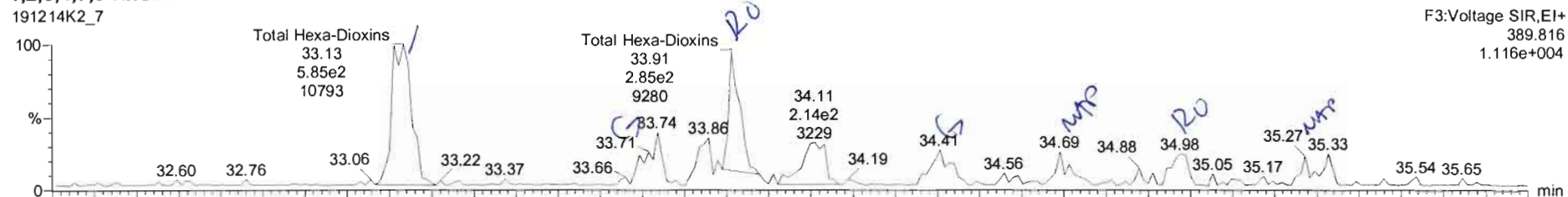
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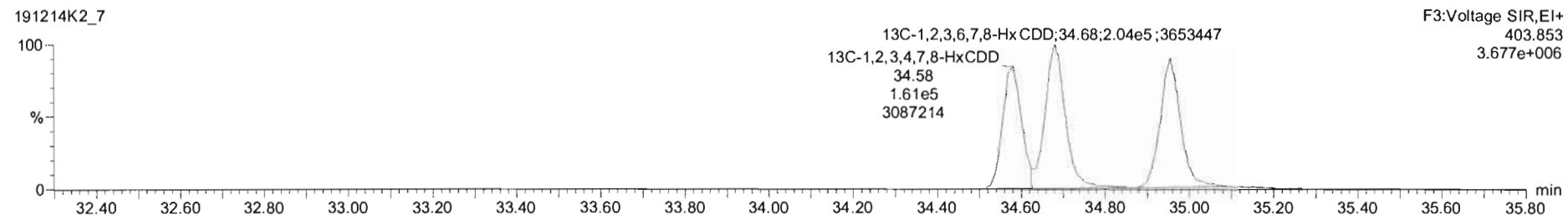
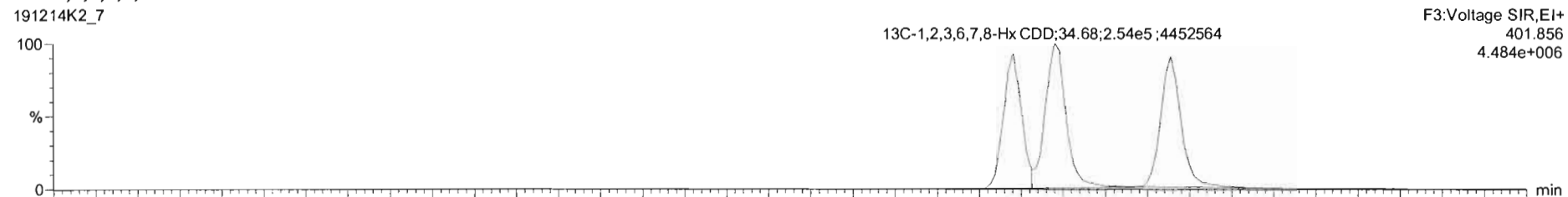
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Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

### 1,2,3,4,7,8-HxCDD

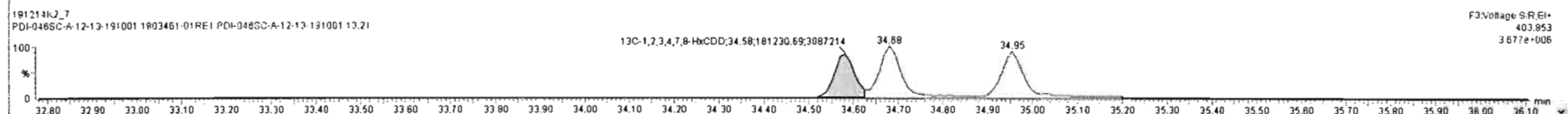
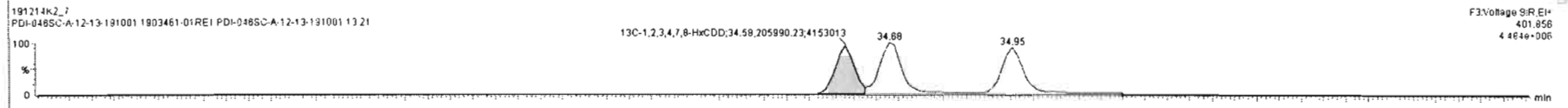
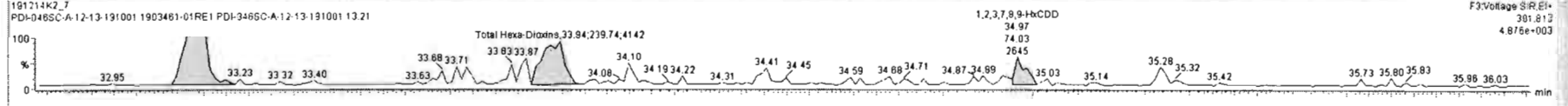
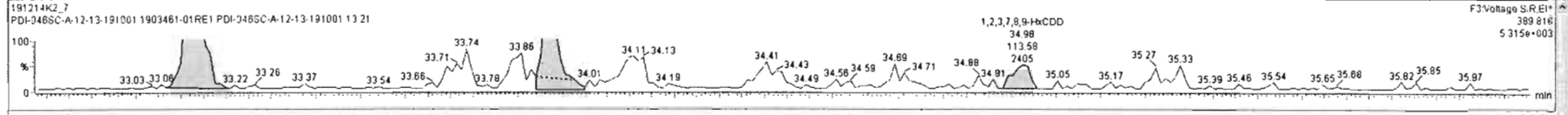


### 13C-1,2,3,4,7,8-HxCDD



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
27	13C-2,3,4,7,8-PeCDF	6.79e5	1.56	NO	0.7499	10.012	30.95	1.215	168	84.1	0.740
28	13C-1,2,3,4,7,8-HxCDF	5.25e5	0.53	NO	0.8452	10.012	33.73	0.969	173	86.6	0.595
29	13C-1,2,3,6,7,8-HxCDF	6.18e5	0.54	NO	1.0267	10.012	33.85	0.992	168	83.9	0.490
30	13C-2,3,4,6,7,8-HxCDF	5.64e5	0.54	NO	0.8929	10.012	34.41	1.009	176	88.1	0.563
31	13C-1,2,3,7,8,9-HxCDF	4.71e5	0.52	NO	0.7343	10.012	35.28	1.034	179	89.5	0.685
32	13C-1,2,3,4,6,7,8-HxCDF	4.16e5	0.46	NO	0.7542	10.012	37.03	1.086	154	76.9	0.518
33	13C-1,2,3,4,7,8,9-HxCDF	3.04e5	0.46	NO	0.5390	10.012	39.04	1.144	157	78.6	0.725
34	13C-OCDF	7.07e5	0.92	NO	0.5925	10.012	41.82	1.226	332	83.1	0.542
35	37Cl-2,3,7,8-TCDF	2.87e5			1.0695	10.012	26.18	1.028	75.3	94.3	0.0590
38	13C-1,2,3,4-TCDF	7.12e5	0.80	NO	1.0000	10.012	25.46	1.000	200	100	0.217
37	13C-1,2,3,4-TCDF	1.08e6	0.75	NO	1.0000	10.012	23.51	1.000	200	100	0.288

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc	
1	Total Hexa-Dioxins	33.13	5.848e2	4.299e2	1.36	NO	0.50954	0.50954
2	Total Hexa-Dioxins	33.91	4.050e2	2.387e2	1.89	YES	0.26968	0.00000
3	1,2,3,7,8,9-HxCDO	34.98	1.136e2	7.403e1	1.53	YES	0.083026	0.00000

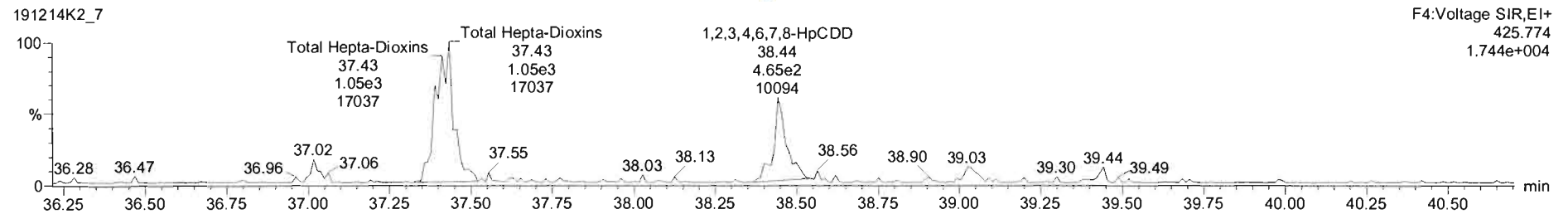
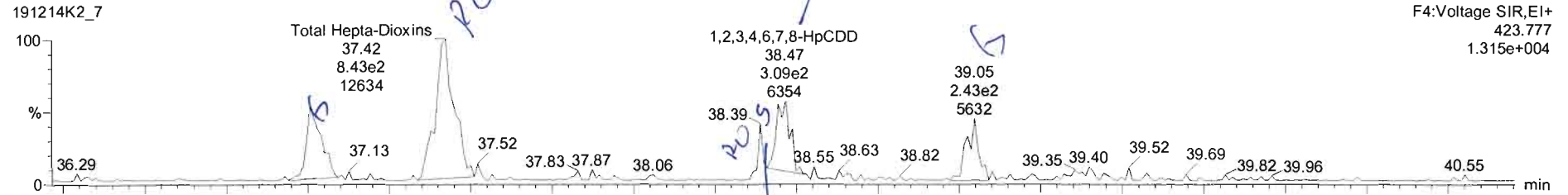


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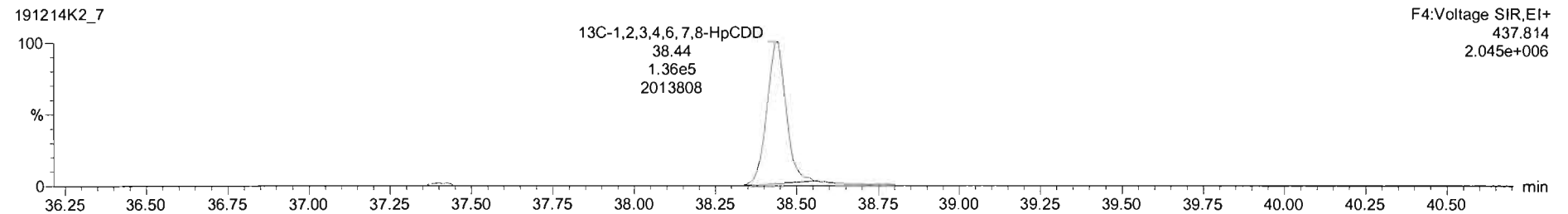
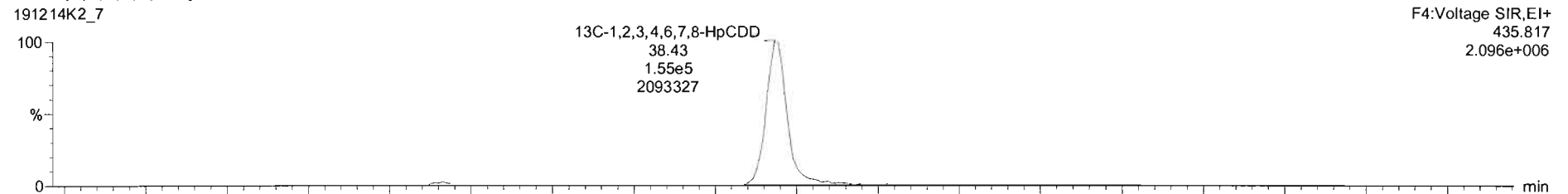
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**1,2,3,4,6,7,8-HpCDD**



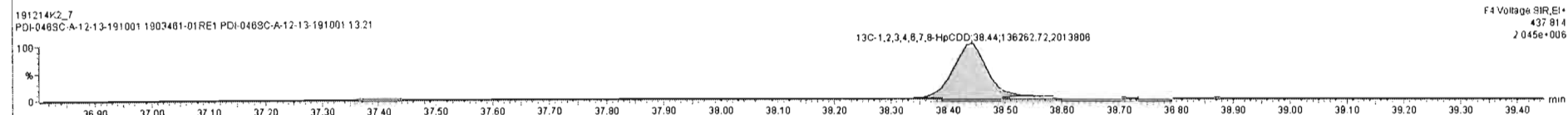
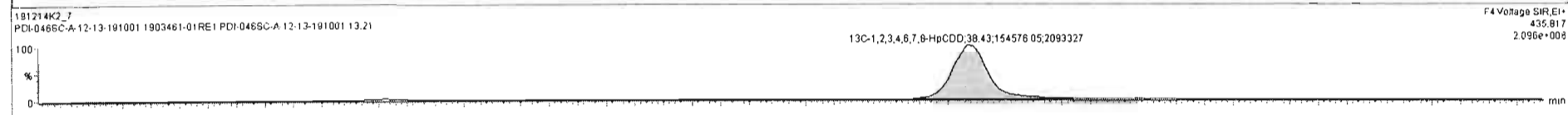
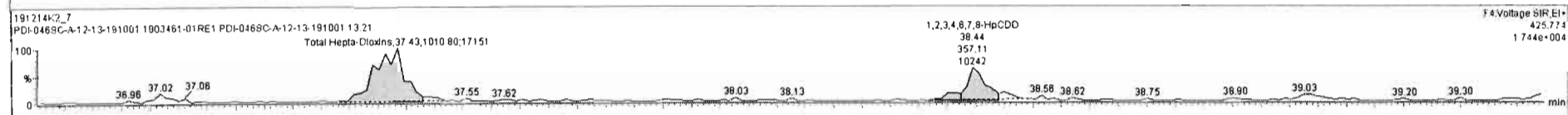
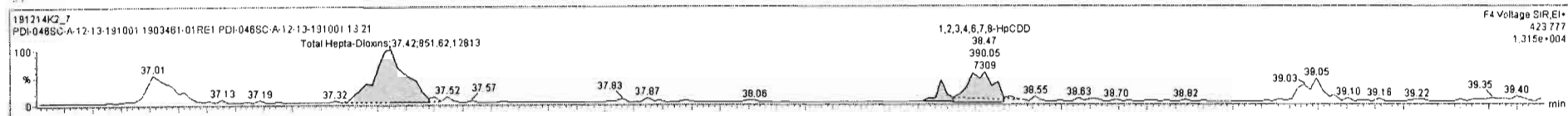
**13C-1,2,3,4,6,7,8-HpCDD**





#	Name	Resp	RA	iv/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
31	13C-1,2,3,7,8,9-HxCDF	4.71e5	0.52	NO	0.7343	10.012	35.28	1.034	179	89.5	0.685	
32	13C-1,2,3,4,6,7,8-HpCDF	4.16e5	0.46	NO	0.7542	10.012	37.03	1.086	154	76.9	0.518	
33	13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.46	NO	0.5390	10.012	39.04	1.144	157	79.6	0.725	
34	13C-OCDF	7.07e5	0.92	NO	0.5925	10.012	41.62	1.226	332	83.1	0.542	
35	37Cl-2,3,7,8-TCDD	2.87e5			1.0695	10.012	26.18	1.028	75.3	94.3	0.6580	
36	13C-1,2,3,4-TCDD	7.12e5	0.80	NO	1.0000	10.012	25.46	1.000	200	100	0.217	
37	13C-1,2,3,4-TCDF	1.08e6	0.75	NO	1.0000	10.012	23.61	1.000	200	100	0.288	
38	13C-1,2,3,4,6,8-HxCDF	7.17e5	0.52	NO	1.0000	10.012	34.11	1.000	200	100	0.503	
39	Total Tetra-Dioxins				0.9249	10.012			0.000		0.0261	0.297
40	Total Penta-Dioxins				0.9046	10.012			0.000		0.0253	0.138

#	Name	RT	m1 Resp	m2 Resp	RA	iv/y	EMPC	Conc.
1	Total Hepta-Dioxins	37.42	8.516e2	1.011e3	0.84	YES	1.1059	0.00000
2	Total Hepta-Dioxins	38.39	9.825e1	6.396e1	1.40	YES	0.094481	0.00000
3	1,2,3,4,6,7,8-HpCDD	38.47	3.900e2	3.571e2	1.09	NO	0.49464	0.49464

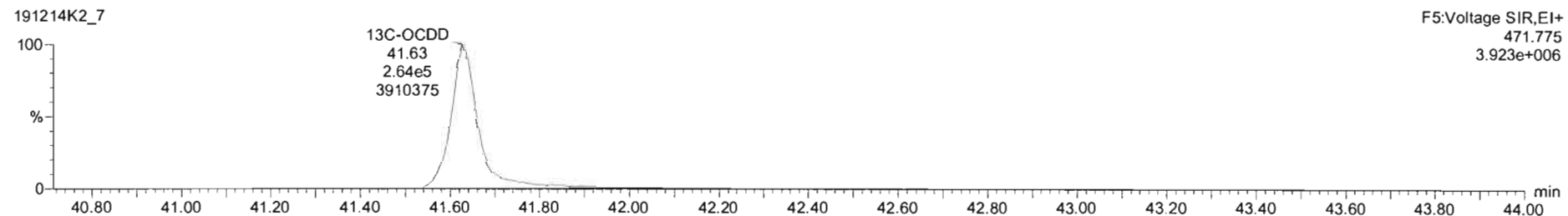
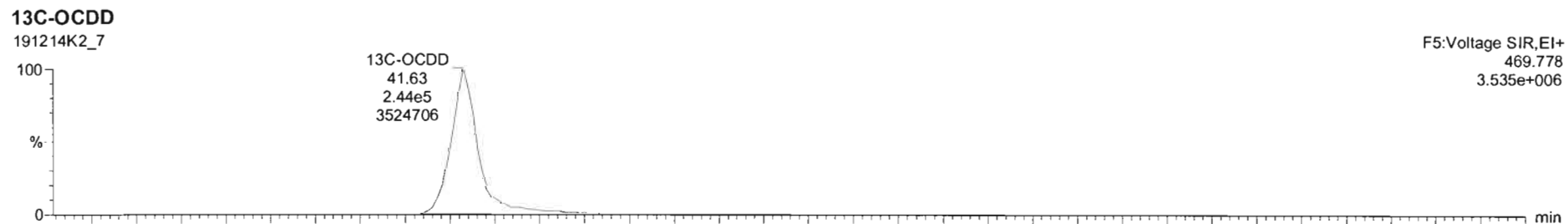
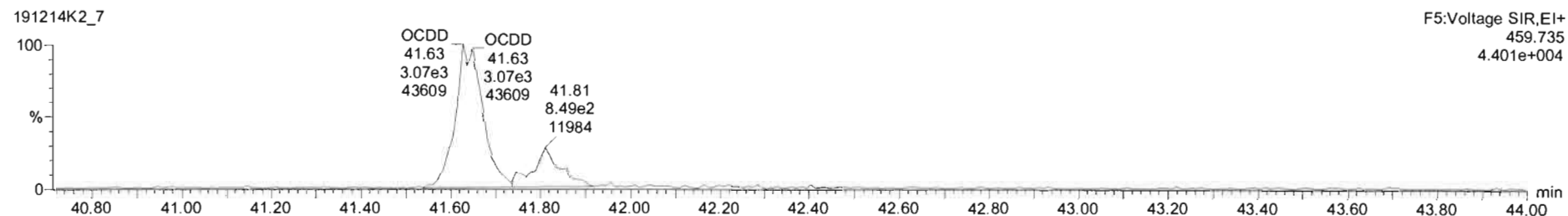
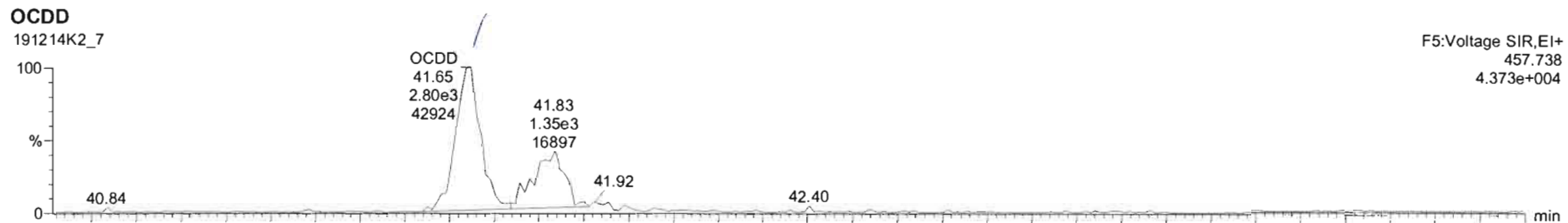


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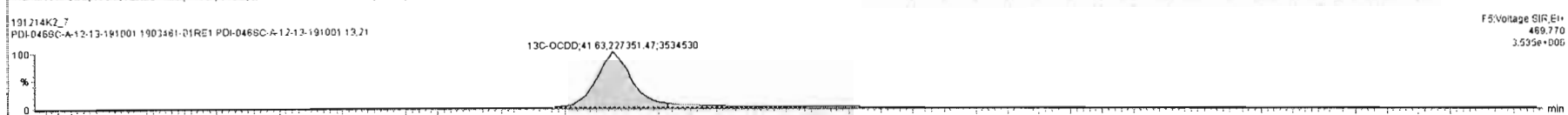
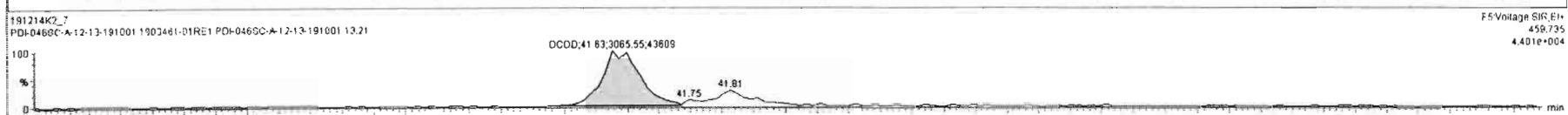
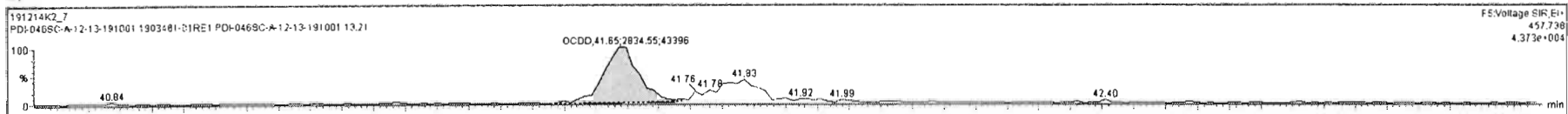


TargetLynx - untitled\* - [Chromatogram]

191214K2\_7 - 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21 - PDI-046SC-A-12-13-191001

#	Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rac	DL	EMPC
1	2,3,7,8-TCDD			NO	0.9249	10.012					0.0560	
2	1,2,3,7,8-PeCDD			NO	0.9046	10.012					0.0553	
3	1,2,3,4,7,8-HxCDD			NO	1.0691	10.012					0.0735	
4	1,2,3,6,7,8-HxCDD			NO	0.9675	10.012					0.0750	
5	1,2,3,7,8,9-HxCDD			NO	0.9778	10.012					0.0821	
6	1,2,3,4,6,7,8-HpCDD	7.74e2	0.96	YES	1.0375	10.012	38.47	1.001	0.513		0.192	0.401
7	OCDD	5.90e3	0.92	NO	0.9718	10.012	41.65	1.001	5.05		0.191	5.05
8	2,3,7,8-TCDF			NO	0.9376	10.012					0.0338	
9	1,2,3,7,8-PeCDF			NO	0.9752	10.012					0.0286	
10	2,3,4,7,8-PeCDF			NO	1.0049	10.012					0.0267	
11	1,2,3,4,7,8-HxCDF			NO	1.2434	10.012					0.0258	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1								



Ready 191214K2\_7 CAP NUM

Dataset: Untitled

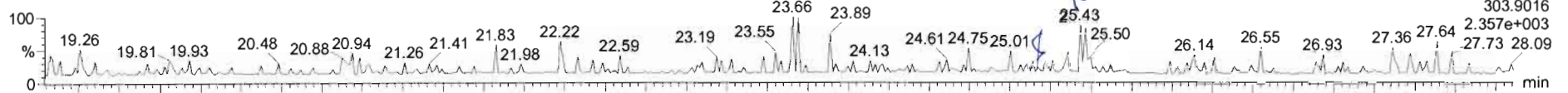
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

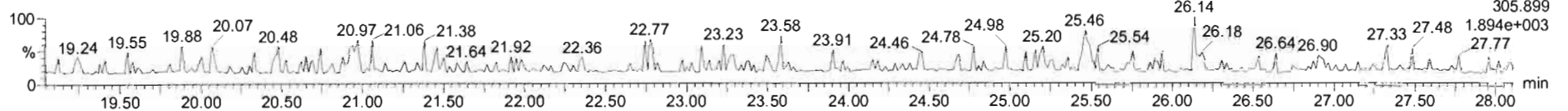
Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

**2,3,7,8-TCDF**

191214K2\_7

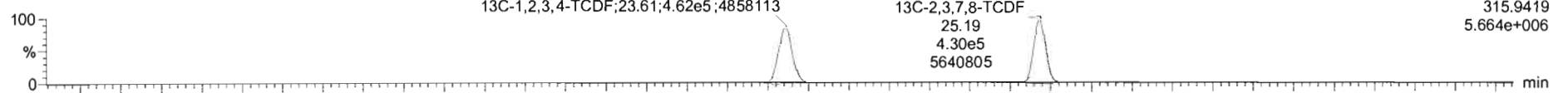


191214K2\_7

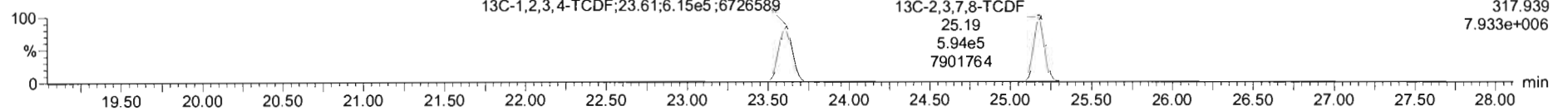


**13C-2,3,7,8-TCDF**

191214K2\_7

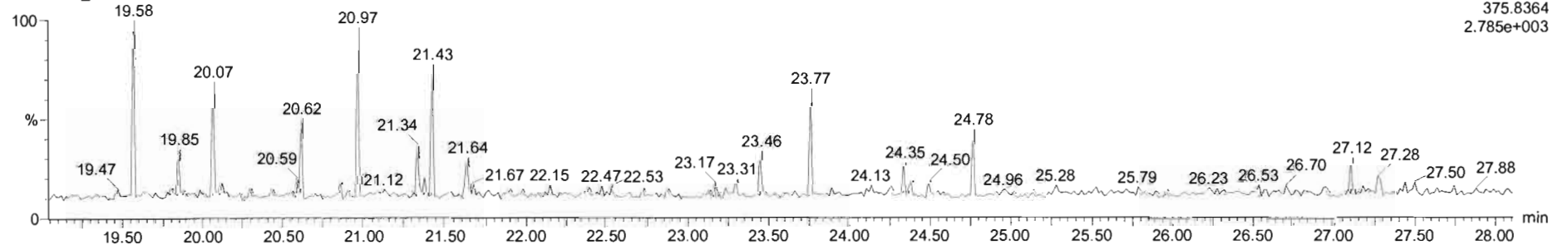


191214K2\_7



**DPE1**

191214K2\_7



Dataset: Untitled

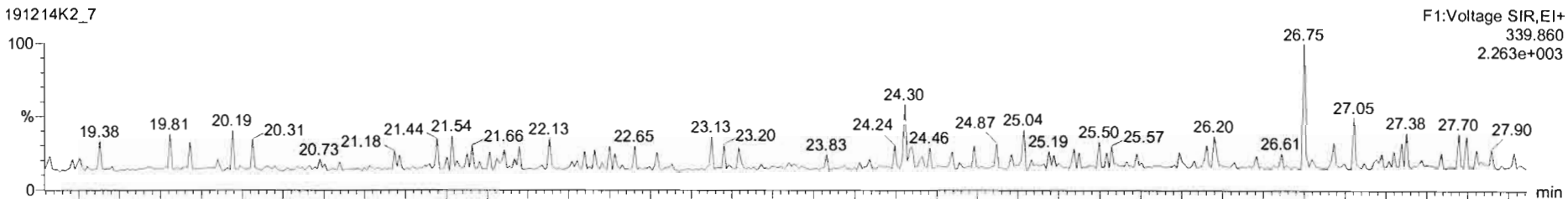
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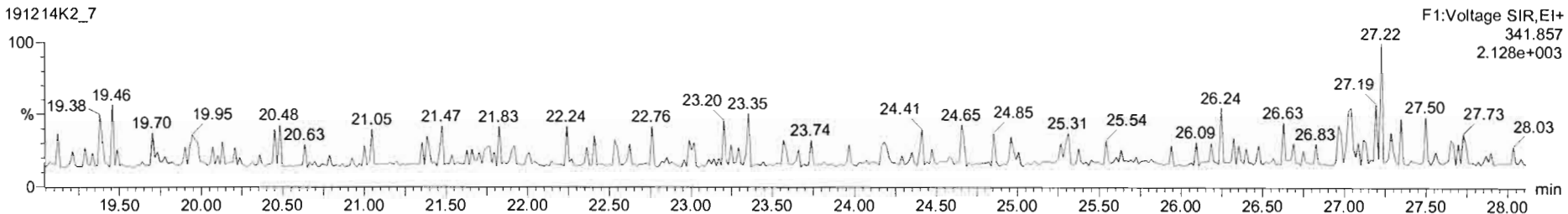
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1st Func. Penta-Furans

191214K2\_7

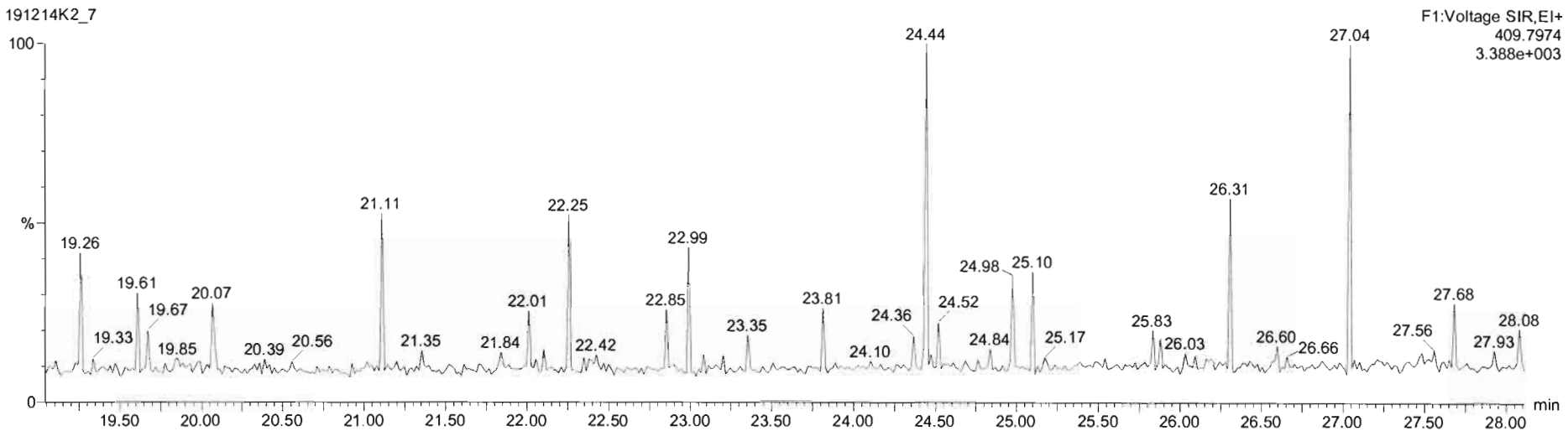


191214K2\_7



DPE6

191214K2\_7



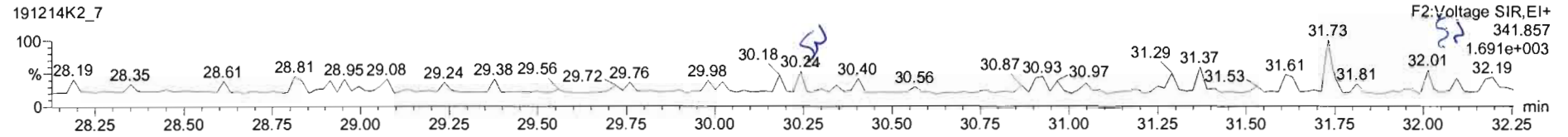
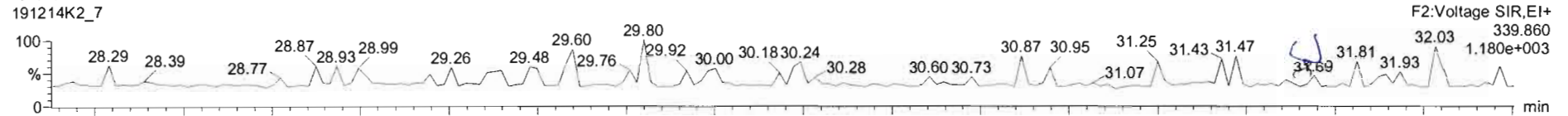
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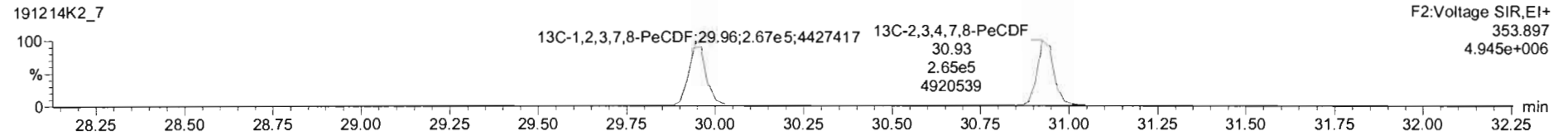
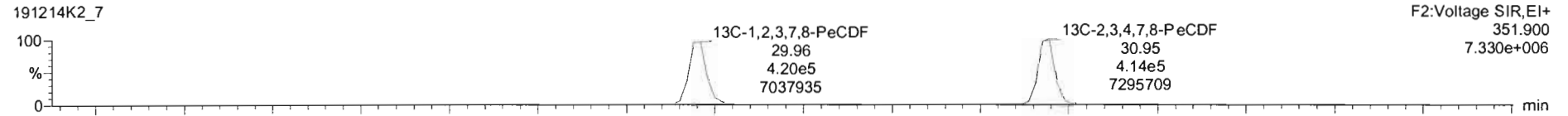
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Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

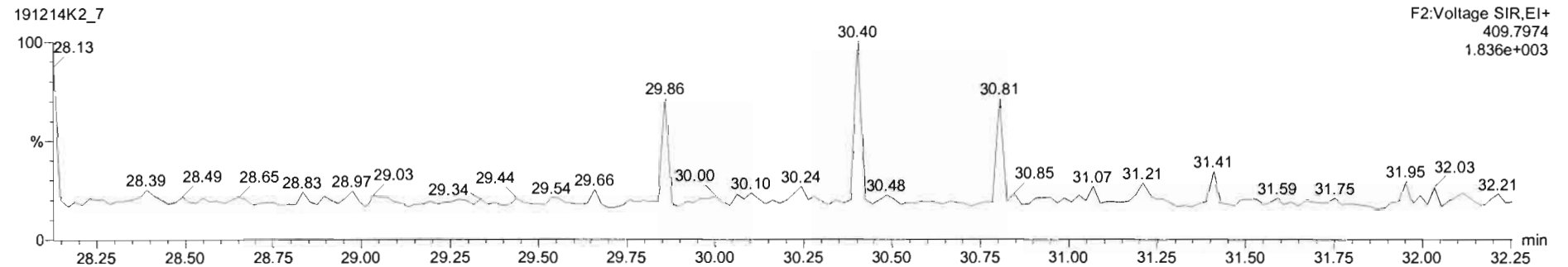
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



Dataset: Untitled

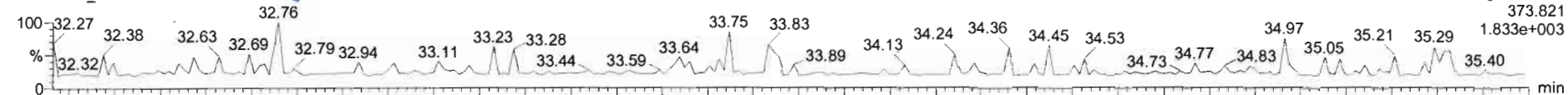
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

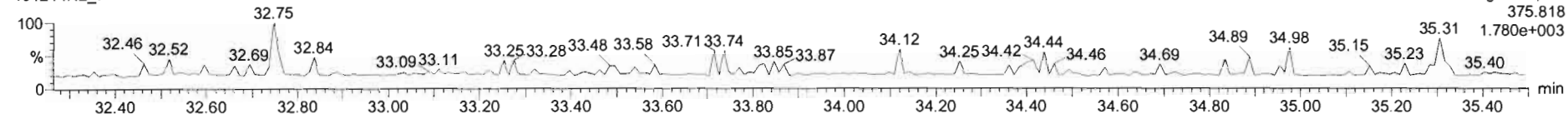
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**1,2,3,4,7,8-HxCDF**

191214K2\_7

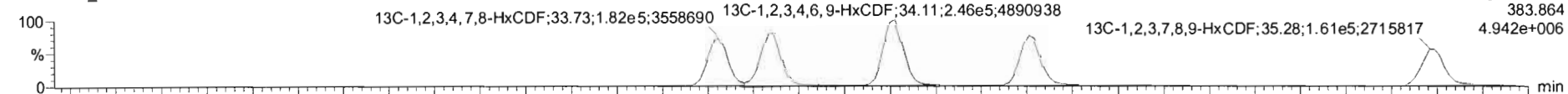


191214K2\_7

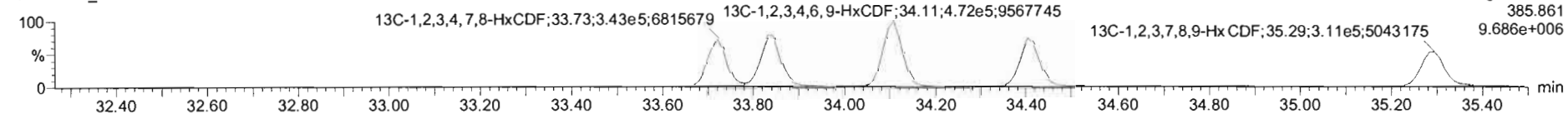


**13C-1,2,3,4,7,8-HxCDF**

191214K2\_7

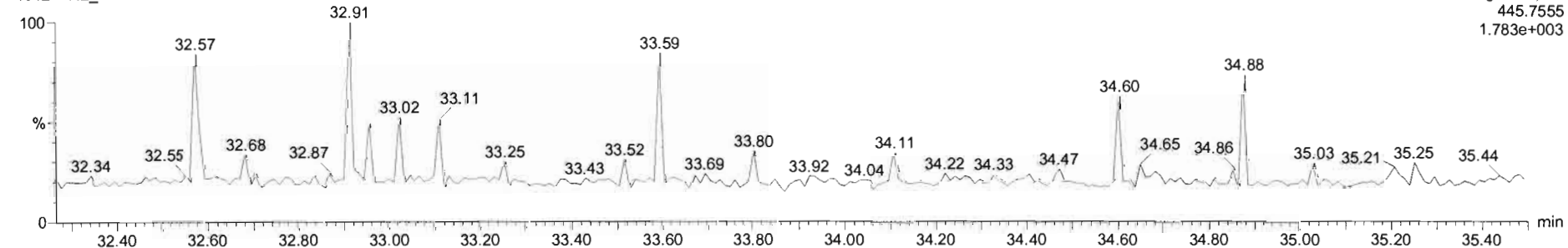


191214K2\_7



**DPE3**

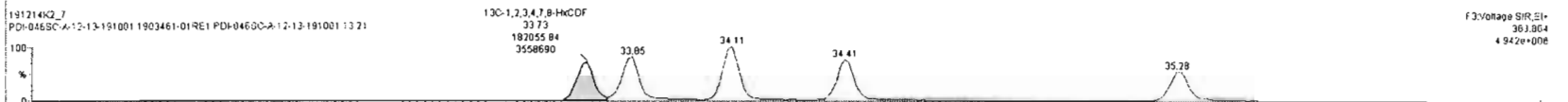
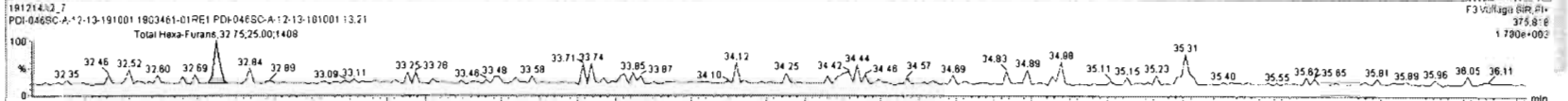
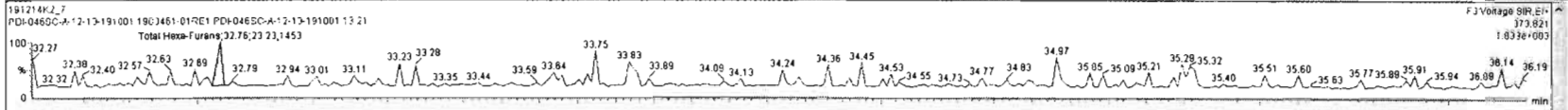
191214K2\_7



191214K2\_7 - 1903461-01RE1 PDI-046SC-A-12-13-191001 13 21 - PDI-046SC-A-12-13-191001

Name	Resp	RA	nY	RFP	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.012					0.0175	
44 1st Func. Penta-Furans				0.9762	10.012					0.0105	
45 Total Penta-Furans				0.9762	10.012					0.0134	
46 Total Hexa-Furans				1.1906	10.012			0.000		0.0169	0.0130
47 Total Hepta-Furans				1.1300	10.012					0.0262	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	mt Resp	mt2 Resp	RA	nY	EMPC	Conc.
1 Total Hexa-Furans	32.76	2.323e1	2.500e1	0.93	YES	0.013037	0.00000



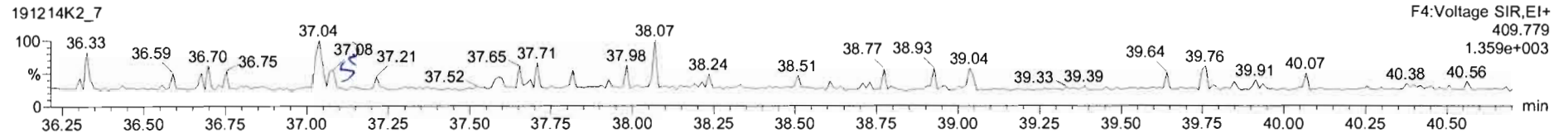
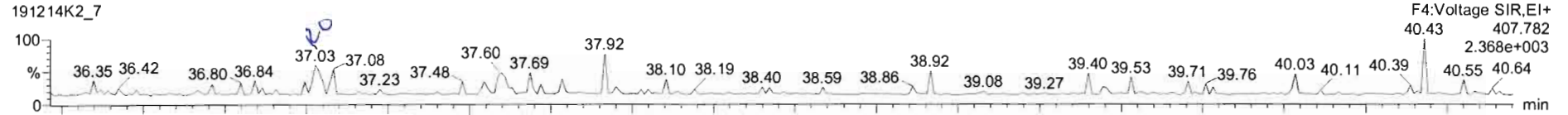


Dataset: Untitled

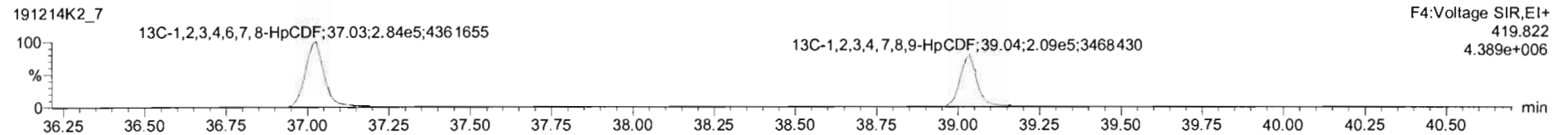
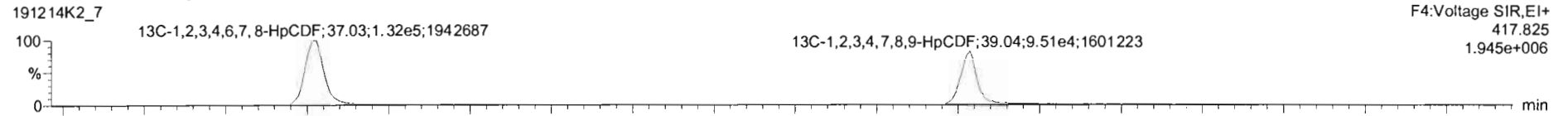
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

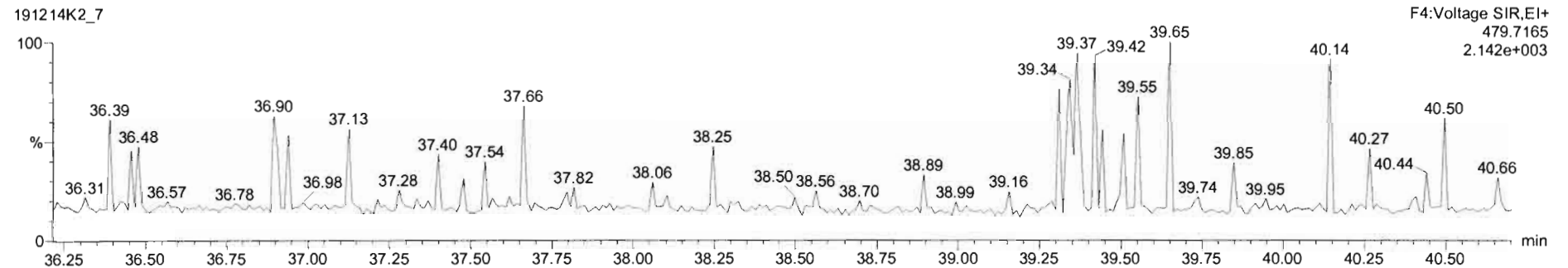
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF

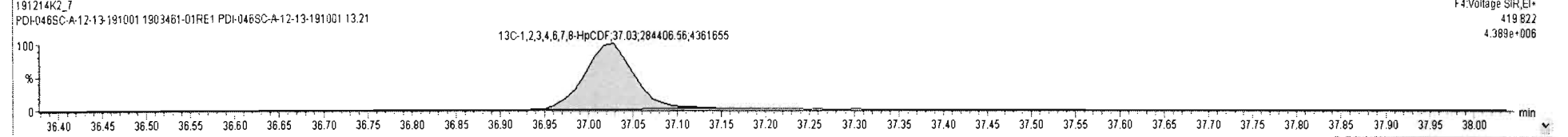
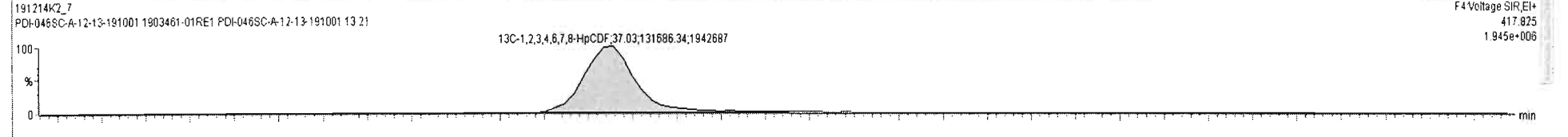
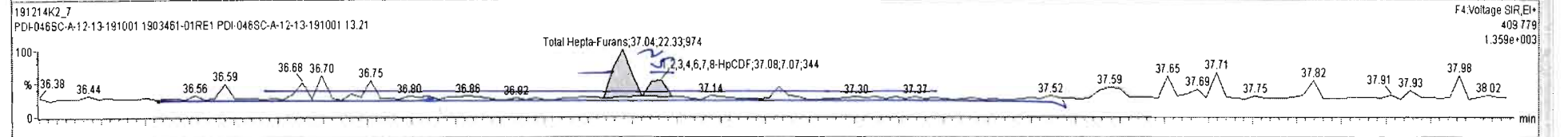
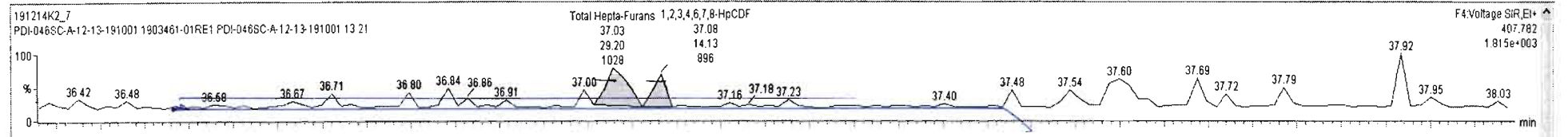


DPE4



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.012					0.0175	
44 1st Func. Penta-Furans				0.9762	10.012					0.0105	
45 Total Penta-Furans				0.9762	10.012					0.0134	
46 Total Hexa-Furans				1.1806	10.012			0.000		0.0169	0.0130
47 Total Hepta-Furans				1.1300	10.012			0.000		0.0262	0.0285
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Furans	37.03	2.920e1	2.233e1	1.31	YES	0.022370	0.00000
2 1,2,3,4,6,7,8-HpCDF	37.08	1.413e1	7.069e0	2.00	YES	0.00612...	0.00000



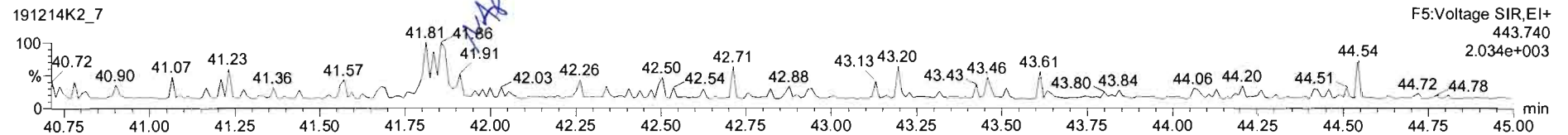
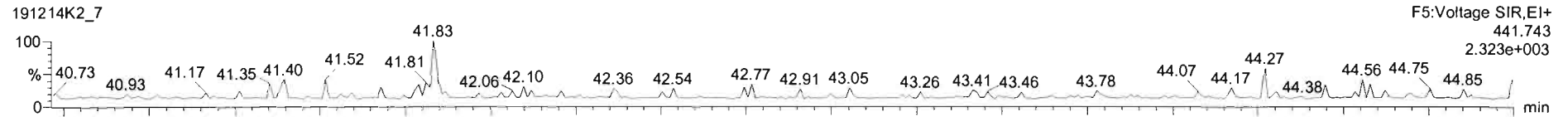
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

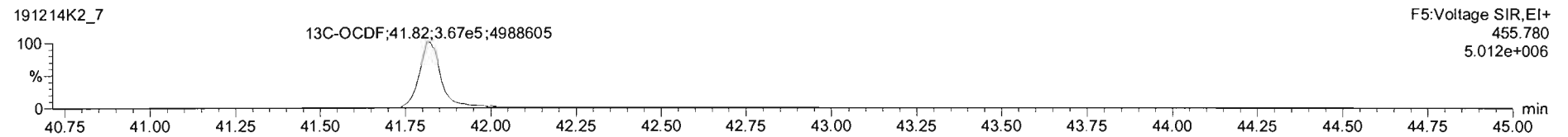
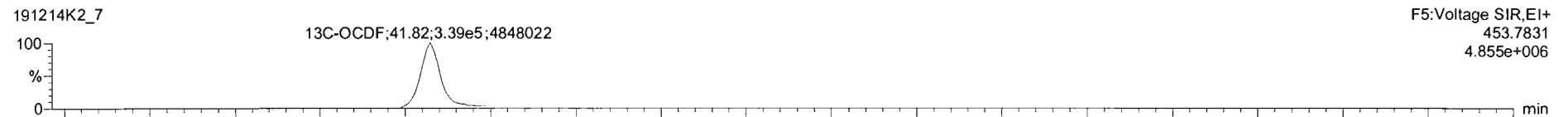
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Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001

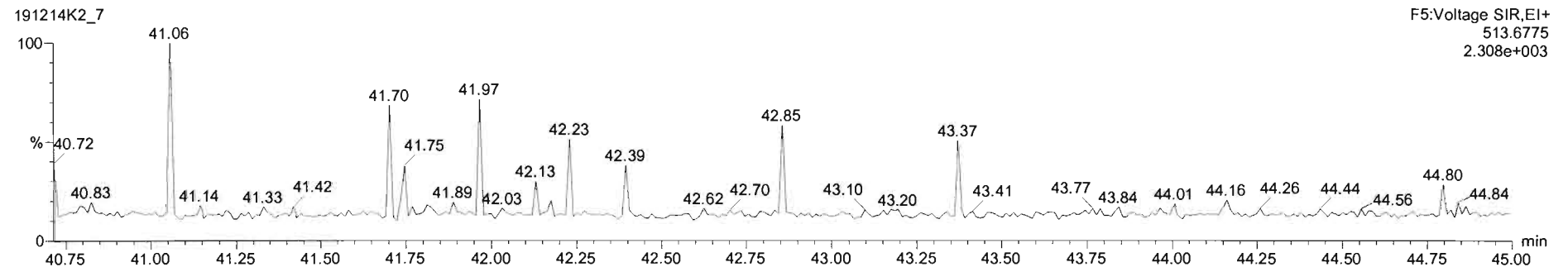
**OCDF**



**13C-OCDF**



**DPE5**

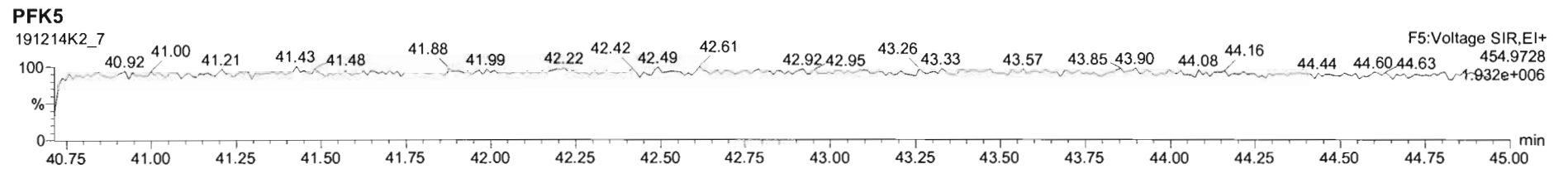
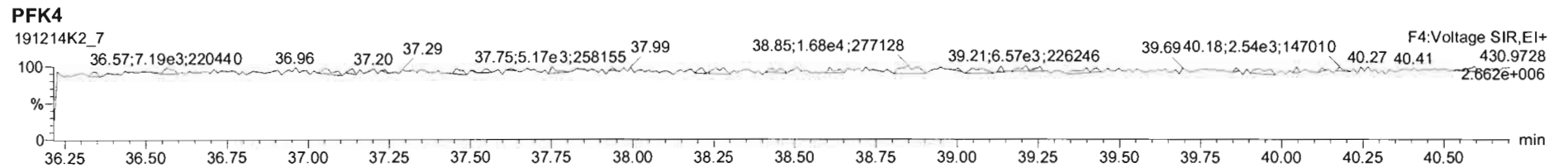
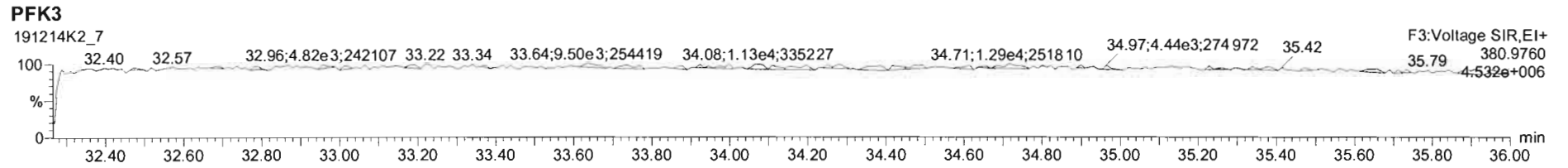
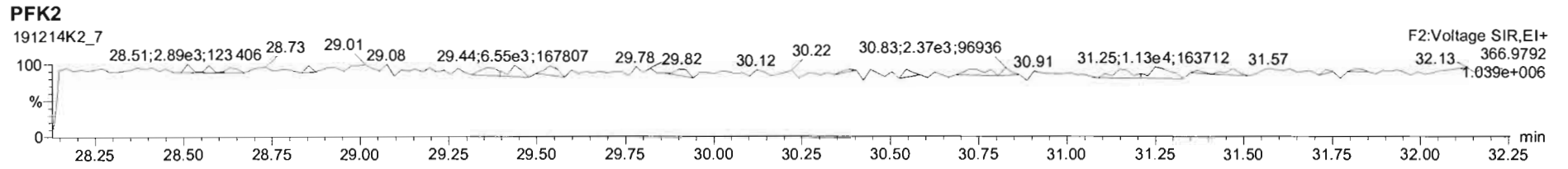
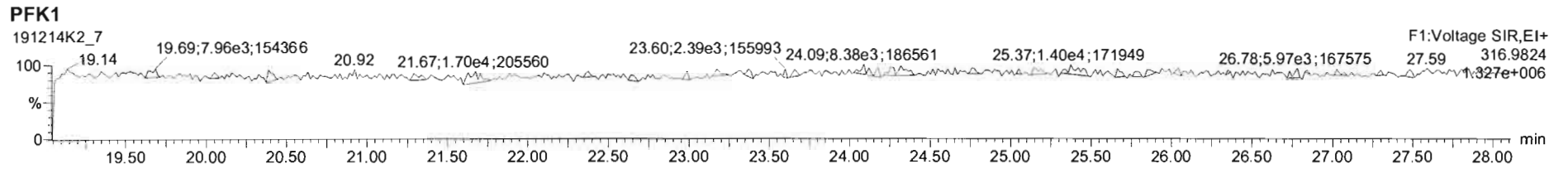


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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_7, Date: 14-Dec-2019, Time: 23:10:02, ID: 1903461-01RE1 PDI-046SC-A-12-13-191001 13.21, Description: PDI-046SC-A-12-13-191001



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-8.qld

Last Altered: Tuesday, December 17, 2019 08:58:56 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:00:24 Pacific Standard Time

*Hc 12:17:19*

*07 04/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.925	10.016	26.184		1.001				0.0581	
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.016	31.291		1.001				0.0554	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.016	34.603		1.000				0.0554	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.016	34.691		1.000				0.0538	
5	5 1,2,3,7,8,9-HxCDD			NO	0.978	10.016	35.000		1.001				0.0621	
6	6 1,2,3,4,6,7,8-HpCDD	8.35e2	1.68	YES	1.04	10.016	38.455	38.47	1.000	1.001	0.52686		0.148	0.402
7	7 OCDD	7.20e3	0.84	NO	0.972	10.016	41.637	41.65	1.000	1.000	7.4441		0.195	7.44
8	8 2,3,7,8-TCDF			NO	0.938	10.016	25.199		1.001				0.0401	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.016	29.982		1.001				0.0315	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.016	30.978		1.001				0.0275	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.016	33.736		1.000				0.0202	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.016	33.867		1.000				0.0208	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.016	34.451		1.001				0.0209	
14	14 1,2,3,7,8,9-HxCDF			NO	1.07	10.016	35.305		1.000				0.0289	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.13	10.016	37.076		1.001				0.0323	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.016	39.047		1.000				0.0363	
17	17 OCDF			NO	1.10	10.016	41.834		1.000				0.0665	
18	18 13C-2,3,7,8-TCDD	6.42e5	0.79	NO	1.05	10.016	26.162	26.15	1.027	1.027	198.39	99.3	0.242	
19	19 13C-1,2,3,7,8-PeCDD	4.82e5	0.65	NO	0.743	10.016	31.176	31.27	1.224	1.228	210.34	105	0.434	
20	20 13C-1,2,3,4,7,8-HxCDD	3.36e5	1.28	NO	0.646	10.016	34.591	34.59	1.014	1.014	166.53	83.4	0.434	
21	21 13C-1,2,3,6,7,8-HxCDD	4.11e5	1.19	NO	0.777	10.016	34.690	34.69	1.017	1.017	169.58	84.9	0.361	
22	22 13C-1,2,3,7,8,9-HxCDD	3.68e5	1.27	NO	0.659	10.016	34.963	34.97	1.025	1.025	178.74	89.5	0.425	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.05e5	1.02	NO	0.534	10.016	38.457	38.44	1.127	1.127	182.84	91.6	0.463	
24	24 13C-OCDD	3.98e5	0.90	NO	0.470	10.016	41.634	41.64	1.220	1.220	270.77	67.8	0.584	
25	25 13C-2,3,7,8-TCDF	9.20e5	0.73	NO	0.977	10.016	25.235	25.17	0.991	0.989	198.93	99.6	0.298	
26	26 13C-1,2,3,7,8-PeCDF	7.44e5	1.54	NO	0.778	10.016	29.888	29.96	1.174	1.177	202.26	101	0.807	
27	27 13C-2,3,4,7,8-PeCDF	7.05e5	1.56	NO	0.750	10.016	30.896	30.95	1.213	1.215	198.64	99.5	0.837	
28	28 13C-1,2,3,4,7,8-HxCDF	4.72e5	0.53	NO	0.845	10.016	33.731	33.74	0.989	0.989	178.97	89.6	0.649	
29	29 13C-1,2,3,6,7,8-HxCDF	5.49e5	0.53	NO	1.03	10.016	33.847	33.86	0.992	0.992	171.32	85.8	0.535	
30	30 13C-2,3,4,6,7,8-HxCDF	5.18e5	0.53	NO	0.893	10.016	34.421	34.42	1.009	1.009	185.84	93.1	0.615	
31	31 13C-1,2,3,7,8,9-HxCDF	4.51e5	0.50	NO	0.734	10.016	35.321	35.31	1.035	1.035	196.83	98.6	0.748	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-8.qld

Last Altered: Tuesday, December 17, 2019 08:58:56 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:00:24 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	4.18e5	0.47	NO	0.754	10.016	37.034	37.04	1.085	1.086	177.42	88.9	0.513	
33	13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.47	NO	0.539	10.016	39.058	39.05	1.145	1.144	180.60	90.4	0.718	
34	13C-OCDF	5.82e5	0.94	NO	0.593	10.016	41.845	41.83	1.226	1.226	314.30	78.7	0.611	
35	37Cl-2,3,7,8-TCDD	2.56e5			1.07	10.016	26.183	26.18	1.028	1.028	77.547	97.1	0.0906	
36	13C-1,2,3,4-TCDD	6.16e5	0.80	NO	1.00	10.016	25.500	25.46	1.000	1.000	199.69	100	0.253	
37	13C-1,2,3,4-TCDF	9.45e5	0.75	NO	1.00	10.016	23.680	23.58	1.000	1.000	199.69	100	0.291	
38	13C-1,2,3,4,6,9-HxCDF	6.24e5	0.53	NO	1.00	10.016	34.060	34.12	1.000	1.000	199.69	100	0.549	
39	Total Tetra-Dioxins				0.925	10.016	24.620		0.000		0.00000		0.0322	0.110
40	Total Penta-Dioxins				0.905	10.016	29.960		0.000				0.0278	
41	Total Hexa-Dioxins				0.967	10.016	33.635		0.000		0.32603		0.0590	0.326
42	Total Hepta-Dioxins				1.04	10.016	38.800		0.000		0.00000		0.0807	1.16
43	Total Tetra-Furans				0.938	10.016	23.610		0.000				0.0188	
44	1st Func. Penta-Furans				0.976	10.016	27.040		0.000				0.00773	
45	Total Penta-Furans				0.976	10.016	29.275		0.000				0.0132	
46	Total Hexa-Furans				1.18	10.016	33.555		0.000				0.0119	
47	Total Hepta-Furans				1.13	10.016	37.835		0.000				0.0209	

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-8.qld

Last Altered: Tuesday, December 17, 2019 08:58:56 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:00:24 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

**Tetra-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Tetra-Dioxins	23.78	2.258e3	4.579e3	1.426e2	2.737e2	0.52	YES	0.000e0	0.00000	0.11021	0.0581

**Penta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Dioxins	33.14	7.961e3	4.978e3	3.215e2	2.659e2	1.21	NO	5.874e2	0.32603	0.32603	0.0590

**Hepta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hepta-Dioxins	37.45	1.070e4	1.290e4	7.434e2	5.890e2	1.26	YES	0.000e0	0.00000	0.75825	0.148
2 1,2,3,4,6,7,8-HpCDD	38.47	9.952e3	7.789e3	5.226e2	3.120e2	1.68	YES	8.346e2	0.00000	0.40163	0.148

**Tetra-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Penta-Furans function 1**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-8.qld

Last Altered: Tuesday, December 17, 2019 08:58:56 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:00:24 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

**Penta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hepta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											



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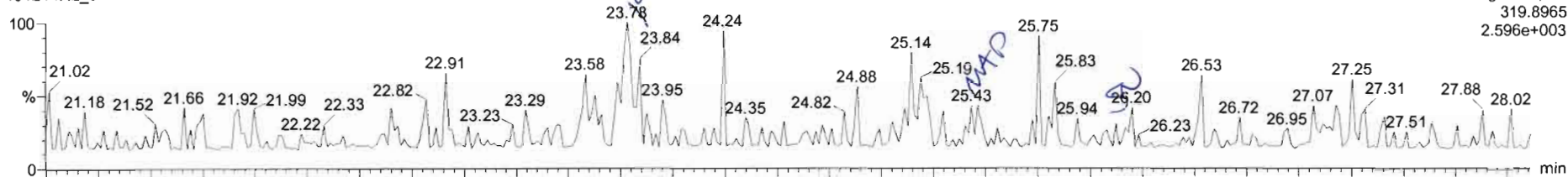
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

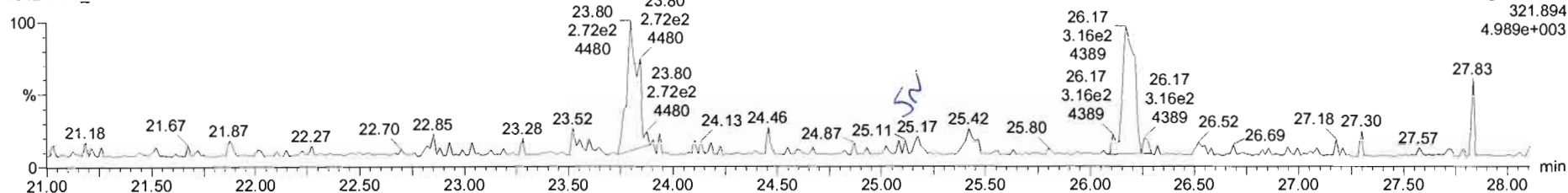
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**2,3,7,8-TCDD**

191214K2\_8

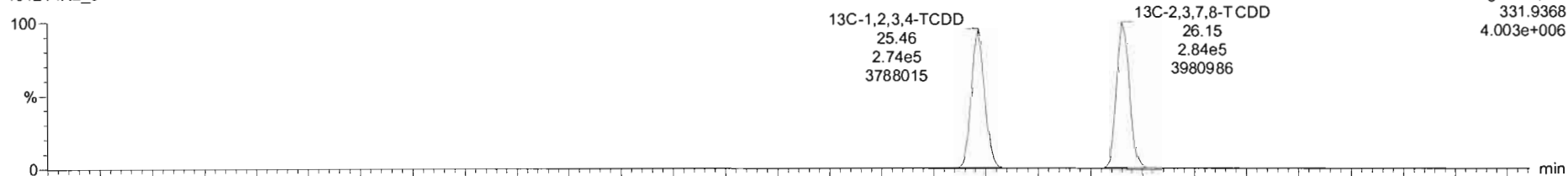


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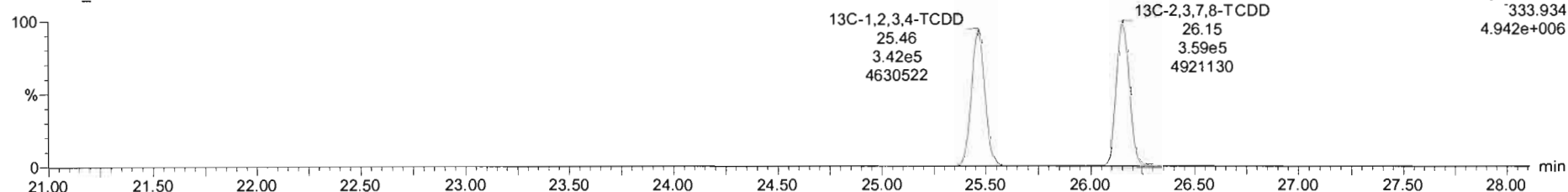


**13C-2,3,7,8-TCDD**

191214K2\_8



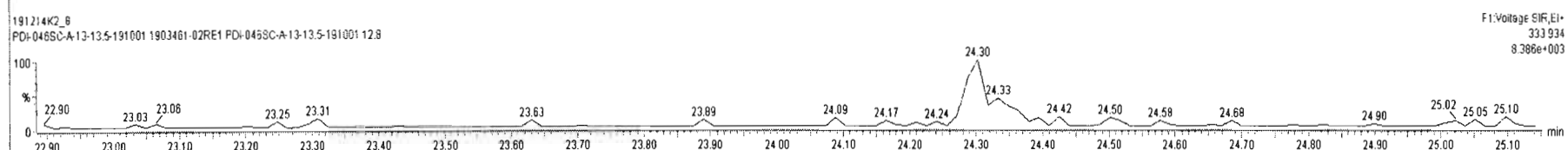
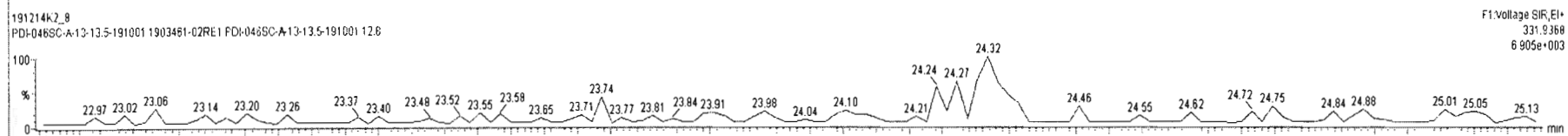
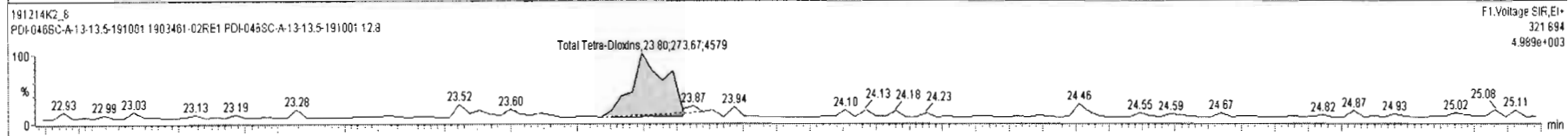
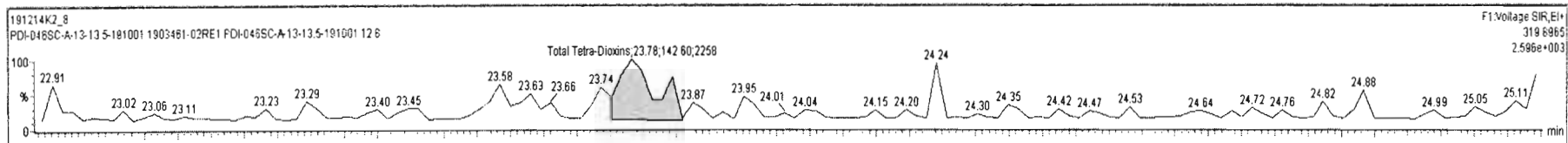
191214K2\_8



191214K2\_8 - 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8 - PDI-046SC-A-13-13.5-191001

Name	Resp	RA	nY	RRF	wt/mol	RT	RRT	Conc.	%Rec	DL	EMPC
24	13C-OCDD	3.98e5	0.90	NO	0.4704	10.016	41.64	1.220	271	67.8	0.594
25	13C-2,3,7,8-TCDF	9.20e5	0.73	NO	0.9775	10.016	25.17	0.989	199	98.6	0.298
26	13C-1,2,3,7,8-PeCDF	7.44e5	1.54	NO	0.7778	10.016	29.96	1.177	202	101	0.807
27	13C-2,3,4,7,8-PeCDF	7.05e5	1.56	NO	0.7499	10.016	30.95	1.215	199	99.5	0.837
28	13C-1,2,3,4,7,8-HxCDF	4.72e5	0.53	NO	0.8452	10.016	33.74	0.989	179	89.6	0.649
29	13C-1,2,3,6,7,8-HxCDF	5.49e5	0.53	NO	1.0267	10.016	33.86	0.992	171	85.8	0.535
30	13C-2,3,4,6,7,8-HxCDF	5.18e5	0.53	NO	0.8929	10.016	34.42	1.009	186	93.1	0.615
31	13C-1,2,3,7,8,9-HxCDF	4.51e5	0.50	NO	0.7343	10.016	35.31	1.035	197	98.8	0.748
32	13C-1,2,3,4,6,7,8-HpCDF	4.18e5	0.47	NO	0.7542	10.016	37.04	1.086	177	88.9	0.513
33	13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.47	NO	0.5390	10.016	39.05	1.144	181	90.4	0.718

Name	RT	m1 Resp	m2 Resp	RA	nY	EMPC	Conc.
1 Total Tetra-Dioxins	23.78	1.426e2	2.737e2	0.52	YES	0.11021	0.00000



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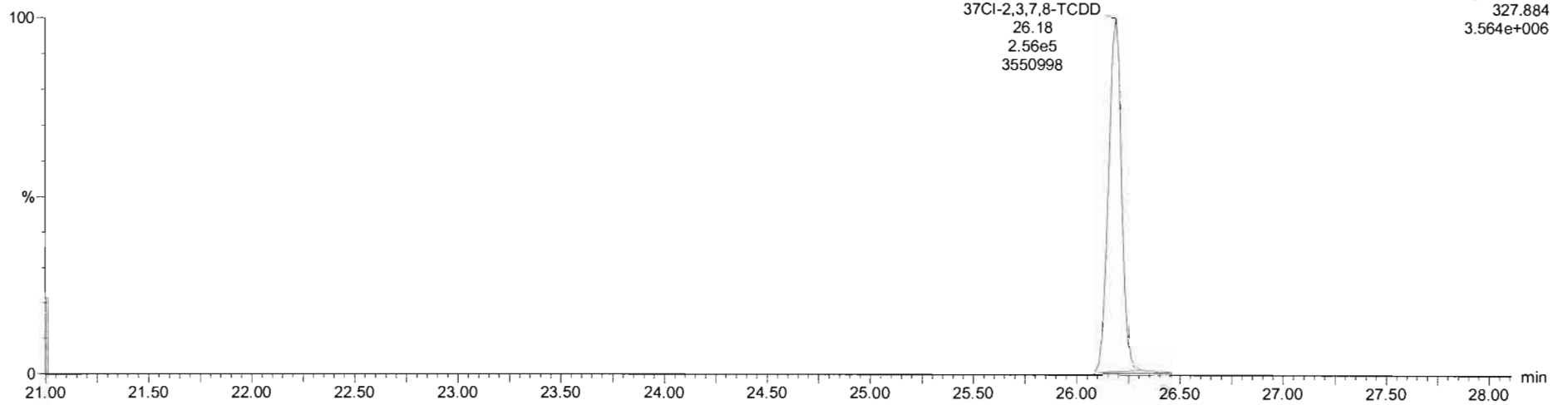
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

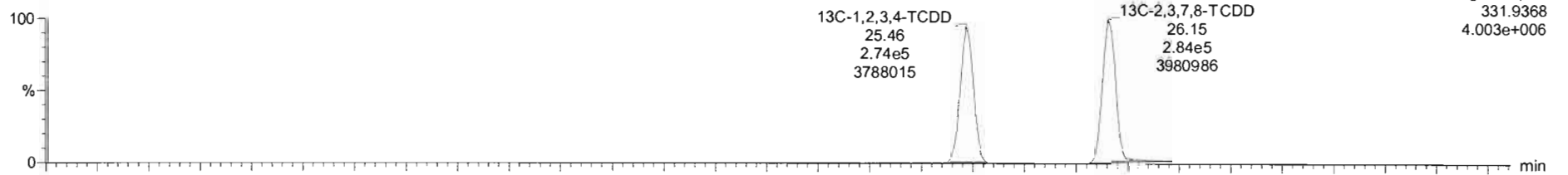
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191214K2\_8

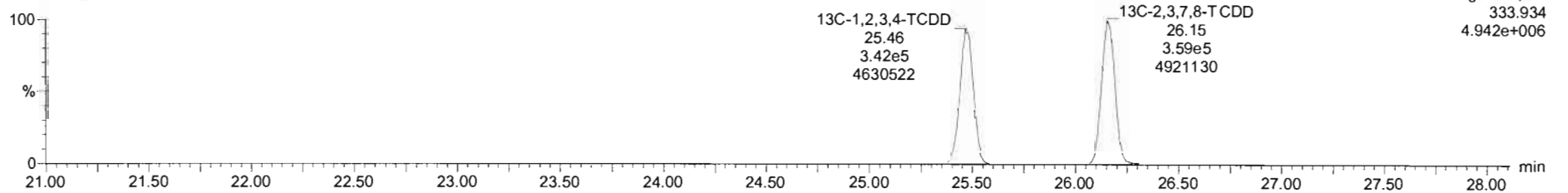


**13C-1,2,3,4-TCDD**

191214K2\_8



191214K2\_8



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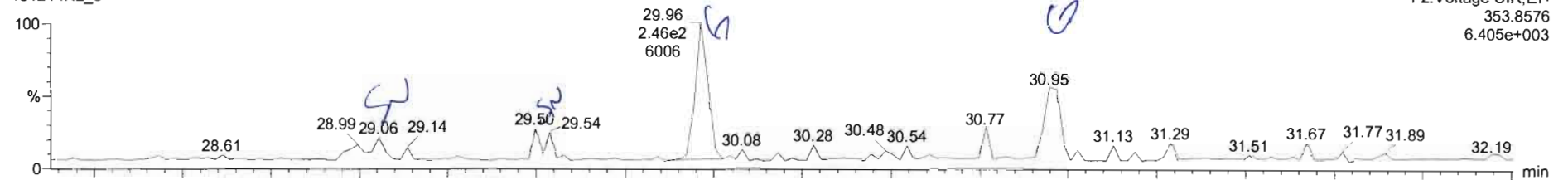
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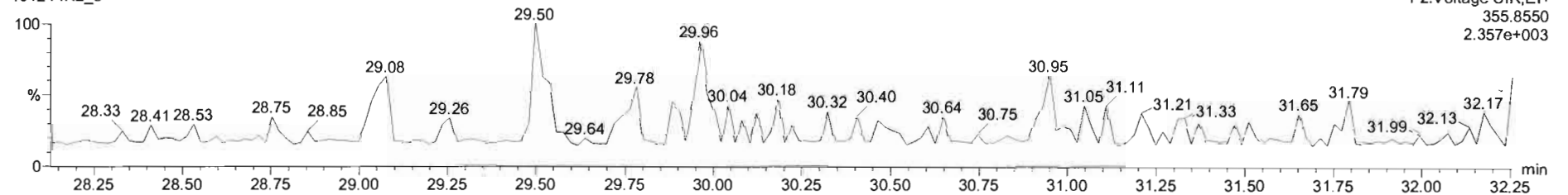
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**1,2,3,7,8-PeCDD**

191214K2\_8

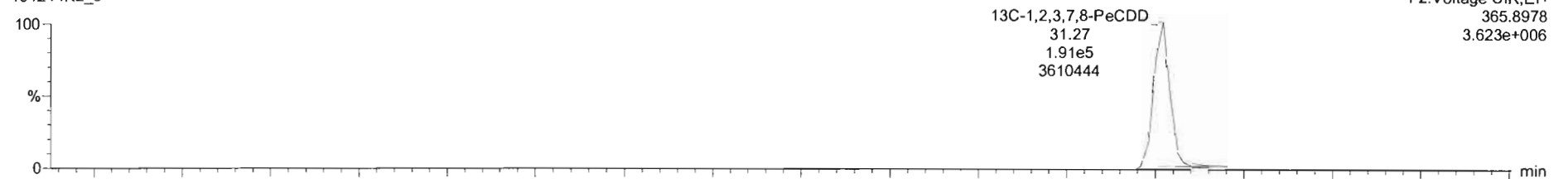


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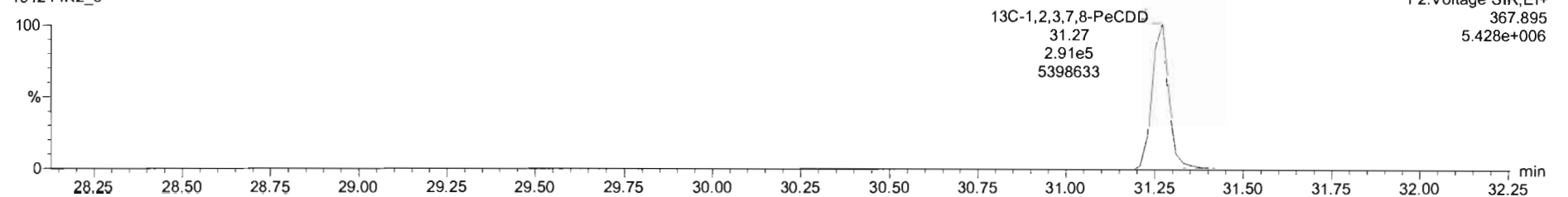


**13C-1,2,3,7,8-PeCDD**

191214K2\_8



191214K2\_8



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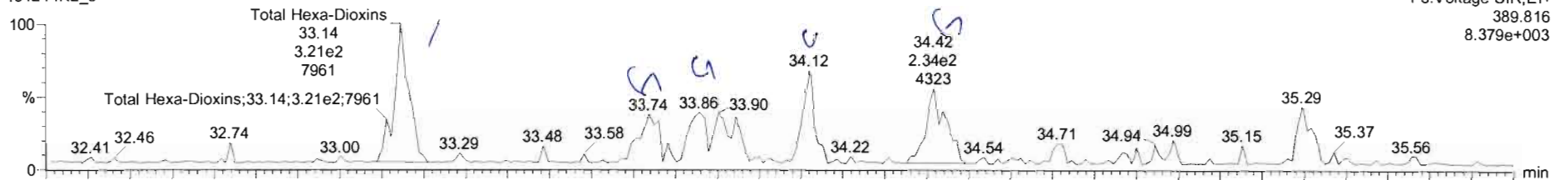
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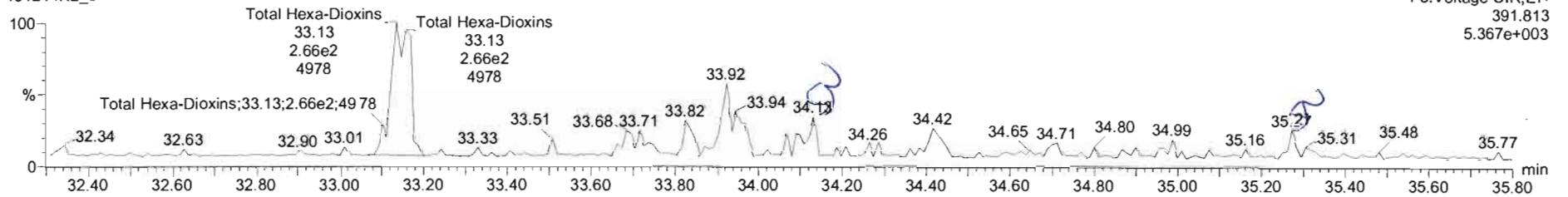
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1,2,3,4,7,8-HxCDD

191214K2\_8

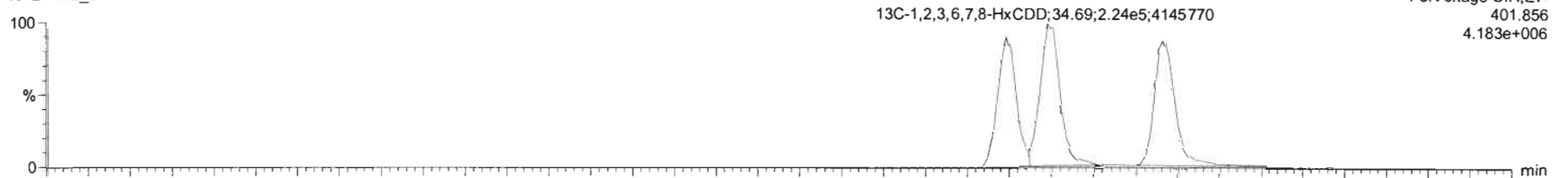


191214K2\_8

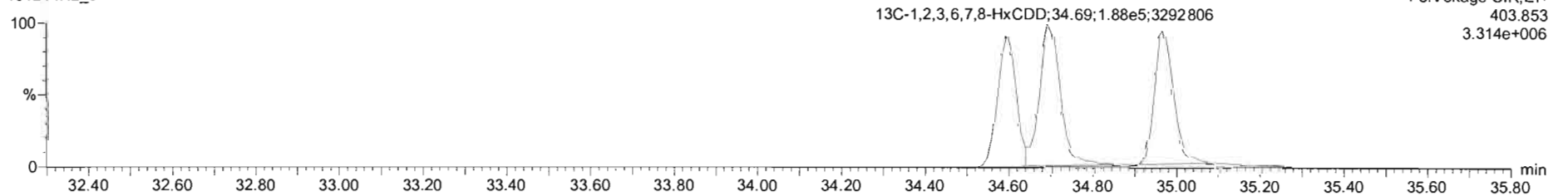


13C-1,2,3,4,7,8-HxCDD

191214K2\_8

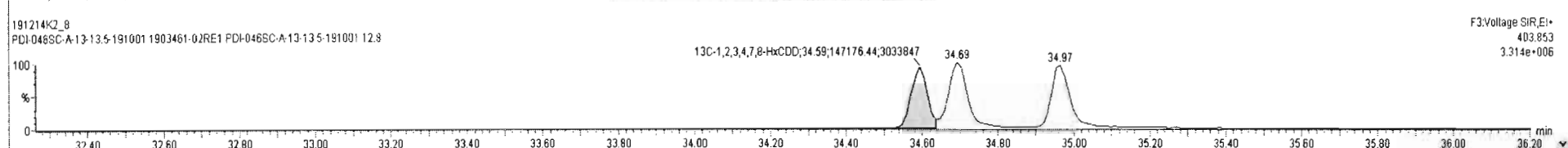
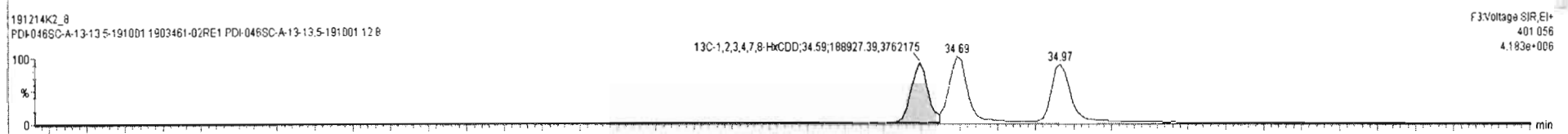
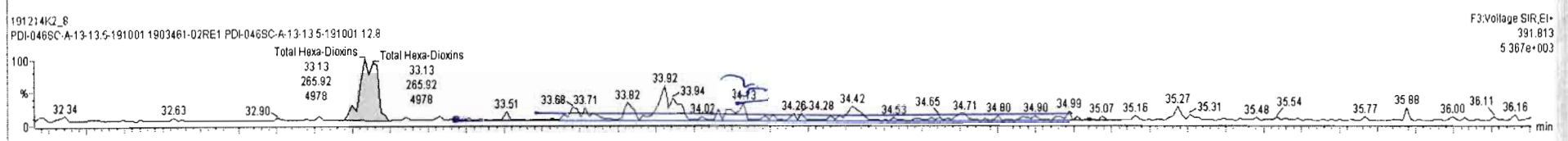
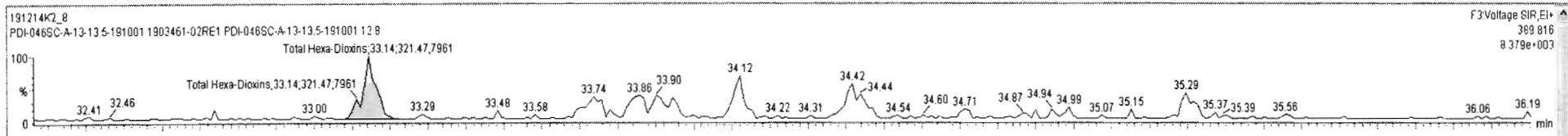


191214K2\_8



Name	Resp	RA	n/y	RRF	wt/drd	RT	RRT	Conc.	%Rec	DL	EMPC
28	13C-1,2,3,4,7,8-HxCDF	4.72e5	0.53	NO	0.8452	10.016	33.74	0.989	179	89.6	0.649
29	13C-1,2,3,6,7,8-HxCDF	5.49e5	0.53	NO	1.0267	10.016	33.86	0.992	171	85.8	0.535
30	13C-2,3,4,6,7,8-HxCDF	5.18e5	0.53	NO	0.8929	10.016	34.42	1.009	186	93.1	0.615
31	13C-1,2,3,7,8-HxCDF	4.51e5	0.50	NO	0.7343	10.016	35.31	1.035	197	98.6	0.748
32	13C-1,2,3,4,6,7,8-HpCDF	4.18e5	0.47	NO	0.7542	10.016	37.04	1.086	177	88.9	0.513
33	13C-1,2,3,4,7,8-HpCDF	3.04e5	0.47	NO	0.5390	10.016	39.05	1.144	181	90.4	0.718
34	13C-OCDF	5.82e5	0.94	NO	0.5925	10.016	41.83	1.226	314	78.7	0.611
35	37Cl-2,3,7,8-TCDD	2.56e5			1.0695	10.016	26.18	1.028	77.5	97.1	0.0906
36	13C-1,2,3,4-TCDD	6.16e5	0.80	NO	1.0000	10.016	25.46	1.000	200	100	0.253
37	13C-1,2,3,4-TCDF	9.45e5	0.75	NO	1.0000	10.016	23.58	1.000	200	100	0.291

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.14	3.215e2	2.659e2	1.21	NO	0.32603	0.32603

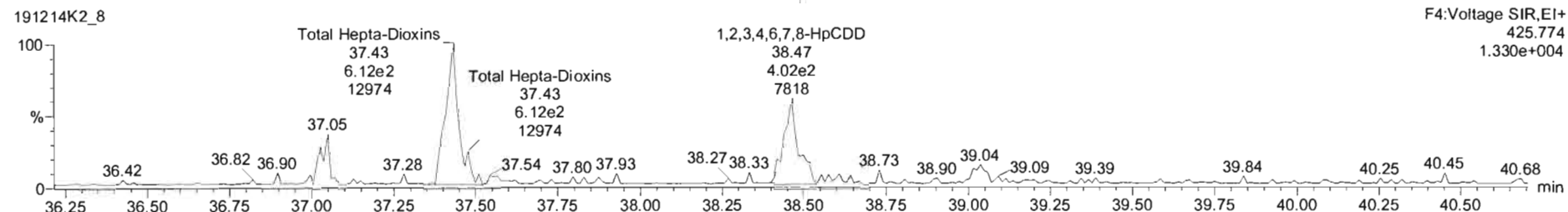
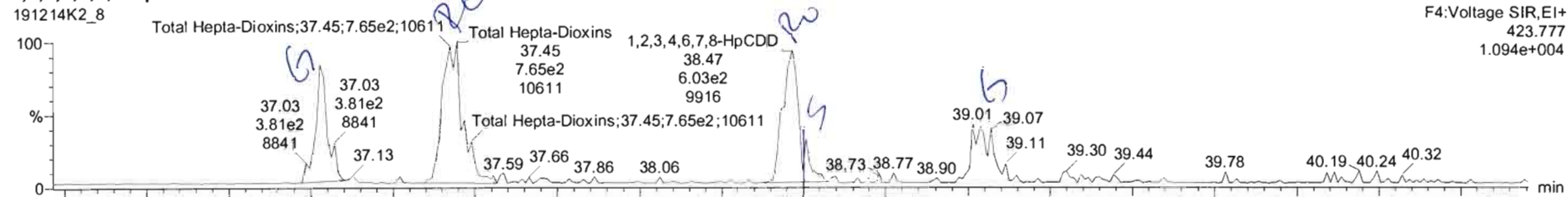


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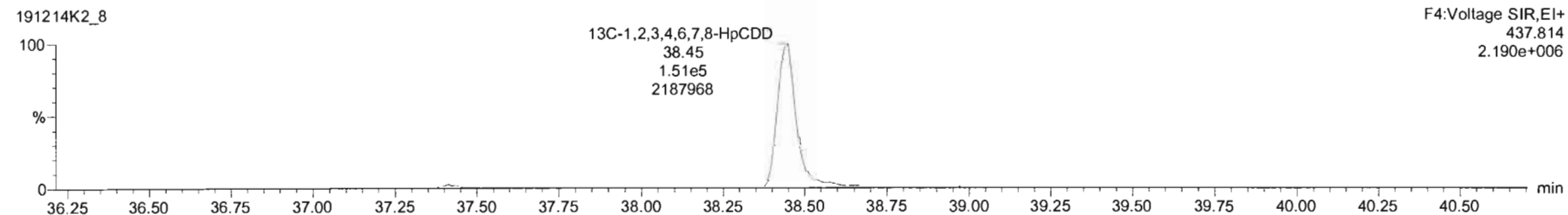
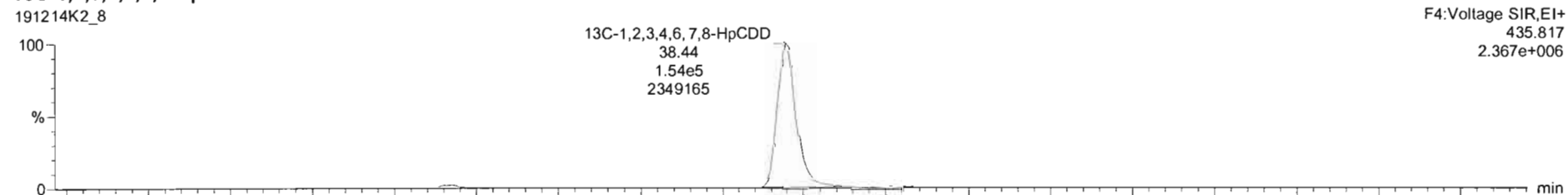
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Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

1,2,3,4,6,7,8-HpCDD



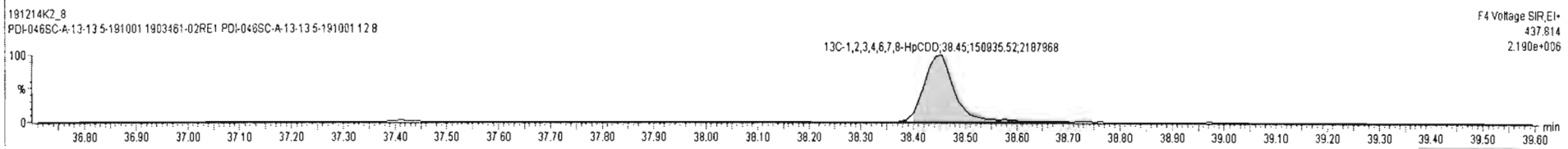
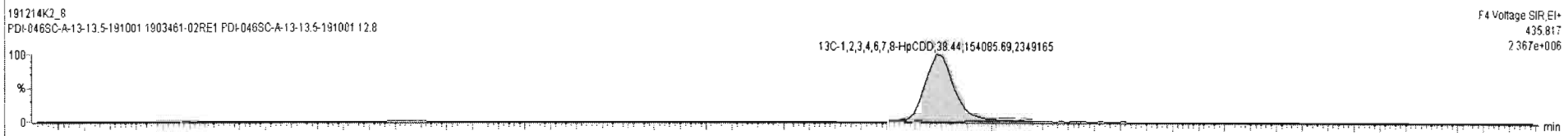
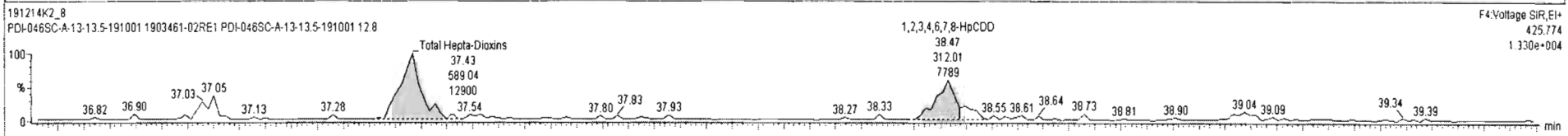
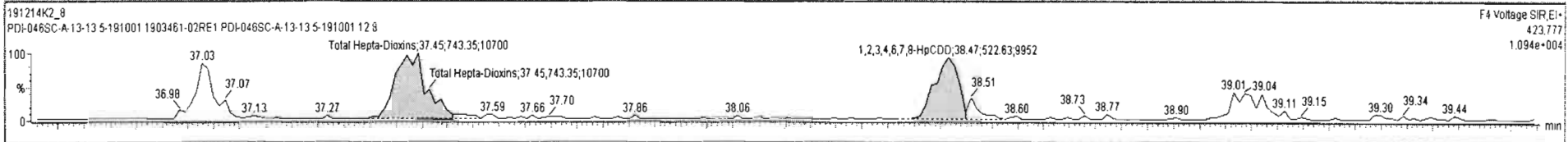
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191214K2\_8 - 1903461-02RE1 PDI-046SC-A-12-13.5-191001 12.8 - PDI-046SC-A-13-13.5-191001

Name	Resp	RA	n/y	R/R	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
31 13C-1,2,3,7,8,9-HxCDF	4.51e5	0.50	NO	0.7343	10.016	35.31	1.035	197	98.6	0.748	
32 13C-1,2,3,4,6,7,8-HpCDF	4.18e5	0.47	NO	0.7542	10.016	37.04	1.086	177	88.9	0.513	
33 13C-1,2,3,4,7,8,9-HpCDF	3.04e5	0.47	NO	0.5390	10.016	39.05	1.144	181	90.4	0.718	
34 13C-OCDF	5.82e5	0.94	NO	0.5925	10.016	41.83	1.226	314	78.7	0.611	
35 37Cl-2,3,7,8-TCDD	2.56e5			1.0695	10.016	26.18	1.028	77.5	97.1	0.0906	
36 13C-1,2,3,4-TCDD	6.16e5	0.80	NO	1.0000	10.016	25.46	1.000	200	100	0.253	
37 13C-1,2,3,4-TCDF	9.45e5	0.75	NO	1.0000	10.016	23.58	1.000	200	100	0.291	
38 13C-1,2,3,4,6,9-HxCDF	6.24e5	0.53	NO	1.0000	10.016	34.12	1.000	200	100	0.549	
39 Total Tetra-Dioxins				0.9249	10.016			0.000		0.0322	0.110
40 Total Penta-Dioxins				0.9046	10.016					0.0278	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.45	7.434e2	5.890e2	1.26	YES	0.75825	0.00000
2 1,2,3,4,6,7,8-HpCDD	38.47	5.226e2	3.120e2	1.68	YES	0.40163	0.00000





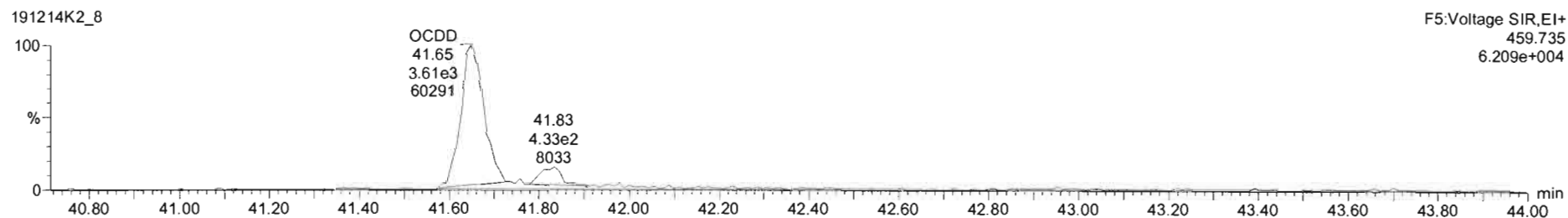
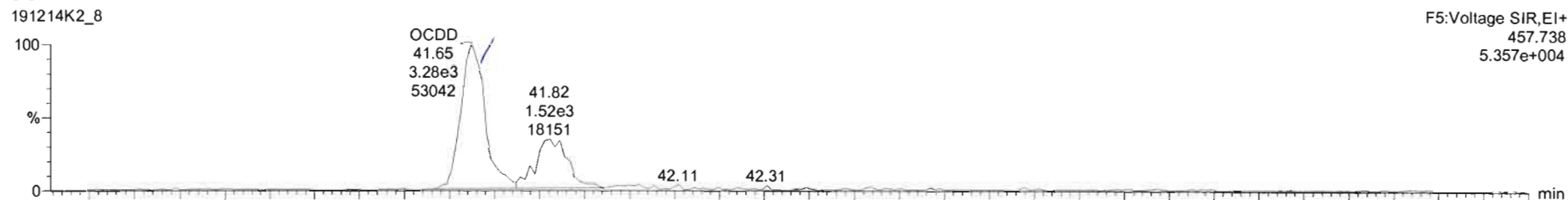
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

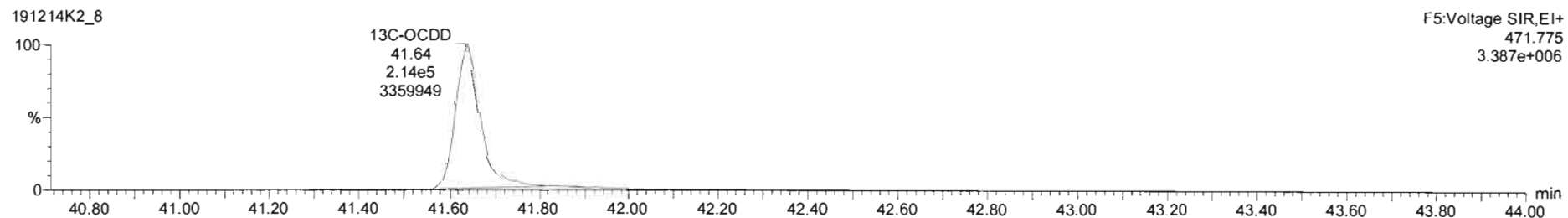
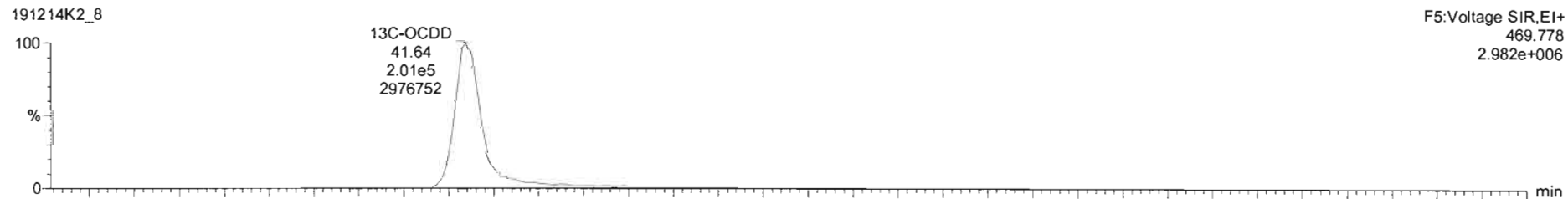
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

**OCDD**



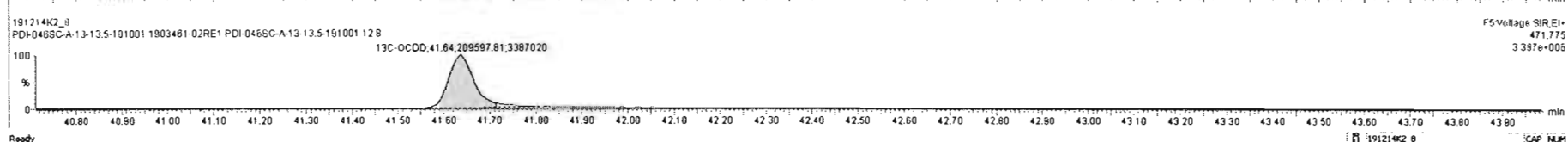
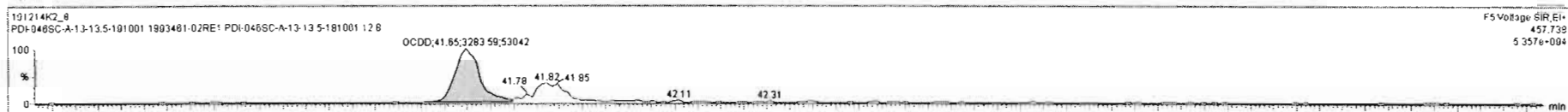
**13C-OCDD**



191214K2\_8 - 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12 8 - PDI-046SC-A-13-13.5-191001

Name	Resp	RA	nly	RPF	m4Act	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD			NO	0.9249	10.016					0.0581	
2 1,2,3,7,8-PeCDD			NO	0.9046	10.016					0.0554	
3 1,2,3,4,7,8-HxCDD			NO	1.0691	10.016					0.0554	
4 1,2,3,6,7,8-HxCDD			NO	0.9675	10.016					0.0538	
5 1,2,3,7,8,9-HxCDD			NO	0.9778	10.016					0.0621	
6 1,2,3,4,6,7,8-HpCDD	1.00e3	1.50	YES	1.0375	10.016	38.47	1.001	0.634		0.148	0.518
7 OCDD	7.20e3	0.84	NO	0.9718	10.016	41.65	1.000	7.44		0.195	7.44
8 2,3,7,8-TCDF			NO	0.9376	10.016					0.0401	
9 1,2,3,7,8-PeCDF			NO	0.9762	10.016					0.0315	
10 2,3,4,7,8-PeCDF			NO	1.0049	10.016					0.0275	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							

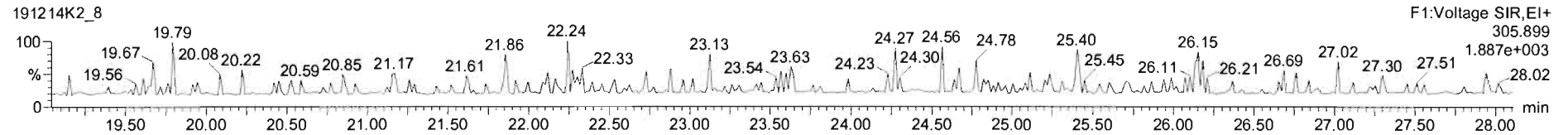
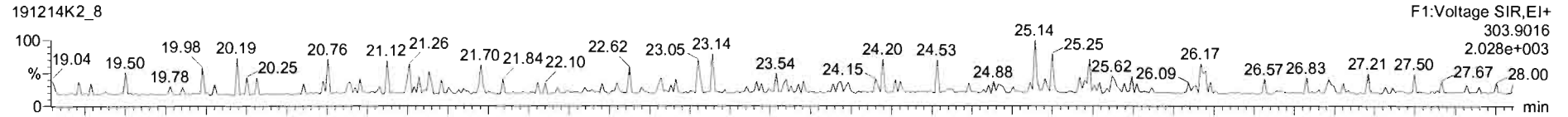


Dataset: Untitled

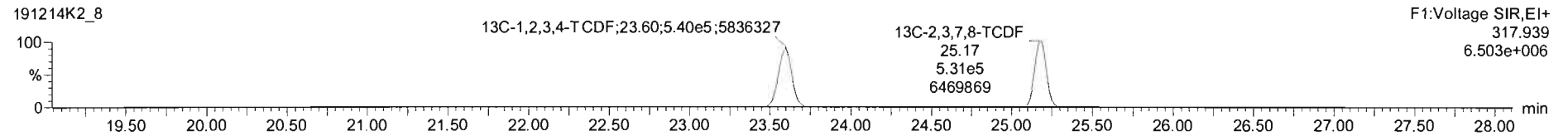
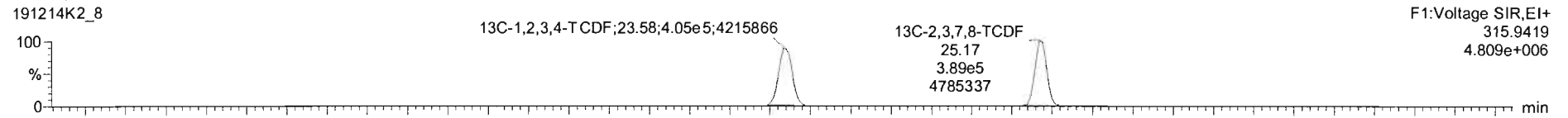
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

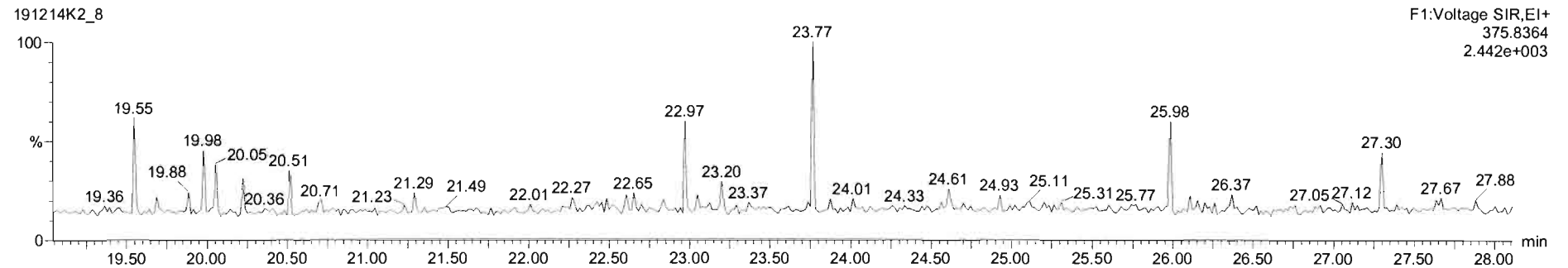
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



Dataset: Untitled

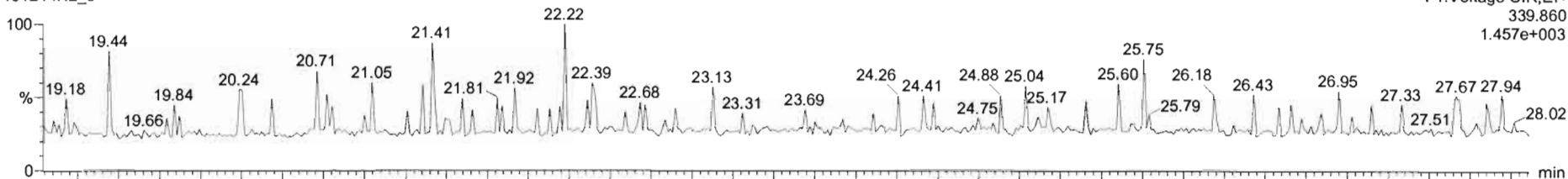
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

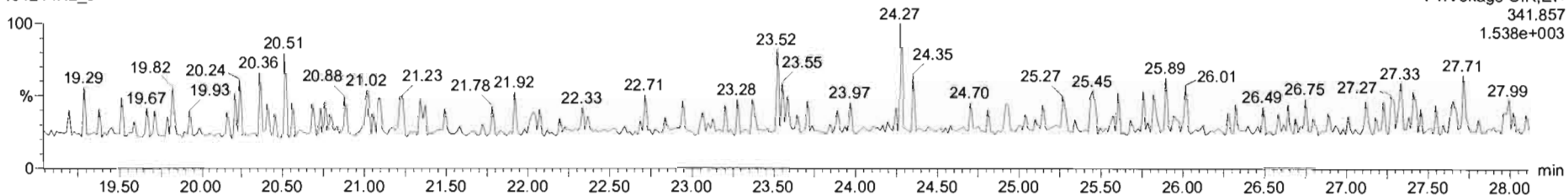
Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

1st Func. Penta-Furans

191214K2\_8

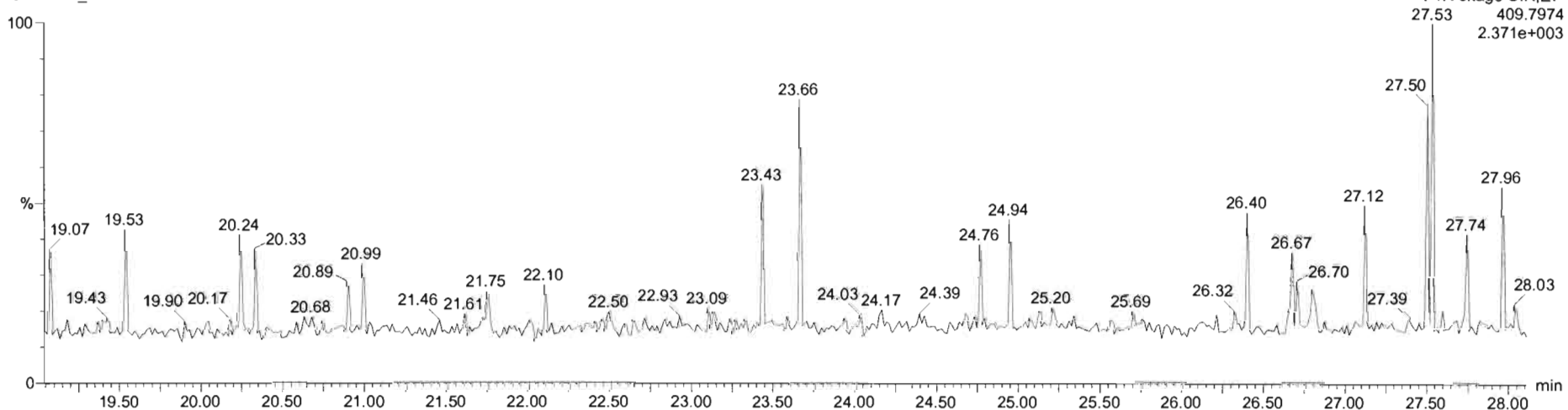


191214K2\_8



DPE6

191214K2\_8



Dataset: Untitled

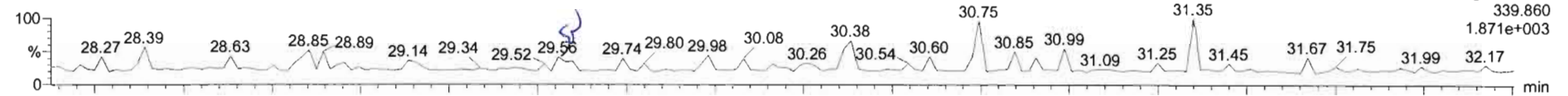
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

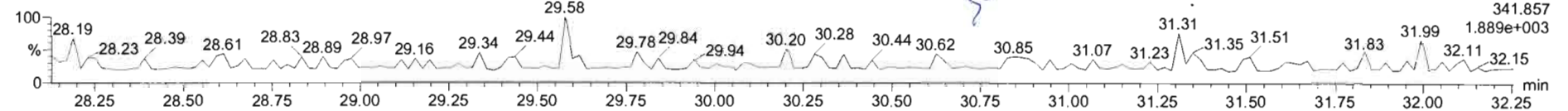
Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

**1,2,3,7,8-PeCDF**

191214K2\_8

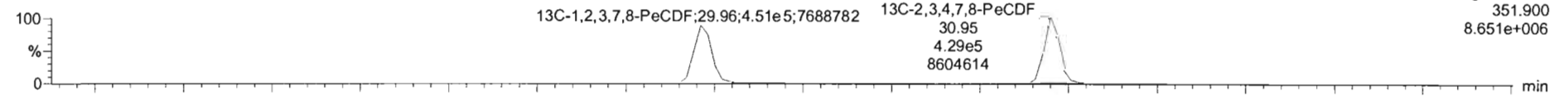


191214K2\_8

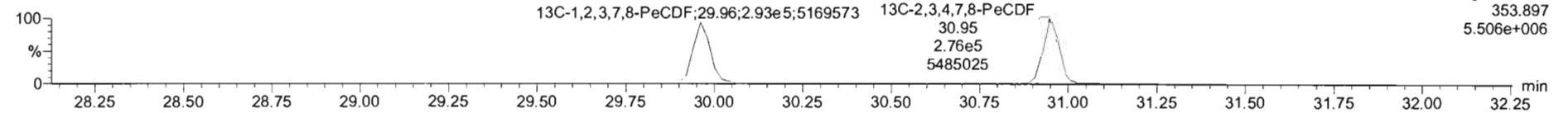


**13C-1,2,3,7,8-PeCDF**

191214K2\_8

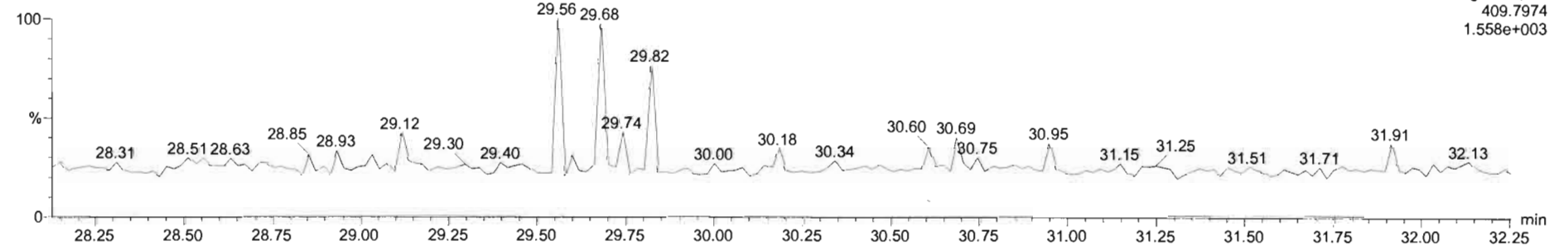


191214K2\_8



**DPE2**

191214K2\_8

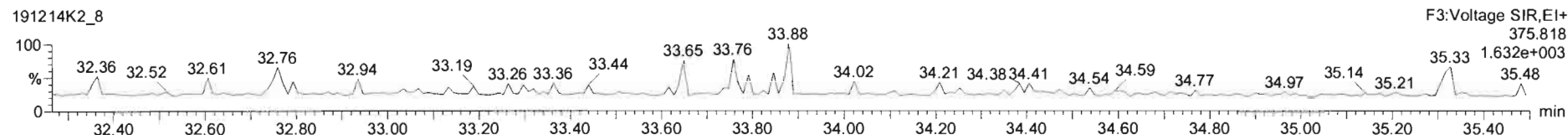
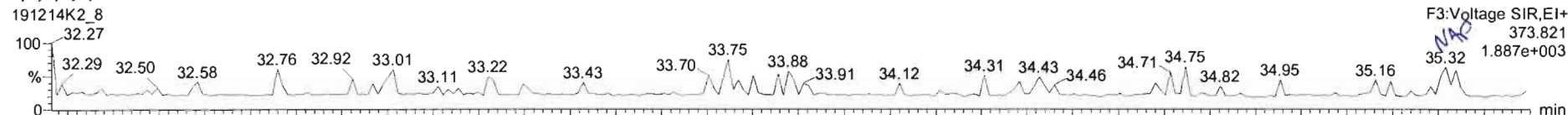


Dataset: Untitled

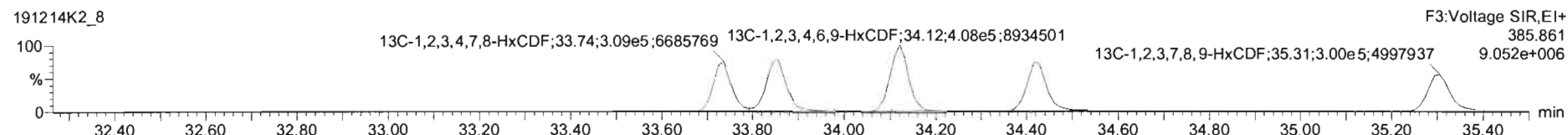
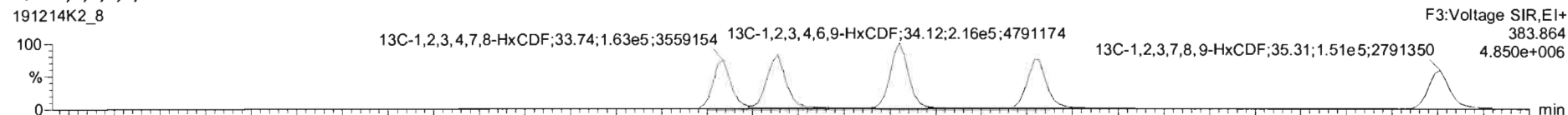
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

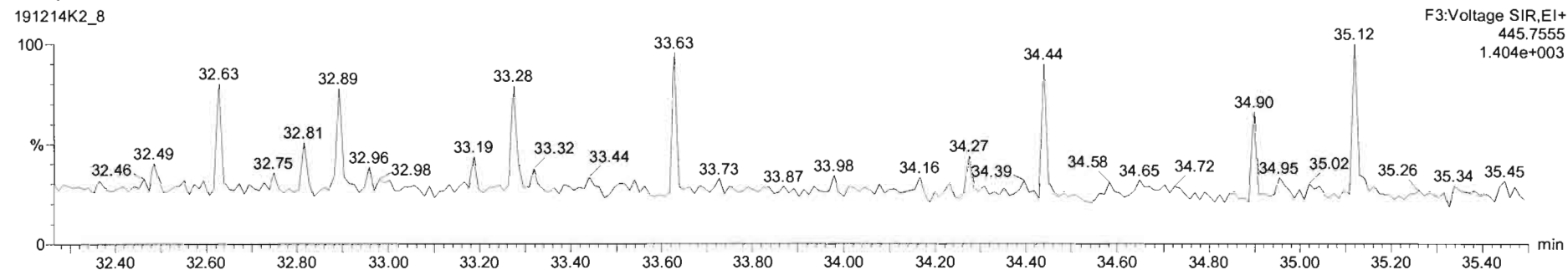
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



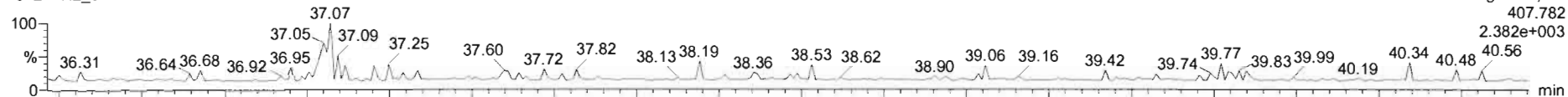
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

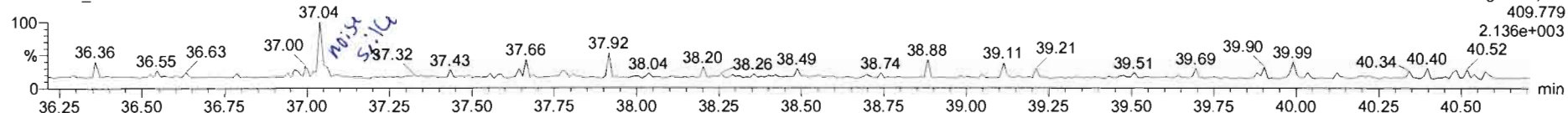
Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

### 1,2,3,4,6,7,8-HpCDF

191214K2\_8

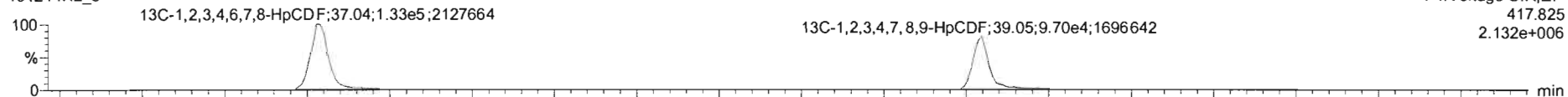


191214K2\_8

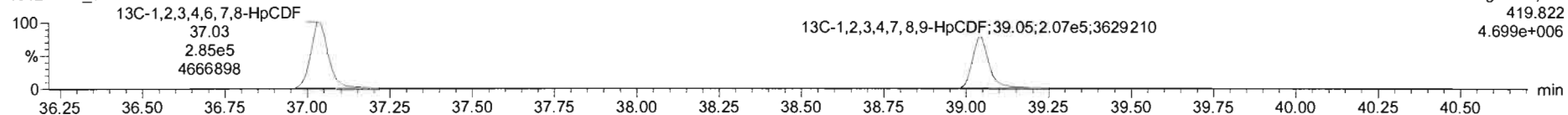


### 13C-1,2,3,4,6,7,8-HpCDF

191214K2\_8

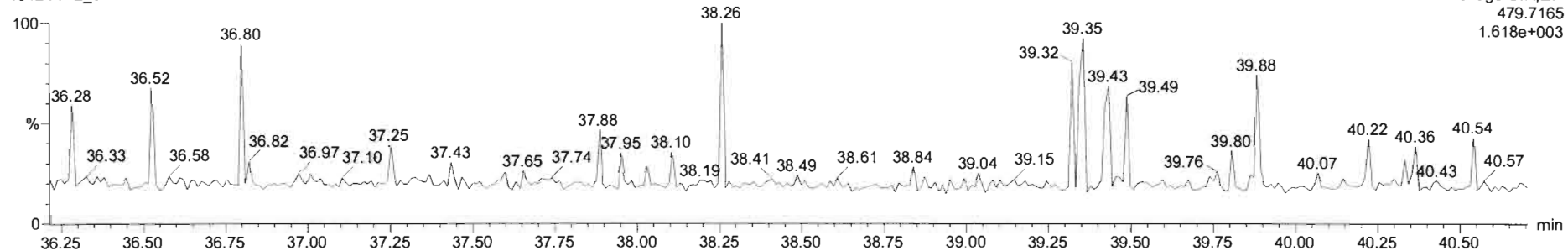


191214K2\_8



### DPE4

191214K2\_8



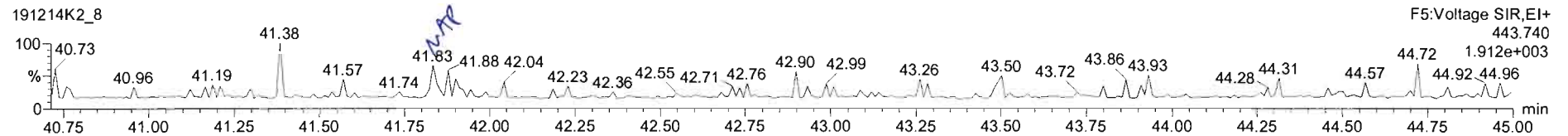
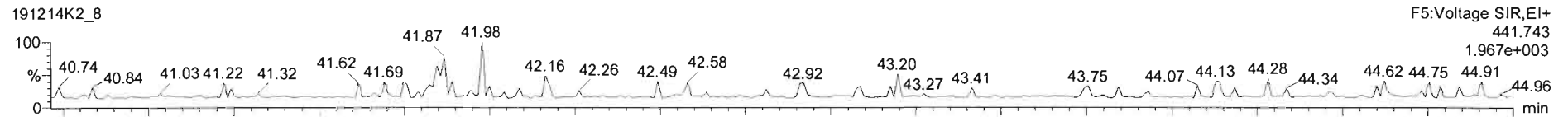
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

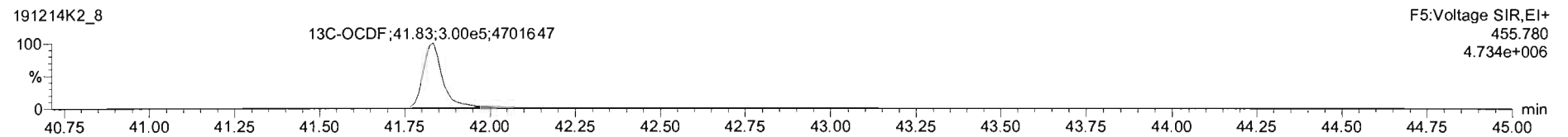
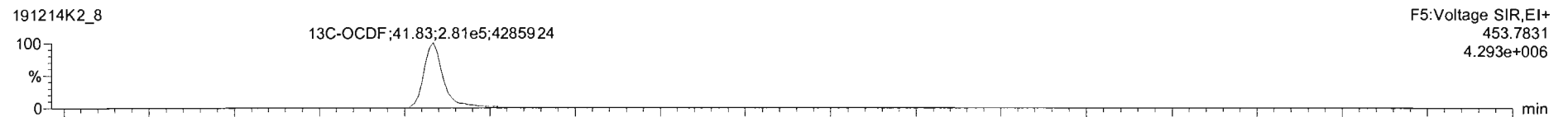
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001

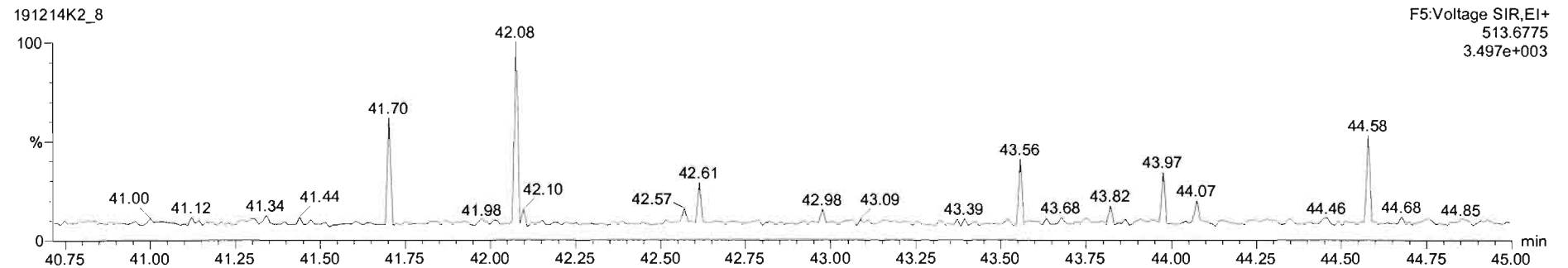
**OCDF**



**13C-OCDF**



**DPE5**

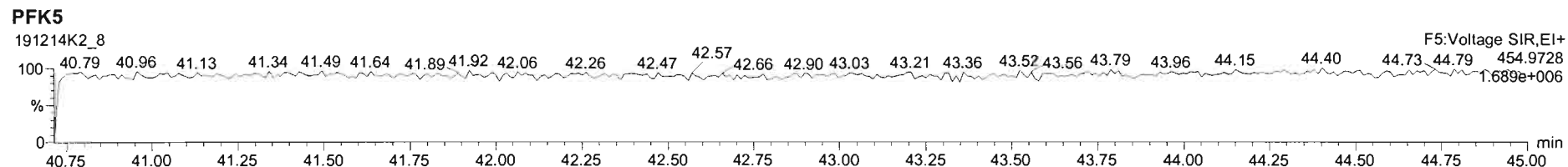
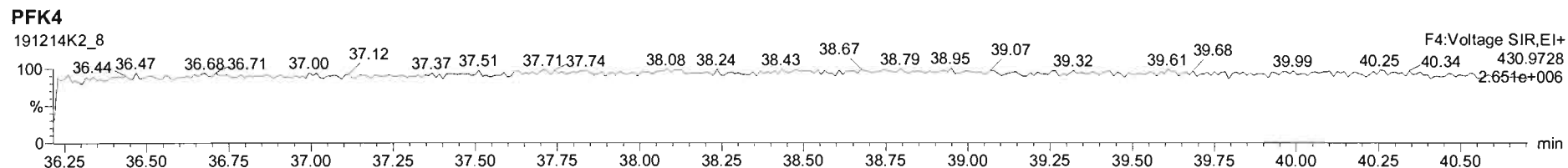
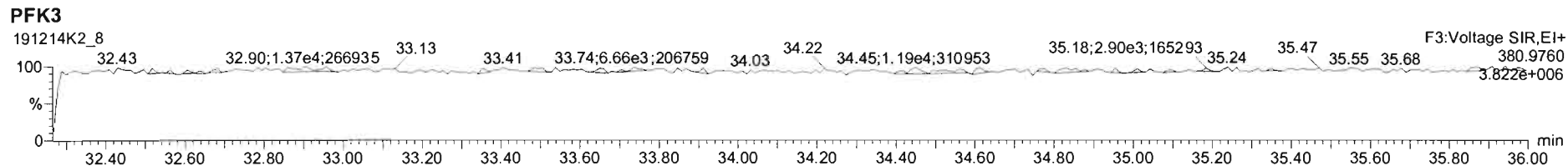
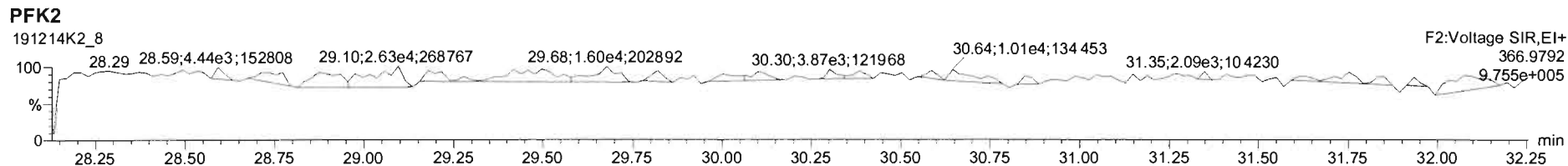
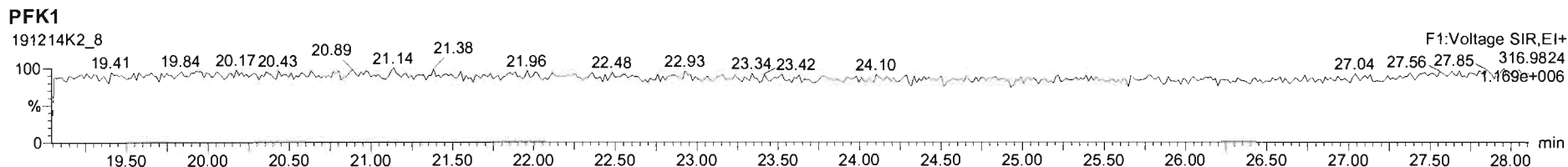




Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_8, Date: 14-Dec-2019, Time: 23:57:03, ID: 1903461-02RE1 PDI-046SC-A-13-13.5-191001 12.8, Description: PDI-046SC-A-13-13.5-191001



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-9.qld

Last Altered: Tuesday, December 17, 2019 09:05:20 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 09:06:40 Pacific Standard Time

HL 12-17-19

OT 01/10/2020

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.925	10.035	26.184		1.001				0.0642	
2	1,2,3,7,8-PeCDD			NO	0.905	10.035	31.271		1.001				0.0645	
3	1,2,3,4,7,8-HxCDD			NO	1.07	10.035	34.592		1.000				0.0695	
4	1,2,3,6,7,8-HxCDD			NO	0.967	10.035	34.691		1.000				0.0644	
5	1,2,3,7,8,9-HxCDD			NO	0.978	10.035	34.989		1.001				0.0732	
6	1,2,3,4,6,7,8-HpCDD			NO	1.04	10.035	38.455		1.000				0.138	
7	OCDD	6.59e2	1.11	YES	0.972	10.035	41.637	41.65	1.000	1.000	0.62178		0.145	0.611
8	2,3,7,8-TCDF			NO	0.938	10.035	25.215		1.001				0.0360	
9	1,2,3,7,8-PeCDF			NO	0.976	10.035	29.982		1.001				0.0356	
10	2,3,4,7,8-PeCDF			NO	1.00	10.035	30.978		1.001				0.0287	
11	1,2,3,4,7,8-HxCDF			NO	1.24	10.035	33.725		1.000				0.0267	
12	1,2,3,6,7,8-HxCDF			NO	1.10	10.035	33.856		1.000				0.0286	
13	2,3,4,6,7,8-HxCDF			NO	1.18	10.035	34.440		1.001				0.0277	
14	1,2,3,7,8,9-HxCDF			NO	1.07	10.035	35.294		1.000				0.0431	
15	1,2,3,4,6,7,8-HpCDF			NO	1.13	10.035	37.065		1.001				0.0314	
16	1,2,3,4,7,8,9-HpCDF			NO	1.26	10.035	39.036		1.000				0.0316	
17	OCDF			NO	1.10	10.035	41.835		1.000				0.0611	
18	13C-2,3,7,8-TCDD	5.87e5	0.80	NO	1.05	10.035	26.162	26.15	1.027	1.027	190.11	95.4	0.323	
19	13C-1,2,3,7,8-PeCDD	4.55e5	0.62	NO	0.743	10.035	31.176	31.25	1.224	1.227	208.23	104	0.393	
20	13C-1,2,3,4,7,8-HxCDD	3.16e5	1.24	NO	0.646	10.035	34.580	34.58	1.014	1.014	158.60	79.6	0.470	
21	13C-1,2,3,6,7,8-HxCDD	3.89e5	1.22	NO	0.777	10.035	34.679	34.69	1.017	1.017	162.46	81.5	0.391	
22	13C-1,2,3,7,8,9-HxCDD	3.46e5	1.19	NO	0.659	10.035	34.952	34.95	1.025	1.025	170.43	85.5	0.461	
23	13C-1,2,3,4,6,7,8-HpCDD	2.53e5	1.10	NO	0.534	10.035	38.445	38.44	1.127	1.127	153.97	77.3	0.556	
24	13C-OCDD	3.97e5	0.92	NO	0.470	10.035	41.620	41.64	1.220	1.221	273.67	68.7	0.702	
25	13C-2,3,7,8-TCDF	8.49e5	0.75	NO	0.977	10.035	25.235	25.19	0.991	0.989	182.75	91.7	0.298	
26	13C-1,2,3,7,8-PeCDF	6.31e5	1.56	NO	0.778	10.035	29.888	29.96	1.174	1.177	170.64	85.6	0.721	
27	13C-2,3,4,7,8-PeCDF	6.64e5	1.51	NO	0.750	10.035	30.896	30.95	1.213	1.215	186.32	93.5	0.748	
28	13C-1,2,3,4,7,8-HxCDF	4.32e5	0.52	NO	0.845	10.035	33.721	33.73	0.989	0.989	166.09	83.3	0.613	
29	13C-1,2,3,6,7,8-HxCDF	5.11e5	0.54	NO	1.03	10.035	33.837	33.85	0.992	0.992	161.51	81.0	0.504	
30	13C-2,3,4,6,7,8-HxCDF	4.90e5	0.51	NO	0.893	10.035	34.410	34.41	1.009	1.009	178.05	89.3	0.580	
31	13C-1,2,3,7,8,9-HxCDF	4.06e5	0.53	NO	0.734	10.035	35.310	35.29	1.035	1.035	179.39	90.0	0.705	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-9.qld

Last Altered: Tuesday, December 17, 2019 09:05:20 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:06:40 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	3.56e5	0.46	NO	0.754	10.035	37.022	37.03	1.085	1.086	153.13	76.8	0.540	
33	13C-1,2,3,4,7,8,9-HpCDF	2.91e5	0.44	NO	0.539	10.035	39.045	39.04	1.145	1.144	175.04	87.8	0.756	
34	13C-OCDF	5.62e5	0.85	NO	0.593	10.035	41.832	41.83	1.226	1.226	307.64	77.2	0.543	
35	37Cl-2,3,7,8-TCDD	2.35e5			1.07	10.035	26.183	26.18	1.028	1.028	74.599	93.6	0.0622	
36	13C-1,2,3,4-TCDD	5.87e5	0.81	NO	1.00	10.035	25.500	25.46	1.000	1.000	199.30	100	0.339	
37	13C-1,2,3,4-TCDF	9.47e5	0.75	NO	1.00	10.035	23.680	23.61	1.000	1.000	199.30	100	0.291	
38	13C-1,2,3,4,6,9-HxCDF	6.14e5	0.53	NO	1.00	10.035	34.060	34.11	1.000	1.000	199.30	100	0.518	
39	Total Tetra-Dioxins				0.925	10.035	24.620		0.000				0.0323	
40	Total Penta-Dioxins				0.905	10.035	29.960		0.000				0.0155	
41	Total Hexa-Dioxins				0.967	10.035	33.635		0.000		0.00000		0.0285	0.0669
42	Total Hepta-Dioxins				1.04	10.035	38.800		0.000				0.0931	
43	Total Tetra-Furans				0.938	10.035	23.610		0.000		0.018950		0.0160	0.0190
44	1st Func. Penta-Furans				0.976	10.035	27.040		0.000				0.0114	
45	Total Penta-Furans				0.976	10.035	29.275		0.000				0.0131	
46	Total Hexa-Furans				1.18	10.035	33.555		0.000		0.00000		0.0173	0.0108
47	Total Hepta-Furans				1.13	10.035	37.835		0.000				0.0149	

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-9.qld

Last Altered: Tuesday, December 17, 2019 09:05:20 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:06:40 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	
1	Total Hexa-Dioxins	34.11	3.147e3	1.472e3	1.088e2	5.077e1	2.14	YES	0.000e0	0.00000	0.066887	0.0285

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	
1	Total Tetra-Furans	27.05	2.057e3	1.322e3	3.449e1	4.121e1	0.84	NO	7.570e1	0.018950	0.018950	0.0160

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-9.qld

Last Altered: Tuesday, December 17, 2019 09:05:20 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:06:40 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

Penta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hexa-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Furans	32.61	7.290e2	2.063e3	1.626e1	2.268e1	0.72	YES	0.000e0	0.00000	0.010788	0.0173

Hepta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

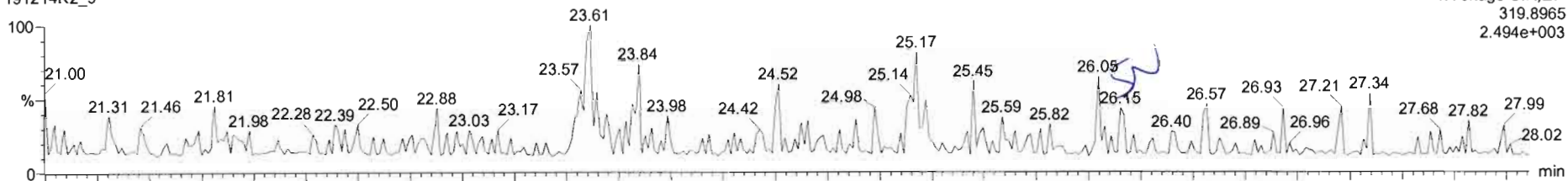
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

**2,3,7,8-TCDD**

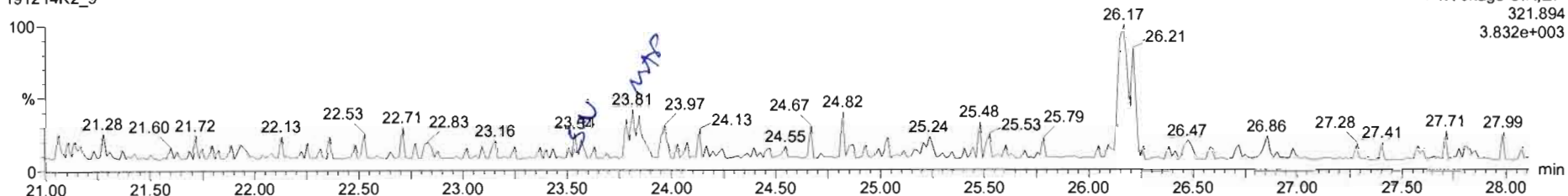
191214K2\_9

F1:Voltage SIR,EI+  
319.8965  
2.494e+003



191214K2\_9

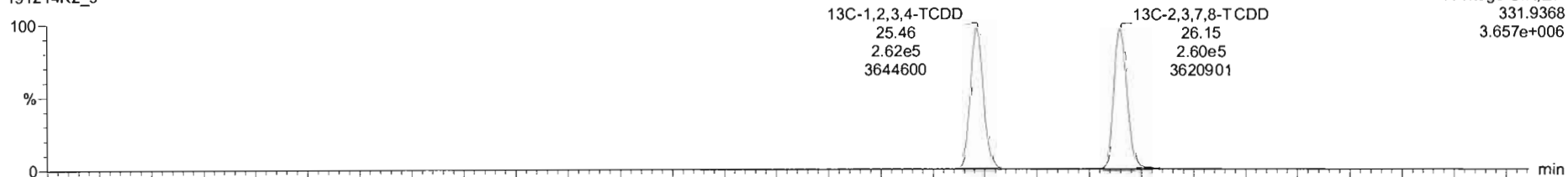
F1:Voltage SIR,EI+  
321.894  
3.832e+003



**13C-2,3,7,8-TCDD**

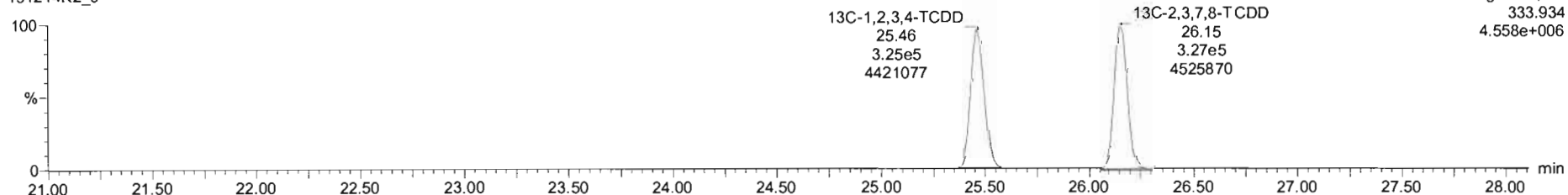
191214K2\_9

F1:Voltage SIR,EI+  
331.9368  
3.657e+006



191214K2\_9

F1:Voltage SIR,EI+  
333.934  
4.558e+006



Dataset: Untitled

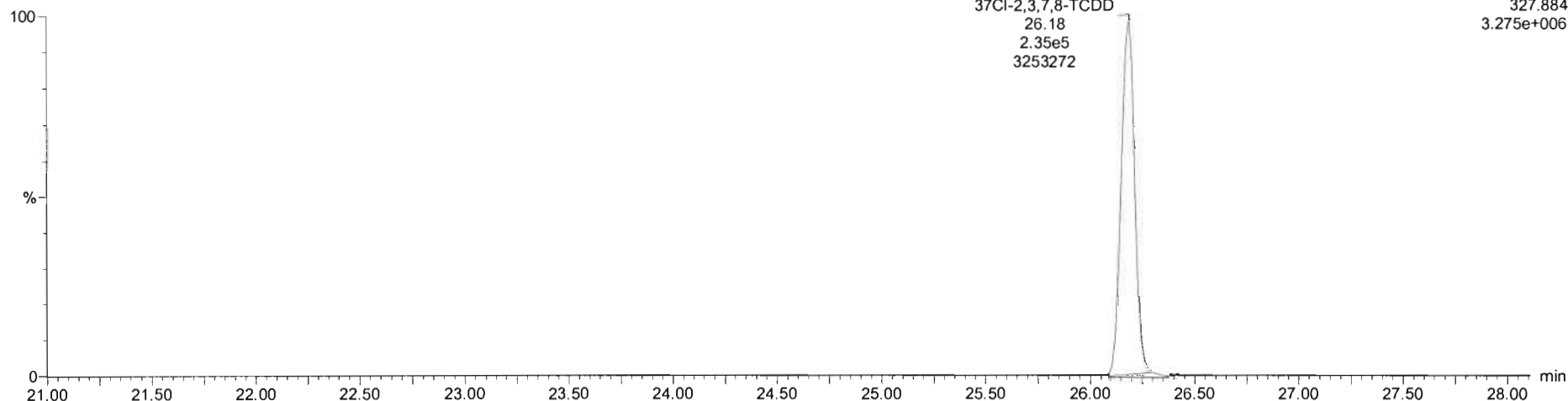
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

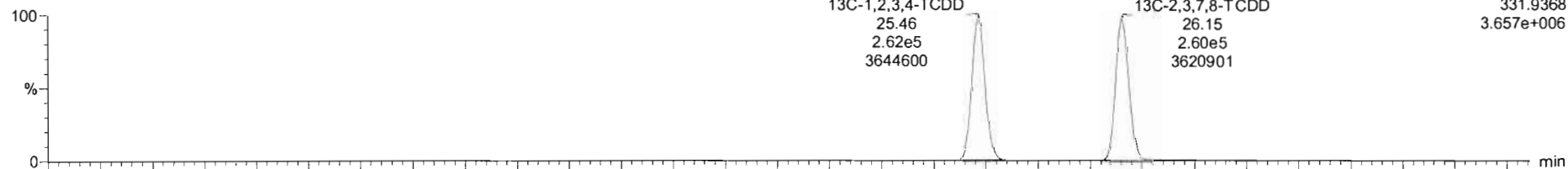
**37Cl-2,3,7,8-TCDD**

191214K2\_9

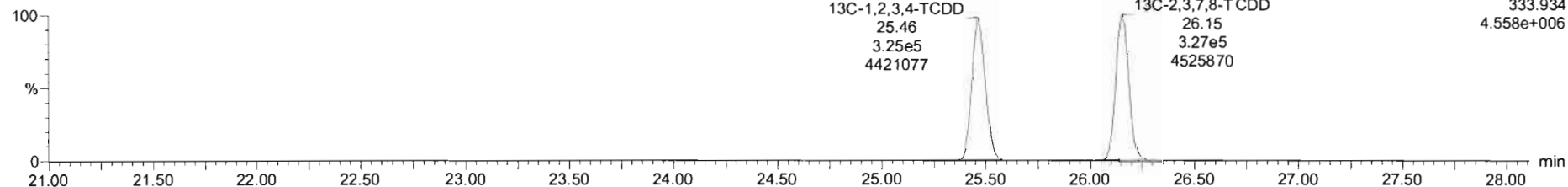


**13C-1,2,3,4-TCDD**

191214K2\_9



191214K2\_9



Dataset: Untitled

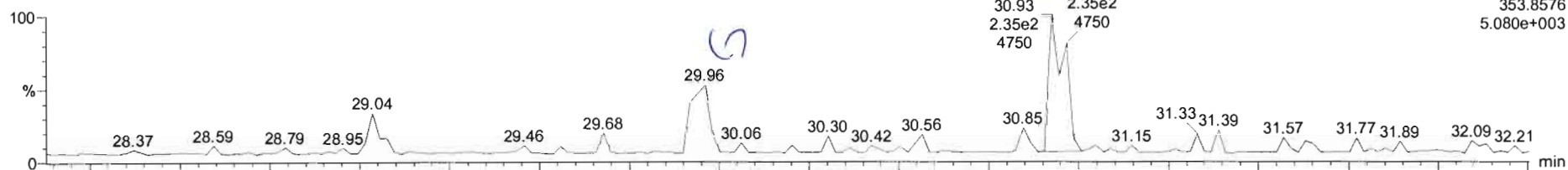
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

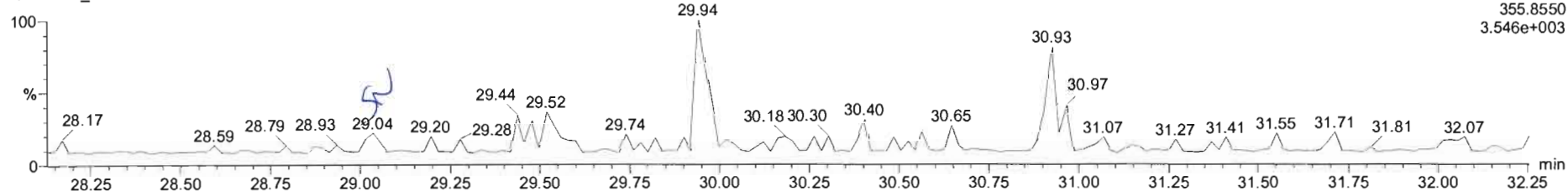
Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

**1,2,3,7,8-PeCDD**

191214K2\_9

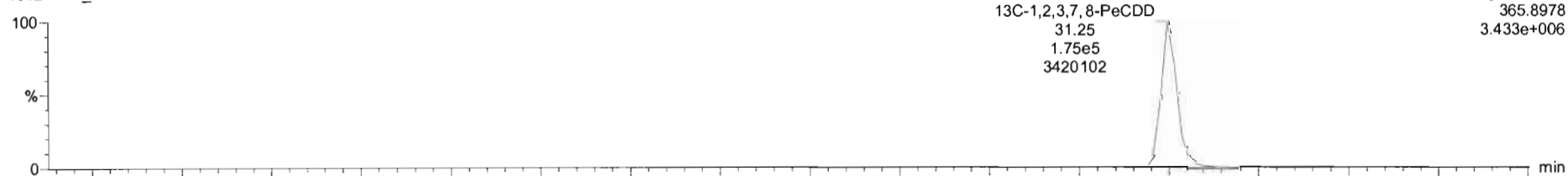


191214K2\_9

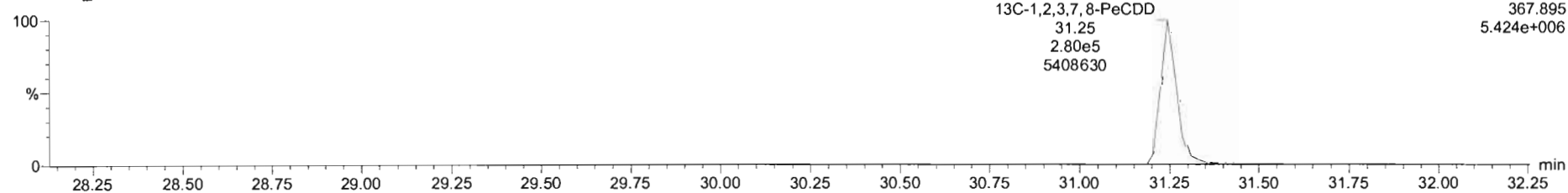


**13C-1,2,3,7,8-PeCDD**

191214K2\_9



191214K2\_9





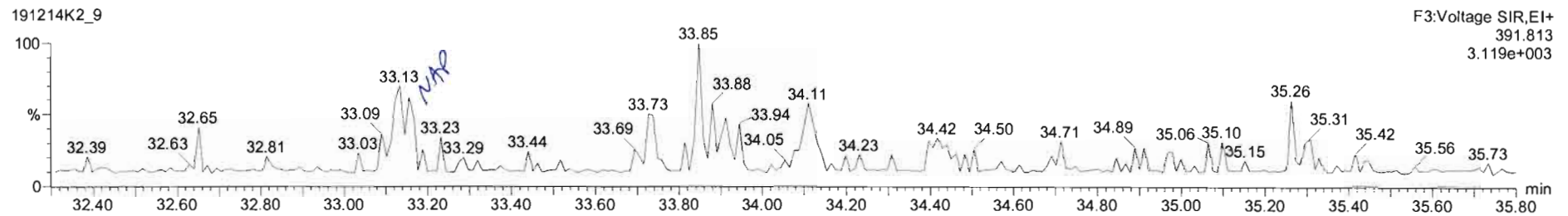
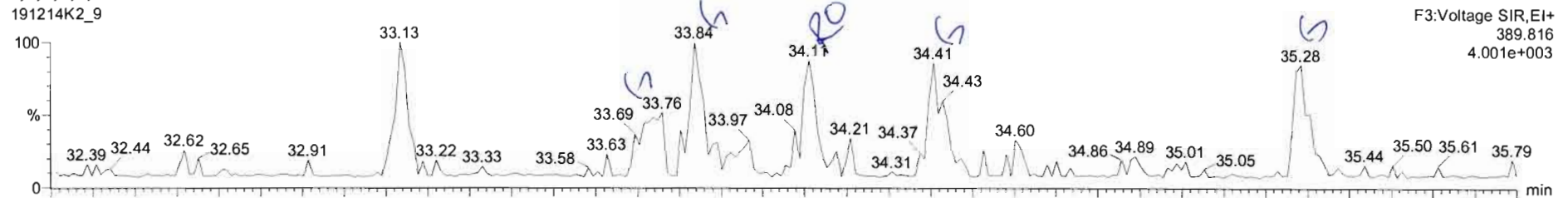
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

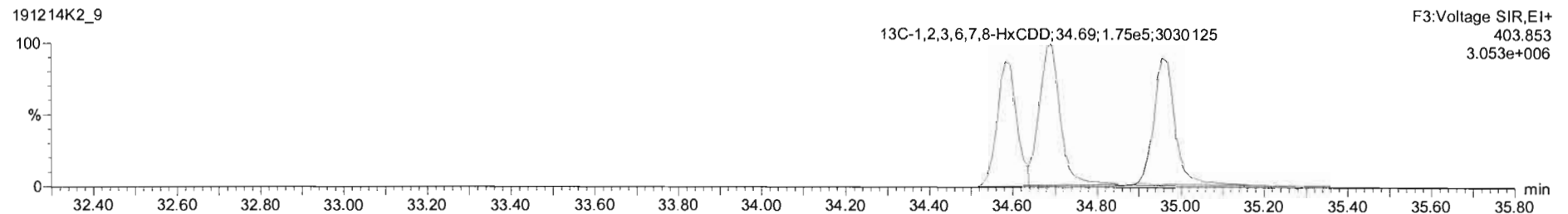
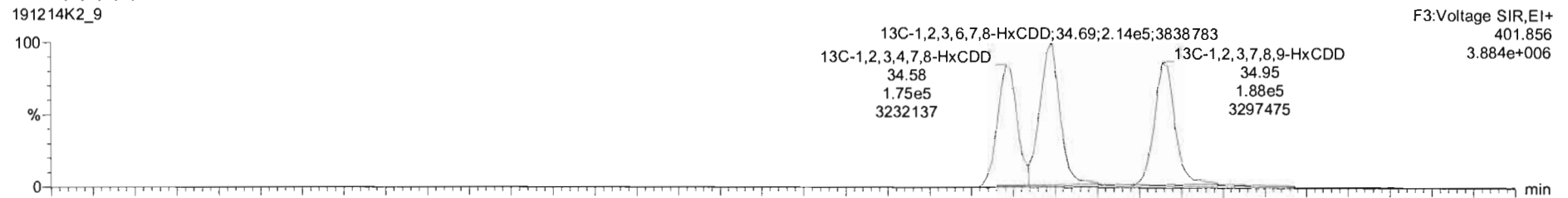
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

1,2,3,4,7,8-HxCDD



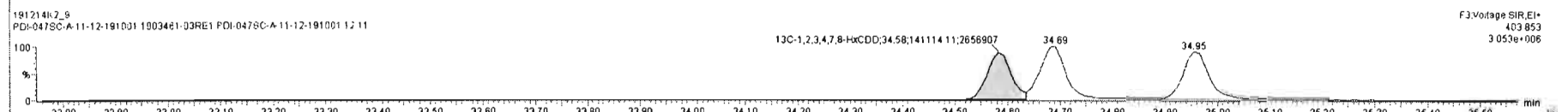
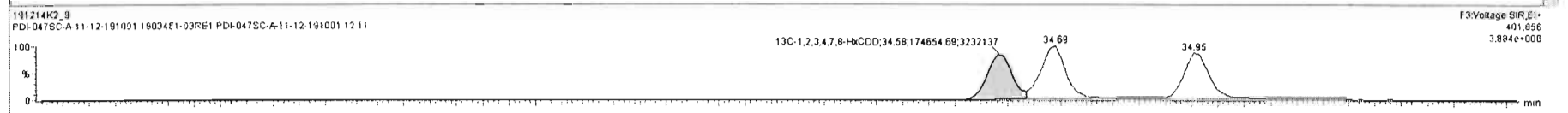
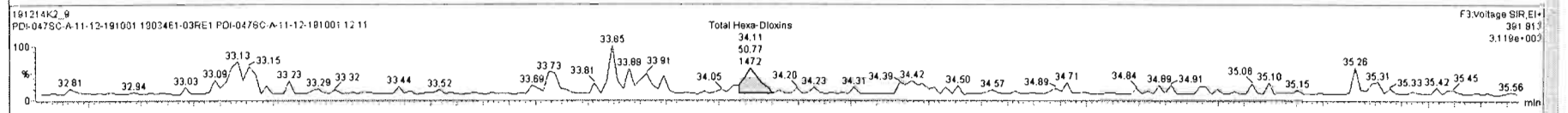
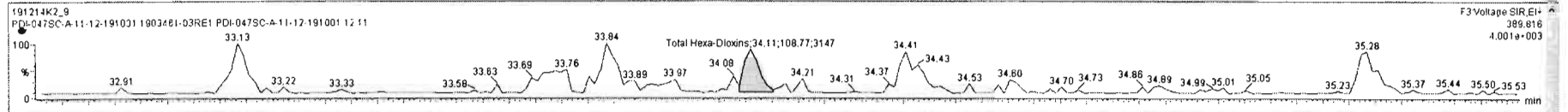
13C-1,2,3,4,7,8-HxCDD



191214K2\_9 - 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11 - PDI-047SC-A-11-12-191001

Name	Resp	RA	nly	RRF	wt/val	RT	RRT	Conc.	%Rec	DL	EMPC
28	13C-1,2,3,4,7,8-HxCDF	4.32e5	0.52	NO	0.8452	10.035	33.73	0.989	166	83.3	0.613
29	13C-1,2,3,6,7,8-HxCDF	5.11e5	0.54	NO	1.0267	10.035	33.85	0.992	182	81.0	0.504
30	13C-2,3,4,6,7,8-HxCDF	4.90e5	0.51	NO	0.8929	10.035	34.41	1.009	178	89.3	0.580
31	13C-1,2,3,7,8-HxCDF	4.06e5	0.53	NO	0.7343	10.035	35.28	1.035	179	90.0	0.705
32	13C-1,2,3,4,6,7,8-HpCDF	3.56e5	0.46	NO	0.7542	10.035	37.03	1.086	153	76.8	0.540
33	13C-1,2,3,4,7,8,9-HpCDF	2.91e5	0.44	NO	0.5390	10.035	39.04	1.144	175	87.8	0.756
34	13C-OCDF	5.62e5	0.85	NO	0.5925	10.035	41.83	1.226	306	77.2	0.543
35	37Cl-2,3,7,8-TCDF	2.35e5			1.0895	10.035	26.18	1.028	74.6	93.6	0.0622
36	13C-1,2,3,4-TCDF	5.87e5	0.81	NO	1.0000	10.035	25.46	1.000	199	100	0.338
37	13C-1,2,3,4-TCDF	9.47e5	0.75	NO	1.0000	10.035	23.81	1.000	199	100	0.291

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1	Total Hexa-Dioxins	34.11	1.088e2	5.077e1	2.14	YES	0.066887



Dataset: Untitled

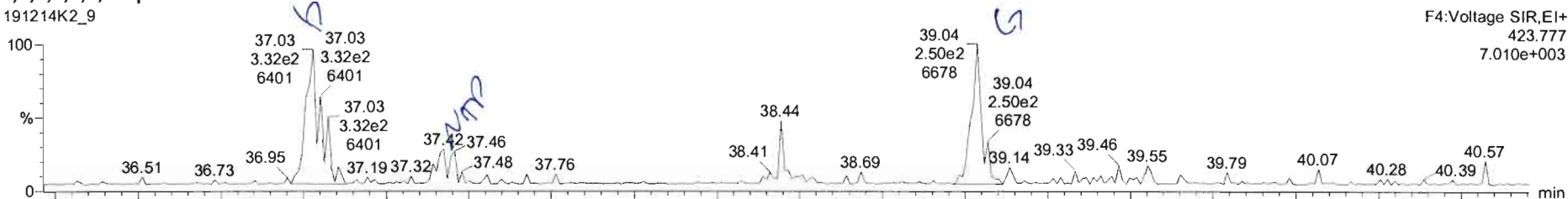
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

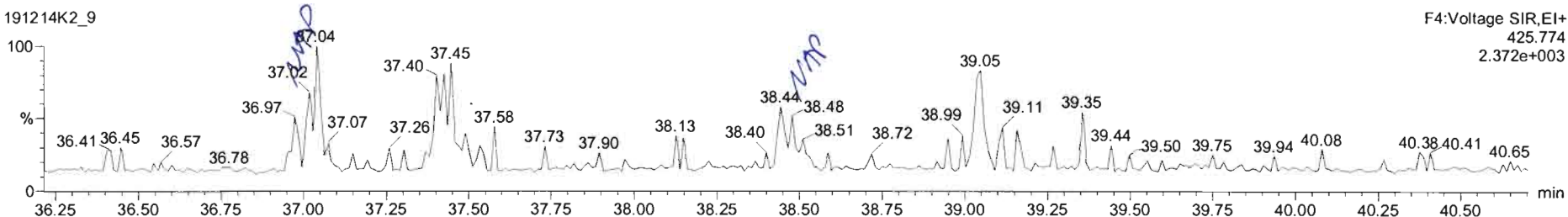
1,2,3,4,6,7,8-HpCDD

191214K2\_9



F4:Voltage SIR,EI+  
423.777  
7.010e+003

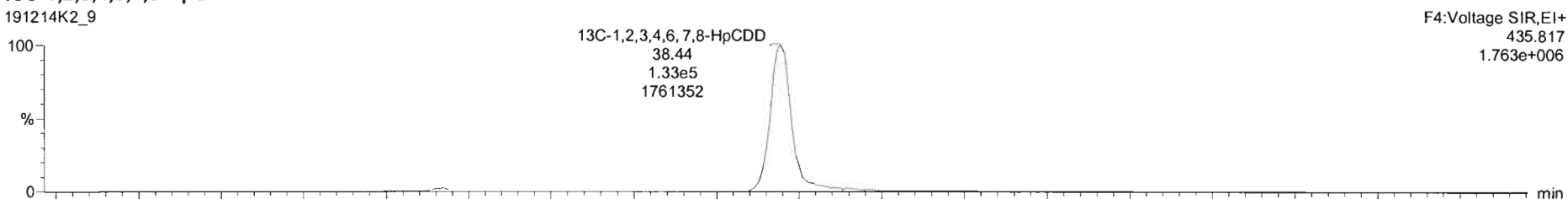
191214K2\_9



F4:Voltage SIR,EI+  
425.774  
2.372e+003

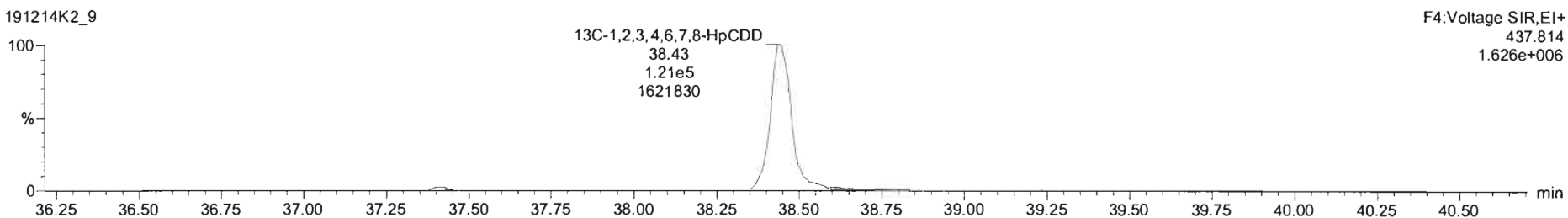
13C-1,2,3,4,6,7,8-HpCDD

191214K2\_9



F4:Voltage SIR,EI+  
435.817  
1.763e+006

191214K2\_9



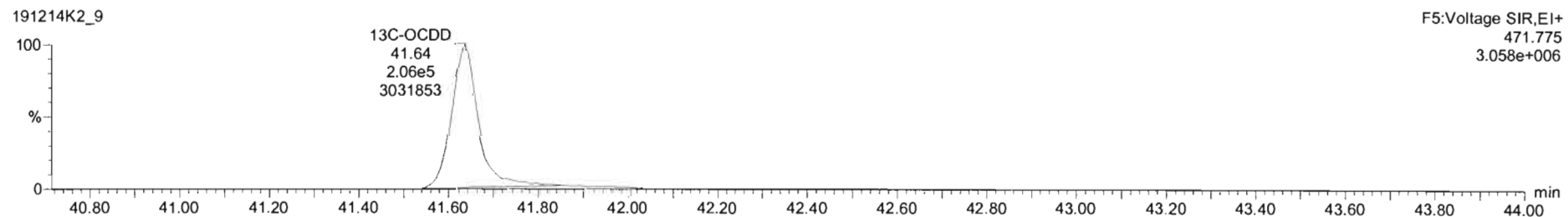
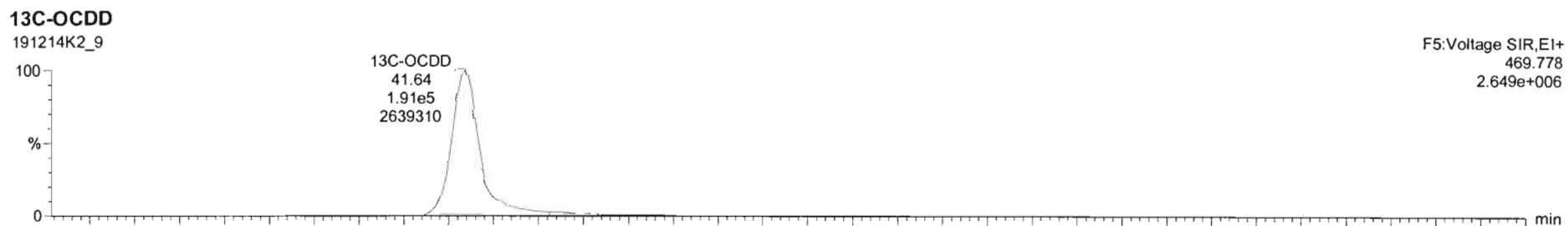
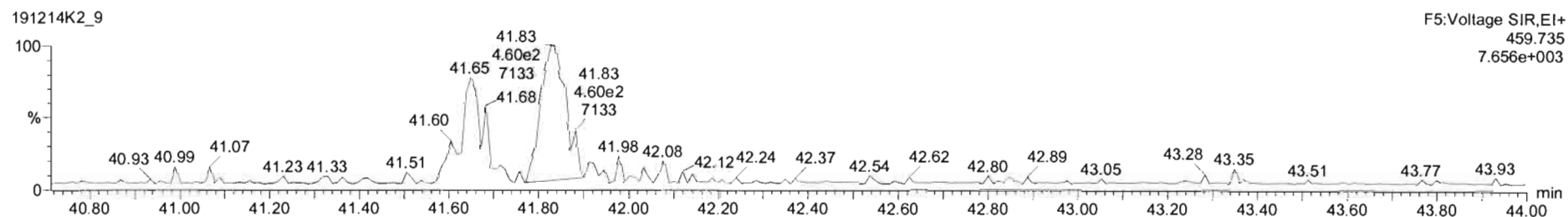
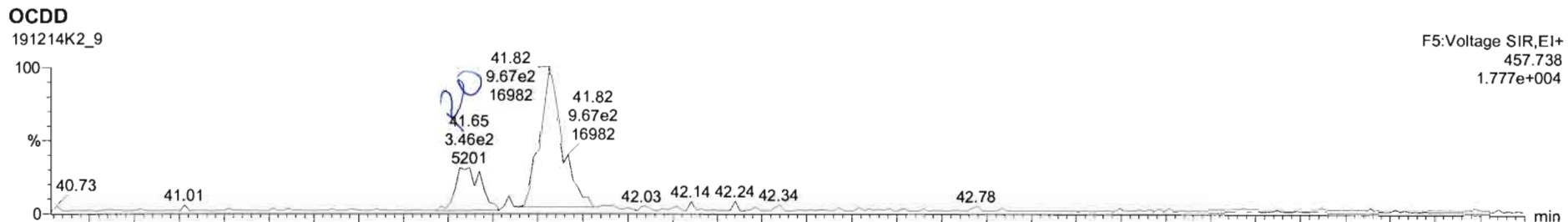
F4:Voltage SIR,EI+  
437.814  
1.626e+006

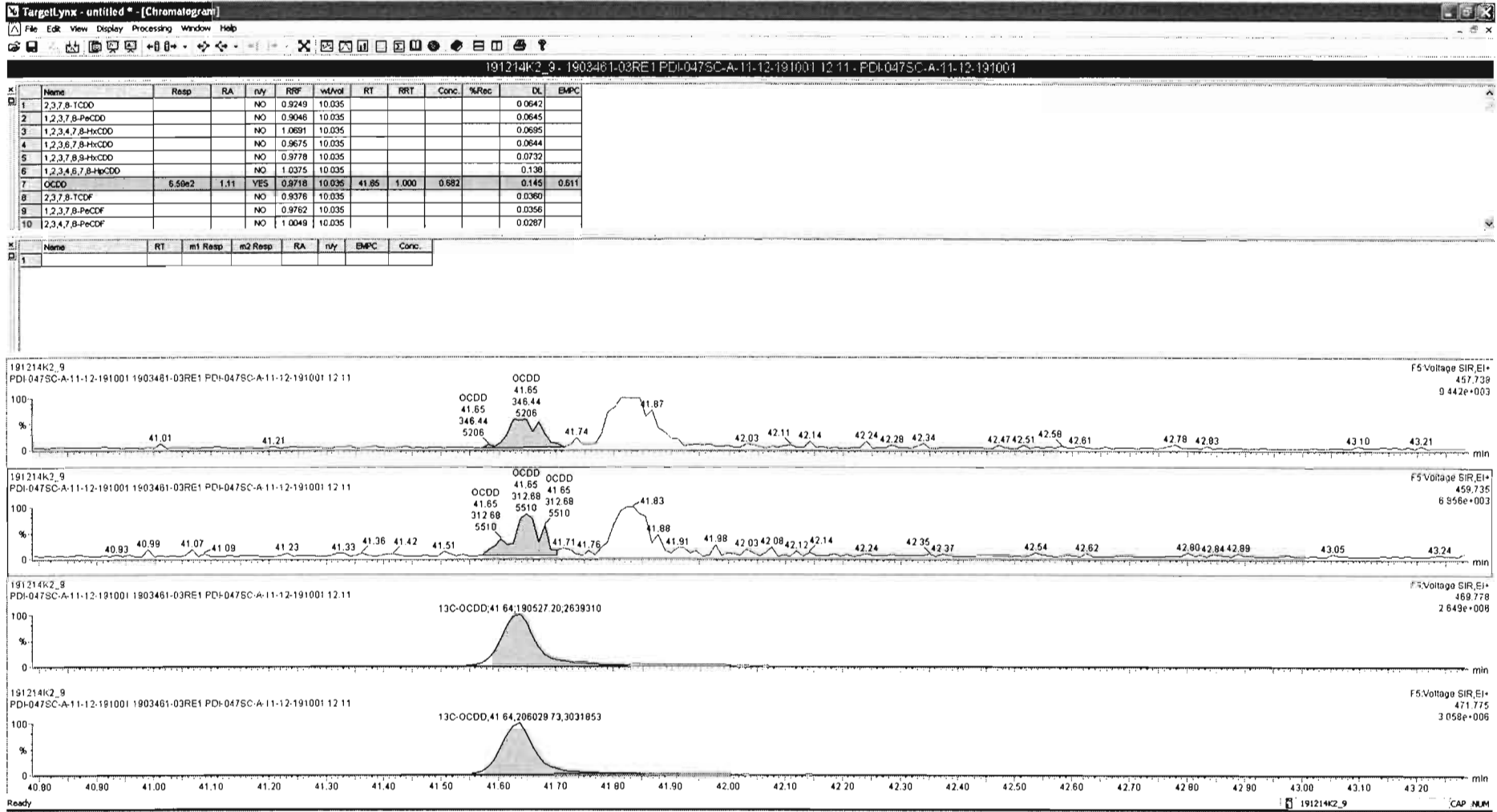
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001





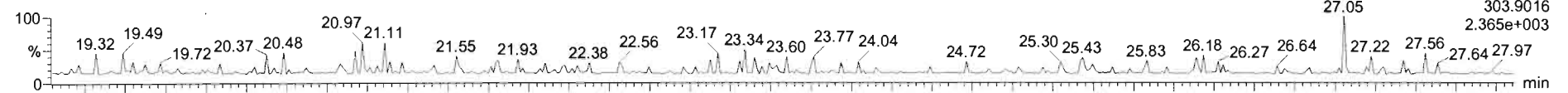
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

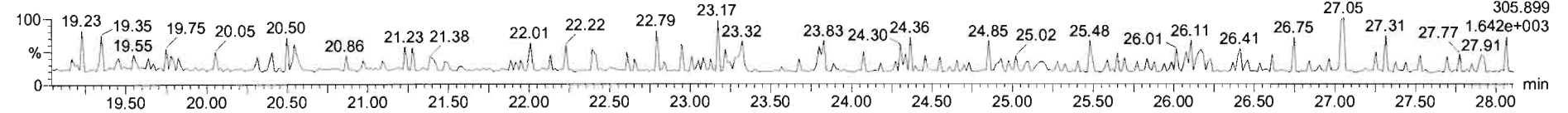
Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

**2,3,7,8-TCDF**

191214K2\_9

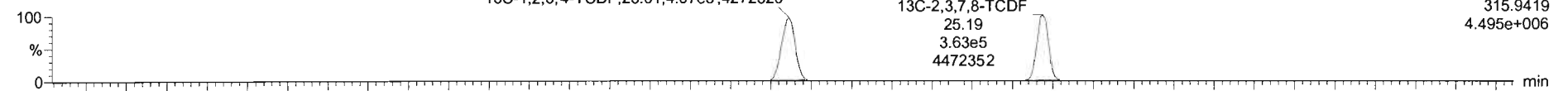


191214K2\_9

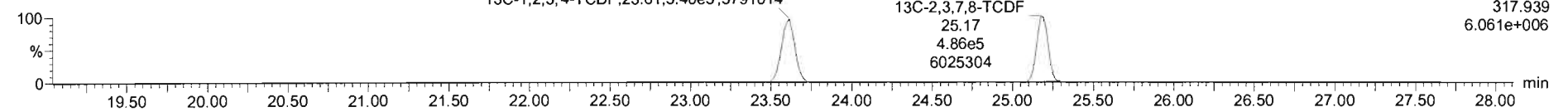


**13C-2,3,7,8-TCDF**

191214K2\_9

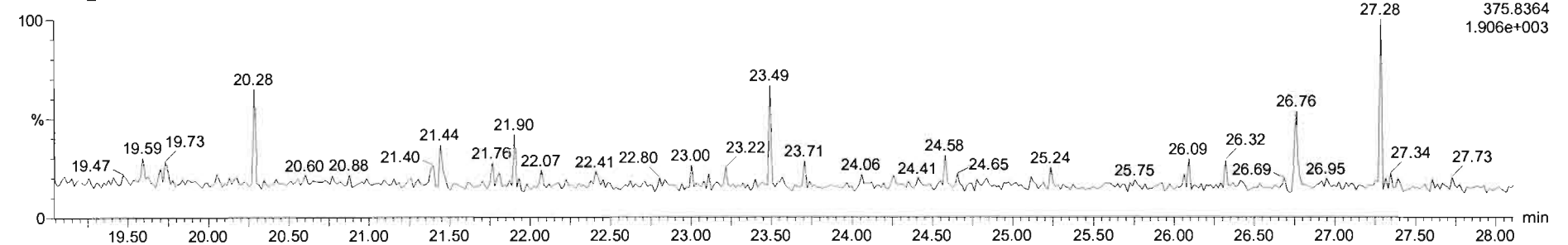


191214K2\_9



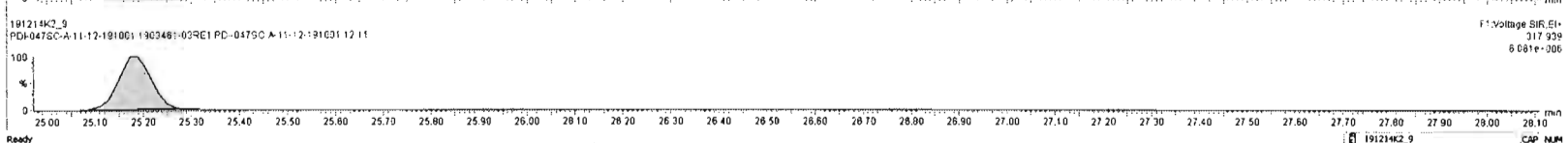
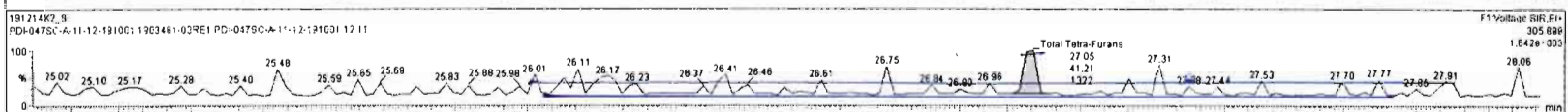
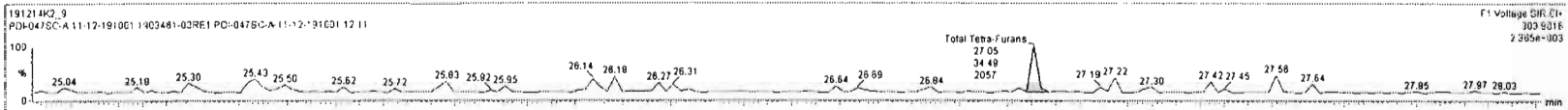
**DPE1**

191214K2\_9



Name	Resp	RA	nV	RF	w/mid	RT	RRT	Conc.	%Rec	Dt	EMPC
43 Total Tetra-Furans				0.8378	10.035			0.0190		0.0180	0.0190
44 1st Func. Penta-Furans				0.9782	10.035					0.0114	
45 Total Penta-Furans				0.9762	10.035					0.0131	
46 Total Hexa-Furans				1.1806	10.035					0.0173	
47 Total Hepta-Furans				1.1300	10.035					0.0149	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	wt Resp	m2 Resp	RA	nV	EMPC	Conc.
Total Tetra-Furans	27.05	3.449e1	4.121e1	0.84	NO	0.019650	0.019650



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

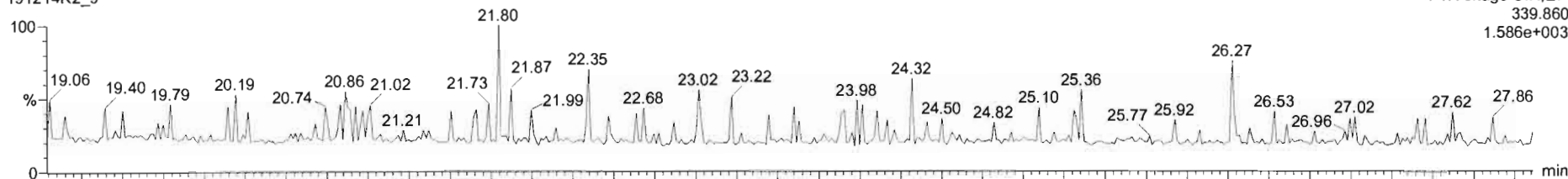
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

1st Func. Penta-Furans

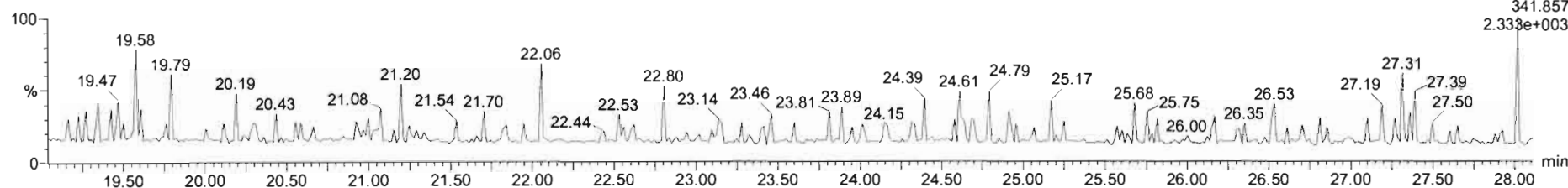
191214K2\_9

F1:Voltage SIR,EI+  
339.860  
1.586e+003



191214K2\_9

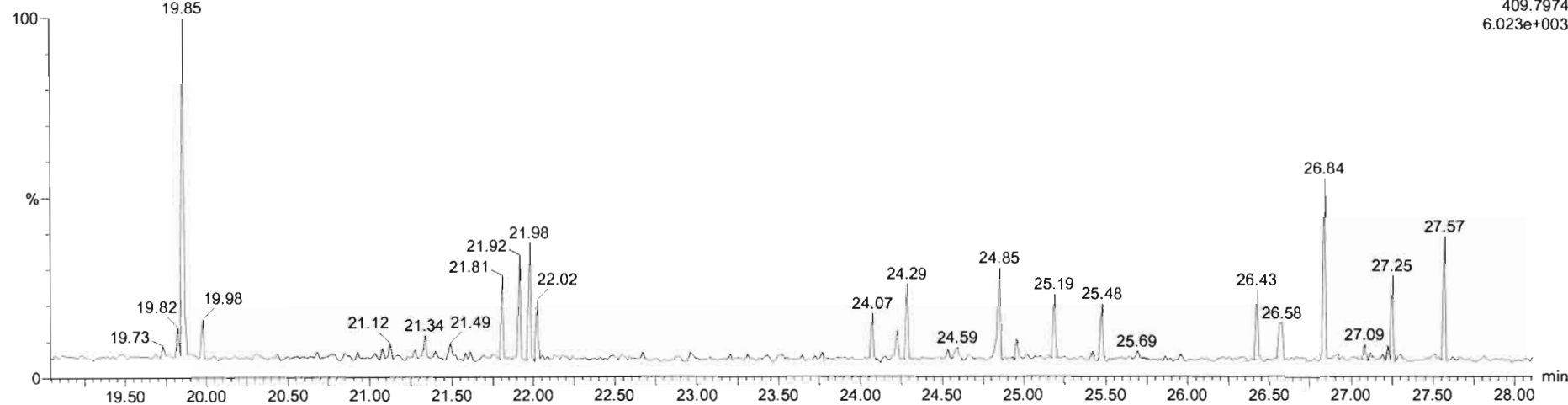
F1:Voltage SIR,EI+  
341.857  
2.333e+003



DPE6

191214K2\_9

F1:Voltage SIR,EI+  
409.7974  
6.023e+003



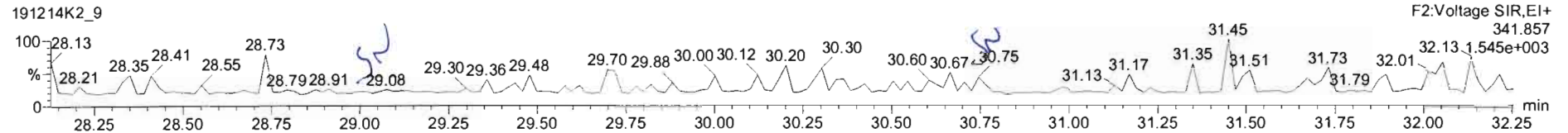
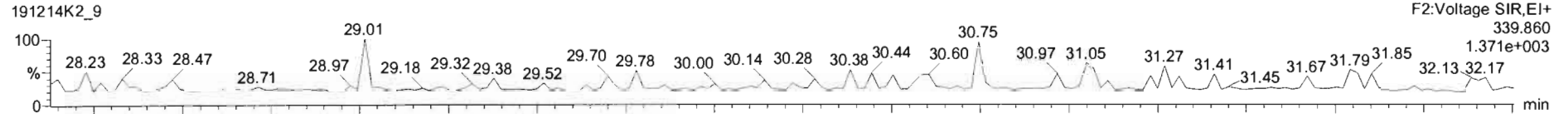


Dataset: Untitled

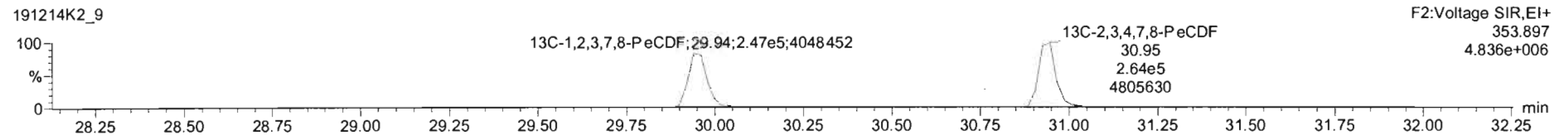
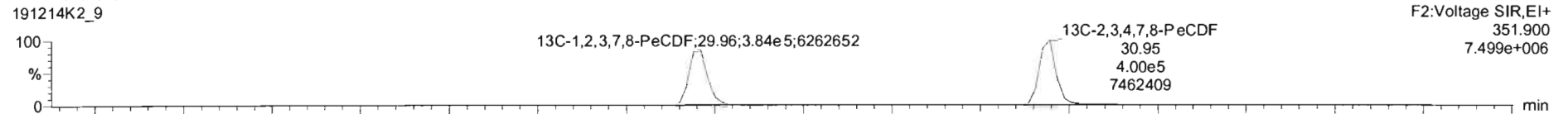
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

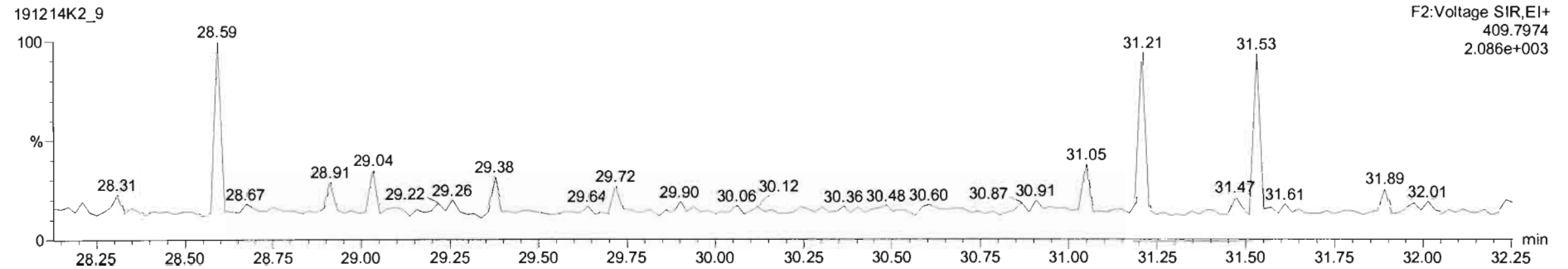
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



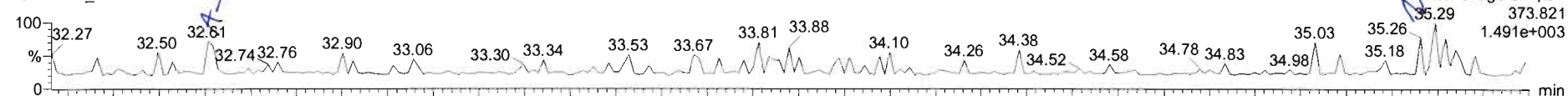
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

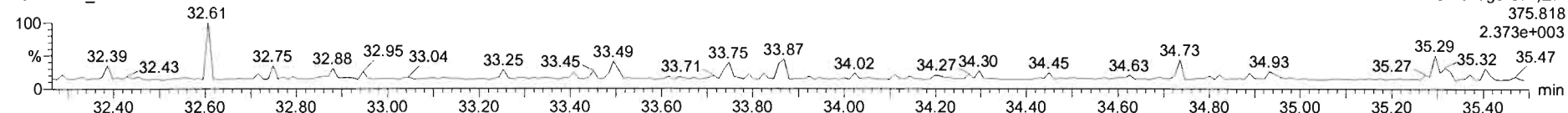
Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

**1,2,3,4,7,8-HxCDF**

191214K2\_9

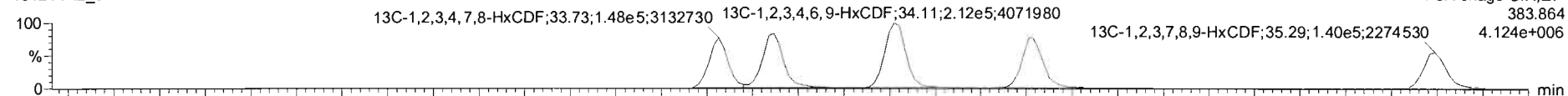


191214K2\_9

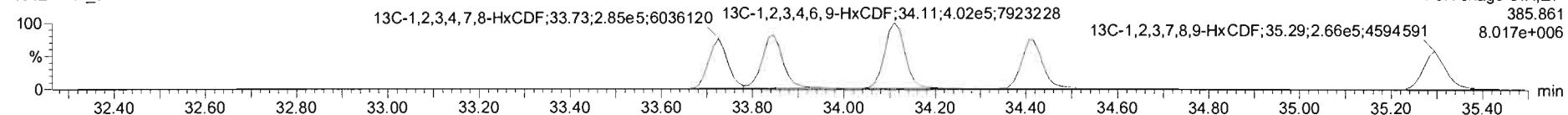


**13C-1,2,3,4,7,8-HxCDF**

191214K2\_9

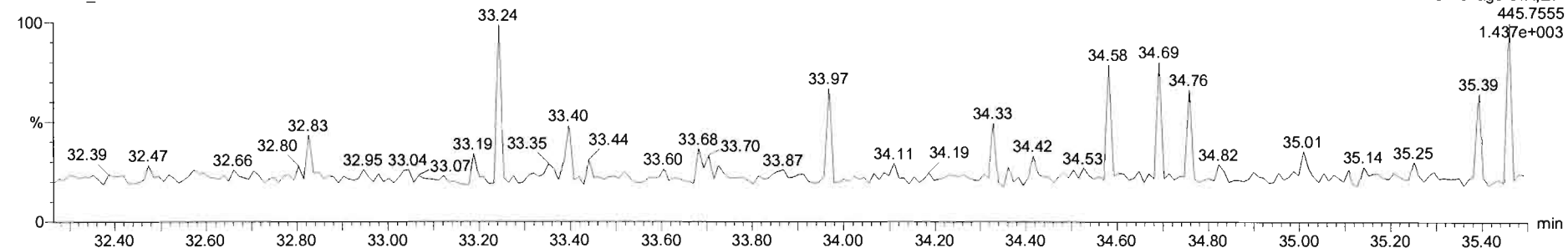


191214K2\_9



**DPE3**

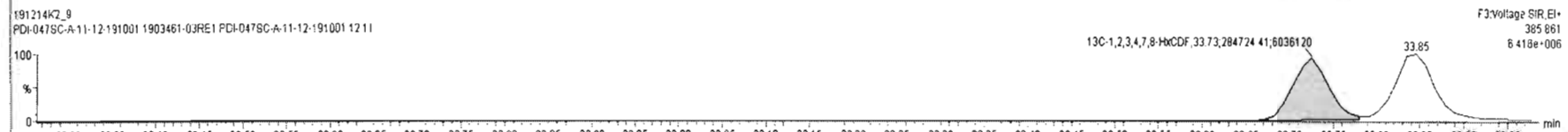
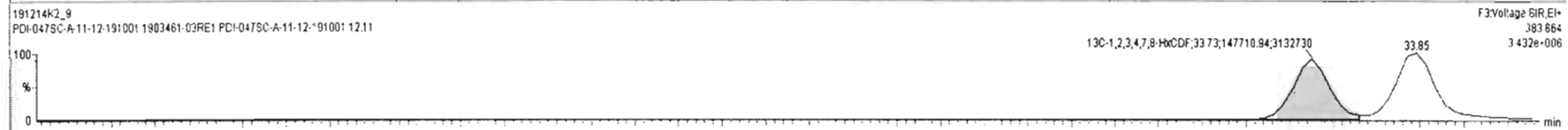
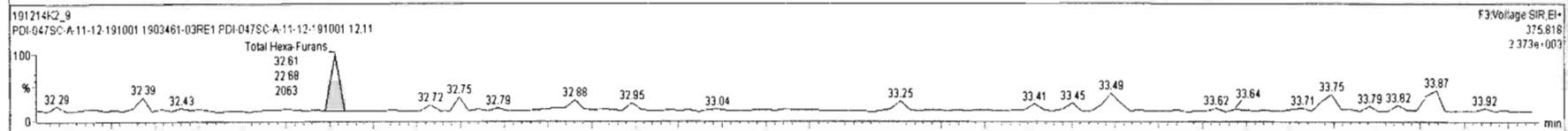
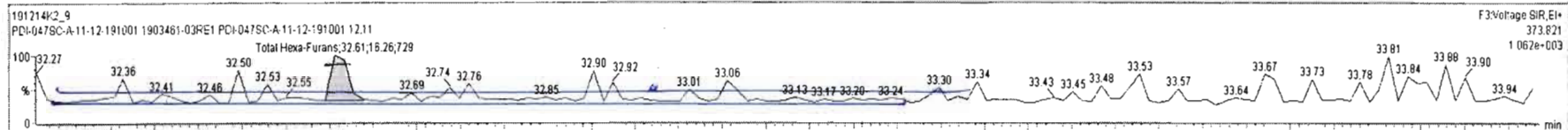
191214K2\_9



191214K2\_9 - 1903461-03RE1 PDI-0475C-A-11-12-191001 12.11 - PDI-0475C-A-11-12-191001

Name	Resp	RA	nly	RRF	wtWt	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.035			0.0190		0.0160	0.0190
44 1st Func. Penta-Furans				0.9762	10.035					0.0114	
45 Total Penta-Furans				0.9762	10.035					0.0131	
46 Total Hexa-Furans				1.1806	10.035			0.0000		0.0173	0.0108
47 Total Hepta-Furans				1.1300	10.035					0.0149	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Furans	32.61	1.626e1	2.268e1	0.72	YES	0.010788	0.000000

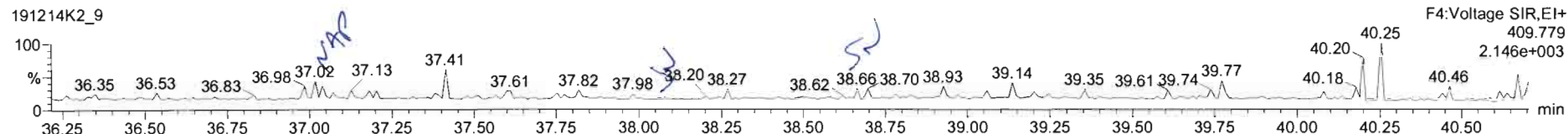
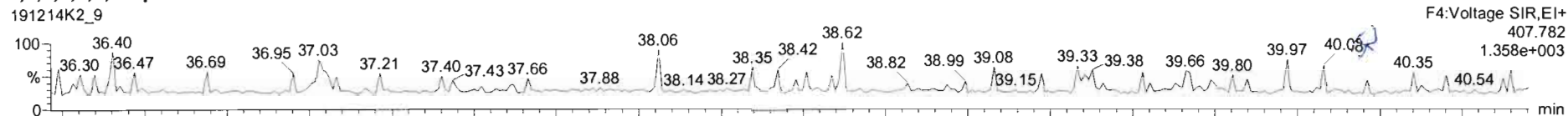


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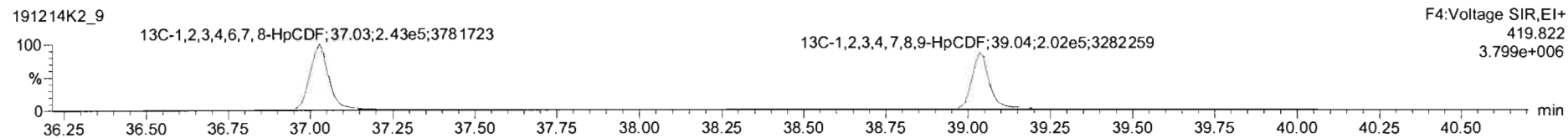
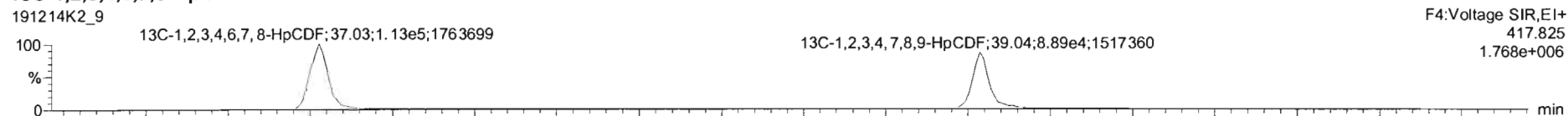
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

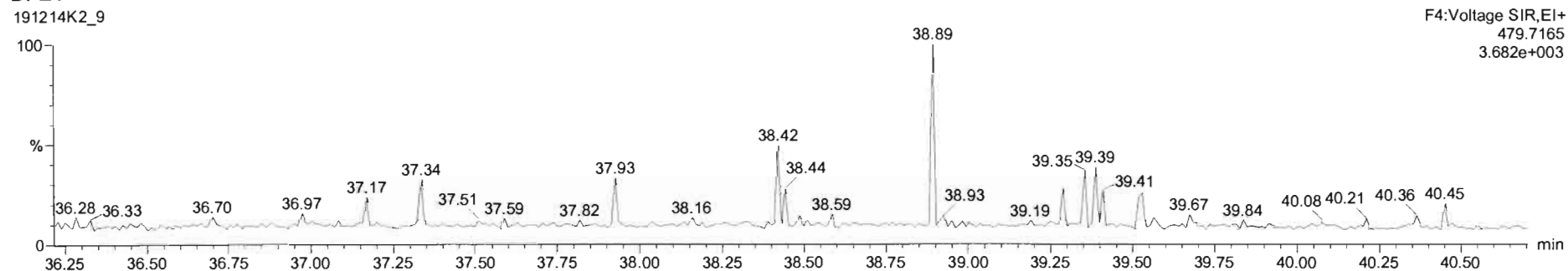
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

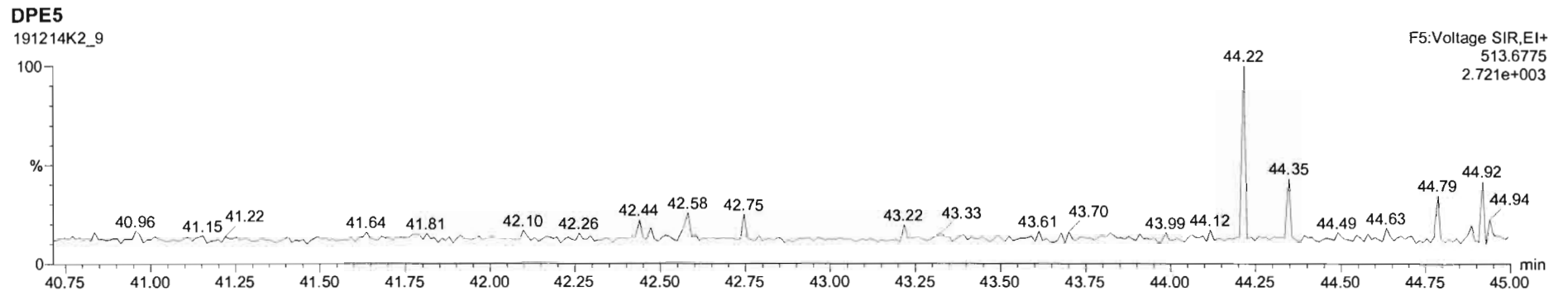
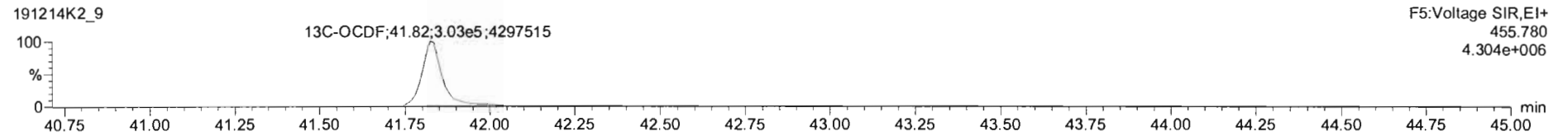
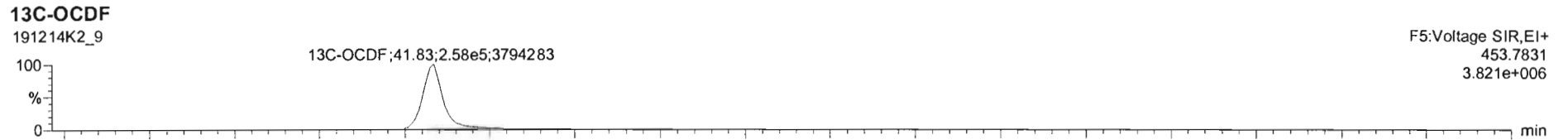
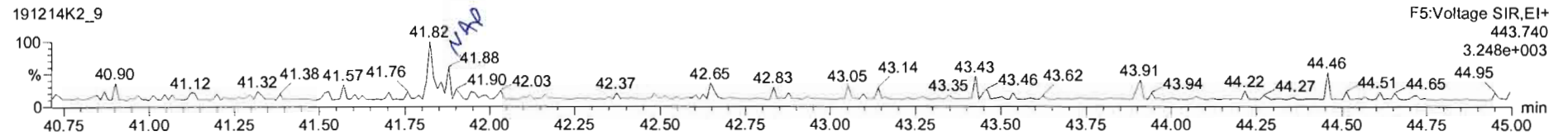
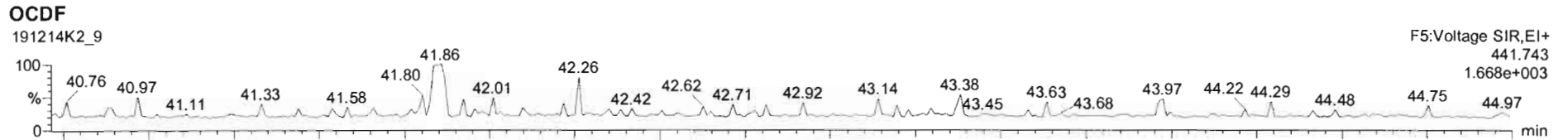


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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001

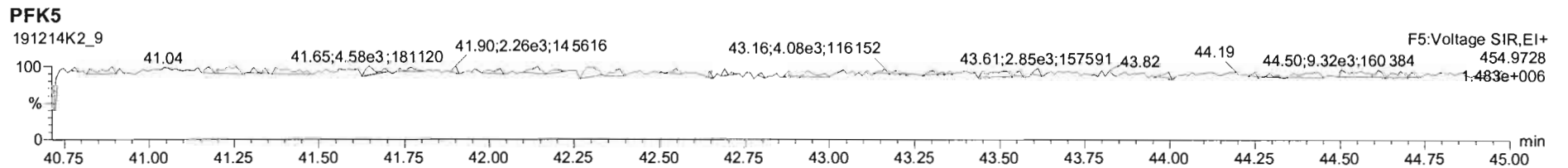
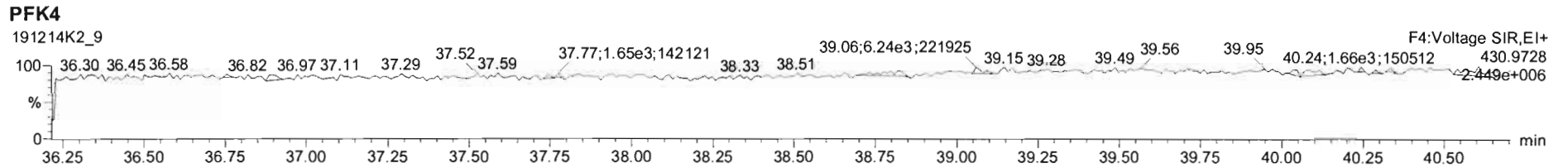
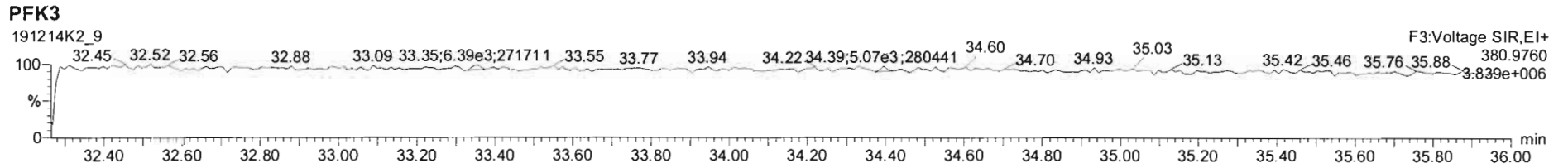
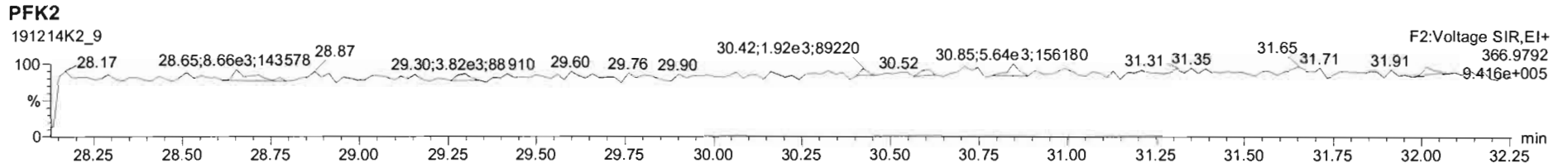
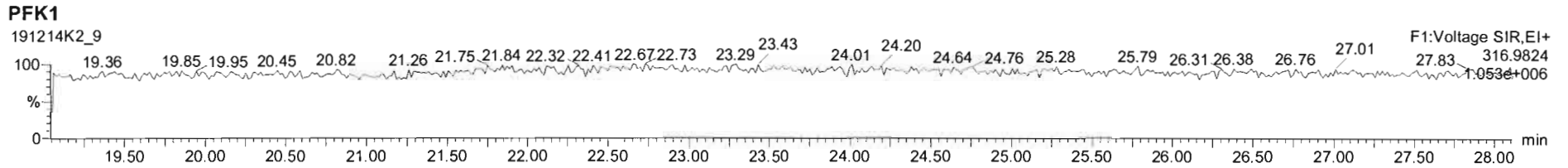


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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_9, Date: 15-Dec-2019, Time: 00:45:18, ID: 1903461-03RE1 PDI-047SC-A-11-12-191001 12.11, Description: PDI-047SC-A-11-12-191001



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-10.qld

Last Altered: Tuesday, December 17, 2019 09:13:16 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:13:57 Pacific Standard Time

*Hz 12.17.19 CT 01/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.925	10.122	26.184		1.001				0.0720	
2	1,2,3,7,8-PeCDD			NO	0.905	10.122	31.271		1.001				0.0772	
3	1,2,3,4,7,8-HxCDD			NO	1.07	10.122	34.592		1.000				0.127	
4	1,2,3,6,7,8-HxCDD			NO	0.967	10.122	34.680		1.000				0.123	
5	1,2,3,7,8,9-HxCDD			NO	0.978	10.122	34.989		1.001				0.139	
6	1,2,3,4,6,7,8-HpCDD	9.98e2	1.14	NO	1.04	10.122	38.444	38.45	1.000	1.001	0.86227		0.174	0.862
7	OCDD	6.02e3	0.98	NO	0.972	10.122	41.626	41.63	1.000	1.000	7.6810		0.307	7.68
8	2,3,7,8-TCDF			NO	0.938	10.122	25.199		1.001				0.0388	
9	1,2,3,7,8-PeCDF			NO	0.976	10.122	29.982		1.001				0.0293	
10	2,3,4,7,8-PeCDF			NO	1.00	10.122	30.978		1.001				0.0273	
11	1,2,3,4,7,8-HxCDF			NO	1.24	10.122	33.725		1.000				0.0259	
12	1,2,3,6,7,8-HxCDF			NO	1.10	10.122	33.856		1.000				0.0277	
13	2,3,4,6,7,8-HxCDF			NO	1.18	10.122	34.451		1.001				0.0266	
14	1,2,3,7,8,9-HxCDF			NO	1.07	10.122	35.294		1.000				0.0355	
15	1,2,3,4,6,7,8-HpCDF			NO	1.13	10.122	37.054		1.001				0.0426	
16	1,2,3,4,7,8,9-HpCDF			NO	1.26	10.122	39.036		1.000				0.0544	
17	OCDF			NO	1.10	10.122	41.824		1.000				0.0764	
18	13C-2,3,7,8-TCDD	5.57e5	0.78	NO	1.05	10.122	26.162	26.15	1.027	1.027	201.74	102	0.230	
19	13C-1,2,3,7,8-PeCDD	3.68e5	0.62	NO	0.743	10.122	31.176	31.25	1.224	1.227	188.21	95.3	0.407	
20	13C-1,2,3,4,7,8-HxCDD	2.91e5	1.28	NO	0.646	10.122	34.580	34.58	1.014	1.014	167.39	84.7	0.598	
21	13C-1,2,3,6,7,8-HxCDD	3.48e5	1.26	NO	0.777	10.122	34.679	34.68	1.017	1.017	166.23	84.1	0.498	
22	13C-1,2,3,7,8,9-HxCDD	3.16e5	1.25	NO	0.659	10.122	34.952	34.95	1.025	1.025	177.80	90.0	0.586	
23	13C-1,2,3,4,6,7,8-HpCDD	2.20e5	1.06	NO	0.534	10.122	38.445	38.43	1.127	1.127	153.19	77.5	0.534	
24	13C-OCDD	3.19e5	0.92	NO	0.470	10.122	41.620	41.63	1.220	1.220	251.62	63.7	0.854	
25	13C-2,3,7,8-TCDF	7.83e5	0.75	NO	0.977	10.122	25.235	25.17	0.991	0.989	214.27	108	0.358	
26	13C-1,2,3,7,8-PeCDF	5.68e5	1.53	NO	0.778	10.122	29.888	29.96	1.174	1.177	195.14	98.8	0.852	
27	13C-2,3,4,7,8-PeCDF	5.48e5	1.57	NO	0.750	10.122	30.896	30.95	1.213	1.215	195.42	98.9	0.883	
28	13C-1,2,3,4,7,8-HxCDF	3.88e5	0.52	NO	0.845	10.122	33.720	33.73	0.989	0.989	170.32	86.2	0.816	
29	13C-1,2,3,6,7,8-HxCDF	4.63e5	0.52	NO	1.03	10.122	33.836	33.85	0.992	0.992	167.52	84.8	0.672	
30	13C-2,3,4,6,7,8-HxCDF	4.41e5	0.55	NO	0.893	10.122	34.409	34.42	1.009	1.009	183.41	92.8	0.773	
31	13C-1,2,3,7,8,9-HxCDF	3.78e5	0.52	NO	0.734	10.122	35.310	35.29	1.035	1.035	191.14	96.7	0.939	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-10.qld

Last Altered: Tuesday, December 17, 2019 09:13:16 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:13:57 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.33e5	0.44	NO	0.754	10.122	37.022	37.02	1.085	1.085	163.93	83.0	0.697	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.21e5	0.45	NO	0.539	10.122	39.045	39.04	1.145	1.144	152.62	77.2	0.975	
34	34 13C-OCDF	4.81e5	0.90	NO	0.593	10.122	41.832	41.82	1.226	1.226	301.32	76.3	0.755	
35	35 37Cl-2,3,7,8-TCDD	2.23e5			1.07	10.122	26.183	26.17	1.028	1.028	79.358	100	0.0721	
36	36 13C-1,2,3,4-TCDD	5.20e5	0.79	NO	1.00	10.122	25.500	25.46	1.000	1.000	197.58	100	0.241	
37	37 13C-1,2,3,4-TCDF	7.39e5	0.75	NO	1.00	10.122	23.680	23.58	1.000	1.000	197.58	100	0.350	
38	38 13C-1,2,3,4,6,9-HxCDF	5.32e5	0.53	NO	1.00	10.122	34.060	34.11	1.000	1.000	197.58	100	0.690	
39	39 Total Tetra-Dioxins				0.925	10.122	24.620		0.000		0.00000		0.0409	0.160
40	40 Total Penta-Dioxins				0.905	10.122	29.960		0.000		0.00000		0.0334	0.108
41	41 Total Hexa-Dioxins				0.967	10.122	33.635		0.000		1.0567		0.134	1.12
42	42 Total Hepta-Dioxins				1.04	10.122	38.800		0.000		2.6035		0.174	2.60
43	43 Total Tetra-Furans				0.938	10.122	23.610		0.000				0.0200	
44	44 1st Func. Penta-Furans				0.976	10.122	27.040		0.000				0.0119	
45	45 Total Penta-Furans				0.976	10.122	29.275		0.000		0.00000		0.0135	0.0133
46	46 Total Hexa-Furans				1.18	10.122	33.555		0.000				0.0166	
47	47 Total Hepta-Furans				1.13	10.122	37.835		0.000				0.0273	



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-10.qld

Last Altered: Tuesday, December 17, 2019 09:13:16 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:13:57 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

**Tetra-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Tetra-Dioxins	23.80	1.921e3	3.785e3	1.819e2	3.286e2	0.55	YES	0.000e0	0.00000	0.16048	0.0720

**Penta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Penta-Dioxins	29.54	1.611e3	2.108e3	7.008e1	1.331e2	0.53	YES	0.000e0	0.00000	0.10769	0.0334

**Hexa-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Dioxins	33.13	1.613e4	1.393e4	5.923e2	5.536e2	1.07	NO	1.146e3	0.73539	0.73539	0.134
2 Total Hexa-Dioxins	33.92	5.108e3	4.482e3	2.904e2	2.102e2	1.38	NO	5.006e2	0.32127	0.32127	0.134
3 Total Hexa-Dioxins	34.10	5.431e3	1.705e3	2.032e2	4.303e1	4.72	YES	0.000e0	0.00000	0.061863	0.134

**Hepta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hepta-Dioxins	37.42	1.777e4	1.826e4	1.080e3	9.342e2	1.16	NO	2.015e3	1.7413	1.7413	0.174
2 1,2,3,4,6,7,8-HpCDD	38.45	9.752e3	7.441e3	5.324e2	4.652e2	1.14	NO	9.976e2	0.86227	0.86227	0.174

**Tetra-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Penta-Furans function 1**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-10.qld

Last Altered: Tuesday, December 17, 2019 09:13:16 Pacific Standard Time

Printed: Tuesday, December 17, 2019 09:13:57 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

Penta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Penta-Furans	31.57	1.069e3	9.610e2	2.234e1	2.035e1	1.10	YES	0.000e0	0.00000	0.013338	0.0135

Hexa-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Hepta-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

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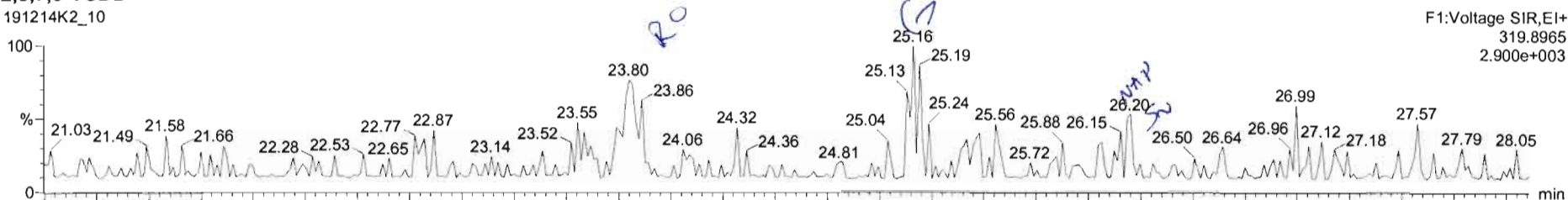
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

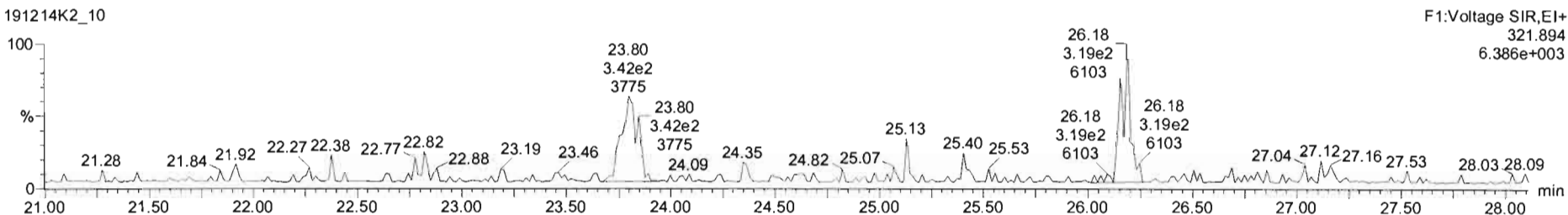
Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

**2,3,7,8-TCDD**

191214K2\_10

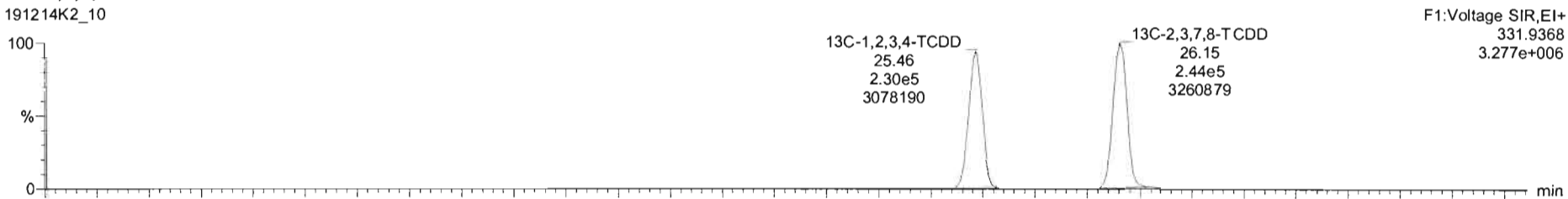


191214K2\_10

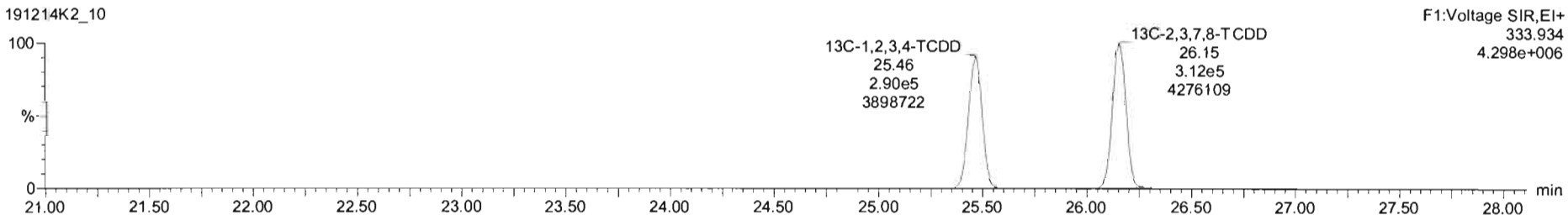


**13C-2,3,7,8-TCDD**

191214K2\_10



191214K2\_10



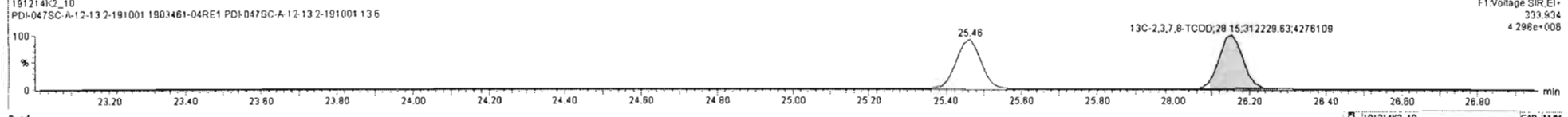
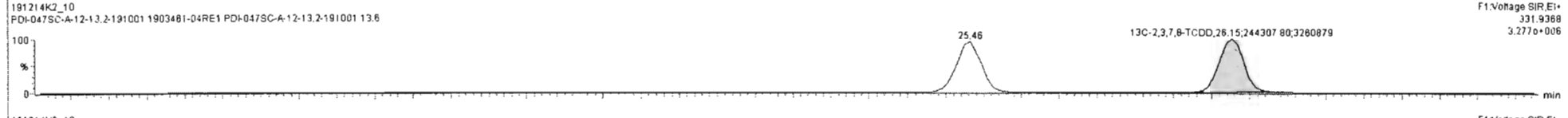
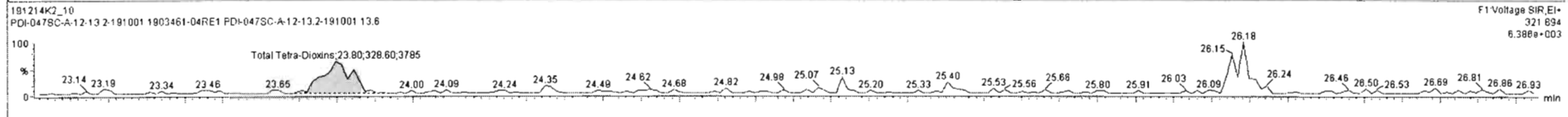
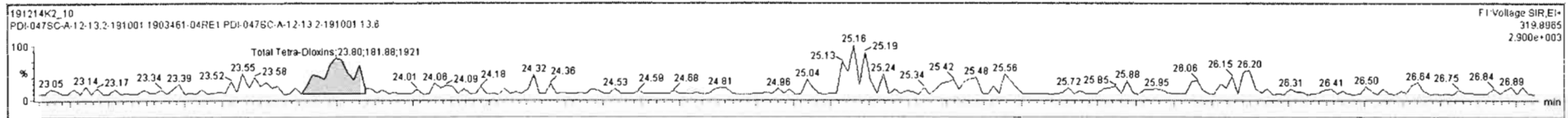
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File Edit View Display Processing Window Help

191214K2\_10 - 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6 - PDI-047SC-A-12-13.2-191001

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
23	13C-1,2,3,4,6,7,8-HpCDD	2.20e5	1.06	NO	0.5342	10.122	38.43	1.127	153	77.5	0.534
24	13C-OCDD	3.19e5	0.92	NO	0.4704	10.122	41.63	1.220	252	63.7	0.854
25	13C-2,3,7,8-TCDF	7.83e5	0.75	NO	0.9775	10.122	25.17	0.989	214	108	0.358
26	13C-1,2,3,7,8-PeCDF	5.88e5	1.53	NO	0.7778	10.122	29.96	1.177	195	98.8	0.852
27	13C-2,3,4,7,8-PeCDF	5.48e5	1.57	NO	0.7498	10.122	30.95	1.215	195	98.9	0.883
28	13C-1,2,3,4,7,8-HxCDF	3.88e5	0.52	NO	0.8452	10.122	33.73	0.989	170	86.2	0.816
29	13C-1,2,3,8,7,8-HxCDF	4.63e5	0.52	NO	1.0267	10.122	33.85	0.992	168	84.8	0.872
30	13C-2,3,4,6,7,8-HxCDF	4.41e5	0.55	NO	0.8929	10.122	34.42	1.009	183	92.8	0.773
31	13C-1,2,3,7,8,9-HxCDF	3.78e5	0.52	NO	0.7343	10.122	35.29	1.035	191	96.7	0.939
32	13C-1,2,3,4,6,7,8-HpCDF	3.33e5	0.44	NO	0.7542	10.122	37.02	1.085	184	83.0	0.897

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	23.80	1.819e2	3.266e2	0.55	YES	0.16048	0.00000



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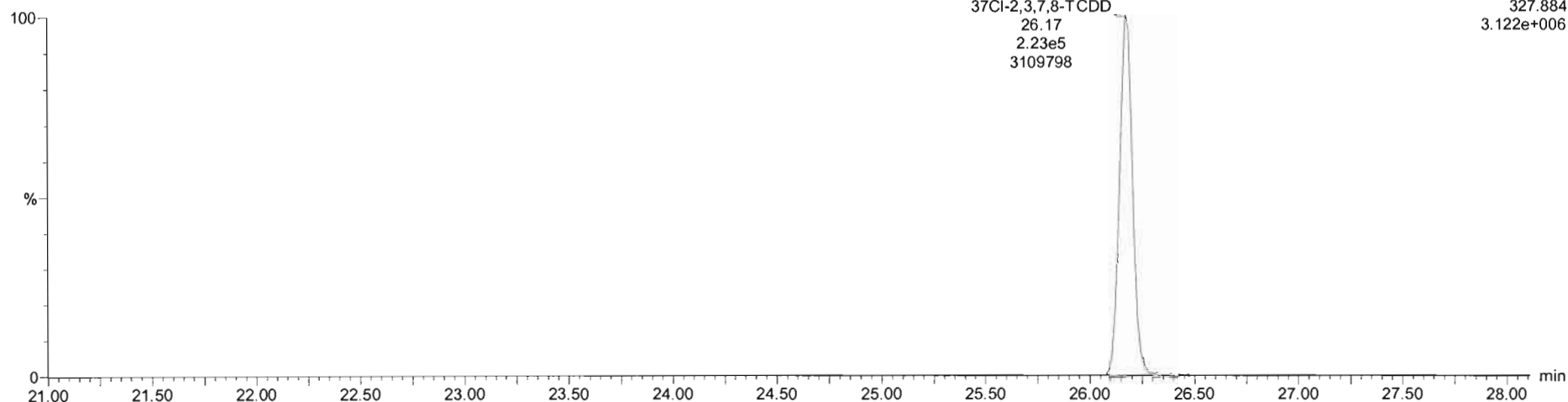
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

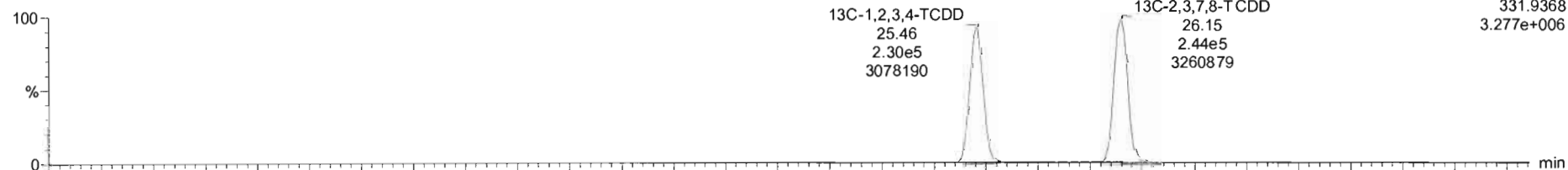
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191214K2\_10

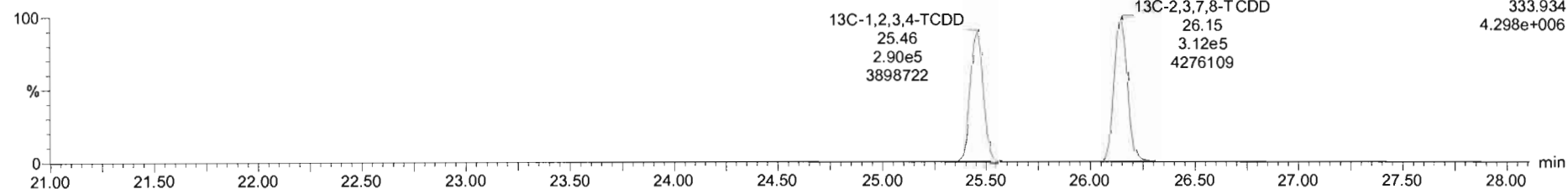


**13C-1,2,3,4-TCDD**

191214K2\_10



191214K2\_10



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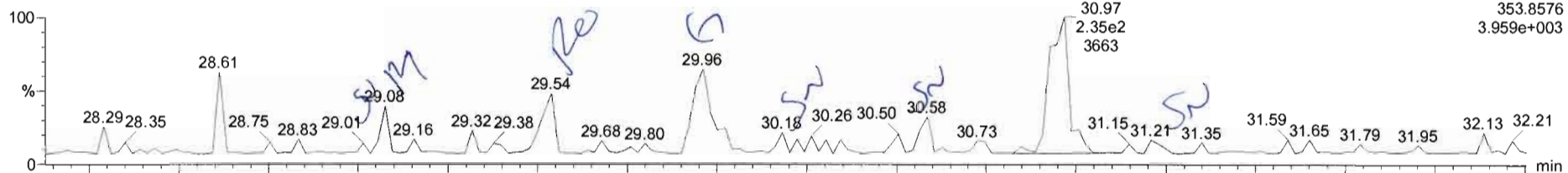
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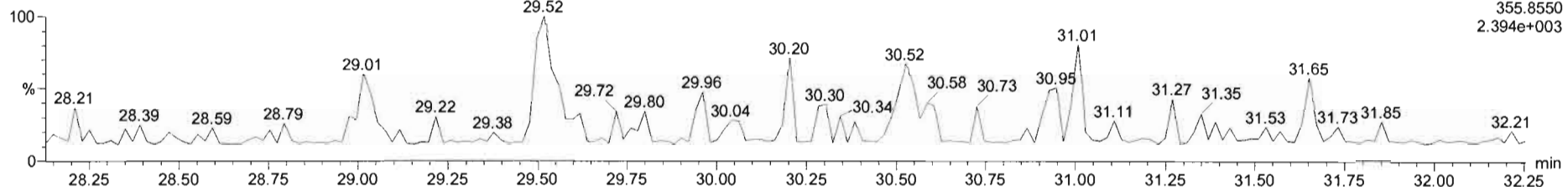
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**1,2,3,7,8-PeCDD**

191214K2\_10

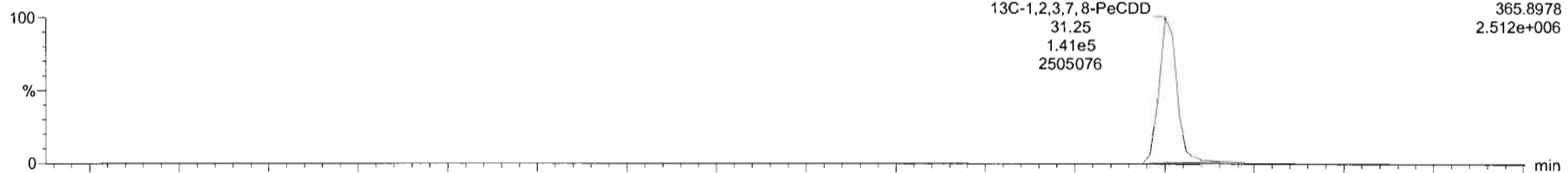


191214K2\_10

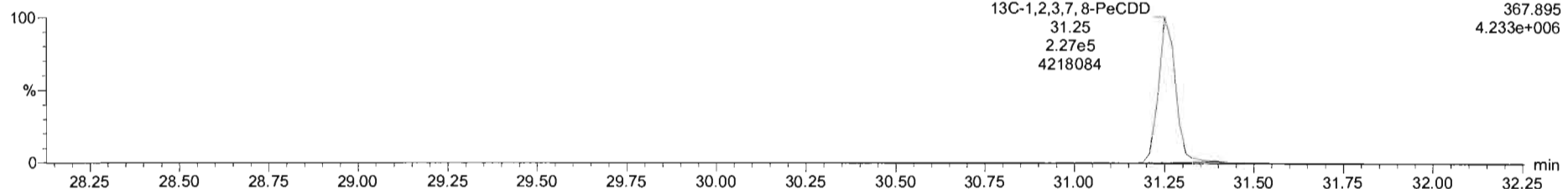


**13C-1,2,3,7,8-PeCDD**

191214K2\_10

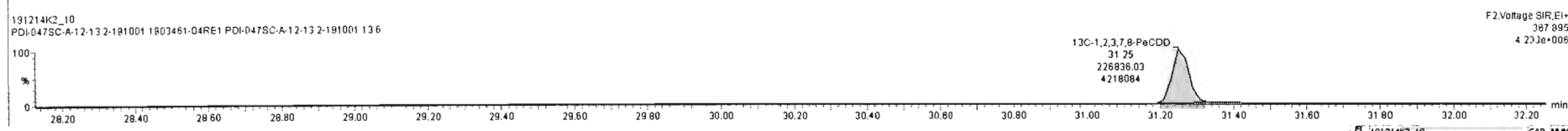
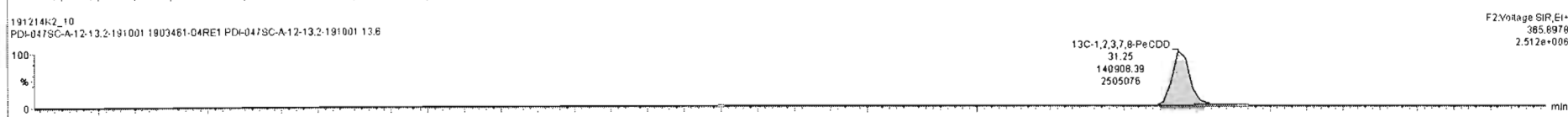
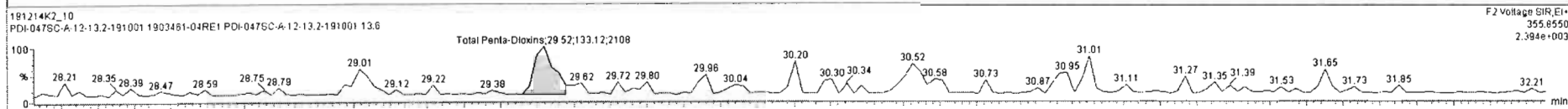
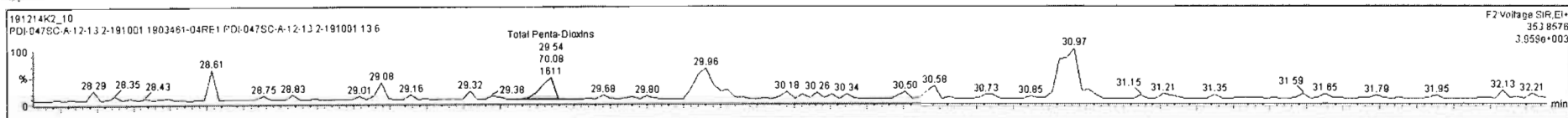


191214K2\_10



Name	Resp	RA	n/y	RRF	wt/mol	RT	RRT	Conc.	%Rec	DL	EMPC
25	13C-2,3,7,8-TCDF	7.83e5	0.75	NO	0.9775	10.122	25.17	0.989	214	108	0.358
26	13C-1,2,3,7,8-PeCDF	5.68e5	1.53	NO	0.7778	10.122	29.96	1.177	195	98.8	0.852
27	13C-2,3,4,7,8-PeCDF	5.48e5	1.57	NO	0.7499	10.122	30.95	1.215	195	98.9	0.883
28	13C-1,2,3,4,7,8-HxCDF	3.88e5	0.52	NO	0.8452	10.122	33.73	0.969	170	86.2	0.816
29	13C-1,2,3,6,7,8-HxCDF	4.63e5	0.52	NO	1.0267	10.122	33.85	0.952	168	84.8	0.672
30	13C-2,3,4,6,7,8-HxCDF	4.41e5	0.55	NO	0.8929	10.122	34.42	1.008	183	92.8	0.773
31	13C-1,2,3,7,8,9-HxCDF	3.78e5	0.52	NO	0.7343	10.122	35.29	1.035	191	96.7	0.939
32	13C-1,2,3,4,6,7,8-HpCDF	3.33e5	0.44	NO	0.7542	10.122	37.02	1.085	164	83.0	0.897
33	13C-1,2,3,4,7,8,9-HpCDF	2.21e5	0.45	NO	0.5390	10.122	38.04	1.144	153	77.2	0.975
34	13C-OCDF	4.81e5	0.90	NO	0.5925	10.122	41.82	1.226	301	78.3	0.755

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	29.54	7.008e1	1.331e2	0.53	YES	0.10769	0.00000



Dataset: Untitled

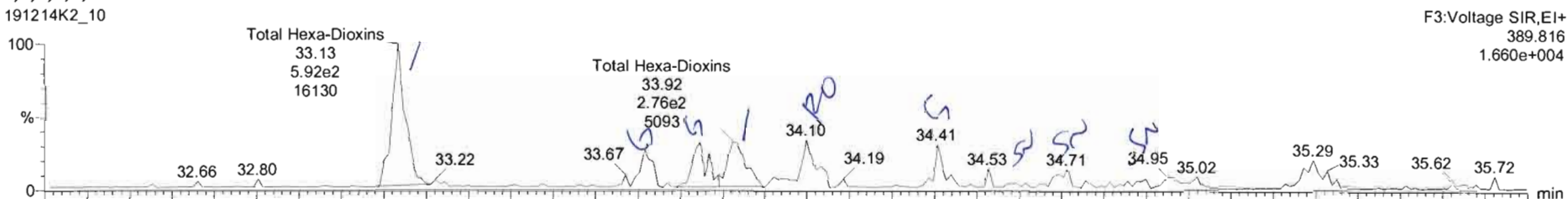
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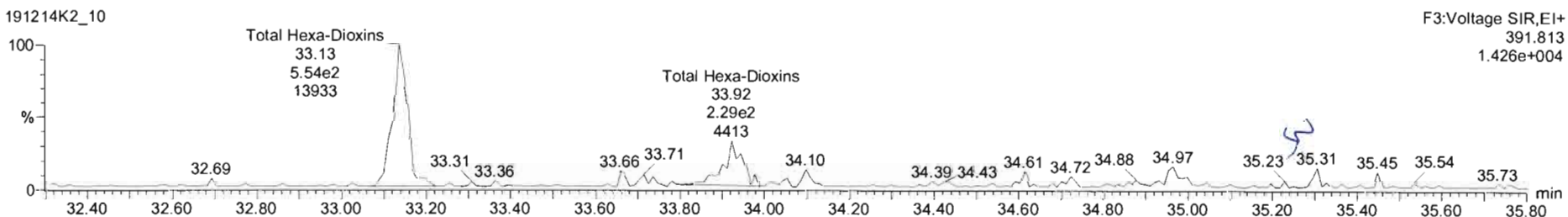
Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

1,2,3,4,7,8-HxCDD

191214K2\_10

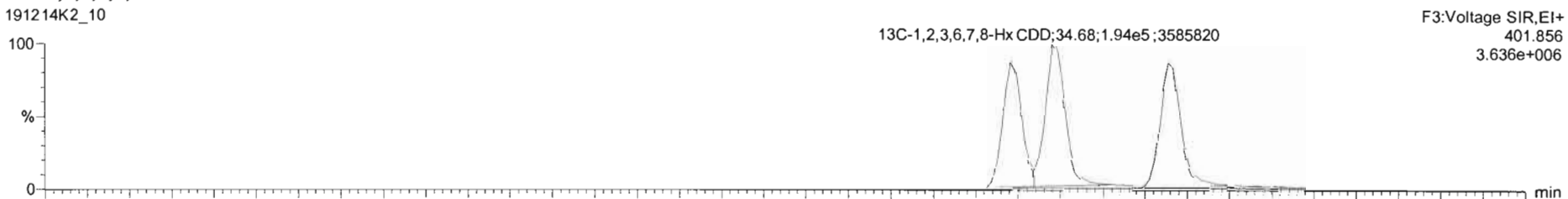


191214K2\_10

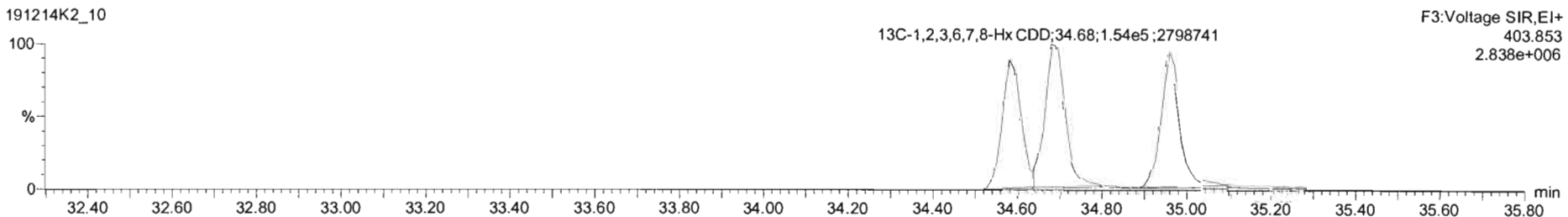


13C-1,2,3,4,7,8-HxCDD

191214K2\_10



191214K2\_10

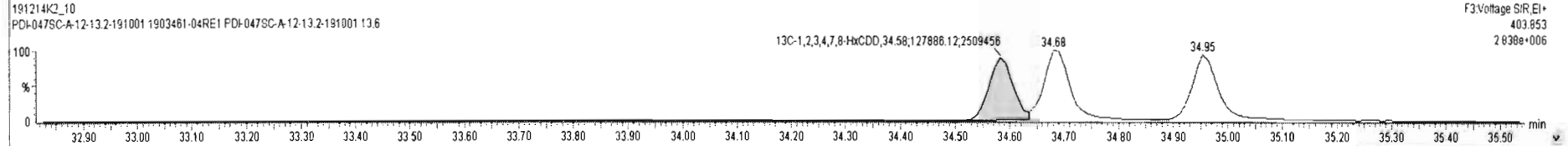
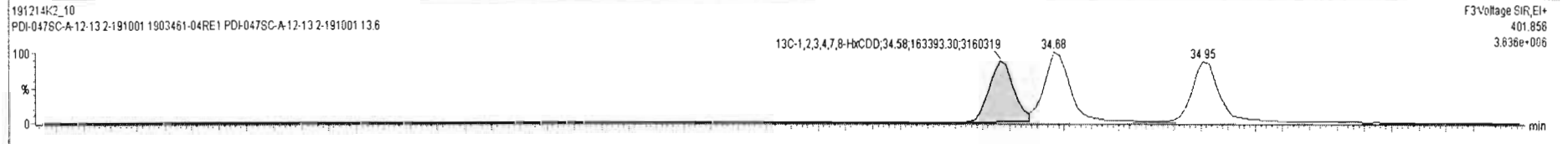
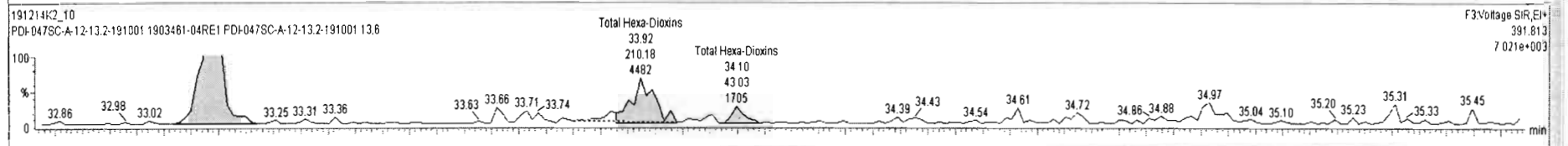
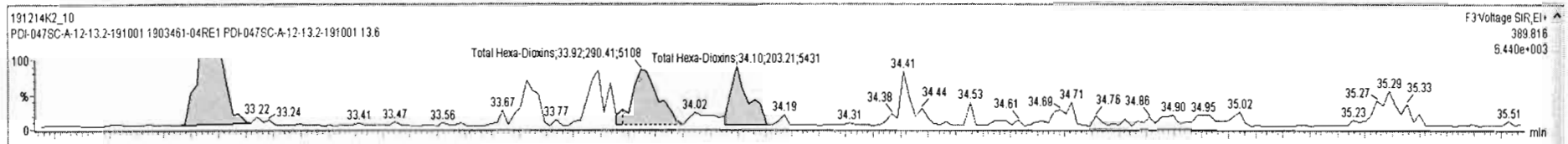




191214k2\_10 - 1903461-04RE1 PDI-047SC-A-12-13 2-191001 13.6 - PDI-047SC-A-12-13 2-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
22	13C-1,2,3,7,8-HxCDD	3.16e5	1.25	NO	0.6595	10.122	34.95	1.025	178	90.0	0.586
23	13C-1,2,3,4,6,7,8-HpCDD	2.20e5	1.06	NO	0.5342	10.122	38.43	1.127	153	77.5	0.534
24	13C-OCDD	3.19e5	0.92	NO	0.4704	10.122	41.63	1.220	252	63.7	0.854
25	13C-2,3,7,8-TCDF	7.63e5	0.75	NO	0.9775	10.122	25.17	0.989	214	108	0.358
26	13C-1,2,3,7,8-PeCDF	5.68e5	1.53	NO	0.7778	10.122	29.96	1.177	195	98.8	0.852
27	13C-2,3,4,7,8-PeCDF	5.48e5	1.57	NO	0.7499	10.122	30.95	1.215	195	98.9	0.883
28	13C-1,2,3,4,7,8-HxCDF	3.68e5	0.52	NO	0.8452	10.122	33.73	0.989	170	86.2	0.816
29	13C-1,2,3,6,7,8-HxCDF	4.63e5	0.52	NO	1.0267	10.122	33.85	0.992	188	84.8	0.672
30	13C-2,3,4,6,7,8-HxCDF	4.41e5	0.55	NO	0.8929	10.122	34.42	1.009	183	92.8	0.773
31	13C-1,2,3,7,8,9-HxCDF	3.78e5	0.52	NO	0.7343	10.122	35.29	1.035	191	96.7	0.939

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Hexa-Dioxins	33.13	5.923e2	5.536e2	1.07	NO	0.73539	0.73539
2	Total Hexa-Dioxins	33.92	2.904e2	2.102e2	1.38	NO	0.32127	0.32127
3	Total Hexa-Dioxins	34.10	2.032e2	4.303e1	4.72	YES	0.061863	0.00000

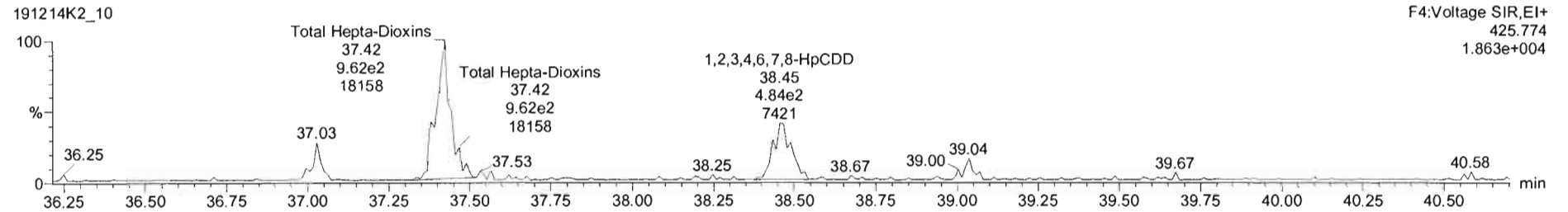
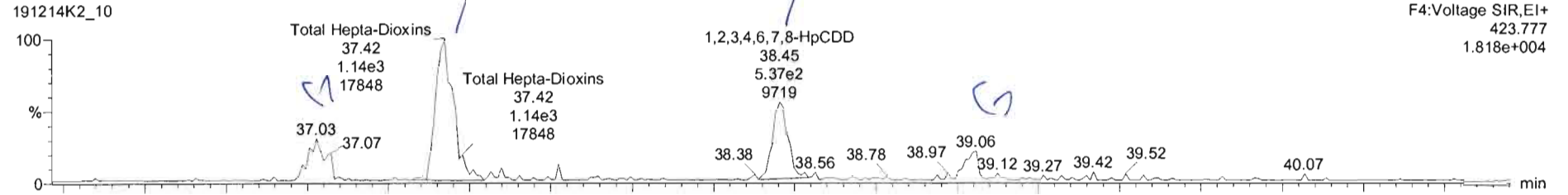


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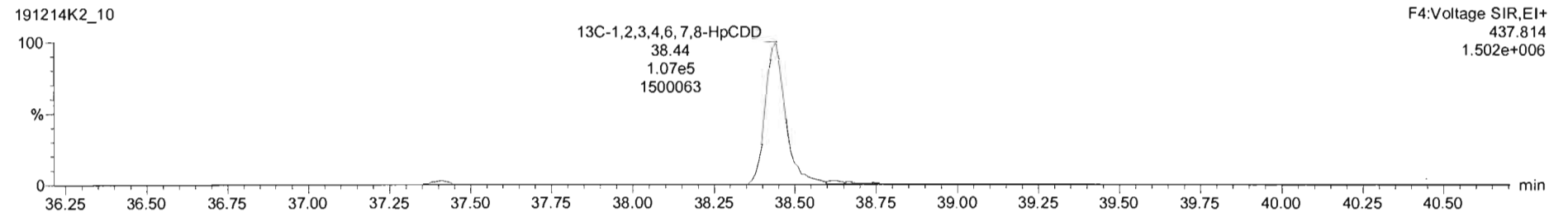
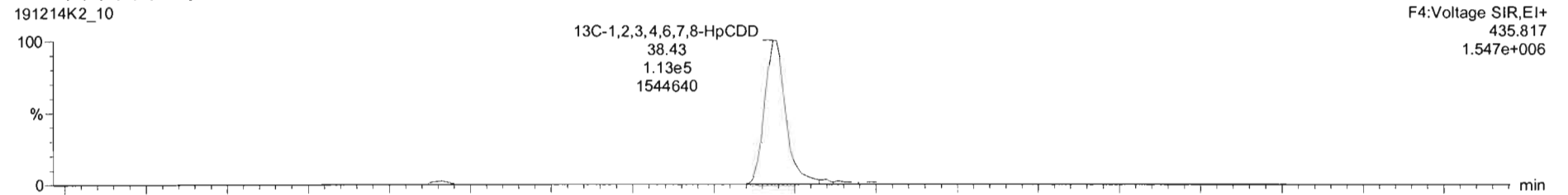
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1,2,3,4,6,7,8-HpCDD

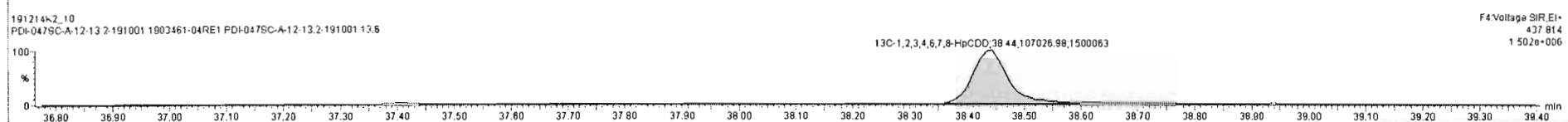
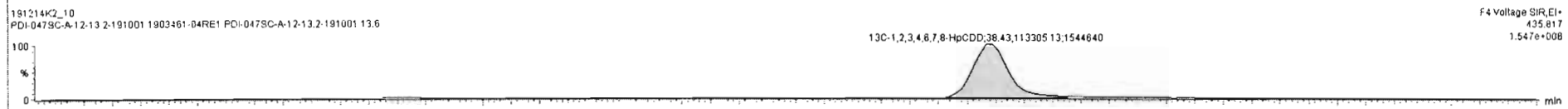
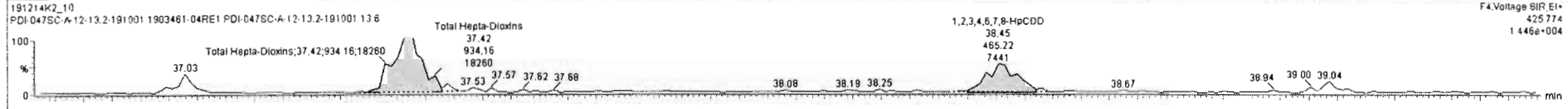
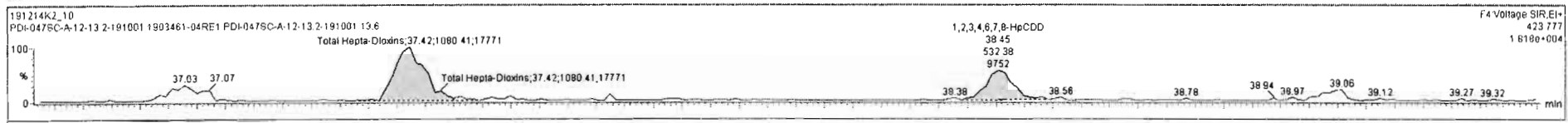


13C-1,2,3,4,6,7,8-HpCDD



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.122			2.60		0.174	2.60
43 Total Tetra-Furans				0.9376	10.122					0.0200	
44 1st Func. Penta-Furans				0.9762	10.122					0.0119	
45 Total Penta-Furans				0.9762	10.122					0.0135	
46 Total Hexa-Furans				1.1806	10.122					0.0166	
47 Total Hepta-Furans				1.1300	10.122					0.0273	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.42	1.080e3	9.342e2	1.16	NO	1.7413	1.7413
2 1,2,3,4,6,7,8-HpCDD	38.45	5.324e2	4.652e2	1.14	NO	0.86227	0.86227



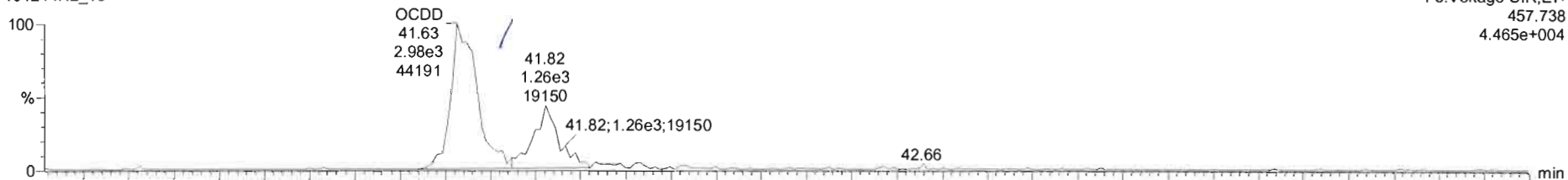
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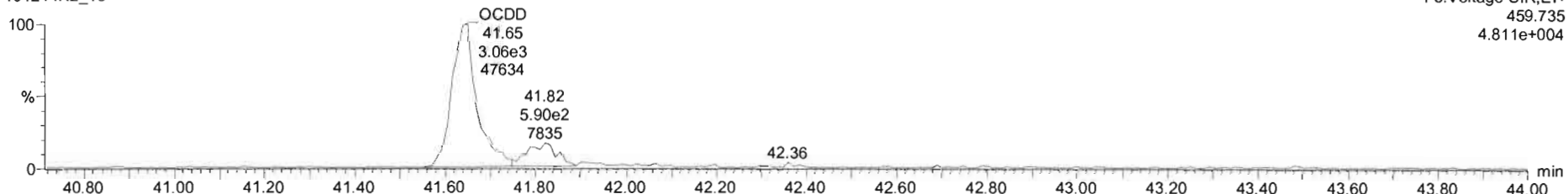
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**OCDD**

191214K2\_10

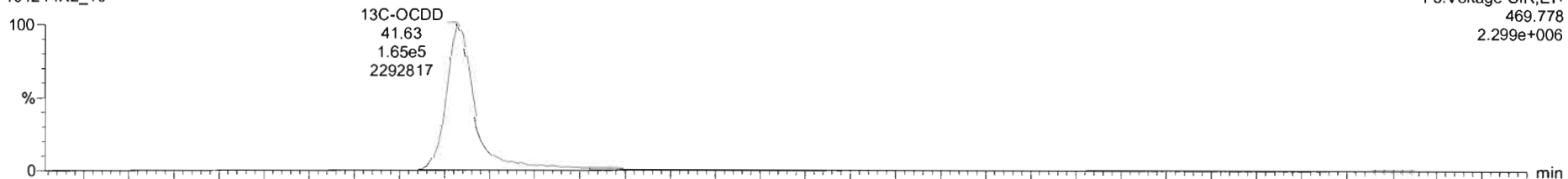


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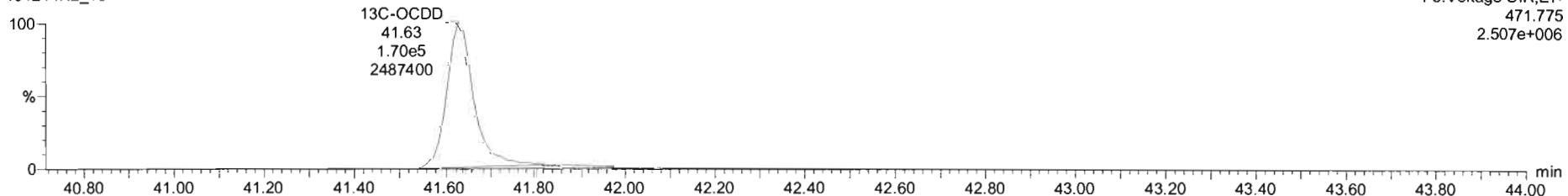


**13C-OCDD**

191214K2\_10



191214K2\_10

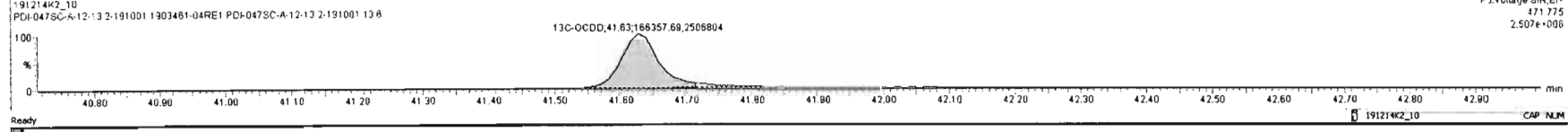
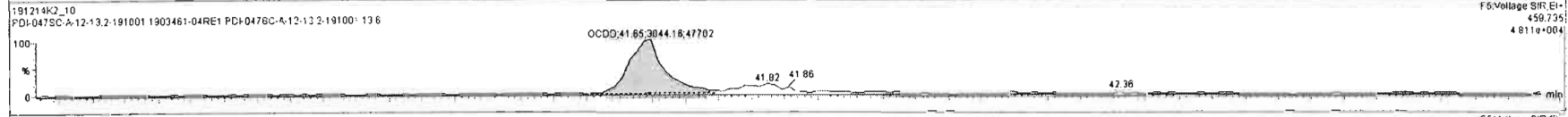
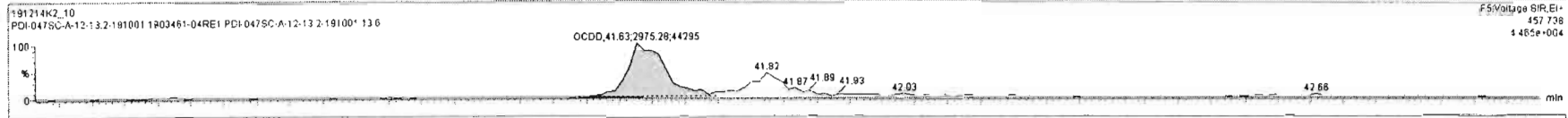


TargetLynx - untitled - [Chromatogram]

191214K2\_10 - 1903461-04RE1 PDI-047SC-A-12-13 2-191001 13 6 - PDI-047SC-A-12-13 2-191001

Name	Resp	RA	n/y	R/R	wt/nd	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD			NO	0.9249	10.122					0.0720	
2 1,2,3,7,8-PeCDD			NO	0.9048	10.122					0.0772	
3 1,2,3,4,7,8-HxCDD			NO	1.0691	10.122					0.127	
4 1,2,3,6,7,8-HxCDD			NO	0.9675	10.122					0.123	
5 1,2,3,7,8,9-HxCDD			NO	0.9778	10.122					0.139	
6 1,2,3,4,6,7,8-HpCDD	1.02e3	1.11	NO	1.0375	10.122	38.45	1.001	0.883		0.174	0.883
7 OCDD	8.02e3	0.88	NO	0.9718	10.122	41.83	1.000	7.88		0.307	7.88
8 2,3,7,8-TCDF			NO	0.9376	10.122					0.0396	
9 1,2,3,7,8-PeCDF			NO	0.9782	10.122					0.0293	
10 1,2,3,4,7,8-PeCDF			NO	1.0049	10.122					0.0273	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1							

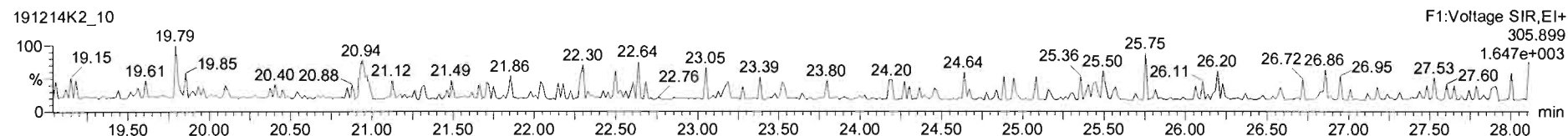
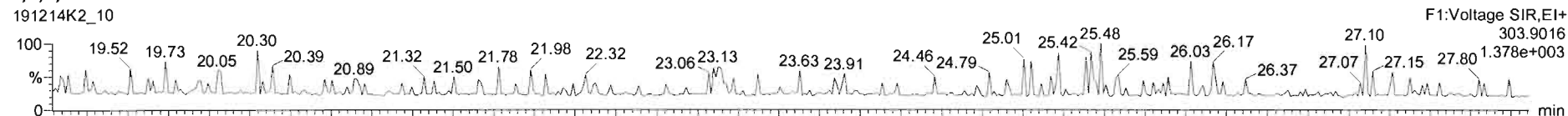


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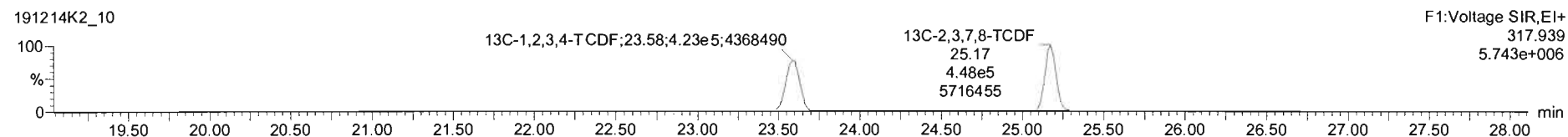
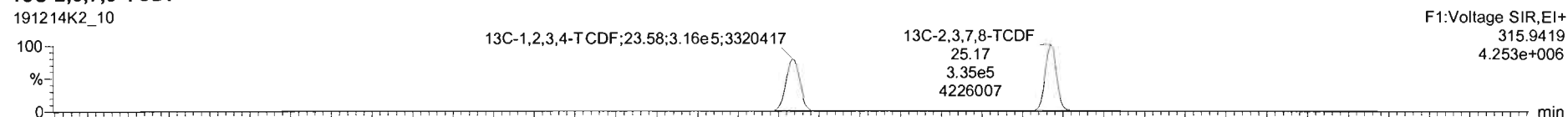
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

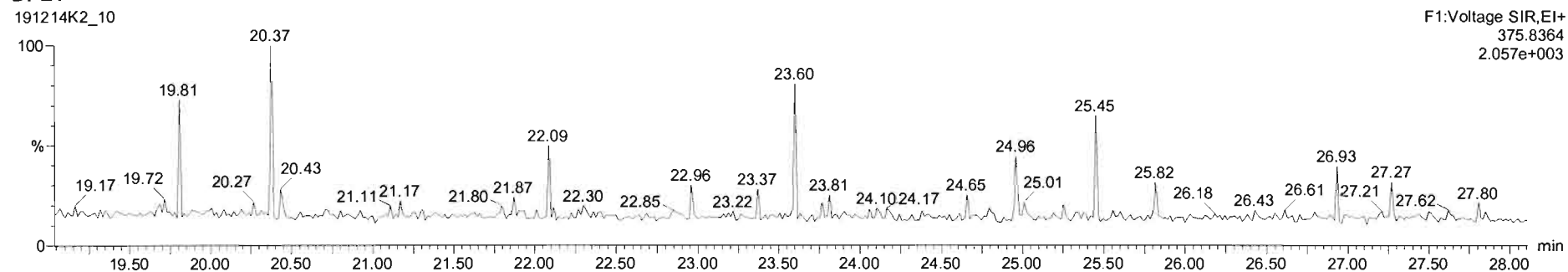
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



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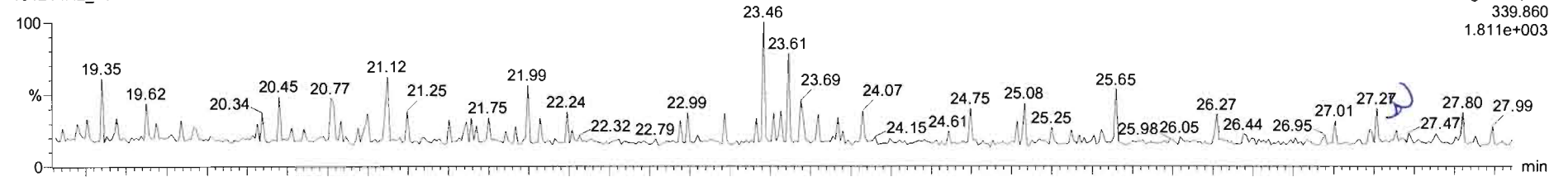
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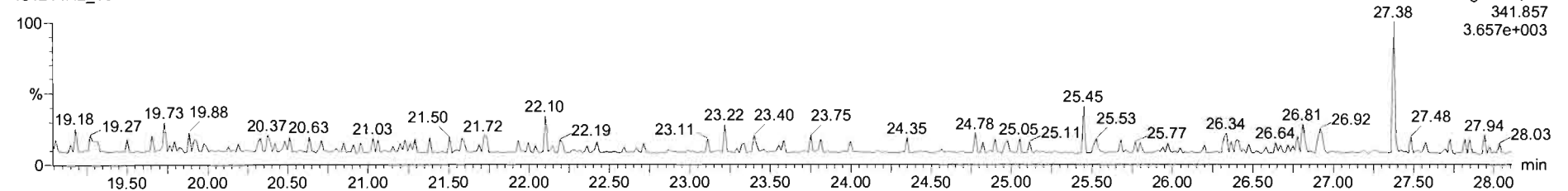
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1st Func. Penta-Furans

191214K2\_10

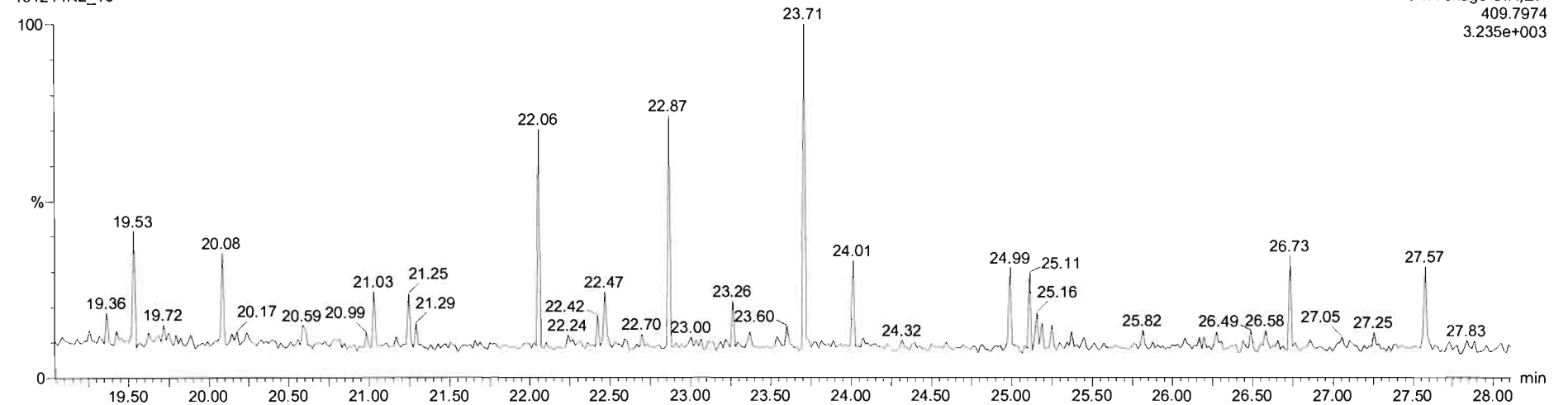


191214K2\_10



DPE6

191214K2\_10



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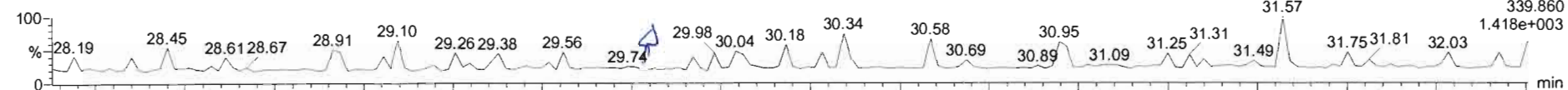
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

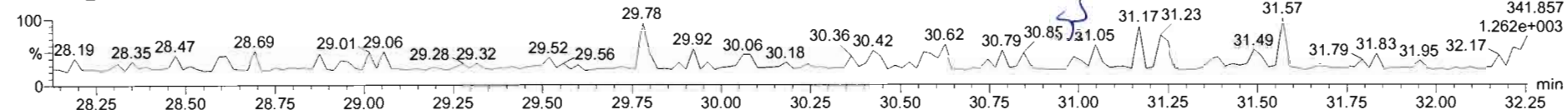
Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

**1,2,3,7,8-PeCDF**

191214K2\_10

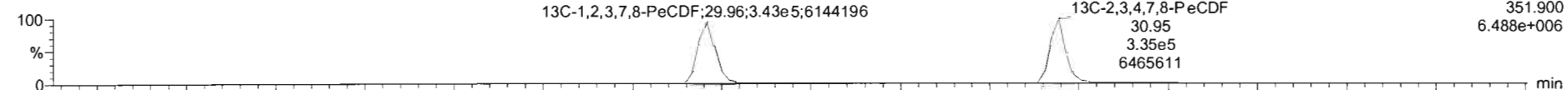


191214K2\_10

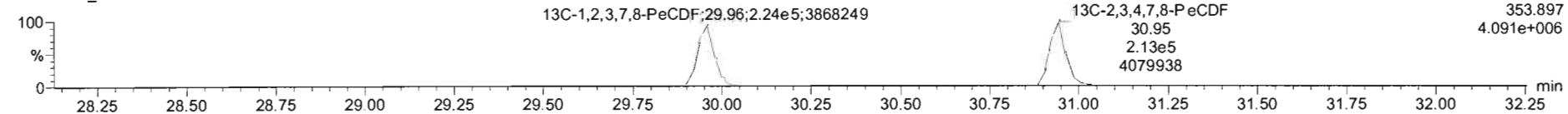


**13C-1,2,3,7,8-PeCDF**

191214K2\_10

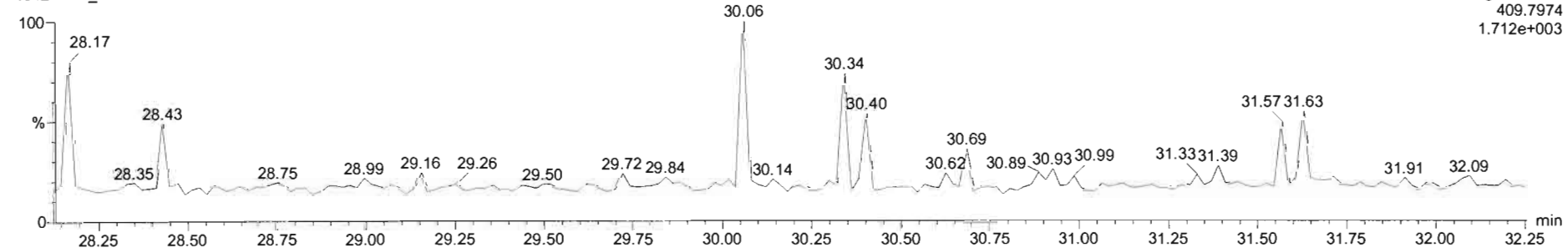


191214K2\_10

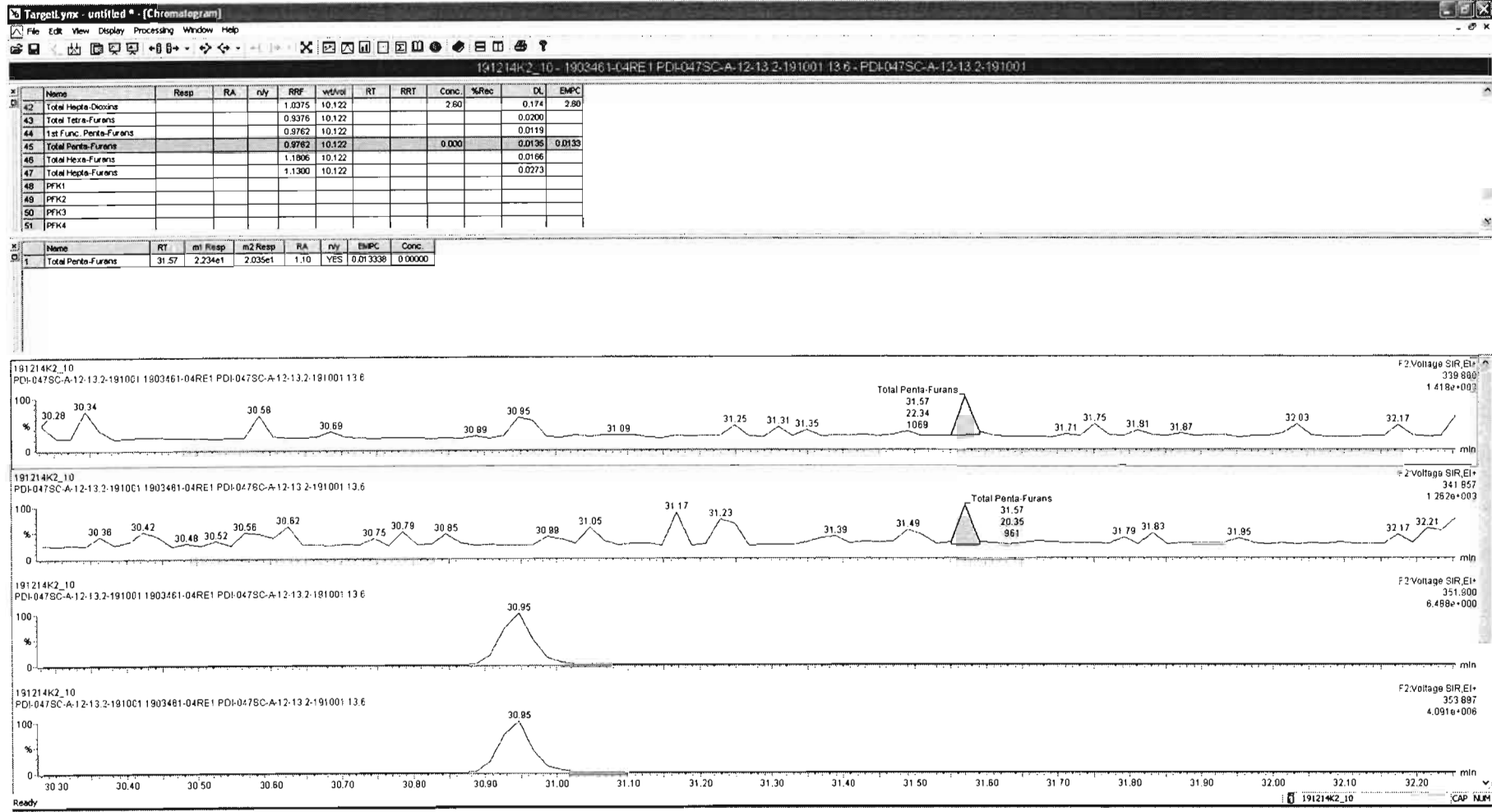


**DPE2**

191214K2\_10





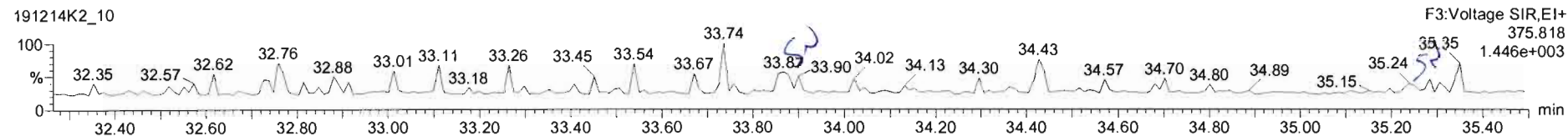
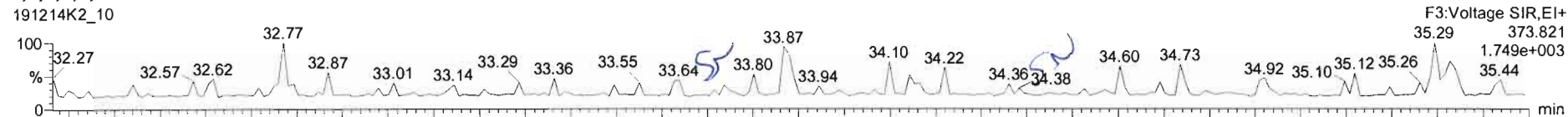


Dataset: Untitled

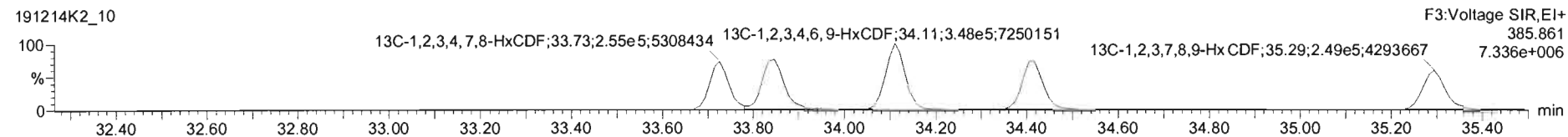
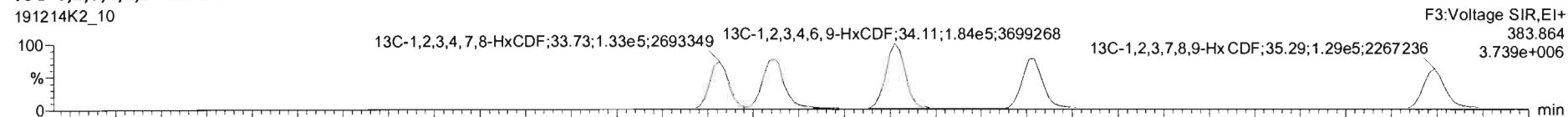
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

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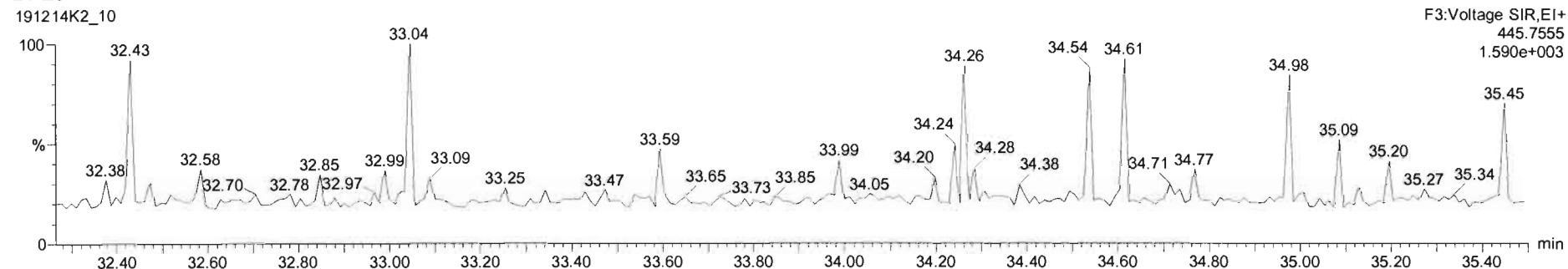
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



Dataset: Untitled

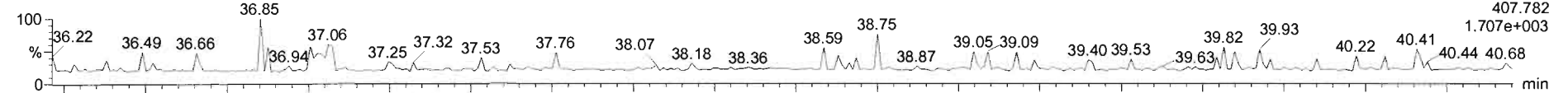
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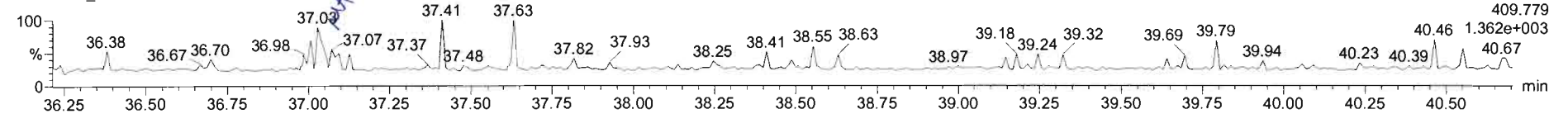
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**1,2,3,4,6,7,8-HpCDF**

191214K2\_10

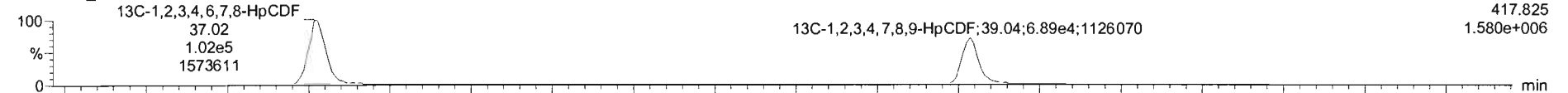


191214K2\_10

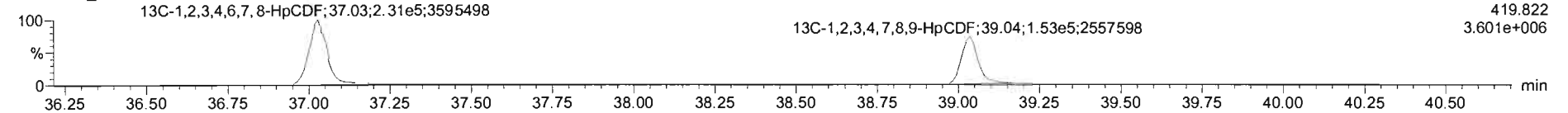


**13C-1,2,3,4,6,7,8-HpCDF**

191214K2\_10

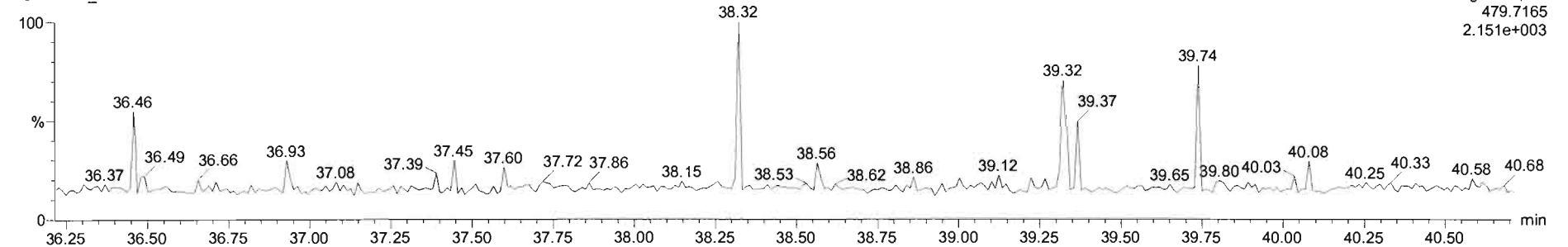


191214K2\_10



**DPE4**

191214K2\_10

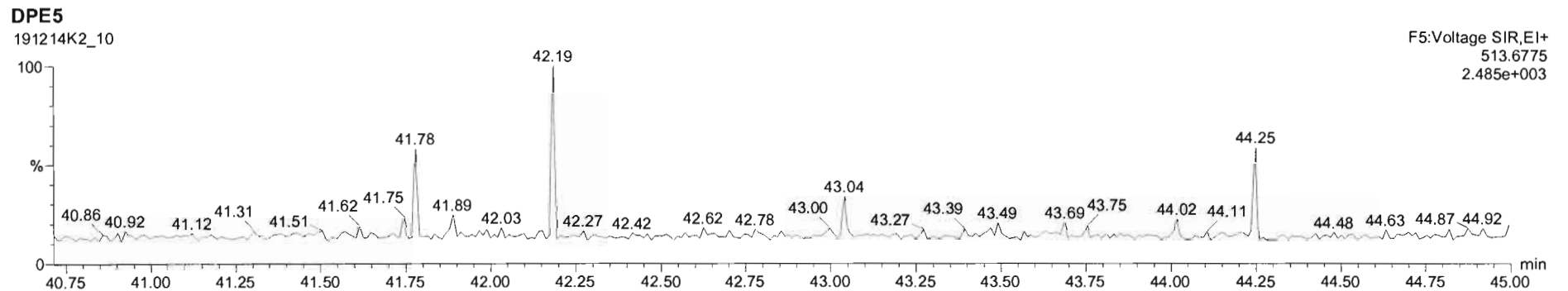
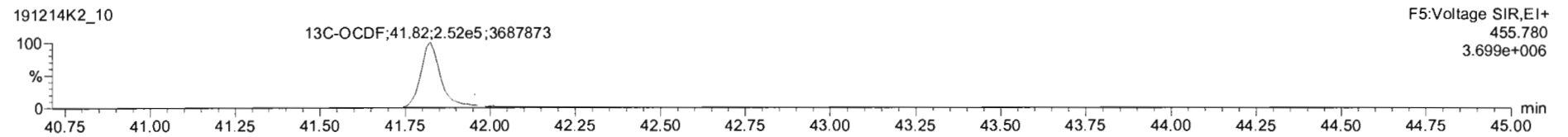
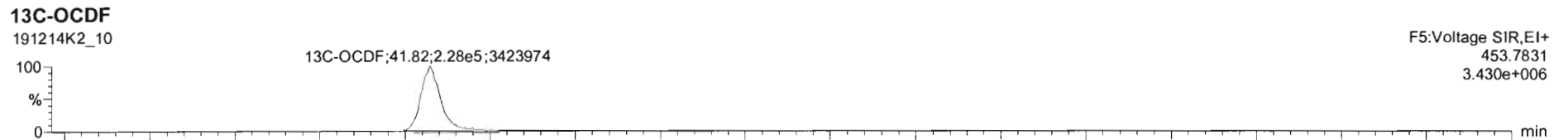
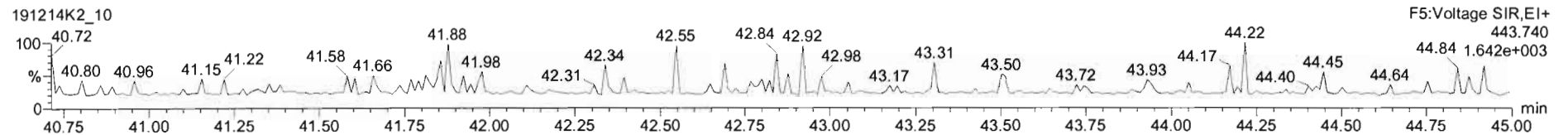
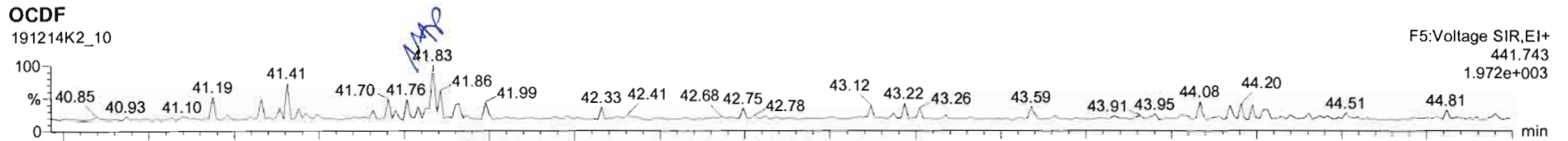


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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001

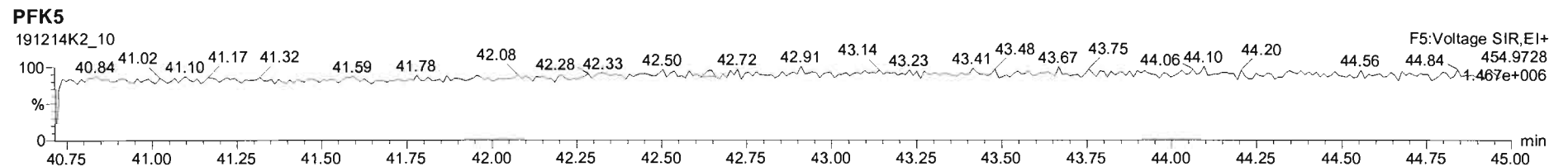
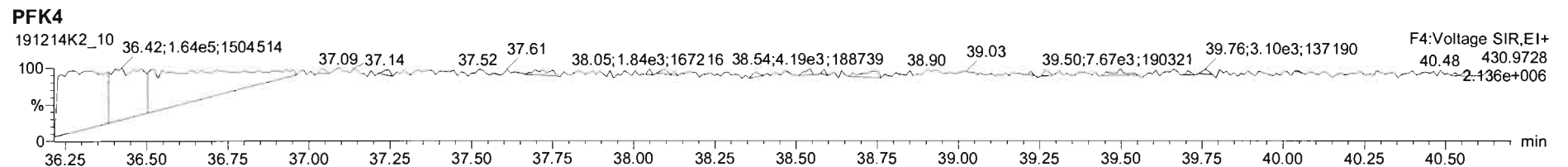
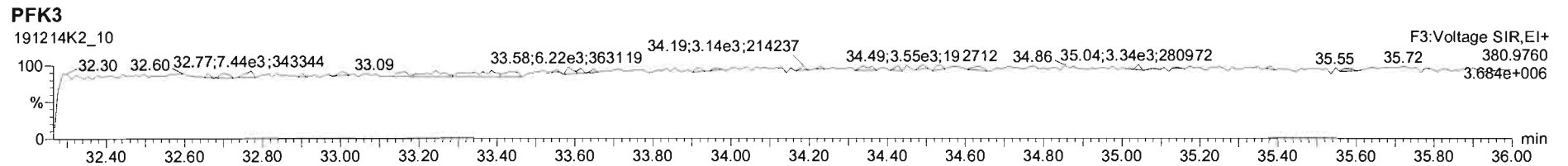
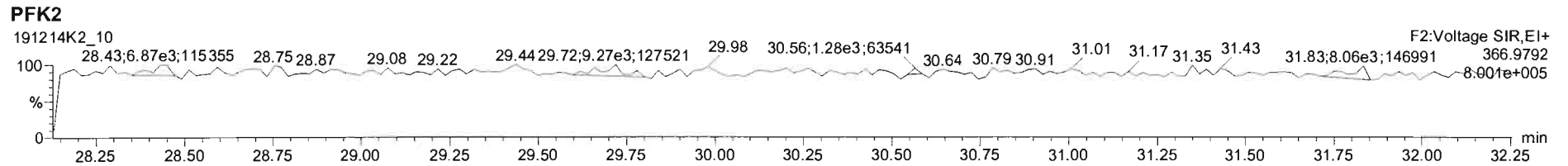
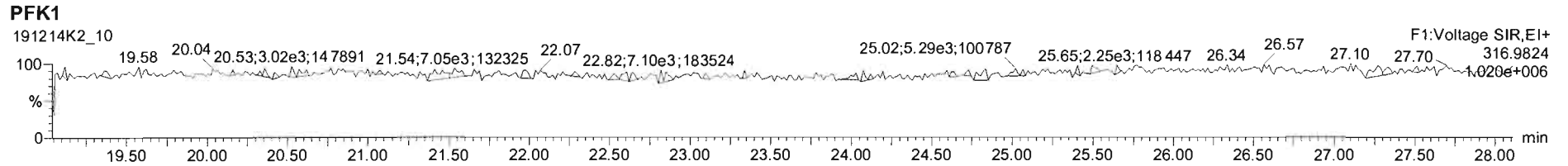


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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_10, Date: 15-Dec-2019, Time: 01:34:52, ID: 1903461-04RE1 PDI-047SC-A-12-13.2-191001 13.6, Description: PDI-047SC-A-12-13.2-191001



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-11.qld

Last Altered: Tuesday, December 17, 2019 11:34:06 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 11:34:48 Pacific Standard Time

*Hc 12.17.19*

*OT 01/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	5.25e2	0.38	YES	0.925	10.114	26.169	26.17	1.001	1.001	0.24150		0.112	0.154
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.114	31.271		1.001				0.0730	
3	3 1,2,3,4,7,8-HxCDD	3.12e2	0.87	YES	1.07	10.114	34.592	34.59	1.000	1.000	0.24894		0.215	0.209
4	4 1,2,3,6,7,8-HxCDD	2.00e3	1.26	NO	0.967	10.114	34.680	34.70	1.000	1.001	1.4092		0.219	1.41
5	5 1,2,3,7,8,9-HxCDD	7.79e2	1.19	NO	0.978	10.114	34.989	34.97	1.001	1.000	0.61997		0.247	0.620
6	6 1,2,3,4,6,7,8-HpCDD	3.35e4	1.10	NO	1.04	10.114	38.444	38.44	1.000	1.000	31.346		0.579	31.3
7	7 OCDD	3.31e5	0.90	NO	0.972	10.114	41.626	41.64	1.000	1.000	437.82		0.995	438
8	8 2,3,7,8-TCDF	6.36e4	0.79	NO	0.938	10.114	25.199	25.19	1.001	1.001	19.903	(14.57)	0.201	19.9
9	9 1,2,3,7,8-PeCDF	6.18e4	1.51	NO	0.976	10.114	29.962	29.96	1.001	1.001	23.350		0.185	23.4
10	10 2,3,4,7,8-PeCDF	3.62e4	1.53	NO	1.00	10.114	30.958	30.95	1.001	1.001	13.869		0.176	13.9
11	11 1,2,3,4,7,8-HxCDF	1.00e5	1.24	NO	1.24	10.114	33.714	33.73	1.000	1.000	46.028		0.212	46.0
12	12 1,2,3,6,7,8-HxCDF	3.08e4	1.17	NO	1.10	10.114	33.845	33.85	1.000	1.000	13.585		0.218	13.6
13	13 2,3,4,6,7,8-HxCDF	8.30e3	1.30	NO	1.18	10.114	34.440	34.42	1.001	1.000	3.8823		0.234	3.88
14	14 1,2,3,7,8,9-HxCDF	3.90e3	0.99	YES	1.07	10.114	35.284	35.33	1.000	1.001	2.3544		0.352	2.12
15	15 1,2,3,4,6,7,8-HpCDF	4.14e4	1.04	NO	1.13	10.114	37.054	37.03	1.001	1.000	24.286		0.285	24.3
16	16 1,2,3,4,7,8,9-HpCDF	1.04e4	1.06	NO	1.26	10.114	39.025	39.05	1.000	1.001	7.4876		0.309	7.49
17	17 OCDF	4.34e4	0.90	NO	1.10	10.114	41.813	41.83	1.000	1.001	36.564		0.271	36.6
18	18 13C-2,3,7,8-TCDD	4.65e5	0.79	NO	1.05	10.114	26.147	26.14	1.027	1.027	195.06	98.6	0.307	
19	19 13C-1,2,3,7,8-PeCDD	3.48e5	0.63	NO	0.743	10.114	31.158	31.25	1.224	1.228	205.94	104	0.436	
20	20 13C-1,2,3,4,7,8-HxCDD	2.32e5	1.26	NO	0.646	10.114	34.580	34.58	1.014	1.014	157.51	79.7	0.815	
21	21 13C-1,2,3,6,7,8-HxCDD	2.90e5	1.23	NO	0.777	10.114	34.679	34.68	1.017	1.017	163.74	82.8	0.678	
22	22 13C-1,2,3,7,8,9-HxCDD	2.54e5	1.32	NO	0.659	10.114	34.952	34.95	1.025	1.025	168.98	85.4	0.799	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.04e5	1.07	NO	0.534	10.114	38.445	38.43	1.127	1.127	167.23	84.6	0.715	
24	24 13C-OCDD	3.07e5	0.92	NO	0.470	10.114	41.620	41.63	1.220	1.220	286.71	72.5	0.908	
25	25 13C-2,3,7,8-TCDF	6.74e5	0.73	NO	0.977	10.114	25.220	25.17	0.991	0.989	189.57	95.9	0.369	
26	26 13C-1,2,3,7,8-PeCDF	5.36e5	1.53	NO	0.778	10.114	29.870	29.94	1.174	1.176	189.33	95.7	1.00	
27	27 13C-2,3,4,7,8-PeCDF	5.14e5	1.52	NO	0.750	10.114	30.878	30.93	1.213	1.215	188.16	95.2	1.04	
28	28 13C-1,2,3,4,7,8-HxCDF	3.47e5	0.54	NO	0.845	10.114	33.720	33.71	0.989	0.988	179.95	91.0	0.753	
29	29 13C-1,2,3,6,7,8-HxCDF	4.10e5	0.52	NO	1.03	10.114	33.836	33.83	0.992	0.992	175.11	88.5	0.620	
30	30 13C-2,3,4,6,7,8-HxCDF	3.58e5	0.52	NO	0.893	10.114	34.409	34.41	1.009	1.009	176.01	89.0	0.713	
31	31 13C-1,2,3,7,8,9-HxCDF	3.05e5	0.55	NO	0.734	10.114	35.310	35.28	1.035	1.034	182.30	92.2	0.867	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.754	10.114	37.022	37.02	1.085	1.085	173.56	87.8	0.682	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-11.qld

Last Altered: Tuesday, December 17, 2019 11:34:06 Pacific Standard Time

Printed: Tuesday, December 17, 2019 11:34:11 Pacific Standard Time

Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.754	10.114	37.022	37.02	1.085	1.085	173.56	87.8	0.682	
33	13C-1,2,3,4,7,8,9-HpCDF	2.18e5	0.42	NO	0.539	10.114	39.045	39.03	1.145	1.144	177.57	89.8	0.954	
34	13C-OCDF	4.26e5	0.92	NO	0.593	10.114	41.832	41.81	1.226	1.226	315.58	79.8	1.01	
35	37Cl-2,3,7,8-TCDD	1.91e5			1.07	10.114	26.167	26.17	1.028	1.028	78.386	99.1	0.110	
36	13C-1,2,3,4-TCDD	4.49e5	0.78	NO	1.00	10.114	25.500	25.45	1.000	1.000	197.75	100	0.322	
37	13C-1,2,3,4-TCDF	7.20e5	0.75	NO	1.00	10.114	23.680	23.58	1.000	1.000	197.75	100	0.360	
38	13C-1,2,3,4,6,9-HxCDF	4.51e5	0.51	NO	1.00	10.114	34.060	34.11	1.000	1.000	197.75	100	0.636	
39	Total Tetra-Dioxins				0.925	10.114	24.620		0.000		1.0104		0.112	1.23
40	Total Penta-Dioxins				0.905	10.114	29.960		0.000		0.27077		0.0730	2.01
41	Total Hexa-Dioxins				0.967	10.114	33.635		0.000		12.471		0.234	13.3
42	Total Hepta-Dioxins				1.04	10.114	38.800		0.000		74.270		0.579	74.3
43	Total Tetra-Furans				0.938	10.114	23.610		0.000		57.953		0.201	59.3
44	1st Func. Penta-Furans				0.976	10.114	27.040		0.000		2.2597		0.0393	2.26
45	Total Penta-Furans				0.976	10.114	29.275		0.000		65.373		0.183	65.4
46	Total Hexa-Furans				1.18	10.114	33.555		0.000		83.068		0.241	89.0
47	Total Hepta-Furans				1.13	10.114	37.835		0.000		57.686		0.310	57.7

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Dataset: U:\VG11.PRO\Results\191214K2\191214K2-11.qld

Last Altered: Tuesday, December 17, 2019 11:34:06 Pacific Standard Time

Printed: Tuesday, December 17, 2019 11:34:11 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

**Tetra-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Tetra-Dioxins	21.87	7.536e3	1.006e4	5.650e2	7.748e2	0.73	NO	1.340e3	0.61605	0.61605	0.112
2 Total Tetra-Dioxins	24.35	2.248e3	2.016e3	1.359e2	1.637e2	0.83	NO	2.997e2	0.13779	0.13779	0.112
3 Total Tetra-Dioxins	25.92	3.009e3	4.032e3	2.563e2	3.017e2	0.85	NO	5.580e2	0.25658	0.25658	0.112
4 Total Tetra-Dioxins	26.14	3.197e3	5.400e3	5.746e1	9.689e1	0.59	YES	0.000e0	0.00000	0.060735	0.112
5 2,3,7,8-TCDD	26.17	3.896e3	9.105e3	1.459e2	3.793e2	0.38	YES	5.252e2	0.00000	0.15421	0.112

*too early or CI 10/10/2020*

**Penta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Penta-Dioxins	29.03	1.226e4	8.848e3	5.866e2	7.154e2	0.82	YES	0.000e0	0.00000	0.73309	0.0730
2 Total Penta-Dioxins	29.52	2.480e3	3.359e3	1.080e2	1.488e2	0.73	YES	0.000e0	0.00000	0.15249	0.0730
3 Total Penta-Dioxins	30.00	4.360e3	7.077e3	4.622e2	4.139e2	1.12	YES	0.000e0	0.00000	0.42420	0.0730
4 Total Penta-Dioxins	30.18	2.744e3	3.379e3	1.716e2	2.060e2	0.83	YES	0.000e0	0.00000	0.21115	0.0730
5 Total Penta-Dioxins	30.26	3.211e3	2.061e3	1.359e2	1.183e2	1.15	YES	0.000e0	0.00000	0.12121	0.0730
6 Total Penta-Dioxins	30.50	2.700e3	4.610e3	1.694e2	2.613e2	0.65	NO	4.307e2	0.27077	0.27077	0.0730
7 Total Penta-Dioxins	30.85	1.219e3	3.148e3	5.998e1	1.197e2	0.50	YES	0.000e0	0.00000	0.097576	0.0730

**Hexa-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Dioxins	33.13	7.284e4	6.195e4	3.430e3	2.883e3	1.19	NO	6.313e3	4.9888	4.9888	0.234
2 Total Hexa-Dioxins	33.67	1.071e4	6.322e3	5.039e2	3.289e2	1.53	YES	0.000e0	0.00000	0.58221	0.234
3 Total Hexa-Dioxins	33.93	6.524e4	4.698e4	3.826e3	3.074e3	1.24	NO	6.900e3	5.4526	5.4526	0.234
4 1,2,3,4,7,8-HxCDD	34.59	4.143e3	3.779e3	1.454e2	1.669e2	0.87	YES	3.123e2	0.00000	0.20933	0.215
5 1,2,3,6,7,8-HxCDD	34.70	2.219e4	1.598e4	1.113e3	8.853e2	1.26	NO	1.999e3	1.4092	1.4092	0.219
6 1,2,3,7,8,9-HxCDD	34.97	9.708e3	6.776e3	4.224e2	3.563e2	1.19	NO	7.787e2	0.61997	0.61997	0.247



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Dataset: U:\VG11.PRO\Results\191214K2\191214K2-11.qld

Last Altered: Tuesday, December 17, 2019 11:34:06 Pacific Standard Time

Printed: Tuesday, December 17, 2019 11:34:11 Pacific Standard Time

Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.42	3.487e5	3.453e5	2.346e4	2.240e4	1.05	NO	4.586e4	42.923	42.923	0.579
2	1,2,3,4,6,7,8-HpCDD	38.44	2.592e5	2.182e5	1.757e4	1.592e4	1.10	NO	3.349e4	31.346	31.346	0.579

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.30	6.211e3	7.030e3	5.096e2	6.622e2	0.77	NO	1.172e3	0.36648	0.36648	0.201
2	Total Tetra-Furans	20.89	3.209e4	4.198e4	2.900e3	3.599e3	0.81	NO	6.499e3	2.0325	2.0325	0.201
3	Total Tetra-Furans	21.43	1.262e4	1.457e4	1.458e3	1.927e3	0.76	NO	3.385e3	1.0585	1.0585	0.201
4	Total Tetra-Furans	21.83	8.245e4	1.130e5	8.294e3	1.068e4	0.78	NO	1.898e4	5.9348	5.9348	0.201
5	Total Tetra-Furans	22.30	2.919e4	3.890e4	2.454e3	3.567e3	0.69	NO	6.021e3	1.8831	1.8831	0.201
6	Total Tetra-Furans	22.45	5.055e3	6.640e3	3.332e2	4.091e2	0.81	NO	7.423e2	0.23214	0.23214	0.201
7	Total Tetra-Furans	22.65	1.851e4	1.854e4	1.442e3	1.831e3	0.79	NO	3.274e3	1.0238	1.0238	0.201
8	Total Tetra-Furans	23.46	1.739e4	2.215e4	1.174e3	1.415e3	0.83	NO	2.589e3	0.80967	0.80967	0.201
9	Total Tetra-Furans	23.58	3.586e4	4.460e4	3.930e3	5.631e3	0.70	NO	9.562e3	2.9903	2.9903	0.201
10	Total Tetra-Furans	24.17	2.637e5	3.665e5	2.420e4	3.317e4	0.73	NO	5.737e4	17.943	17.943	0.201
11	Total Tetra-Furans	24.46	1.144e4	1.406e4	9.260e2	1.122e3	0.83	NO	2.048e3	0.64040	0.64040	0.201
12	Total Tetra-Furans	25.08	3.385e4	5.020e4	2.618e3	3.602e3	0.73	NO	6.220e3	1.9453	1.9453	0.201
13	2,3,7,8-TCDF	25.19	3.525e5	4.301e5	2.805e4	3.559e4	0.79	NO	6.364e4	19.903	19.903	0.201
14	Total Tetra-Furans	25.59	1.744e4	2.250e4	1.295e3	1.651e3	0.78	NO	2.946e3	0.92124	0.92124	0.201
15	Total Tetra-Furans	25.88	5.672e3	5.348e3	4.021e2	4.596e2	0.87	NO	8.617e2	0.26950	0.26950	0.201
16	Total Tetra-Furans	27.31	2.955e4	3.735e4	2.230e3	2.501e3	0.89	YES	0.000e0	0.00000	1.3845	0.201

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.33	5.101e4	3.434e4	3.553e3	2.301e3	1.54	NO	5.854e3	2.2597	2.2597	0.0393

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Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.83	1.470e4	8.224e3	8.769e2	5.730e2	1.53	NO	1.450e3	0.55973	0.55973	0.183
2	Total Penta-Furans	28.97	3.065e5	2.075e5	2.024e4	1.338e4	1.51	NO	3.362e4	12.979	12.979	0.183
3	Total Penta-Furans	29.56	3.515e4	2.442e4	2.524e3	1.865e3	1.35	NO	4.389e3	1.6942	1.6942	0.183
4	Total Penta-Furans	29.78	8.501e4	5.600e4	4.887e3	3.240e3	1.51	NO	8.127e3	3.1372	3.1372	0.183
5	1,2,3,7,8-PeCDF	29.96	6.458e5	4.284e5	3.720e4	2.458e4	1.51	NO	6.178e4	23.350	23.350	0.185
6	Total Penta-Furans	30.06	1.229e4	5.944e3	6.112e2	4.106e2	1.49	NO	1.022e3	0.39447	0.39447	0.183
7	Total Penta-Furans	30.24	2.339e5	1.476e5	1.368e4	8.868e3	1.54	NO	2.255e4	8.7054	8.7054	0.183
8	2,3,4,7,8-PeCDF	30.95	3.563e5	2.276e5	2.187e4	1.433e4	1.53	NO	3.619e4	13.869	13.869	0.176
9	Total Penta-Furans	31.87	2.284e4	1.144e4	1.106e3	6.669e2	1.66	NO	1.772e3	0.68422	0.68422	0.183

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.57	4.784e4	4.096e4	2.341e3	1.937e3	1.21	NO	4.278e3	2.0188	2.0188	0.241
2	Total Hexa-Furans	32.75	2.393e5	1.889e5	1.084e4	8.949e3	1.21	NO	1.979e4	9.3367	9.3367	0.241
3	Total Hexa-Furans	33.28	1.850e5	1.460e5	8.810e3	7.028e3	1.25	NO	1.584e4	7.4737	7.4737	0.241
4	Total Hexa-Furans	33.63	1.801e4	1.782e4	8.474e2	7.271e2	1.17	NO	1.575e3	0.74301	0.74301	0.241
5	1,2,3,4,7,8-HxCDF	33.73	1.100e6	8.639e5	5.563e4	4.471e4	1.24	NO	1.003e5	46.028	46.028	0.212
6	1,2,3,6,7,8-HxCDF	33.85	2.944e5	2.531e5	1.663e4	1.420e4	1.17	NO	3.083e4	13.585	13.585	0.218
7	2,3,4,6,7,8-HxCDF	34.42	9.714e4	7.223e4	4.699e3	3.604e3	1.30	NO	8.303e3	3.8823	3.8823	0.234
8	1,2,3,7,8,9-HxCDF	35.33	8.657e4	8.720e4	1.941e3	1.957e3	0.99	YES	3.897e3	0.00000	2.1181	0.352
9	Total Hexa-Furans	35.34	1.135e5	9.662e4	4.491e3	3.665e3	1.23	NO	0.000e0	0.00000	3.8486	0.241

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	37.03	3.297e5	3.162e5	2.114e4	2.026e4	1.04	NO	4.141e4	24.286	24.286	0.285
2	Total Hepta-Furans	37.61	2.954e5	2.845e5	1.954e4	1.871e4	1.04	NO	3.824e4	25.912	25.912	0.310
3	1,2,3,4,7,8,9-HpCDF	39.05	9.147e4	8.689e4	5.361e3	5.055e3	1.06	NO	1.042e4	7.4876	7.4876	0.309

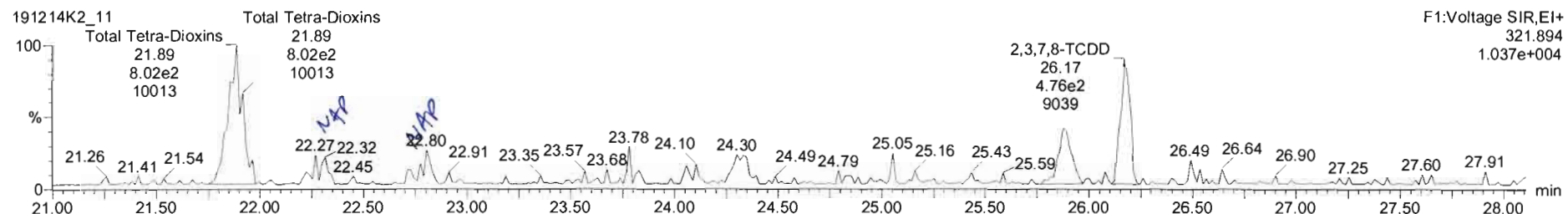
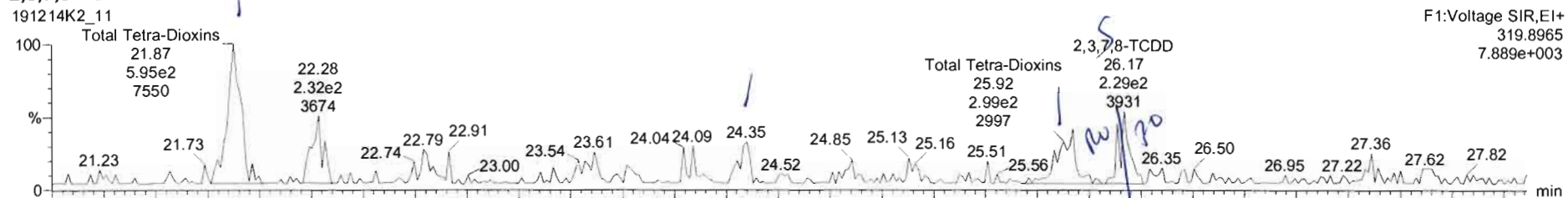
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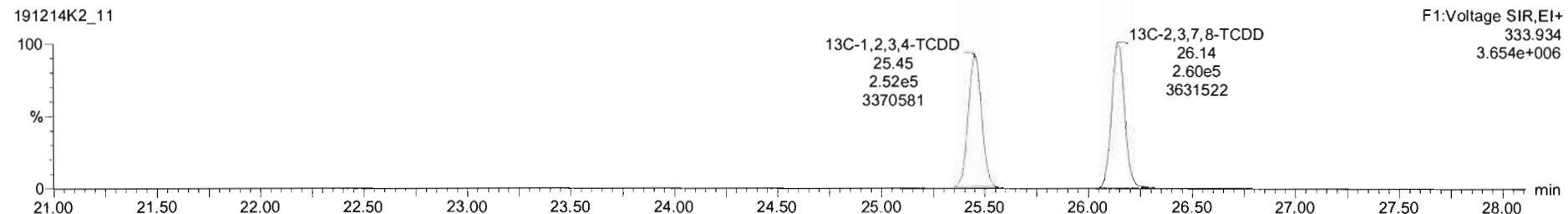
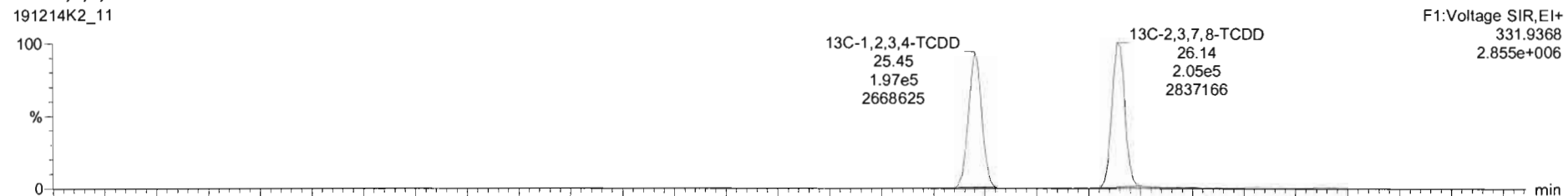
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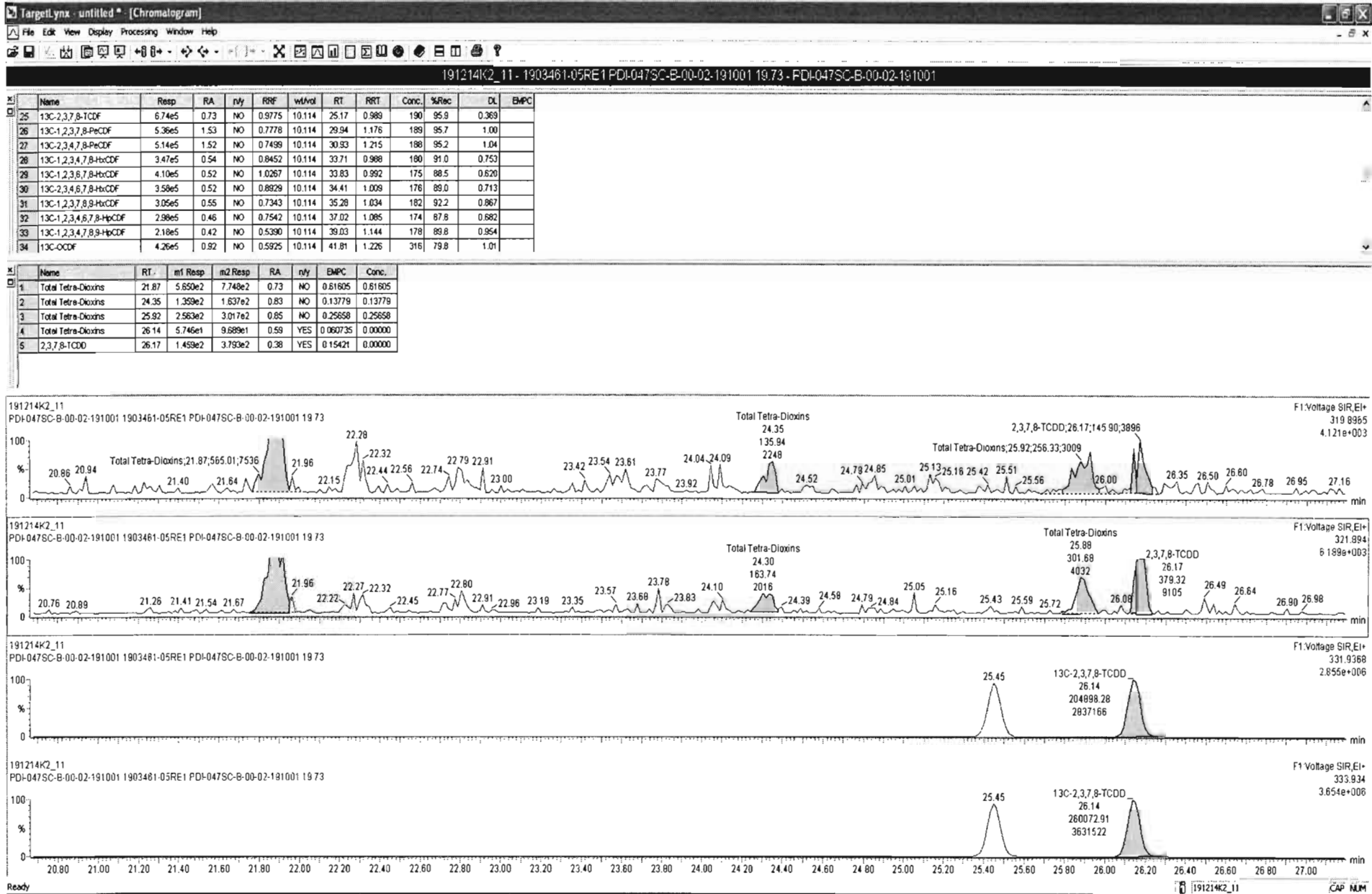
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### 2,3,7,8-TCDD



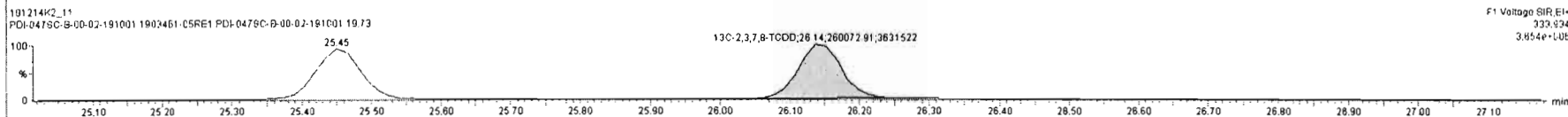
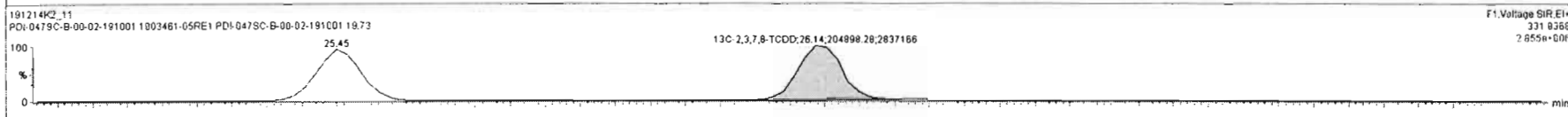
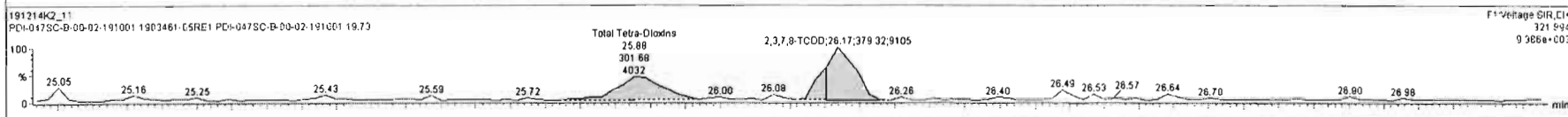
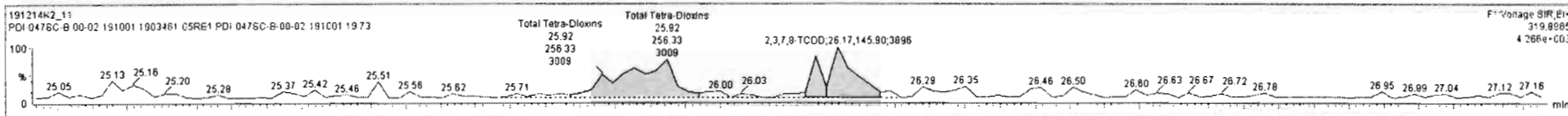
### 13C-2,3,7,8-TCDD





Name	Resp	RA	n/y	RRF	wtAve	RI	RR1	Conc.	%Rec	DL	EMPC
25	13C-2,3,7,8-TCDF	6.74e5	0.73	NO	0.9775	10.114	25.17	0.989	190	95.9	0.369
26	13C-1,2,3,7,8-PeCDF	5.36e5	1.53	NO	0.7778	10.114	29.94	1.178	189	95.7	1.00
27	13C-2,3,4,7,8-PeCDF	5.14e5	1.52	NO	0.7499	10.114	30.93	1.215	198	95.2	1.04
28	13C-1,2,3,4,7,8-HxCDF	3.47e5	0.54	NO	0.8452	10.114	33.71	0.989	190	91.0	0.753
29	13C-1,2,3,6,7,8-HxCDF	4.10e5	0.52	NO	1.0267	10.114	33.83	0.992	175	89.5	0.520
30	13C-2,3,4,6,7,8-HxCDF	3.58e5	0.52	NO	0.8929	10.114	34.41	1.009	176	89.0	0.713
31	13C-1,2,3,7,8,9-HxCDF	3.05e5	0.55	NO	0.7343	10.114	35.28	1.034	182	92.2	0.867
32	13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.7542	10.114	37.02	1.085	174	87.8	0.582
33	13C-1,2,3,4,7,8,9-HpCDF	2.18e5	0.42	NO	0.5390	10.114	38.03	1.144	178	89.8	0.954
34	13C-OCDF	4.26e5	0.82	NO	0.5825	10.114	41.81	1.226	316	79.8	1.01

Name	RI	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Tetra-Dioxins	21.87	5.650e2	7.748e2	0.73	NO	0.61605	0.61605
2	Total Tetra-Dioxins	24.35	1.359e2	1.637e2	0.83	NO	0.13779	0.13779
3	Total Tetra-Dioxins	25.92	2.563e2	3.017e2	0.85	NO	0.25658	0.25658
4	Total Tetra-Dioxins	26.14	5.746e1	8.689e1	0.59	YES	0.080735	0.00000
5	2,3,7,8-TCDD	26.17	1.459e2	3.793e2	0.38	YES	0.15421	0.00000



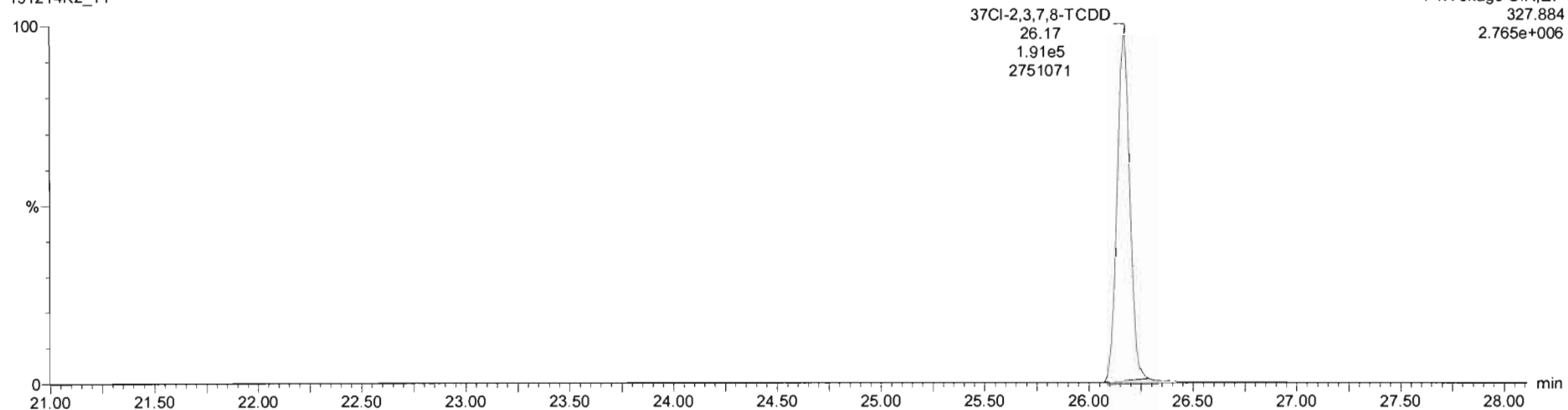
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Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

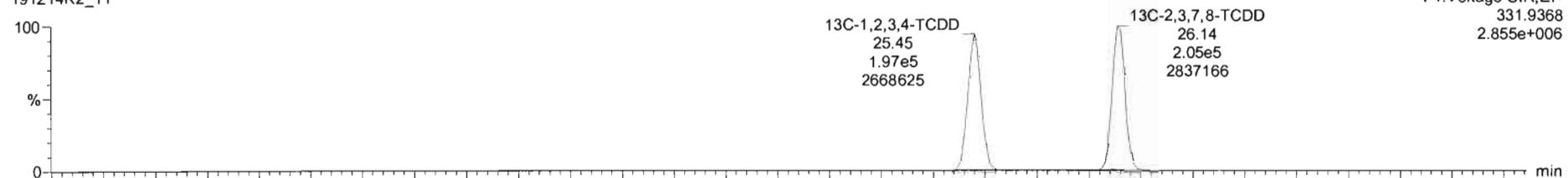
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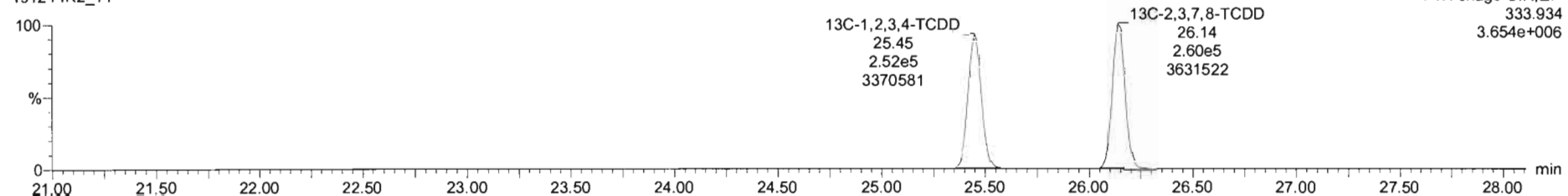


**13C-1,2,3,4-TCDD**

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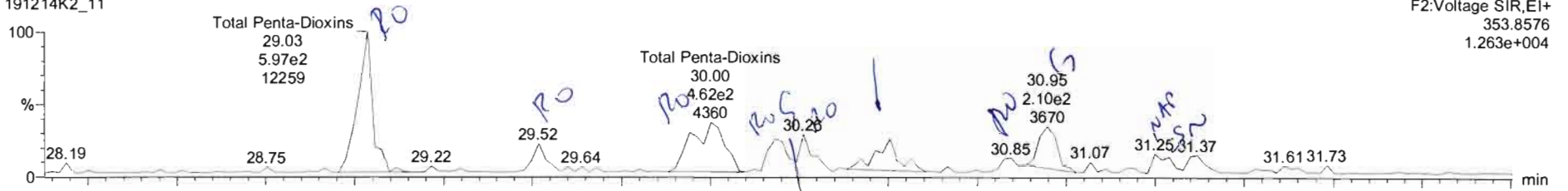
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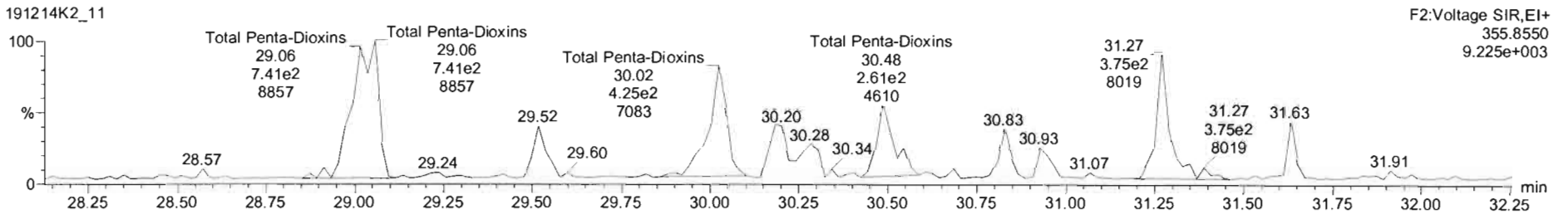
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1,2,3,7,8-PeCDD

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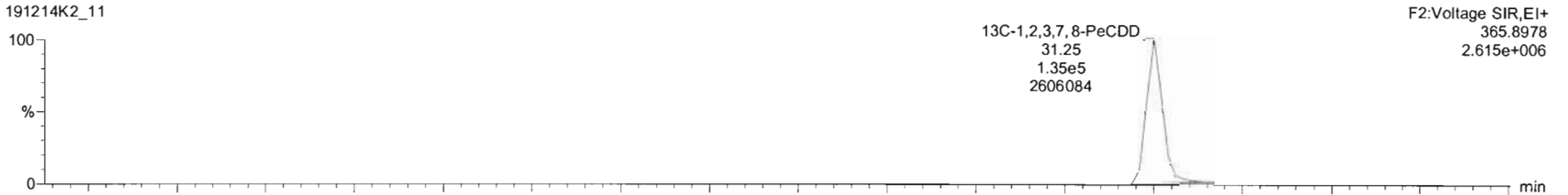


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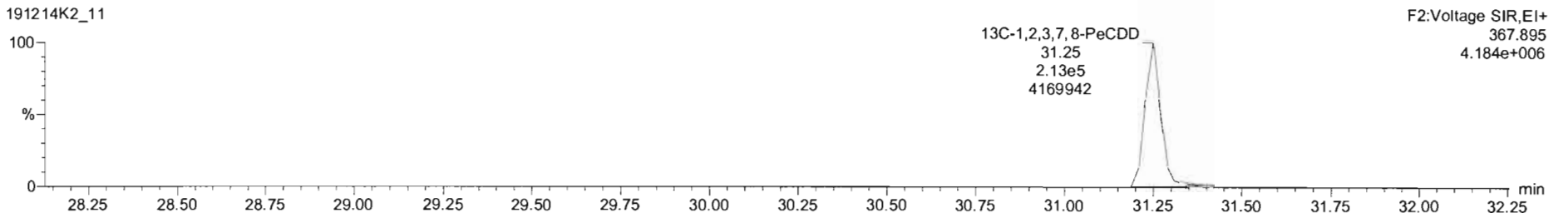


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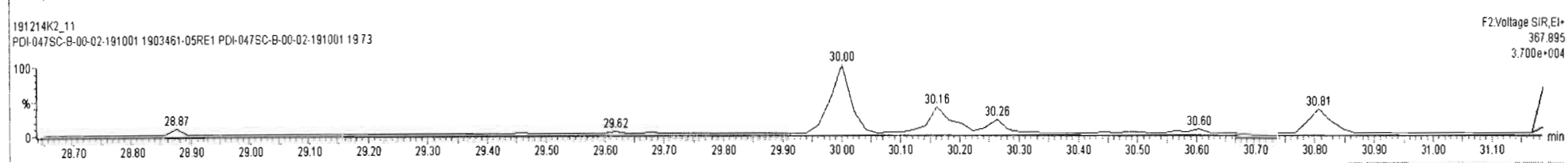
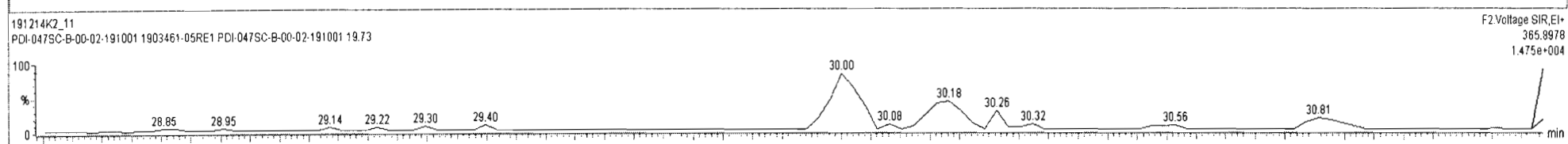
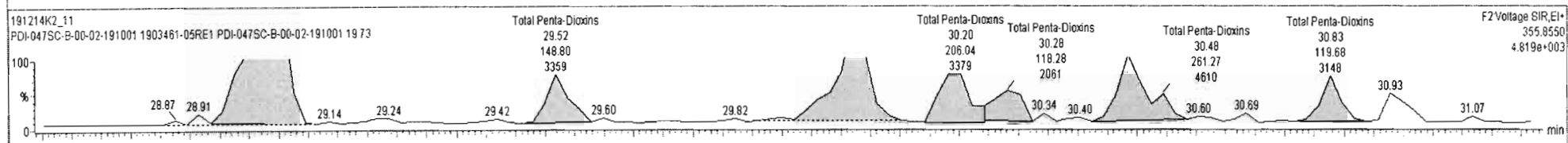
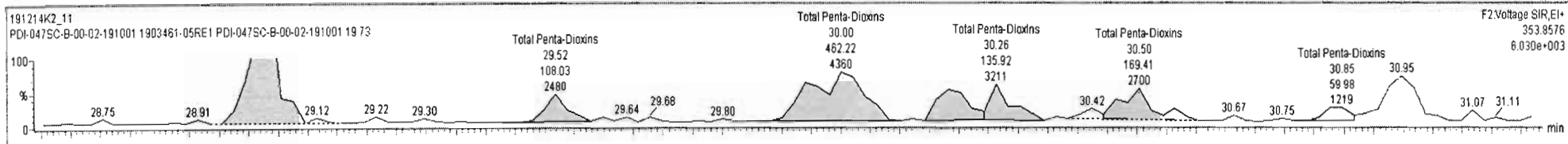
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Name	Resp	RA	n/y	RFI	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
25	13C-2,3,7,8-TCDF	6.74e5	0.73	NO	0.9775	10.114	25.17	0.989	190	95.9	0.369
26	13C-1,2,3,7,8-PeCDF	5.36e5	1.53	NO	0.7778	10.114	29.94	1.176	189	95.7	1.00
27	13C-2,3,4,7,8-PeCDF	5.14e5	1.52	NO	0.7499	10.114	30.93	1.215	188	95.2	1.04
28	13C-1,2,3,4,7,8-HxCDF	3.47e5	0.54	NO	0.8452	10.114	33.71	0.988	180	91.0	0.753
29	13C-1,2,3,6,7,8-HxCDF	4.10e5	0.52	NO	1.0267	10.114	33.83	0.992	175	88.5	0.620
30	13C-2,3,4,6,7,8-HxCDF	3.58e5	0.52	NO	0.8929	10.114	34.41	1.009	176	89.0	0.713
31	13C-1,2,3,7,8,9-HxCDF	3.05e5	0.55	NO	0.7343	10.114	35.28	1.034	182	92.2	0.867
32	13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.7542	10.114	37.02	1.085	174	87.8	0.882
33	13C-1,2,3,4,7,8,9-HpCDF	2.18e5	0.42	NO	0.5390	10.114	39.03	1.144	178	89.8	0.954
34	13C-OCDF	4.26e5	0.92	NO	0.5825	10.114	41.81	1.226	316	79.8	1.01

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Penta-Dioxins	29.03	5.866e2	7.154e2	0.82	YES	0.73309	0.00000
2	Total Penta-Dioxins	29.52	1.080e2	1.488e2	0.73	YES	0.15249	0.00000
3	Total Penta-Dioxins	30.00	4.622e2	4.139e2	1.12	YES	0.42420	0.00000
4	Total Penta-Dioxins	30.18	1.716e2	2.060e2	0.83	YES	0.21115	0.00000
5	Total Penta-Dioxins	30.26	1.359e2	1.183e2	1.15	YES	0.12121	0.00000
6	Total Penta-Dioxins	30.50	1.694e2	2.613e2	0.65	NO	0.27077	0.27077
7	Total Penta-Dioxins	30.85	5.998e1	1.197e2	0.50	YES	0.097576	0.00000

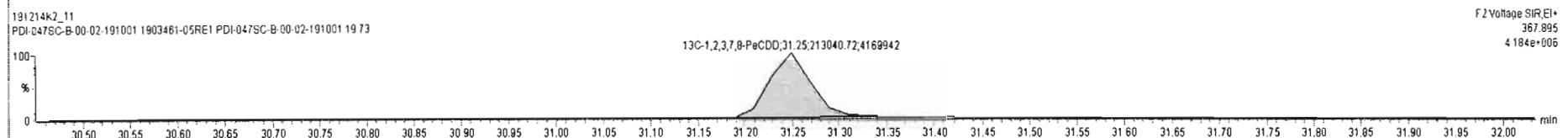
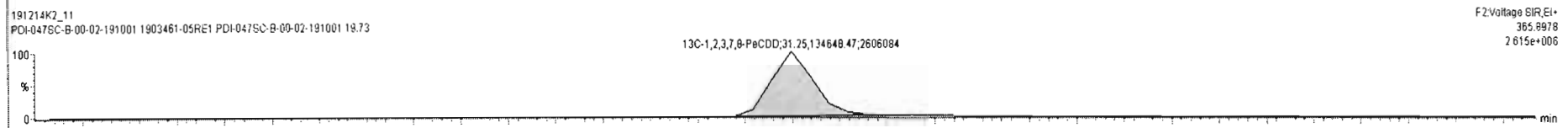
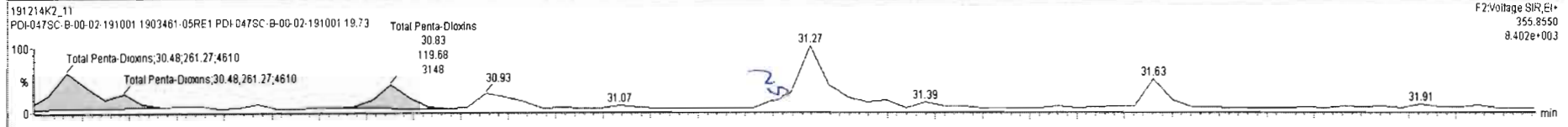
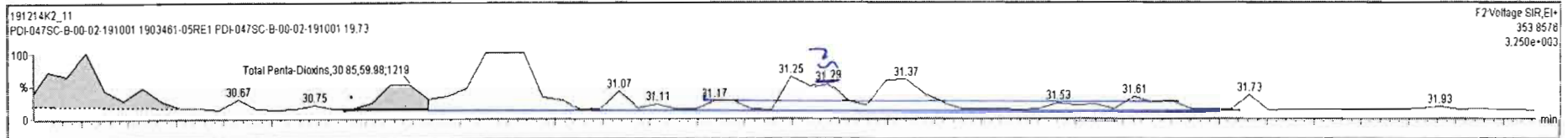




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Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
25	13C-2,3,7,8-TCDF	6.74e5	0.73	NO	0.9775	10.114	25.17	0.989	190	95.9	0.369
26	13C-1,2,3,7,8-PeCDF	5.30e5	1.53	NO	0.7778	10.114	29.94	1.176	189	95.7	1.00
27	13C-2,3,4,7,8-PeCDF	5.14e5	1.52	NO	0.7499	10.114	30.93	1.215	188	95.2	1.04
28	13C-1,2,3,4,7,8-HxCDF	3.47e5	0.54	NO	0.8452	10.114	33.71	0.988	180	91.0	0.753
28	13C-1,2,3,6,7,8-HxCDF	4.10e5	0.52	NO	1.0267	10.114	33.83	0.992	175	88.5	0.620
30	13C-2,3,4,6,7,8-HxCDF	3.98e5	0.52	NO	0.8929	10.114	34.41	1.009	176	89.0	0.713
31	13C-1,2,3,7,8,9-HxCDF	3.05e5	0.55	NO	0.7343	10.114	35.28	1.034	182	92.2	0.867
32	13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.7542	10.114	37.02	1.085	174	87.8	0.682
33	13C-1,2,3,4,7,8,9-HpCDF	2.18e5	0.42	NO	0.5390	10.114	38.03	1.144	178	88.8	0.954
34	13C-OCDF	4.26e5	0.92	NO	0.5925	10.114	41.81	1.226	316	79.8	1.01

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Penta-Dioxins	29.03	5.868e2	7.154e2	0.82	YES	0.73309	0.00000
2	Total Penta-Dioxins	29.52	1.080e2	1.488e2	0.73	YES	0.15248	0.00000
3	Total Penta-Dioxins	30.00	4.622e2	4.139e2	1.12	YES	0.42420	0.00000
4	Total Penta-Dioxins	30.18	1.716e2	2.060e2	0.83	YES	0.21115	0.00000
5	Total Penta-Dioxins	30.26	1.359e2	1.183e2	1.15	YES	0.12121	0.00000
6	Total Penta-Dioxins	30.50	1.694e2	2.613e2	0.65	NO	0.27077	0.27077
7	Total Penta-Dioxins	30.85	5.988e1	1.197e2	0.50	YES	0.097576	0.00000



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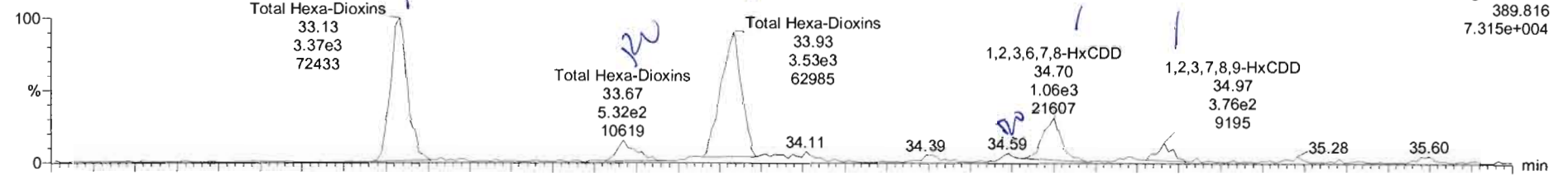
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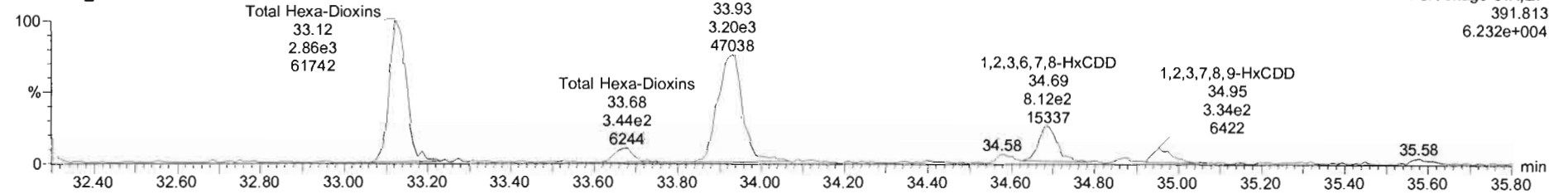
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1,2,3,4,7,8-HxCDD

191214K2\_11

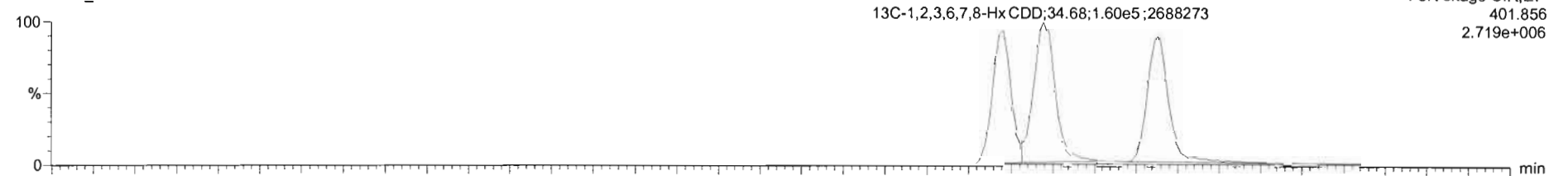


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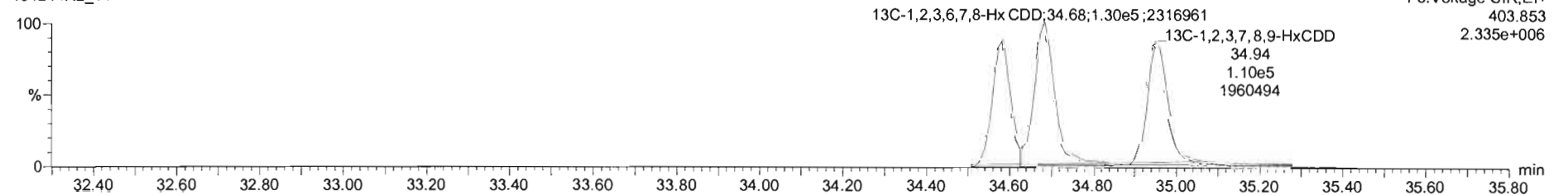


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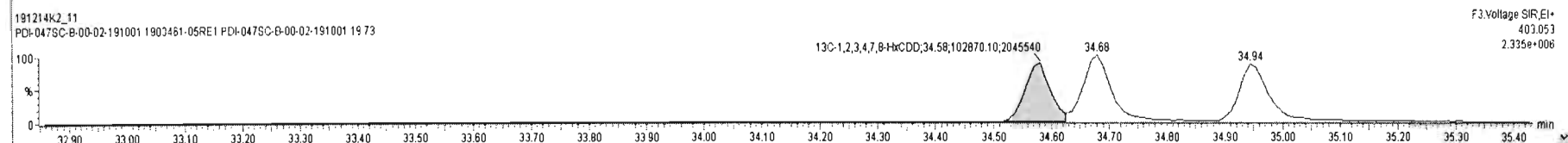
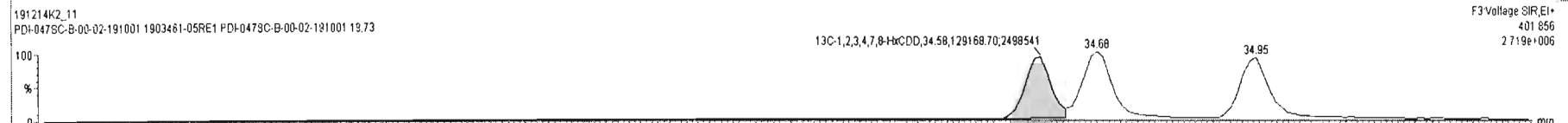
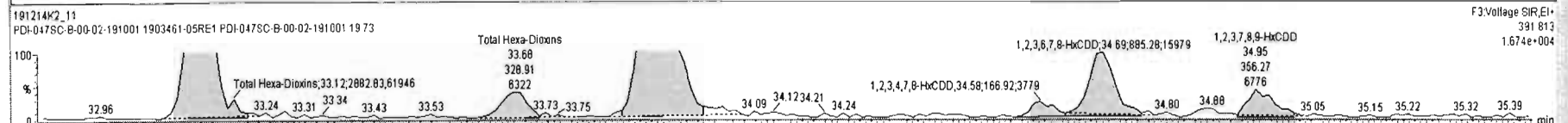
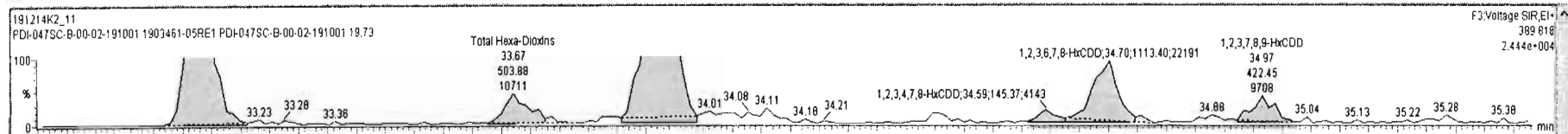
191214K2\_11



191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-B-00-02-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
27	13C-2,3,4,7,8-PeCDF	5.14e5	1.52	NO	0.7499	10.114	30.93	1.215	188	95.2	1.04
28	13C-1,2,3,4,7,8-HxCDF	3.47e5	0.54	NO	0.8452	10.114	33.71	0.988	180	91.0	0.753
29	13C-1,2,3,6,7,8-HxCDF	4.10e5	0.52	NO	1.0267	10.114	33.83	0.992	175	88.5	0.620
30	13C-2,3,4,6,7,8-HxCDF	3.58e5	0.52	NO	0.8929	10.114	34.41	1.009	176	89.0	0.713
31	13C-1,2,3,7,8,9-HxCDF	3.05e5	0.55	NO	0.7343	10.114	35.28	1.034	182	92.2	0.867
32	13C-1,2,3,4,6,7,8-HpCDF	2.98e5	0.46	NO	0.7542	10.114	37.02	1.085	174	87.8	0.682
33	13C-1,2,3,4,7,8,9-HpCDF	2.18e5	0.42	NO	0.5390	10.114	39.03	1.144	178	89.8	0.954
34	13C-OCDF	4.26e5	0.92	NO	0.5925	10.114	41.81	1.226	316	79.8	1.01
35	37Cl-2,3,7,8-TCDD	1.91e5			1.0695	10.114	26.17	1.028	78.4	99.1	0.110
36	13C-1,2,3,4-TCDD	4.49e5	0.78	NO	1.0000	10.114	25.45	1.000	198	100	0.322

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.13	3.430e3	2.883e3	1.19	NO	4.9888	4.9888
2 Total Hexa-Dioxins	33.67	5.039e2	3.289e2	1.53	YES	0.58221	0.00000
3 Total Hexa-Dioxins	33.93	3.826e3	3.074e3	1.24	NO	5.4526	5.4526
4 1,2,3,4,7,8-HxCDD	34.59	1.454e2	1.669e2	0.87	YES	0.20933	0.00000
5 1,2,3,6,7,8-HxCDD	34.70	1.113e3	8.853e2	1.26	NO	1.4092	1.4092
6 1,2,3,7,8,9-HxCDD	34.97	4.224e2	3.563e2	1.19	NO	0.61997	0.61997



Ready

191214K2\_11 CAP.MLM

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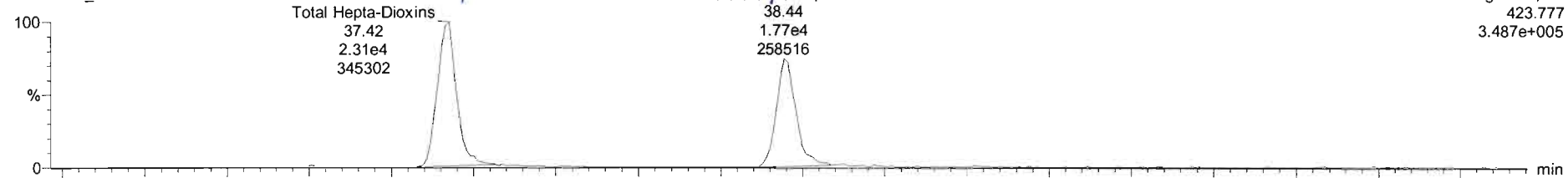
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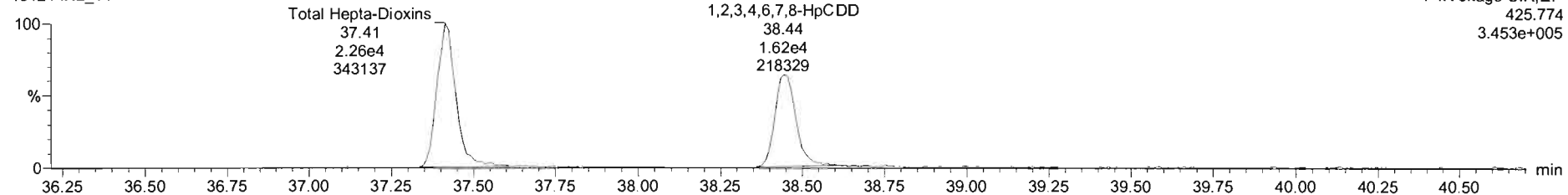
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1,2,3,4,6,7,8-HpCDD

191214K2\_11

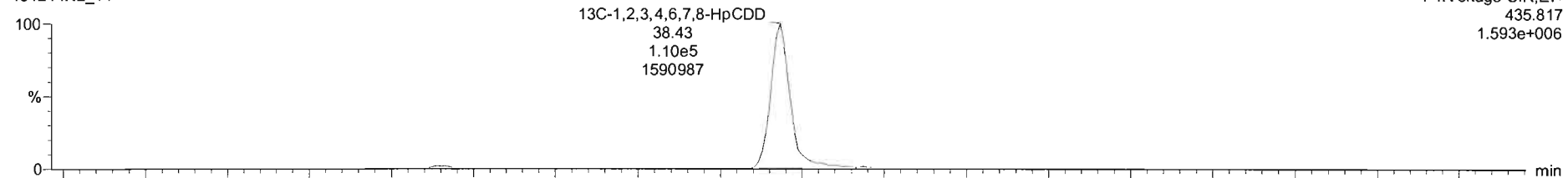


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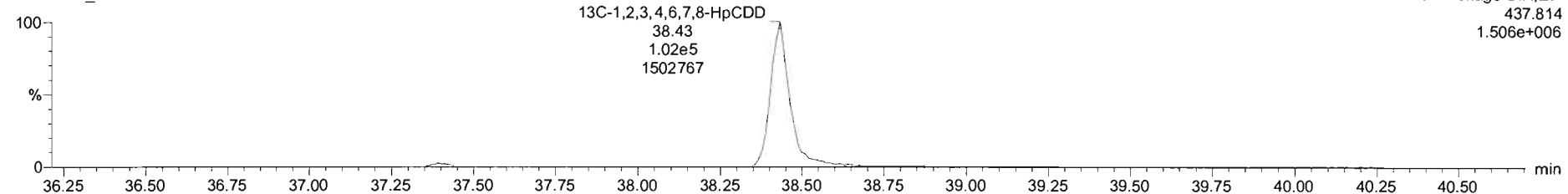


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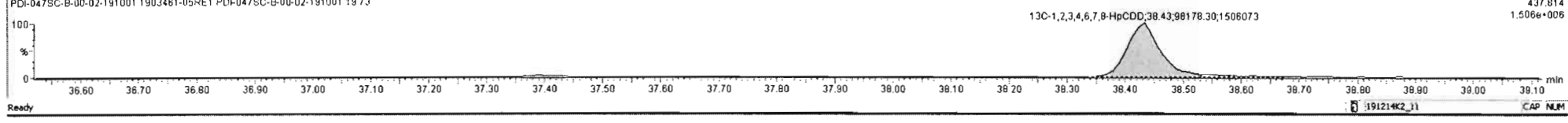
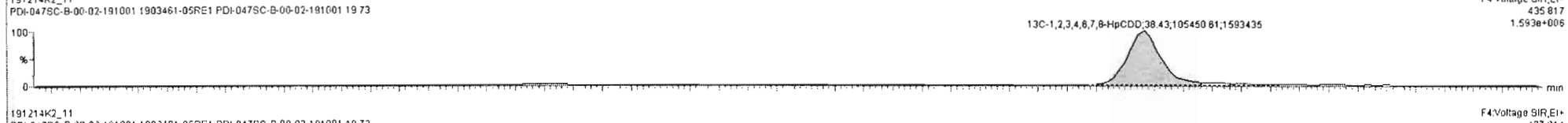
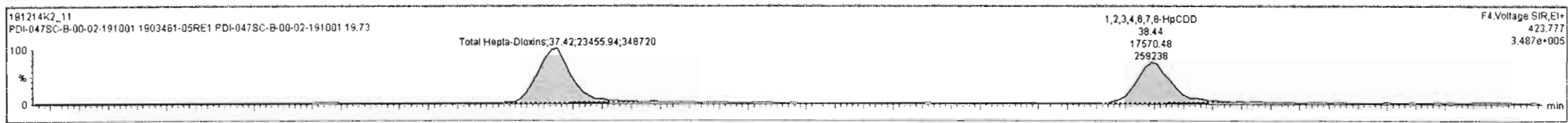


191214K2\_11



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	ENPC
42 Total Hepta-Dioxins				1.0375	10.114			74.3		0.579	74.3
43 Total Tetra-Furans				0.9376	10.114			52.3		0.201	56.2
44 Tet Func. Penta-Furans				0.9762	10.114			2.26		0.0393	2.26
45 Total Penta-Furans				0.9762	10.114			62.0		0.183	64.1
46 Total Hexa-Furans				1.1806	10.114			89.9		0.241	90.8
47 Total Hepta-Furans				1.1300	10.114			58.5		0.310	58.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

Name	RT	m1 Resp	m2 Resp	RA	n/y	ENPC	Conc.
1 Total Hepta-Dioxins	37.42	2.346e4	2.240e4	1.05	NO	42.923	42.923
2 1,2,3,4,6,7,8-HpCDD	38.44	1.757e4	1.592e4	1.10	NO	31.346	31.346



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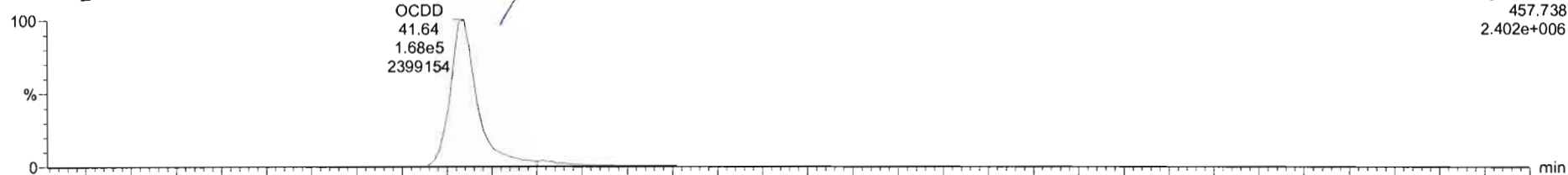
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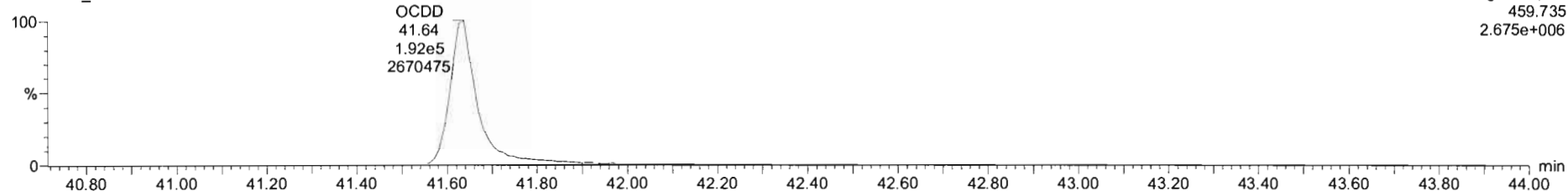
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**OCDD**

191214K2\_11

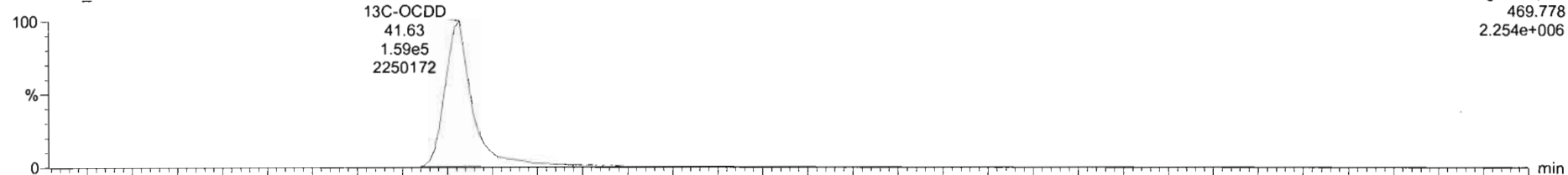


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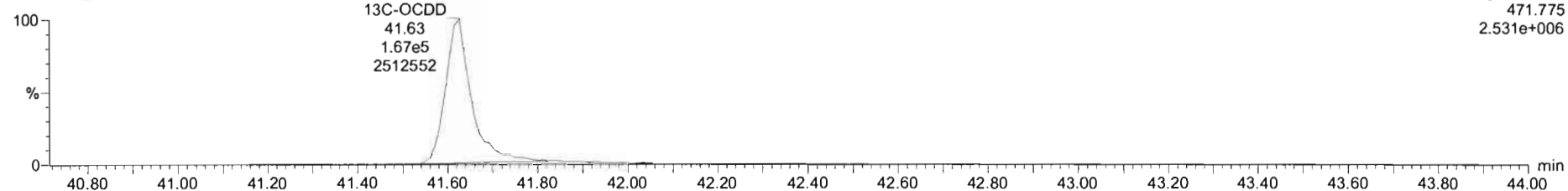


**13C-OCDD**

191214K2\_11



191214K2\_11



Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	7.04e2	0.48	YES	0.9249	10.114	26.17	1.001	0.324		0.112	0.242
2 1,2,3,7,8-PeCDD			NO	0.9046	10.114					0.0730	
3 1,2,3,4,7,8-HxCDD			NO	1.0691	10.114					0.215	
4 1,2,3,6,7,8-HxCDD	1.87e3	1.31	NO	0.9675	10.114	34.70	1.001	1.32		0.219	1.32
5 1,2,3,7,8,9-HxCDD	7.10e2	1.13	NO	0.9778	10.114	34.97	1.000	0.566		0.247	0.566
6 1,2,3,4,6,7,8-HpCDD	3.39e4	1.09	NO	1.0375	10.114	38.44	1.000	30.4		0.580	30.4
7 OCDD	3.31e5	0.80	NO	0.9710	10.114	41.64	1.000	438		0.895	438
8 2,3,7,8-TCDF	6.60e4	0.85	NO	0.9376	10.114	25.19	1.001	20.6		0.201	20.6
9 1,2,3,7,8-PeCDF	6.08e4	1.52	NO	0.9762	10.114	28.96	1.001	23.0		0.185	23.0
10 2,3,4,7,8-PeCDF	3.66e4	1.51	NO	1.0049	10.114	30.85	1.001	14.0		0.176	14.0

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							

191214K2\_11  
PDI-047SC-B-00-02-191001 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73



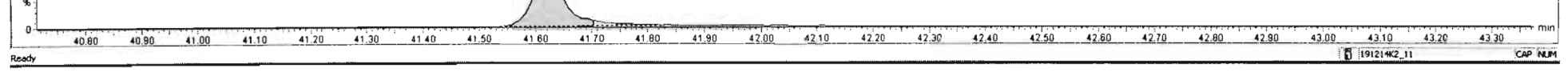
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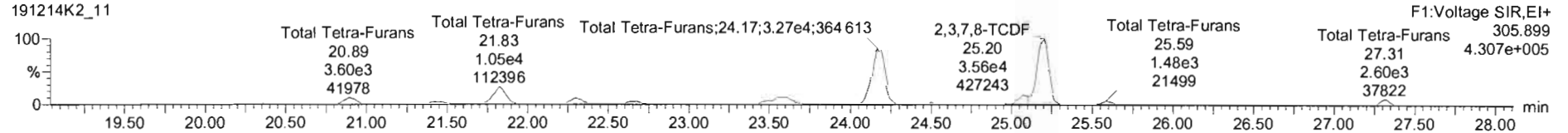
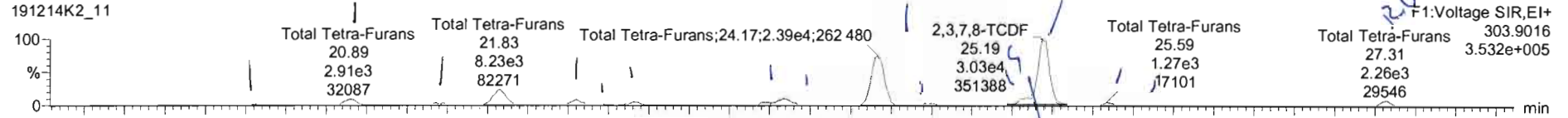


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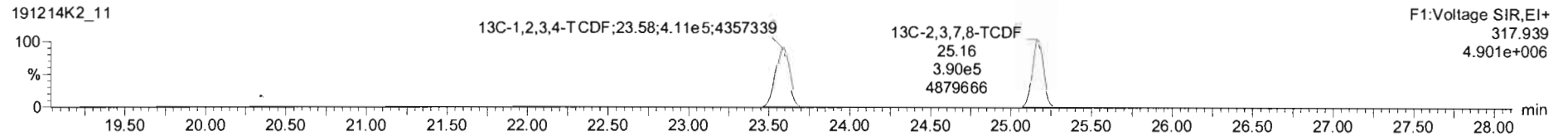
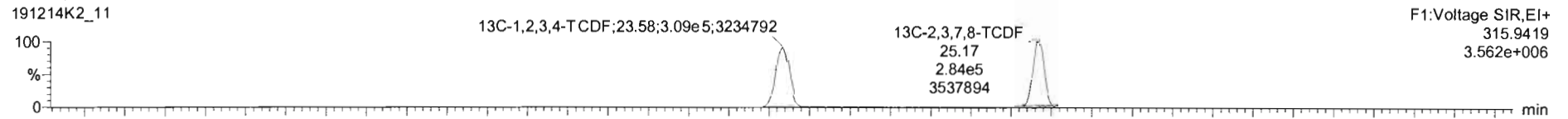
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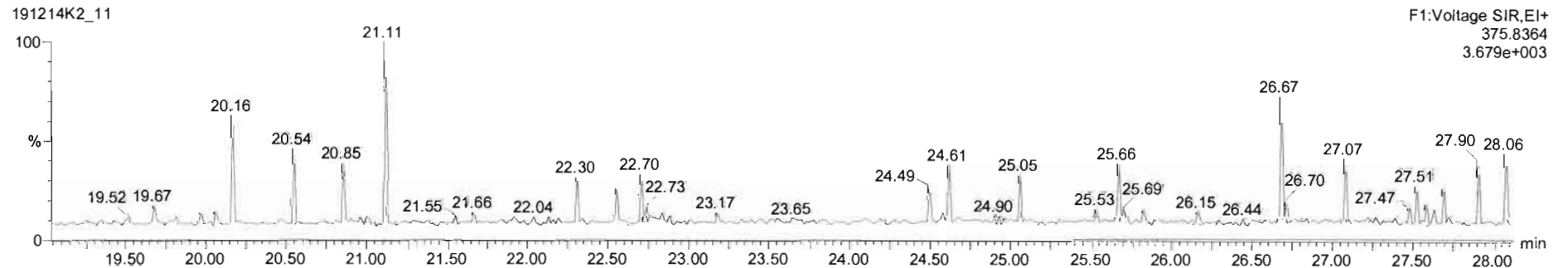
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**13C-2,3,7,8-TCDF**



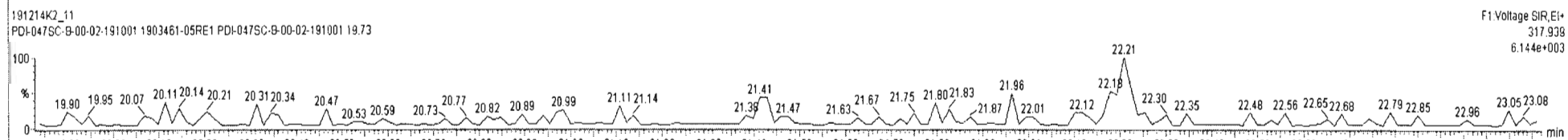
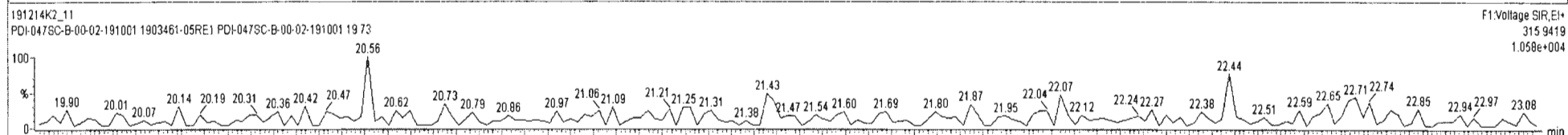
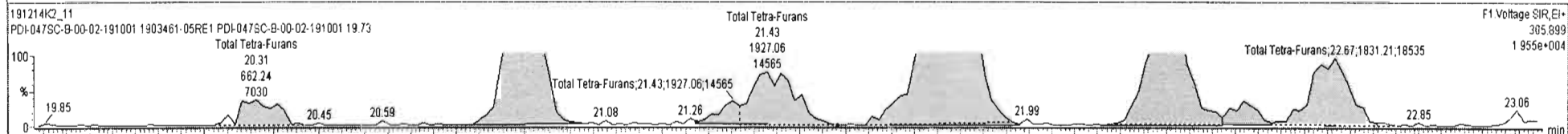
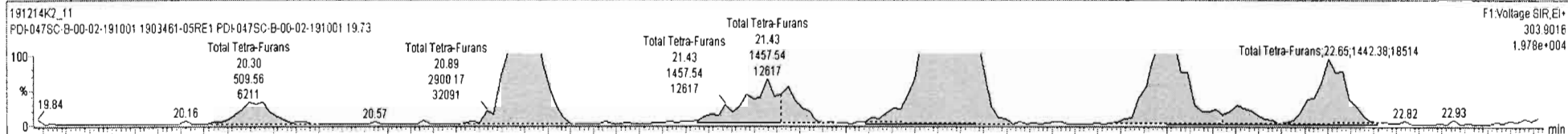
**DPE1**





Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.114			74.3	0.579	74.3	
43 Total Tetra-Furans				0.9376	10.114			57.8	0.201	59.1	
44 1st Func. Penta-Furans				0.9762	10.114			2.26	0.0393	2.26	
45 Total Penta-Furans				0.9762	10.114			62.0	0.183	64.1	
46 Total Hexa-Furans				1.1806	10.114			89.9	0.241	90.8	
47 Total Hepta-Furans				1.1300	10.114			58.5	0.310	58.5	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

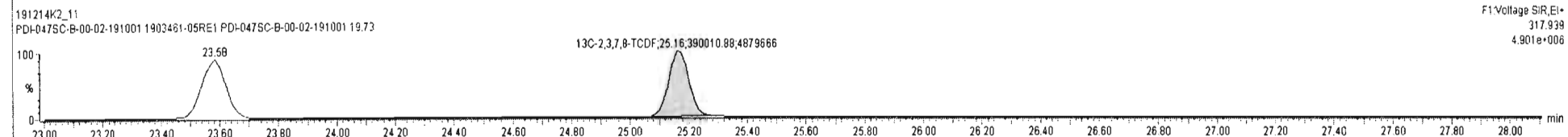
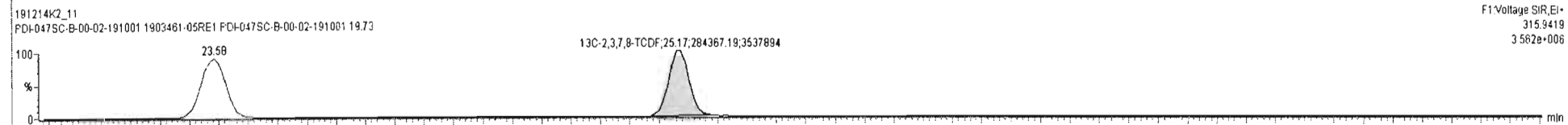
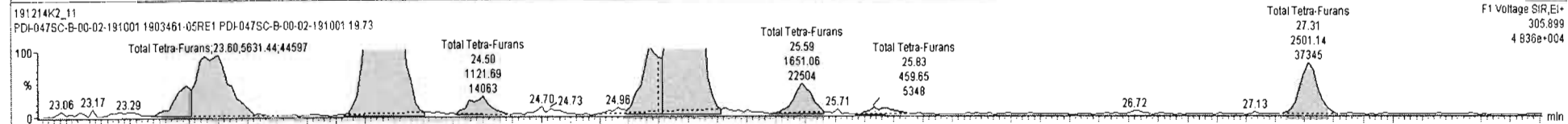
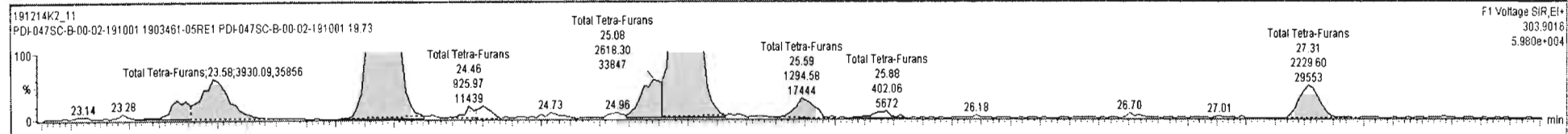
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	20.30	5.096e2	6.622e2	0.77	NO	0.36648	0.36648
2 Total Tetra-Furans	20.89	2.900e3	3.599e3	0.81	NO	2.0325	2.0325
3 Total Tetra-Furans	21.43	1.458e3	1.927e3	0.76	NO	1.0585	1.0585
4 Total Tetra-Furans	21.83	8.294e3	1.068e4	0.78	NO	5.9348	5.9348
5 Total Tetra-Furans	22.30	2.454e3	3.567e3	0.69	NO	1.8831	1.8831
6 Total Tetra-Furans	22.45	3.332e2	4.091e2	0.81	NO	0.23214	0.23214
7 Total Tetra-Furans	22.65	1.442e3	1.831e3	0.79	NO	1.0238	1.0238



191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-B-00-02-191001

Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.114			74.3		0.579	74.3
43 Total Tetra-Furans				0.9376	10.114			58.0		0.201	59.3
44 1st Func. Penta-Furans				0.9762	10.114			2.26		0.0393	2.26
45 Total Penta-Furans				0.9762	10.114			62.0		0.183	64.1
46 Total Hexa-Furans				1.1806	10.114			89.9		0.241	90.8
47 Total Hepta-Furans				1.1300	10.114			58.5		0.310	58.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
10 Total Tetra-Furans	24.17	2.420e4	3.317e4	0.73	NO	17.943	17.943
11 Total Tetra-Furans	24.46	9.260e2	1.122e3	0.83	NO	0.64040	0.64040
12 Total Tetra-Furans	25.08	2.616e3	3.602e3	0.73	NO	1.9453	1.9453
13 2,3,7,8-TCDF	25.19	2.805e4	3.559e4	0.79	NO	19.903	19.903
14 Total Tetra-Furans	25.59	1.295e3	1.851e3	0.78	NO	0.92124	0.92124
15 Total Tetra-Furans	25.88	4.021e2	4.596e2	0.87	NO	0.26950	0.26950
16 Total Tetra-Furans	27.31	2.230e3	2.501e3	0.89	YES	1.3845	0.00000



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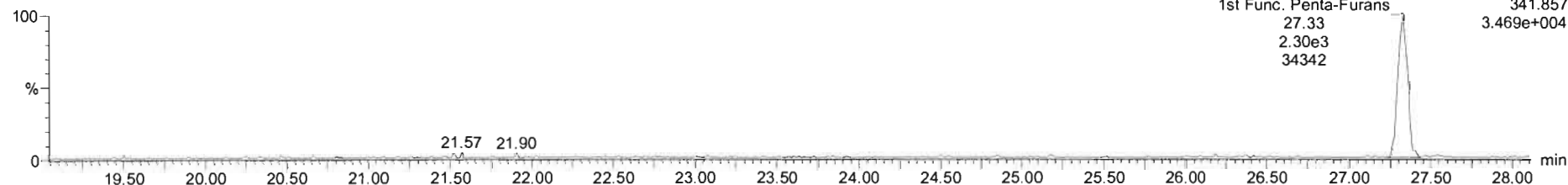
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1st Func. Penta-Furans

191214K2\_11

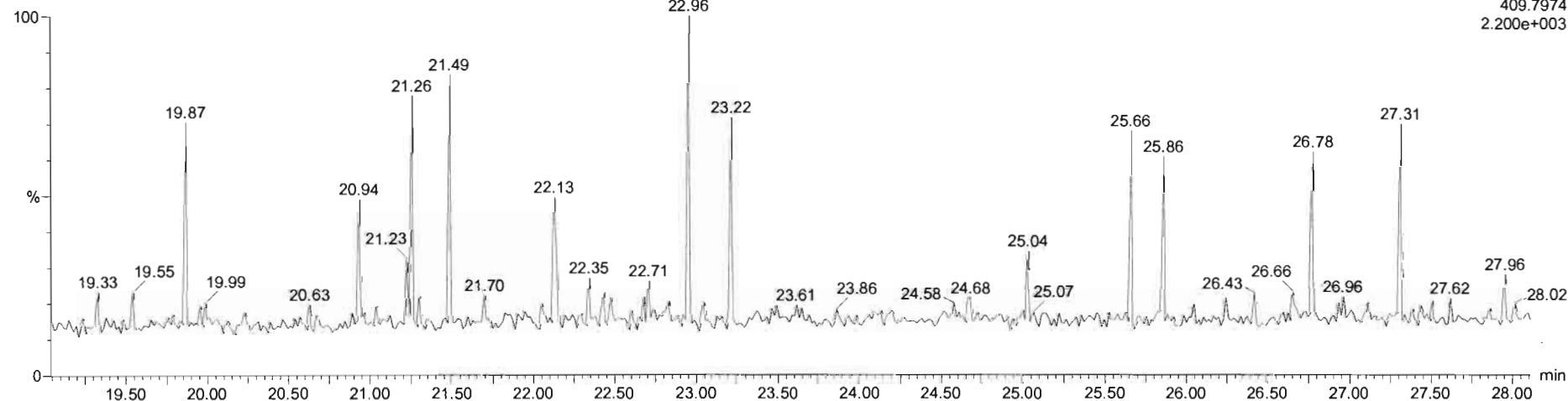


191214K2\_11



DPE6

191214K2\_11

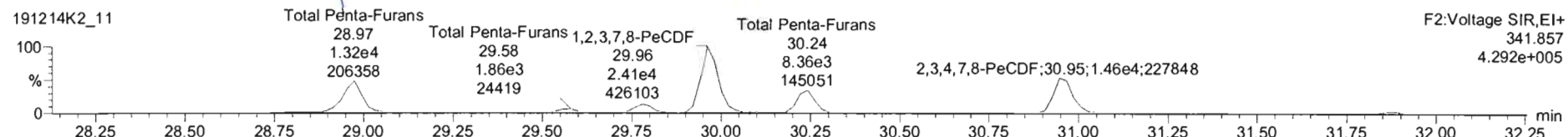
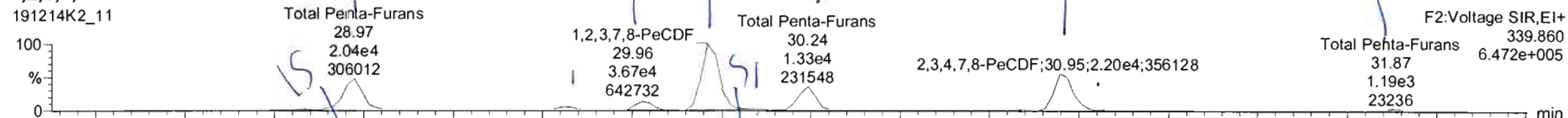


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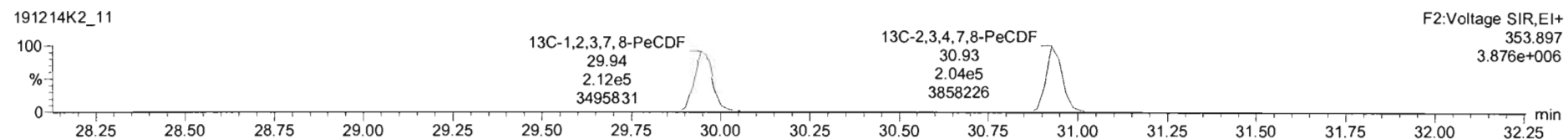
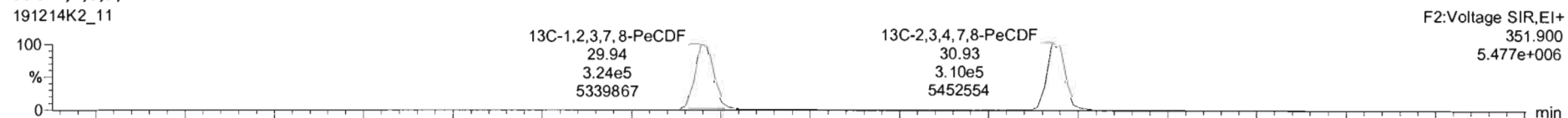
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Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

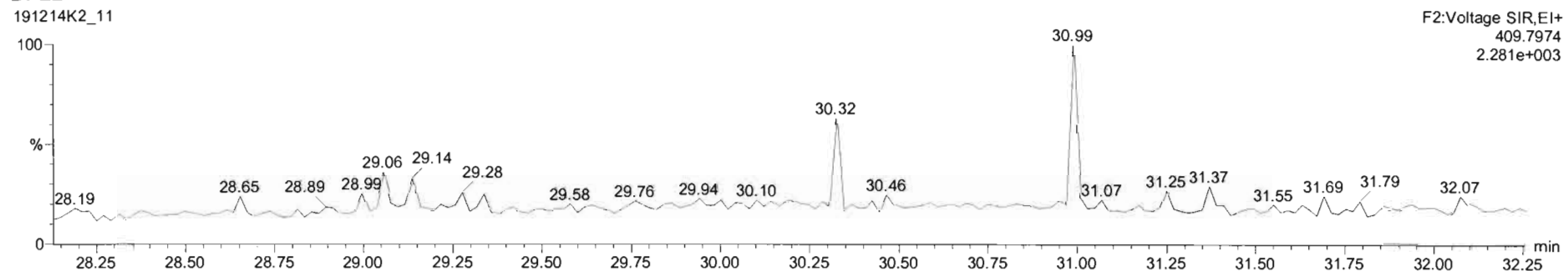
### 1,2,3,7,8-PeCDF



### 13C-1,2,3,7,8-PeCDF

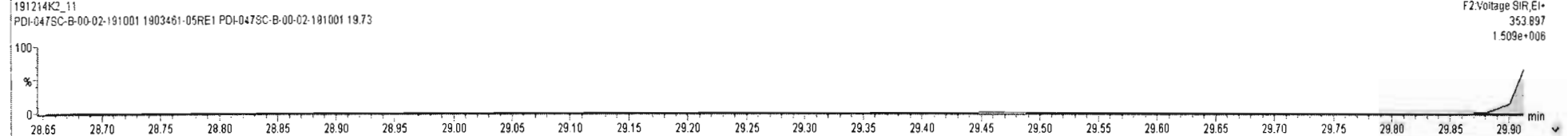
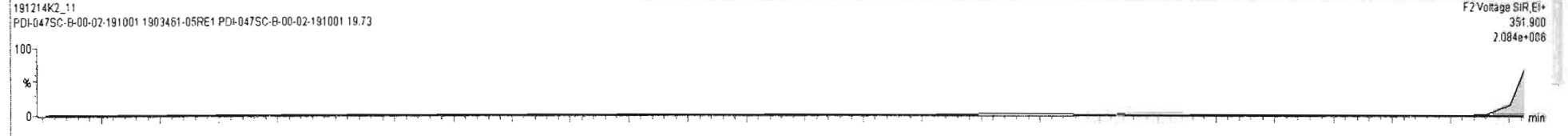
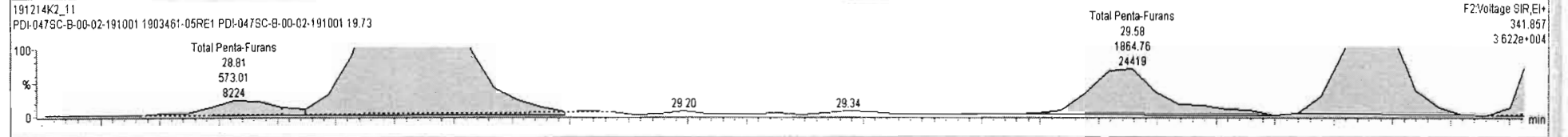
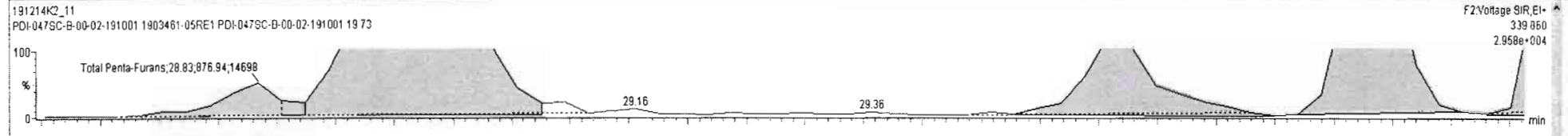


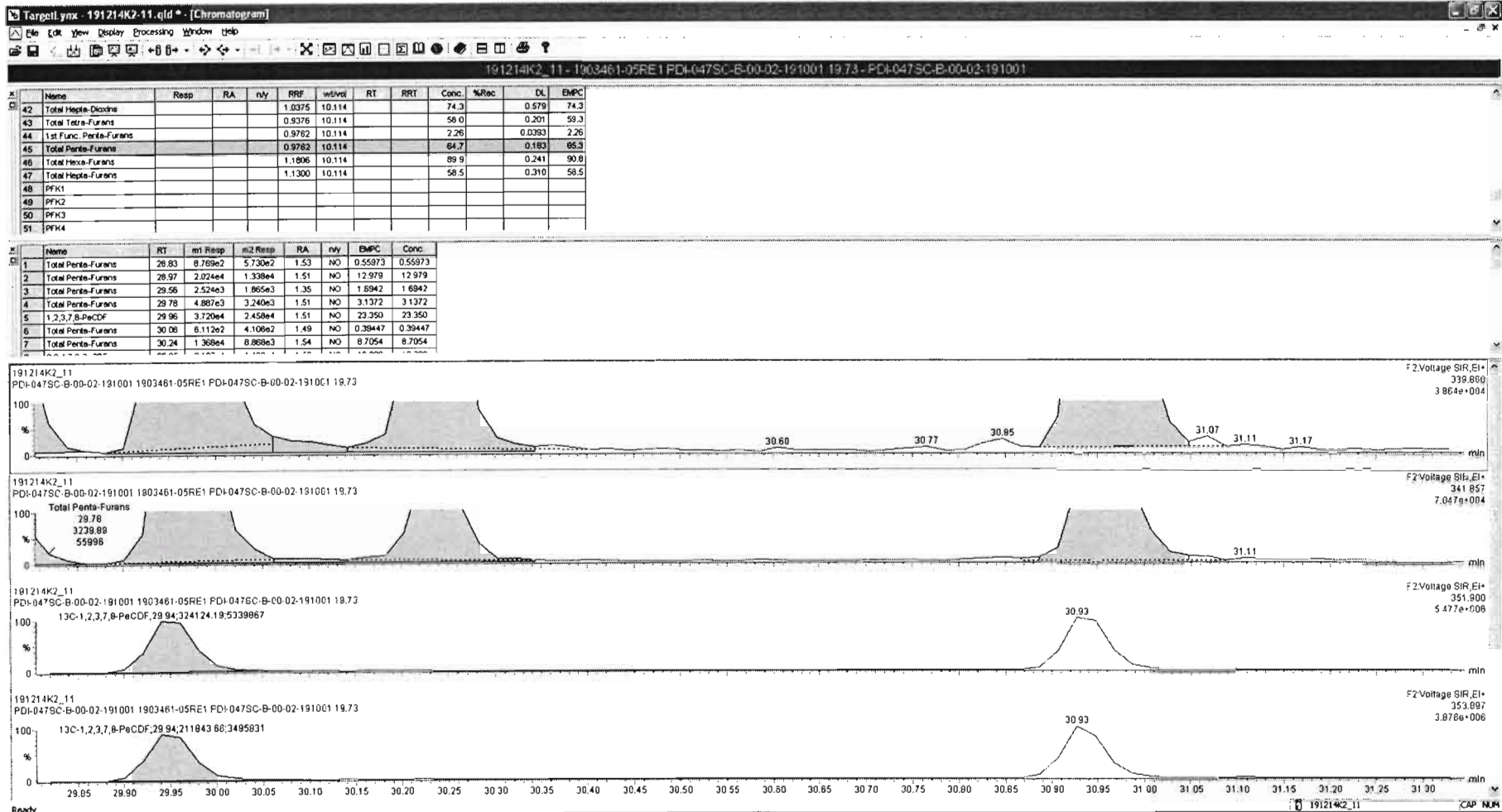
### DPE2



Name	Resp	RA	n/y	RRF	wtAoi	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.114			74.3		0.579	74.3
43 Total Tetra-Furans				0.9376	10.114			58.0		0.201	59.3
44 1st Func. Penta-Furans				0.9762	10.114			2.26		0.0393	2.26
45 Total Penta-Furans				0.9762	10.114			64.8		0.183	65.5
46 Total Hexa-Furans				1.1806	10.114			89.9		0.241	90.8
47 Total Hepta-Furans				1.1300	10.114			58.5		0.310	58.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.83	8.769e2	5.730e2	1.53	NO	0.55973	0.55973
2 Total Penta-Furans	28.97	2.024e4	1.338e4	1.51	NO	12.979	12.979
3 Total Penta-Furans	29.56	2.524e3	1.865e3	1.35	NO	1.6942	1.6942
4 Total Penta-Furans	29.78	4.887e3	3.240e3	1.51	NO	3.1372	3.1372
5 1,2,3,7,8-PeCDF	29.96	3.720e4	2.458e4	1.51	NO	23.350	23.350
6 Total Penta-Furans	30.06	6.112e2	4.106e2	1.49	NO	0.39447	0.39447
7 Total Penta-Furans	30.24	1.368e4	8.868e3	1.54	NO	8.7054	8.7054

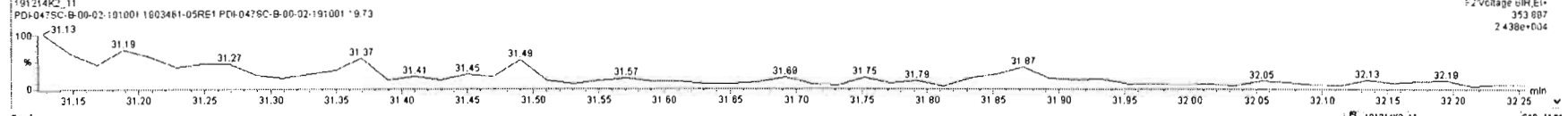
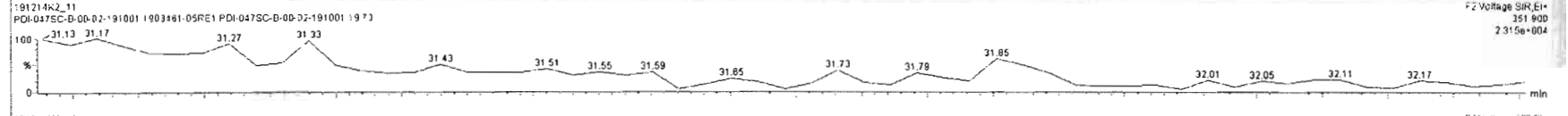
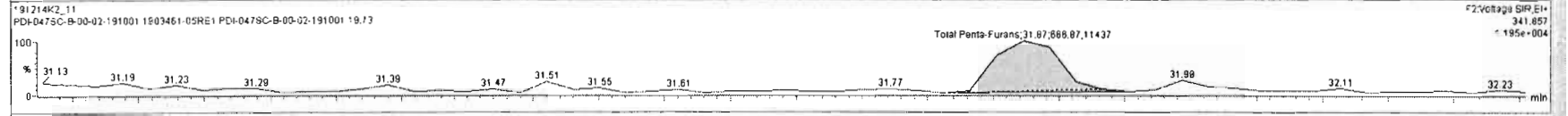
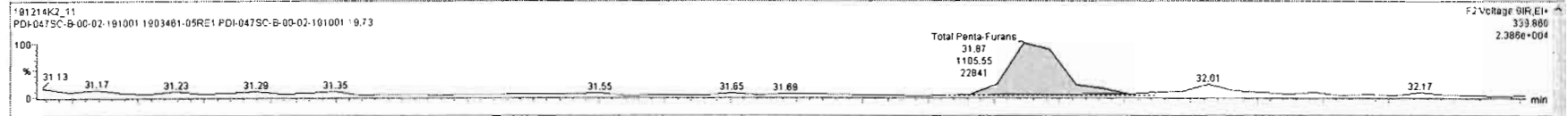




191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-E-00-02-191001

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.114			74.3	0.578	74.3	
43 Total Tetra-Furans				0.9376	10.114			58.0	0.201	58.3	
44 1st Func. Penta-Furans				0.9762	10.114			2.26	0.0393	2.26	
45 Total Penta-Furans				0.9762	10.114			65.4	0.183	65.4	
46 Total Hexa-Furans				1.1806	10.114			89.9	0.241	90.8	
47 Total Hepta-Furans				1.1300	10.114			58.5	0.310	58.5	
48 PFH1											
49 PFH2											
50 PFH3											
51 PFH4											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Penta-Furans	31.83	8.759e2	5.720e2	1.53	NO	0.55973	0.55973
2 Total Penta-Furans	31.97	2.024e4	1.336e4	1.51	NO	12.979	12.979
3 Total Penta-Furans	31.56	2.524e3	1.855e3	1.35	NO	1.6942	1.6942
4 Total Penta-Furans	31.78	4.887e3	3.240e3	1.51	NO	3.1372	3.1372
5 1,2,3,7,8-PeCDF	31.96	3.720e4	2.458e4	1.51	NO	23.350	23.350
6 Total Penta-Furans	31.06	6.112e2	4.106e2	1.49	NO	0.39447	0.39447
7 Total Penta-Furans	31.24	1.989e4	8.868e3	1.54	NO	8.7054	8.7054



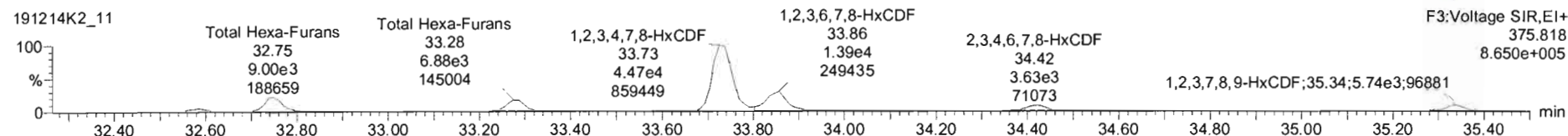
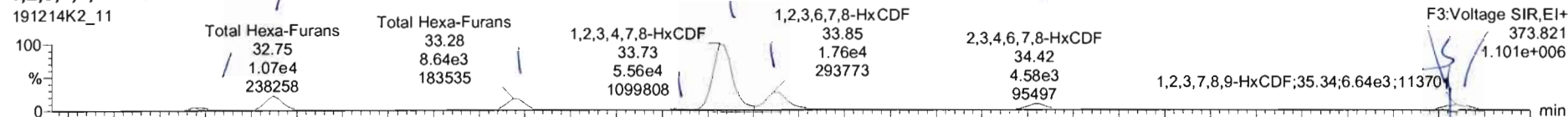
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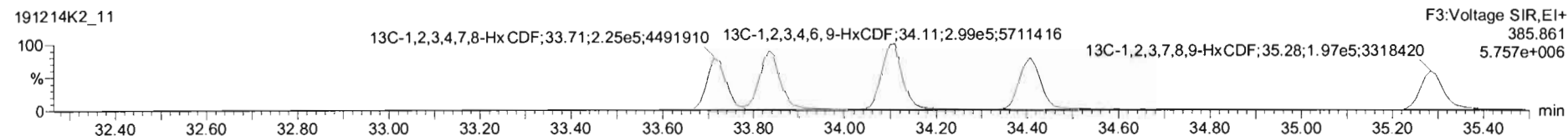
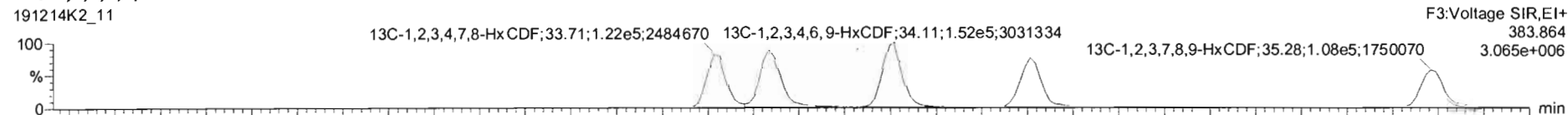
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Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

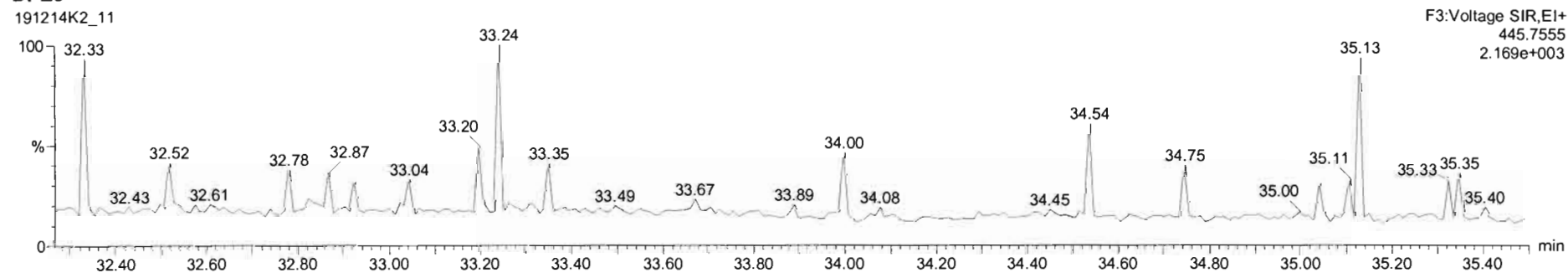
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



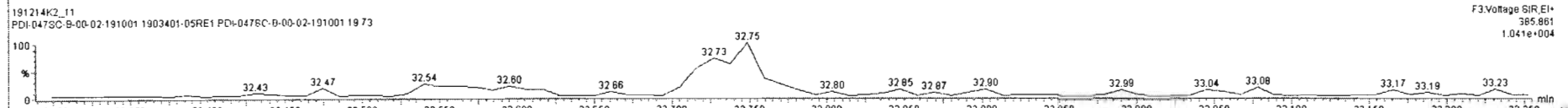
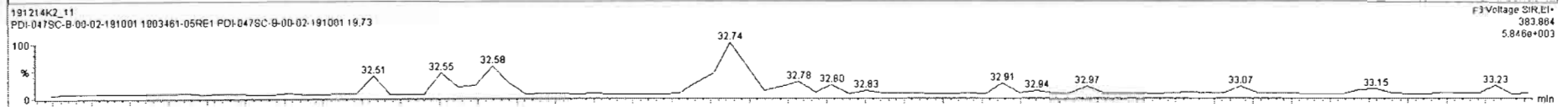
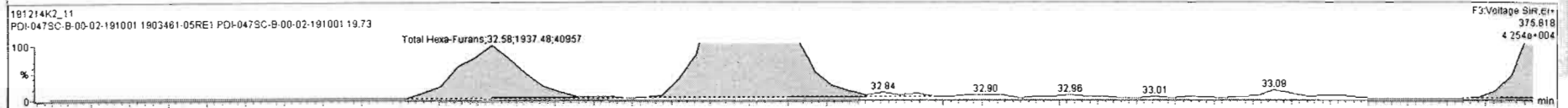
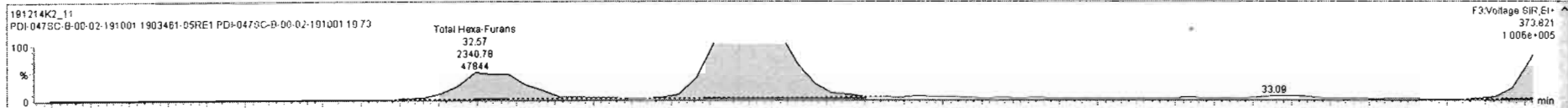
DPE3





Name	Resp	RA	nly	RRF	wf/col	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.1008	10.114			83.1		0.241	89.0
47 Total Hepta-Furans				1.1300	10.114			58.5		0.310	58.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											

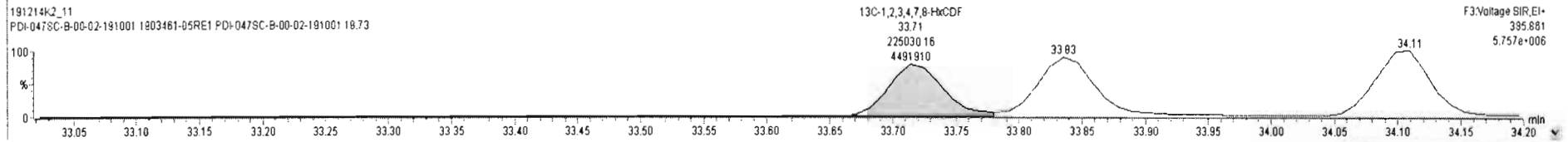
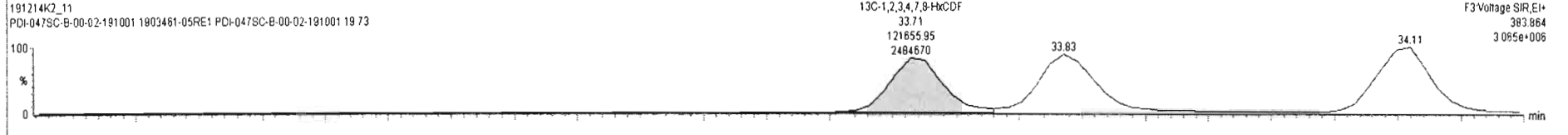
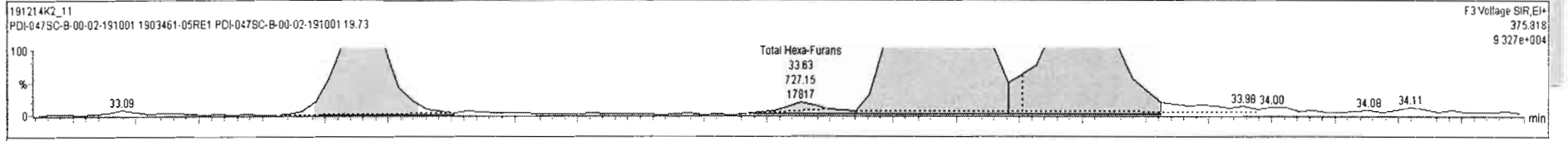
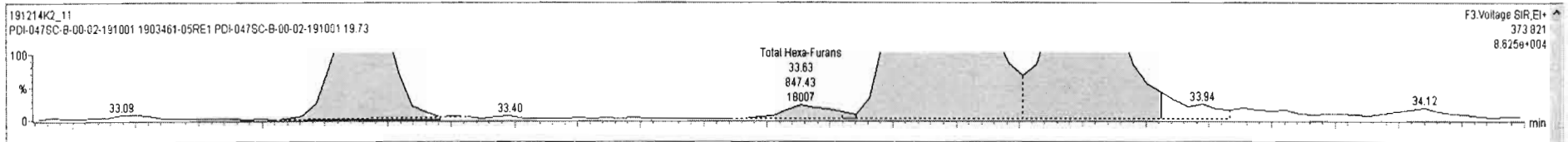
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
3 Total Hexa-Furans	33.28	8.810e3	7.028e3	1.25	NO	7.4737	7.4737
4 Total Hexa-Furans	33.63	8.474e2	7.271e2	1.17	NO	0.74301	0.74301
5 1,2,3,4,7,8-HxCDF	33.73	5.563e4	4.471e4	1.24	NO	46.028	46.028
6 1,2,3,6,7,8-HxCDF	33.85	1.863e4	1.420e4	1.17	NO	13.585	13.585
7 2,3,4,6,7,8-HxCDF	34.42	4.699e3	3.604e3	1.30	NO	3.8823	3.8823
8 1,2,3,7,8-HxCDF	35.33	1.941e3	1.957e3	0.99	YES	2.1181	0.00000
9 Total Hexa-Furans	35.34	4.491e3	3.665e3	1.23	NO	3.8486	0.00000



191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-B-00-02-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.1806	10.114			63.1	0.241	89.0	
47 Total Hepta-Furans				1.1300	10.114			58.5	0.310	58.5	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											

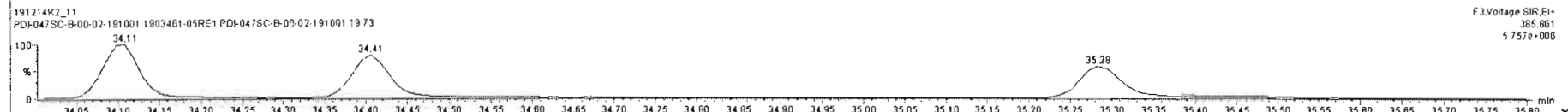
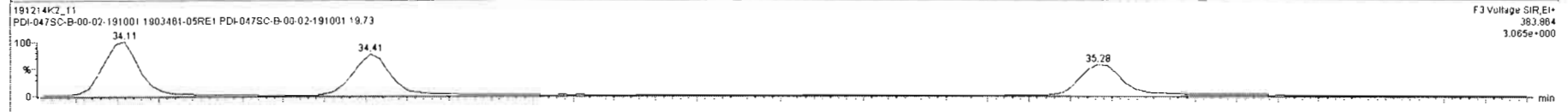
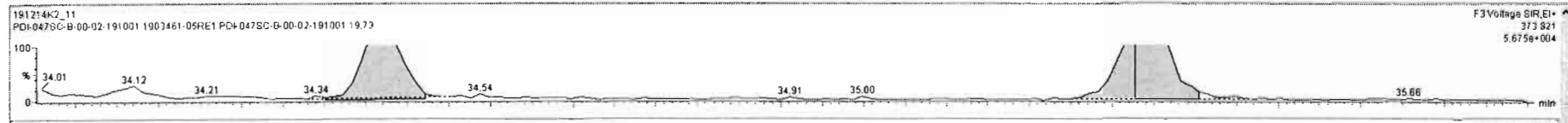
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.57	2.341e3	1.937e3	1.21	NO	2.0188	2.0188
2 Total Hexa-Furans	32.75	1.084e4	8.949e3	1.21	NO	9.3367	9.3367
3 Total Hexa-Furans	33.28	8.810e3	7.028e3	1.25	NO	7.4737	7.4737
4 Total Hexa-Furans	33.63	8.474e2	7.271e2	1.17	NO	0.74301	0.74301
5 1,2,3,4,7,8-HxCDF	33.73	5.563e4	4.471e4	1.24	NO	46.028	46.028
6 1,2,3,6,7,8-HxCDF	33.85	1.863e4	1.420e4	1.17	NO	13.585	13.585
7 2,3,4,6,7,8-HxCDF	34.42	4.698e3	3.604e3	1.30	NO	3.8823	3.8823

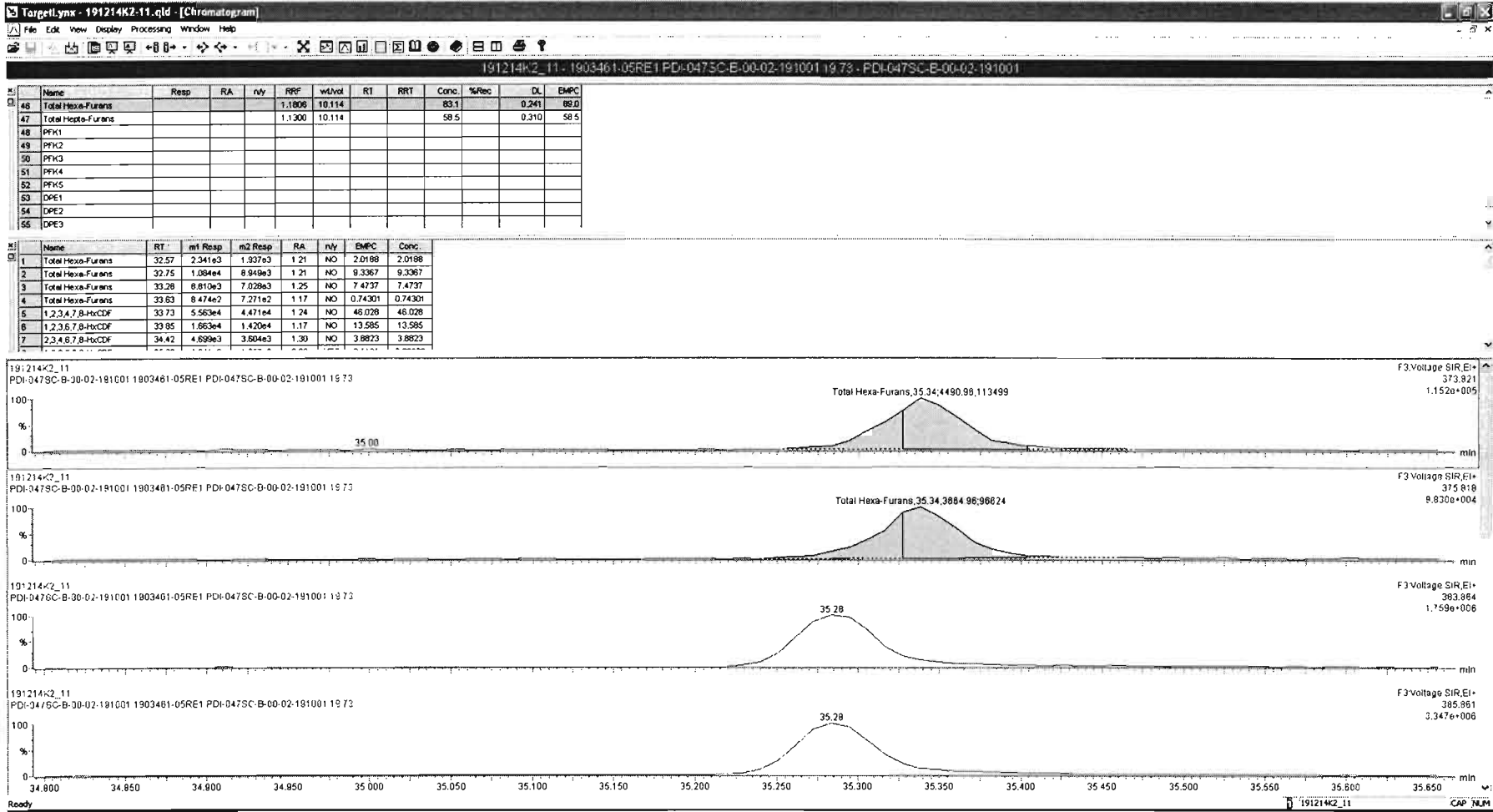


191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-B-00-02-191001

z	Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
46	Total Hexa-Furens				1.1908	10.114			83.1		0.241	89.0
47	Total Hepta-Furens				1.1300	10.114			59.5		0.310	59.5
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											

z	Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1	Total Hexa-Furens	32.57	2.341e3	1.537e3	1.21	NO	2.0188	2.0188
2	Total Hexa-Furens	32.75	1.084e4	8.949e3	1.21	NO	9.3367	9.3367
3	Total Hexa-Furens	33.28	8.910e3	7.028e3	1.25	NO	7.4737	7.4737
4	Total Hexa-Furens	33.63	8.474e2	7.271e2	1.17	NO	0.74301	0.74301
5	1,2,3,4,7,8-HxCDF	33.73	5.563e4	4.471e4	1.24	NO	46.028	46.028
6	1,2,3,6,7,8-HxCDF	33.85	1.663e4	1.420e4	1.17	NO	13.595	13.595
7	2,3,4,6,7,8-HxCDF	34.42	4.899e3	3.604e3	1.30	NO	3.8823	3.8823



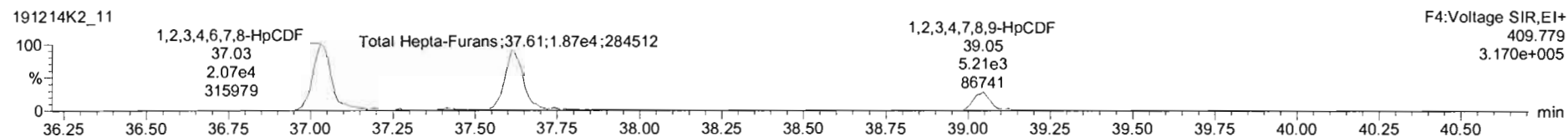
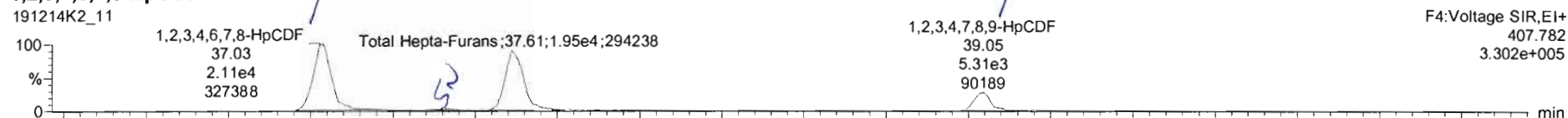


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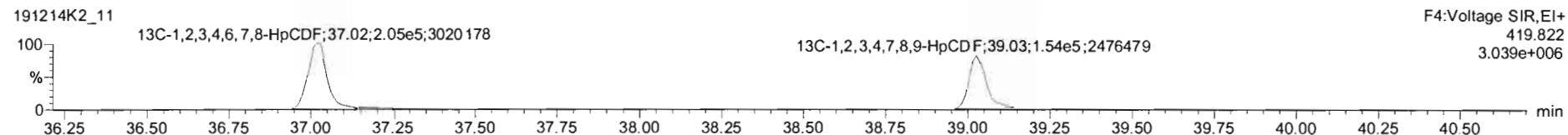
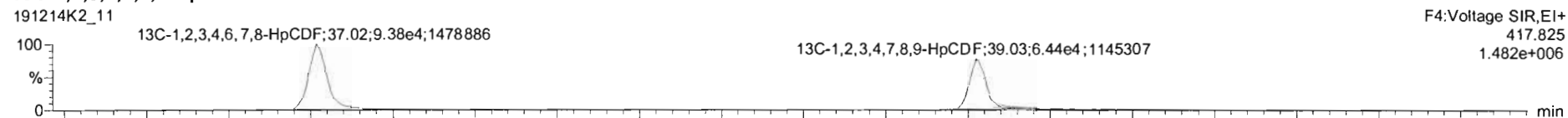
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Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001

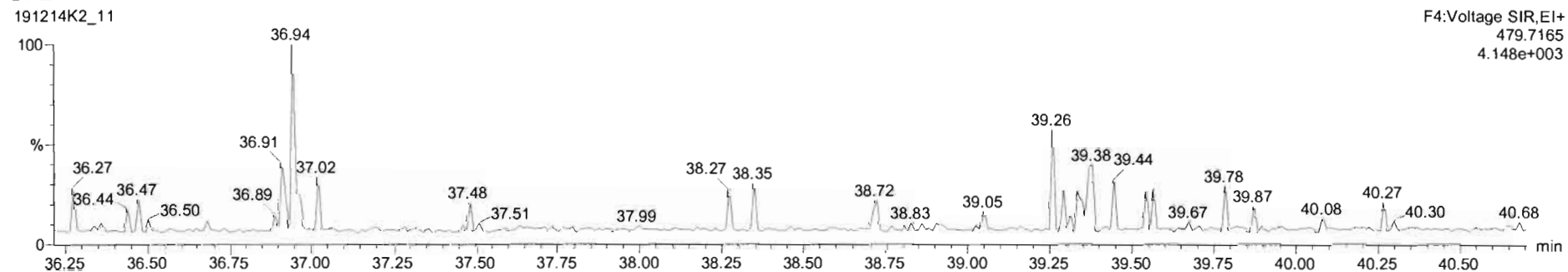
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



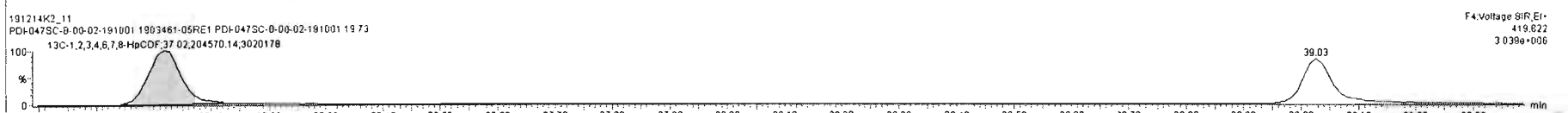
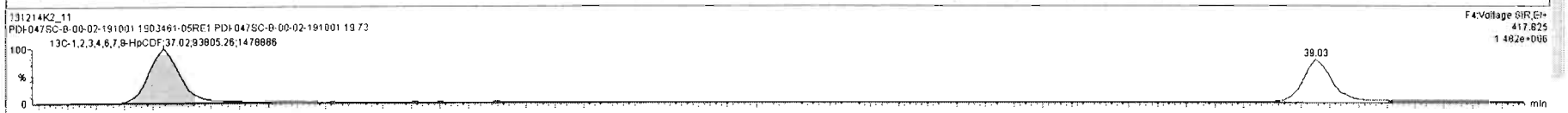
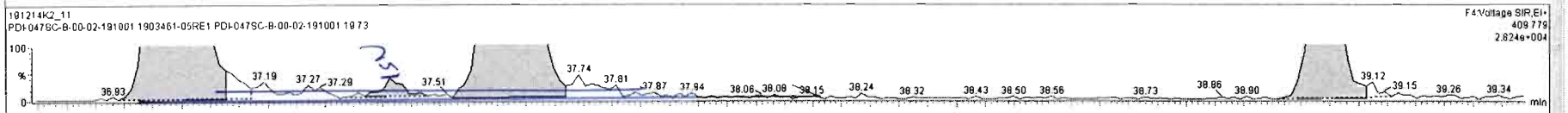
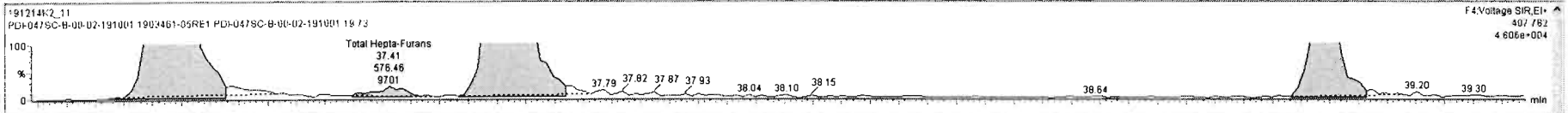
**DPE4**



191214K2\_11 - 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73 - PDI-047SC-B-00-02-191001

Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.1806	10.114			83.1	0.241	89.0	
47 Total Hepta-Furans				1.1300	10.114			57.7	0.310	58.2	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	37.03	2.114e4	2.026e4	1.04	NO	24.286	24.286
2 Total Hepta-Furans	37.41	5.765e2	4.029e2	1.43	YES	0.55689	0.00000
3 Total Hepta-Furans	37.61	1.954e4	1.871e4	1.04	NO	25.912	25.912
4 1,2,3,4,7,8,9-HpCDF	39.05	5.361e3	5.055e3	1.06	NO	7.4876	7.4876



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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

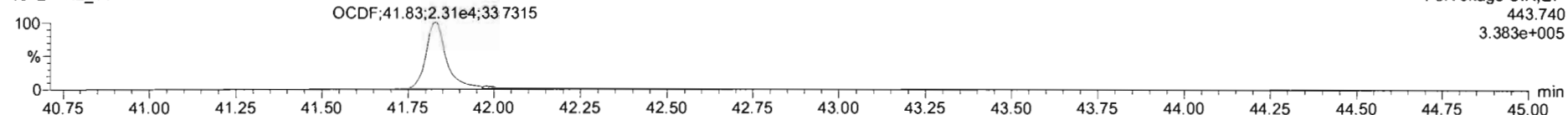
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**OCDF**

191214K2\_11

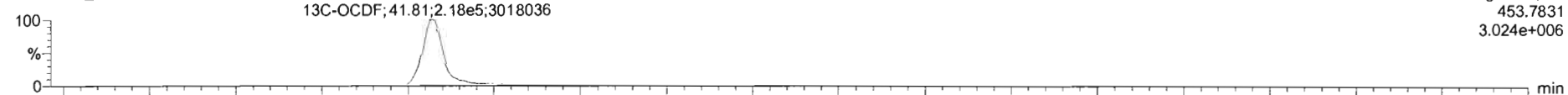


191214K2\_11

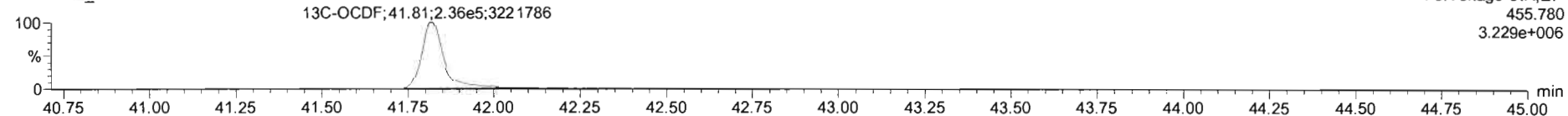


**13C-OCDF**

191214K2\_11

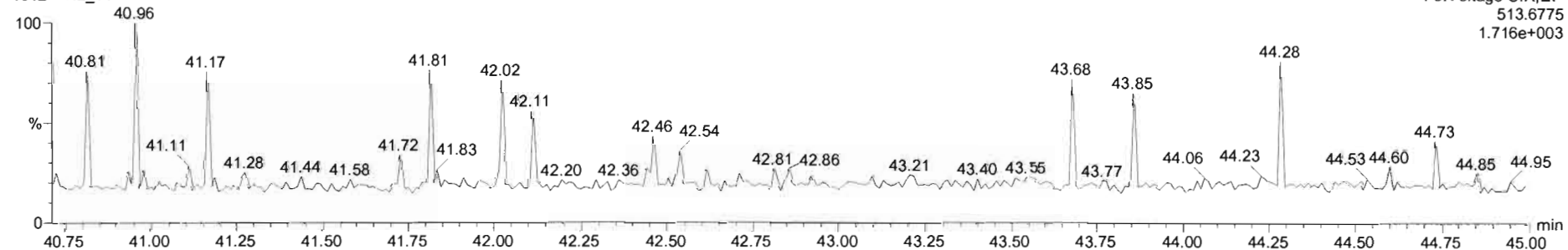


191214K2\_11



**DPES**

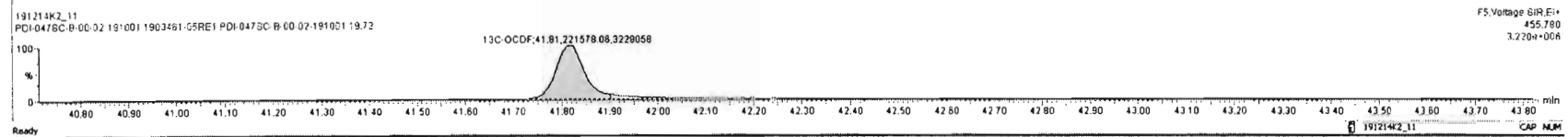
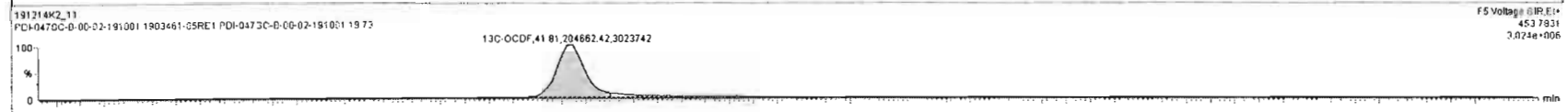
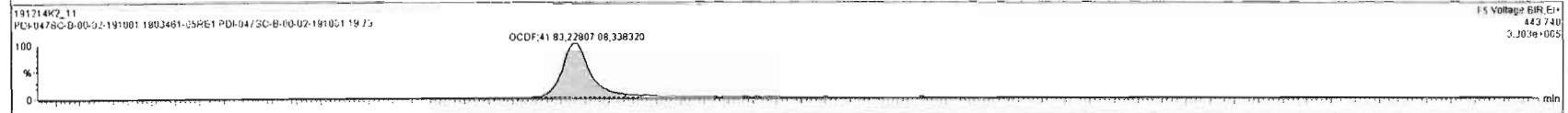
191214K2\_11



191214K2\_11 - 1903461-05RE1 PDI-0473C-B-00-02-191001 1973 - PDI-0473C-B-00-02-191001

Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
12 1,2,3,7,8-HxCDF	3.14e4	1.27	NO	1.0950	10.114	33.85	1.000	13.9	0.210	13.9	
13 2,3,4,6,7,8-HxCDF	8.21e3	1.26	NO	1.1806	10.114	34.42	1.000	3.84	0.234	3.84	
14 1,2,3,7,8,9-HxCDF	1.24e4	1.16	NO	1.0728	10.114	35.34	1.002	7.48	0.352	7.48	
15 1,2,3,4,6,7,8-HxCDF	4.17e4	1.02	NO	1.1300	10.114	37.03	1.000	24.5	0.285	24.5	
16 1,2,3,4,7,8,9-HxCDF	1.05e4	1.02	NO	1.2609	10.114	39.05	1.001	7.56	0.308	7.56	
17 OCDF	4.34e4	0.90	NO	1.1025	10.114	41.83	1.001	30.8	0.271	30.8	
18 13C-2,3,7,8-1CDD	4.65e5	0.79	NO	1.0488	10.114	26.14	1.027	195	96.5	0.307	
19 13C-1,2,3,7,8-PeCDD	3.48e5	0.63	NO	0.7429	10.114	31.25	1.229	206	104	0.436	
20 13C-1,2,3,4,7,8-HxCDD	2.32e5	1.26	NO	0.6463	10.114	34.58	1.014	158	79.7	0.815	
21 13C-1,2,3,6,7,8-HxCDD	2.90e5	1.23	NO	0.7787	10.114	34.68	1.017	164	82.8	0.878	

Name	RT	n1 Resp	n2 Resp	RA	nly	EMPC	Conc.
1							



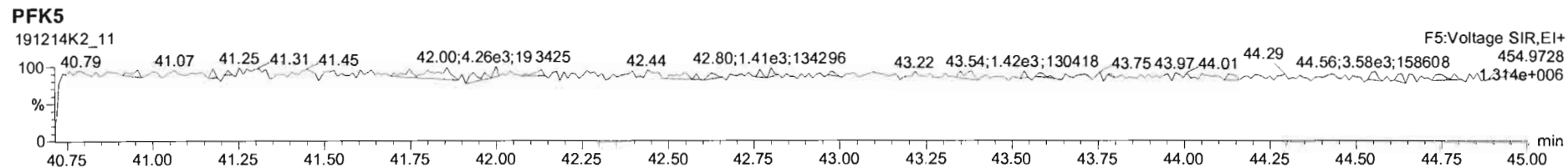
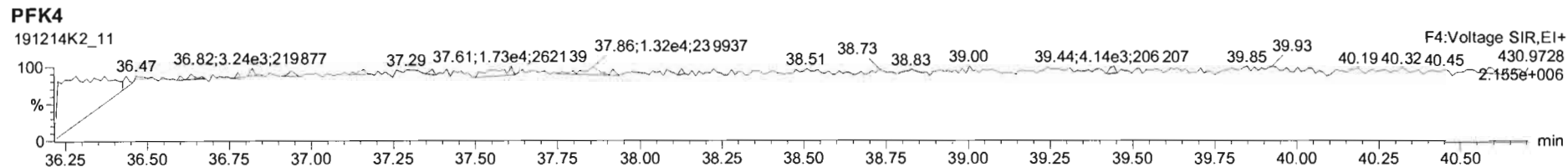
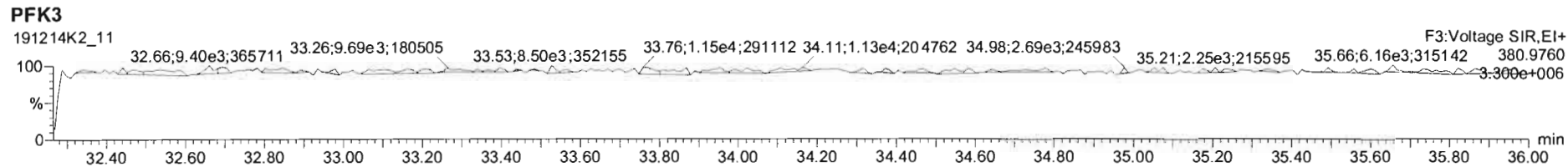
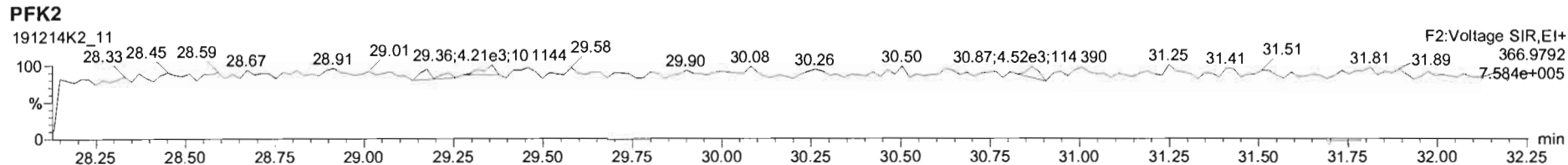
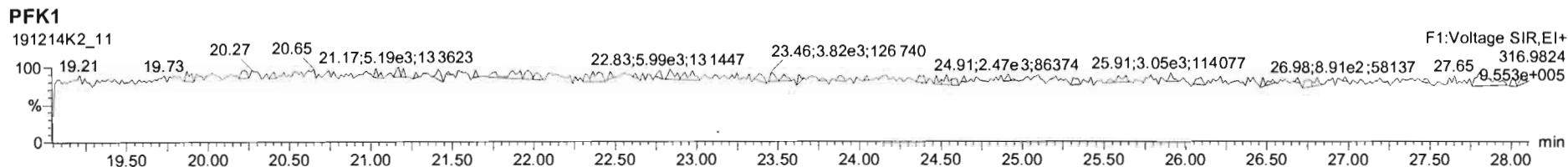


Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_11, Date: 15-Dec-2019, Time: 02:22:39, ID: 1903461-05RE1 PDI-047SC-B-00-02-191001 19.73, Description: PDI-047SC-B-00-02-191001



Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-12.qld

Last Altered: Friday, January 10, 2020 14:51:28 Pacific Standard Time

Printed: Friday, January 10, 2020 14:52:15 Pacific Standard Time

GRB 01/10/2020

CT 01/13/2020

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

#	Name	Abs.Resp	RA	n/y	RRF	wt./vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	4870.587	0.785	NO	0.925	10.058	26.18	26.17	1.00	1.00	NO	1.887		0.0978	1.887
2	1,2,3,7,8-PeCDD	3467.156	0.754	YES	0.905	10.058	31.27	31.27	1.00	1.00	NO	1.948		0.220	1.810
3	1,2,3,4,7,8-HxCDD	632.554	1.008	YES	1.07	10.058	34.59	34.59	1.00	1.00	NO	0.3962		0.226	0.3593
4	1,2,3,6,7,8-HxCDD	4031.373	1.162	NO	0.967	10.058	34.69	34.70	1.00	1.00	NO	2.195		0.224	2.195
5	1,2,3,7,8,9-HxCDD	1327.971	0.965	YES	0.978	10.058	34.99	34.97	1.00	1.00	NO	0.7965		0.281	0.7065
6	1,2,3,4,6,7,8-HpCDD	47745.834	1.039	NO	1.04	10.058	38.46	38.45	1.00	1.00	NO	40.96		0.640	40.96
7	OCDD	431902.579	0.905	NO	0.972	10.058	41.63	41.64	1.00	1.00	NO	453.8		0.933	453.8
8	2,3,7,8-TCDF	90786.321	0.766	NO	0.938	10.058	25.20	25.19	1.00	1.00	NO	24.19 (17.27)		0.193	24.19
9	1,2,3,7,8-PeCDF	114749.863	1.527	NO	0.976	10.058	29.98	29.98	1.00	1.00	NO	39.34		0.211	39.34
10	2,3,4,7,8-PeCDF	51907.272	1.492	NO	1.00	10.058	30.98	30.97	1.00	1.00	NO	17.41		0.189	17.41
11	1,2,3,4,7,8-HxCDF	286456.117	1.266	NO	1.24	10.058	33.72	33.74	1.00	1.00	NO	156.5		0.395	156.5
12	1,2,3,6,7,8-HxCDF	75737.856	1.208	NO	1.10	10.058	33.86	33.86	1.00	1.00	NO	37.08		0.380	37.08
13	2,3,4,6,7,8-HxCDF	14044.620	1.278	NO	1.18	10.058	34.44	34.43	1.00	1.00	NO	4.954		0.277	4.954
14	1,2,3,7,8,9-HxCDF	3474.547	1.360	NO	1.07	10.058	35.29	35.32	1.00	1.00	NO	1.542		0.391	1.542
15	1,2,3,4,6,7,9-HpCDF	63647.748	1.051	NO	1.13	10.058	37.07	37.04	1.00	1.00	NO	56.92		0.594	56.92
16	1,2,3,4,7,8,9-HpCDF	26562.784	1.082	NO	1.26	10.058	39.04	39.05	1.00	1.00	NO	17.98		0.386	17.98
17	OCDF	73890.704	0.883	NO	1.10	10.058	41.82	41.83	1.00	1.00	NO	57.72		0.317	57.72
18	13C-2,3,7,8-TCDD	554852.500	0.786	NO	1.05	10.058	26.15	26.15	1.03	1.03	NO	195.4	98.3	0.313	
19	13C-1,2,3,7,8-PeCDD	391336.313	0.635	NO	0.743	10.058	31.16	31.25	1.22	1.23	NO	194.6	97.9	0.475	
20	13C-1,2,3,4,7,8-HxCDD	296984.797	1.248	NO	0.646	10.058	34.58	34.58	1.01	1.01	NO	154.9	77.9	0.593	
21	13C-1,2,3,6,7,8-HxCDD	377539.329	1.279	NO	0.777	10.058	34.68	34.69	1.02	1.02	NO	163.8	82.4	0.493	
22	13C-1,2,3,7,8,9-HxCDD	339069.625	1.209	NO	0.659	10.058	34.95	34.95	1.02	1.02	NO	173.3	87.1	0.581	
23	13C-1,2,3,4,6,7,8-HpCDD	223405.532	1.107	NO	0.534	10.058	38.44	38.44	1.13	1.13	NO	141.0	70.9	0.732	
24	13C-OCDD	389504.594	0.872	NO	0.470	10.058	41.62	41.63	1.22	1.22	NO	279.1	70.2	0.884	
25	13C-2,3,7,8-TCDF	796090.375	0.764	NO	0.977	10.058	25.22	25.17	0.99	0.99	NO	194.1	97.6	0.407	
26	13C-1,2,3,7,8-PeCDF	594203.406	1.523	NO	0.778	10.058	29.87	29.96	1.17	1.18	NO	182.0	91.5	0.607	
27	13C-2,3,4,7,8-PeCDF	589930.735	1.632	NO	0.750	10.058	30.88	30.95	1.21	1.22	NO	187.5	94.3	0.630	
28	13C-1,2,3,4,7,8-HxCDF	292758.203	0.534	NO	0.845	10.058	33.72	33.72	0.99	0.99	NO	116.8	58.7	0.967	
29	13C-1,2,3,6,7,8-HxCDF	370901.336	0.518	NO	1.03	10.058	33.84	33.85	0.99	0.99	NO	121.8	61.2	0.796	
30	13C-2,3,4,6,7,8-HxCDF	477469.907	0.514	NO	0.893	10.058	34.41	34.41	1.01	1.01	NO	180.2	90.6	0.915	

Dataset: U:\WG11.PRO\Results\2019\191214K2\191214K2-12.qld

Last Altered: Friday, January 10, 2020 14:51:28 Pacific Standard Time

Printed: Friday, January 10, 2020 14:52:15 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

	# Name	Abs.Resp	RA	n/y	RRF	wL/vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	417546.250	0.505	NO	0.734	10.058	35.31	35.29	1.04	1.03	NO	191.7	96.4	1.11	
32	32 13C-1,2,3,4,6,7,8-HpCDF	196782.809	0.445	NO	0.754	10.058	37.02	37.03	1.09	1.09	NO	87.95	44.2	0.578	
33	33 13C-1,2,3,4,7,8,9-HpCDF	233044.180	0.466	NO	0.539	10.058	39.04	39.04	1.14	1.14	NO	145.7	73.3	0.809	
34	34 13C-OCDF	461763.328	0.920	NO	0.593	10.058	41.83	41.82	1.23	1.23	NO	262.7	66.0	0.702	
35	35 37Cl-2,3,7,8-TCDD	221599.047			1.07	10.058	26.17	26.17	1.03	1.03	NO	76.56	96.2	0.105	
36	36 13C-1,2,3,4-TCDD	538213.313	0.798	NO	1.00	10.058	25.50	25.45	1.00	1.00	NO	198.9	100	0.328	
37	37 13C-1,2,3,4-TCDF	834512.594	0.753	NO	1.00	10.058	23.68	23.58	1.00	1.00	NO	198.9	100	0.398	
38	38 13C-1,2,3,4,6,9-HxCDF	589969.375	0.519	NO	1.00	10.058	34.06	34.11	1.00	1.00	NO	198.9	100	0.817	
39	39 Total Tetra-Dioxins				0.925	10.058	24.62		0.00		NO	3.246		0.0978	4.141
40	40 Total Penta-Dioxins				0.905	10.058	29.96		0.00		NO	1.130		0.230	4.210
41	41 Total Hexa-Dioxins				0.967	10.058	33.63		0.00		NO	12.92		0.235	13.99
42	42 Total Hepta-Dioxins				1.04	10.058	38.80		0.00		NO	87.29		0.640	87.29
43	43 Total Tetra-Furans				0.938	10.058	23.61		0.00		NO	79.85		0.193	92.41
44	44 1st Func. Penta-Furans				0.976	10.058	27.04		0.00		NO	2.102		0.0450	2.102
45	45 Total Penta-Furans				0.976	10.058	29.27		0.00		NO	88.49		0.203	91.98
46	46 Total Hexa-Furans				1.18	10.058	33.56		0.00		NO	222.2		0.342	231.1
47	47 Total Hepta-Furans				1.13	10.058	37.83		0.00		NO	110.9		0.505	110.9

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-12.qld

Last Altered: Friday, January 10, 2020 14:51:28 Pacific Standard Time

Printed: Friday, January 10, 2020 14:53:04 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

**Tetra-Dioxins**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	39 Total Tetra-Dioxins	6.72e2	5.55e5	0.864	NO	24.62	26.49	0.2605	0.2605
2	1 2,3,7,8-TCDD	4.87e3	5.55e5	0.785	NO	26.18	26.17	1.887	1.887
3	39 Total Tetra-Dioxins	0.00e0	5.55e5	0.926	YES	24.62	25.88	0.0000	0.3929
4	39 Total Tetra-Dioxins	2.23e3	5.55e5	0.844	NO	24.62	24.33	0.8638	0.8638
5	39 Total Tetra-Dioxins	6.04e2	5.55e5	0.734	NO	24.62	24.10	0.2342	0.2342
6	39 Total Tetra-Dioxins	0.00e0	5.55e5	1.011	YES	24.62	22.27	0.0000	0.2242
7	39 Total Tetra-Dioxins	0.00e0	5.55e5	1.276	YES	24.62	21.90	0.0000	0.2778

**Penta-Dioxins**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	2 1,2,3,7,8-PeCDD	3.47e3	3.91e5	0.754	YES	31.27	31.27	0.0000	1.810
2	40 Total Penta-Dioxins	0.00e0	3.91e5	1.112	YES	29.96	30.50	0.0000	0.3149
3	40 Total Penta-Dioxins	0.00e0	3.91e5	1.046	YES	29.96	30.28	0.0000	0.2135
4	40 Total Penta-Dioxins	7.35e2	3.91e5	0.661	NO	29.96	30.20	0.4131	0.4131
5	40 Total Penta-Dioxins	1.28e3	3.91e5	0.671	NO	29.96	30.00	0.7165	0.7165
6	40 Total Penta-Dioxins	0.00e0	3.91e5	0.431	YES	29.96	29.06	0.0000	0.6030
7	40 Total Penta-Dioxins	0.00e0	3.91e5	1.303	YES	29.96	31.35	0.0000	0.1398

**Hexa-Dioxins**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	5 1,2,3,7,8,9-HxCDD	1.33e3	3.39e5	0.965	YES	34.99	34.97	0.0000	0.7065
2	4 1,2,3,6,7,8-HxCDD	4.03e3	3.78e5	1.162	NO	34.69	34.70	2.195	2.195
3	3 1,2,3,4,7,8-HxCDD	6.33e2	2.97e5	1.008	YES	34.59	34.59	0.0000	0.3593
4	41 Total Hexa-Dioxins	8.33e3	0.00e0	1.244	NO	33.63	33.92	5.066	5.066
5	41 Total Hexa-Dioxins	1.17e3	0.00e0	1.387	NO	33.63	33.68	0.7112	0.7112
6	41 Total Hexa-Dioxins	8.14e3	0.00e0	1.322	NO	33.63	33.14	4.953	4.953

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Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-12.qld

Last Altered: Friday, January 10, 2020 14:51:28 Pacific Standard Time

Printed: Friday, January 10, 2020 14:53:04 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

Hepta-Dioxins

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	4.77e4	2.23e5	1.039	NO	38.46	38.45	40.96	40.96
2	42 Total Hepta-Dioxins	5.40e4	2.23e5	1.042	NO	38.80	37.41	46.33	46.33

Tetra-Furans

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	43 Total Tetra-Furans	7.55e3	7.96e5	0.753	NO	23.61	21.43	2.011	2.011
2	43 Total Tetra-Furans	1.40e4	7.96e5	0.763	NO	23.61	20.89	3.720	3.720
3	43 Total Tetra-Furans	1.51e3	7.96e5	0.656	NO	23.61	20.34	0.4033	0.4033
4	43 Total Tetra-Furans	0.00e0	7.96e5	0.917	YES	23.61	27.31	0.0000	2.902
5	43 Total Tetra-Furans	1.59e3	7.96e5	0.790	NO	23.61	25.85	0.4236	0.4236
6	43 Total Tetra-Furans	4.44e3	7.96e5	0.829	NO	23.61	25.59	1.184	1.184
7	8 2,3,7,8-TCDF	9.08e4	7.96e5	0.766	NO	25.20	25.19	24.19	24.19
8	43 Total Tetra-Furans	0.00e0	7.96e5	0.899	YES	23.61	25.08	0.0000	7.457
9	43 Total Tetra-Furans	2.90e3	7.96e5	0.837	NO	23.61	24.72	0.7727	0.7727
10	43 Total Tetra-Furans	3.54e3	7.96e5	0.809	NO	23.61	24.49	0.9433	0.9433
11	43 Total Tetra-Furans	8.68e4	7.96e5	0.810	NO	23.61	24.17	23.12	23.12
12	43 Total Tetra-Furans	4.29e4	7.96e5	0.788	NO	23.61	23.60	11.43	11.43
13	43 Total Tetra-Furans	1.50e3	7.96e5	0.721	NO	23.61	23.28	0.4006	0.4006
14	43 Total Tetra-Furans	2.60e3	7.96e5	0.759	NO	23.61	22.67	0.6933	0.6933
15	43 Total Tetra-Furans	0.00e0	7.96e5	1.266	YES	23.61	22.45	0.0000	0.1012
16	43 Total Tetra-Furans	8.00e3	7.96e5	0.784	NO	23.61	22.28	2.132	2.132
17	43 Total Tetra-Furans	3.60e3	7.96e5	0.663	NO	23.61	22.02	0.9598	0.9598
18	43 Total Tetra-Furans	2.81e4	7.96e5	0.794	NO	23.61	21.83	7.473	7.473
19	43 Total Tetra-Furans	0.00e0	7.96e5	0.572	YES	23.61	23.51	0.0000	1.839
20	43 Total Tetra-Furans	0.00e0	7.96e5	1.405	YES	23.61	24.96	0.0000	0.2597

Penta-Furans function 1

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	44 1st Func. Penta-Fura...	6.11e3	0.00e0	1.751	NO	27.04	27.33	2.102	2.102

Vista Analytical Laboratory

Dataset: U:\WG11.PRO\Results\2019\191214K2\191214K2-12.qld

Last Altered: Friday, January 10, 2020 14:51:28 Pacific Standard Time

Printed: Friday, January 10, 2020 14:53:04 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

**Penta-Furans**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	45 Total Penta-Furans	3.48e3	0.00e0	1.655	NO	29.27	31.87	1.197	1.197
2	10 2,3,4,7,8-PeCDF	5.19e4	5.90e5	1.492	NO	30.98	30.97	17.41	17.41
3	45 Total Penta-Furans	2.85e4	0.00e0	1.551	NO	29.27	30.24	9.799	9.799
4	9 1,2,3,7,8-PeCDF	1.15e5	5.94e5	1.527	NO	29.98	29.98	39.34	39.34
5	45 Total Penta-Furans	1.15e4	0.00e0	1.506	NO	29.27	29.78	3.964	3.964
6	45 Total Penta-Furans	2.21e4	0.00e0	1.497	NO	29.27	29.56	7.613	7.613
7	45 Total Penta-Furans	2.55e4	0.00e0	1.618	NO	29.27	28.97	8.779	8.779
8	45 Total Penta-Furans	1.14e3	0.00e0	1.330	NO	29.27	28.53	0.3908	0.3908
9	45 Total Penta-Furans	0.00e0	0.00e0	2.046	YES	29.27	32.01	0.0000	0.5296
10	45 Total Penta-Furans	0.00e0	0.00e0	1.594	NO	29.27	28.93	0.0000	2.961

**Hexa-Furans**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	14 1,2,3,7,8,9-HxCDF	3.47e3	4.18e5	1.360	NO	35.29	35.32	1.542	1.542
2	13 2,3,4,6,7,8-HxCDF	1.40e4	4.77e5	1.278	NO	34.44	34.43	4.954	4.954
3	12 1,2,3,6,7,8-HxCDF	7.57e4	3.71e5	1.208	NO	33.86	33.86	37.08	37.08
4	11 1,2,3,4,7,8-HxCDF	2.86e5	2.93e5	1.266	NO	33.72	33.74	156.5	156.5
5	46 Total Hexa-Furans	2.59e4	0.00e0	1.304	NO	33.56	33.29	11.21	11.21
6	46 Total Hexa-Furans	2.14e4	0.00e0	1.287	NO	33.56	32.76	9.244	9.244
7	46 Total Hexa-Furans	3.82e3	0.00e0	1.284	NO	33.56	32.58	1.650	1.650
8	46 Total Hexa-Furans	0.00e0	0.00e0	1.378	NO	33.56	35.35	0.0000	8.912

**Hepta-Furans**

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	47 Total Hepta-Furans	4.40e4	0.00e0	1.026	NO	37.83	37.62	35.99	35.99
2	15 1,2,3,4,6,7,8-HpCDF	6.36e4	1.97e5	1.051	NO	37.07	37.04	56.92	56.92
3	16 1,2,3,4,7,8,9-HpCDF	2.66e4	2.33e5	1.082	NO	39.04	39.05	17.98	17.98

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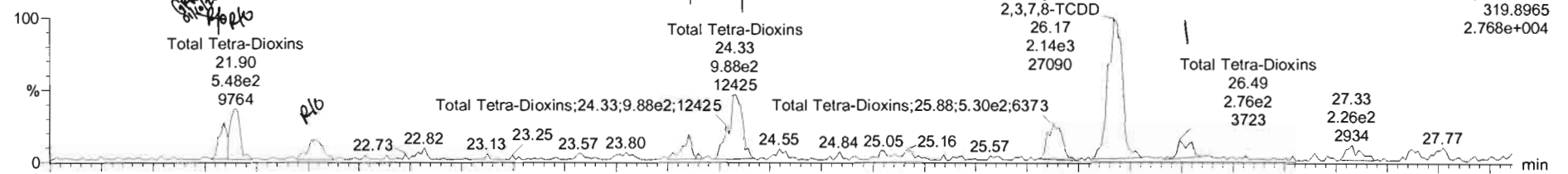
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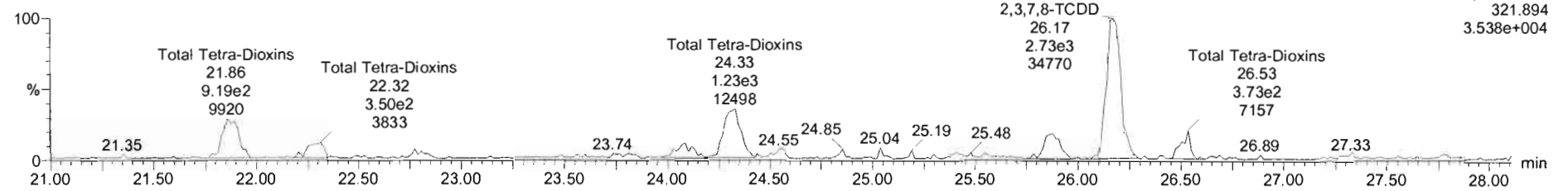
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**2,3,7,8-TCDD**

191214K2\_12

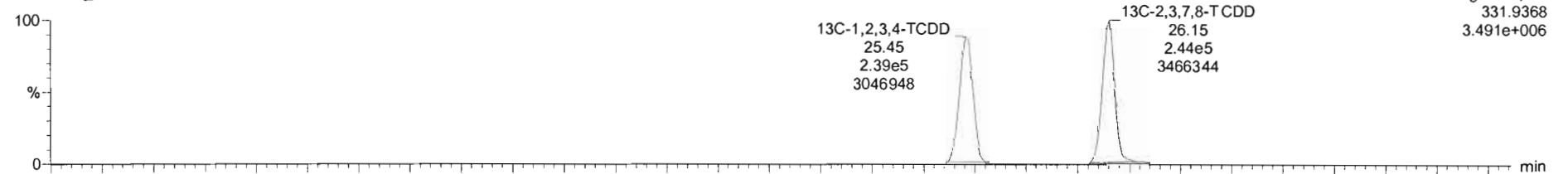


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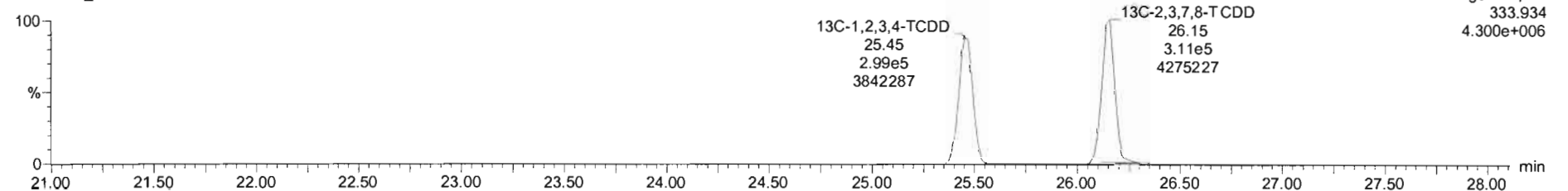


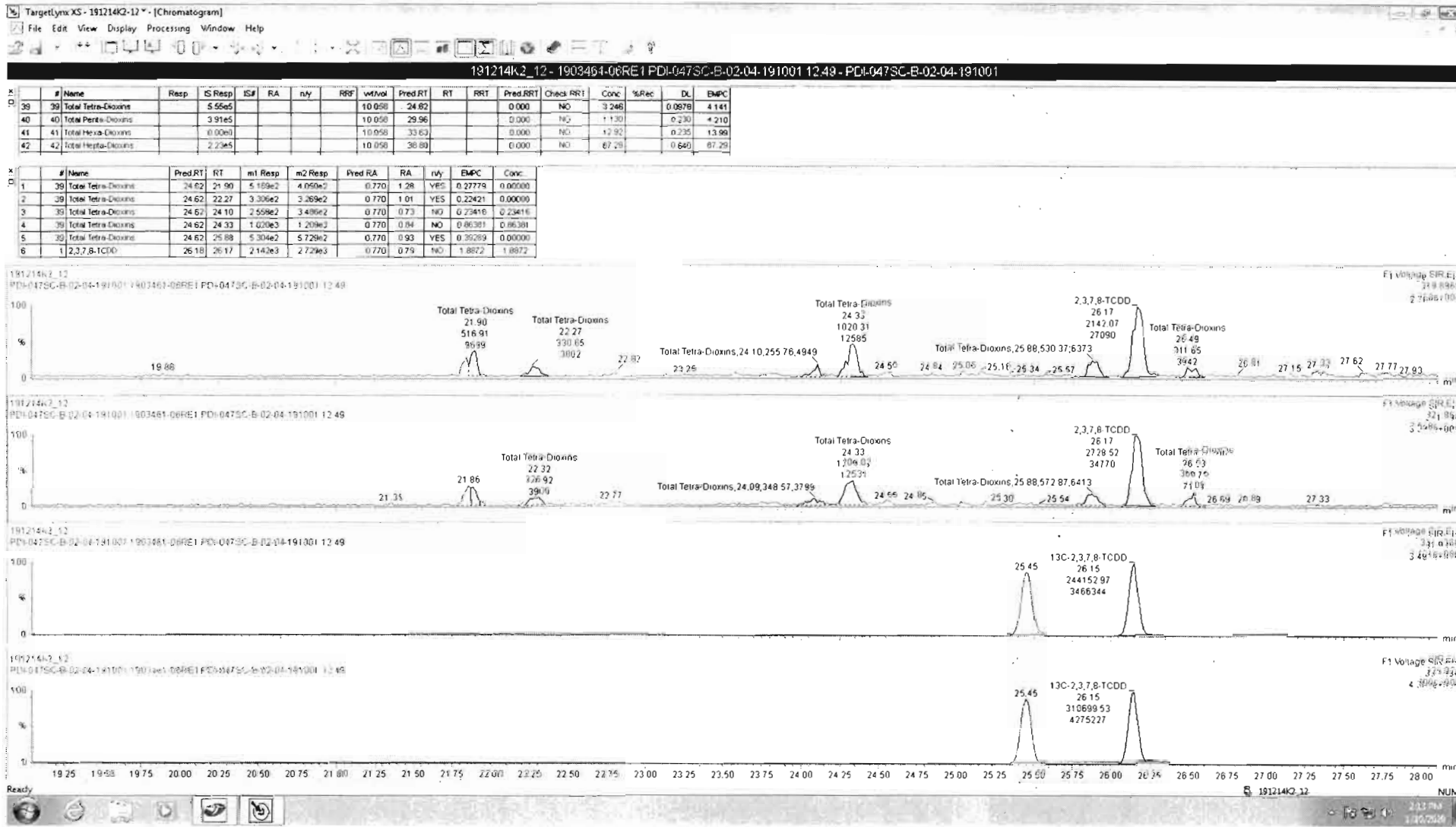
**13C-2,3,7,8-TCDD**

191214K2\_12



191214K2\_12







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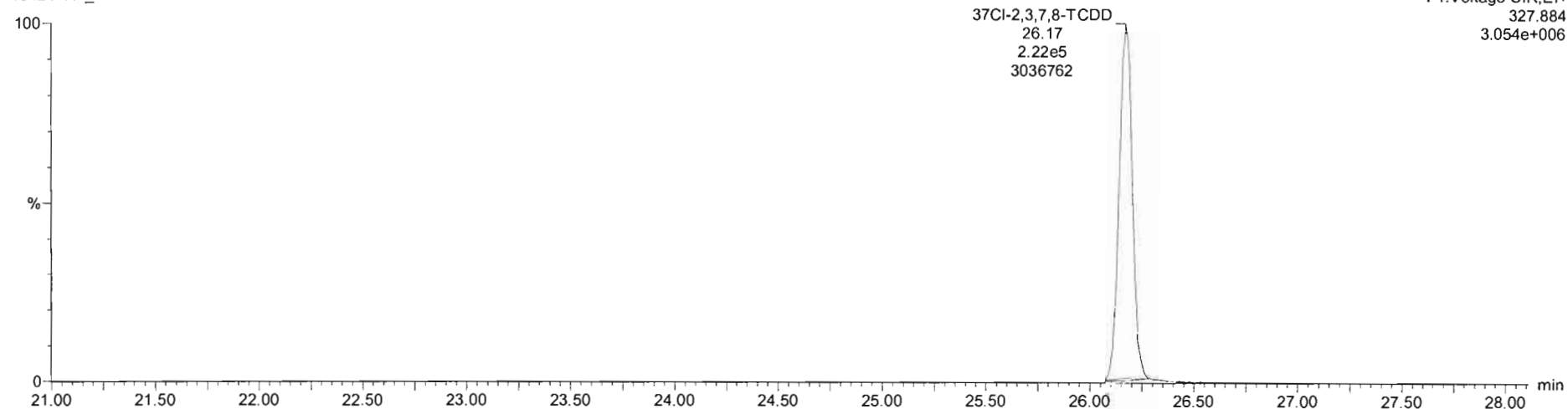
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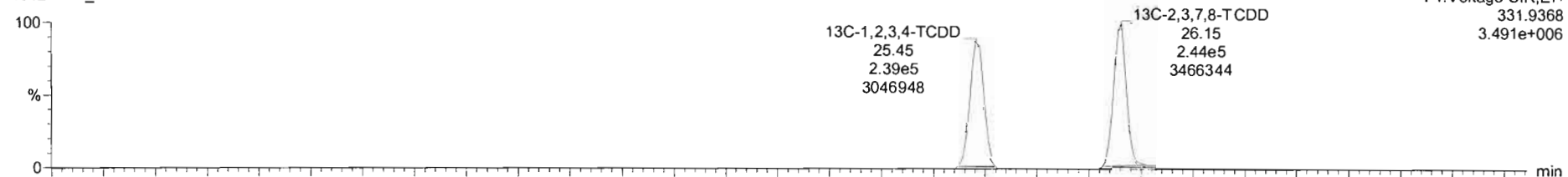
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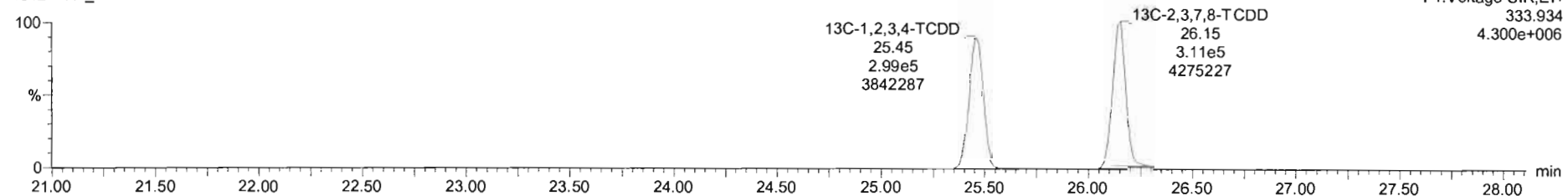


**13C-1,2,3,4-TCDD**

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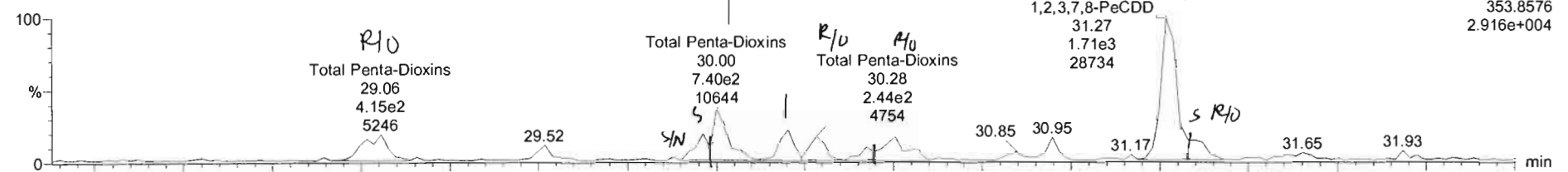
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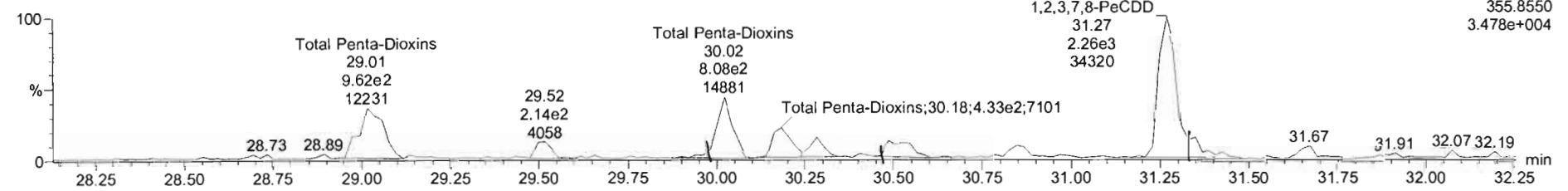
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1,2,3,7,8-PeCDD

191214K2\_12

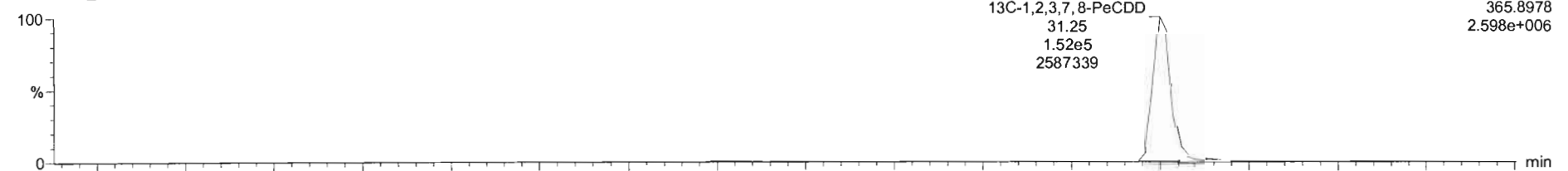


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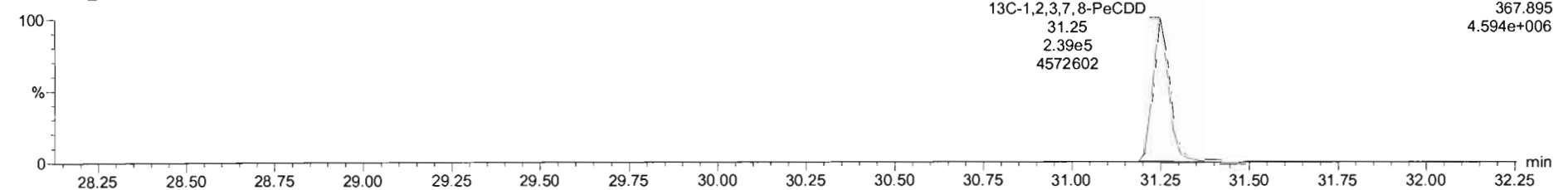


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191214K2\_12



191214K2\_12

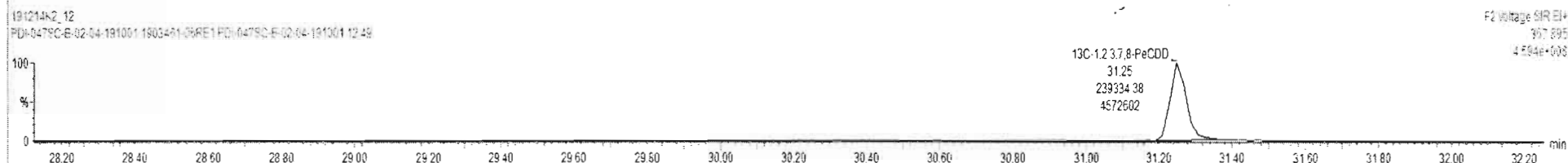
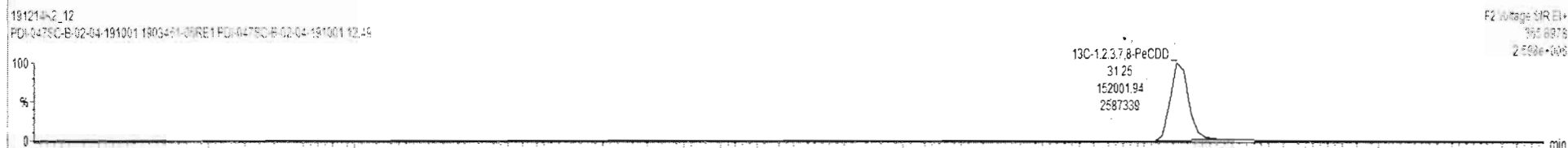
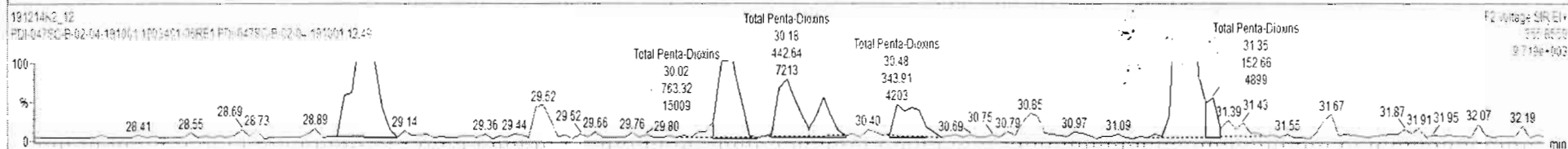
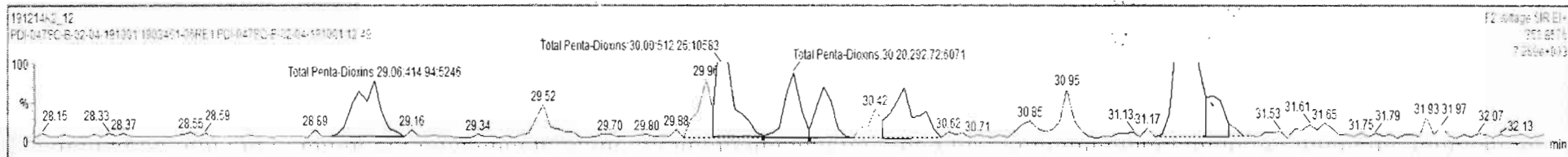




191214K2\_12 - 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49 - PDI-047SC-B-02-04-191001

#	Name	Resp	RA	nly	RRF	wtVol	Pred RT	RT	Pred.R.	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
36	13C-1,2,3,4-TCDD	5.39e5	0.80	NO	1.0000	10.058	25.50	25.45	1.000	1.000	NO	198.9	100	0.328	
37	13C-1,2,3,4-TCDF	8.35e5	0.75	NO	1.0000	10.066	23.86	23.53	1.000	1.000	NO	198.9	100	0.352	
38	13C-1,2,3,4,6,8-HxCDF	5.90e5	0.52	NO	1.0000	10.058	34.06	34.11	1.000	1.000	NO	198.9	100	0.817	
39	Total Tetra-Dioxins				0.3245	10.058	24.62		0.000		NO	2.246		0.0978	4.395
40	Total Penta-Dioxins				0.8046	10.058	29.96		0.000		NO	1.130		0.230	4.210
41	Total Hexa-Dioxins				0.9675	10.058	33.63		0.000		NO	12.21		0.235	13.97
42	Total Hepta-Dioxins				1.0375	10.058	38.80		0.000		NO	68.48		0.640	68.48
43	Total Tetra-Furans				0.9176	11.058	23.81		0.000		NO	88.92		0.192	92.03

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Penta-Dioxins	29.96	29.06	4.149e2	9.616e2	0.630	0.43	YES	0.60293	0.00000
2	Total Penta-Dioxins	29.96	30.00	5.123e2	7.633e2	0.630	0.67	NO	0.71650	0.71650
3	Total Penta-Dioxins	29.96	30.20	2.827e2	4.428e2	0.630	0.66	NO	0.41205	0.41305
4	Total Penta-Dioxins	29.96	30.28	2.439e2	2.332e2	0.630	1.05	YES	0.21347	0.00000
5	Total Penta-Dioxins	29.96	30.50	3.626e2	3.479e2	0.630	1.11	YES	0.31458	0.00000
6	1,2,3,7,8-PeCDD	31.27	31.27	1.481e3	1.977e3	0.630	0.75	YES	1.8097	0.00000
7	Total Penta-Dioxins	29.96	21.25	1.689e2	1.527e2	0.630	1.36	YES	0.13977	0.00000



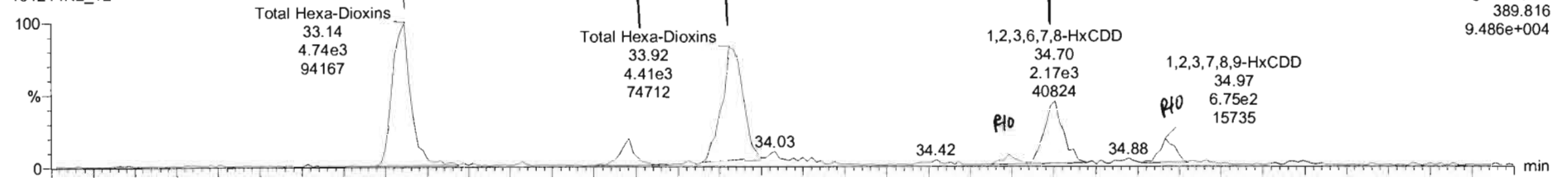
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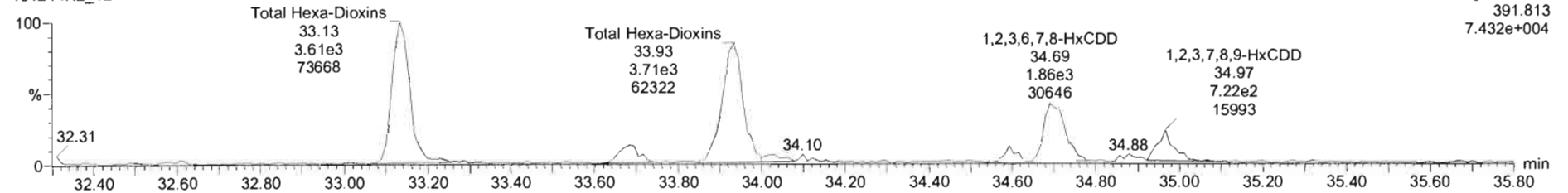
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**1,2,3,4,7,8-HxCDD**

191214K2\_12

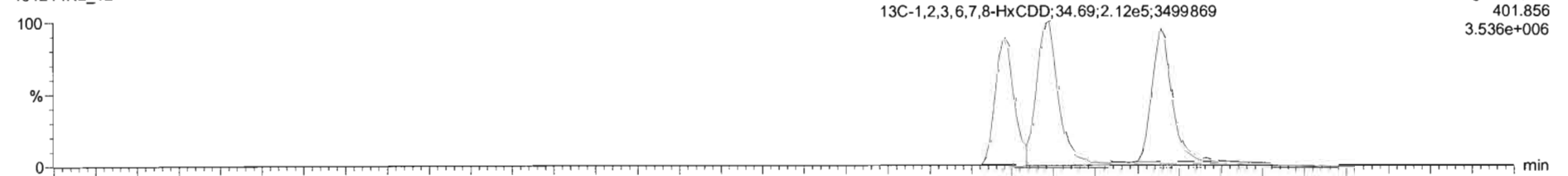


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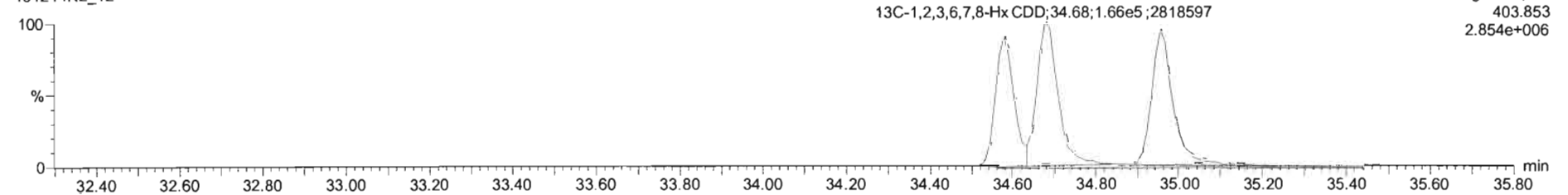


**13C-1,2,3,4,7,8-HxCDD**

191214K2\_12



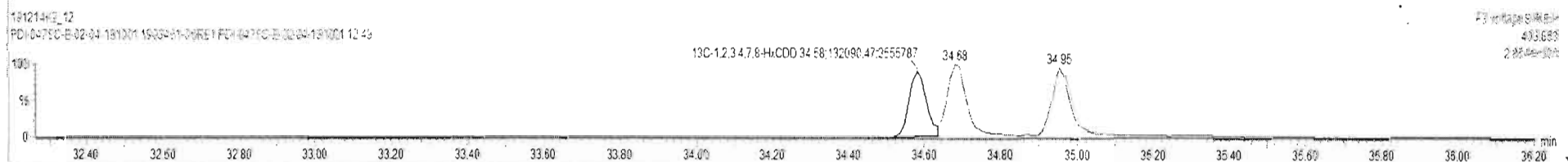
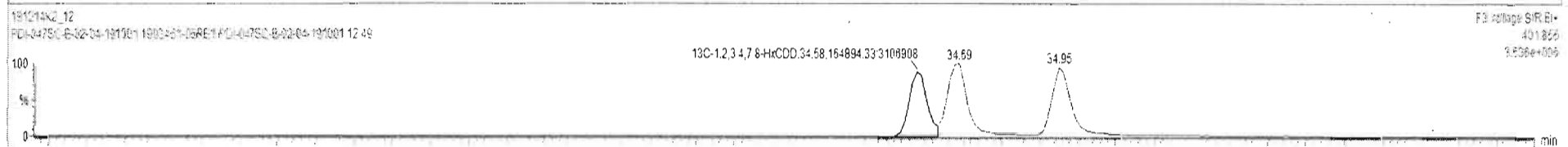
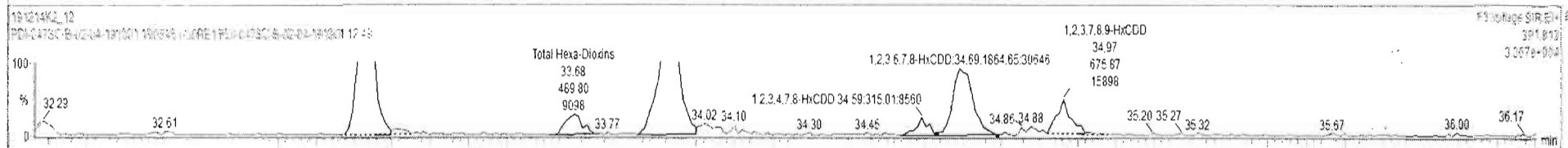
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191214K2\_12 - 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49 - PDI-047SC-B-02-04-191001

#	Name	Resp	RA	nly	RRF	wbvol	Pred RT	RT	Pred R	RRT	RRT Err	Conc	%Rec	DL	EMPC
36	13C-1,2,3,4-TCDD	5.38e5	0.80	NO	1.0000	10.058	25.50	25.45	1.000	1.000	NO	156.9	100	0.028	
37	13C-1,2,3,4-TCDF	8.25e5	0.75	NO	1.0000	10.058	23.88	23.58	1.000	1.000	NO	198.9	100	0.258	
38	13C-1,2,3,4,6,9-HxCDF	5.90e5	0.52	NO	1.0000	10.058	34.06	34.11	1.000	1.000	NO	185.9	100	0.817	
39	Total Tetra-Dioxins				0.9249	10.058	24.52		0.000		NO	2.246		0.0578	4.355
40	Total Penta-Dioxins				0.9048	10.058	29.96		0.000		NO	1.130		0.230	4.210
41	Total Hexa-Dioxins				0.9675	10.058	33.63		0.006		NO	12.92		0.235	13.99
42	Total Hepta-Dioxins				1.0275	10.058	38.80		0.000		NO	88.46		0.540	88.46
43	Total Tetra-Furans				0.9378	10.058	23.81		0.000		NO	88.52		0.152	52.00

#	Name	Pred RT	RT	m1 Resp	m2 Resp	I <sup>2</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Hexa-Dioxins	33.63	33.14	4.62563	2.69763	1.240	1.32	NO	4.9532	4.9532
2	Total Hexa-Dioxins	33.63	32.68	6.79262	4.69842	1.240	1.39	NO	0.21119	0.71119
3	Total Hexa-Dioxins	33.63	33.92	4.61862	3.71162	1.240	1.24	NO	5.0857	5.0857
4	1,2,3,4,7,8-HxCDD	34.59	34.59	2.17562	3.19362	1.240	1.01	YES	0.35927	0.00000
5	1,2,3,6,7,8-HxCDD	34.69	34.70	2.16762	1.86563	1.240	1.16	NO	2.1948	2.1948
6	1,2,3,7,8,9-HxCDD	34.99	34.97	6.52162	6.75962	1.240	0.96	YES	0.70655	0.00000



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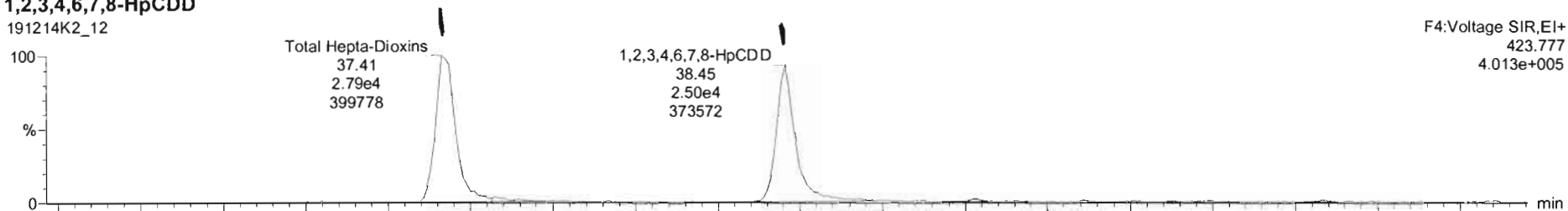
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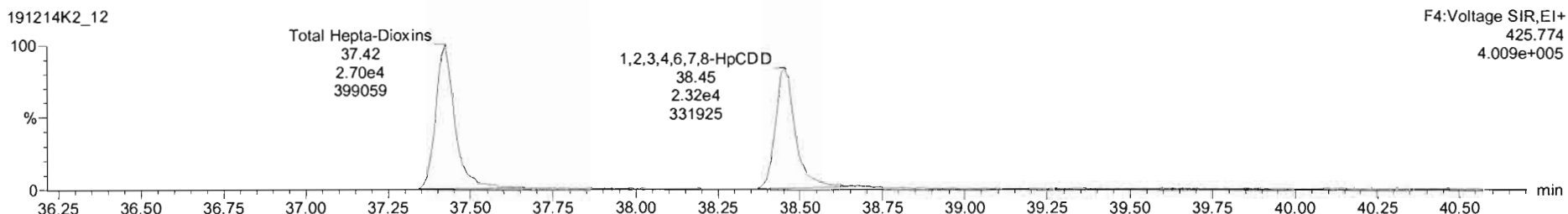
**1,2,3,4,6,7,8-HpCDD**

191214K2\_12



F4:Voltage SIR,EI+  
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4.013e+005

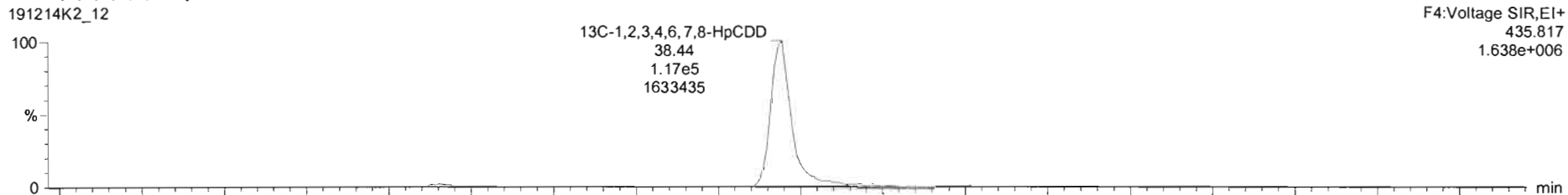
191214K2\_12



F4:Voltage SIR,EI+  
425.774  
4.009e+005

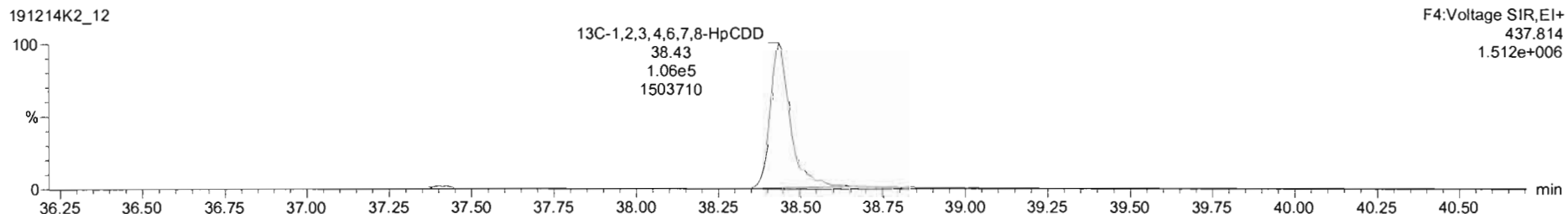
**13C-1,2,3,4,6,7,8-HpCDD**

191214K2\_12



F4:Voltage SIR,EI+  
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191214K2\_12



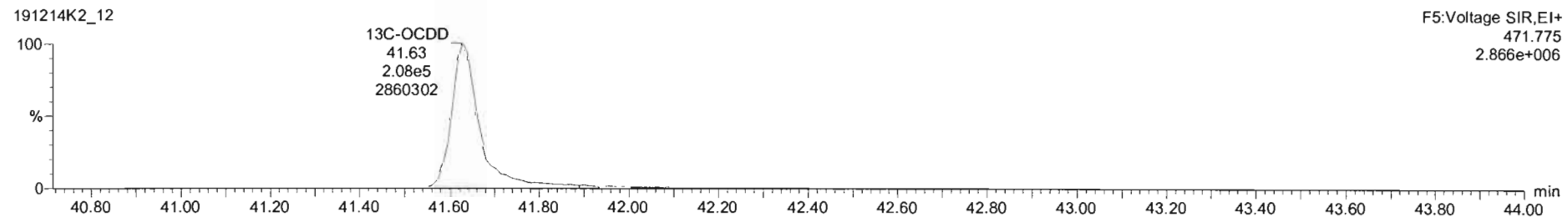
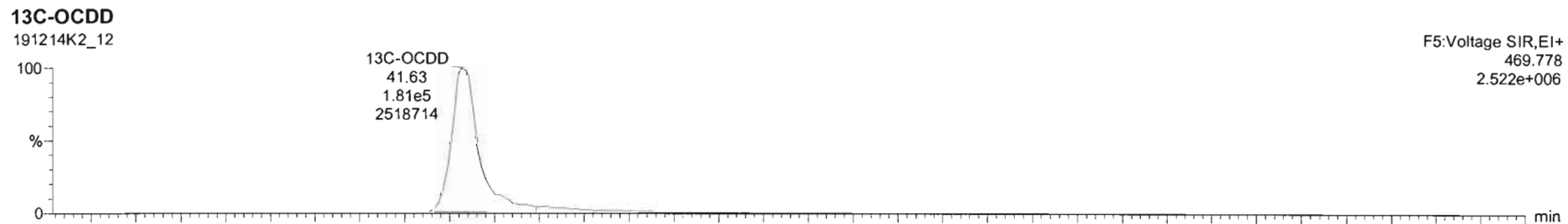
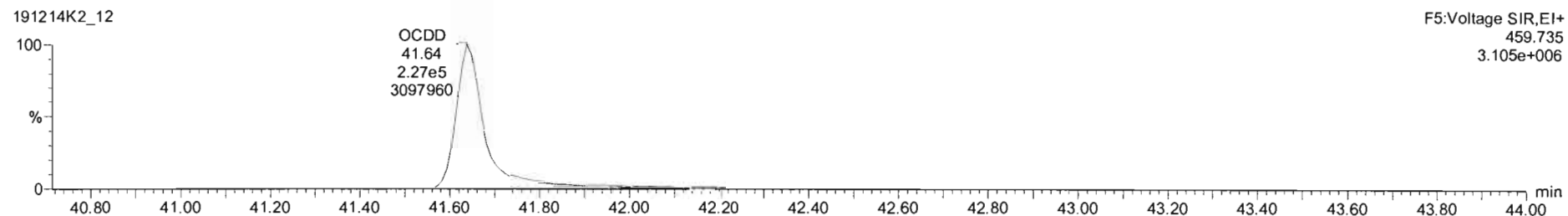
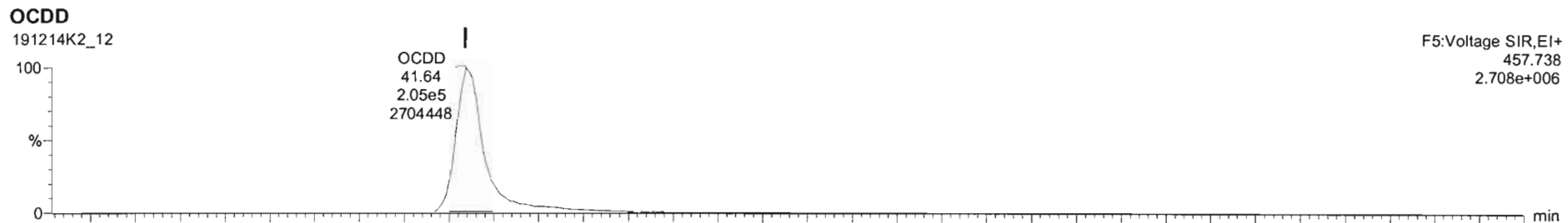
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1.512e+006

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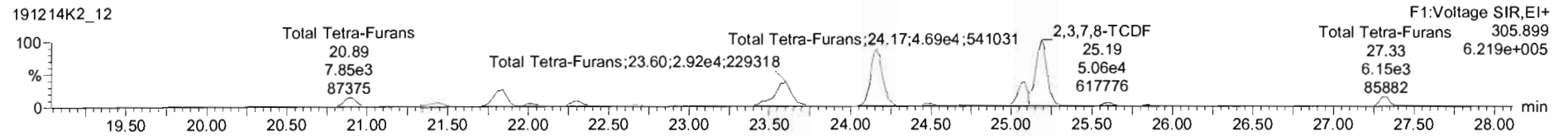
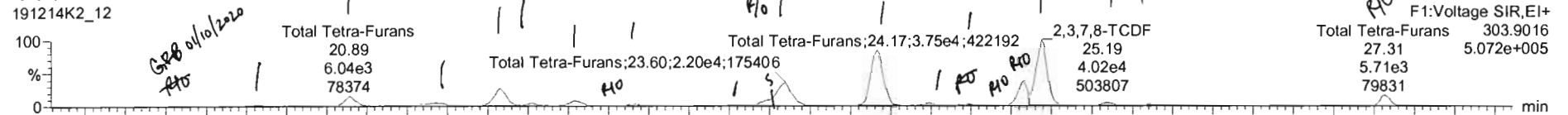


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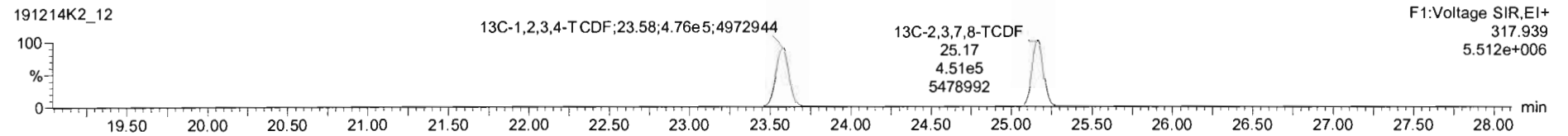
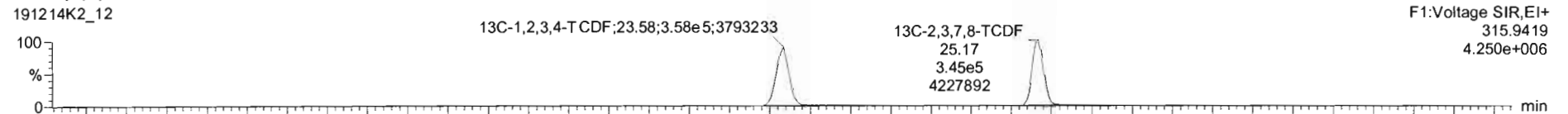
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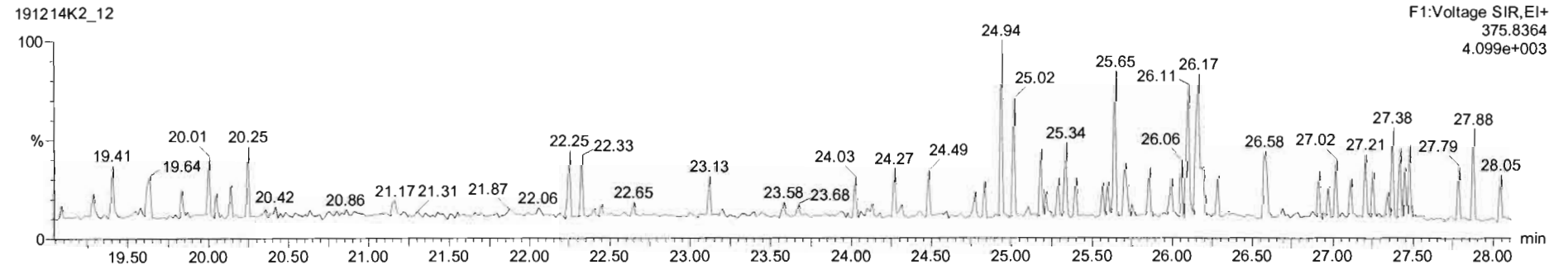
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**

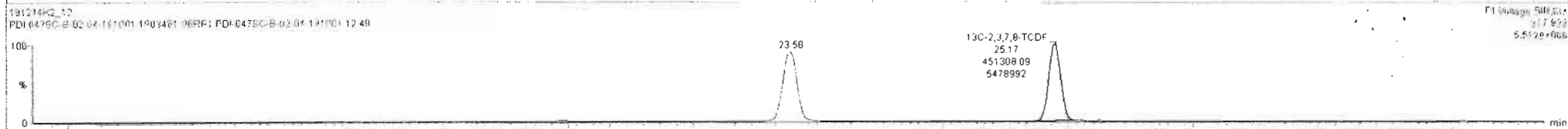
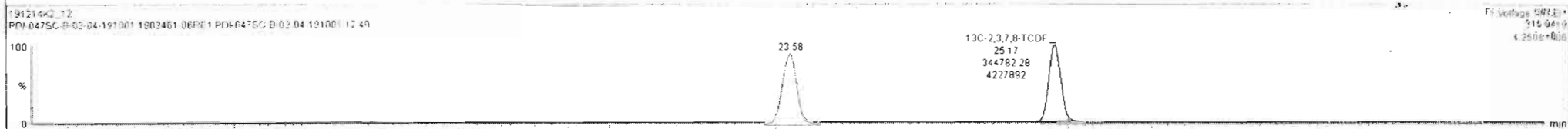
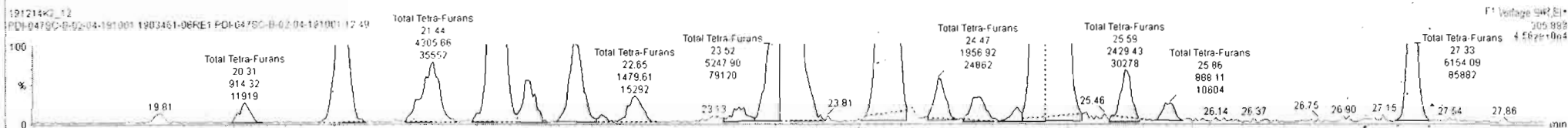
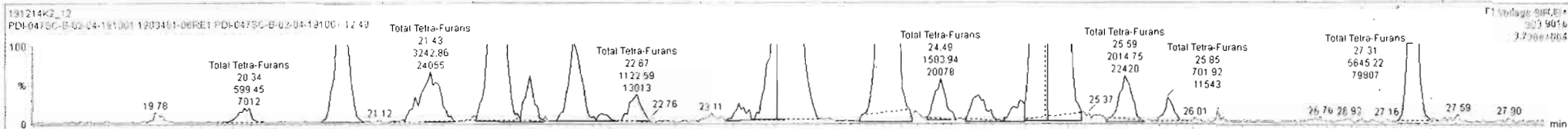




191214K2\_12 - 1903461-06RE1 PDI-047SC-B-02-04-191001 12 49 - PDI-047SC-B-02-04-191001

#	Name	Resp	IS Resp	IS#	RA	n/y	R#F	wtVol	Pred RT	RT	RRT	Pred RRT	Check RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins		5.55e5					10.058	24.62			0.000	NO	3.246	0.0578	4.141	
40	Total Penta-Dioxins		3.91e5					10.058	29.96			0.000	NO	1.130	0.230	4.210	
41	Total Hexa-Dioxins		0.00e0					10.058	33.63			0.000	NO	12.92	0.235	13.99	
42	Total Hepta-Dioxins		2.23e5					10.058	38.80			0.000	NO	87.29	0.640	87.29	

#	Name	Pred RT	RT	m1 Resp	m2 Resp	Pred RA	RA	n/y	EMPC	Conc
1	Total Tetra-Furans	23.61	20.34	5.994e2	9.143e2	0.770	0.66	NO	0.40328	0.40328
2	Total Tetra-Furans	23.61	20.89	6.043e3	7.822e3	0.770	0.76	NO	3.7202	3.7202
3	Total Tetra-Furans	23.61	21.43	3.243e3	4.306e3	0.770	0.75	NO	2.0110	2.0110
4	Total Tetra-Furans	23.61	21.83	1.241e4	1.564e4	0.770	0.79	NO	7.4730	7.4730
5	Total Tetra-Furans	23.61	22.02	1.436e3	2.167e3	0.770	0.66	NO	0.95977	0.95977
6	Total Tetra-Furans	23.61	22.28	3.515e3	4.486e3	0.770	0.78	NO	2.1318	2.1318



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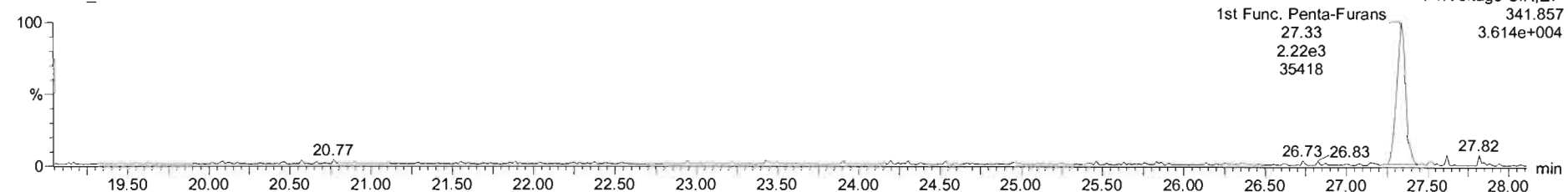
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1st Func. Penta-Furans

191214K2\_12

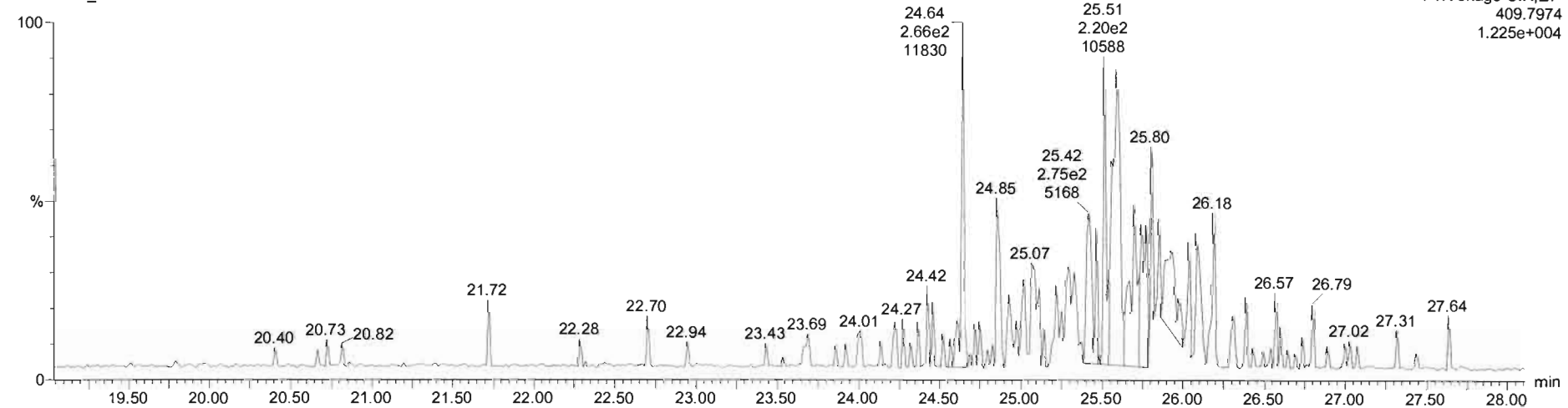


191214K2\_12



DPE6

191214K2\_12

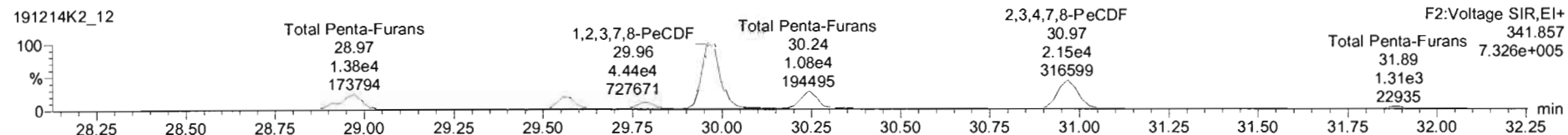
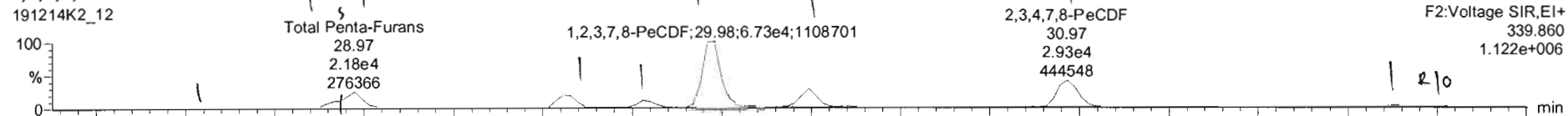


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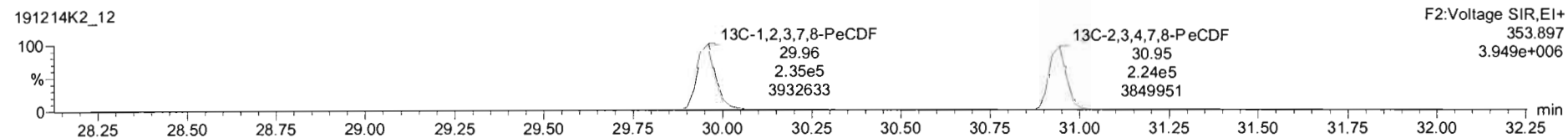
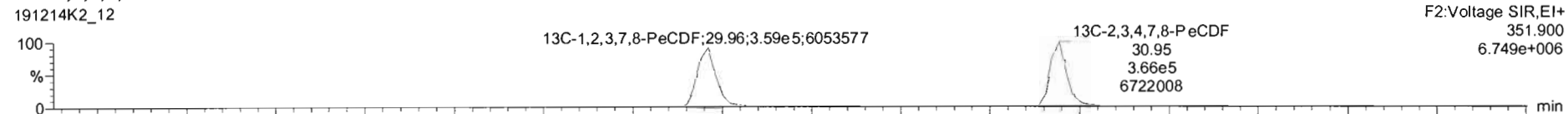
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

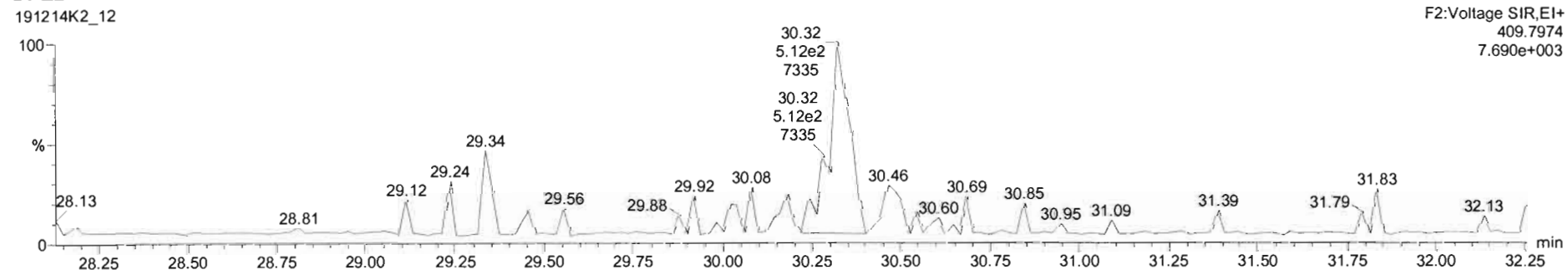
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



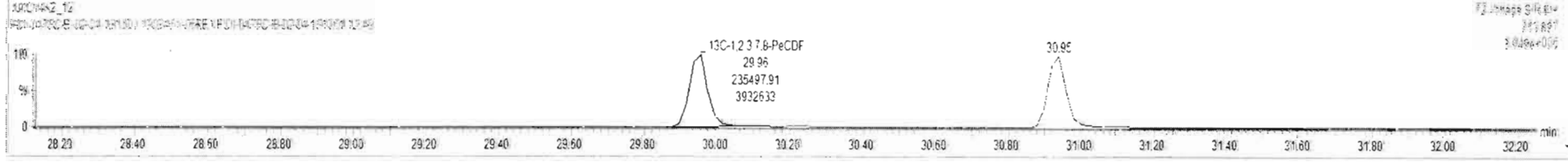
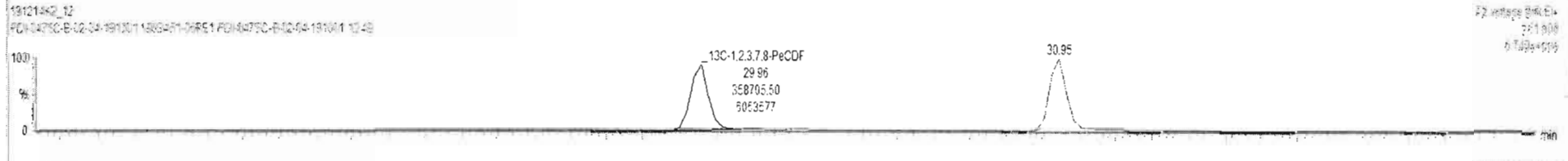
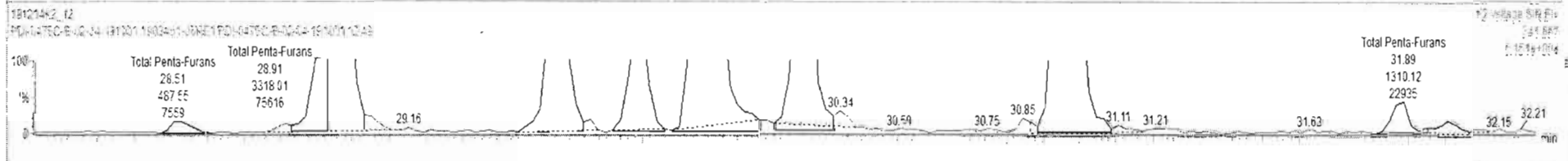
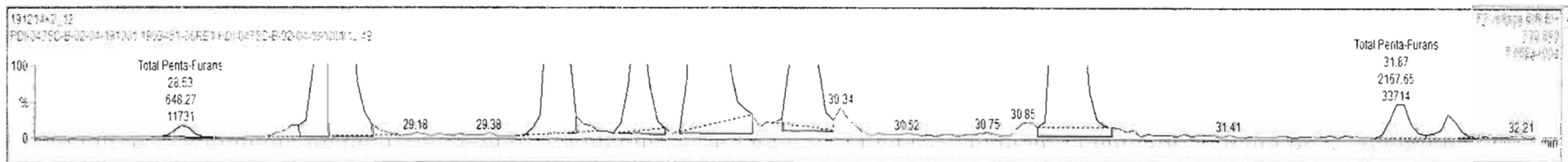
**DPE2**



191214K2\_12 - 1903461-06RE1 PDI-047SC-B-02-04-191001 12:49 - PDI-047SC-B-02-04-191001

#	Name	Resp	RA	nly	RRF	wt/vol	Pred RT	RT	Pred.R...	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
44	44 1st Func. Penta-Furans				0.9762	10.058	27.04		0.000		NO	2.102		0.0450	2.102
45	45 Total Penta-Furans				0.9762	10.058	29.27		0.000		NO	88.49		0.293	91.98
46	46 Total Hexa-Furans				1.1806	10.058	33.56		0.000		NO	234.7		0.342	235.7
47	47 Total Hepta-Furans				1.1300	10.058	37.83		0.000		NO	111.6		0.505	112.2
48	48 PFK1														
49	49 PFK2														
50	50 PFK3														
51	51 PFK4														

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	45 Total Penta-Furans	29.27	28.52	6.483e2	4.075e2	1.550	1.23	NO	0.39078	0.39078
2	45 Total Penta-Furans	29.27	28.93	5.288e3	3.218e3	1.550	1.59	NO	2.9610	0.06000
3	45 Total Penta-Furans	29.27	28.97	1.577e4	9.749e3	1.550	1.62	NO	8.7794	8.7794
4	45 Total Penta-Furans	29.27	28.55	1.326e4	8.683e3	1.550	1.50	NO	7.6130	7.6130
5	45 Total Penta-Furans	29.27	29.78	6.923e3	4.659e3	1.550	1.51	NO	3.9940	3.9645
6	9 1,2,3,7,8-PeCDF	29.98	29.98	6.925e4	4.540e4	1.550	1.53	NO	39.308	39.338
7	45 Total Penta-Furans	29.27	30.24	1.732e4	1.186e4	1.550	1.55	NO	9.7992	9.7992
8	10 2,2',4',7,8-PeCDF	30.65	30.97	3.108e4	2.080e4	1.550	1.49	NO	17.412	17.412
9	45 Total Penta-Furans	29.27	31.87	2.188e3	1.310e3	1.550	1.65	NO	1.1965	1.1965
10	45 Total Penta-Furans	29.27	32.01	1.235e3	6.036e2	1.550	2.05	YES	0.52956	0.00000

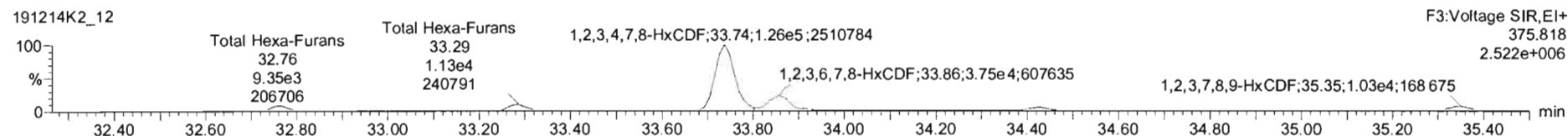
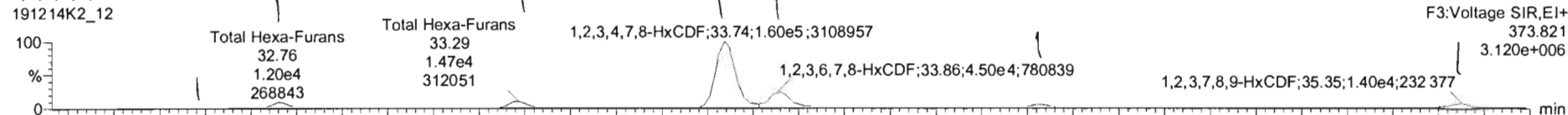


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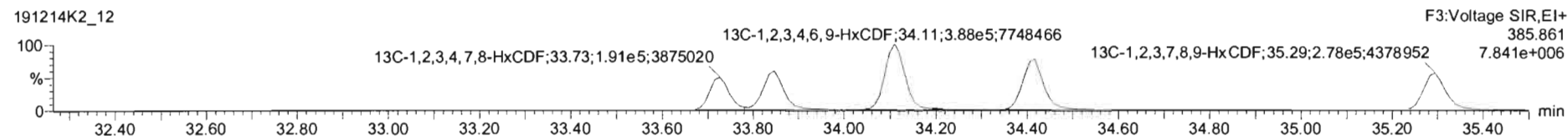
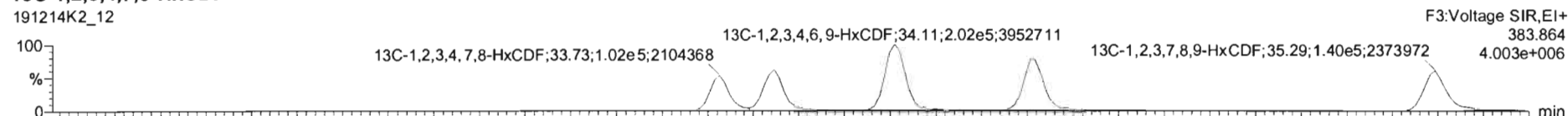
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
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Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

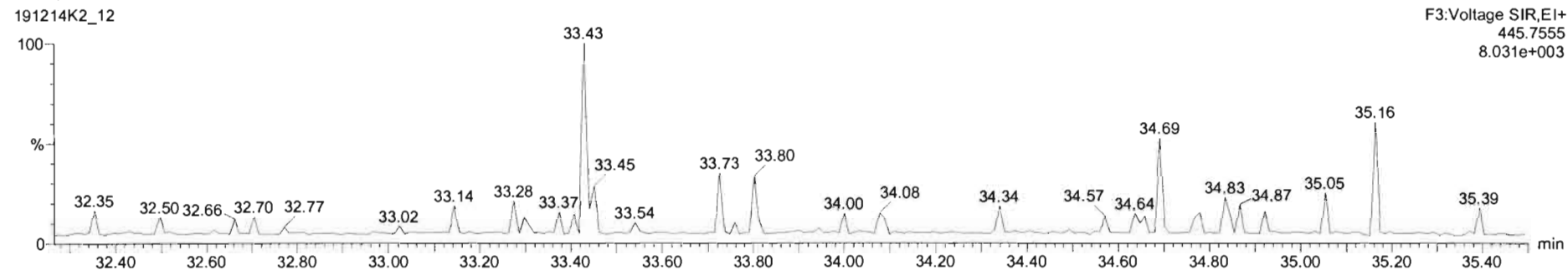
### 1,2,3,4,7,8-HxCDF



### 13C-1,2,3,4,7,8-HxCDF



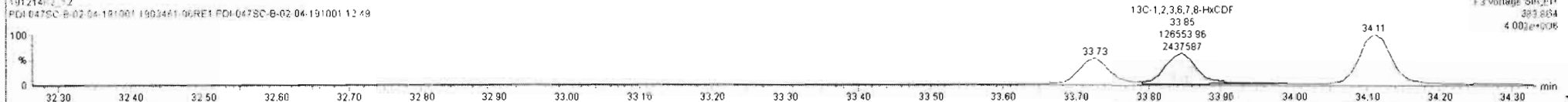
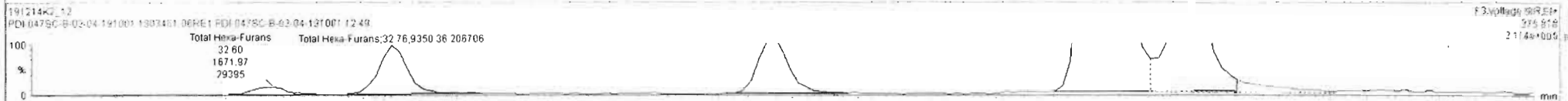
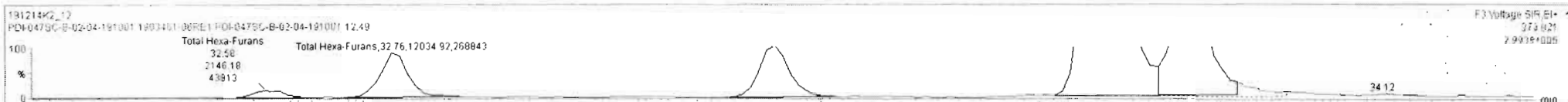
### DPE3





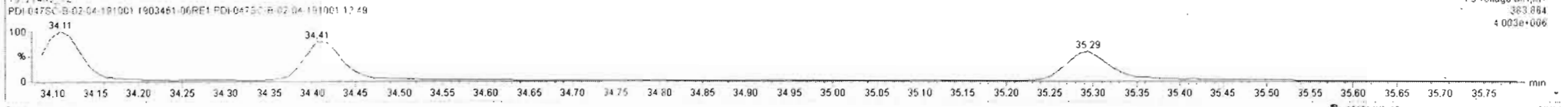
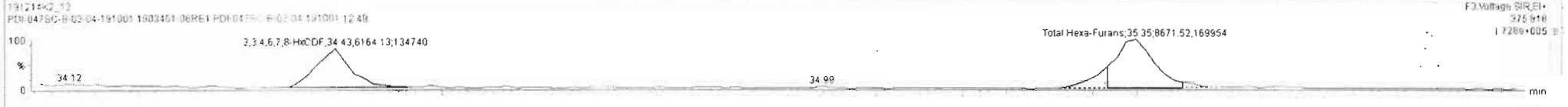
#	Name	Resp	IS Resp	IS#	RA	n/y	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	Check RRT	Conc.	%Rec	DL	EMPC
44	1st Func. Penta-Furans		0.00e0					10.058	27.04			0.000	NO	2.102		0.0450	2.102
45	Total Penta-Furans		0.00e0					10.058	29.27			0.000	NO	88.49		0.203	91.98
46	Total Hexa-Furans		0.00e0					10.058	33.56			0.000	NO	231.4		0.342	231.4
47	Total Hepta-Furans		0.00e0					10.058	37.83			0.000	NO	110.9		0.506	110.9

#	Name	Pred RT	RT	m1 Resp	m2 Resp	Pred RA	RA	n/y	EMPC	Conc.
1	46 Total Hexa-Furans	33.56	32.58	2.146e3	1.672e3	1.240	1.26	NO	1.6504	1.6504
2	46 Total Hexa-Furans	33.56	32.76	1.203e4	9.350e3	1.240	1.29	NO	9.2439	9.2439
3	46 Total Hexa-Furans	33.56	33.29	1.468e4	1.126e4	1.240	1.30	NO	11.211	11.211
4	11 1,2,3,4,7,8-HxCDF	33.72	33.74	1.600e5	1.204e5	1.240	1.27	NO	156.48	156.48
5	12 1,2,3,6,7,8-HxCDF	33.86	33.86	4.143e4	3.430e4	1.240	1.21	NO	37.083	37.083
6	13 2,3,4,6,7,8-HxCDF	34.44	34.43	7.890e3	6.164e3	1.240	1.28	NO	4.9545	4.9545



#	Name	Resp	IS Resp	IS#	RA	n/y	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	Check RRT	Conc	%Rec	DL	EMPC
44	1st Func. Penta-Furans		0.00e0					10.058	27.04			0.000	NO	2.102		0.0450	2.102
45	Total Penta-Furans		0.00e0					10.058	29.27			0.000	NO	80.45		0.203	91.98
46	Total Hexa-Furans		0.00e0					10.058	33.56			0.000	NO	222.2		0.342	231.1
47	Total Hepta-Furans		0.00e0					10.058	37.83			0.000	NO	110.9		0.505	110.9

#	Name	Pred RT	RT	m1 Resp	m2 Resp	Pred RA	RA	n/y	EMPC	Conc.
3	46 Total Hexa-Furans	33.56	33.29	1.468e4	1.126e4	1.240	1.30	NO	11.211	11.211
4	11 1,2,3,4,7,8-HxCDF	33.72	33.74	1.600e5	1.264e5	1.240	1.27	NO	156.48	156.48
5	12 1,2,3,6,7,8-HxCDF	33.86	33.86	4.143e4	3.430e4	1.240	1.21	NO	37.083	37.083
6	13 2,3,4,6,7,8-HxCDF	34.44	34.43	7.680e3	6.184e3	1.240	1.28	NO	4.9545	4.9545
7	14 1,2,3,7,8,9-HxCDF	35.29	35.32	2.003e3	1.472e3	1.240	1.36	NO	1.5424	1.5424
8	46 Total Hexa-Furans	33.56	35.35	1.195e4	8.672e3	1.240	1.38	NO	8.9122	0.00000

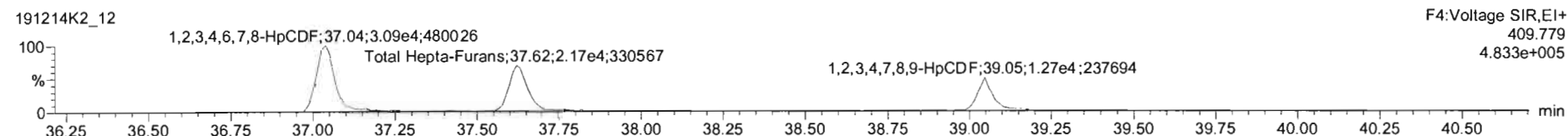
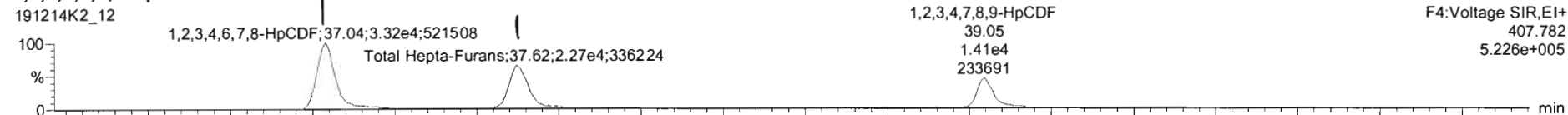


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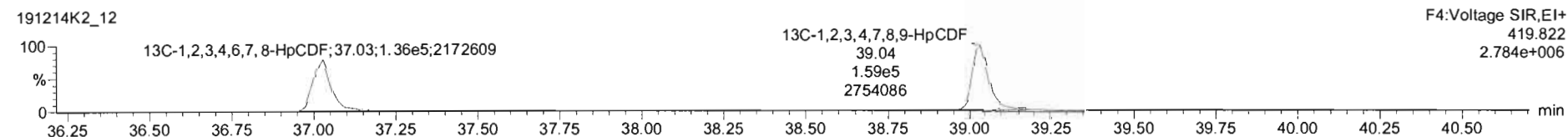
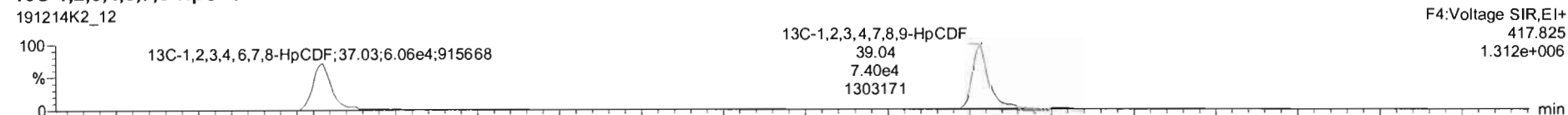
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

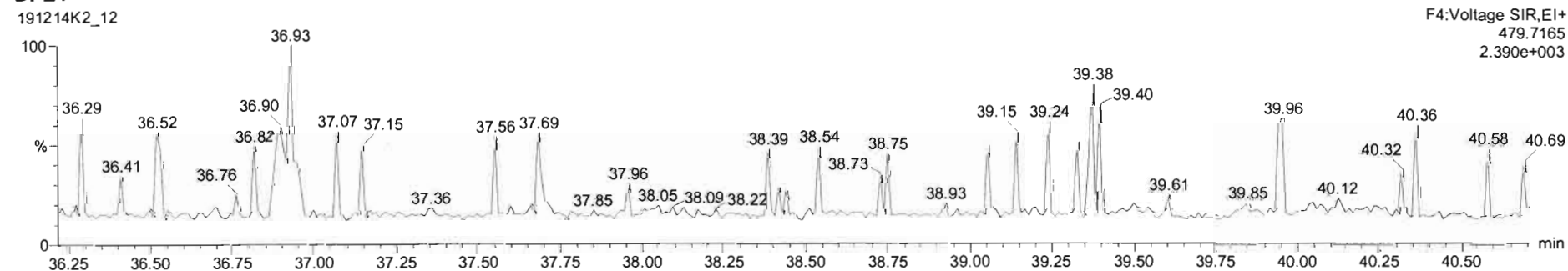
### 1,2,3,4,6,7,8-HpCDF



### 13C-1,2,3,4,6,7,8-HpCDF



### DPE4



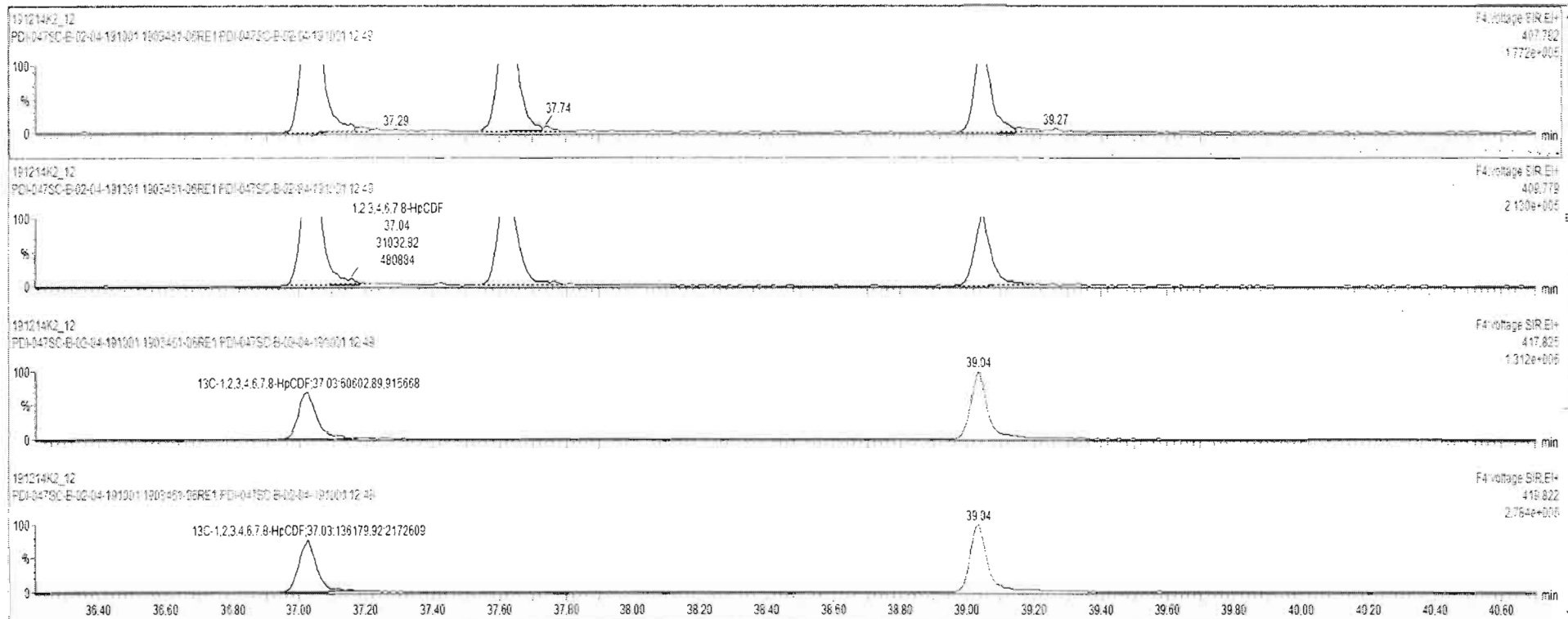




191214K2\_12 - 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49 - PDI-047SC-B-02-04-191001

#	Name	Resp	RA	n/y	RRF	wVol	Pred. RT	RT	Pred. R...	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
44	1st Func. Penta-Furans				0.9762	10.058	27.04		0.000		NO	2.102		0.0490	2.102
45	Total Penta-Furans				0.9762	10.058	29.27		0.000		NO	88.45		0.203	51.93
46	Total Hexa-Furans				1.1808	10.058	32.56		0.000		NO	234.1		0.342	234.1
47	Total Hepta-Furans				1.1360	10.058	37.83		0.000		NO	110.9		0.505	110.9
48	PFK1														
49	PFK2														
50	PFK3														
51	PFK4														

#	Name	Pred. RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	n/y	EMPC	Conc.
1	1,2,3,4,6,7,8-HpCDF	37.07	37.04	3.281e4	3.103e4	1.040	1.05	NO	56.920	56.920
2	Total Hepta-Furans	37.83	37.62	2.228e4	2.170e4	1.040	1.03	NO	25.992	35.992
3	1,2,3,4,7,8-HpCDF	39.04	39.05	1.381e4	1.278e4	1.040	1.05	NO	17.975	17.975

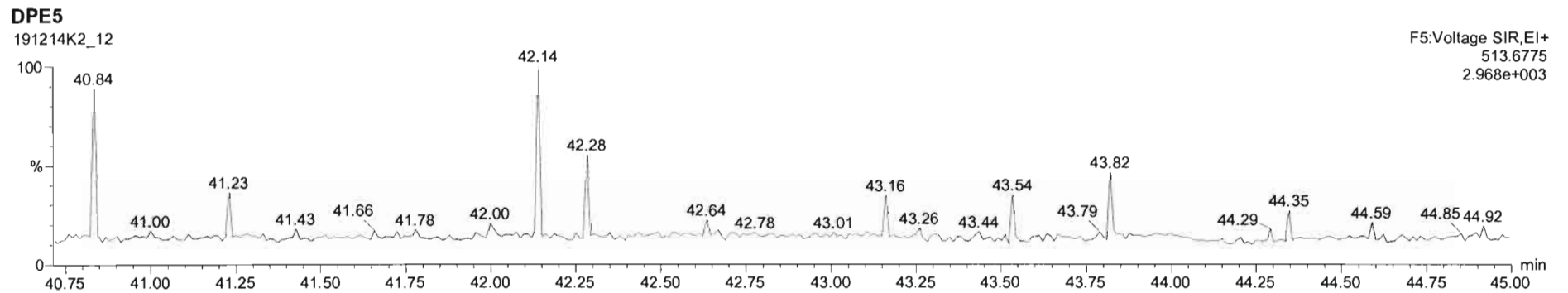
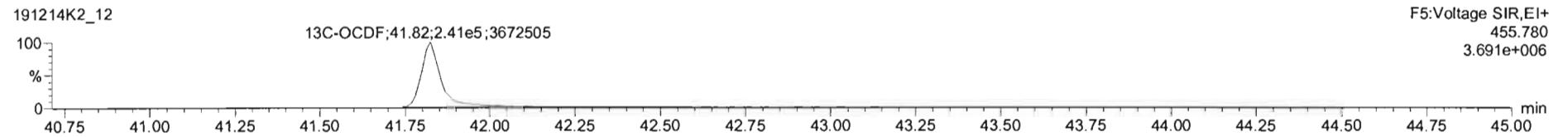
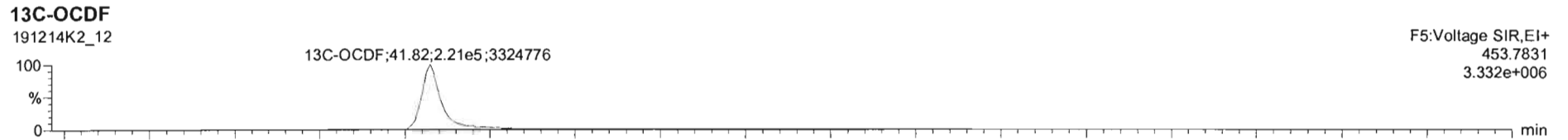
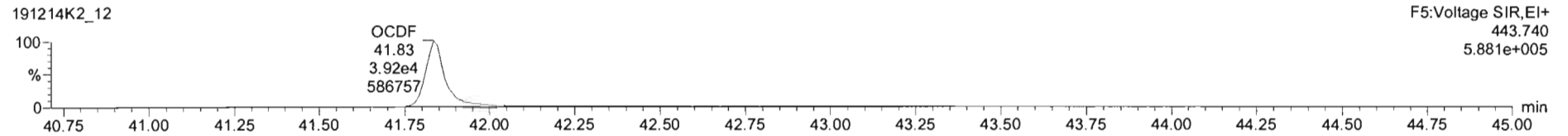
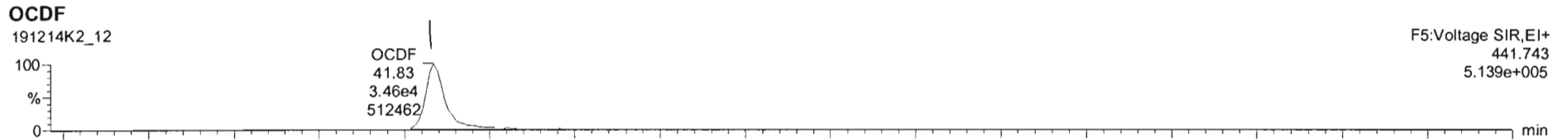


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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_12, Date: 15-Dec-2019, Time: 03:10:01, ID: 1903461-06RE1 PDI-047SC-B-02-04-191001 12.49, Description: PDI-047SC-B-02-04-191001

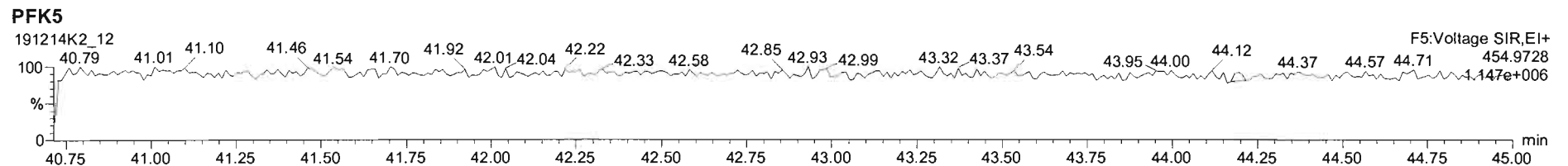
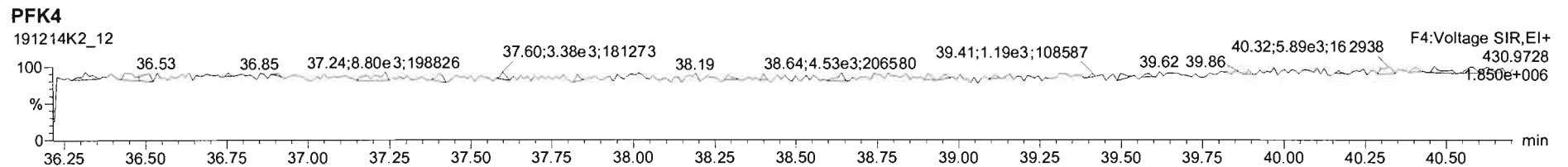
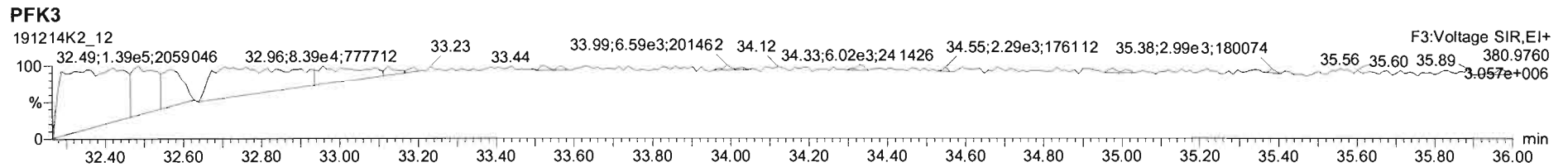
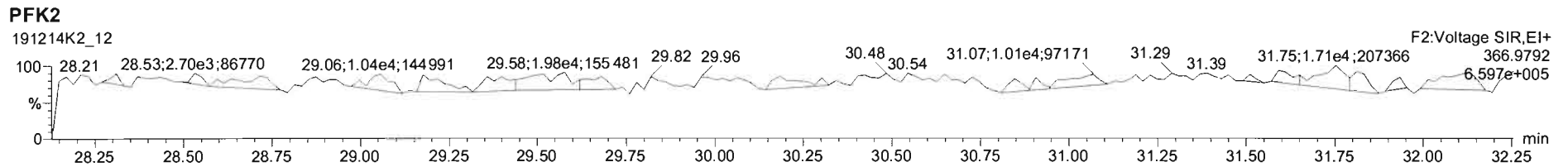
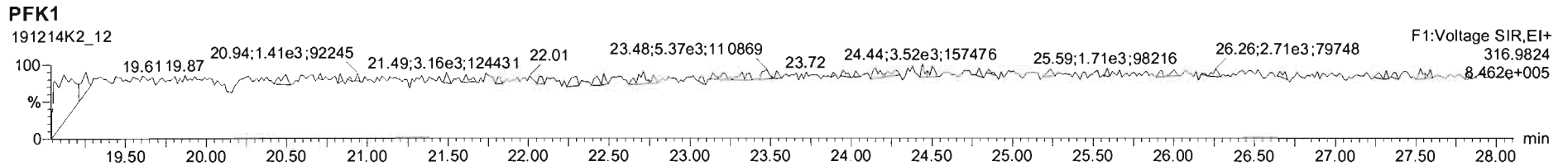


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HL 12-17-19

CT 01/10/2020

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Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.925	10.022	26.18		1.001				0.0707	
2	1,2,3,7,8-PeCDD			NO	0.905	10.022	31.270		1.001				0.0667	
3	1,2,3,4,7,8-HxCDD			NO	1.07	10.022	34.591		1.000				0.0882	
4	1,2,3,6,7,8-HxCDD			NO	0.967	10.022	34.680		1.000				0.0820	
5	1,2,3,7,8,9-HxCDD			NO	0.978	10.022	34.989		1.001				0.0933	
6	1,2,3,4,6,7,8-HpCDD			NO	1.04	10.022	38.444		1.000				0.142	
7	OCDD	2.19e3	0.95	NO	0.972	10.022	41.626	41.65	1.000	1.001	2.4333		0.205	2.43
8	2,3,7,8-TCDF			NO	0.938	10.022	25.199		1.001				0.0563	
9	1,2,3,7,8-PeCDF			NO	0.976	10.022	29.982		1.001				0.0502	
10	2,3,4,7,8-PeCDF			NO	1.00	10.022	30.978		1.001				0.0475	
11	1,2,3,4,7,8-HxCDF	2.38e2	1.46	YES	1.24	10.022	33.725	33.75	1.000	1.001	0.08713		0.0263	0.0781
12	1,2,3,6,7,8-HxCDF			NO	1.10	10.022	33.856		1.000				0.0533	
13	2,3,4,6,7,8-HxCDF			NO	1.18	10.022	34.451		1.001				0.0544	
14	1,2,3,7,8,9-HxCDF			NO	1.07	10.022	35.294		1.000				0.0696	
15	1,2,3,4,6,7,8-HpCDF			NO	1.13	10.022	37.065		1.001				0.0640	
16	1,2,3,4,7,8,9-HpCDF			NO	1.26	10.022	39.036		1.000				0.0846	
17	OCDF	2.07e2	0.56	YES	1.10	10.022	41.824	41.85	1.000	1.001	0.14660		0.0784	0.112
18	13C-2,3,7,8-TCDD	6.07e5	0.81	NO	1.05	10.022	26.146	26.15	1.027	1.028	228.27	114	0.345	
19	13C-1,2,3,7,8-PeCDD	4.62e5	0.65	NO	0.743	10.022	31.157	31.25	1.224	1.228	245.10	123	0.646	
20	13C-1,2,3,4,7,8-HxCDD	3.37e5	1.25	NO	0.646	10.022	34.580	34.58	1.014	1.014	180.32	90.4	0.753	
21	13C-1,2,3,6,7,8-HxCDD	4.22e5	1.27	NO	0.777	10.022	34.679	34.68	1.017	1.017	187.46	93.9	0.627	
22	13C-1,2,3,7,8,9-HxCDD	3.83e5	1.34	NO	0.659	10.022	34.952	34.95	1.025	1.025	200.71	101	0.738	
23	13C-1,2,3,4,6,7,8-HpCDD	2.47e5	1.01	NO	0.534	10.022	38.445	38.43	1.127	1.127	159.75	80.0	0.766	
24	13C-OCDD	3.69e5	0.91	NO	0.470	10.022	41.620	41.63	1.220	1.220	270.89	67.9	0.902	
25	13C-2,3,7,8-TCDF	8.16e5	0.73	NO	0.977	10.022	25.220	25.17	0.991	0.989	203.91	102	0.323	
26	13C-1,2,3,7,8-PeCDF	6.87e5	1.53	NO	0.778	10.022	29.870	29.96	1.174	1.177	215.69	108	0.861	
27	13C-2,3,4,7,8-PeCDF	6.67e5	1.59	NO	0.750	10.022	30.877	30.95	1.213	1.216	217.23	109	0.893	
28	13C-1,2,3,4,7,8-HxCDF	4.46e5	0.53	NO	0.845	10.022	33.720	33.73	0.989	0.989	182.36	91.4	0.991	
29	13C-1,2,3,6,7,8-HxCDF	5.34e5	0.55	NO	1.03	10.022	33.836	33.85	0.992	0.992	179.63	90.0	0.816	
30	13C-2,3,4,6,7,8-HxCDF	5.02e5	0.56	NO	0.893	10.022	34.409	34.42	1.009	1.009	193.97	97.2	0.938	
31	13C-1,2,3,7,8,9-HxCDF	4.73e5	0.52	NO	0.734	10.022	35.310	35.29	1.035	1.035	222.38	111	1.14	

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-13.qld

Last Altered: Tuesday, December 17, 2019 15:21:43 Pacific Standard Time

Printed: Tuesday, December 17, 2019 15:22:21 Pacific Standard Time

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.87e5	0.43	NO	0.754	10.022	37.022	37.03	1.085	1.086	177.16	88.8	0.715	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.68e5	0.45	NO	0.539	10.022	39.045	39.04	1.145	1.144	171.40	85.9	1.00	
34	34 13C-OCDF	5.12e5	0.91	NO	0.593	10.022	41.832	41.82	1.226	1.226	298.15	74.7	0.800	
35	35 37Cl-2,3,7,8-TCDD	2.41e5			1.07	10.022	26.167	26.17	1.028	1.028	88.902	111	0.0886	
36	36 13C-1,2,3,4-TCDD	5.06e5	0.79	NO	1.00	10.022	25.500	25.45	1.000	1.000	199.57	100	0.362	
37	37 13C-1,2,3,4-TCDF	8.17e5	0.76	NO	1.00	10.022	23.680	23.58	1.000	1.000	199.57	100	0.315	
38	38 13C-1,2,3,4,6,9-HxCDF	5.78e5	0.54	NO	1.00	10.022	34.060	34.11	1.000	1.000	199.57	100	0.838	
39	39 Total Tetra-Dioxins				0.925	10.022	24.620		0.000				0.0390	
40	40 Total Penta-Dioxins				0.905	10.022	29.960		0.000				0.0226	
41	41 Total Hexa-Dioxins				0.967	10.022	33.635		0.000		0.00000		0.0511	0.0242
42	42 Total Hepta-Dioxins				1.04	10.022	38.800		0.000		0.37346		0.0672	0.373
43	43 Total Tetra-Furans				0.938	10.022	23.610		0.000		0.00000		0.0233	0.0324
44	44 1st Func. Penta-Furans				0.976	10.022	27.040		0.000				0.0150	
45	45 Total Penta-Furans				0.976	10.022	29.275		0.000				0.0221	
46	46 Total Hexa-Furans				1.18	10.022	33.555		0.000		0.00000		0.0277	0.119
47	47 Total Hepta-Furans				1.13	10.022	37.835		0.000		0.00000		0.0405	0.104

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-13.qld

Last Altered: Tuesday, December 17, 2019 15:21:43 Pacific Standard Time

Printed: Tuesday, December 17, 2019 15:22:21 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

**Tetra-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Penta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	
1	Total Hexa-Dioxins	33.14	2.062e3	1.002e3	4.552e1	1.991e1	2.29	YES	0.000e0	0.00000	0.024162	0.0511

**Hepta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	
1	Total Hepta-Dioxins	37.41	4.196e3	5.285e3	2.435e2	2.364e2	1.03	NO	4.798e2	0.37346	0.37346	0.0672

**Tetra-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	
1	Total Tetra-Furans	24.17	2.719e3	3.092e3	9.335e1	7.026e1	1.33	YES	0.000e0	0.00000	0.032430	0.0233

**Penta-Furans function 1**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-13.qld

Last Altered: Tuesday, December 17, 2019 15:21:43 Pacific Standard Time  
 Printed: Tuesday, December 17, 2019 15:22:21 Pacific Standard Time

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	33.30	3.608e3	1.318e3	9.574e1	5.292e1	1.81	YES	0.000e0	0.00000	0.041003	0.0277
2	1,2,3,4,7,8-HxCDF	33.75	3.365e3	2.904e3	1.415e2	9.693e1	1.46	YES	2.384e2	0.00000	0.078069	0.0253

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Furans	37.64	2.160e3	2.959e3	9.854e1	1.222e2	0.81	YES	0.000e0	0.00000	0.10431	0.0405

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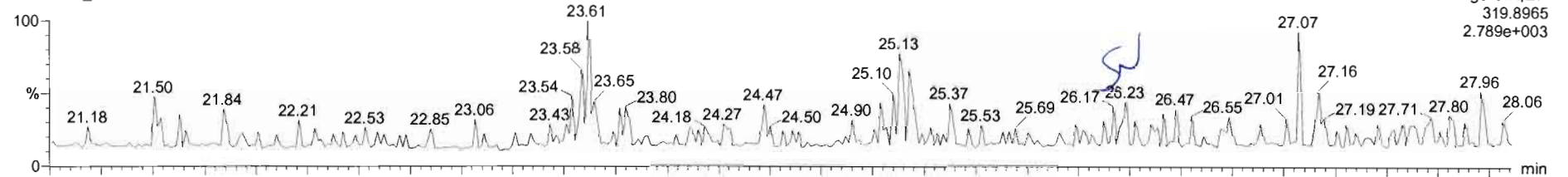
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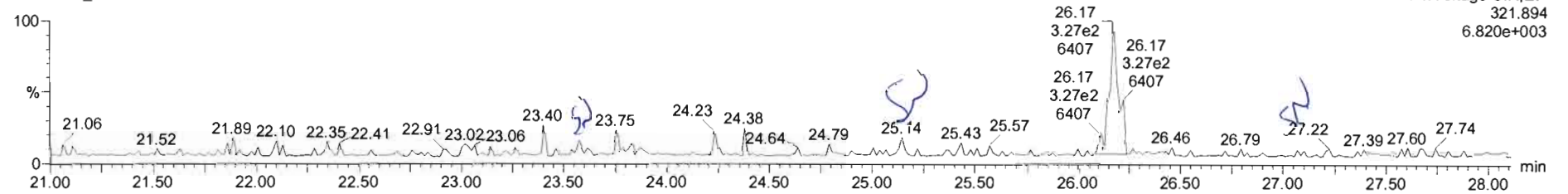
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**2,3,7,8-TCDD**

191214K2\_13

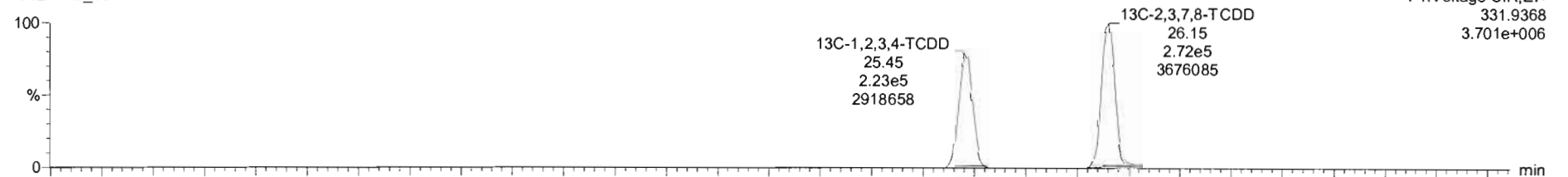


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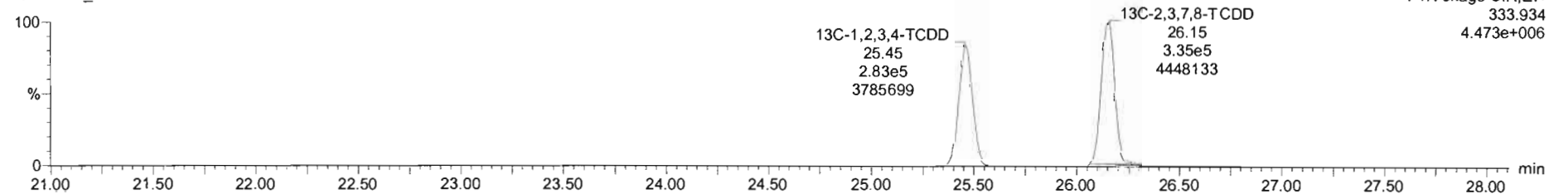


**13C-2,3,7,8-TCDD**

191214K2\_13



191214K2\_13





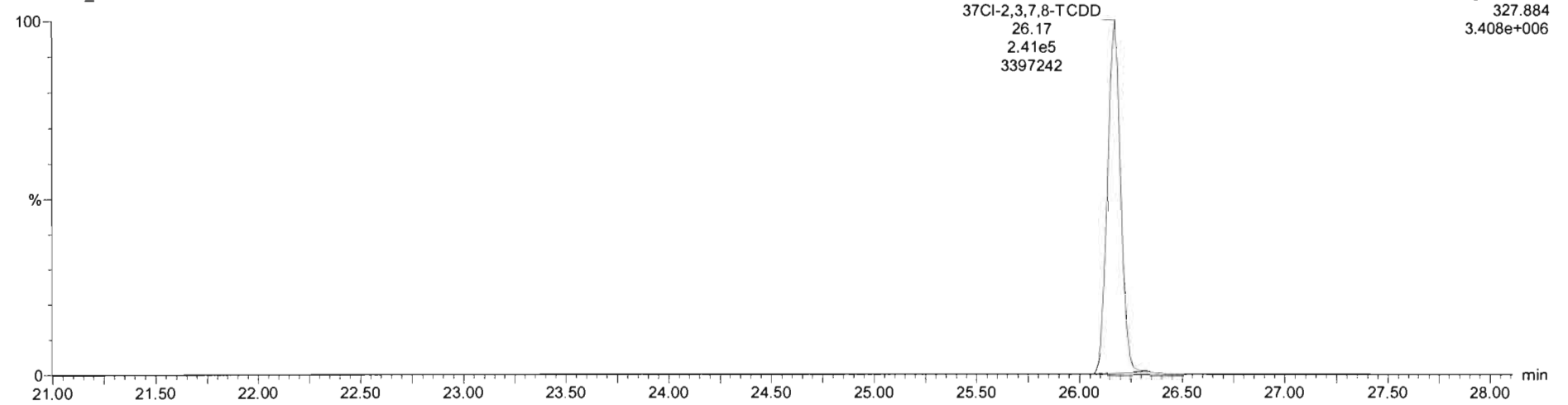
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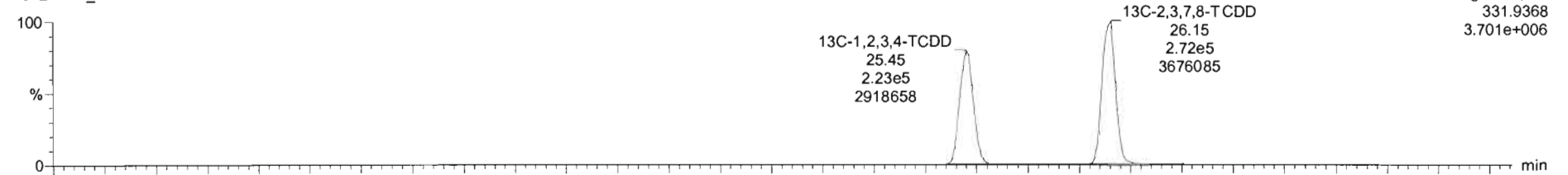
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191214K2\_13

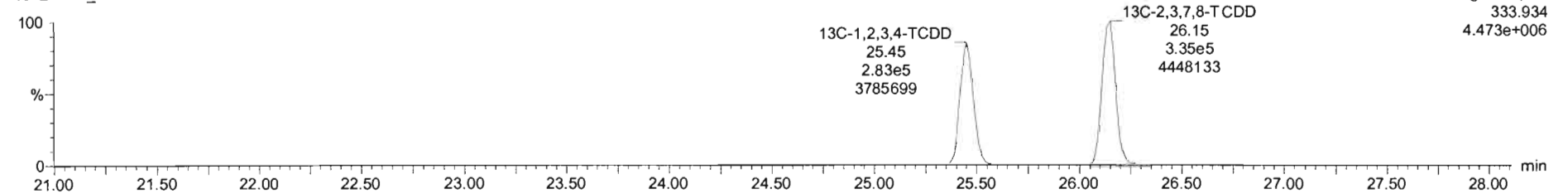


**13C-1,2,3,4-TCDD**

191214K2\_13



191214K2\_13



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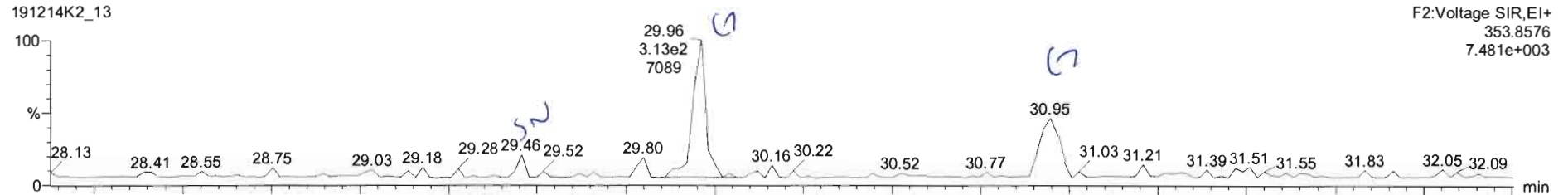
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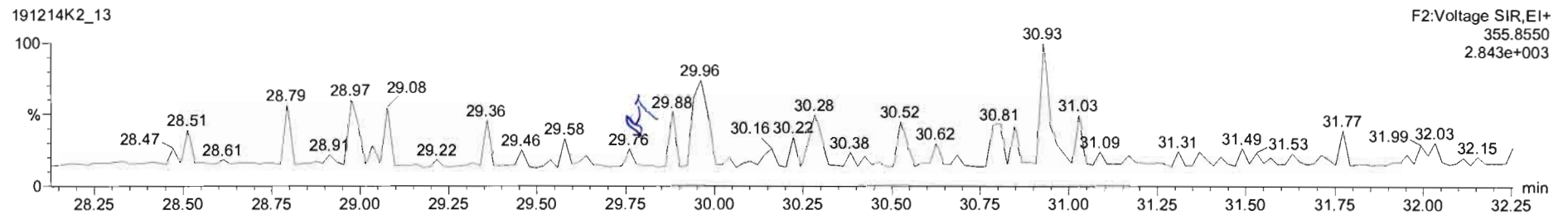
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**1,2,3,7,8-PeCDD**

191214K2\_13

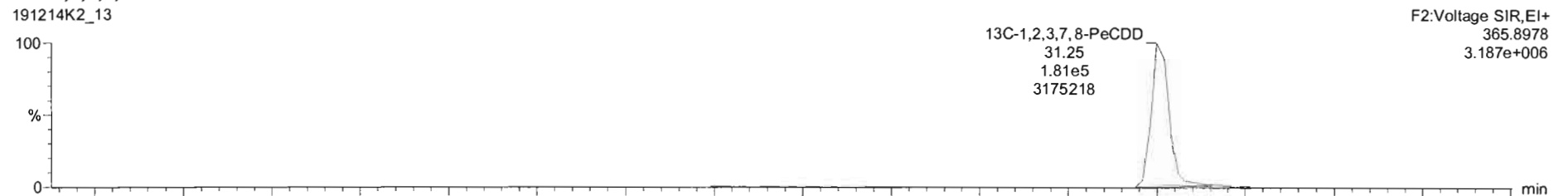


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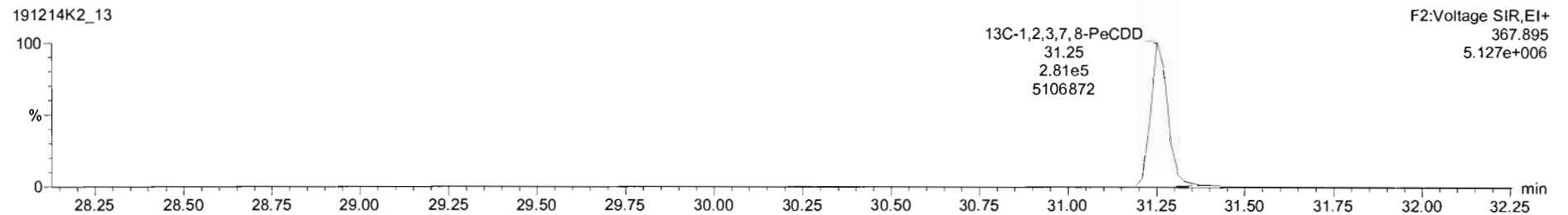


**13C-1,2,3,7,8-PeCDD**

191214K2\_13



191214K2\_13



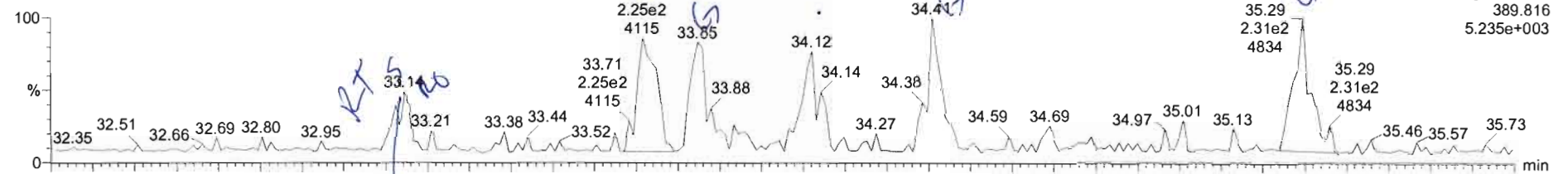
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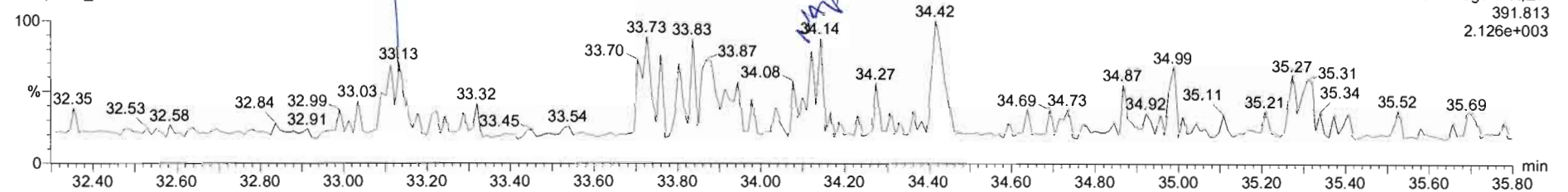
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1,2,3,4,7,8-HxCDD

191214K2\_13

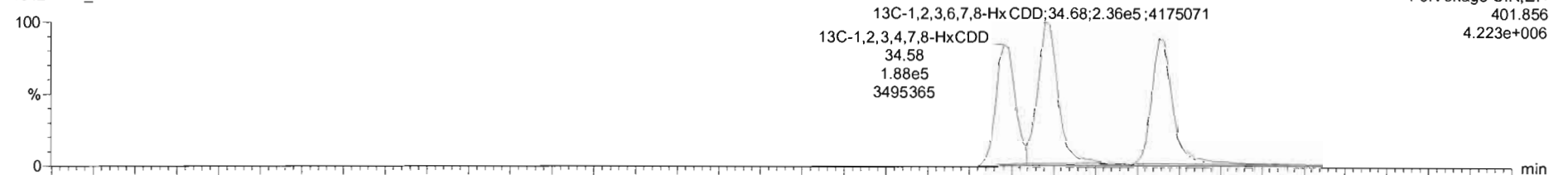


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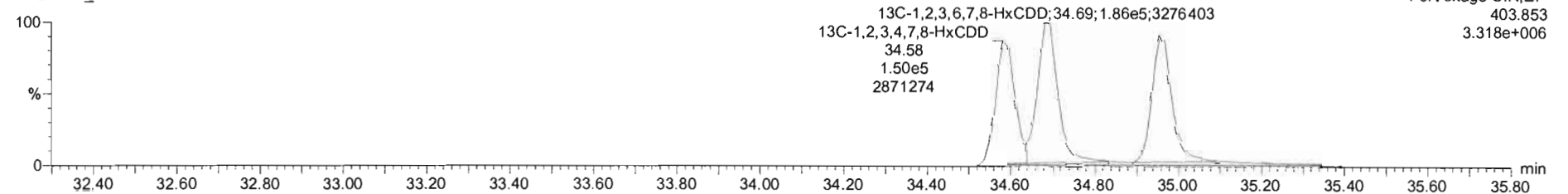


13C-1,2,3,4,7,8-HxCDD

191214K2\_13

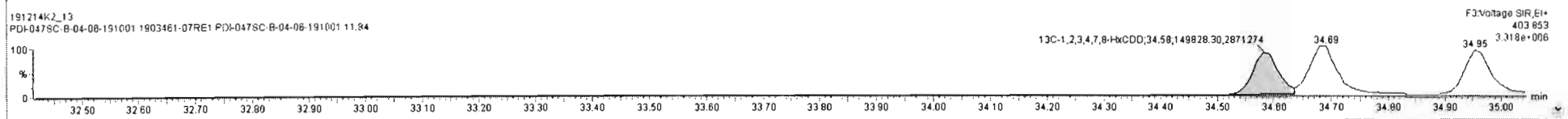
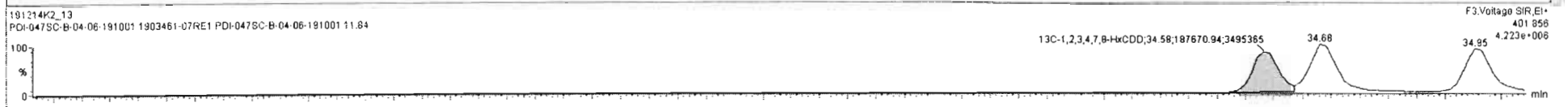
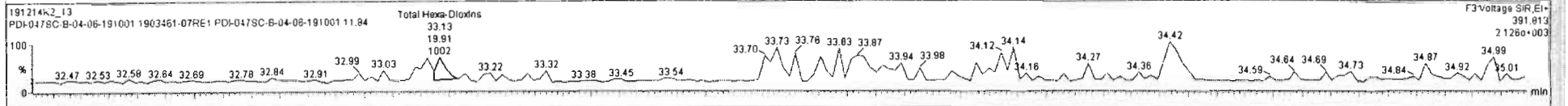
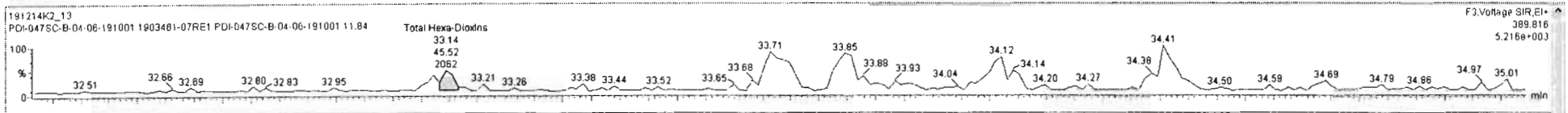


191214K2\_13



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
25 13C-2,3,7,8-TCDF	8.16e5	0.73	NO	0.9775	10.022	25.17	0.989	204	102	0.323	
26 13C-1,2,3,7,8-PeCDF	6.87e5	1.53	NO	0.7778	10.022	29.96	1.177	216	108	0.861	
27 13C-2,3,4,7,8-PeCDF	6.87e5	1.59	NO	0.7499	10.022	30.85	1.216	217	109	0.893	
28 13C-1,2,3,4,7,8-HxCDF	4.46e5	0.53	NO	0.8452	10.022	33.73	0.989	182	91.4	0.891	
29 13C-1,2,3,6,7,8-HxCDF	5.34e5	0.55	NO	1.0267	10.022	33.85	0.992	180	90.0	0.816	
30 13C-2,3,4,6,7,8-HxCDF	5.02e5	0.56	NO	0.8929	10.022	34.42	1.009	194	97.2	0.938	
31 13C-1,2,3,7,8,9-HxCDF	4.73e5	0.52	NO	0.7343	10.022	35.29	1.035	222	111	1.14	
32 13C-1,2,3,4,7,8,9-HxCDF	3.87e5	0.43	NO	0.7542	10.022	37.03	1.086	177	88.8	0.715	
33 13C-1,2,3,4,7,8,9-HxCDF	2.68e5	0.45	NO	0.5390	10.022	39.04	1.144	171	85.9	1.00	
34 13C-OCDF	5.12e5	0.91	NO	0.5925	10.022	41.82	1.226	298	74.7	0.800	
35 37Cl-2,3,7,8-TCDD	2.41e5			1.0695	10.022	26.17	1.028	88.9	111	0.0886	
36 13C-1,2,3,4-TCDD	5.05e5	0.79	NO	1.0000	10.022	25.45	1.000	200	100	0.362	
37 13C-1,2,3,4,7,8-PeCDF	8.17e5	0.76	NO	1.0000	10.022	23.58	1.000	200	100	0.314	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.14	4.552e1	1.991e1	2.29	YES	0.024162	0.00000

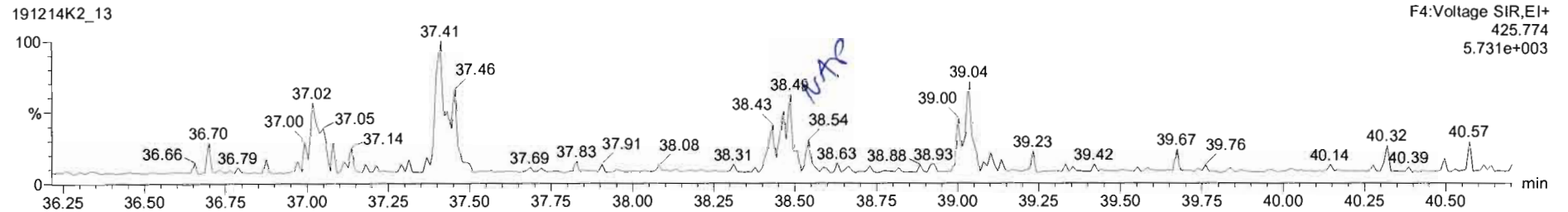
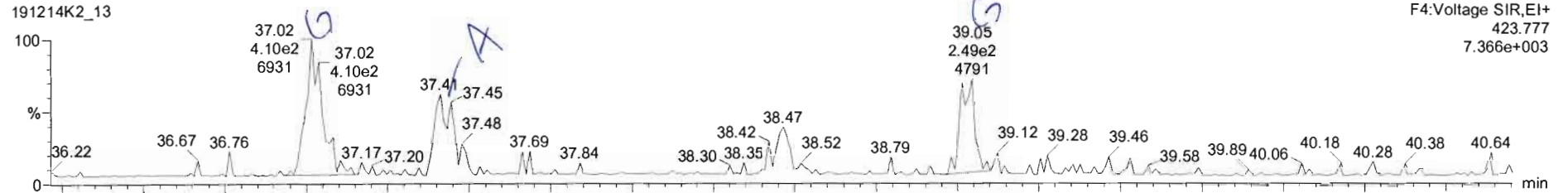


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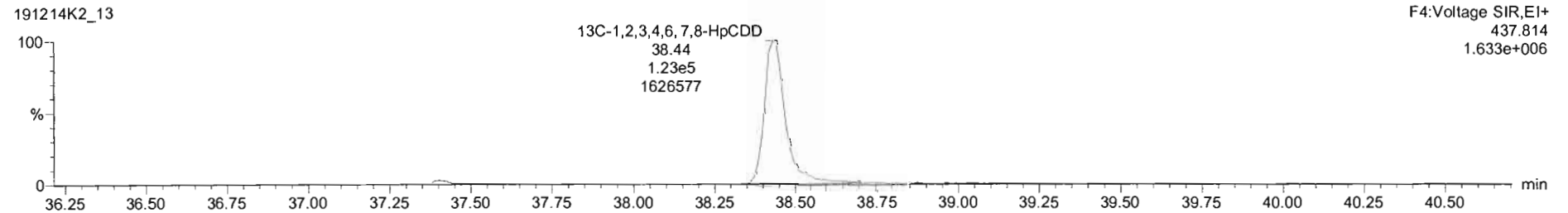
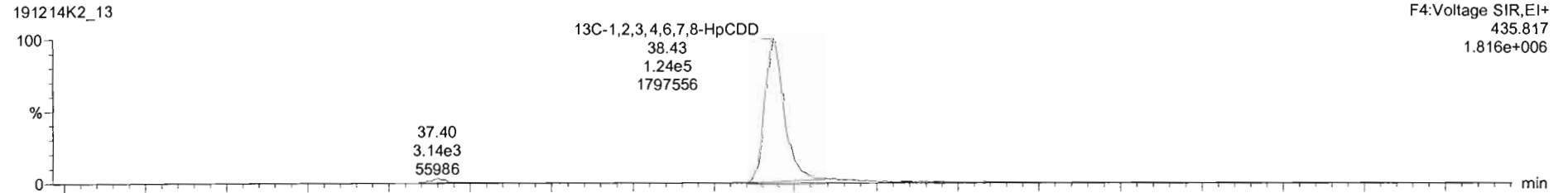
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Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

1,2,3,4,6,7,8-HpCDD



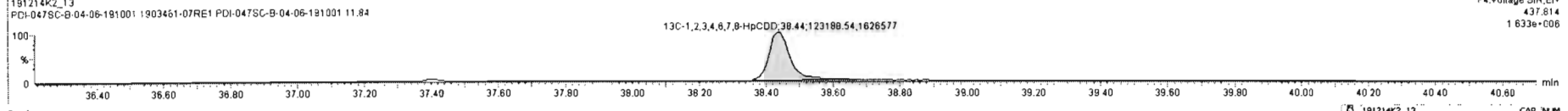
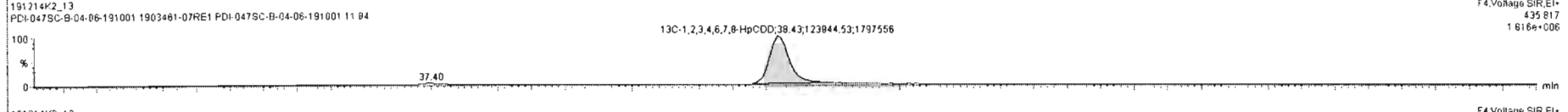
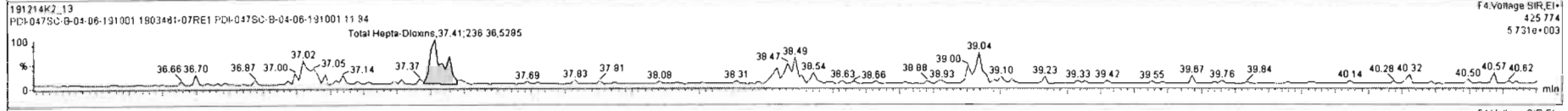
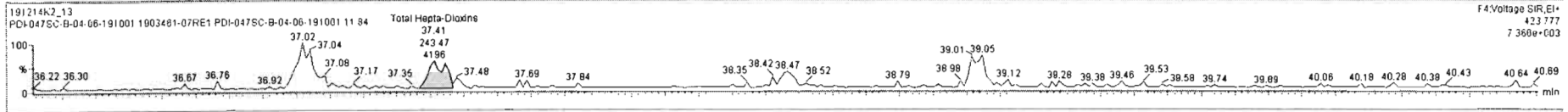
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191214K2\_13 - 1903461-07RE1 PDI-047SC-B-04-06-191001 11:84 - PDI-047SC-E-04-06-191001

Name	Resp	RA	n/y	R/Rf	w/Int	RT	RRT	Conc	%Rec	DL	EMPC
24	13C-OCDD	3.68e5	0.91	NO	0.4704	10.022	41.63	1.220	271	67.9	0.902
25	13C-2,3,7,8-TCDF	8.16e5	0.73	NO	0.9775	10.022	25.17	0.989	204	102	0.323
26	13C-1,2,3,7,8-PeCDF	6.87e5	1.53	NO	0.7778	10.022	29.86	1.177	216	108	0.861
27	13C-2,3,4,7,8-PeCDF	6.87e5	1.58	NO	0.7499	10.022	30.85	1.216	217	109	0.893
28	13C-1,2,3,4,7,8-HxCDF	4.46e5	0.53	NO	0.8452	10.022	33.73	0.989	182	91.4	0.991
29	13C-1,2,3,6,7,8-HxCDF	5.34e5	0.55	NO	1.0267	10.022	33.85	0.992	180	90.0	0.816
30	13C-2,3,4,6,7,8-HxCDF	5.02e5	0.56	NO	0.8929	10.022	34.42	1.009	194	97.2	0.938
31	13C-1,2,3,7,8,9-HxCDF	4.73e5	0.52	NO	0.7343	10.022	35.29	1.035	222	111	1.14
32	13C-1,2,3,4,6,7,8-HpCDF	3.87e5	0.43	NO	0.7542	10.022	37.03	1.086	177	88.8	0.715
33	13C-1,2,3,4,7,8,9-HpCDF	2.88e5	0.45	NO	0.5390	10.022	39.04	1.144	171	85.9	1.00
34	13C-OCDF	5.12e5	0.91	NO	0.5925	10.022	41.82	1.226	290	14.7	0.900
35	37Cl-2,3,7,8-TCDD	2.41e5			1.0695	10.022	26.17	1.028	89.9	111	0.0886

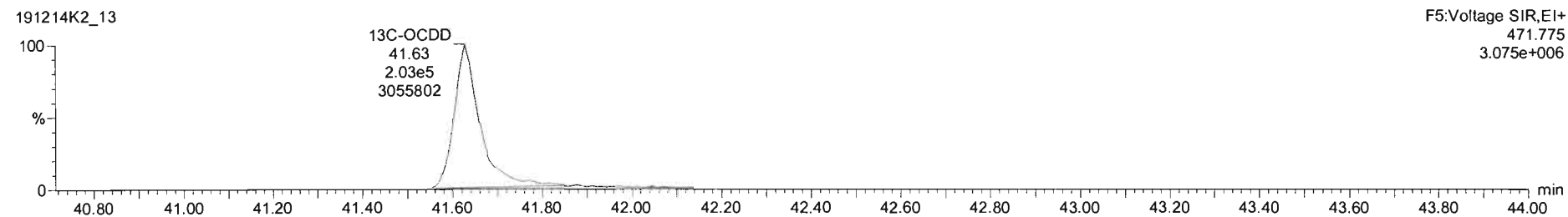
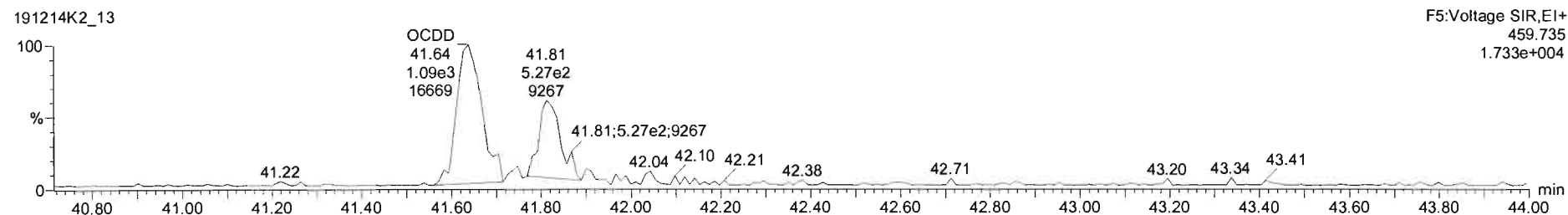
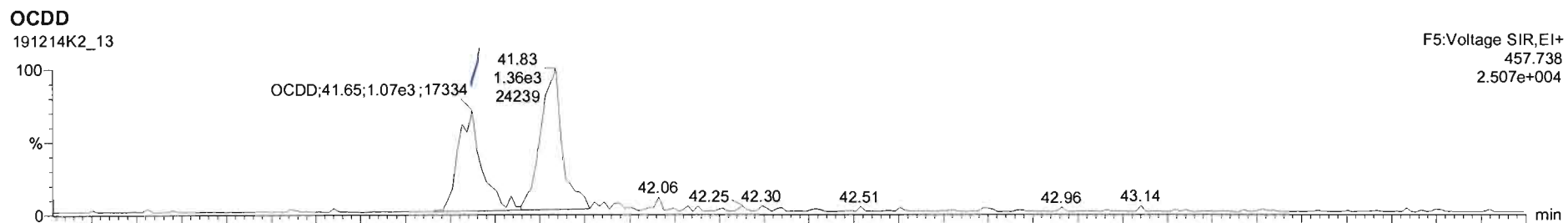
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.41	2.435e2	2.364e2	1.03	NO	0.37346	0.37346



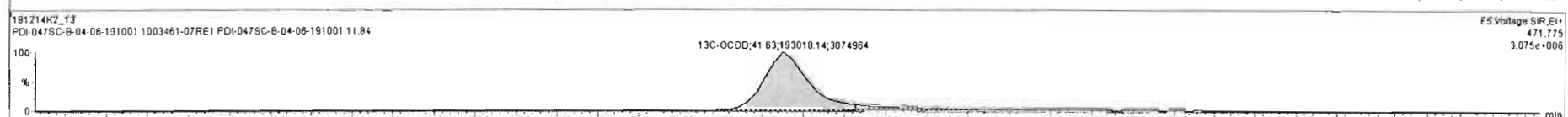
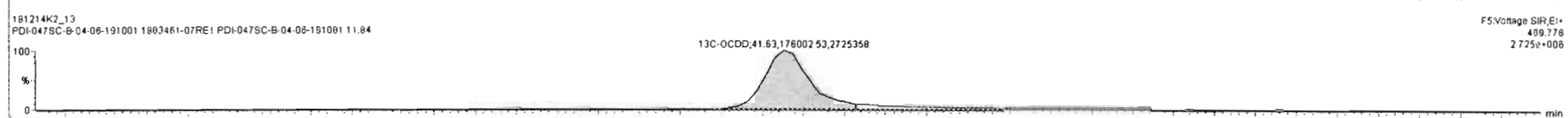
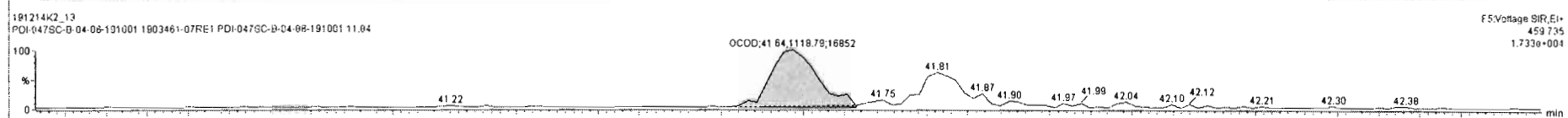
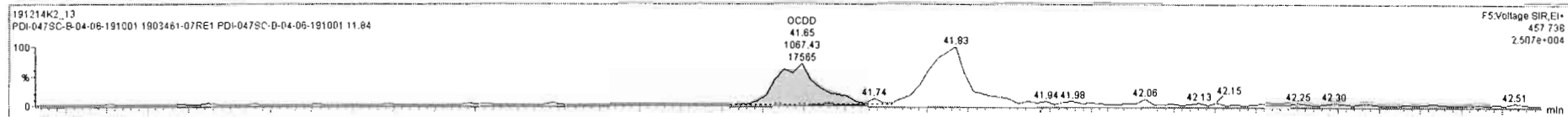
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD		NO	0.9249	10.022					0.0707	
2	1,2,3,7,8-PeCDD		NO	0.9046	10.022					0.0667	
3	1,2,3,4,7,8-HxCDD		NO	1.0691	10.022					0.0882	
4	1,2,3,6,7,8-HxCDD		NO	0.9675	10.022					0.0870	
5	1,2,3,7,8,9-HxCDD		NO	0.9778	10.022					0.0933	
6	1,2,3,4,6,7,8-HpCDD		NO	1.0375	10.022					0.142	
7	OCDD	2.19e3	0.95	NO	0.8718	10.022	41.65	1.001	2.43	0.205	2.43
8	2,3,7,8-TCDF		NO	0.9378	10.022					0.0583	
9	1,2,3,7,8-PeCDF		NO	0.9762	10.022					0.0502	
10	2,3,4,7,8-PeCDF		NO	1.0049	10.022					0.0475	
11	1,2,3,4,7,8-HxCDF		NO	1.2434	10.022					0.0501	
12	1,2,3,6,7,8-HxCDF		NO	1.0950	10.022					0.0533	
13	2,3,4,6,7,8-HxCDF		NO	1.1806	10.022					0.0544	
14	1,2,3,7,8,9-HxCDF		NO	1.0728	10.022					0.0696	
15	1,2,3,4,6,7,8-HpCDF		NO	1.1300	10.022					0.0640	
16	1,2,3,4,7,8,9-HpCDF		NO	1.2609	10.022					0.0846	
17	OCDF		NO	1.1025	10.022					0.0802	
18	13C-2,3,7,8-TCDD	6.07e5	0.81	NO	1.0489	10.022	26.15	1.028	228	114	0.345





Dataset: Untitled

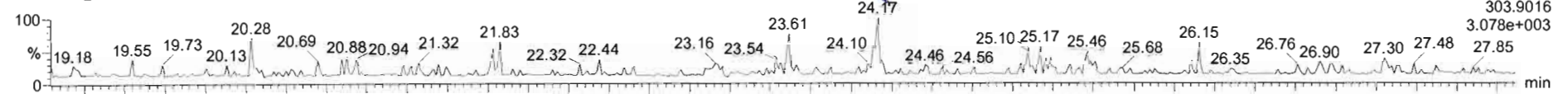
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

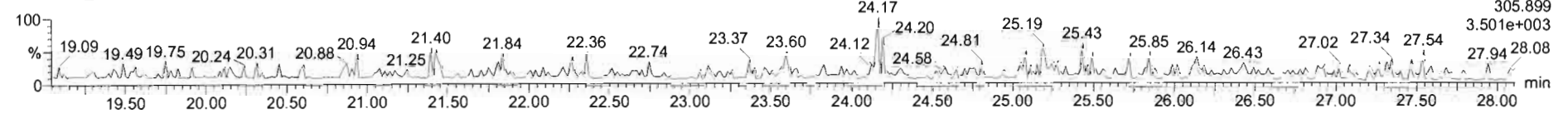
Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

2,3,7,8-TCDF

191214K2\_13

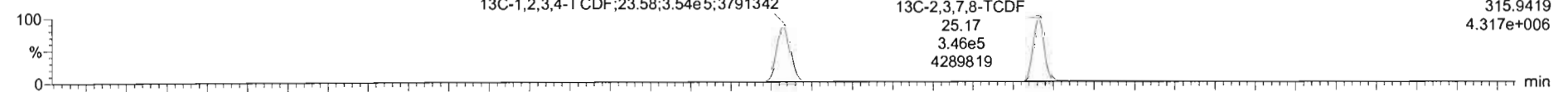


191214K2\_13

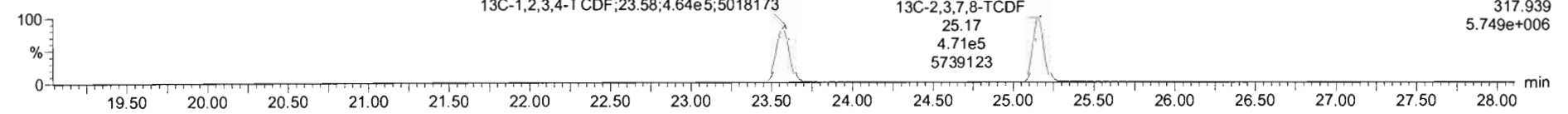


13C-2,3,7,8-TCDF

191214K2\_13

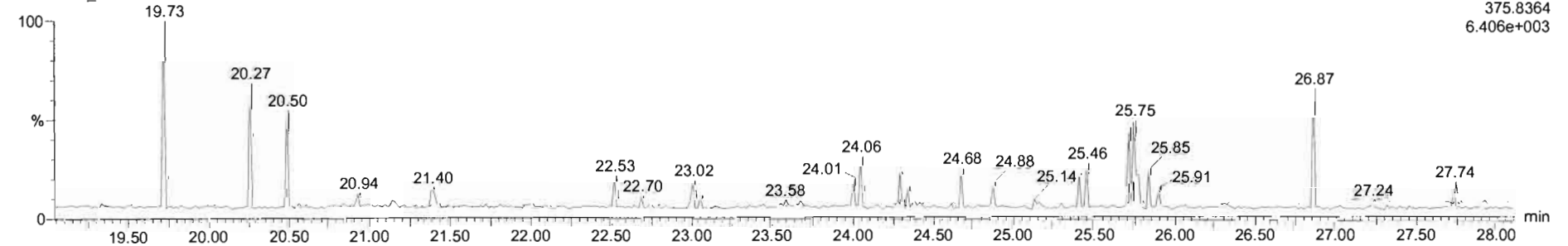


191214K2\_13



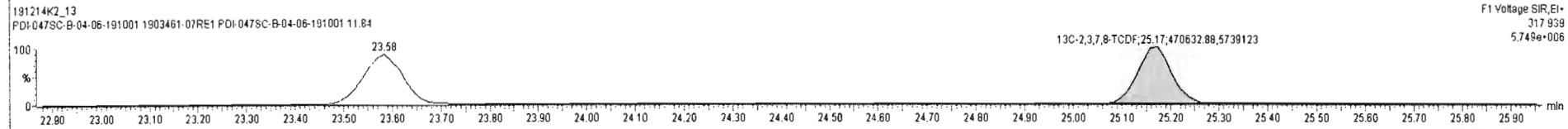
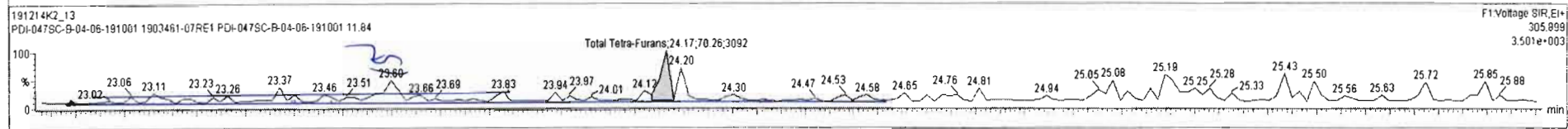
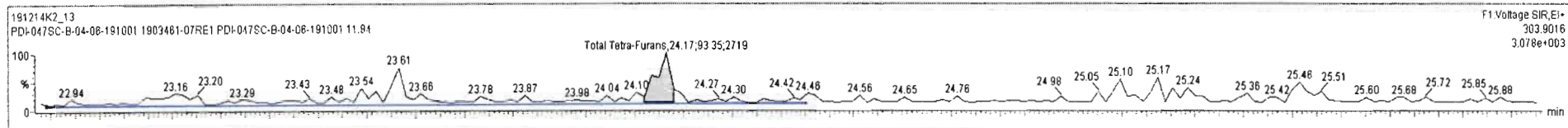
DPE1

191214K2\_13



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.022			0.373		0.0672	0.373
43 Total Tetra-Furans				0.9376	10.022			0.000		0.0233	0.0324
44 1st Func. Penta-Furans				0.9762	10.022					0.0150	
45 Total Penta-Furans				0.9762	10.022					0.0221	
46 Total Hexa-Furans				1.1806	10.022					0.0277	
47 Total Hepta-Furans				1.1300	10.022					0.0405	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	24.17	9.335e1	7.026e1	1.33	YES	0.032430	0.00000



Dataset: Untitled

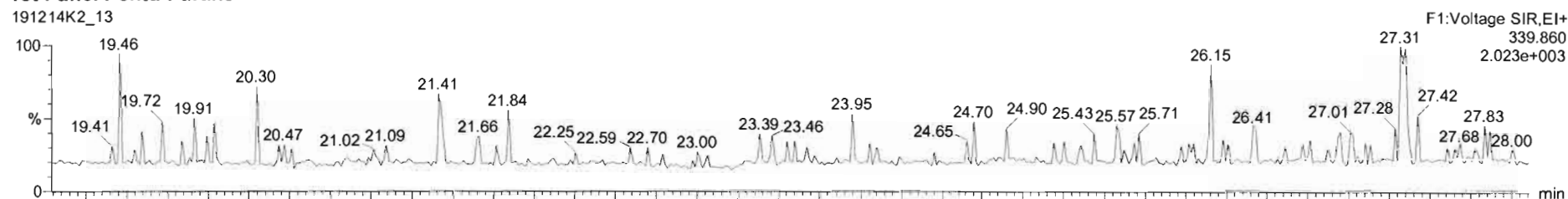
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

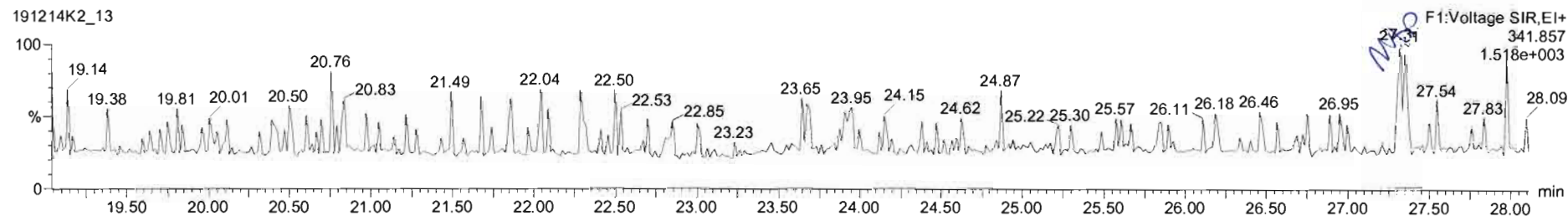
Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

1st Func. Penta-Furans

191214K2\_13

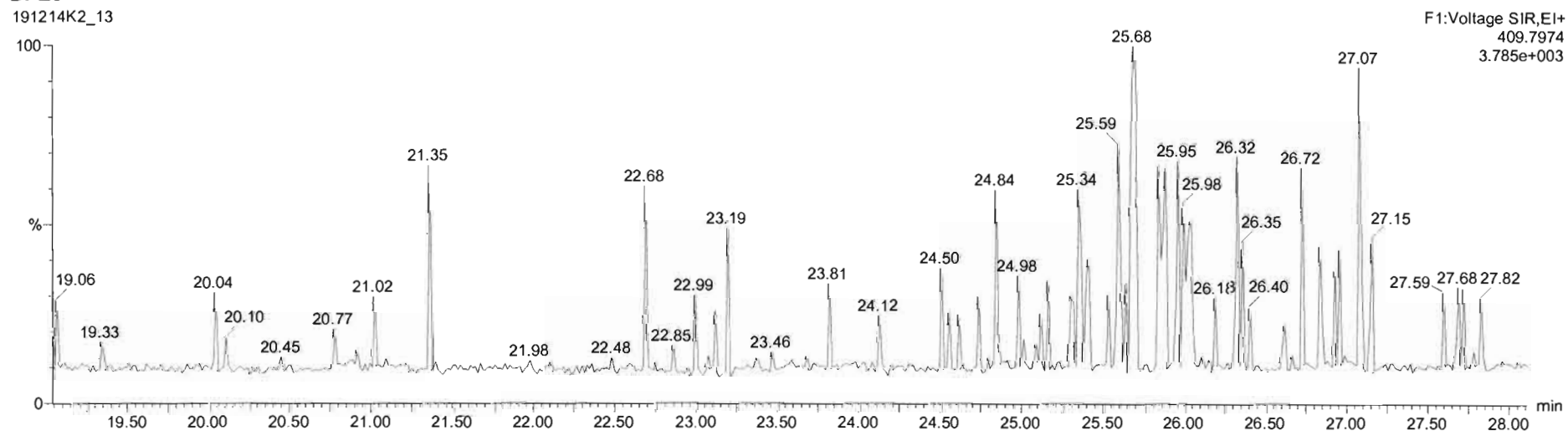


191214K2\_13



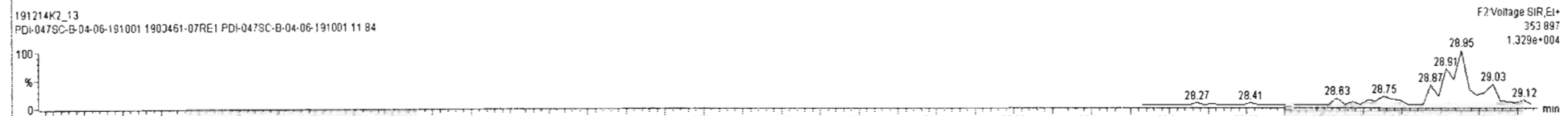
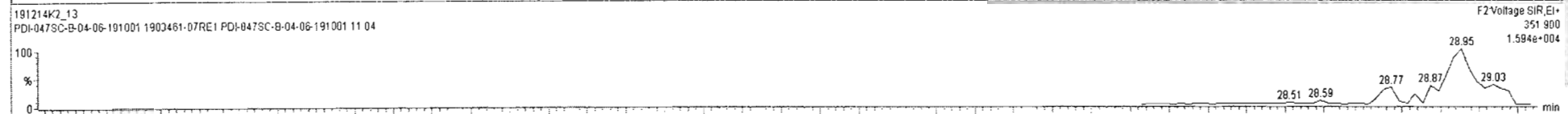
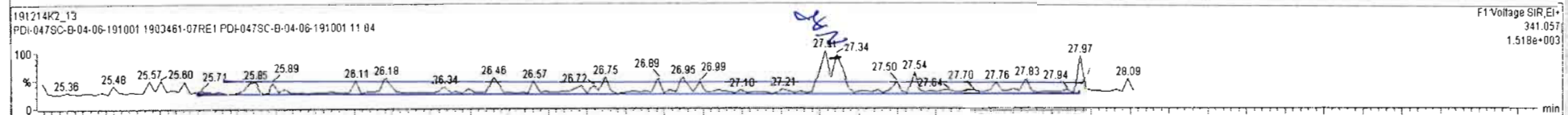
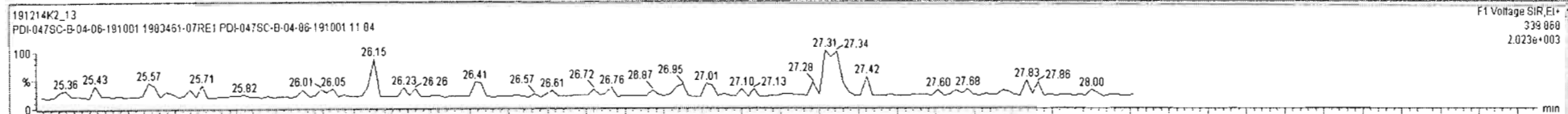
DPE6

191214K2\_13



Name	Resp	RA	n/y	RRF	wtVol	RT	INT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Clovisins				1.0375	10.022			0.373	0.0672	0.373	
43 Total Tetra-Furans				0.9376	10.022			0.000	0.0233	0.0324	
44 1st Func. Penta-Furans				0.9762	10.022				0.0150		
45 Total Penta-Furans				0.9762	10.022				0.0221		
46 Total Hexa-Furans				1.1806	10.022				0.0277		
47 Total Hepta-Furans				1.1300	10.022				0.0405		
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 Inp?											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1							



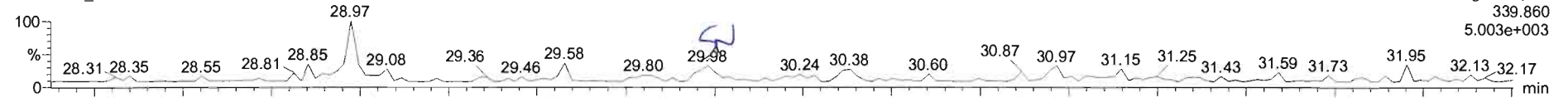
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

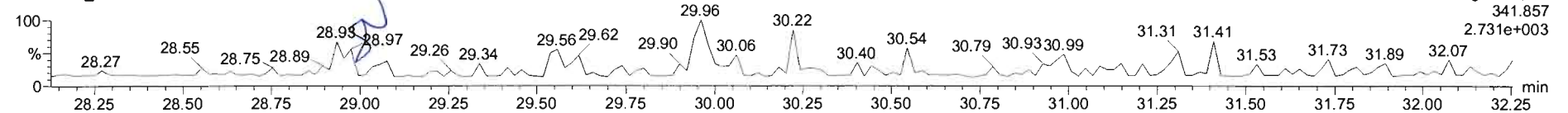
Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

**1,2,3,7,8-PeCDF**

191214K2\_13

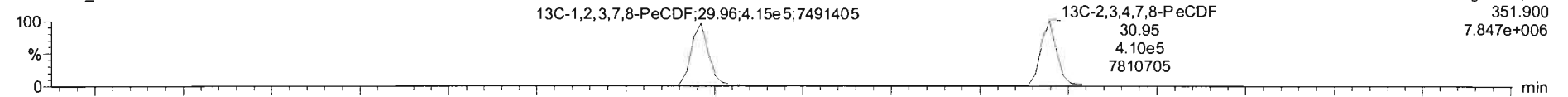


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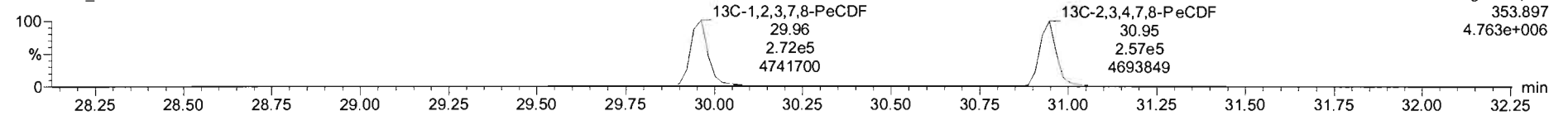


**13C-1,2,3,7,8-PeCDF**

191214K2\_13

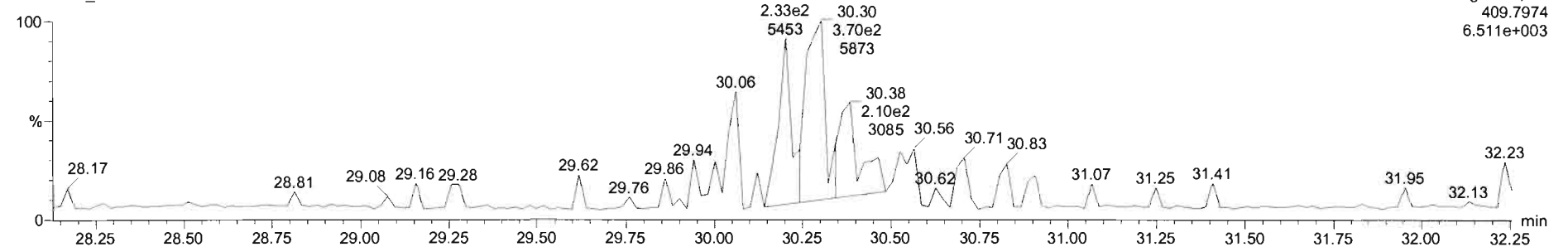


191214K2\_13



**DPE2**

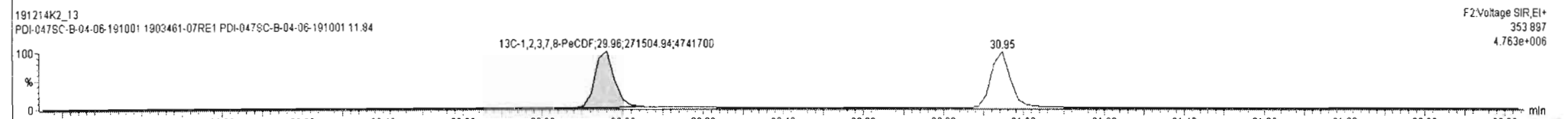
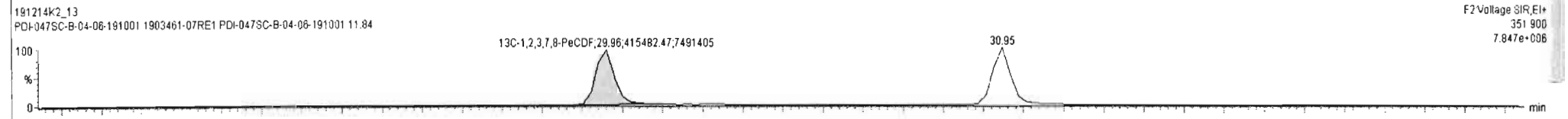
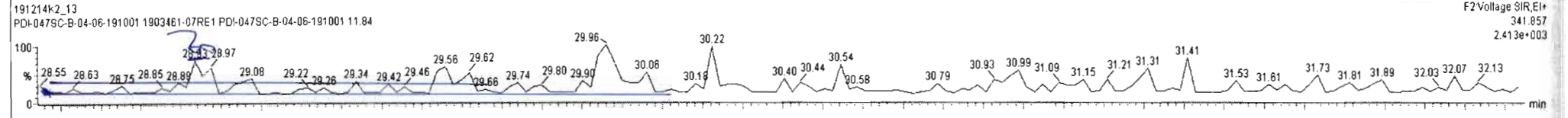
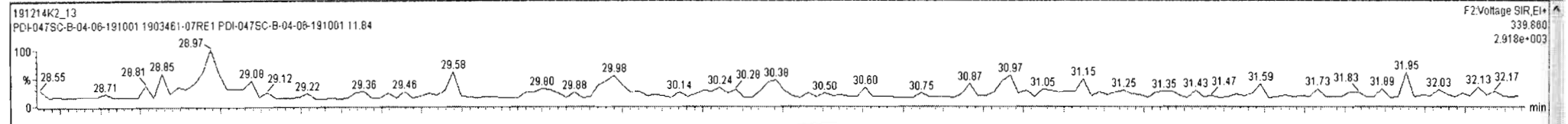
191214K2\_13



191214K2\_13 - 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84 - PDI-047SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0375	10.022			0.373		0.0672	0.373
43 Total Tetra-Furans				0.9376	10.022			0.000		0.0233	0.0324
44 1st Func. Penta-Furans				0.9762	10.022					0.0150	
45 Total Penta-Furans				0.9762	10.022					0.0221	
46 Total Hexa-Furans				1.1806	10.022					0.0277	
47 Total Hepta-Furans				1.1300	10.022					0.0405	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPF2											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1							



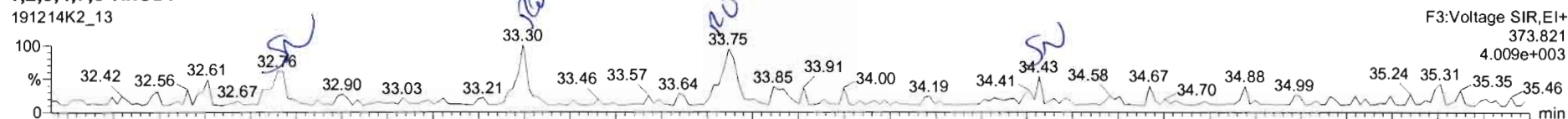
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

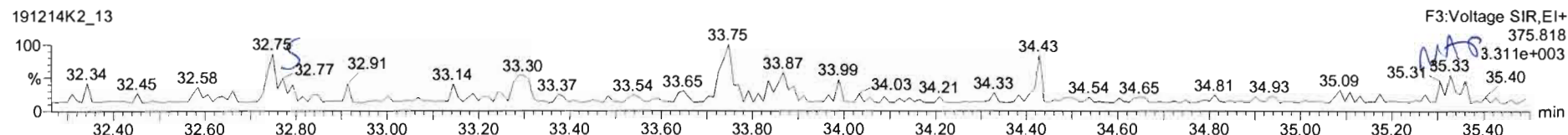
Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

**1,2,3,4,7,8-HxCDF**

191214K2\_13

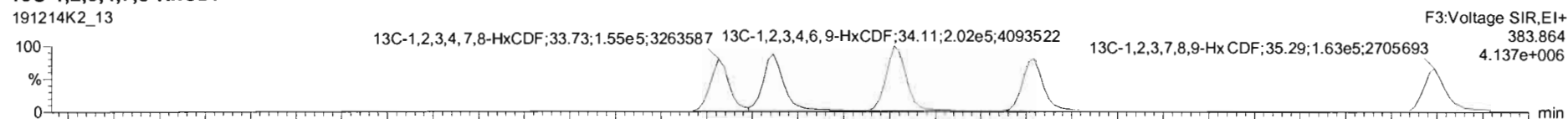


191214K2\_13

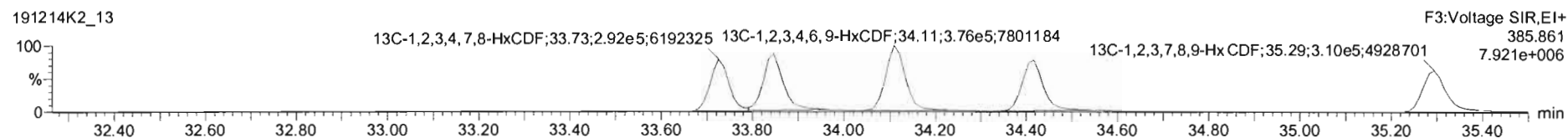


**13C-1,2,3,4,7,8-HxCDF**

191214K2\_13

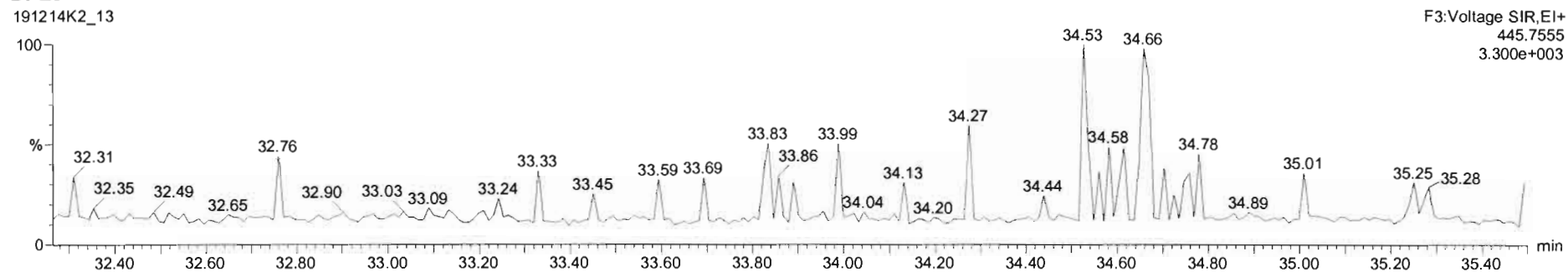


191214K2\_13



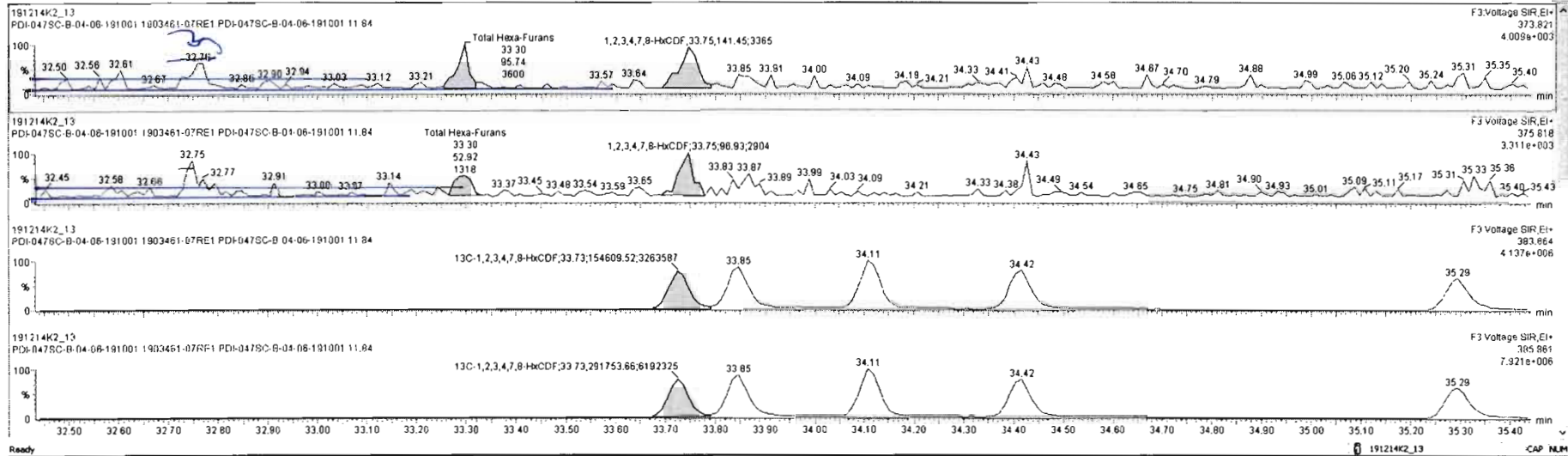
**DPE3**

191214K2\_13



Name	Resp	RA	n/y	RRF	ret/mol	RT	RRT	Conc.	%Rec	DL	EMPC
42	Total Hepta-Chlorins			1.0375	10.022			0.373	0.0672	0.373	
43	Total Tetra-Furans			0.9376	10.022			0.000	0.0223	0.0324	
44	1st Func. Penta-Furans			0.9762	10.022				0.0150		
45	Total Penta-Furans			0.9762	10.022				0.0221		
46	Total Hexa-Furans			1.1806	10.022			0.000	0.0227	0.119	
47	Total Hepta-Furans			1.1300	10.022				0.0405		
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	CPK1										
54	Trace?										

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Hexa-Furans	33.30	9.57461	5.29261	1.81	YES	0.041003	0.00000
2	1,2,3,4,7,8-HxCDF	33.75	1.415e2	9.693e1	1.46	YES	0.079069	0.00000





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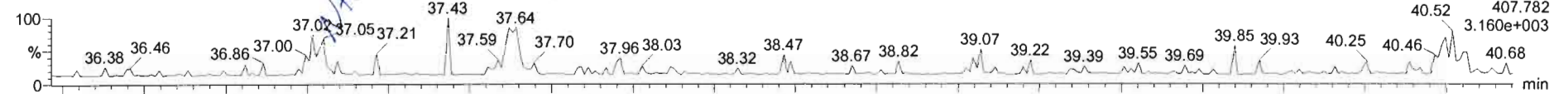
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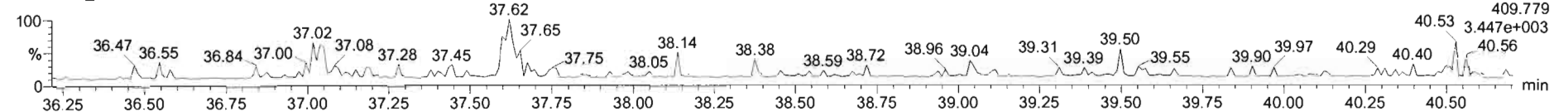
Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

**1,2,3,4,6,7,8-HpCDF**

191214K2\_13

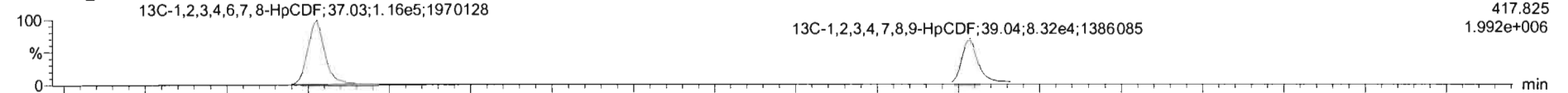


191214K2\_13

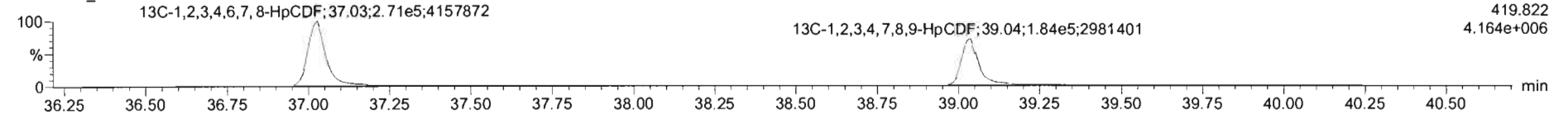


**13C-1,2,3,4,6,7,8-HpCDF**

191214K2\_13

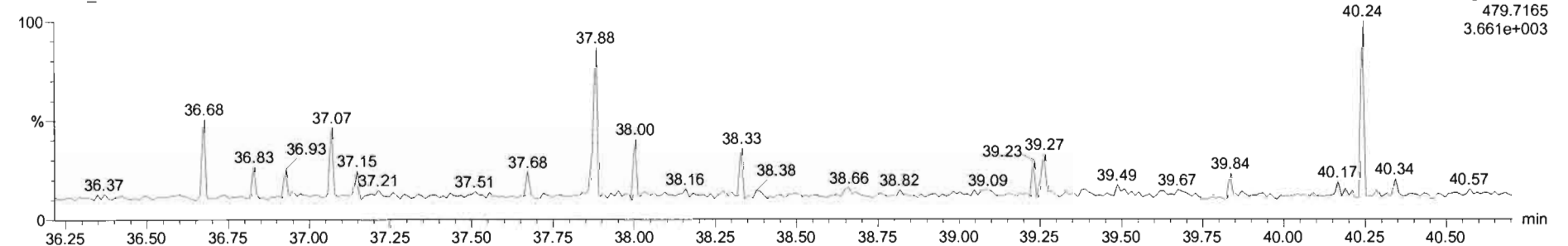


191214K2\_13



**DPE4**

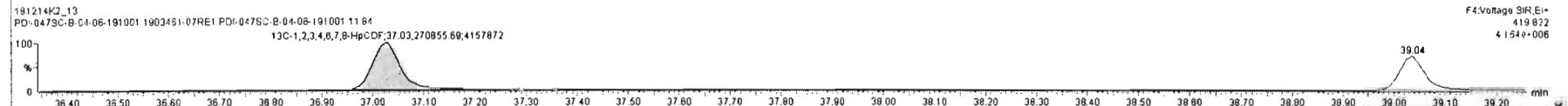
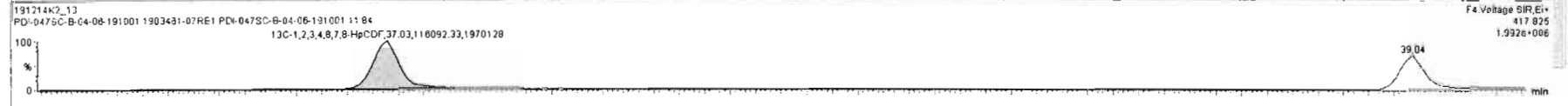
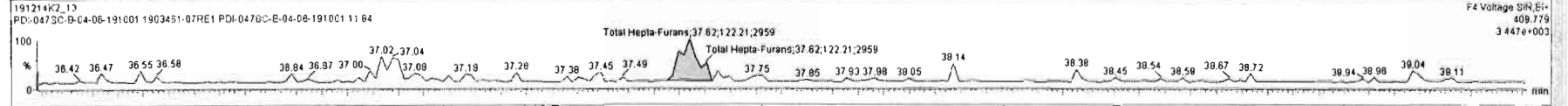
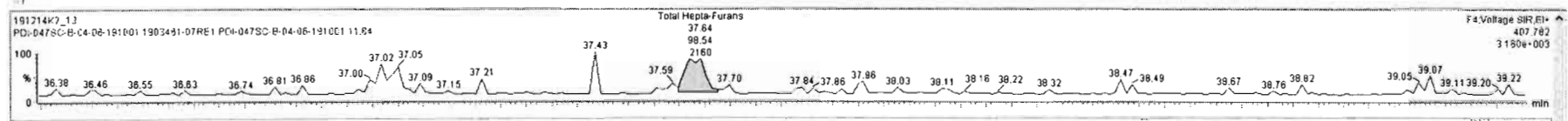
191214K2\_13



191214K2\_13 - 1903461-07RE1 PD-047SC-B-04-06-191001 11 34 - PD-047SC-B-04-06-191001

#	Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc.	%Rec	DL	EMPC
42	Total Hepta-Dioxins				1.0375	10.022			0.373	0.0672	0.373	
43	Total Tetra-Furans				0.9376	10.022			0.000	0.0233	0.0324	
44	1st Func. Penta-Furans				0.9762	10.022				0.0150		
45	Total Penta-Furans				0.9762	10.022				0.0221		
46	Total Hexa-Furans				1.1906	10.022			0.000	0.0277	0.119	
47	Total Hepta-Furans				1.1300	10.022			0.000	0.0405	0.104	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	(not)											

#	Name	RT	ml Resp	n2 Resp	RA	n/y	EMPC	Conc.
1	Total Hepta-Furans	37.84	9.854e1	1.222e2	0.81	YES	0.10431	0.00000



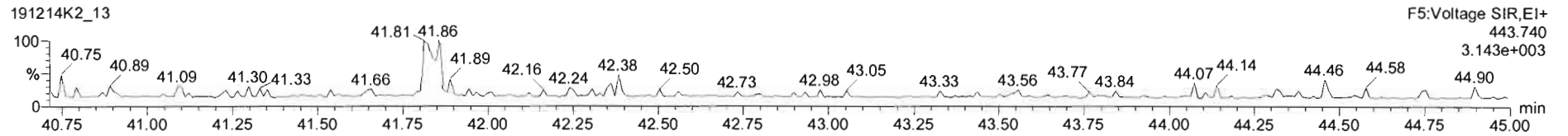
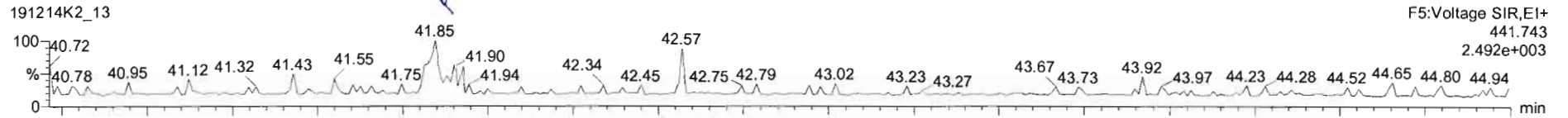
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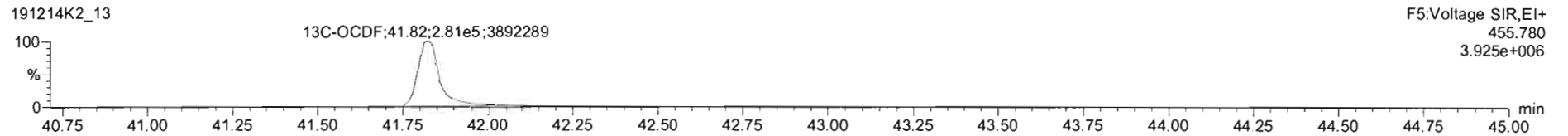
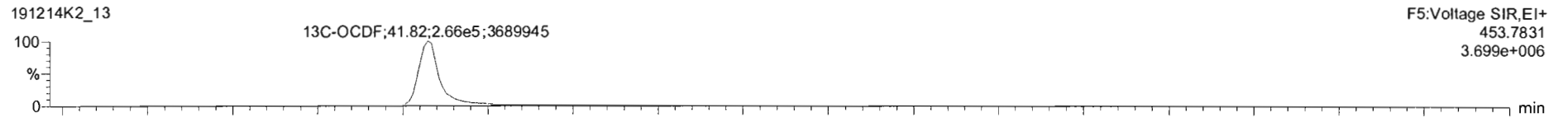
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

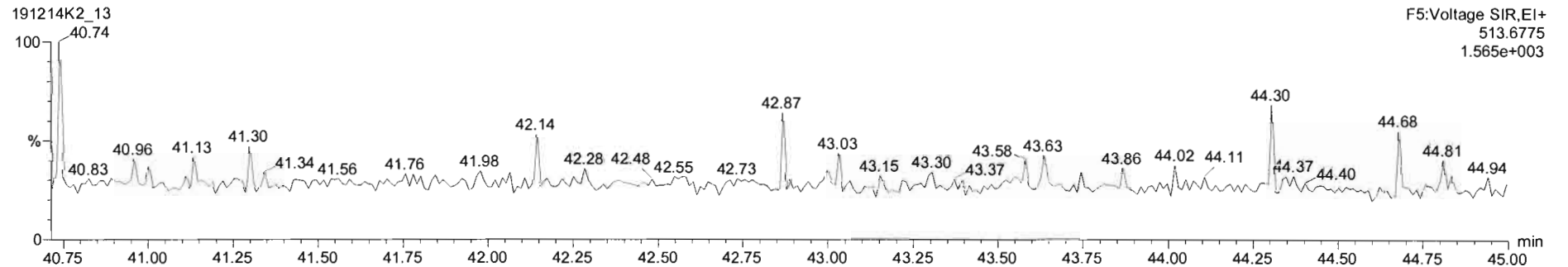
**OCDF**



**13C-OCDF**

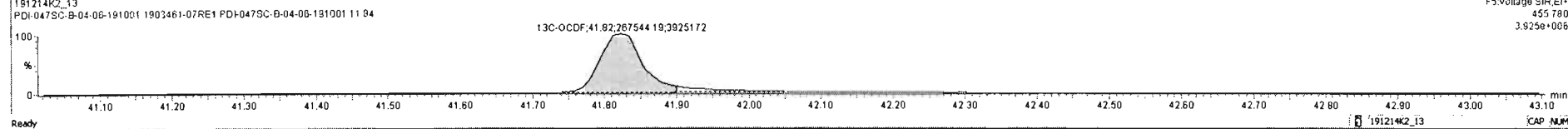
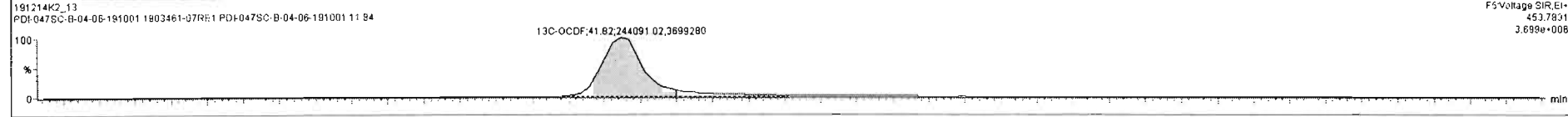
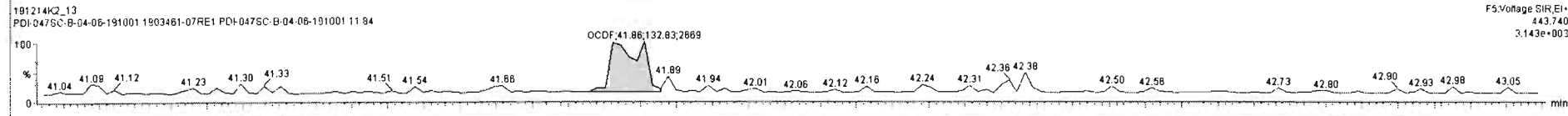
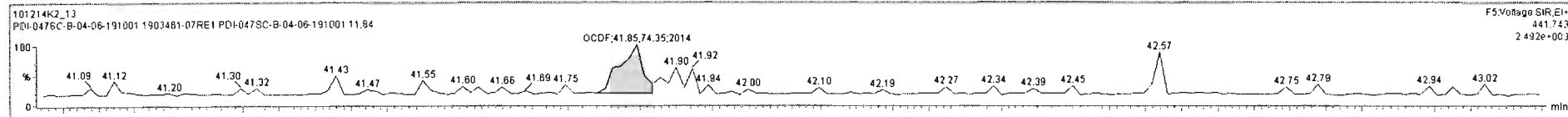


**DPE5**



191214K2\_13 - 1902461-07RE1 PDI-0475C-B-04-06-191001 11 24 - PDI-0475C-B-04-06-191001

#	Name	Resp	RA	nly	RRF	WtAveI	RT	RRY	Conc.	%Rec	DL	EMPC
5	1,2,3,7,8,9-HxCDD			NO	0.9778	10.022					0.0333	
6	1,2,3,4,6,7,8-HpCDD			NO	1.0375	10.022					0.142	
7	OCDD	2.19e3	0.95	NO	0.9718	10.022	41.65	1.001	2.43		0.205	2.43
8	2,3,7,8-TCDF			NO	0.9376	10.022					0.0563	
9	1,2,3,7,8-PeCDF			NO	0.9762	10.022					0.0502	
10	2,3,4,7,8-PeCDF			NO	1.0049	10.022					0.0475	
11	1,2,3,4,7,8-HxCDF			NO	1.2434	10.022					0.0501	
12	1,2,3,6,7,8-HxCDF			NO	1.0950	10.022					0.0533	
13	2,3,4,6,7,8-HxCDF			NO	1.1806	10.022					0.0544	
14	1,2,3,7,8,9-HxCDF			NO	1.0726	10.022					0.0696	
15	1,2,3,4,6,7,8-HpCDF			NO	1.1300	10.022					0.0640	
16	1,2,3,4,7,8,9-HpCDF			NO	1.2608	10.022					0.0846	
17	OCDF	2.07e2	0.58	YES	1.1025	10.022	41.85	1.001	0.147		0.0784	0.112
18	13C-2,3,7,8-TCDD	6.07e5	0.81	NO	1.0489	10.022	26.15	1.028	228	114	0.345	
19	13C-1,2,3,7,8-PeCDD	4.62e5	0.65	NO	0.7429	10.022	31.25	1.228	245	123	0.646	
20	13C-1,2,3,4,7,8-HxCDD	3.37e5	1.25	NO	0.6463	10.022	34.58	1.014	180	90.4	0.753	
21	13C-1,2,3,6,7,8-HxCDD	4.22e5	1.27	NO	0.7767	10.022	34.68	1.017	187	93.9	0.627	
22	13C-1,2,3,7,8,9-HxCDD	3.83e5	1.34	NO	0.6595	10.022	34.95	1.025	201	101	0.738	

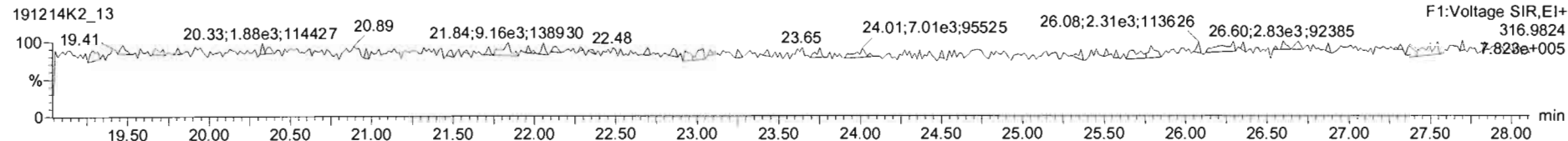


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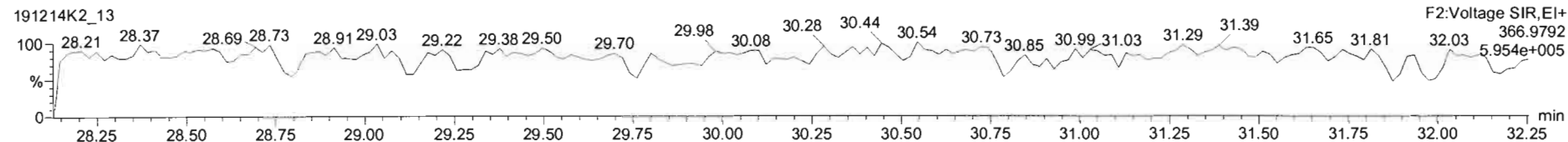
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_13, Date: 15-Dec-2019, Time: 03:58:16, ID: 1903461-07RE1 PDI-047SC-B-04-06-191001 11.84, Description: PDI-047SC-B-04-06-191001

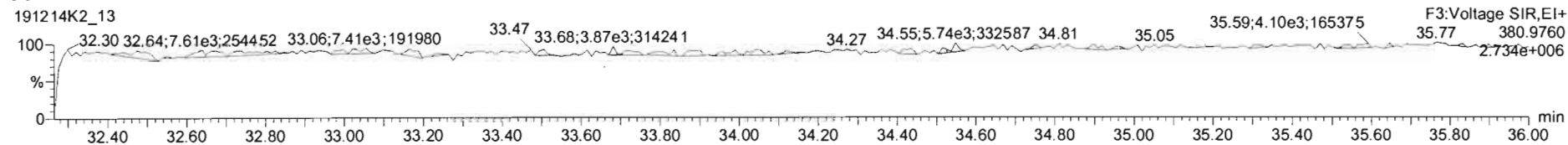
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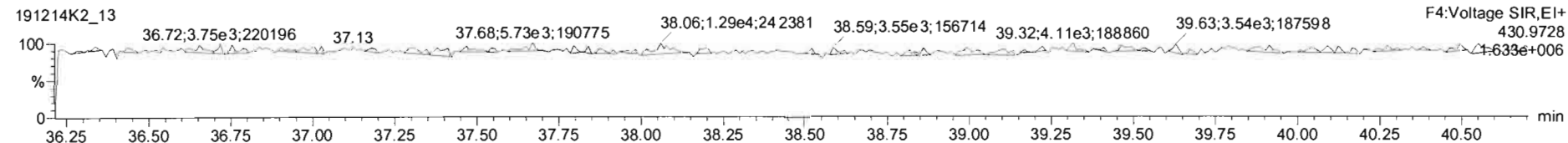
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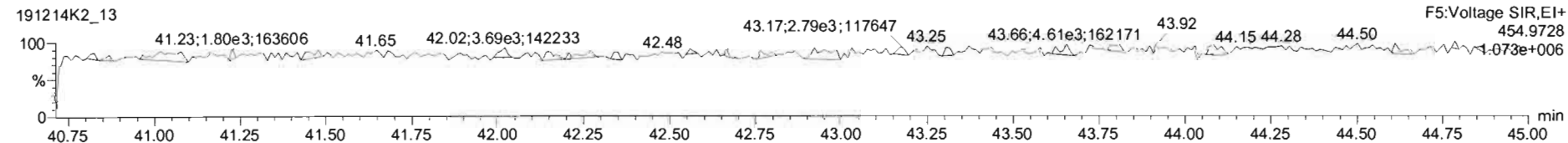
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-14.qld

Last Altered: Friday, January 10, 2020 13:24:23 Pacific Standard Time

Printed: Friday, January 10, 2020 13:26:05 Pacific Standard Time

*Geo 01/10/2020*

*Cy/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.925	10.008	26.168		1.001				0.0723	
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.008	31.271		1.001				0.0897	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.008	34.580		1.000				0.0903	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.008	34.680		1.000				0.0972	
5	5 1,2,3,7,8,9-HxCDD			NO	0.978	10.008	34.978		1.001				0.110	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.04	10.008	38.445		1.000				0.175	
7	7 OCDD			NO	0.972	10.008	41.615		1.000				0.230	
8	8 2,3,7,8-TCDF			NO	0.938	10.008	25.199		1.001				0.0436	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.008	29.962		1.001				0.0341	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.008	30.958		1.001				0.0299	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.008	33.714		1.000				0.0376	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.008	33.845		1.000				0.0402	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.008	34.439		1.001				0.0399	
14	14 1,2,3,7,8,9-HxCDF			NO	1.07	10.008	35.284		1.000				0.0582	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.13	10.008	37.054		1.001				0.0586	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.008	39.025		1.000				0.0615	
17	17 OCDF			NO	1.10	10.008	41.813		1.000				0.0733	
18	18 13C-2,3,7,8-TCDD	4.52e5	0.81	NO	1.05	10.008	26.163	26.14	1.027	1.026	196.44	98.3	0.373	
19	19 13C-1,2,3,7,8-PeCDD	3.51e5	0.66	NO	0.743	10.008	31.177	31.25	1.224	1.227	215.62	108	0.548	
20	20 13C-1,2,3,4,7,8-HxCDD	2.60e5	1.27	NO	0.646	10.008	34.569	34.57	1.014	1.014	169.71	84.9	0.695	
21	21 13C-1,2,3,6,7,8-HxCDD	3.14e5	1.29	NO	0.777	10.008	34.667	34.68	1.017	1.017	170.37	85.2	0.578	
22	22 13C-1,2,3,7,8,9-HxCDD	2.71e5	1.28	NO	0.659	10.008	34.940	34.94	1.025	1.025	173.37	86.8	0.681	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.19e5	0.99	NO	0.534	10.008	38.432	38.43	1.127	1.127	172.67	86.4	0.730	
24	24 13C-OCDD	3.36e5	0.88	NO	0.470	10.008	41.606	41.62	1.220	1.220	300.91	75.3	1.00	
25	25 13C-2,3,7,8-TCDF	6.39e5	0.77	NO	0.977	10.008	25.236	25.17	0.991	0.989	179.43	89.8	0.355	
26	26 13C-1,2,3,7,8-PeCDF	5.33e5	1.59	NO	0.778	10.008	29.888	29.94	1.174	1.176	187.98	94.1	0.773	
27	27 13C-2,3,4,7,8-PeCDF	5.38e5	1.61	NO	0.750	10.008	30.897	30.93	1.213	1.214	196.99	98.6	0.802	
28	28 13C-1,2,3,4,7,8-HxCDF	3.59e5	0.53	NO	0.845	10.008	33.709	33.71	0.989	0.989	178.25	89.2	0.853	
29	29 13C-1,2,3,6,7,8-HxCDF	4.35e5	0.54	NO	1.03	10.008	33.825	33.83	0.992	0.992	178.31	89.2	0.702	
30	30 13C-2,3,4,6,7,8-HxCDF	3.95e5	0.52	NO	0.893	10.008	34.398	34.40	1.009	1.009	186.15	93.1	0.808	

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-14.qld

Last Altered: Friday, January 10, 2020 13:24:23 Pacific Standard Time

Printed: Friday, January 10, 2020 13:26:05 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	3.44e5	0.50	NO	0.734	10.008	35.298	35.28	1.035	1.035	197.52	98.8	0.982	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.86e5	0.45	NO	0.754	10.008	37.010	37.02	1.085	1.086	159.85	80.0	0.813	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.36e5	0.44	NO	0.539	10.008	39.032	39.03	1.145	1.144	184.37	92.3	1.14	
34	34 13C-OCDF	4.68e5	0.90	NO	0.593	10.008	41.818	41.81	1.226	1.226	332.37	83.2	0.853	
35	35 37Cl-2,3,7,8-TCDD	1.87e5			1.07	10.008	26.183	26.17	1.028	1.028	79.639	99.6	0.140	
36	36 13C-1,2,3,4-TCDD	4.38e5	0.80	NO	1.00	10.008	25.500	25.47	1.000	1.000	199.85	100	0.392	
37	37 13C-1,2,3,4-TCDF	7.28e5	0.77	NO	1.00	10.008	23.680	23.60	1.000	1.000	199.85	100	0.347	
38	38 13C-1,2,3,4,6,9-HxCDF	4.74e5	0.53	NO	1.00	10.008	34.060	34.10	1.000	1.000	199.85	100	0.721	
39	39 Total Tetra-Dioxins				0.925	10.008	24.620		0.000				0.0371	
40	40 Total Penta-Dioxins				0.905	10.008	29.960		0.000		0.00000		0.0468	0.0877
41	41 Total Hexa-Dioxins				0.967	10.008	33.635		0.050				0.0540	
42	42 Total Hepta-Dioxins				1.04	10.008	38.800		0.000				0.104	
43	43 Total Tetra-Furans				0.938	10.008	23.610		0.000				0.0198	
44	44 1st Func. Penta-Furans				0.976	10.008	27.040		0.000				0.0118	
45	45 Total Penta-Furans				0.976	10.008	29.275		0.000				0.0134	
46	46 Total Hexa-Furans				1.18	10.008	33.555		0.000				0.0250	
47	47 Total Hepta-Furans				1.13	10.008	37.835		0.000				0.0320	

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Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-14.qld

Last Altered: Friday, January 10, 2020 13:24:23 Pacific Standard Time

Printed: Friday, January 10, 2020 13:26:05 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	30.93	4.052e3	2.200e3	2.428e2	8.547e1	2.84	YES	0.000e0	0.00000	0.087660	0.0468

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-14.qld

Last Altered: Friday, January 10, 2020 13:24:23 Pacific Standard Time

Printed: Friday, January 10, 2020 13:26:05 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

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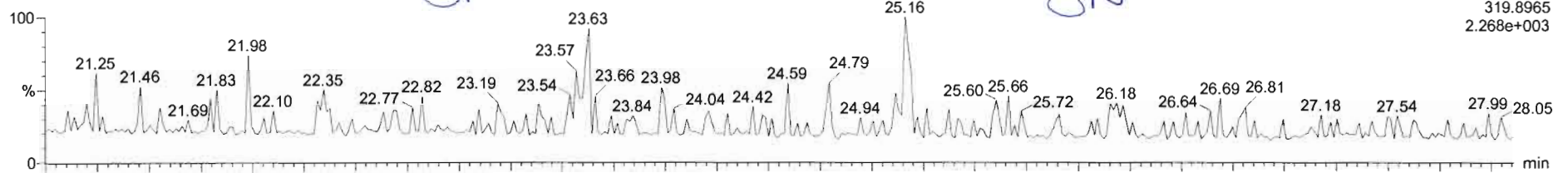
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

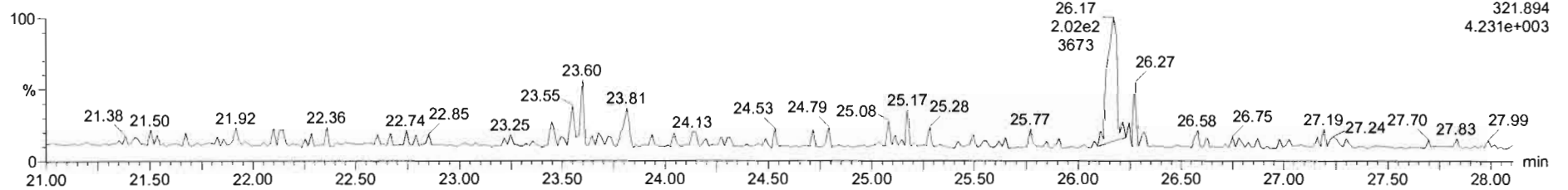
**2,3,7,8-TCDD**

191214K2\_14



F1:Voltage SIR,EI+  
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2.268e+003

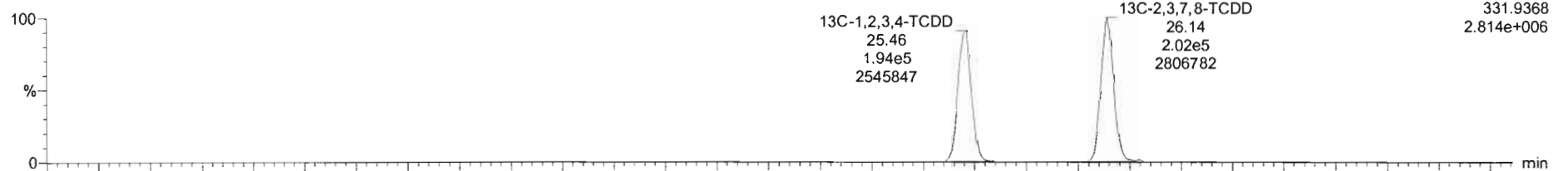
191214K2\_14



F1:Voltage SIR,EI+  
321.894  
4.231e+003

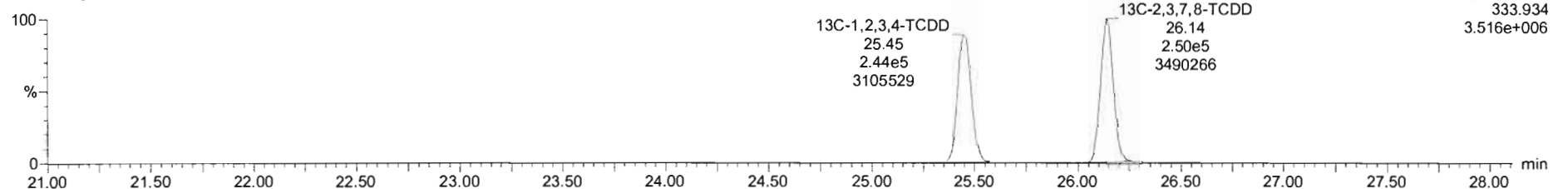
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191214K2\_14

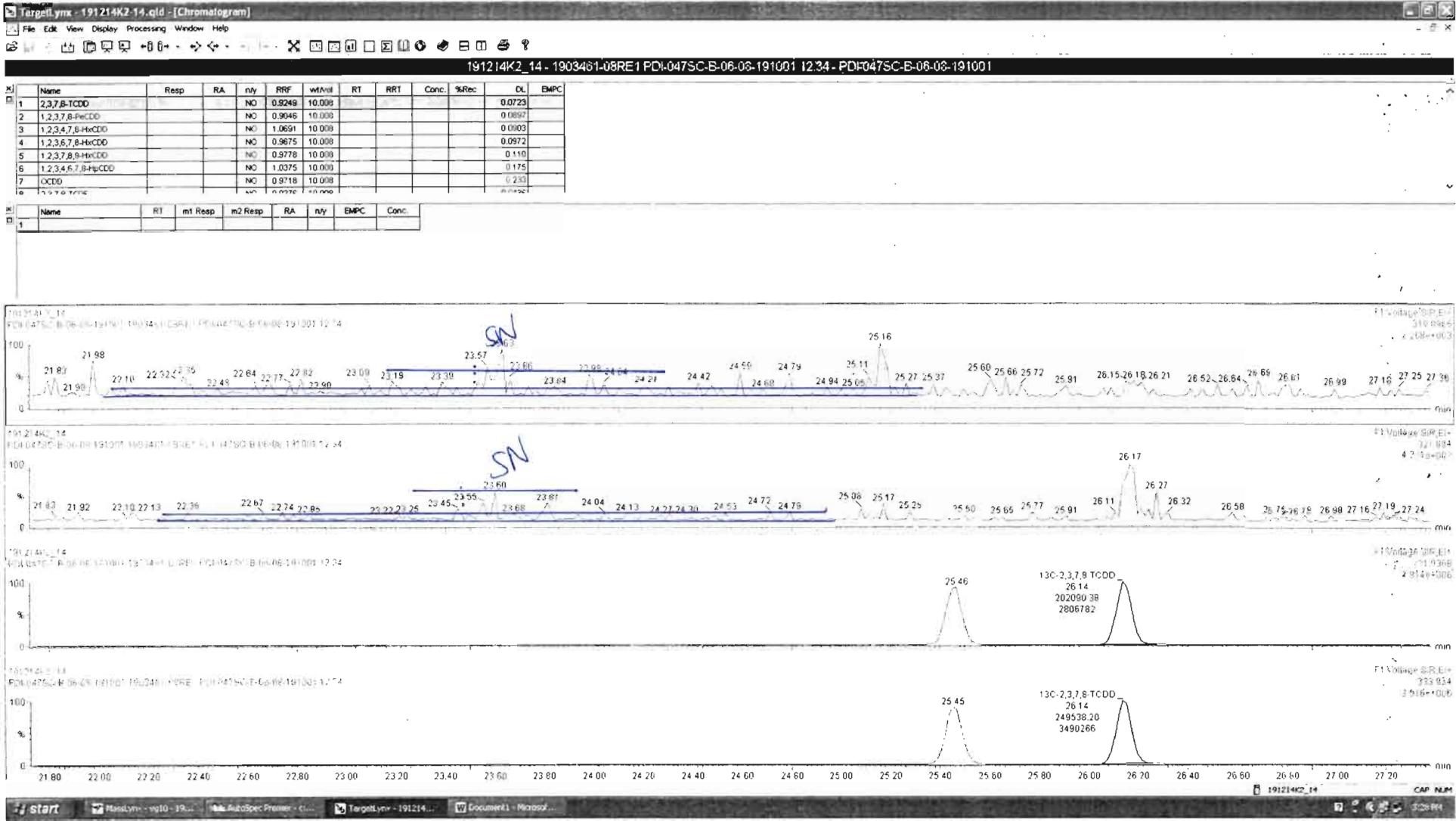


F1:Voltage SIR,EI+  
331.9368  
2.814e+006

191214K2\_14



F1:Voltage SIR,EI+  
333.934  
3.516e+006



Dataset: Untitled

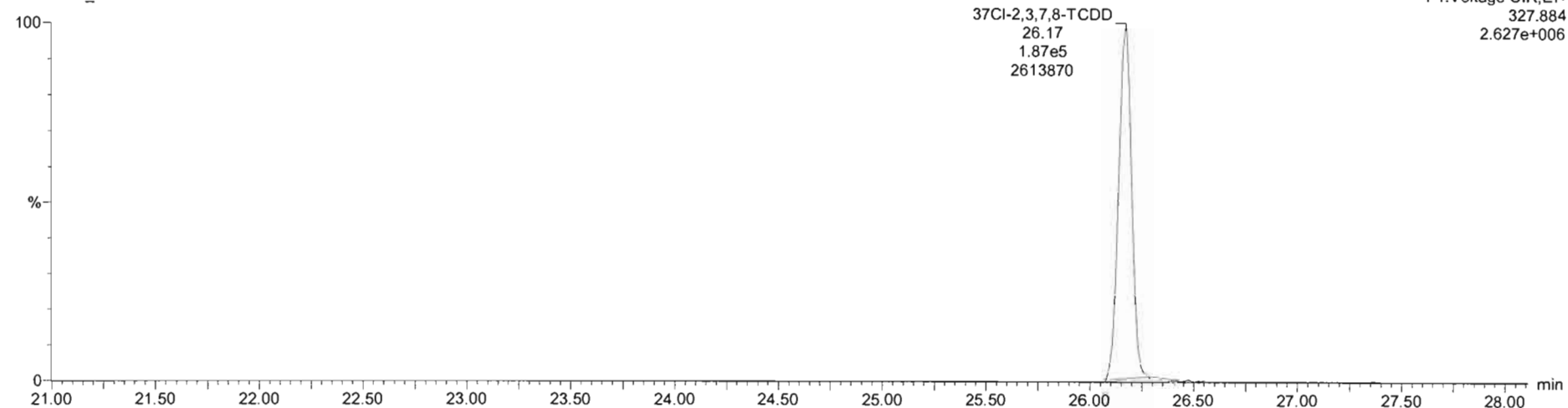
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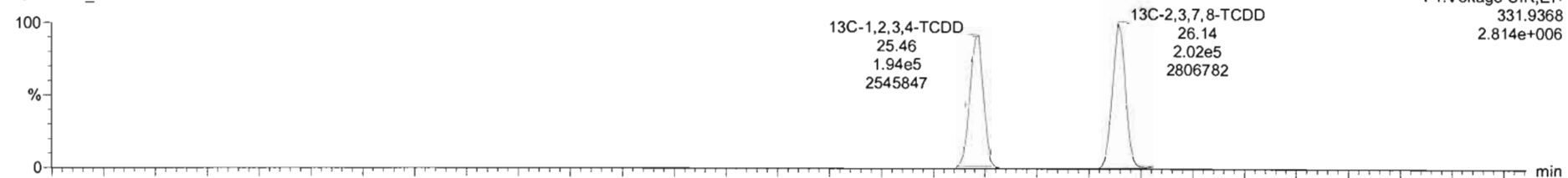
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191214K2\_14

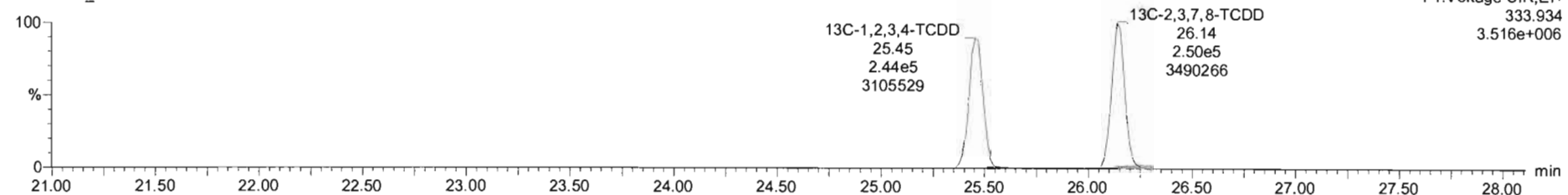


**13C-1,2,3,4-TCDD**

191214K2\_14



191214K2\_14



Dataset: Untitled

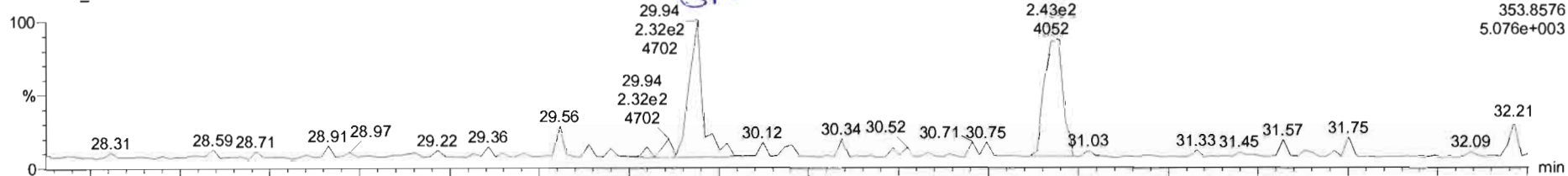
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

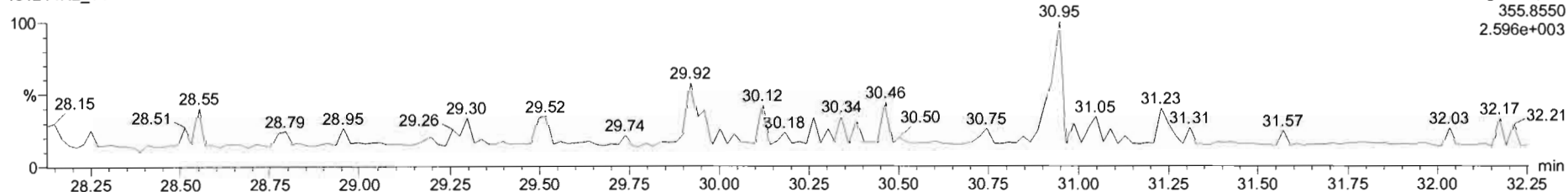
Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

**1,2,3,7,8-PeCDD**

191214K2\_14

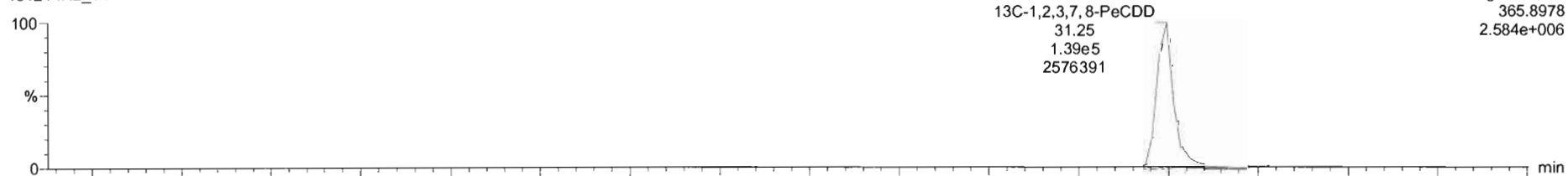


191214K2\_14

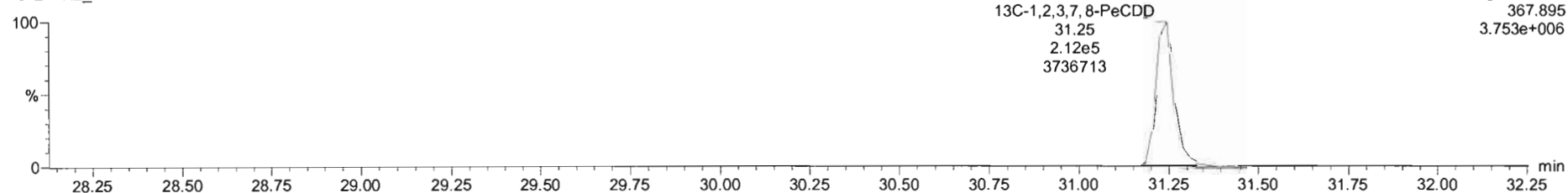


**13C-1,2,3,7,8-PeCDD**

191214K2\_14

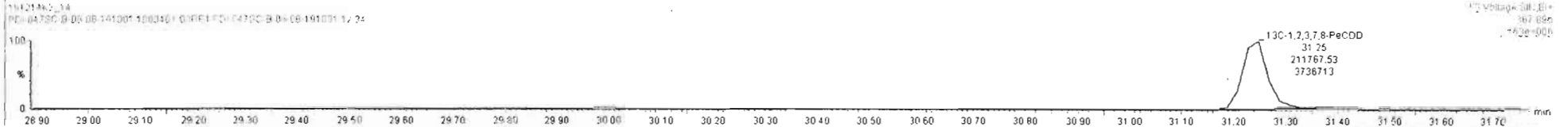
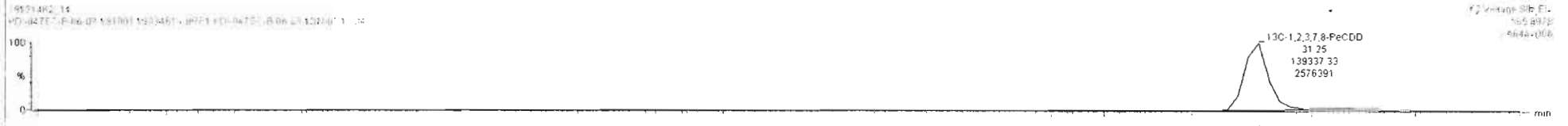
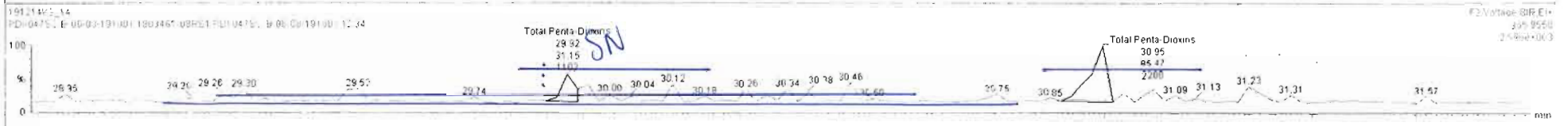
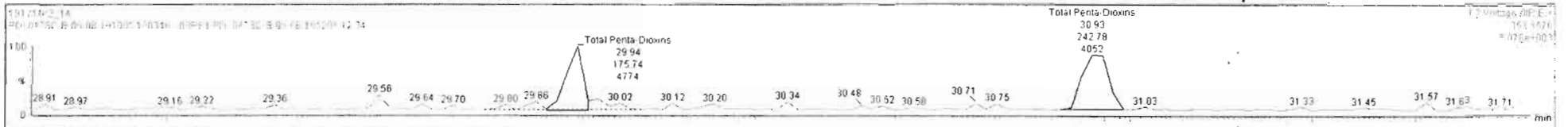


191214K2\_14



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.008					0.0371	
40 Total Penta-Dioxins				0.9046	10.008			0.000		0.0468	0.120
41 Total Hexa-Dioxins				0.9675	10.008					0.0540	
42 Total Hepta-Dioxins				1.0375	10.008					0.104	
43 Total Tetra-Furans				0.9376	10.008					0.0198	
44 1st Func. Penta-Furans				0.9762	10.008					0.0118	
45 Total Penta-Furans				0.9762	10.008					0.0134	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	30.93	2.426e2	8.547e1	2.84	YES	0.087660	0.00000
2 Total Penta-Dioxins	29.94	1.757e2	3.115e1	5.64	YES	0.031946	0.00000



Dataset: Untitled

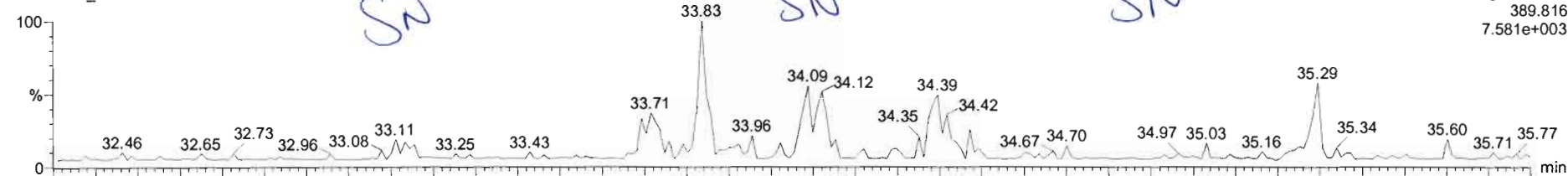
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

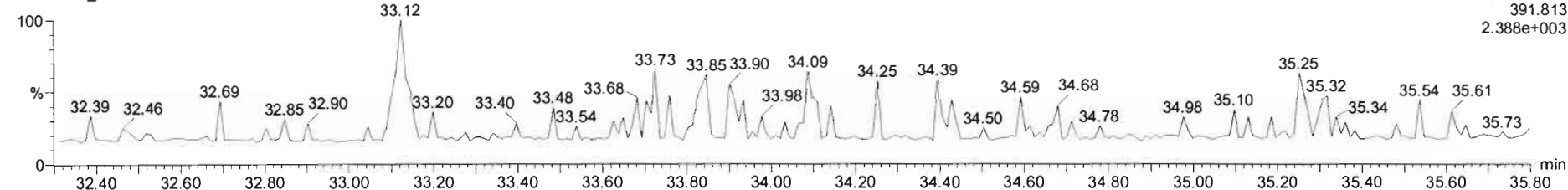
Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

1,2,3,4,7,8-HxCDD

191214K2\_14

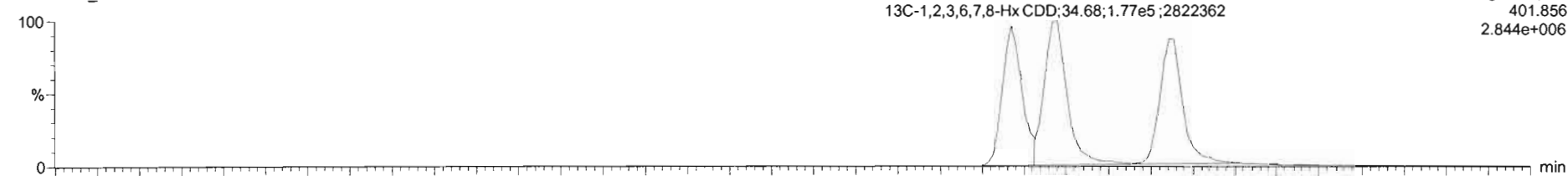


191214K2\_14

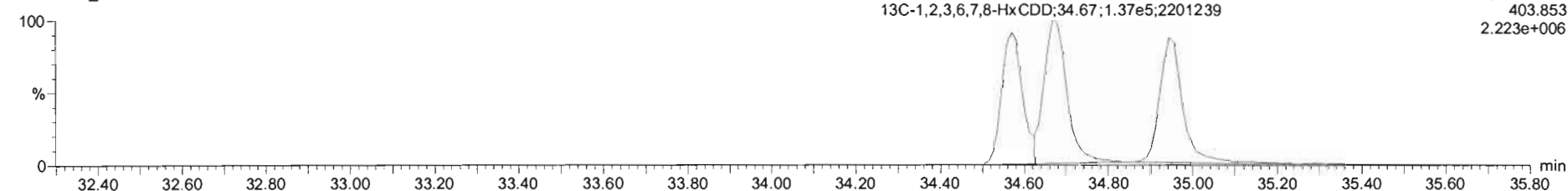


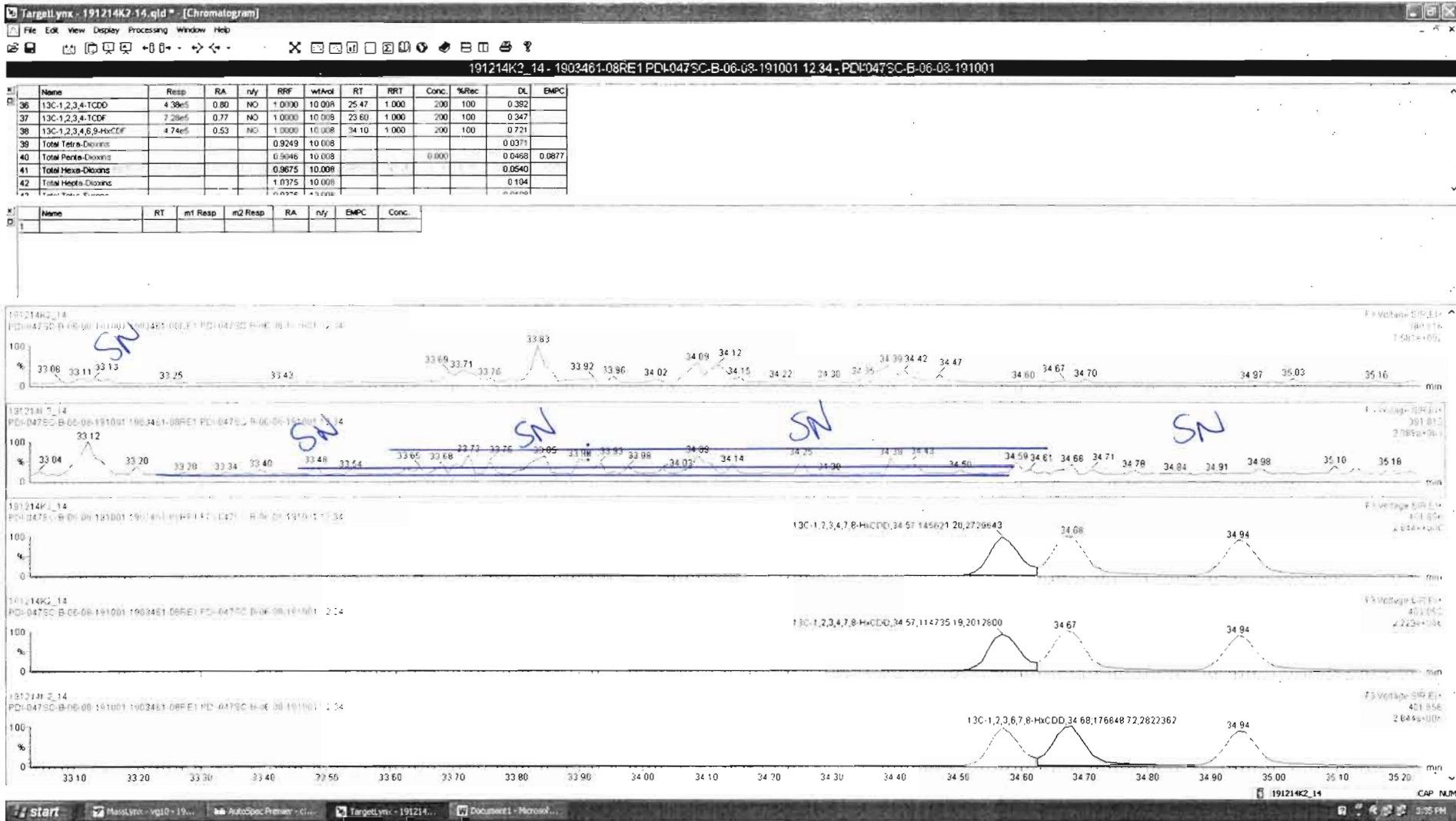
13C-1,2,3,4,7,8-HxCDD

191214K2\_14



191214K2\_14







Dataset: Untitled

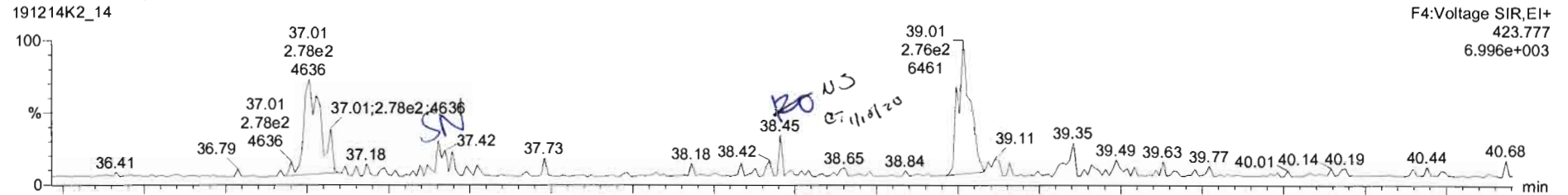
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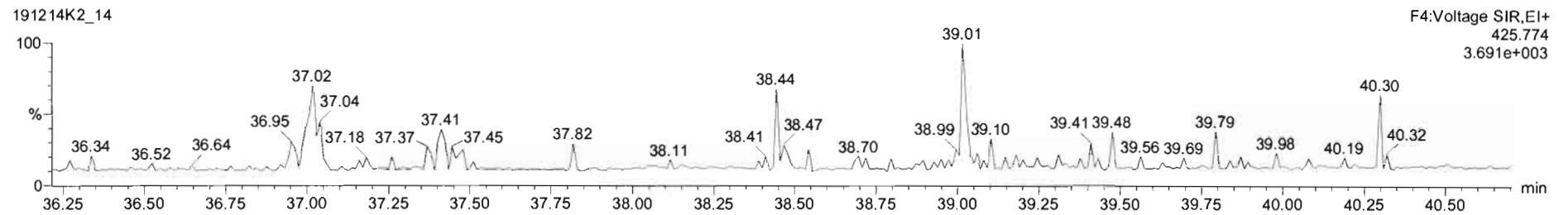
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1,2,3,4,6,7,8-HpCDD

191214K2\_14

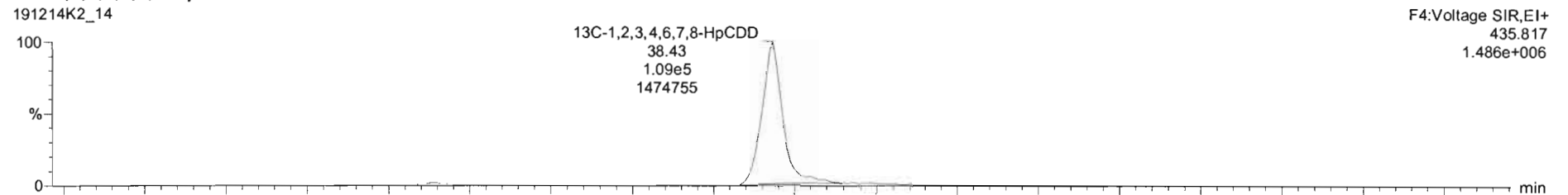


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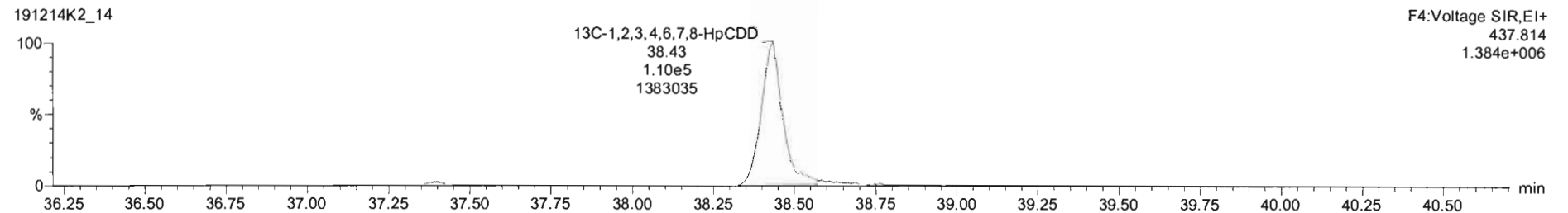


13C-1,2,3,4,6,7,8-HpCDD

191214K2\_14

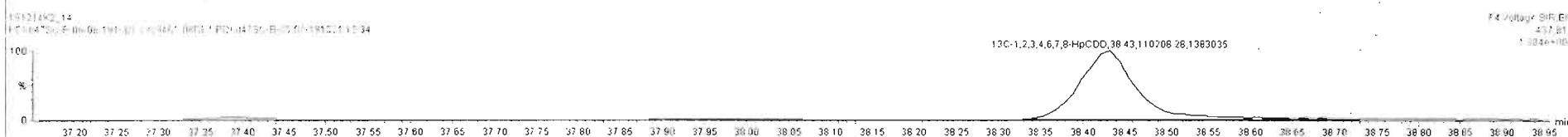


191214K2\_14



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9046	10.008			0.000		0.0468	0.0877
41 Total Hexa-Dioxins				0.9675	10.008					0.0540	
42 Total Hepta-Dioxins				1.0375	10.008			0.000		0.104	0.0884
43 Total Tetra-Furans				0.9376	10.008					0.0198	
44 1st Func. Penta-Furans				0.9762	10.008					0.0118	
45 Total Penta-Furans				0.9762	10.008					0.0134	
46 Total Hexa-Furans				1.1806	10.008					0.0250	
47 Total Octa-Dioxins				1.1966	10.008					0.0333	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.40	3.890e1	2.759e1	1.41	YES	0.049517	0.00000
2 1,2,3,4,6,7,8-HpCDD	38.46	2.252e1	2.574e1	0.67	YES	0.038857	0.00000

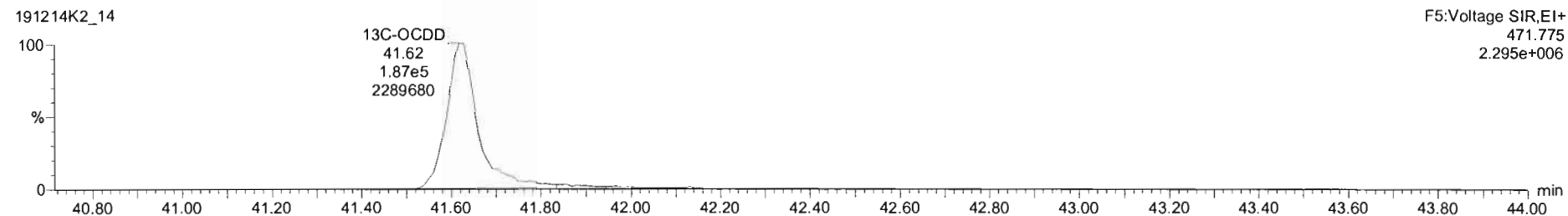
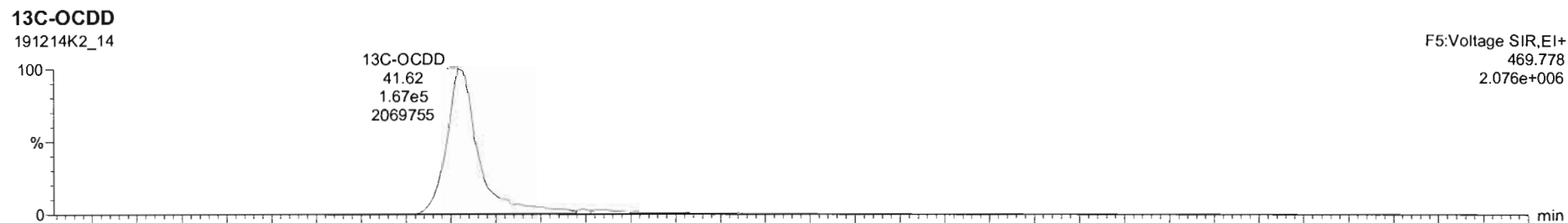
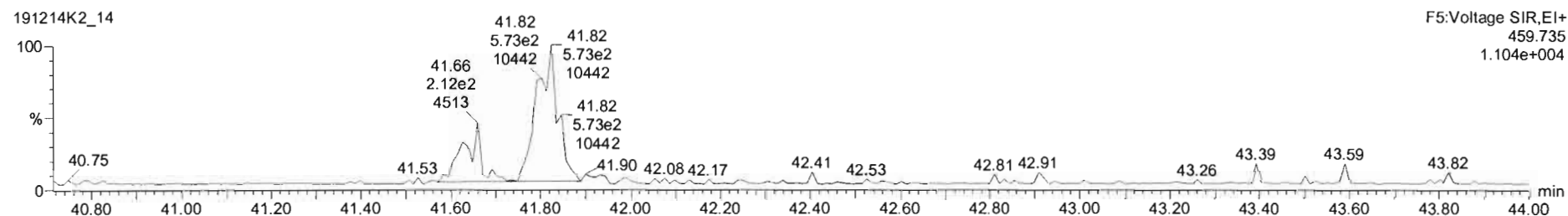
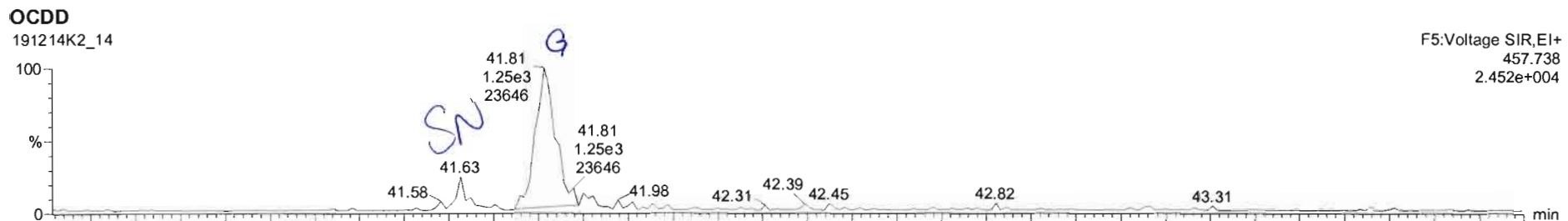


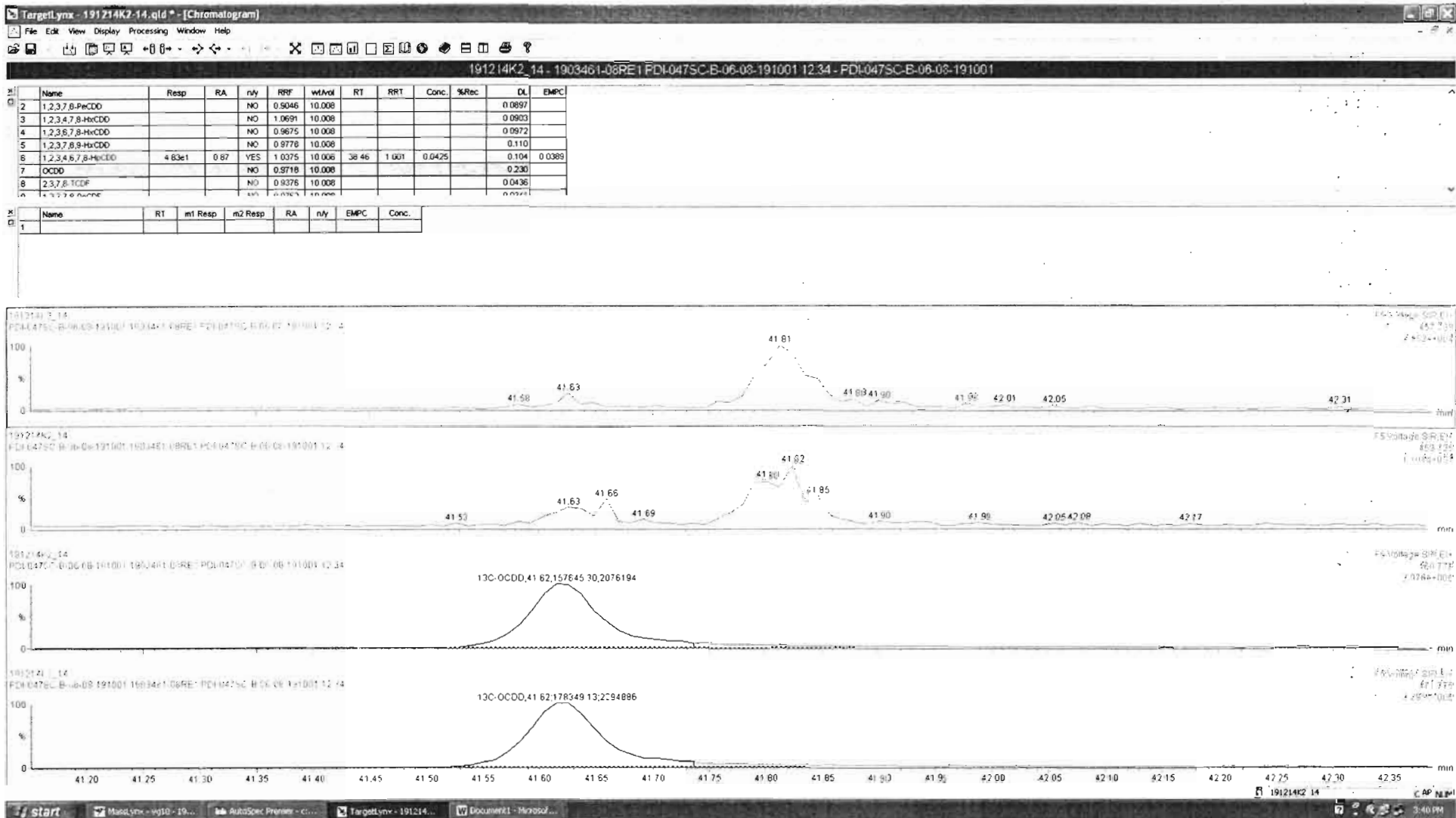
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001





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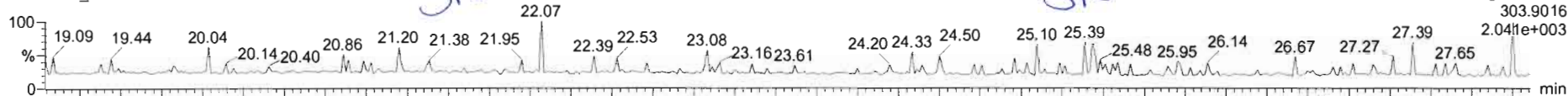
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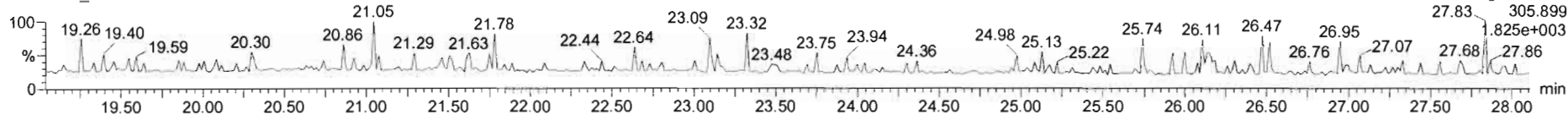
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**2,3,7,8-TCDF**

191214K2\_14

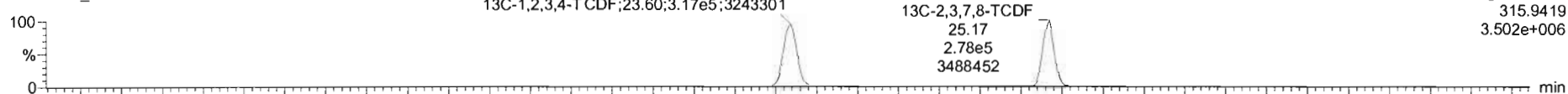


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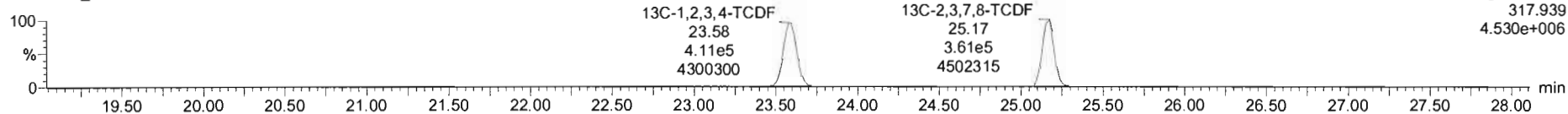


**13C-2,3,7,8-TCDF**

191214K2\_14

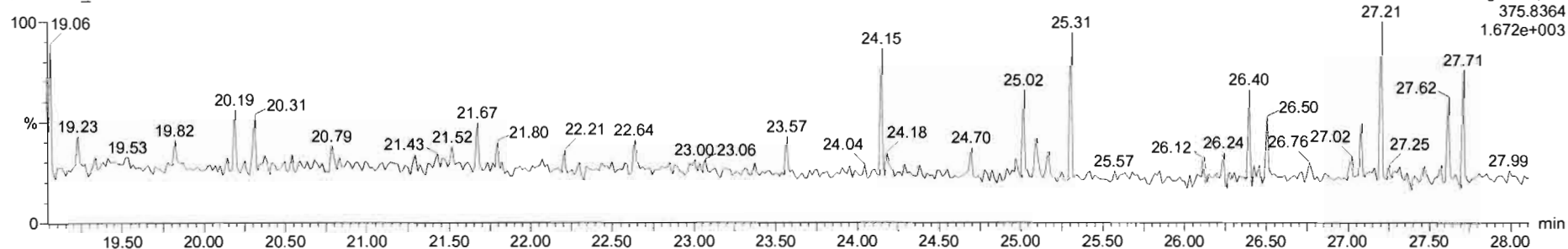


191214K2\_14



**DPE1**

191214K2\_14

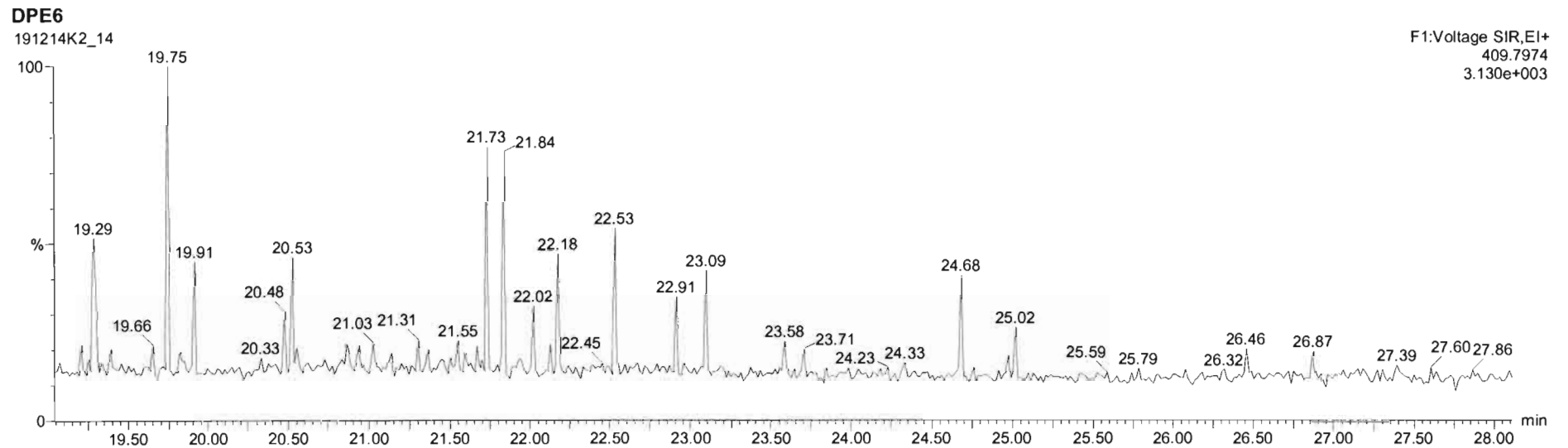
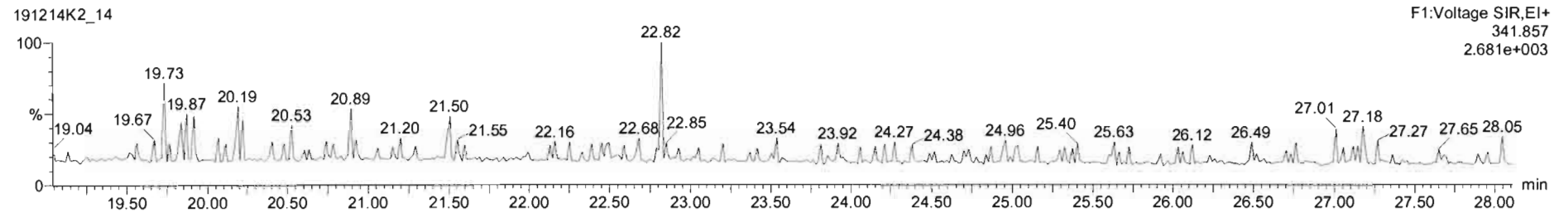
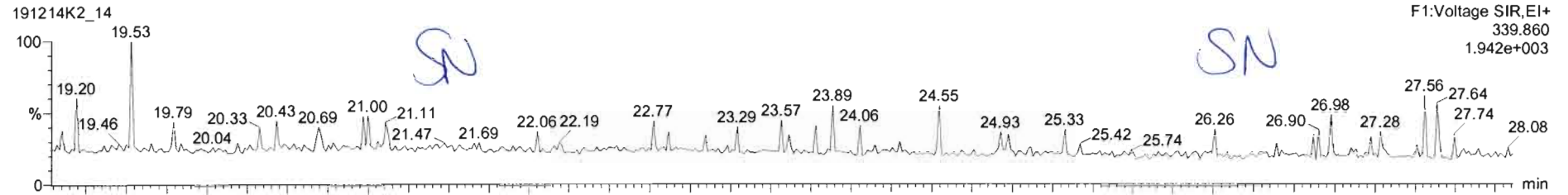


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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

1st Func. Penta-Furans

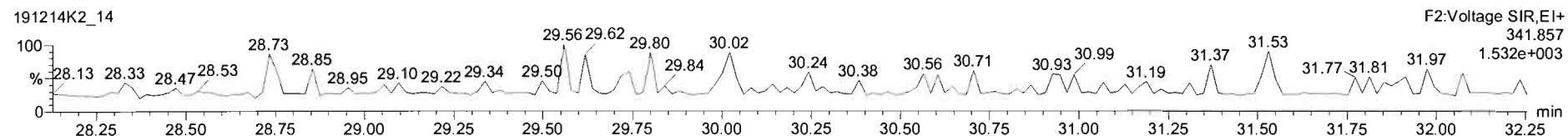
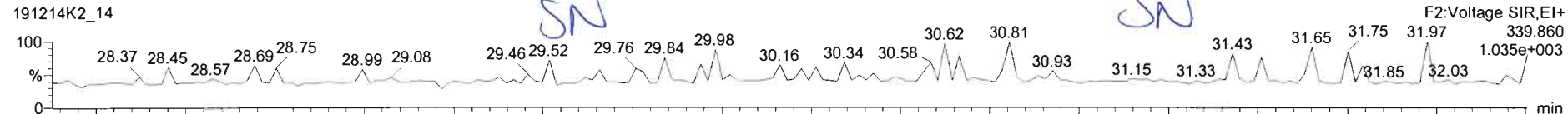


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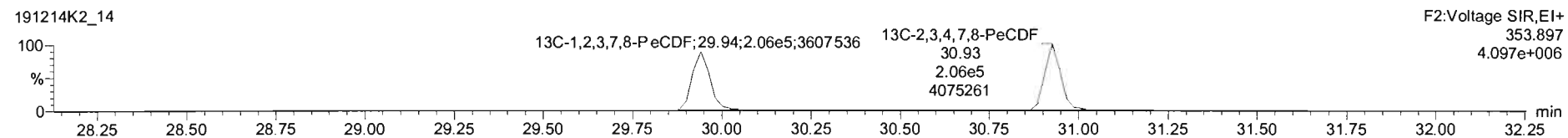
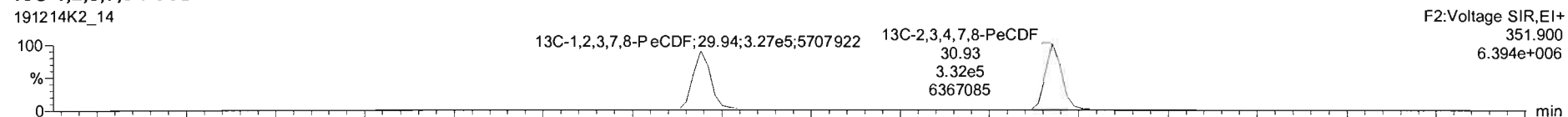
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Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001

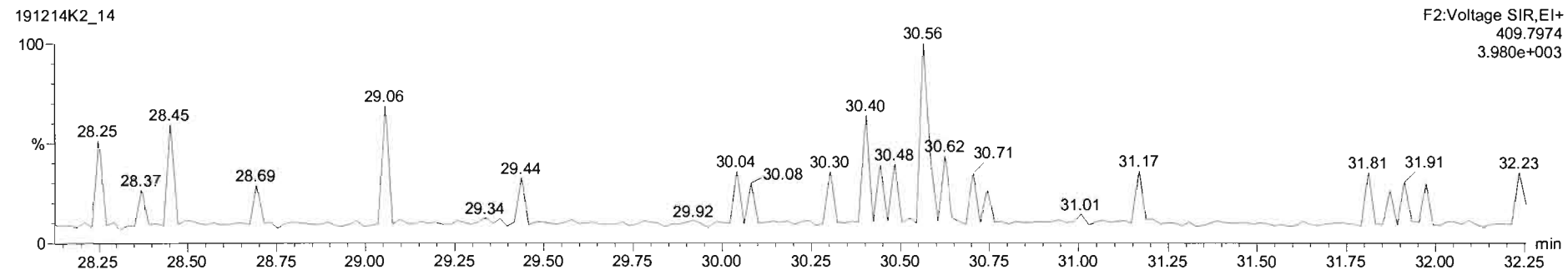
1,2,3,7,8-PeCDF



13C-1,2,3,7,8-PeCDF



DPE2

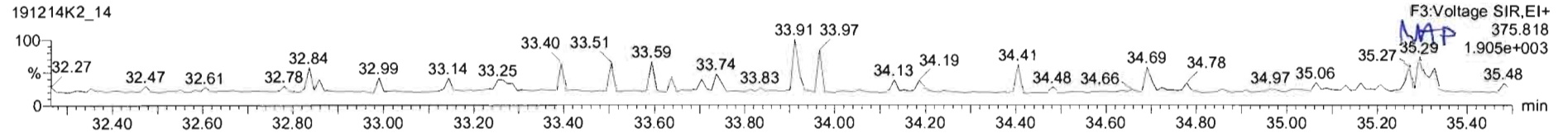
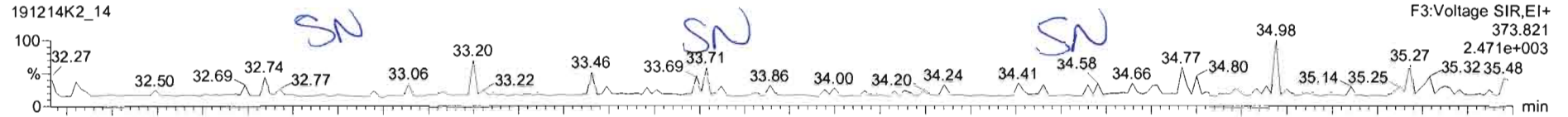


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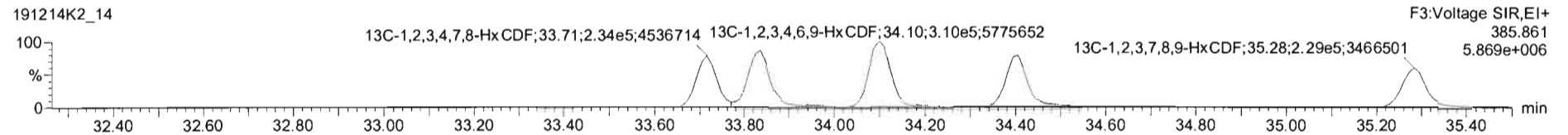
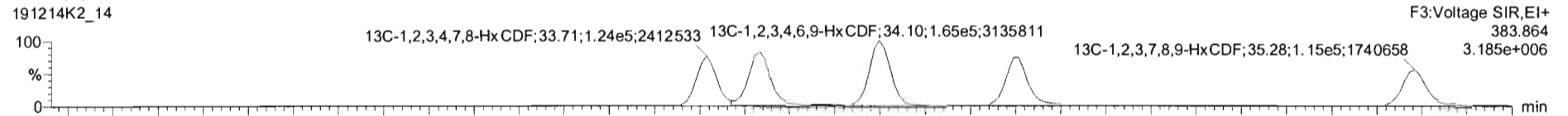
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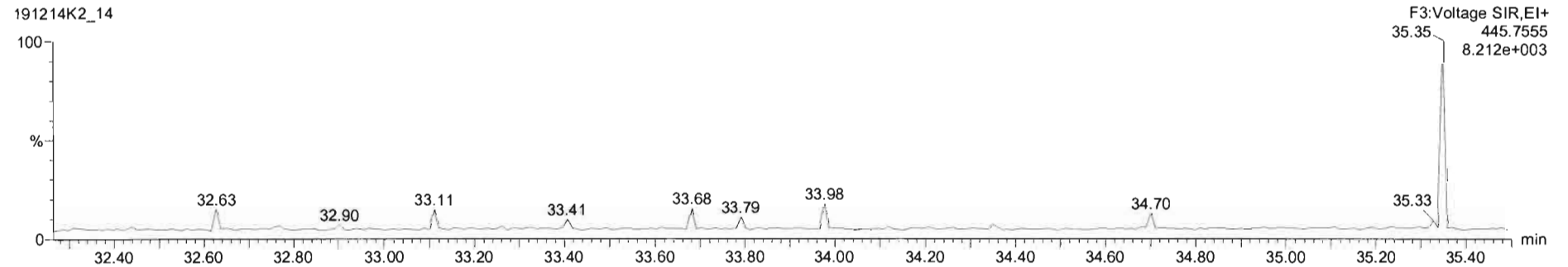
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



DPE3





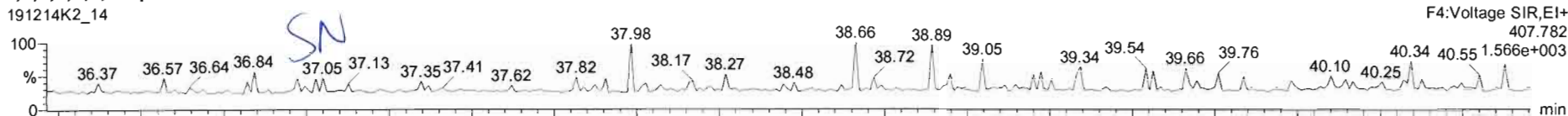
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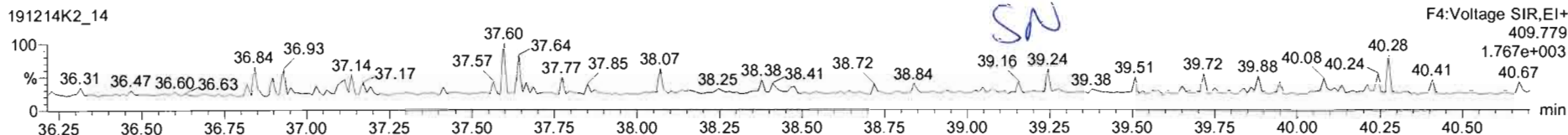
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1,2,3,4,6,7,8-HpCDF

191214K2\_14

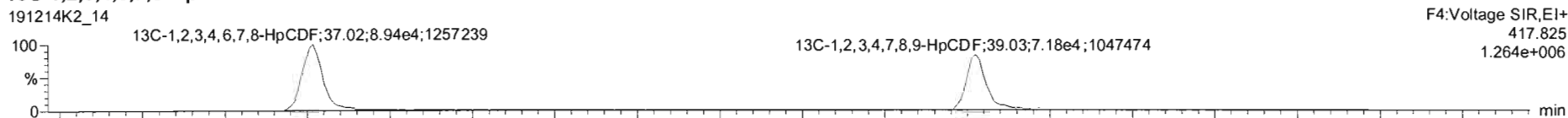


191214K2\_14

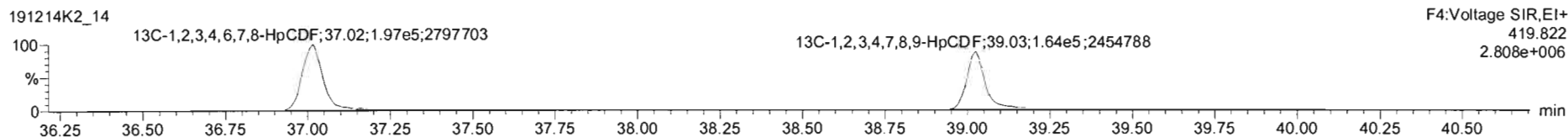


13C-1,2,3,4,6,7,8-HpCDF

191214K2\_14

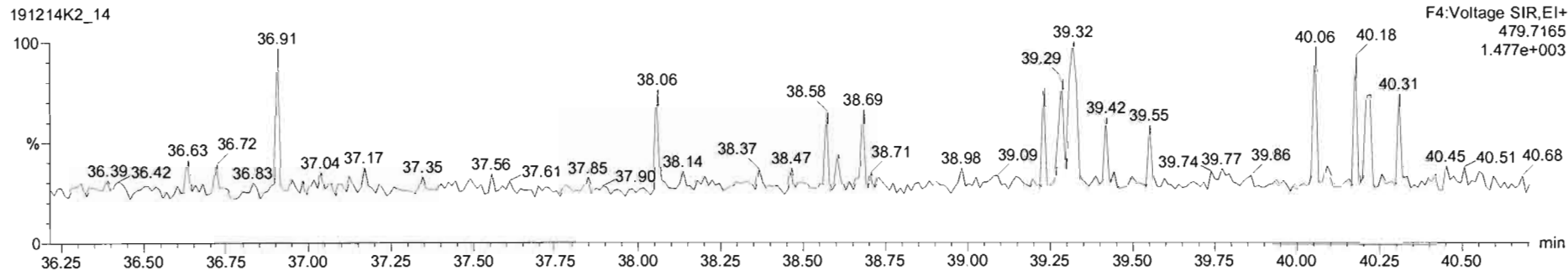


191214K2\_14



DPE4

191214K2\_14

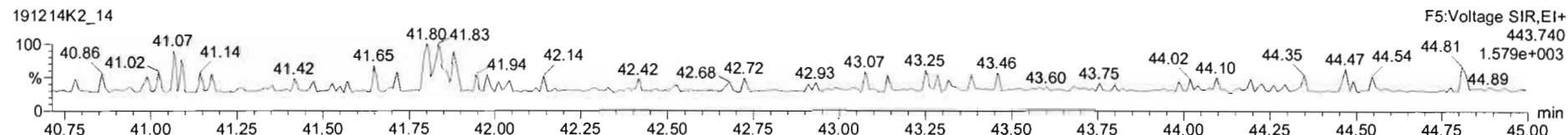
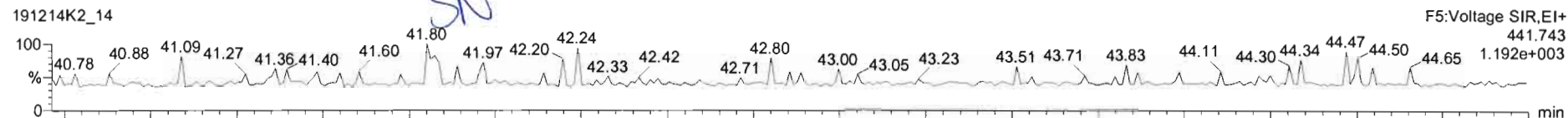


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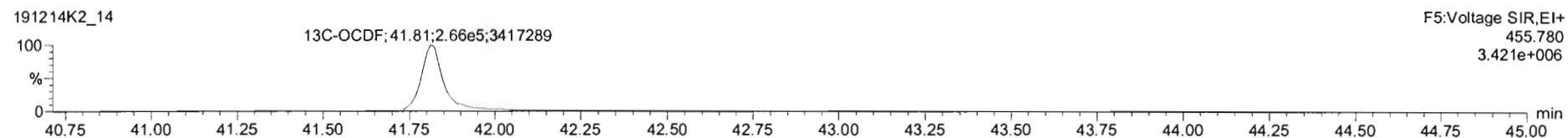
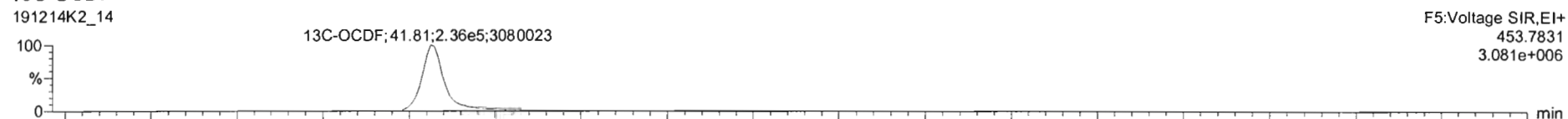
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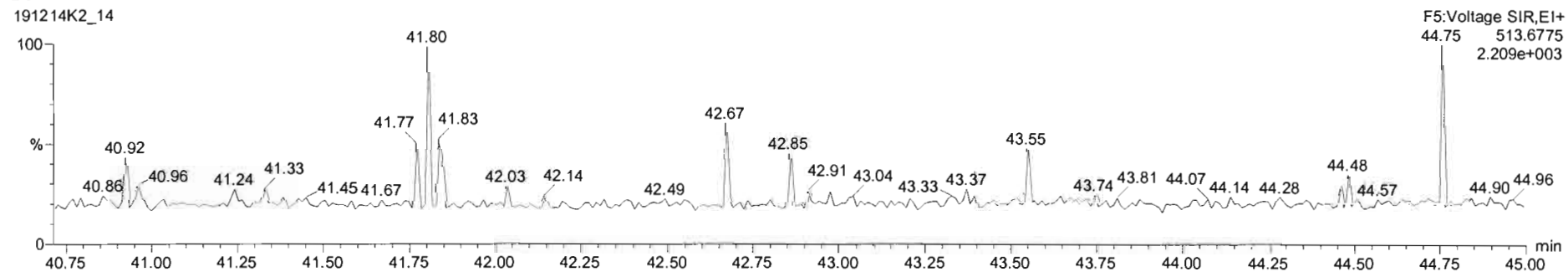
OCDF

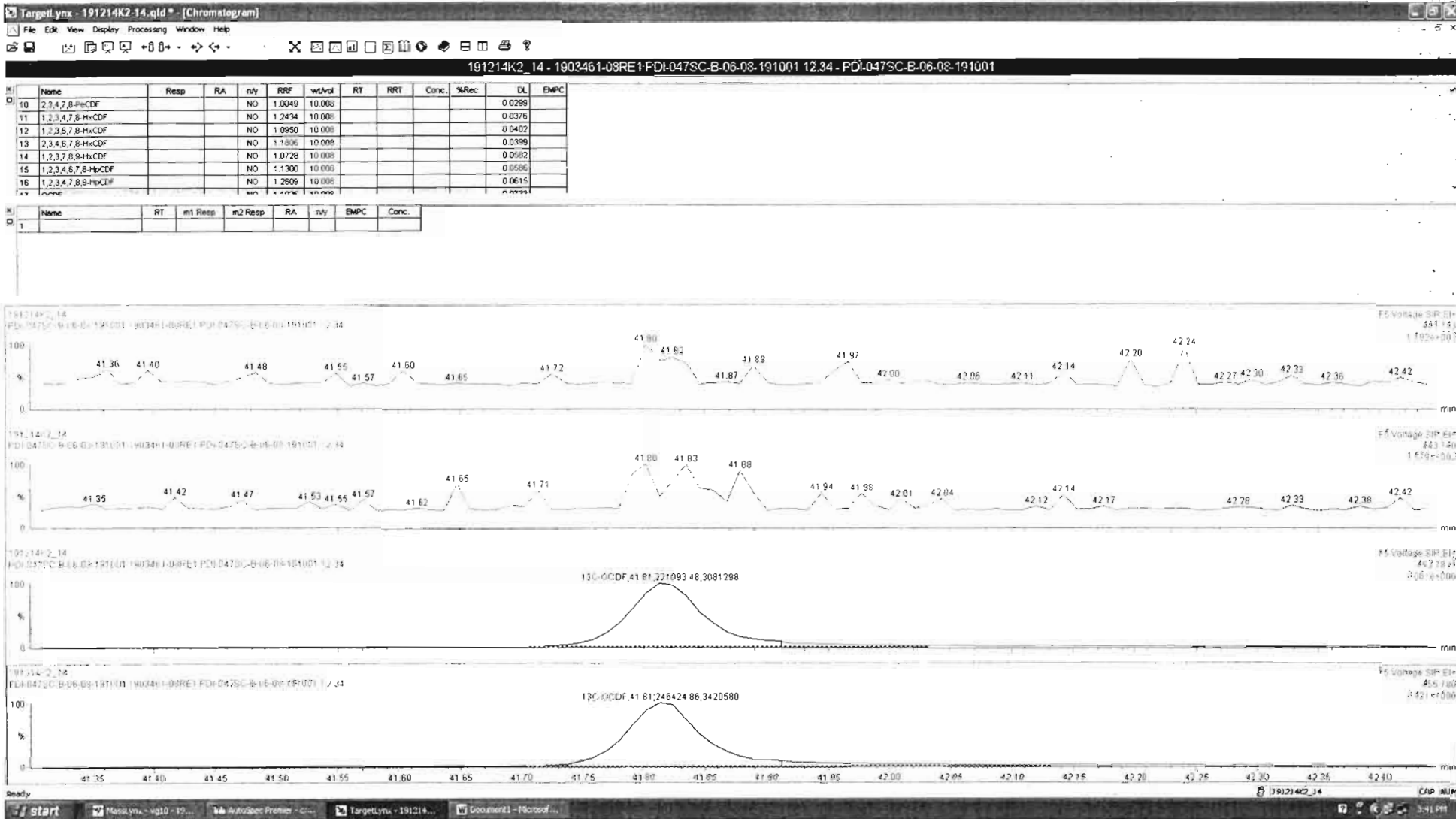


13C-OCDF



DPE5



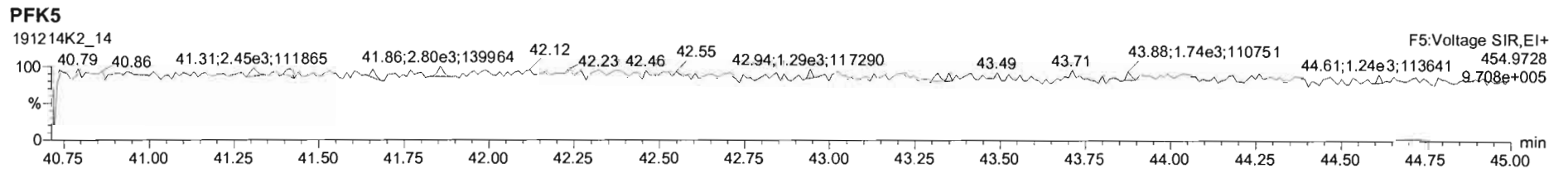
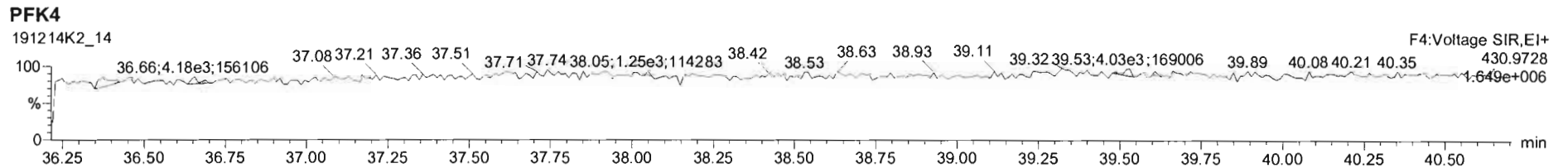
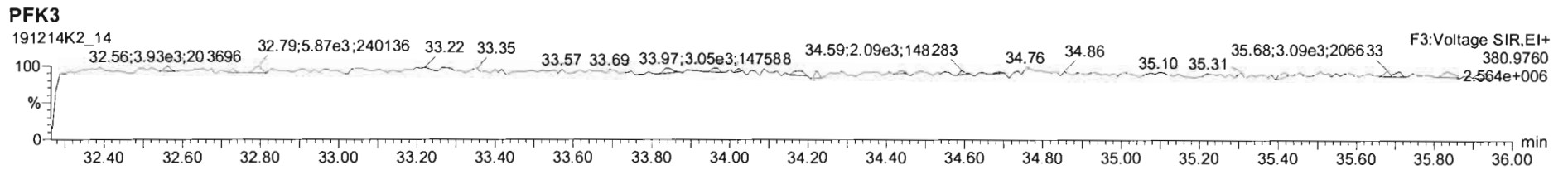
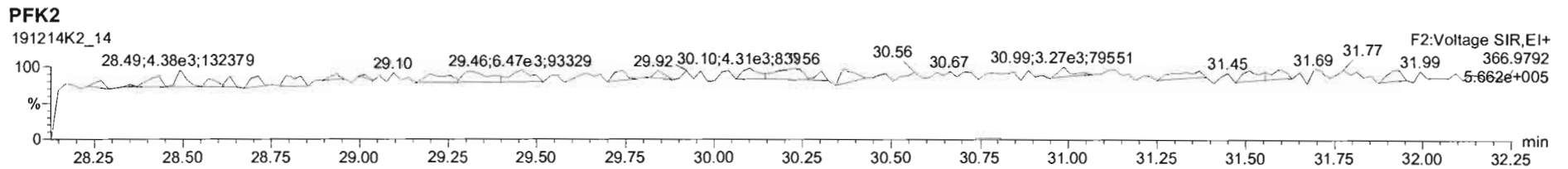
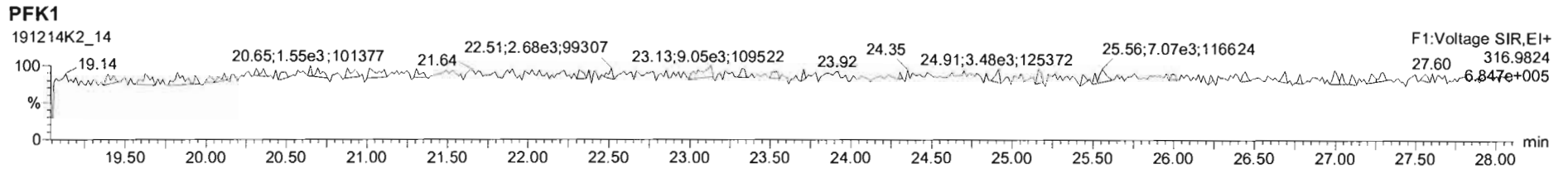


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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_14, Date: 15-Dec-2019, Time: 04:46:30, ID: 1903461-08RE1 PDI-047SC-B-06-08-191001 12.34, Description: PDI-047SC-B-06-08-191001



Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-15.qld

Last Altered: Friday, January 10, 2020 13:34:19 Pacific Standard Time

Printed: Friday, January 10, 2020 13:35:40 Pacific Standard Time

*GRB 01/10/2020*

*C7 01/10/2020*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

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#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.925	10.030	26.168		1.001				0.0656	
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.030	31.251		1.001				0.104	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.030	34.580		1.000				0.121	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.030	34.669		1.000				0.117	
5	5 1,2,3,7,8,9-HxCDD			NO	0.978	10.030	34.978		1.001				0.149	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.04	10.030	38.434		1.000				0.226	
7	7 OCDD	6.26e2	0.94	NO	0.972	10.030	41.615	41.63	1.000	1.000	0.83567		0.287	0.836
8	8 2,3,7,8-TCDF			NO	0.938	10.030	25.184		1.001				0.0416	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.030	29.962		1.001				0.0317	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.030	30.958		1.001				0.0286	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.030	33.714		1.000				0.0370	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.030	33.834		1.000				0.0376	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.030	34.429		1.001				0.0389	
14	14 1,2,3,7,8,9-HxCDF			NO	1.07	10.030	35.272		1.000				0.0548	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.13	10.030	37.043		1.001				0.0427	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.030	39.014		1.000				0.0520	
17	17 OCDF			NO	1.10	10.030	41.813		1.000				0.0892	
18	18 13C-2,3,7,8-TCDD	4.62e5	0.79	NO	1.05	10.030	26.146	26.14	1.027	1.027	170.21	85.4	0.290	
19	19 13C-1,2,3,7,8-PeCDD	3.38e5	0.66	NO	0.743	10.030	31.157	31.23	1.224	1.227	176.09	88.3	0.648	
20	20 13C-1,2,3,4,7,8-HxCDD	2.51e5	1.31	NO	0.646	10.030	34.558	34.57	1.014	1.014	144.63	72.5	0.722	
21	21 13C-1,2,3,6,7,8-HxCDD	3.35e5	1.30	NO	0.777	10.030	34.657	34.67	1.017	1.017	160.92	80.7	0.601	
22	22 13C-1,2,3,7,8,9-HxCDD	2.75e5	1.35	NO	0.659	10.030	34.930	34.94	1.025	1.025	155.24	77.9	0.707	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.81e5	1.06	NO	0.534	10.030	38.421	38.42	1.127	1.127	126.46	63.4	0.748	
24	24 13C-OCDD	3.07e5	0.92	NO	0.470	10.030	41.594	41.62	1.220	1.221	243.47	61.0	0.928	
25	25 13C-2,3,7,8-TCDF	6.85e5	0.77	NO	0.977	10.030	25.220	25.16	0.991	0.989	164.81	82.6	0.300	
26	26 13C-1,2,3,7,8-PeCDF	4.81e5	1.57	NO	0.778	10.030	29.869	29.94	1.174	1.177	145.33	72.9	0.819	
27	27 13C-2,3,4,7,8-PeCDF	4.90e5	1.59	NO	0.750	10.030	30.877	30.93	1.213	1.215	153.53	77.0	0.850	
28	28 13C-1,2,3,4,7,8-HxCDF	3.66e5	0.54	NO	0.845	10.030	33.699	33.71	0.989	0.989	161.28	80.9	1.15	
29	29 13C-1,2,3,6,7,8-HxCDF	4.51e5	0.56	NO	1.03	10.030	33.815	33.82	0.992	0.992	163.65	82.1	0.950	
30	30 13C-2,3,4,6,7,8-HxCDF	4.05e5	0.52	NO	0.893	10.030	34.388	34.40	1.009	1.009	169.05	84.8	1.09	

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-15.qld

Last Altered: Friday, January 10, 2020 13:34:19 Pacific Standard Time

Printed: Friday, January 10, 2020 13:35:40 Pacific Standard Time

Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	3.39e5	0.52	NO	0.734	10.030	35.288	35.27	1.035	1.035	171.77	86.1	1.33	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.66e5	0.47	NO	0.754	10.030	36.999	37.01	1.085	1.086	131.50	65.9	0.834	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.89e5	0.48	NO	0.539	10.030	39.021	39.01	1.145	1.145	130.86	65.6	1.17	
34	34 13C-OCDF	4.23e5	0.92	NO	0.593	10.030	41.806	41.81	1.226	1.227	266.03	66.7	0.665	
35	35 37Cl-2,3,7,8-TCDD	2.01e5			1.07	10.030	26.167	26.15	1.028	1.028	72.490	90.9	0.138	
36	36 13C-1,2,3,4-TCDD	5.16e5	0.80	NO	1.00	10.030	25.500	25.45	1.000	1.000	199.41	100	0.304	
37	37 13C-1,2,3,4-TCDF	8.48e5	0.77	NO	1.00	10.030	23.680	23.58	1.000	1.000	199.41	100	0.293	
38	38 13C-1,2,3,4,6,9-HxCDF	5.35e5	0.57	NO	1.00	10.030	34.060	34.09	1.000	1.000	199.41	100	0.976	
39	39 Total Tetra-Dioxins				0.925	10.030	24.620		0.000				0.0378	
40	40 Total Penta-Dioxins				0.905	10.030	29.960		0.000				0.0604	
41	41 Total Hexa-Dioxins				0.967	10.030	33.635		0.000				0.0935	
42	42 Total Hepta-Dioxins				1.04	10.030	38.800		0.000				0.142	
43	43 Total Tetra-Furans				0.938	10.030	23.610		0.000				0.0176	
44	44 1st Func. Penta-Furans				0.976	10.030	27.040		0.000				0.00808	
45	45 Total Penta-Furans				0.976	10.030	29.275		0.000				0.0111	
46	46 Total Hexa-Furans				1.18	10.030	33.555		0.000				0.0217	
47	47 Total Hepta-Furans				1.13	10.030	37.835		0.000				0.0226	

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-15.qld

Last Altered: Friday, January 10, 2020 13:34:19 Pacific Standard Time

Printed: Friday, January 10, 2020 13:35:40 Pacific Standard Time

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Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

**Tetra-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Penta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hepta-Dioxins**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Tetra-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Penta-Furans function 1**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Dataset: U:\VG11.PRO\Results\2019\191214K2\191214K2-15.qld

Last Altered: Friday, January 10, 2020 13:34:19 Pacific Standard Time

Printed: Friday, January 10, 2020 13:35:40 Pacific Standard Time

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Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

**Penta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hepta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											



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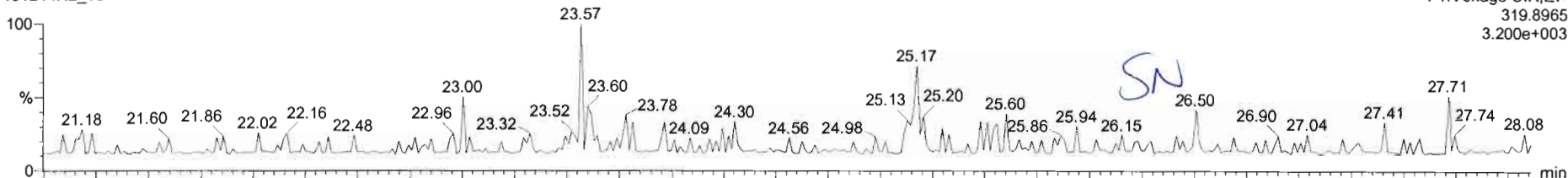
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

### 2,3,7,8-TCDD

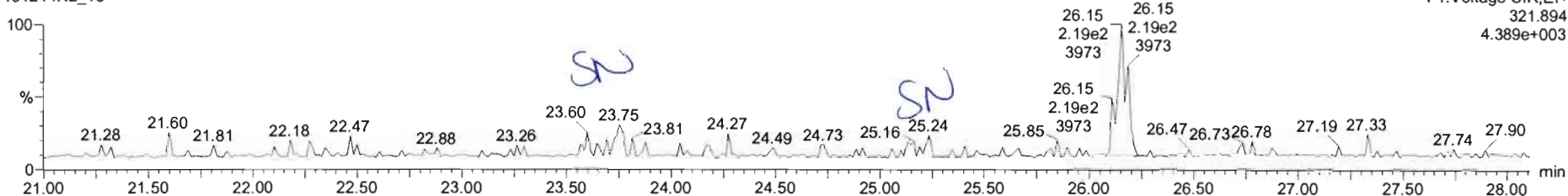
191214K2\_15

F1:Voltage SIR,EI+  
319.8965  
3.200e+003



191214K2\_15

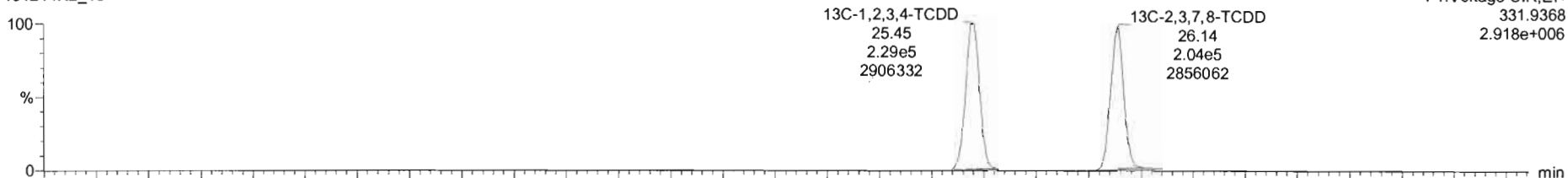
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4.389e+003



### 13C-2,3,7,8-TCDD

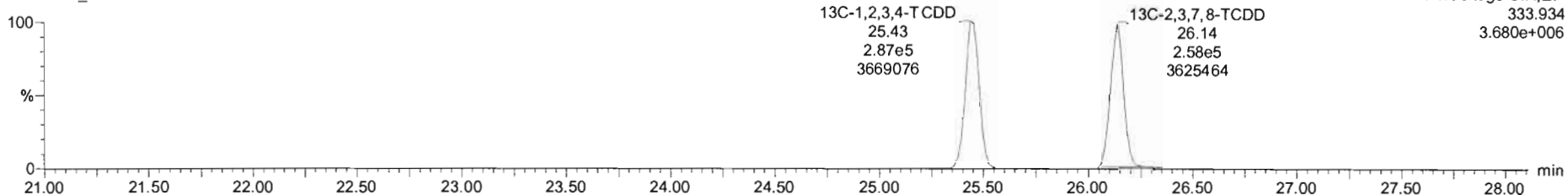
191214K2\_15

F1:Voltage SIR,EI+  
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2.918e+006



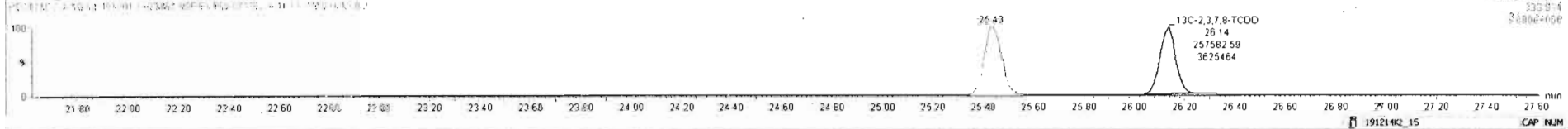
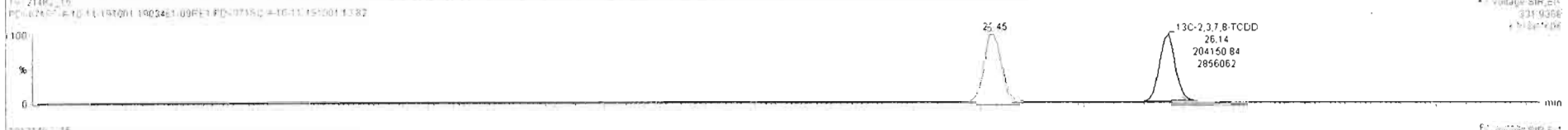
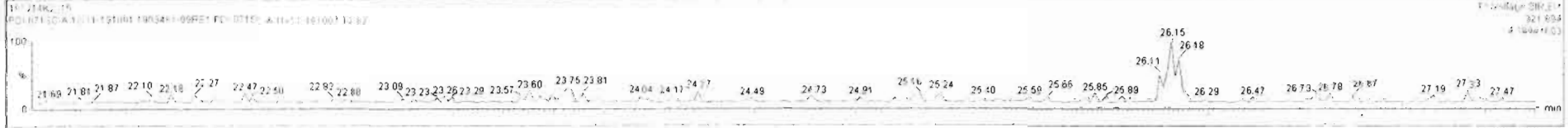
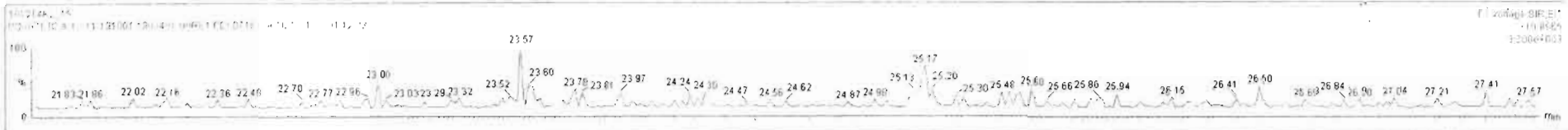
191214K2\_15

F1:Voltage SIR,EI+  
333.934  
3.680e+006



Name	Resp	RA	n/y	RF	wt/val	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.030					0.0378	
40 Total Penta-Dioxins				0.9046	10.030					0.0604	
41 Total Hexa-Dioxins				0.9875	10.030					0.0935	
42 Total Hepta-Dioxins				1.0375	10.030					0.1142	
43 Total Tetra-Furans				0.9376	10.030					0.0176	
44 1st Func. Penta-Furans				0.9762	10.030					0.0000	
45 Total Penta-Furans				0.9762	10.030					0.0111	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1							



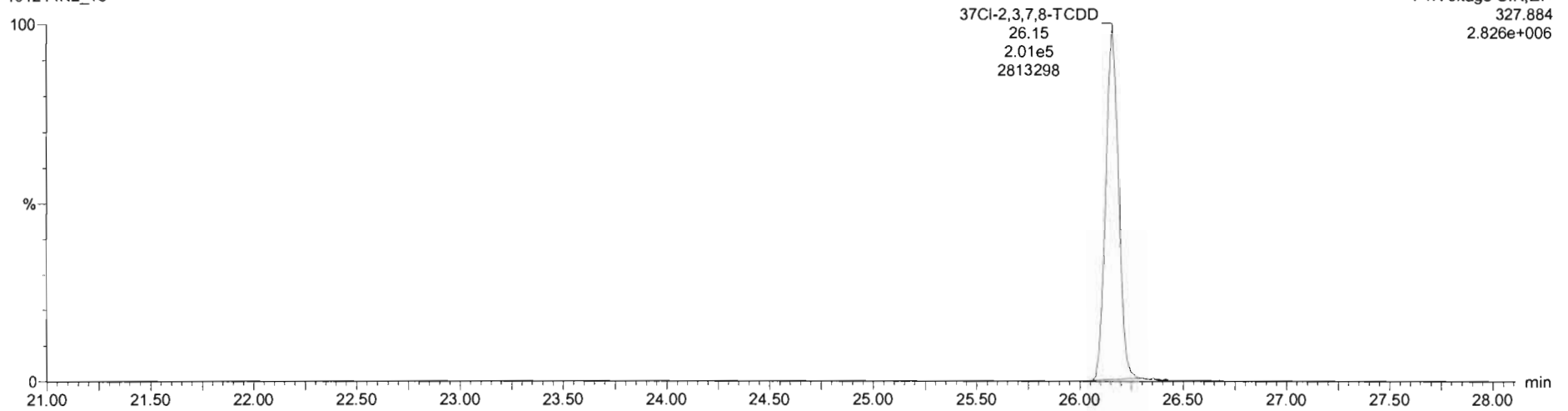
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Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
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Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

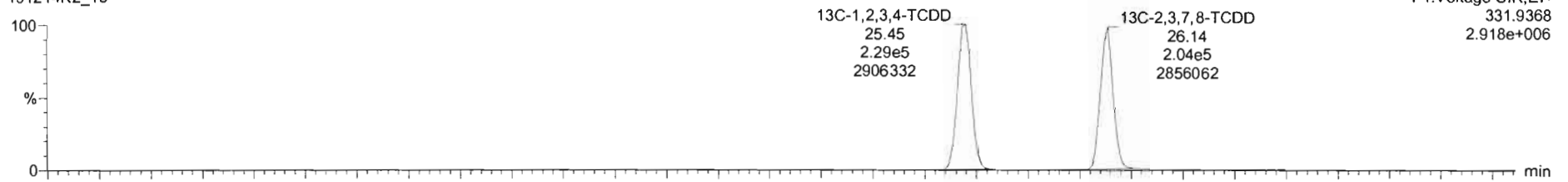
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191214K2\_15

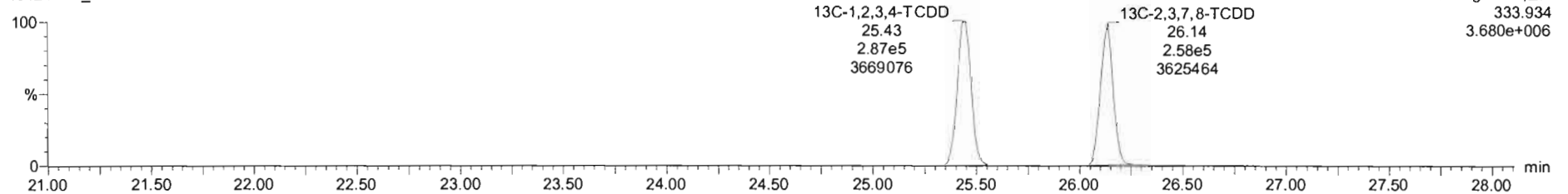


**13C-1,2,3,4-TCDD**

191214K2\_15



191214K2\_15



Dataset: Untitled

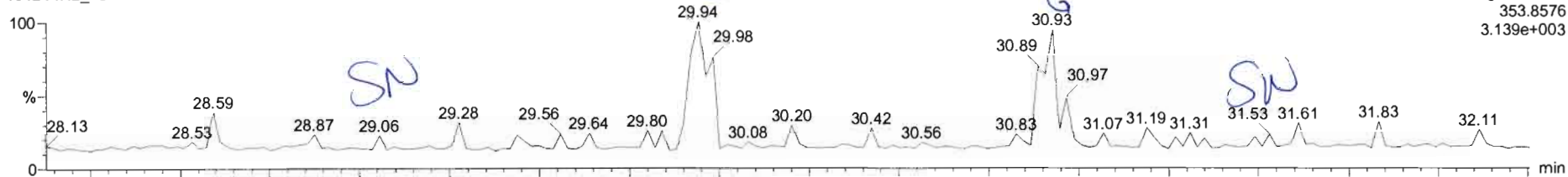
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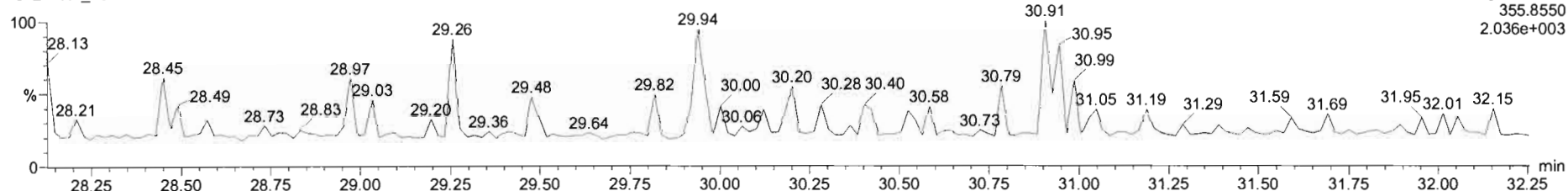
Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

**1,2,3,7,8-PeCDD**

191214K2\_15

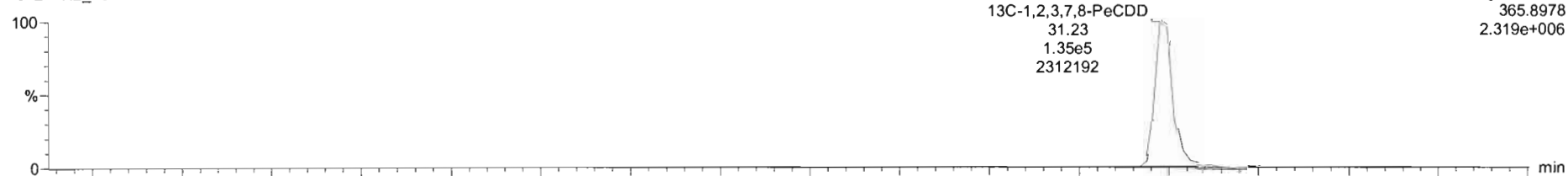


191214K2\_15

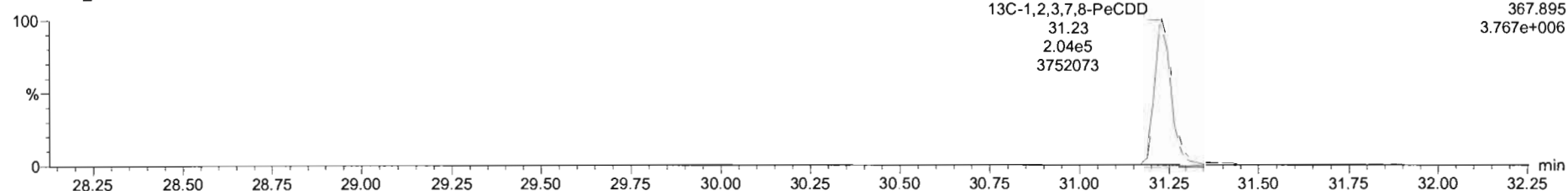


**13C-1,2,3,7,8-PeCDD**

191214K2\_15

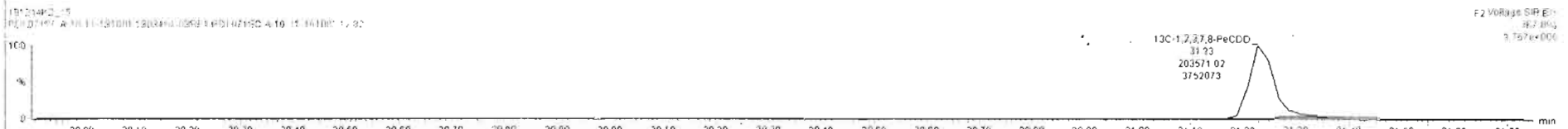
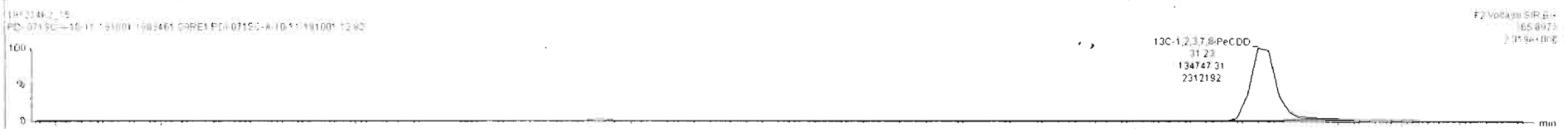
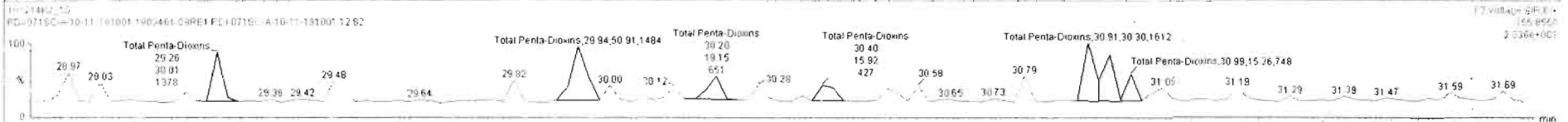
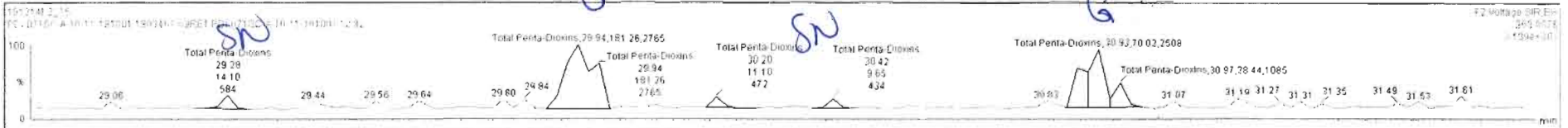


191214K2\_15



#	Name	Resp	RA	n/y	RF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.030					0.0378	
40	Total Penta-Dioxins				0.8046	10.030			0.0364	0.0604	0.205	
41	Total Hexa-Dioxins				0.9675	10.030					0.0935	
42	Total Hepta-Dioxins				1.0375	10.030					0.142	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Penta-Dioxins	30.20	1.110e1	1.915e1	0.58	NO	0.019703	0.019703
2	Total Penta-Dioxins	29.94	1.813e2	5.091e1	3.56	YES	0.054063	0.00000
3	Total Penta-Dioxins	29.28	1.410e1	3.001e1	0.47	YES	0.023760	0.00000
4	Total Penta-Dioxins	30.93	7.002e1	3.204e1	2.19	YES	0.034025	0.00000
5	Total Penta-Dioxins	30.97	2.844e1	1.526e1	1.86	YES	0.016211	0.00000
6	Total Penta-Dioxins	30.89	5.015e1	3.830e1	1.31	YES	0.040672	0.00000
7	Total Penta-Dioxins	30.42	9.655e0	1.562e1	0.61	NO	0.016663	0.016663



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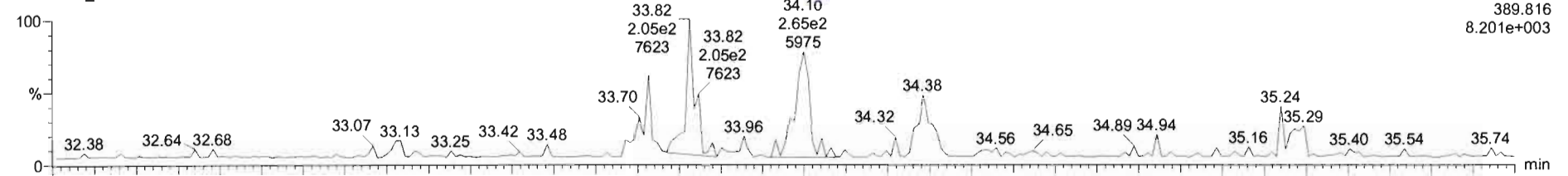
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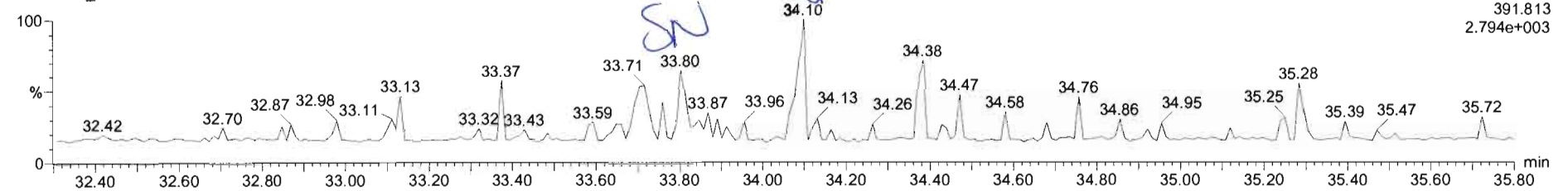
Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

**1,2,3,4,7,8-HxCDD**

191214K2\_15

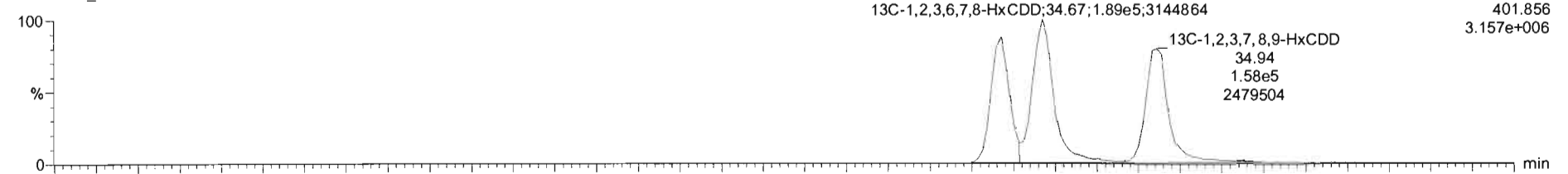


191214K2\_15

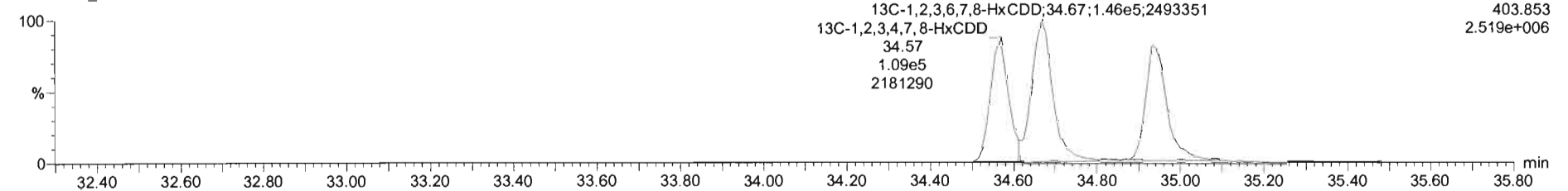


**13C-1,2,3,4,7,8-HxCDD**

191214K2\_15

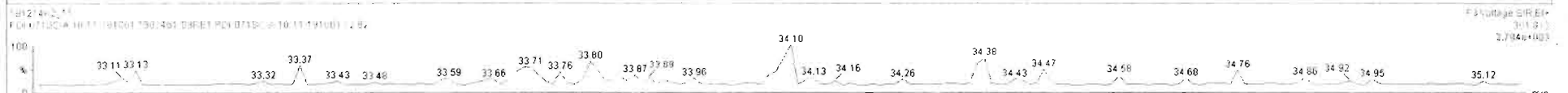
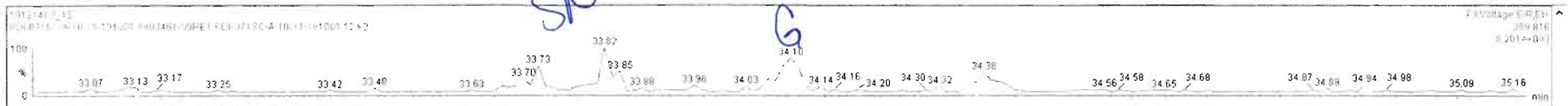


191214K2\_15



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.030					0.0378	
40 Total Penta-Dioxins				0.9046	10.030					0.0604	
41 Total Hexa-Dioxins				0.9675	10.030					0.0835	
42 Total Hepta-Dioxins				1.0375	10.030					0.142	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							

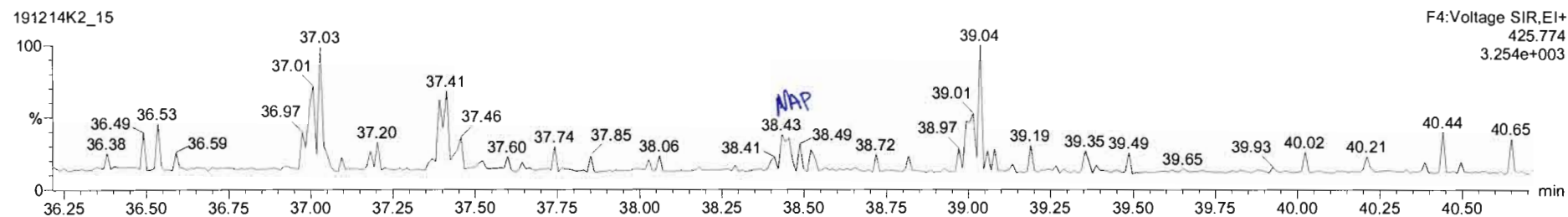
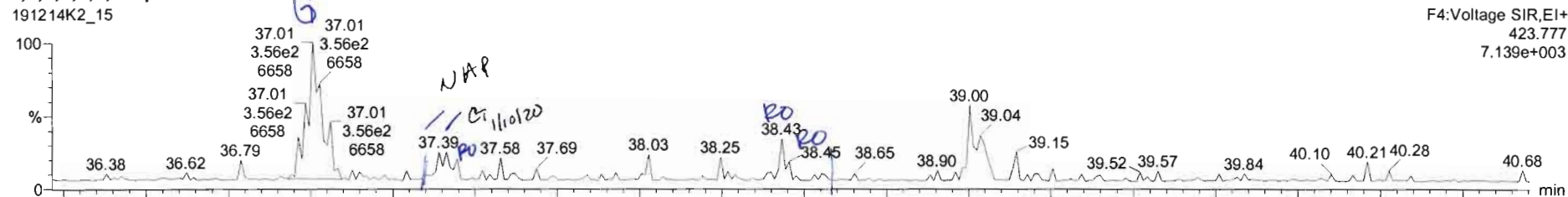


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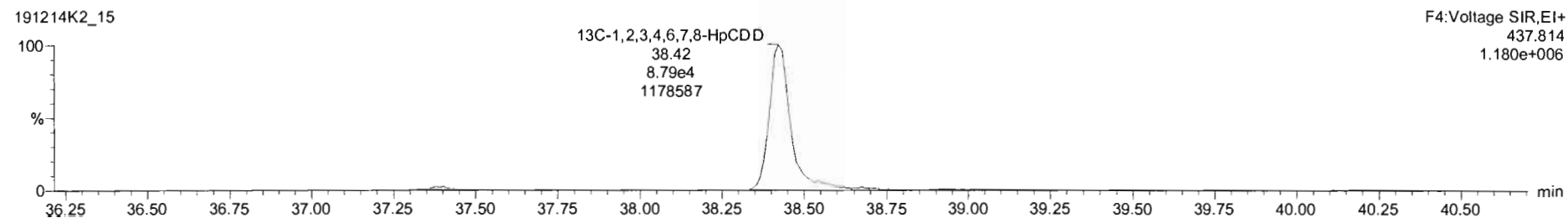
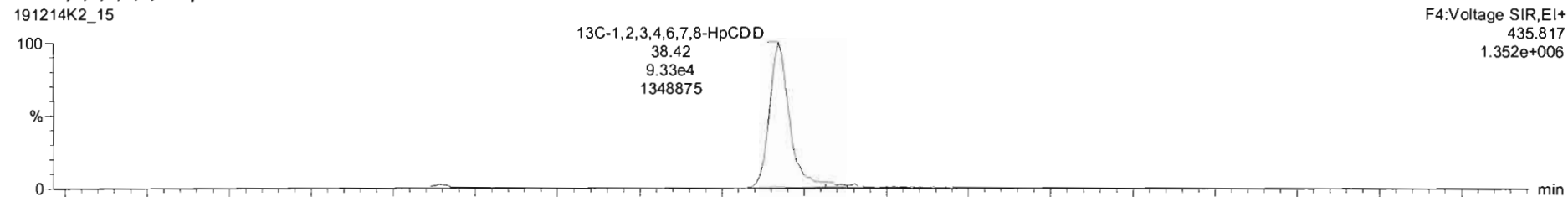
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Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

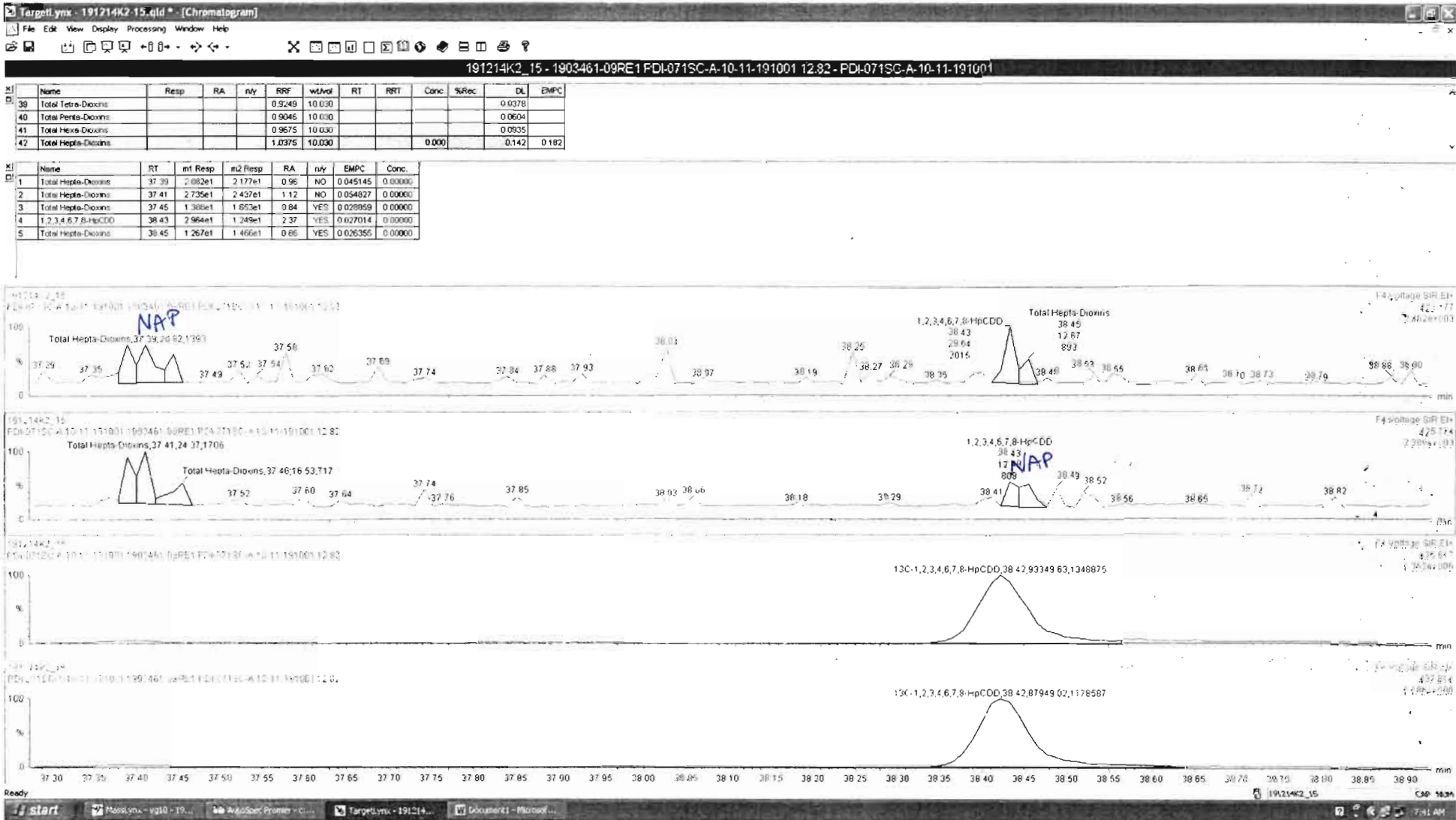
1,2,3,4,6,7,8-HpCDD



13C-1,2,3,4,6,7,8-HpCDD



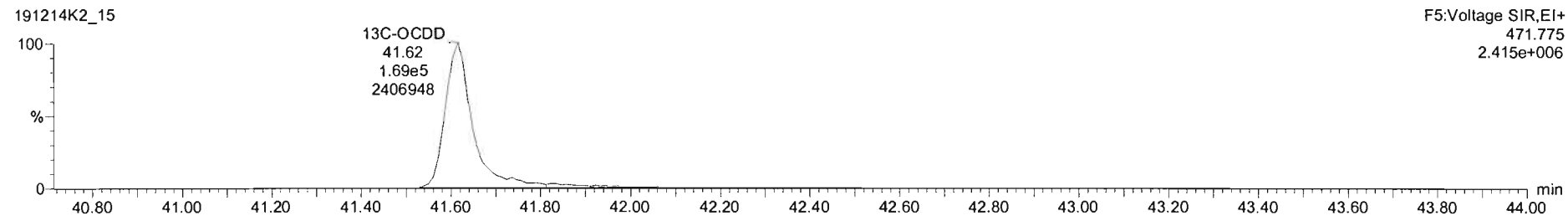
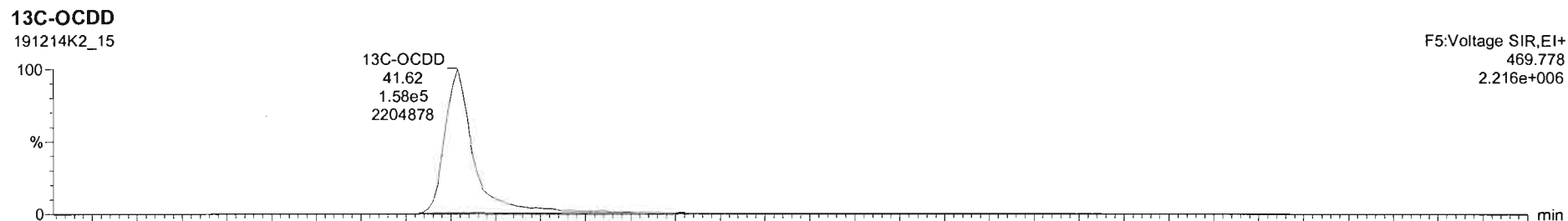
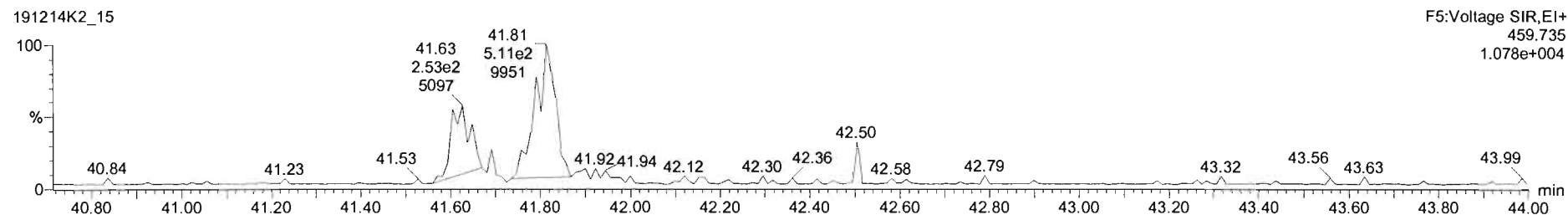
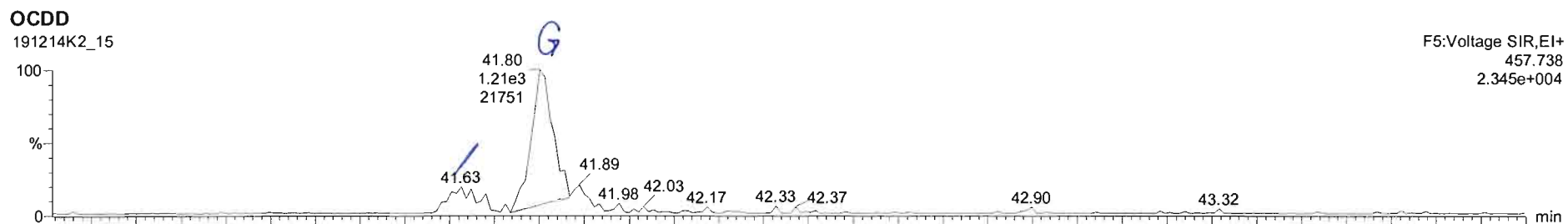


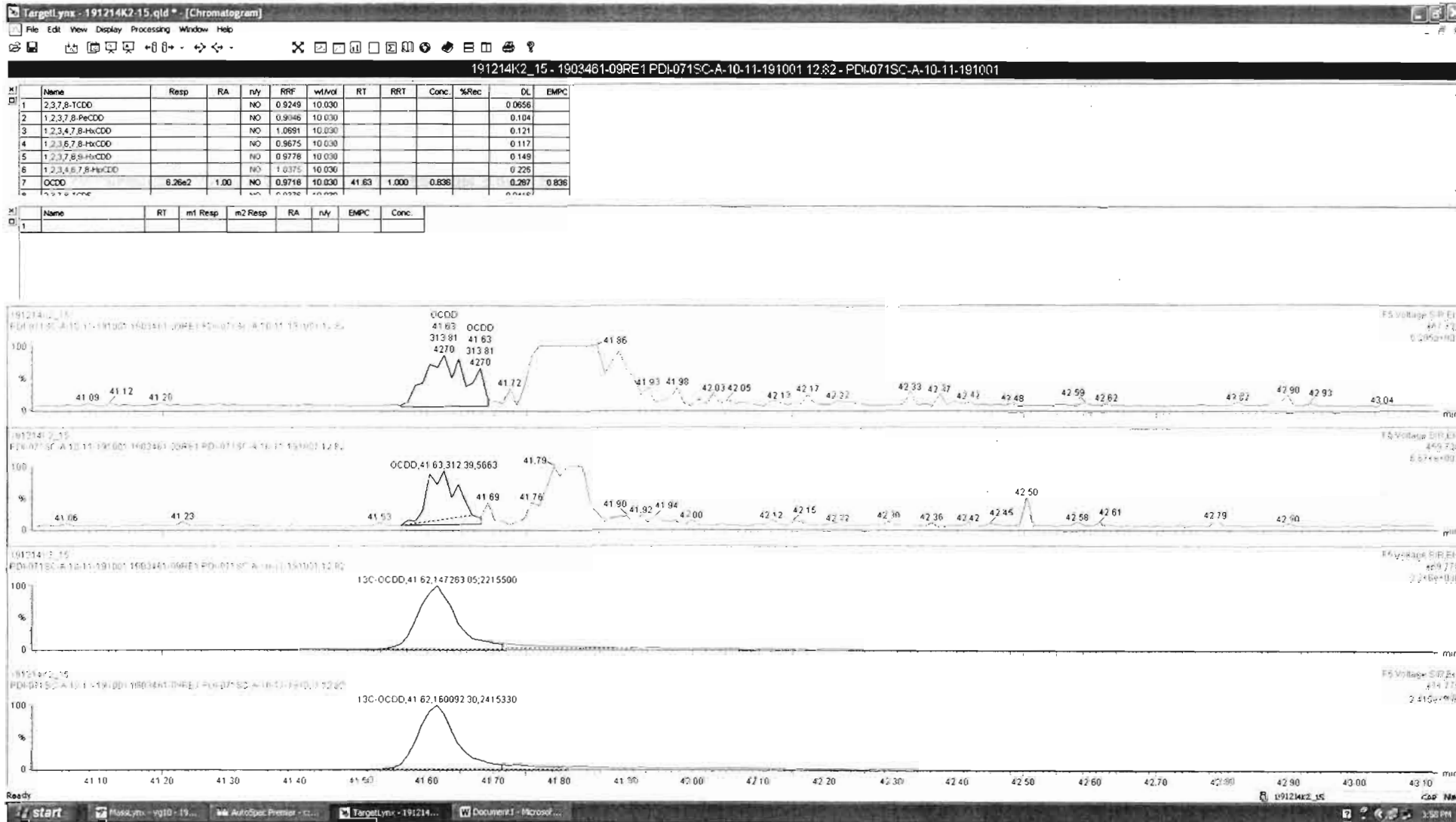


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Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001





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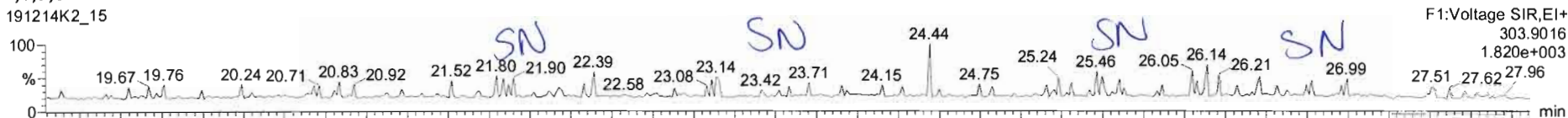
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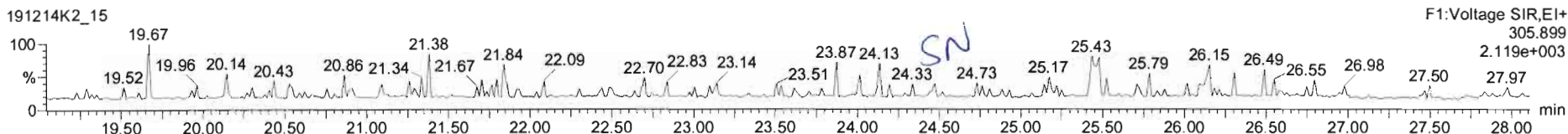
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**2,3,7,8-TCDF**

191214K2\_15

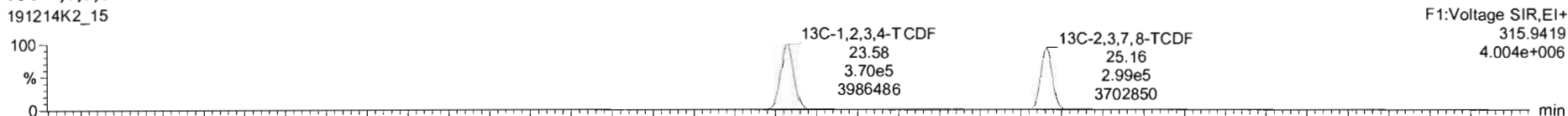


191214K2\_15

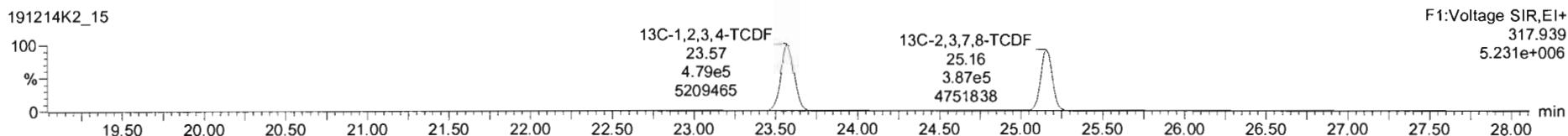


**13C-2,3,7,8-TCDF**

191214K2\_15

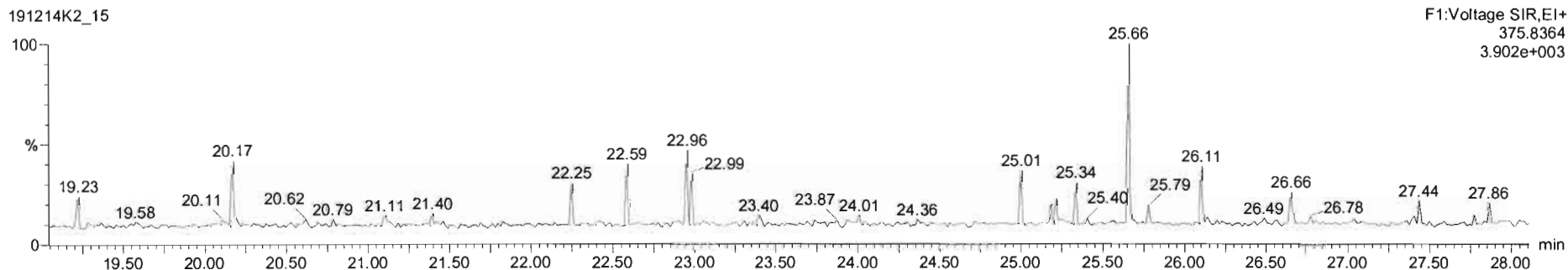


191214K2\_15



**DPE1**

191214K2\_15



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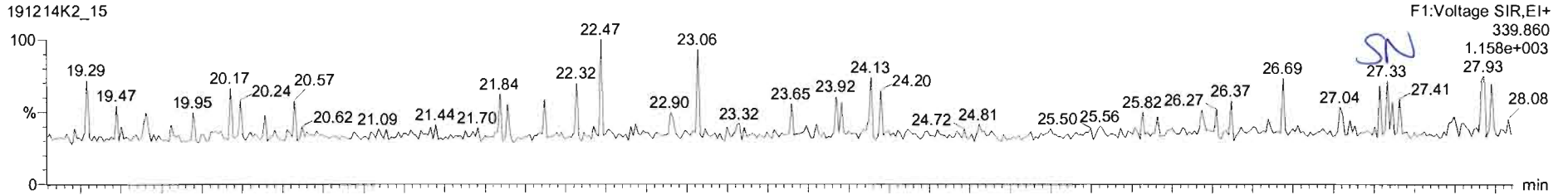
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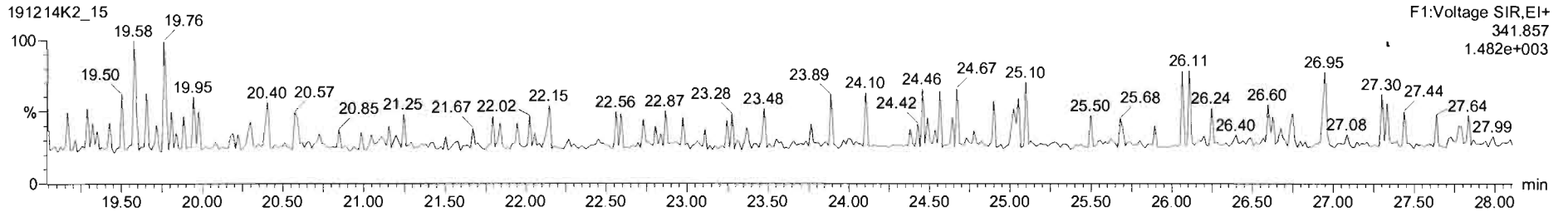
Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

1st Func. Penta-Furans

191214K2\_15

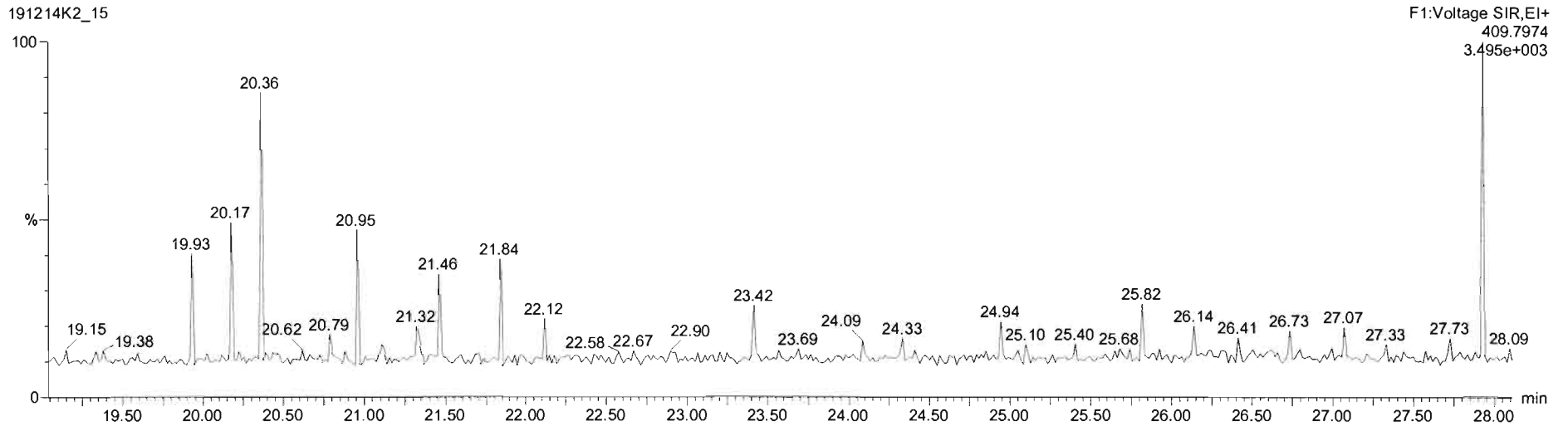


191214K2\_15



DPE6

191214K2\_15



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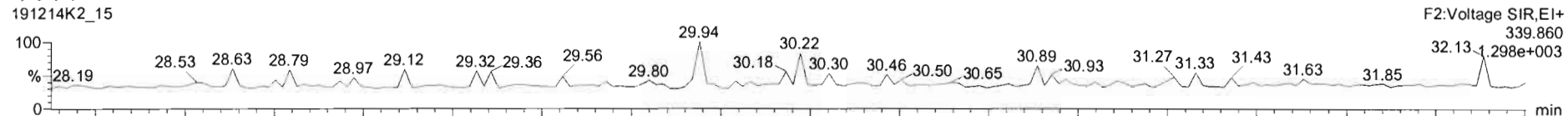
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

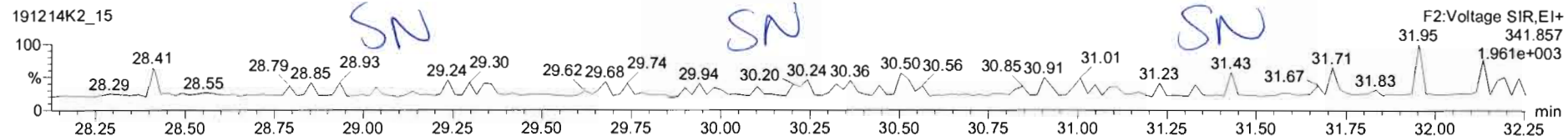
Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

**1,2,3,7,8-PeCDF**

191214K2\_15

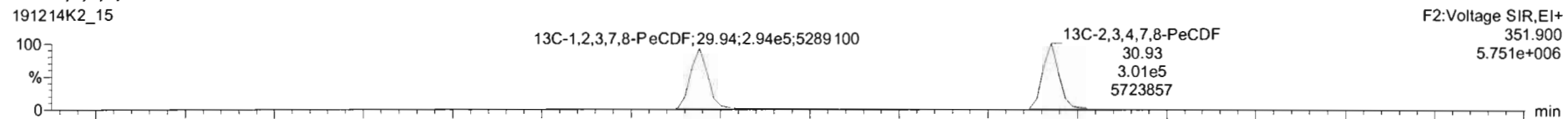


191214K2\_15

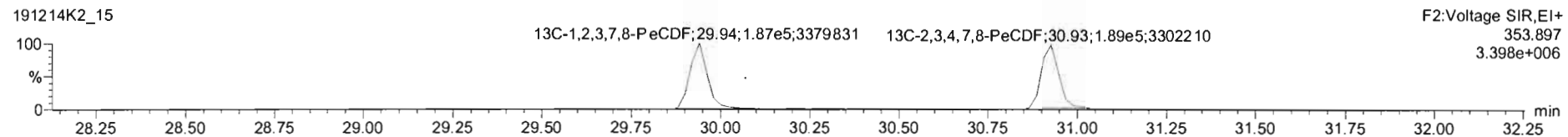


**13C-1,2,3,7,8-PeCDF**

191214K2\_15

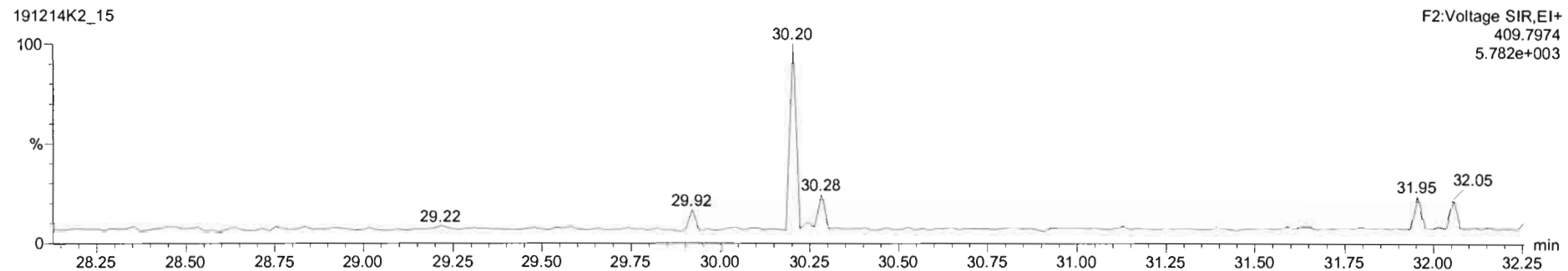


191214K2\_15



**DPE2**

191214K2\_15



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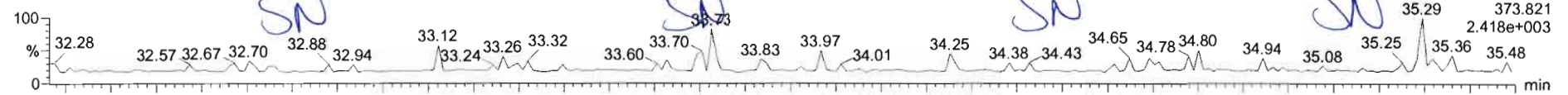
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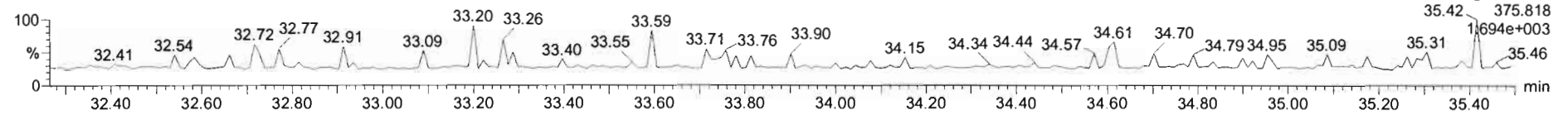
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1,2,3,4,7,8-HxCDF

191214K2\_15

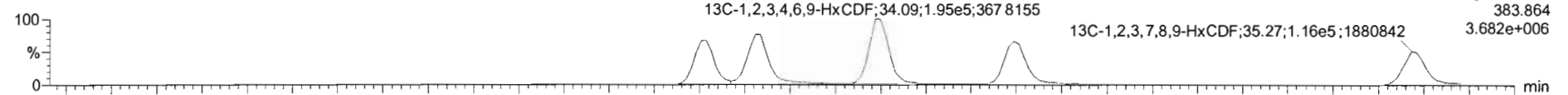


191214K2\_15

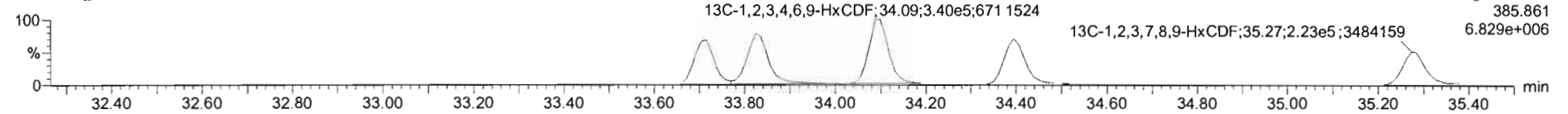


13C-1,2,3,4,7,8-HxCDF

191214K2\_15

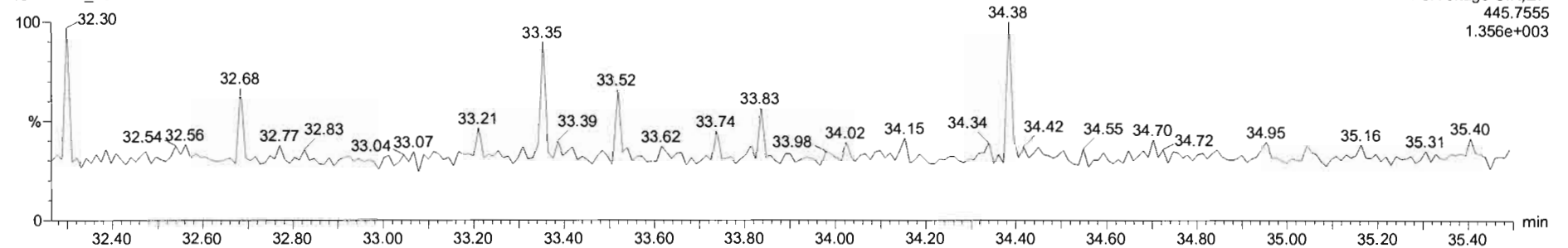


191214K2\_15



DPE3

191214K2\_15

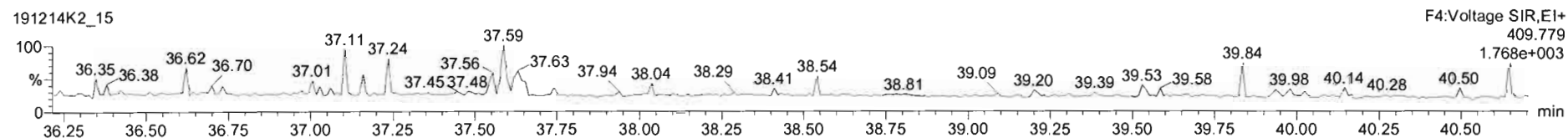
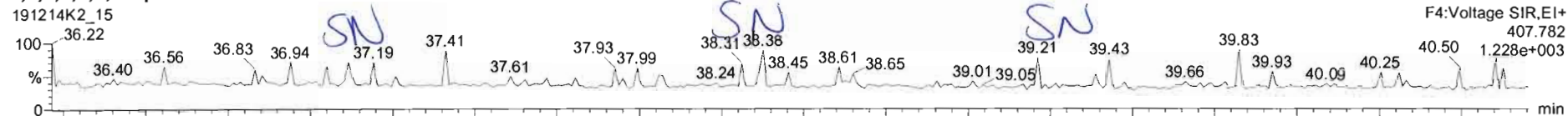


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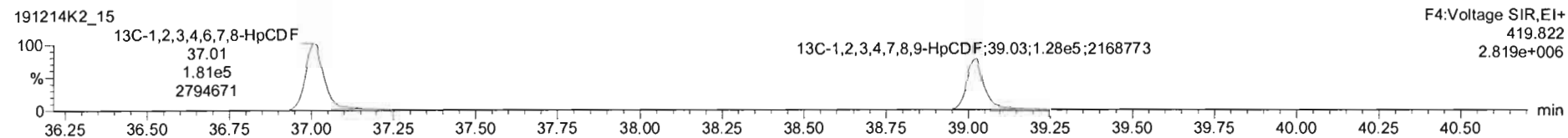
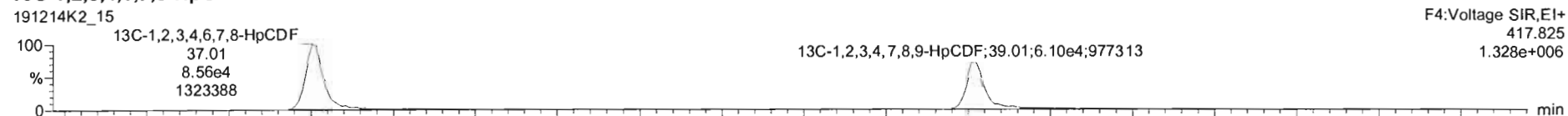
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Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001

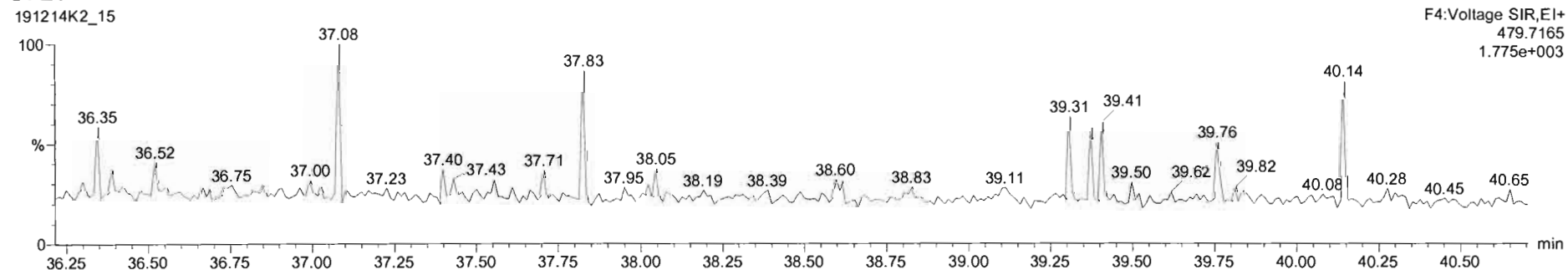
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



DPE4

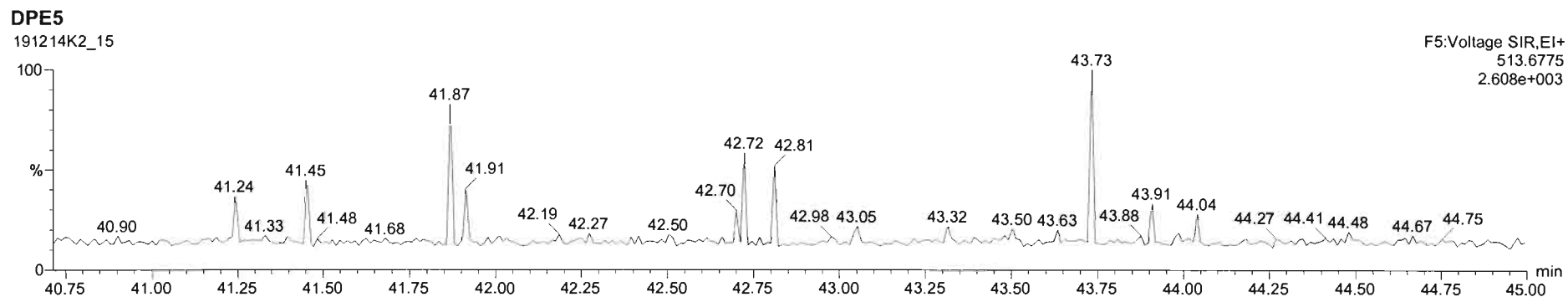
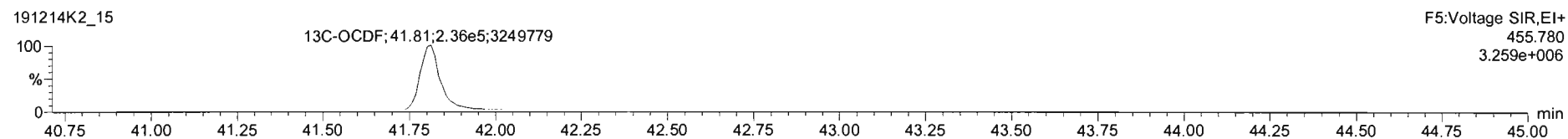
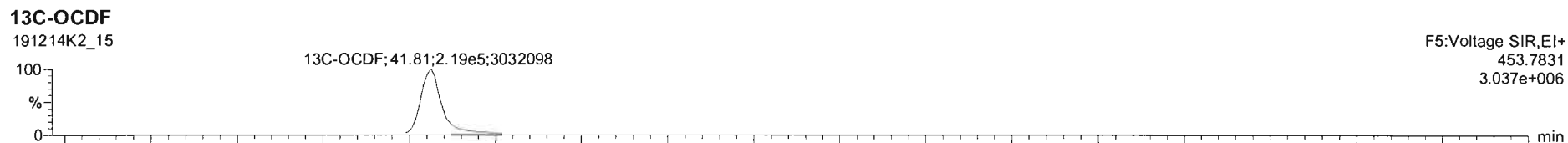
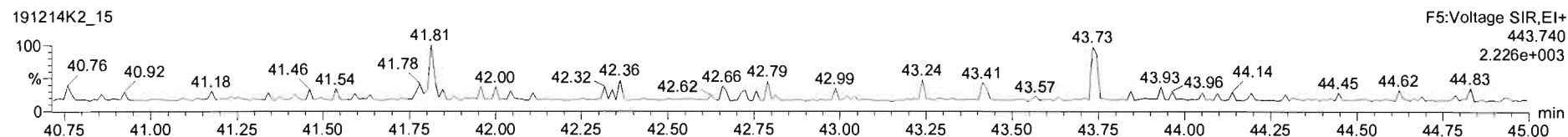
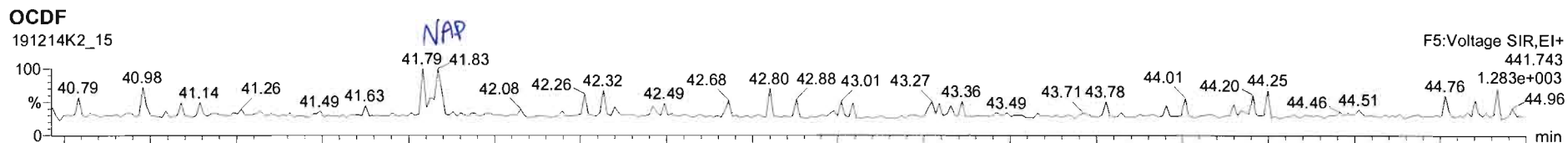




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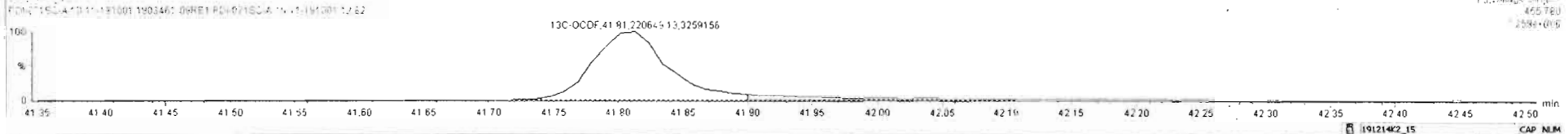
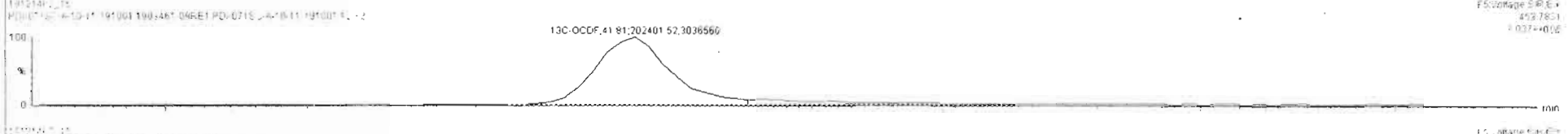
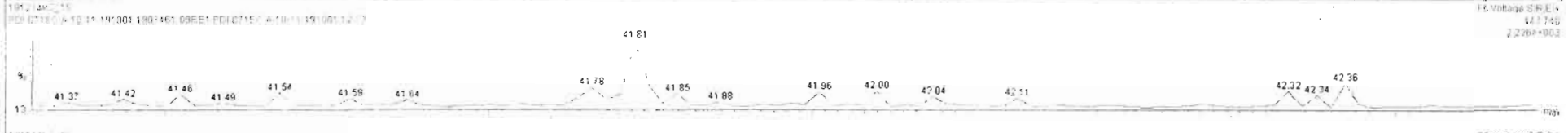
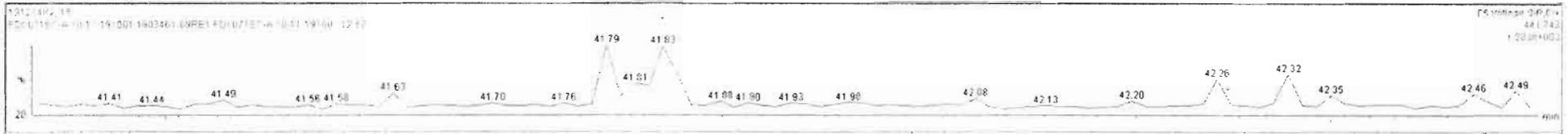
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
11	1,2,3,4,7,8-HxCDF		NO	1.2434	10.030					0.0370	
12	1,2,3,6,7,8-HxCDF		NO	1.0950	10.030					0.0376	
13	2,3,4,6,7,8-HxCDF		NO	1.1806	10.030					0.0389	
14	1,2,3,7,8,9-HxCDF		NO	1.0728	10.030					0.0548	
15	1,2,3,4,6,7,8-HpCDF		NO	1.1309	10.030					0.0427	
16	1,2,3,4,7,8,9-HpCDF		NO	1.2609	10.030					0.0520	
17	OCDF		NO	1.1025	10.030					0.0892	

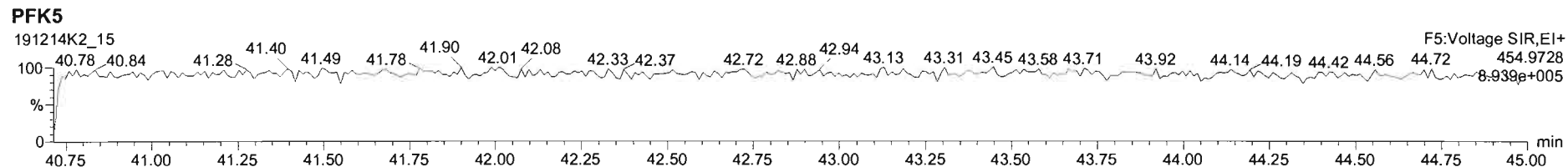
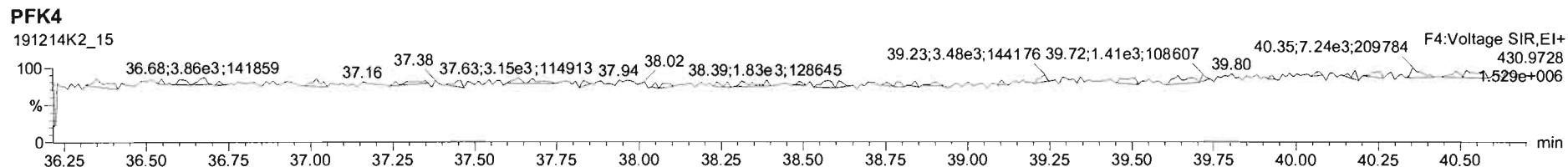
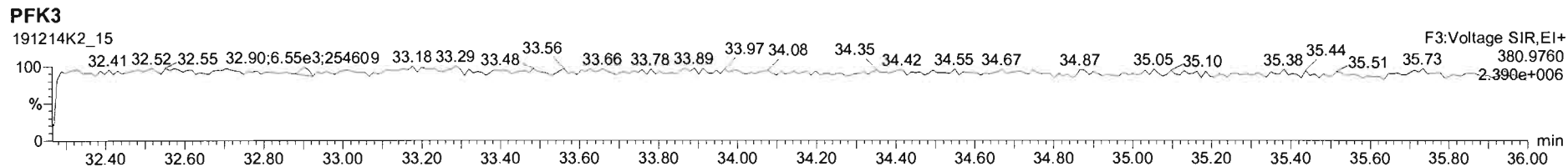
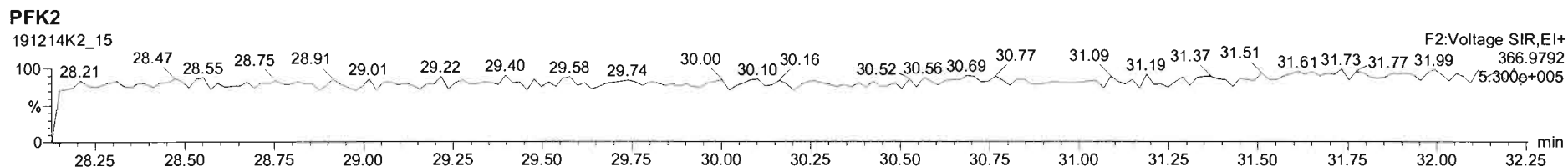
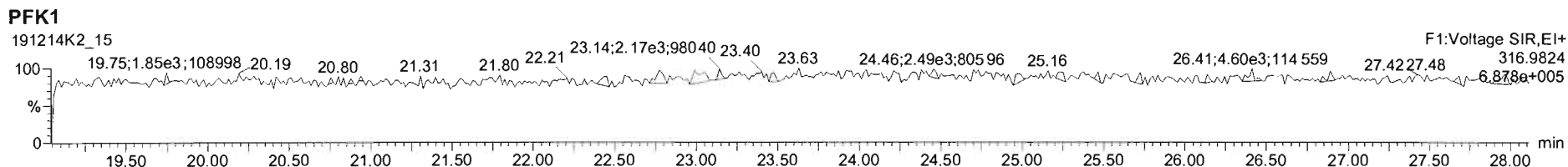
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1							



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_15, Date: 15-Dec-2019, Time: 05:34:44, ID: 1903461-09RE1 PDI-071SC-A-10-11-191001 12.82, Description: PDI-071SC-A-10-11-191001



Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-5.qld

Last Altered: Friday, January 10, 2020 15:03:38 Pacific Standard Time

Printed: Friday, January 10, 2020 15:04:16 Pacific Standard Time

*GRB 01/10/2020*

*CT 01/13/2020*

Method: Untitled 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.925	10.119 ✓	26.168		1.001				0.0982	
2	2 1,2,3,7,8-PeCDD			NO	0.905	10.119	31.271		1.001				0.156	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.119	34.580		1.000				0.247	
4	4 1,2,3,6,7,8-HxCDD			NO	0.967	10.119	34.669		1.000				0.268	
5	5 1,2,3,7,8,9-HxCDD			NO	0.978	10.119	34.978		1.001				0.316	
6	6 1,2,3,4,6,7,8-HpCDD	2.48e2	1.39	YES	1.04	10.119	38.445	38.45	1.000	1.001	0.48162		0.289	0.411
7	7 OCDD	1.41e3	0.84	NO	0.972	10.119	41.615	41.62	1.000	1.000	3.5177		0.407	3.52
8	8 2,3,7,8-TCDF			NO	0.938	10.119	25.168		1.001				0.0645	
9	9 1,2,3,7,8-PeCDF			NO	0.976	10.119	29.962		1.001				0.0470	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.119	30.958		1.001				0.0401	
11	11 1,2,3,4,7,8-HxCDF			NO	1.24	10.119	33.714		1.000				0.0524	
12	12 1,2,3,6,7,8-HxCDF			NO	1.10	10.119	33.845		1.000				0.0493	
13	13 2,3,4,6,7,8-HxCDF			NO	1.18	10.119	34.440		1.001				0.0529	
14	14 1,2,3,7,8,9-HxCDF			NO	1.07	10.119	35.284		1.000				0.0816	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.13	10.119	37.054		1.001				0.0657	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.26	10.119	39.026		1.000				0.0855	
17	17 OCDF			NO	1.10	10.119	41.813		1.000				0.104	
18	18 13C-2,3,7,8-TCDD	2.76e5	0.76	NO	1.05	10.119	26.131	26.14	1.027	1.028	199.83	101	0.399	
19	19 13C-1,2,3,7,8-PeCDD	2.06e5	0.66	NO	0.743	10.119	31.139	31.25	1.224	1.229	211.10	107	1.32	
20	20 13C-1,2,3,4,7,8-HxCDD	1.65e5	1.32	NO	0.646	10.119	34.569	34.57	1.014	1.014	162.34	82.1	0.931	
21	21 13C-1,2,3,6,7,8-HxCDD	1.95e5	1.26	NO	0.777	10.119	34.667	34.67	1.017	1.017	159.78	80.8	0.774	
22	22 13C-1,2,3,7,8,9-HxCDD	1.66e5	1.23	NO	0.659	10.119	34.940	34.94	1.025	1.025	160.00	81.0	0.912	
23	23 13C-1,2,3,4,6,7,8-HpCDD	9.79e4	1.10	NO	0.534	10.119	38.432	38.43	1.127	1.127	116.49	58.9	0.916	
24	24 13C-OCDD	1.63e5	0.85	NO	0.470	10.119	41.606	41.62	1.220	1.220	220.58	55.8	1.11	
25	25 13C-2,3,7,8-TCDF	4.29e5	0.75	NO	0.977	10.119	25.205	25.14	0.991	0.989	211.26	107	0.437	
26	26 13C-1,2,3,7,8-PeCDF	3.37e5	1.71	NO	0.778	10.119	29.852	29.94	1.174	1.177	208.58	106	1.51	
27	27 13C-2,3,4,7,8-PeCDF	3.39e5	1.63	NO	0.750	10.119	30.859	30.93	1.213	1.216	217.22	110	1.57	
28	28 13C-1,2,3,4,7,8-HxCDF	2.30e5	0.52	NO	0.845	10.119	33.709	33.71	0.989	0.989	173.24	87.7	1.37	
29	29 13C-1,2,3,6,7,8-HxCDF	2.90e5	0.50	NO	1.03	10.119	33.825	33.83	0.992	0.992	179.47	90.8	1.12	
30	30 13C-2,3,4,6,7,8-HxCDF	2.64e5	0.52	NO	0.893	10.119	34.398	34.41	1.009	1.009	187.68	95.0	1.29	

Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-5.qld

Last Altered: Friday, January 10, 2020 15:03:38 Pacific Standard Time

Printed: Friday, January 10, 2020 15:04:16 Pacific Standard Time

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

	#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31	13C-1,2,3,7,8,9-HxCDF	2.13e5	0.53	NO	0.734	10.119	35.298	35.28	1.035	1.035	184.32	93.3	1.57	
32	32	13C-1,2,3,4,6,7,8-HpCDF	1.56e5	0.44	NO	0.754	10.119	37.010	37.02	1.085	1.086	131.74	66.7	0.947	
33	33	13C-1,2,3,4,7,8,9-HpCDF	1.03e5	0.46	NO	0.539	10.119	39.032	39.03	1.145	1.145	121.60	61.5	1.33	
34	34	13C-OCDF	2.36e5	0.90	NO	0.593	10.119	41.818	41.81	1.226	1.226	253.53	64.1	0.995	
35	35	37Cl-2,3,7,8-TCDD	1.12e5			1.07	10.119	26.151	26.15	1.028	1.028	79.814	101	0.299	
36	36	13C-1,2,3,4-TCDD	2.60e5	0.78	NO	1.00	10.119	25.500	25.43	1.000	1.000	197.64	100	0.418	
37	37	13C-1,2,3,4-TCDF	4.11e5	0.76	NO	1.00	10.119	23.680	23.57	1.000	1.000	197.64	100	0.427	
38	38	13C-1,2,3,4,6,9-HxCDF	3.11e5	0.51	NO	1.00	10.119	34.060	34.10	1.000	1.000	197.64	100	1.15	
39	39	Total Tetra-Dioxins				0.925	10.119	24.620		0.000				0.0554	
40	40	Total Penta-Dioxins				0.905	10.119	29.960		0.000		0.00000		0.0588	0.0382
41	41	Total Hexa-Dioxins				0.967	10.119	33.635		0.000		0.35841		0.168	0.358
42	42	Total Hepta-Dioxins				1.04	10.119	38.800		0.000		0.71225		0.259	1.12
43	43	Total Tetra-Furans				0.938	10.119	23.610		0.000				0.0321	
44	44	1st Func. Penta-Furans				0.976	10.119	27.040		0.000				0.0110	
45	45	Total Penta-Furans				0.976	10.119	29.275		0.000				0.0181	
46	46	Total Hexa-Furans				1.18	10.119	33.555		0.000				0.0291	
47	47	Total Hepta-Furans				1.13	10.119	37.835		0.000				0.0509	

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Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-5.qld

Last Altered: Friday, January 10, 2020 15:03:38 Pacific Standard Time

Printed: Friday, January 10, 2020 15:04:16 Pacific Standard Time

Method: Untitled 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	30.89	1.198e3	1.007e3	4.757e1	2.215e1	2.15	YES	0.000e0	0.00000	0.038239	0.0588

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.14	3.969e3	3.185e3	1.759e2	1.320e2	1.33	NO	3.079e2	0.35841	0.35841	0.168

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.42	3.884e3	4.623e3	1.763e2	1.899e2	0.93	NO	3.662e2	0.71225	0.71225	0.259
2	1,2,3,4,6,7,8-HpCDD	38.45	2.169e3	2.767e3	1.440e2	1.035e2	1.39	YES	2.476e2	0.00000	0.41089	0.259

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

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Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-5.qld

Last Altered: Friday, January 10, 2020 15:03:38 Pacific Standard Time

Printed: Friday, January 10, 2020 15:04:16 Pacific Standard Time

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Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

**Penta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hexa-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

**Hepta-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Dataset: Untitled

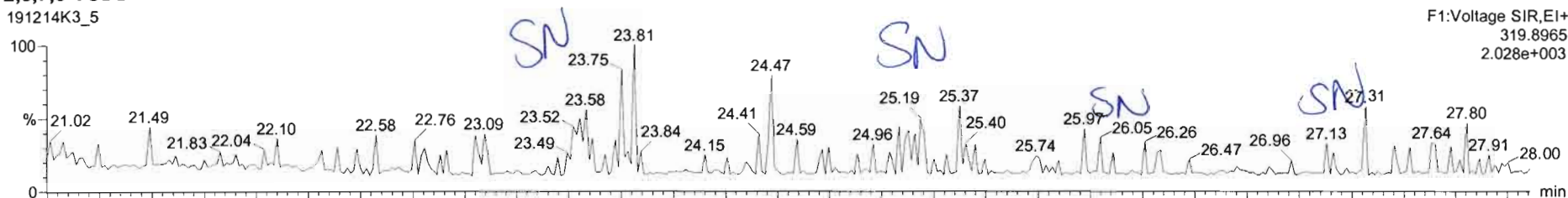
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

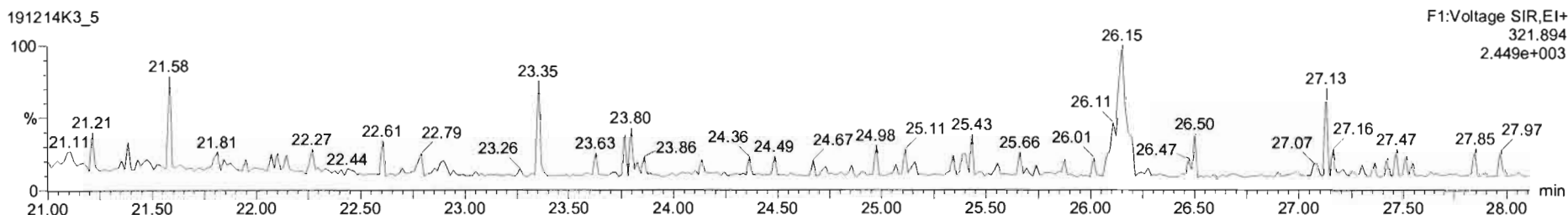
Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

**2,3,7,8-TCDD**

191214K3\_5

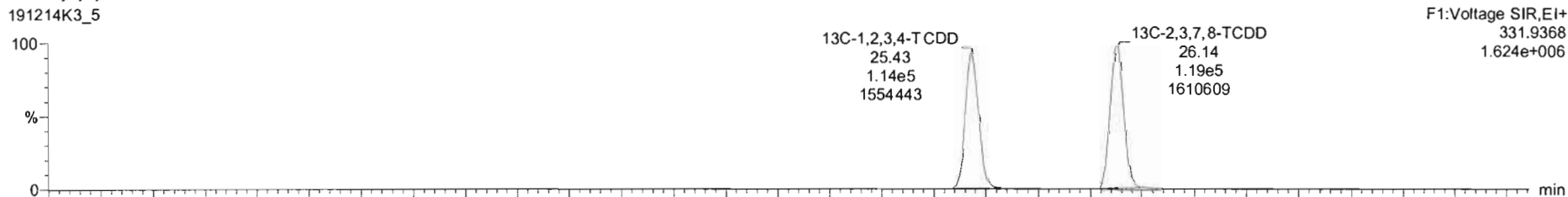


191214K3\_5

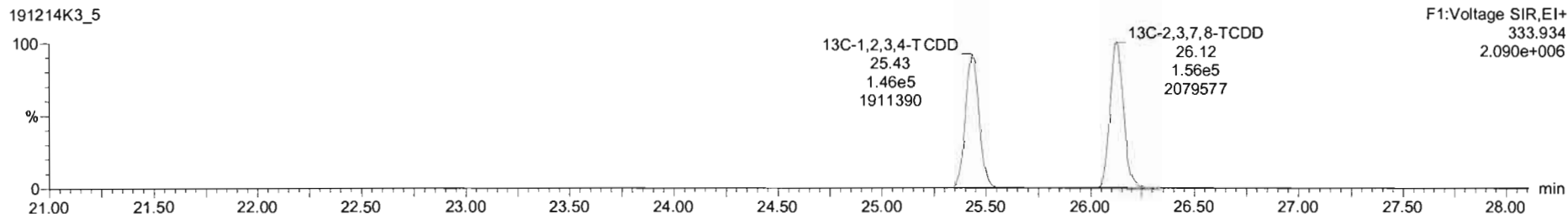


**13C-2,3,7,8-TCDD**

191214K3\_5



191214K3\_5





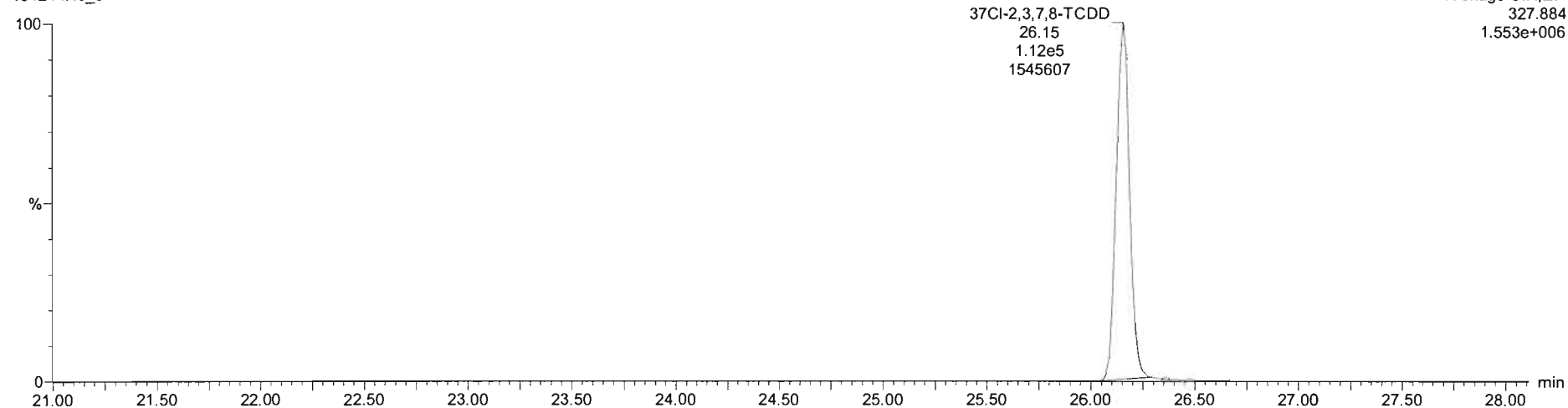
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

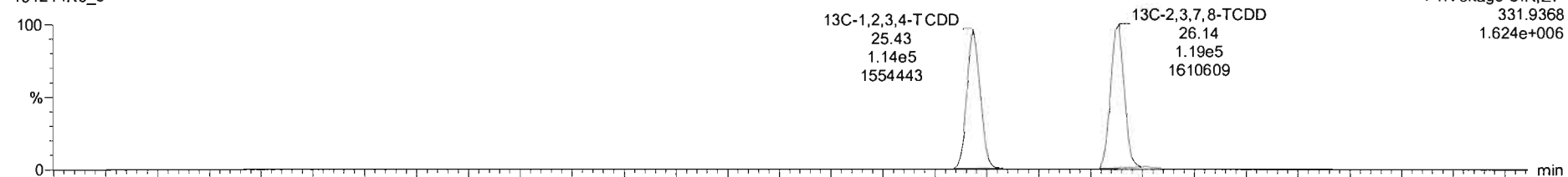
**37Cl-2,3,7,8-TCDD**

191214K3\_5

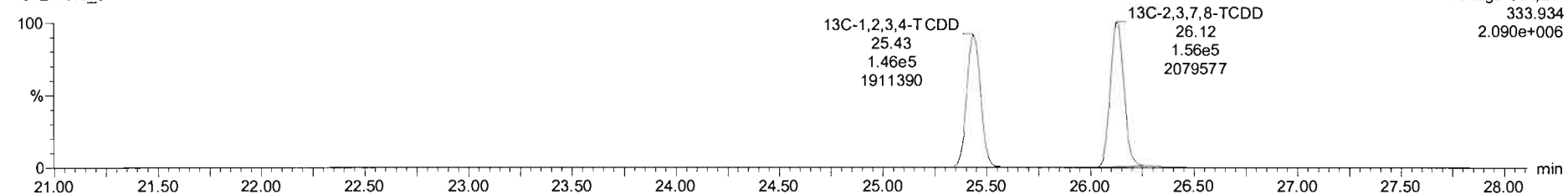


**13C-1,2,3,4-TCDD**

191214K3\_5



191214K3\_5



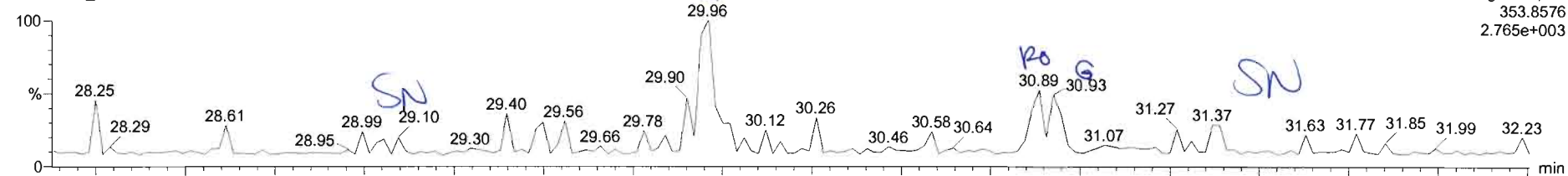
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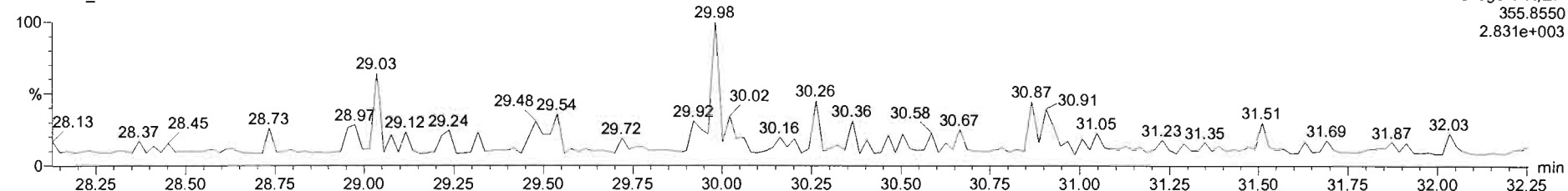
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1,2,3,7,8-PeCDD

191214K3\_5

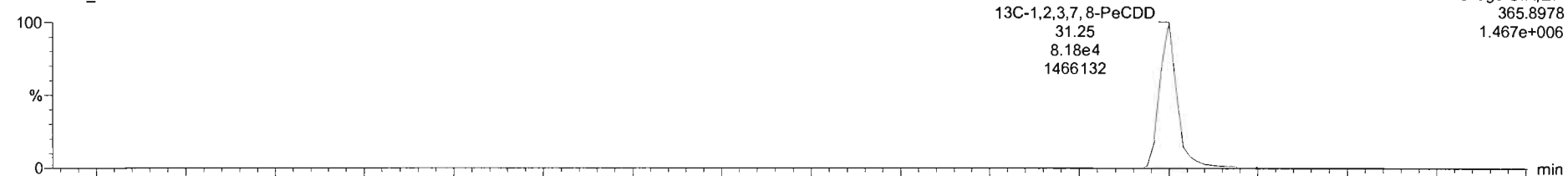


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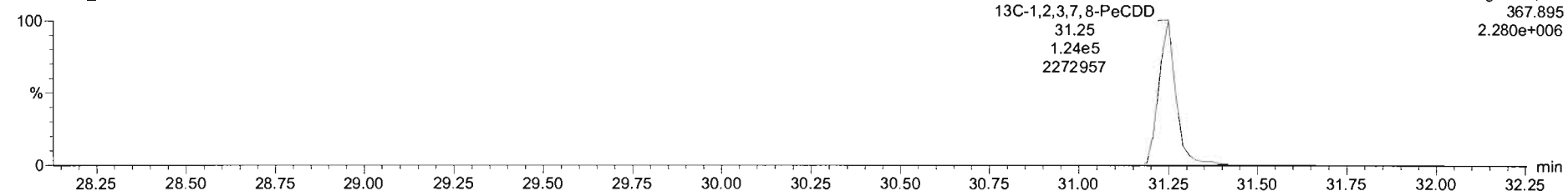


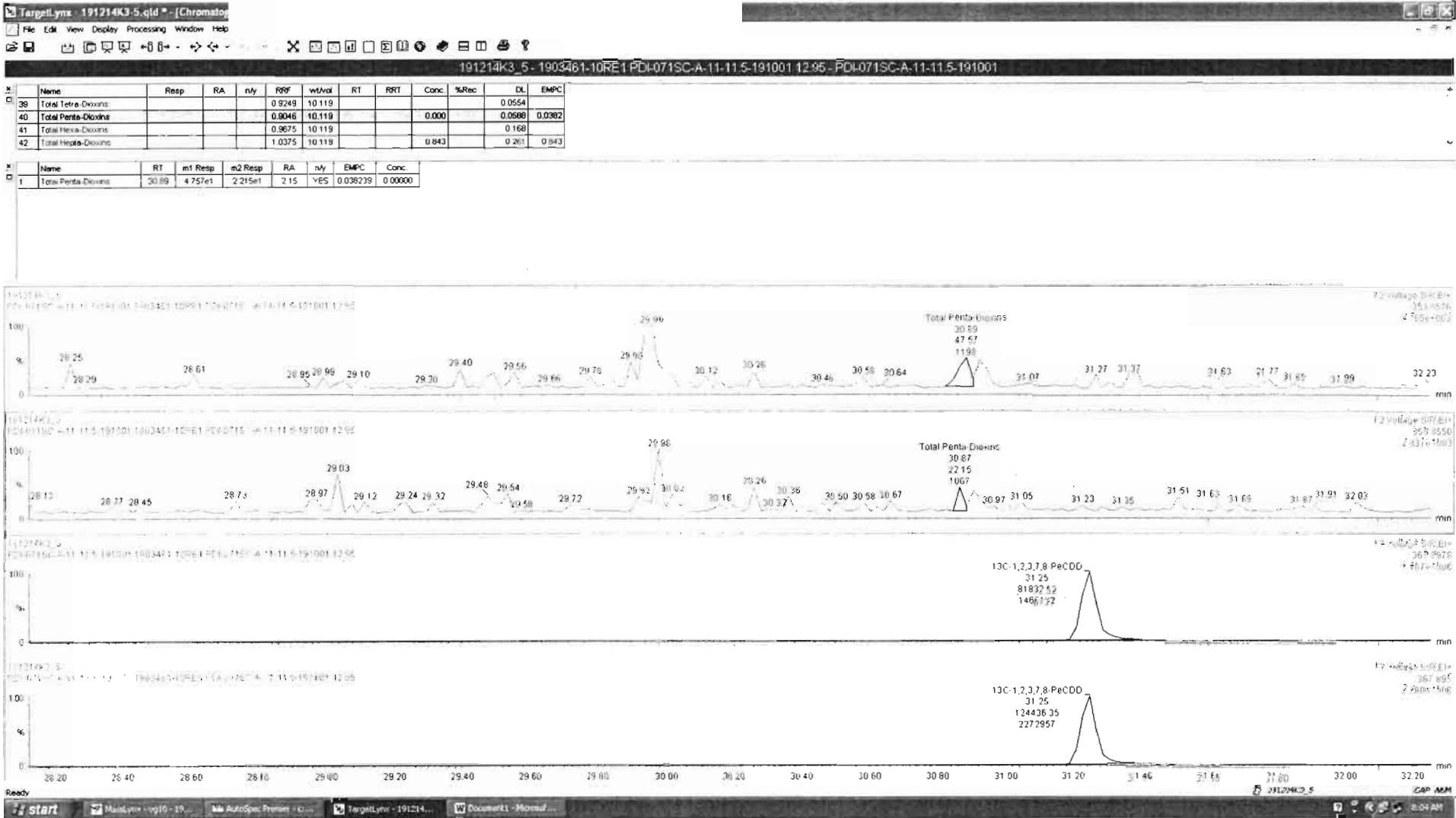
13C-1,2,3,7,8-PeCDD

191214K3\_5



191214K3\_5





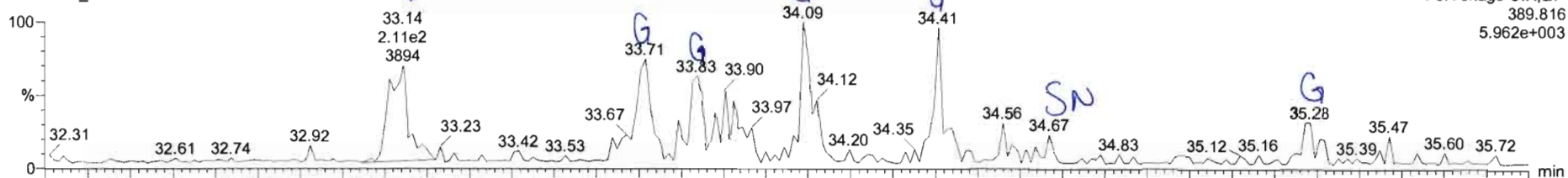
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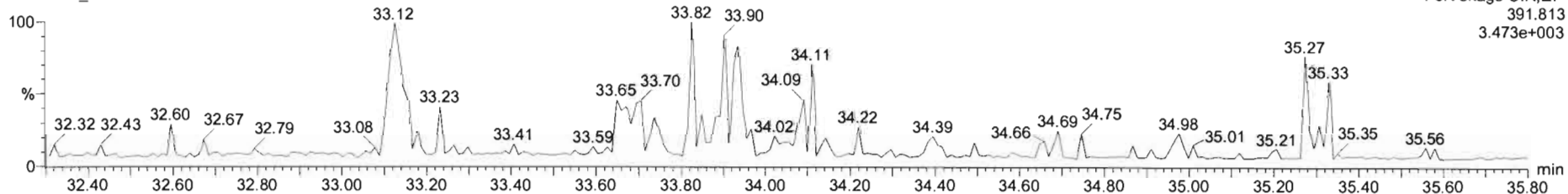
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1,2,3,4,7,8-HxCDD

191214K3\_5

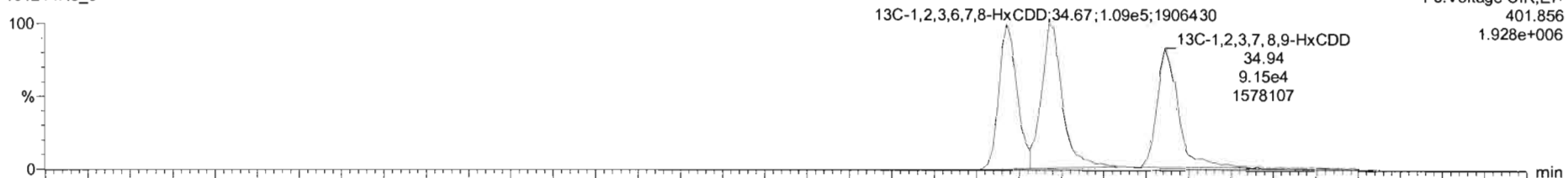


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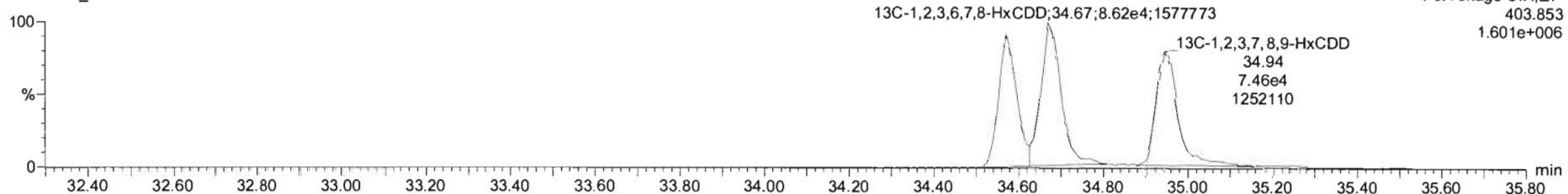


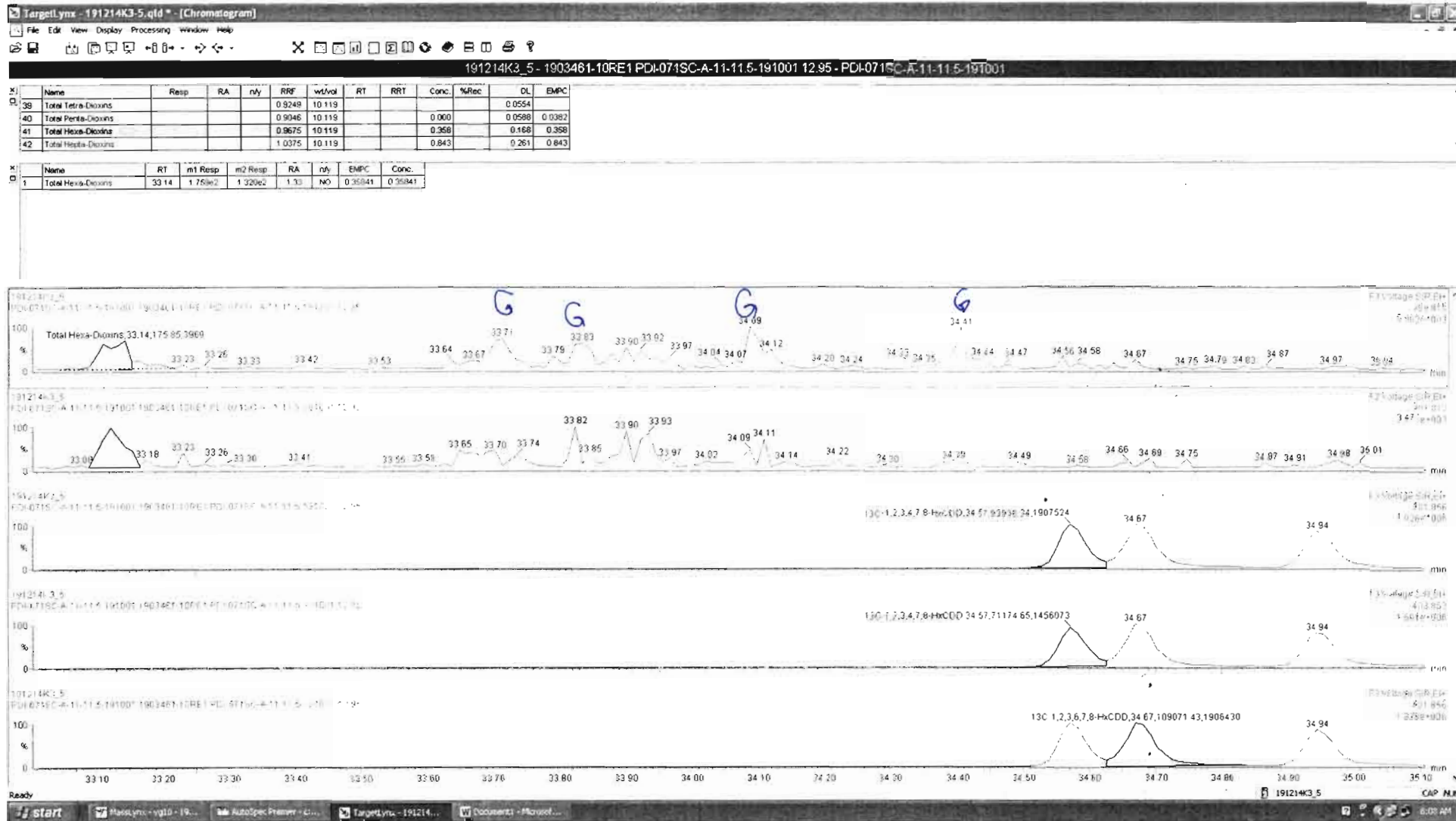
13C-1,2,3,4,7,8-HxCDD

191214K3\_5



191214K3\_5





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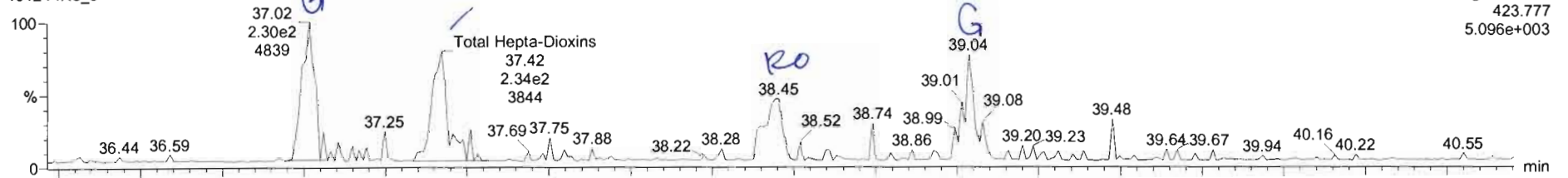
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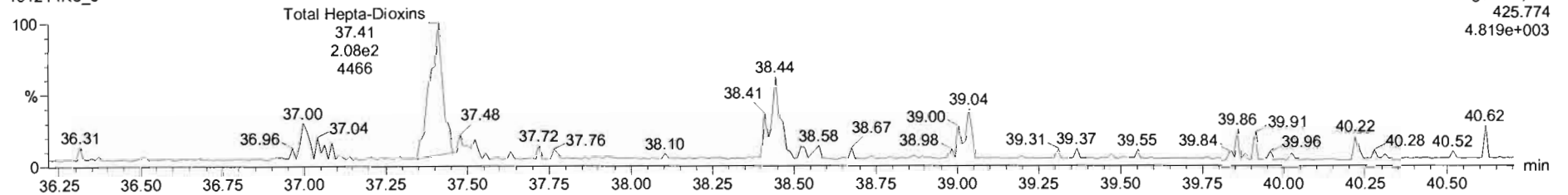
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1,2,3,4,6,7,8-HpCDD

191214K3\_5

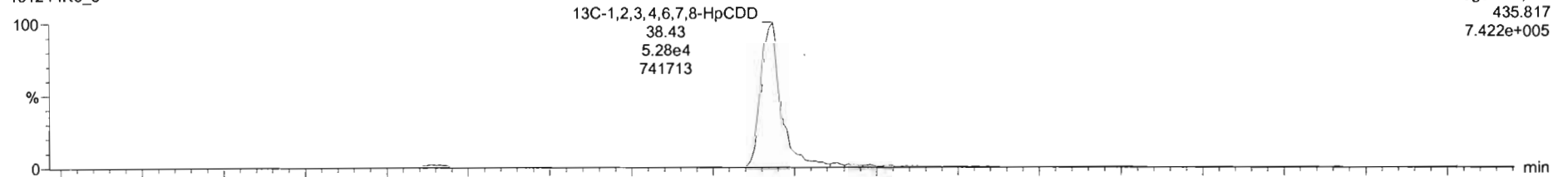


191214K3\_5

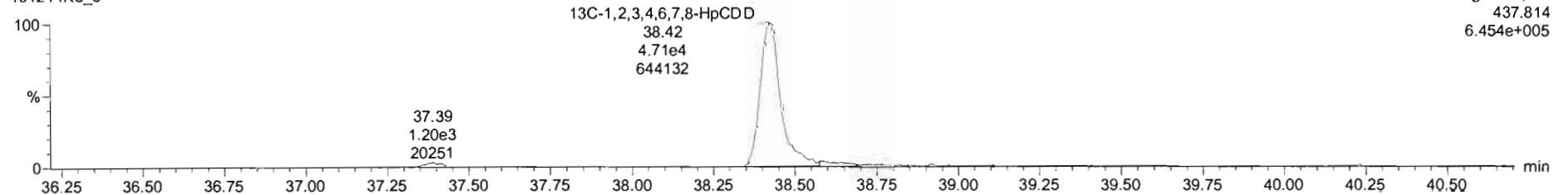


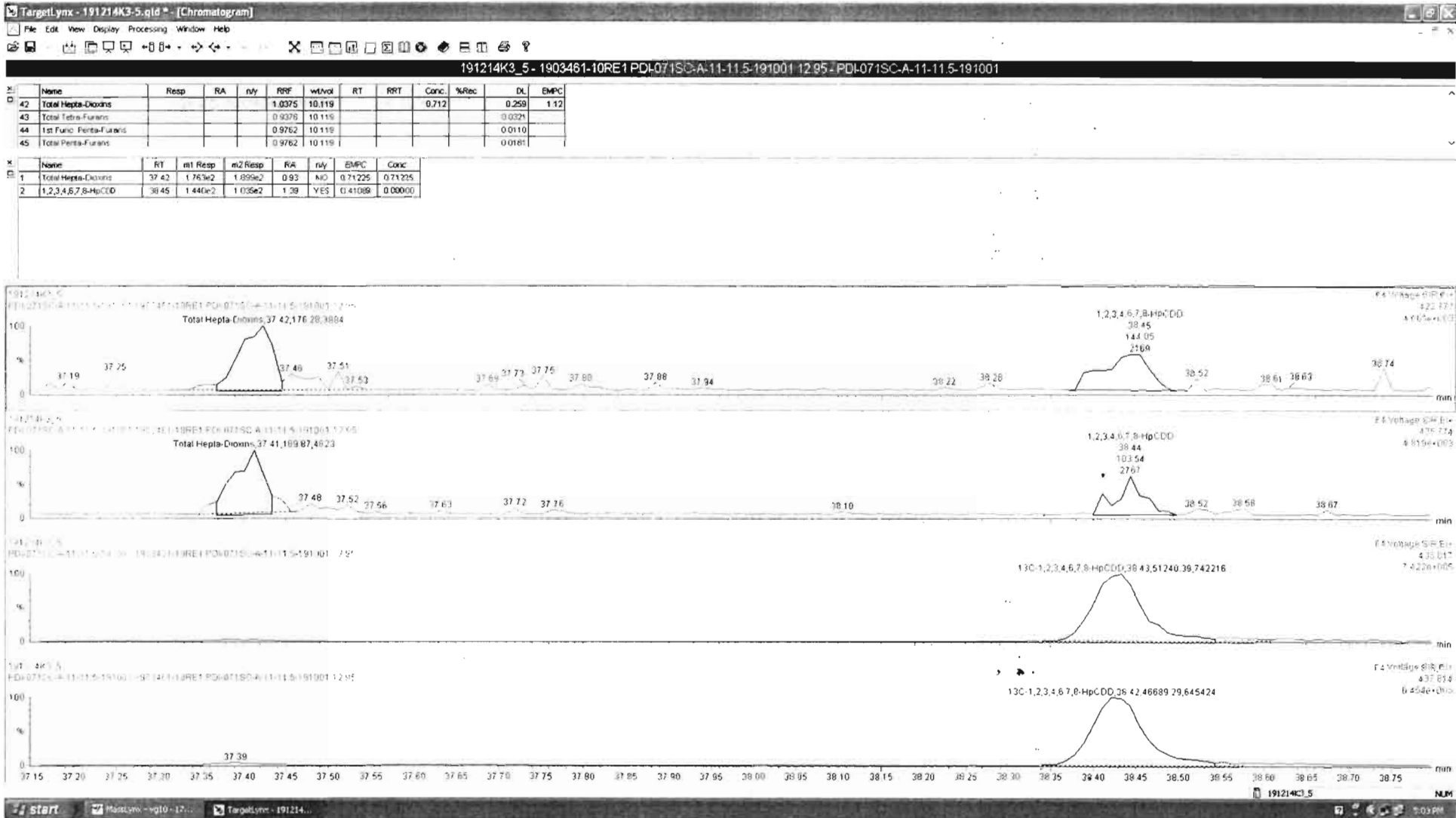
13C-1,2,3,4,6,7,8-HpCDD

191214K3\_5



191214K3\_5

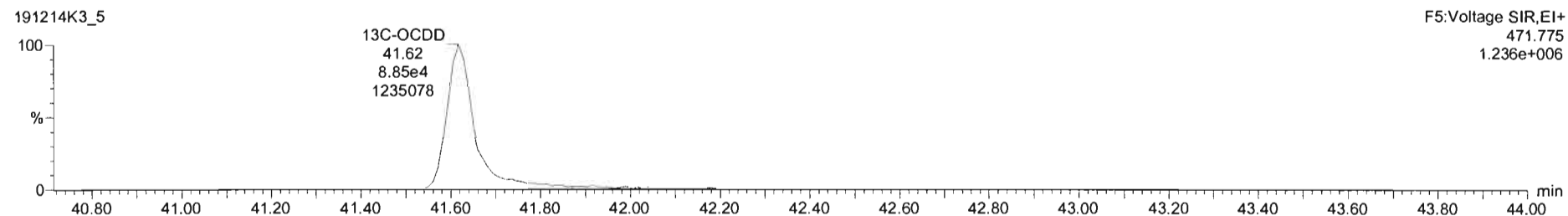
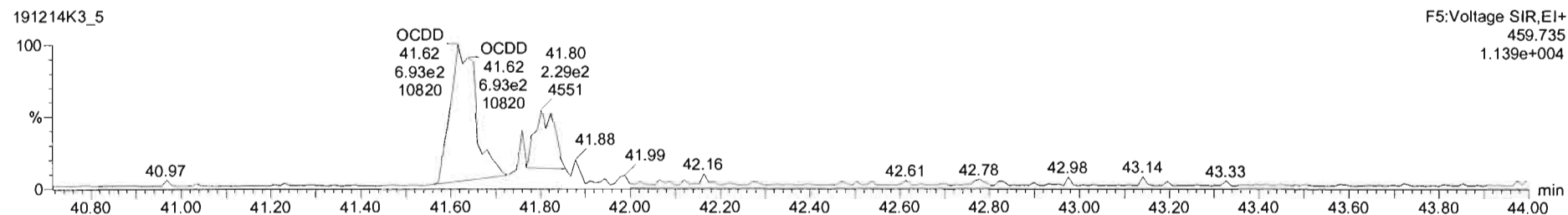
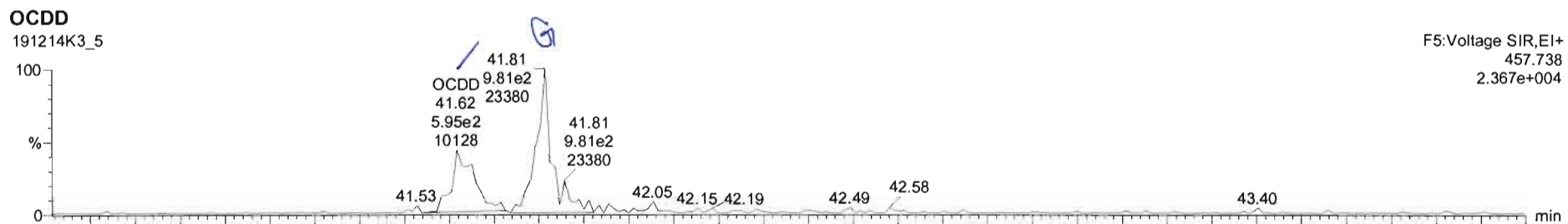




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Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

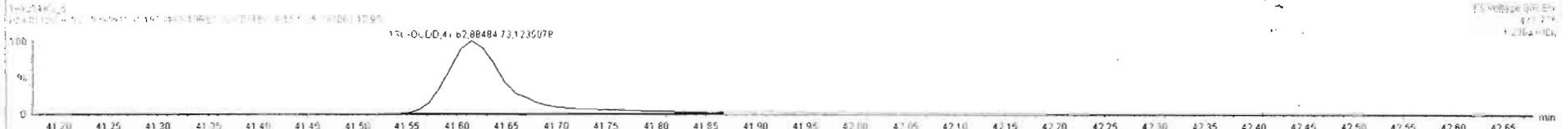
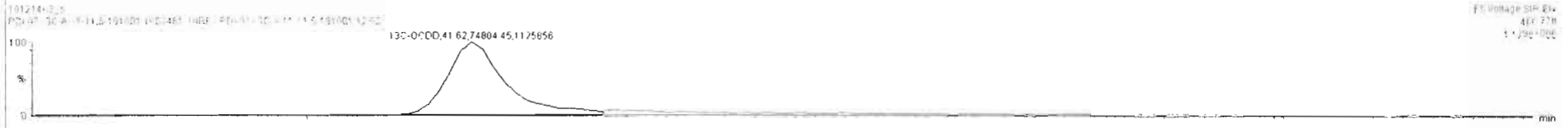
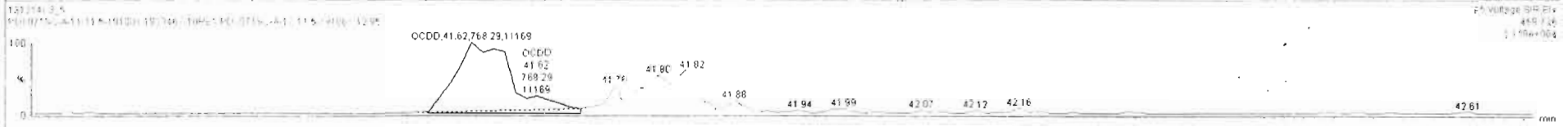
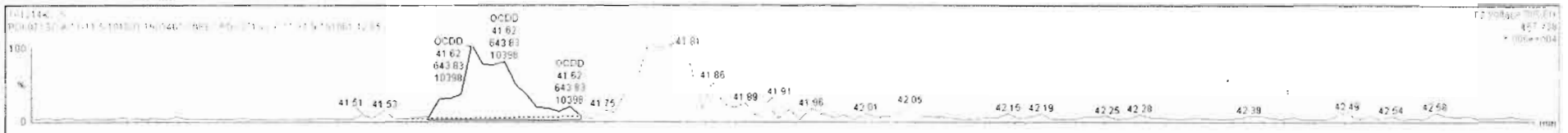




191214K3\_5 - 1903461-10RE1 PDI-071SC-A-11-11 5-191001 12.95 - PDI-071SC-A-11-11 5-191001

Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
6	1,2,3,4,6,7,8-HpCDD		NO	1.0375	10.119			0.261			
7	OCDD	1.41e3	0.84	NO	0.9718	10.119	41.62	1.000	3.52	0.407	3.52
8	2,3,7,8-TCDF		NO	0.9376	10.119			0.0645			
9	1,2,3,7,8-PeCDF		NO	0.9762	10.119			0.0470			

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1							



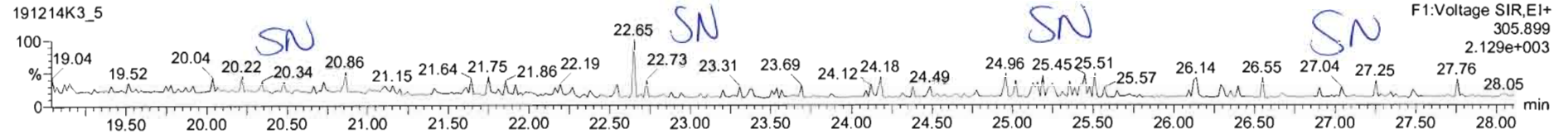
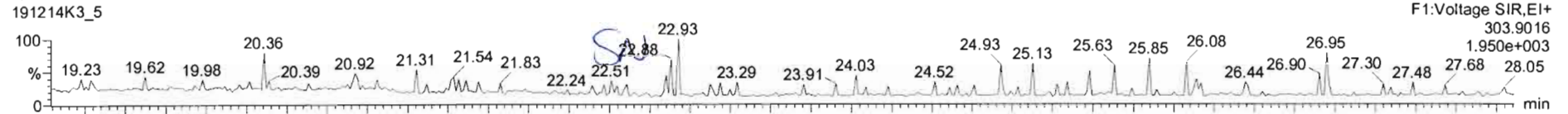
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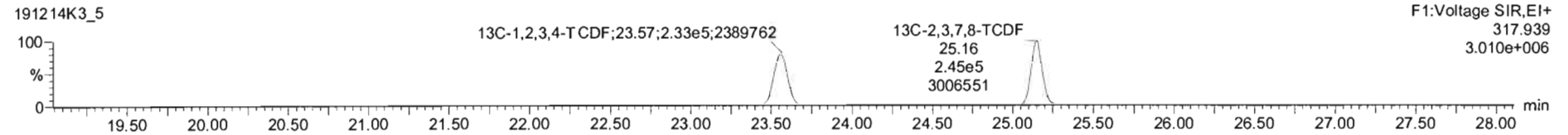
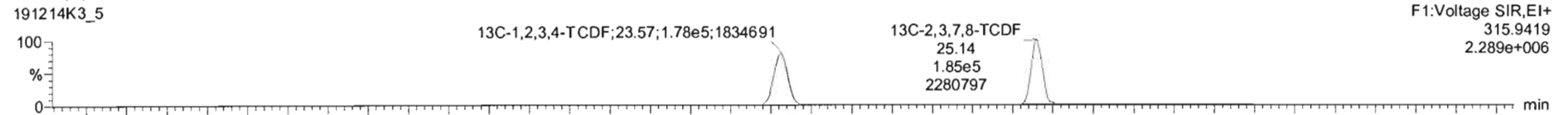
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Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

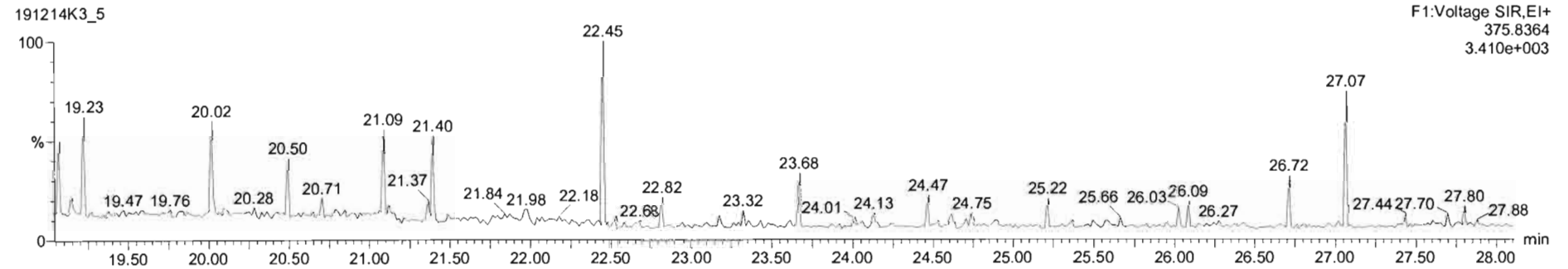
2,3,7,8-TCDF



13C-2,3,7,8-TCDF



DPE1



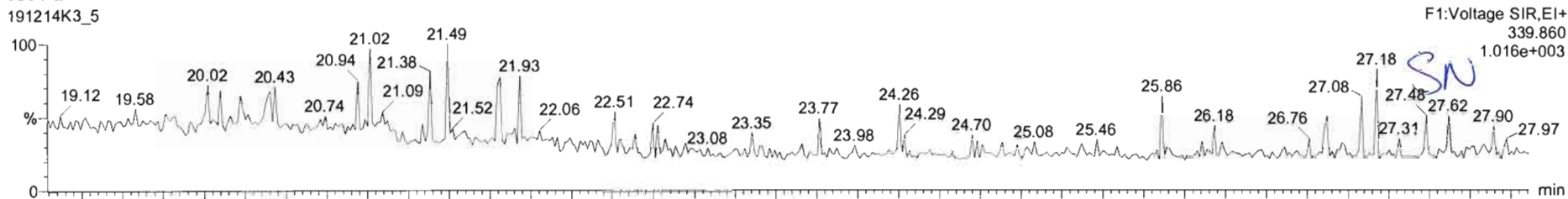
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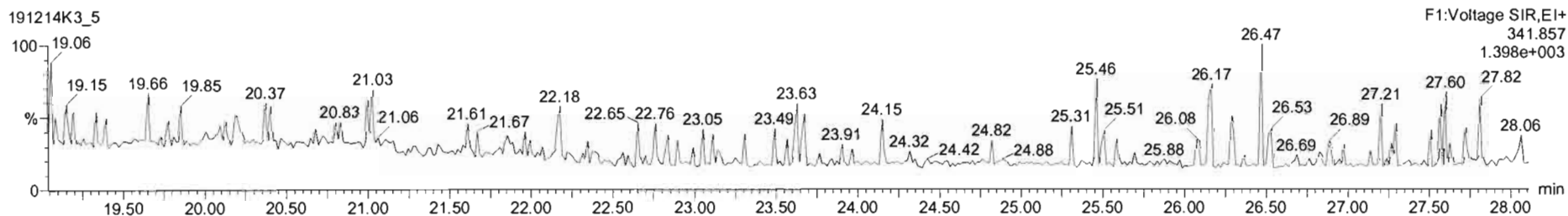
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1st Func. Penta-Furans

191214K3\_5

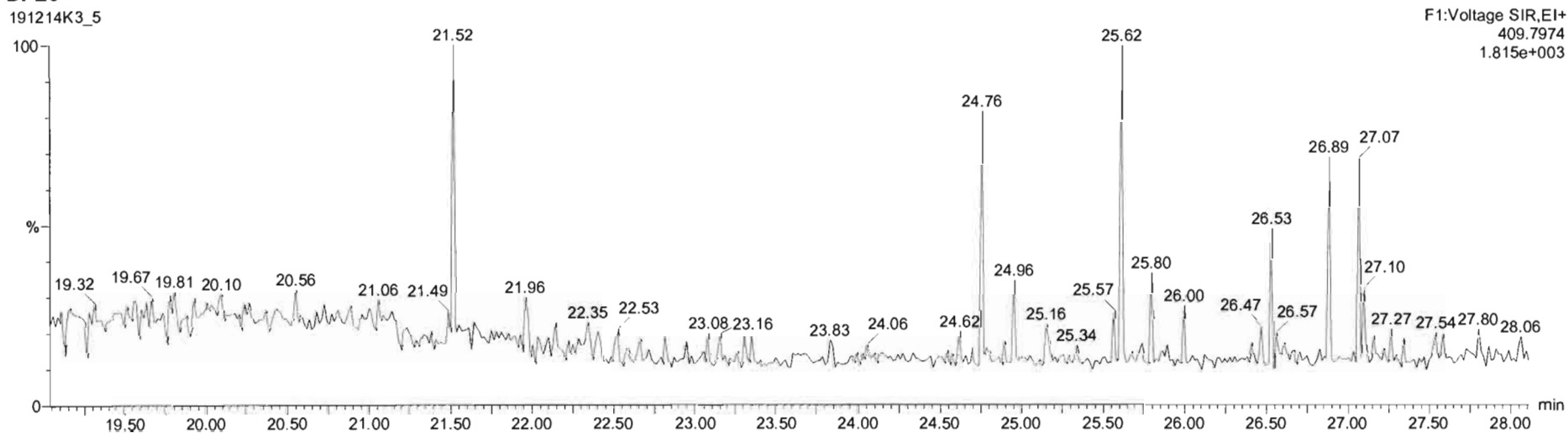


191214K3\_5



DPE6

191214K3\_5



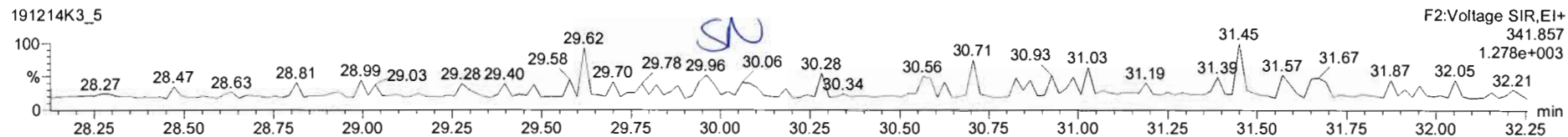
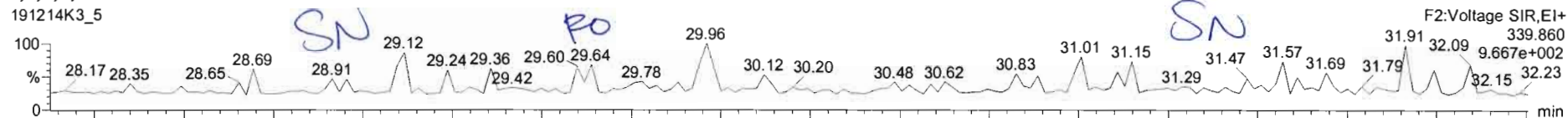
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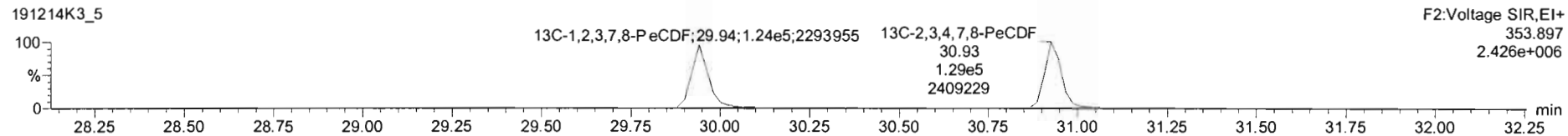
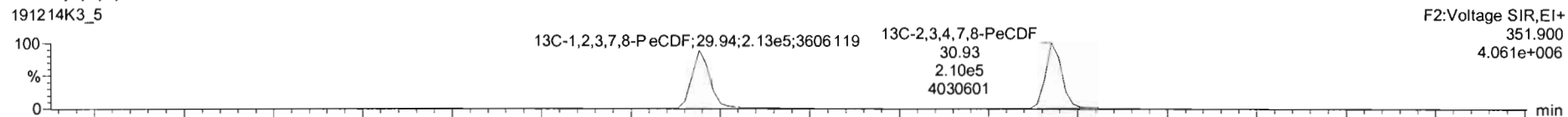
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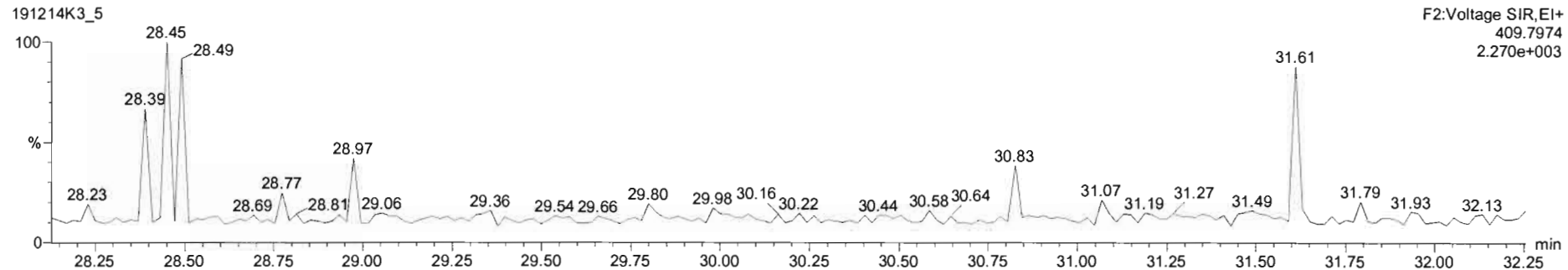
1,2,3,7,8-PeCDF



13C-1,2,3,7,8-PeCDF

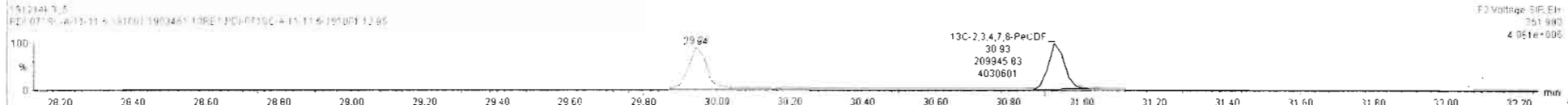
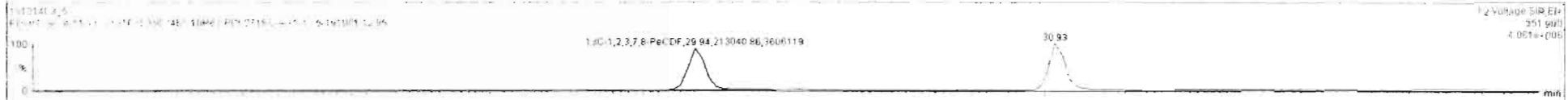
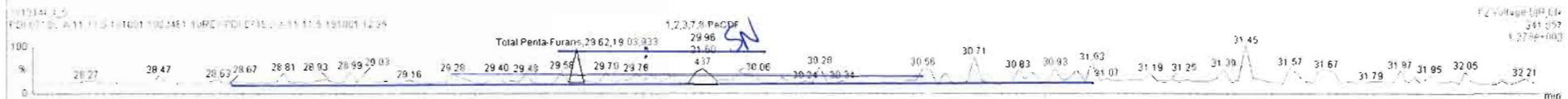
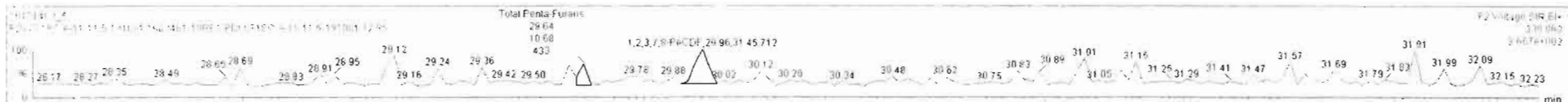


DPE2



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.119					0.0321	
44 1st Func. Penta-Furans				0.9762	10.119					0.0110	
45 Total Penta-Furans				0.9782	10.119			0.0318		0.0181	0.0424
46 Total Hexa-Furans				1.1606	10.119					0.0281	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	29.64	1.068e1	1.903e1	0.56	YES	0.010538	0.00000
2 1,2,3,7,8-PeCDF	29.96	3.145e1	2.160e1	1.46	NO	0.031844	0.031844



Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

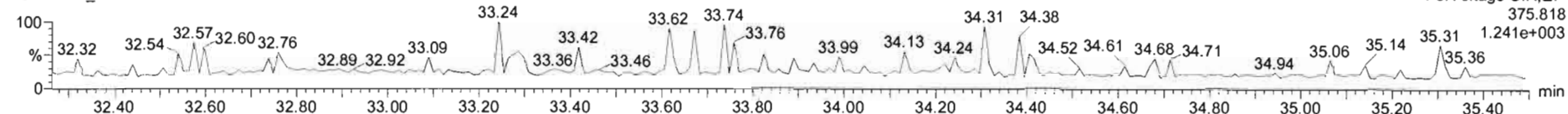
Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

1,2,3,4,7,8-HxCDF

191214K3\_5

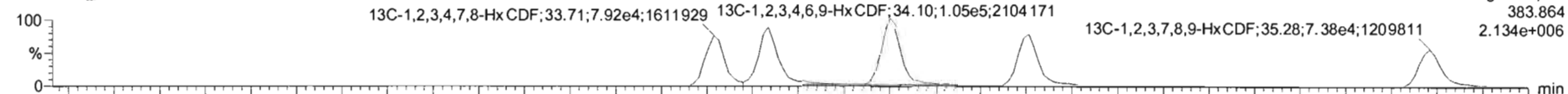


191214K3\_5

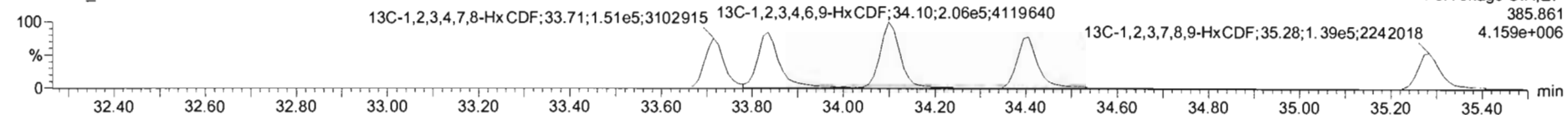


13C-1,2,3,4,7,8-HxCDF

191214K3\_5

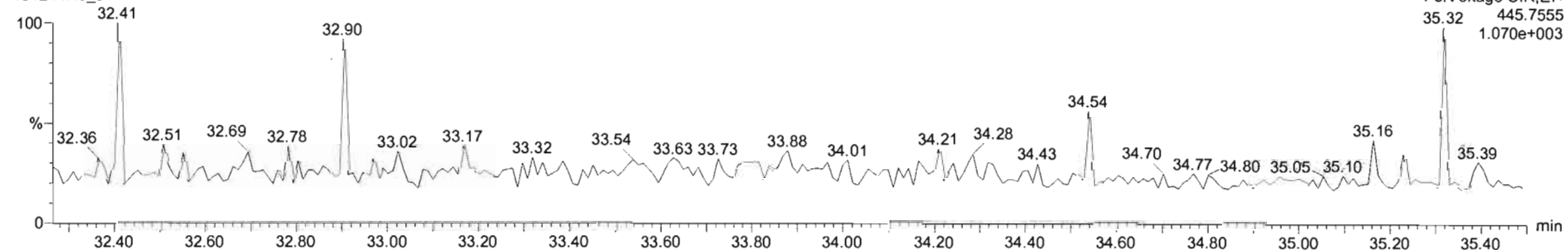


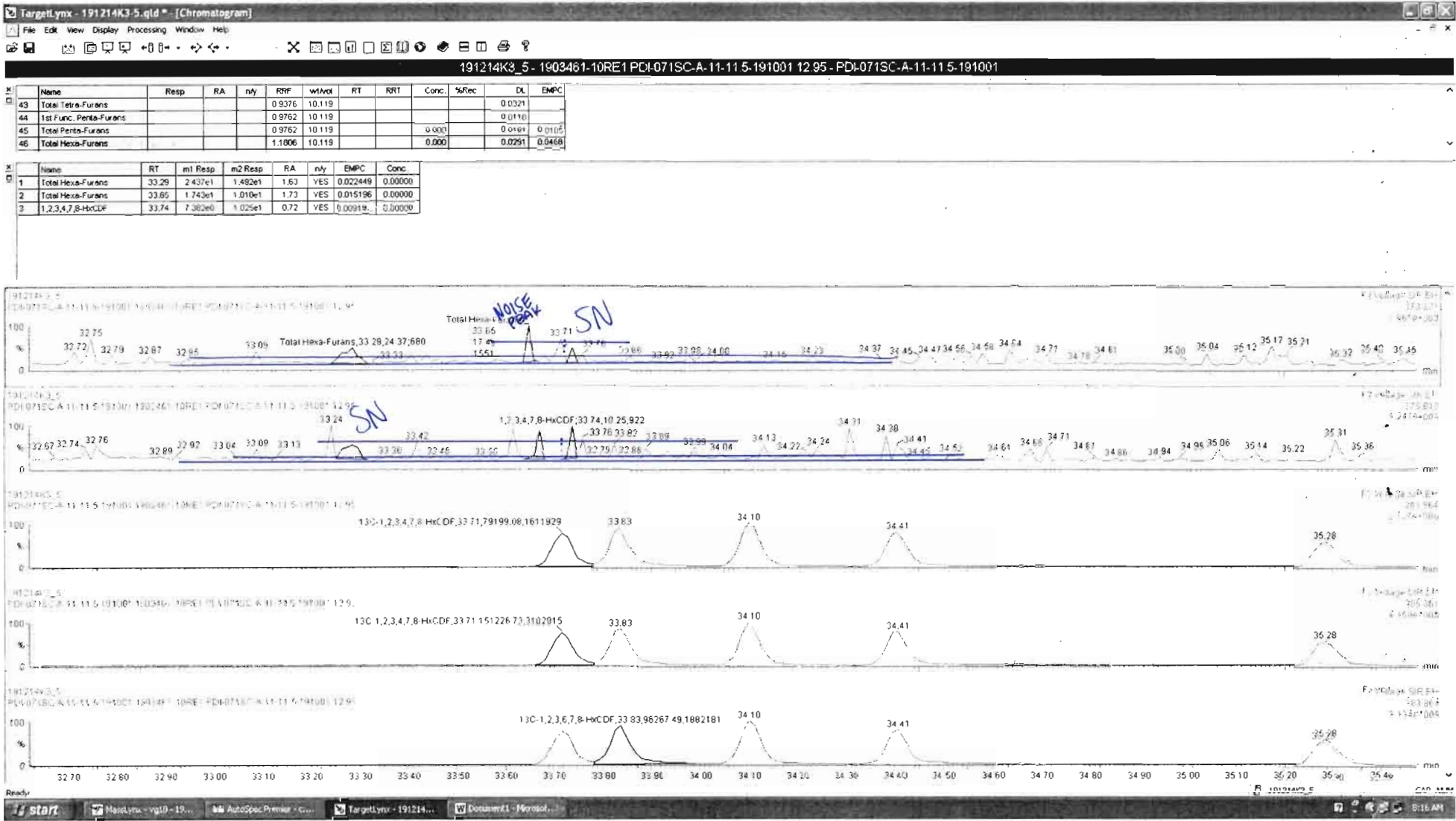
191214K3\_5



DPE3

191214K3\_5



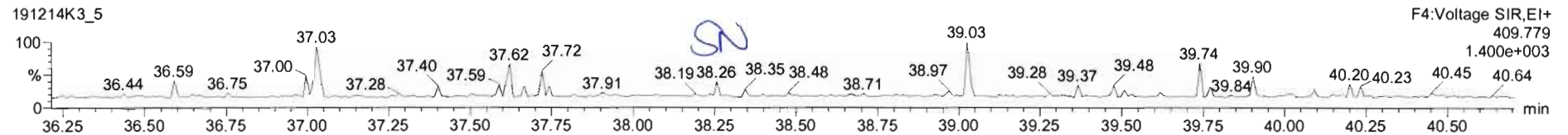
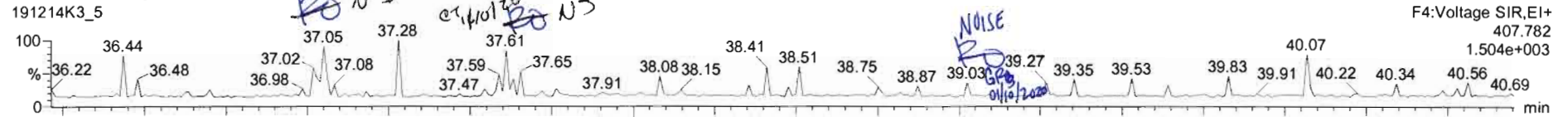


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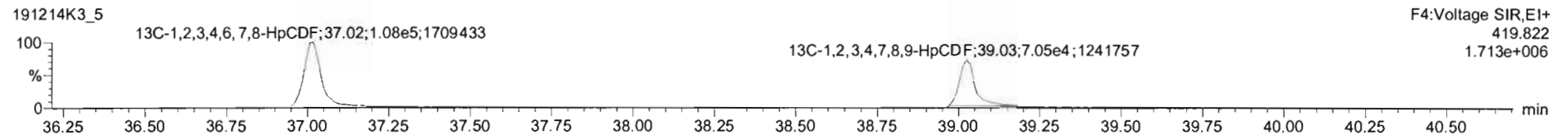
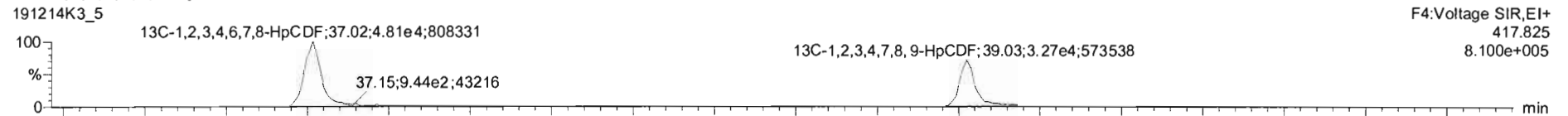
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

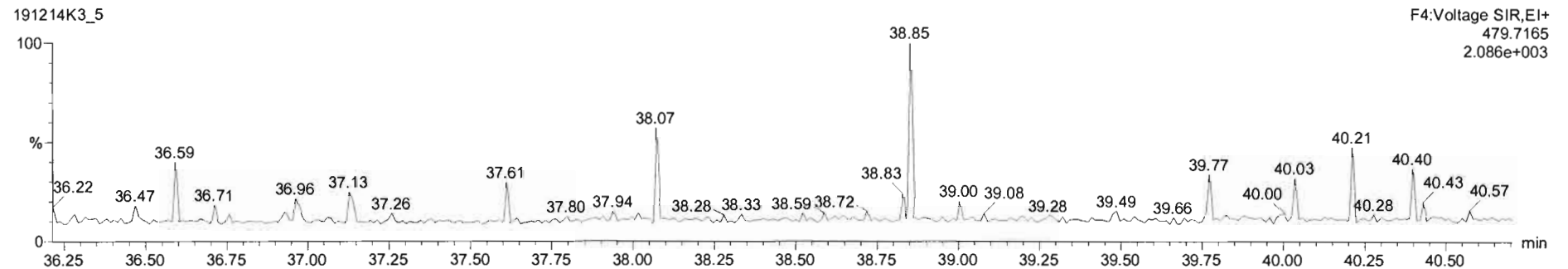
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



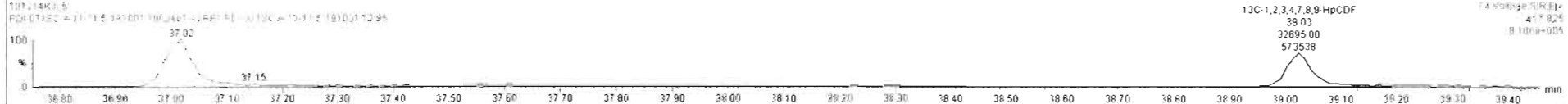
DPE4





Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.119					0.0321	
44 1st Func. Penta-Furans				0.9762	10.119					0.0510	
45 Total Penta-Furans				0.9762	10.119			0.000		0.0191	0.0105
46 Total Hexa-Furans				1.1606	10.119			0.000		0.0291	0.0156

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	37.02	1.401e1	2.202e1	0.64	YES	0.030741	0.00000
2 Total Hepta-Furans	37.61	1.413e1	1.177e1	1.20	YES	0.032352	0.00000
3 1,2,3,4,7,8,9-HpCDF	39.03	3.307e0	1.613e1	0.20	YES	0.00985	0.00000



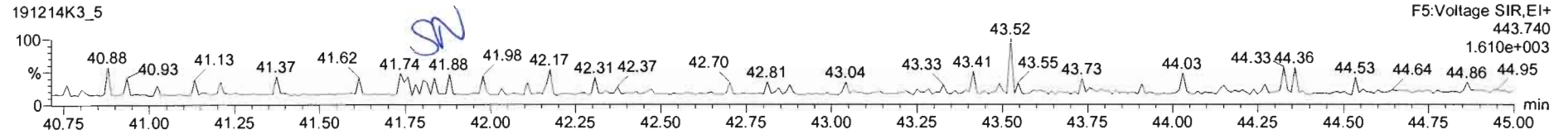
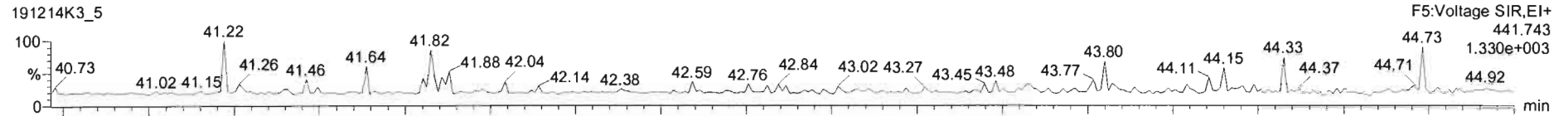
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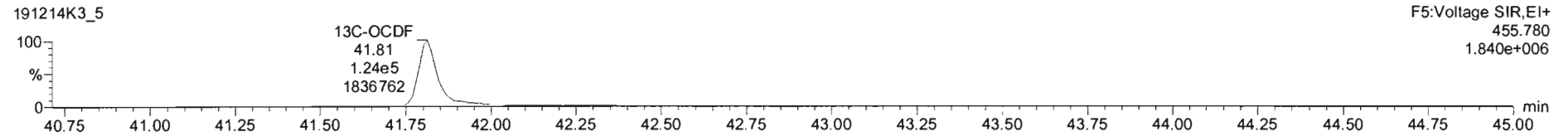
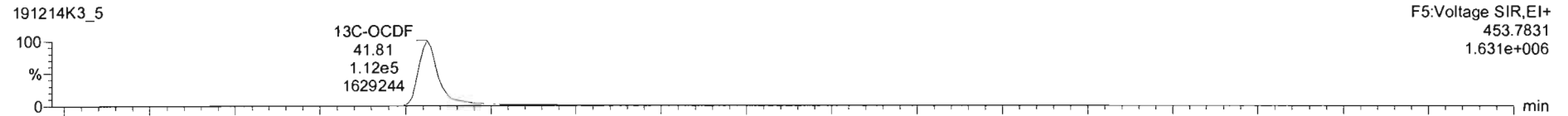
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Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001

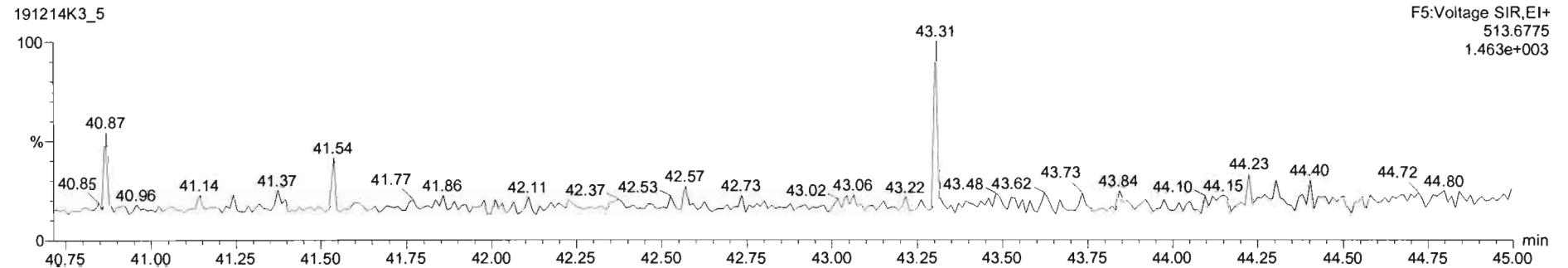
OCDF

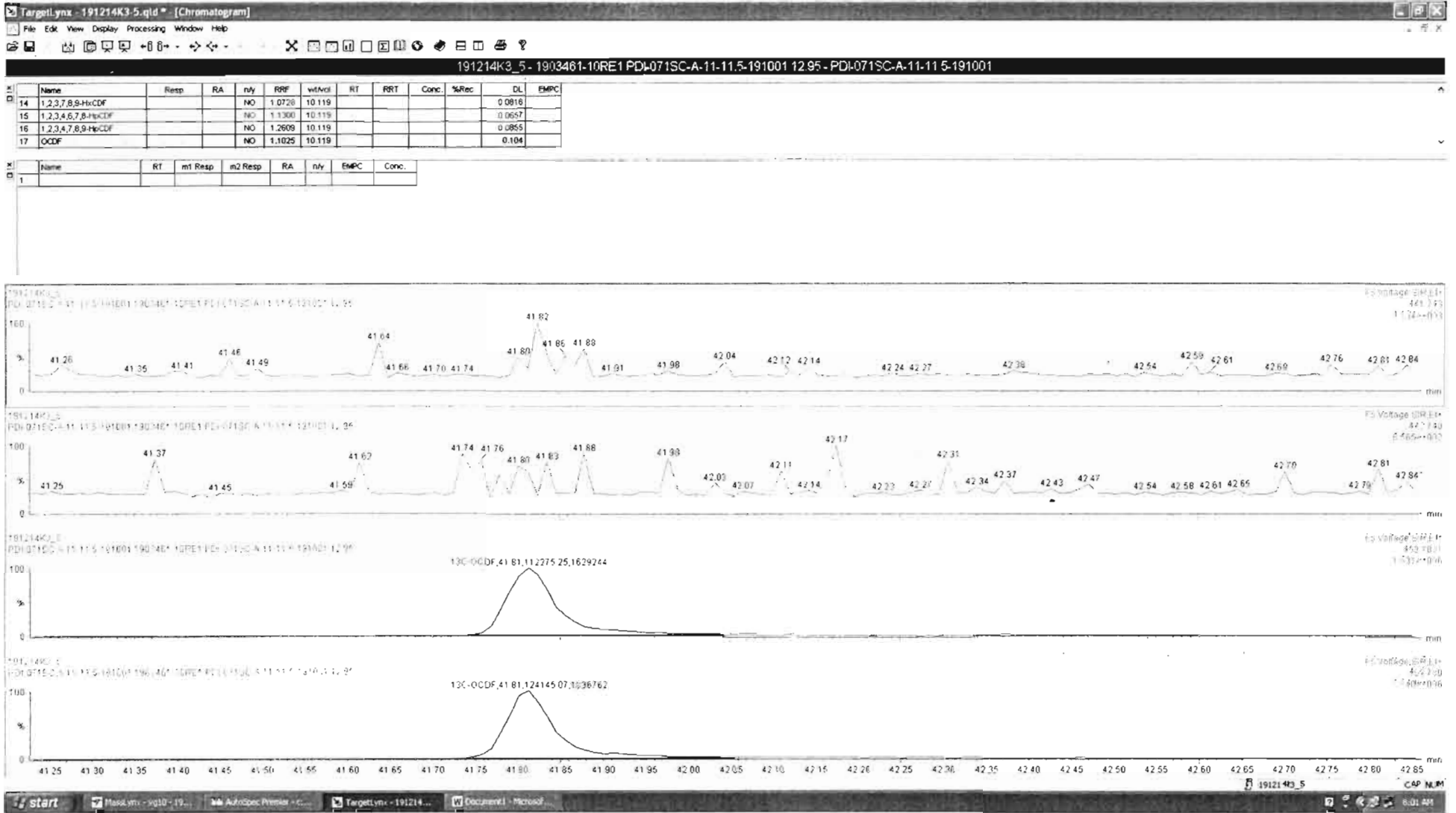


13C-OCDF



DPE5



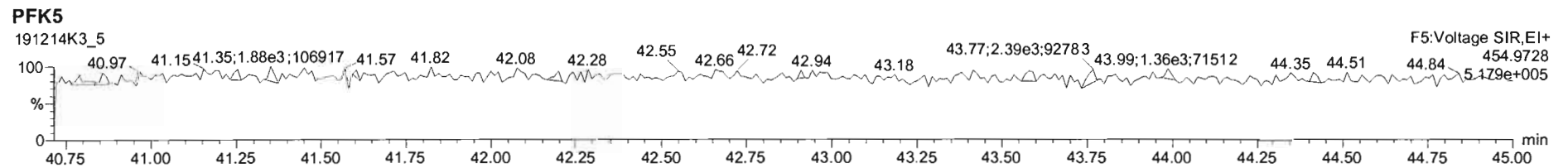
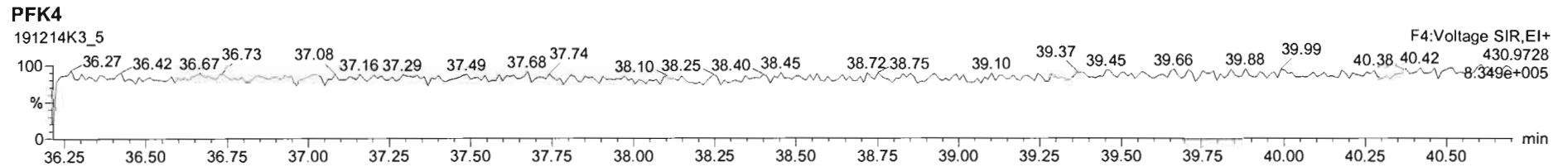
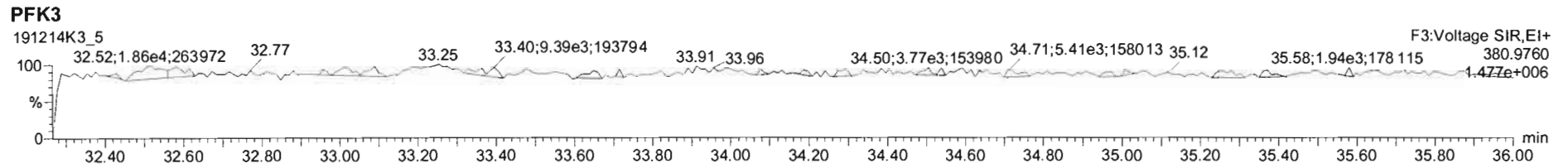
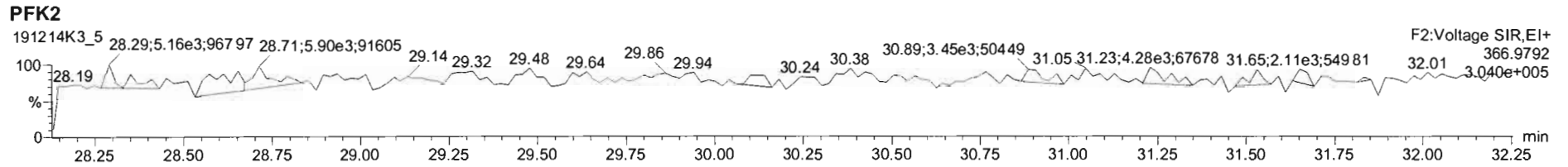
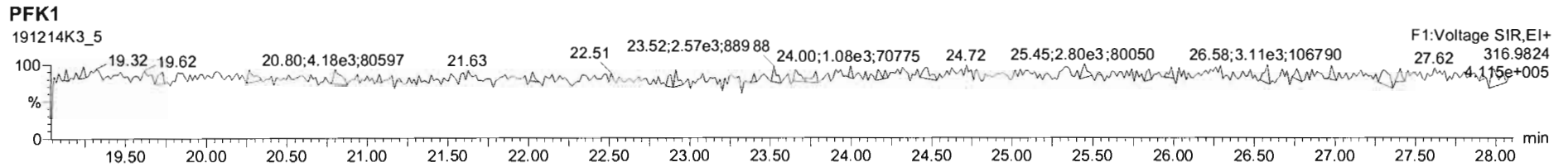


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Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_5, Date: 15-Dec-2019, Time: 09:44:53, ID: 1903461-10RE1 PDI-071SC-A-11-11.5-191001 12.95, Description: PDI-071SC-A-11-11.5-191001



Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-6.qld

Last Altered: Friday, January 10, 2020 15:00:01 Pacific Standard Time

Printed: Friday, January 10, 2020 15:00:56 Pacific Standard Time

GRB 01/10/2020

CT 01/13/2020

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

#	Name	Abs.Resp	RA	n/y	RRF	wt./vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1128.412	0.639	YES	0.925	10.003	26.17	26.14	1.00	1.00	NO	0.8724		0.280	0.6027
2	1,2,3,7,8-PeCDD	985.447	1.007	YES	0.905	10.003	31.27	31.25	1.00	1.00	NO	0.8455		0.239	0.6865
3	1,2,3,4,7,8-HxCDD	1765.384	1.046	YES	1.07	10.003	34.58	34.59	1.00	1.00	NO	1.402		0.333	1.295
4	1,2,3,6,7,8-HxCDD	10149.016	1.392	NO	0.967	10.003	34.67	34.69	1.00	1.00	NO	7.101		0.347	7.101
5	1,2,3,7,8,9-HxCDD	3363.202	1.189	NO	0.978	10.003	34.98	34.95	1.00	1.00	NO	2.910		0.405	2.910
6	1,2,3,4,6,7,8-HpCDD	178895.313	1.091	NO	1.04	10.003	38.44	38.44	1.00	1.00	NO	235.5		1.62	235.5
7	OCDD	1676536.7...	0.836	NO	0.972	10.003	41.63	41.64	1.00	1.00	NO	2629		2.32	2629
8	2,3,7,8-TCDF	98656.645	0.815	NO	0.938	10.003	25.18	25.17	1.00	1.00	NO	41.34 (29.0%)		0.320	41.34
9	1,2,3,7,8-PeCDF	100542.191	1.638	NO	0.976	10.003	29.96	29.96	1.00	1.00	NO	49.36		0.300	49.36
10	2,3,4,7,8-PeCDF	54454.027	1.564	NO	1.00	10.003	30.96	30.95	1.00	1.00	NO	25.86		0.253	25.86
11	1,2,3,4,7,8-HxCDF	151923.688	1.265	NO	1.24	10.003	33.71	33.73	1.00	1.00	NO	78.02		0.390	78.02
12	1,2,3,6,7,8-HxCDF	49964.822	1.132	NO	1.10	10.003	33.85	33.85	1.00	1.00	NO	21.71		0.357	21.71
13	2,3,4,6,7,8-HxCDF	12662.117	1.149	NO	1.18	10.003	34.44	34.42	1.00	1.00	NO	6.189		0.412	6.189
14	1,2,3,7,8,9-HxCDF	1268.047	1.139	NO	1.07	10.003	35.28	35.29	1.00	1.00	NO	0.8259		0.614	0.8259
15	1,2,3,4,6,7,8-HpCDF	66840.633	1.043	NO	1.13	10.003	37.04	37.03	1.00	1.00	NO	55.80		0.613	55.80
16	1,2,3,4,7,8,9-HpCDF	12484.515	1.022	NO	1.26	10.003	39.03	39.04	1.00	1.00	NO	12.85		0.621	12.85
17	OCDF	164048.617	0.906	NO	1.10	10.003	41.81	41.83	1.00	1.00	NO	169.1		0.622	169.1
18	13C-2,3,7,8-TCDD	362729.000	0.804	NO	1.05	10.003	26.13	26.14	1.03	1.03	NO	190.4	95.2	0.347	
19	13C-1,2,3,7,8-PeCDD	257594.484	0.616	NO	0.743	10.003	31.14	31.25	1.22	1.23	NO	190.9	95.5	0.615	
20	13C-1,2,3,4,7,8-HxCDD	235425.430	1.285	NO	0.646	10.003	34.57	34.57	1.01	1.01	NO	171.7	85.9	0.709	
21	13C-1,2,3,6,7,8-HxCDD	295365.672	1.221	NO	0.777	10.003	34.67	34.67	1.02	1.02	NO	179.2	89.6	0.590	
22	13C-1,2,3,7,8,9-HxCDD	236288.875	1.152	NO	0.659	10.003	34.94	34.94	1.02	1.02	NO	168.9	84.5	0.694	
23	13C-1,2,3,4,6,7,8-HpCDD	146400.422	1.087	NO	0.534	10.003	38.43	38.43	1.13	1.13	NO	129.2	64.6	0.646	
24	13C-OCDD	262401.047	0.958	NO	0.470	10.003	41.61	41.63	1.22	1.22	NO	262.9	65.7	0.842	
25	13C-2,3,7,8-TCDF	508821.063	0.768	NO	0.977	10.003	25.21	25.16	0.99	0.99	NO	184.4	92.2	0.390	
26	13C-1,2,3,7,8-PeCDF	417161.797	1.595	NO	0.778	10.003	29.85	29.94	1.17	1.18	NO	190.0	95.0	1.32	
27	13C-2,3,4,7,8-PeCDF	418994.688	1.547	NO	0.750	10.003	30.86	30.93	1.21	1.22	NO	197.9	99.0	1.37	
28	13C-1,2,3,4,7,8-HxCDF	313084.172	0.524	NO	0.845	10.003	33.71	33.71	0.99	0.99	NO	174.6	87.3	0.661	
29	13C-1,2,3,6,7,8-HxCDF	420148.219	0.506	NO	1.03	10.003	33.83	33.83	0.99	0.99	NO	192.9	96.5	0.544	
30	13C-2,3,4,6,7,8-HxCDF	346447.571	0.526	NO	0.893	10.003	34.40	34.41	1.01	1.01	NO	182.9	91.5	0.626	

Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-6.qld

Last Altered: Friday, January 10, 2020 15:00:01 Pacific Standard Time

Printed: Friday, January 10, 2020 15:00:56 Pacific Standard Time

Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

#	Name	Abs.Resp	RA	n/y	RRF	wt./vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	286124.015	0.513	NO	0.734	10.003	35.30	35.28	1.04	1.03	NO	183.6	91.9	0.761	
32	32 13C-1,2,3,4,6,7,8-HpCDF	211936.063	0.460	NO	0.754	10.003	37.01	37.01	1.09	1.09	NO	132.4	66.2	0.846	
33	33 13C-1,2,3,4,7,8,9-HpCDF	154095.758	0.430	NO	0.539	10.003	39.03	39.03	1.14	1.14	NO	134.7	67.4	1.18	
34	34 13C-OCDF	351901.813	0.862	NO	0.593	10.003	41.82	41.81	1.23	1.23	NO	279.9	70.0	0.791	
35	35 37Cl-2,3,7,8-TCDD	147234.344			1.07	10.003	26.15	26.15	1.03	1.03	NO	75.80	94.8	0.107	
36	36 13C-1,2,3,4-TCDD	363105.562	0.800	NO	1.00	10.003	25.50	25.43	1.00	1.00	NO	199.9	100	0.364	
37	37 13C-1,2,3,4-TCDF	564403.251	0.772	NO	1.00	10.003	23.68	23.58	1.00	1.00	NO	199.9	100	0.382	
38	38 13C-1,2,3,4,6,9-HxCDF	424233.797	0.535	NO	1.00	10.003	34.06	34.10	1.00	1.00	NO	199.9	100	0.559	
39	39 Total Tetra-Dioxins				0.925	10.003	24.62		0.00		NO	5.034		0.200	5.637
40	40 Total Penta-Dioxins				0.905	10.003	29.96		0.00		NO	6.558		0.239	11.28
41	41 Total Hexa-Dioxins				0.967	10.003	33.63		0.00		NO	81.77		0.373	83.07
42	42 Total Hepta-Dioxins				1.04	10.003	38.80		0.00		NO	547.4		1.62	547.4
43	43 Total Tetra-Furans				0.938	10.003	23.61		0.00		NO	117.4		0.320	122.5
44	44 1st Func. Penta-Furans				0.976	10.003	27.04		0.00		NO	8.025		0.0332	8.025
45	45 Total Penta-Furans				0.976	10.003	29.27		0.00		NO	128.8		0.280	130.0
46	46 Total Hexa-Furans				1.18	10.003	33.56		0.00		NO	172.6		0.417	173.5
47	47 Total Hepta-Furans				1.13	10.003	37.83		0.00		NO	212.8		0.647	212.8

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Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-6.qld

Last Altered: Friday, January 10, 2020 15:00:01 Pacific Standard Time

Printed: Friday, January 10, 2020 15:01:07 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

**Tetra-Dioxins**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	1 2,3,7,8-TCDD	1.13e3	3.63e5	0.639	YES	26.17	26.14	0.0000	0.6027
2	39 Total Tetra-Dioxins	2.50e3	3.63e5	0.687	NO	24.62	25.88	1.489	1.489
3	39 Total Tetra-Dioxins	1.18e3	3.63e5	0.828	NO	24.62	22.80	0.7019	0.7019
4	39 Total Tetra-Dioxins	1.15e3	3.63e5	0.708	NO	24.62	22.28	0.6857	0.6857
5	39 Total Tetra-Dioxins	3.62e3	3.63e5	0.779	NO	24.62	21.90	2.157	2.157

**Penta-Dioxins**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	2 1,2,3,7,8-PeCDD	9.85e2	2.58e5	1.007	YES	31.27	31.25	0.0000	0.6865
2	40 Total Penta-Dioxins	0.00e0	2.58e5	0.728	YES	29.96	30.48	0.0000	1.095
3	40 Total Penta-Dioxins	0.00e0	2.58e5	0.456	YES	29.96	30.26	0.0000	0.5717
4	40 Total Penta-Dioxins	0.00e0	2.58e5	0.901	YES	29.96	30.16	0.0000	0.9667
5	40 Total Penta-Dioxins	0.00e0	2.58e5	0.973	YES	29.96	30.00	0.0000	1.398
6	40 Total Penta-Dioxins	2.34e3	2.58e5	0.556	NO	29.96	29.50	2.005	2.005
7	40 Total Penta-Dioxins	5.31e3	2.58e5	0.576	NO	29.96	29.01	4.553	4.553

**Hexa-Dioxins**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	5 1,2,3,7,8,9-HxCDD	3.36e3	2.36e5	1.189	NO	34.98	34.95	2.910	2.910
2	41 Total Hexa-Dioxins	1.35e3	0.00e0	1.147	NO	33.63	34.87	1.088	1.088
3	4 1,2,3,6,7,8-HxCDD	1.01e4	2.95e5	1.392	NO	34.67	34.69	7.101	7.101
4	3 1,2,3,4,7,8-HxCDD	1.77e3	2.35e5	1.046	YES	34.58	34.59	0.0000	1.295
5	41 Total Hexa-Dioxins	8.15e3	0.00e0	1.196	NO	33.63	34.02	6.587	6.587
6	41 Total Hexa-Dioxins	3.84e4	0.00e0	1.307	NO	33.63	33.91	31.01	31.01
7	41 Total Hexa-Dioxins	3.59e3	0.00e0	1.343	NO	33.63	33.67	2.899	2.899
8	41 Total Hexa-Dioxins	3.73e4	0.00e0	1.244	NO	33.63	33.13	30.17	30.17

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Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-6.qld

Last Altered: Friday, January 10, 2020 15:00:01 Pacific Standard Time

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Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

Hepta-Dioxins

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	1.79e5	1.46e5	1.091	NO	38.44	38.44	235.5	235.5
2	42 Total Hepta-Dioxins	2.37e5	1.46e5	1.059	NO	38.80	37.41	311.9	311.9

Tetra-Furans

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	43 Total Tetra-Furans	5.14e3	5.09e5	0.805	NO	23.61	22.67	2.153	2.153
2	43 Total Tetra-Furans	8.42e3	5.09e5	0.814	NO	23.61	22.30	3.530	3.530
3	43 Total Tetra-Furans	2.51e4	5.09e5	0.756	NO	23.61	21.83	10.53	10.53
4	43 Total Tetra-Furans	5.90e3	5.09e5	0.770	NO	23.61	21.44	2.471	2.471
5	43 Total Tetra-Furans	1.14e4	5.09e5	0.797	NO	23.61	20.91	4.770	4.770
6	43 Total Tetra-Furans	1.90e3	5.09e5	0.727	NO	23.61	20.34	0.7977	0.7977
7	43 Total Tetra-Furans	5.58e2	5.09e5	0.867	NO	23.61	19.82	0.2337	0.2337
8	43 Total Tetra-Furans	0.00e0	5.09e5	1.036	YES	23.61	27.30	0.0000	3.914
9	43 Total Tetra-Furans	5.73e3	5.09e5	0.831	NO	23.61	25.57	2.401	2.401
10	8 2,3,7,8-TCDF	9.87e4	5.09e5	0.815	NO	25.18	25.17	41.34	41.34
11	43 Total Tetra-Furans	1.06e4	5.09e5	0.782	NO	23.61	25.07	4.436	4.436
12	43 Total Tetra-Furans	0.00e0	5.09e5	0.932	YES	23.61	24.46	0.0000	1.244
13	43 Total Tetra-Furans	8.79e4	5.09e5	0.763	NO	23.61	24.17	36.83	36.83
14	43 Total Tetra-Furans	1.42e4	5.09e5	0.751	NO	23.61	23.60	5.938	5.938
15	43 Total Tetra-Furans	4.66e3	5.09e5	0.705	NO	23.61	23.51	1.954	1.954

Penta-Furans function 1

	# Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	44 1st Func. Penta-Fura...	1.64e4	0.00e0	1.563	NO	27.04	27.31	8.025	8.025



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Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-6.qld

Last Altered: Friday, January 10, 2020 15:00:01 Pacific Standard Time

Printed: Friday, January 10, 2020 15:01:07 Pacific Standard Time

Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

**Penta-Furans**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	45 Total Penta-Furans	0.00e0	0.00e0	1.195	YES	29.27	31.87	0.0000	1.240
2	10 2,3,4,7,8-PeCDF	5.45e4	4.19e5	1.564	NO	30.96	30.95	25.86	25.86
3	45 Total Penta-Furans	3.48e4	0.00e0	1.600	NO	29.27	30.22	17.06	17.06
4	9 1,2,3,7,8-PeCDF	1.01e5	4.17e5	1.638	NO	29.96	29.96	49.36	49.36
5	45 Total Penta-Furans	1.31e4	0.00e0	1.701	NO	29.27	29.76	6.422	6.422
6	45 Total Penta-Furans	4.93e3	0.00e0	1.746	NO	29.27	29.56	2.417	2.417
7	45 Total Penta-Furans	5.42e4	0.00e0	1.494	NO	29.27	28.95	26.55	26.55
8	45 Total Penta-Furans	2.26e3	0.00e0	1.522	NO	29.27	28.79	1.108	1.108

**Hexa-Furans**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	12 1,2,3,6,7,8-HxCDF	5.00e4	4.20e5	1.132	NO	33.85	33.85	21.71	21.71
2	11 1,2,3,4,7,8-HxCDF	1.52e5	3.13e5	1.265	NO	33.71	33.73	78.02	78.02
3	46 Total Hexa-Furans	0.00e0	0.00e0	1.012	YES	33.56	33.63	0.0000	0.8880
4	46 Total Hexa-Furans	6.19e4	0.00e0	1.251	NO	33.56	33.28	30.69	30.69
5	46 Total Hexa-Furans	4.33e4	0.00e0	1.288	NO	33.56	32.77	21.47	21.47
6	46 Total Hexa-Furans	1.24e4	0.00e0	1.253	NO	33.56	32.58	6.128	6.128
7	14 1,2,3,7,8,9-HxCDF	1.27e3	2.86e5	1.139	NO	35.28	35.29	0.8259	0.8259
8	13 2,3,4,6,7,8-HxCDF	1.27e4	3.46e5	1.149	NO	34.44	34.42	6.189	6.189
9	46 Total Hexa-Furans	1.52e4	0.00e0	1.282	NO	33.56	35.34	7.558	7.558

**Hepta-Furans**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	16 1,2,3,4,7,8,9-HpCDF	1.25e4	1.54e5	1.022	NO	39.03	39.04	12.85	12.85
2	47 Total Hepta-Furans	1.49e5	0.00e0	1.048	NO	37.83	37.61	144.1	144.1
3	15 1,2,3,4,6,7,8-HpCDF	6.68e4	2.12e5	1.043	NO	37.04	37.03	55.80	55.80

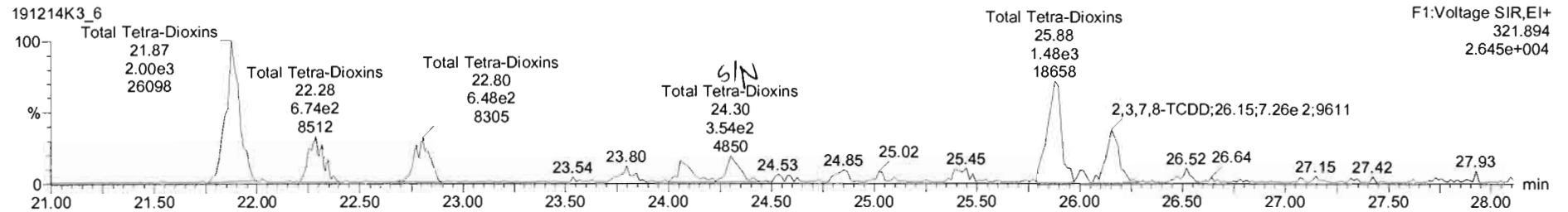
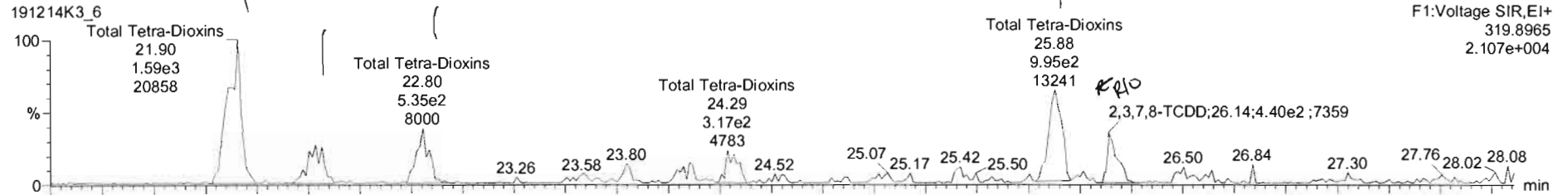
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Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

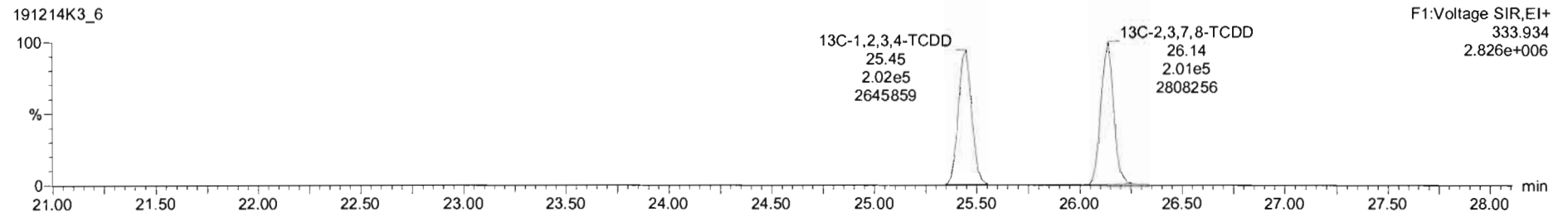
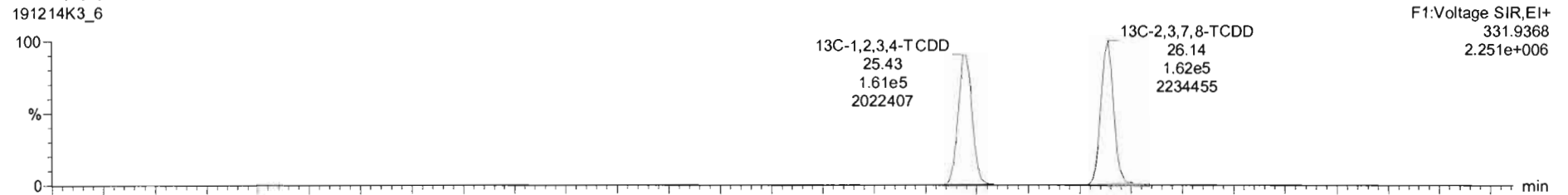
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Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

**2,3,7,8-TCDD**



**13C-2,3,7,8-TCDD**

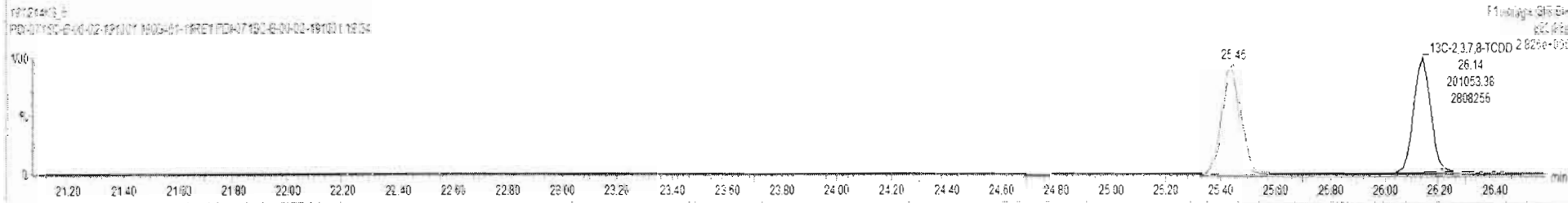
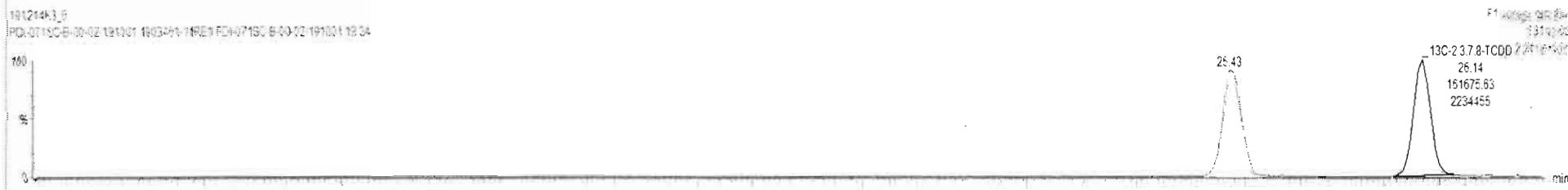
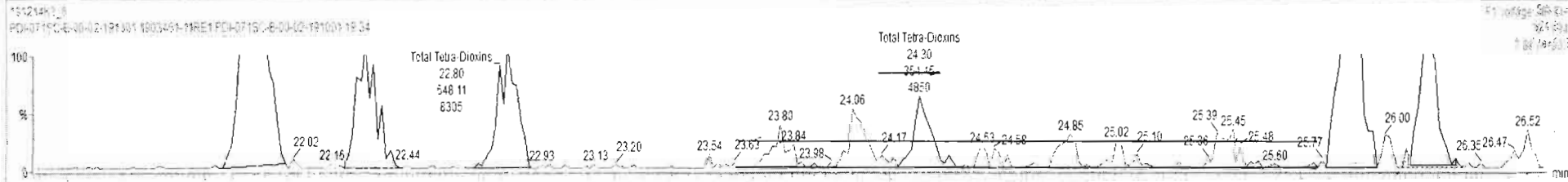
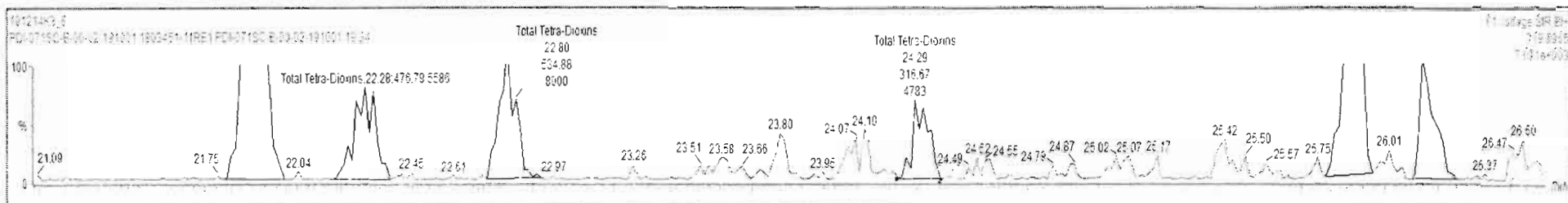




191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001-19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wt%vol	Pred.RT	RT	Pred.R.	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
29	13C-1,2,3,6,7,8-HxCDF	4.20e5	0.51	NO	1.0267	10.003	22.33	22.83	0.992	0.992	NO	192.9	96.5	0.544	
30	13C-2,3,4,6,7,8-HxCDF	3.46e5	0.53	NO	0.8929	10.003	24.40	24.41	1.009	1.009	NO	162.9	91.5	0.609	
31	13C-1,2,3,7,8,9-HxCDF	2.66e5	0.51	NO	0.7343	10.003	35.20	35.28	1.036	1.036	NO	163.6	91.5	0.761	
32	12C-1,2,3,4,6,7,8-HpCDF	2.12e5	0.46	NO	0.7542	10.003	37.01	37.01	1.089	1.089	NO	132.4	88.2	0.846	
33	12C-1,2,3,4,7,8,9-HpCDF	1.54e5	0.43	NO	0.6390	10.003	39.03	39.03	1.145	1.145	NO	124.7	87.4	1.116	
34	13C-OCDF	3.52e5	0.86	NO	0.5929	10.003	41.82	41.81	1.226	1.226	NO	279.9	70.0	0.761	
35	17Cl-2,3,7,8-TCDD	1.47e5			1.0695	10.003	26.15	26.15	1.026	1.026	NO	75.90	94.8	0.167	

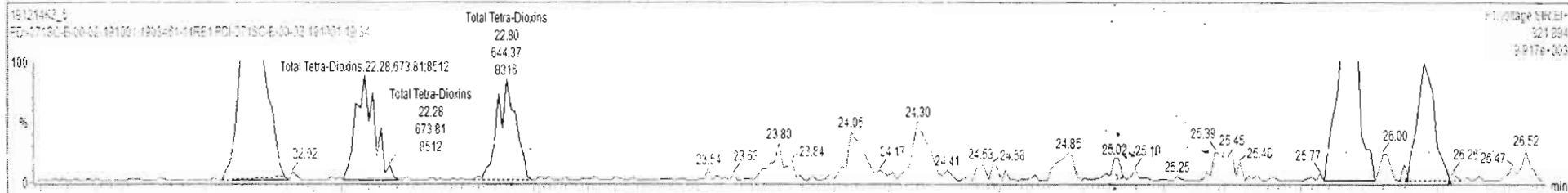
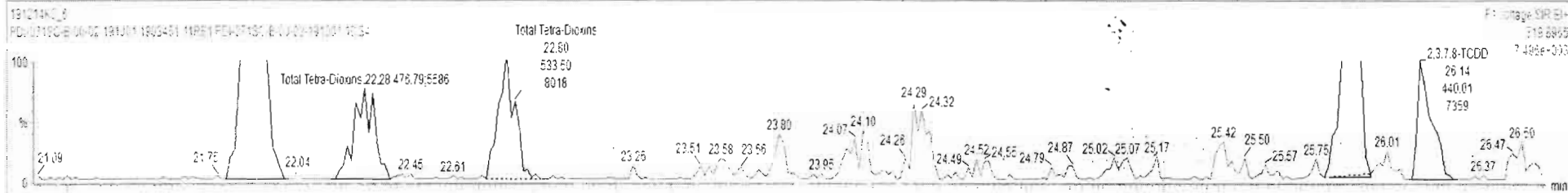
#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	17Cl-2,3,7,8-TCDD	26.17	26.14	4.400e2	6.712e2	0.770	0.66	NO	0.66226	0.66220



191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred RT	RT	Pred R	RRT	RRT Fat	Conc.	%Rec	DL	EMPC
29	13C-1,2,3,6,7,8-HxCDF	4.20e5	0.51	NO	1.0297	10.003	33.83	33.83	0.992	0.992	NO	192.9	95.5	0.544	
30	13C-2,3,4,6,7,8-HxCDF	3.46e5	0.53	NO	0.8929	10.003	34.40	34.41	1.039	1.039	NO	182.9	91.5	0.625	
31	13C-1,2,3,7,8,9-HxCDF	2.89e5	0.51	NO	0.7343	10.003	35.30	35.26	1.035	1.035	NO	183.6	91.9	0.761	
32	13C-1,2,3,4,6,7,8-HpCDF	2.12e5	0.46	NO	0.7542	10.003	37.01	37.01	1.085	1.085	NO	132.4	86.2	0.845	
33	13C-1,2,3,4,7,8,9-HpCDF	1.54e5	0.43	NO	0.5350	10.003	39.03	39.03	1.145	1.145	NO	124.7	67.4	1.16	
34	13C-OCDF	3.52e5	0.56	NO	0.5925	10.003	41.82	41.81	1.226	1.226	NO	275.9	70.0	0.791	
35	37Cl-2,3,7,8-TCDD	1.47e5			1.0655	10.003	26.15	26.15	1.028	1.028	NO	75.89	94.6	0.107	

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1° Ratio (Pred)	RA	n/y	EMPC	Conc.
1	1,2,3,7,8-TCDD	26.17	26.14	440962	668462	0.770	0.64	YES	0.60274	0.60000



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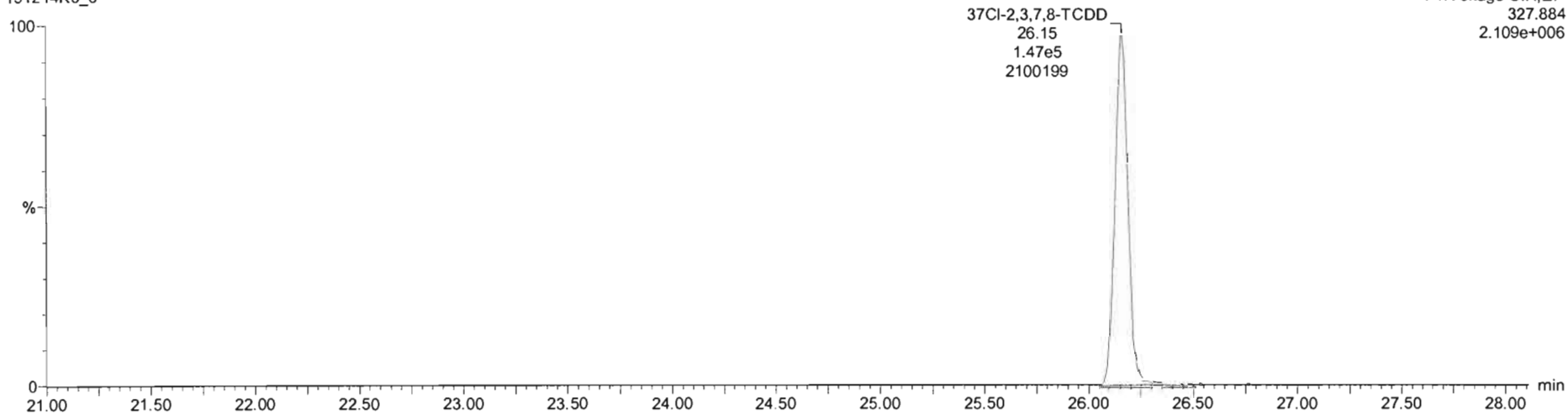
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

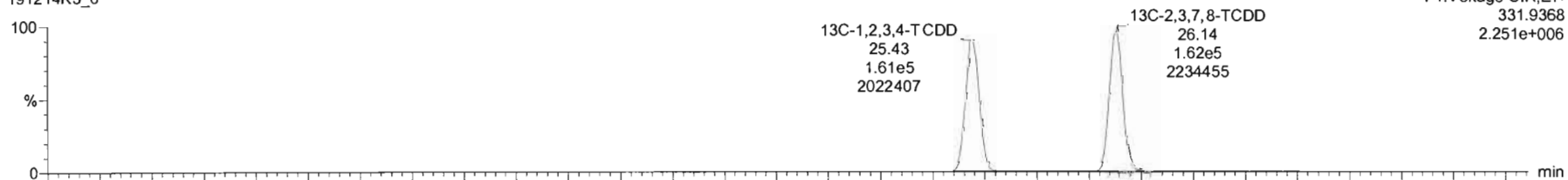
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191214K3\_6

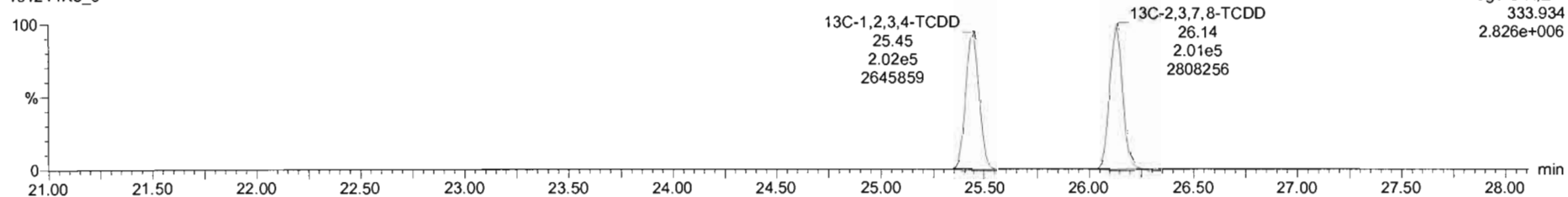


**13C-1,2,3,4-TCDD**

191214K3\_6



191214K3\_6



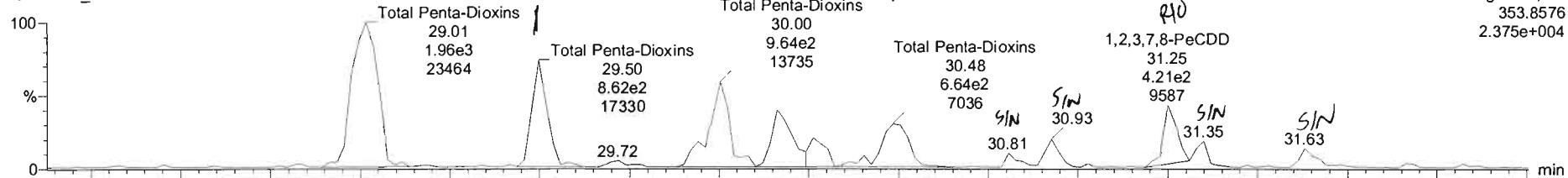
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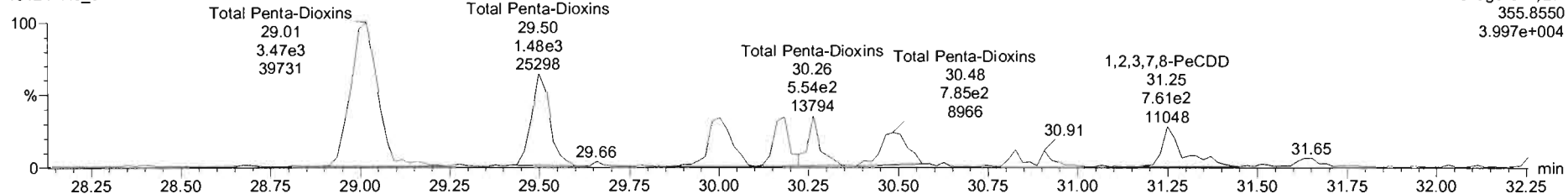
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1,2,3,7,8-PeCDD

191214K3\_6

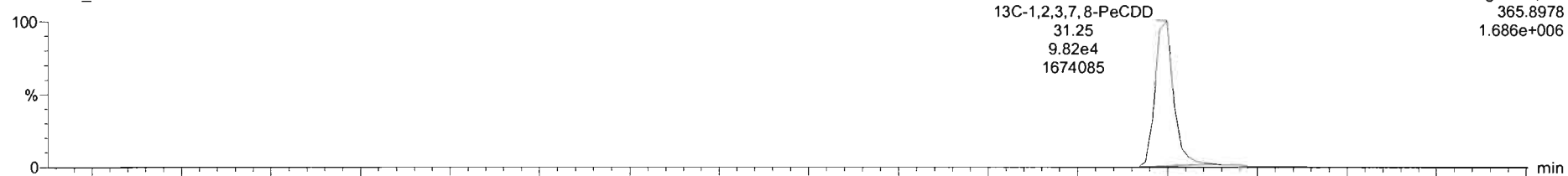


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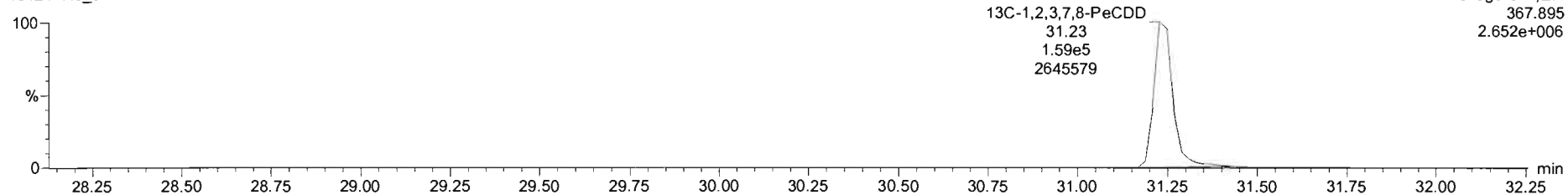


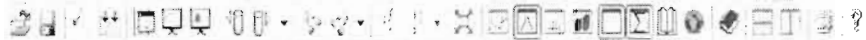
13C-1,2,3,7,8-PeCDD

191214K3\_6



191214K3\_6

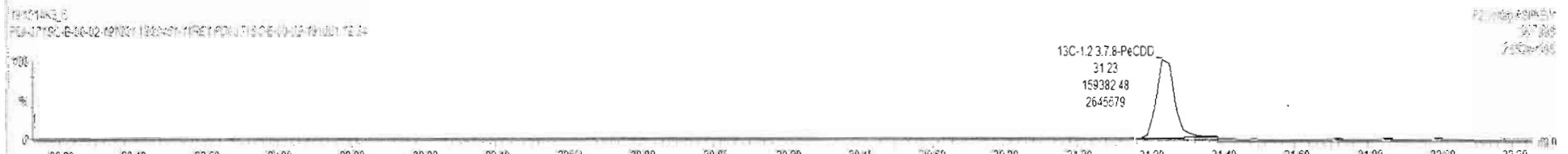
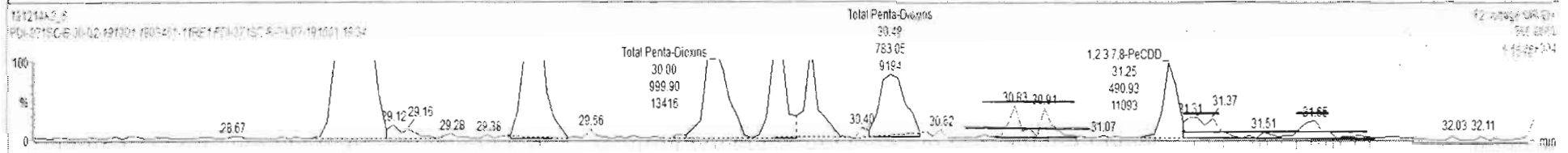
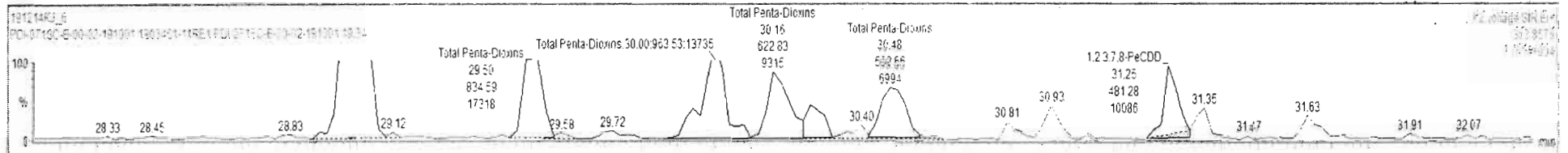




191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19 34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wtVol	Pred.RT	RT	Pred.R.	RRT	RRT Fat	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	6.034		0.200	6.837
40	Total Penta-Dioxins				0.8046	10.003	29.96		0.000		NO	6.558		0.239	11.28
41	Total Hexa-Dioxins				0.9675	10.003	23.63		0.000		NO	81.42		0.073	83.12
42	Total Hepta-Dioxins				1.0275	10.003	28.86		0.000		NO	562.2		1.62	562.2
43	Total Tetra-Furans				0.9276	10.003	23.61		0.000		NO	117.4		0.320	122.8
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	8.025		0.0332	8.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.6		0.280	127.8

#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	n/y	EMPC	Conc.
1	Total Penta-Dioxins	29.96	29.01	1.940e2	3.367e2	0.630	0.56	NO	4.6930	4.6930
2	Total Penta-Dioxins	29.96	29.50	8.349e2	1.502e2	0.630	0.56	NO	2.0047	2.0047
3	Total Penta-Dioxins	29.96	20.00	5.635e2	9.599e2	0.630	0.96	YES	1.2983	0.00000
4	Total Penta-Dioxins	29.96	30.16	6.229e2	6.913e2	0.630	0.90	YES	1.5672	0.00000
5	Total Penta-Dioxins	29.96	20.26	2.575e2	5.644e2	0.630	0.46	YES	0.57170	0.00000
6	Total Penta-Dioxins	29.96	20.48	5.697e2	7.831e2	0.630	0.72	YES	1.0961	0.00000
7	1,2,3,7,8-PeCDD	31.27	31.25	4.613e2	4.503e2	0.630	0.96	YES	0.68654	0.60000

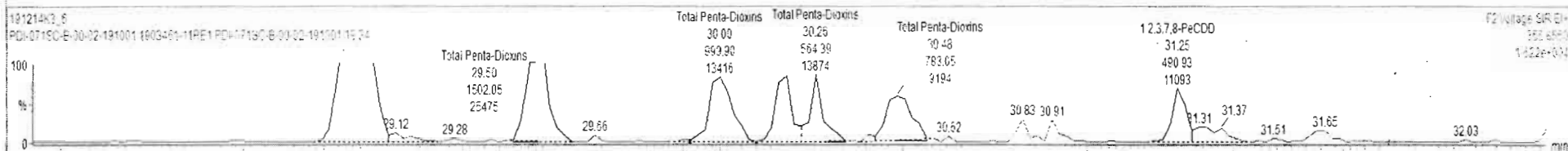
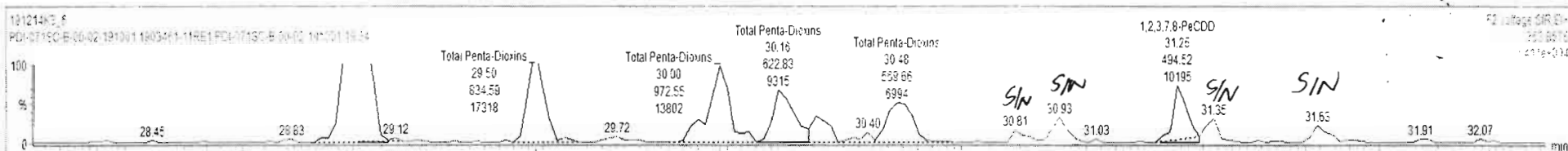




191214K3\_6 - 1903461-11RE1-PDI-071SC-B-00-02-191001 19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wt/vol	Pred RT	RT	Pred R	RRT	RRT Fai	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.034		0.200	5.537
40	Total Penta-Dioxins				0.9946	10.003	29.96		0.000		NO	6.558		0.239	11.26
41	Total Hexa-Dioxins				0.9675	10.003	23.63		0.000		NO	61.42		0.273	33.12
42	Total Hepta-Dioxins				1.0275	10.003	28.60		0.000		NO	562.2		1.62	562.2
43	Total Tetra-Furans				0.9076	10.003	23.61		0.000		NO	117.4		0.326	122.6
44	1st Func. Penta-Furans				0.9762	10.003	27.24		0.000		NO	6.025		0.0322	6.925
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.6		0.260	127.6

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1* Ratio (Pred)	RA	nly	EMPC	Conc.
1	40 Total Penta-Dioxins	29.96	29.01	1.640e7	3.367e7	0.630	0.56	NO	4.5530	4.5530
2	40 Total Penta-Dioxins	29.96	29.50	8.348e2	1.502e3	0.630	0.56	NO	2.0047	2.0047
3	40 Total Penta-Dioxins	29.96	30.00	9.726e2	6.699e2	0.630	0.97	YES	1.3983	0.00000
4	40 Total Penta-Dioxins	29.96	30.16	6.220e2	6.913e2	0.630	0.90	YES	0.96672	0.00000
5	40 Total Penta-Dioxins	29.96	30.26	2.575e2	5.644e2	0.630	0.46	YES	0.57170	0.00000
6	40 Total Penta-Dioxins	29.96	30.48	5.957e2	7.831e2	0.630	0.73	YES	1.0961	0.00000
7	2 1,2,3,7,8-PeCDD	31.27	31.25	4.945e2	4.699e2	0.630	1.01	YES	0.66654	0.00000





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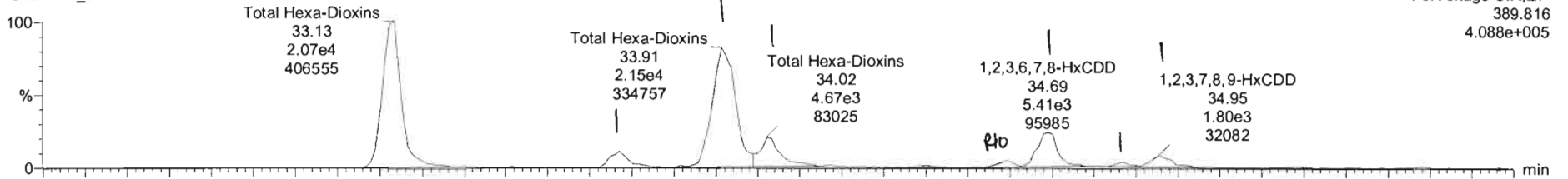
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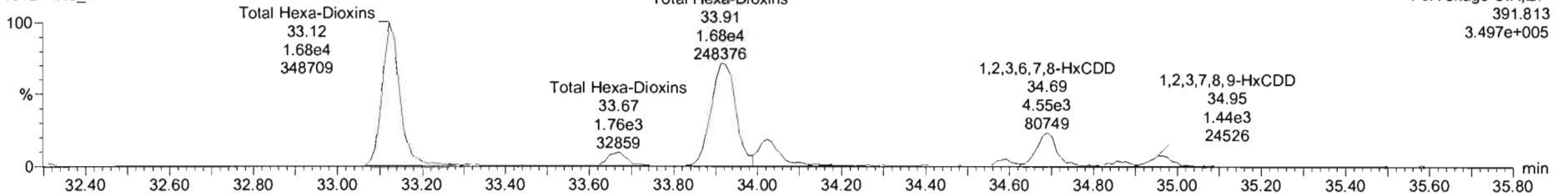
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1,2,3,4,7,8-HxCDD

191214K3\_6

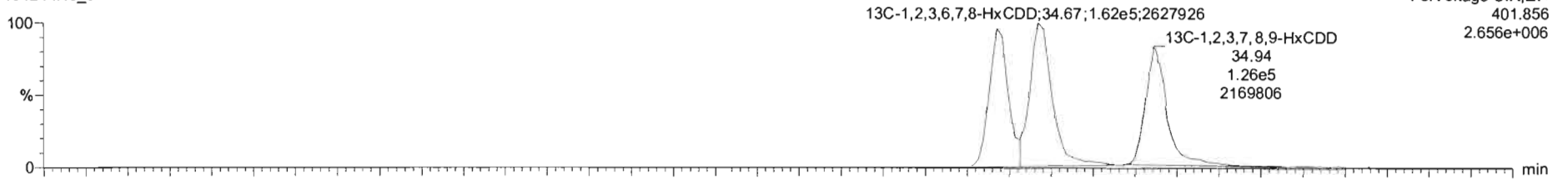


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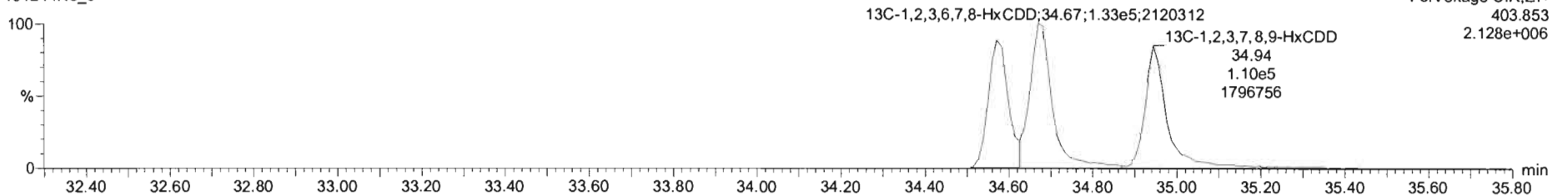


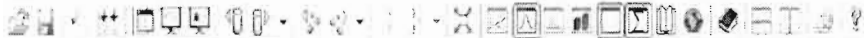
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191214K3\_6



191214K3\_6

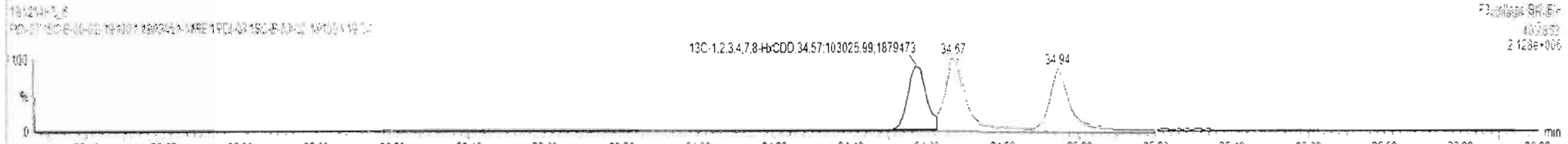
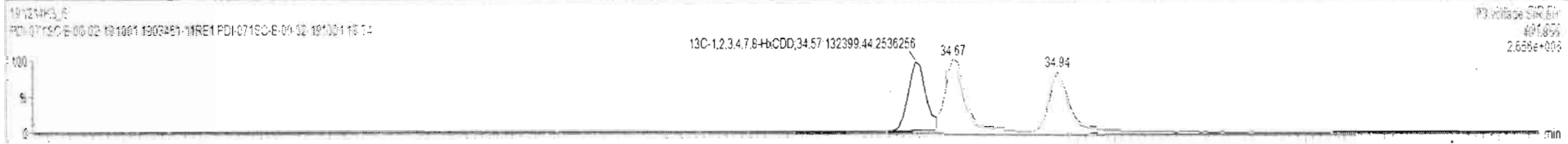
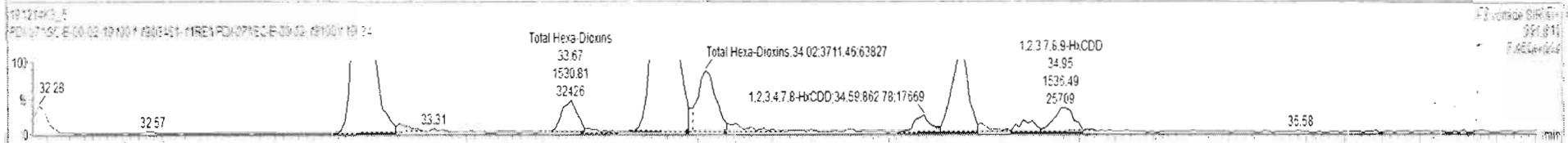
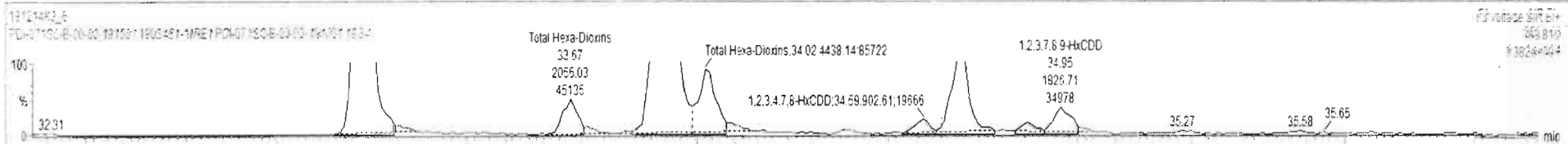




191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19 34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wtVol	Pred RT	RT	Pred R	RRT	RRT Tol	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9248	10.003	24.62		0.000		NO	5.024		0.200	5.637
40	Total Penta-Dioxins				0.9048	10.003	29.96		0.000		NO	6.558		0.239	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000		NO	61.77		0.373	63.07
42	Total Hepta-Dioxins				1.0375	10.003	38.80		0.000		NO	562.2		1.62	562.2
43	Total Tetra-Furans				0.9276	10.003	23.81		0.000		NO	117.4		0.320	122.8
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	8.025		0.032	8.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.6		0.280	127.8

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Hexa-Dioxins	33.63	33.13	2.070e4	1.664e4	1.240	1.24	NO	39.174	36.174
2	Total Hexa-Dioxins	33.63	33.67	2.058e3	1.531e3	1.240	1.24	NO	2.898	2.898
3	Total Hexa-Dioxins	33.63	33.91	2.174e4	1.693e4	1.240	1.31	NO	21.013	21.013
4	Total Hexa-Dioxins	33.63	34.02	4.438e3	3.711e3	1.240	1.20	NO	6.536	6.536
5	1,2,3,4,7,8-HxCDD	34.58	34.58	9.026e2	8.622e2	1.240	1.05	YES	1.295	6.05000
6	1,2,3,6,7,8-HxCDD	34.67	34.69	5.907e3	4.243e3	1.240	1.39	NO	7.100	7.100
7	Total Hexa-Dioxins	33.63	34.87	7.188e2	6.269e2	1.240	1.15	NO	1.087	1.087
8	1,2,3,7,8,9-HxCDD	34.95	34.95	1.827e3	1.536e3	1.240	1.19	NO	2.910	2.910



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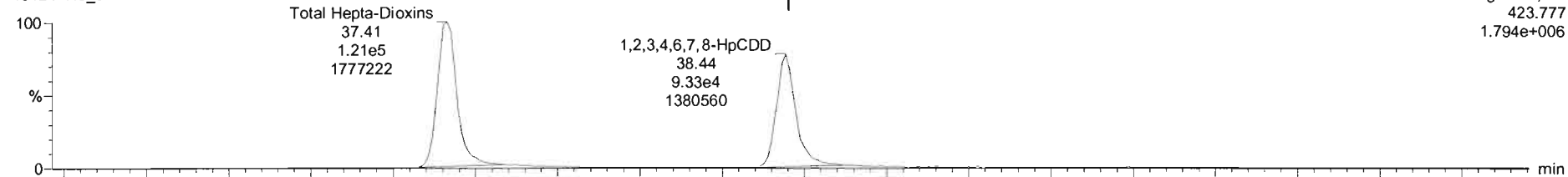
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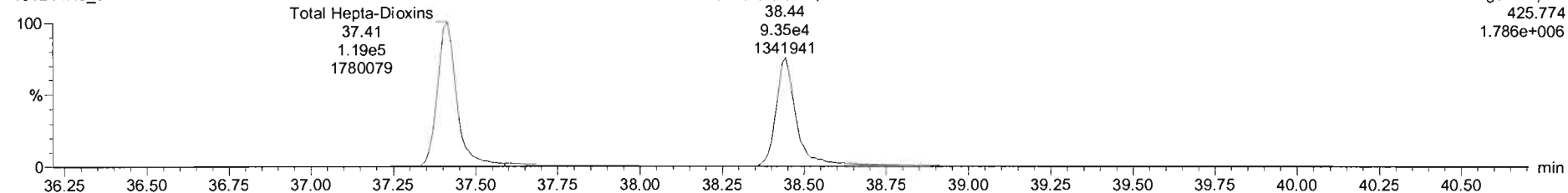
**1,2,3,4,6,7,8-HpCDD**

191214K3\_6



F4:Voltage SIR,EI+  
423.777  
1.794e+006

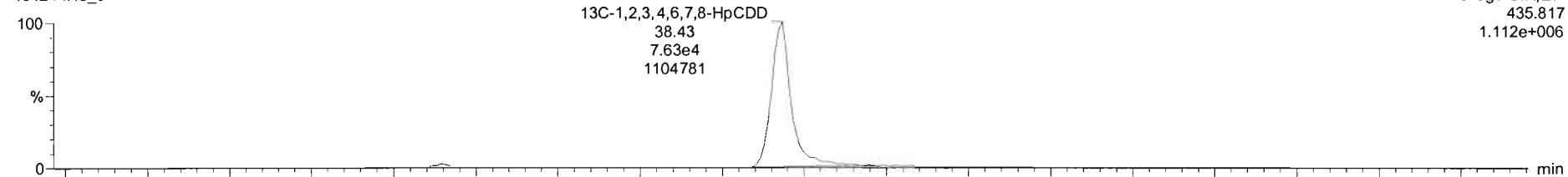
191214K3\_6



F4:Voltage SIR,EI+  
425.774  
1.786e+006

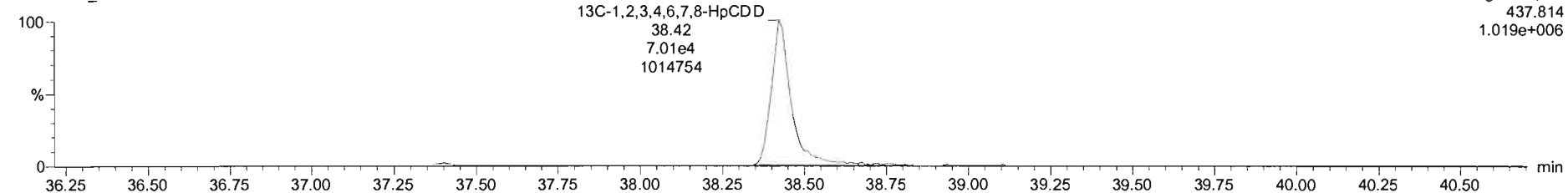
**13C-1,2,3,4,6,7,8-HpCDD**

191214K3\_6



F4:Voltage SIR,EI+  
435.817  
1.112e+006

191214K3\_6



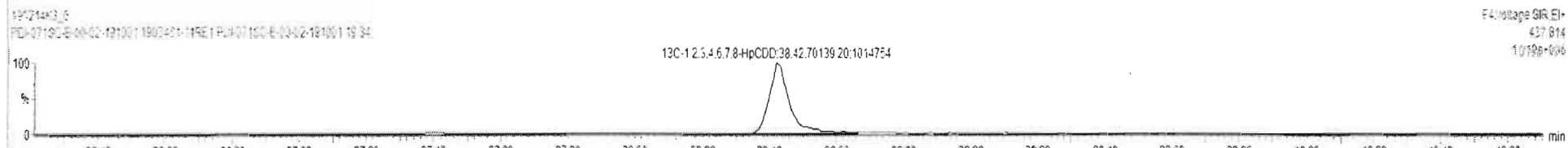
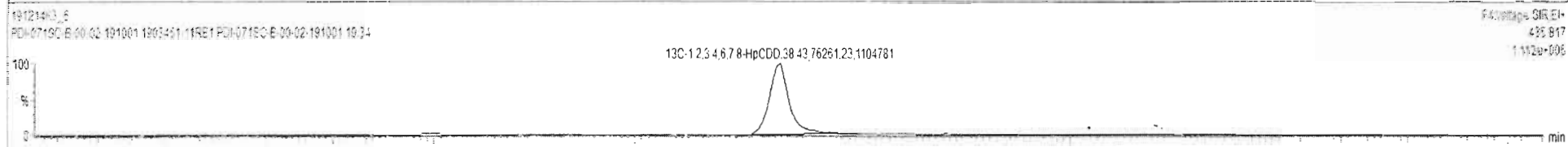
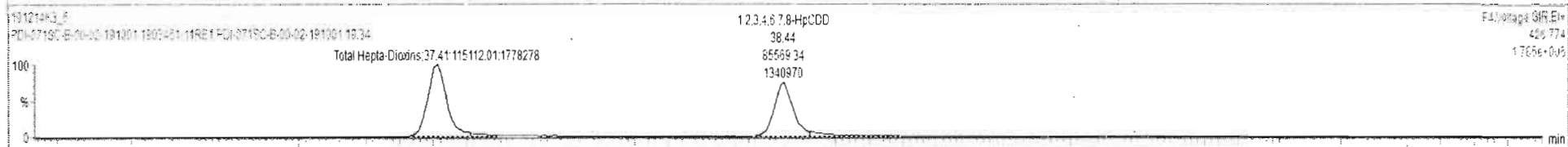
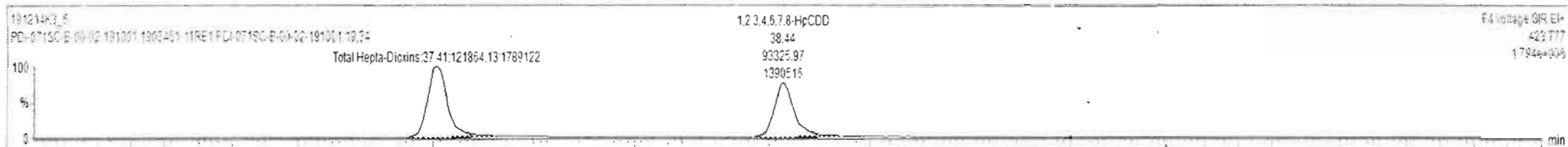
F4:Voltage SIR,EI+  
437.814  
1.019e+006



191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	w/vol	Pred RT	RT	Pred R	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.034		0.200	5.637
40	Total Penta-Dioxins				0.9046	10.003	29.96		0.000		NO	8.558		0.239	11.26
41	Total Hexa-Dioxins				0.9675	10.003	33.83		0.000		NO	61.77		0.373	63.07
42	Total Hepta-Dioxins				1.0375	10.003	38.80		0.000		NO	547.4		1.62	547.4
43	Total Tetra-Furans				0.9278	10.003	23.21		0.000		NO	117.9		0.320	123.1
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	8.025		0.0332	8.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	125.6		0.280	127.8

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	n/y	EMPC	Conc.
1	42 Total Hepta-Dioxins	38.80	37.41	1.219e5	1.151e5	1.040	1.06	NO	211.92	211.93
2	6 1,2,3,4,6,7,8-HpCDD	38.44	38.44	9.333e4	6.657e4	1.040	1.09	NO	235.48	235.48

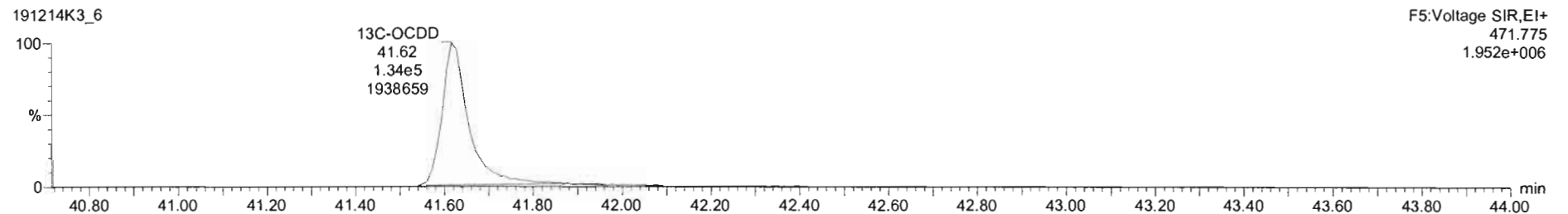
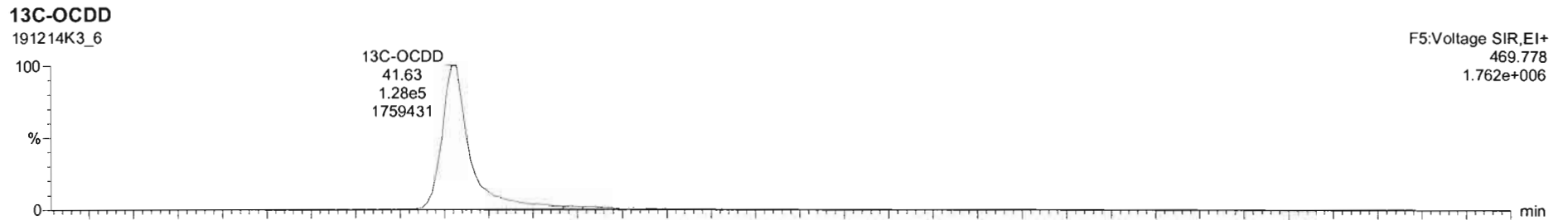
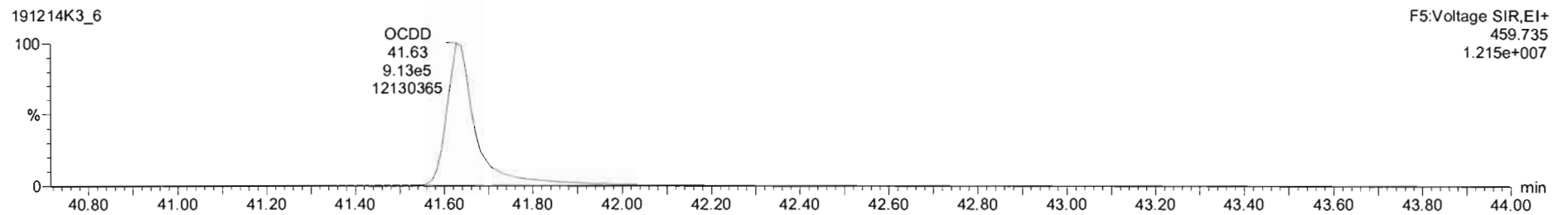
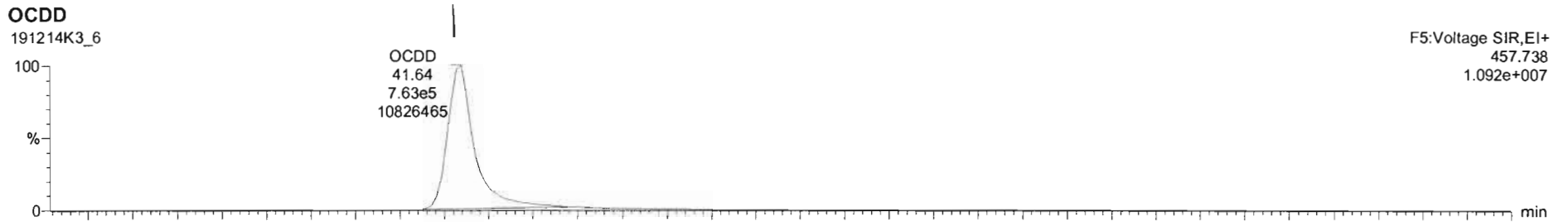


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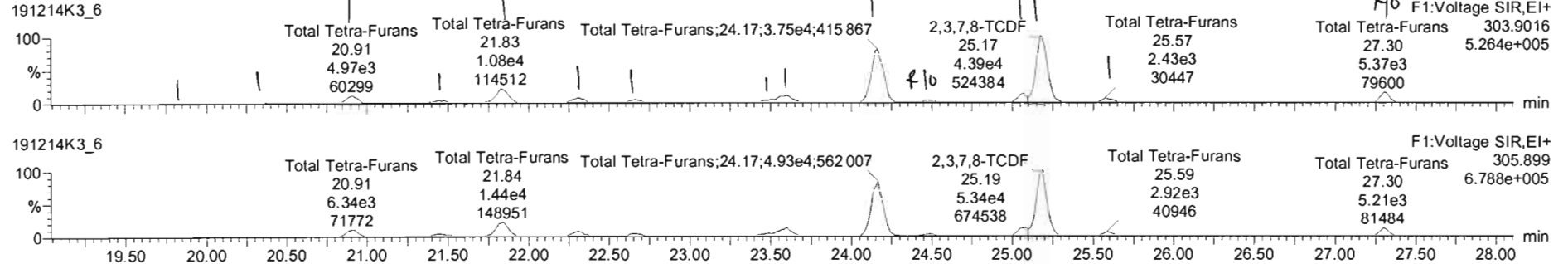


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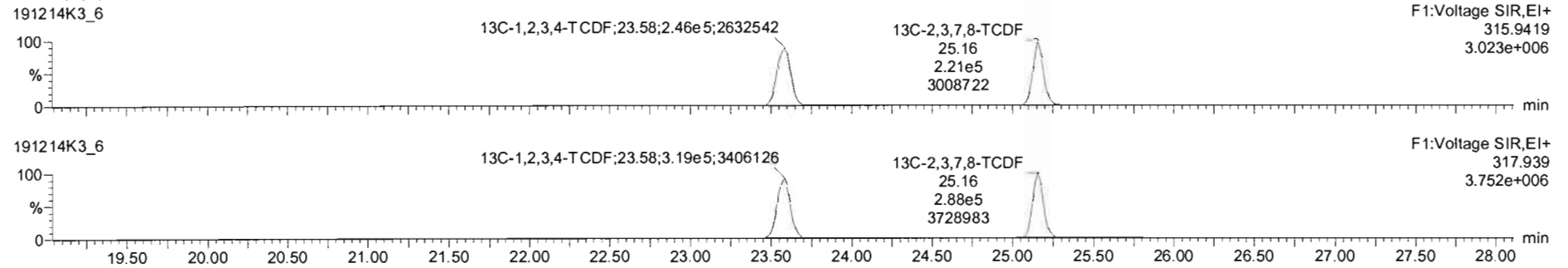
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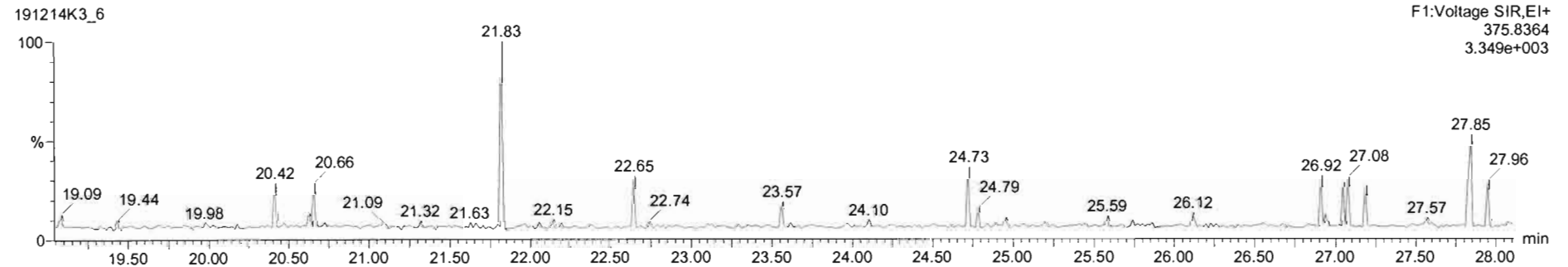
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**13C-2,3,7,8-TCDF**



**DPE1**

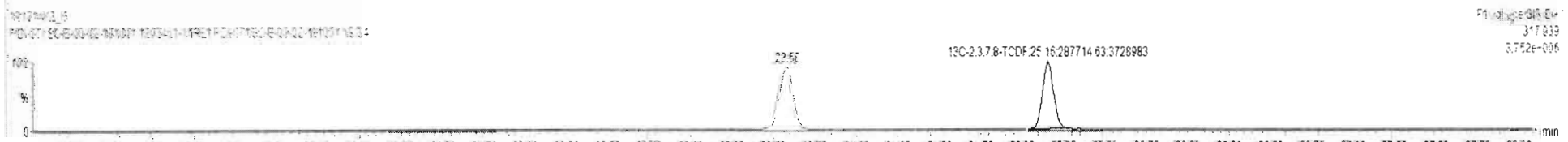
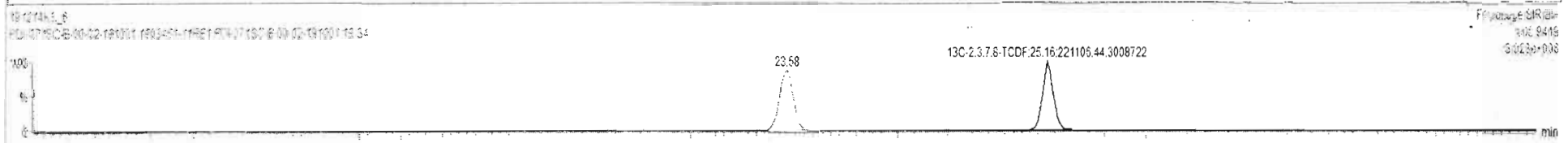
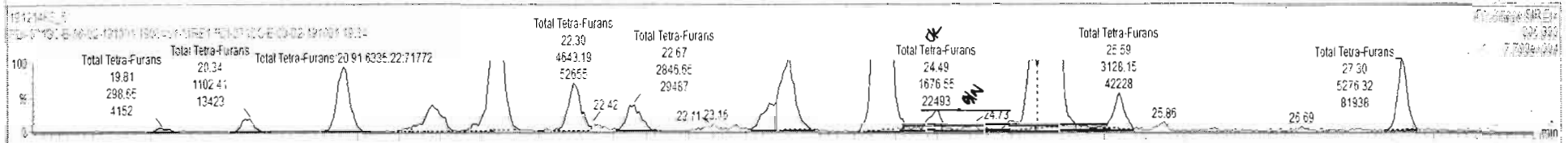
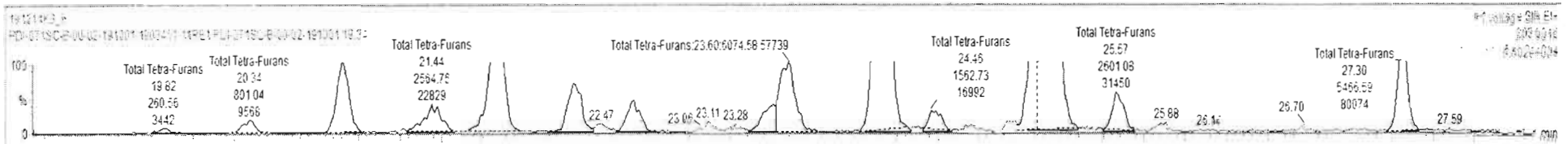




191214K3\_6 - 1903461-11RE1 PDI:071SC-B-00-02-191001 19.34 - PDI:071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wtval	Pred RT	RT	Pred.R.	RRT	RRT Fail	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.934		0.200	5.637
40	Total Penta-Dioxins				0.9046	10.003	29.96		0.000		NO	6.558		0.200	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000		NO	81.77		0.373	83.62
42	Total Hepta-Dioxins				1.0275	10.003	36.80		0.000		NO	547.4		1.62	547.4
43	Total Tetra-Furans				0.9376	10.003	23.61		0.000		NO	117.9		0.320	123.1
44	1st Func. Penta-Furans				0.9782	10.003	27.04		0.000		NO	6.025		0.0332	8.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.6		0.250	127.8

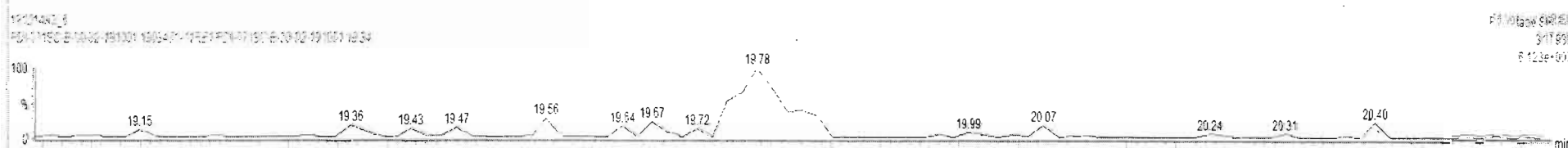
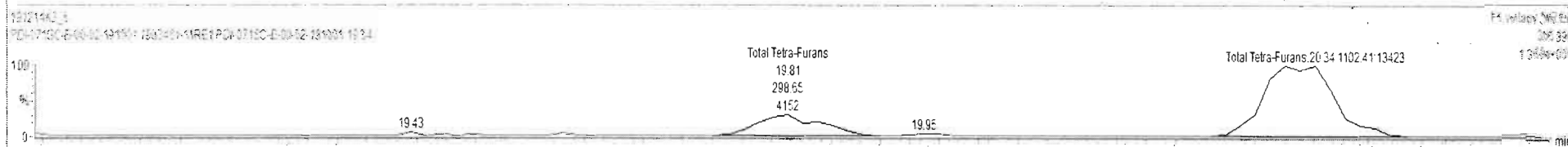
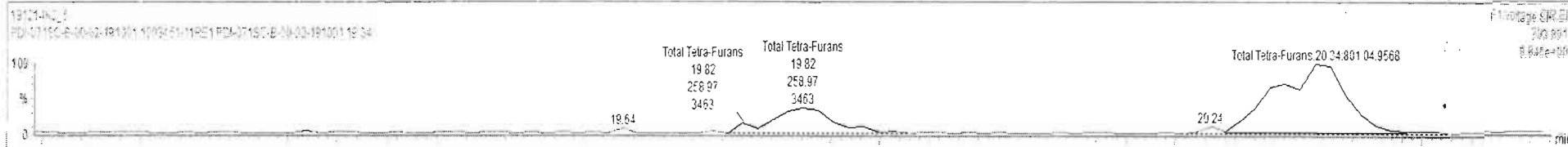
#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1* Ratio (Pred)	RA	n/y	EMPC	Conc.
1	Total Tetra-Furans	23.61	19.82	2.606e2	2.986e2	0.770	0.87	NO	0.23435	0.23435
2	Total Tetra-Furans	23.61	20.34	6.010e2	1.102e3	0.770	0.72	NO	0.79769	0.79769
3	Total Tetra-Furans	23.61	20.91	5.046e2	6.325e2	0.770	0.80	NO	4.7695	4.7695
4	Total Tetra-Furans	23.61	21.44	2.955e2	3.331e2	0.770	0.77	NO	2.4705	2.4705
5	Total Tetra-Furans	23.61	21.82	1.082e4	1.432e4	0.770	0.76	NO	13.535	16.535
6	Total Tetra-Furans	23.61	22.30	3.781e3	4.643e3	0.770	0.81	NO	3.5134	3.5304
7	Total Tetra-Furans	23.61	22.67	2.292e3	2.647e3	0.770	0.81	NO	2.1533	2.1533
8	Total Tetra-Furans	23.61	22.51	1.828e3	2.736e3	0.770	0.70	NO	1.9545	1.9545
9	Total Tetra-Furans	23.61	23.60	6.075e2	8.094e2	0.770	0.75	NO	5.9378	5.9378
10	Total Tetra-Furans	23.61	24.17	3.603e4	4.985e4	0.770	0.72	NO	36.026	36.823
11	Total Tetra-Furans	23.61	24.46	1.563e3	1.677e3	0.770	0.93	YES	1.2436	0.60000



191214K3\_6 - 1903461-TIRE1-PDI071SC-B-00-02-191001 19.34 - PDI071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wt/vol	Pred.RT	RT	Pred.R.	RRT	RRT Fail	Comp.	%Rec	CL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.024		0.205	5.237
40	Total Penta-Dioxins				0.9046	10.003	29.99		0.000		NO	6.558		0.295	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000		NO	81.77		0.273	85.07
42	Total Hepta-Dioxins				1.0375	10.003	38.80		0.000		NO	547.4		1.62	547.4
43	Total Tetra-Furans				0.9378	10.003	23.61		0.000		NO	117.4		0.320	122.5
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	6.025		0.3102	6.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.6		0.280	127.8

#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Tetra-Furans	23.61	19.82	2.590e2	2.589e2	0.770	0.87	NO	0.23368	0.23368
2	Total Tetra-Furans	23.61	20.34	6.019e2	1.102e3	0.770	0.73	NO	0.79799	0.79799
3	Total Tetra-Furans	23.61	20.51	5.046e2	6.335e2	0.770	0.60	NO	4.7695	4.7695
4	Total Tetra-Furans	23.61	21.44	2.565e2	2.331e3	0.770	0.77	NO	2.4706	2.4706
5	Total Tetra-Furans	23.61	21.63	1.062e4	1.432e4	0.770	0.76	NO	10.535	10.535
6	Total Tetra-Furans	23.61	22.30	3.781e2	4.643e2	0.770	0.81	NO	3.5304	3.5304
7	Total Tetra-Furans	23.61	22.67	2.292e3	2.847e2	0.770	0.81	NO	2.1533	2.1533
8	Total Tetra-Furans	23.61	22.51	1.523e3	2.736e2	0.770	0.70	NO	1.9545	1.9545
9	Total Tetra-Furans	23.61	23.20	6.075e2	6.094e2	0.770	0.75	NO	5.9378	5.9378
10	Total Tetra-Furans	23.61	24.17	3.603e2	4.955e2	0.770	0.75	NO	36.826	36.826
11	Total Tetra-Furans	23.61	24.45	1.583e2	1.677e2	0.770	0.93	YES	1.2438	0.00000

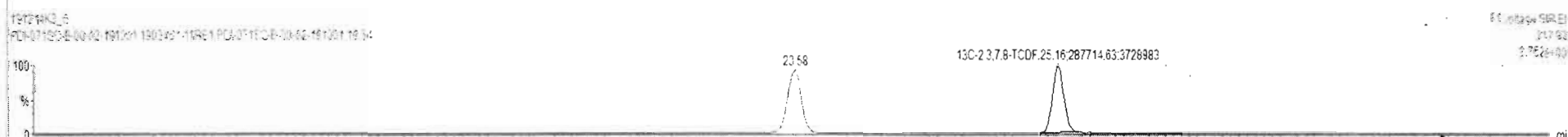
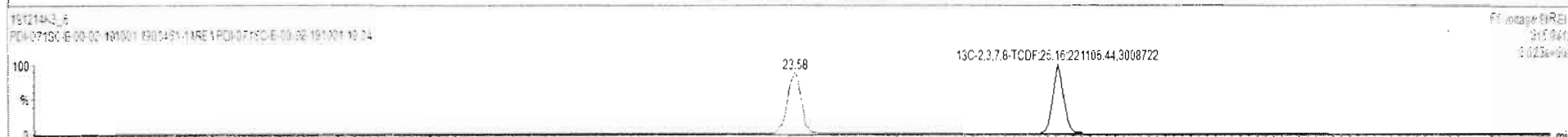
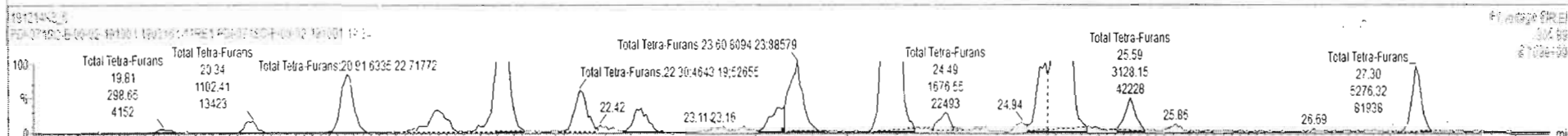
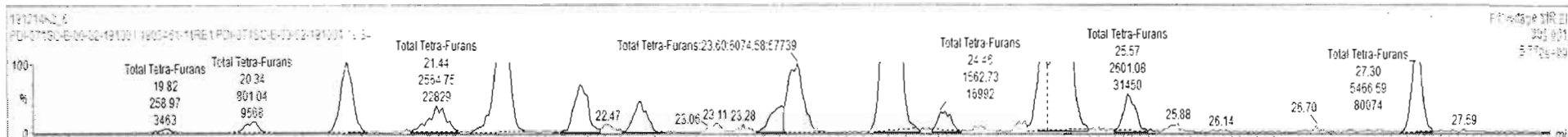




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#	Name	Resp	RA	nly	RRF	wtVol	Pred.RT	RT	Pred.R	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.074		0.200	5.837
40	Total Penta-Dioxins				0.9046	10.003	29.96		0.000		NO	6.532		0.200	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000		NO	11.77		0.200	33.07
42	Total Hepta-Dioxins				1.0775	10.003	38.80		0.000		NO	547.4		1.62	547.4
43	Total Tetra-Furans				0.9376	10.003	23.61		0.000		NO	117.4		0.320	122.5
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	8.025		0.0332	8.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	126.5		0.280	127.8

#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Tetra-Furans	23.61	19.82	2.590e2	2.590e2	0.770	0.87	NO	0.23368	0.23368
2	Total Tetra-Furans	23.61	20.34	8.010e2	1.102e3	0.770	0.73	NO	0.79769	0.79769
3	Total Tetra-Furans	23.61	20.91	5.648e2	8.335e2	0.770	0.80	NO	4.7695	4.7695
4	Total Tetra-Furans	23.61	21.44	2.555e2	3.301e2	0.770	0.77	NO	2.4706	2.4706
5	Total Tetra-Furans	23.61	21.83	1.682e4	1.432e4	0.770	0.76	NO	10.535	10.535
6	Total Tetra-Furans	23.61	22.30	3.781e3	4.643e3	0.770	0.81	NO	3.5304	3.5304
7	Total Tetra-Furans	23.61	22.67	2.282e2	2.847e2	0.770	0.81	NO	2.1533	2.1533
8	Total Tetra-Furans	23.61	23.51	1.528e2	2.736e2	0.770	0.70	NO	1.9545	1.9545
9	Total Tetra-Furans	23.61	23.60	6.675e2	8.094e2	0.770	0.75	NO	5.9378	5.9378
10	Total Tetra-Furans	23.61	24.17	3.603e4	4.985e4	0.770	0.75	NO	36.828	36.828
11	Total Tetra-Furans	23.61	24.46	1.553e2	1.677e2	0.770	0.93	YES	1.2436	0.00000



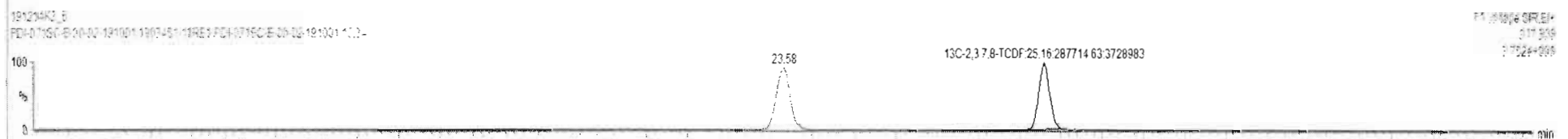
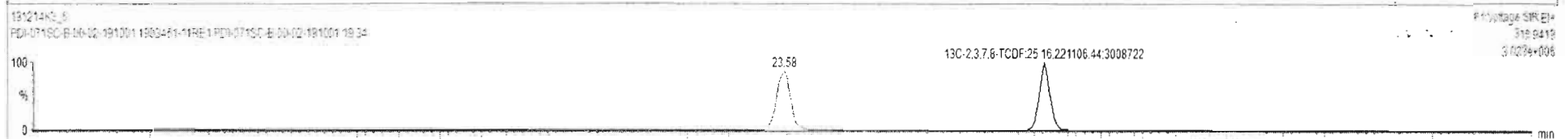
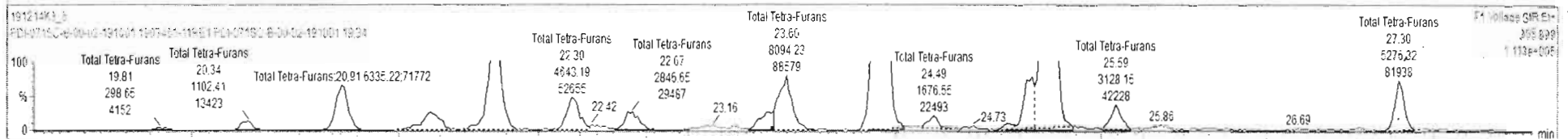
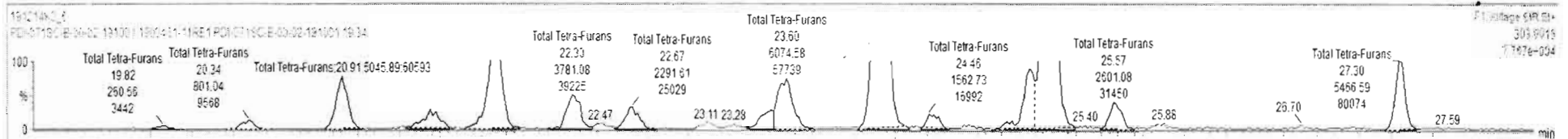
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191214K3\_6 - 1903461:11RE1 PDI-071SC-B-00-02-191001 19:34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wVvol	Pred.RT	RT	Pred.R.	RRT	RRT Fail	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.52		0.000	NO		5.024		0.200	5.027
40	Total Penta-Dioxins				0.9046	10.003	29.96		0.000	NO		6.558		0.239	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000	NO		61.77		0.273	83.67
42	Total Hepta-Dioxins				1.0375	10.003	36.80		0.000	NO		547.4		1.62	547.4
43	Total Tetra-Furans				0.9376	10.003	23.61		0.000	NO		117.9		0.320	123.1
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000	NO		6.025		0.032	6.025
45	Total Penta-Furans				0.9762	10.003	29.27		0.000	NO		125.6		0.280	127.8

#	Name	Pred.RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Prec)	RA	nly	EMPC	Conc
1	Total Tetra-Furans	23.61	19.82	2.606e2	2.988e2	0.770	0.87	NO	0.23435	0.20435
2	Total Tetra-Furans	23.61	20.34	6.010e2	1.102e3	0.770	0.73	NO	0.76759	0.79769
3	Total Tetra-Furans	23.61	20.51	5.049e2	6.335e2	0.770	0.80	NO	4.7695	4.7695
4	Total Tetra-Furans	23.61	21.44	2.565e3	3.331e3	0.770	0.77	NO	2.4702	2.4702
5	Total Tetra-Furans	23.61	21.83	1.082e4	1.432e4	0.770	0.76	NO	10.535	10.535
6	Total Tetra-Furans	23.61	22.30	0.781e3	4.643e3	0.770	0.81	NO	3.9304	3.9304
7	Total Tetra-Furans	23.61	22.67	2.292e3	2.847e3	0.770	0.81	NO	2.1533	2.1533
8	Total Tetra-Furans	23.61	23.51	1.529e3	2.736e3	0.770	0.70	NO	1.9545	1.9545
9	Total Tetra-Furans	23.61	23.60	6.075e3	8.094e3	0.770	0.75	NO	5.9378	5.9378
10	Total Tetra-Furans	23.61	24.17	3.603e4	4.985e4	0.770	0.76	NO	36.826	36.826
11	Total Tetra-Furans	23.61	24.46	1.563e3	1.677e3	0.770	0.93	YES	1.2438	0.00000



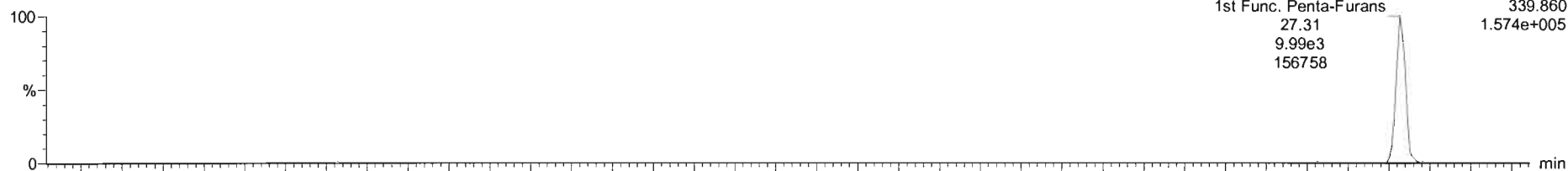
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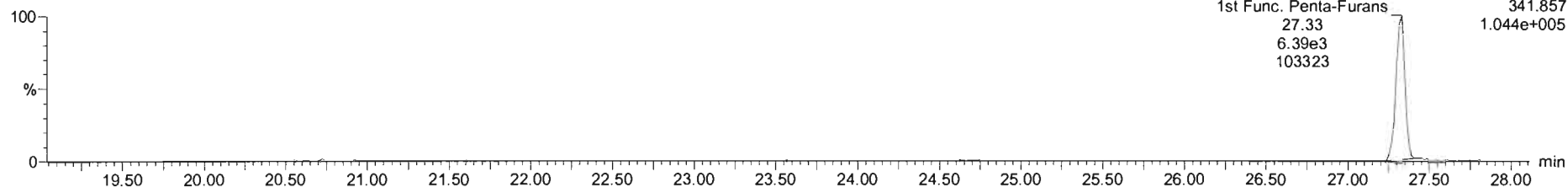
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1st Func. Penta-Furans

191214K3\_6

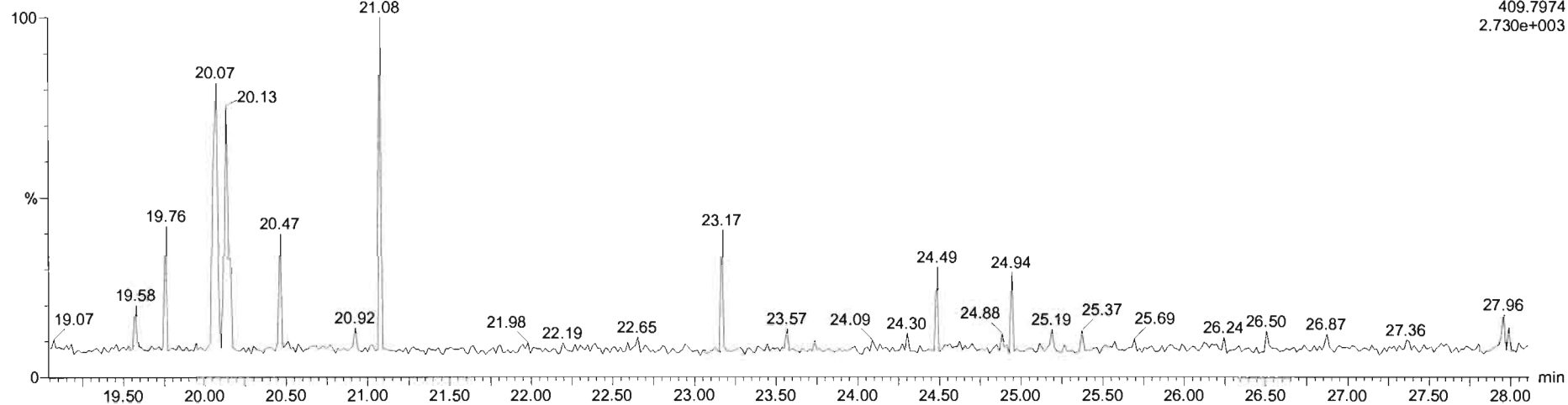


191214K3\_6



DPE6

191214K3\_6



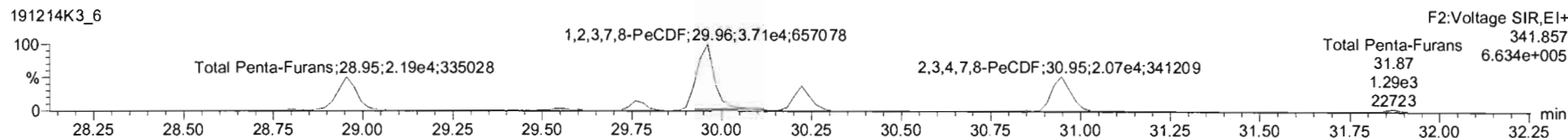
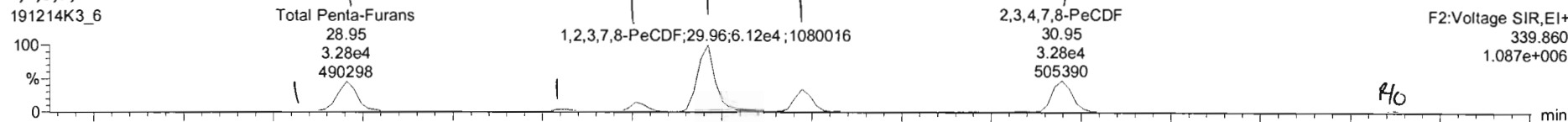
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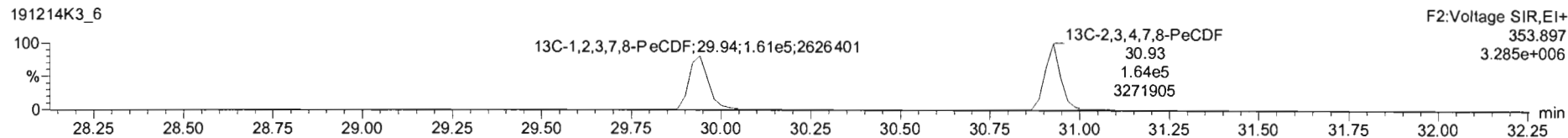
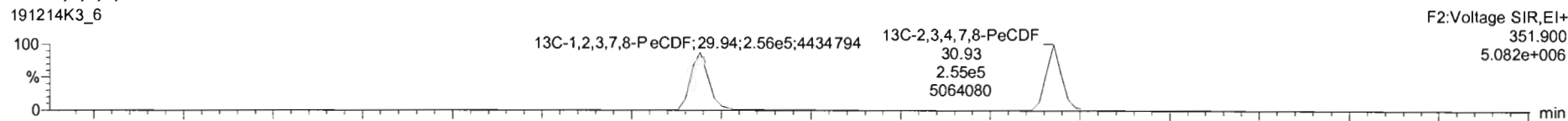
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Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

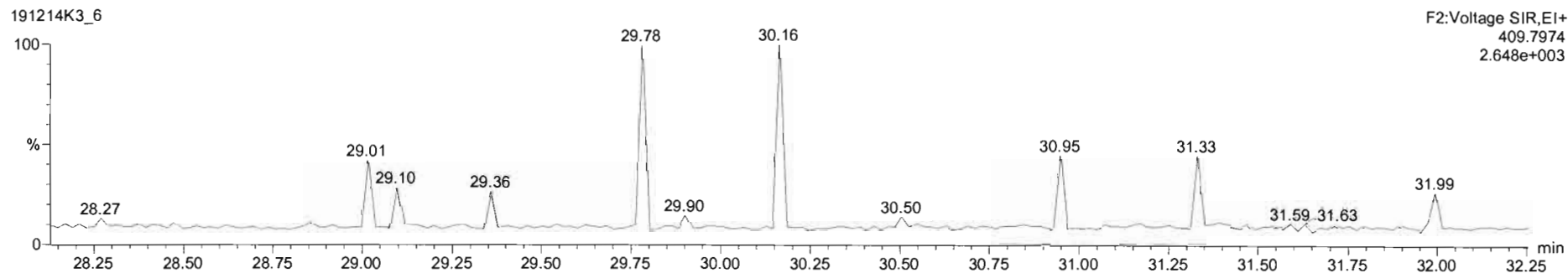
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**13C-1,2,3,7,8-PeCDF**



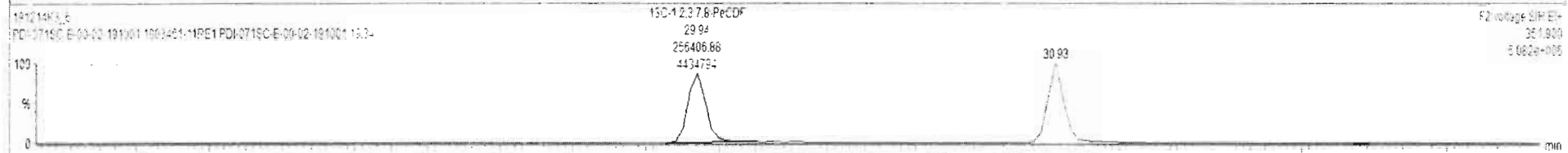
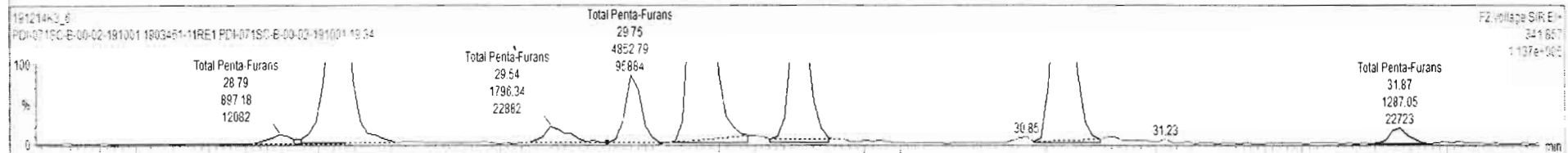
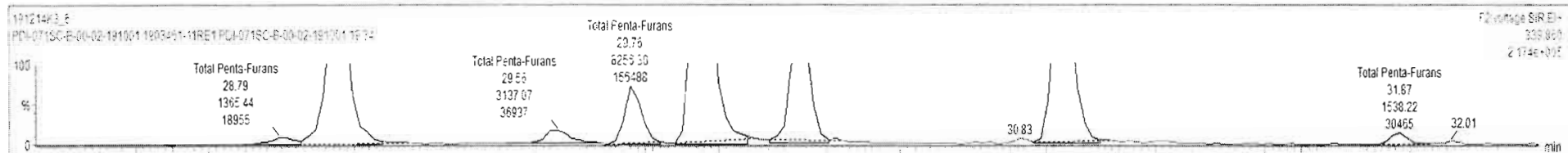
**DPE2**



191214K3\_6 - 1903461-11RE1-PDI-071SC-B-00-02-191001 19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	nly	RRF	wtVol	Pred RT	RT	Pred R.	RRT	RRT Fai	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.003	24.62		0.000		NO	5.024		0.200	5.697
40	Total Penta-Dioxins				0.9046	10.003	29.96		0.000		NO	6.558		0.239	11.28
41	Total Hexa-Dioxins				0.9675	10.003	33.63		0.000		NO	61.77		0.373	83.07
42	Total Hepta-Dioxins				1.0075	10.003	38.20		0.000		NO	547.4		1.62	547.4
43	Total Tetra-Furans				0.9376	10.003	23.61		0.000		NO	117.4		0.320	122.5
44	1st Func. Penta-Furans				0.9762	10.003	27.04		0.000		NO	6.025		0.0332	8.625
45	Total Penta-Furans				0.9762	10.003	29.27		0.000		NO	128.8		0.280	130.0

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	nly	EMPC	Conc.
1	Total Penta-Furans	29.27	28.79	1.365e3	6.572e2	1.550	1.52	NO	1.1024	1.1084
2	Total Penta-Furans	29.27	28.55	3.247e4	2.173e4	1.550	1.49	NO	26.554	26.554
3	Total Penta-Furans	29.27	29.56	3.137e3	1.798e3	1.550	1.75	NO	2.4168	2.4168
4	Total Penta-Furans	29.27	29.76	6.258e3	4.853e3	1.550	1.70	NO	6.4218	6.4218
5	1,2,3,7,8-PeCDF	29.96	29.96	6.242e4	3.612e4	1.550	1.64	NO	49.361	49.361
6	Total Penta-Furans	29.27	30.22	2.143e4	1.340e4	1.550	1.60	NO	17.360	17.080
7	1,2,3,4,7,8-PeCDF	30.96	30.95	2.022e4	2.124e4	1.550	1.56	NO	25.056	25.855
8	Total Penta-Furans	29.27	31.87	1.538e3	1.287e3	1.550	1.26	YES	1.2357	0.00000



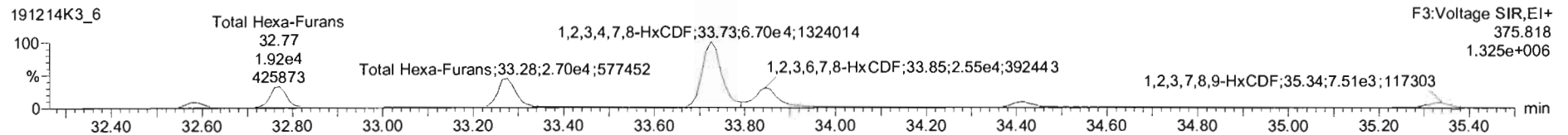
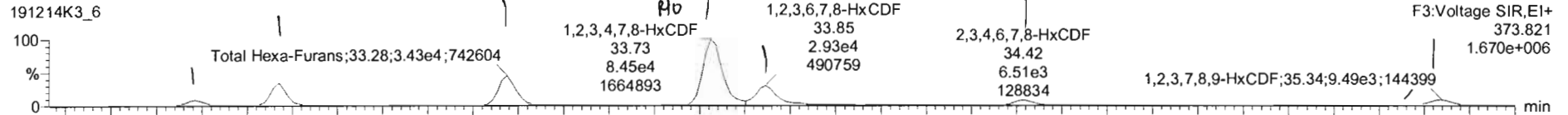
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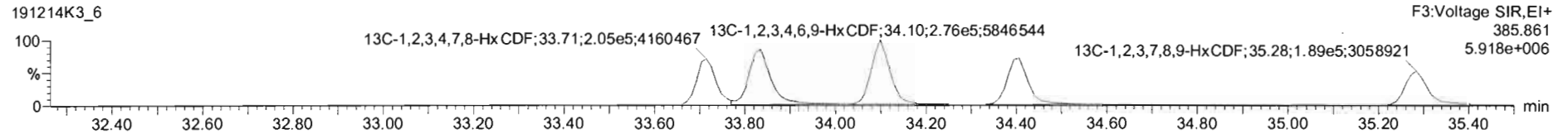
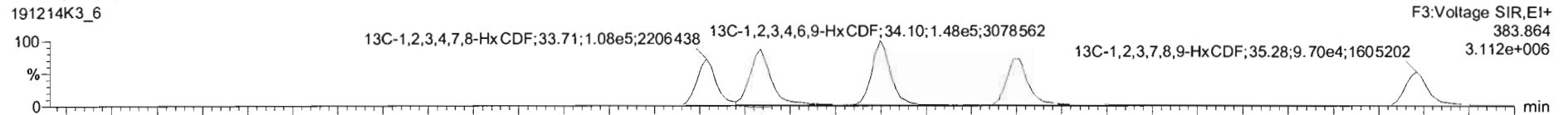
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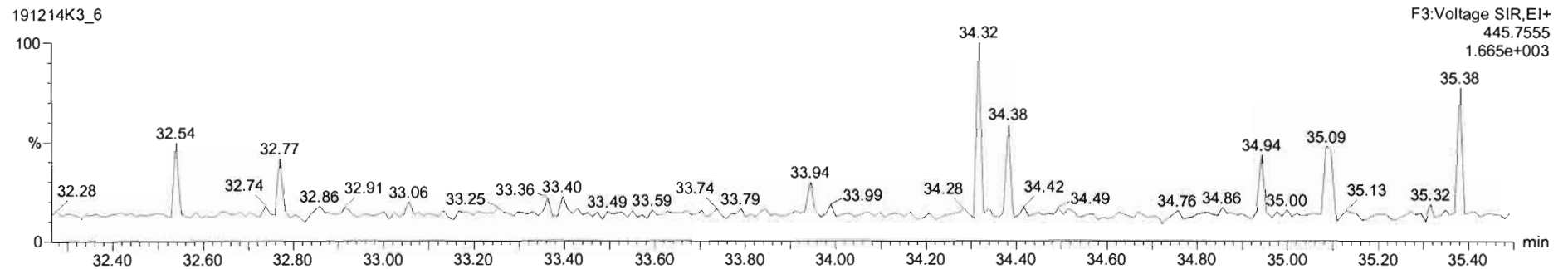
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



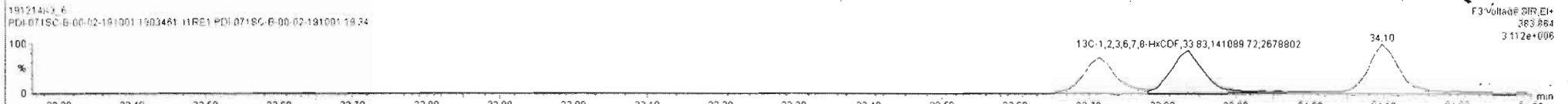
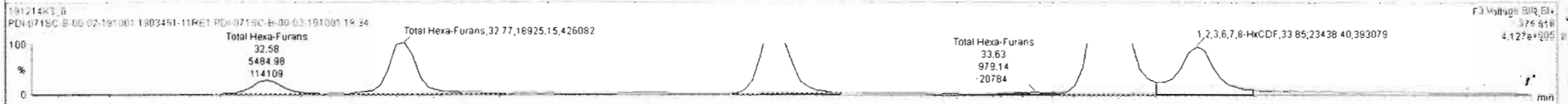
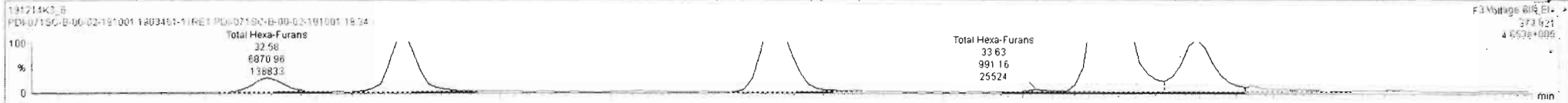
**DPE3**



191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19\_34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred RT	RT	Pred R...	RRT	RRT Fail	Conc	%Rec	DL	EMPC
46	Total Hexa-Furans				1.1806	10.003	33.56		0.000		NO	175.3		0.417	176.2
47	Total Hepta-Furans				1.1300	10.003	37.83		0.000		NO	212.8		0.647	212.8
48	PFK1														
49	PFK2														

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1° Ratio (Pred)	RA	n/y	EMPC	Conc
1	1,2,3,4,7,8-HxCDF	33.71	33.73	8.486e4	6.706e4	1.240	1.27	NO	78.023	78.023
2	1,2,3,6,7,8-HxCDF	33.85	33.85	2.653e4	2.344e4	1.240	1.13	NO	21.713	21.713
3	1,2,3,4,6,7,8-HxCDF	34.44	34.42	6.770e3	5.892e3	1.240	1.15	NO	6.1899	6.1899
4	1,2,3,7,8-HxCDF	35.28	35.34	9.487e3	7.515e3	1.240	1.26	NO	11.074	11.074
5	Total Hexa-Furans	33.56	32.58	6.871e3	5.485e3	1.240	1.25	NO	6.1280	6.1281
6	Total Hexa-Furans	33.56	32.77	2.437e4	1.893e4	1.240	1.29	NO	21.471	21.471



#	Name	Resp	RA	nly	RFF	wAol	Pred.RT	RT	Pred.R...	RRT	RRT Fat	Conc.	%Rec	DL	EMPC
46	Total Hexa-Furans				1.1806	10.003	33.56		0.000		NO	172.6		0.417	173.5
47	Total Hepta-Furans				1.1300	10.003	37.83		0.000		NO	212.6		0.647	212.8
48	PFK1														
49	PFK2														

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1° Ratio (Pred)	RA	nly	EMPC	Conc.
4	Total Hexa-Furans	33.56	33.63	9.912e2	9.791e2	1.240	1.01	YES	0.88302	0.00000
5	1,2,3,4,7,8-HxCDF	33.71	33.73	6.486e4	6.706e4	1.240	1.27	NO	7e.021	7e.021
6	1,2,3,6,7,8-HxCDF	33.85	33.85	2.653e4	2.344e4	1.240	1.13	NO	21.713	21.713
7	1,2,3,4,6,7,8-HxCDF	34.44	34.42	6.775e3	5.892e3	1.240	1.15	NO	6.1894	6.1894
8	1,2,3,7,8-HxCDF	35.26	35.28	6.753e2	5.928e2	1.240	1.14	NO	0.82592	0.82592
9	Total Hexa-Furans	31.56	35.34	8.567e3	6.678e3	1.240	1.28	NO	7.5585	7.5585



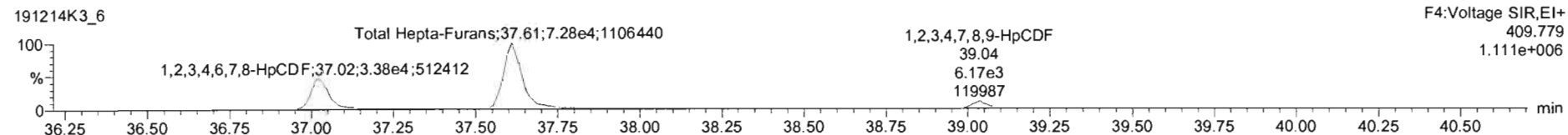
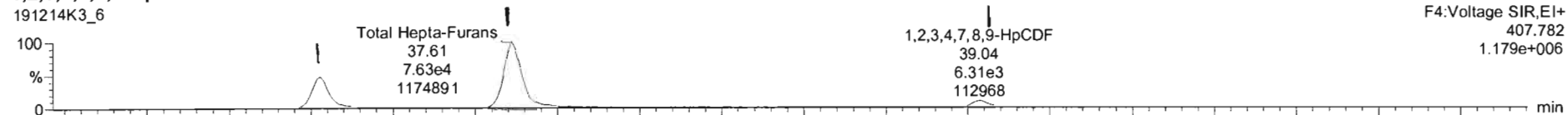


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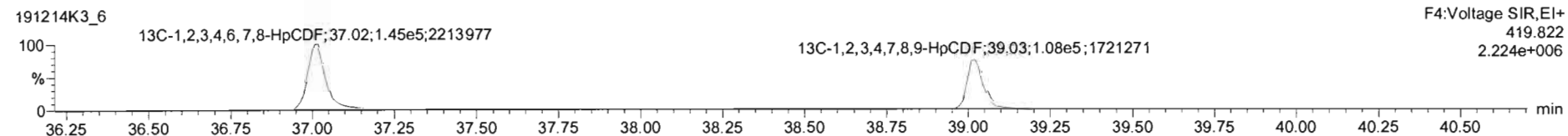
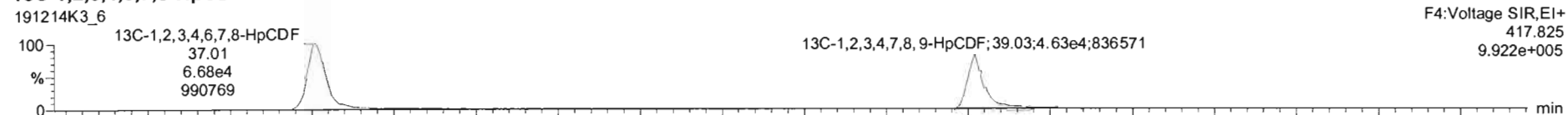
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Name: 191214K3\_6, Date: 15-Dec-2019, Time: 10:33:11, ID: 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34, Description: PDI-071SC-B-00-02-191001

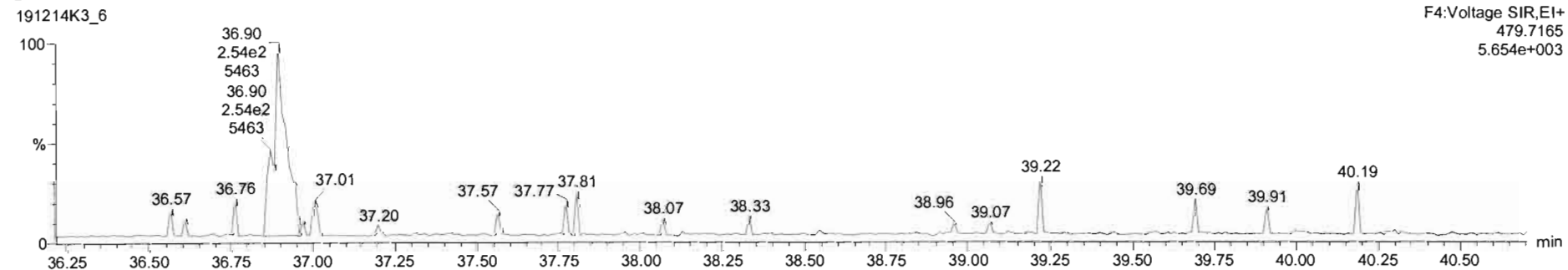
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### 13C-1,2,3,4,6,7,8-HpCDF



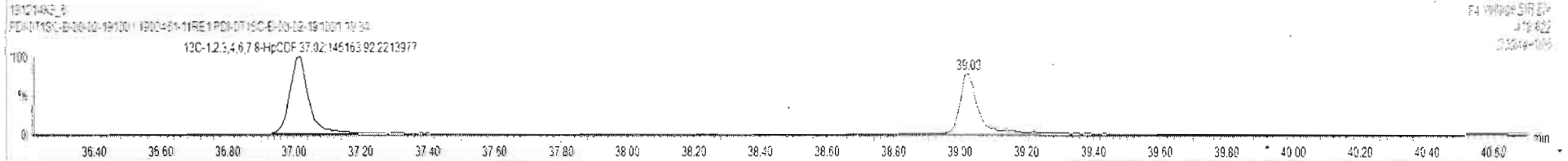
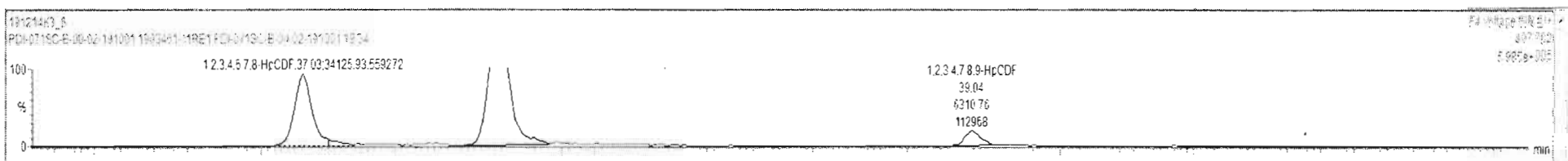
### DPE4



191214K3\_6 - 1903461-11RE1 PDI-071SC-B-00-02-191001 19.34 - PDI-071SC-B-00-02-191001

#	Name	Resp	RA	n/y	RRF	wrtvol	Pred RT	RT	Pred.R...	RRT	RRT Fai	Conc.	%Rec	DL	EMPC
47	Total Hepta-Furans				1.1380	10.003	37.83		0.000		NO	212.8		0.647	212.9
48	PFK1														
49	PFK2														
50	PFK3														
51	PFK4														
52	PFK5														
53	DPE1														

#	Name	Pred RT	RT	m1 Resp	m2 Resp	1 <sup>st</sup> Ratio (Pred)	RA	n/y	EMPC	Conc.
1	1,2,3,4,6,7,8-HpCDF	37.04	37.03	3.413e4	3.271e4	1.040	1.04	NO	55.802	55.802
2	Total Hepta-Furans	37.83	37.61	7.628e4	7.251e4	1.040	1.05	NO	144.14	144.14
3	1,2,3,4,7,8,9-HpCDF	39.03	39.04	6.311e2	6.174e2	1.040	1.02	NO	12.848	12.848

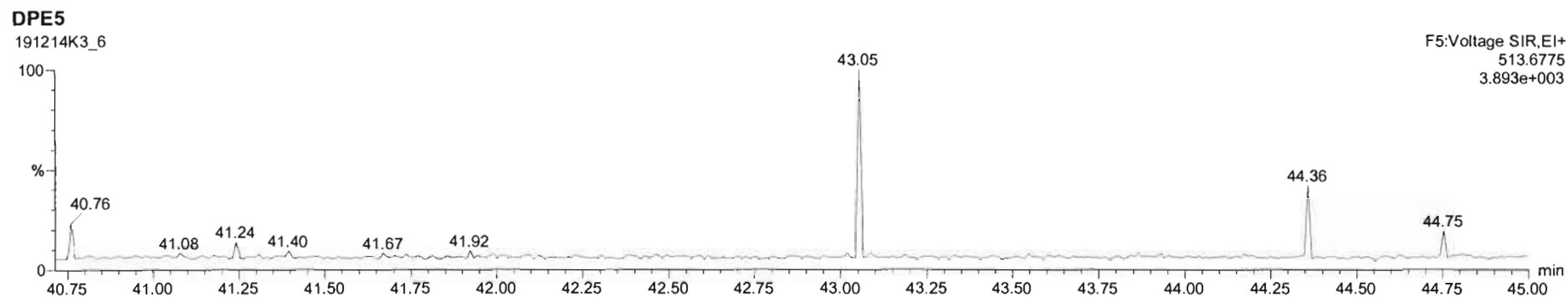
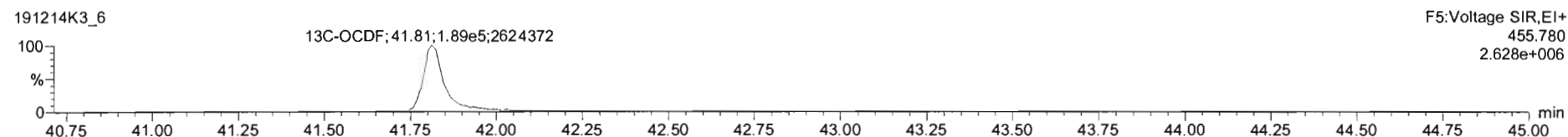
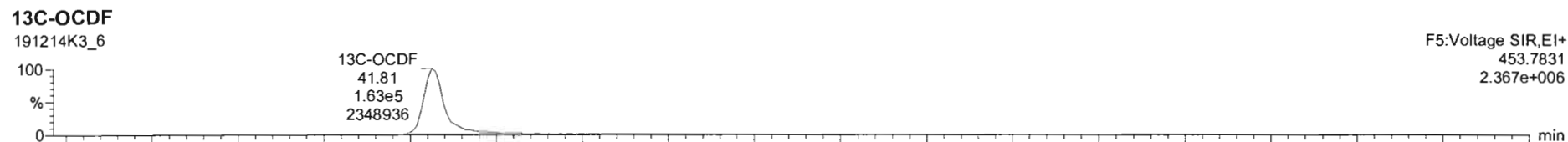
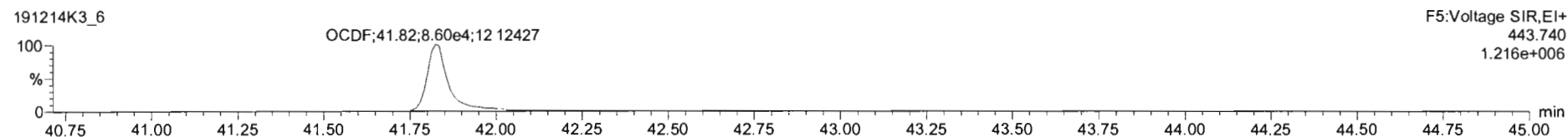
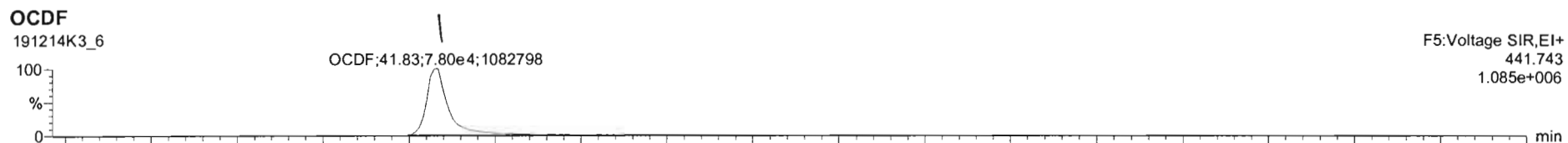


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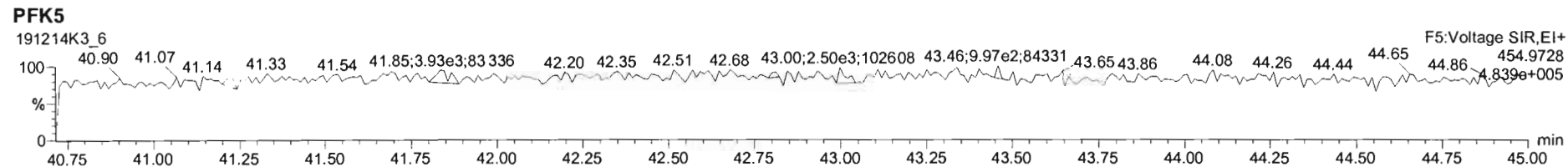
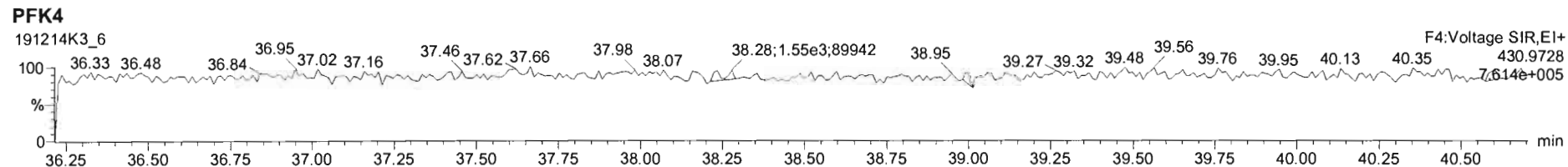
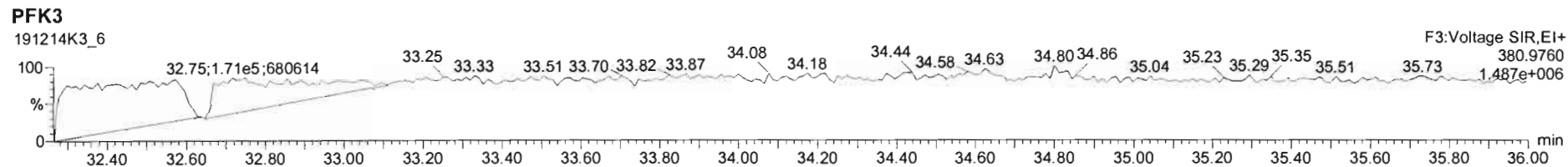
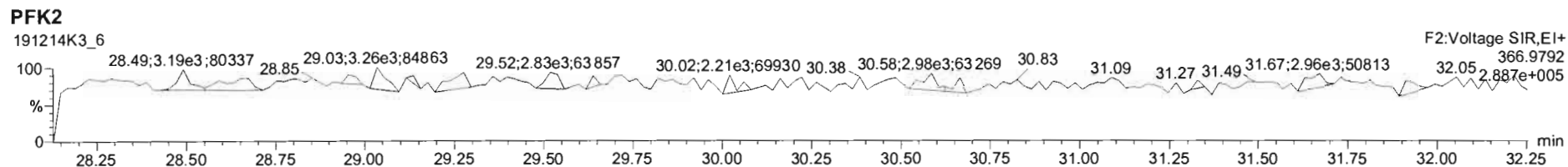
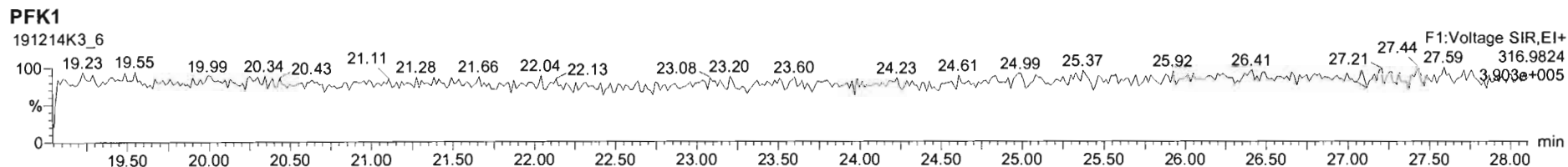
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Last Altered: Friday, January 10, 2020 14:00:02 Pacific Standard Time  
Printed: Friday, January 10, 2020 14:00:47 Pacific Standard Time

*GPB 01/10/2020*

*CT 01/10/2020*

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#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	2.11e3	0.58	YES	0.925	10.009	26.168	26.17	1.001	1.001	1.5408		0.278	1.30
2	2 1,2,3,7,8-PeCDD	2.12e3	0.58	NO	0.905	10.009	31.271	31.27	1.001	1.001	2.0240		0.377	2.02
3	3 1,2,3,4,7,8-HxCDD	2.26e3	1.05	NO	1.07	10.009	34.580	34.59	1.000	1.001	2.0586		0.494	2.06
4	4 1,2,3,6,7,8-HxCDD	1.48e4	1.29	NO	0.967	10.009	34.669	34.69	1.000	1.001	11.342		0.481	11.3
5	5 1,2,3,7,8,9-HxCDD	5.44e3	1.28	NO	0.978	10.009	34.978	34.95	1.001	1.000	4.6918		0.586	4.69
6	6 1,2,3,4,6,7,8-HpCDD	2.02e5	1.03	NO	1.04	10.009	38.434	38.44	1.000	1.001	261.37		2.09	261
7	7 OCDD	2.13e6	0.89	NO	0.972	10.009	41.626	41.63	1.000	1.000	2889.1		2.36	2890
8	8 2,3,7,8-TCDF	3.82e5	0.78	NO	0.938	10.009	25.184	25.19	1.001	1.001	201.36	(142.1)	0.404	201
9	9 1,2,3,7,8-PeCDF	5.22e5	1.62	NO	0.976	10.009	29.962	29.96	1.001	1.001	283.43		0.429	283
10	10 2,3,4,7,8-PeCDF	2.44e5	1.57	NO	1.00	10.009	30.958	30.95	1.001	1.001	137.73		0.437	138
11	11 1,2,3,4,7,8-HxCDF	6.78e5	1.24	NO	1.24	10.009	33.714	33.72	1.000	1.000	413.90		0.895	414
12	12 1,2,3,6,7,8-HxCDF	2.17e5	1.24	NO	1.10	10.009	33.845	33.85	1.000	1.000	113.49		0.838	113
13	13 2,3,4,6,7,8-HxCDF	4.45e4	1.21	NO	1.18	10.009	34.429	34.41	1.001	1.000	23.670		0.883	23.7
14	14 1,2,3,7,8,9-HxCDF	5.78e4	1.18	NO	1.07	10.009	35.284	35.33	1.000	1.001	38.246		1.24	38.2
15	15 1,2,3,4,6,7,8-HpCDF	2.07e5	1.02	NO	1.13	10.009	37.054	37.03	1.001	1.000	171.00		1.00	171
16	16 1,2,3,4,7,8,9-HpCDF	6.86e4	1.06	NO	1.26	10.009	39.026	39.04	1.000	1.000	74.406		1.14	74.4
17	17 OCDF	3.19e5	0.89	NO	1.10	10.009	41.813	41.82	1.000	1.000	291.49		0.700	291
18	18 13C-2,3,7,8-TCDD	2.95e5	0.78	NO	1.05	10.009	26.146	26.14	1.027	1.027	174.38	87.3	0.385	
19	19 13C-1,2,3,7,8-PeCDD	2.31e5	0.65	NO	0.743	10.009	31.157	31.25	1.224	1.228	193.01	96.6	0.438	
20	20 13C-1,2,3,4,7,8-HxCDD	2.05e5	1.26	NO	0.646	10.009	34.569	34.57	1.014	1.014	162.09	81.1	0.928	
21	21 13C-1,2,3,6,7,8-HxCDD	2.70e5	1.31	NO	0.777	10.009	34.667	34.67	1.017	1.017	177.26	88.7	0.772	
22	22 13C-1,2,3,7,8,9-HxCDD	2.37e5	1.29	NO	0.659	10.009	34.940	34.94	1.025	1.025	183.35	91.8	0.910	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.49e5	1.08	NO	0.534	10.009	38.432	38.42	1.127	1.127	142.06	71.1	0.807	
24	24 13C-OCDD	3.03e5	0.90	NO	0.470	10.009	41.606	41.63	1.220	1.221	328.54	82.2	1.55	
25	25 13C-2,3,7,8-TCDF	4.04e5	0.76	NO	0.977	10.009	25.220	25.16	0.991	0.989	150.27	75.2	0.407	
26	26 13C-1,2,3,7,8-PeCDF	3.77e5	1.58	NO	0.778	10.009	29.869	29.94	1.174	1.177	175.94	88.0	0.916	
27	27 13C-1,2,3,4,7,8-PeCDF	3.53e5	1.57	NO	0.750	10.009	30.877	30.93	1.213	1.215	170.77	85.5	0.950	
28	28 13C-1,2,3,4,7,8-HxCDF	2.63e5	0.53	NO	0.845	10.009	33.709	33.71	0.989	0.989	158.83	79.5	0.986	
29	29 13C-1,2,3,6,7,8-HxCDF	3.49e5	0.53	NO	1.03	10.009	33.925	33.83	0.992	0.992	173.51	86.8	0.812	
30	30 13C-2,3,4,6,7,8-HxCDF	3.18e5	0.55	NO	0.893	10.009	34.398	34.40	1.009	1.009	181.83	91.0	0.933	

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Printed: Friday, January 10, 2020 14:00:47 Pacific Standard Time

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31	31 13C-1,2,3,7,8,9-HxCDF	2.81e5	0.53	NO	0.734	10.009	35.298	35.28	1.035	1.035	195.55	97.9	1.14	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.15e5	0.48	NO	0.754	10.009	37.010	37.02	1.085	1.086	145.12	72.6	0.853	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.46e5	0.48	NO	0.539	10.009	39.032	39.03	1.145	1.145	138.23	69.2	1.19	
34	34 13C-OCDF	3.97e5	0.91	NO	0.593	10.009	41.818	41.81	1.226	1.226	341.68	85.5	1.16	
35	35 37Cl-2,3,7,8-TCDD	1.20e5			1.07	10.009	26.167	26.15	1.028	1.028	69.676	87.2	0.141	
36	36 13C-1,2,3,4-TCDD	3.23e5	0.80	NO	1.00	10.009	25.500	25.45	1.000	1.000	199.82	100	0.404	
37	37 13C-1,2,3,4-TCDF	5.50e5	0.78	NO	1.00	10.009	23.680	23.60	1.000	1.000	199.82	100	0.398	
38	38 13C-1,2,3,4,6,9-HxCDF	3.92e5	0.52	NO	1.00	10.009	34.060	34.10	1.000	1.000	199.82	100	0.833	
39	39 Total Tetra-Dioxins				0.925	10.009	24.620		0.000		10.308		0.275	12.0
40	40 Total Penta-Dioxins				0.905	10.009	29.960		0.000		13.698		0.377	18.1
41	41 Total Hexa-Dioxins				0.967	10.009	33.635		0.000		60.623		0.536	94.0
42	42 Total Hepta-Dioxins				1.04	10.009	38.800		0.000		573.90		2.09	574
43	43 Total Tetra-Furans				0.938	10.009	23.610		0.000		518.75		0.404	540
44	44 1st Func. Penta-Furans				0.976	10.009	27.040		0.000		20.138		0.0705	20.1
45	45 Total Penta-Furans				0.976	10.009	29.275		0.000		673.08		0.439	682
46	46 Total Hexa-Furans				1.18	10.009	33.555		0.000		702.46		0.922	705
47	47 Total Hepta-Furans				1.13	10.009	37.835		0.000		441.20		1.11	441

Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-7.qld

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Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.89	2.823e4	3.910e4	2.615e3	3.297e3	0.79	NO	5.912e3	4.3258	4.3258	0.275
2	Total Tetra-Dioxins	22.30	1.104e4	1.396e4	9.836e2	1.241e3	0.79	NO	2.224e3	1.6276	1.6276	0.275
3	Total Tetra-Dioxins	22.82	4.449e3	5.605e3	3.191e2	4.113e2	0.78	NO	7.304e2	0.53445	0.53445	0.275
4	Total Tetra-Dioxins	23.80	3.236e3	5.921e3	2.738e2	3.882e2	0.71	NO	6.620e2	0.48439	0.48439	0.275
5	Total Tetra-Dioxins	24.09	5.298e3	7.090e3	4.253e2	5.901e2	0.72	NO	1.015e3	0.74298	0.74298	0.275
6	Total Tetra-Dioxins	24.32	5.659e3	8.182e3	5.042e2	6.751e2	0.75	NO	1.179e3	0.86289	0.86289	0.275
7	Total Tetra-Dioxins	24.82	2.792e3	3.976e3	1.513e2	1.493e2	1.01	YES	0.000e0	0.00000	0.19337	0.275
8	Total Tetra-Dioxins	25.04	3.681e3	2.641e3	1.874e2	1.803e2	1.04	YES	0.000e0	0.00000	0.23347	0.275
9	Total Tetra-Dioxins	25.88	1.656e4	1.939e4	1.025e3	1.340e3	0.76	NO	2.364e3	1.7300	1.7300	0.275
10	2,3,7,8-TCDD	26.17	1.136e4	2.127e4	7.737e2	1.332e3	0.58	YES	2.106e3	0.00000	1.3013	0.275

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.01	2.387e4	3.441e4	1.826e3	3.045e3	0.60	NO	4.871e3	4.6487	4.6487	0.377
2	Total Penta-Dioxins	29.50	5.127e3	1.587e4	3.223e2	7.597e2	0.42	YES	0.000e0	0.00000	0.79591	0.377
3	Total Penta-Dioxins	30.00	2.071e4	2.733e4	1.193e3	1.654e3	0.72	NO	0.000e0	0.00000	2.7168	0.377
4	Total Penta-Dioxins	30.06	5.764e3	8.416e3	2.591e2	1.763e2	1.47	YES	0.000e0	0.00000	0.27426	0.377
5	Total Penta-Dioxins	30.16	1.544e4	2.725e4	9.517e2	1.529e3	0.62	NO	2.480e3	2.3672	2.3672	0.377
6	Total Penta-Dioxins	30.26	1.050e4	1.688e4	5.593e2	9.859e2	0.57	NO	1.545e3	1.4747	1.4747	0.377
7	Total Penta-Dioxins	30.48	1.290e4	1.702e4	8.945e2	1.391e3	0.64	NO	2.285e3	2.1806	2.1806	0.377
8	Total Penta-Dioxins	30.85	6.149e3	8.955e3	3.138e2	4.488e2	0.70	NO	7.626e2	0.72777	0.72777	0.377
9	1,2,3,7,8-PeCDD	31.27	1.384e4	2.715e4	7.759e2	1.345e3	0.58	NO	2.121e3	2.0240	2.0240	0.377
10	Total Penta-Dioxins	31.31	4.030e3	5.731e3	1.025e2	1.855e2	0.55	NO	2.880e2	0.27486	0.27486	0.377
11	Total Penta-Dioxins	31.65	5.456e3	6.688e3	2.807e2	3.843e2	0.73	YES	0.000e0	0.00000	0.59776	0.377

Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-7.qld

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Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.12	3.636e5	2.831e5	1.698e4	1.271e4	1.34	NO	0.000e0	0.00000	25.827	0.536
2	Total Hexa-Dioxins	33.17	4.426e4	5.699e4	1.105e3	1.109e3	1.00	YES	0.000e0	0.00000	1.7369	0.536
3	Total Hexa-Dioxins	33.66	4.392e4	3.755e4	1.933e3	1.651e3	1.17	NO	0.000e0	0.00000	3.1180	0.536
4	Total Hexa-Dioxins	33.69	1.550e4	1.100e4	2.981e2	2.473e2	1.21	NO	0.000e0	0.00000	0.47450	0.536
5	Total Hexa-Dioxins	33.92	4.364e5	3.381e5	2.698e4	2.050e4	1.32	NO	4.748e4	41.304	41.304	0.536
6	Total Hexa-Dioxins	34.02	3.385e4	2.875e4	1.423e3	1.360e3	1.05	YES	0.000e0	0.00000	2.2357	0.536
7	1,2,3,4,7,8-HxCDD	34.59	2.452e4	2.009e4	1.161e3	1.101e3	1.05	NO	2.261e3	2.0586	2.0586	0.494
8	1,2,3,6,7,8-HxCDD	34.69	1.381e5	1.129e5	8.361e3	6.458e3	1.29	NO	1.482e4	11.342	11.342	0.481
9	Total Hexa-Dioxins	34.88	1.605e4	1.116e4	7.855e2	6.257e2	1.26	NO	1.411e3	1.2277	1.2277	0.536
10	1,2,3,7,8,9-HxCDD	34.95	5.271e4	4.456e4	3.058e3	2.384e3	1.28	NO	5.442e3	4.6918	4.6918	0.586

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.41	1.755e6	1.670e6	1.241e5	1.173e5	1.06	NO	2.414e5	312.53	312.53	2.09
2	1,2,3,4,6,7,8-HpCDD	38.44	1.384e6	1.326e6	1.026e5	9.923e4	1.03	NO	2.019e5	261.37	261.37	2.09



Dataset: U:\VG11.PRO\Results\2019\191214K3\191214K3-7.qld

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Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.84	5.171e3	8.852e3	4.188e2	5.135e2	0.82	NO	9.323e2	0.49122	0.49122	0.404
2	Total Tetra-Furans	20.33	3.397e4	4.202e4	2.749e3	3.452e3	0.80	NO	6.201e3	3.2672	3.2672	0.404
3	Total Tetra-Furans	20.92	1.559e5	2.133e5	1.467e4	1.867e4	0.79	NO	3.333e4	17.563	17.563	0.404
4	Total Tetra-Furans	21.38	2.894e4	3.032e4	1.813e3	2.013e3	0.90	YES	0.000e0	0.00000	1.8775	0.404
5	Total Tetra-Furans	21.46	4.997e4	7.051e4	6.498e3	7.841e3	0.83	NO	1.434e4	7.5546	7.5546	0.404
6	Total Tetra-Furans	21.76	7.271e4	8.627e4	2.413e3	3.265e3	0.74	NO	5.678e3	2.9915	2.9915	0.404
7	Total Tetra-Furans	21.84	4.075e5	5.235e5	3.823e4	4.719e4	0.81	NO	8.542e4	45.007	45.007	0.404
8	Total Tetra-Furans	22.30	1.079e5	1.484e5	1.046e4	1.314e4	0.80	NO	2.360e4	12.433	12.433	0.404
9	Total Tetra-Furans	22.47	2.439e4	3.262e4	2.322e3	2.840e3	0.82	NO	5.162e3	2.7199	2.7199	0.404
10	Total Tetra-Furans	22.67	7.149e4	9.082e4	6.749e3	8.865e3	0.76	NO	1.561e4	8.2266	8.2266	0.404
11	Total Tetra-Furans	23.13	1.390e4	1.730e4	1.157e3	1.476e3	0.78	NO	2.633e3	1.3875	1.3875	0.404
12	Total Tetra-Furans	23.29	1.524e4	1.674e4	1.313e3	1.547e3	0.85	NO	2.859e3	1.5065	1.5065	0.404
13	Total Tetra-Furans	23.52	7.529e4	9.290e4	6.628e3	8.087e3	0.82	NO	1.471e4	7.7528	7.7528	0.404
14	Total Tetra-Furans	23.60	1.985e5	2.602e5	2.088e4	2.698e4	0.77	NO	4.786e4	25.218	25.218	0.404
15	Total Tetra-Furans	24.17	1.440e6	1.807e6	1.238e5	1.586e5	0.78	NO	2.824e5	148.78	148.78	0.404
16	Total Tetra-Furans	24.49	5.739e4	7.470e4	4.809e3	6.175e3	0.78	NO	1.098e4	5.7875	5.7875	0.404
17	Total Tetra-Furans	24.70	1.652e4	1.581e4	1.443e3	1.500e3	0.96	YES	0.000e0	0.00000	1.3993	0.404
18	Total Tetra-Furans	24.94	1.833e4	2.680e4	1.104e3	1.758e3	0.63	YES	0.000e0	0.00000	1.3375	0.404
19	Total Tetra-Furans	25.07	2.046e5	2.825e5	1.303e4	1.770e4	0.74	NO	3.073e4	16.190	16.190	0.404
20	2,3,7,8-TCDF	25.19	2.283e6	2.841e6	1.678e5	2.144e5	0.78	NO	3.822e5	201.36	201.36	0.404
21	Total Tetra-Furans	25.31	2.293e4	2.403e4	1.278e3	1.423e3	0.90	YES	0.000e0	0.00000	1.3266	0.404
22	Total Tetra-Furans	25.59	9.700e4	1.236e5	7.638e3	9.751e3	0.78	NO	1.739e4	9.1616	9.1616	0.404
23	Total Tetra-Furans	25.86	1.544e4	1.904e4	1.147e3	1.419e3	0.81	NO	2.566e3	1.3519	1.3519	0.404
24	Total Tetra-Furans	26.73	1.633e4	1.053e4	5.601e2	2.627e2	2.13	YES	0.000e0	0.00000	0.24502	0.404
25	Total Tetra-Furans	27.30	2.098e5	2.254e5	1.498e4	1.587e4	0.94	YES	0.000e0	0.00000	14.802	0.404

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.33	3.258e5	2.103e5	2.195e4	1.393e4	1.58	NO	3.589e4	20.138	20.138	0.0705

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**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.81	7.846e4	4.404e4	4.707e3	2.942e3	1.60	NO	7.649e3	4.2923	4.2923	0.439
2	Total Penta-Furans	28.95	2.091e6	1.342e6	1.196e5	7.864e4	1.52	NO	1.982e5	111.23	111.23	0.439
3	Total Penta-Furans	29.01	1.538e5	1.013e5	5.234e3	3.235e3	1.62	NO	8.469e3	4.7528	4.7528	0.439
4	Total Penta-Furans	29.50	1.520e4	1.151e4	8.564e2	3.937e2	2.18	YES	0.000e0	0.00000	0.56342	0.439
5	Total Penta-Furans	29.56	1.113e5	7.642e4	6.036e3	4.231e3	1.43	NO	0.000e0	0.00000	5.7616	0.439
6	Total Penta-Furans	29.58	5.345e4	3.922e4	3.071e3	2.041e3	1.51	NO	0.000e0	0.00000	2.8688	0.439
7	Total Penta-Furans	29.76	5.202e5	3.300e5	2.894e4	1.792e4	1.61	NO	4.686e4	26.296	26.296	0.439
8	1,2,3,7,8-PeCDF	29.96	5.547e6	3.370e6	3.224e5	1.994e5	1.62	NO	5.218e5	283.43	283.43	0.429
9	Total Penta-Furans	30.04	1.624e5	9.578e4	5.622e3	3.387e3	1.66	NO	9.009e3	5.0556	5.0556	0.439
10	Total Penta-Furans	30.16	8.585e4	4.798e4	3.588e3	2.160e3	1.66	NO	5.746e3	3.2258	3.2258	0.439
11	Total Penta-Furans	30.22	1.766e6	1.110e6	9.789e4	6.148e4	1.59	NO	1.594e5	89.435	89.435	0.439
12	Total Penta-Furans	30.83	3.767e4	2.736e4	1.879e3	1.247e3	1.51	NO	3.126e3	1.7544	1.7544	0.439
13	2,3,4,7,8-PeCDF	30.95	2.435e6	1.555e6	1.491e5	9.520e4	1.57	NO	2.443e5	137.73	137.73	0.437
14	Total Penta-Furans	31.87	1.180e5	6.735e4	6.278e3	4.186e3	1.50	NO	1.046e4	5.8725	5.8725	0.439

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.58	3.319e5	2.525e5	1.556e4	1.248e4	1.25	NO	2.804e4	15.662	15.662	0.922
2	Total Hexa-Furans	32.75	1.092e6	9.288e5	4.874e4	4.093e4	1.19	NO	8.967e4	50.087	50.087	0.922
3	Total Hexa-Furans	33.28	1.023e6	8.082e5	4.696e4	3.790e4	1.24	NO	8.487e4	47.405	47.405	0.922
4	Total Hexa-Furans	33.63	6.193e4	4.501e4	2.798e3	1.819e3	1.54	YES	0.000e0	0.00000	2.2764	0.922
5	1,2,3,4,7,8-HxCDF	33.72	7.321e6	5.890e6	3.755e5	3.023e5	1.24	NO	6.777e5	413.90	413.90	0.895
6	1,2,3,6,7,8-HxCDF	33.85	2.022e6	1.659e6	1.201e5	9.709e4	1.24	NO	2.172e5	113.49	113.49	0.838
7	2,3,4,6,7,8-HxCDF	34.41	4.645e5	3.756e5	2.438e4	2.013e4	1.21	NO	4.451e4	23.670	23.670	0.883
8	1,2,3,7,8,9-HxCDF	35.33	6.520e5	5.551e5	3.124e4	2.655e4	1.18	NO	5.779e4	38.246	38.246	1.24

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Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	37.03	1.592e6	1.574e6	1.052e5	1.022e5	1.03	NO	2.075e5	171.00	171.00	1.00
2	Total Hepta-Furans	37.61	1.529e6	1.447e6	1.029e5	9.668e4	1.06	NO	1.996e5	195.80	195.80	1.11
3	1,2,3,4,7,8,9-HpCDF	39.04	5.807e5	5.349e5	3.526e4	3.332e4	1.06	NO	6.857e4	74.406	74.406	1.14

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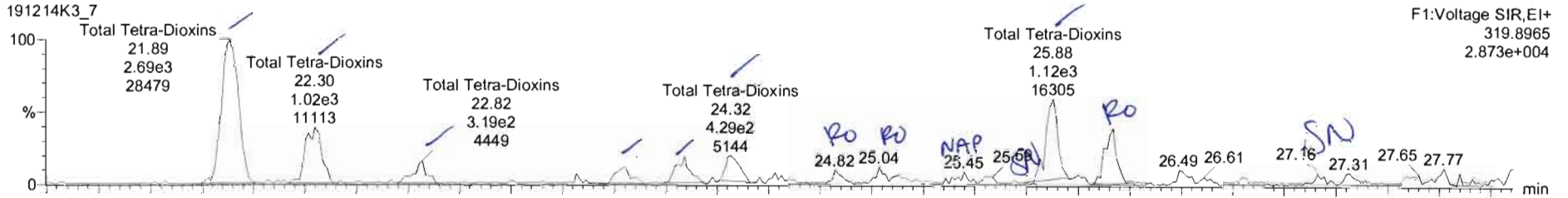
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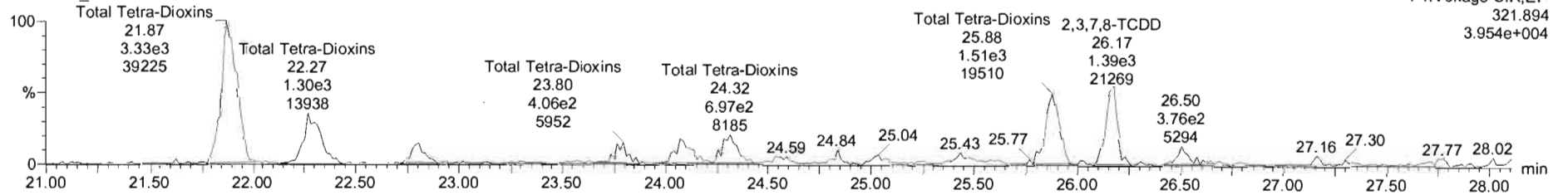
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**2,3,7,8-TCDD**

191214K3\_7

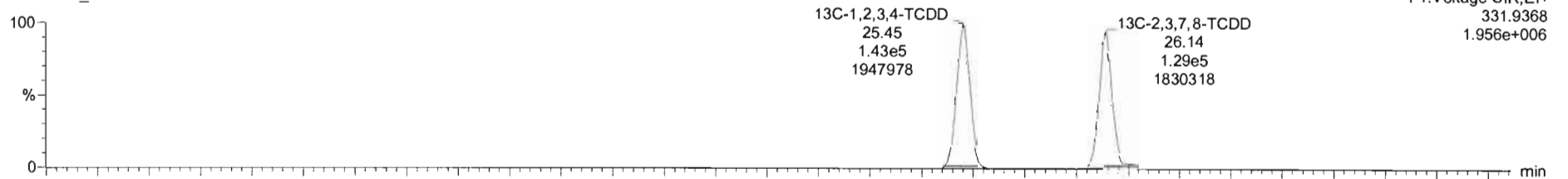


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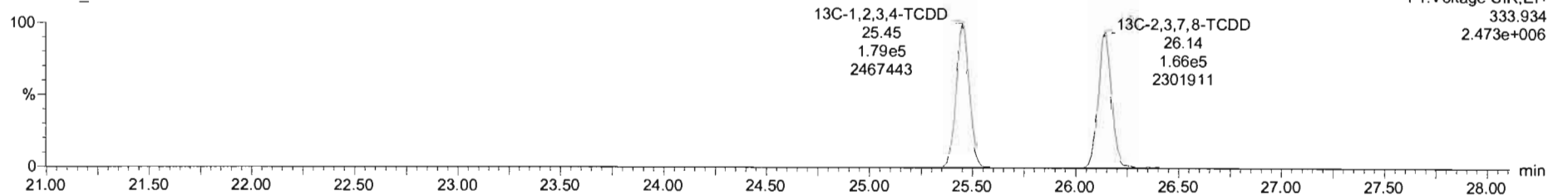


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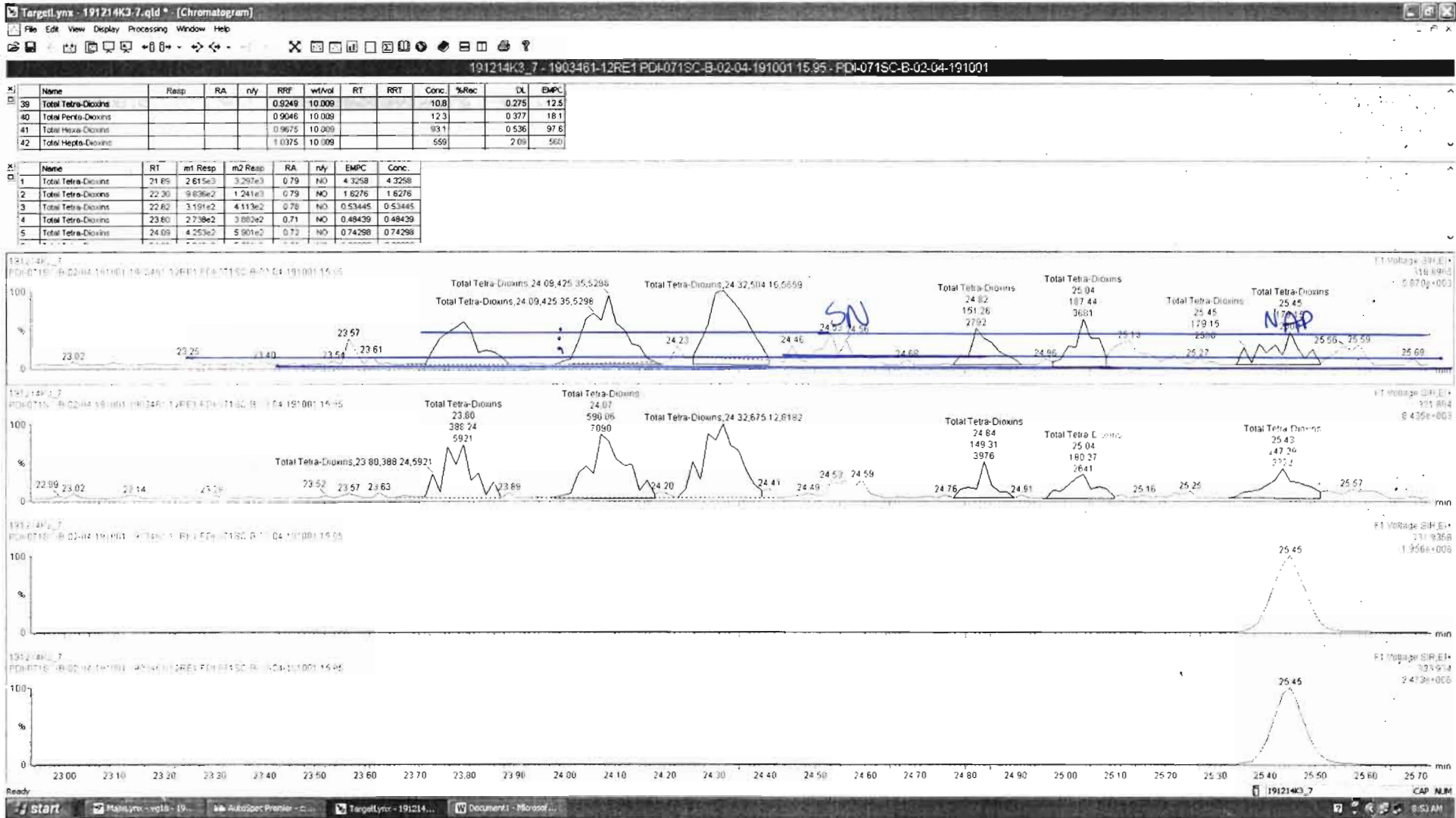
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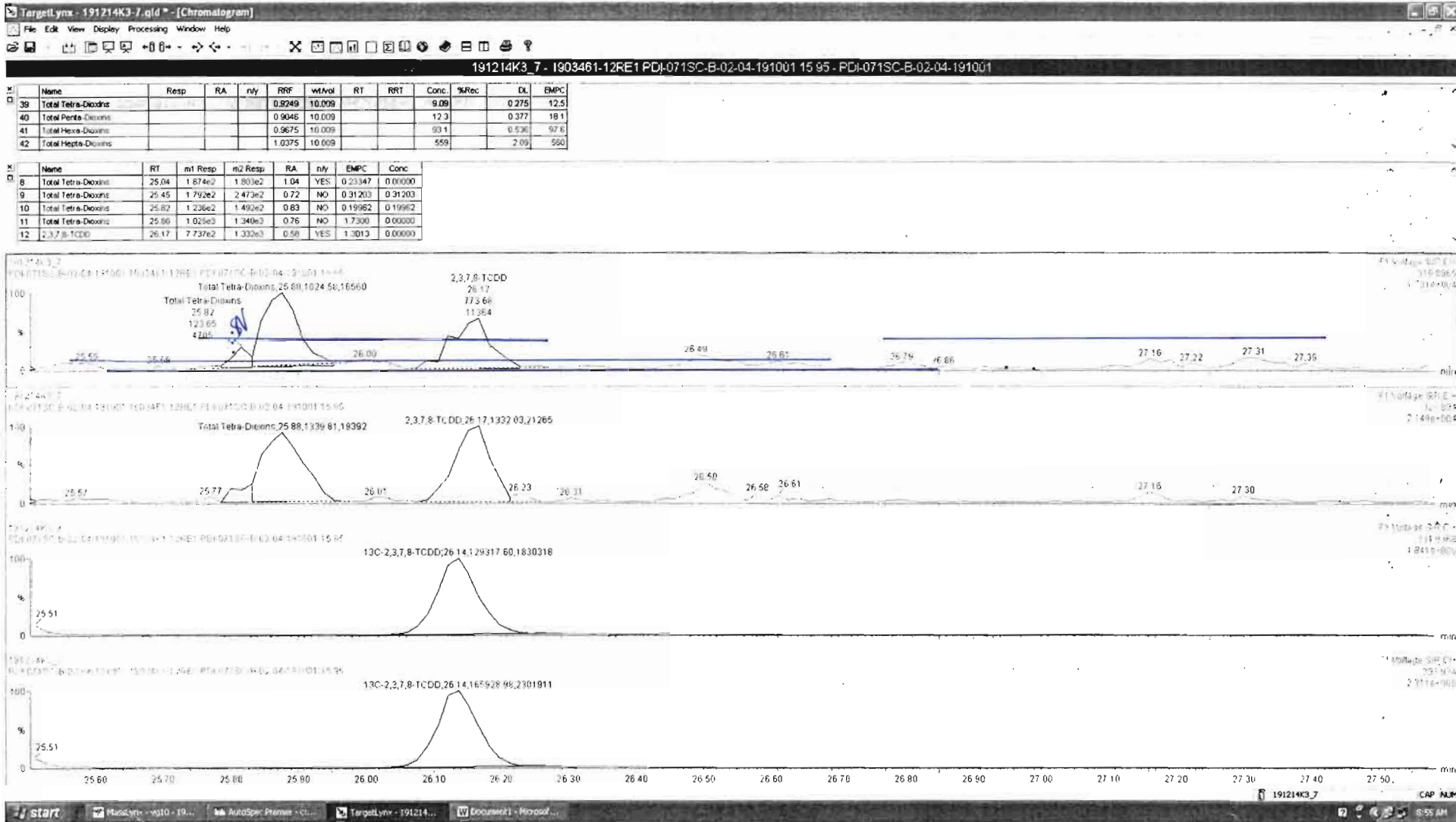


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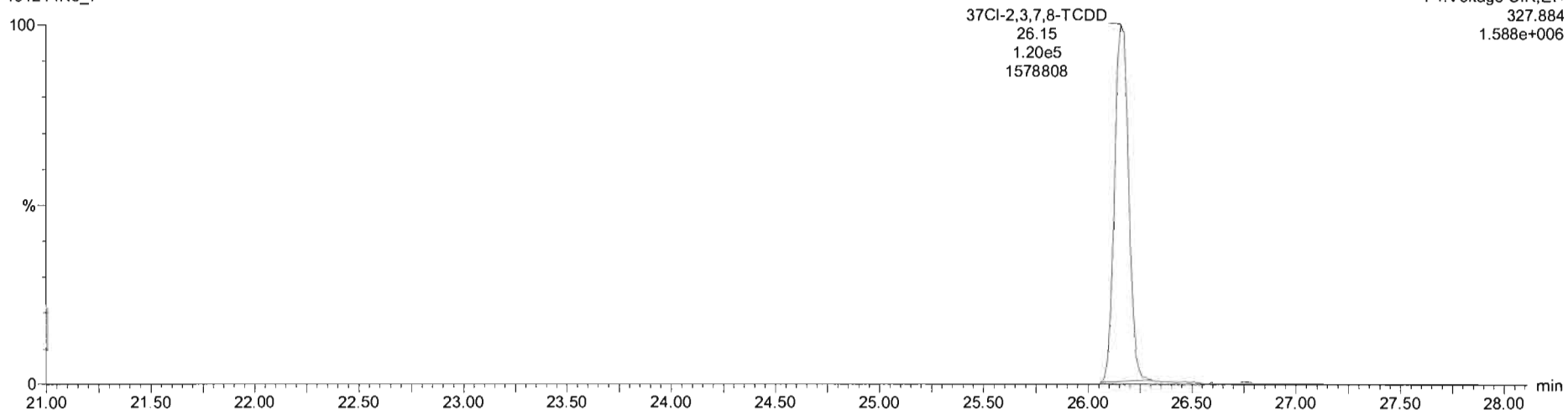
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

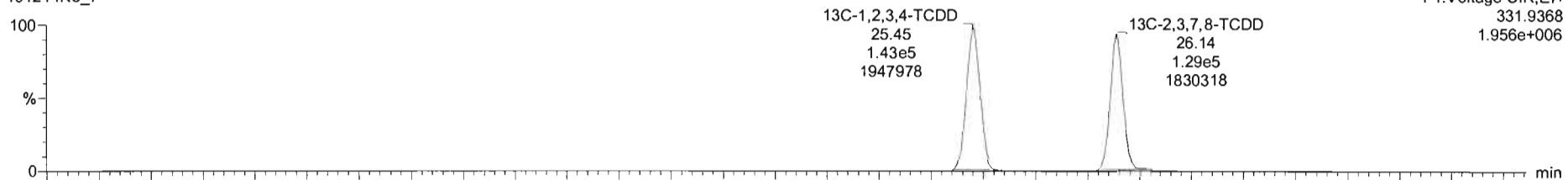
**37Cl-2,3,7,8-TCDD**

191214K3\_7

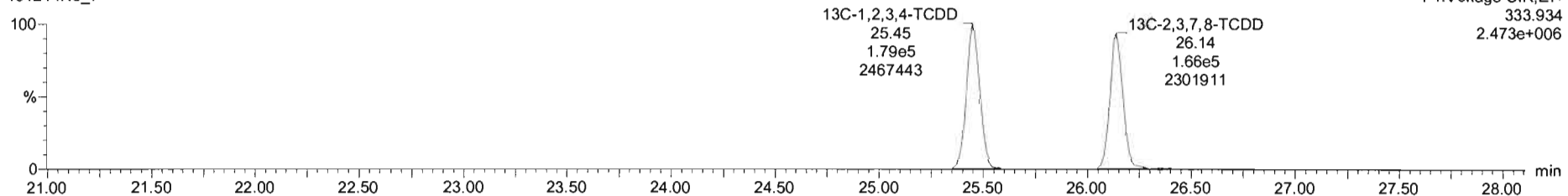


**13C-1,2,3,4-TCDD**

191214K3\_7



191214K3\_7





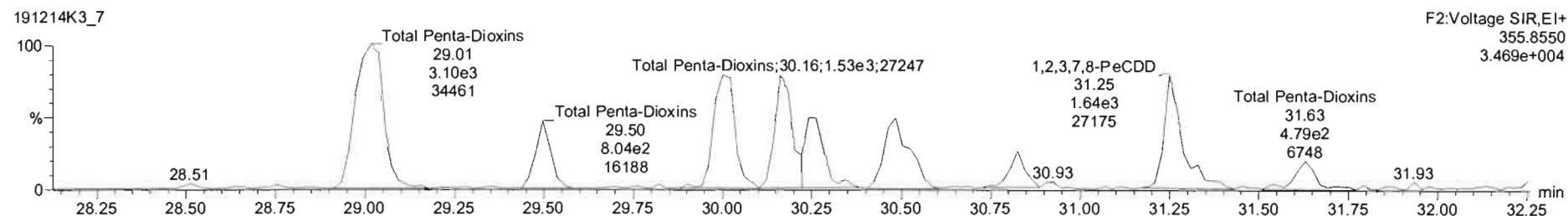
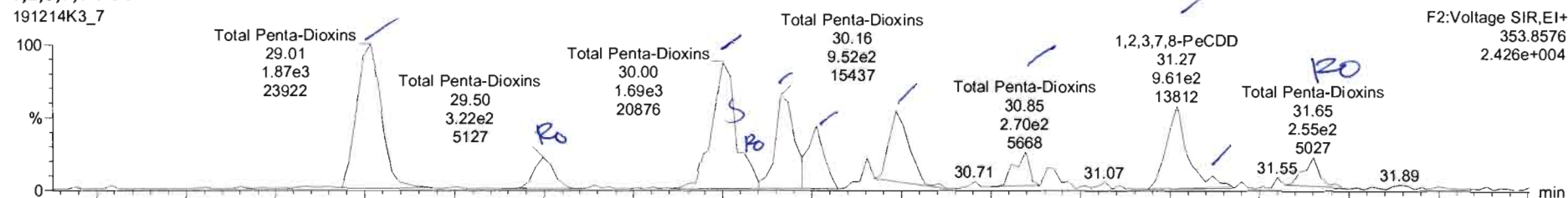
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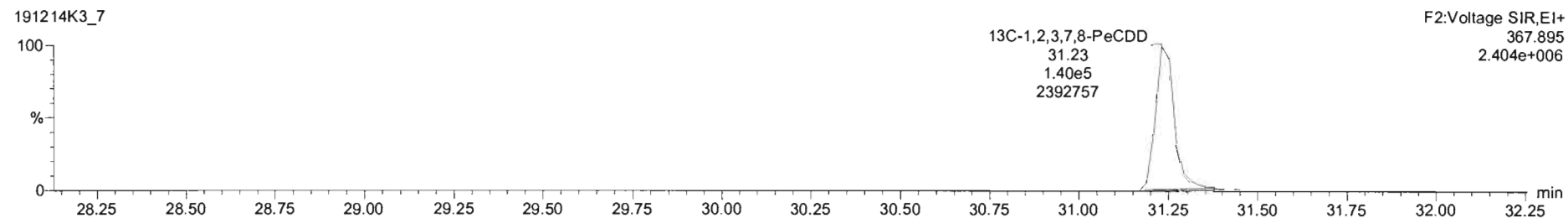
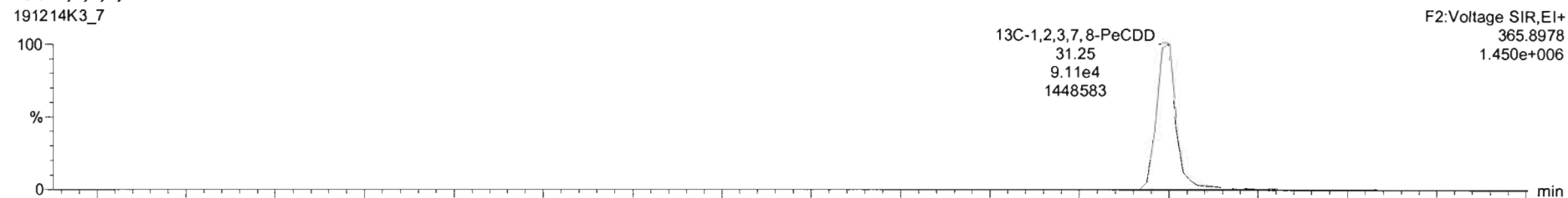
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Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

### 1,2,3,7,8-PeCDD

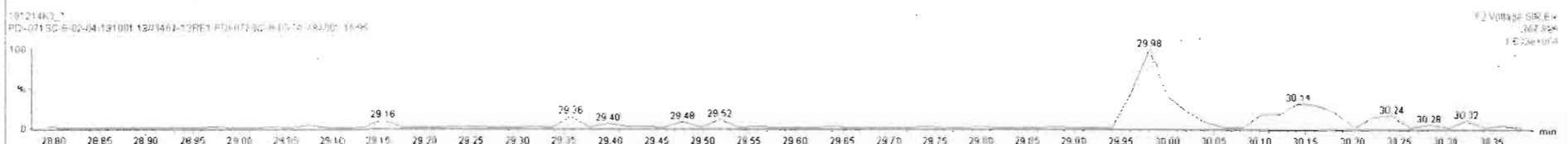
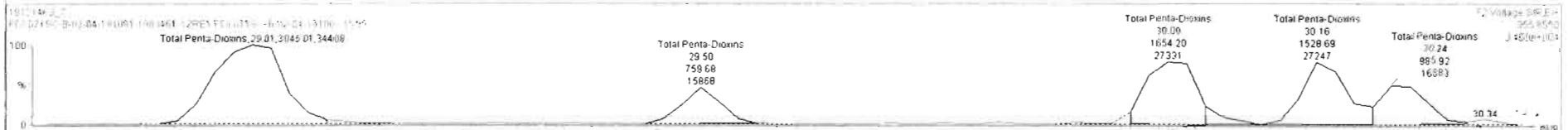
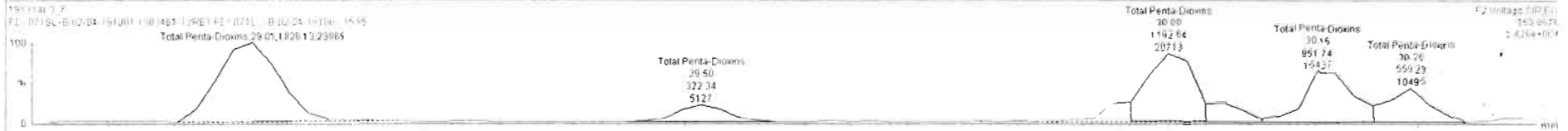


### 13C-1,2,3,7,8-PeCDD



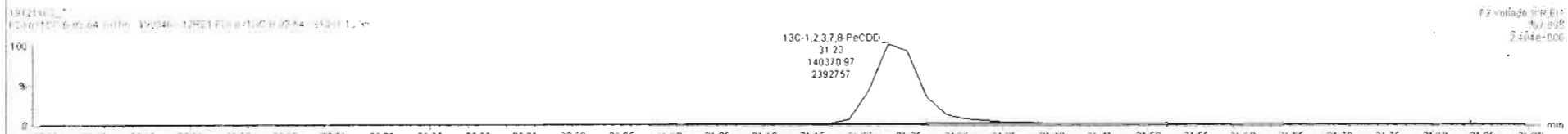
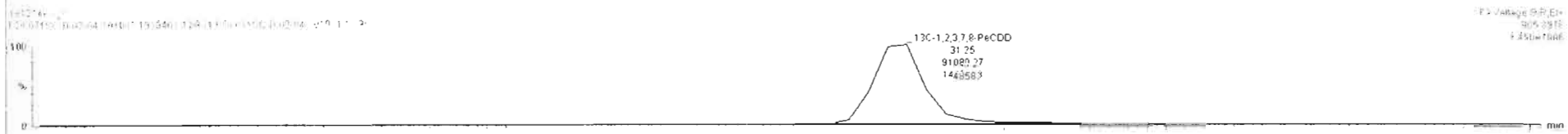
#	Name	Resp	RA	rly	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9249	10.009			10.3		0.275	12.0
40	Total Penta-Dioxins				0.9046	10.009			13.7		0.377	18.1
41	Total Hexa-Dioxins				0.9675	10.009			93.1		0.536	97.6
42	Total Hepta-Dioxins				1.0375	10.009			559		2.09	560

#	Name	RT	m1 Resp	m2 Resp	RA	rly	EMPC	Conc.
1	Total Penta-Dioxins	29.01	1.825e3	3.045e3	0.69	NO	4.6407	4.6407
2	Total Penta-Dioxins	29.50	3.223e2	7.597e2	0.42	YES	0.79591	0.00000
3	Total Penta-Dioxins	30.00	1.193e3	1.654e3	0.72	NO	2.7168	0.00000
4	Total Penta-Dioxins	30.06	7.591e2	1.763e2	1.47	YES	0.27426	0.00000
5	Total Penta-Dioxins	30.16	9.517e2	1.529e3	0.62	NO	2.3672	2.3672
6	Total Penta-Dioxins	30.26	5.593e2	9.659e2	0.57	NO	1.4747	1.4747



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins		0.9249	10.009			10.3		0.275		12.0	
40 Total Penta-Dioxins		0.9046	10.009			13.7		0.377		18.1	
41 Total Hexa-Dioxins		0.9675	10.009			93.1		0.536		97.6	
42 Total Hepta-Dioxins		1.0375	10.009			558		2.09		560	

Name	RT	Int Resp	m2 Resp	RA	n/y	EMPC	Conc.
6 Total Penta-Dioxins	30.26	5.923e2	9.859e2	0.57	NO	1.4747	1.4747
7 Total Penta-Dioxins	30.48	8.945e2	1.391e3	0.64	NO	2.1806	2.1806
8 Total Penta-Dioxins	30.85	3.130e2	4.480e2	0.70	NO	0.72777	0.72777
9 1,2,3,7,8-PeCDD	31.27	7.758e2	1.345e3	0.58	NO	2.0240	2.0240
10 Total Penta-Dioxins	31.31	1.025e2	1.855e2	0.55	NO	0.27488	0.27488
11 Total Penta-Dioxins	31.65	2.807e2	3.843e2	0.73	YES	0.59776	0.00000



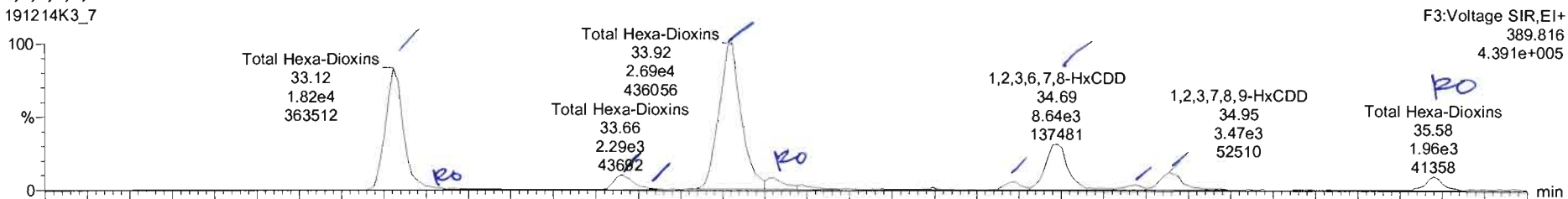
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

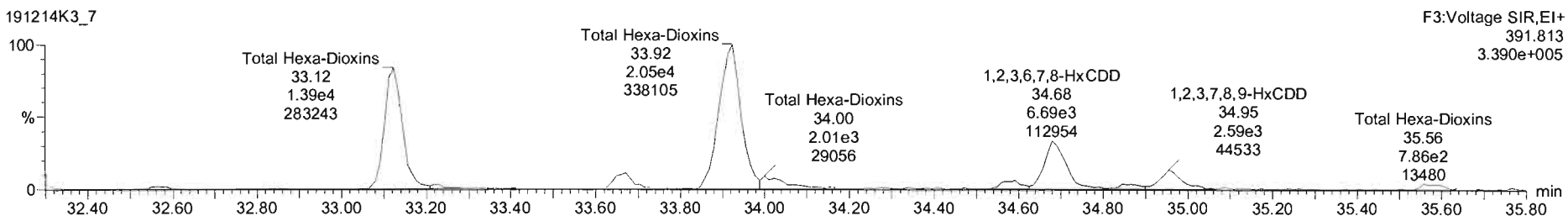
Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

### 1,2,3,4,7,8-HxCDD

191214K3\_7

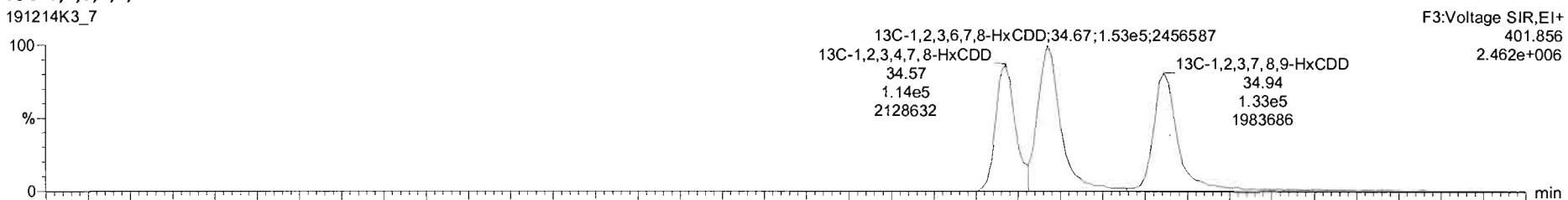


191214K3\_7

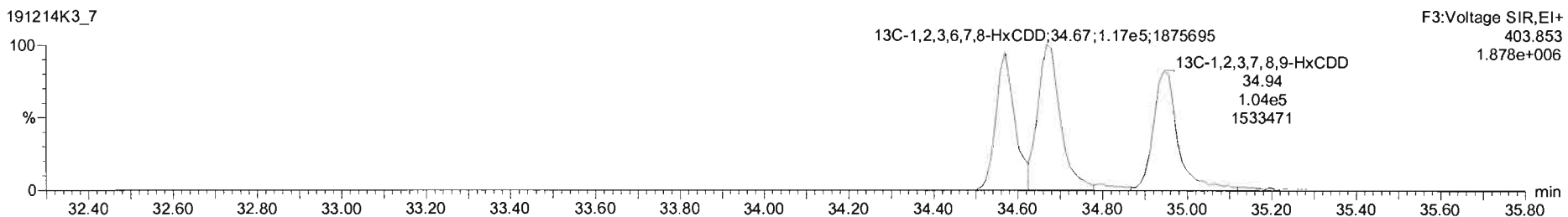


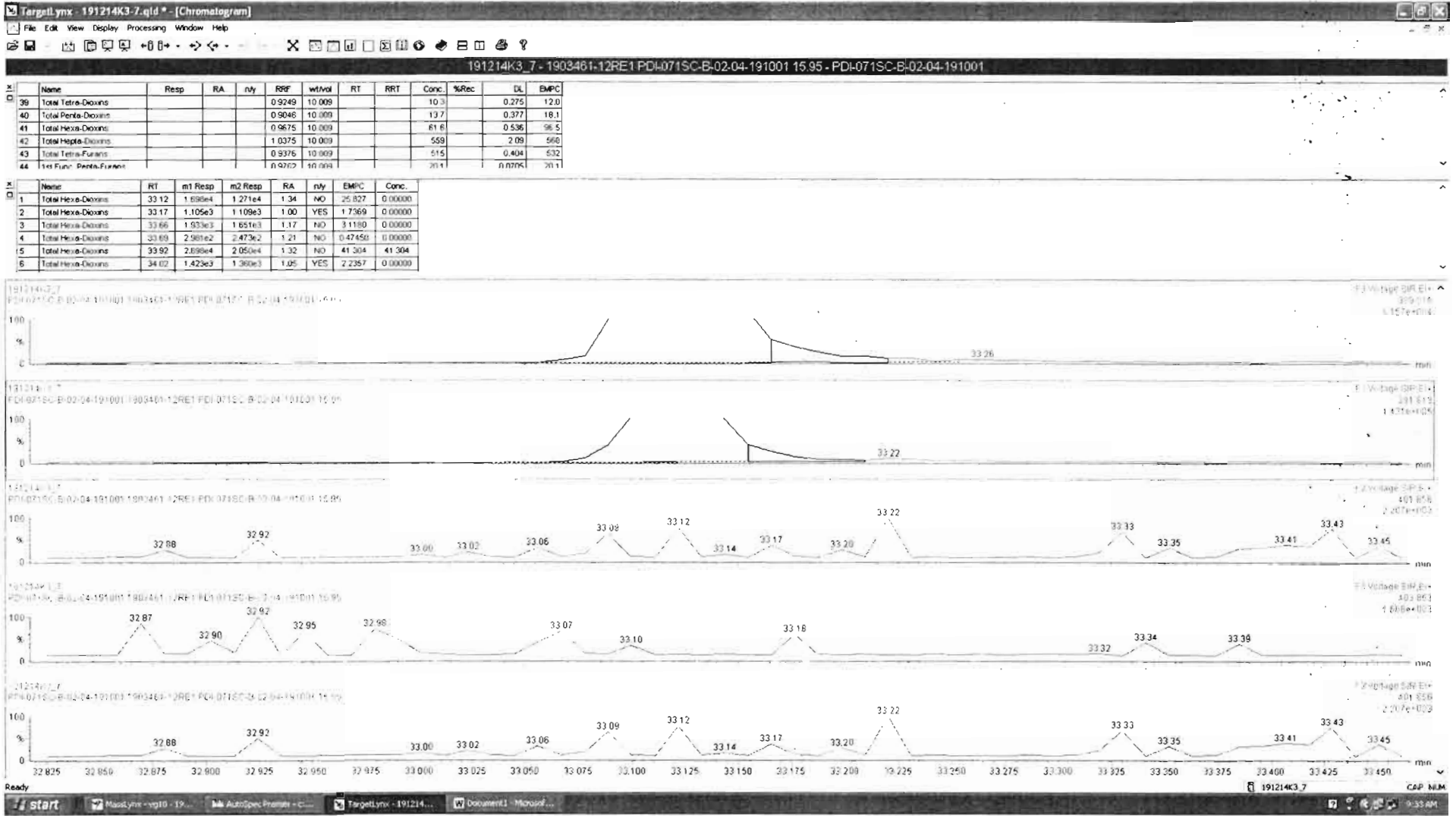
### 13C-1,2,3,4,7,8-HxCDD

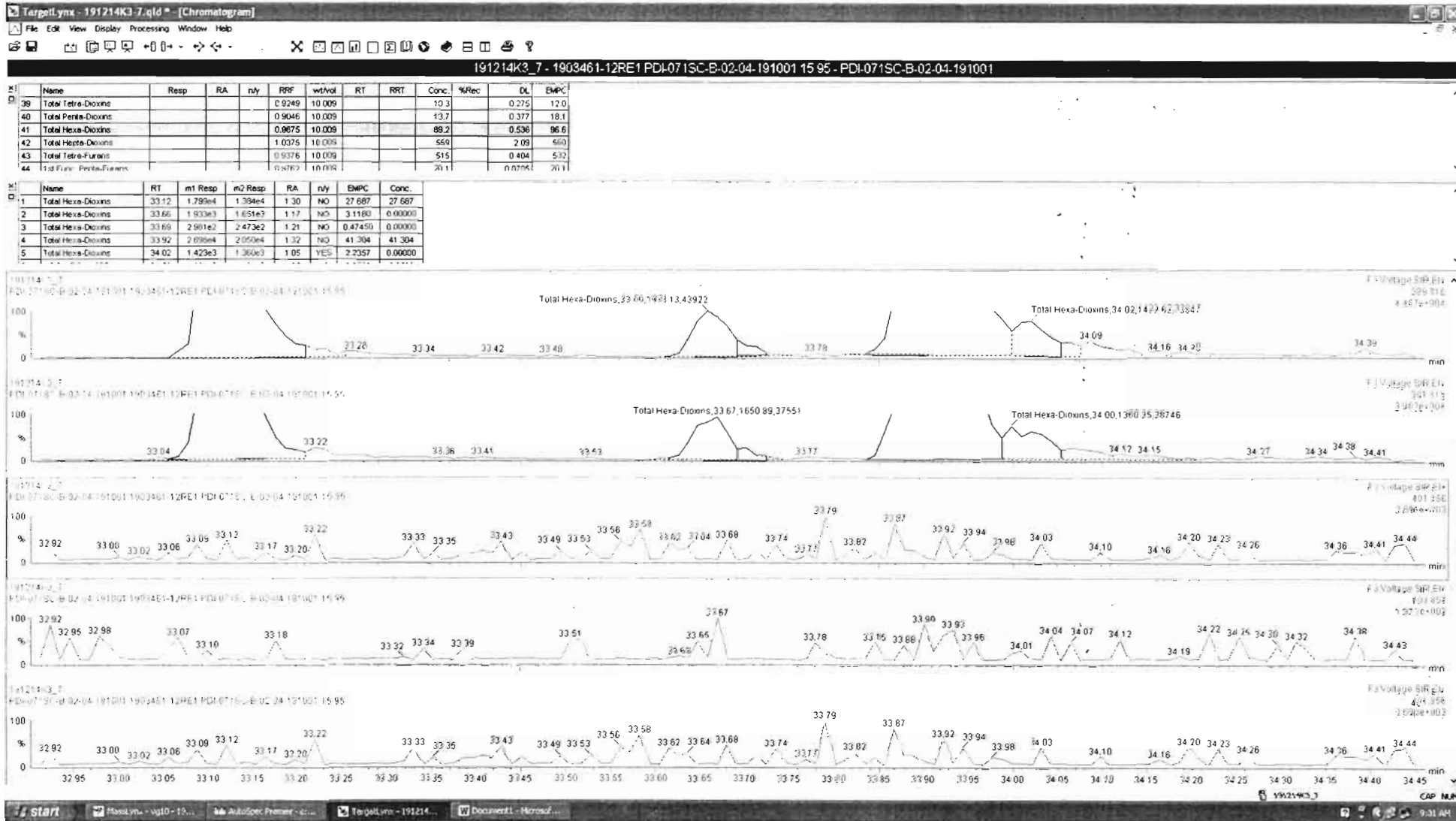
191214K3\_7



191214K3\_7

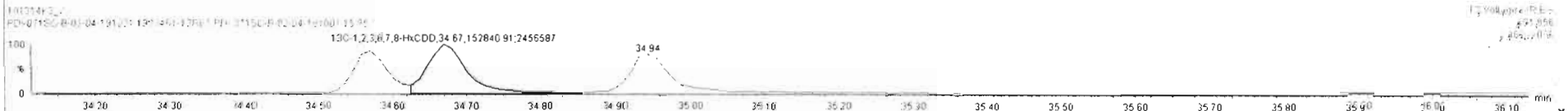
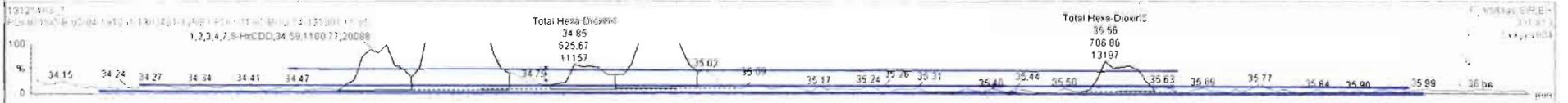


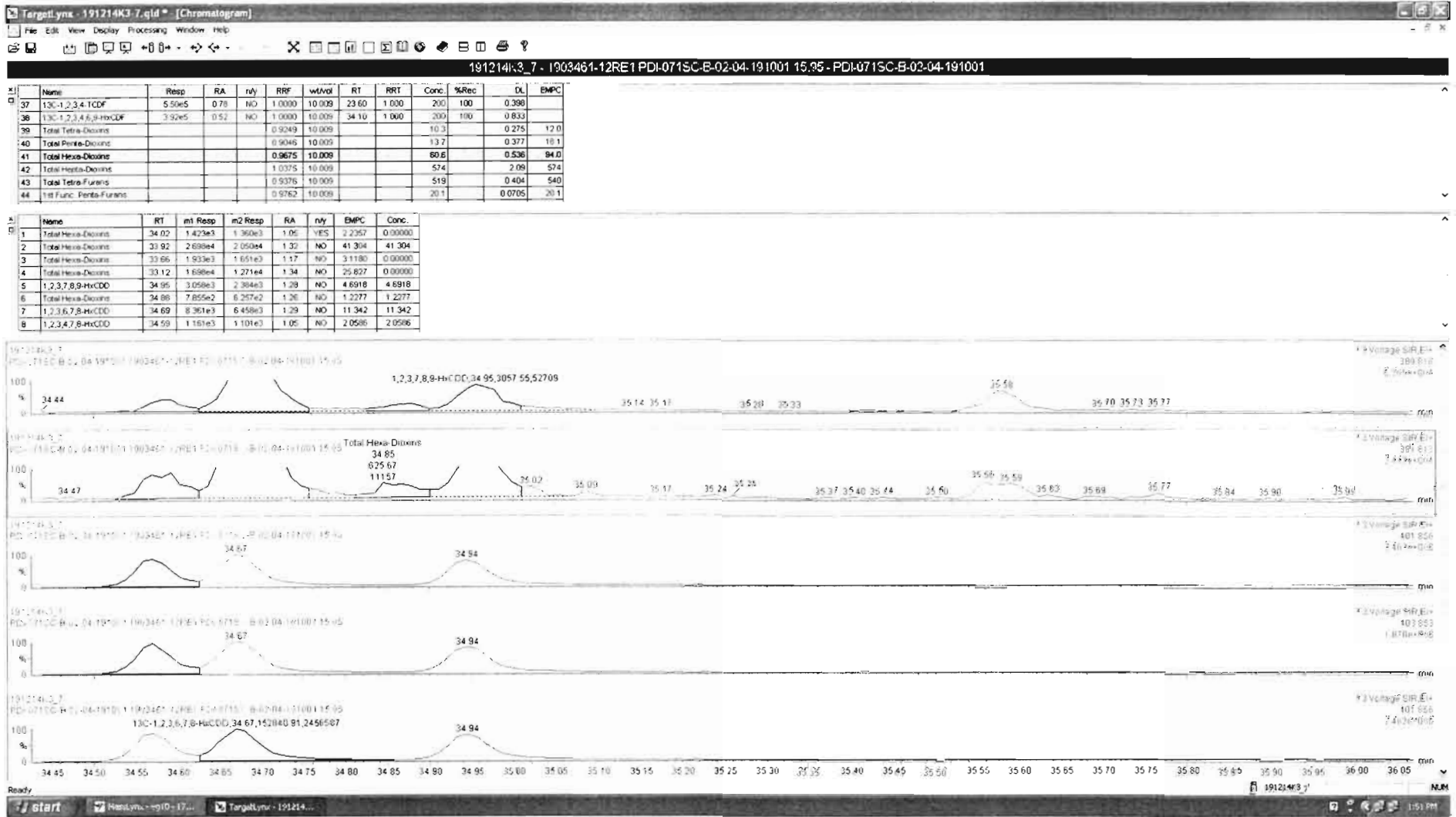




Name	Resp	RA	n/y	R/SF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.009			10.3		0.275	12.0
40 Total Penta-Dioxins				0.9046	10.009			13.7		0.377	18.1
41 Total Hexa-Dioxins				0.9675	10.009			60.6		0.536	95.4
42 Total Hepta-Dioxins				1.0375	10.009			559		2.089	690
43 Total Tetra-Furans				0.8376	10.009			515		0.404	502
44 Total Furans				0.9767	10.009			20.1		0.0761	20.1

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
7 1,2,3,4,7,8-HxCDD	34.59	1.161e3	1.101e3	1.05	NO	2.0506	2.0506
8 1,2,3,6,7,8-HxCDD	34.69	8.361e3	6.458e3	1.29	NO	11.342	11.342
9 Total Hexa-Dioxins	34.88	7.855e2	6.257e2	1.26	NO	1.2277	1.2277
10 1,2,3,7,8,9-HxCDD	34.95	3.058e3	2.384e3	1.28	NO	4.6918	4.6918
11 Total Hexa-Dioxins	35.58	1.959e3	7.069e2	2.77	YES	1.3775	0.00000







Dataset: Untitled

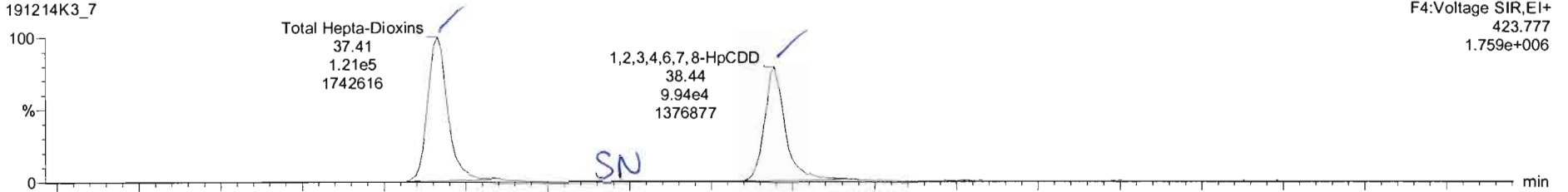
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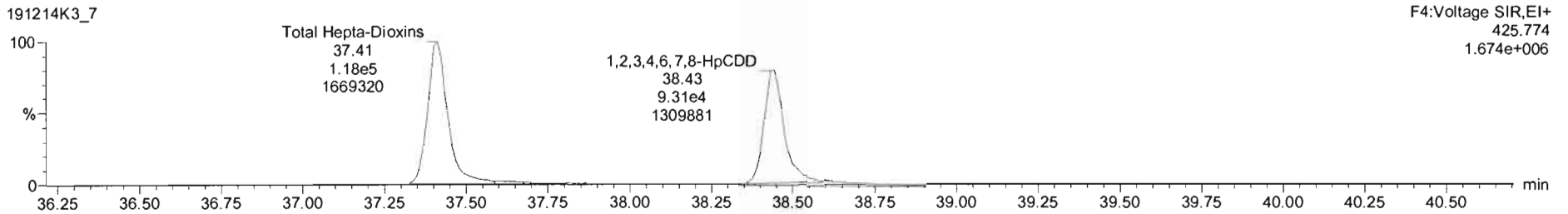
Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

1,2,3,4,6,7,8-HpCDD

191214K3\_7

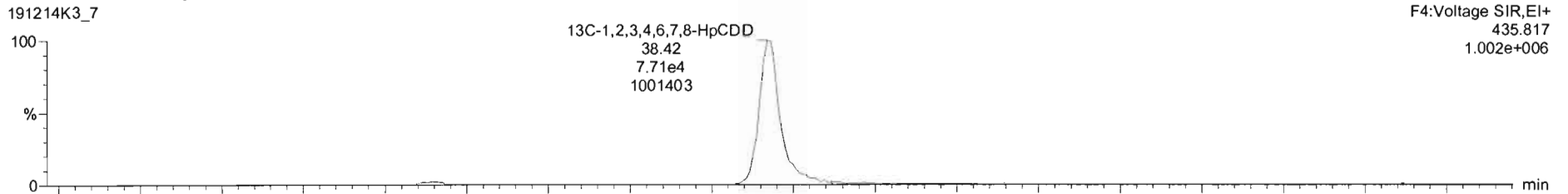


191214K3\_7

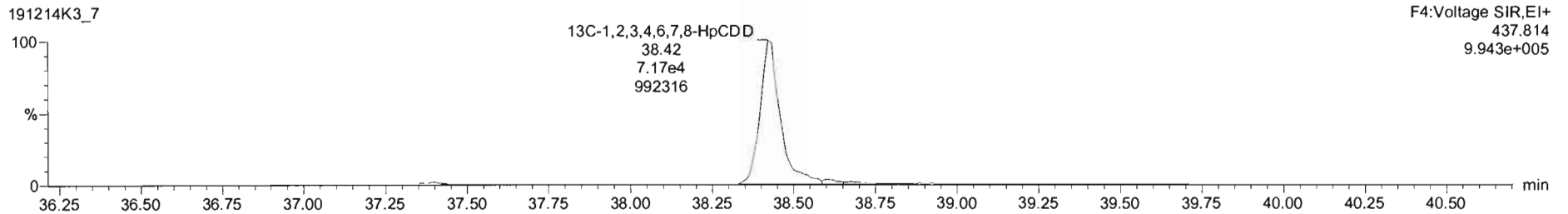


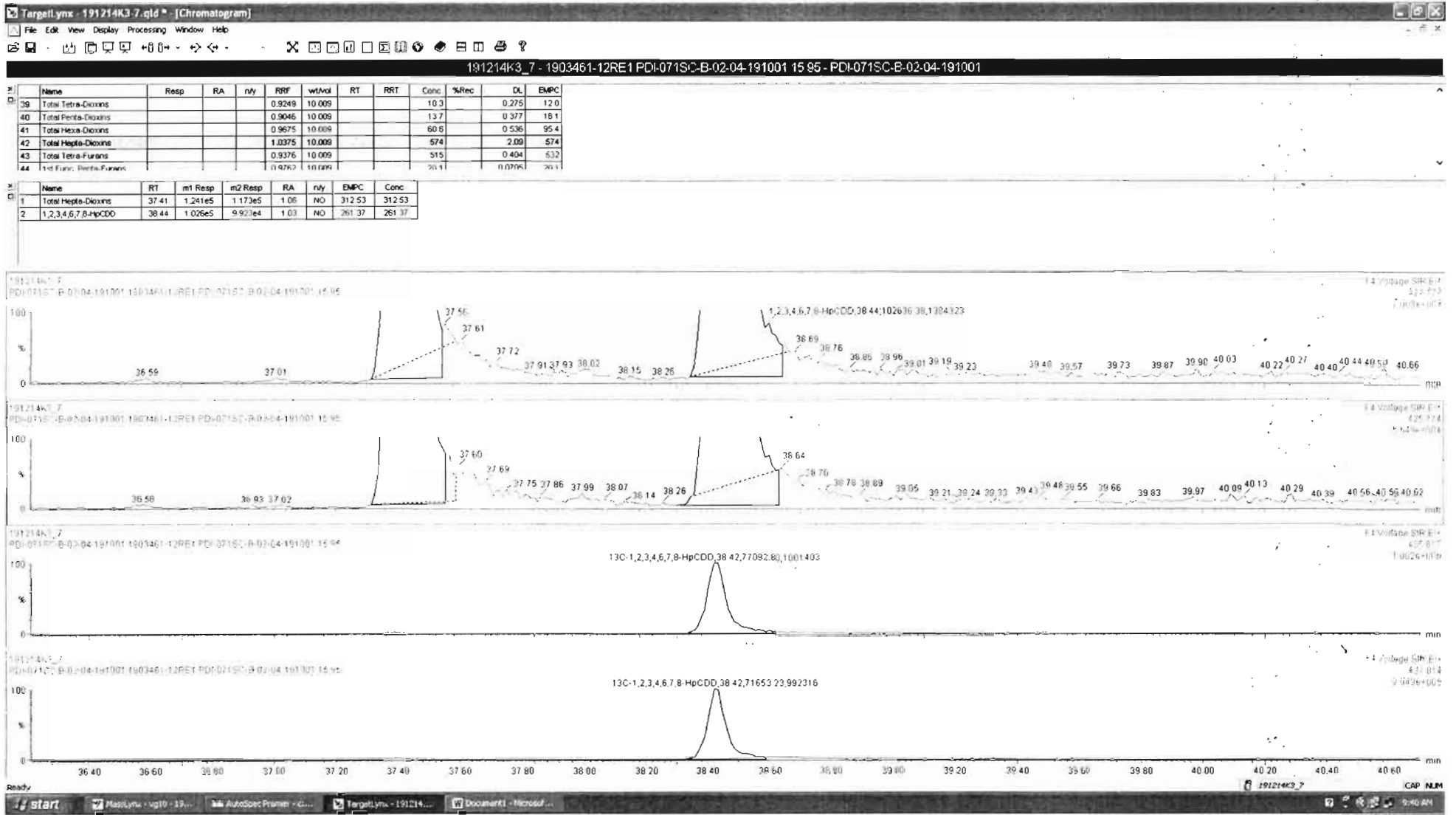
13C-1,2,3,4,6,7,8-HpCDD

191214K3\_7



191214K3\_7



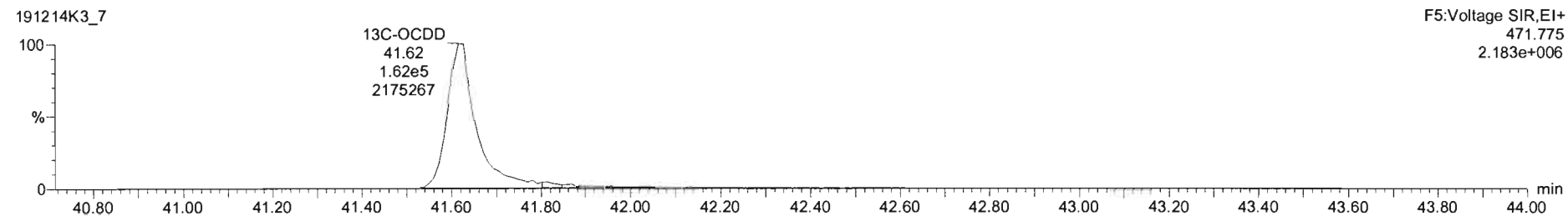
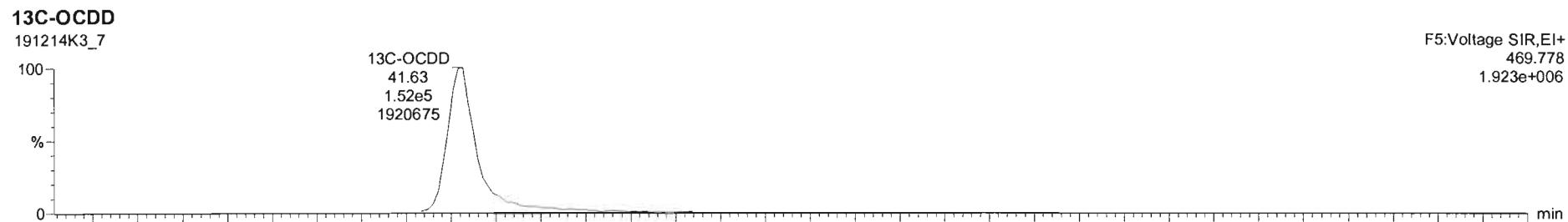
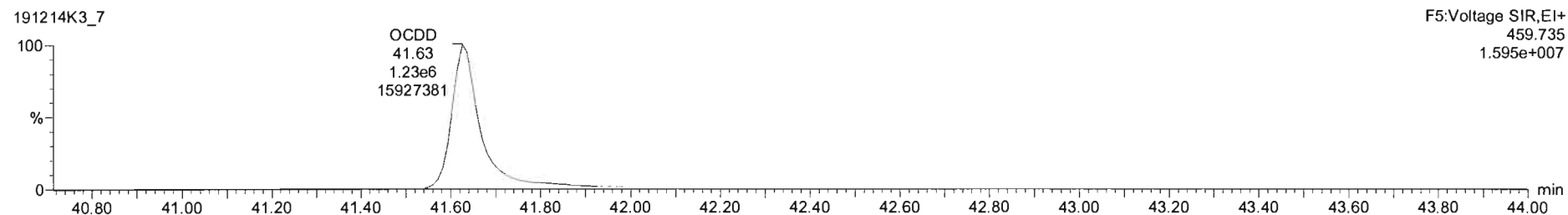
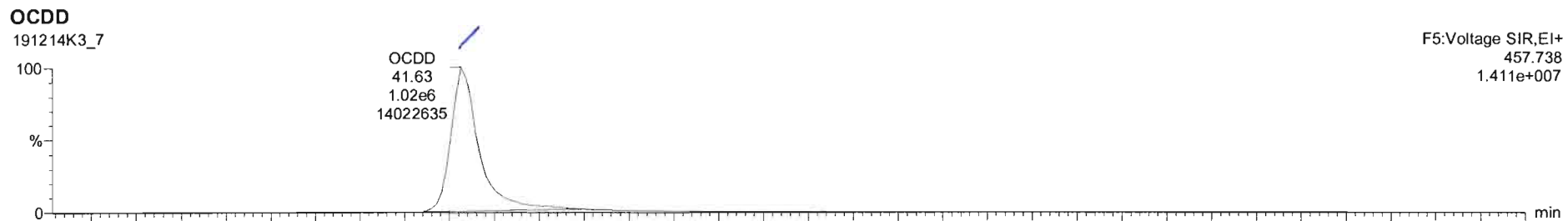


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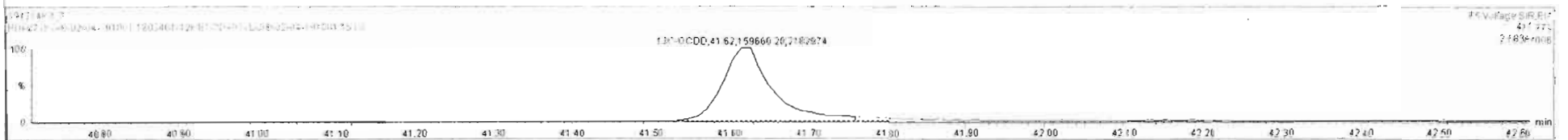
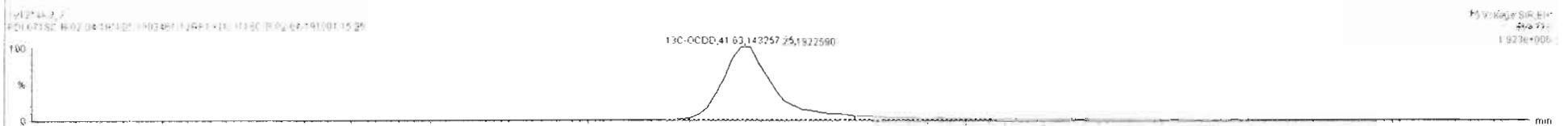
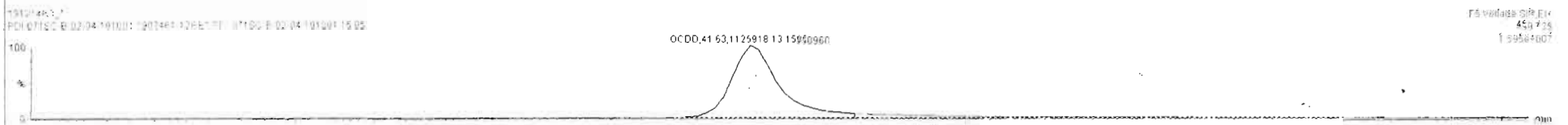
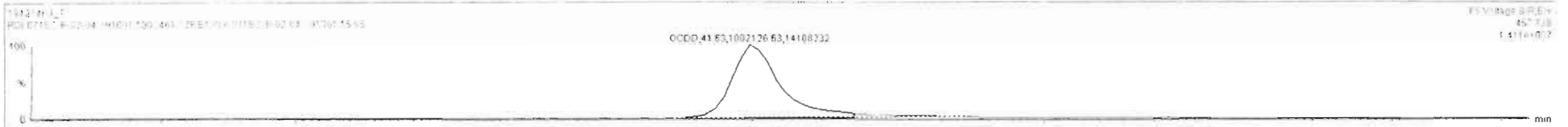
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Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001



#	Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
5	1,2,3,7,8,9-HxCDD	6.06e3	1.34	NO	0.9776	10.009	34.95	1.000	5.23	0.566	5.23	
6	1,2,3,4,6,7,8-HpCDD	1.93e5	1.07	NO	1.0375	10.009	36.44	1.001	249	2.09	249	
7	OCDD	2.13e6	0.89	NO	0.9718	10.009	41.63	1.000	2690	2.36	2690	
8	2,3,7,8-TCDF	3.74e5	0.78	NO	0.9376	10.009	25.19	1.001	197	0.404	197	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1								

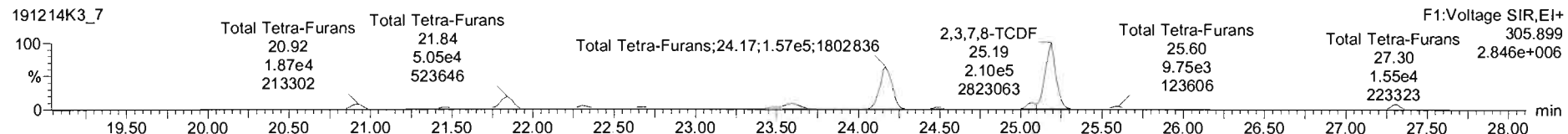
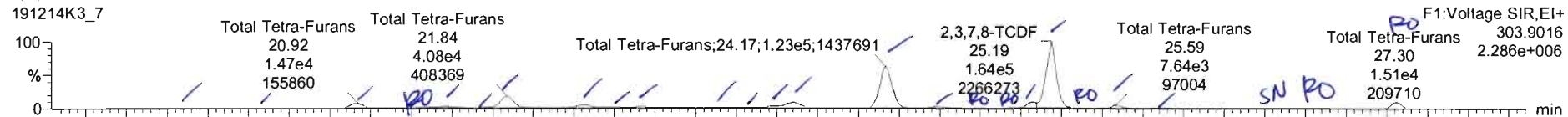


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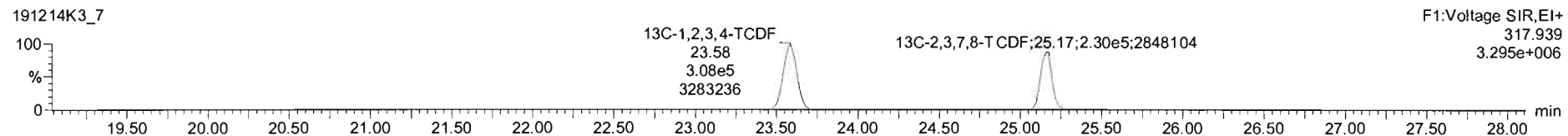
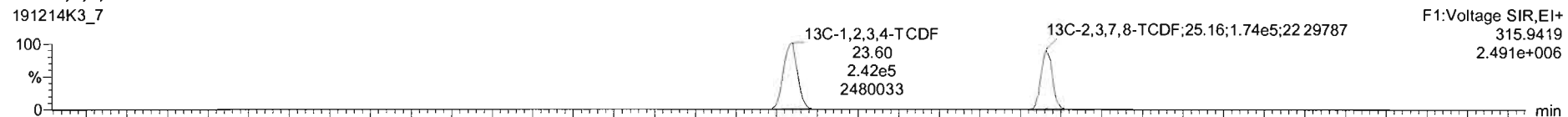
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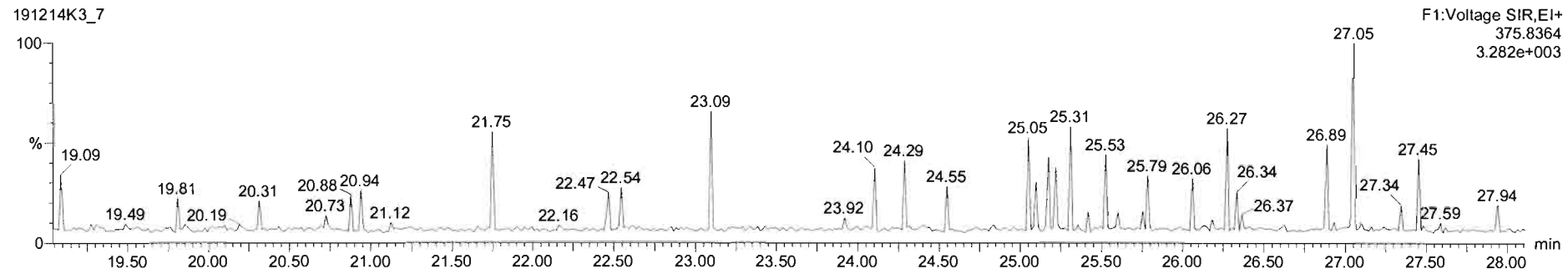
### 2,3,7,8-TCDF

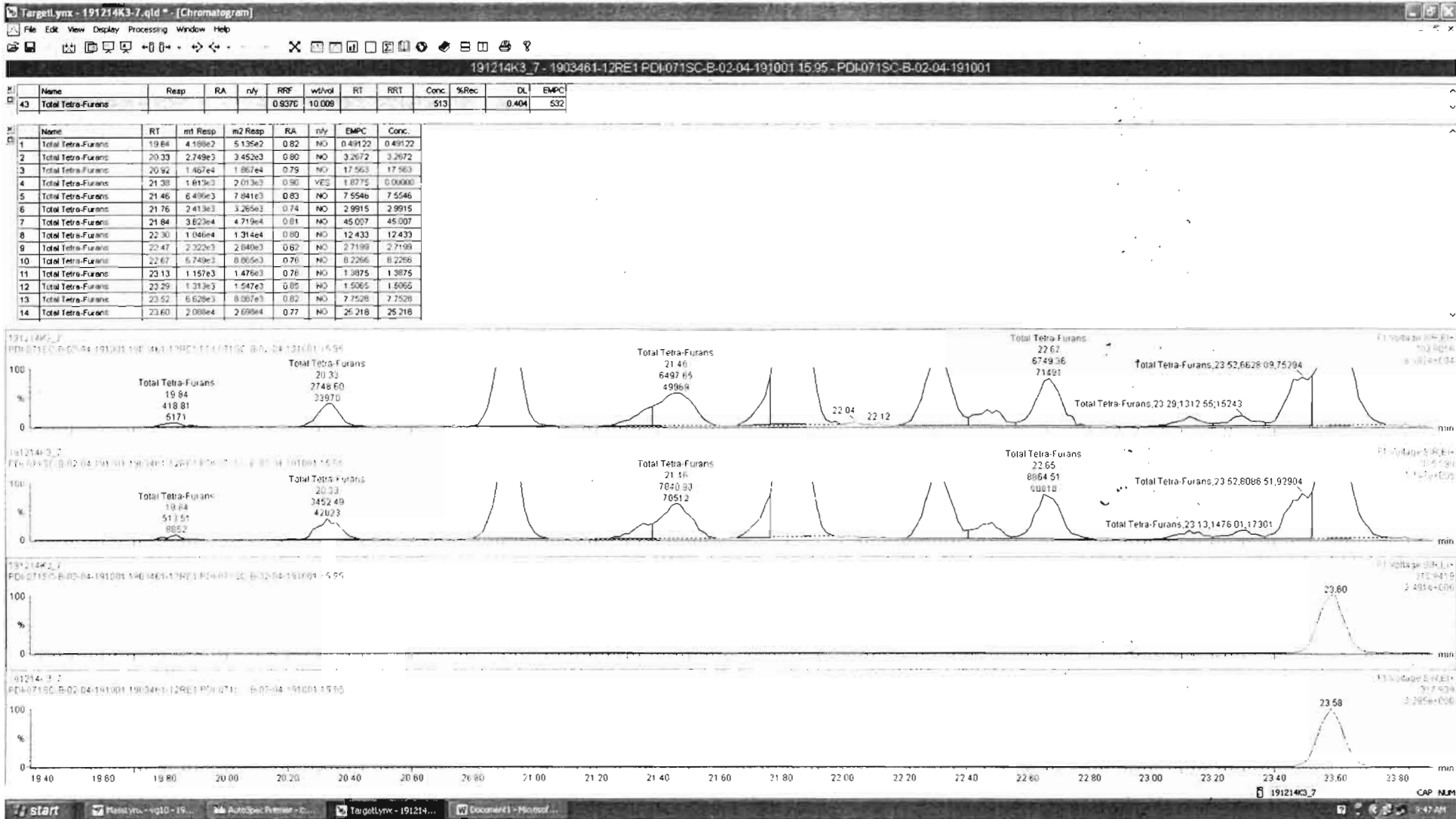


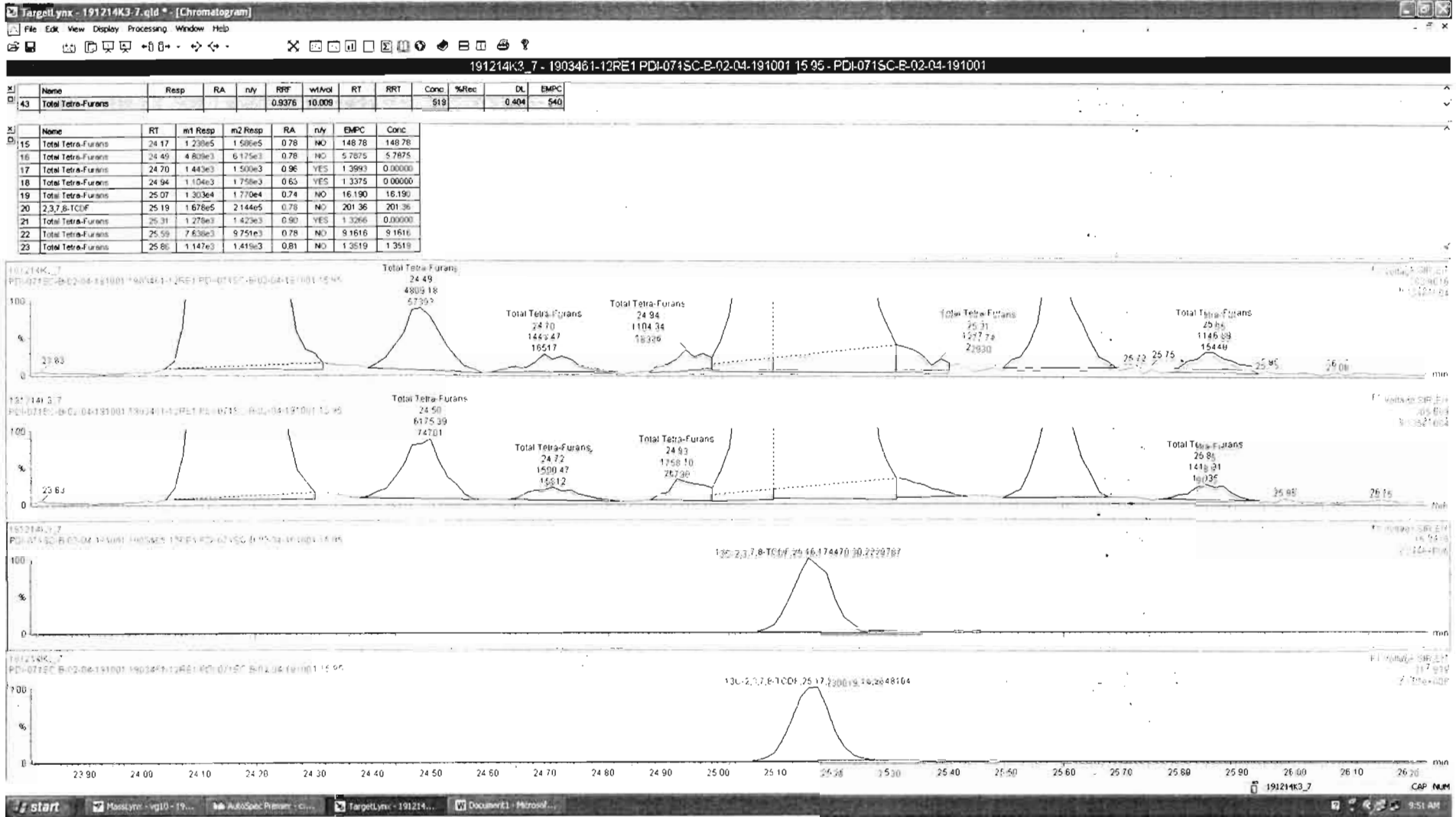
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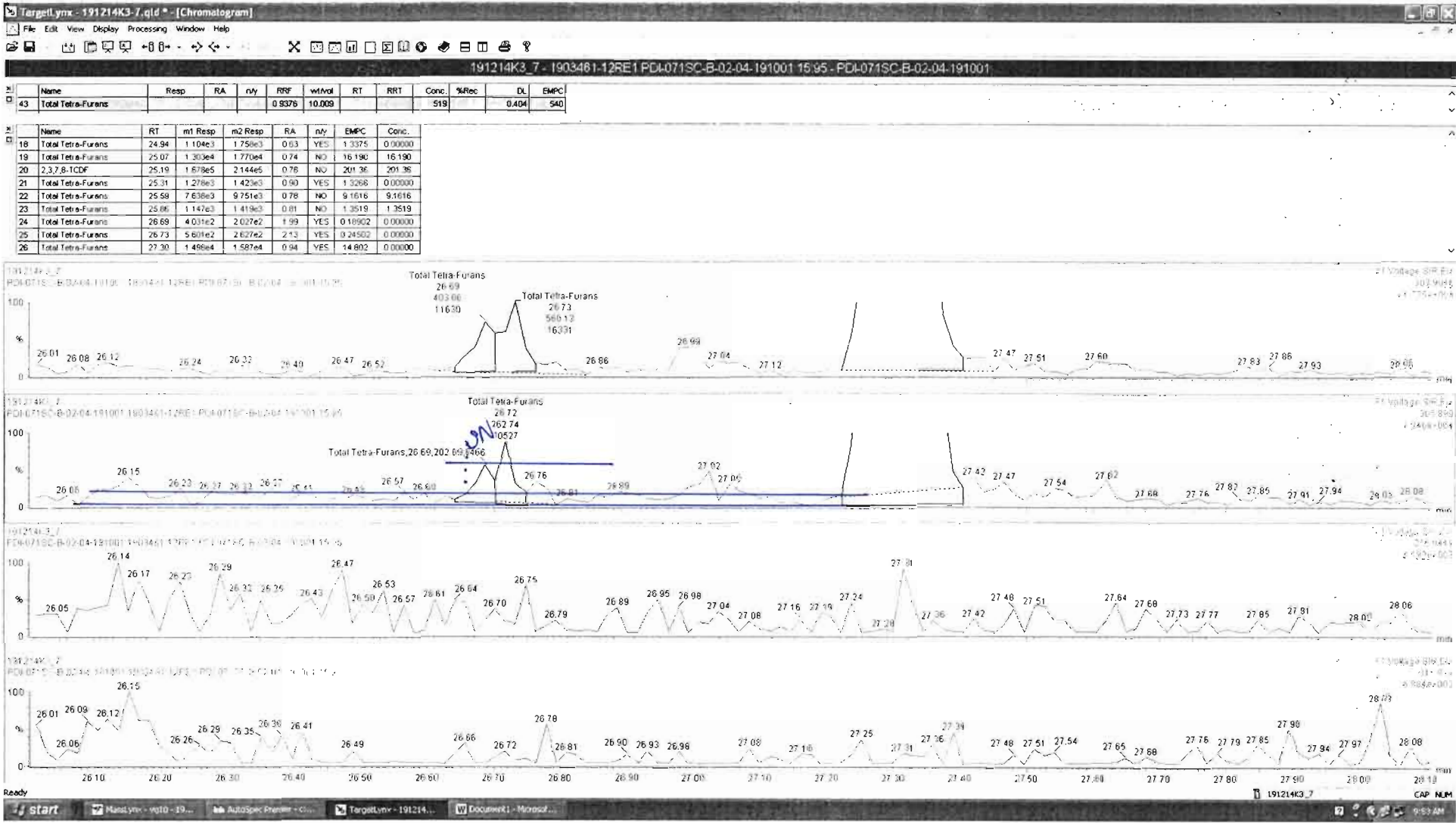


### DPE1











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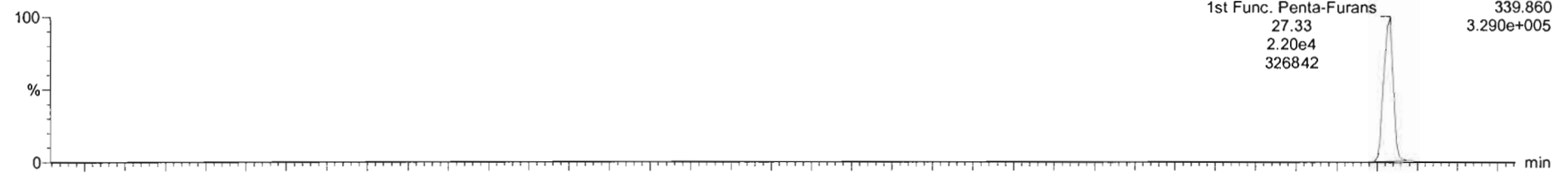
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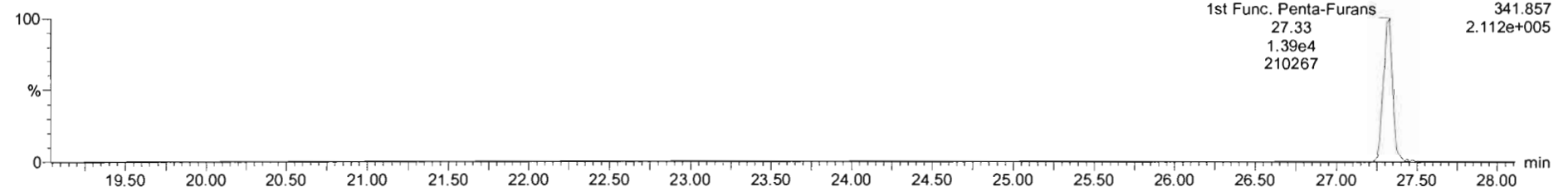
Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

1st Func. Penta-Furans

191214K3\_7

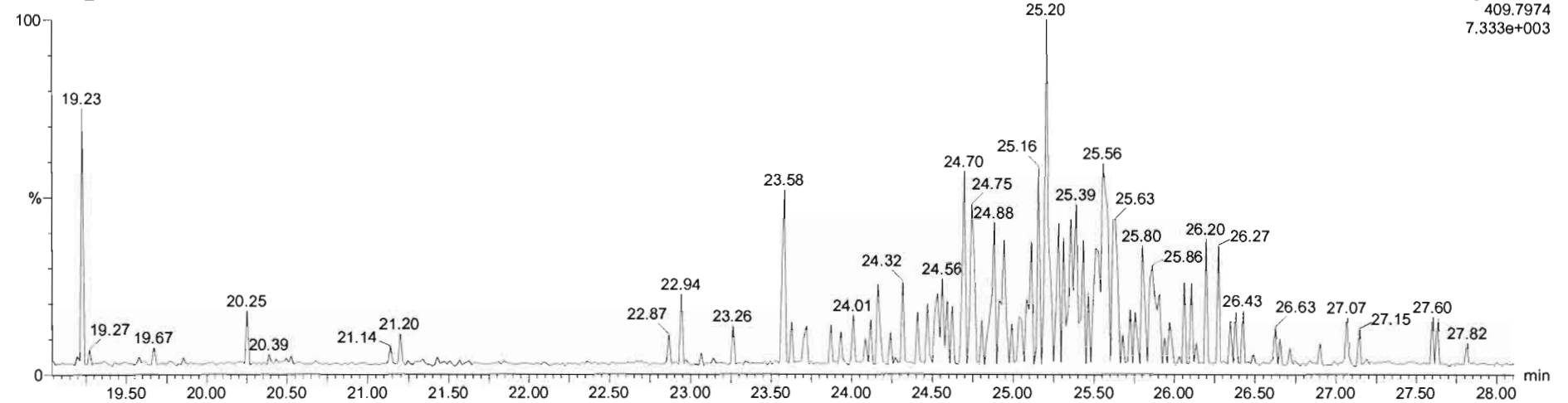


191214K3\_7



DPE6

191214K3\_7



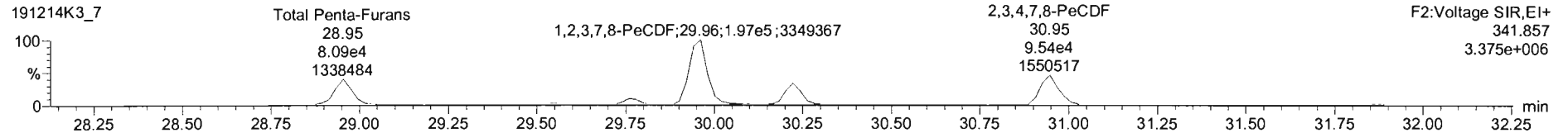
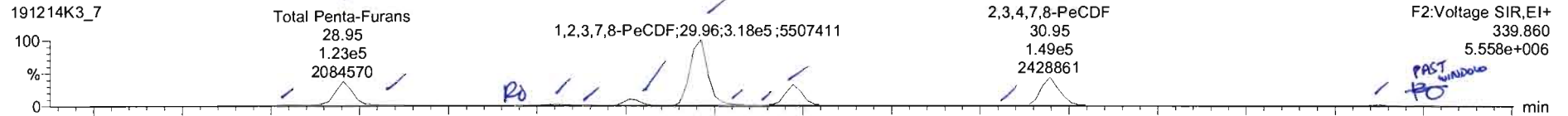
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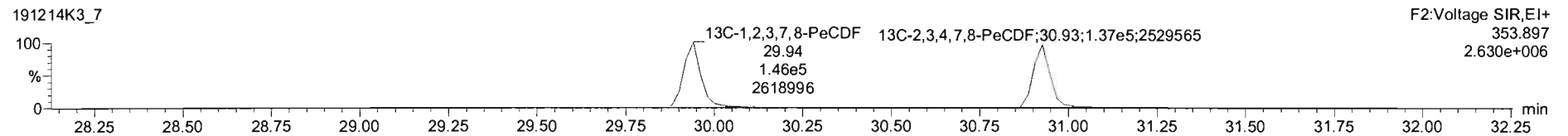
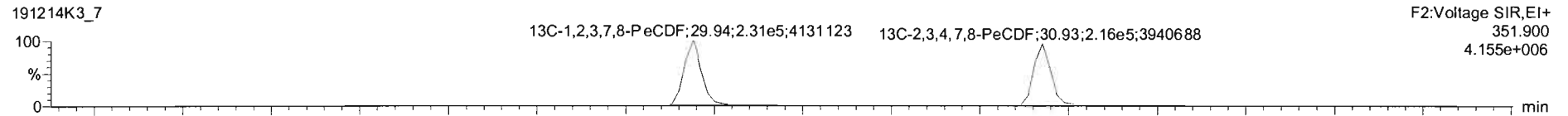
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Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

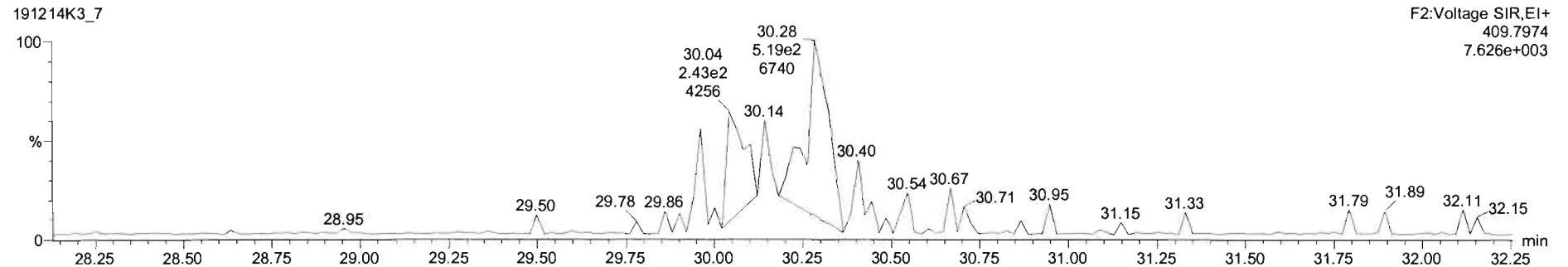
**1,2,3,7,8-PeCDF**

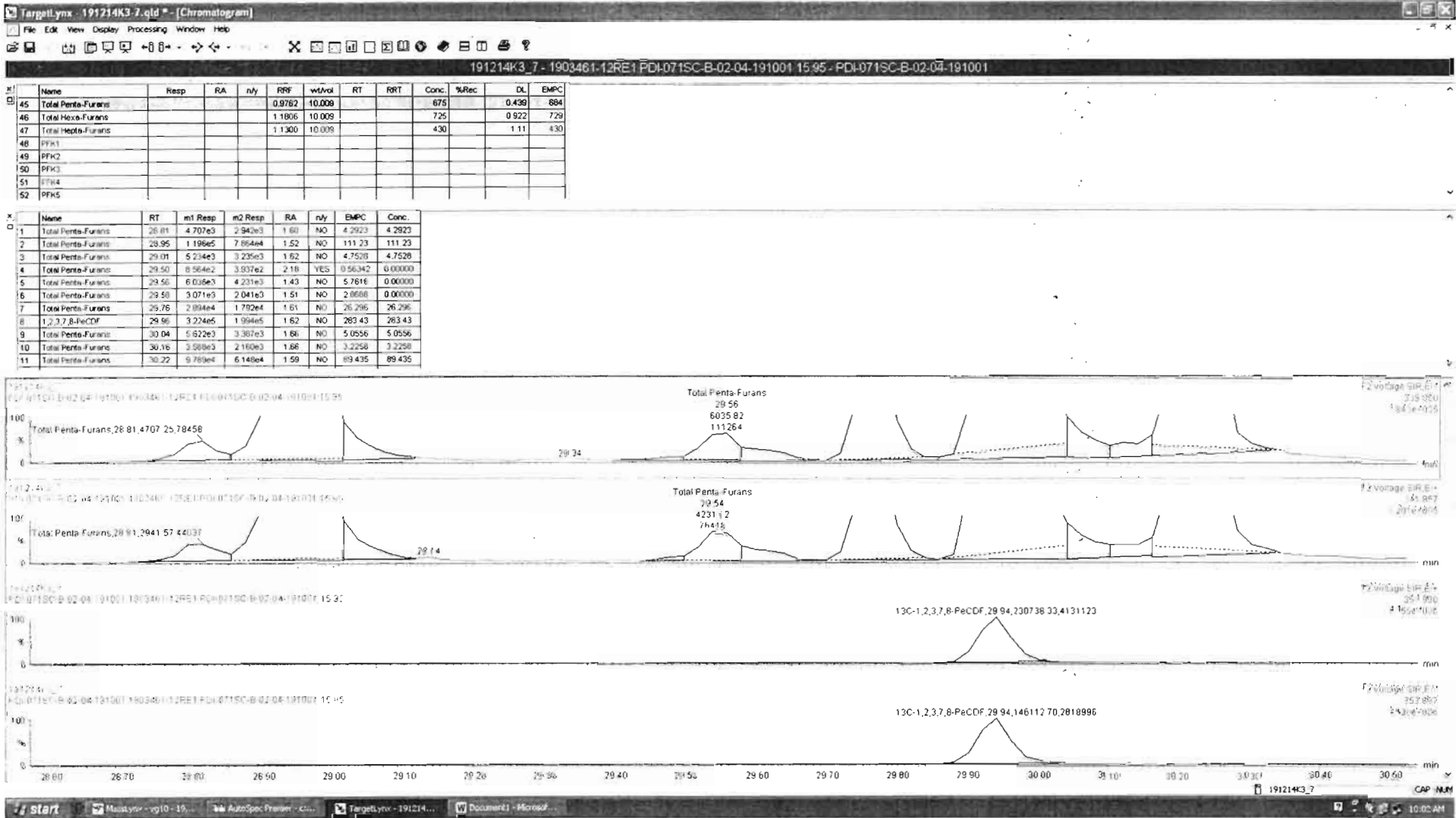


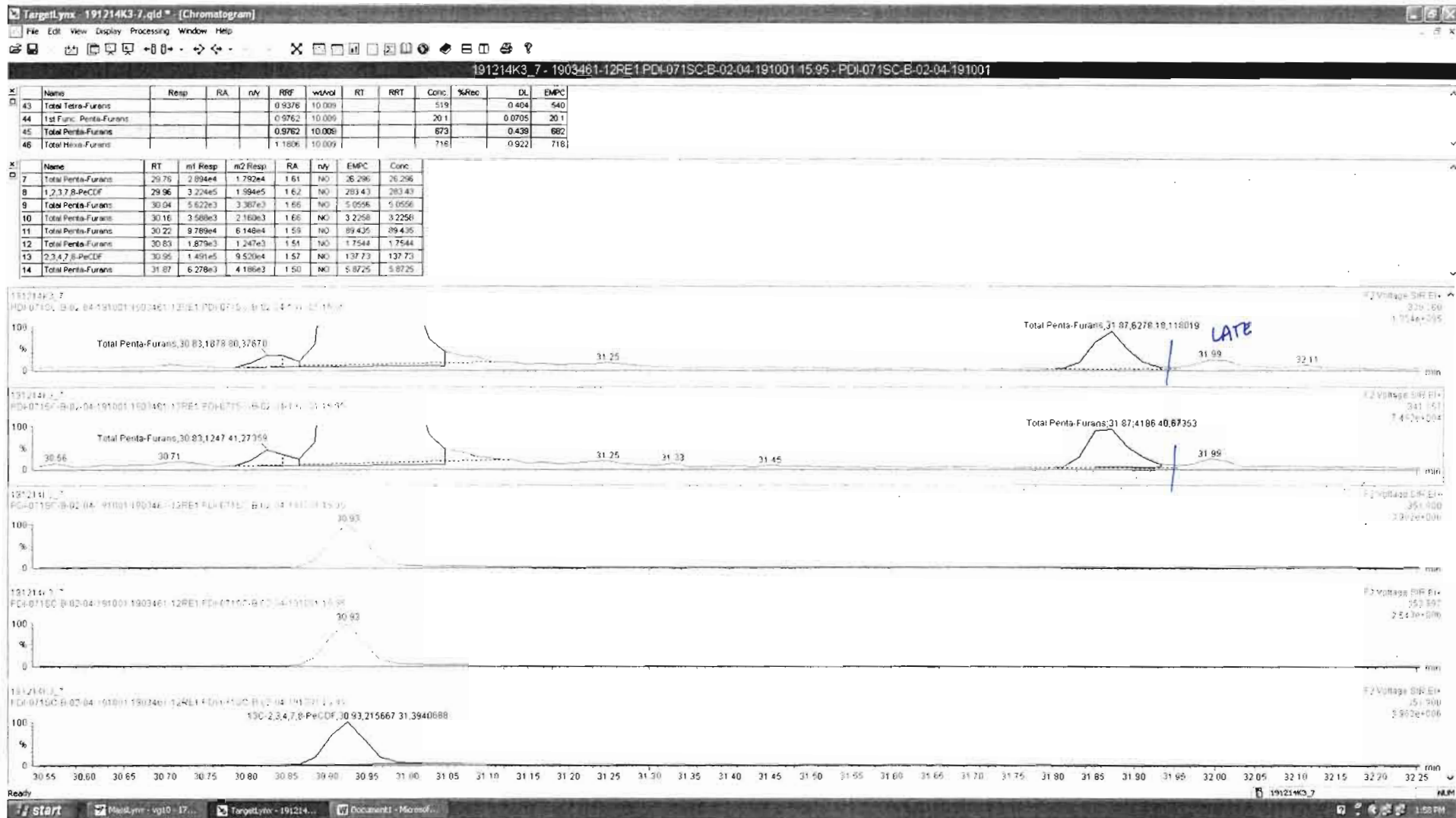
**13C-1,2,3,7,8-PeCDF**



**DPE2**







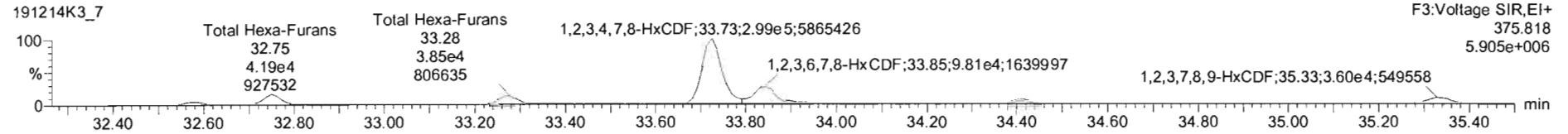
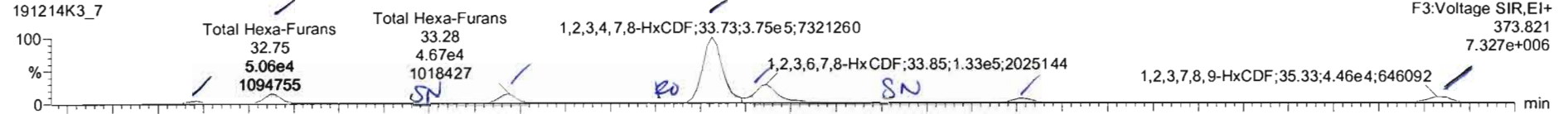
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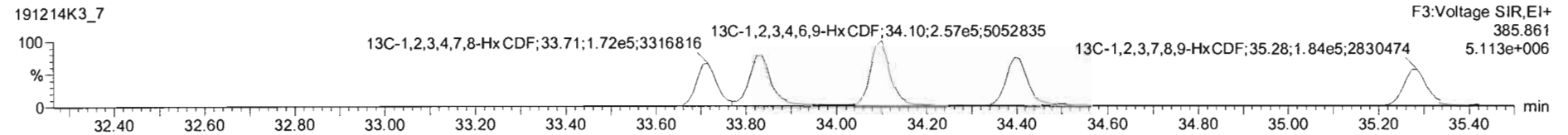
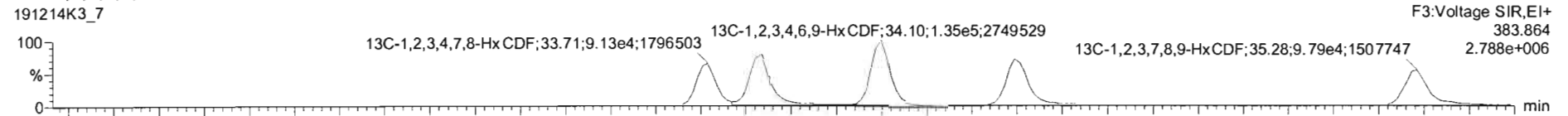
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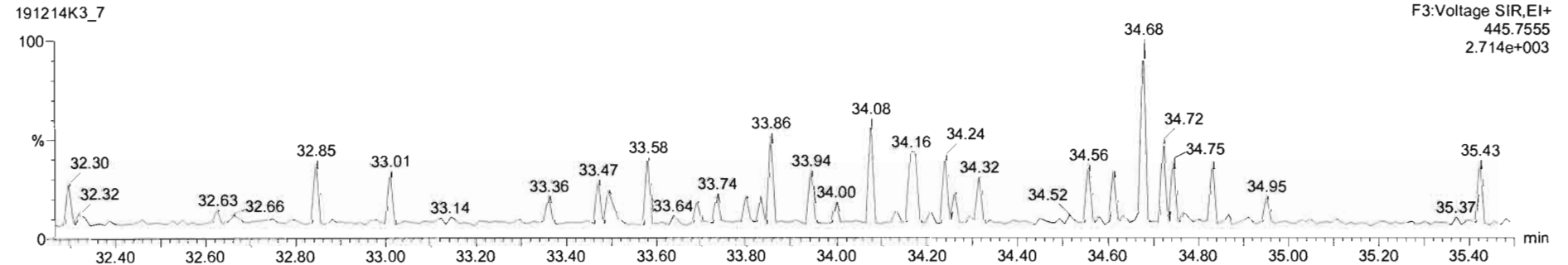
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF

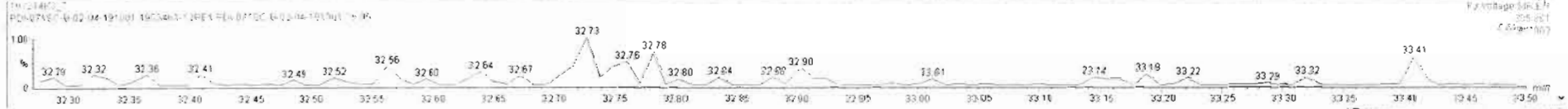
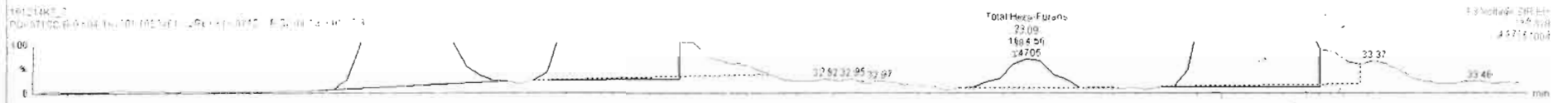
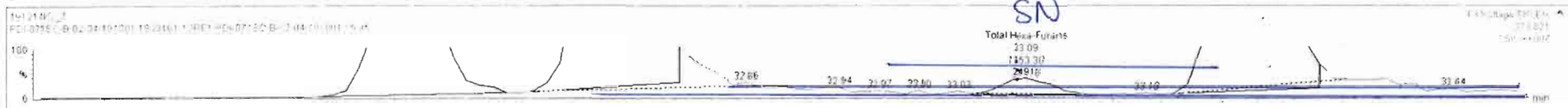


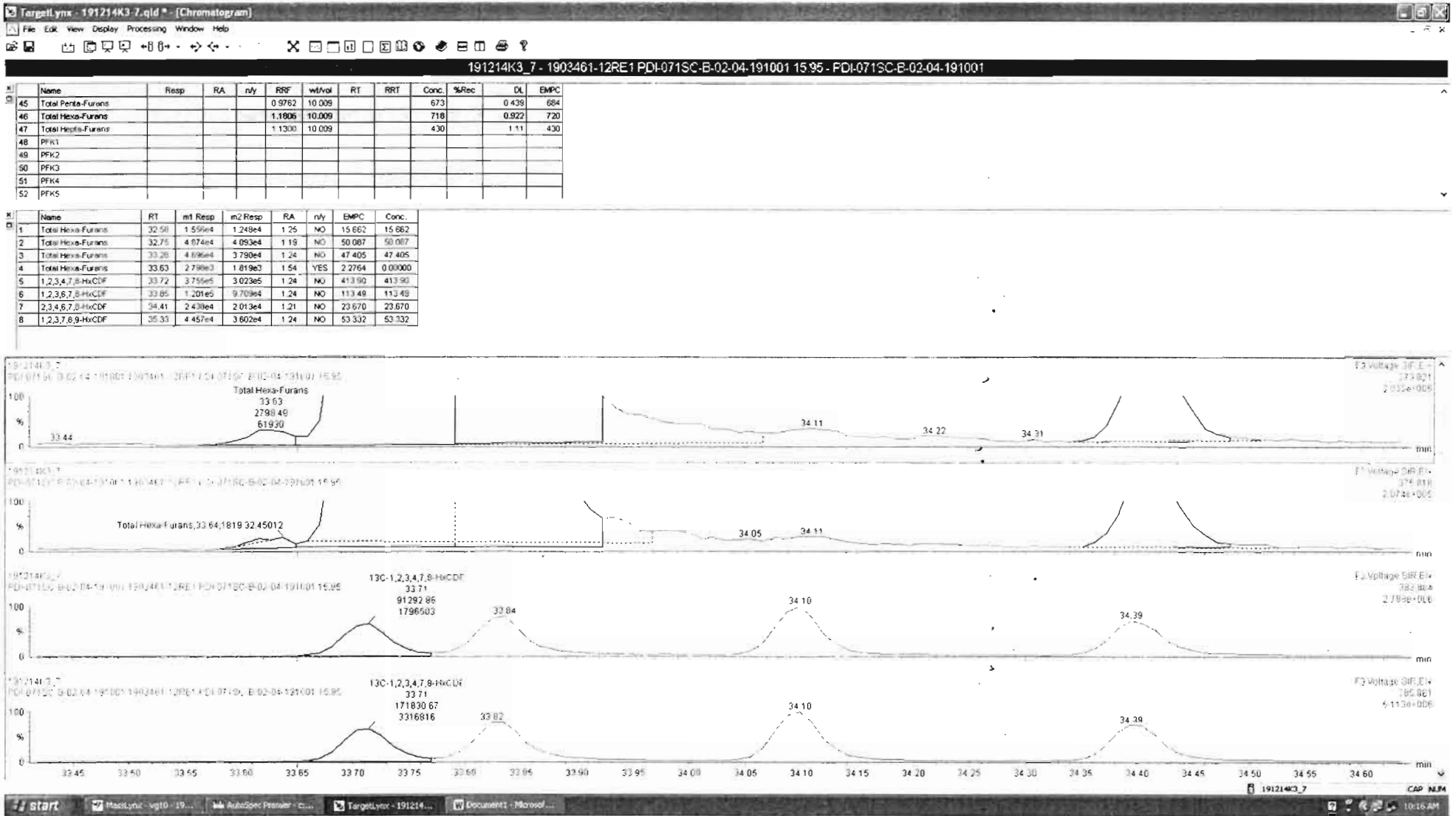
DPE3

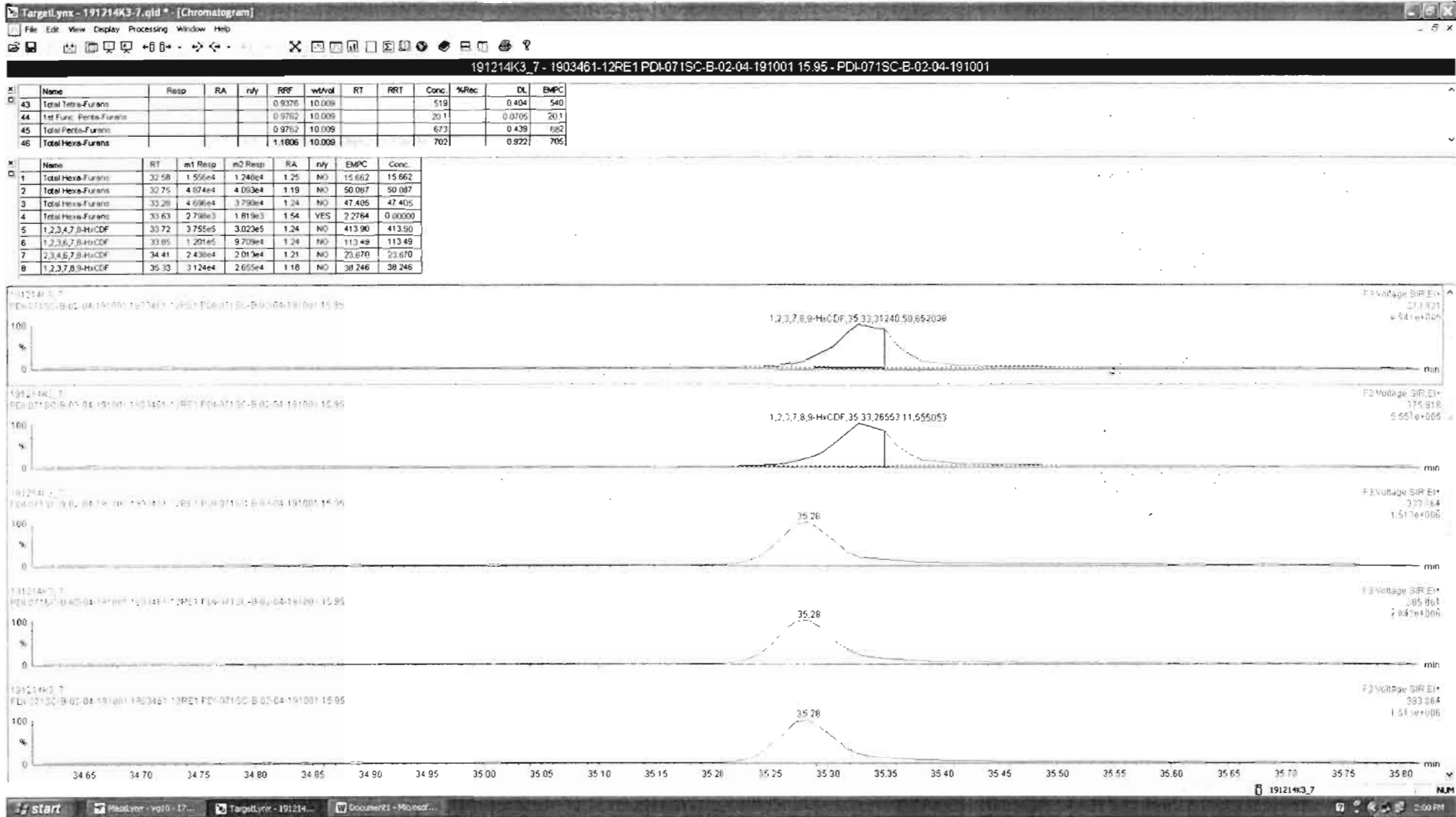


Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9762	10.009			673	0.439	684	
46 Total Hexa-Furans				1.1006	10.009			724	0.922	727	
47 Total Hepta-Furans				1.1300	10.009			430	1.11	430	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.58	1.558e4	1.248e4	1.25	NO	15.662	15.662
2 Total Hexa-Furans	32.75	4.874e4	4.093e4	1.19	NO	50.087	50.087
3 Total Hexa-Furans	33.09	1.153e3	1.085e3	1.06	NO	1.2500	1.2500
4 Total Hexa-Furans	33.28	4.696e4	3.790e4	1.24	NO	47.405	47.405
5 Total Hexa-Furans	33.63	2.789e3	2.869e2	9.76	YES	0.35803	0.00000
6 1,2,3,4,7,8-HxCDF	33.72	3.755e5	2.989e5	1.26	NO	411.79	411.79
7 1,2,3,6,7,8-HxCDF	33.85	1.328e5	9.815e4	1.35	NO	120.68	120.68
8 Total Hexa-Furans	34.11	4.453e3	2.135e3	2.09	YES	2.6711	0.00000
9 2,3,4,6,7,8-HxCDF	34.41	2.432e4	2.071e4	1.18	NO	23.979	23.979
10 1,2,3,7,8,9-HxCDF	35.33	4.457e4	3.602e4	1.24	NO	53.332	53.332









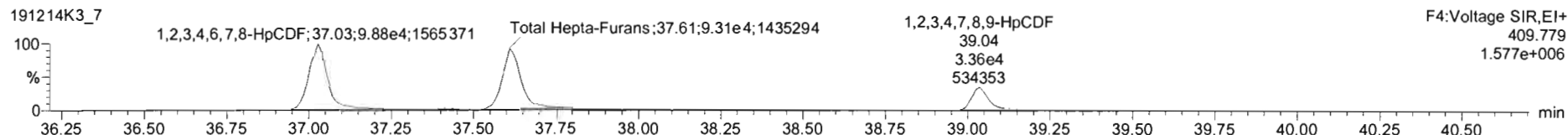
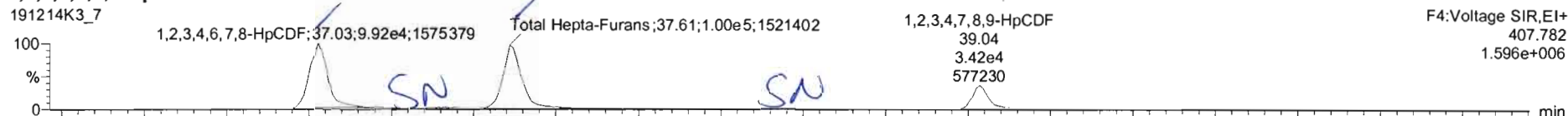
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Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

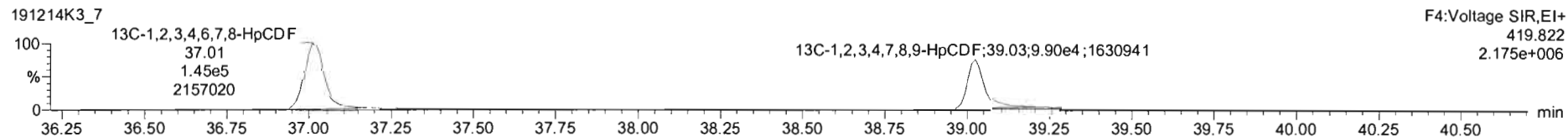
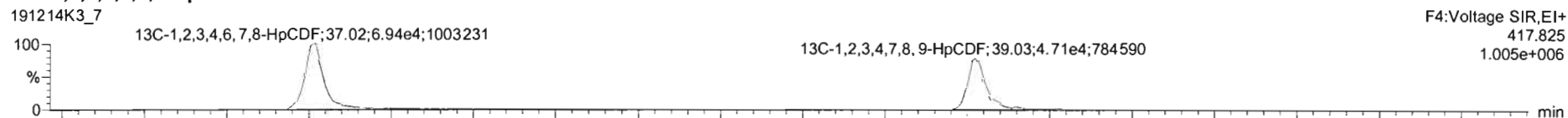
Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

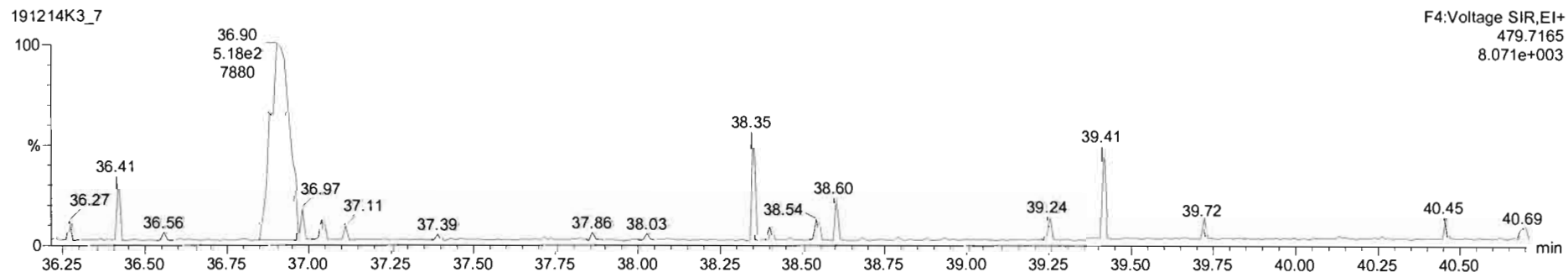
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



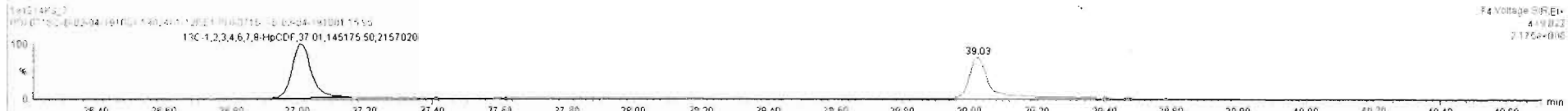
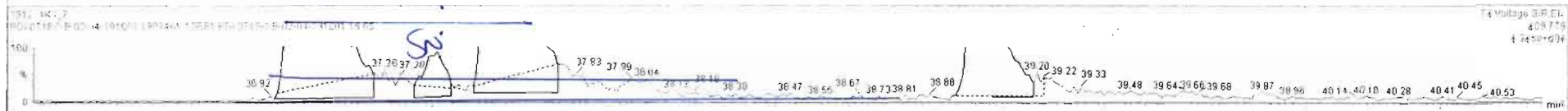
**DPE4**



191214K3\_7 - 1903461-12RE1 PDL071SC-B-02-04-191001 15.95 - PDL071SC-B-02-04-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9762	10.009			673	0.439	694	
46 Total Hexa-Furans				1.1806	10.009			716	0.922	718	
47 Total Hepta-Furans				1.1300	10.009			447	1.11	447	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	37.03	1.052e5	1.022e5	1.03	NO	171.00	171.00
2 Total Hepta-Furans	37.39	2.779e3	2.705e3	1.03	NO	5.3791	5.3791
3 Total Hepta-Furans	37.61	1.029e5	9.668e4	1.06	NO	195.80	195.80
4 1,2,3,4,7,8,9-HpCDF	39.04	3.526e4	3.352e4	1.06	NO	74.406	74.406



Dataset: Untitled

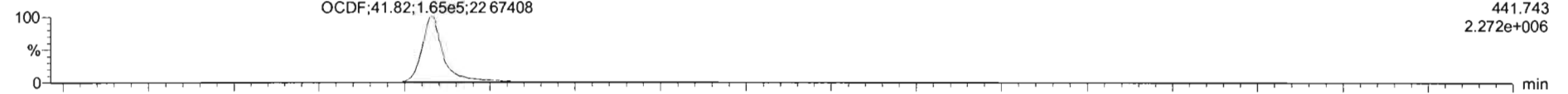
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

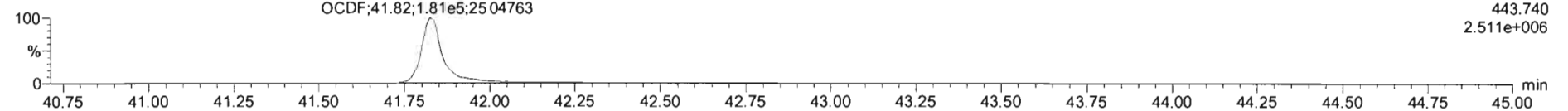
Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001

**OCDF**

191214K3\_7

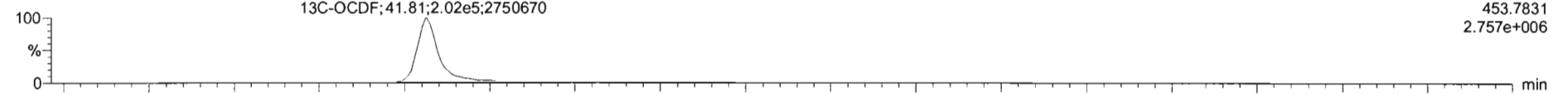


191214K3\_7

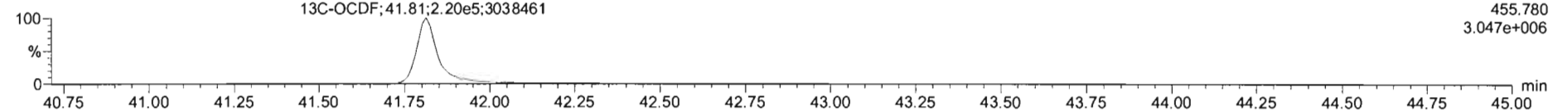


**13C-OCDF**

191214K3\_7

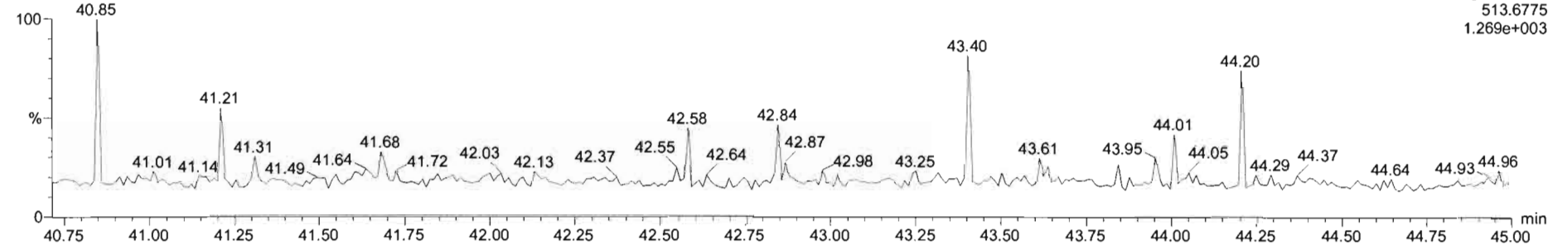


191214K3\_7



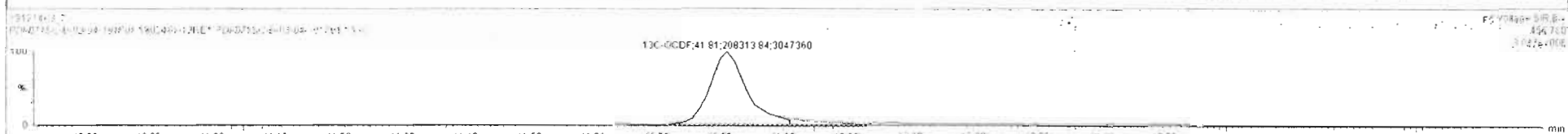
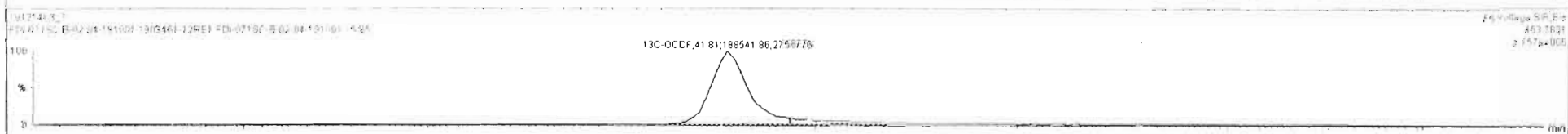
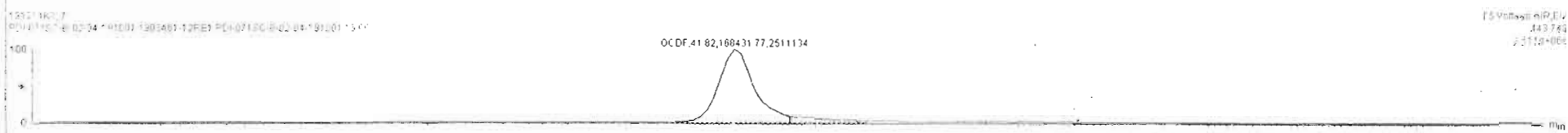
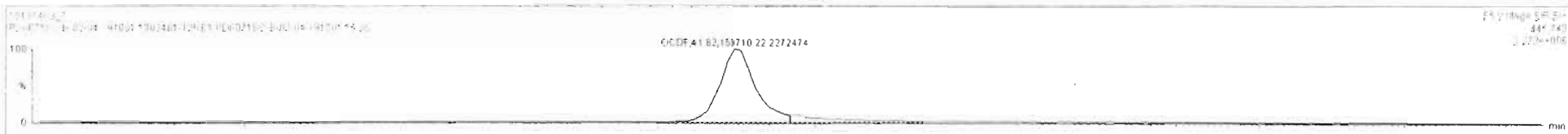
**DPE5**

191214K3\_7



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
15 1,2,3,4,6,7,8-HpCDF	1.98e5	1.00	NO	1.1300	10.009	37.03	1.000	163		1.00	163
16 1,2,3,4,7,8,9-HpCDF	6.78e4	1.02	NO	1.2609	10.009	39.04	1.000	73.6		1.14	73.6
17 OCDF	3.19e5	0.89	NO	1.1025	10.009	41.82	1.000	291		0.700	291
18 13C-2,3,7,8-TCDF	2.95e5	0.78	NO	1.0489	10.009	26.14	1.027	174	87.3	0.365	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							

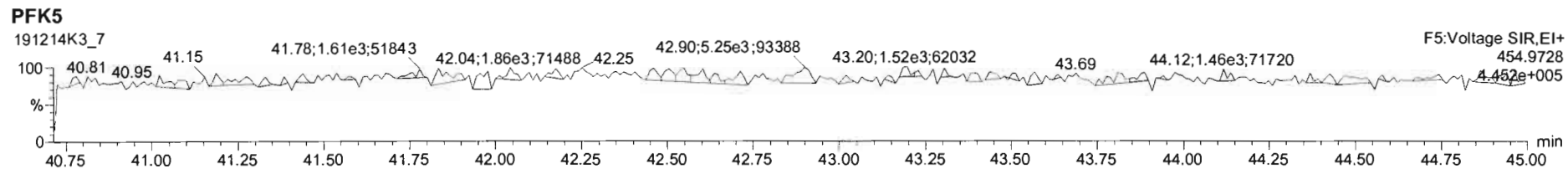
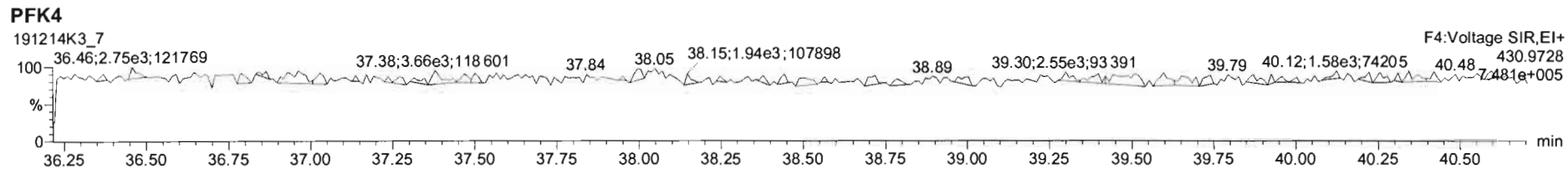
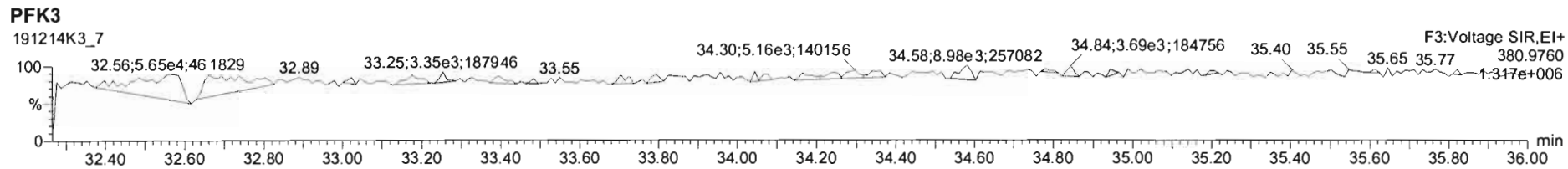
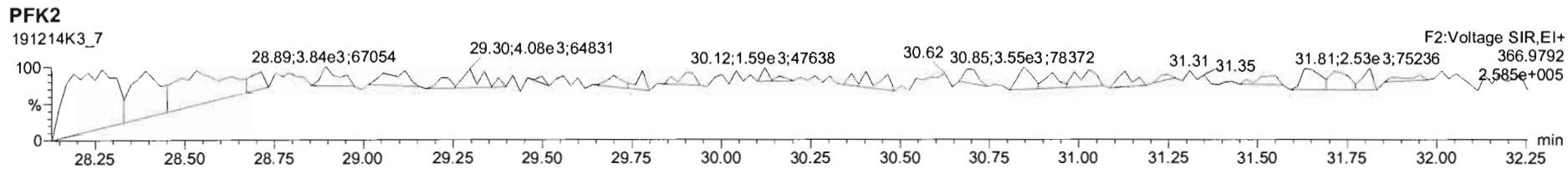
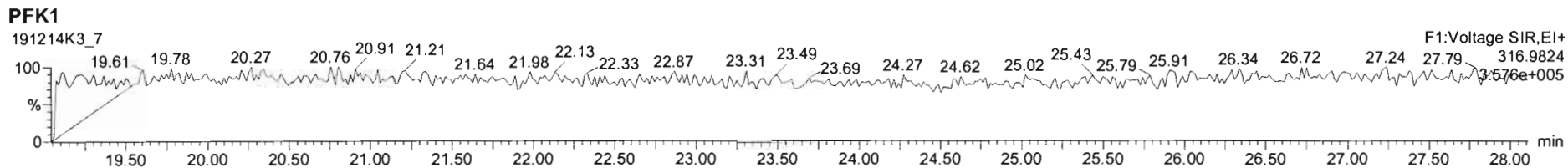


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Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_7, Date: 15-Dec-2019, Time: 11:21:29, ID: 1903461-12RE1 PDI-071SC-B-02-04-191001 15.95, Description: PDI-071SC-B-02-04-191001



Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

Last Altered: Thursday, December 19, 2019 10:58:56 Pacific Standard Time

Printed: Thursday, December 19, 2019 11:09:32 Pacific Standard Time

GRB 12/19/19

CT 01/15/2020

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

#	Name	Abs.Resp	RA	n/y	RRF	wt./vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	520.893	0.690	NO	0.925	10.042	26.17	26.17	1.00	1.00	NO	1.038		0.596	1.038
2	2 1,2,3,7,8-PeCDD	571.179	0.742	YES	0.905	10.042	31.27	31.27	1.00	1.00	NO	1.526		0.842	1.428
3	3 1,2,3,4,7,8-HxCDD	258.387	1.903	YES	1.07	10.042	34.59	34.58	1.00	1.00	NO	0.844		1.37	0.6512
4	4 1,2,3,6,7,8-HxCDD	2930.435	1.218	NO	0.967	10.042	34.68	34.70	1.00	1.00	NO	8.514		1.21	8.514
5	5 1,2,3,7,8,9-HxCDD	1332.184	1.233	NO	0.978	10.042	34.98	34.95	1.00	1.00	NO	4.571		1.24	4.571
6	6 1,2,3,4,6,7,8-HpCDD	85020.289	0.995	NO	1.04	10.042	38.44	38.44	1.00	1.00	NO	377.4		4.16	377.4
7	7 OCDD	528408.625	0.890	NO	0.972	10.042	41.63	41.64	1.00	1.00	NO	3259		6.98	3259 *
8	8 2,3,7,8-TCDF	44312.362	0.794	NO	0.938	10.042	25.17	25.19	1.00	1.00	NO	64.41		1.09	64.41
9	9 1,2,3,7,8-PeCDF	75326.488	1.588	NO	0.976	10.042	29.96	29.96	1.00	1.00	NO	99.24		0.828	99.24
10	10 2,3,4,7,8-PeCDF	38246.915	1.597	NO	1.00	10.042	30.96	30.95	1.00	1.00	NO	54.87		0.884	54.87
11	11 1,2,3,4,7,8-HxCDF	100382.008	1.219	NO	1.24	10.042	33.71	33.72	1.00	1.00	NO	178.9		0.847	178.9
12	12 1,2,3,6,7,8-HxCDF	32143.966	1.156	NO	1.10	10.042	33.85	33.86	1.00	1.00	NO	54.43		0.896	54.43
13	13 2,3,4,6,7,8-HxCDF	6929.057	1.227	NO	1.18	10.042	34.44	34.42	1.00	1.00	NO	12.04		0.808	12.04
14	14 1,2,3,7,8,9-HxCDF	9114.370	1.180	NO	1.07	10.042	35.28	35.35	1.00	1.00	NO	22.08		1.41	22.08
15	15 1,2,3,4,6,7,8-HpCDF	34617.008	1.017	NO	1.13	10.042	37.05	37.03	1.00	1.00	NO	104.4		1.75	104.4
16	16 1,2,3,4,7,8,9-HpCDF	9938.588	0.993	NO	1.26	10.042	39.03	39.05	1.00	1.00	NO	31.44		1.60	31.44
17	17 OCDF	56574.049	0.886	NO	1.10	10.042	41.82	41.82	1.00	1.00	NO	229.8		1.73	229.8 *
18	18 13C-2,3,7,8-TCDD	108021.707	0.803	NO	1.05	10.042	26.15	26.14	1.03	1.03	NO	78.58	39.5	0.409	
19	19 13C-1,2,3,7,8-PeCDD	82399.168	0.682	NO	0.743	10.042	31.16	31.25	1.22	1.23	NO	84.63	42.5	0.791	
20	20 13C-1,2,3,4,7,8-HxCDD	57025.724	1.253	NO	0.646	10.042	34.57	34.58	1.01	1.01	NO	54.99	27.6	0.779	
21	21 13C-1,2,3,6,7,8-HxCDD	70858.158	1.273	NO	0.777	10.042	34.67	34.68	1.02	1.02	NO	56.85	28.5	0.648	
22	22 13C-1,2,3,7,8,9-HxCDD	59361.912	1.288	NO	0.659	10.042	34.94	34.94	1.02	1.02	NO	56.09	28.2	0.763	
23	23 13C-1,2,3,4,6,7,8-HpCDD	43244.500	1.031	NO	0.534	10.042	38.43	38.43	1.13	1.13	NO	50.45	25.3	0.838	
24	24 13C-OCDD	66458.010	0.904	NO	0.470	10.042	41.61	41.63	1.22	1.22	NO	88.05	22.1	0.830	
25	25 13C-2,3,7,8-TCDF	146139.656	0.730	NO	0.977	10.042	25.22	25.14	0.99	0.99	NO	64.90	32.6	0.418	
26	26 13C-1,2,3,7,8-PeCDF	154859.898	1.553	NO	0.778	10.042	29.87	29.94	1.17	1.18	NO	86.43	43.4	1.01	
27	27 13C-2,3,4,7,8-PeCDF	138140.488	1.537	NO	0.750	10.042	30.88	30.93	1.21	1.22	NO	79.97	40.2	1.05	
28	28 13C-1,2,3,4,7,8-HxCDF	89884.738	0.524	NO	0.845	10.042	33.71	33.71	0.99	0.99	NO	66.28	33.3	0.999	
29	29 13C-1,2,3,6,7,8-HxCDF	107403.930	0.501	NO	1.03	10.042	33.83	33.83	0.99	0.99	NO	65.19	32.7	0.822	
30	30 13C-2,3,4,6,7,8-HxCDF	97104.770	0.506	NO	0.893	10.042	34.40	34.41	1.01	1.01	NO	67.78	34.0	0.945	
31	31 13C-1,2,3,7,8,9-HxCDF	76638.914	0.508	NO	0.734	10.042	35.30	35.28	1.04	1.03	NO	65.04	32.7	1.15	

\* use these results

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

Last Altered: Thursday, December 19, 2019 10:58:56 Pacific Standard Time

Printed: Thursday, December 19, 2019 11:09:32 Pacific Standard Time

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

#	Name	Abs.Resp	RA	n/y	RRF	wt./vol.	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	58467.963	0.477	NO	0.754	10.042	37.01	37.02	1.09	1.09	NO	48.31	24.3	0.662	
33	13C-1,2,3,4,7,8,9-HpCDF	49931.382	0.437	NO	0.539	10.042	39.03	39.03	1.14	1.14	NO	57.73	29.0	0.926	
34	13C-OCDF	88958.829	0.931	NO	0.593	10.042	41.82	41.82	1.23	1.23	NO	93.56	23.5	0.703	
35	37Cl-2,3,7,8-TCDD	44846.434			1.07	10.042	26.17	26.15	1.03	1.03	NO	32.00	40.2	0.0922	
36	13C-1,2,3,4-TCDD	261016.344	0.794	NO	1.00	10.042	25.50	25.45	1.00	1.00	NO	199.2	100	0.429	
37	13C-1,2,3,4-TCDF	458767.156	0.771	NO	1.00	10.042	23.68	23.57	1.00	1.00	NO	199.2	100	0.409	
38	13C-1,2,3,4,6,9-HxCDF	319592.078	0.508	NO	1.00	10.042	34.06	34.10	1.00	1.00	NO	199.2	100	0.844	
39	Total Tetra-Dioxins				0.925	10.042	24.62		0.00		NO	3.951		0.596	5.018
40	Total Penta-Dioxins				0.905	10.042	29.96		0.00		NO	11.62		0.842	15.12
41	Total Hexa-Dioxins				0.967	10.042	33.63		0.00		NO	71.94		1.25	117.6
42	Total Hepta-Dioxins				1.04	10.042	38.80		0.00		NO	792.0		4.16	792.0
43	Total Tetra-Furans				0.938	10.042	23.61		0.00		NO	194.8		1.09	211.0
44	1st Func. Penta-Furans				0.976	10.042	27.04		0.00		NO	9.618		0.160	9.618
45	Total Penta-Furans				0.976	10.042	29.27		0.00		NO	254.2		0.867	255.4
46	Total Hexa-Furans				1.18	10.042	33.56		0.00		NO	351.0		0.932	351.0
47	Total Hepta-Furans				1.13	10.042	37.83		0.00		NO	297.2		1.76	297.2

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

Last Altered: Thursday, December 19, 2019 10:58:56 Pacific Standard Time

Printed: Thursday, December 19, 2019 11:09:11 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

**Tetra-Dioxins**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	1 2,3,7,8-TCDD	5.21e2	1.08e5	0.690	NO	26.17	26.17	1.038	1.038
2	39 Total Tetra-Dioxins	1.46e3	1.08e5	0.694	NO	24.62	21.86	2.913	2.913
3	39 Total Tetra-Dioxins	0.00e0	1.08e5	0.550	YES	24.62	22.32	0.0000	0.5099
4	39 Total Tetra-Dioxins	0.00e0	1.08e5	1.977	YES	24.62	22.27	0.0000	0.2651
5	39 Total Tetra-Dioxins	0.00e0	1.08e5	0.582	YES	24.62	22.80	0.0000	0.2924

**Penta-Dioxins**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	2 1,2,3,7,8-PeCDD	5.71e2	8.24e4	0.742	YES	31.27	31.27	0.0000	1.428
2	40 Total Penta-Dioxins	1.52e3	8.24e4	0.685	NO	29.96	30.48	4.074	4.074
3	40 Total Penta-Dioxins	1.02e3	8.24e4	0.699	NO	29.96	30.02	2.717	2.717
4	40 Total Penta-Dioxins	0.00e0	8.24e4	1.008	YES	29.96	29.54	0.0000	0.8677
5	40 Total Penta-Dioxins	8.39e2	8.24e4	0.554	NO	29.96	29.03	2.242	2.242
6	40 Total Penta-Dioxins	0.00e0	8.24e4	0.788	YES	29.96	31.65	0.0000	0.7081
7	40 Total Penta-Dioxins	6.44e2	8.24e4	0.654	NO	29.96	30.20	1.722	1.722
8	40 Total Penta-Dioxins	3.23e2	8.24e4	0.676	NO	29.96	28.98	0.8639	0.8639
9	40 Total Penta-Dioxins	0.00e0	8.24e4	0.789	YES	29.96	31.39	0.0000	0.2162
10	40 Total Penta-Dioxins	0.00e0	8.24e4	1.317	YES	29.96	31.33	0.0000	0.2770



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

Last Altered: Thursday, December 19, 2019 10:58:56 Pacific Standard Time

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Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

**Hexa-Dioxins**

	#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	41	Total Hexa-Dioxins	6.63e2	0.00e0	1.237	NO	33.63	34.88	2.186	2.186
2	4	1,2,3,6,7,8-HxCDD	2.93e3	7.09e4	1.218	NO	34.68	34.70	8.514	8.514
3	41	Total Hexa-Dioxins	0.00e0	0.00e0	2.480	YES	33.63	34.58	0.0000	0.9635
4	41	Total Hexa-Dioxins	8.05e2	0.00e0	1.341	NO	33.63	34.02	2.656	2.656
5	41	Total Hexa-Dioxins	1.53e3	0.00e0	1.274	NO	33.63	33.67	5.031	5.031
6	41	Total Hexa-Dioxins	0.00e0	0.00e0	1.304	NO	33.63	33.12	0.0000	41.74
7	5	1,2,3,7,8,9-HxCDD	1.33e3	5.94e4	1.233	NO	34.98	34.95	4.571	4.571
8	3	1,2,3,4,7,8-HxCDD	2.58e2	5.70e4	1.903	YES	34.59	34.58	0.0000	0.6512
9	41	Total Hexa-Dioxins	1.49e4	0.00e0	1.383	NO	33.63	33.92	48.99	48.99
10	41	Total Hexa-Dioxins	0.00e0	0.00e0	1.260	NO	33.63	33.18	0.0000	2.303

**Hepta-Dioxins**

	#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	42	Total Hepta-Dioxins	9.34e4	4.32e4	1.015	NO	38.80	37.41	414.6	414.6
2	6	1,2,3,4,6,7,8-HpCDD	8.50e4	4.32e4	0.995	NO	38.44	38.44	377.4	377.4

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

Last Altered: Thursday, December 19, 2019 10:58:56 Pacific Standard Time

Printed: Thursday, December 19, 2019 11:09:11 Pacific Standard Time

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**Tetra-Furans**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	43 Total Tetra-Furans	1.89e3	1.46e5	0.712	NO	23.61	21.43	2.752	2.752
2	43 Total Tetra-Furans	8.50e3	1.46e5	0.782	NO	23.61	20.88	12.36	12.36
3	43 Total Tetra-Furans	8.34e2	1.46e5	0.757	NO	23.61	20.30	1.213	1.213
4	43 Total Tetra-Furans	0.00e0	1.46e5	0.945	YES	23.61	27.30	0.0000	5.824
5	43 Total Tetra-Furans	2.44e3	1.46e5	0.826	NO	23.61	25.60	3.552	3.552
6	8 2,3,7,8-TCDF	4.43e4	1.46e5	0.794	NO	25.17	25.19	64.41	64.41
7	43 Total Tetra-Furans	1.90e3	1.46e5	0.686	NO	23.61	24.47	2.762	2.762
8	43 Total Tetra-Furans	4.48e4	1.46e5	0.744	NO	23.61	24.17	65.08	65.08
9	43 Total Tetra-Furans	8.30e3	1.46e5	0.859	NO	23.61	23.57	12.07	12.07
10	43 Total Tetra-Furans	2.45e3	1.46e5	0.875	NO	23.61	23.48	3.559	3.559
11	43 Total Tetra-Furans	2.20e3	1.46e5	0.804	NO	23.61	22.65	3.192	3.192
12	43 Total Tetra-Furans	3.79e3	1.46e5	0.789	NO	23.61	22.30	5.515	5.515
13	43 Total Tetra-Furans	1.26e4	1.46e5	0.731	NO	23.61	21.83	18.38	18.38
14	43 Total Tetra-Furans	0.00e0	1.46e5	0.758	NO	23.61	25.10	0.0000	10.30

**Penta-Furans function 1**

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	44 1st Func. Penta-Fura...	6.91e3	0.00e0	1.726	NO	27.04	27.33	9.618	9.618

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-8.qld

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Printed: Thursday, December 19, 2019 11:09:11 Pacific Standard Time

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

## Penta-Furans

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	45 Total Penta-Furans	1.56e3	0.00e0	1.545	NO	29.27	31.87	2.172	2.172
2	10 2,3,4,7,8-PeCDF	3.82e4	1.38e5	1.597	NO	30.96	30.95	54.87	54.87
3	45 Total Penta-Furans	2.71e4	0.00e0	1.430	NO	29.27	30.22	37.78	37.78
4	9 1,2,3,7,8-PeCDF	7.53e4	1.55e5	1.588	NO	29.96	29.96	99.24	99.24
5	45 Total Penta-Furans	7.64e3	0.00e0	1.584	NO	29.27	29.78	10.64	10.64
6	45 Total Penta-Furans	2.61e3	0.00e0	1.452	NO	29.27	29.56	3.630	3.630
7	45 Total Penta-Furans	2.93e4	0.00e0	1.588	NO	29.27	28.95	40.77	40.77
8	45 Total Penta-Furans	1.03e3	0.00e0	1.777	NO	29.27	28.81	1.440	1.440
9	45 Total Penta-Furans	2.62e3	0.00e0	1.338	NO	29.27	30.04	3.644	3.644
10	45 Total Penta-Furans	0.00e0	0.00e0	1.404	NO	29.27	29.60	0.0000	1.188

## Hexa-Furans

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	13 2,3,4,6,7,8-HxCDF	6.93e3	9.71e4	1.227	NO	34.44	34.42	12.04	12.04
2	12 1,2,3,6,7,8-HxCDF	3.21e4	1.07e5	1.156	NO	33.85	33.86	54.43	54.43
3	11 1,2,3,4,7,8-HxCDF	1.00e5	8.99e4	1.219	NO	33.71	33.72	178.9	178.9
4	46 Total Hexa-Furans	2.09e4	0.00e0	1.166	NO	33.56	33.28	38.03	38.03
5	46 Total Hexa-Furans	1.92e4	0.00e0	1.151	NO	33.56	32.75	34.93	34.93
6	46 Total Hexa-Furans	5.81e3	0.00e0	1.333	NO	33.56	32.58	10.57	10.57
7	14 1,2,3,7,8,9-HxCDF	9.11e3	7.66e4	1.180	NO	35.28	35.35	22.08	22.08

## Hepta-Furans

#	Name	Area	IS Area	RA	Y/N	Pred.RT	RT	Conc.	EMPC
1	16 1,2,3,4,7,8,9-HpCDF	9.94e3	4.99e4	0.993	NO	39.03	39.05	31.44	31.44
2	47 Total Hepta-Furans	4.96e4	0.00e0	1.035	NO	37.83	37.62	161.4	161.4
3	15 1,2,3,4,6,7,8-HpCDF	3.46e4	5.85e4	1.017	NO	37.05	37.03	104.4	104.4

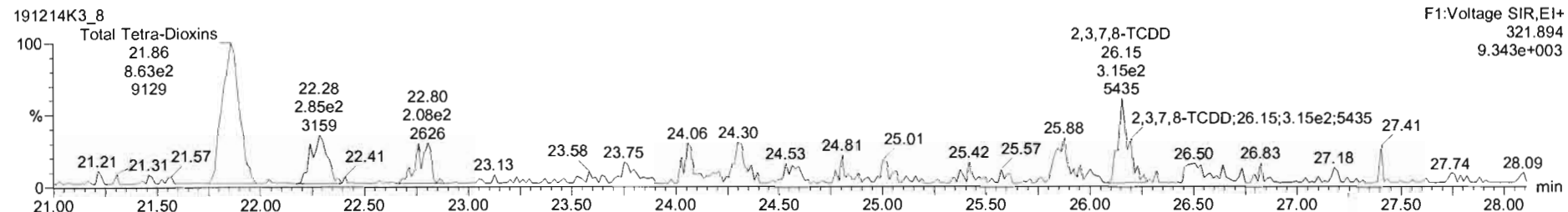
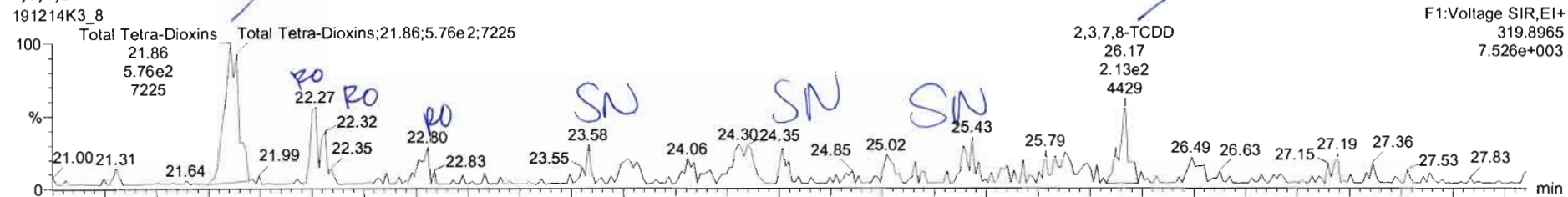
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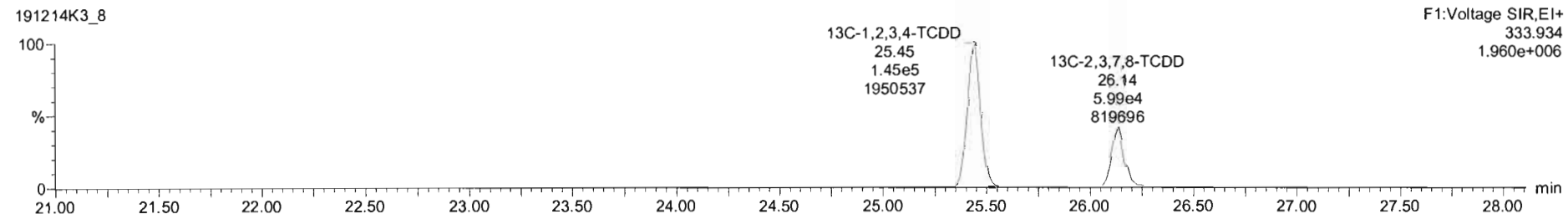
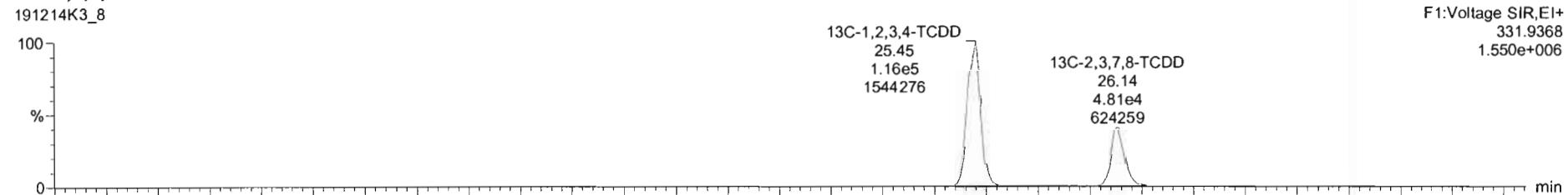
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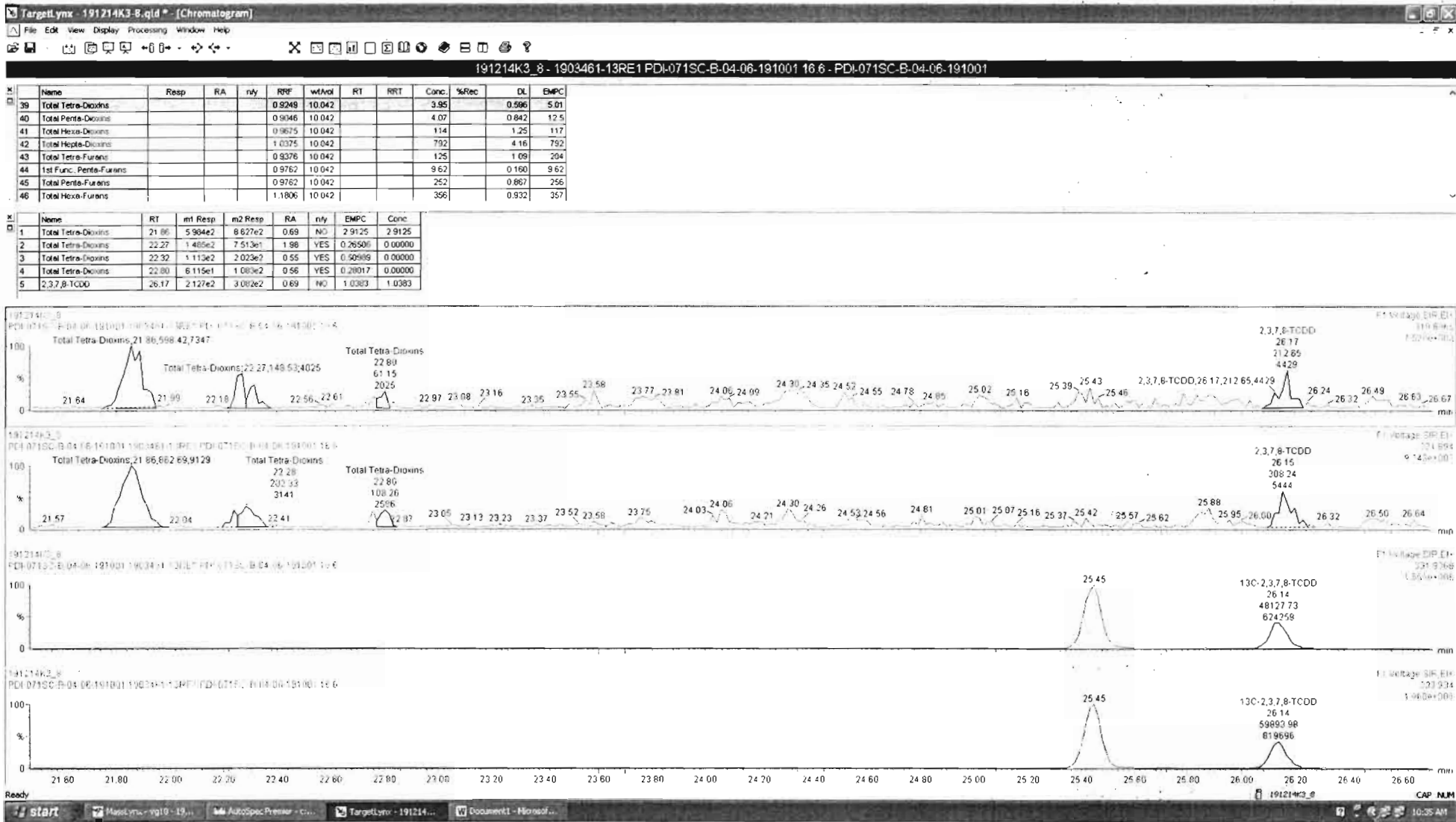
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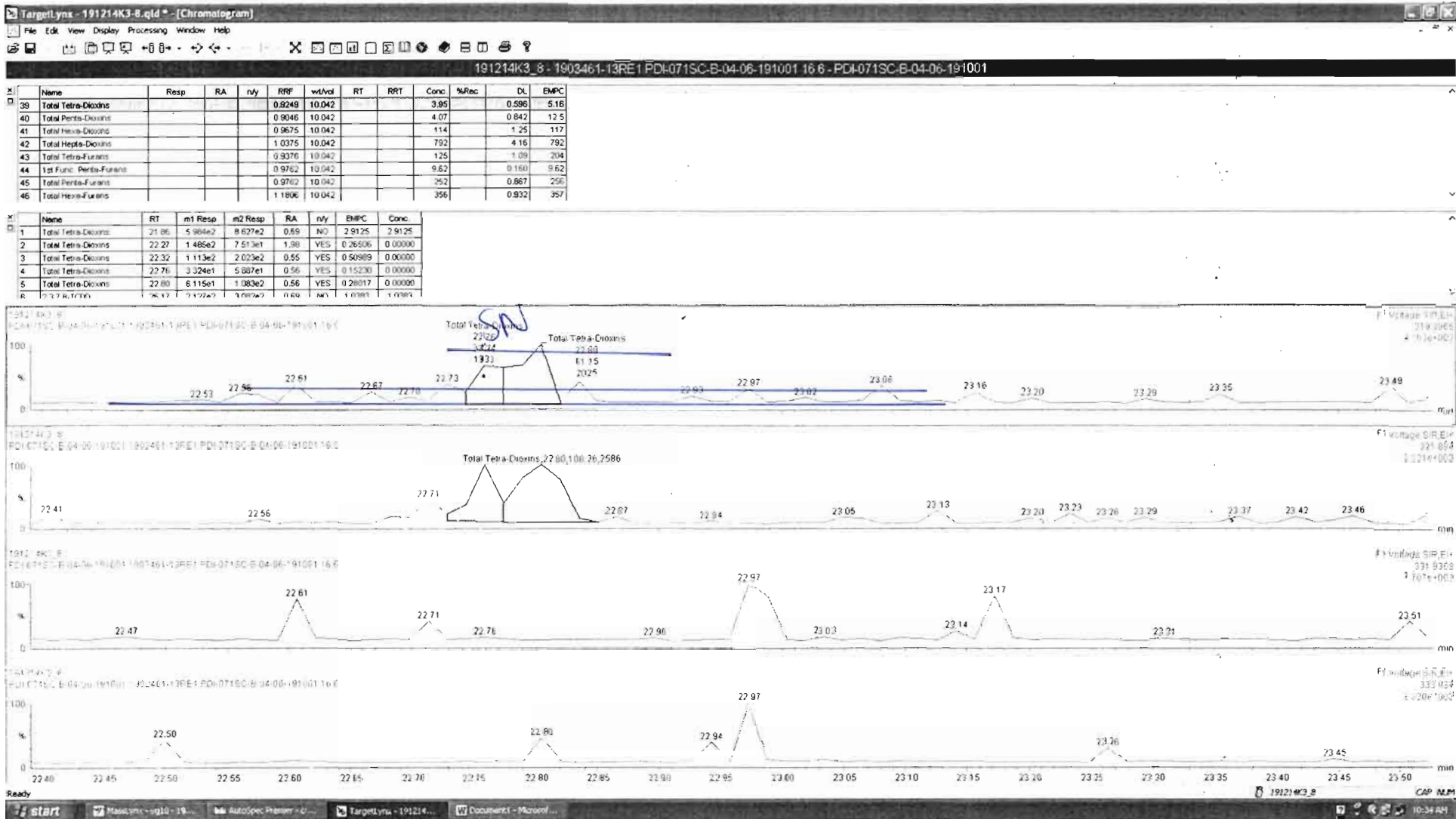
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**13C-2,3,7,8-TCDD**







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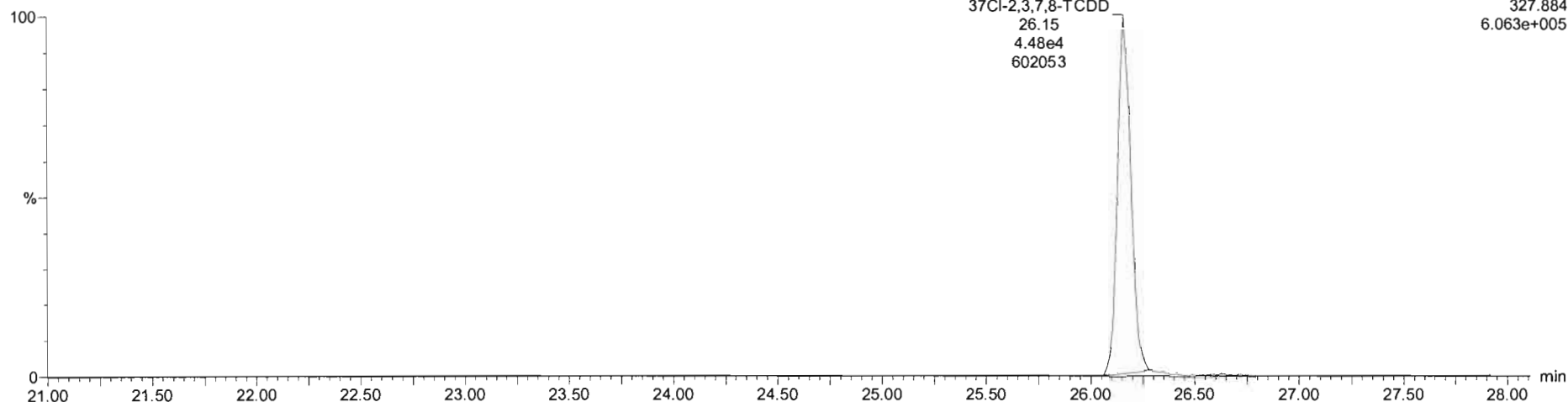
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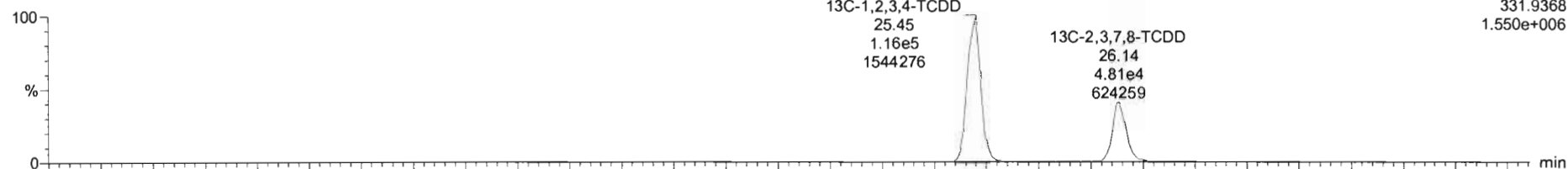
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191214K3\_8

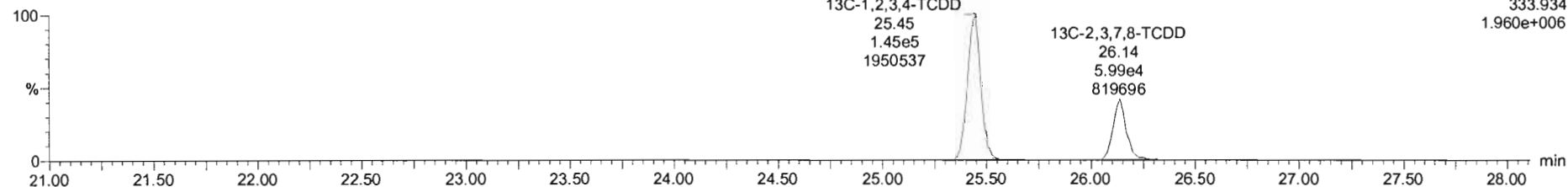


**13C-1,2,3,4-TCDD**

191214K3\_8



191214K3\_8



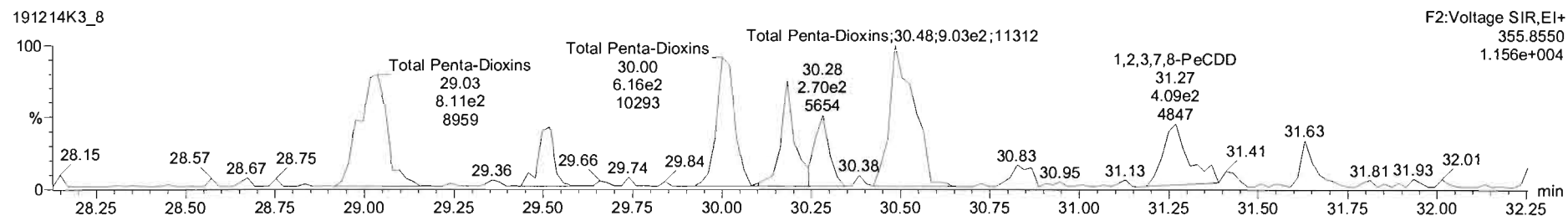
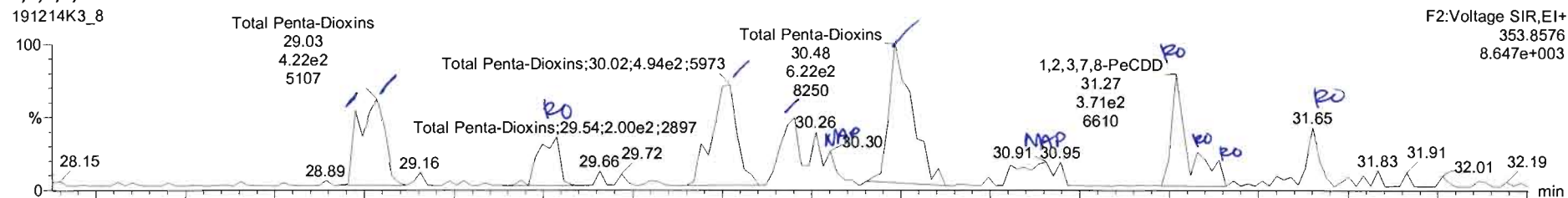
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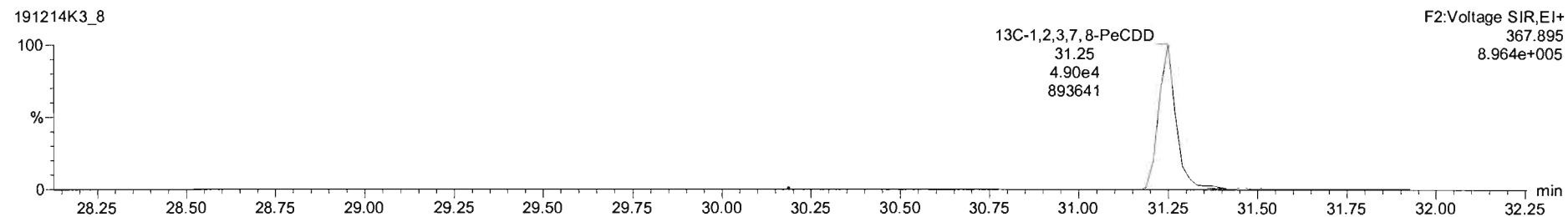
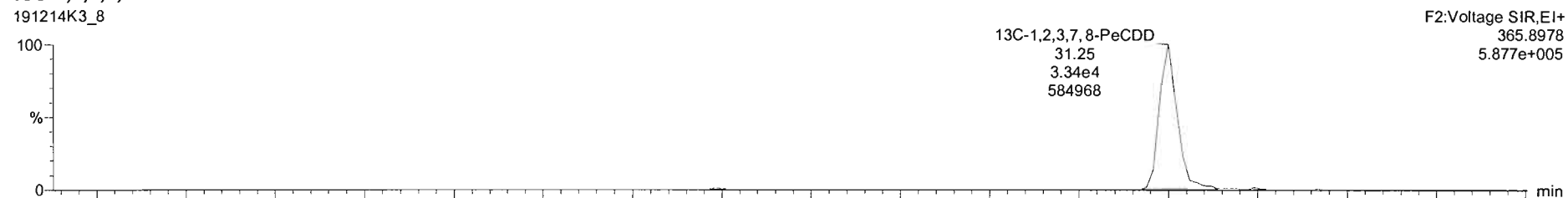
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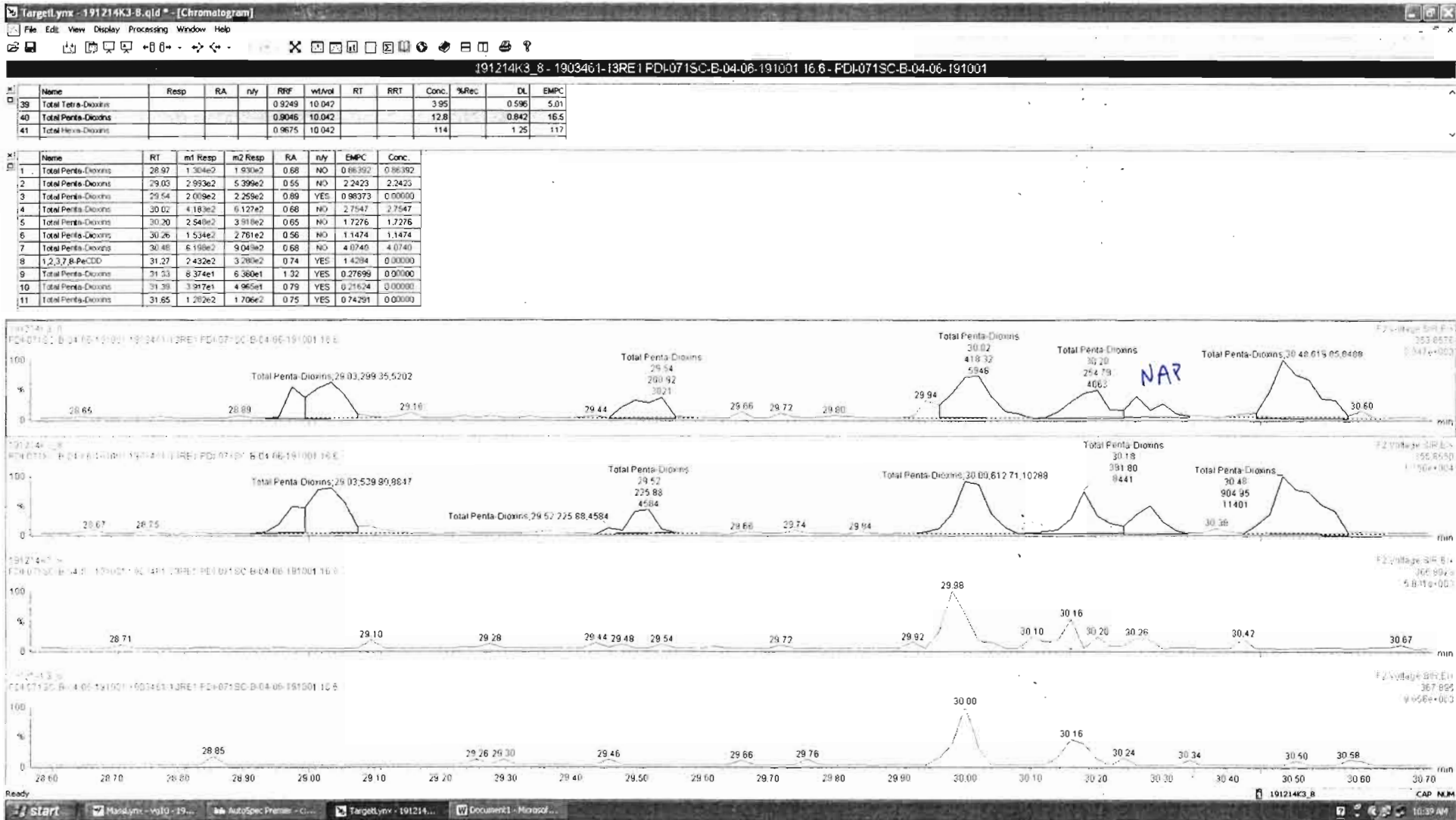
### 1,2,3,7,8-PeCDD



### 13C-1,2,3,7,8-PeCDD

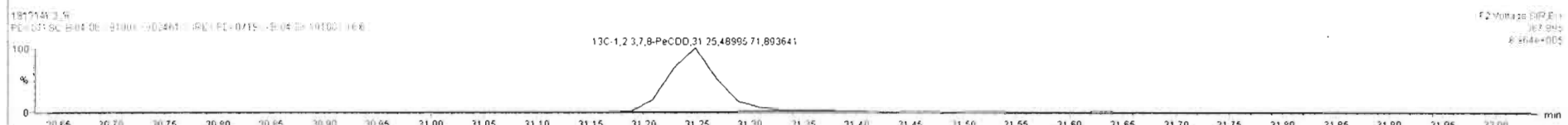
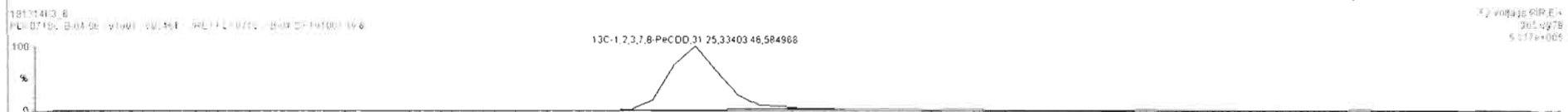
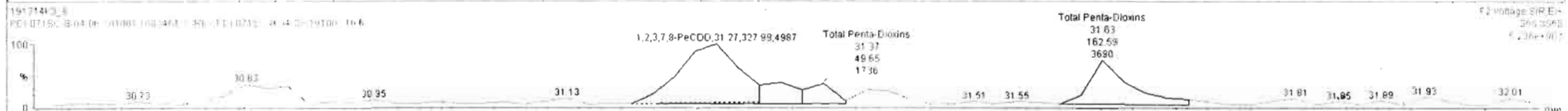
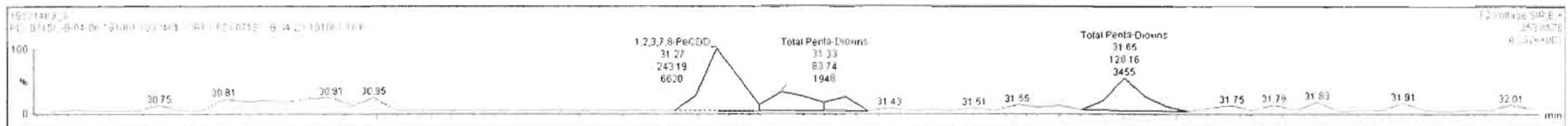






Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.042			3.95	0.596	5.01	
40 Total Penta-Dioxins				0.9046	10.042			12.8	0.842	16.4	
41 Total Hexa-Dioxins				0.9675	10.042			114	1.25	117	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Penta-Dioxins	29.97	1.304e2	1.930e2	0.68	NO	0.86392	0.86392
2 Total Penta-Dioxins	29.03	2.993e2	5.399e2	0.55	NO	2.2423	2.2423
3 Total Penta-Dioxins	29.54	2.009e2	2.259e2	0.89	YES	0.99373	0.00000
4 Total Penta-Dioxins	30.02	4.153e2	6.127e2	0.68	NO	2.7547	2.7547
5 Total Penta-Dioxins	30.20	2.548e2	3.918e2	0.65	NO	1.7276	1.7276
6 Total Penta-Dioxins	30.26	1.534e2	2.761e2	0.56	NO	1.1474	1.1474
7 Total Penta-Dioxins	30.48	6.198e2	9.049e2	0.66	NO	4.0740	4.0740
8 1,2,3,7,8-PeCDD	31.27	2.432e2	3.280e2	0.74	YES	1.4284	0.00000
9 Total Penta-Dioxins	31.33	8.374e1	6.360e1	1.32	YES	0.27699	0.00000
10 Total Penta-Dioxins	31.39	3.917e1	4.955e1	0.79	YES	0.21624	0.00000
11 Total Penta-Dioxins	31.65	1.262e2	1.626e2	0.79	YES	0.70810	0.00000



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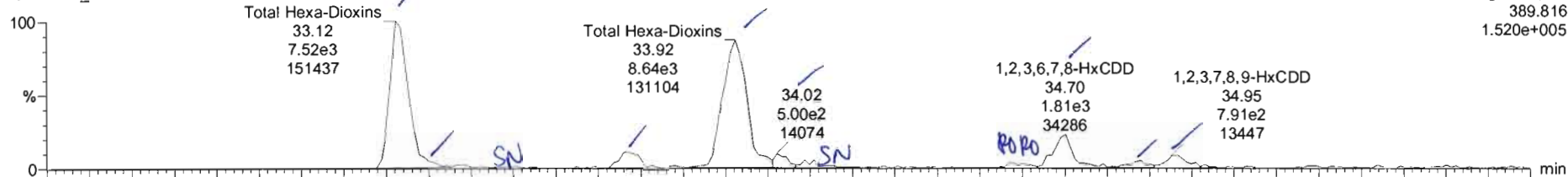
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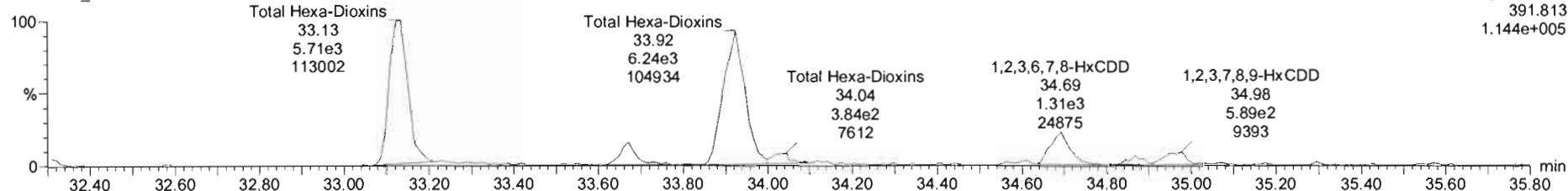
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**1,2,3,4,7,8-HxCDD**

191214K3\_8

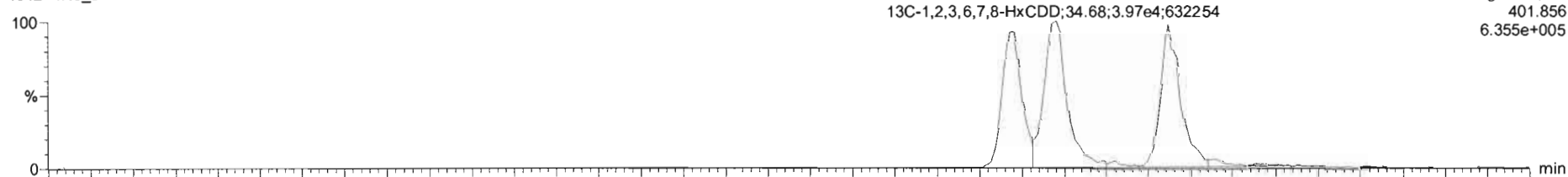


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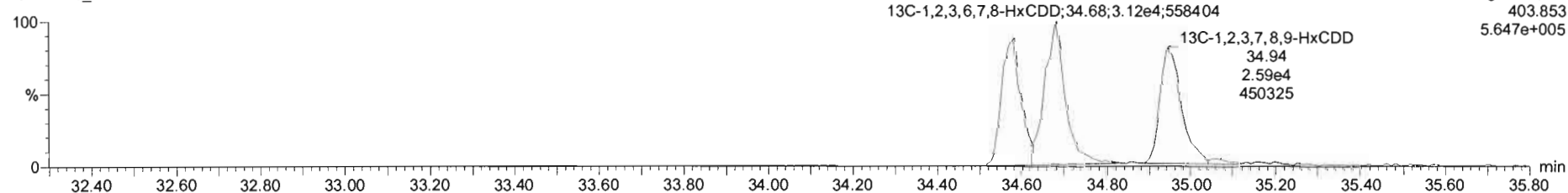


**13C-1,2,3,4,7,8-HxCDD**

191214K3\_8



191214K3\_8

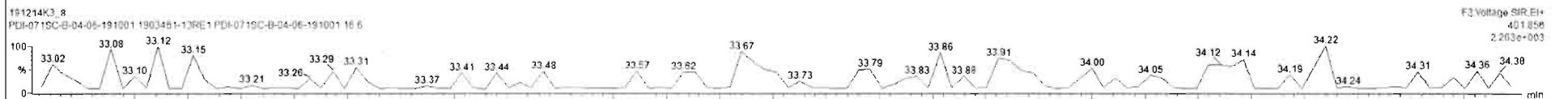
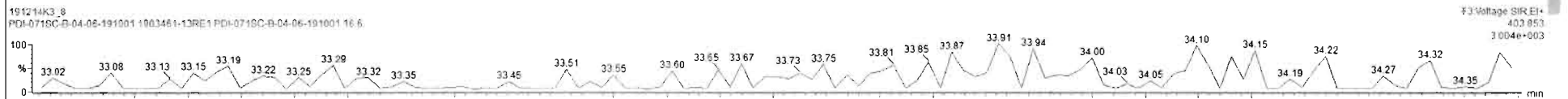
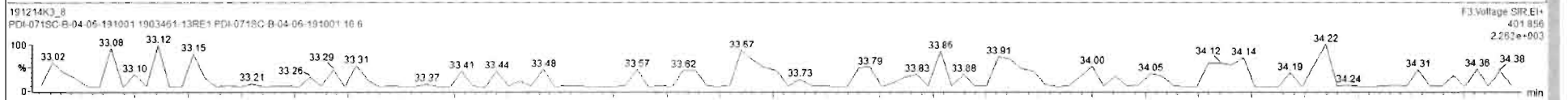
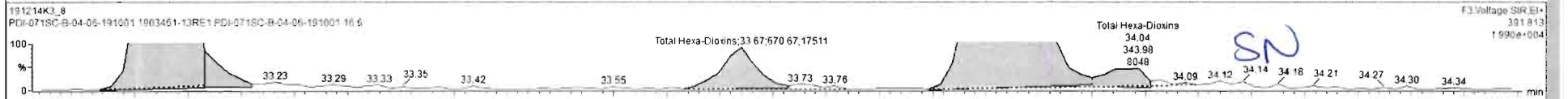
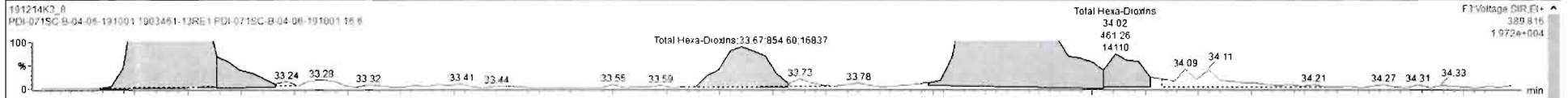


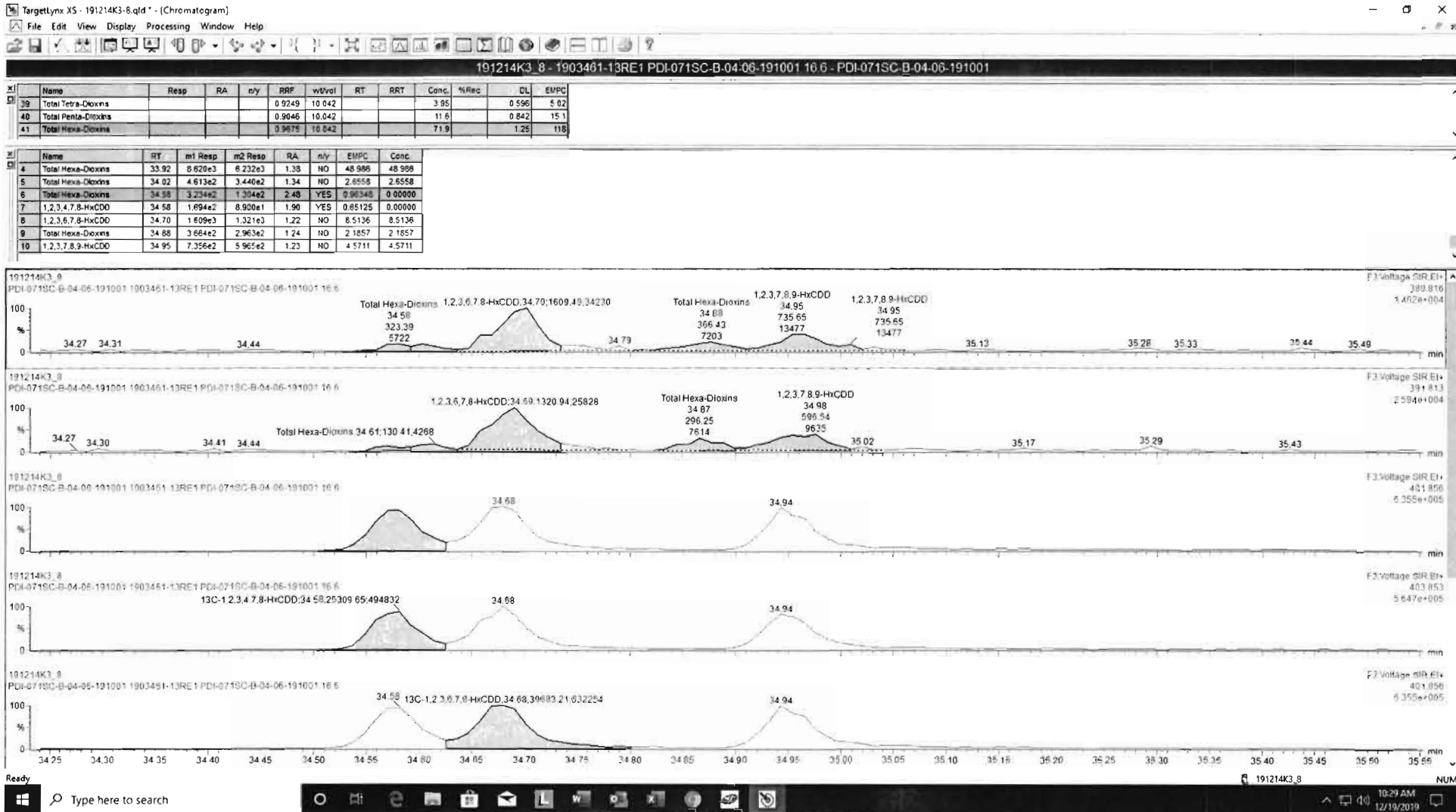


191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	w/vcl	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9249	10.042			3.95		0.596	5.02
40 Total Penta-Dioxins				0.9046	10.042			11.6		0.842	15.1
41 Total Hexa-Dioxins				0.9675	10.042			72.7		1.25	117

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.12	7.182e3	5.493e3	1.30	NO	41.740	0.00000
2 Total Hexa-Dioxins	33.18	3.893e2	3.090e2	1.26	NO	2.3030	0.00000
3 Total Hexa-Dioxins	33.67	8.546e2	6.707e2	1.27	NO	5.0207	5.0207
4 Total Hexa-Dioxins	33.92	8.620e3	6.232e3	1.38	NO	48.986	48.986
5 Total Hexa-Dioxins	34.02	4.613e2	3.440e2	1.34	NO	2.6558	2.6558
6 1,2,3,6,7,8-HxCDD	34.70	1.815e3	1.305e3	1.39	NO	9.0642	9.0642
7 Total Hexa-Dioxins	34.86	3.808e2	3.074e2	1.24	NO	2.2699	2.2699
8 1,2,3,7,8-HxCDF	34.96	7.608e2	6.888e2	1.34	NO	4.7336	4.7336





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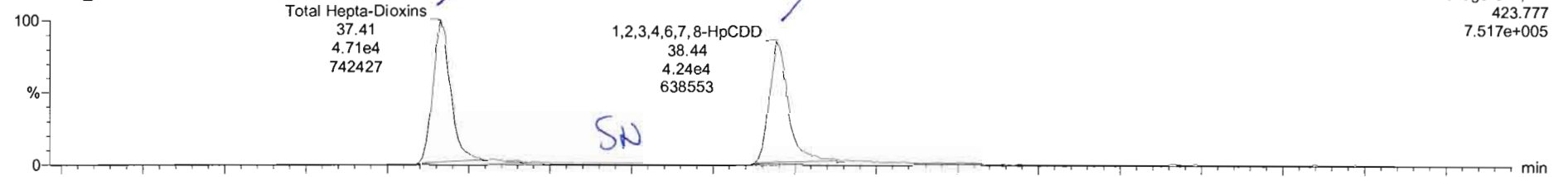
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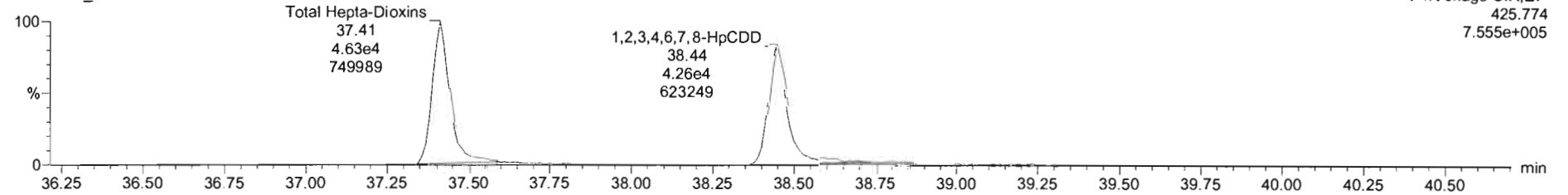
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1,2,3,4,6,7,8-HpCDD

191214K3\_8

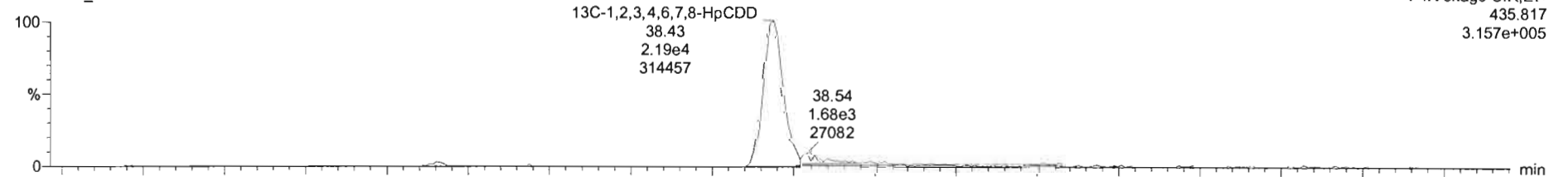


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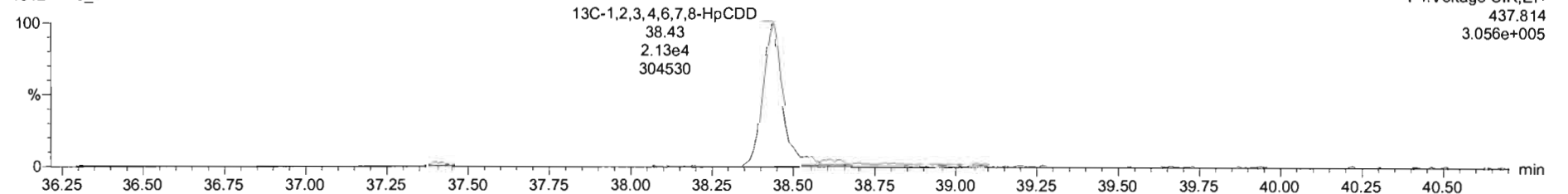


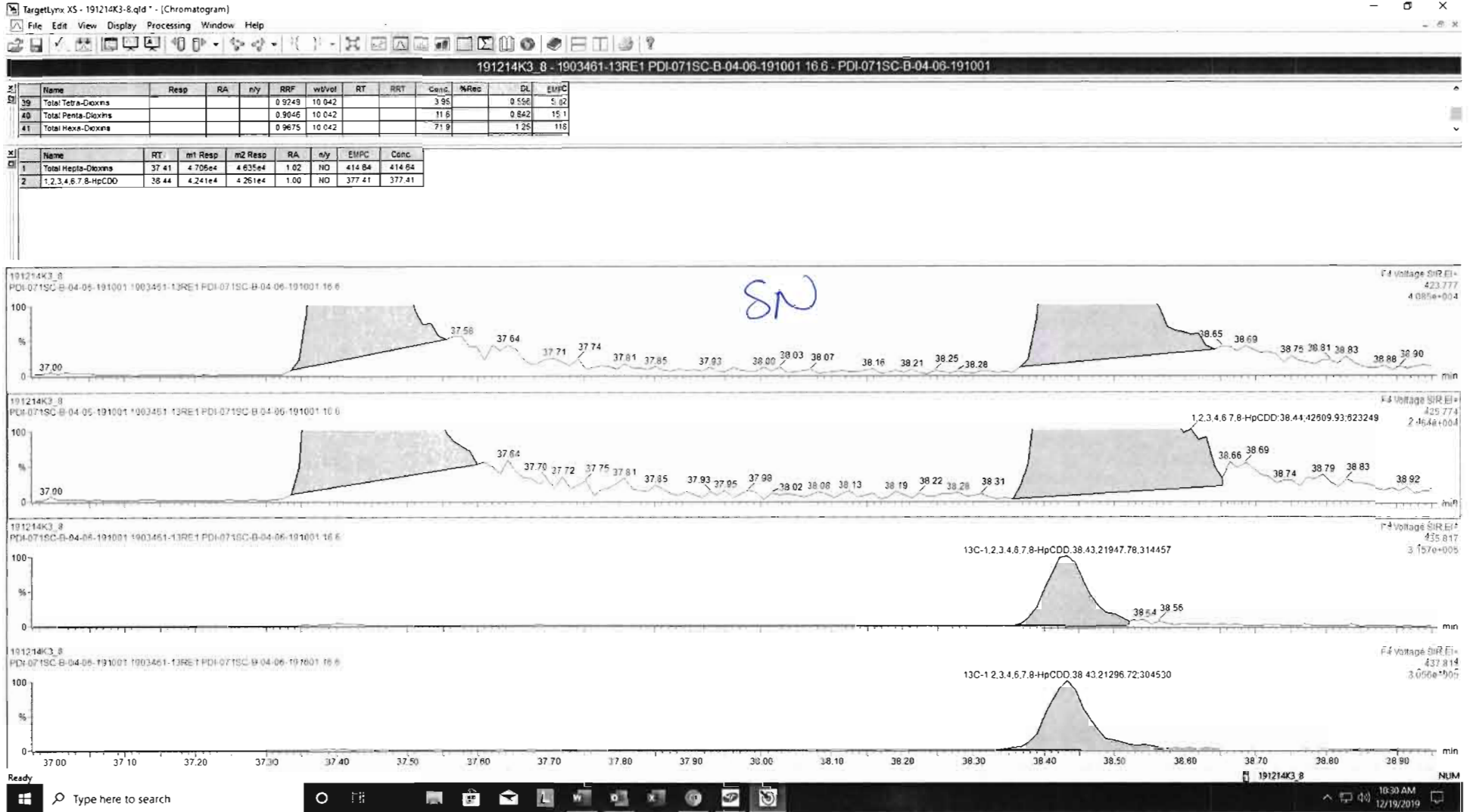
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191214K3\_8



191214K3\_8



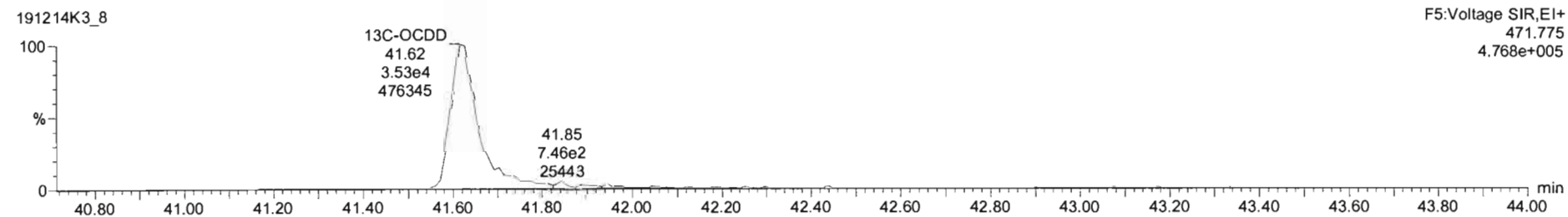
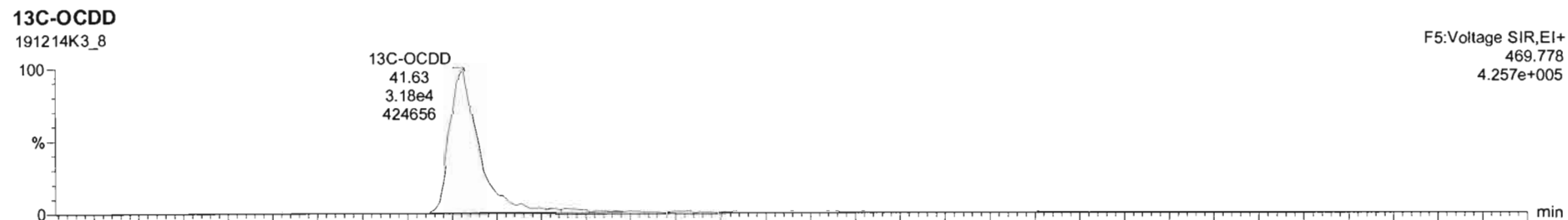
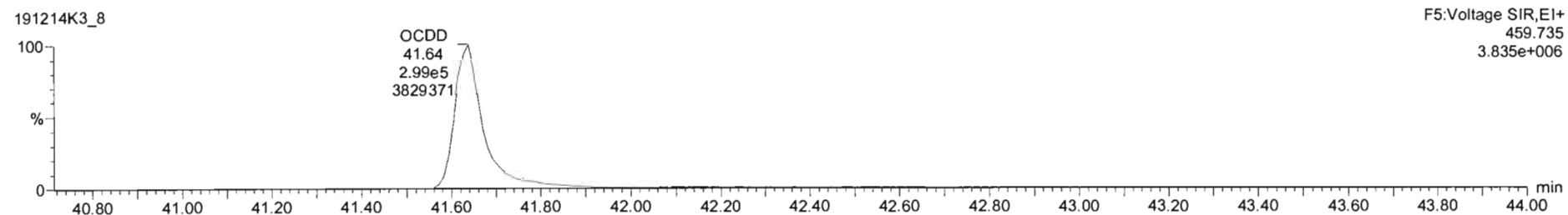
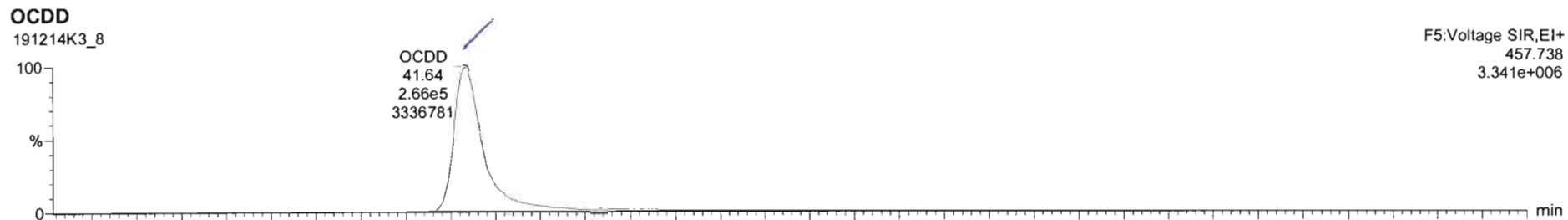


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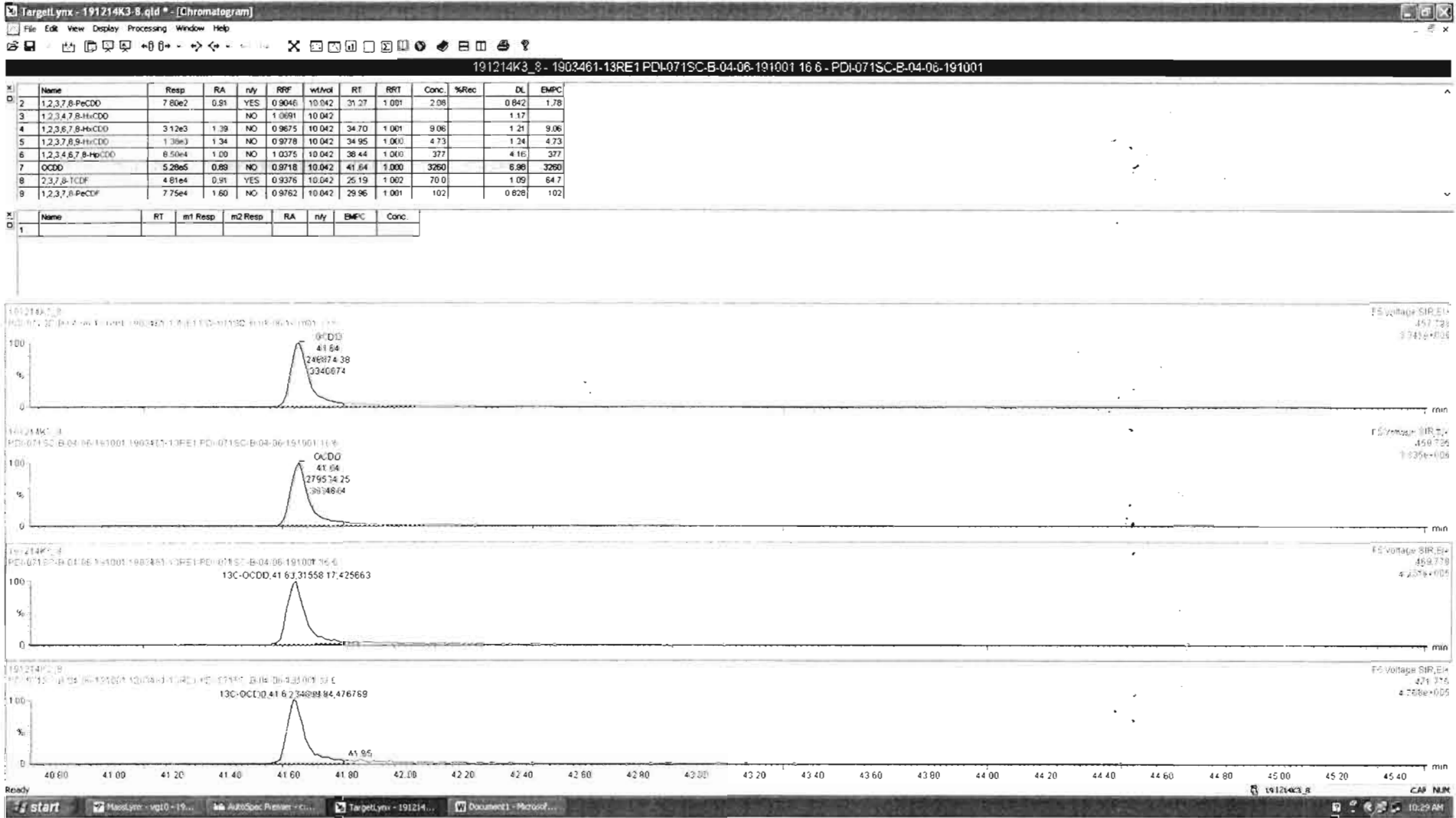
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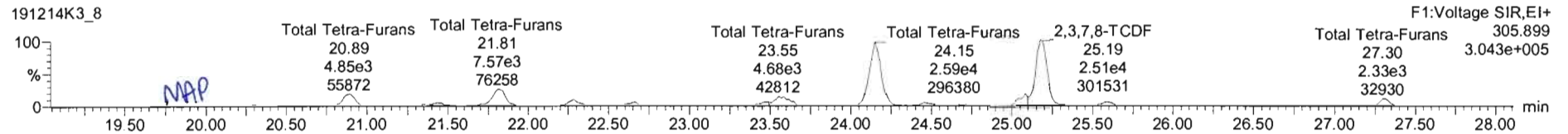
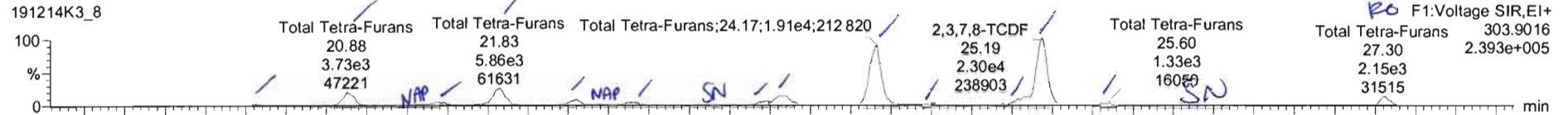
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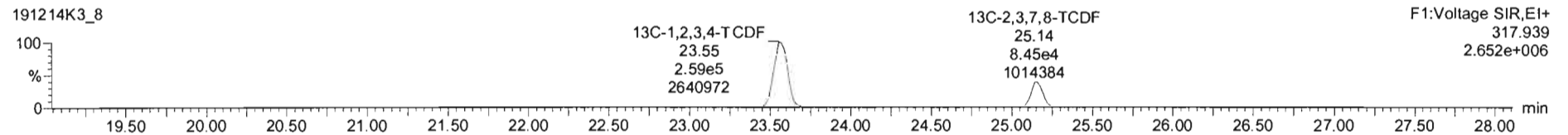
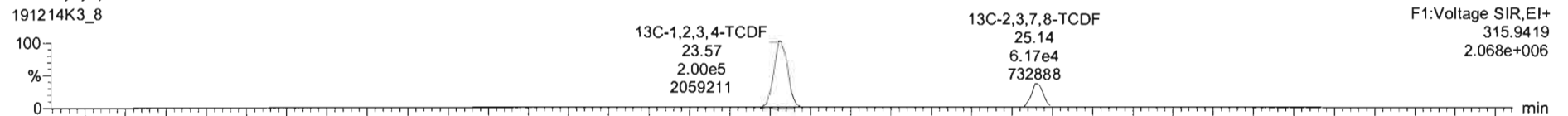
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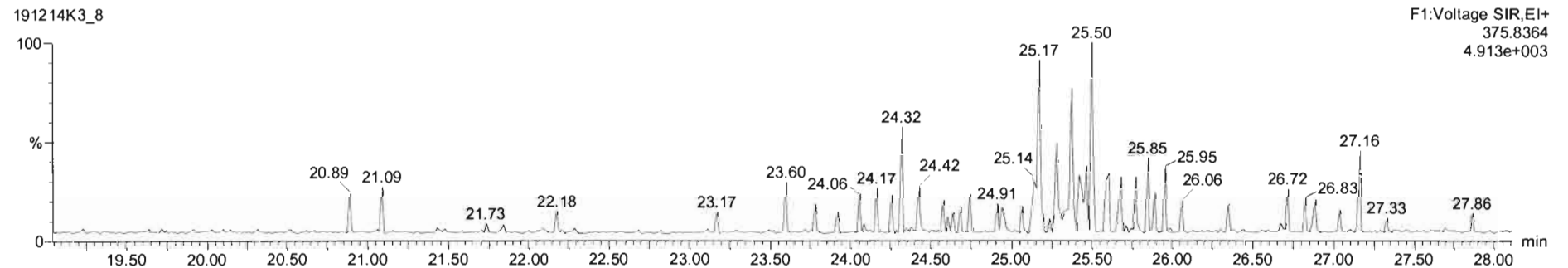
2,3,7,8-TCDF



13C-2,3,7,8-TCDF



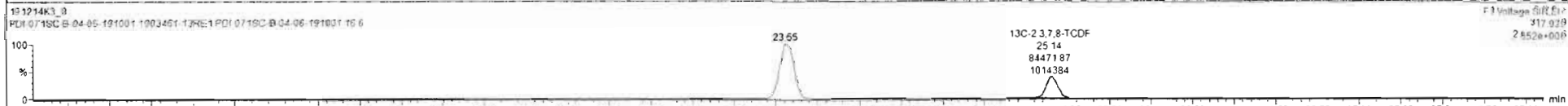
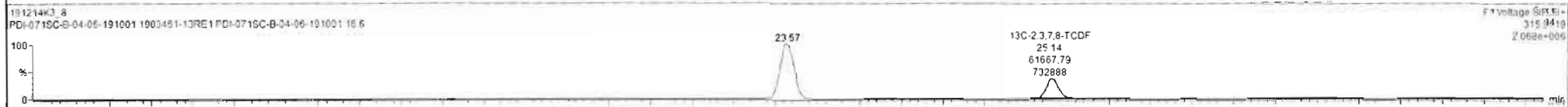
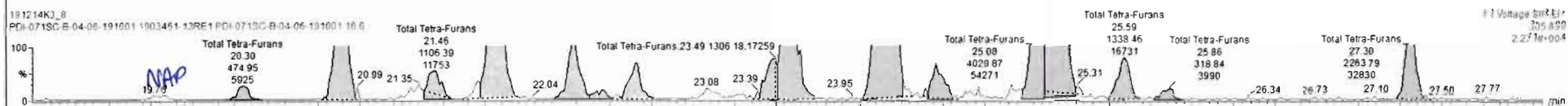
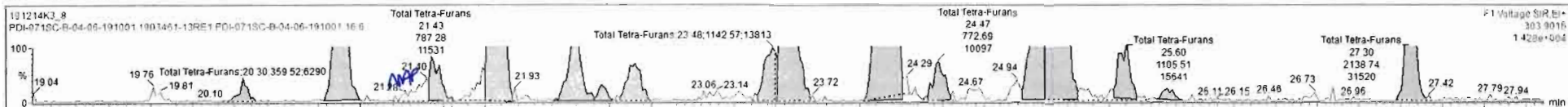
DPE1



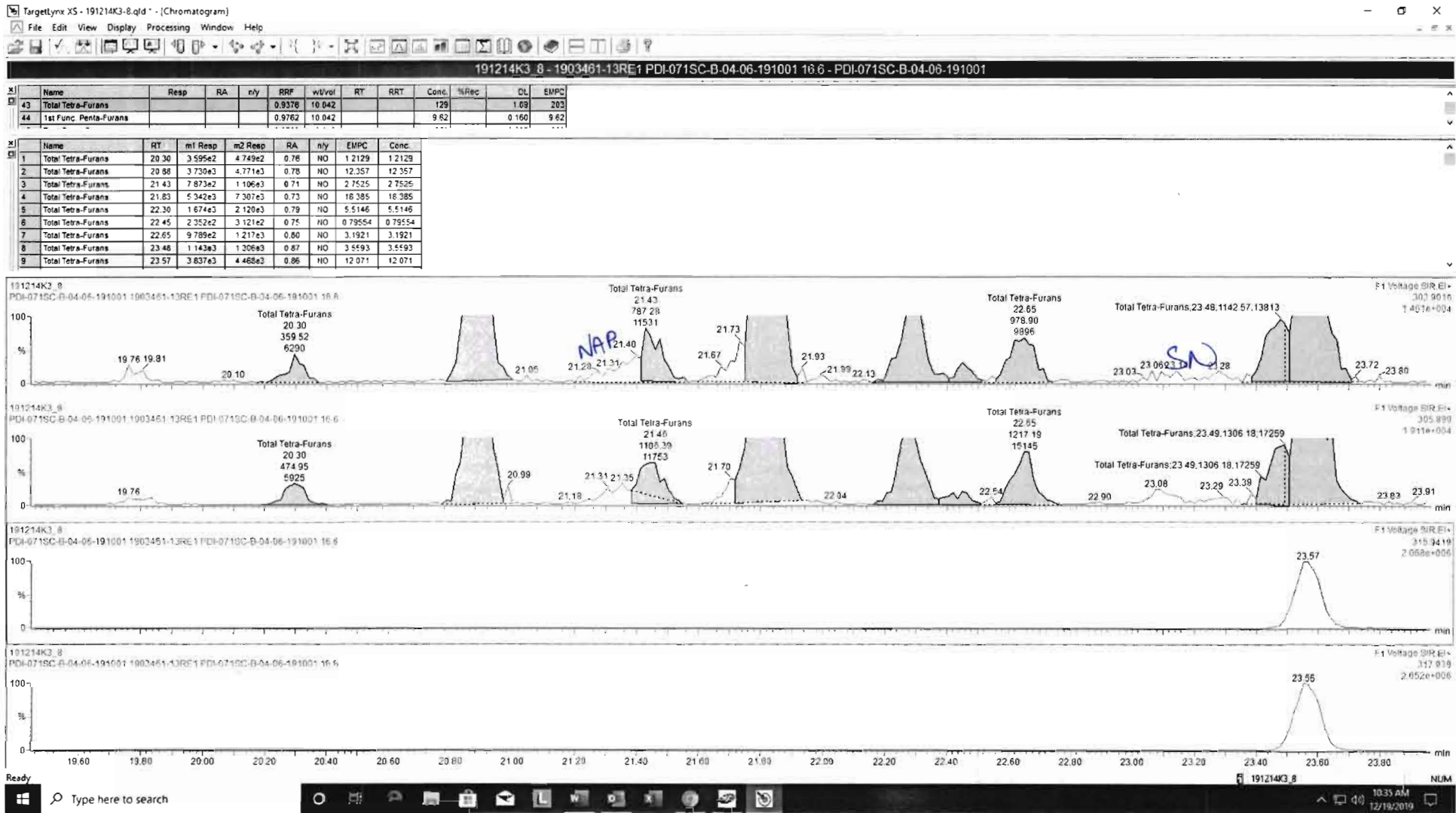
191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16 6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wbVol	RT	RRT	Conc.	%Rec	CL	EMPC
40	Total Penta-Dioxins			0.9048	10.042			11.6		0.842	15.1
41	Total Hexa-Dioxins			0.9675	10.042			71.9		1.25	118
42	Total Hepta-Dioxins			1.0375	10.042			792		4.16	762
43	Total Tetra-Furans			0.9378	10.042			196		1.09	213
44	1st Func. Penta-Furans			0.9762	10.042			9.62		0.160	9.62
45	Total Penta-Furans			0.9762	10.042			254		0.867	255
46	Total Hexa-Furans			1.1806	10.042			251		0.932	351
47	Total Hepta-Furans			1.1300	10.042			304		1.78	304
48	PK1										

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Tetra-Furans	20.30	3.595e2	4.749e2	0.76	NO	1.2129
2	Total Tetra-Furans	20.86	3.730e3	4.771e3	0.78	NO	12.357
3	Total Tetra-Furans	21.43	7.673e2	1.106e3	0.71	NO	2.7525
4	Total Tetra-Furans	21.83	5.342e3	7.307e3	0.73	NO	18.385
5	Total Tetra-Furans	22.30	1.674e3	2.120e3	0.79	NO	5.5146
6	Total Tetra-Furans	22.45	2.352e2	3.121e2	0.75	NO	0.79554
7	Total Tetra-Furans	22.65	9.789e2	1.217e3	0.80	NO	3.1921
8	Total Tetra-Furans	23.48	1.143e3	1.306e3	0.87	NO	3.5593



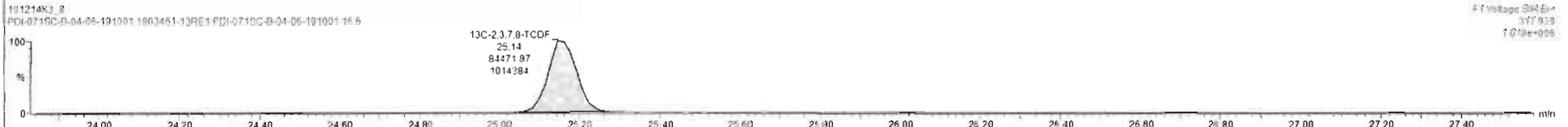
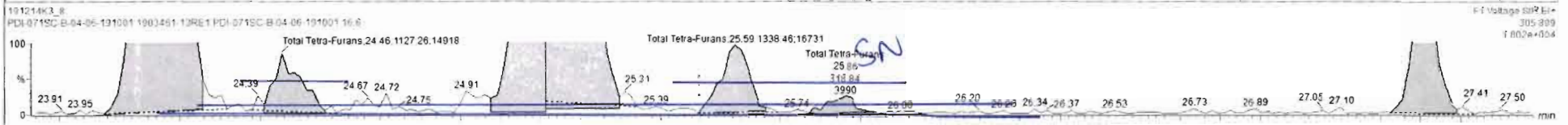
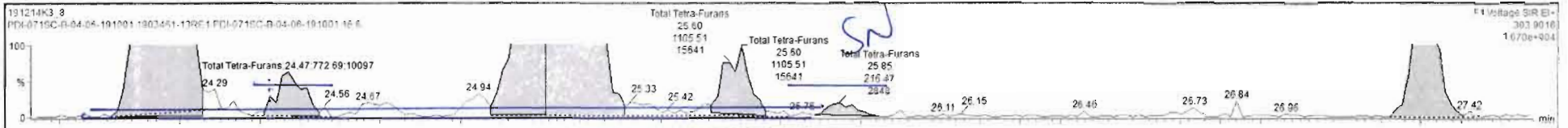
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191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9378	10.042			198		1.09	213
44 1st Func. Penta-Furans				0.9762	10.042			9.62			

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
8 Total Tetra-Furans	23.48	1.143e3	1.206e3	0.87	NO	3.5593	3.5593
9 Total Tetra-Furans	23.57	3.837e3	4.468e3	0.86	NO	12.071	12.071
10 Total Tetra-Furans	24.17	1.910e4	2.567e4	0.74	NO	65.077	65.077
11 Total Tetra-Furans	24.47	7.727e2	1.127e3	0.69	NO	2.7616	2.7616
12 Total Tetra-Furans	25.10	3.054e3	4.036e3	0.76	NO	10.297	0.00000
13 2,3,7,8-TCDF	25.19	1.961e4	2.478e4	0.79	NO	64.409	64.409
14 Total Tetra-Furans	25.60	1.106e3	1.338e3	0.83	NO	3.5523	3.5523
15 Total Tetra-Furans	25.85	2.165e2	3.188e2	0.68	NO	0.77808	0.77808
16 Total Tetra-Furans	27.30	2.139e3	2.264e3	0.94	YES	5.8241	0.00000



Custom Reporting: Select reports to generate

191214K3\_8

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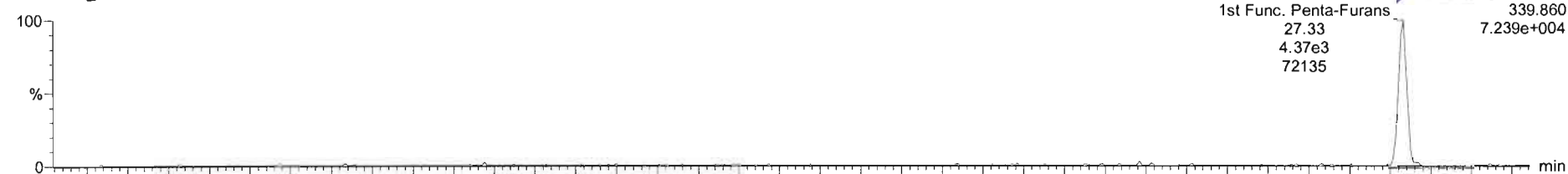
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

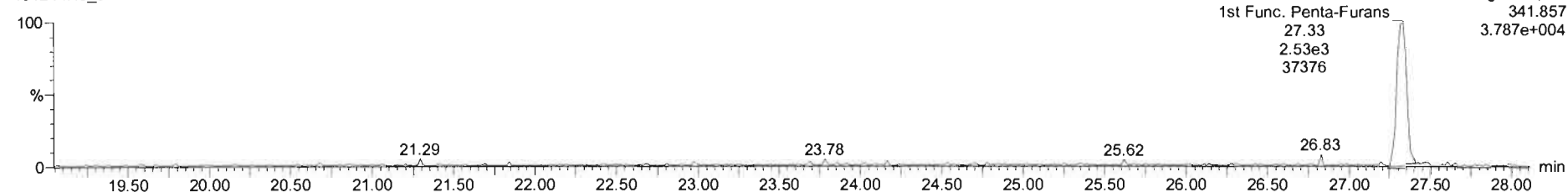
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1st Func. Penta-Furans

191214K3\_8

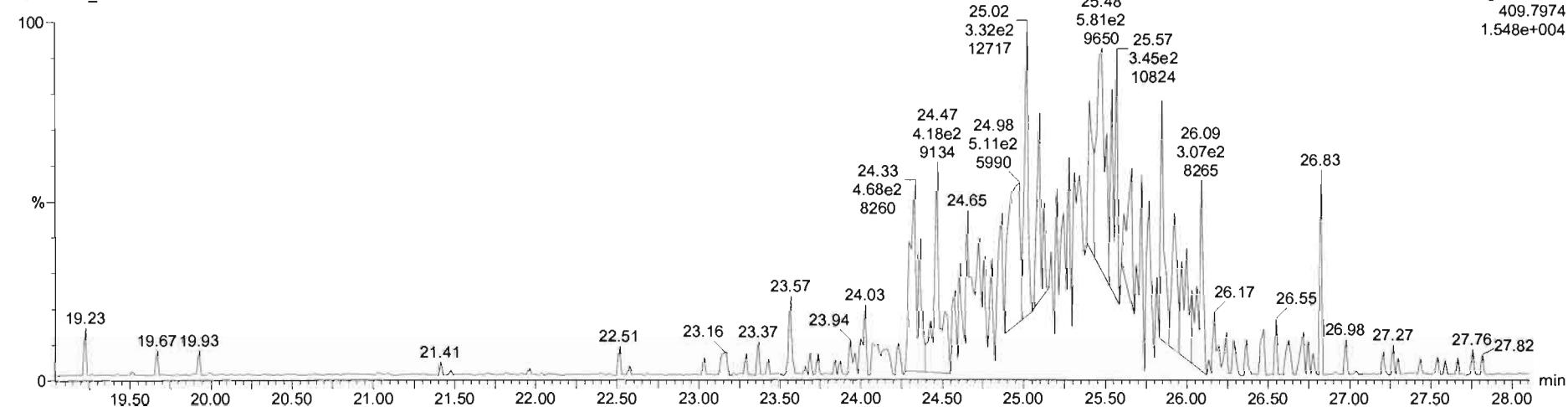


191214K3\_8



DPE6

191214K3\_8



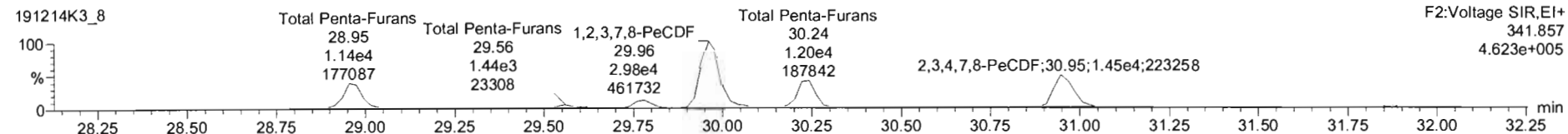
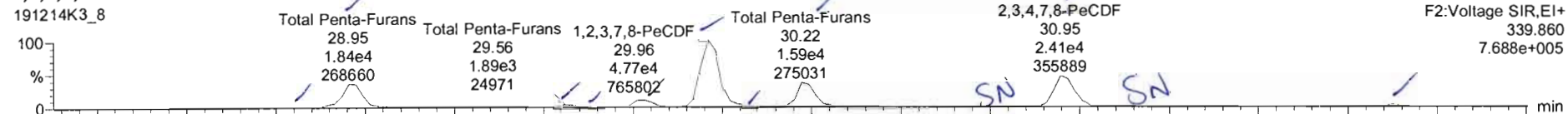
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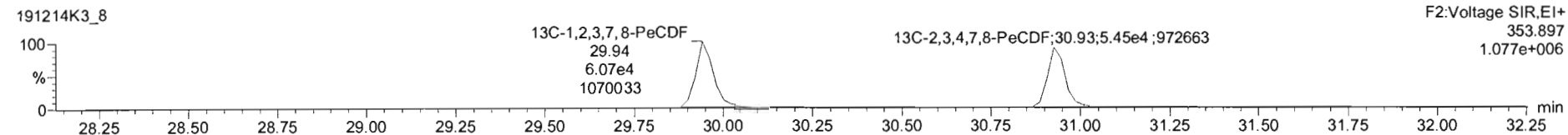
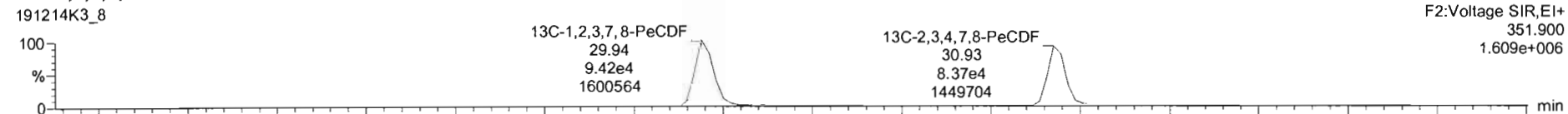
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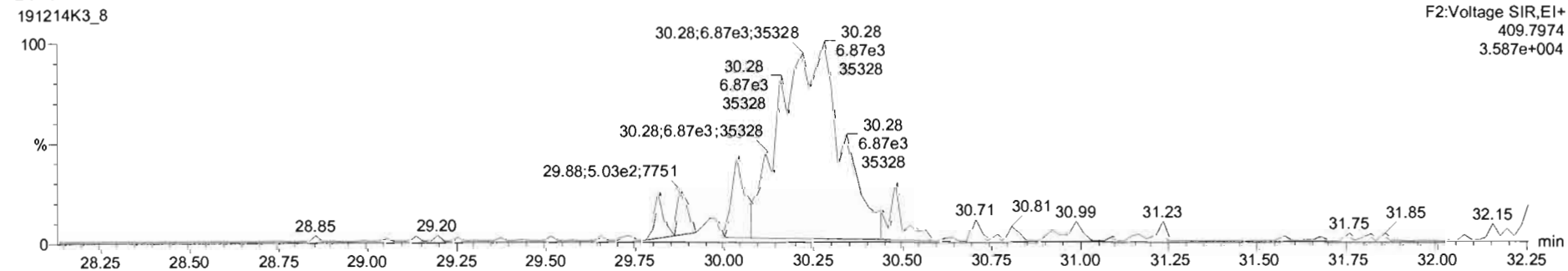
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**13C-1,2,3,7,8-PeCDF**



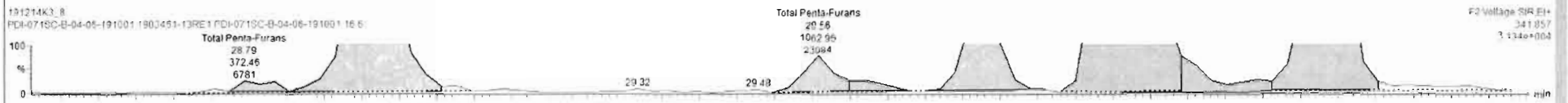
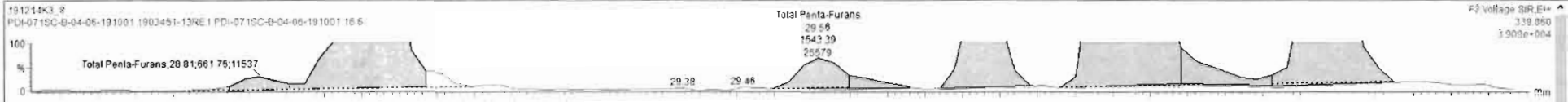
**DPE2**



191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9376	10.042			196		1.09	213
44 1st Func. Penta-Furans				0.9762	10.042			9.62		0.160	9.62
45 Total Penta-Furans				0.9762	10.042			255		0.567	256

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.81	6.618e2	3.725e2	1.78	NO	1.4403	1.4403
2 Total Penta-Furans	28.85	1.797e4	1.131e4	1.59	NO	40.772	40.772
3 Total Penta-Furans	29.56	1.543e3	1.063e3	1.45	NO	3.6297	3.6297
4 Total Penta-Furans	29.60	4.981e2	3.547e2	1.40	NO	1.1875	0.00000
5 Total Penta-Furans	29.78	4.654e3	2.957e3	1.58	NO	10.642	10.642
6 1,2,3,7,8-PeCDF	29.96	4.622e4	2.911e4	1.59	NO	99.239	99.239
7 Total Penta-Furans	30.04	1.498e3	1.119e3	1.34	NO	3.6443	3.6443
8 Total Penta-Furans	30.22	1.596e4	1.119e4	1.43	NO	37.777	37.777

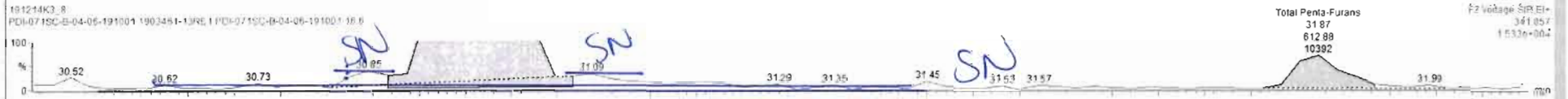




191214K3\_8-1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	nly	RRP	wz/vol	RT	RRT	Conc	%Rec	CL	EMPC
43 Total Tetra-Furans				0.9378	10.042			196		1.09	213
44 1st Func. Penta-Furans				0.9762	10.042			9.62		0.160	9.62
45 Total Penta-Furans				0.9762	10.042			254		0.867	255

Name	RT	mt Resp	nd Resp	RA	nly	EMPC	Conc
4 Total Penta-Furans	29.60	4.981e2	3.547e2	1.40	NO	1.1e75	0.00000
5 Total Penta-Furans	29.78	4.684e3	2.957e3	1.58	NO	10.642	16.642
6 1,2,3,7,8-PeCDF	29.96	4.622e4	2.911e4	1.59	NO	99.239	99.239
7 Total Penta-Furans	30.04	1.486e3	1.119e3	1.34	NO	3.6443	3.6443
8 Total Penta-Furans	30.22	1.596e4	1.116e4	1.43	NO	37.777	37.777
9 2,3,4,7,8-PeCDF	30.95	2.352e4	1.472e4	1.60	NO	54.875	54.875
10 Total Penta-Furans	31.87	9.469e2	6.129e2	1.54	NO	2.1721	2.1721



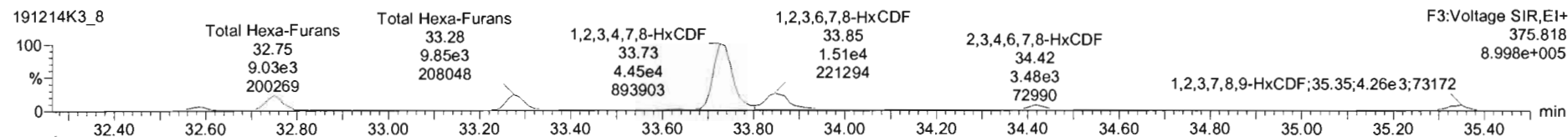
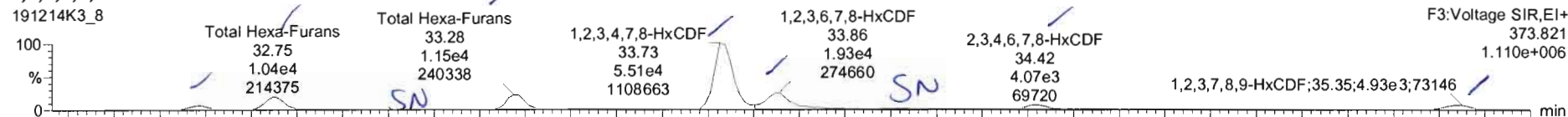
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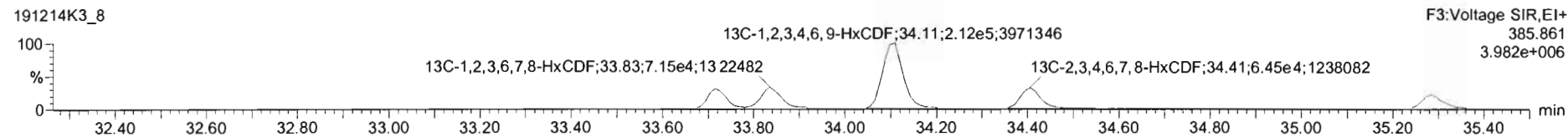
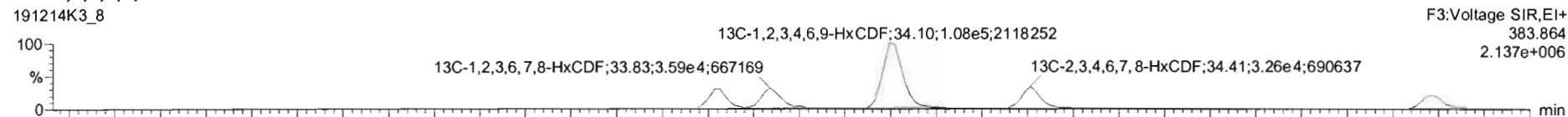
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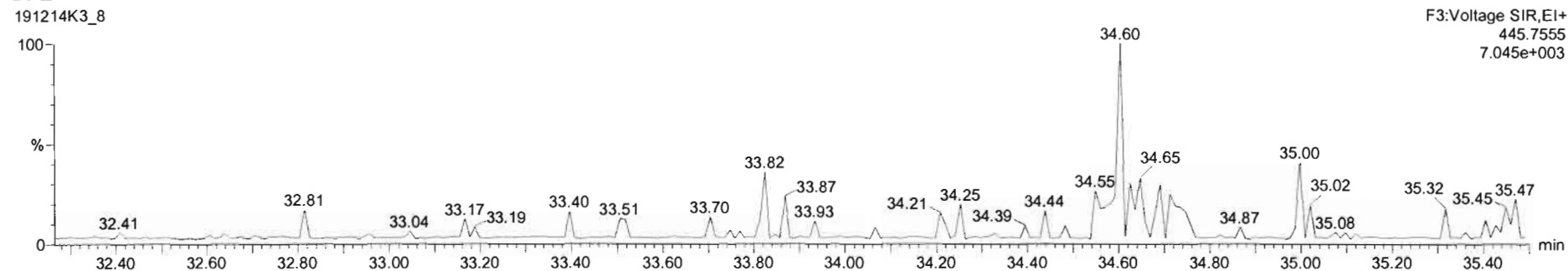
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### 13C-1,2,3,4,7,8-HxCDF



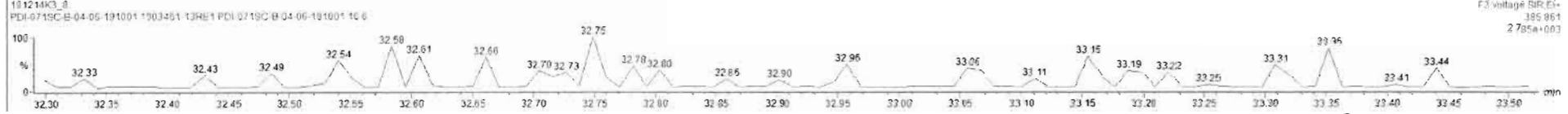
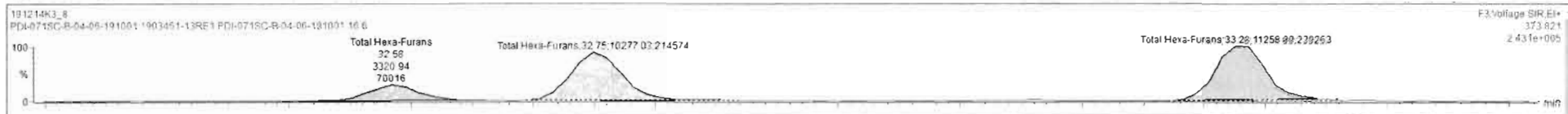
### DPE3



191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	OL	EMPC
40 Total Penta-Dioxins				0.9645	10.042			11.6	0.842	15.1	
41 Total Hexa-Dioxins				0.9675	10.042			71.9	1.25	118	
42 Total Hepta-Dioxins				1.0375	10.042			792	4.16	782	
43 Total Tetra-Furans				0.9376	10.042			196	1.09	213	
44 1st Func. Penta-Furans				0.8762	10.042			9.02	0.160	9.82	
45 Total Penta-Furans				0.9782	10.042			254	0.867	255	
46 Total Hexa-Furans				1.1806	10.042			355	0.932	356	
47 Total Hepta-Furans				1.1300	10.042			204	1.79	304	
48 PFK1											

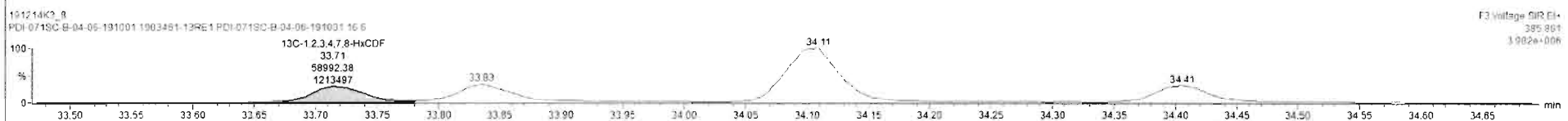
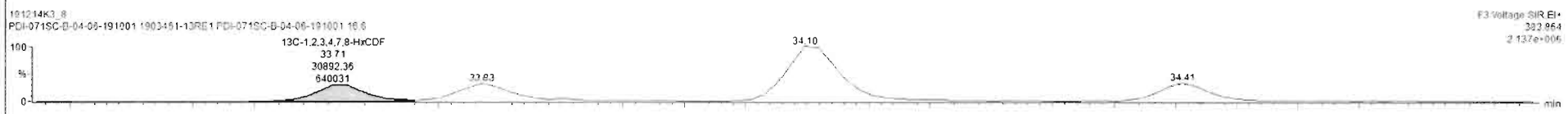
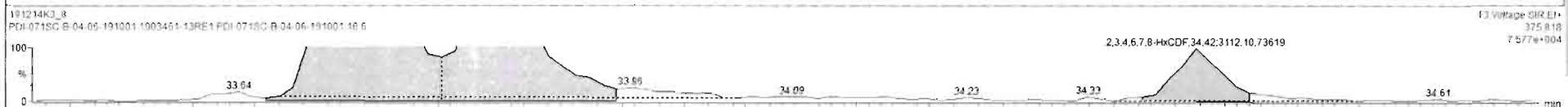
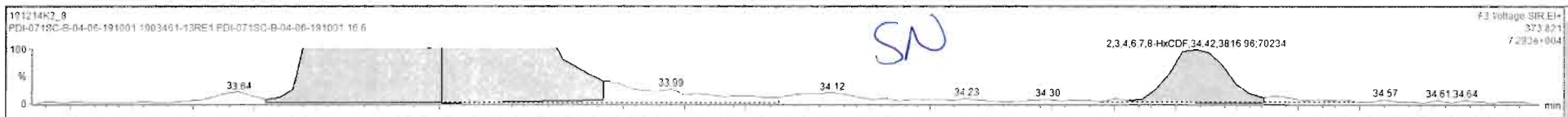
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.58	2.321e3	2.491e3	1.33	NO	10.569	10.569
2 Total Hexa-Furans	32.75	1.028e4	8.930e3	1.15	NO	34.932	34.932
3 Total Hexa-Furans	33.28	1.126e4	9.652e3	1.17	NO	38.031	38.031
4 Total Hexa-Furans	33.64	5.601e2	2.348e2	2.39	YES	0.95661	0.00000
5 1,2,3,4,7,8-HxCDF	33.72	5.514e4	4.453e4	1.24	NO	177.82	177.82
6 1,2,3,6,7,8-HxCDF	33.88	1.925e4	1.514e4	1.27	NO	52.234	52.234
7 2,3,4,6,7,8-HxCDF	34.42	4.071e3	2.480e3	1.17	NO	13.118	13.118
8 1,2,3,7,8,9-HxCDF	35.35	4.933e3	4.263e3	1.16	NO	22.277	22.277



191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wVvl	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9648	10.042			11.6	0.842	15.1	
41 Total Hexa-Dioxins				0.9675	10.042			71.9	1.25	118	
42 Total Hepta-Dioxins				1.0375	10.042			792	4.16	792	
43 Total Tetra-Furans				0.9378	10.042			196	1.09	217	
44 1st Func. Penta-Furans				0.8762	10.042			9.62	0.160	9.62	
45 Total Penta-Furans				0.9762	10.042			254	0.887	255	
46 Total Hexa-Furans				1.1806	10.042			351	0.932	351	
47 Total Hepta-Furans				1.1200	10.042			334	1.78	264	
48 PFK1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.58	3.321e3	2.491e3	1.33	NO	10.589	10.589
2 Total Hexa-Furans	32.75	1.028e4	8.820e3	1.15	NO	34.932	34.932
3 Total Hexa-Furans	33.28	1.126e4	9.652e3	1.17	NO	38.031	38.031
4 1,2,3,4,7,8-HxCDF	33.72	5.514e4	4.524e4	1.22	NO	178.88	178.88
5 1,2,3,6,7,8-HxCDF	33.86	1.724e4	1.481e4	1.16	NO	54.434	54.434
6 2,3,4,6,7,8-HxCDF	34.42	3.817e3	3.112e3	1.23	NO	12.038	12.038
7 1,2,3,7,8,9-HxCDF	35.35	4.932e3	4.263e3	1.16	NO	22.277	22.277



Targetlynx XS - 191214K3-8.qld - (Chromatogram)

File Edit View Display Processing Window Help

191214K3\_8 - 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6 - PDI-071SC-B-04-06-191001

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9646	10.042			11.6		0.642	15.1
41 Total Hexa-Dioxins				0.9675	10.042			71.9		1.25	118
42 Total Hepta-Dioxins				1.0375	10.042			792		4.16	792
43 Total Tetra-Furans				0.9378	10.042			195		1.09	211
44 1st Func. Penta-Furans				0.9762	10.042			9.62		0.160	9.62
45 Total Penta-Furans				0.9762	10.042			254		0.667	255
46 Total Hexa-Furans				1.1806	10.042			351		0.932	351
47 Total Hepta-Furans				1.1300	10.042			204		1.78	304
48 PPK1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.58	3.321e3	2.491e3	1.33	NO	10.589	10.589
2 Total Hexa-Furans	32.75	1.028e4	6.930e3	1.15	NO	34.932	34.932
3 Total Hexa-Furans	33.28	1.126e4	9.652e3	1.17	NO	36.031	36.031
4 1,2,3,4,7,8-HxCDF	33.72	5.514e4	4.524e4	1.22	NO	178.85	178.85
5 1,2,3,6,7,8-HxCDF	33.86	1.724e4	1.491e4	1.16	NO	54.434	54.434
6 2,3,4,6,7,8-HxCDF	34.42	3.817e3	3.112e3	1.23	NO	12.033	12.033
7 1,2,3,7,8,9-HxCDF	35.35	4.933e3	4.181e3	1.18	NO	22.078	22.078

191214K3\_8  
PDI-071SC-B-04-06-191001 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6

F2 Voltage SIR Et+  
373.821  
7.542e+004

191214K3\_8  
PDI-071SC-B-04-06-191001 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6

F3 Voltage SIR Et+  
375.848  
7.475e+004

191214K3\_8  
PDI-071SC-B-04-06-191001 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6

F2 Voltage SIR Et+  
383.884  
4.422e+005

191214K3\_8  
PDI-071SC-B-04-06-191001 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6

F3 Voltage SIR Et+  
385.861  
8.684e+005

Ready

Type here to search

191214K3\_8

10:57 AM  
12/19/2019

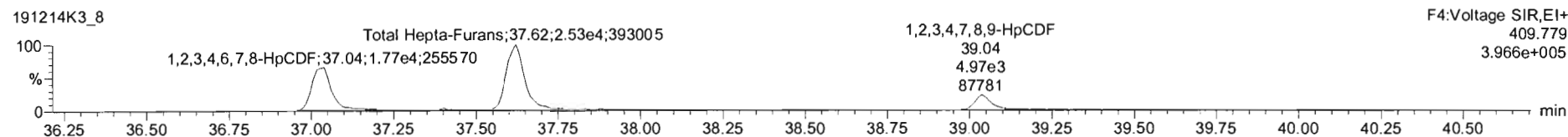
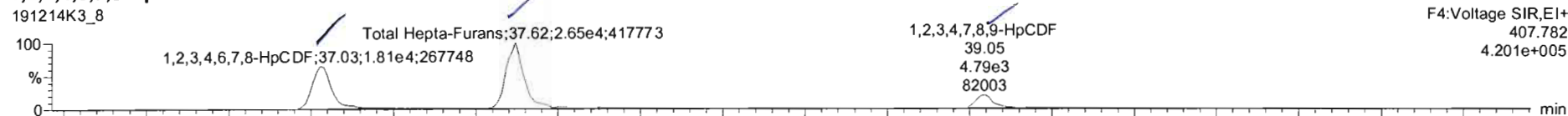
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Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

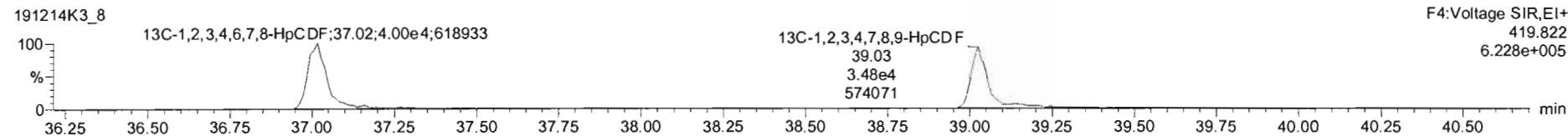
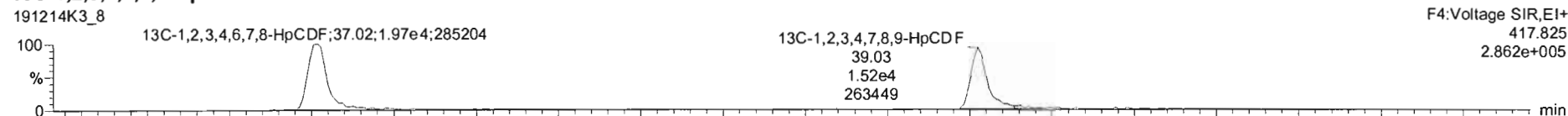
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Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001

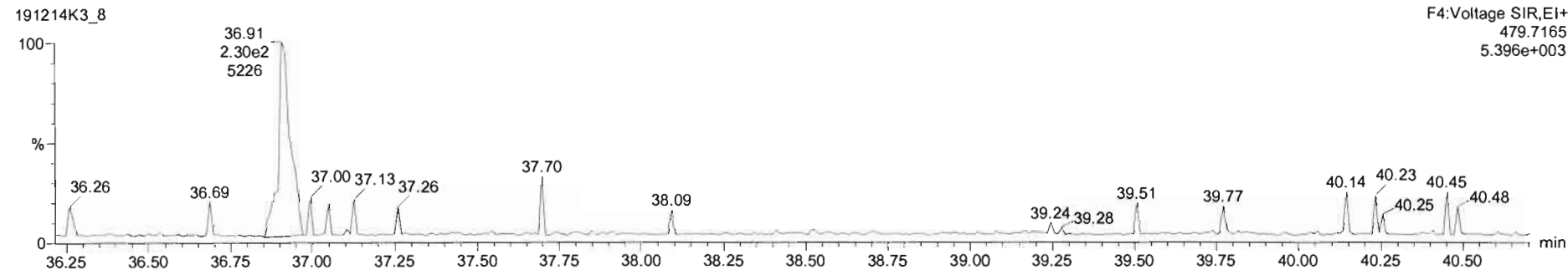
1,2,3,4,6,7,8-HpCDF

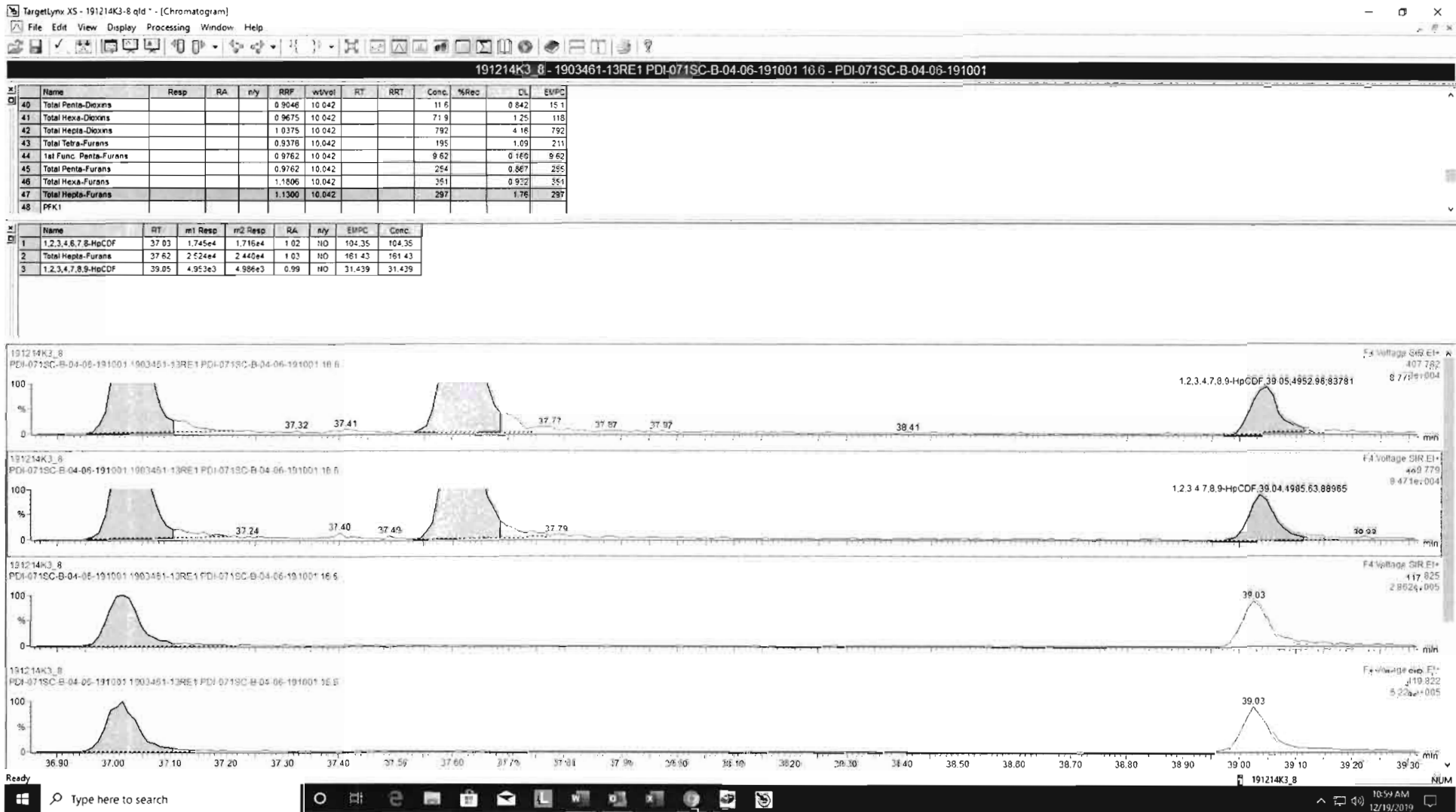


13C-1,2,3,4,6,7,8-HpCDF



DPE4

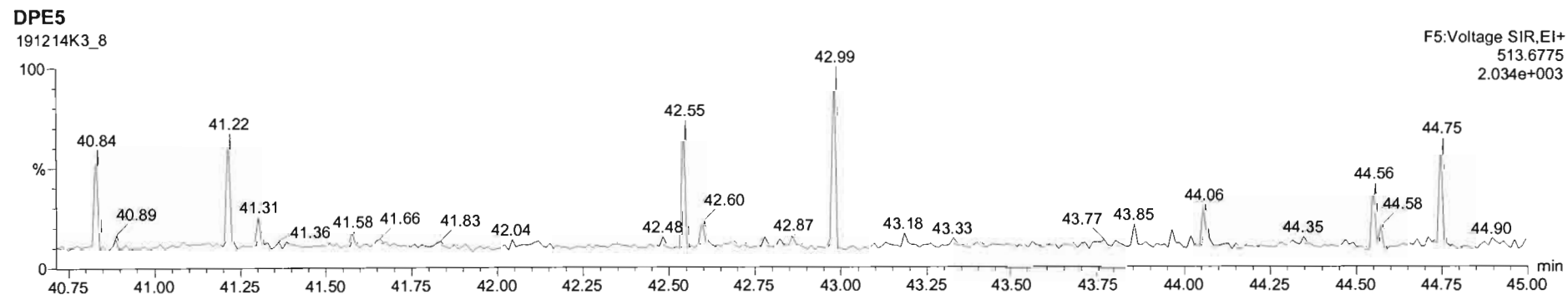
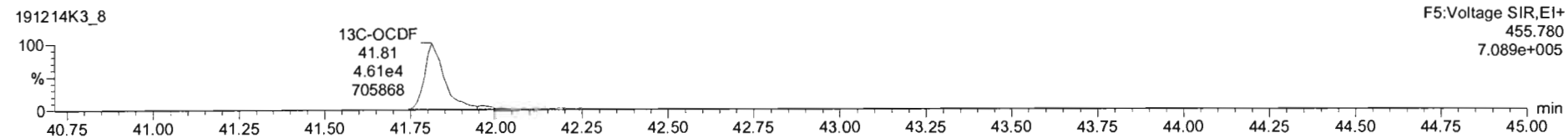
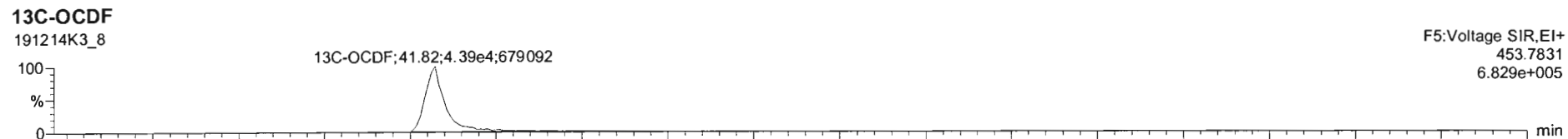
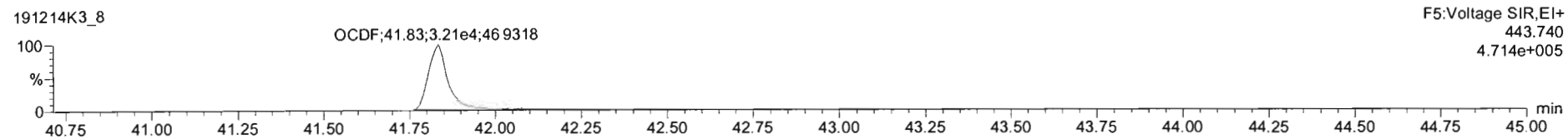
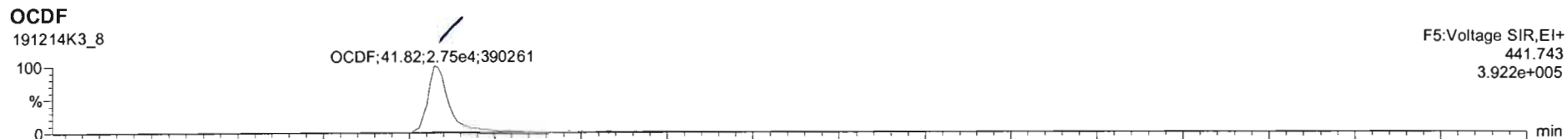




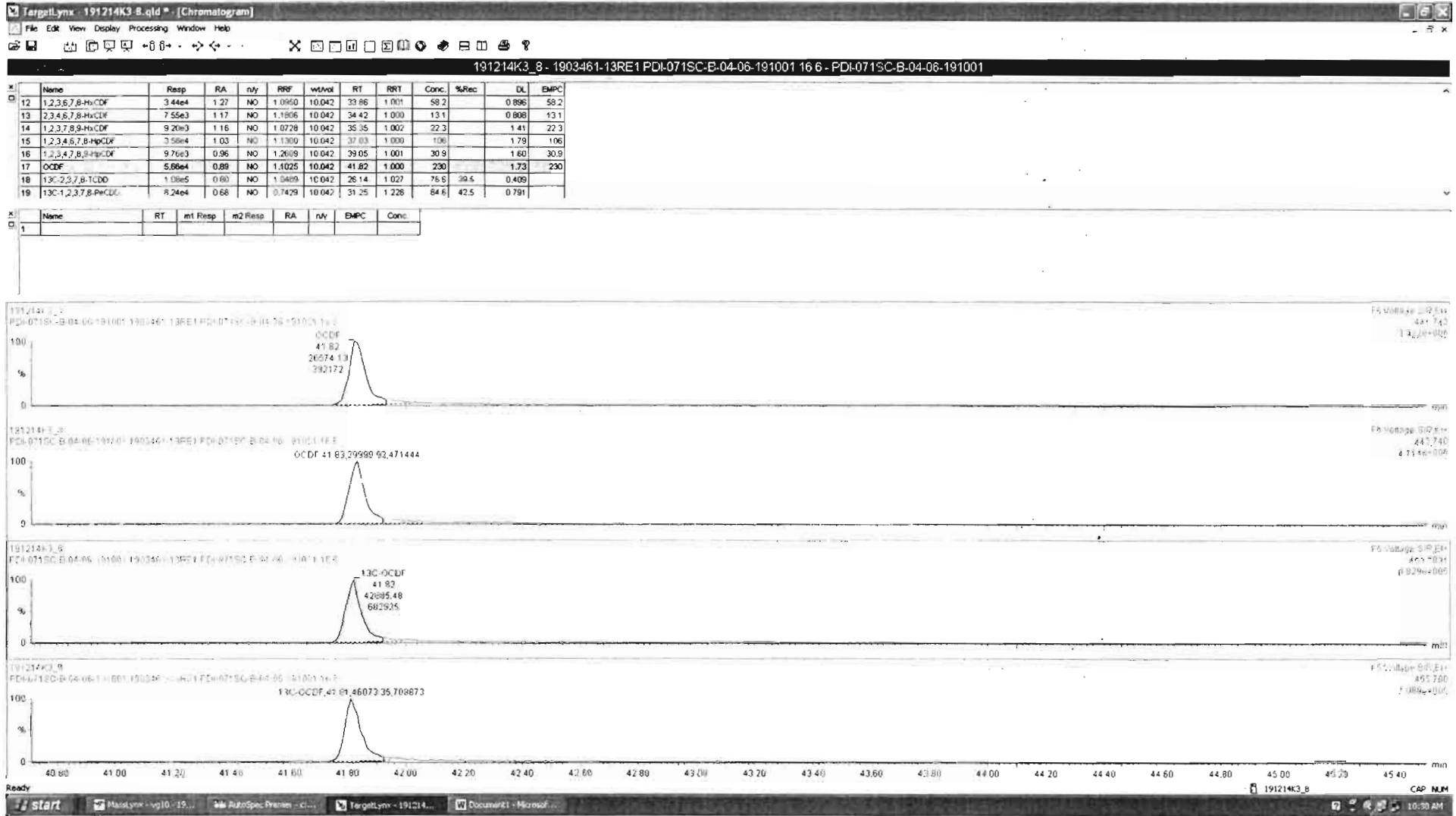
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001



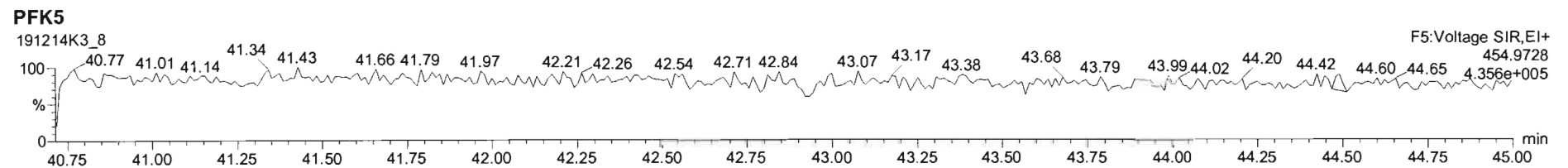
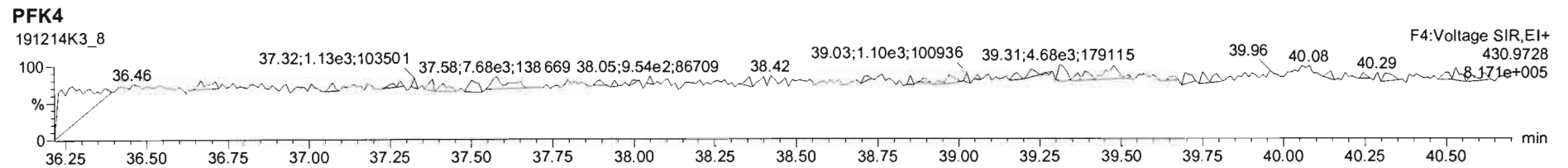
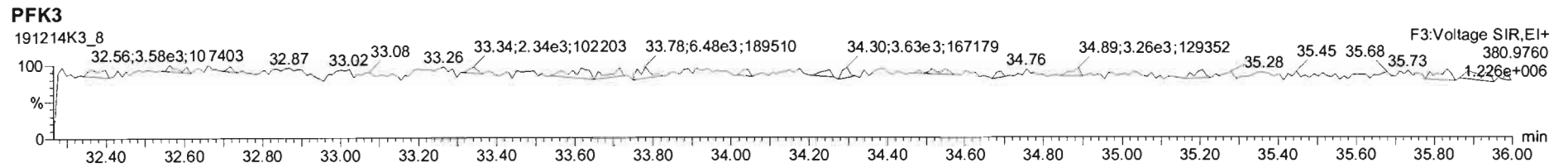
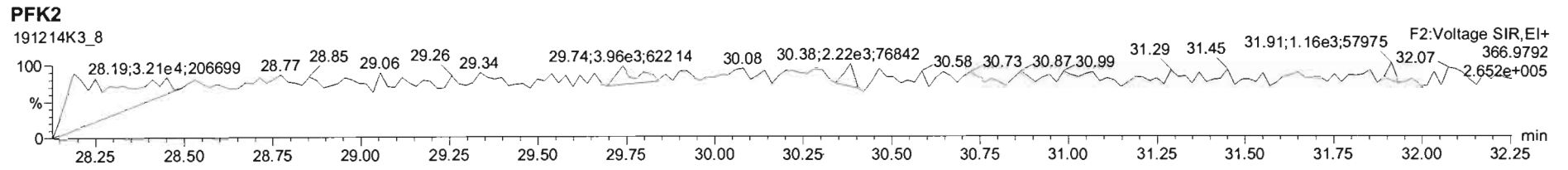
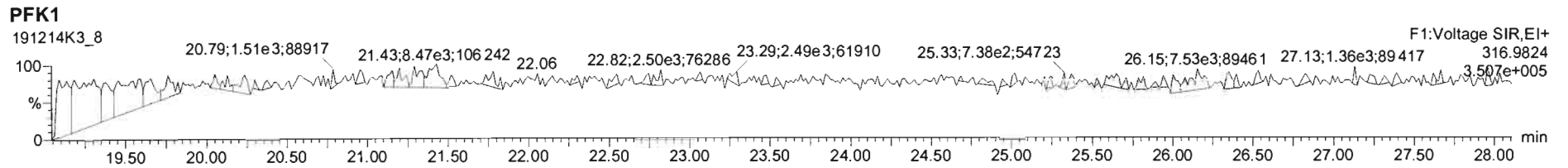




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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_8, Date: 15-Dec-2019, Time: 12:11:04, ID: 1903461-13RE1 PDI-071SC-B-04-06-191001 16.6, Description: PDI-071SC-B-04-06-191001



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	5.05e+04	0.71 y	0.91	26:05	1.0799			* 2.5	*	Total Tetra-Dioxins	9.31	11.1		*	*
1,2,3,7,8-PeCDD	5.81e+04	0.74 n	0.90	30:35	1.5695			* 2.5	*	Total Penta-Dioxins	12.0	17.8		*	*
1,2,3,4,7,8-HxCDD	7.03e+04	1.42 y	1.10	33:54	1.8265			* 2.5	*	Total Hexa-Dioxins	118	118		*	*
1,2,3,6,7,8-HxCDD	4.04e+05	1.22 y	0.94	34:01	11.033			* 2.5	*	Total Hepta-Dioxins	962	962		*	*
1,2,3,7,8,9-HxCDD	1.79e+05	1.20 y	0.96	34:18	4.7518			* 2.5	*	Total Tetra-Furans	193	193		*	*
1,2,3,4,6,7,8-HpCDD	1.25e+07	1.02 y	0.98	37:47	418.00			* 2.5	*	Total Penta-Furans	322.75	323.47		*	*
OCDD	9.37e+06	0.91 y	0.96	41:01	4100.5			* 2.5	* *	Total Hexa-Furans	333	333		*	*
										Total Hepta-Furans	295	295		*	*
2,3,7,8-TCDF	4.43e+06	0.79 y	0.95	25:17	66.440 (65.93)			* 2.5	*						
1,2,3,7,8-PeCDF	7.45e+06	1.59 y	0.96	29:24	118.48			* 2.5	*						
2,3,4,7,8-PeCDF	1.53e+06	1.53 y	1.01	30:18	25.011			* 2.5	*						
1,2,3,4,7,8-HxCDF	9.83e+06	1.23 y	1.18	33:01	172.27			* 2.5	*						
1,2,3,6,7,8-HxCDF	2.76e+06	1.25 y	1.07	33:08	46.490			* 2.5	*						
2,3,4,6,7,8-HxCDF	6.67e+05	1.26 y	1.11	33:44	13.072			* 2.5	*						
1,2,3,7,8,9-HxCDF	4.09e+05	1.21 y	1.06	34:40	8.2118			* 2.5	*						
1,2,3,4,6,7,8-HpCDF	4.48e+06	1.02 y	1.13	36:32	104.14			* 2.5	*						
1,2,3,4,7,8,9-HpCDF	1.21e+06	1.03 y	1.28	38:19	31.766			* 2.5	*						
OCDF	1.03e+06	0.90 y	0.95	41:14	294.36			* 2.5	* *						
IS	13C-2,3,7,8-TCDD	1.03e+07	0.80 y	1.10	26:04	147.14				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	8.18e+06	0.65 y	0.88	30:35	145.21				73.8					
IS	13C-1,2,3,4,7,8-HxCDD	6.97e+06	1.25 y	0.64	33:53	148.74				72.8					
IS	13C-1,2,3,6,7,8-HxCDD	7.78e+06	1.26 y	0.86	34:00	124.60				74.6					
IS	13C-1,2,3,7,8,9-HxCDD	7.80e+06	1.23 y	0.81	34:18	132.49				62.5					
IS	13C-1,2,3,4,6,7,8-HpCDD	6.08e+06	1.06 y	0.65	37:47	127.43				66.4					
IS	13C-OCDD	9.51e+05	0.85 y	0.58	41:00	22.477				63.9					
IS	13C-2,3,7,8-TCDF	1.40e+07	0.76 y	1.03	25:16	137.46				5.64 *					
IS	13C-1,2,3,7,8-PeCDF	1.31e+07	1.60 y	0.85	29:24	155.45				68.9					
IS	13C-2,3,4,7,8-PeCDF	1.20e+07	1.58 y	0.85	30:18	144.56				78.0					
IS	13C-1,2,3,4,7,8-HxCDF	9.67e+06	0.52 y	0.83	33:00	159.26				72.5					
IS	13C-1,2,3,6,7,8-HxCDF	1.11e+07	0.51 y	1.03	33:08	146.74				79.9					
IS	13C-2,3,4,6,7,8-HxCDF	9.14e+06	0.51 y	0.95	33:44	131.41				73.6					
IS	13C-1,2,3,7,8,9-HxCDF	9.37e+06	0.53 y	0.83	34:40	155.06				65.9					
IS	13C-1,2,3,4,6,7,8-HpCDF	7.61e+06	0.43 y	0.76	36:31	137.62				77.8					
IS	13C-1,2,3,4,7,8,9-HpCDF	5.93e+06	0.43 y	0.58	38:19	139.87				69.0					
IS	13C-OCDF	1.48e+06	0.86 y	0.69	41:13	29.427				70.1					
										7.38 *					
C/Up	37Cl-2,3,7,8-TCDD	4.04e+06		1.20	26:06	52.769				66.2					
RS/RT	13C-1,2,3,4-TCDD	1.27e+07	0.82 y	1.00	25:29	199.40									
RS	13C-1,2,3,4-TCDF	1.96e+07	0.77 y	1.00	24:04	199.40									
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.46e+07	0.52 y	1.00	33:25	199.40									

\* SEE REI results

Integrations  
 by DB  
 Analyst: DB  
 Date: 1/9/20  
 Reviewed  
 by CT  
 Analyst: CT  
 Date: 01/10/2020

Totals class: TCDD EMPC

Entry #: 19

Run: 13 File: 200107D2 S: 8 I: 1 F: 1  
 Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 11.057 Unnamed Concentration: 9.977

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
22:42	5.250e+04	5.977e+04	0.88	y	1.123e+05	2.4010	
23:08	2.327e+04	2.958e+04	0.79	y	5.286e+04	1.1303	
23:28	1.081e+04	1.172e+04	0.92	n	2.074e+04	0.44344	
24:12	9.167e+03	1.095e+04	0.84	y	2.011e+04	0.43012	
24:29	1.448e+04	2.058e+04	0.70	y	3.506e+04	0.74969	
24:35	1.901e+04	2.260e+04	0.84	y	4.160e+04	0.88965	
24:46	8.019e+03	9.142e+03	0.88	y	1.716e+04	0.36697	
24:59	5.076e+03	6.723e+03	0.76	y	1.180e+04	0.25233	
25:09	1.389e+04	1.366e+04	1.02	n	2.418e+04	0.51703	
25:28	7.394e+03	1.100e+04	0.67	y	1.839e+04	0.39331	
25:35	6.166e+03	3.653e+03	1.69	n	6.467e+03	0.13828	
25:50	2.241e+04	3.023e+04	0.74	y	5.264e+04	1.1256	
25:57	4.936e+03	6.877e+03	0.72	y	1.181e+04	0.25262	
26:05	2.102e+04	2.948e+04	0.71	y	5.050e+04	1.0799	2,3,7,8-TCDD
26:23	1.280e+04	1.389e+04	0.92	n	2.459e+04	0.52585	
26:29	2.897e+03	3.135e+03	0.92	n	5.549e+03	0.11866	
26:56	4.611e+03	6.697e+03	0.69	y	1.131e+04	0.24182	

Totals class: PeCDD EMPC

Entry #: 21

Run: 13

File: 200107D2

S: 8 I: 1 F: 2

Acquired: 8-JAN-20 04:06:35

Processed: 8-JAN-20 10:09:58

Total Concentration: 17.758

Unnamed Concentration: 16.189

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name	
28:32	6.787e+04	1.005e+05	0.68 y	1.684e+05	4.5465	
28:59	2.481e+04	3.831e+04	0.65 y	6.312e+04	1.7047	
29:26	4.663e+04	5.445e+04	0.86 n	8.875e+04	2.3966	
29:36	2.042e+04	3.651e+04	0.56 y	5.693e+04	1.5374	
29:41	2.189e+04	2.849e+04	0.77 n	4.644e+04	1.2542	
29:54	4.466e+04	6.514e+04	0.69 y	1.098e+05	2.9651	
30:11	6.229e+03	1.035e+04	0.60 y	1.658e+04	0.44764	
30:35	2.642e+04	3.566e+04	0.74 n	5.812e+04	1.5695	1,2,3,7,8-PeCDD
30:39	1.107e+04	1.729e+04	0.64 y	2.836e+04	0.76584	
30:56	8.170e+03	1.590e+04	0.51 n	2.114e+04	0.57087	

Totals class: HxCDD EMPC

Entry #: 23

Run: 13 File: 200107D2 S: 8 I: 1 F: 3  
 Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 117.74 Unnamed Concentration: 100.130

RT	m1 Resp	m2 Resp	RA	Resp Concentration	44.160	Name
32:23	9.202e+05	7.306e+05	1.26 y	1.651e+06	44.160	
32:56	1.315e+05	1.031e+05	1.28 y	2.345e+05	6.2741	
33:12	9.101e+05	7.319e+05	1.24 y	1.642e+06	43.926	
33:19	6.648e+04	5.578e+04	1.19 y	1.223e+05	3.2704	
33:54	4.126e+04	2.904e+04	1.42 y	7.031e+04	1.8265	1,2,3,4,7,8-HxCDD
34:01	2.223e+05	1.816e+05	1.22 y	4.040e+05	11.033	1,2,3,6,7,8-HxCDD
34:12	5.100e+04	4.243e+04	1.20 y	9.343e+04	2.4994	
34:18	9.727e+04	8.140e+04	1.20 y	1.787e+05	4.7518	1,2,3,7,8,9-HxCDD

Totals class: HPCDD EMPC

Entry #: 25

Run: 13 File: 200107D2 S: 8 I: 1 F: 4

Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 961.91

Unnamed Concentration: 543.911

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
36:56	8.243e+06	8.003e+06	1.03 y	1.625e+07	543.91
37:47	6.293e+06	6.192e+06	1.02 y	1.248e+07	418.00 1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 13 File: 200107D2 S: 8 I: 1 P: 1  
 Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 193.12 Unnamed Concentration: 126.680

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
21:05	3.193e+04	3.667e+04	0.87	y	6.860e+04	1.0291
21:44	3.260e+05	4.307e+05	0.76	y	7.566e+05	11.350
22:16	6.869e+04	9.748e+04	0.70	y	1.662e+05	2.4927
22:40	2.823e+05	3.596e+05	0.79	y	6.419e+05	9.6288
23:08	1.088e+05	1.309e+05	0.83	y	2.397e+05	3.5964
23:20	1.509e+04	2.087e+04	0.72	y	3.596e+04	0.53943
23:26	5.467e+04	6.881e+04	0.79	y	1.235e+05	1.8524
23:44	1.168e+04	1.753e+04	0.67	y	2.920e+04	0.43808
23:50	2.082e+04	2.849e+04	0.73	y	4.930e+04	0.73960
23:58	8.691e+04	1.017e+05	0.85	y	1.887e+05	2.8301
24:04	2.498e+05	3.315e+05	0.75	y	5.814e+05	8.7208
24:32	1.768e+06	2.259e+06	0.78	y	4.027e+06	60.408
24:44	6.322e+04	8.672e+04	0.73	y	1.499e+05	2.2493
24:54	2.747e+04	3.517e+04	0.78	y	6.264e+04	0.93966
25:05	2.351e+04	3.383e+04	0.69	y	5.733e+04	0.86005
25:11	2.401e+05	3.063e+05	0.78	y	5.464e+05	8.1956
25:17	1.950e+06	2.480e+06	0.79	y	4.429e+06	66.440
25:37	1.160e+05	1.485e+05	0.78	y	2.645e+05	3.9675
27:05	2.109e+05	2.453e+05	0.86	y	4.562e+05	6.8430

2,3,7,8-TCDF



Totals class: 1st Func. PeCDF EMPC      Entry #: 29

Run: 13      File: 200107D2      S: 8 I: 1 F: 1  
Acquired: 8-JAN-20 04:06:35      Processed: 8-JAN-20 10:09:58

Total Concentration: 15.624      Unnamed Concentration: 15.624

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
27:06	5.968e+05	3.743e+05	1.59 y	9.711e+05	15.624

Totals class: PeCDF EMPC

Entry #: 31

Run: 13 File: 200107D2 S: 8 I: 1 F: 2  
 Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 307.85 Unnamed Concentration: 164.360

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
28:30	2.353e+06	1.445e+06	1.63 y	3.798e+06	61.095
29:03	2.528e+05	1.512e+05	1.67 y	4.040e+05	6.4994
29:14	5.031e+05	3.135e+05	1.60 y	8.166e+05	13.137
29:24	4.575e+06	2.877e+06	1.59 y	7.452e+06	118.48
29:39	1.577e+06	9.550e+05	1.65 y	2.532e+06	40.741
30:12	3.774e+04	1.767e+04	2.14 n	4.505e+04	0.72481
30:18	9.273e+05	6.056e+05	1.53 y	1.533e+06	25.011
30:20	1.508e+06	9.053e+05	1.67 y	2.414e+06	38.830
31:11	1.272e+05	8.001e+04	1.59 y	2.072e+05	3.3332

Totals class: HxCDF EMPC

Entry #: 33

Run: 13 File: 200107D2 S: 8 I: 1 F: 3  
 Acquired: 8-JAN-20 04:06:35 Processed: 8-JAN-20 10:09:58

Total Concentration: 332.84 Unnamed Concentration: 92.787

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
31:51	2.546e+05	2.034e+05	1.25	y	4.580e+05	8.4355	
32:00	1.001e+06	8.163e+05	1.23	y	1.817e+06	33.475	
32:21	2.281e+04	2.043e+04	1.12	y	4.324e+04	0.79640	
32:33	1.060e+06	8.886e+05	1.19	y	1.948e+06	35.886	
32:54	5.705e+04	4.728e+04	1.21	y	1.043e+05	1.9216	
33:01	5.415e+06	4.412e+06	1.23	y	9.827e+06	172.27	1, 2, 3, 4, 7, 8-HxCDF
33:08	1.536e+06	1.225e+06	1.25	y	2.760e+06	46.490	1, 2, 3, 6, 7, 8-HxCDF
33:25	4.205e+04	3.095e+04	1.36	y	7.300e+04	1.3445	
33:44	3.718e+05	2.955e+05	1.26	y	6.673e+05	13.072	2, 3, 4, 6, 7, 8-HxCDF
34:40	2.244e+05	1.851e+05	1.21	y	4.095e+05	8.2118	1, 2, 3, 7, 8, 9-HxCDF
34:44	3.280e+05	2.653e+05	1.24	y	5.933e+05	10.928	

Totals class: HpCDF EMPC

Entry #: 35

Run: 13

File: 200107D2

S: 8 I: 1 F: 4

Acquired: 8-JAN-20 04:06:35

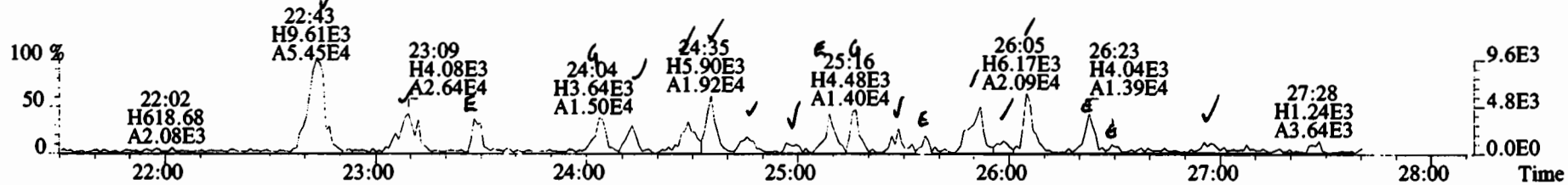
Processed: 8-JAN-20 10:09:58

Total Concentration: 294.81

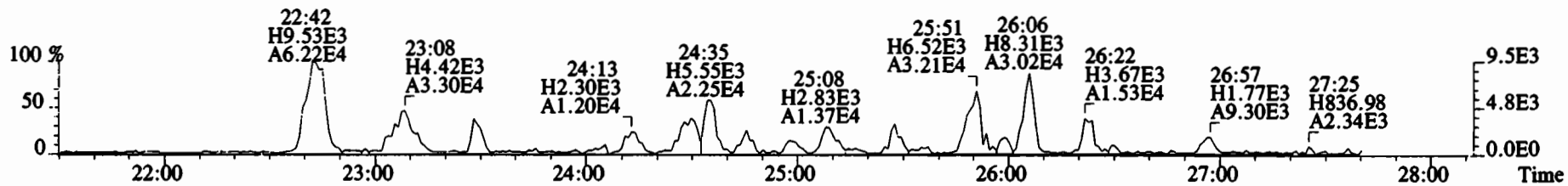
Unnamed Concentration: 158.898

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Resp Concentration	Name
36:32	2.261e+06	2.219e+06	1.02 y	4.480e+06	104.14	1,2,3,4,6,7,8-HpCDF
36:56	4.187e+04	4.555e+04	0.92 y	8.742e+04	2.1571	
37:07	3.176e+06	3.177e+06	1.00 y	6.352e+06	156.74	
38:19	6.125e+05	5.971e+05	1.03 y	1.210e+06	31.766	1,2,3,4,7,8,9-HpCDF

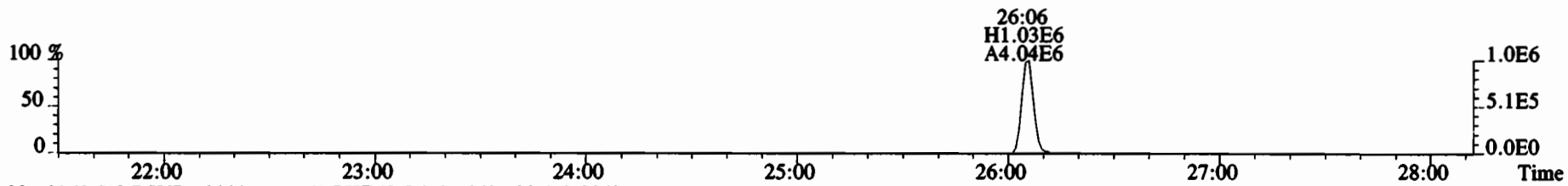
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



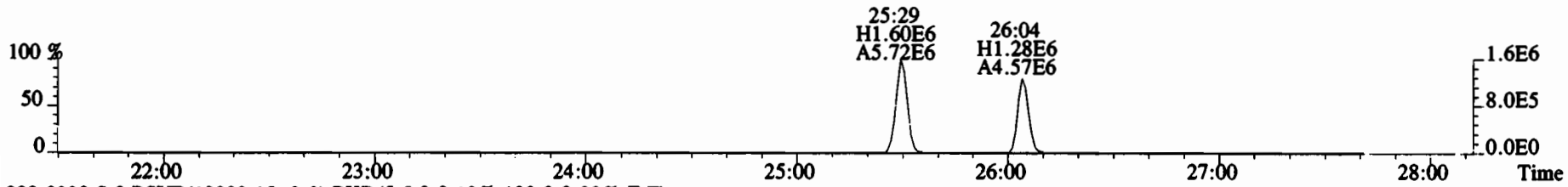
321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



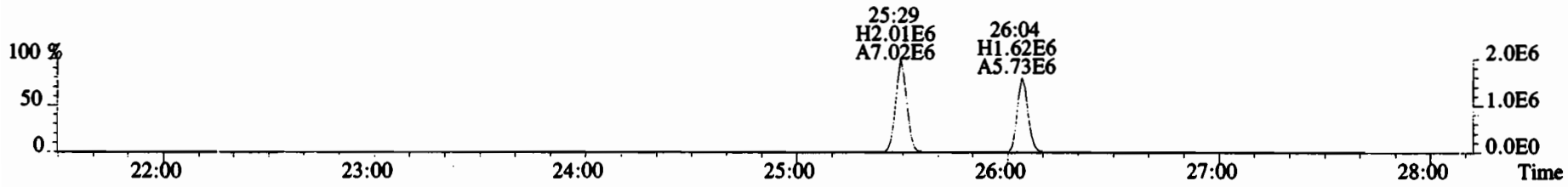
327.8847 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



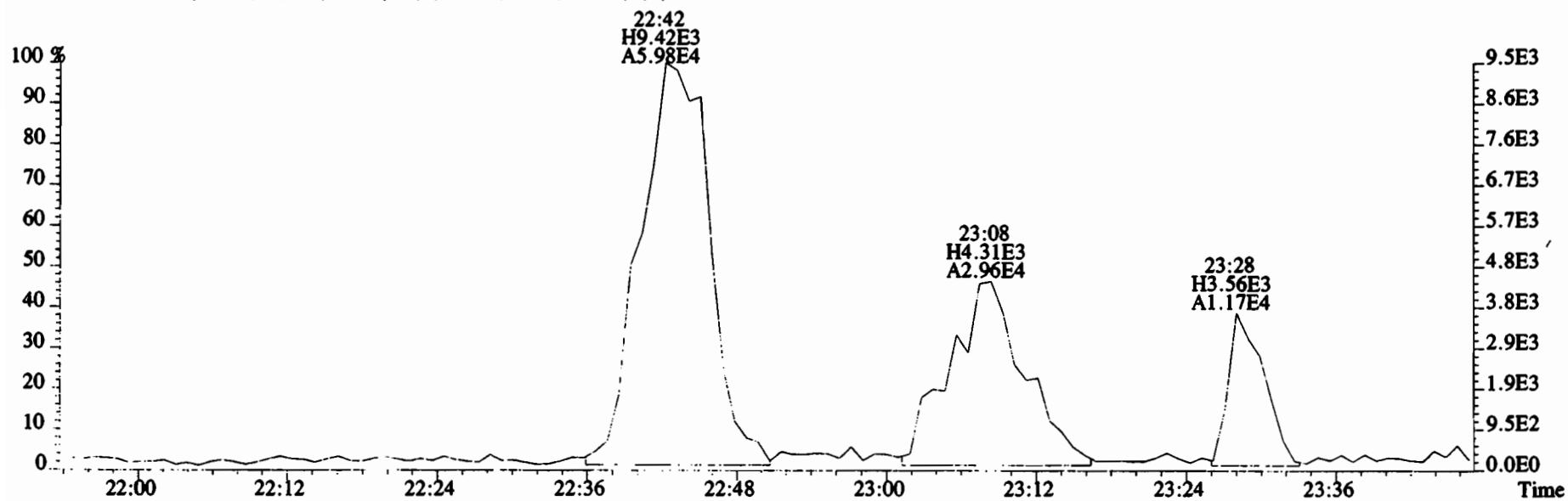
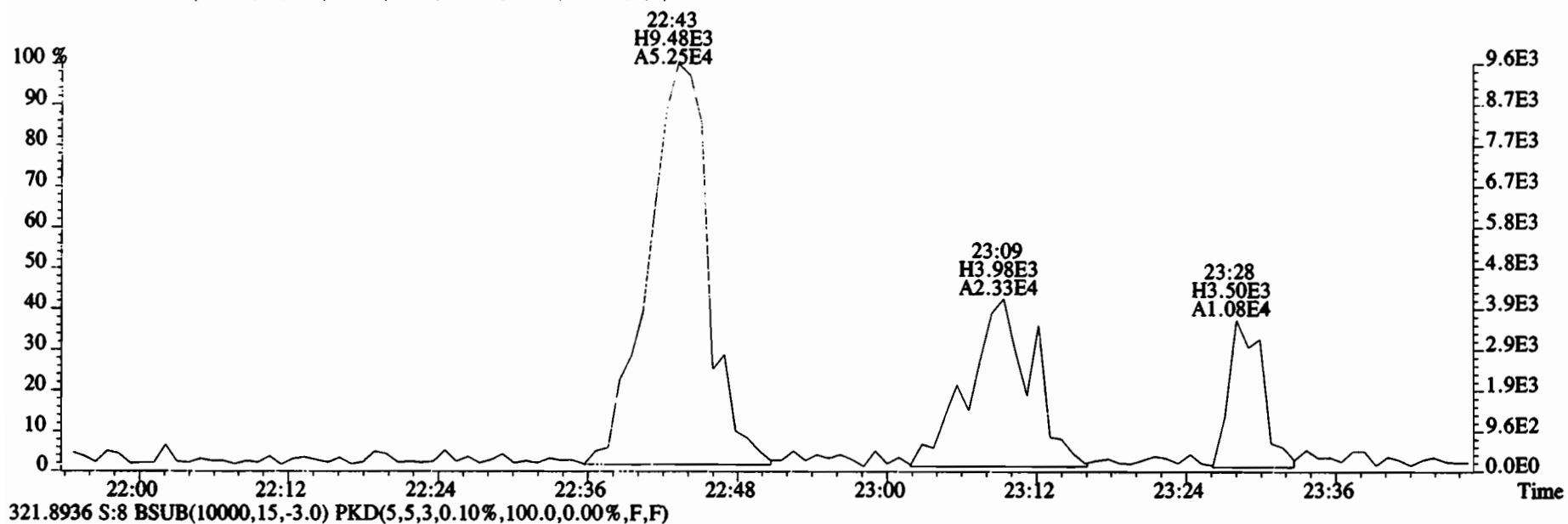
331.9368 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



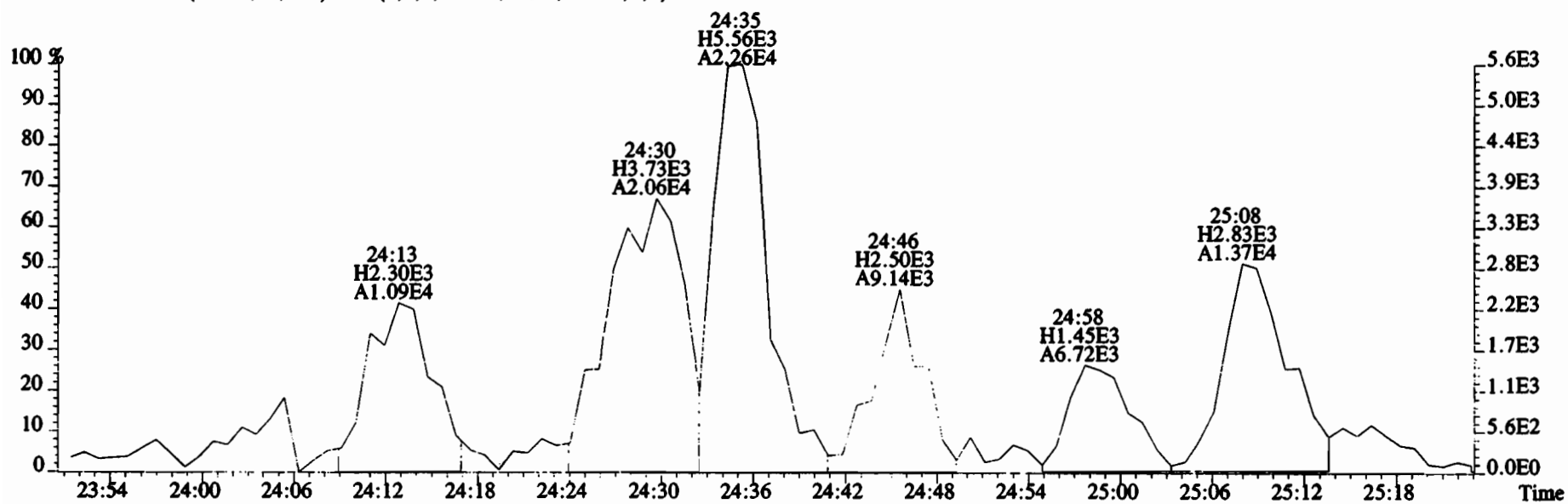
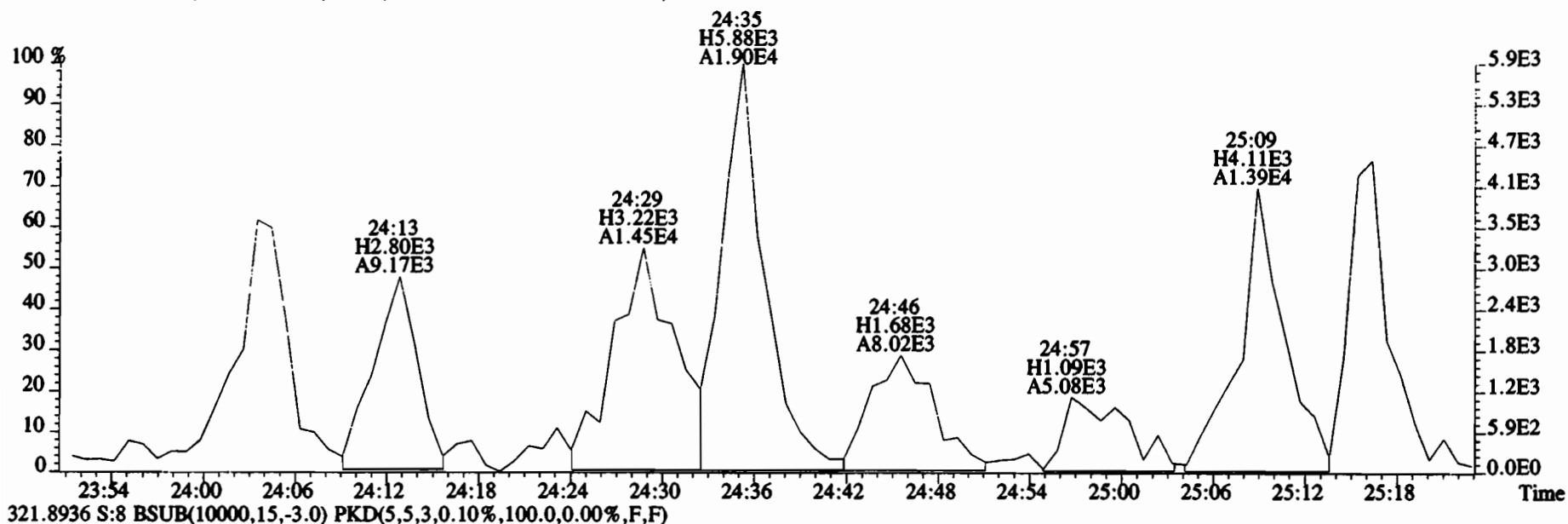
333.9339 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



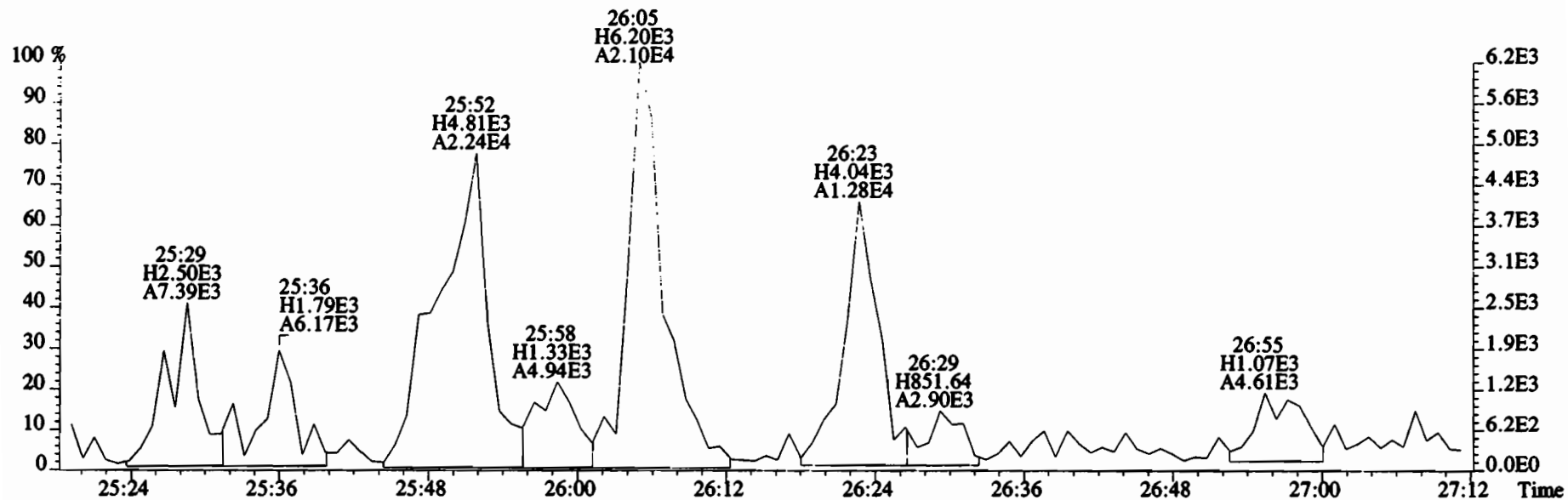
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



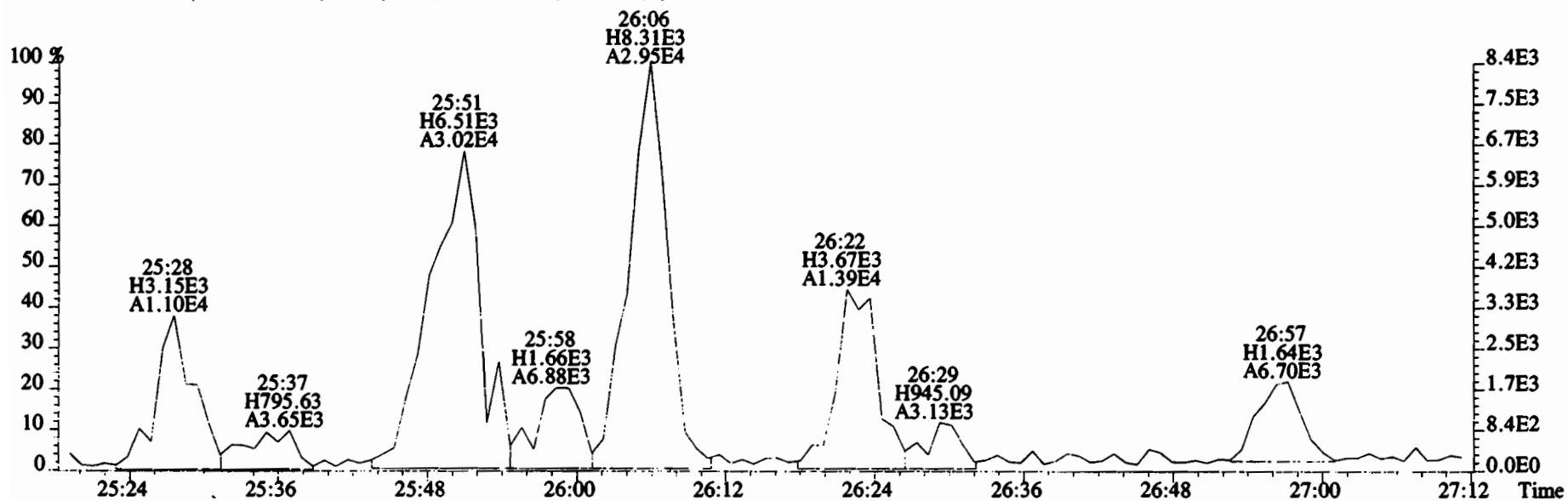
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

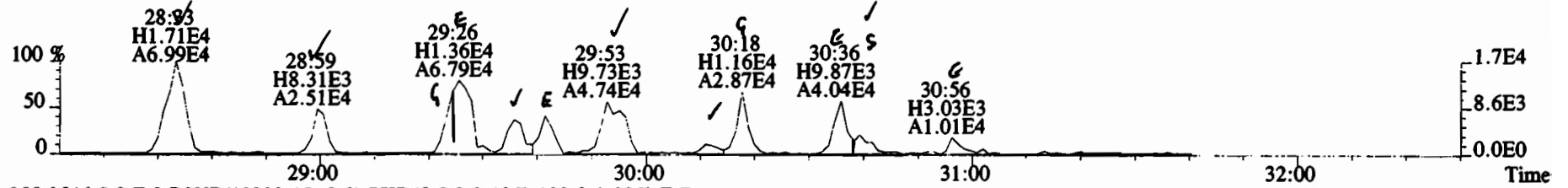


321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

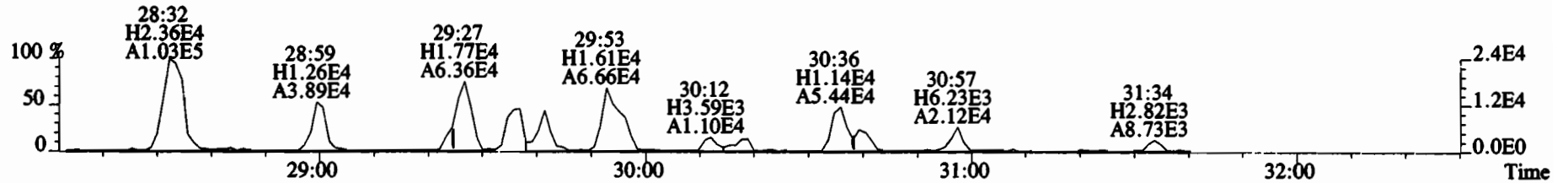




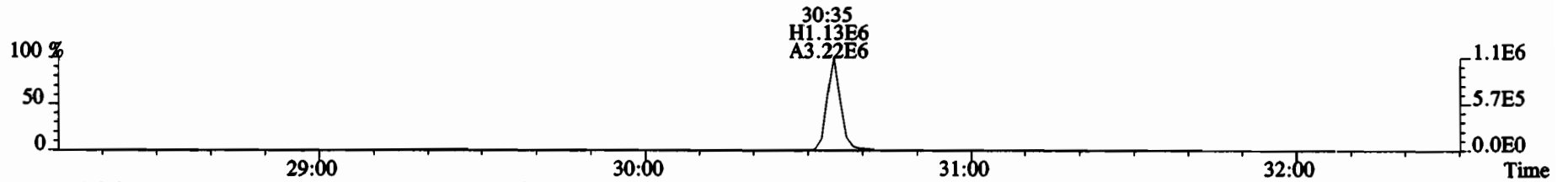
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



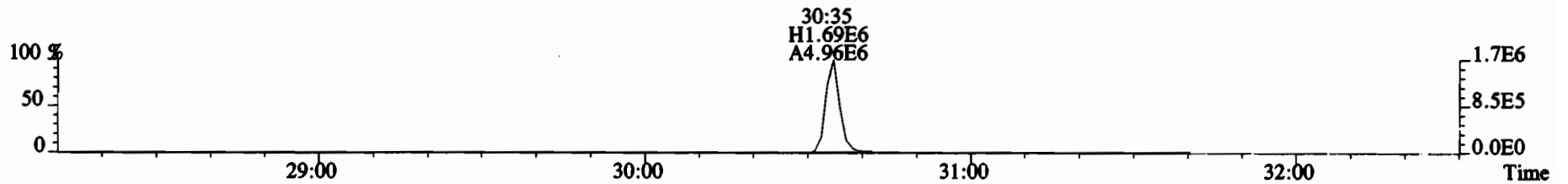
355.8546 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



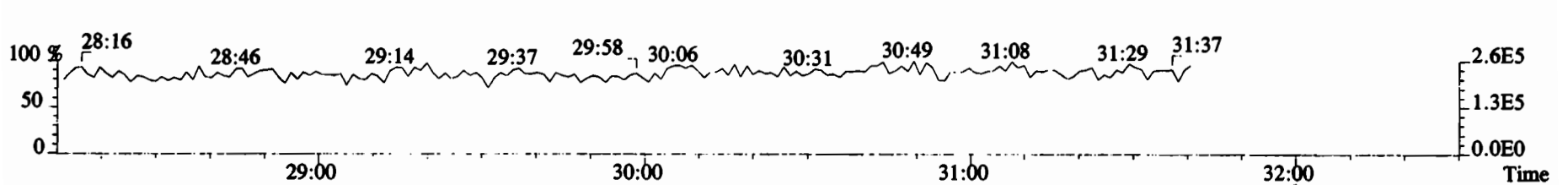
365.8978 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



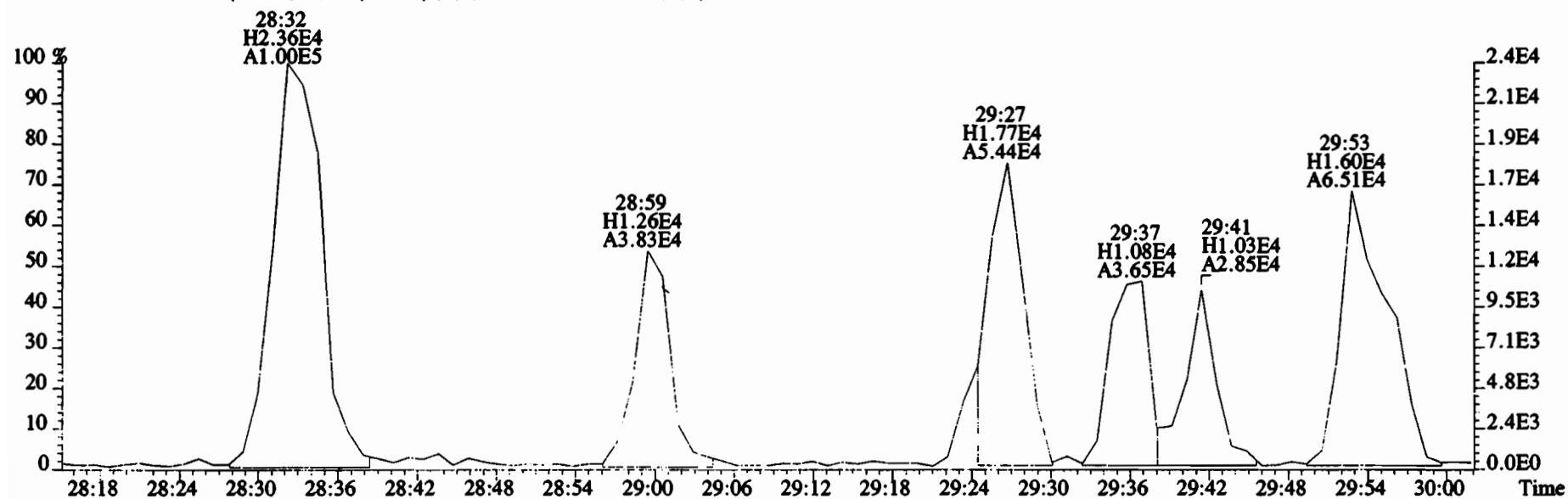
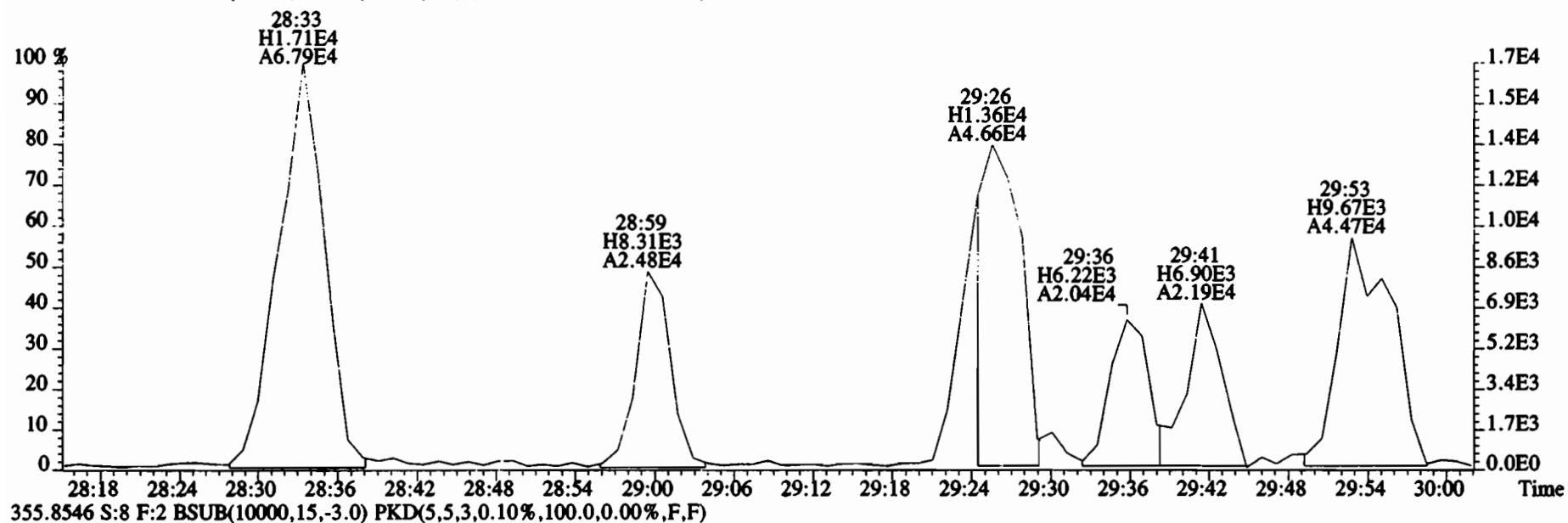
367.8949 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



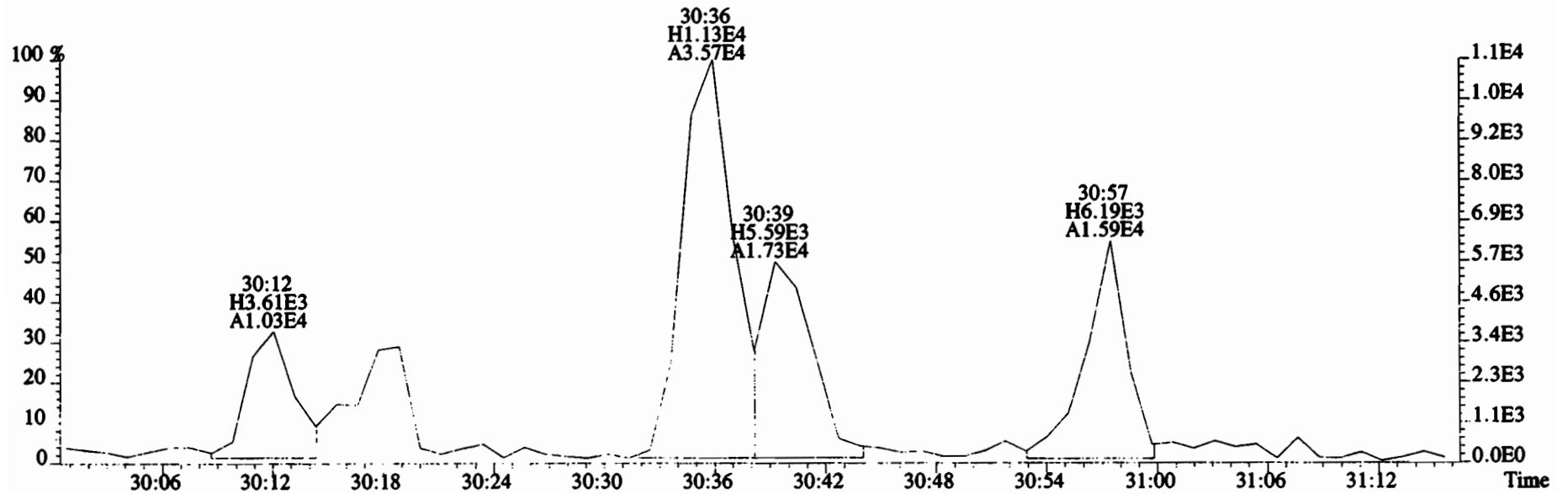
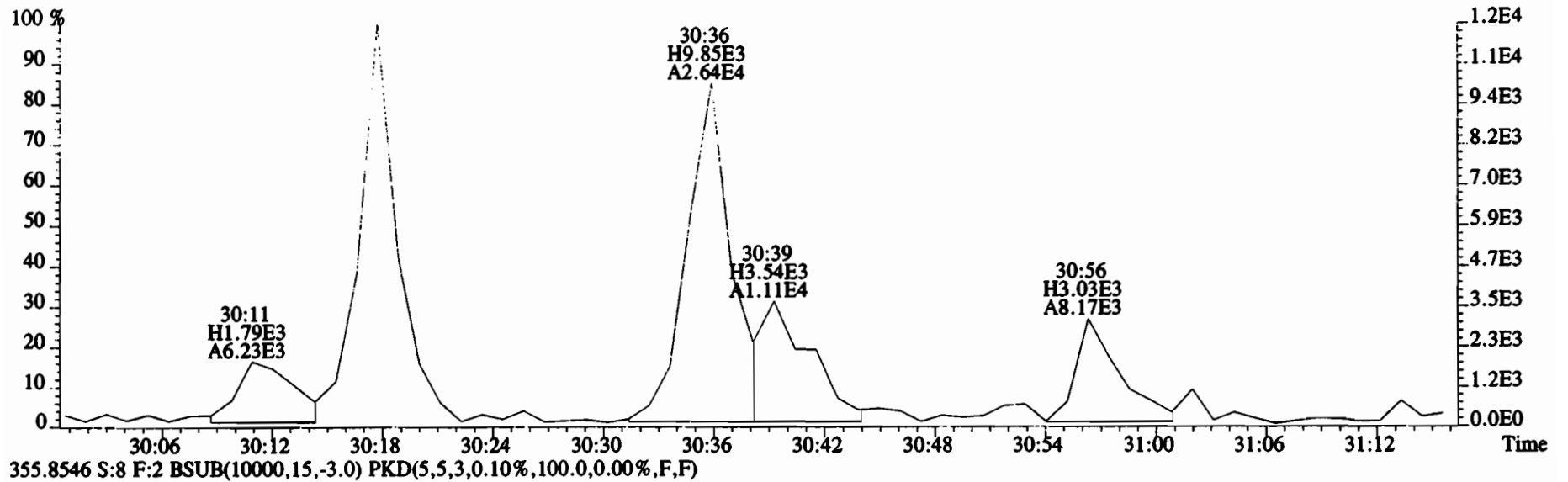
366.9792 S:8 F:2



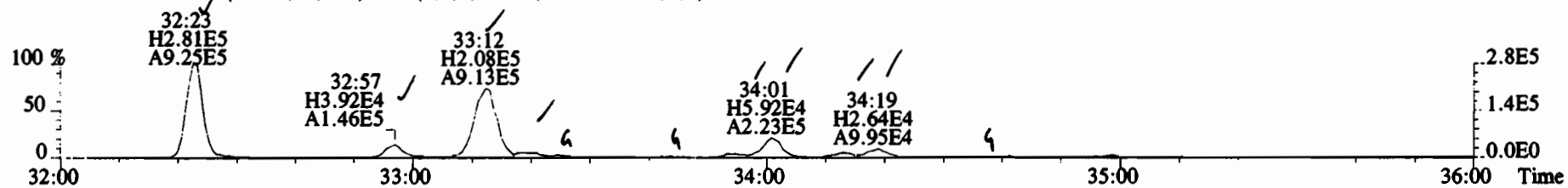
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



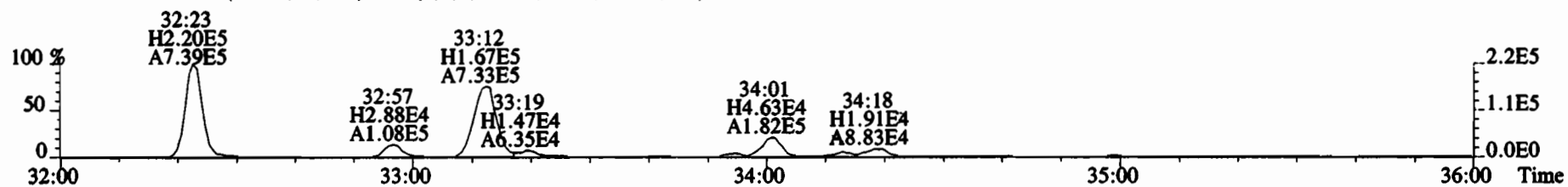
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



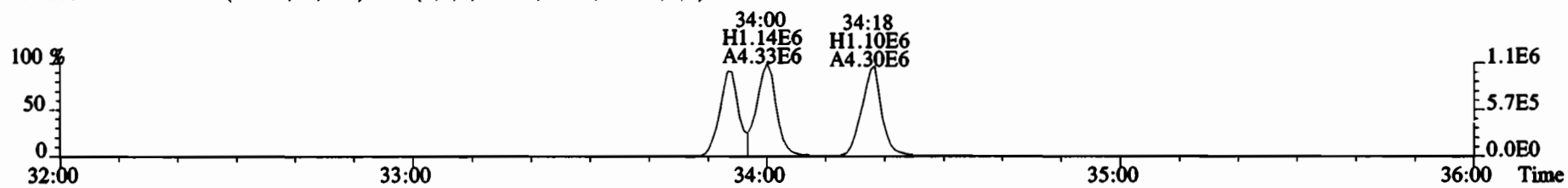
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



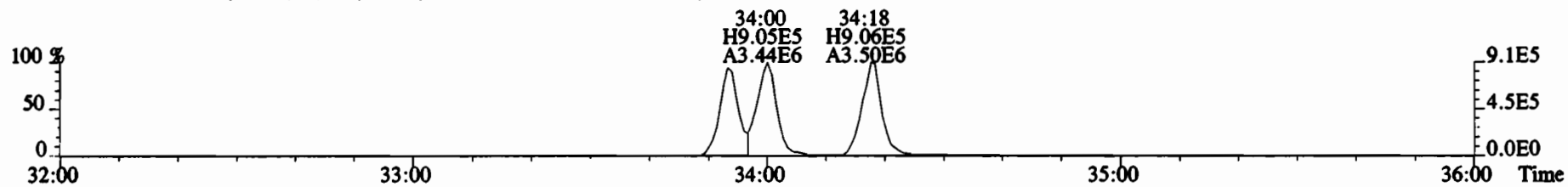
391.8127 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



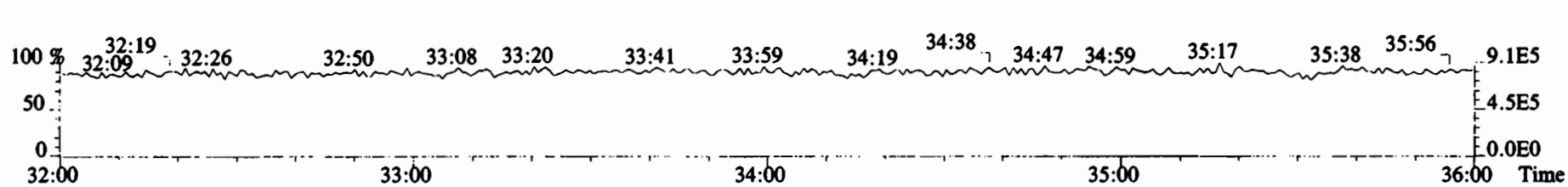
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



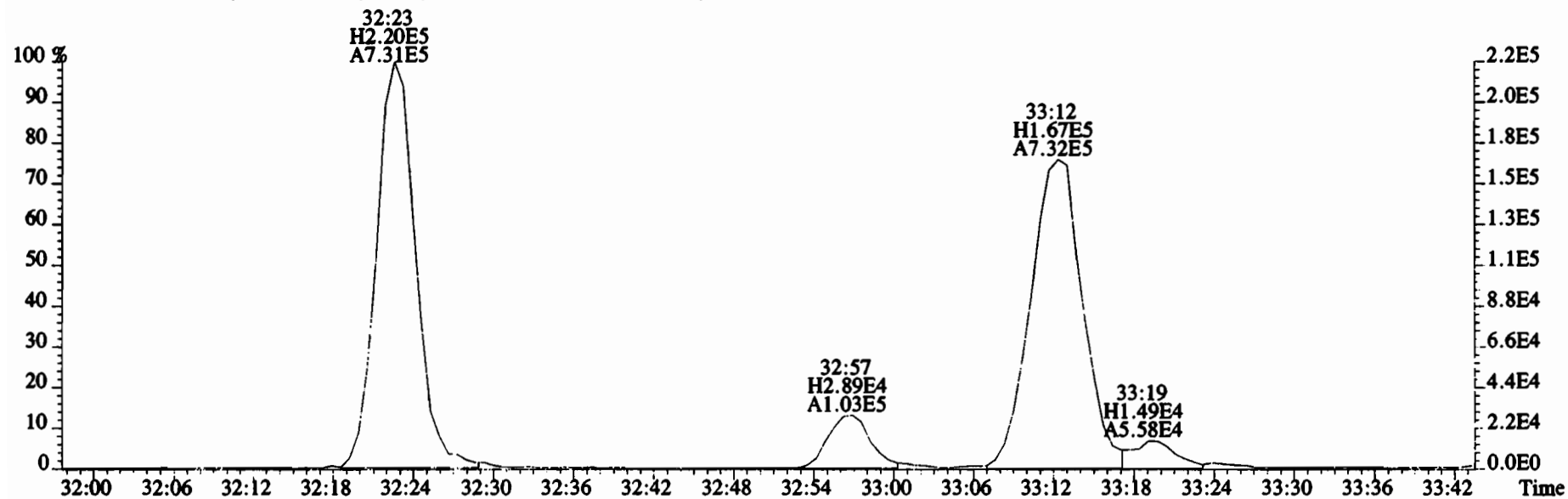
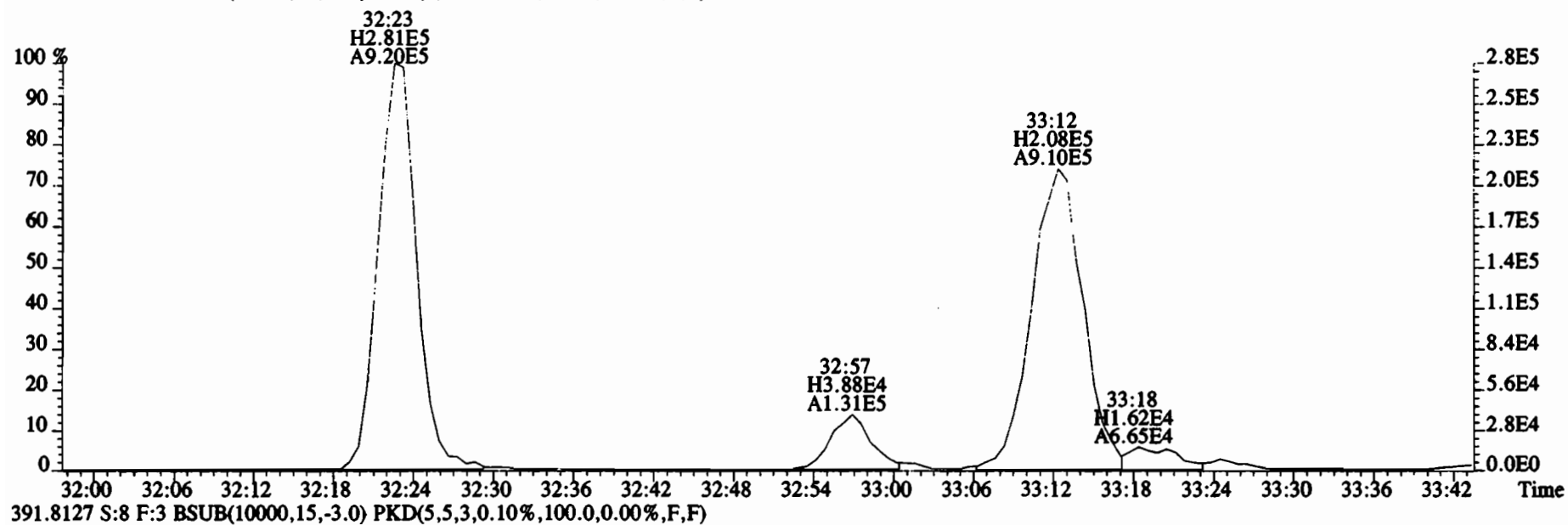
403.8530 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



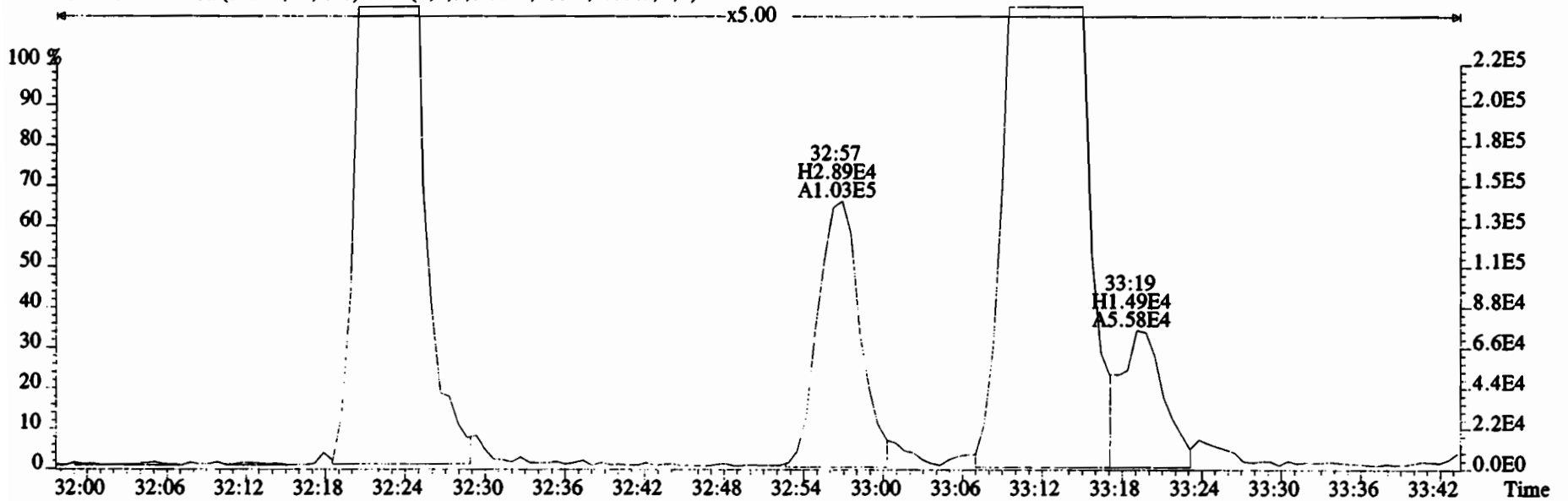
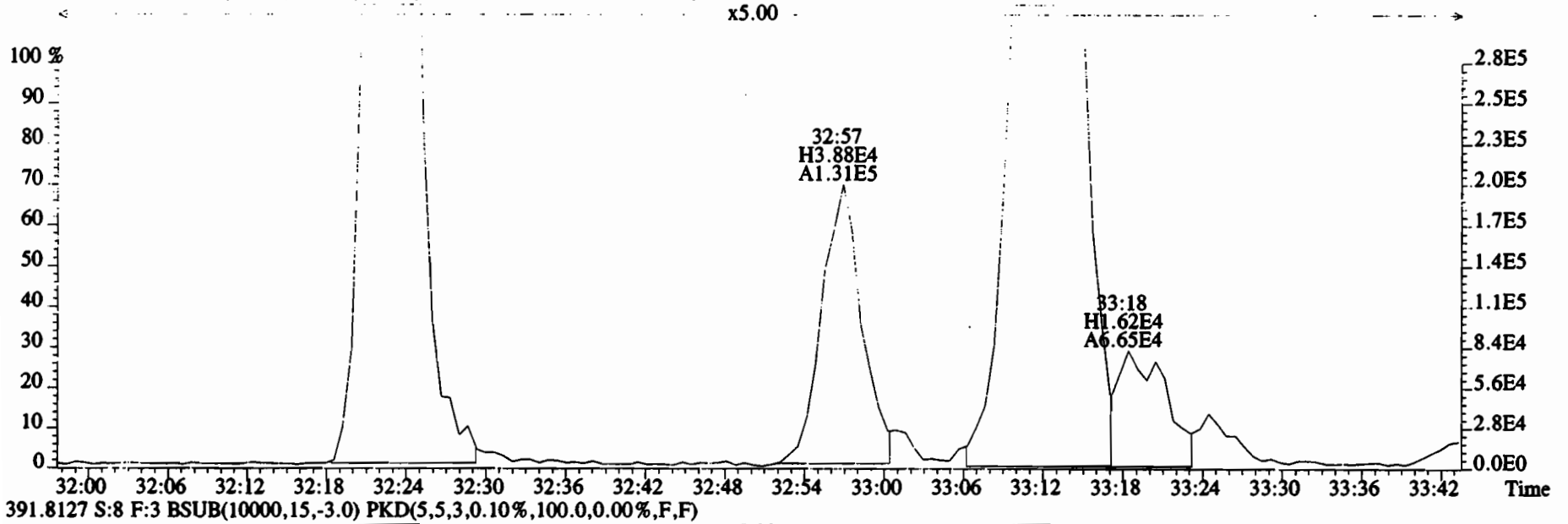
392.9760 S:8 F:3



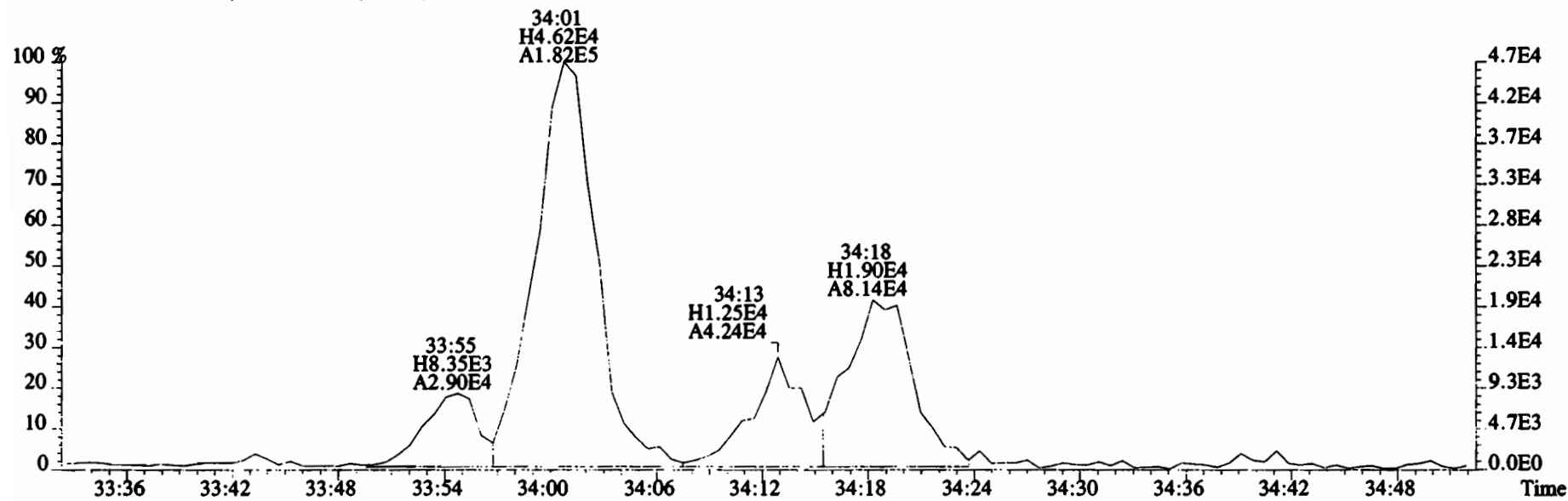
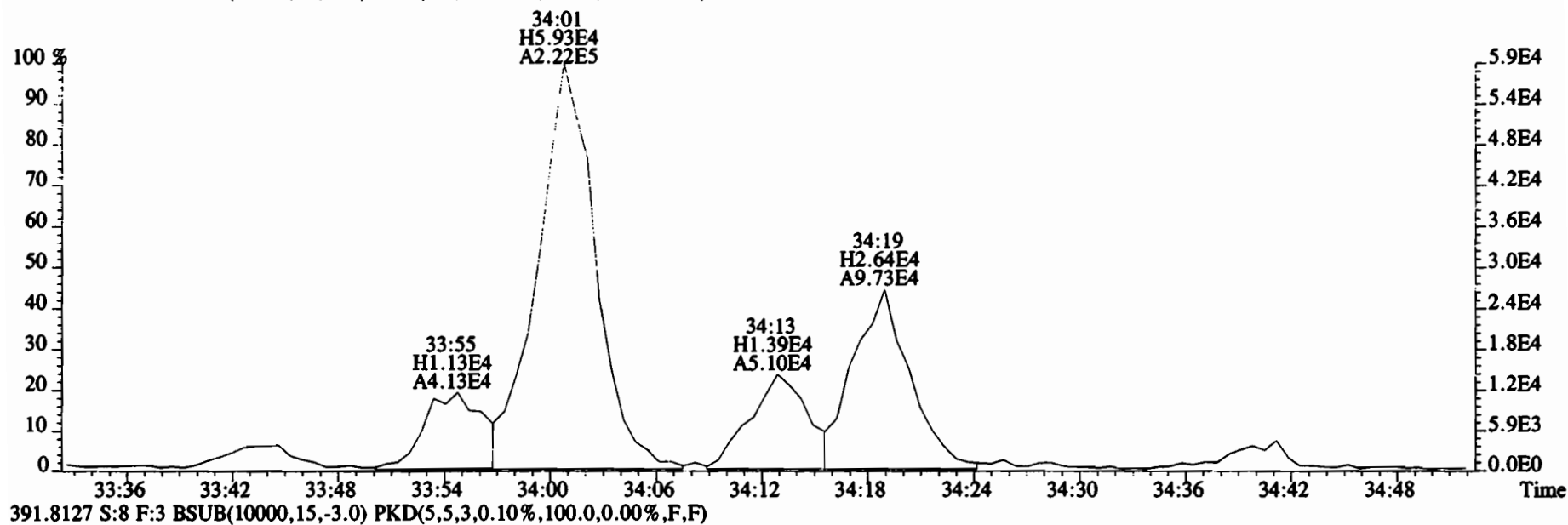
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



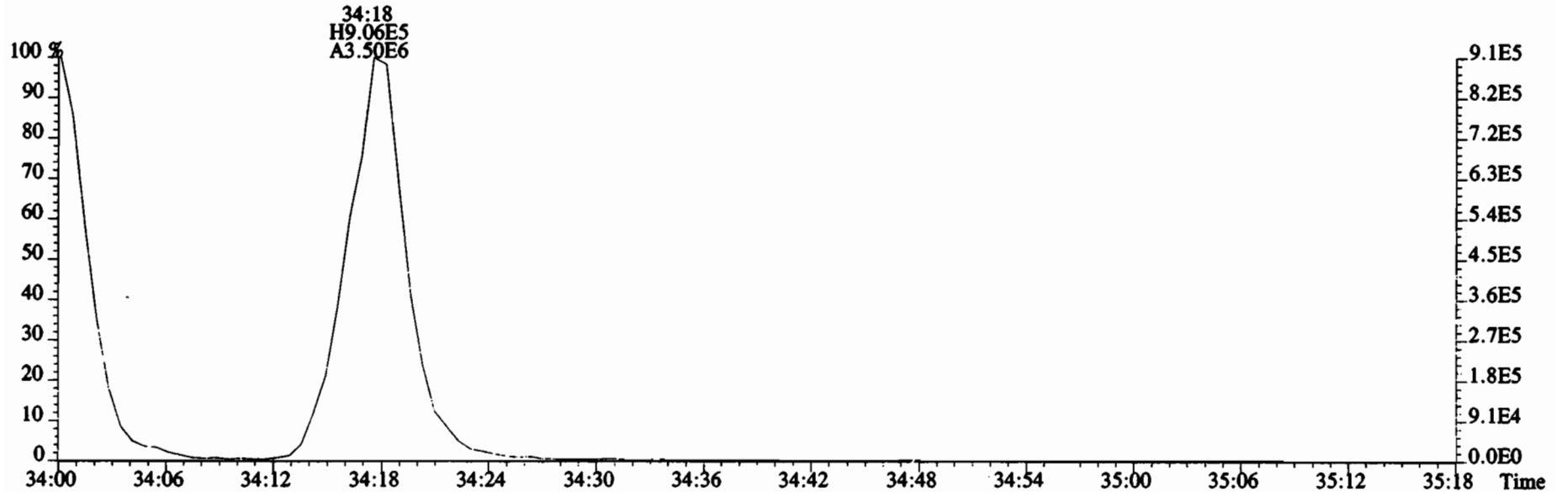
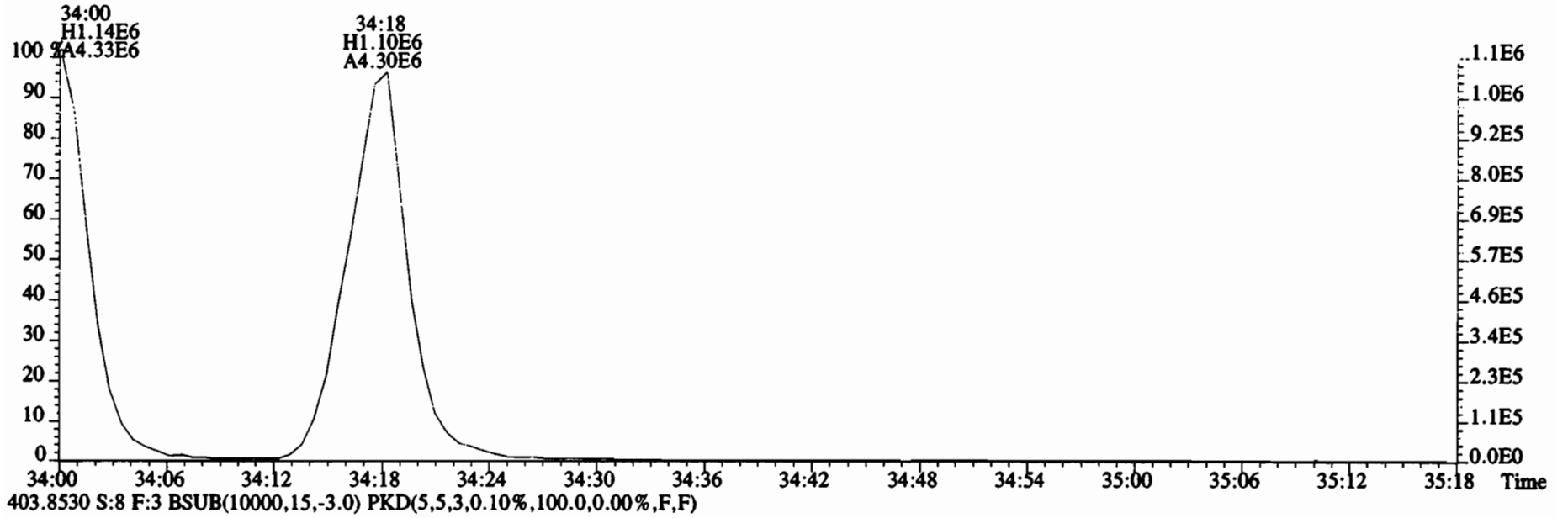
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

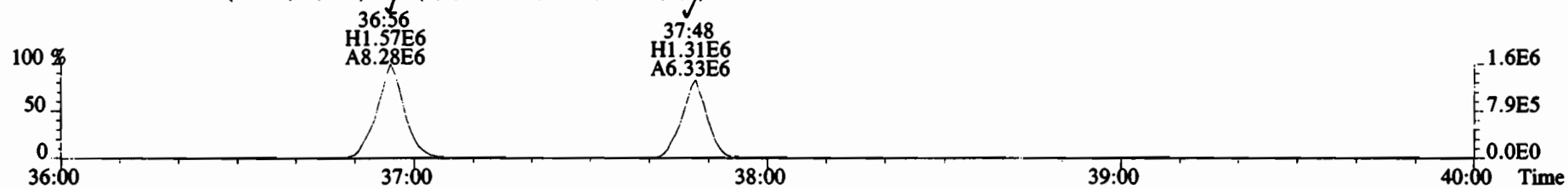


File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

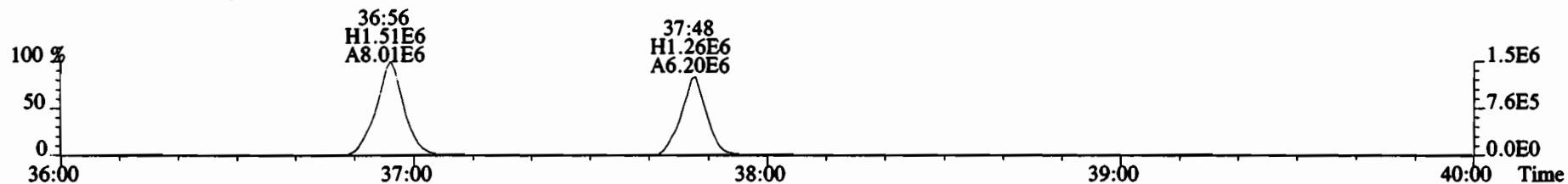




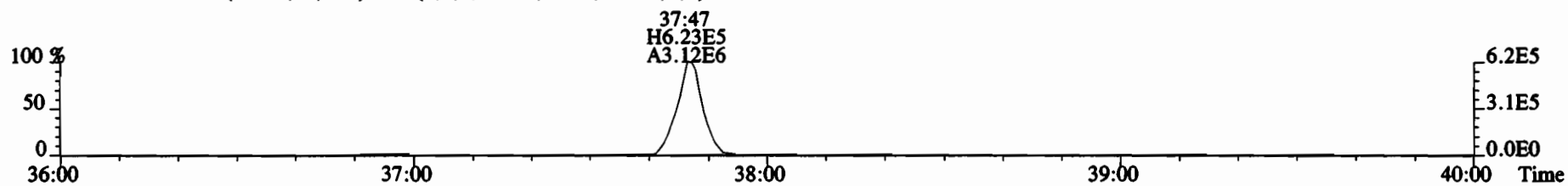
File:200107D2 #1-355 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



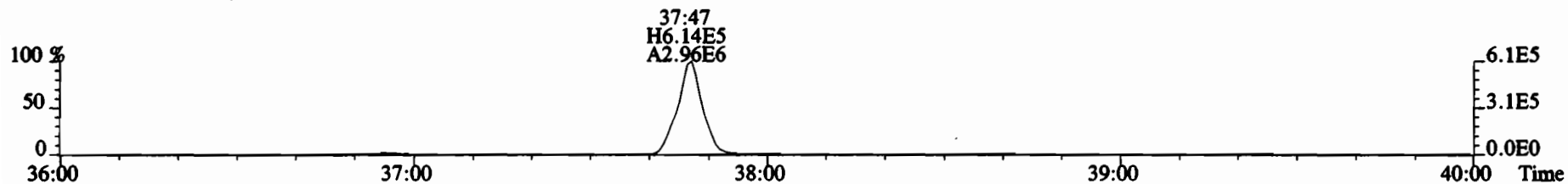
425.7737 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



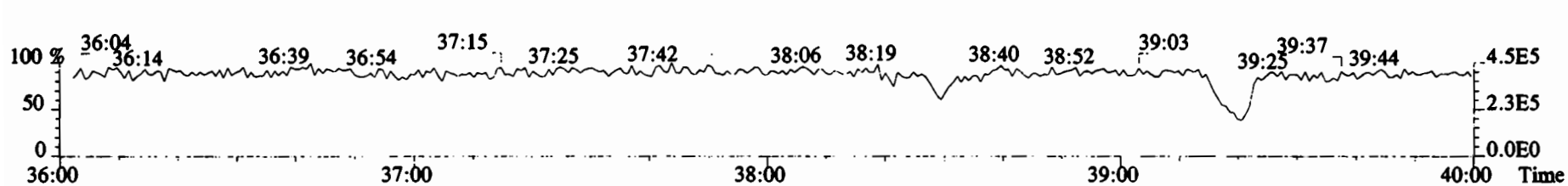
435.8169 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



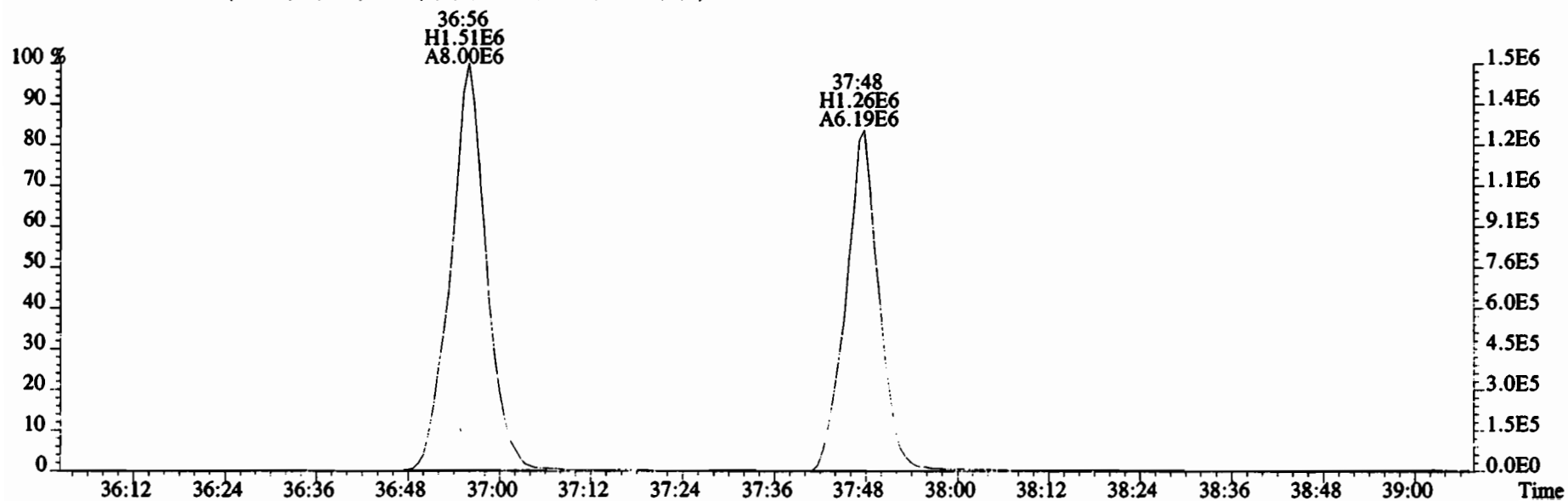
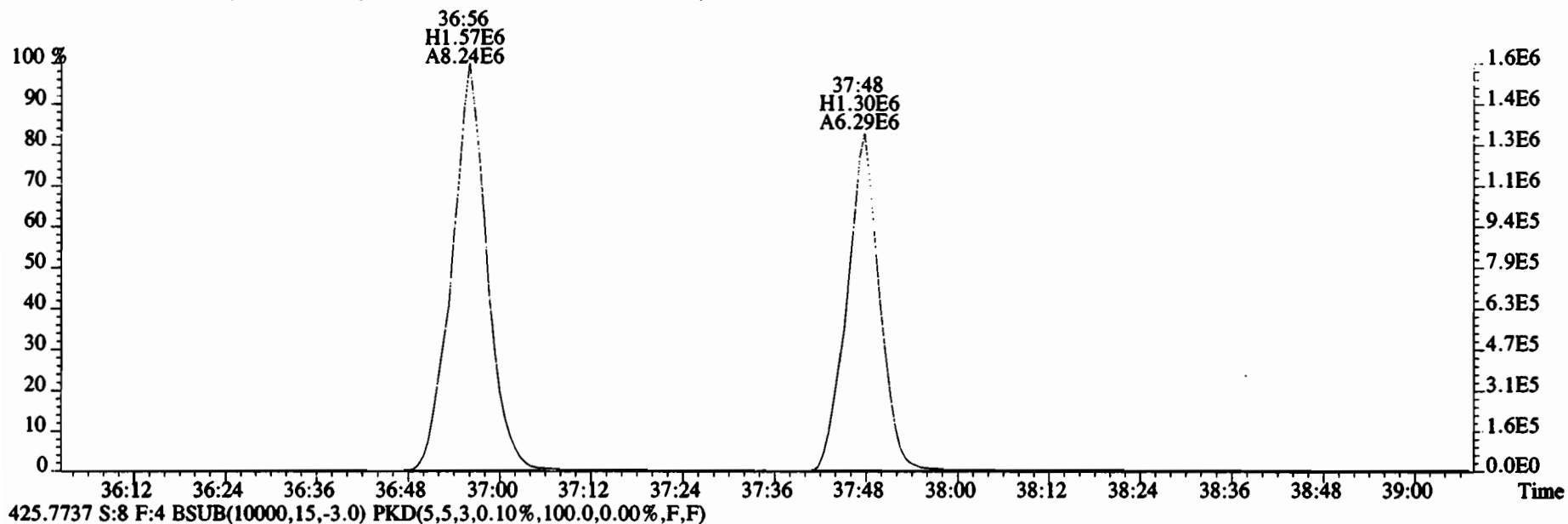
437.8140 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



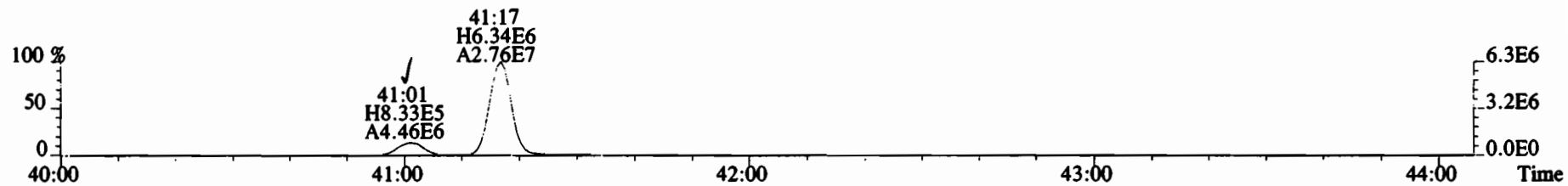
454.9728 S:8 F:4



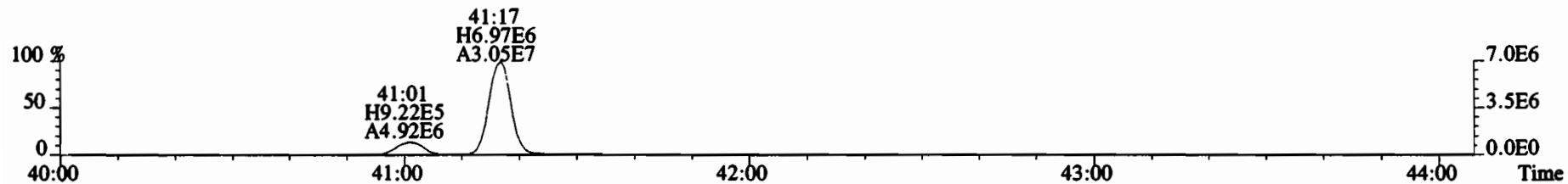
File:200107D2 #1-355 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



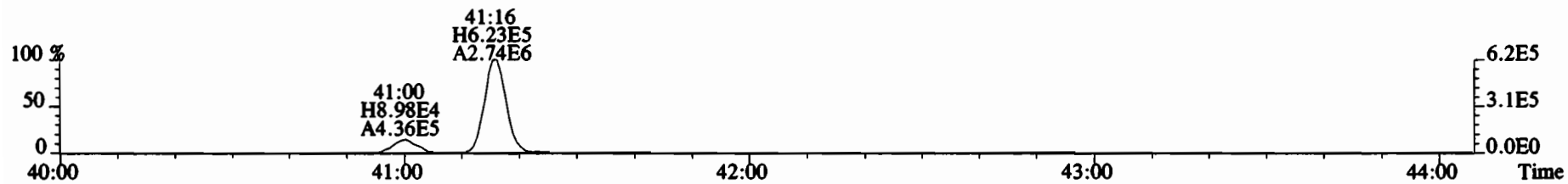
File:200107D2 #1-432 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



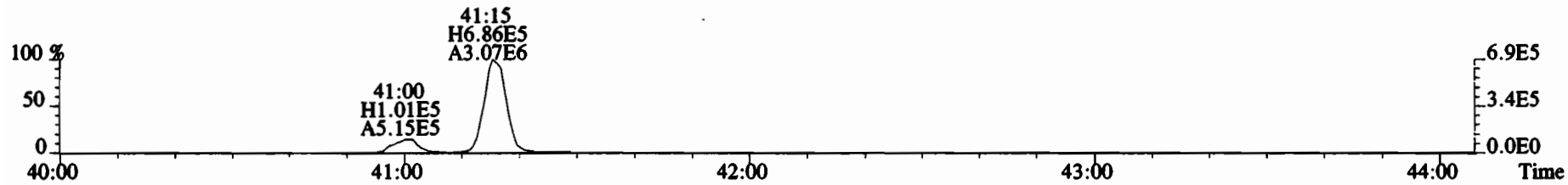
459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



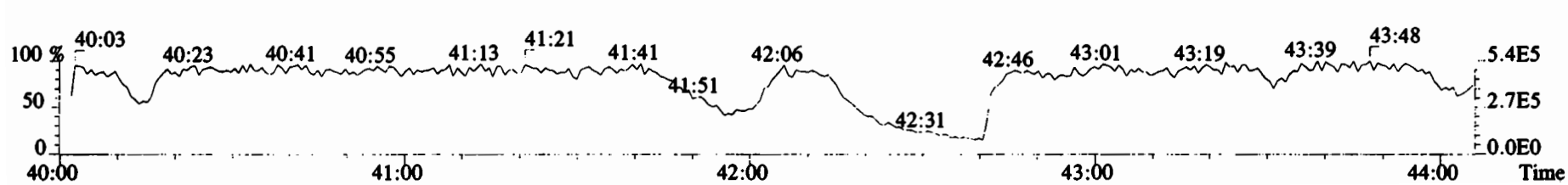
469.7780 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



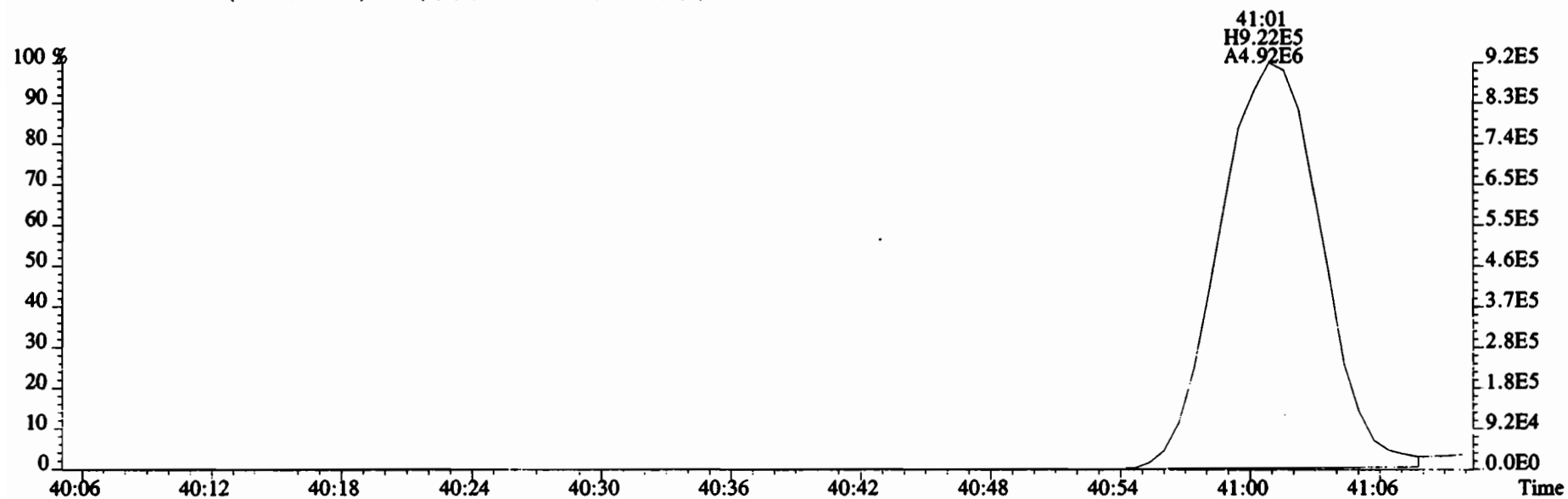
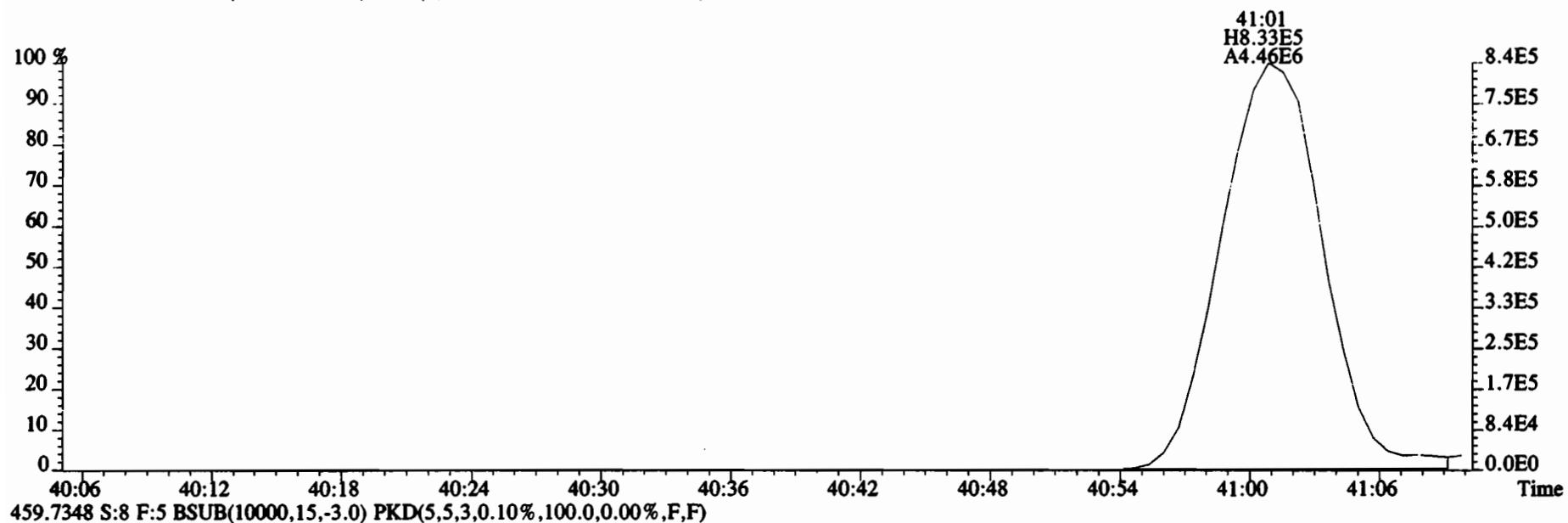
471.7750 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



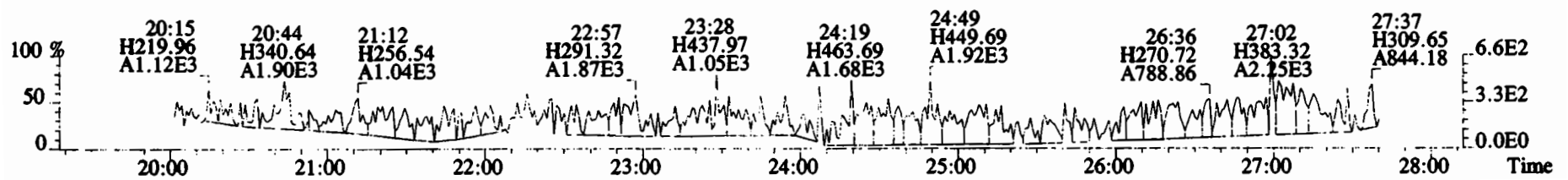
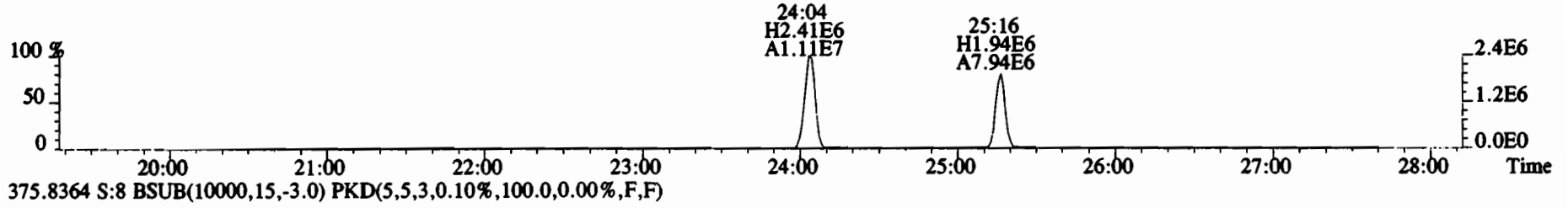
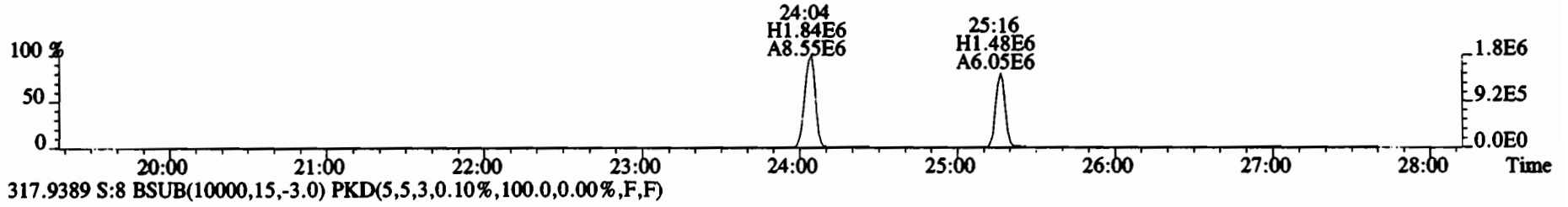
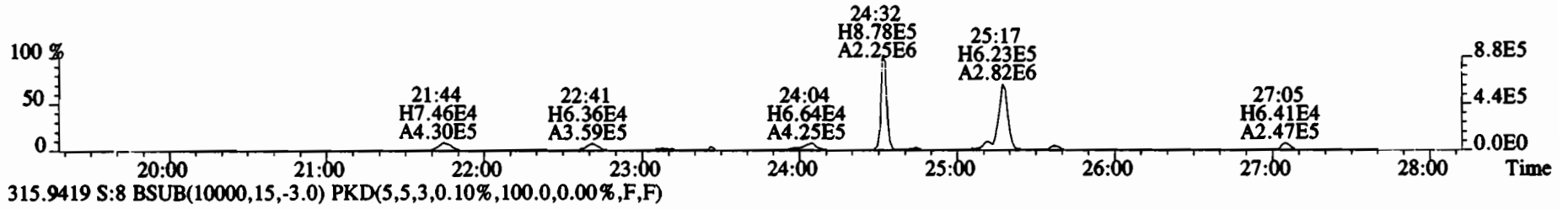
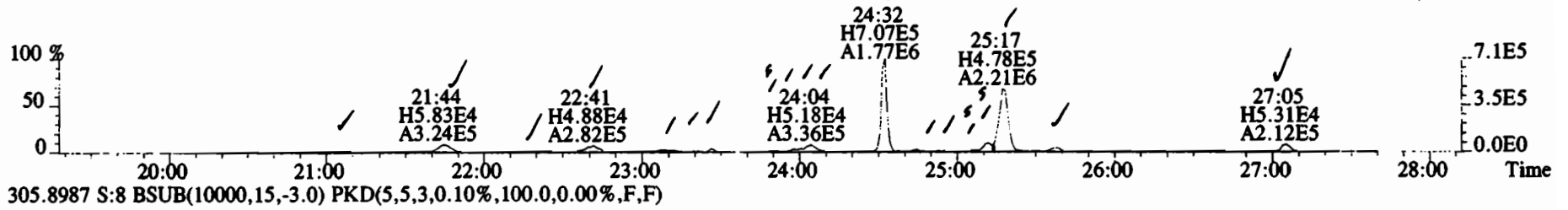
454.9728 S:8 F:5



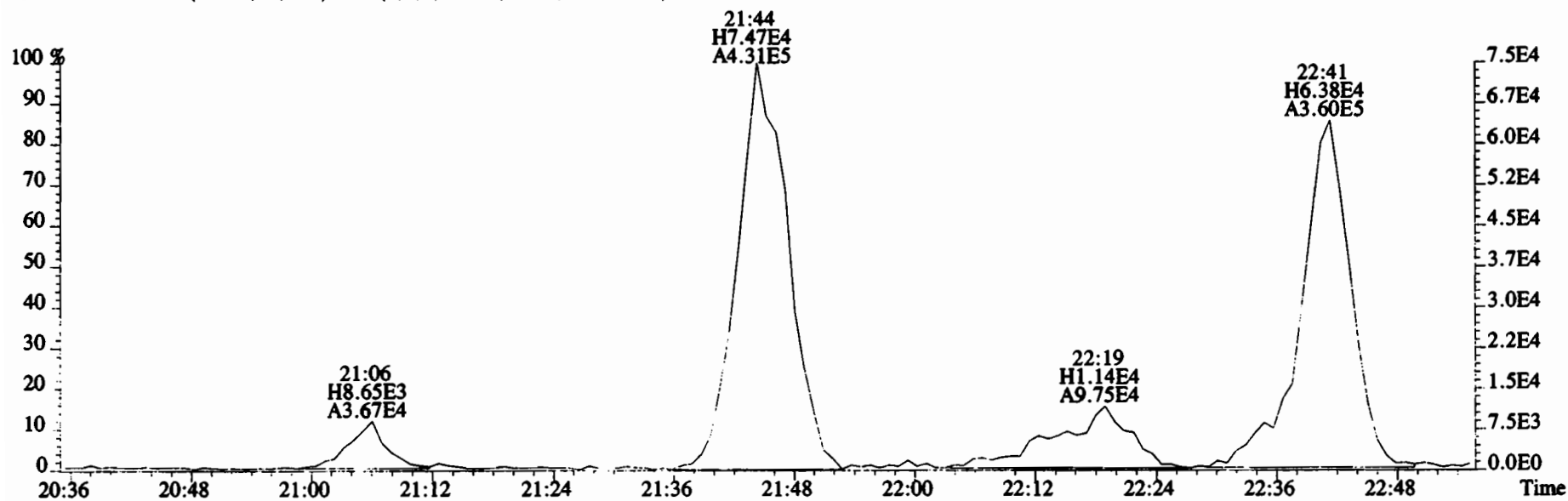
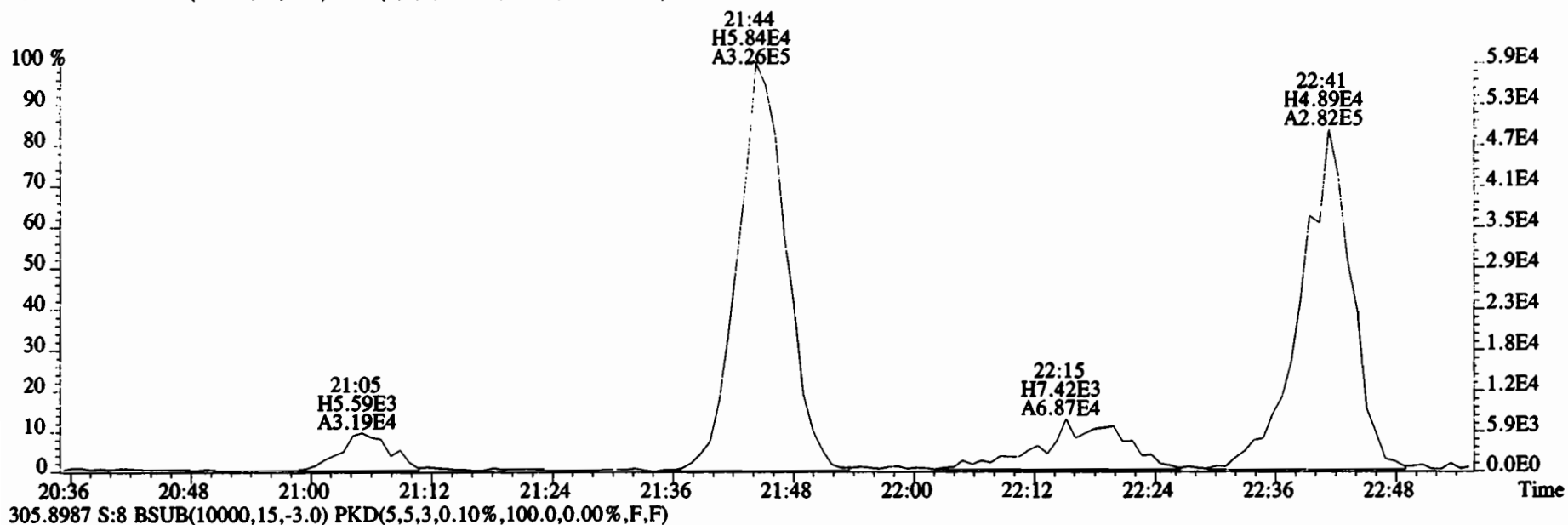
File:200107D2 #1-432 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



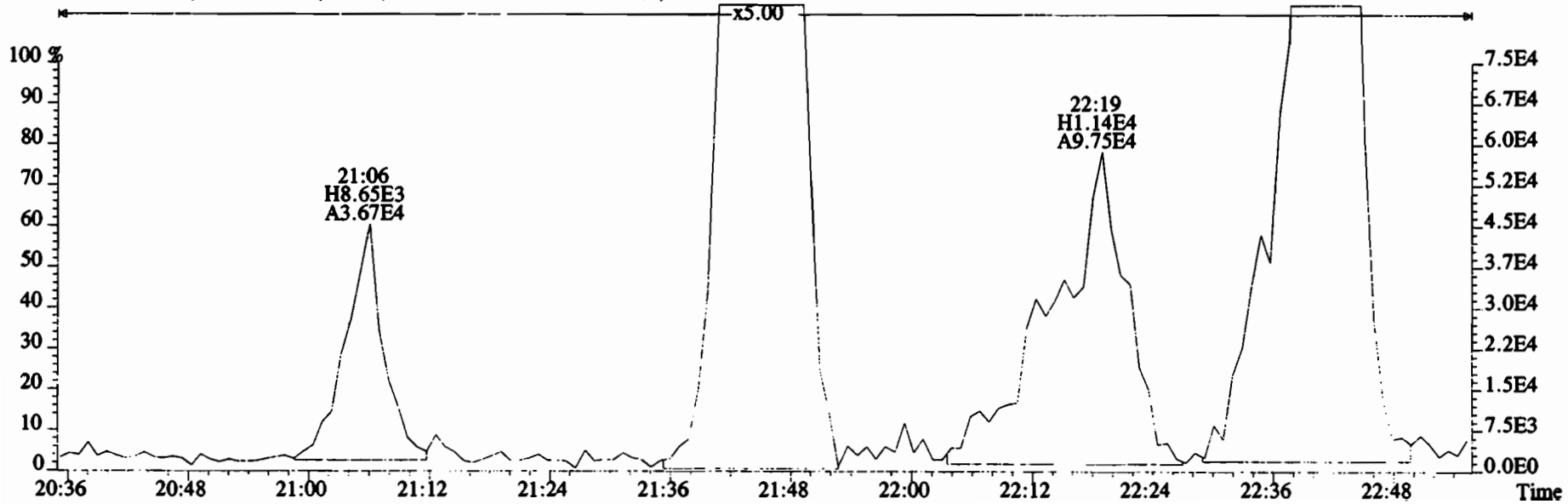
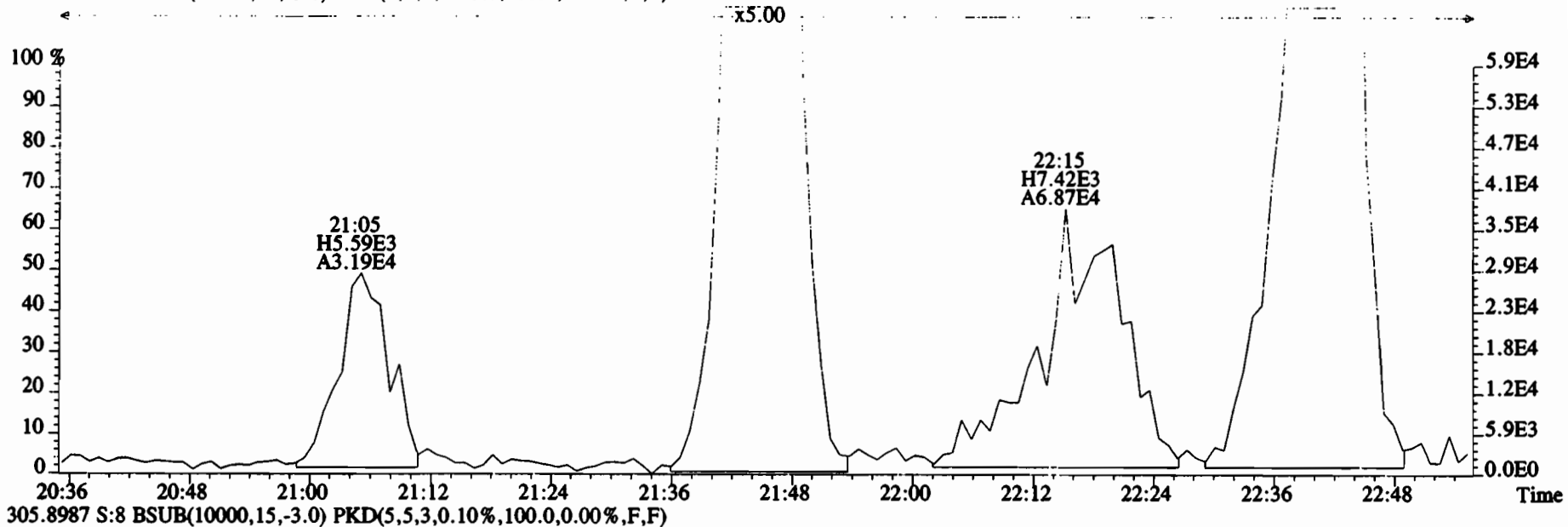
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-13RE2 PDI-071ISC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



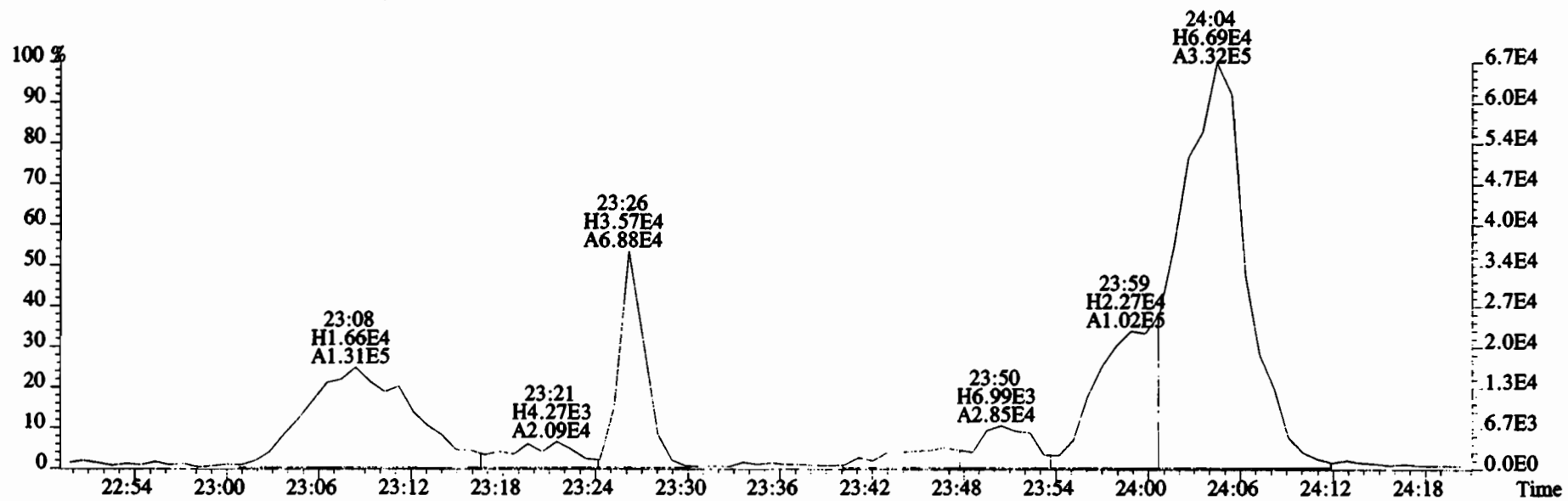
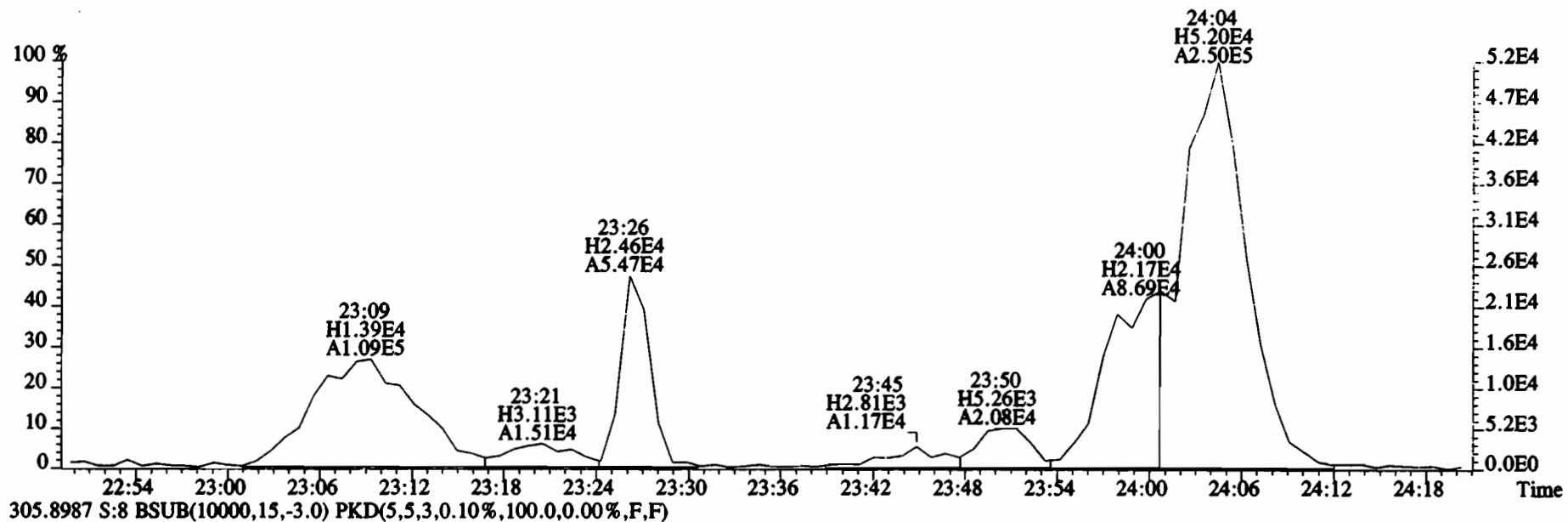
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

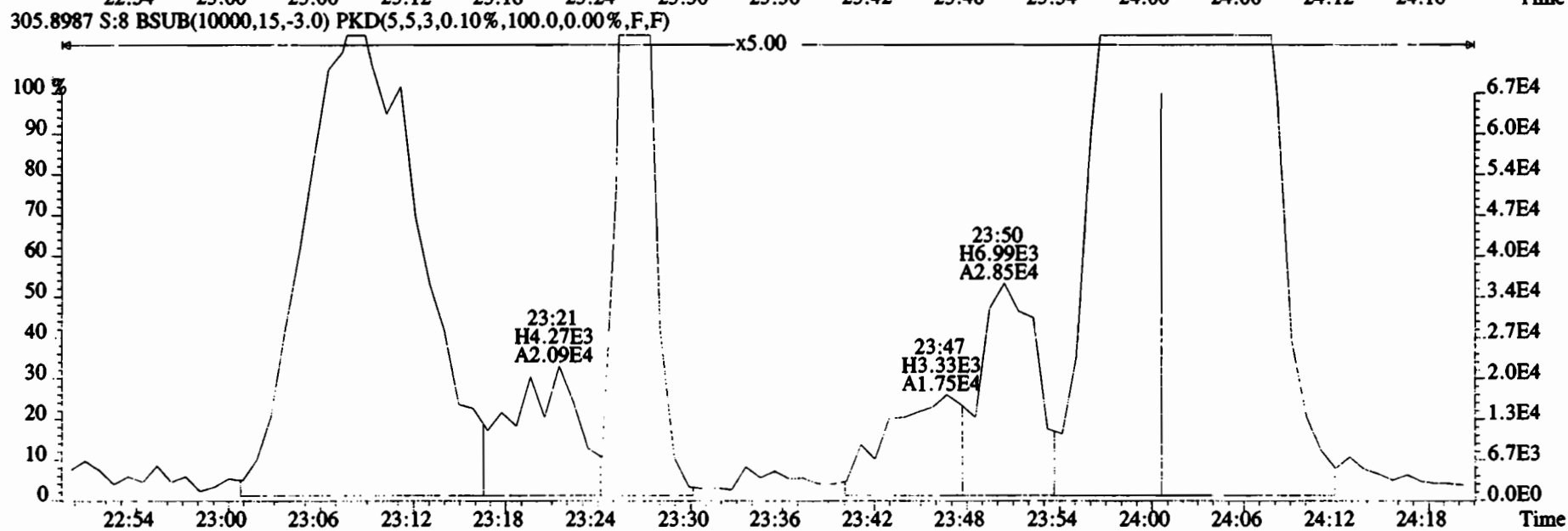
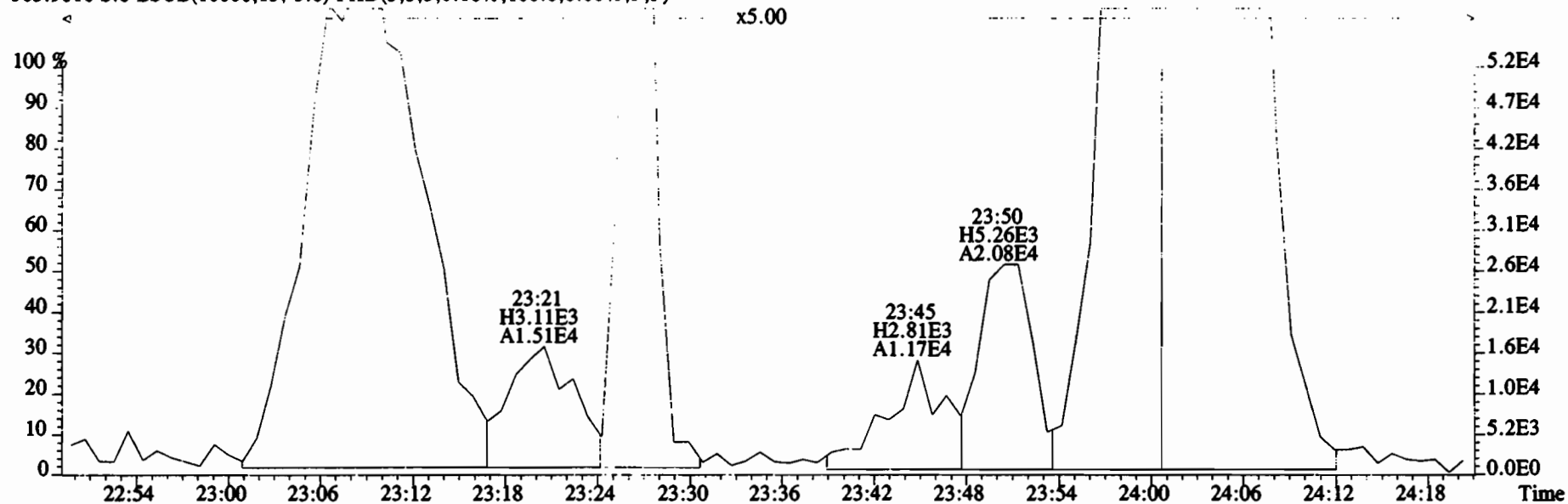


File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

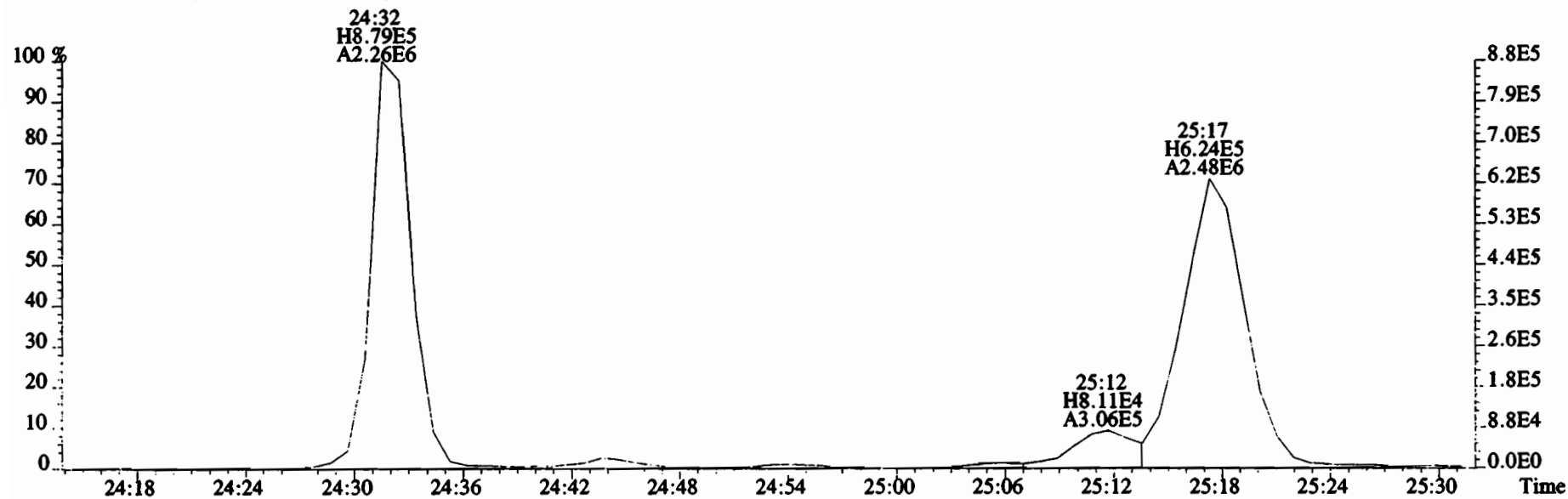
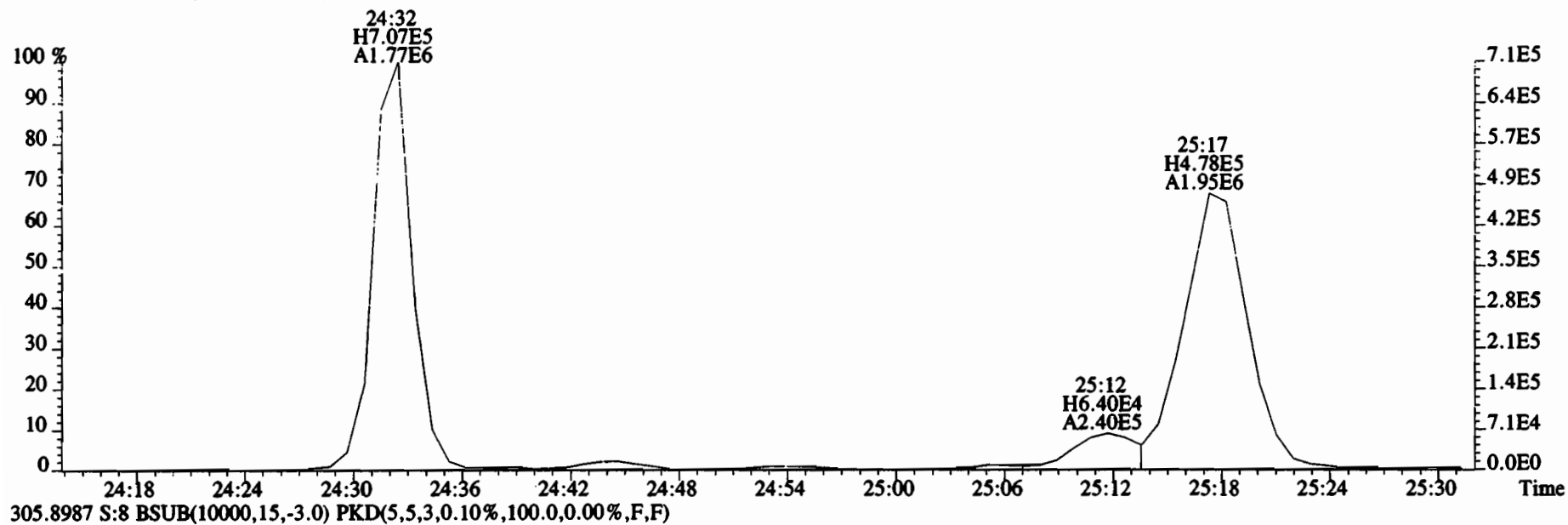




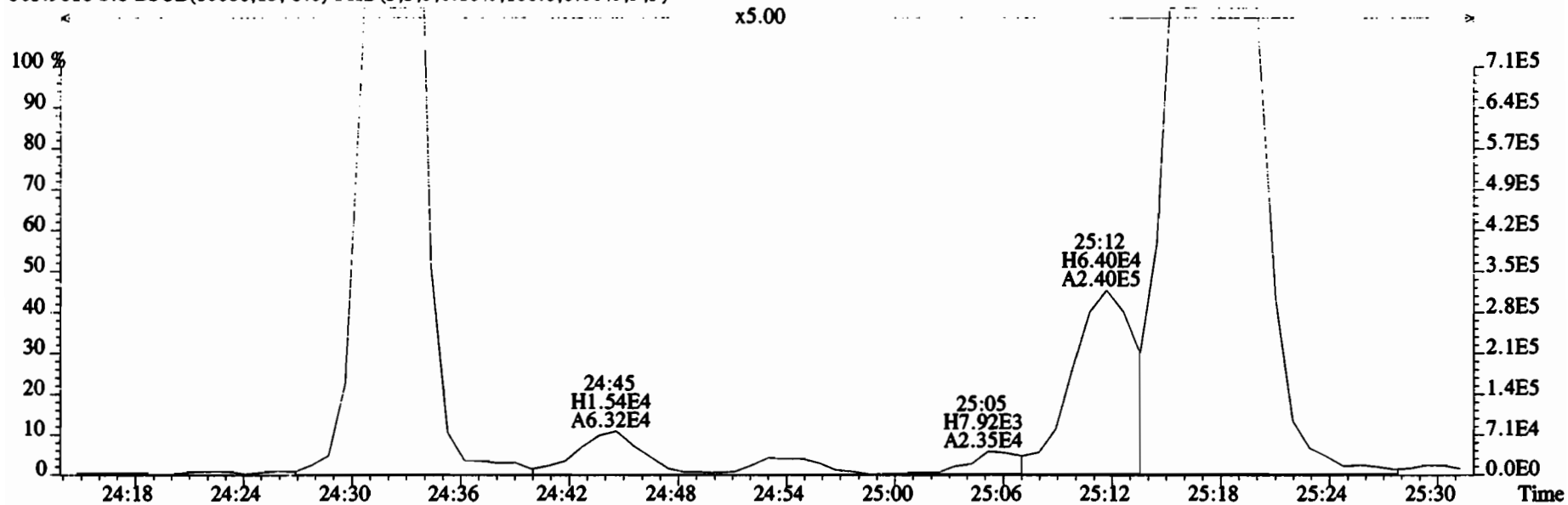
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



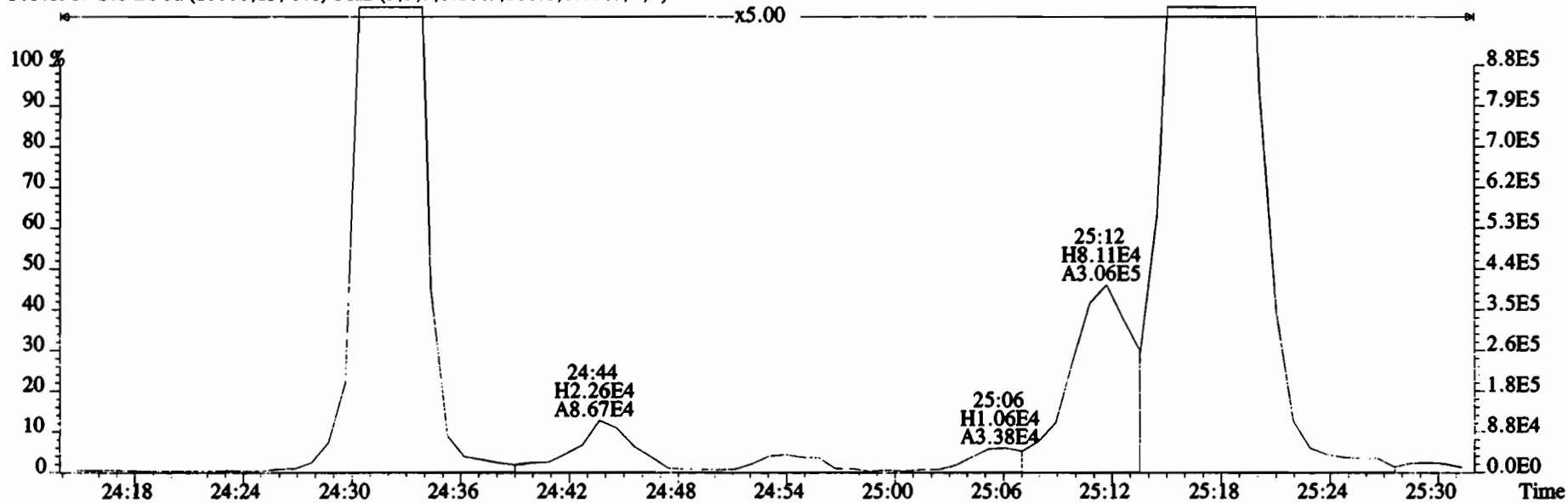
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



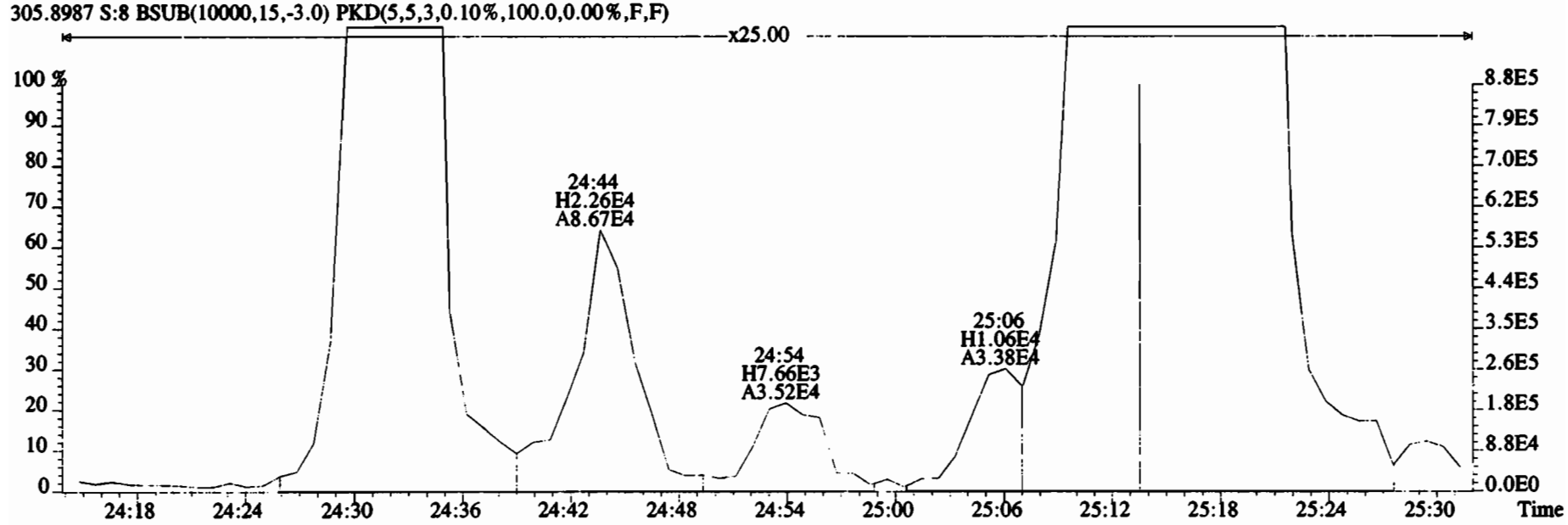
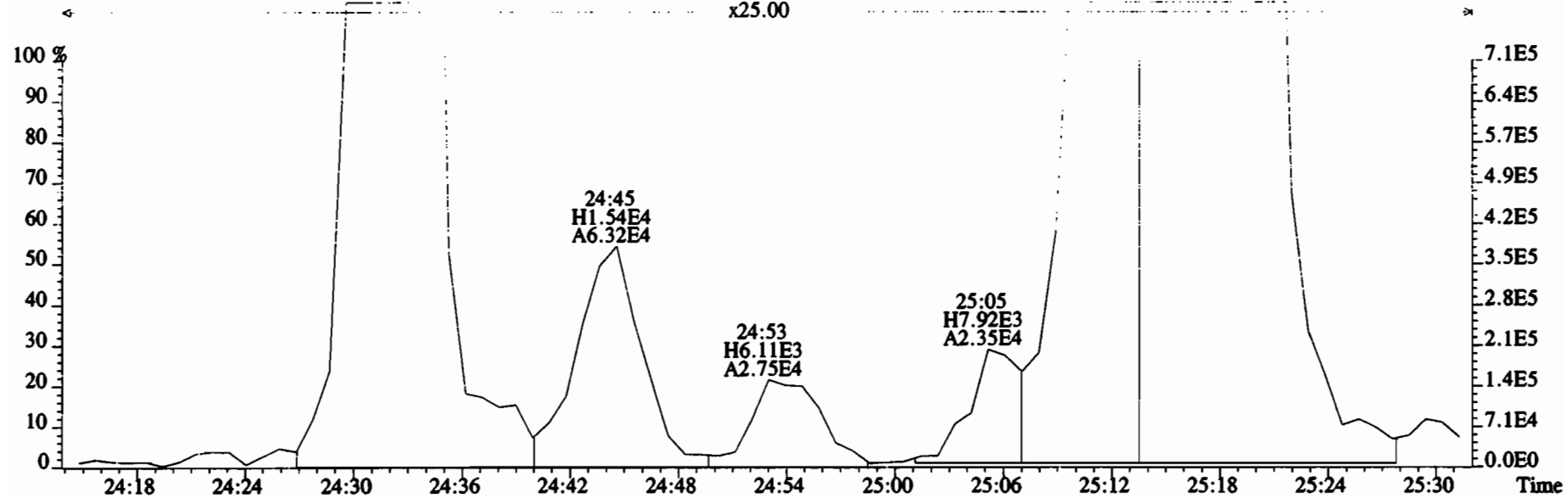
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



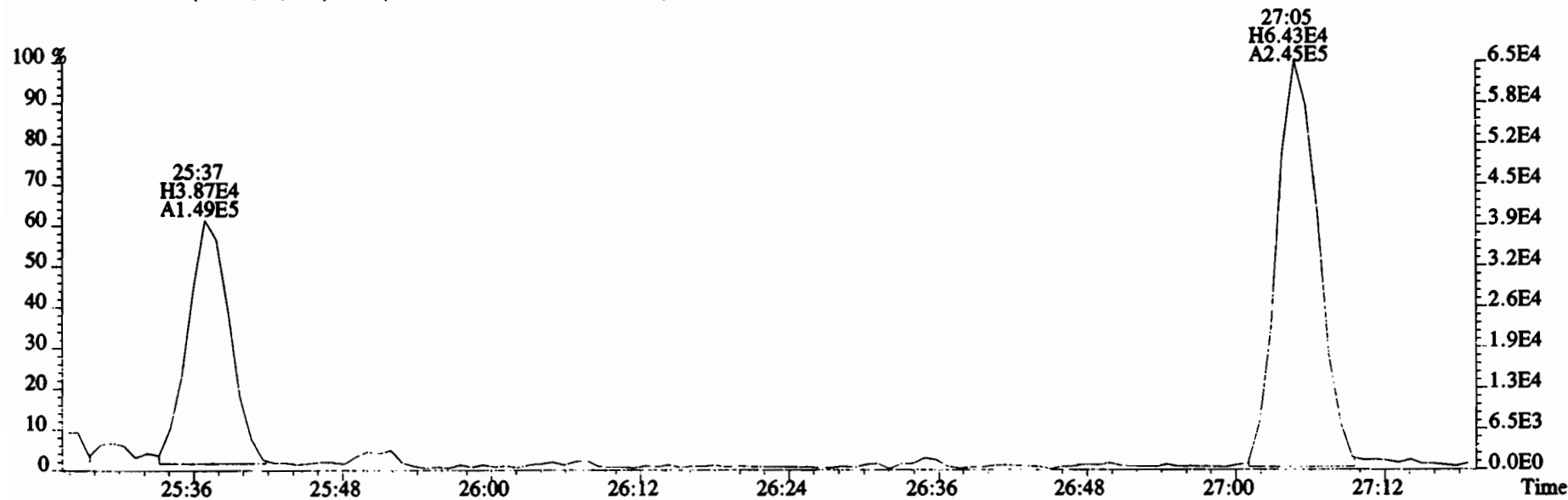
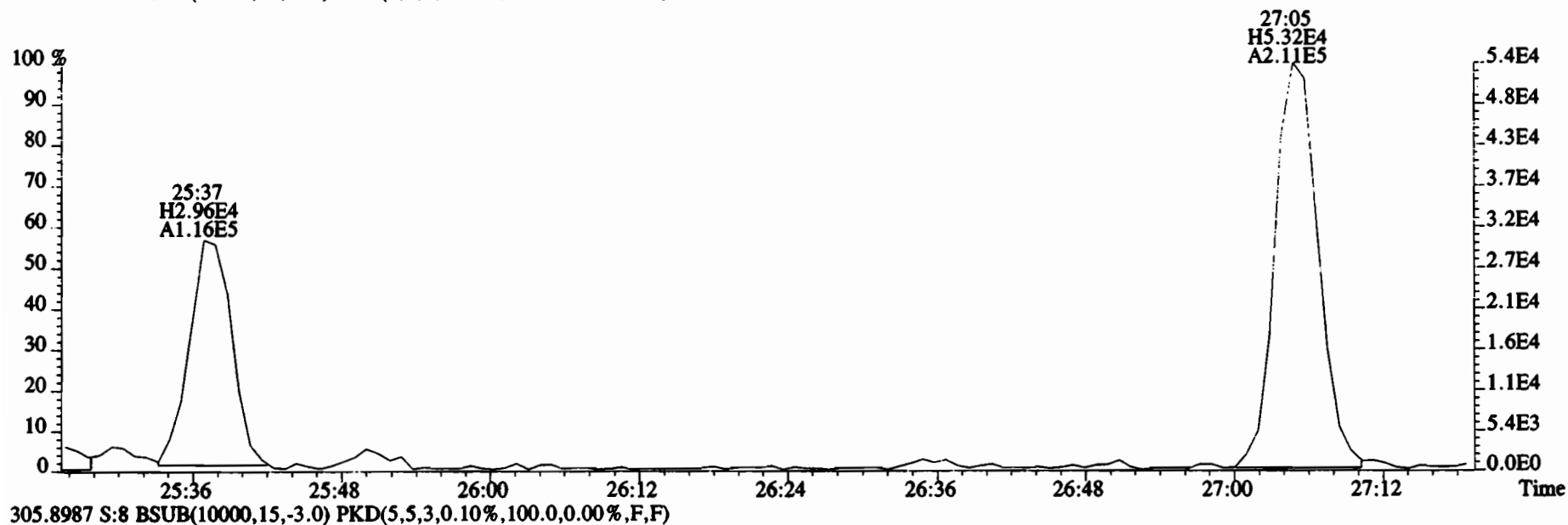
305.8987 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



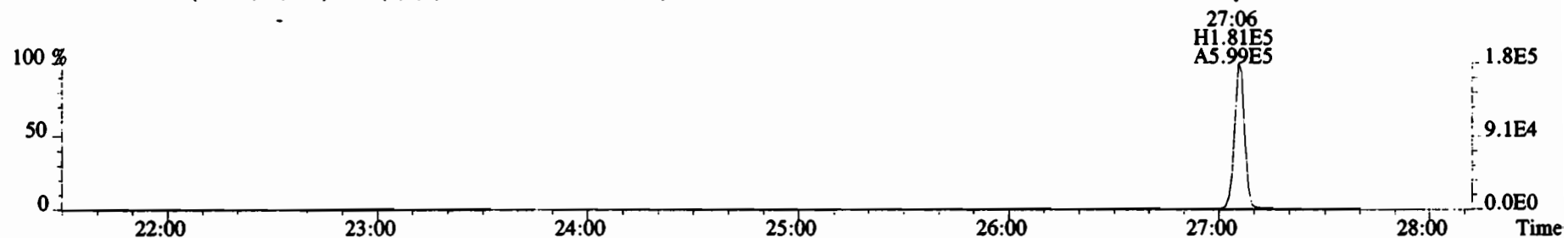
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



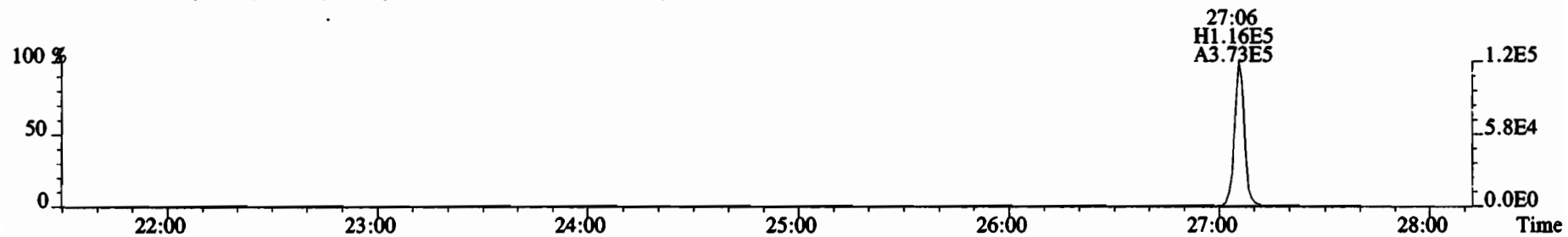
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



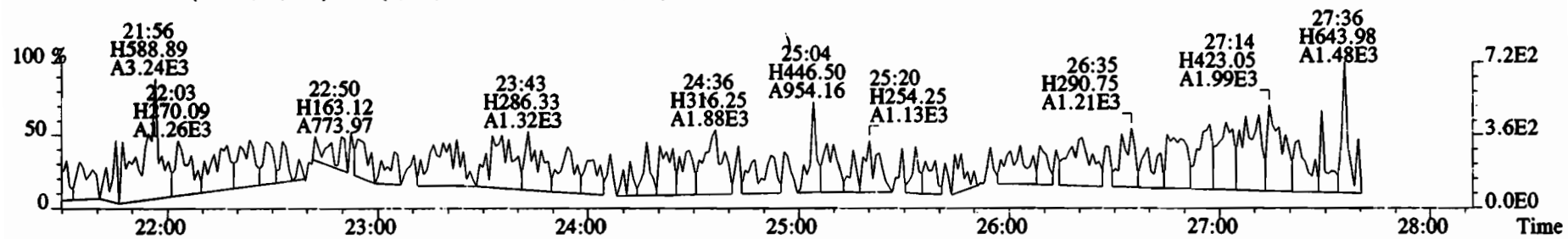
File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



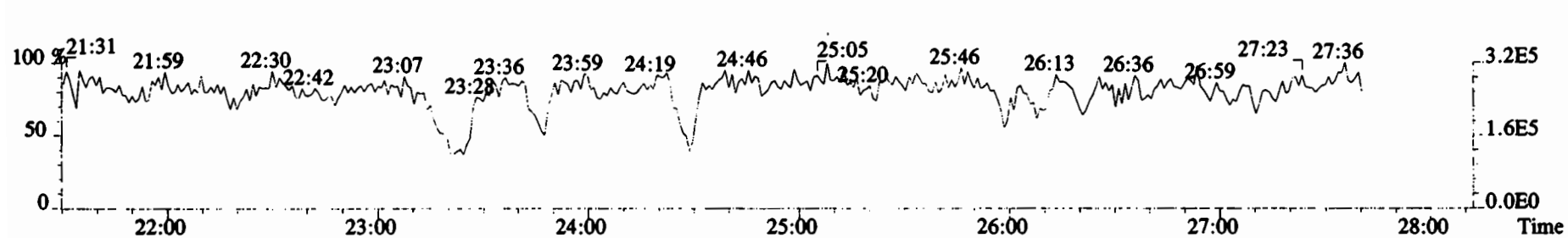
341.8568 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



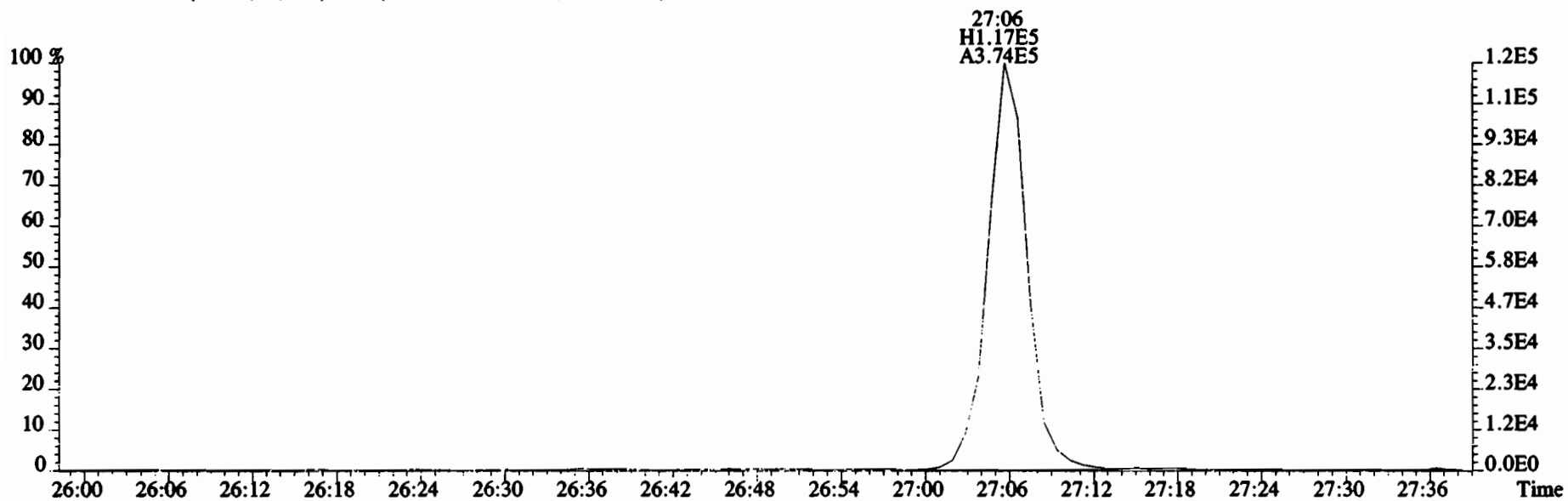
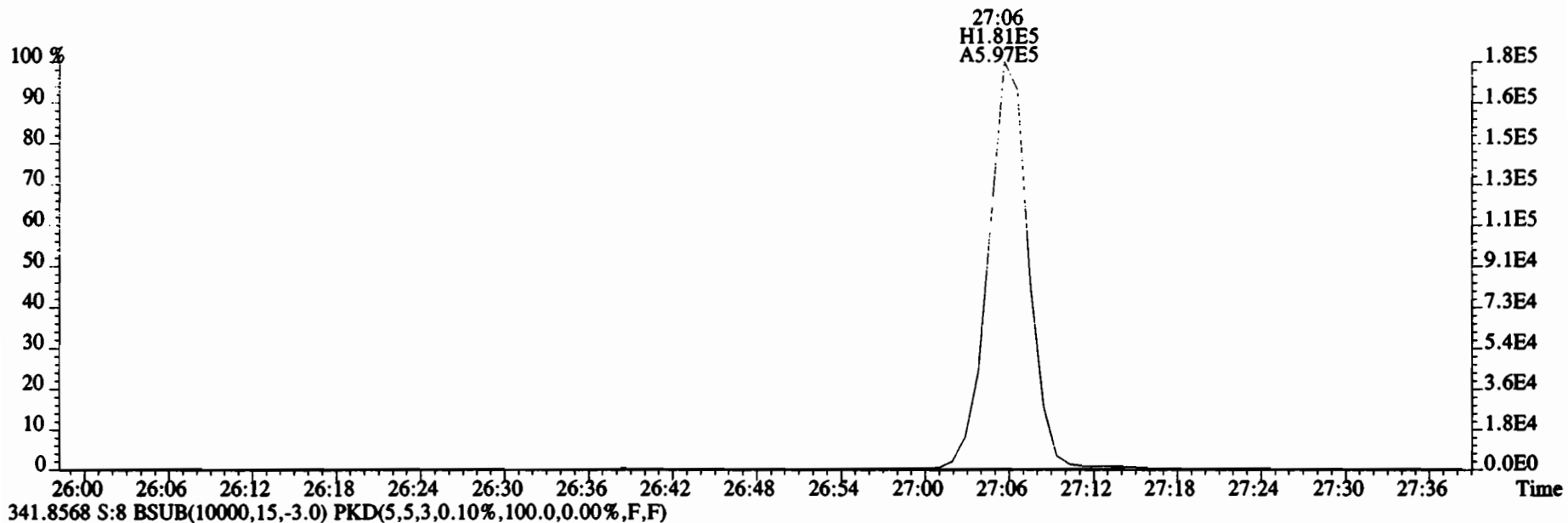
409.7974 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



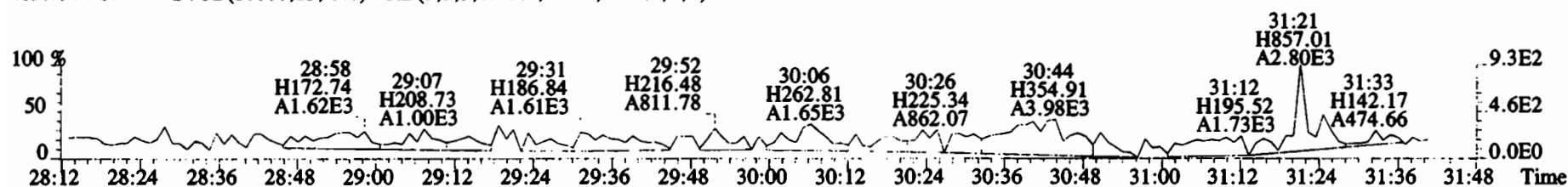
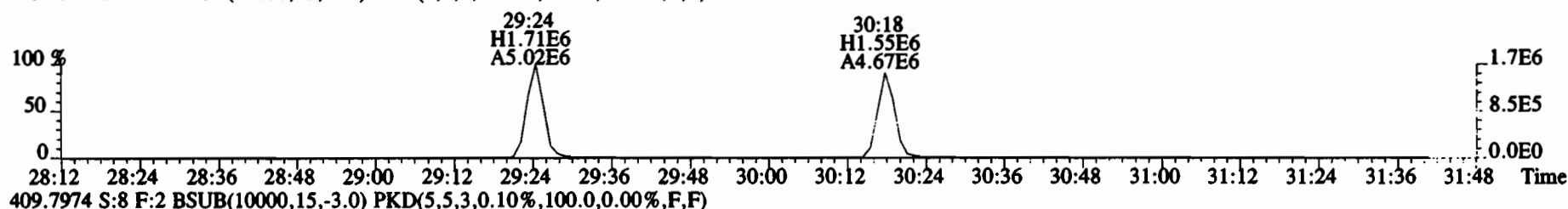
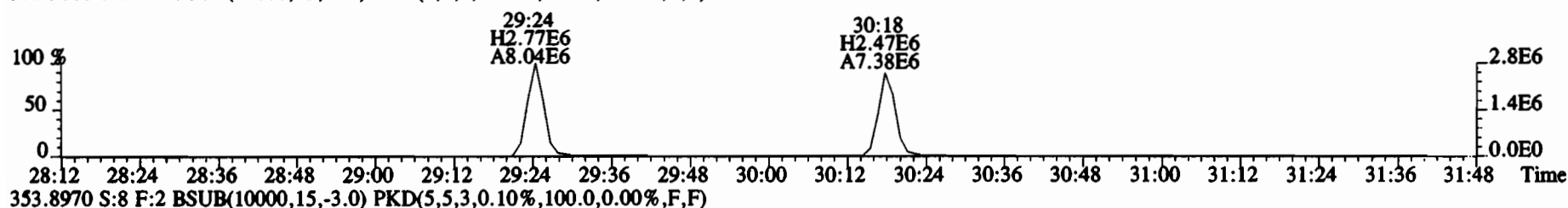
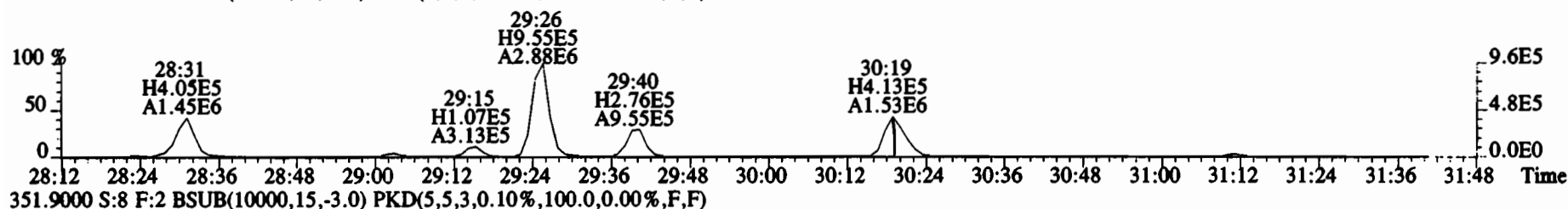
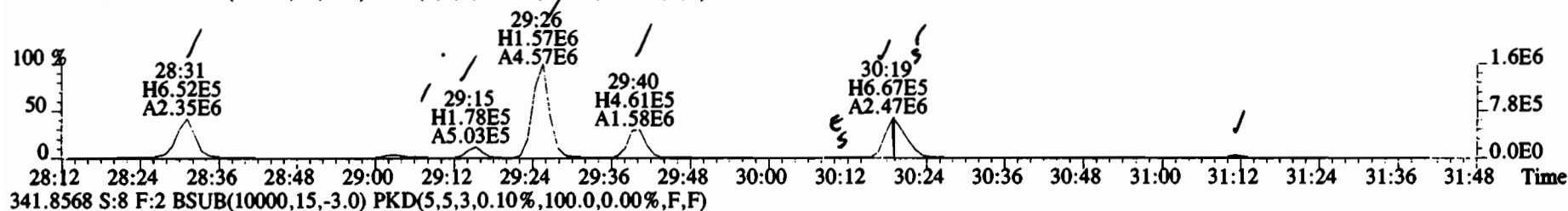
316.9824 S:8



File:200107D2 #1-492 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

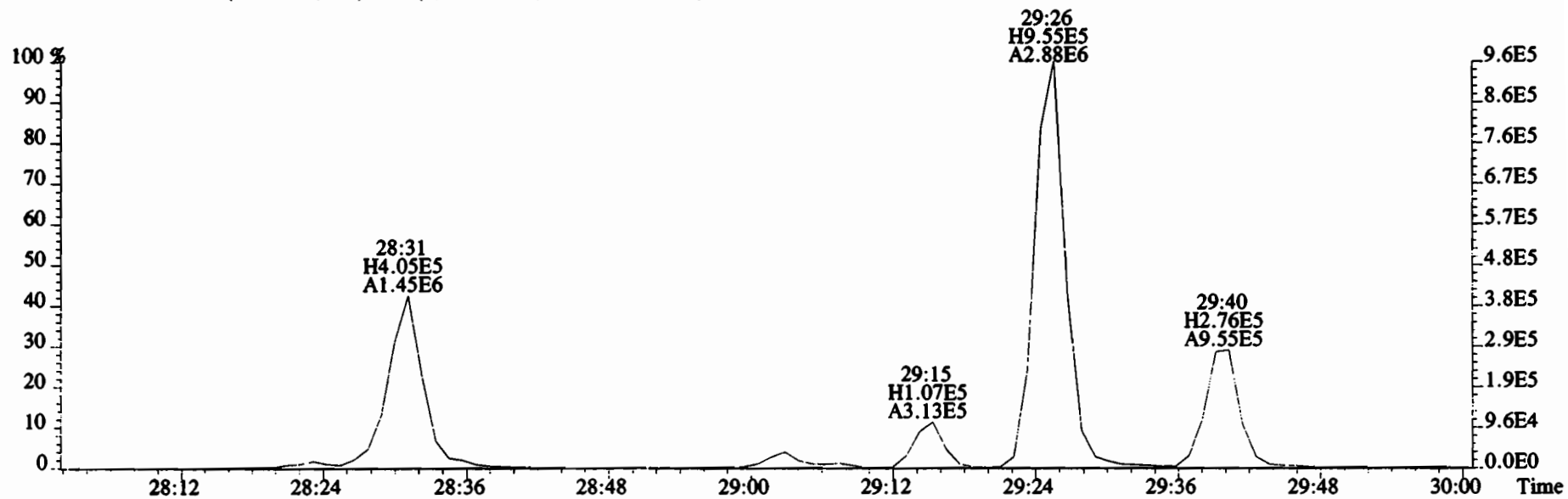
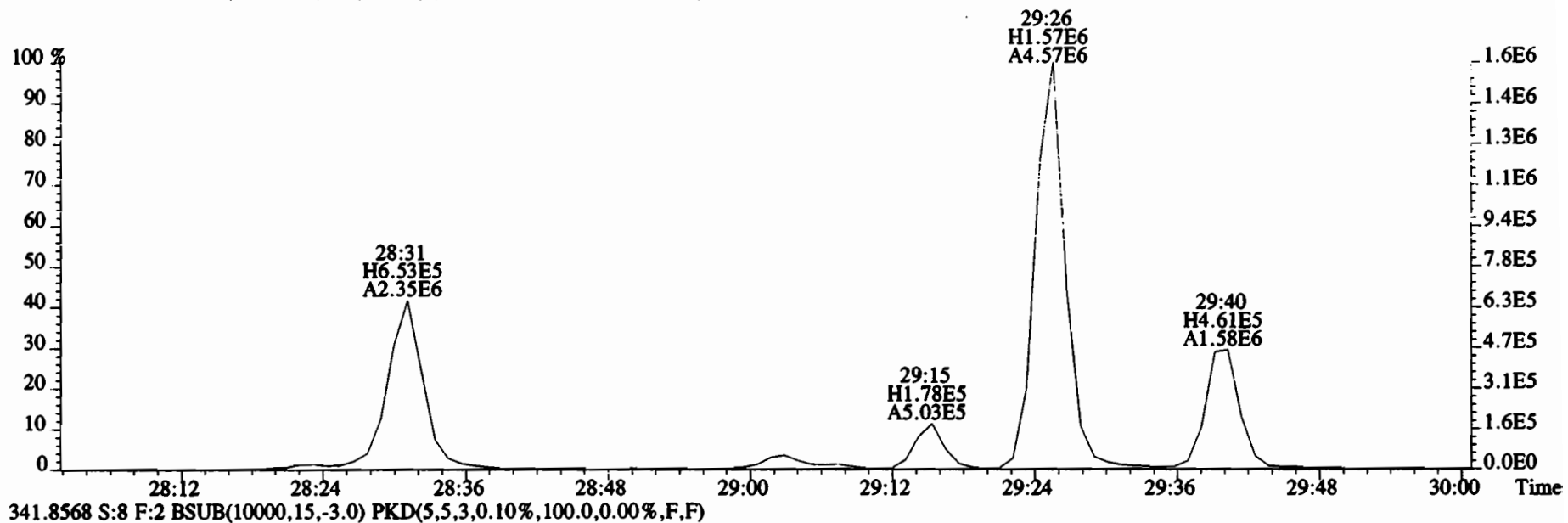


File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

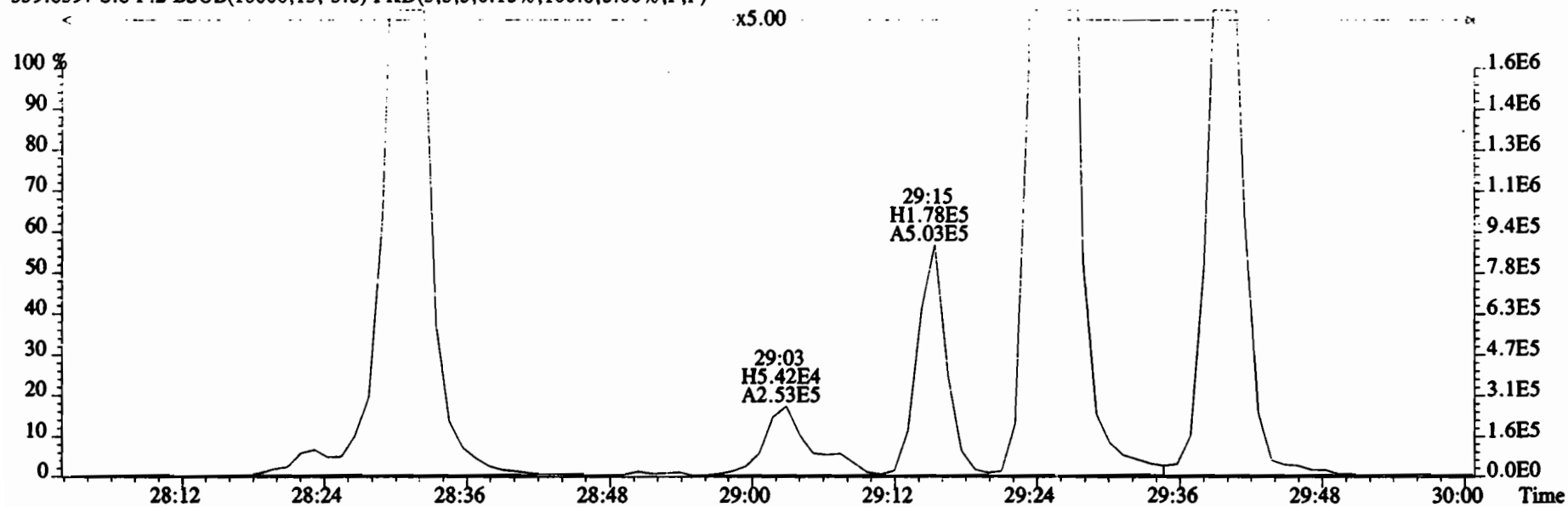




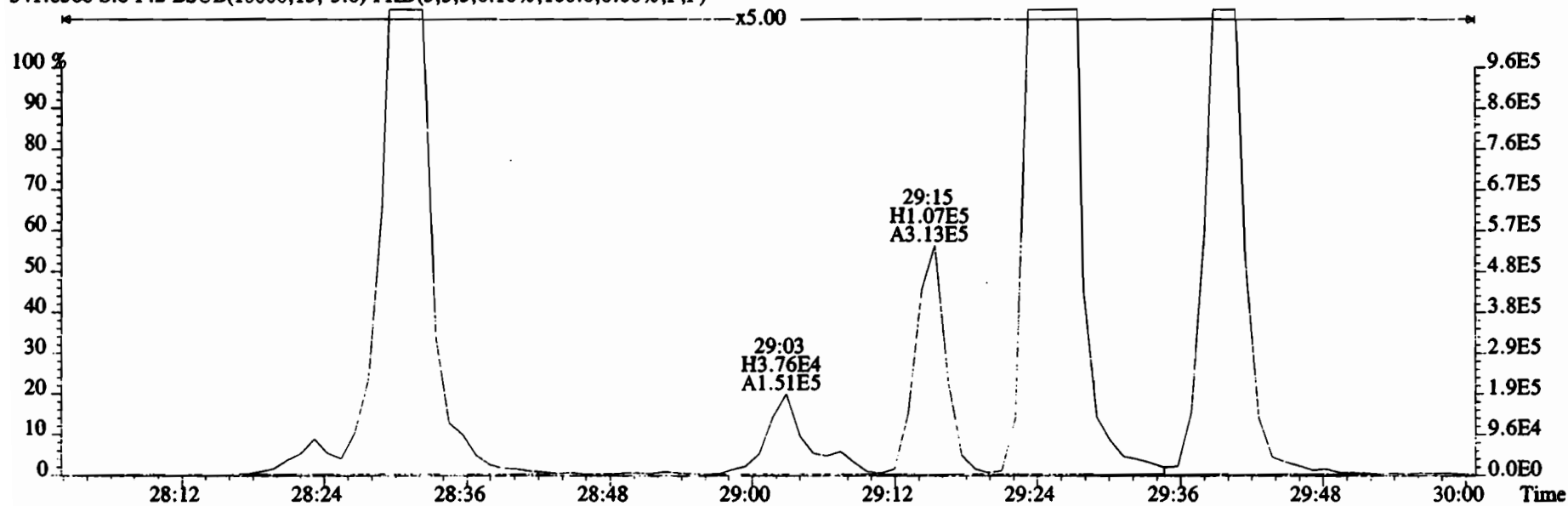
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



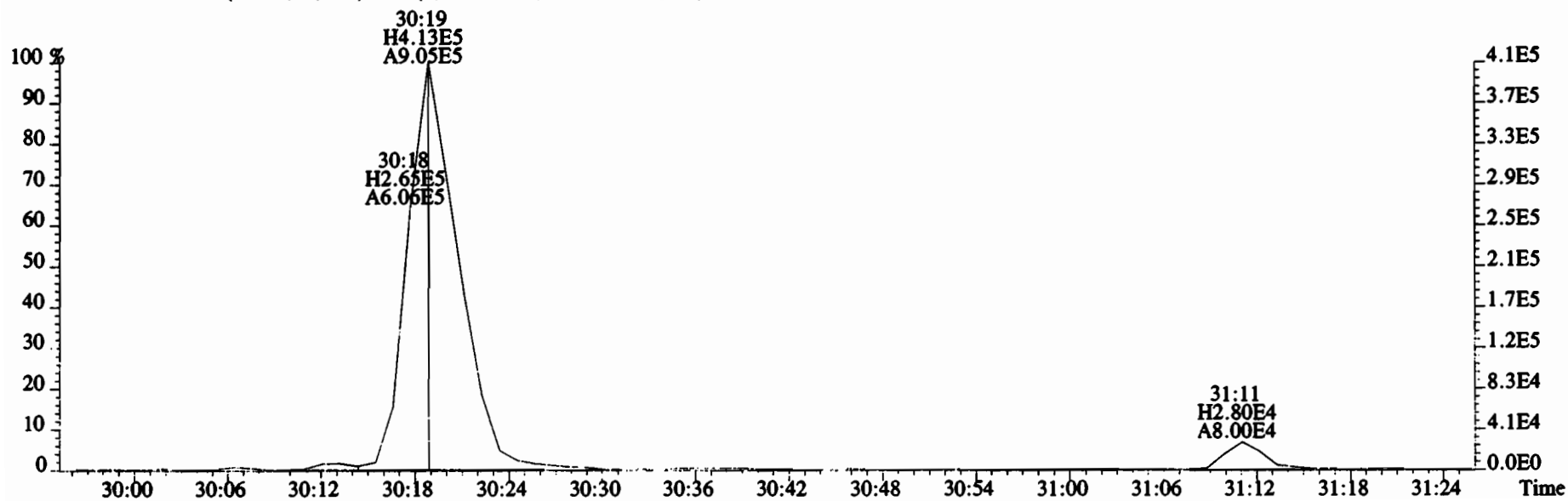
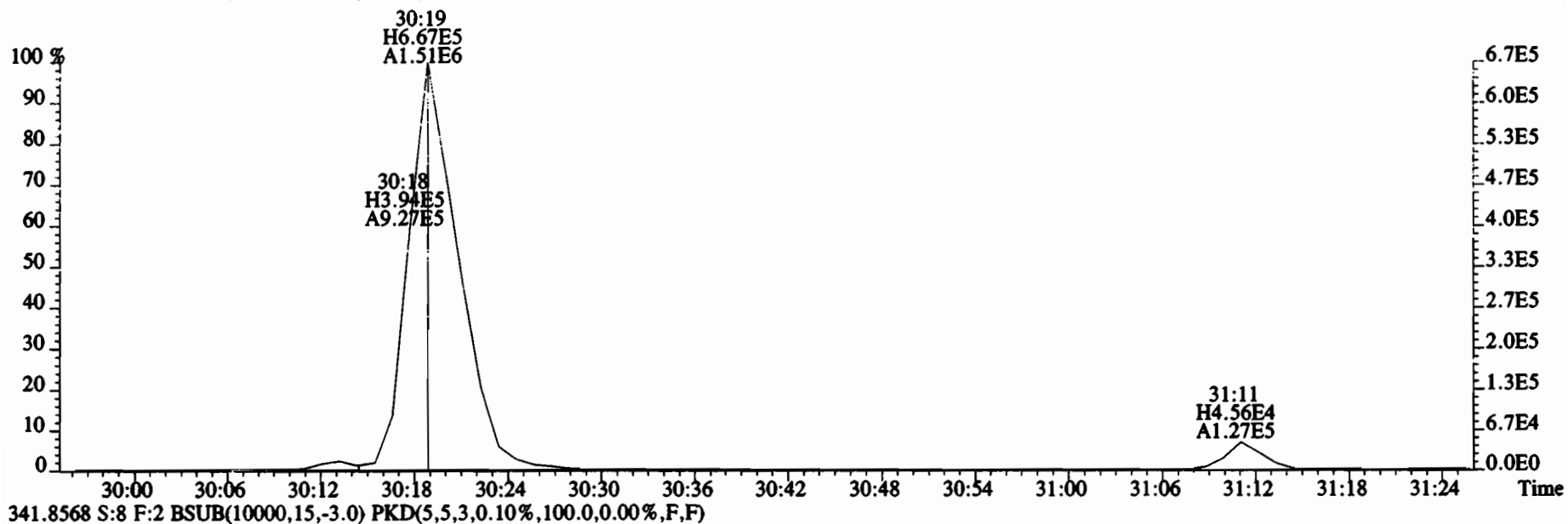
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



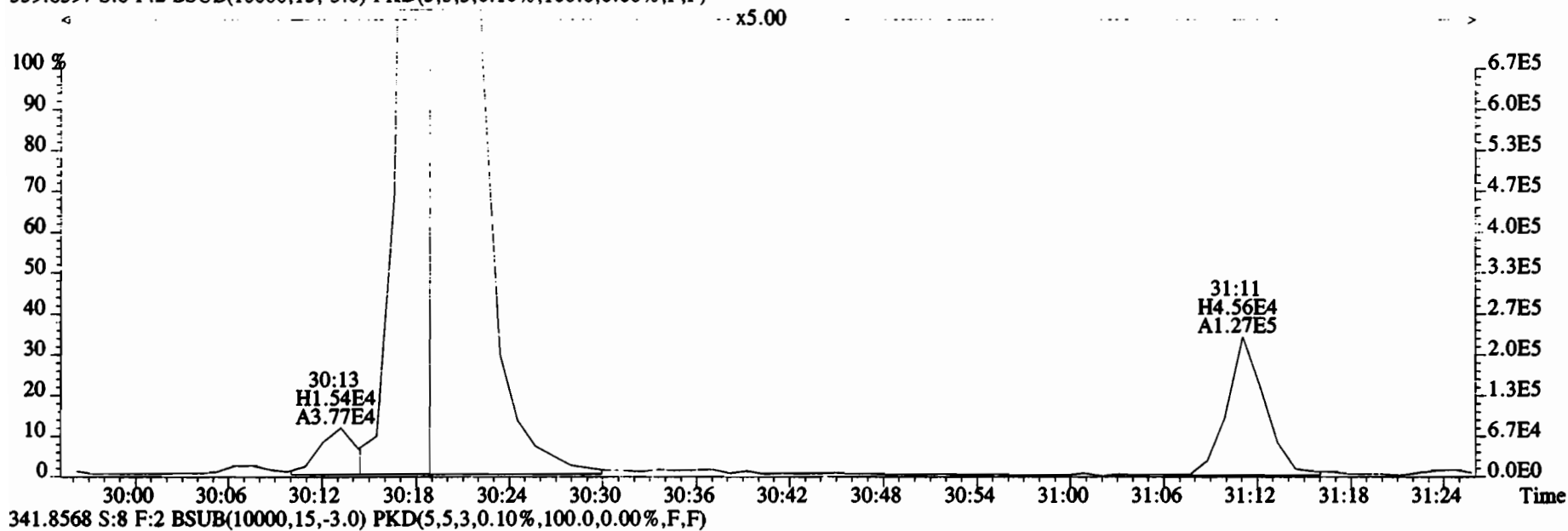
341.8568 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



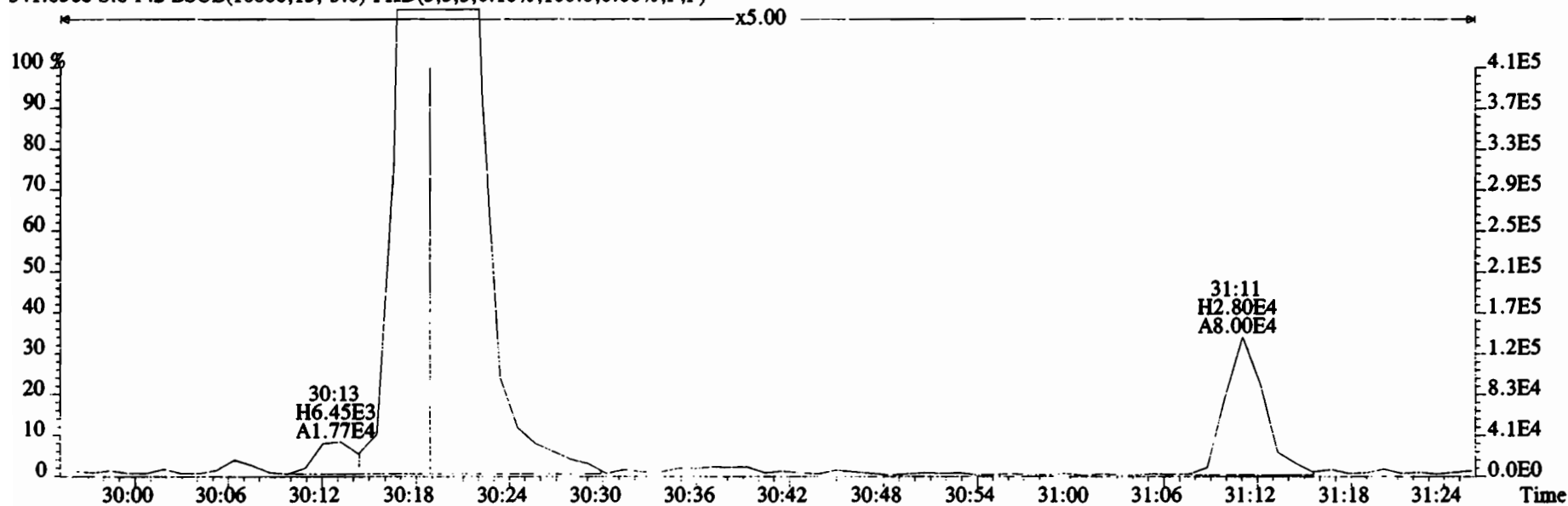
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



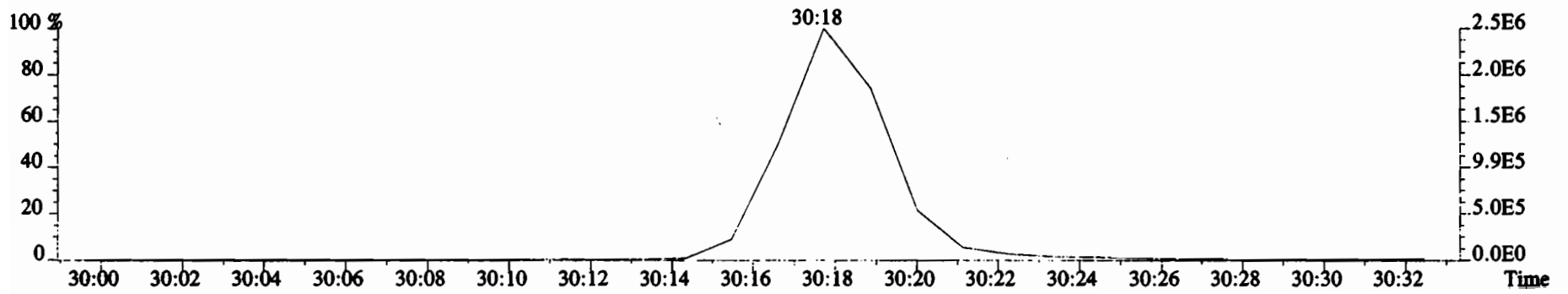
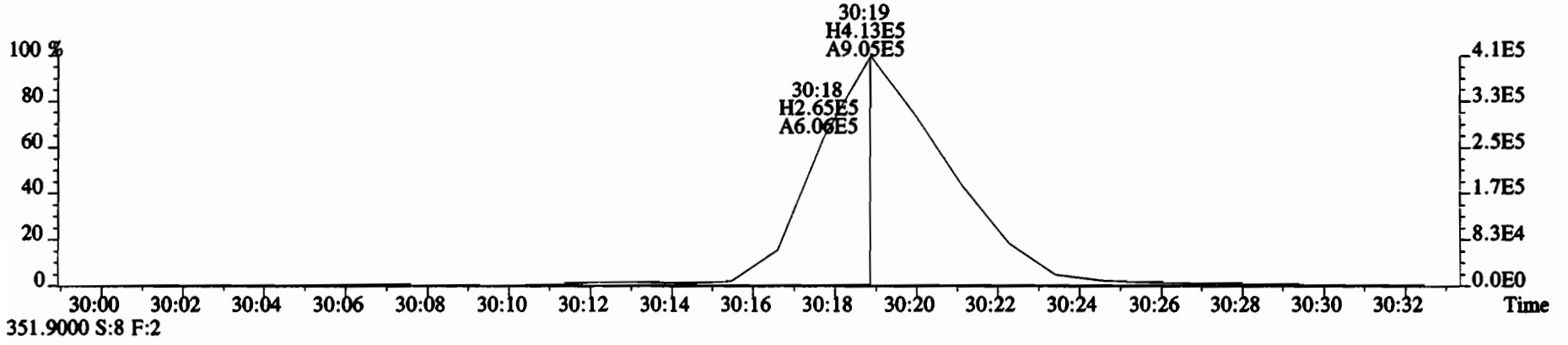
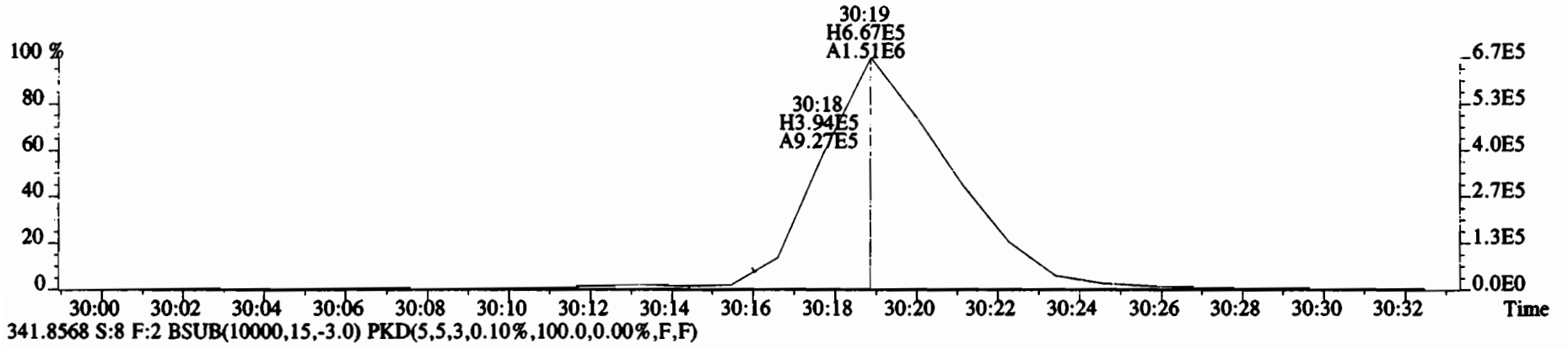
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



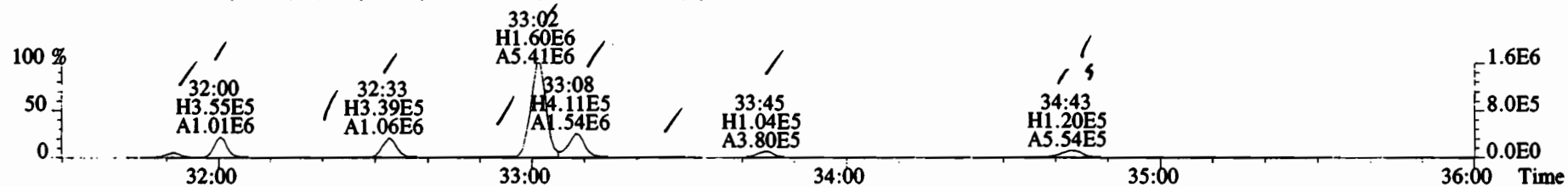
341.8568 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



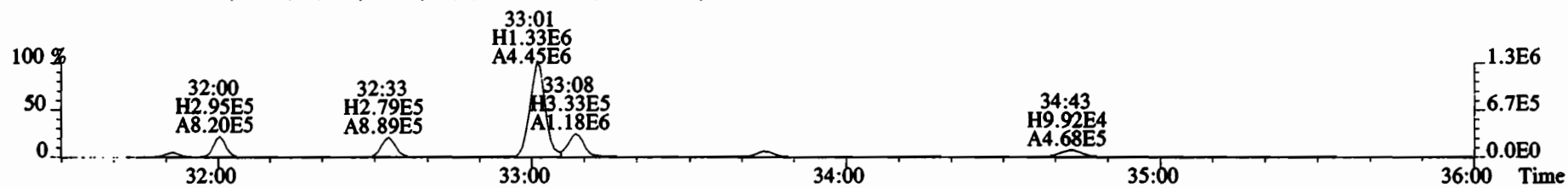
File:200107D2 #1-211 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



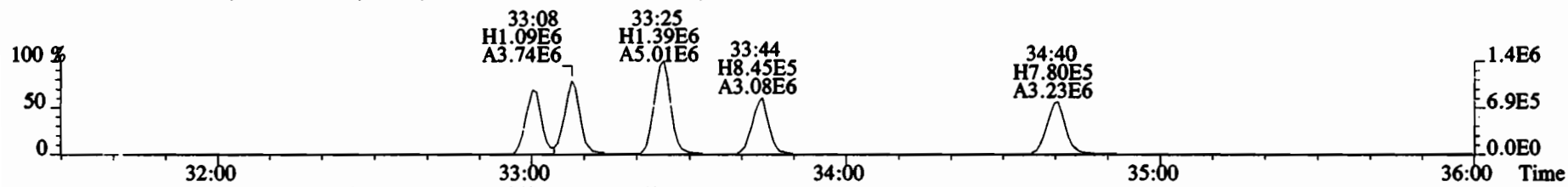
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



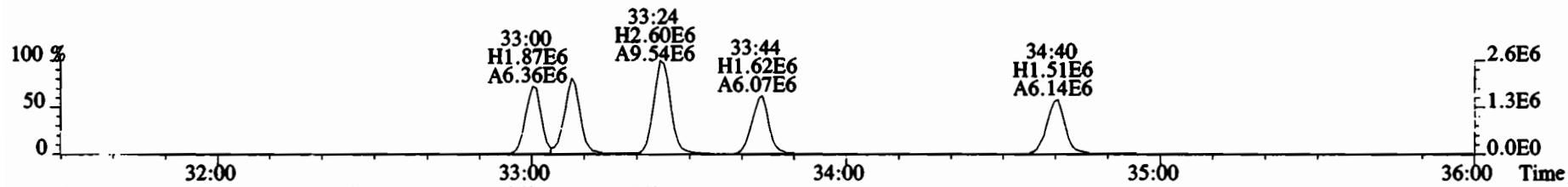
375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



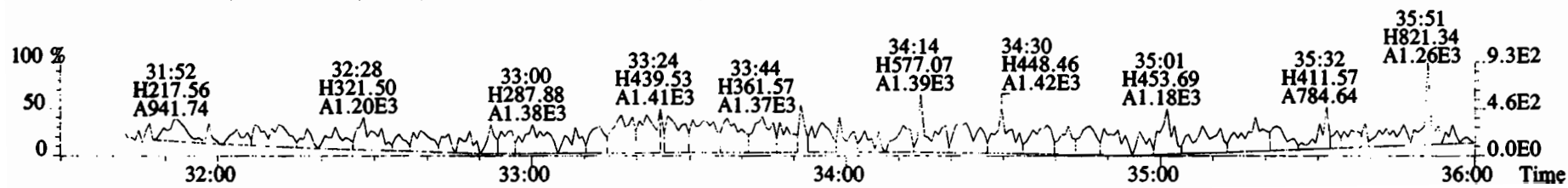
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



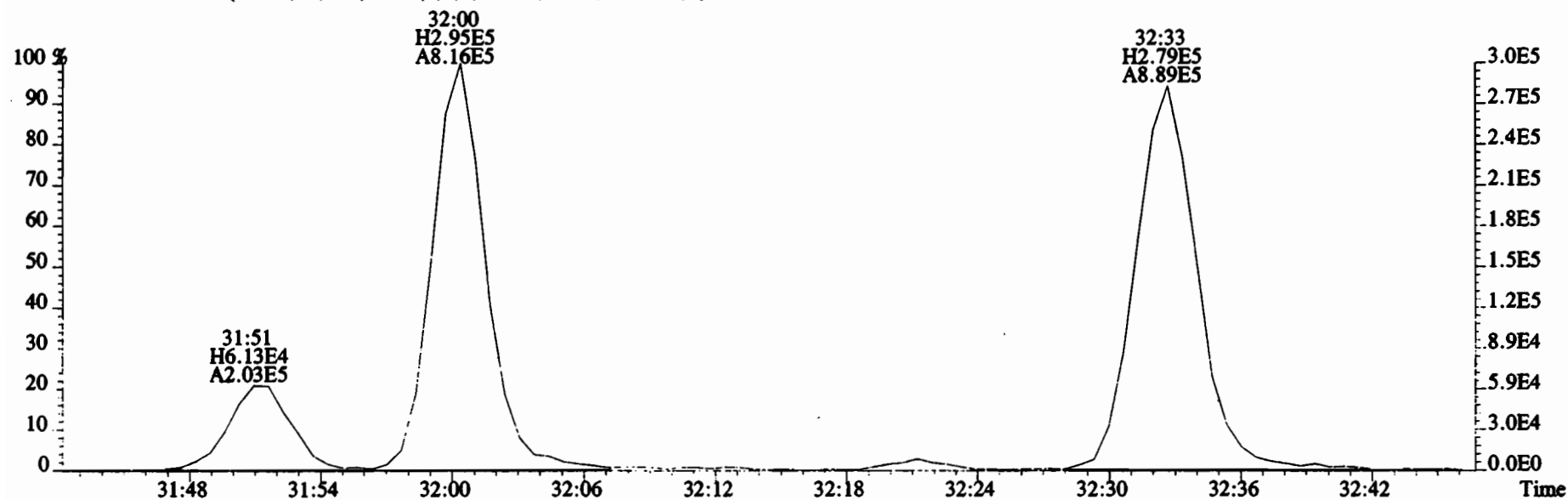
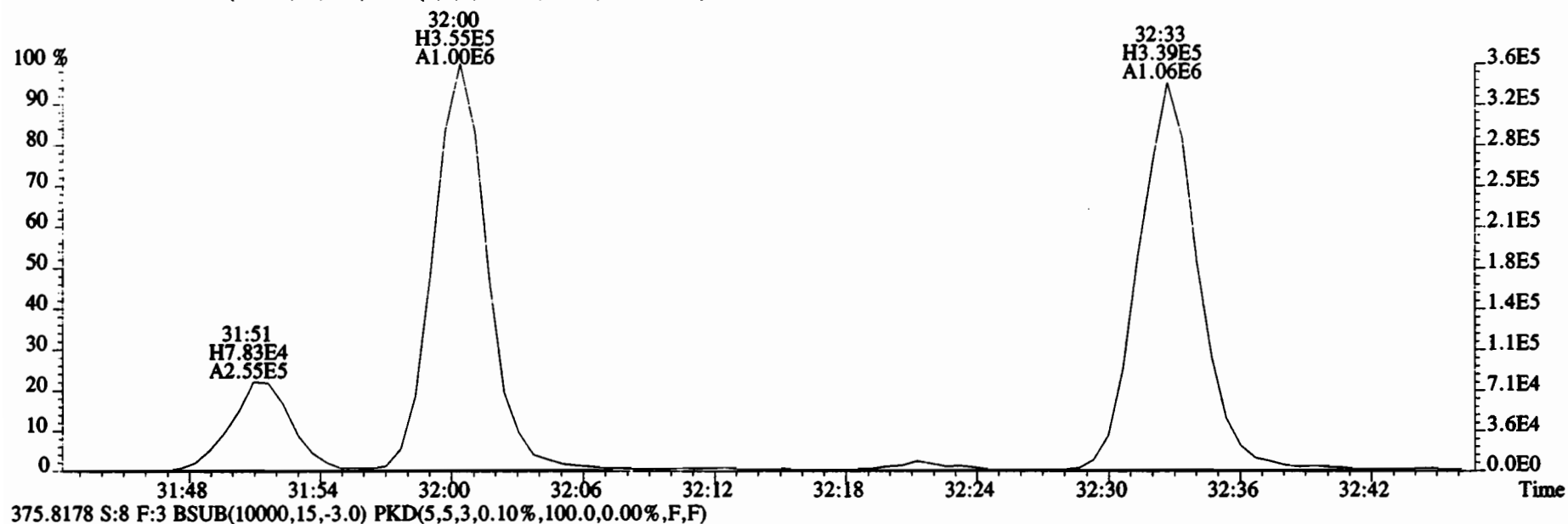
385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



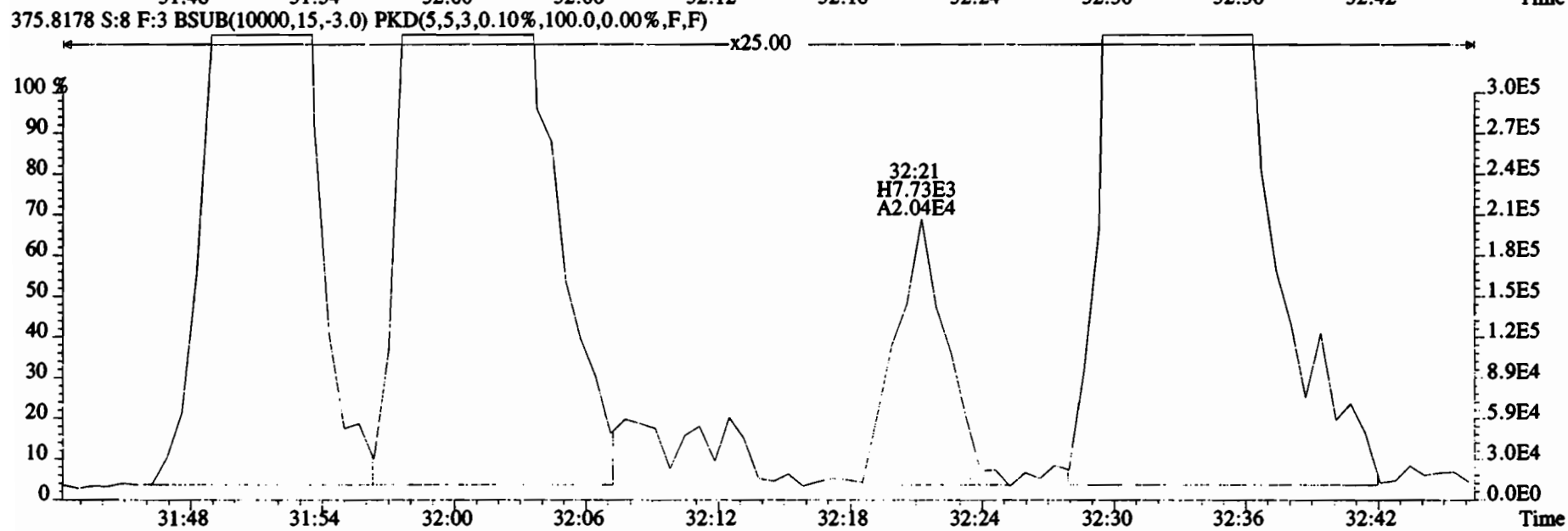
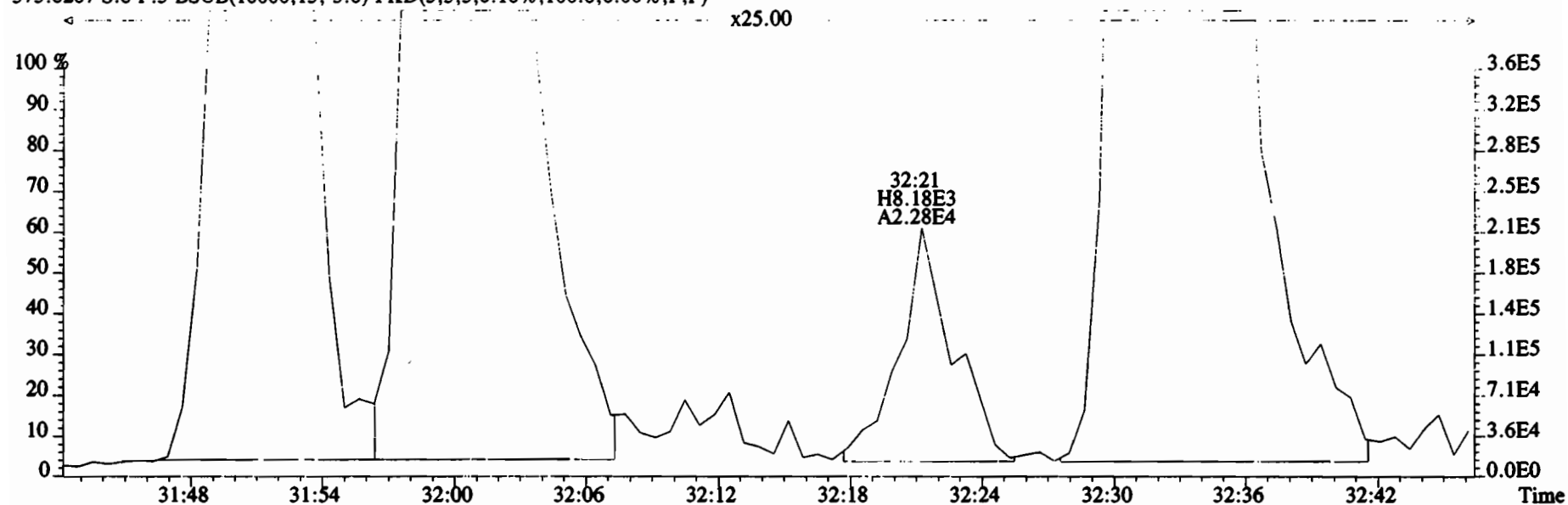
445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

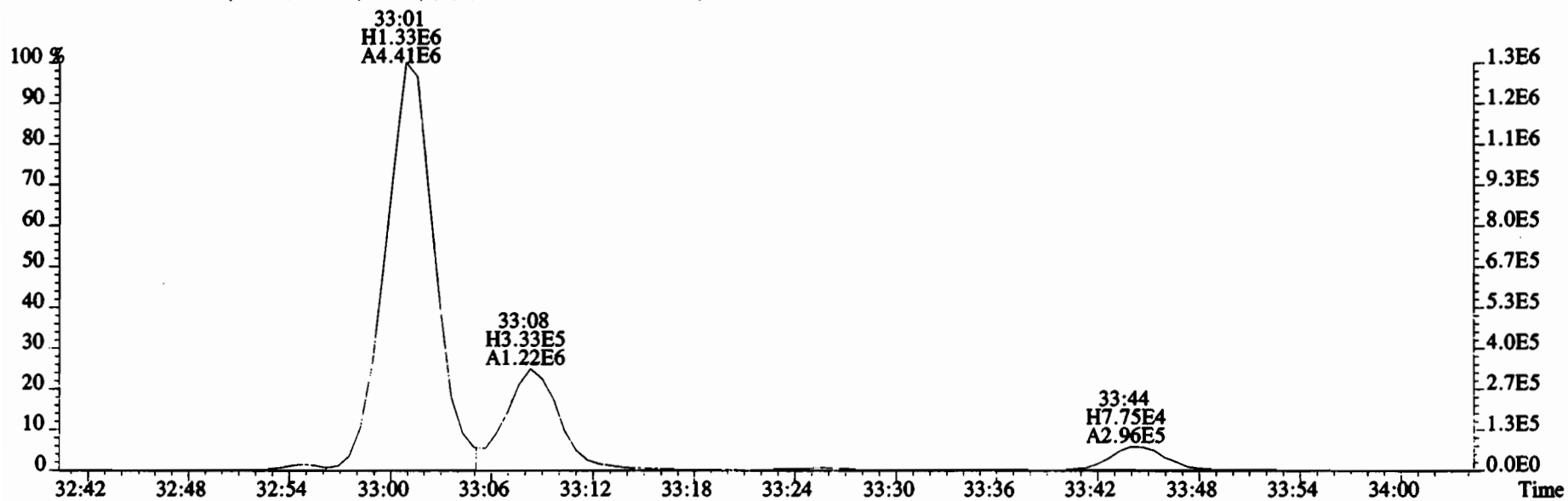
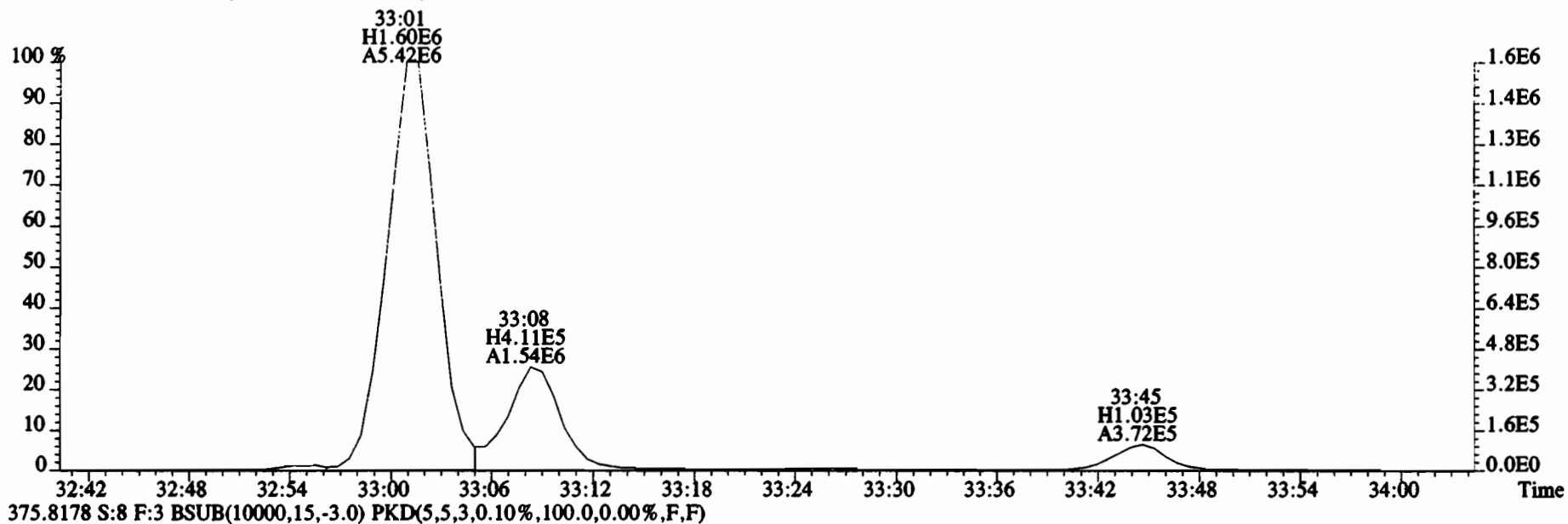


File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

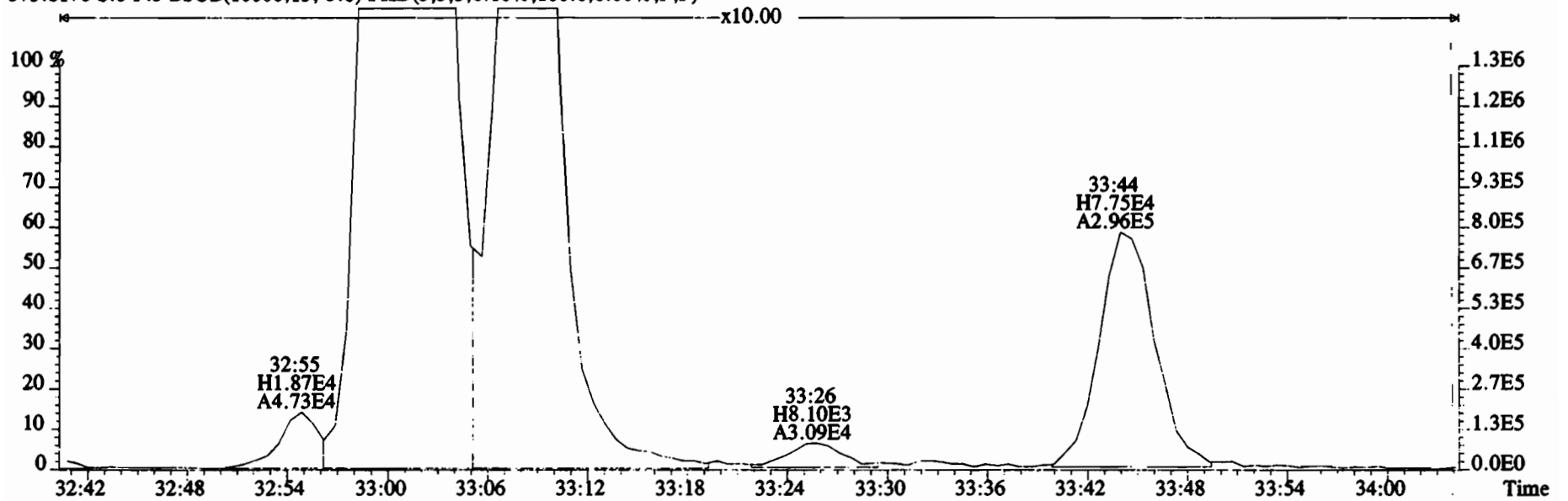
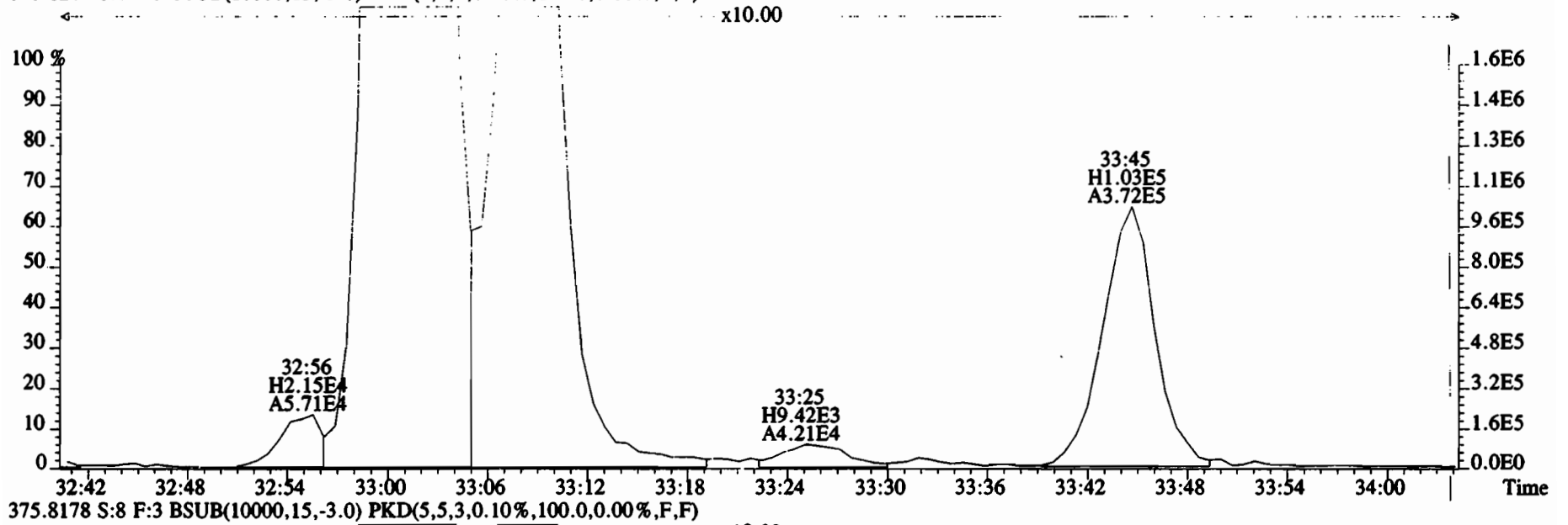




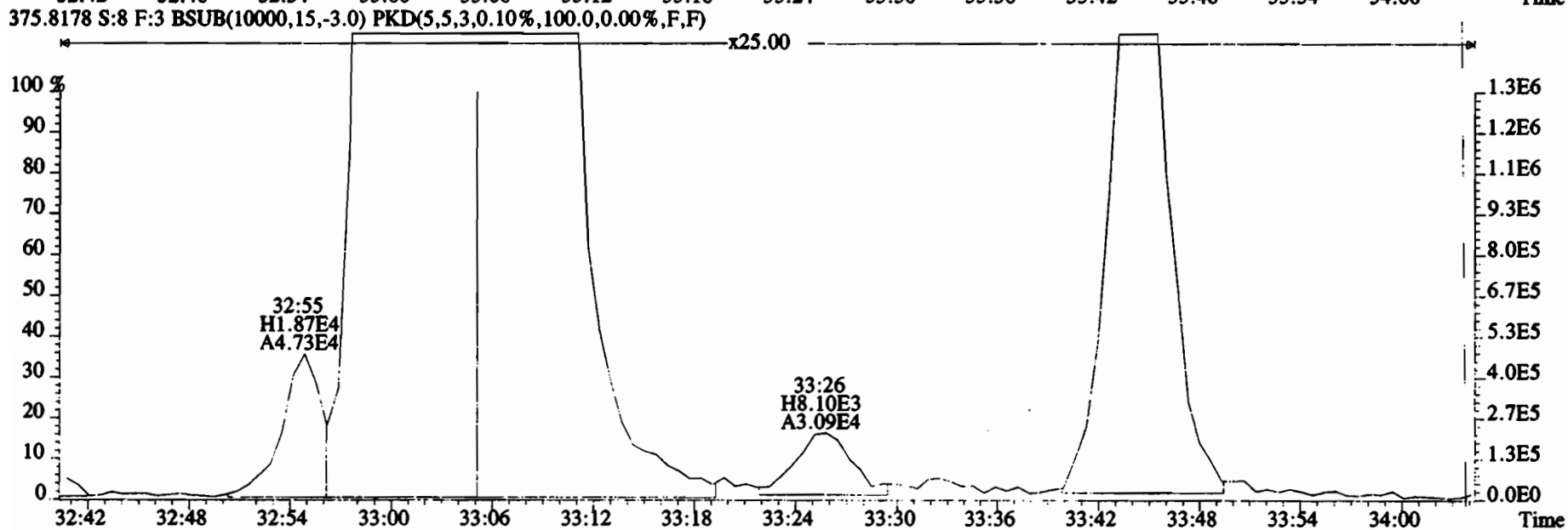
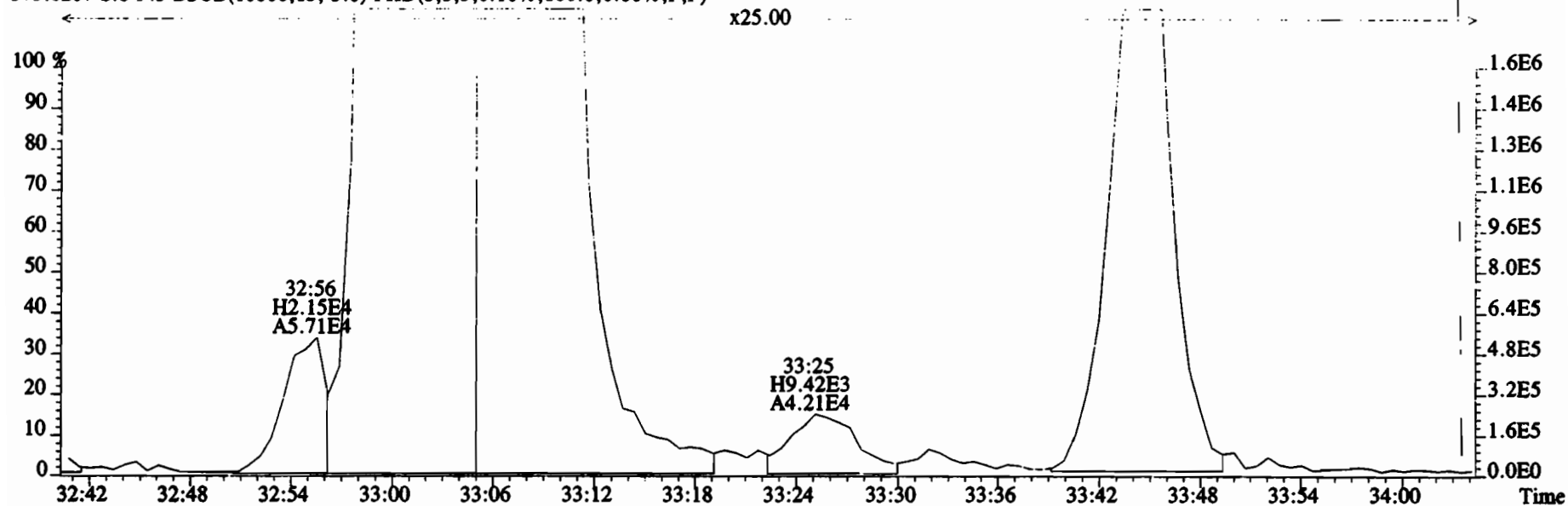
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



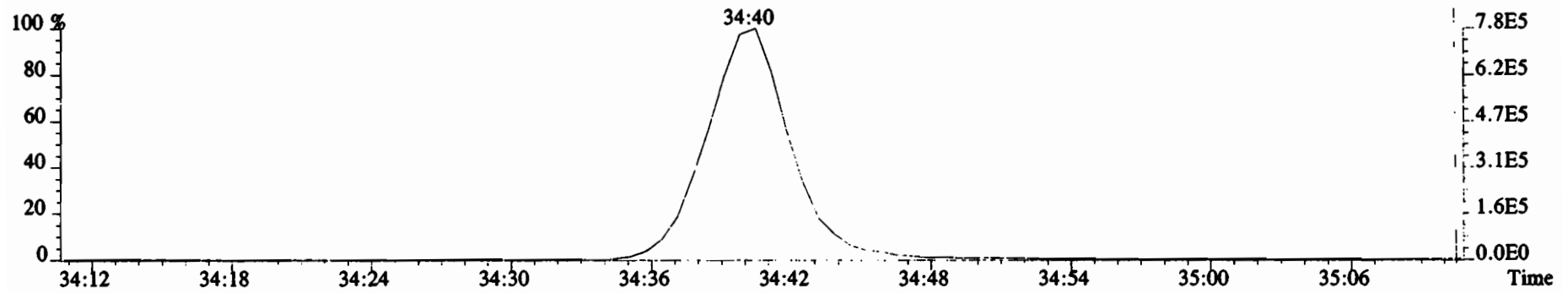
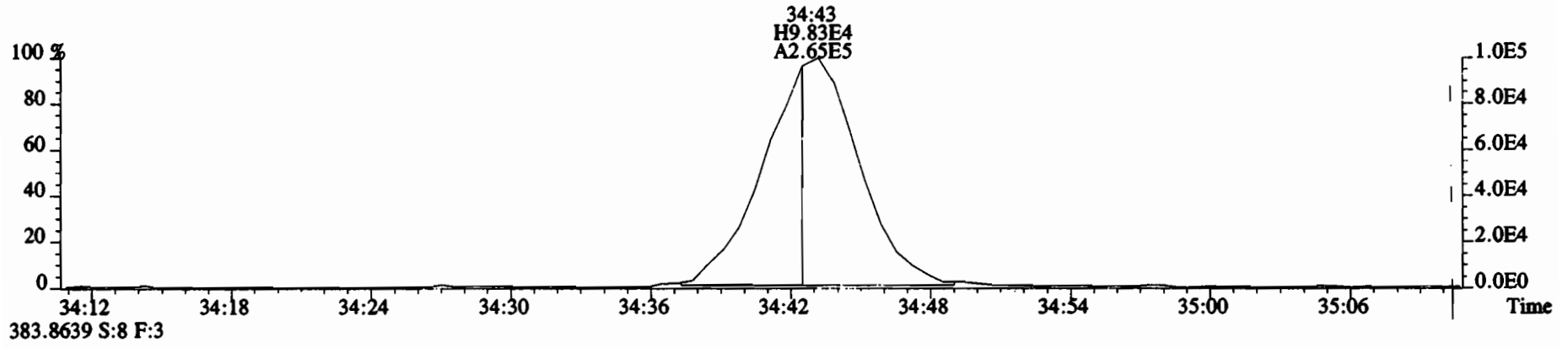
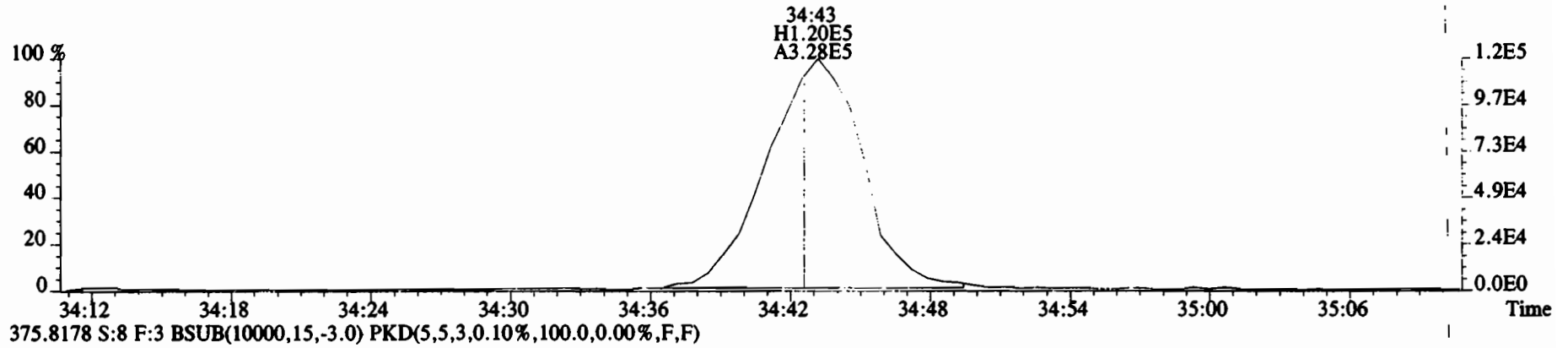
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



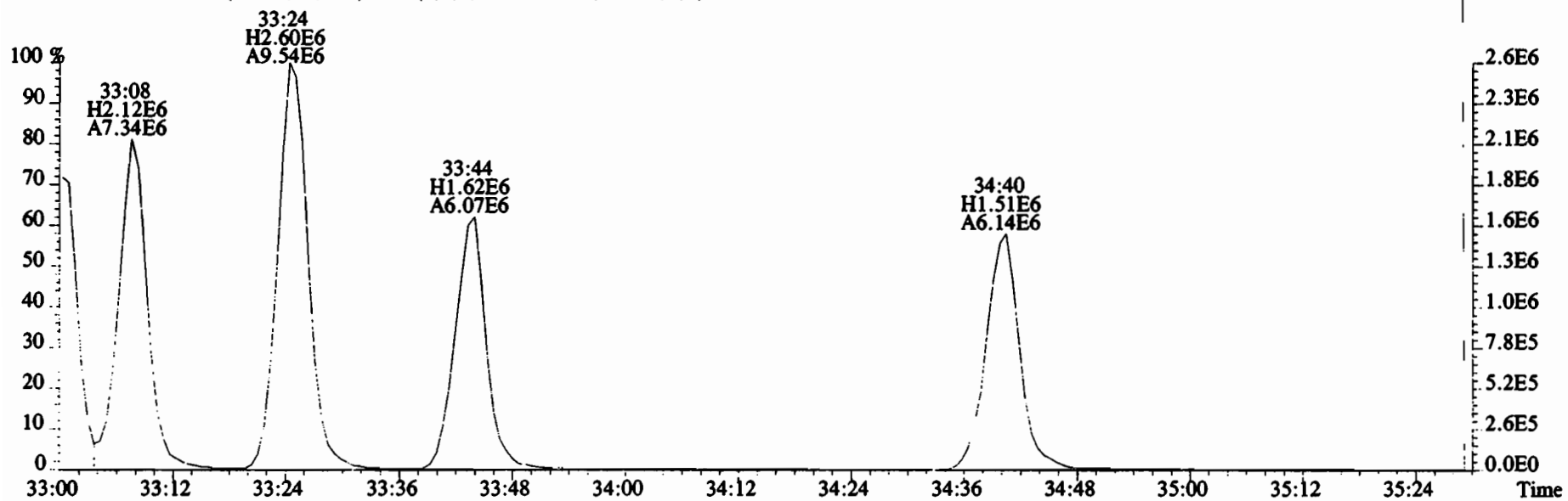
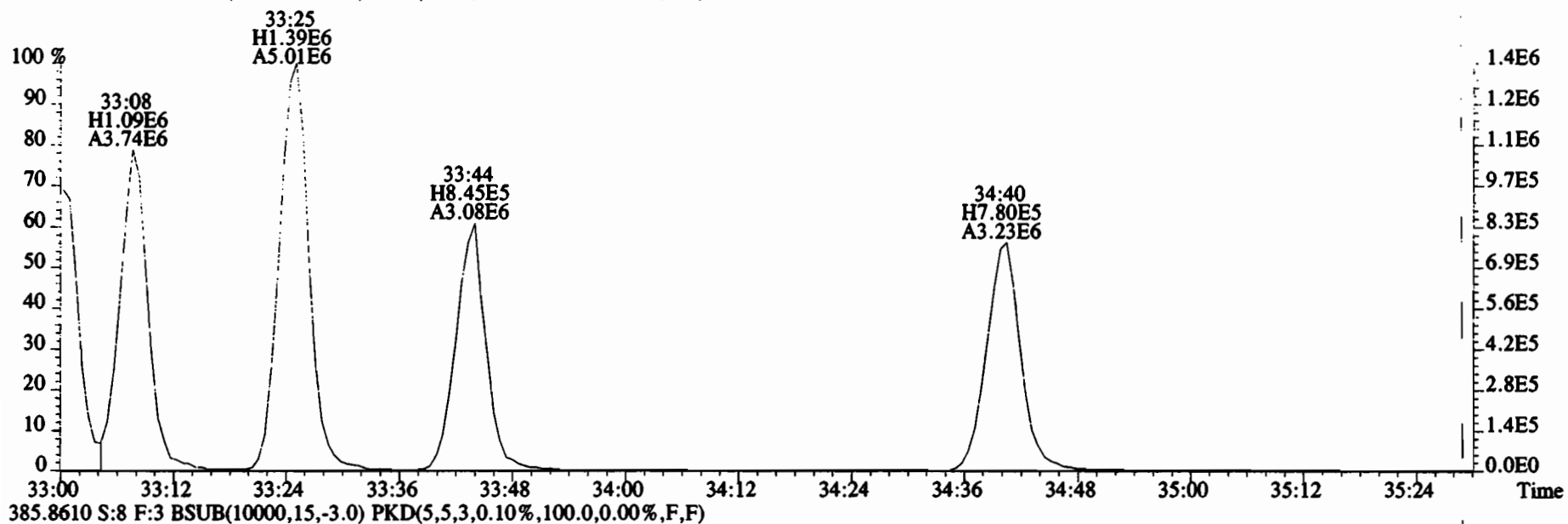
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



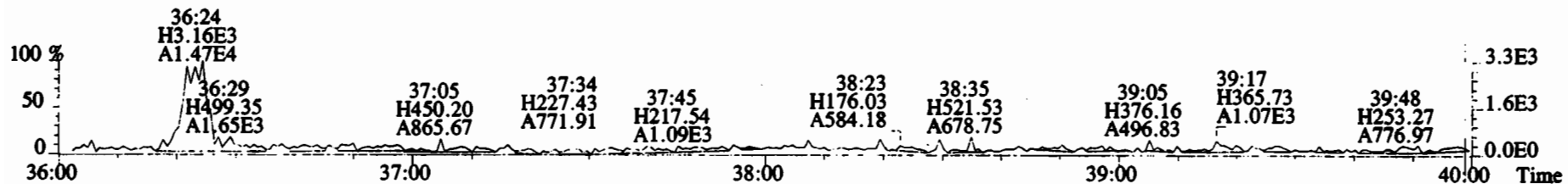
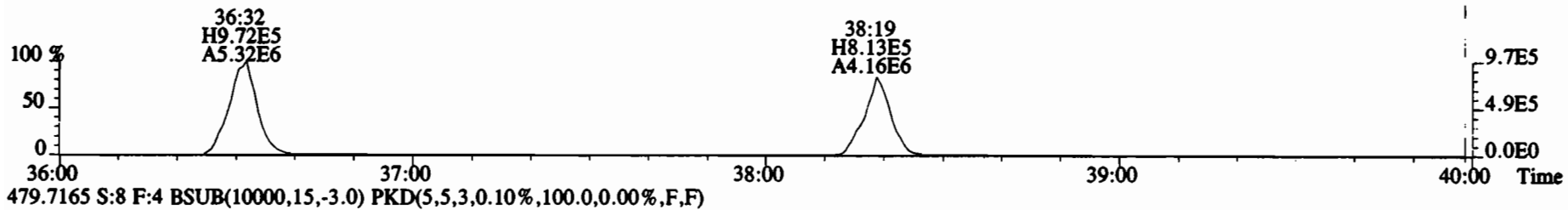
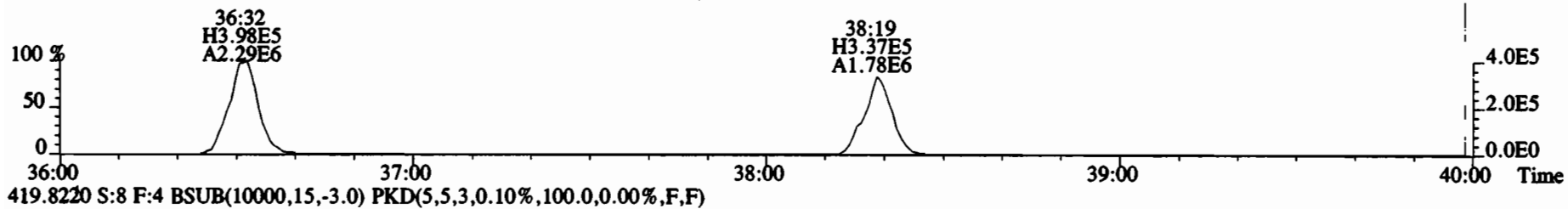
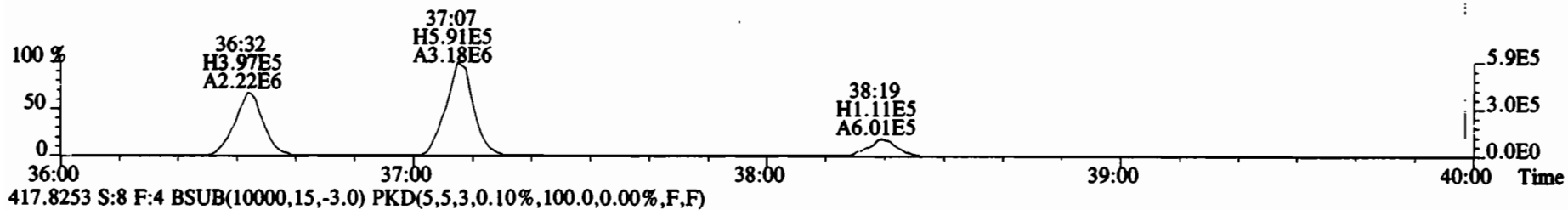
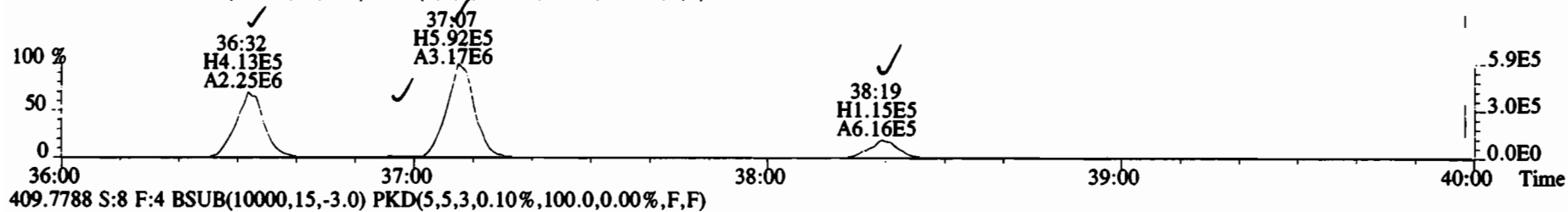
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



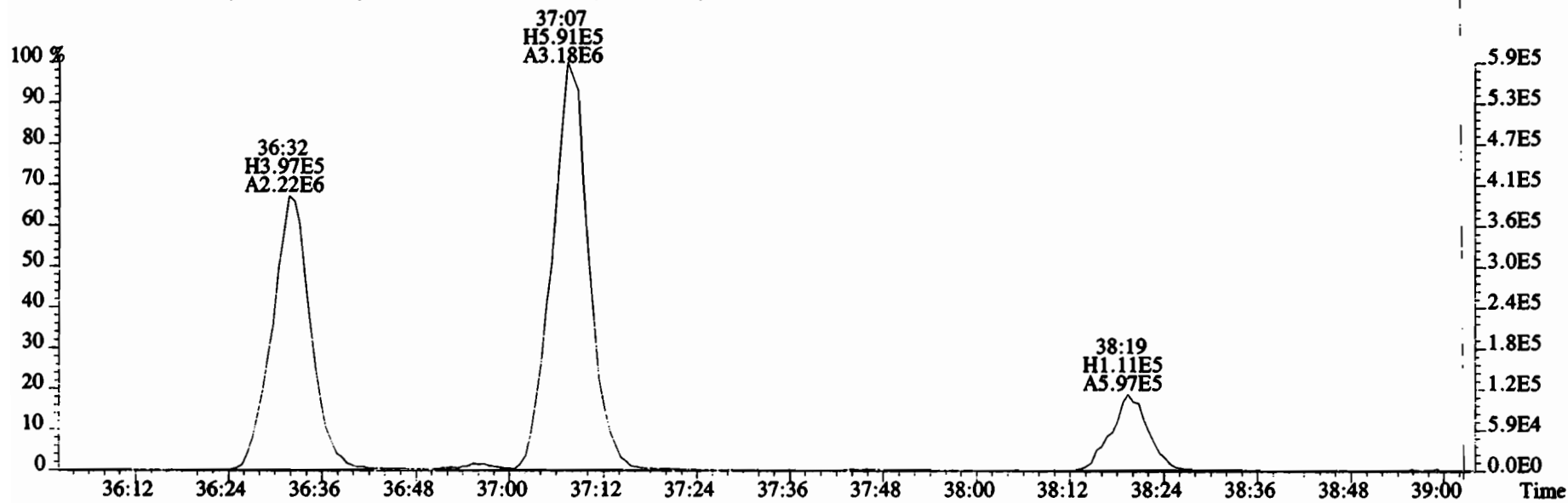
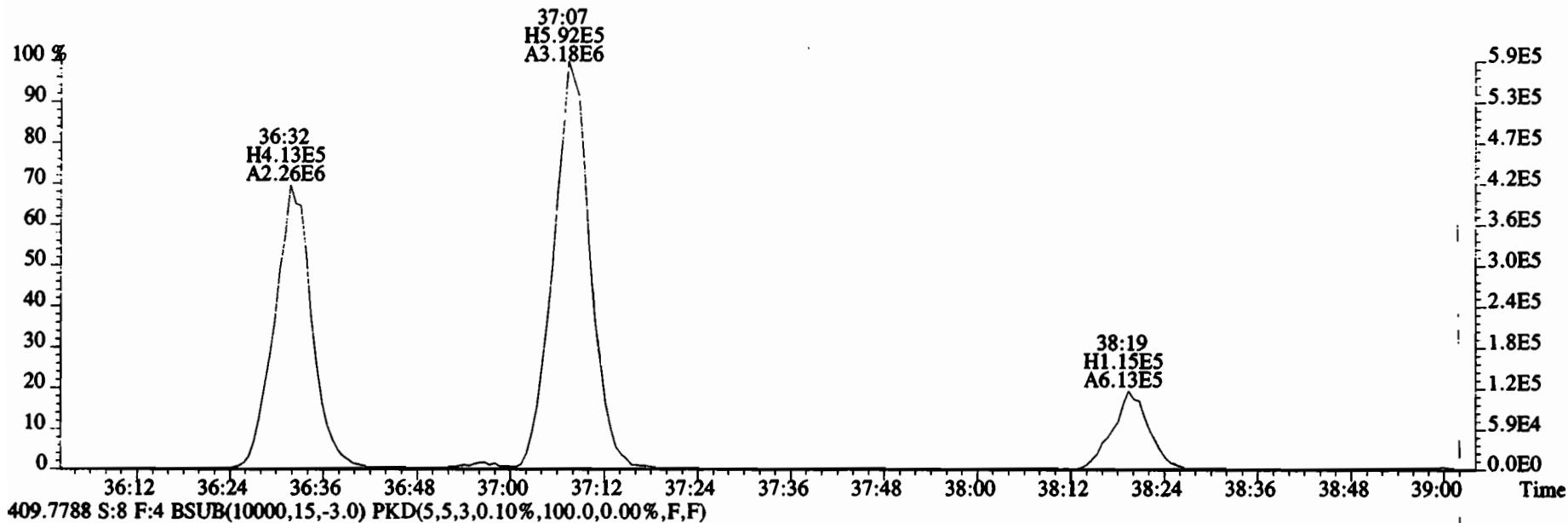
File:200107D2 #1-385 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



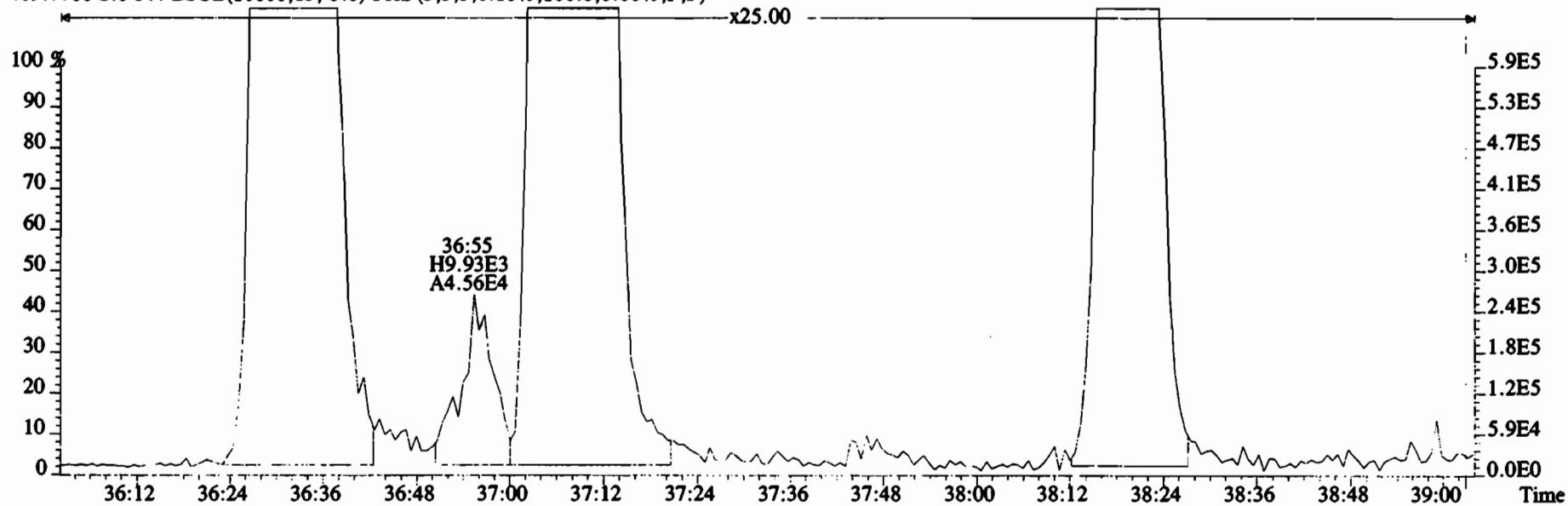
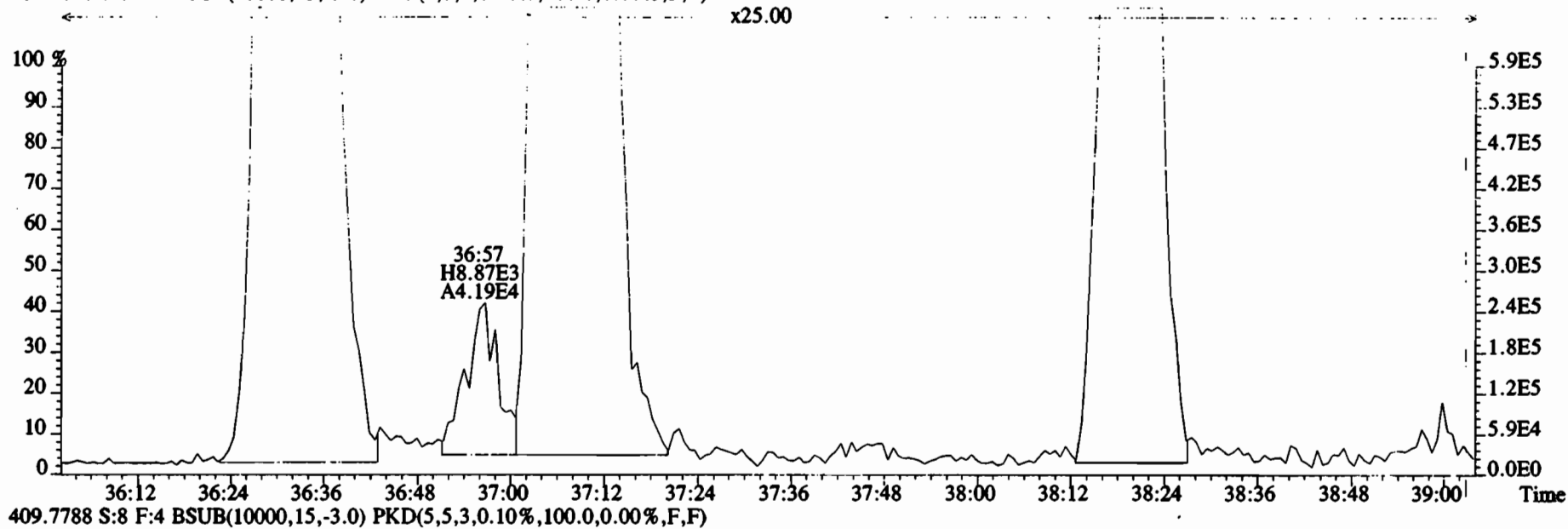
File:200107D2 #1-355 Acq: 8-JAN-2020 04:06:35 GC EI+ .Voltage SIR Autospec-UltimaE  
 Sample#8 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
 407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-355 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

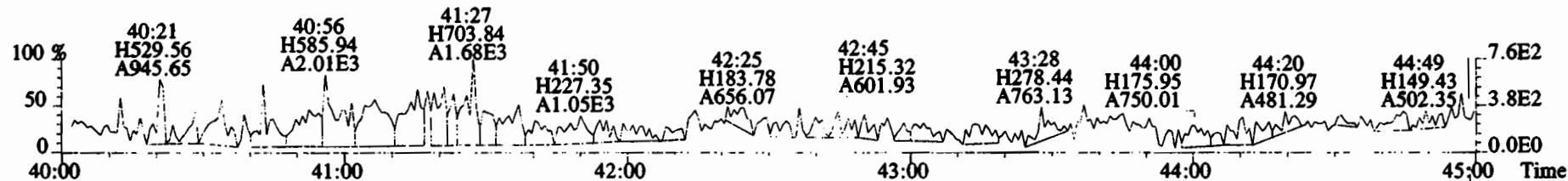
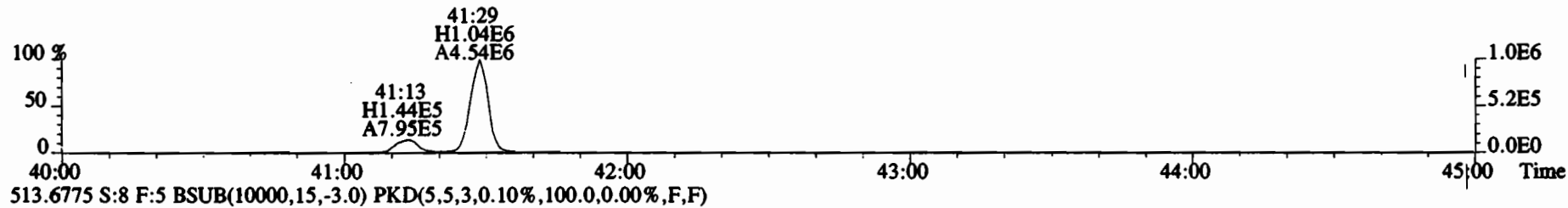
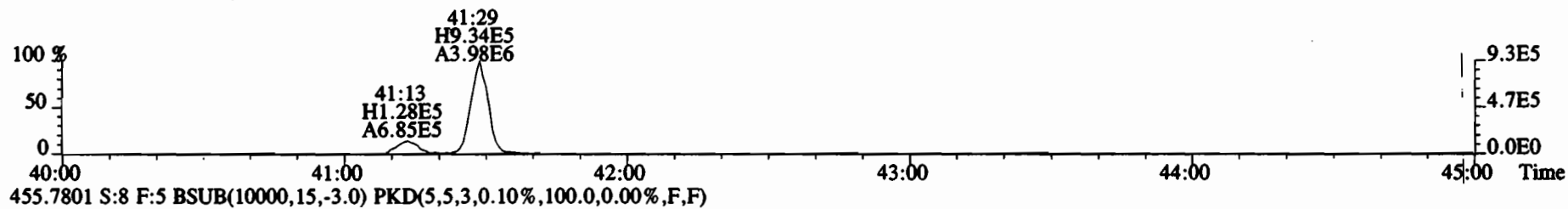
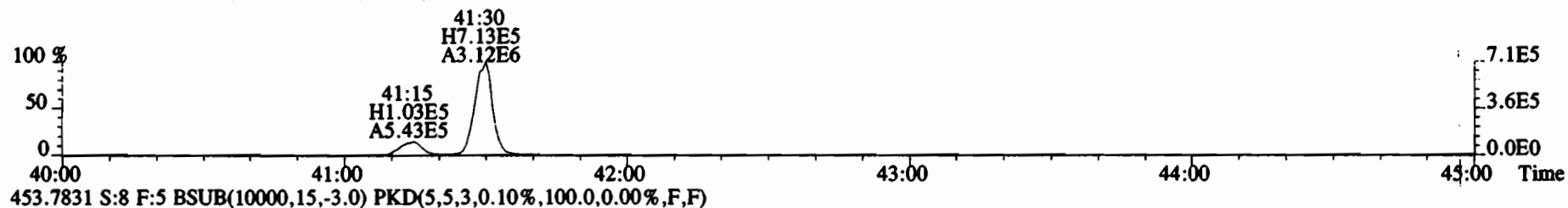
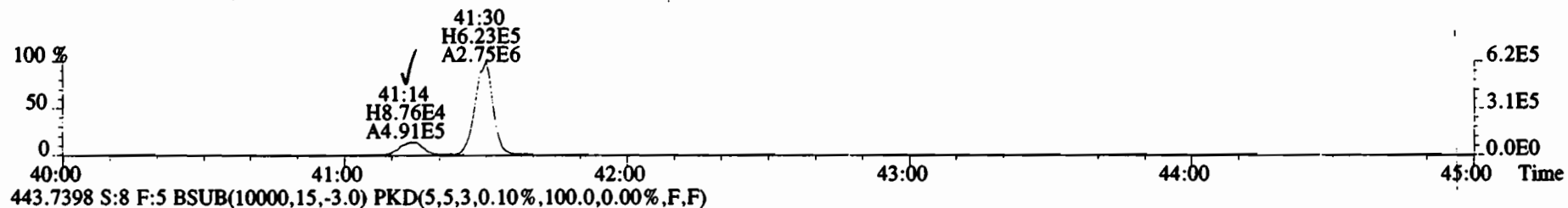


File:200107D2 #1-355 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

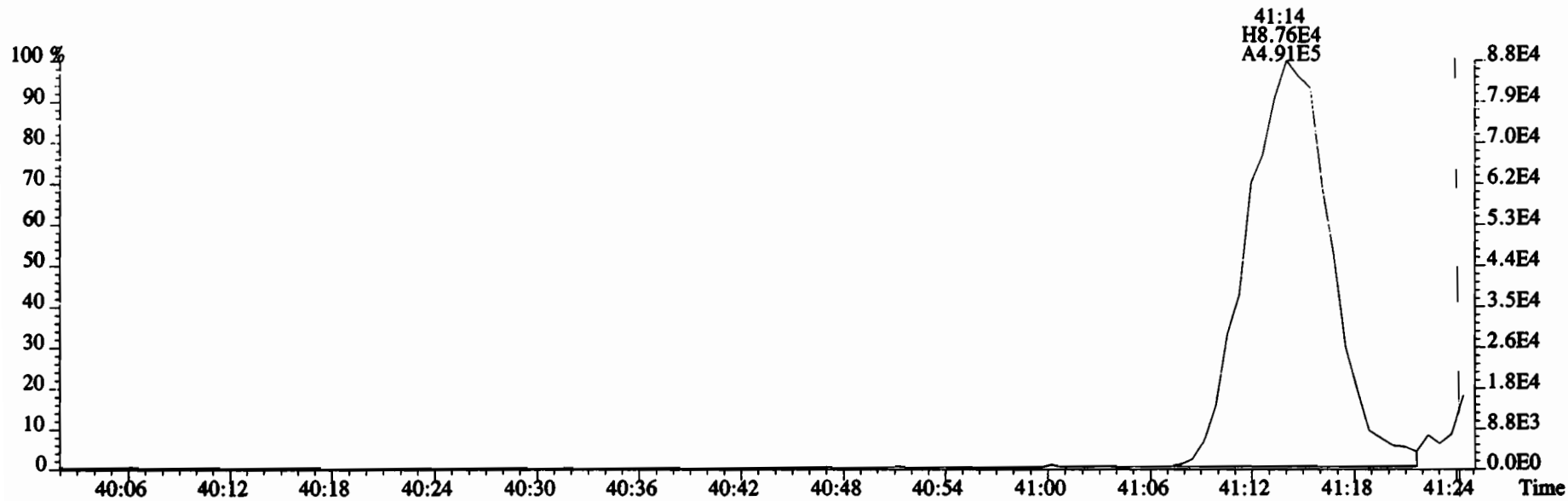




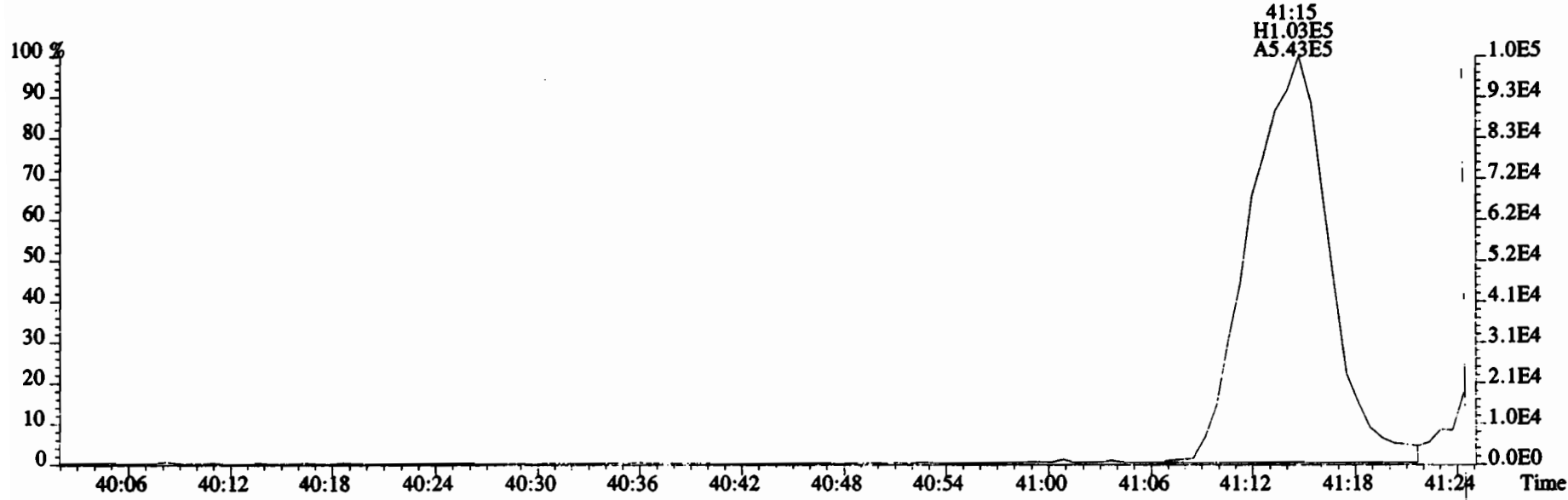
File:200107D2 #1-432 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-432 Acq: 8-JAN-2020 04:06:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE2 PDI-071SC-B-04-06-191001 16.58 Exp:OCDD\_DB5  
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



443.7398 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	2.25e+04	0.58 n	0.91	26:02	0.45202		* 2.5		*	Total Tetra-Dioxins	4.28	6.68		*	*
1,2,3,7,8-PeCDD	3.20e+04	0.62 y	0.90	30:35	1.0713		* 2.5		*	Total Penta-Dioxins	12.5	15.9		*	*
1,2,3,4,7,8-HxCDD	4.49e+04	0.97 n	1.10	33:53	1.3463		* 2.5		*	Total Hexa-Dioxins	177	178		*	*
1,2,3,6,7,8-HxCDD	4.27e+05	1.26 y	0.94	34:00	13.171		* 2.5		*	Total Hepta-Dioxins	2220	2220		*	*
1,2,3,7,8,9-HxCDD	1.47e+05	1.22 y	0.96	34:18	4.6706		* 2.5		*	Total Tetra-Furans	42.5	44.0		*	*
1,2,3,4,6,7,8-HpCDD	2.08e+07	1.03 y	0.98	37:46	793.76		* 2.5		*	Total Penta-Furans	70.129	72.053		*	*
OCDD	1.26e+08	0.90 y	0.96	41:02	8487.6 E		* 2.5		* *	Total Hexa-Furans	95.6	95.9		*	*
2,3,7,8-TCDF	6.48e+05	0.79 y	0.95	25:15	8.4961 (8.31)		* 2.5		*	Total Hepta-Furans	219	219		*	*
1,2,3,7,8-PeCDF	7.32e+05	1.62 y	0.96	29:24	13.612		* 2.5		*						
2,3,4,7,8-PeCDF	3.54e+05	1.45 y	1.01	30:18	6.5175		* 2.5		*						
1,2,3,4,7,8-HxCDF	1.03e+06	1.22 y	1.18	33:00	20.913		* 2.5		*						
1,2,3,6,7,8-HxCDF	3.04e+05	1.24 y	1.07	33:08	6.0304		* 2.5		*						
2,3,4,6,7,8-HxCDF	1.43e+05	1.21 y	1.11	33:44	3.8075		* 2.5		*						
1,2,3,7,8,9-HxCDF	5.88e+04	1.17 y	1.06	34:41	1.4816		* 2.5		*						
1,2,3,4,6,7,8-HpCDF	2.65e+06	1.03 y	1.13	36:31	75.775		* 2.5		*						
1,2,3,4,7,8,9-HpCDF	1.64e+05	1.15 y	1.28	38:17	5.3384		* 2.5		*						
OCDF	3.21e+06	0.89 y	0.95	41:15	164.10		* 2.5		*						
IS	13C-2,3,7,8-TCDD	1.06e+07	0.78 y	1.10	26:02	163.19				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	6.36e+06	0.61 y	0.88	30:35	121.91				85.0					
IS	13C-1,2,3,4,7,8-HxCDD	5.81e+06	1.27 y	0.64	33:53	136.19				63.5					
IS	13C-1,2,3,6,7,8-HxCDD	6.64e+06	1.27 y	0.86	33:59	116.70				70.9					
IS	13C-1,2,3,7,8,9-HxCDD	6.27e+06	1.24 y	0.81	34:17	116.92				60.8					
IS	13C-1,2,3,4,6,7,8-HpCDD	5.14e+06	1.05 y	0.65	37:45	118.22				60.9					
IS	13C-OCDD	5.97e+06	0.90 y	0.58	41:01	154.89				61.6					
IS	13C-2,3,7,8-TCDF	1.54e+07	0.77 y	1.03	25:14	158.25				40.3 *					
IS	13C-1,2,3,7,8-PeCDF	1.08e+07	1.58 y	0.85	29:23	133.69				82.4					
IS	13C-2,3,4,7,8-PeCDF	1.03e+07	1.60 y	0.85	30:18	128.95				69.6					
IS	13C-1,2,3,4,7,8-HxCDF	8.01e+06	0.51 y	0.83	33:00	144.85				67.1					
IS	13C-1,2,3,6,7,8-HxCDF	9.06e+06	0.51 y	1.03	33:08	131.80				75.4					
IS	13C-2,3,4,6,7,8-HxCDF	6.48e+06	0.51 y	0.95	33:43	102.35				68.6					
IS	13C-1,2,3,7,8,9-HxCDF	7.18e+06	0.51 y	0.83	34:40	130.53				53.3					
IS	13C-1,2,3,4,6,7,8-HpCDF	5.95e+06	0.44 y	0.76	36:30	118.13				68.0					
IS	13C-1,2,3,4,7,8,9-HpCDF	4.60e+06	0.43 y	0.58	38:17	119.11				61.5					
IS	13C-OCDF	7.92e+06	0.89 y	0.69	41:14	172.99				62.0					
C/Up	37Cl-2,3,7,8-TCDD	4.52e+06		1.20	26:03	63.747				45.0					
RS/RT	13C-1,2,3,4-TCDD	1.14e+07	0.82 y	1.00	25:28	192.07									
RS	13C-1,2,3,4-TCDF	1.81e+07	0.79 y	1.00	24:00	192.07									
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.28e+07	0.51 y	1.00	33:25	192.07									

\* see dilution

Integrations  
 by DB  
 Analyst: DB  
 Date: 1/9/20  
 Reviewed  
 by OT  
 Analyst: OT  
 Date: 01/10/2020

Totals class: TCDD EMPC

Entry #: 19

Run: 14

File: 200107D2

S: 9 I: 1 F: 1

Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 6.6777

Unnamed Concentration: 6.226

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
22:37	2.226e+04	2.824e+04	0.79	y	5.050e+04	1.0128
22:59	1.258e+04	1.495e+04	0.84	y	2.753e+04	0.55211
23:23	9.884e+03	1.054e+04	0.94	n	1.865e+04	0.37402
24:07	7.913e+03	1.009e+04	0.78	y	1.800e+04	0.36108
24:22	1.790e+04	2.413e+04	0.74	y	4.203e+04	0.84296
24:33	1.486e+04	1.627e+04	0.91	n	2.879e+04	0.57744
24:44	8.116e+03	9.835e+03	0.83	y	1.795e+04	0.36003
24:57	5.809e+03	6.561e+03	0.89	y	1.237e+04	0.24809
25:06	9.551e+03	1.439e+04	0.66	y	2.394e+04	0.48021
25:26	8.452e+03	8.969e+03	0.94	n	1.588e+04	0.31842
25:47	1.312e+04	1.347e+04	0.97	n	2.384e+04	0.47819
25:55	4.395e+03	7.296e+03	0.60	n	1.010e+04	0.20261
26:02	9.804e+03	1.684e+04	0.58	n	2.254e+04	0.45202
26:20	9.278e+03	1.155e+04	0.80	y	2.083e+04	0.41770

2,3,7,8-TCDD

Totals class: PeCDD EMPC

Entry #: 21

Run: 14 File: 200107D2 S: 9 I: 1 F: 2  
 Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 15.879

Unnamed Concentration: 14.808

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:32	5.173e+04	7.664e+04	0.67	y	1.284e+05	4.2953
28:58	1.881e+04	2.868e+04	0.66	y	4.749e+04	1.5892
29:24	3.629e+04	4.095e+04	0.89	n	6.675e+04	2.2335
29:35	1.615e+04	2.368e+04	0.68	y	3.983e+04	1.3327
29:40	1.196e+04	1.698e+04	0.70	y	2.894e+04	0.96830
29:54	3.472e+04	4.887e+04	0.71	y	8.359e+04	2.7969
30:11	5.100e+03	9.465e+03	0.54	y	1.457e+04	0.48735
30:35	1.228e+04	1.974e+04	0.62	y	3.202e+04	1.0713
30:39	8.518e+03	1.144e+04	0.74	n	1.865e+04	0.62402
30:56	8.457e+03	8.818e+03	0.96	n	1.437e+04	0.48095

1,2,3,7,8-PeCDD

Totals class: HxCDD EMPC

Entry #: 23

Run: 14 File: 200107D2 S: 9 I: 1 F: 3

Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 178.05

Unnamed Concentration: 158.863

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
32:22	1.367e+06	1.127e+06	1.21 y	2.493e+06	77.406
32:56	1.489e+05	1.131e+05	1.32 y	2.619e+05	8.1319
33:12	1.151e+06	9.508e+05	1.21 y	2.102e+06	65.246
33:19	8.255e+04	6.351e+04	1.30 y	1.461e+05	4.5343
33:53	2.484e+04	2.563e+04	0.97 n	4.487e+04	1.3463 1,2,3,4,7,8-HxCDD
34:00	2.378e+05	1.893e+05	1.26 y	4.271e+05	13.171 1,2,3,6,7,8-HxCDD
34:12	6.423e+04	4.997e+04	1.29 y	1.142e+05	3.5451
34:18	8.063e+04	6.590e+04	1.22 y	1.465e+05	4.6706 1,2,3,7,8,9-HxCDD

Totals class: HpCDD EMPC

Entry #: 25

Run: 14 File: 200107D2 S: 9 I: 1 F: 4

Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 2220.0

Unnamed Concentration: 1426.284

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
36:54	1.895e+07	1.842e+07	1.03 y	3.737e+07	1426.3	
37:46	1.057e+07	1.023e+07	1.03 y	2.080e+07	793.76	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 14

File: 200107D2

S: 9 I: 1 F: 1

Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 44.044

Unnamed Concentration: 35.548

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
20:28	1.667e+04	2.046e+04	0.81	y	3.713e+04	0.48673
21:01	4.187e+04	4.948e+04	0.85	y	9.134e+04	1.1973
21:39	2.108e+05	2.699e+05	0.78	y	4.808e+05	6.3016
22:11	5.031e+04	6.326e+04	0.80	y	1.136e+05	1.4887
22:35	1.326e+05	1.625e+05	0.82	y	2.951e+05	3.8682
22:59	1.021e+05	1.181e+05	0.86	y	2.201e+05	2.8857
23:17	2.200e+04	2.555e+04	0.86	y	4.756e+04	0.62336
23:39	5.982e+03	8.104e+03	0.74	y	1.409e+04	0.18464
23:46	2.026e+04	2.386e+04	0.85	y	4.412e+04	0.57832
23:54	8.612e+04	1.061e+05	0.81	y	1.922e+05	2.5195
24:01	7.646e+04	1.027e+05	0.74	y	1.792e+05	2.3488
24:26	2.748e+05	3.607e+05	0.76	y	6.356e+05	8.3308
24:41	1.711e+04	2.376e+04	0.72	y	4.087e+04	0.53577
24:52	1.405e+04	1.439e+04	0.98	n	2.547e+04	0.33382
25:03	7.044e+03	1.300e+04	0.54	n	1.619e+04	0.21225
25:09	6.440e+04	7.974e+04	0.81	y	1.441e+05	1.8894
25:15	2.863e+05	3.619e+05	0.79	y	6.482e+05	8.4961
25:35	2.574e+04	3.432e+04	0.75	y	6.007e+04	0.78736
27:03	3.819e+04	4.205e+04	0.91	n	7.442e+04	0.97552

2,3,7,8-TCDF



Totals class: 1st Func. PeCDF EMPC      Entry #: 29

Run: 14      File: 200107D2      S: 9 I: 1 F: 1  
Acquired: 8-JAN-20 04:54:32      Processed: 8-JAN-20 10:09:59

Total Concentration: 19.778      Unnamed Concentration: 19.778

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
27:03	6.511e+05	4.187e+05	1.56 y	1.070e+06	19.778

Totals class: PeCDF EMPC

Entry #: 31

Run: 14 File: 200107D2 S: 9 I: 1 F: 2  
 Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 52.275

Unnamed Concentration: 32.145

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:21	3.623e+04	2.117e+04	1.71	y	5.740e+04	1.0611
28:30	4.771e+05	3.121e+05	1.53	y	7.892e+05	14.590
29:02	1.552e+05	9.517e+04	1.63	y	2.504e+05	4.6291
29:14	6.328e+04	4.921e+04	1.29	n	1.041e+05	1.9248
29:24	4.525e+05	2.795e+05	1.62	y	7.320e+05	13.612
29:39	1.819e+05	1.187e+05	1.53	y	3.006e+05	5.5580
30:12	9.036e+03	6.846e+03	1.32	y	1.588e+04	0.29363
30:18	2.094e+05	1.448e+05	1.45	y	3.542e+05	6.5175
30:21	1.227e+05	7.521e+04	1.63	y	1.979e+05	3.6586
31:11	1.420e+04	9.042e+03	1.57	y	2.324e+04	0.42962
						1,2,3,7,8-PeCDF
						2,3,4,7,8-PeCDF

Totals class: HxCDF EMPC

Entry #: 33

Run: 14 File: 200107D2 S: 9 I: 1 F: 3

Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 95.949

Unnamed Concentration: 63.717

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name	
31:50	1.546e+05	1.229e+05	1.26 y	2.775e+05	6.2875	
32:00	5.142e+05	4.128e+05	1.25 y	9.270e+05	21.005	
32:21	7.745e+03	9.722e+03	0.80 n	1.399e+04	0.31700	
32:32	8.278e+05	6.796e+05	1.22 y	1.507e+06	34.155	
32:54	1.288e+04	1.091e+04	1.18 y	2.379e+04	0.53895	
33:00	5.629e+05	4.630e+05	1.22 y	1.026e+06	20.913	1,2,3,4,7,8-HxCDF
33:08	1.683e+05	1.358e+05	1.24 y	3.041e+05	6.0304	1,2,3,6,7,8-HxCDF
33:44	7.833e+04	6.482e+04	1.21 y	1.431e+05	3.8075	2,3,4,6,7,8-HxCDF
34:41	3.167e+04	2.713e+04	1.17 y	5.880e+04	1.4816	1,2,3,7,8,9-HxCDF
34:43	3.582e+04	2.658e+04	1.35 y	6.240e+04	1.4139	

Totals class: HpCDF EMPC

Entry #: 35

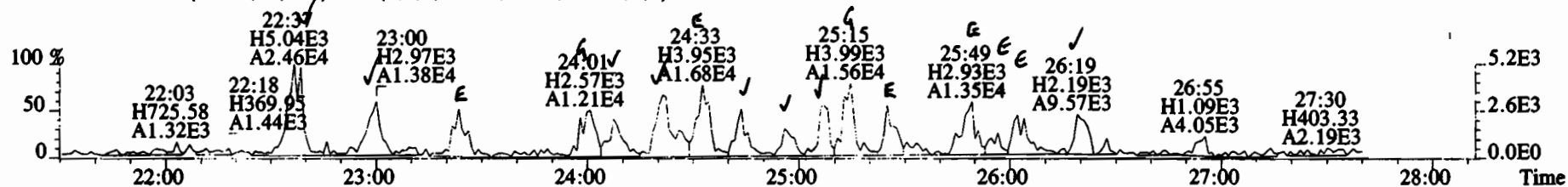
Run: 14 File: 200107D2 S: 9 I: 1 F: 4  
 Acquired: 8-JAN-20 04:54:32 Processed: 8-JAN-20 10:09:59

Total Concentration: 219.21

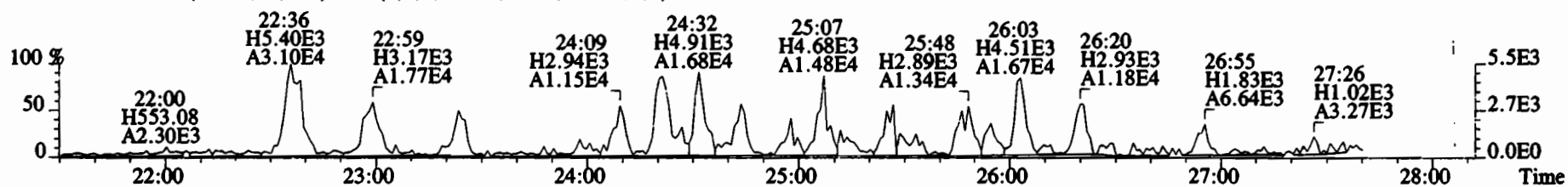
Unnamed Concentration: 138.096

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name	
36:31	1.339e+06	1.306e+06	1.03 y	2.645e+06	75.775	1,2,3,4,6,7,8-HpCDF
36:55	2.030e+04	1.705e+04	1.19 y	3.735e+04	1.1395	
37:06	2.267e+06	2.222e+06	1.02 y	4.489e+06	136.96	
38:17	8.744e+04	7.623e+04	1.15 y	1.637e+05	5.3384	1,2,3,4,7,8,9-HpCDF

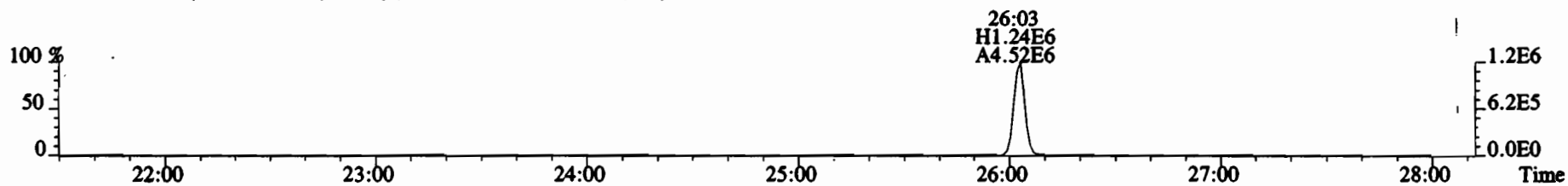
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



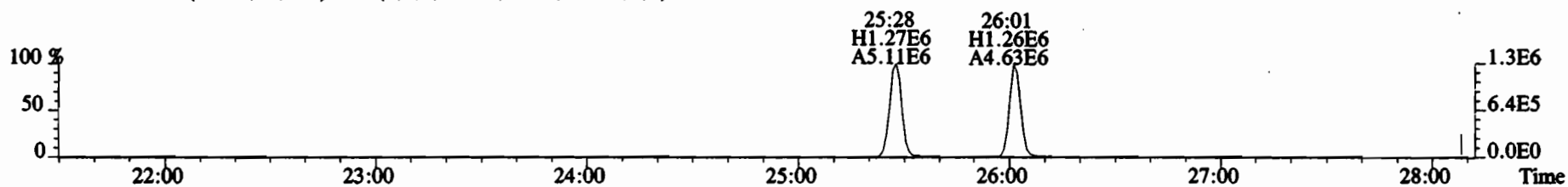
321.8936 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



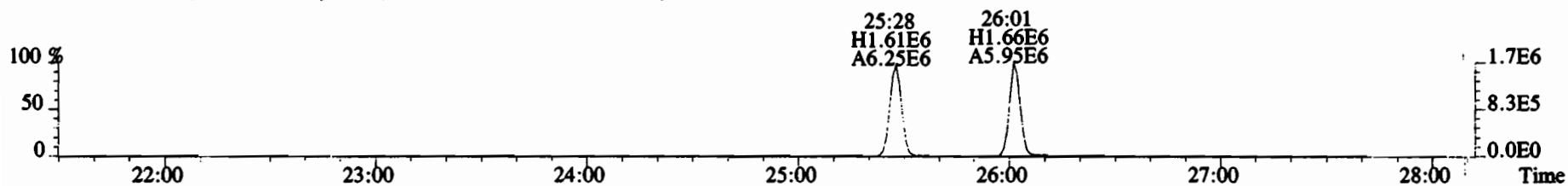
327.8847 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



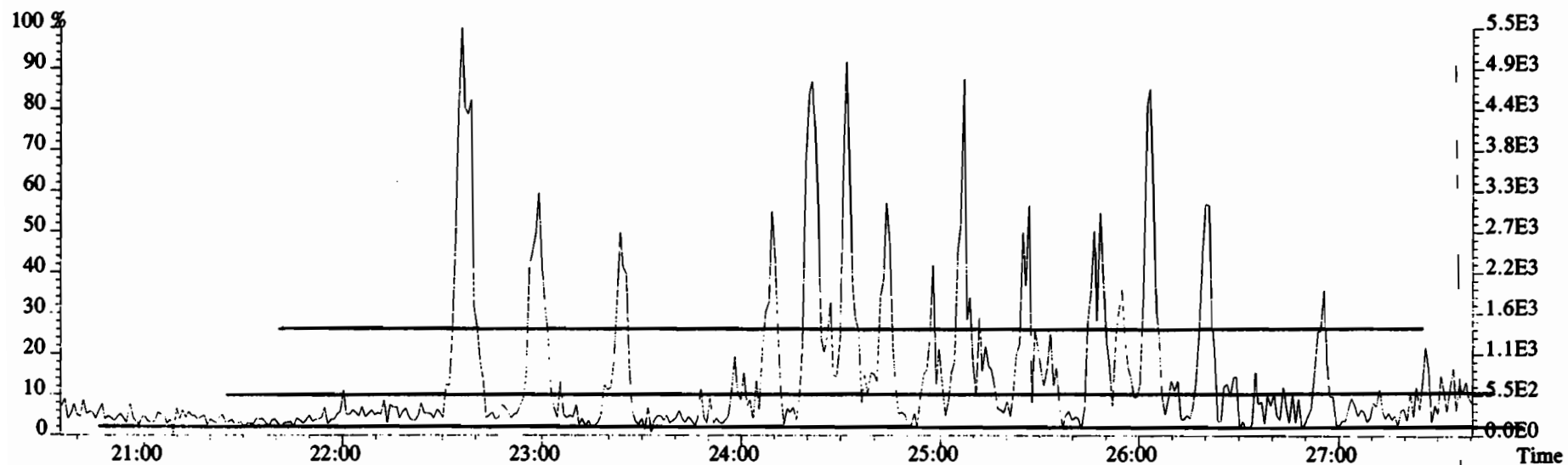
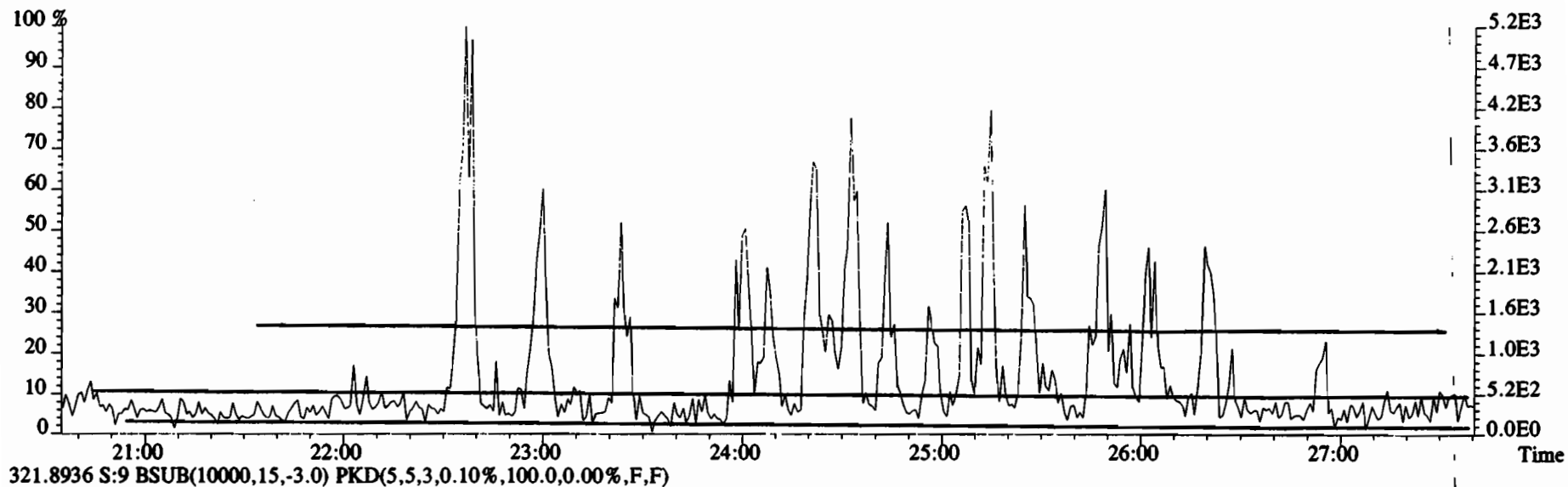
331.9368 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



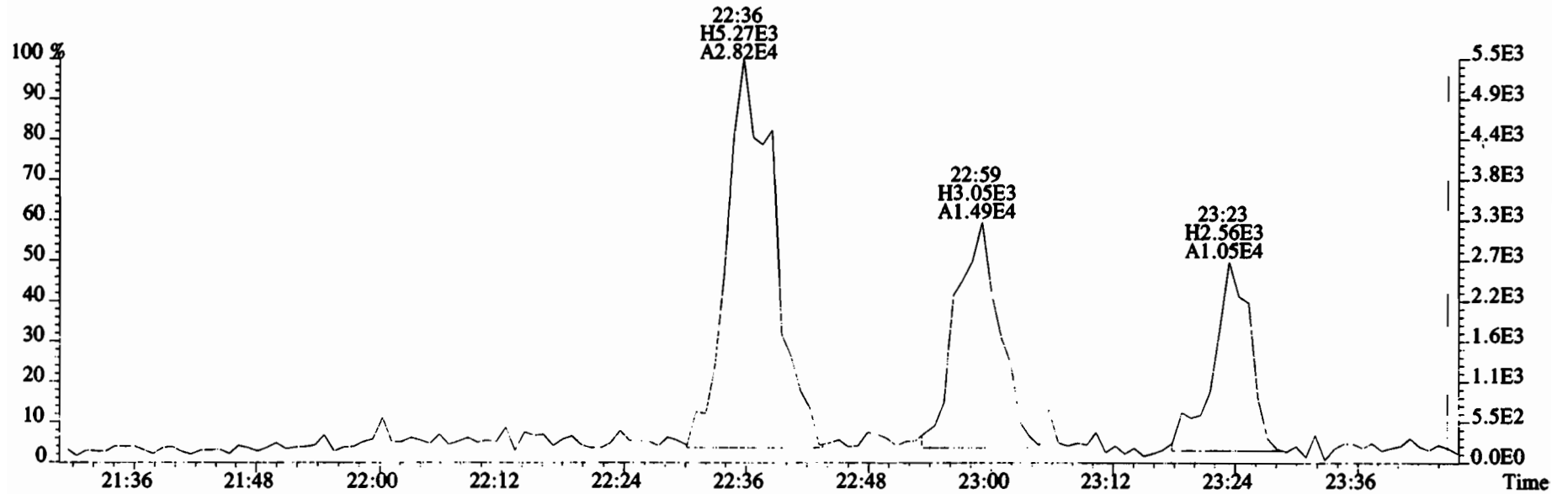
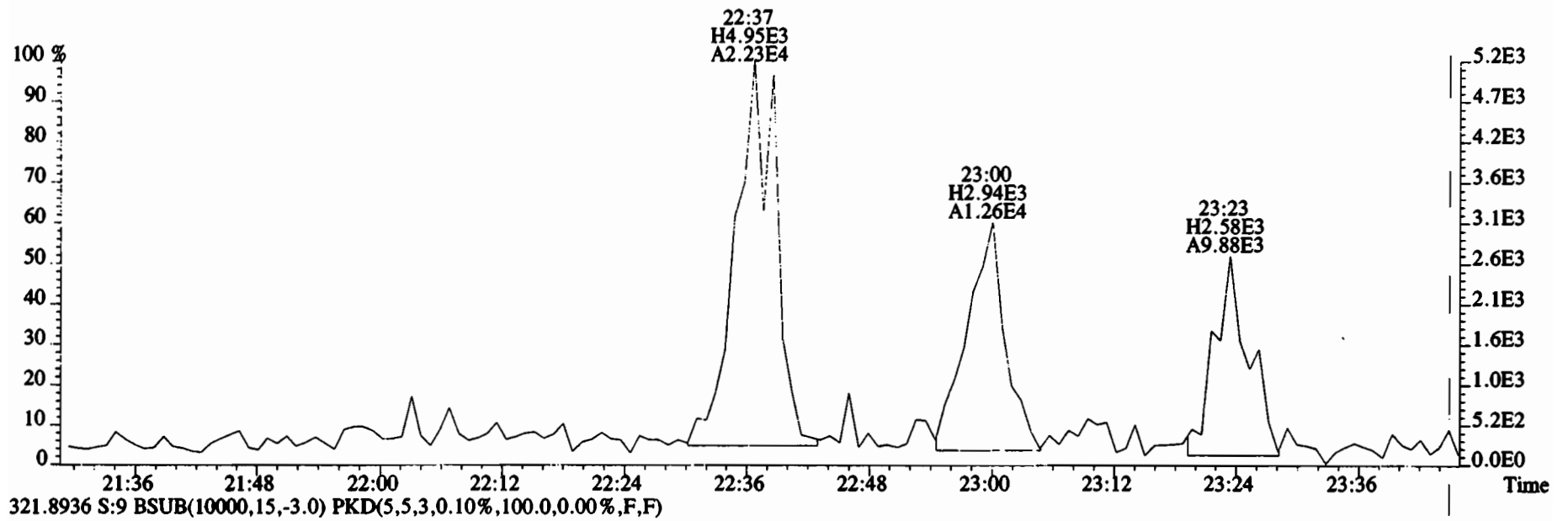
333.9339 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



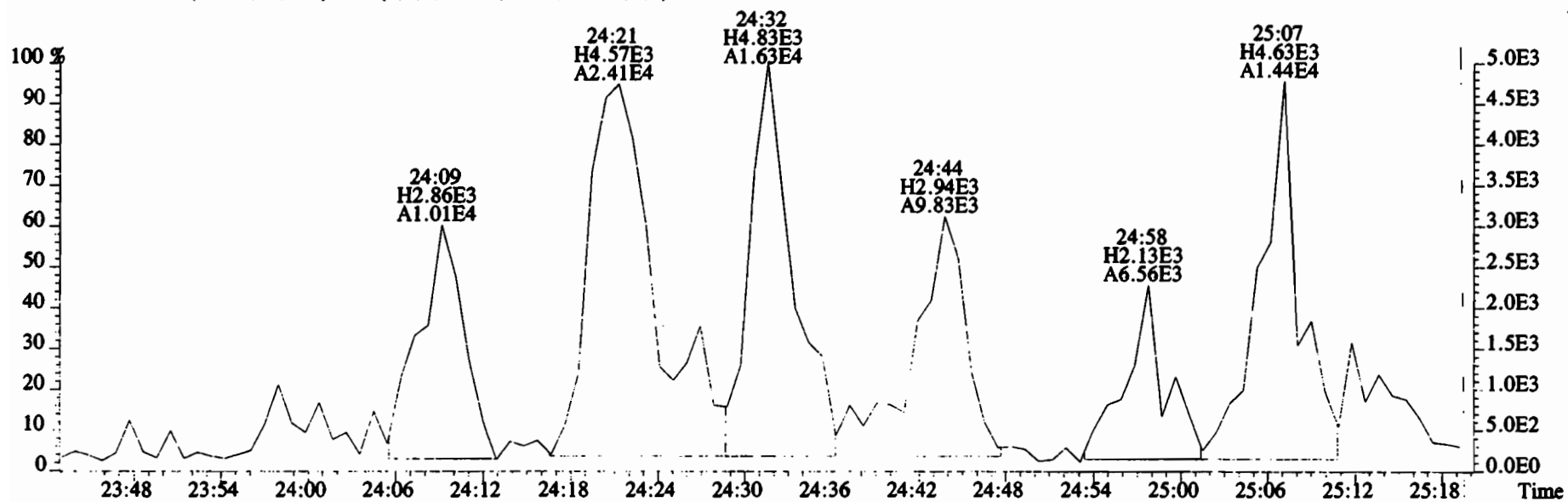
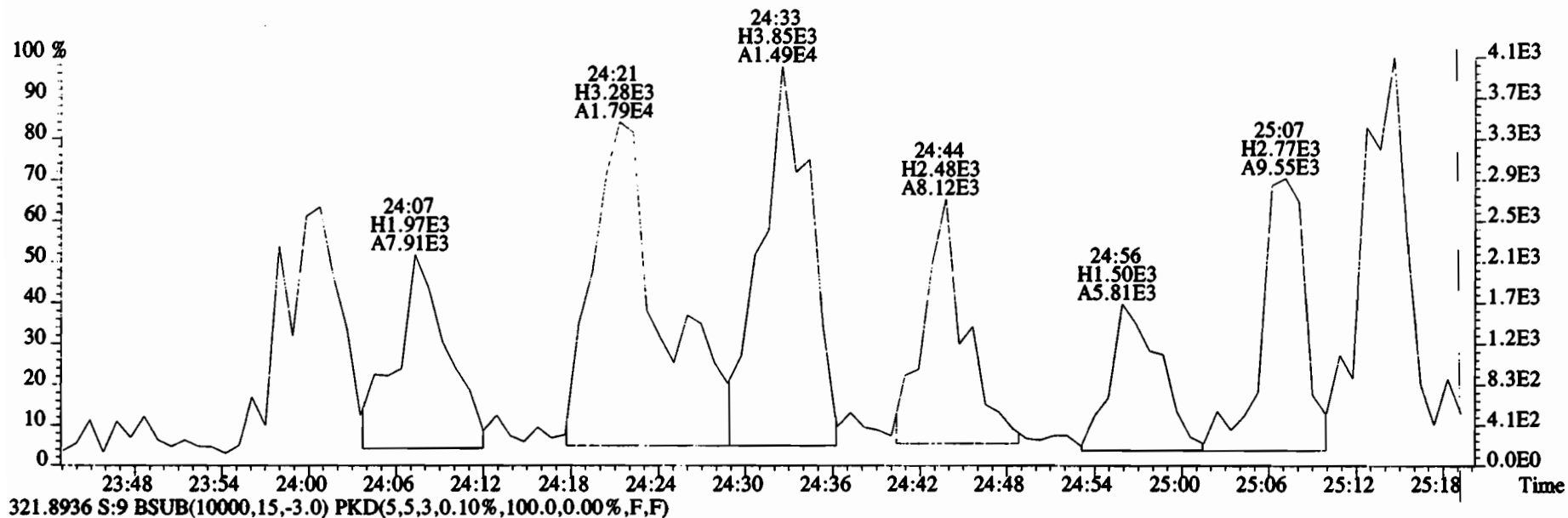
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

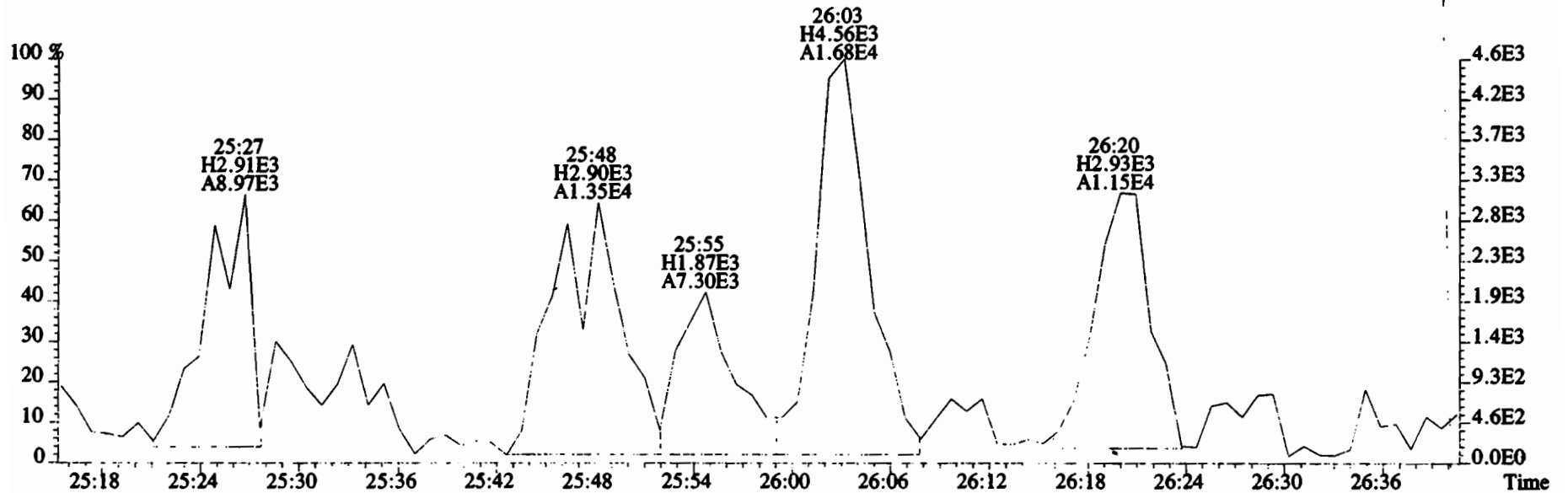
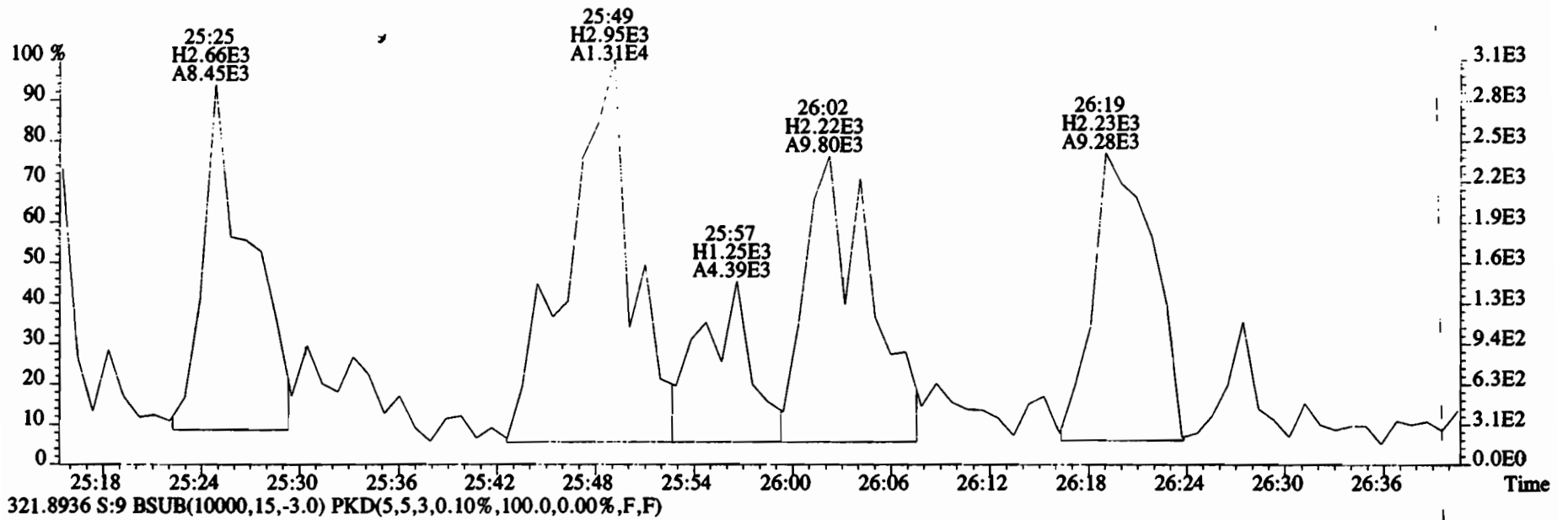


File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

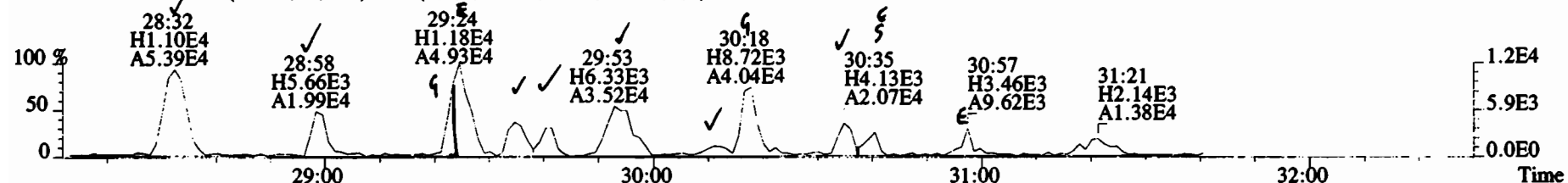




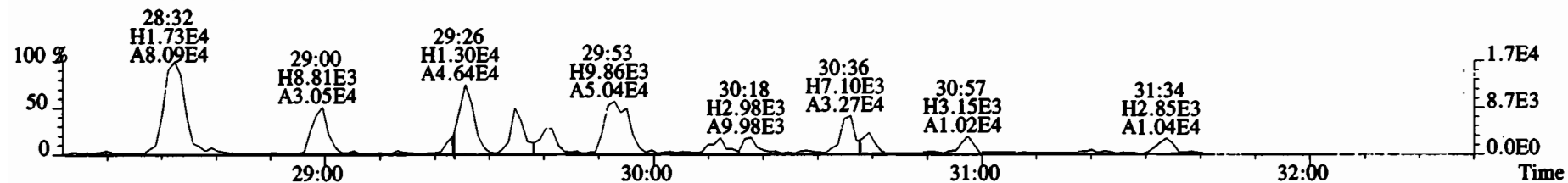
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



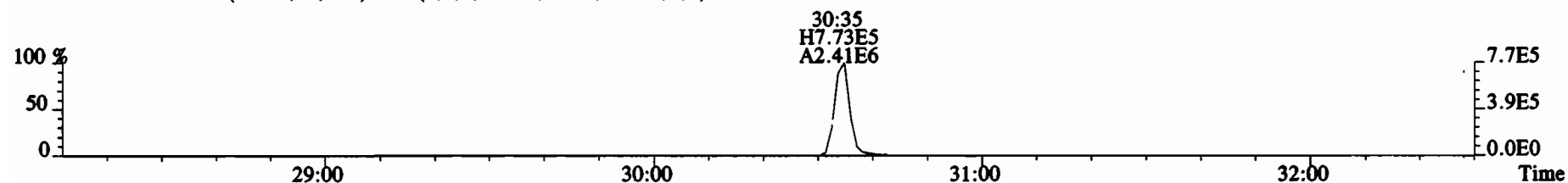
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 353.8576 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



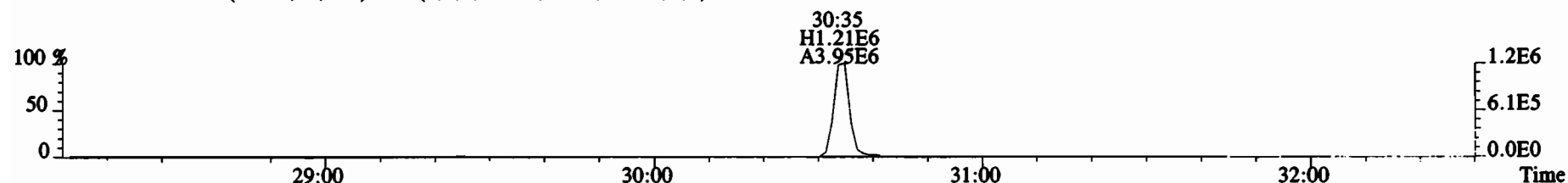
355.8546 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



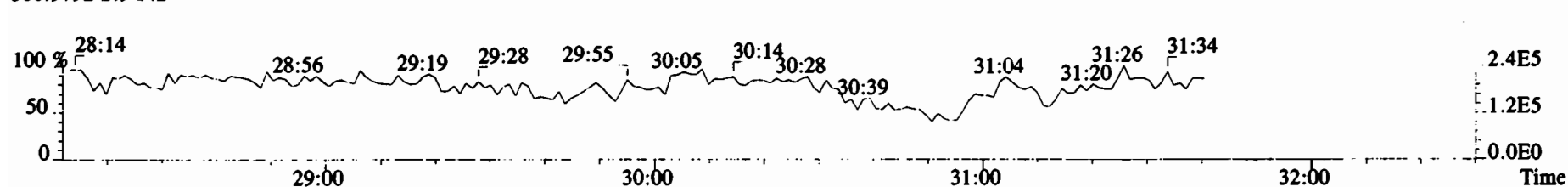
365.8978 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



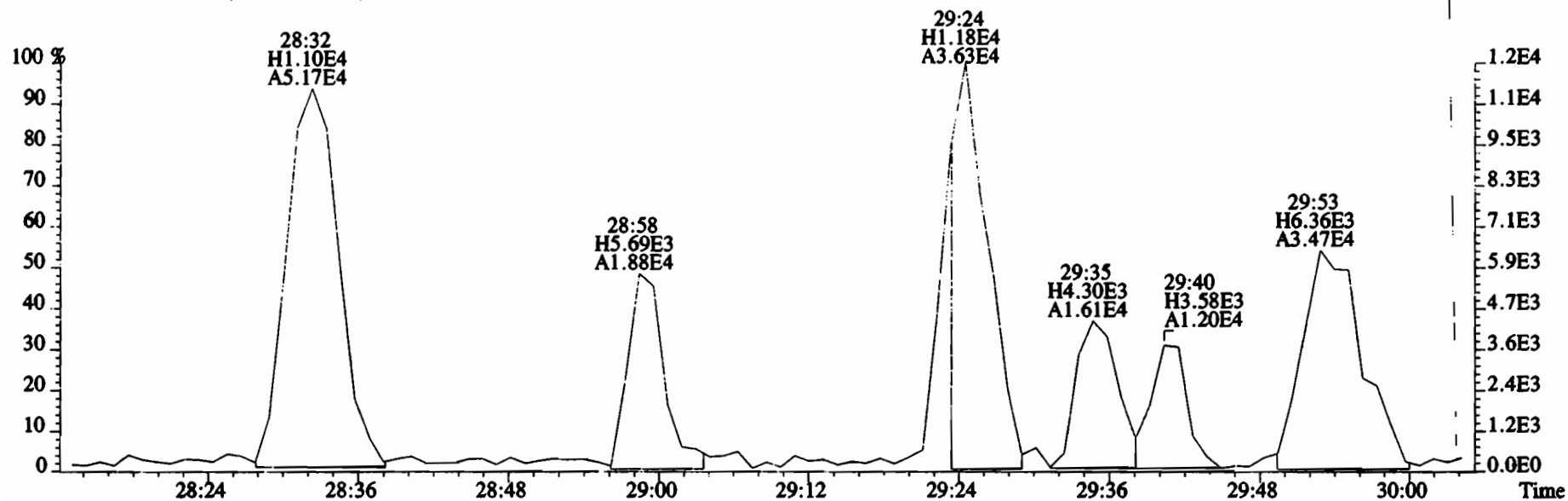
367.8949 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



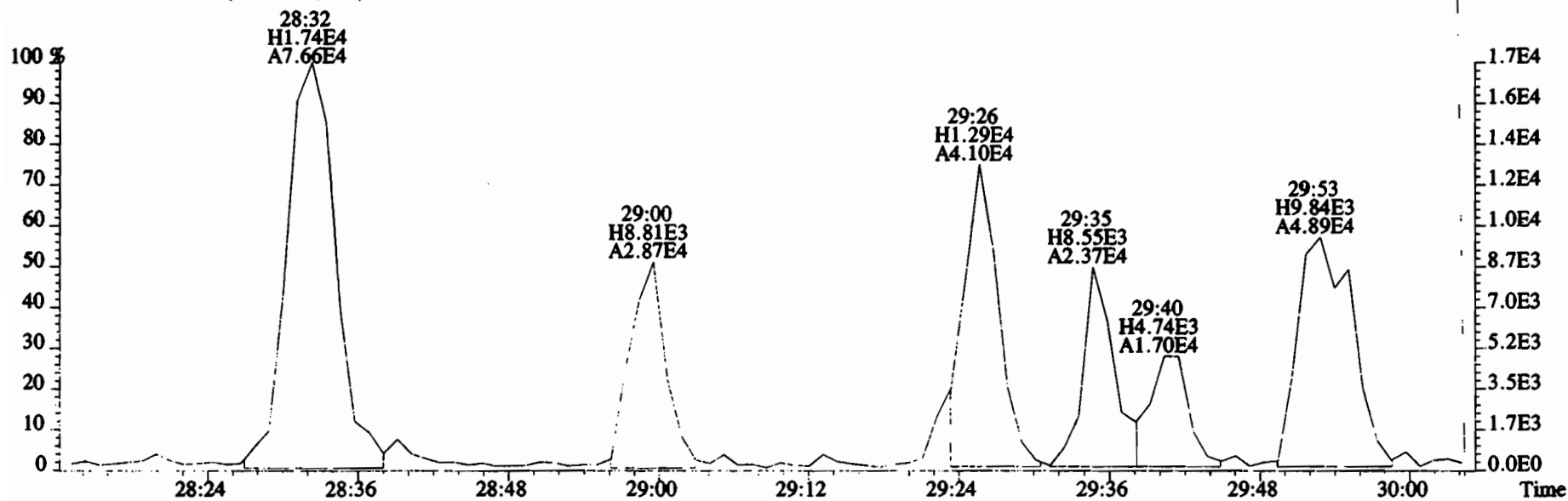
366.9792 S:9 F:2



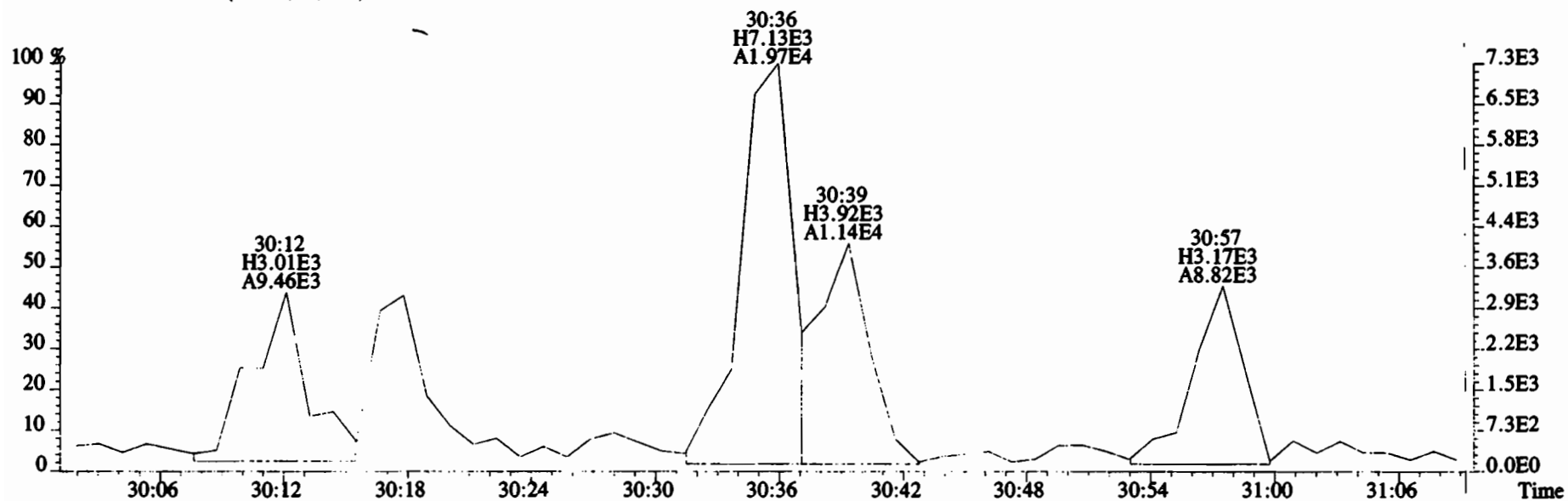
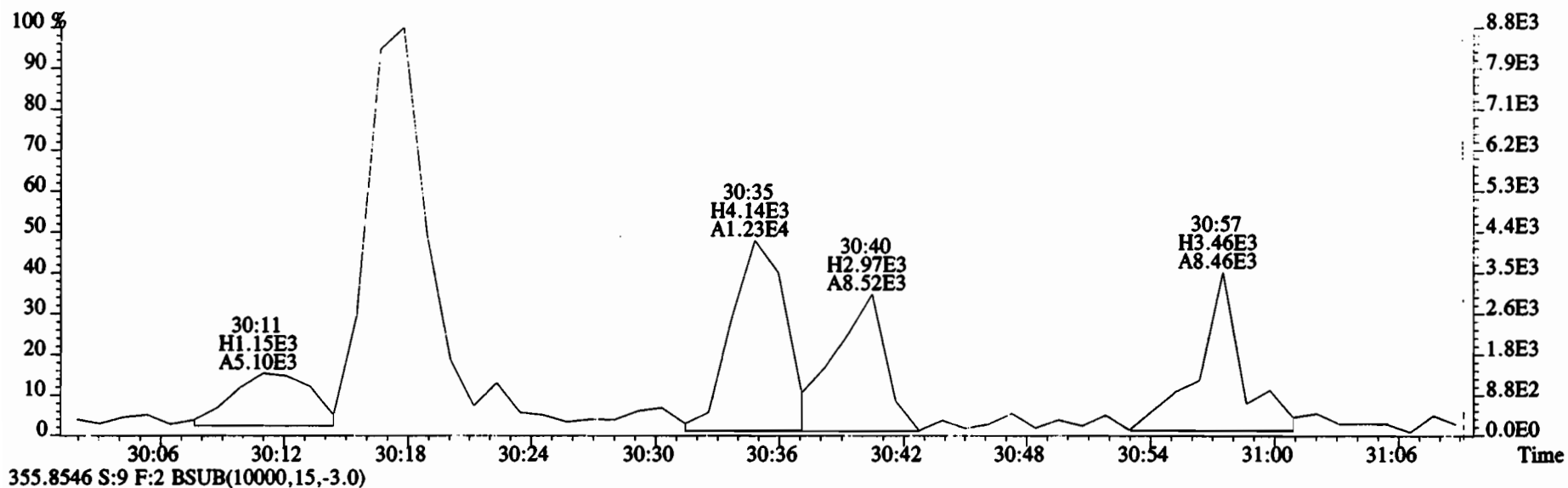
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 353.8576 S:9 F:2 BSUB(10000,15,-3.0)



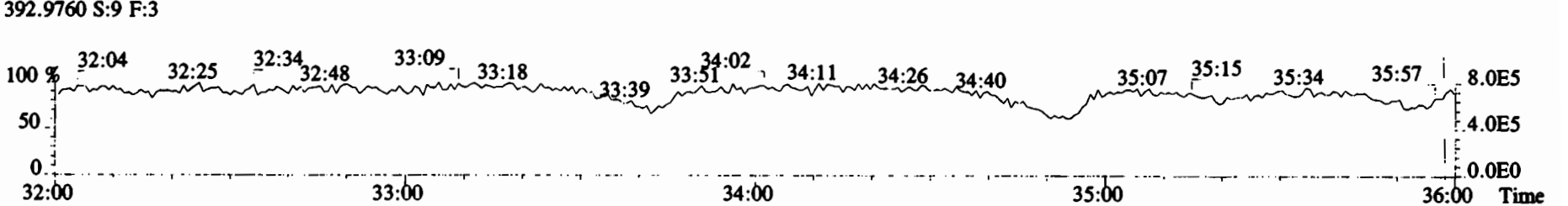
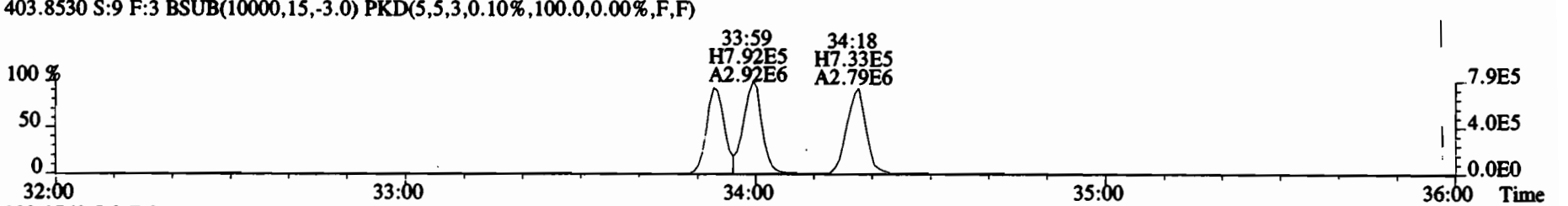
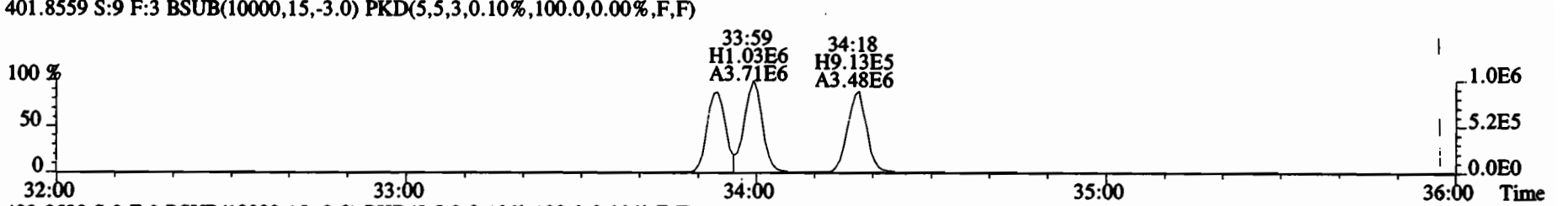
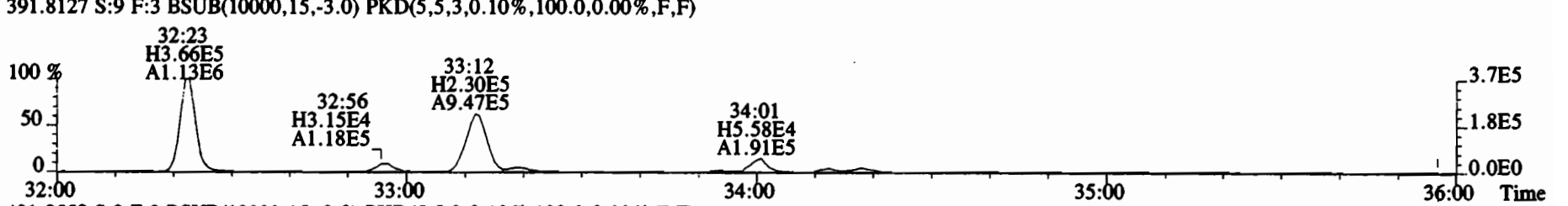
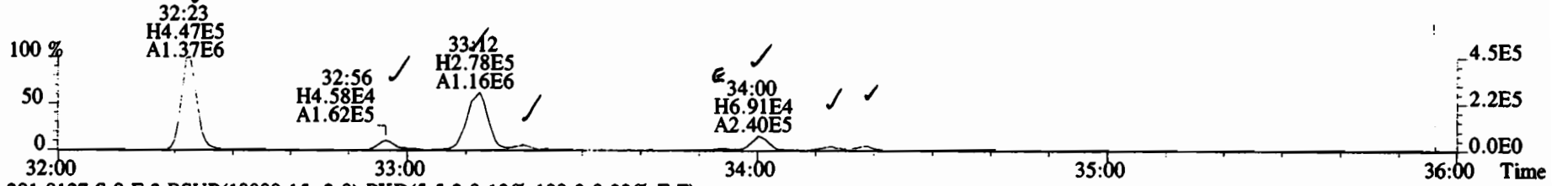
355.8546 S:9 F:2 BSUB(10000,15,-3.0)



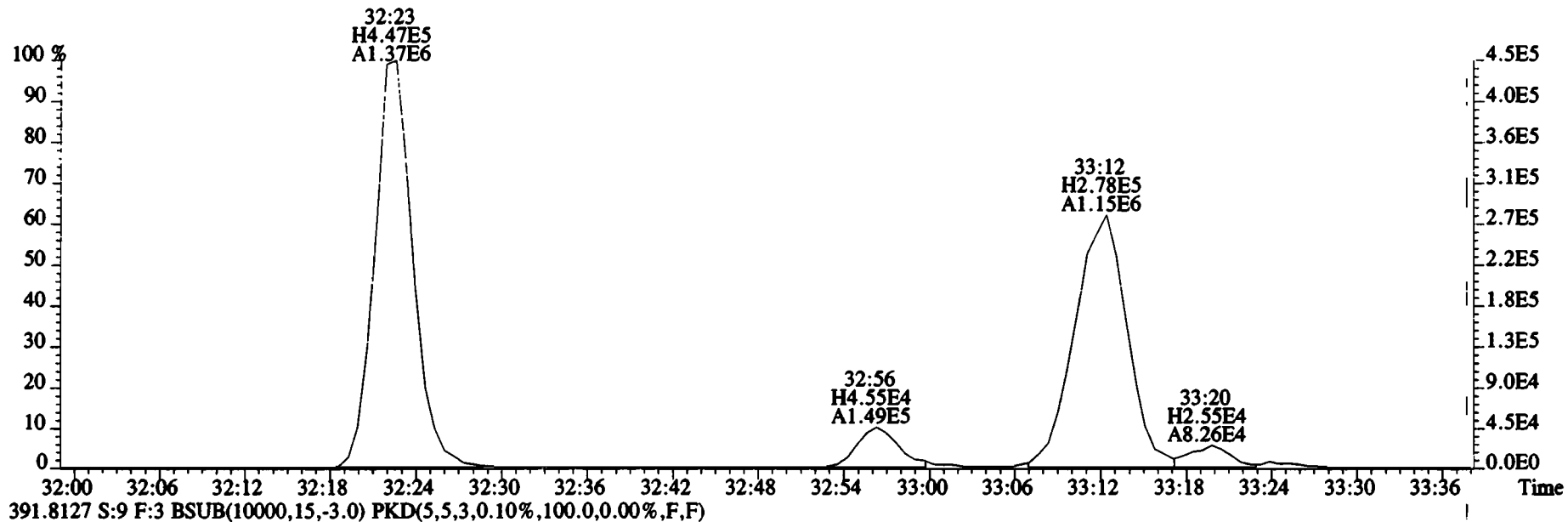
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 353.8576 S:9 F:2 BSUB(10000,15,-3.0)



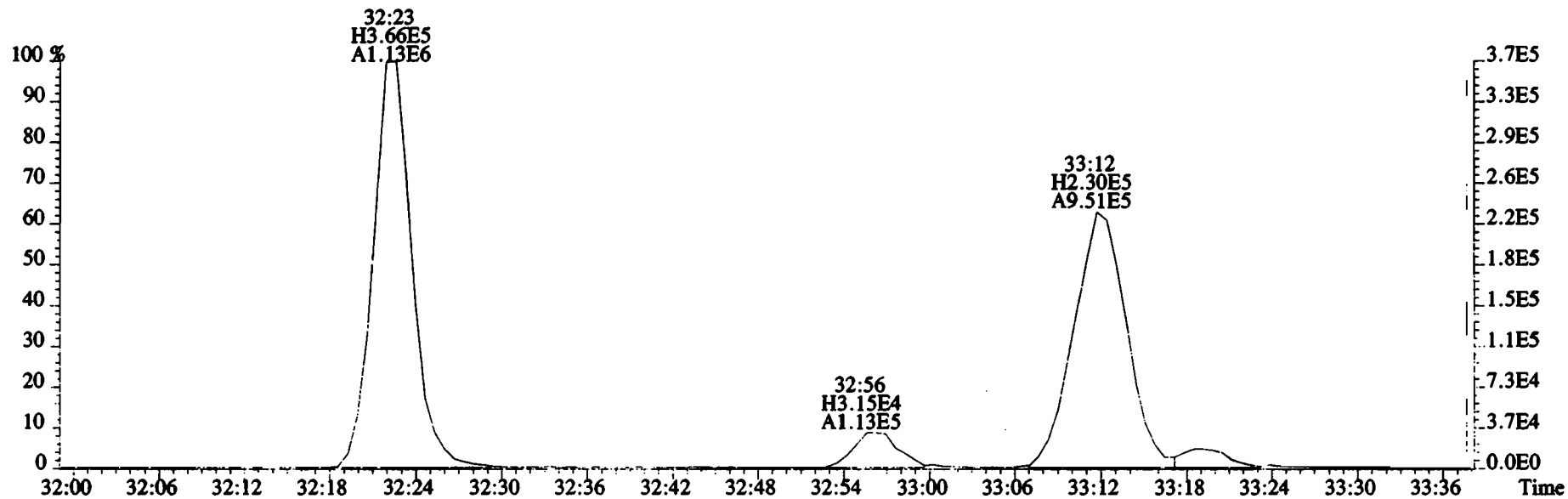
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



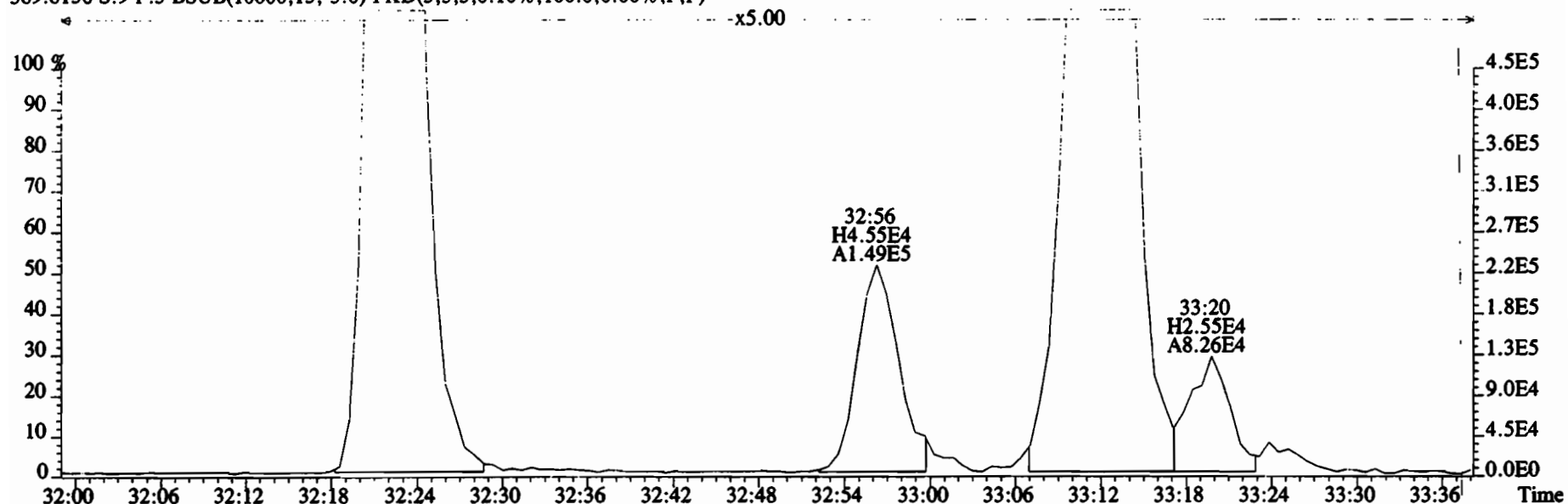
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



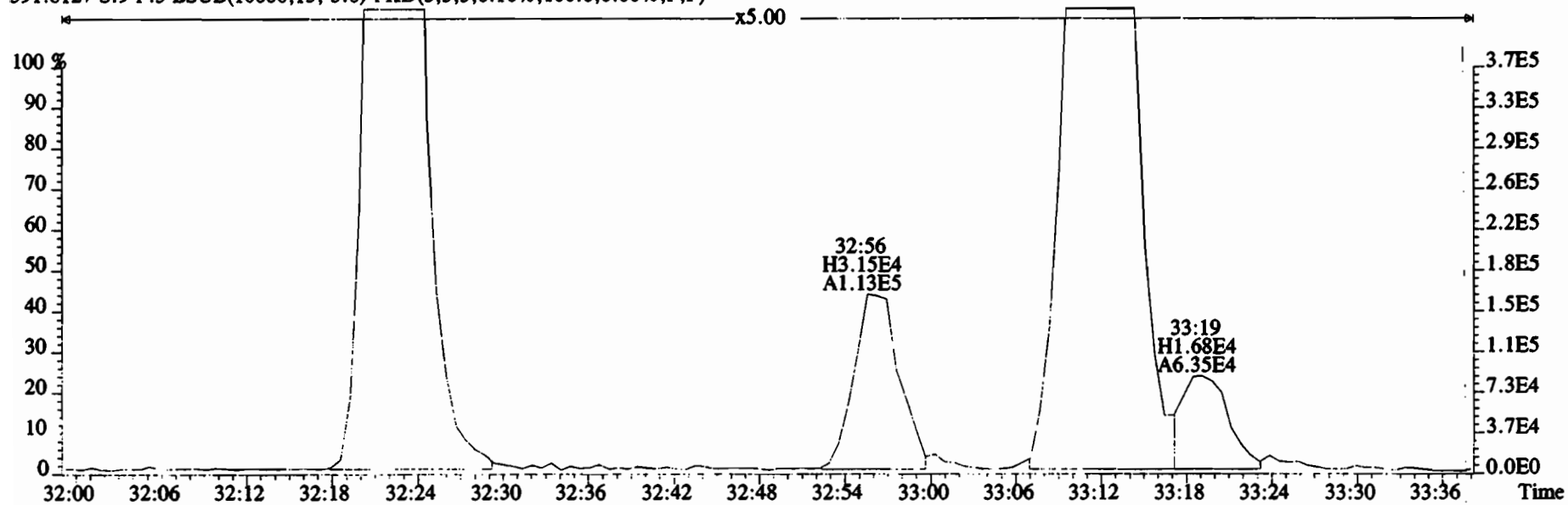
391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



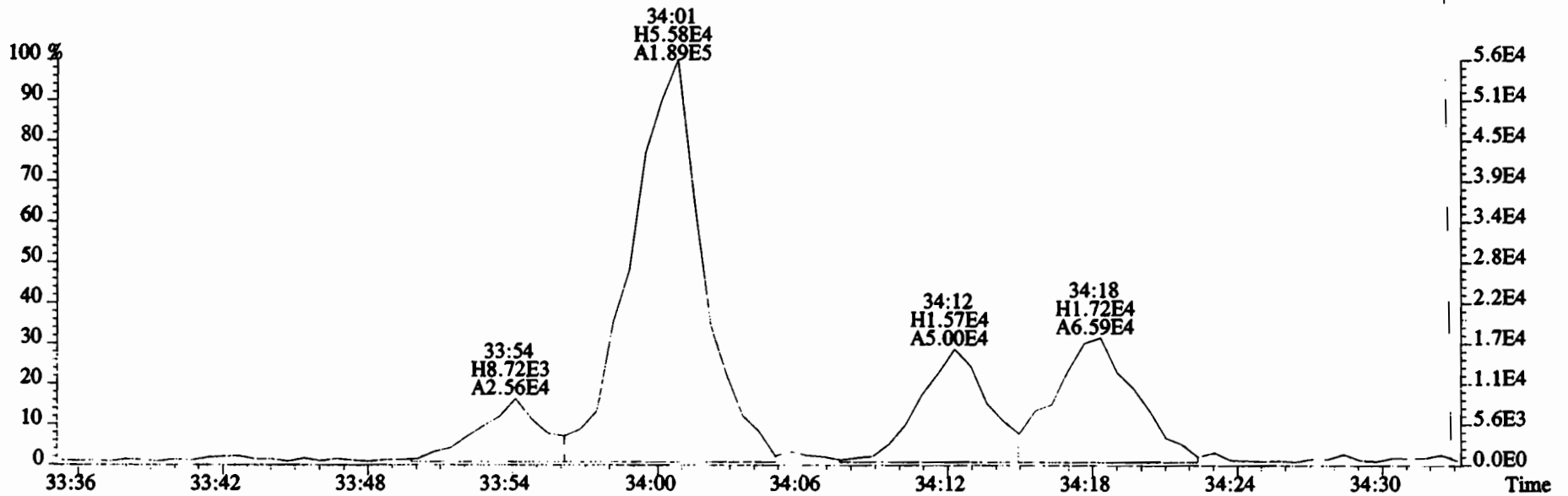
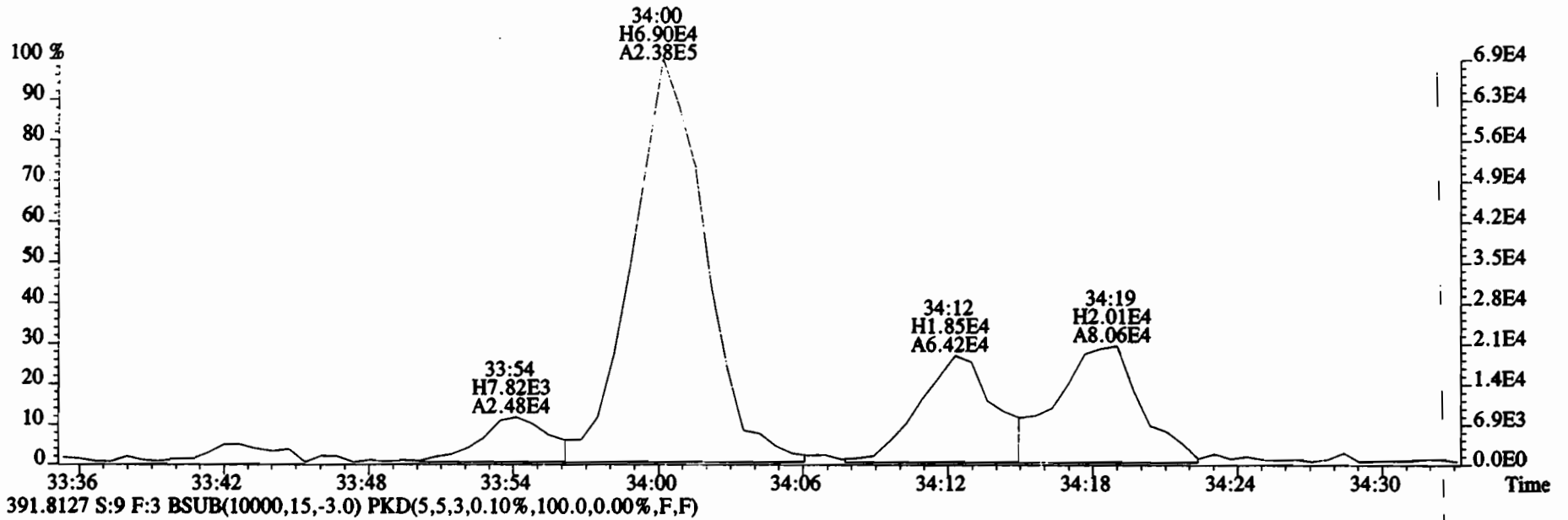
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

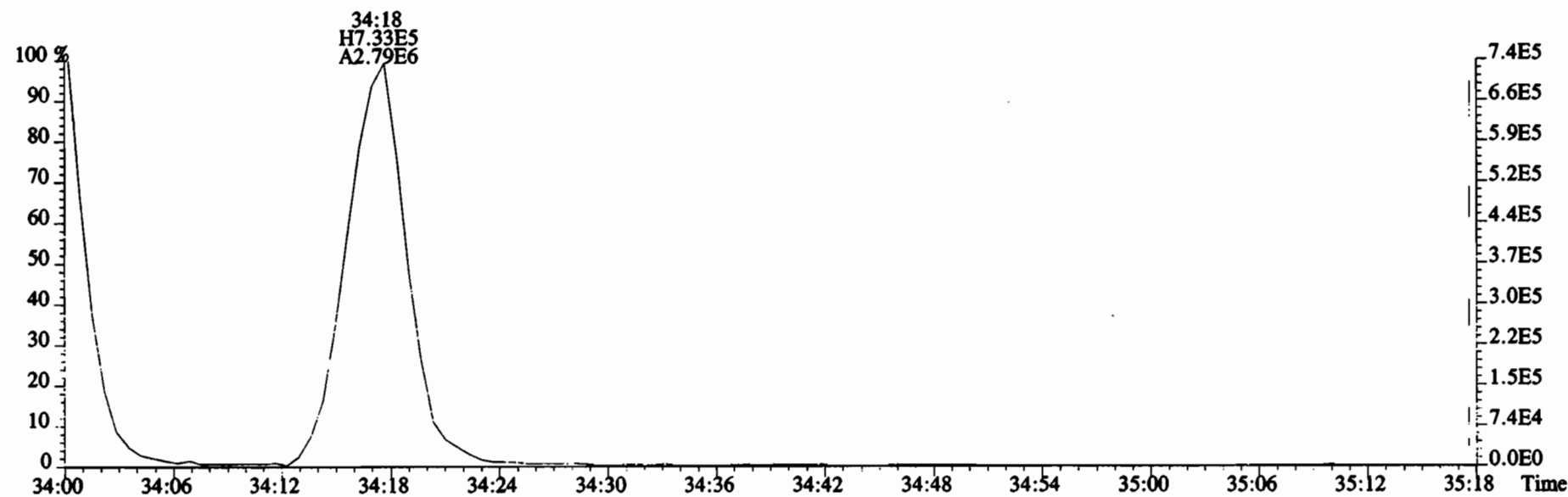
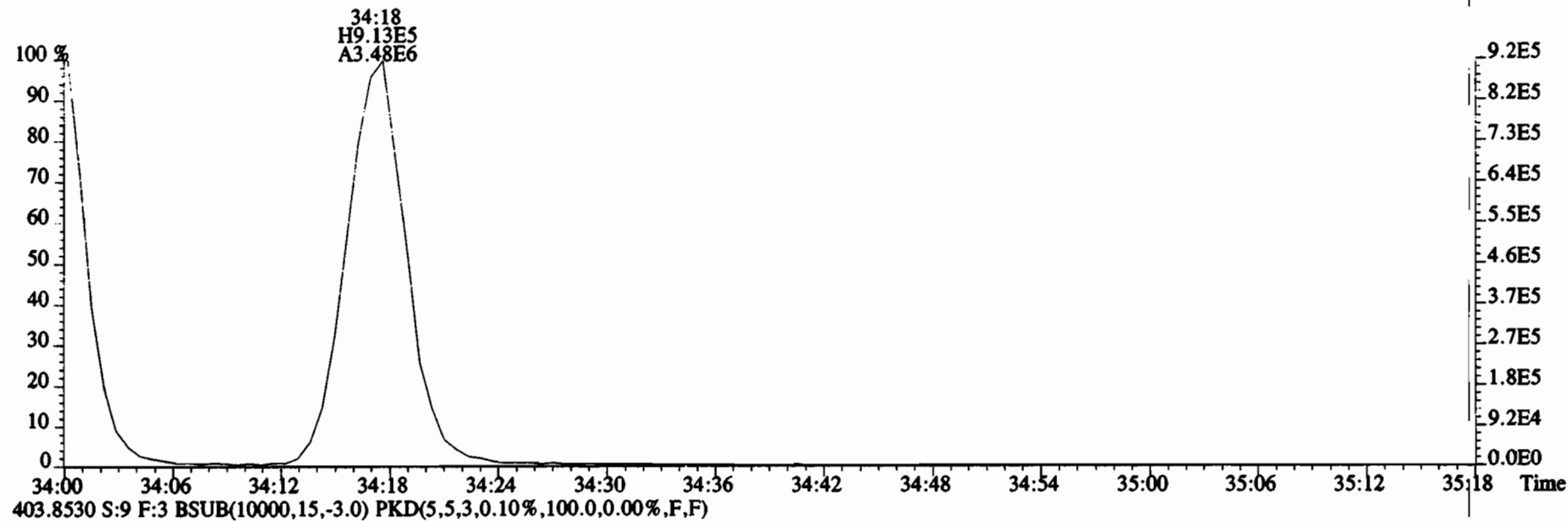


File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

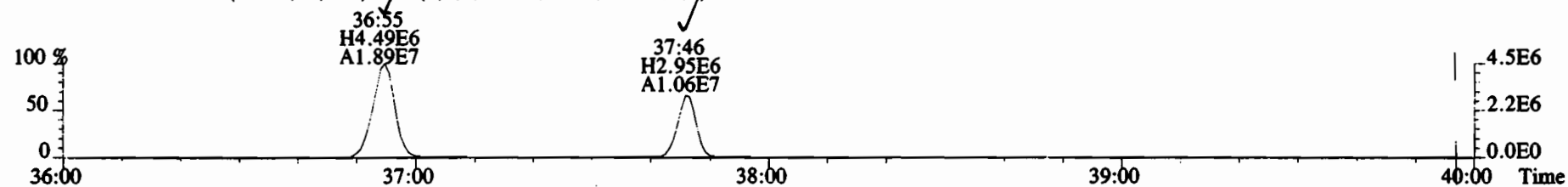




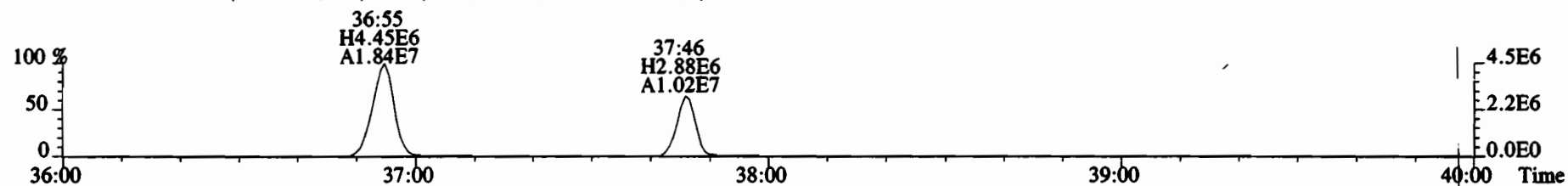
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Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



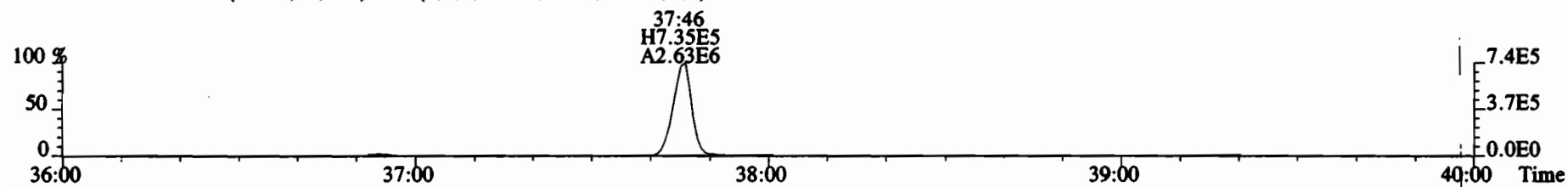
File:200107D2 #1-355 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



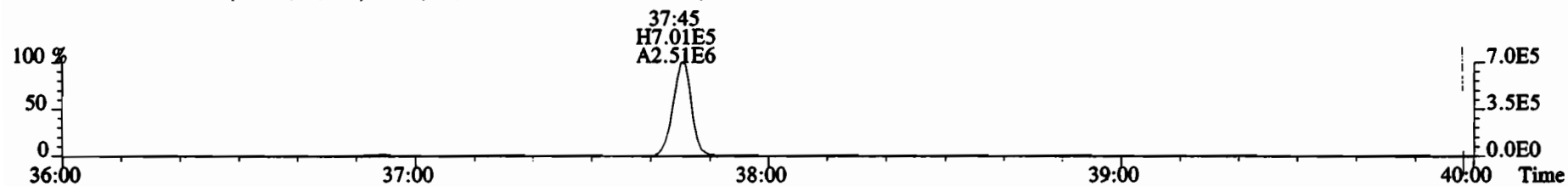
425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



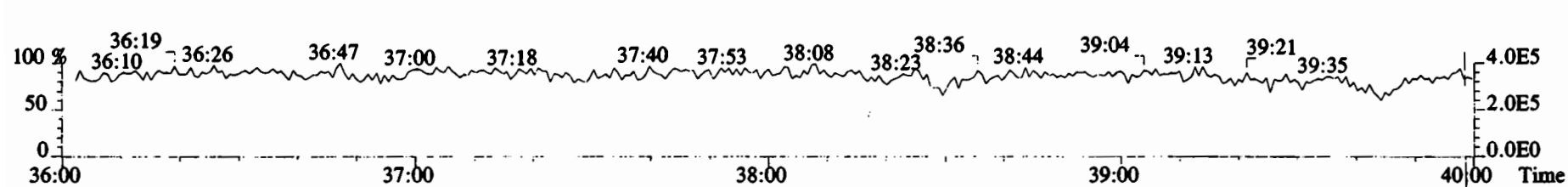
435.8169 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



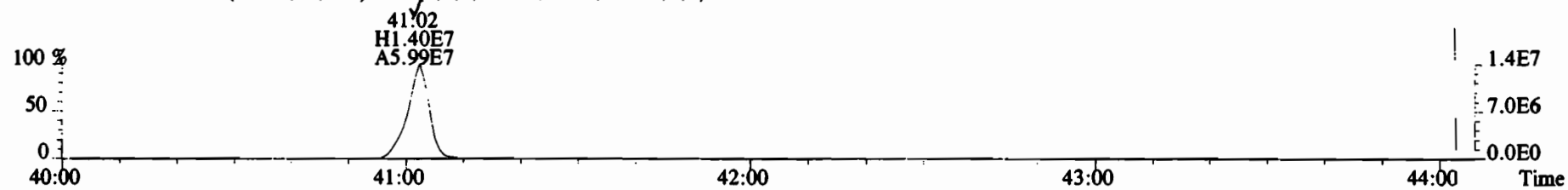
437.8140 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



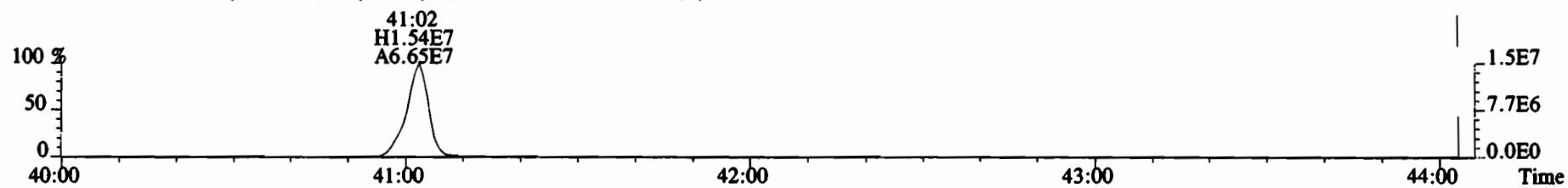
454.9728 S:9 F:4



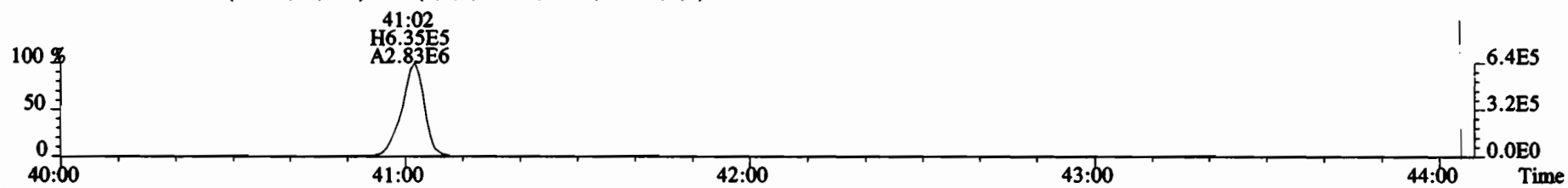
File:200107D2 #1-432 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



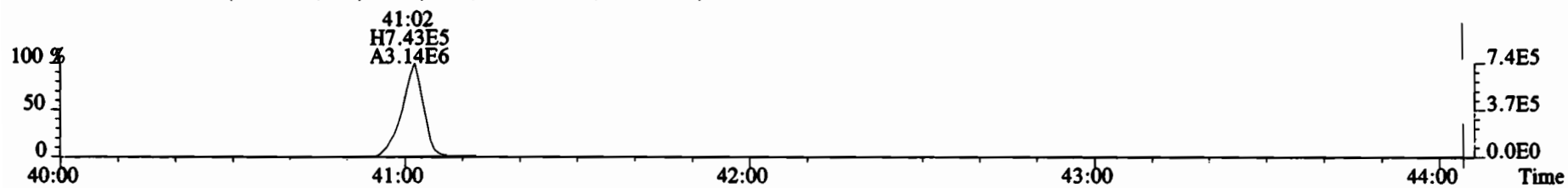
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



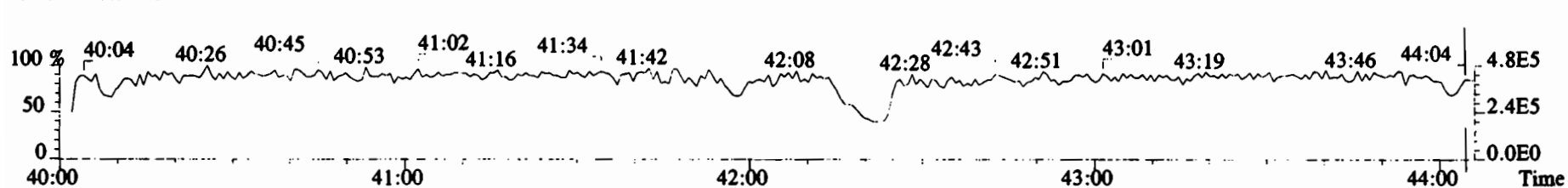
469.7780 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



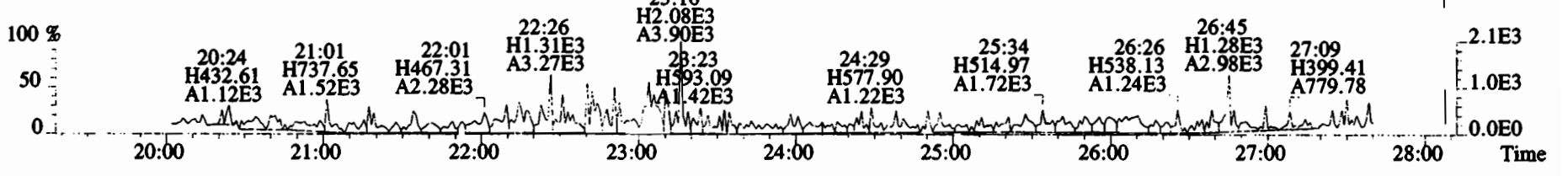
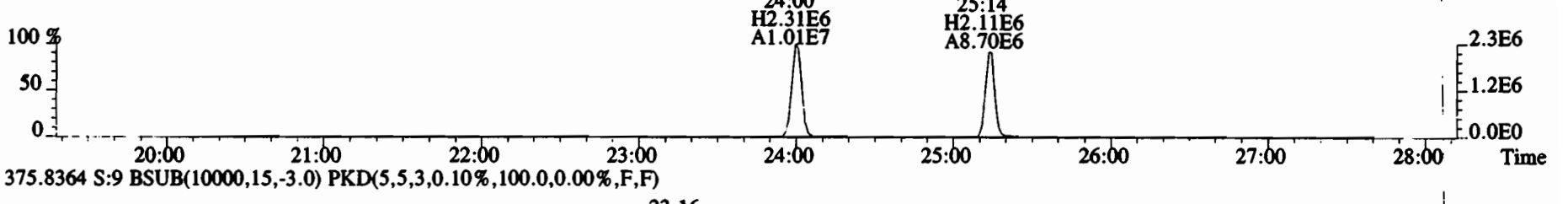
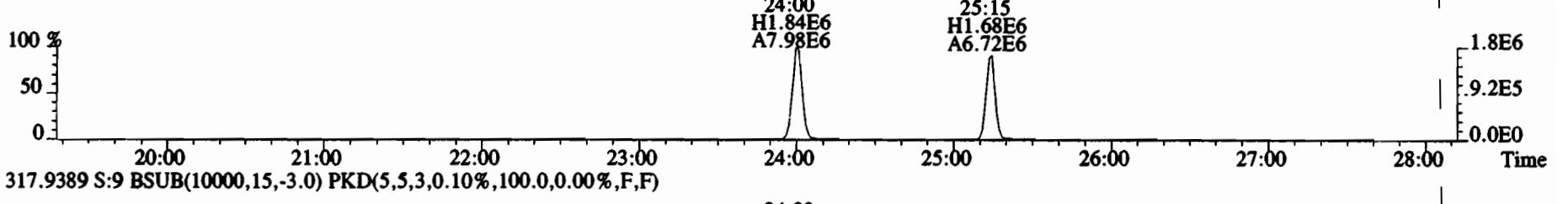
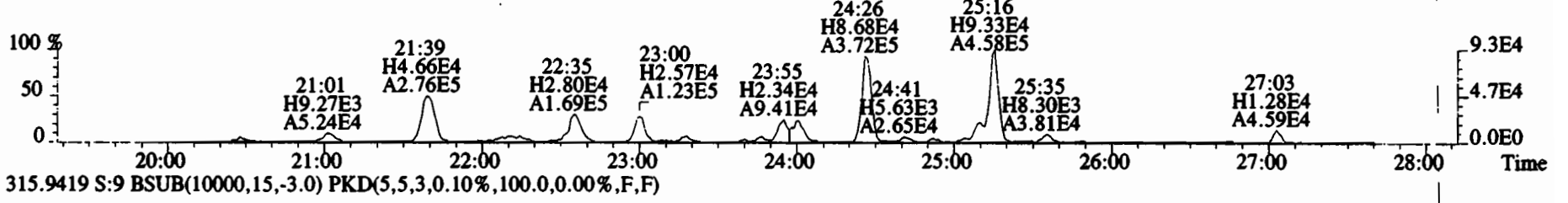
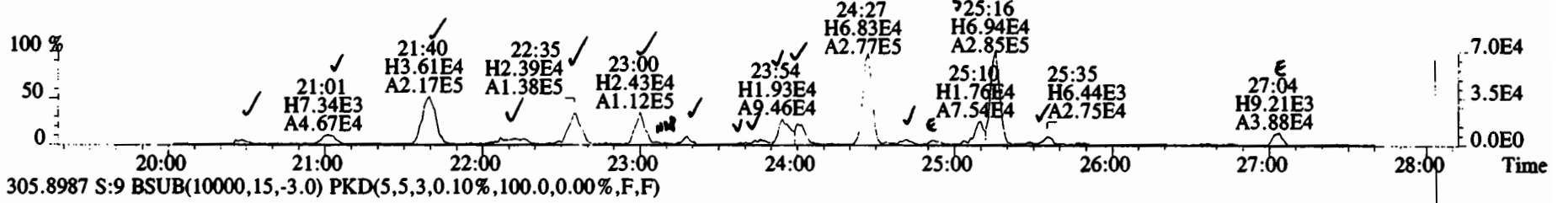
471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



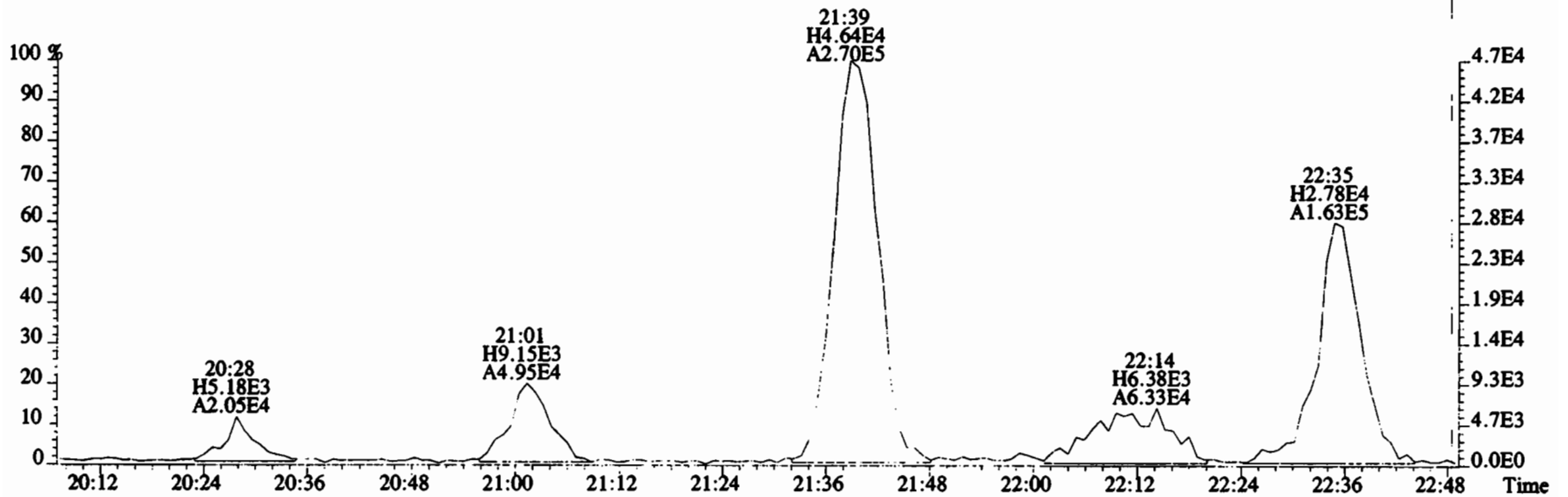
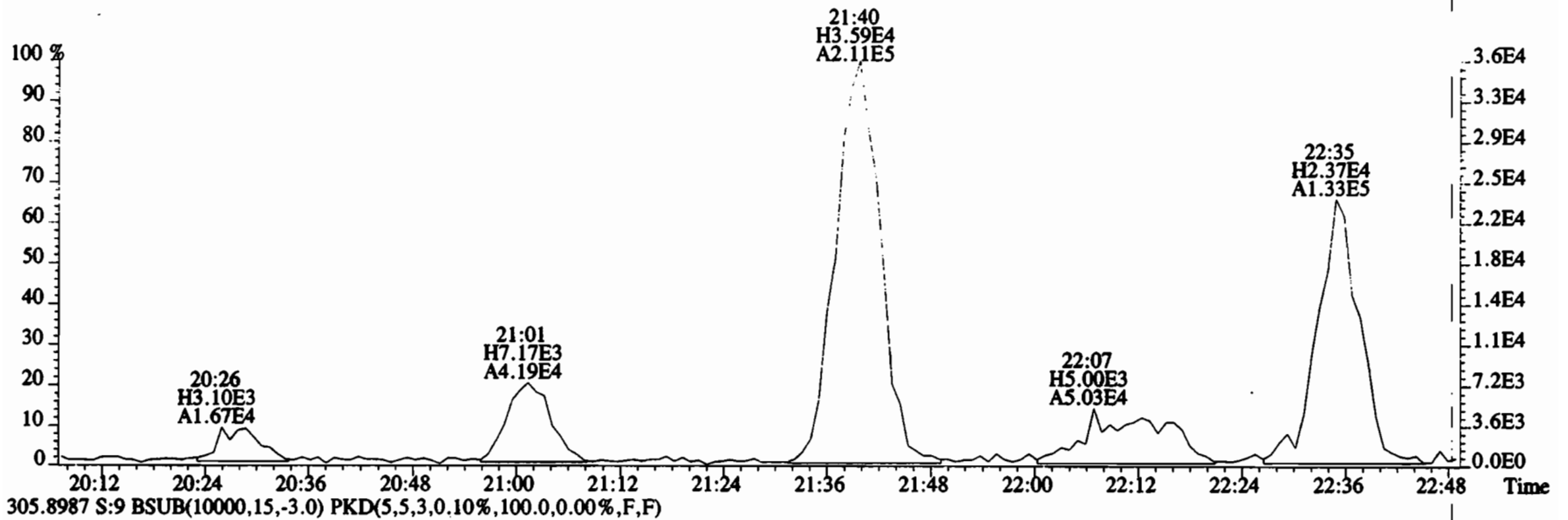
454.9728 S:9 F:5



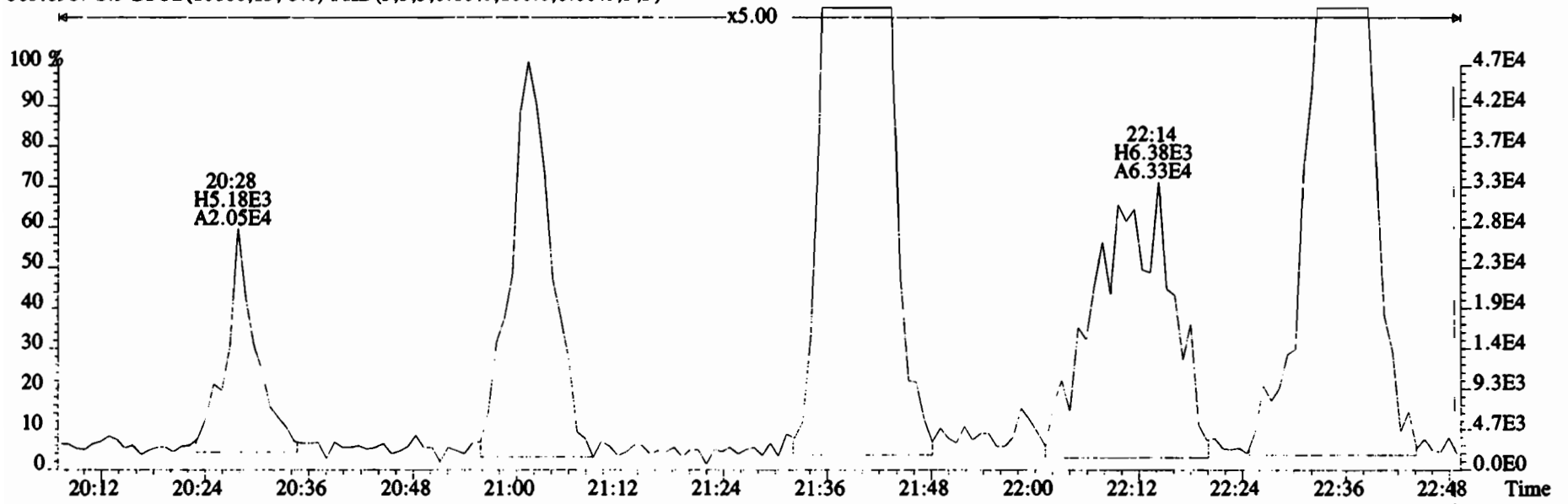
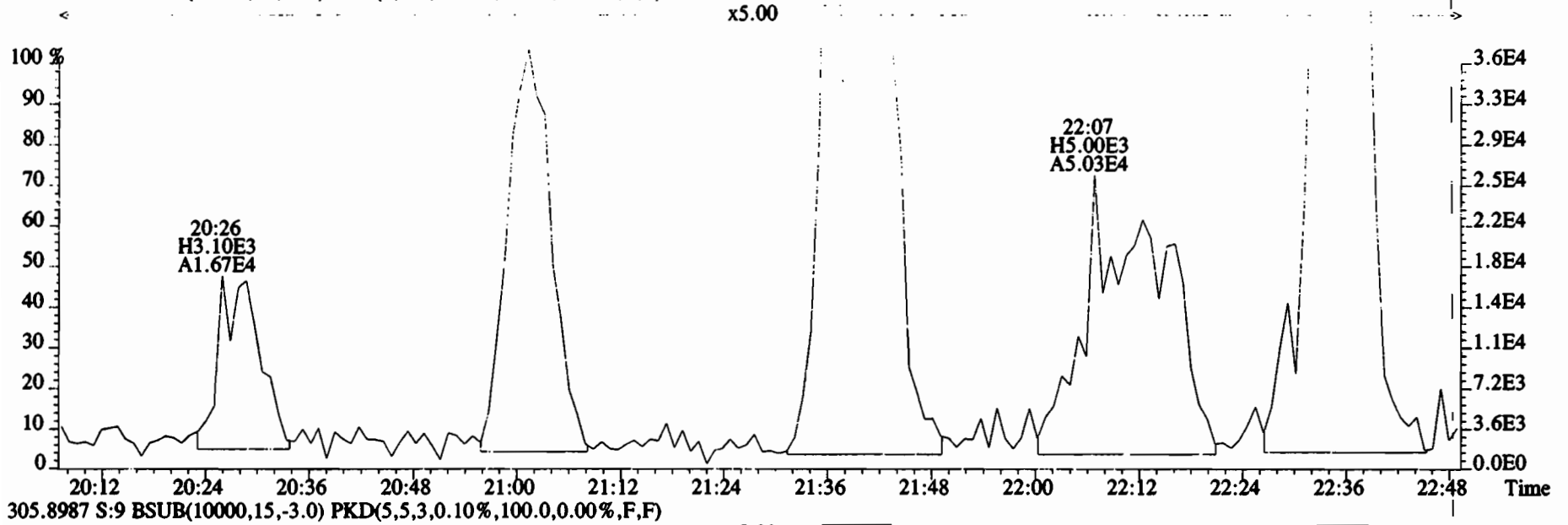
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



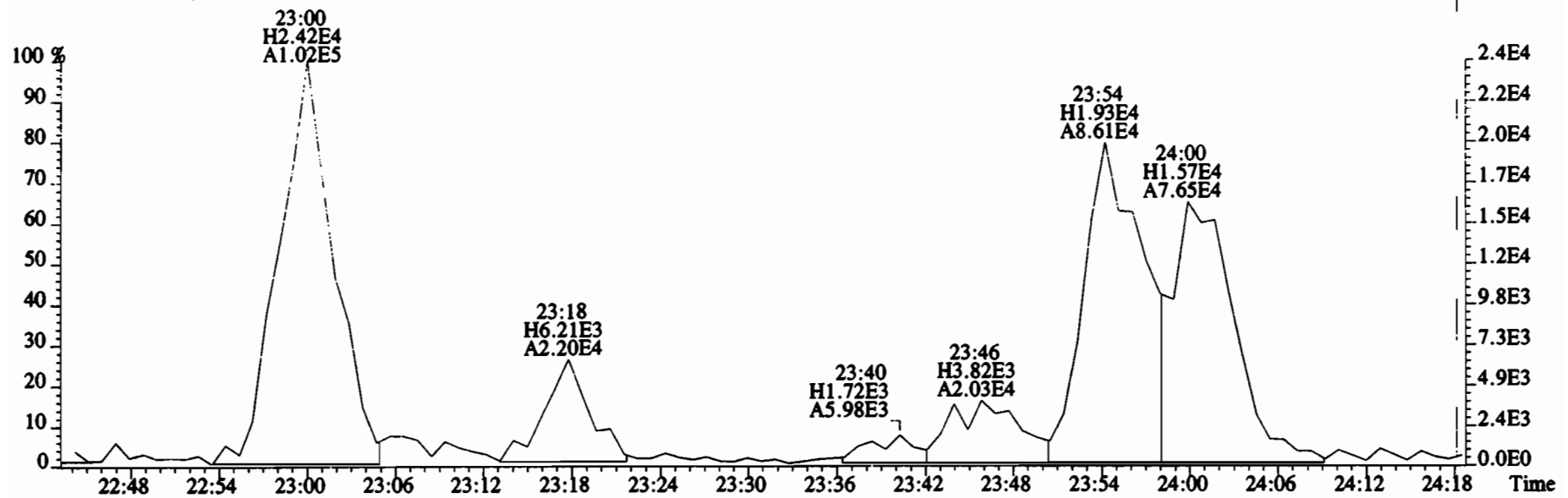
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



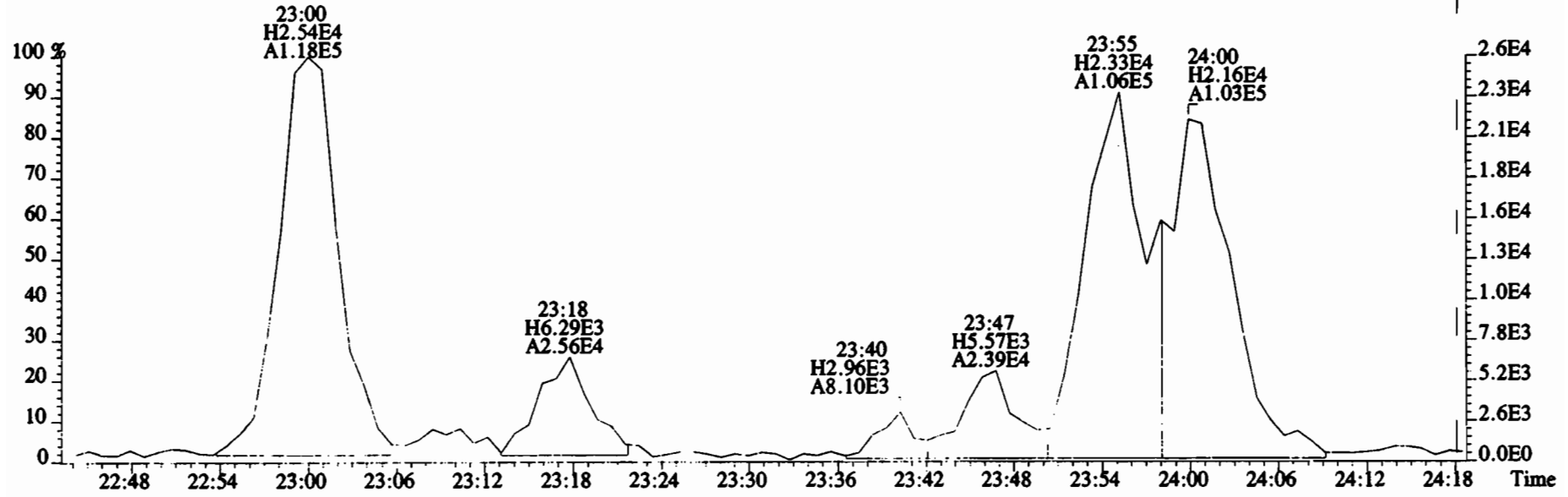
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



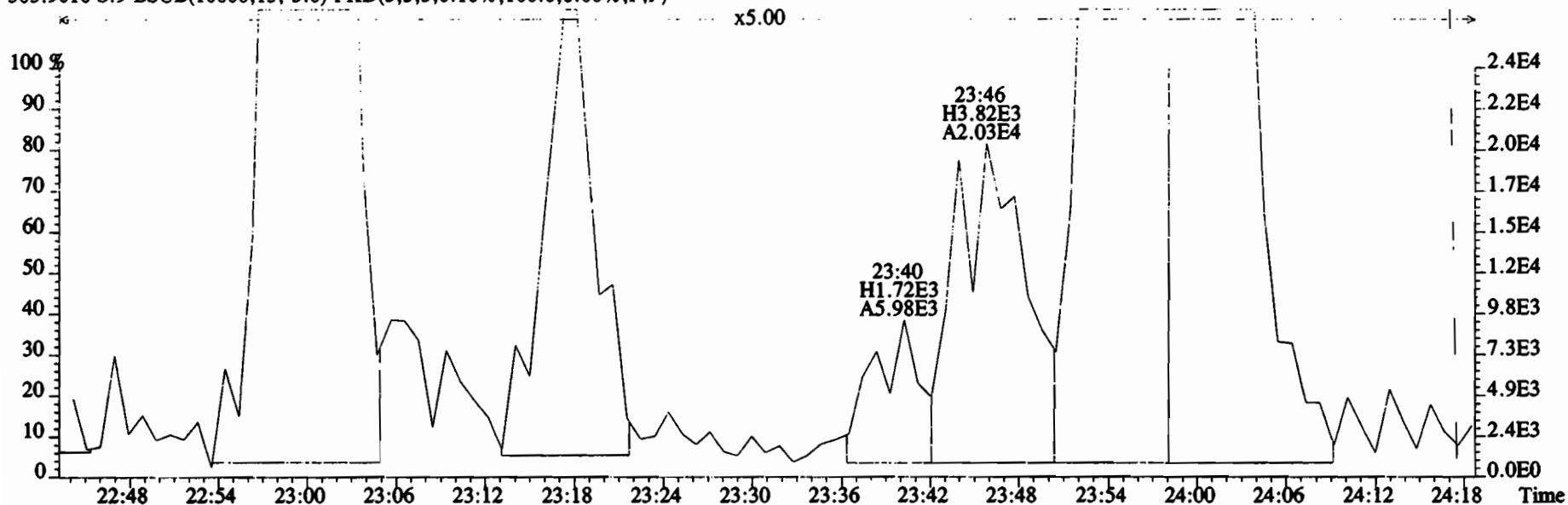
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



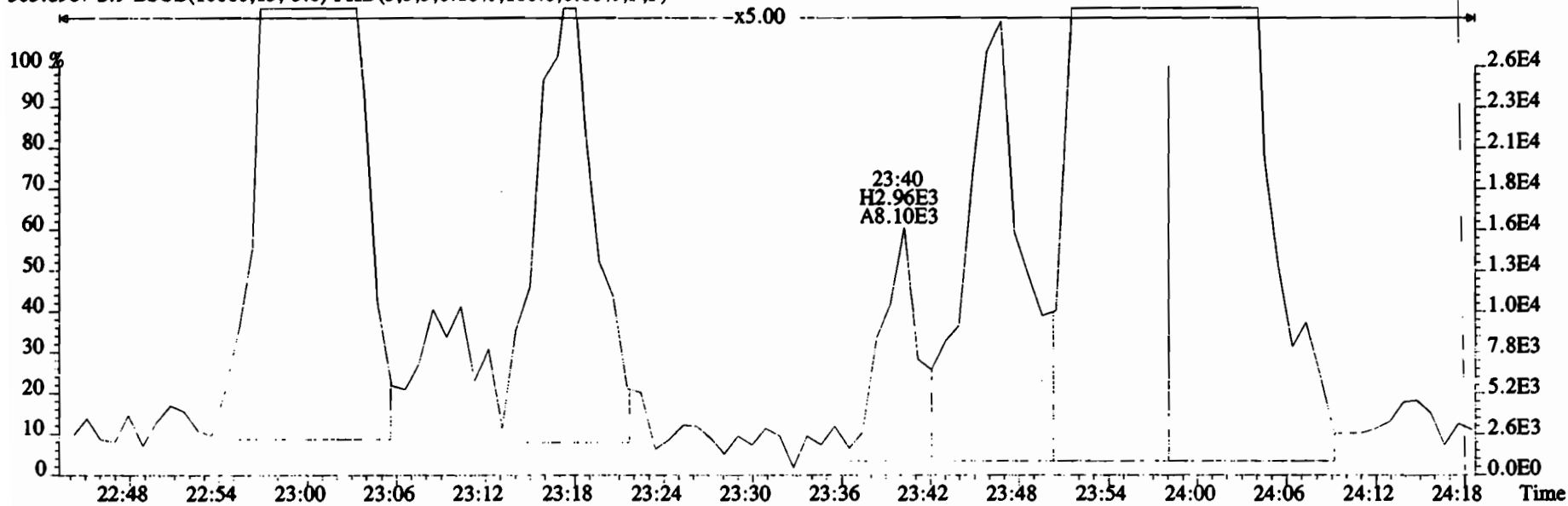
305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

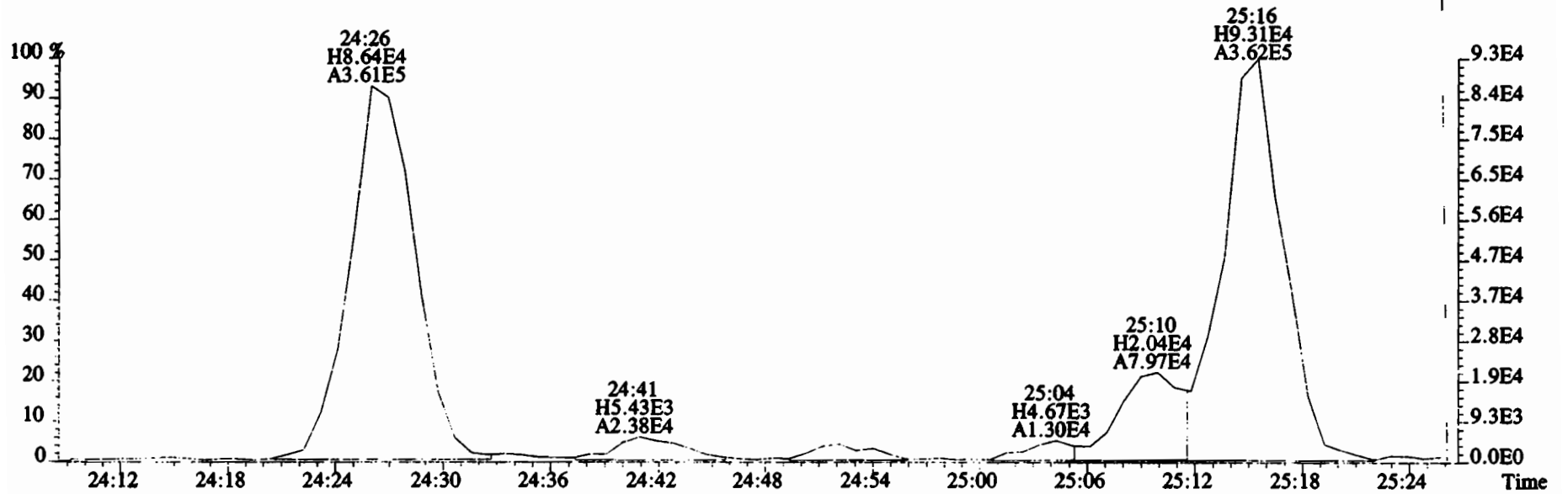
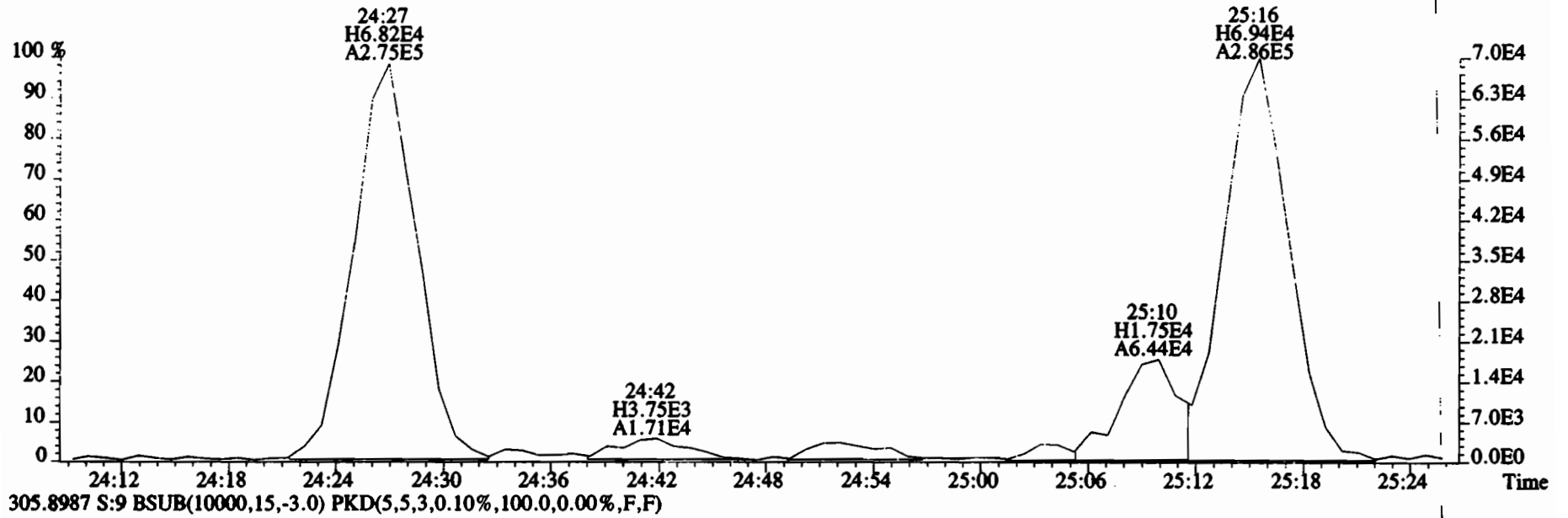


305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

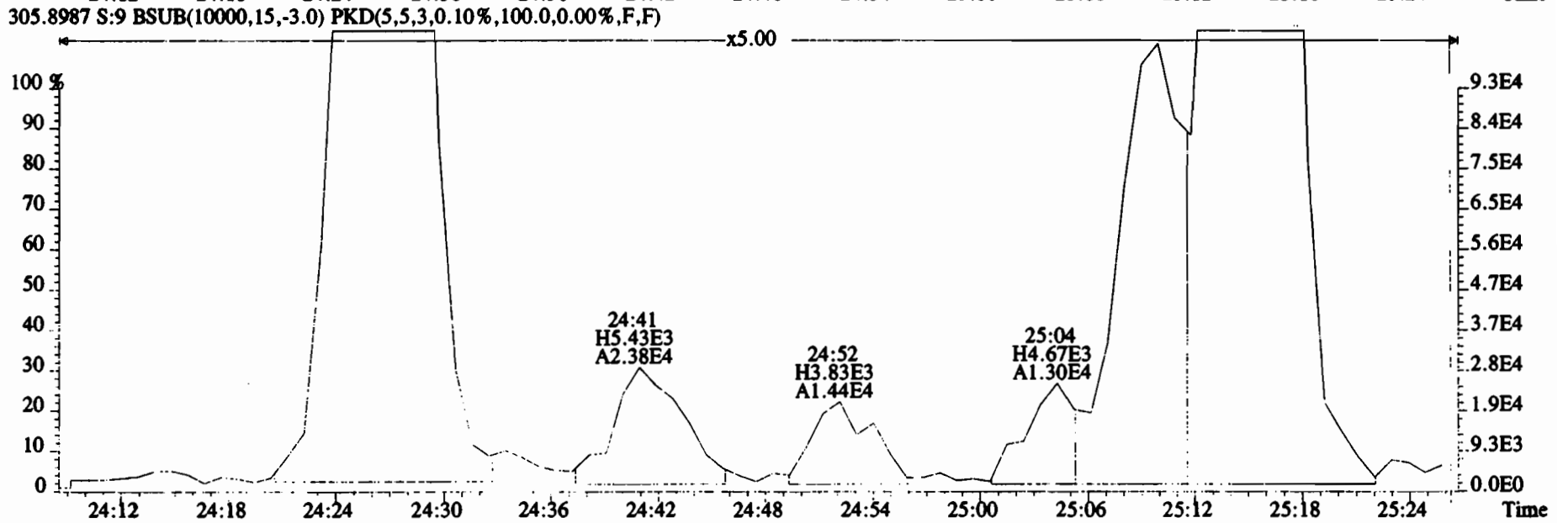
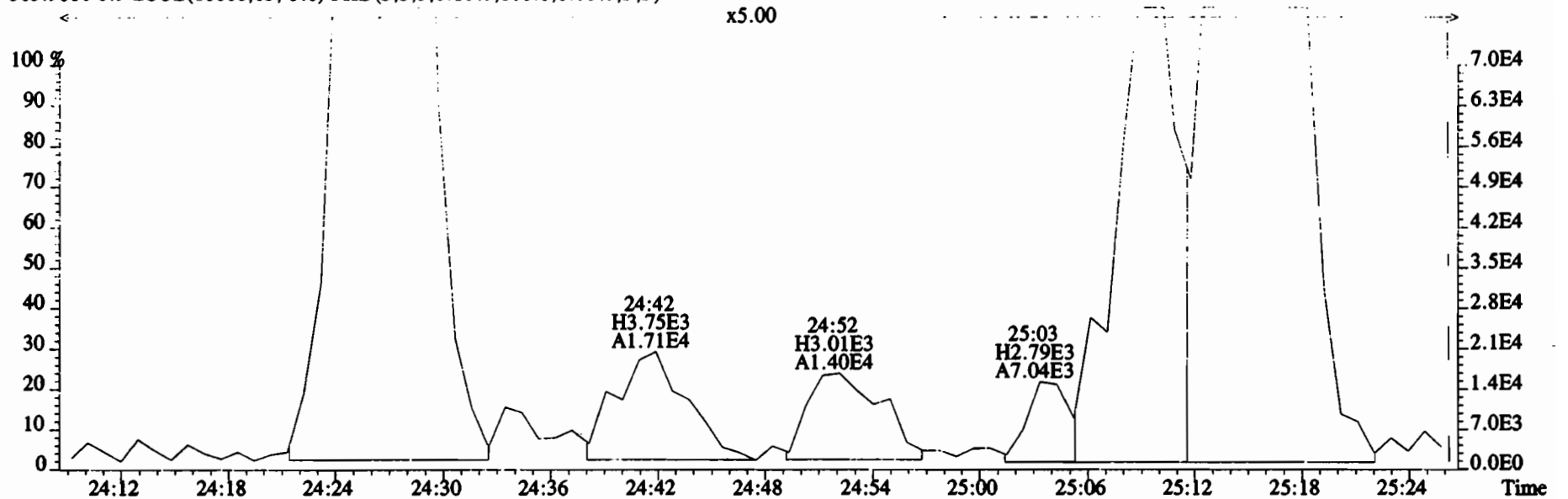




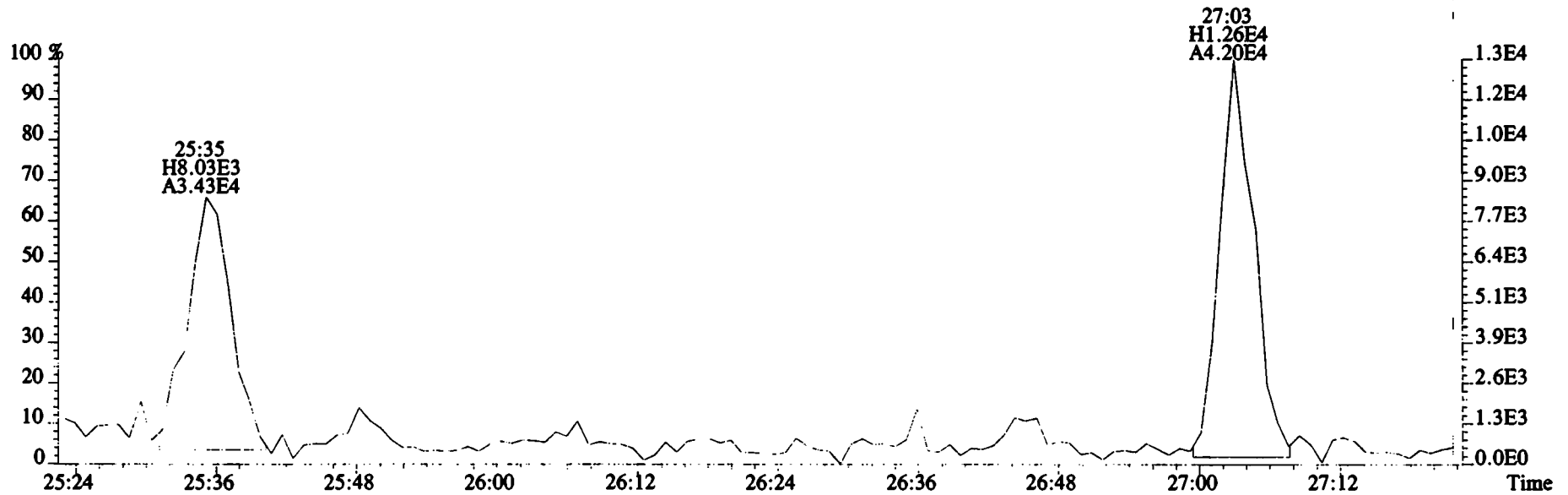
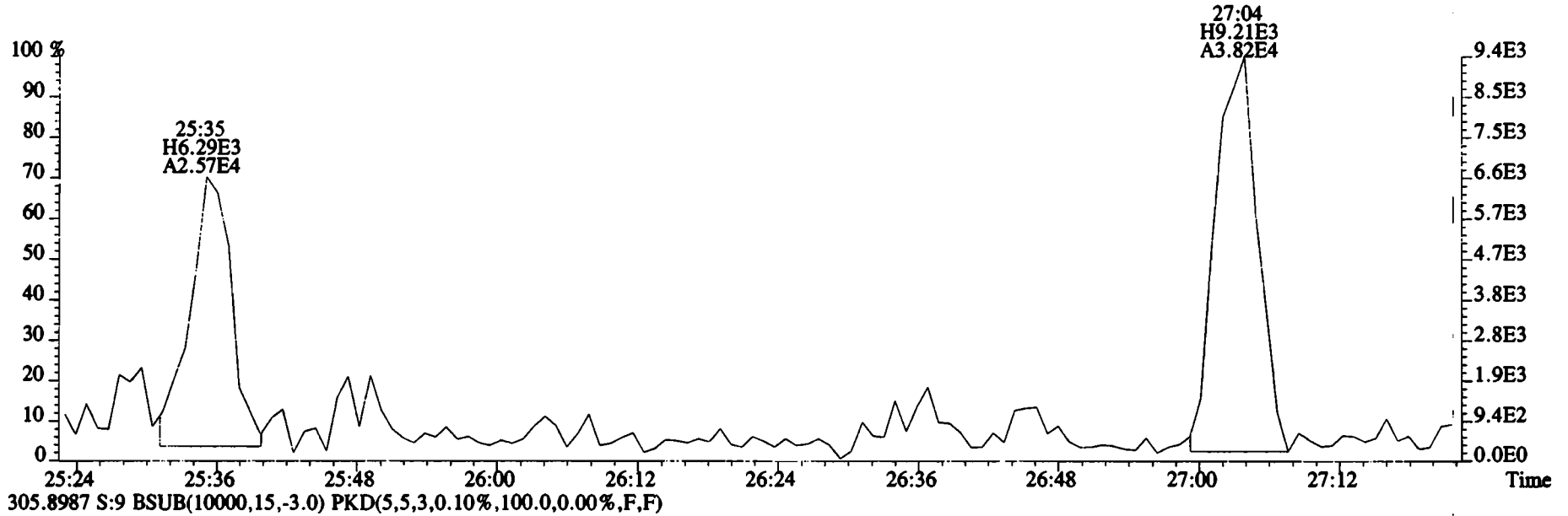
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



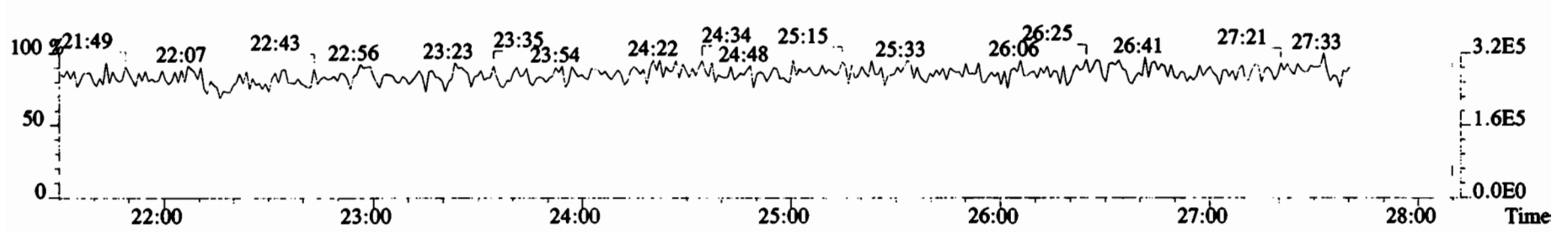
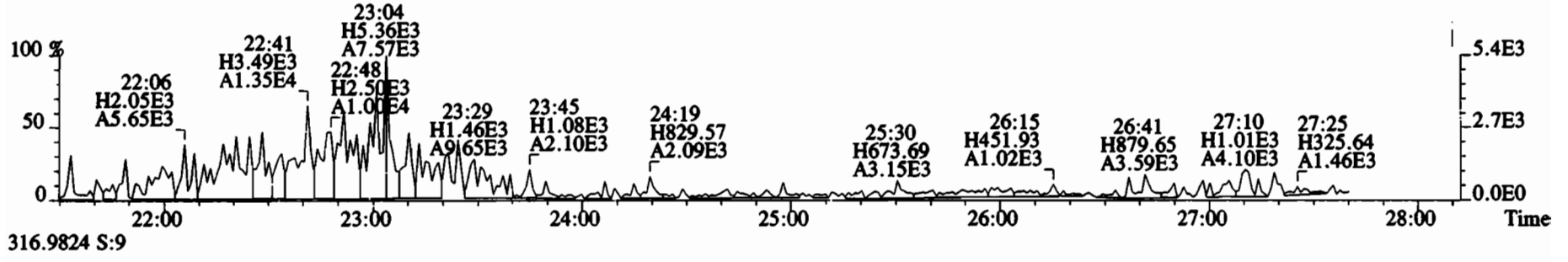
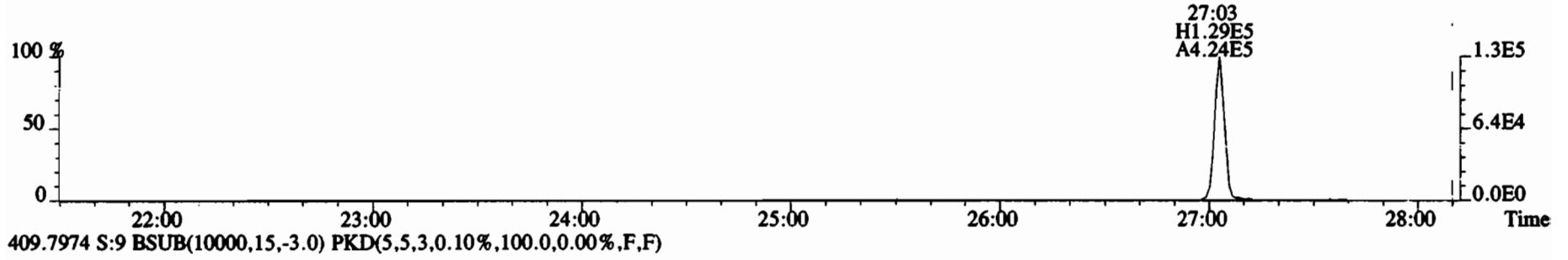
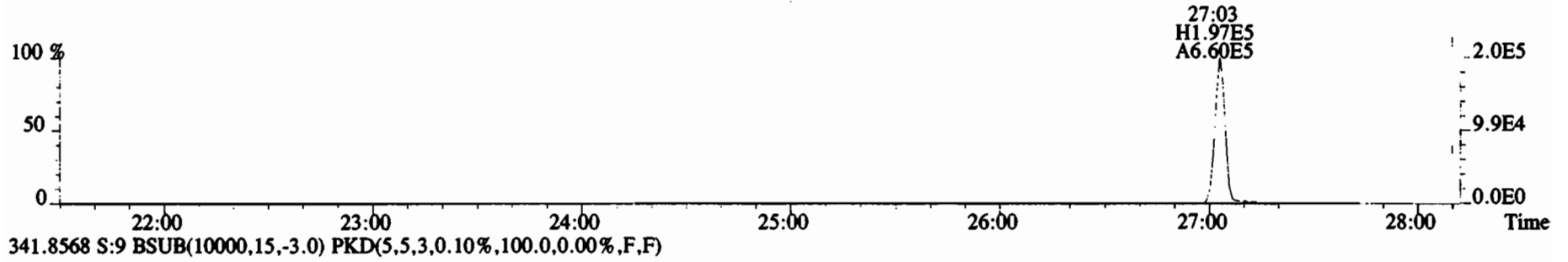
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



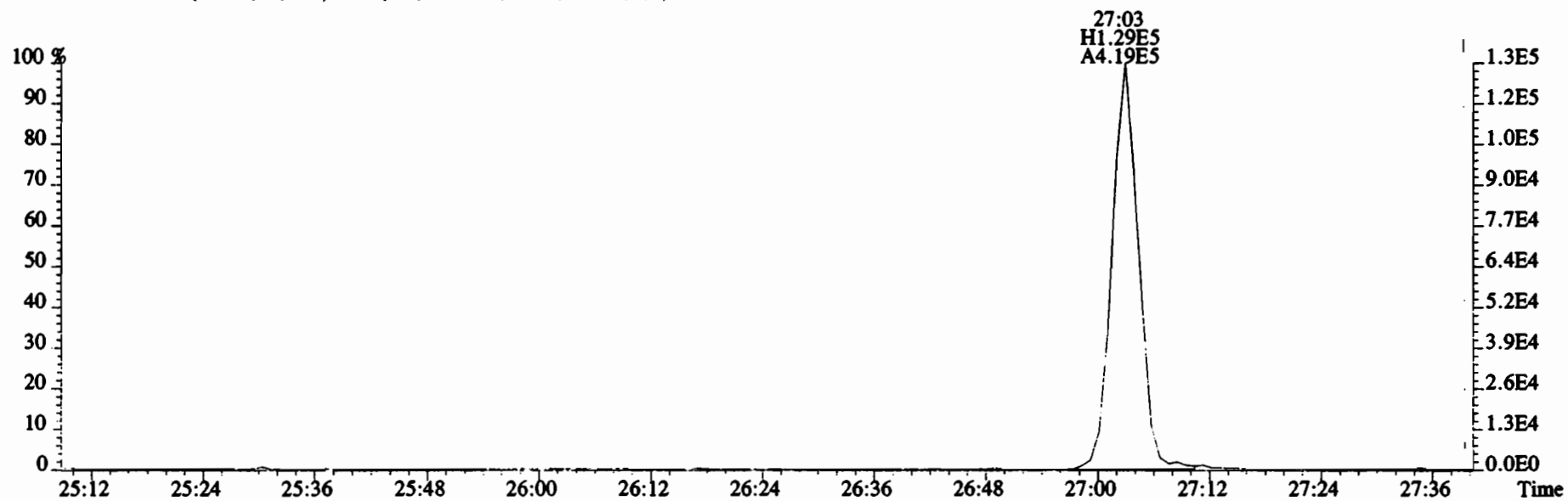
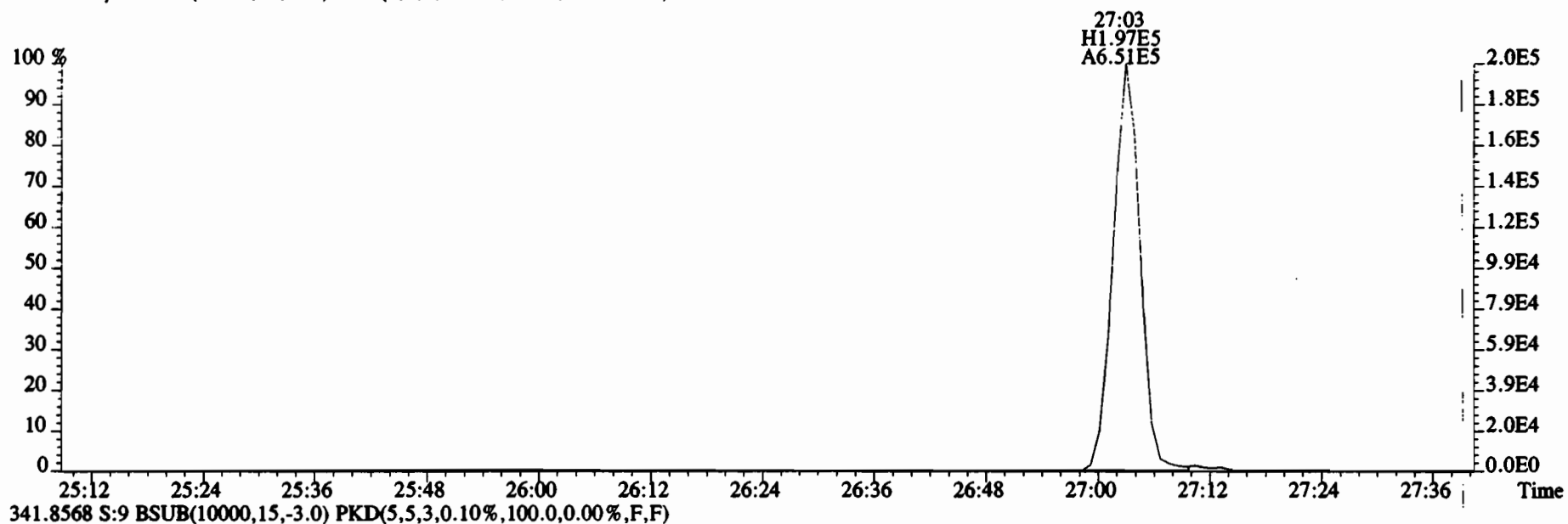
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



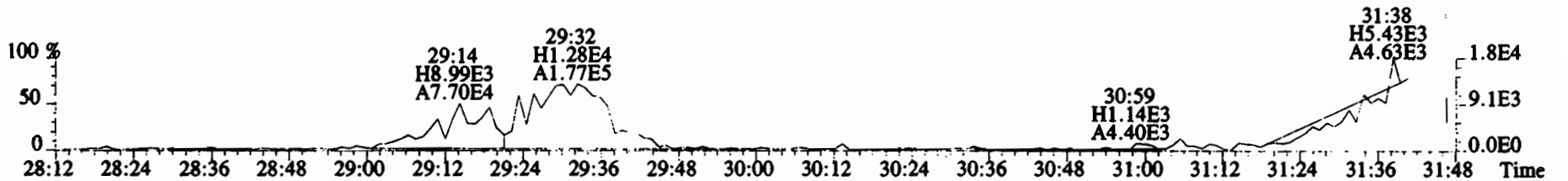
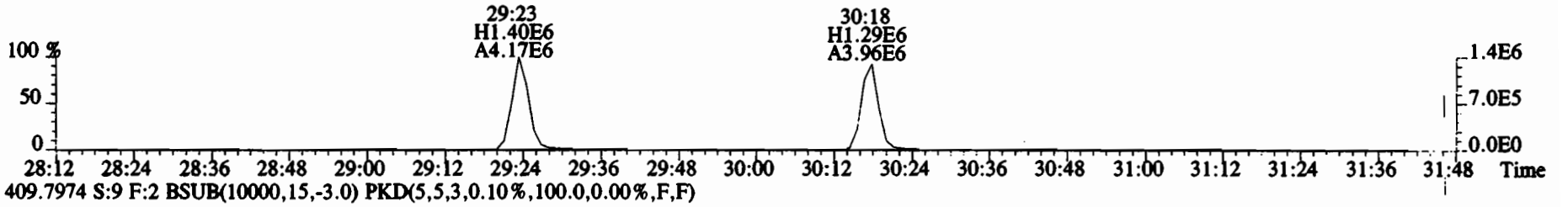
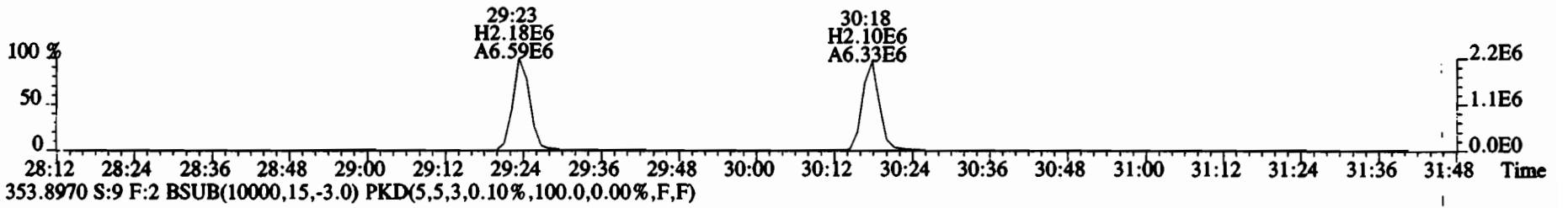
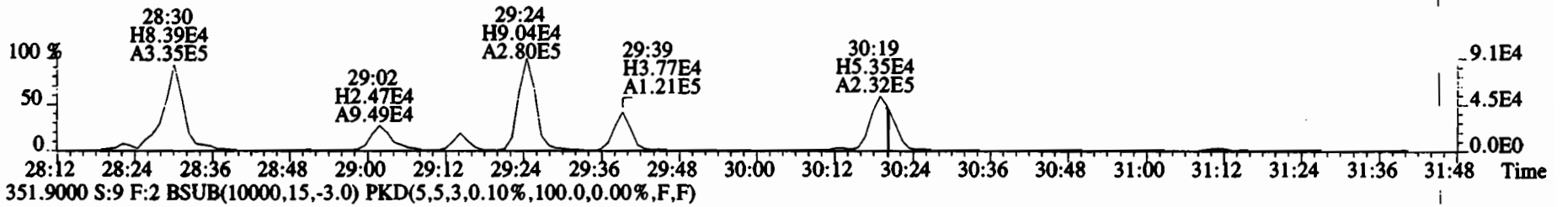
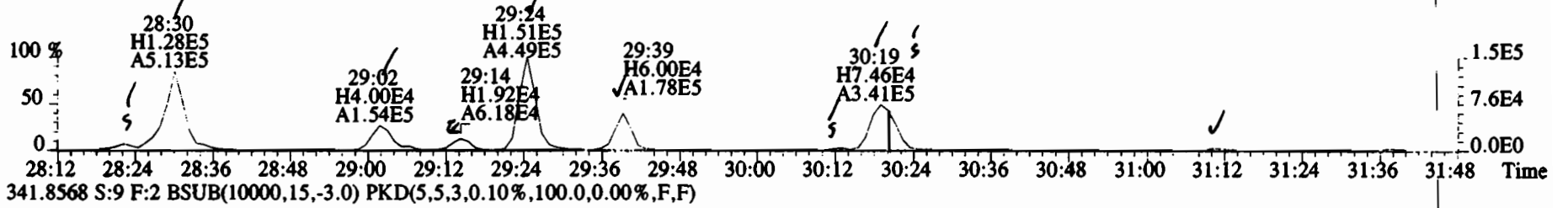
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 339.8597 S:9 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



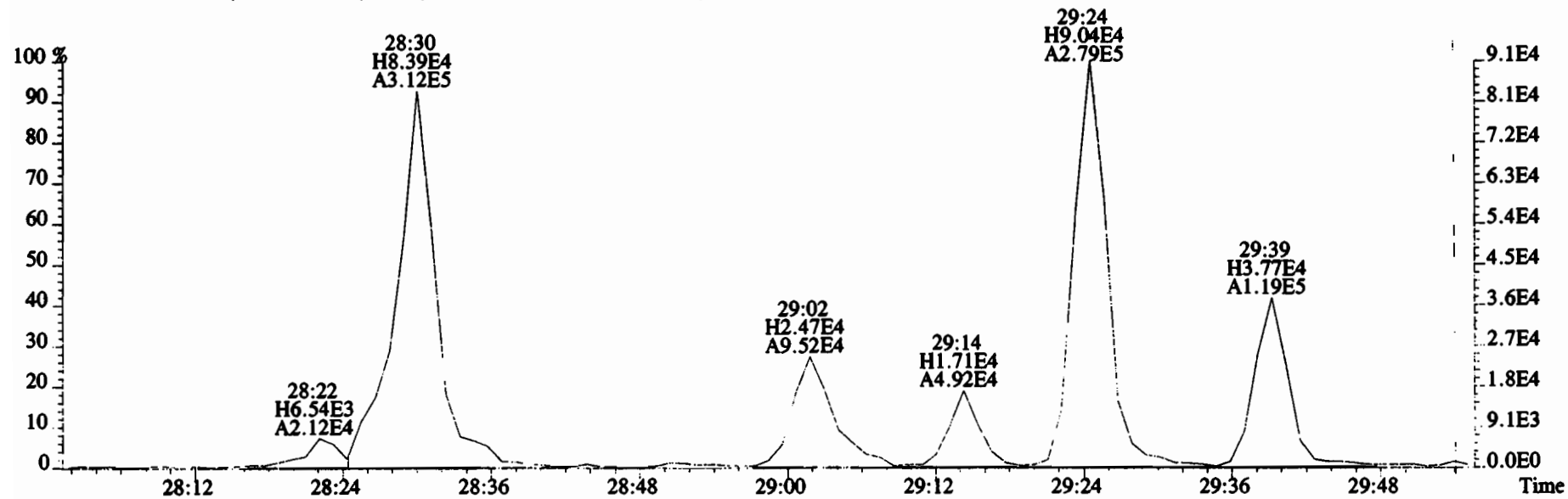
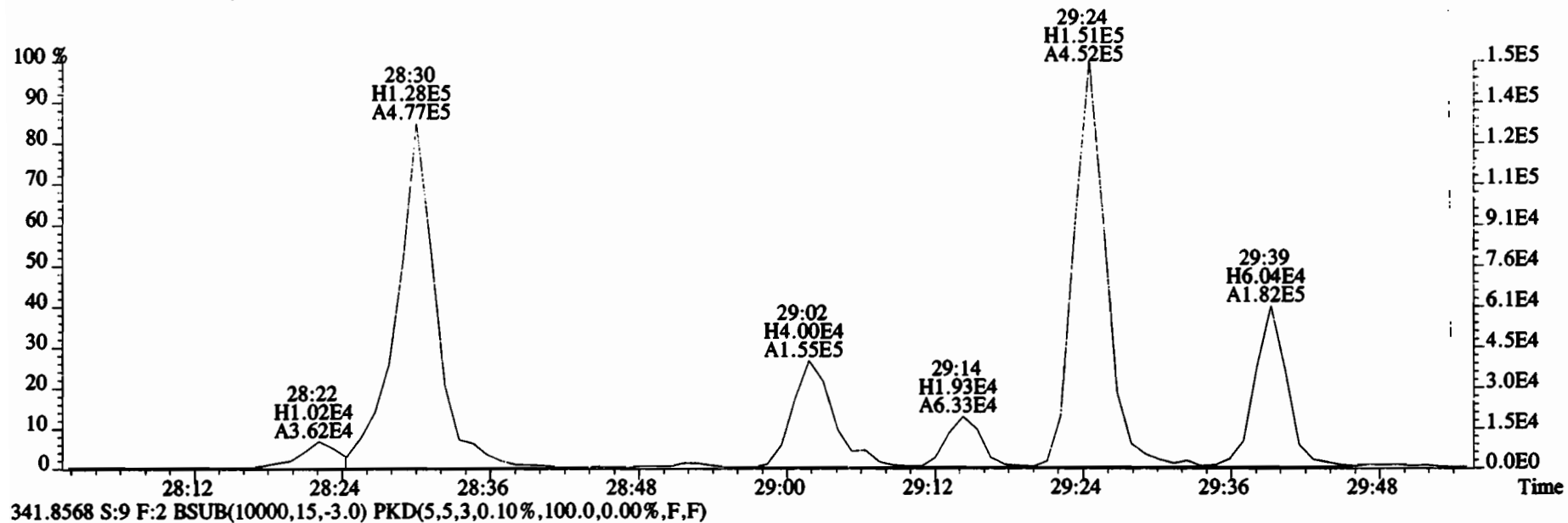
File:200107D2 #1-492 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



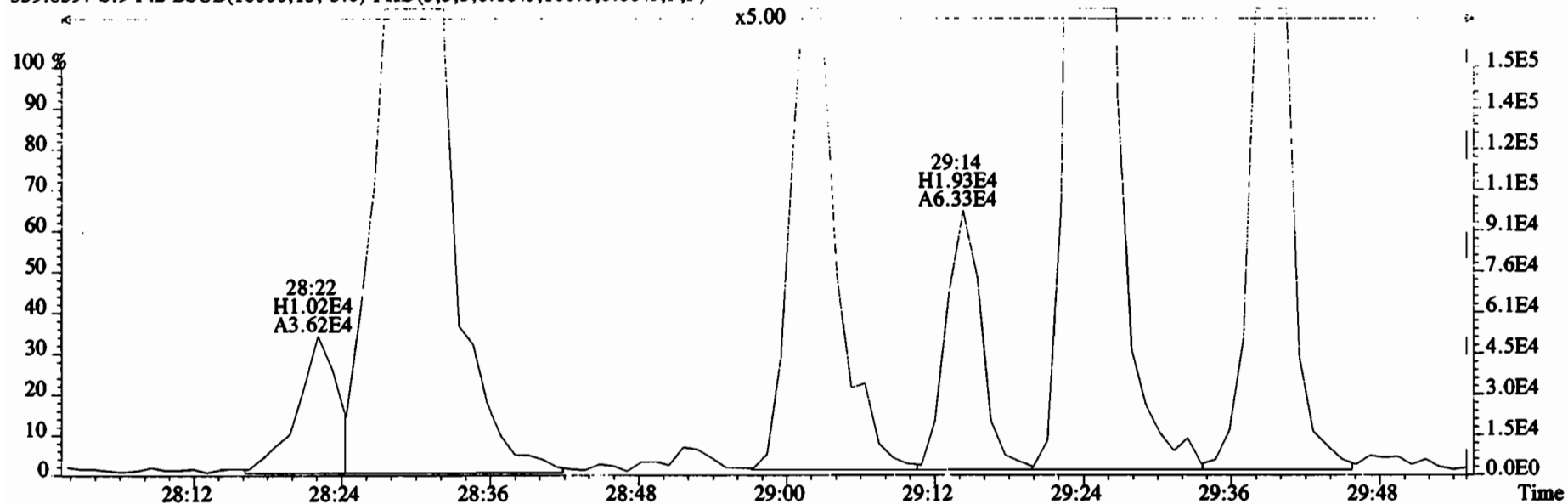
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



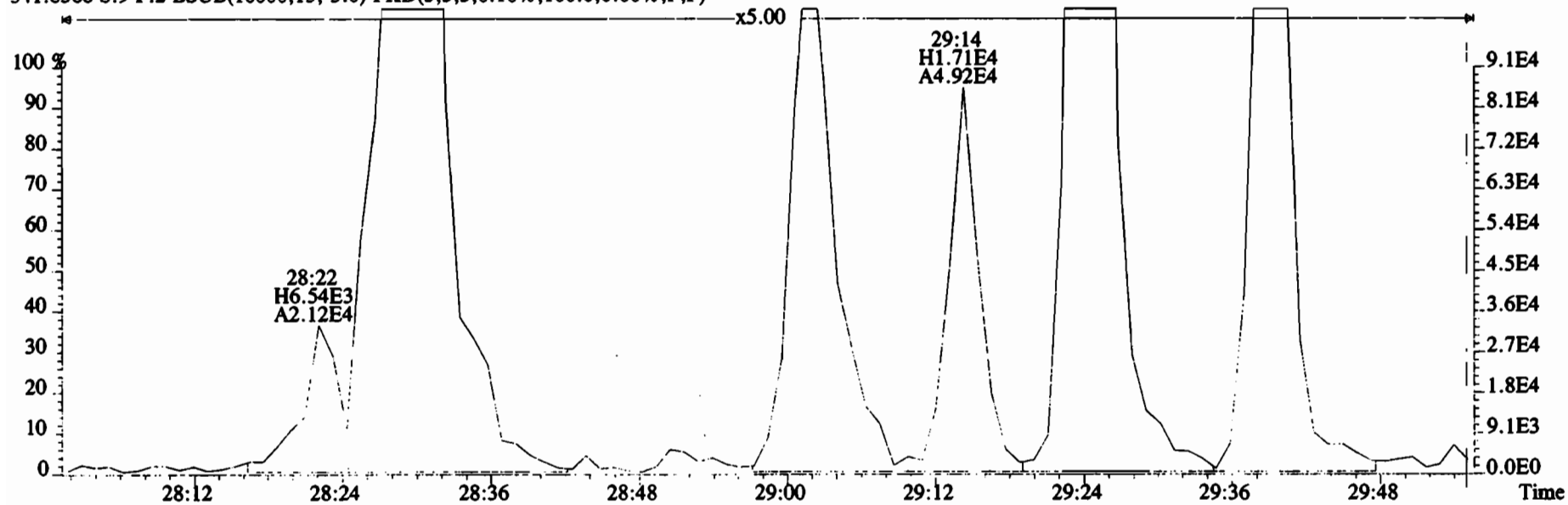
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100,0,0.00%,F,F)



File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

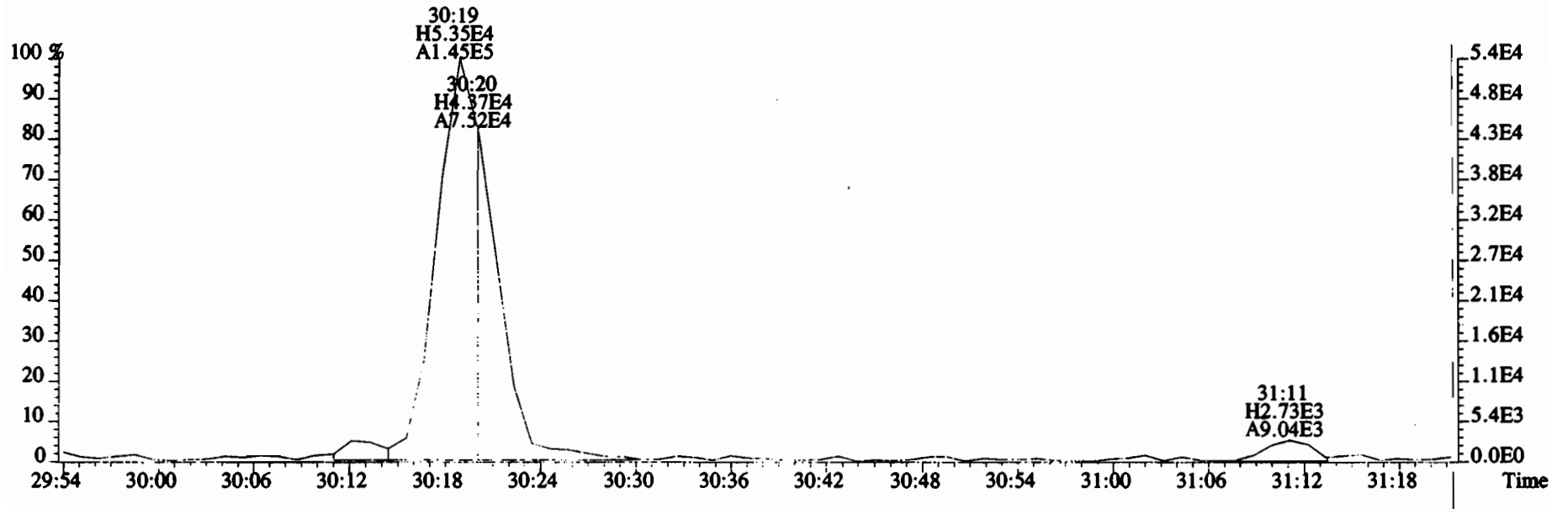
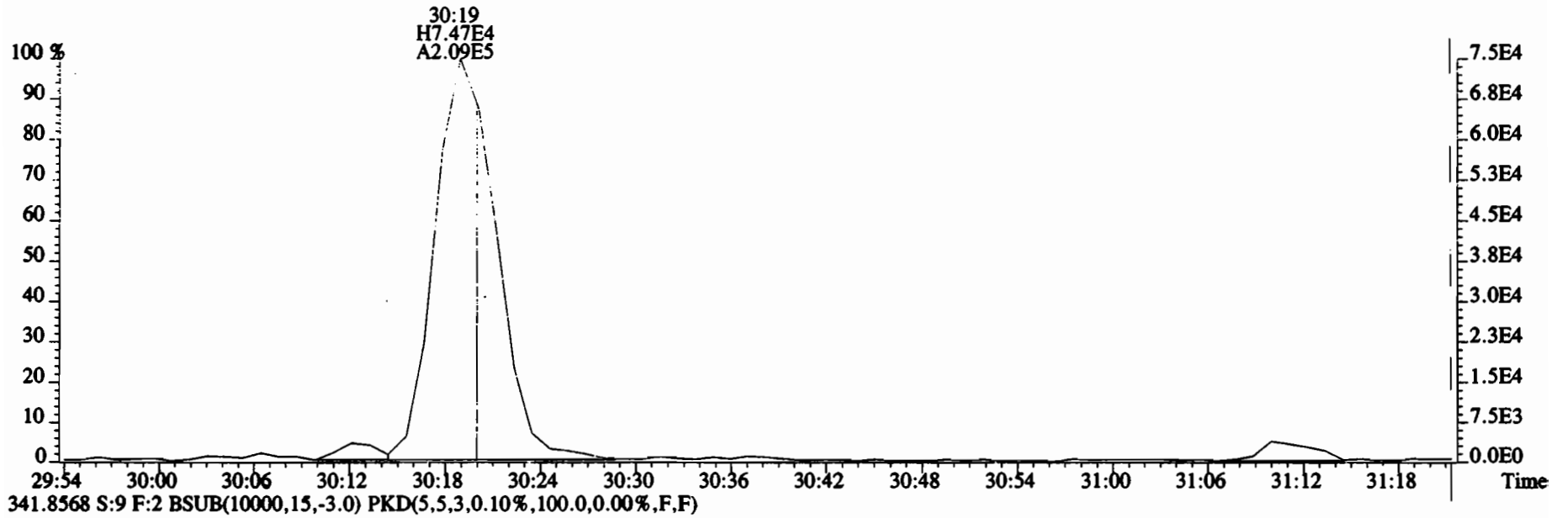


341.8568 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

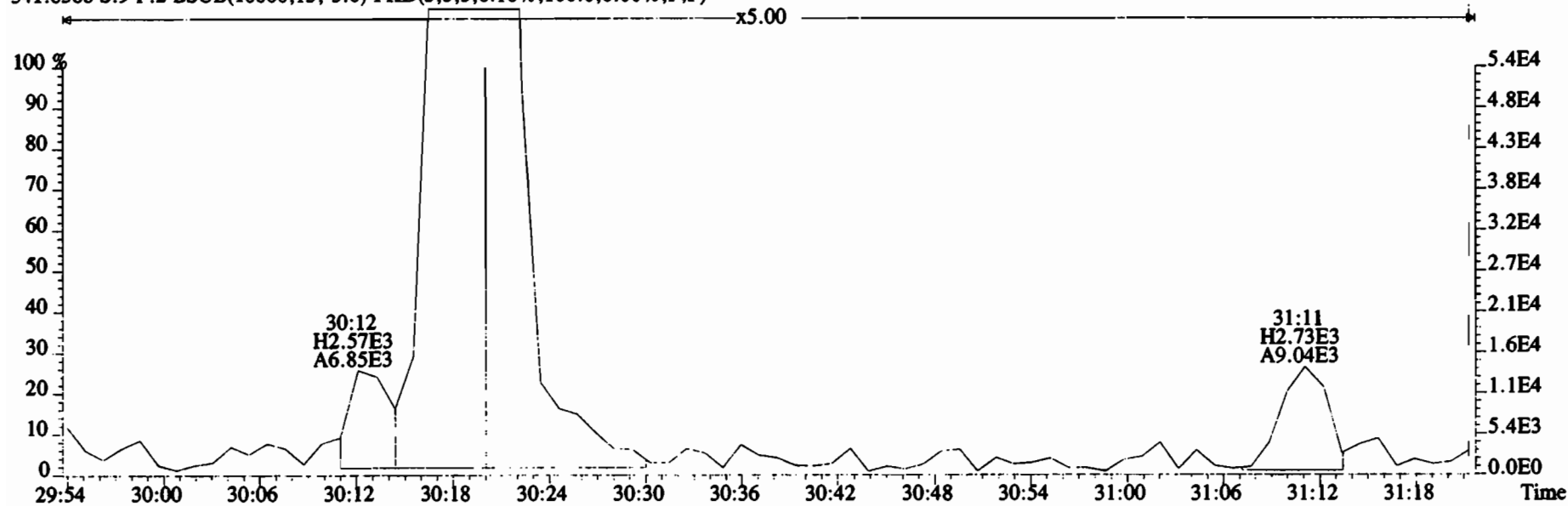
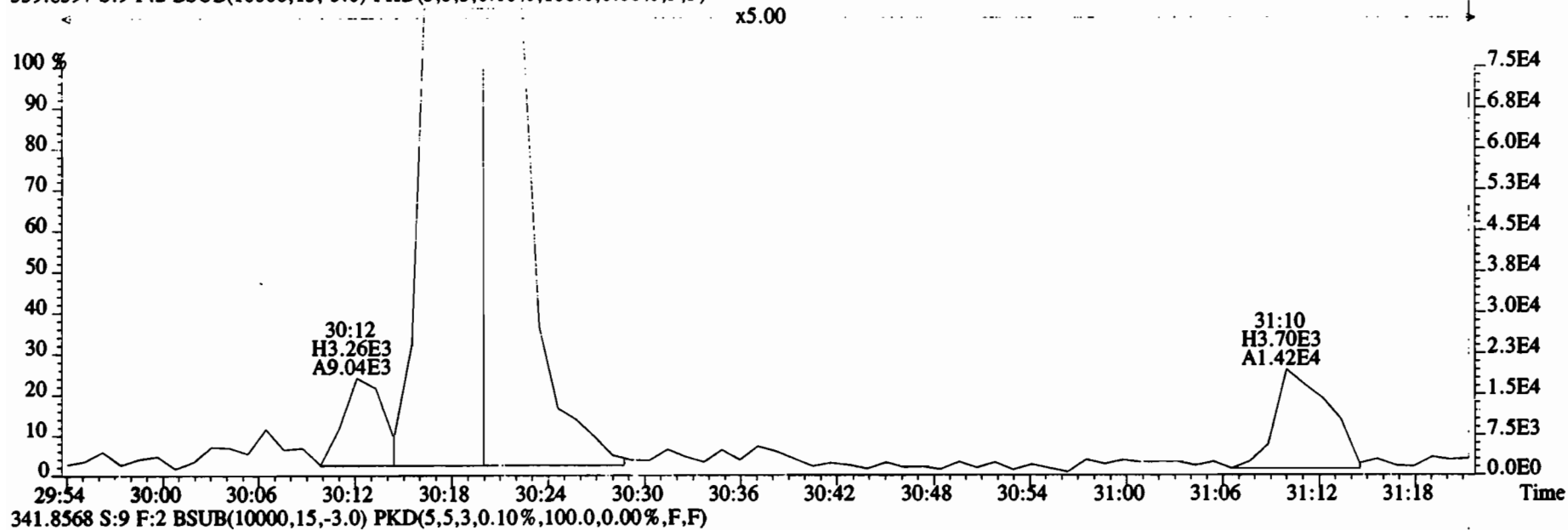




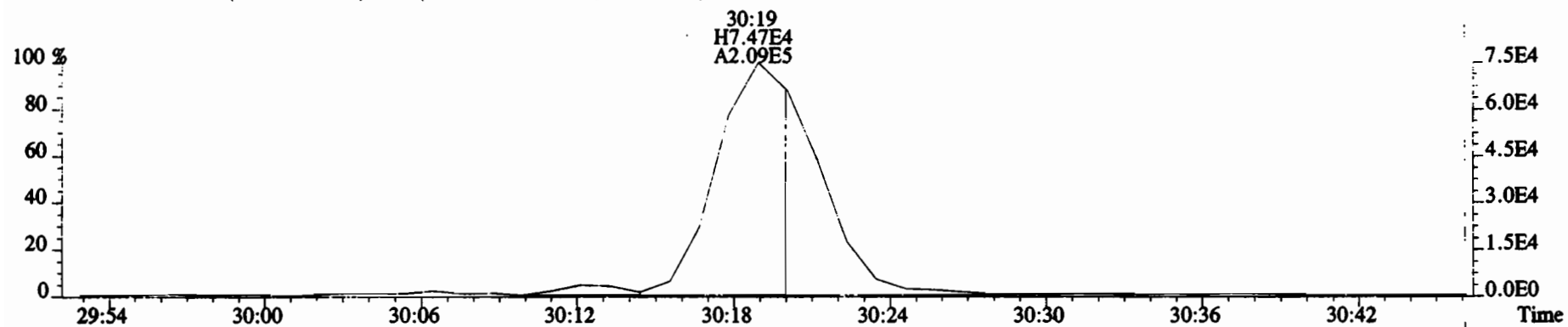
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



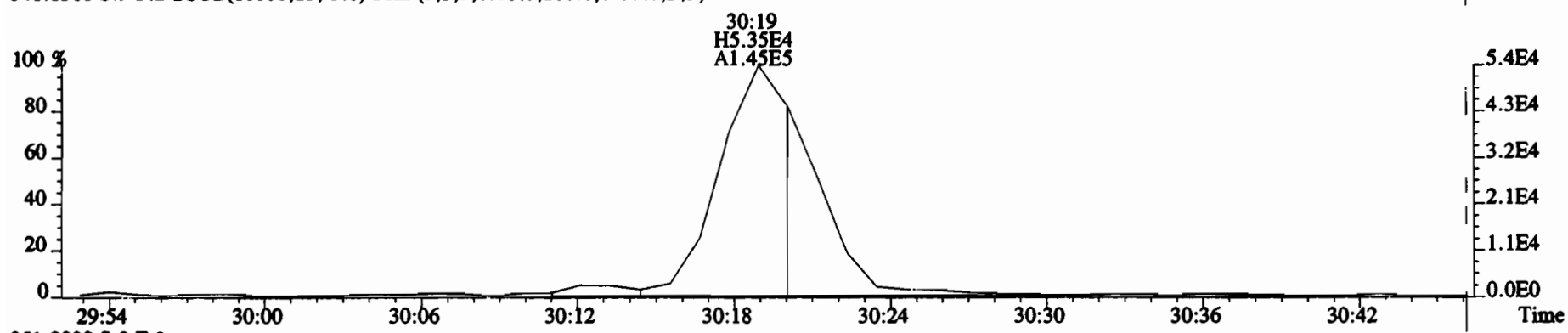
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



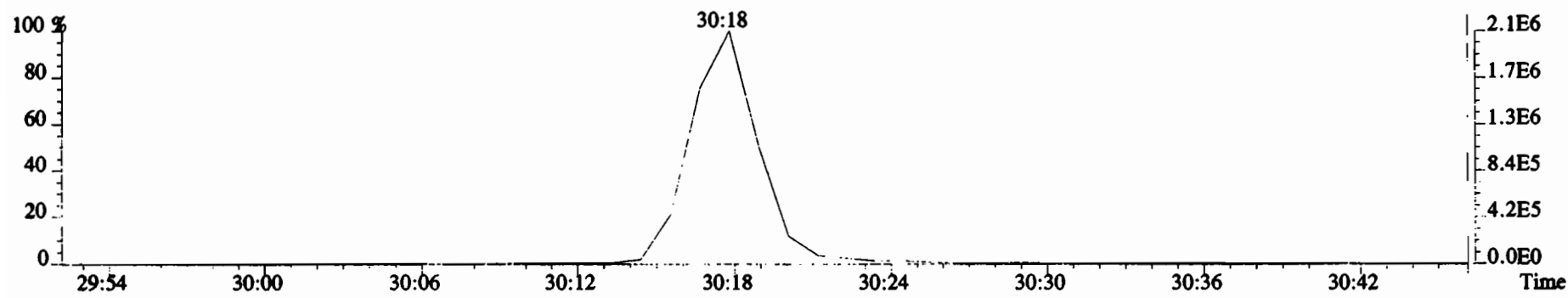
File:200107D2 #1-211 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



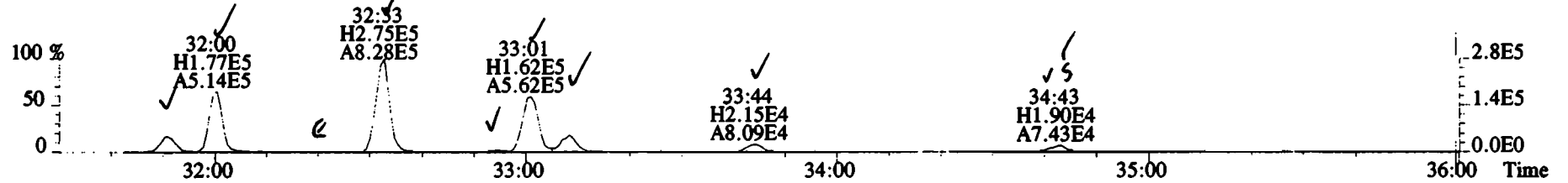
341.8568 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



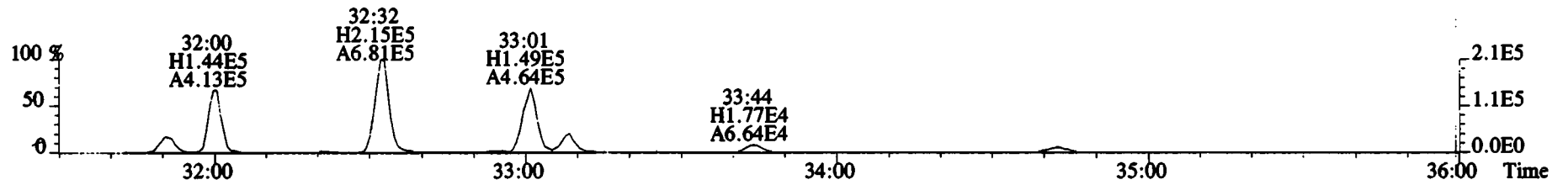
351.9000 S:9 F:2



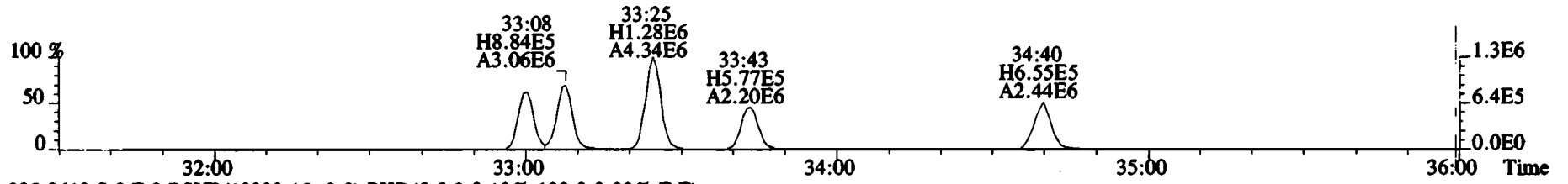
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



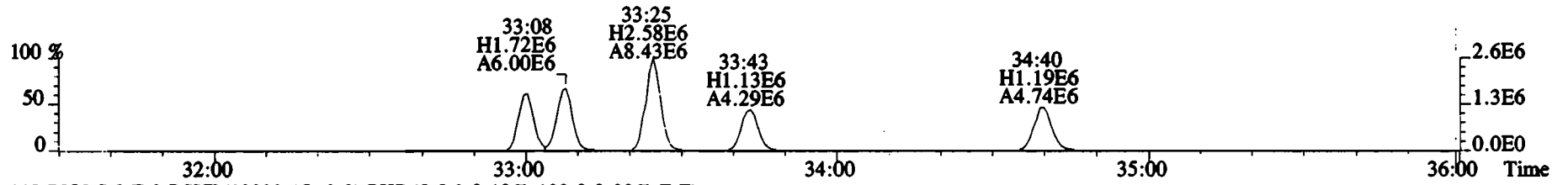
375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



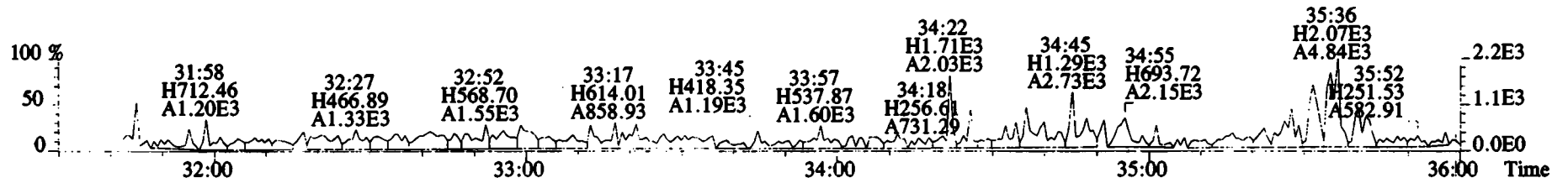
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



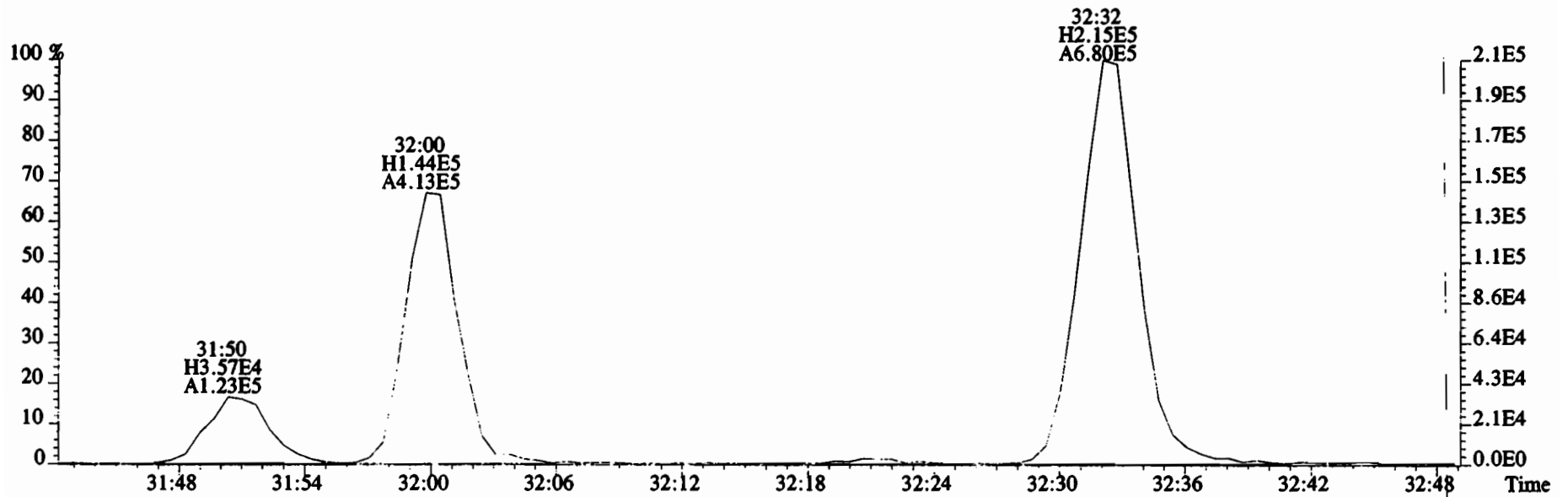
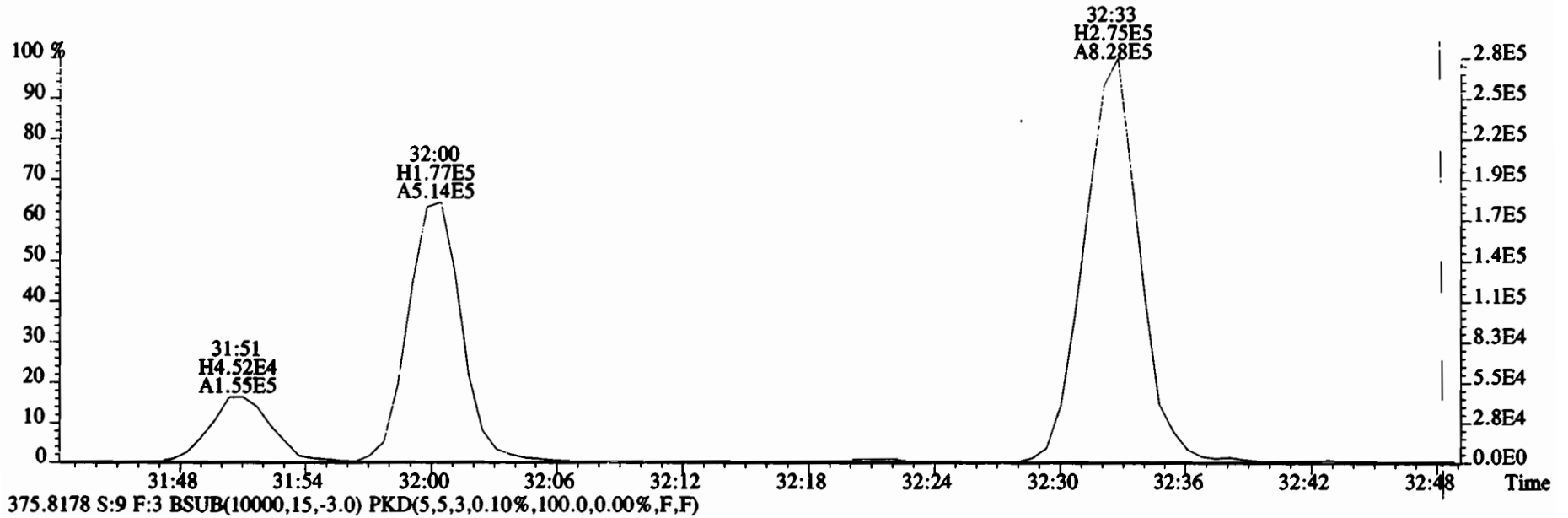
385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



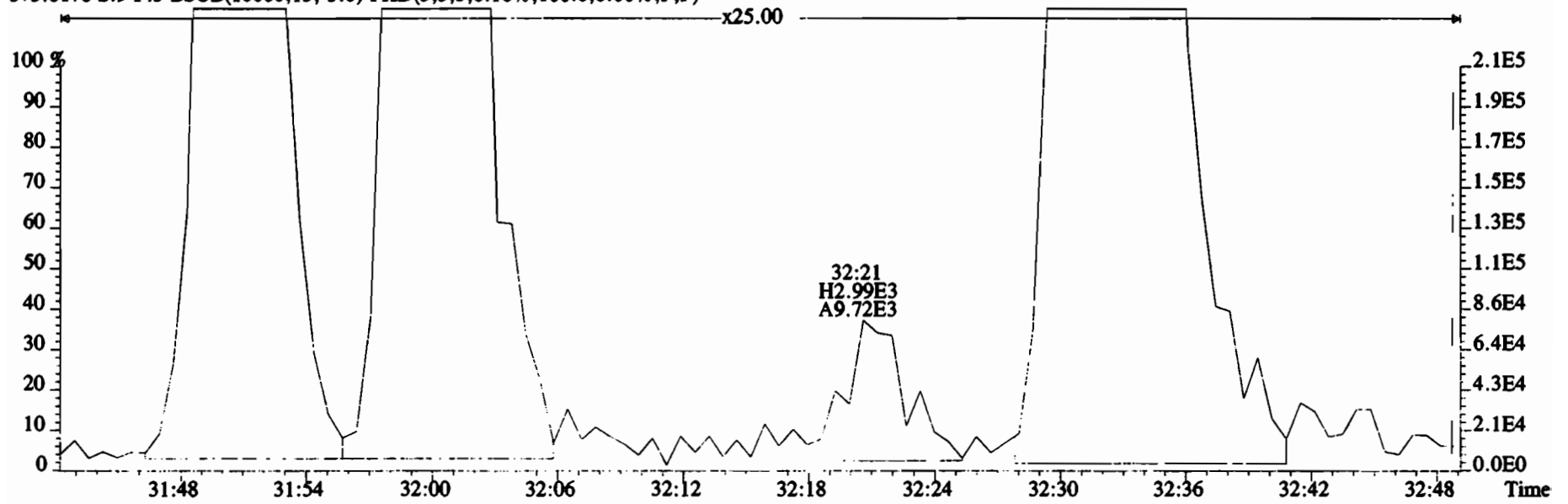
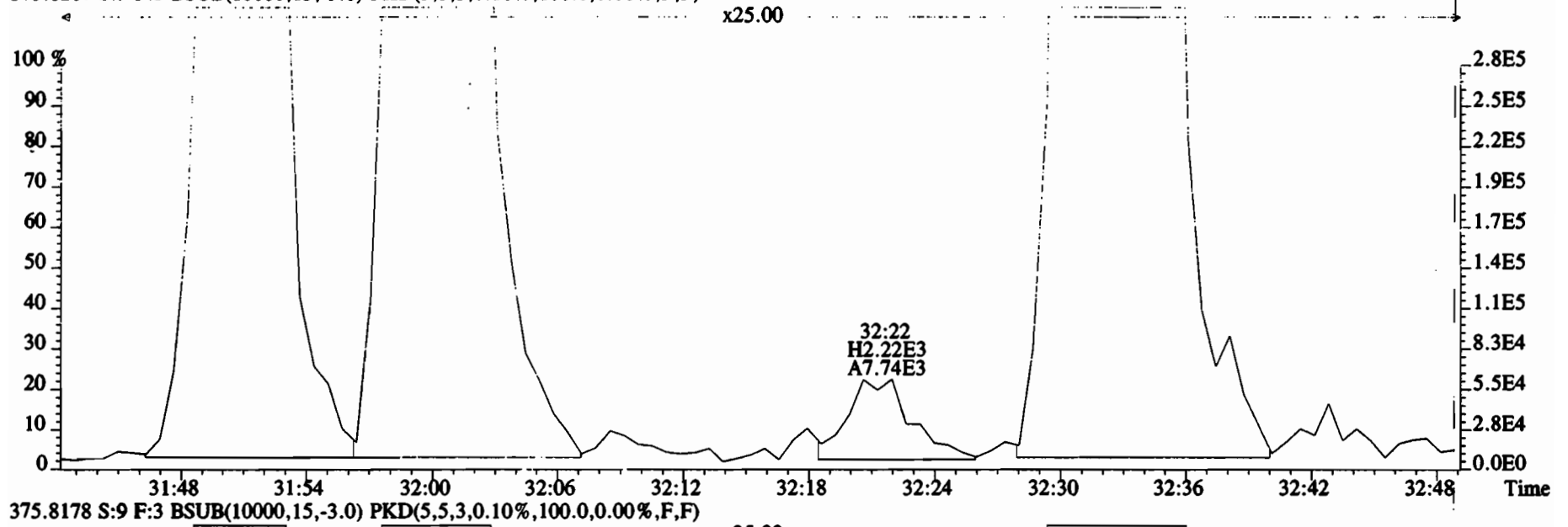
445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



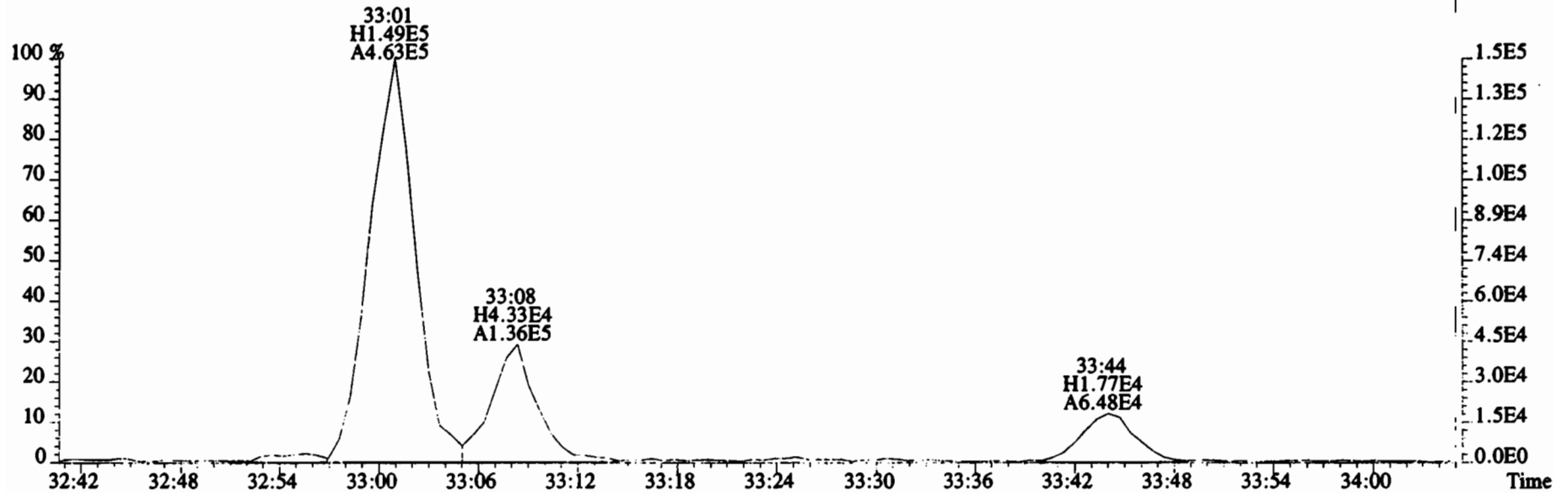
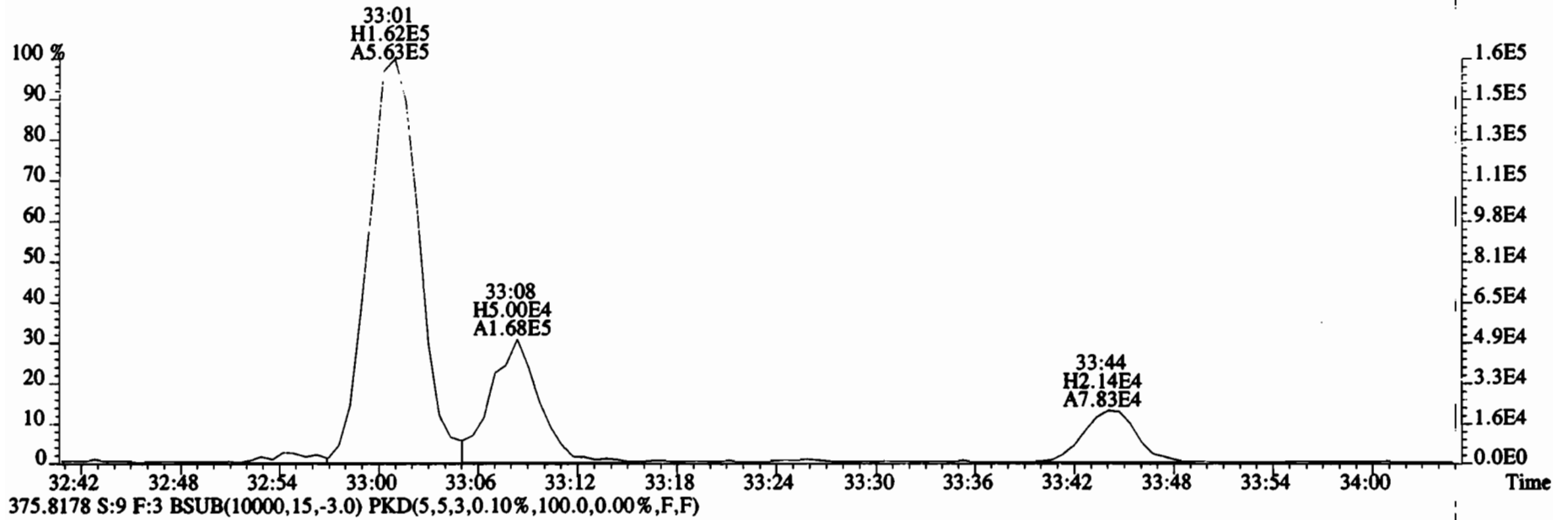
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



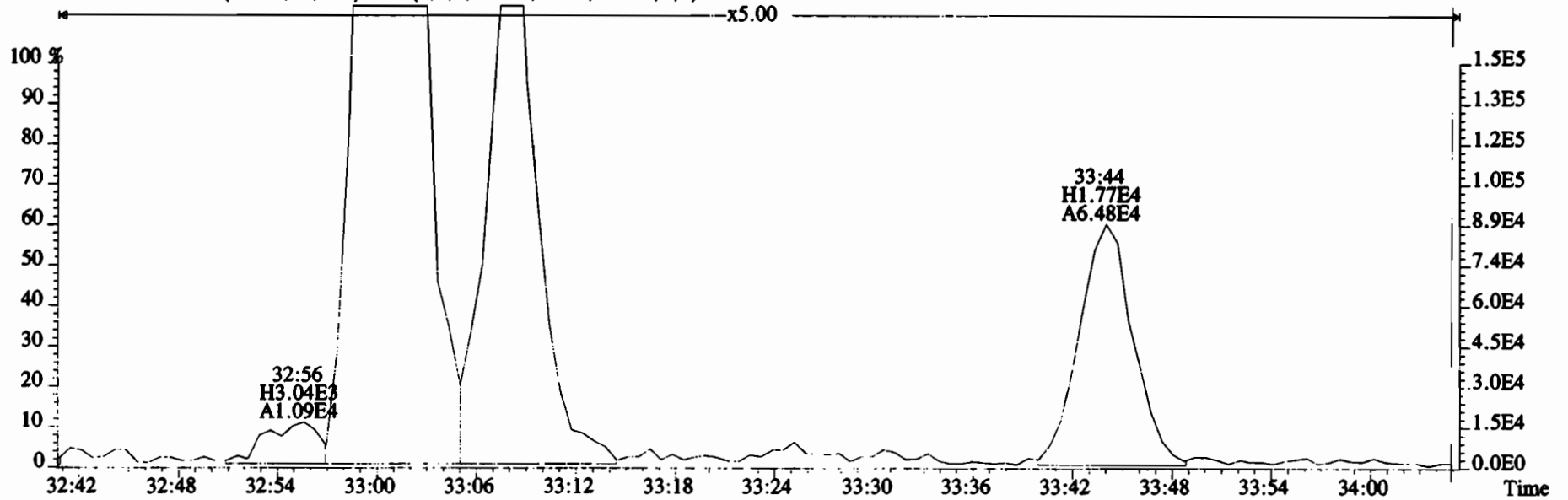
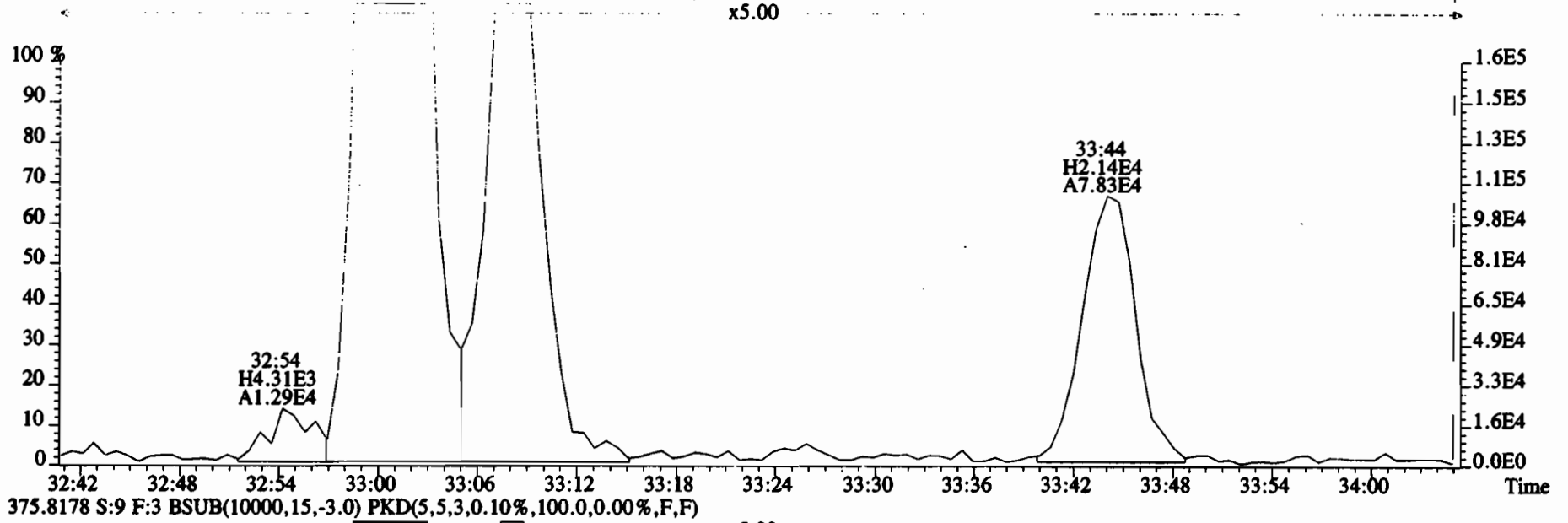
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

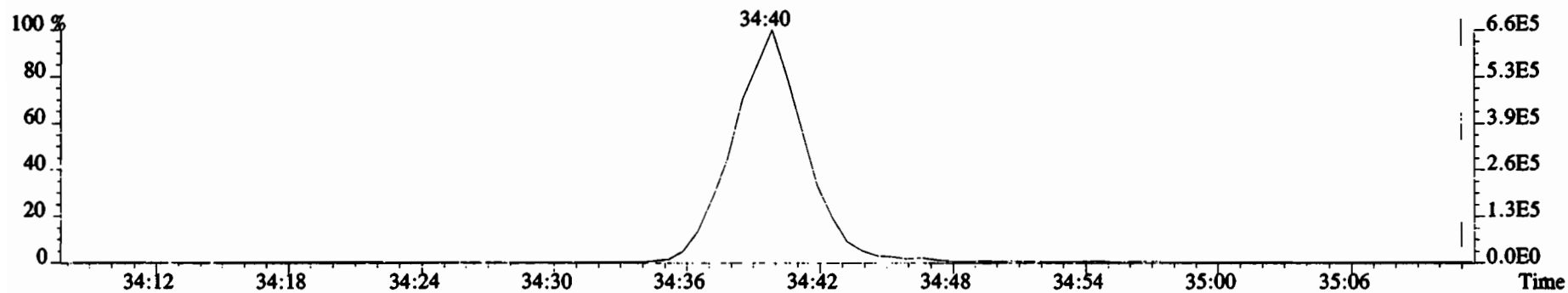
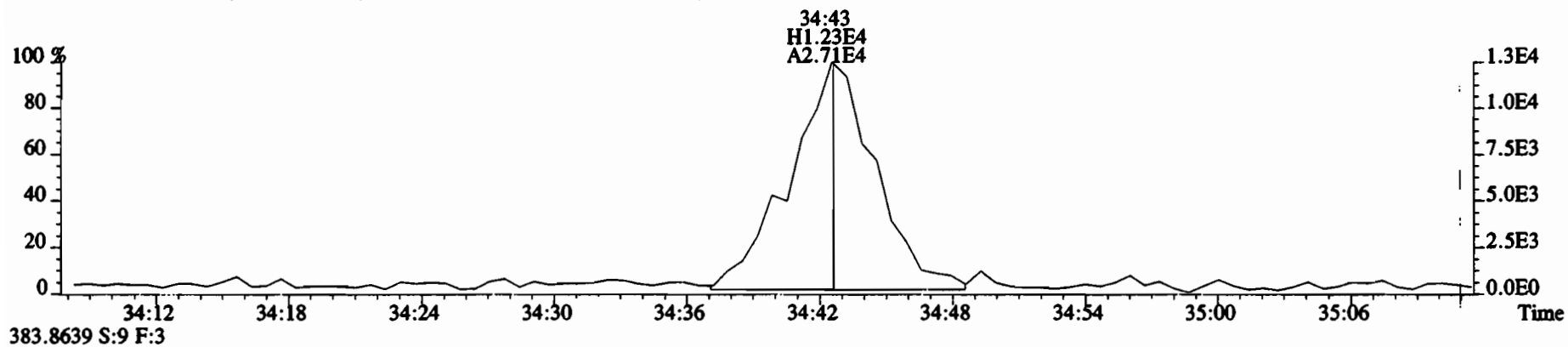
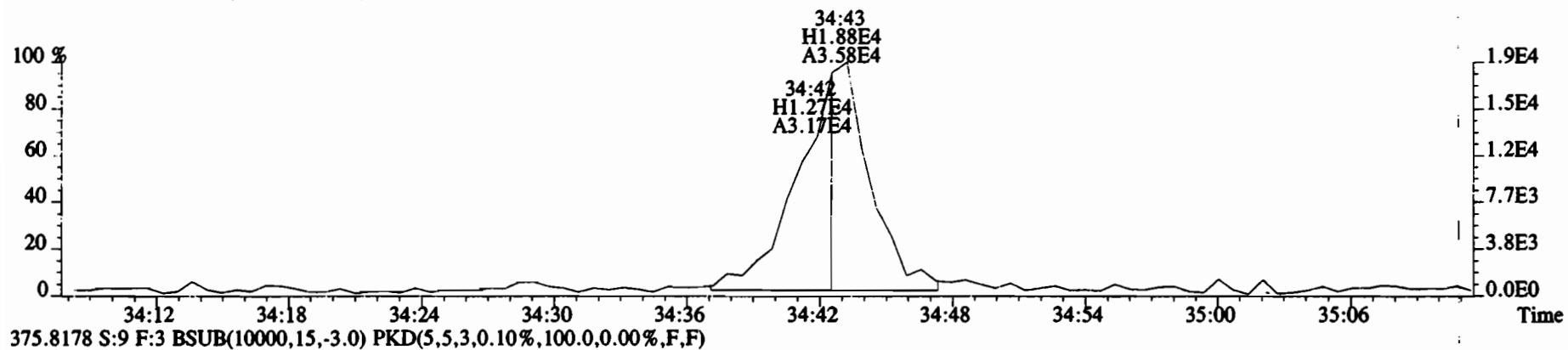


File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

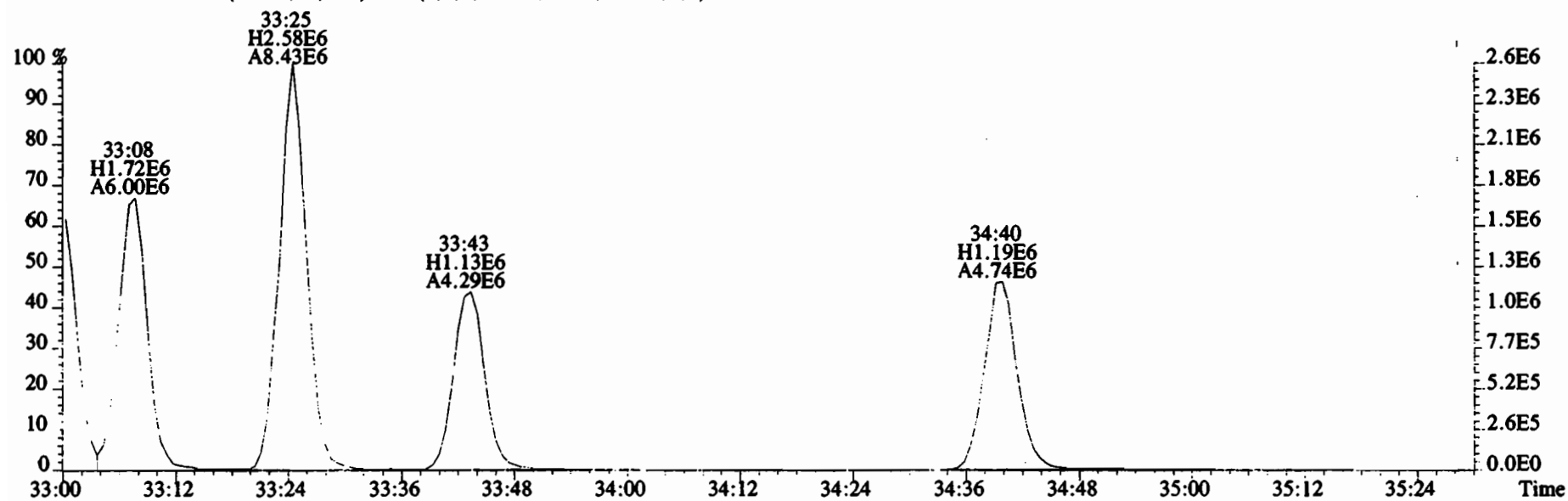
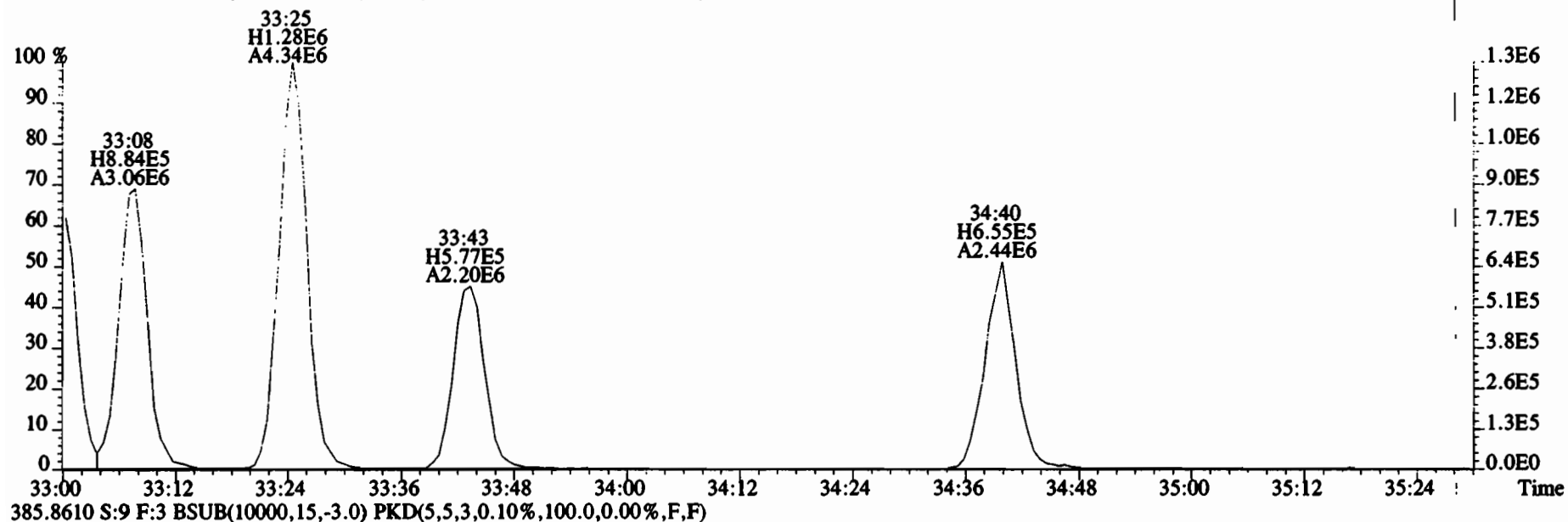




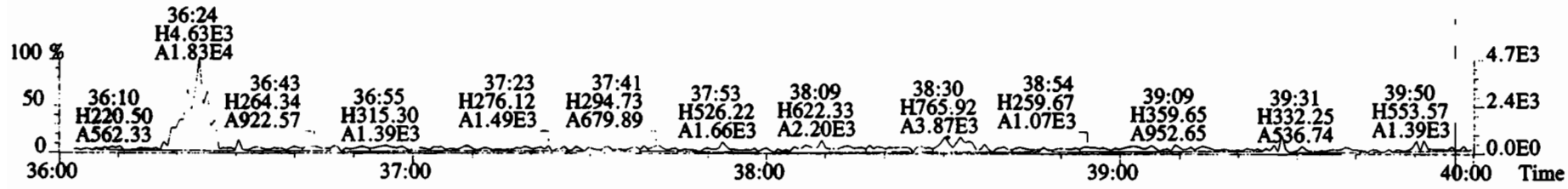
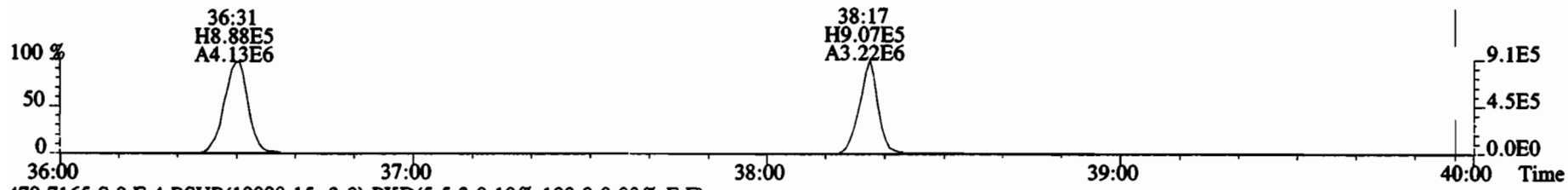
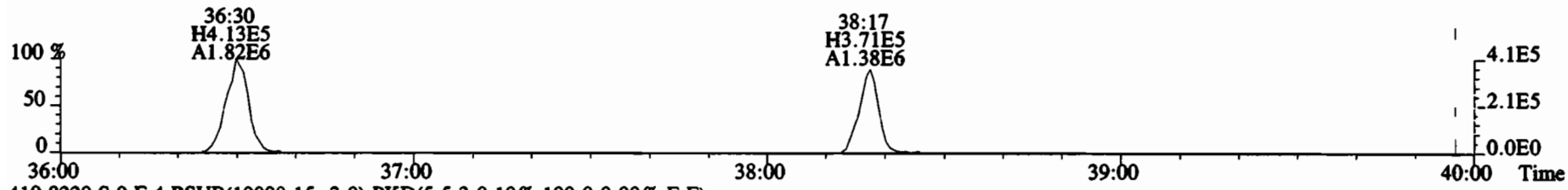
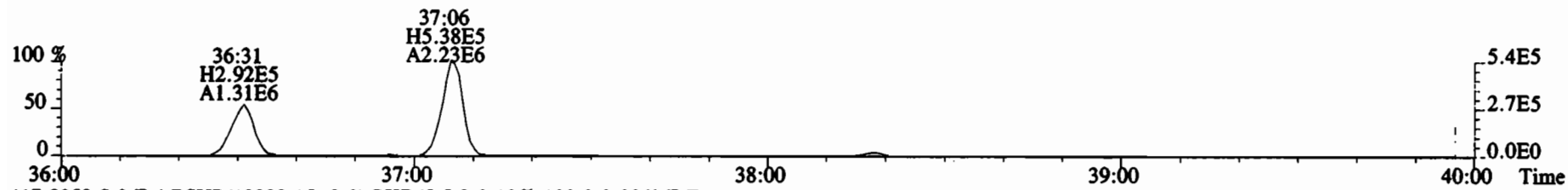
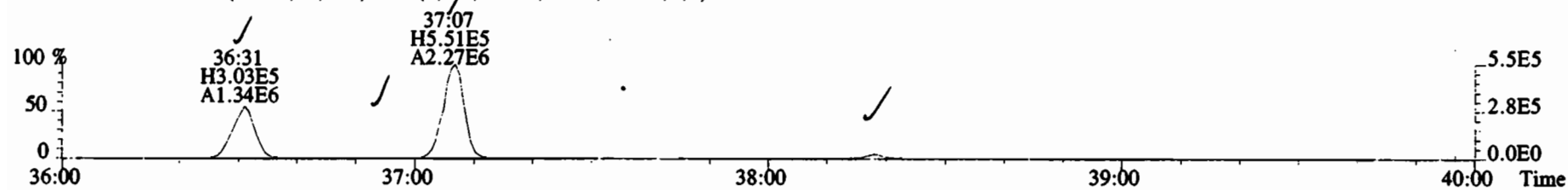
File:200107D2 #1-385 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



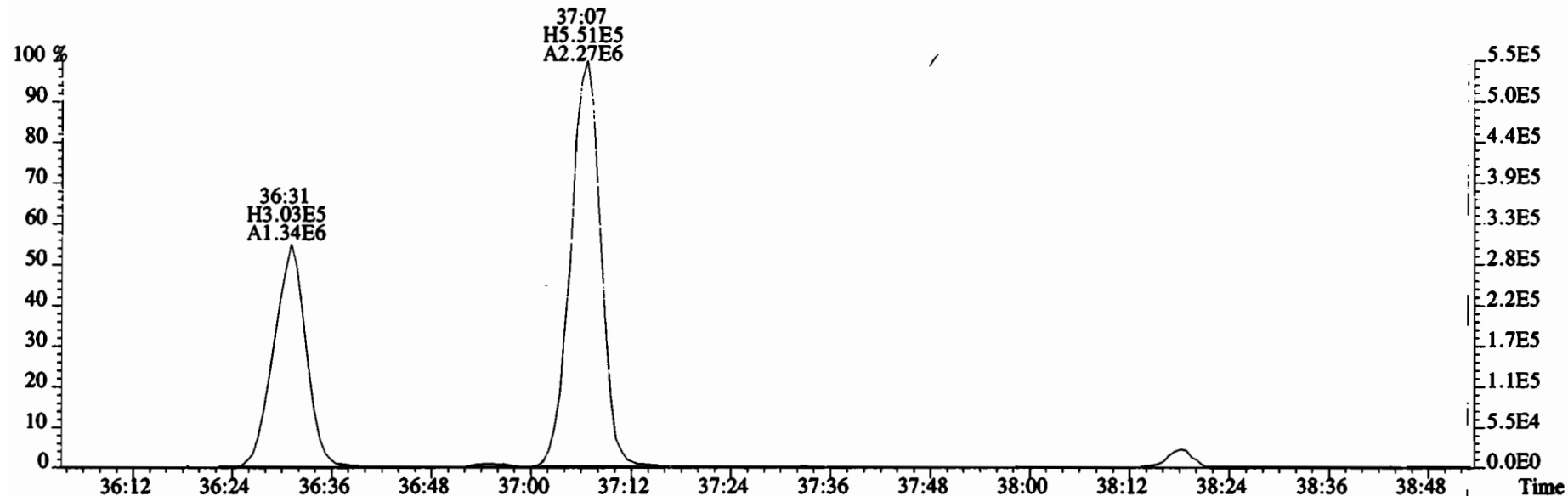
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Sample#9 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



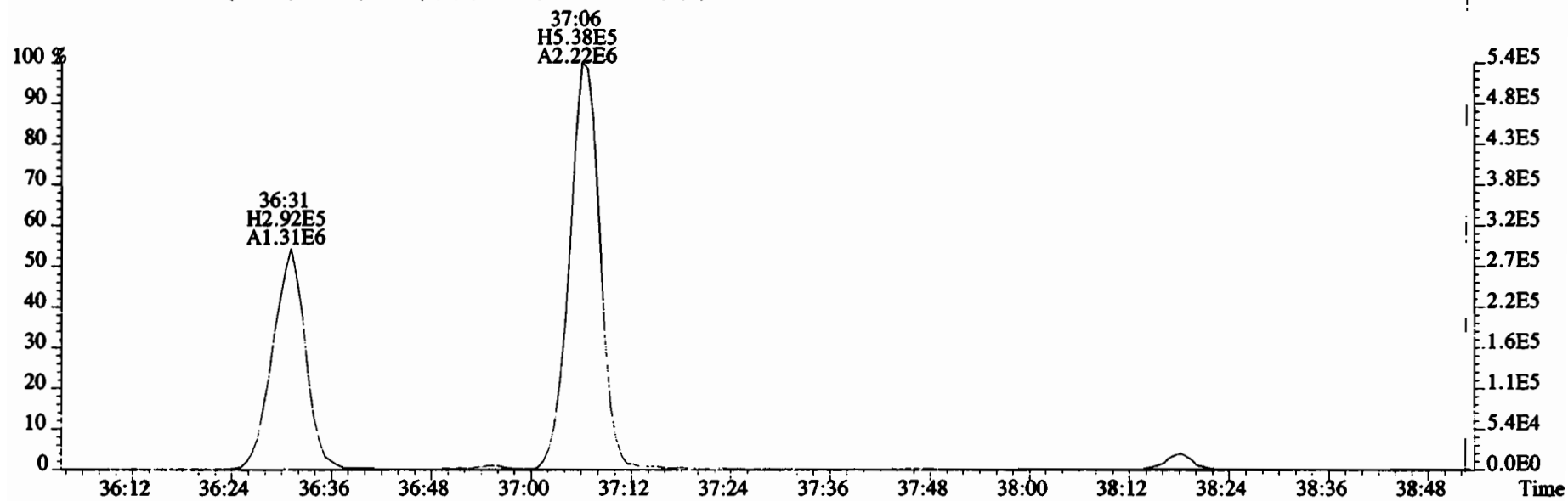
File:200107D2 #1-355 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



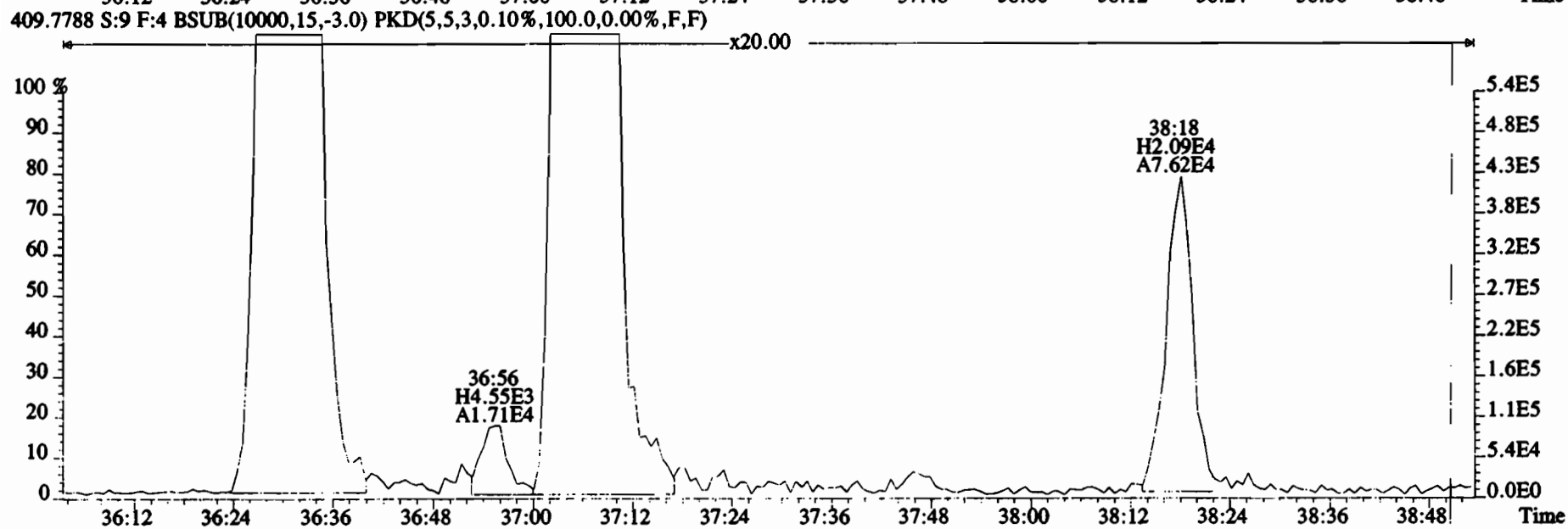
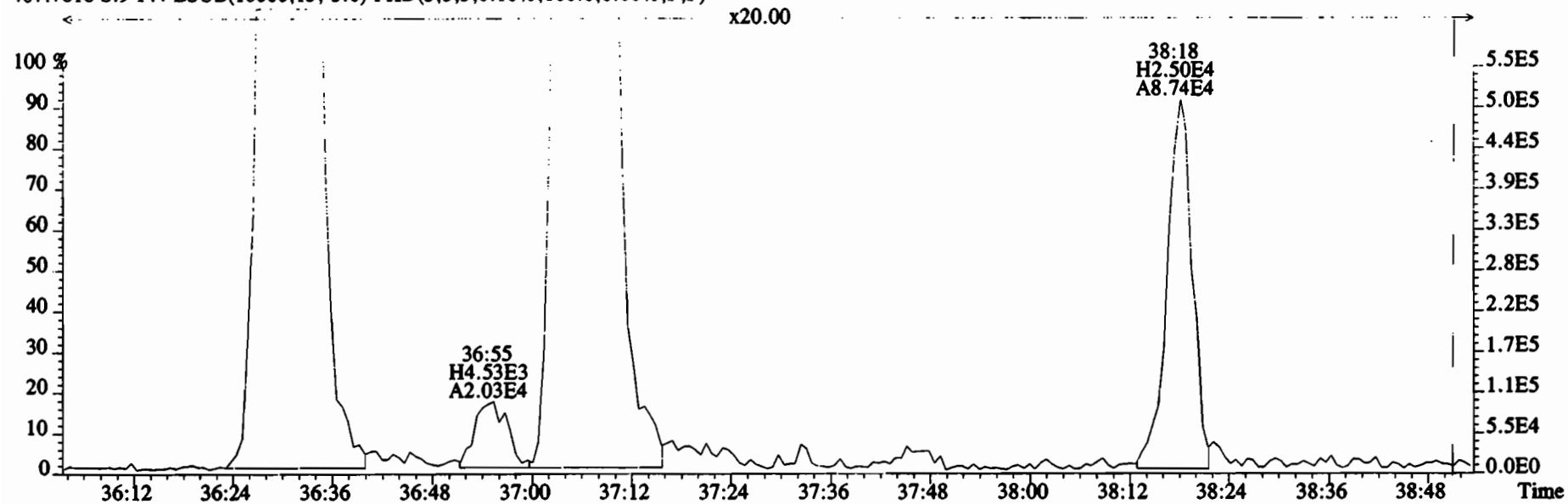
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407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



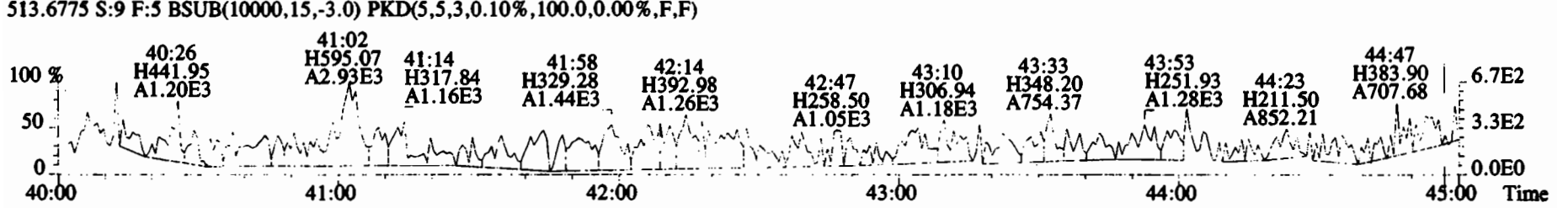
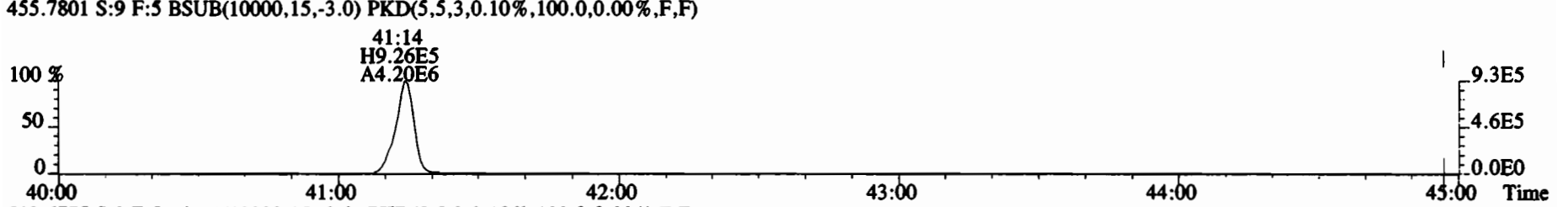
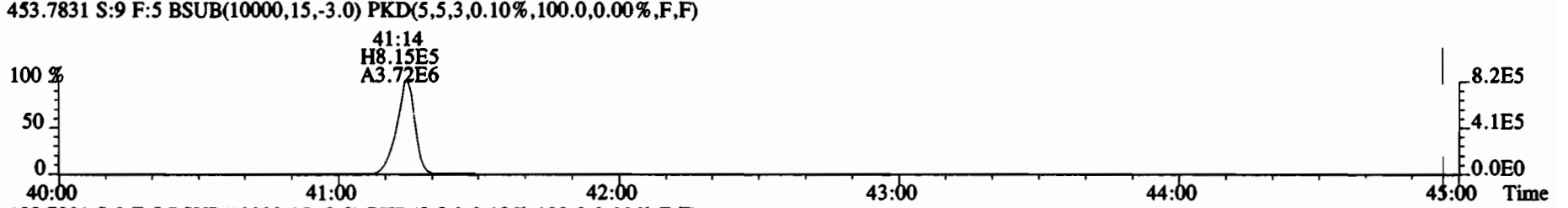
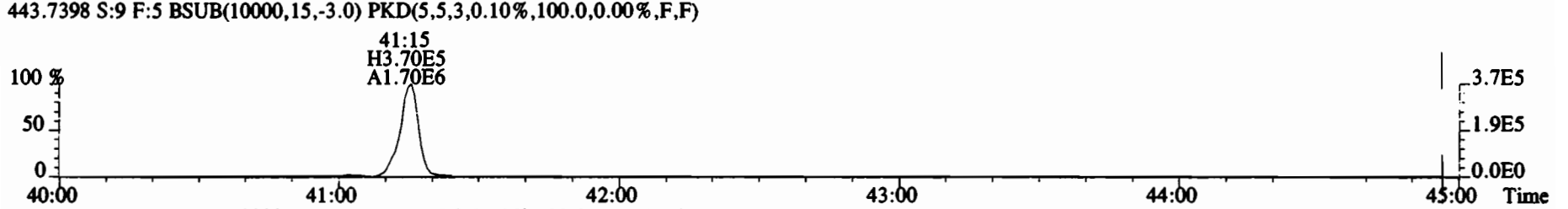
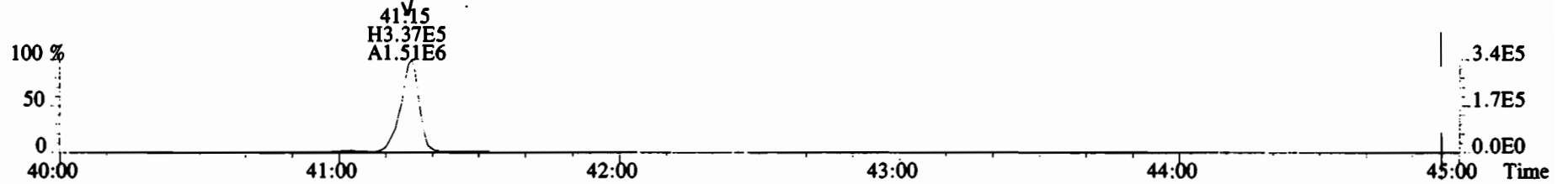
409.7788 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-355 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



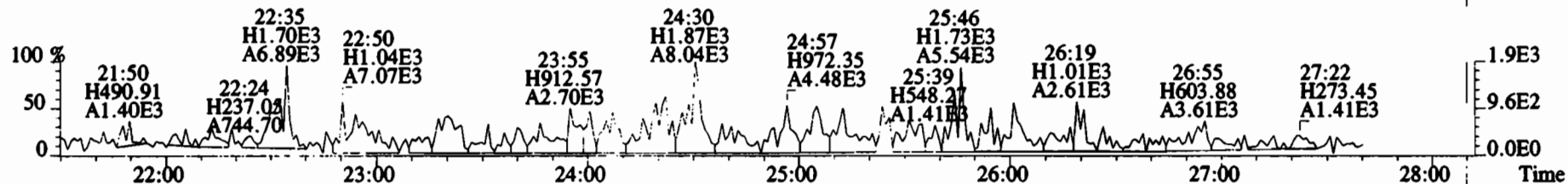
File:200107D2 #1-432 Acq: 8-JAN-2020 04:54:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#9 File Text: Vista\_Analytical\_Laboratory\_VG7 Text:1903461-14RE2 PDI-071SC-B-06-08-191001 14.59 Exp:OCDD\_DB5  
 441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



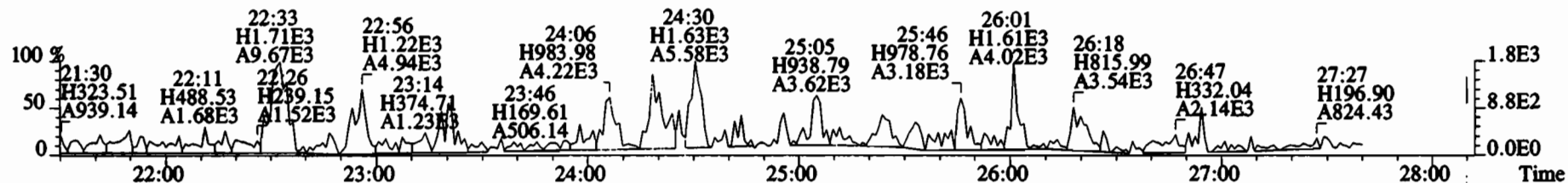
Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	0.91	Not F $\eta$	*			* 2.5	*	Total Tetra-Dioxins	*	*		*	*
1,2,3,7,8-PeCDD	*	* n	0.90	Not F $\eta$	*			* 2.5	*	Total Penta-Dioxins	*	*		*	*
1,2,3,4,7,8-HxCDD	*	* n	1.10	Not F $\eta$	*			* 2.5	*	Total Hexa-Dioxins	*	*		*	*
1,2,3,6,7,8-HxCDD	*	* n	0.94	Not F $\eta$	*			* 2.5	*	Total Hepta-Dioxins	*	*		*	*
1,2,3,7,8,9-HxCDD	*	* n	0.96	Not F $\eta$	*			* 2.5	*	Total Tetra-Furans	*	*		*	*
1,2,3,4,6,7,8-HpCDD	*	* n	0.98	Not F $\eta$	*			* 2.5	*	Total Penta-Furans	0.0000	0.0000		*	*
OCDD	3.06e+07	0.89 y	0.96	41:02	8255.6			* 2.5	*	Total Hexa-Furans	*	*		*	*
2,3,7,8-TCDF	*	* n	0.95	Not F $\eta$	*			* 2.5	*	Total Hepta-Furans	*	*		*	*
1,2,3,7,8-PeCDF	*	* n	0.96	Not F $\eta$	*			* 2.5	*						
2,3,4,7,8-PeCDF	*	* n	1.01	Not F $\eta$	*			* 2.5	*						
1,2,3,4,7,8-HxCDF	*	* n	1.18	Not F $\eta$	*			* 2.5	*						
1,2,3,6,7,8-HxCDF	*	* n	1.07	Not F $\eta$	*			* 2.5	*						
2,3,4,6,7,8-HxCDF	*	* n	1.11	Not F $\eta$	*			* 2.5	*						
1,2,3,7,8,9-HxCDF	*	* n	1.06	Not F $\eta$	*			* 2.5	*						
1,2,3,4,6,7,8-HpCDF	*	* n	1.13	Not F $\eta$	*			* 2.5	*						
1,2,3,4,7,8,9-HpCDF	*	* n	1.28	Not F $\eta$	*			* 2.5	*						
OCDF	*	* n	0.95	Not F $\eta$	*			* 2.5	*						
										Rec	Qual				
IS	13C-2,3,7,8-TCDD	2.40e+06	0.78 y	1.10	26:00	166.95				86.9					
IS	13C-1,2,3,7,8-PeCDD	1.61e+06	0.66 y	0.88	30:35	139.57				72.7					
IS	13C-1,2,3,4,7,8-HxCDD	1.37e+06	1.24 y	0.64	33:53	141.54				73.7					
IS	13C-1,2,3,6,7,8-HxCDD	1.56e+06	1.22 y	0.86	33:60	120.94				63.0					
IS	13C-1,2,3,7,8,9-HxCDD	1.52e+06	1.28 y	0.81	34:18	125.25				65.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.20e+06	1.08 y	0.65	37:46	121.76				63.4					
IS	13C-OCDD	1.49e+06	0.87 y	0.58	41:01	170.24				44.3					
IS	13C-2,3,7,8-TCDF	3.36e+06	0.82 y	1.03	25:13	156.21				81.3					
IS	13C-1,2,3,7,8-PeCDF	2.83e+06	1.69 y	0.85	29:23	159.16				82.9					
IS	13C-2,3,4,7,8-PeCDF	2.54e+06	1.63 y	0.85	30:18	143.94				74.9					
IS	13C-1,2,3,4,7,8-HxCDF	1.80e+06	0.50 y	0.83	33:00	143.93				74.9					
IS	13C-1,2,3,6,7,8-HxCDF	2.02e+06	0.52 y	1.03	33:08	129.84				67.6					
IS	13C-2,3,4,6,7,8-HxCDF	1.65e+06	0.51 y	0.95	33:43	115.18				60.0					
IS	13C-1,2,3,7,8,9-HxCDF	1.61e+06	0.48 y	0.83	34:40	129.14				67.2					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.33e+06	0.43 y	0.76	36:30	116.93				60.9					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.00e+06	0.43 y	0.58	38:18	114.56				59.6					
IS	13C-OCDF	1.89e+06	0.86 y	0.69	41:14	182.31				47.5					
C/Up	37Cl-2,3,7,8-TCDD	1.02e+06		1.20	26:02	64.834				84.4					
RS/RT	13C-1,2,3,4-TCDD	2.52e+06	0.82 y	1.00	25:26	192.09									
RS	13C-1,2,3,4-TCDF	3.99e+06	0.82 y	1.00	23:58	192.09									
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.89e+06	0.50 y	1.00	33:25	192.09									

Integrations  
 by DB  
 Analyst: DB  
 Date: 1/10/20  
 Reviewed  
 by cy  
 Analyst: cy  
 Date: 01/10/2020

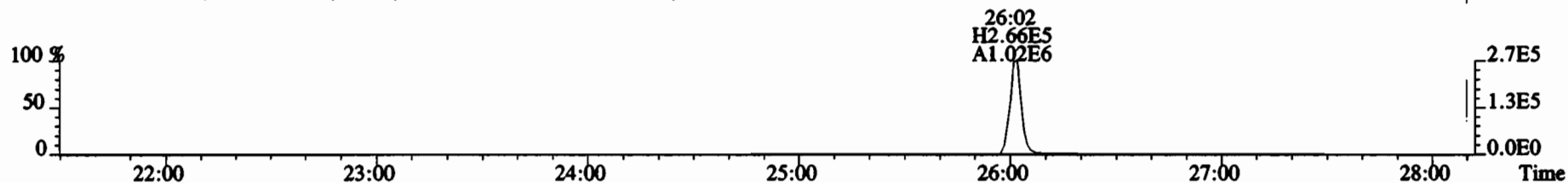
File:200109D1 #1-492 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



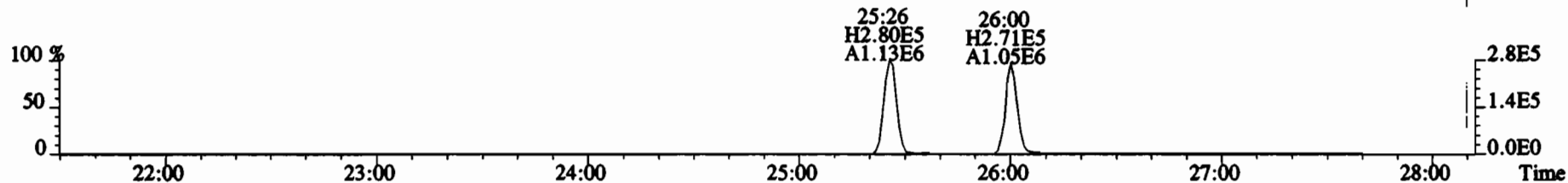
321.8936 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



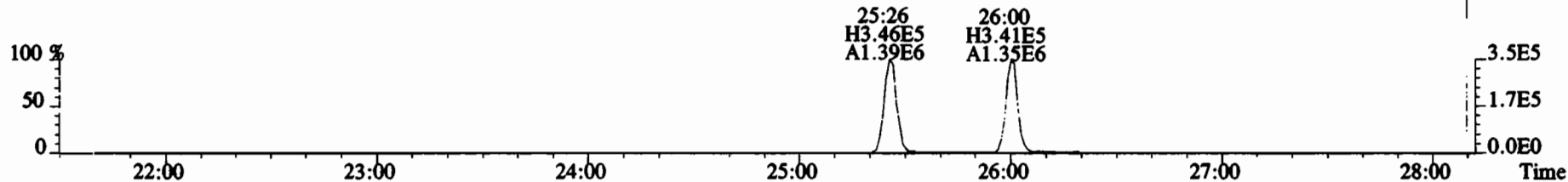
327.8847 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



331.9368 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



333.9339 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

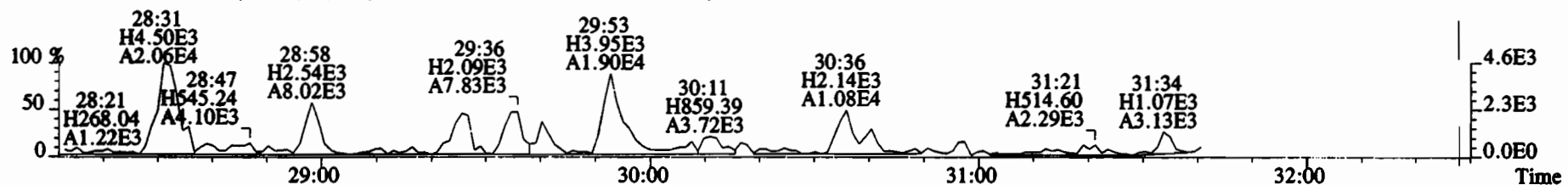




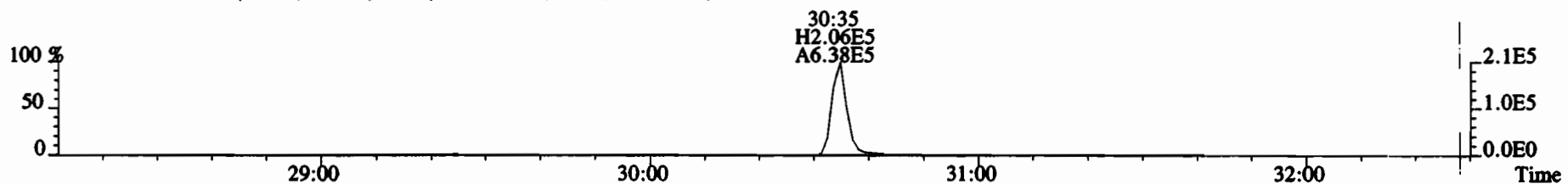
File:200109D1 #1-211 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 353.8576 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



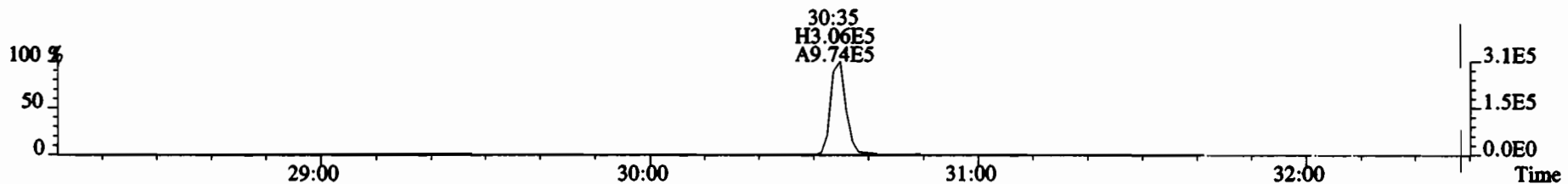
355.8546 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



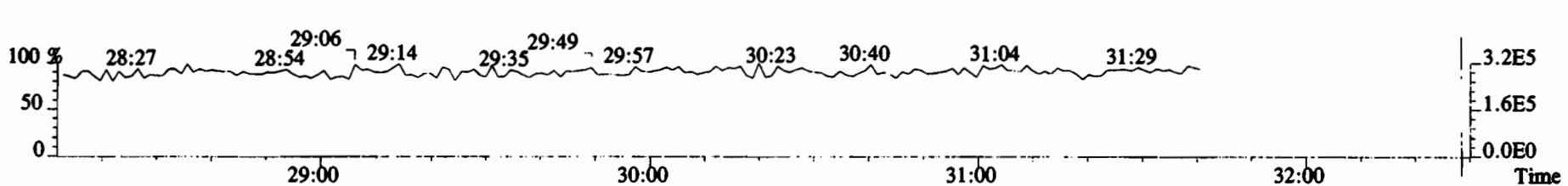
365.8978 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



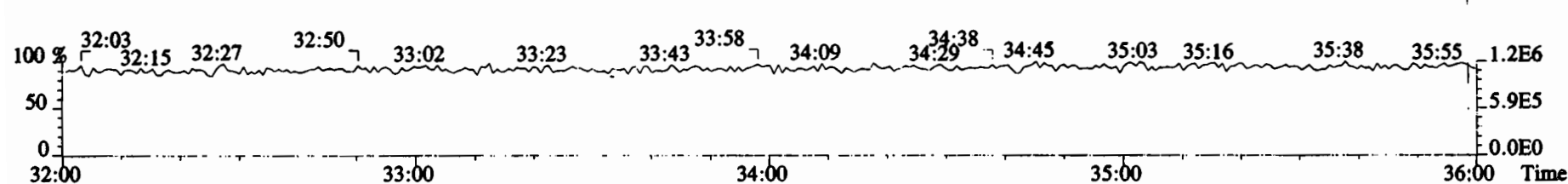
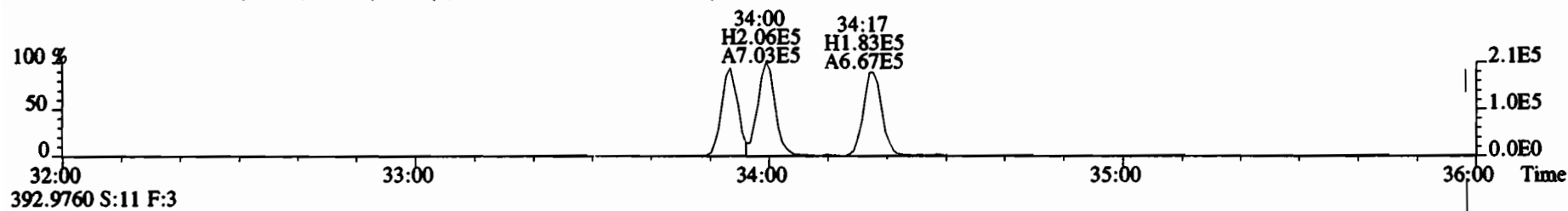
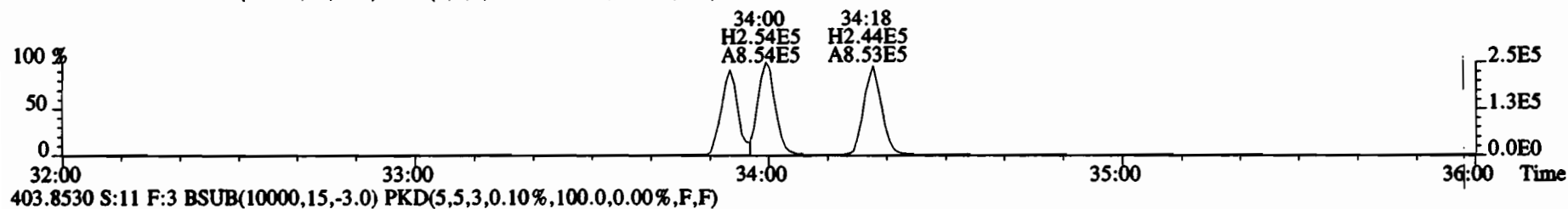
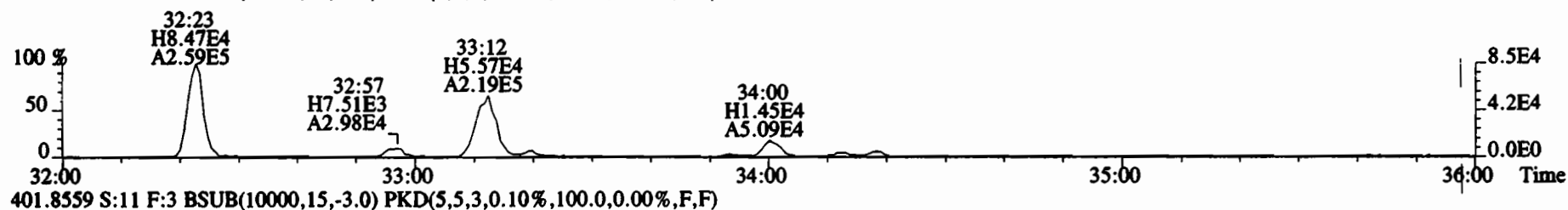
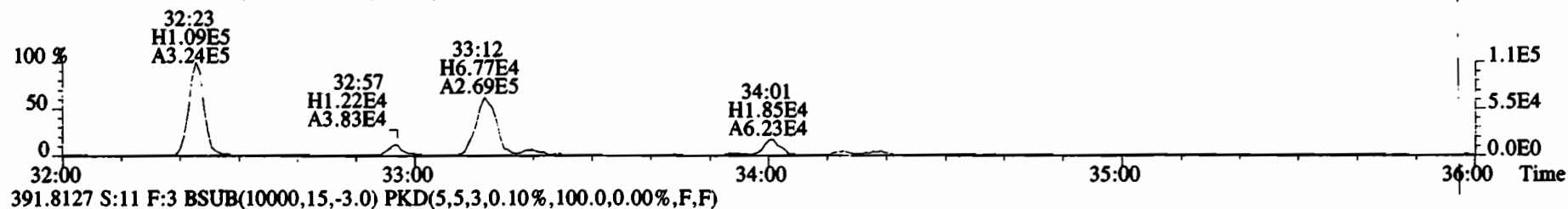
367.8949 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



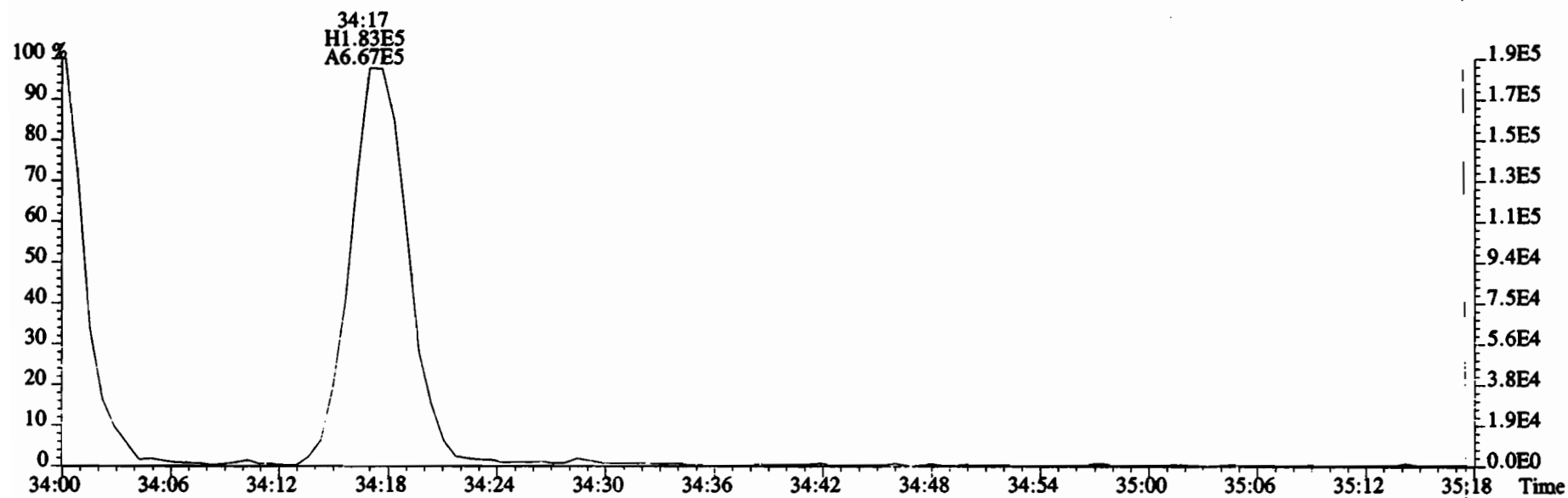
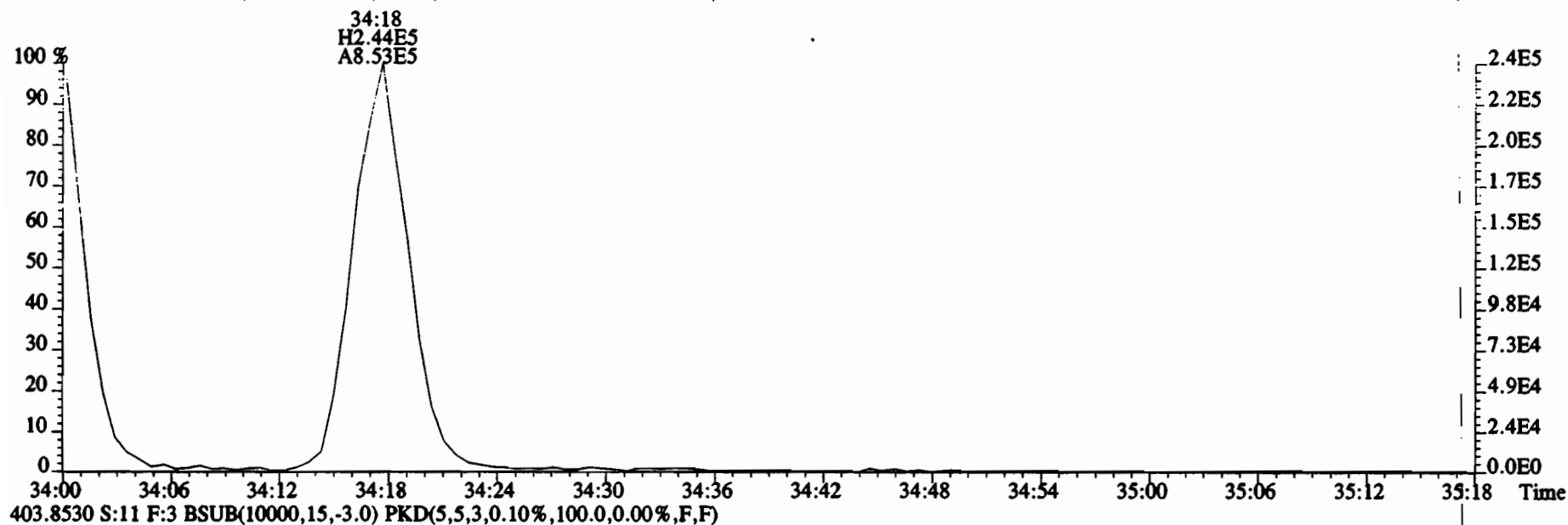
366.9792 S:11 F:2



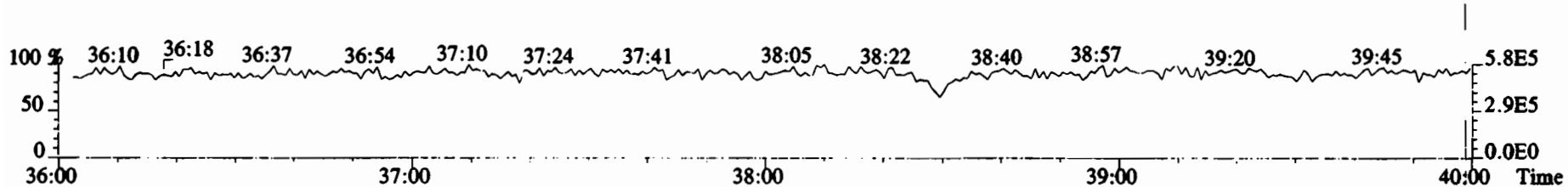
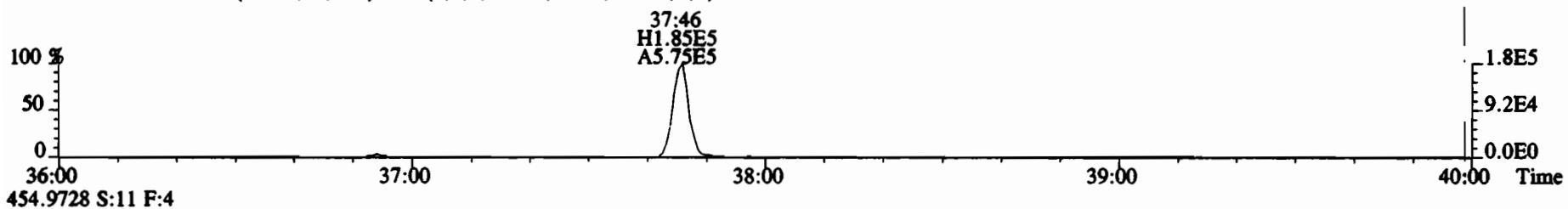
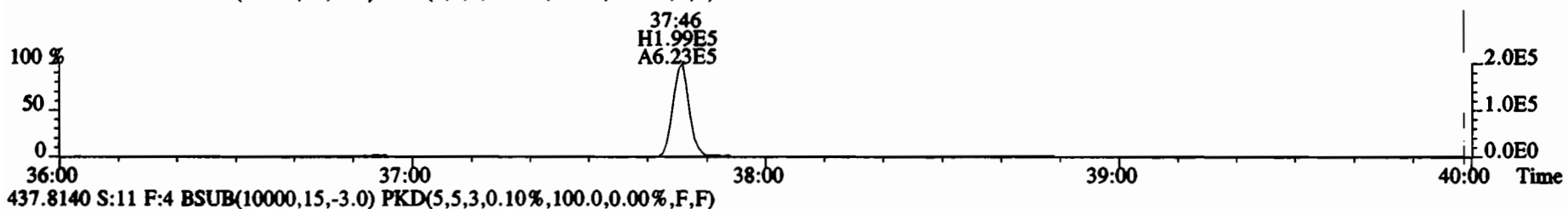
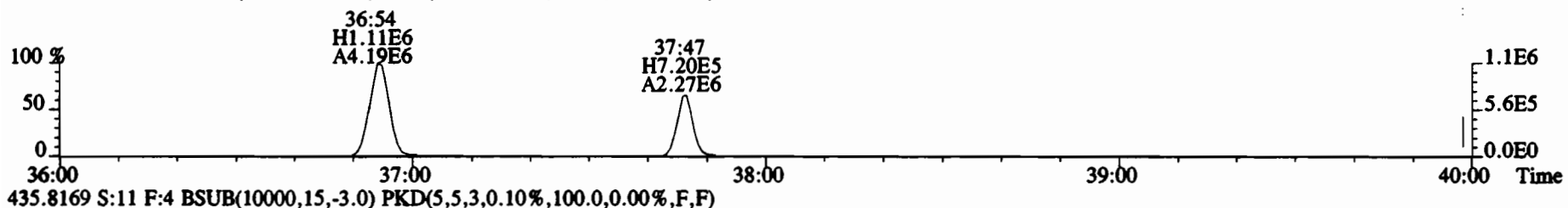
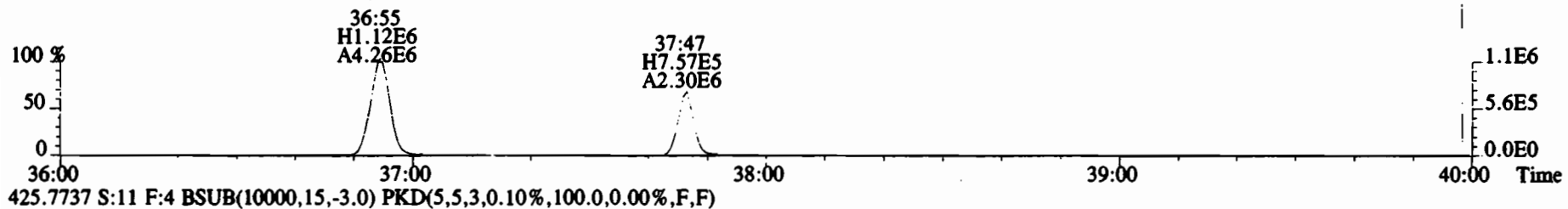
File:200109D1 #1-385 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



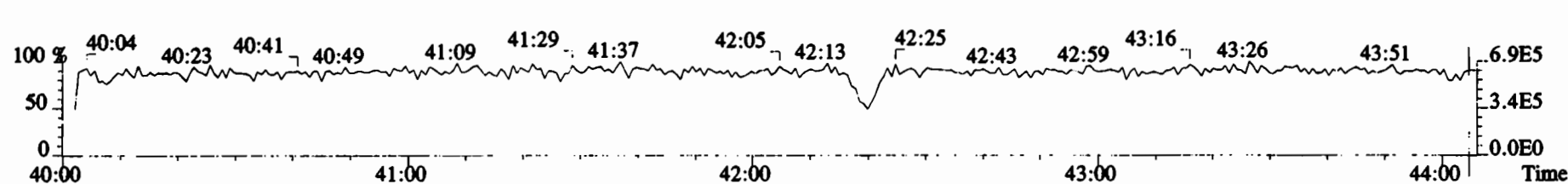
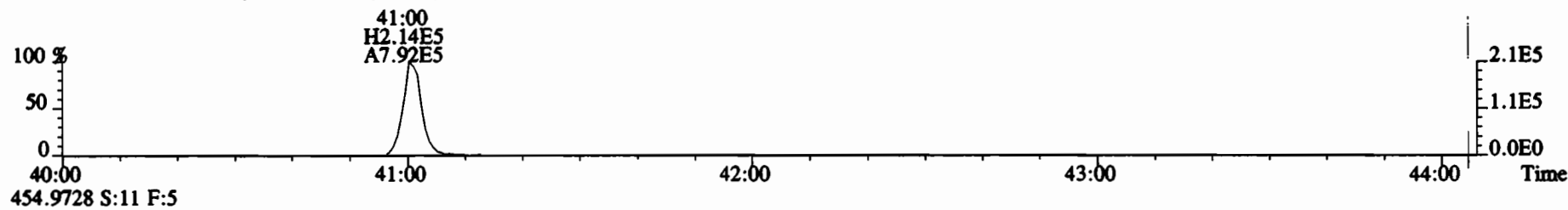
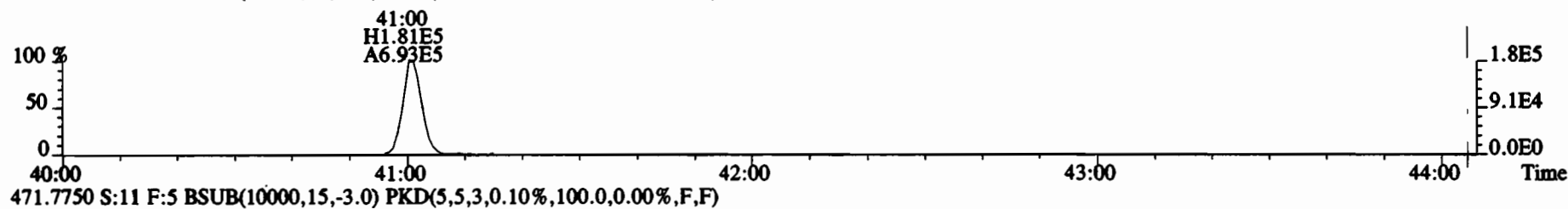
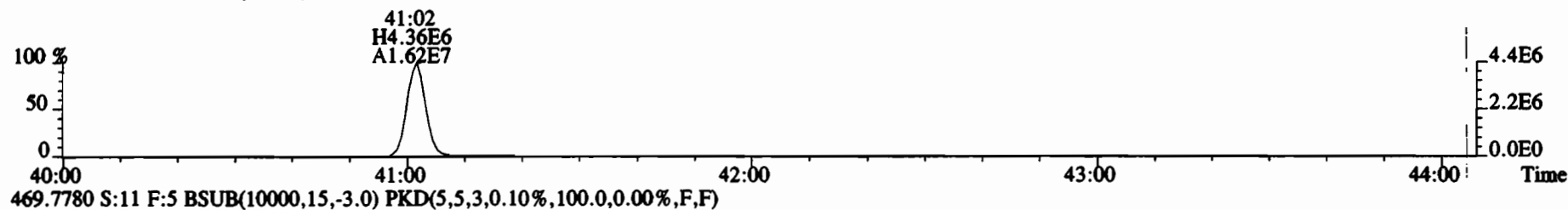
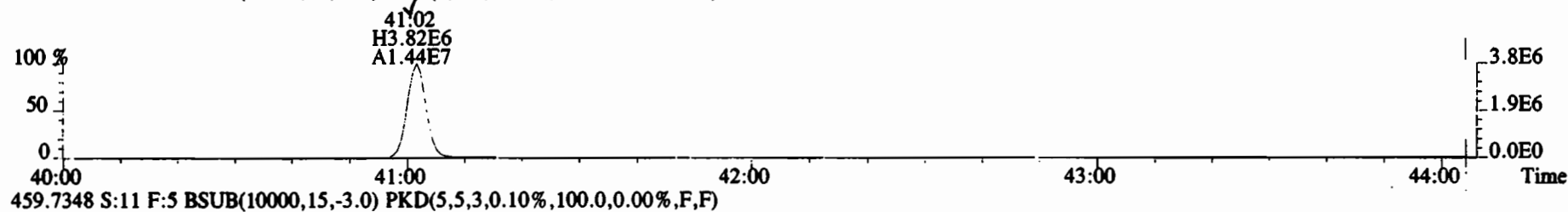
File:200109D1 #1-385 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
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401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



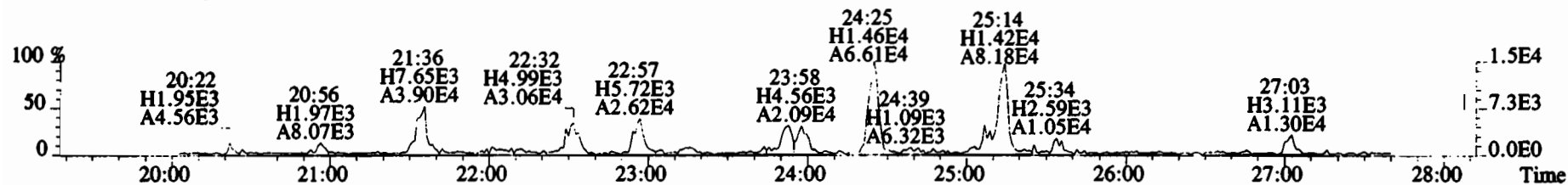
File:200109D1 #1-355 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDf  
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



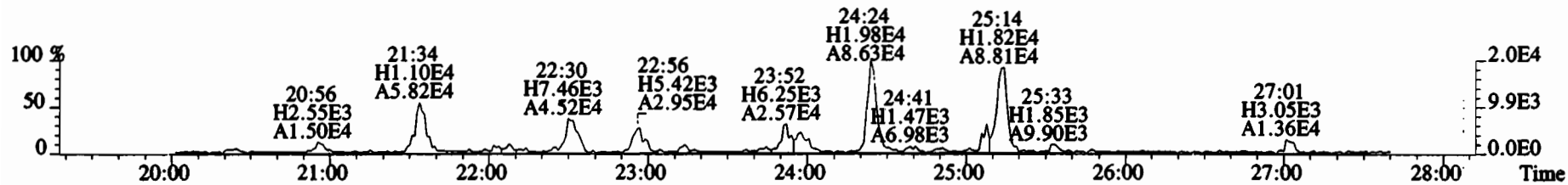
File:200109D1 #1-432 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



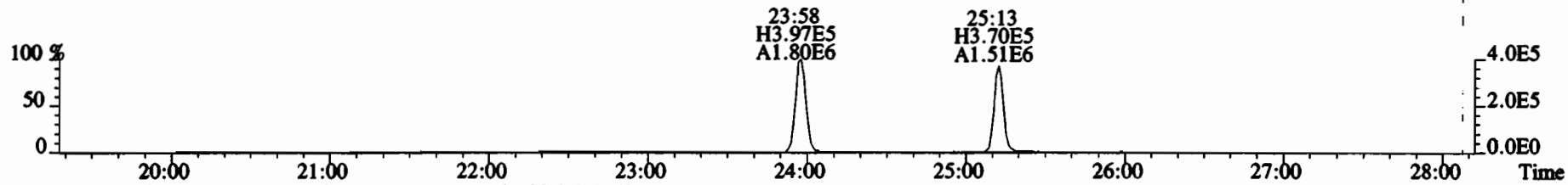
File:200109D1 #1-492 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



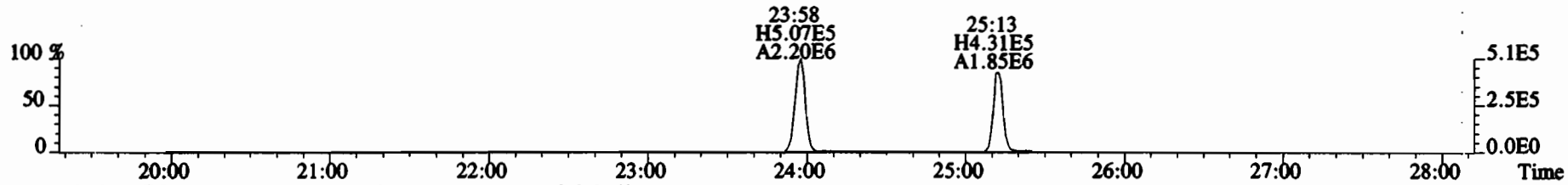
305.8987 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



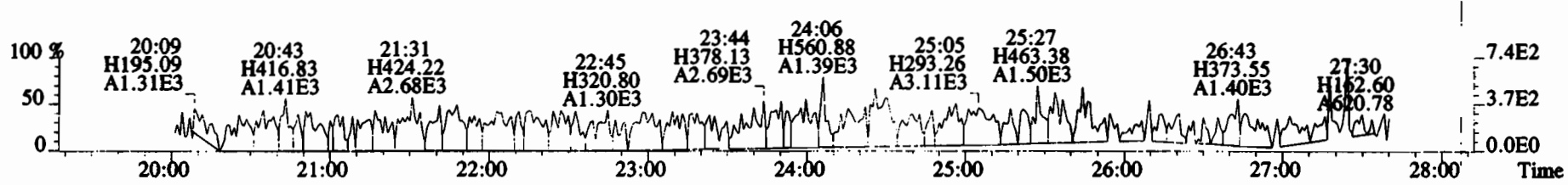
315.9419 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



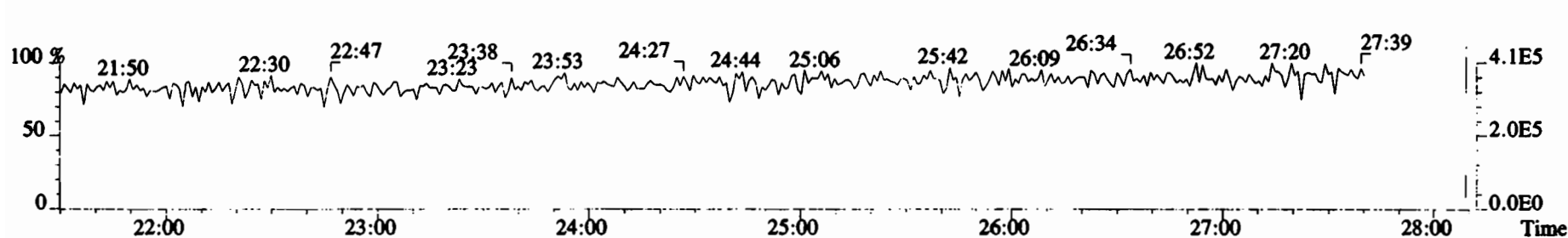
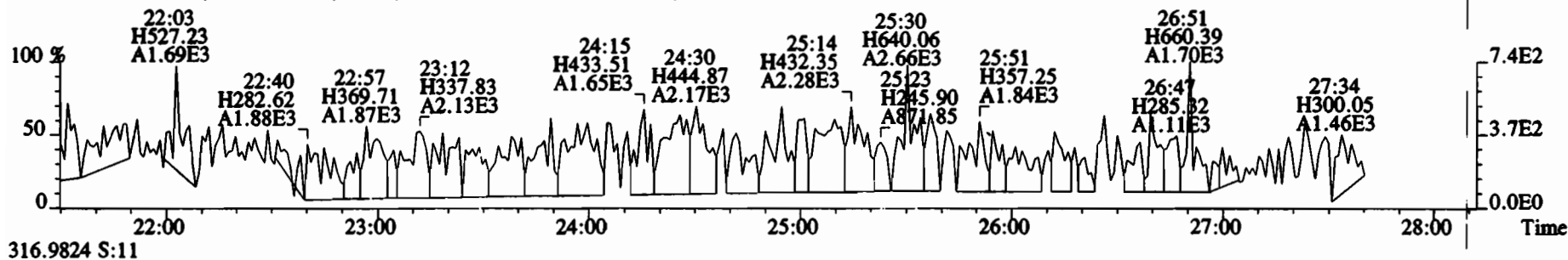
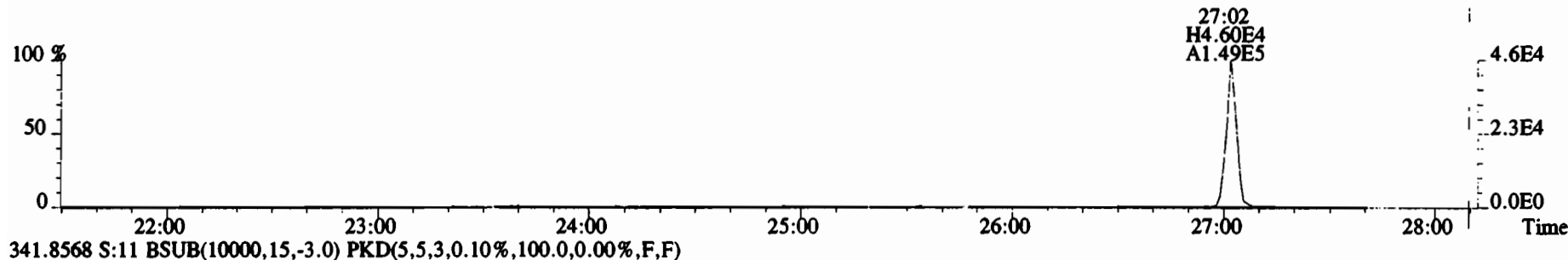
317.9389 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



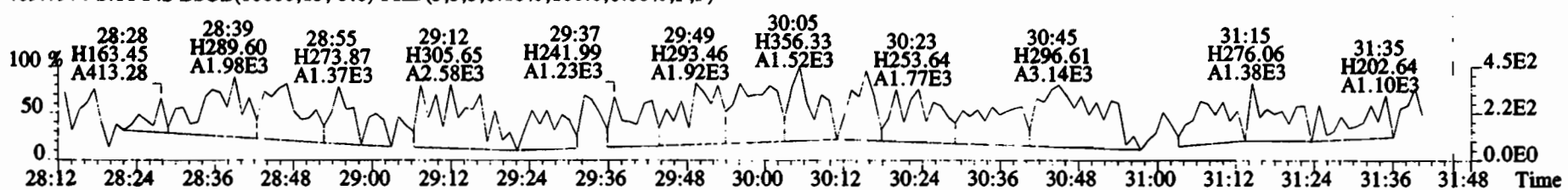
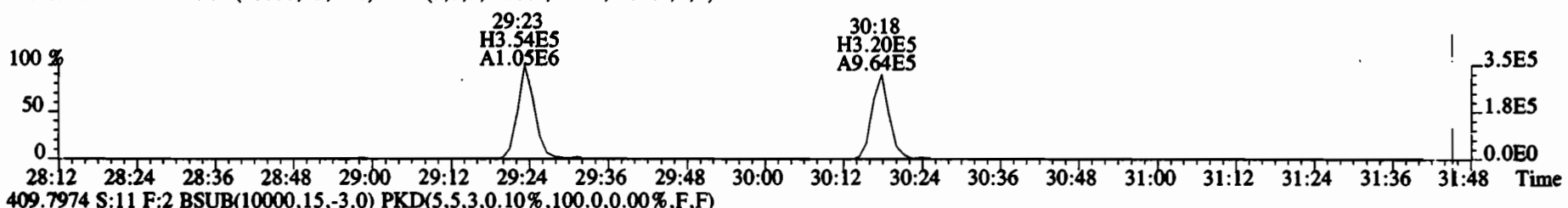
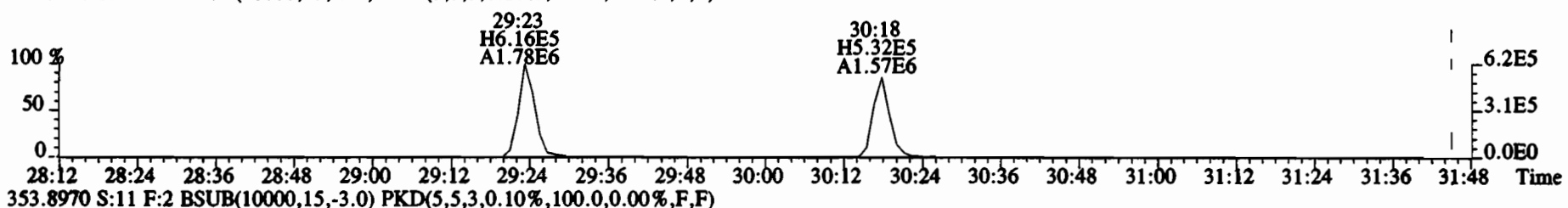
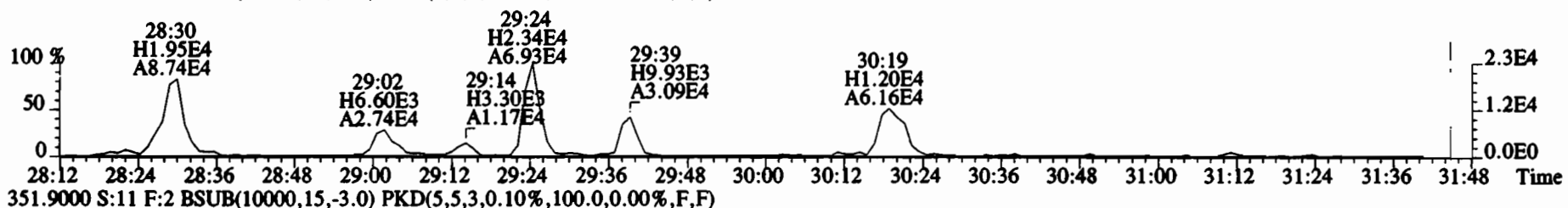
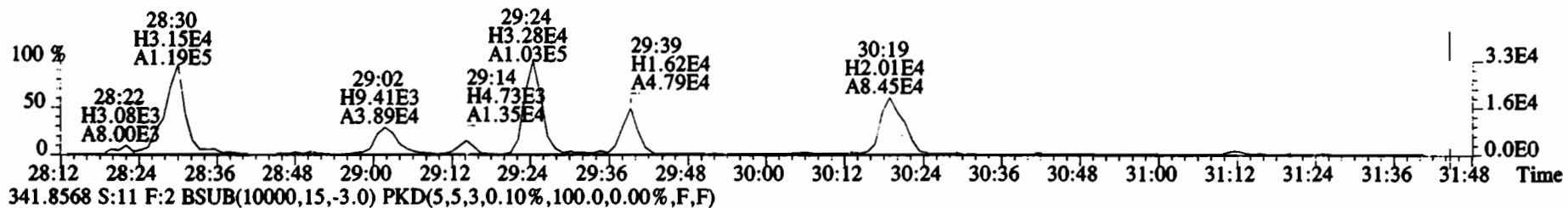
375.8364 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200109D1 #1-492 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 339.8597 S:11 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

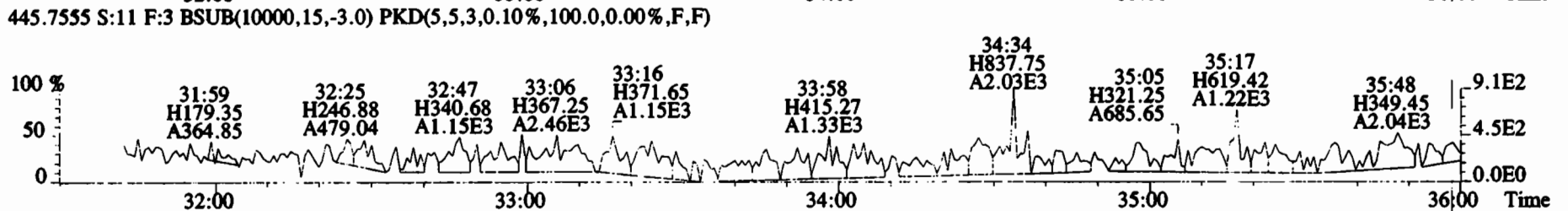
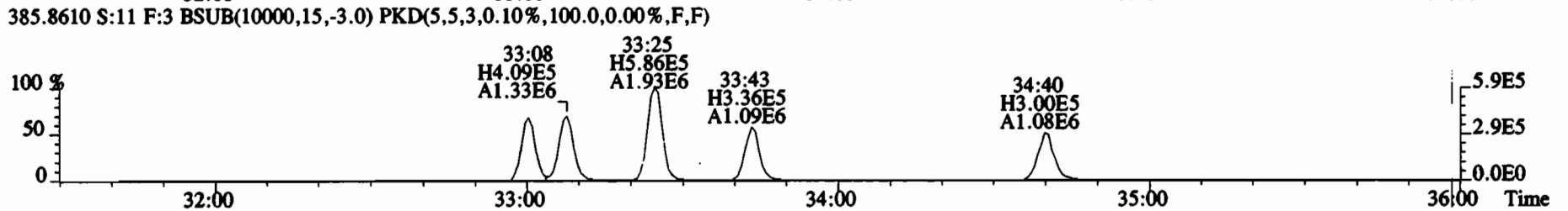
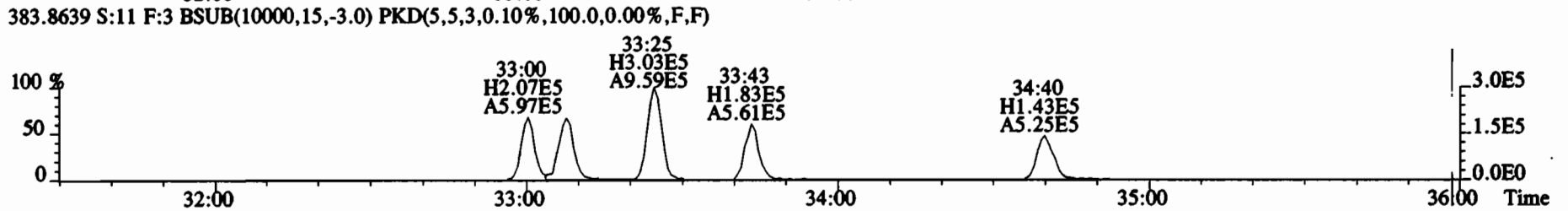
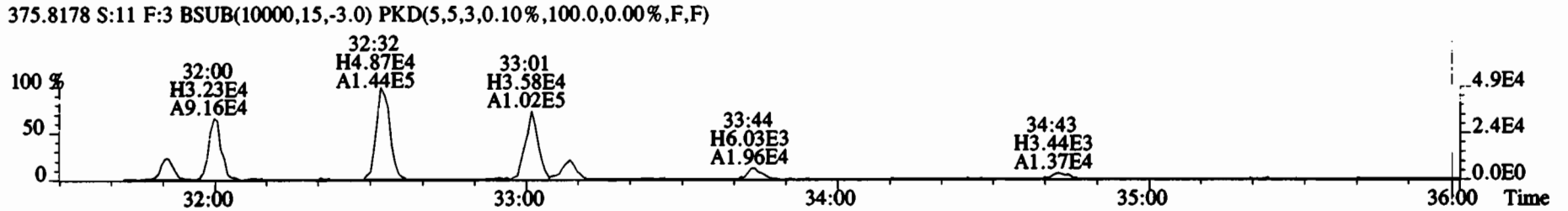
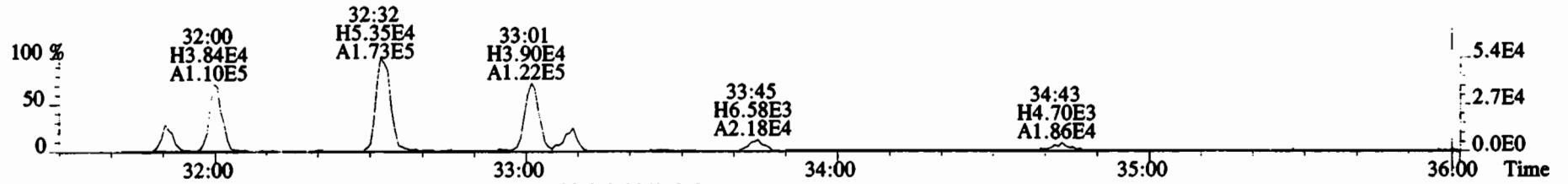


File:200109D1 #1-211 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

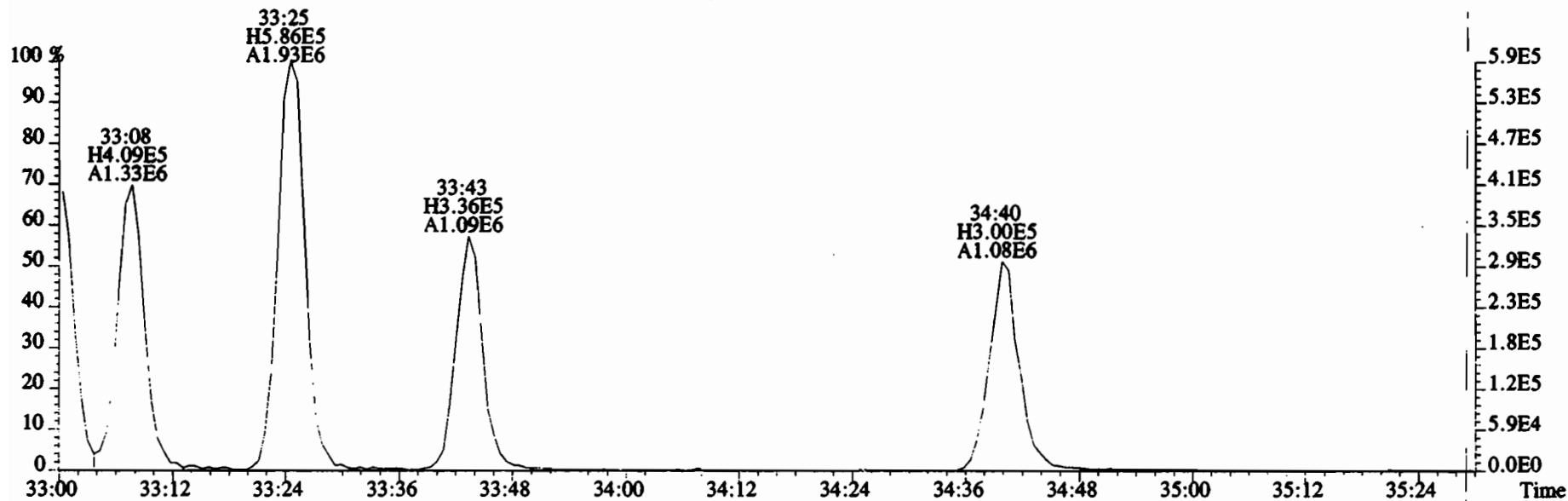
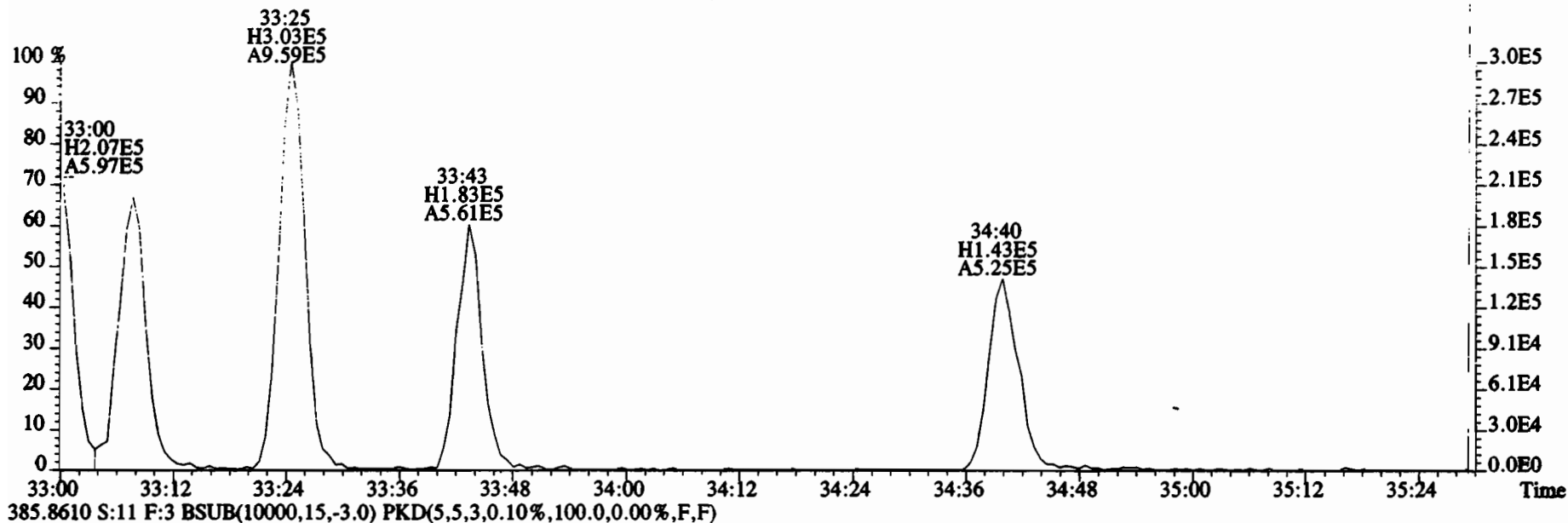




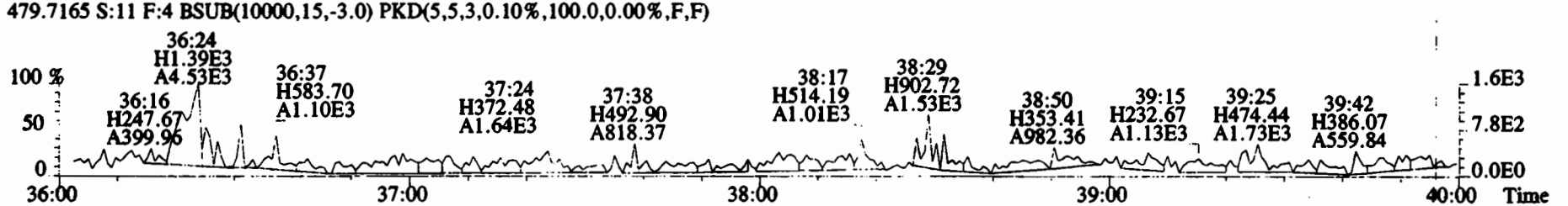
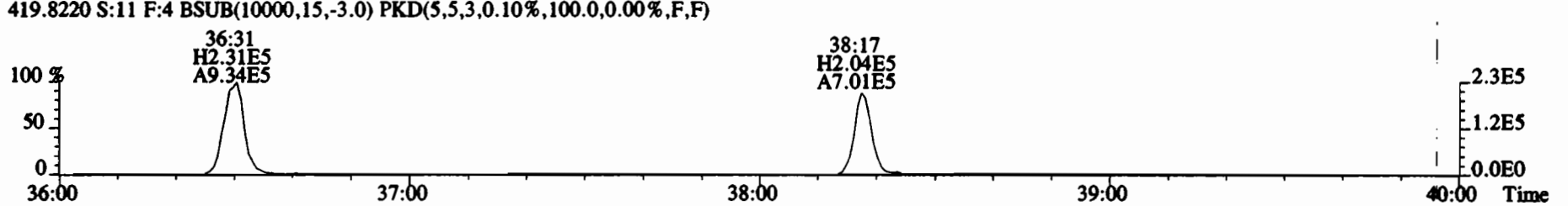
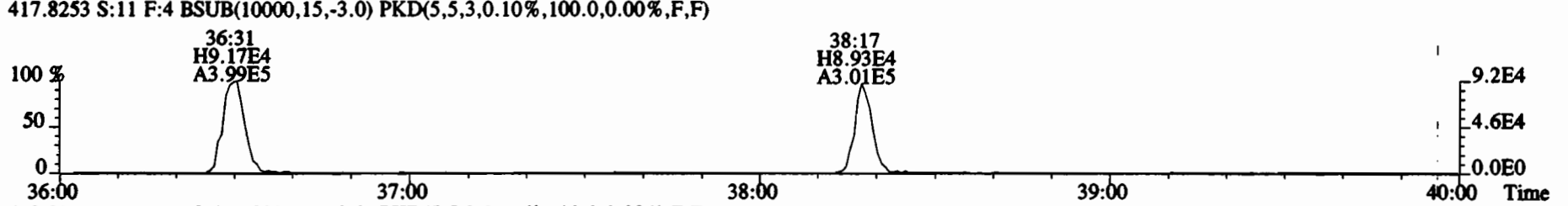
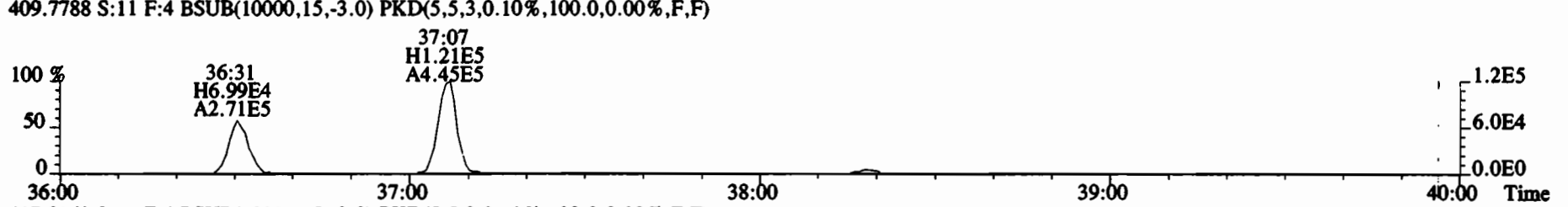
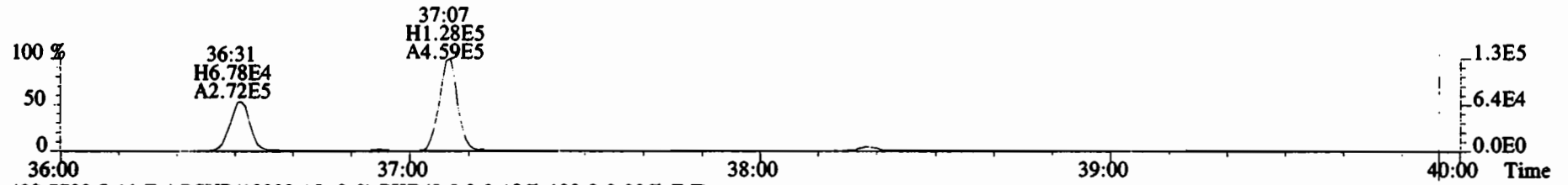
File:200109D1 #1-385 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



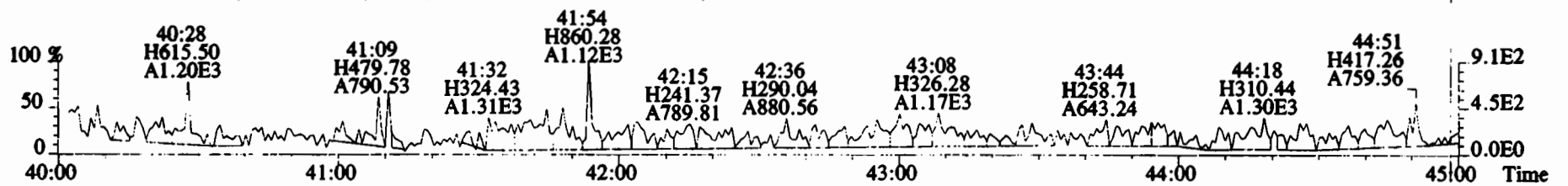
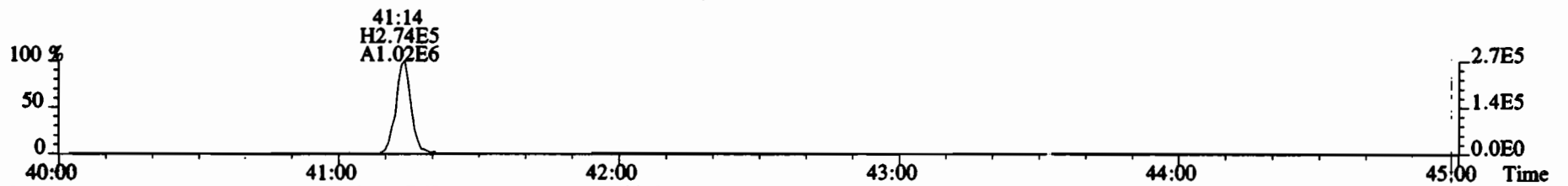
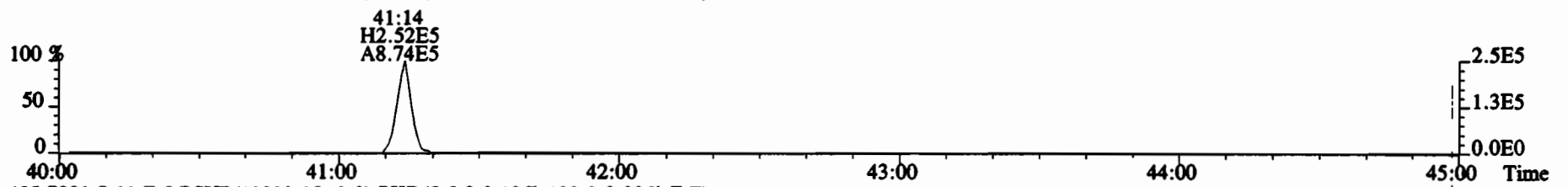
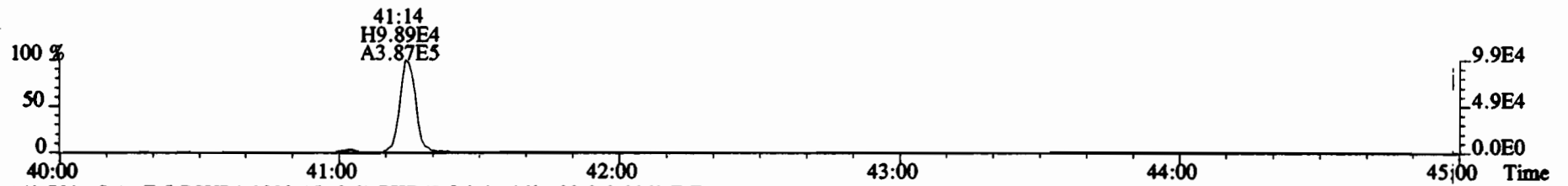
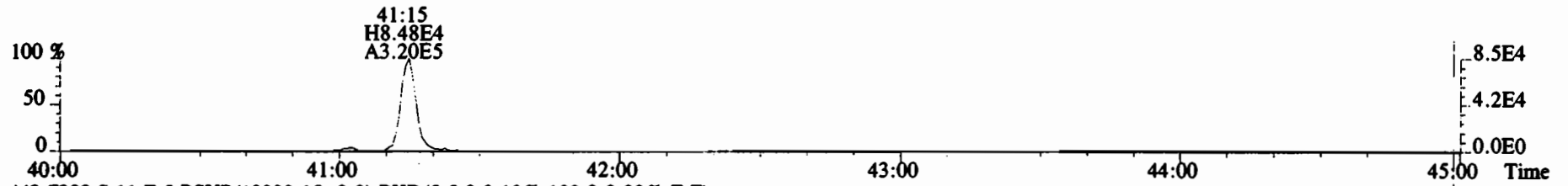
File:200109D1 #1-385 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200109D1 #1-355 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
 407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200109D1 #1-432 Acq: 9-JAN-2020 18:29:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-14RE2@3X PDI-071SC-B-06-08-191001 1:3 10.4128 Exp:OCDF  
441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	*	* n	0.91	NotFη	*		214	2.5	0.0624
1,2,3,7,8-PeCDD	*	* n	0.90	NotFη	*		389	2.5	0.112
1,2,3,4,7,8-HxCDD	*	* n	1.10	NotFη	*		277	2.5	0.142
1,2,3,6,7,8-HxCDD	2.43e+04	1.39 y	0.94	34:01	0.63870			2.5	*
1,2,3,7,8,9-HxCDD	1.55e+04	1.21 y	0.96	34:19	0.39712			2.5	*
1,2,3,4,6,7,8-HpCDD	5.96e+05	1.04 y	0.98	37:47	18.714			2.5	*
OCDD	4.05e+06	0.90 y	0.96	41:03	220.24			2.5	*
2,3,7,8-TCDF	7.43e+04	0.98 (n)	0.95	25:16	0.82229	OL		2.5	*
1,2,3,7,8-PeCDF	1.10e+05	1.56 y	0.96	29:25	1.5646			2.5	*
2,3,4,7,8-PeCDF	4.07e+04	1.43 y	1.01	30:18	0.58670			2.5	*
1,2,3,4,7,8-HxCDF	1.09e+05	1.21 y	1.18	33:01	1.7984			2.5	*
1,2,3,6,7,8-HxCDF	3.17e+04	1.37 y	1.07	33:09	0.50808			2.5	*
2,3,4,6,7,8-HxCDF	1.35e+04	0.97 n	1.11	33:45	0.24198			2.5	*
1,2,3,7,8,9-HxCDF	6.68e+03	0.76 n	1.06	34:41	0.13032			2.5	*
1,2,3,4,6,7,8-HpCDF	1.56e+05	0.92 y	1.13	36:31	3.6513			2.5	*
1,2,3,4,7,8,9-HpCDF	1.77e+04	1.04 y	1.28	38:18	0.45162			2.5	*
OCDF	1.85e+05	0.90 y	0.95	41:16	7.1922			2.5	*
IS 13C-2,3,7,8-TCDD	1.23e+07	0.83 y	1.10	26:03	195.16				
IS 13C-1,2,3,7,8-PeCDD	8.91e+06	0.65 y	0.88	30:35	175.07				
IS 13C-1,2,3,4,7,8-HxCDD	7.13e+06	1.29 y	0.64	33:54	153.86				
IS 13C-1,2,3,6,7,8-HxCDD	7.81e+06	1.27 y	0.86	34:00	126.49				
IS 13C-1,2,3,7,8,9-HxCDD	7.84e+06	1.23 y	0.81	34:18	134.64				
IS 13C-1,2,3,4,6,7,8-HpCDD	6.26e+06	1.03 y	0.65	37:46	132.51				
IS 13C-OCDD	7.39e+06	0.89 y	0.58	41:03	176.63				
IS 13C-2,3,7,8-TCDF	1.83e+07	0.78 y	1.03	25:15	178.77				
IS 13C-1,2,3,7,8-PeCDF	1.41e+07	1.57 y	0.85	29:25	167.25				
IS 13C-2,3,4,7,8-PeCDF	1.32e+07	1.61 y	0.85	30:18	157.01				
IS 13C-1,2,3,4,7,8-HxCDF	9.92e+06	0.51 y	0.83	33:01	165.17				
IS 13C-1,2,3,6,7,8-HxCDF	1.12e+07	0.52 y	1.03	33:08	150.36				
IS 13C-2,3,4,6,7,8-HxCDF	9.64e+06	0.51 y	0.95	33:44	140.10				
IS 13C-1,2,3,7,8,9-HxCDF	9.30e+06	0.50 y	0.83	34:41	155.59				
IS 13C-1,2,3,4,6,7,8-HpCDF	7.30e+06	0.44 y	0.76	36:31	133.53				
IS 13C-1,2,3,4,7,8,9-HpCDF	5.88e+06	0.43 y	0.58	38:18	140.12				
IS 13C-OCDF	1.04e+07	0.88 y	0.69	41:16	210.04				
C/Up 37C1-2,3,7,8-TCDD	5.08e+06		1.20	26:04	73.510				
RS/RT 13C-1,2,3,4-TCDD	1.11e+07	0.81 y	1.00	25:29	192.53				
RS 13C-1,2,3,4-TCDF	1.91e+07	0.77 y	1.00	24:01	192.53				
RS/RT 13C-1,2,3,4,6,9-HxCDF	1.39e+07	0.51 y	1.00	33:25	192.53				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	0.399		*	*
Total Penta-Dioxins	*	0.606		*	*
Total Hexa-Dioxins	5.71	6.03		*	*
Total Hepta-Dioxins	48.1	48.1		*	*
Total Tetra-Furans	2.33	3.30		*	*
Total Penta-Furans	6.2228	6.2228		*	*
Total Hexa-Furans	5.31	5.68		*	*
Total Hepta-Furans	9.10	9.10		*	*

Rec Qual

101  
90.9  
79.9  
65.7  
69.9  
68.8  
45.9  
92.9  
86.9  
81.5  
85.8  
78.1  
72.8  
80.8  
69.4  
72.8  
54.5

Integrations  
by  
Analyst: DB

Reviewed  
by  
Analyst: CT

Date: 1/9/20

Date: 01/10/2020

Totals class: TCDD EMPC

Entry #: 19

Run: 15

File: 200107D2

S: 10 I: 1 F: 1

Acquired: 8-JAN-20 05:42:27

Processed: 8-JAN-20 10:10:01

Total Concentration: 0.39909

Unnamed Concentration: 0.399

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
24:10	1.256e+04	1.309e+04	0.96 n	2.316e+04	0.39909

Totals class: PeCDD EMPC

Entry #: 21

Run: 15

File: 200107D2

S: 10 I: 1 F: 2

Acquired: 8-JAN-20 05:42:27

Processed: 8-JAN-20 10:10:01

Total Concentration: 0.60620

Unnamed Concentration: 0.606

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:34	5.547e+03	1.149e+04	0.48	n	1.435e+04	0.34347
29:00	5.127e+03	6.734e+03	0.76	n	1.098e+04	0.26273

Totals class: HxCDD EMPC

Entry #: 23

Run: 15

File: 200107D2

S: 10 I: 1 F: 3

Acquired: 8-JAN-20 05:42:27

Processed: 8-JAN-20 10:10:01

Total Concentration: 6.0311

Unnamed Concentration: 4.995

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
32:23	5.414e+04	4.970e+04	1.09	y	1.038e+05	2.6541
32:57	8.062e+03	5.607e+03	1.44	n	1.256e+04	0.32100
33:13	4.197e+04	3.707e+04	1.13	y	7.904e+04	2.0201
34:01	1.417e+04	1.016e+04	1.39	y	2.432e+04	0.63867 1,2,3,6,7,8-HxCDD
34:19	8.529e+03	7.021e+03	1.21	y	1.555e+04	0.39720 1,2,3,7,8,9-HxCDD



Totals class: HpCDD EMPC

Entry #: 25

Run: 15 File: 200107D2 S: 10 I: 1 F: 4  
Acquired: 8-JAN-20 05:42:27 Processed: 8-JAN-20 10:10:01

Total Concentration: 48.078

Unnamed Concentration: 29.364

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
36:55	4.784e+05	4.561e+05	1.05 y	9.344e+05	29.364
37:47	3.031e+05	2.924e+05	1.04 y	5.955e+05	18.714

Totals class: TCDF EMPC

Entry #: 27

Run: 15 File: 200107D2 S: 10 I: 1 F: 1  
 Acquired: 8-JAN-20 05:42:27 Processed: 8-JAN-20 10:10:01

Total Concentration: 3.2991

Unnamed Concentration: 2.477

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
21:40	1.981e+04	2.276e+04	0.87	y	4.256e+04	0.47074
22:36	1.511e+04	1.915e+04	0.79	y	3.426e+04	0.37897
23:58	1.543e+04	1.862e+04	0.83	y	3.405e+04	0.37660
24:28	3.799e+04	4.658e+04	0.82	y	8.457e+04	0.93532
25:10	9.198e+03	7.553e+03	1.22	n	1.337e+04	0.14786
25:16	4.132e+04	4.200e+04	0.98	n	7.435e+04	0.82229
27:04	6.625e+03	8.502e+03	0.78	y	1.513e+04	0.16730

2,3,7,8-TCDF

Totals class: 1st Func. PeCDF EMPC      Entry #: 29

Run: 15      File: 200107D2      S: 10 I: 1 F: 1  
Acquired: 8-JAN-20 05:42:27      Processed: 8-JAN-20 10:10:01

Total Concentration: 0.88054      Unnamed Concentration: 0.881

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
27:03	3.776e+04	2.393e+04	1.58 y	6.169e+04	0.88054

Totals class: PeCDF EMPC

Entry #: 31

Run: 15 File: 200107D2 S: 10 I: 1 F: 2  
Acquired: 8-JAN-20 05:42:27 Processed: 8-JAN-20 10:10:01

Total Concentration: 5.3423

Unnamed Concentration: 3.191

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:29	5.528e+04	3.560e+04	1.55	y	9.088e+04	1.2972
29:03	1.355e+04	9.009e+03	1.50	y	2.256e+04	0.32196
29:15	1.059e+04	6.775e+03	1.56	y	1.736e+04	0.24784
29:25	6.724e+04	4.318e+04	1.56	y	1.104e+05	1.5646 1,2,3,7,8-PeCDF
29:40	3.605e+04	2.499e+04	1.44	y	6.104e+04	0.87125
30:18	2.398e+04	1.675e+04	1.43	y	4.073e+04	0.58670 2,3,4,7,8-PeCDF
30:22	1.983e+04	1.189e+04	1.67	y	3.172e+04	0.45272

Totals class: HxCDF EMPC

Entry #: 33

Run: 15 File: 200107D2 S: 10 I: 1 F: 3  
Acquired: 8-JAN-20 05:42:27 Processed: 8-JAN-20 10:10:01

Total Concentration: 5.6799

Unnamed Concentration: 3.001

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
31:53	1.197e+04	8.915e+03	1.34	y	2.089e+04	0.36373
32:01	3.153e+04	2.835e+04	1.11	y	5.988e+04	1.0427
32:33	4.565e+04	3.668e+04	1.24	y	8.233e+04	1.4336
33:01	5.973e+04	4.929e+04	1.21	y	1.090e+05	1.7984
33:09	1.833e+04	1.335e+04	1.37	y	3.167e+04	0.50808
33:45	7.470e+03	7.673e+03	0.97	n	1.349e+04	0.24198
34:41	3.698e+03	4.840e+03	0.76	n	6.681e+03	0.13032
34:44	5.050e+03	4.195e+03	1.20	y	9.245e+03	0.16099

Totals class: HpCDF EMPC

Entry #: 35

Run: 15

File: 200107D2

S: 10 I: 1 F: 4

Acquired: 8-JAN-20 05:42:27

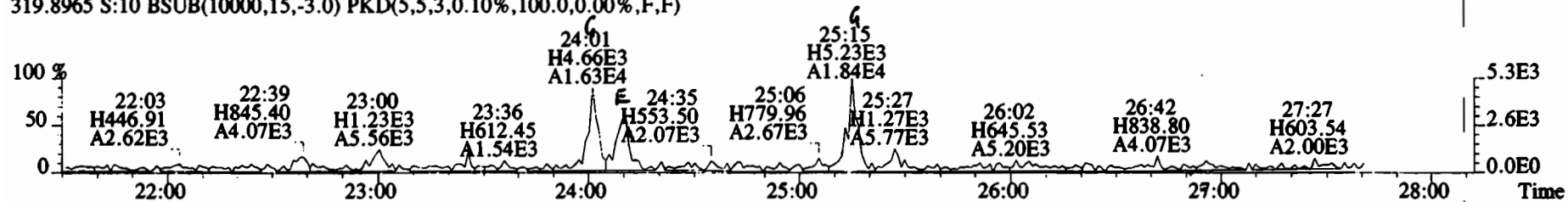
Processed: 8-JAN-20 10:10:01

Total Concentration: 9.1001

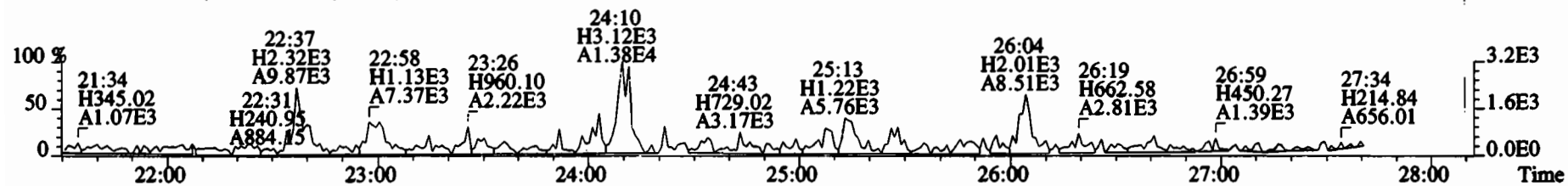
Unnamed Concentration: 4.997

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
36:31	7.499e+04	8.116e+04	0.92 y	1.562e+05	3.6513	1,2,3,4,6,7,8-HpCDF
37:07	9.995e+04	1.042e+05	0.96 y	2.042e+05	4.9972	
38:18	9.010e+03	8.640e+03	1.04 y	1.765e+04	0.45162	1,2,3,4,7,8,9-HpCDF

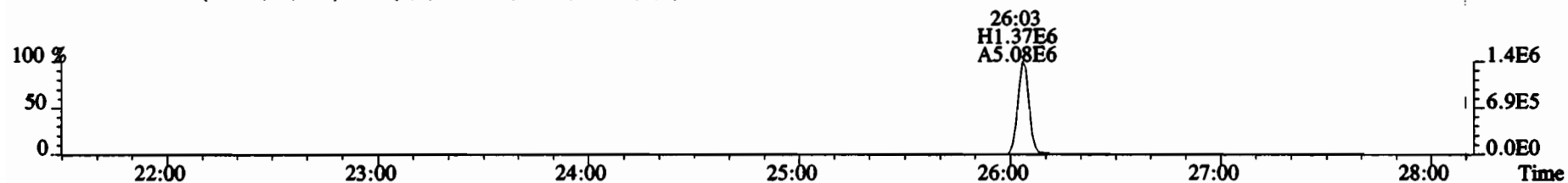
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text: Vista Analytical Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



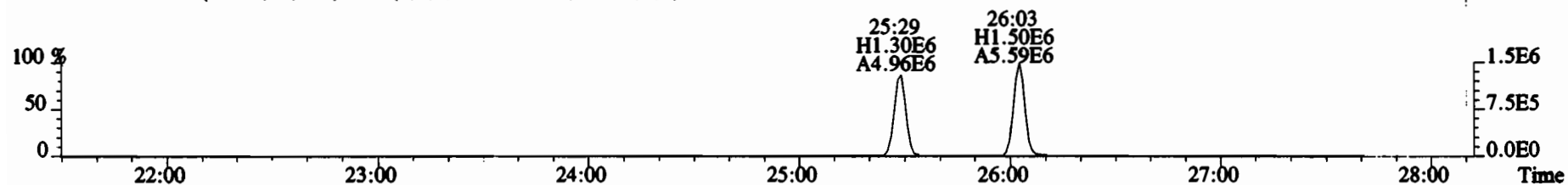
321.8936 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



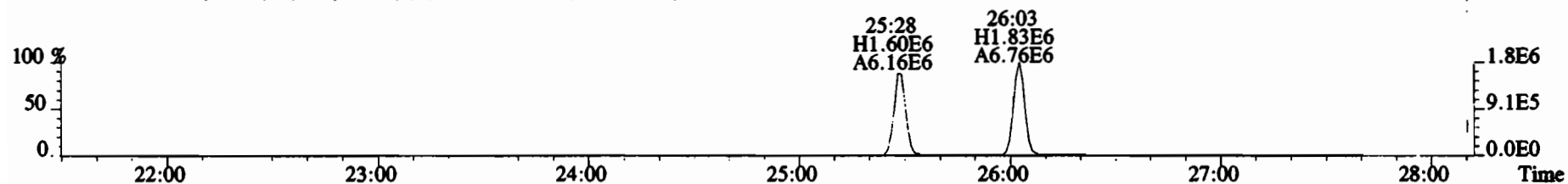
327.8847 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



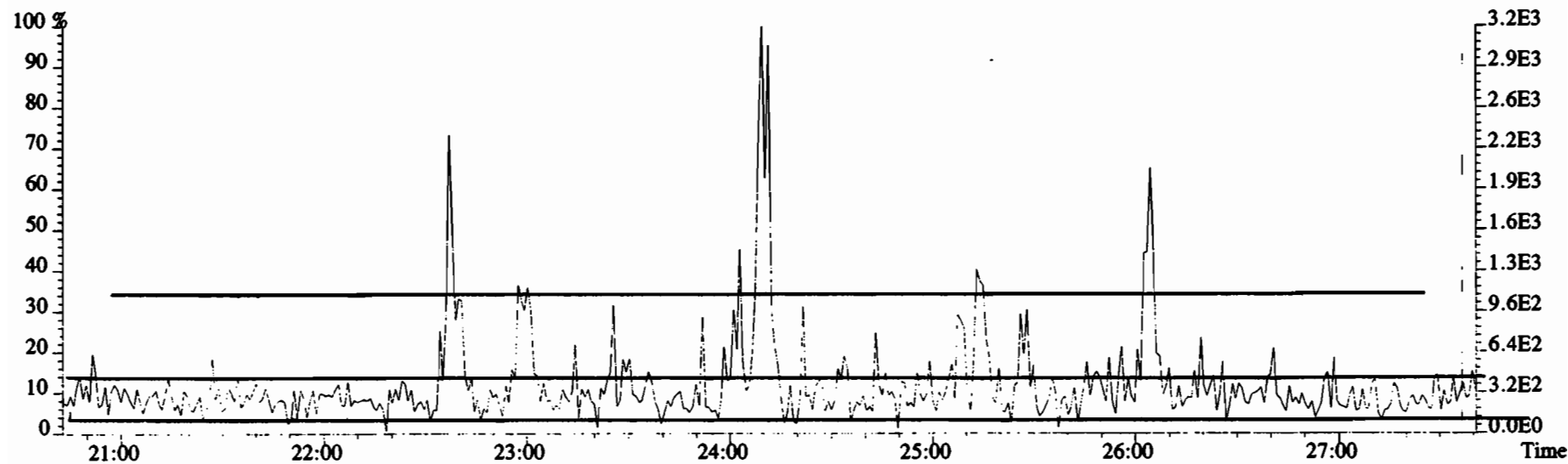
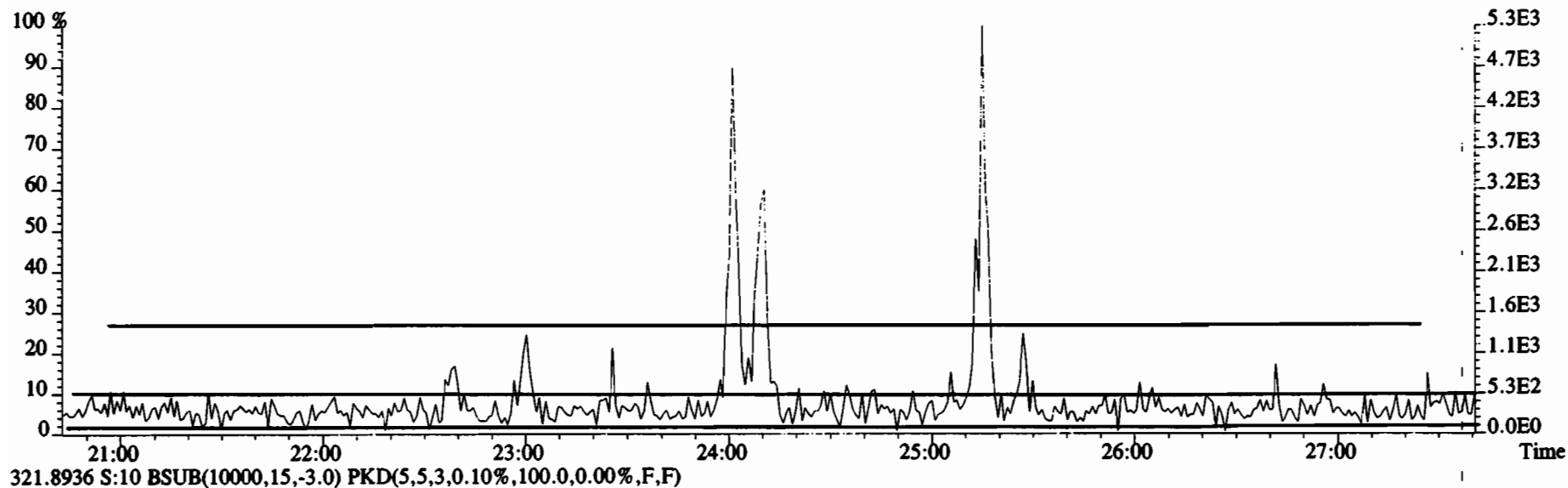
331.9368 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



333.9339 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

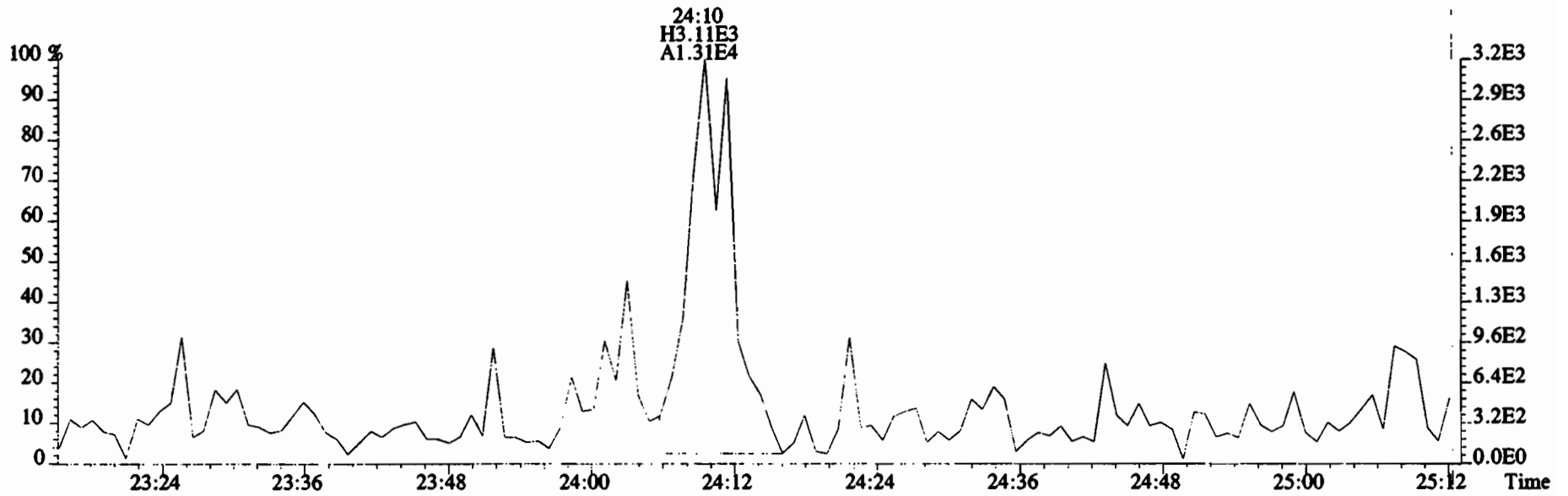
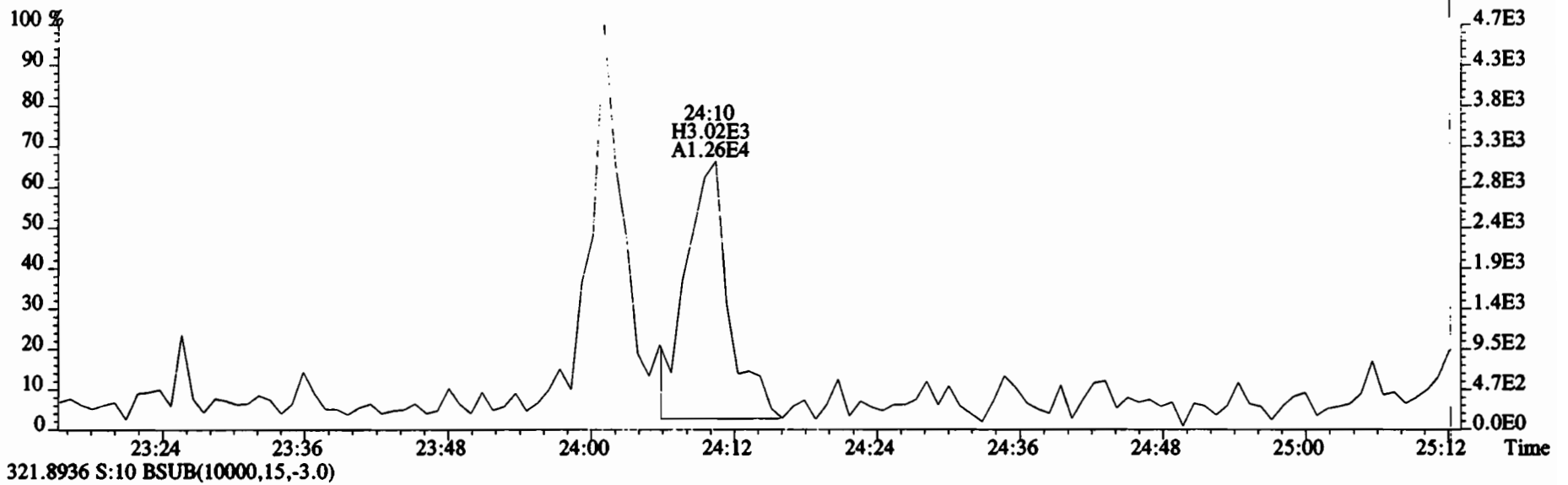


File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

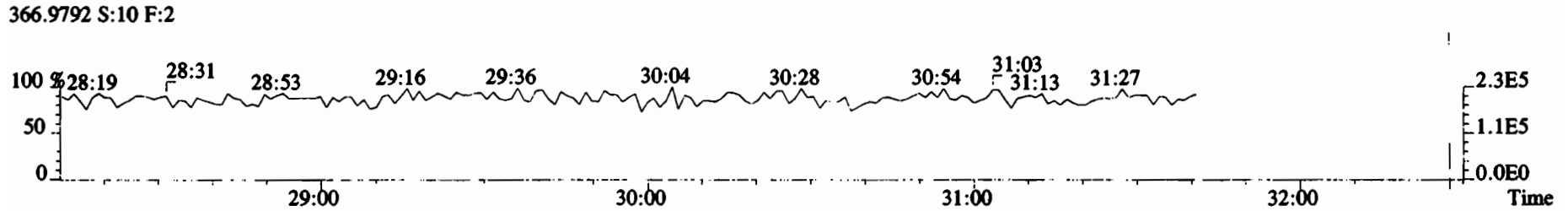
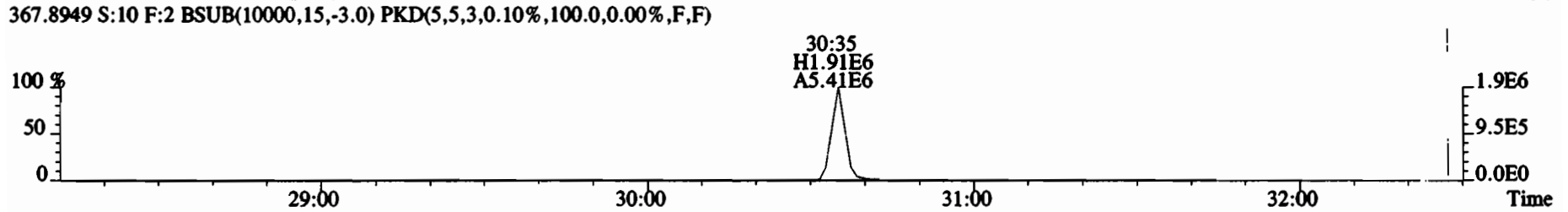
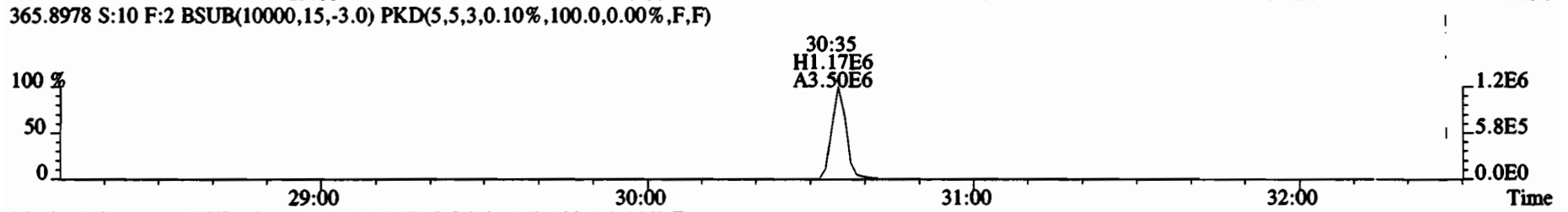
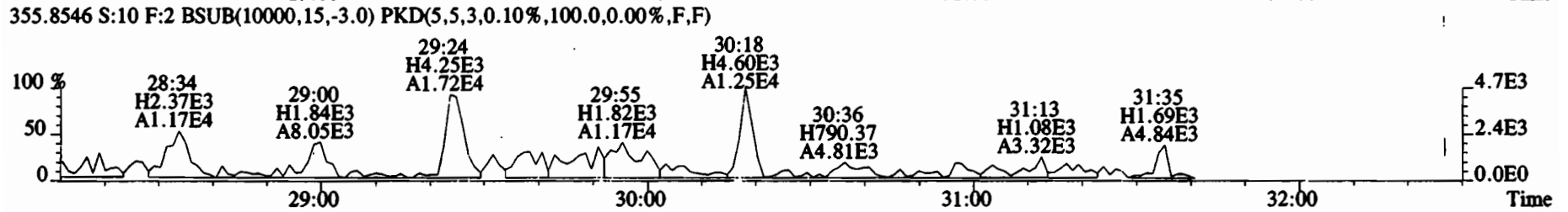
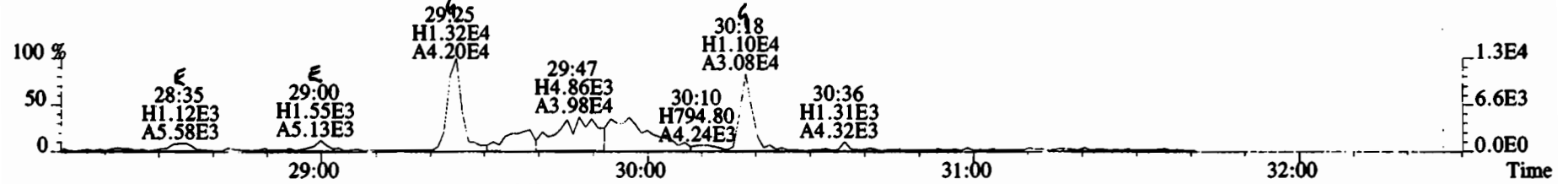




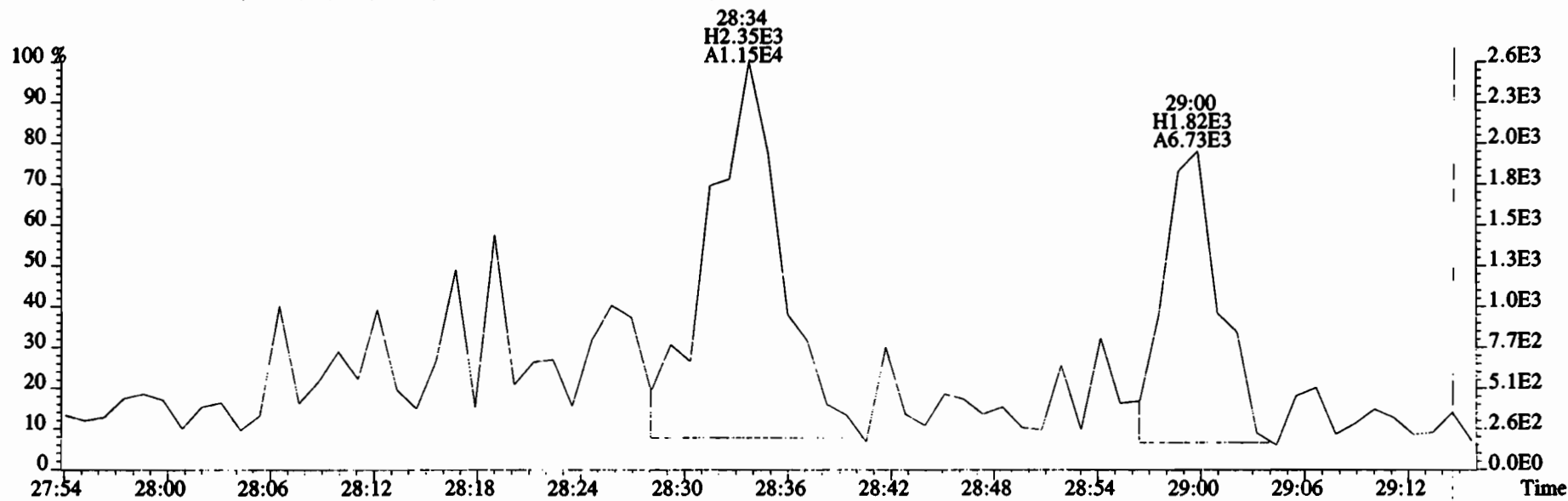
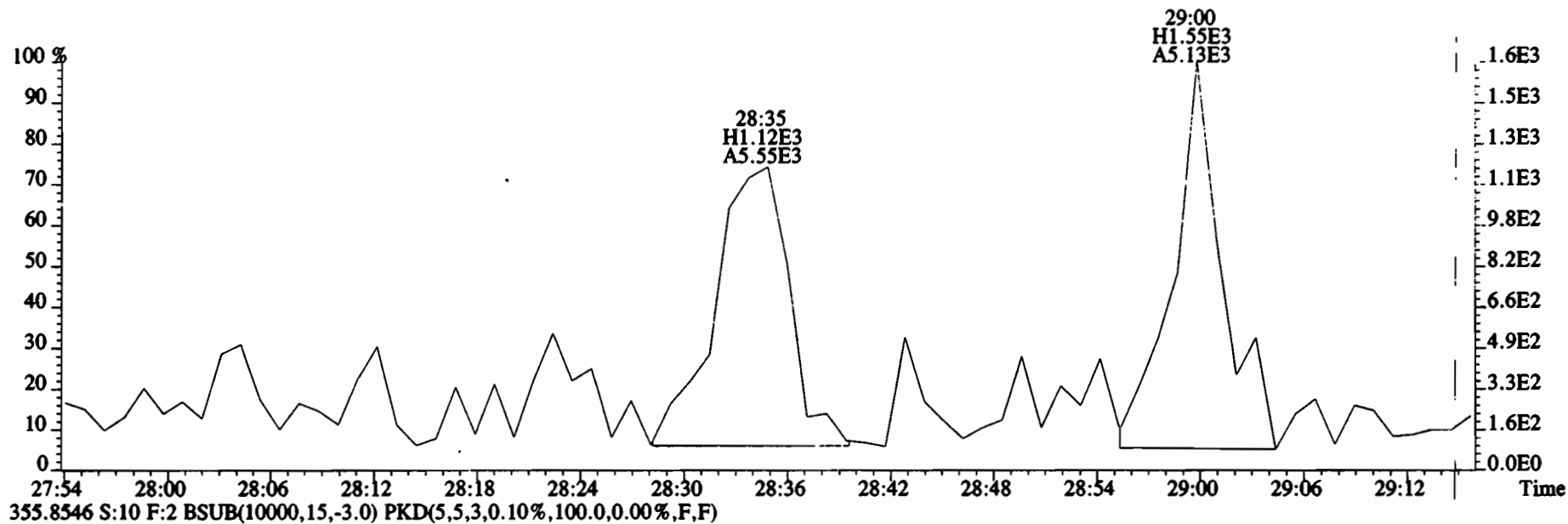
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical\_Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
319.8965 S:10 BSUB(10000,15,-3.0)



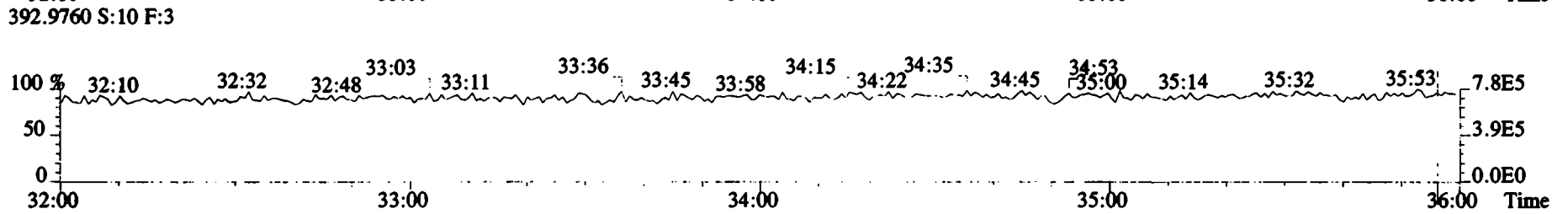
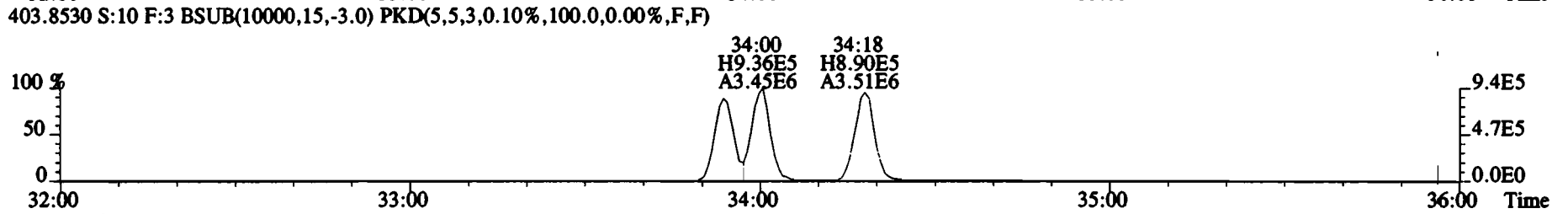
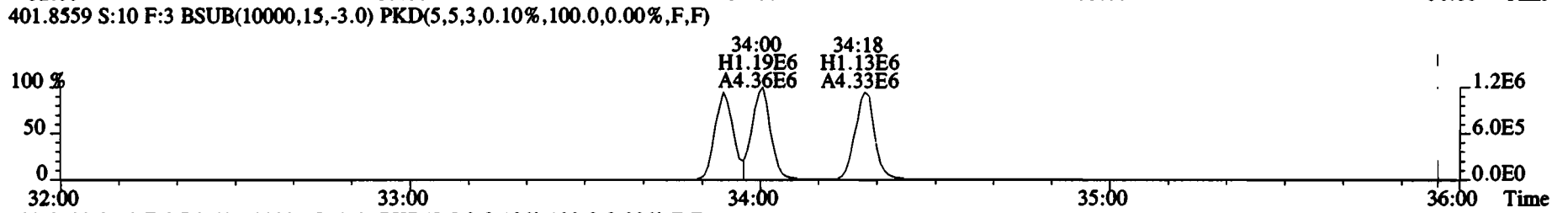
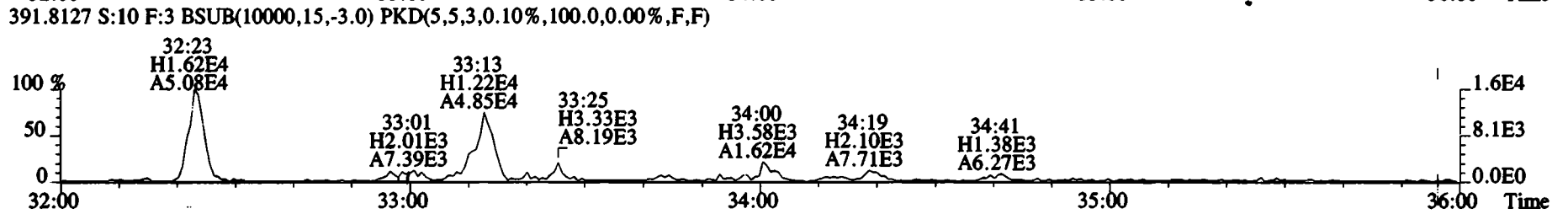
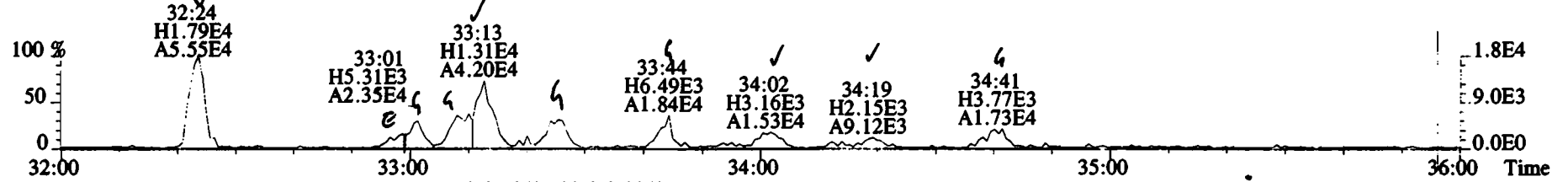
File:200107D2 #1-211 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 353.8576 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



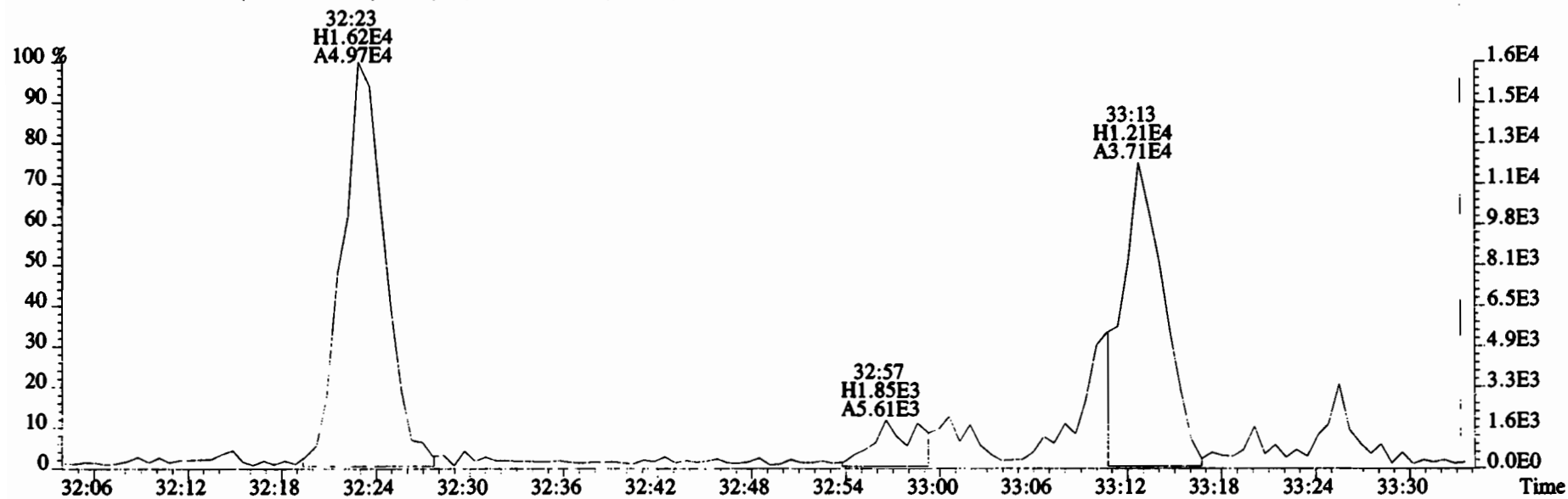
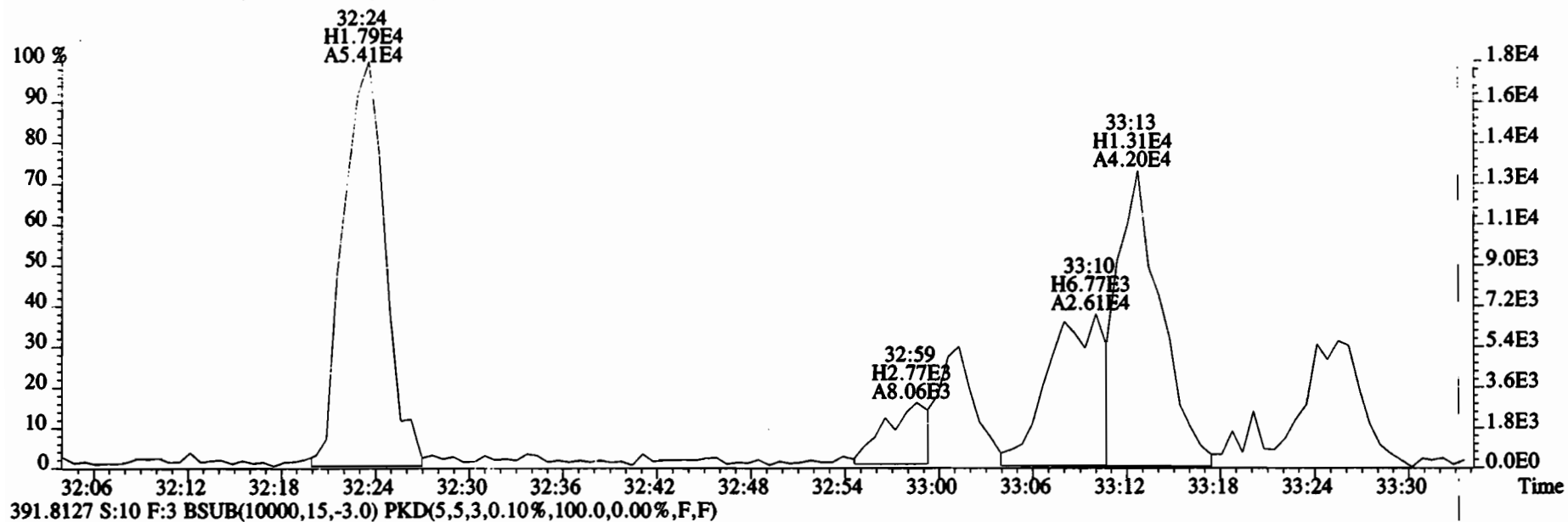
File:200107D2 #1-211 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
353.8576 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



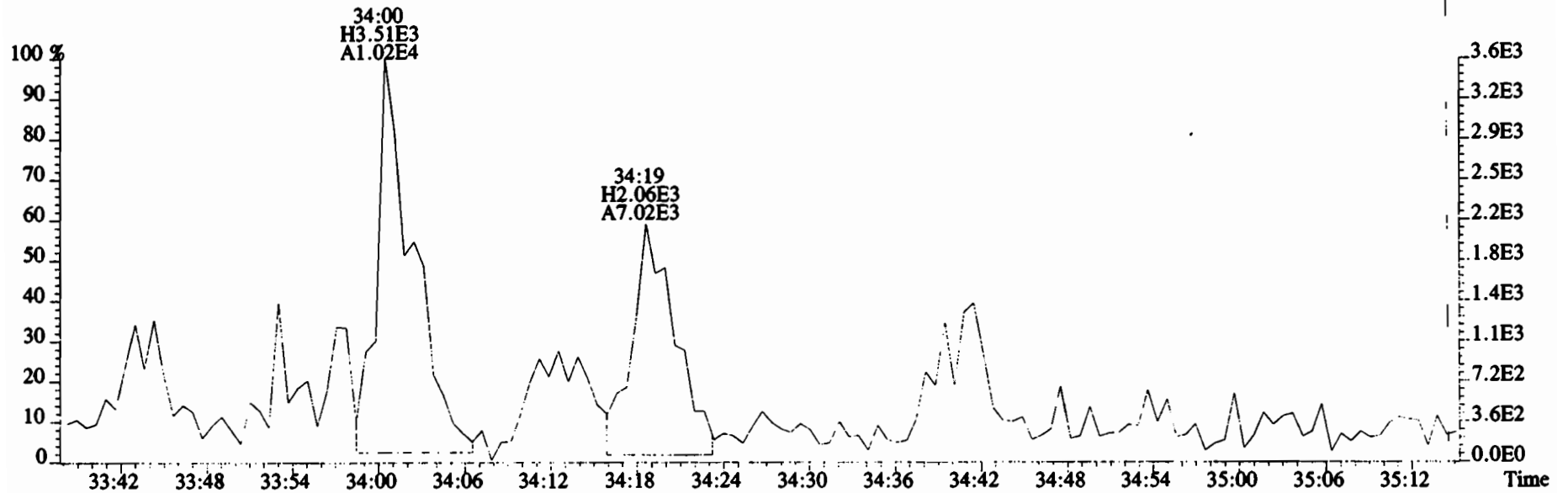
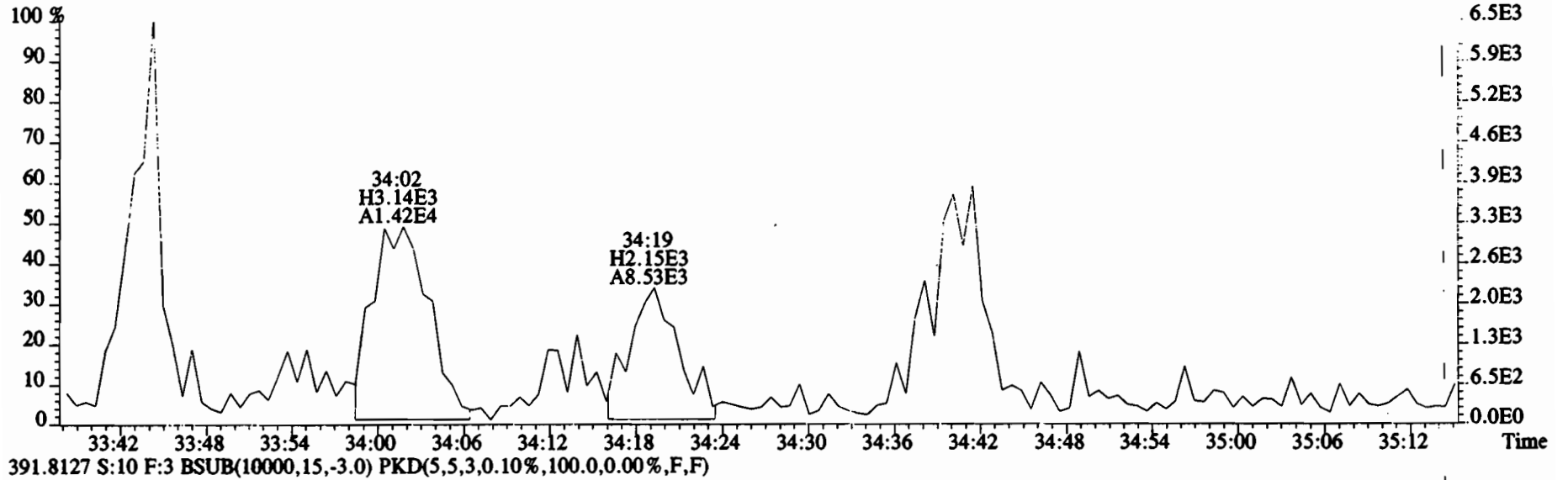
File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



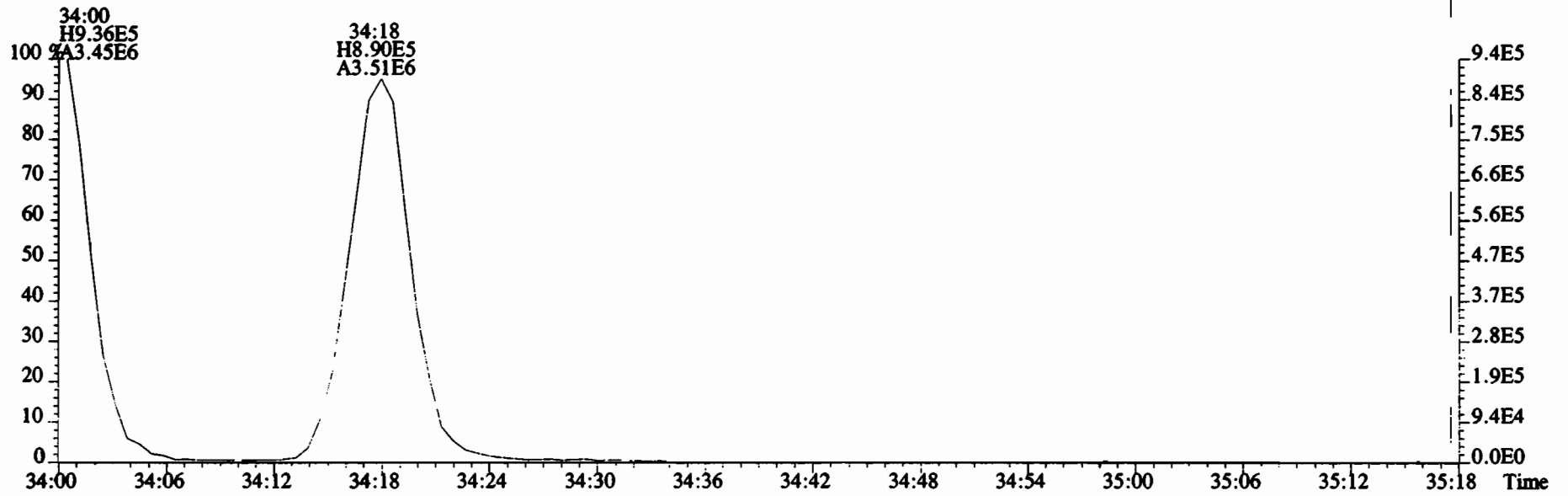
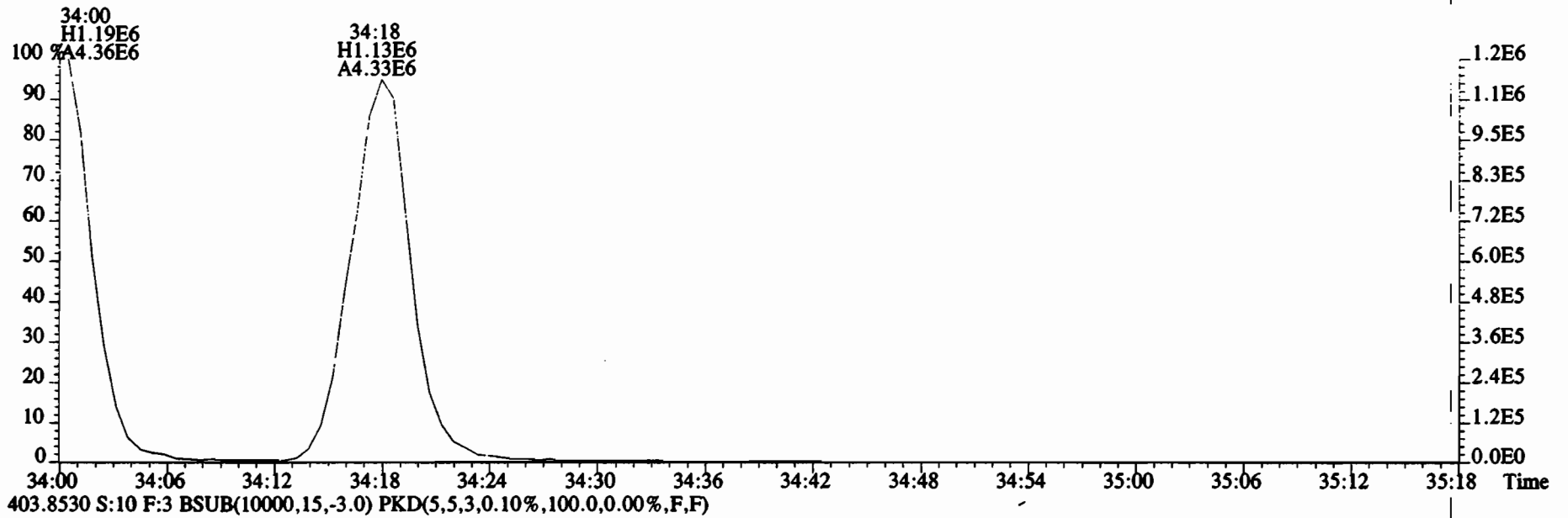
File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



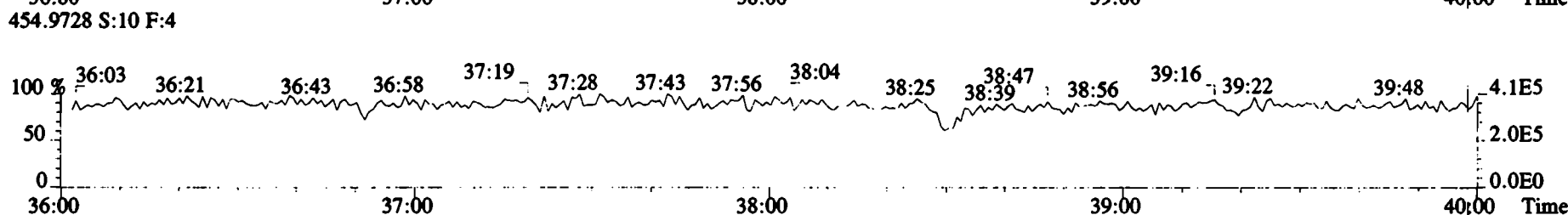
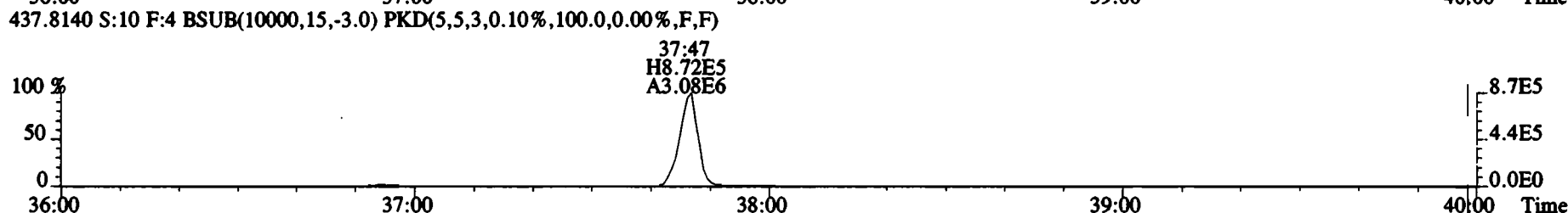
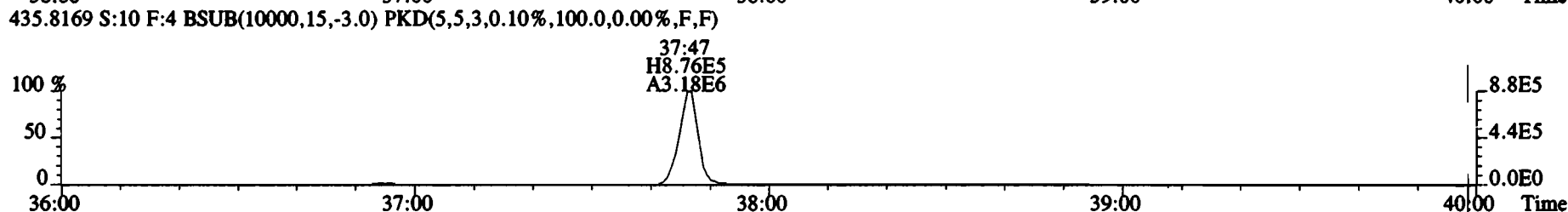
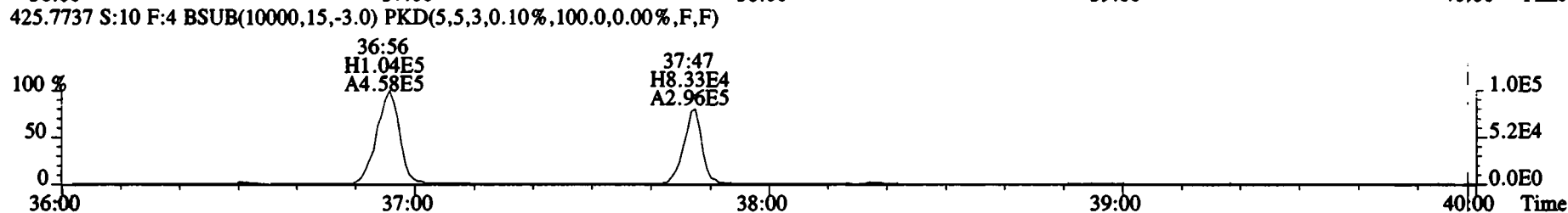
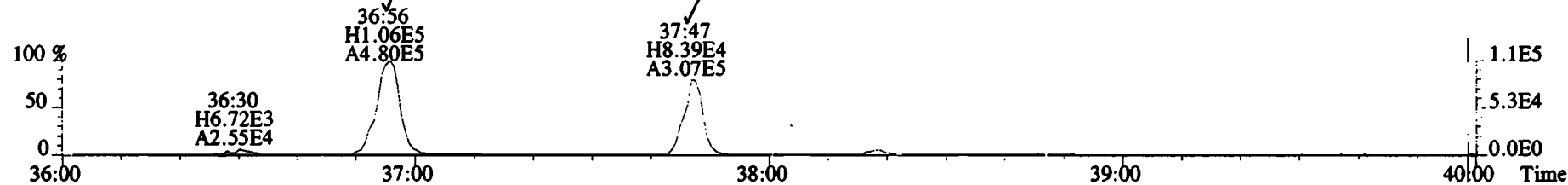
File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

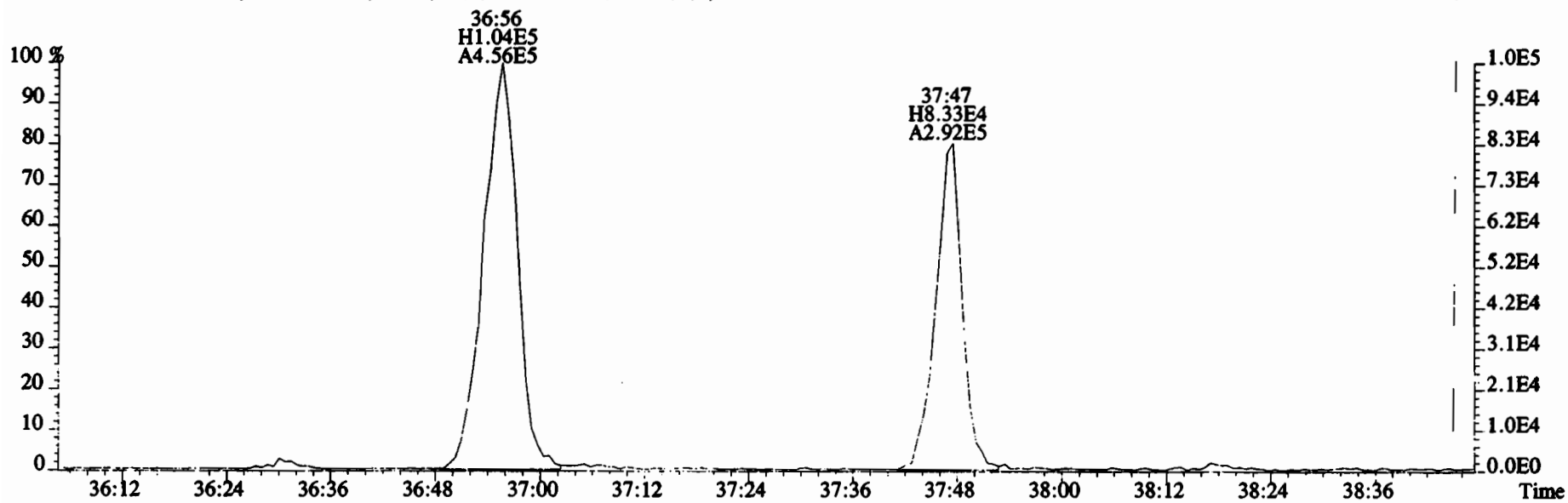
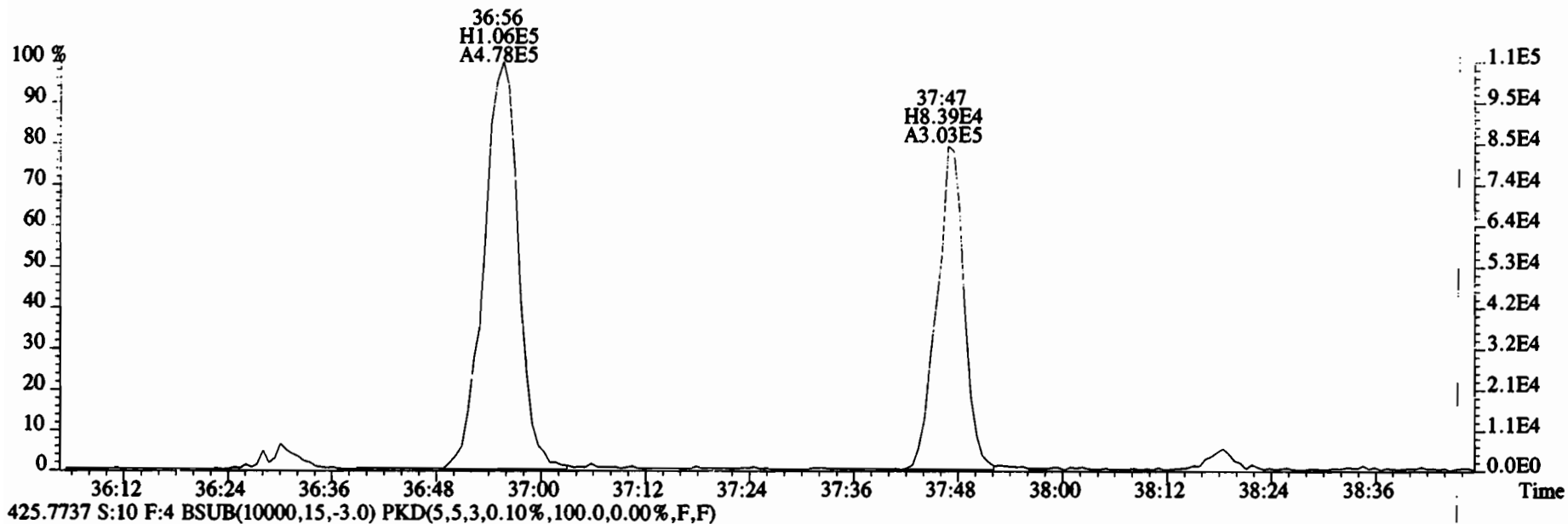


File:200107D2 #1-356 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

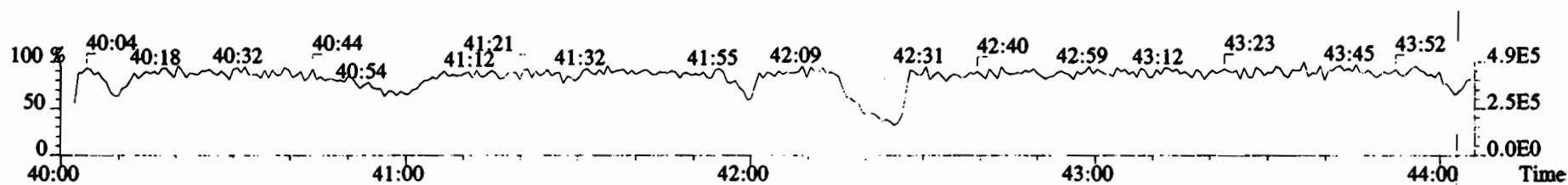
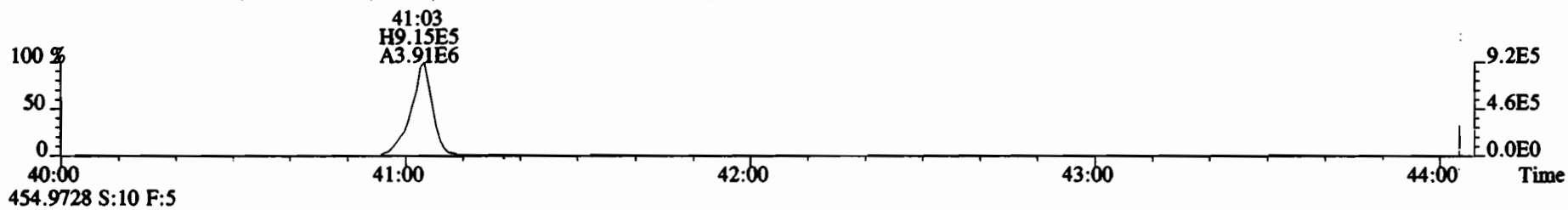
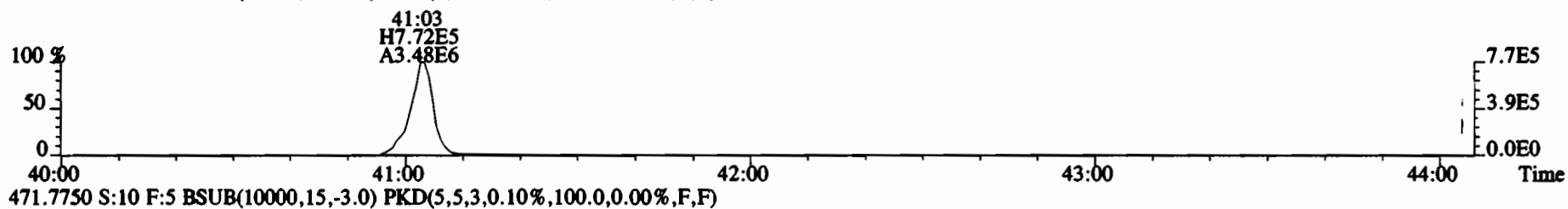
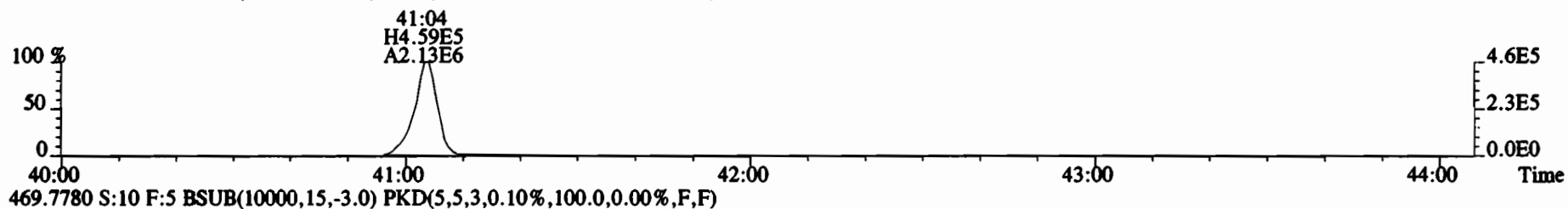
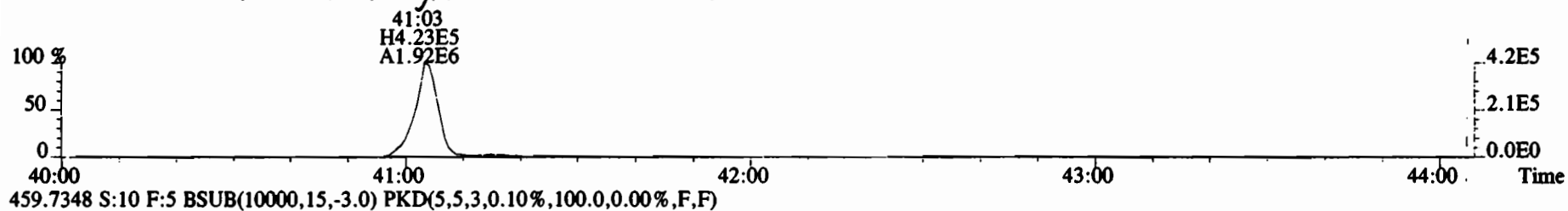




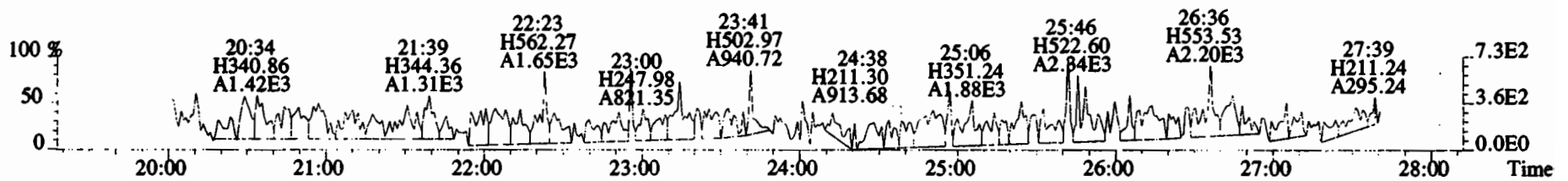
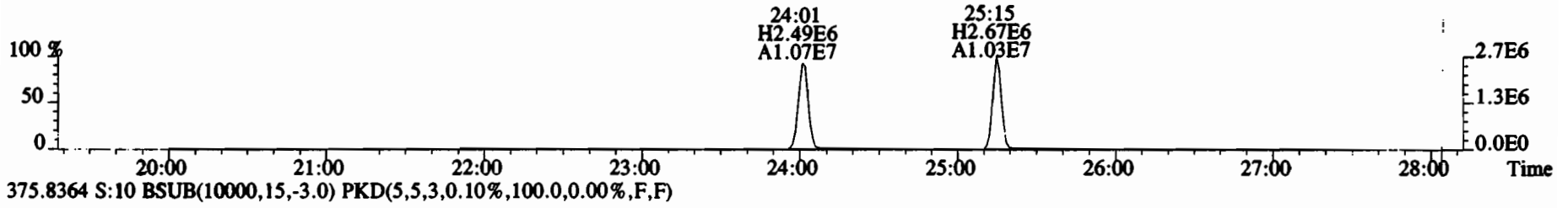
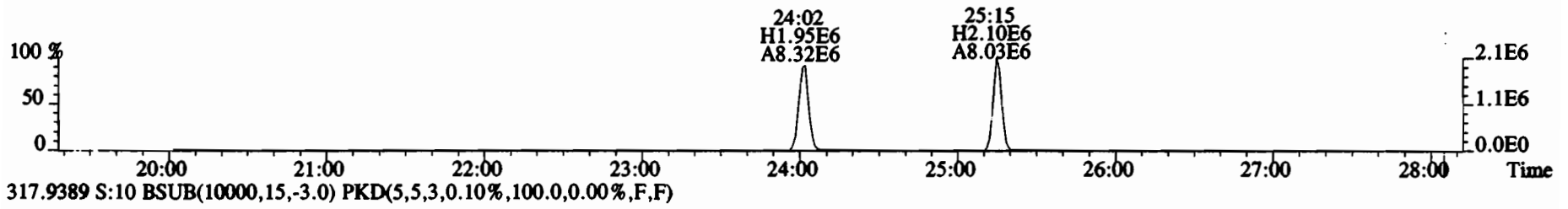
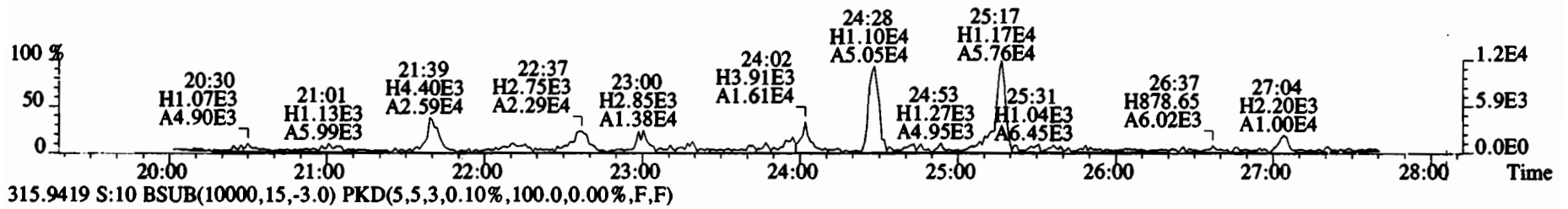
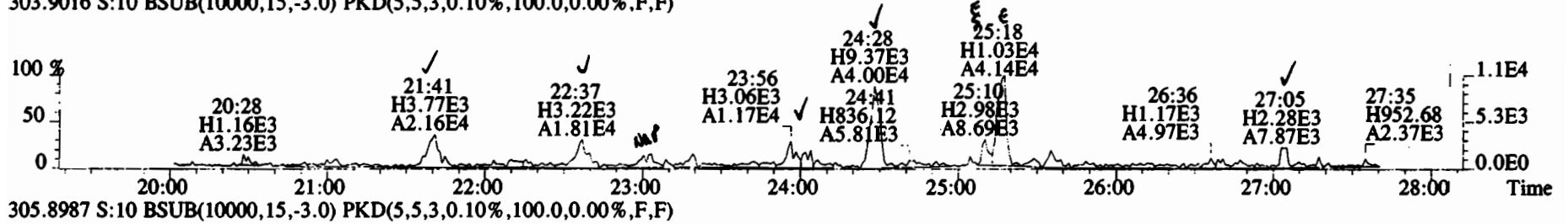
File:200107D2 #1-356 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



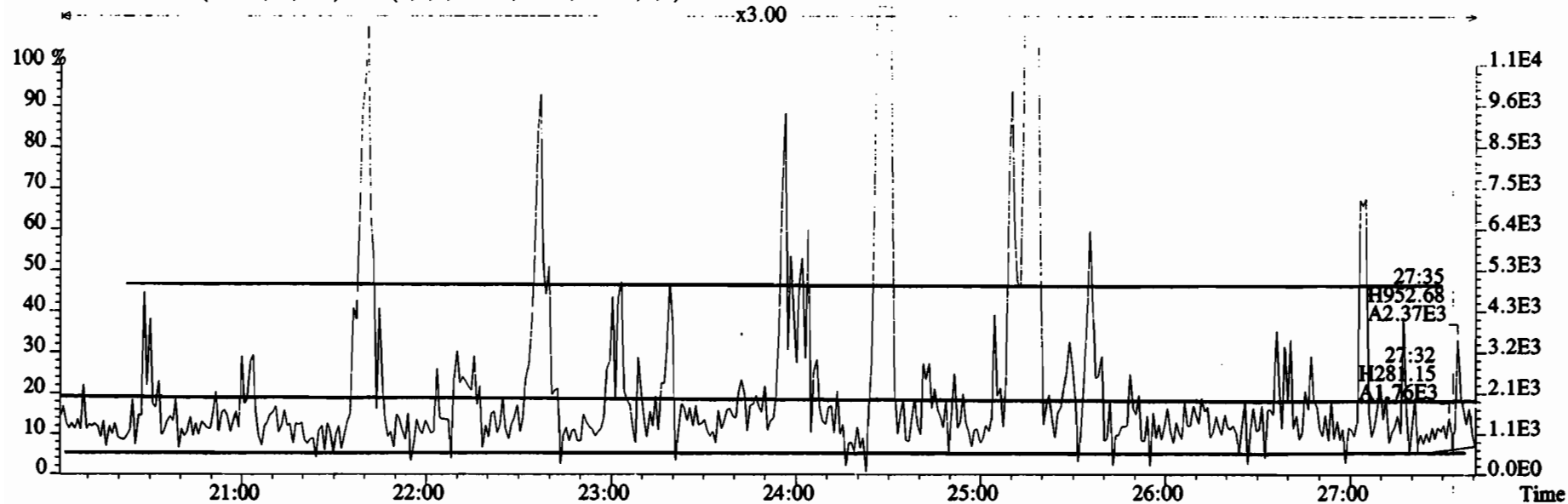
File:200107D2 #1-431 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
457.7377 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



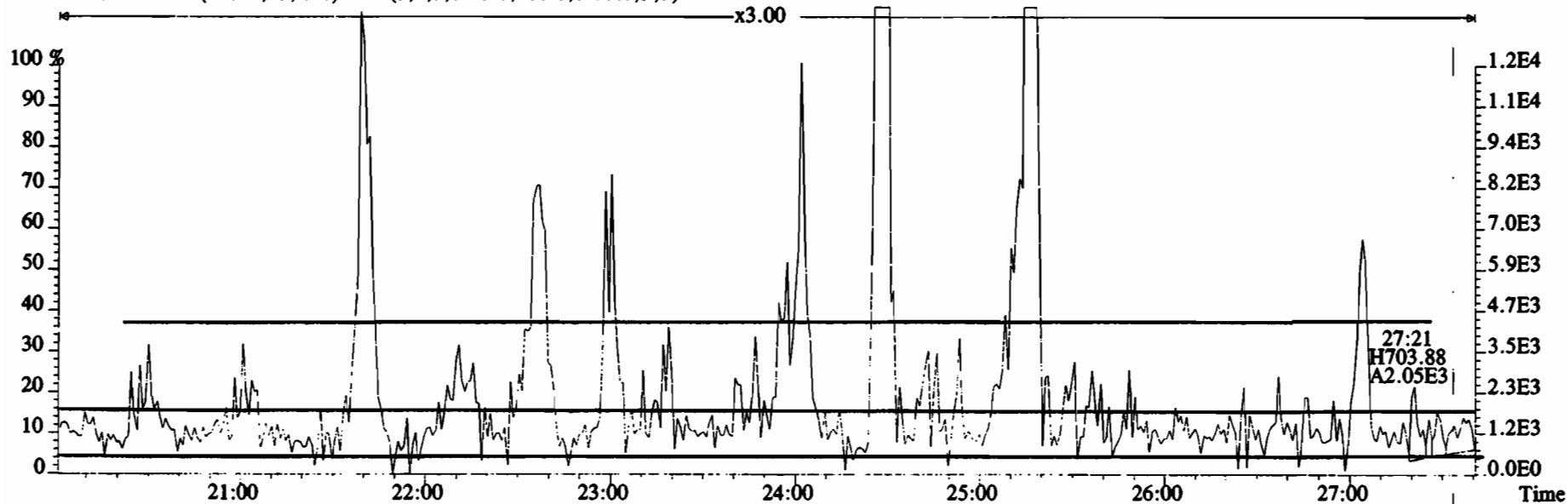
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



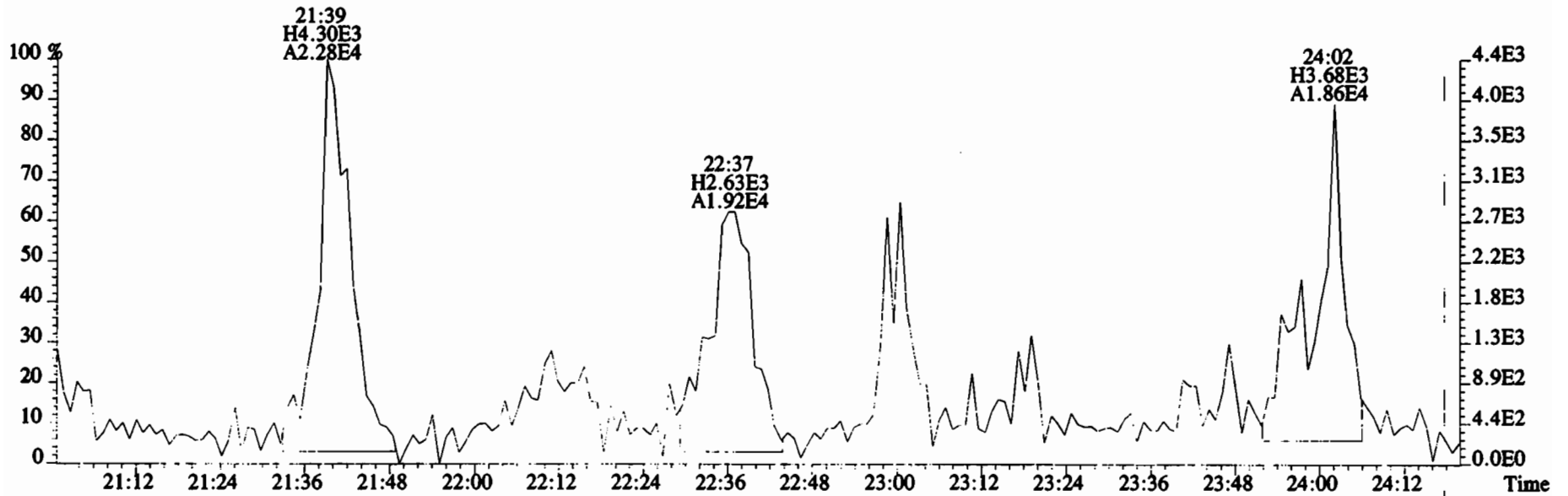
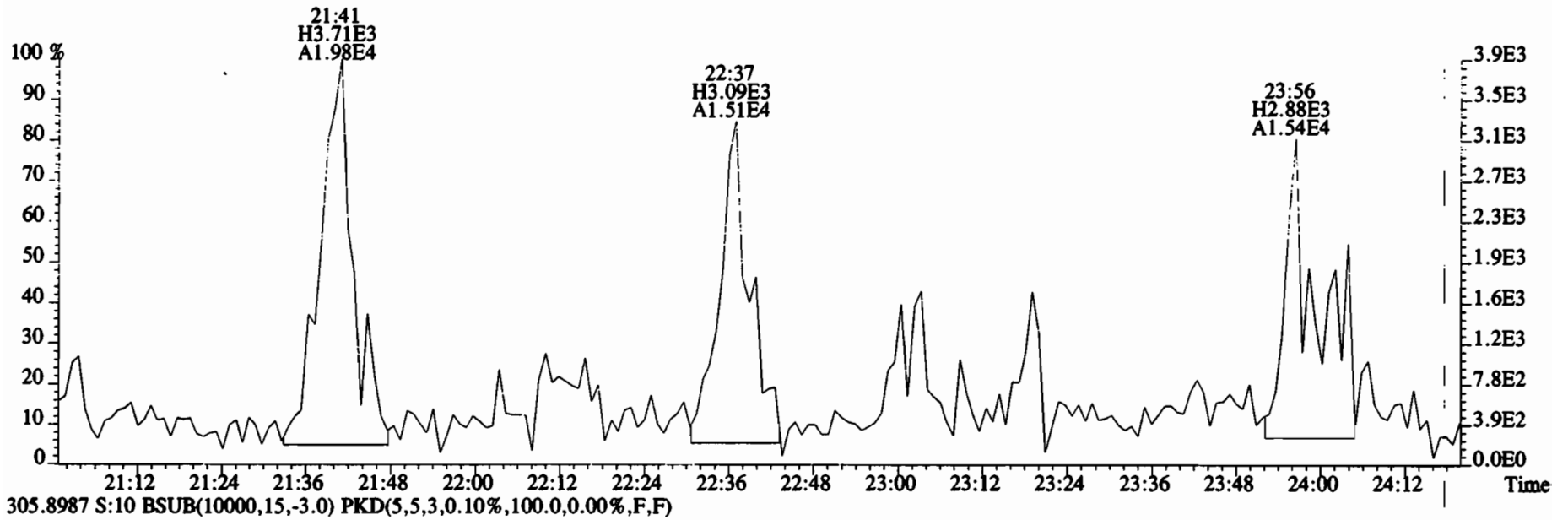
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



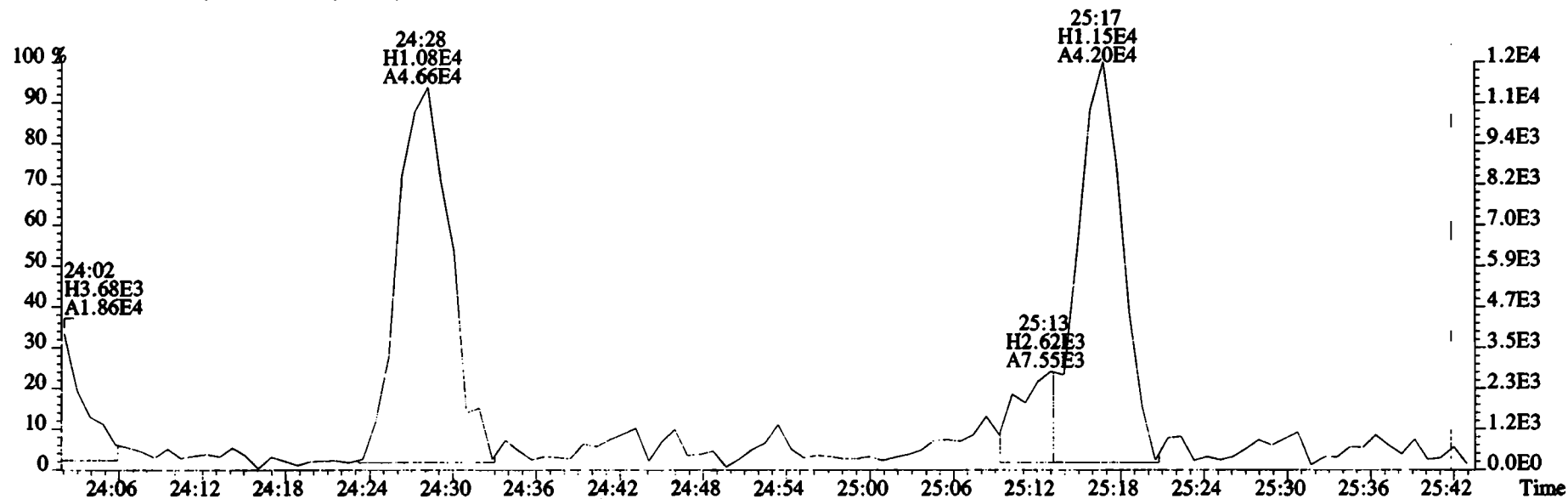
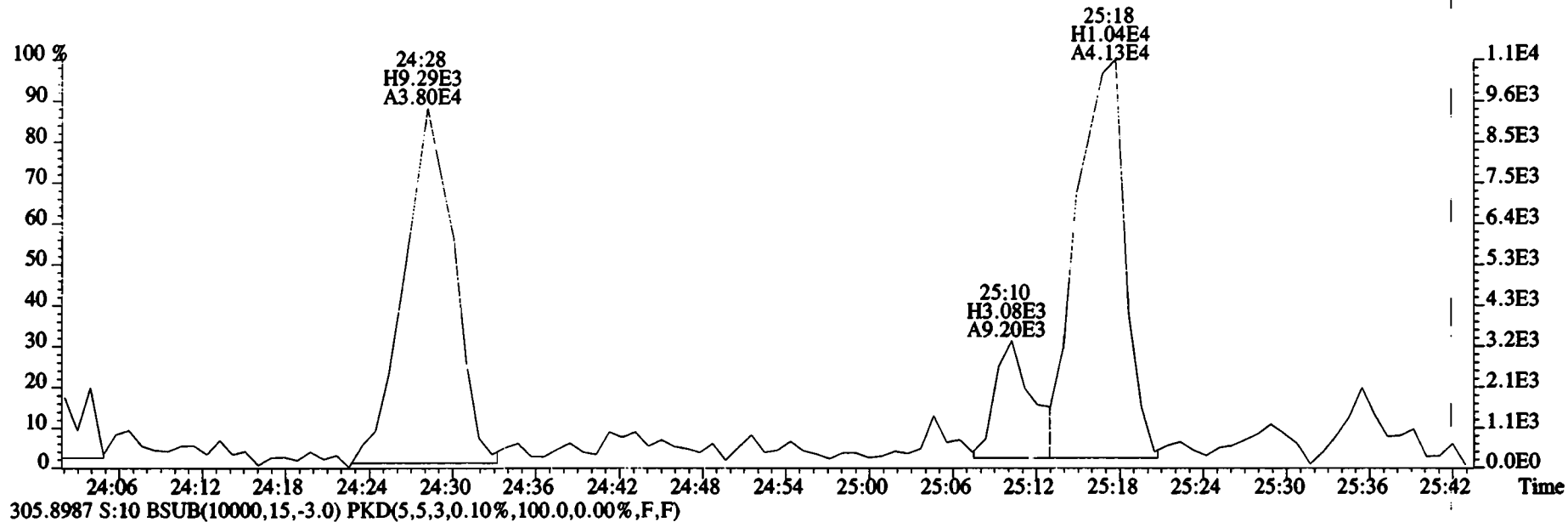
305.8987 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



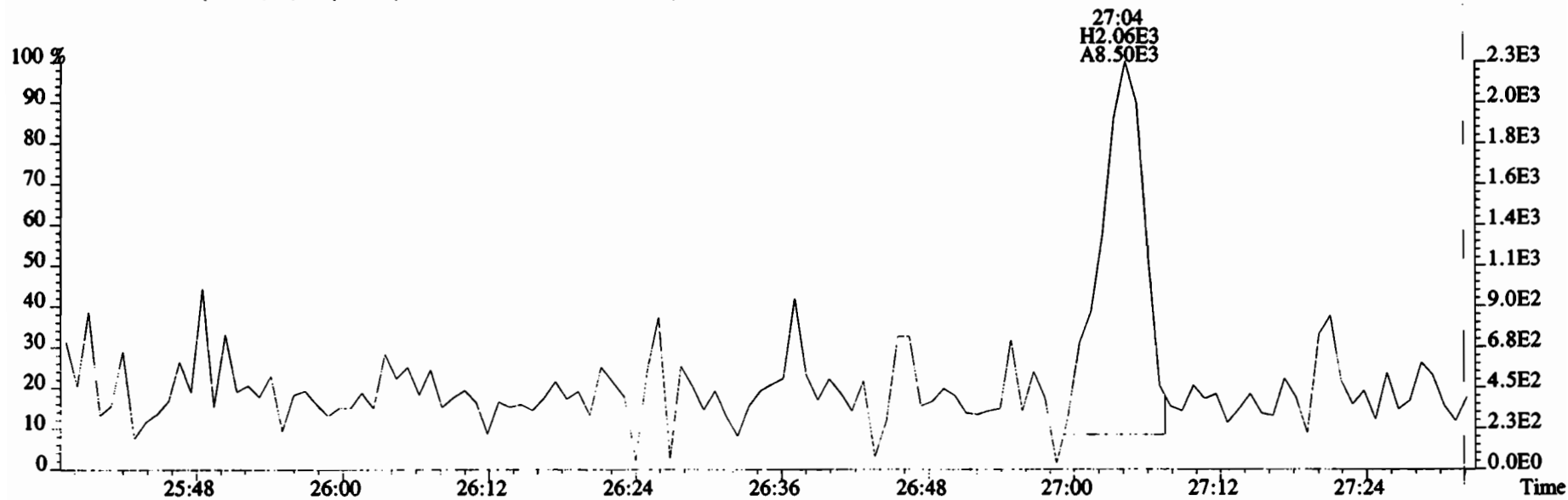
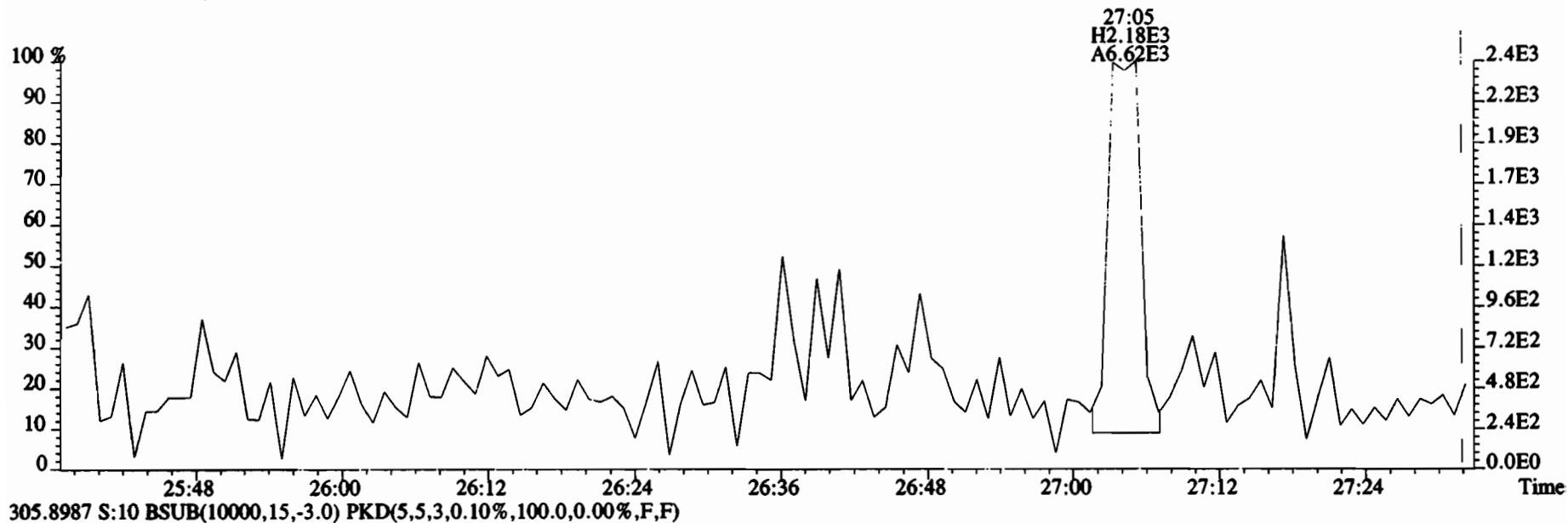
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



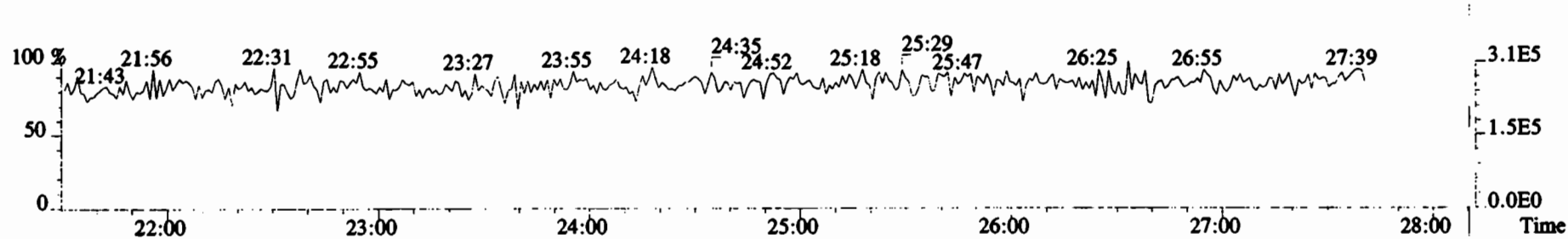
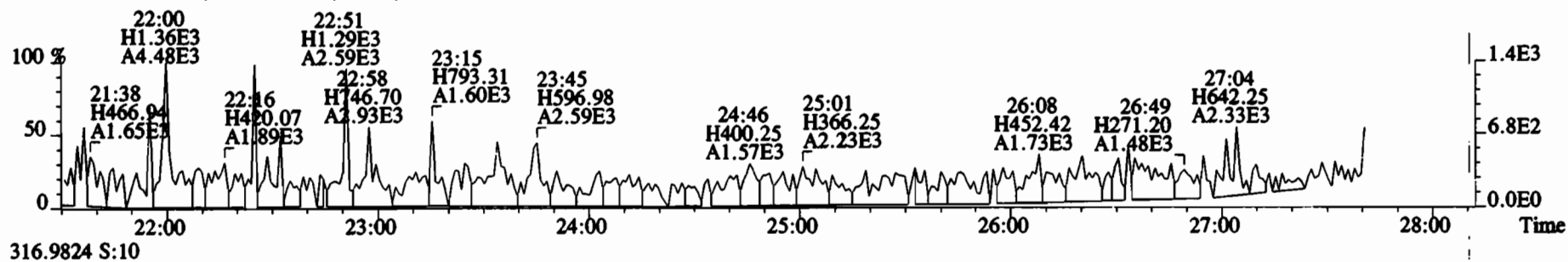
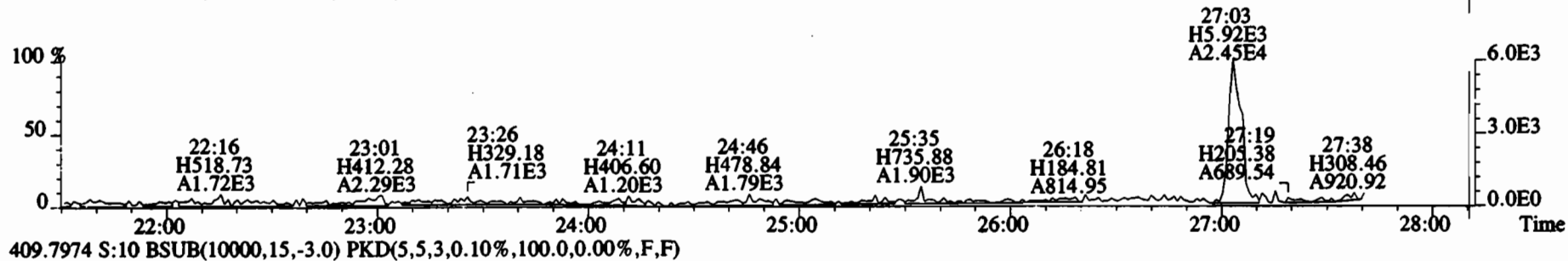
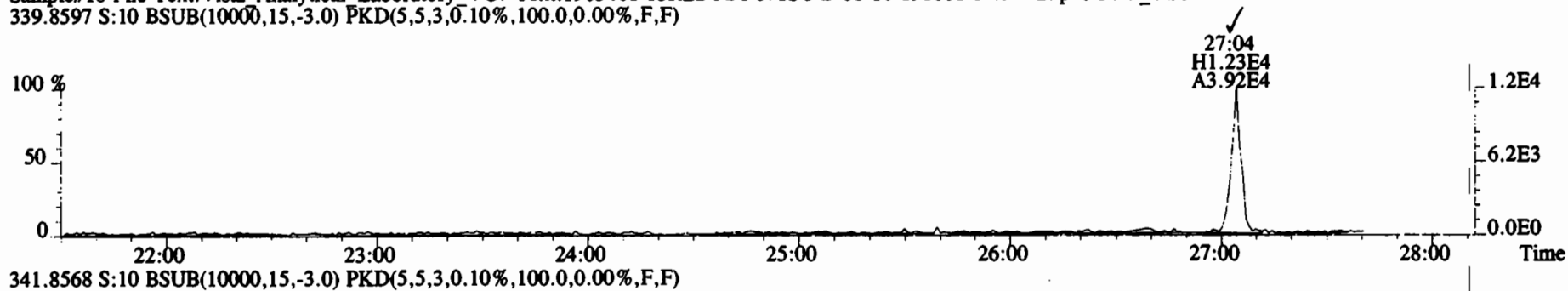
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text: Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
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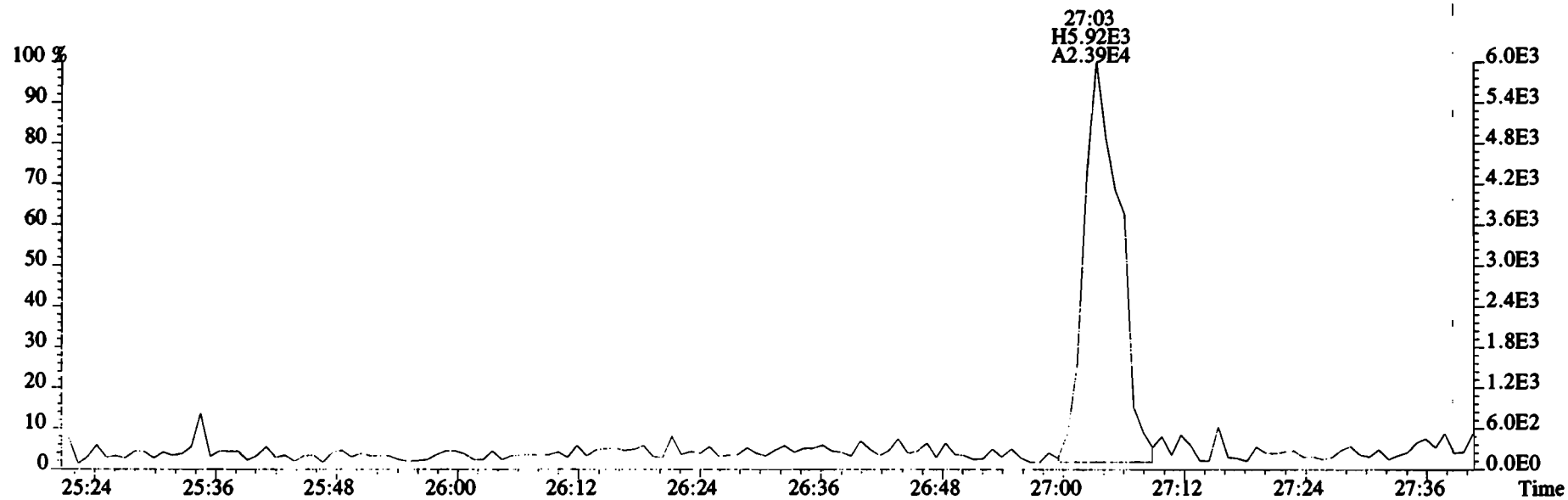
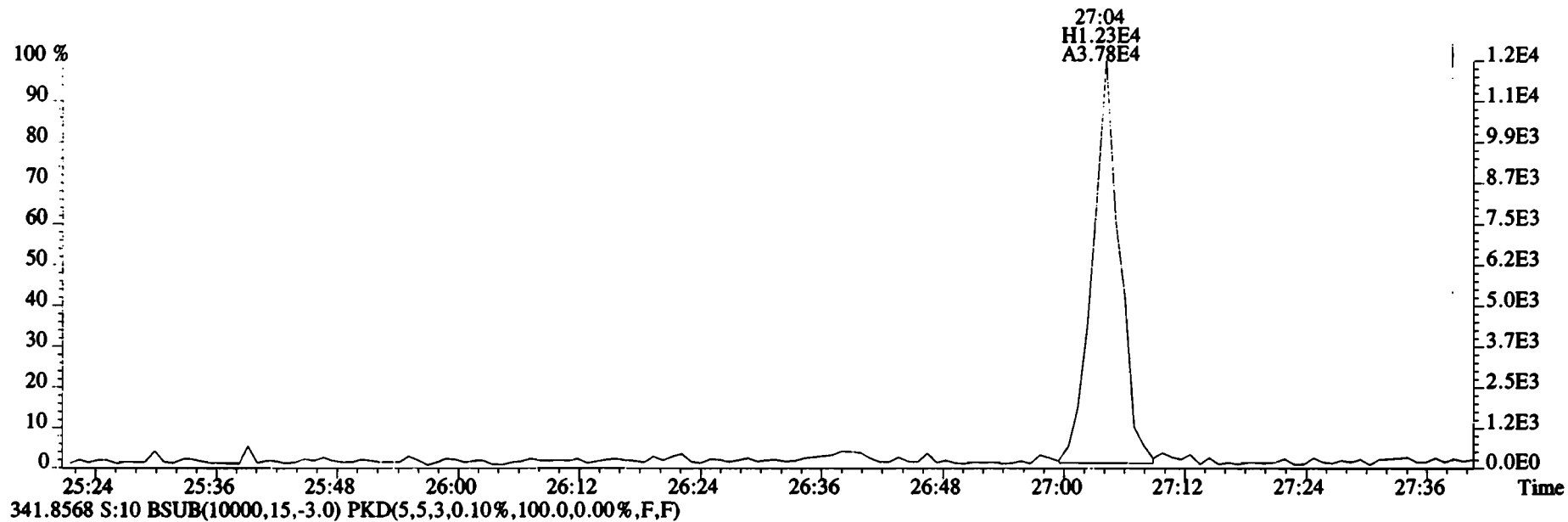


File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

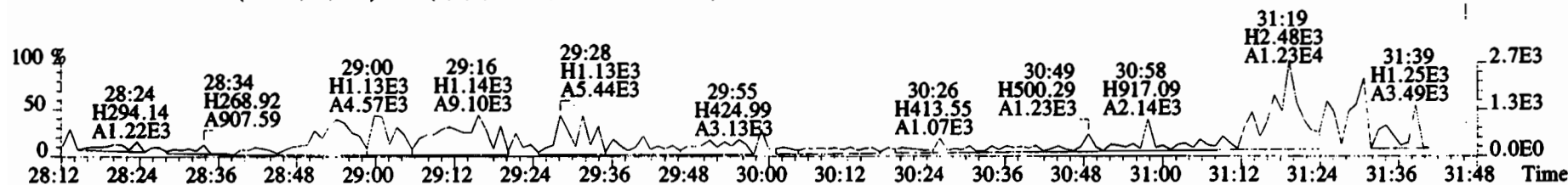
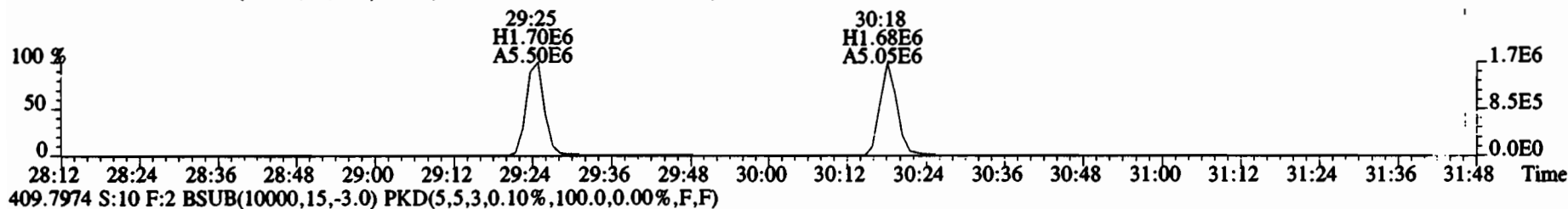
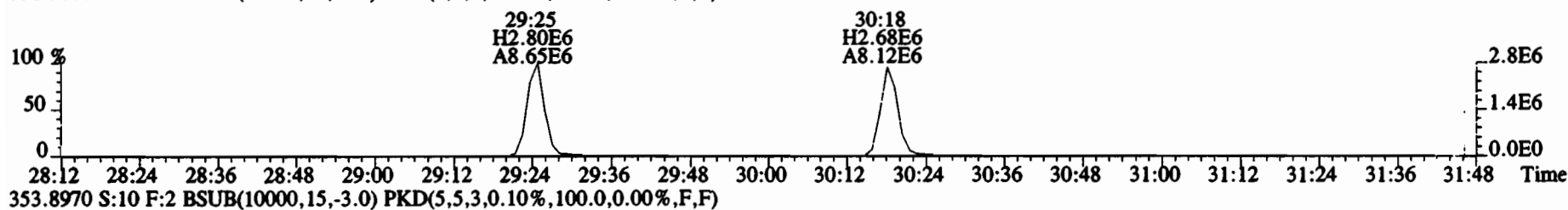
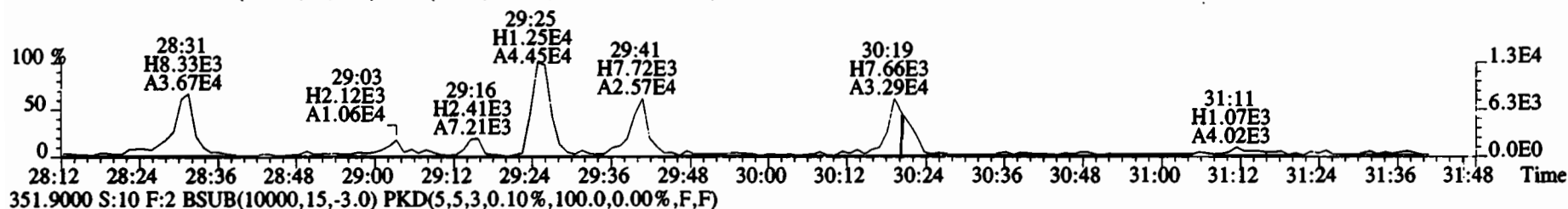
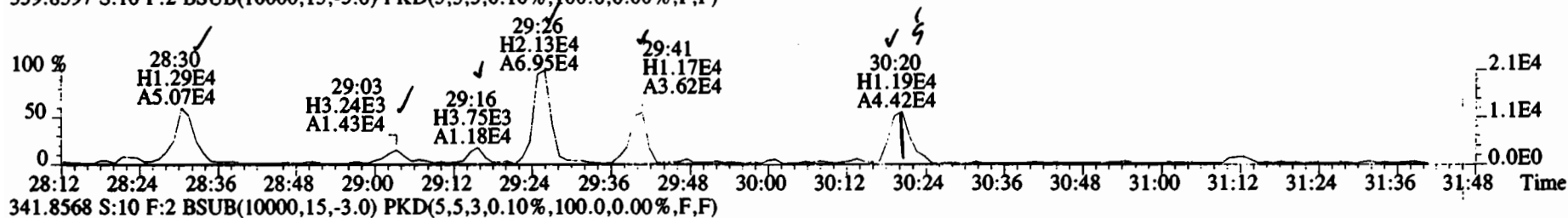




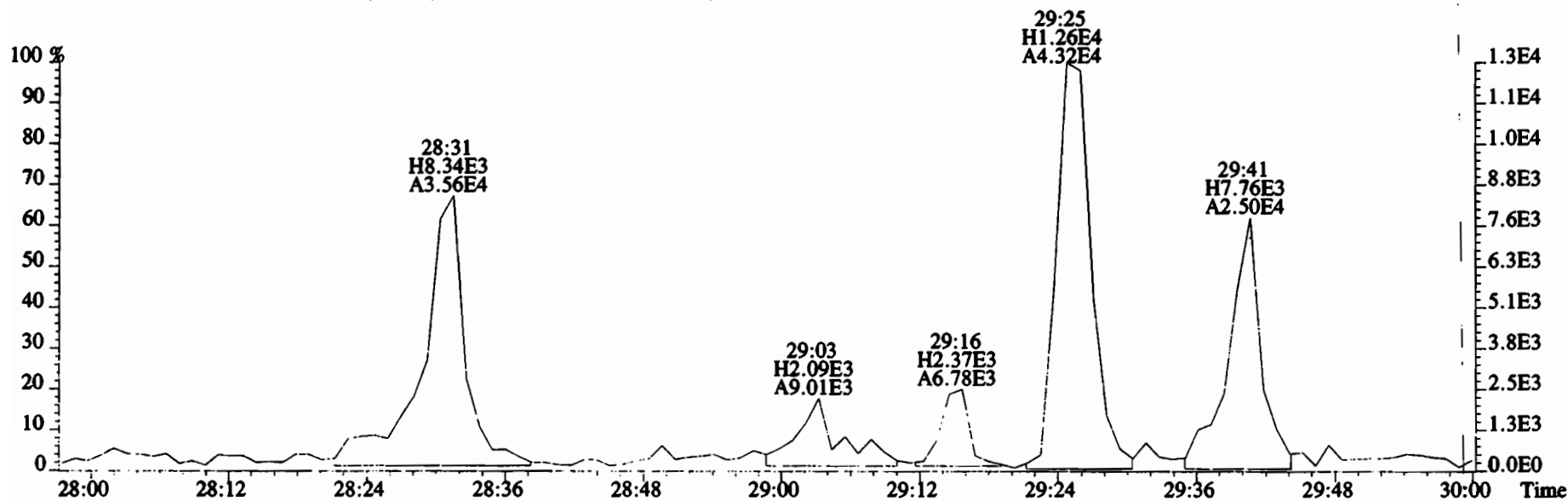
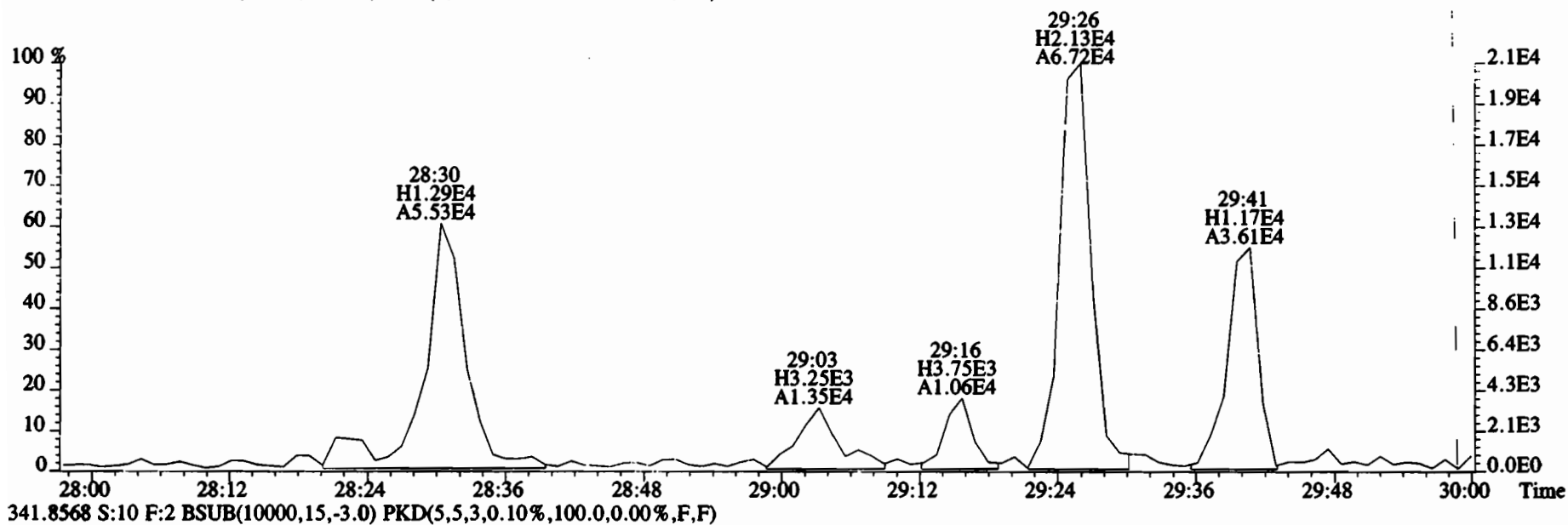
File:200107D2 #1-493 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



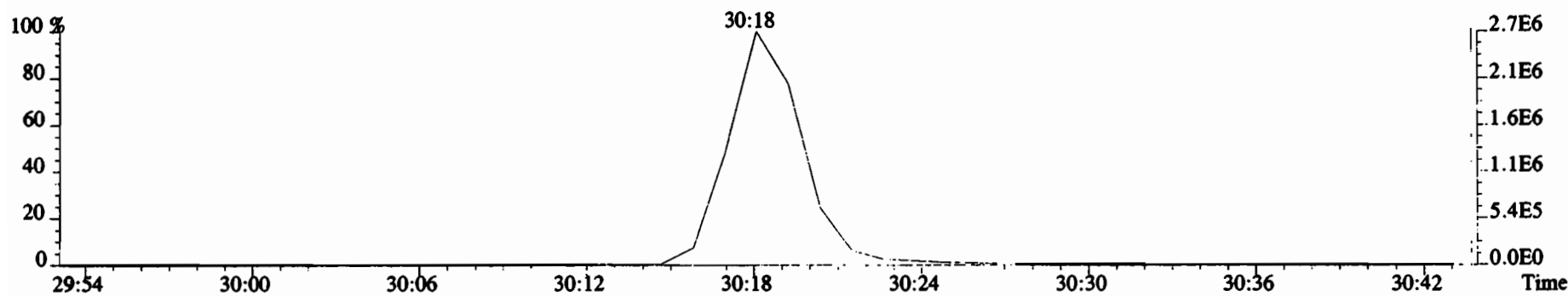
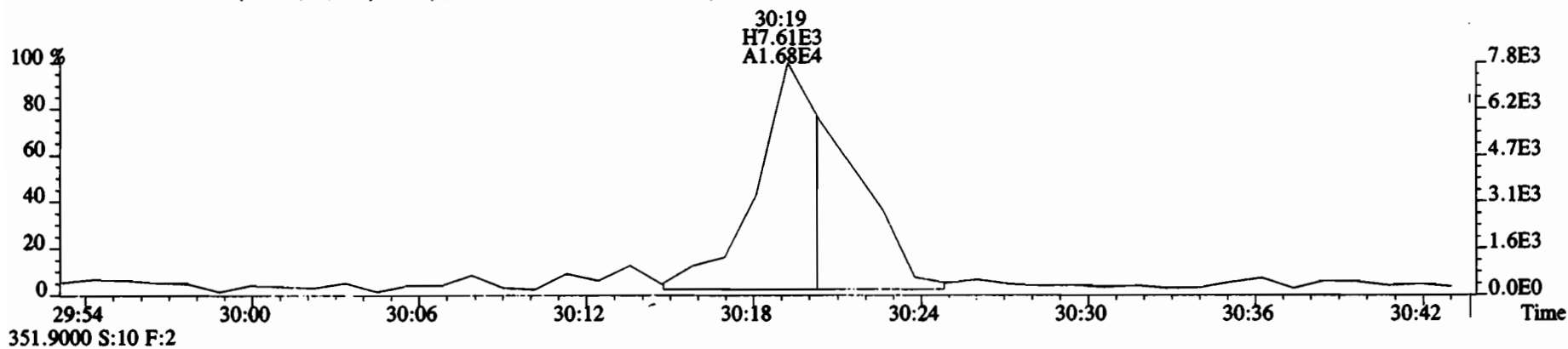
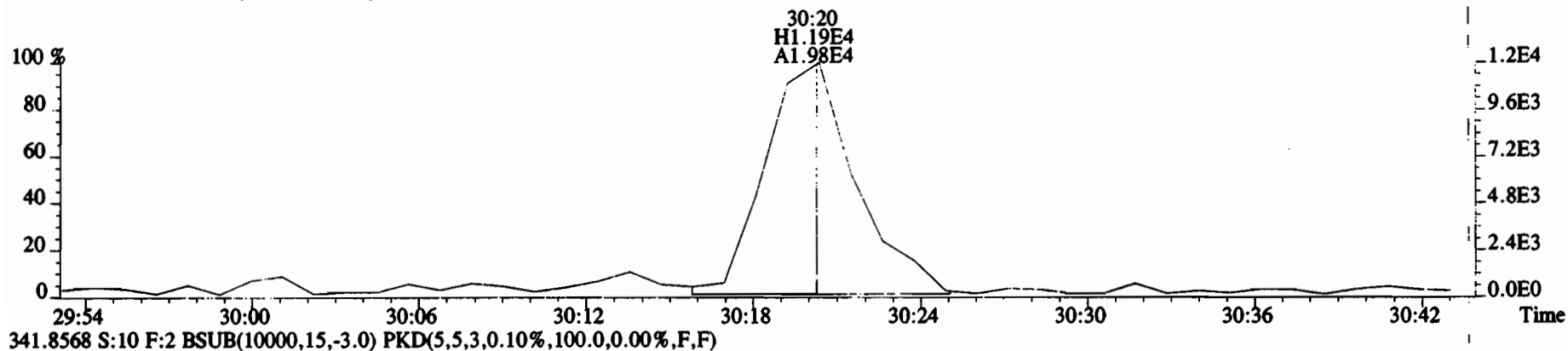
File:200107D2 #1-211 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



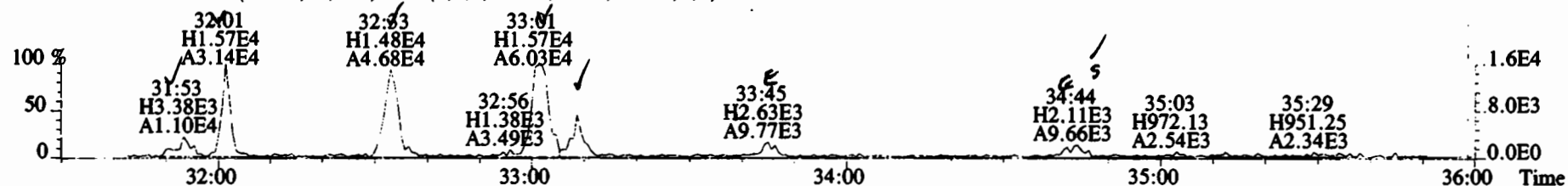
File:200107D2 #1-211 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



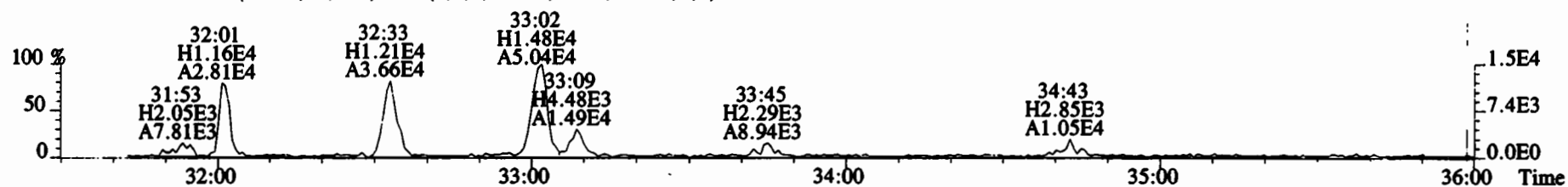
File:200107D2 #1-211 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



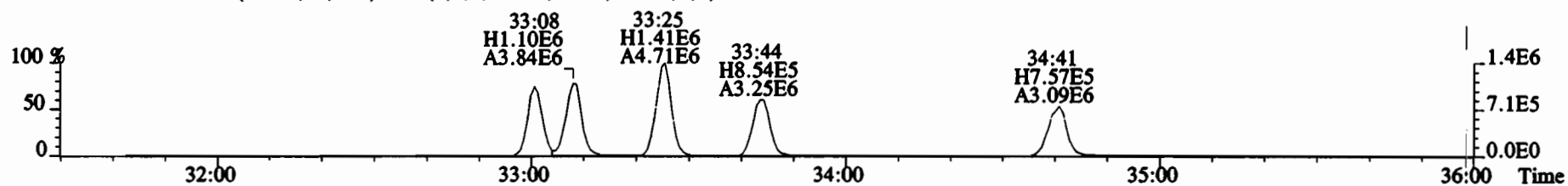
File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



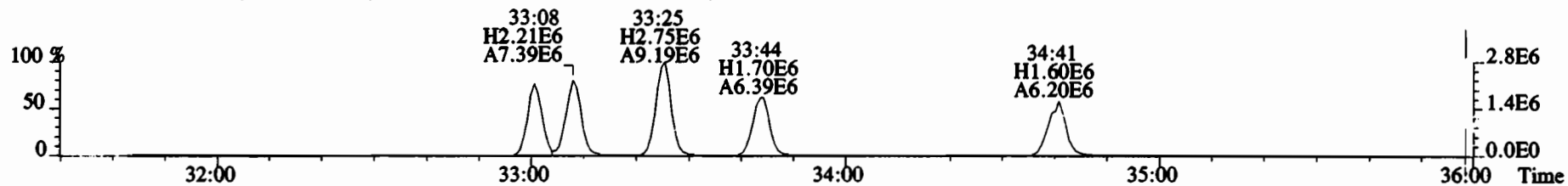
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



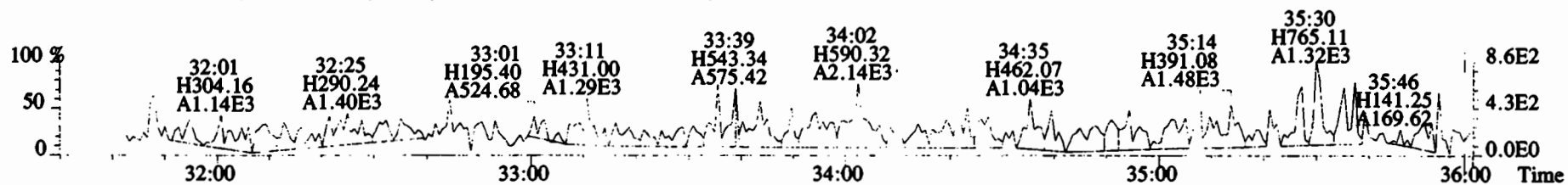
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



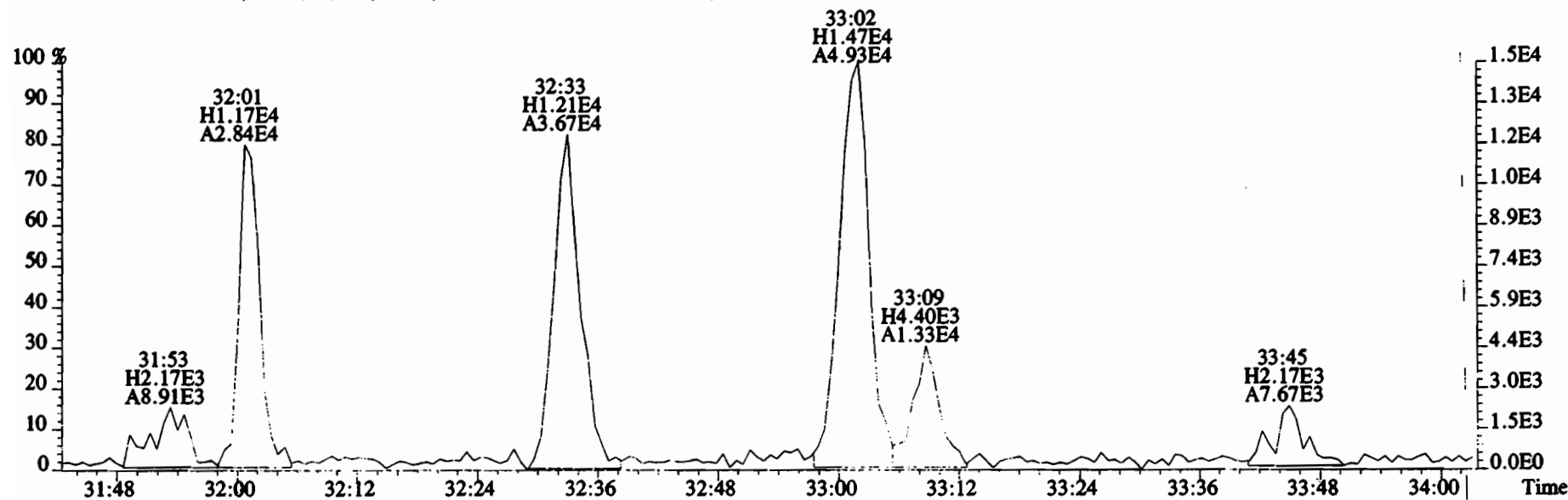
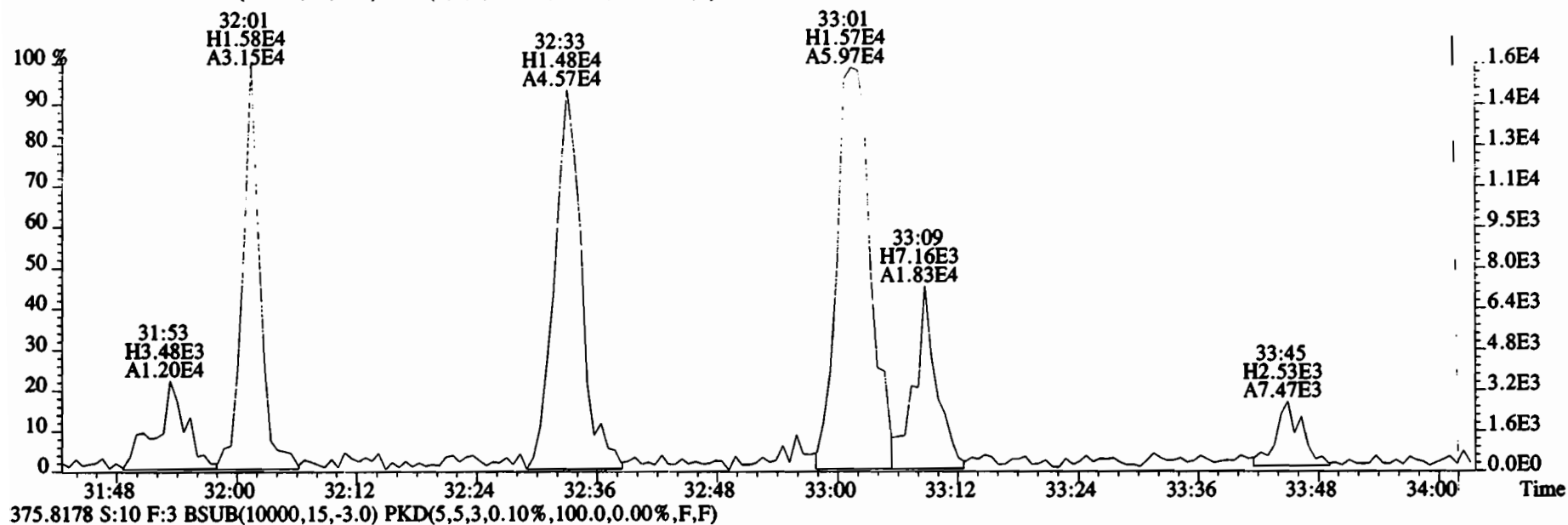
385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



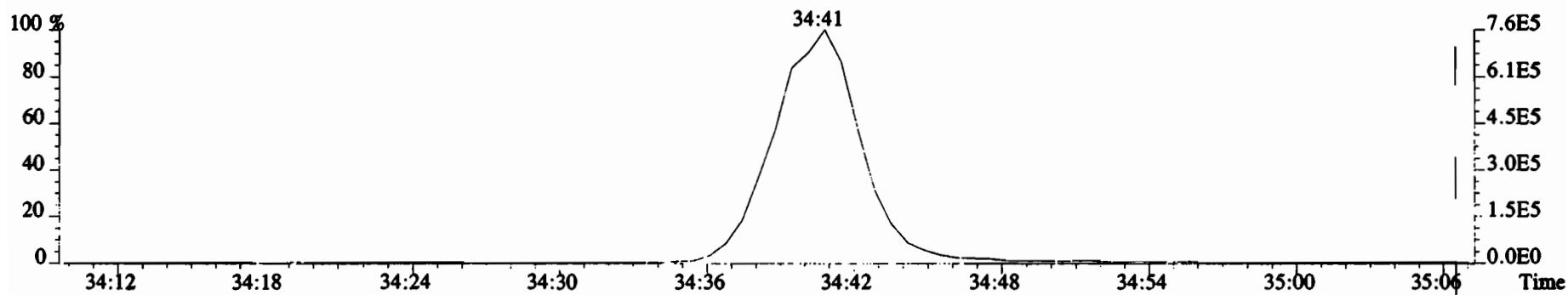
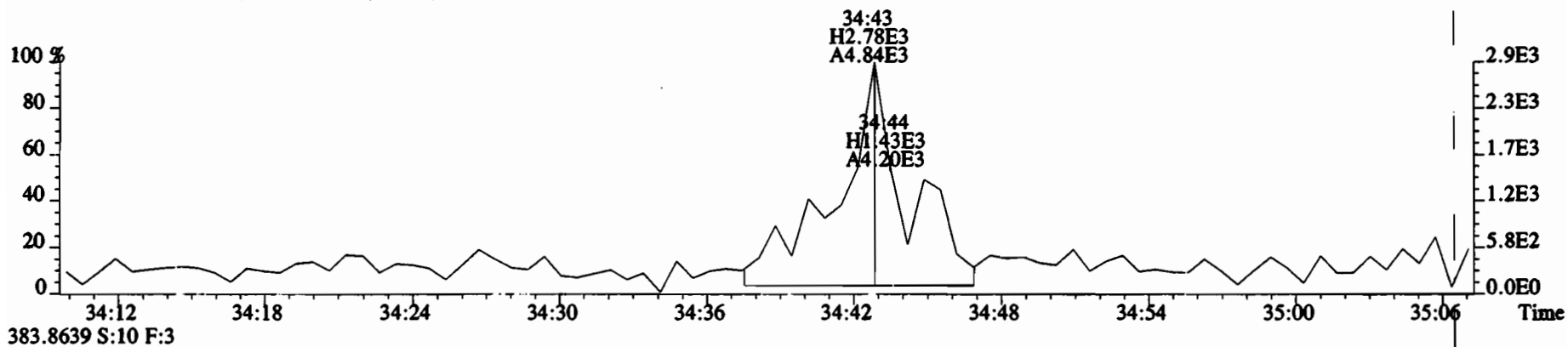
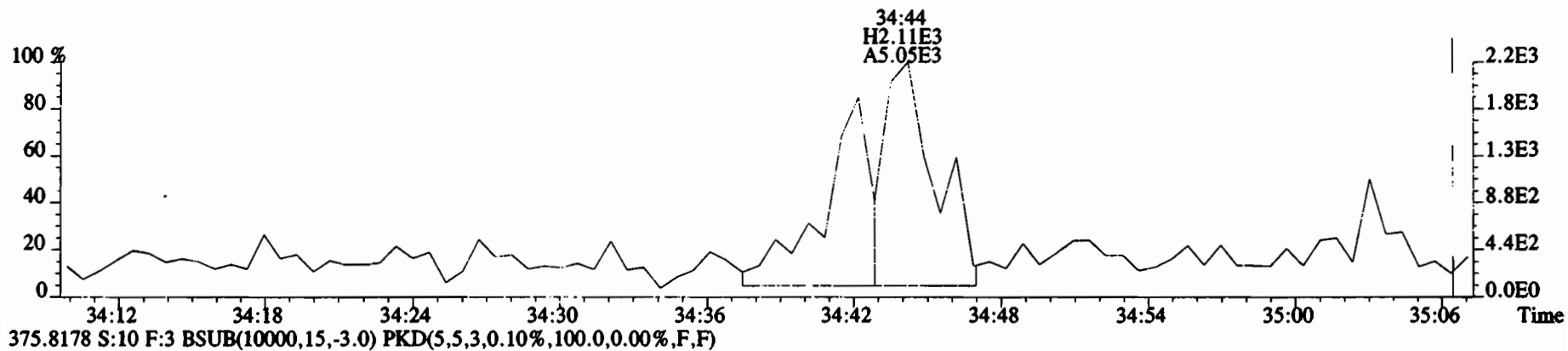
445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



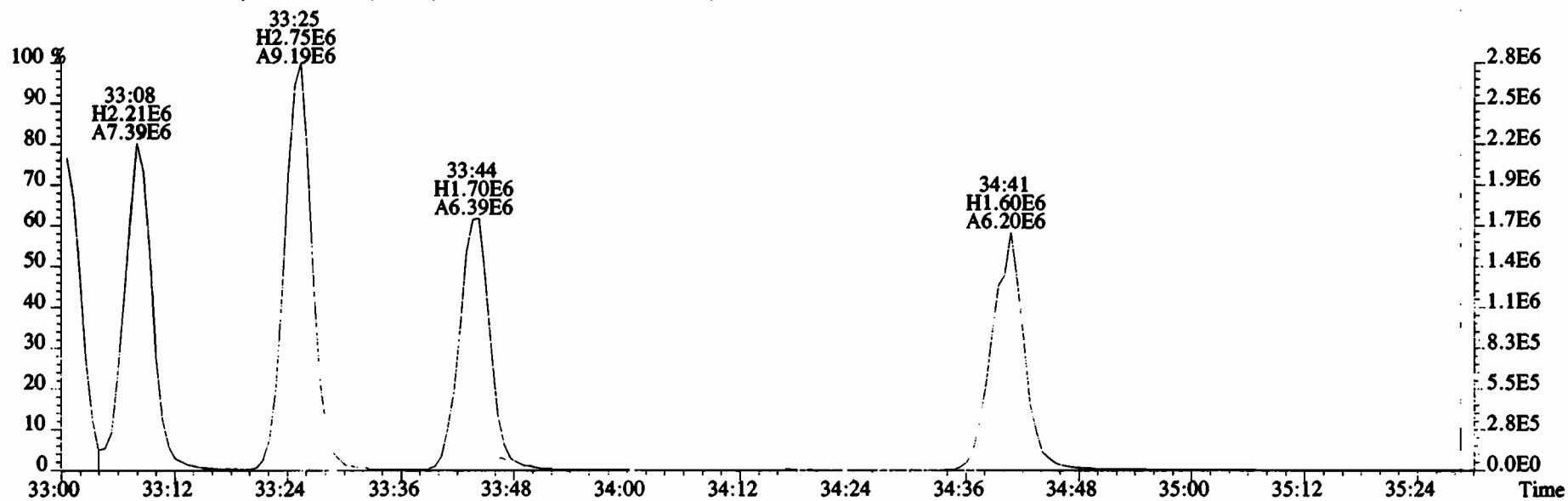
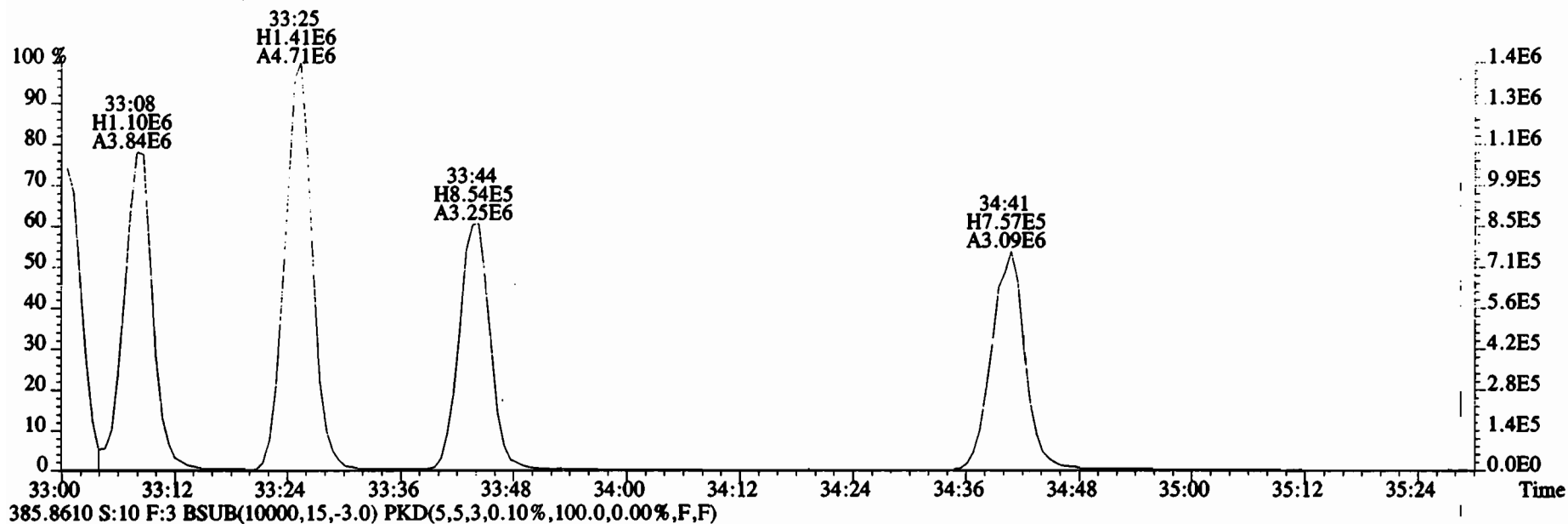
File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

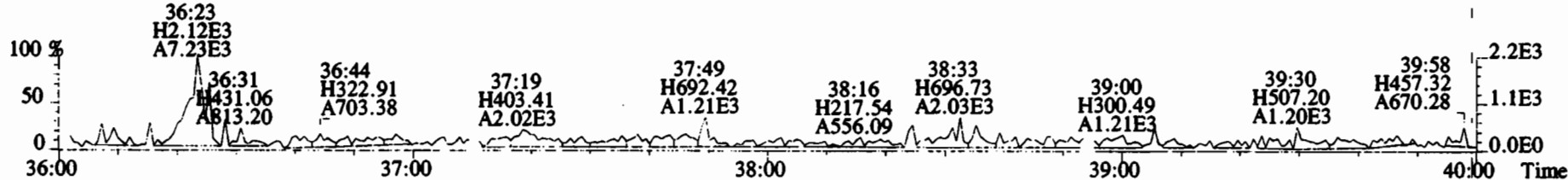
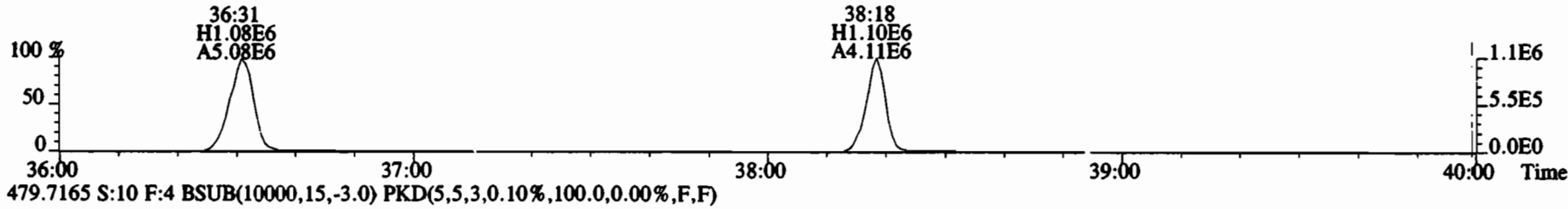
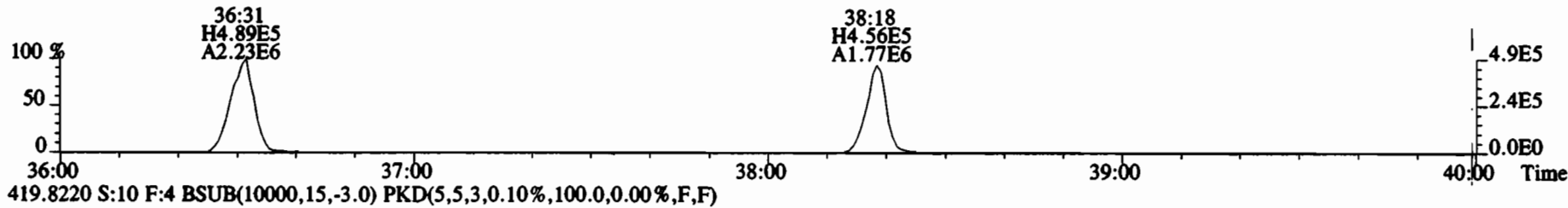
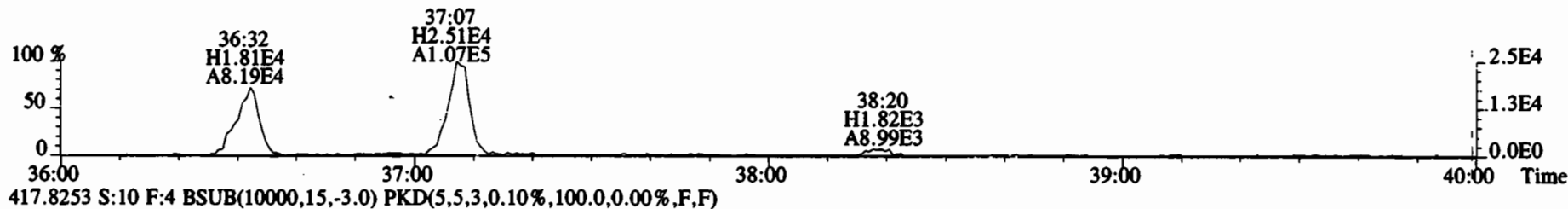
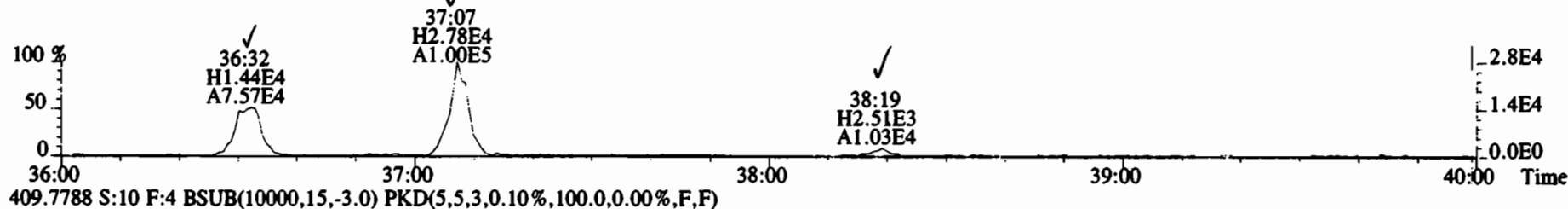


File:200107D2 #1-384 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

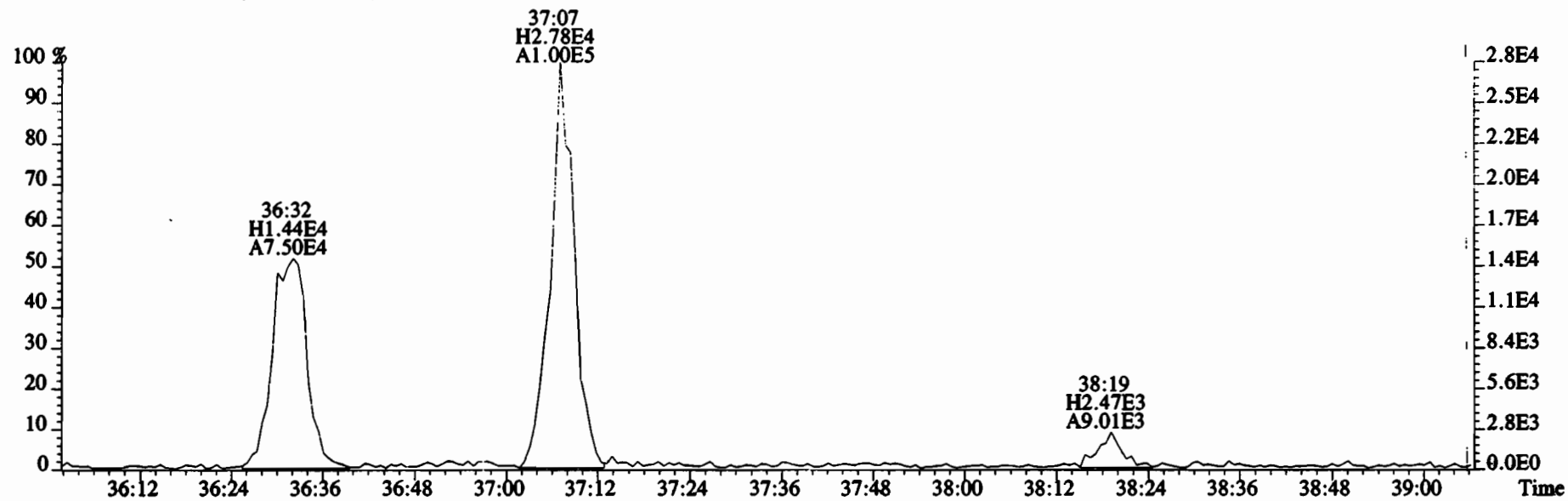




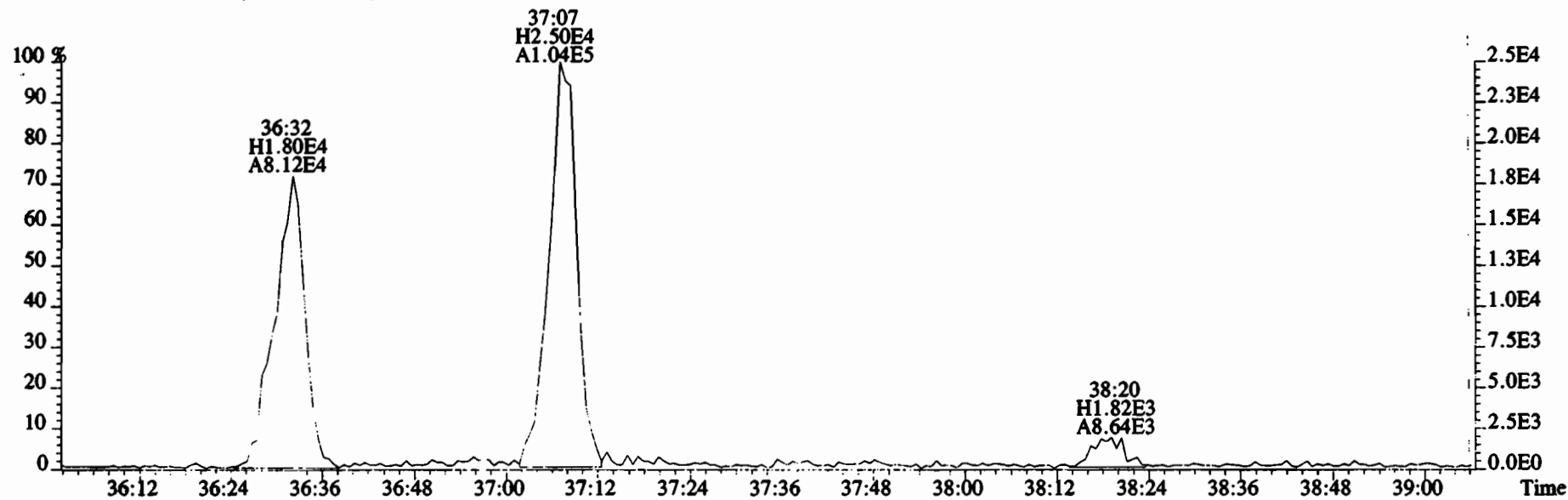
File:200107D2 #1-356 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



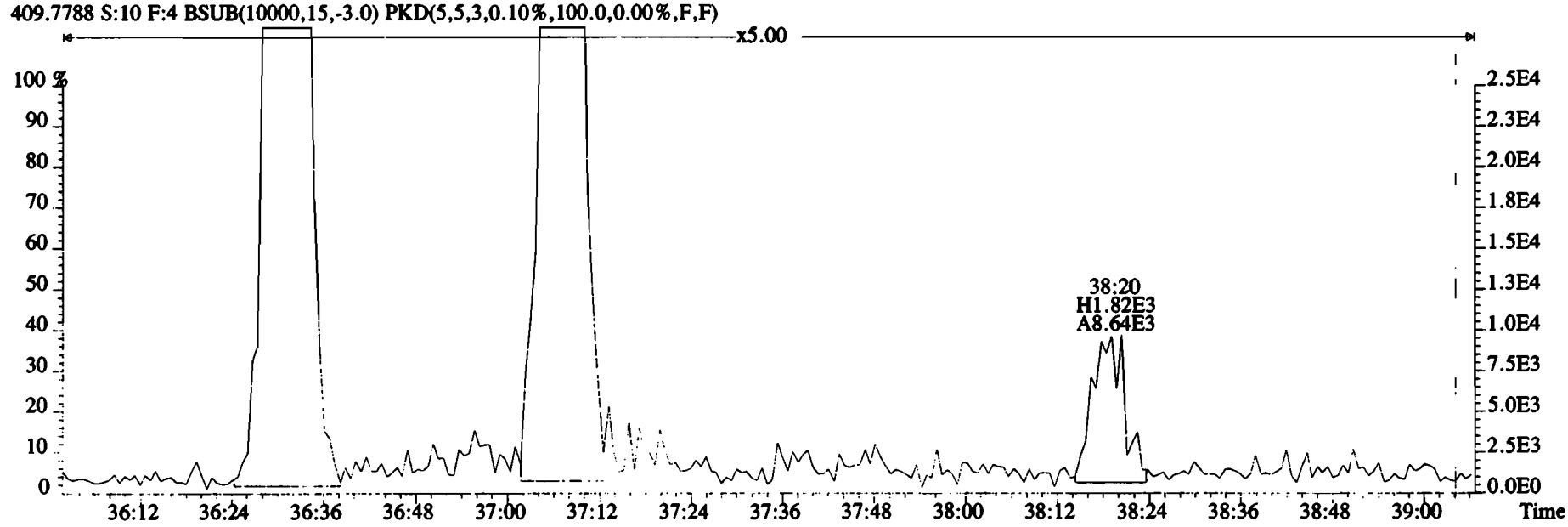
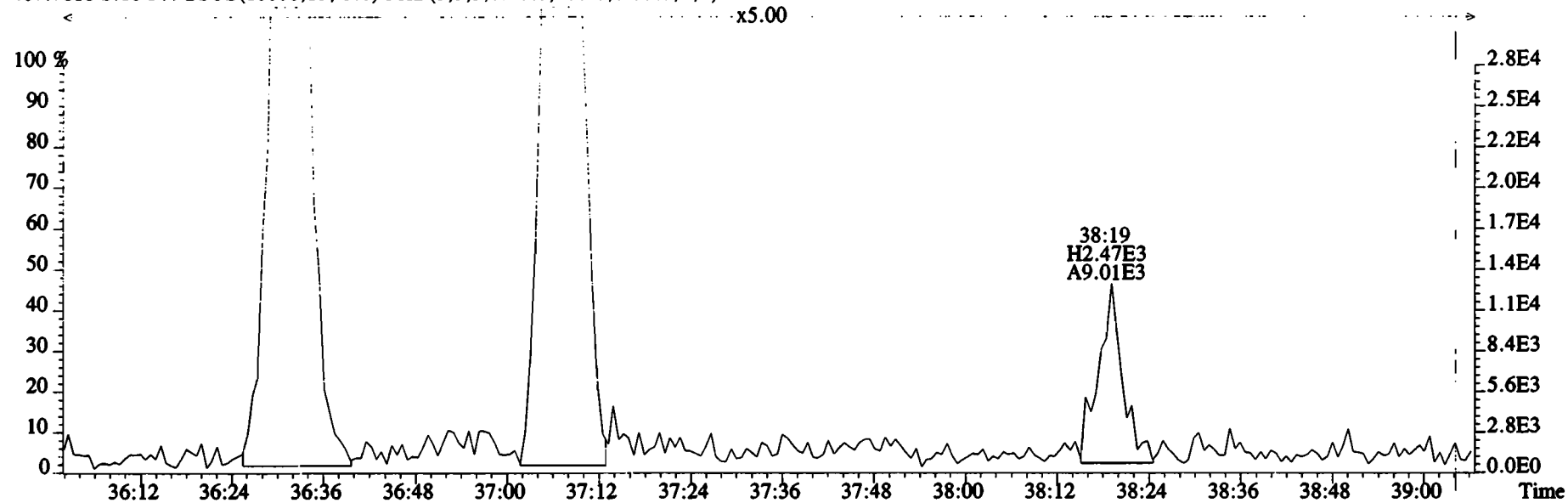
File:200107D2 #1-356 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



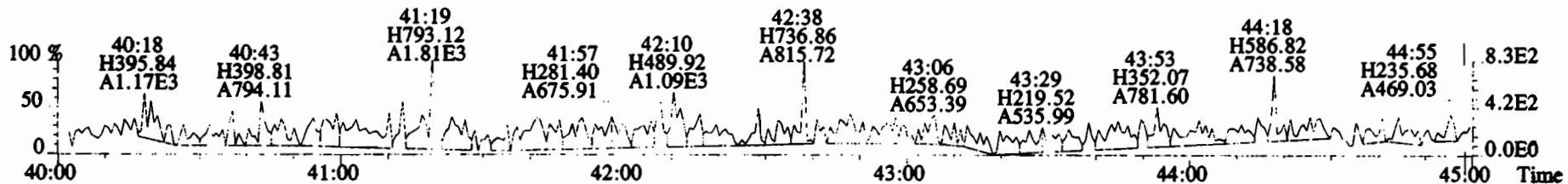
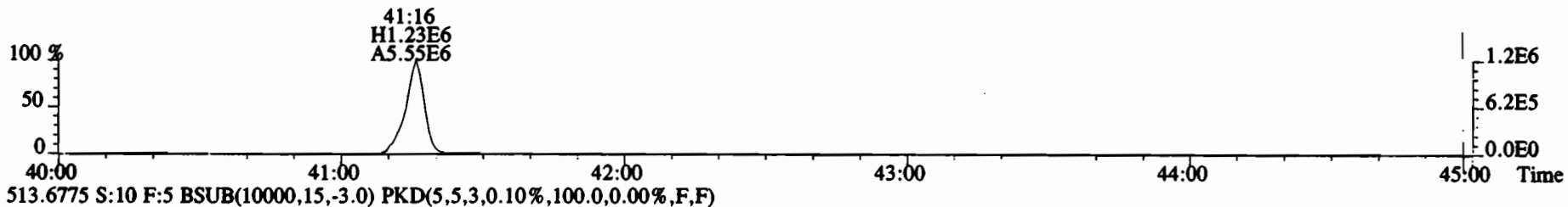
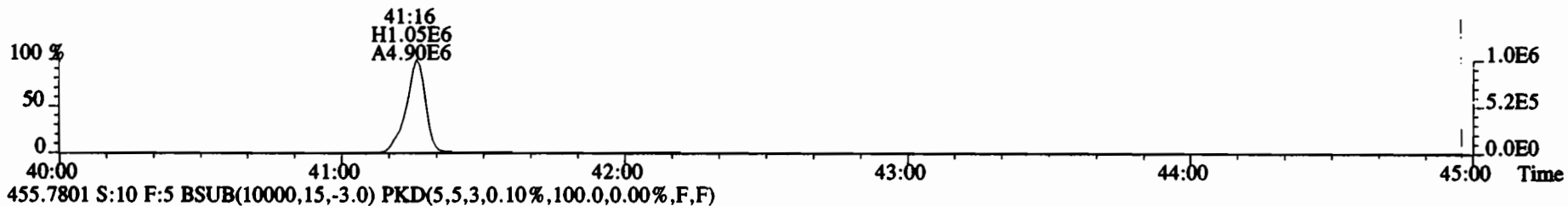
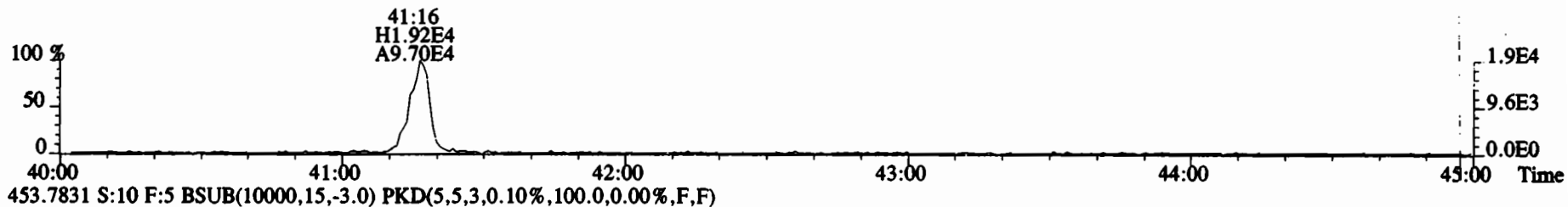
409.7788 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-356 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-431 Acq: 8-JAN-2020 05:42:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-15RE2 PDI-071SC-B-08-10-191001 14.57 Exp:OCDD\_DB5  
 441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	0.91	Not Fη	*		170	2.5	0.0534	Total Tetra-Dioxins	0.189	0.189	*	*	
1,2,3,7,8-PeCDD	*	* n	0.90	Not Fη	*		207	2.5	0.0675	Total Penta-Dioxins	*	*		207	0.0675
1,2,3,4,7,8-HxCDD	*	* n	1.10	Not Fη	*		171	2.5	0.0839	Total Hexa-Dioxins	0.595	0.817	*	*	
1,2,3,6,7,8-HxCDD	*	* n	0.94	Not Fη	*		171	2.5	0.0906	Total Hepta-Dioxins	1.56	1.56	*	*	
1,2,3,7,8,9-HxCDD	*	* n	0.96	Not Fη	*		171	2.5	0.0921	Total Tetra-Furans	*	*		176	0.0364
1,2,3,4,6,7,8-HpCDD	2.07e+04	1.15 y	0.98	37:47	0.55727		*	2.5	*	Total Penta-Furans	0.0000	0.0000		248	0.0753
OCDD	1.37e+05	1.01 y	0.96	41:03	4.3617		*	2.5	*	Total Hexa-Furans	*	*		427	0.0987
										Total Hepta-Furans	*	*		125	0.0412
2,3,7,8-TCDF	*	* n	0.95	Not Fη	*		176	2.5	0.0364						
1,2,3,7,8-PeCDF	*	* n	0.96	Not Fη	*		248	2.5	0.0772						
2,3,4,7,8-PeCDF	*	* n	1.01	Not Fη	*		248	2.5	0.0734						
1,2,3,4,7,8-HxCDF	*	* n	1.18	Not Fη	*		427	2.5	0.0805						
1,2,3,6,7,8-HxCDF	*	* n	1.07	Not Fη	*		427	2.5	0.0870						
2,3,4,6,7,8-HxCDF	*	* n	1.11	Not Fη	*		427	2.5	0.101						
1,2,3,7,8,9-HxCDF	*	* n	1.06	Not Fη	*		427	2.5	0.131						
1,2,3,4,6,7,8-HpCDF	*	* n	1.13	Not Fη	*		125	2.5	0.0416						
1,2,3,4,7,8,9-HpCDF	*	* n	1.28	Not Fη	*		125	2.5	0.0406						
OCDF	*	* n	0.95	Not Fη	*		146	2.5	0.0795						
IS	13C-2,3,7,8-TCDD	1.15e+07	0.78 y	1.10	26:02	194.69				Rec					
IS	13C-1,2,3,7,8-PeCDD	8.54e+06	0.63 y	0.88	30:36	179.30				101					
IS	13C-1,2,3,4,7,8-HxCDD	7.28e+06	1.28 y	0.64	33:54	187.23				92.6					
IS	13C-1,2,3,6,7,8-HxCDD	8.61e+06	1.30 y	0.86	34:00	166.10				96.7					
IS	13C-1,2,3,7,8,9-HxCDD	8.63e+06	1.27 y	0.81	34:19	176.67				85.7					
IS	13C-1,2,3,4,6,7,8-HpCDD	7.33e+06	1.06 y	0.65	37:47	185.09				91.2					
IS	13C-OCDD	1.27e+07	0.91 y	0.58	41:02	360.82				95.6					
IS	13C-2,3,7,8-TCDF	1.77e+07	0.80 y	1.03	25:15	188.27				93.1					
IS	13C-1,2,3,7,8-PeCDF	1.36e+07	1.58 y	0.85	29:25	175.59				97.2					
IS	13C-2,3,4,7,8-PeCDF	1.34e+07	1.60 y	0.85	30:19	174.50				90.6					
IS	13C-1,2,3,4,7,8-HxCDF	1.06e+07	0.51 y	0.83	33:01	209.57				90.1					
IS	13C-1,2,3,6,7,8-HxCDF	1.21e+07	0.51 y	1.03	33:08	193.65				108					
IS	13C-2,3,4,6,7,8-HxCDF	1.09e+07	0.51 y	0.95	33:44	188.82				100.0					
IS	13C-1,2,3,7,8,9-HxCDF	9.92e+06	0.51 y	0.83	34:41	197.74				97.5					
IS	13C-1,2,3,4,6,7,8-HpCDF	8.79e+06	0.44 y	0.76	36:31	191.57				102					
IS	13C-1,2,3,4,7,8,9-HpCDF	7.01e+06	0.43 y	0.58	38:19	198.98				98.9					
IS	13C-OCDF	1.63e+07	0.89 y	0.69	41:15	389.50				103					
C/Up	37Cl-2,3,7,8-TCDD	5.01e+06		1.20	26:03	77.365				99.8					
RS/RT	13C-1,2,3,4-TCDD	1.05e+07	0.80 y	1.00	25:28	193.71									
RS	13C-1,2,3,4-TCDF	1.76e+07	0.80 y	1.00	24:01	193.71									
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.17e+07	0.50 y	1.00	33:25	193.71									

Integrations  
 by  
 Analyst: DB  
 Date: 1/9/20  
 Reviewed  
 by  
 Analyst: OT  
 Date: 01/16/2020

Totals class: TCDD EMPC

Entry #: 19

Run: 16

File: 200107D2

S: 11 I: 1 F: 1

Acquired: 8-JAN-20 06:30:23

Processed: 8-JAN-20 10:10:03

Total Concentration: 0.18944

Unnamed Concentration: 0.189

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
24:09	4.488e+03	5.717e+03	0.78 y	1.021e+04	0.18944

Totals class: HxCDD EMPC

Entry #: 23

Run: 16 File: 200107D2 S: 11 I: 1 F: 3  
Acquired: 8-JAN-20 06:30:23 Processed: 8-JAN-20 10:10:03

Total Concentration: 0.81695

Unnamed Concentration: 0.817

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
32:24	9.498e+03	8.247e+03	1.15 y	1.775e+04	0.42397
32:58	4.207e+03	2.967e+03	1.42 y	7.174e+03	0.17141
33:13	6.501e+03	4.140e+03	1.57 n	9.274e+03	0.22158

Totals class: HpCDD EMPC

Entry #: 25

Run: 16 File: 200107D2 S: 11 I: 1 F: 4  
Acquired: 8-JAN-20 06:30:23 Processed: 8-JAN-20 10:10:03

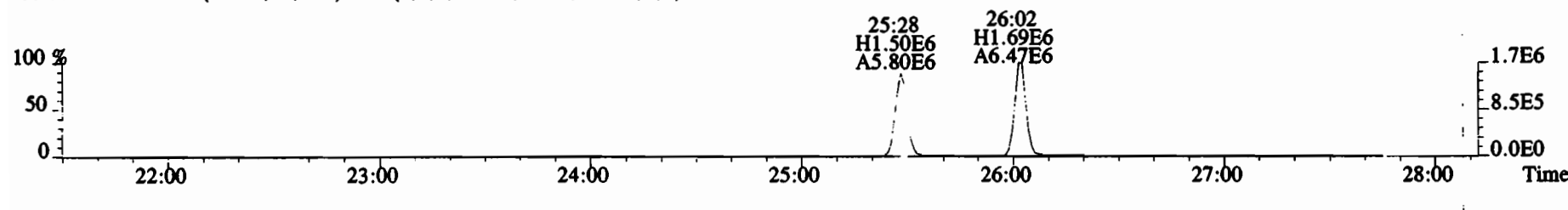
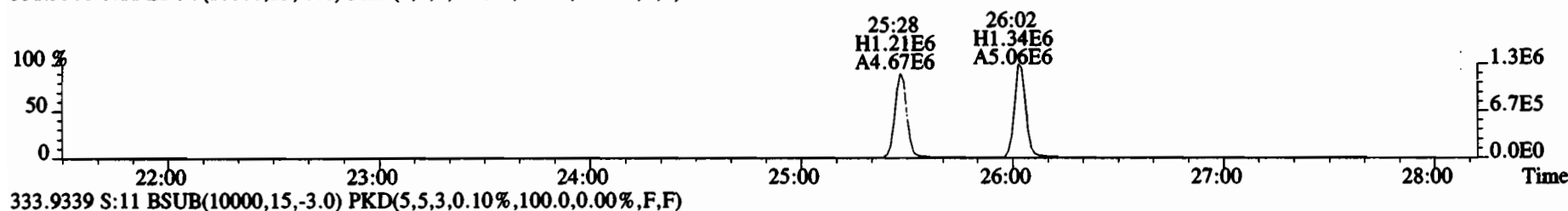
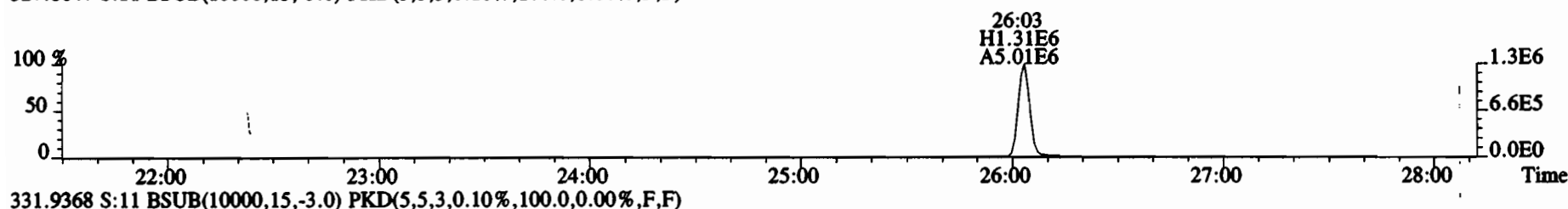
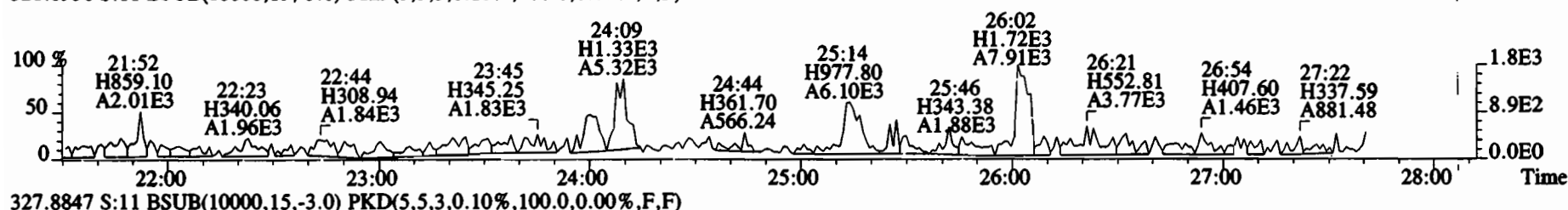
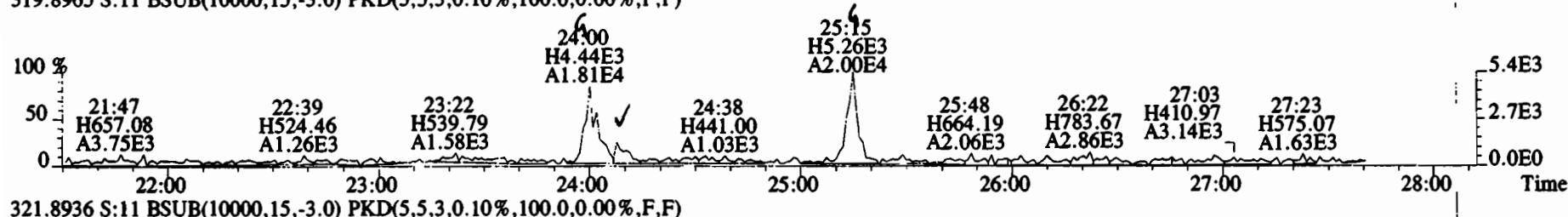
Total Concentration: 1.5624

Unnamed Concentration: 1.005

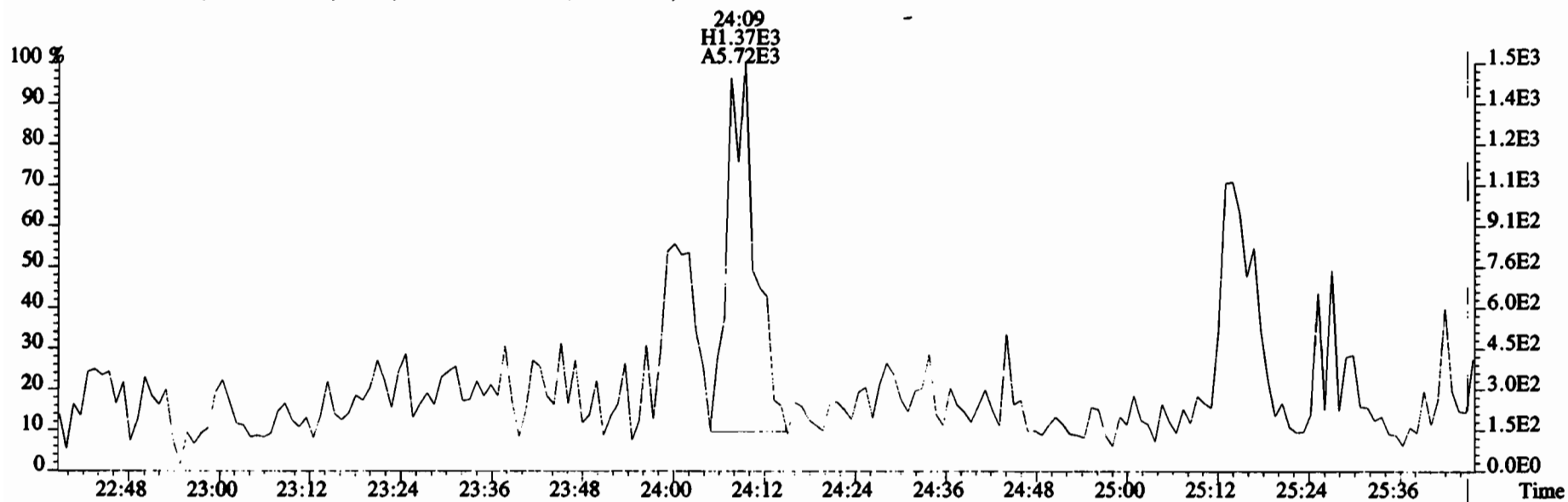
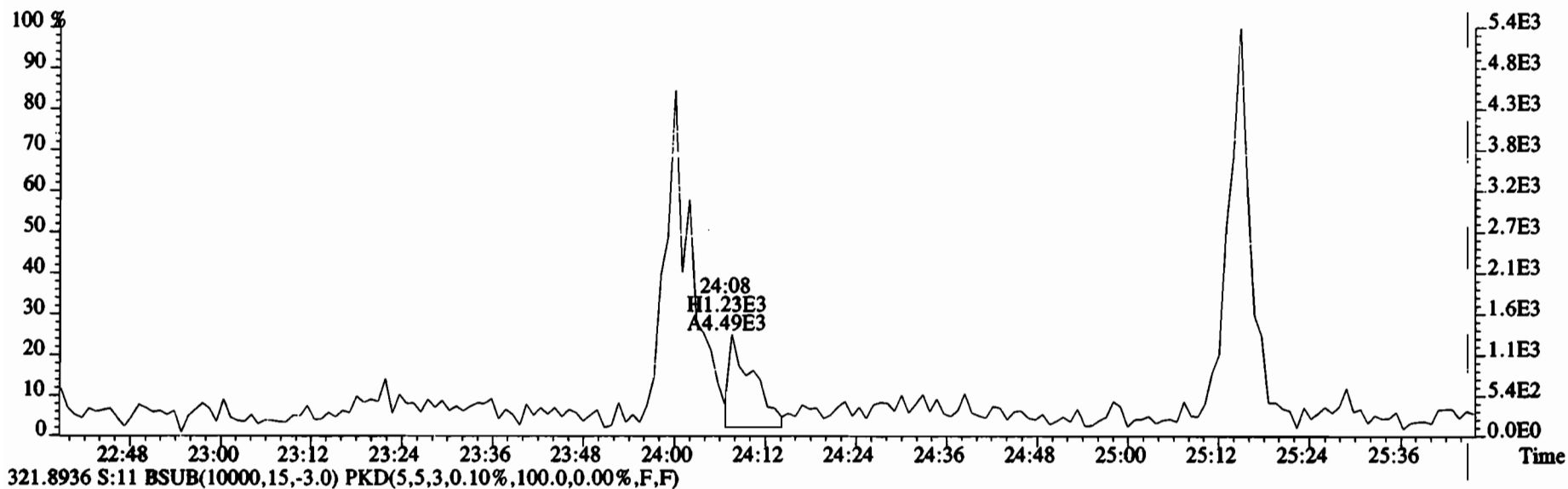
RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
36:56	1.809e+04	1.917e+04	0.94 y	3.726e+04	1.0051
37:47	1.106e+04	9.605e+03	1.15 y	2.066e+04	0.55727 1,2,3,4,6,7,8-HpCDD



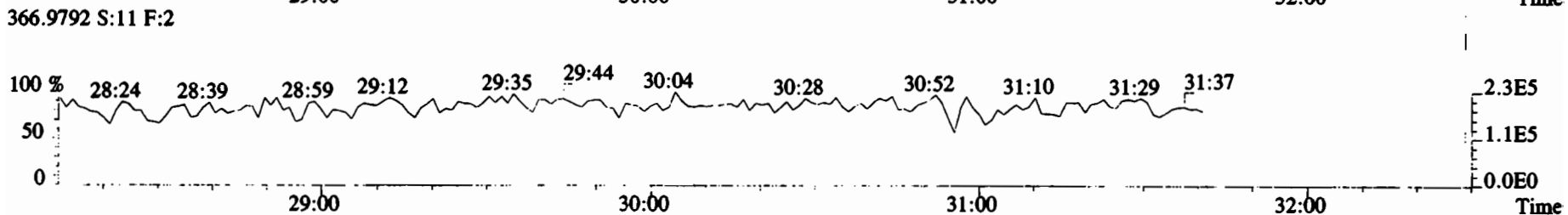
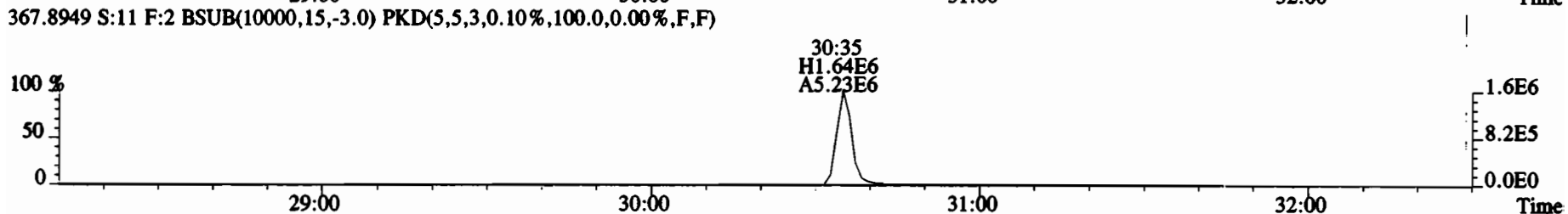
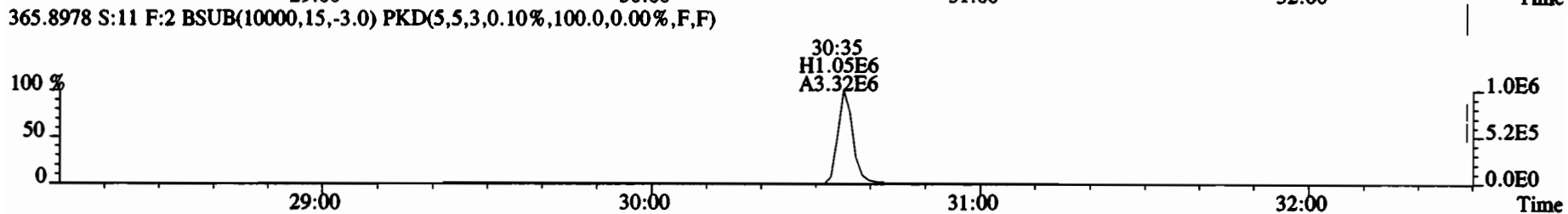
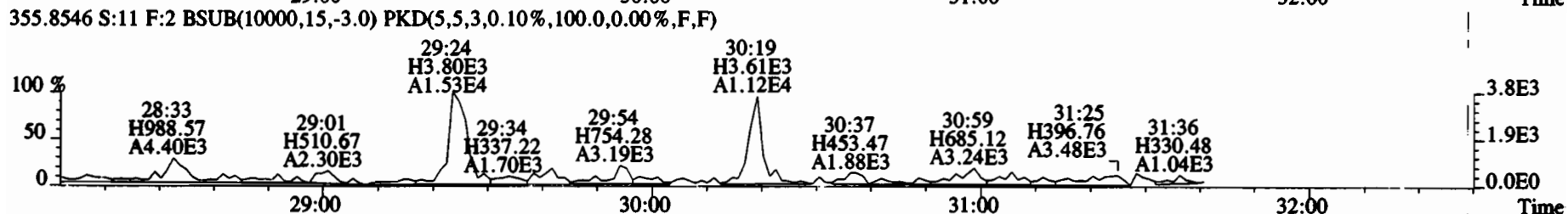
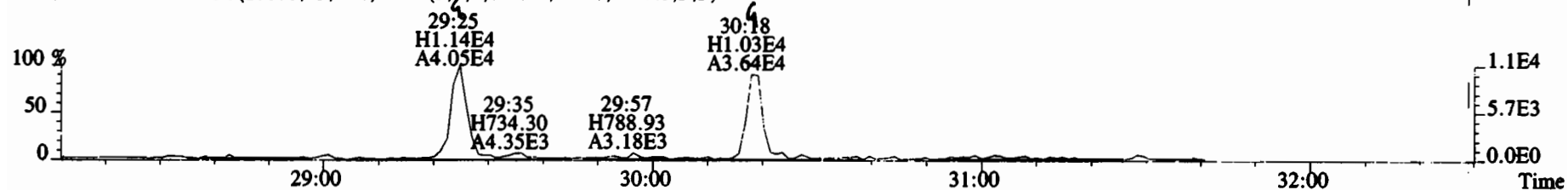
File:200107D2 #1-493 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



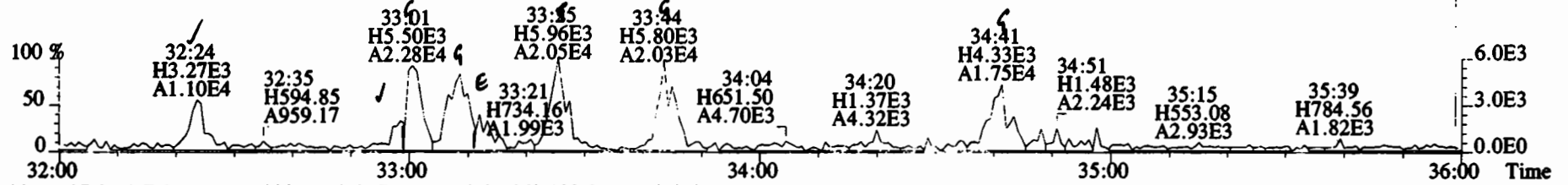
File:200107D2 #1-493 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



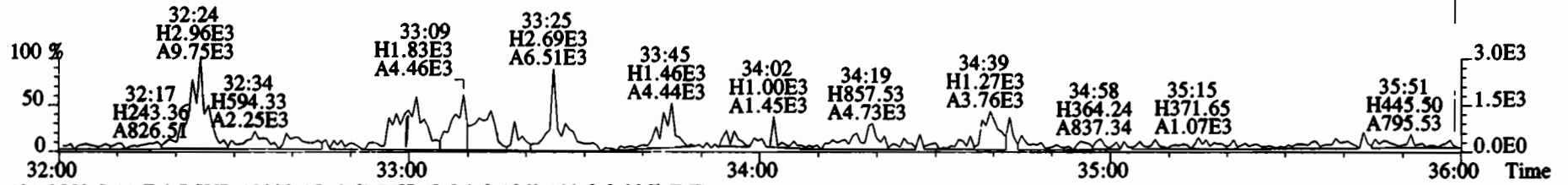
File:200107D2 #1-211 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 353.8576 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



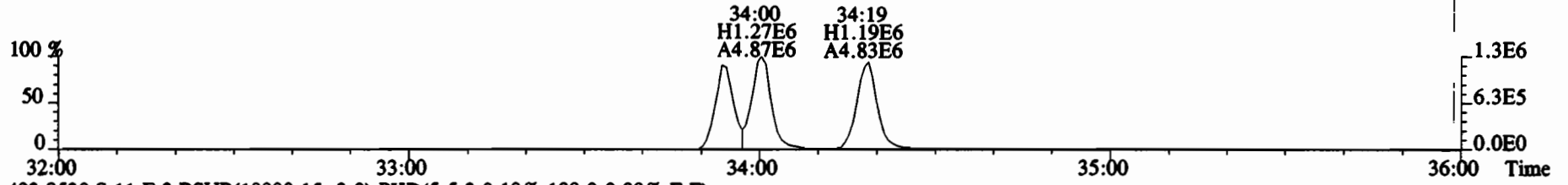
File:200107D2 #1-384 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



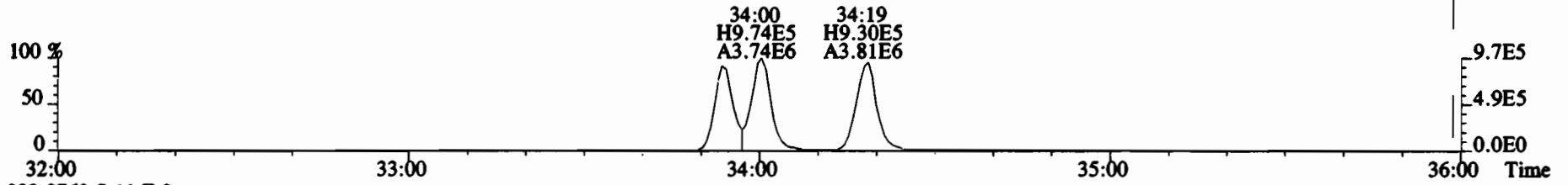
391.8127 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



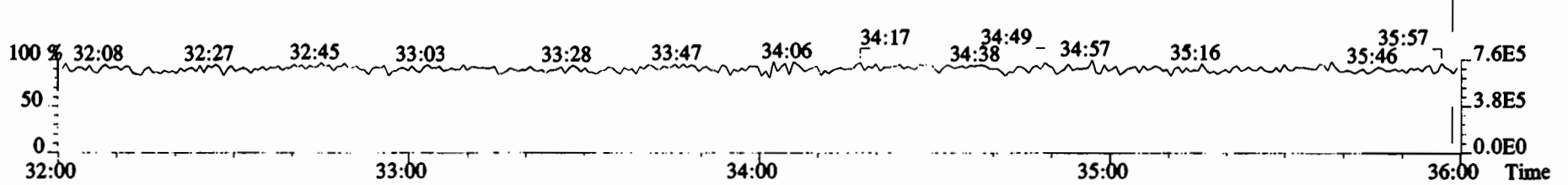
401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



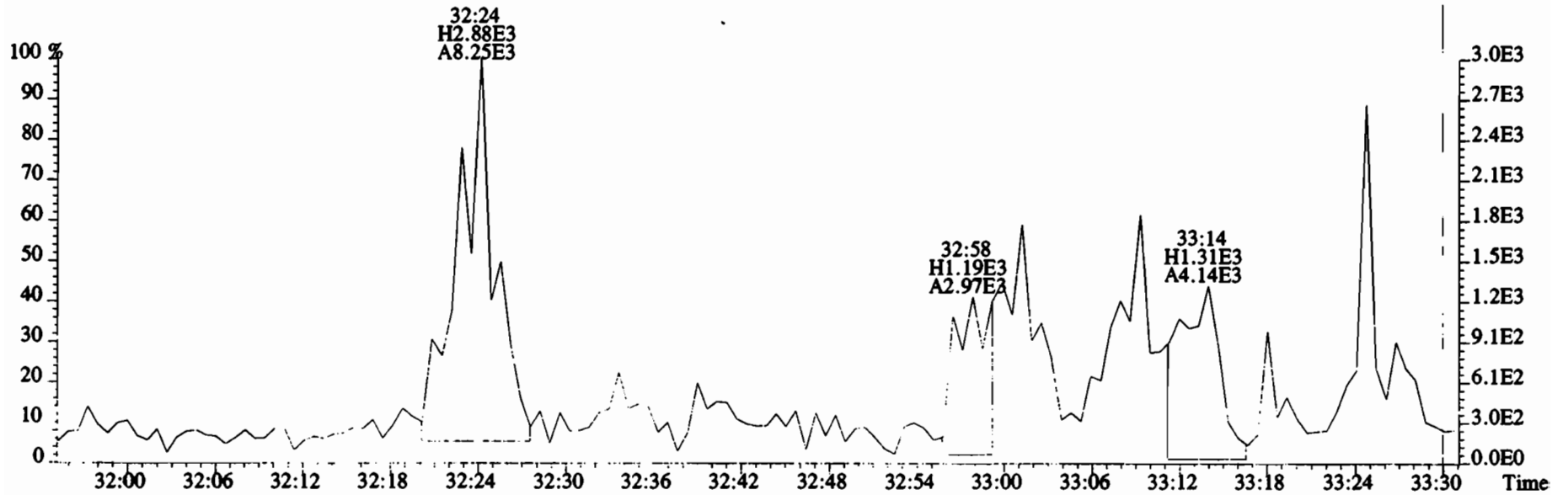
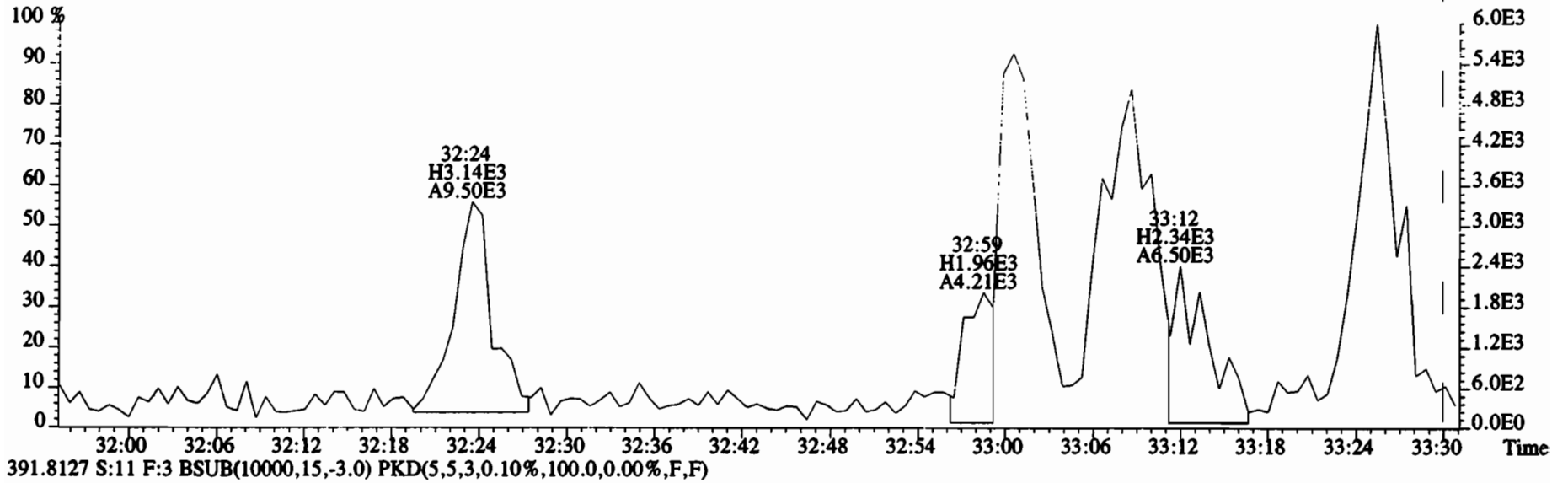
403.8530 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



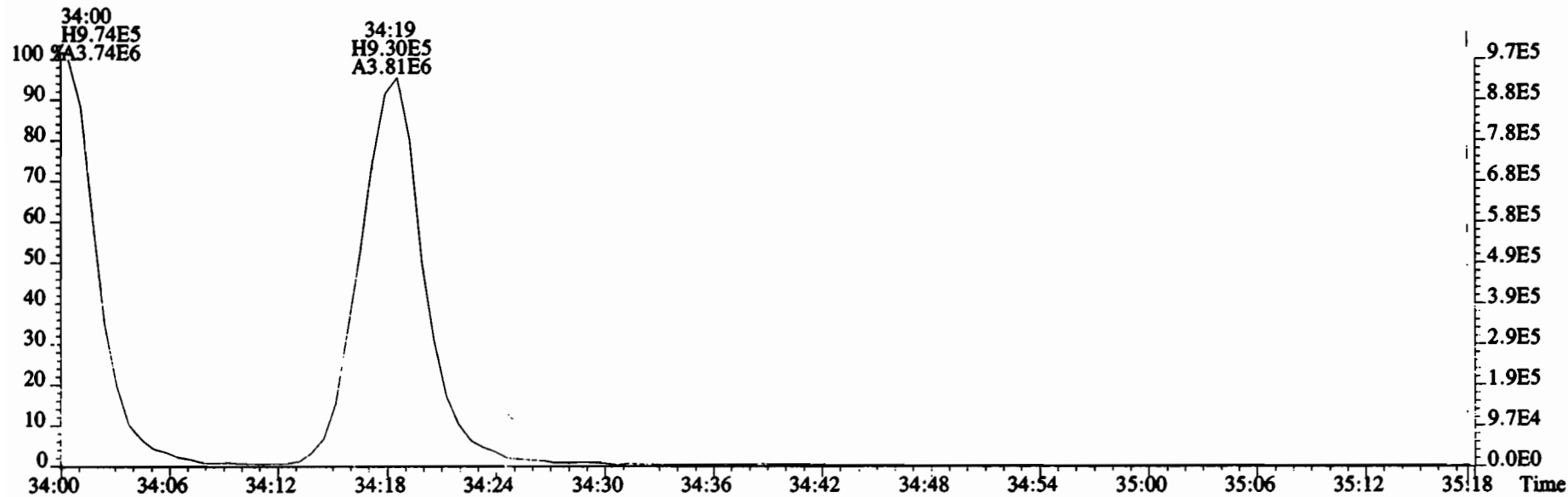
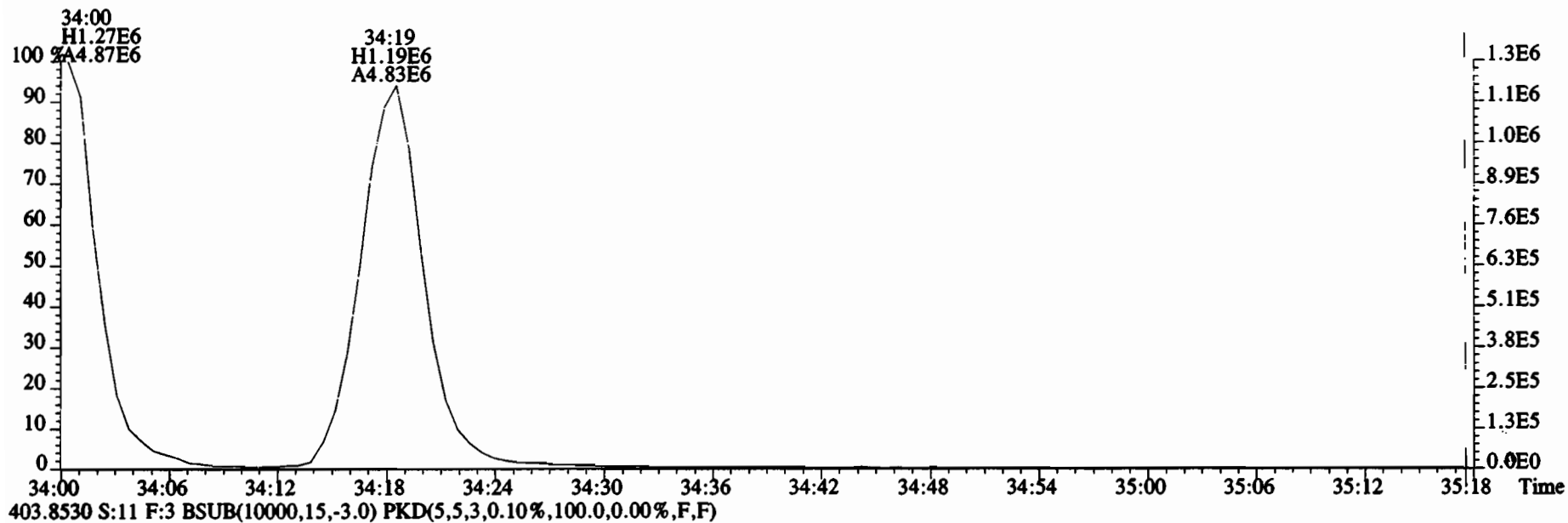
392.9760 S:11 F:3



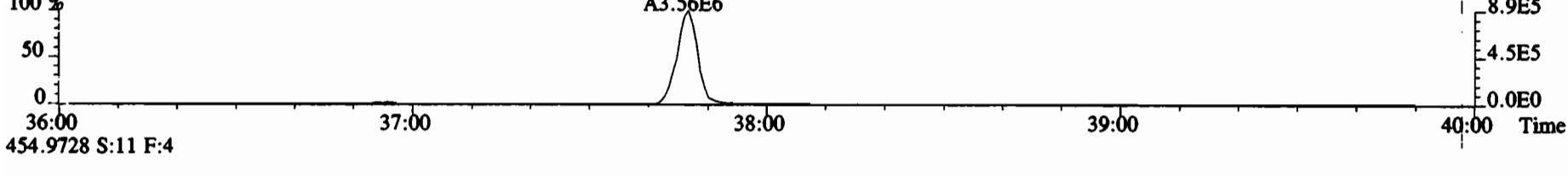
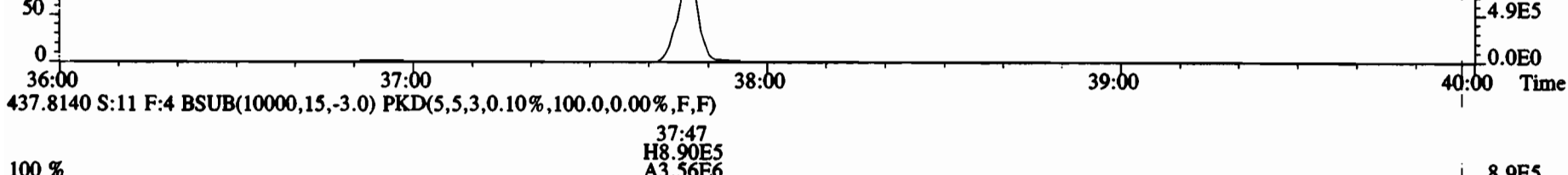
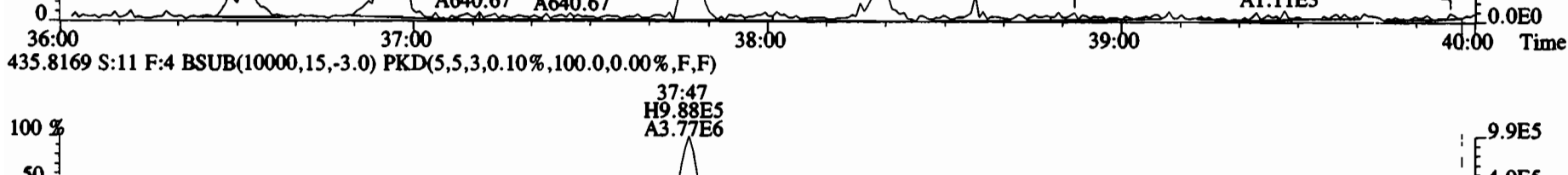
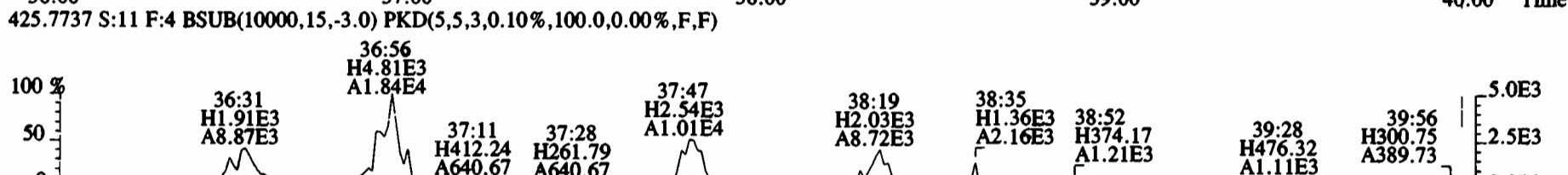
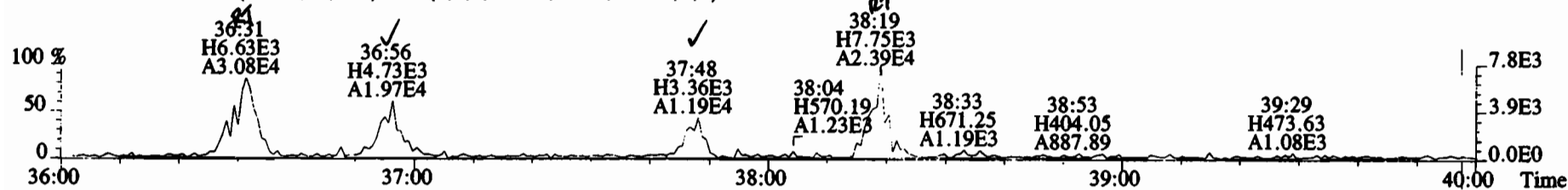
File:200107D2 #1-384 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



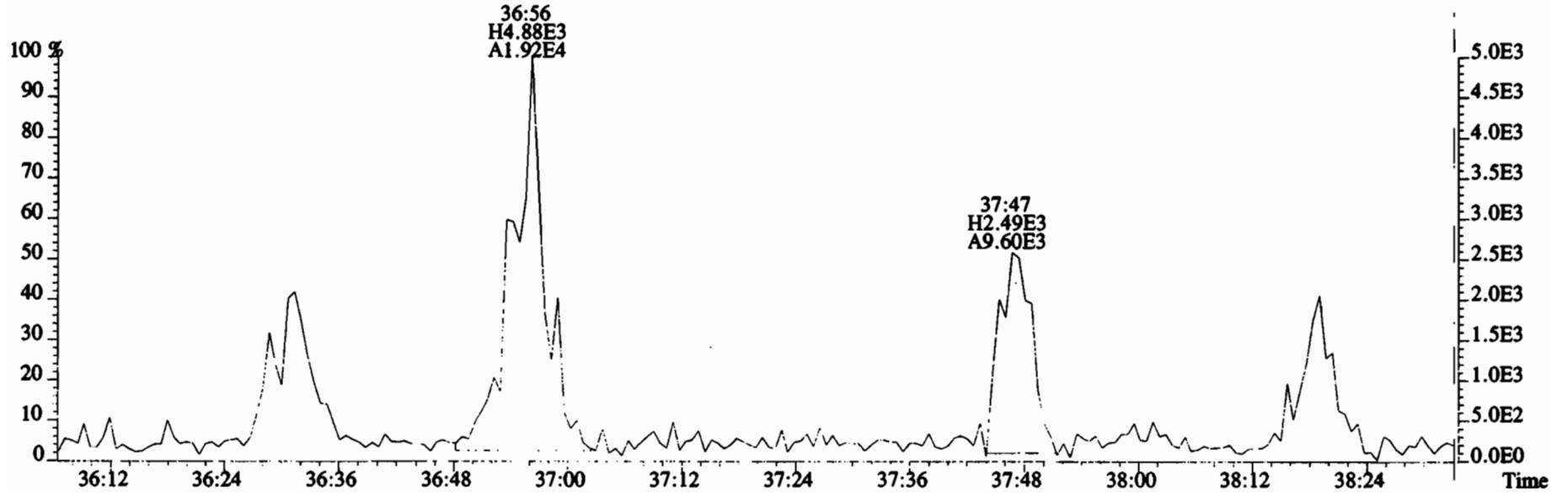
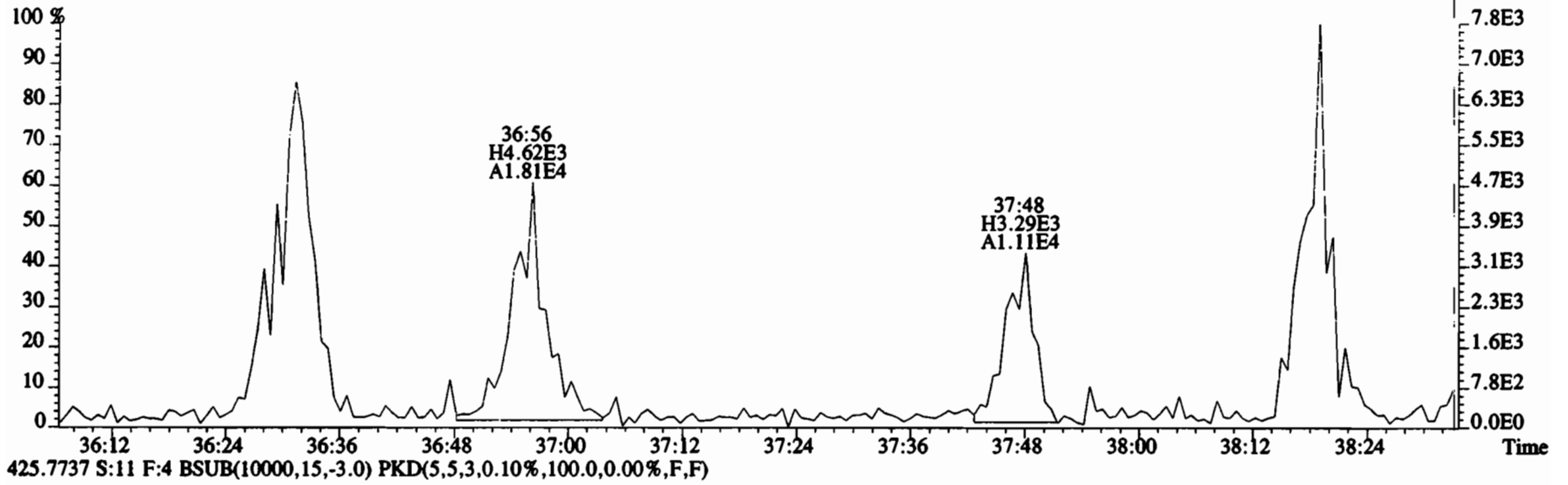
File:200107D2 #1-384 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-356 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

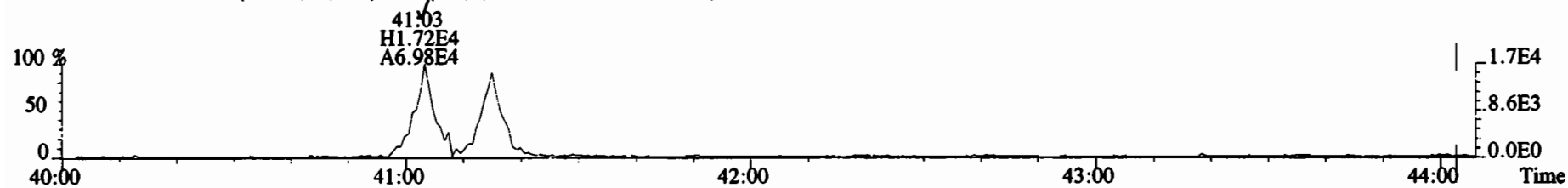


File:200107D2 #1-356 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)





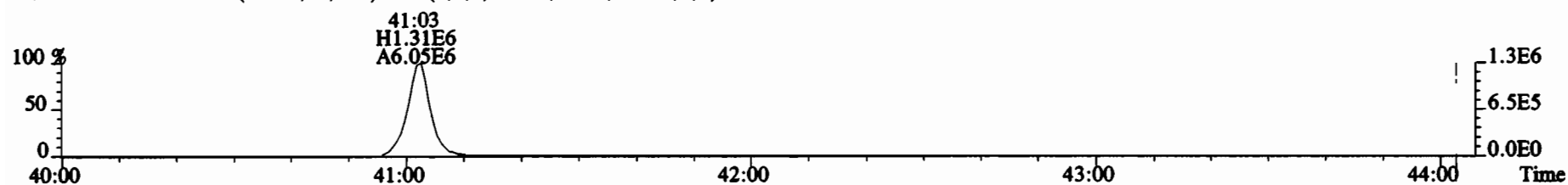
File:200107D2 #1-431 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



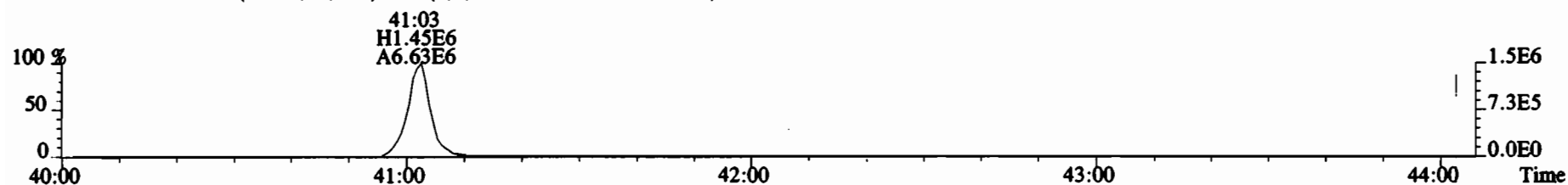
459.7348 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



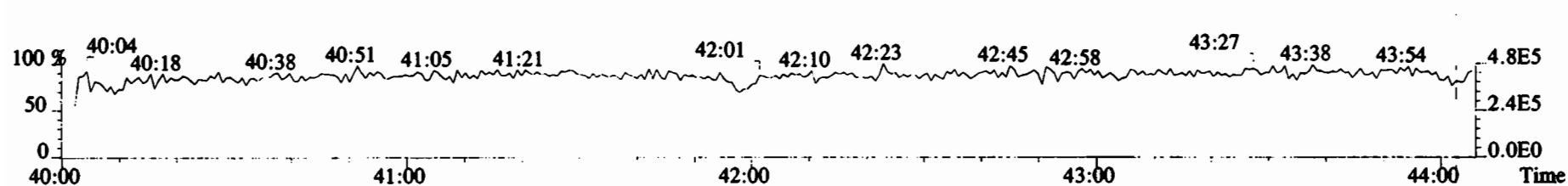
469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



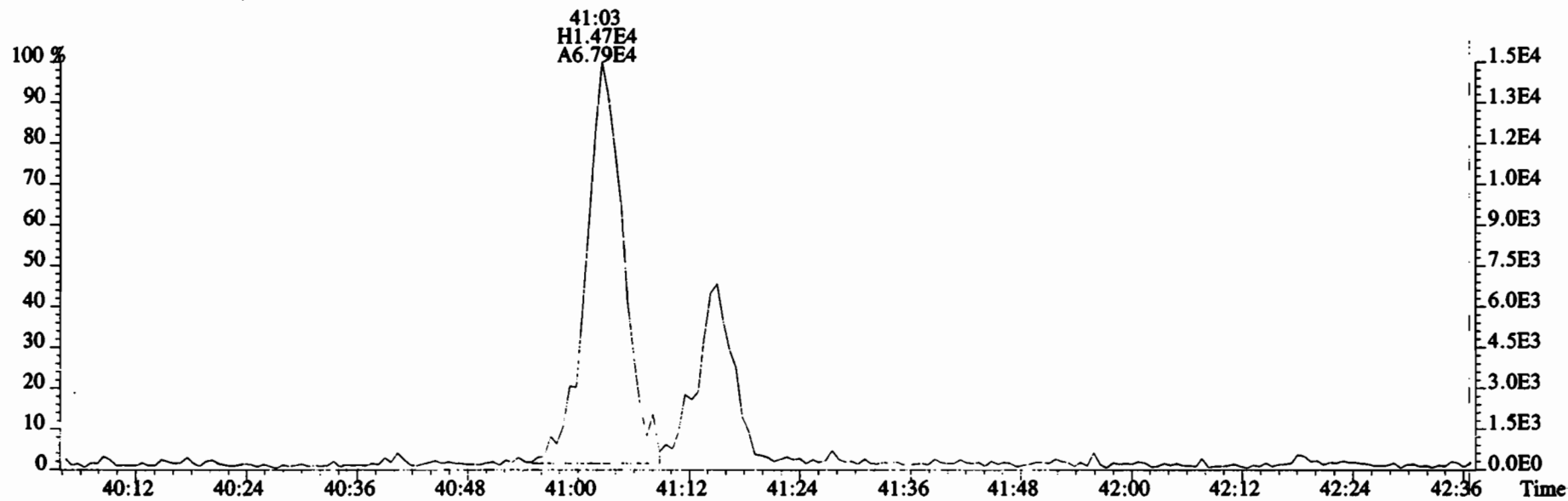
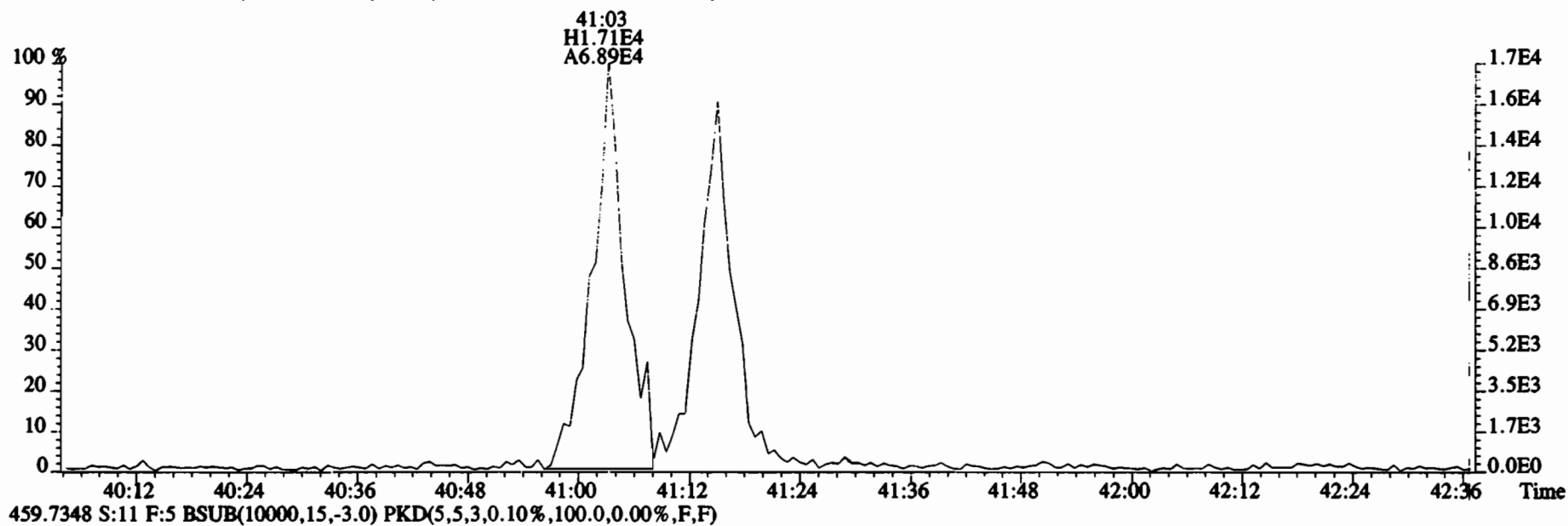
471.7750 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



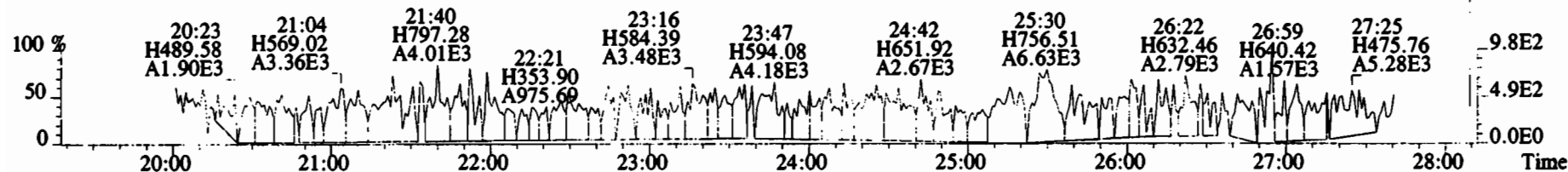
454.9728 S:11 F:5



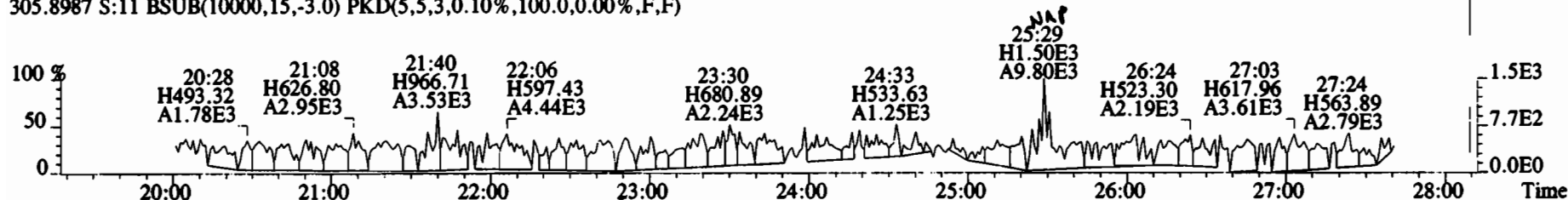
File:200107D2 #1-431 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



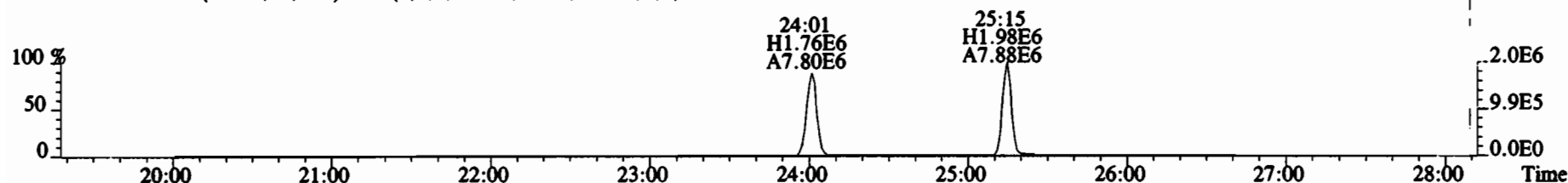
File:200107D2 #1-493 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



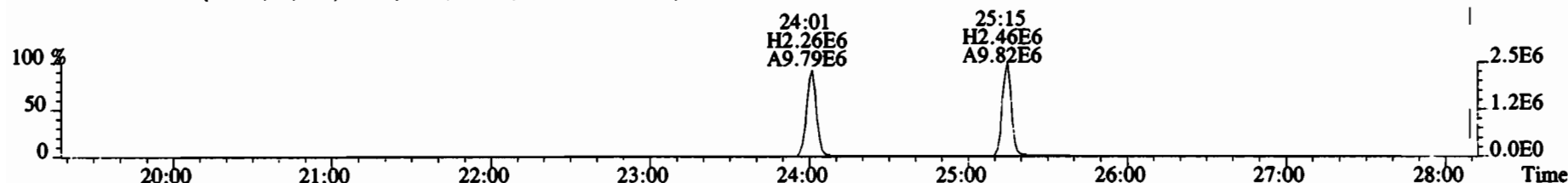
305.8987 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



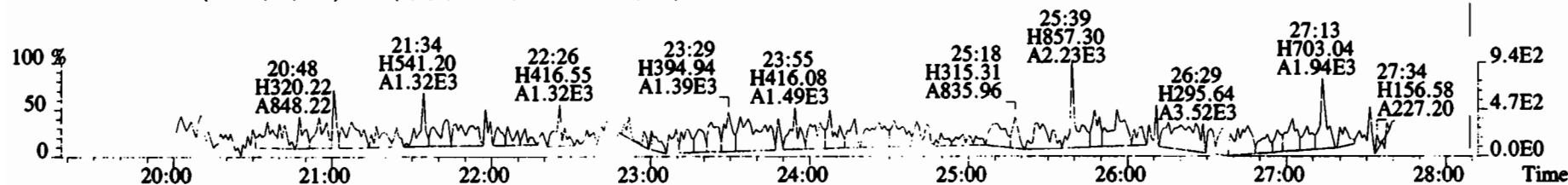
315.9419 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



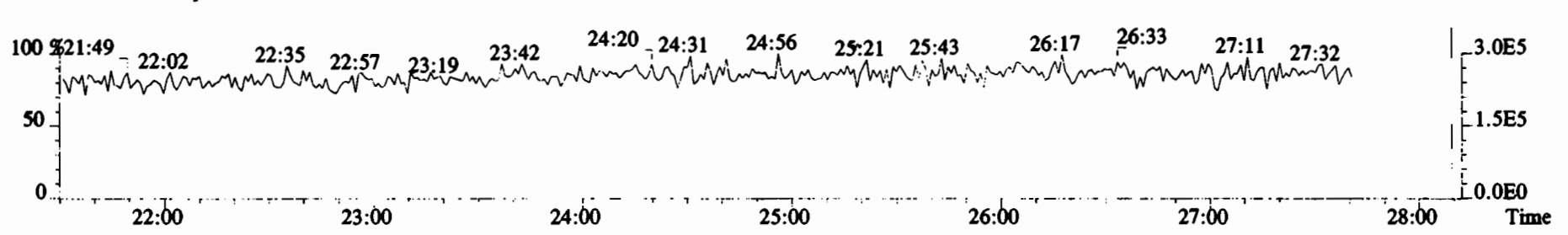
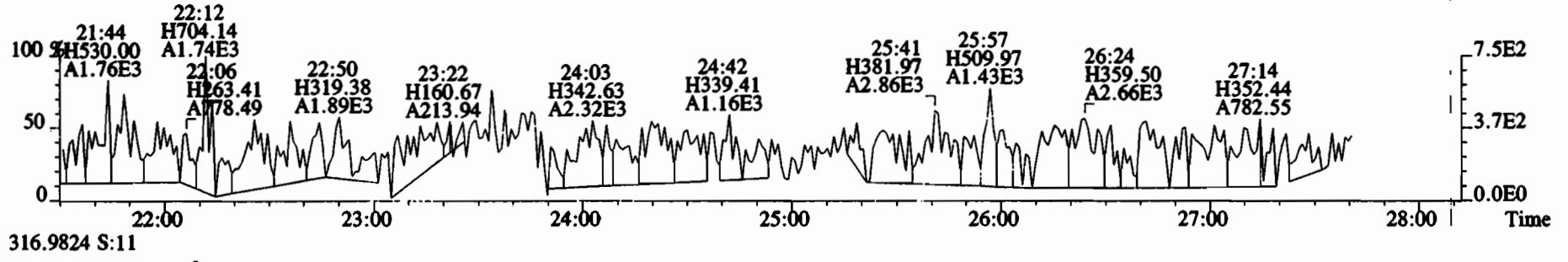
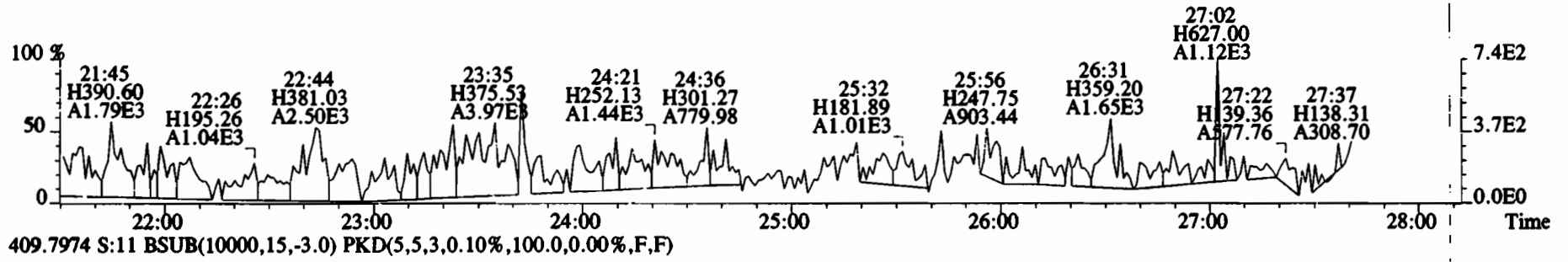
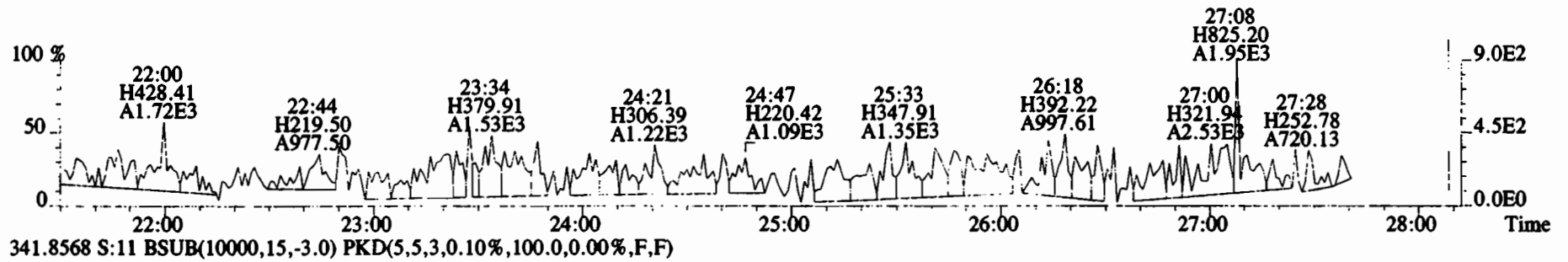
317.9389 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



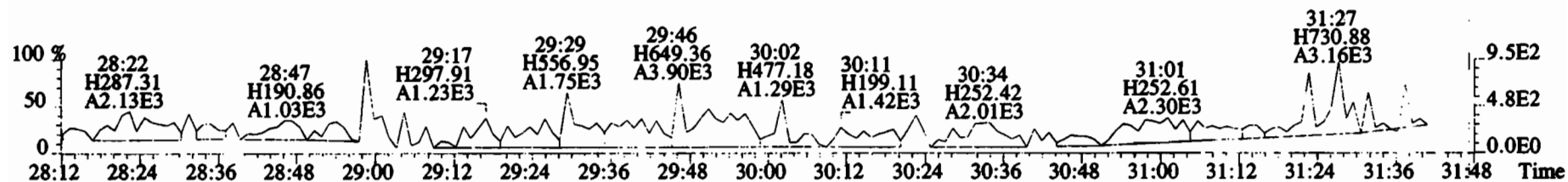
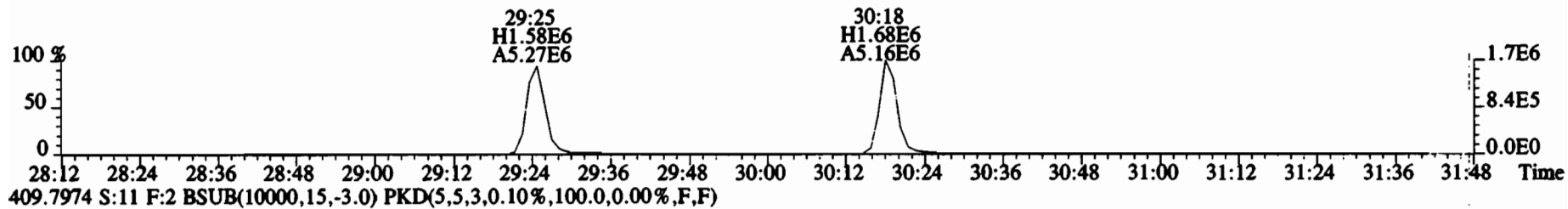
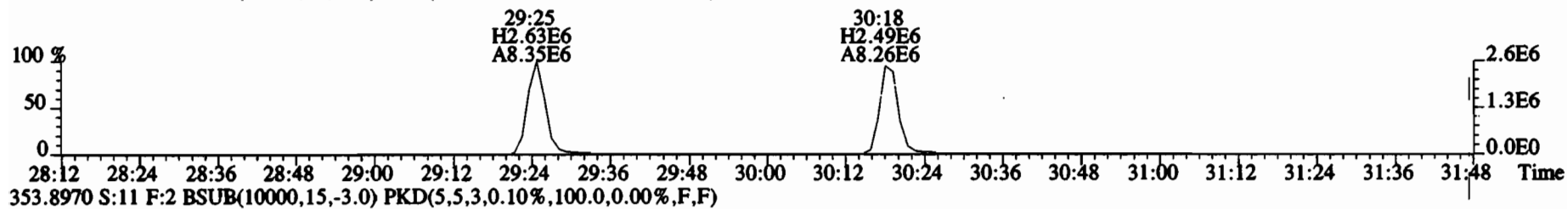
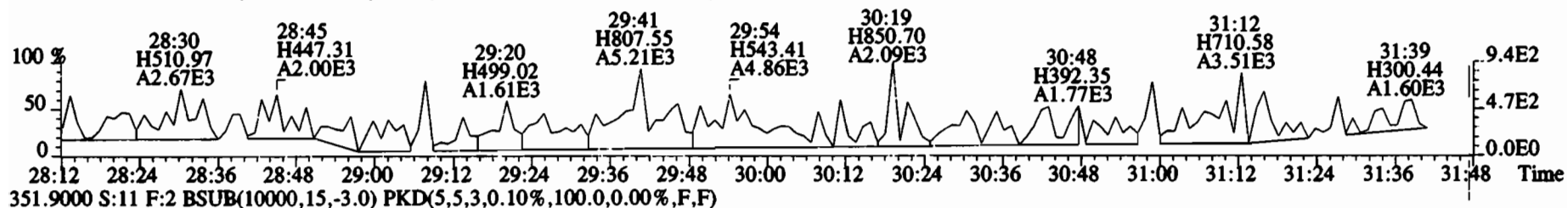
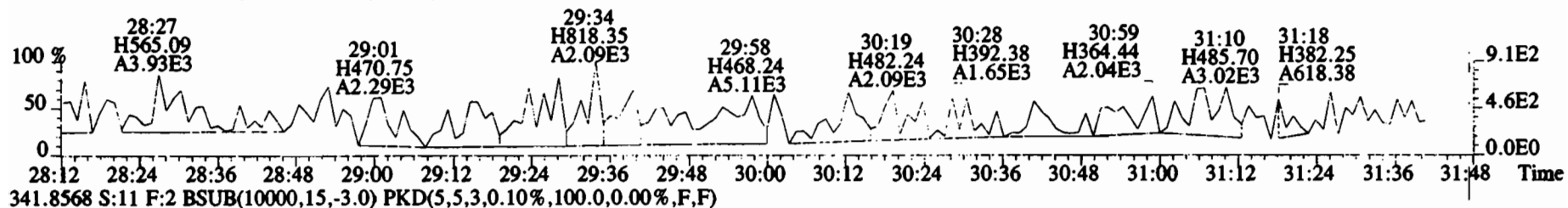
375.8364 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



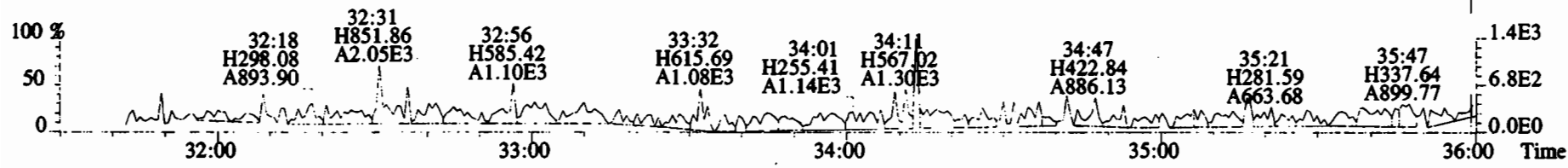
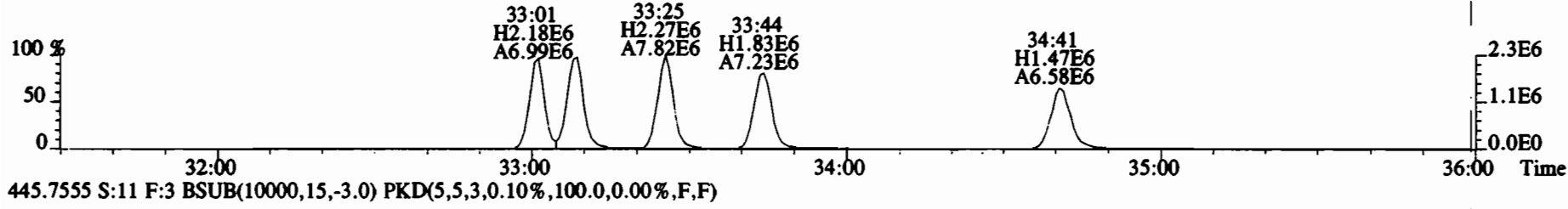
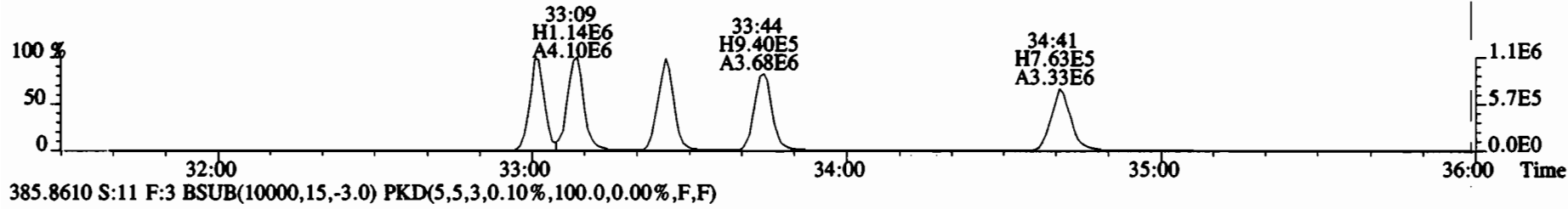
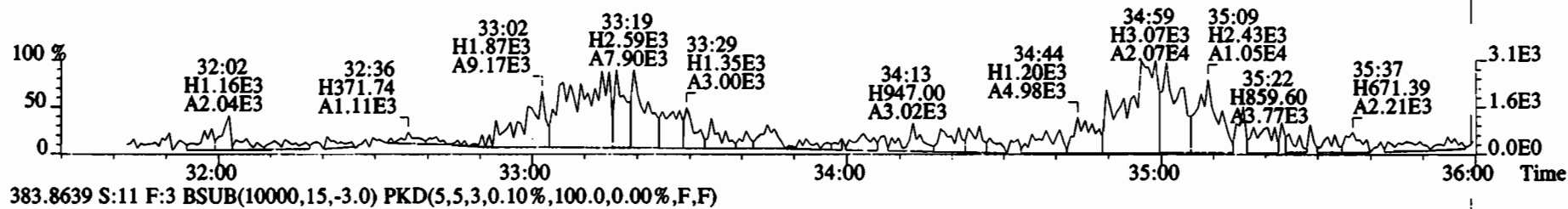
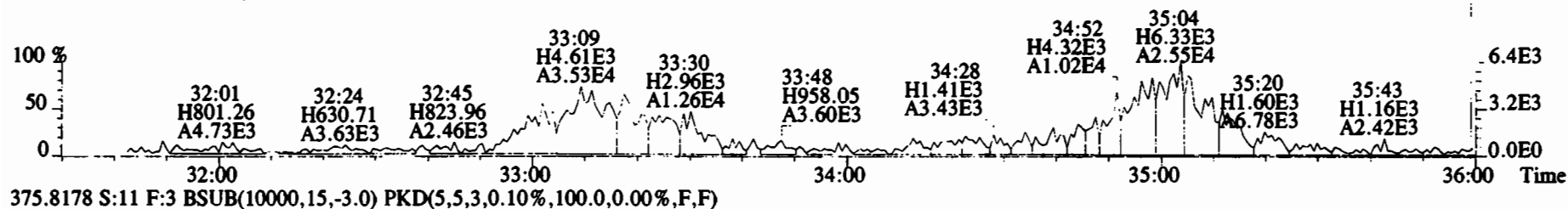
File:200107D2 #1-493 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



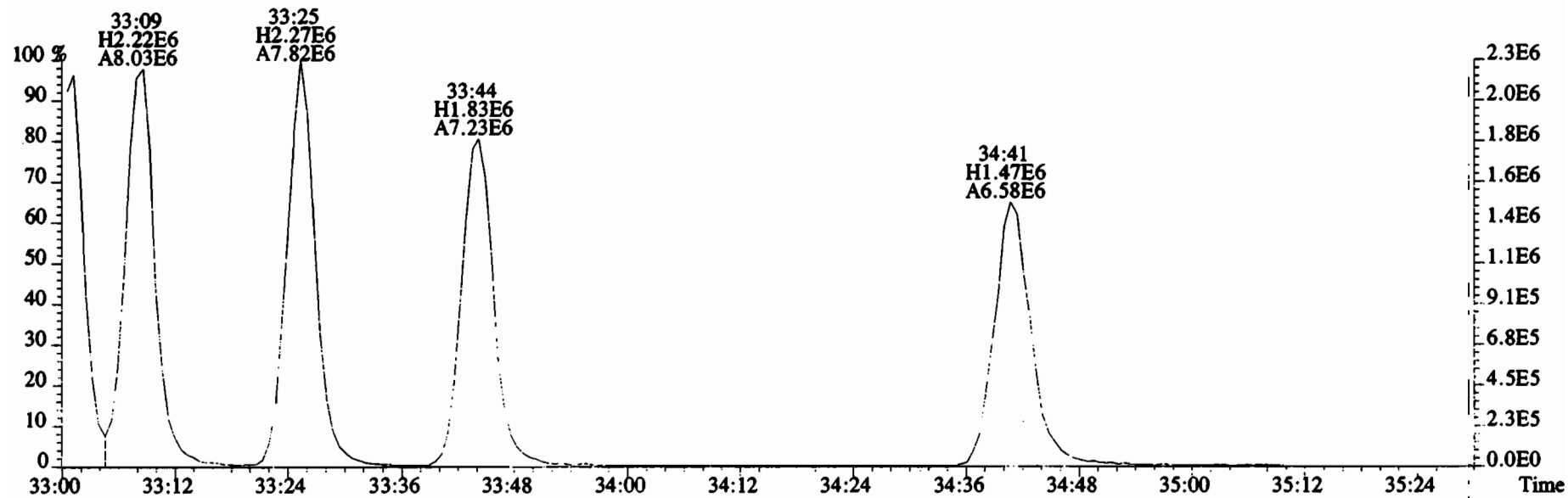
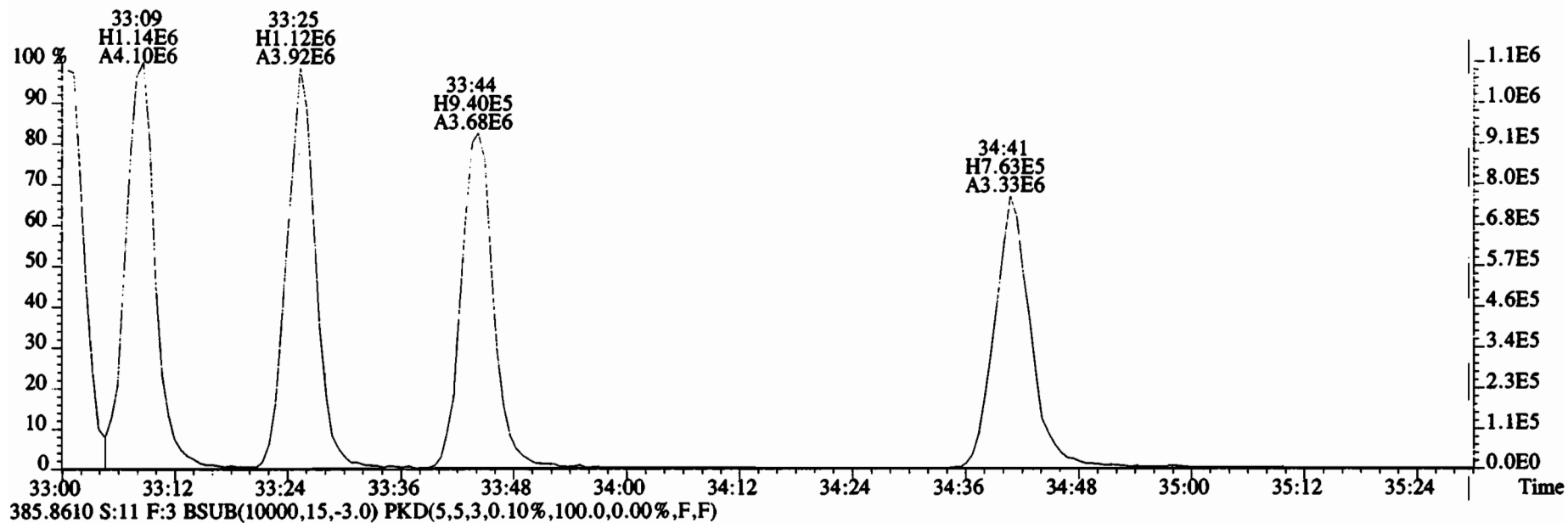
File:200107D2 #1-211 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



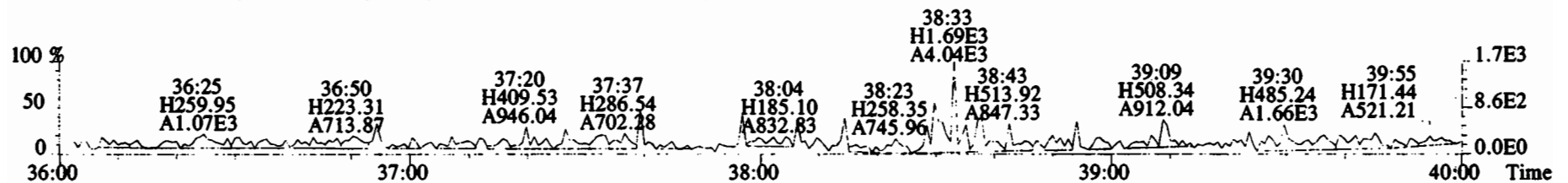
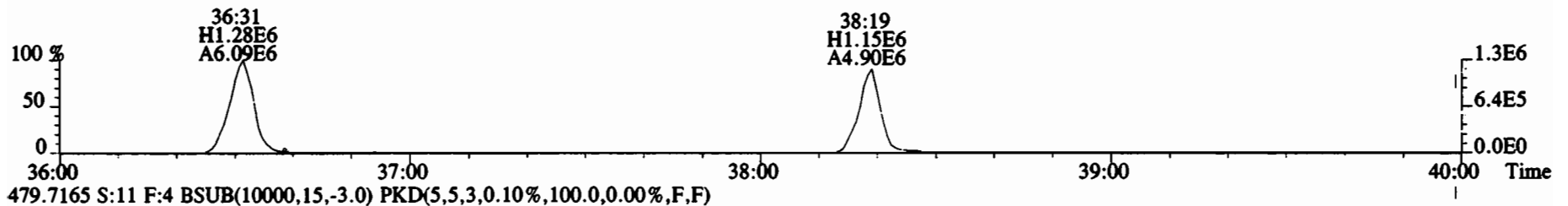
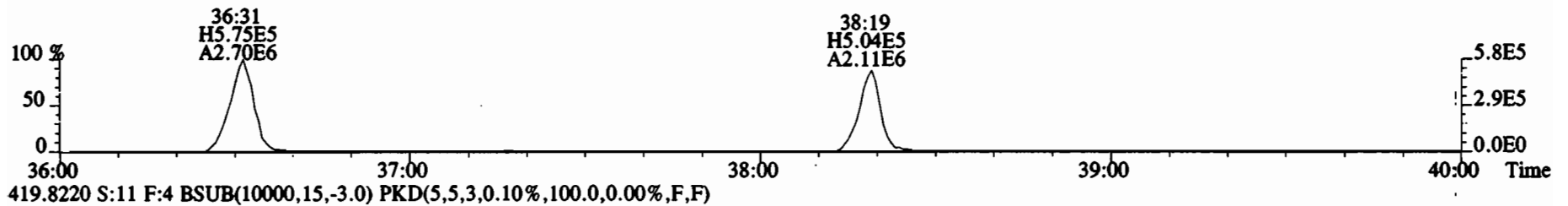
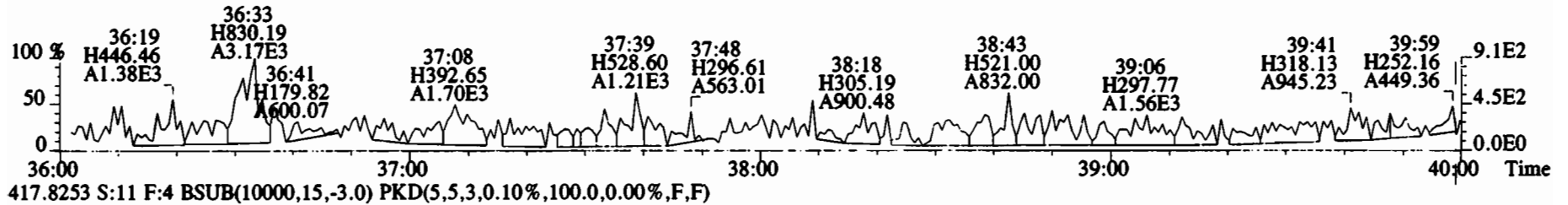
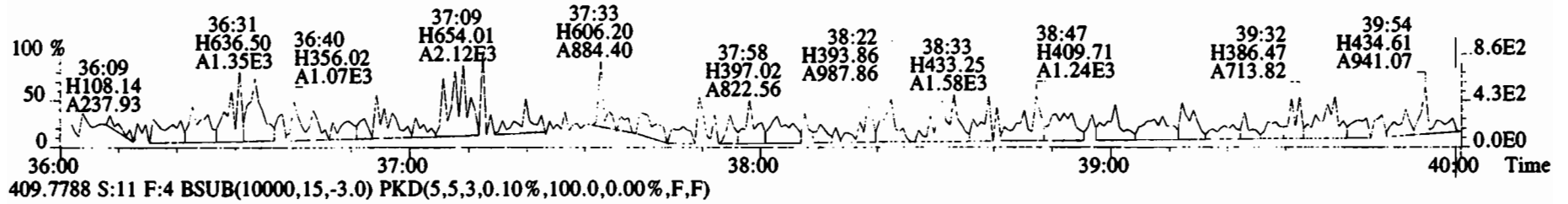
File:200107D2 #1-384 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-384 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#11 File Text:Vista Analytical Laboratory VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

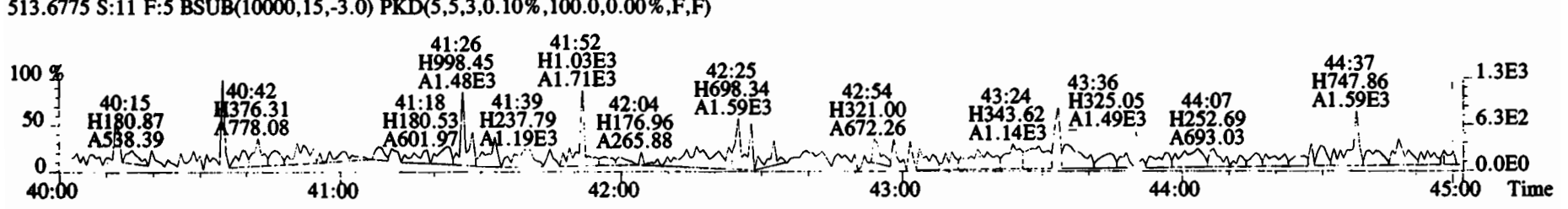
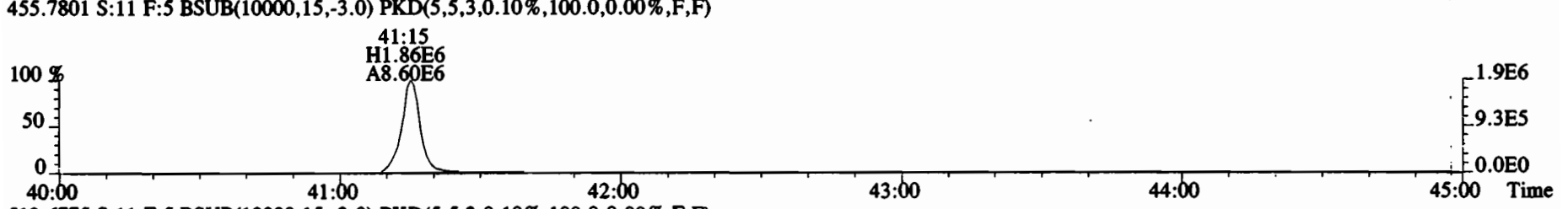
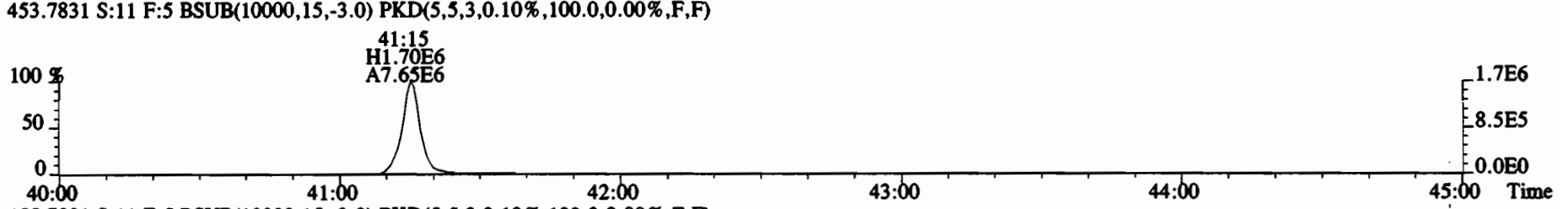
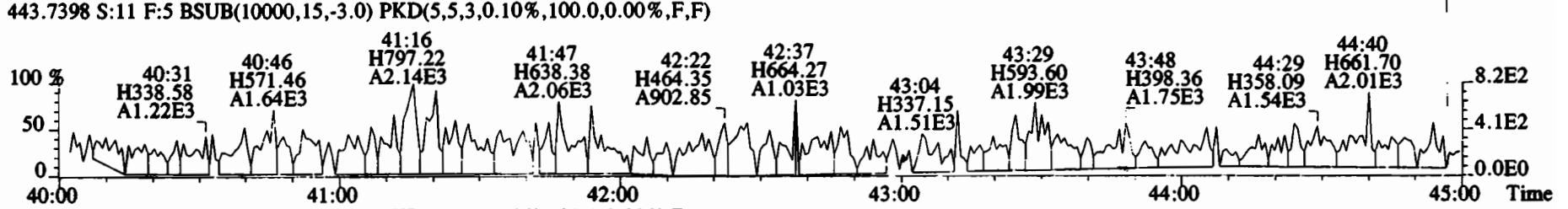
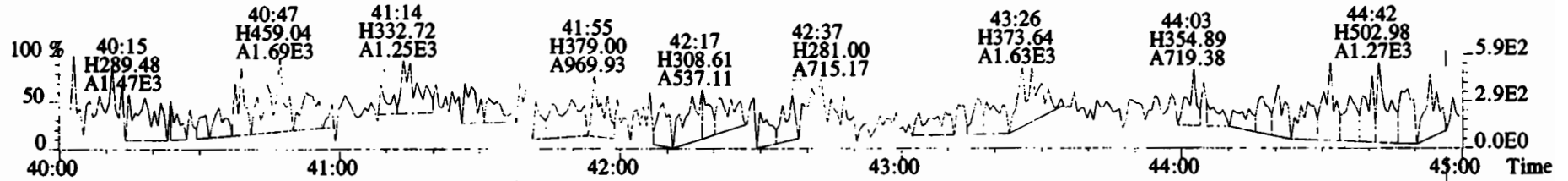


File:200107D2 #1-356 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)





File:200107D2 #1-431 Acq: 8-JAN-2020 06:30:23 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#11 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-16RE2 PDI-071SC-B-10-11.5-191001 13.57 Exp:OCDD\_DB5  
 441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	5.81e+04	0.66 y	0.91	26:03	1.2670			* 2.5	*
1,2,3,7,8-PeCDD	7.21e+04	0.54 y	0.90	30:35	2.1295			* 2.5	*
1,2,3,4,7,8-HxCDD	6.68e+04	1.26 y	1.10	33:54	1.9029			* 2.5	*
1,2,3,6,7,8-HxCDD	3.95e+05	1.22 y	0.94	34:00	11.365			* 2.5	*
1,2,3,7,8,9-HxCDD	1.75e+05	1.31 y	0.96	34:18	4.8561			* 2.5	*
1,2,3,4,6,7,8-HpCDD	8.84e+06	1.03 y	0.98	37:46	274.84			* 2.5	*
OCDD	8.36e+07	0.90 y	0.96	41:02	3235.7			* 2.5	*
2,3,7,8-TCDF	8.64e+06	0.80 y	0.95	25:16	119.68	(111.1)		* 2.5	*
1,2,3,7,8-PeCDF	1.17e+07	1.61 y	0.96	29:25	195.40			* 2.5	*
2,3,4,7,8-PeCDF	3.96e+06	1.62 y	1.01	30:18	65.135			* 2.5	*
1,2,3,4,7,8-HxCDF	1.71e+07	1.21 y	1.18	33:01	306.64			* 2.5	*
1,2,3,6,7,8-HxCDF	4.34e+06	1.20 y	1.07	33:08	76.670			* 2.5	*
2,3,4,6,7,8-HxCDF	1.03e+06	1.23 y	1.11	33:44	18.800			* 2.5	*
1,2,3,7,8,9-HxCDF	4.33e+05	1.14 y	1.06	34:40	9.0373			* 2.5	*
1,2,3,4,6,7,8-HpCDF	6.80e+06	1.02 y	1.13	36:31	148.92			* 2.5	*
1,2,3,4,7,8,9-HpCDF	2.31e+06	1.02 y	1.28	38:18	57.712			* 2.5	*
OCDF	1.00e+07	0.89 y	0.95	41:15	315.06			* 2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	6.77	9.34		*	*
Total Penta-Dioxins	15.2	18.1		*	*
Total Hexa-Dioxins	91.0	92.0		*	*
Total Hepta-Dioxins	605	605		*	*
Total Tetra-Furans	309	320		*	*
Total Penta-Furans	491.81	492.96		*	* P
Total Hexa-Furans	530	530		*	*
Total Hepta-Furans	340	340		*	* R C7

04/10/2020

IS	13C-2,3,7,8-TCDD	1.00e+07	0.82 y	1.10	26:02	206.53				
IS	13C-1,2,3,7,8-PeCDD	7.43e+06	0.64 y	0.88	30:35	189.96				
IS	13C-1,2,3,4,7,8-HxCDD	6.31e+06	1.28 y	0.64	33:53	188.68				
IS	13C-1,2,3,6,7,8-HxCDD	7.35e+06	1.24 y	0.86	33:60	164.73				
IS	13C-1,2,3,7,8,9-HxCDD	7.43e+06	1.24 y	0.81	34:18	176.74				
IS	13C-1,2,3,4,6,7,8-HpCDD	6.51e+06	1.05 y	0.65	37:46	190.95				
IS	13C-OCDD	1.07e+07	0.93 y	0.58	41:01	353.28				
IS	13C-2,3,7,8-TCDF	1.50e+07	0.81 y	1.03	25:15	196.99				
IS	13C-1,2,3,7,8-PeCDF	1.23e+07	1.61 y	0.85	29:24	195.87				
IS	13C-2,3,4,7,8-PeCDF	1.19e+07	1.57 y	0.85	30:18	189.99				
IS	13C-1,2,3,4,7,8-HxCDF	9.40e+06	0.52 y	0.83	33:00	216.93				
IS	13C-1,2,3,6,7,8-HxCDF	1.05e+07	0.52 y	1.03	33:08	194.41				
IS	13C-2,3,4,6,7,8-HxCDF	9.79e+06	0.51 y	0.95	33:44	196.98				
IS	13C-1,2,3,7,8,9-HxCDF	8.94e+06	0.52 y	0.83	34:40	207.25				
IS	13C-1,2,3,4,6,7,8-HpCDF	8.02e+06	0.44 y	0.76	36:30	203.21				
IS	13C-1,2,3,4,7,8,9-HpCDF	6.19e+06	0.44 y	0.58	38:18	204.45				
IS	13C-OCDF	1.33e+07	0.87 y	0.69	41:14	369.87				
C/Up	37Cl-2,3,7,8-TCDD	4.13e+06		1.20	26:03	77.697				
RS/RT	13C-1,2,3,4-TCDD	8.79e+06	0.80 y	1.00	25:28	198.12				
RS	13C-1,2,3,4-TCDF	1.46e+07	0.79 y	1.00	24:01	198.12				
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.03e+07	0.51 y	1.00	33:25	198.12				

Rec	Qual	Integrations	Reviewed by
104			
95.9			
95.2			
83.1			
89.2			
96.4			
89.2			
99.4			
98.9			
95.9			
109			
98.1			
99.4			
105			
103			
103			
93.3			
98.0			
		Analyst: DB	Analyst: C7

Date: 1/9/20  
 Date: 01/10/2020

Totals class: TCDD EMPC

Entry #: 19

Run: 17 File: 200107D2 S: 12 I: 1 F: 1  
 Acquired: 8-JAN-20 07:18:19 Processed: 8-JAN-20 10:10:04

Total Concentration: 9.3408 Unnamed Concentration: 8.074

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
22:36	5.425e+04	7.464e+04	0.73	y	1.289e+05	2.8106	
22:58	2.098e+04	2.312e+04	0.91	n	4.092e+04	0.89240	
23:24	6.664e+03	7.639e+03	0.87	y	1.430e+04	0.31190	
24:09	5.812e+03	6.163e+03	0.94	n	1.091e+04	0.23785	
24:21	1.064e+04	1.105e+04	0.96	n	1.956e+04	0.42644	
24:33	1.322e+04	2.208e+04	0.60	n	3.038e+04	0.66241	
24:42	3.736e+03	3.915e+03	0.95	n	6.930e+03	0.15111	
24:57	3.070e+03	4.146e+03	0.74	y	7.216e+03	0.15735	
25:06	3.320e+03	4.940e+03	0.67	y	8.261e+03	0.18014	
25:48	3.585e+04	4.150e+04	0.86	y	7.735e+04	1.6866	
26:03	2.308e+04	3.502e+04	0.66	y	5.810e+04	1.2670	2,3,7,8-TCDD
26:19	7.074e+03	9.084e+03	0.78	y	1.616e+04	0.35235	
26:55	2.601e+03	2.352e+03	1.11	n	4.164e+03	0.090789	
27:04	6.029e+03	2.951e+03	2.04	n	5.223e+03	0.11389	

Totals class: PeCDD EMPC

Entry #: 21

Run: 17 File: 200107D2 S: 12 I: 1 F: 2  
Acquired: 8-JAN-20 07:18:19 Processed: 8-JAN-20 10:10:04

Total Concentration: 18.128

Unnamed Concentration: 15.999

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:33	6.400e+04	1.018e+05	0.63	y	1.658e+05	4.8988
28:59	1.238e+04	2.084e+04	0.59	y	3.321e+04	0.98127
29:26	5.189e+04	6.004e+04	0.86	n	9.786e+04	2.8913
29:35	2.456e+04	3.964e+04	0.62	y	6.420e+04	1.8968
29:41	2.155e+04	3.390e+04	0.64	y	5.546e+04	1.6385
29:53	2.503e+04	3.874e+04	0.65	y	6.377e+04	1.8842
30:11	8.925e+03	1.424e+04	0.63	y	2.317e+04	0.68447
30:35	2.536e+04	4.672e+04	0.54	y	7.208e+04	2.1295
30:41	8.614e+03	1.200e+04	0.72	y	2.061e+04	0.60902
30:57	6.427e+03	1.099e+04	0.59	y	1.741e+04	0.51446

Totals class: HxCDD EMPC

Entry #: 23

Run: 17 File: 200107D2 S: 12 I: 1 F: 3  
Acquired: 8-JAN-20 07:18:19 Processed: 8-JAN-20 10:10:04

Total Concentration: 92.010

Unnamed Concentration: 73.886

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
32:22	5.384e+05	4.467e+05	1.21 y	9.851e+05	27.991
32:57	9.924e+04	7.582e+04	1.31 y	1.751e+05	4.9741
33:12	7.462e+05	6.101e+05	1.22 y	1.356e+06	38.538
33:19	2.614e+04	2.387e+04	1.10 y	5.001e+04	1.4210
33:54	3.728e+04	2.952e+04	1.26 y	6.680e+04	1.9029
34:00	2.172e+05	1.783e+05	1.22 y	3.955e+05	11.365
34:13	1.875e+04	1.884e+04	1.00 n	3.387e+04	0.96228
34:18	9.922e+04	7.588e+04	1.31 y	1.751e+05	4.8561

Totals class: HpCDD EMPC

Entry #: 25

Run: 17

File: 200107D2

S: 12 I: 1 F: 4

Acquired: 8-JAN-20 07:18:19

Processed: 8-JAN-20 10:10:04

Total Concentration: 604.60

Unnamed Concentration: 329.763

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
36:54	5.397e+06	5.213e+06	1.04 y	1.061e+07	329.76	
37:46	4.491e+06	4.351e+06	1.03 y	8.843e+06	274.84	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 17 File: 200107D2 S: 12 I: 1 F: 1  
 Acquired: 8-JAN-20 07:18:19 Processed: 8-JAN-20 10:10:04

Total Concentration: 320.48 Unnamed Concentration: 200.808

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
20:27	1.737e+04	2.871e+04	0.60	n	3.993e+04	0.55329	
21:01	5.216e+04	5.899e+04	0.88	y	1.111e+05	1.5401	
21:39	2.812e+05	3.553e+05	0.79	y	6.365e+05	8.8206	
22:12	1.686e+05	2.107e+05	0.80	y	3.794e+05	5.2567	
22:34	7.717e+05	9.870e+05	0.78	y	1.759e+06	24.370	
22:59	2.219e+05	2.875e+05	0.77	y	5.094e+05	7.0593	
23:08	4.736e+04	5.796e+04	0.82	y	1.053e+05	1.4594	
23:17	1.369e+05	1.941e+05	0.71	y	3.310e+05	4.5868	
23:39	2.761e+04	3.014e+04	0.92	n	5.335e+04	0.73923	
23:46	3.582e+04	4.124e+04	0.87	y	7.707e+04	1.0679	
23:54	1.350e+05	1.672e+05	0.81	y	3.023e+05	4.1884	
24:00	5.077e+05	6.436e+05	0.79	y	1.151e+06	15.953	
24:26	2.935e+06	3.702e+06	0.79	y	6.637e+06	91.972	
24:41	1.514e+05	1.822e+05	0.83	y	3.336e+05	4.6222	
24:52	3.461e+04	4.351e+04	0.80	y	7.812e+04	1.0825	
25:03	3.032e+04	3.898e+04	0.78	y	6.930e+04	0.96027	
25:09	3.169e+05	4.062e+05	0.78	y	7.231e+05	10.020	
25:16	3.839e+06	4.797e+06	0.80	y	8.636e+06	119.68	2,3,7,8-TCDF
25:35	1.828e+05	2.384e+05	0.77	y	4.211e+05	5.8356	
25:48	3.397e+04	3.706e+04	0.92	n	6.560e+04	0.90902	
26:32	3.875e+04	3.099e+04	1.25	n	5.485e+04	0.76002	
26:47	1.267e+04	1.545e+04	0.82	y	2.813e+04	0.38973	
27:03	3.393e+05	3.531e+05	0.96	n	6.250e+05	8.6610	

Totals class: 1st Func. PeCDF EMPC      Entry #: 29

Run: 17      File: 200107D2      S: 12 I: 1 F: 1  
Acquired: 8-JAN-20 07:18:19      Processed: 8-JAN-20 10:10:04

Total Concentration: 16.330      Unnamed Concentration: 16.330

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
27:03	6.067e+05	3.793e+05	1.60 y	9.860e+05	16.330



Totals class: PeCDF EMPC

Entry #: 31

Run: 17

File: 200107D2

S: 12 I: 1 F: 2

Acquired: 8-JAN-20 07:18:19

Processed: 8-JAN-20 10:10:04

Total Concentration: 476.63

Unnamed Concentration: 216.096

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
28:21	1.257e+05	7.582e+04	1.66	y	2.015e+05	3.3367
28:30	3.425e+06	2.080e+06	1.65	y	5.504e+06	91.159
29:03	3.356e+05	2.145e+05	1.56	y	5.501e+05	9.1107
29:15	6.951e+05	4.205e+05	1.65	y	1.116e+06	18.476
29:25	7.209e+06	4.488e+06	1.61	y	1.170e+07	195.40
29:39	2.149e+06	1.336e+06	1.61	y	3.485e+06	57.716
30:12	4.217e+04	3.319e+04	1.27	n	6.938e+04	1.1491
30:18	2.451e+06	1.512e+06	1.62	y	3.963e+06	65.135
30:21	1.146e+06	7.260e+05	1.58	y	1.872e+06	31.000
31:11	1.574e+05	9.306e+04	1.69	y	2.505e+05	4.1486

Totals class: HxCDF EMPC

Entry #: 33

Run: 17

File: 200107D2

S: 12 I: 1 F: 3

Acquired: 8-JAN-20 07:18:19

Processed: 8-JAN-20 10:10:04

Total Concentration: 530.20

Unnamed Concentration: 119.058

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
31:51	3.164e+05	2.623e+05	1.21 y	5.787e+05	10.764
32:00	1.297e+06	1.031e+06	1.26 y	2.328e+06	43.298
32:22	3.396e+04	3.009e+04	1.13 y	6.405e+04	1.1914
32:32	1.102e+06	9.221e+05	1.20 y	2.024e+06	37.650
32:54	7.293e+04	5.660e+04	1.29 y	1.295e+05	2.4093
33:01	9.369e+06	7.759e+06	1.21 y	1.713e+07	306.64 1,2,3,4,7,8-HxCDF
33:08	2.368e+06	1.969e+06	1.20 y	4.336e+06	76.670 1,2,3,6,7,8-HxCDF
33:25	4.518e+04	4.142e+04	1.09 y	8.660e+04	1.6109
33:44	5.696e+05	4.646e+05	1.23 y	1.034e+06	18.800 2,3,4,6,7,8-HxCDF
34:40	2.302e+05	2.028e+05	1.14 y	4.330e+05	9.0373 1,2,3,7,8,9-HxCDF
34:43	6.575e+05	5.325e+05	1.23 y	1.190e+06	22.135

Totals class: HpCDF EMPC

Entry #: 35

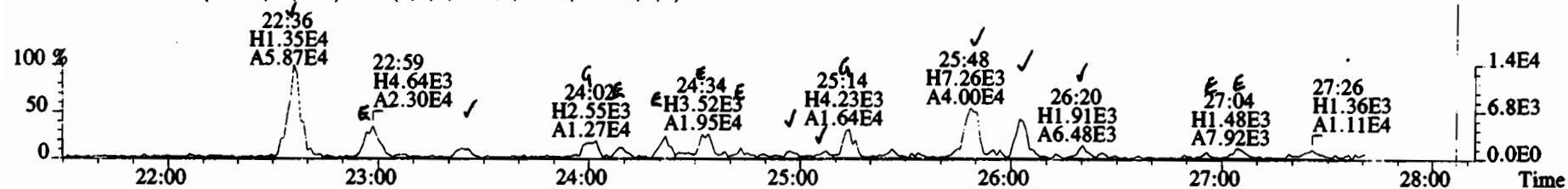
Run: 17 File: 200107D2 S: 12 I: 1 F: 4  
Acquired: 8-JAN-20 07:18:19 Processed: 8-JAN-20 10:10:04

Total Concentration: 340.27

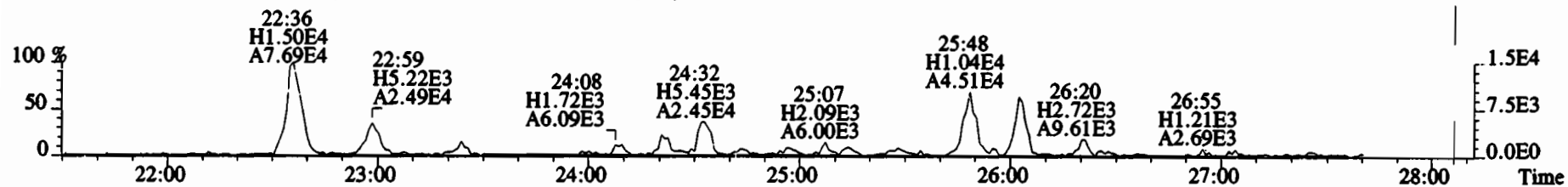
Unnamed Concentration: 133.633

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
36:31	3.440e+06	3.360e+06	1.02	y	6.800e+06	148.92	1,2,3,4,6,7,8-HpCDF R c1 01/10/2020
36:55	7.744e+04	7.721e+04	1.00	y	1.547e+05	3.6108	
37:06	2.804e+06	2.765e+06	1.01	y	5.569e+06	130.02	
38:18	1.166e+06	1.143e+06	1.02	y	2.309e+06	57.712	1,2,3,4,7,8,9-HpCDF

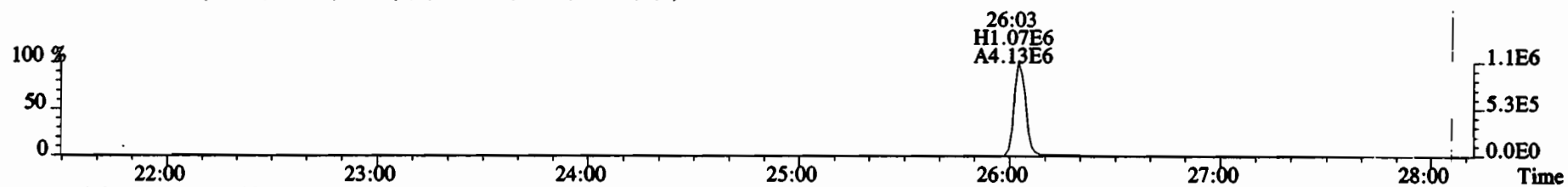
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 Sample#12 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



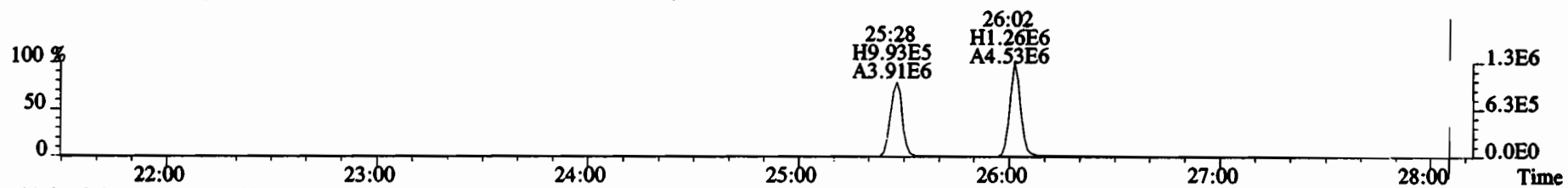
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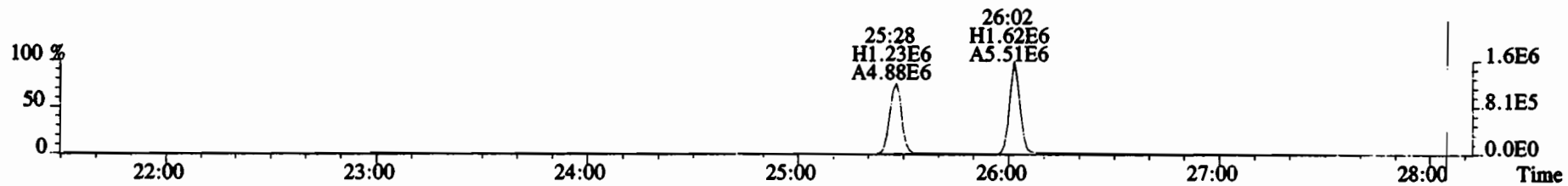
327.8847 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



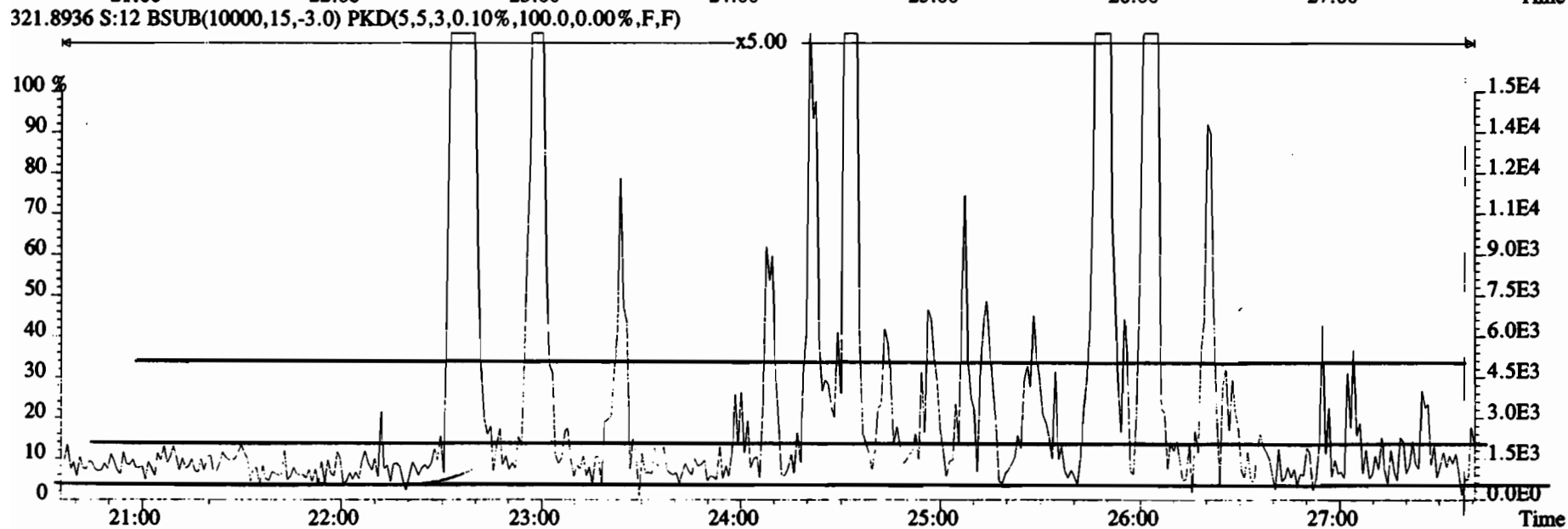
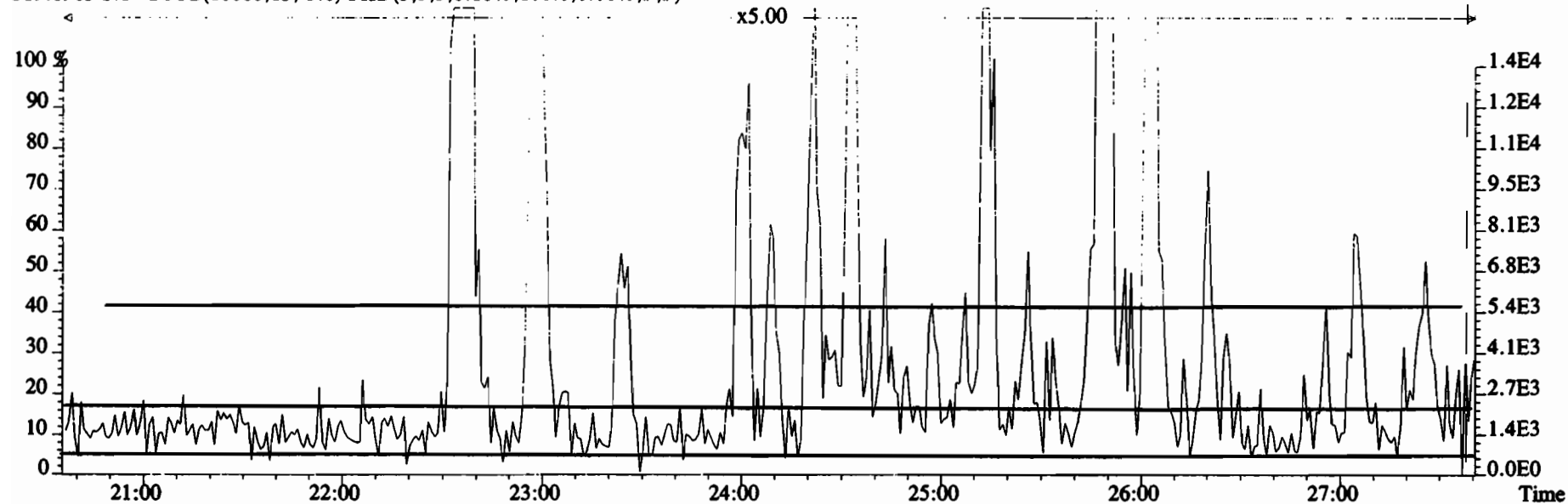
331.9368 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



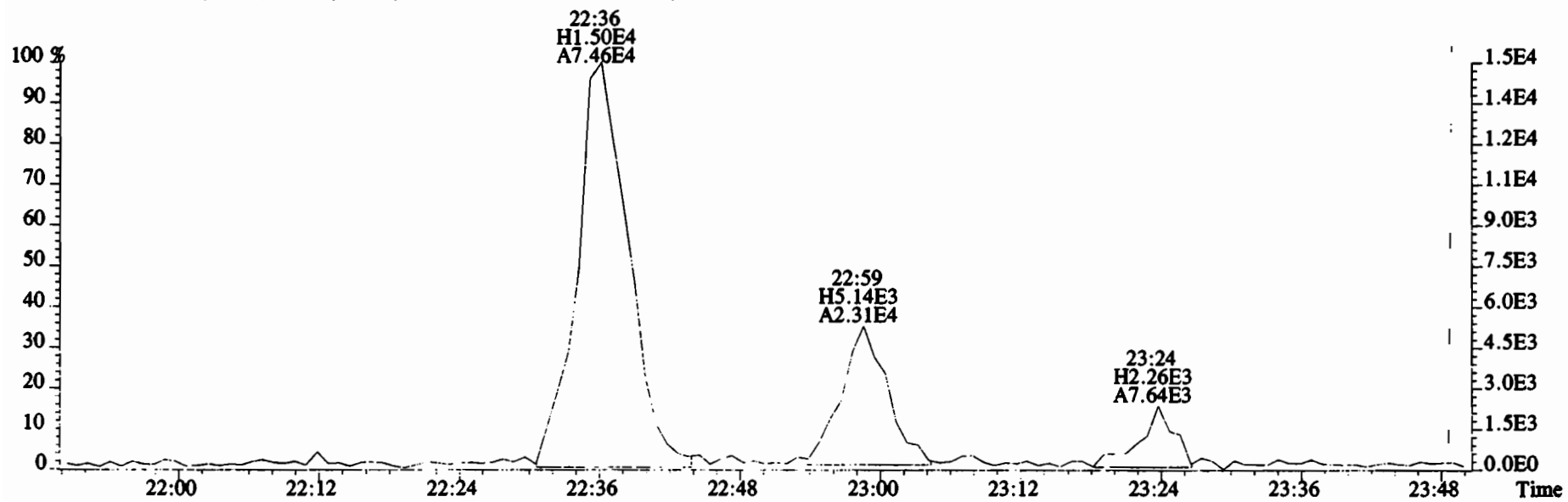
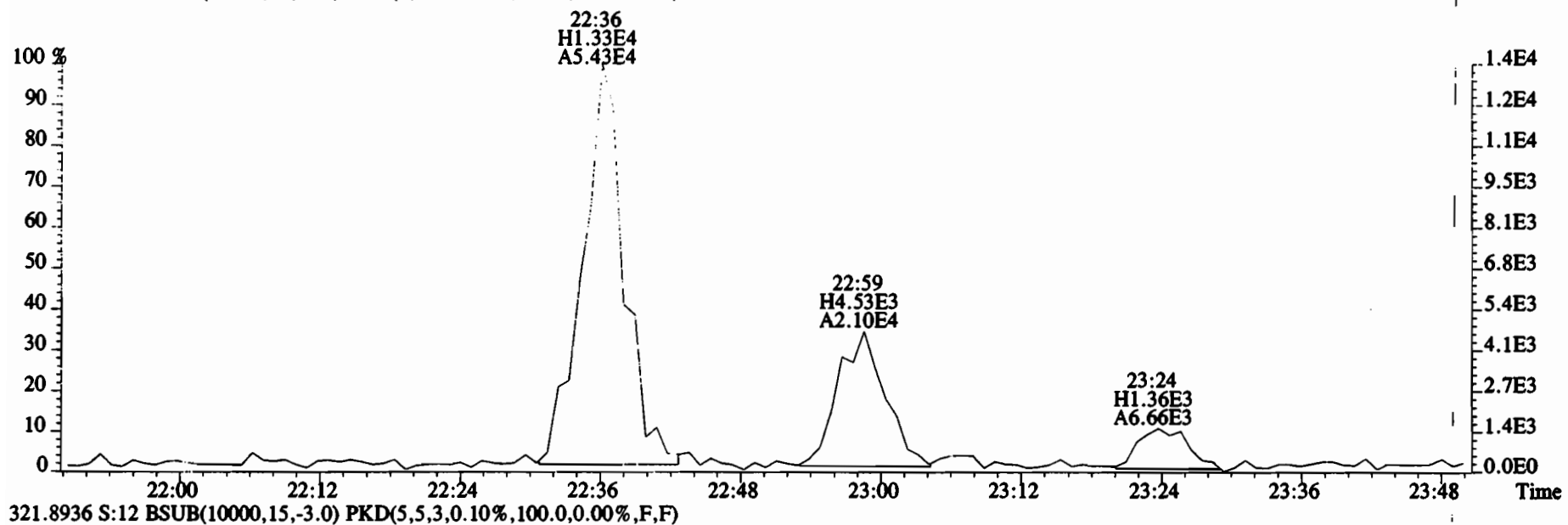
333.9339 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



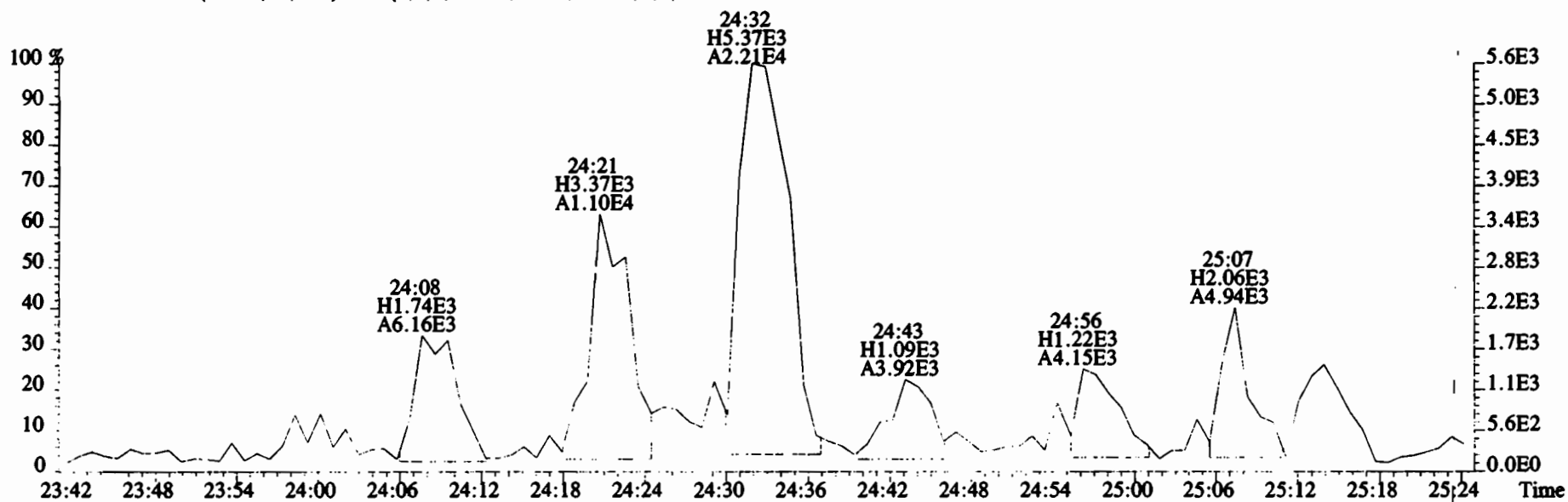
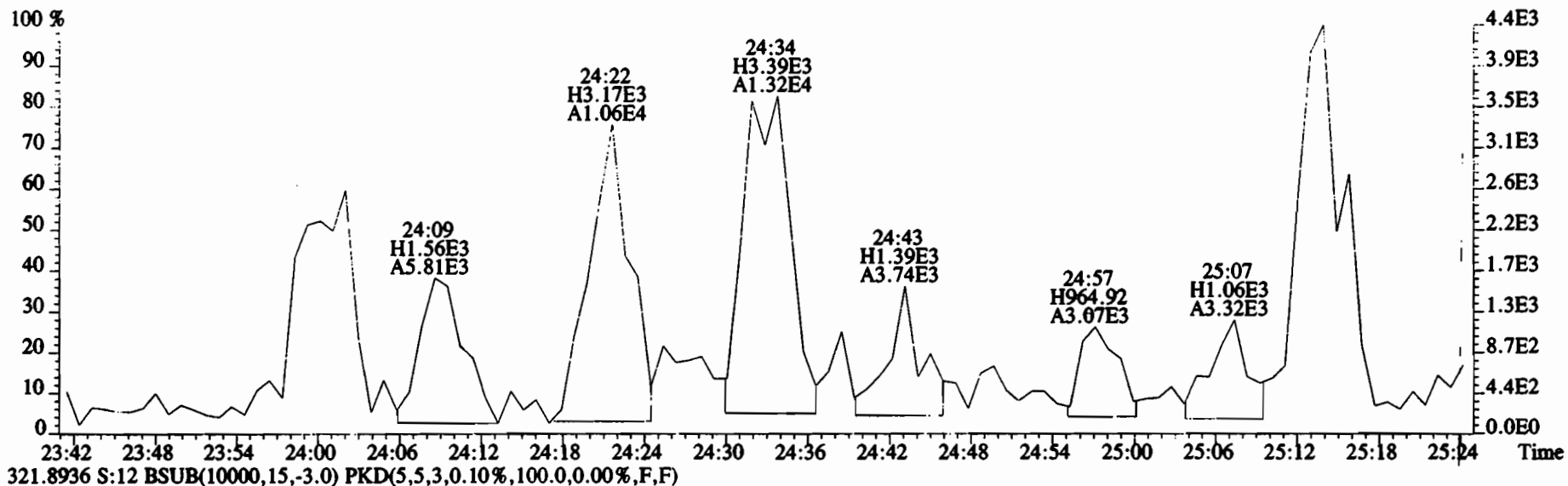
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



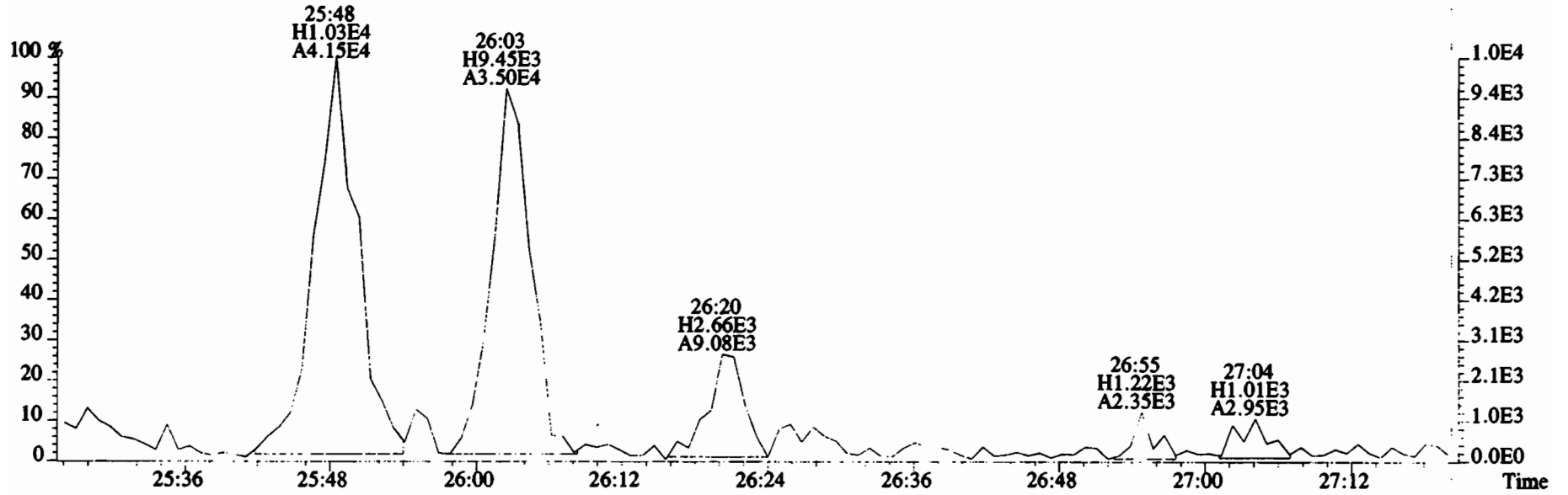
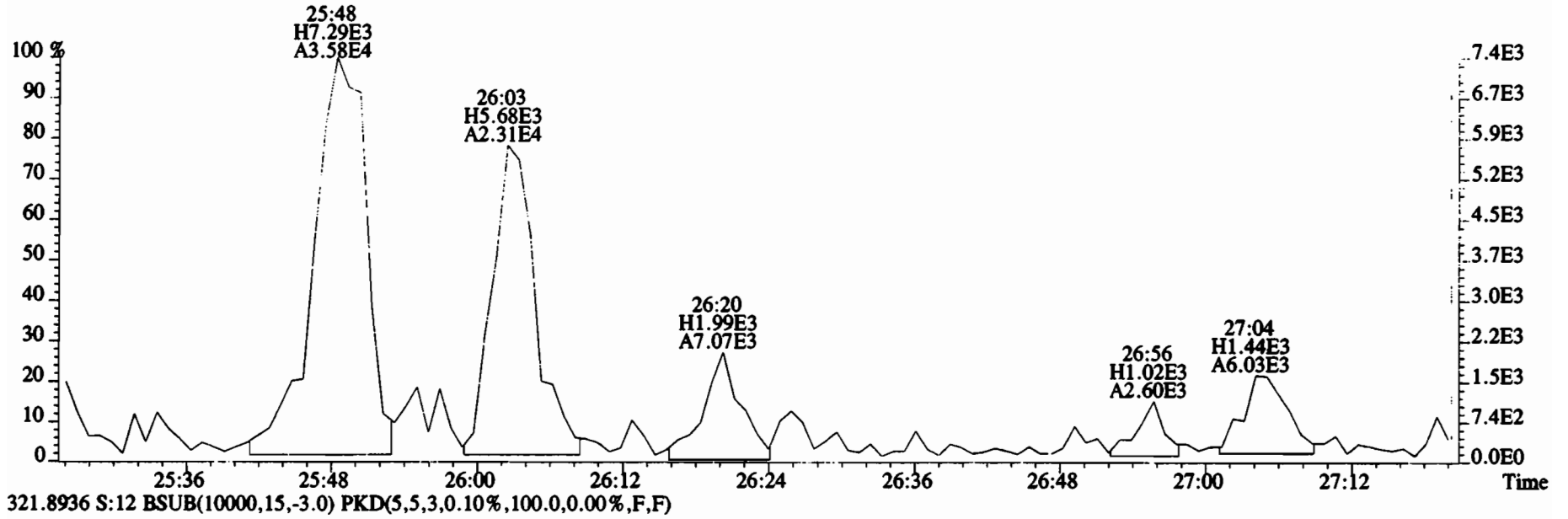
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

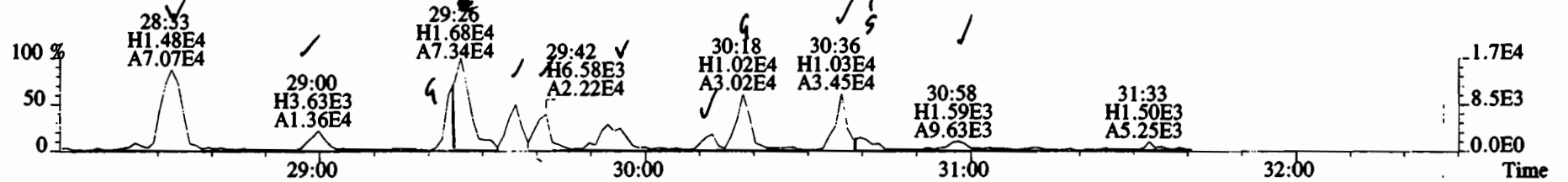


File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

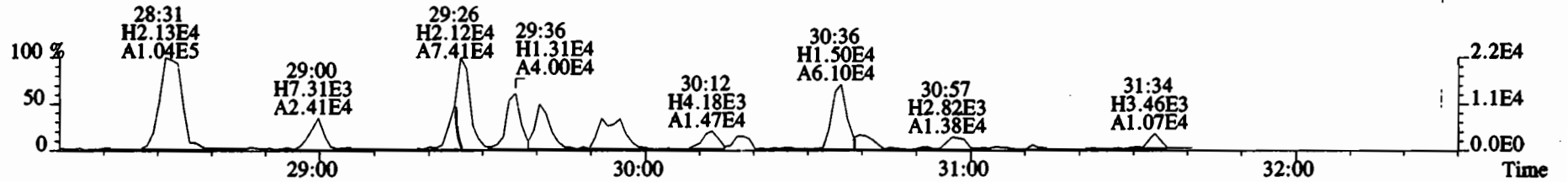




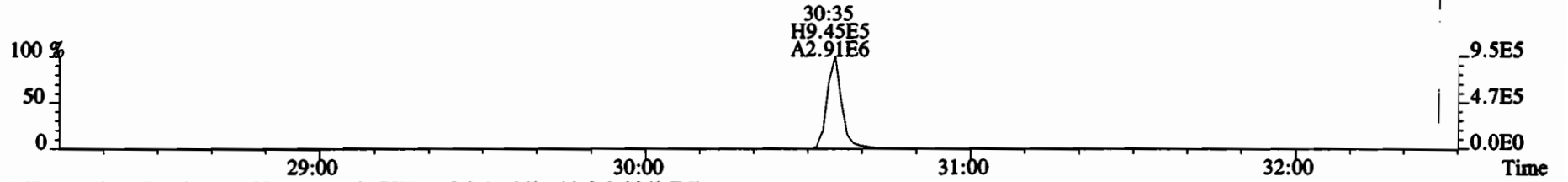
File:200107D2 #1-211 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
353.8576 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



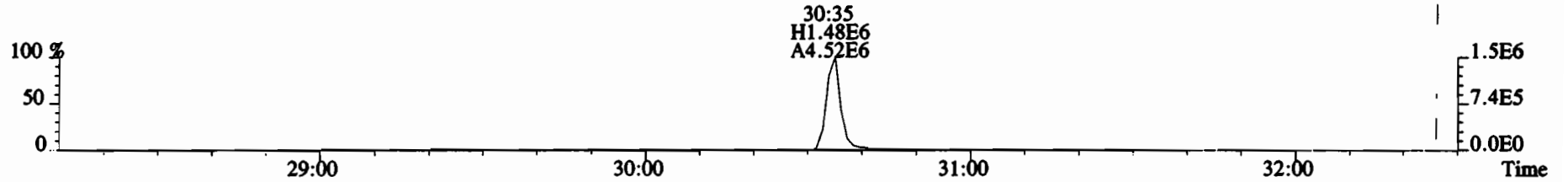
355.8546 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



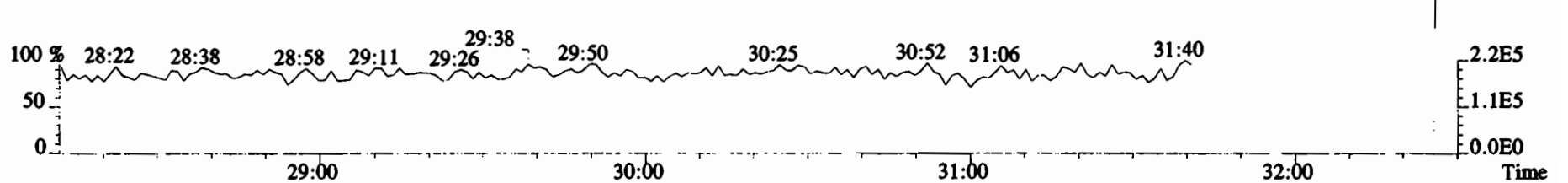
365.8978 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



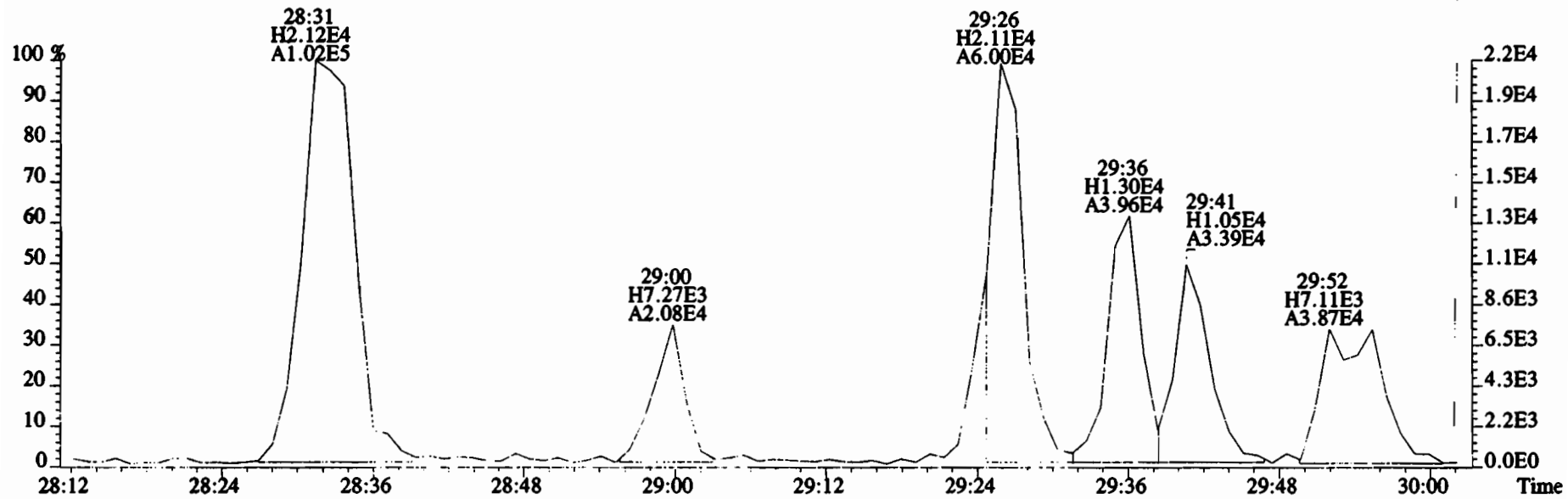
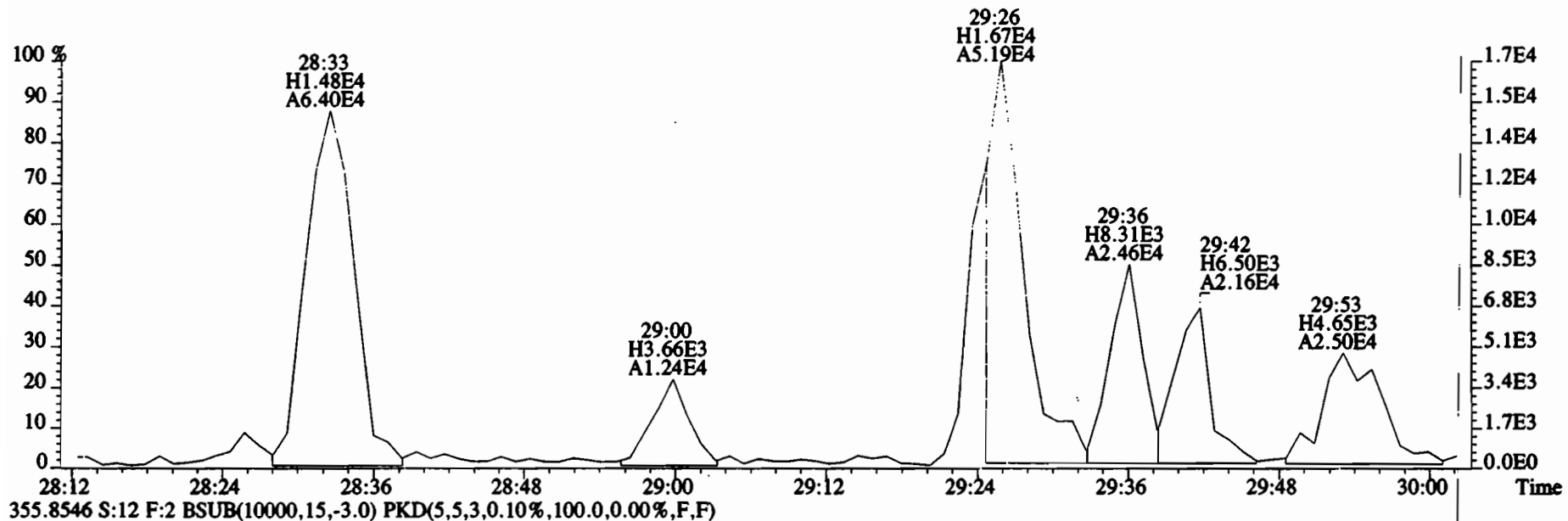
367.8949 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



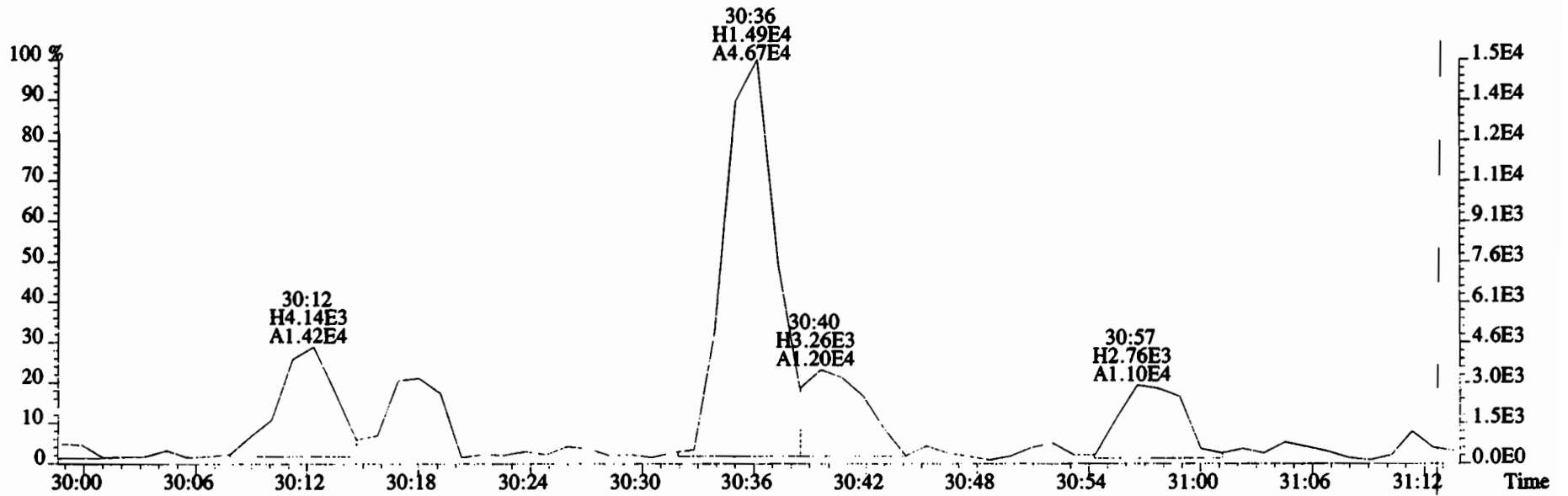
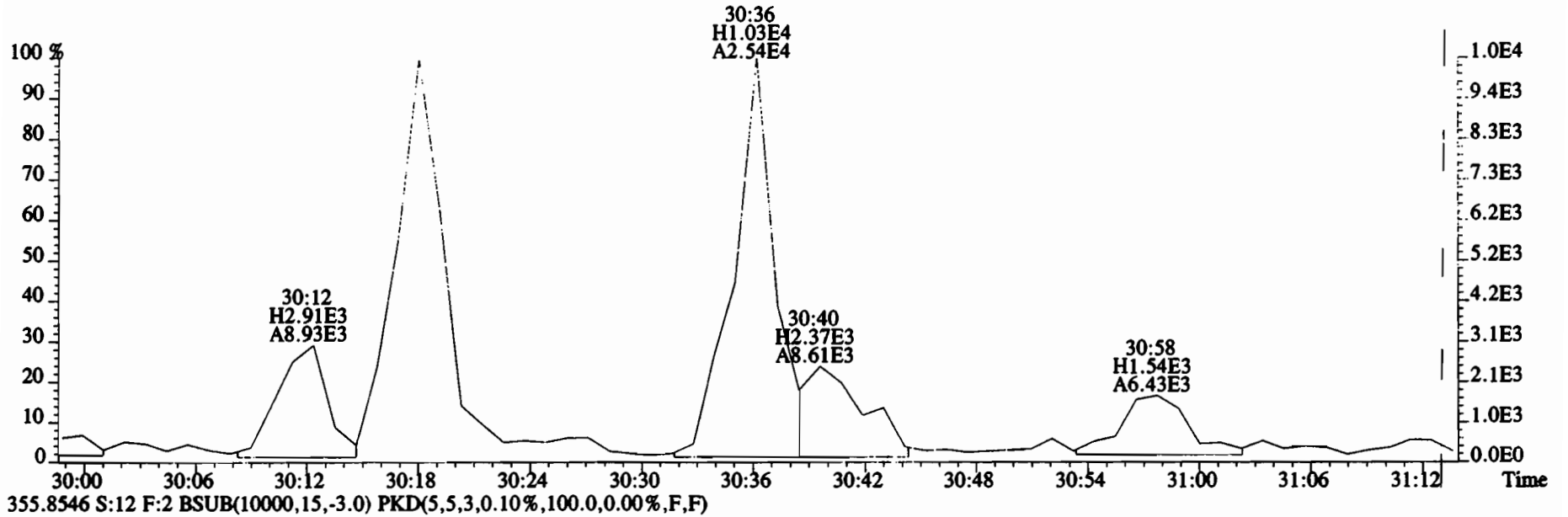
366.9792 S:12 F:2



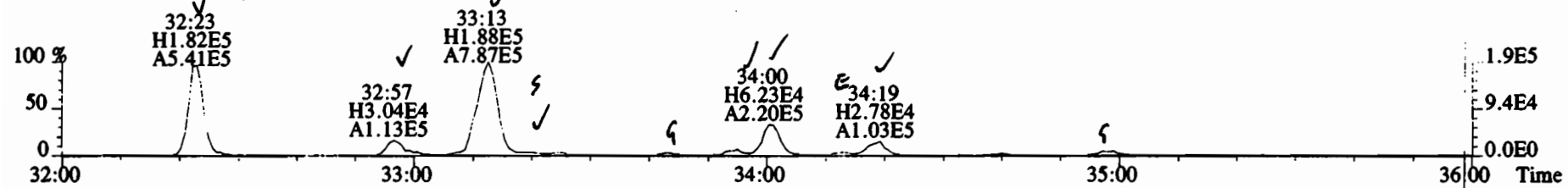
File:200107D2 #1-211 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 353.8576 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



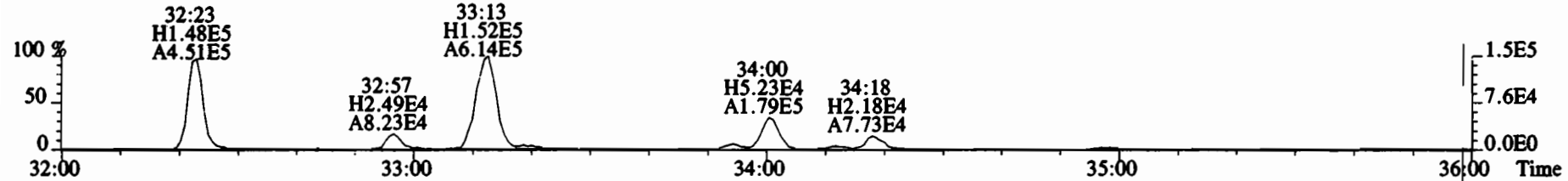
File:200107D2 #1-211 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 353.8576 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



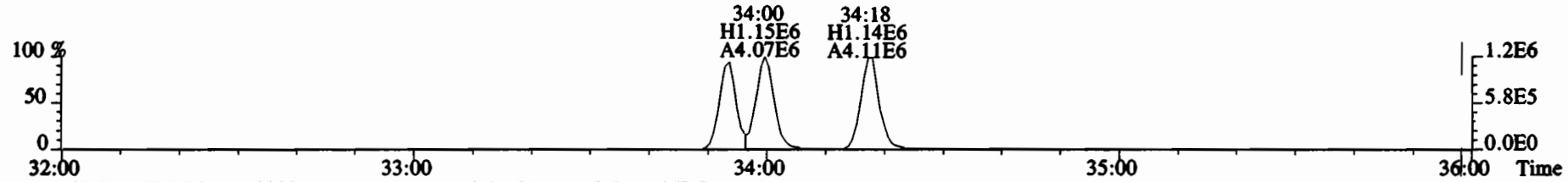
File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0,10%,100.0,0.00%,F,F)



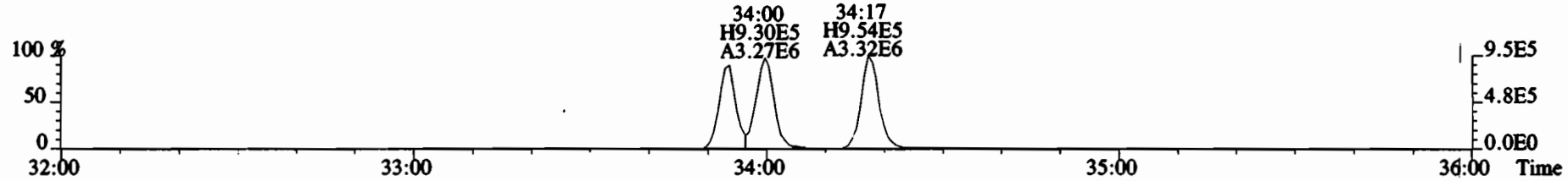
391.8127 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



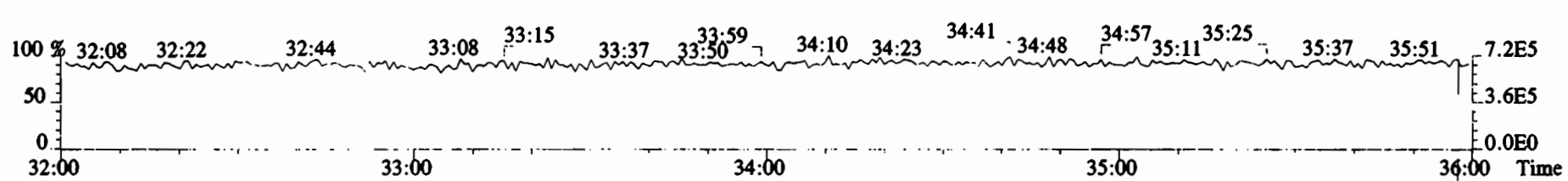
401.8559 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



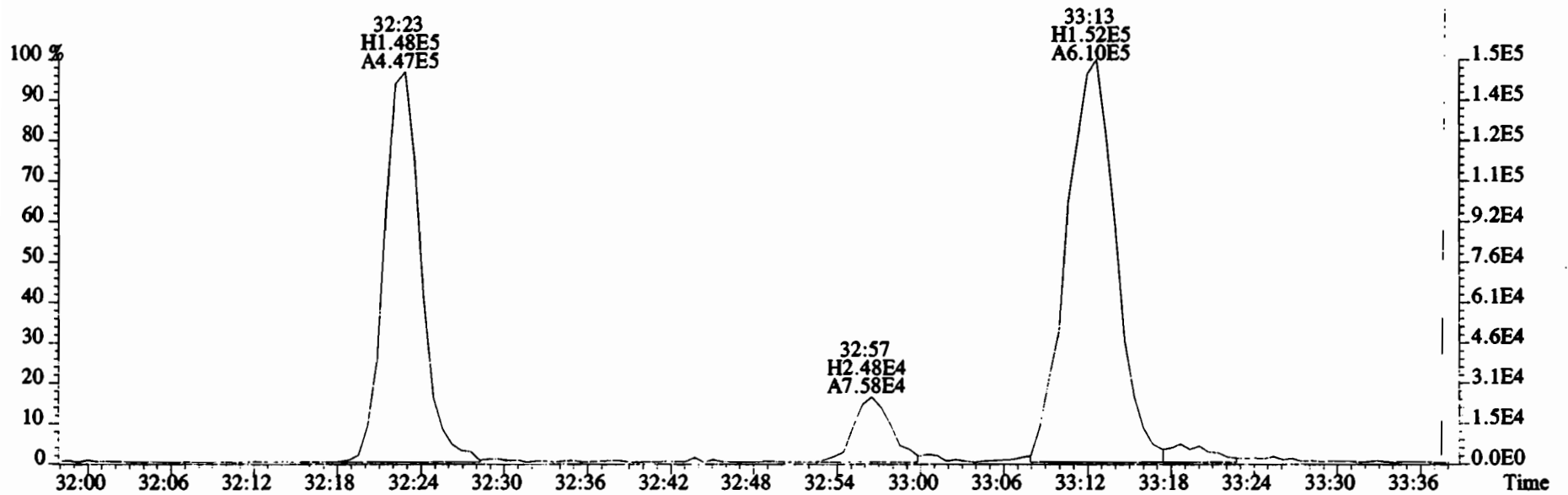
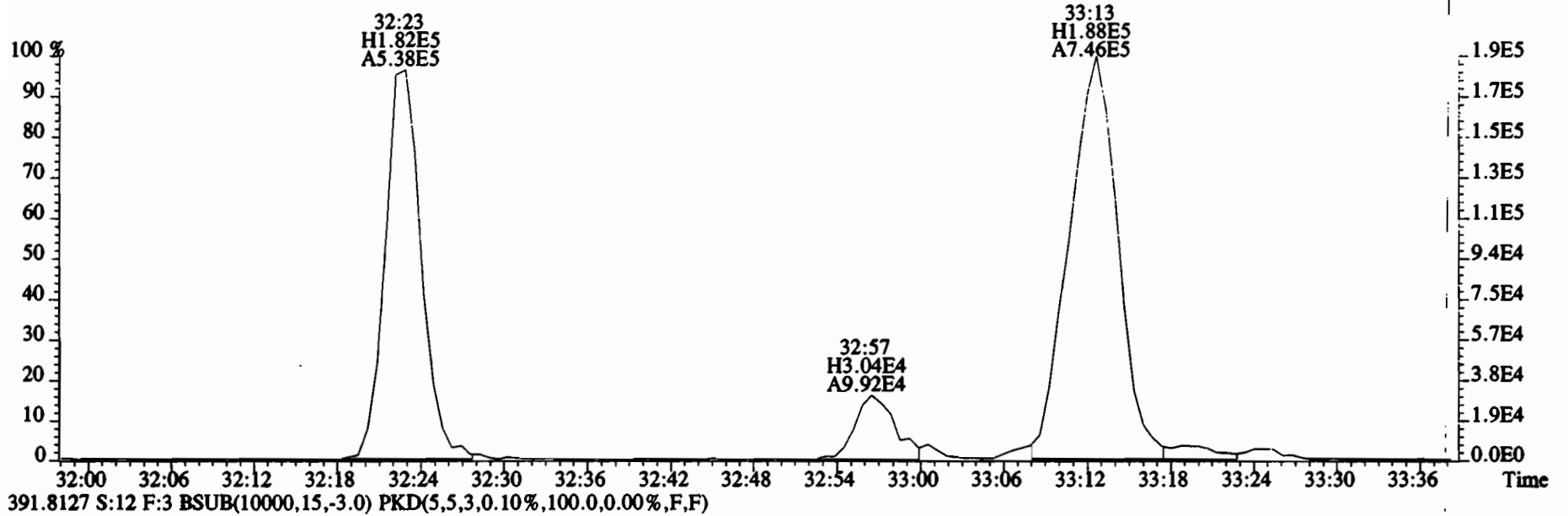
403.8530 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



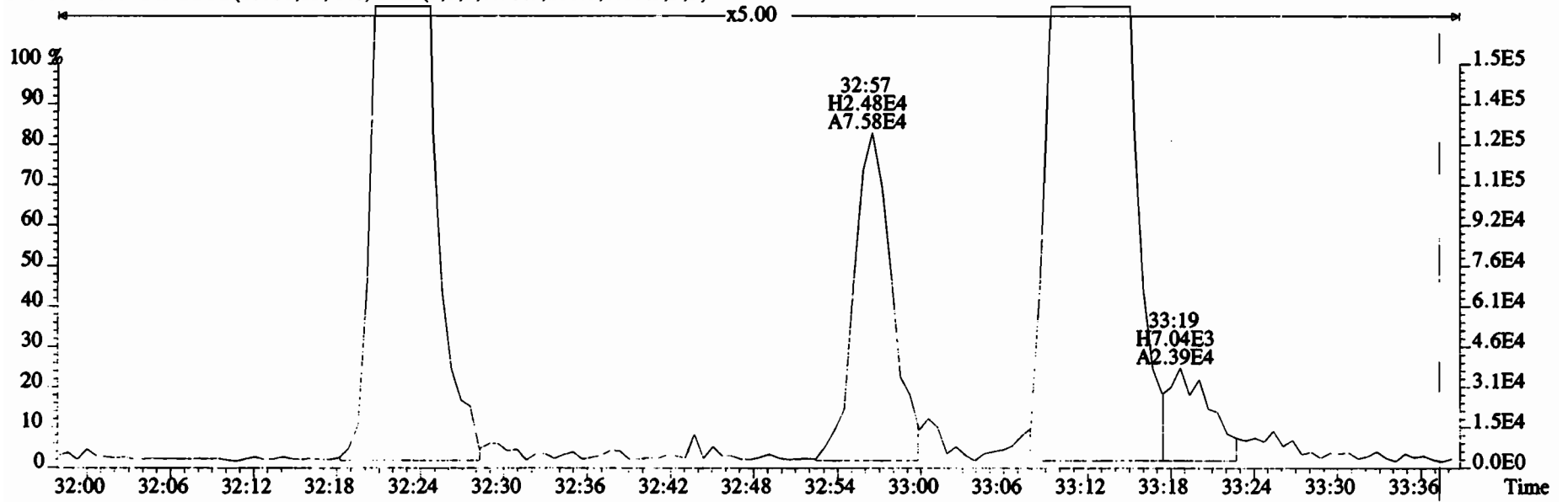
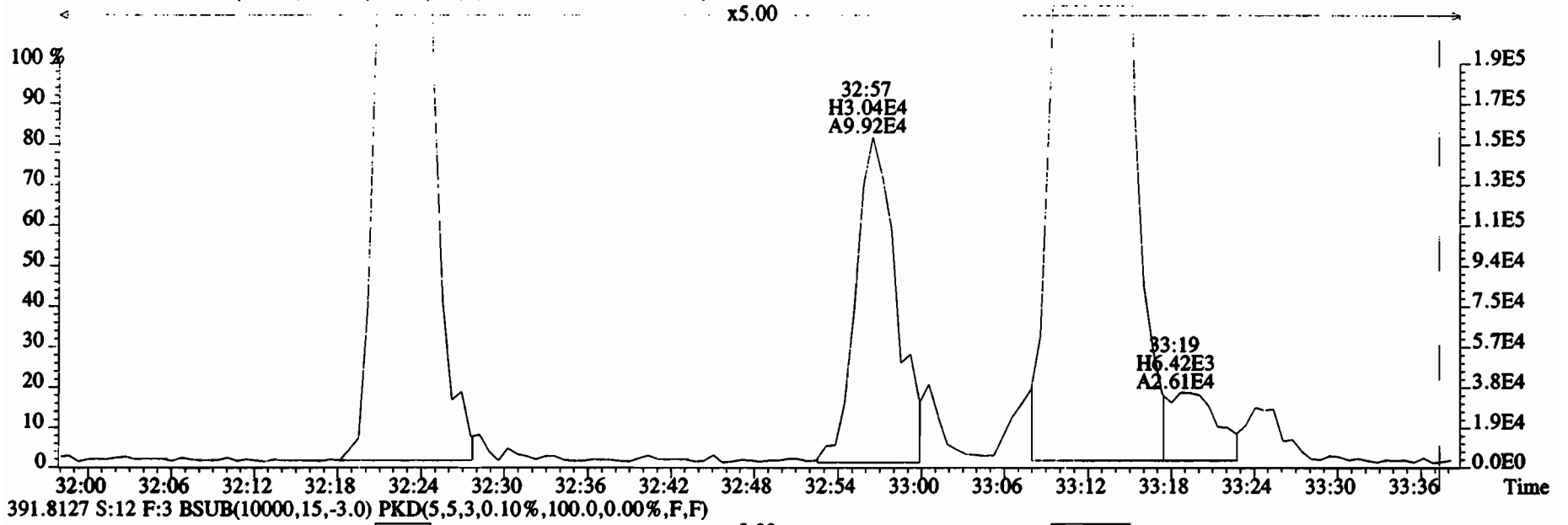
392.9760 S:12 F:3



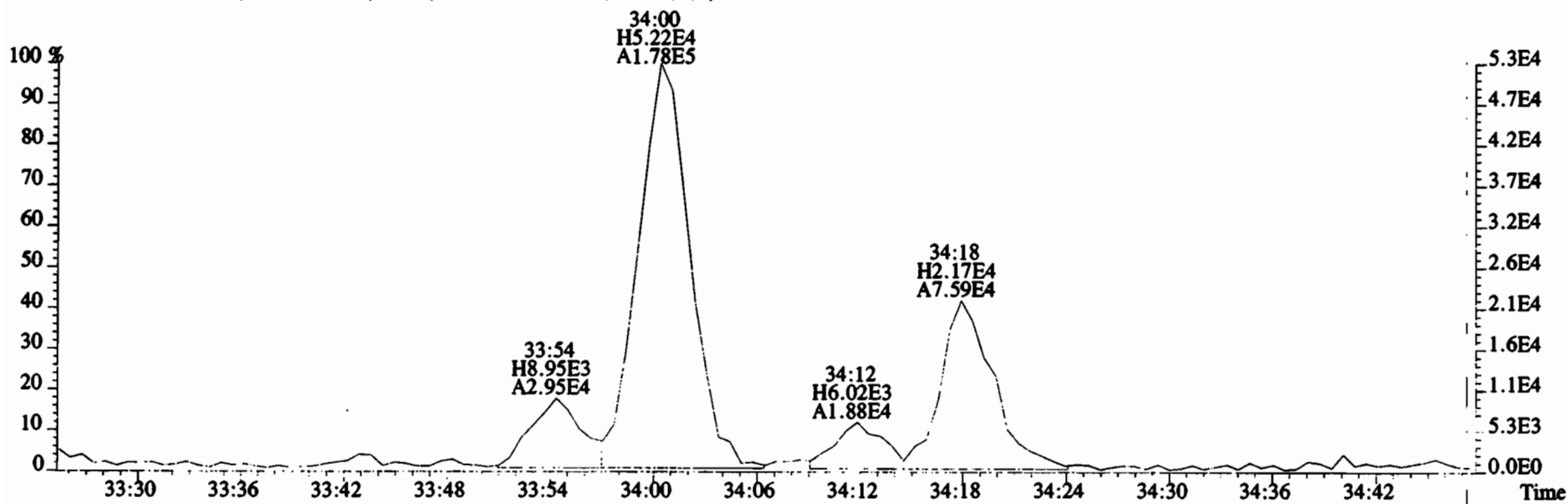
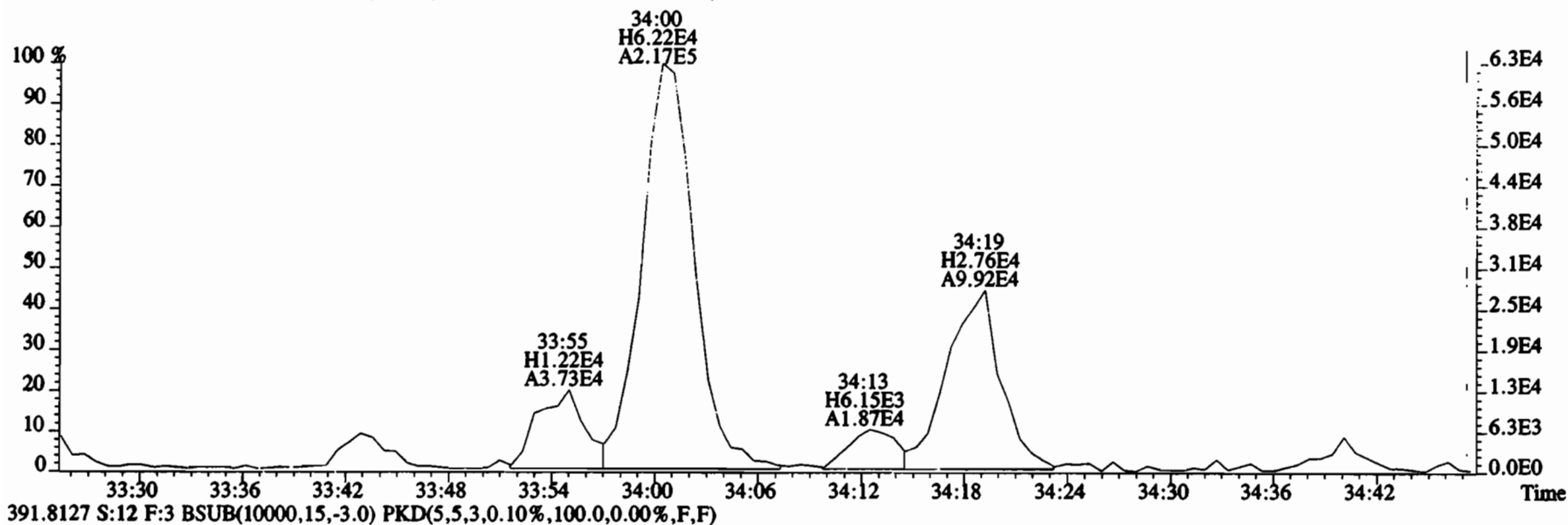
File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



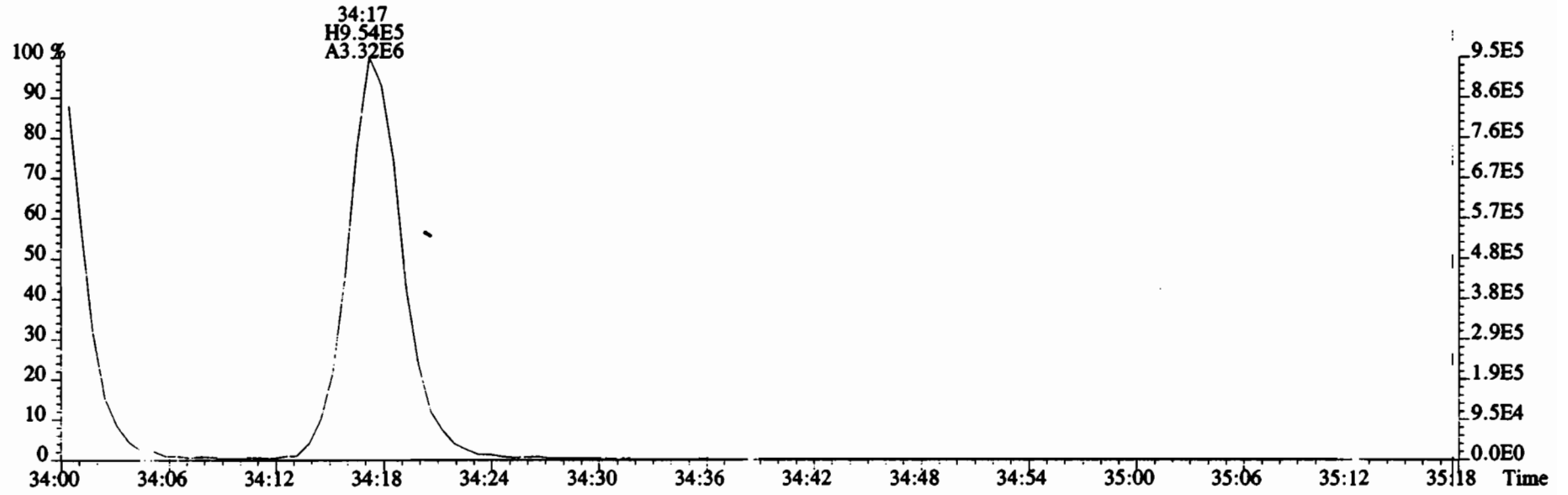
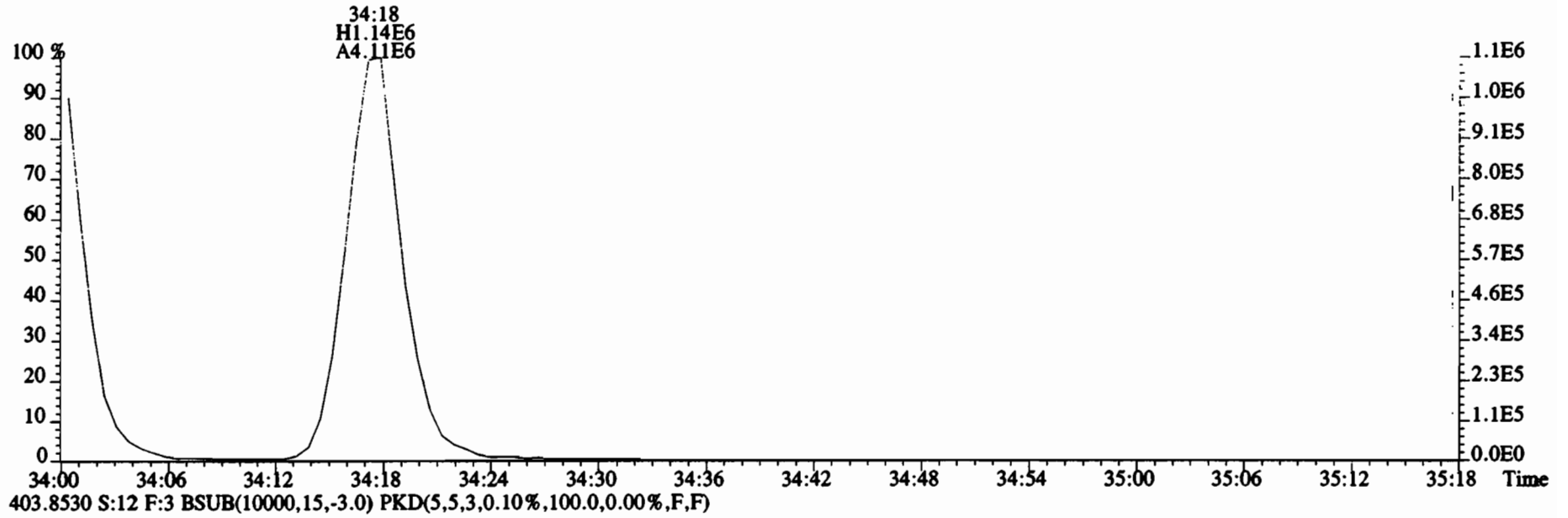
File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text: Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

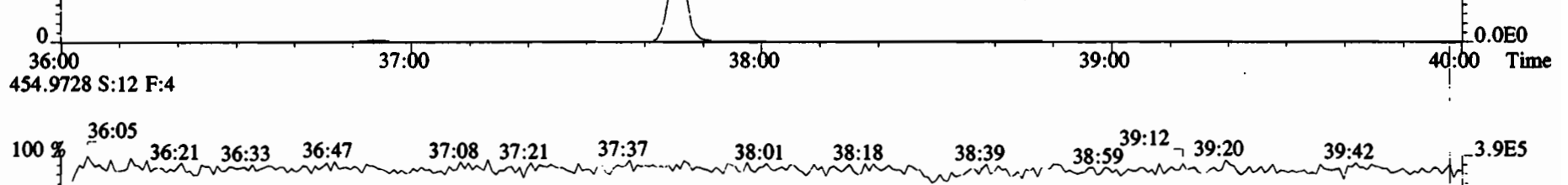
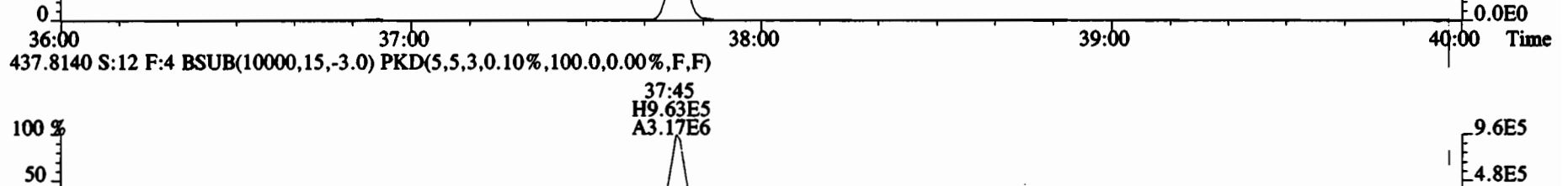
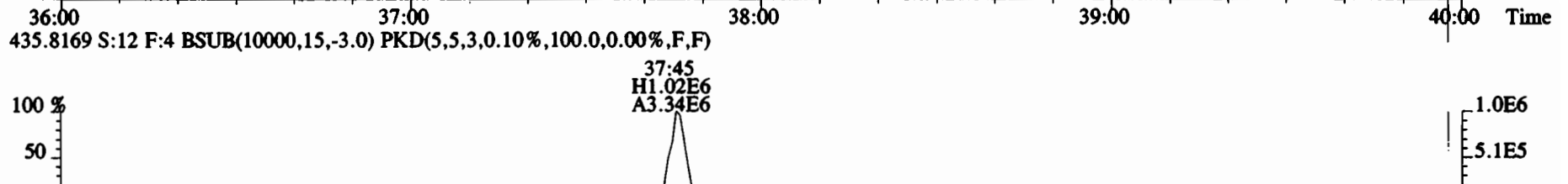
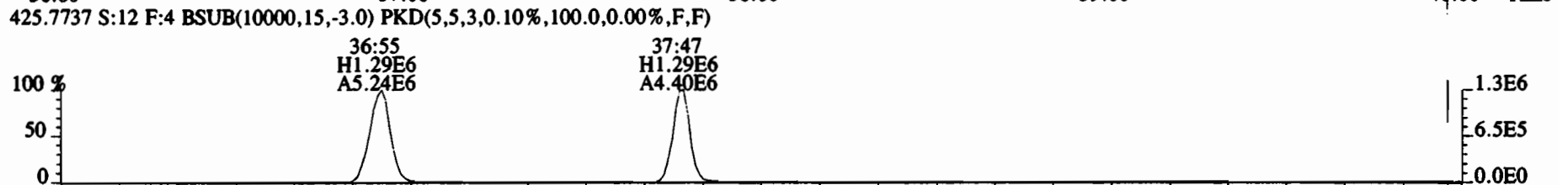
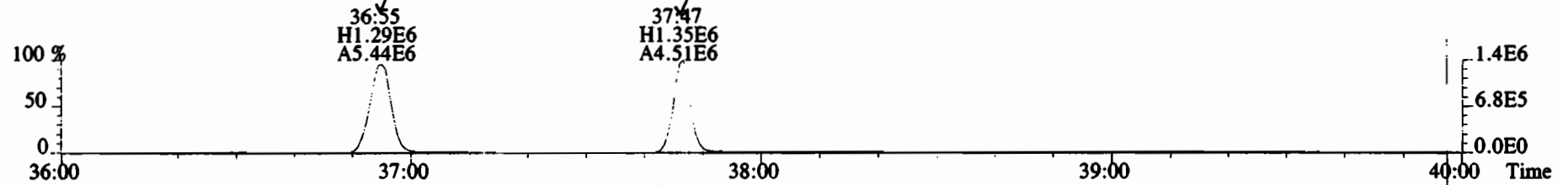


File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
401.8559 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

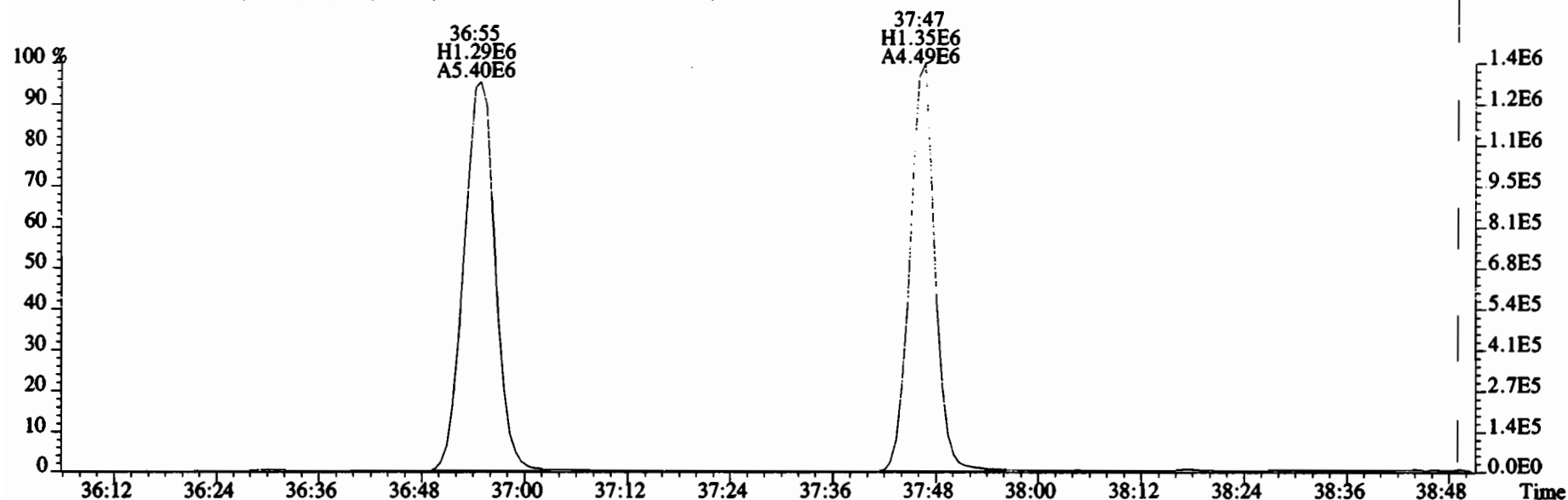




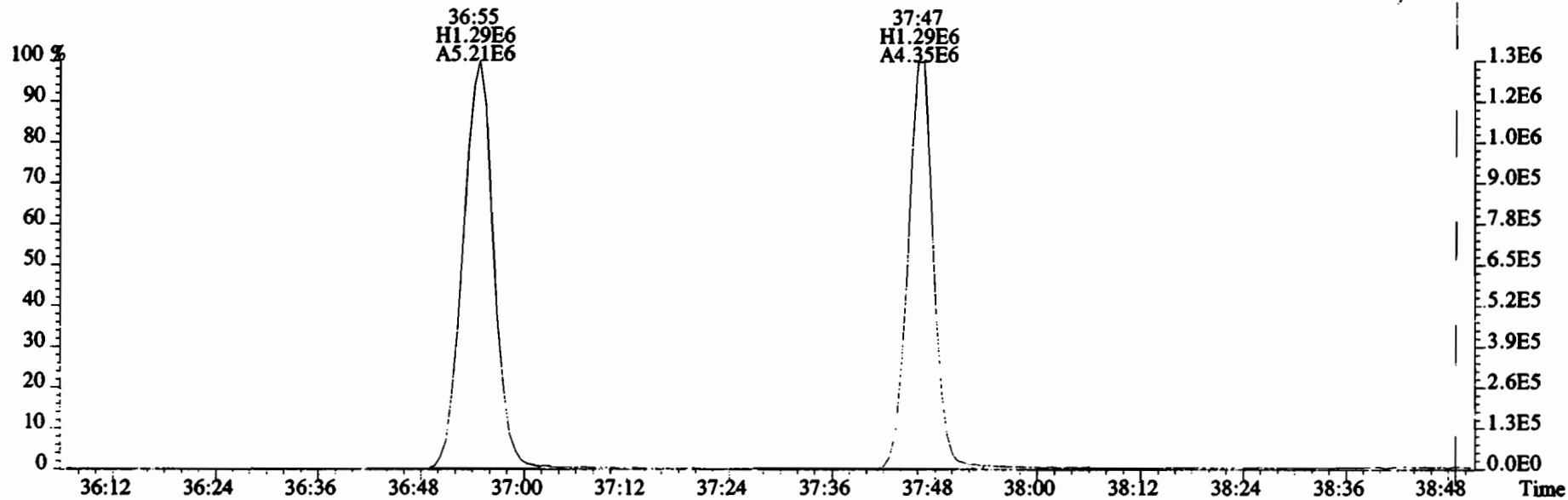
File:200107D2 #1-356 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text: Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
423.7767 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



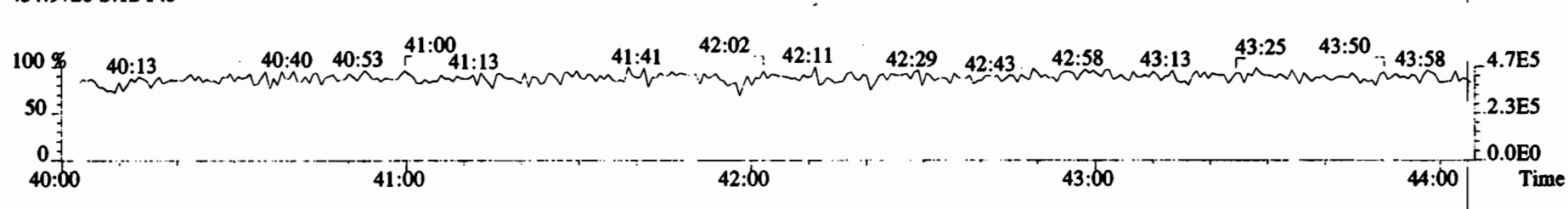
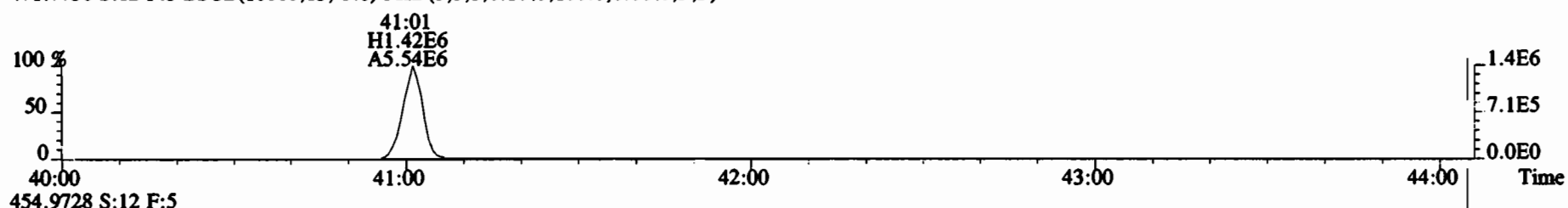
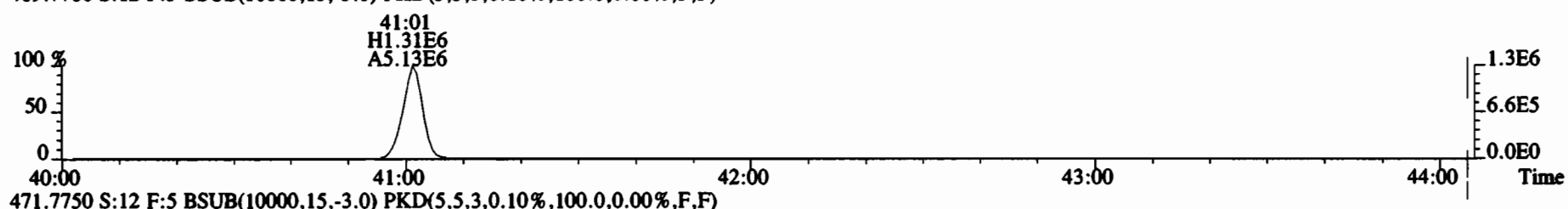
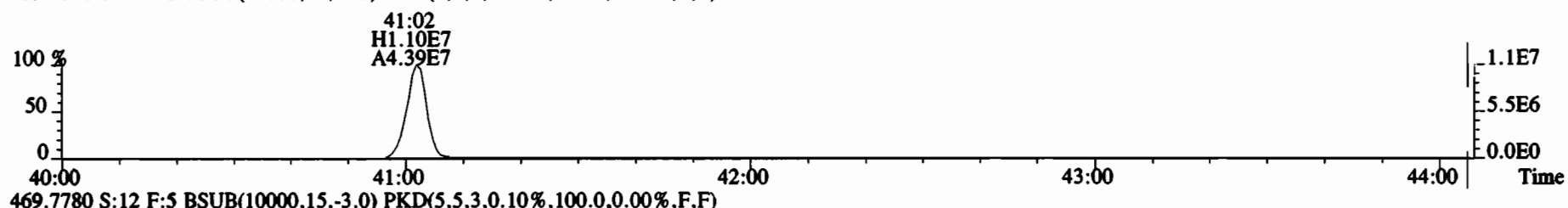
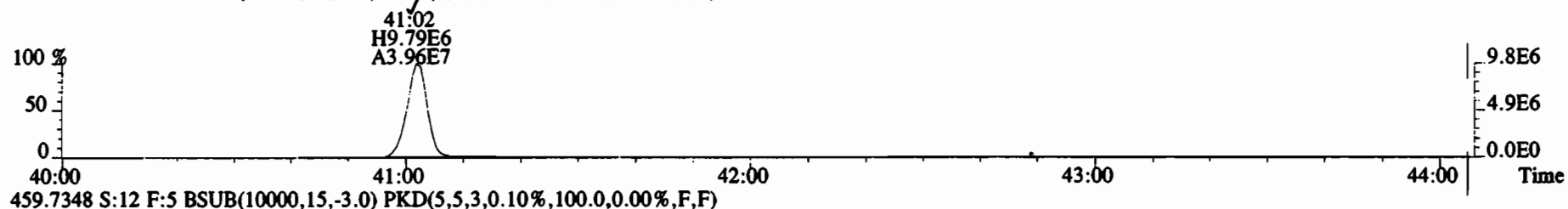
File:200107D2 #1-356 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
423.7767 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



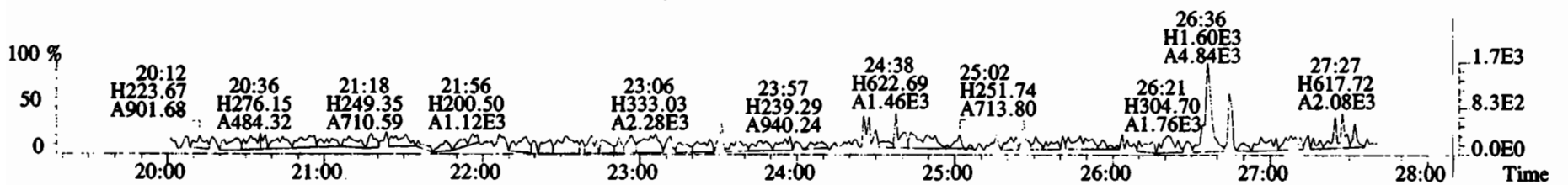
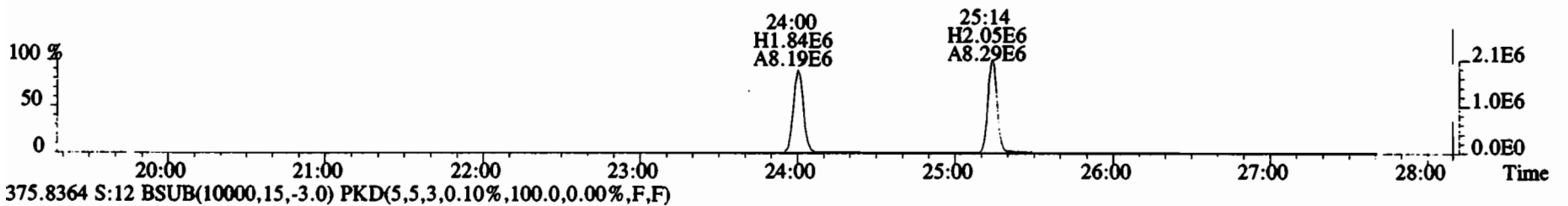
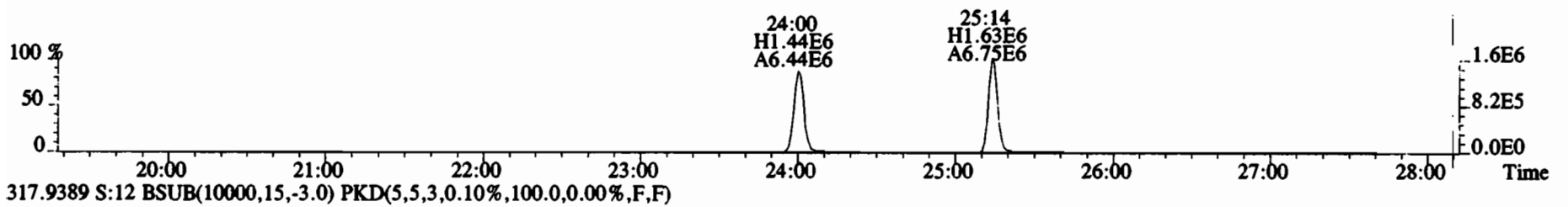
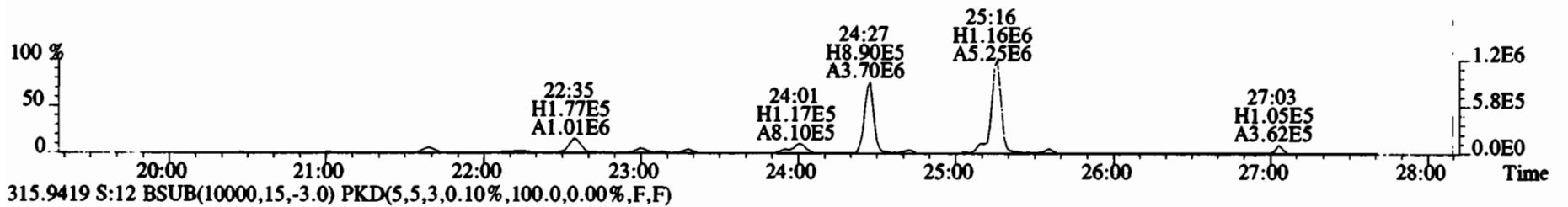
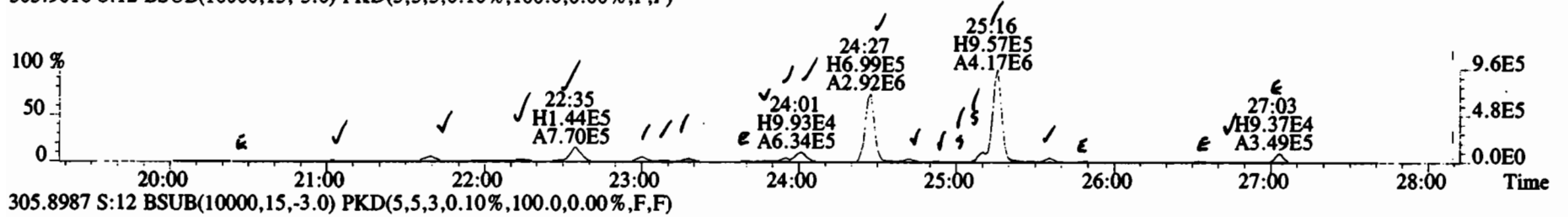
425.7737 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



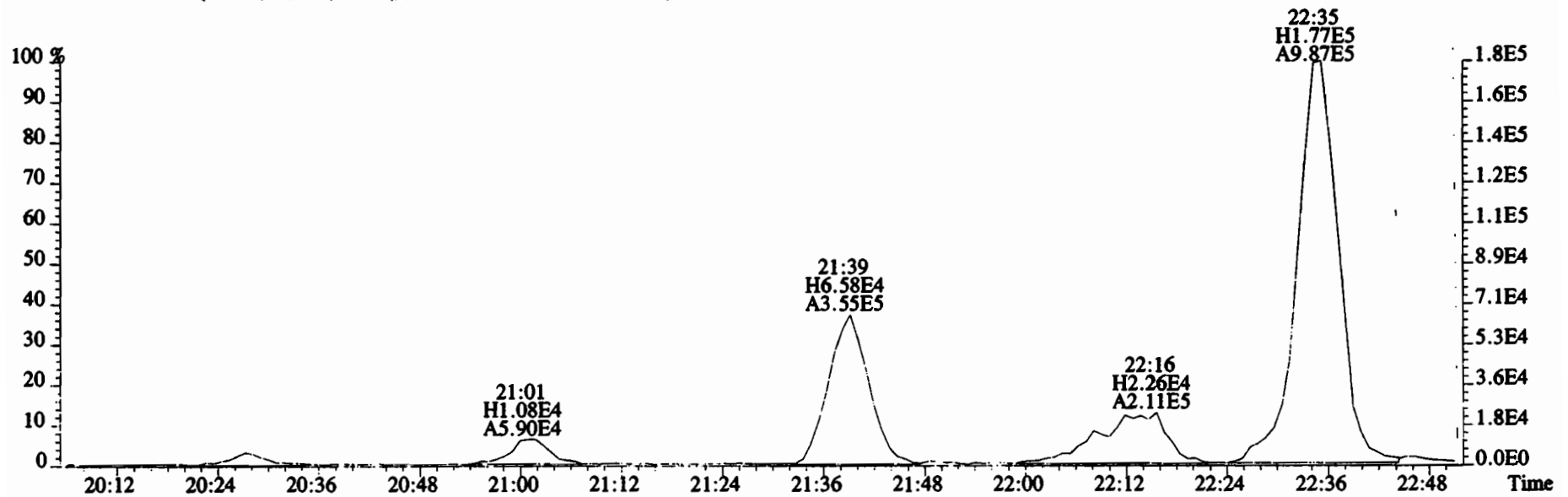
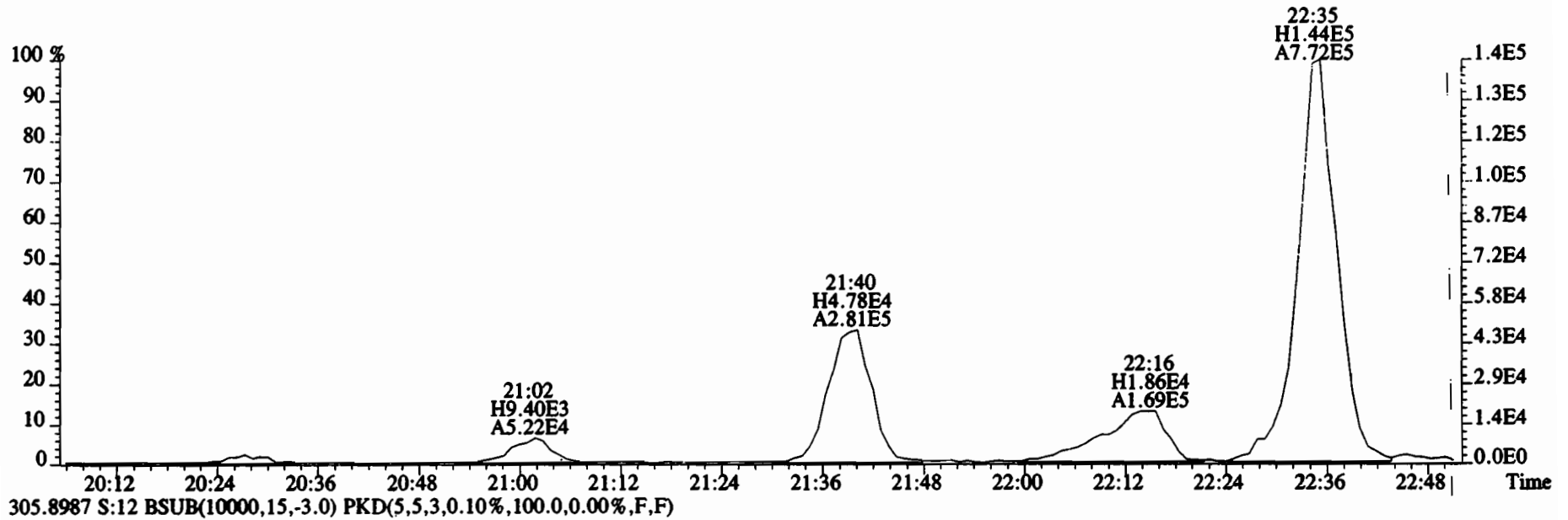
File:200107D2 #1-431 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
457.7377 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



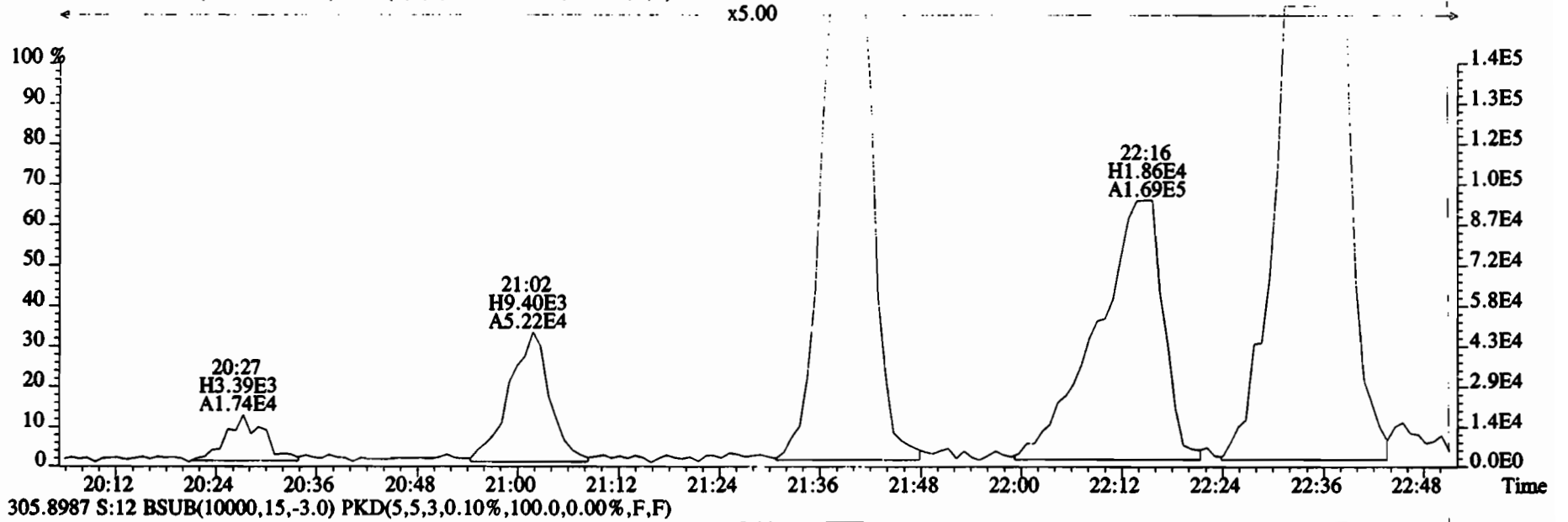
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



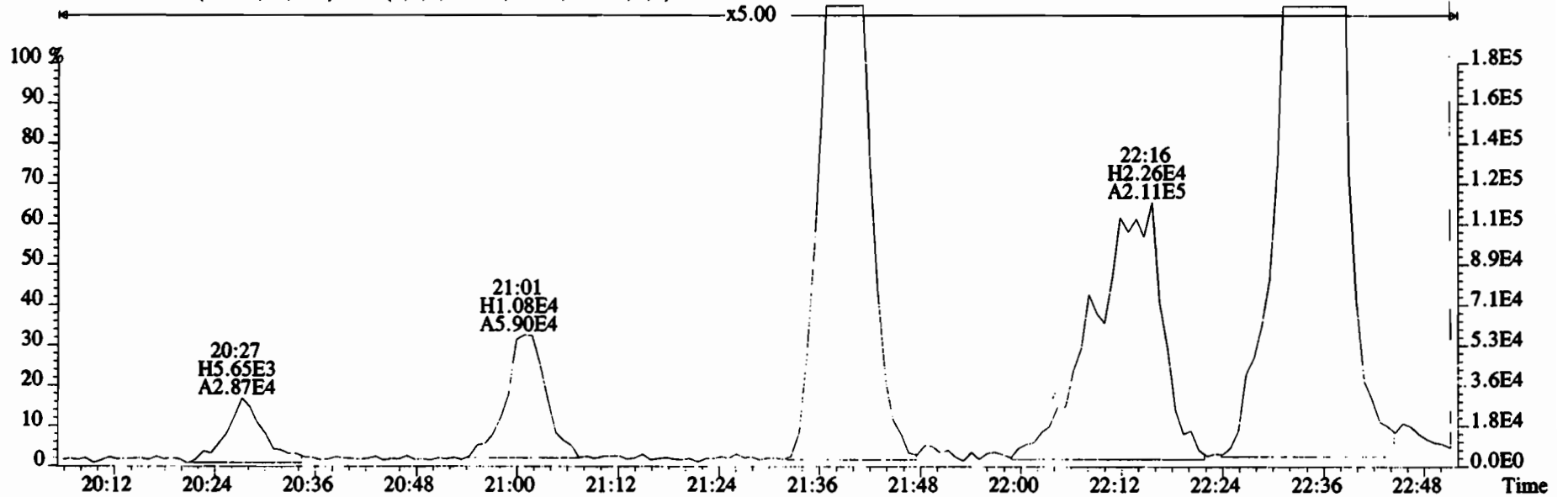
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



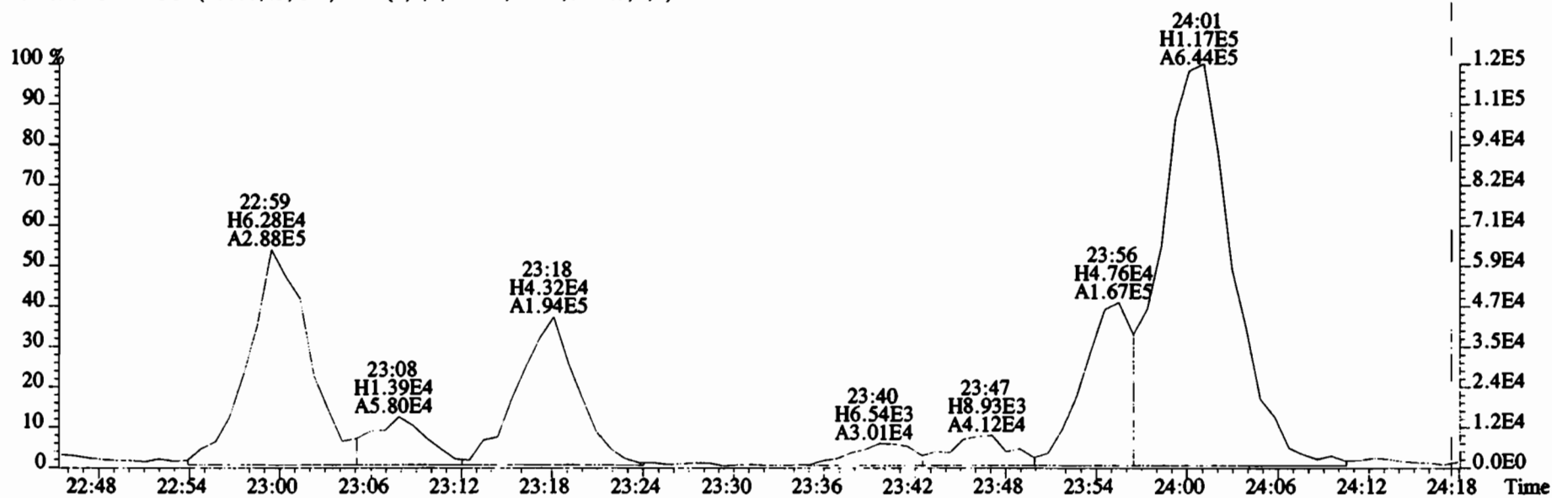
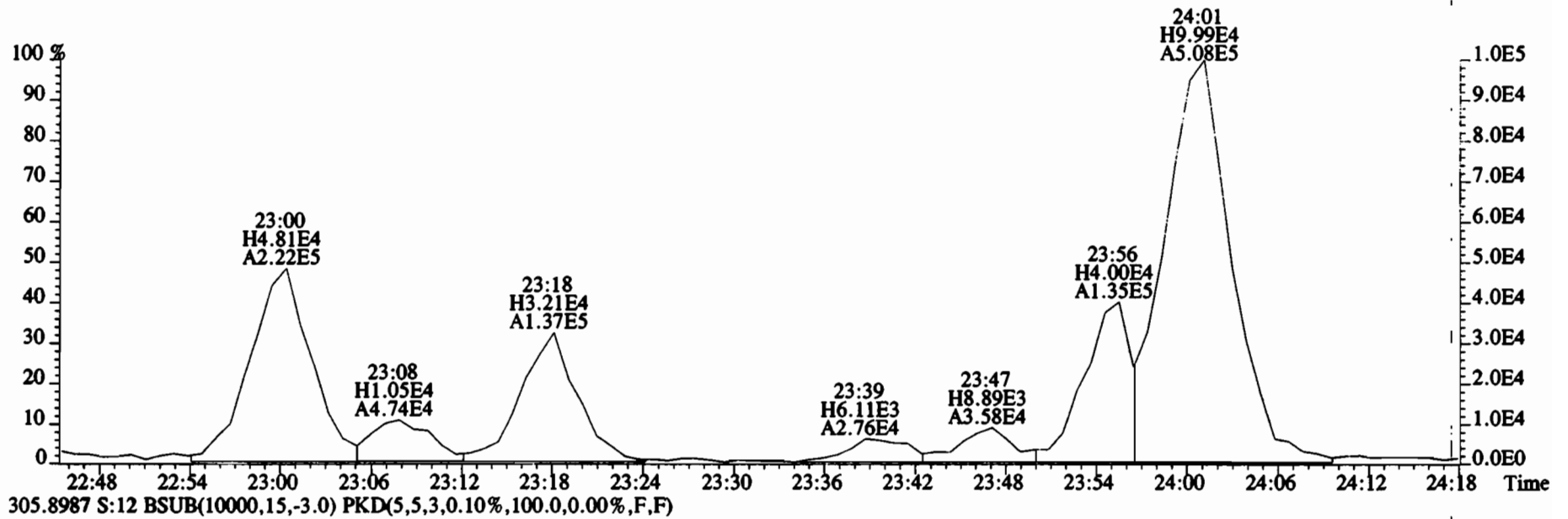
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



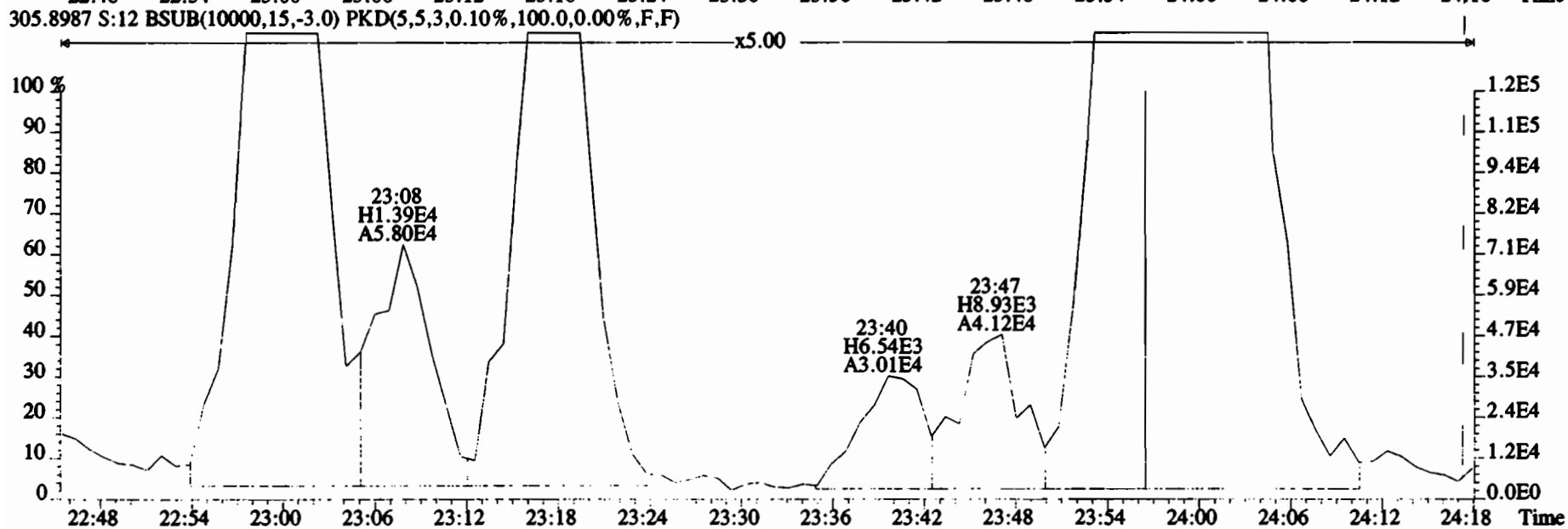
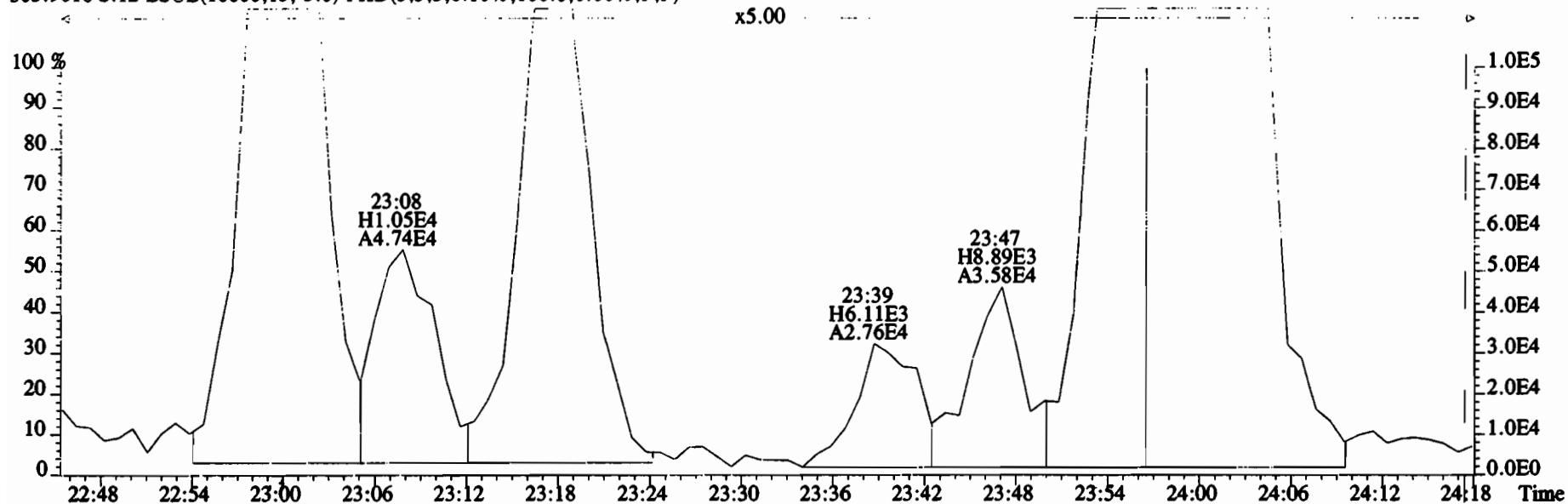
305.8987 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

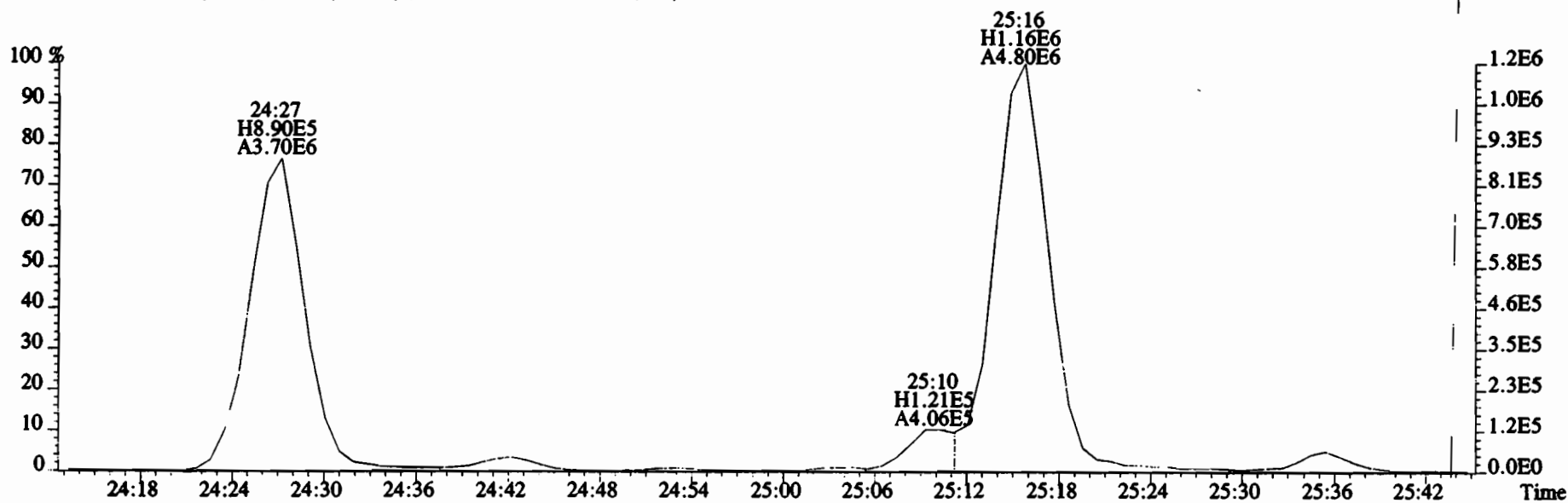
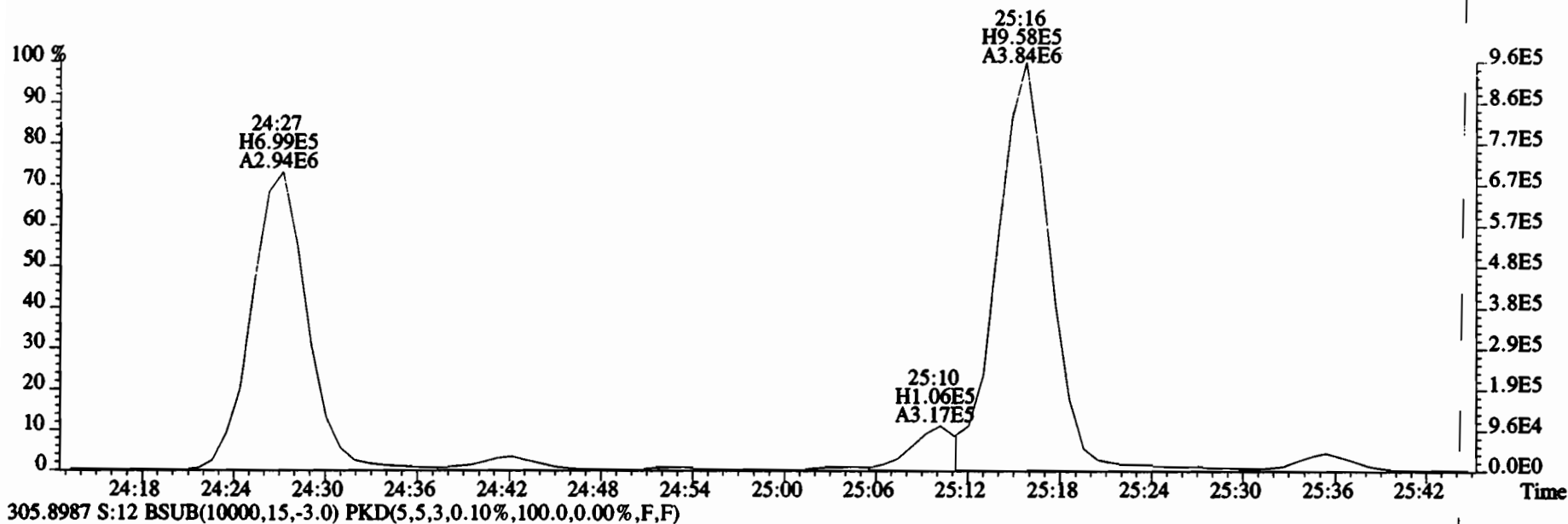


File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

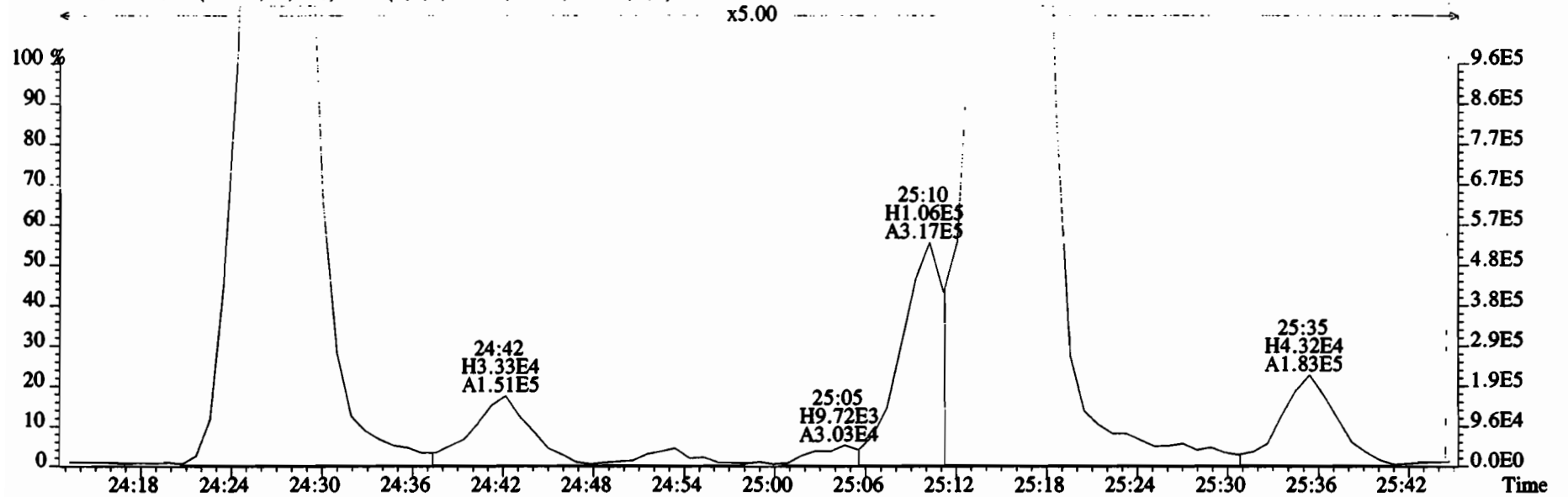




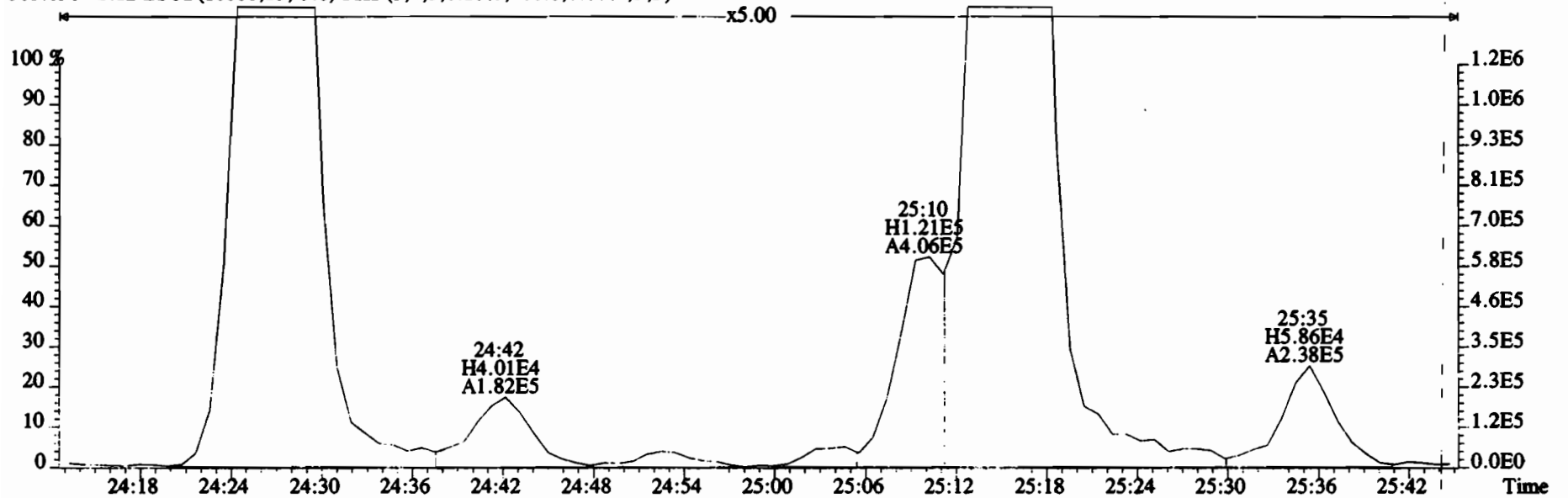
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Sample#12 File Text: Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



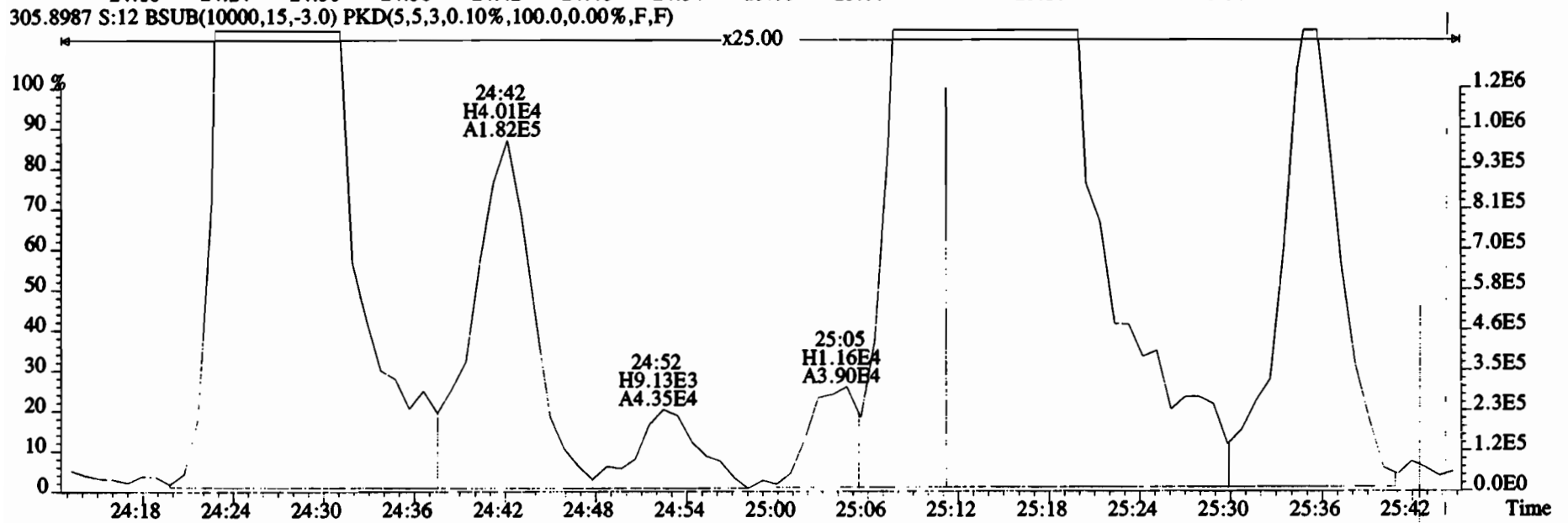
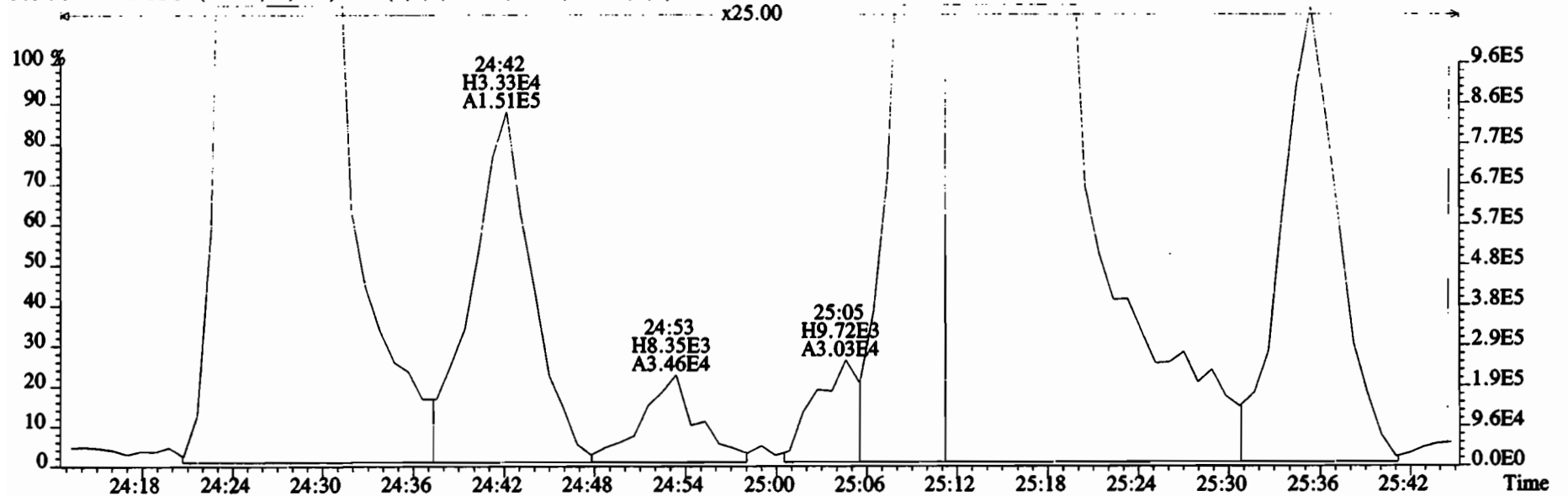
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



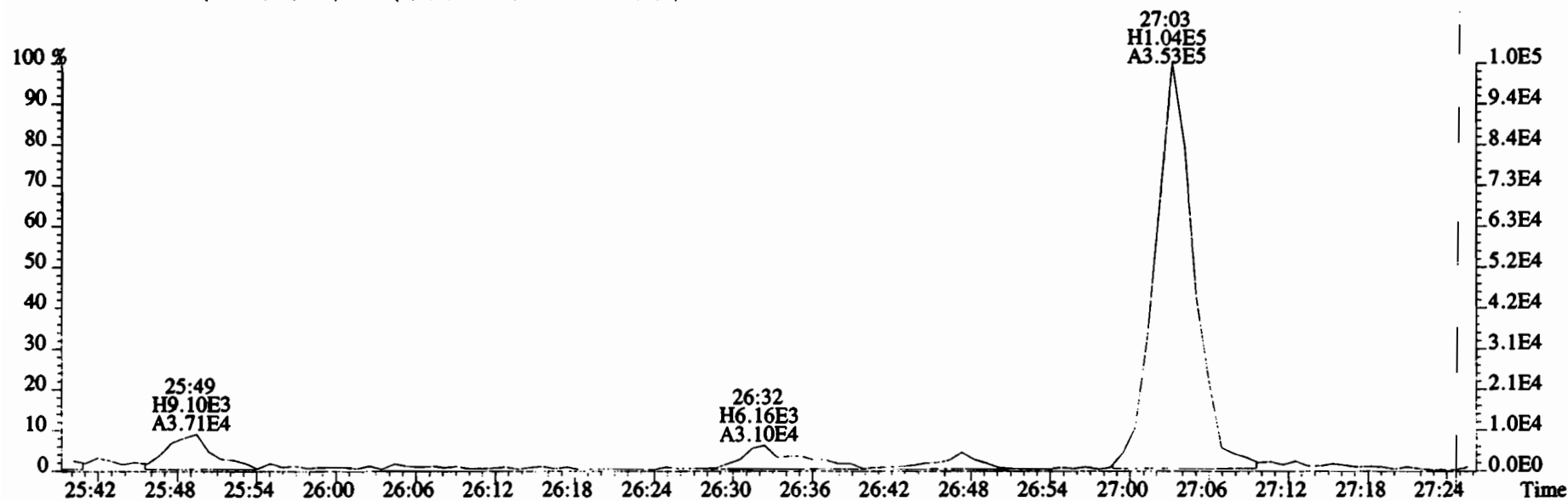
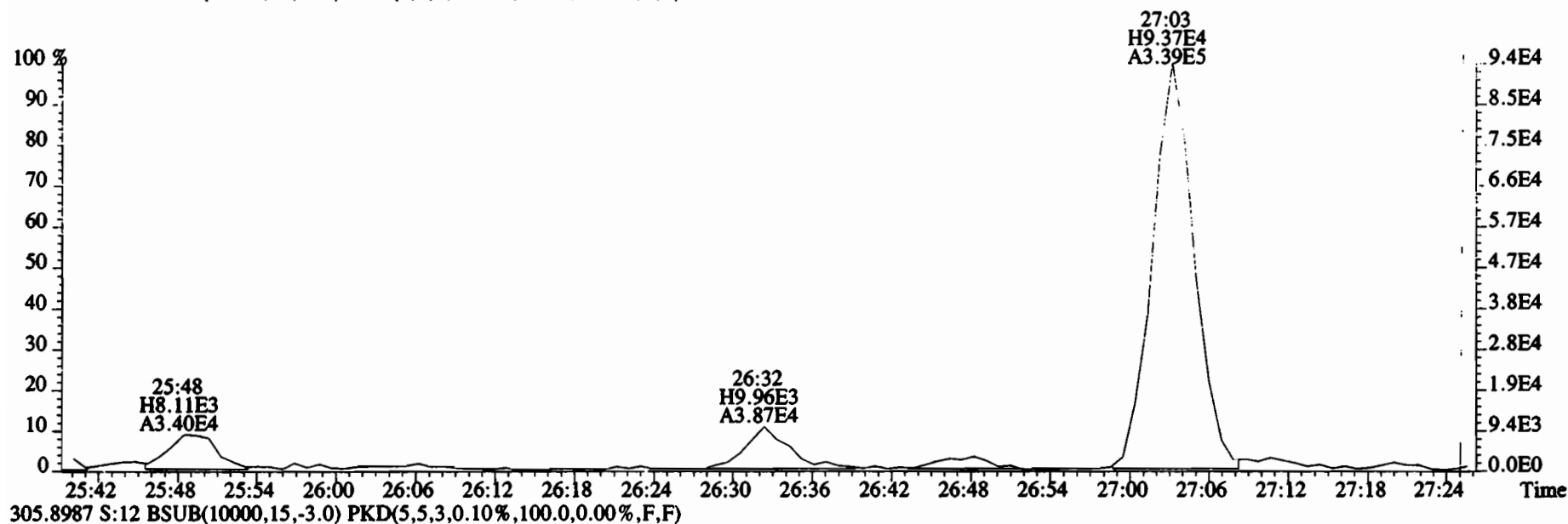
305.8987 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



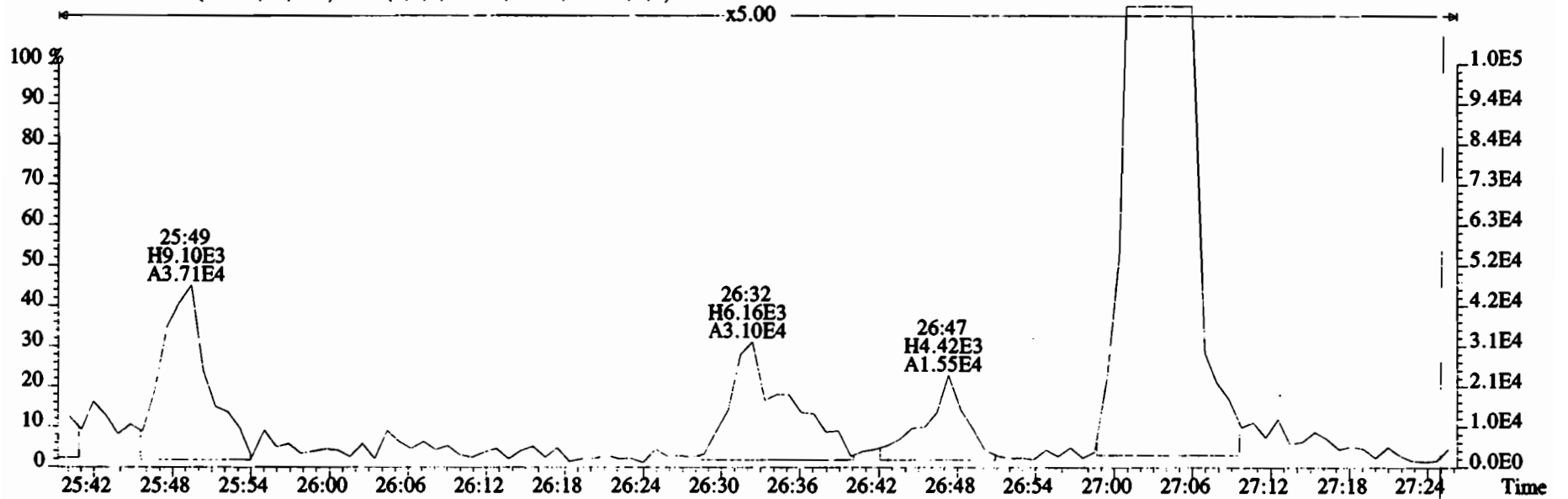
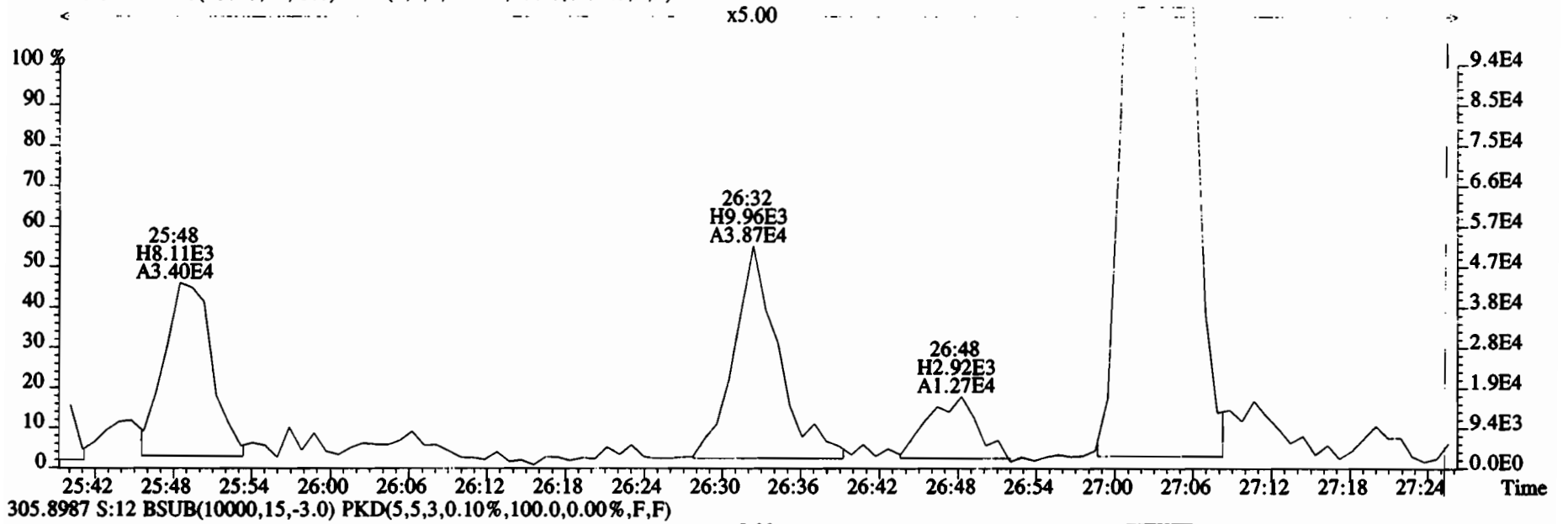
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



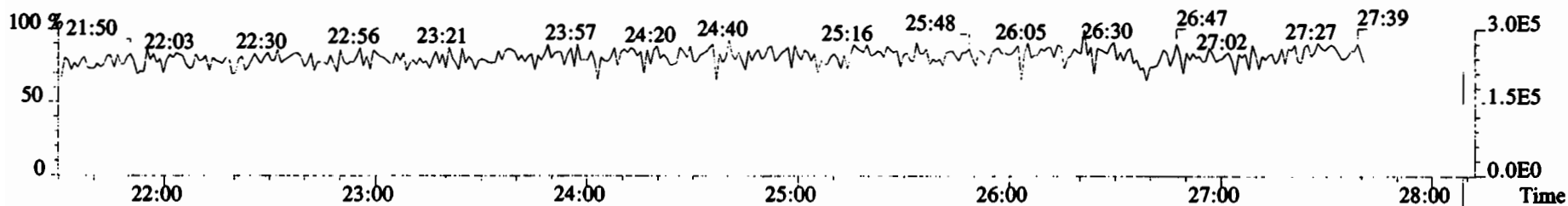
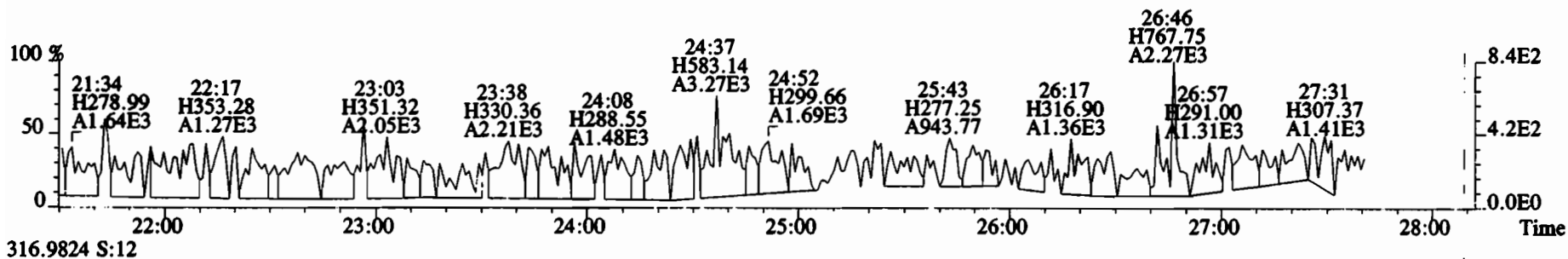
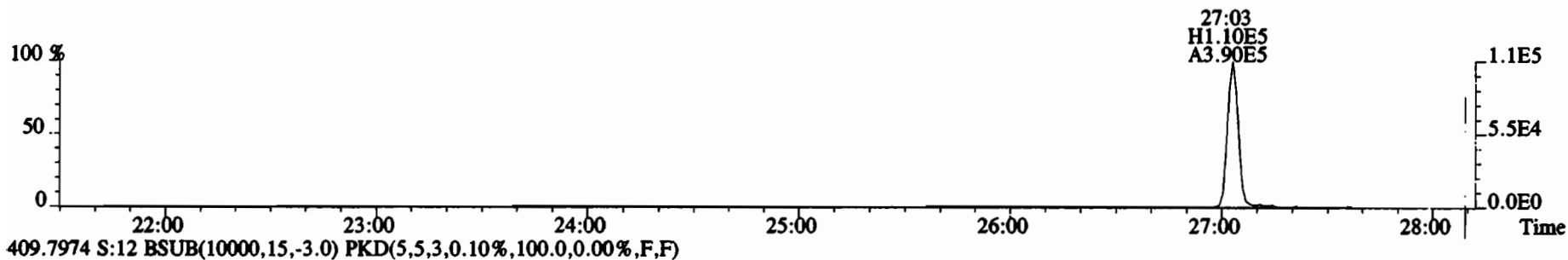
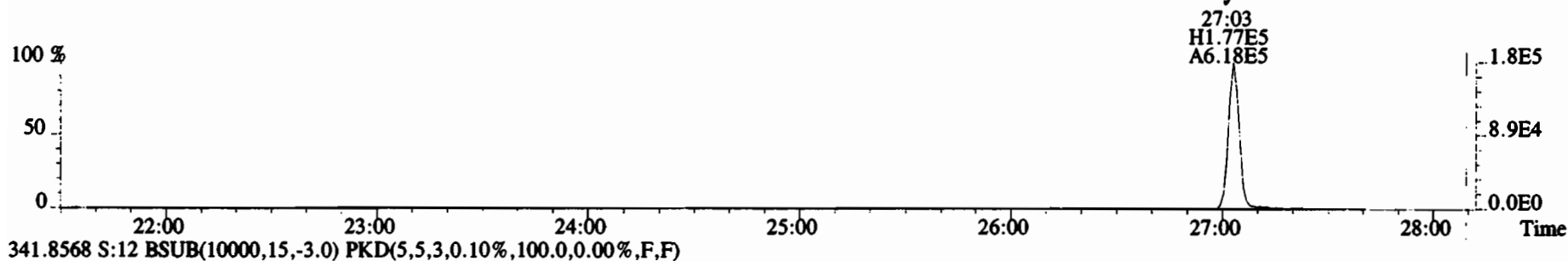
File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



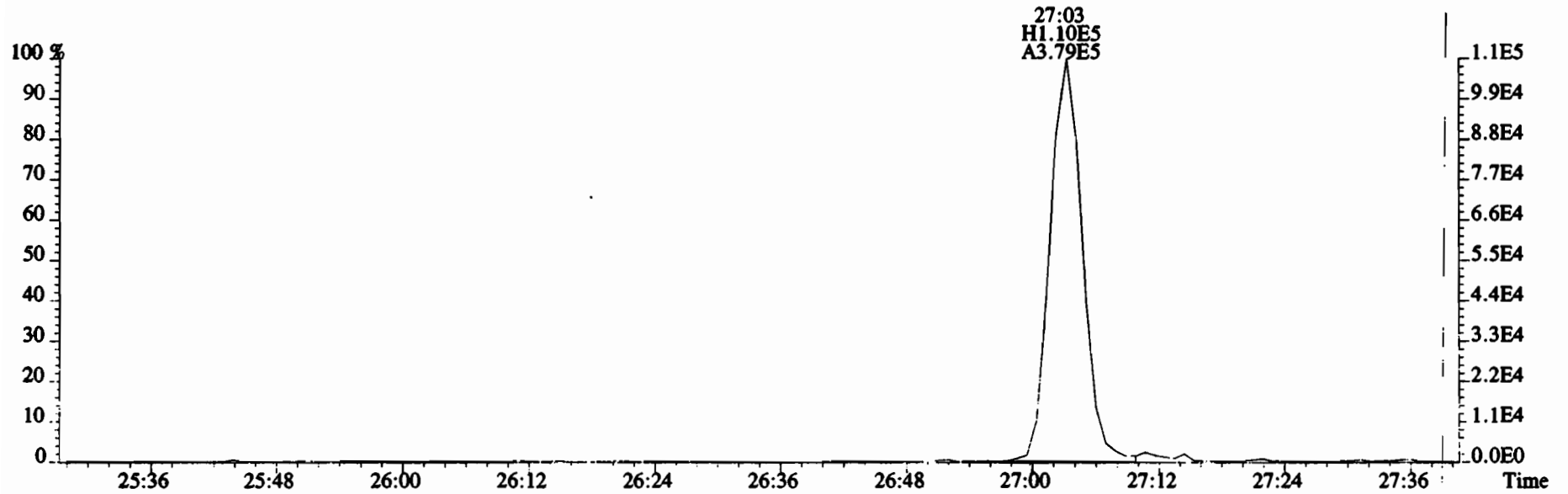
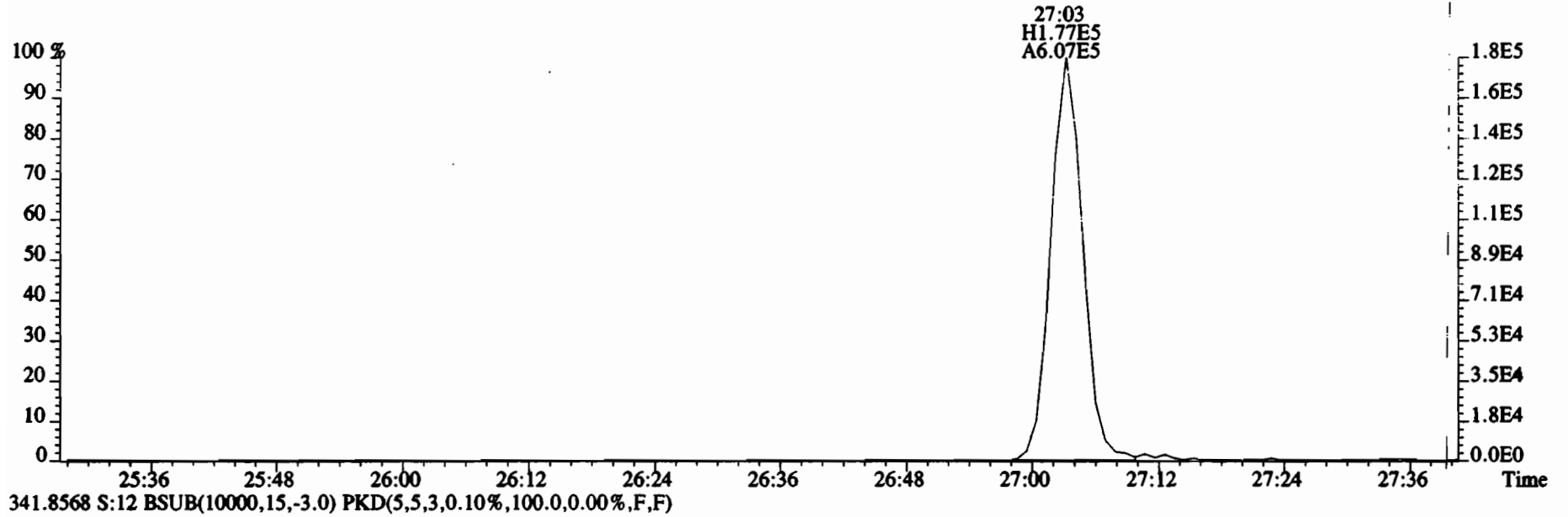
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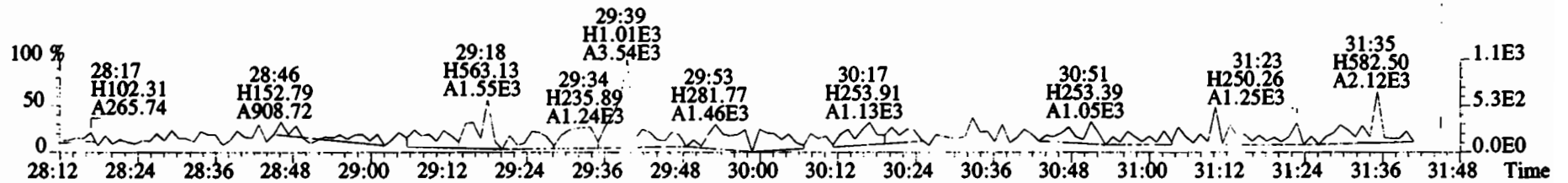
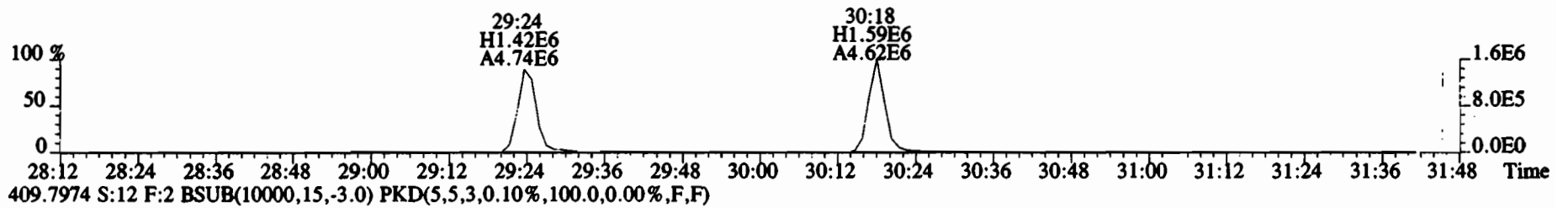
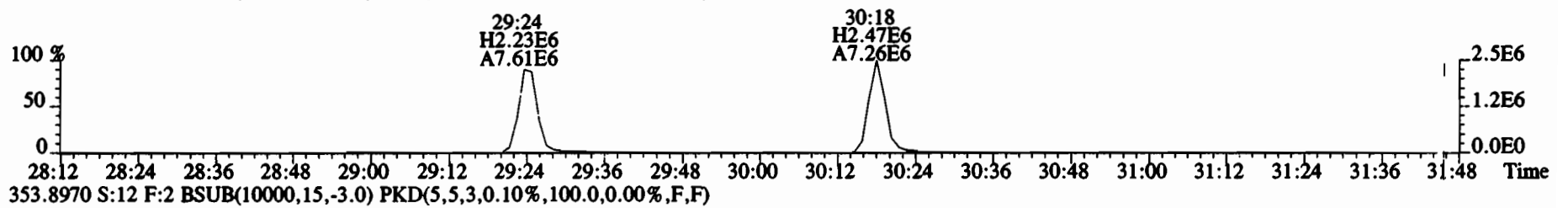
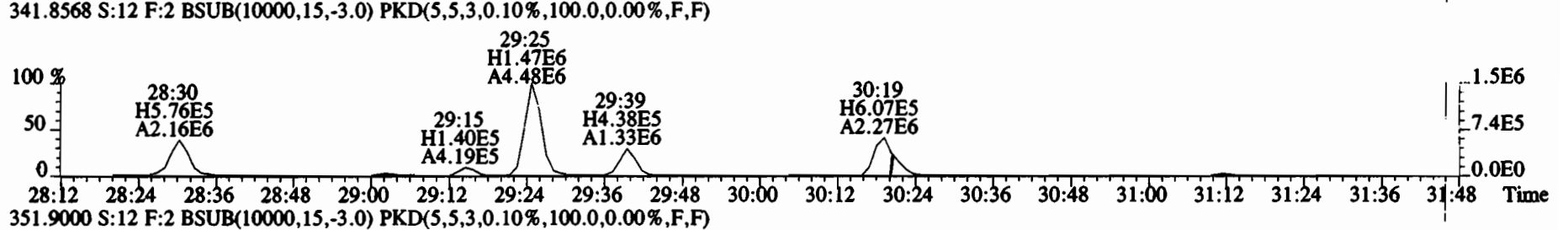
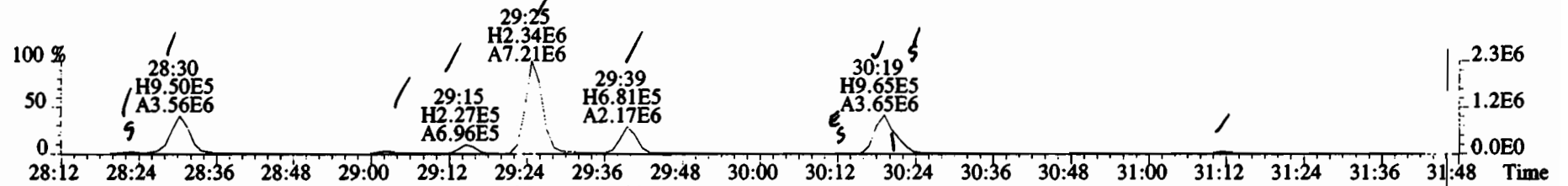
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 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 339.8597 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-493 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
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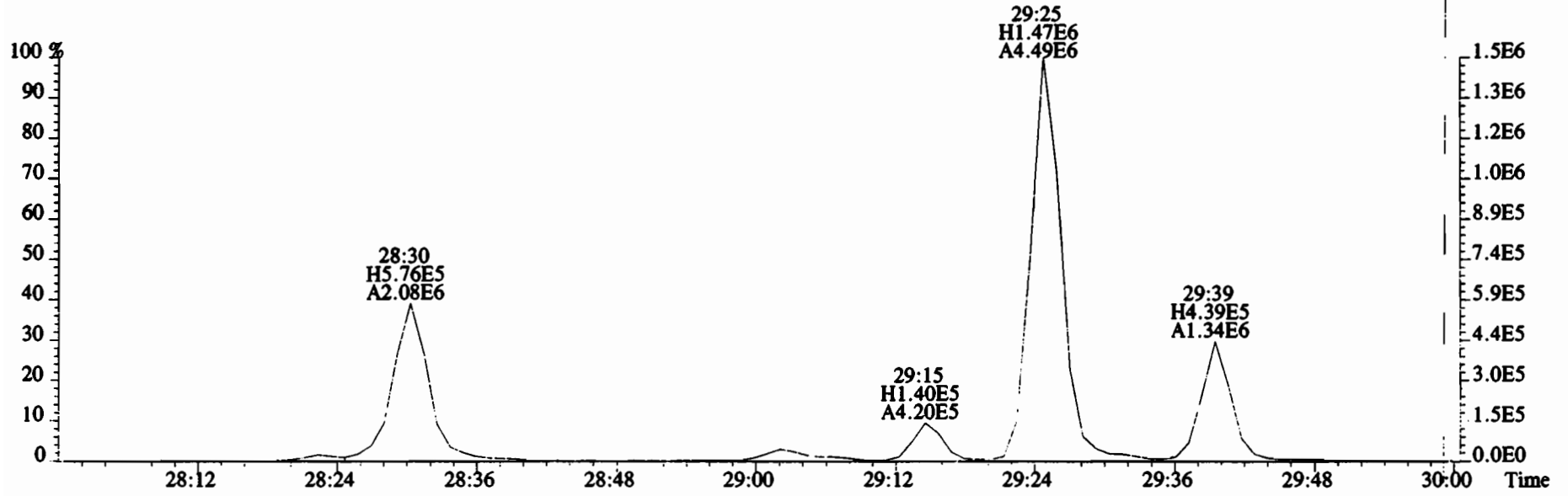
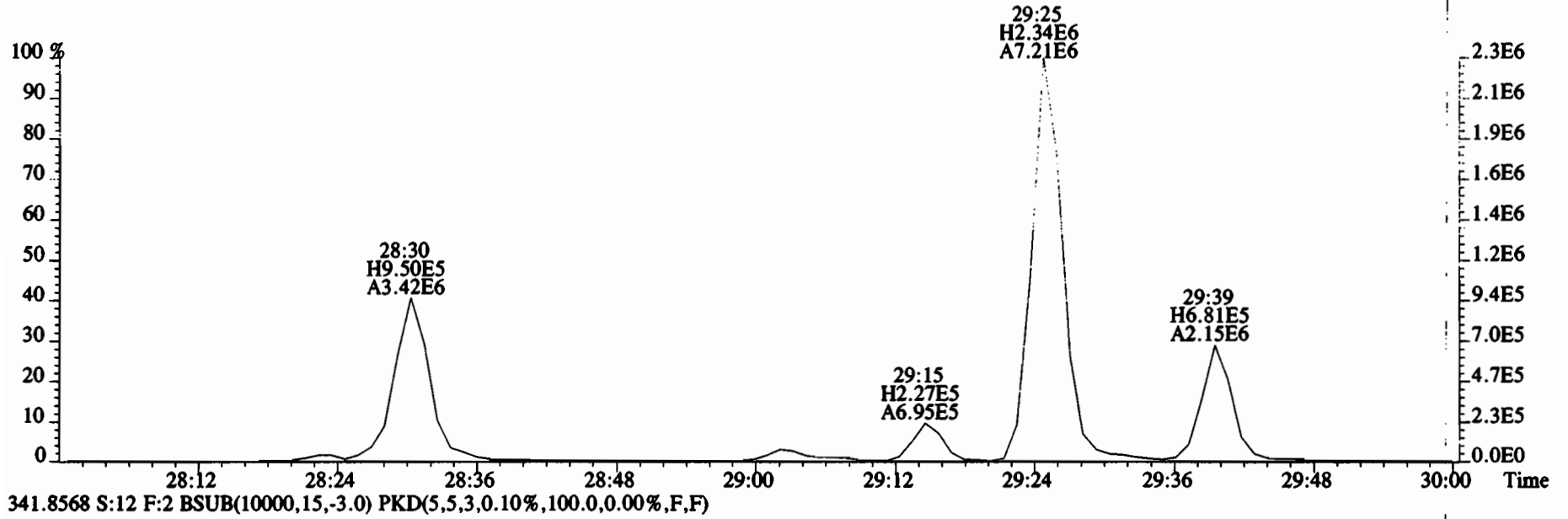


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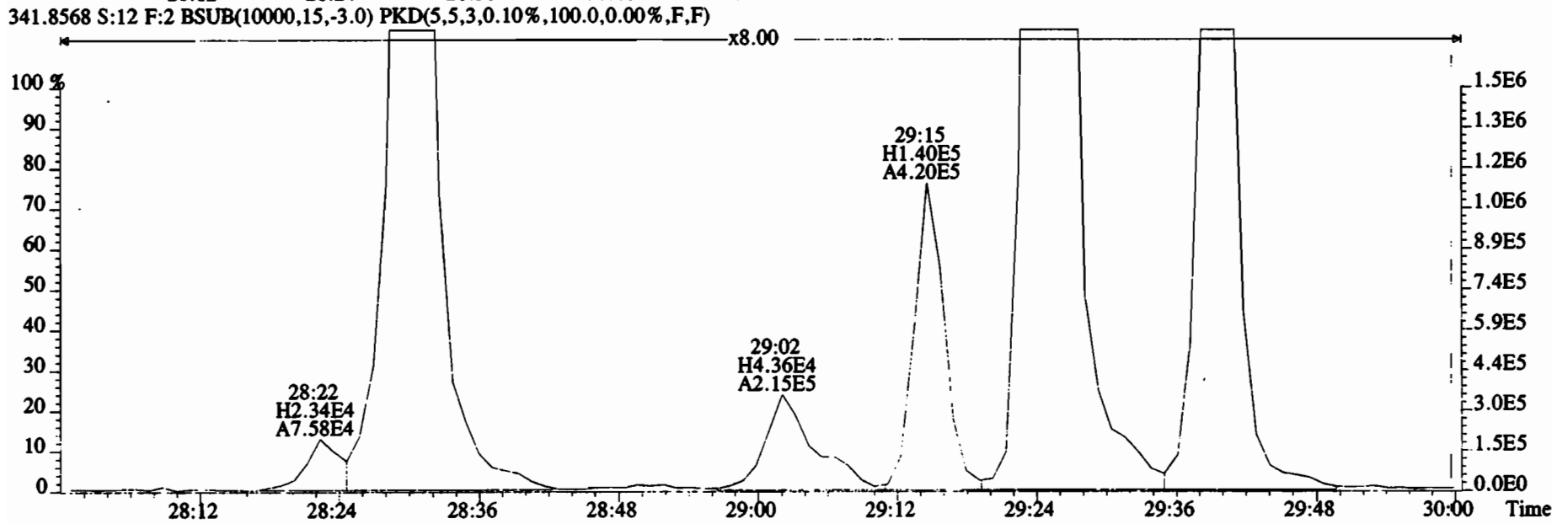
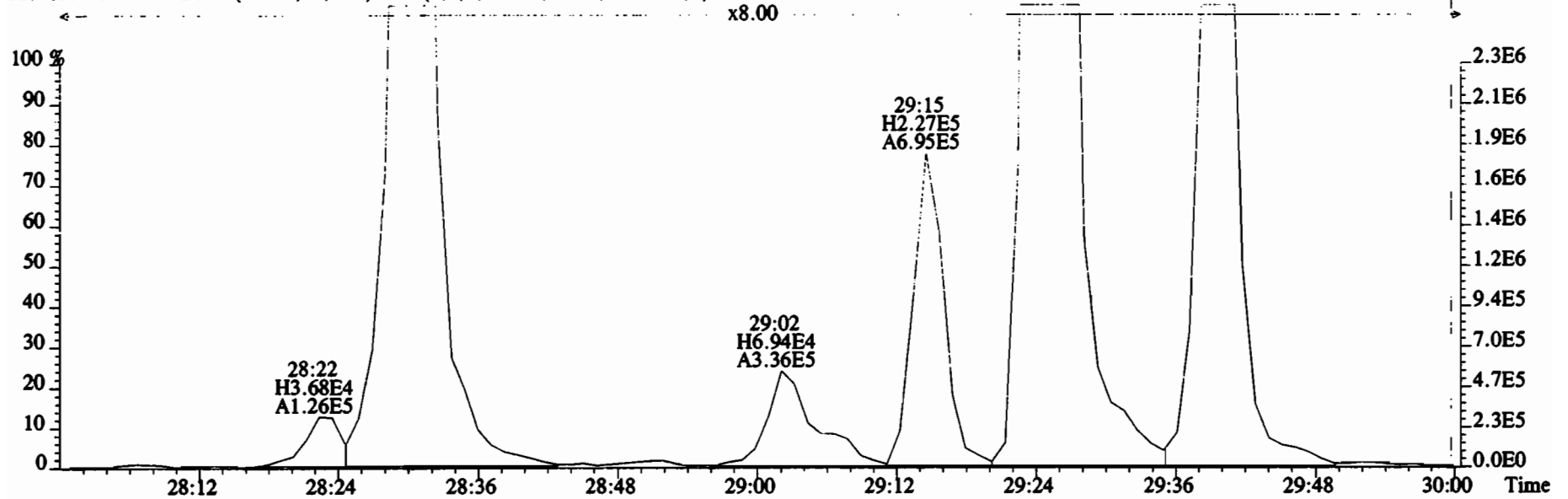




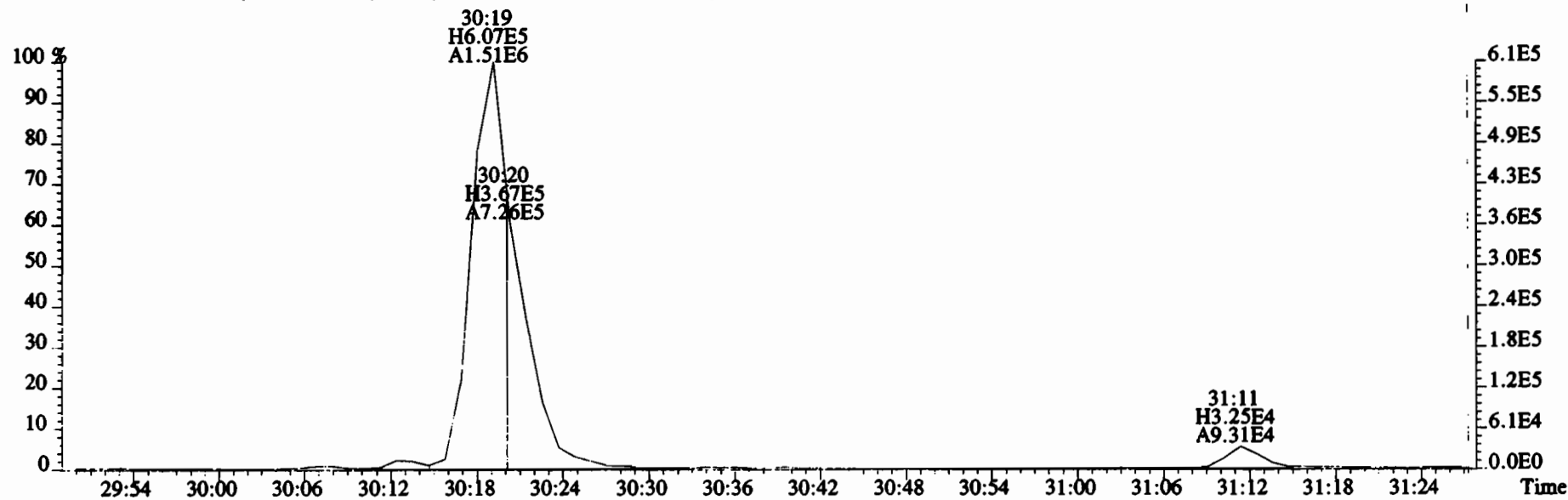
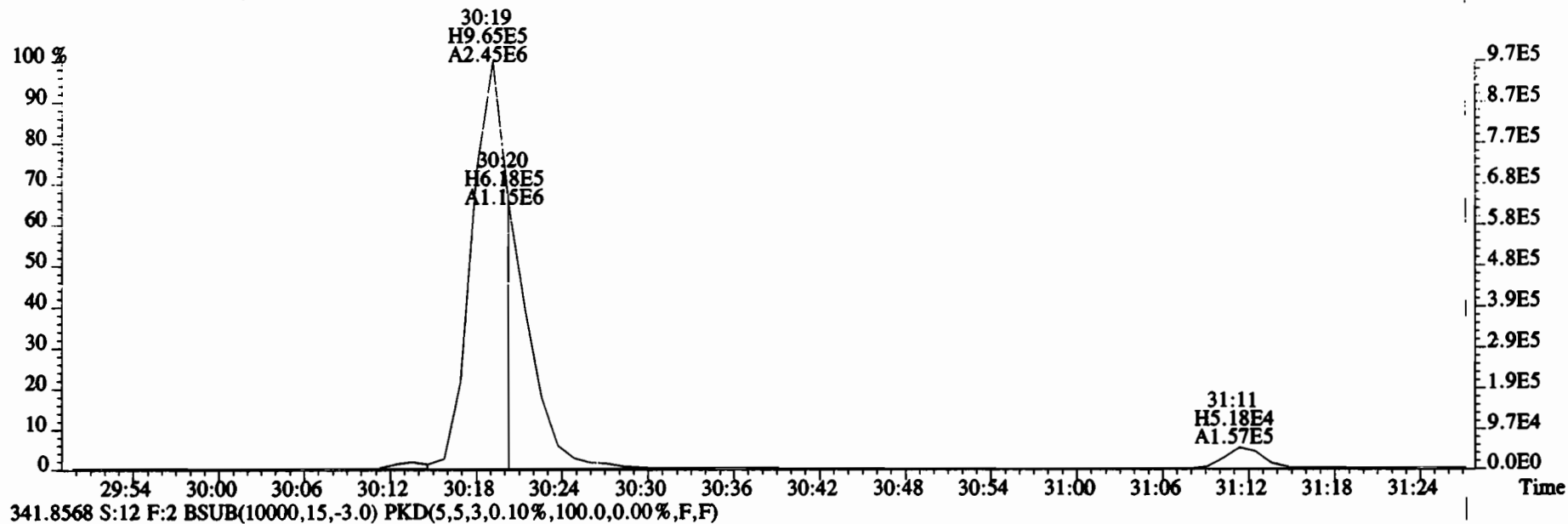
File:200107D2 #1-211 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
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339.8597 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



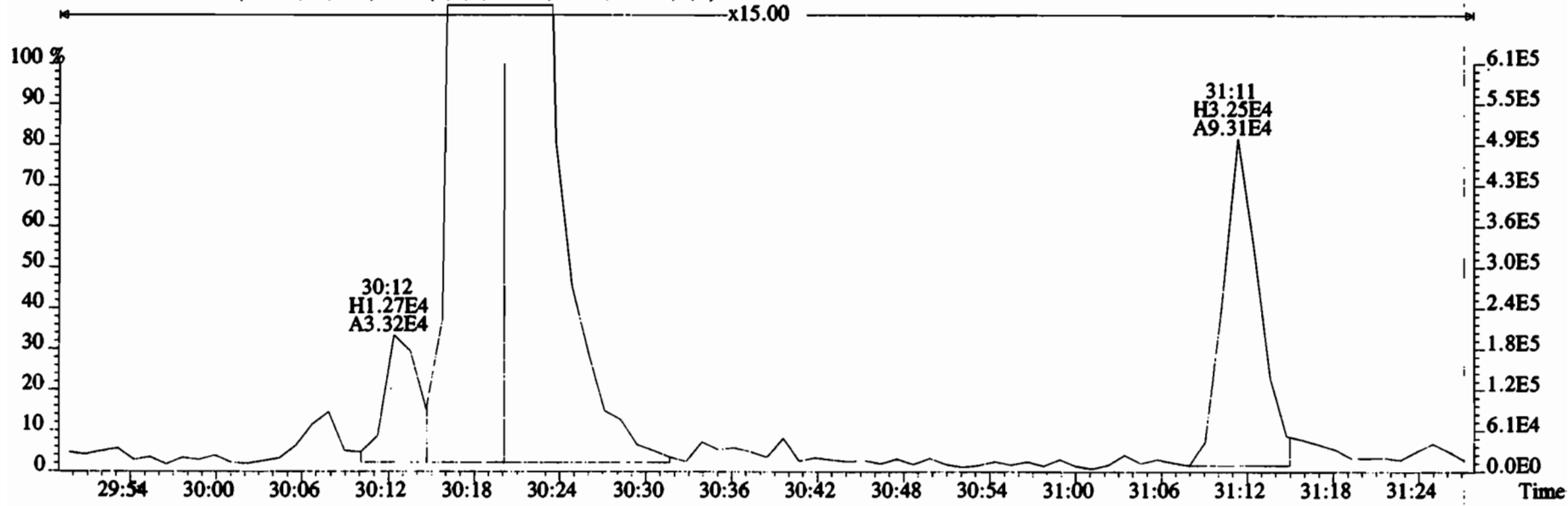
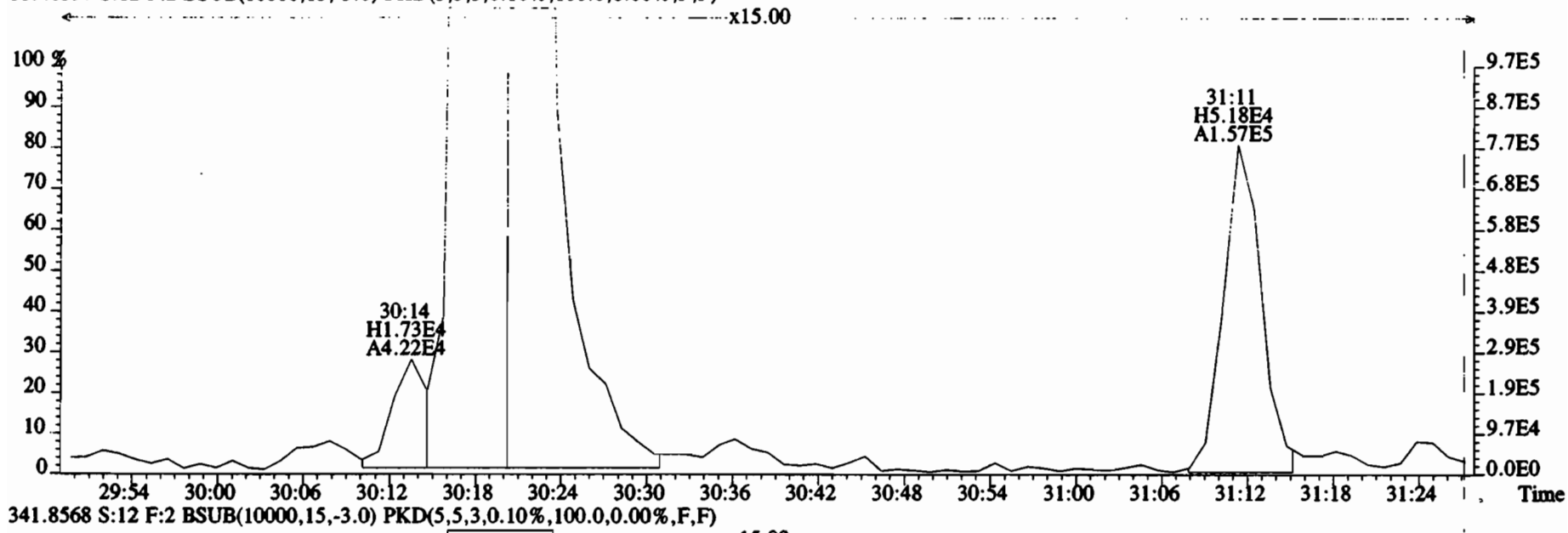
File:200107D2 #1-211 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
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339.8597 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



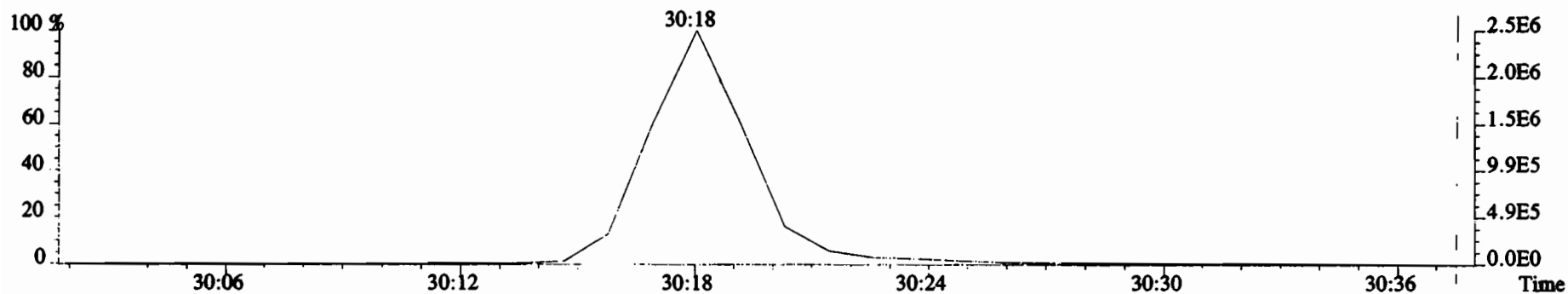
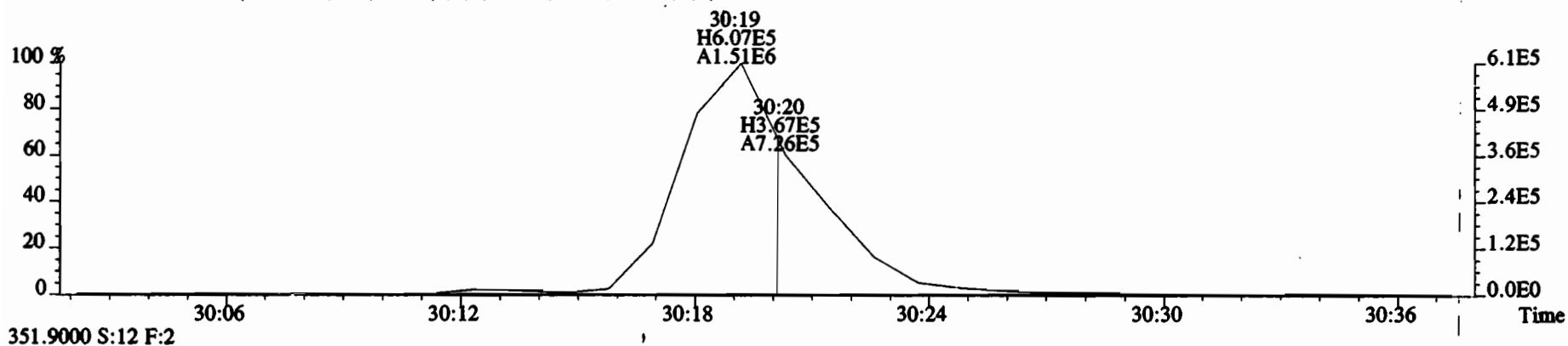
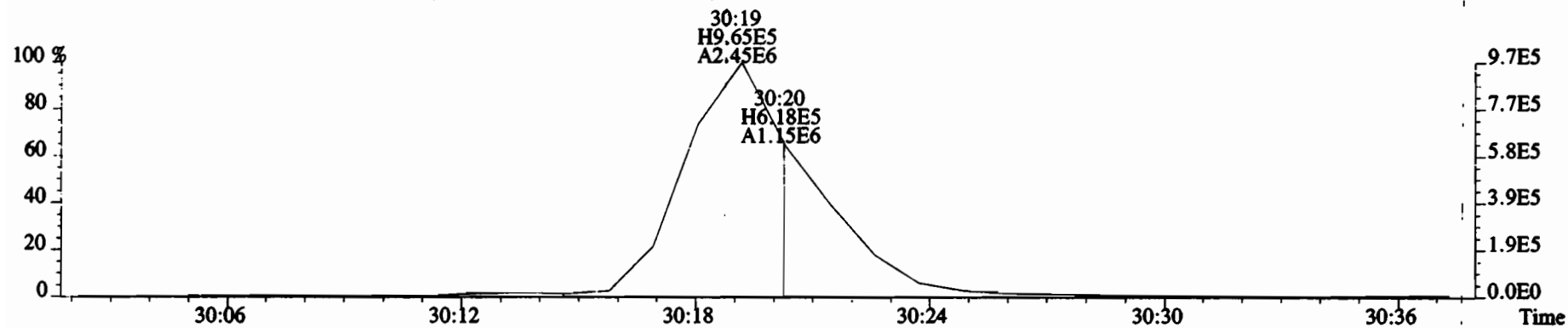
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Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
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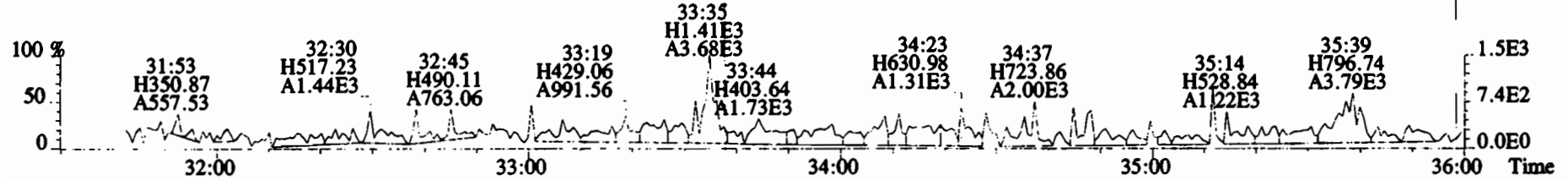
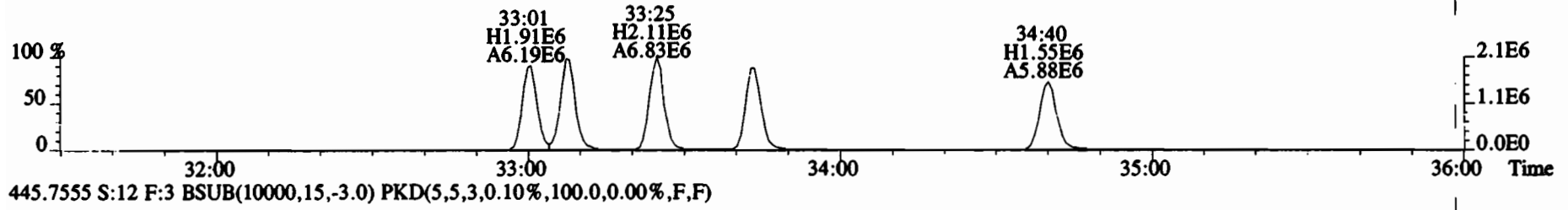
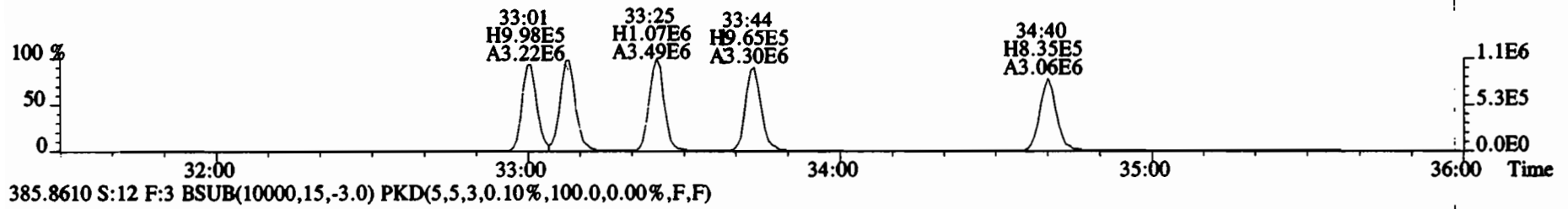
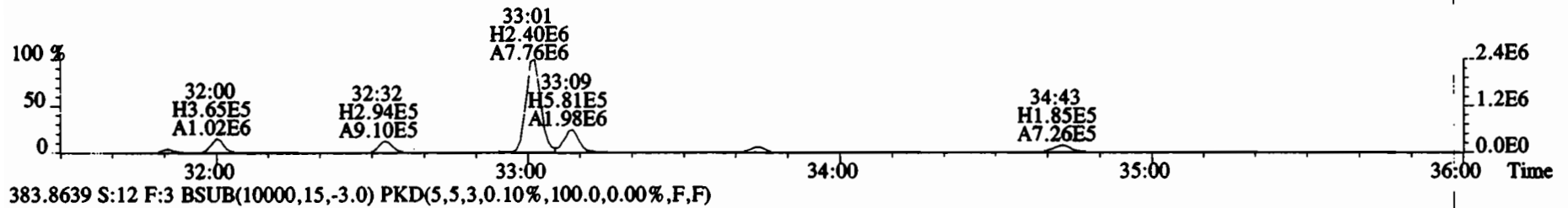
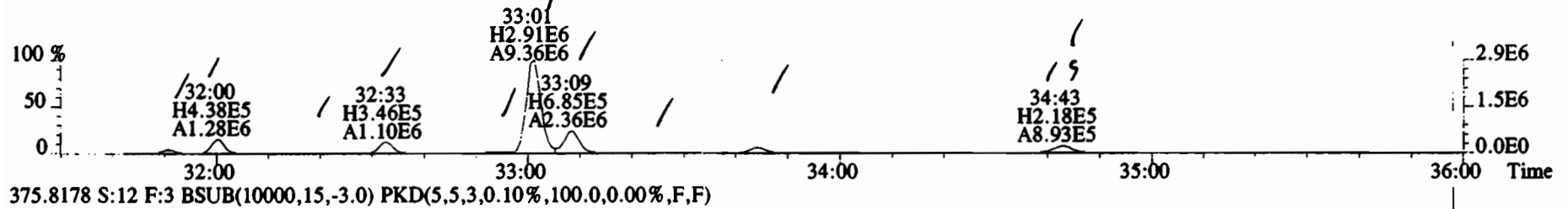
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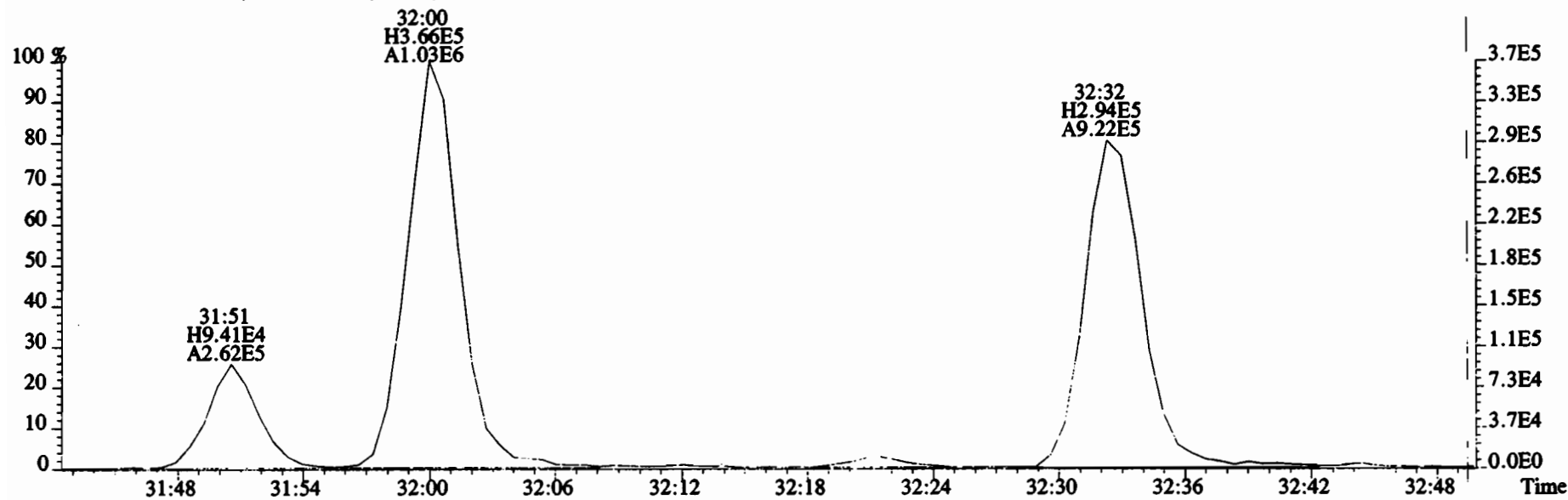
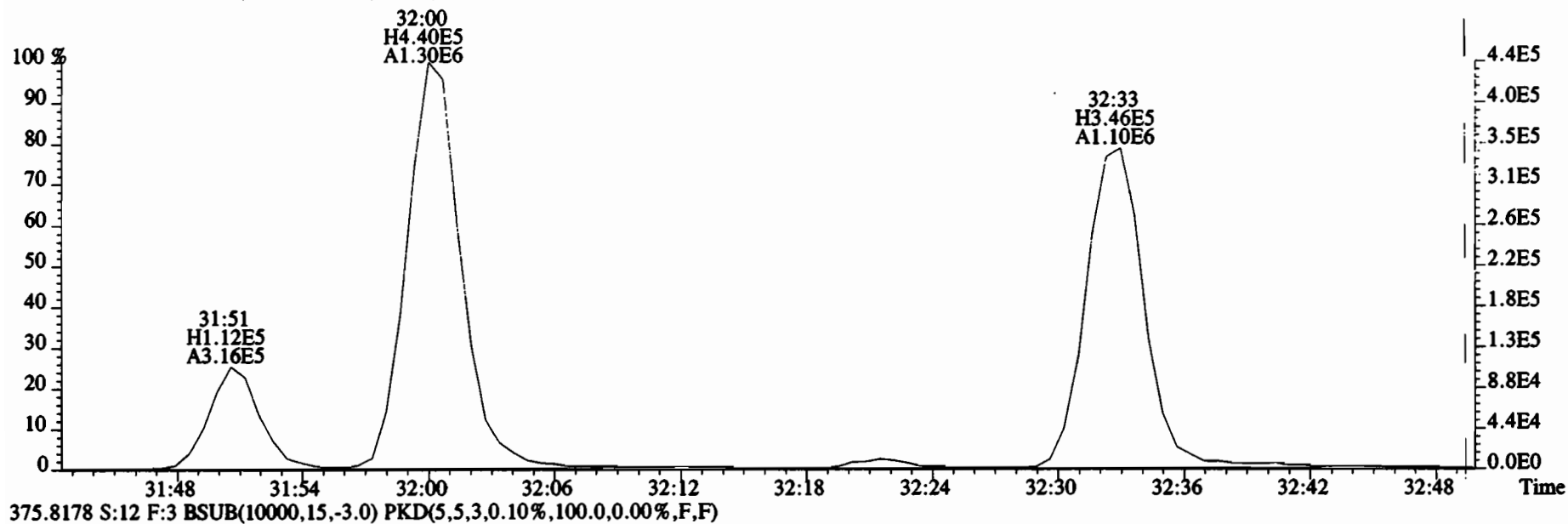
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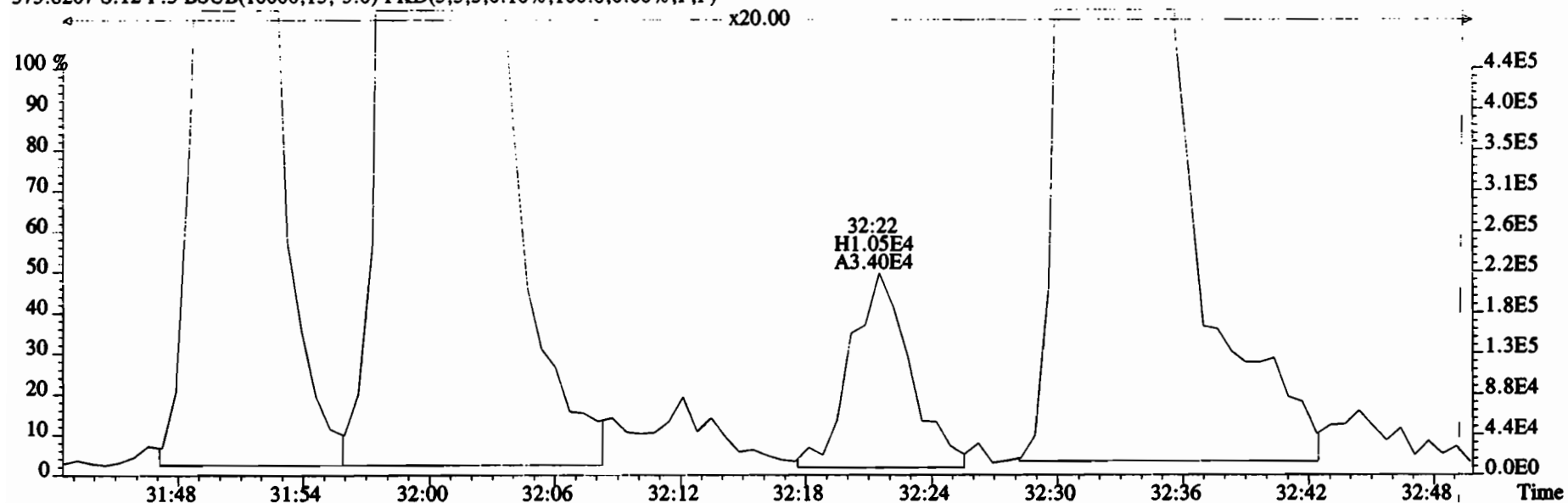
File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text: Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 373.8207 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



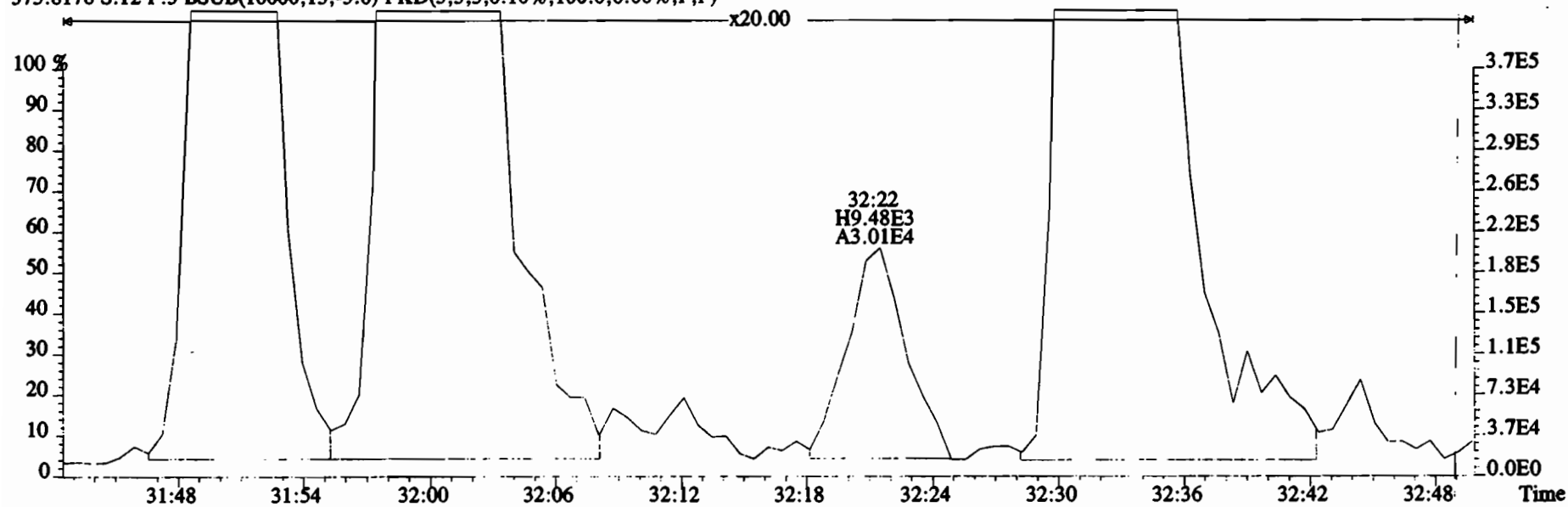
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File:200107D2 #1-384 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
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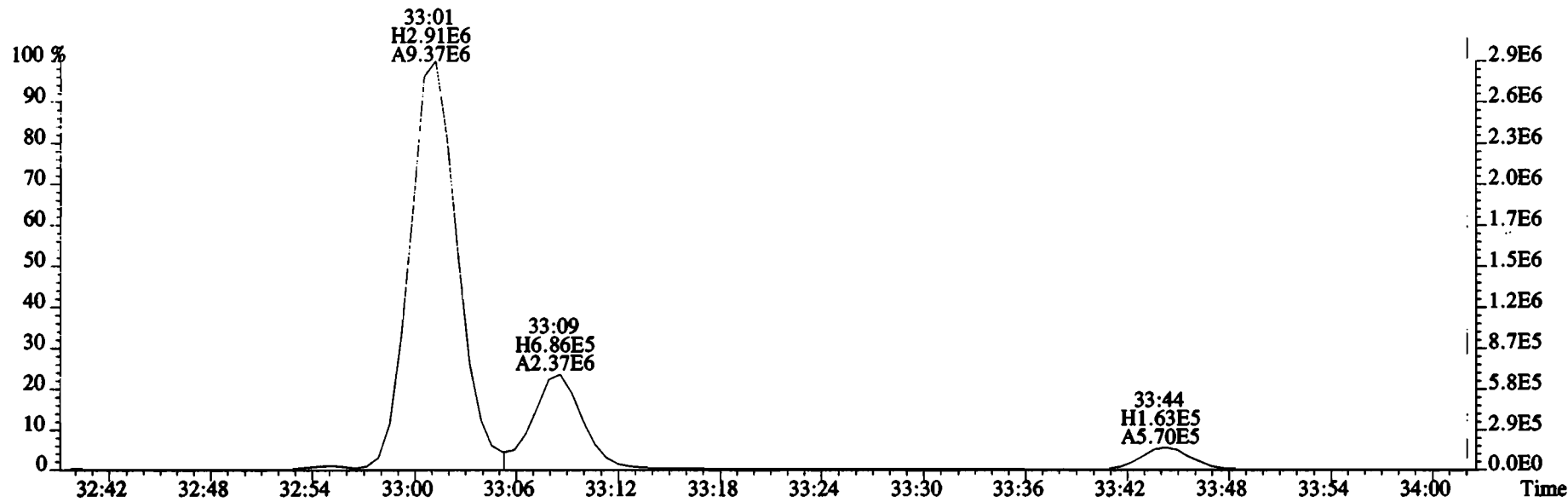


375.8178 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

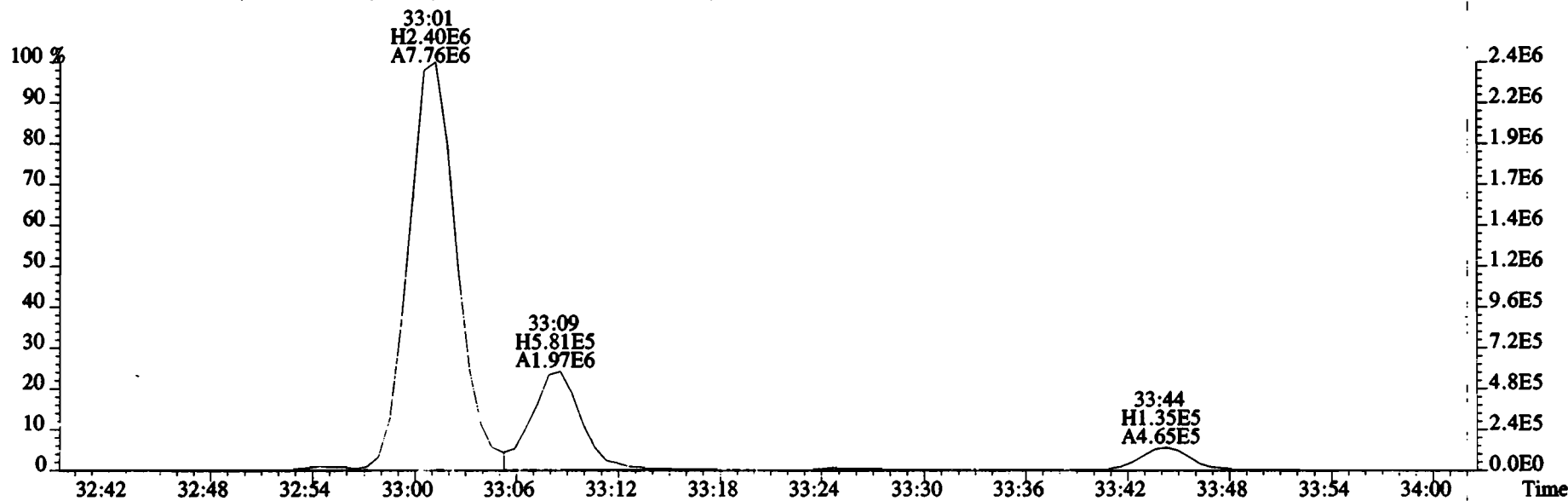




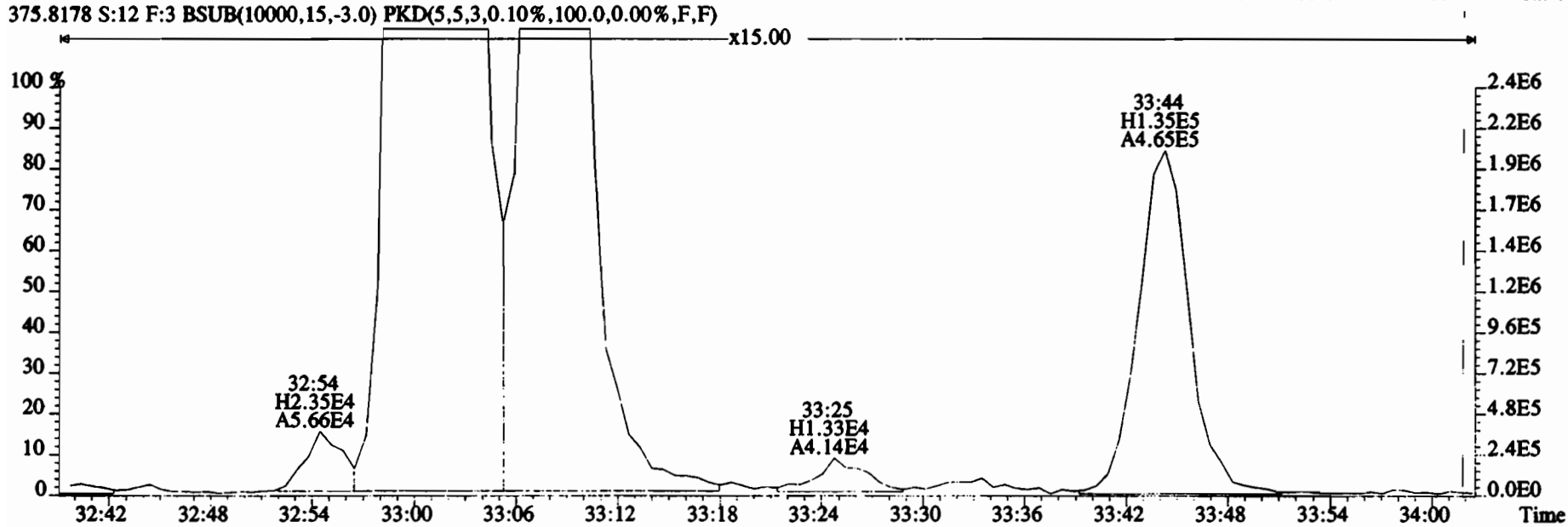
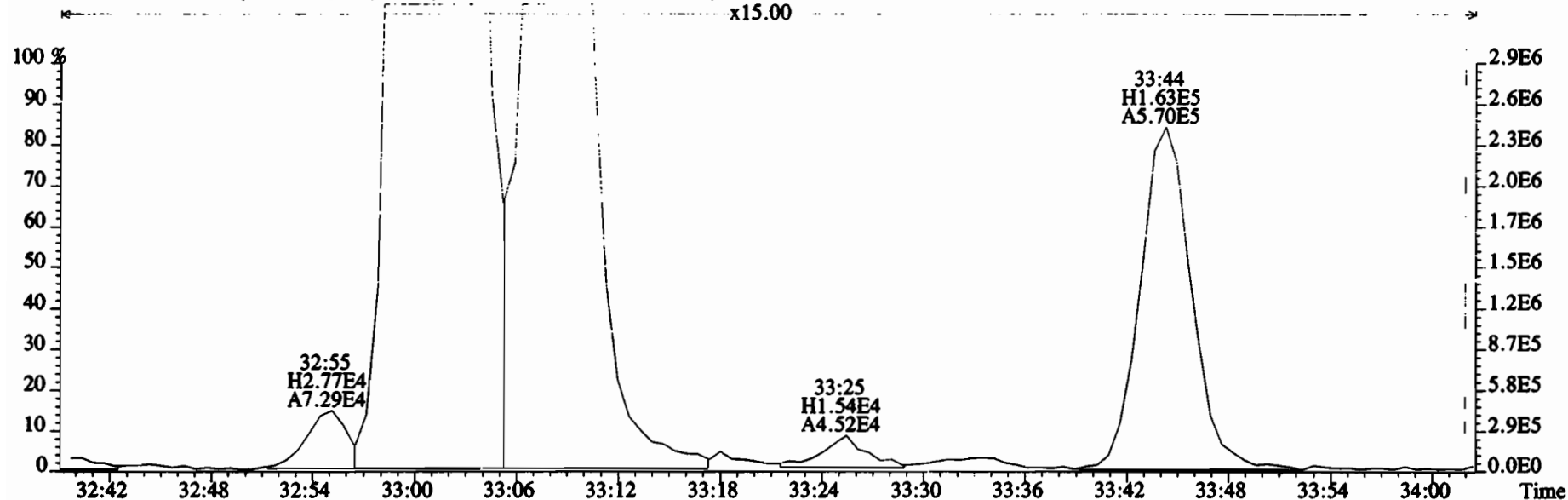
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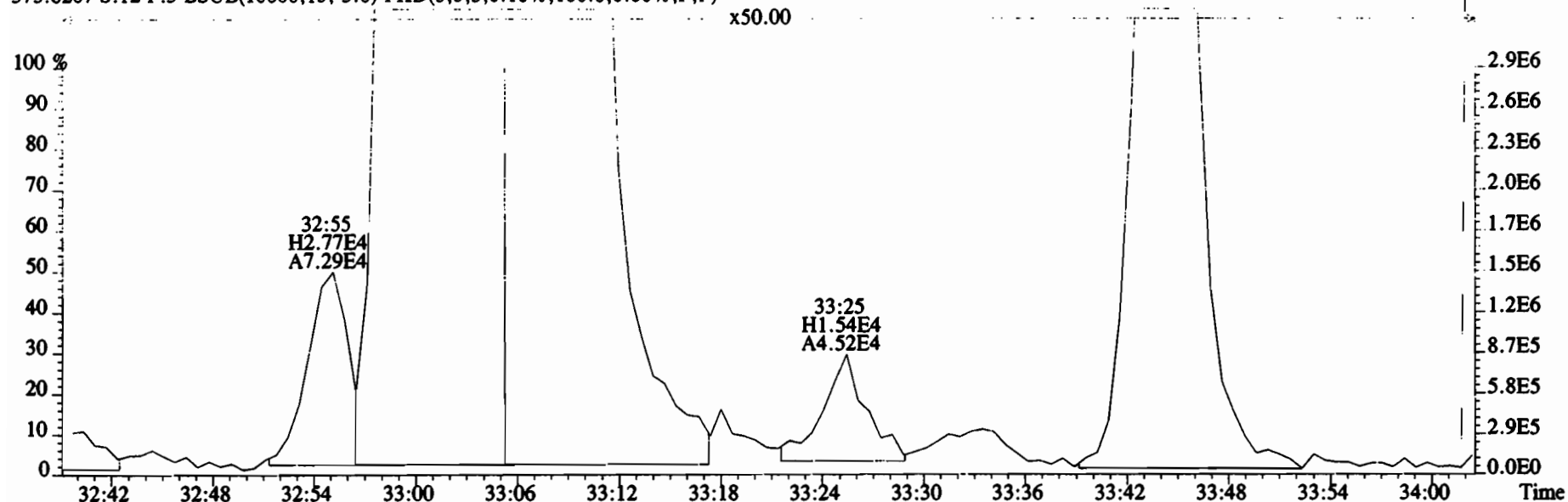
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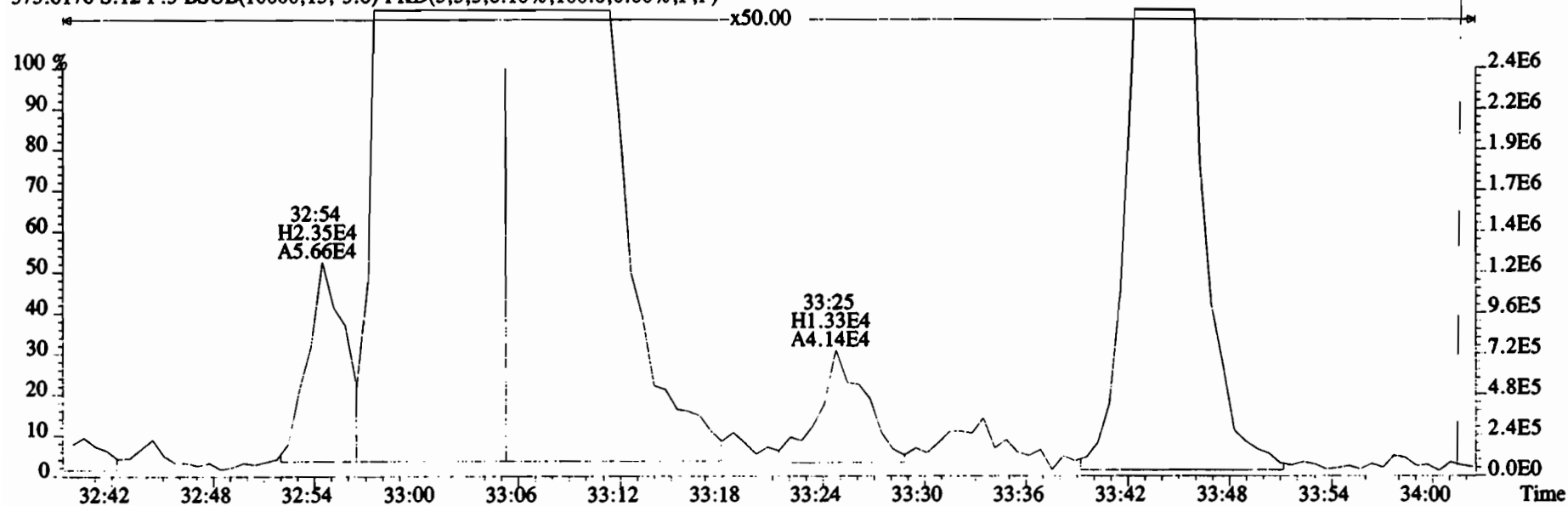
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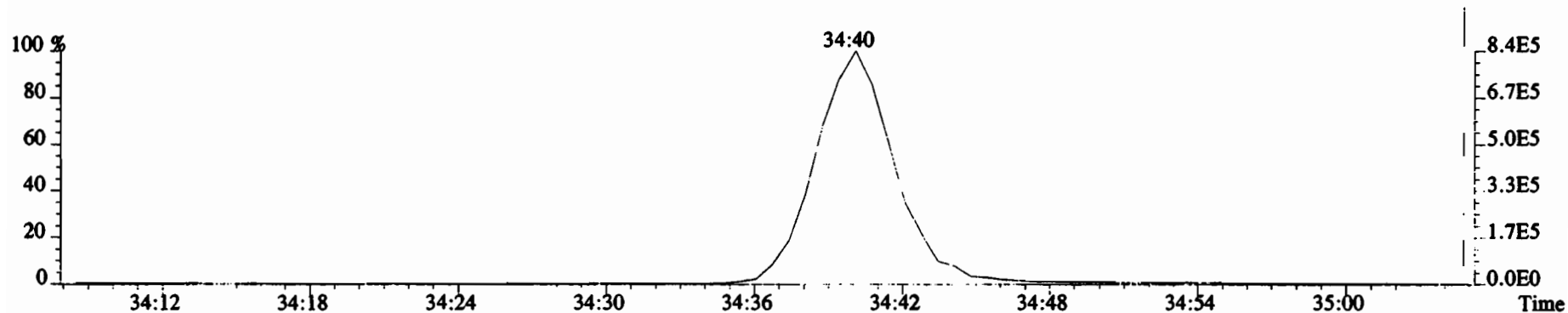
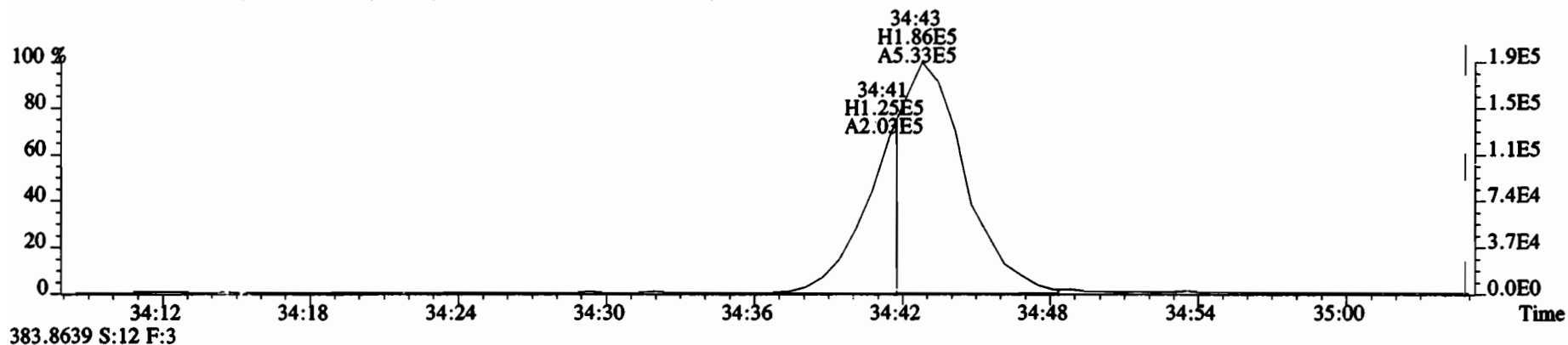
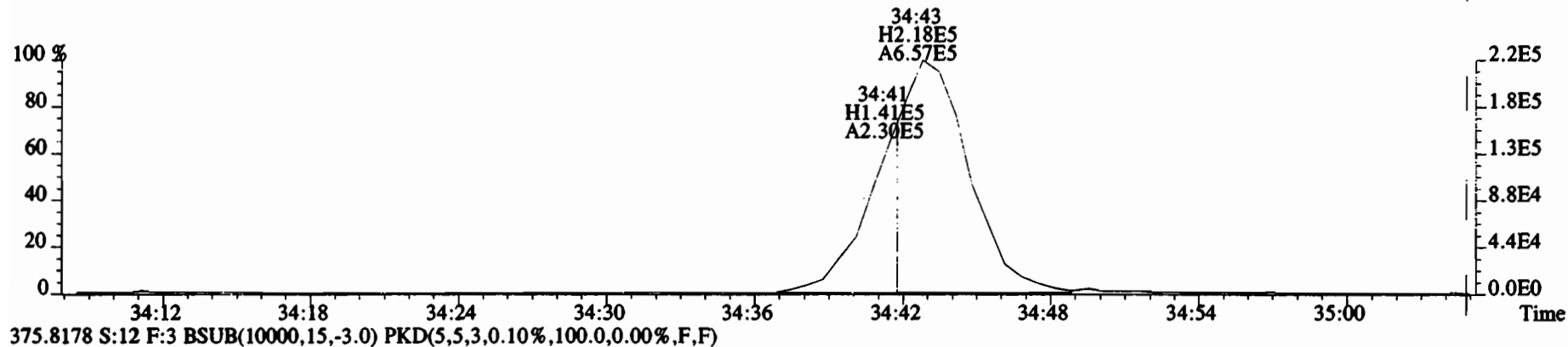
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Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
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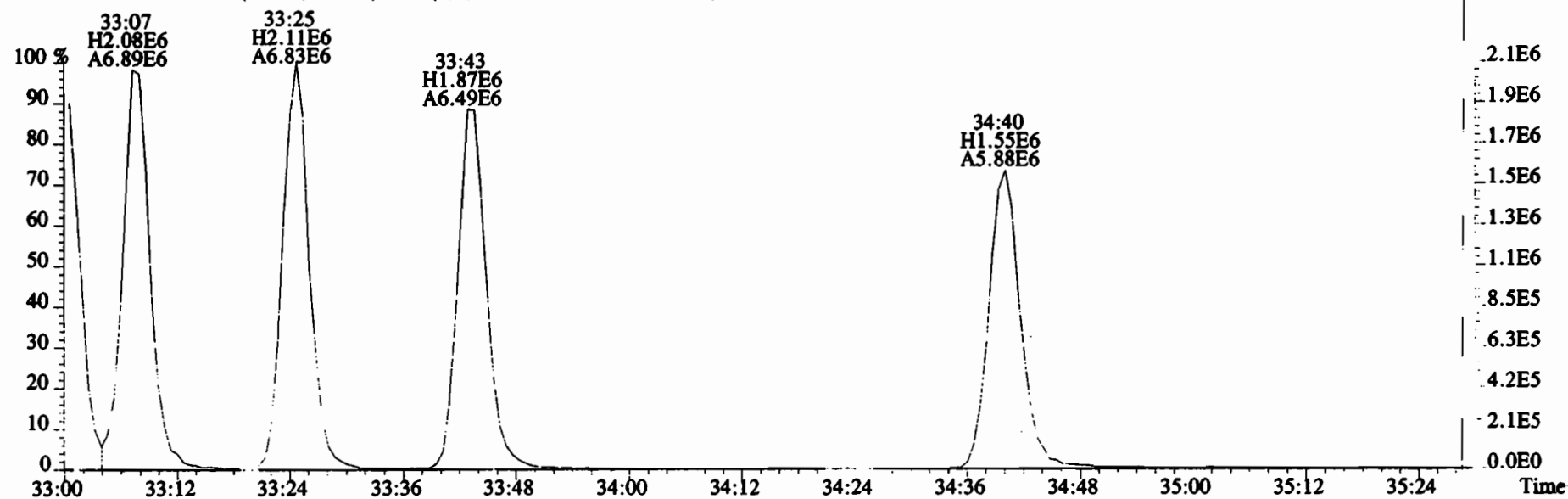
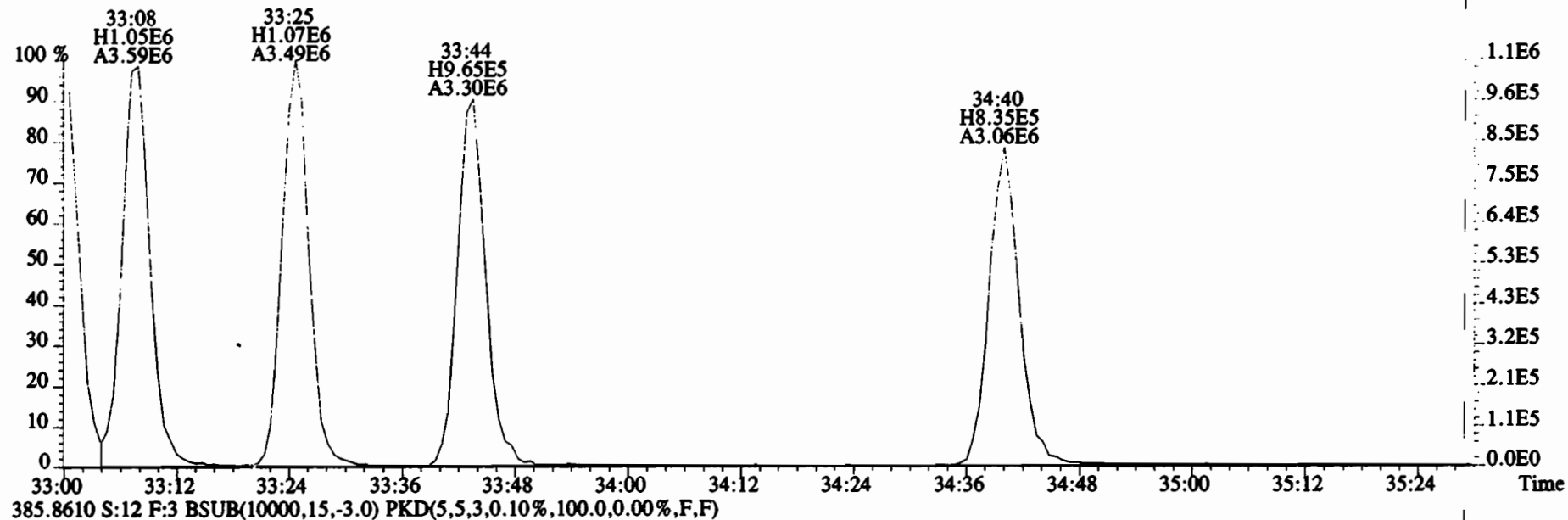
375.8178 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



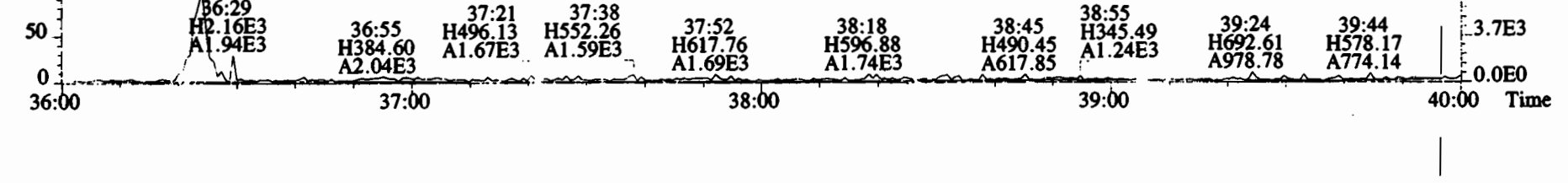
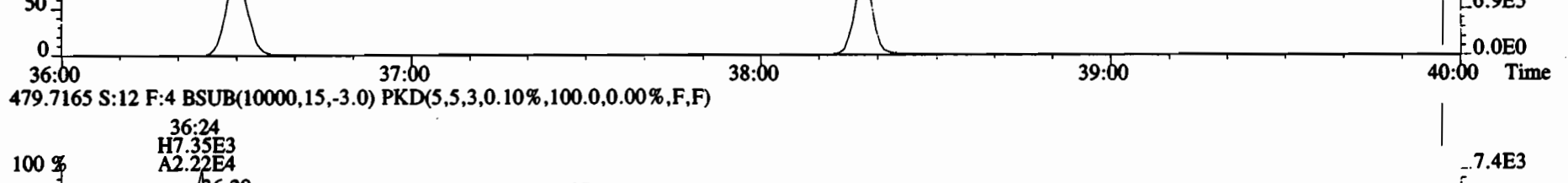
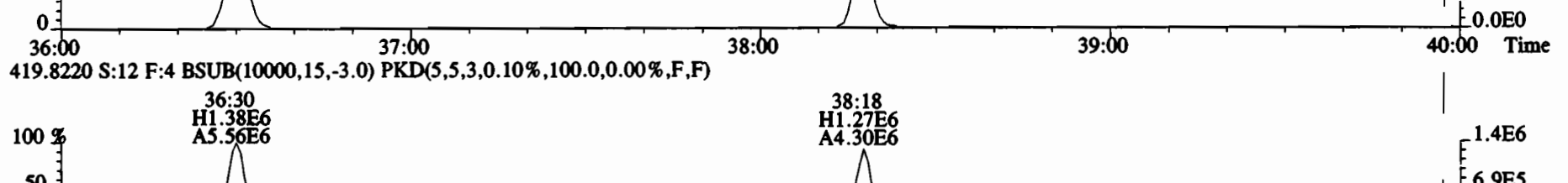
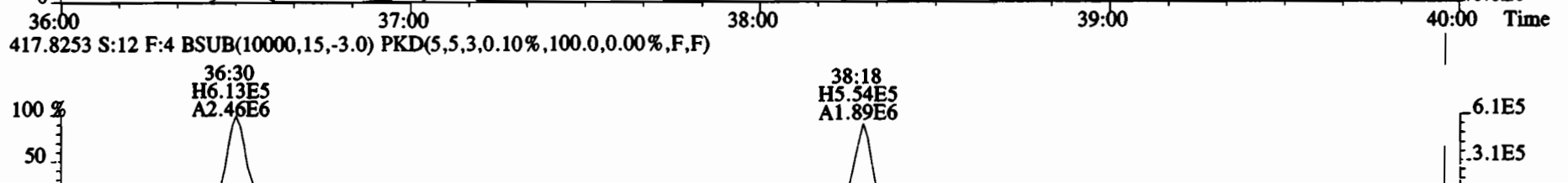
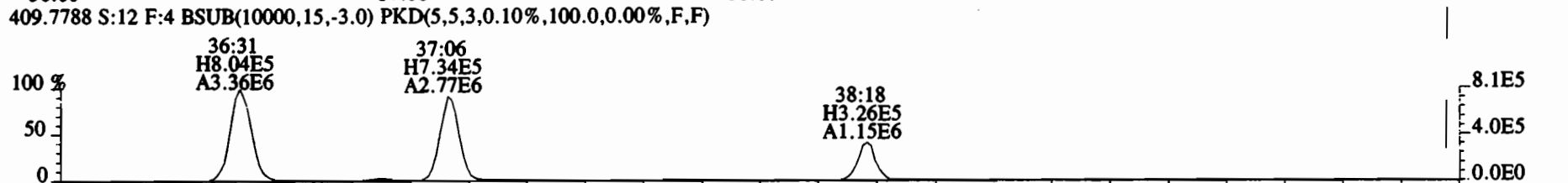
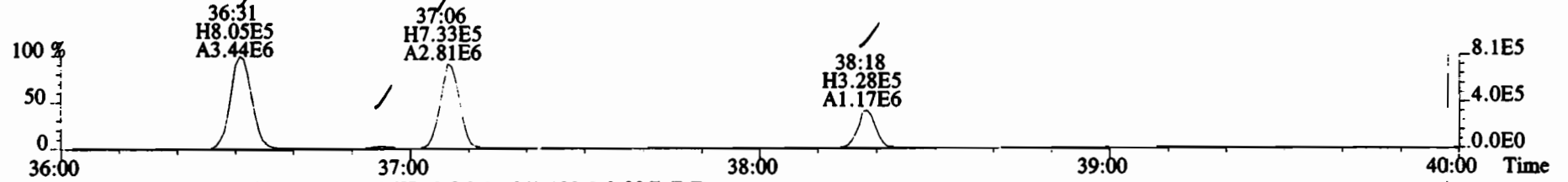
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Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
373.8207 S:12 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



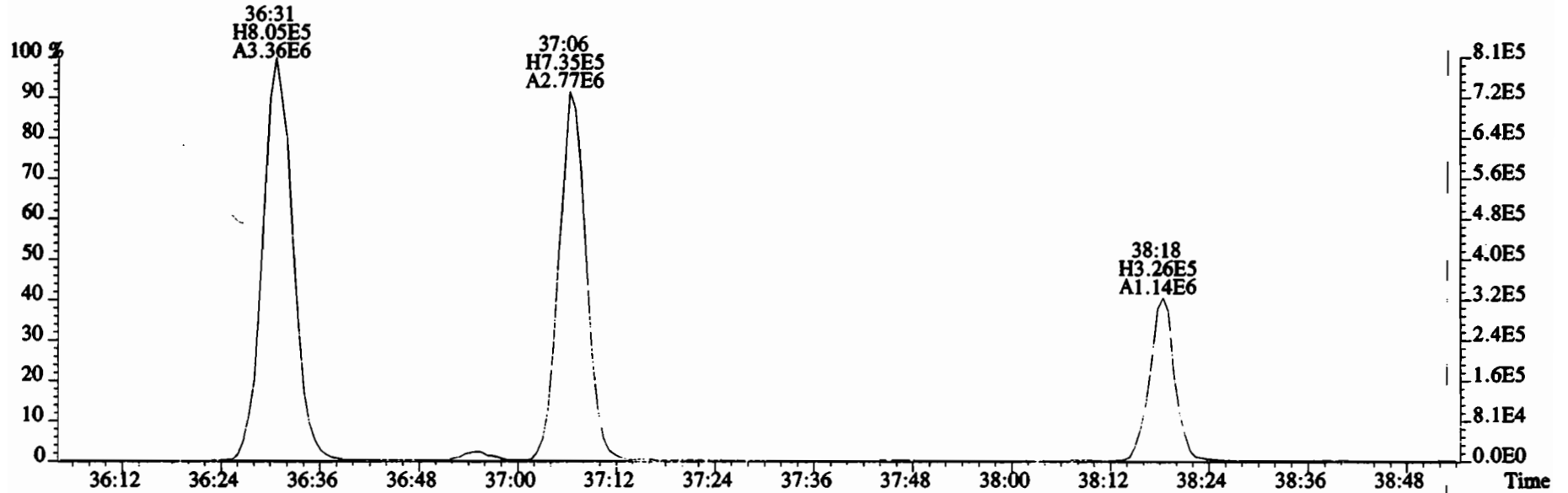
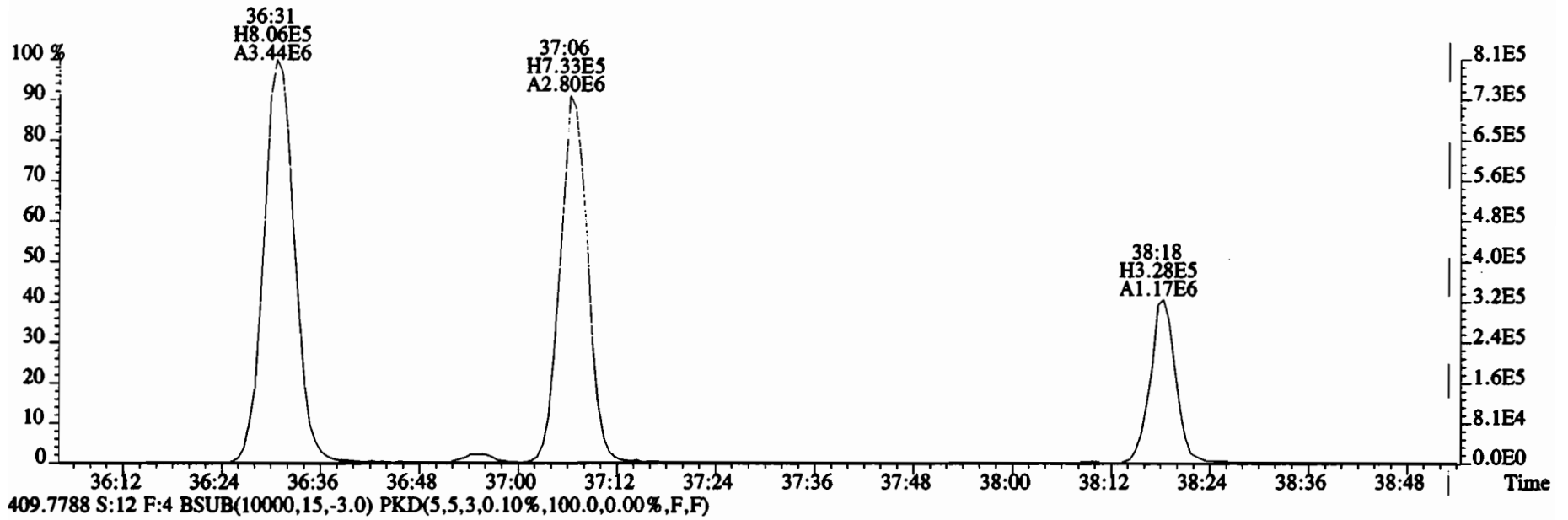
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383.8639 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



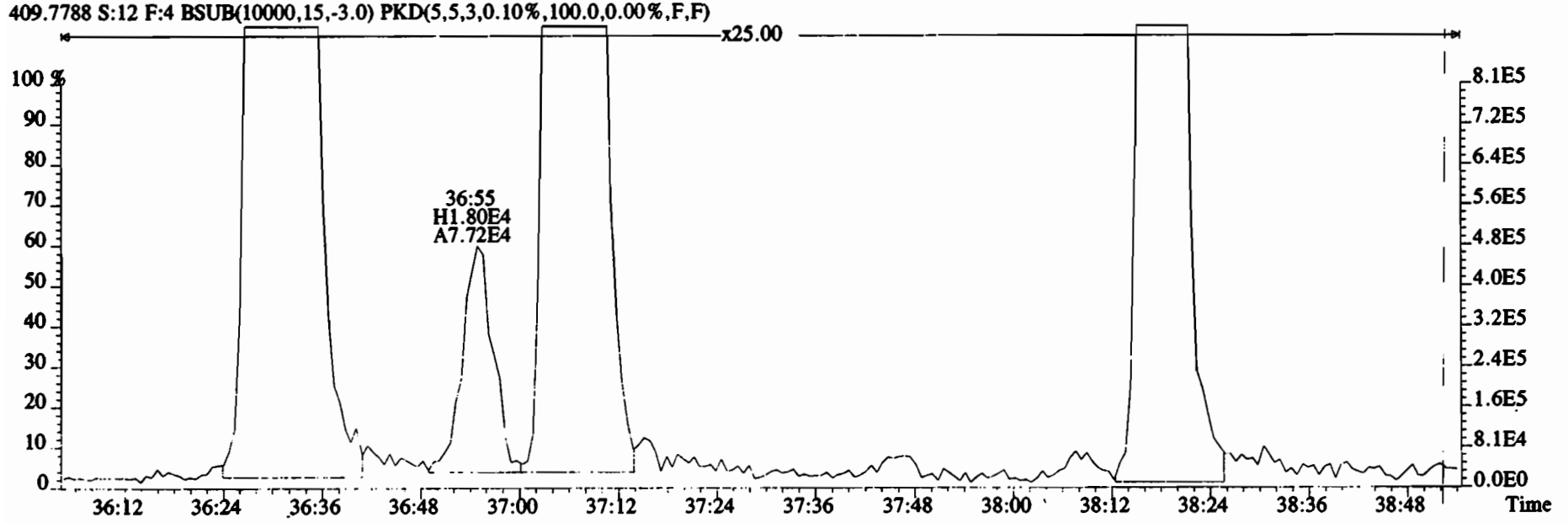
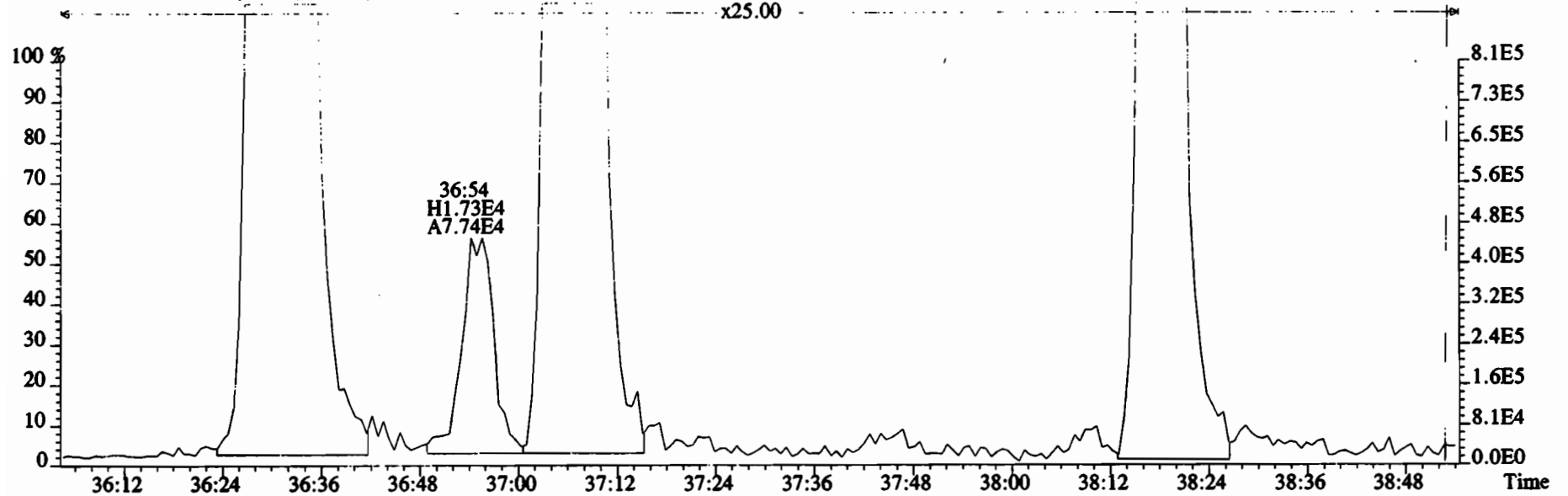
File:200107D2 #1-356 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
 407.7818 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-356 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
407.7818 S:12 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

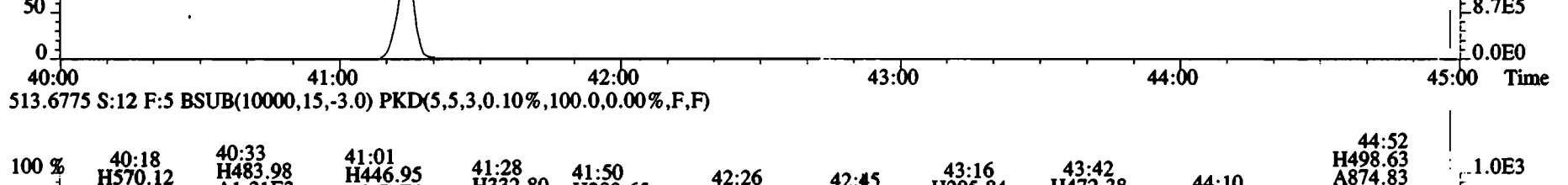
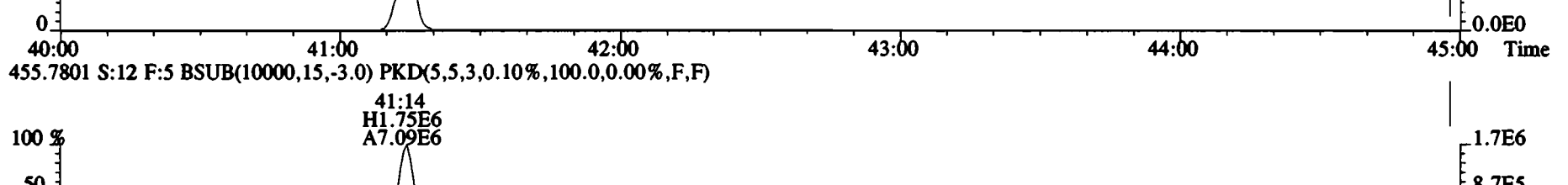
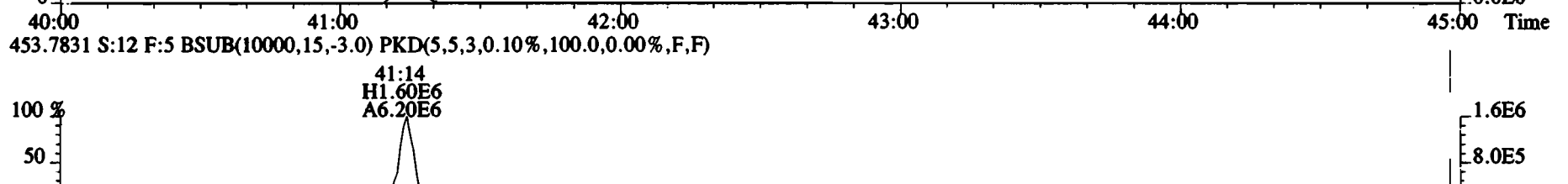
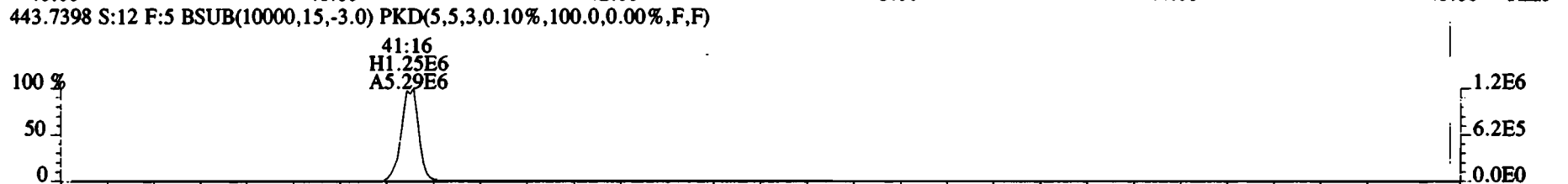
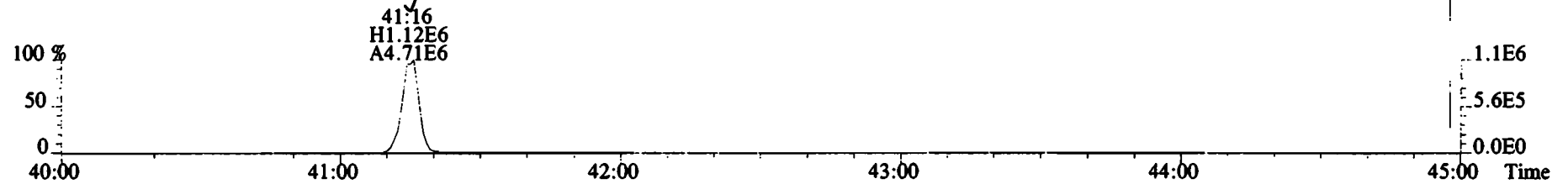


File:200107D2 #1-356 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#12 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE2 PDI-1071SC-B-02-04-191001 13.57 Exp:OCDD\_DB5  
407.7818 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)





File:200107D2 #1-431 Acq: 8-JAN-2020 07:18:19 GC EI+ Voltage SIR Autospec-UltimaE  
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 441.7428 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



## CONFIRMATION

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.16e+07	0.78 y	15:35	1.00	197.8	-
13C-2,3,7,8-TCDF	1.15e+07	0.78 y	17:42	1.02	191.1	96.6
2,3,7,8-TCDF	8.02e+05	0.76 y	17:42	0.95	14.57	

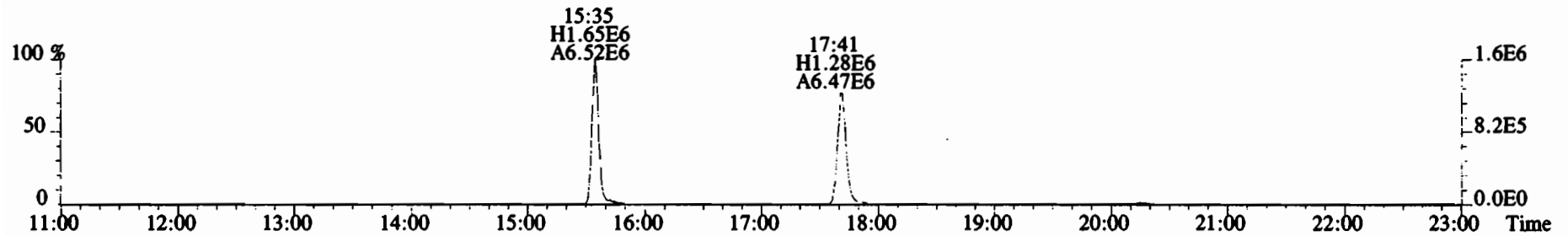
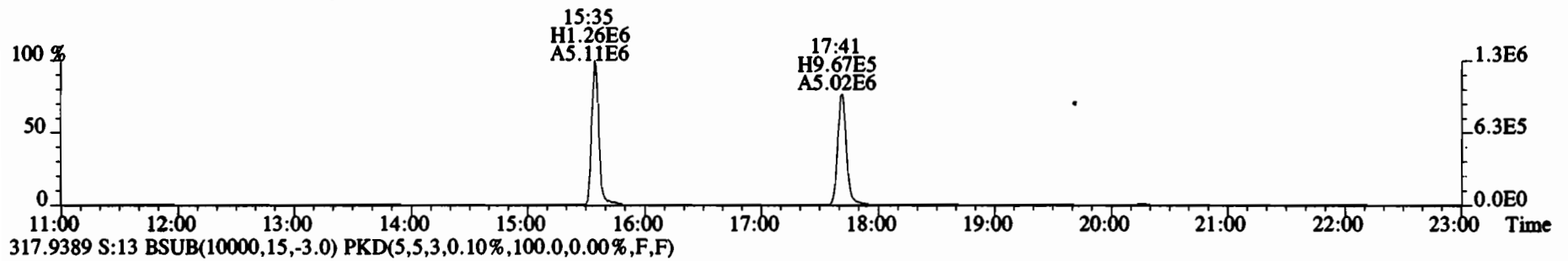
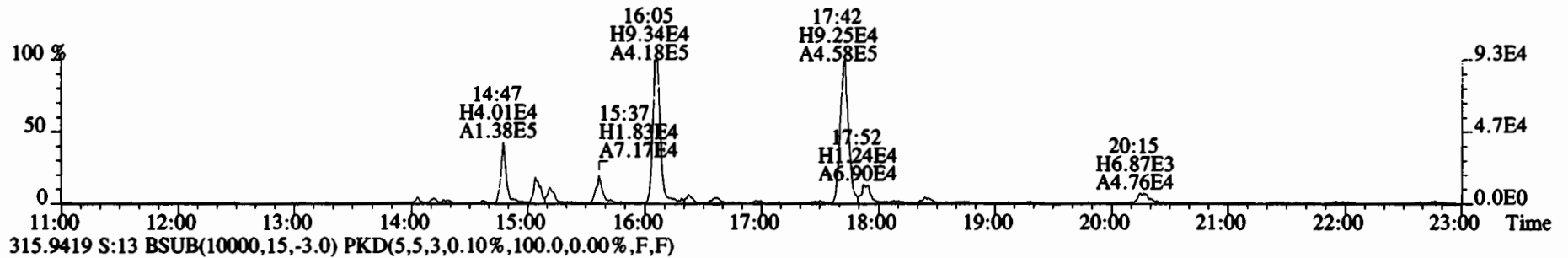
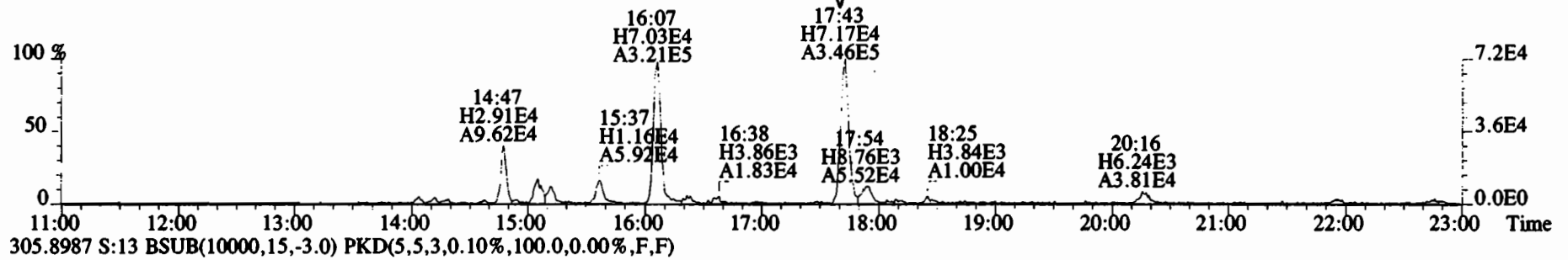
Integrations  
by  
Analyst: DB

Date: 1/3/20

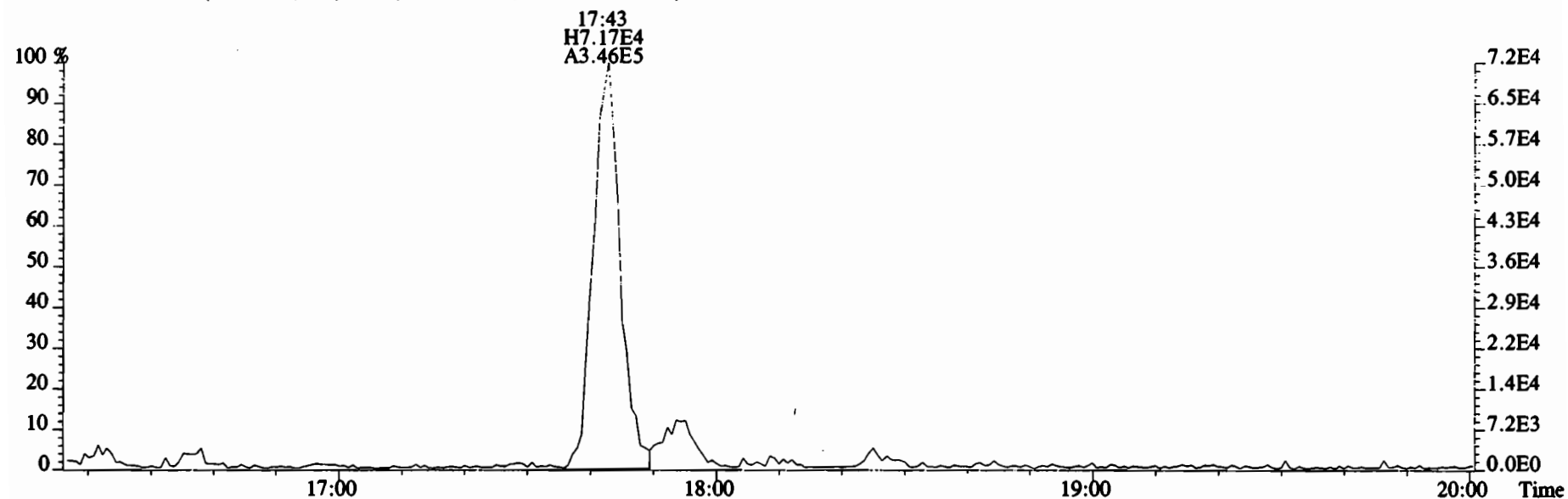
Reviewed  
by  
Analyst: CT

Date: 01/10/2020

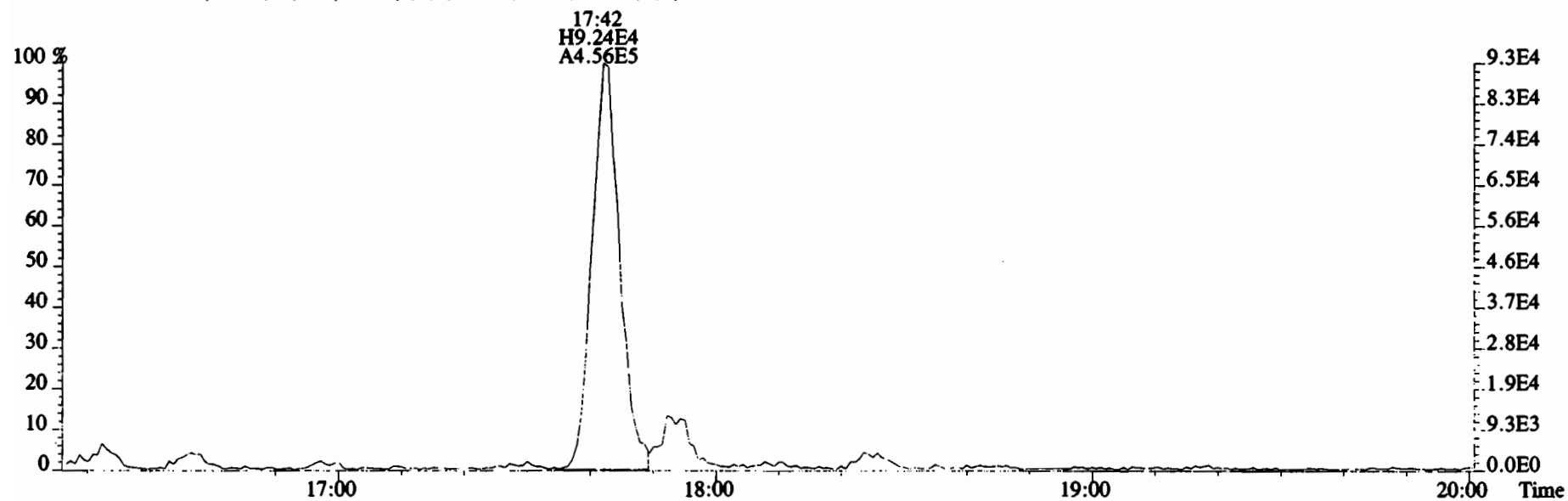
File:200102D1 #1-1683 Acq: 2-JAN-2020 19:48:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#13 File Text: Vista Analytical Laboratory VG7 Text:1903461-05RE2 PDI-047SC-B-00-02-191001 19.73 Exp:TCDF\_DB225  
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



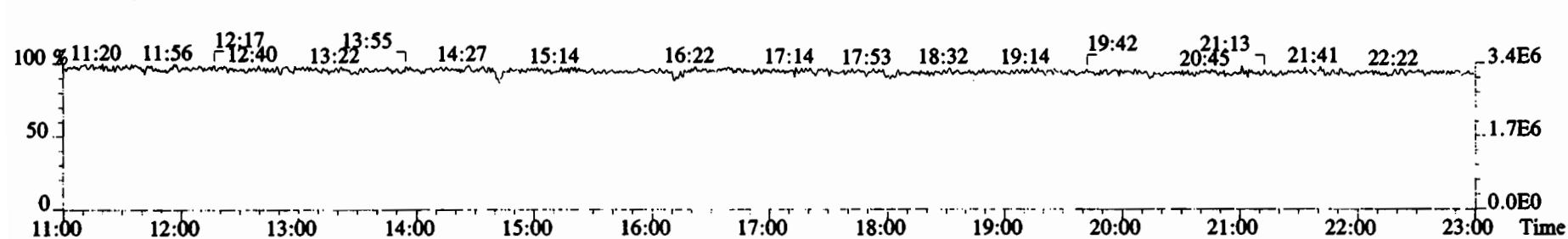
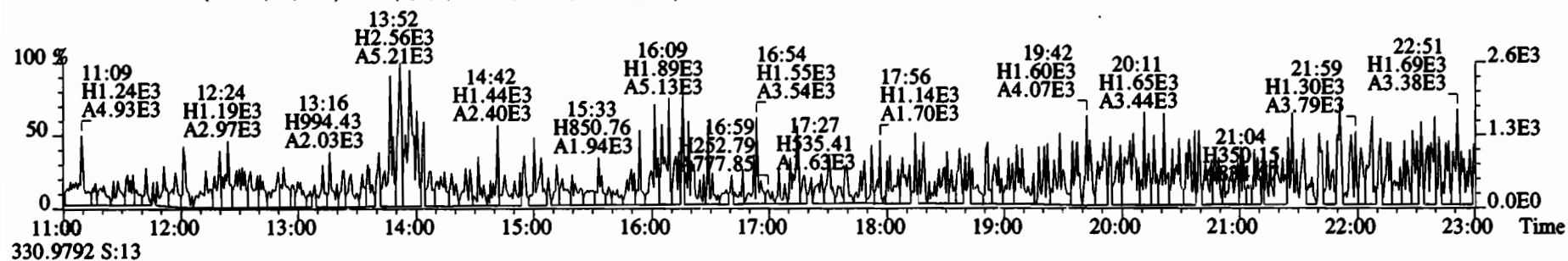
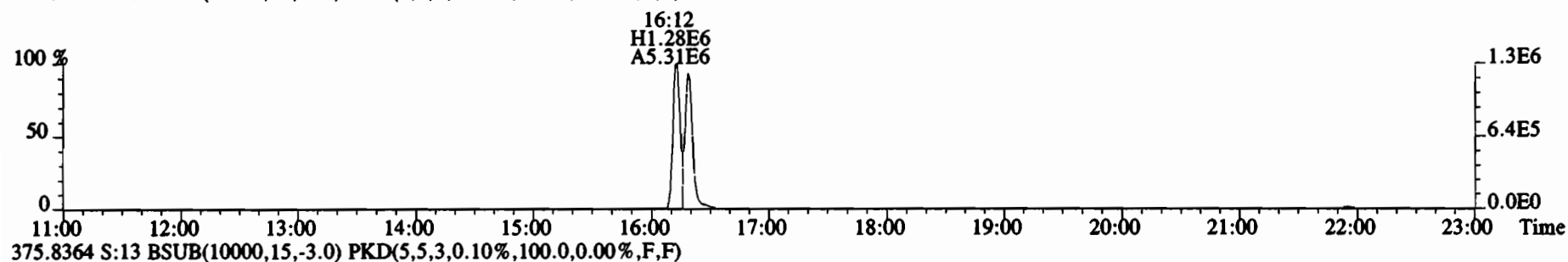
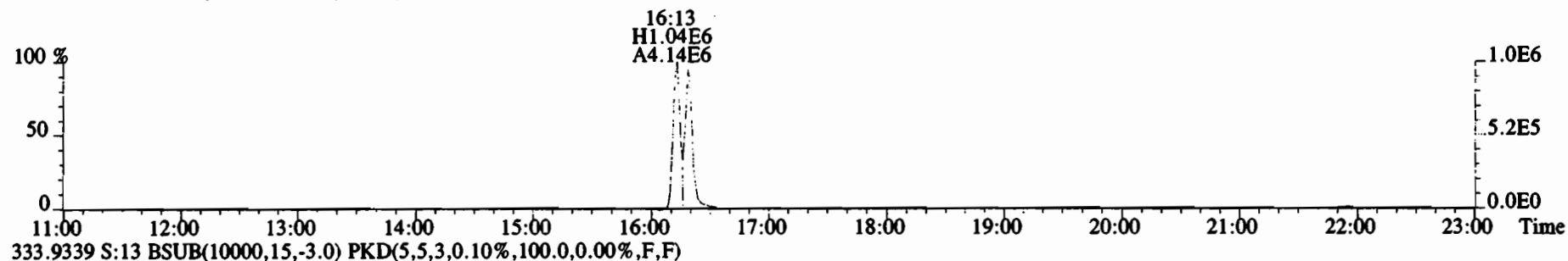
File:200102D1 #1-1683 Acq: 2-JAN-2020 19:48:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#13 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-05RE2 PDI-047SC-B-00-02-191001 19.73 Exp:TCDF\_DB225  
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



305.8987 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200102D1 #1-1683 Acq: 2-JAN-2020 19:48:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#13 File Text: Vista Analytical Laboratory VG7 Text:1903461-05RE2 PDI-047SC-B-00-02-191001 19.73 Exp:TCDF\_DB225  
 331.9368 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.23e+07	0.78 y	15:35	1.00	198.9	-
13C-2,3,7,8-TCDF	1.16e+07	0.78 y	17:41	1.02	183.6	92.3
2,3,7,8-TCDF	9.57e+05	0.76 y	17:42	0.95	17.27	

Integrations

by Analyst: DB

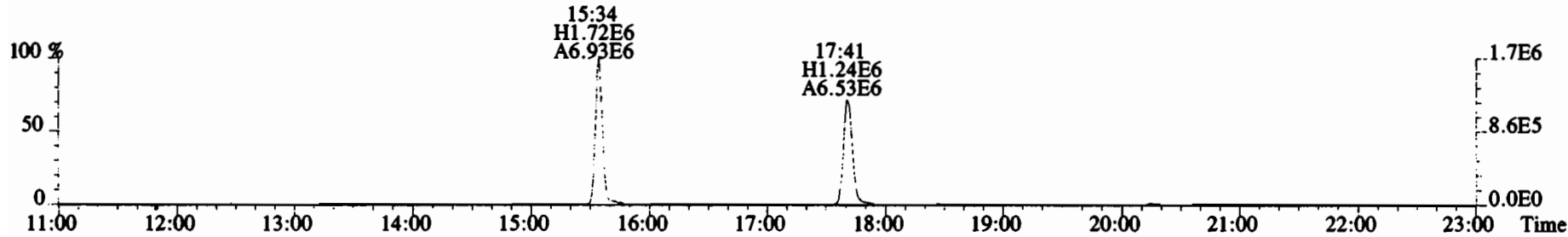
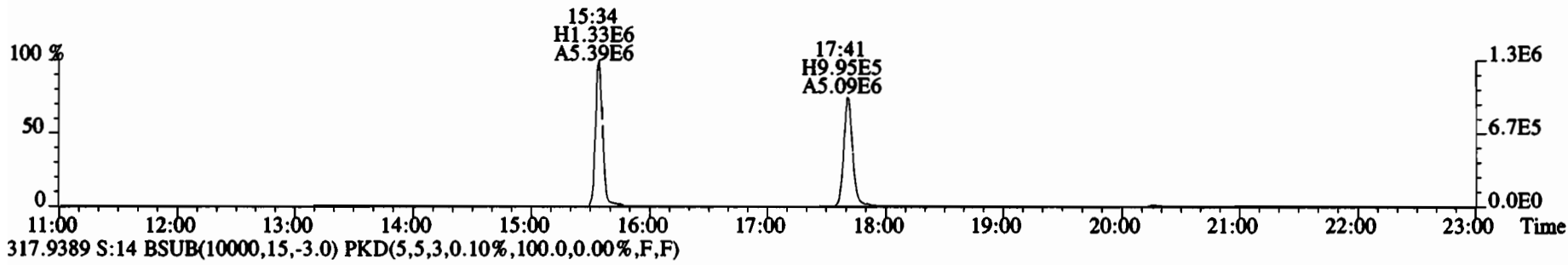
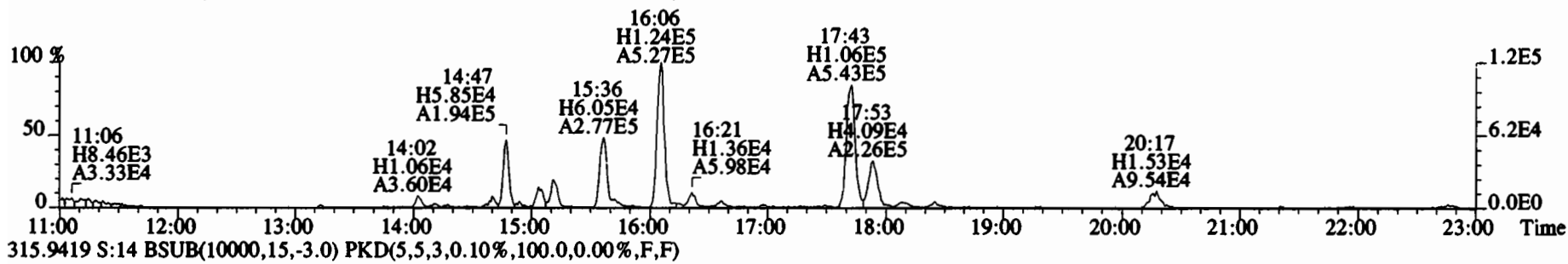
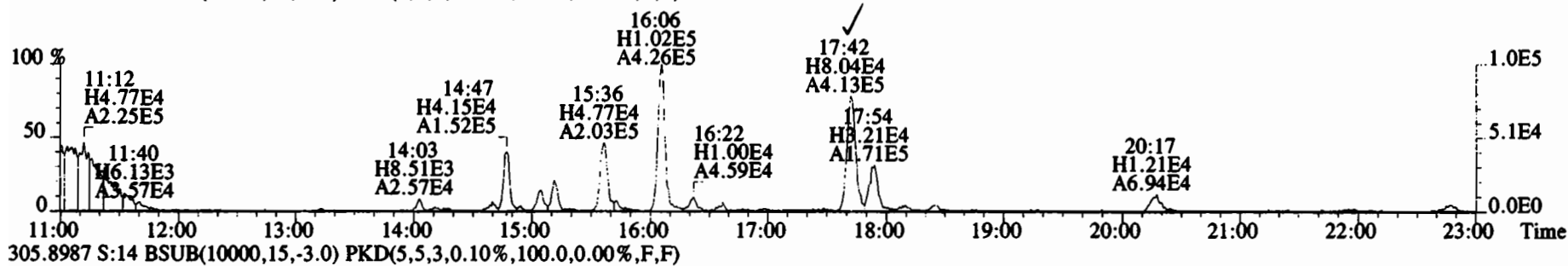
Date: 1/3/20

Reviewed

by Analyst: CT

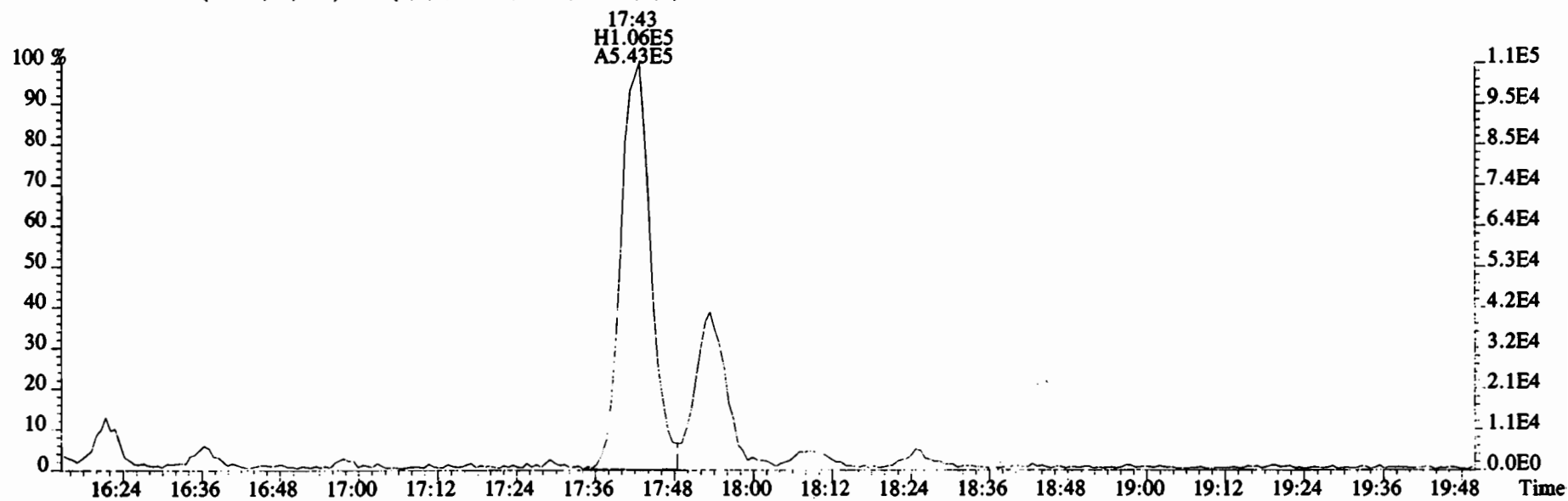
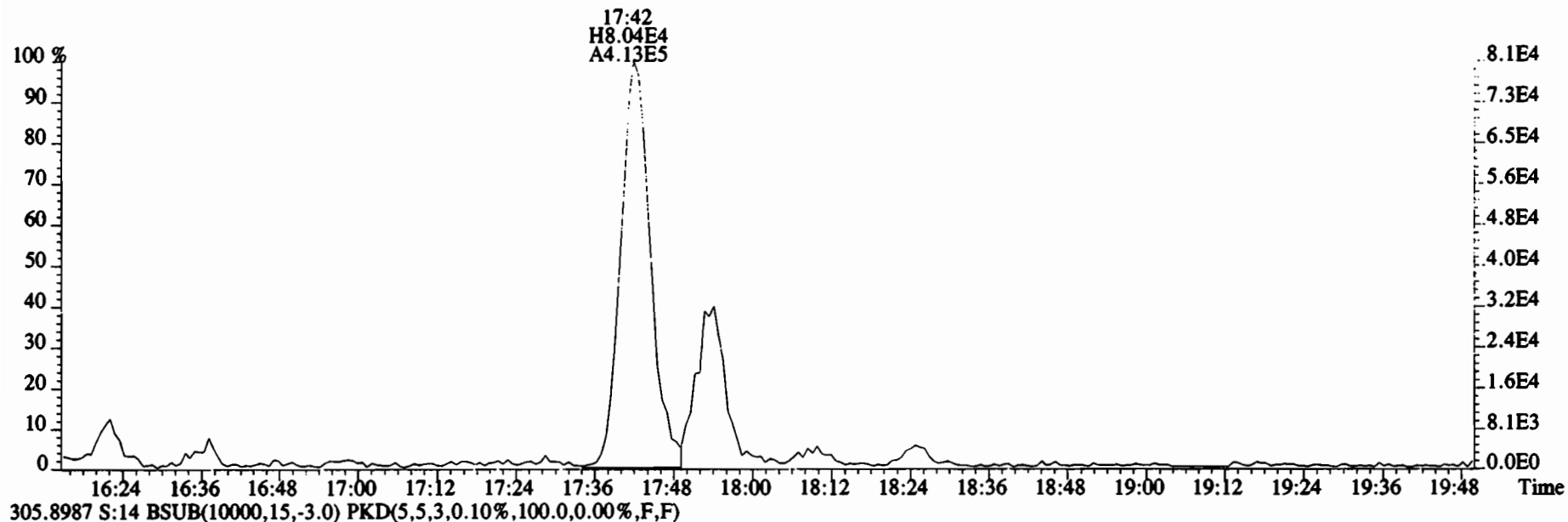
Date: 01/10/2020

File:200102D1 #1-1682 Acq: 2-JAN-2020 20:20:51 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#14 File Text:Vista Analytical Laboratory VG7 Text:1903461-06RE2 PDI-047SC-B-02-04-191001 12.49 Exp:TCDF\_DB225  
 303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

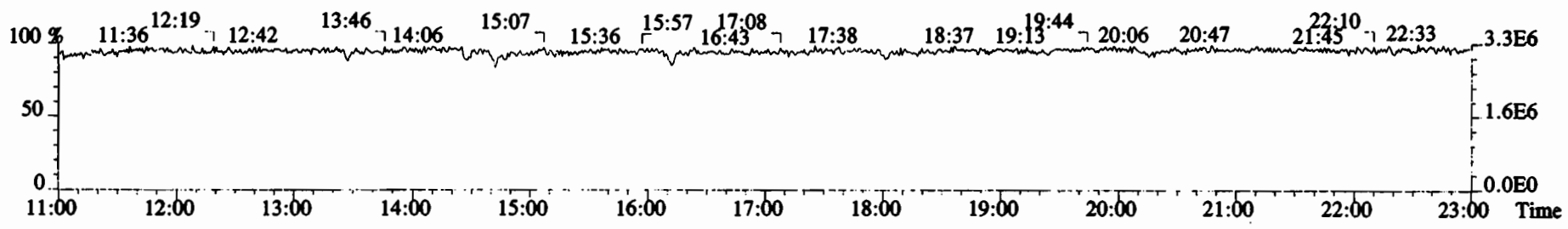
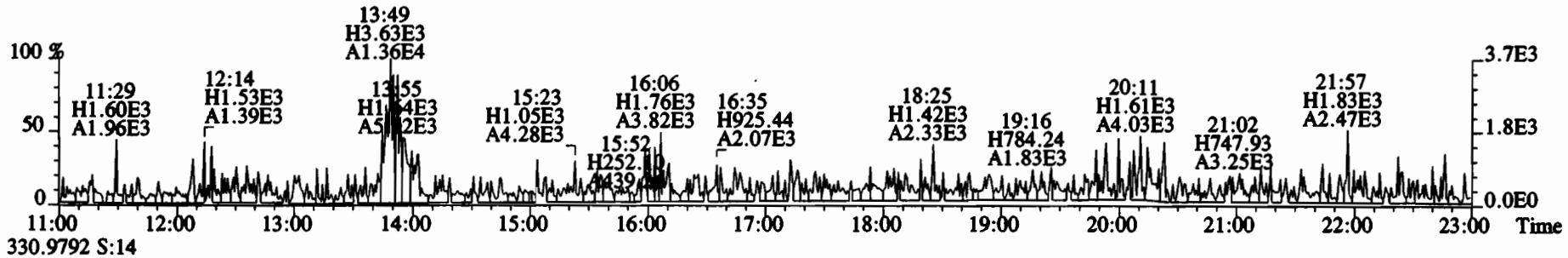
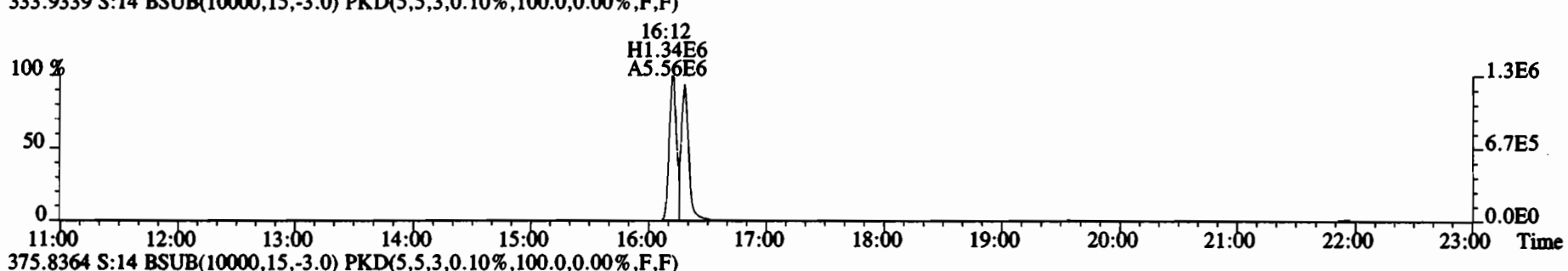
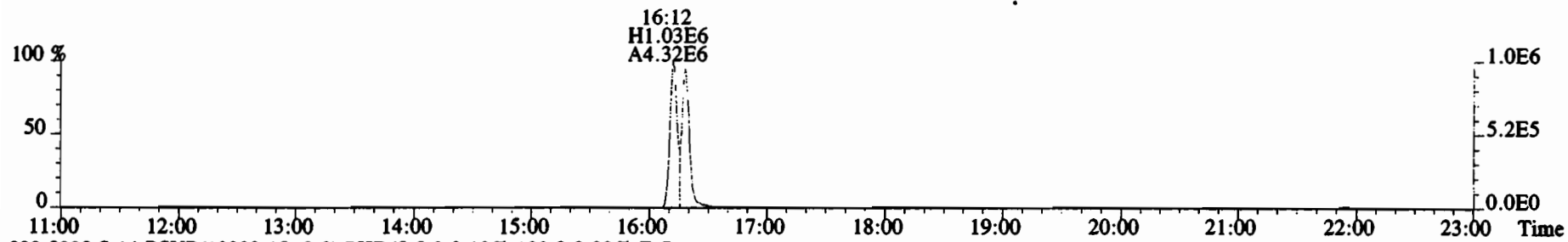




File:200102D1 #1-1682 Acq: 2-JAN-2020 20:20:51 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#14 File Text:Vista Analytical Laboratory VG7 Text:1903461-06RE2 PDI-047SC-B-02-04-191001 12.49 Exp:TCDF\_DB225  
303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200102D1 #1-1682 Acq: 2-JAN-2020 20:20:51 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#14 File Text:Vista Analytical Laboratory VG7 Text:1903461-06RE2 PDI-047SC-B-02-04-191001 12.49 Exp:TCDF\_DB225  
 331.9368 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.19e+07	0.77 y	15:34	1.00	199.9	-
13C-2,3,7,8-TCDF	1.11e+07	0.79 y	17:41	1.02	181.9	91.0
2,3,7,8-TCDF	1.53e+06	0.76 y	17:42	0.95	29.09	

Integrations

by  
Analyst: DB

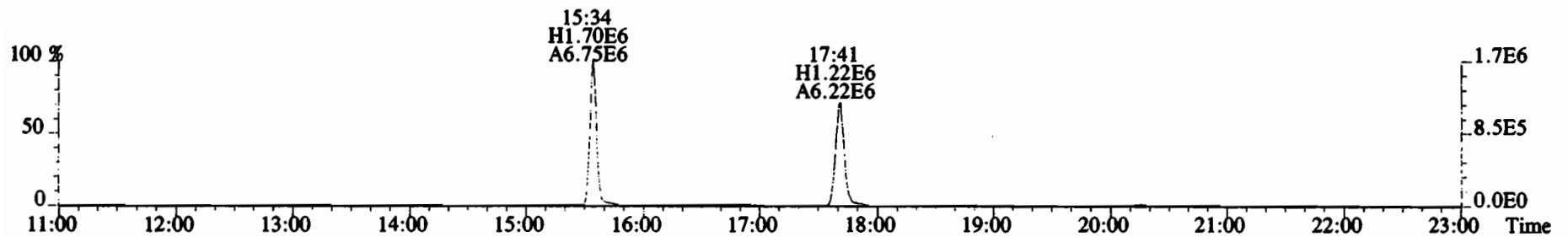
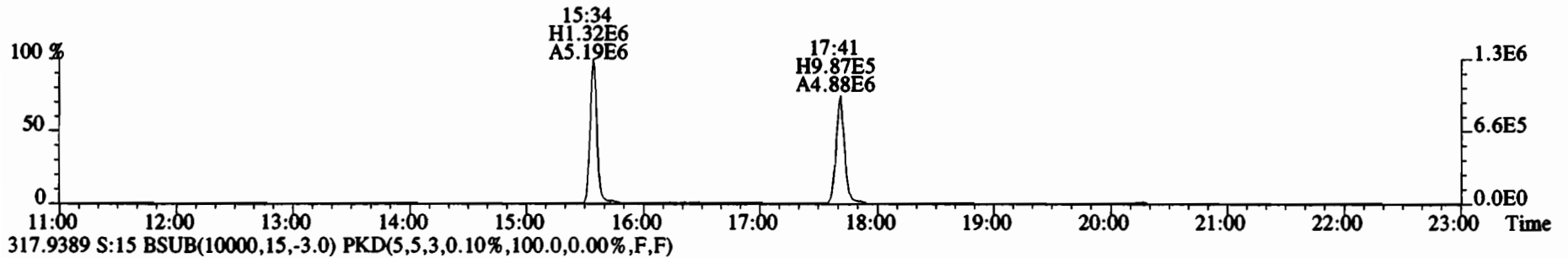
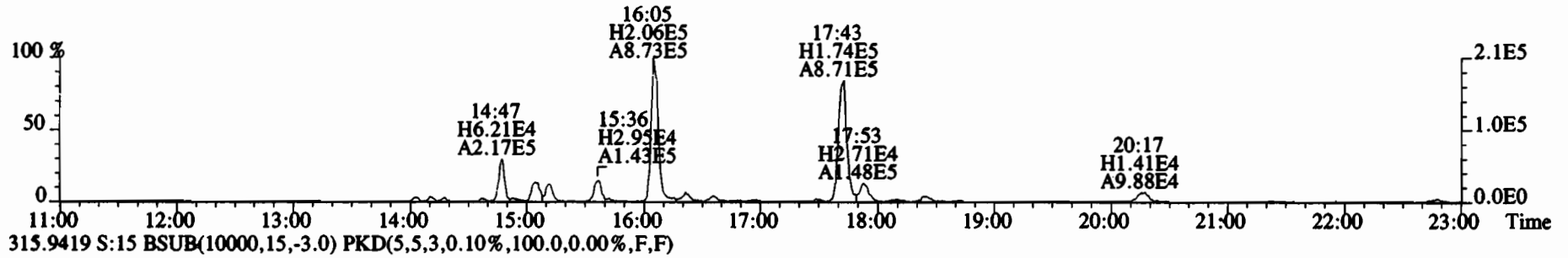
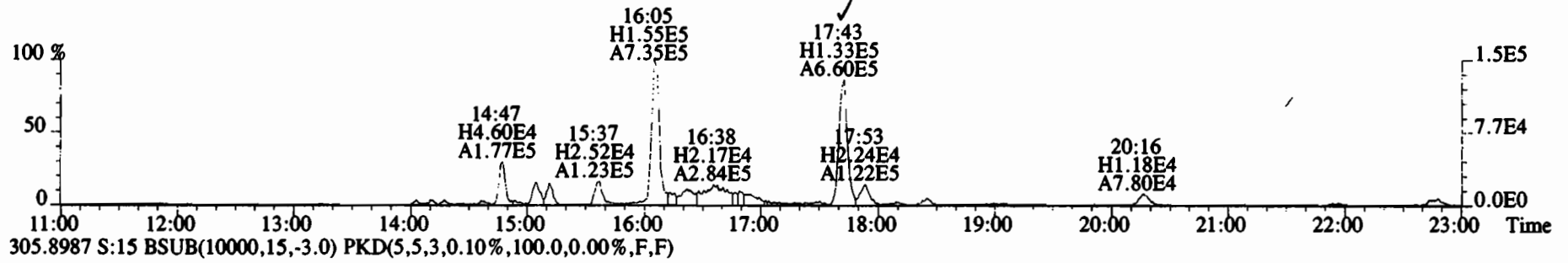
Date: 1/3/20

Reviewed

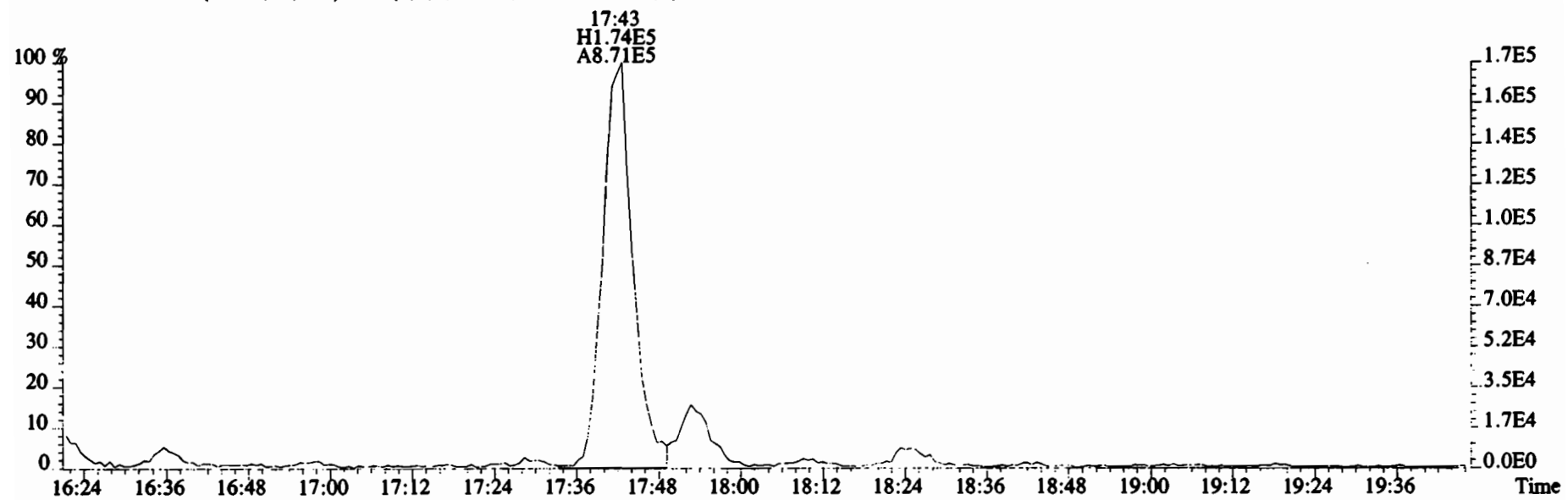
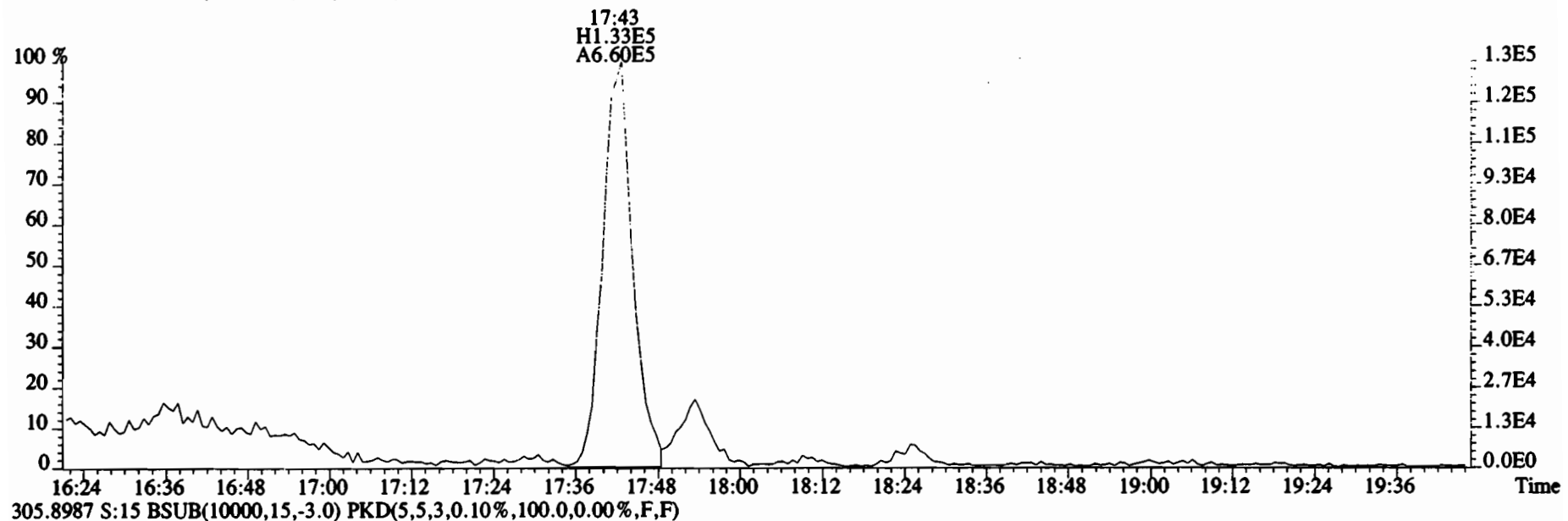
by  
Analyst: CT

Date: 01/03/2020

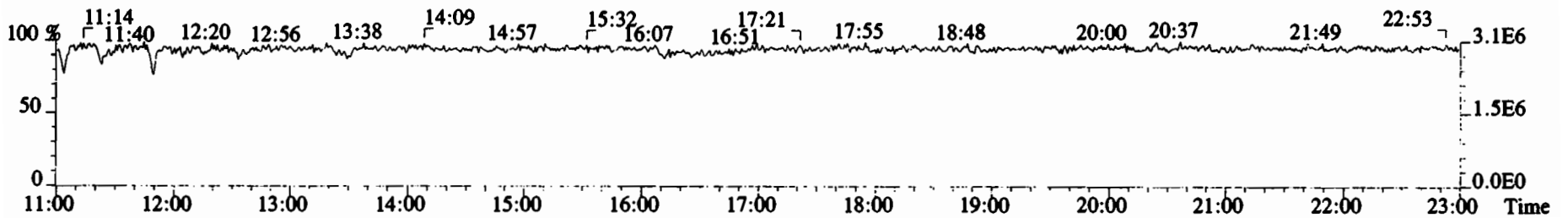
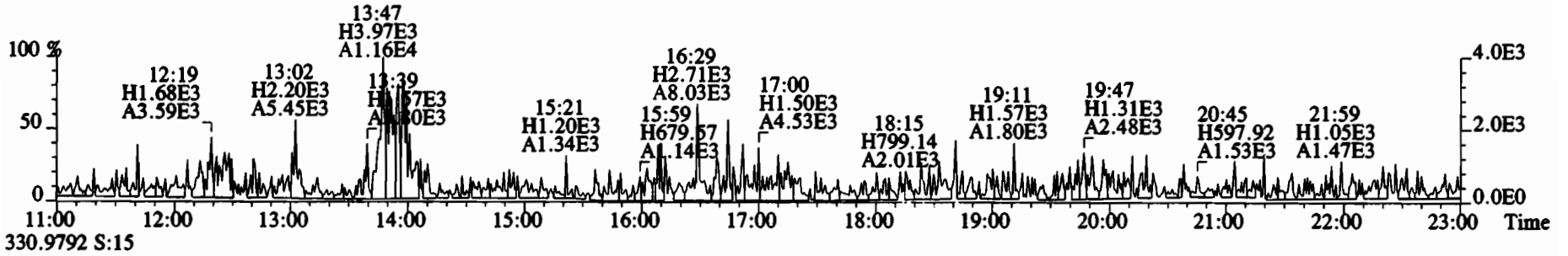
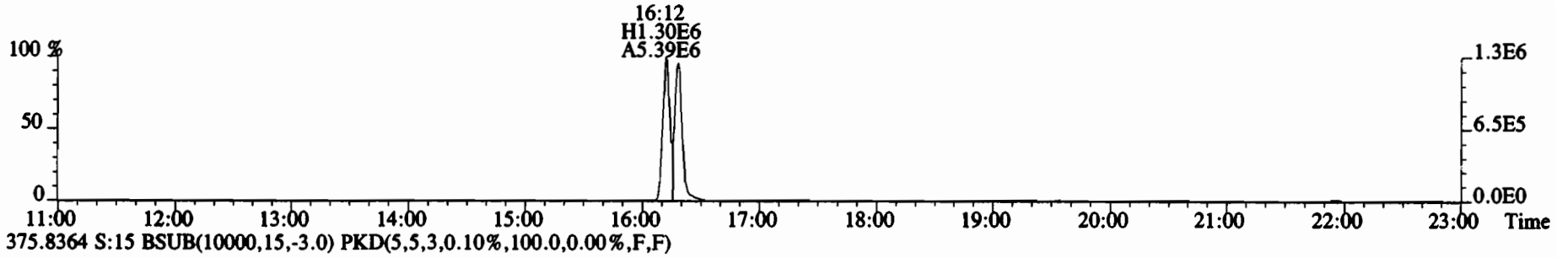
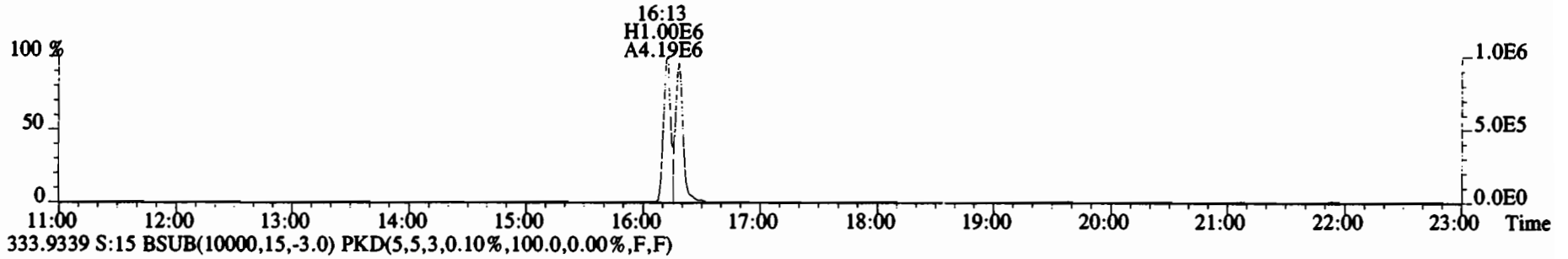
File:200102D1 #1-1682 Acq: 2-JAN-2020 20:53:11 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#15 File Text: Vista Analytical Laboratory VG7 Text:1903461-11RE2 PDI-071SC-B-00-02-191001 19.34 Exp:TCDF\_DB225  
303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200102D1 #1-1682 Acq: 2-JAN-2020 20:53:11 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#15 File Text: Vista Analytical Laboratory VG7 Text:1903461-11RE2 PDI-071SC-B-00-02-191001 19.34 Exp:TCDF\_DB225  
303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200102D1 #1-1682 Acq: 2-JAN-2020 20:53:11 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#15 File Text: Vista Analytical Laboratory VG7 Text:1903461-11RE2 PDI-071SC-B-00-02-191001 19.34 Exp:TCDF\_DB225  
 331.9368 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: PDI-071SC-B-02-04-1910η Filename: 200102D1 S:18 Acq: 2-JAN-20 22:30:17  
Lab ID: 1903461-12RE2 GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol:10.009

ConCal: ST200102D1-1  
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.25e+07	0.79 y	15:36	1.00	199.8	-
13C-2,3,7,8-TCDF	1.02e+07	0.77 y	17:43	1.02	159.2	79.7
2,3,7,8-TCDF	6.87e+06	0.77 y	17:43	0.95	142.1	

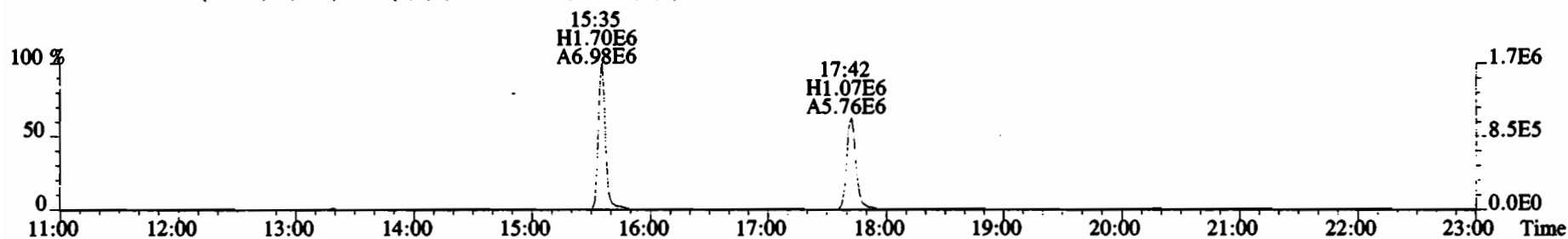
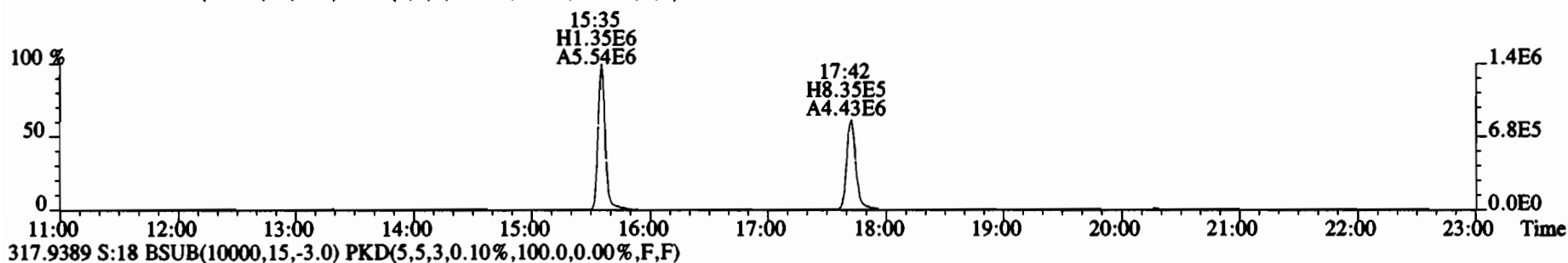
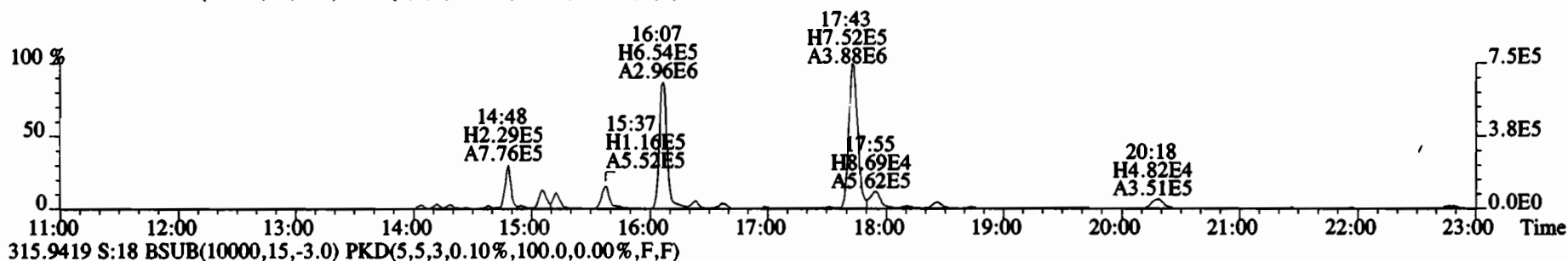
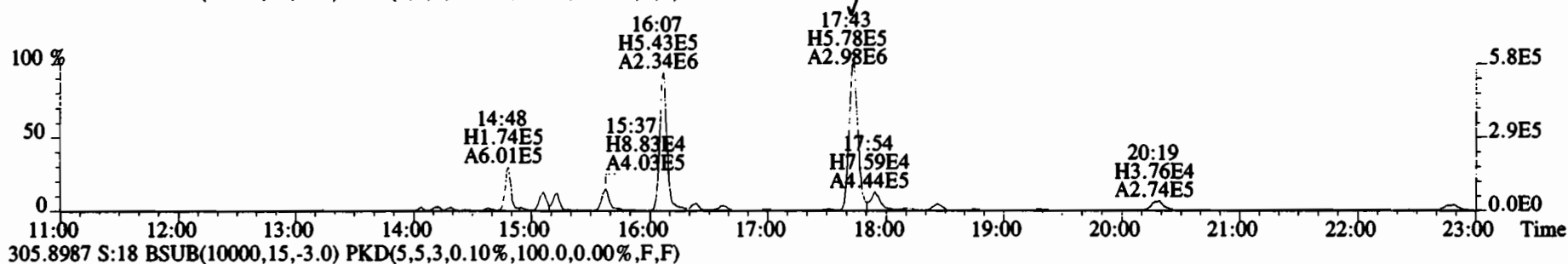
Integrations  
by  
Analyst: DB

Date: 1/3/20

Reviewed  
by  
Analyst: OT

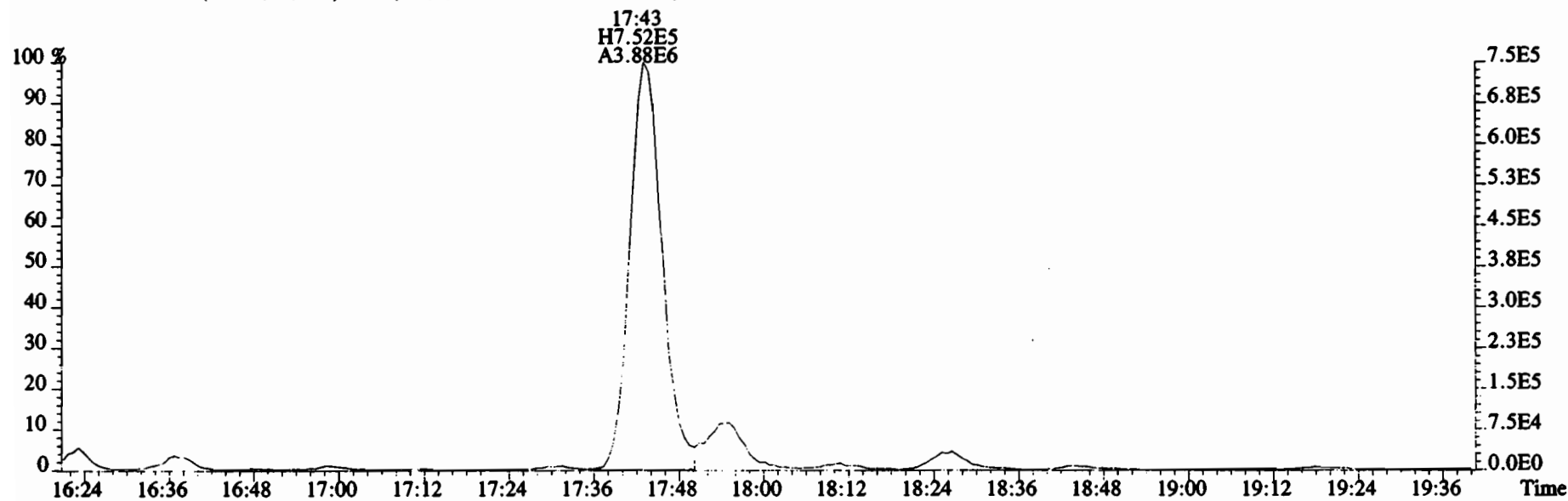
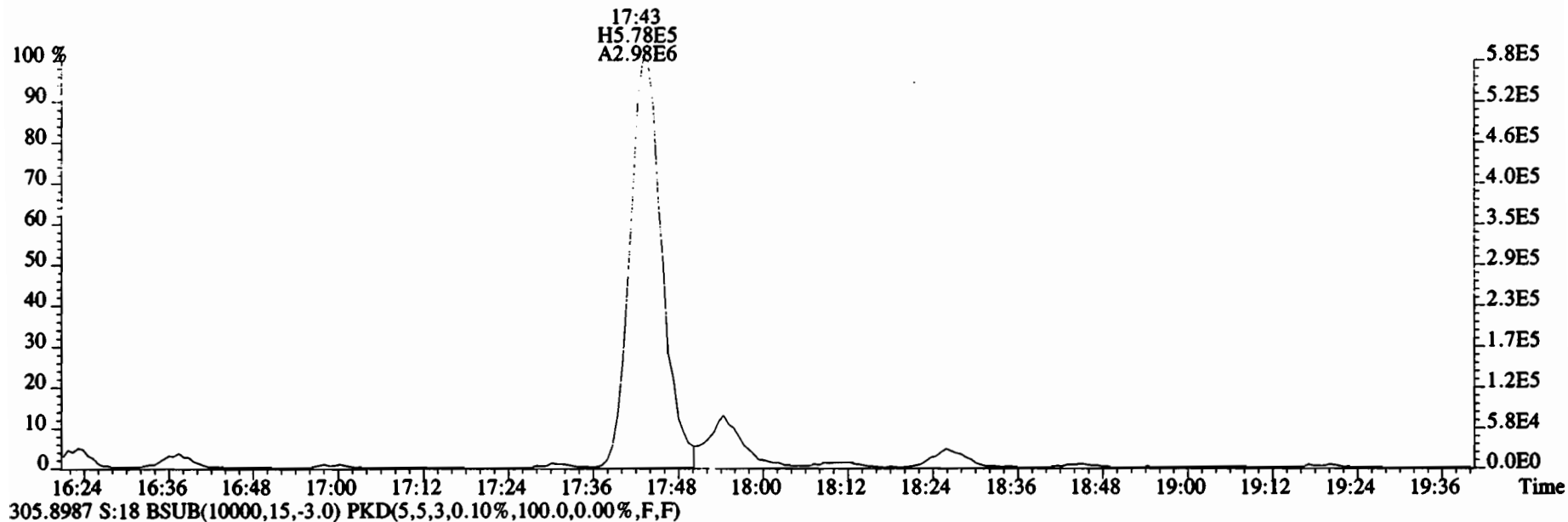
Date: 01/10/2020

File:200102D1 #1-1683 Acq: 2-JAN-2020 22:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#18 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-12RE2 PDI-071SC-B-02-04-191001 15.95 Exp:TCDF\_DB225  
303.9016 S:18 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

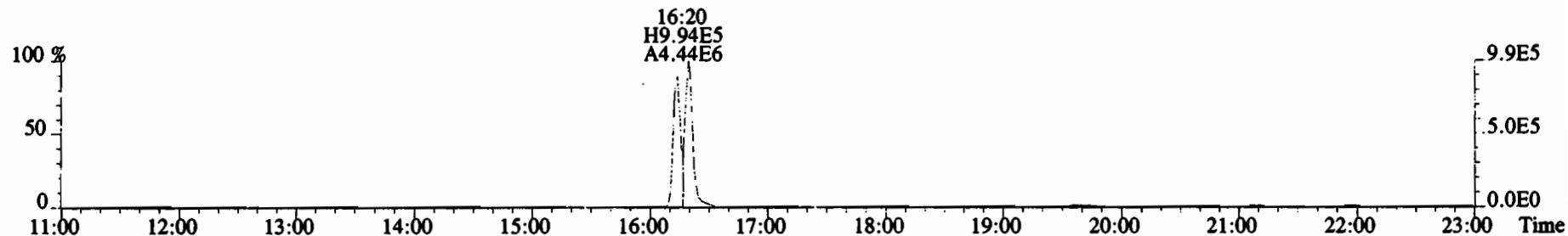




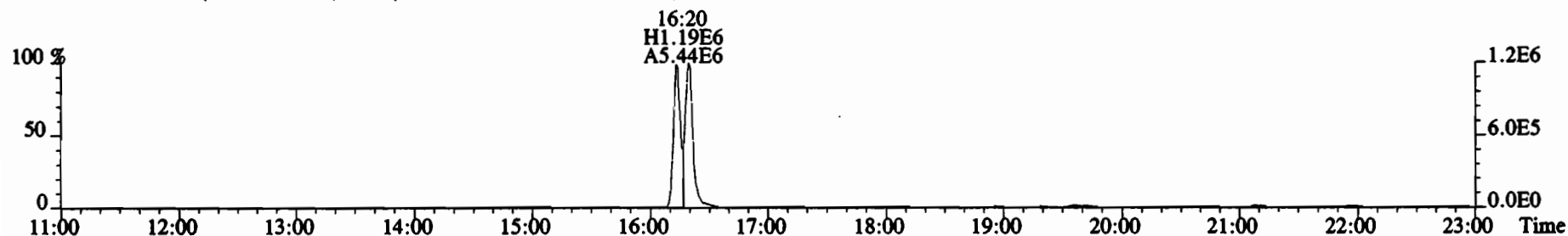
File:200102D1 #1-1683 Acq: 2-JAN-2020 22:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#18 File Text:Vista Analytical Laboratory VG7 Text:1903461-12RE2 PDI-071SC-B-02-04-191001 15.95 Exp:TCDF\_DB225  
303.9016 S:18 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



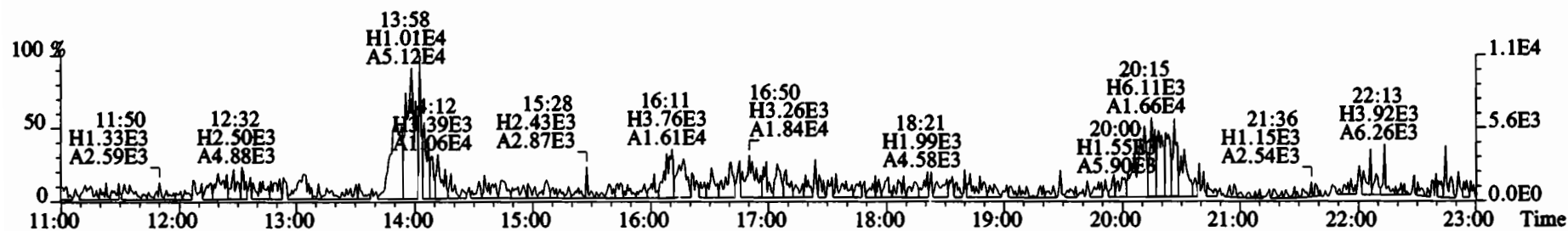
File:200102D1 #1-1683 Acq: 2-JAN-2020 22:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#18 File Text:Vista Analytical Laboratory VG7 Text:1903461-12RE2 PDI-071SC-B-02-04-191001 15.95 Exp:TCDF\_DB225  
 331.9368 S:18 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



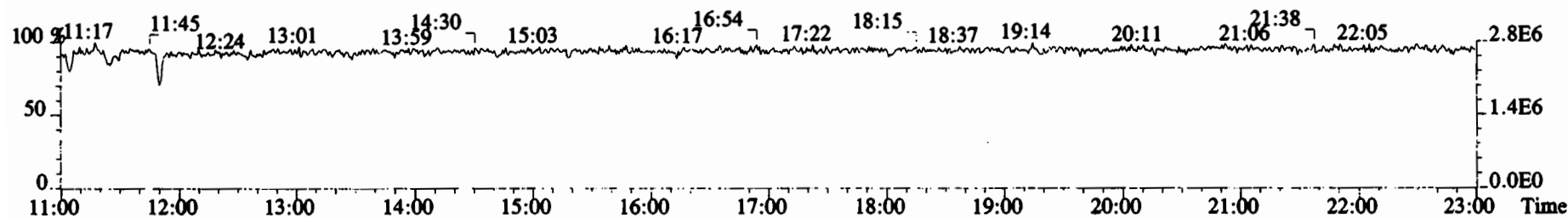
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375.8364 S:18 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



330.9792 S:18



Client ID: PDI-0718C-B-04-06-1910  
Lab ID: 1903461-13RE4

Filename: 200108D1 S:7 Acq: 8-JAN-20 14:21:46  
GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol:10.030

ConCal: ST200108D1-1  
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.62e+07	0.80 y	15:37	1.00	199.4	-
13C-2,3,7,8-TCDF	1.11e+07	0.79 y	17:44	1.02	134.1	67.3
2,3,7,8-TCDF	3.49e+06	0.77 y	17:45	0.95	65.93	

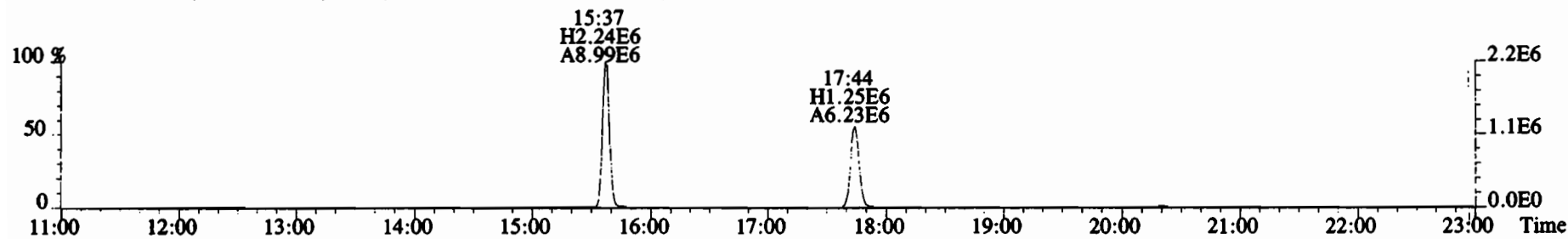
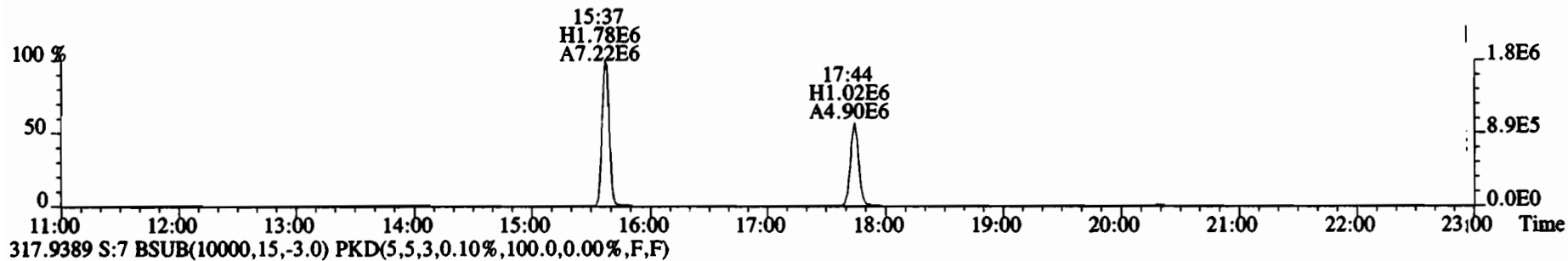
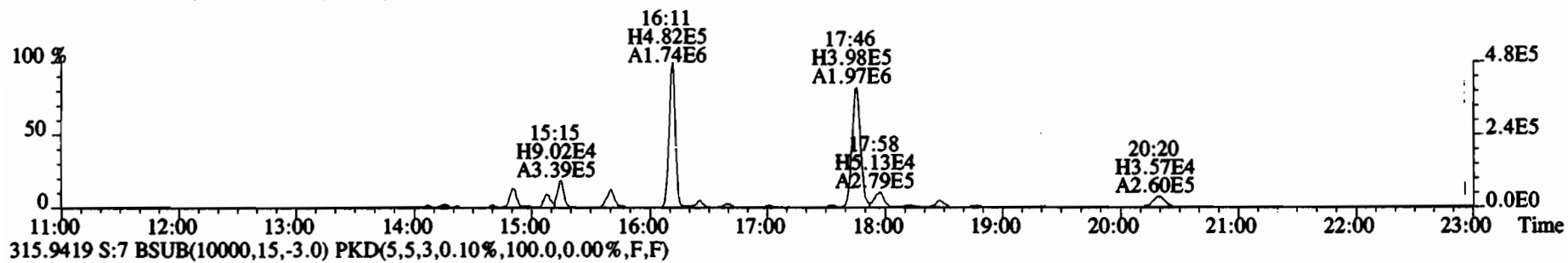
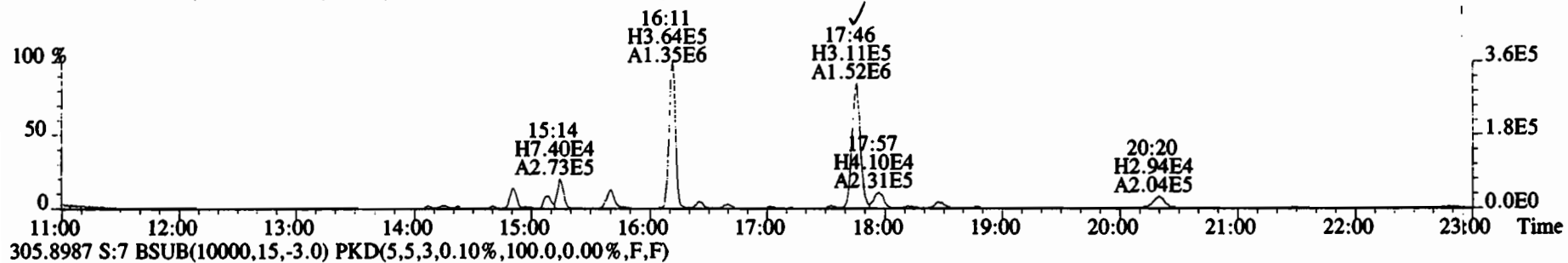
Integrations  
by  
Analyst: DB

Date: 1/8/20

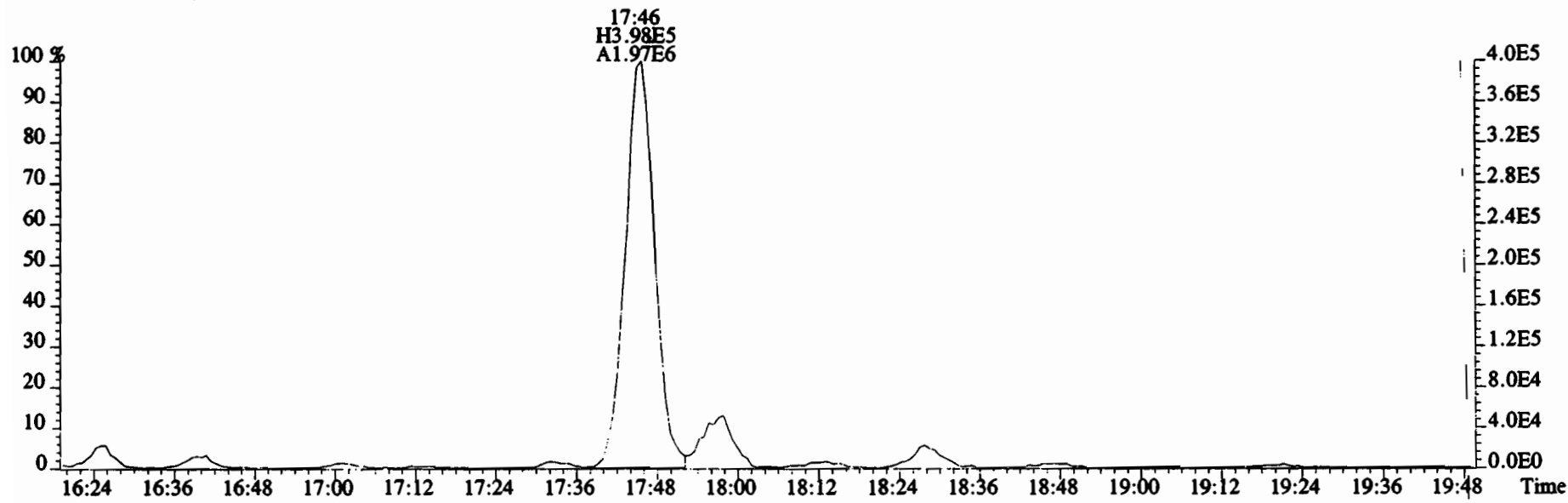
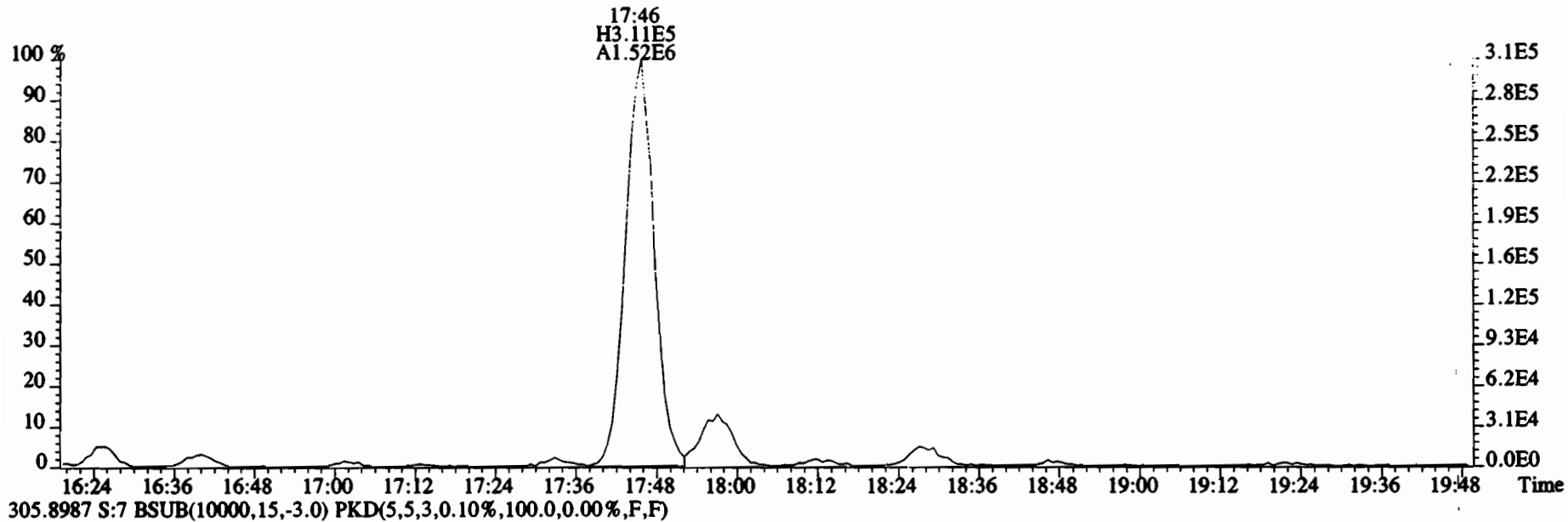
Reviewed  
by  
Analyst: CT

Date: 01/10/2020

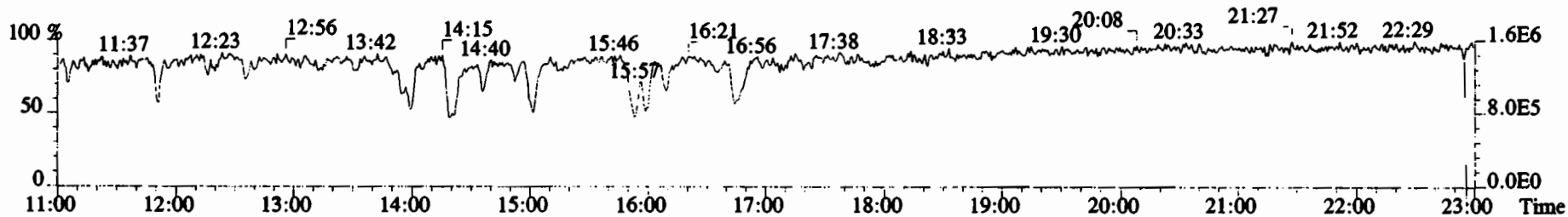
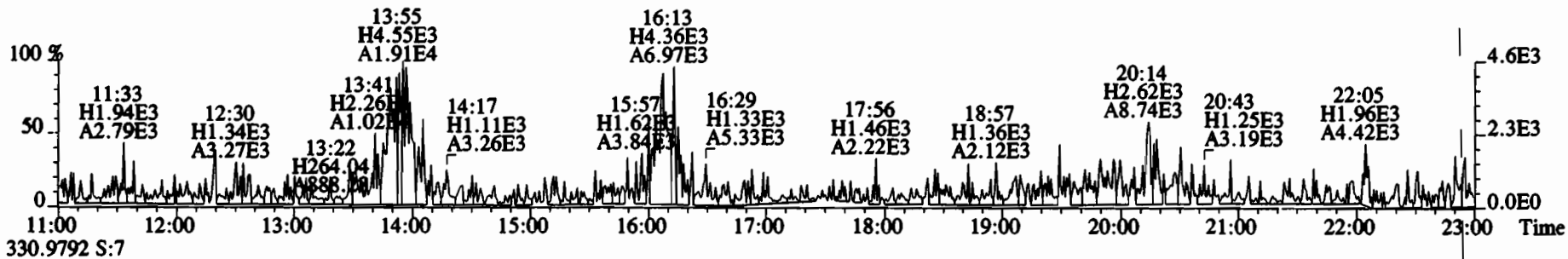
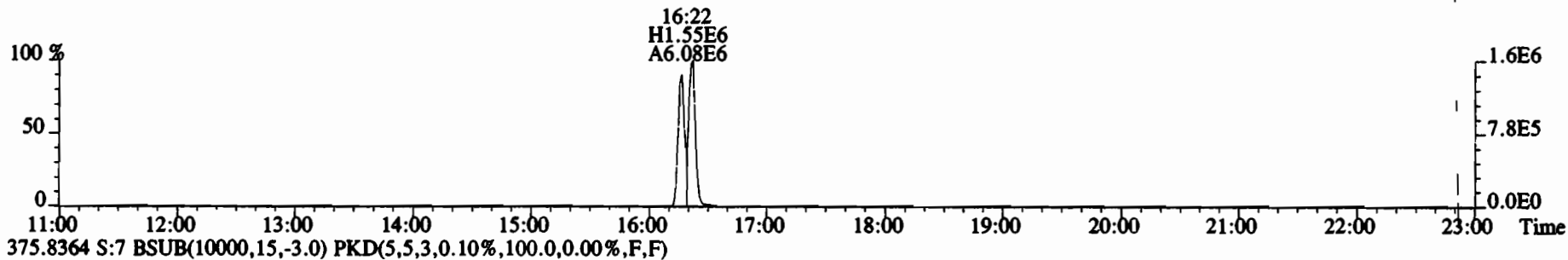
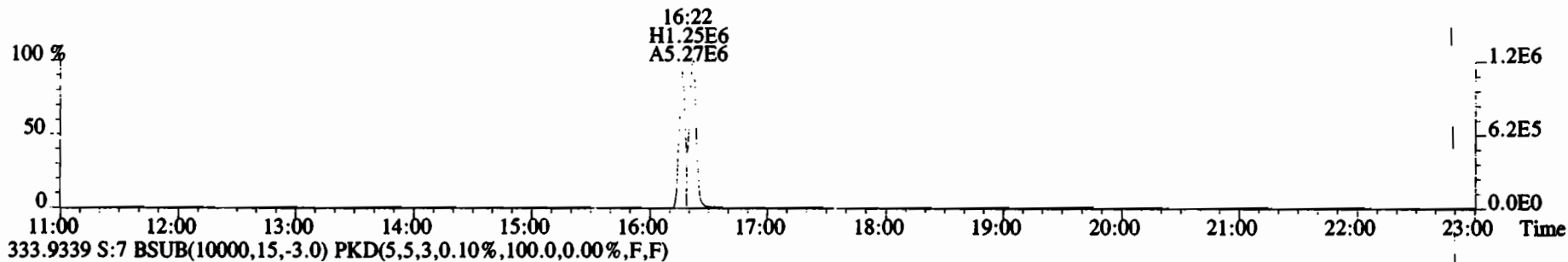
File:200108D1 #1-1683 Acq: 8-JAN-2020 14:21:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE4 PDI-071SC-B-04-06-191001 16.58 Exp:TCDF\_DB225  
303.9016 S:7 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200108D1 #1-1683 Acq: 8-JAN-2020 14:21:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE4 PDI-071SC-B-04-06-191001 16.58 Exp:TCDF\_DB225  
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200108D1 #1-1683 Acq: 8-JAN-2020 14:21:46 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#7 File Text:Vista Analytical Laboratory VG7 Text:1903461-13RE4 PDI-071SC-B-04-06-191001 16.58 Exp:TCDF\_DB225  
 331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: PDI-071SC-B-06-08-1910q Filename: 200108D1 S:5 Acq: 8-JAN-20 13:17:04

✓ ConCal: ST200108D1-1

Lab ID: 1903461-14RE3

GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol:10.413

EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.28e+07	0.79 y	15:35	1.00	192.1	-
13C-2,3,7,8-TCDF	1.10e+07	0.80 y	17:42	1.02	161.4	84.0
2,3,7,8-TCDF	4.50e+05	0.76 y	17:43	0.95	8.307	

Integrations

by  
Analyst: DB

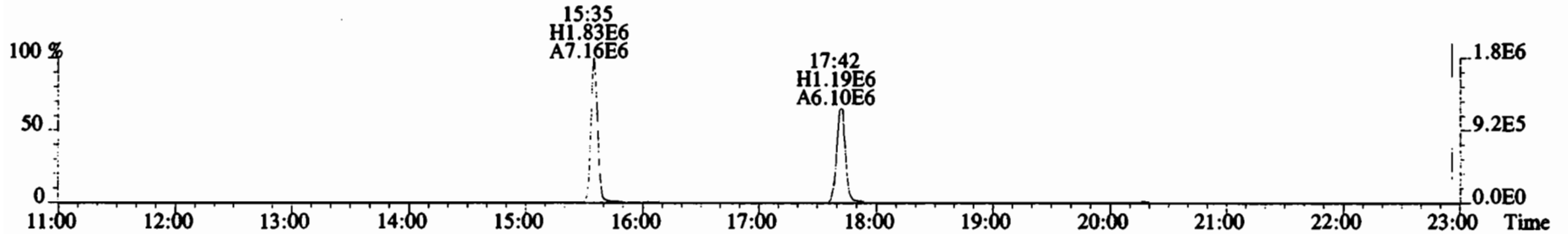
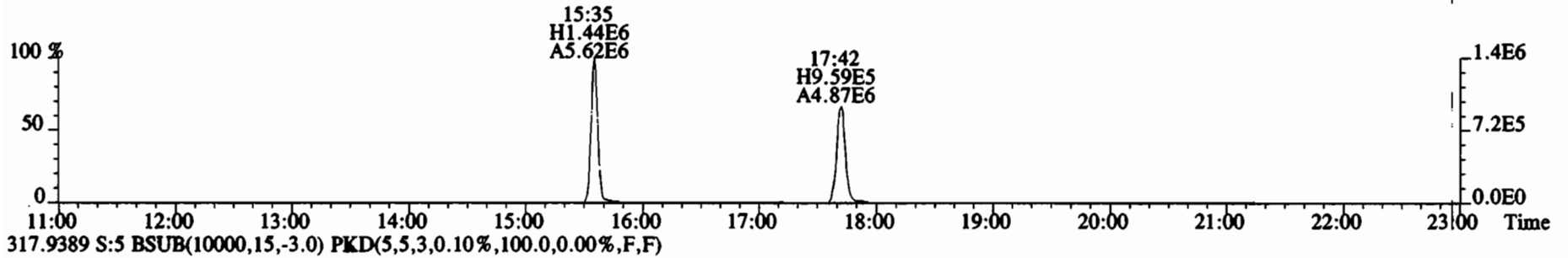
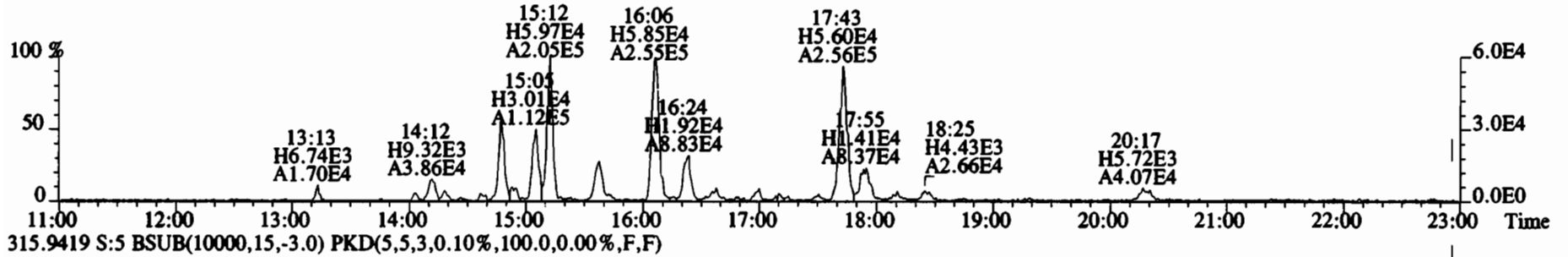
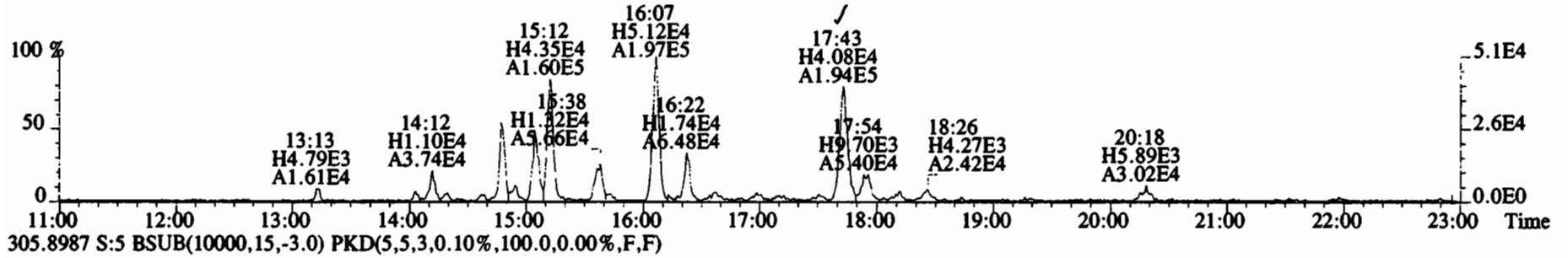
Date: 1/8/20

Reviewed

by  
Analyst: CT

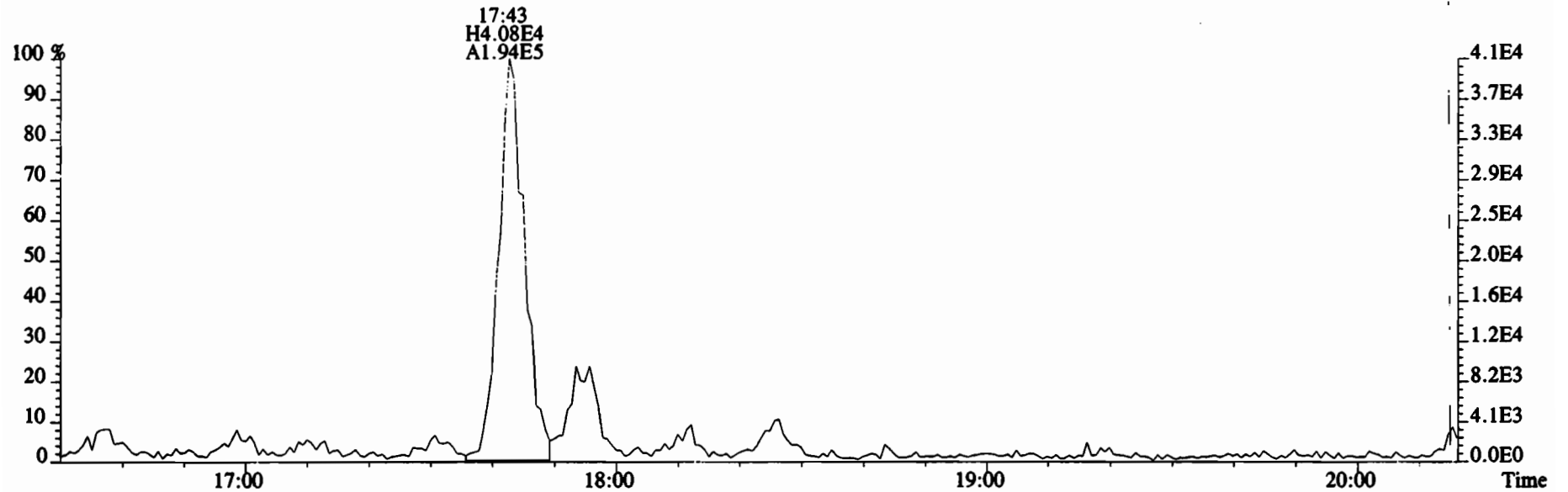
Date: 01/10/2020

File:200108D1 #1-1683 Acq: 8-JAN-2020 13:17:04 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:1903461-14RE3 PDI-071SC-B-06-08-191001 14.59 Exp:TCDF\_DB225  
 303.9016 S:5 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

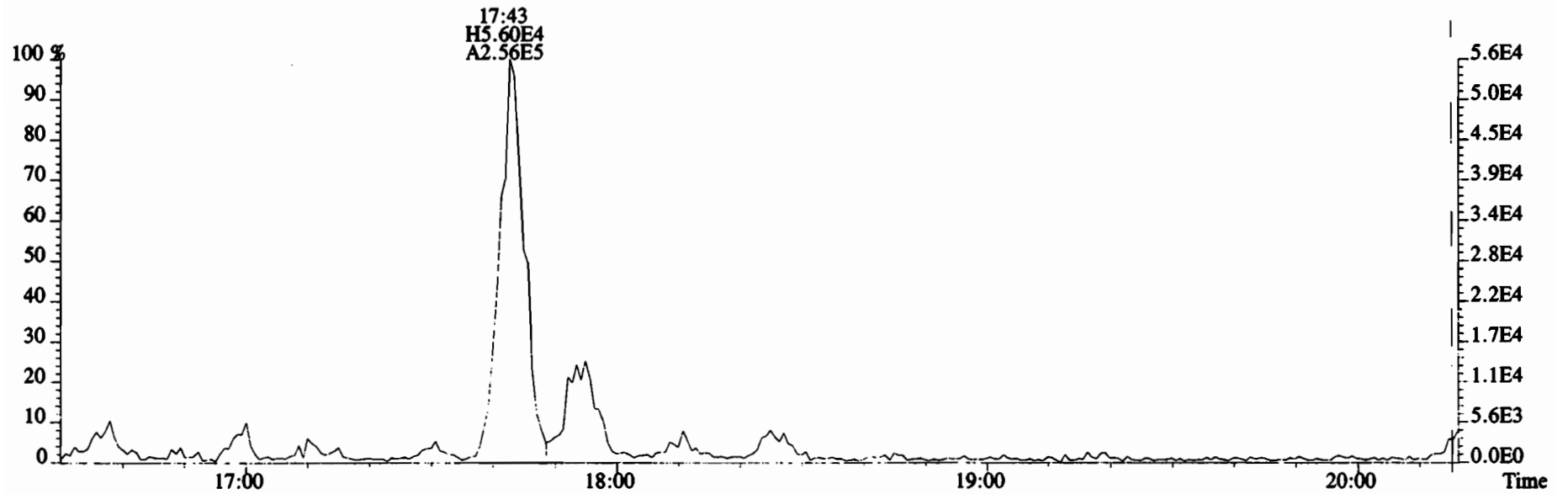




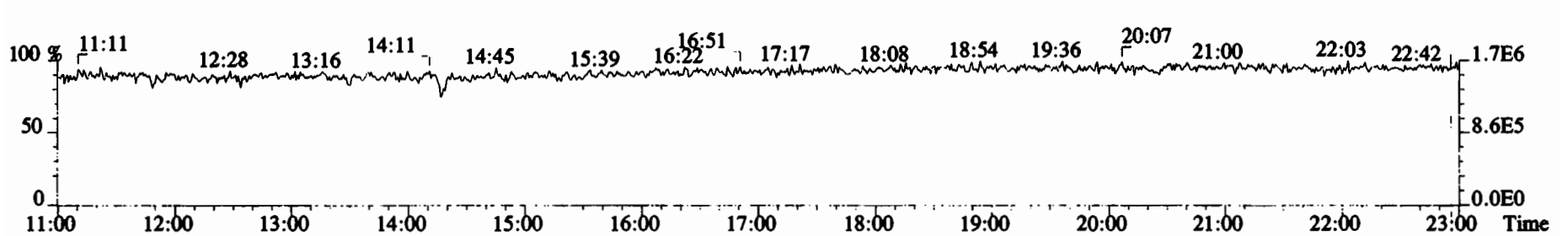
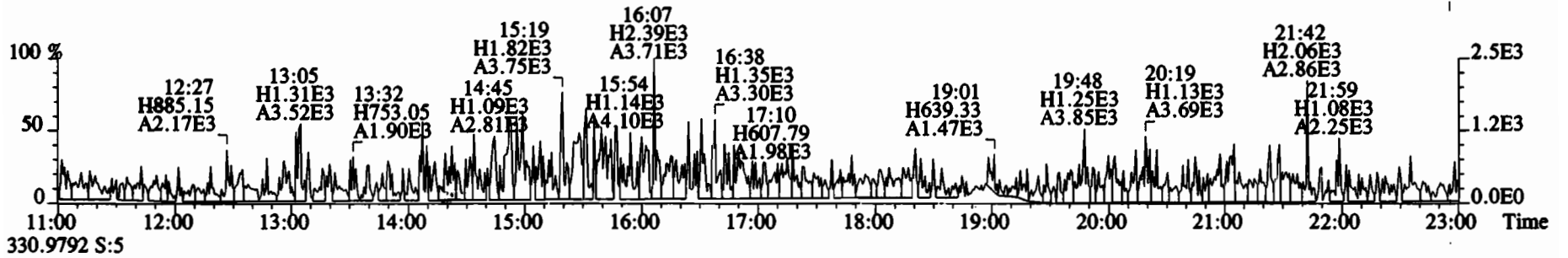
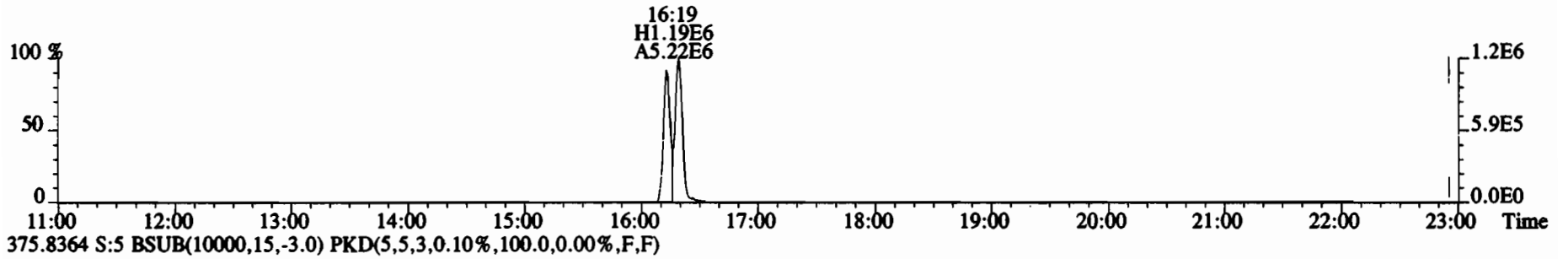
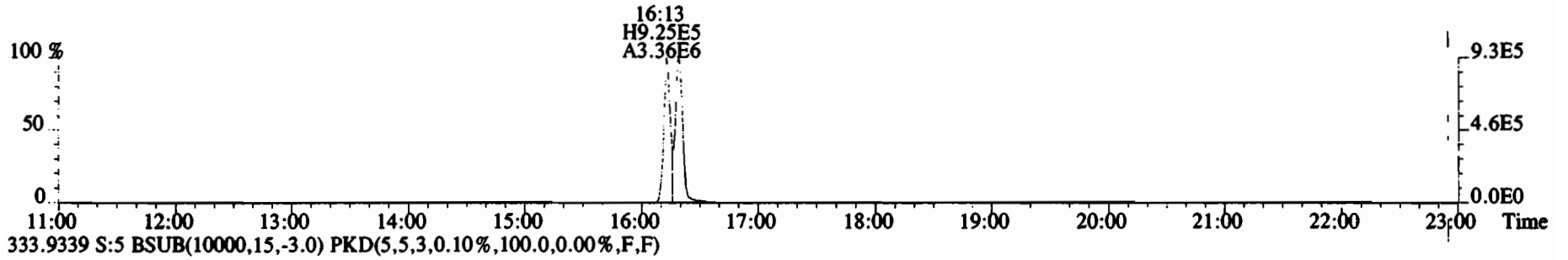
File:200108D1 #1-1683 Acq: 8-JAN-2020 13:17:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE3 PDI-071SC-B-06-08-191001 14.59 Exp:TCDF\_DB225  
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200108D1 #1-1683 Acq: 8-JAN-2020 13:17:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text: Vista Analytical Laboratory VG7 Text:1903461-14RE3 PDI-071SC-B-06-08-191001 14.59 Exp:TCDF\_DB225  
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.05e+07	0.77 y	15:36	1.00	198.1	-
13C-2,3,7,8-TCDF	1.15e+07	0.79 y	17:43	1.02	211.7	106.8
2,3,7,8-TCDF	6.10e+06	0.77 y	17:44	0.95	111.1	

Integrations

by  
Analyst: DB

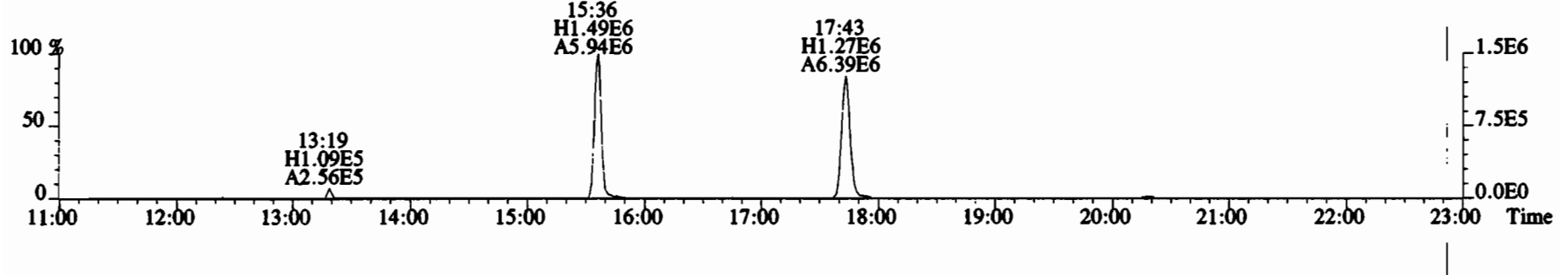
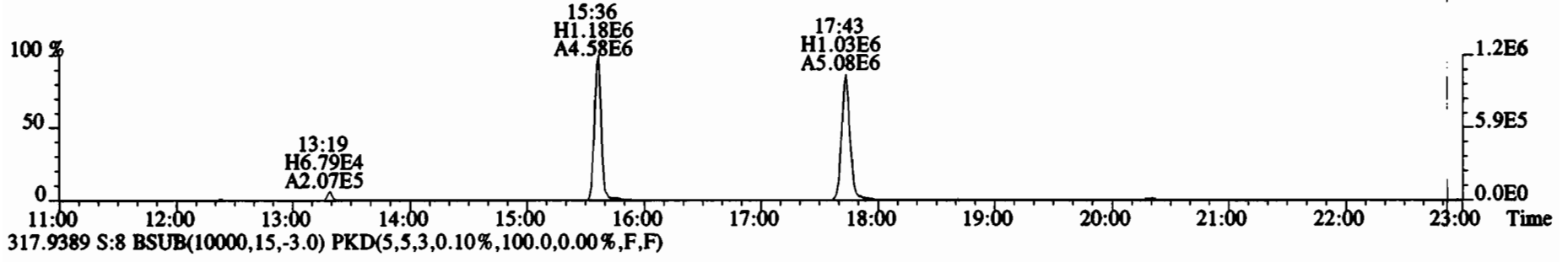
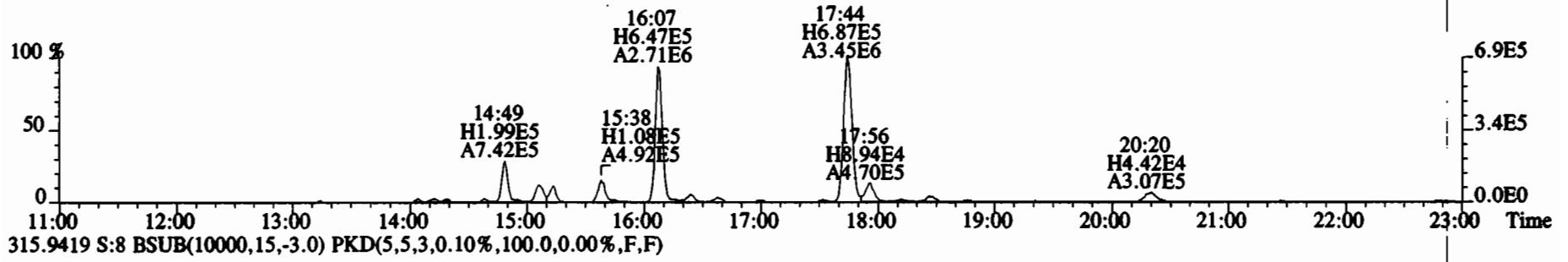
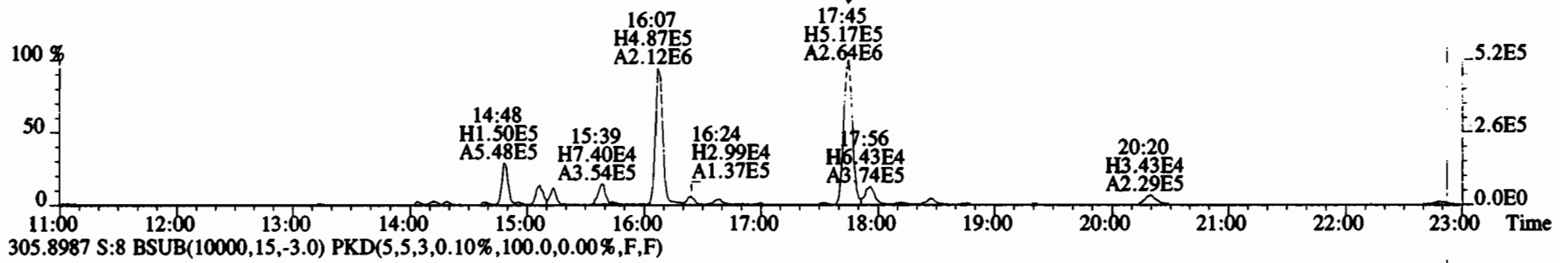
Date: 1/8/20

Reviewed

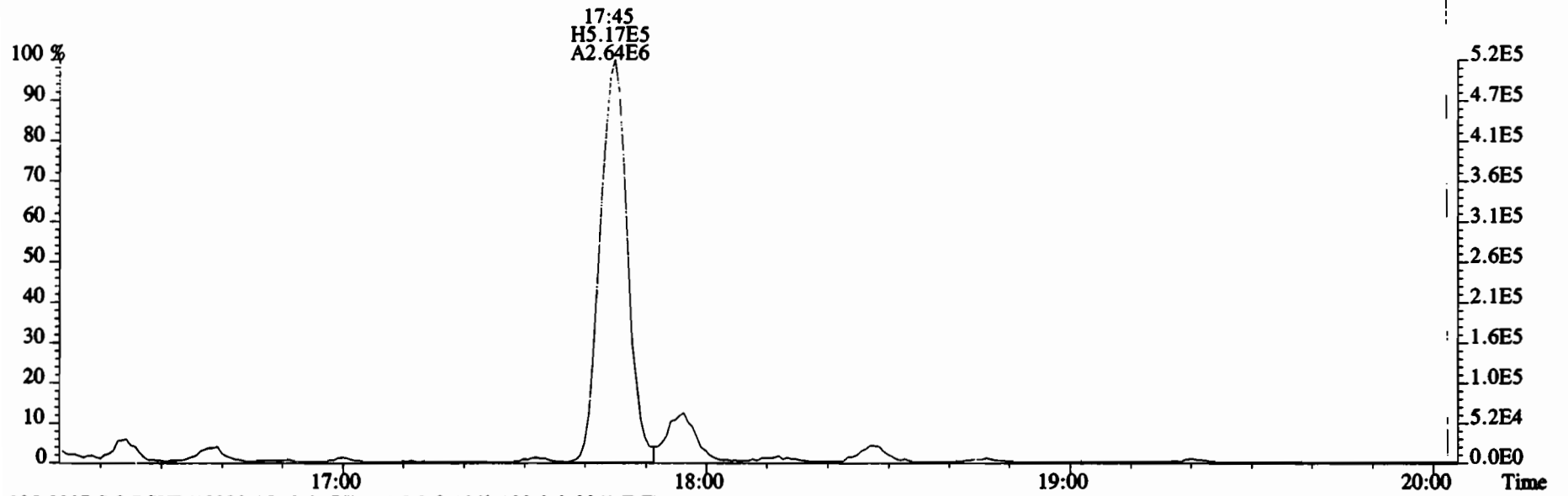
by  
Analyst: CT

Date: 01/10/2020

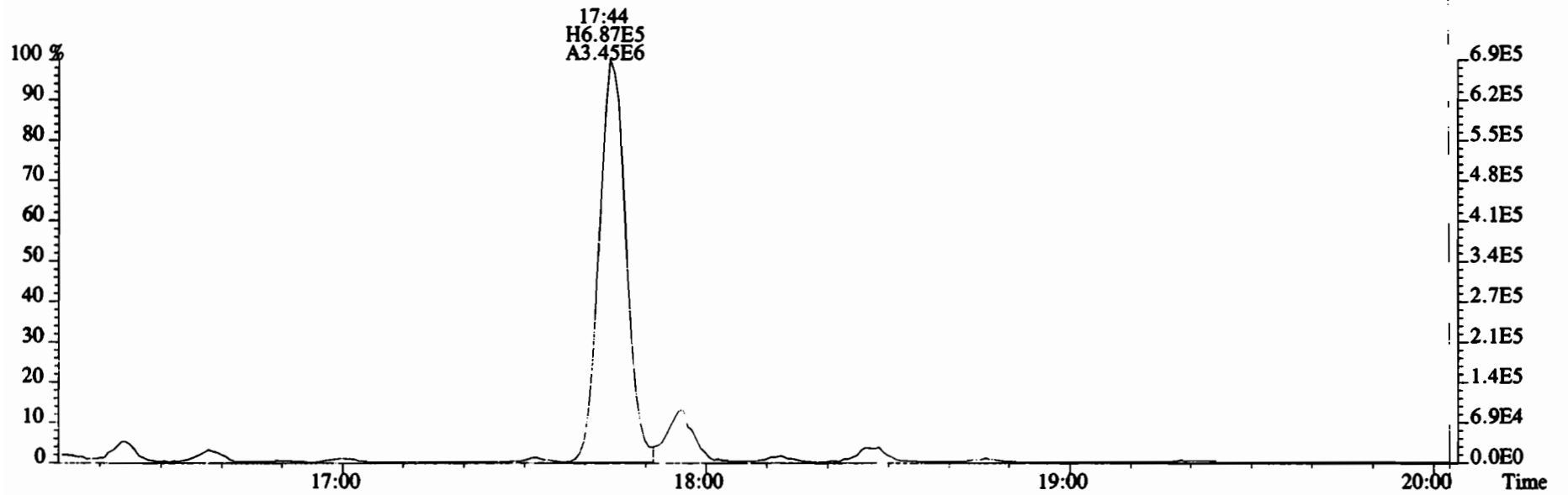
File:200108D1 #1-1682 Acq: 8-JAN-2020 14:54:07 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE3 PDI-1071SC-B-02-04-191001 13.57 Exp:TCDF\_DB225  
 303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



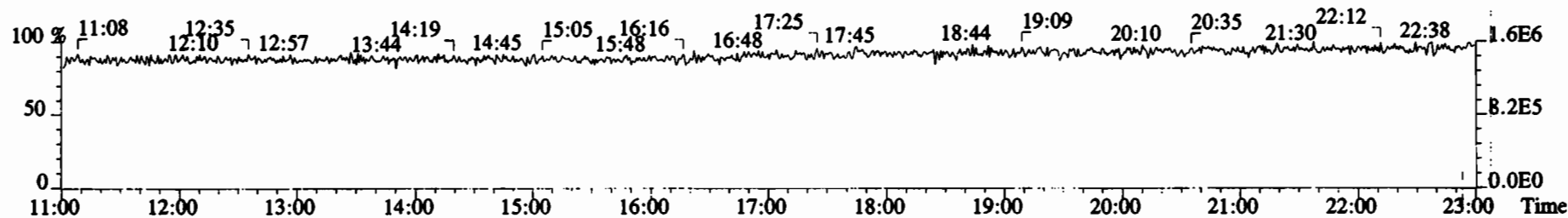
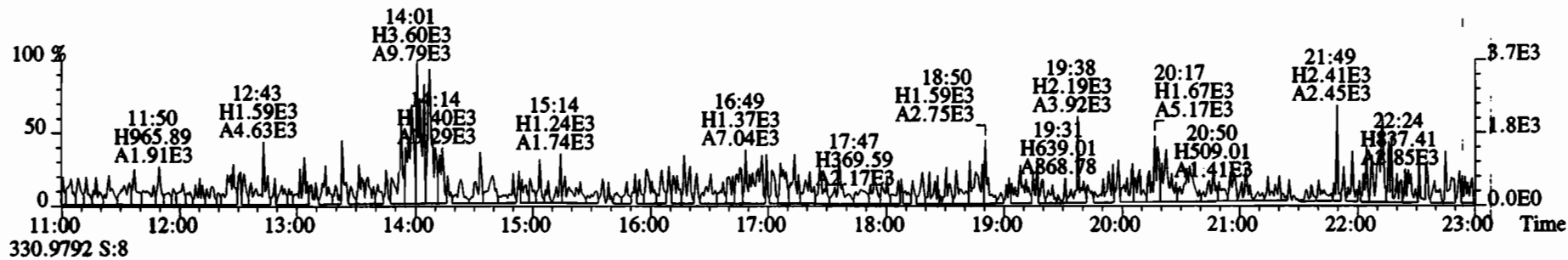
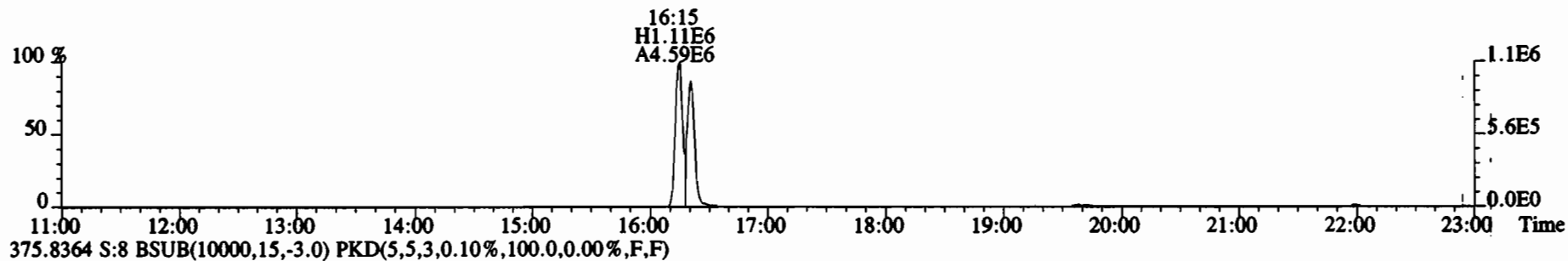
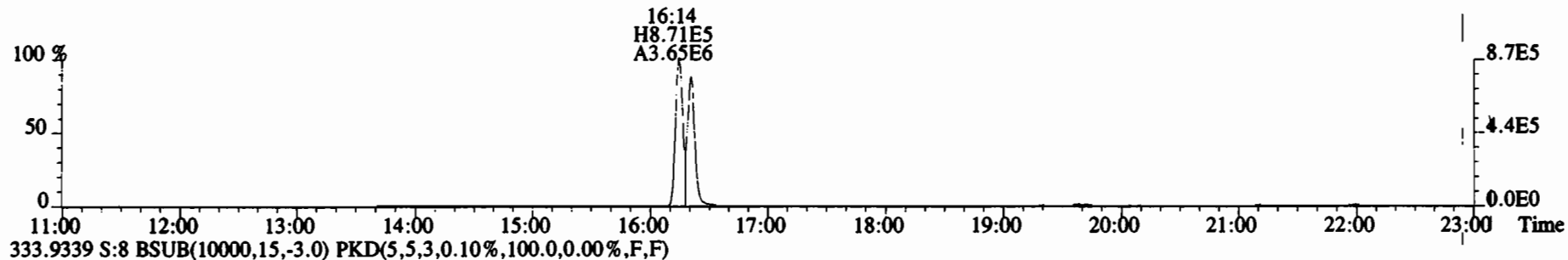
File:200108D1 #1-1682 Acq: 8-JAN-2020 14:54:07 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text: Vista Analytical Laboratory VG7 Text:1903461-17RE3 PDI-1071SC-B-02-04-191001 13.57 Exp:TCDF\_DB225  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



305.8987 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200108D1 #1-1682 Acq: 8-JAN-2020 14:54:07 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:1903461-17RE3 PDI-1071SC-B-02-04-191001 13.57 Exp:TCDF\_DB225  
 331.9368 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



**CONTINUING CALIBRATION**

## HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST191214K2-1

**Reviewed By:** QT 12/30/19  
*Initials & Date*

**End Calibration ID:** NA

	<u>Beg.</u>	<u>End</u>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Retention Times within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Verification Std. named correctly?</b> (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Correct ICAL referenced?</b>	<u>Hr</u>	<u>✓</u>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Samples within 12 hour clock?	(Y)	N
- Bottle position verified?	<u>Hr</u>	<u>Hr</u>

**Mass resolution  $\geq$**

5k    6-8K    8K    10K

1614   1699   429   1613/1668/8280

	<u>Beg.</u>	<u>End</u>
<b>Intergrated peaks display correctly?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>GC Break &lt;20%</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours

**Comments:**



Dataset: U:\VG11.PRO\Results\191214K2\191214K2-1.qld

Last Altered: Tuesday, December 17, 2019 07:42:55 Pacific Standard Time

Printed: Tuesday, December 17, 2019 07:43:14 Pacific Standard Time

*Hc 12-17-19*

*CT 12/30/19*

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	4.56e4	4.98e5	0.79	NO	0.925	26.21	26.20	NO	1.001	1.001	9.9116	99.1	NO
2	2 1,2,3,7,8-PeCDD	1.47e5	3.16e5	0.62	NO	0.905	31.29	31.29	NO	1.001	1.001	51.437	103	NO
3	3 1,2,3,4,7,8-HxCDD	1.37e5	2.42e5	1.29	NO	1.07	34.60	34.61	NO	1.000	1.001	52.802	106	NO
4	4 1,2,3,6,7,8-HxCDD	1.49e5	2.95e5	1.28	NO	0.967	34.70	34.71	NO	1.000	1.000	52.282	105	NO
5	5 1,2,3,7,8,9-HxCDD	1.34e5	2.74e5	1.26	NO	0.978	35.00	34.99	NO	1.001	1.001	50.169	100	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.06e5	2.11e5	1.07	NO	1.04	38.47	38.48	NO	1.000	1.001	48.282	96.6	NO
7	7 OCDD	1.86e5	3.67e5	0.92	NO	0.972	41.65	41.66	NO	1.000	1.000	104.27	104	NO
8	8 2,3,7,8-TCDF	6.75e4	6.88e5	0.82	NO	0.938	25.23	25.24	NO	1.001	1.001	10.472	105	NO
9	9 1,2,3,7,8-PeCDF	2.37e5	4.54e5	1.61	NO	0.976	30.00	29.98	NO	1.001	1.000	53.400	107	NO
10	10 2,3,4,7,8-PeCDF	2.40e5	4.44e5	1.61	NO	1.00	30.98	30.97	NO	1.001	1.001	53.744	107	NO
11	11 1,2,3,4,7,8-HxCDF	2.19e5	3.42e5	1.26	NO	1.24	33.74	33.75	NO	1.000	1.000	51.396	103	NO
12	12 1,2,3,6,7,8-HxCDF	2.39e5	4.10e5	1.28	NO	1.10	33.87	33.87	NO	1.000	1.000	53.245	106	NO
13	13 2,3,4,6,7,8-HxCDF	2.30e5	3.76e5	1.26	NO	1.18	34.46	34.44	NO	1.001	1.000	51.892	104	NO
14	14 1,2,3,7,8,9-HxCDF	1.81e5	3.28e5	1.29	NO	1.07	35.31	35.32	NO	1.000	1.000	51.477	103	NO
15	15 1,2,3,4,6,7,8-HpCDF	1.77e5	3.02e5	1.01	NO	1.13	37.08	37.06	NO	1.001	1.001	52.049	104	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.39e5	2.09e5	1.04	NO	1.26	39.05	39.06	NO	1.000	1.000	52.836	106	NO
17	17 OCDF	2.58e5	5.10e5	0.91	NO	1.10	41.85	41.86	NO	1.000	1.000	91.915	91.9	NO
18	18 13C-2,3,7,8-TCDD	4.98e5	4.43e5	0.77	NO	1.05	26.18	26.18	NO	1.027	1.028	107.17	107	NO
19	19 13C-1,2,3,7,8-PeCDD	3.16e5	4.43e5	0.62	NO	0.743	31.20	31.27	NO	1.224	1.227	96.069	96.1	NO
20	20 13C-1,2,3,4,7,8-HxCDD	2.42e5	4.15e5	1.23	NO	0.646	34.59	34.59	NO	1.014	1.014	90.250	90.3	NO
21	21 13C-1,2,3,6,7,8-HxCDD	2.95e5	4.15e5	1.24	NO	0.777	34.69	34.70	NO	1.017	1.017	91.332	91.3	NO
22	22 13C-1,2,3,7,8,9-HxCDD	2.74e5	4.15e5	1.25	NO	0.659	34.96	34.97	NO	1.025	1.025	99.867	99.9	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.11e5	4.15e5	1.07	NO	0.534	38.46	38.46	NO	1.127	1.127	95.176	95.2	NO
24	24 13C-OCDD	3.67e5	4.15e5	0.88	NO	0.470	41.63	41.65	NO	1.220	1.221	187.91	94.0	NO
25	25 13C-2,3,7,8-TCDF	6.88e5	6.52e5	0.74	NO	0.977	25.25	25.20	NO	0.991	0.989	107.92	108	NO
26	26 13C-1,2,3,7,8-PeCDF	4.54e5	6.52e5	1.53	NO	0.778	29.91	29.98	NO	1.174	1.177	89.593	89.6	NO
27	27 13C-2,3,4,7,8-PeCDF	4.44e5	6.52e5	1.55	NO	0.750	30.91	30.95	NO	1.213	1.215	90.785	90.8	NO
28	28 13C-1,2,3,4,7,8-HxCDF	3.42e5	4.15e5	0.52	NO	0.845	33.73	33.74	NO	0.989	0.989	97.496	97.5	NO
29	29 13C-1,2,3,6,7,8-HxCDF	4.10e5	4.15e5	0.52	NO	1.03	33.85	33.86	NO	0.992	0.992	96.237	96.2	NO
30	30 13C-2,3,4,6,7,8-HxCDF	3.76e5	4.15e5	0.53	NO	0.893	34.42	34.43	NO	1.009	1.009	101.40	101	NO
31	31 13C-1,2,3,7,8,9-HxCDF	3.28e5	4.15e5	0.50	NO	0.734	35.32	35.31	NO	1.035	1.035	107.47	107	NO

Dataset: U:\VG11.PRO\Results\191214K2\191214K2-1.qld

Last Altered: Tuesday, December 17, 2019 07:42:55 Pacific Standard Time

Printed: Tuesday, December 17, 2019 07:43:14 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	13C-1,2,3,4,6,7,8-HpCDF	3.02e5	4.15e5	0.46	NO	0.754	37.03	37.04	NO	1.085	1.086	96.283	96.3	NO
33	13C-1,2,3,4,7,8,9-HpCDF	2.09e5	4.15e5	0.42	NO	0.539	39.06	39.05	NO	1.145	1.144	93.144	93.1	NO
34	13C-OCDF	5.10e5	4.15e5	0.86	NO	0.593	41.84	41.85	NO	1.226	1.226	206.97	103	NO
35	37Cl-2,3,7,8-TCDD	4.66e4	4.43e5			1.07	26.20	26.20	NO	1.028	1.028	9.8308	98.3	NO
36	13C-1,2,3,4-TCDD	4.43e5	4.43e5	0.79	NO	1.00	25.50	25.48	NO	1.000	1.000	100.00	100	NO
37	13C-1,2,3,4-TCDF	6.52e5	6.52e5	0.74	NO	1.00	23.68	23.63	NO	1.000	1.000	100.00	100	NO
38	13C-1,2,3,4,6,9-HxCDF	4.15e5	4.15e5	0.54	NO	1.00	34.06	34.12	NO	1.000	1.000	100.00	100	NO

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:22:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:22:51 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

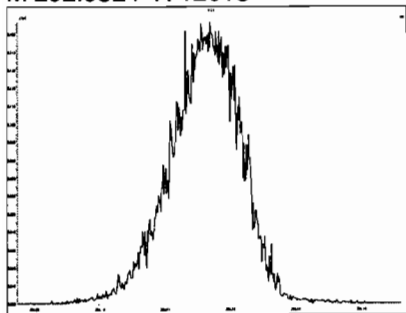
Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	191214K2_1	ST191214K2-1 1613 CS3 19C2204	14-Dec-19	18:18:32
2	191214K2_2	B9K0049-BS1 OPR 10	14-Dec-19	19:08:41
3	191214K2_3	B9K0154-BS1 OPR 10	14-Dec-19	19:55:41
4	191214K2_4	SOLVENT BLANK	14-Dec-19	20:43:57
5	191214K2_5	B9K0049-BLK1 Method Blank 10	14-Dec-19	21:32:13
6	191214K2_6	B9K0154-BLK1 Method Blank 10	14-Dec-19	22:21:42
7	191214K2_7	1903461-01RE1 PDI-046SC-A-12-13-191001 ...	14-Dec-19	23:10:02
8	191214K2_8	1903461-02RE1 PDI-046SC-A-13-13.5-19100...	14-Dec-19	23:57:03
9	191214K2_9	1903461-03RE1 PDI-047SC-A-11-12-191001 ...	15-Dec-19	00:45:18
10	191214K2_10	1903461-04RE1 PDI-047SC-A-12-13.2-19100...	15-Dec-19	01:34:52
11	191214K2_11	1903461-05RE1 PDI-047SC-B-00-02-191001 ...	15-Dec-19	02:22:39
12	191214K2_12	1903461-06RE1 PDI-047SC-B-02-04-191001 ...	15-Dec-19	03:10:01
13	191214K2_13	1903461-07RE1 PDI-047SC-B-04-06-191001 ...	15-Dec-19	03:58:16
14	191214K2_14	1903461-08RE1 PDI-047SC-B-06-08-191001 ...	15-Dec-19	04:46:30
15	191214K2_15	1903461-09RE1 PDI-071SC-A-10-11-191001 ...	15-Dec-19	05:34:44

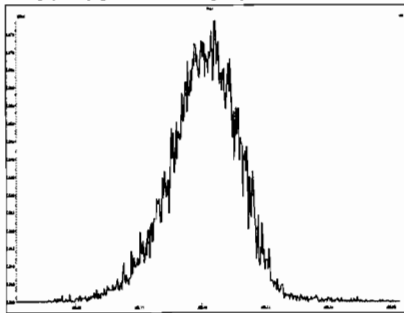
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Saturday, December 14, 2019 18:15:21 Pacific Standard Time

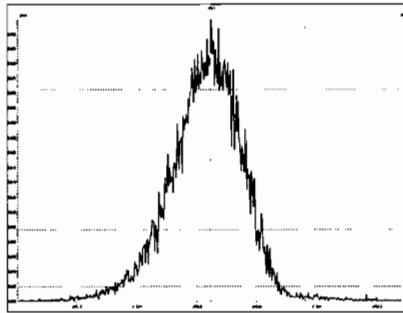
M 292.9824 R 12018



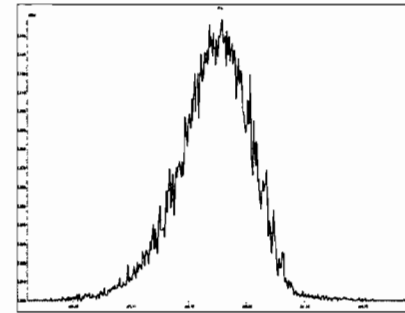
M 304.9824 R 12319



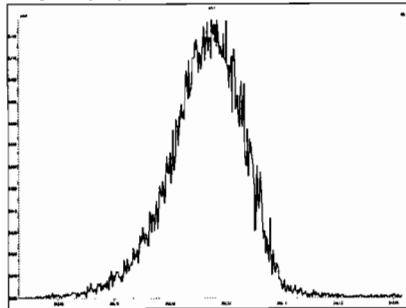
M 318.9792 R 11963



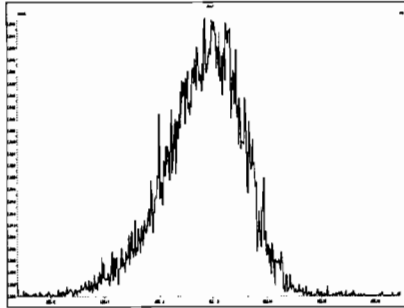
M 330.9792 R 11210



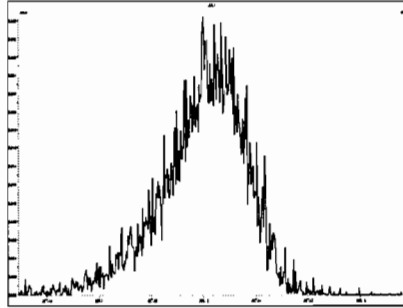
M 342.9792 R 11315



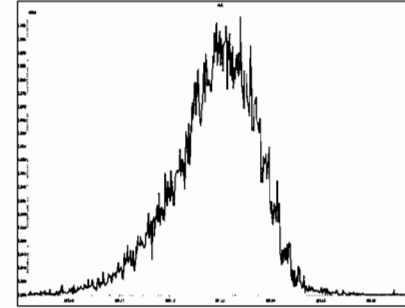
M 354.9792 R 11108



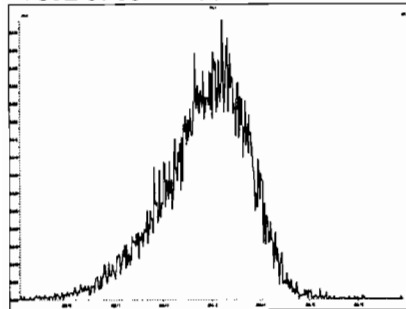
M 366.9792 R 10917



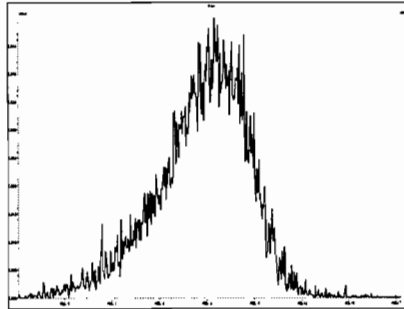
M 380.9760 R 10291



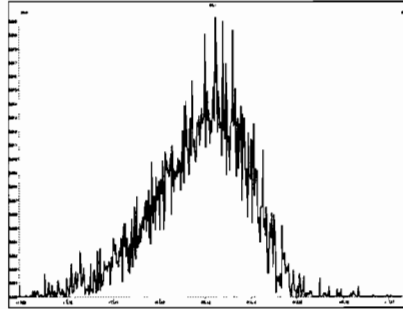
M 392.9760 R 10041



M 404.9760 R 10162



M 416.9760 R 10963



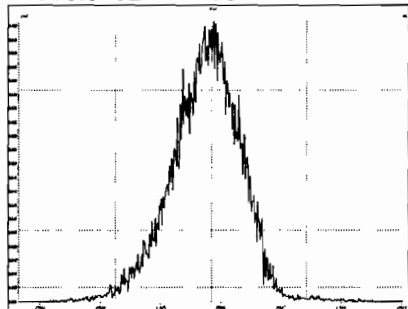
Experiment Calibration Report

MassLynx 4.1 SCN815

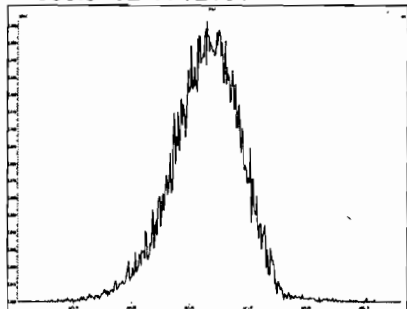
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Saturday, December 14, 2019 18:16:01 Pacific Standard Time

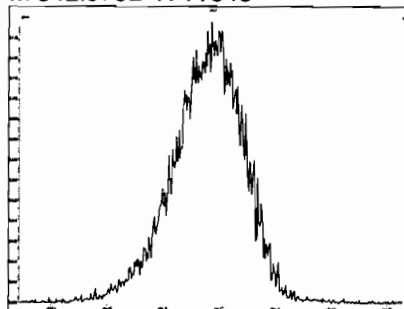
M 318.9792 R 12884



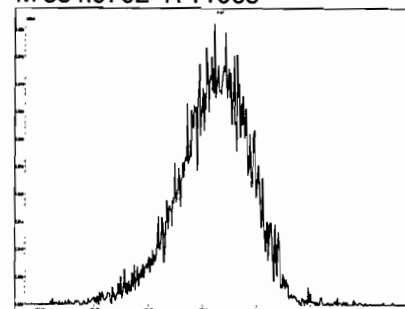
M 330.9792 R 12131



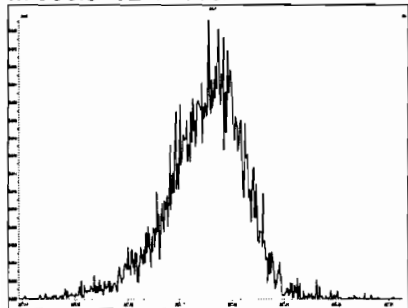
M 342.9792 R 11848



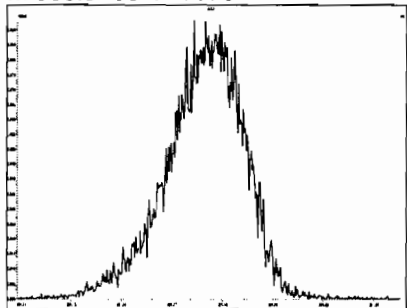
M 354.9792 R 11965



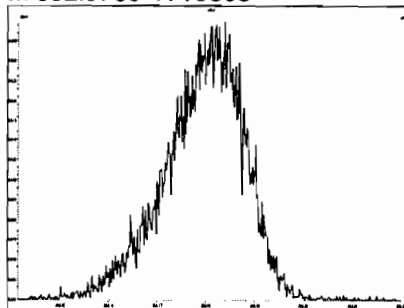
M 366.9792 R 11624



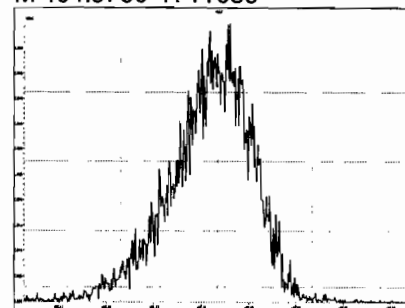
M 380.9760 R 11792



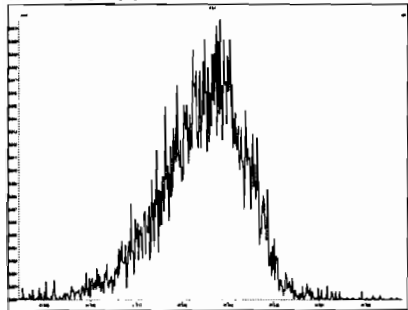
M 392.9760 R 10868



M 404.9760 R 11059



M 416.9760 R 11463



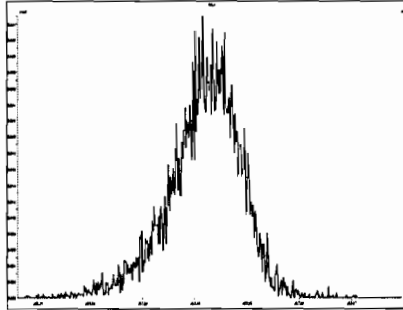
Experiment Calibration Report

MassLynx 4.1 SCN815

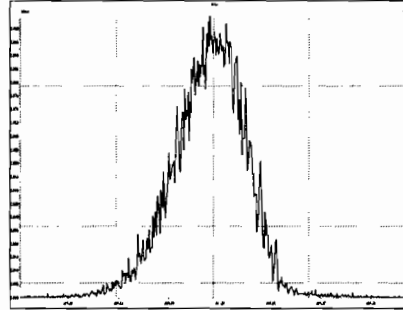
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Saturday, December 14, 2019 18:16:44 Pacific Standard Time

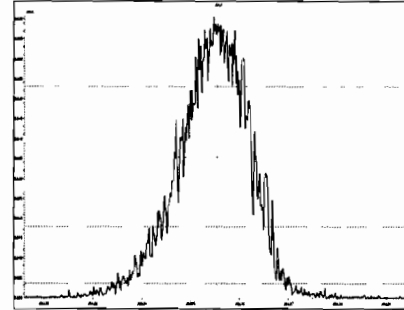
M 366.9792 R 12694



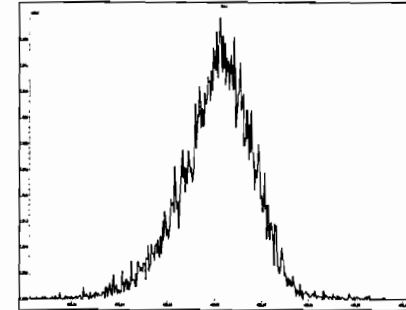
M 380.9760 R 12435



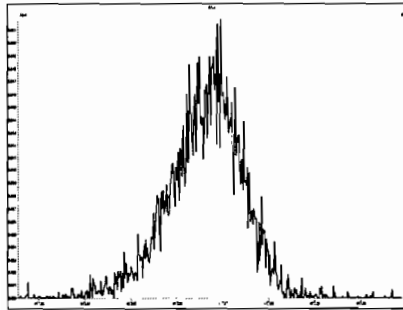
M 392.9760 R 12251



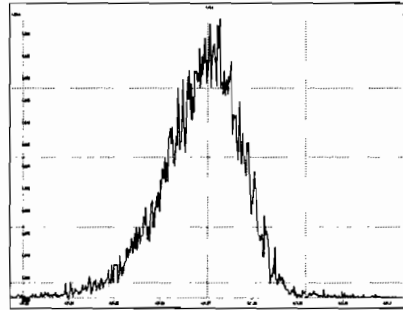
M 404.9760 R 12754



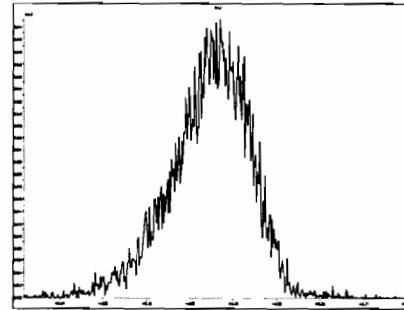
M 416.9760 R 12378



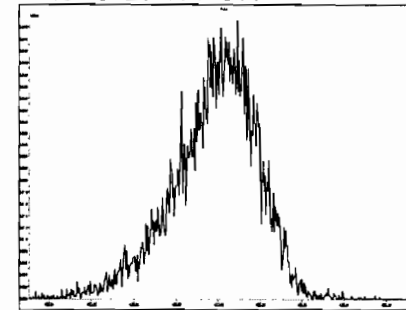
M 430.9728 R 10918



M 442.9728 R 12136



M 454.9728 R 11311



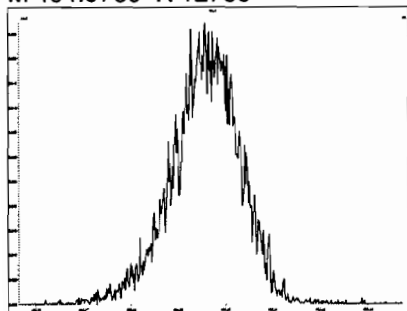
Experiment Calibration Report

MassLynx 4.1 SCN815

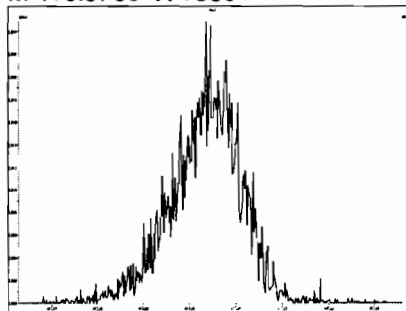
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Saturday, December 14, 2019 18:17:18 Pacific Standard Time

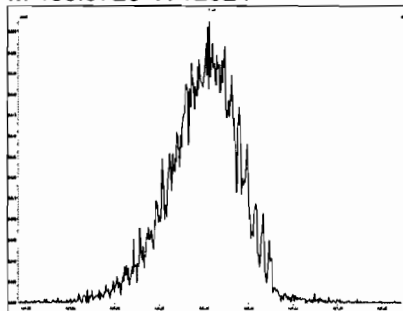
M 404.9760 R 12755



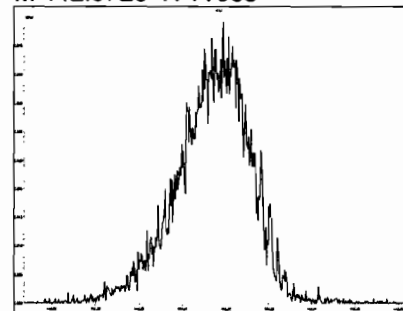
M 416.9760 R 13591



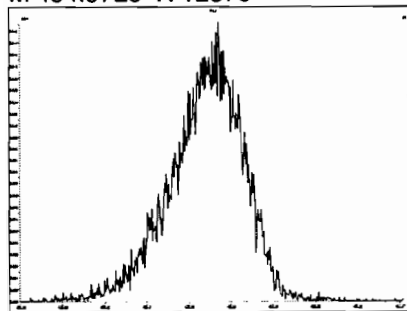
M 430.9728 R 12624



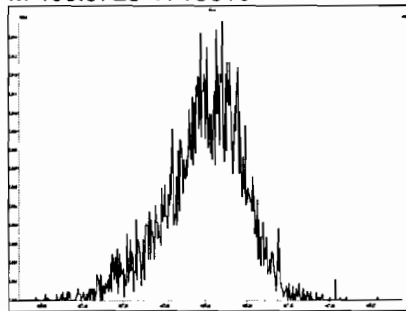
M 442.9728 R 11063



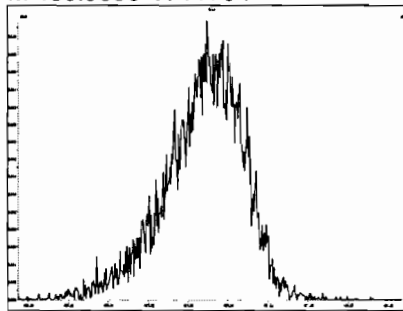
M 454.9728 R 12376



M 466.9728 R 13019



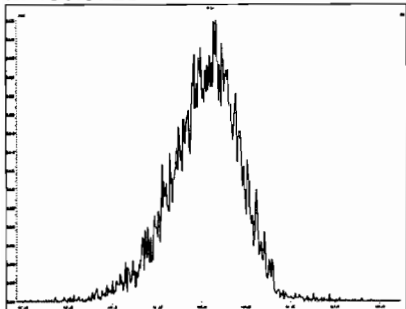
M 480.9696 R 11794



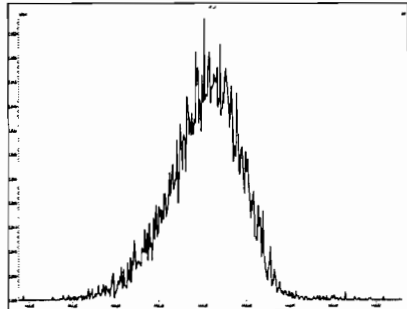
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Saturday, December 14, 2019 18:18:03 Pacific Standard Time

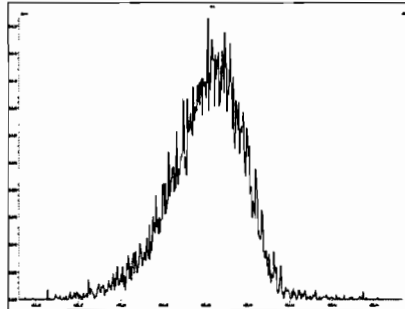
M 430.9728 R 12953



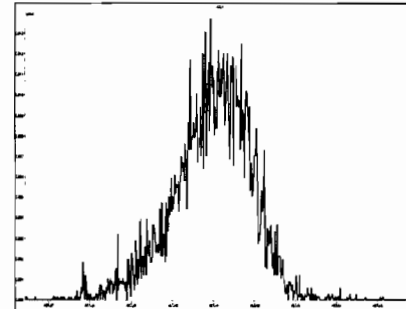
M 442.9728 R 12561



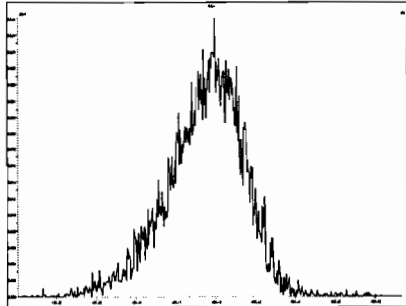
M 454.9728 R 12688



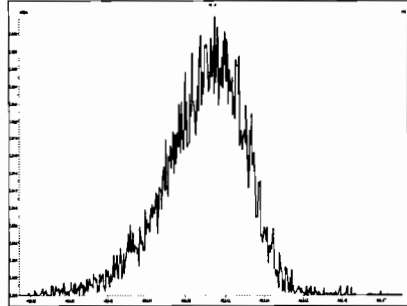
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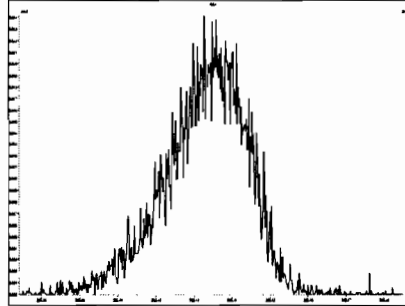
M 480.9696 R 11312



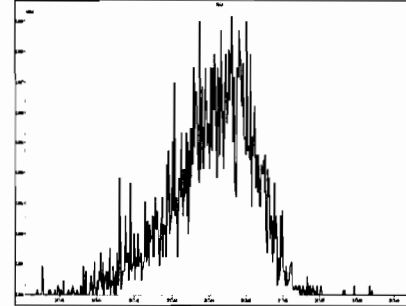
M 492.9696 R 11466



M 504.9696 R 11416



M 516.9697 R 11264





Dataset: U:\VG11.PRO\Results\191214K2\191214K2-CPSM.qld

Last Altered: Monday, December 16, 2019 09:24:09 Pacific Standard Time

Printed: Monday, December 16, 2019 09:24:41 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\CPSM.mdb 16 Dec 2019 09:25:33

Calibration: U:\VG11.PRO\CurveDB\ldb5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	RT
1	1,3,6,8-TCDD (First)	21.92
2	1,2,8,9-TCDD (Last)	27.21
3	1,2,4,7,9-PeCDD (First)	29.06
4	1,2,3,8,9-PeCDD (Last)	31.67
5	1,2,4,6,7,9-HxCDD (First)	33.14
6	1,2,3,7,8,9-HxCDD (Last)	34.99
7	1,2,3,4,6,7,9-HpCDD (First)	37.45
8	1,2,3,4,6,7,8-HpCDD (Last)	38.48
9	1,3,6,8-TCDF (First)	19.85
10	1,2,8,9-TCDF (Last)	27.34
11	1,3,4,6,8-PeCDF (First)	27.33
12	1,2,3,8,9-PeCDF (Last)	31.89
13	1,2,3,4,6,8-HxCDF (First)	32.61
14	1,2,3,7,8,9-HxCDF (Last)	35.32
15	1,2,3,4,6,7,8-HpCDF (First)	37.06
16	1,2,3,4,7,8,9-HpCDF (Last)	39.06

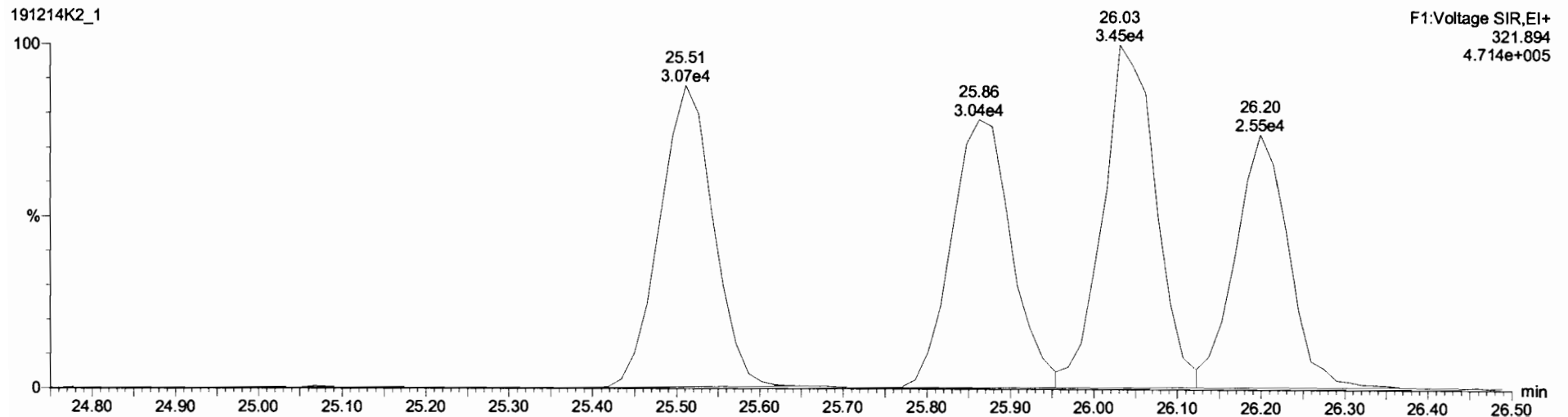
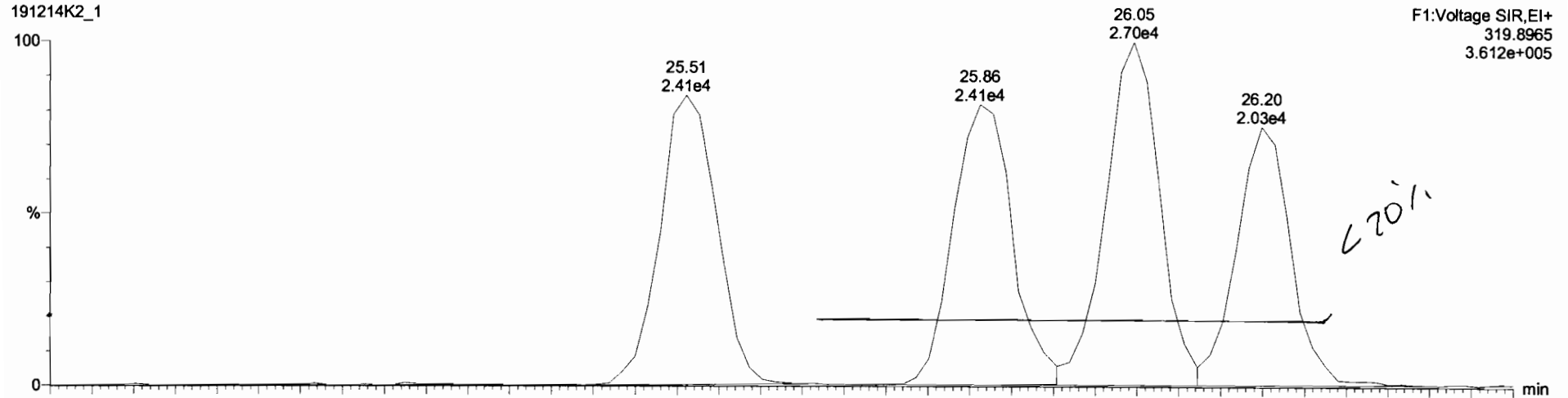
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Last Altered: Monday, December 16, 2019 09:24:09 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:24:41 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\CPSM.mdb 16 Dec 2019 09:25:33  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

1,3,6,8-TCDD (First)  
191214K2\_1



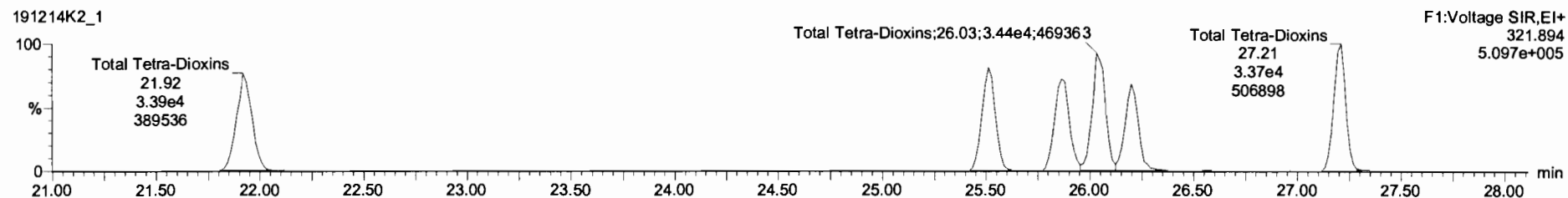
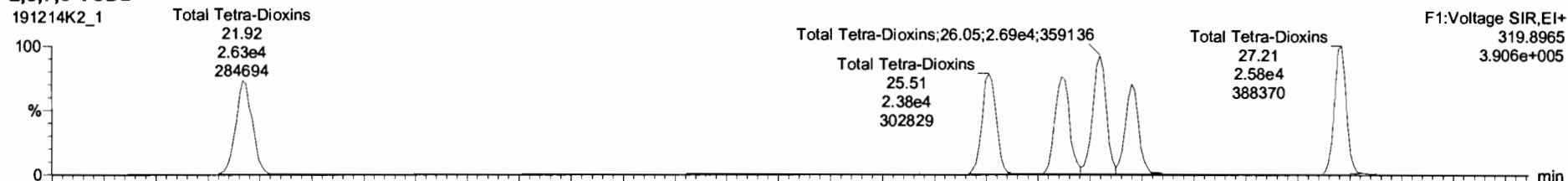
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

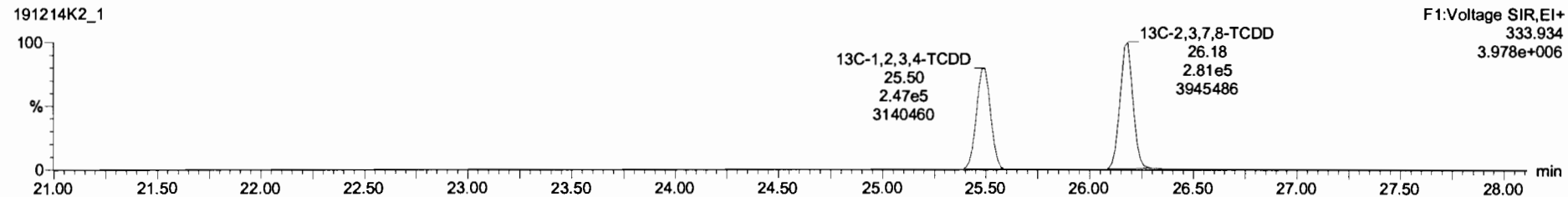
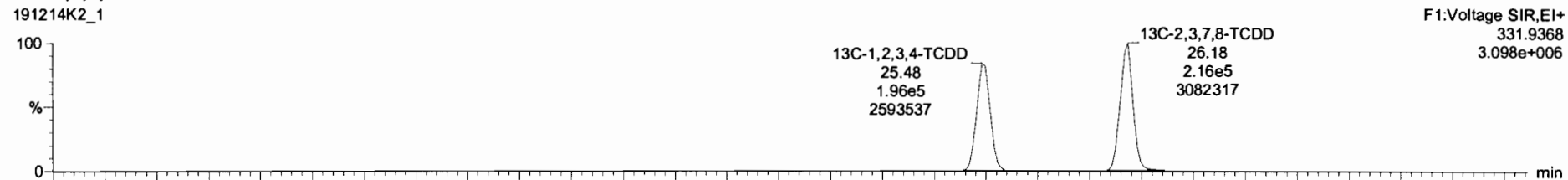
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Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

2,3,7,8-TCDD



13C-2,3,7,8-TCDD



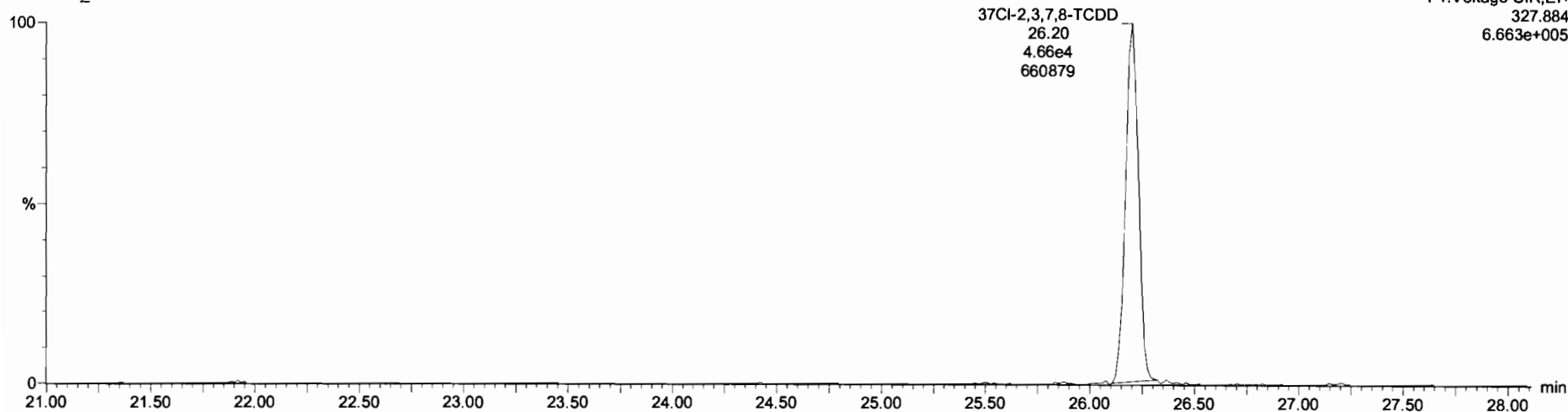
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

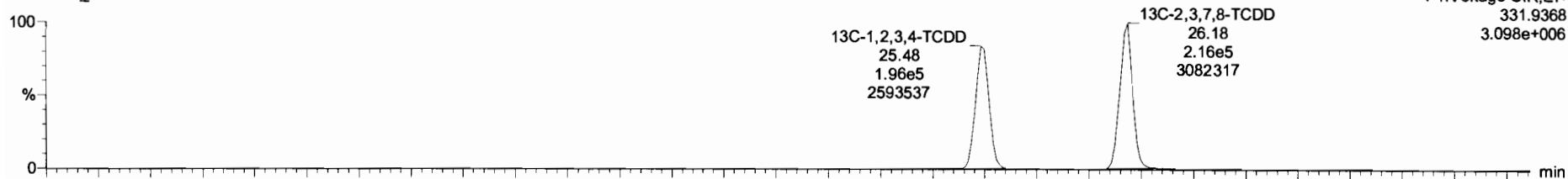
**37Cl-2,3,7,8-TCDD**

191214K2\_1

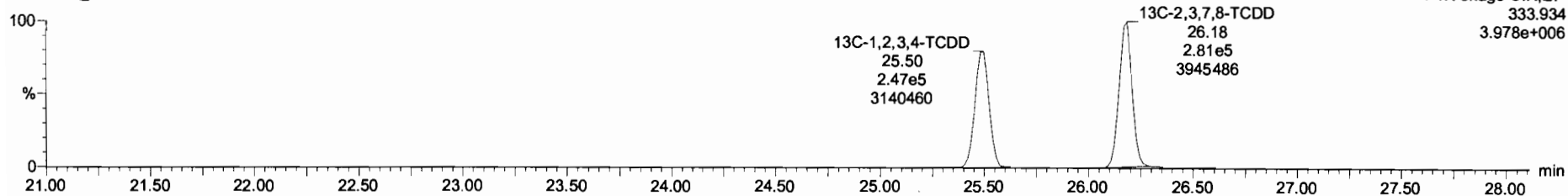


**13C-1,2,3,4-TCDD**

191214K2\_1



191214K2\_1

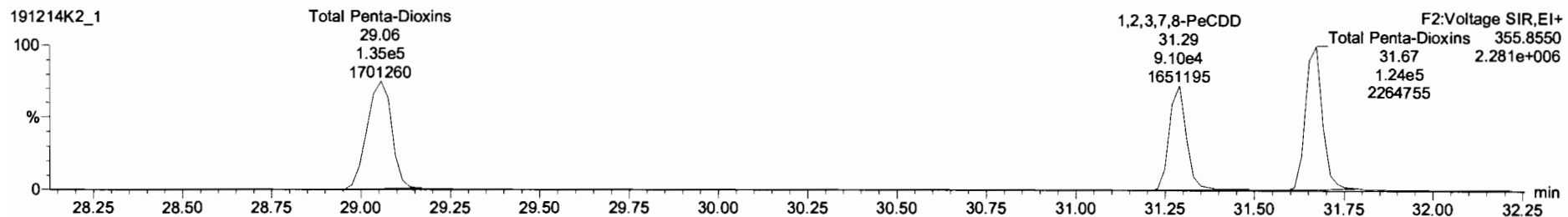
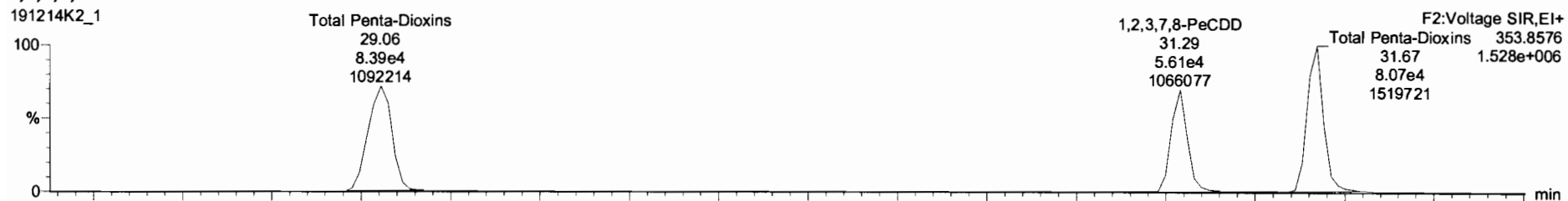


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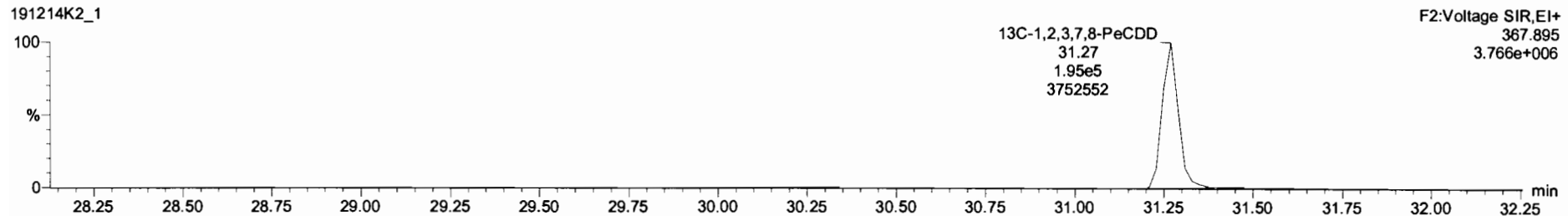
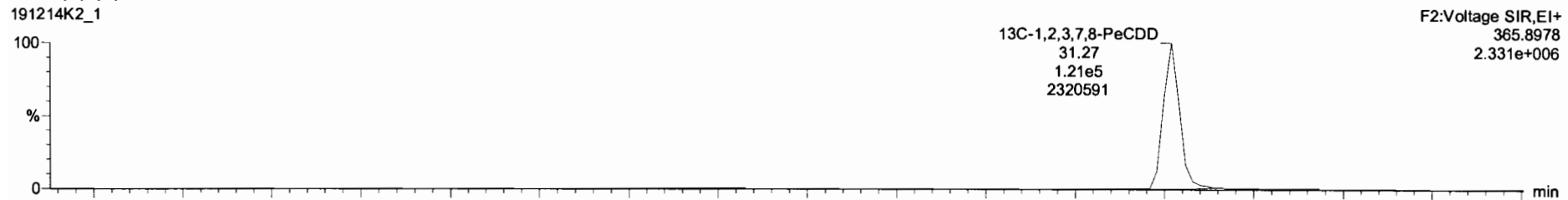
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**1,2,3,7,8-PeCDD**



**13C-1,2,3,7,8-PeCDD**

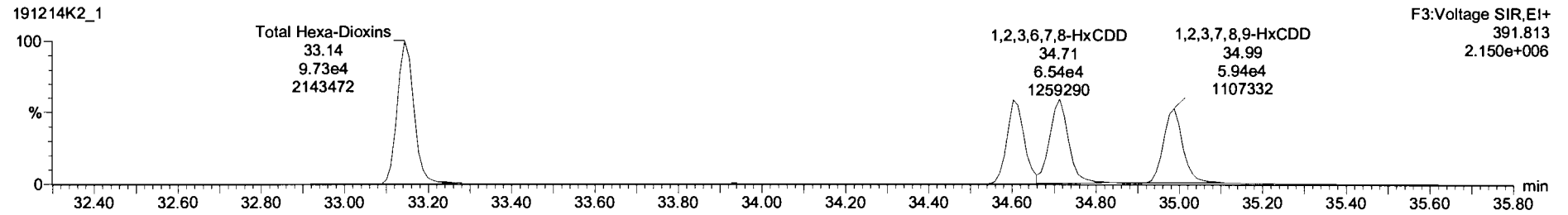
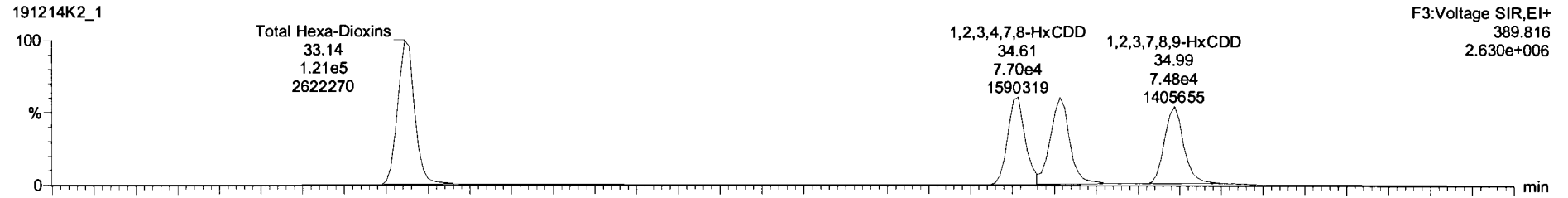


Dataset: Untitled

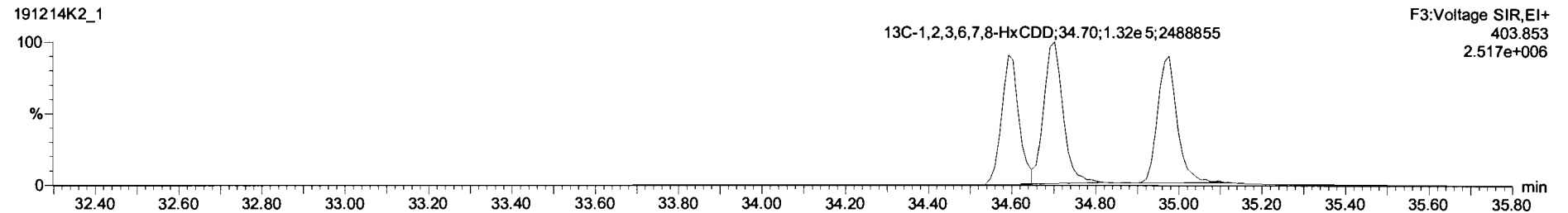
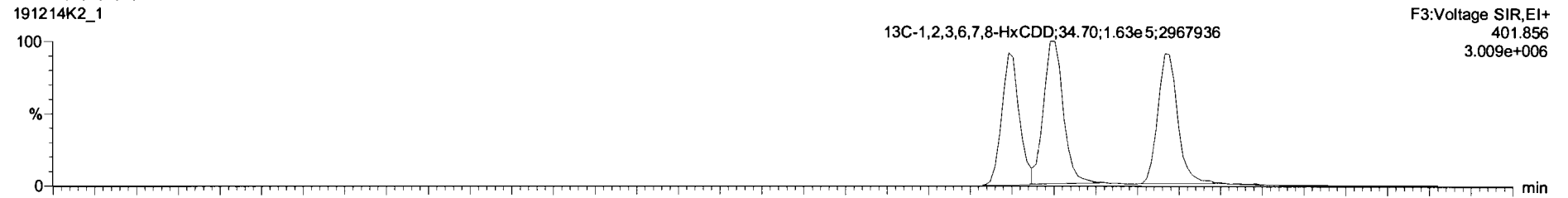
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

1,2,3,4,7,8-HxCDD



13C-1,2,3,4,7,8-HxCDD

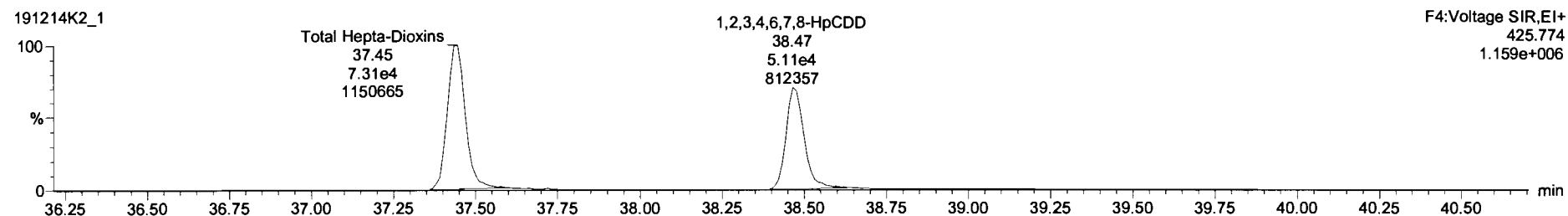
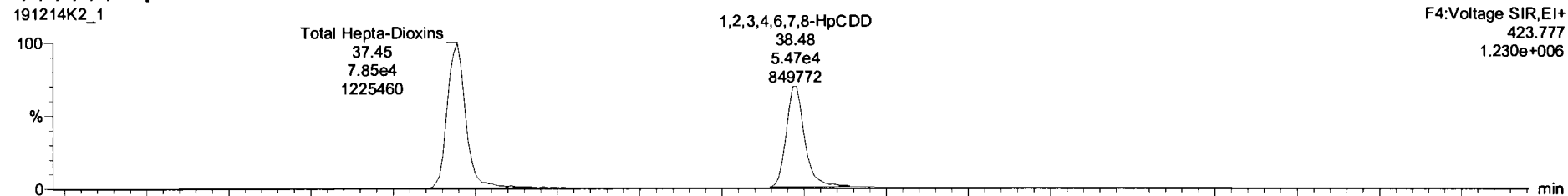


Dataset: Untitled

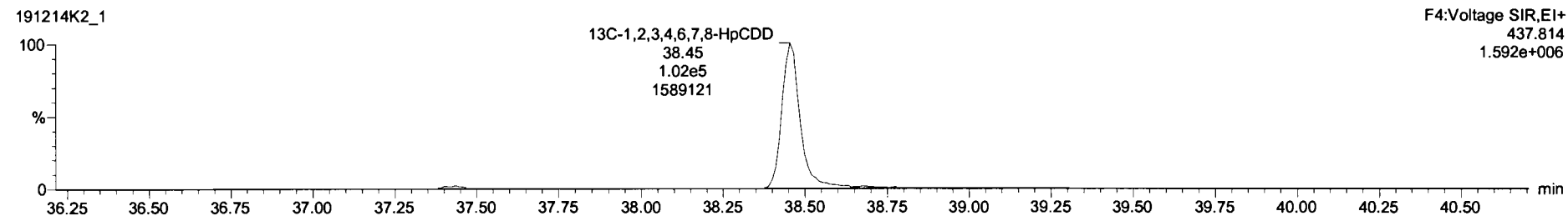
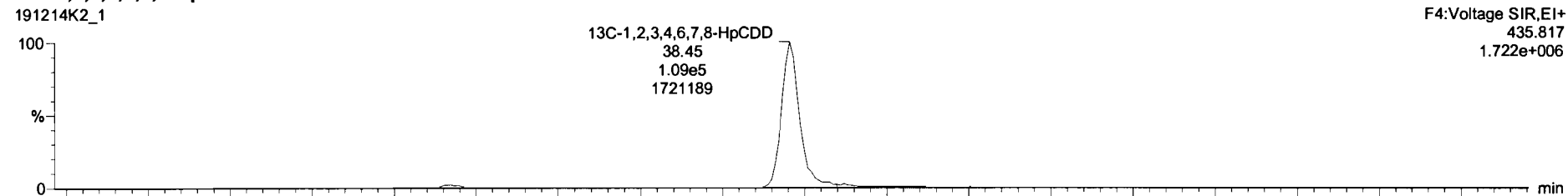
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

1,2,3,4,6,7,8-HpCDD



13C-1,2,3,4,6,7,8-HpCDD



Dataset: Untitled

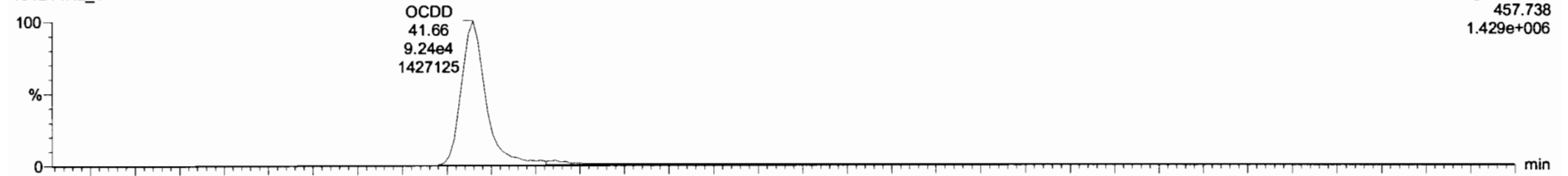
Last Altered: Monday, December 16, 2019 09:25:38 Pacific Standard Time

Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

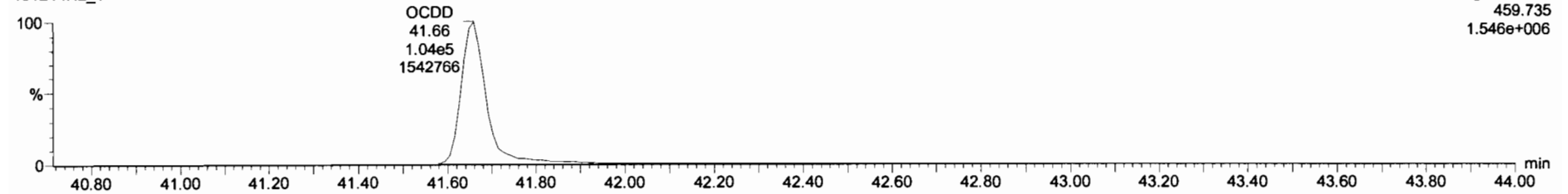
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**OCDD**

191214K2\_1

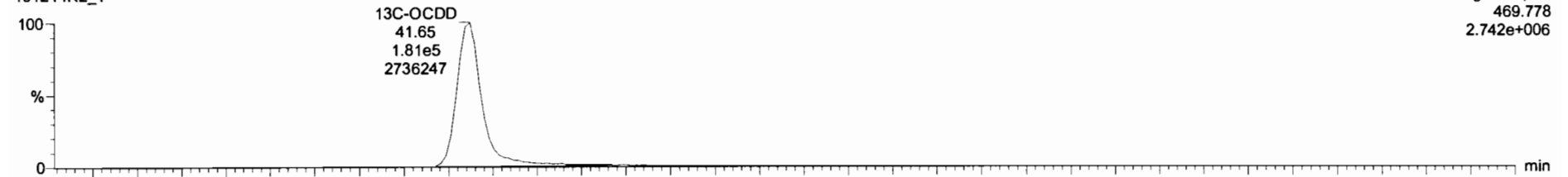


191214K2\_1

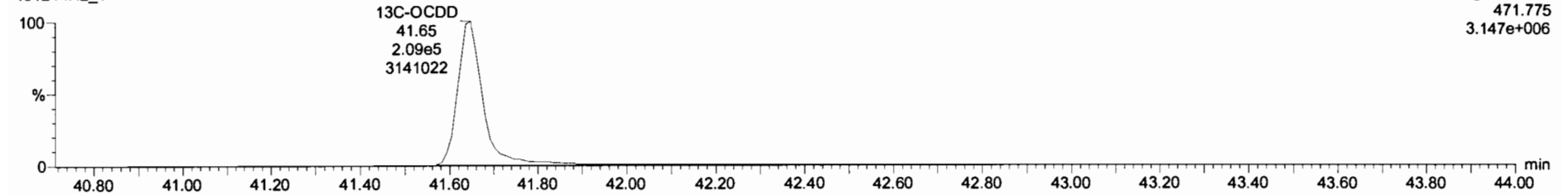


**13C-OCDD**

191214K2\_1

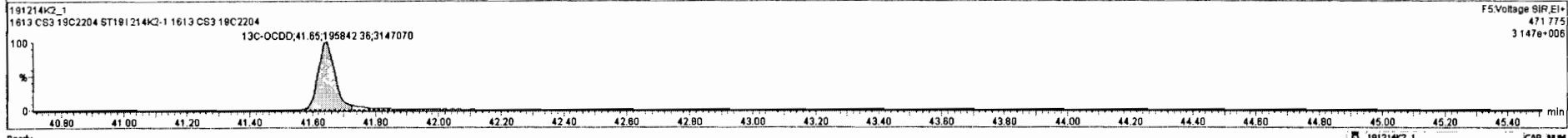
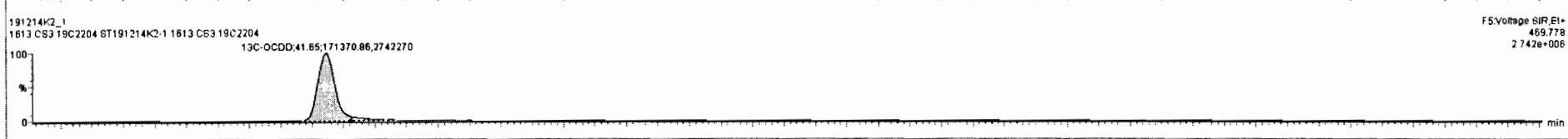
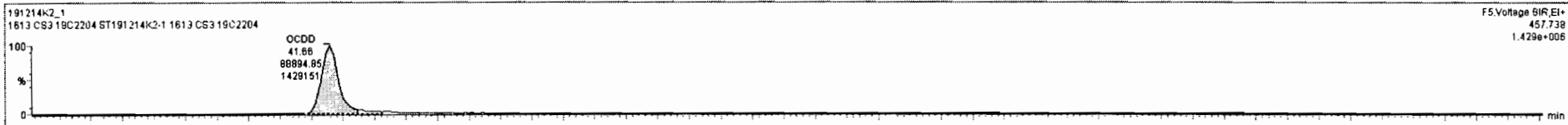


191214K2\_1





#	Name	Resp	IS Resp	Pred RA	RA	n/y	RPF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	1,2,3,7,8-TCDD	4.56e4	4.98e5	0.77	0.79	NO	0.9249	26.21	26.20	NO	1.001	1.001	9.91	99.1	NO
2	1,2,3,7,8-PeCDD	1.47e5	3.16e5	0.63	0.62	NO	0.9046	31.29	31.29	NO	1.001	1.001	51.4	103	NO
3	1,2,3,4,7,8-HxCDD	1.37e5	2.42e5	1.24	1.29	NO	1.0691	34.60	34.61	NO	1.000	1.001	52.8	106	NO
4	1,2,3,6,7,8-HxCDD	1.49e5	2.95e5	1.24	1.28	NO	0.9675	34.70	34.71	NO	1.000	1.000	52.3	105	NO
5	1,2,3,7,8,9-HxCDD	1.34e5	2.74e5	1.24	1.26	NO	0.9778	35.00	34.99	NO	1.001	1.001	50.2	100	NO
6	1,2,3,4,6,7,8-HpCDD	1.06e5	2.11e5	1.04	1.07	NO	1.0375	38.47	38.48	NO	1.000	1.001	48.3	96.6	NO
7	OCDD	1.96e5	3.67e5	0.86	0.82	NO	0.8718	41.66	41.66	NO	1.000	1.000	104	104	NO
8	2,3,7,8-TCDF	6.75e4	6.86e5	0.77	0.82	NO	0.9376	25.23	25.24	NO	1.001	1.001	10.5	105	NO
9	1,2,3,7,8-PeCDF	2.37e5	4.54e5	1.55	1.61	NO	0.9782	30.00	29.98	NO	1.001	1.000	53.4	107	NO
10	2,3,4,7,8-PeCDF	2.40e5	4.44e5	1.55	1.61	NO	1.0049	30.98	30.97	NO	1.001	1.001	53.7	107	NO
11	1,2,3,4,7,8-HxCDF	2.19e5	3.42e5	1.24	1.26	NO	1.2434	33.74	33.75	NO	1.000	1.000	51.4	103	NO
12	1,2,3,6,7,8-HxCDF	2.39e5	4.10e5	1.24	1.28	NO	1.0950	33.87	33.87	NO	1.000	1.000	53.2	108	NO
13	2,3,4,6,7,8-HxCDF	2.30e5	3.78e5	1.24	1.26	NO	1.1806	34.46	34.44	NO	1.001	1.000	51.9	104	NO
14	1,2,3,7,8,9-HxCDF	1.81e5	3.28e5	1.24	1.29	NO	1.0728	35.31	35.32	NO	1.000	1.000	51.5	103	NO
15	1,2,3,4,6,7,8-HpCDF	1.77e5	3.02e5	1.04	1.01	NO	1.1300	37.08	37.06	NO	1.001	1.001	52.0	104	NO

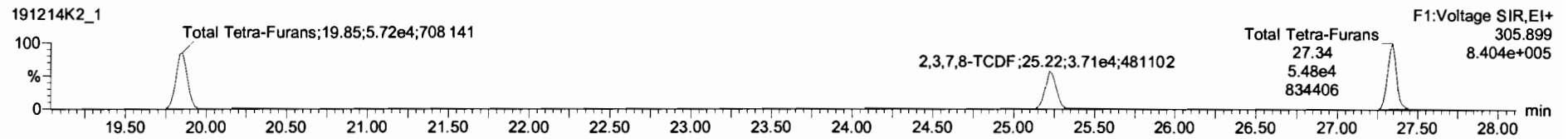
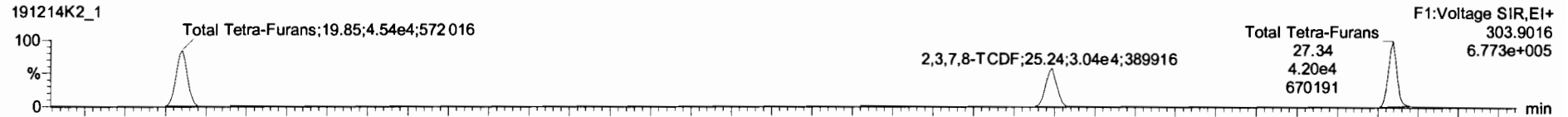


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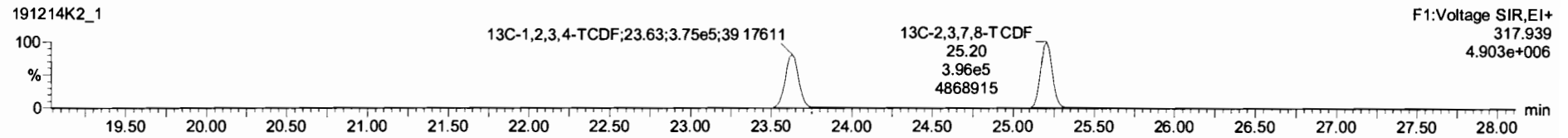
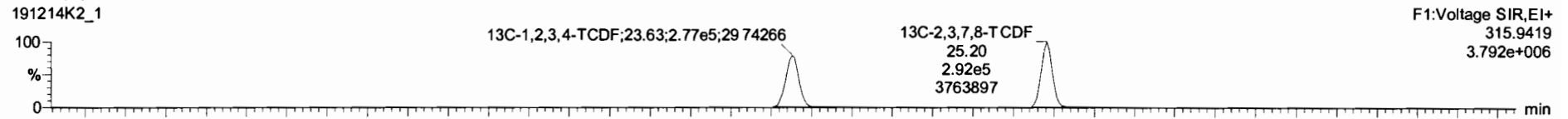
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

Name: 191214K2\_1, Date: 14-Dec-2019, Time: 18:18:32, ID: ST191214K2-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

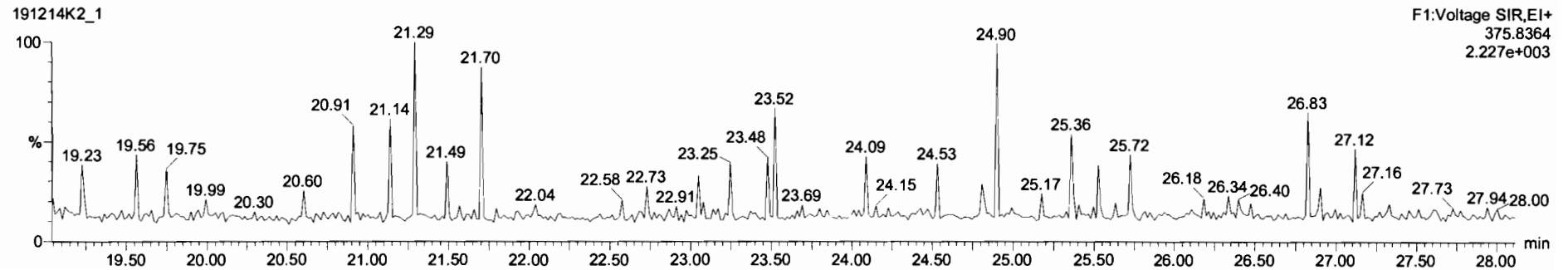
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



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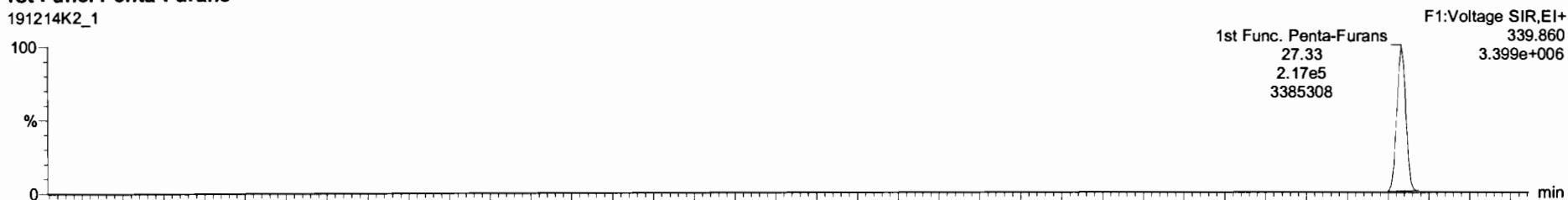
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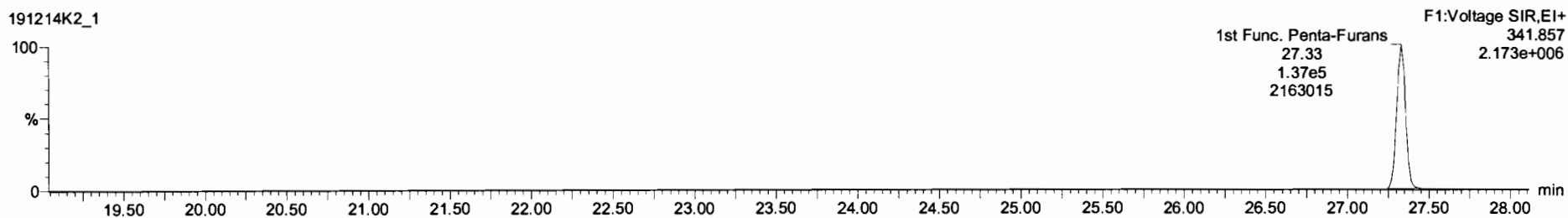
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191214K2\_1

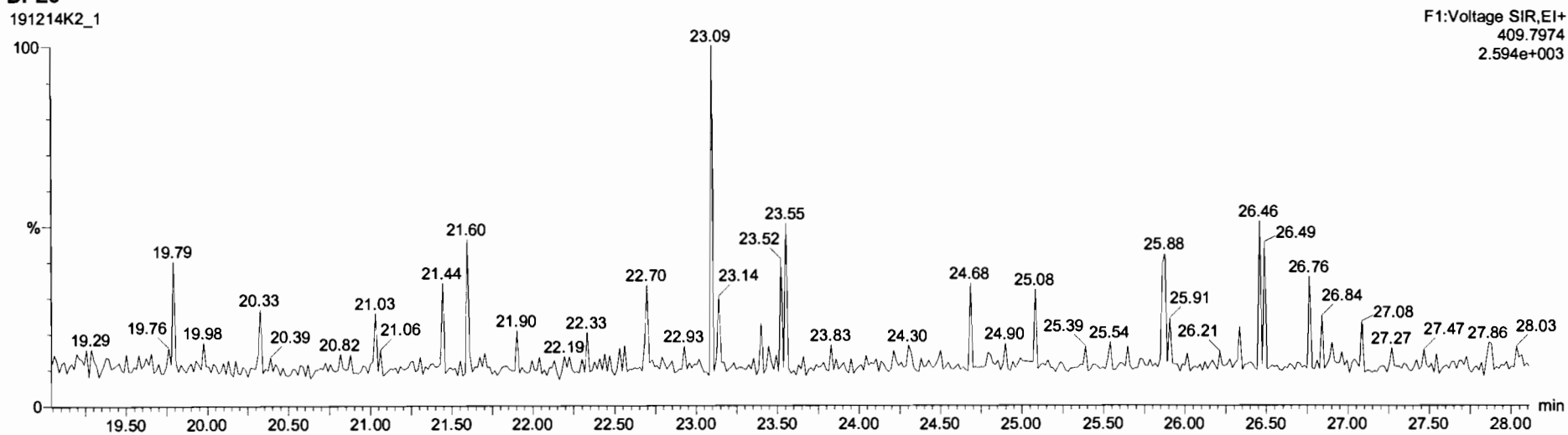


191214K2\_1



DPE6

191214K2\_1



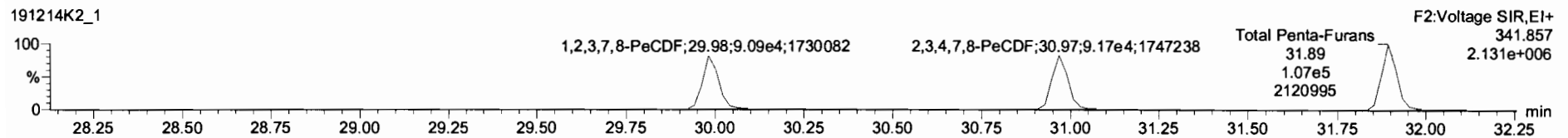
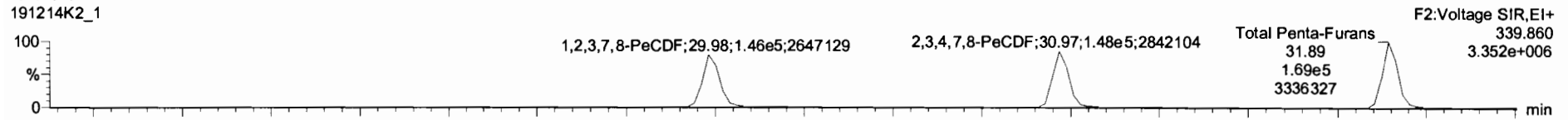
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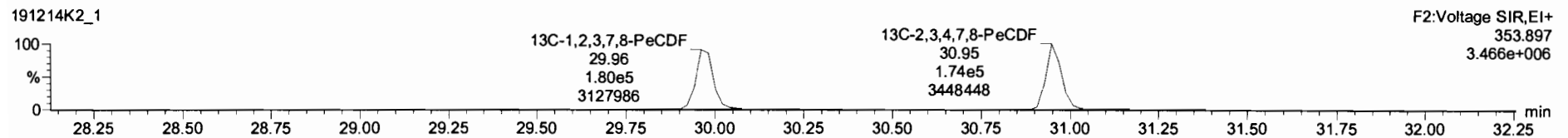
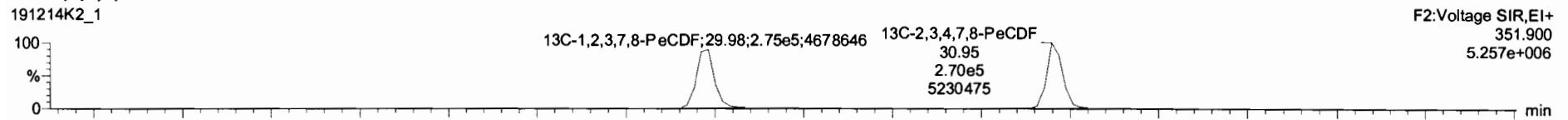
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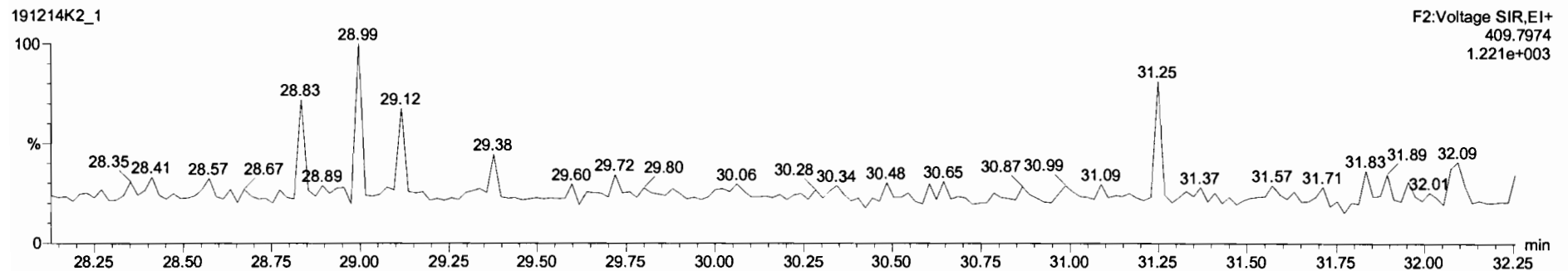
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



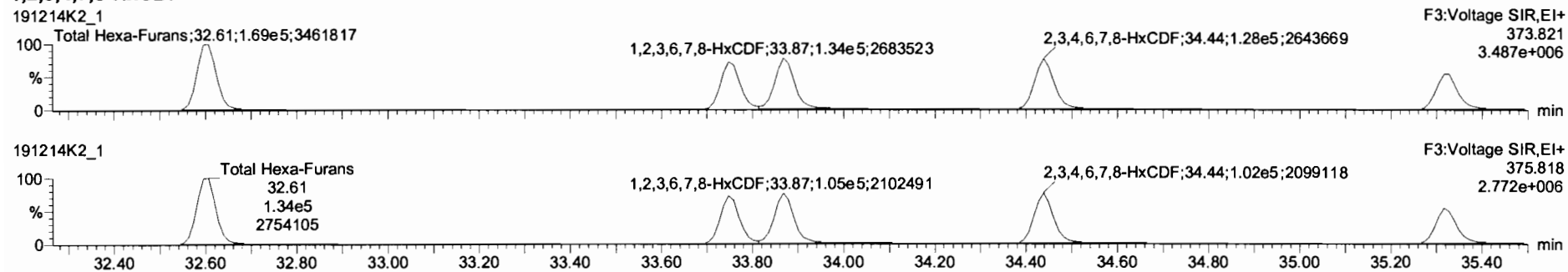
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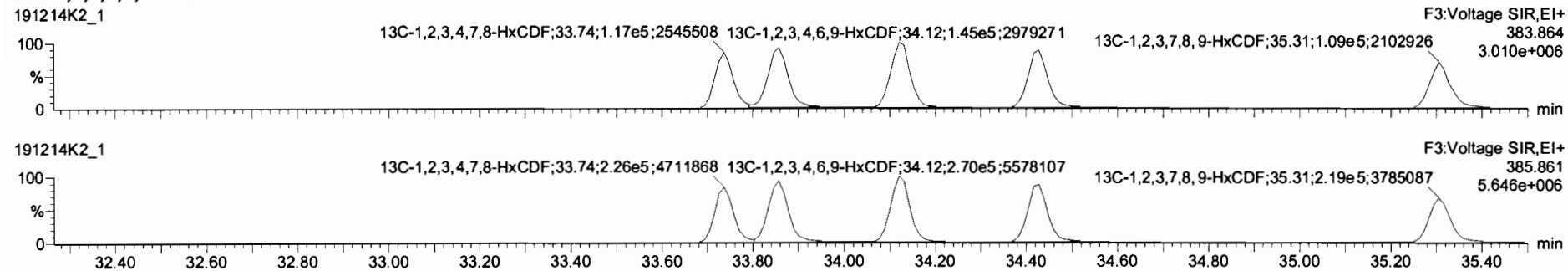
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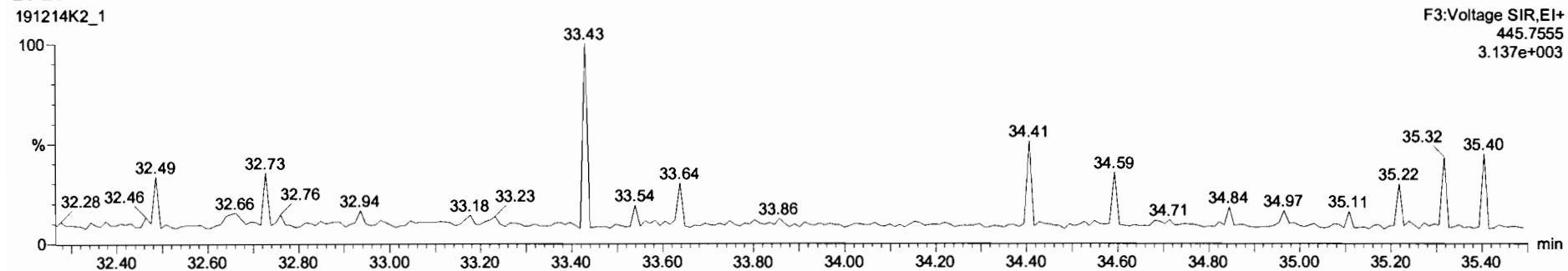
### 1,2,3,4,7,8-HxCDF



### 13C-1,2,3,4,7,8-HxCDF



### DPE3

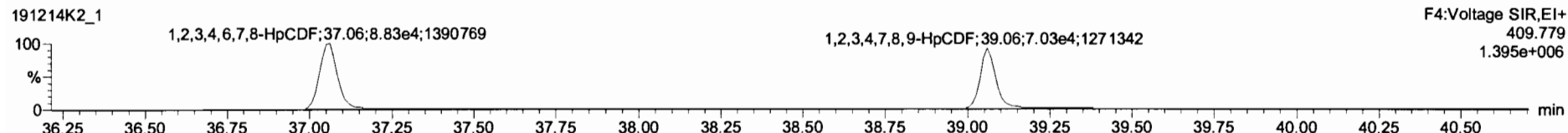
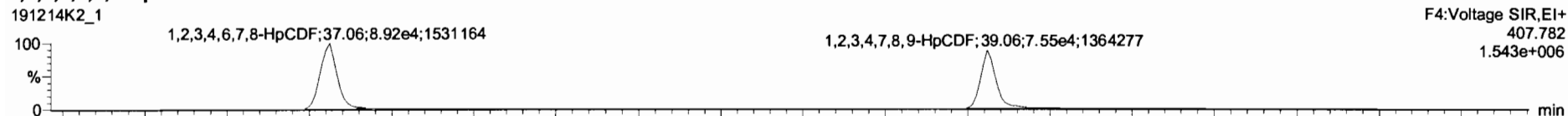


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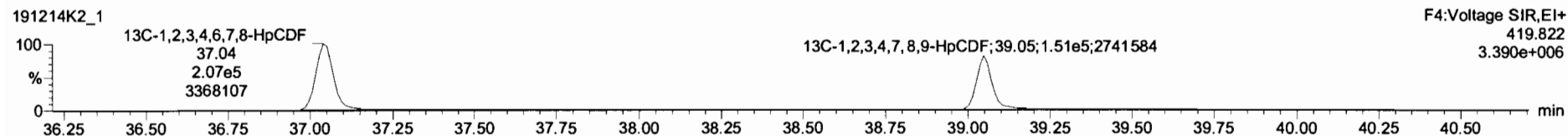
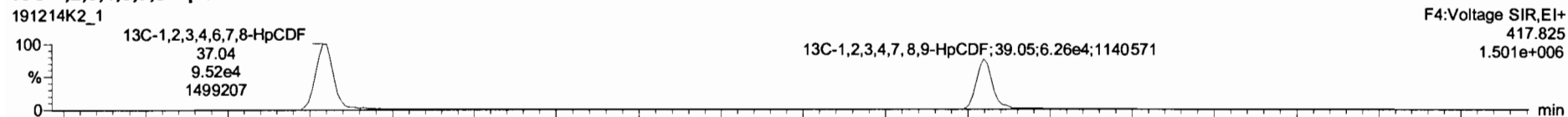
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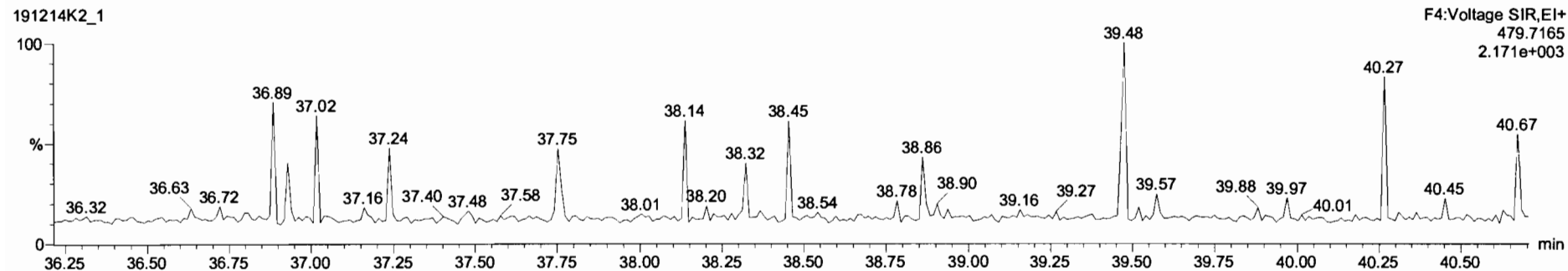
**1,2,3,4,6,7,8-HpCDF**



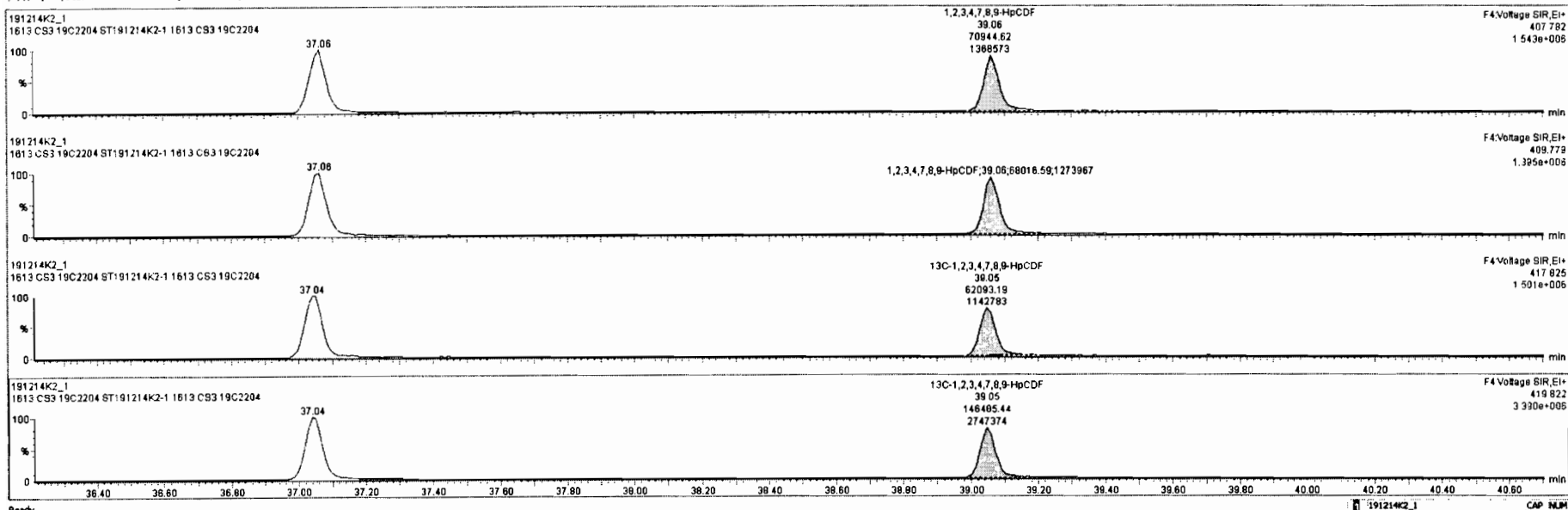
**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**



#	Name	Ret	IS Ret	Prod RA	RA	nY	RPF	Prod RT	RT	RT Flag	Prod RRT	RRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	4.56e4	4.99e5	0.77	0.79	NO	0.9249	26.21	26.20	NO	1.001	1.001	9.91	99.1	NO
2	1,2,3,7,8-PeCDD	1.47e5	3.19e5	0.63	0.82	NO	0.9046	31.29	31.29	NO	1.001	1.001	51.4	103	NO
3	1,2,3,4,7,8-HxCDD	1.37e5	2.42e5	1.24	1.29	NO	1.0691	34.60	34.61	NO	1.000	1.001	52.8	106	NO
4	1,2,3,6,7,8-HxCDD	1.49e5	2.95e5	1.24	1.28	NO	0.9675	34.70	34.71	NO	1.000	1.000	52.3	105	NO
5	1,2,3,7,8,9-HxCDD	1.34e5	2.74e5	1.24	1.28	NO	0.9778	35.00	34.99	NO	1.001	1.001	50.2	100	NO
6	1,2,3,4,6,7,8-HpCDD	1.06e5	2.11e5	1.04	1.07	NO	1.0375	38.47	38.48	NO	1.000	1.001	48.3	96.6	NO
7	OCDD	1.86e5	3.67e5	0.89	0.92	NO	0.9718	41.65	41.66	NO	1.000	1.000	104	104	NO
8	2,3,7,8-TCDF	6.75e4	6.88e5	0.77	0.82	NO	0.9378	25.23	25.24	NO	1.001	1.001	10.5	105	NO
9	1,2,3,7,8-PeCDF	2.37e5	4.54e5	1.55	1.61	NO	0.9782	30.00	29.98	NO	1.001	1.000	53.4	107	NO
10	1,2,3,4,7,8-HxCDF	2.40e5	4.44e5	1.55	1.61	NO	1.0049	30.98	30.97	NO	1.001	1.001	53.7	107	NO
11	1,2,3,4,7,8-HxCDF	2.19e5	3.42e5	1.24	1.26	NO	1.2434	33.74	33.75	NO	1.000	1.000	51.4	103	NO
12	1,2,3,6,7,8-HxCDF	2.39e5	4.10e5	1.24	1.28	NO	1.0950	33.87	33.87	NO	1.000	1.000	53.2	106	NO
13	1,2,3,4,6,7,8-HxCDF	2.30e5	3.78e5	1.24	1.26	NO	1.1806	34.46	34.44	NO	1.001	1.000	51.9	104	NO
14	1,2,3,7,8,9-HxCDF	1.81e5	3.28e5	1.24	1.29	NO	1.0728	35.31	35.32	NO	1.000	1.000	51.5	103	NO
15	1,2,3,4,6,7,8-HpCDF	1.77e5	3.02e5	1.04	1.01	NO	1.1300	37.06	37.06	NO	1.001	1.001	52.0	104	NO
16	1,2,3,4,7,8-HpCDF	1.59e5	2.99e5	1.04	1.04	NO	1.2608	38.06	38.08	NO	1.000	1.000	52.8	106	NO
17	OCDF	2.59e5	5.10e5	0.89	0.91	NO	1.1025	41.85	41.86	NO	1.000	1.000	91.9	91.9	NO



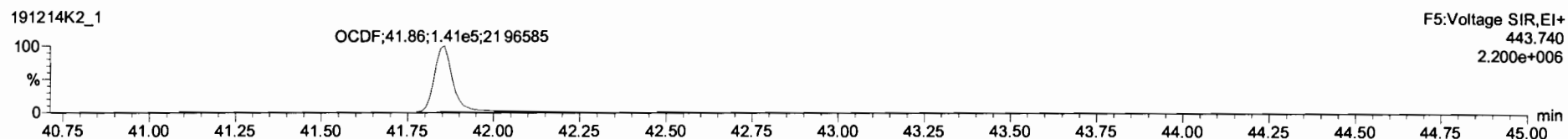
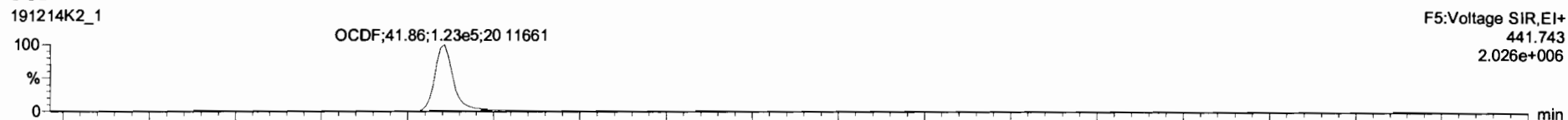
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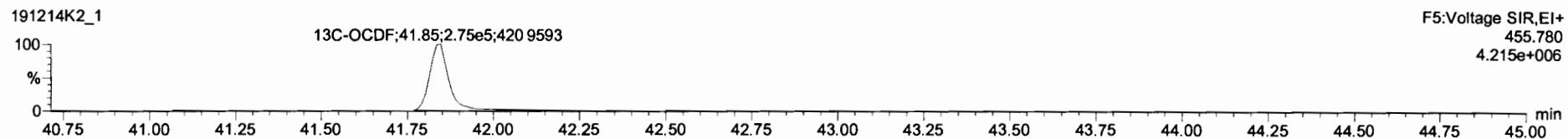
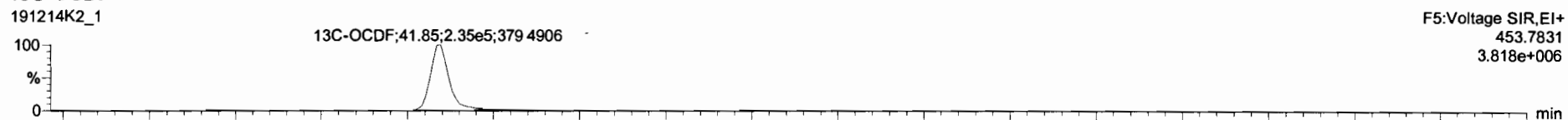
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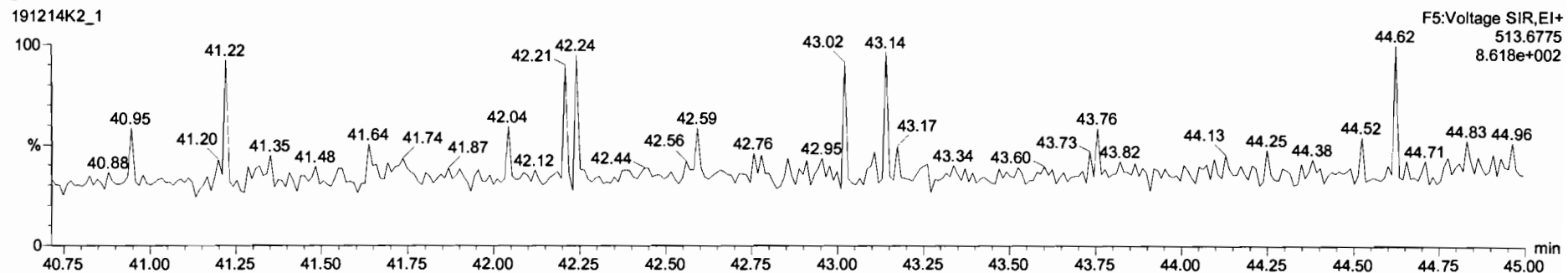
**OCDF**



**13C-OCDF**

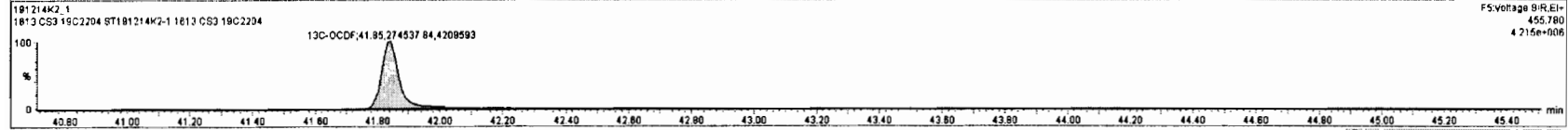
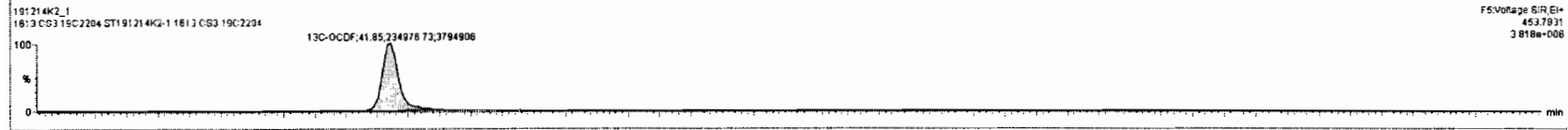
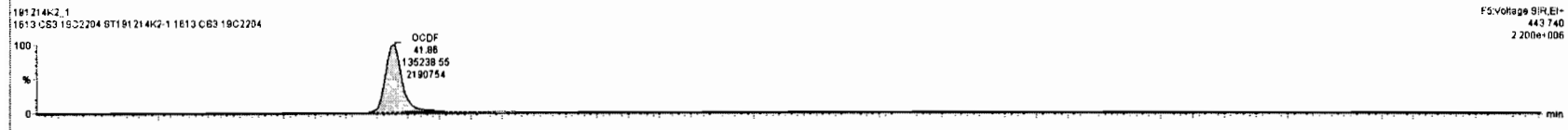
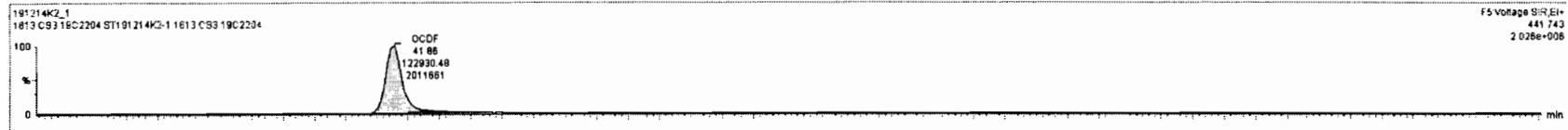


**DPE5**





#	id	Name	Resp	IS Resp	Prod RA	RA	nly	RFV	Prod RT	RT	RT Flag	Prod/RT	RFV	Conc.	%Rec	STD out
8	8	2,3,7,8-TCDF	8.75e4	8.89e5	0.77	0.82	NO	0.8378	25.23	25.24	NO	1.001	1.001	10.5	105	NO
9	9	1,2,3,7,8-PeCDF	2.37e5	4.54e5	1.55	1.81	NO	0.9782	30.00	29.98	NO	1.001	1.000	53.4	107	NO
10	10	2,3,4,7,8-PeCDF	2.40e5	4.44e5	1.55	1.81	NO	1.0049	30.98	30.97	NO	1.001	1.001	53.7	107	NO
11	11	1,2,3,4,7,8-HxCDF	2.19e5	3.42e5	1.24	1.28	NO	1.2434	33.74	33.75	NO	1.000	1.000	51.4	103	NO
12	12	1,2,3,6,7,8-HxCDF	2.30e5	4.10e5	1.24	1.28	NO	1.0950	33.87	33.87	NO	1.000	1.000	53.2	106	NO
13	13	2,3,4,6,7,8-HxCDF	2.30e5	3.75e5	1.24	1.28	NO	1.1806	34.48	34.44	NO	1.001	1.000	51.9	104	NO
14	14	1,2,3,7,8,9-HxCDF	1.81e5	3.28e5	1.24	1.28	NO	1.0726	35.31	35.32	NO	1.000	1.000	51.5	103	NO
15	15	1,2,3,4,6,7,8-HxCDF	1.77e5	3.02e5	1.04	1.04	NO	1.1300	37.08	37.08	NO	1.001	1.001	52.0	104	NO
16	16	1,2,3,4,7,8,9-HxCDF	1.30e5	2.09e5	1.04	1.04	NO	1.2809	39.05	39.06	NO	1.000	1.000	52.8	106	NO
17	17	OCDF	2.88e5	5.90e5	0.89	0.91	NO	1.1828	41.86	41.89	NO	1.000	1.000	91.9	91.9	NO
18	18	13C-2,3,7,8-TCDD	4.90e5	4.43e5	0.77	0.77	NO	1.0489	26.18	26.18	NO	1.027	1.028	107	107	NO
19	19	13C-1,2,3,7,8-PeCDD	3.16e5	4.43e5	0.83	0.82	NO	0.7429	31.20	31.27	NO	1.224	1.227	98.1	98.1	NO
20	20	13C-1,2,3,4,7,8-HxCDD	2.42e5	4.15e5	1.24	1.23	NO	0.8483	34.59	34.58	NO	1.014	1.014	90.3	90.3	NO
21	21	13C-1,2,3,6,7,8-HxCDD	2.95e5	4.15e5	1.24	1.24	NO	0.7787	34.89	34.70	NO	1.017	1.017	91.3	91.3	NO
22	22	13C-1,2,3,7,8,9-HxCDD	2.74e5	4.15e5	1.24	1.25	NO	0.8586	34.96	34.97	NO	1.025	1.025	99.9	99.9	NO

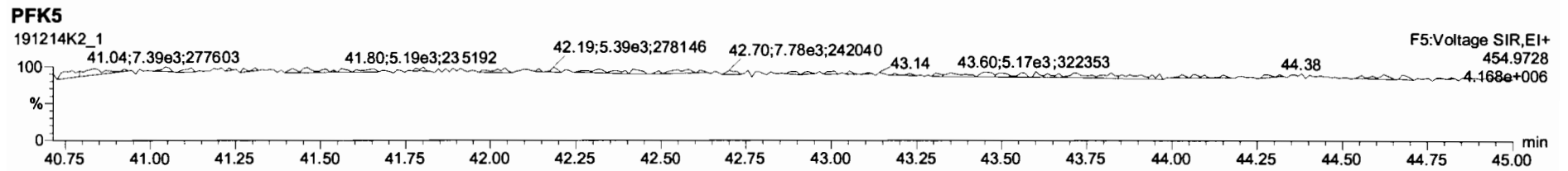
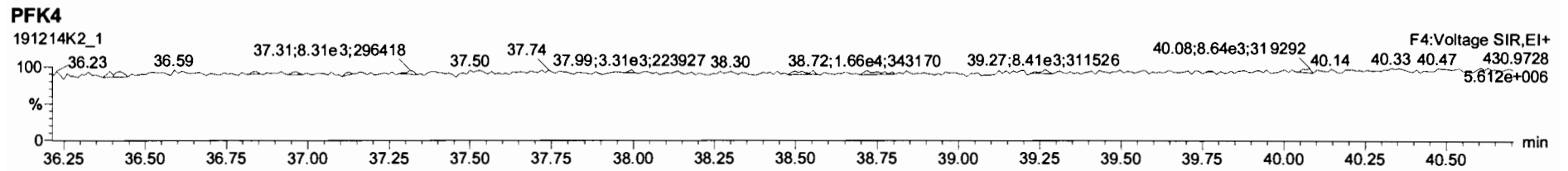
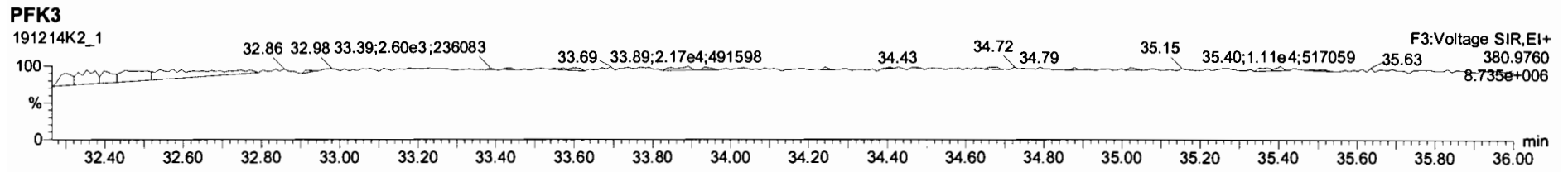
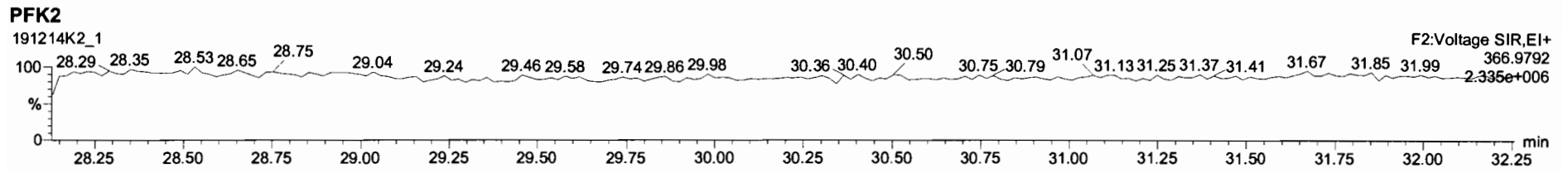
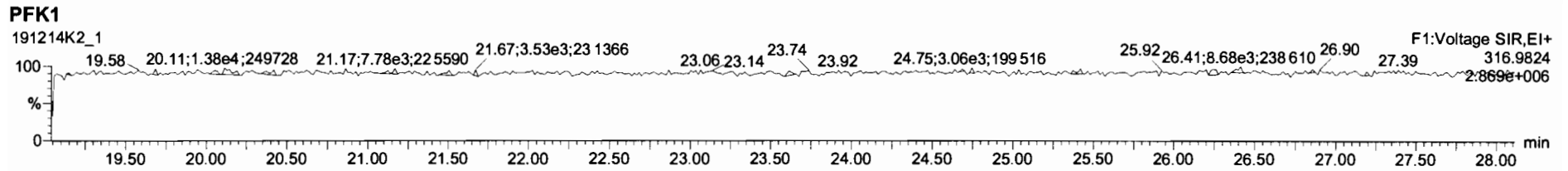


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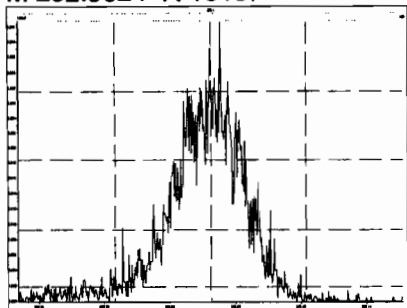
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Printed: Monday, December 16, 2019 09:28:02 Pacific Standard Time

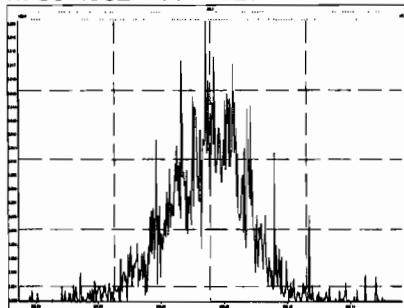
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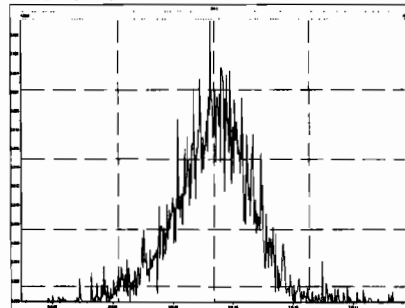
M 292.9824 R 13157



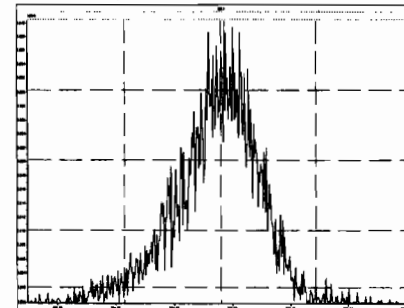
M 304.9824 R 13927



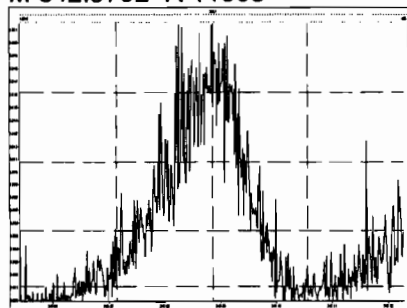
M 318.9792 R 14730



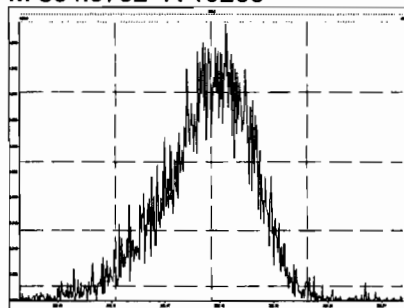
M 330.9792 R 11796



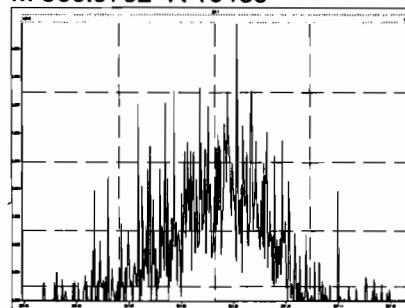
M 342.9792 R 11905



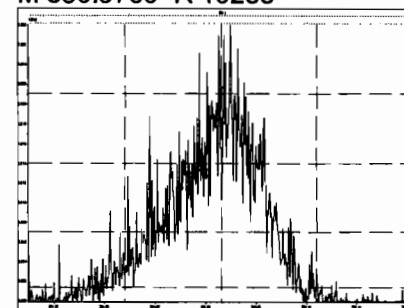
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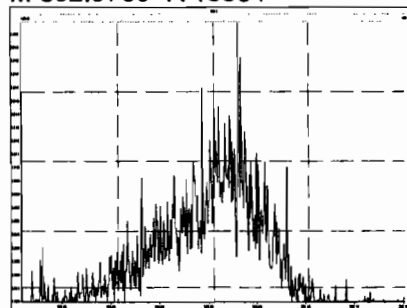
M 366.9792 R 18456



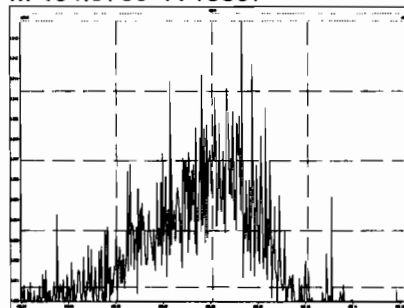
M 380.9760 R 10255



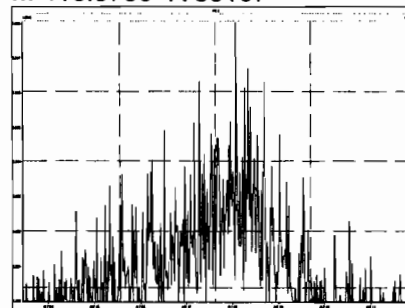
M 392.9760 R 13354



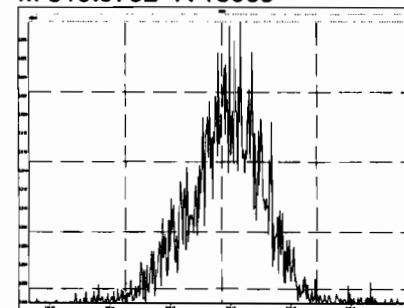
M 404.9760 R 15307



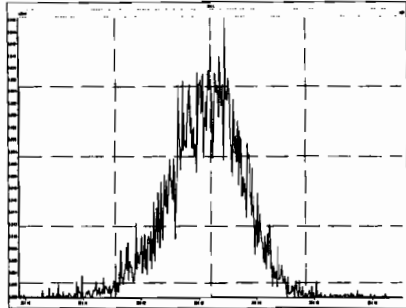
M 416.9760 R 36187



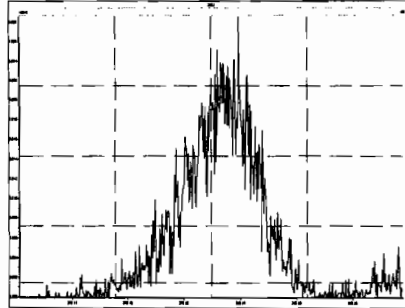
M 318.9792 R 13069



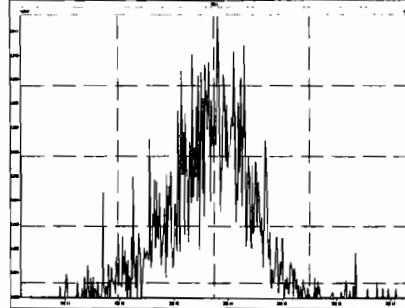
M 330.9792 R 12257



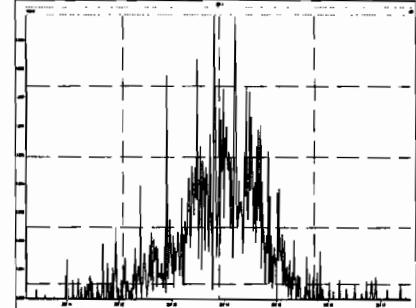
M 342.9792 R 13273



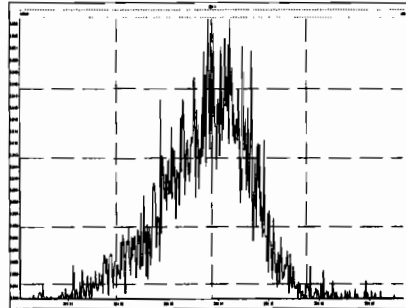
M 354.9792 R 14414



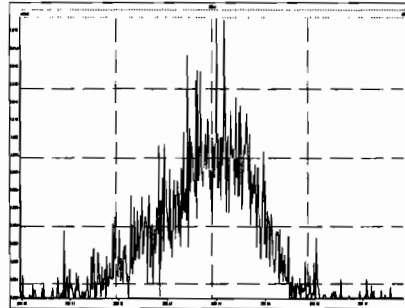
M 366.9792 R 25923



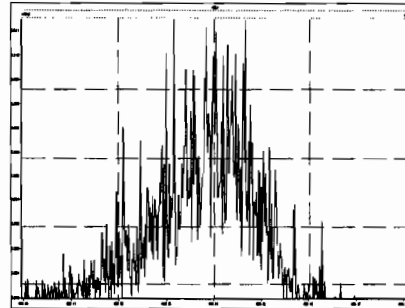
M 380.9760 R 11936



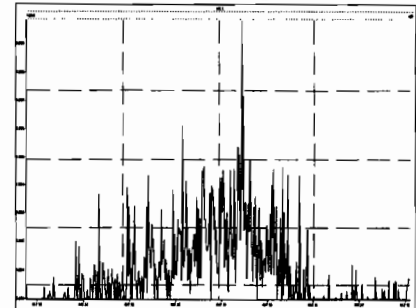
M 392.9760 R 14391



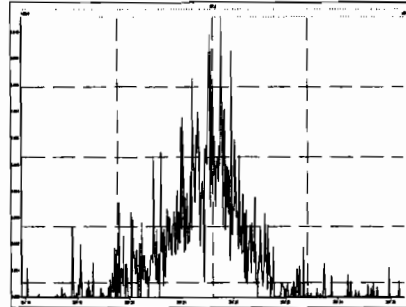
M 404.9760 R 13405



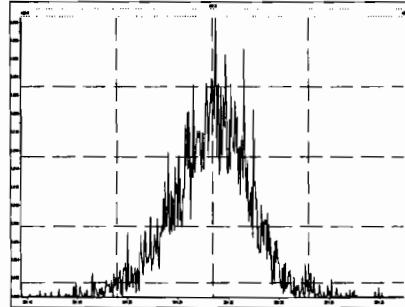
M 416.9760 R 43560



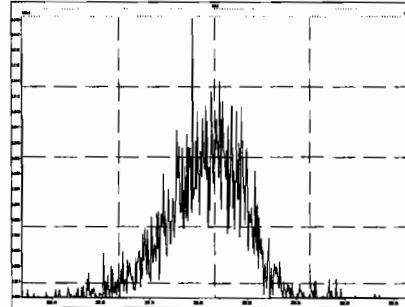
M 366.9792 R 21339



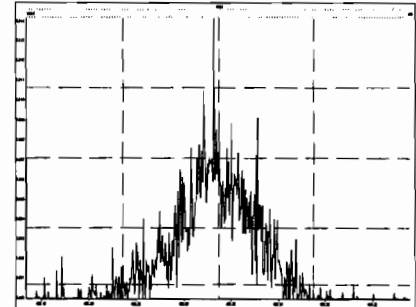
M 380.9760 R 13477



M 392.9760 R 14597

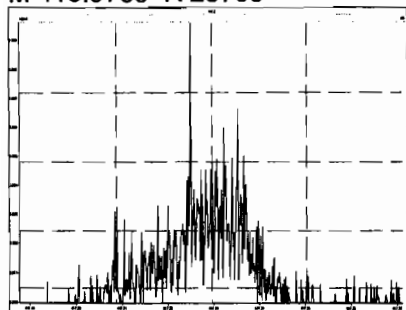


M 404.9760 R 16623

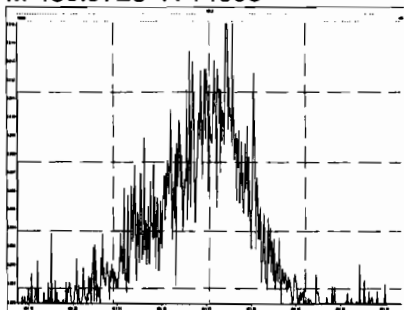


Printed: Sunday, December 15, 2019 06:31:50 Pacific Standard Time

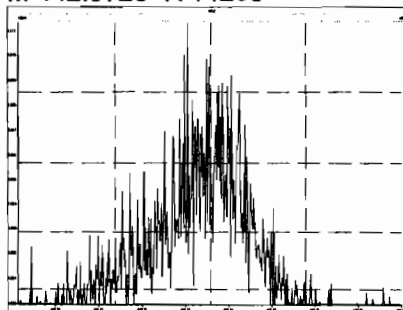
M 416.9760 R 25705



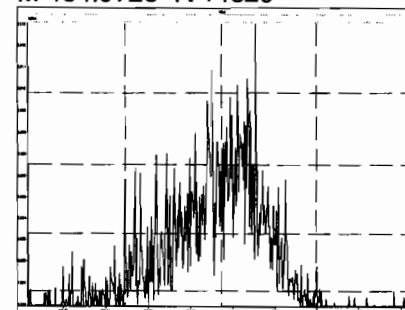
M 430.9728 R 14093



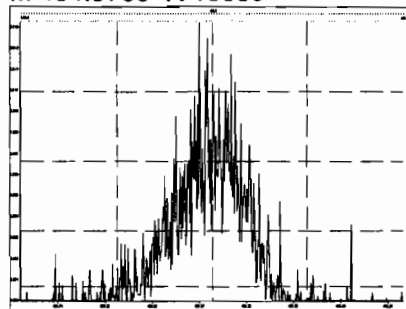
M 442.9728 R 14205



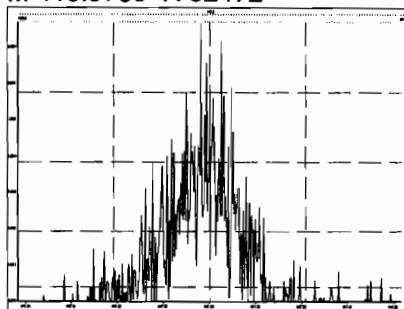
M 454.9728 R 14829



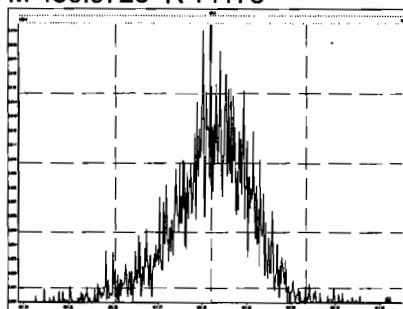
M 404.9760 R 15053



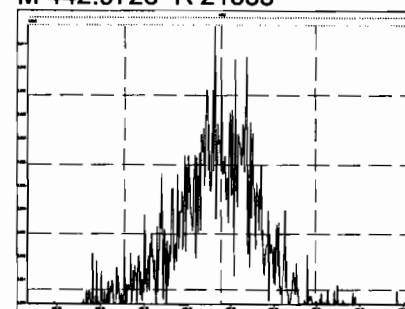
M 416.9760 R 32472



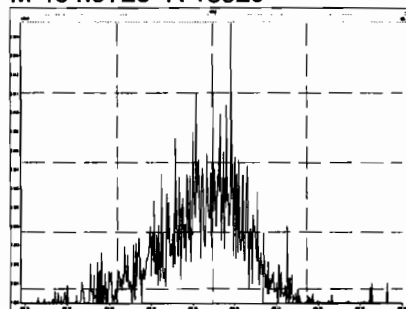
M 430.9728 R 14178



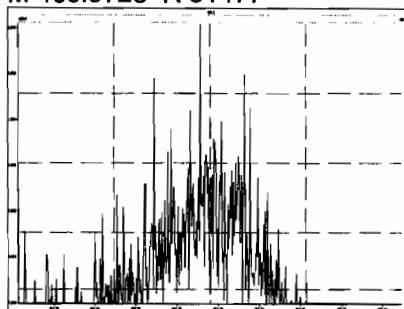
M 442.9728 R 21533



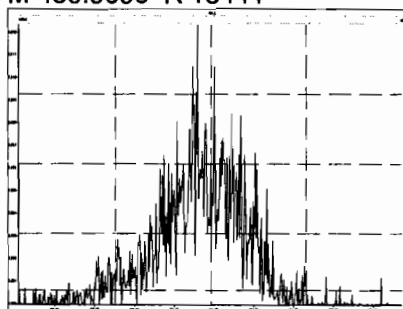
M 454.9728 R 13929



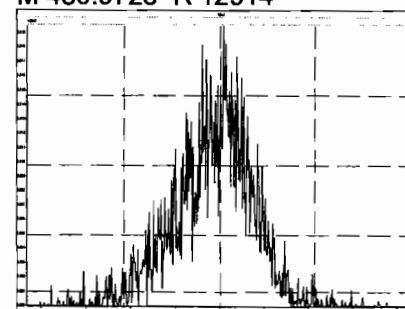
M 466.9728 R 31477



M 480.9696 R 18444

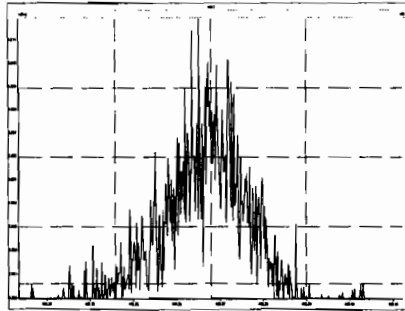


M 430.9728 R 12914

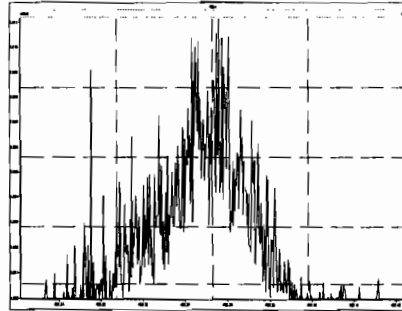


Printed: Sunday, December 15, 2019 06:31:50 Pacific Standard Time

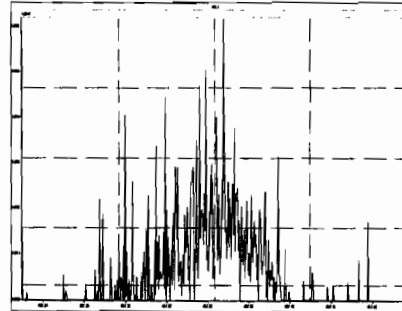
M 442.9728 R 17560



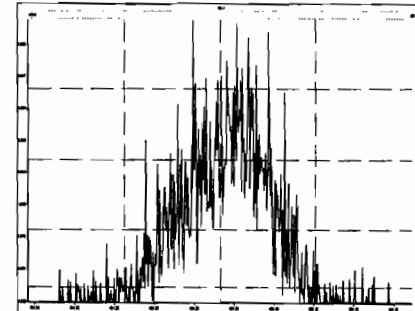
M 454.9728 R 15990



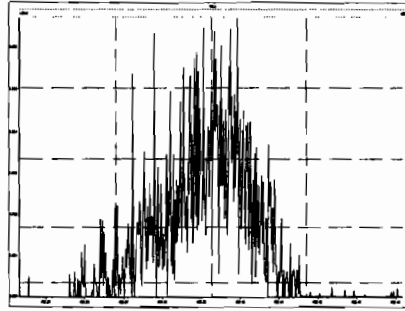
M 466.9728 R 62852



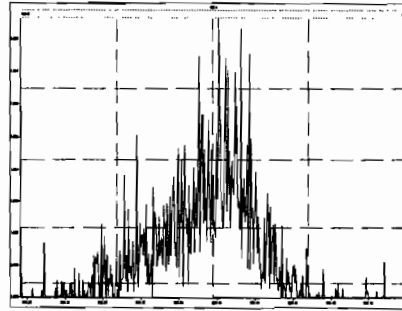
M 480.9696 R 14429



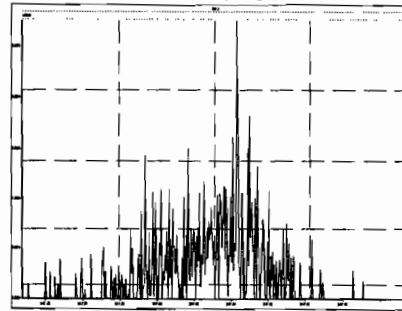
M 492.9696 R 17658



M 504.9696 R 16350



M 516.9697 R 262499



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST 191214K3-1

**Reviewed By:** CT 12/30/19  
*Initials & Date*

**End Calibration ID:** NA

	<u>Beg.</u>	<u>End</u>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Retention Times within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Verification Std. named correctly? (ST-Year-Month-Day-VG ID)</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Correct ICAL referenced?</b>	<u>HL</u>	<u>NA</u>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Samples within 12 hour clock?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Bottle position verified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Mass resolution  $\geq$**

5k    6-8K    8K    10K  
 1614   1699   429   1613/1668/8280

**Intergrated peaks display correctly?**

**GC Break <20%**

NA

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours

**Comments:**

Ⓐ PFK drain, some masses did not centroid

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-3.qld

Last Altered: Tuesday, December 17, 2019 08:03:56 Pacific Standard Time  
Printed: Tuesday, December 17, 2019 08:04:19 Pacific Standard Time

HL 12-17-19 CT 12/30/19

Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	3.56e4	3.63e5	0.82	NO	0.925	26.15	26.15	NO	1.001	1.001	10.615	106	NO
2	2 1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.63	NO	0.905	31.25	31.25	NO	1.001	1.001	50.325	101	NO
3	3 1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.26	NO	1.07	34.58	34.58	NO	1.000	1.000	53.683	107	NO
4	4 1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.30	NO	0.967	34.67	34.68	NO	1.000	1.000	53.868	108	NO
5	5 1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.25	NO	0.978	34.98	34.95	NO	1.001	1.000	52.952	106	NO
6	6 1,2,3,4,6,7,8-HpCDD	7.68e4	1.47e5	1.07	NO	1.04	38.43	38.43	NO	1.000	1.000	50.216	100	NO
7	7 OCDD	1.22e5	2.44e5	0.90	NO	0.972	41.62	41.63	NO	1.000	1.000	102.79	103	NO
8	8 2,3,7,8-TCDF	5.72e4	5.62e5	0.80	NO	0.938	25.17	25.17	NO	1.001	1.001	10.849	108	NO
9	9 1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.58	NO	0.976	29.96	29.96	NO	1.001	1.001	51.289	103	NO
10	10 2,3,4,7,8-PeCDF	2.39e5	4.54e5	1.63	NO	1.00	30.96	30.95	NO	1.001	1.001	52.272	105	NO
11	11 1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.27	NO	1.24	33.70	33.72	NO	1.000	1.001	51.980	104	NO
12	12 1,2,3,6,7,8-HxCDF	2.09e5	3.54e5	1.26	NO	1.10	33.85	33.85	NO	1.000	1.000	54.048	108	NO
13	13 2,3,4,6,7,8-HxCDF	1.84e5	3.00e5	1.26	NO	1.18	34.44	34.42	NO	1.001	1.000	51.950	104	NO
14	14 1,2,3,7,8,9-HxCDF	1.42e5	2.45e5	1.23	NO	1.07	35.27	35.29	NO	1.000	1.001	53.893	108	NO
15	15 1,2,3,4,6,7,8-HpCDF	1.25e5	2.12e5	1.03	NO	1.13	37.04	37.02	NO	1.001	1.000	52.115	104	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.08e5	1.57e5	1.08	NO	1.26	39.03	39.03	NO	1.000	1.000	54.658	109	NO
17	17 OCDF	1.76e5	3.36e5	0.91	NO	1.10	41.81	41.82	NO	1.000	1.000	95.096	95.1	NO
18	18 13C-2,3,7,8-TCDD	3.63e5	3.46e5	0.79	NO	1.05	26.13	26.12	NO	1.027	1.027	99.806	99.8	NO
19	19 13C-1,2,3,7,8-PeCDD	2.89e5	3.46e5	0.66	NO	0.743	31.14	31.23	NO	1.224	1.228	112.22	112	NO
20	20 13C-1,2,3,4,7,8-HxCDD	2.04e5	3.53e5	1.26	NO	0.646	34.57	34.57	NO	1.014	1.014	89.205	89.2	NO
21	21 13C-1,2,3,6,7,8-HxCDD	2.42e5	3.53e5	1.26	NO	0.777	34.67	34.67	NO	1.017	1.017	88.199	88.2	NO
22	22 13C-1,2,3,7,8,9-HxCDD	2.03e5	3.53e5	1.22	NO	0.659	34.94	34.94	NO	1.025	1.025	87.126	87.1	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.47e5	3.53e5	1.04	NO	0.534	38.43	38.42	NO	1.127	1.127	78.086	78.1	NO
24	24 13C-OCDD	2.44e5	3.53e5	0.92	NO	0.470	41.61	41.62	NO	1.220	1.220	146.80	73.4	NO
25	25 13C-2,3,7,8-TCDF	5.62e5	6.02e5	0.76	NO	0.977	25.21	25.14	NO	0.991	0.989	95.549	95.5	NO
26	26 13C-1,2,3,7,8-PeCDF	4.56e5	6.02e5	1.55	NO	0.778	29.85	29.94	NO	1.174	1.177	97.543	97.5	NO
27	27 13C-2,3,4,7,8-PeCDF	4.54e5	6.02e5	1.60	NO	0.750	30.86	30.93	NO	1.213	1.216	100.69	101	NO
28	28 13C-1,2,3,4,7,8-HxCDF	2.87e5	3.53e5	0.51	NO	0.845	33.71	33.70	NO	0.989	0.988	96.109	96.1	NO
29	29 13C-1,2,3,6,7,8-HxCDF	3.54e5	3.53e5	0.53	NO	1.03	33.83	33.83	NO	0.992	0.992	97.503	97.5	NO
30	30 13C-2,3,4,6,7,8-HxCDF	3.00e5	3.53e5	0.51	NO	0.893	34.40	34.41	NO	1.009	1.009	95.001	95.0	NO
31	31 13C-1,2,3,7,8,9-HxCDF	2.45e5	3.53e5	0.51	NO	0.734	35.30	35.27	NO	1.035	1.034	94.386	94.4	NO



Dataset: U:\VG11.PRO\Results\191214K3\191214K3-3.qld

Last Altered: Tuesday, December 17, 2019 08:03:56 Pacific Standard Time

Printed: Tuesday, December 17, 2019 08:04:19 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	13C-1,2,3,4,6,7,8-HpCDF	2.12e5	3.53e5	0.46	NO	0.754	37.01	37.01	NO	1.085	1.085	79.513	79.5	NO
33	13C-1,2,3,4,7,8,9-HpCDF	1.57e5	3.53e5	0.44	NO	0.539	39.03	39.03	NO	1.145	1.144	82.211	82.2	NO
34	13C-OCDF	3.36e5	3.53e5	0.89	NO	0.593	41.82	41.81	NO	1.226	1.226	160.32	80.2	NO
35	37Cl-2,3,7,8-TCDD	3.63e4	3.46e5			1.07	26.15	26.14	NO	1.028	1.028	9.8005	98.0	NO
36	13C-1,2,3,4-TCDD	3.46e5	3.46e5	0.80	NO	1.00	25.50	25.43	NO	1.000	1.000	100.00	100	NO
37	13C-1,2,3,4-TCDF	6.02e5	6.02e5	0.76	NO	1.00	23.68	23.57	NO	1.000	1.000	100.00	100	NO
38	13C-1,2,3,4,6,9-HxCDF	3.53e5	3.53e5	0.54	NO	1.00	34.06	34.10	NO	1.000	1.000	100.00	100	NO

Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:38:39 Pacific Standard Time

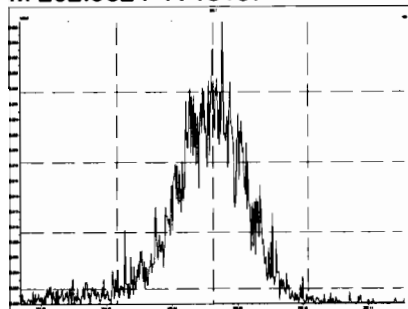
Method: U:\VG11.PRO\MethDB\1613\_rrt-12-7-19.mdb 08 Dec 2019 15:38:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Compound name: 2,3,7,8-TCDD

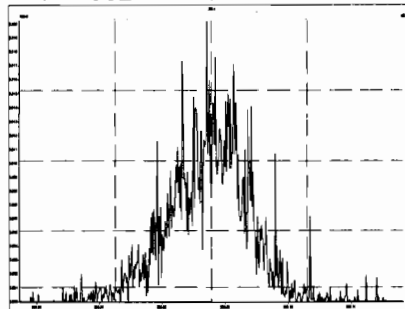
	Name	ID	Acq.Date	Acq.Time
1	191214K3_1	SOLVENT BLANK	15-Dec-19	06:33:06
2	191214K3_2	SOLVENT BLANK	15-Dec-19	07:20:57
3	191214K3_3	ST191214K3-1 1613 CS3 19C2204	15-Dec-19	08:08:19
4	191214K3_4	SOLVENT BLANK	15-Dec-19	08:56:36
5	191214K3_5	1903461-10RE1 PDI-071SC-A-11-11.5-19100...	15-Dec-19	09:44:53
6	191214K3_6	1903461-11RE1 PDI-071SC-B-00-02-191001 ...	15-Dec-19	10:33:11
7	191214K3_7	1903461-12RE1 PDI-071SC-B-02-04-191001 ...	15-Dec-19	11:21:29
8	191214K3_8	1903461-13RE1 PDI-071SC-B-04-06-191001 ...	15-Dec-19	12:11:04
9	191214K3_9	1903461-14RE1 PDI-071SC-B-06-08-191001 ...	15-Dec-19	12:59:18
10	191214K3_10	1903461-15RE1 PDI-071SC-B-08-10-191001 ...	15-Dec-19	13:47:09
11	191214K3_11	1903461-16RE1 PDI-071SC-B-10-11.5-19100...	15-Dec-19	14:34:36
12	191214K3_12	1903461-17RE1 PDI-1071SC-B-02-04-191001...	15-Dec-19	15:22:53
13	191214K3_13	B9K0154-DUP1 Duplicate 16.33	15-Dec-19	16:11:10
14	191214K3_14	1903742-01 PDI-059SC-A-13-14-191016 13.92	15-Dec-19	16:59:27
15	191214K3_15	1903742-02 PDI-059SC-A-14-15.3-191016 14....	15-Dec-19	17:47:43
16	191214K3_16	1903742-03 PDI-069SC-A-12-13-191016 16.32	15-Dec-19	18:37:18
17	191214K3_17	1903742-04 PDI-069SC-A-13-14.3-191016 14....	15-Dec-19	19:25:12

Printed: Sunday, December 15, 2019 06:31:50 Pacific Standard Time

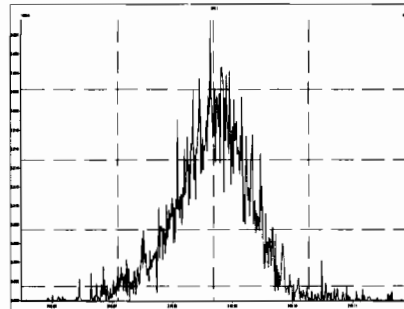
M 292.9824 R 13157



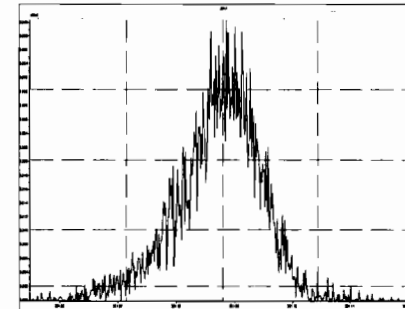
M 304.9824 R 13927



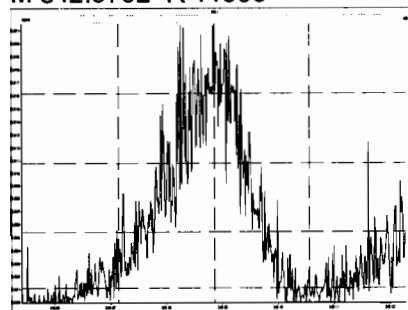
M 318.9792 R 14730



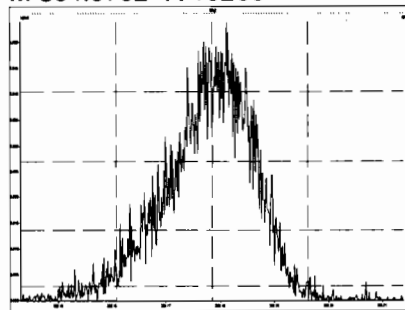
M 330.9792 R 11796



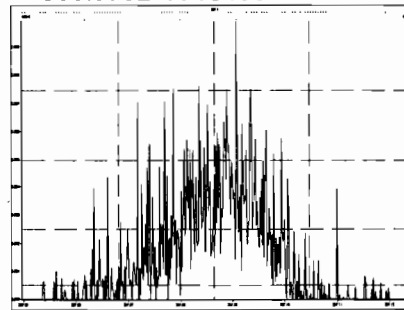
M 342.9792 R 11905



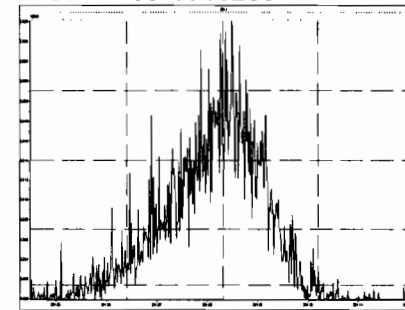
M 354.9792 R 10266



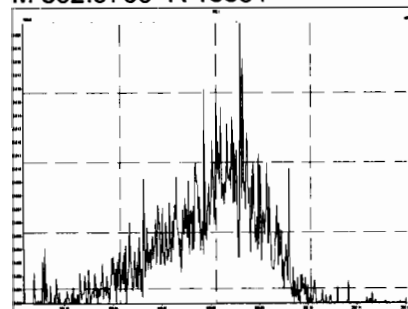
M 366.9792 R 18456



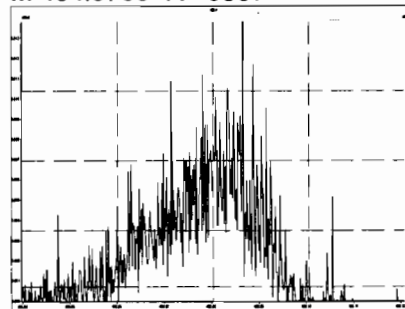
M 380.9760 R 10255



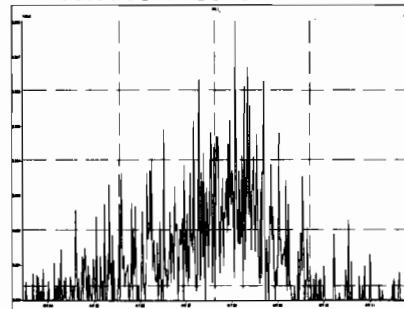
M 392.9760 R 13354



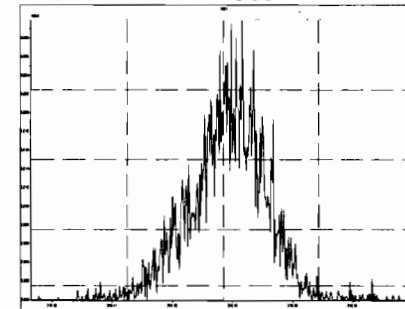
M 404.9760 R 15307



M 416.9760 R 36187

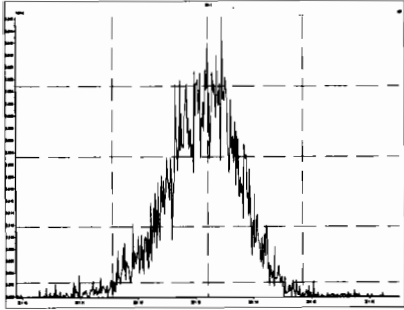


M 318.9792 R 13069

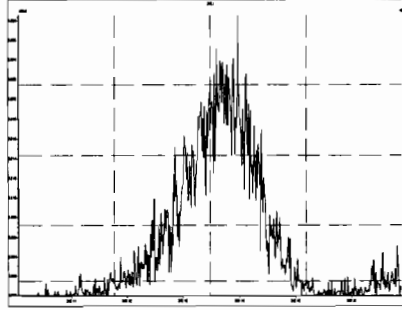


Printed: Sunday, December 15, 2019 06:31:50 Pacific Standard Time

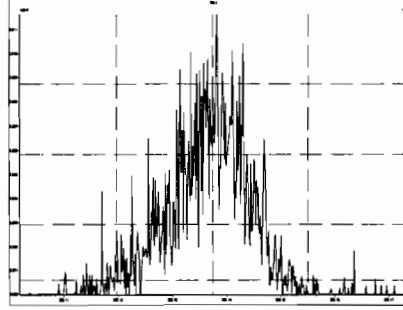
M 330.9792 R 12257



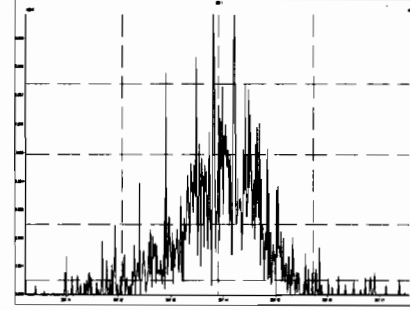
M 342.9792 R 13273



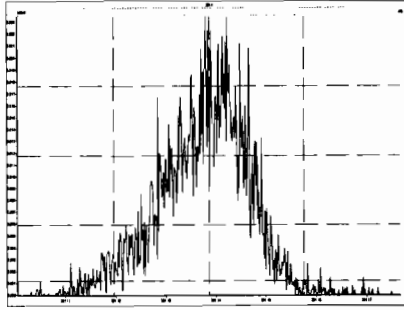
M 354.9792 R 14414



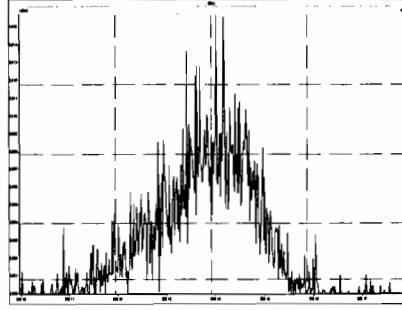
M 366.9792 R 25923



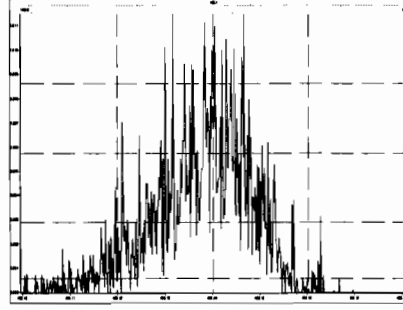
M 380.9760 R 11936



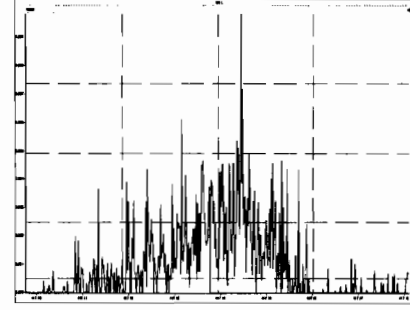
M 392.9760 R 14391



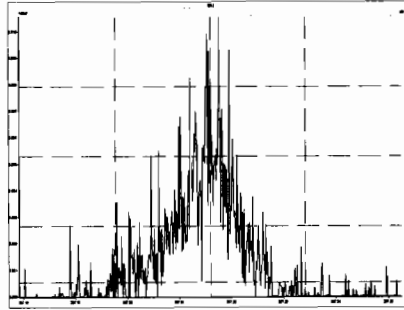
M 404.9760 R 13405



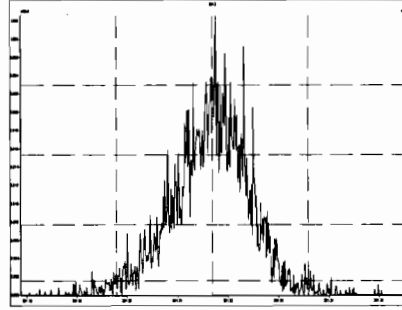
M 416.9760 R 43560



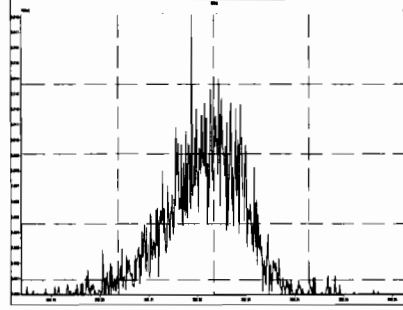
M 366.9792 R 21339



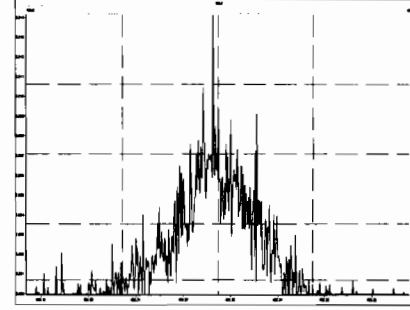
M 380.9760 R 13477



M 392.9760 R 14597

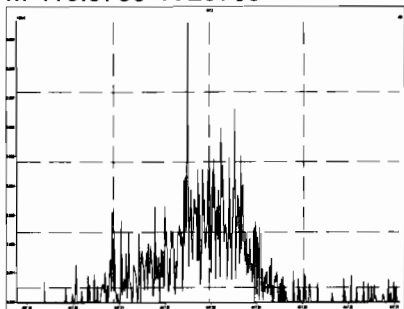


M 404.9760 R 16623

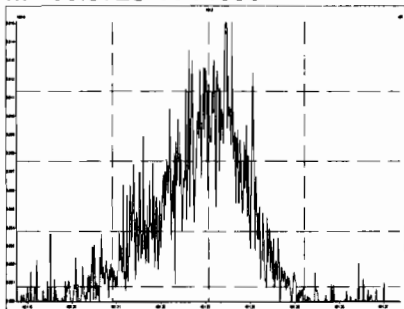


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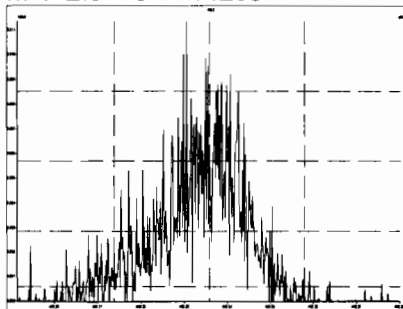
M 416.9760 R 25705



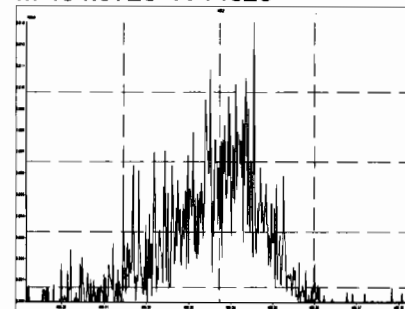
M 430.9728 R 14093



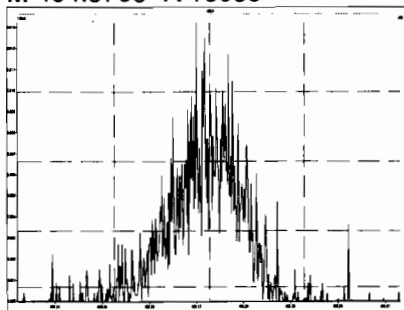
M 442.9728 R 14205



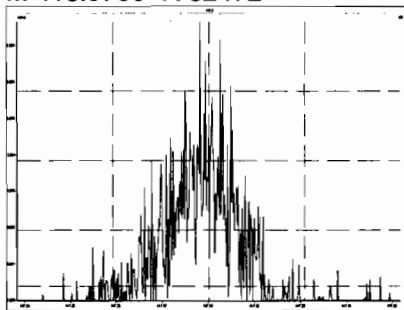
M 454.9728 R 14829



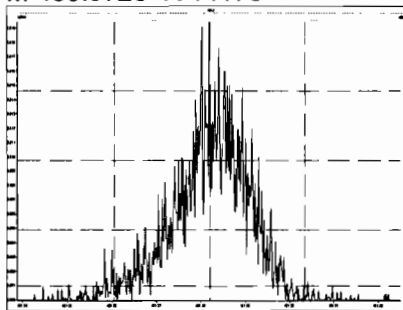
M 404.9760 R 15053



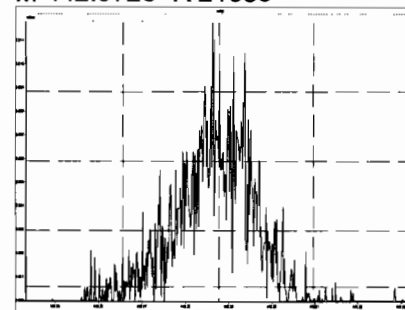
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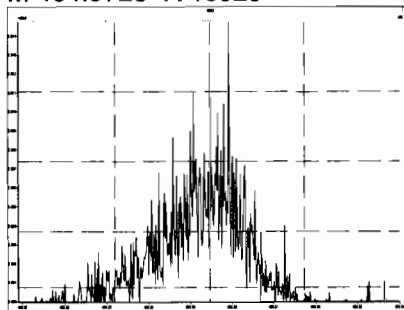
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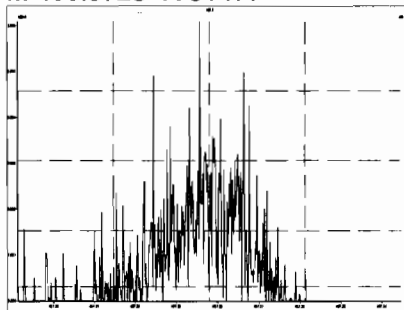
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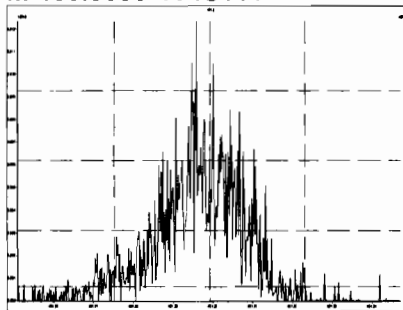
M 454.9728 R 13929



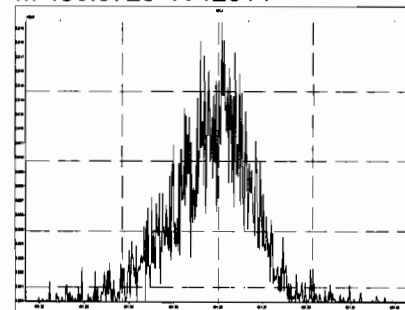
M 466.9728 R 31477



M 480.9696 R 18444

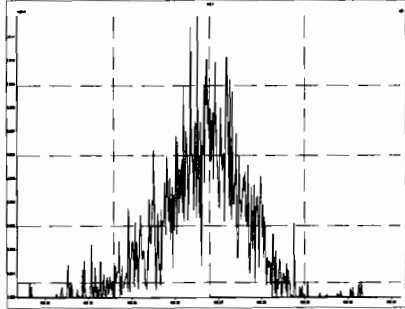


M 430.9728 R 12914

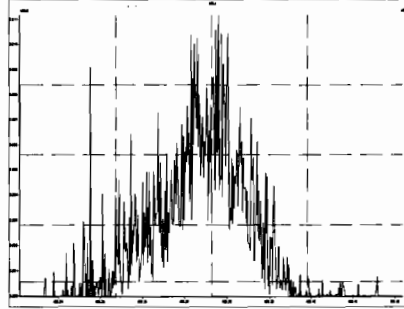


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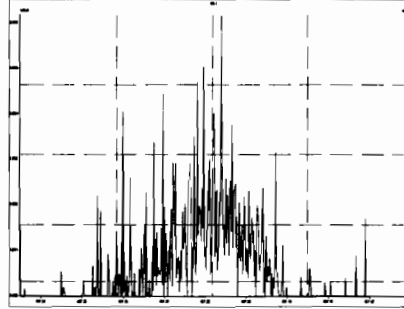
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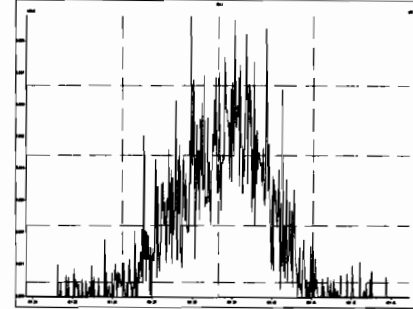
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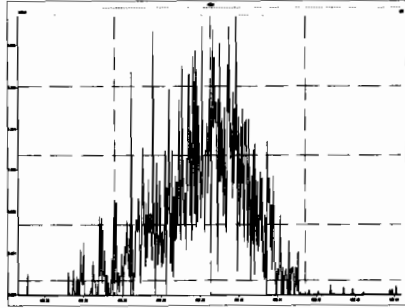
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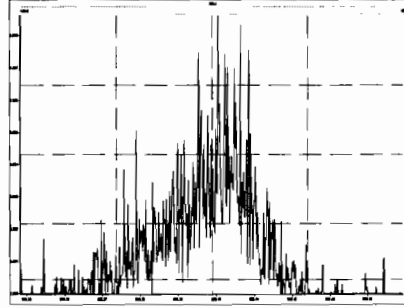
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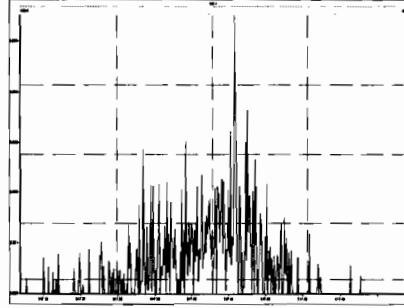
M 492.9696 R 17658



M 504.9696 R 16350



M 516.9697 R 262499



Dataset: U:\VG11.PRO\Results\191214K3\191214K3-CPSM.qld

Last Altered: Monday, December 16, 2019 09:24:49 Pacific Standard Time

Printed: Monday, December 16, 2019 09:25:10 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\CPSM.mdb 16 Dec 2019 09:25:54

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 06:55:45

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	RT
1	1,3,6,8-TCDD (First)	21.86
2	1,2,8,9-TCDD (Last)	27.15
3	1,2,4,7,9-PeCDD (First)	29.01
4	1,2,3,8,9-PeCDD (Last)	31.63
5	1,2,4,6,7,9-HxCDD (First)	33.12
6	1,2,3,7,8,9-HxCDD (Last)	34.95
7	1,2,3,4,6,7,9-HpCDD (First)	37.41
8	1,2,3,4,6,7,8-HpCDD (Last)	38.43
9	1,3,6,8-TCDF (First)	19.78
10	1,2,8,9-TCDF (Last)	27.30
11	1,3,4,6,8-PeCDF (First)	27.28
12	1,2,3,8,9-PeCDF (Last)	31.87
13	1,2,3,4,6,8-HxCDF (First)	32.57
14	1,2,3,7,8,9-HxCDF (Last)	35.29
15	1,2,3,4,6,7,8-HpCDF (First)	37.02
16	1,2,3,4,7,8,9-HpCDF (Last)	39.03

Dataset: U:\VG11.PRO\Results\191214K3\191214K3-CPSM.qld

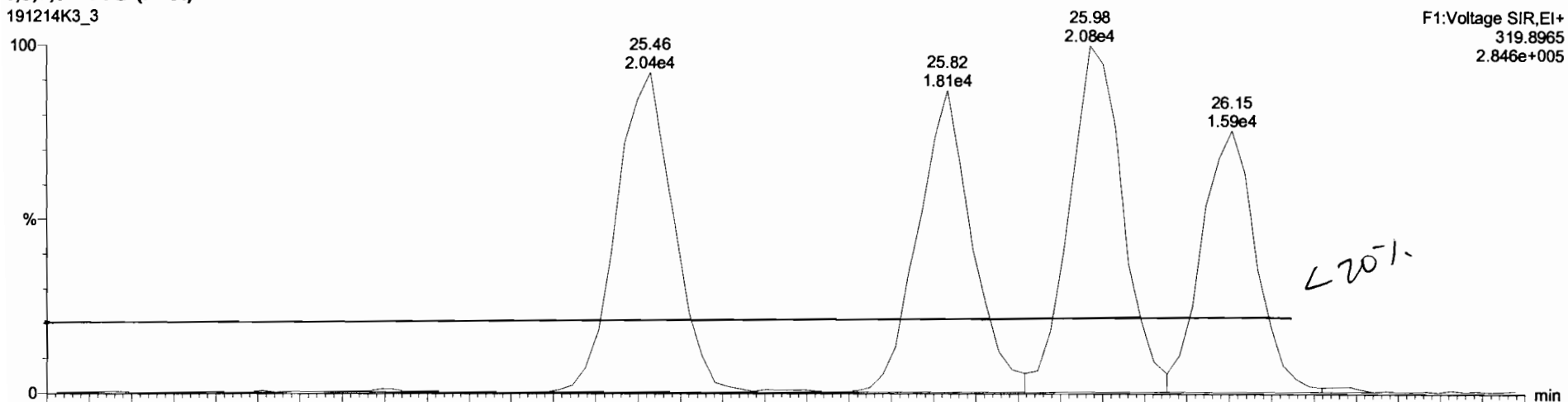
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Printed: Monday, December 16, 2019 09:25:10 Pacific Standard Time

Method: U:\VG11.PRO\MethDB\CPSM.mdb 16 Dec 2019 09:25:54  
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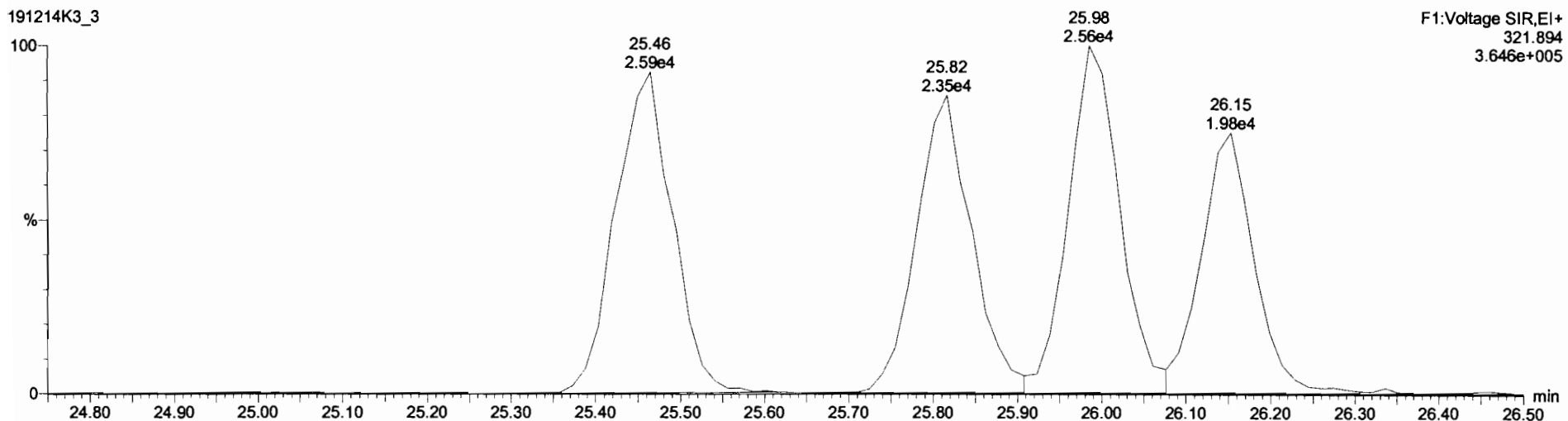
Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

1,3,6,8-TCDD (First)

191214K3\_3



191214K3\_3





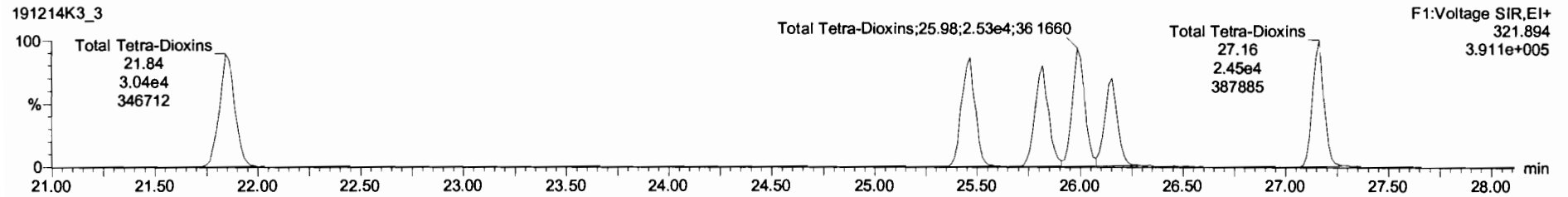
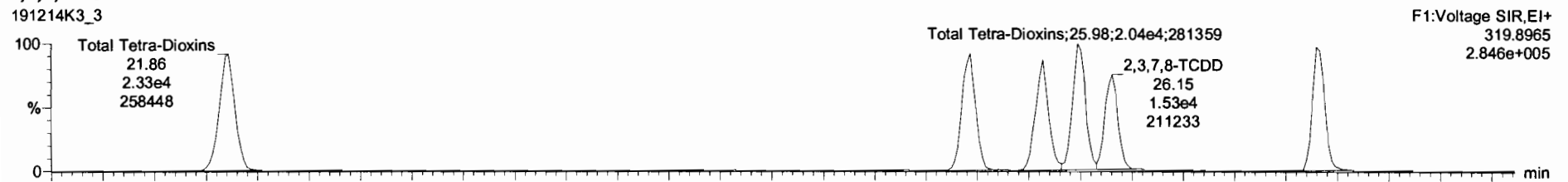
Dataset: Untitled

Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

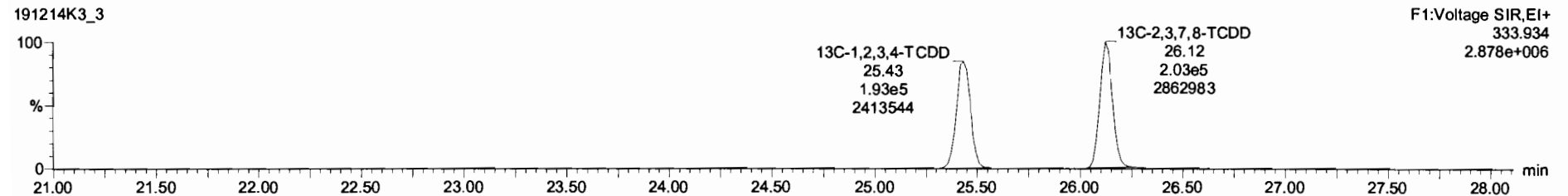
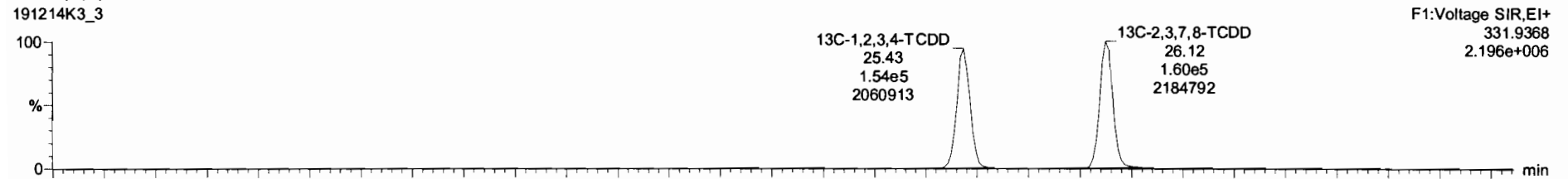
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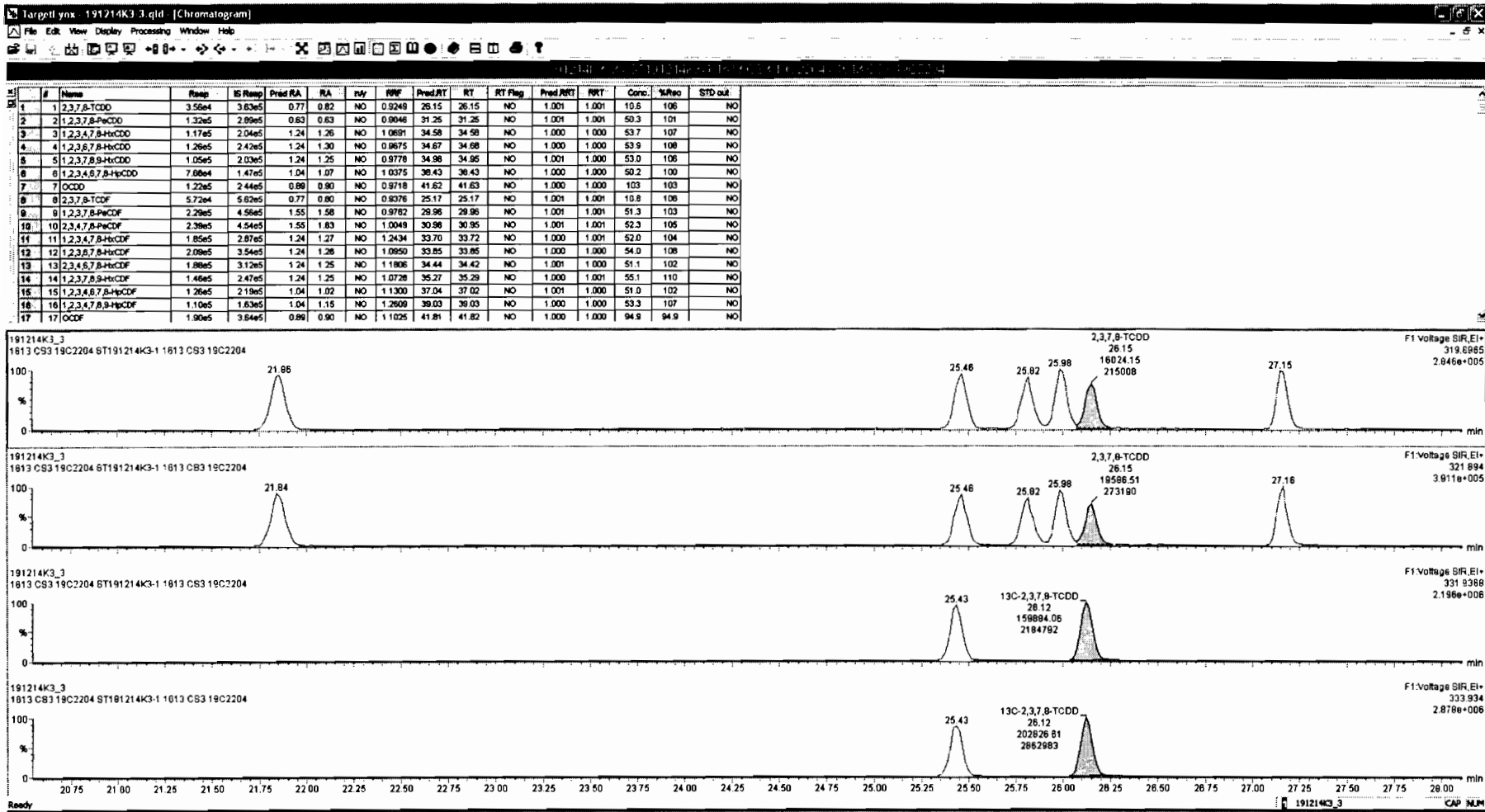
Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**2,3,7,8-TCDD**



**13C-2,3,7,8-TCDD**





Dataset: Untitled

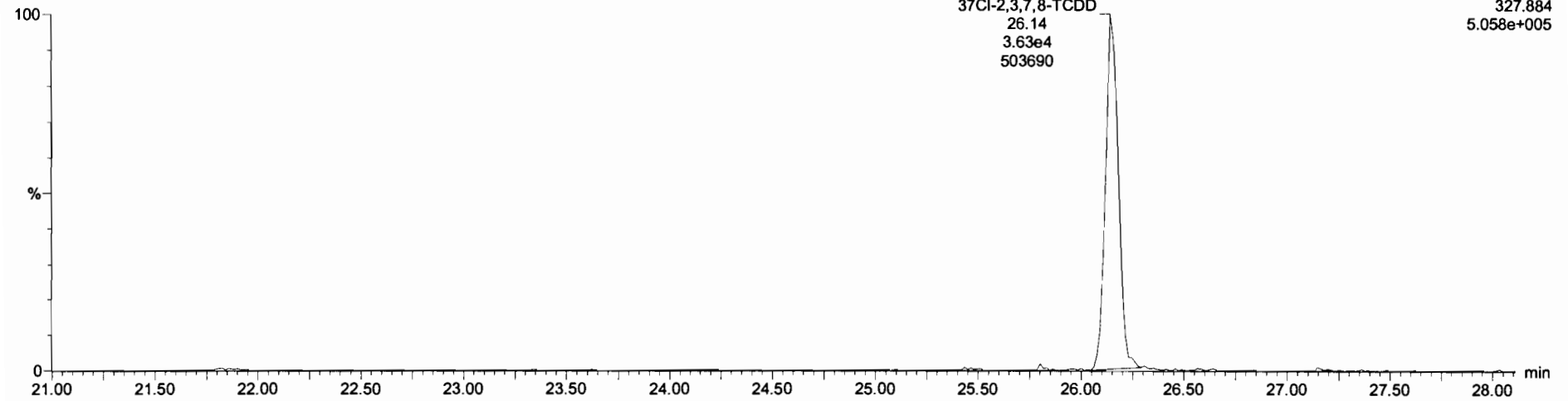
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

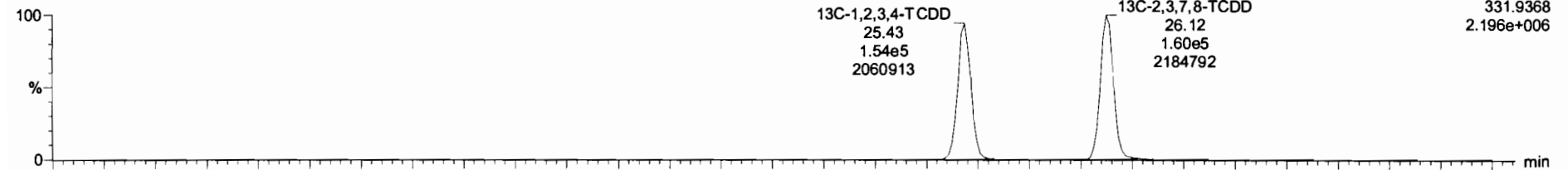
**37Cl-2,3,7,8-TCDD**

191214K3\_3

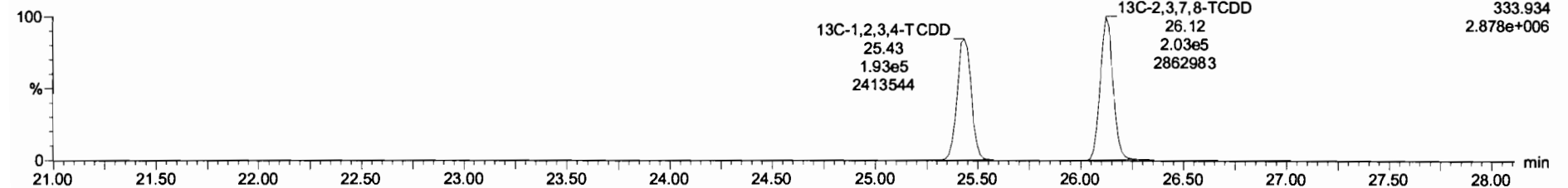


**13C-1,2,3,4-TCDD**

191214K3\_3



191214K3\_3



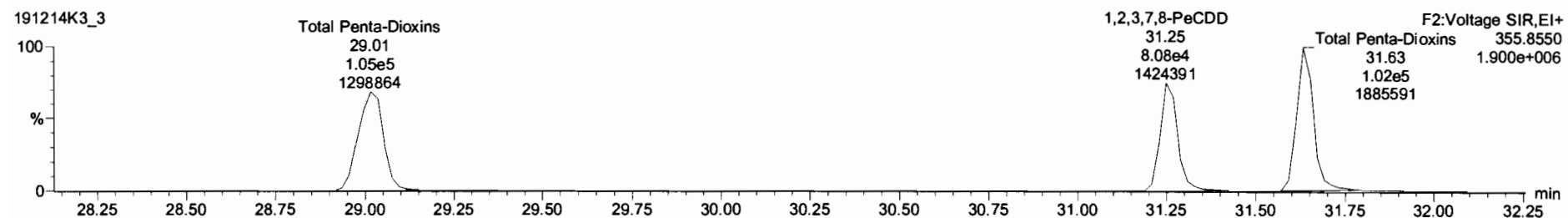
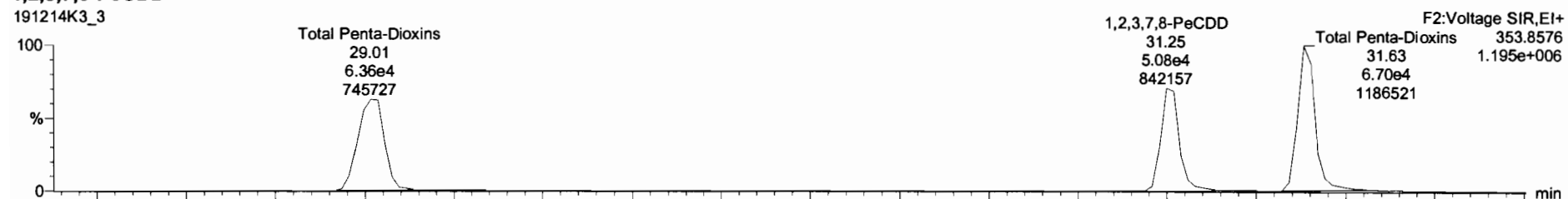
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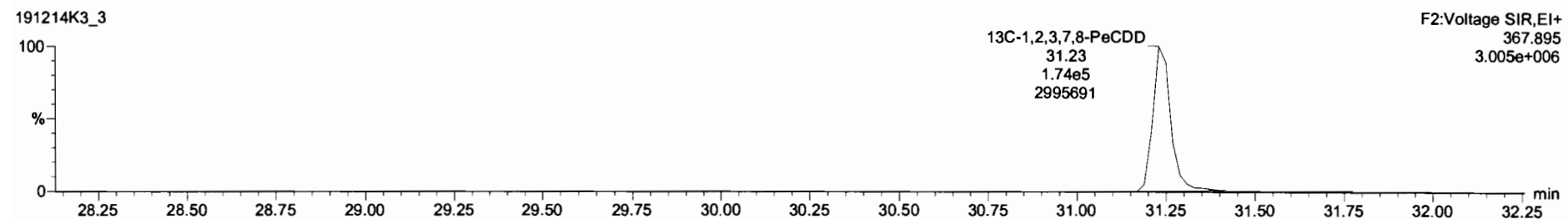
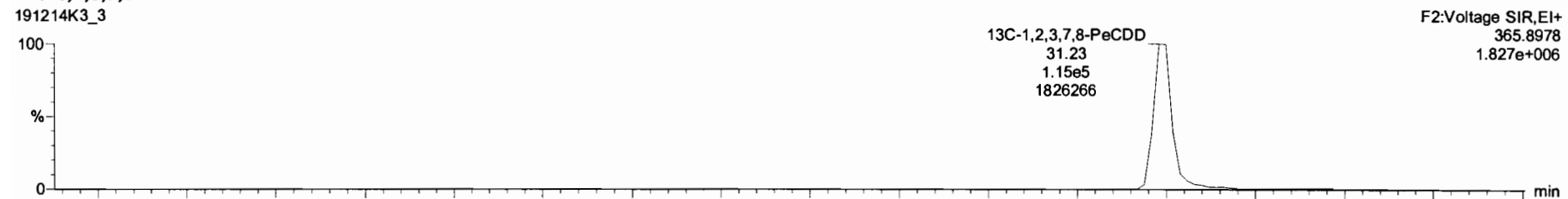
Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**1,2,3,7,8-PeCDD**



**13C-1,2,3,7,8-PeCDD**

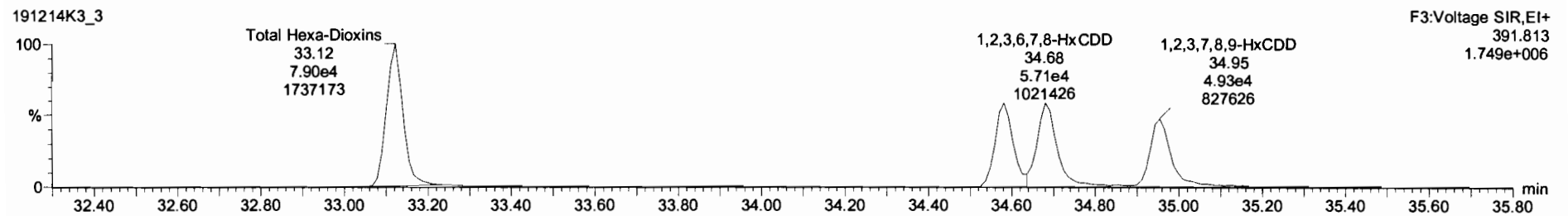
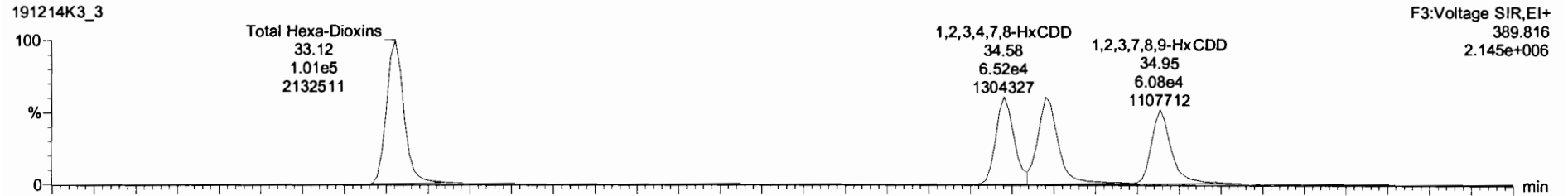


Dataset: Untitled

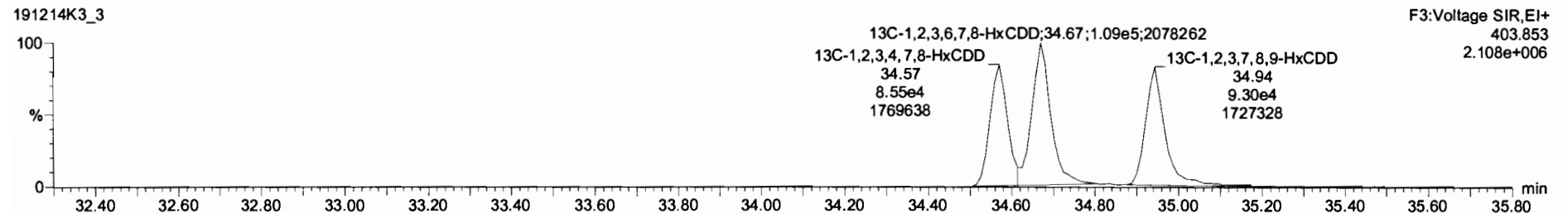
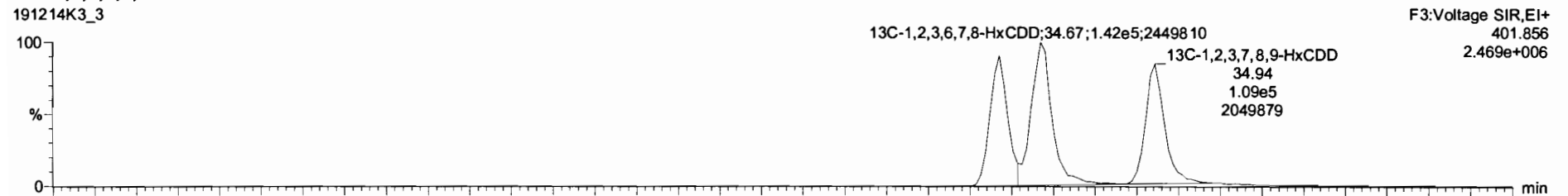
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time  
Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

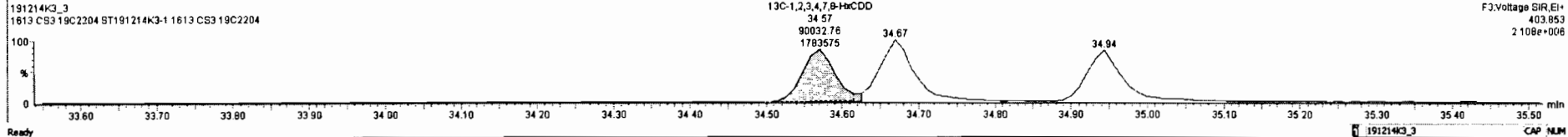
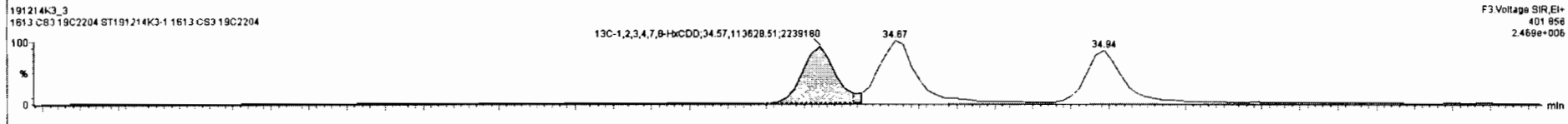
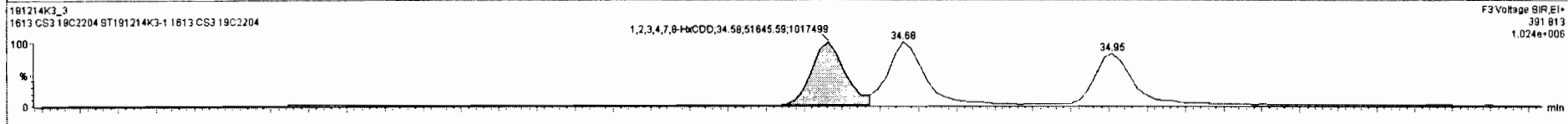
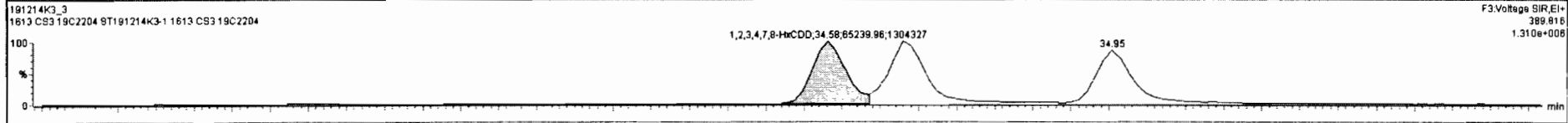
1,2,3,4,7,8-HxCDD

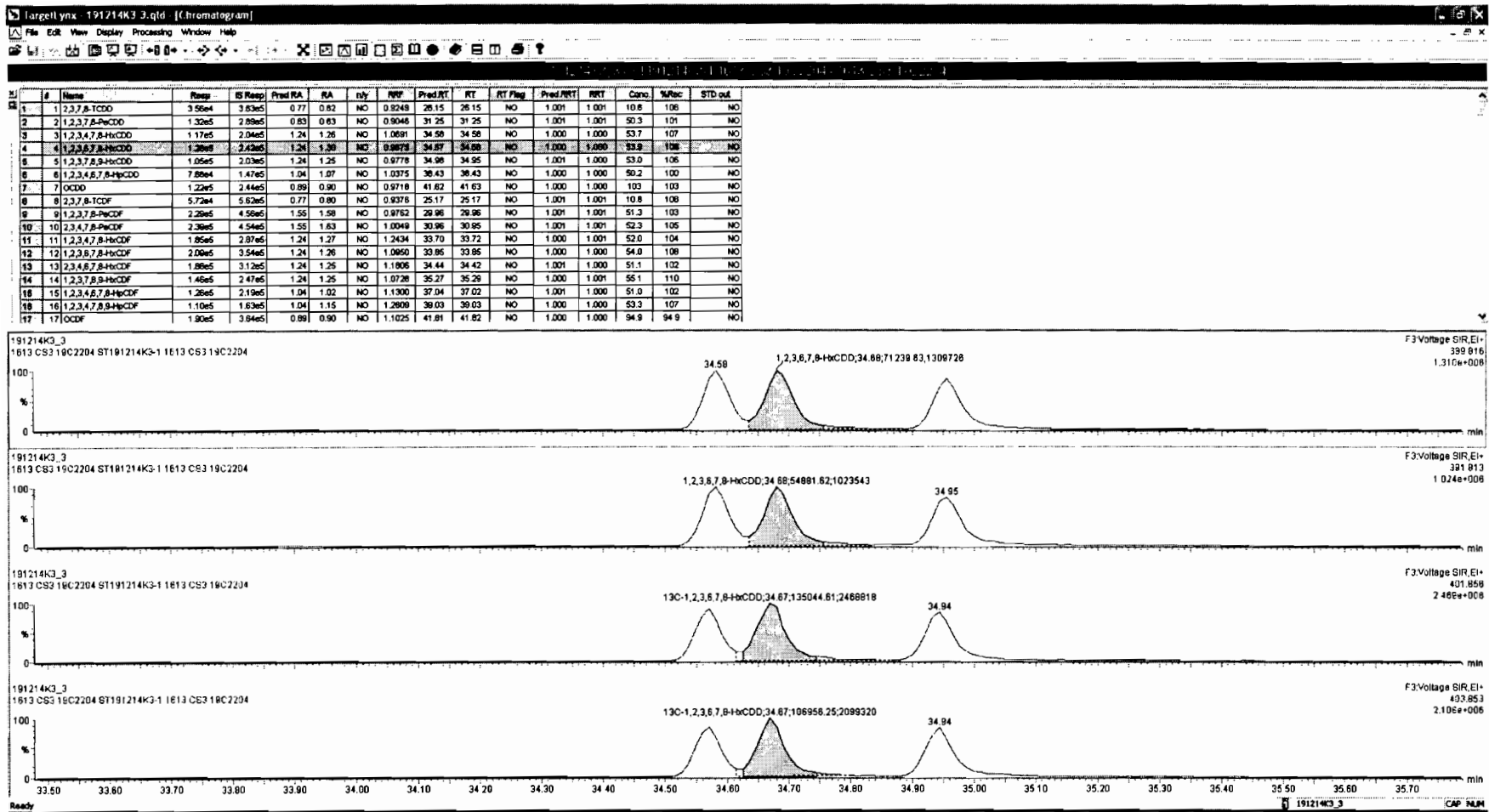


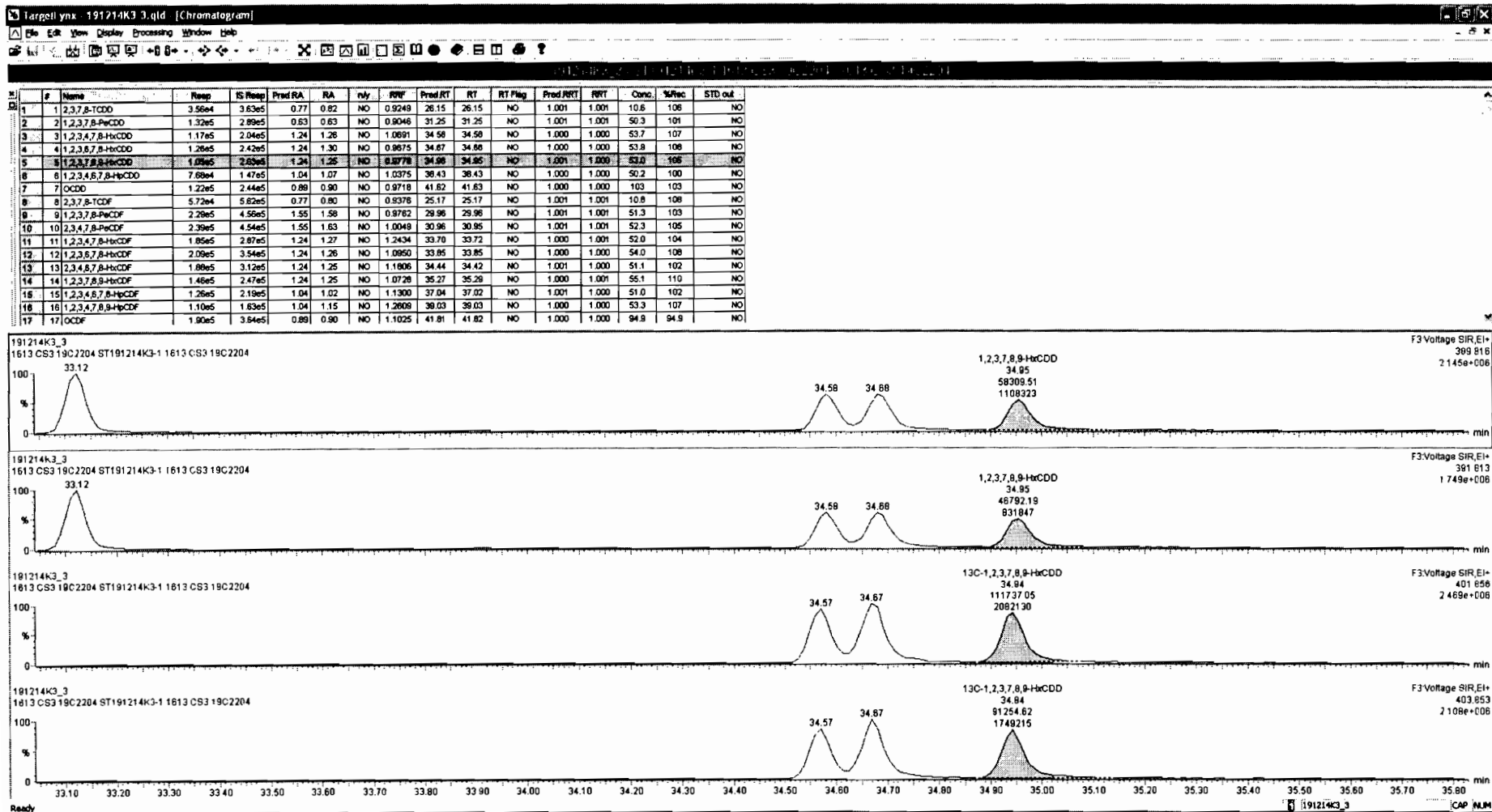
13C-1,2,3,4,7,8-HxCDD



#	Name	Resp	IS Resp	Prod RA	RA	rvy	RRF	Prod RT	RT	RT Flag	Prod RRT	RRT	Conc.	%Rec	STD out
1	2,3,7,8-TCDD	3.56e4	3.63e5	0.77	0.82	NO	0.9249	26.15	26.15	NO	1.001	1.001	10.6	106	NO
2	1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.63	0.83	NO	0.9046	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.26	NO	1.0881	34.86	34.86	NO	1.000	1.000	83.7	107	NO
4	1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.24	1.30	NO	0.9675	34.67	34.68	NO	1.000	1.000	53.9	108	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.98	34.95	NO	1.001	1.000	53.0	106	NO
6	1,2,3,4,6,7,8-HpCDD	7.68e4	1.47e5	1.04	1.07	NO	1.0375	38.43	38.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.89	0.90	NO	0.9718	41.62	41.63	NO	1.000	1.000	103	103	NO
8	2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.9376	25.17	25.17	NO	1.001	1.001	10.8	108	NO
9	1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.55	1.58	NO	0.9782	29.96	29.96	NO	1.001	1.001	51.3	103	NO
10	1,2,3,4,7,8-HxCDF	2.39e5	4.54e5	1.55	1.63	NO	1.0049	30.96	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,6,7,8-HxCDF	2.09e5	3.54e5	1.24	1.26	NO	1.0950	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	1,2,3,6,7,8-HxCDF	1.99e5	3.12e5	1.24	1.25	NO	1.1806	34.44	34.42	NO	1.001	1.000	51.1	102	NO
14	1,2,3,7,8,9-HxCDF	1.46e5	2.47e5	1.24	1.25	NO	1.0728	35.27	35.29	NO	1.000	1.001	55.1	110	NO
15	1,2,3,4,6,7,8-HpCDF	1.26e5	2.19e5	1.04	1.02	NO	1.1300	37.04	37.02	NO	1.001	1.000	51.0	102	NO
16	1,2,3,4,7,8,9-HpCDF	1.10e5	1.63e5	1.04	1.15	NO	1.2609	39.03	39.03	NO	1.000	1.000	53.3	107	NO
17	OCDF	1.90e5	3.64e5	0.89	0.90	NO	1.1025	41.81	41.82	NO	1.000	1.000	94.9	94.9	NO







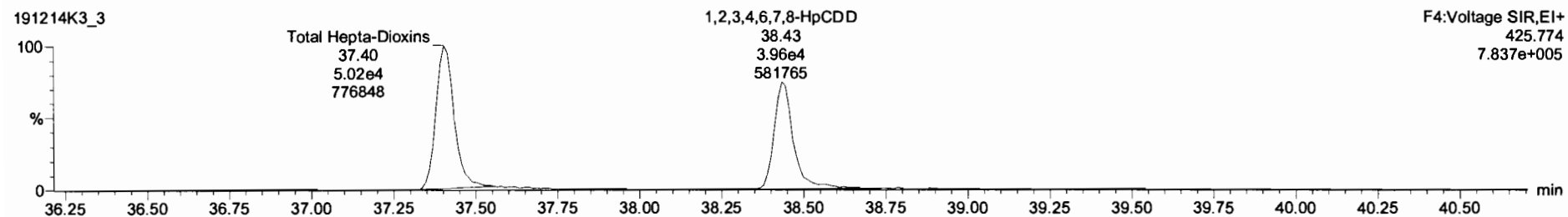
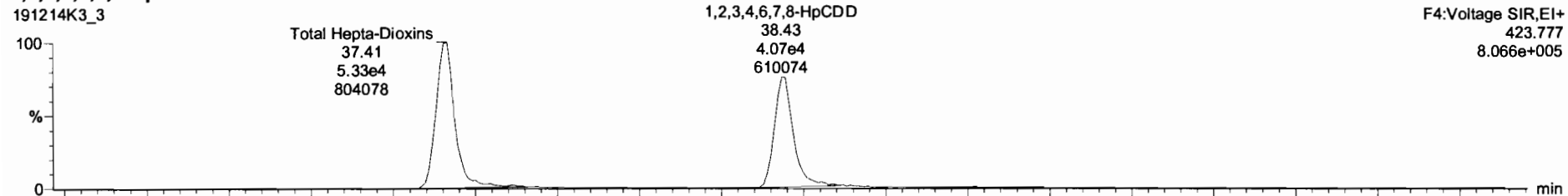


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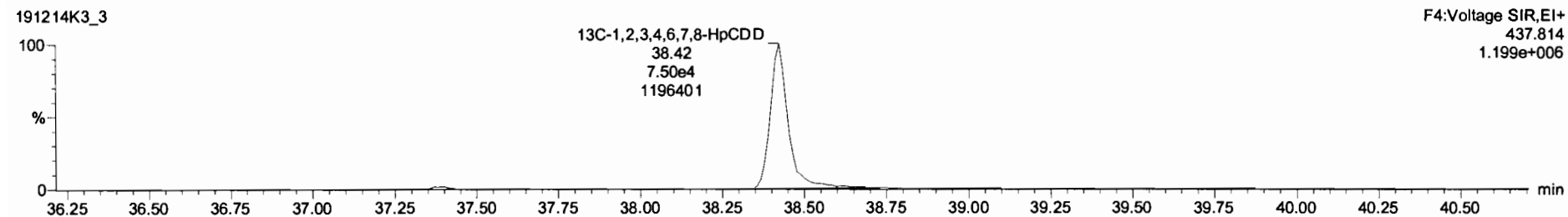
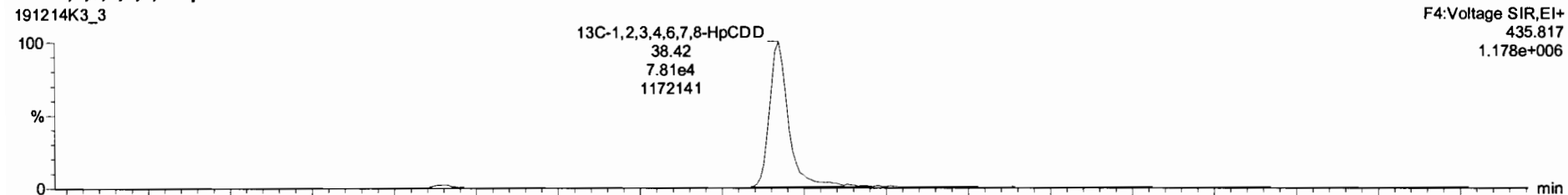
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Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

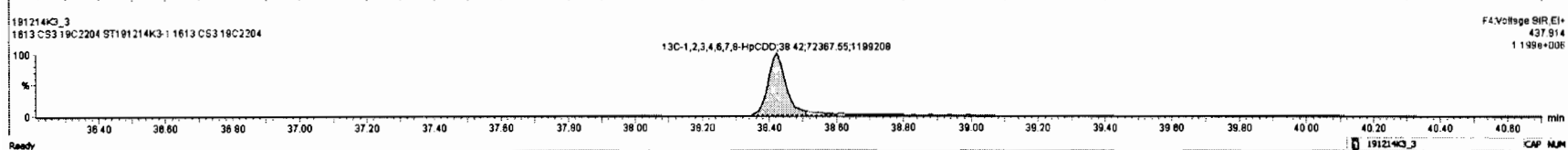
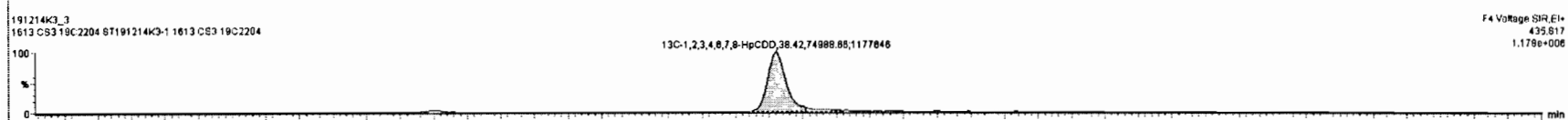
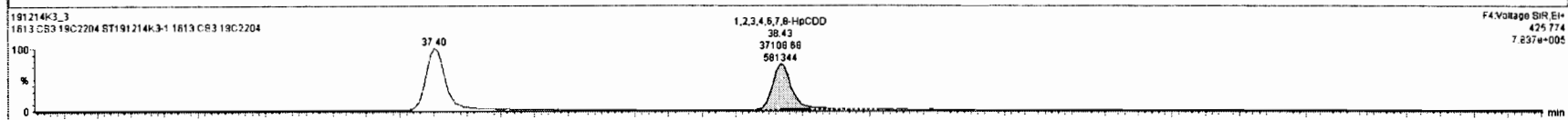
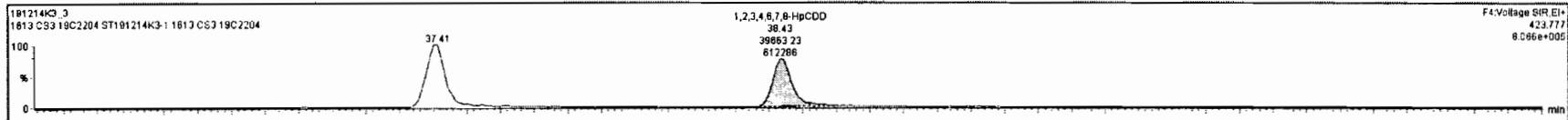
1,2,3,4,6,7,8-HpCDD



13C-1,2,3,4,6,7,8-HpCDD



#	Name	Resp	S Resp	Prod RA	RA	n/y	RF	Prod RT	RT	RT Flag	Prod PRT	PRT	Conc	%Rec	STD est
1	1,2,3,7,8-TCDD	3.56e4	3.63e5	0.77	0.62	NO	0.9249	26.15	26.15	NO	1.001	1.001	10.6	106	NO
2	1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.63	0.63	NO	0.9046	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.28	NO	1.0891	34.58	34.58	NO	1.000	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.24	1.30	NO	0.9675	34.67	34.68	NO	1.000	1.000	53.9	108	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.96	34.95	NO	1.001	1.000	53.0	105	NO
6	1,2,3,4,6,7,8-HpCDD	7.88e4	1.47e5	1.04	1.07	NO	1.0375	38.43	38.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.86	0.90	NO	0.9718	41.52	41.53	NO	1.000	1.000	103	103	NO
8	1,2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.9378	25.17	25.17	NO	1.001	1.001	10.8	108	NO
9	1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.55	1.58	NO	0.9782	29.96	29.96	NO	1.001	1.001	51.3	103	NO
10	1,2,3,4,7,8-PeCDF	2.29e5	4.54e5	1.55	1.63	NO	1.0049	30.96	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,6,7,8-HxCDF	2.08e5	3.54e5	1.24	1.26	NO	1.0950	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	1,2,3,4,6,7,8-HxCDF	1.88e5	3.12e5	1.24	1.25	NO	1.1806	34.44	34.42	NO	1.001	1.000	51.1	102	NO
14	1,2,3,7,8,9-HxCDF	1.46e5	2.47e5	1.24	1.25	NO	1.0728	35.27	35.29	NO	1.000	1.001	55.1	110	NO
15	1,2,3,4,6,7,8-HpCDF	1.26e5	2.18e5	1.04	1.02	NO	1.1900	37.08	37.02	NO	1.001	1.000	61.0	102	NO
16	1,2,3,4,7,8-HpCDF	1.10e5	1.83e5	1.04	1.15	NO	1.2808	38.03	38.03	NO	1.000	1.000	53.3	107	NO
17	OCDF	1.90e5	3.94e5	0.89	0.90	NO	1.1025	41.81	41.82	NO	1.000	1.000	94.9	94.9	NO



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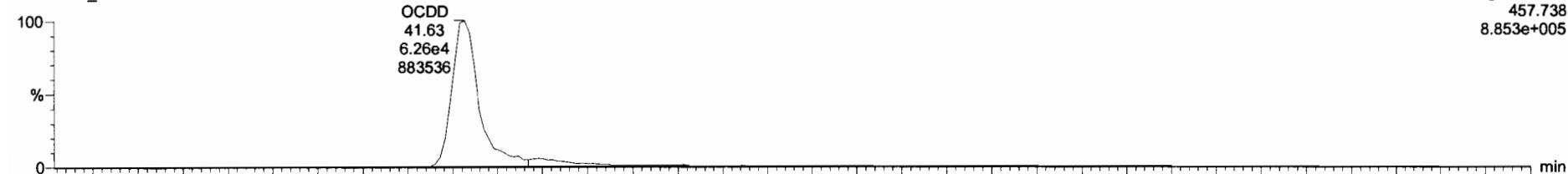
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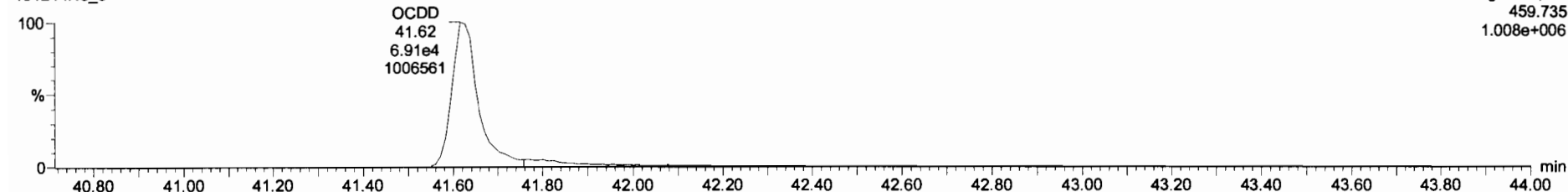
Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**OCDD**

191214K3\_3

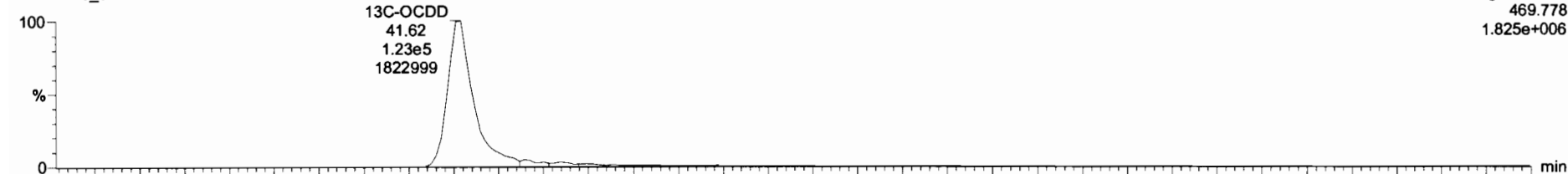


191214K3\_3

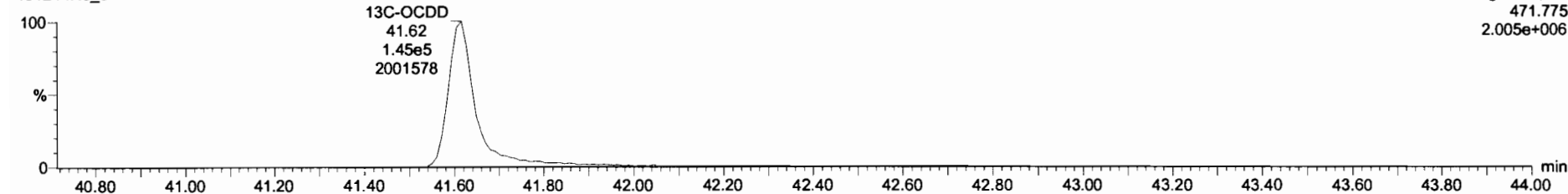


**13C-OCDD**

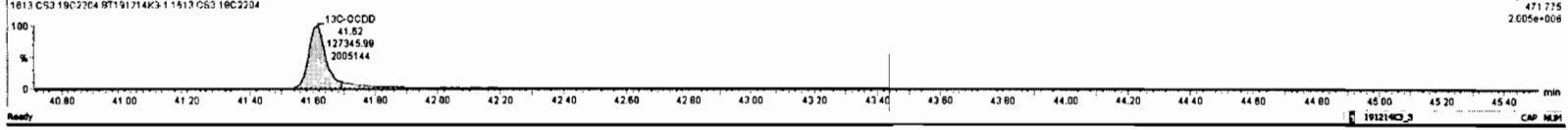
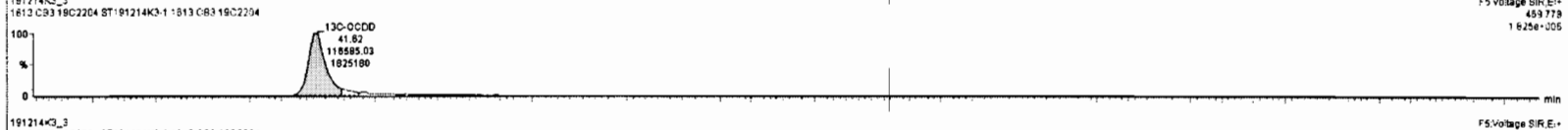
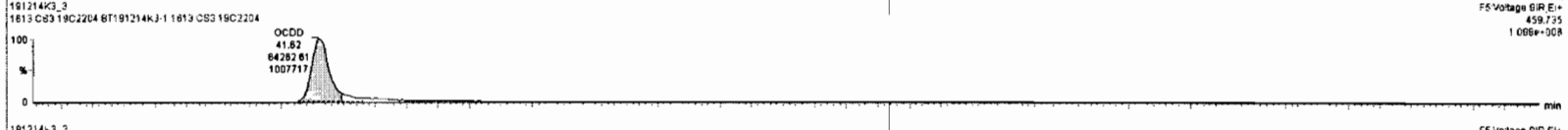
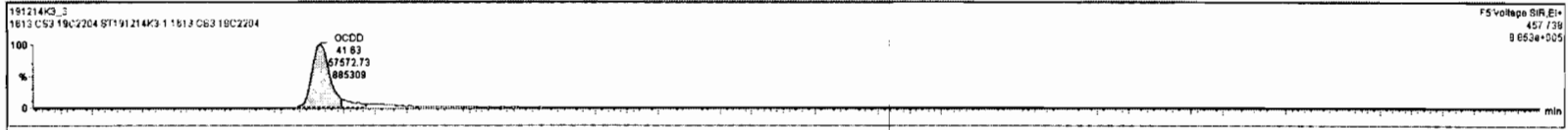
191214K3\_3



191214K3\_3



#	Name	Resp	IS Resp	Prod RA	RA	rvf	RFV	Prod RT	RT	RT Png	Prod PRT	PRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	3.95e4	3.83e5	0.77	0.82	NO	0.9249	28.15	28.15	NO	1.001	1.001	10.8	108	NO
2	1,2,3,7,8-PeCDD	1.22e5	2.89e5	0.63	0.63	NO	0.8046	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.26	NO	1.0291	34.58	34.58	NO	1.000	1.000	53.7	107	NO
4	1,2,3,7,8-HxCDD	1.28e5	2.42e5	1.24	1.30	NO	0.9675	34.67	34.88	NO	1.000	1.000	53.9	108	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.98	34.95	NO	1.001	1.000	53.0	108	NO
6	1,2,3,4,6,7,8-HpCDD	7.89e4	1.47e5	1.04	1.07	NO	1.0375	36.43	36.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.88	0.80	NO	0.8719	41.82	41.82	NO	1.000	1.000	103	103	NO
8	2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.9378	25.17	25.17	NO	1.001	1.001	10.8	108	NO
9	1,2,3,7,8-PeCDF	2.28e5	4.59e5	1.55	1.56	NO	0.9762	28.96	29.98	NO	1.001	1.001	51.3	103	NO
10	1,2,3,4,7,8-HxCDF	2.38e5	4.54e5	1.55	1.63	NO	1.0049	30.98	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,7,8-HxCDF	2.00e5	3.54e5	1.24	1.26	NO	1.0850	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	2,3,4,6,7,8-HpCDF	1.98e5	3.12e5	1.24	1.25	NO	1.1800	34.44	34.42	NO	1.001	1.000	51.1	102	NO
14	1,2,3,7,8,9-HxCDF	1.48e5	2.47e5	1.24	1.25	NO	1.0728	35.27	35.28	NO	1.000	1.001	55.1	110	NO
15	1,2,3,4,6,7,8-HpCDF	1.28e5	2.18e5	1.04	1.02	NO	1.1300	37.04	37.02	NO	1.001	1.000	51.0	102	NO
16	1,2,3,4,7,8,9-HpCDF	1.10e5	1.83e5	1.04	1.15	NO	1.2809	38.03	38.03	NO	1.000	1.000	53.3	107	NO
17	OCDF	1.90e5	3.84e5	0.89	0.90	NO	1.1025	41.81	41.82	NO	1.000	1.000	94.9	94.9	NO

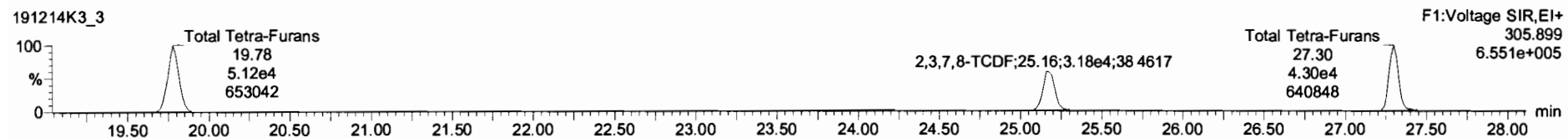
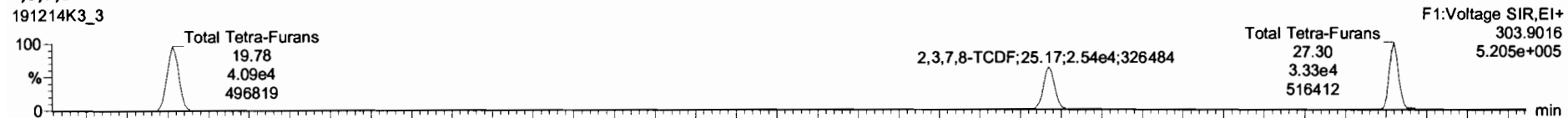


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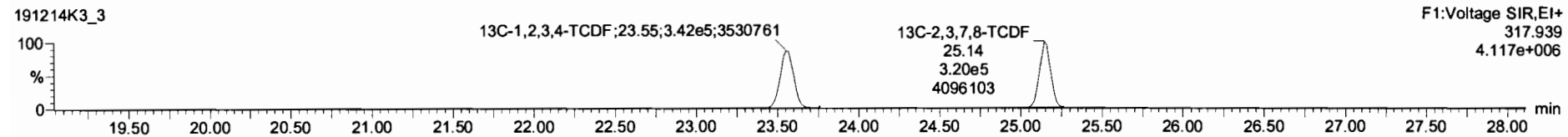
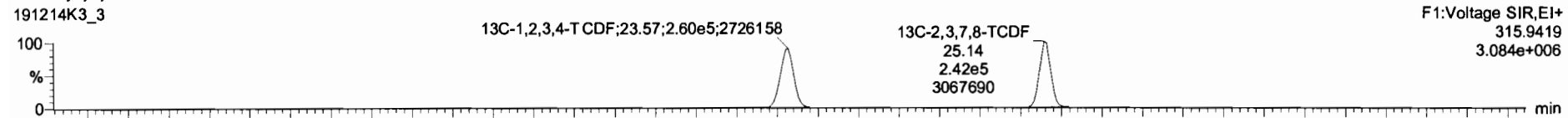
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

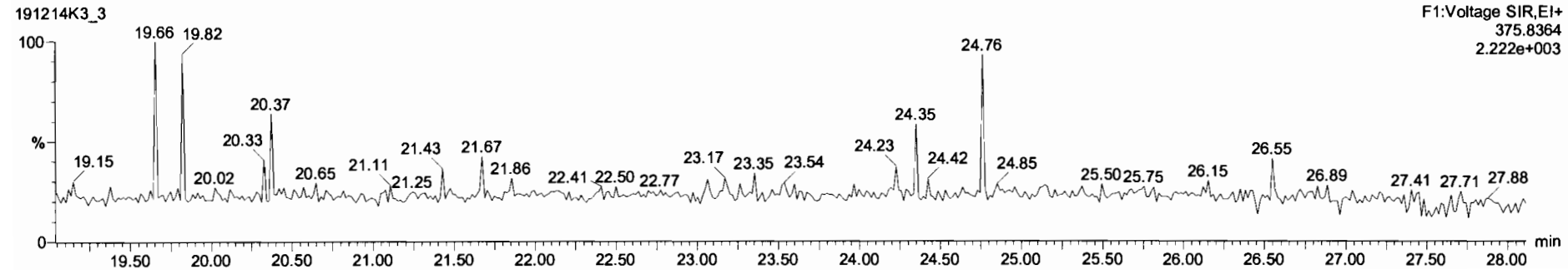
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



Dataset: Untitled

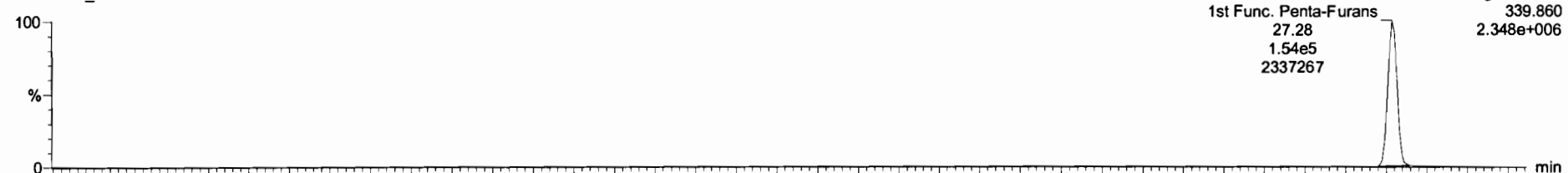
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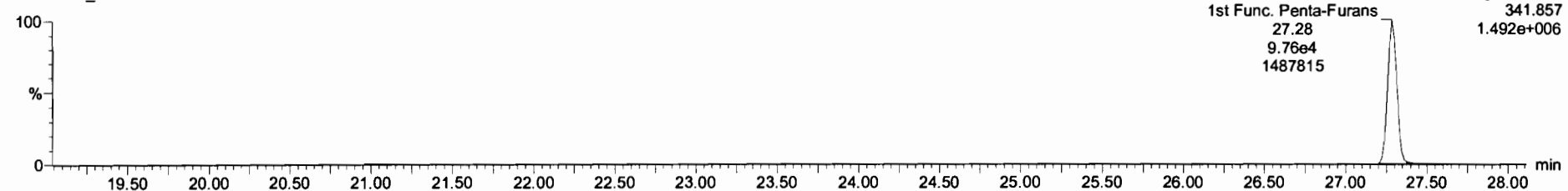
Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

1st Func. Penta-Furans

191214K3\_3

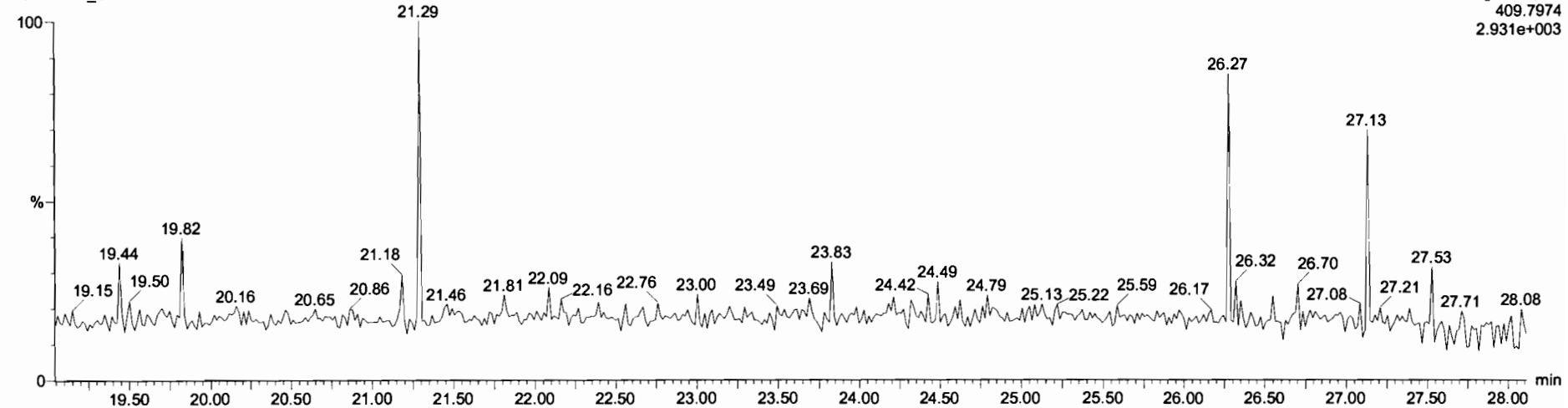


191214K3\_3



DPE6

191214K3\_3



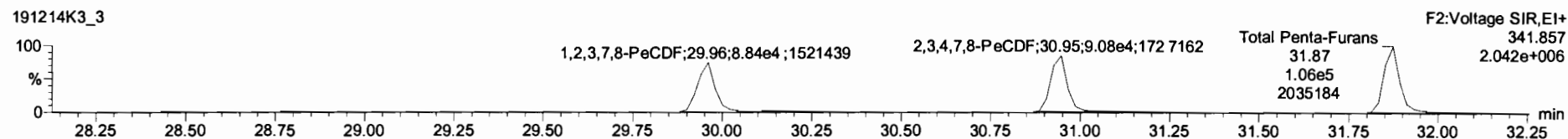
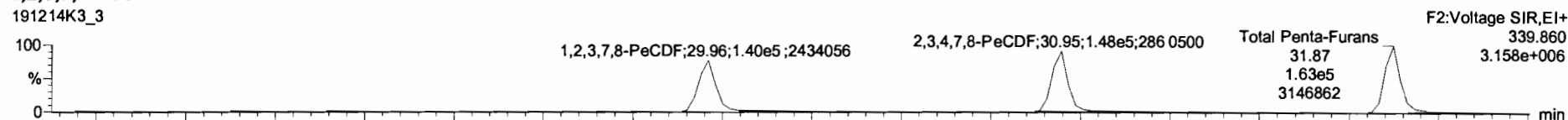
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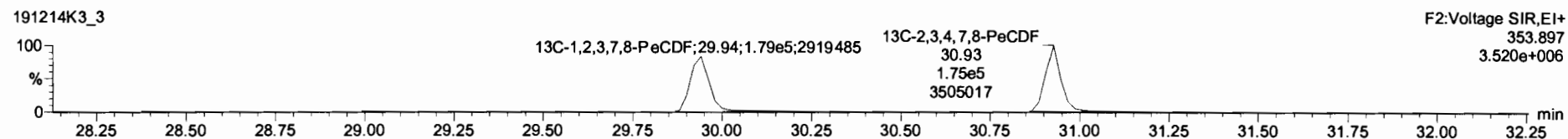
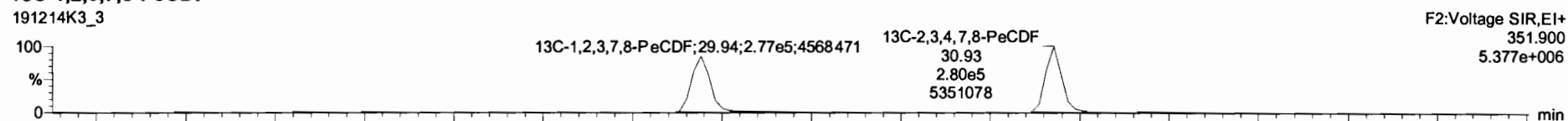
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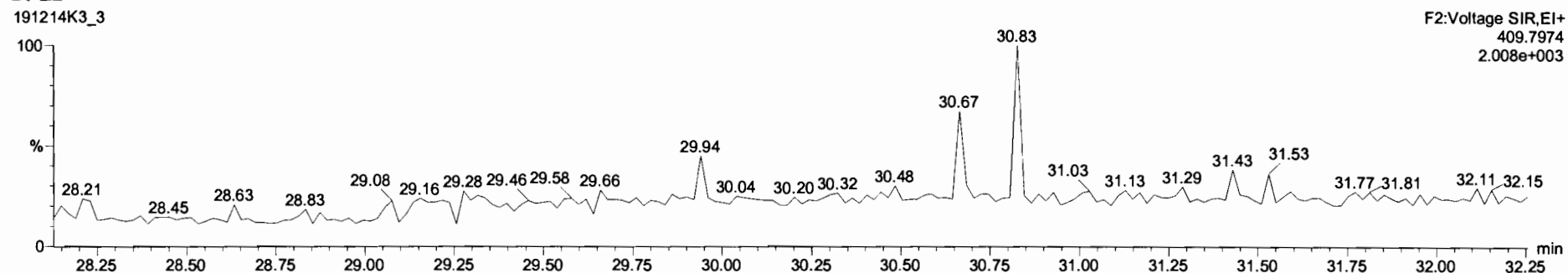
### 1,2,3,7,8-PeCDF



### 13C-1,2,3,7,8-PeCDF



### DPE2



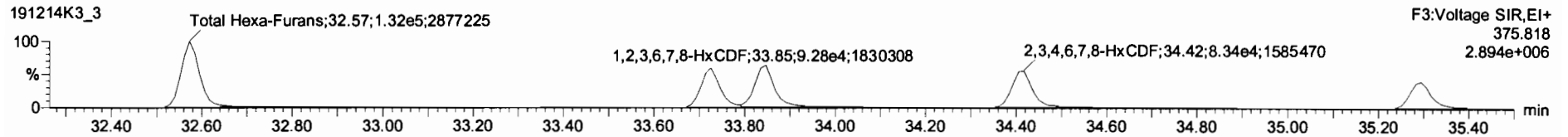
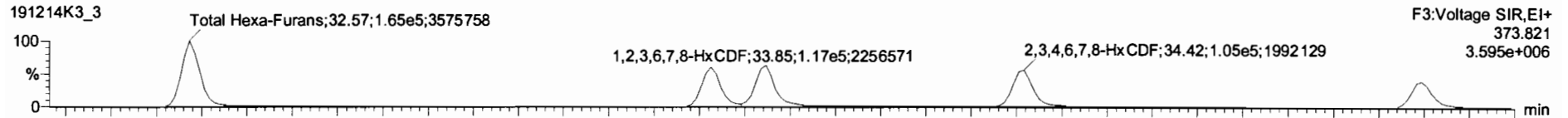
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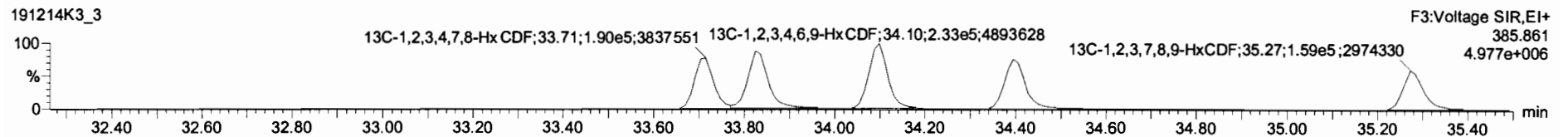
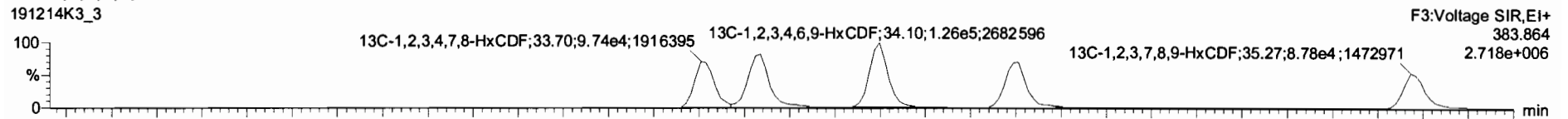
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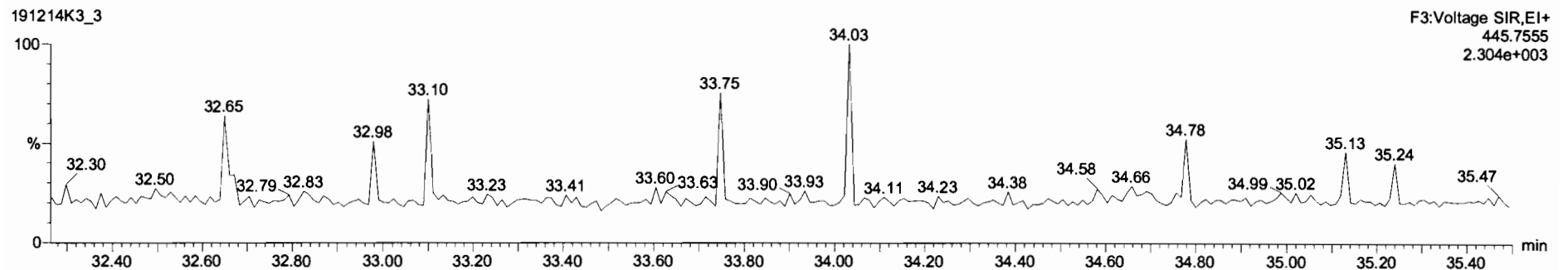
**1,2,3,4,7,8-HxCDF**



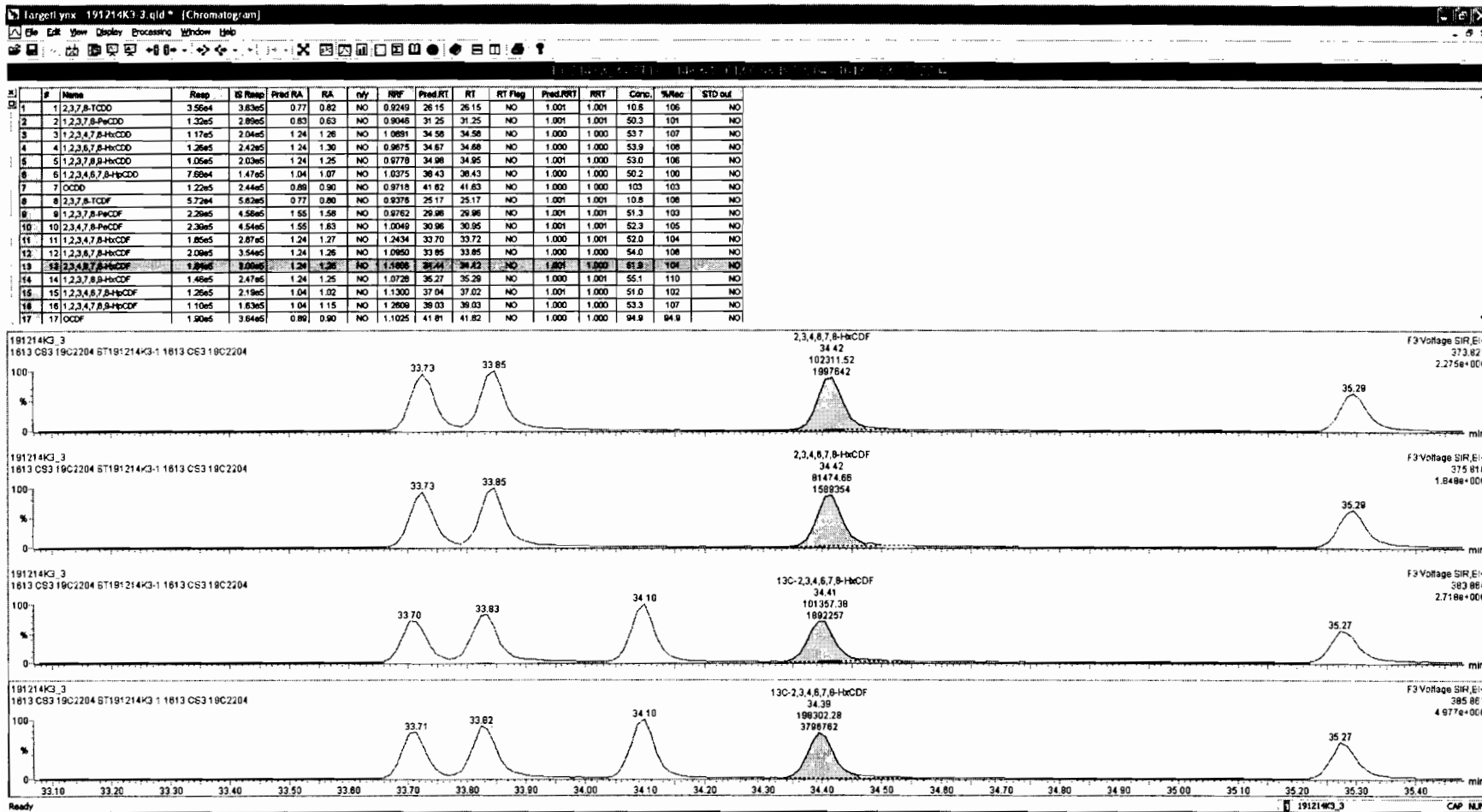
**13C-1,2,3,4,7,8-HxCDF**



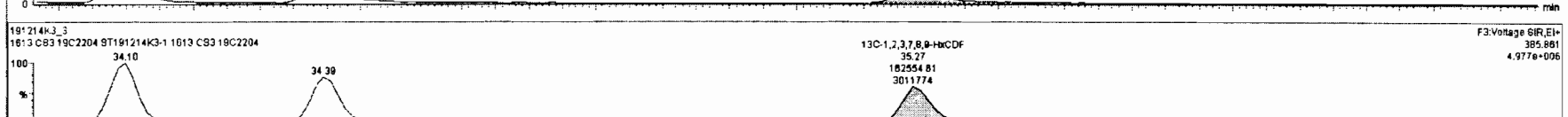
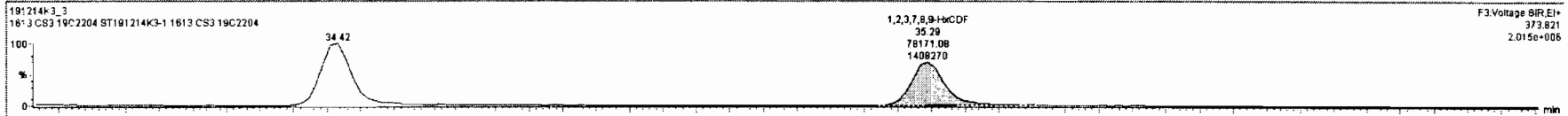
**DPE3**







#	Name	Resp	IS Resp	Prod RA	RA	nly	RP	Prod RT	RT	RT Flag	Prod RRT	RRT	Conc.	%Inc	STD out
1	1,2,3,7,8-TCDD	3.58e4	3.63e5	0.77	0.82	NO	0.8248	26.15	26.15	NO	1.001	1.001	10.8	106	NO
2	1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.83	0.83	NO	0.8048	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.26	NO	1.0881	34.58	34.58	NO	1.000	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.24	1.30	NO	0.9875	34.67	34.68	NO	1.000	1.000	53.9	106	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.98	34.95	NO	1.001	1.000	53.0	106	NO
6	1,2,3,4,6,7,8-HbCDD	7.66e4	1.47e5	1.04	1.07	NO	1.0375	36.43	36.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.89	0.80	NO	0.9718	41.62	41.83	NO	1.000	1.000	103	103	NO
8	2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.8376	25.17	25.17	NO	1.001	1.001	10.8	106	NO
9	1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.55	1.58	NO	0.9782	29.96	29.96	NO	1.001	1.001	51.3	103	NO
10	1,2,3,4,7,8-HxCDF	2.39e5	4.54e5	1.55	1.63	NO	1.0048	30.96	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8,9-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,6,7,8,9-HxCDF	2.09e5	3.54e5	1.24	1.26	NO	1.0850	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	1,2,3,4,6,7,8,9-HbCDF	1.84e5	3.00e5	1.24	1.26	NO	1.1806	34.44	34.42	NO	1.001	1.000	51.8	104	NO
14	1,2,3,7,8,9-HxCDF	1.42e5	2.45e5	1.24	1.23	NO	1.0729	35.27	35.29	NO	1.000	1.001	53.8	108	NO
15	1,2,3,4,6,7,8,9-HbCDF	1.26e5	2.19e5	1.04	1.02	NO	1.1300	37.04	37.02	NO	1.001	1.000	51.0	102	NO
16	1,2,3,4,7,8,9-HxCDF	1.10e5	1.83e5	1.04	1.15	NO	1.2609	38.03	38.03	NO	1.000	1.000	53.3	107	NO
17	OCDF	1.90e5	3.84e5	0.89	0.90	NO	1.1025	41.81	41.82	NO	1.000	1.000	94.9	94.9	NO

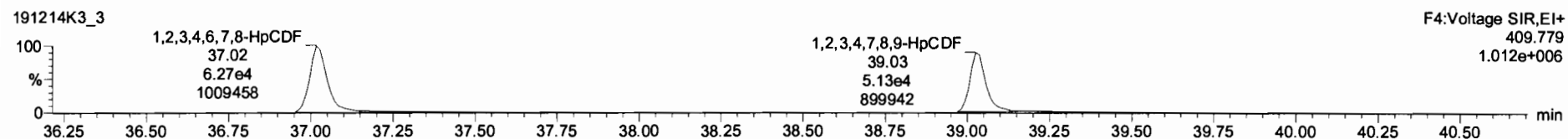
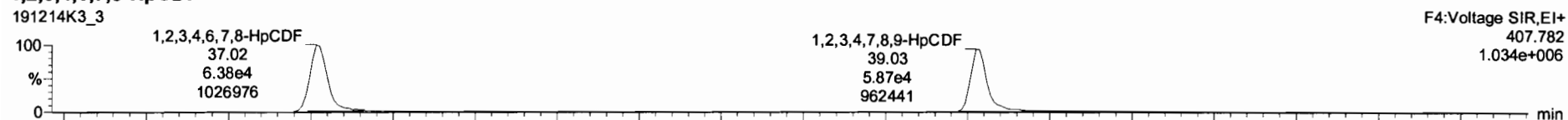


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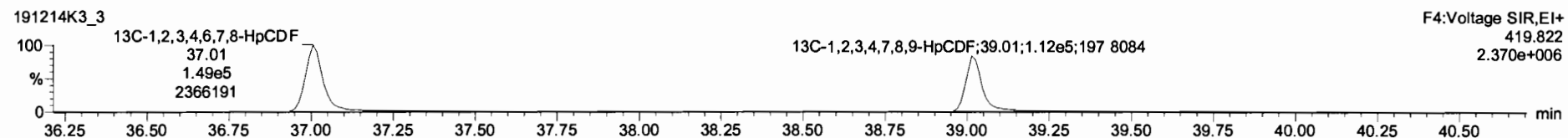
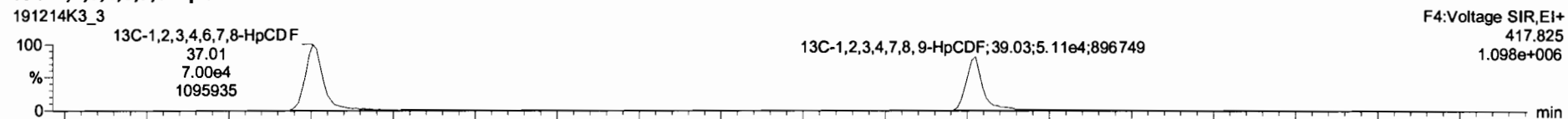
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204

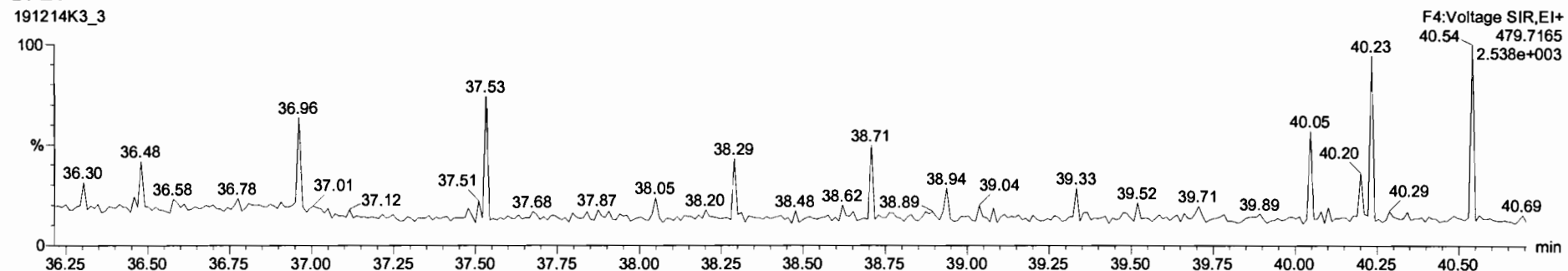
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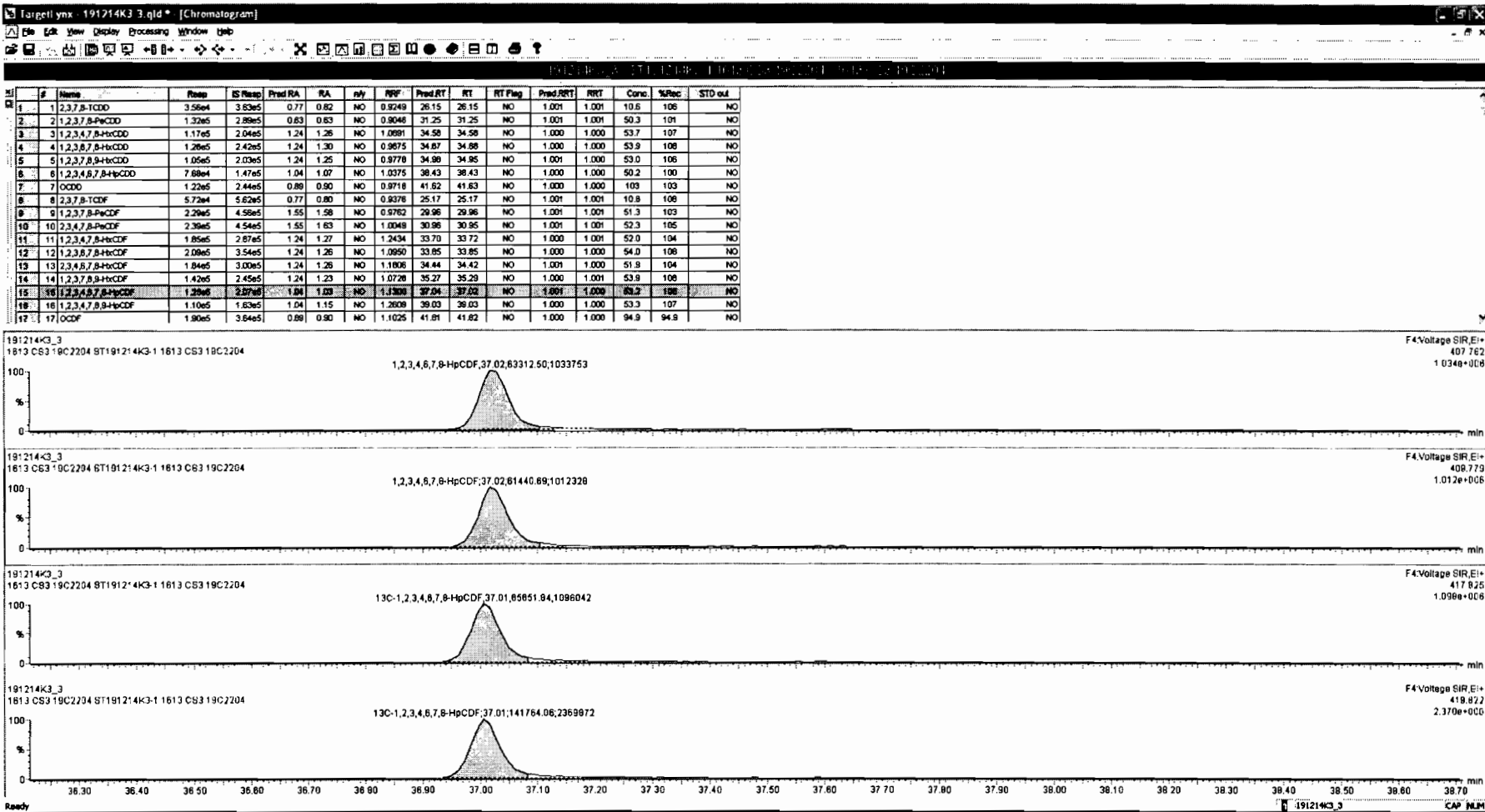


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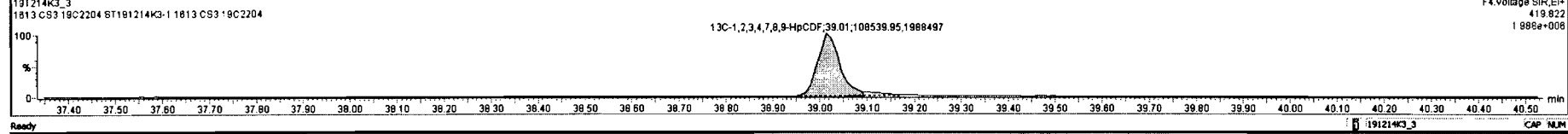
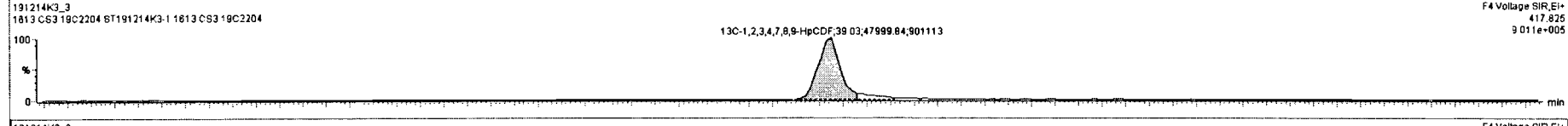
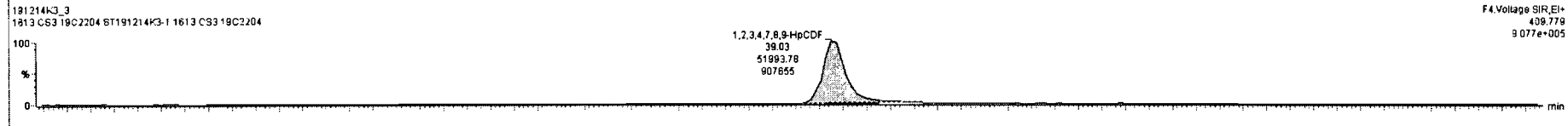
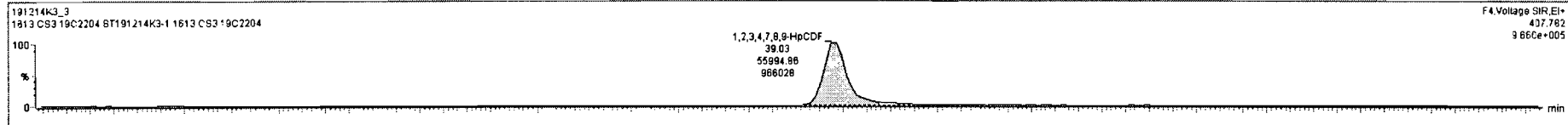


**DPE4**

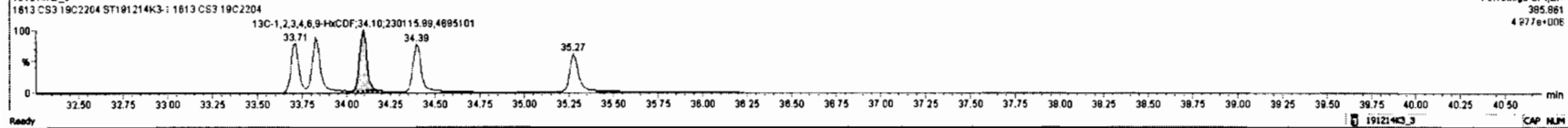
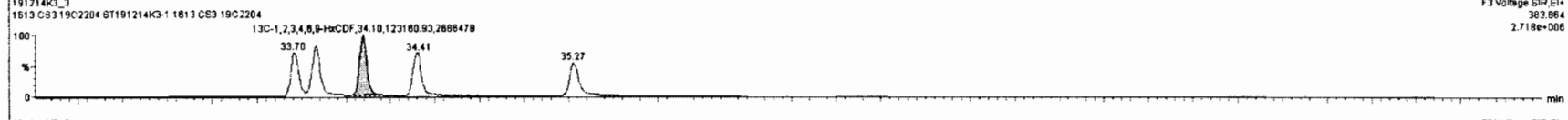
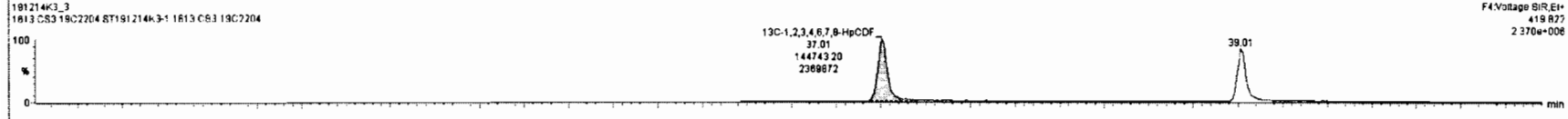
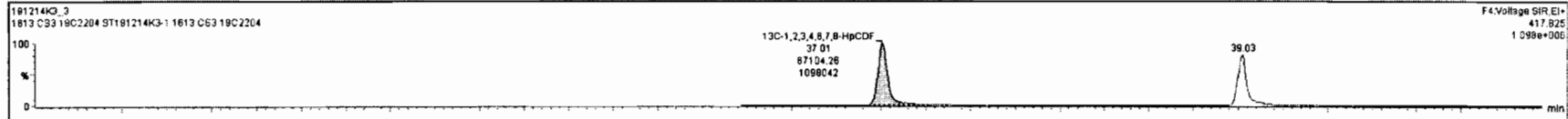




#	Name	Resp	IS Resp	Pred RA	RA	nH	RWF	Pred RT	RT	RT Flag	Pred RRT	RRT	Comp	%Rec	STD out
1	1,2,3,7,8-TCDD	3.56e4	3.63e5	0.77	0.82	NO	0.9249	26.15	26.15	NO	1.001	1.001	10.6	106	NO
2	1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.83	0.63	NO	0.9046	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.26	NO	1.0891	34.58	34.58	NO	1.000	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.24	1.30	NO	0.9675	34.67	34.68	NO	1.000	1.000	53.9	108	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.98	34.95	NO	1.001	1.000	53.0	106	NO
6	1,2,3,4,6,7,8-HpCDD	7.68e4	1.47e5	1.04	1.07	NO	1.0375	38.43	38.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.89	0.90	NO	0.9718	41.62	41.63	NO	1.000	1.000	103	103	NO
8	2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.9376	25.17	25.17	NO	1.001	1.001	10.8	108	NO
9	1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.55	1.58	NO	0.9762	29.96	29.96	NO	1.001	1.001	51.3	103	NO
10	2,3,4,7,8-PeCDF	2.39e5	4.54e5	1.55	1.63	NO	1.0049	30.96	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,6,7,8-HxCDF	2.09e5	3.54e5	1.24	1.28	NO	1.0850	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	2,3,4,6,7,8-HxCDF	1.84e5	3.00e5	1.24	1.26	NO	1.1806	34.44	34.42	NO	1.001	1.000	51.8	104	NO
14	1,2,3,7,8,9-HxCDF	1.42e5	2.45e5	1.24	1.23	NO	1.0728	35.27	35.29	NO	1.000	1.001	53.8	108	NO
15	1,2,3,4,6,7,8-HpCDF	1.25e5	2.07e5	1.04	1.03	NO	1.1300	37.04	37.02	NO	1.001	1.000	53.2	108	NO
16	1,2,3,4,7,8,9-HpCDF	1.08e5	1.97e5	1.04	1.08	NO	1.2008	38.03	38.03	NO	1.000	1.000	54.7	108	NO
17	OCDF	1.90e5	3.64e5	0.89	0.90	NO	1.1025	41.81	41.82	NO	1.000	1.000	94.8	94.8	NO



#	Name	Resp	IS Resp	Pred RA	RA	ntly	RPF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
28	13C-1,2,3,4,7,8-HxCDF	2.87e5	3.53e5	0.51	0.51	NO	0.8452	33.71	33.70	NO	0.989	0.988	96.1	96.1	NO
29	13C-1,2,3,6,7,8-HxCDF	3.54e5	3.53e5	0.51	0.53	NO	1.0287	33.83	33.83	NO	0.992	0.992	97.5	97.5	NO
30	13C-2,3,4,6,7,8-HxCDF	3.00e5	3.53e5	0.51	0.51	NO	0.8929	34.40	34.41	NO	1.009	1.009	95.0	95.0	NO
31	13C-1,2,3,7,8-HpCDF	2.45e5	3.53e5	0.51	0.51	NO	0.7343	35.30	35.27	NO	1.035	1.034	94.4	94.4	NO
32	13C-1,2,3,4,6,7,8-HpCDF	3.12e5	3.53e5	0.44	0.48	NO	0.7562	37.01	37.01	NO	1.285	1.285	78.5	78.5	NO
33	13C-1,2,3,4,7,8,9-HpCDF	1.57e5	3.53e5	0.44	0.44	NO	0.5300	39.03	39.03	NO	1.145	1.144	82.2	82.2	NO
34	13C-OCDF	3.36e5	3.53e5	0.89	0.89	NO	0.5625	41.82	41.81	NO	1.226	1.226	180	80.2	NO
35	37Cl-2,3,7,8-TCDF	3.63e4	3.46e5				1.0685	26.15	26.14	NO	1.028	1.028	9.80	98.0	NO
36	13C-1,2,3,4-TCDF	3.46e5	3.46e5	0.77	0.80	NO	1.0000	25.50	25.43	NO	1.000	1.000	100	100	NO
37	13C-1,2,3,4-TCDF	8.03e5	8.03e5	0.77	0.78	NO	1.0000	23.98	23.57	NO	1.000	1.000	100	100	NO
38	13C-1,2,3,4,6,8-HxCDF	3.53e5	3.53e5	0.51	0.54	NO	1.0000	34.06	34.10	NO	1.000	1.000	100	100	NO
39	Total Tetra-Dioxins		3.83e5				0.8249	24.82		NO	0.000		78.2		NO
40	Total Penta-Dioxins		2.89e5				0.9046	29.06		NO	0.000		180		NO
41	Total Hexa-Dioxins		0.00e0				0.9675	33.83		NO	0.000		247		NO
42	Total Hepta-Dioxins		1.47e5				1.0375	36.80		NO	0.000		118		NO
43	Total Tetra-Furans		5.83e5				0.8378	23.81		NO	0.000		43.1		NO
44	1st Func. Penta-Furans		0.00e0				0.9782	27.04		NO	0.000		56.5		NO

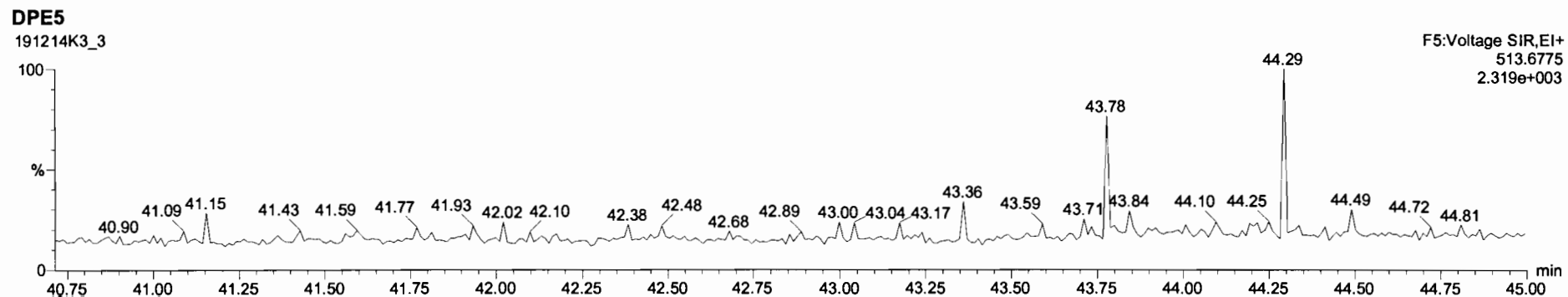
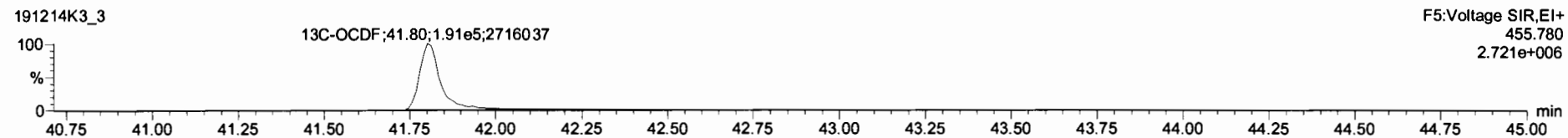
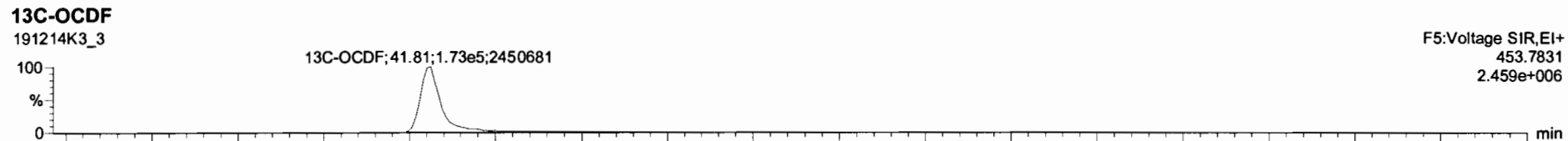
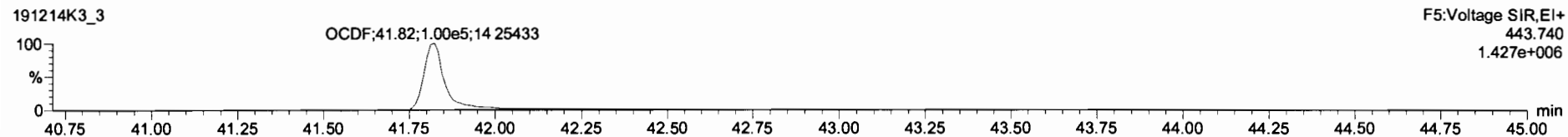
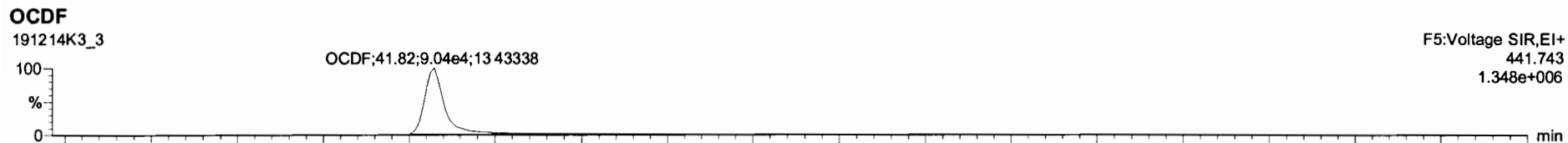


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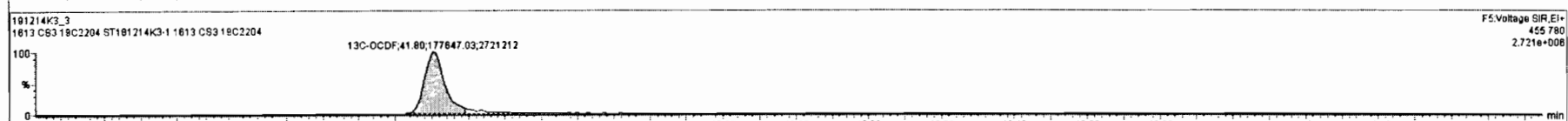
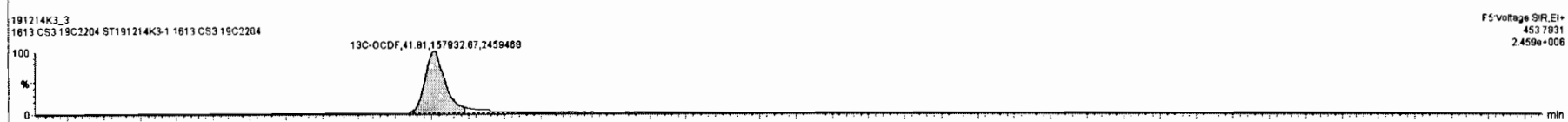
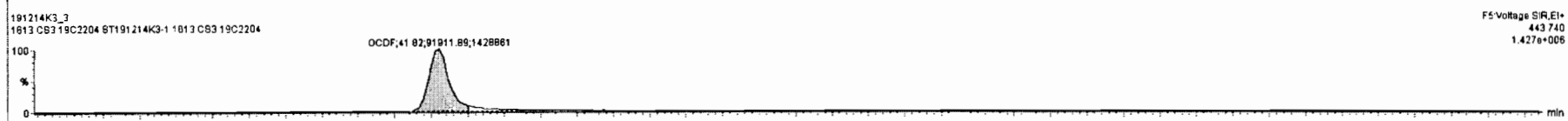
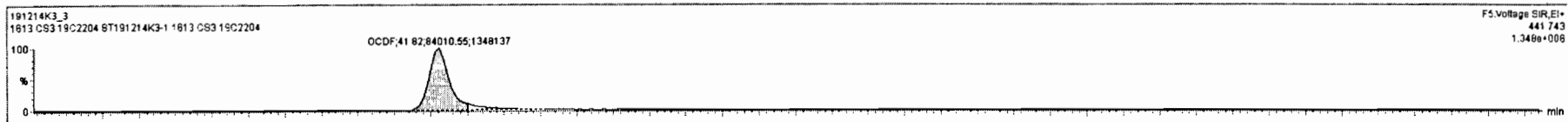
Last Altered: Monday, December 16, 2019 09:38:26 Pacific Standard Time

Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

Name: 191214K3\_3, Date: 15-Dec-2019, Time: 08:08:19, ID: ST191214K3-1 1613 CS3 19C2204, Description: 1613 CS3 19C2204



#	Name	Resp	IS Resp	Pred RA	RA	Inj	SPF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rep	STD out
1	1,2,3,7,8-TCDD	3.56e4	3.63e5	0.77	0.82	NO	0.8249	26.15	26.15	NO	1.001	1.001	10.6	106	NO
2	1,2,3,7,8-PeCDD	1.32e5	2.89e5	0.63	0.63	NO	0.9046	31.25	31.25	NO	1.001	1.001	50.3	101	NO
3	1,2,3,4,7,8-HxCDD	1.17e5	2.04e5	1.24	1.26	NO	1.0691	34.58	34.58	NO	1.000	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	1.26e5	2.42e5	1.24	1.30	NO	0.9675	34.67	34.68	NO	1.000	1.000	53.9	108	NO
5	1,2,3,7,8,9-HxCDD	1.05e5	2.03e5	1.24	1.25	NO	0.9778	34.96	34.95	NO	1.001	1.000	53.0	106	NO
6	1,2,3,4,6,7,8-HpCDD	7.68e4	1.47e5	1.04	1.07	NO	1.0375	36.43	36.43	NO	1.000	1.000	50.2	100	NO
7	OCDD	1.22e5	2.44e5	0.89	0.90	NO	0.9718	41.62	41.63	NO	1.000	1.000	103	103	NO
8	1,2,3,7,8-TCDF	5.72e4	5.62e5	0.77	0.80	NO	0.9376	25.17	25.17	NO	1.001	1.001	10.8	108	NO
9	1,2,3,7,8-PeCDF	2.29e5	4.56e5	1.55	1.58	NO	0.9782	29.96	29.96	NO	1.001	1.001	51.3	103	NO
10	1,2,3,4,7,8-PeCDF	2.39e5	4.54e5	1.55	1.63	NO	1.0049	30.96	30.95	NO	1.001	1.001	52.3	105	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	2.87e5	1.24	1.27	NO	1.2434	33.70	33.72	NO	1.000	1.001	52.0	104	NO
12	1,2,3,6,7,8-HxCDF	2.09e5	3.54e5	1.24	1.26	NO	1.0950	33.85	33.85	NO	1.000	1.000	54.0	108	NO
13	1,2,3,4,6,7,8-HxCDF	1.84e5	3.00e5	1.24	1.26	NO	1.1806	34.44	34.42	NO	1.001	1.000	51.9	104	NO
14	1,2,3,7,8,9-HxCDF	1.43e5	2.45e5	1.24	1.23	NO	1.0726	35.27	35.29	NO	1.000	1.001	53.9	108	NO
15	1,2,3,4,6,7,8-HpCDF	1.25e5	2.07e5	1.04	1.03	NO	1.1300	37.04	37.02	NO	1.001	1.000	53.2	106	NO
16	1,2,3,4,7,8,9-HpCDF	1.08e5	1.57e5	1.04	1.06	NO	1.2609	39.03	39.03	NO	1.000	1.000	54.7	108	NO
17	1,2,3,4,6,7,8,9-CaCDF	1.70e5	3.36e5	0.89	0.91	NO	1.1028	41.81	41.82	NO	1.000	1.000	95.1	95.1	NO

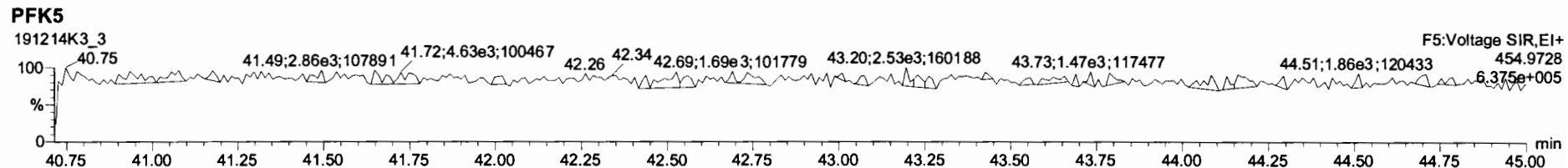
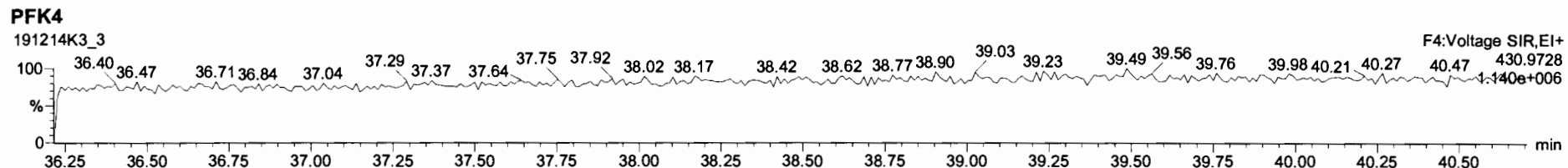
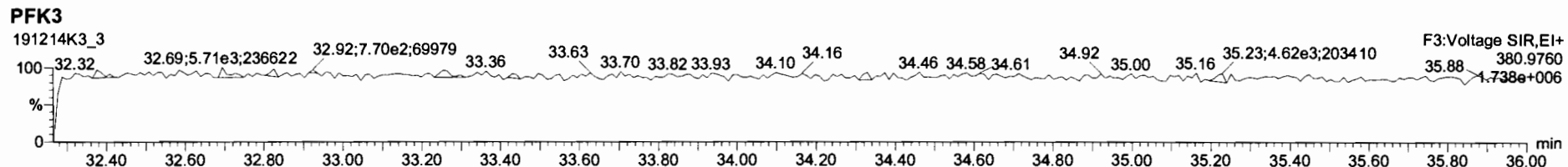
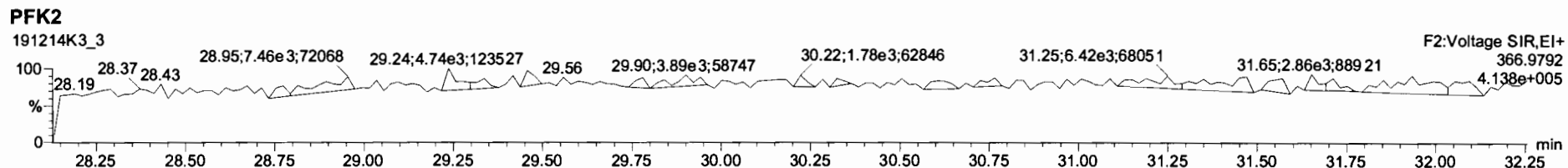
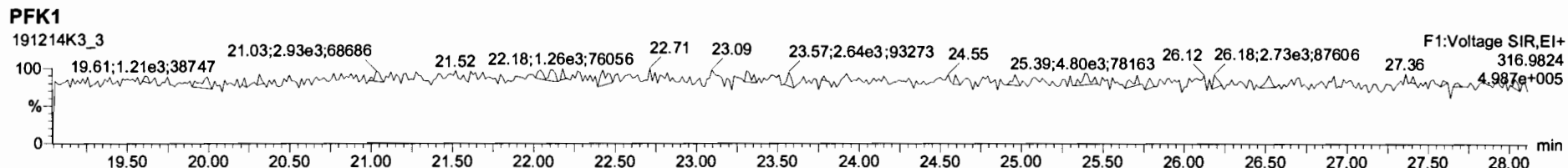




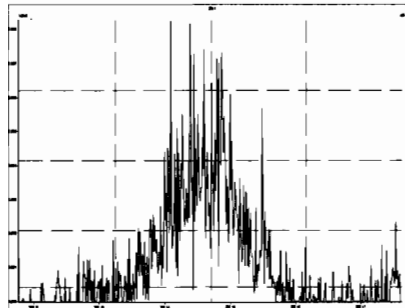
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Printed: Monday, December 16, 2019 09:39:01 Pacific Standard Time

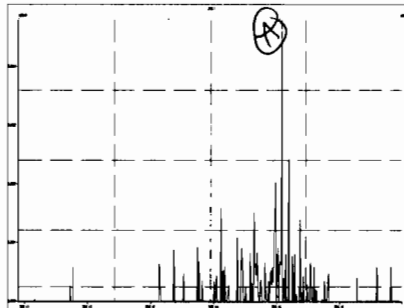
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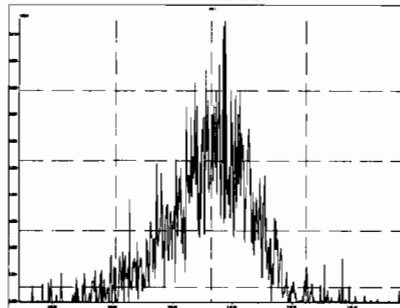
M 292.9824 R 16789



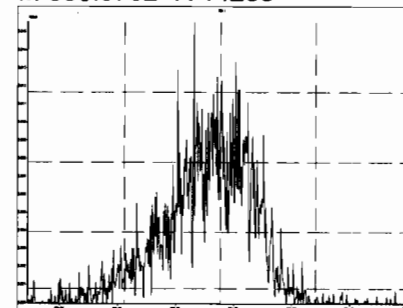
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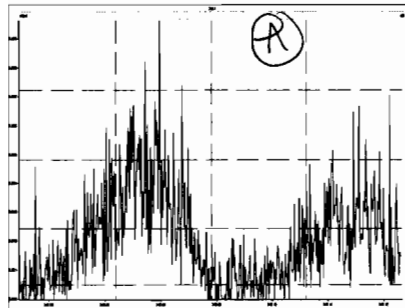
M 318.9792 R 13660



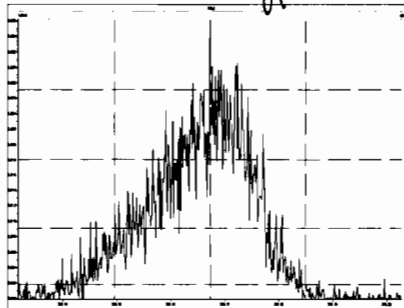
M 330.9792 R 14288



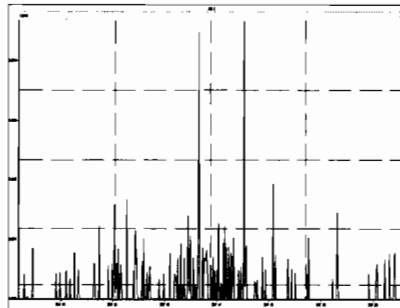
M 342.9792 R 215163



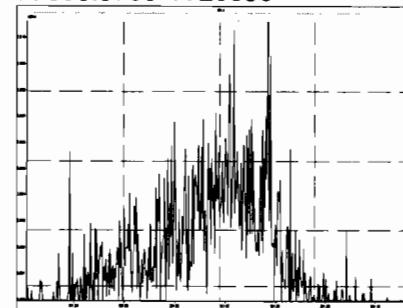
M 354.9792 R 9126



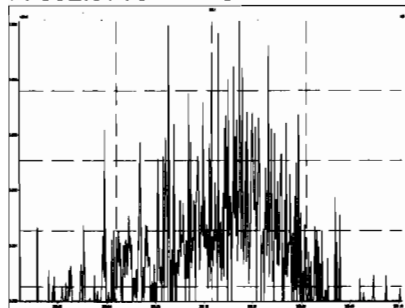
M 366.9792 R 218893



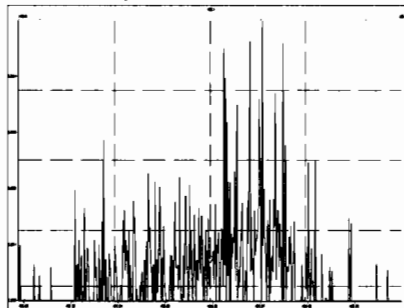
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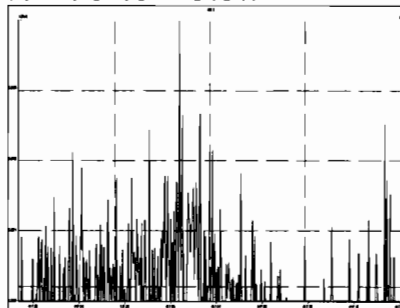
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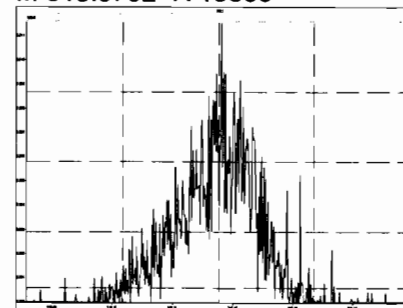
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M 416.9760 R 54347

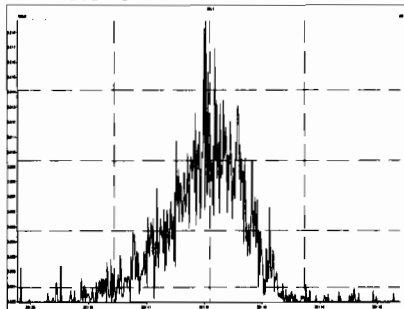


M 318.9792 R 18366

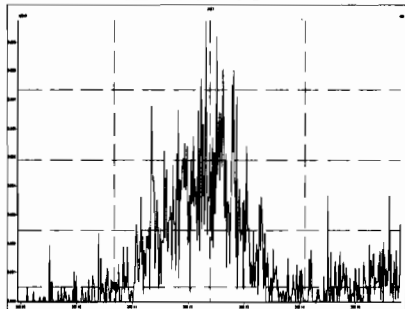


Printed: Sunday, December 15, 2019 20:21:21 Pacific Standard Time

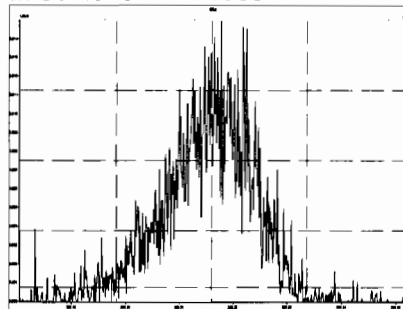
M 330.9792 R 14212



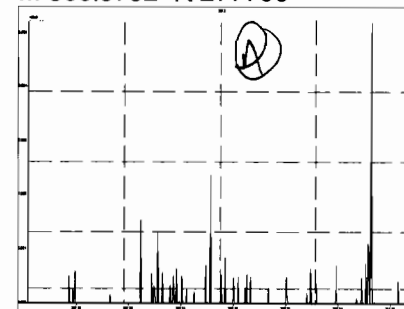
M 342.9792 R 15178



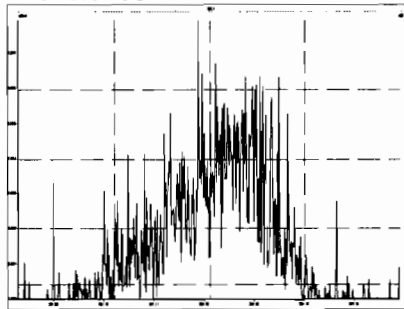
M 354.9792 R 11908



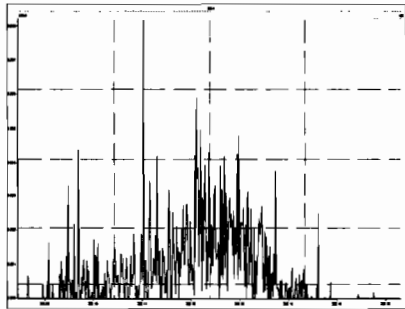
M 366.9792 R 277790



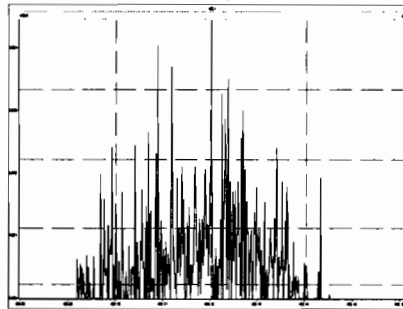
M 380.9760 R 15259



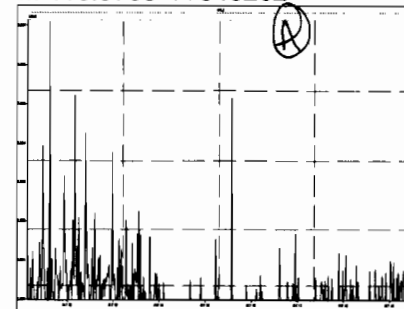
M 392.9760 R 68132



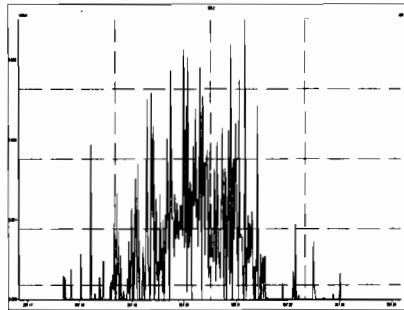
M 404.9760 R 156738



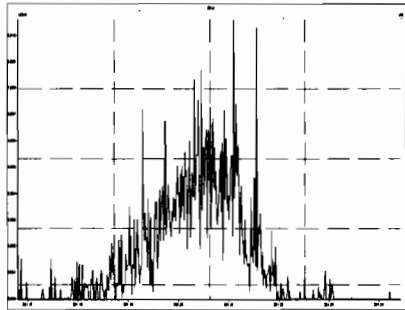
M 416.9760 R 346262



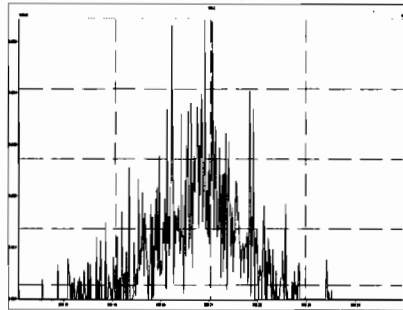
M 366.9792 R 169682



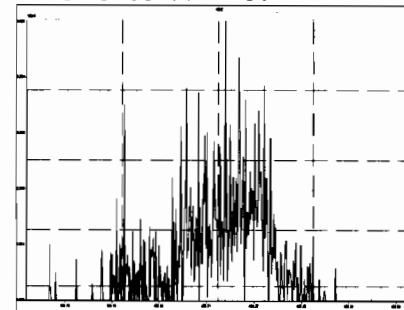
M 380.9760 R 17782



M 392.9760 R 30951

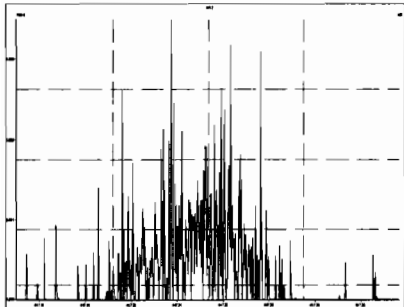


M 404.9760 R 41285

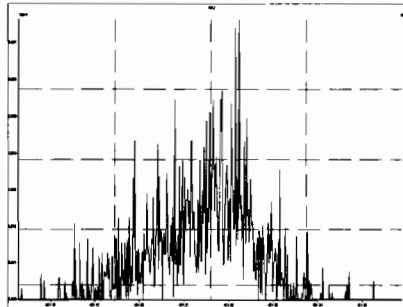


Printed: Sunday, December 15, 2019 20:21:21 Pacific Standard Time

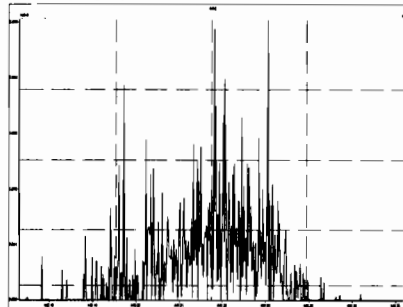
M 416.9760 R 261903



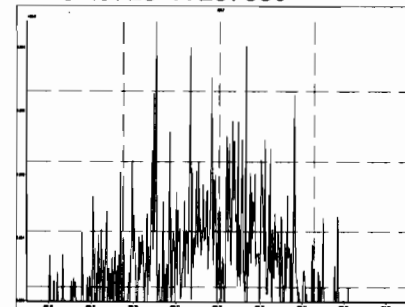
M 430.9728 R 18630



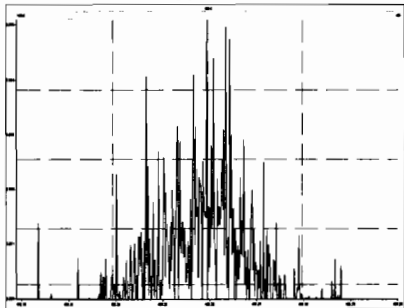
M 442.9728 R 100694



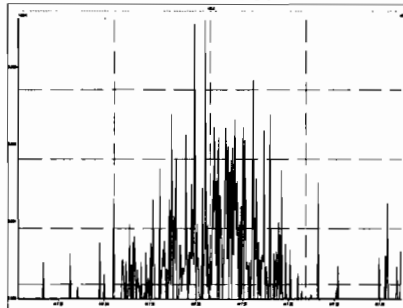
M 454.9728 R 287880



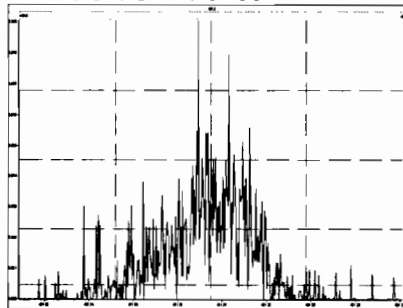
M 404.9760 R 21373



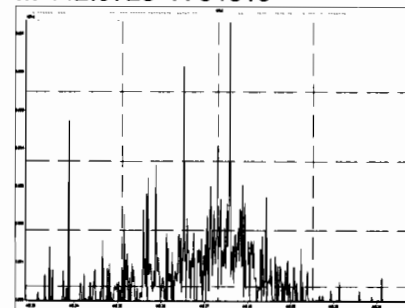
M 416.9760 R 416667



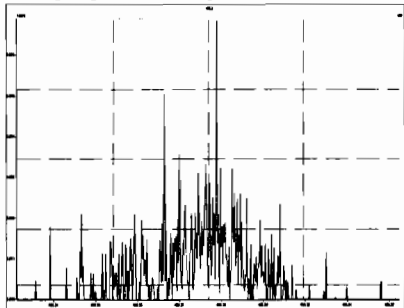
M 430.9728 R 20460



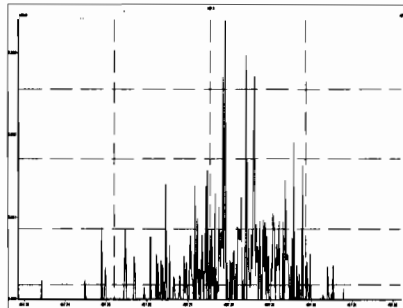
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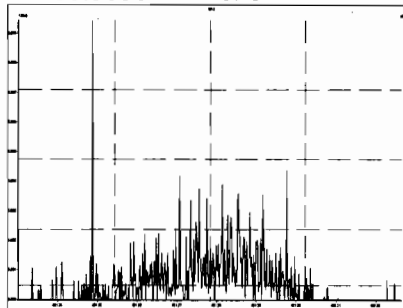
M 454.9728 R 40708



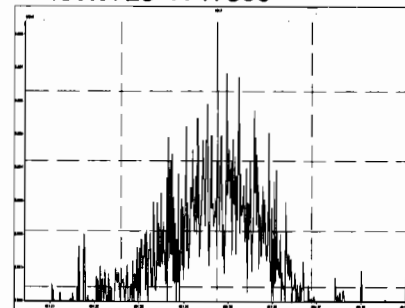
M 466.9728 R 357145



M 480.9696 R 110293

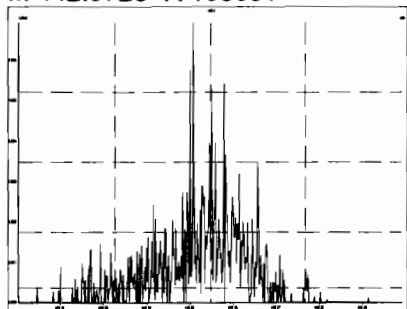


M 430.9728 R 17856

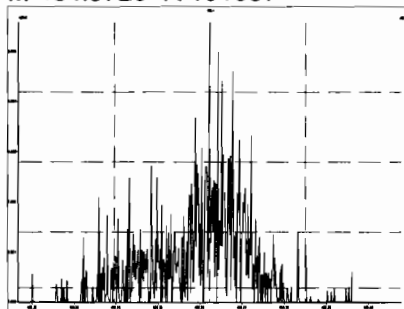


Printed: Sunday, December 15, 2019 20:21:21 Pacific Standard Time

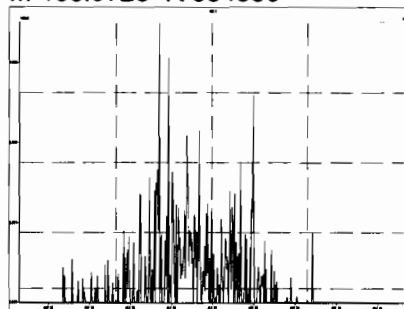
M 442.9728 R 108331



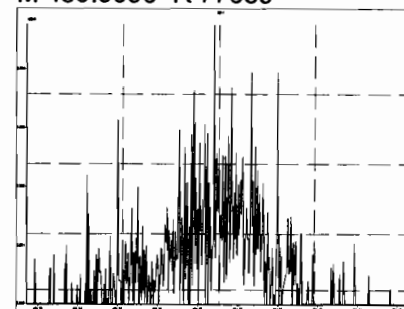
M 454.9728 R 101937



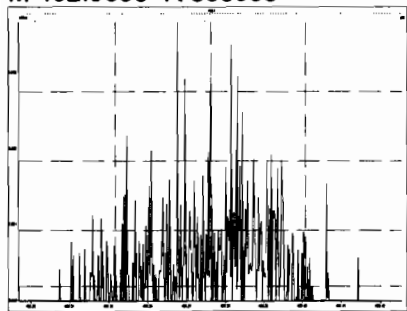
M 466.9728 R 684530



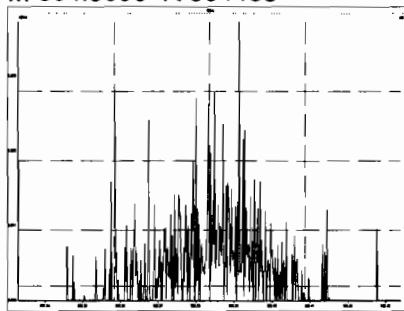
M 480.9696 R 77639



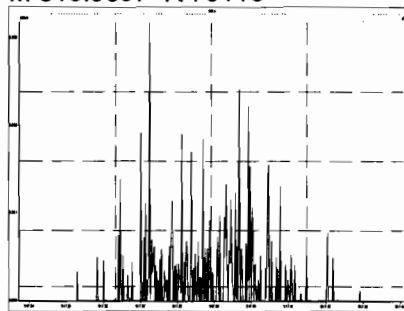
M 492.9696 R 833333



M 504.9696 R 304485



M 516.9697 R 70116



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST200107D2-1

**Reviewed By:** CT 06/08/2020  
*Initials & Date*

**End Calibration ID:** NA

	<u>Beg.</u>	<u>End</u>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Retention Times within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Verification Std. named correctly?</b> (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Correct ICAL referenced?</b>	<u>DB</u>	<u>          </u>
<b><u>Run Log:</u></b>		
- Correct Instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/> V
- Samples within 12 hour clock?	<input type="checkbox"/> (Y)	<input type="checkbox"/> N
- Bottle position verified?	<u>DB</u>	<u>          </u>

**Mass resolution  $\geq$**   
 5k    6-8K    8K    10K  
 1614   1699   429   1613/1668/8280

**Intergrated peaks display correctly?**       NA

**GC Break <20%**    NA

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours    NA

**Comments:**

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST200107D2-1

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-SMS

VER Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC.	CONC.
	FORMING	ABUND.	LIMITS		FOUND	RANGE (3)
	RATIO (1)	RATIO	(2)			(ng/mL)
2,3,7,8-TCDD	M/M+2	0.81	0.65-0.89	y	11.2	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	55.7	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	52.4	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	55.1	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	y	54.7	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	y	52.1	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	106	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.94	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	54.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	53.9	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.7	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	48.8	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	51.0	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	0.88-1.20	y	47.4	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.01	0.88-1.20	y	47.0	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.0	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: DB

Date: 1/8/20

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-SMS

VER Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	104	82.0 - 121.0
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	94.2	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	95.6	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	85.1	85.0 - 118.0
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	y	88.6	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	97.5	72.0 - 138.0
13C-OCDD	M/M+2	0.92	0.76-1.02	y	182	96.0 - 415.0
13C-2,3,7,8-TCDF	M+2/M+4	0.79	0.65-0.89	y	102	71.0 - 140.0
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	99.3	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	96.7	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	107	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	100	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.0	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	102	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.44	0.37-0.51	y	101	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	105	77.0 - 129.0
13C-OCDF	M+2/M+4	0.92	0.76-1.02	y	195	96.0 - 415.0
CLEANUP STANDARD (3) 37Cl-2,3,7,8-TCDD					9.71	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: DB

Date: 1/8/20



FORM 5  
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 10-9-19

RT Window Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

ZB-5MS IS Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

DB\_225 IS Data Filename: Analysis Date: Time:

## ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:35	1,3,6,8-TCDF (F)	20:26
1,2,8,9-TCDD (L)	26:54	1,2,8,9-TCDF (L)	27:02
1,2,4,7,9-PeCDD (F)	28:31	1,3,4,6,8-PeCDF (F)	27:01
1,2,3,8,9-PeCDD (L)	30:57	1,2,3,8,9-PeCDF (L)	31:11
1,2,4,6,7,9-HxCDD (F)	32:22	1,2,3,4,6,8-HxCDF (F)	31:50
1,2,3,7,8,9-HxCDD (L)	34:18	1,2,3,7,8,9-HxCDF (L)	34:41
1,2,3,4,6,7,9-HpCDD (F)	36:54	1,2,3,4,6,7,8-HpCDF (F)	36:31
1,2,3,4,6,7,8-HpCDD (L)	37:46	1,2,3,4,7,8,9-HpCDF (L)	38:18

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

\* VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25\*

(1) To meet contract requirements, \*Valley Height Between Compared Peaks shall not exceed 25\* (section 15.4.2.2, Method 1613).

Analyst: DBDate: 1/8/20

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-SMS

VER Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002

LABELED COMPOUNDS

13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.991	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989-1.052

Analyst: DB

Date: 1/8/20

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-SMS

VER Data Filename: 200107D2 S#1 Analysis Date: 7-JAN-20 Time: 22:31:35

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998-1.004
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.092	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.147	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.130	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.228	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.235	1.091-1.371

Analyst: DB

Date: 1/8/20

Client ID: 1613 CS3 19I1604  
 Lab ID: ST200107D2-1

Filename: 200107D2 S:1 Acq: 7-JAN-20 22:31:35  
 GC Column ID: ZB-SMS ICal: 1613VG7-10-9-19 wt/vol: 1.000

ConCal: ST200107D2-1  
 EndCAL: NA

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	1.35e+06	0.81 y	0.91	26:02	11.234		* 2.5		*	Total Tetra-Dioxins	80.4	80.9		*	*
1,2,3,7,8-PeCDD	4.90e+06	0.63 y	0.90	30:35	55.746		* 2.5		*	Total Penta-Dioxins	212	213		*	*
1,2,3,4,7,8-HxCDD	4.87e+06	1.23 y	1.10	33:53	52.392		* 2.5		*	Total Hexa-Dioxins	241	242		*	*
1,2,3,6,7,8-HxCDD	5.18e+06	1.26 y	0.94	33:60	55.110		* 2.5		*	Total Hepta-Dioxins	121	123		*	*
1,2,3,7,8,9-HxCDD	5.16e+06	1.25 y	0.96	34:18	54.665		* 2.5		*	Total Tetra-Furans	38.0	39.0		*	*
1,2,3,4,6,7,8-HpCDD	4.47e+06	1.04 y	0.98	37:46	52.061		* 2.5		*	Total Penta-Furans	233.02	234.29		*	*
OCDD	7.34e+06	0.89 y	0.96	41:02	105.58		* 2.5		*	Total Hexa-Furans	266	266		*	*
										Total Hepta-Furans	94.7	96.6		*	*
2,3,7,8-TCDF	1.89e+06	0.77 y	0.95	25:14	9.9376		* 2.5		*						
1,2,3,7,8-PeCDF	8.34e+06	1.61 y	0.96	29:24	54.169		* 2.5		*						
2,3,4,7,8-PeCDF	8.47e+06	1.59 y	1.01	30:18	53.896		* 2.5		*						
1,2,3,4,7,8-HxCDF	7.01e+06	1.22 y	1.18	32:60	48.699		* 2.5		*						
1,2,3,6,7,8-HxCDF	7.45e+06	1.25 y	1.07	33:08	48.825		* 2.5		*						
2,3,4,6,7,8-HxCDF	7.37e+06	1.22 y	1.11	33:44	50.951		* 2.5		*						
1,2,3,7,8,9-HxCDF	6.05e+06	1.23 y	1.06	34:41	48.930		* 2.5		*						
1,2,3,4,6,7,8-HpCDF	5.64e+06	1.00 y	1.13	36:31	47.363		* 2.5		*						
1,2,3,4,7,8,9-HpCDF	5.03e+06	1.01 y	1.28	38:18	46.981		* 2.5		*						
OCDF	8.68e+06	0.90 y	0.95	41:15	99.022		* 2.5		*						
IS	13C-2,3,7,8-TCDD	1.33e+07	0.79 y	1.10	26:01	103.66				Rec			Qual		
IS	13C-1,2,3,7,8-PeCDD	9.73e+06	0.62 y	0.88	30:34	94.213				104					
IS	13C-1,2,3,4,7,8-HxCDD	8.44e+06	1.29 y	0.64	33:52	95.619				94.2					
IS	13C-1,2,3,6,7,8-HxCDD	1.00e+07	1.26 y	0.86	33:59	85.096				95.6					
IS	13C-1,2,3,7,8,9-HxCDD	9.82e+06	1.25 y	0.81	34:17	88.552				85.1					
IS	13C-1,2,3,4,6,7,8-HpCDD	8.76e+06	1.06 y	0.65	37:45	97.472				88.6					
IS	13C-OCDD	1.45e+07	0.92 y	0.58	41:01	182.09				97.5					
IS	13C-2,3,7,8-TCDF	2.00e+07	0.79 y	1.03	25:13	102.16				91.0					
IS	13C-1,2,3,7,8-PeCDF	1.60e+07	1.59 y	0.85	29:23	99.316				102					
IS	13C-2,3,4,7,8-PeCDF	1.55e+07	1.60 y	0.85	30:17	96.696				99.3					
IS	13C-1,2,3,4,7,8-HxCDF	1.22e+07	0.50 y	0.83	32:59	106.91				96.7					
IS	13C-1,2,3,6,7,8-HxCDF	1.43e+07	0.52 y	1.03	33:07	100.40				107					
IS	13C-2,3,4,6,7,8-HxCDF	1.30e+07	0.52 y	0.95	33:43	99.037				100					
IS	13C-1,2,3,7,8,9-HpCDF	1.16e+07	0.52 y	0.83	34:40	102.34				99.0					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.06e+07	0.44 y	0.76	36:29	101.44				102					
IS	13C-1,2,3,4,7,8,9-HpCDF	8.36e+06	0.44 y	0.58	38:18	104.65				101					
IS	13C-OCDF	1.85e+07	0.92 y	0.69	41:14	195.32				105					
C/Up	37C1-2,3,7,8-TCDD	1.36e+06		1.20	26:02	9.7111				97.1					
RS/RT	13C-1,2,3,4-TCDD	1.17e+07	0.81 y	1.00	25:26	100.00									
RS	13C-1,2,3,4-TCDF	1.89e+07	0.79 y	1.00	23:59	100.00									
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.38e+07	0.51 y	1.00	33:24	100.00									

Integrations  
 by DB  
 Analyst: DB  
 Date: 1/8/20

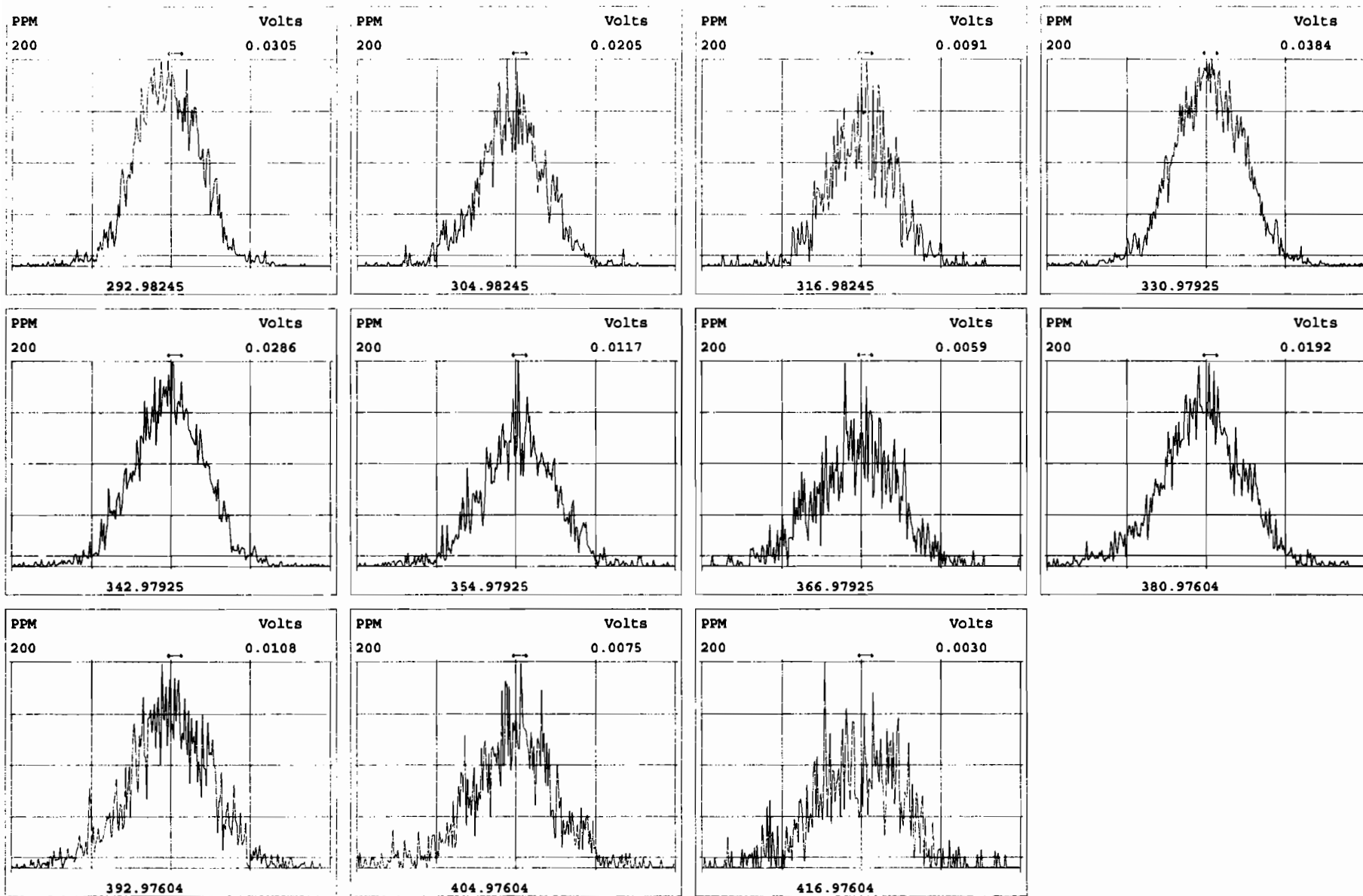
Reviewed  
 by CT  
 Analyst: CT  
 Date: 01/08/2020

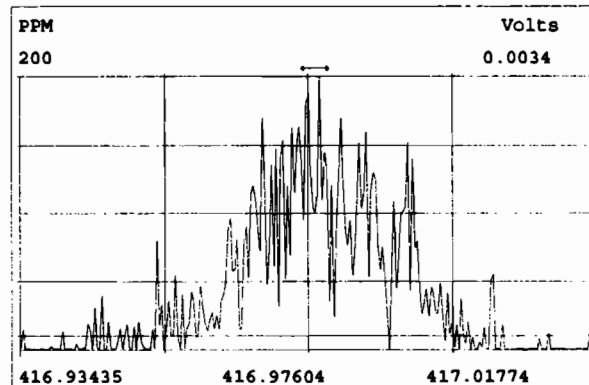
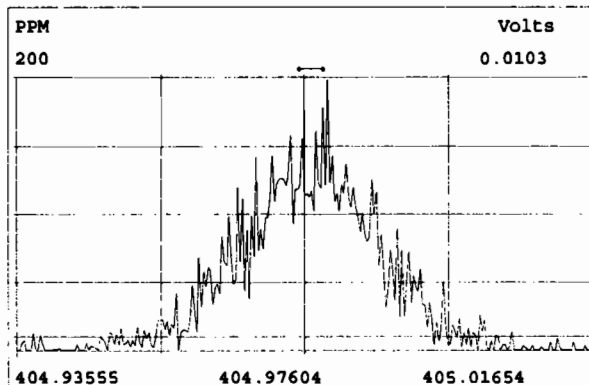
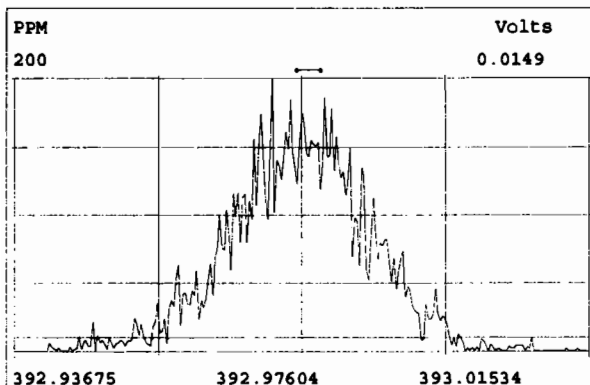
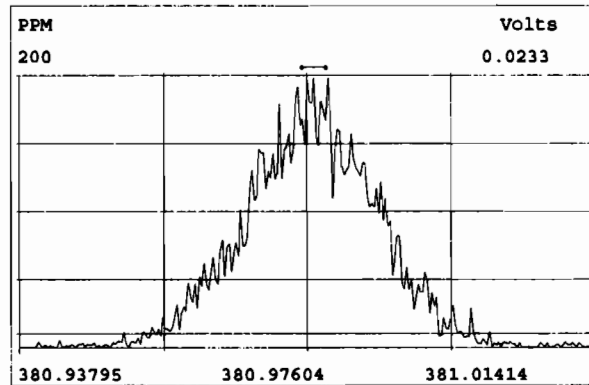
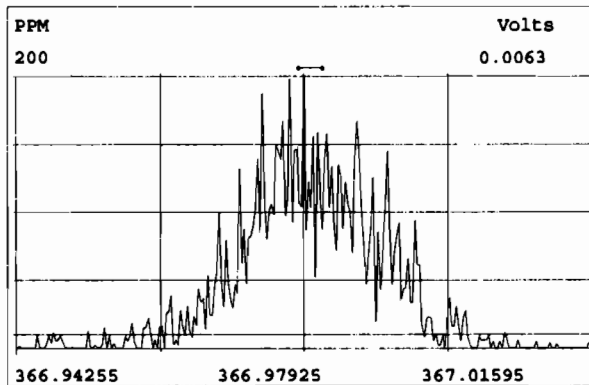
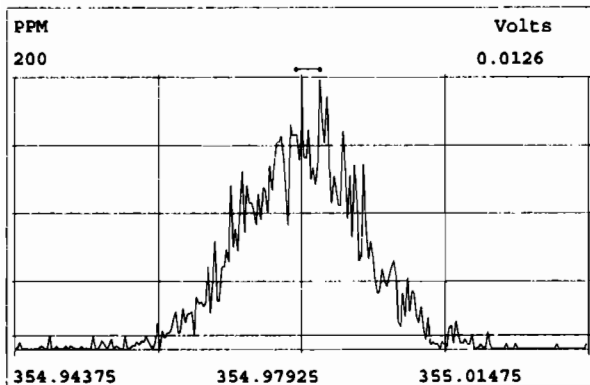
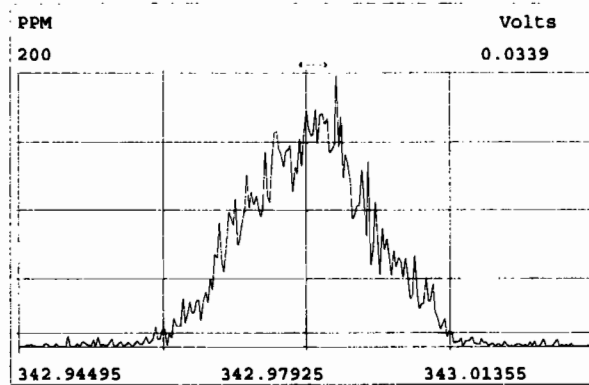
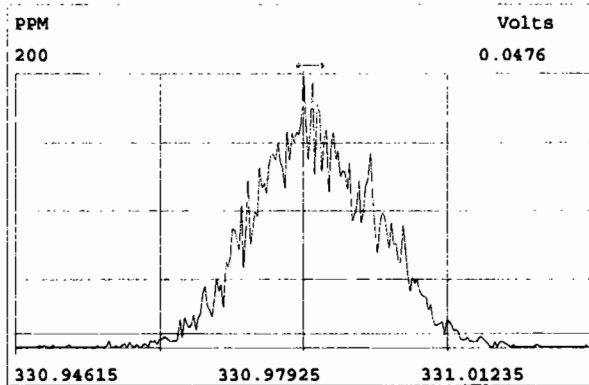
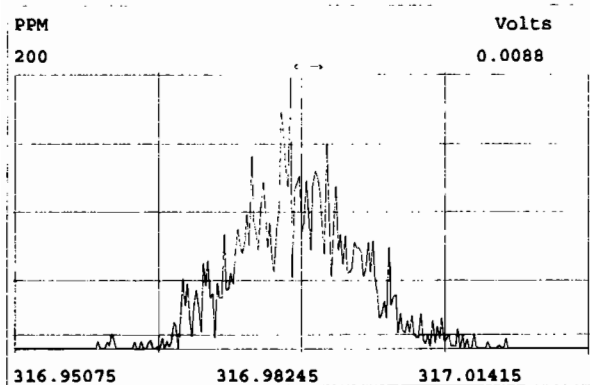
Vista Analytical Laboratory - Injection Log Run file: 200107D2 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	BCal
200107D2	1	ST200107D2-1	DB	7-JAN-20	22:31:35	ST200107D2-1	NA
200107D2	2	B9L0258-BS1	DB	7-JAN-20	23:19:26	ST200107D2-1	NA
200107D2	3	B9L0251-BS1	DB	8-JAN-20	00:07:13	ST200107D2-1	NA
200107D2	4	SOLVENT BLANK	DB	8-JAN-20	00:54:58	ST200107D2-1	NA
200107D2	5	B9L0258-BLK1	DB	8-JAN-20	01:42:45	ST200107D2-1	NA
200107D2	6	B9L0251-BLK1	DB	8-JAN-20	02:30:42	ST200107D2-1	NA
200107D2	7	1904390-01	DB	8-JAN-20	03:18:38	ST200107D2-1	NA
200107D2	8	1903461-13RE2	DB	8-JAN-20	04:06:35	ST200107D2-1	NA
200107D2	9	1903461-14RE2	DB	8-JAN-20	04:54:32	ST200107D2-1	NA
200107D2	10	1903461-15RE2	DB	8-JAN-20	05:42:27	ST200107D2-1	NA
200107D2	11	1903461-16RE2	DB	8-JAN-20	06:30:23	ST200107D2-1	NA
200107D2	12	1903461-17RE2	DB	8-JAN-20	07:18:19	ST200107D2-1	NA
200107D2	13	1903742-04RE1	DB	8-JAN-20	08:06:14	ST200107D2-1	NA
200107D2	14	1903742-05RE1	DB	8-JAN-20	08:54:09	ST200107D2-1	NA
200107D2	15	1903742-07RE1	DB	8-JAN-20	09:42:05	ST200107D2-1	NA

Peak Locate Examination: 7-JAN-2020:22:27 File:RES\_CHECK

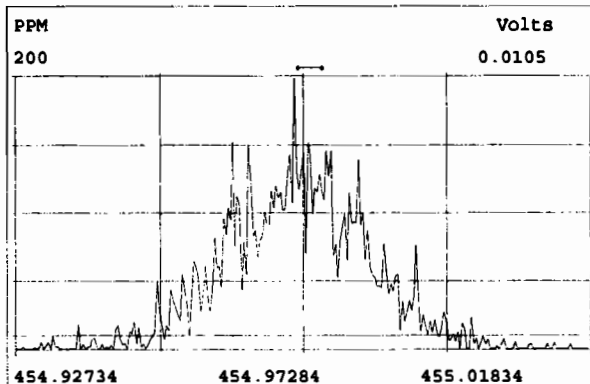
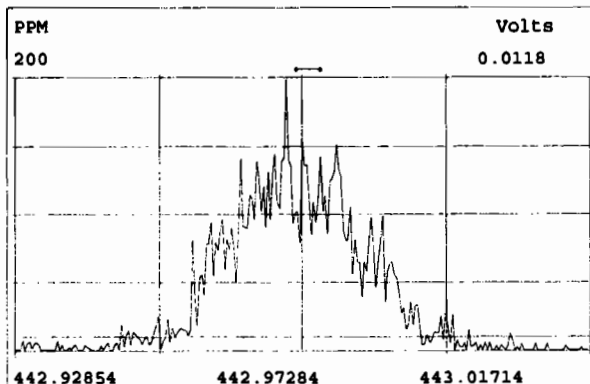
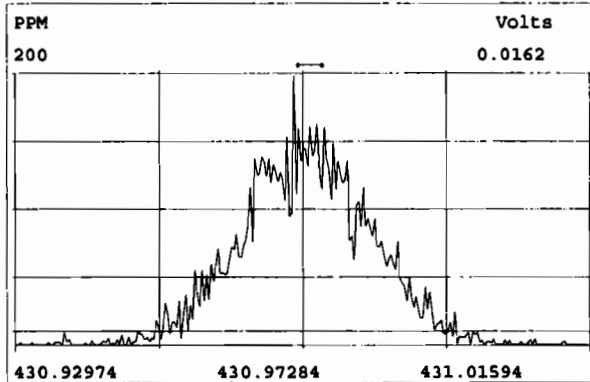
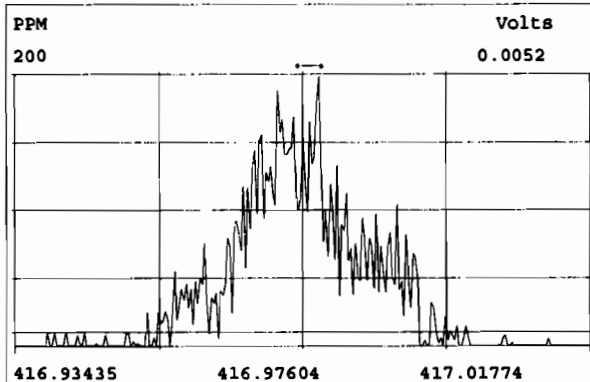
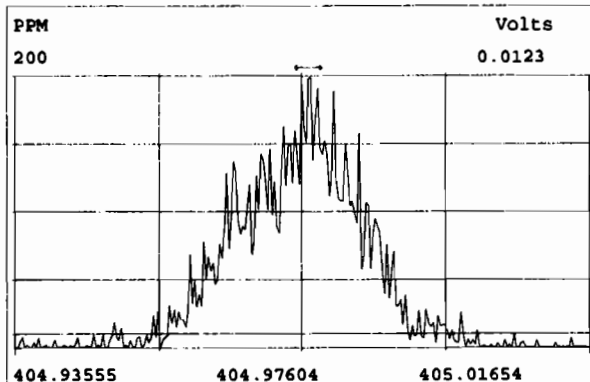
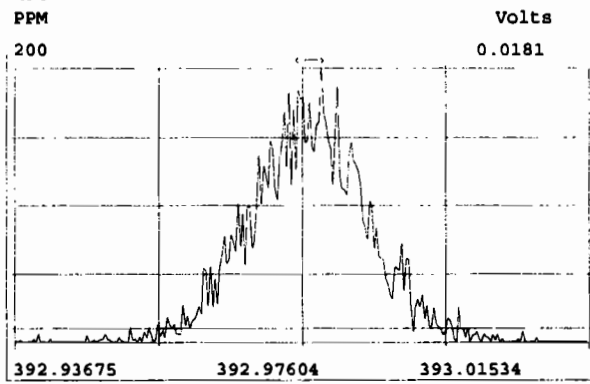
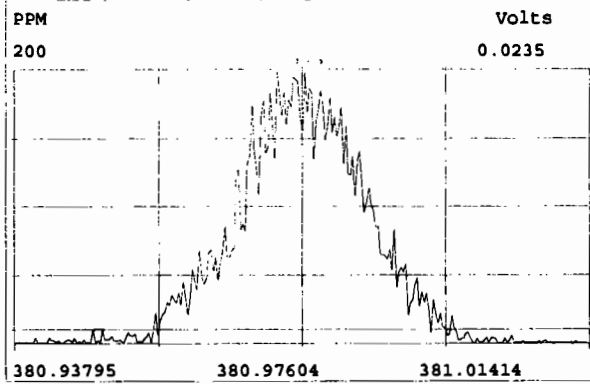
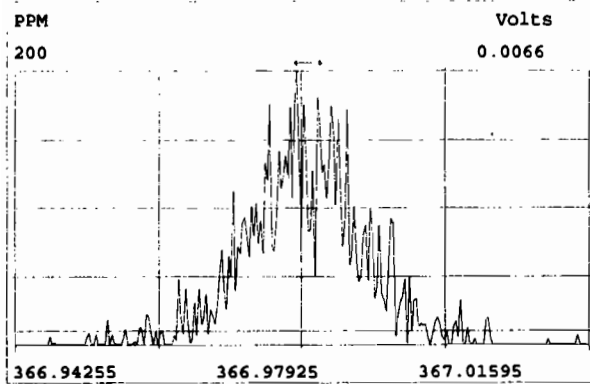
Experiment:OCDD\_DB5 Function:1 Reference:PFK





Peak Locate Examination: 7-JAN-2020:22:28 File:RES\_CHECK

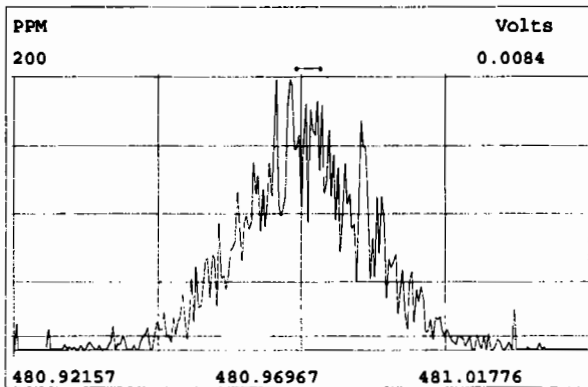
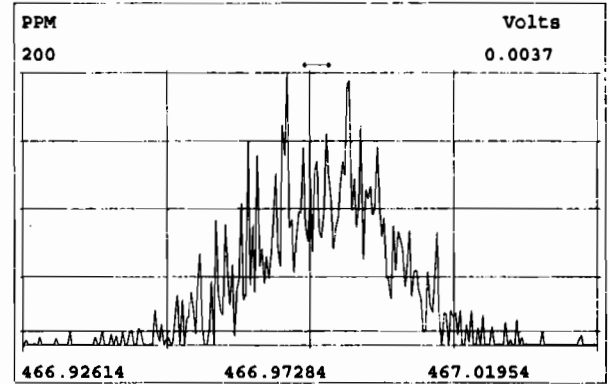
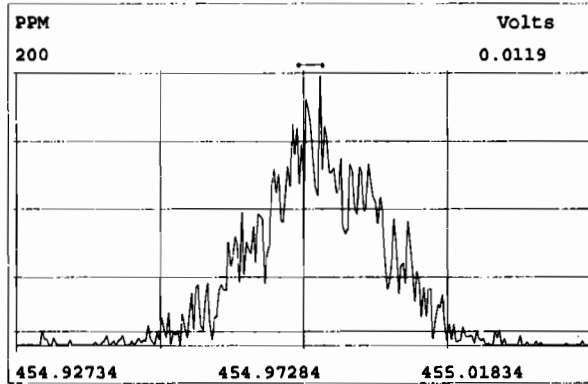
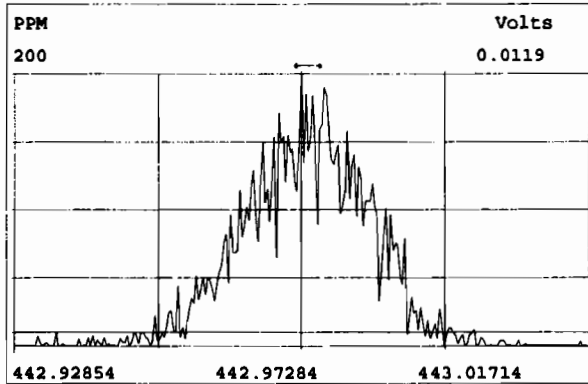
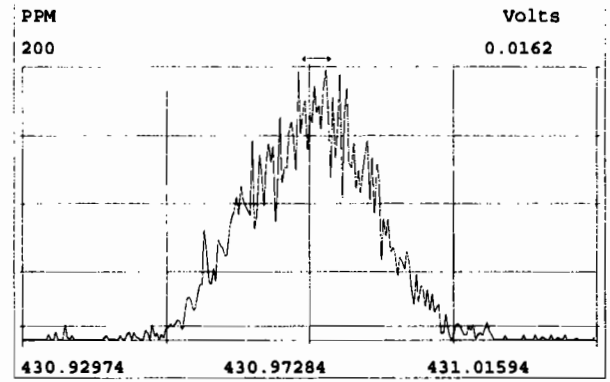
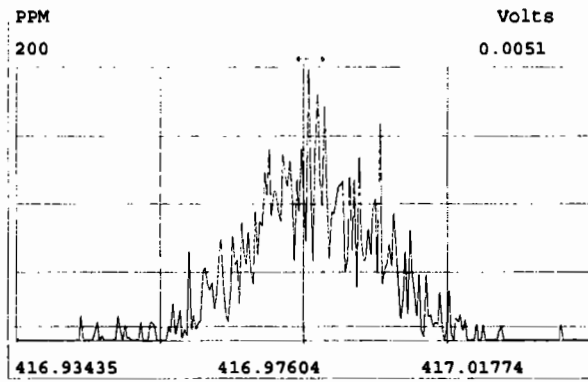
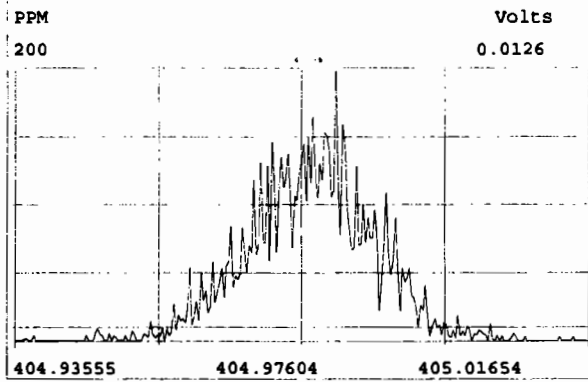
Experiment:OCDD\_DB5 Function:3 Reference:PFK





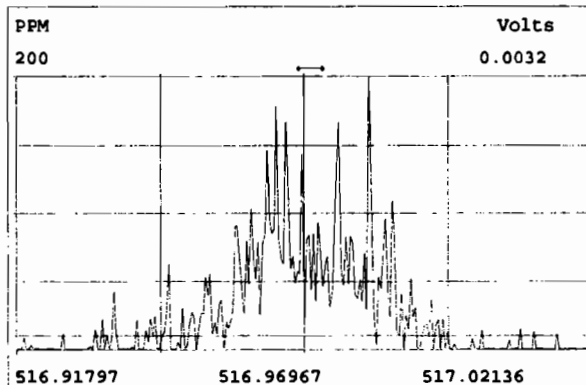
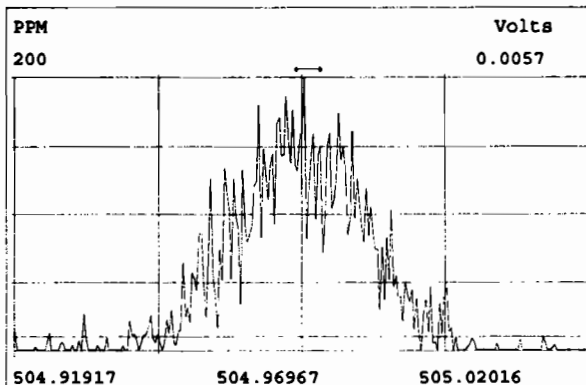
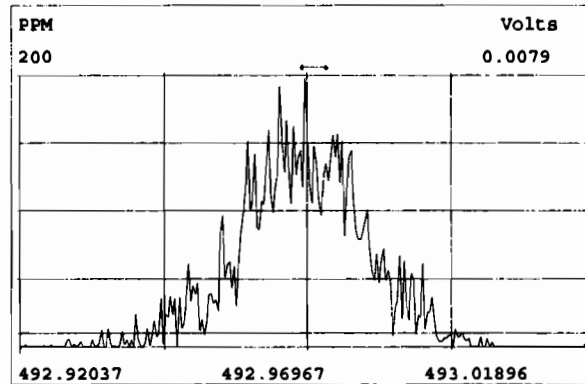
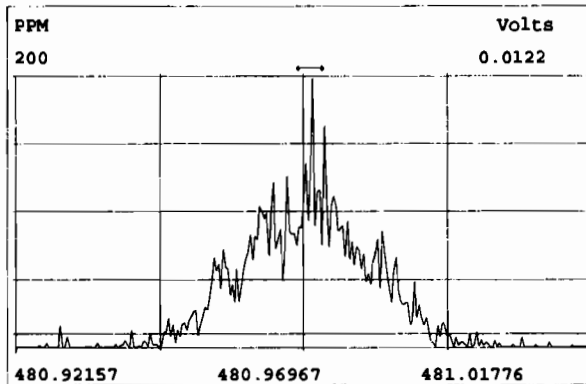
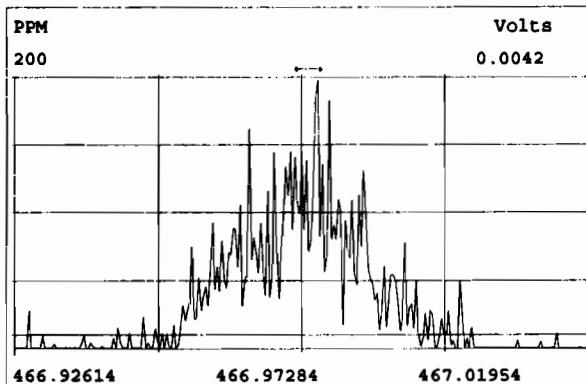
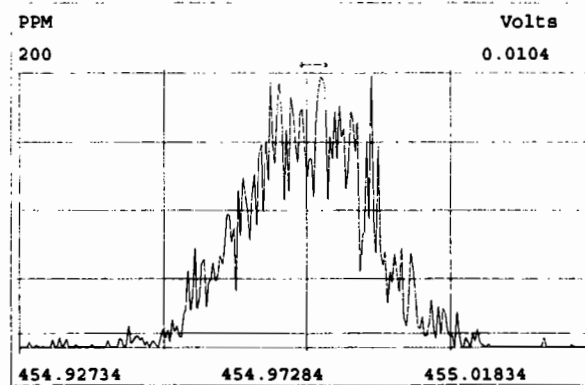
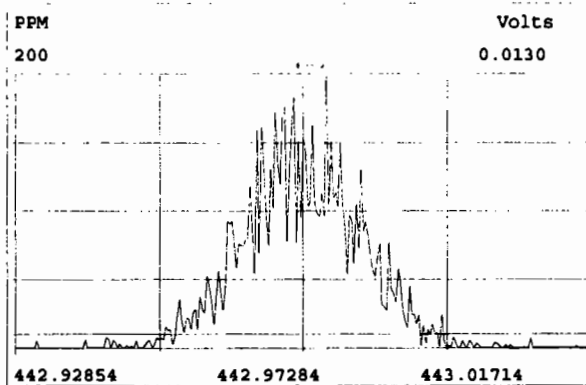
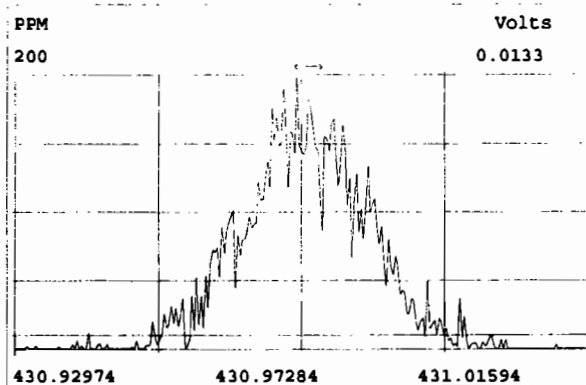
Peak Locate Examination: 7-JAN-2020:22:29 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:4 Reference:PFK

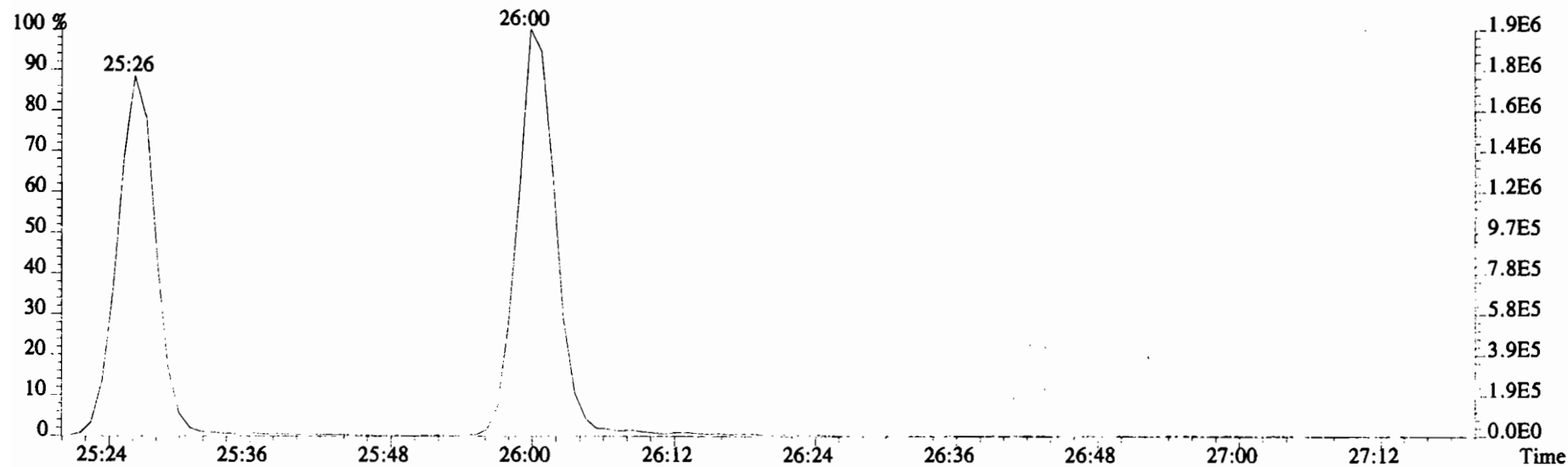
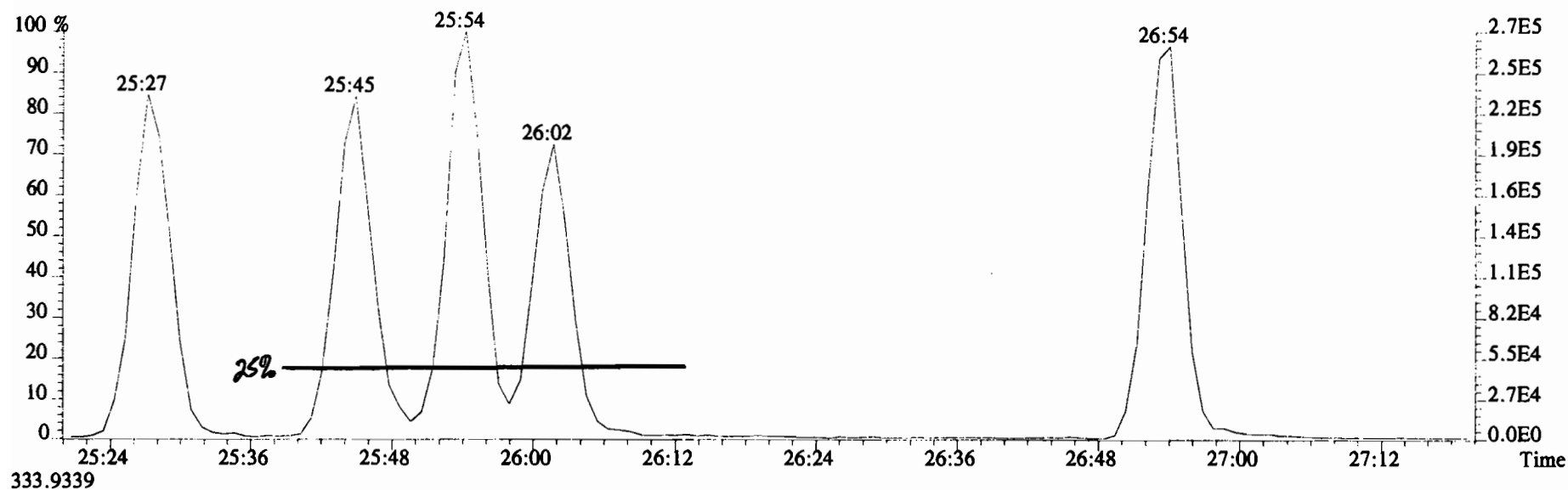


Peak Locate Examination: 7-JAN-2020:22:30 File:RES\_CHECK

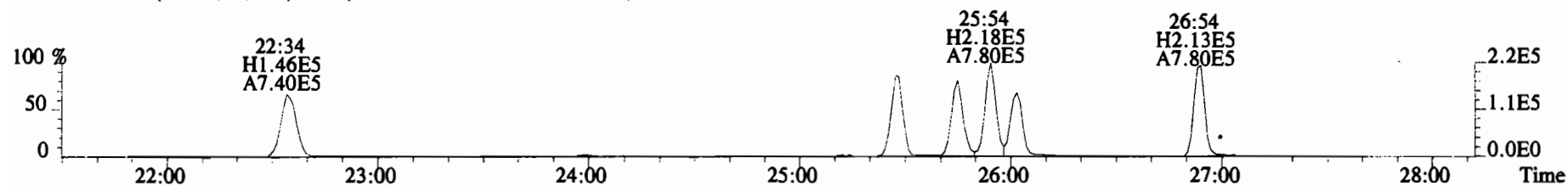
Experiment:OCDD\_DB5 Function:5 Reference:PFK



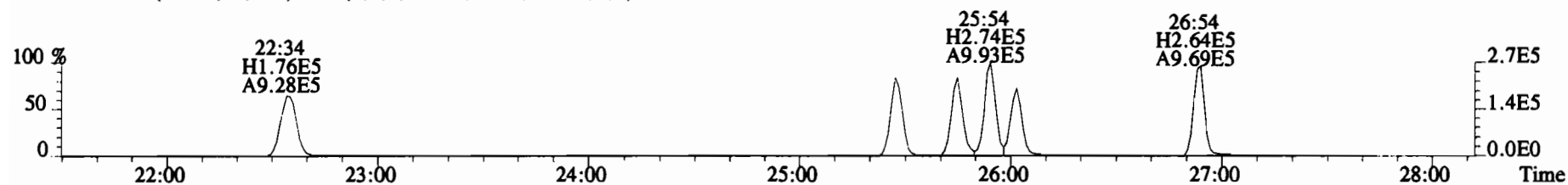
File:200107D2 #1-493 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
321.8936



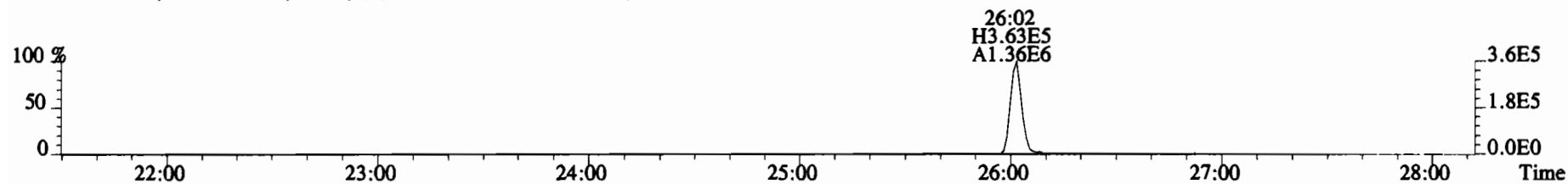
File:200107D2 #1-493 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



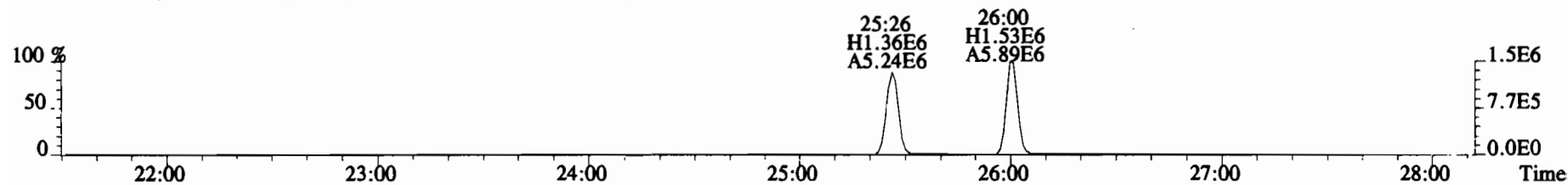
321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



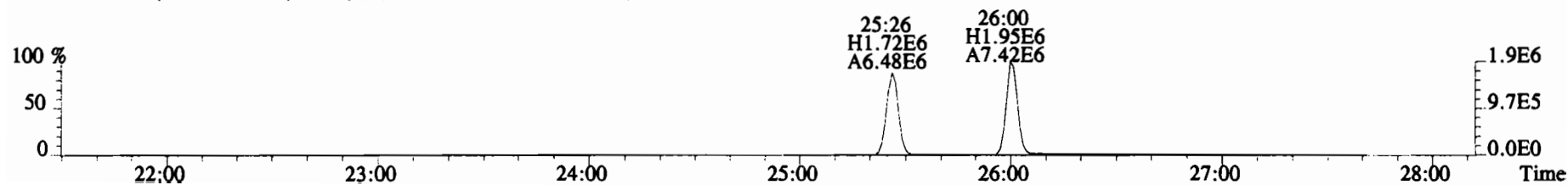
327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

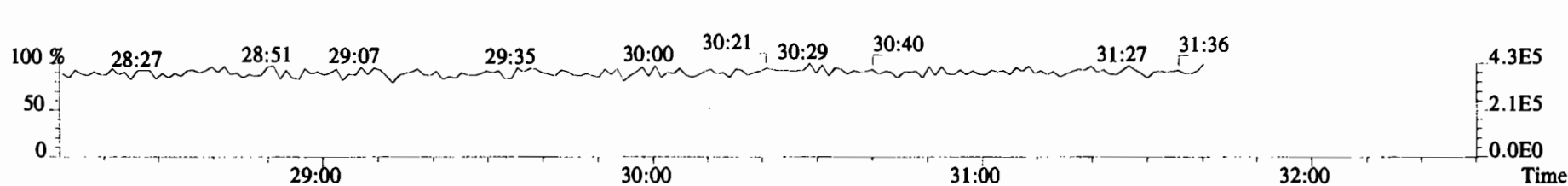
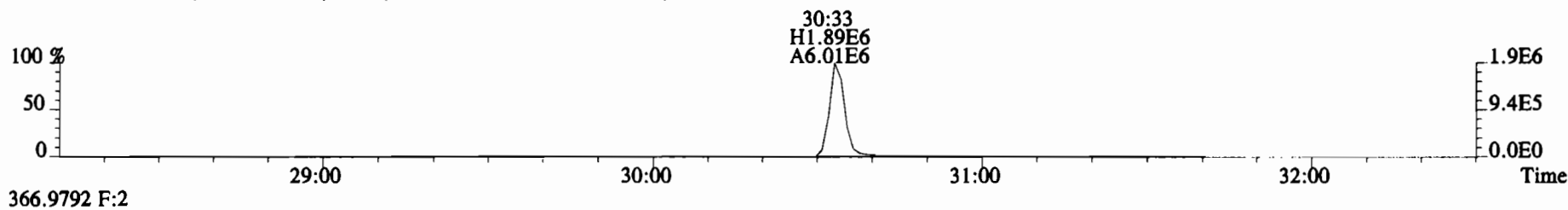
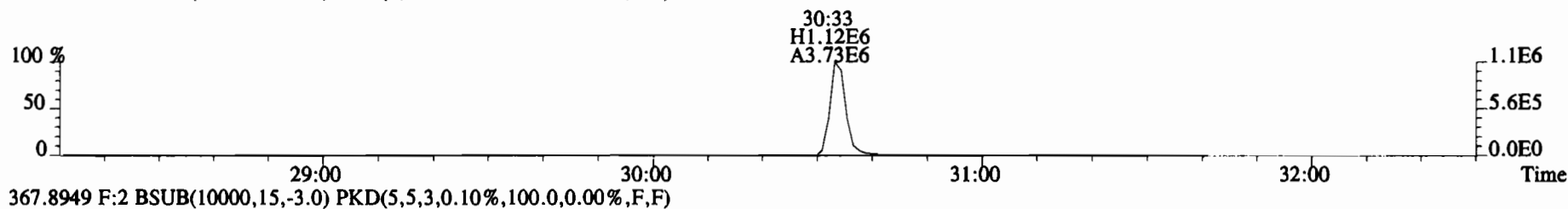
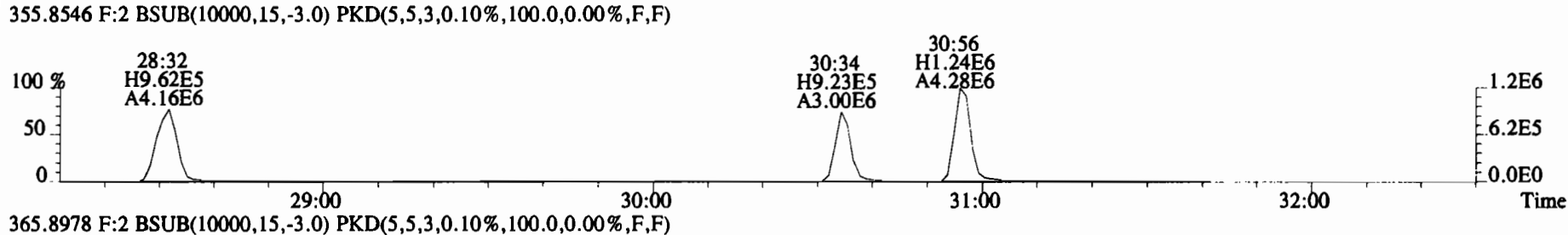
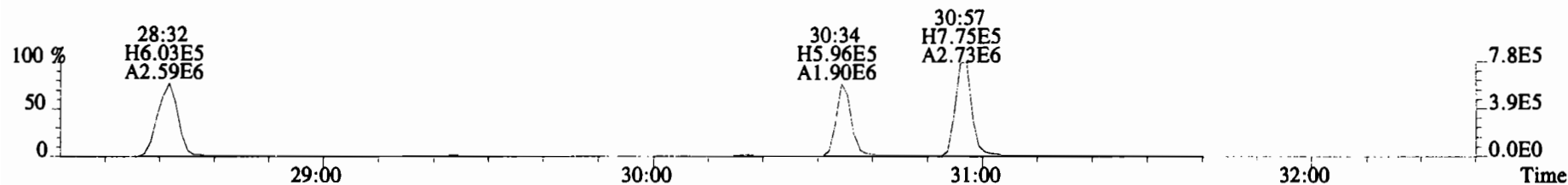


333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

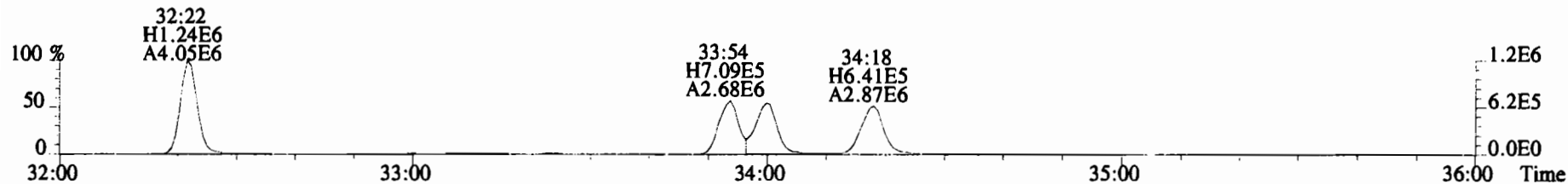


333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

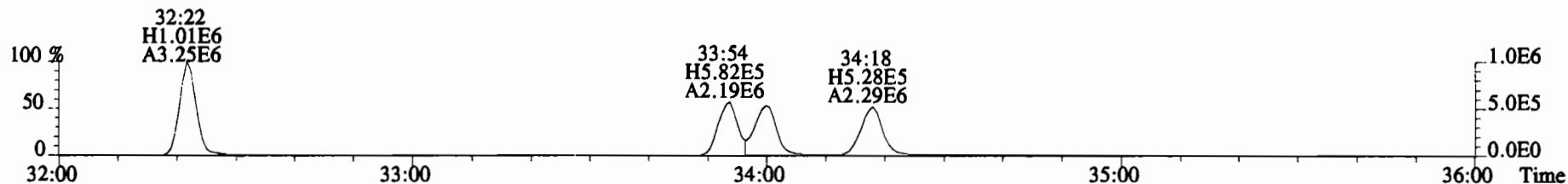
File:200107D2 #1-210 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 1911604 Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



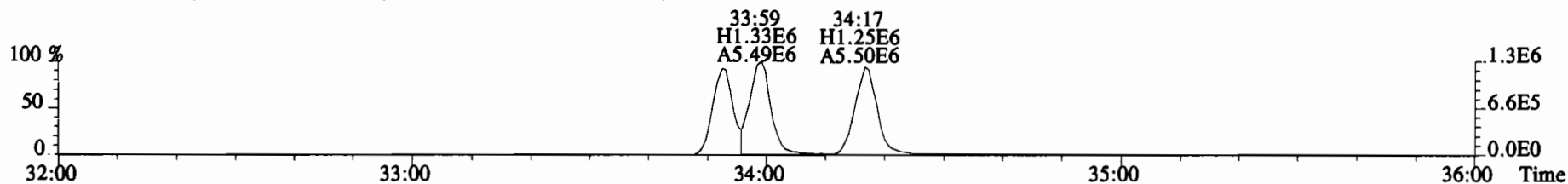
File:200107D2 #1-385 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



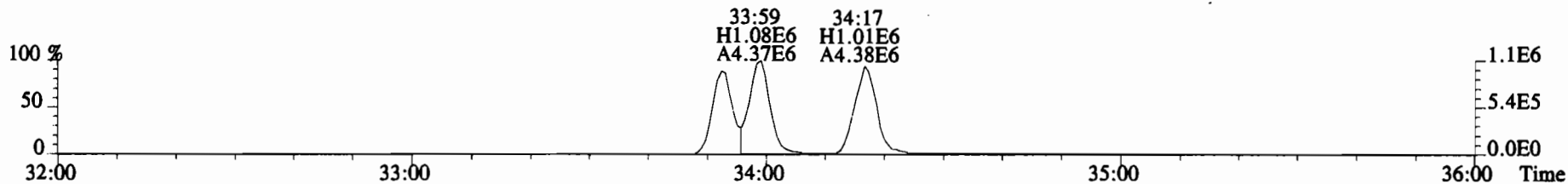
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



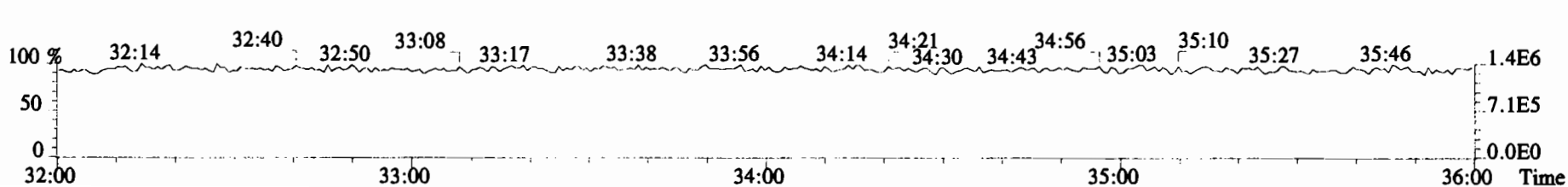
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



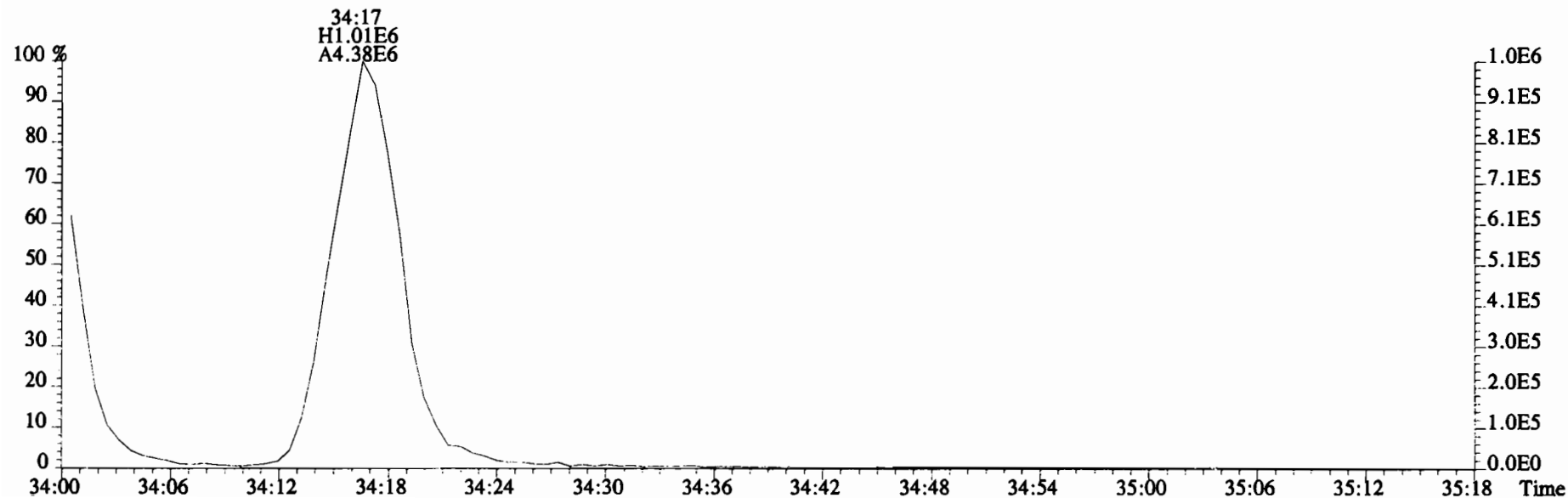
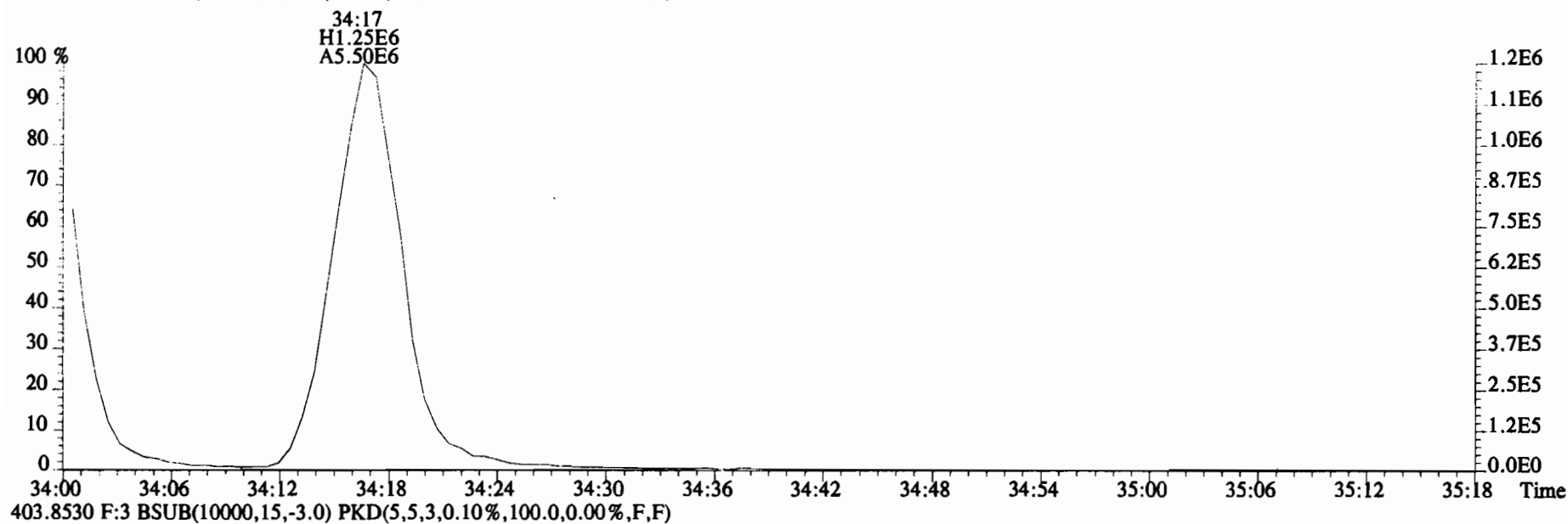
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



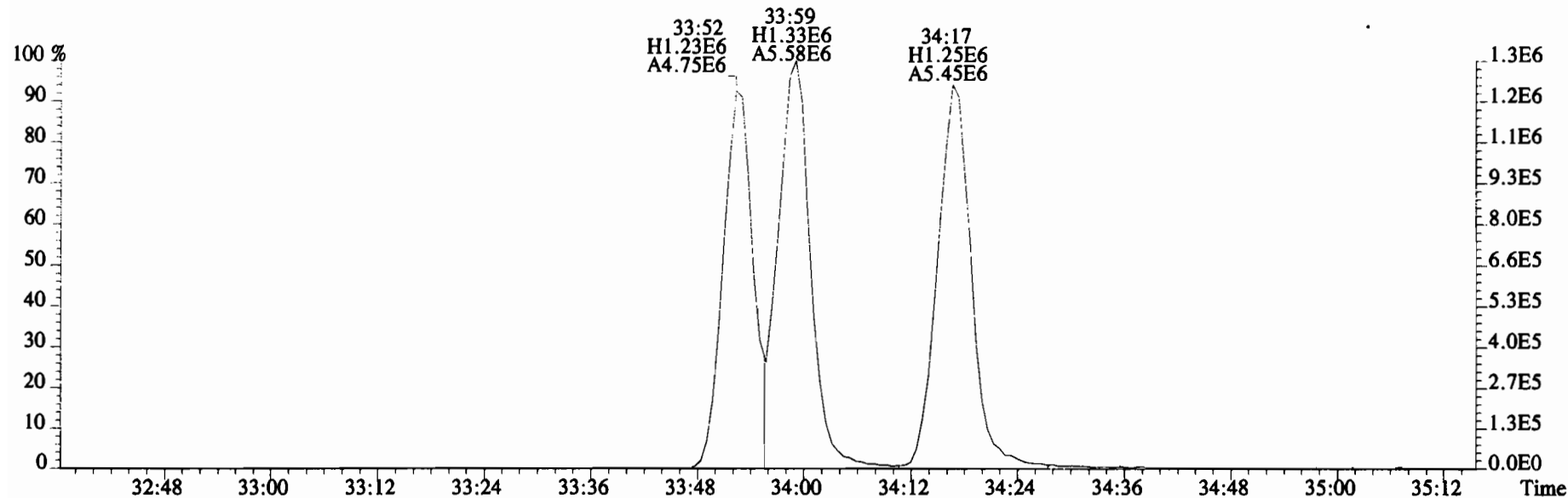
392.9760 F:3



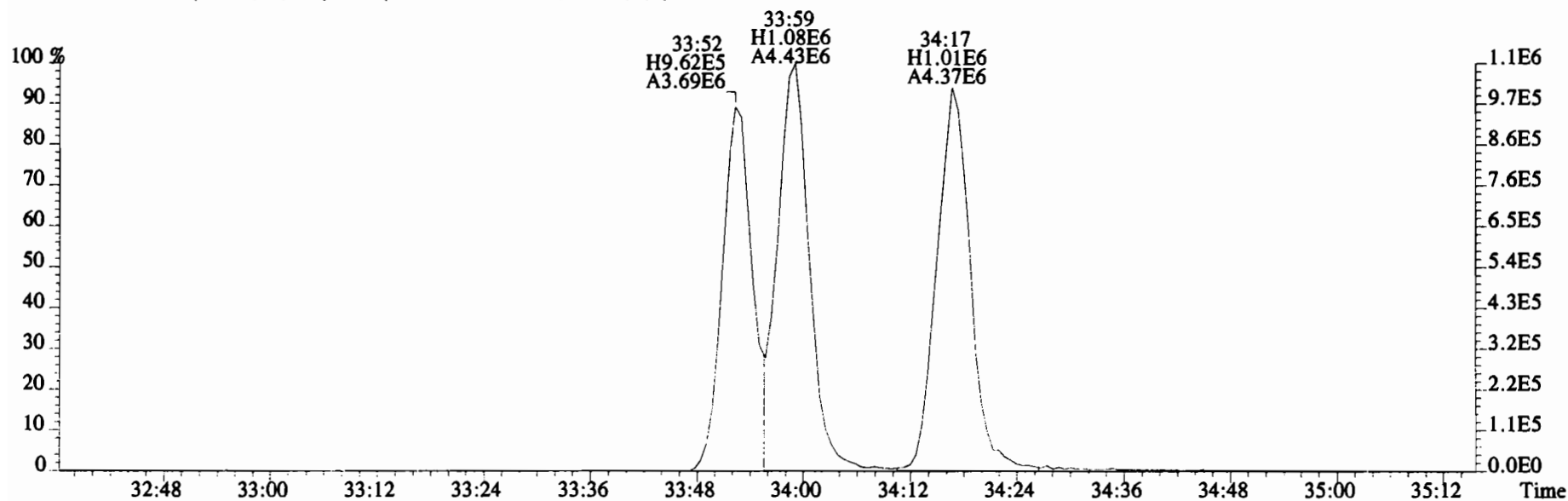
File:200107D2 #1-385 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200107D2 #1-385 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 1911604 Exp:OCDD\_DB5  
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

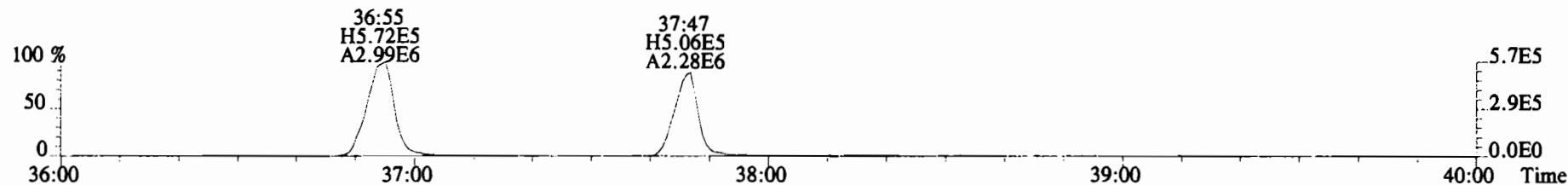


403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

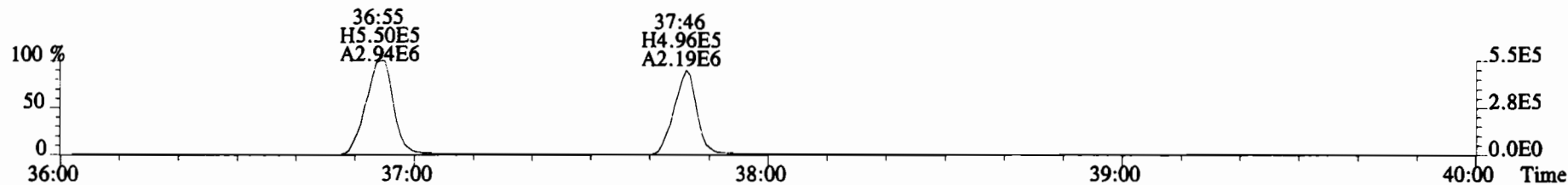




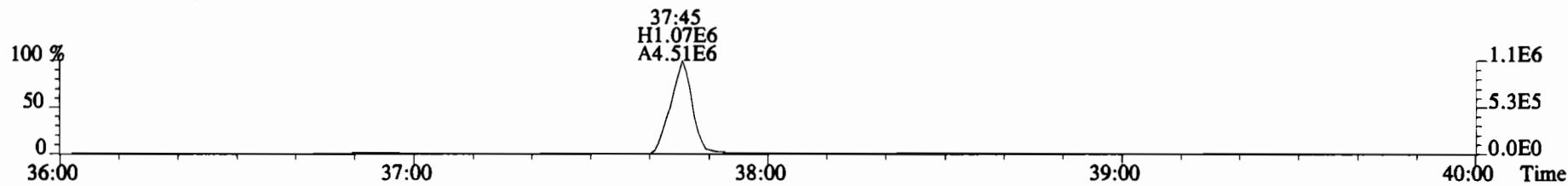
File:200107D2 #1-355 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



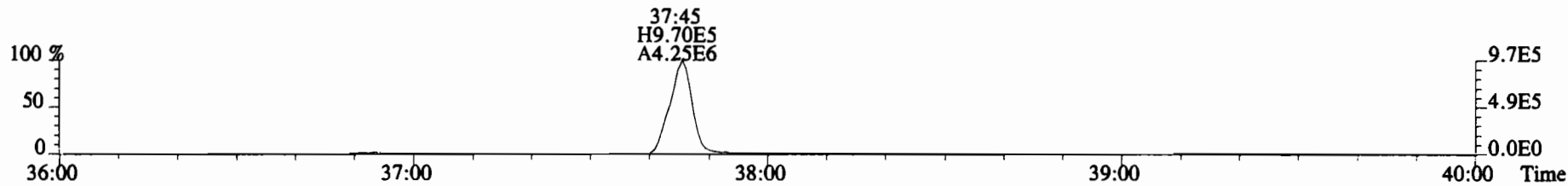
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



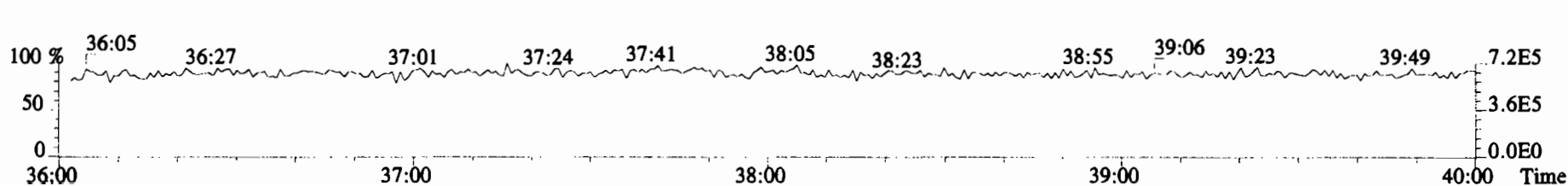
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



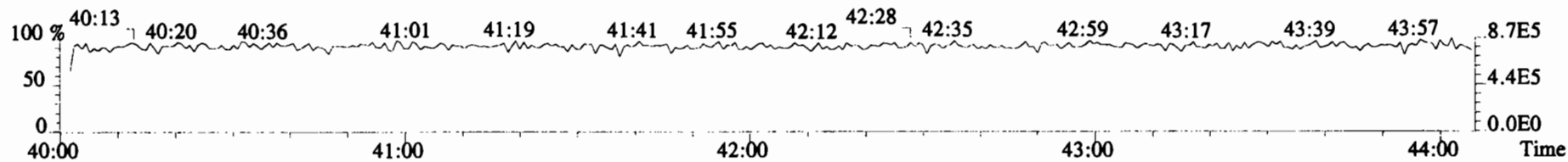
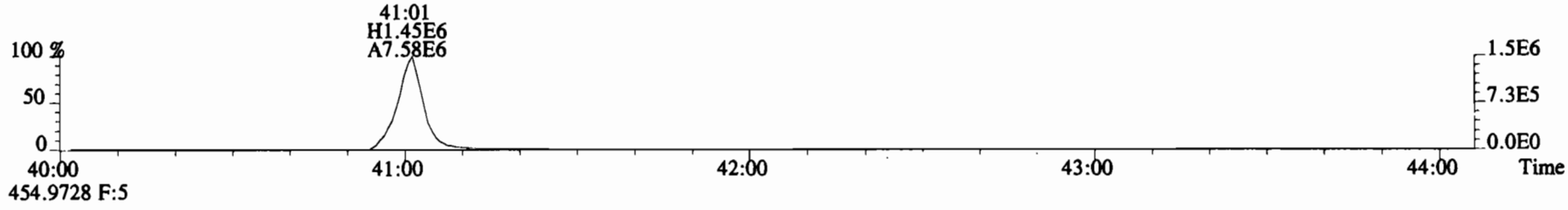
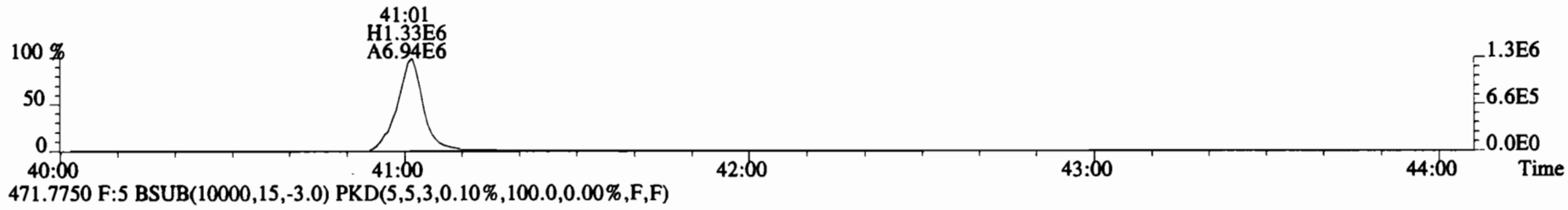
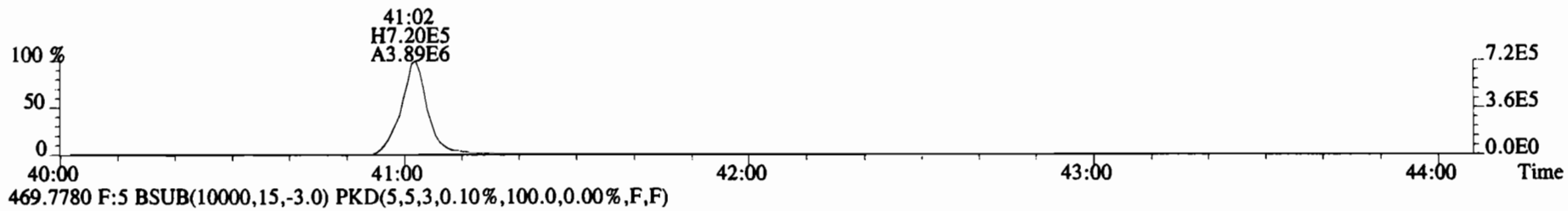
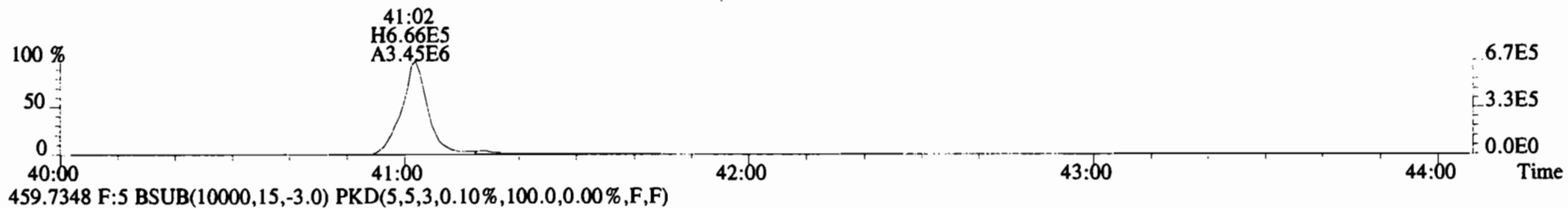
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



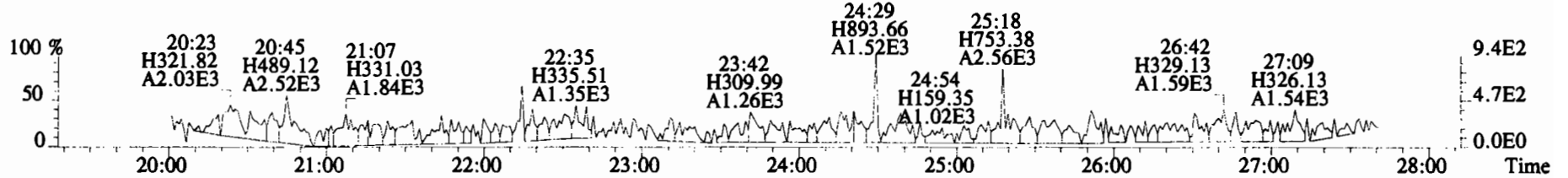
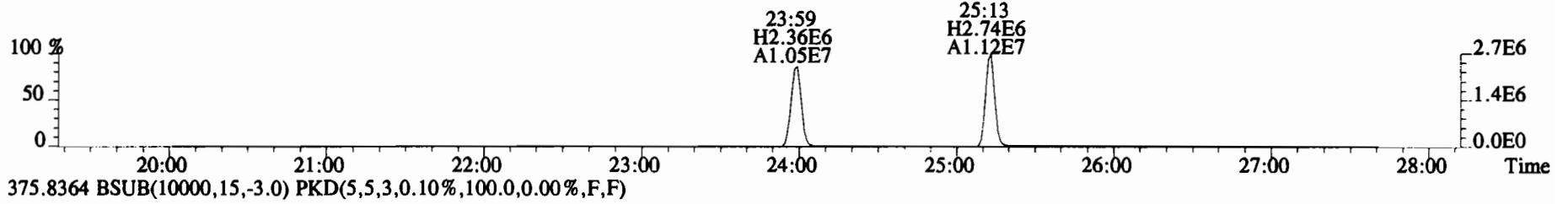
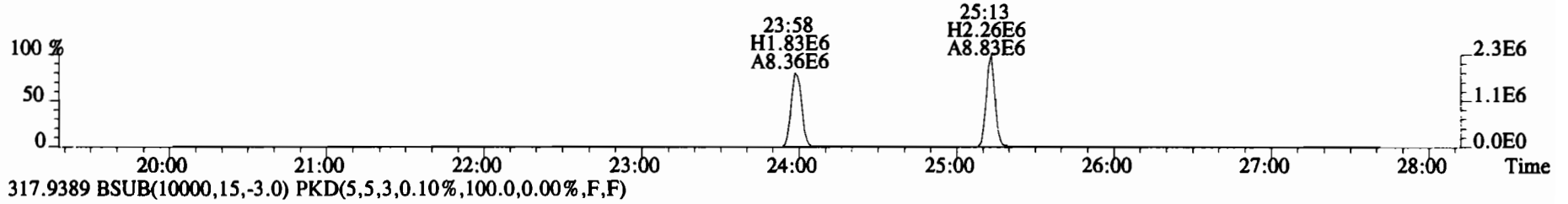
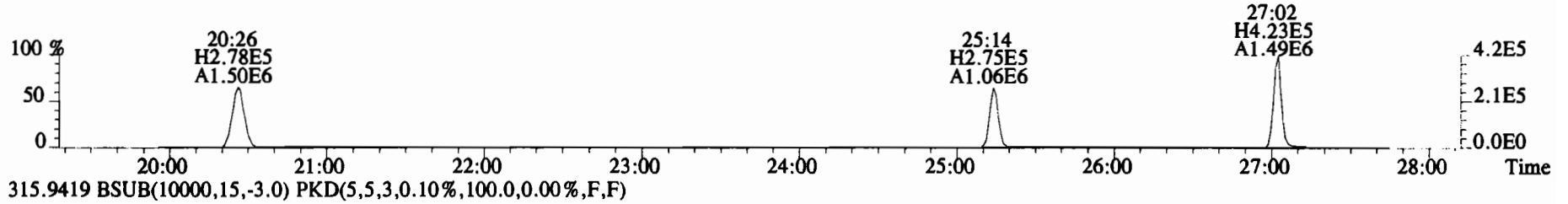
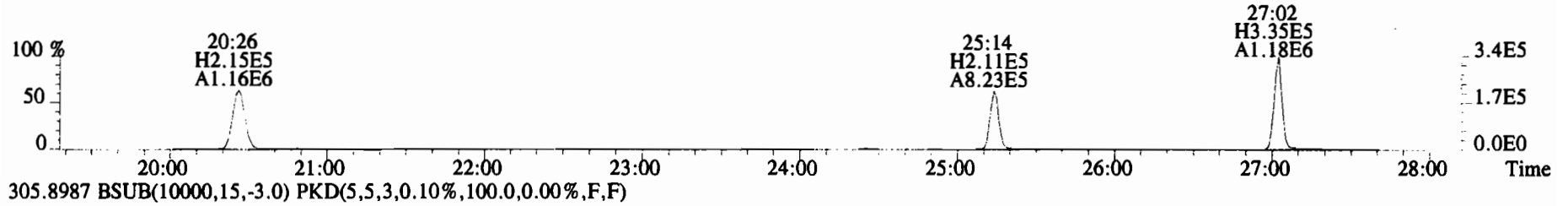
454.9728 F:4



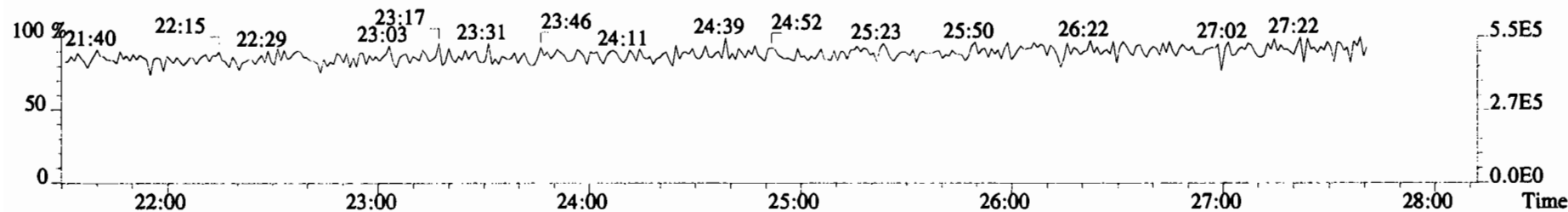
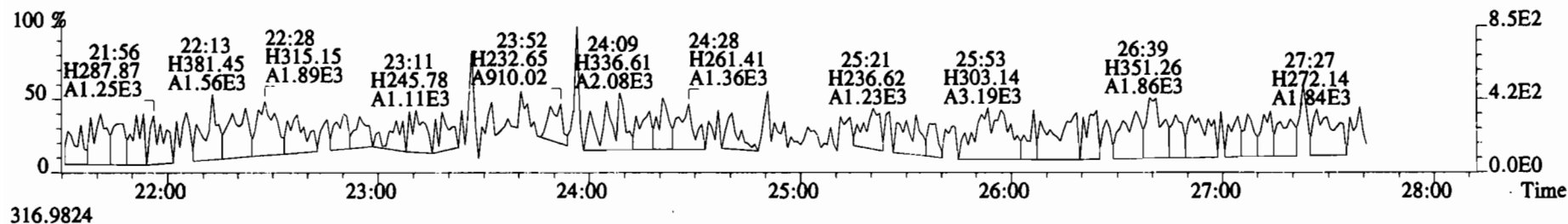
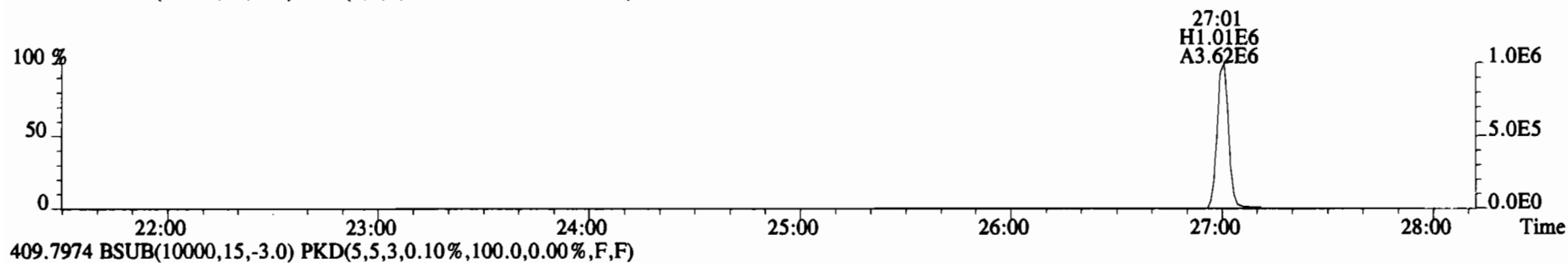
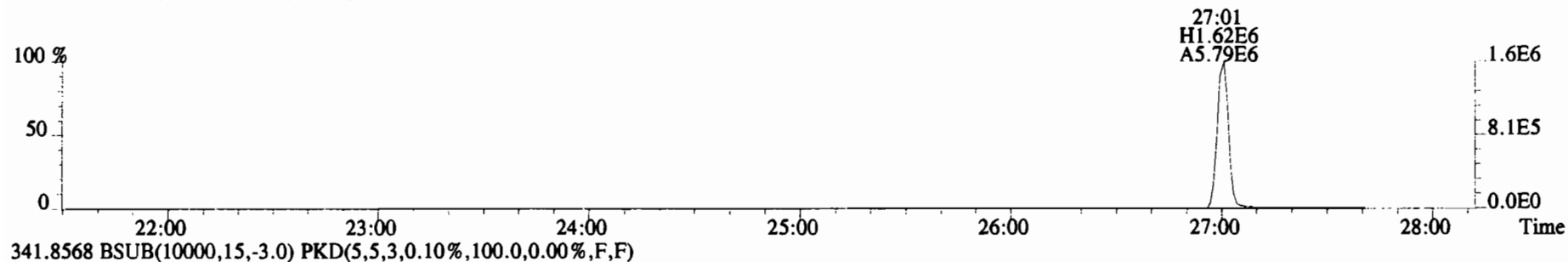
File:200107D2 #1-432 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 1911604 Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



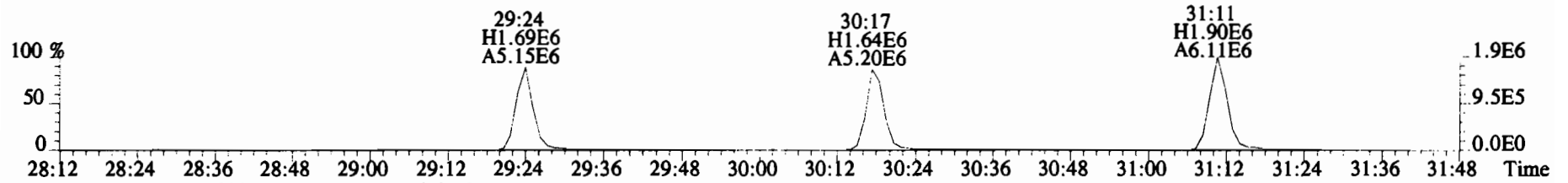
File:200107D2 #1-493 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 1911604 Exp:OCDD\_DB5  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



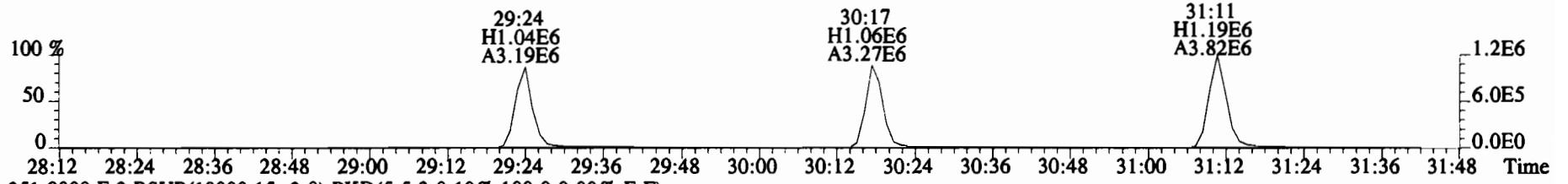
File:200107D2 #1-493 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



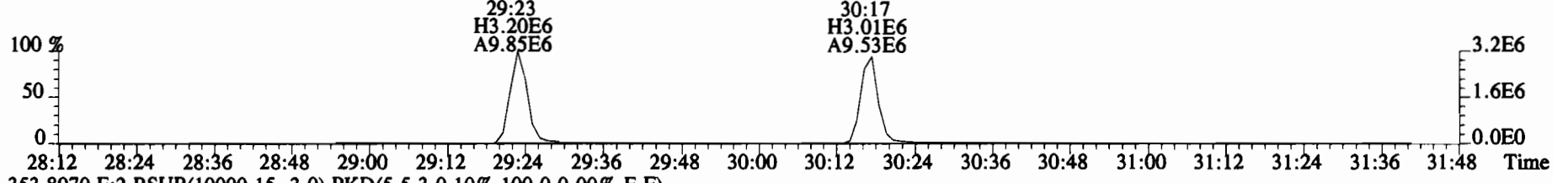
File:200107D2 #1-210 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



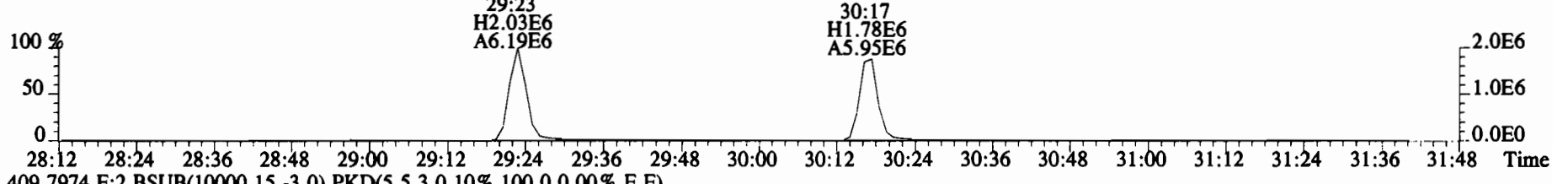
341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



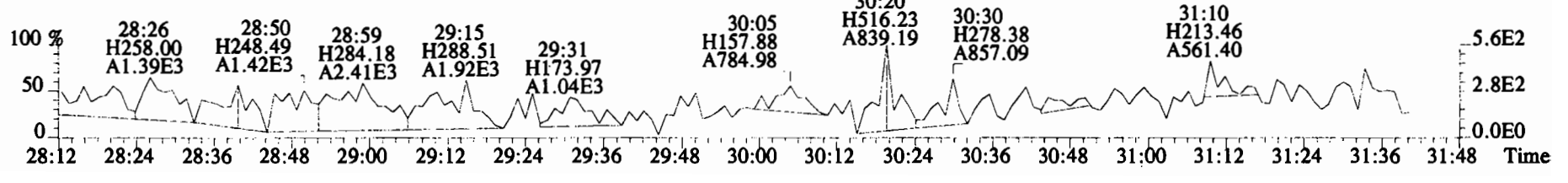
351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



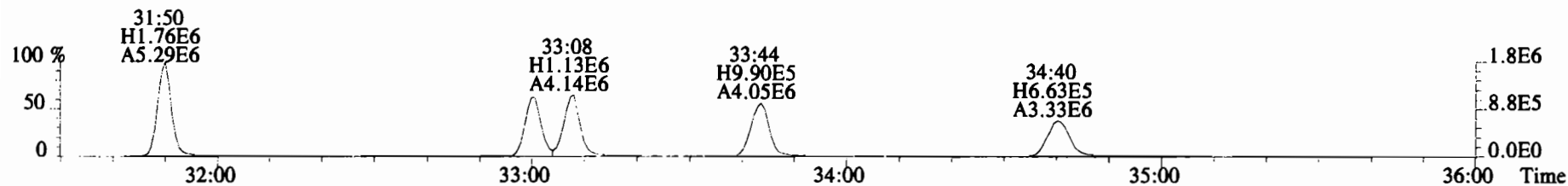
353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



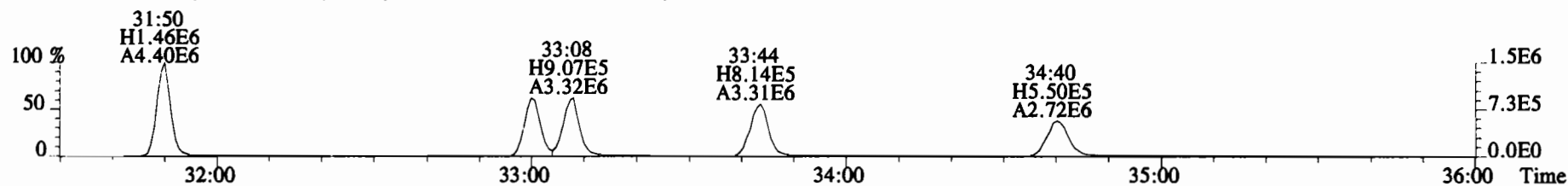
409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



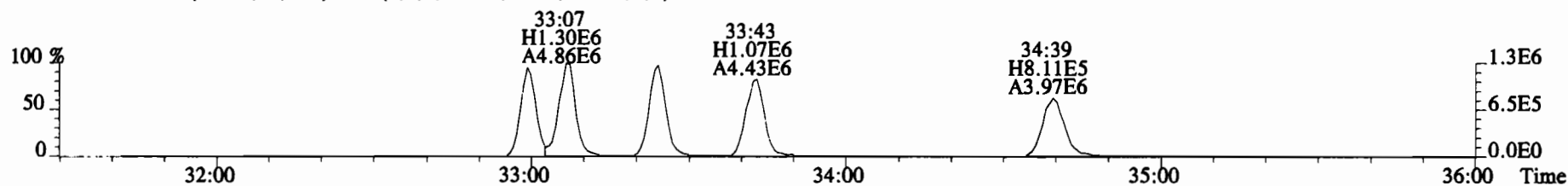
File:200107D2 #1-385 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



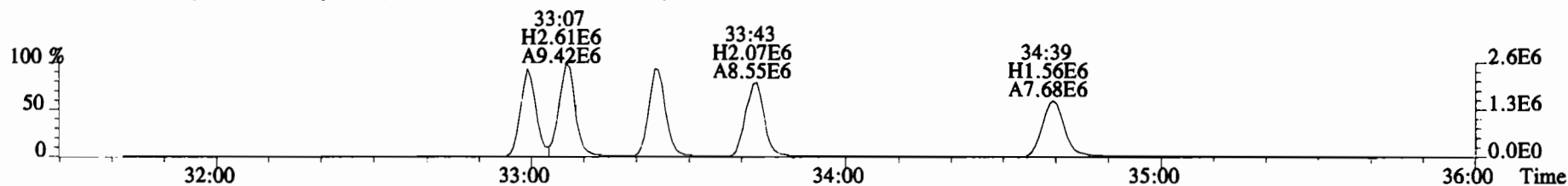
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



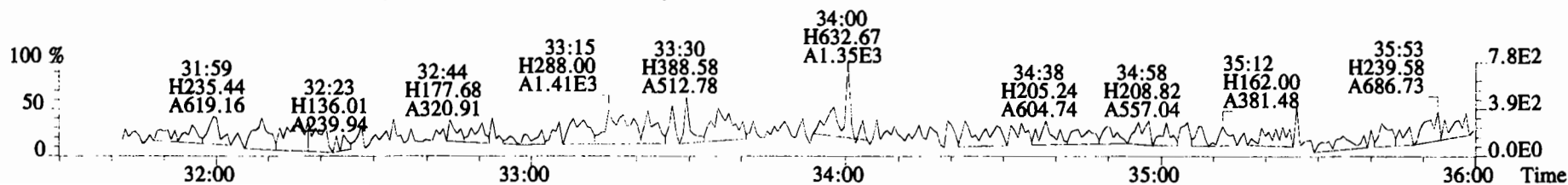
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



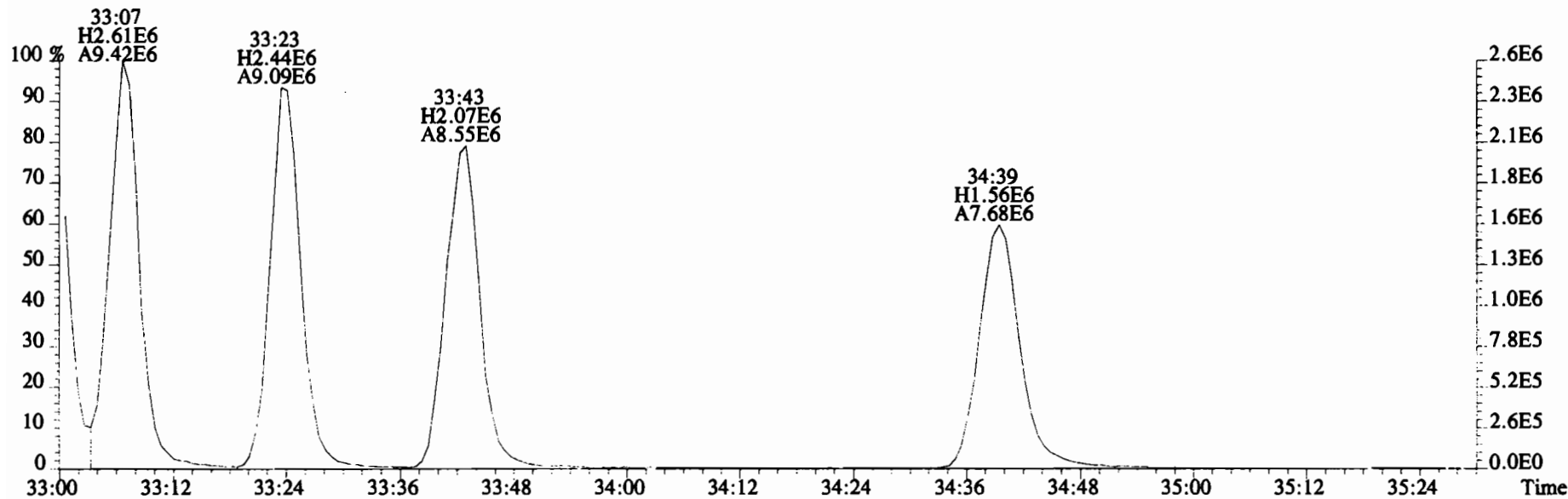
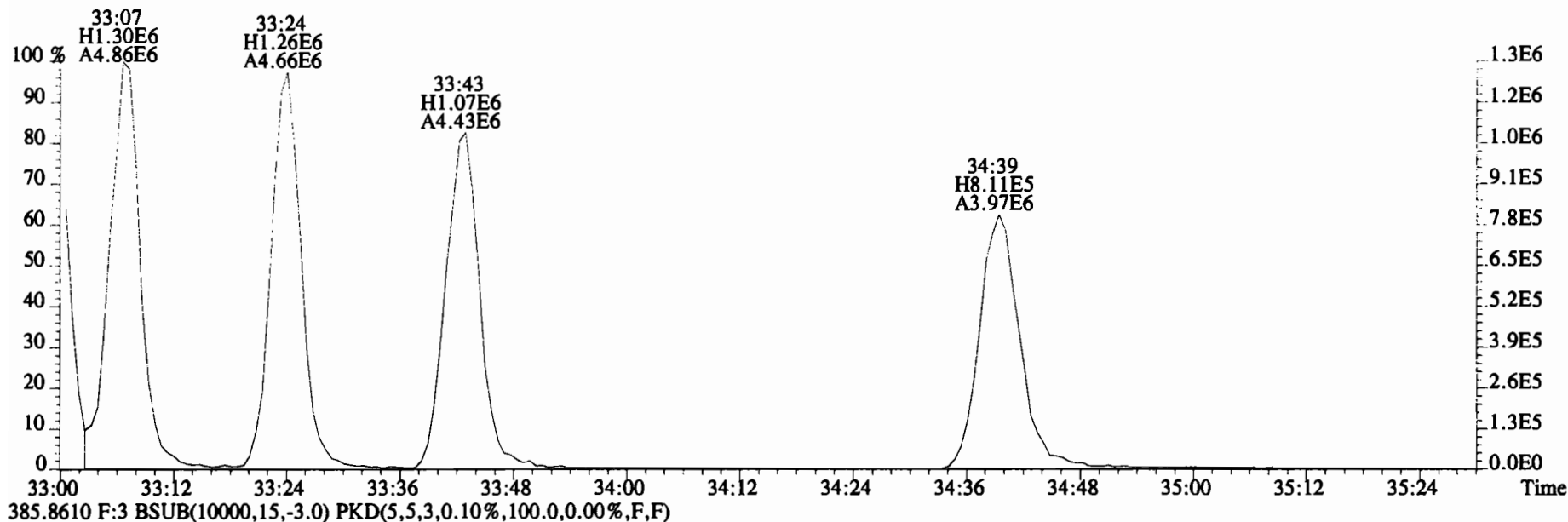
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



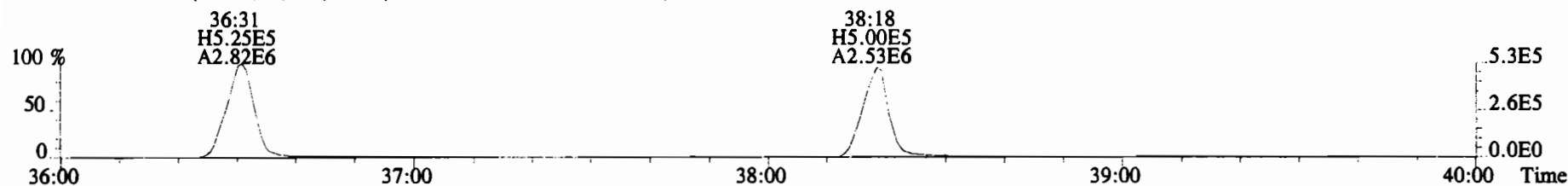
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



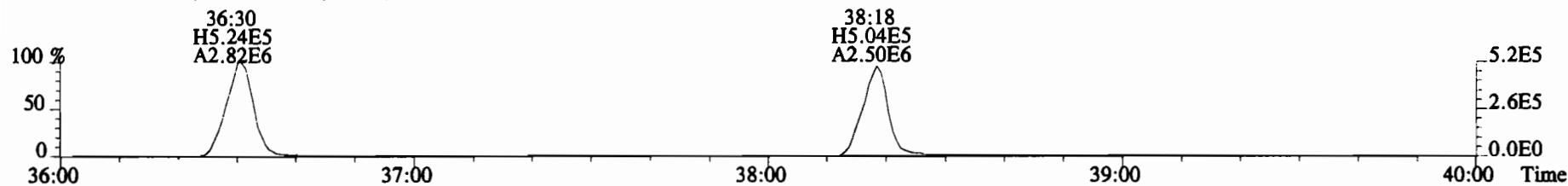
File:200107D2 #1-385 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



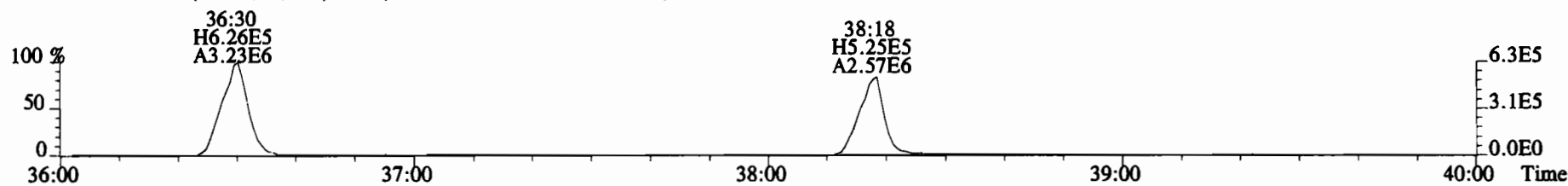
File:200107D2 #1-355 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



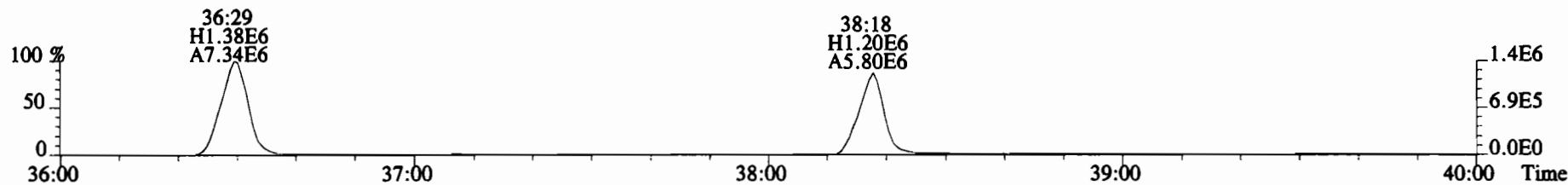
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



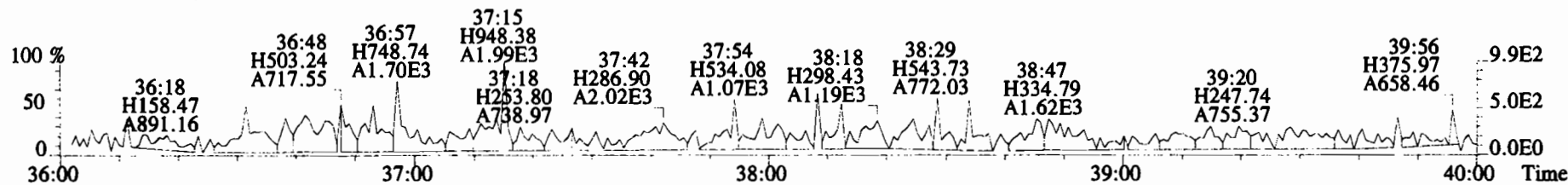
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

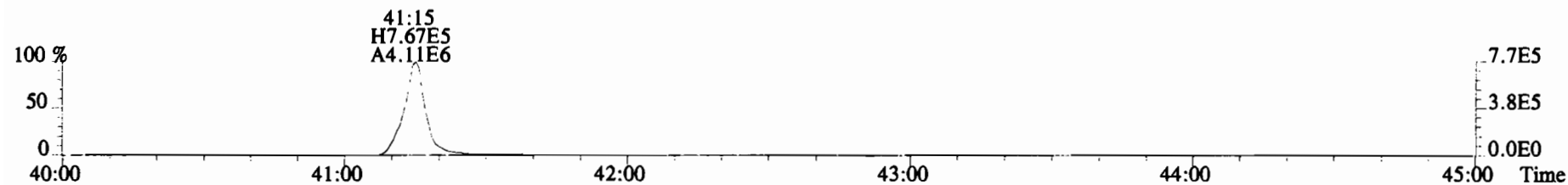


479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

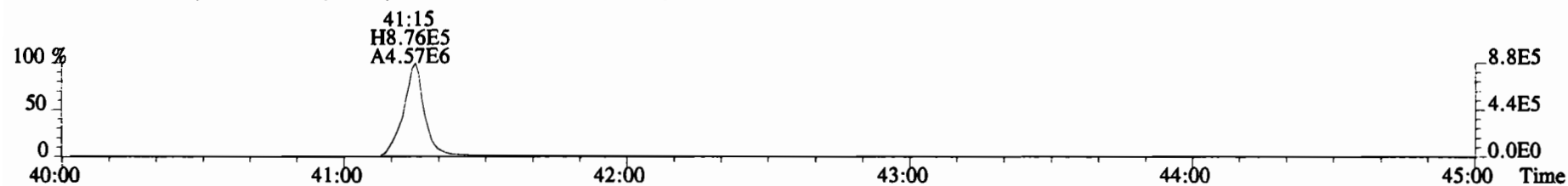




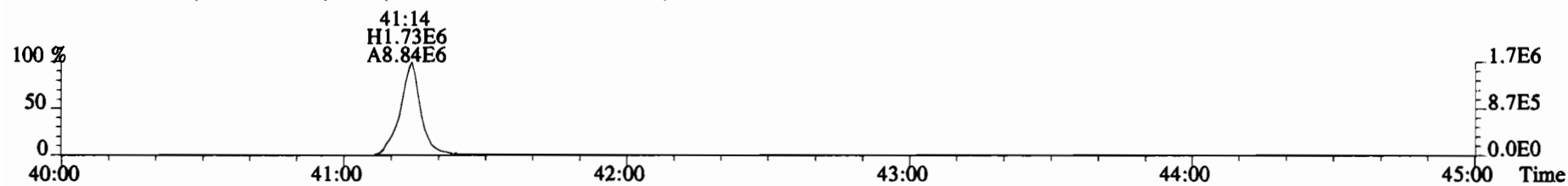
File:200107D2 #1-432 Acq: 7-JAN-2020 22:31:35 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200107D2-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
 441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



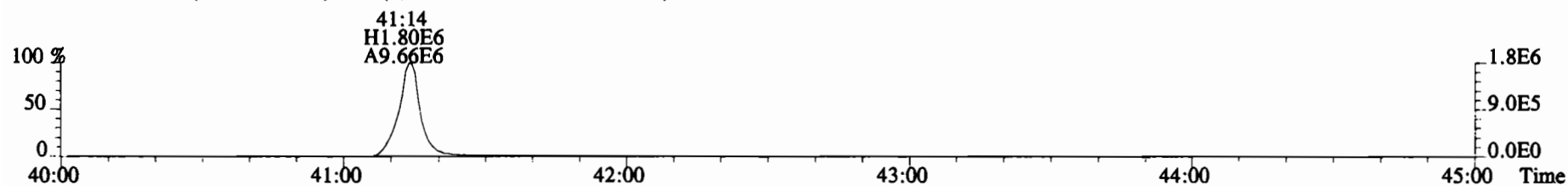
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



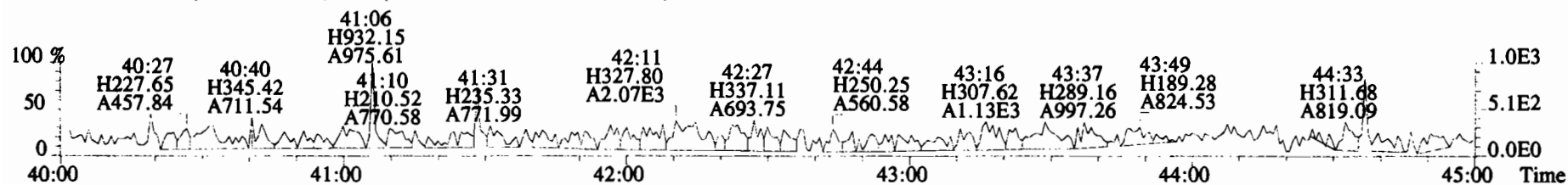
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

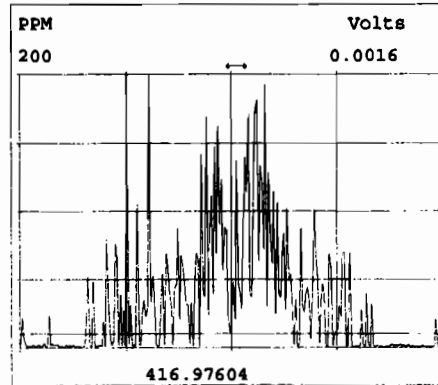
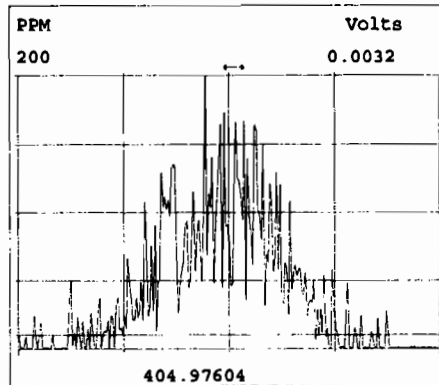
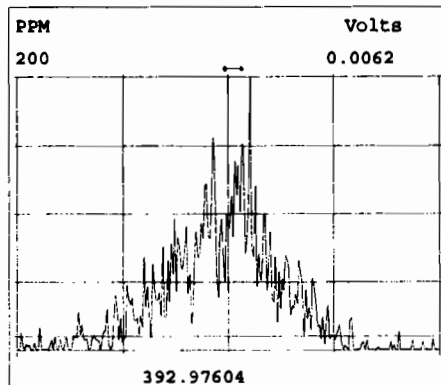
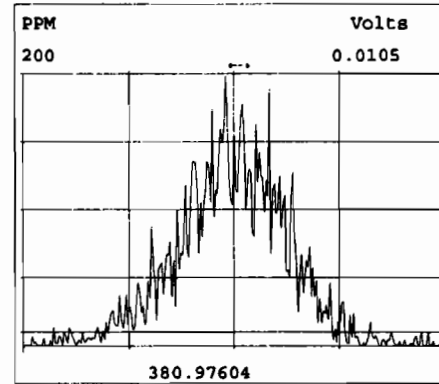
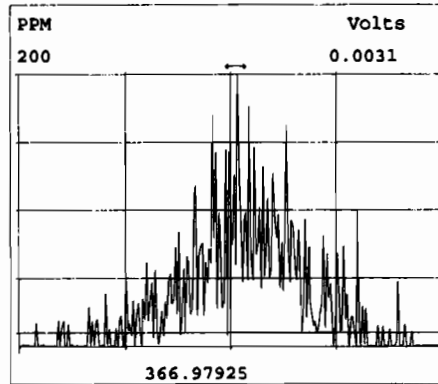
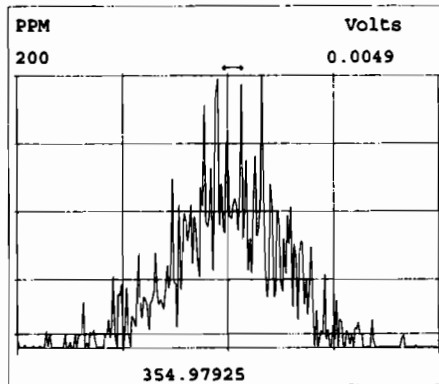
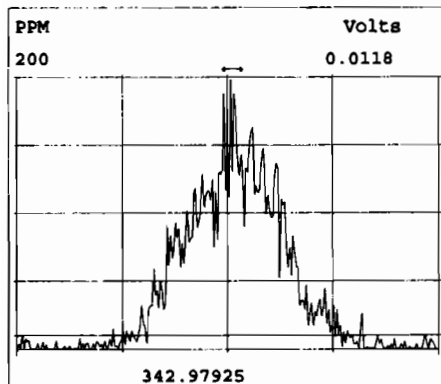
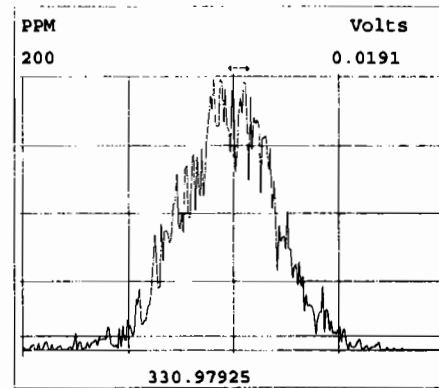
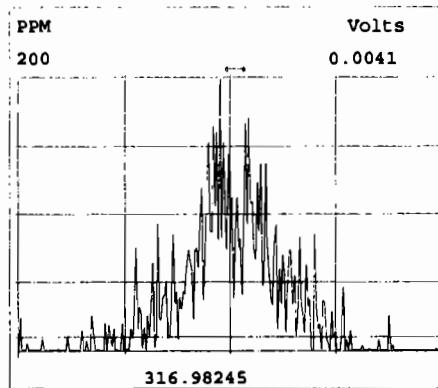
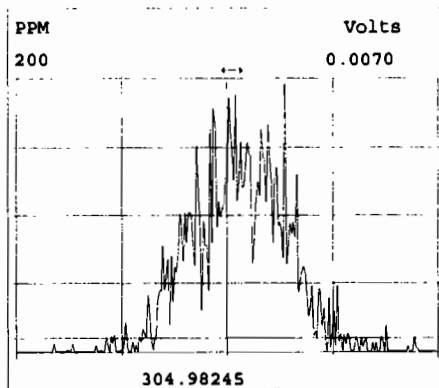
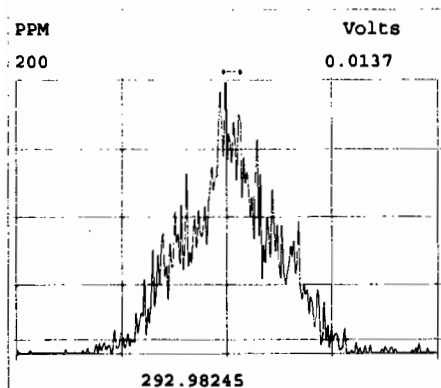


513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



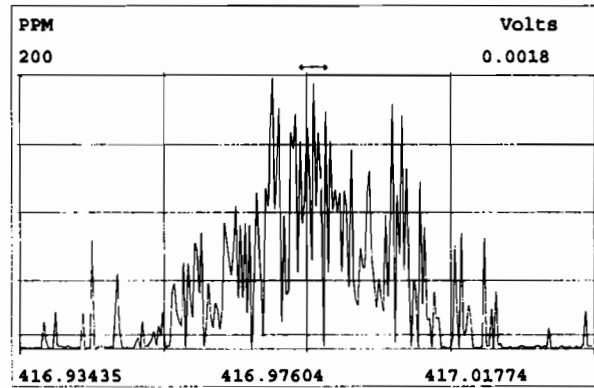
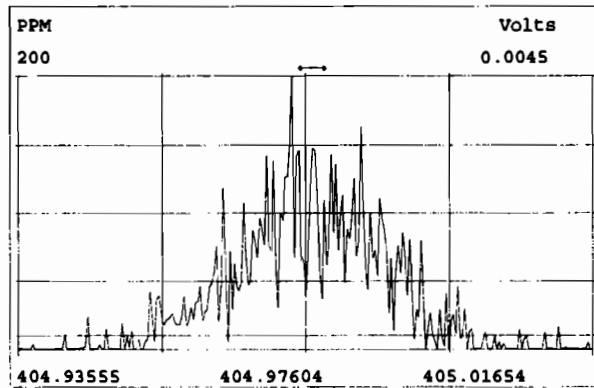
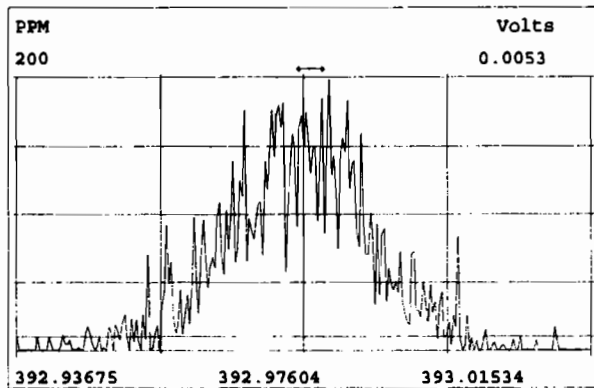
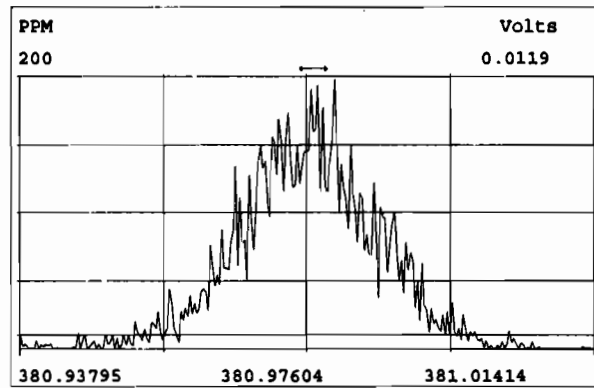
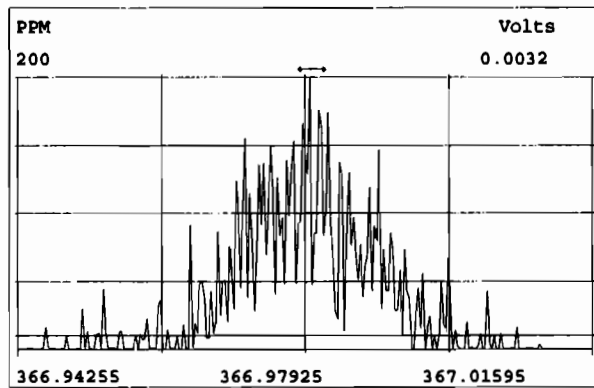
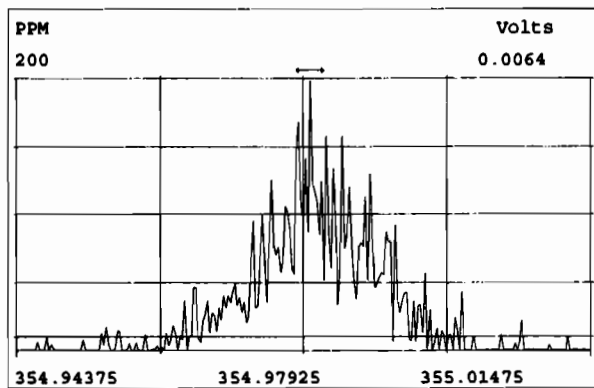
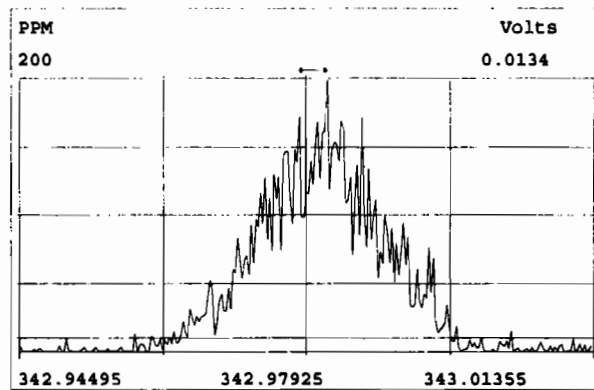
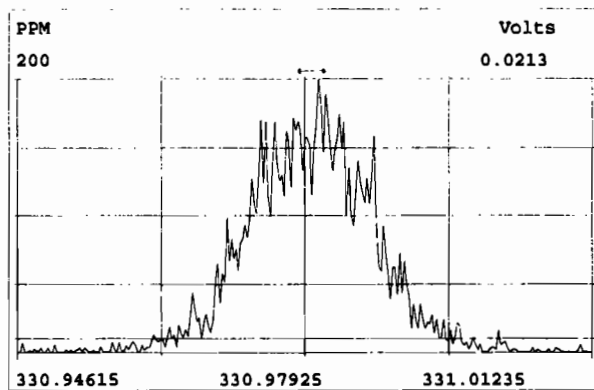
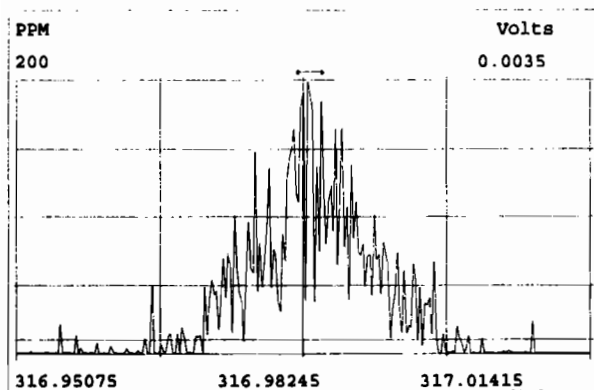
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Experiment:OCDD\_DB5 Function:1 Reference:PFK



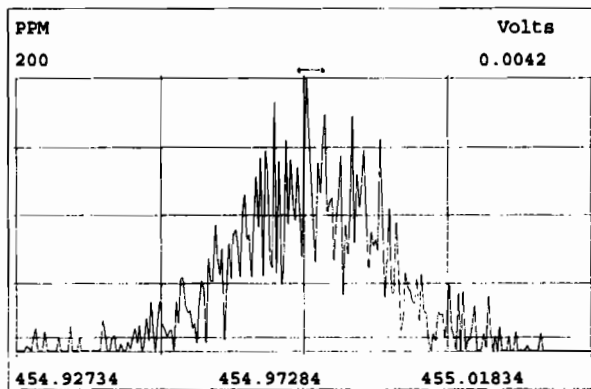
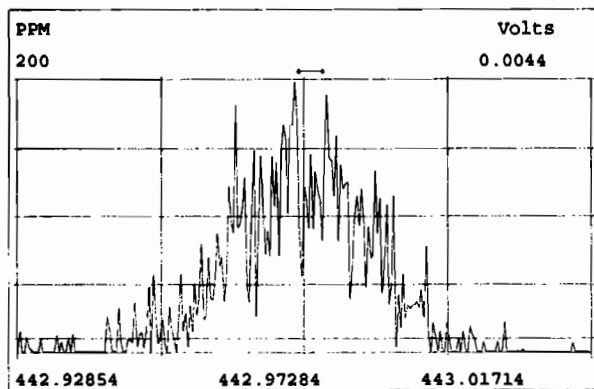
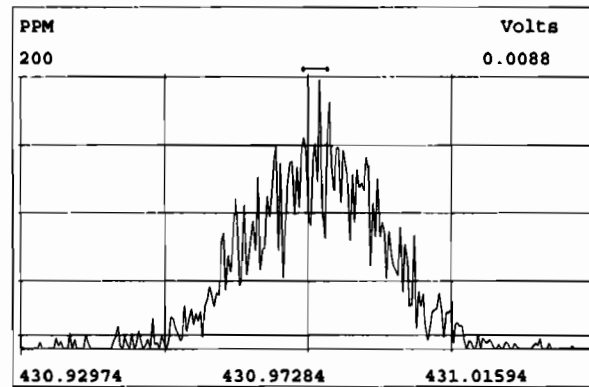
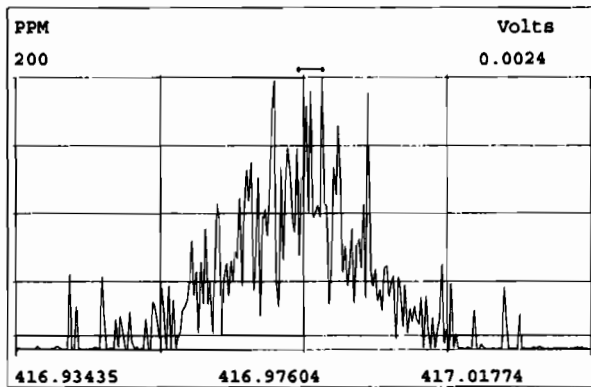
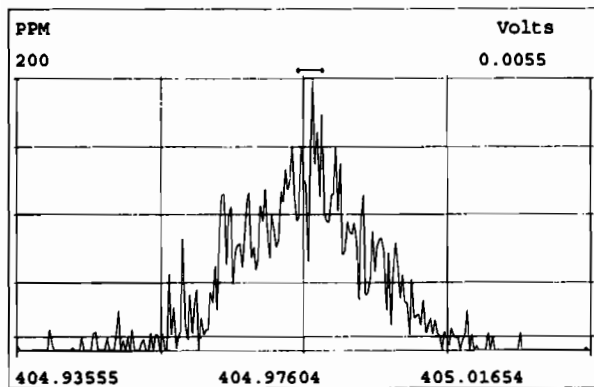
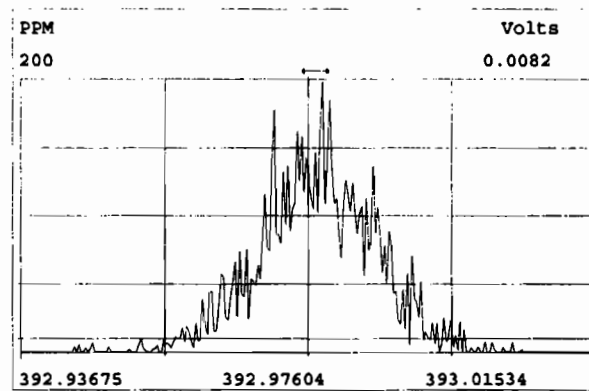
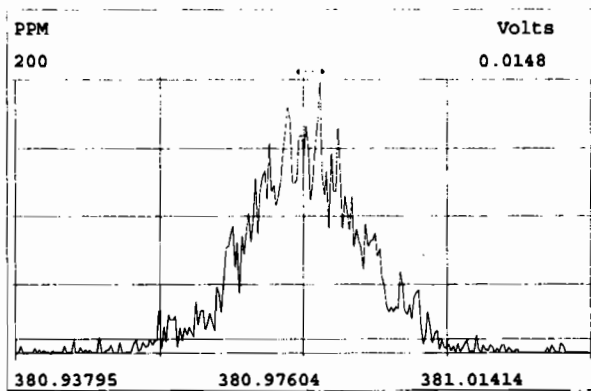
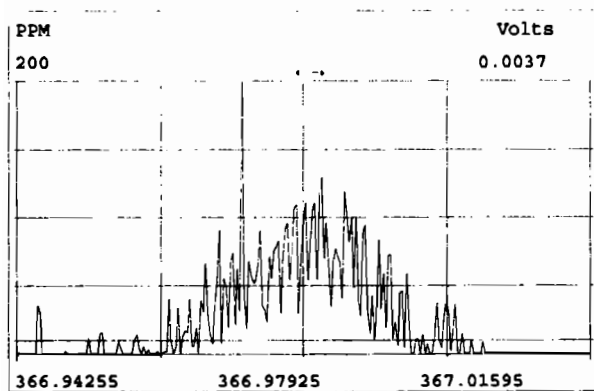
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Experiment:OCDD\_DB5 Function:2 Reference:PFK



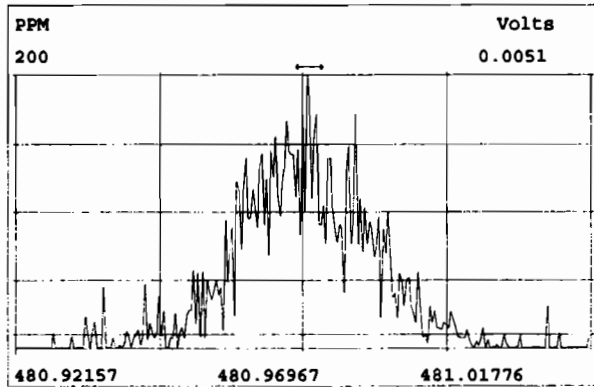
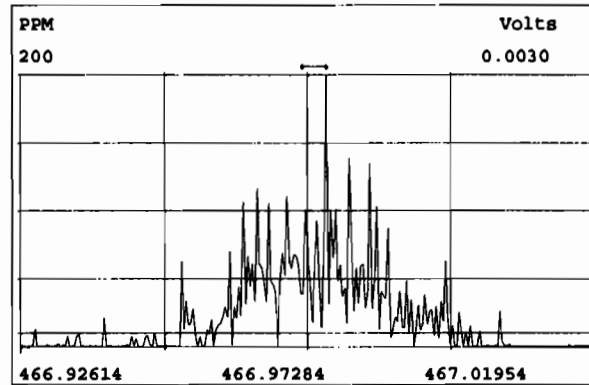
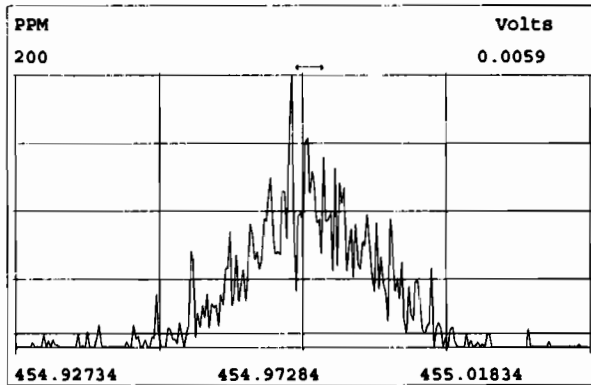
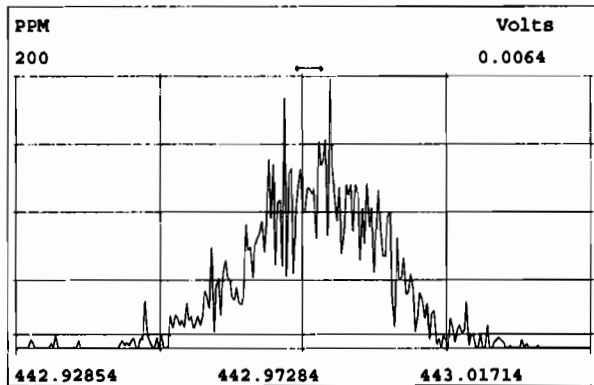
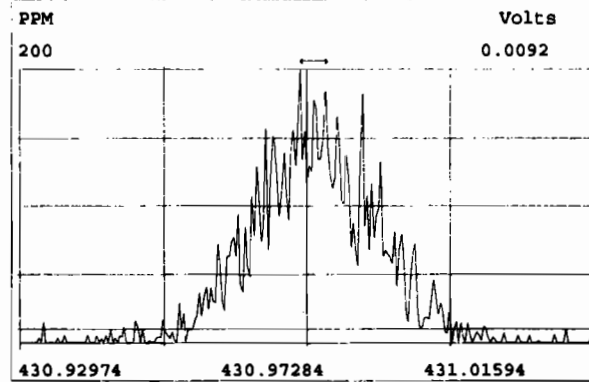
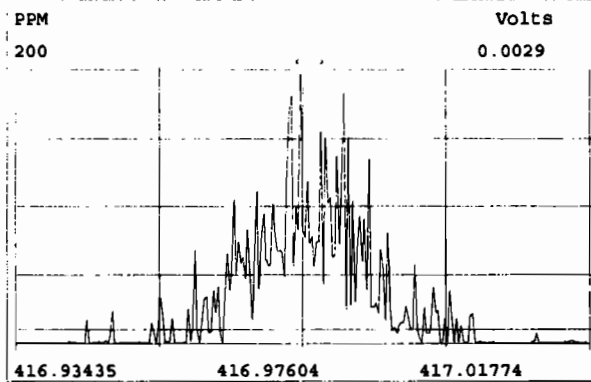
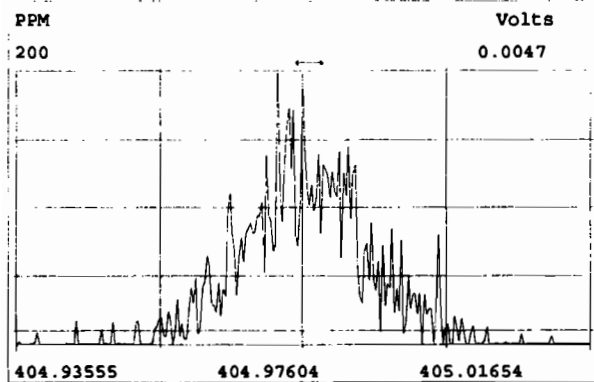
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Experiment:OCDD\_DB5 Function:3 Reference:PFK



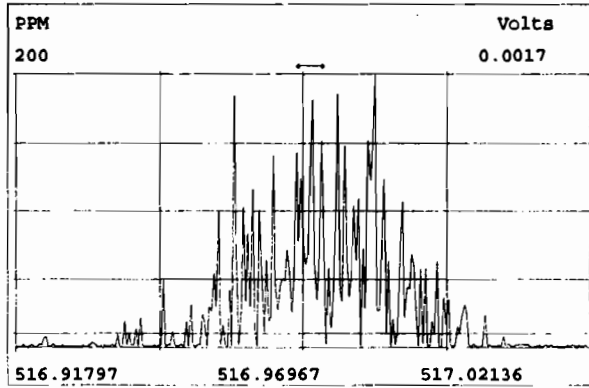
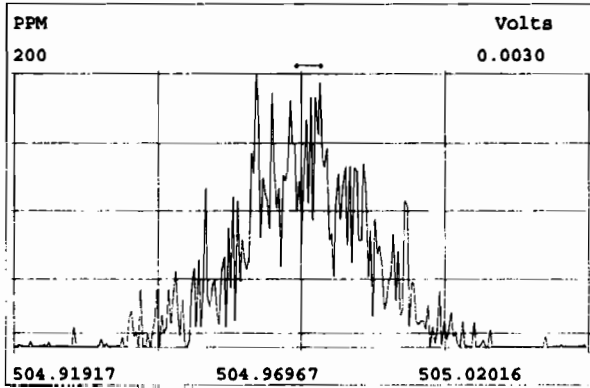
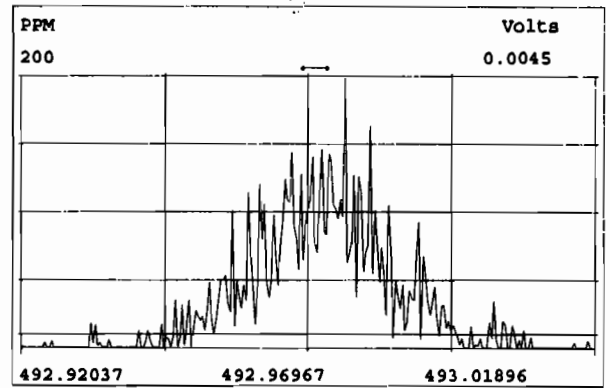
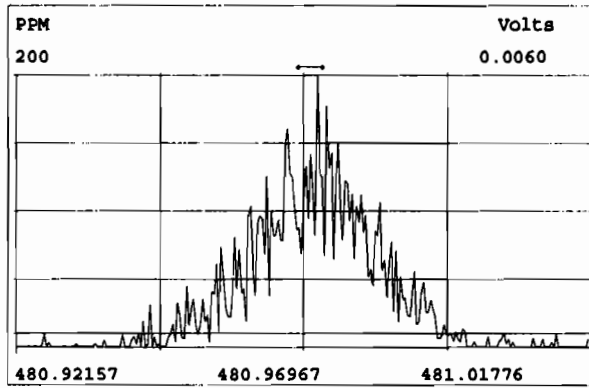
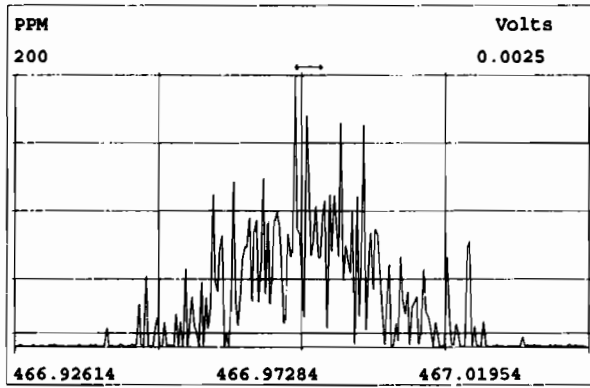
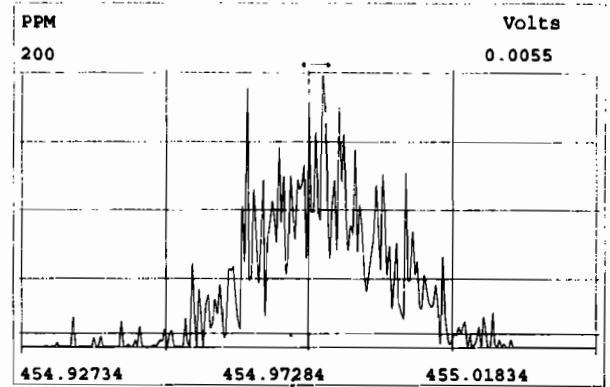
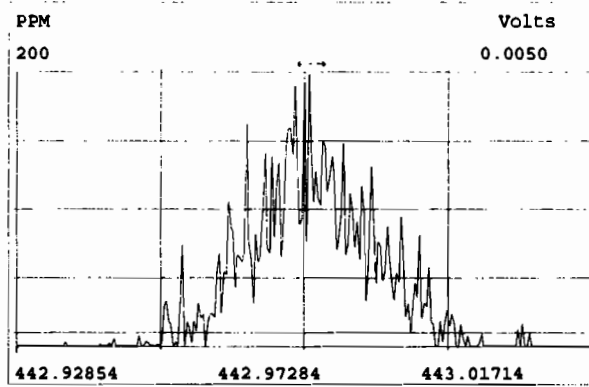
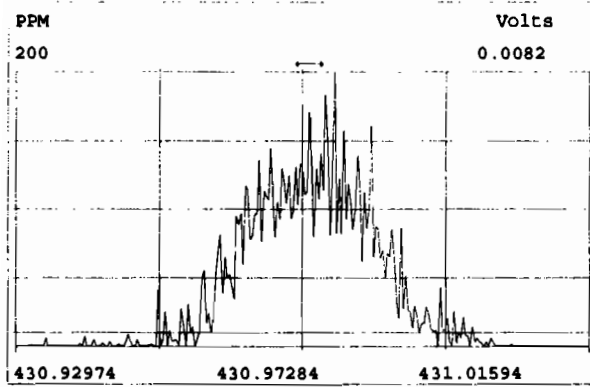
Peak Locate Examination: 8-JAN-2020:10:42 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:4 Reference:PFK



Peak Locate Examination: 8-JAN-2020:10:43 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:5 Reference:PFK



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Reg. Calibration ID:** ST200102D1-1

**Reviewed By:** CT 01/03/20

*Initials & Date*

**End Calibration ID:** ST200102D1-2

	<b>Reg.</b>	<b>End</b>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox" value="NA"/>
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Retention Times within criteria?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Verification Std. named correctly?</b> (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Correct ICAL referenced?</b>	<u>DB</u>	<u>DB</u>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Sample within 12 hour clock?	<input checked="" type="checkbox" value="Y"/>	<input type="checkbox" value="N"/>
- Bottle position verified?	<u>DB</u>	

	<b>Reg.</b>	<b>End</b>
<b>Mass resolution <math>\geq</math></b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K 1614    1699    429    1613/1668/8280		
<b>Integrated peaks display correctly?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>GC Break &lt;20%</b>		<input type="checkbox" value="NA"/>
<b><u>8280 CS1 End Standard:</u></b>		
- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		<input type="checkbox" value="NA"/>

**Comments:**

FORM 4A/4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

CCAL ID: ST200102D1-1

Initial Calibration Date: 5-30-19

Instrument ID: VG-7

GC Column ID: DB-225

VER Data Filename: 200102D1 S#2 Analysis Date: 2-JAN-20 Time: 13:52:56

ANALYTES	M/Z'S	ION	QC	CONC.	CONC. RANGE	CONC. RANGE
	FORMING	ABUND.	LIMITS		1613	8290
	RATIO (1)	RATIO	(2)	FOUND	(ng/mL)	(ng/mL)
2,3,7,8-TCDF	M/M+2	0.72	0.65-0.89	8.5	8.4 - 12.0 (3) 8.6 - 11.6 (4)	8.0 - 12.0
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	100.6	71.0 - 140.0 (3) 76.0 - 131.0 (4)	70.0 - 130.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6a, Method 1613, under VER.

(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: DBDate: 1/2/20



Client ID: 1613 CS3 19C2204  
Lab ID: ST200102D1-1

Filename: 200102D1 S:2 Acq: 2-JAN-20 13:52:56  
GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol: 1.000

ConCal: ST200102D1-1  
EndCAL: ST200102D1-2

Page 1 of 1

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.35e+07	0.79 y	15:36	1.00	100.0	-
13C-2,3,7,8-TCDF	1.38e+07	0.78 y	17:43	1.02	100.6	100.6
2,3,7,8-TCDF	1.11e+06	0.72 y	17:44	0.95	8.500	

Integrations  
by  
Analyst: DB

Date: 1/2/20

Reviewed  
by  
Analyst: CT

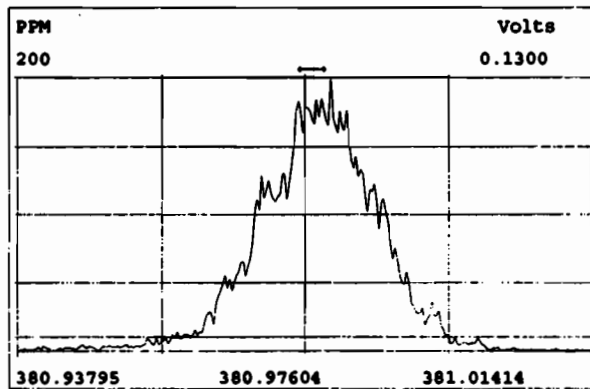
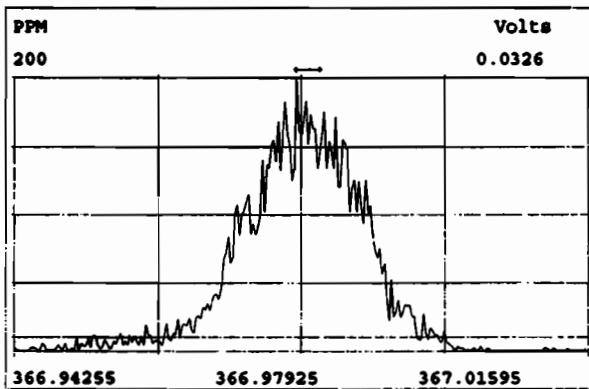
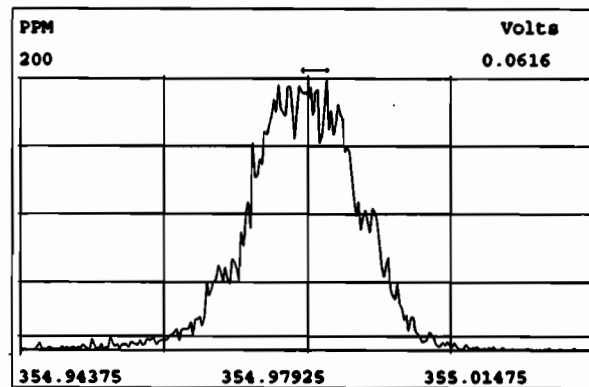
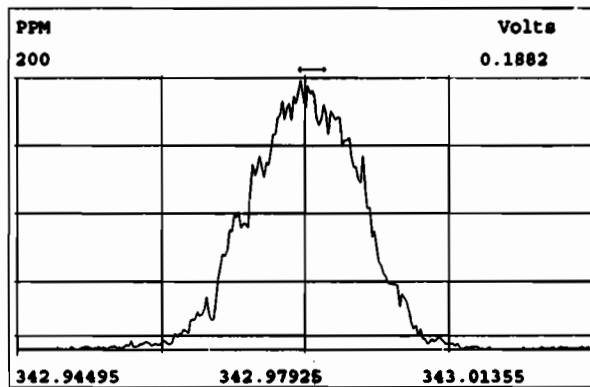
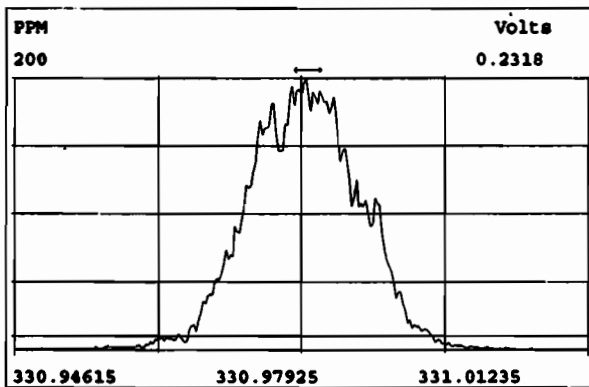
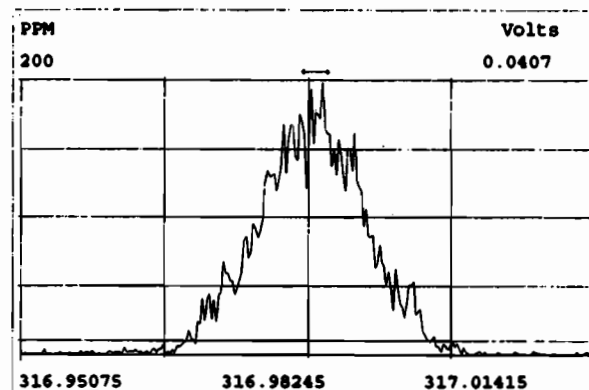
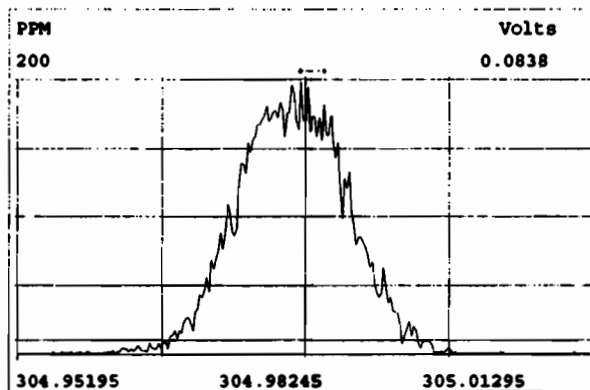
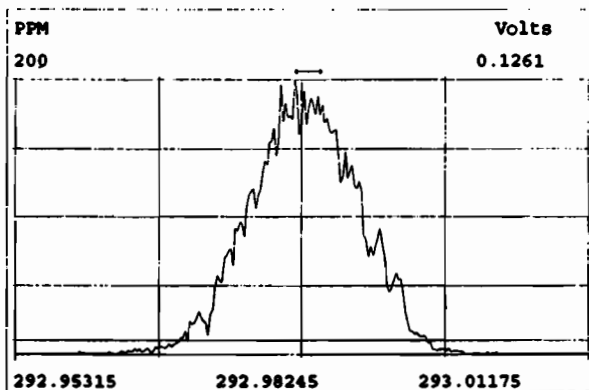
Date: 01/03/20

Vista Analytical Laboratory - Injection Log Run file: 200102D1 Instrument ID: VG-7 GC Column ID: DB-225

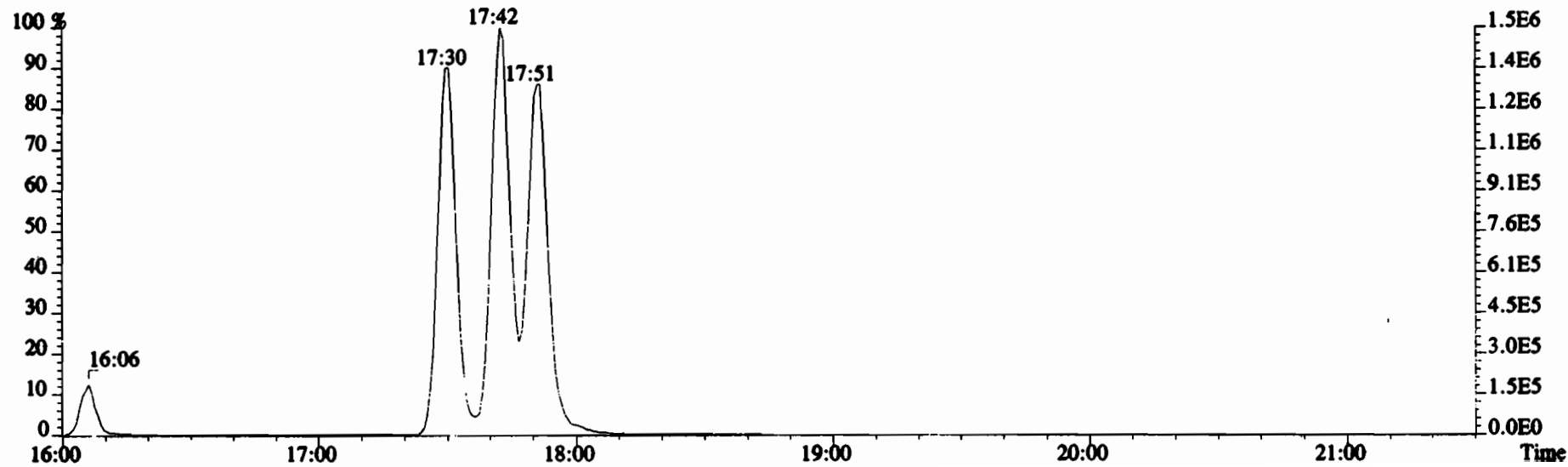
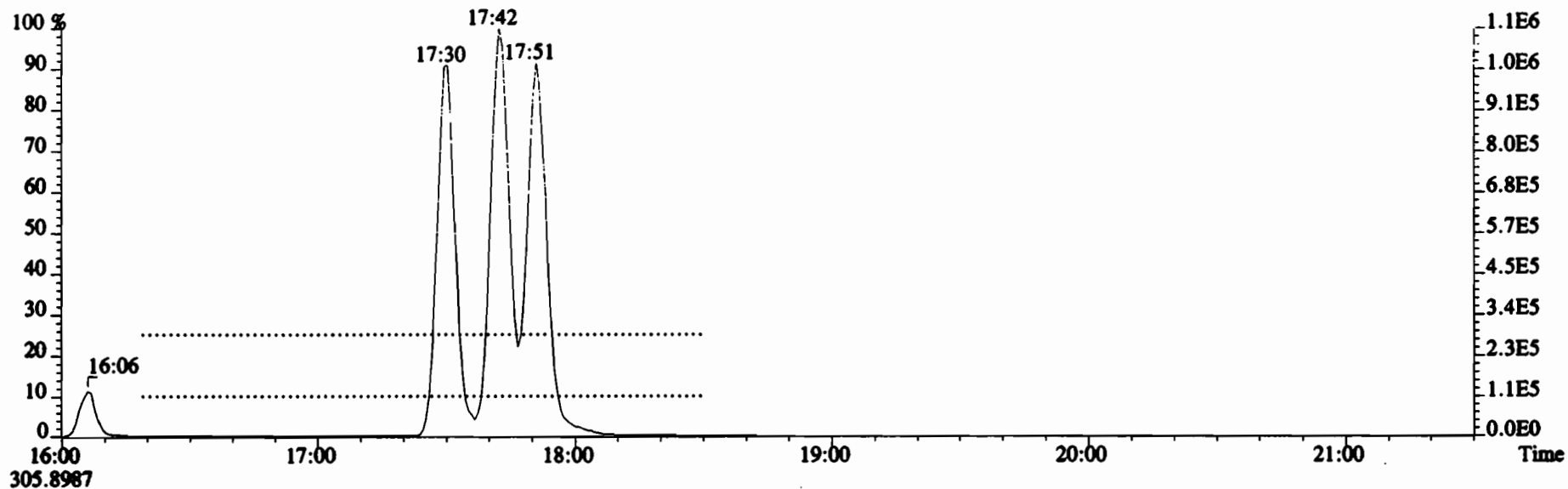
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200102D1	2	ST200102D1-1	DB	2-JAN-20	13:52:56	ST200102D1-1	ST200102D1-2
200102D1	3	SOLVENT BLANK	DB	2-JAN-20	14:25:17	NA	NA
200102D1	4	1904006-03RE1	DB	2-JAN-20	14:57:38	ST200102D1-1	ST200102D1-2
200102D1	5	1904006-07RE1	DB	2-JAN-20	15:29:58	ST200102D1-1	ST200102D1-2
200102D1	6	1904006-09RE1	DB	2-JAN-20	16:02:14	ST200102D1-1	ST200102D1-2
200102D1	7	1904006-10RE1	DB	2-JAN-20	16:34:35	ST200102D1-1	ST200102D1-2
200102D1	8	1904009-03RE1	DB	2-JAN-20	17:06:56	ST200102D1-1	ST200102D1-2
200102D1	9	1904009-08RE1	DB	2-JAN-20	17:39:15	ST200102D1-1	ST200102D1-2
200102D1	10	1904009-10RE1	DB	2-JAN-20	18:11:34	ST200102D1-1	ST200102D1-2
200102D1	11	1904016-06RE1	DB	2-JAN-20	18:43:54	ST200102D1-1	NA
200102D1	12	1903655-01RE1	DB	2-JAN-20	19:16:13	ST200102D1-1	NA
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200102D1	15	1903461-11RE2	DB	2-JAN-20	20:53:11	ST200102D1-1	NA
200102D1	16	1903461-13RE3	DB	2-JAN-20	21:25:33	ST200102D1-1	NA
200102D1	17	1903655-06RE1	DB	2-JAN-20	21:57:55	ST200102D1-1	NA
200102D1	18	1903461-12RE2	DB	2-JAN-20	22:30:17	ST200102D1-1	NA
200102D1	19	SOLVENT BLANK	DB	2-JAN-20	23:02:38	NA	NA
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Peak Locate Examination: 2-JAN-2020:13:20 File:200102D1

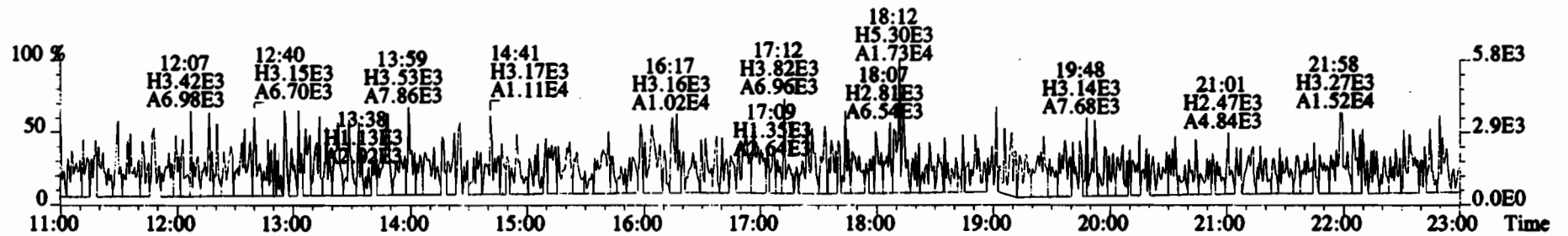
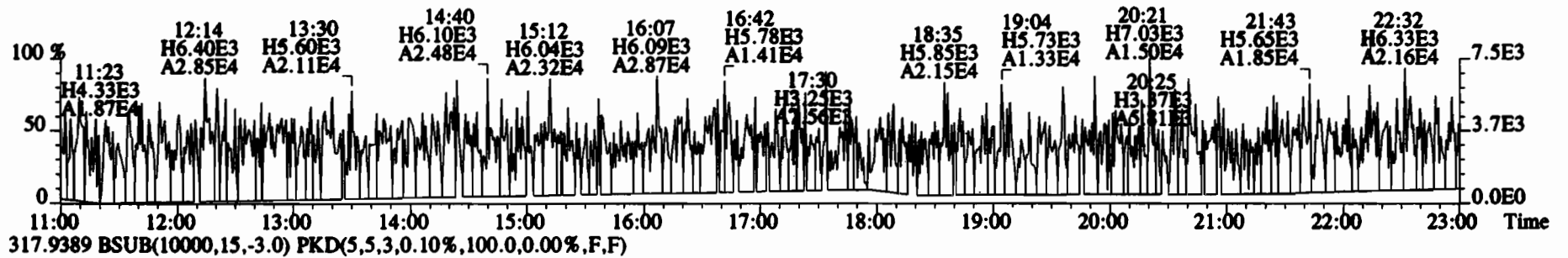
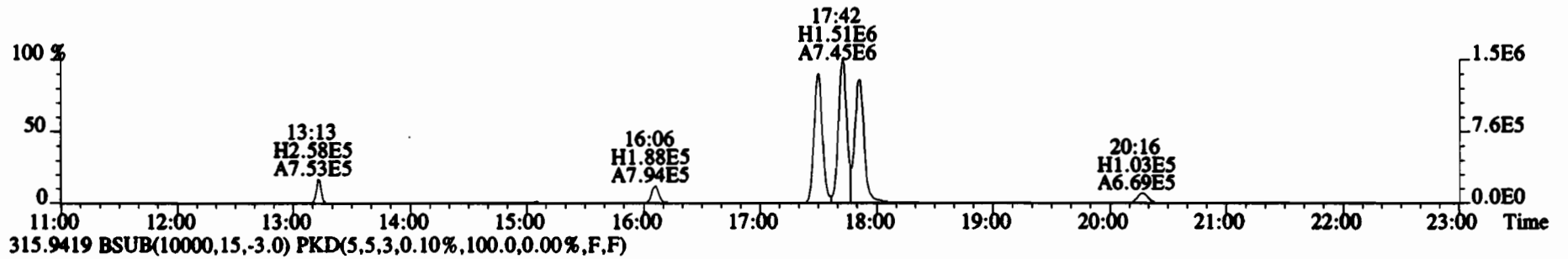
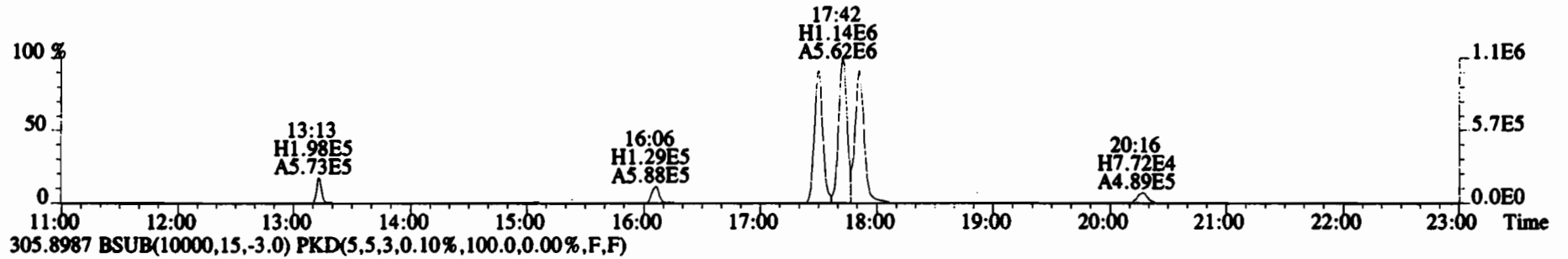
Experiment:TCDF\_DB225 Function:1 Reference:PFK



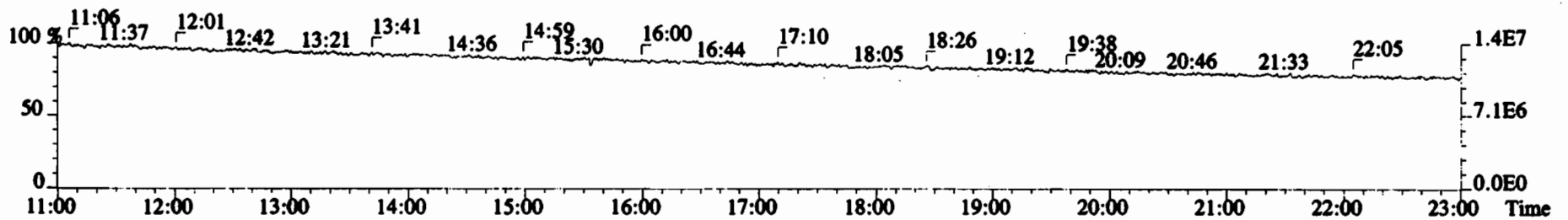
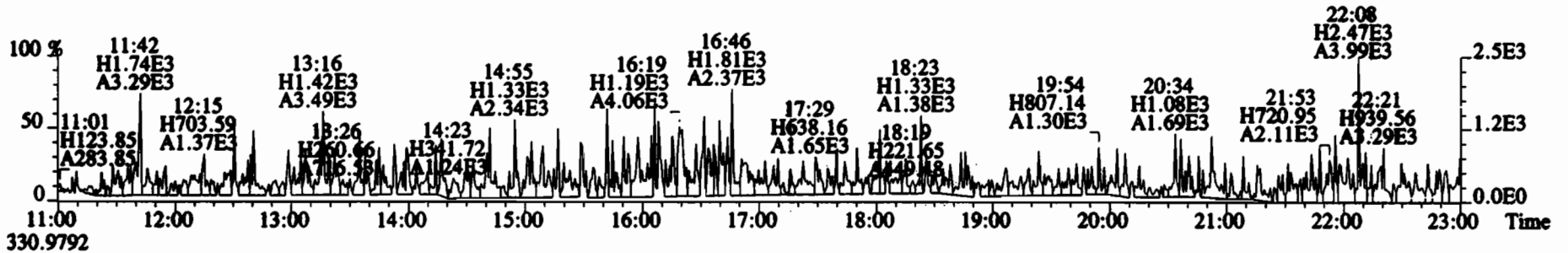
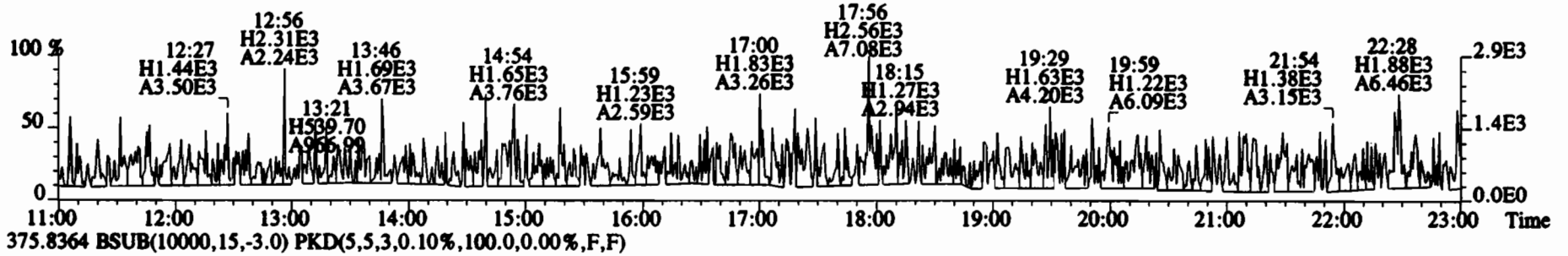
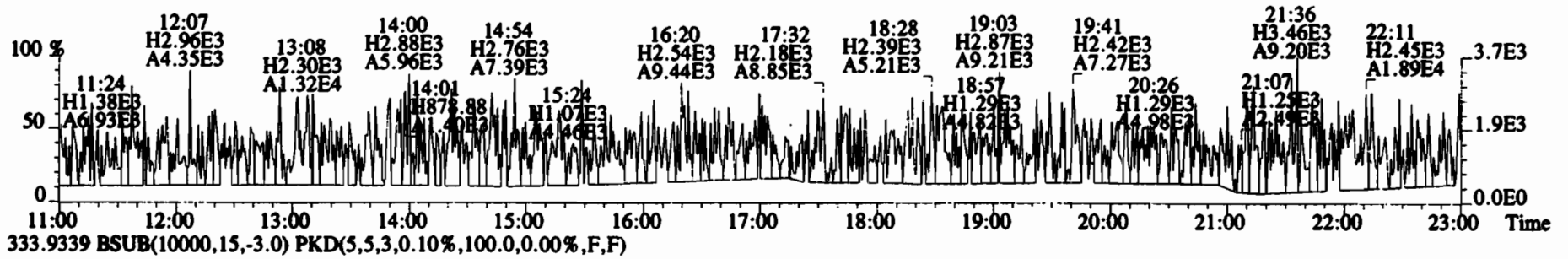
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303.9016



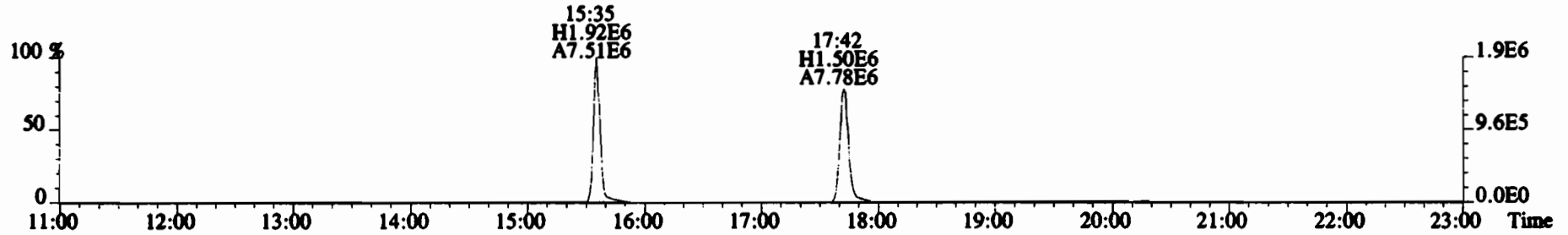
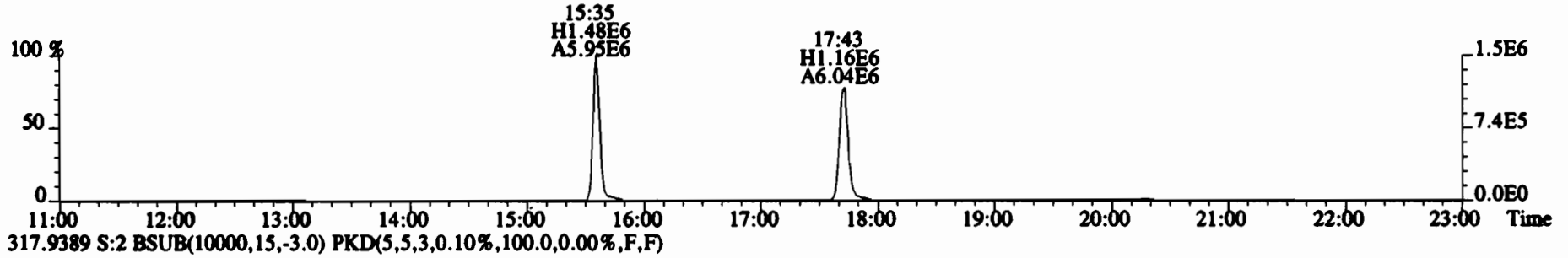
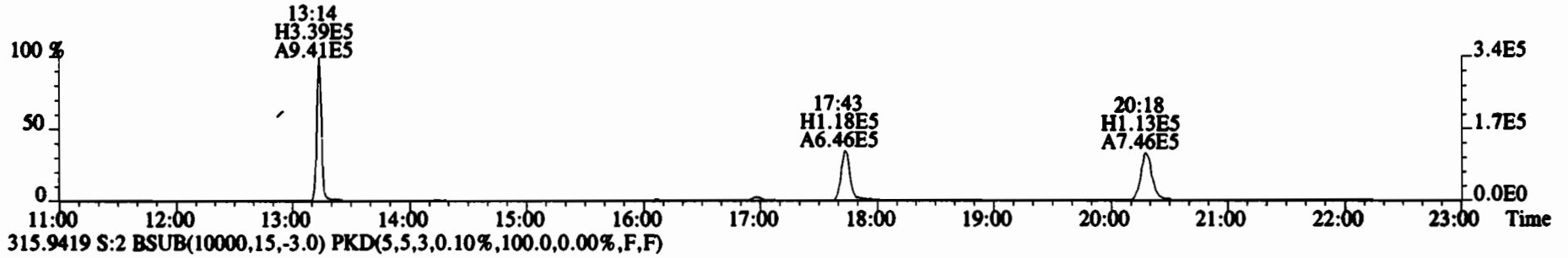
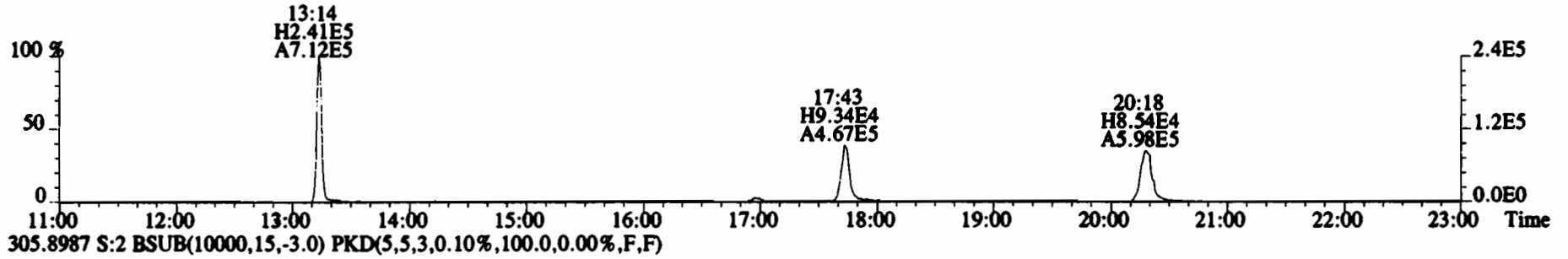
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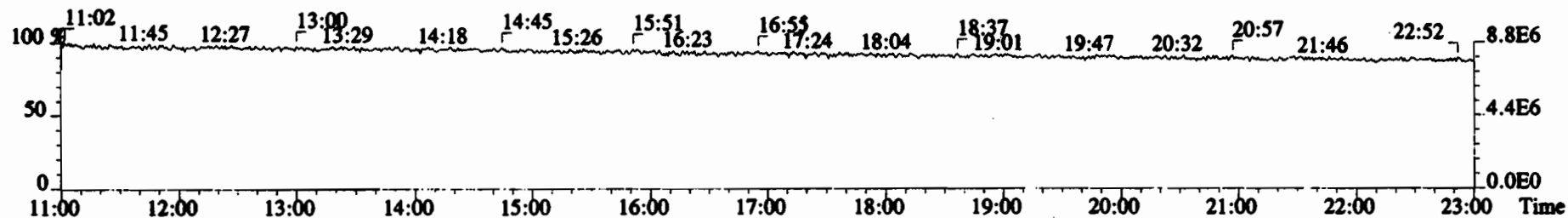
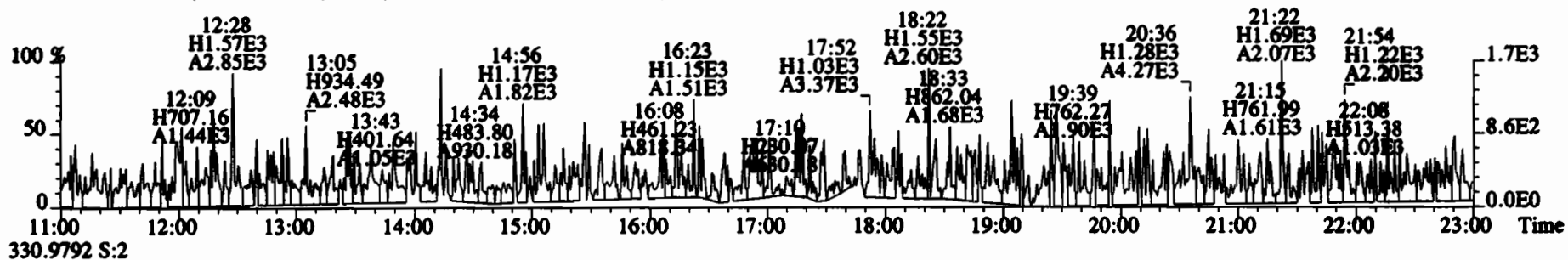
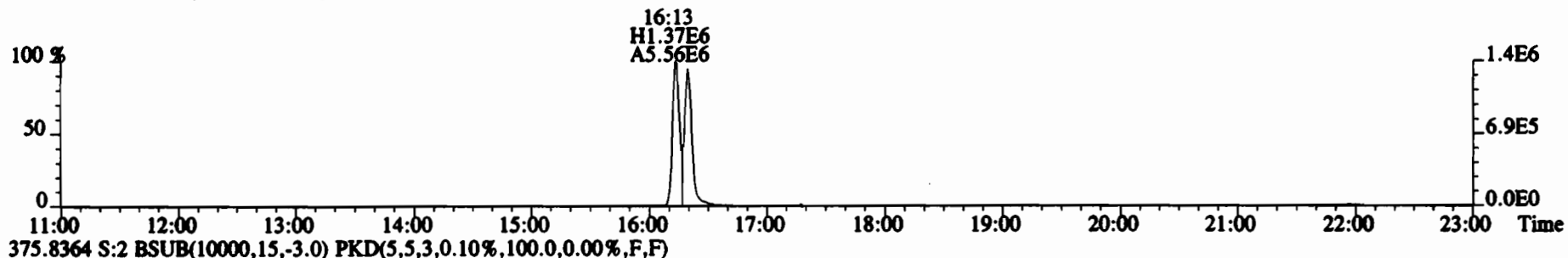
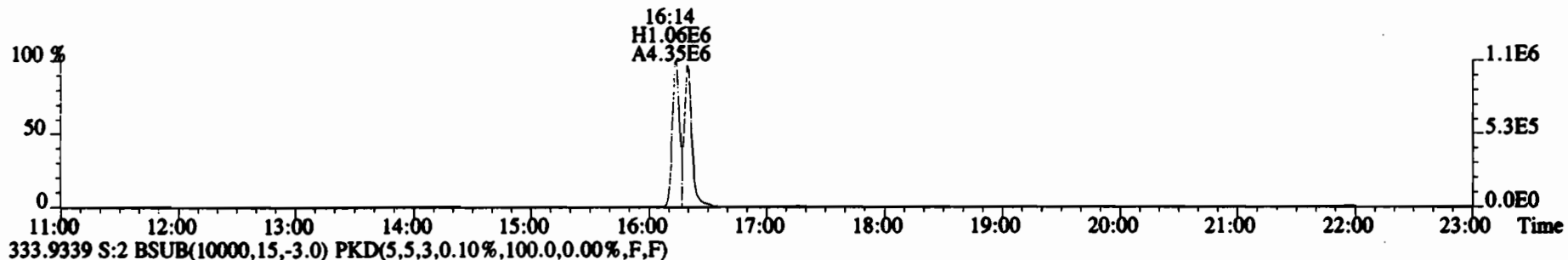
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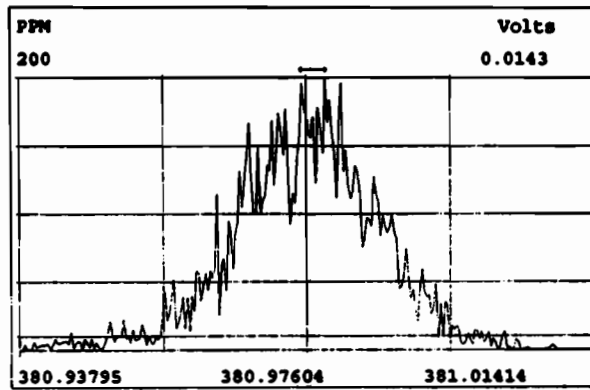
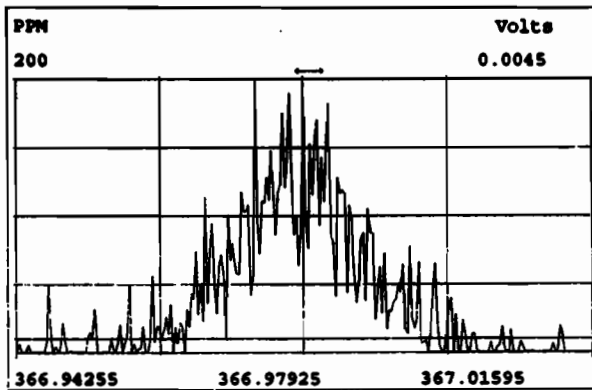
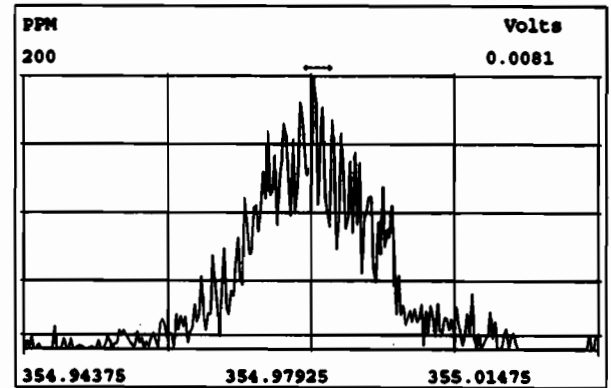
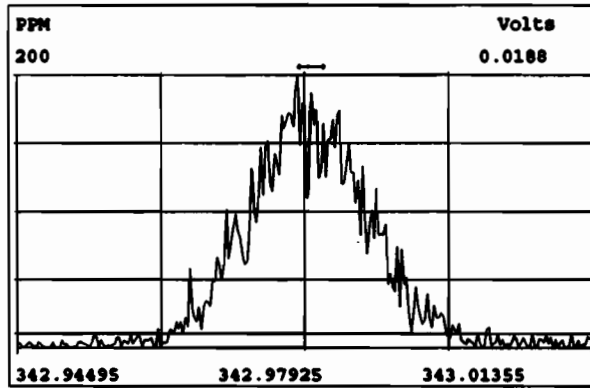
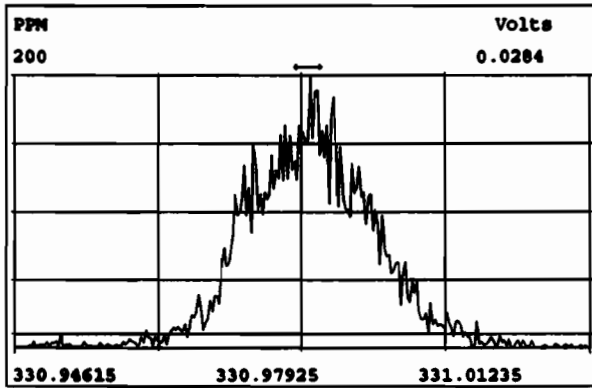
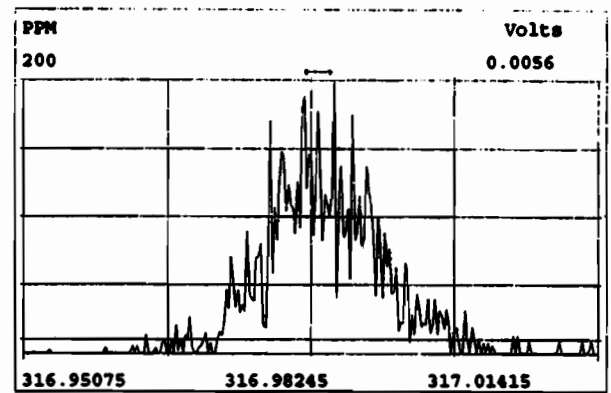
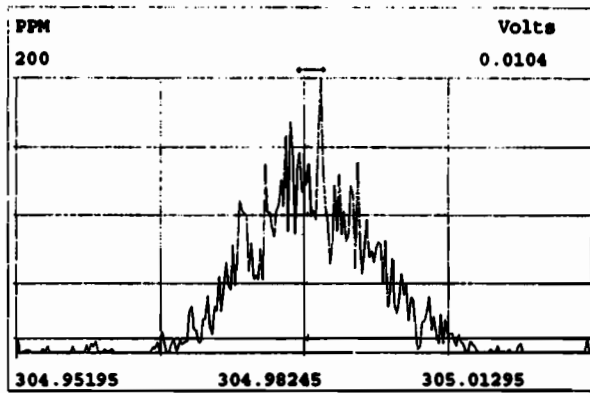
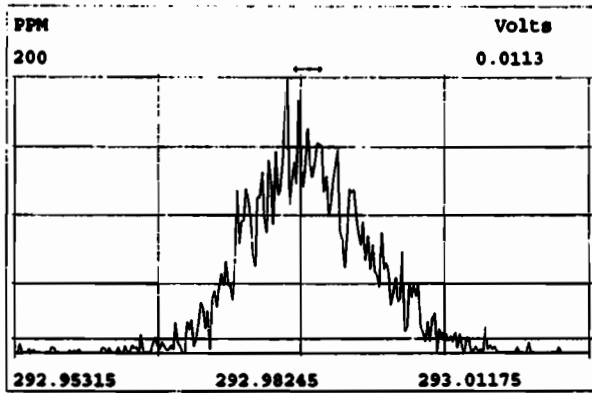
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303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200102D1 #1-1682 Acq: 2-JAN-2020 13:52:56 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST200102D1-1 1613 CS3 19C2204 Exp:TCDF\_DB225  
 331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)







# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST20010811-1

**Reviewed By:** CT 01/02/2020

*Initials & Date*

**End Calibration ID:** NA

	<u>Beg.</u>	<u>End</u>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Retention Times within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Verification Std. named correctly?</b> (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Correct ICAL referenced?</b>	<u>DB</u>	<input type="checkbox"/>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
- Samples within 12 hour clock?	(Y)	N
- Bottle position verified?	<u>DB</u>	<input type="checkbox"/>

**Mass resolution  $\geq$**

5k    6-8K    8K    10K  
1614   1699   429   1613/1668/8280

**Intergrated peaks display correctly?**

**GC Break <20%**

**8280 CS1 End Standard:**

**- Ratios within limits, S/N <2.5:1, CS1 within 12 hours**

**Comments:**

FORM 4A/4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

CCAL ID: ST200108D1-1

Initial Calibration Date: 5-30-19

Instrument ID: VG-7

GC Column ID: DB-225

VER Data Filename: 200108D1 S#2 Analysis Date: 8-JAN-20 Time: 11:40:07

ANALYTES	M/Z'S	ION	QC	CONC.	CONC. RANGE	CONC. RANGE
	FORMING	ABUND.	LIMITS		1613	8290
	RATIO (1)	RATIO	(2)	FOUND	(ng/mL)	(ng/mL)
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	10.4	8.4 - 12.0 (3)	8.0 - 12.0
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	104.8	8.6 - 11.6 (4)	
					71.0 - 140.0 (3)	70.0 - 130.0
					76.0 - 131.0 (4)	

- (1) See Table 8, Method 1613, for m/z specifications.
- (2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
- (3) Contract-required concentration range as specified in Table 6a, Method 1613, under VER.
- (4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: DBDate: 1/8/20

Client ID: 1613 CS3 19I1604  
Lab ID: ST200108D1-1

Filename: 200108D1 S:2 Acq: 8-JAN-20 11:40:07  
GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol: 1.000

ConCal: ST200108D1-1  
EndCAL: NA

Page 1 of 1

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.29e+07	0.77 y	15:36	1.00	100.0	-
13C-2,3,7,8-TCDF	1.38e+07	0.78 y	17:43	1.02	104.8	104.8
2,3,7,8-TCDF	1.36e+06	0.80 y	17:44	0.95	10.35	

Integrations

by  
Analyst: DB

Date: 1/8/20

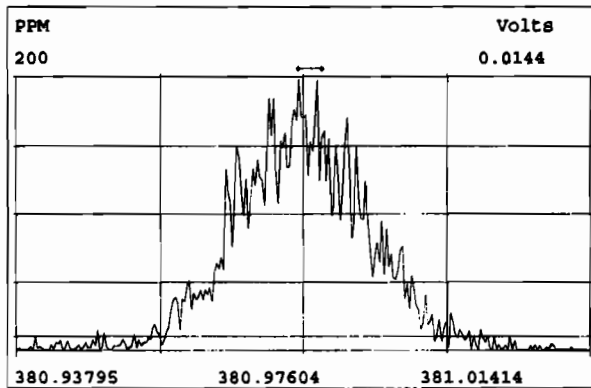
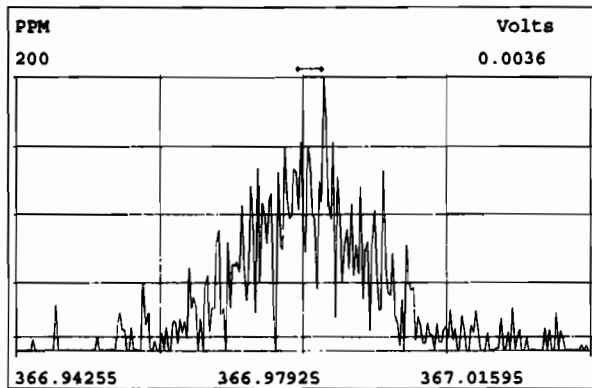
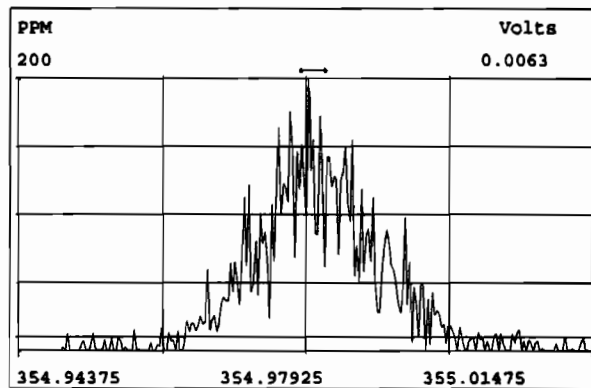
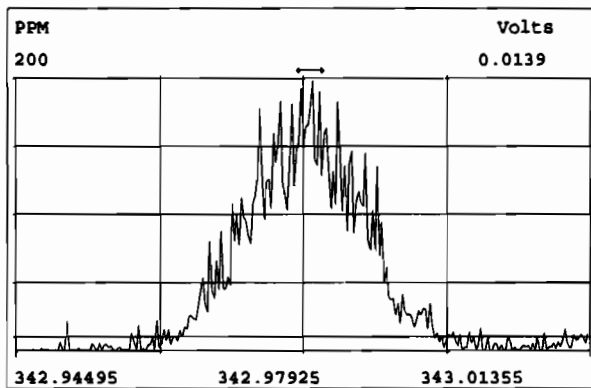
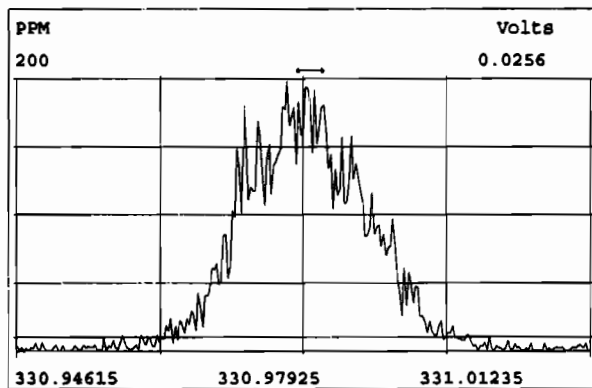
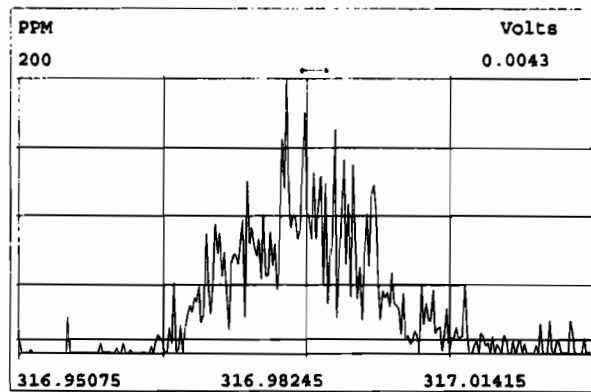
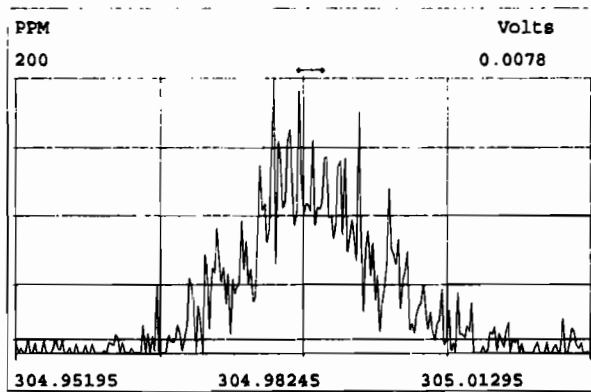
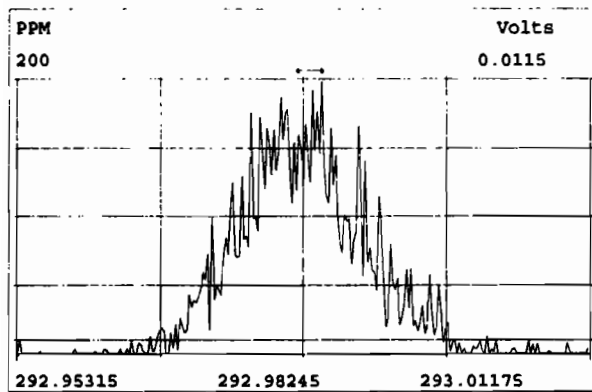
Reviewed

by  
Analyst: CT

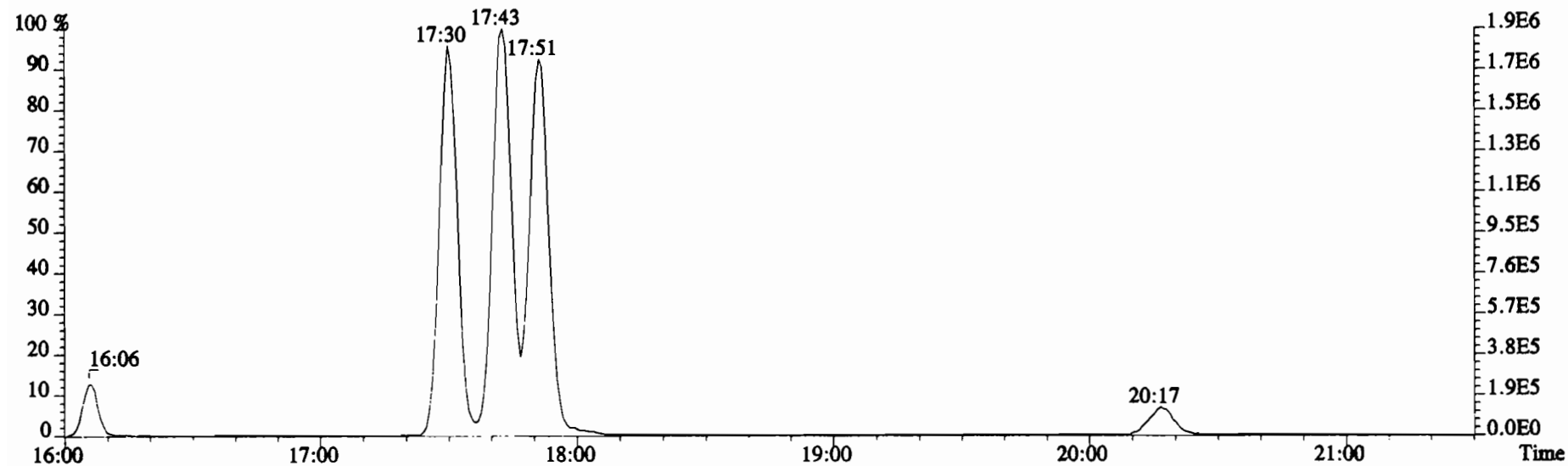
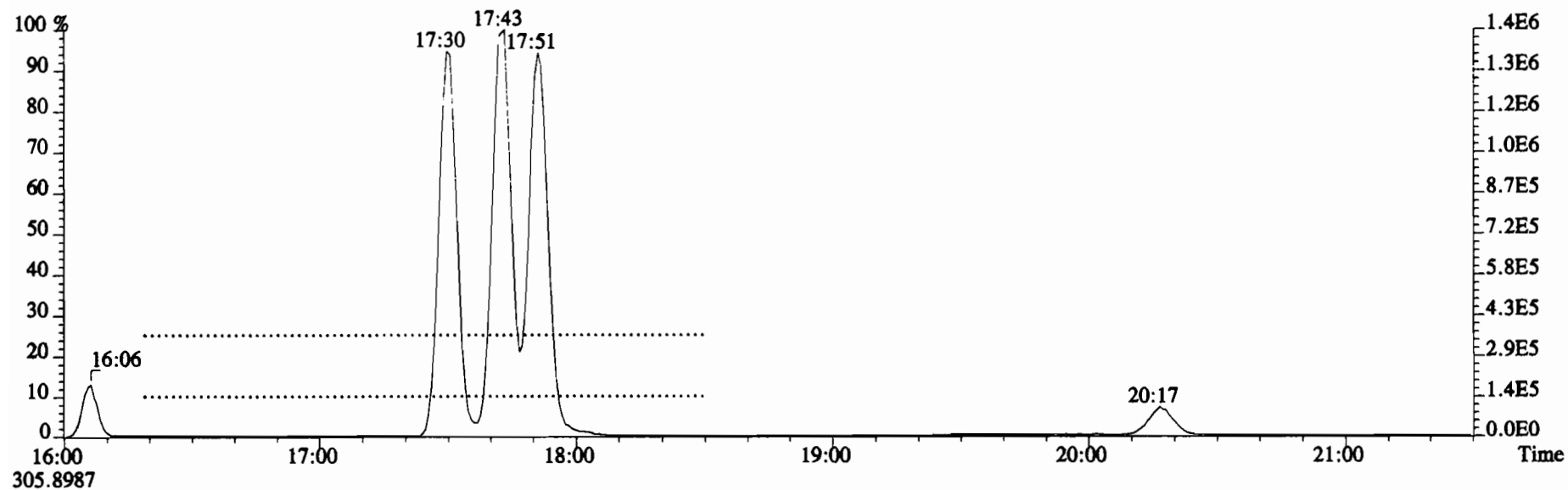
Date: 01/08/2020

Vista Analytical Laboratory - Injection Log Run file: 200108D1 Instrument ID: VG-7 GC Column ID: DB-225

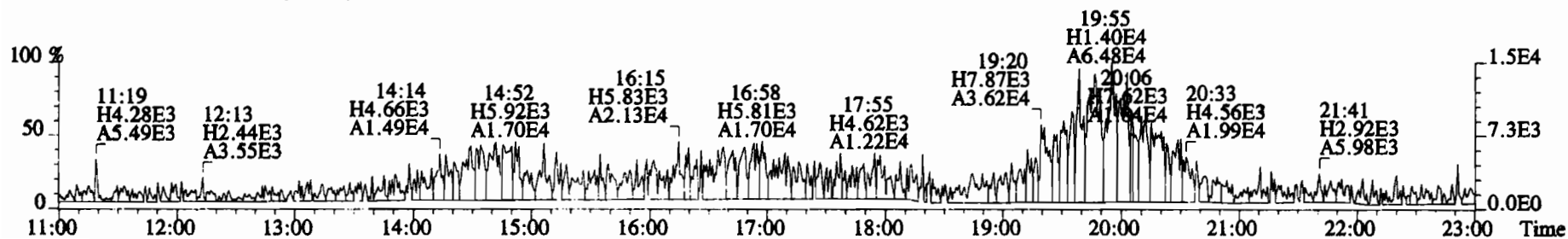
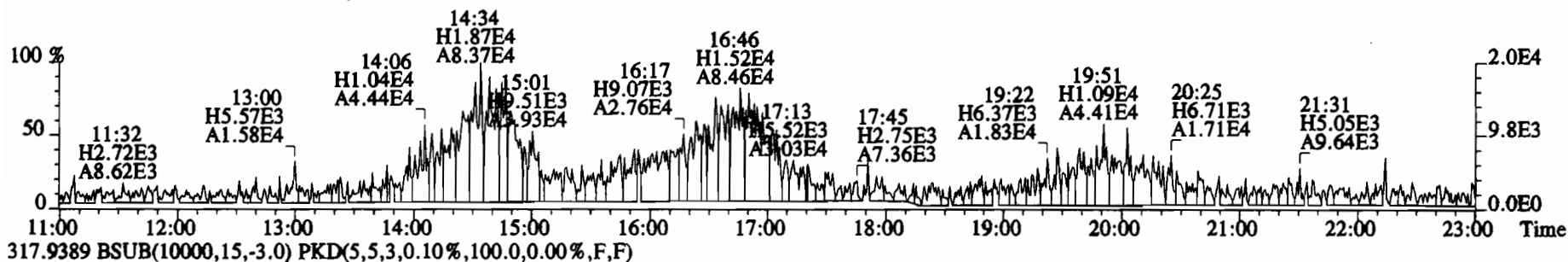
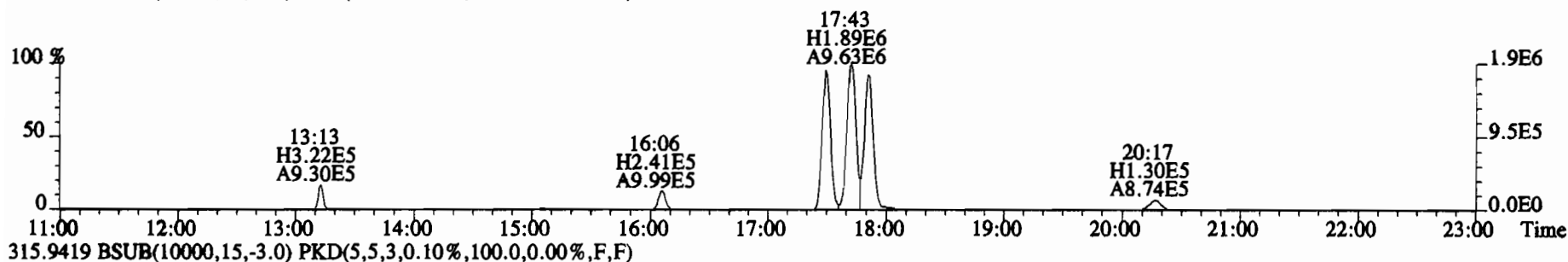
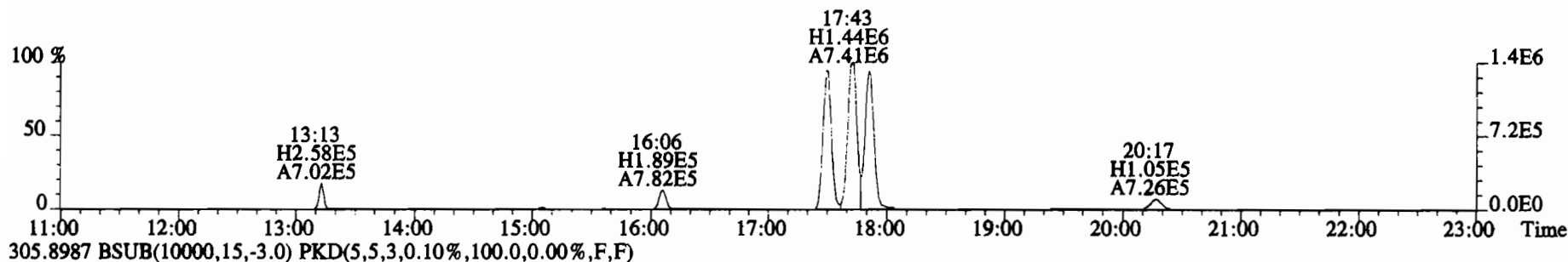
Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
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200108D1	2	ST200108D1-1	DB	8-JAN-20	11:40:07	ST200108D1-1	NA
200108D1	3	SOLVENT BLANK	DB	8-JAN-20	12:12:23	ST200108D1-1	NA
200108D1	4	1903461-15RE3	DB	8-JAN-20	12:44:44	ST200108D1-1	NA
200108D1	5	1903461-14RE3	DB	8-JAN-20	13:17:04	ST200108D1-1	NA
200108D1	6	1904049-01RE3	DB	8-JAN-20	13:49:25	ST200108D1-1	NA
200108D1	7	1903461-13RE4	DB	8-JAN-20	14:21:46	ST200108D1-1	NA
200108D1	8	1903461-17RE3	DB	8-JAN-20	14:54:07	ST200108D1-1	NA



File:200108D1 #1-1330 Acq: 8-JAN-2020 11:07:53 GC EI+ Voltage SIR Autospec-UltimaE  
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303.9016

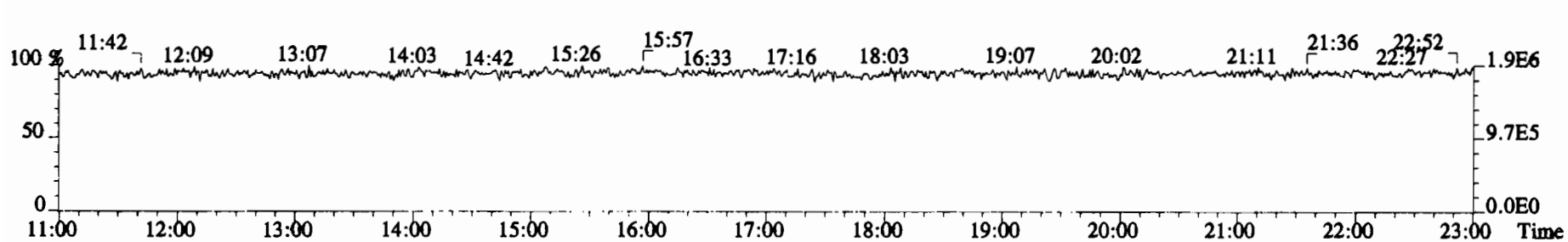
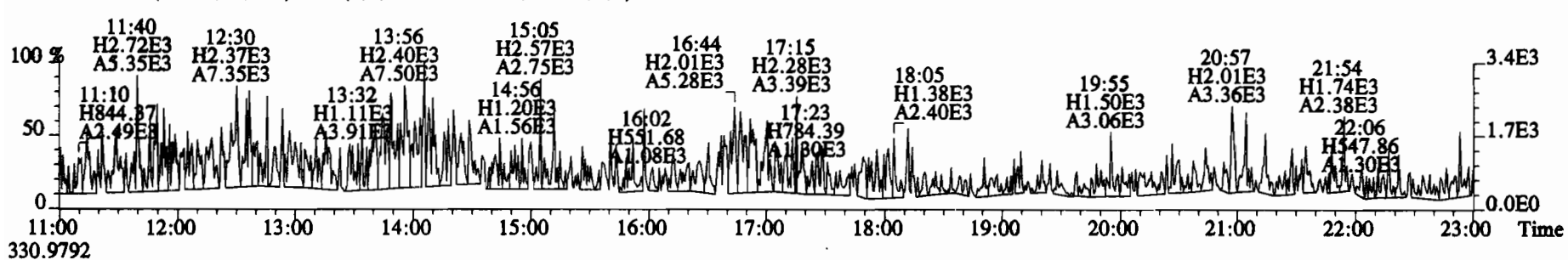
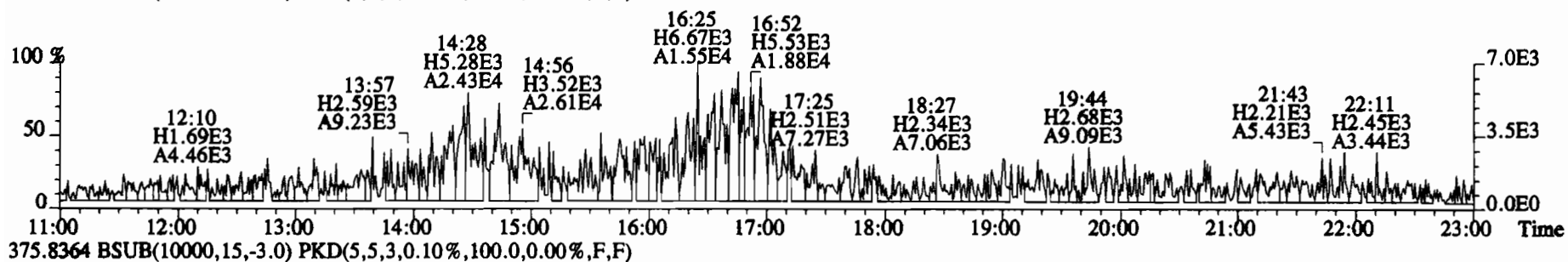
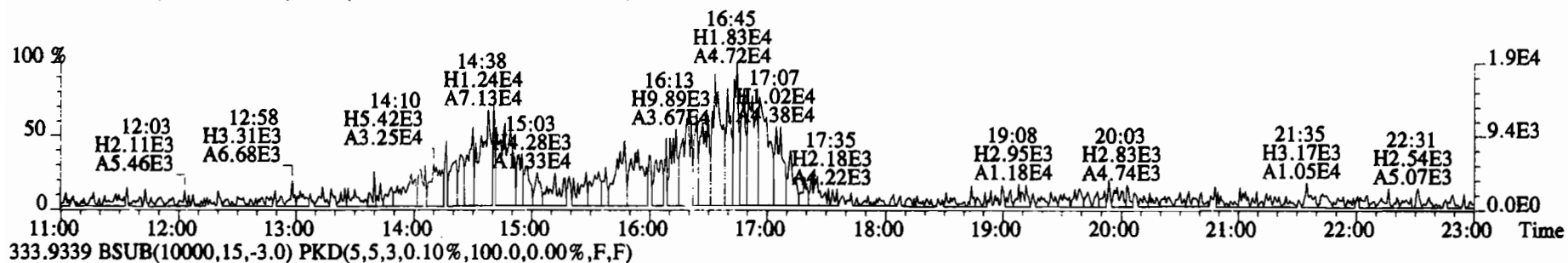


File:200108D1 #1-1682 Acq: 8-JAN-2020 11:07:53 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:CP200108D1-1 DB225 CPSM Exp:TCDF\_DB225  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

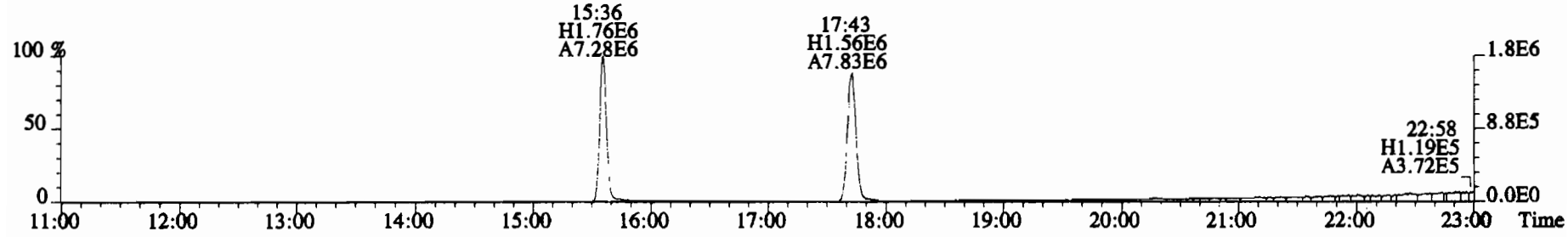
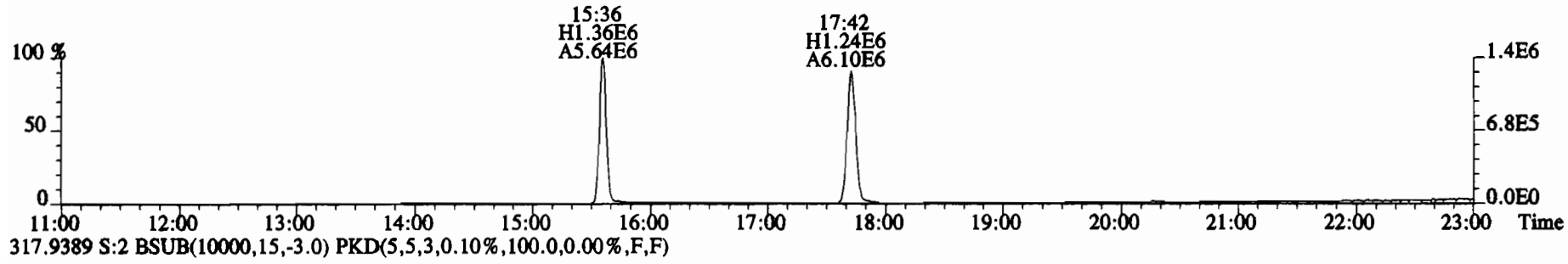
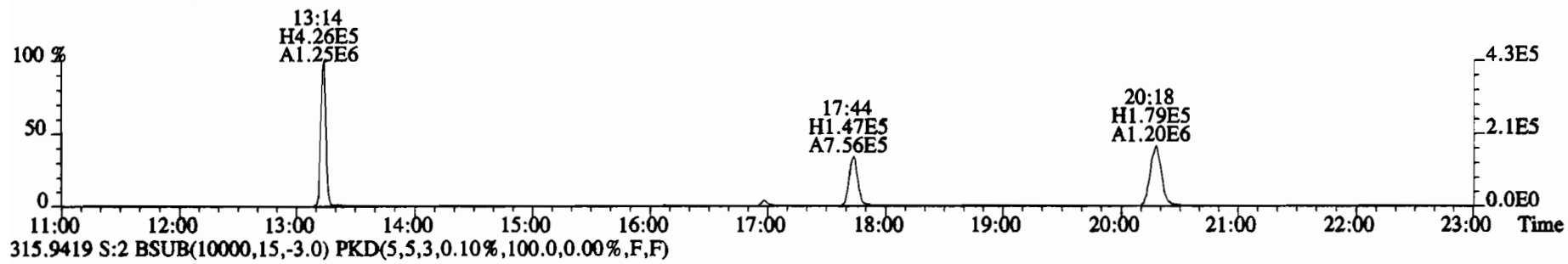
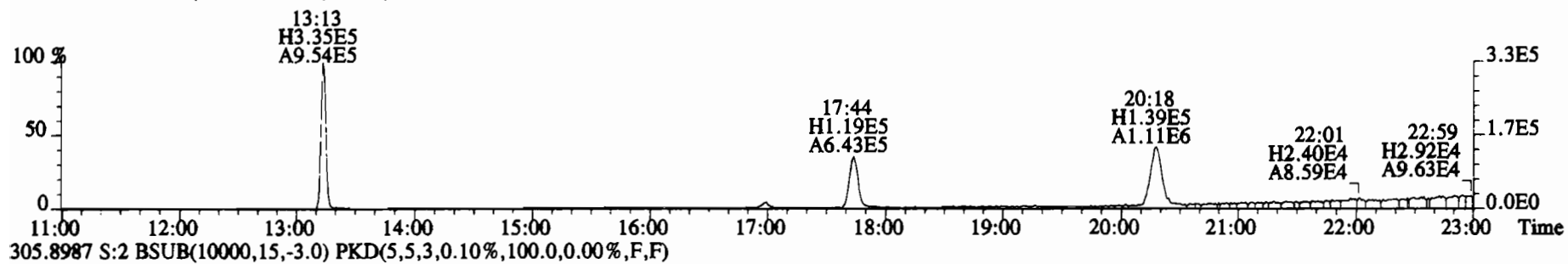




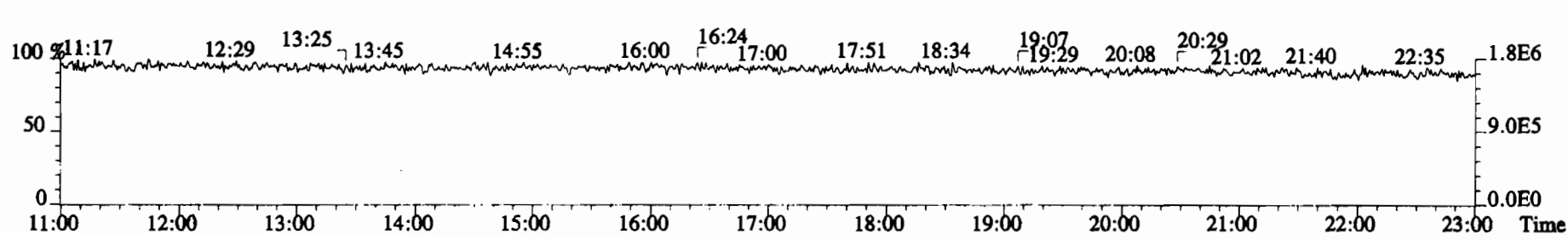
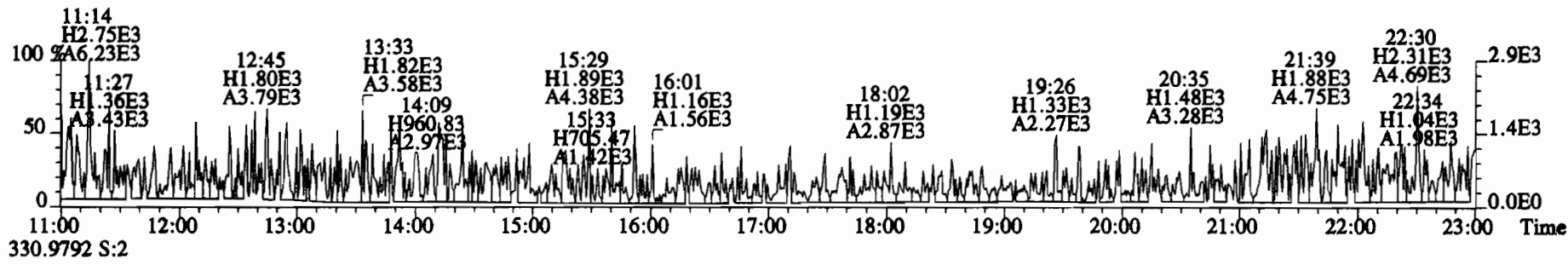
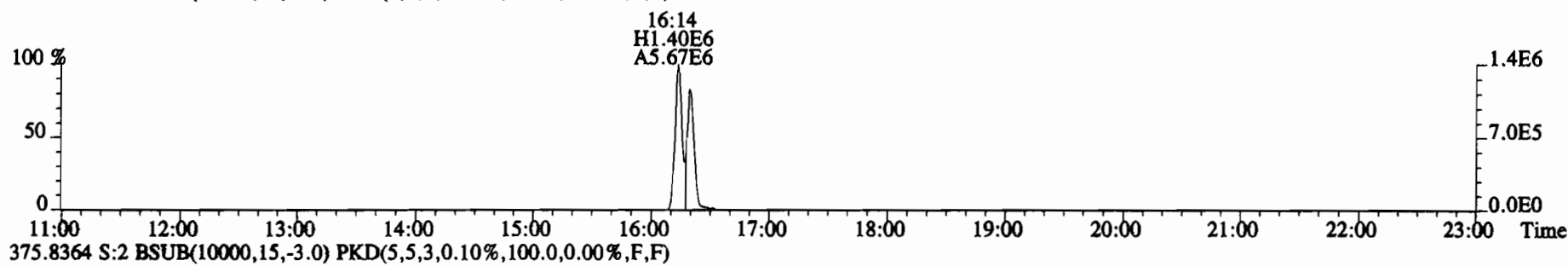
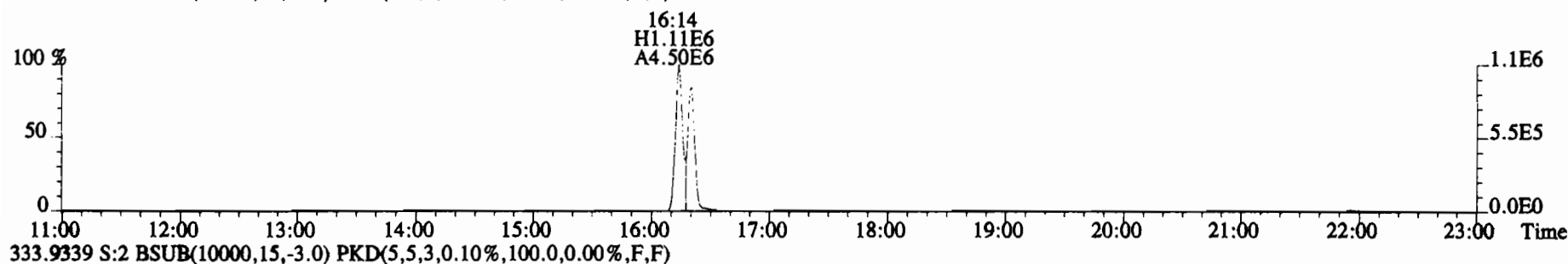
File:200108D1 #1-1682 Acq: 8-JAN-2020 11:07:53 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:CP200108D1-1 DB225 CPSM Exp:TCDF\_DB225  
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File:200108D1 #1-1683 Acq: 8-JAN-2020 11:40:07 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST200108D1-1 1613 CS3 19I1604 Exp:TCDF\_DB225  
 303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

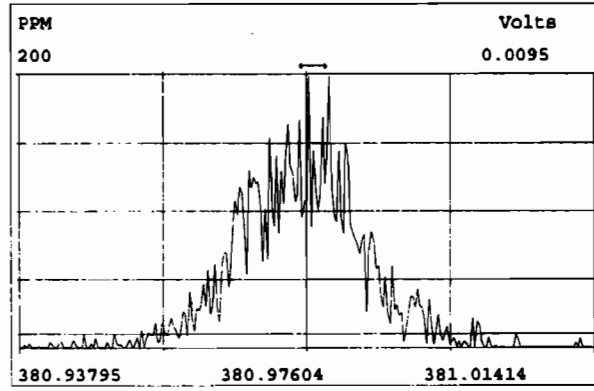
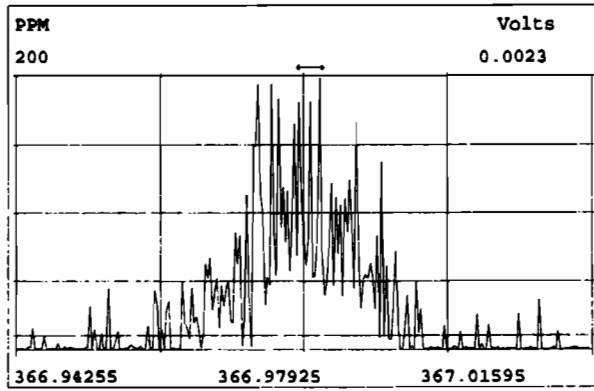
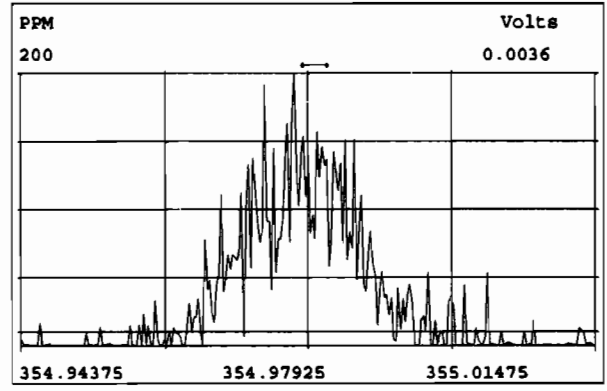
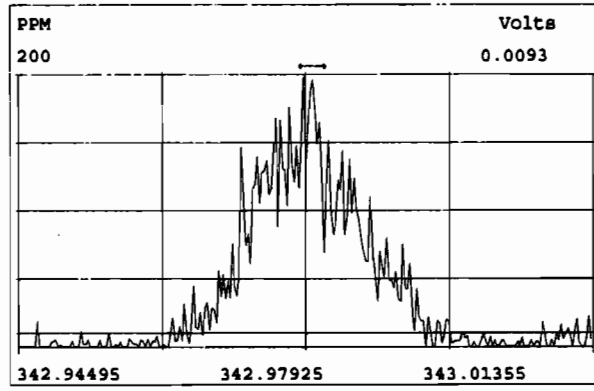
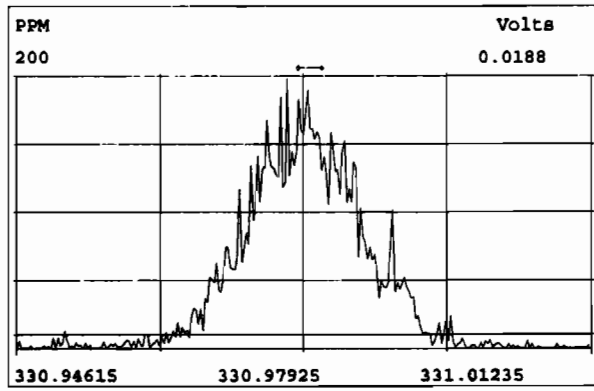
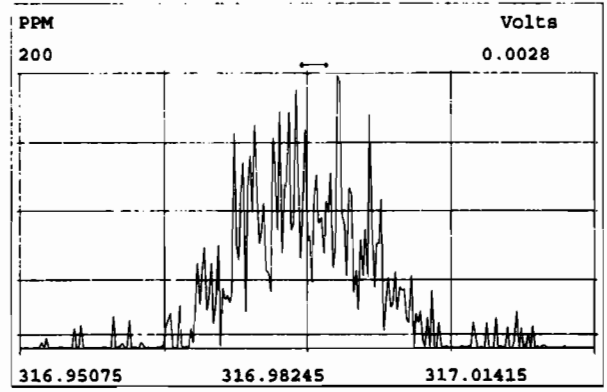
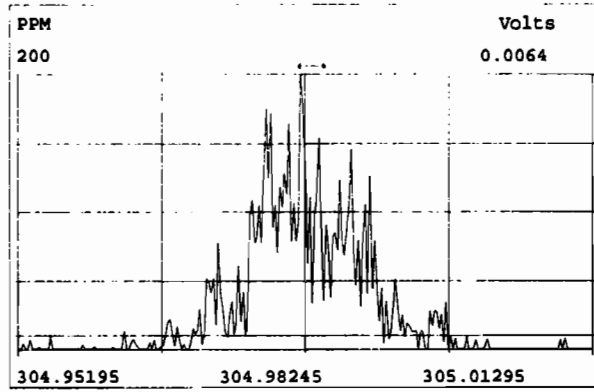
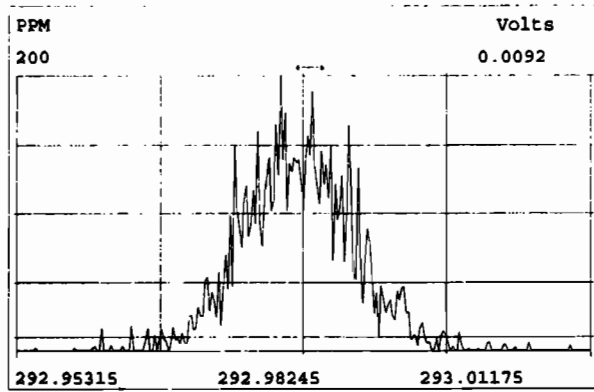


File:200108D1 #1-1683 Acq: 8-JAN-2020 11:40:07 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST200108D1-1 1613 CS3 19I1604 Exp:TCDF\_DB225  
 331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Peak Locate Examination: 8-JAN-2020:15:35 File:RES\_CHECK

Experiment:TCDF\_DB225 Function:1 Reference:PFK



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST200109D1-1

Reviewed By: CT 01/10/2020  
*Initials & Date*

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> NA
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<u>DB</u>	<u>                    </u>
<u>Run Log:</u>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Samples within 12 hour clock?	<input checked="" type="checkbox"/>	N
- Bottle position verified?	<input type="checkbox"/>	<input type="checkbox"/>

Mass resolution  $\geq$   
 5k    6-8K    8K    10K  
 1614   1699   429   1613/1668/8280

Intergrated peaks display correctly?   NA

GC Break <20%  NA

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours  NA

**Comments:**

Vista Analytical Laboratory - Injection Log Run file: 200109D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
200109D1	1	ST200109D1-1	DB	9-JAN-20	10:30:17	ST200109D1-1	NA
200109D1	2	B9L0176-BS1	DB	9-JAN-20	11:18:02	ST200109D1-1	NA
200109D1	3	B9L0178-BS1	DB	9-JAN-20	12:05:55	ST200109D1-1	NA
200109D1	4	B9L0179-BS1	DB	9-JAN-20	12:53:51	ST200109D1-1	NA
200109D1	5	SOLVENT BLANK	DB	9-JAN-20	13:41:48	ST200109D1-1	NA
200109D1	6	B9L0176-BLK1	DB	9-JAN-20	14:29:45	ST200109D1-1	NA
200109D1	7	B9L0178-BLK1	DB	9-JAN-20	15:17:41	ST200109D1-1	NA
200109D1	8	B9L0179-BLK1	DB	9-JAN-20	16:05:36	ST200109D1-1	NA
200109D1	9	1904230-01	DB	9-JAN-20	16:53:21	ST200109D1-1	NA
200109D1	10	1904146-01	DB	9-JAN-20	17:41:15	ST200109D1-1	NA
200109D1	11	1903461-14RE2@3X	DB	9-JAN-20	18:29:09	ST200109D1-1	NA
200109D1	12	B9L0178-DUP1	DB	9-JAN-20	19:17:04	ST200109D1-1	NA
200109D1	13	1904135-01RE1	DB	9-JAN-20	20:04:58	ST200109D1-1	NA
200109D1	14	1904141-01RE1	DB	9-JAN-20	20:52:53	ST200109D1-1	NA
200109D1	15	1904141-02RE1	DB	9-JAN-20	21:40:48	ST200109D1-1	NA

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST200109D1-1

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-5MS

VER Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	11.2	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.66	0.54-0.72	y	52.9	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	51.5	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	52.6	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	y	53.3	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	49.1	43.0 - 58.0
OCDD	M+2/M+4	0.86	0.76-1.02	y	102	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	9.19	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.62	1.32-1.78	y	53.3	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	51.6	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.17	1.05-1.43	y	46.6	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	45.7	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	45.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	45.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	y	46.0	43.0 - 58.0
OCDF	M+2/M+4	0.86	0.76-1.02	y	88.3	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: DB

Date: 1/9/20

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-5MS

VER Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	115	82.0 - 121.0
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	109	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	111	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	101	85.0 - 118.0
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.28	1.05-1.43	y	106	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	118	72.0 - 138.0
13C-OCDD	M/M+2	0.90	0.76-1.02	y	254	96.0 - 415.0
13C-2,3,7,8-TCDF	M+2/M+4	0.78	0.65-0.89	y	102	71.0 - 140.0
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	107	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	103	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	114	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	108	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	110	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	116	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.45	0.37-0.51	y	107	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	111	77.0 - 129.0
13C-OCDF	M+2/M+4	0.87	0.76-1.02	y	253	96.0 - 415.0
CLEANUP STANDARD (3)						
37C1-2,3,7,8-TCDD					10.3	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: DB

Date: 1/9/20



FORM 5  
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 10-9-19

RT Window Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

ZB-5MS IS Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

DB\_225 IS Data Filename: Analysis Date: Time:

ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:33	1,3,6,8-TCDF (F)	20:24
1,2,8,9-TCDD (L)	26:53	1,2,8,9-TCDF (L)	27:02
1,2,4,7,9-PeCDD (F)	28:31	1,3,4,6,8-PeCDF (F)	27:00
1,2,3,8,9-PeCDD (L)	30:56	1,2,3,8,9-PeCDF (L)	31:11
1,2,4,6,7,9-HxCDD (F)	32:22	1,2,3,4,6,8-HxCDF (F)	31:50
1,2,3,7,8,9-HxCDD (L)	34:18	1,2,3,7,8,9-HxCDF (L)	34:41
1,2,3,4,6,7,9-HpCDD (F)	36:54	1,2,3,4,6,7,8-HpCDF (F)	36:30
1,2,3,4,6,7,8-HpCDD (L)	37:46	1,2,3,4,7,8,9-HpCDF (L)	38:19

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: DB

Date: 1/9/20

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME		RRT	QC LIMITS (1)
	REFERENCE			
2,3,7,8-TCDD	13C-2,3,7,8-TCDD		1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD		1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF		1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF		1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF		1.001	0.999-1.002

LABELED COMPOUNDS

13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.991	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.156	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989-1.052

Analyst: DB

Date: 1/9/20

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 200109D1 S#1 Analysis Date: 9-JAN-20 Time: 10:30:17

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998-1.004
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.001	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELLED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.146	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.130	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.228	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.234	1.091-1.371

Analyst: DB

Date: 1/9/20

Client ID: 1613 CS3 1911604  
Lab ID: ST200109D1-1

Filename: 200109D1 S:1 Acq: 9-JAN-20 10:30:17  
GC Column ID: ZB-5MS ICal: 1613VG7-10-9-19 wt/vol: 1.000

ConCal: ST200109D1-1  
EndCAL: NA

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	7.54e+05	0.79 y	0.91	26:01	11.203		* 2.5	*	*
1,2,3,7,8-PeCDD	2.69e+06	0.66 y	0.90	30:35	52.856		* 2.5	*	*
1,2,3,4,7,8-HxCDD	2.88e+06	1.23 y	1.10	33:53	51.512		* 2.5	*	*
1,2,3,6,7,8-HxCDD	3.04e+06	1.24 y	0.94	34:00	52.602		* 2.5	*	*
1,2,3,7,8,9-HxCDD	3.13e+06	1.22 y	0.96	34:18	53.334		* 2.5	*	*
1,2,3,4,6,7,8-HpCDD	2.65e+06	1.03 y	0.98	37:46	49.140		* 2.5	*	*
OCDD	5.13e+06	0.86 y	0.96	41:02	101.55		* 2.5	*	*
2,3,7,8-TCDF	9.23e+05	0.80 y	0.95	25:13	9.1859		* 2.5	*	*
1,2,3,7,8-PeCDF	4.71e+06	1.62 y	0.96	29:24	53.287		* 2.5	*	*
2,3,4,7,8-PeCDF	4.62e+06	1.57 y	1.01	30:18	51.642		* 2.5	*	*
1,2,3,4,7,8-HxCDF	3.73e+06	1.17 y	1.18	33:00	46.596		* 2.5	*	*
1,2,3,6,7,8-HxCDF	3.90e+06	1.22 y	1.07	33:08	45.658		* 2.5	*	*
2,3,4,6,7,8-HxCDF	3.90e+06	1.22 y	1.11	33:44	46.851		* 2.5	*	*
1,2,3,7,8,9-HxCDF	3.35e+06	1.20 y	1.06	34:41	45.897		* 2.5	*	*
1,2,3,4,6,7,8-HpCDF	2.96e+06	1.04 y	1.13	36:30	45.276		* 2.5	*	*
1,2,3,4,7,8,9-HpCDF	2.71e+06	1.03 y	1.28	38:19	45.966		* 2.5	*	*
OCDF	5.22e+06	0.86 y	0.95	41:15	88.321		* 2.5	*	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	89.1	90.0	*	*	*
Total Penta-Dioxins	227	227	*	*	*
Total Hexa-Dioxins	244	246	*	*	*
Total Hepta-Dioxins	125	127	*	*	*
Total Tetra-Furans	41.8	43.0	*	*	*
Total Penta-Furans	247.50	249.08	*	*	*
Total Hexa-Furans	256	257	*	*	*
Total Hepta-Furans	92.4	93.2	*	*	*

IS	13C-2,3,7,8-TCDD	7.44e+06	0.78 y	1.10	25:60	115.23			
IS	13C-1,2,3,7,8-PeCDD	5.64e+06	0.62 y	0.88	30:34	108.58			
IS	13C-1,2,3,4,7,8-HxCDD	5.08e+06	1.27 y	0.64	33:53	110.54			
IS	13C-1,2,3,6,7,8-HxCDD	6.16e+06	1.30 y	0.86	33:59	100.57			
IS	13C-1,2,3,7,8,9-HxCDD	6.11e+06	1.28 y	0.81	34:17	105.81			
IS	13C-1,2,3,4,6,7,8-HpCDD	5.51e+06	1.06 y	0.65	37:45	117.68			
IS	13C-OCDD	1.05e+07	0.90 y	0.58	41:01	254.29			
IS	13C-2,3,7,8-TCDF	1.06e+07	0.78 y	1.03	25:12	101.65			
IS	13C-1,2,3,7,8-PeCDF	9.21e+06	1.60 y	0.85	29:23	107.20			
IS	13C-2,3,4,7,8-PeCDF	8.81e+06	1.61 y	0.85	30:17	103.47			
IS	13C-1,2,3,4,7,8-HxCDF	6.81e+06	0.51 y	0.83	32:60	114.41			
IS	13C-1,2,3,6,7,8-HxCDF	7.99e+06	0.51 y	1.03	33:07	107.90			
IS	13C-2,3,4,6,7,8-HxCDF	7.48e+06	0.51 y	0.95	33:43	109.70			
IS	13C-1,2,3,7,8,9-HxCDF	6.87e+06	0.50 y	0.83	34:40	116.08			
IS	13C-1,2,3,4,6,7,8-HpCDF	5.81e+06	0.45 y	0.76	36:30	107.16			
IS	13C-1,2,3,4,7,8,9-HpCDF	4.61e+06	0.44 y	0.58	38:17	110.74			
IS	13C-OCDF	1.25e+07	0.87 y	0.69	41:14	252.97			
C/Up	37C1-2,3,7,8-TCDD	7.26e+05		1.20	26:01	10.291			
RS/RT	13C-1,2,3,4-TCDD	5.89e+06	0.76 y	1.00	25:26	100.00			
RS	13C-1,2,3,4-TCDF	1.01e+07	0.80 y	1.00	23:58	100.00			
RS/RT	13C-1,2,3,4,6,9-HxCDF	7.15e+06	0.49 y	1.00	33:24	100.00			

Rec Qual

115  
109  
111  
101  
106  
118  
127  
102  
107  
103  
114  
108  
110  
116  
107  
111  
126

Integrations  
by  
Analyst: DB

Reviewed  
by  
Analyst: CT

Date: 1/9/20

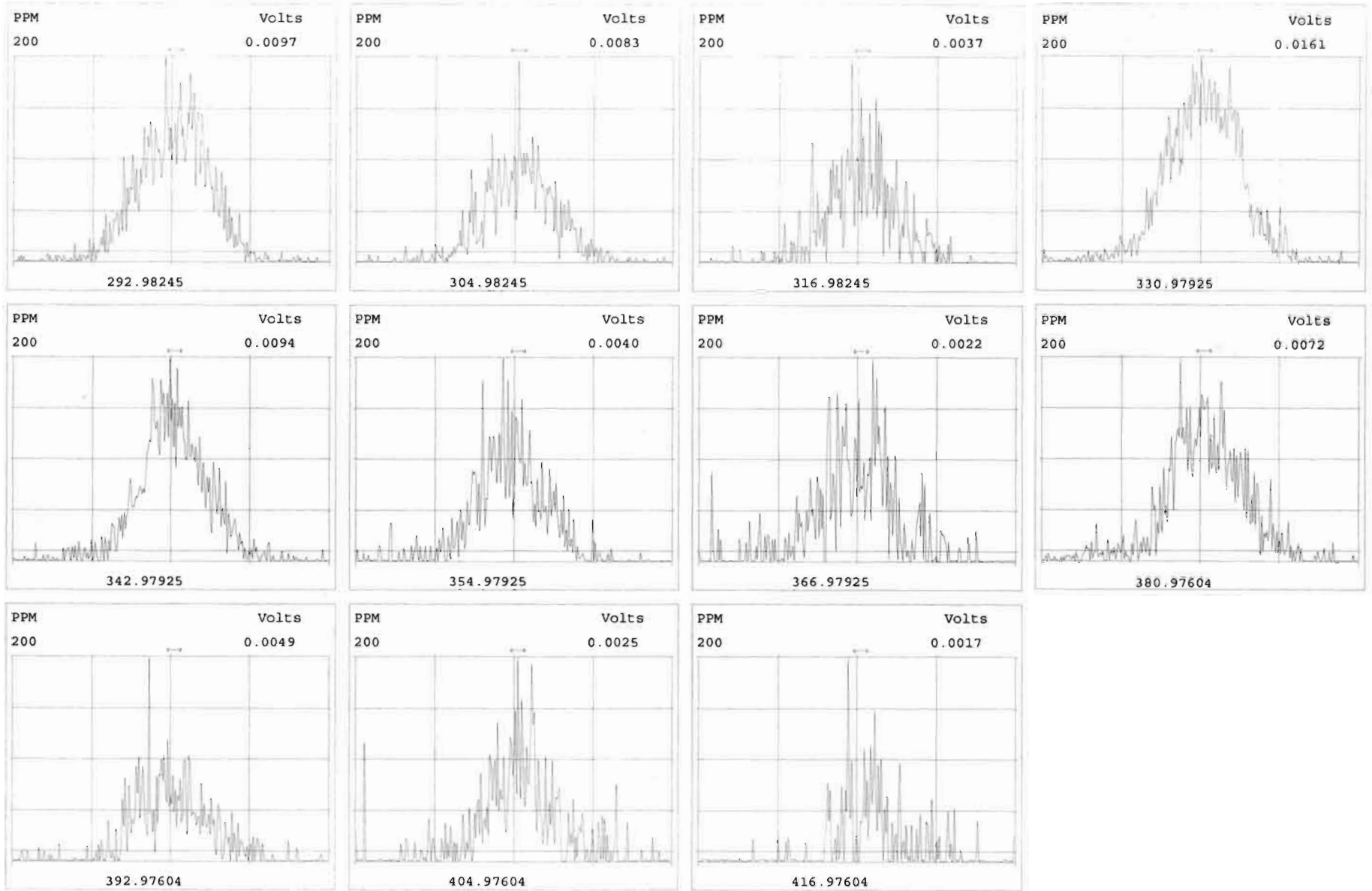
Date: 01/10/2020

Vista Analytical Laboratory - Injection Log Run file: 200109D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
200109D1	1	ST200109D1-1	DB	9-JAN-20	10:30:17	ST200109D1-1	NA
200109D1	2	B9L0176-BS1	DB	9-JAN-20	11:18:02	ST200109D1-1	NA
200109D1	3	B9L0178-BS1	DB	9-JAN-20	12:05:55	ST200109D1-1	NA
200109D1	4	B9L0179-BS1	DB	9-JAN-20	12:53:51	ST200109D1-1	NA
200109D1	5	SOLVENT BLANK	DB	9-JAN-20	13:41:48	ST200109D1-1	NA
200109D1	6	B9L0176-BLK1	DB	9-JAN-20	14:29:45	ST200109D1-1	NA
200109D1	7	B9L0178-BLK1	DB	9-JAN-20	15:17:41	ST200109D1-1	NA
200109D1	8	B9L0179-BLK1	DB	9-JAN-20	16:05:36	ST200109D1-1	NA
200109D1	9	1904230-01	DB	9-JAN-20	16:53:21	ST200109D1-1	NA
200109D1	10	1904146-01	DB	9-JAN-20	17:41:15	ST200109D1-1	NA
200109D1	11	1903461-14RE2@3X	DB	9-JAN-20	18:29:09	ST200109D1-1	NA
200109D1	12	B9L0178-DUP1	DB	9-JAN-20	19:17:04	ST200109D1-1	NA
200109D1	13	1904135-01RE1	DB	9-JAN-20	20:04:58	ST200109D1-1	NA
200109D1	14	1904141-01RE1	DB	9-JAN-20	20:52:53	ST200109D1-1	NA
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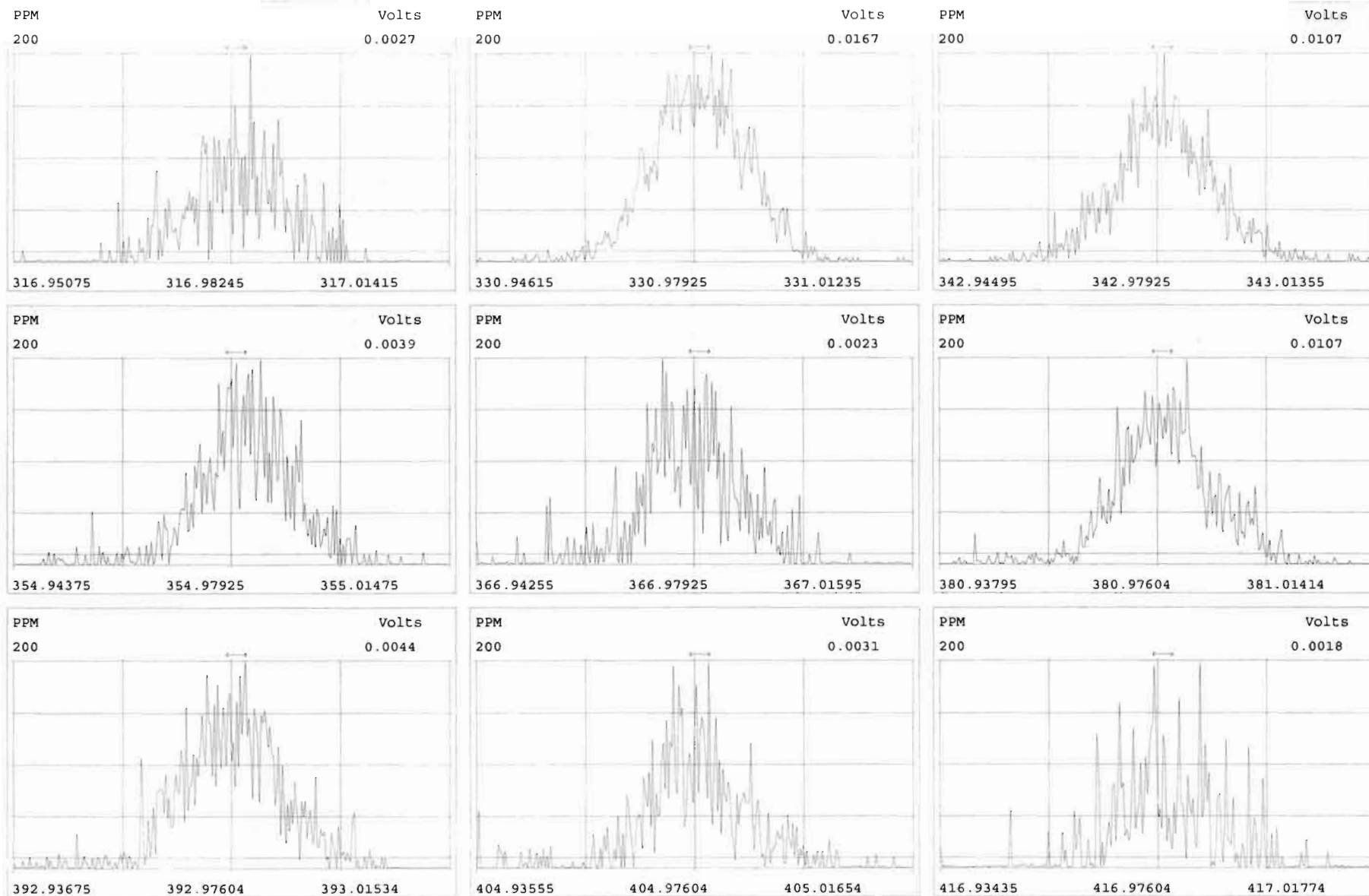
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Experiment:OCDD\_DB5 Function:1 Reference:PFK



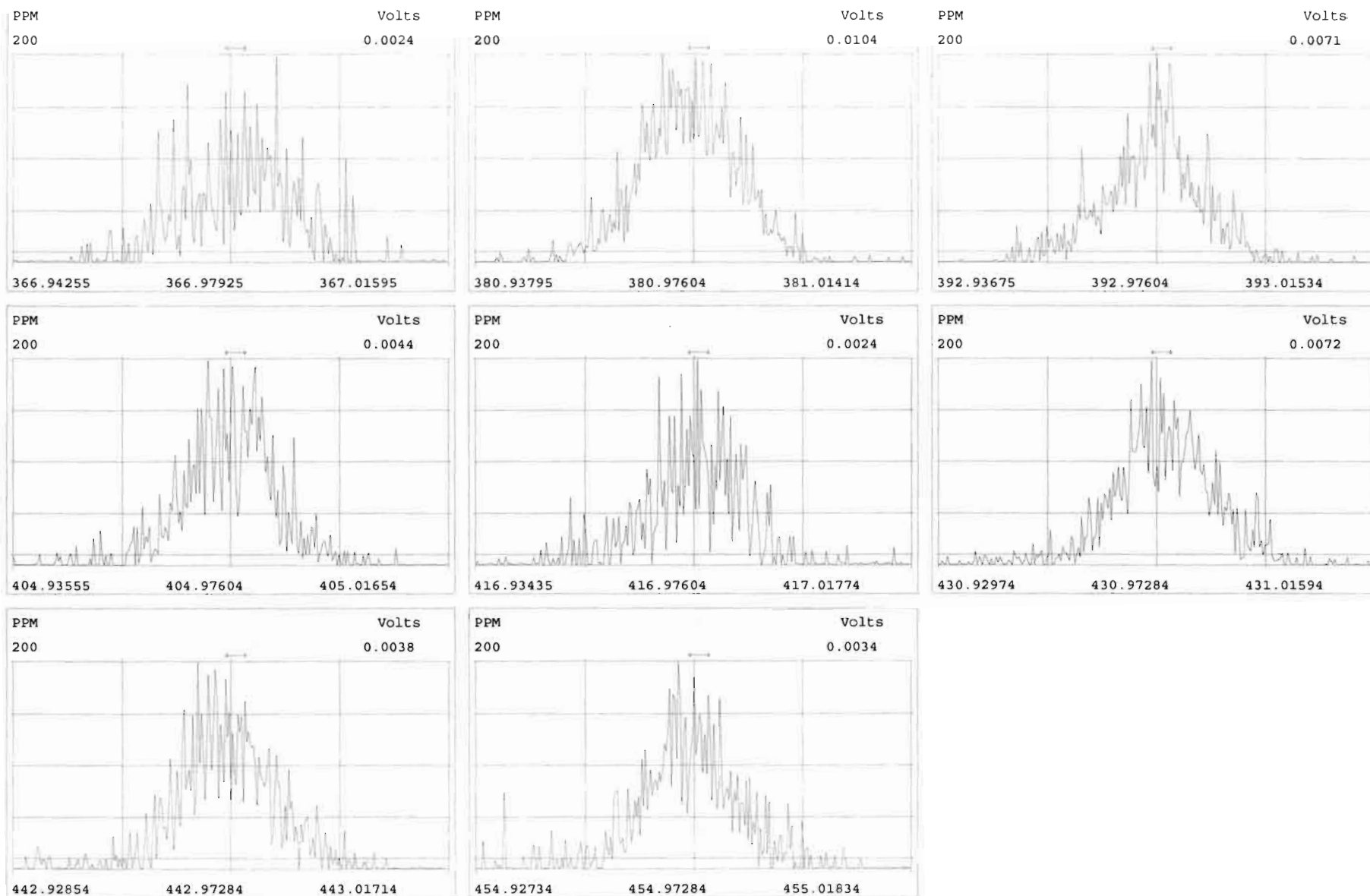
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Experiment:OCDD\_DB5 Function:2 Reference:PFK



Peak Locate Examination: 9-JAN-2020:10:28 File:200109D1

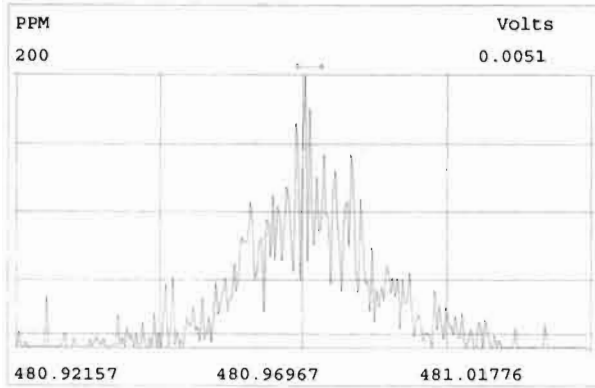
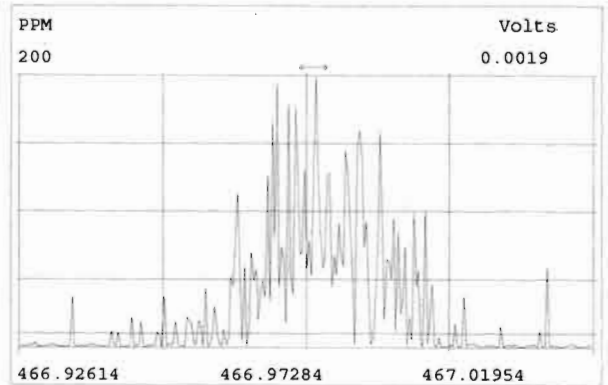
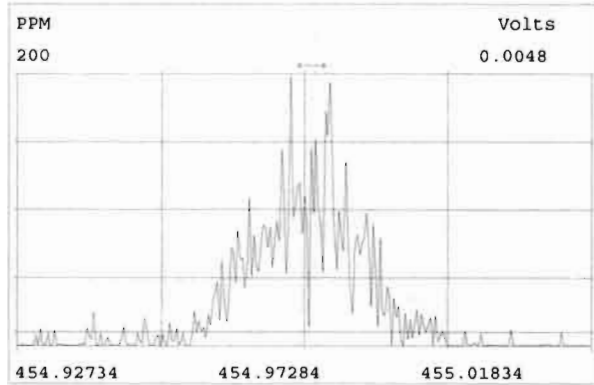
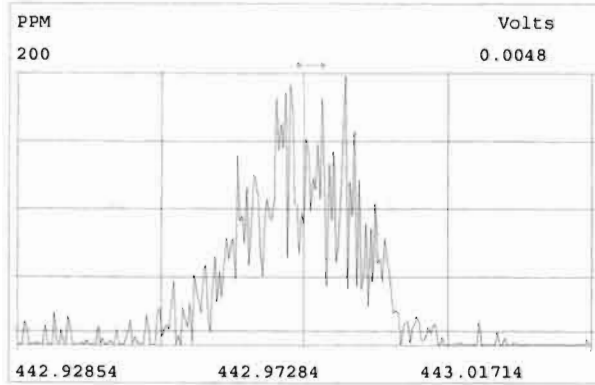
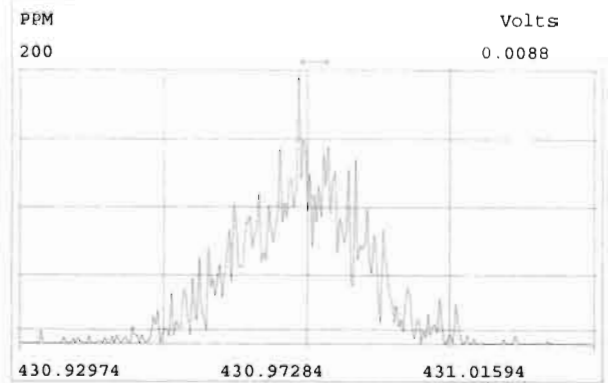
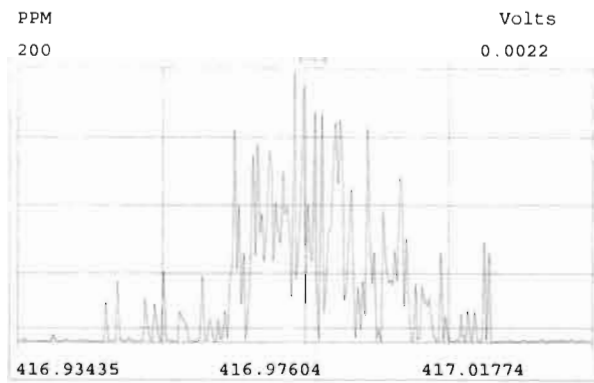
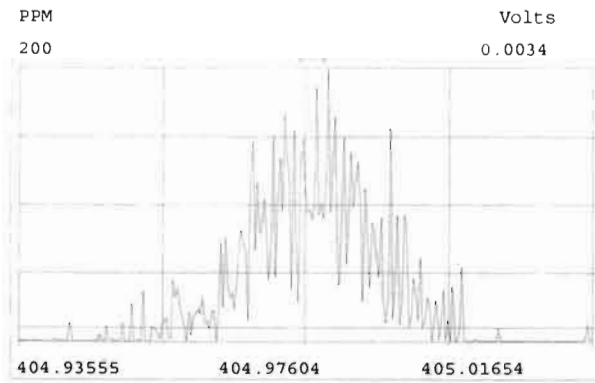
Experiment:OCDD\_DB5 Function:3 Reference:PFK





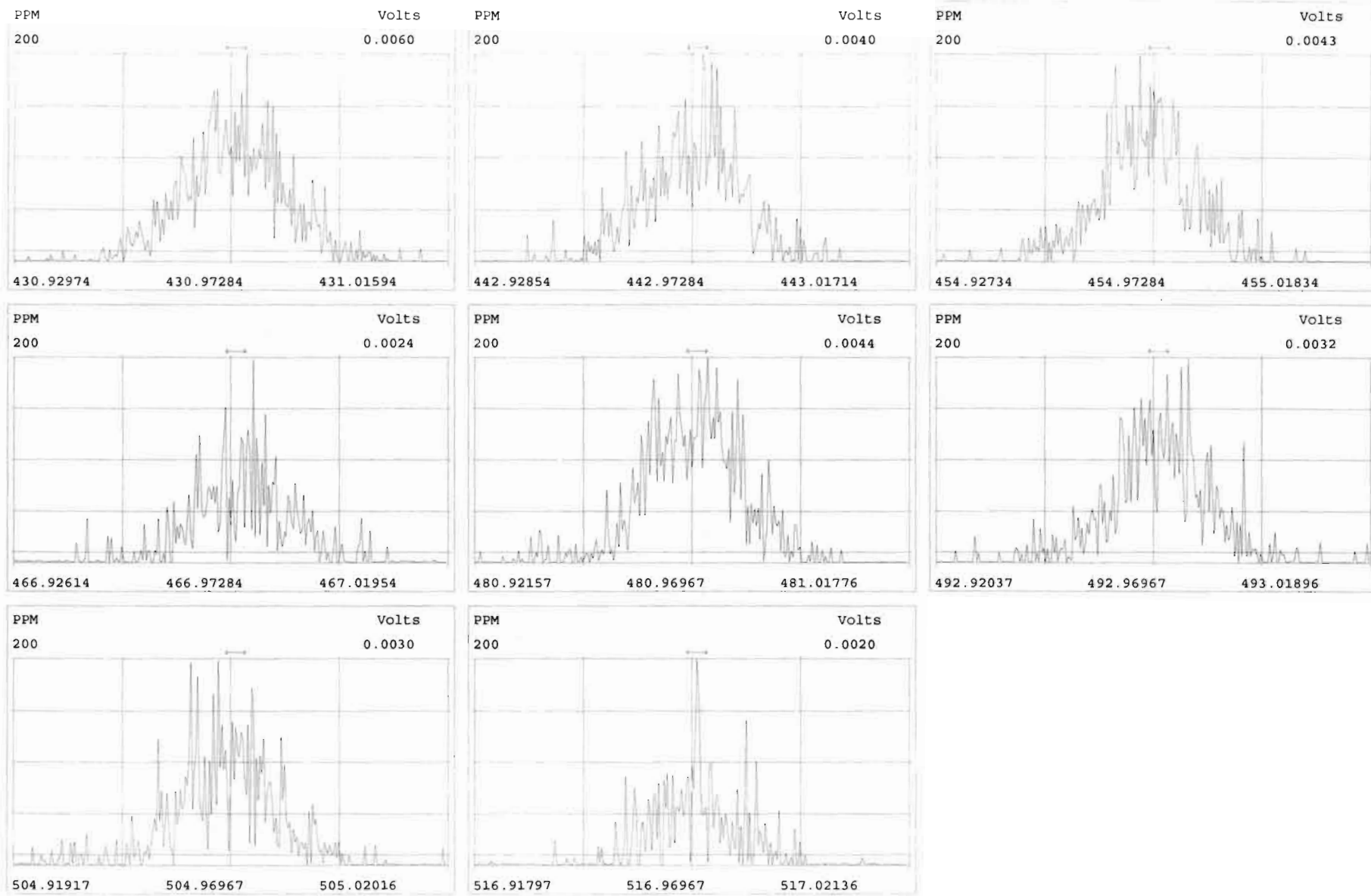
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Experiment:OCDD\_DB5 Function:4 Reference:PPK

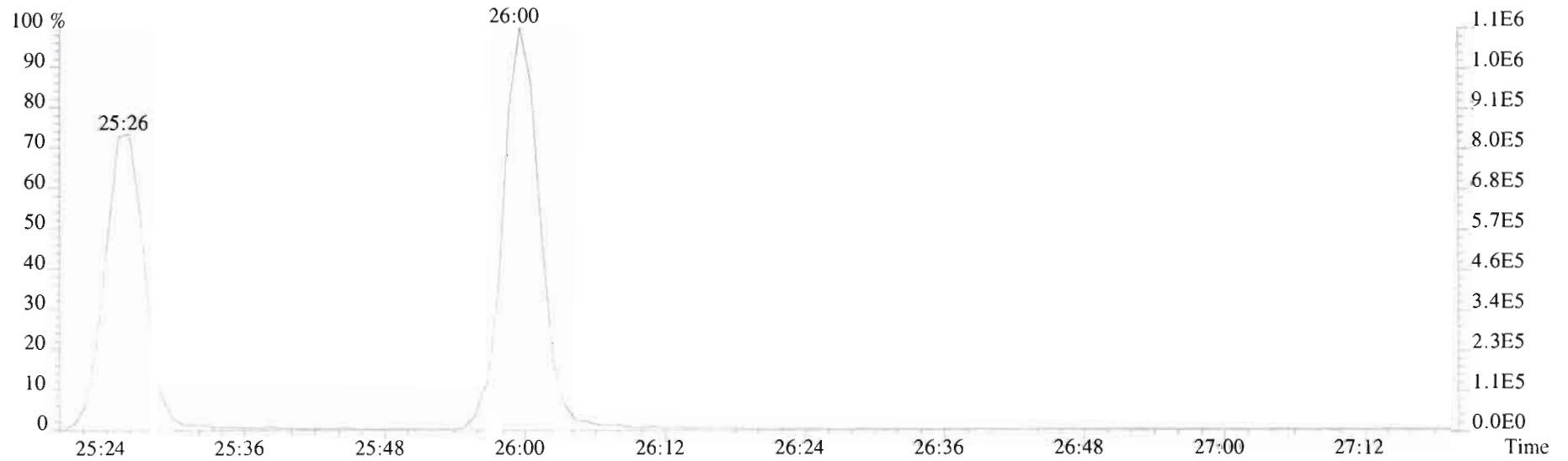
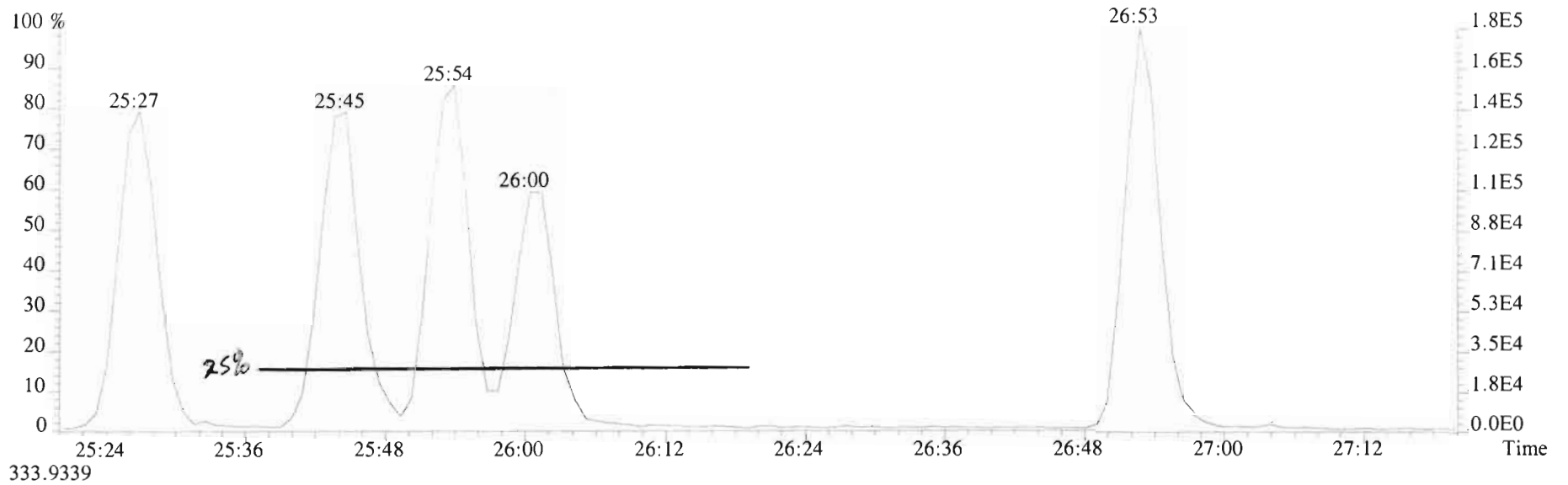


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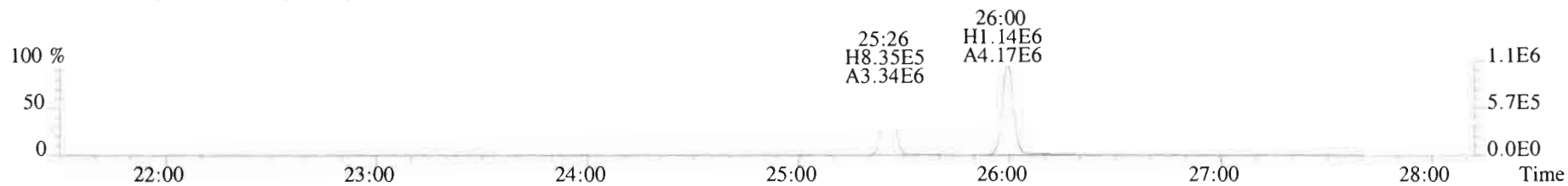
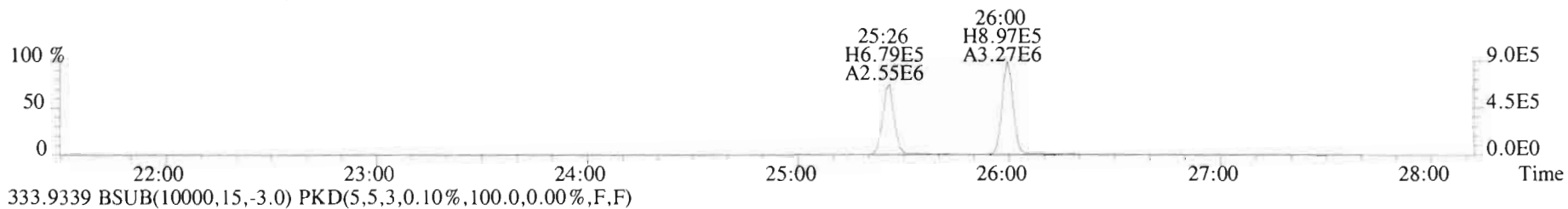
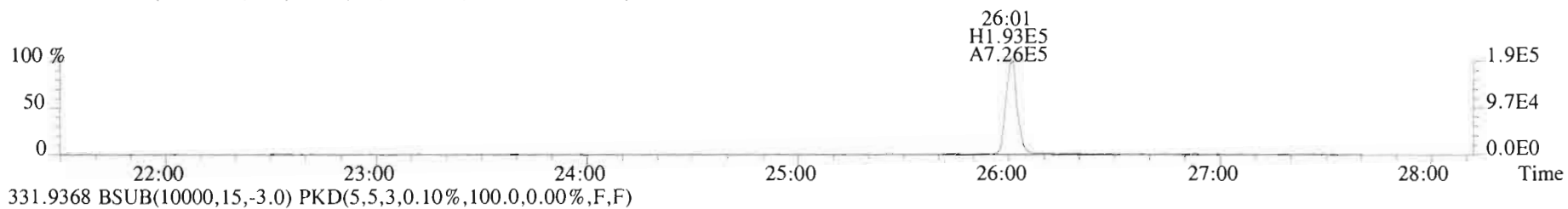
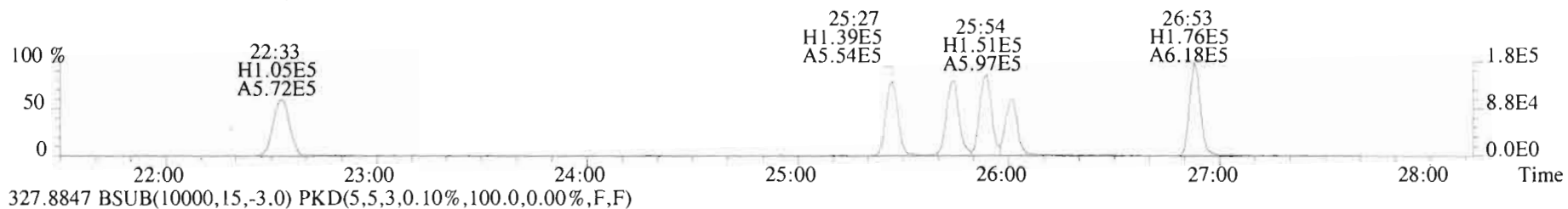
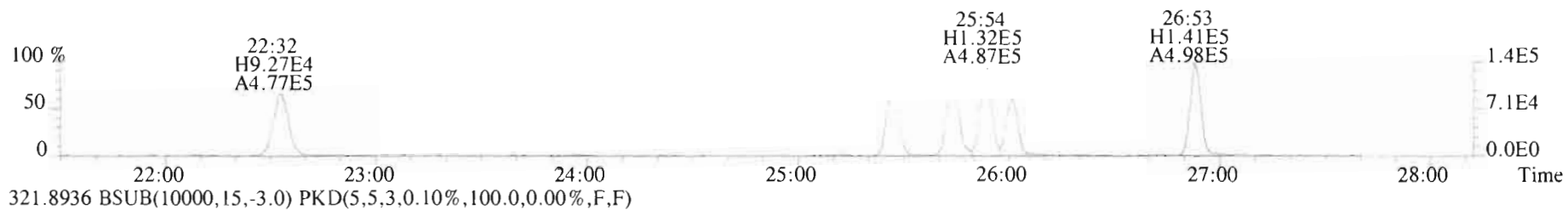
Experiment:OCDD\_DB5 Function:5 Reference:PFK



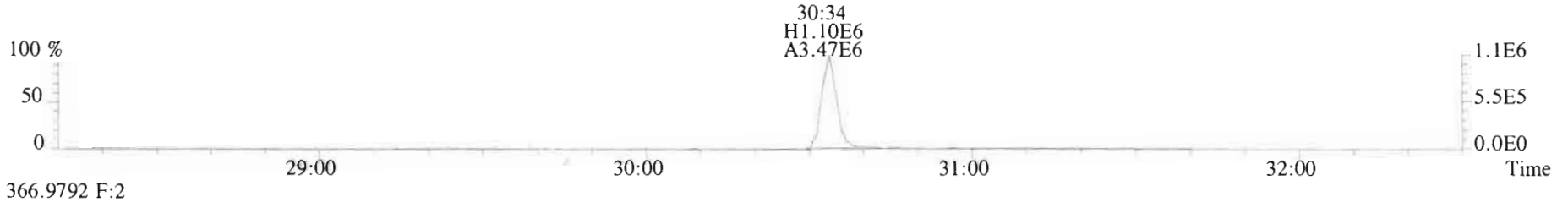
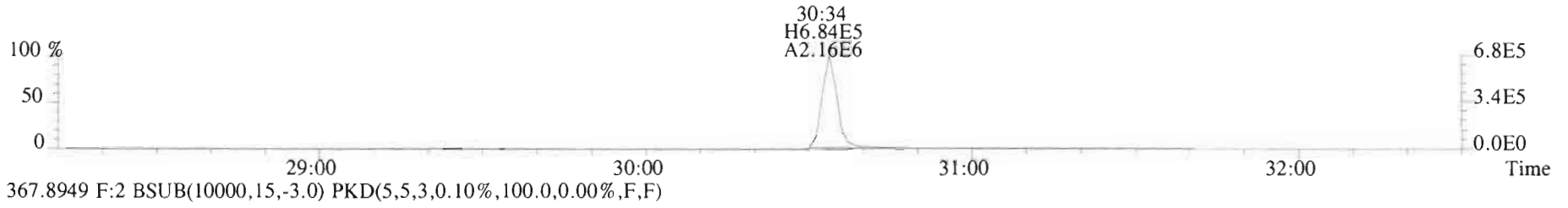
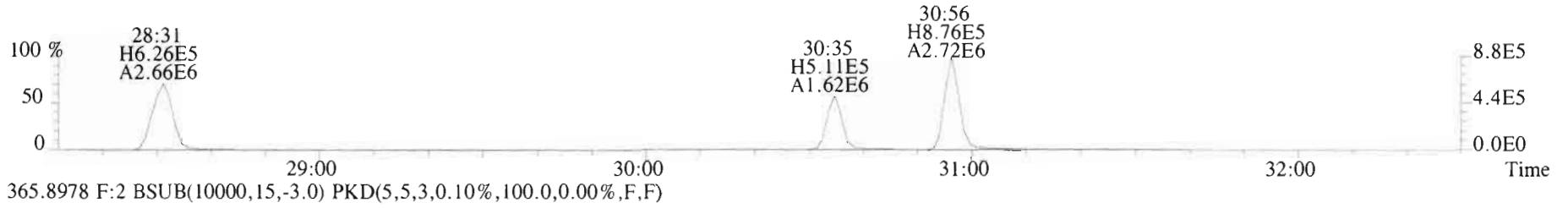
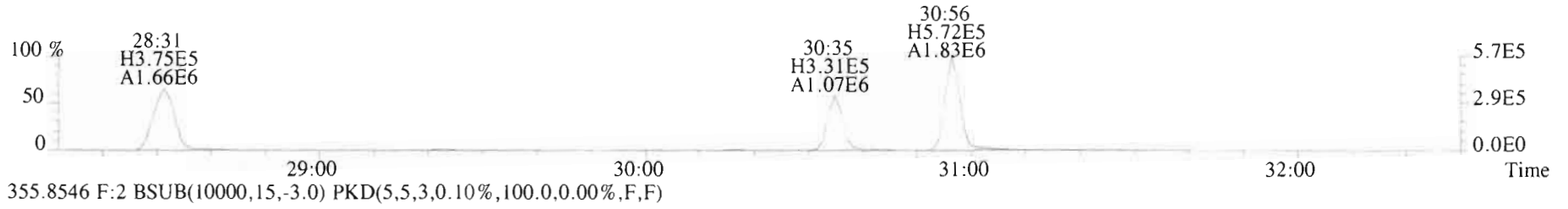
File:200109DI #1-493 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text: Vista\_Analytical\_Laboratory\_VG7 Text:ST200109DI-1 1613 CS3 1911604 Exp:OCDD\_DB5  
321.8936



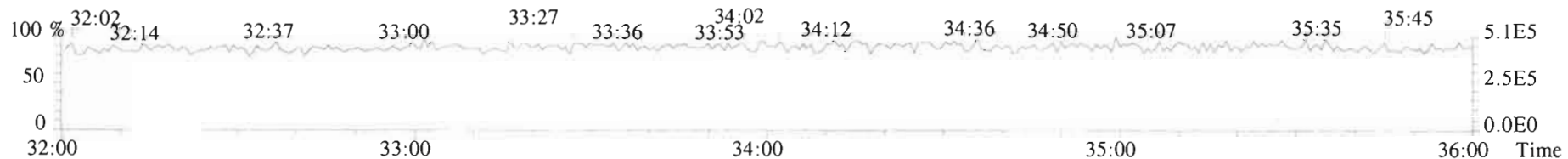
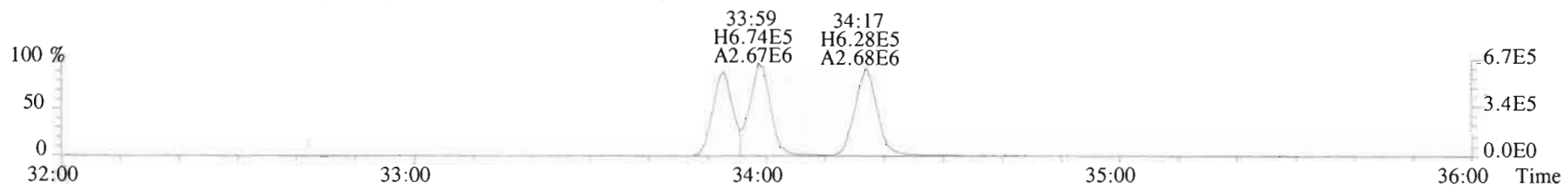
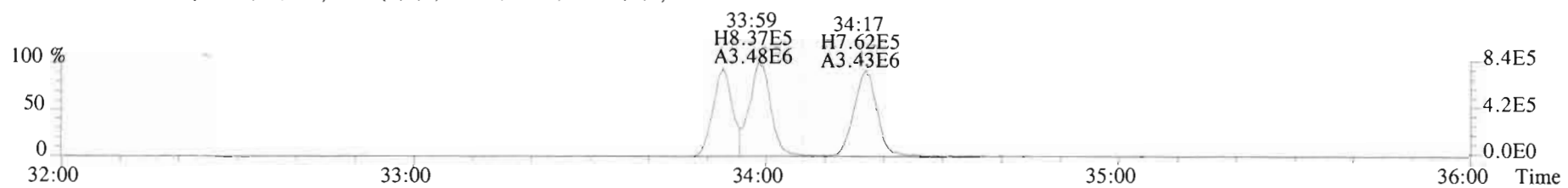
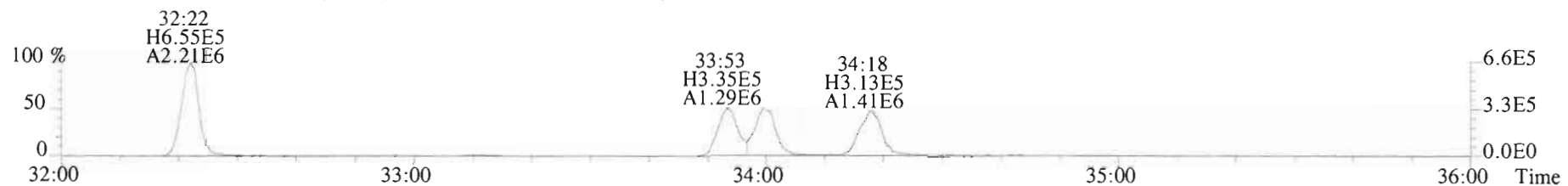
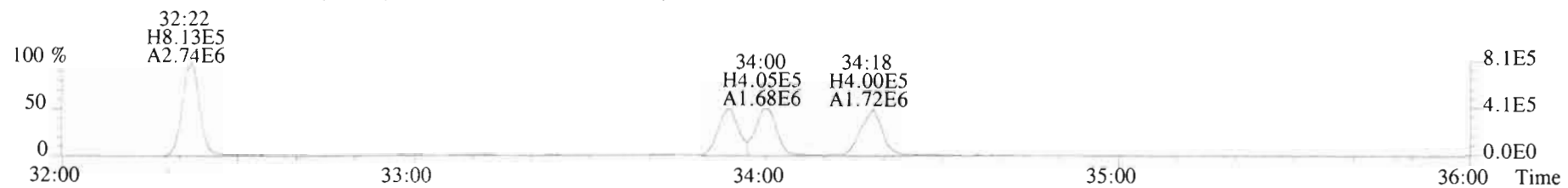
File:200109D1 #1-493 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



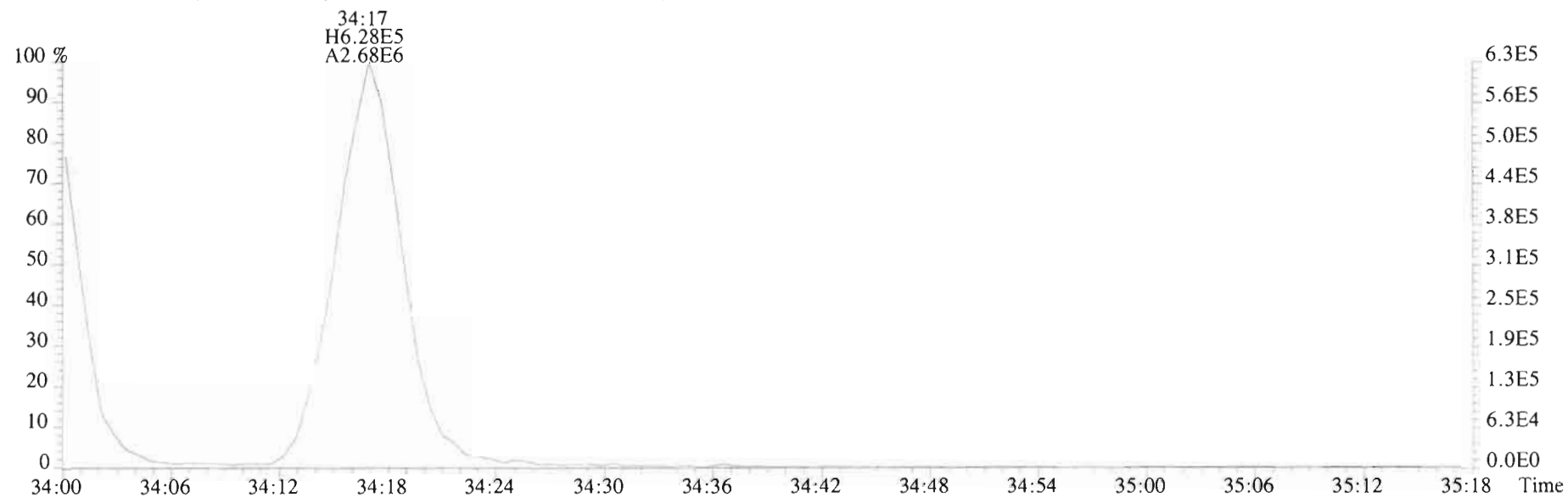
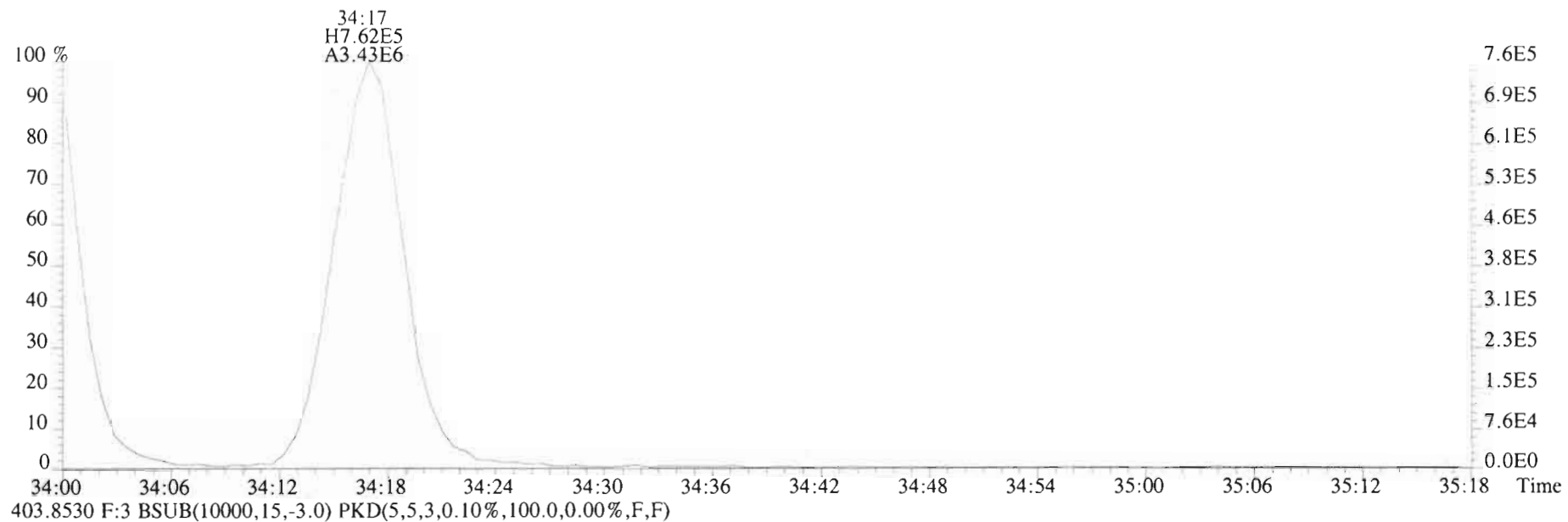
File:200109D1 #1-211 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



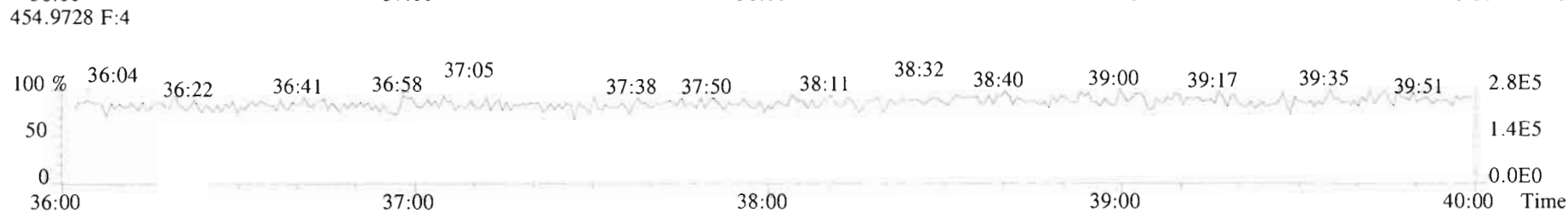
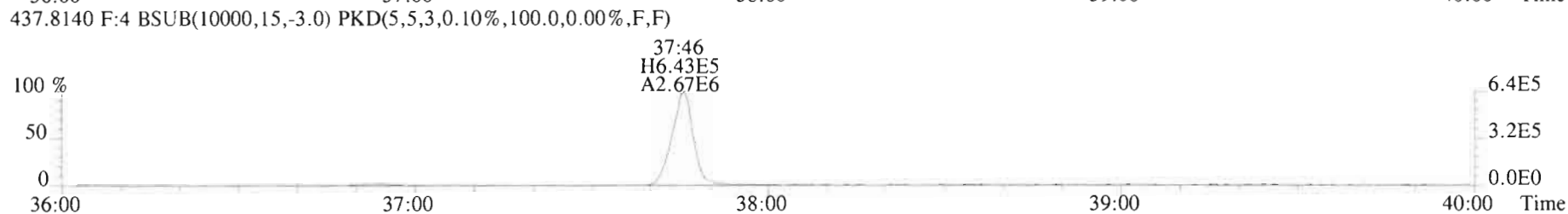
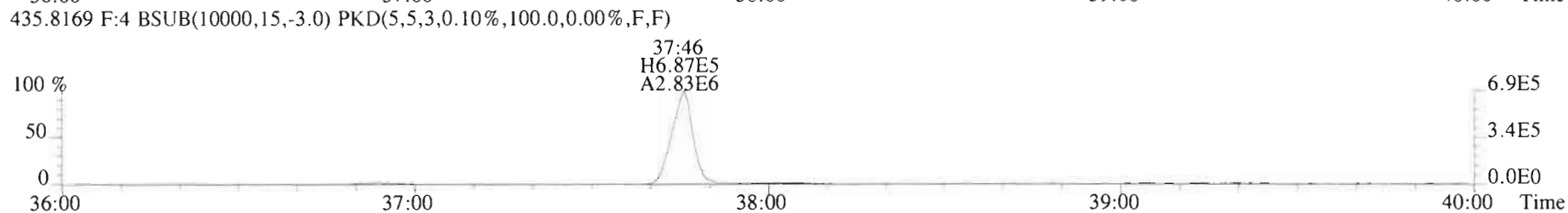
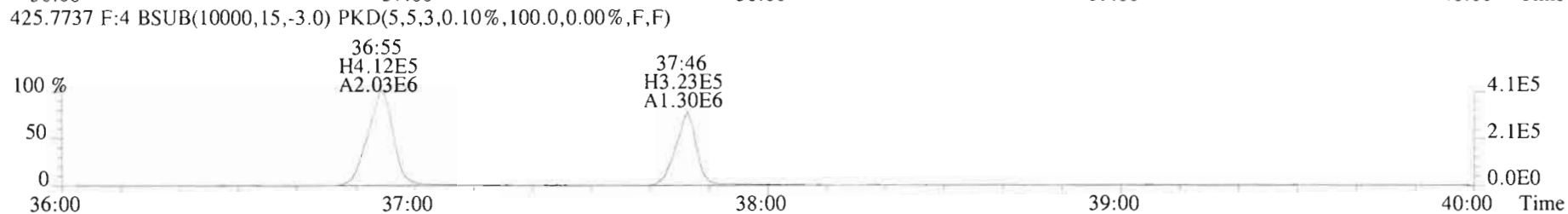
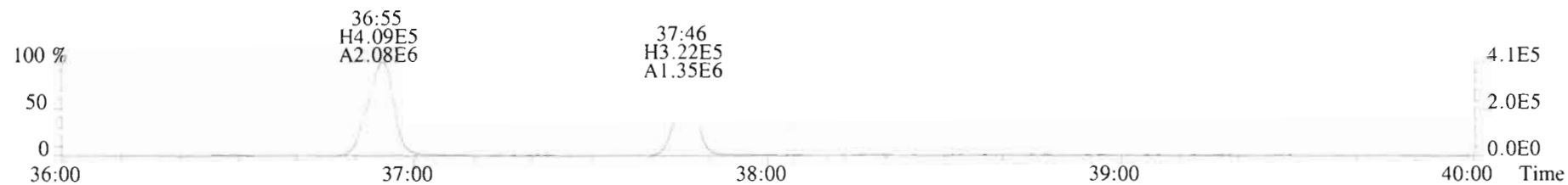
File:200109D1 #1-385 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 19I1604 Exp:OCDD\_DB5  
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:200109D1 #1-385 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

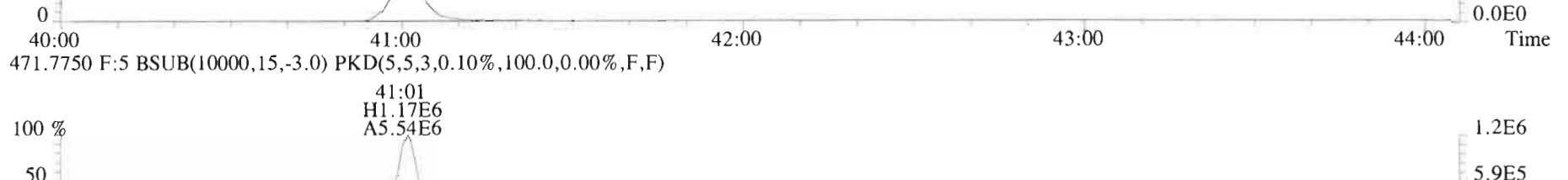
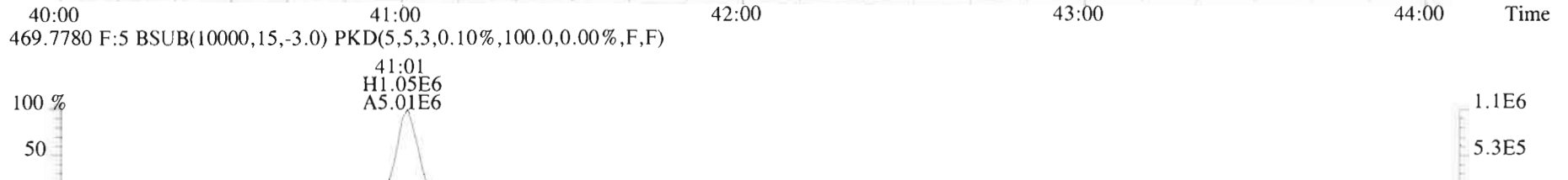
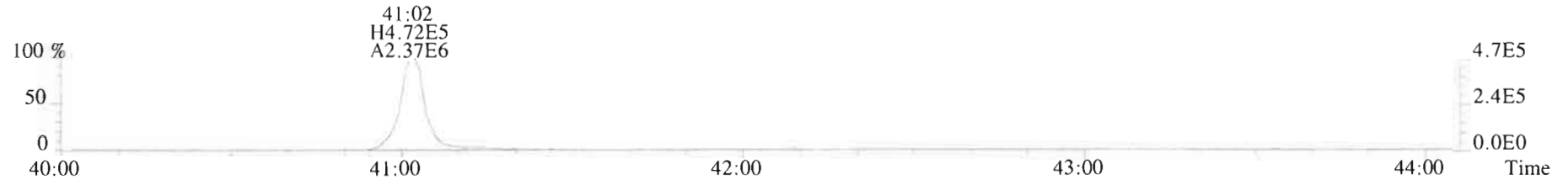


File:200109D1 #1-355 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

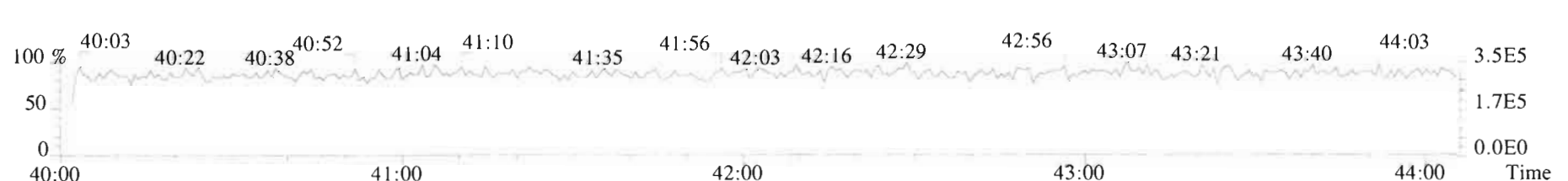




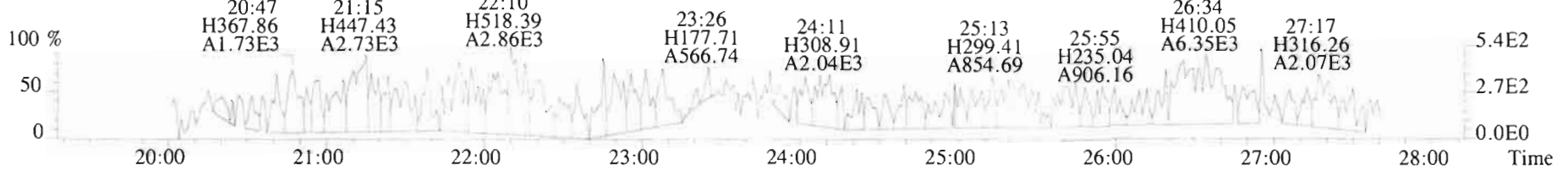
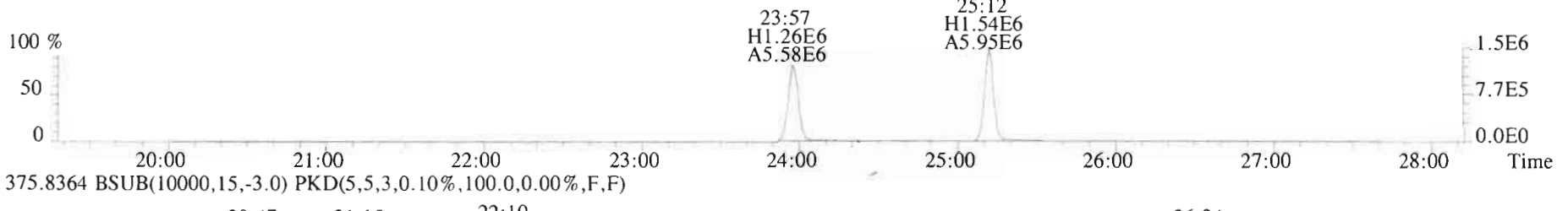
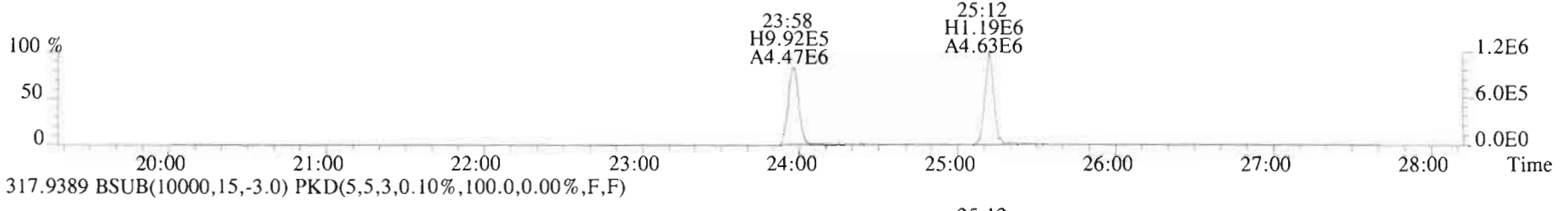
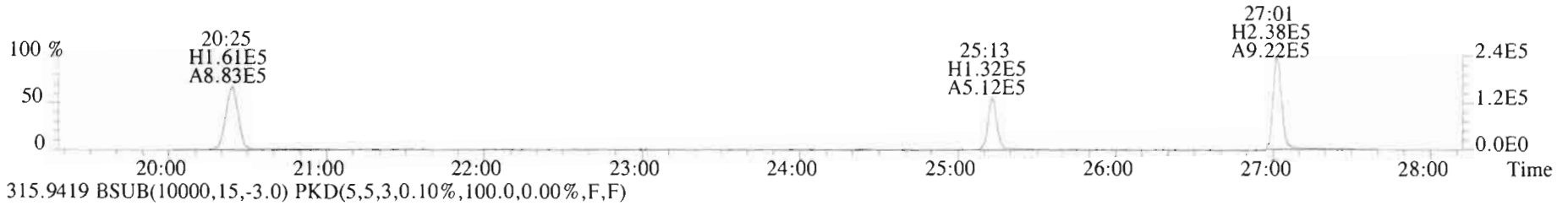
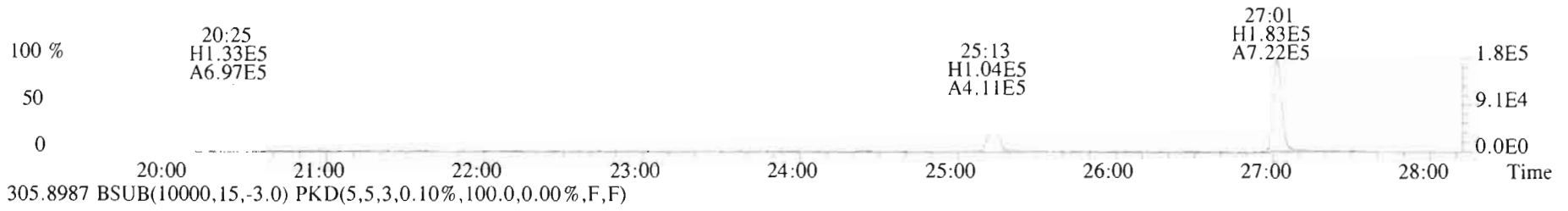
File:200109D1 #1-432 Acq: 9-JAN-2020 10:30:17 GC E1+ Voltage SIR Autospec-UltimaF  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



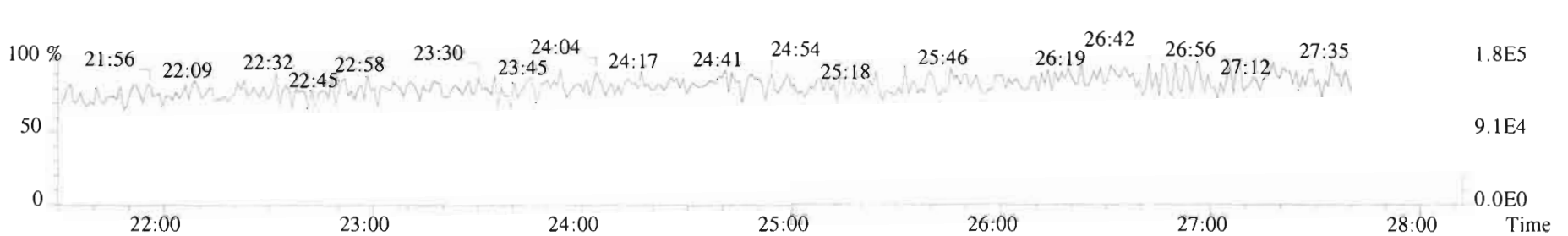
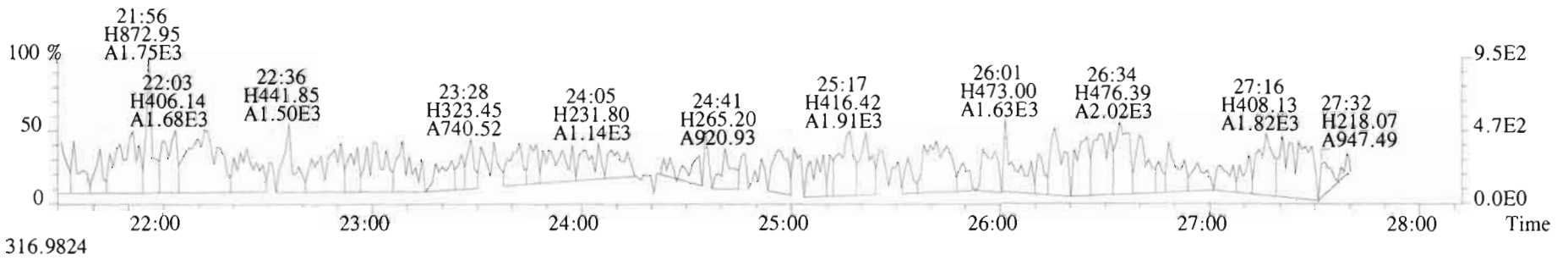
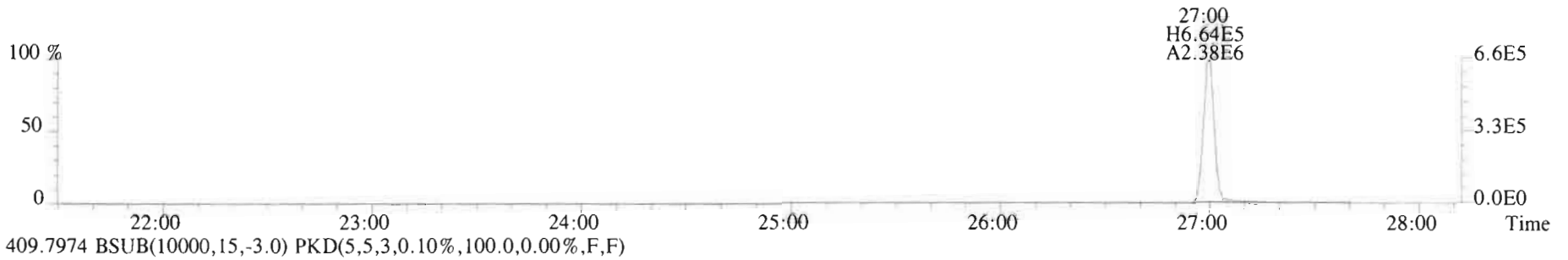
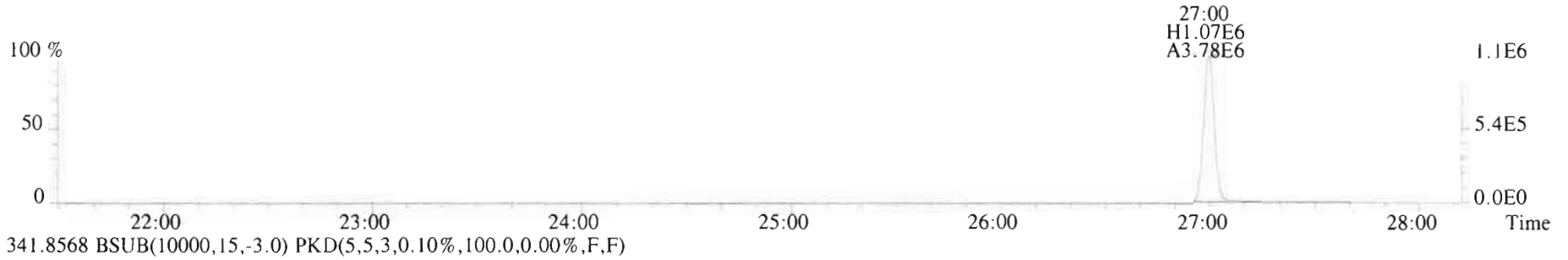
454.9728 F:5



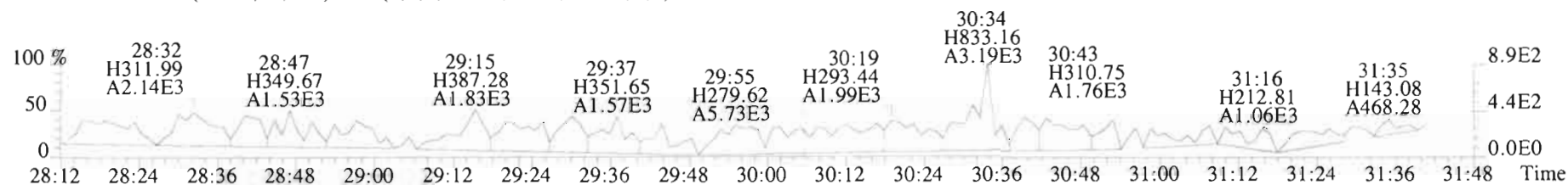
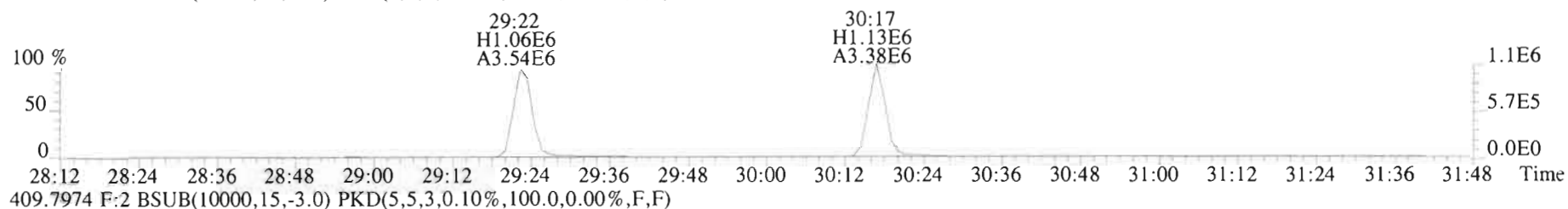
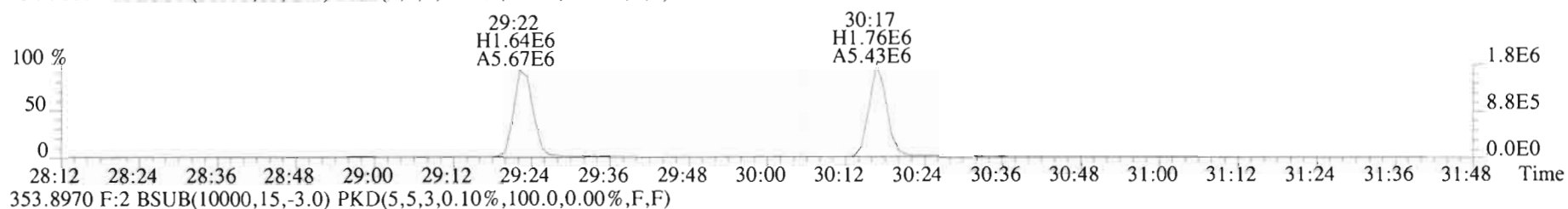
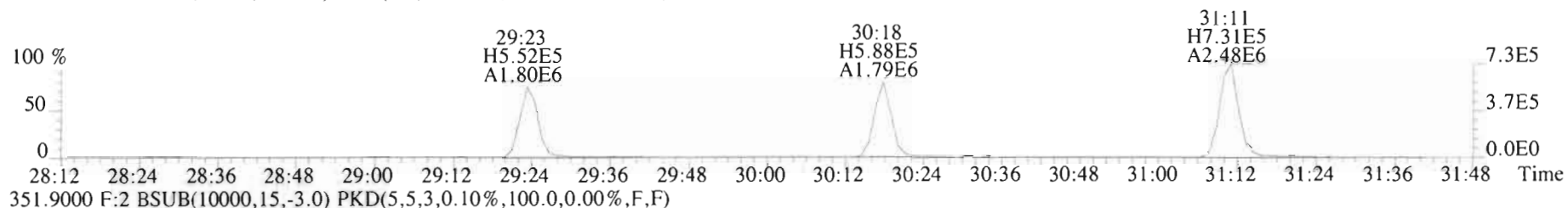
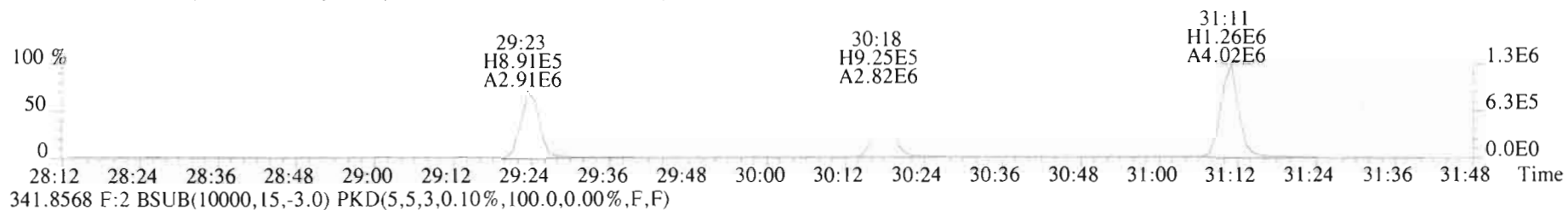
File:200109D1 #1-493 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



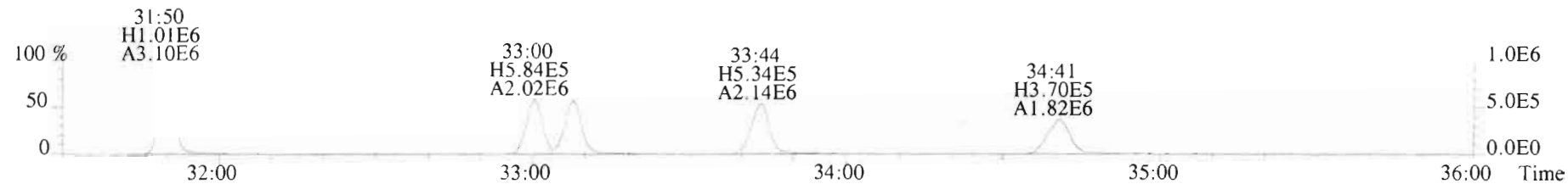
File:200109D1 #1-493 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaF  
 Sample#1 File Text:Vista Analytical Laboratory VG7 Text:S1200109D1-1 1613 CS3 1911604 I:exp:OCDD\_DB5  
 339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



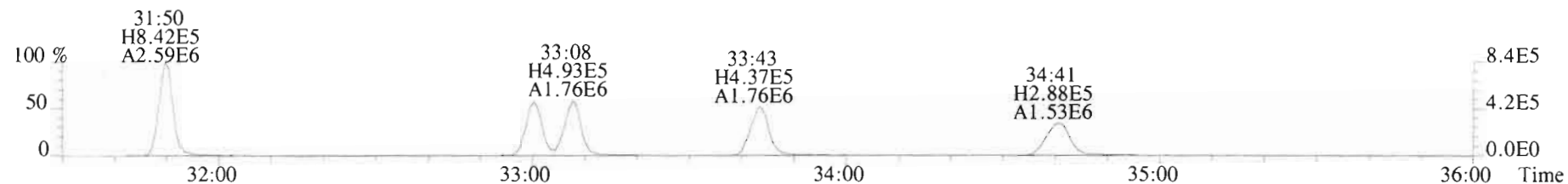
File:200109D1 #1-211 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaL  
 Sample#1 File Text: Vista Analytical Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
 339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



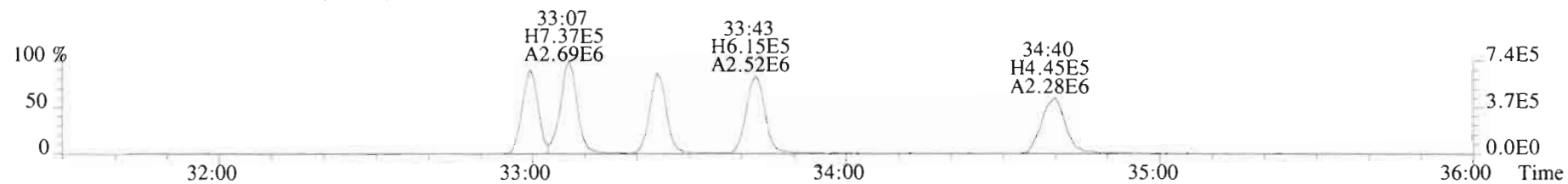
File:200109D1 #1-385 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



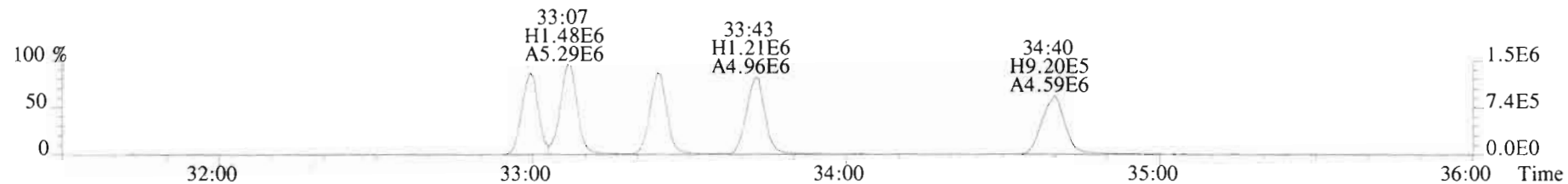
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



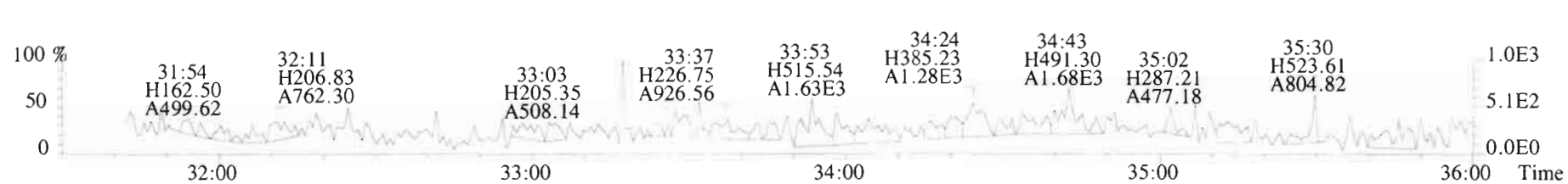
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



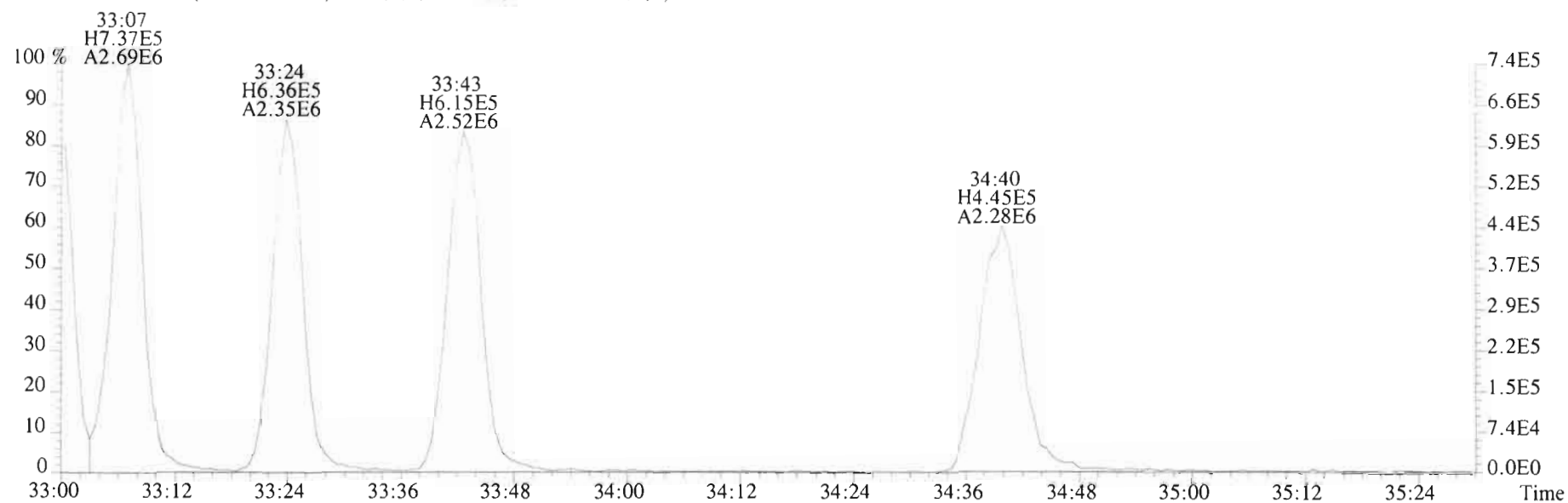
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



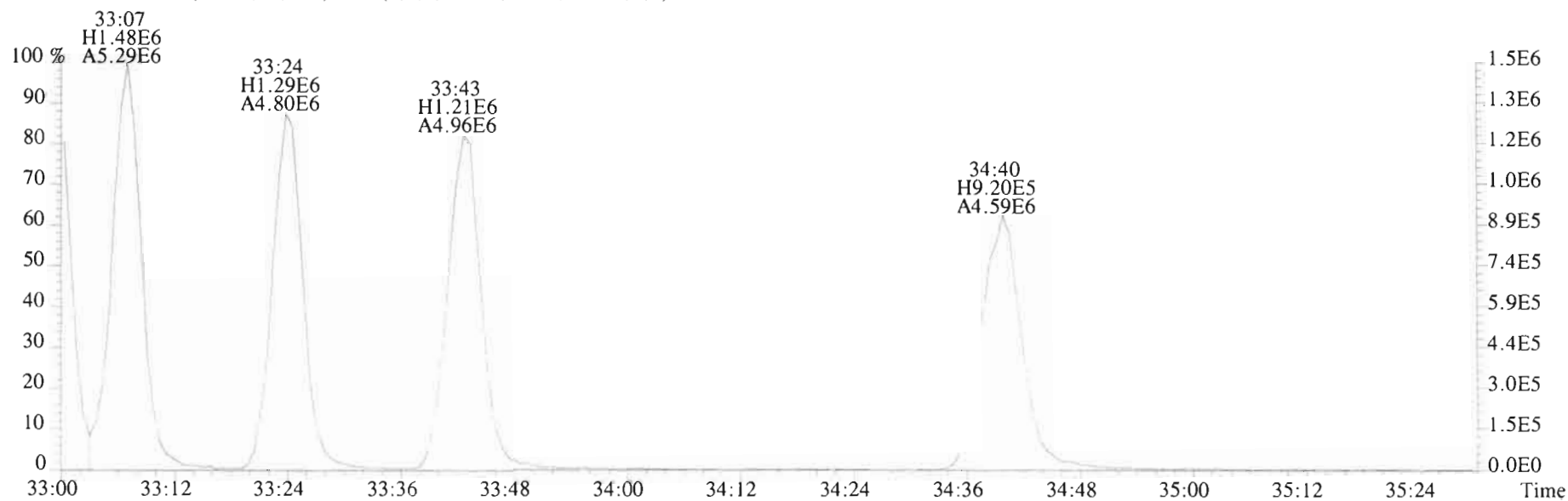
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



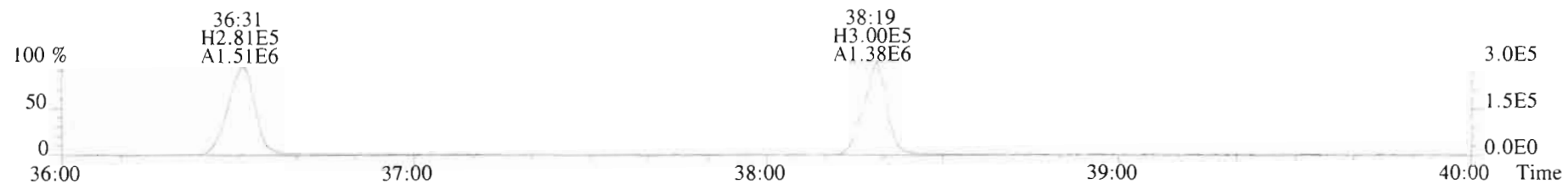
File:200109D1 #1-385 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



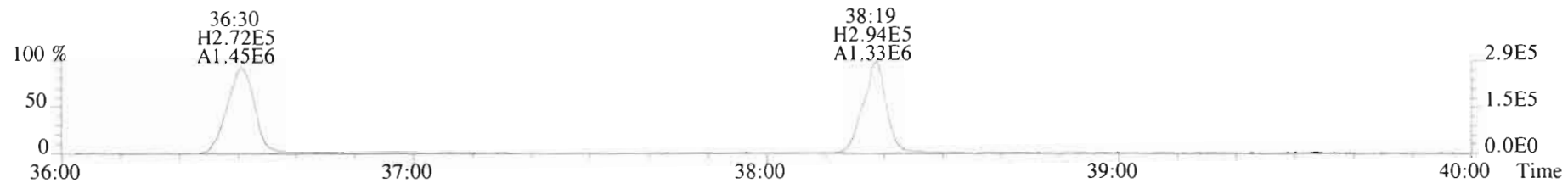
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



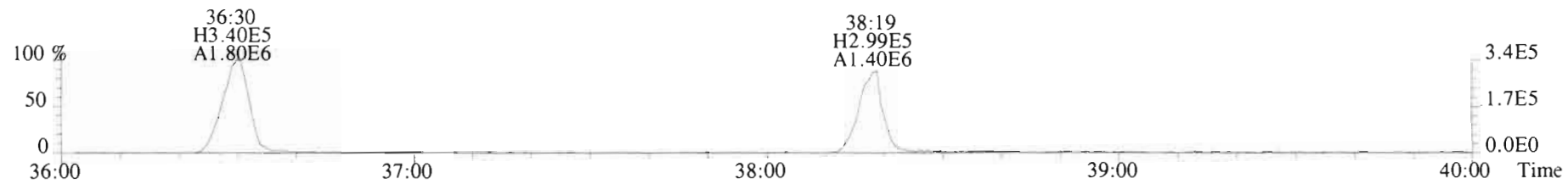
File:200109D1 #1-355 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
 407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



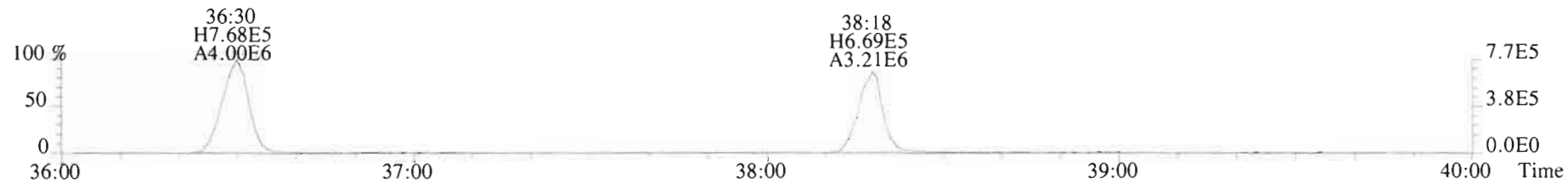
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



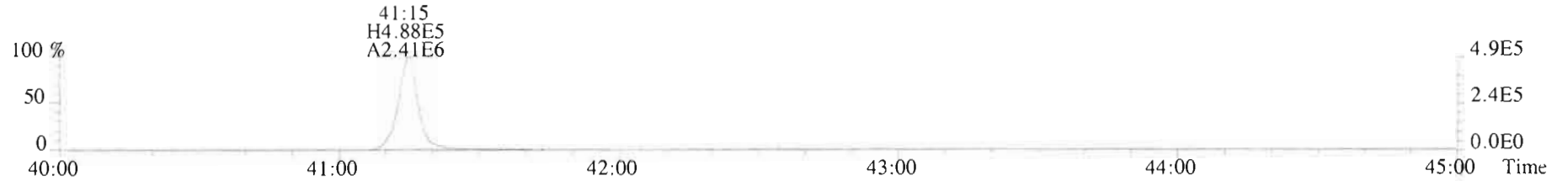
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



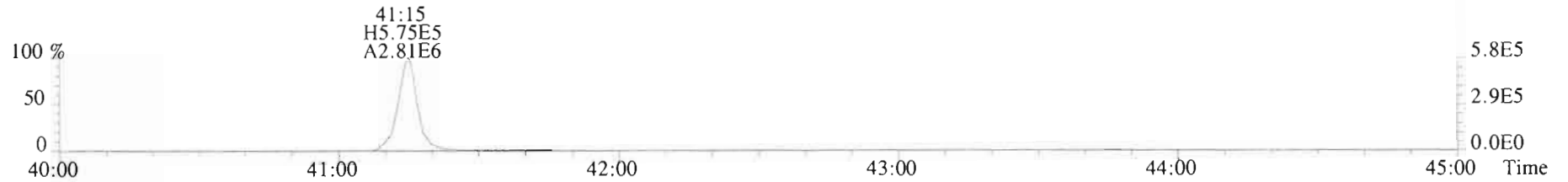
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



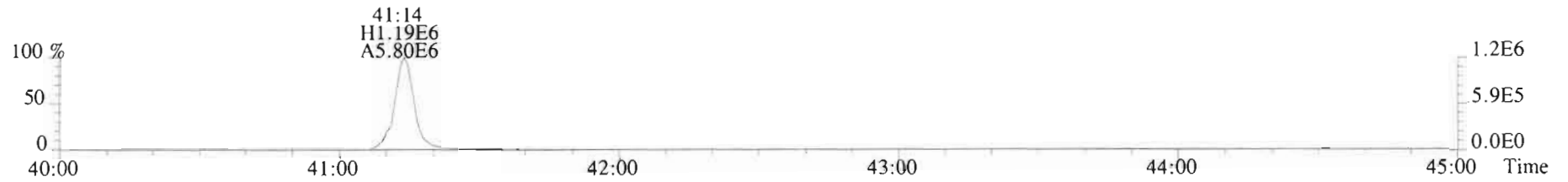
File:200109D1 #1-432 Acq: 9-JAN-2020 10:30:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST200109D1-1 1613 CS3 1911604 Exp:OCDD\_DB5  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



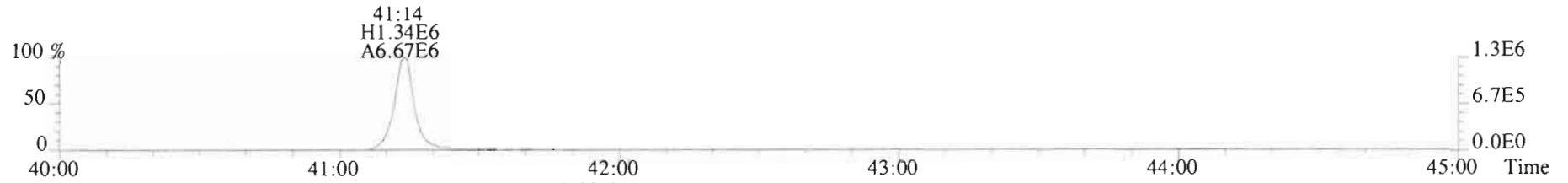
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



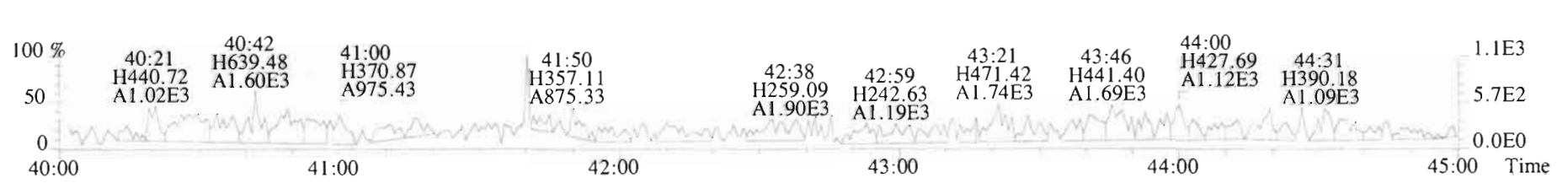
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



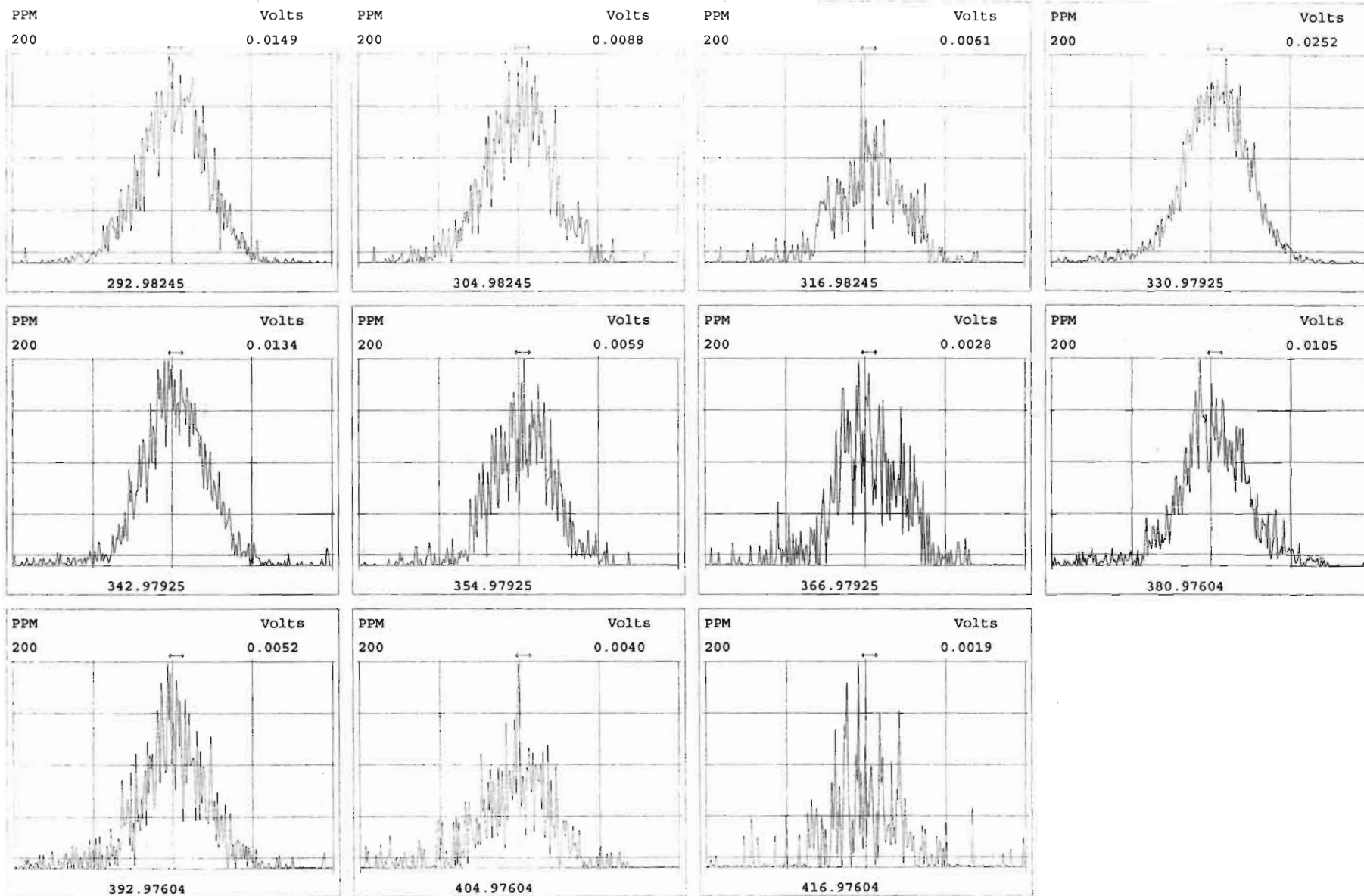
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)





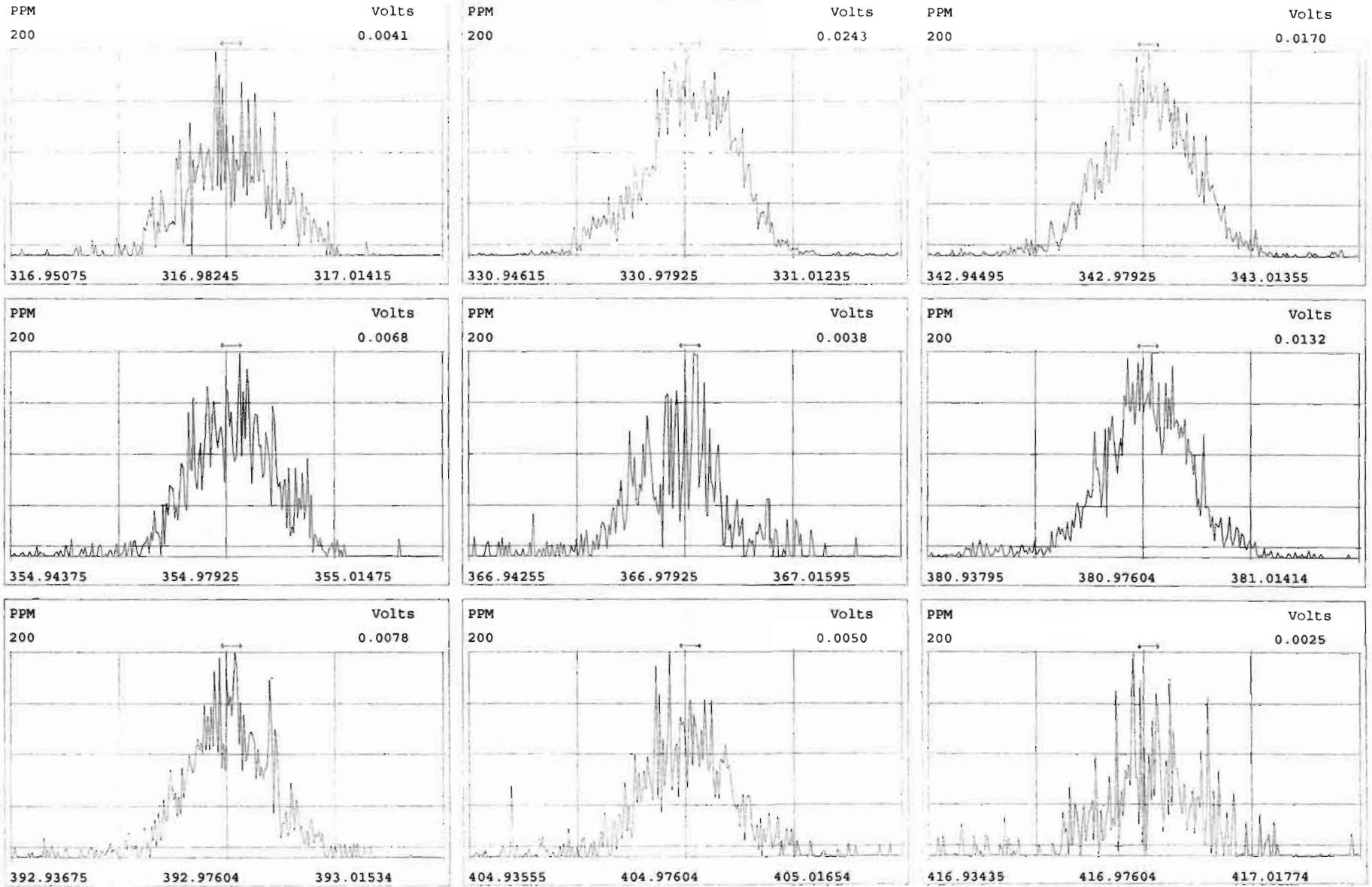
Peak Locate Examination: 9-JAN-2020:22:38 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:1 Reference:PFK



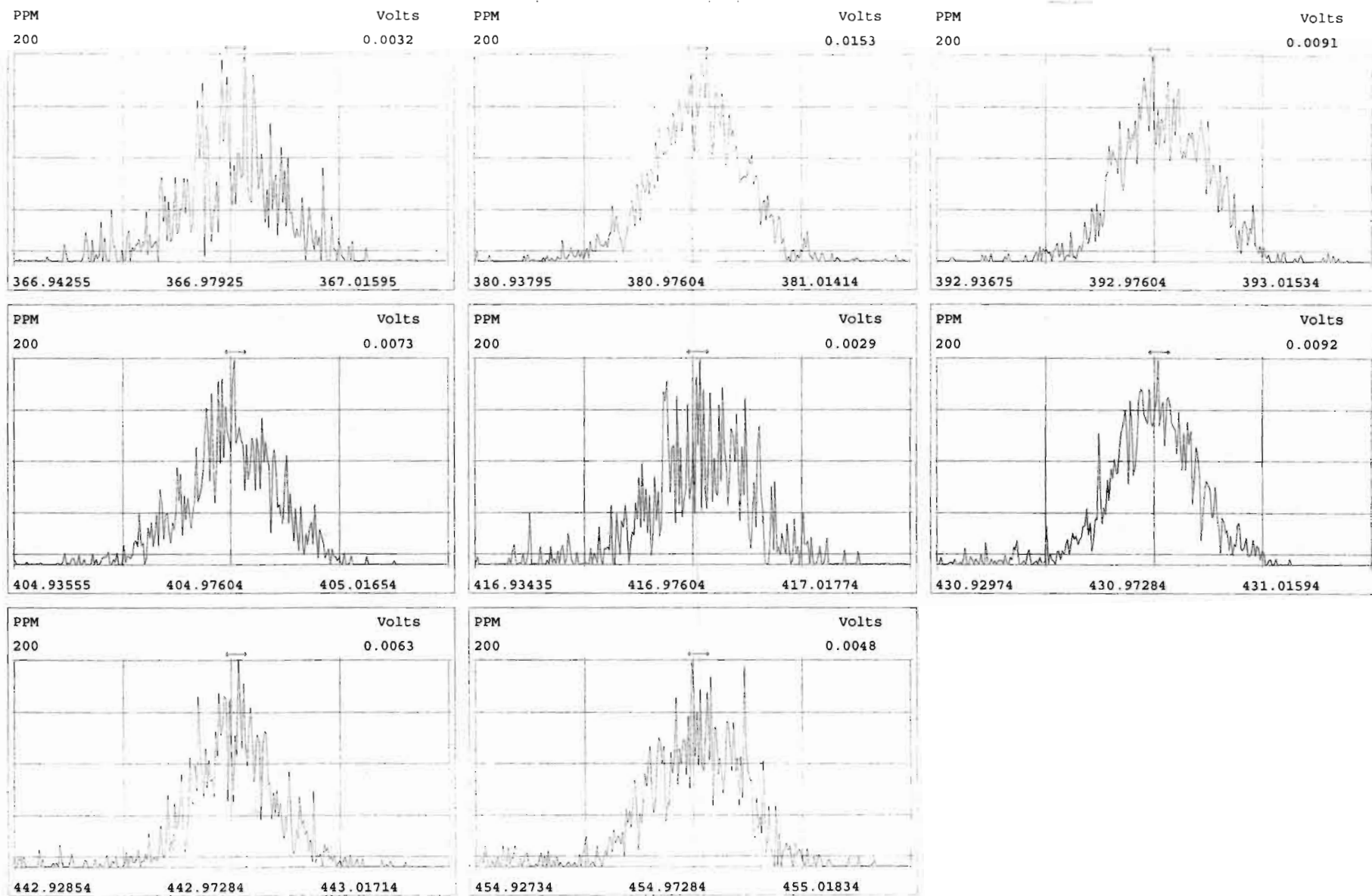
Peak Locate Examination: 9-JAN-2020:22:39 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:2 Reference:PFK



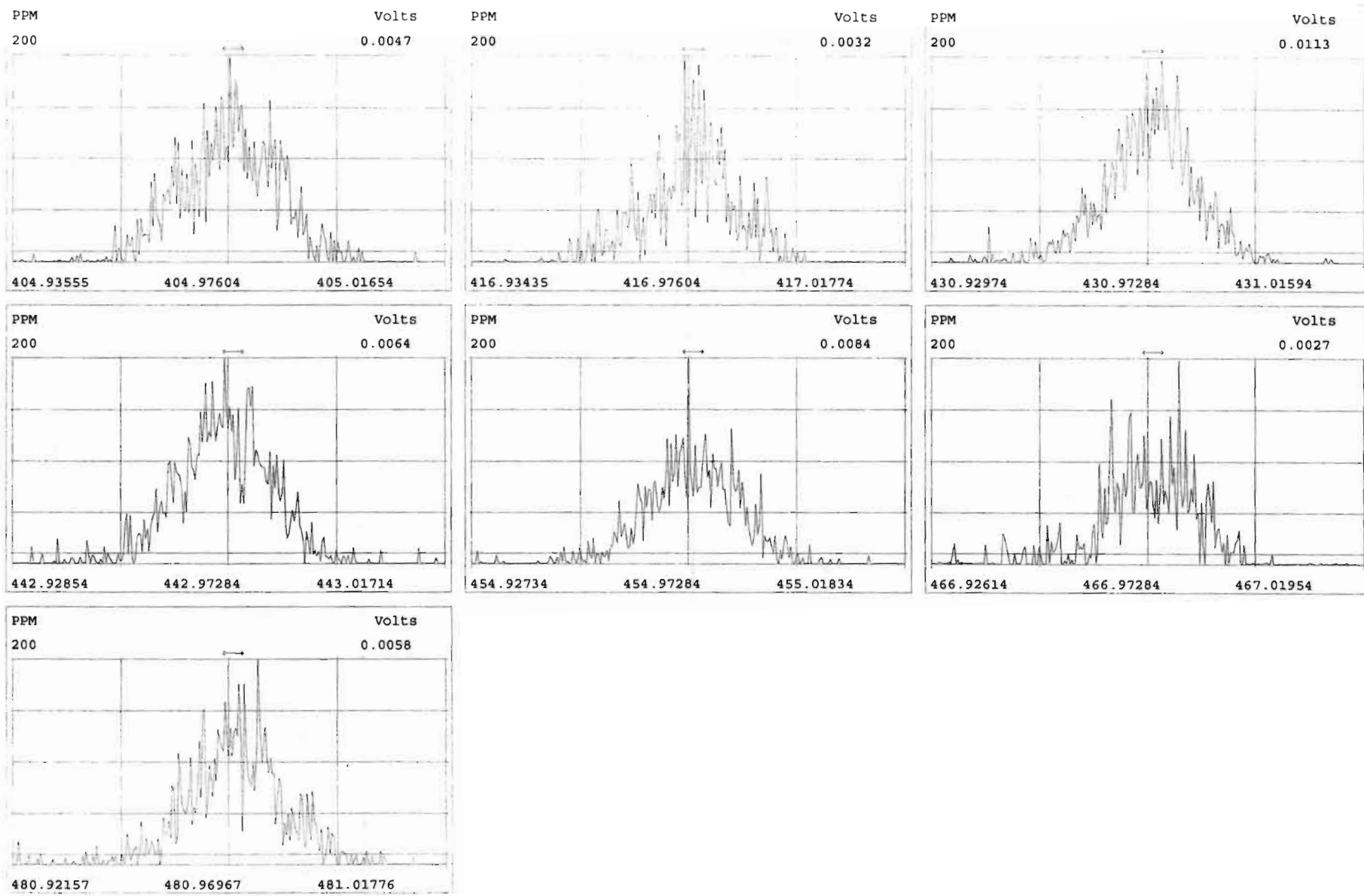
Peak Locate Examination: 9-JAN-2020:22:40 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:3 Reference:PFK



Peak Locate Examination: 9-JAN-2020:22:41 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:4 Reference:PFK



Peak Locate Examination: 9-JAN-2020:22:42 File:RES\_CHECK

Experiment:OCDD\_DB5 Function:5 Reference:PFK

PPM  
200

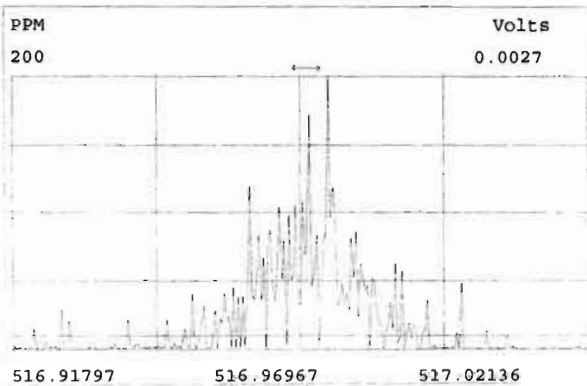
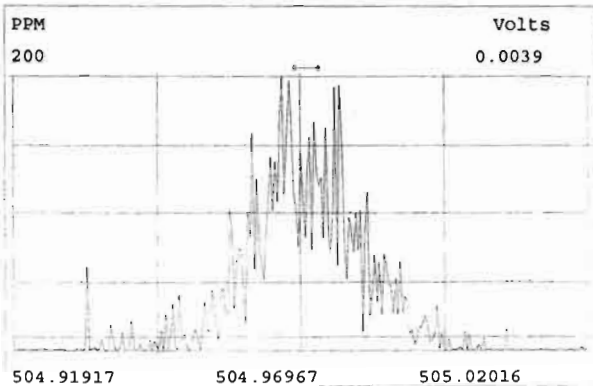
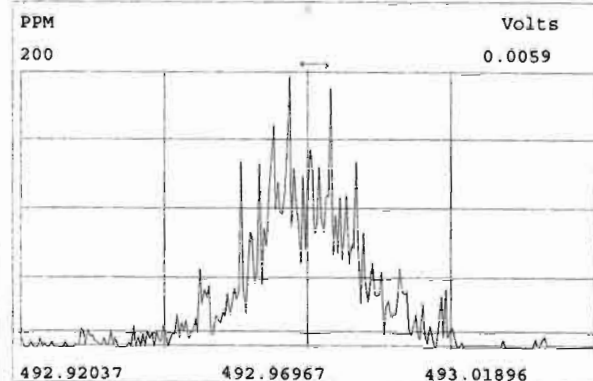
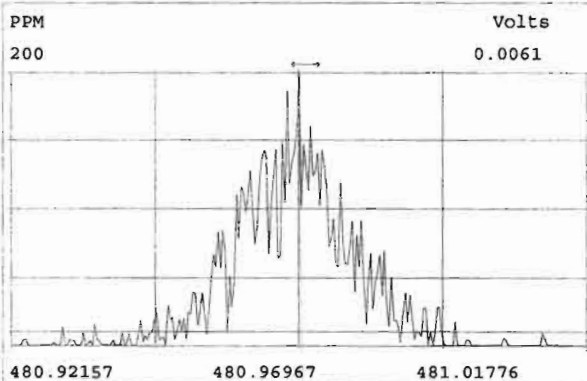
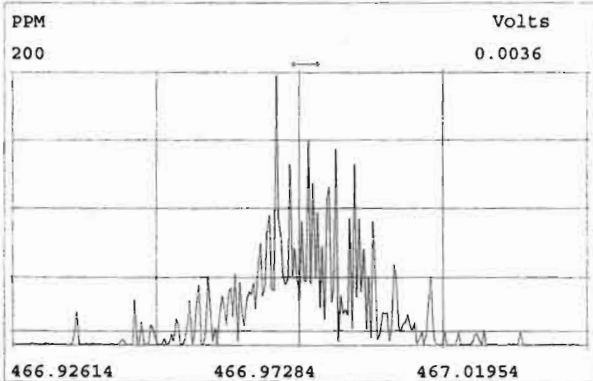
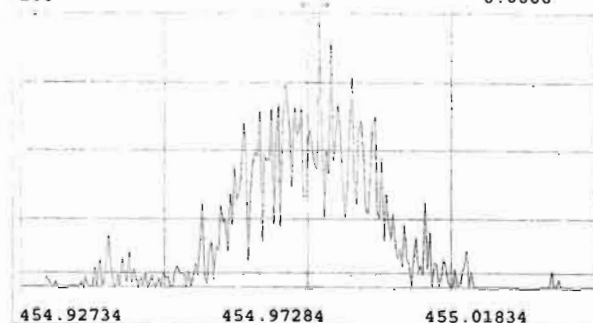
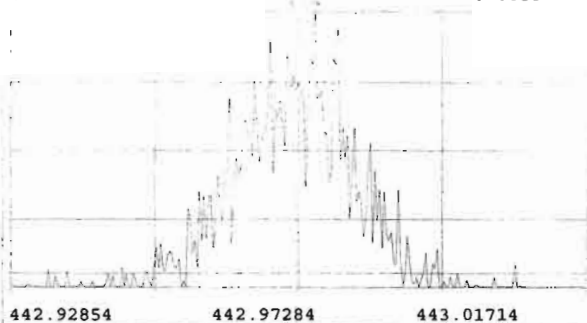
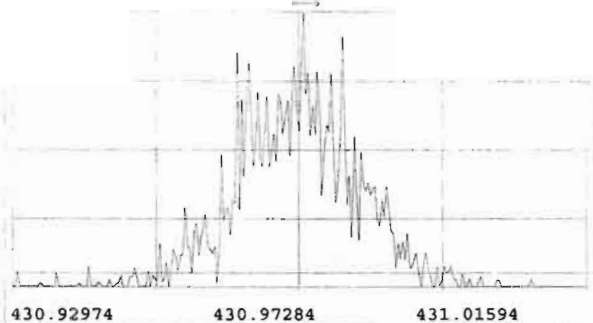
Volts  
0.0079

PPM  
200

Volts  
0.0053

PPM  
200

Volts  
0.0066



## **INITIAL CALIBRATION**

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

Last Altered: Wednesday, May 08, 2019 7:55:45 AM Pacific Daylight Time  
 Printed: Wednesday, May 08, 2019 7:57:59 AM Pacific Daylight Time

He 5-8-19

DB 5/20/19

Method: U:\VG11.PRO\MethDB\1613\_rrt-5-7-19.mdb 07 May 2019 12:51:47  
 Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

Compound name: 2,3,7,8-TCDD  
 Response Factor: 0.924948  
 RRF SD: 0.0405637, Relative SD: 4.38551  
 Response type: Internal Std ( Ref 18 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc.	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	0.250	0.88	NO	26.34	1.000	1.33e3	5.80e5	0.247	-1.2	0.914	MM
2	190507K1_3	10.0	0.78	NO	26.36	1.001	5.65e4	6.19e5	9.87	-1.3	0.913	MM
3	190507K1_4	0.500	0.80	NO	26.36	1.001	3.15e3	6.64e5	0.513	2.7	0.950	MM
4	190507K1_5	2.00	0.79	NO	26.34	1.001	1.19e4	6.91e5	1.85	-7.3	0.857	MM
5	190507K1_6	40.0	0.78	NO	26.36	1.001	2.26e5	6.01e5	40.7	1.8	0.941	bb
6	190507K1_7	300	0.78	NO	26.36	1.001	2.60e6	8.87e5	316	5.4	0.975	bb

Compound name: 1,2,3,7,8-PeCDD  
 Response Factor: 0.904644  
 RRF SD: 0.0649505, Relative SD: 7.17968  
 Response type: Internal Std ( Ref 19 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc.	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	0.67	NO	31.14	1.001	4.13e3	3.79e5	1.20	-3.7	0.871	MM
2	190507K1_3	50.0	0.63	NO	31.14	1.001	1.80e5	4.47e5	44.5	-11.0	0.806	MM
3	190507K1_4	2.50	0.57	NO	31.14	1.001	1.07e4	4.65e5	2.54	1.6	0.919	bb
4	190507K1_5	10.0	0.66	NO	31.14	1.001	4.19e4	4.73e5	9.78	-2.2	0.885	MM
5	190507K1_6	200	0.61	NO	31.14	1.001	8.32e5	4.25e5	216	8.1	0.978	bb
6	190507K1_7	1500	0.62	NO	31.14	1.001	1.00e7	6.89e5	1610	7.1	0.969	MM

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

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**Compound name: 1,2,3,4,7,8-HxCDD**

Response Factor: 1.06909

RRF SD: 0.071776, Relative SD: 6.71372

Response type: Internal Std ( Ref 20 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.38	NO	34.42	1.001	3.85e3	3.03e5	1.19	-4.8	1.02	bd
2	190507K1_3	50.0	1.28	NO	34.42	1.000	1.76e5	3.36e5	49.0	-2.0	1.05	bd
3	190507K1_4	2.50	1.25	NO	34.41	1.000	8.65e3	3.49e5	2.32	-7.4	0.990	bd
4	190507K1_5	10.0	1.24	NO	34.41	1.000	3.88e4	3.69e5	9.82	-1.8	1.05	MM
5	190507K1_6	200	1.25	NO	34.41	1.000	7.36e5	3.27e5	210	5.2	1.13	bd
6	190507K1_7	1500	1.25	NO	34.42	1.001	9.53e6	5.37e5	1660	10.7	1.18	bd

**Compound name: 1,2,3,6,7,8-HxCDD**

Response Factor: 0.967479

RRF SD: 0.0402916, Relative SD: 4.16459

Response type: Internal Std ( Ref 21 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.40	NO	34.53	1.001	4.41e3	3.71e5	1.23	-1.6	0.952	MM
2	190507K1_3	50.0	1.26	NO	34.53	1.000	1.92e5	4.10e5	48.5	-3.0	0.938	db
3	190507K1_4	2.50	1.17	NO	34.53	1.001	9.34e3	4.07e5	2.37	-5.1	0.918	MM
4	190507K1_5	10.0	1.22	NO	34.52	1.000	4.16e4	4.30e5	9.99	-0.1	0.967	db
5	190507K1_6	200	1.25	NO	34.52	1.000	7.88e5	3.86e5	211	5.5	1.02	db
6	190507K1_7	1500	1.25	NO	34.52	1.000	1.02e7	6.73e5	1560	4.3	1.01	db

**Compound name: 1,2,3,7,8,9-HxCDD**

Response Factor: 0.977795

RRF SD: 0.0369, Relative SD: 3.7738

Response type: Internal Std ( Ref 22 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.09	NO	34.81	1.000	3.66e3	2.90e5	1.29	3.2	1.01	MM
2	190507K1_3	50.0	1.35	NO	34.81	1.000	1.63e5	3.44e5	48.4	-3.2	0.947	bb



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**Compound name: 1,2,3,7,8,9-HxCDD**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	190507K1_4	2.50	1.22	NO	34.80	1.000	8.28e3	3.44e5	2.46	-1.4	0.964	MM
4	190507K1_5	10.0	1.22	NO	34.80	1.000	3.65e4	3.93e5	9.51	-4.9	0.929	bb
5	190507K1_6	200	1.22	NO	34.80	1.000	6.68e5	3.27e5	209	4.6	1.02	MM
6	190507K1_7	1500	1.20	NO	34.81	1.000	8.68e6	5.82e5	1530	1.8	0.995	MM

**Compound name: 1,2,3,4,6,7,8-HpCDD**

Response Factor: 1.03751

RRF SD: 0.0369608, Relative SD: 3.56246

Response type: Internal Std ( Ref 23 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	0.97	NO	38.32	1.001	3.20e3	2.52e5	1.23	-1.9	1.02	MM
2	190507K1_3	50.0	1.03	NO	38.32	1.000	1.42e5	2.76e5	49.5	-0.9	1.03	bb
3	190507K1_4	2.50	1.16	NO	38.31	1.000	7.08e3	2.70e5	2.53	1.0	1.05	bb
4	190507K1_5	10.0	1.05	NO	38.31	1.000	2.98e4	3.04e5	9.46	-5.4	0.981	MM
5	190507K1_6	200	1.03	NO	38.31	1.000	5.83e5	2.74e5	205	2.5	1.06	MM
6	190507K1_7	1500	1.05	NO	38.31	1.000	7.58e6	4.65e5	1570	4.8	1.09	bb

**Compound name: OCDD**

Response Factor: 0.971773

RRF SD: 0.0504127, Relative SD: 5.1877

Response type: Internal Std ( Ref 24 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	2.50	0.90	NO	41.48	1.001	5.20e3	4.62e5	2.32	-7.4	0.900	MM
2	190507K1_3	100	0.90	NO	41.48	1.000	2.35e5	4.72e5	103	2.6	0.997	MM
3	190507K1_4	5.00	0.95	NO	41.46	1.000	1.13e4	4.66e5	4.97	-0.5	0.966	MM
4	190507K1_5	20.0	0.89	NO	41.47	1.000	4.71e4	5.06e5	19.2	-4.2	0.931	MM
5	190507K1_6	400	0.90	NO	41.47	1.000	9.61e5	4.83e5	410	2.4	0.995	MM
6	190507K1_7	3000	0.90	NO	41.48	1.000	1.35e7	8.65e5	3210	7.0	1.04	MM

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**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.937613

RRF SD: 0.0427885, Relative SD: 4.56356

Response type: Internal Std ( Ref 25 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	0.250	0.81	NO	25.50	1.001	1.85e3	8.07e5	0.245	-2.1	0.918	MM
2	190507K1_3	10.0	0.78	NO	25.51	1.001	7.75e4	8.61e5	9.59	-4.1	0.899	bb
3	190507K1_4	0.500	0.80	NO	25.50	1.001	4.06e3	8.97e5	0.482	-3.6	0.904	MM
4	190507K1_5	2.00	0.77	NO	25.50	1.001	1.71e4	9.28e5	1.97	-1.7	0.922	bb
5	190507K1_6	40.0	0.77	NO	25.50	1.001	3.18e5	8.09e5	42.0	5.0	0.984	bb
6	190507K1_7	300	0.78	NO	25.51	1.001	3.44e6	1.15e6	320	6.5	0.999	bb

**Compound name: 1,2,3,7,8-PeCDF**

Response Factor: 0.976196

RRF SD: 0.0578773, Relative SD: 5.92886

Response type: Internal Std ( Ref 26 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.71	NO	29.89	1.000	6.85e3	6.20e5	1.13	-9.3	0.885	MM
2	190507K1_3	50.0	1.58	NO	29.91	1.001	3.23e5	6.71e5	49.3	-1.4	0.962	bb
3	190507K1_4	2.50	1.55	NO	29.89	1.000	1.67e4	6.91e5	2.48	-0.8	0.968	MM
4	190507K1_5	10.0	1.65	NO	29.89	1.000	6.93e4	7.19e5	9.86	-1.4	0.963	bd
5	190507K1_6	200	1.63	NO	29.89	1.000	1.34e6	6.45e5	213	6.7	1.04	bd
6	190507K1_7	1500	1.57	NO	29.91	1.001	1.58e7	1.02e6	1590	6.3	1.04	bb

**Compound name: 2,3,4,7,8-PeCDF**

Response Factor: 1.00488

RRF SD: 0.0625517, Relative SD: 6.22482

Response type: Internal Std ( Ref 27 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.69	NO	30.86	1.001	6.68e3	5.77e5	1.15	-7.8	0.926	MM
2	190507K1_3	50.0	1.58	NO	30.86	1.001	3.17e5	6.35e5	49.7	-0.5	1.00	bb

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**Compound name: 2,3,4,7,8-PeCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	190507K1_4	2.50	1.59	NO	30.86	1.001	1.67e4	6.65e5	2.50	0.0	1.00	bb
4	190507K1_5	10.0	1.58	NO	30.86	1.001	6.82e4	7.20e5	9.42	-5.8	0.947	bb
5	190507K1_6	200	1.58	NO	30.86	1.001	1.34e6	6.22e5	214	6.9	1.07	bb
6	190507K1_7	1500	1.58	NO	30.86	1.001	1.61e7	9.94e5	1610	7.2	1.08	bb

**Compound name: 1,2,3,4,7,8-HxCDF**

Response Factor: 1.24344

RRF SD: 0.0556273, Relative SD: 4.47366

Response type: Internal Std ( Ref 28 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.34	NO	33.54	1.000	6.00e3	4.01e5	1.20	-3.7	1.20	bd
2	190507K1_3	50.0	1.25	NO	33.56	1.001	2.69e5	4.41e5	49.1	-1.8	1.22	bd
3	190507K1_4	2.50	1.24	NO	33.54	1.001	1.35e4	4.57e5	2.38	-4.9	1.18	bd
4	190507K1_5	10.0	1.26	NO	33.54	1.001	5.97e4	4.82e5	9.96	-0.4	1.24	bd
5	190507K1_6	200	1.24	NO	33.54	1.000	1.10e6	4.20e5	211	5.5	1.31	bd
6	190507K1_7	1500	1.24	NO	33.54	1.000	1.38e7	7.03e5	1580	5.4	1.31	bd

**Compound name: 1,2,3,6,7,8-HxCDF**

Response Factor: 1.09501

RRF SD: 0.0731388, Relative SD: 6.67929

Response type: Internal Std ( Ref 29 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.35	NO	33.67	1.000	6.12e3	4.90e5	1.14	-8.8	0.999	MM
2	190507K1_3	50.0	1.26	NO	33.68	1.000	3.02e5	5.46e5	50.5	1.0	1.11	MM
3	190507K1_4	2.50	1.14	NO	33.68	1.001	1.42e4	5.55e5	2.33	-6.7	1.02	MM
4	190507K1_5	10.0	1.22	NO	33.67	1.000	6.32e4	5.73e5	10.1	0.7	1.10	MM
5	190507K1_6	200	1.23	NO	33.67	1.000	1.18e6	5.09e5	211	5.5	1.16	db
6	190507K1_7	1500	1.24	NO	33.68	1.000	1.52e7	8.53e5	1620	8.3	1.19	db

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**Compound name: 2,3,4,6,7,8-HxCDF**

Response Factor: 1.1806

RRF SD: 0.0976101, Relative SD: 8.26786

Response type: Internal Std ( Ref 30 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.22	NO	34.26	1.000	5.74e3	4.48e5	1.09	-13.1	1.03	MM
2	190507K1_3	50.0	1.26	NO	34.27	1.001	2.75e5	4.57e5	51.0	2.0	1.20	bb
3	190507K1_4	2.50	1.27	NO	34.26	1.000	1.40e4	4.86e5	2.43	-2.7	1.15	bd
4	190507K1_5	10.0	1.22	NO	34.26	1.001	5.76e4	5.05e5	9.67	-3.3	1.14	MM
5	190507K1_6	200	1.25	NO	34.26	1.001	1.12e6	4.40e5	216	8.1	1.28	bb
6	190507K1_7	1500	1.24	NO	34.26	1.000	1.40e7	7.27e5	1640	9.1	1.29	MM

**Compound name: 1,2,3,7,8,9-HxCDF**

Response Factor: 1.07281

RRF SD: 0.121558, Relative SD: 11.3308

Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.19	NO	35.17	1.000	3.73e3	3.43e5	1.01	-19.1	0.868	MM
2	190507K1_3	50.0	1.25	NO	35.19	1.000	2.00e5	3.80e5	49.1	-1.8	1.05	MM
3	190507K1_4	2.50	1.26	NO	35.18	1.000	1.02e4	3.91e5	2.42	-3.1	1.04	MM
4	190507K1_5	10.0	1.25	NO	35.18	1.000	4.51e4	4.16e5	10.1	1.1	1.08	MM
5	190507K1_6	200	1.25	NO	35.18	1.001	8.63e5	3.64e5	221	10.4	1.18	MM
6	190507K1_7	1500	1.24	NO	35.19	1.001	1.15e7	6.37e5	1690	12.5	1.21	bb

**Compound name: 1,2,3,4,6,7,8-HpCDF**

Response Factor: 1.12998

RRF SD: 0.056055, Relative SD: 4.96072

Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	1.25	1.19	NO	36.92	1.001	4.83e3	3.64e5	1.18	-5.9	1.06	MM
2	190507K1_3	50.0	1.05	NO	36.94	1.001	2.21e5	3.98e5	49.3	-1.5	1.11	bb

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**Compound name: 1,2,3,4,6,7,8-HpCDF**

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3 190507K1_4	2.50	1.03	NO	36.91	1.000	1.12e4	4.08e5	2.44	-2.4	1.10	MM
4 190507K1_5	10.0	1.01	NO	36.91	1.000	4.63e4	4.18e5	9.80	-2.0	1.11	bb
5 190507K1_6	200	1.03	NO	36.91	1.000	8.93e5	3.80e5	208	4.0	1.18	MM
6 190507K1_7	1500	1.04	NO	36.92	1.000	1.14e7	6.22e5	1620	7.7	1.22	bb

**Compound name: 1,2,3,4,7,8,9-HpCDF**

Response Factor: 1.26094

RRF SD: 0.121952, Relative SD: 9.67152

Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1 190507K1_2	1.25	1.07	NO	38.86	1.000	4.31e3	2.51e5	1.36	9.0	1.37	MM
2 190507K1_3	50.0	1.10	NO	38.87	1.000	1.69e5	2.88e5	46.4	-7.1	1.17	MM
3 190507K1_4	2.50	1.04	NO	38.86	1.000	8.36e3	2.91e5	2.28	-9.0	1.15	MM
4 190507K1_5	10.0	1.04	NO	38.86	1.000	3.47e4	3.06e5	8.99	-10.1	1.13	MM
5 190507K1_6	200	1.06	NO	38.86	1.000	7.19e5	2.58e5	221	10.3	1.39	bb
6 190507K1_7	1500	1.03	NO	38.87	1.000	9.34e6	4.62e5	1600	6.9	1.35	bb

**Compound name: OCDF**

Response Factor: 1.10253

RRF SD: 0.218115, Relative SD: 19.7831

Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1 190507K1_2	2.50	0.91	NO	41.69	1.000	1.12e4	5.83e5	3.49	39.5	1.54	MM
2 190507K1_3	100	0.90	NO	41.71	1.000	3.03e5	6.08e5	90.4	-9.6	0.997	MM
3 190507K1_4	5.00	0.89	NO	41.70	1.000	1.58e4	6.30e5	4.54	-9.2	1.00	MM
4 190507K1_5	20.0	0.93	NO	41.69	1.000	6.07e4	6.40e5	17.2	-13.9	0.950	MM
5 190507K1_6	400	0.90	NO	41.70	1.000	1.21e6	5.80e5	378	-5.5	1.04	MM
6 190507K1_7	3000	0.91	NO	41.71	1.000	1.71e7	1.05e6	2960	-1.3	1.09	MM

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**Compound name: 13C-2,3,7,8-TCDD**

Response Factor: 1.04889

RRF SD: 0.0285302, Relative SD: 2.72003

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.78	NO	26.34	1.026	5.80e5	5.62e5	98.5	-1.5	1.03	bb
2	190507K1_3	100	0.80	NO	26.34	1.026	6.19e5	6.00e5	98.4	-1.6	1.03	bb
3	190507K1_4	100	0.78	NO	26.33	1.026	6.64e5	6.32e5	100	0.1	1.05	bb
4	190507K1_5	100	0.78	NO	26.33	1.025	6.91e5	6.60e5	99.9	-0.1	1.05	bb
5	190507K1_6	100	0.79	NO	26.34	1.026	6.01e5	5.86e5	97.8	-2.2	1.03	bb
6	190507K1_7	100	0.78	NO	26.34	1.026	8.87e5	8.04e5	105	5.3	1.10	bb

**Compound name: 13C-1,2,3,7,8-PeCDD**

Response Factor: 0.7429

RRF SD: 0.0610463, Relative SD: 8.21729

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.63	NO	31.12	1.212	3.79e5	5.62e5	90.9	-9.1	0.675	MM
2	190507K1_3	100	0.61	NO	31.12	1.212	4.47e5	6.00e5	100	0.4	0.746	bb
3	190507K1_4	100	0.64	NO	31.12	1.212	4.65e5	6.32e5	99.1	-0.9	0.736	bb
4	190507K1_5	100	0.59	NO	31.12	1.212	4.73e5	6.60e5	96.5	-3.5	0.717	MM
5	190507K1_6	100	0.60	NO	31.12	1.212	4.25e5	5.86e5	97.8	-2.2	0.726	MM
6	190507K1_7	100	0.63	NO	31.12	1.212	6.89e5	8.04e5	115	15.4	0.857	MM

**Compound name: 13C-1,2,3,4,7,8-HxCDD**

Response Factor: 0.646258

RRF SD: 0.0314471, Relative SD: 4.86603

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	1.34	NO	34.40	1.014	3.03e5	4.98e5	94.1	-5.9	0.608	bd
2	190507K1_3	100	1.24	NO	34.41	1.014	3.36e5	5.10e5	102	1.8	0.658	bd

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

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**Compound name: 13C-1,2,3,4,7,8-HxCDD**

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3 190507K1_4	100	1.31	NO	34.40	1.014	3.49e5	5.59e5	96.7	-3.3	0.625	bd
4 190507K1_5	100	1.32	NO	34.40	1.014	3.69e5	5.73e5	99.7	-0.3	0.644	MM
5 190507K1_6	100	1.26	NO	34.40	1.014	3.27e5	5.09e5	99.5	-0.5	0.643	bd
6 190507K1_7	100	1.27	NO	34.40	1.014	5.37e5	7.67e5	108	8.3	0.700	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDD**

Response Factor: 0.776669

RRF SD: 0.0552613, Relative SD: 7.11516

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1 190507K1_2	100	1.28	NO	34.51	1.017	3.71e5	4.98e5	95.9	-4.1	0.745	MM
2 190507K1_3	100	1.25	NO	34.52	1.017	4.10e5	5.10e5	103	3.3	0.802	db
3 190507K1_4	100	1.28	NO	34.51	1.017	4.07e5	5.59e5	93.6	-6.4	0.727	MM
4 190507K1_5	100	1.26	NO	34.51	1.017	4.30e5	5.73e5	96.7	-3.3	0.751	db
5 190507K1_6	100	1.28	NO	34.51	1.017	3.86e5	5.09e5	97.5	-2.5	0.758	db
6 190507K1_7	100	1.27	NO	34.51	1.017	6.73e5	7.67e5	113	12.9	0.877	db

**Compound name: 13C-1,2,3,7,8,9-HxCDD**

Response Factor: 0.659499

RRF SD: 0.0613845, Relative SD: 9.30774

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1 190507K1_2	100	1.25	NO	34.80	1.025	2.90e5	4.98e5	88.4	-11.6	0.583	MM
2 190507K1_3	100	1.18	NO	34.80	1.025	3.44e5	5.10e5	102	2.2	0.674	MM
3 190507K1_4	100	1.26	NO	34.78	1.025	3.44e5	5.59e5	93.2	-6.8	0.615	MM
4 190507K1_5	100	1.25	NO	34.78	1.025	3.93e5	5.73e5	104	3.9	0.685	bb
5 190507K1_6	100	1.32	NO	34.78	1.025	3.27e5	5.09e5	97.3	-2.7	0.642	MM
6 190507K1_7	100	1.25	NO	34.80	1.026	5.82e5	7.67e5	115	15.0	0.758	bb

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

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**Compound name: 13C-1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.534168  
 RRF SD: 0.0414632, Relative SD: 7.76221  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	100	1.01	NO	38.30	1.128	2.52e5	4.98e5	94.6	-5.4	0.506	MM
2	190507K1_3	100	1.05	NO	38.31	1.129	2.76e5	5.10e5	101	1.3	0.541	MM
3	190507K1_4	100	1.06	NO	38.30	1.129	2.70e5	5.59e5	90.5	-9.5	0.484	MM
4	190507K1_5	100	1.09	NO	38.30	1.129	3.04e5	5.73e5	99.3	-0.7	0.530	MM
5	190507K1_6	100	1.06	NO	38.30	1.129	2.74e5	5.09e5	101	0.8	0.539	MM
6	190507K1_7	100	1.07	NO	38.31	1.129	4.65e5	7.67e5	113	13.4	0.606	bb

**Compound name: 13C-OCDD**

Response Factor: 0.470365  
 RRF SD: 0.0499896, Relative SD: 10.6278  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	200	0.91	NO	41.46	1.221	4.62e5	4.98e5	198	-1.2	0.465	MM
2	190507K1_3	200	0.89	NO	41.47	1.222	4.72e5	5.10e5	196	-1.8	0.462	MM
3	190507K1_4	200	0.89	NO	41.46	1.222	4.66e5	5.59e5	177	-11.4	0.417	MM
4	190507K1_5	200	0.89	NO	41.46	1.222	5.06e5	5.73e5	188	-6.2	0.441	MM
5	190507K1_6	200	0.91	NO	41.46	1.222	4.83e5	5.09e5	202	0.8	0.474	MM
6	190507K1_7	200	0.90	NO	41.47	1.222	8.65e5	7.67e5	240	19.8	0.563	MM

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 0.9775  
 RRF SD: 0.00806645, Relative SD: 0.825212  
 Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	100	0.79	NO	25.48	0.992	8.07e5	8.33e5	99.2	-0.8	0.970	bb
2	190507K1_3	100	0.76	NO	25.48	0.992	8.61e5	8.73e5	101	0.9	0.987	bb



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**Compound name: 13C-2,3,7,8-TCDF**

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
3 190507K1_4	100	0.78	NO	25.48	0.993	8.97e5	9.16e5	100	0.2	0.979	bb
4 190507K1_5	100	0.78	NO	25.48	0.992	9.28e5	9.50e5	99.9	-0.1	0.977	bb
5 190507K1_6	100	0.77	NO	25.48	0.992	8.09e5	8.36e5	98.9	-1.1	0.967	bb
6 190507K1_7	100	0.79	NO	25.48	0.992	1.15e6	1.17e6	101	0.8	0.986	bb

**Compound name: 13C-1,2,3,7,8-PeCDF**

Response Factor: 0.777829

RRF SD: 0.0468157, Relative SD: 6.01876

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1 190507K1_2	100	1.64	NO	29.89	1.164	6.20e5	8.33e5	95.7	-4.3	0.744	bd
2 190507K1_3	100	1.52	NO	29.89	1.164	6.71e5	8.73e5	98.8	-1.2	0.769	bb
3 190507K1_4	100	1.58	NO	29.89	1.165	6.91e5	9.16e5	97.0	-3.0	0.754	bb
4 190507K1_5	100	1.58	NO	29.89	1.164	7.19e5	9.50e5	97.4	-2.6	0.758	bb
5 190507K1_6	100	1.57	NO	29.89	1.164	6.45e5	8.36e5	99.1	-0.9	0.771	bb
6 190507K1_7	100	1.58	NO	29.89	1.164	1.02e6	1.17e6	112	12.0	0.871	bb

**Compound name: 13C-2,3,4,7,8-PeCDF**

Response Factor: 0.749922

RRF SD: 0.0548586, Relative SD: 7.31524

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1 190507K1_2	100	1.56	NO	30.84	1.201	5.77e5	8.33e5	92.4	-7.6	0.693	bb
2 190507K1_3	100	1.60	NO	30.84	1.201	6.35e5	8.73e5	97.0	-3.0	0.727	bb
3 190507K1_4	100	1.61	NO	30.84	1.201	6.65e5	9.16e5	96.8	-3.2	0.726	bb
4 190507K1_5	100	1.58	NO	30.84	1.201	7.20e5	9.50e5	101	1.1	0.758	bb
5 190507K1_6	100	1.58	NO	30.84	1.201	6.22e5	8.36e5	99.1	-0.9	0.743	bb
6 190507K1_7	100	1.59	NO	30.84	1.201	9.94e5	1.17e6	114	13.7	0.853	bb

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

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**Compound name: 13C-1,2,3,4,7,8-HxCDF**

Response Factor: 0.845154

RRF SD: 0.04026, Relative SD: 4.76363

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.52	NO	33.53	0.988	4.01e5	4.98e5	95.3	-4.7	0.806	bd
2	190507K1_3	100	0.52	NO	33.53	0.988	4.41e5	5.10e5	102	2.3	0.864	bd
3	190507K1_4	100	0.51	NO	33.52	0.988	4.57e5	5.59e5	96.8	-3.2	0.818	bd
4	190507K1_5	100	0.52	NO	33.52	0.988	4.82e5	5.73e5	99.5	-0.5	0.841	bd
5	190507K1_6	100	0.52	NO	33.53	0.988	4.20e5	5.09e5	97.7	-2.3	0.826	bd
6	190507K1_7	100	0.53	NO	33.53	0.988	7.03e5	7.67e5	108	8.4	0.916	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDF**

Response Factor: 1.02668

RRF SD: 0.0516295, Relative SD: 5.02879

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.53	NO	33.65	0.992	4.90e5	4.98e5	96.0	-4.0	0.986	db
2	190507K1_3	100	0.53	NO	33.67	0.992	5.46e5	5.10e5	104	4.2	1.07	db
3	190507K1_4	100	0.53	NO	33.65	0.992	5.55e5	5.59e5	96.7	-3.3	0.993	db
4	190507K1_5	100	0.54	NO	33.65	0.992	5.73e5	5.73e5	97.4	-2.6	1.00	MM
5	190507K1_6	100	0.52	NO	33.65	0.992	5.09e5	5.09e5	97.4	-2.6	1.00	db
6	190507K1_7	100	0.52	NO	33.67	0.992	8.53e5	7.67e5	108	8.3	1.11	db

**Compound name: 13C-2,3,4,6,7,8-HxCDF**

Response Factor: 0.89286

RRF SD: 0.0303616, Relative SD: 3.40049

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.50	NO	34.25	1.009	4.48e5	4.98e5	101	0.8	0.900	bb
2	190507K1_3	100	0.52	NO	34.25	1.009	4.57e5	5.10e5	100	0.2	0.895	bb

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**Compound name: 13C-2,3,4,6,7,8-HxCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
3	190507K1_4	100	0.53	NO	34.25	1.009	4.86e5	5.59e5	97.2	-2.8	0.868	bb
4	190507K1_5	100	0.53	NO	34.24	1.009	5.05e5	5.73e5	98.7	-1.3	0.881	MM
5	190507K1_6	100	0.52	NO	34.24	1.009	4.40e5	5.09e5	96.9	-3.1	0.865	MM
6	190507K1_7	100	0.52	NO	34.25	1.009	7.27e5	7.67e5	106	6.2	0.948	bb

**Compound name: 13C-1,2,3,7,8,9-HxCDF**

Response Factor: 0.734263

RRF SD: 0.05054, Relative SD: 6.88309

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.53	NO	35.17	1.036	3.43e5	4.98e5	94.0	-6.0	0.690	MM
2	190507K1_3	100	0.51	NO	35.18	1.036	3.80e5	5.10e5	101	1.5	0.745	bb
3	190507K1_4	100	0.52	NO	35.17	1.036	3.91e5	5.59e5	95.3	-4.7	0.700	MM
4	190507K1_5	100	0.53	NO	35.17	1.037	4.16e5	5.73e5	98.8	-1.2	0.725	MM
5	190507K1_6	100	0.54	NO	35.16	1.036	3.64e5	5.09e5	97.5	-2.5	0.716	MM
6	190507K1_7	100	0.52	NO	35.17	1.036	6.37e5	7.67e5	113	13.0	0.830	MM

**Compound name: 13C-1,2,3,4,6,7,8-HpCDF**

Response Factor: 0.75417

RRF SD: 0.0338797, Relative SD: 4.49232

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1	190507K1_2	100	0.47	NO	36.90	1.087	3.64e5	4.98e5	96.9	-3.1	0.731	bb
2	190507K1_3	100	0.45	NO	36.91	1.088	3.98e5	5.10e5	103	3.3	0.779	bd
3	190507K1_4	100	0.43	NO	36.90	1.088	4.08e5	5.59e5	96.7	-3.3	0.729	bb
4	190507K1_5	100	0.47	NO	36.90	1.088	4.18e5	5.73e5	96.7	-3.3	0.729	bd
5	190507K1_6	100	0.45	NO	36.90	1.088	3.80e5	5.09e5	98.9	-1.1	0.746	bd
6	190507K1_7	100	0.45	NO	36.91	1.088	6.22e5	7.67e5	108	7.6	0.811	bb

Dataset: U:\WG11.PRO\Results\190507K1\190507K1-CRV.qld

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**Compound name: 13C-1,2,3,4,7,8,9-HpCDF**

Response Factor: 0.53899

RRF SD: 0.0380601, Relative SD: 7.06137

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	100	0.45	NO	38.85	1.145	2.51e5	4.98e5	93.5	-6.5	0.504	MM
2	190507K1_3	100	0.44	NO	38.86	1.145	2.88e5	5.10e5	105	4.8	0.565	bd
3	190507K1_4	100	0.42	NO	38.85	1.145	2.91e5	5.59e5	96.6	-3.4	0.521	bb
4	190507K1_5	100	0.43	NO	38.85	1.145	3.06e5	5.73e5	99.2	-0.8	0.535	bb
5	190507K1_6	100	0.43	NO	38.85	1.145	2.58e5	5.09e5	94.1	-5.9	0.507	MM
6	190507K1_7	100	0.46	NO	38.86	1.145	4.62e5	7.67e5	112	11.7	0.602	bd

**Compound name: 13C-OCDF**

Response Factor: 0.592524

RRF SD: 0.046422, Relative SD: 7.83462

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	200	0.89	NO	41.69	1.228	5.83e5	4.98e5	198	-1.2	0.586	MM
2	190507K1_3	200	0.88	NO	41.70	1.229	6.08e5	5.10e5	201	0.6	0.596	MM
3	190507K1_4	200	0.90	NO	41.69	1.229	6.30e5	5.59e5	190	-5.0	0.563	MM
4	190507K1_5	200	0.88	NO	41.68	1.228	6.40e5	5.73e5	188	-5.8	0.558	MM
5	190507K1_6	200	0.90	NO	41.69	1.229	5.80e5	5.09e5	192	-3.8	0.570	MM
6	190507K1_7	200	0.89	NO	41.70	1.229	1.05e6	7.67e5	230	15.2	0.683	MM

**Compound name: 37Cl-2,3,7,8-TCDD**

Response Factor: 1.06948

RRF SD: 0.0767834, Relative SD: 7.17951

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	0.250			26.34	1.026	1.45e3	5.62e5	0.241	-3.6	1.03	bb
2	190507K1_3	10.0			26.36	1.026	6.16e4	6.00e5	9.60	-4.0	1.03	bb

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

Last Altered: Wednesday, May 08, 2019 7:55:45 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:57:59 AM Pacific Daylight Time

**Compound name: 37Cl-2,3,7,8-TCDD**

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
3 190507K1_4	0.500			26.36	1.027	3.13e3	6.32e5	0.463	-7.4	0.990	bb
4 190507K1_5	2.00			26.36	1.026	1.45e4	6.60e5	2.06	2.8	1.10	bd
5 190507K1_6	40.0			26.36	1.026	2.49e5	5.86e5	39.7	-0.6	1.06	bb
6 190507K1_7	200			26.36	1.026	1.94e6	8.04e5	226	12.9	1.21	bb

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1

RRF SD: 4.96507e-017, Relative SD: 4.96507e-015

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1 190507K1_2	100	0.79	NO	25.68	1.000	5.62e5	5.62e5	100	0.0	1.00	bb
2 190507K1_3	100	0.79	NO	25.68	1.000	6.00e5	6.00e5	100	0.0	1.00	bb
3 190507K1_4	100	0.80	NO	25.67	1.000	6.32e5	6.32e5	100	0.0	1.00	bb
4 190507K1_5	100	0.80	NO	25.68	1.000	6.60e5	6.60e5	100	0.0	1.00	bb
5 190507K1_6	100	0.80	NO	25.68	1.000	5.86e5	5.86e5	100	-0.0	1.00	bb
6 190507K1_7	100	0.77	NO	25.68	1.000	8.04e5	8.04e5	100	0.0	1.00	bb

**Compound name: 13C-1,2,3,4-TCDF**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF	X = dropped
1 190507K1_2	100	0.81	NO	24.05	1.000	8.33e5	8.33e5	100	0.0	1.00	bb
2 190507K1_3	100	0.80	NO	24.05	1.000	8.73e5	8.73e5	100	0.0	1.00	bb
3 190507K1_4	100	0.79	NO	24.05	1.000	9.16e5	9.16e5	100	0.0	1.00	bb
4 190507K1_5	100	0.78	NO	24.03	1.000	9.50e5	9.50e5	100	0.0	1.00	bb
5 190507K1_6	100	0.78	NO	24.05	1.000	8.36e5	8.36e5	100	0.0	1.00	bb
6 190507K1_7	100	0.79	NO	24.05	1.000	1.17e6	1.17e6	100	0.0	1.00	bb

Dataset: U:\VG11.PRO\Results\190507K1\190507K1-CRV.qld

Last Altered: Wednesday, May 08, 2019 7:55:45 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:57:59 AM Pacific Daylight Time

**Compound name: 13C-1,2,3,4,6,9-HxCDF**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	190507K1_2	100	0.53	NO	33.94	1.000	4.98e5	4.98e5	100	0.0	1.00	bd
2	190507K1_3	100	0.51	NO	33.94	1.000	5.10e5	5.10e5	100	0.0	1.00	MM
3	190507K1_4	100	0.52	NO	33.93	1.000	5.59e5	5.59e5	100	0.0	1.00	bb
4	190507K1_5	100	0.52	NO	33.93	1.000	5.73e5	5.73e5	100	0.0	1.00	bb
5	190507K1_6	100	0.52	NO	33.93	1.000	5.09e5	5.09e5	100	0.0	1.00	bb
6	190507K1_7	100	0.52	NO	33.93	1.000	7.67e5	7.67e5	100	0.0	1.00	bb

Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 8:06:43 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 8:06:44 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\CPSM-5-7-19.mdb 07 May 2019 13:29:19

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

#	Name	RT
1	1,3,6,8-TCDD (First)	22.43
2	1,2,8,9-TCDD (Last)	27.29
3	1,2,4,7,9-PeCDD (First)	29.01
4	1,2,3,8,9-PeCDD (Last)	31.50
5	1,2,4,6,7,9-HxCDD (First)	32.92
6	1,2,3,7,8,9-HxCDD (Last)	34.81
7	1,2,3,4,6,7,9-HpCDD (First)	37.32
8	1,2,3,4,6,7,8-HpCDD (Last)	38.32
9	1,3,6,8-TCDF (First)	20.23
10	1,2,8,9-TCDF (Last)	27.46
11	1,3,4,6,8-PeCDF (First)	27.36
12	1,2,3,8,9-PeCDF (Last)	31.76
13	1,2,3,4,6,8-HxCDF (First)	32.39
14	1,2,3,7,8,9-HxCDF (Last)	35.19
15	1,2,3,4,6,7,8-HpCDF (First)	36.94
16	1,2,3,4,7,8,9-HpCDF (Last)	38.87

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 8:00:20 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 8:00:34 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\1613\_rrt-5-7-19.mdb 07 May 2019 12:51:47

Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq Date	Acq Time
1	190507K1_1	ST190507K1_1 1613 CS3 18J1008	07-May-19	10:05:54
2	190507K1_2	ST190507K1_2 1613 CS0 19C2201	07-May-19	11:18:22
3	190507K1_3	ST190507K1_3 1613 CS3 19C2204	07-May-19	12:16:36
4	190507K1_4	ST190507K1_4 1613 CS1 19C2202	07-May-19	13:04:59
5	190507K1_5	ST190507K1_5 1613 CS2 19C2203	07-May-19	13:51:47
6	190507K1_6	ST190507K1_6 1613 CS4 19C2205	07-May-19	14:39:24
7	190507K1_7	ST190507K1_7 1613 CS5 19C2206	07-May-19	15:27:02
8	190507K1_8	SS190507K1_1 1613 SSS 19C2207	07-May-19	16:16:59
9	190507K1_9	SOLVENT BLANK	07-May-19	17:12:35
10	190507K1_10	QC190507K1-1 1613 Method Blank 1	07-May-19	18:00:01
11	190507K2_1	ST190507K2_1 1613 CS3 18J1008	07-May-19	18:48:10

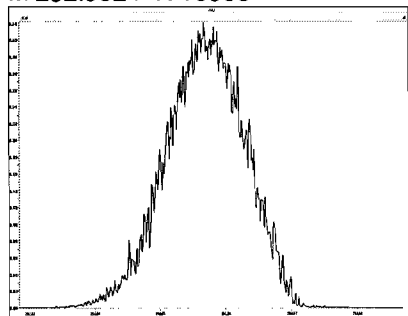
(A) not used, used to get windows  
in new column 11-5-8-19



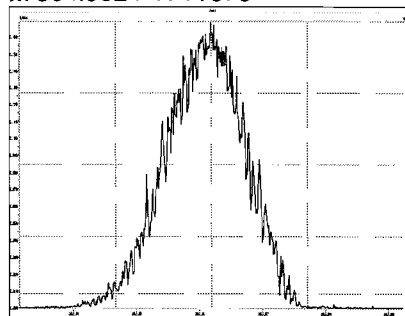
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, May 07, 2019 11:13:04 Pacific Daylight Time

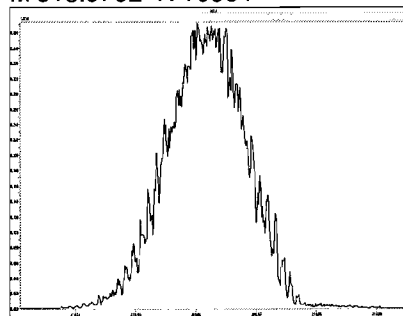
M 292.9824 R 10968



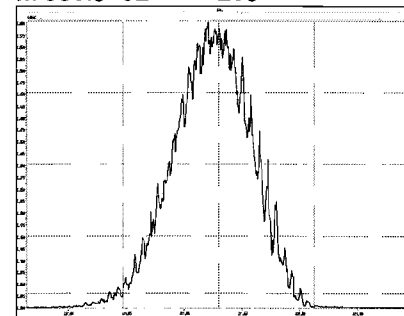
M 304.9824 R 11575



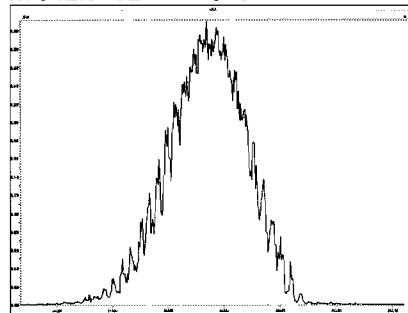
M 318.9792 R 10964



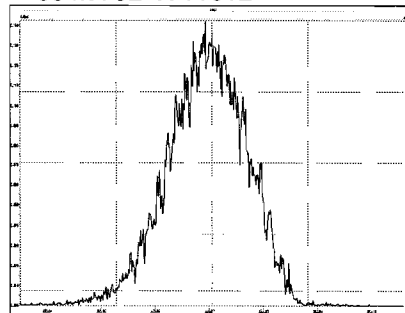
M 330.9792 R 11209



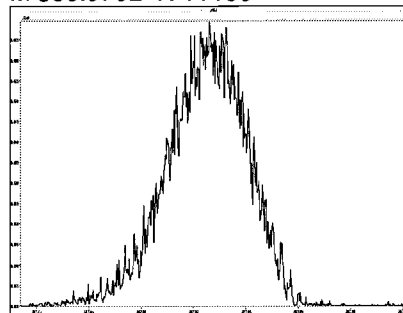
M 342.9792 R 11570



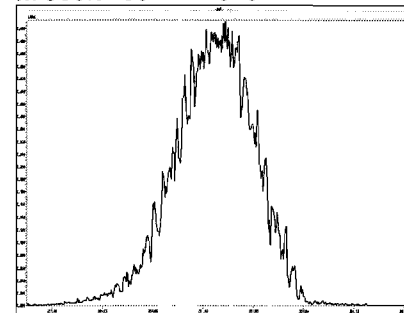
M 354.9792 R 11312



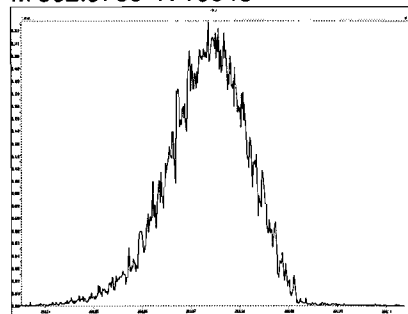
M 366.9792 R 11159



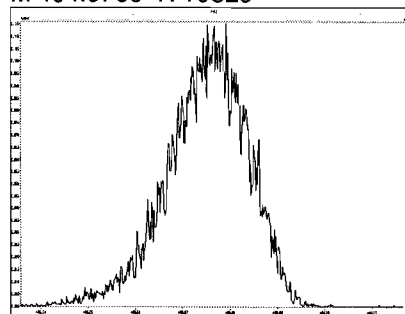
M 380.9760 R 11010



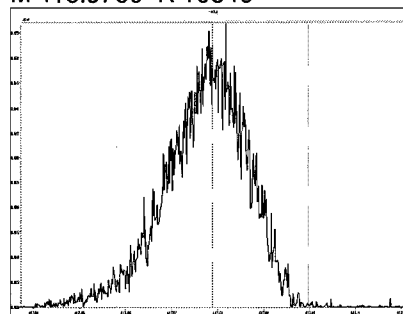
M 392.9760 R 10548



M 404.9760 R 10329



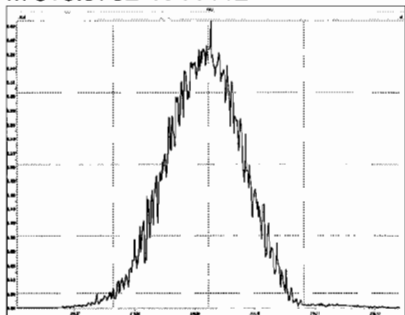
M 416.9760 R 10546



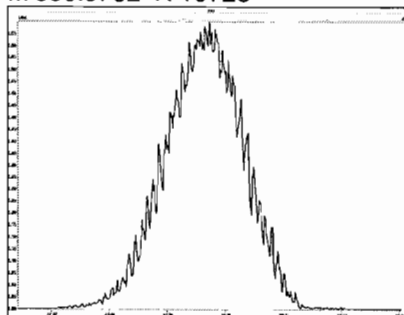
File: Experiment: ocdd\_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, May 07, 2019 11:13:43 Pacific Daylight Time

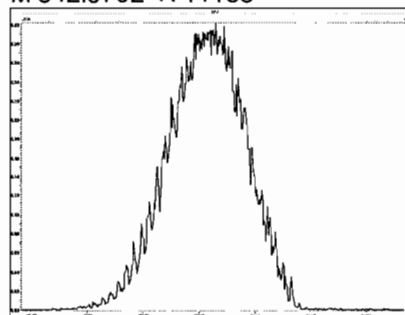
M 318.9792 R 11112



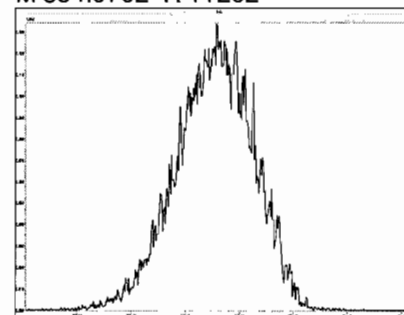
M 330.9792 R 10728



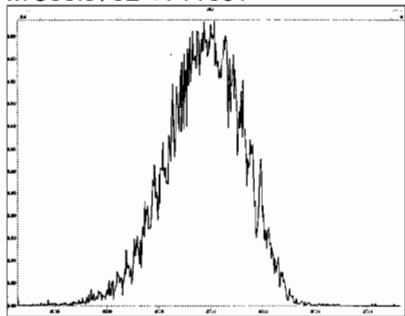
M 342.9792 R 11158



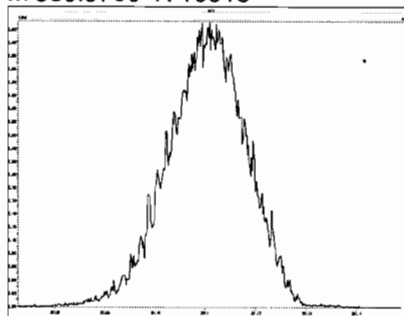
M 354.9792 R 11262



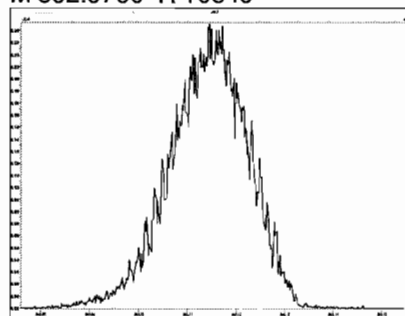
M 366.9792 R 11681



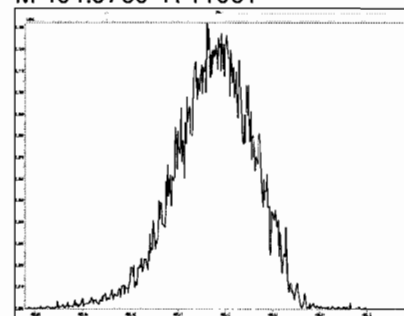
M 380.9760 R 10915



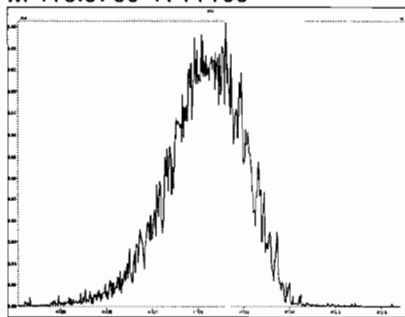
M 392.9760 R 10549



M 404.9760 R 11061



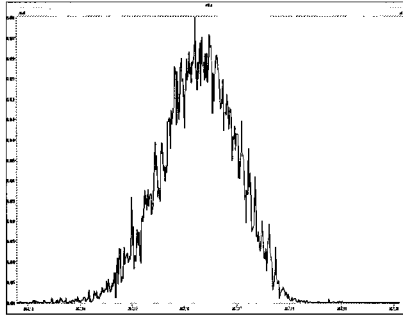
M 416.9760 R 11109



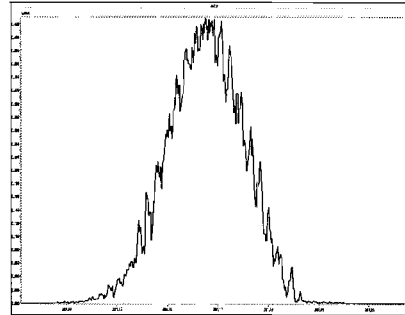
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Printed: Tuesday, May 07, 2019 11:14:13 Pacific Daylight Time

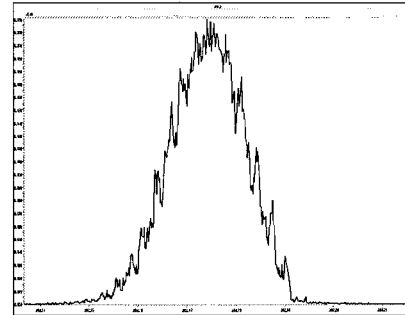
M 366.9792 R 12256



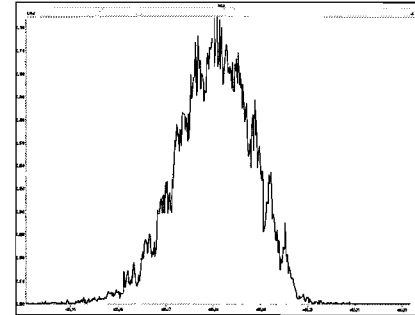
M 380.9760 R 11312



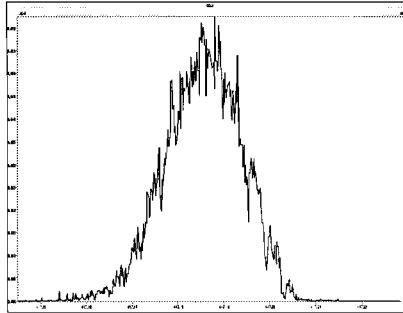
M 392.9760 R 10963



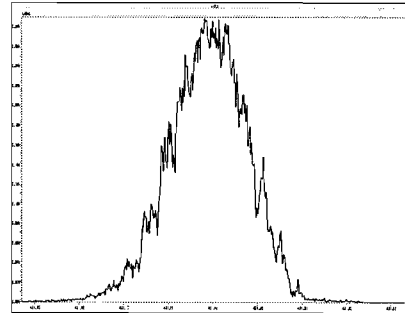
M 404.9760 R 11158



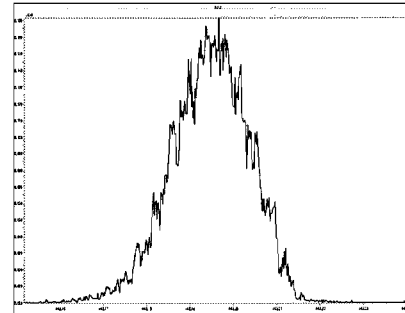
M 416.9760 R 11312



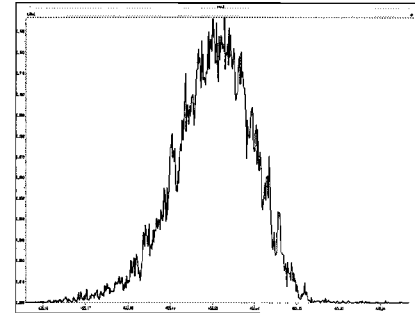
M 430.9728 R 11210



M 442.9728 R 11060



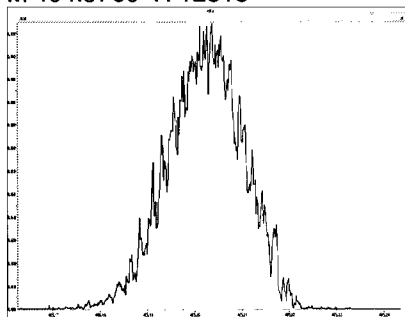
M 454.9728 R 11309



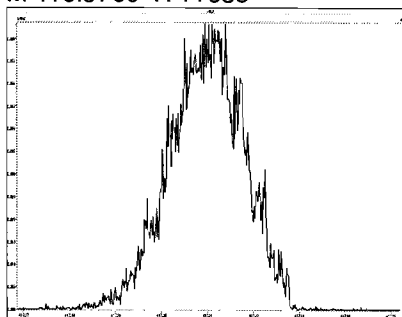
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Printed: Tuesday, May 07, 2019 11:14:57 Pacific Daylight Time

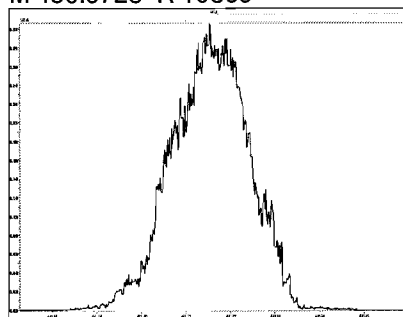
M 404.9760 R 12313



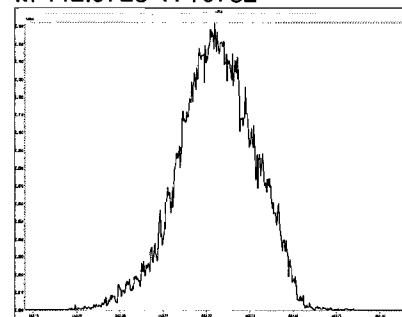
M 416.9760 R 11683



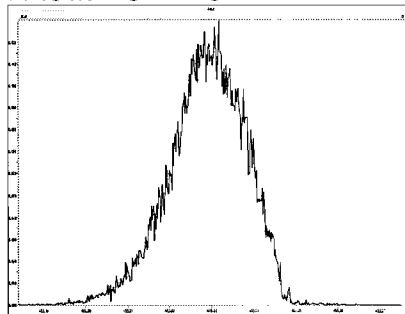
M 430.9728 R 10869



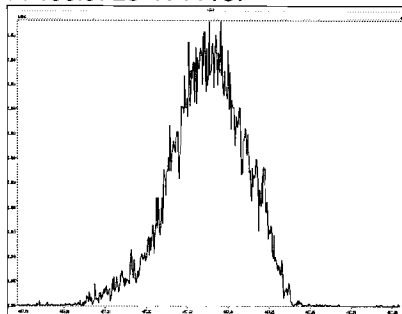
M 442.9728 R 10732



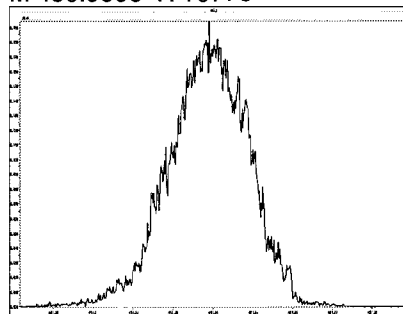
M 454.9728 R 11522



M 466.9728 R 11157



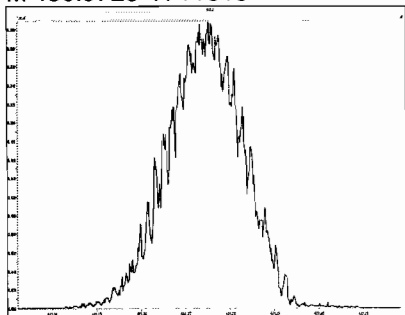
M 480.9696 R 10778



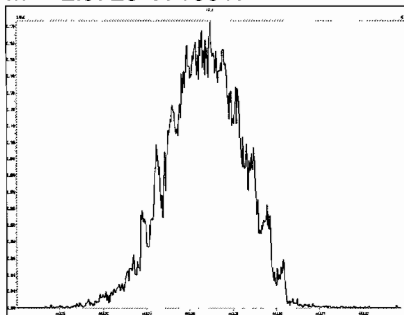
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Printed: Tuesday, May 07, 2019 11:15:30 Pacific Daylight Time

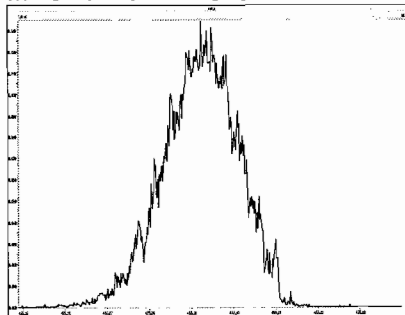
M 430.9728 R 11313



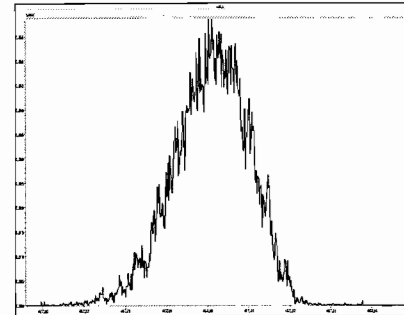
M 442.9728 R 10917



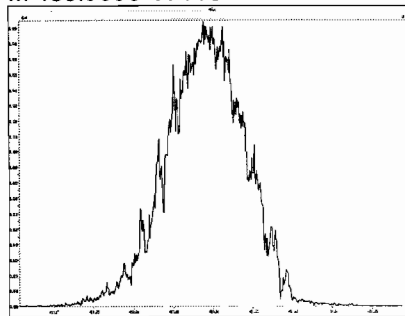
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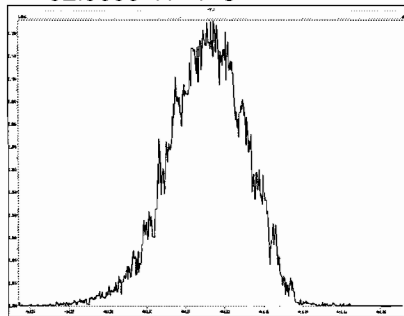
M 466.9728 R 11575



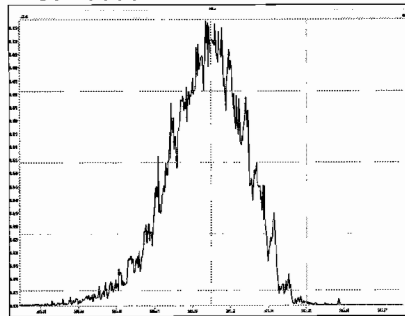
M 480.9696 R 11521



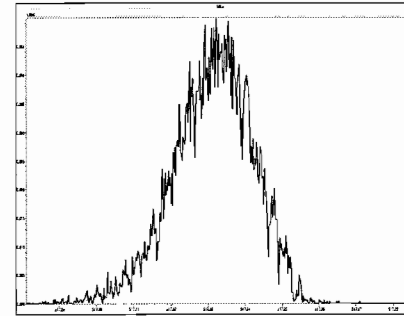
M 492.9696 R 11737



M 504.9696 R 11311



M 516.9697 R 11963



Dataset: Untitled

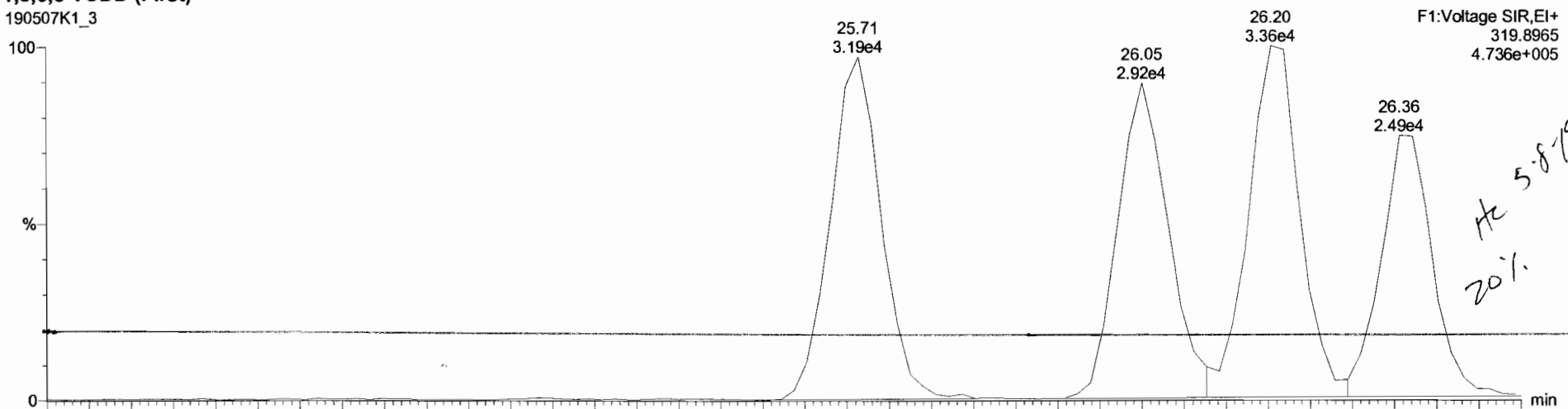
Last Altered: Wednesday, May 08, 2019 8:06:43 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 8:06:44 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\CPSM-5-7-19.mdb 07 May 2019 13:29:19  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

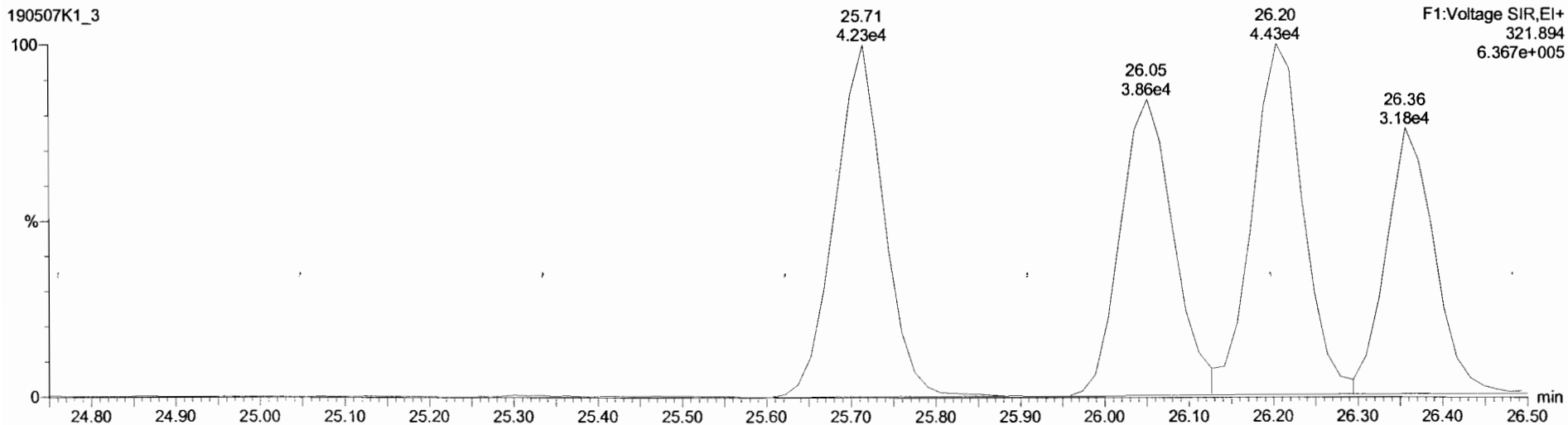
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1,3,6,8-TCDD (First)

190507K1\_3



190507K1\_3



Dataset: Untitled

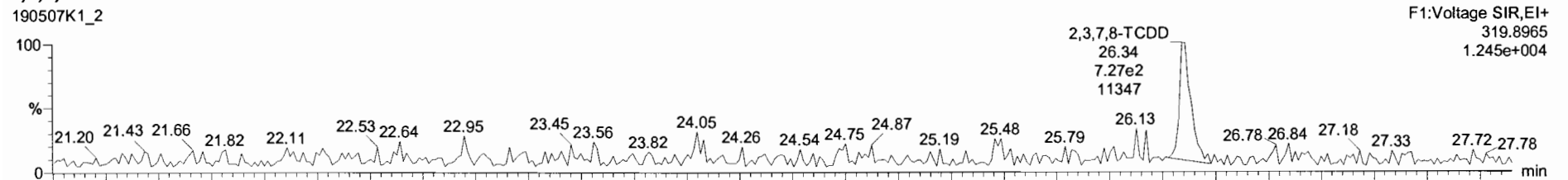
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Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 07 May 2019 16:51:46

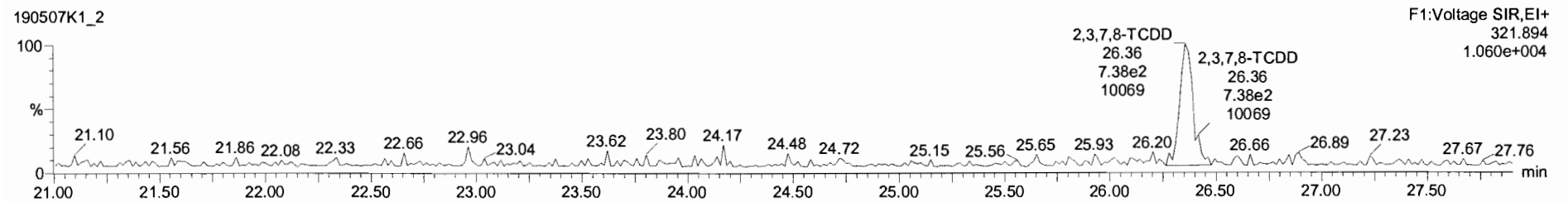
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**2,3,7,8-TCDD**

190507K1\_2

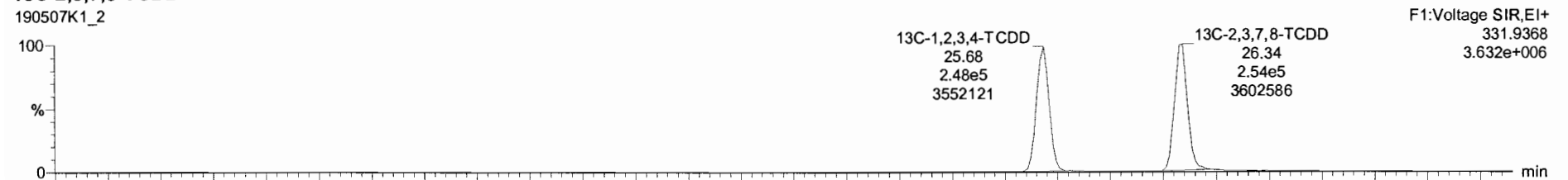


190507K1\_2

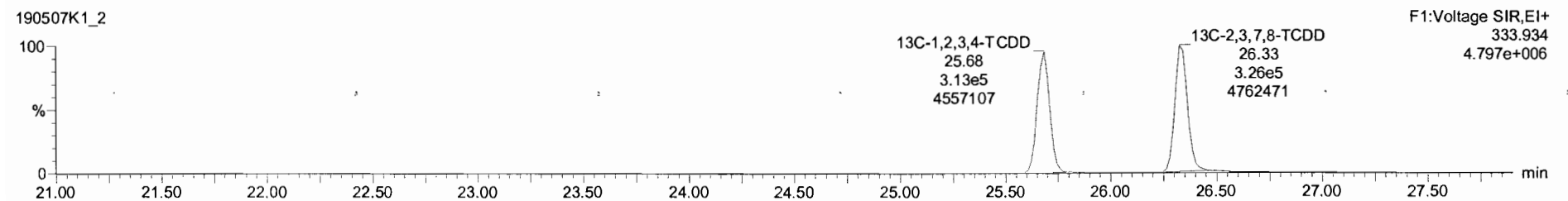


**13C-2,3,7,8-TCDD**

190507K1\_2

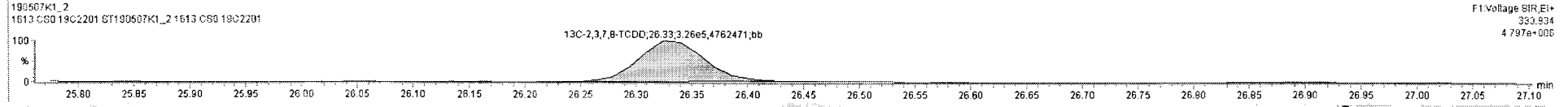
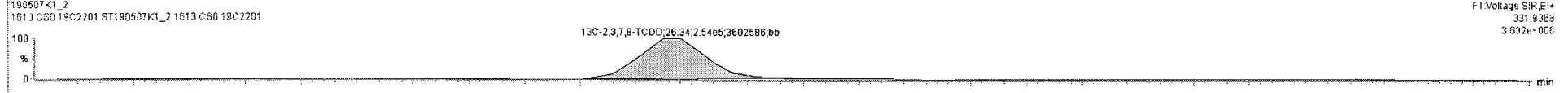
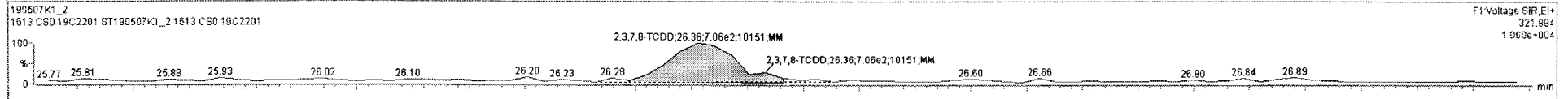
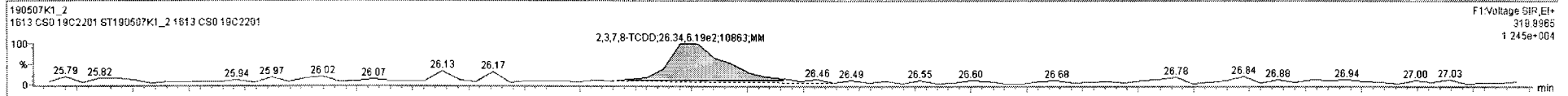


190507K1\_2



190507k1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Peak	Name	Resp	RA	nY	RRF	WtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.33e3	0.86	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2	1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3	1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4	1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5	1,2,3,7,8,9-HxCDD	3.68e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6	1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.000	2.32	92.6	0.123	2.31
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.67	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.69e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.36	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.23	1.000	38.86	1.000	1.23	98.5	0.129	1.23
17	OCDF	1.18e4	0.86	NO	1.10	1.000	41.69	1.000	3.48	199	0.191	3.48
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.27	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	





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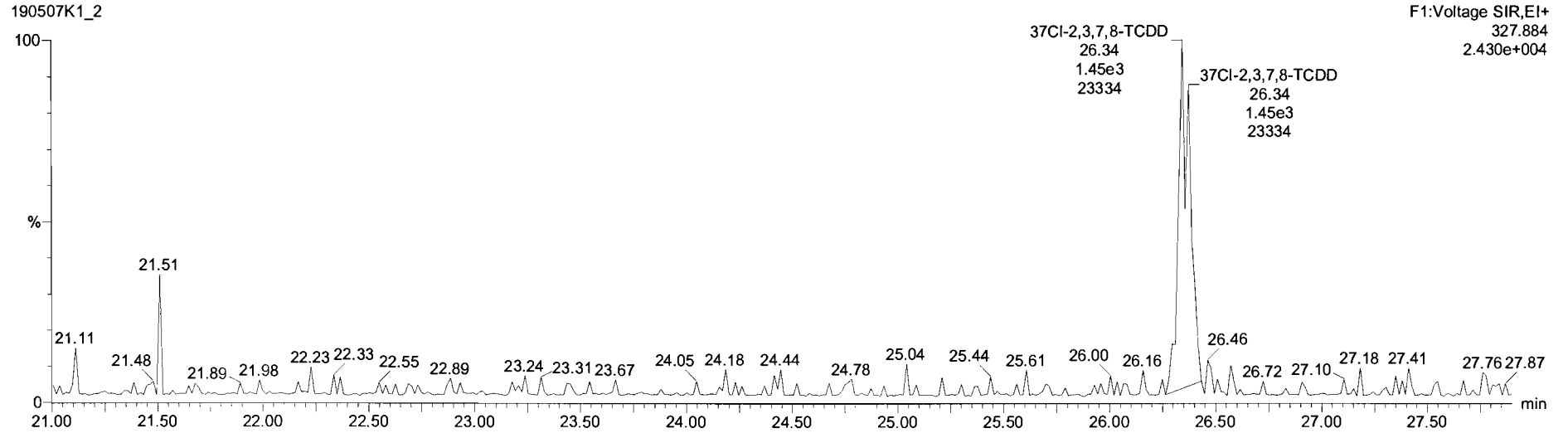
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

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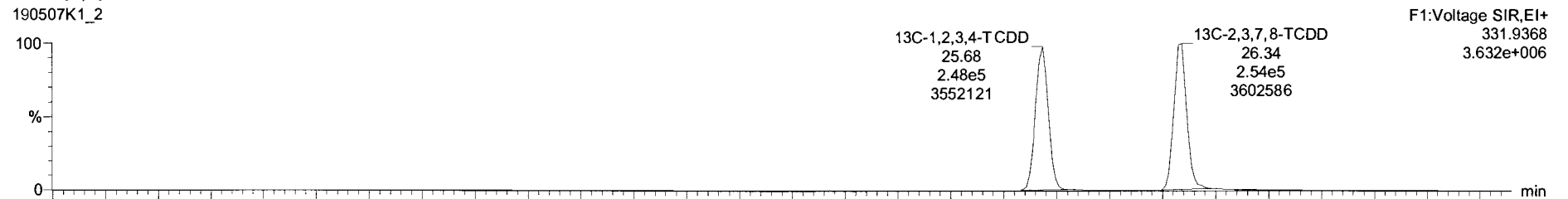
**37Cl-2,3,7,8-TCDD**

190507K1\_2

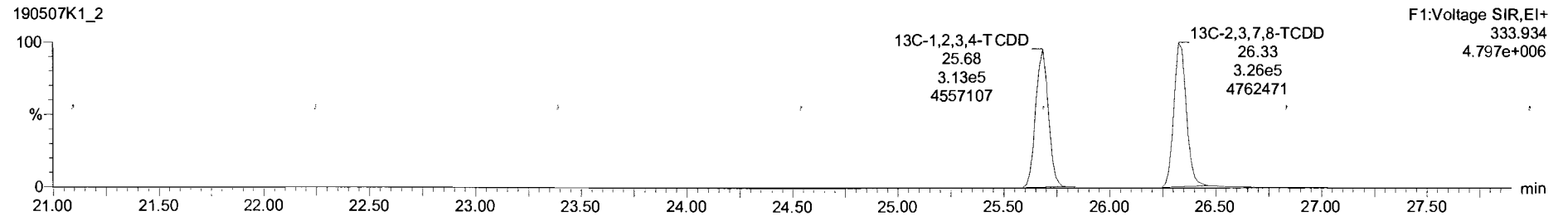


**13C-1,2,3,4-TCDD**

190507K1\_2



190507K1\_2



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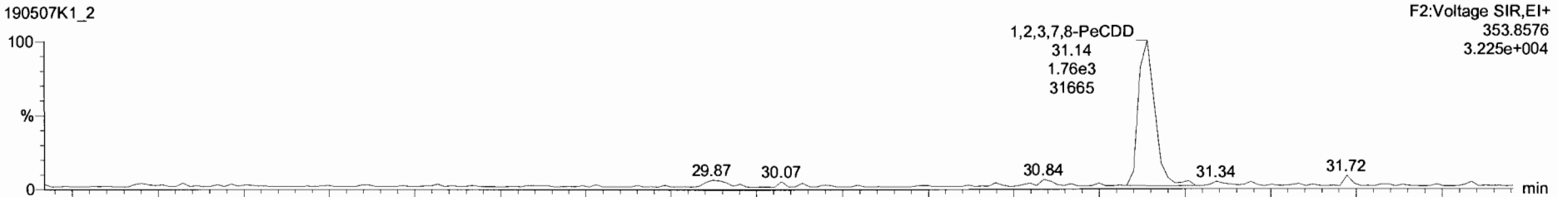
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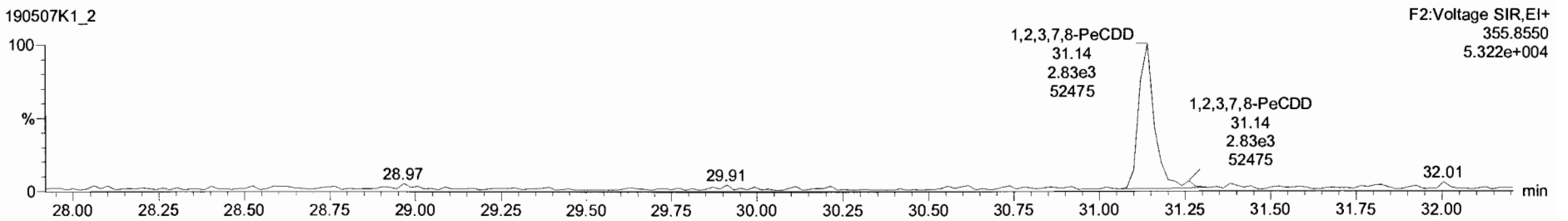
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**1,2,3,7,8-PeCDD**

190507K1\_2

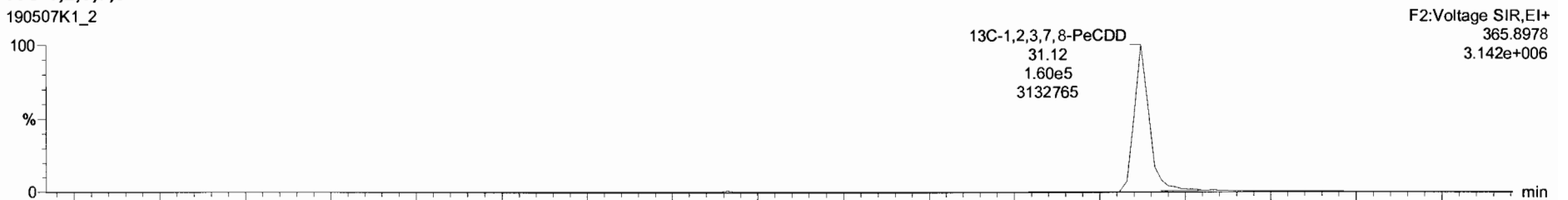


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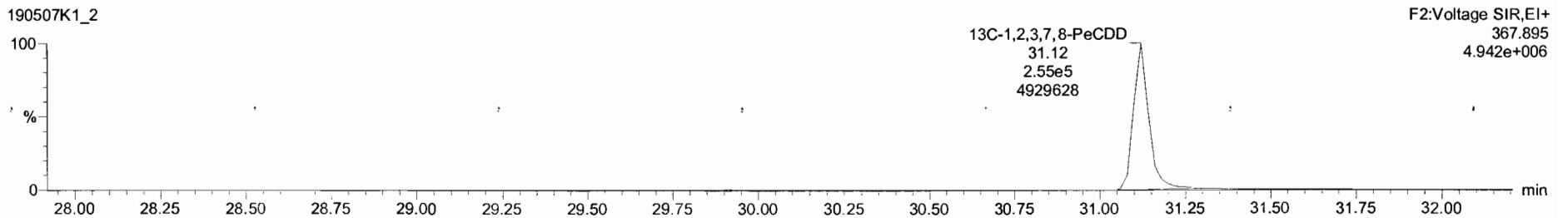


**13C-1,2,3,7,8-PeCDD**

190507K1\_2



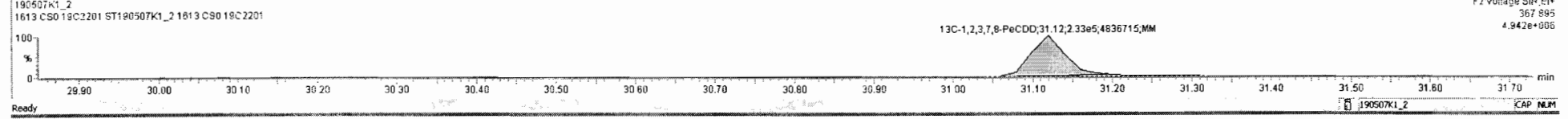
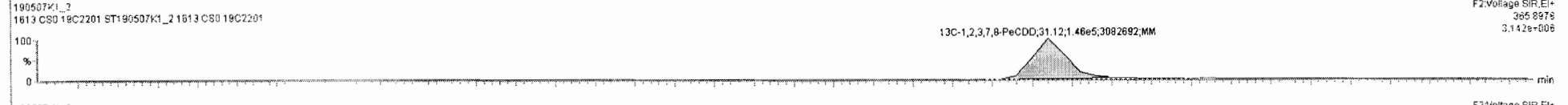
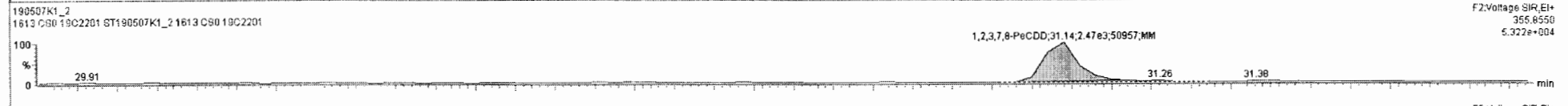
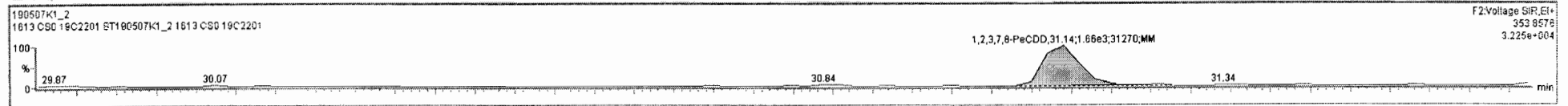
190507K1\_2



Target1.ymx - 190507K1\_CRY.qld - [Chromatogram]

190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	n/y	RF	Wt%	RT	RRT	Conc.	%Rec	DJ	EMPC
29	13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470
30	13C-2,3,4,6,7,8-HxCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541
31	13C-1,2,3,7,8-HxCDF	3.43e5	0.52	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658
32	13C-1,2,3,4,6,7,8-HpCDF	3.64e5	0.47	NO	0.75	1.000	36.90	1.067	96.9	96.9	0.489
33	13C-1,2,3,4,7,8-HpCDF	2.85e5	0.46	NO	0.55	1.000	38.85	1.145	104	104	0.669
34	13C-OCDF	6.04e5	0.89	NO	0.60	1.000	41.69	1.228	204	102	0.519
35	37Cl-2,3,7,8-TCDD	1.45e3			1.07	1.000	26.34	1.026	0.241	96.4	0.0328
36	13C-1,2,3,4-TCDD	5.62e5	0.79	NO	1.00	1.000	25.68	1.000	100	100	0.230
37	13C-1,2,3,4-TCDF	8.33e5	0.81	NO	1.00	1.000	24.05	1.000	100	100	0.408
38	13C-1,2,3,4,6,8-HxCDF	4.98e5	0.53	NO	1.00	1.000	33.94	1.000	100	100	0.483
39	Total Tetra-Dioxins				0.92	1.000		0.247			0.247
40	Total Penta-Dioxins				0.90	1.000		1.20			0.6640 1.20
41	Total Hexa-Dioxins				0.97	1.000		3.72			0.0506 3.72
42	Total Hepta-Dioxins				1.03	1.000		1.24			0.0752 1.24
43	Total Tetra-Furans				0.94	1.000		0.245			0.0508 0.245
44	1st Func. Penta-Furans				0.98	1.000					0.0230
45	Total Penta-Furans				0.98	1.000		2.32			0.0806 2.32
46	Total Hexa-Furans				1.18	1.000		4.44			0.0766 4.44
47	Total Hepta-Furans				1.13	1.000		2.41			0.126 2.41
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										



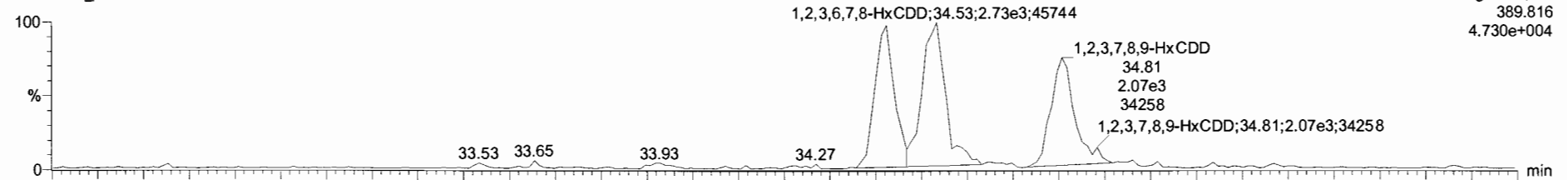
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

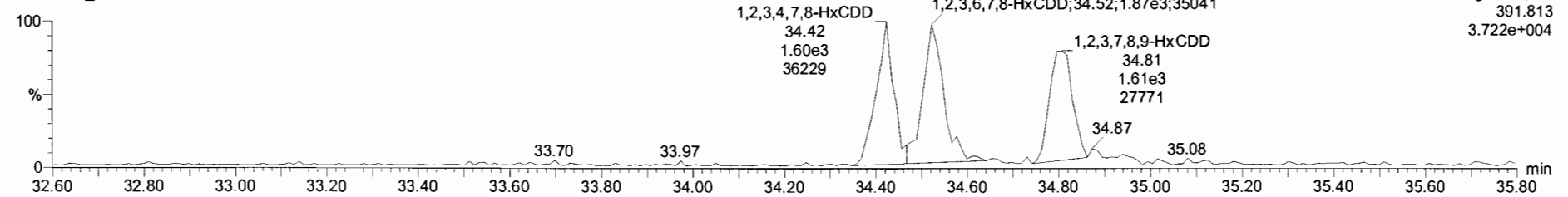
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**1,2,3,4,7,8-HxCDD**

190507K1\_2

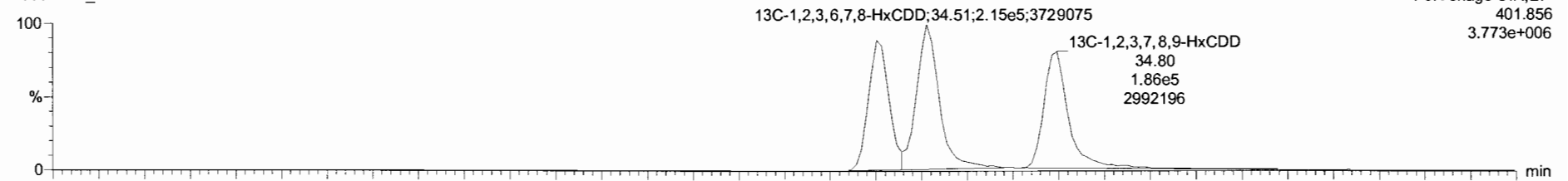


190507K1\_2

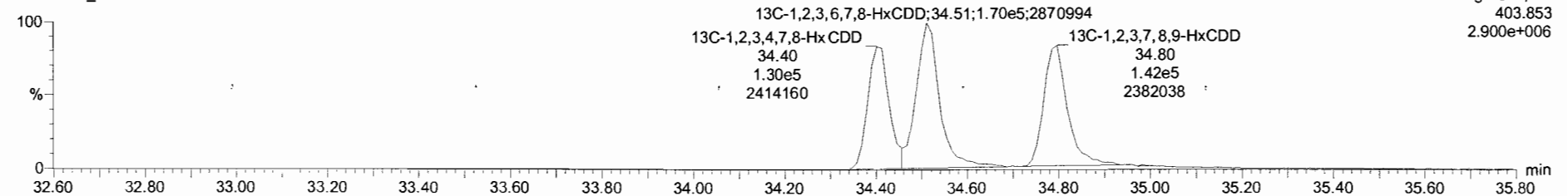


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_2



190507K1\_2

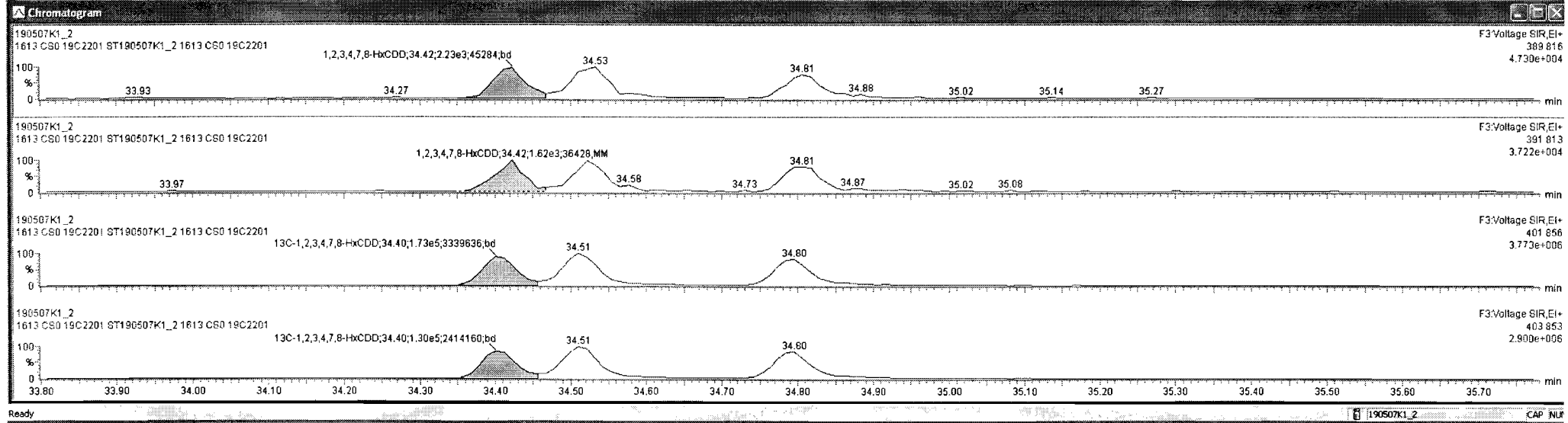


TargetLynx - 190507K1.CRV.qld

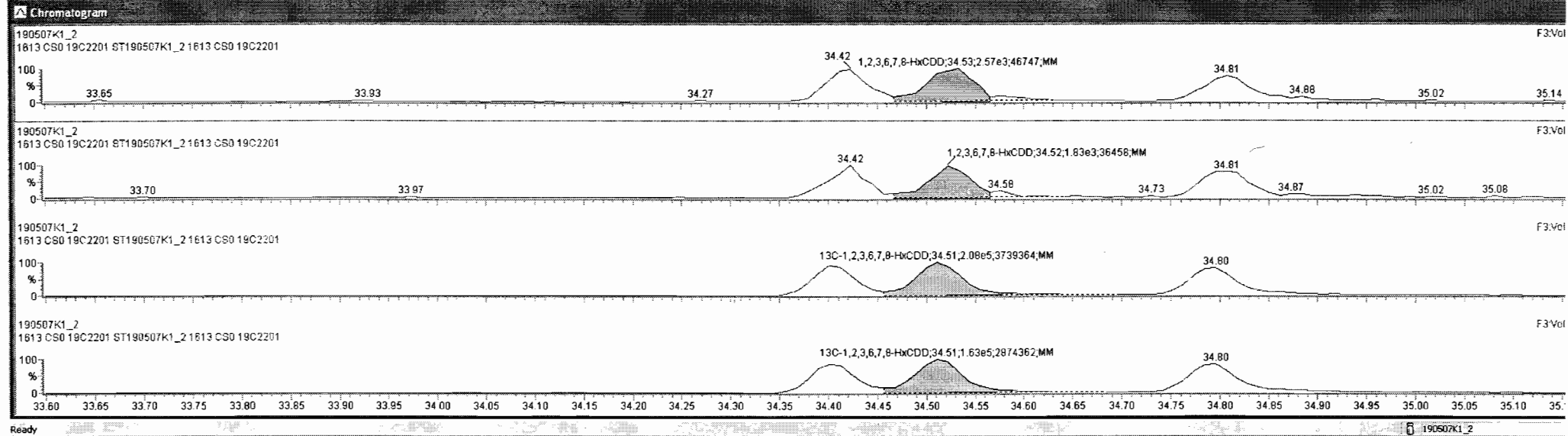
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190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	nY	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2 1,2,3,7,8-PeCDD	4.19e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3 1,2,3,4,7,8-HxCDD	3.65e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0483	1.19
4 1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5 1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6 1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8 2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9 1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.001	1.17	93.7	0.0634	1.17
10 2,3,4,7,8-PeCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15 1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16 1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.66	1.000	1.37	109	0.127	1.37
17 OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18 13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19 13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.85	1.000	34.40	1.014	94.1	94.1	0.572	
21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	



Name	Resp	RA	nY	RRF	wtWtd	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2 1,2,3,7,8-PeCDD	4.13e3	0.87	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3 1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4 1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0468	1.23
5 1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6 1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8 2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9 1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10 2,3,4,7,8-PeCDF	6.69e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	8.12e3	1.35	NO	1.09	1.000	33.87	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15 1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16 1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17 OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18 13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	96.5	98.5	0.219	
19 13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.85	1.000	34.40	1.014	94.1	94.1	0.572	
21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.86	1.000	34.80	1.025	87.9	87.9	0.598	
23 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	

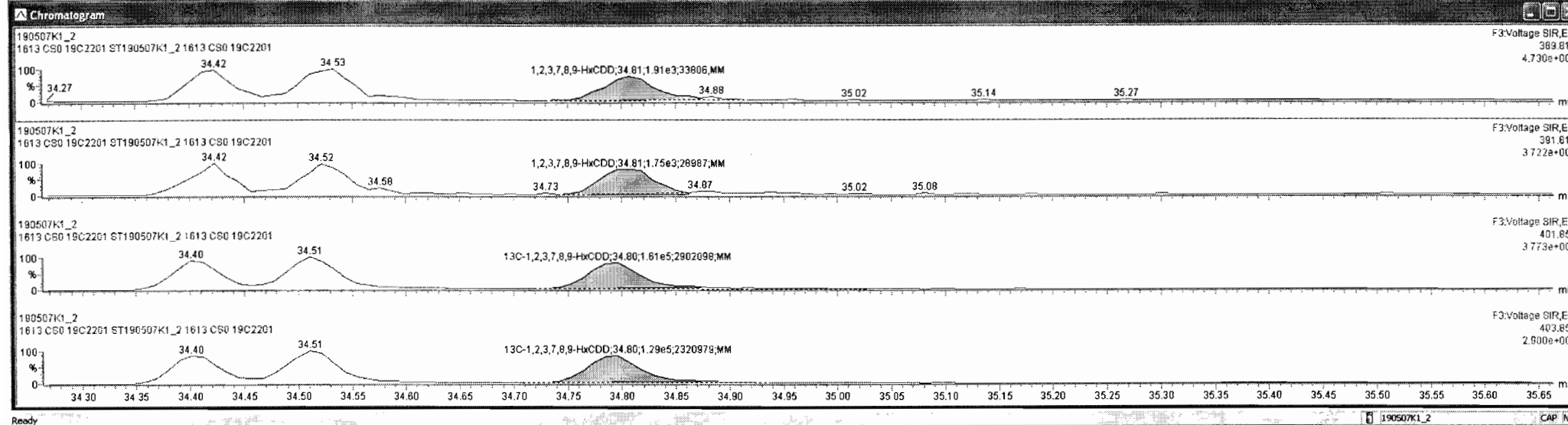


Target: lnx - 190507K1\_CRV.qld

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190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	rvy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2 1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3 1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4 1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5 1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6 1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	36.32	1.001	1.24	99.2	0.0752	1.24
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8 2,3,7,8-TCDF	1.85e3	0.91	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0598	0.245
9 1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10 2,3,4,7,8-HxCDF	6.66e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15 1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.16	94.1	0.115	1.16
16 1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17 OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18 13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19 13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	36.30	1.128	93.6	93.6	0.470	



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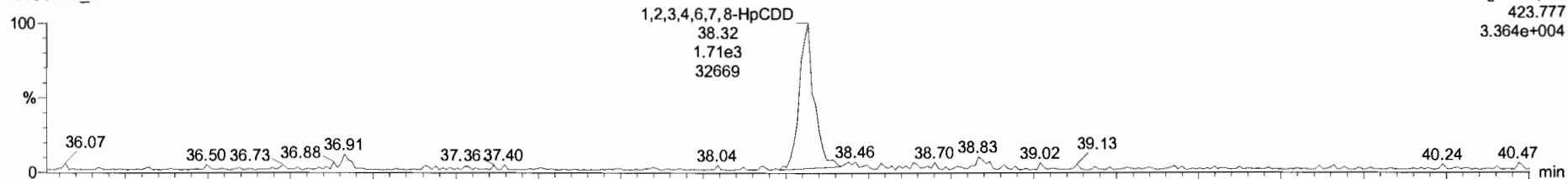
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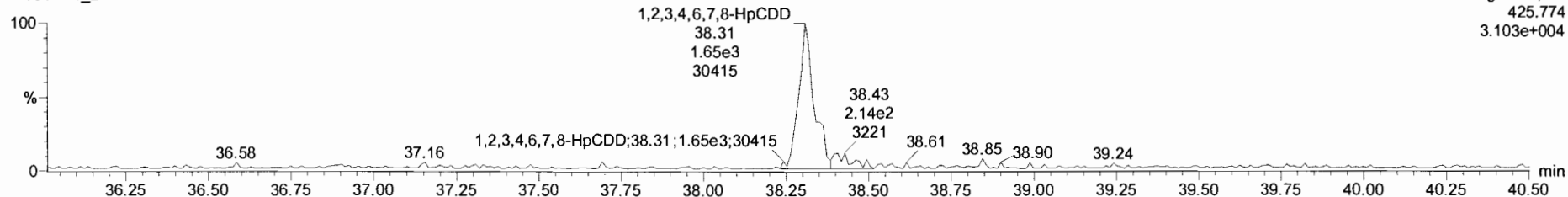
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**1,2,3,4,6,7,8-HpCDD**

190507K1\_2

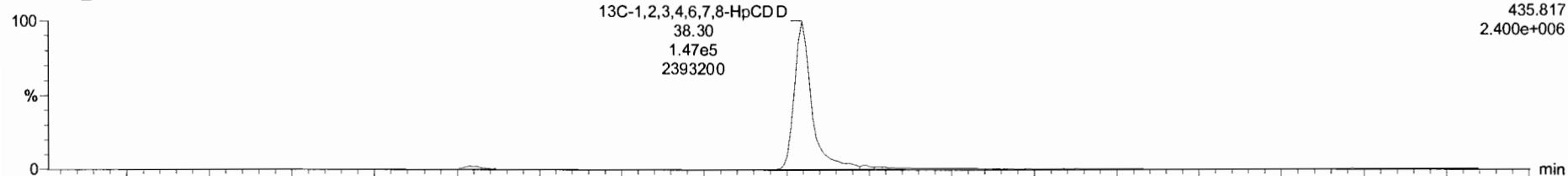


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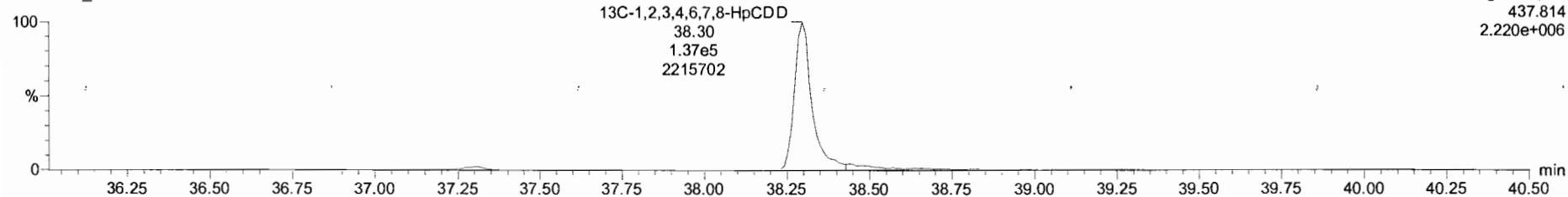


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_2



190507K1\_2



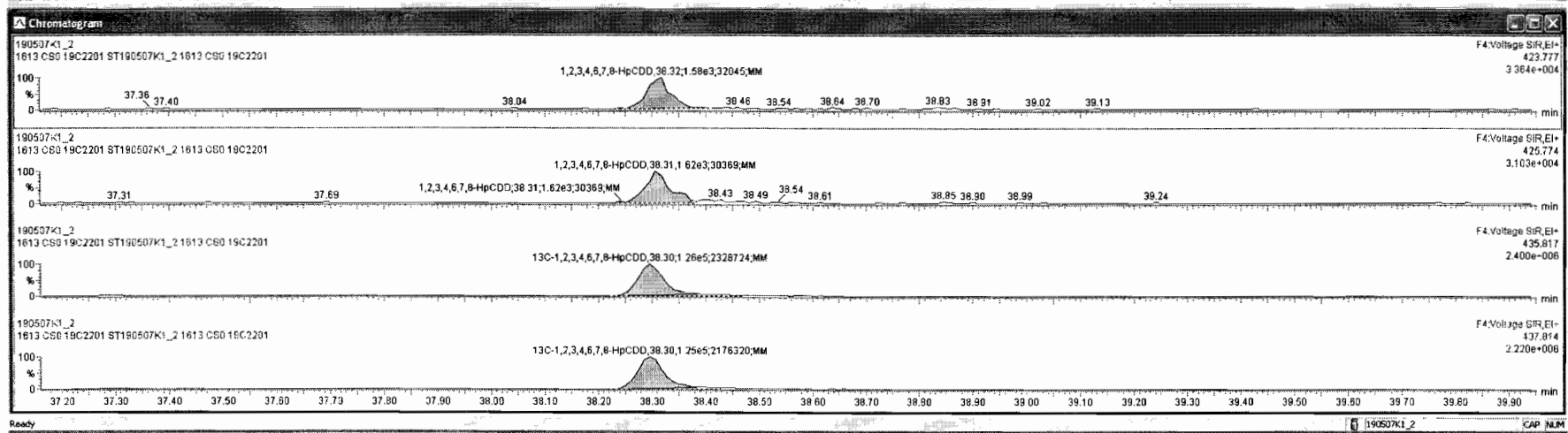


Targetlynx - 190507K1.CHV.qld

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190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

#	Name	Resp	RA	NY	RRF	WtVol	RT	RT1	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2	1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3	1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4	1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5	1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6	1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.88e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.88	1.000	1.37	109	0.127	1.37
17	OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	136	0.191	3.49
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	

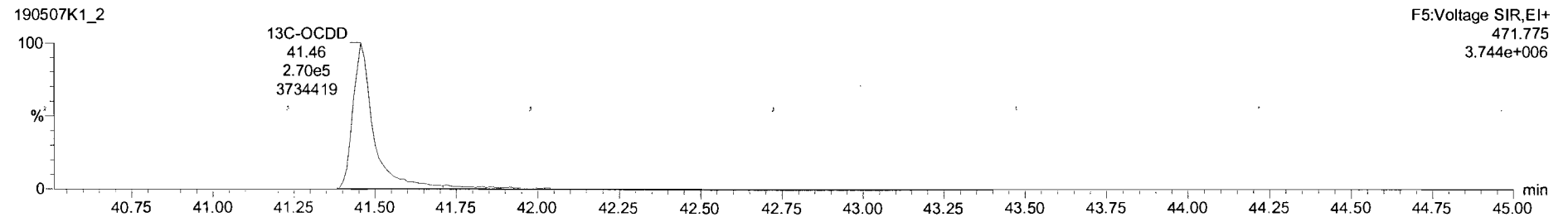
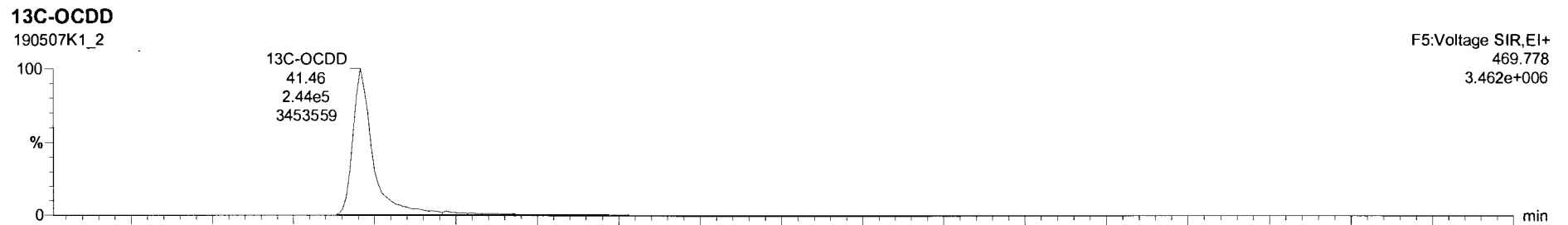
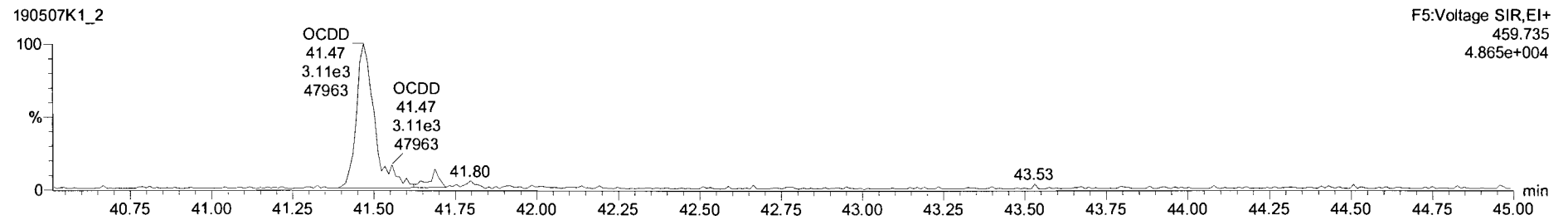
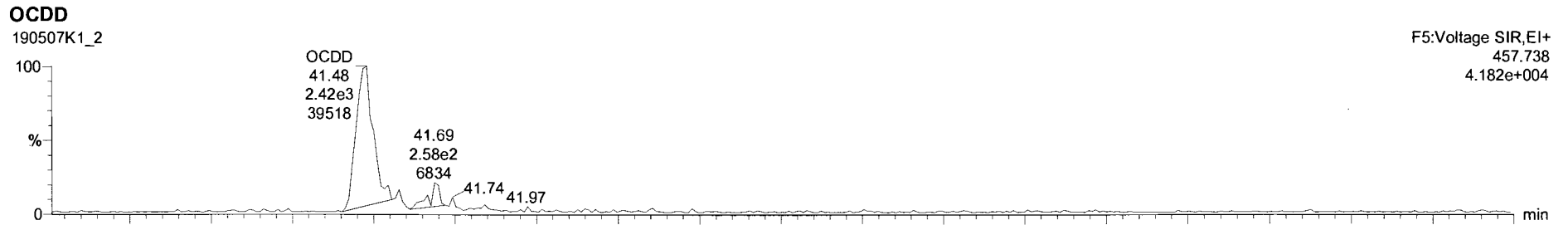


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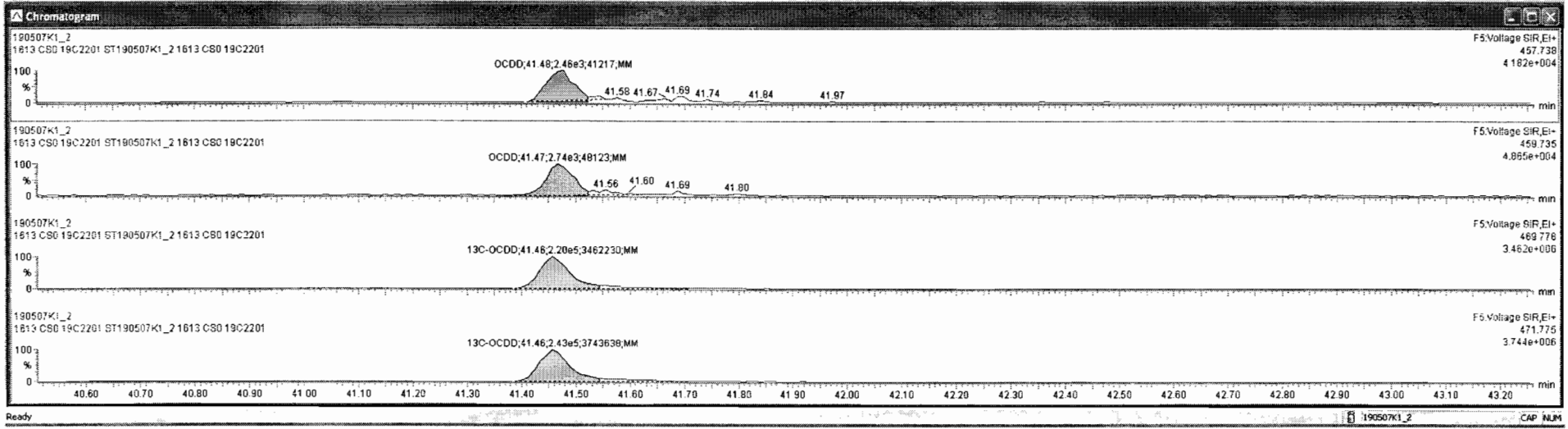
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Target: ynx - 190507K1-CRY.qld

190507K1\_2 - ST190507K1\_2 1613 C80 19C2201 - 1613 C80 19C2201

#	Name	Resp	RA	IntY	RRF	wtAcl	RT	RR1	Conc.	%Rec	DL	EffC
1	2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2	1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3	1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4	1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5	1,2,3,7,8,9-HxCDD	3.86e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6	1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.88e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17	OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.8	87.8	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	

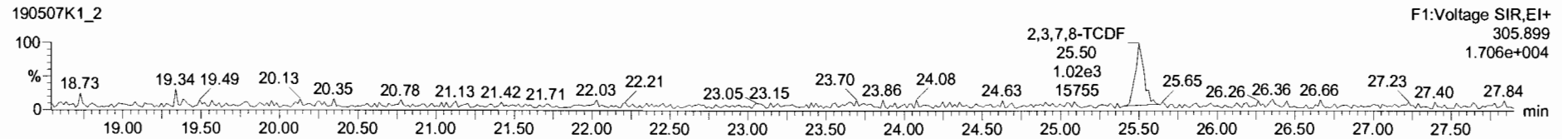
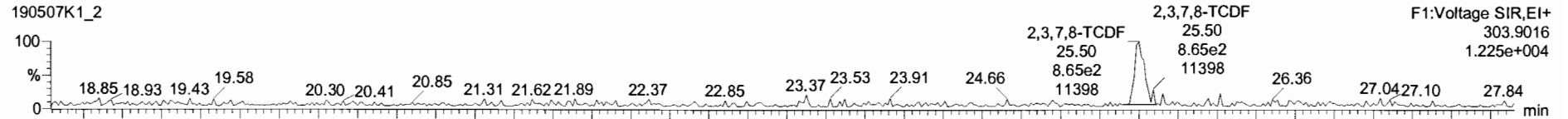


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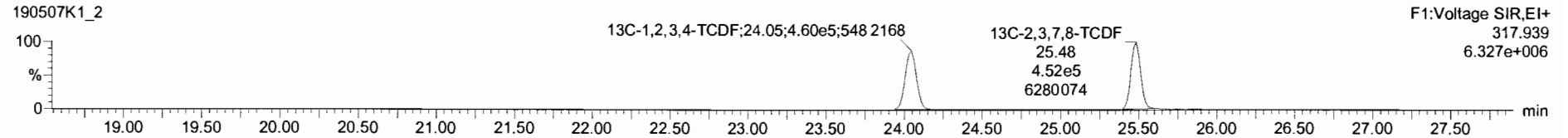
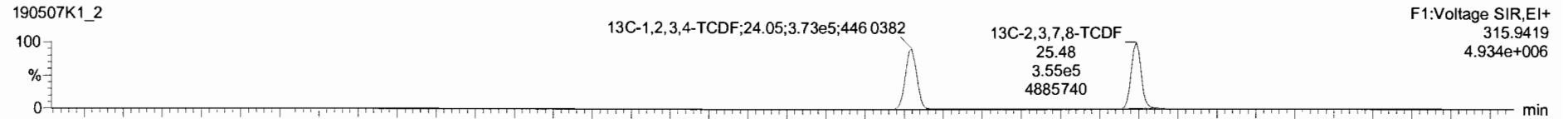
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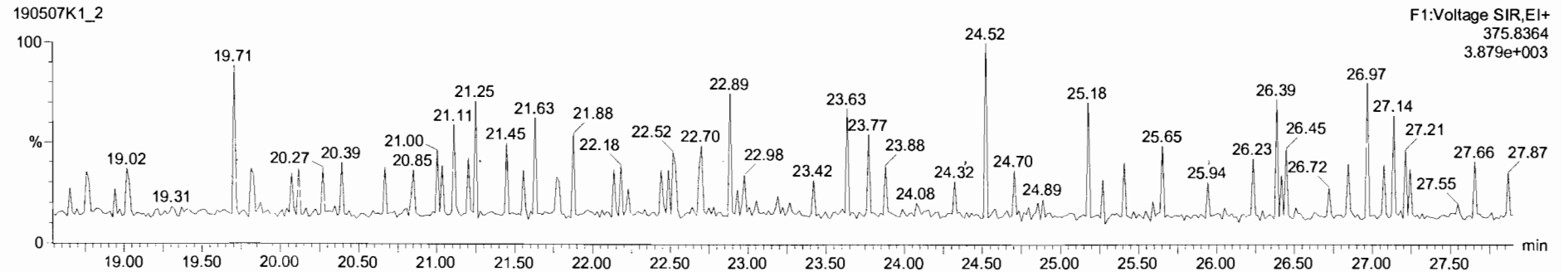
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**

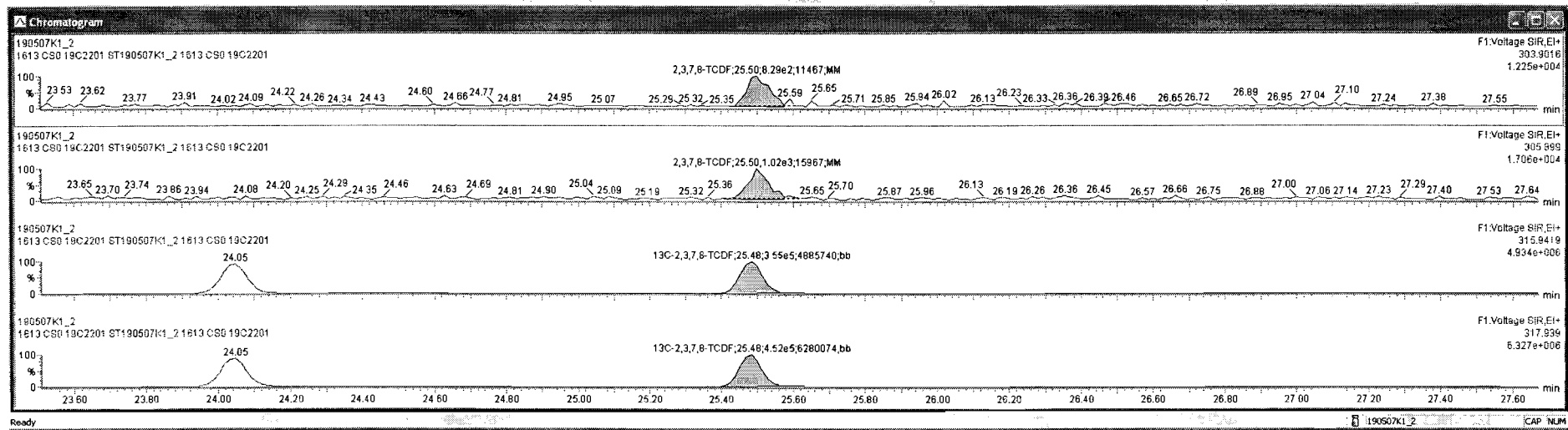


TargetLynx 190507K1\_CRY.gid

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190507K1\_2-ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Line	Name	Resp	RA	rv	RRF	WtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.33e3	0.86	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2	1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3	1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4	1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5	1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6	1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.95e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.8	0.0306	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.88	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.88e3	1.89	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.8	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17	OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	80.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	85.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	



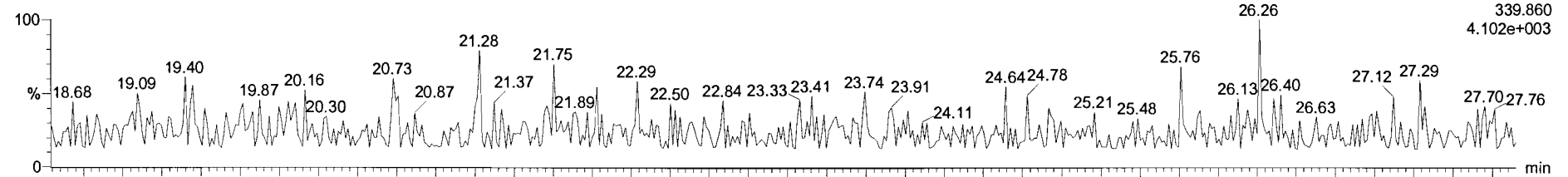
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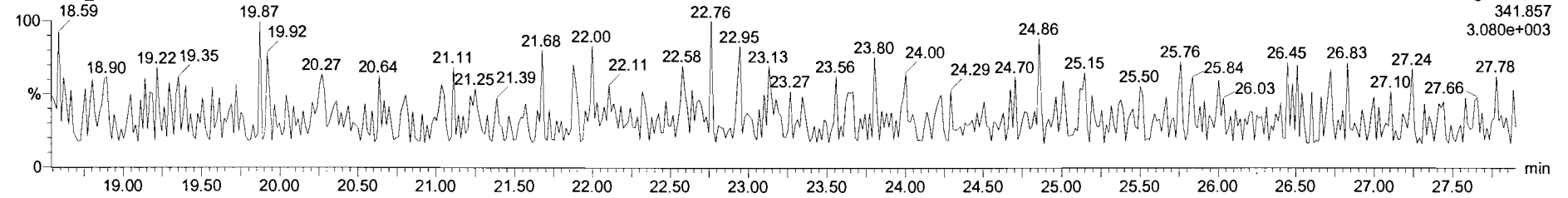
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1st Func. Penta-Furans

190507K1\_2

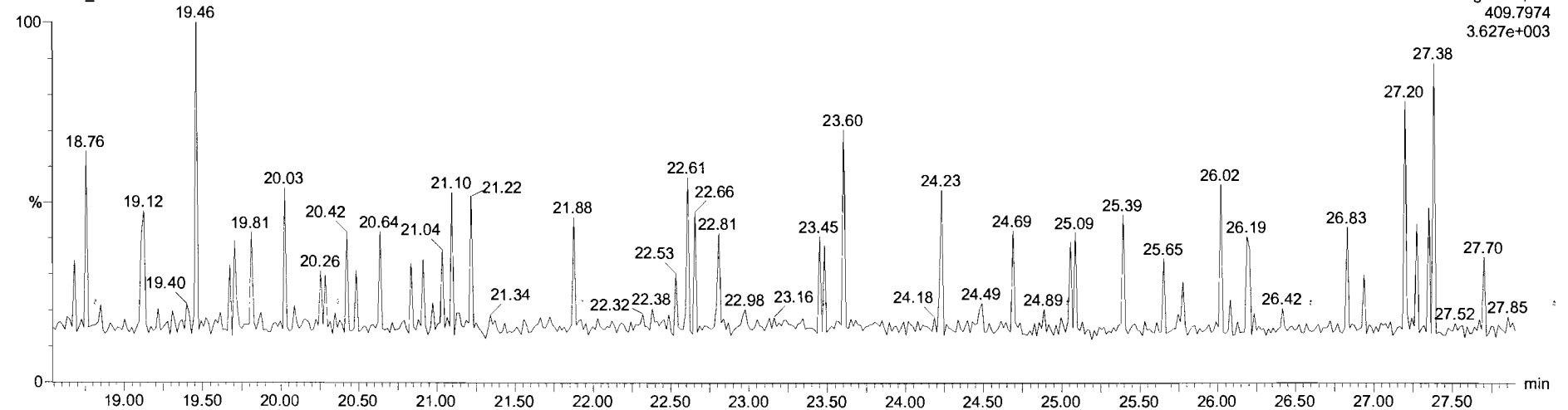


190507K1\_2



DPE6

190507K1\_2



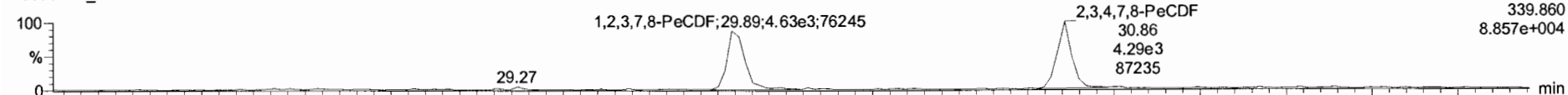
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
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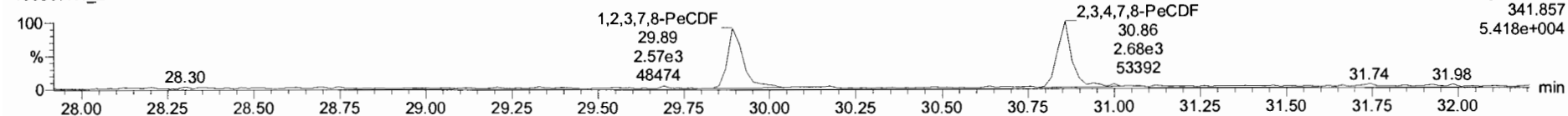
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**1,2,3,7,8-PeCDF**

190507K1\_2

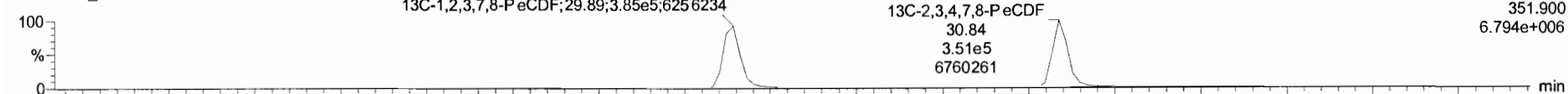


190507K1\_2

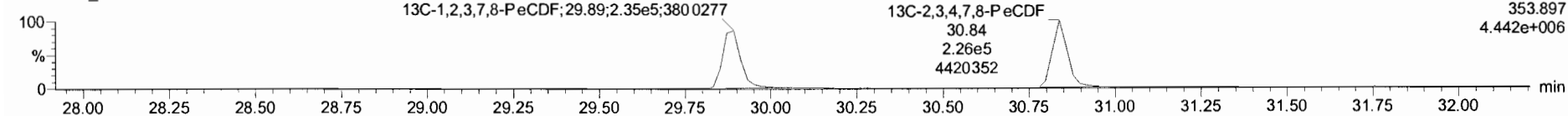


**13C-1,2,3,7,8-PeCDF**

190507K1\_2

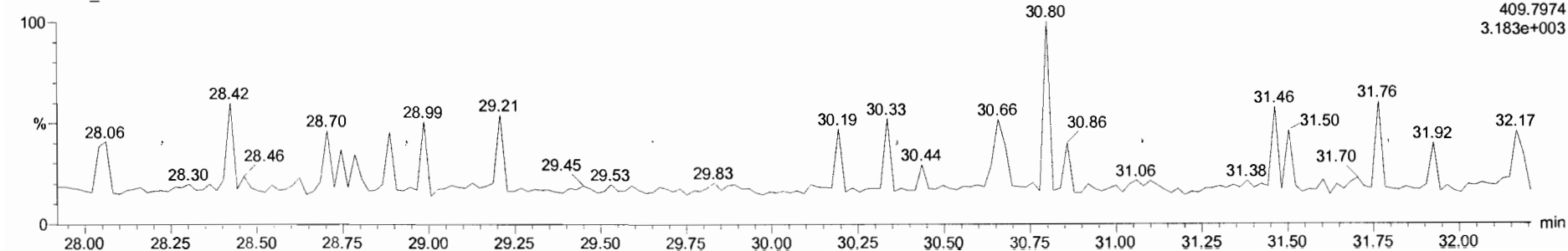


190507K1\_2



**DPE2**

190507K1\_2

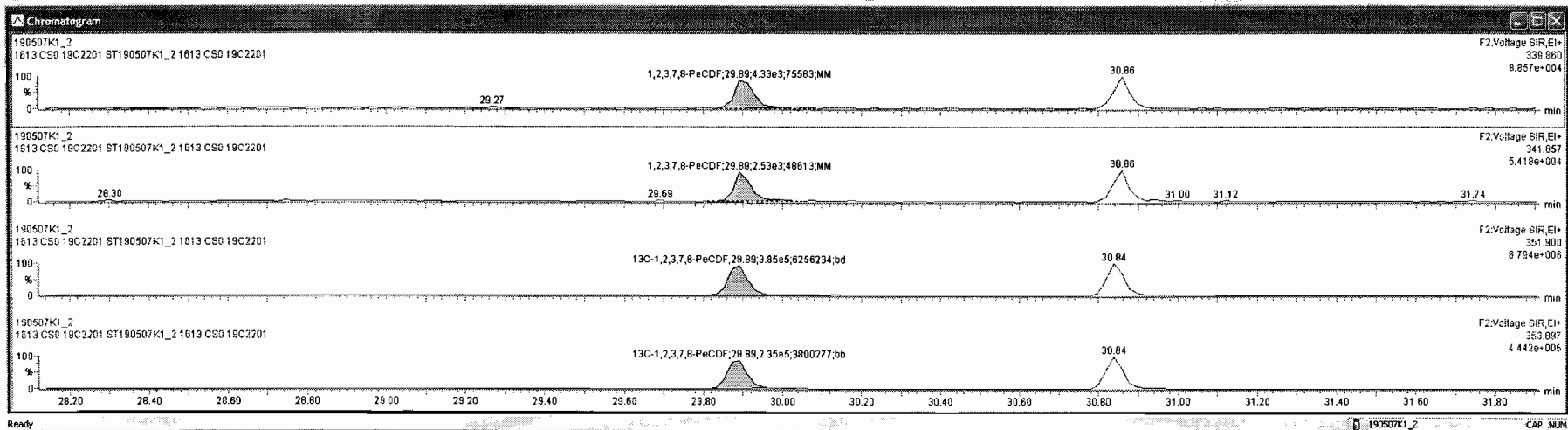


Target1.ymx - 190507K1.CHV.qld

File Edit View Display Processing Window Help

190507K1\_2 - ST190507K1\_2.1613.CS0.19C2201 - 1613.CS0.19C2201

1	Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2	1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3	1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4	1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.87	1.000	34.53	1.001	1.23	96.4	0.0448	1.23
5	1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.98	1.000	34.81	1.000	1.29	103	0.0567	1.29
6	1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.04	1.000	38.32	1.001	1.23	98.1	0.0744	1.23
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.85e3	0.91	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	6.85e3	1.71	NO	0.98	1.000	29.89	1.000	1.13	90.7	0.0637	1.13
10	2,3,4,7,8-PeCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.10	1.000	33.67	1.000	1.14	91.2	0.0713	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.18	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.18	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HxCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.36	109	0.127	1.36
17	OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.478	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	89.4	89.4	0.561	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.53	1.000	38.30	1.128	94.8	94.8	0.475	



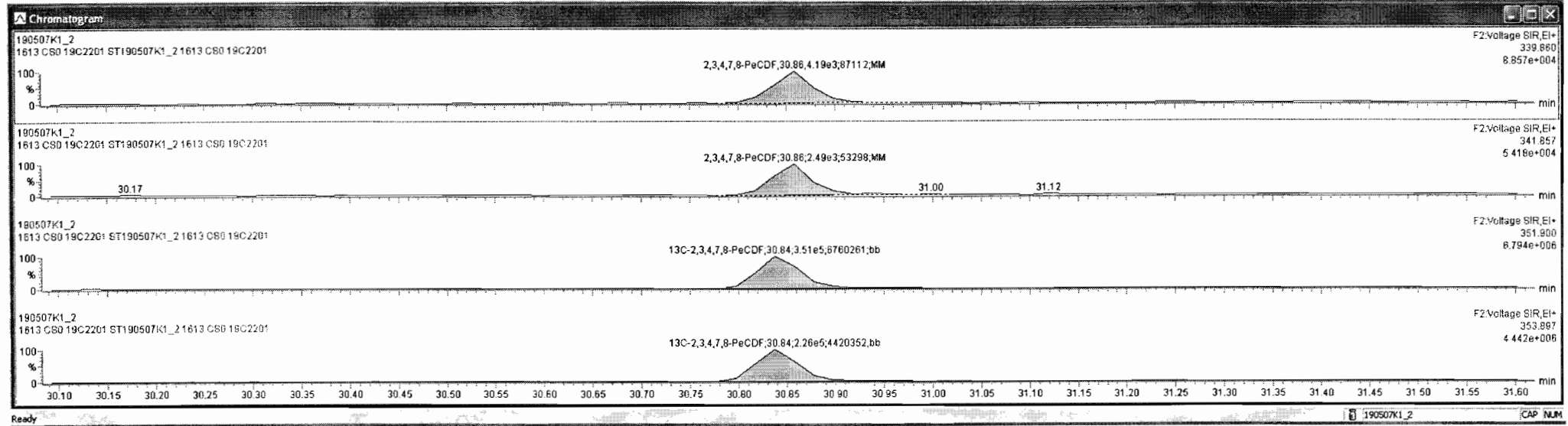


TargetLynx - 190507K1\_CRV.qld

File Edit View Display Processing Window Help

190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	NY	RRF	wtAvol	R1	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.33e3	0.88	NO	0.52	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2 1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.90	1.000	31.14	1.001	1.20	96.3	0.0640	1.20
3 1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4 1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5 1,2,3,7,8,9-HxCDD	3.66e3	1.09	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6 1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8 2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9 1,2,3,7,8-PeCDF	6.79e3	1.92	YES	0.97	1.000	29.89	1.000	1.12	89.9	0.0638	0.981
10 2,3,4,7,8-PeCDF	6.68e3	1.89	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15 1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16 1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.28	1.000	38.86	1.000	1.37	109	0.127	1.37
17 OCDF	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18 13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19 13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.478	
22 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.86	1.000	34.80	1.025	87.9	87.9	0.558	
23 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	



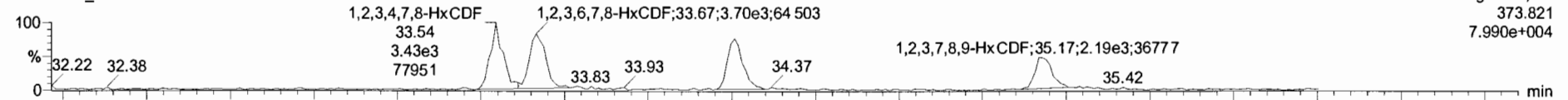
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

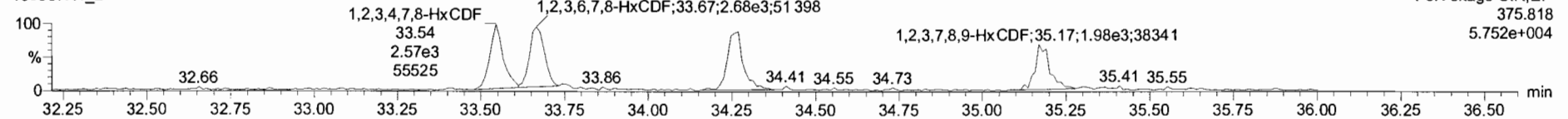
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**1,2,3,4,7,8-HxCDF**

190507K1\_2

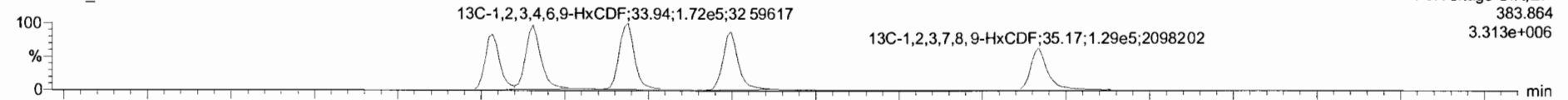


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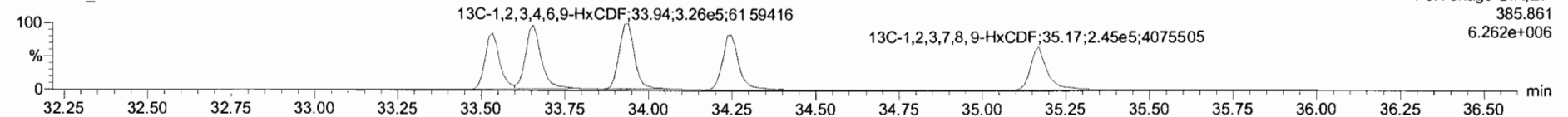


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_2

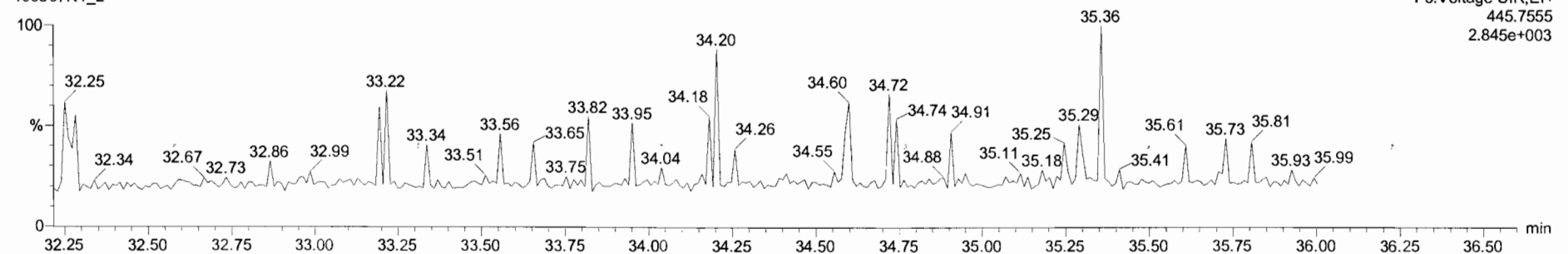


190507K1\_2



**DPE3**

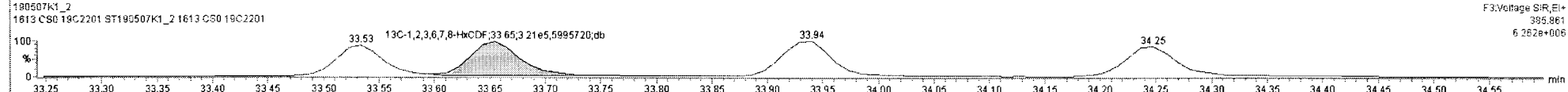
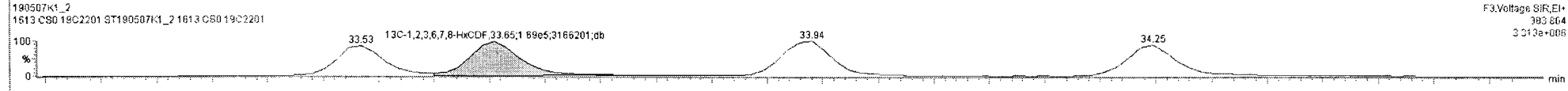
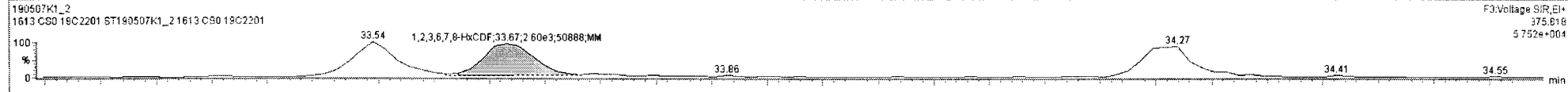
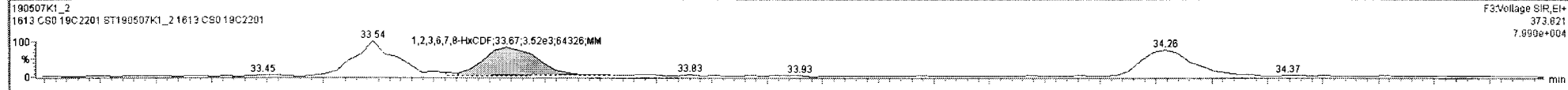
190507K1\_2



Targetlynx\_190507K1\_CRY.qld (Chromatogram)

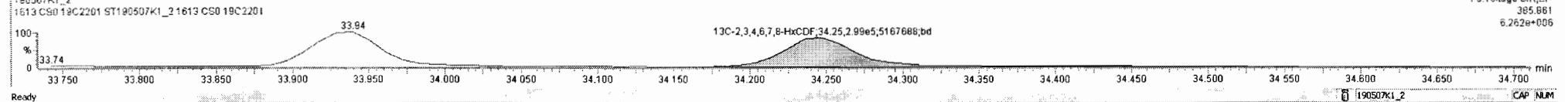
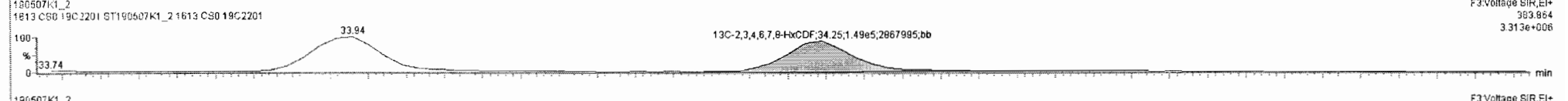
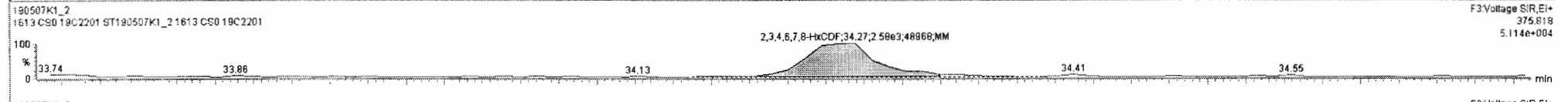
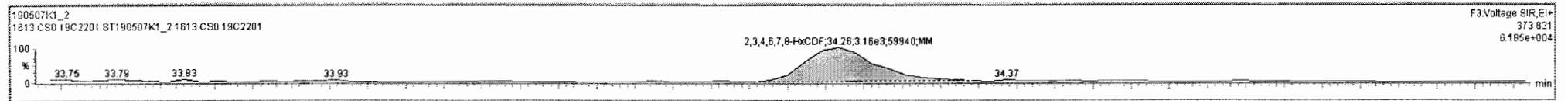
190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	nly	RRF	wt/vol	RT	RRR	Conc	%Rec	DL	EMPC	
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.000	2.32	92.6	0.123	2.31
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.67	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.38	NO	1.09	1.000	33.67	1.000	1.14	81.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HxCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HxCDF	4.31e3	1.07	NO	1.23	1.000	38.86	1.000	1.23	98.5	0.129	1.23
17	OCDF	1.16e4	0.86	NO	1.10	1.000	41.69	1.000	3.48	139	0.191	3.48
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	96.8	96.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.8	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.27	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.86	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HxCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	
24	13C-OCDD	4.62e5	0.90	NO	0.47	1.000	41.46	1.222	198	98.8	0.525	
25	13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26	13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27	13C-2,3,4,7,8-PeCDF	5.77e5	1.56	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.346	
28	13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.85	1.000	33.53	0.988	95.3	95.3	0.571	
29	13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	
30	13C-2,3,4,6,7,8-HxCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541	
31	13C-1,2,3,7,8,9-HxCDF	3.43e5	0.52	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658	

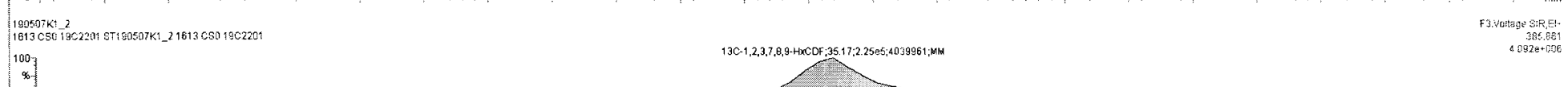
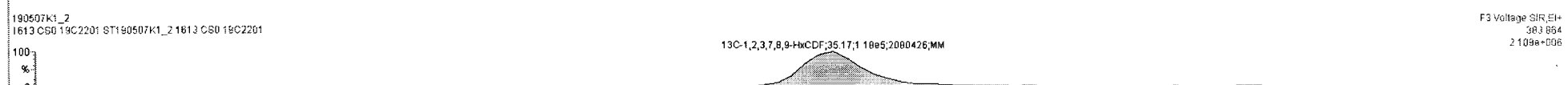
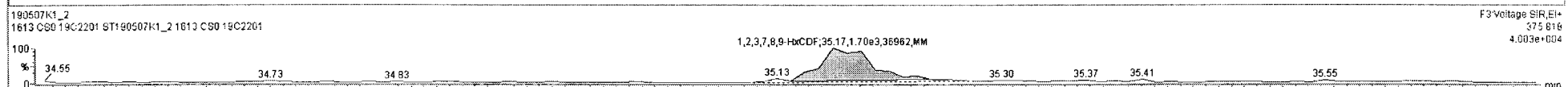
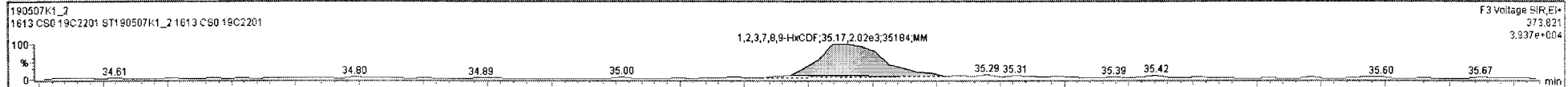
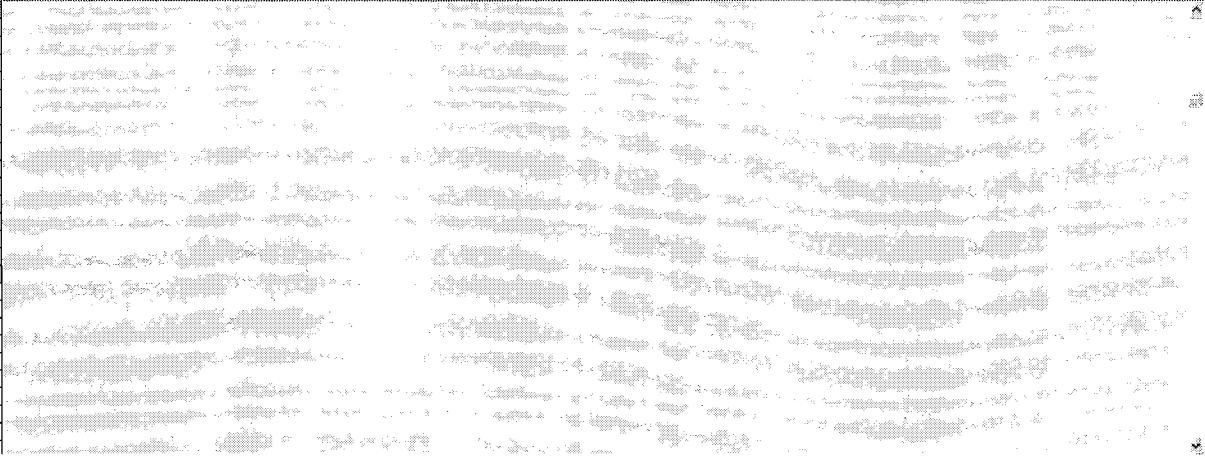


Ready 190507K1\_2 CAP NUM

Name	Resp	RA	nV	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC	
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.000	2.32	92.6	0.123	2.31
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.67	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.68e3	1.89	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	8.12e3	1.36	NO	1.09	1.000	33.87	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.23	1.000	36.86	1.000	1.23	96.5	0.129	1.23
17	OCDF	1.16e4	0.86	NO	1.10	1.000	41.89	1.000	3.48	136	0.191	3.48
18	13C-2,3,7,8-TCDD	5.80e5	0.79	NO	1.05	1.000	26.34	1.025	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.93e5	1.34	NO	0.85	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.27	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.478	
22	13C-1,2,3,7,8,9-HxCDD	2.80e5	1.25	NO	0.86	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	36.90	1.128	93.6	93.6	0.470	
24	13C-OCDD	4.62e5	0.90	NO	0.47	1.000	41.46	1.222	198	98.8	0.525	
25	13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26	13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27	13C-2,3,4,7,8-PeCDF	5.77e5	1.58	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.346	
28	13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.85	1.000	33.53	0.988	95.3	95.3	0.571	
28	13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	
30	13C-2,3,4,6,7,8-HpCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541	
31	13C-1,2,3,7,8,9-HxCDF	3.43e5	0.52	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658	

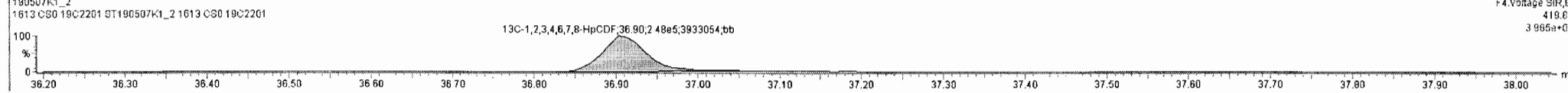
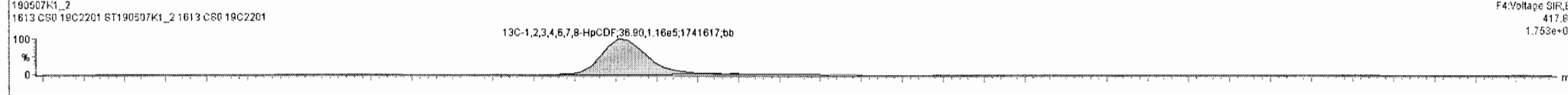
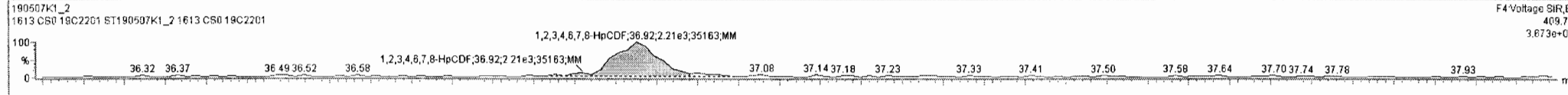
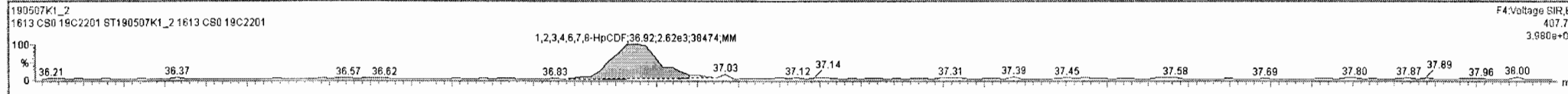


#	Name	Resp	RA	nNY	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.000	2.32	92.6	0.123	2.31
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.67	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	95.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.36	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.79e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.23	1.000	38.86	1.000	1.23	96.5	0.129	1.23
17	OCDF	1.16e4	0.86	NO	1.10	1.000	41.69	1.000	3.48	139	0.191	3.48
18	13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	96.5	96.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.27	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.478	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	36.30	1.128	93.6	93.6	0.470	
24	13C-OCDD	4.82e5	0.90	NO	0.47	1.000	41.46	1.222	198	98.8	0.525	
25	13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26	13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27	13C-2,3,4,7,8-PeCDF	5.77e5	1.56	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.346	
28	13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.85	1.000	33.53	0.988	95.3	95.3	0.571	
29	13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	
30	13C-2,3,4,6,7,8-HxCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541	
31	13C-1,2,3,7,8,9-HxCDF	3.43e5	0.52	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658	



190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.000	2.32	92.6	0.123	2.31
8 2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9 1,2,3,7,8-PeCDF	7.12e3	1.67	NO	0.98	1.000	29.69	1.000	1.17	93.7	0.0634	1.17
10 2,3,4,7,8-PeCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	6.12e3	1.36	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	96.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.79e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15 1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.16	94.1	0.115	1.16
16 1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.23	1.000	36.86	1.000	1.23	98.5	0.129	1.23
17 OCDF	1.16e4	0.86	NO	1.10	1.000	41.69	1.000	3.48	139	0.191	3.48
18 13C-2,3,7,8-TCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19 13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.27	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	36.30	1.128	93.6	93.6	0.470	
24 13C-OCDD	4.62e5	0.90	NO	0.47	1.000	41.46	1.222	198	98.8	0.525	
25 13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26 13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27 13C-2,3,4,7,8-PeCDF	5.77e5	1.56	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.346	
28 13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.85	1.000	33.53	0.988	95.3	95.3	0.571	
29 13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	
30 13C-2,3,4,6,7,8-HxCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541	
31 13C-1,2,3,7,8,9-HxCDF	3.43e5	0.52	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658	

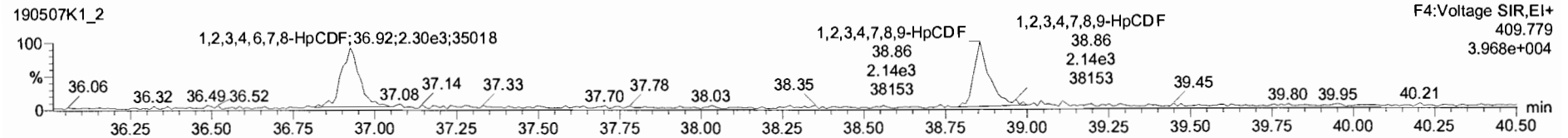
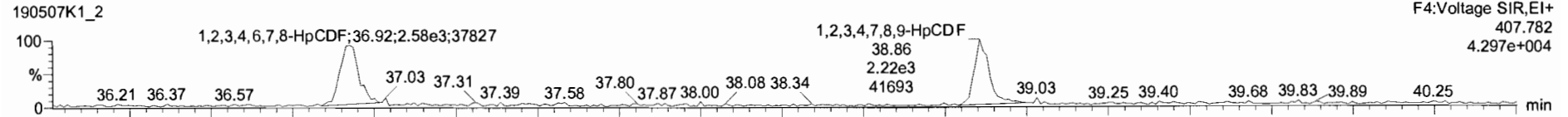


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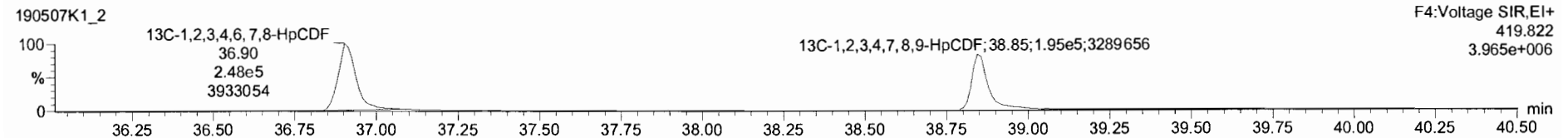
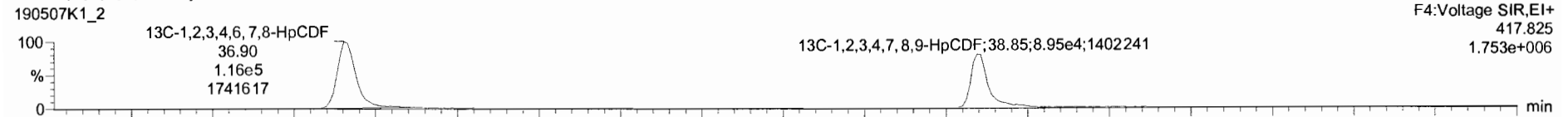
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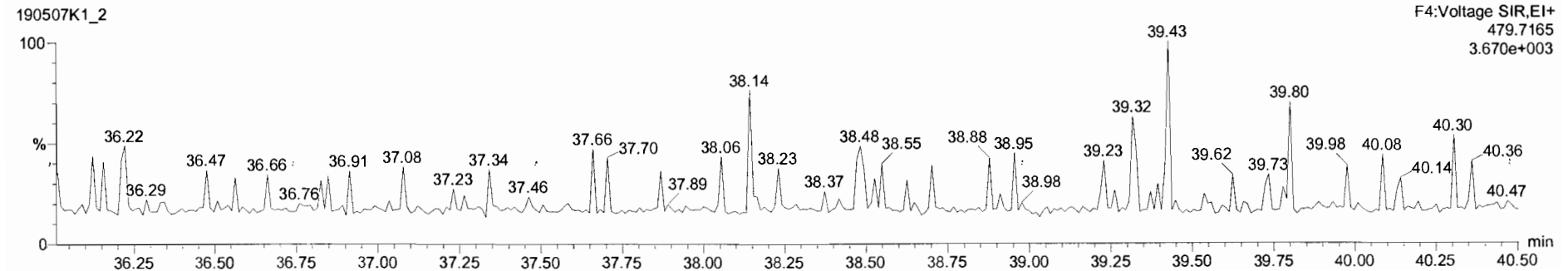
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**13C-1,2,3,4,6,7,8-HpCDF**

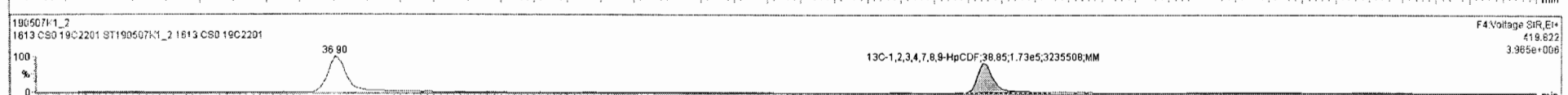
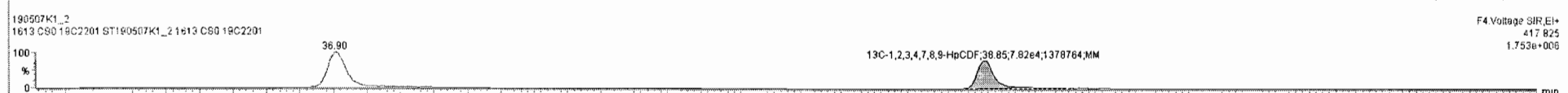
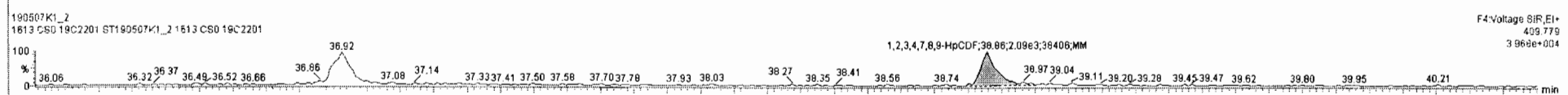
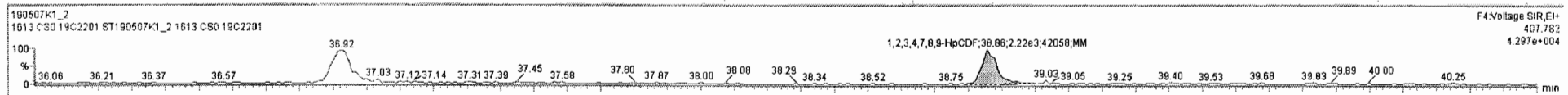
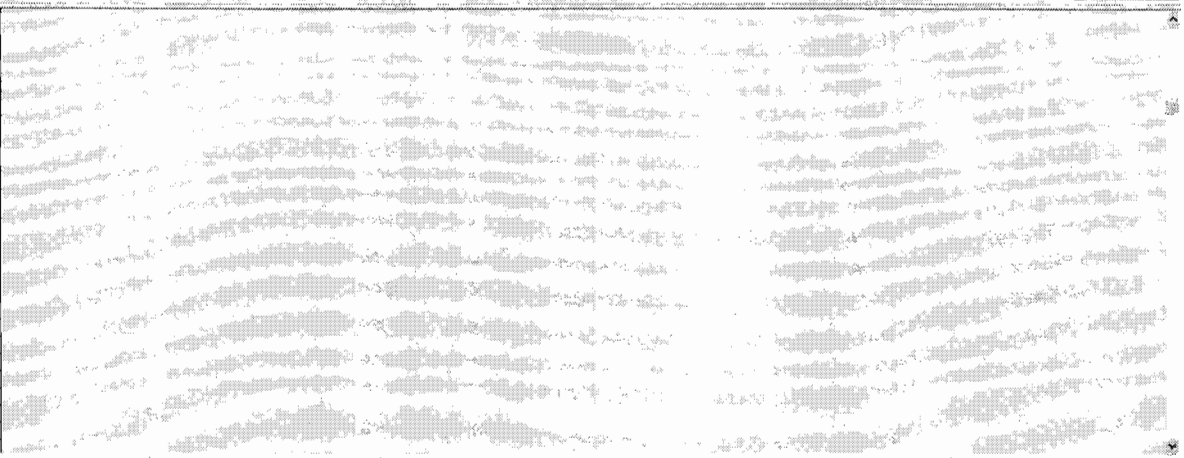


**DPE4**



190507K1\_2 - ST190507K1\_2 1613 CS0 19C2201 - 1613 CS0 19C2201

Name	Resp	RA	dy	RRF	wtAvl	RT	RRT	Conc	%Rec	DL	EMPC	
7	OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.84	1.000	25.50	1.001	0.245	87.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.99	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.88e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14	1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	39.86	1.000	1.37	109	0.122	1.32
17	OCDF	1.16e4	0.85	NO	1.10	1.000	41.69	1.000	3.48	139	0.191	3.48
18	13C-2,3,7,8-TCDD	5.60e5	0.78	NO	1.05	1.000	26.34	1.026	89.5	99.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.85	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.86	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	
24	13C-OCDD	4.62e5	0.91	NO	0.47	1.000	41.46	1.221	198	98.8	0.525	
25	13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26	13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27	13C-2,3,4,7,8-PeCDF	5.77e5	1.56	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.346	
28	13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.95	1.000	33.53	0.988	95.3	95.3	0.571	
29	13C-1,2,3,6,7,8-HxCDF	4.50e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	
30	13C-2,3,4,6,7,8-HxCDF	4.48e5	0.50	NO	0.89	1.000	34.25	1.009	101	101	0.541	
31	13C-1,2,3,7,8,9-HxCDF	3.43e5	0.53	NO	0.73	1.000	35.17	1.036	94.0	94.0	0.658	

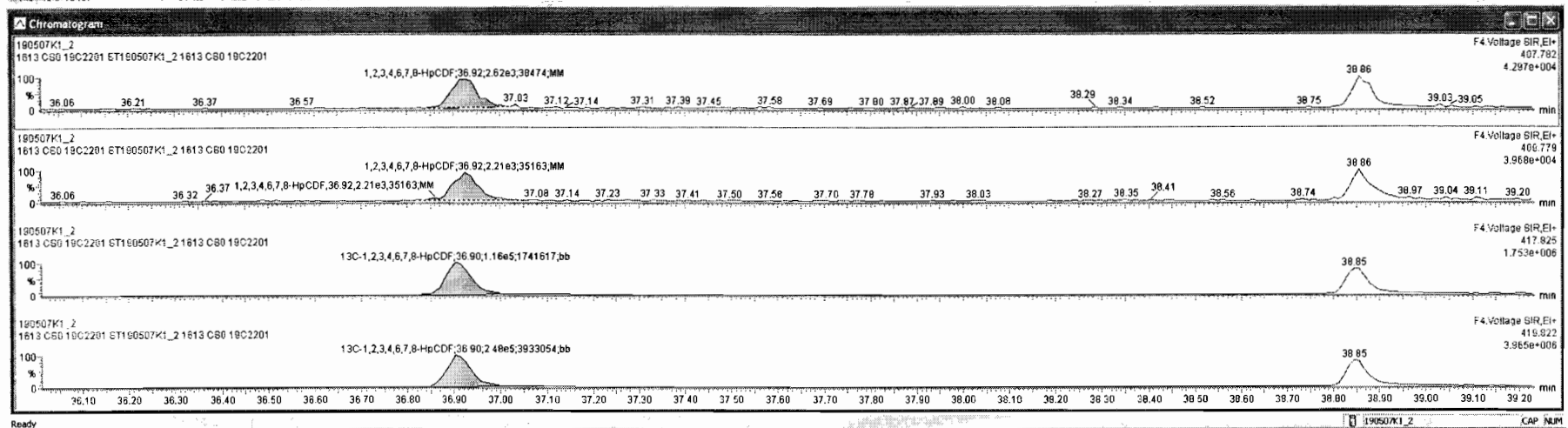




Target Lynx - 190507K1\_CRY.qld

190507K1\_2-ST190507K1\_2-1613.CS0-19C2201-1613.CS0-19C2201

Name	Resp	RA	rv	REF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.33e3	0.88	NO	0.92	1.000	26.34	1.000	0.247	98.8	0.0640	0.247
2 1,2,3,7,8-PeCDD	4.13e3	0.67	NO	0.80	1.000	31.14	1.001	1.20	95.3	0.0640	1.20
3 1,2,3,4,7,8-HxCDD	3.85e3	1.38	NO	1.07	1.000	34.42	1.001	1.19	95.2	0.0463	1.19
4 1,2,3,6,7,8-HxCDD	4.41e3	1.40	NO	0.97	1.000	34.53	1.001	1.23	98.4	0.0448	1.23
5 1,2,3,7,8,9-HxCDD	3.68e3	1.08	NO	0.97	1.000	34.81	1.000	1.30	104	0.0570	1.30
6 1,2,3,4,6,7,8-HpCDD	3.20e3	0.97	NO	1.03	1.000	38.32	1.001	1.24	99.2	0.0752	1.24
7 OCDD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8 2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0608	0.245
9 1,2,3,7,8-PeCDF	6.79e3	1.92	YES	0.97	1.000	29.89	1.000	1.12	89.9	0.0638	0.981
10 1,2,3,4,7,8-HxCDF	6.68e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0562	1.15
11 1,2,3,4,6,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	95.3	0.0720	1.20
12 1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13 2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.09	86.9	0.0704	1.09
14 1,2,3,7,8,9-HxCDF	3.73e3	1.19	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.119	1.01
15 1,2,3,4,6,7,8-HpCDF	4.62e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16 OCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17 13C-2,3,7,8-TCDD	1.12e4	0.91	NO	1.10	1.000	41.69	1.000	3.49	139	0.191	3.49
18 13C-1,2,3,7,8-PeCDD	5.80e5	0.78	NO	1.05	1.000	26.34	1.028	88.5	88.5	0.219	
19 13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
20 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
21 13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.559	
22 13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	



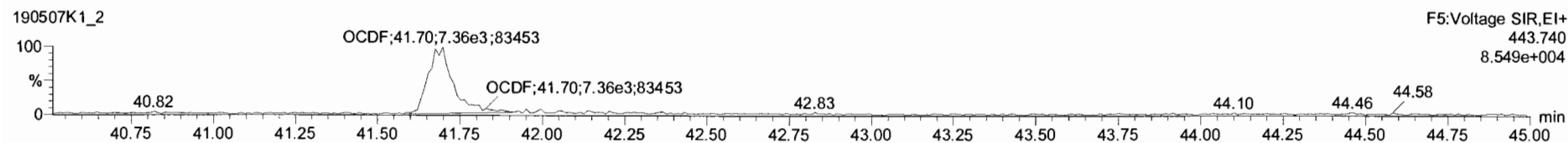
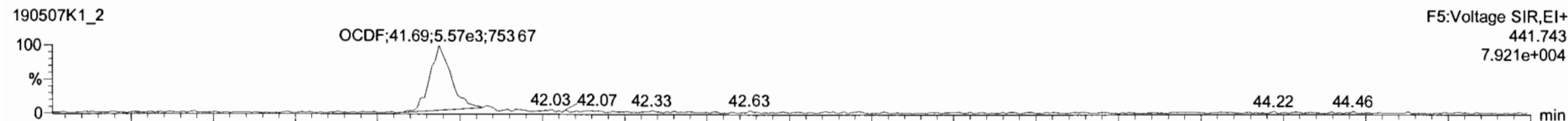
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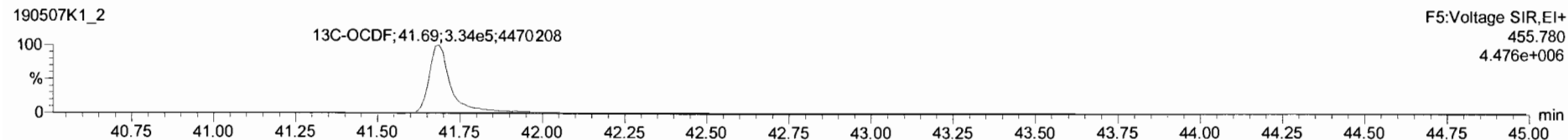
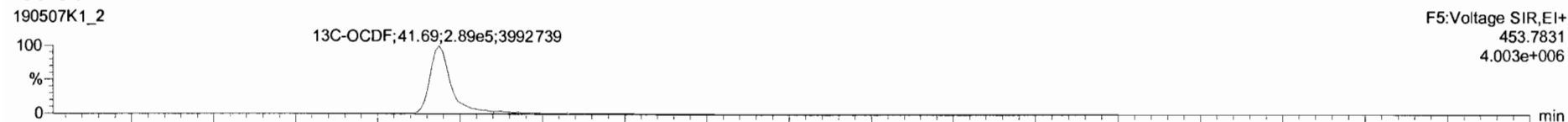
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Name: 190507K1\_2, Date: 07-May-2019, Time: 11:18:22, ID: ST190507K1\_2 1613 CS0 19C2201, Description: 1613 CS0 19C2201

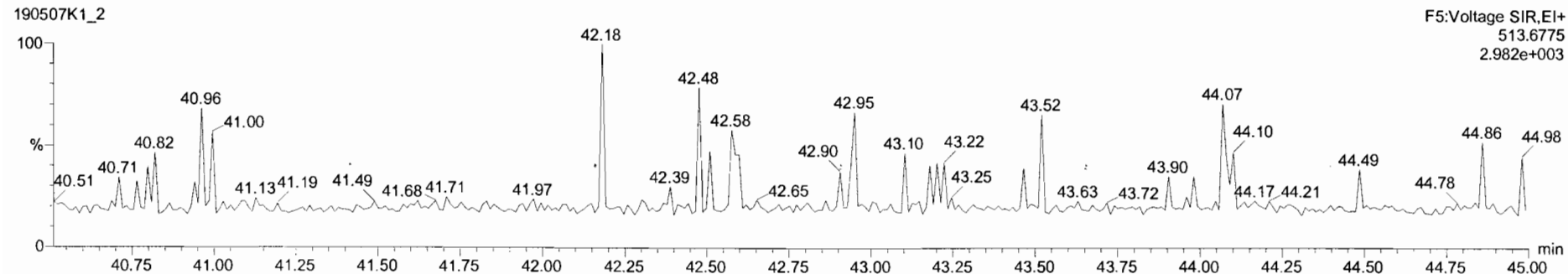
**OCDF**



**13C-OCDF**



**DPE5**

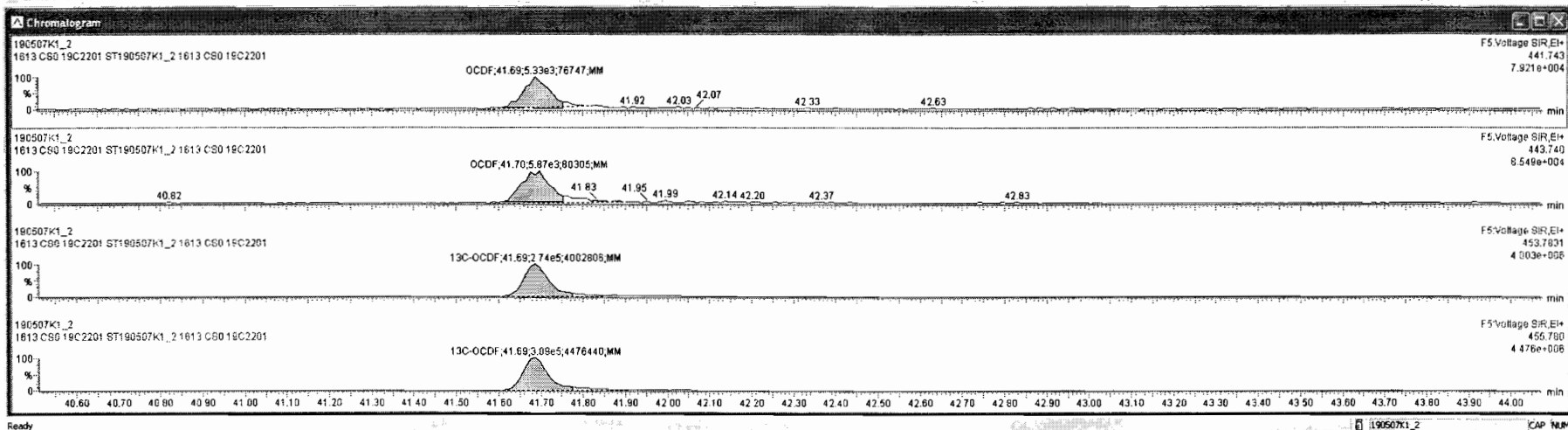


Target: lymx - 190507K1 - CRV.gld

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190507K1\_2 - ST190507K1\_2-1613 CS0 19C2201 - 1613 CS0 19C2201

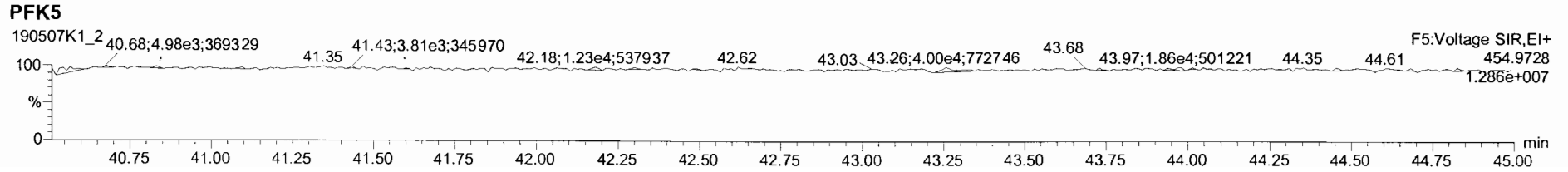
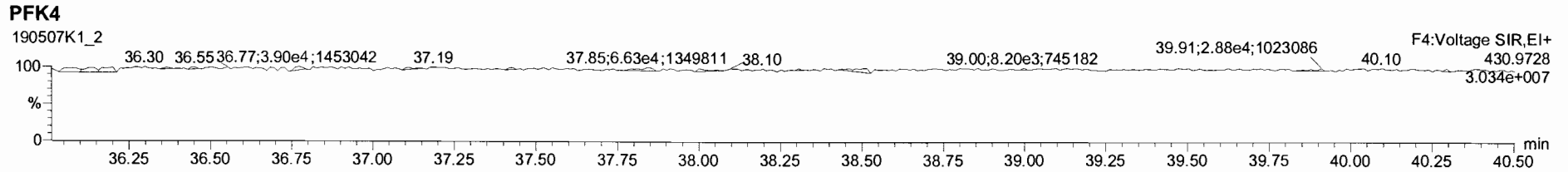
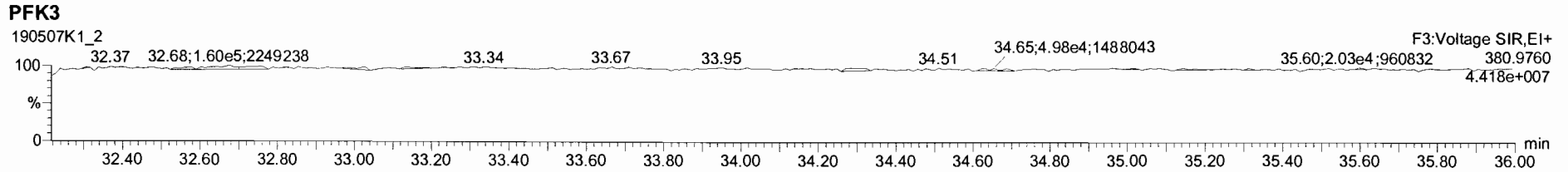
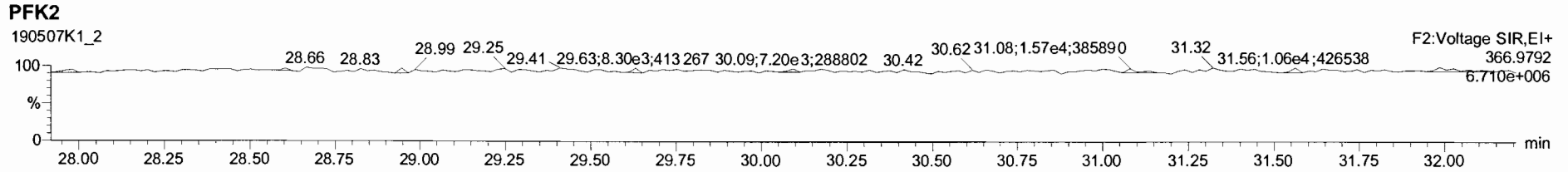
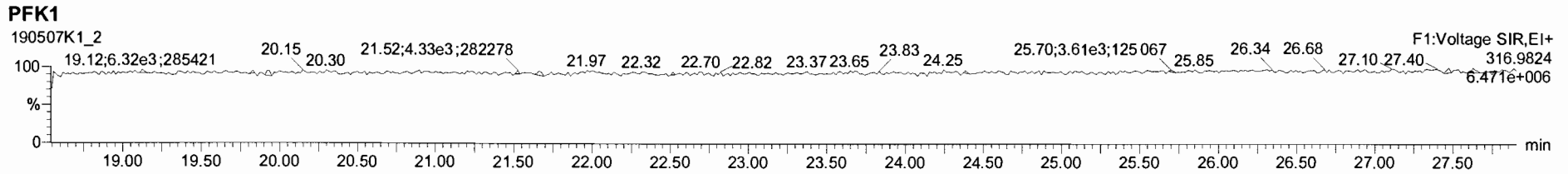
#	Name	Resp	RA	IIV	RRF	WtVol	RT	RRT	Conc	%Rec	DI	EMPC
7	OCD	5.20e3	0.90	NO	0.97	1.000	41.48	1.001	2.32	92.6	0.123	2.32
8	2,3,7,8-TCDF	1.85e3	0.81	NO	0.94	1.000	25.50	1.001	0.245	97.9	0.0508	0.245
9	1,2,3,7,8-PeCDF	7.12e3	1.68	NO	0.98	1.000	29.89	1.000	1.17	93.7	0.0634	1.17
10	2,3,4,7,8-PeCDF	6.88e3	1.69	NO	1.00	1.000	30.86	1.001	1.15	92.2	0.0662	1.15
11	1,2,3,4,7,8-HxCDF	6.00e3	1.34	NO	1.24	1.000	33.54	1.000	1.20	96.3	0.0720	1.20
12	1,2,3,6,7,8-HxCDF	6.12e3	1.35	NO	1.09	1.000	33.67	1.000	1.14	91.4	0.0714	1.14
13	2,3,4,6,7,8-HxCDF	5.74e3	1.22	NO	1.18	1.000	34.26	1.000	1.08	86.9	0.0704	1.08
14	1,2,3,7,8,9-HxCDF	3.73e3	1.18	NO	1.07	1.000	35.17	1.000	1.01	80.9	0.110	1.01
15	1,2,3,4,6,7,8-HpCDF	4.83e3	1.19	NO	1.13	1.000	36.92	1.001	1.18	94.1	0.115	1.18
16	1,2,3,4,7,8,9-HpCDF	4.31e3	1.07	NO	1.26	1.000	38.86	1.000	1.37	109	0.127	1.37
17	OCD	1.12e4	0.91	NO	1.10	1.000	41.60	1.000	3.48	138	0.191	3.48
18	13C-2,3,7,8-TCDD	5.90e5	0.78	NO	1.05	1.000	26.34	1.026	98.5	98.5	0.219	
19	13C-1,2,3,7,8-PeCDD	3.79e5	0.63	NO	0.74	1.000	31.12	1.212	90.9	90.9	0.224	
20	13C-1,2,3,4,7,8-HxCDD	3.03e5	1.34	NO	0.65	1.000	34.40	1.014	94.1	94.1	0.572	
21	13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.78	1.000	34.51	1.017	95.9	95.9	0.476	
22	13C-1,2,3,7,8,9-HxCDD	2.90e5	1.25	NO	0.66	1.000	34.80	1.025	87.9	87.9	0.558	
23	13C-1,2,3,4,6,7,8-HpCDD	2.52e5	1.01	NO	0.54	1.000	38.30	1.128	93.6	93.6	0.470	
24	13C-OCD	4.62e5	0.91	NO	0.47	1.000	41.46	1.221	198	98.8	0.525	
25	13C-2,3,7,8-TCDF	8.07e5	0.79	NO	0.98	1.000	25.48	0.992	99.2	99.2	0.417	
26	13C-1,2,3,7,8-PeCDF	6.20e5	1.64	NO	0.78	1.000	29.89	1.164	95.7	95.7	0.333	
27	13C-2,3,4,7,8-PeCDF	5.77e5	1.56	NO	0.75	1.000	30.84	1.201	92.4	92.4	0.348	
28	13C-1,2,3,4,7,8-HxCDF	4.01e5	0.52	NO	0.85	1.000	33.53	0.988	95.3	95.3	0.571	
29	13C-1,2,3,6,7,8-HxCDF	4.90e5	0.53	NO	1.03	1.000	33.65	0.992	95.9	95.9	0.470	



Dataset: Untitled

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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_2, Date: 07-May-2019, Time: 11:18:22, ID: ST190507K1\_2 1613 CS0 19C2201, Description: 1613 CS0 19C2201



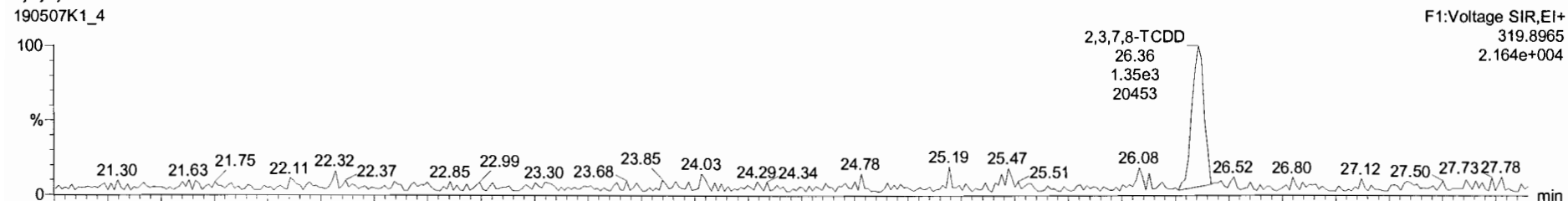
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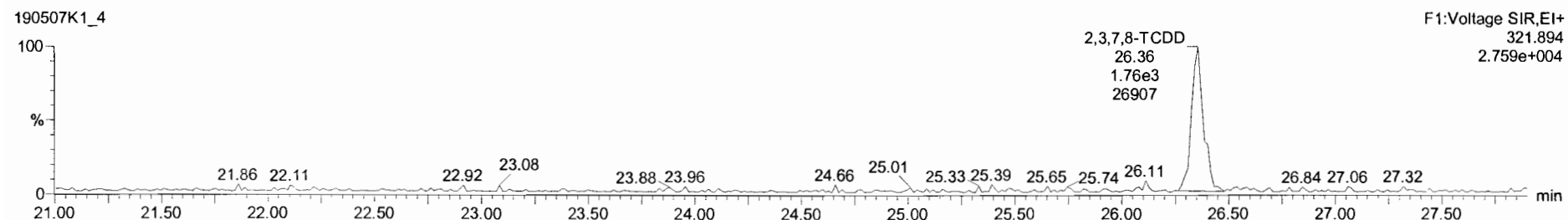
Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

**2,3,7,8-TCDD**

190507K1\_4



190507K1\_4

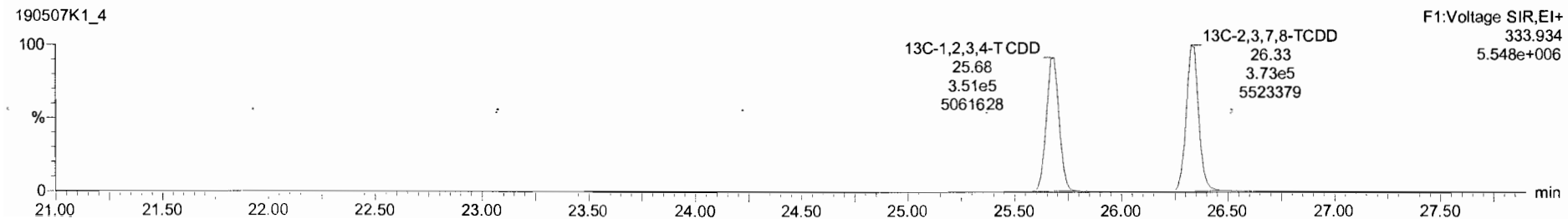


**13C-2,3,7,8-TCDD**

190507K1\_4



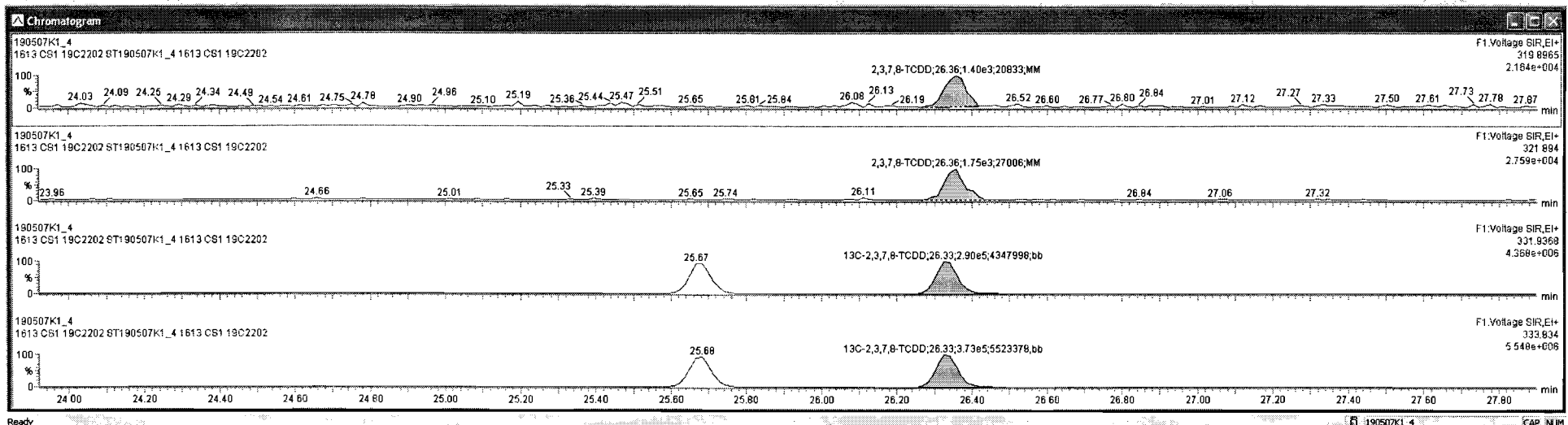
190507K1\_4



Target.ynx 190507K1 CRV.qld

190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Name	Resp	RA	RY	RRF	wt/Vol	RT	RRT	Conc	%Rec	IL	EMPC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0980	2.32
4 1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.26e3	1.22	NO	0.97	1.000	34.60	1.000	2.48	99.1	0.118	2.48
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.16	1.000	2.42	96.9	0.138	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.5	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20 13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.08	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



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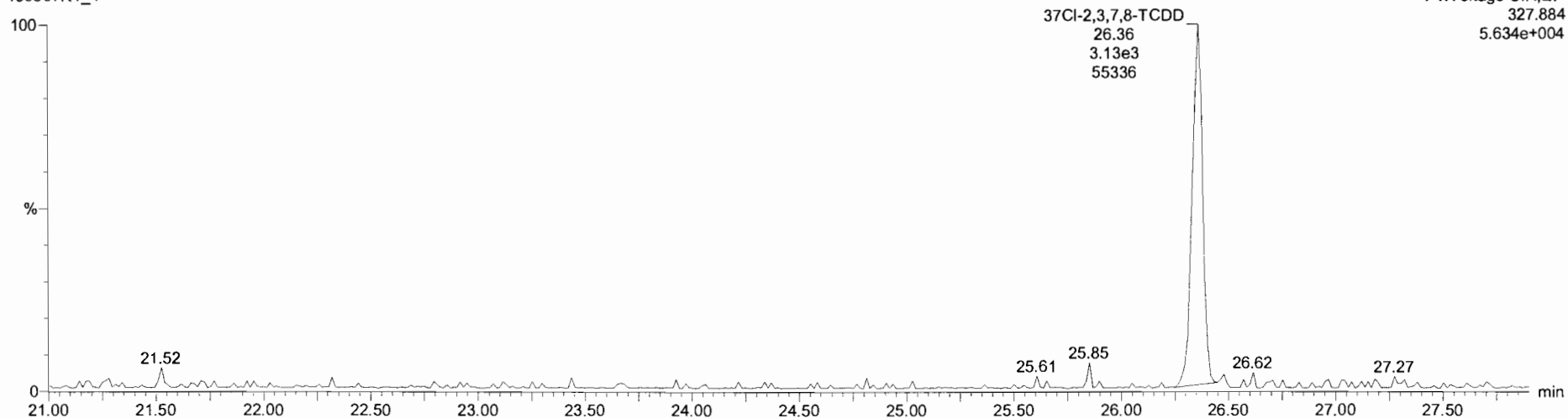
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

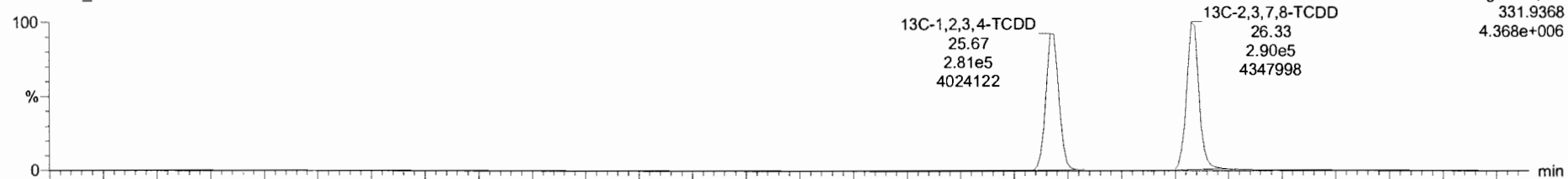
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190507K1\_4

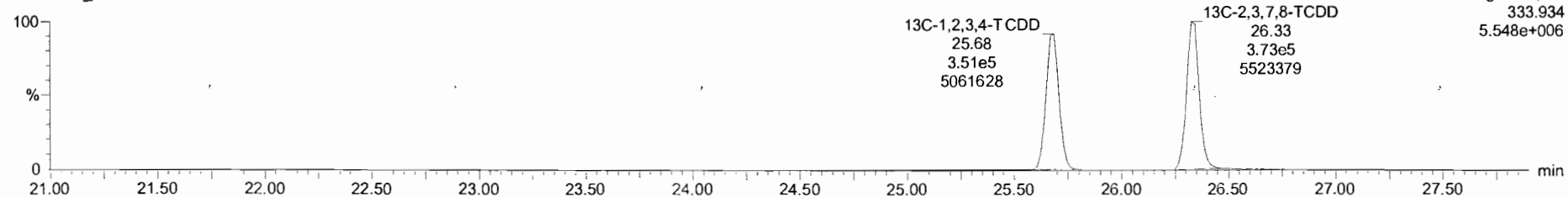


**13C-1,2,3,4-TCDD**

190507K1\_4



190507K1\_4



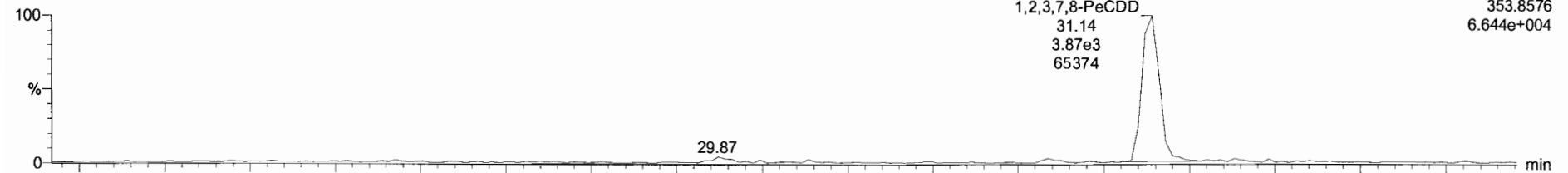
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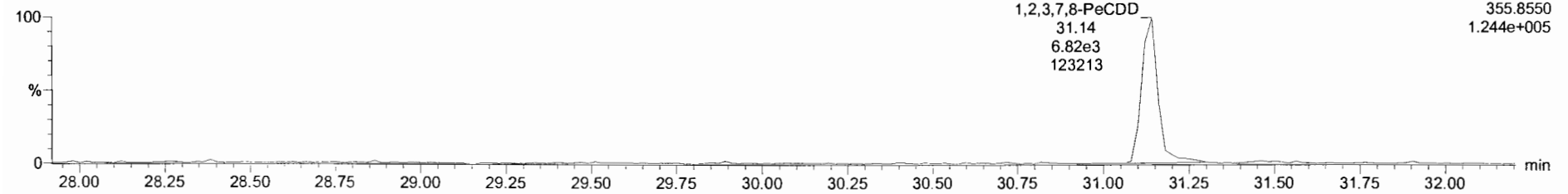
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**1,2,3,7,8-PeCDD**

190507K1\_4

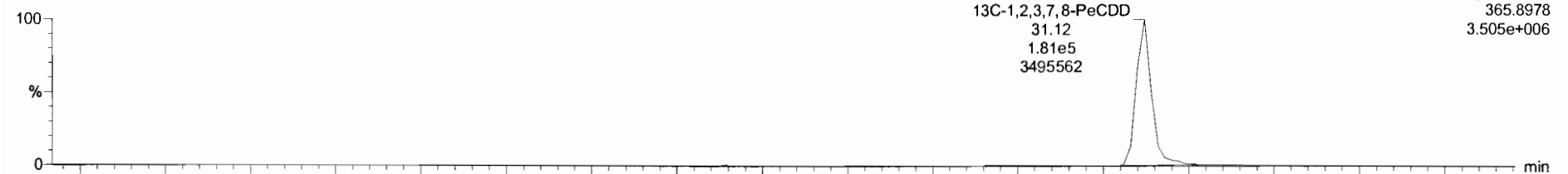


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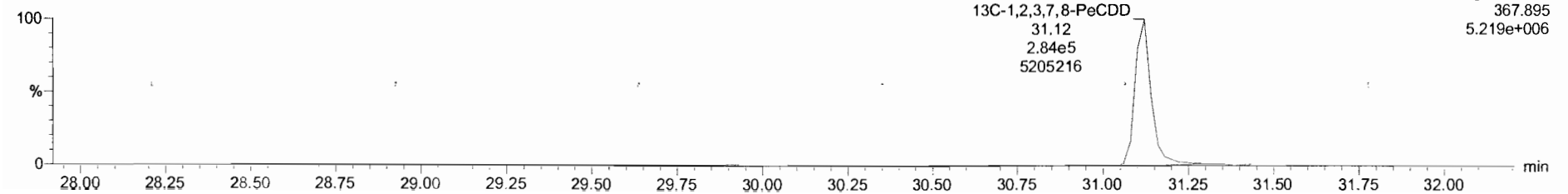


**13C-1,2,3,7,8-PeCDD**

190507K1\_4



190507K1\_4





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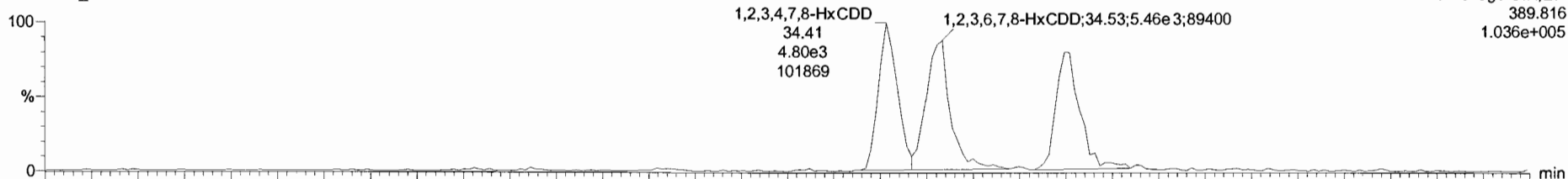
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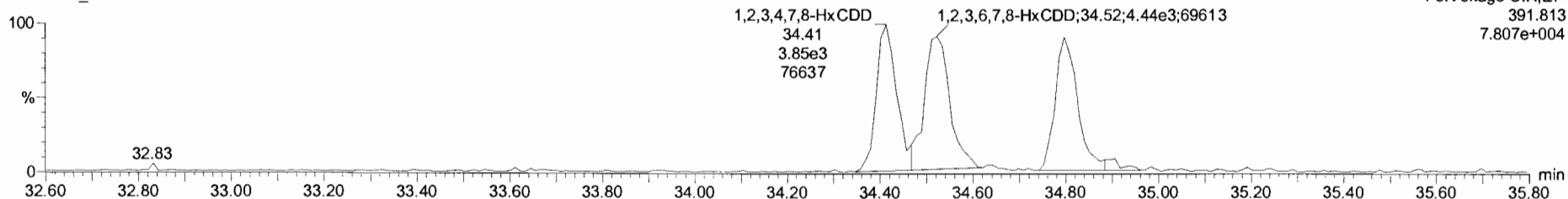
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**1,2,3,4,7,8-HxCDD**

190507K1\_4

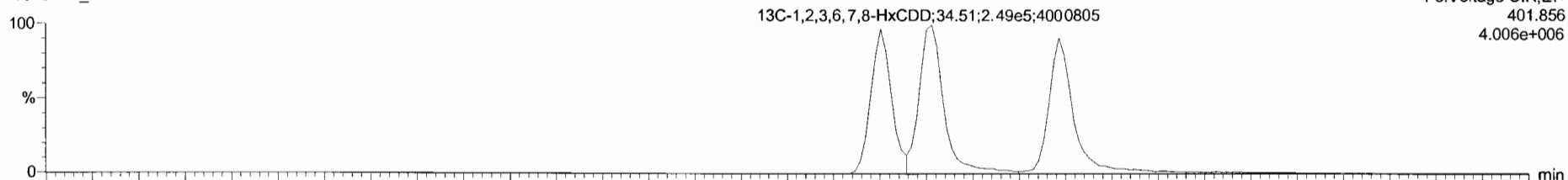


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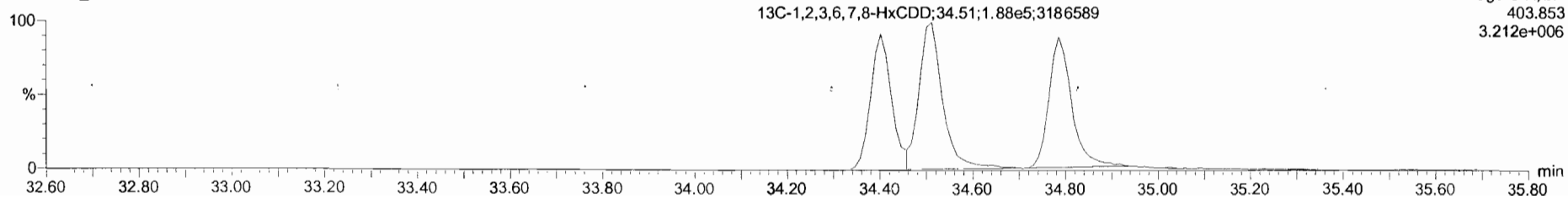


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_4



190507K1\_4

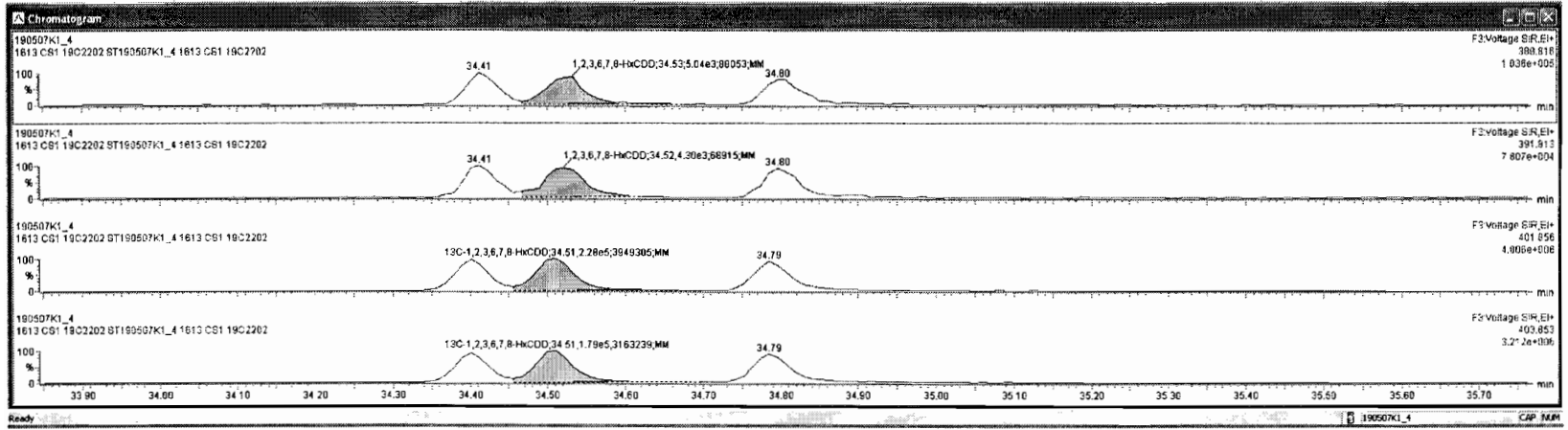


Targpt1.ynr 190507K1\_CRY.qtd

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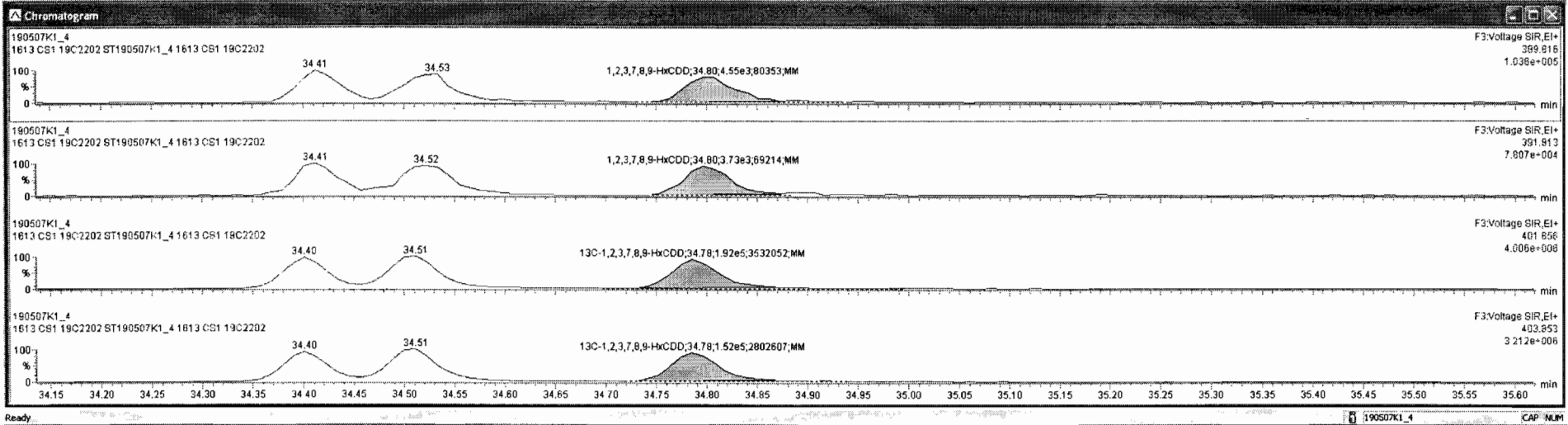
190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

#	Name	Resp	RA	rv	FWF	wt-wt	RT	RRT	Conv.	%Wgt	DC	EWFC
1	1,2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.38	1.001	0.513	100	0.8603	9.514
2	1,2,3,7,8-PeCDF	1.07e4	0.57	NO	0.80	1.000	37.14	1.001	2.54	102	0.0732	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.39e3	1.17	NO	0.97	1.000	34.53	1.001	2.27	94.8	0.107	2.27
5	1,2,3,7,8-HxCDF	8.29e3	1.22	NO	0.97	1.000	34.60	1.000	2.48	99.1	0.119	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.87	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	1,2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	99.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.87	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10	1,2,3,4,7,8-HxCDF	1.67e4	1.59	NO	1.00	1.000	30.66	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.39	99.1	0.0897	2.39
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	99.4	0.0875	2.34
13	1,2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0848	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.43	99.8	0.138	2.42
15	1,2,3,4,6,7,8-HpCDF	1.17e4	1.03	NO	1.13	1.000	36.51	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HpCDF	8.26e3	1.04	NO	1.26	1.000	38.86	1.000	2.29	91.4	0.141	2.28
17	OCDF	1.59e4	0.88	NO	1.10	1.000	41.70	1.000	4.54	99.8	0.195	4.54
18	13C-1,2,3,7,8-TCDD	8.84e5	0.78	NO	1.05	1.000	26.33	1.025	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.85e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.26	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



190507k1\_4 - ST190507k1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

None	Resp	RA	inv	RRF	wtVal	RT	RRT	Conc	%Rec	DL	EMPC	
1	2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.49	99.1	0.119	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	38.91	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18	13C-2,3,7,8-TCDD	6.84e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.85e5	0.84	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.26	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.86	1.000	34.78	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



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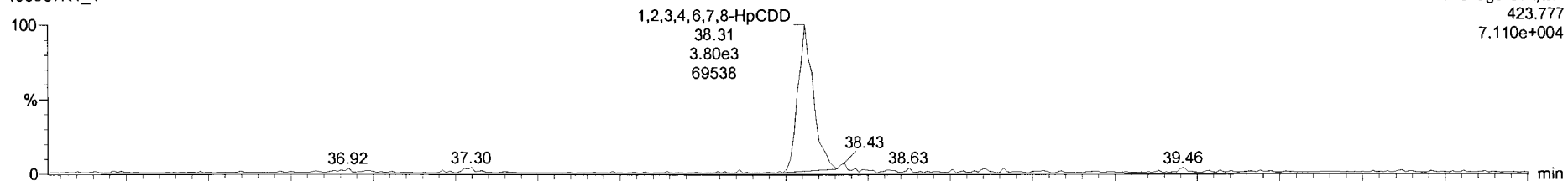
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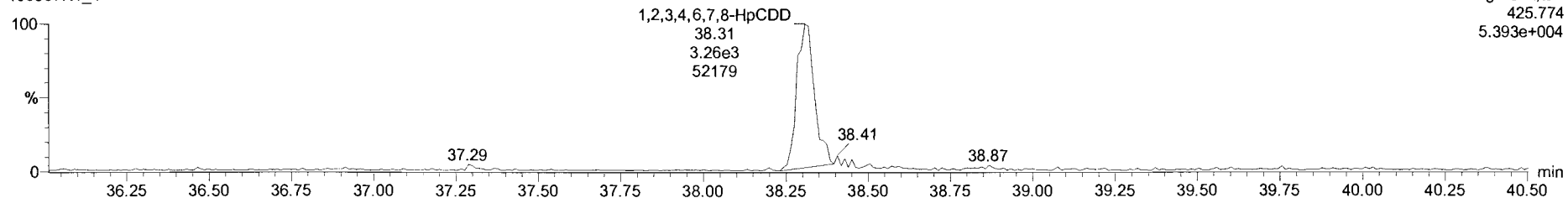
Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

**1,2,3,4,6,7,8-HpCDD**

190507K1\_4

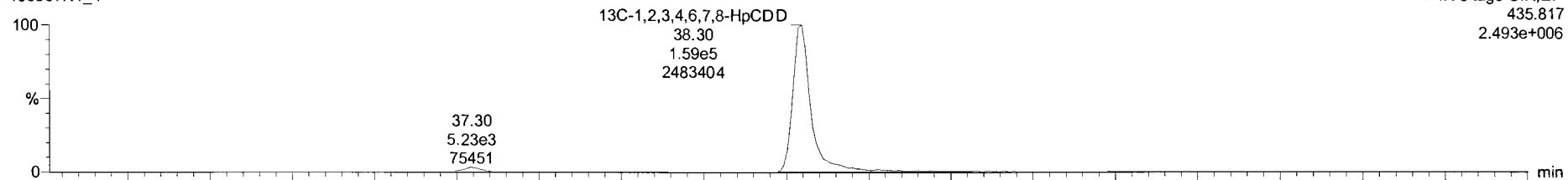


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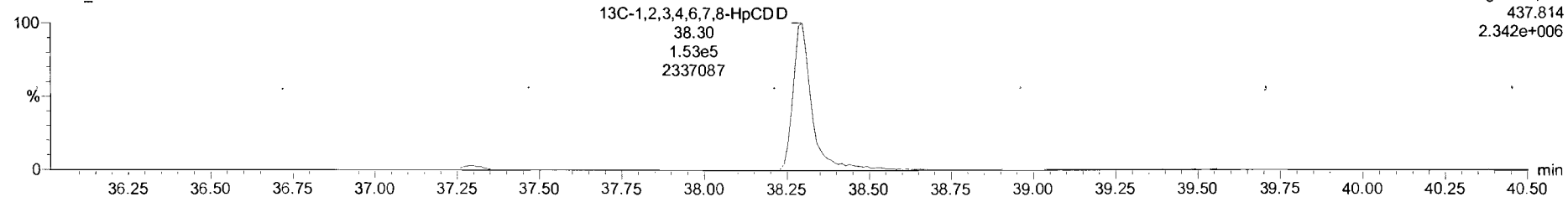


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_4



190507K1\_4

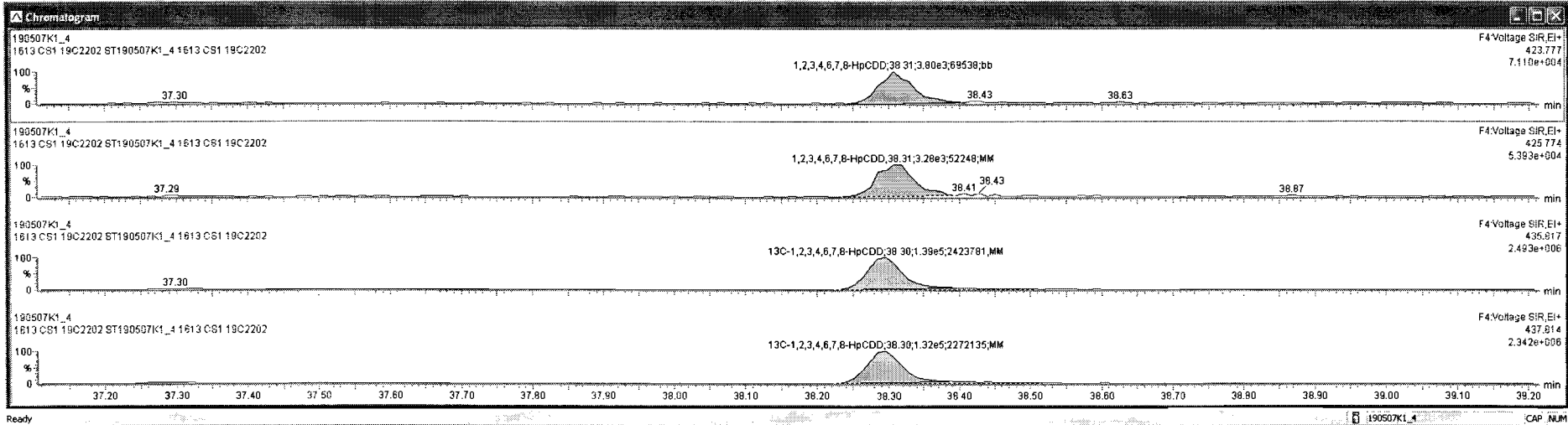


TargetLynx 190507K1.CRV.qld

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190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Peak	Name	Resp	RA	dy	RRF	w/Mol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.003	34.41	1.000	3.32	92.6	0.0980	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6	1,2,3,4,6,7,8-HpCDD	7.09e3	1.16	NO	1.03	1.000	38.31	1.000	2.56	102	0.102	2.56
7	OCDD	1.13e4	0.85	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	2,3,7,8-TCDF	4.05e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18	13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100		249
19	13C-1,2,3,7,8-PeCDD	4.85e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1		331
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7		418
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	83.6	93.8		348
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.68	1.000	34.78	1.025	92.7	92.7		407
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5		511

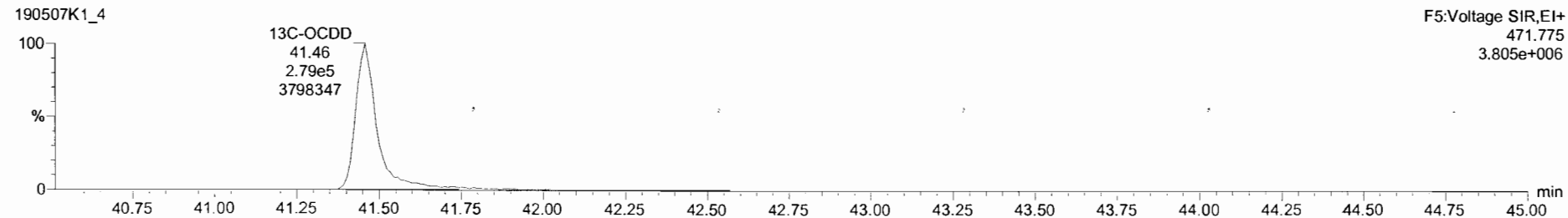
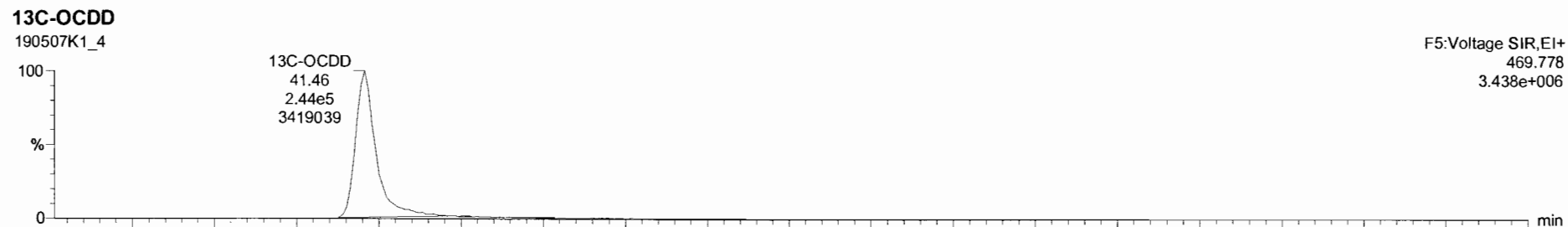
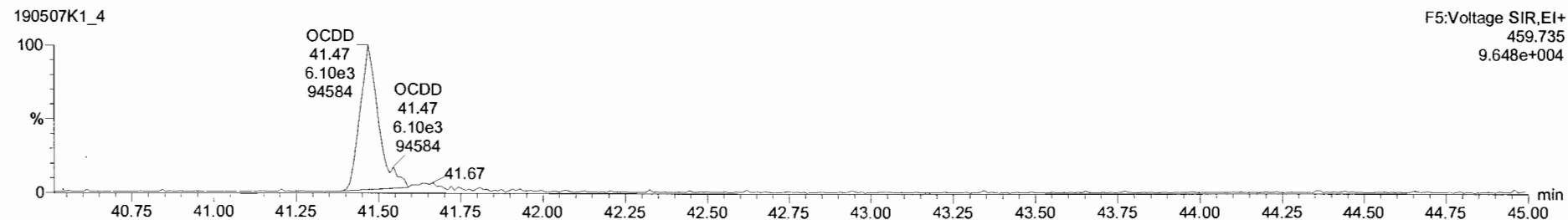
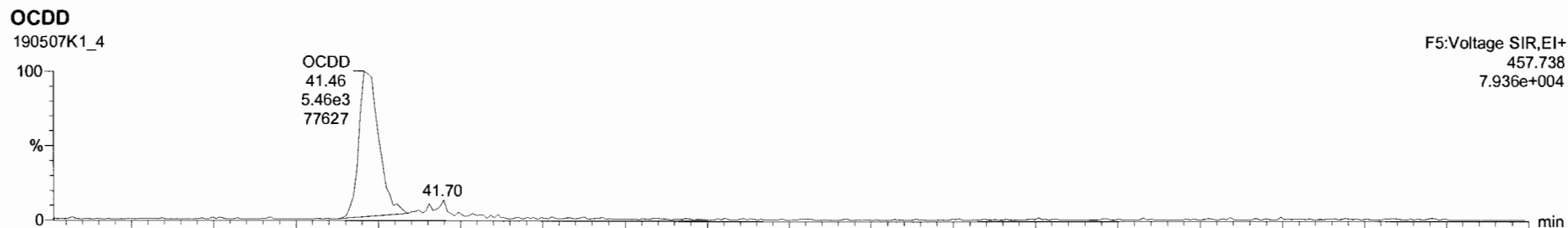


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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

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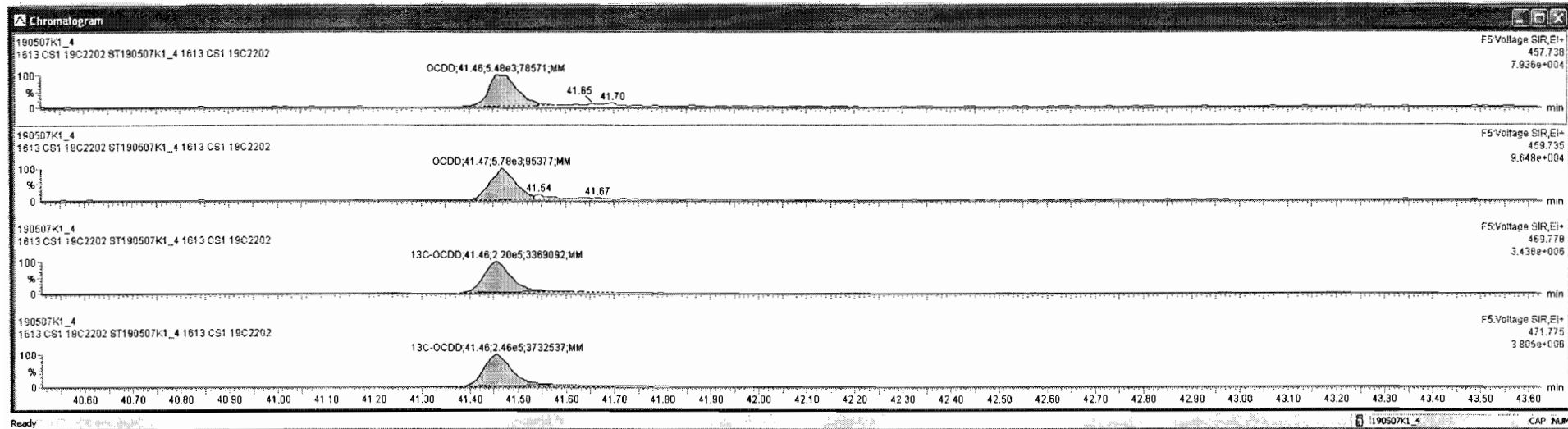


Target1.ynx - 190507K1-CRW.gld

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190507K1\_4-ST190507K1\_4 1613 CS1 19C2202- 1613 CS1 19C2202

Name	Resp	RA	nlv	RRF	retVal	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	6.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4 1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.29e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.462	96.4	0.0452	0.462
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.88	1.001	2.34	93.4	0.0875	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.16	1.000	2.42	96.9	0.139	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	36.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20 13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.86	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.08	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



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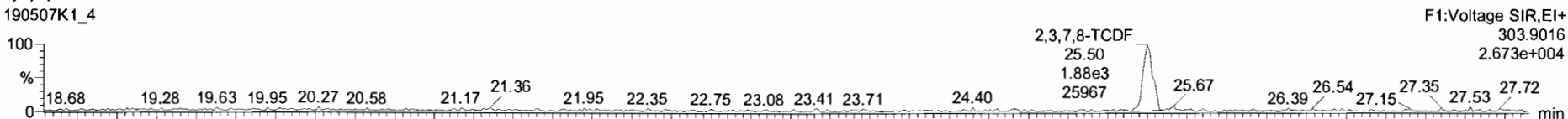
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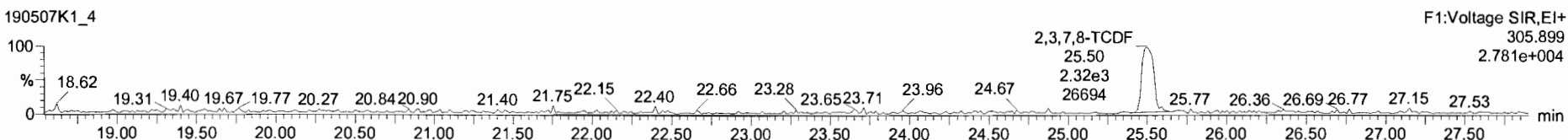
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**2,3,7,8-TCDF**

190507K1\_4

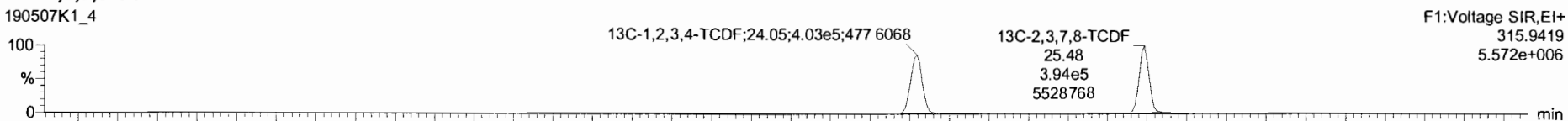


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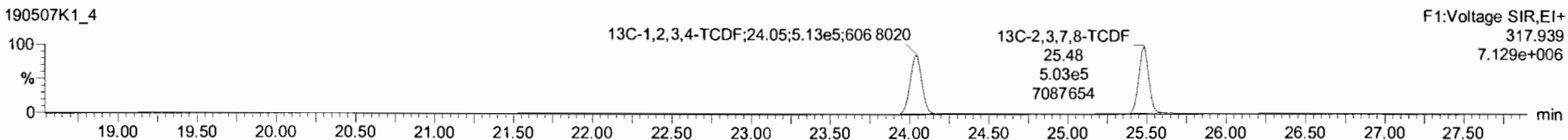


**13C-2,3,7,8-TCDF**

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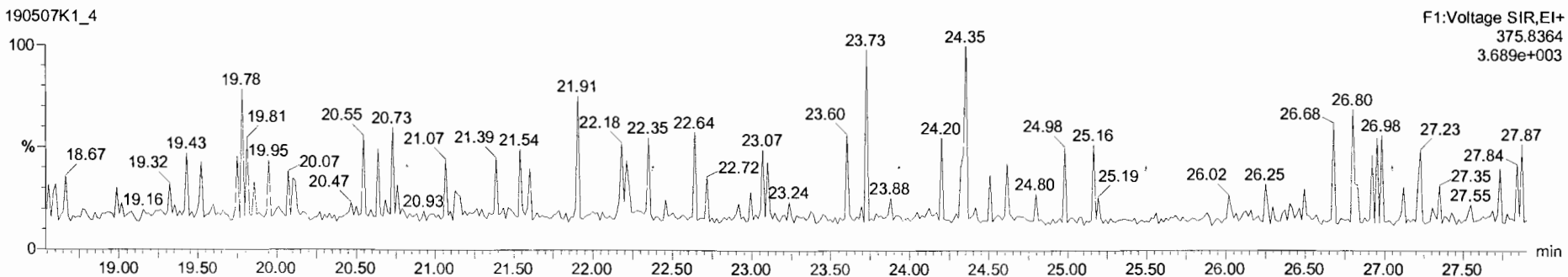


190507K1\_4



**DPE1**

190507K1\_4

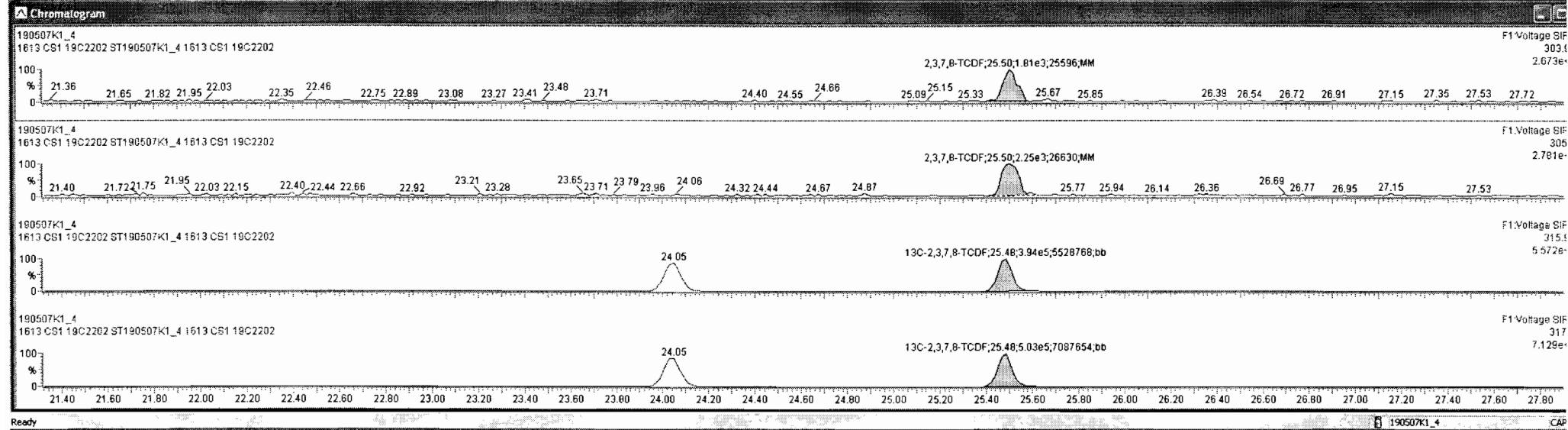






190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Name	Resp	RA	nY	RRF	wt/mol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0903	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0980	2.32
4 1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.46	99.1	0.118	2.46
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.16	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.38e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.84e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.85e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20 13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



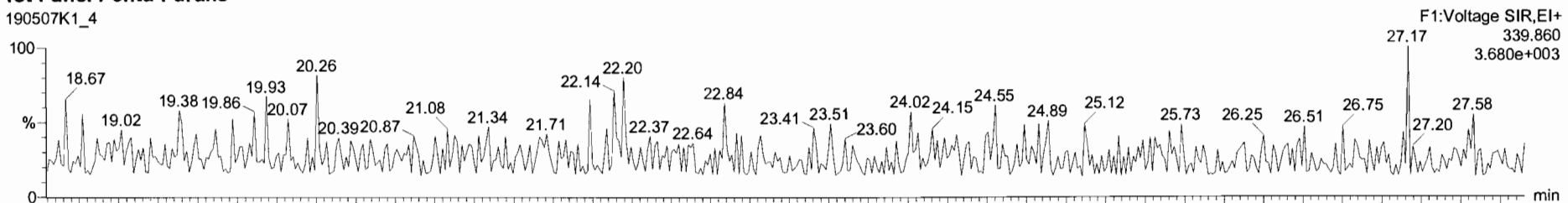
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

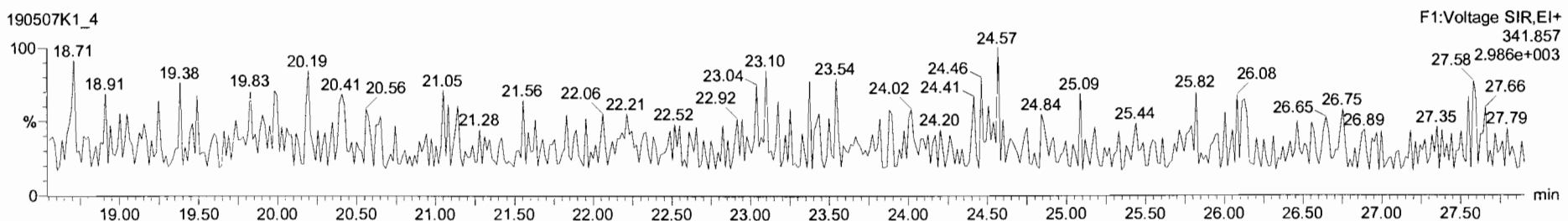
Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

1st Func. Penta-Furans

190507K1\_4

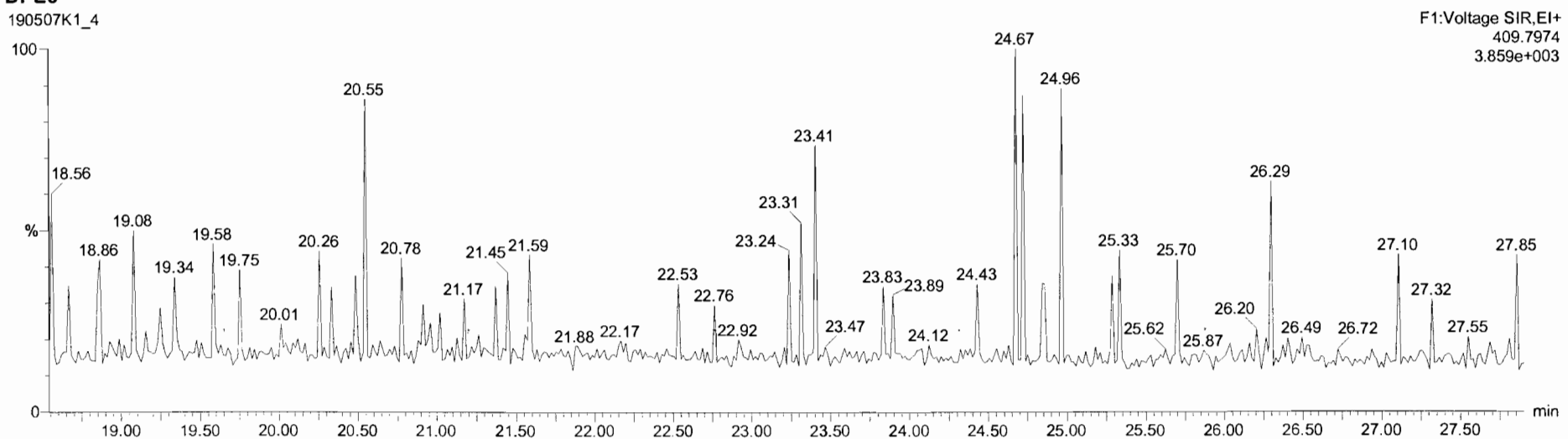


190507K1\_4



DPE6

190507K1\_4



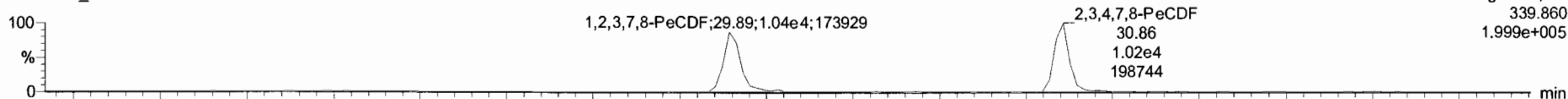
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
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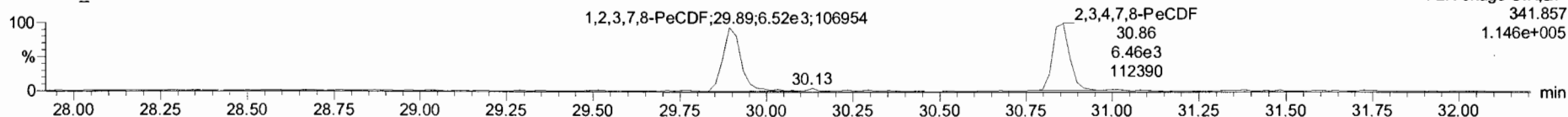
Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

**1,2,3,7,8-PeCDF**

190507K1\_4

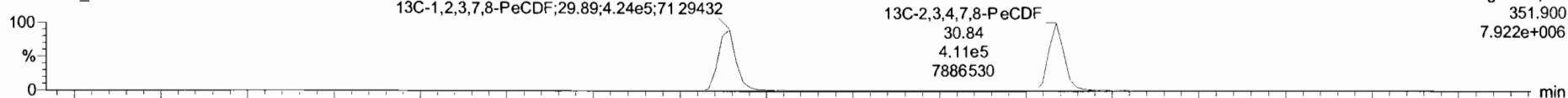


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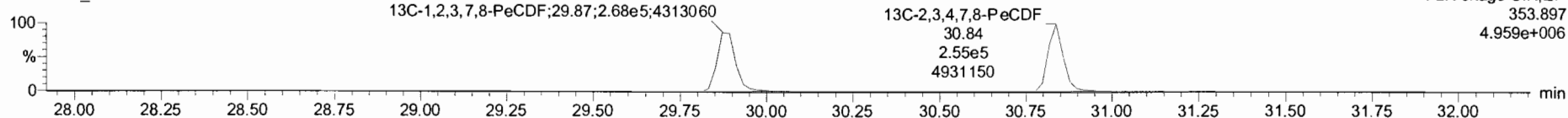


**13C-1,2,3,7,8-PeCDF**

190507K1\_4

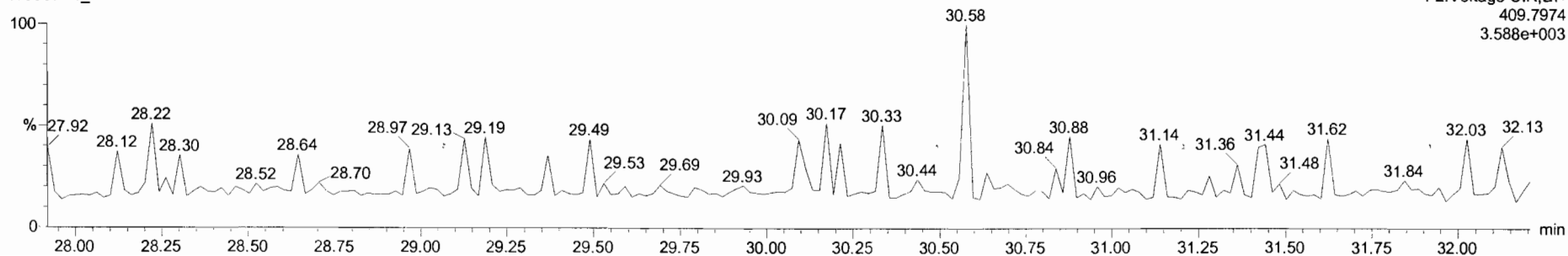


190507K1\_4



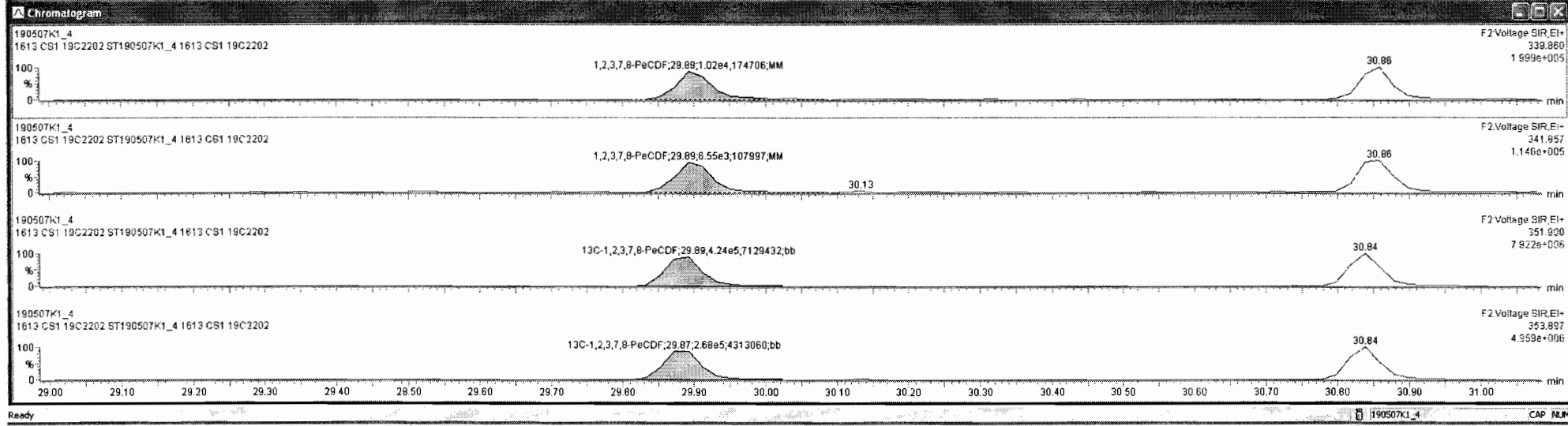
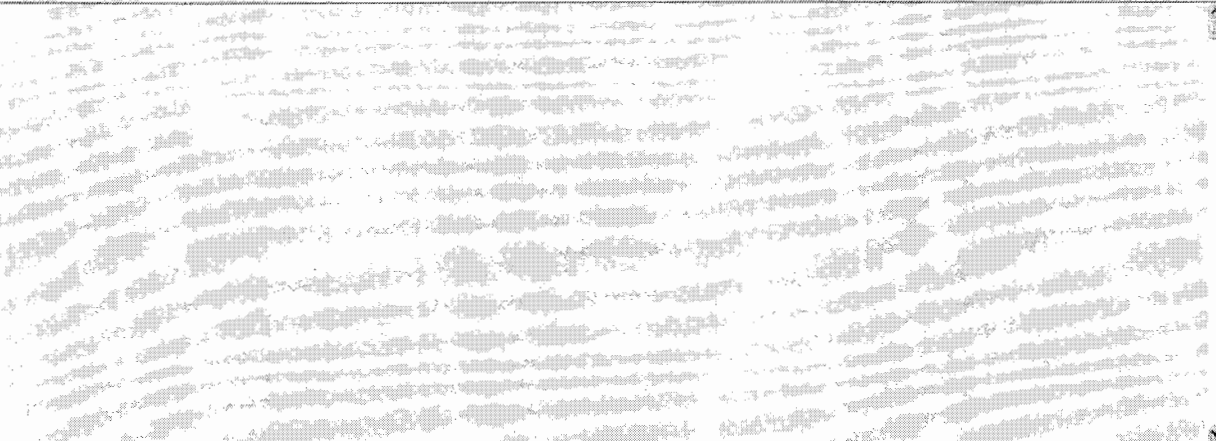
**DPE2**

190507K1\_4



190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Name	Resp	RA	n/y	RRF	wi/wi	RT	RRT	Conc	%Rec	DL	EMCC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4 1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.26e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	98.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0948	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	36.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20 13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.8	93.8	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



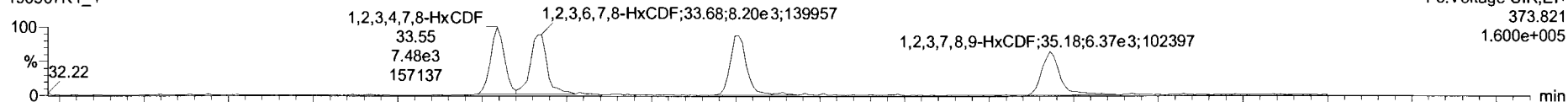
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

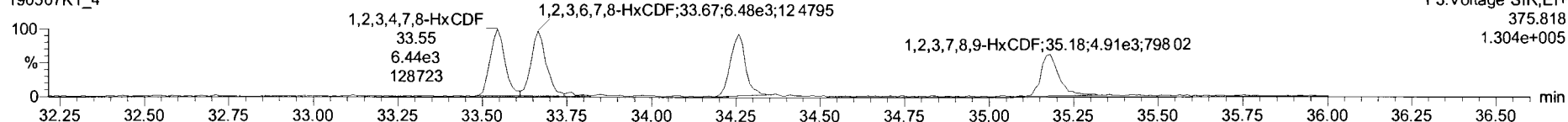
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**1,2,3,4,7,8-HxCDF**

190507K1\_4

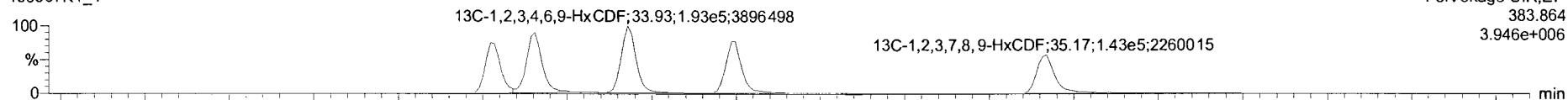


190507K1\_4

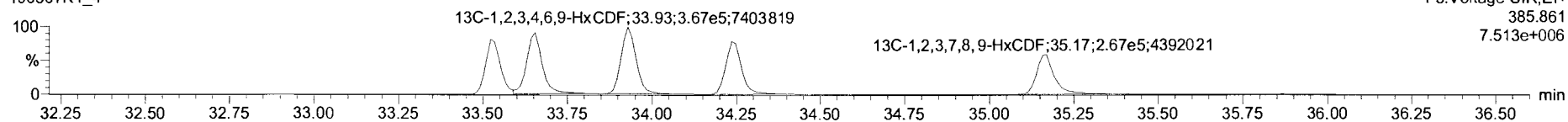


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_4

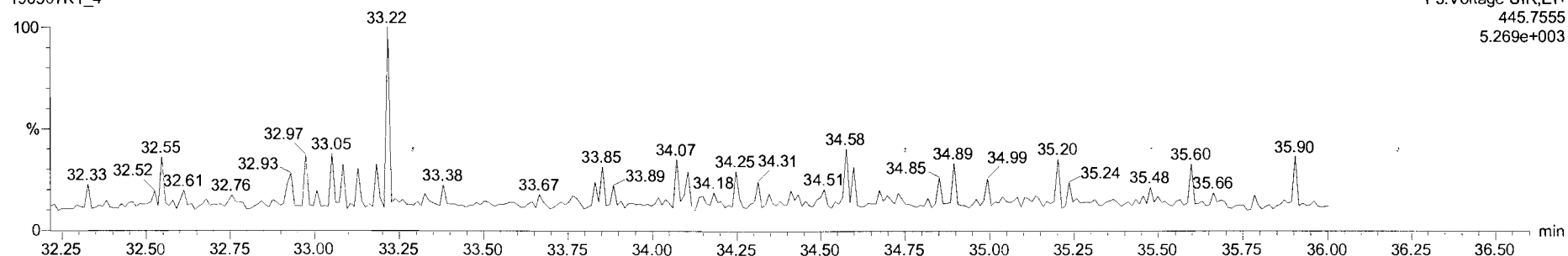


190507K1\_4



**DPE3**

190507K1\_4

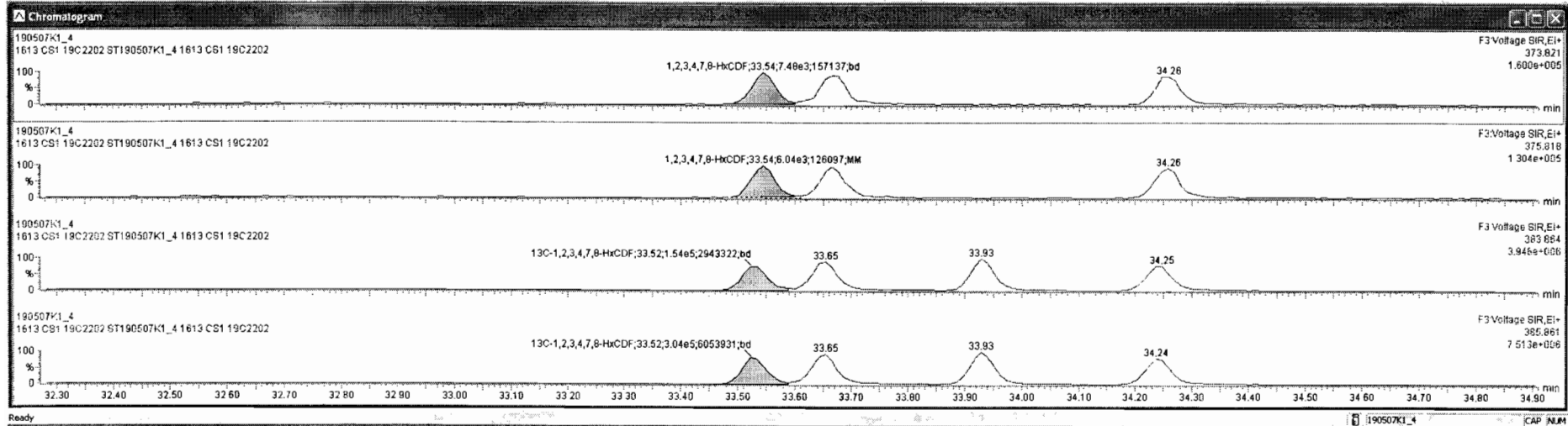


Target1.ynx - 190507K1\_CRV.gld

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190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

KL	Name	Resp	RA	Hy	RHF	WtVol	RT	RRT	Conc	%Rec	DL	EMPG
1	2,3,7,8-TCDD	315e3	0.80	NO	0.92	1.000	26.26	1.001	0.513	103	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	2,3,7,8-TCDF	4.08e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HxCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18	13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	

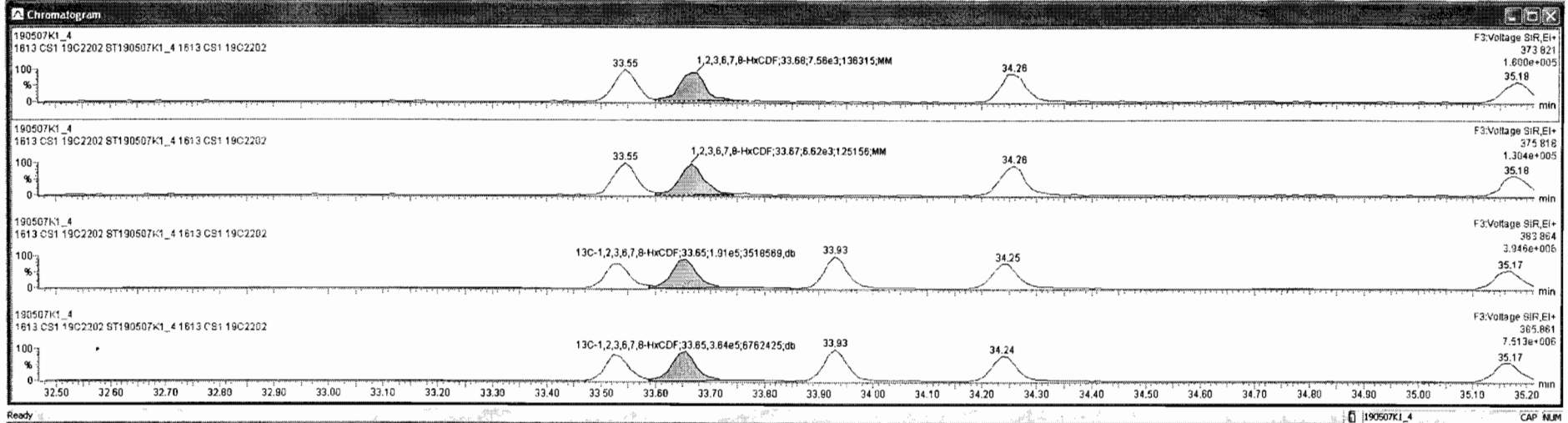


Target\_vnx - 190507K1\_CRV.qld

File Edit View Display Processing Window Help

190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

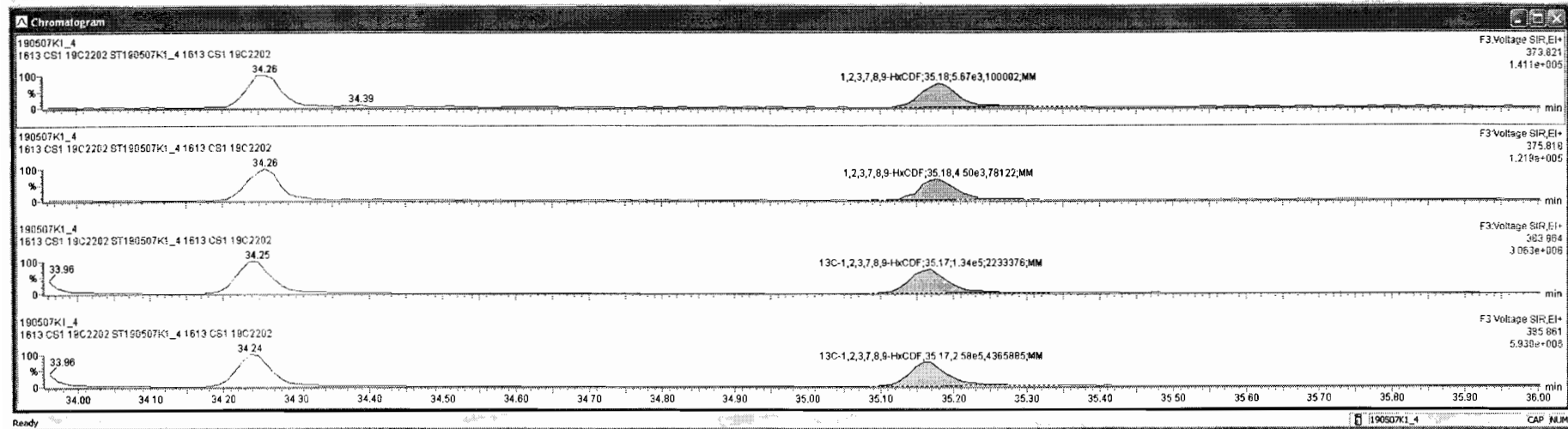
#	Name	Resp	RA	INJ	RPF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.03	1.000	33.68	1.001	2.34	93.4	0.0975	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HxCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.58e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18	13C-2,3,7,8-TCDD	6.84e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.85e5	0.84	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	36.30	1.129	89.5	89.5	0.511	



TargetLynx - 190507K1\_CRY.gld  
 File Edit View Display Processing Window Help

190507K1\_4 # ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Peak	Name	Resp	RA	nW	RRF	WtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	28.38	1.001	0.513	100	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	100	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	100	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	98.5	0.150	4.97
8	2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0877	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.85	1.001	2.50	100	0.0598	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.16	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.25	NO	1.07	1.000	35.19	1.000	2.42	96.8	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.8	0.119	2.44
16	1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.85	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.58e4	0.88	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18	13C-2,3,7,8-TCDD	6.84e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.85	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.86	1.000	34.78	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	





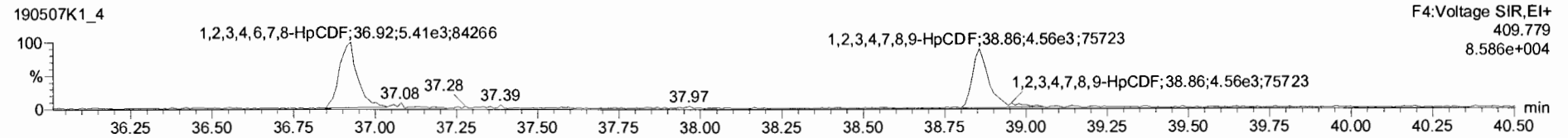
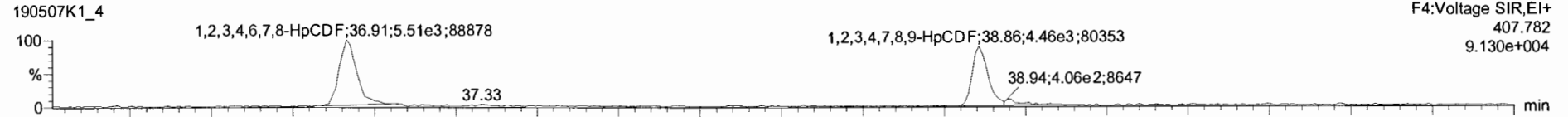
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

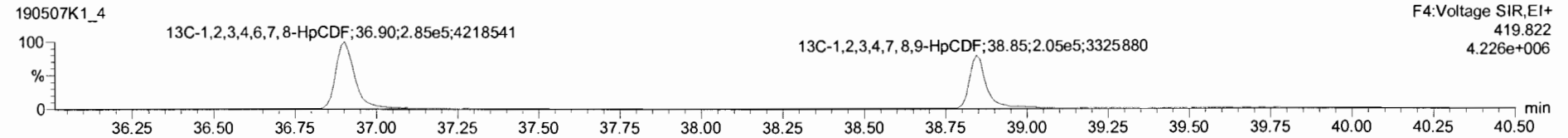
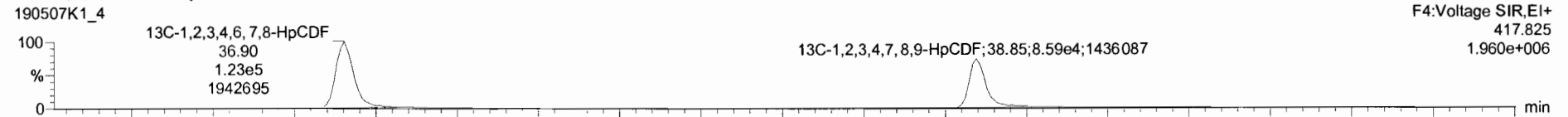
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Name: 190507K1\_4, Date: 07-May-2019, Time: 13:04:59, ID: ST190507K1\_4 1613 CS1 19C2202, Description: 1613 CS1 19C2202

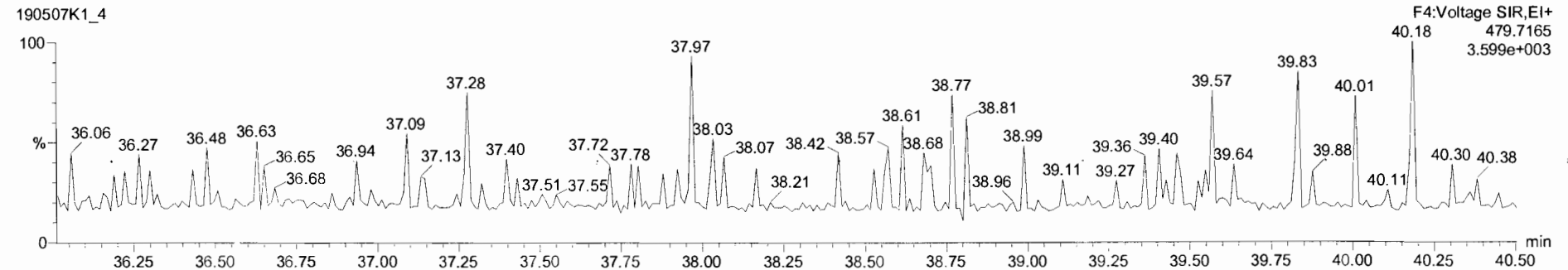
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



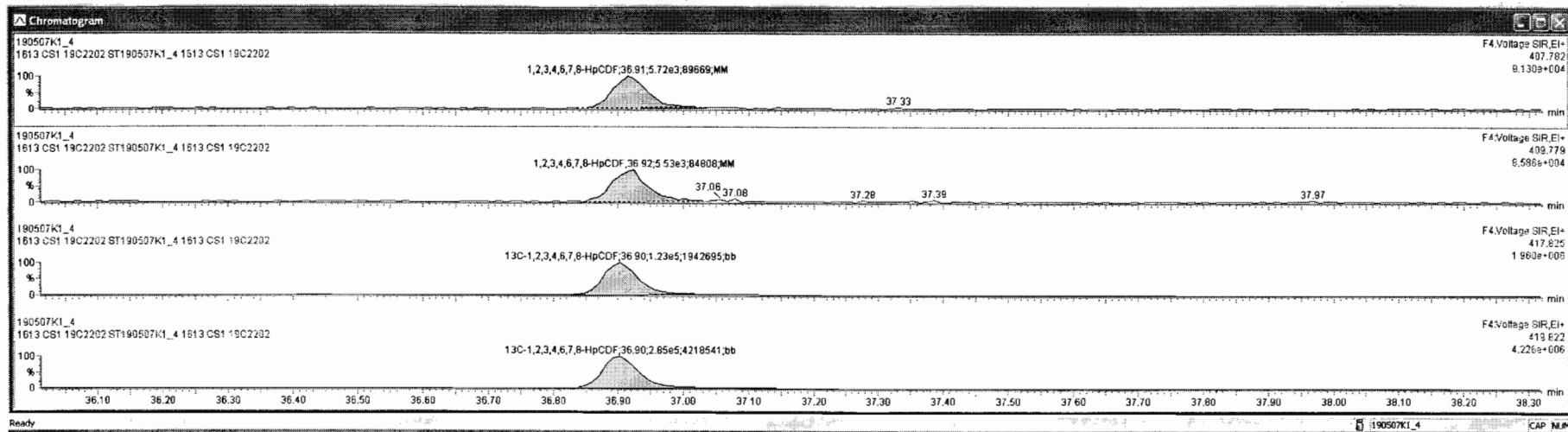
**DPE4**



Target.ynx - 190507K1\_CRV.gld  
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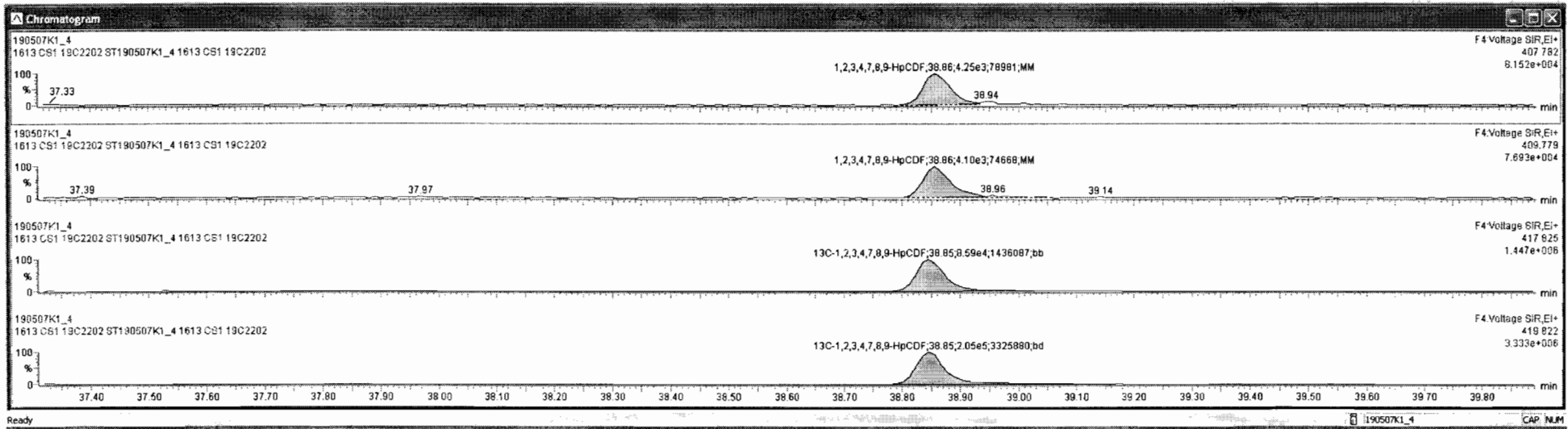
190507K1\_4 - ST190507K1\_4\_1613 CS1 19C2202 - 1613 CS1 19C2202

Name	Resp	RA	NY	RRR	WAVG	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	8.55e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0890	2.32
4 1,2,3,6,7,8-HxCDD	8.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.26e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	86.4	0.0452	0.482
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.36	95.1	0.0697	2.36
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0675	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.59e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.54e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.85e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20 13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

Name	Resp	RA	nY	RRF	wtArd	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2 1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3 1,2,3,4,7,8-HxCDD	6.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0690	2.32
4 1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5 1,2,3,7,8,9-HxCDD	8.29e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6 1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7 OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8 2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9 1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	99.3	0.0677	2.48
10 2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0598	2.50
11 1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.38	95.1	0.0897	2.38
12 1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13 2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14 1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15 1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16 1,2,3,4,7,8,9-HpCDF	8.39e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17 OCDF	1.59e4	0.89	NO	1.10	1.000	41.70	1.000	4.54	90.8	0.195	4.54
18 13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19 13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.391	
20 13C-1,2,3,4,7,8-HxCDD	3.48e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21 13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.28	NO	0.66	1.000	34.78	1.025	92.7	92.7	0.407	
23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



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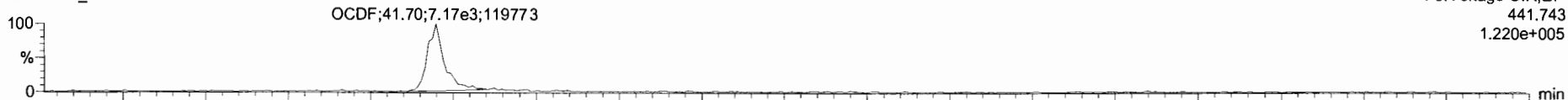
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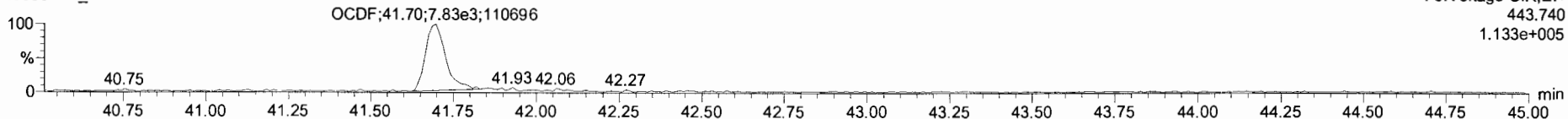
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**OCDF**

190507K1\_4

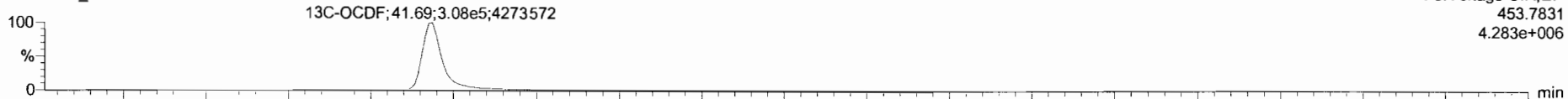


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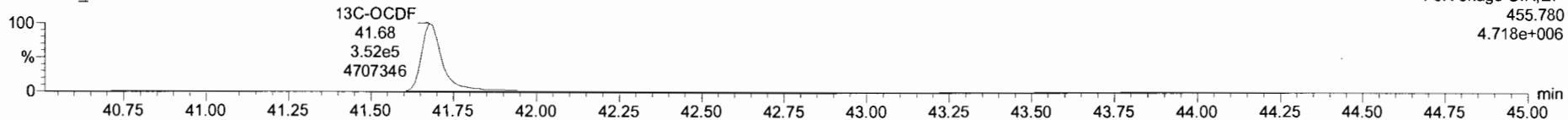


**13C-OCDF**

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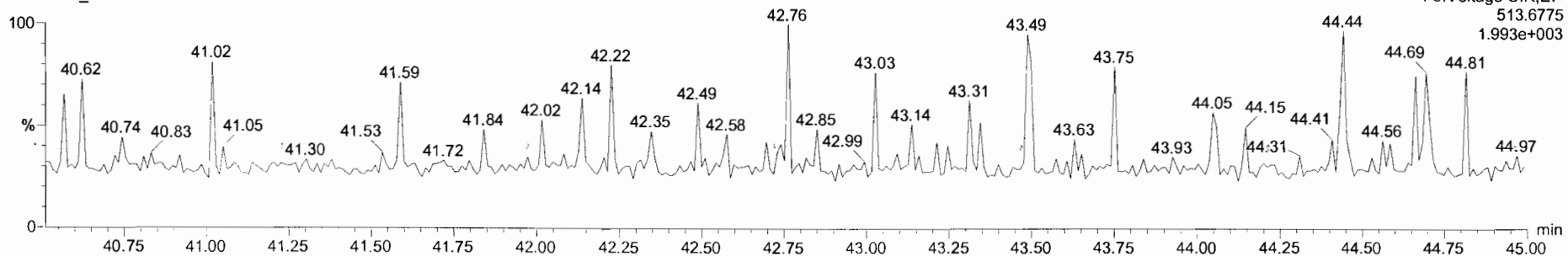


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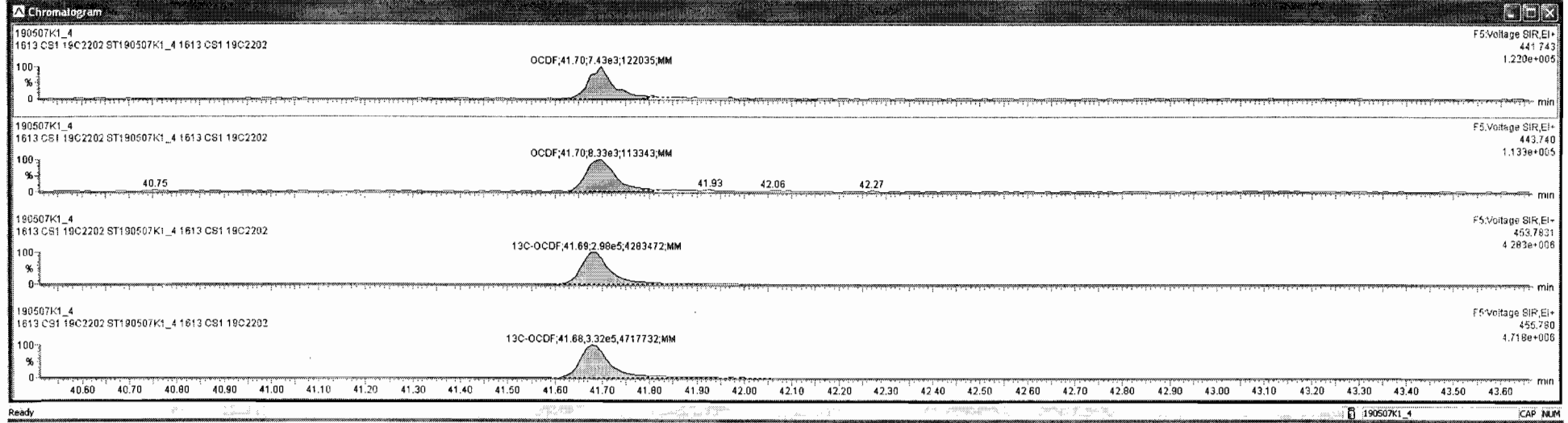
**DPE5**

190507K1\_4



190507K1\_4 - ST190507K1\_4 1613 CS1 19C2202 - 1613 CS1 19C2202

1	Name	Resp	RA	nNy	RRF	WtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	3.15e3	0.80	NO	0.92	1.000	26.36	1.001	0.513	103	0.0603	0.514
2	1,2,3,7,8-PeCDD	1.07e4	0.57	NO	0.90	1.000	31.14	1.001	2.54	102	0.0752	2.54
3	1,2,3,4,7,8-HxCDD	8.65e3	1.25	NO	1.07	1.000	34.41	1.000	2.32	92.6	0.0990	2.32
4	1,2,3,6,7,8-HxCDD	9.34e3	1.17	NO	0.97	1.000	34.53	1.001	2.37	94.9	0.107	2.37
5	1,2,3,7,8,9-HxCDD	8.28e3	1.22	NO	0.97	1.000	34.80	1.000	2.48	99.1	0.118	2.48
6	1,2,3,4,6,7,8-HpCDD	7.08e3	1.16	NO	1.03	1.000	38.31	1.000	2.55	102	0.102	2.55
7	OCDD	1.13e4	0.95	NO	0.97	1.000	41.46	1.000	4.97	99.5	0.150	4.97
8	2,3,7,8-TCDF	4.06e3	0.80	NO	0.94	1.000	25.50	1.001	0.482	96.4	0.0452	0.482
9	1,2,3,7,8-PeCDF	1.67e4	1.55	NO	0.97	1.000	29.89	1.000	2.48	98.3	0.0677	2.48
10	2,3,4,7,8-PeCDF	1.67e4	1.59	NO	1.00	1.000	30.86	1.001	2.50	100	0.0596	2.50
11	1,2,3,4,7,8-HxCDF	1.35e4	1.24	NO	1.24	1.000	33.54	1.001	2.36	95.1	0.0897	2.36
12	1,2,3,6,7,8-HxCDF	1.42e4	1.14	NO	1.09	1.000	33.68	1.001	2.34	93.4	0.0875	2.34
13	2,3,4,6,7,8-HxCDF	1.40e4	1.27	NO	1.18	1.000	34.26	1.000	2.43	97.3	0.0946	2.43
14	1,2,3,7,8,9-HxCDF	1.02e4	1.26	NO	1.07	1.000	35.18	1.000	2.42	96.9	0.139	2.42
15	1,2,3,4,6,7,8-HpCDF	1.12e4	1.03	NO	1.13	1.000	36.91	1.000	2.44	97.6	0.119	2.44
16	1,2,3,4,7,8,9-HpCDF	8.36e3	1.04	NO	1.26	1.000	38.86	1.000	2.28	91.4	0.141	2.28
17	OCDF	1.56e4	0.88	NO	1.10	1.000	41.70	1.000	4.54	90.6	0.195	4.54
18	13C-2,3,7,8-TCDD	6.64e5	0.78	NO	1.05	1.000	26.33	1.026	100	100	0.249	
19	13C-1,2,3,7,8-PeCDD	4.65e5	0.64	NO	0.74	1.000	31.12	1.212	99.1	99.1	0.331	
20	13C-1,2,3,4,7,8-HxCDD	3.49e5	1.31	NO	0.65	1.000	34.40	1.014	96.7	96.7	0.418	
21	13C-1,2,3,6,7,8-HxCDD	4.07e5	1.28	NO	0.78	1.000	34.51	1.017	93.6	93.6	0.348	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.26	NO	0.66	1.000	34.79	1.025	92.7	92.7	0.407	
23	13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.06	NO	0.54	1.000	38.30	1.129	89.5	89.5	0.511	



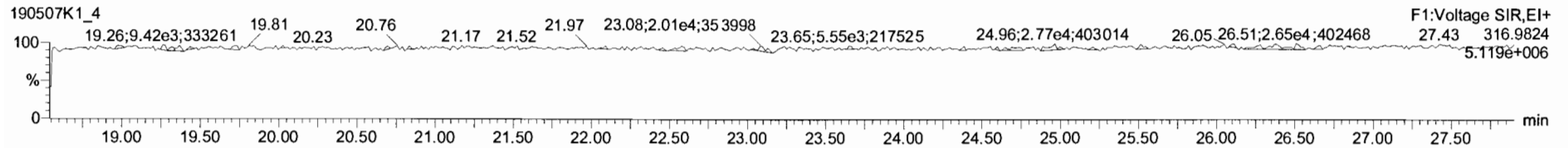
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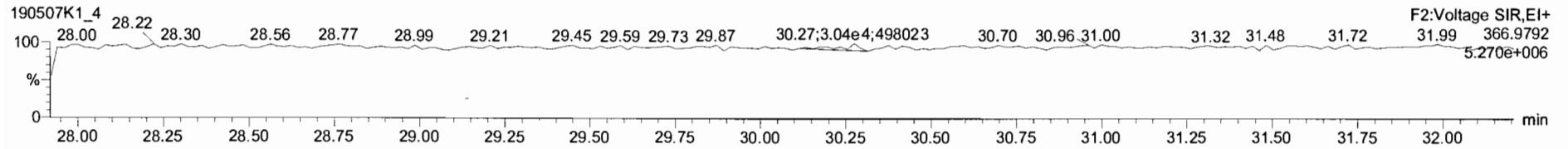
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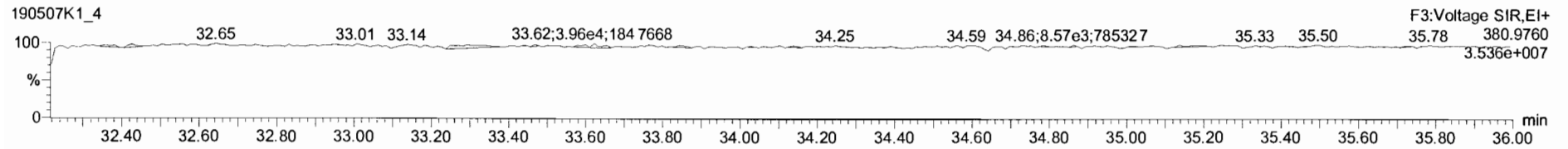
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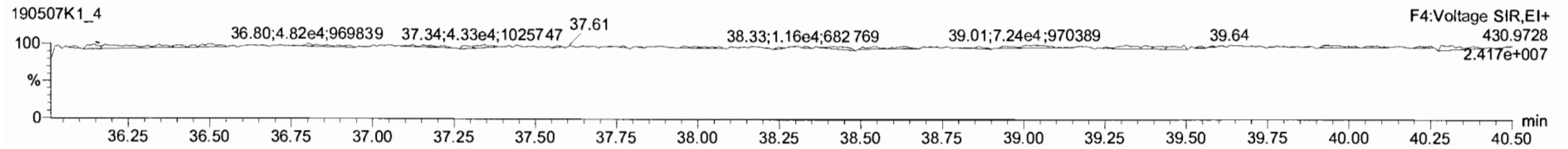
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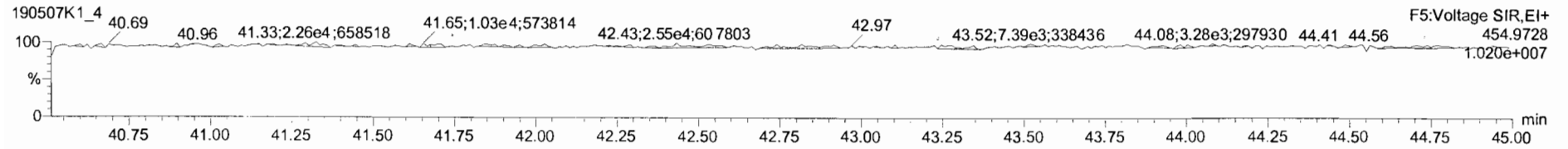
PFK3



PFK4



PFK5



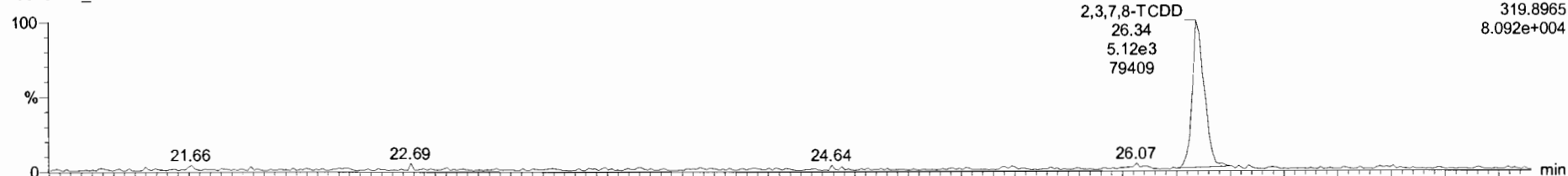
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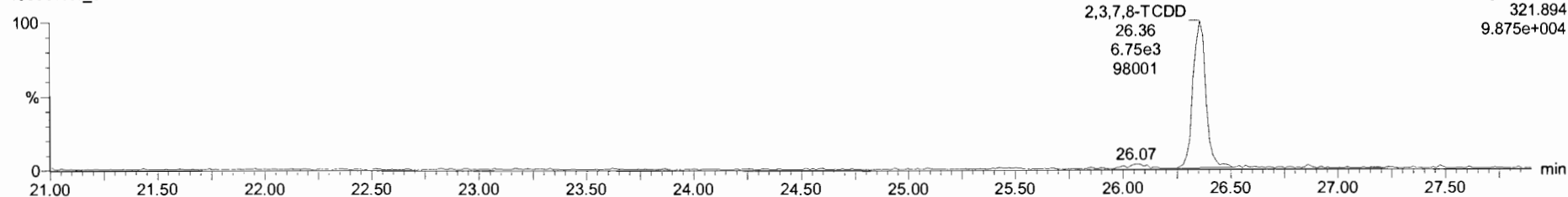
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**2,3,7,8-TCDD**

190507K1\_5



190507K1\_5

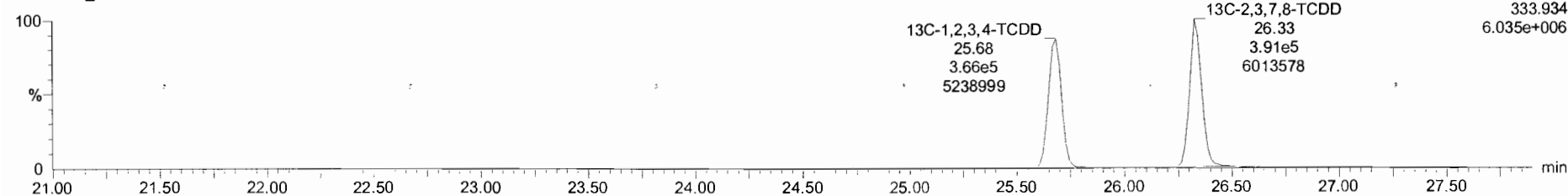


**13C-2,3,7,8-TCDD**

190507K1\_5



190507K1\_5

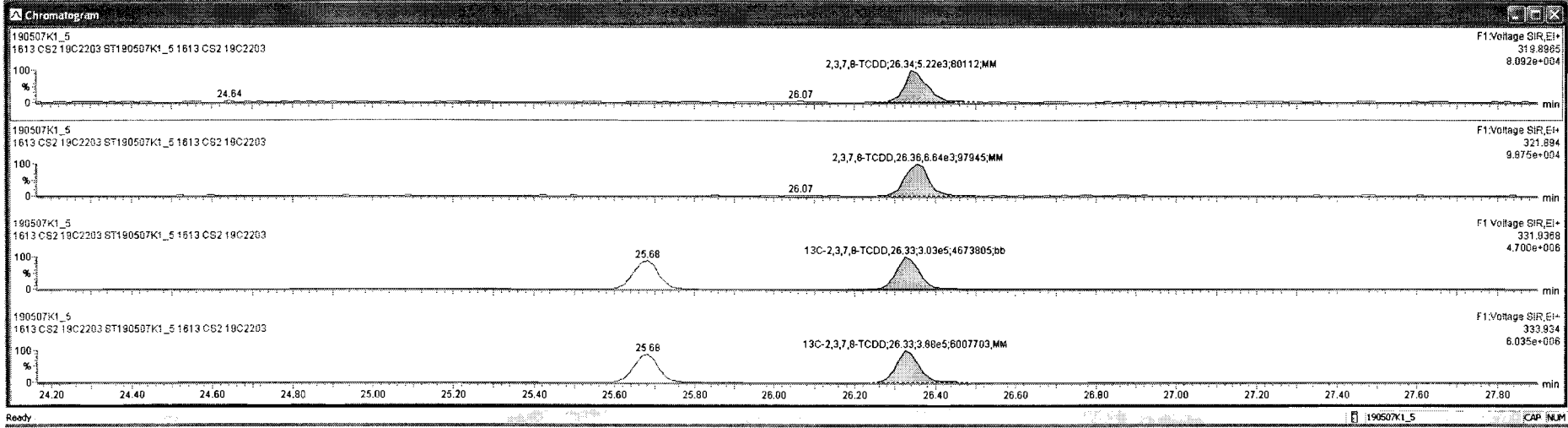


Targetlynx 190507K1.CRY.qtd

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190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	RY	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.00	26.34	1.001	1.85	92.7	0.0542	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.00	31.14	1.001	9.78	97.9	0.0751	9.78
3 1,2,3,4,7,8-HxCDD	3.88e4	1.24	NO	1.07	1.00	34.41	1.000	9.82	98.2	0.101	9.82
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.00	34.52	1.000	9.99	99.9	0.101	9.99
5 1,2,3,7,8,9-HxCDD	3.85e4	1.22	NO	0.97	1.00	34.80	1.000	9.56	95.6	0.115	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.00	38.31	1.000	9.56	95.6	0.144	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.00	41.47	1.000	19.2	95.8	0.204	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.00	25.50	1.001	1.97	98.3	0.0457	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.85	NO	0.97	1.00	29.89	1.000	9.88	98.8	0.0670	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.00	30.86	1.001	9.42	94.2	0.0598	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.00	33.54	1.001	9.96	99.6	0.127	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.00	33.67	1.000	9.99	99.9	0.133	9.99
13 2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.00	34.26	1.001	9.67	96.7	0.136	9.66
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.00	35.18	1.000	10.1	101	0.218	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.00	36.91	1.000	9.80	98.0	0.161	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.00	38.86	1.000	9.02	90.2	0.189	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.00	41.69	1.000	17.2	96.1	0.218	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.00	26.33	1.025	99.9	99.9	0.195	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.00	31.12	1.212	96.5	96.5	0.310	
20 13C-1,2,3,4,7,8-HxCDD	3.69e5	1.32	NO	0.85	1.00	34.40	1.014	99.7	99.7	0.476	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.00	34.51	1.017	96.7	96.7	0.396	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.88	1.00	34.78	1.025	103	103	0.484	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.00	38.30	1.129	98.2	98.2	0.458	





Dataset: Untitled

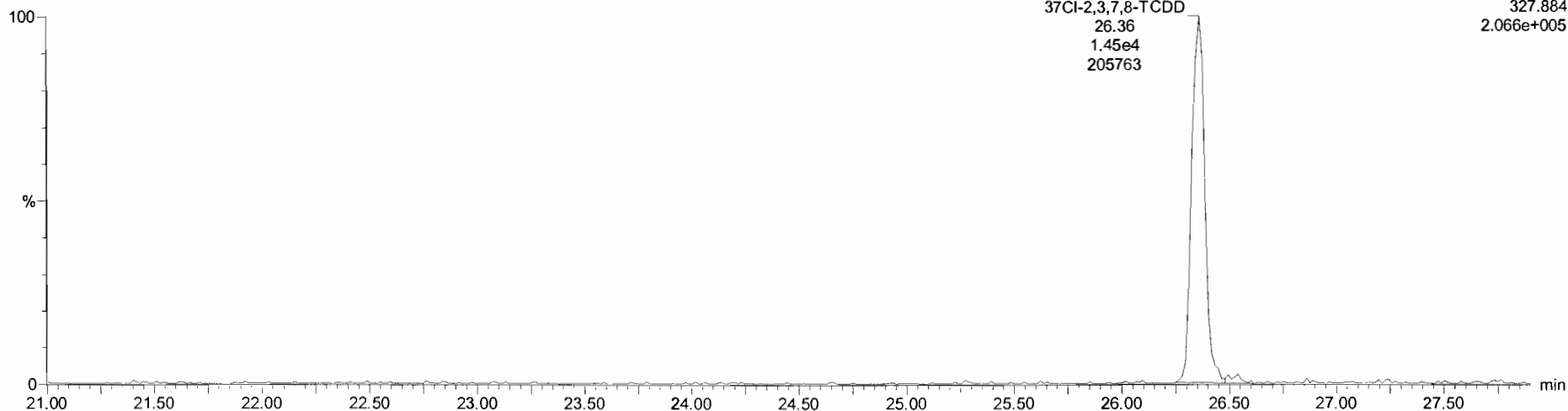
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

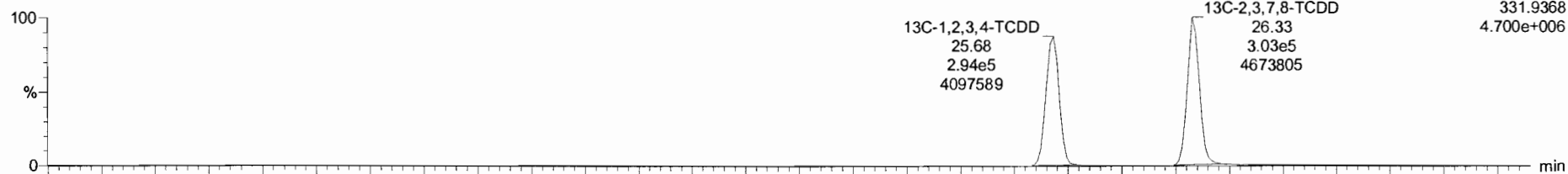
**37Cl-2,3,7,8-TCDD**

190507K1\_5

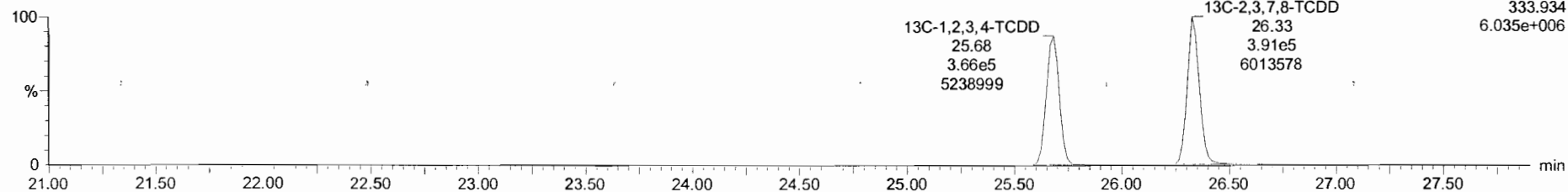


**13C-1,2,3,4-TCDD**

190507K1\_5



190507K1\_5



Dataset: Untitled

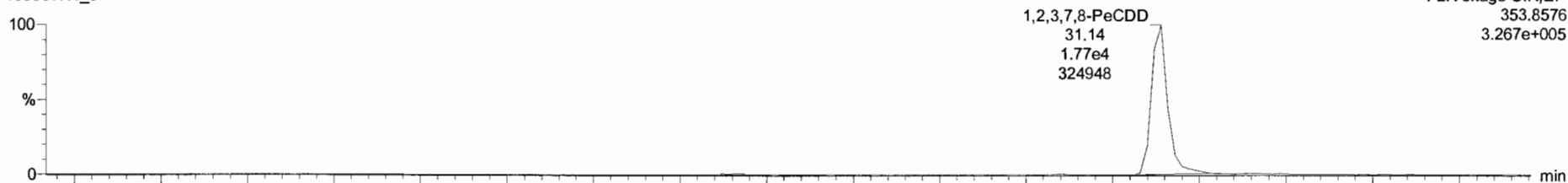
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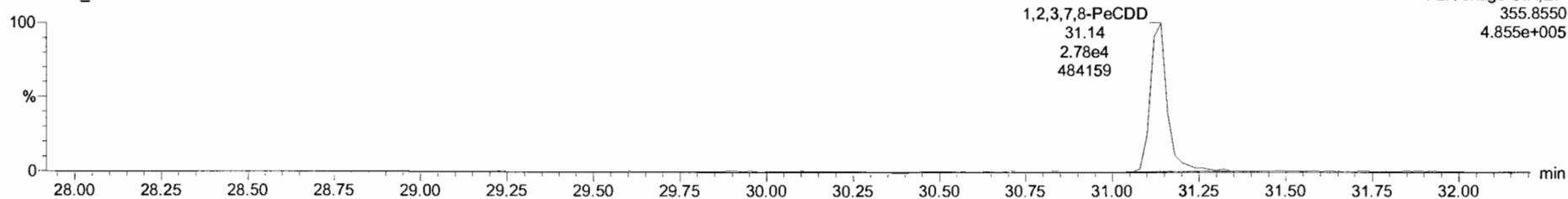
Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

**1,2,3,7,8-PeCDD**

190507K1\_5

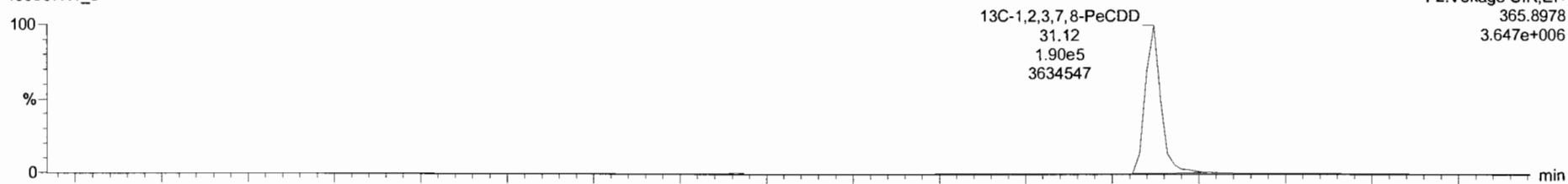


190507K1\_5

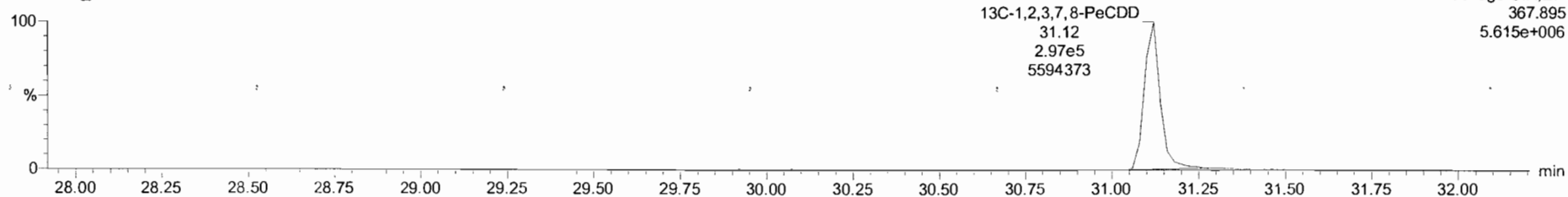


**13C-1,2,3,7,8-PeCDD**

190507K1\_5



190507K1\_5

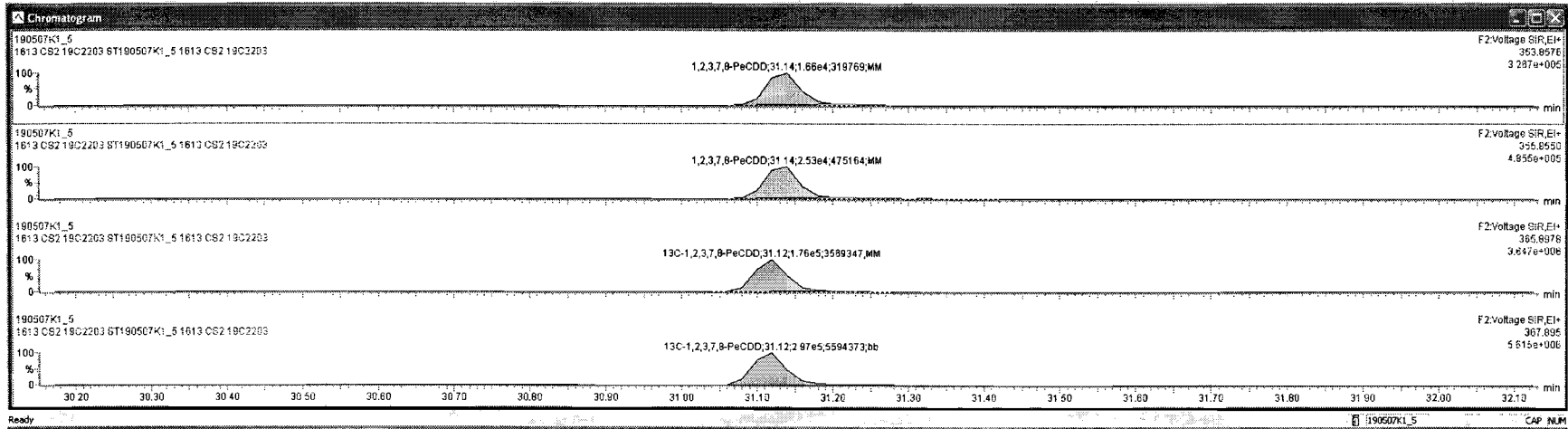


Target: ymx - 190507K1-CRV.qld

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190507K1\_5-ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Peak	Name	Resp	RA	nV	RPF	wt/wt	RT	RRT	Conc.	%Rec	DL	EMPC
1	1,2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0542	1.85
2	1,2,3,7,8-PeCDD	4.16e4	0.66	NO	0.96	1.000	31.34	1.001	9.79	97.9	0.0251	0.78
3	1,2,3,4,7,8-HxCDD	3.88e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.101	9.82
4	1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.101	9.99
5	1,2,3,7,8,9-HxCDD	3.85e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.115	9.56
6	1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.144	9.56
7	OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.204	19.2
8	2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	99.3	0.0457	1.97
9	1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.89	99.6	0.0670	9.89
10	2,3,4,7,8-PeCDF	6.92e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0559	9.42
11	1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.127	9.96
12	1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.000	33.67	1.003	9.89	99.9	0.133	9.99
13	2,3,4,6,7,8-HxCDF	5.78e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.136	9.66
14	1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.219	10.1
15	1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.181	9.80
16	1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.92	99.2	0.169	9.92
17	OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.002	17.2	86.1	0.218	17.2
18	13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.195	
19	13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.310	
20	13C-1,2,3,4,7,8-HxCDD	3.69e5	1.32	NO	0.65	1.000	34.40	1.014	99.7	99.7	0.476	
21	13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.398	
22	13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.464	
23	13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	98.2	98.2	0.456	



Dataset: Untitled

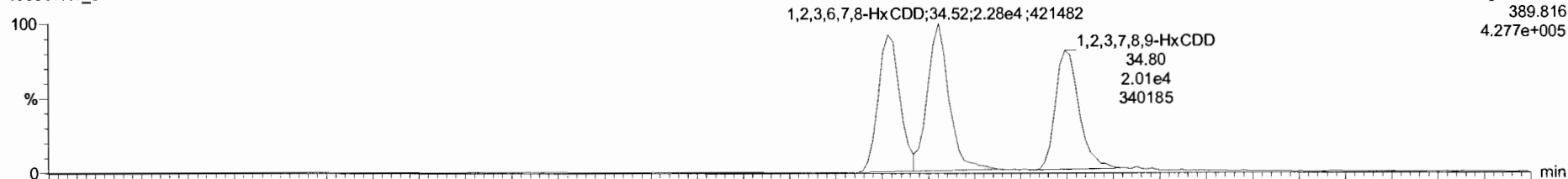
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

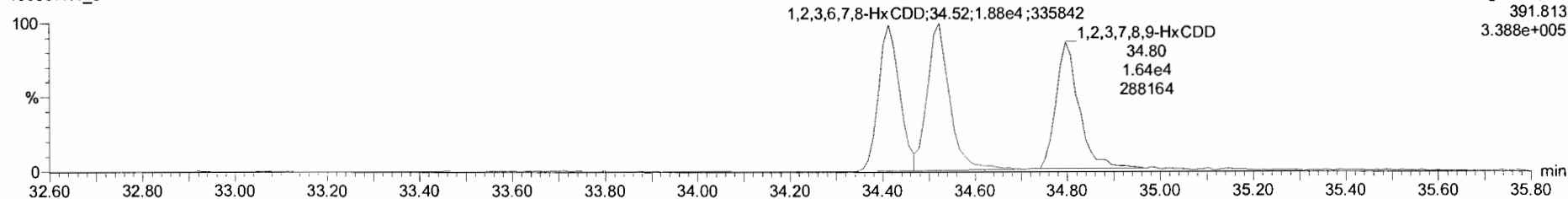
Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

**1,2,3,4,7,8-HxCDD**

190507K1\_5

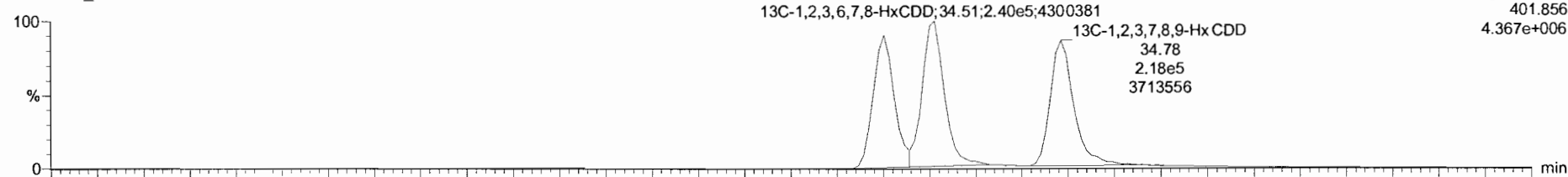


190507K1\_5

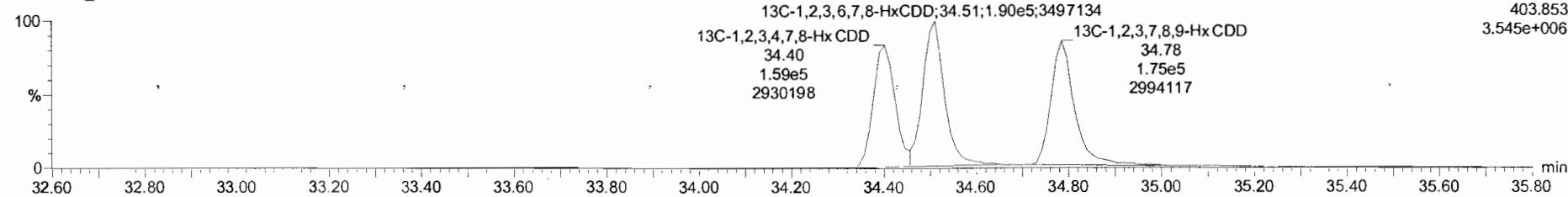


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_5



190507K1\_5

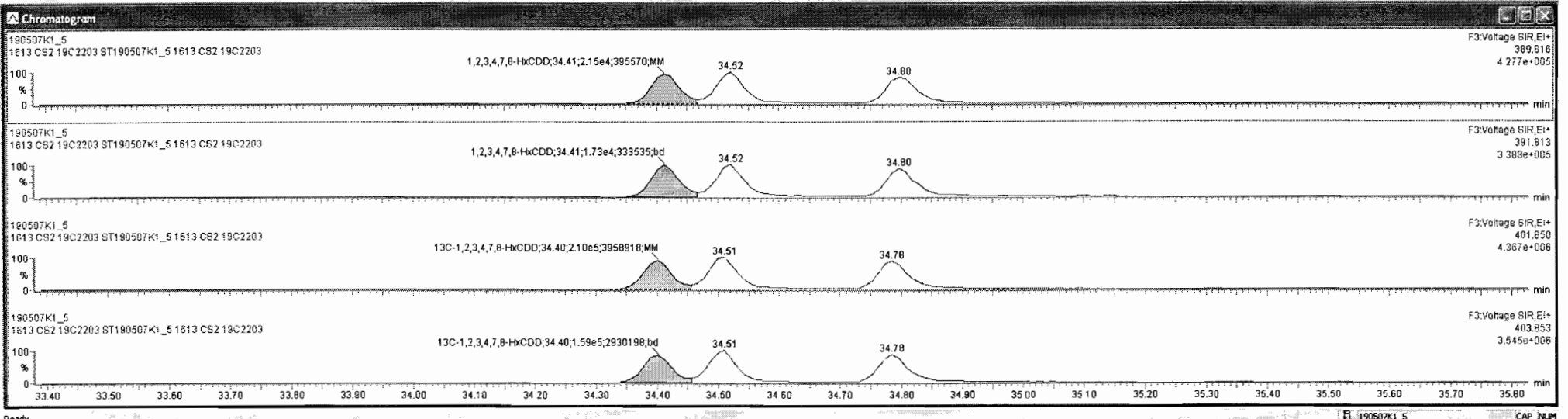


Target1.ymx - 190507K1.CRV.qld

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190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC	
1	2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0542	1.85
2	1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0751	9.78
3	1,2,3,4,7,8-HxCDD	3.88e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.101	9.82
4	1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.101	9.99
5	1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.115	9.56
6	1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.144	9.56
7	OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.204	19.2
8	2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0457	1.97
9	1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0670	9.88
10	2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.85	1.001	9.42	94.2	0.0558	9.42
11	1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.98	99.6	0.127	9.98
12	1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.000	33.67	1.000	9.99	99.9	0.133	9.99
13	2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.136	9.66
14	1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.218	10.1
15	1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.161	9.80
16	1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.169	9.02
17	OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.000	17.2	96.1	0.218	17.2
18	13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.195	
19	13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.310	
20	13C-1,2,3,4,7,8-HxCDD	3.69e5	1.32	NO	0.85	1.000	34.40	1.014	99.7	99.7	0.476	
21	13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.396	
22	13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.86	1.000	34.78	1.025	103	103	0.464	
23	13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	98.2	98.2	0.456	



Dataset: Untitled

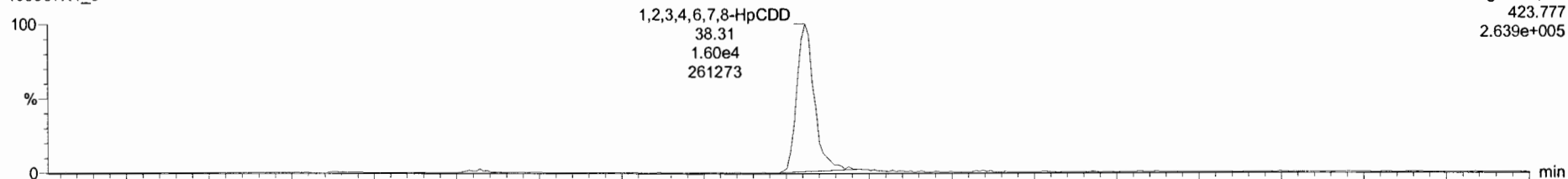
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

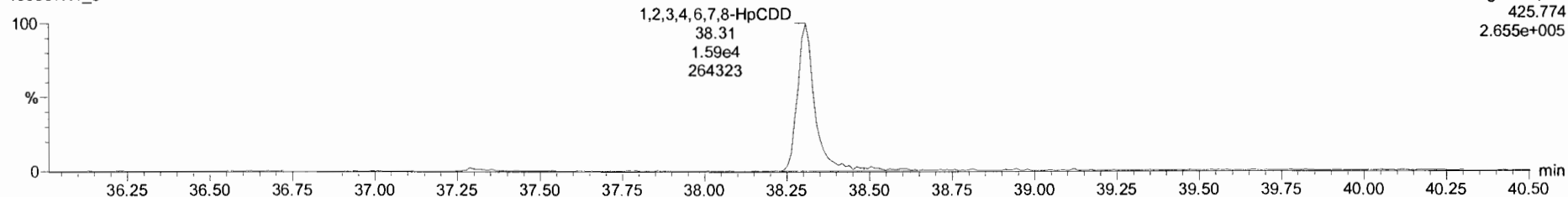
Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

**1,2,3,4,6,7,8-HpCDD**

190507K1\_5

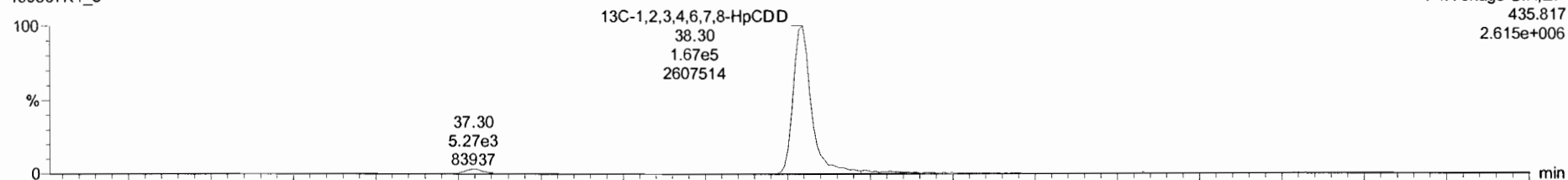


190507K1\_5

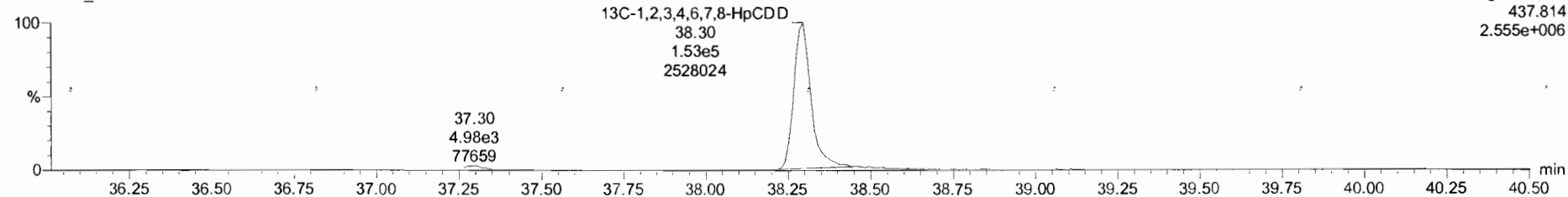


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_5



190507K1\_5

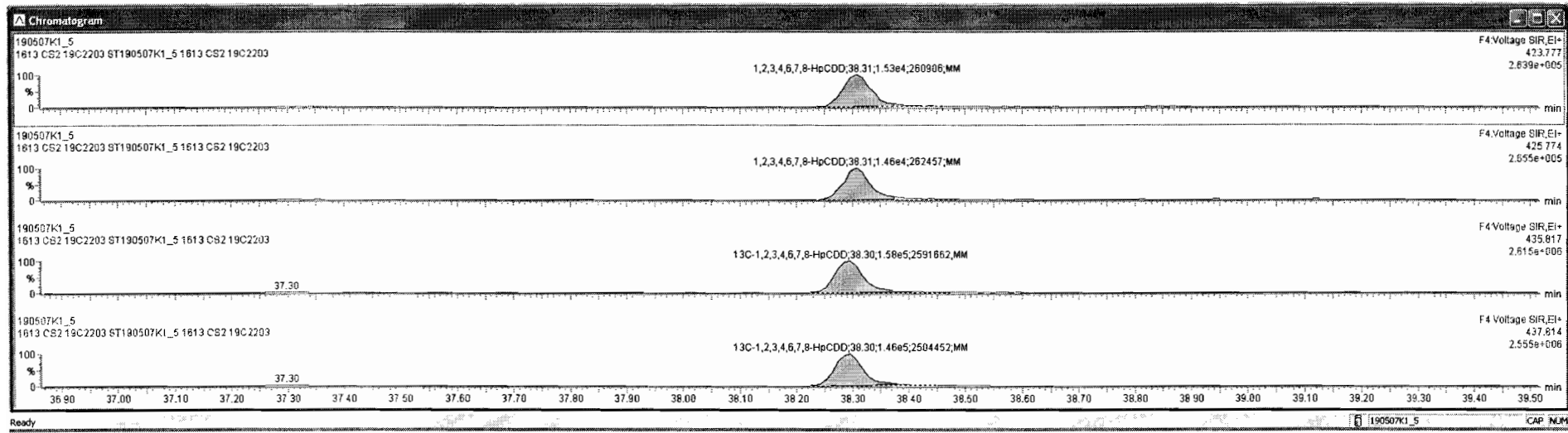


TargetLynx - 190507K1.CRV.gld

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190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	PA	nV	RRF	wtVol	RT	RR1	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.78	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0542	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0751	9.78
3 1,2,3,4,7,8-HxCDD	3.88e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.101	9.82
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.101	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.60	1.000	9.56	95.6	0.115	9.56
6 1,2,3,4,6,7,8-HpCDD	2.28e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.144	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.9	0.204	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0457	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0670	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0559	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.127	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.000	33.67	1.000	9.99	99.9	0.133	9.99
13 2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.136	9.66
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.218	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.21	1.000	9.80	98.0	0.161	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.169	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.000	17.2	86.1	0.218	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.195	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.310	
20 13C-1,2,3,4,7,8-HxCDD	3.89e5	1.32	NO	0.85	1.000	34.40	1.014	99.7	99.7	0.476	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.396	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.464	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	98.2	98.2	0.456	



Dataset: Untitled

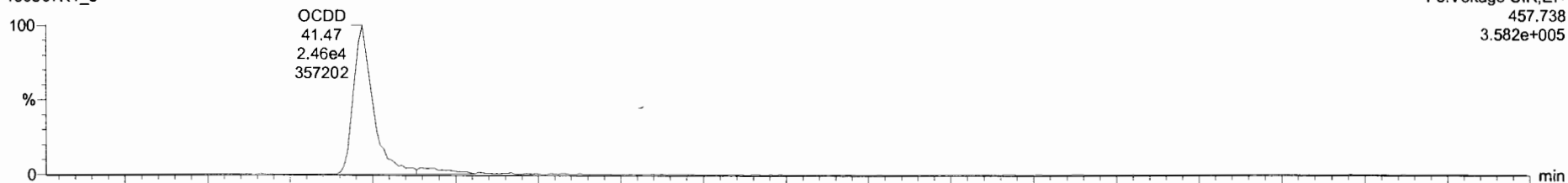
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

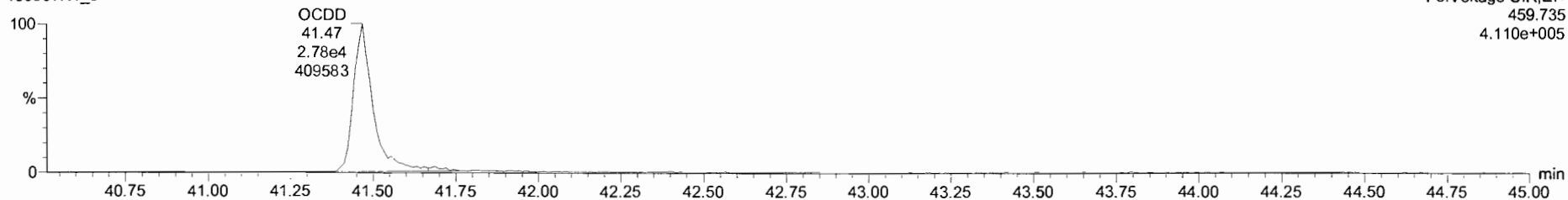
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**OCDD**

190507K1\_5

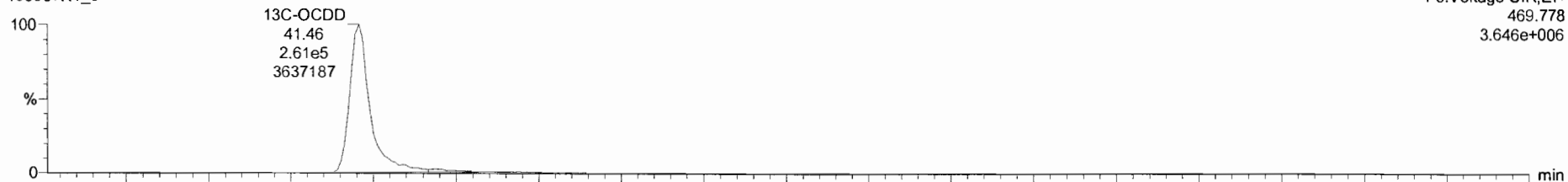


190507K1\_5

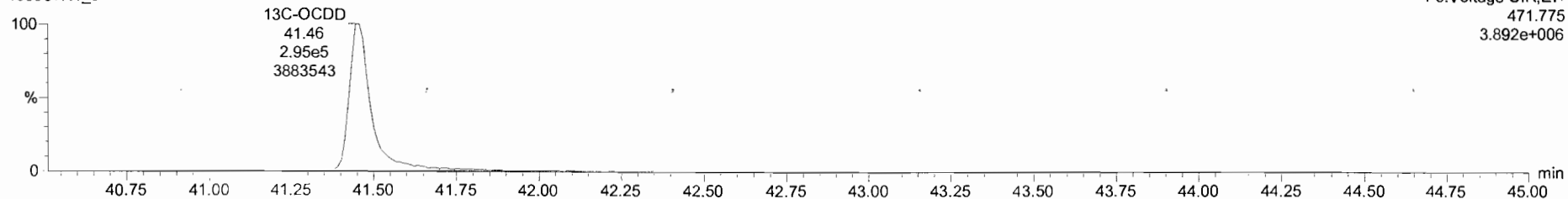


**13C-OCDD**

190507K1\_5



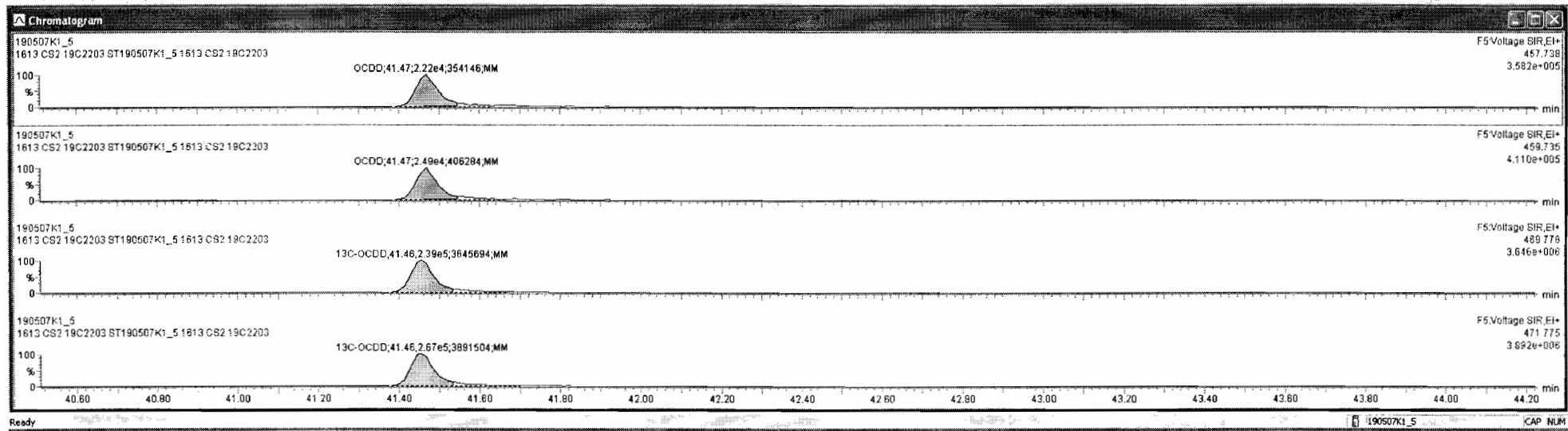
190507K1\_5





190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	NY	RF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0542	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0751	9.78
3 1,2,3,4,7,8-HxCDD	3.69e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.101	9.82
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.101	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.115	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.144	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.204	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0457	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.86	98.6	0.0670	9.86
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0558	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.127	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.000	33.67	1.000	9.99	99.9	0.133	9.99
13 2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.136	9.66
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.218	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.181	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.169	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.89	1.000	17.2	86.1	0.218	17.2
18 1,2,3,7,8-TCDF	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.195	
19 1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.310	
20 1,2,3,4,7,8-PeCDD	3.69e5	1.32	NO	0.65	1.000	34.40	1.014	99.7	99.7	0.476	
21 1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.396	
22 1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.464	
23 1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	99.2	99.2	0.456	



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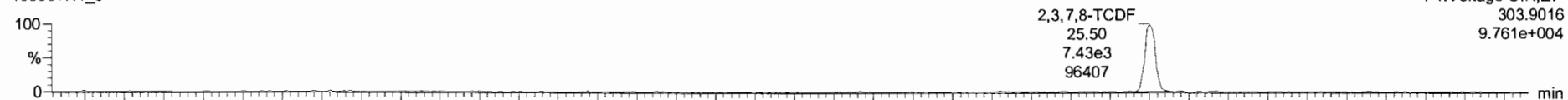
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

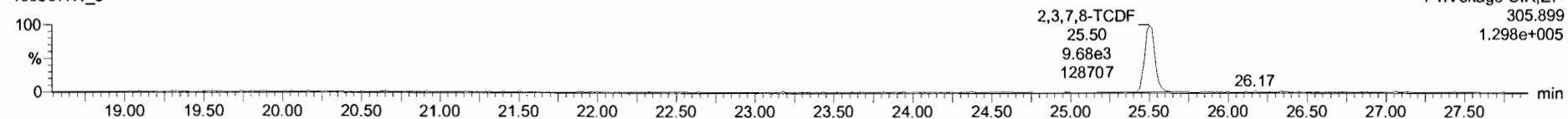
Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

**2,3,7,8-TCDF**

190507K1\_5

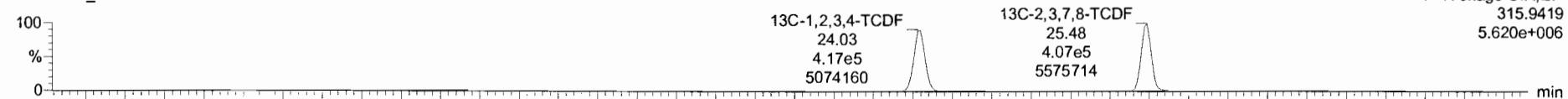


190507K1\_5

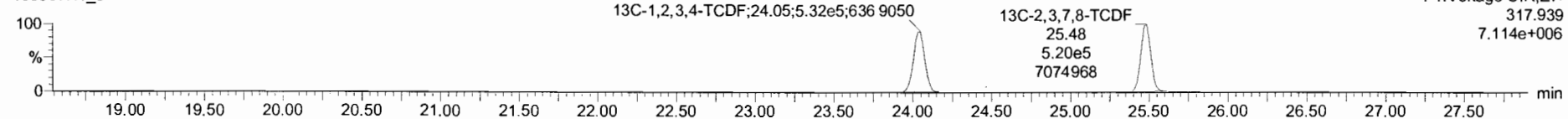


**13C-2,3,7,8-TCDF**

190507K1\_5

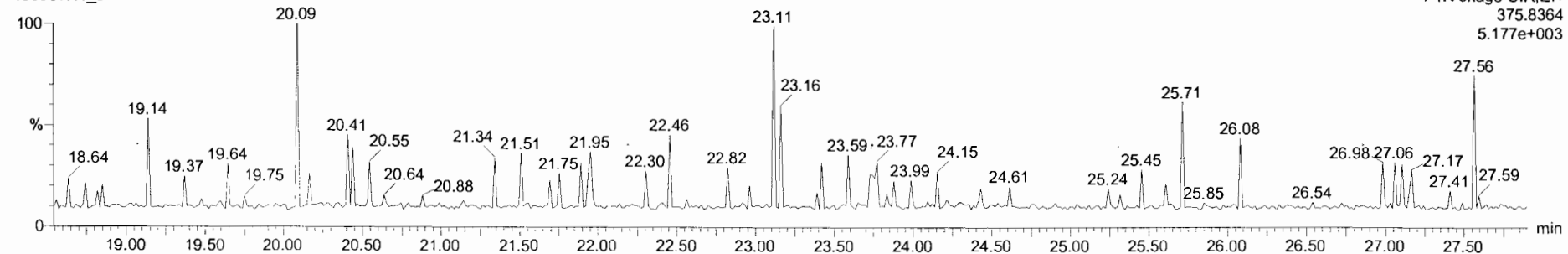


190507K1\_5



**DPE1**

190507K1\_5



Dataset: Untitled

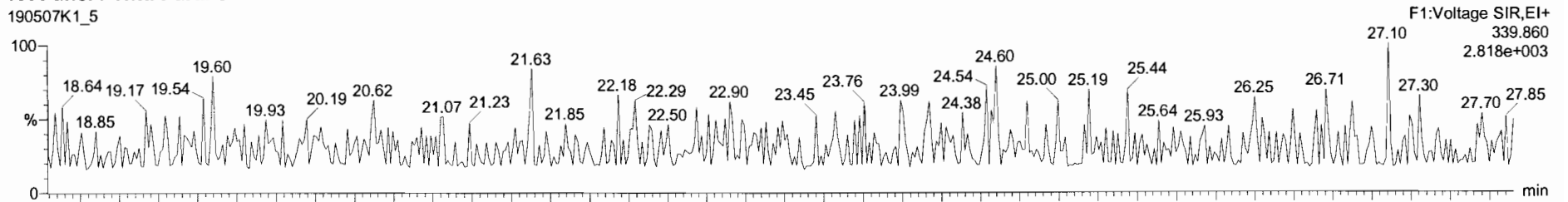
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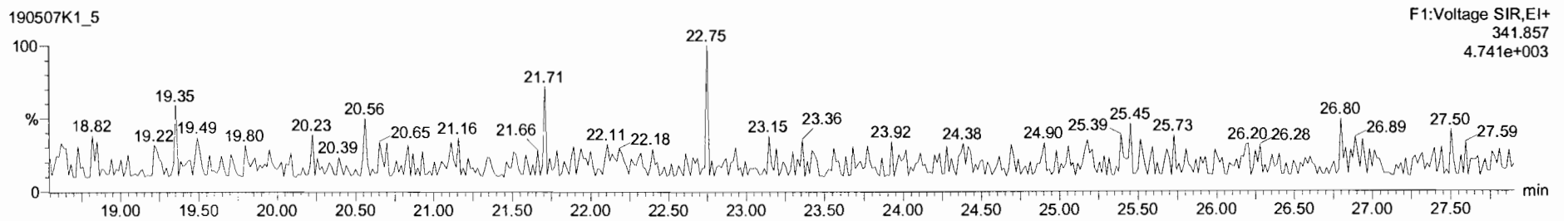
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1st Func. Penta-Furans

190507K1\_5

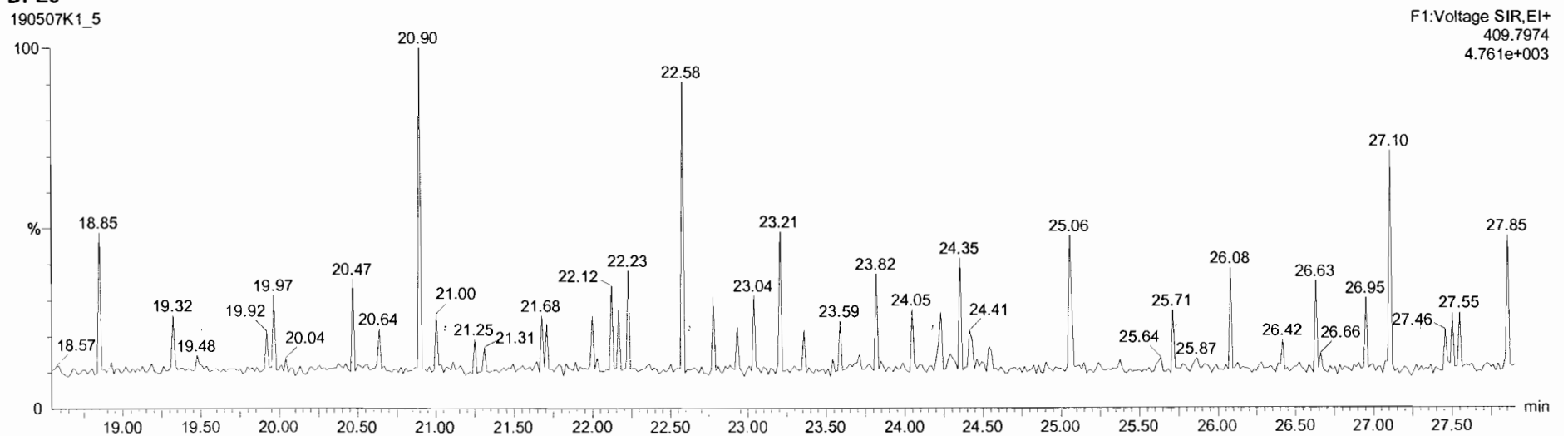


190507K1\_5



DPE6

190507K1\_5



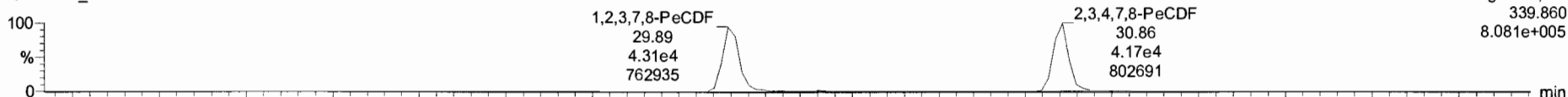
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

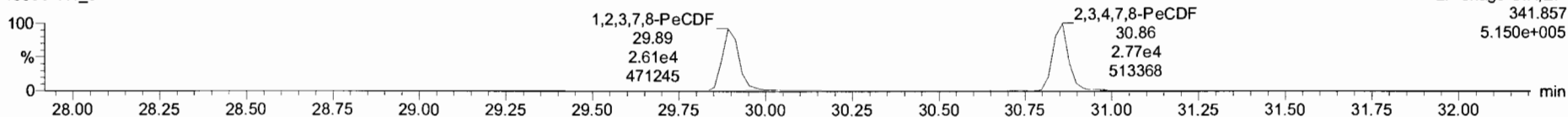
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**1,2,3,7,8-PeCDF**

190507K1\_5

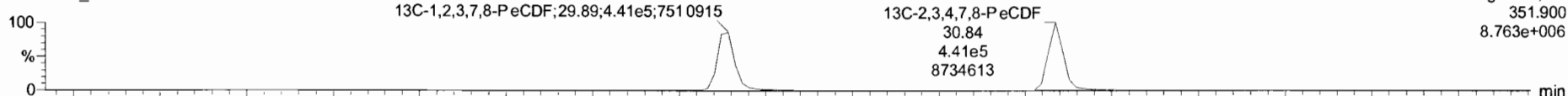


190507K1\_5

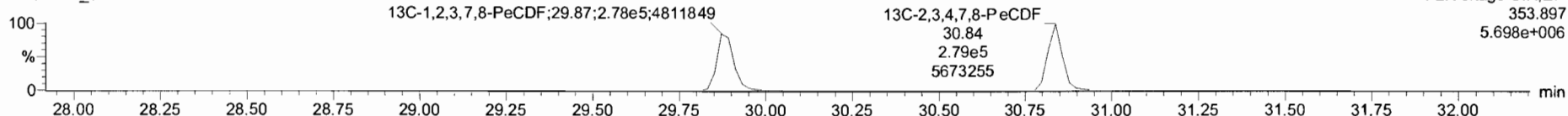


**13C-1,2,3,7,8-PeCDF**

190507K1\_5

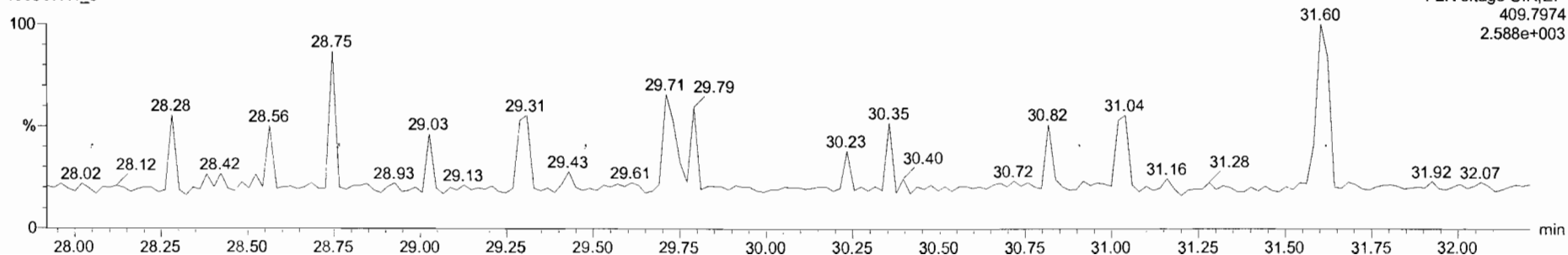


190507K1\_5



**DPE2**

190507K1\_5

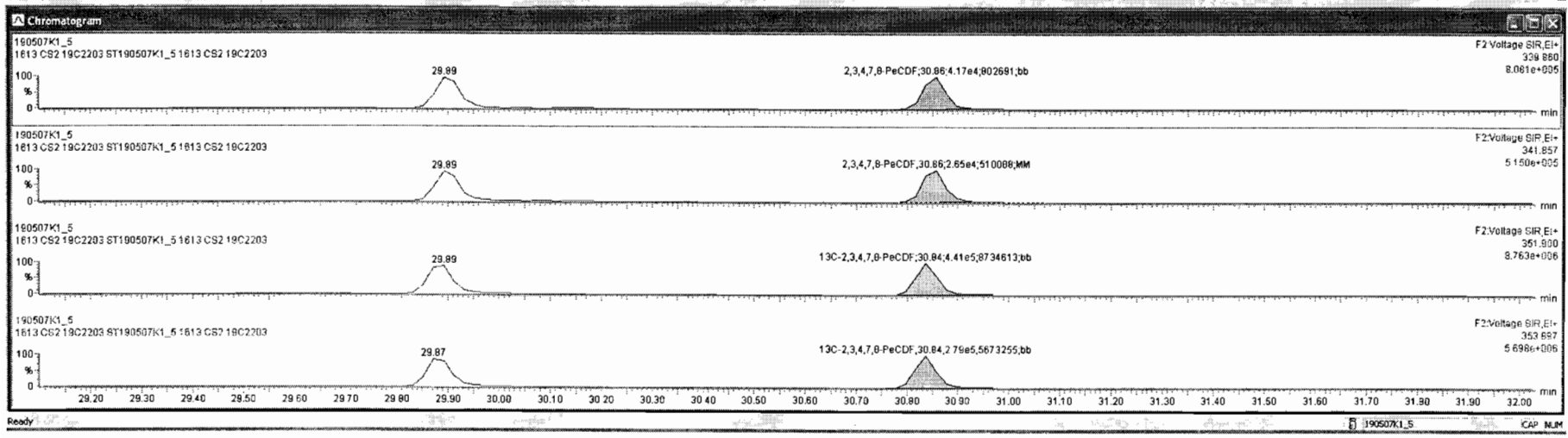


Target1.yml - 190507K1\_CRV.qld

File Edit View Display Processing Window Help

190507K1\_5 - ST:190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

#	Name	Resp	RA	rvj	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0542	1.85
2	1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0751	9.78
3	1,2,3,4,7,8-HxCDD	3.89e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.101	9.82
4	1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.101	9.99
5	1,2,3,7,8,9-HxCDD	3.85e4	1.22	NO	0.97	1.000	34.60	1.000	9.56	95.6	0.115	9.56
6	1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	36.31	1.000	9.56	95.6	0.144	9.56
7	OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.204	19.2
8	2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0457	1.97
9	1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	26.89	1.000	9.88	98.8	0.0670	9.88
10	2,3,4,7,8-PeCDF	8.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0558	9.42
11	1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.127	9.96
12	1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.09	1.000	33.67	1.000	9.99	99.9	0.133	9.99
13	2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.136	9.66
14	1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.218	10.1
15	1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.161	9.80
16	1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	36.86	1.000	9.02	90.2	0.189	9.02
17	OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.000	17.2	96.1	0.218	17.2
18	13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.195	
19	13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.310	
20	13C-1,2,3,4,7,8-HxCDD	3.89e5	1.32	NO	0.65	1.000	34.40	1.014	99.7	99.7	0.476	
21	13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.396	
22	13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.464	
23	13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	36.30	1.128	98.2	98.2	0.456	



Dataset: Untitled

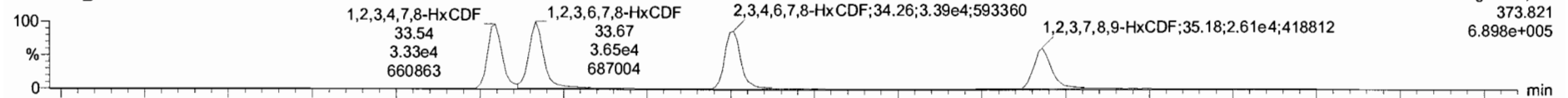
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

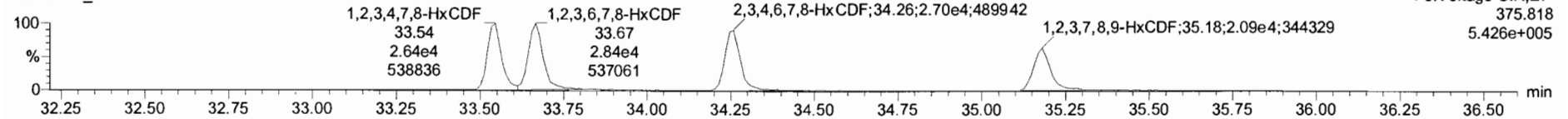
Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

**1,2,3,4,7,8-HxCDF**

190507K1\_5

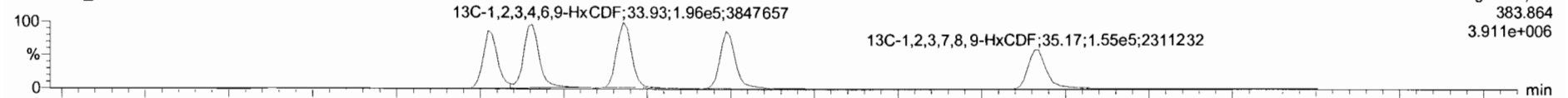


190507K1\_5

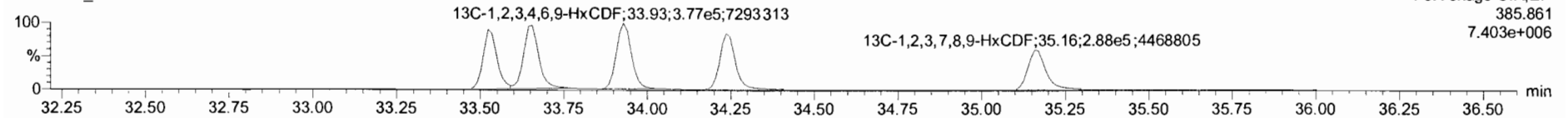


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_5

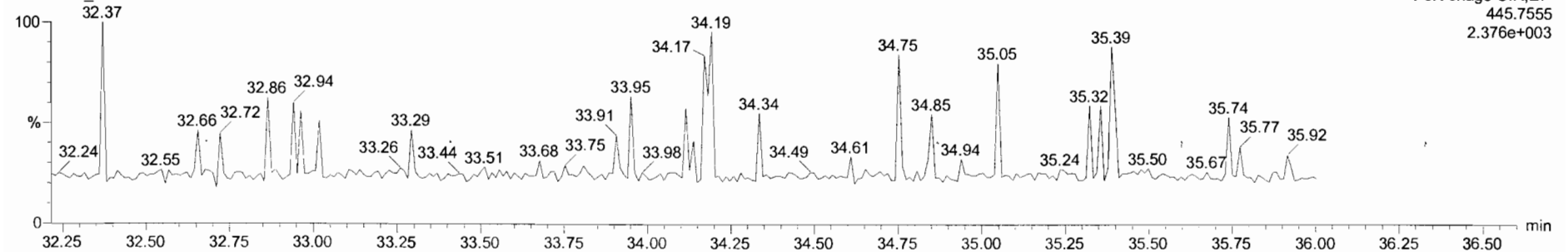


190507K1\_5



**DPE3**

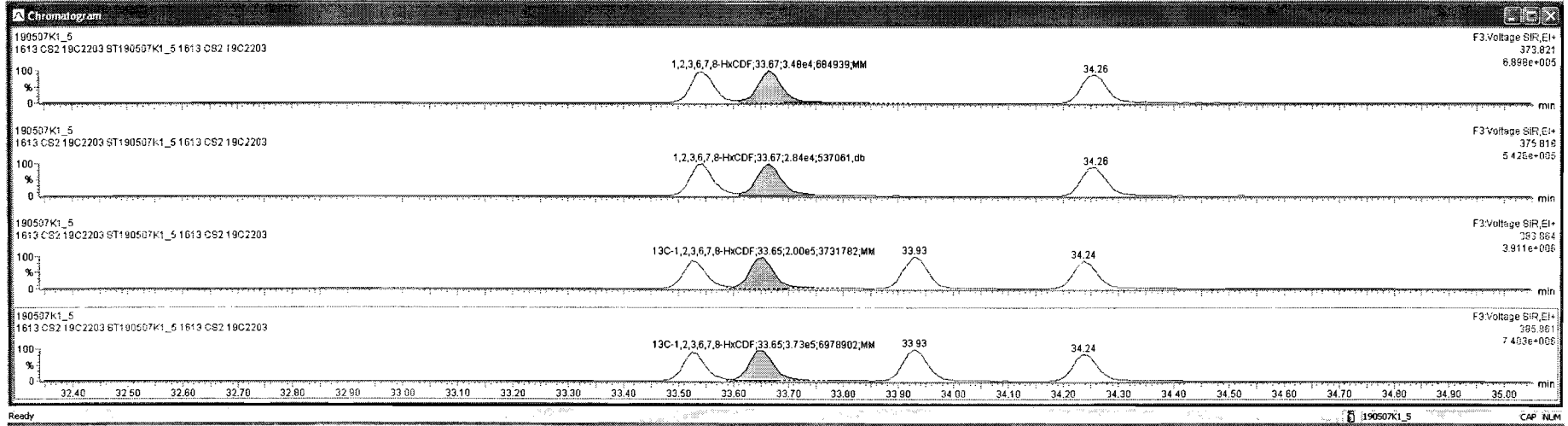
190507K1\_5



Target: 190507K1\_CRY.qid

190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	NY	RRF	StdVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0451	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0625	9.78
3 1,2,3,4,7,8-HxCDD	3.89e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.0838	9.82
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.0838	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.0960	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.1120	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.6	0.170	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0361	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.87	1.000	29.89	1.000	9.88	98.8	0.0558	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0465	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.106	9.96
12 1,2,3,6,7,8-HxCDF	6.52e4	1.22	NO	1.19	1.000	33.67	1.000	10.1	101	0.1111	10.1
13 2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.113	9.67
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.182	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.134	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.140	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.000	17.2	86.1	0.182	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.162	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.258	
20 13C-1,2,3,4,7,8-HxCDD	3.89e5	1.32	NO	0.85	1.000	34.40	1.014	99.7	99.7	0.396	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.330	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.386	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.128	98.2	98.2	0.380	

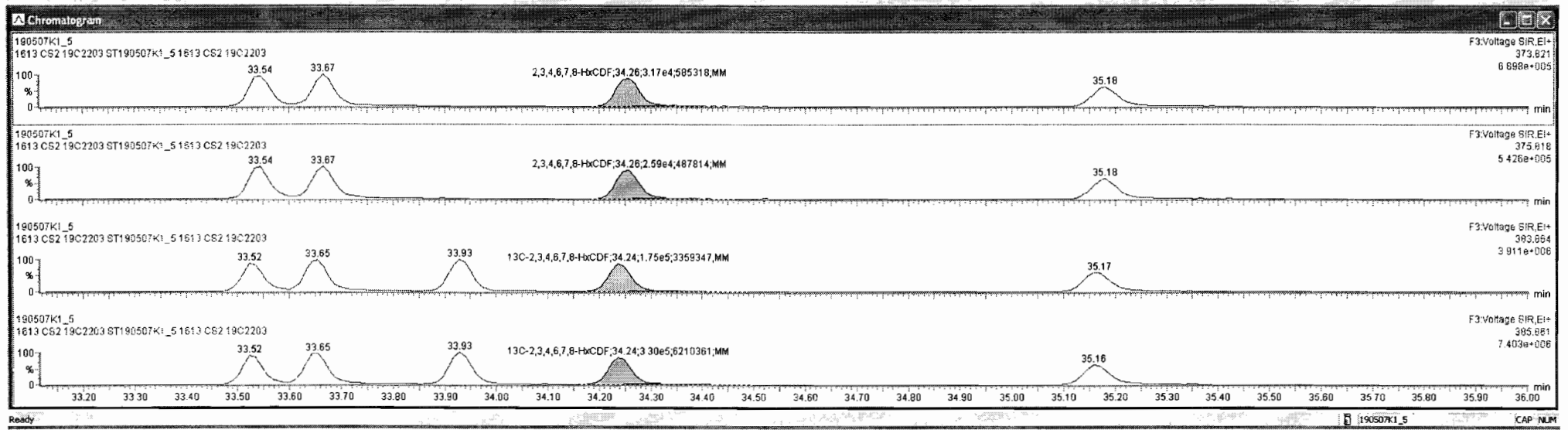


TargetLynx 190507K1\_CRV.qld

File Edit View Display Processing Window Help

190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	n/y	RfF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0451	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.86	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0625	9.78
3 1,2,3,4,7,8-HxCDD	3.89e4	1.24	NO	1.07	1.000	34.41	1.000	9.62	98.2	0.0838	9.62
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.0838	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.0960	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	38.31	1.000	9.56	95.6	0.120	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.170	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0381	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0558	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0465	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.106	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.10	1.000	33.67	1.000	10.1	101	0.111	10.1
13 2,3,4,6,7,8-HxCDF	5.78e4	1.22	NO	1.18	1.000	34.26	1.001	9.97	96.7	0.113	9.67
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.16	1.000	10.1	101	0.182	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.134	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.140	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.68	1.000	17.2	86.1	0.182	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.162	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	86.5	96.5	0.258	
20 13C-1,2,3,4,7,8-HxCDD	3.89e5	1.32	NO	0.65	1.000	34.40	1.014	89.7	99.7	0.396	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	86.7	96.7	0.330	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.386	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	98.2	98.2	0.380	

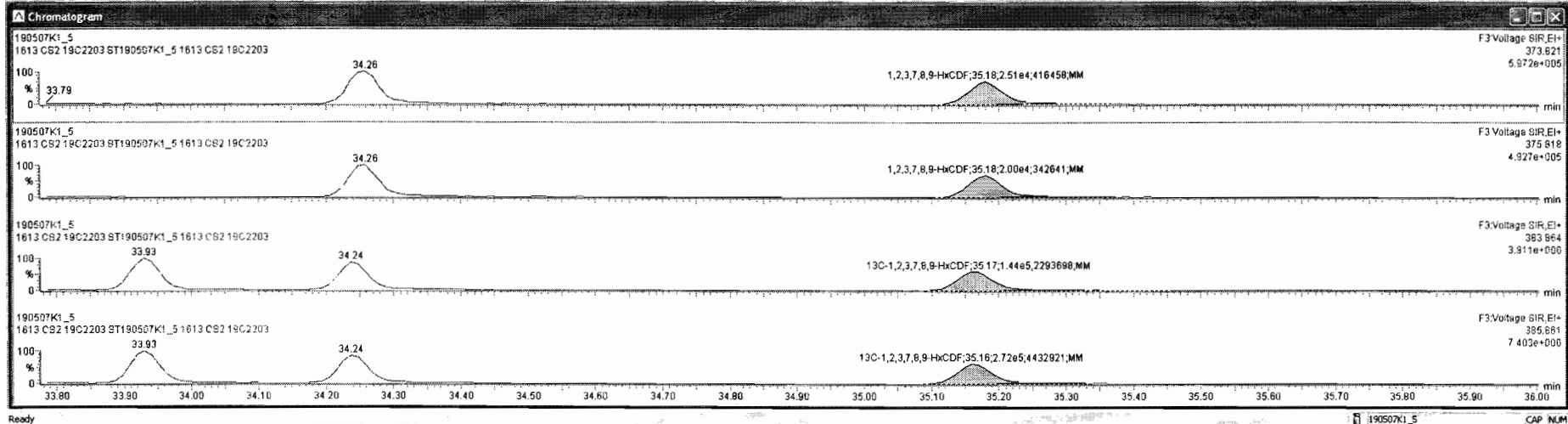




Target: ynx\_190507K1\_CRV.qld\*

190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	inj	RRF	WtWd	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0451	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.86	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0625	9.78
3 1,2,3,4,7,8-HxCDD	3.88e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.0838	9.82
4 1,2,3,6,7,8-HxCDD	4.16e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.0838	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.0960	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	36.31	1.000	9.56	95.6	0.120	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.170	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0381	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0558	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0465	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.106	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.10	1.000	33.67	1.000	10.1	101	0.111	10.1
13 2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.16	1.000	34.26	1.001	9.67	96.7	0.113	9.67
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.182	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.134	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.68	1.000	9.02	90.2	0.140	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.69	1.000	17.2	86.1	0.182	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.162	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.258	
20 13C-1,2,3,4,7,8-HxCDD	3.88e5	1.32	NO	0.85	1.000	34.40	1.014	99.7	99.7	0.396	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.330	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.396	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	36.30	1.129	98.2	98.2	0.390	



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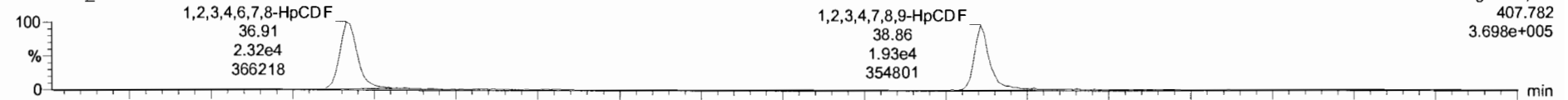
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

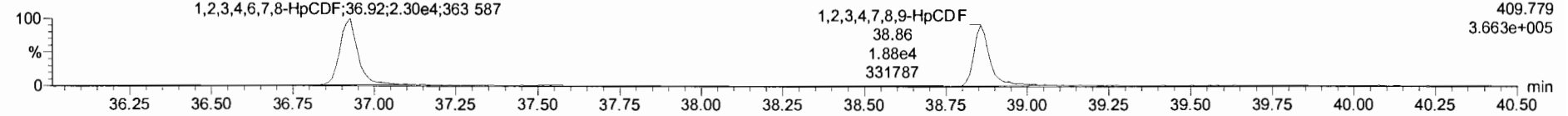
**1,2,3,4,6,7,8-HpCDF**

190507K1\_5



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3.698e+005

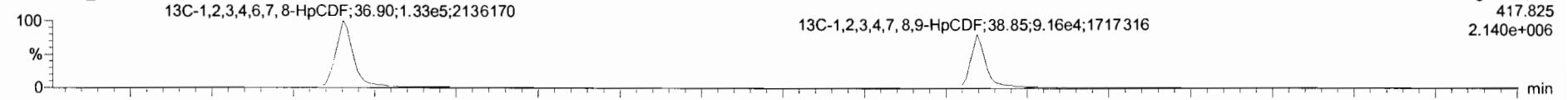
190507K1\_5



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3.663e+005

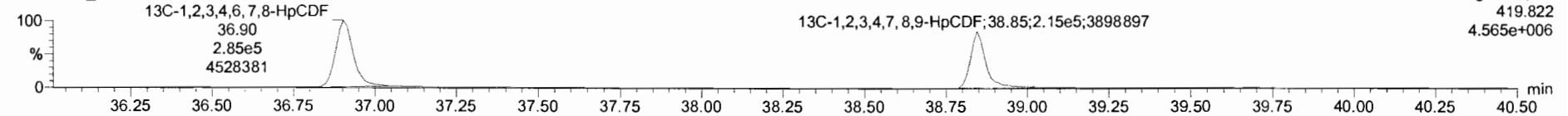
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190507K1\_5



F4:Voltage SIR,EI+  
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2.140e+006

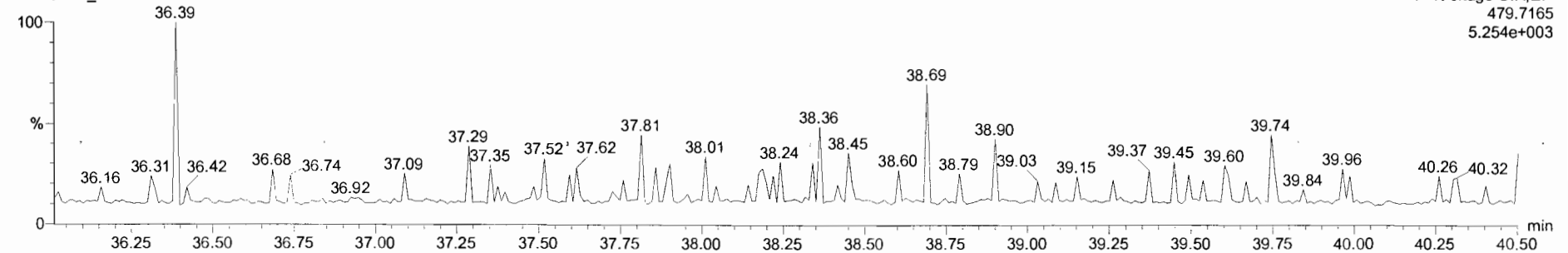
190507K1\_5



F4:Voltage SIR,EI+  
419.822  
4.565e+006

**DPE4**

190507K1\_5



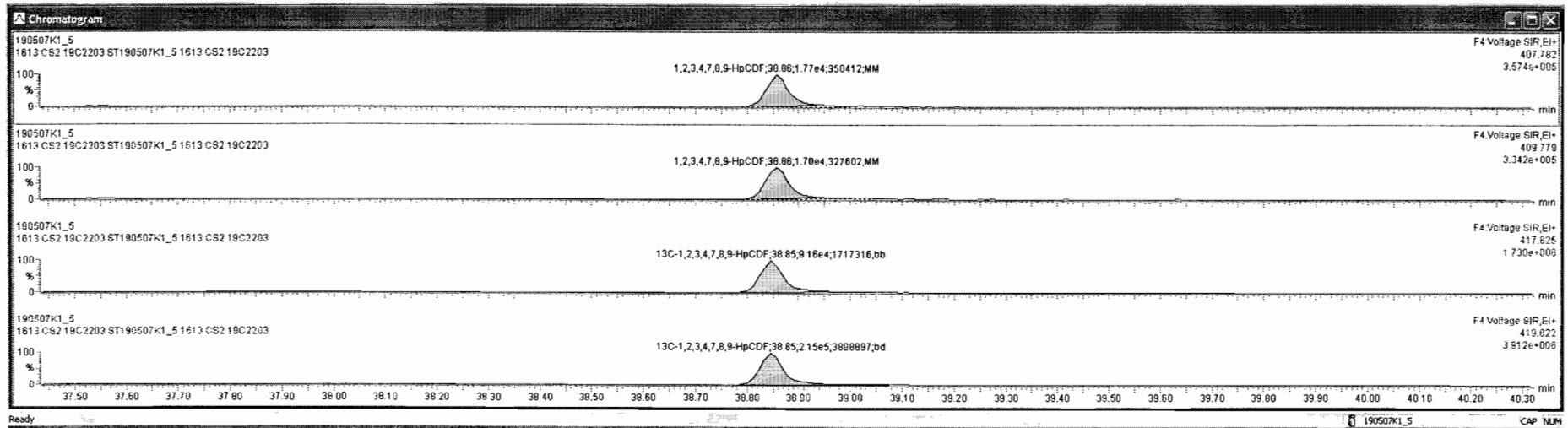
F4:Voltage SIR,EI+  
479.7165  
5.254e+003

Target: ymx - 190507K1\_CRY.qld

File Edit View Display Processing Window Help

190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

Name	Resp	RA	RIY	RRF	wtVol	RT	RR1	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0451	1.85
2 1,2,3,7,8-PeCDD	4.19e4	0.66	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0625	9.78
3 1,2,3,4,7,8-HxCDD	3.89e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	98.2	0.0838	9.82
4 1,2,3,6,7,8-HxCDD	4.18e4	1.22	NO	0.97	1.000	34.52	1.000	9.99	99.9	0.0838	9.99
5 1,2,3,7,8,9-HxCDD	3.65e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	96.6	0.0960	9.56
6 1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	36.31	1.000	9.56	95.6	0.120	9.56
7 OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.170	19.2
8 2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0381	1.97
9 1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0558	9.88
10 2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0465	9.42
11 1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.106	9.96
12 1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.10	1.000	33.67	1.000	10.1	101	0.111	10.1
13 2,3,4,6,7,8-HxCDF	5.78e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.113	9.67
14 1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.182	10.1
15 1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.134	9.80
16 1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.140	9.02
17 OCDF	6.07e4	0.93	NO	1.10	1.000	41.89	1.000	17.2	86.1	0.182	17.2
18 13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.162	
19 13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.259	
20 13C-1,2,3,4,7,8-HxCDD	3.69e5	1.32	NO	0.65	1.000	34.40	1.014	99.7	99.7	0.396	
21 13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.330	
22 13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.396	
23 13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.129	98.2	98.2	0.390	



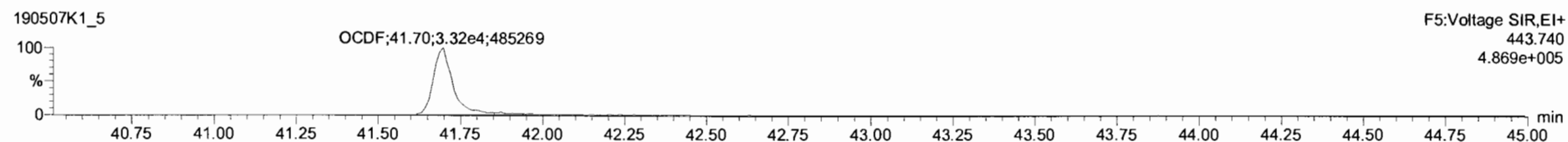
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

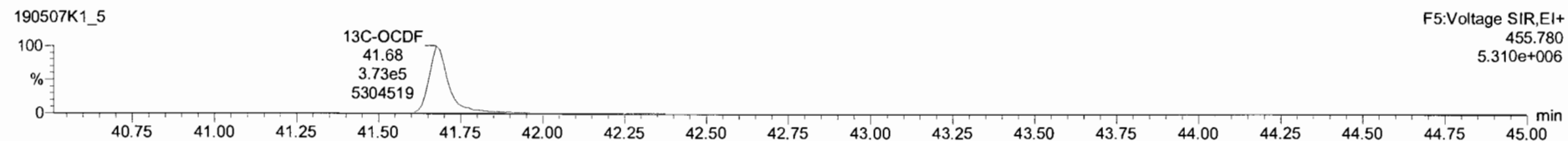
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203

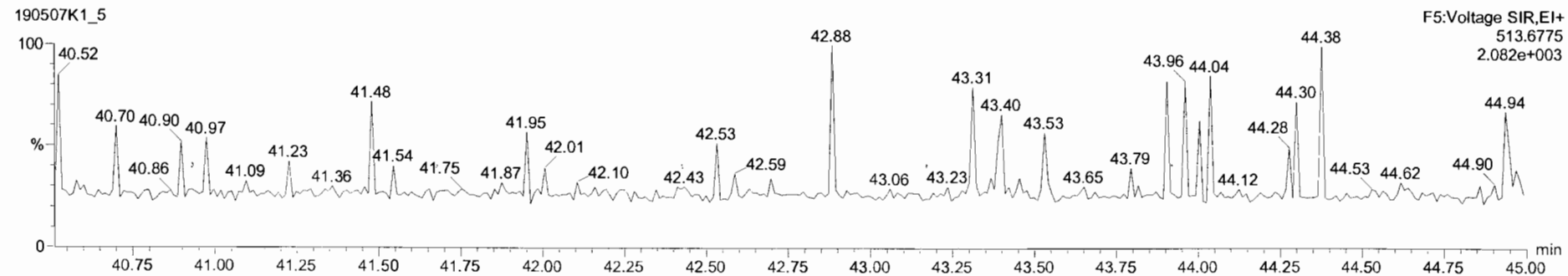
**OCDF**



**13C-OCDF**



**DPE5**

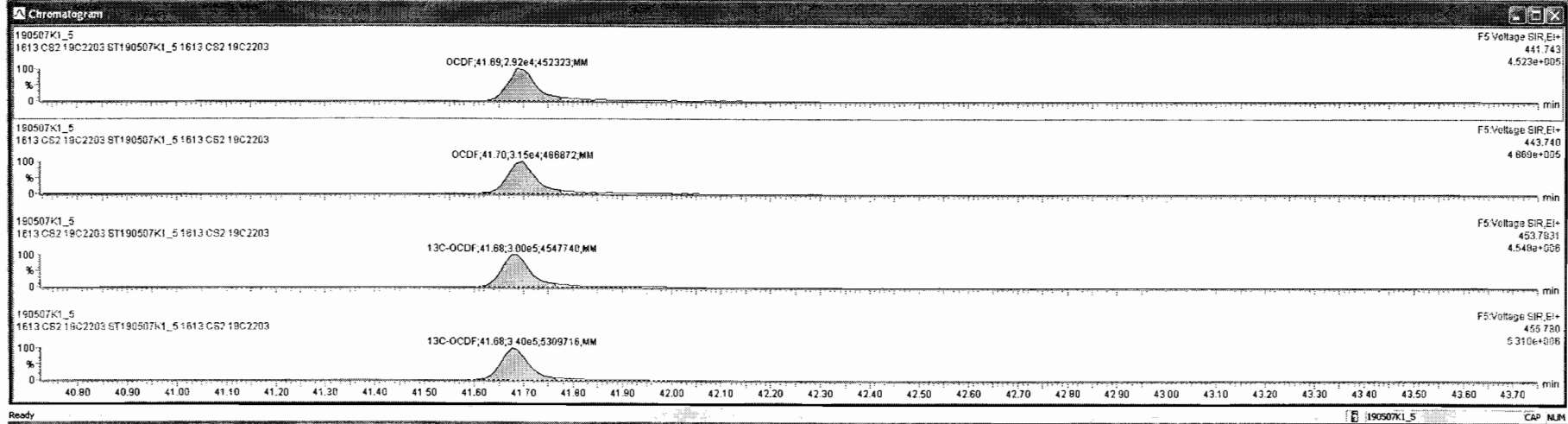


Target: ynx - 190507K1\_CRY.qld

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190507K1\_5 - ST190507K1\_5 1613 CS2 19C2203 - 1613 CS2 19C2203

#	Name	Resp	RA	IFY	RF	wt/nd	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.19e4	0.79	NO	0.92	1.000	26.34	1.001	1.85	92.7	0.0461	1.85
2	1,2,3,7,8-PeCDD	4.18e4	0.65	NO	0.90	1.000	31.14	1.001	9.78	97.8	0.0625	9.78
3	1,2,3,4,7,8-HxCDD	3.89e4	1.24	NO	1.07	1.000	34.41	1.000	9.82	88.2	0.0838	9.82
4	1,2,3,6,7,8-HxCDD	4.18e4	1.22	NO	0.97	1.000	34.52	1.000	9.89	99.9	0.0838	9.89
5	1,2,3,7,8,9-HxCDD	3.85e4	1.22	NO	0.97	1.000	34.80	1.000	9.56	95.6	0.0860	9.56
6	1,2,3,4,6,7,8-HpCDD	2.98e4	1.05	NO	1.03	1.000	36.31	1.000	9.56	95.6	0.120	9.56
7	OCDD	4.71e4	0.89	NO	0.97	1.000	41.47	1.000	19.2	95.8	0.170	19.2
8	2,3,7,8-TCDF	1.71e4	0.77	NO	0.94	1.000	25.50	1.001	1.97	98.3	0.0381	1.97
9	1,2,3,7,8-PeCDF	6.93e4	1.65	NO	0.97	1.000	29.89	1.000	9.88	98.8	0.0558	9.88
10	2,3,4,7,8-PeCDF	6.82e4	1.58	NO	1.00	1.000	30.86	1.001	9.42	94.2	0.0465	9.42
11	1,2,3,4,7,8-HxCDF	5.97e4	1.26	NO	1.24	1.000	33.54	1.001	9.96	99.6	0.106	9.96
12	1,2,3,6,7,8-HxCDF	6.32e4	1.22	NO	1.10	1.000	33.67	1.000	10.1	101	0.111	10.1
13	2,3,4,6,7,8-HxCDF	5.76e4	1.22	NO	1.18	1.000	34.26	1.001	9.67	96.7	0.113	9.67
14	1,2,3,7,8,9-HxCDF	4.51e4	1.25	NO	1.07	1.000	35.18	1.000	10.1	101	0.182	10.1
15	1,2,3,4,6,7,8-HpCDF	4.63e4	1.01	NO	1.13	1.000	36.91	1.000	9.80	98.0	0.134	9.80
16	1,2,3,4,7,8,9-HpCDF	3.47e4	1.04	NO	1.26	1.000	38.86	1.000	9.02	90.2	0.140	9.02
17	OCDF	6.07e4	0.93	NO	1.10	1.000	41.89	1.000	17.2	95.3	0.162	17.2
18	13C-2,3,7,8-TCDD	6.91e5	0.78	NO	1.05	1.000	26.33	1.025	99.9	99.9	0.162	
19	13C-1,2,3,7,8-PeCDD	4.73e5	0.59	NO	0.74	1.000	31.12	1.212	96.5	96.5	0.258	
20	13C-1,2,3,4,7,8-HxCDD	3.69e5	1.32	NO	0.65	1.000	34.40	1.014	99.7	99.7	0.306	
21	13C-1,2,3,6,7,8-HxCDD	4.30e5	1.26	NO	0.78	1.000	34.51	1.017	96.7	96.7	0.330	
22	13C-1,2,3,7,8,9-HxCDD	3.93e5	1.25	NO	0.66	1.000	34.78	1.025	103	103	0.306	
23	13C-1,2,3,4,6,7,8-HpCDD	3.04e5	1.09	NO	0.54	1.000	38.30	1.126	98.2	98.2	0.300	

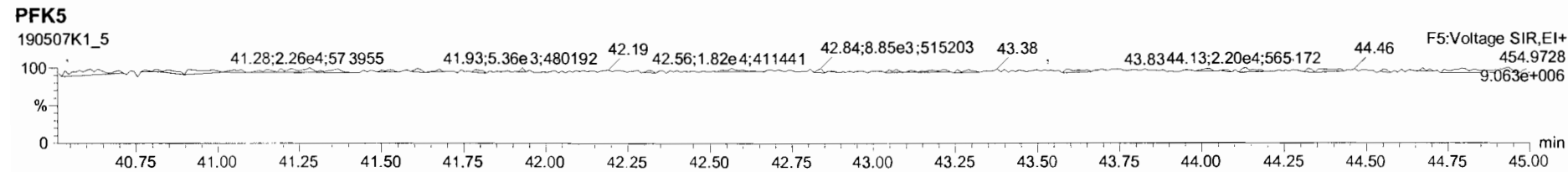
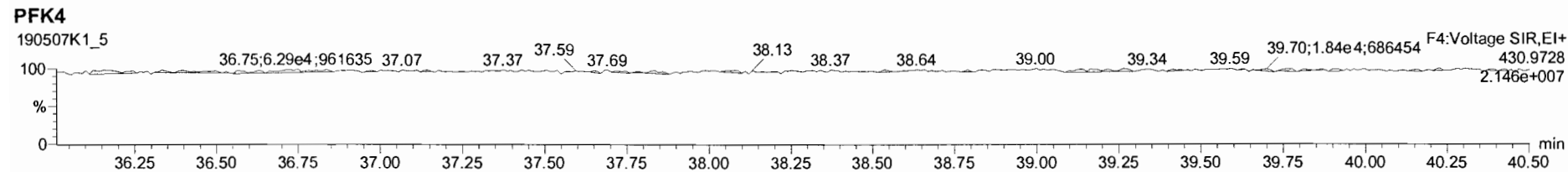
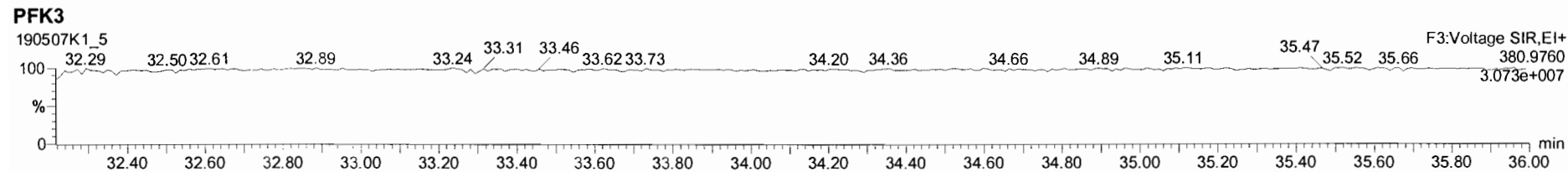
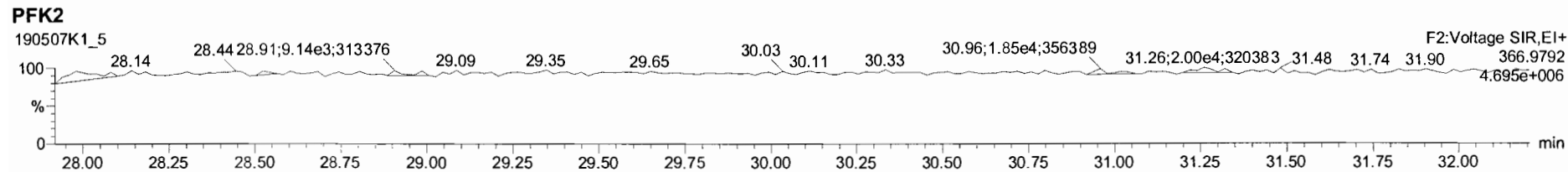
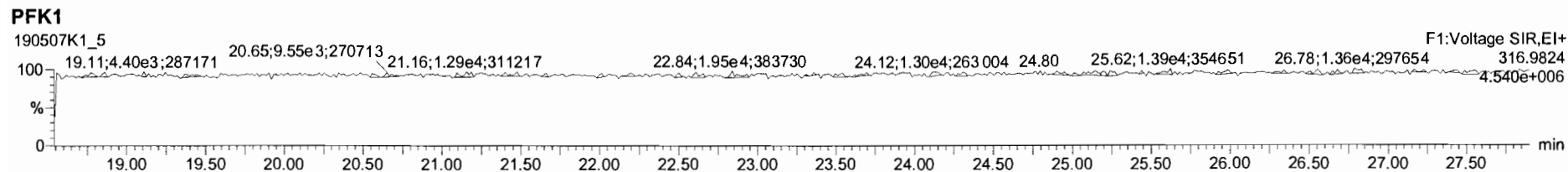


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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_5, Date: 07-May-2019, Time: 13:51:47, ID: ST190507K1\_5 1613 CS2 19C2203, Description: 1613 CS2 19C2203



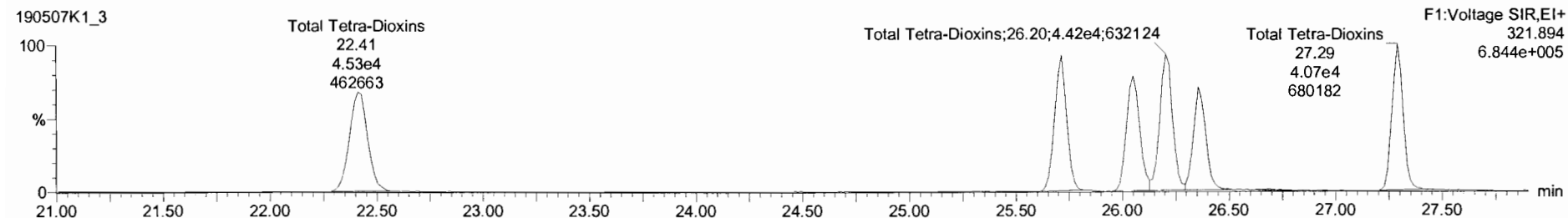
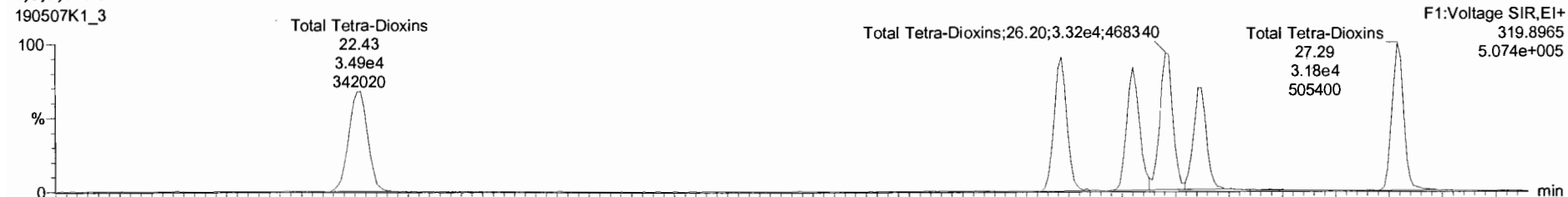
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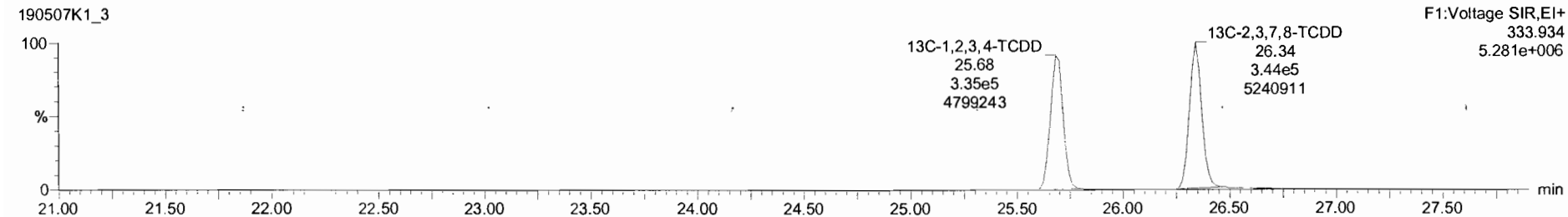
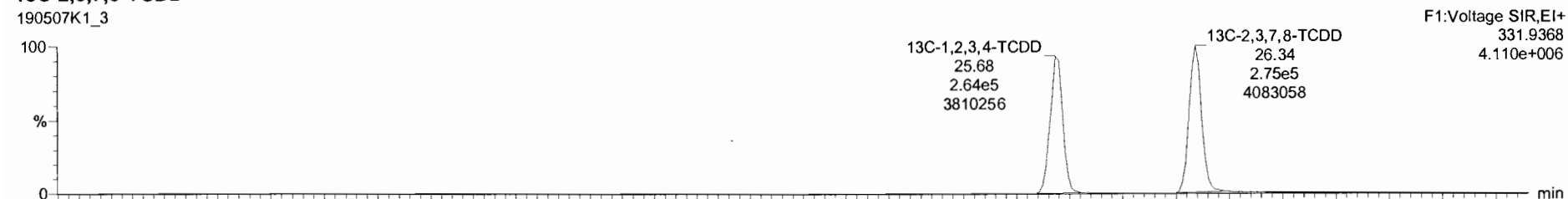
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### 2,3,7,8-TCDD



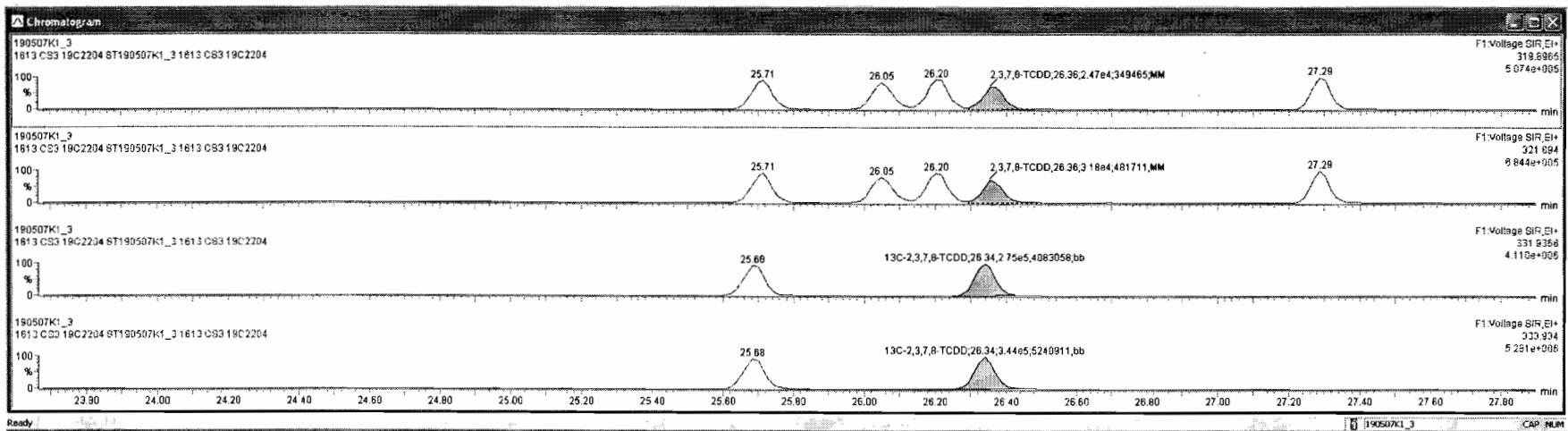
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TargetLynx - 190507K1\_CRW.gld

190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Name	Resp	RA	NV	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	5.65e4	0.79	NO	0.92	1.000	26.36	1.001	9.97	96.7	0.0600	9.87
2 1,2,3,7,8-PeCDD	1.80e5	0.83	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3 1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4 1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5 1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6 1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7 OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8 2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0657	9.59
9 1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10 2,3,4,7,8-PeCDF	3.17e5	1.56	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.148	49.7
11 1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.58	1.001	48.1	98.2	0.274	48.1
12 1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13 2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.267	51.0
14 1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	48.1	98.2	0.443	48.1
15 1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16 1,2,3,4,7,8,9-HpCDF	1.69e5	1.10	NO	1.26	1.000	38.87	1.000	46.6	93.2	0.350	46.6
17 OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18 13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19 13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20 13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.85	1.000	34.41	1.014	102	102	0.543	
21 13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.68	1.000	34.80	1.025	102	102	0.529	
23 13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	





Dataset: Untitled

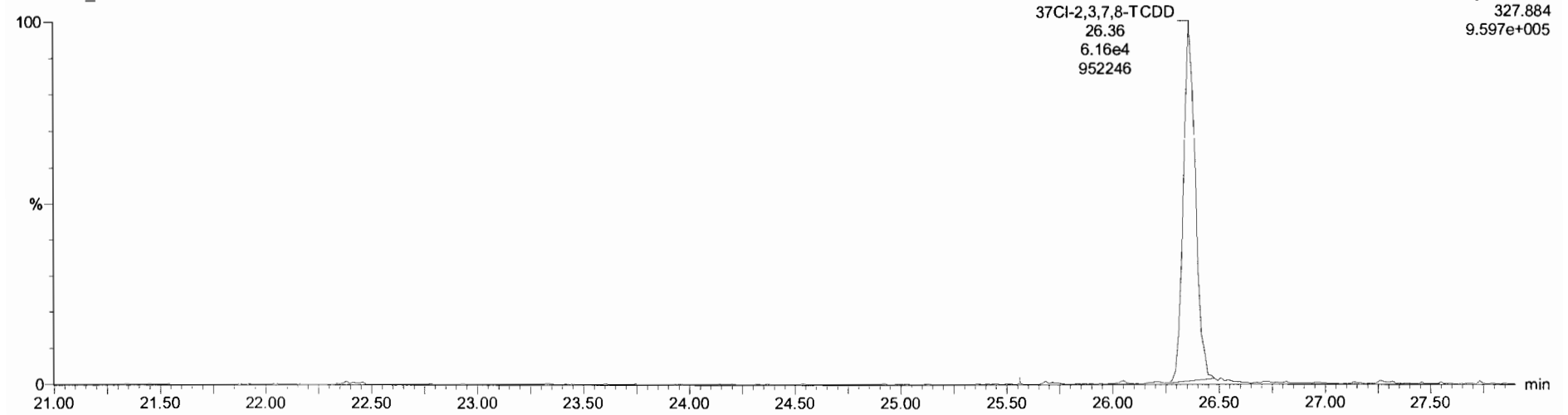
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

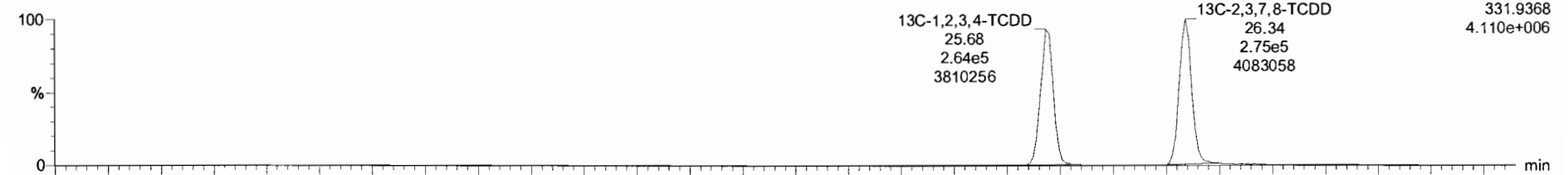
**37Cl-2,3,7,8-TCDD**

190507K1\_3

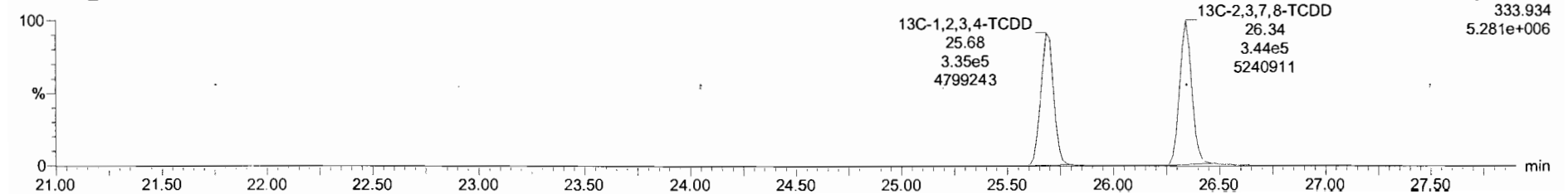


**13C-1,2,3,4-TCDD**

190507K1\_3



190507K1\_3



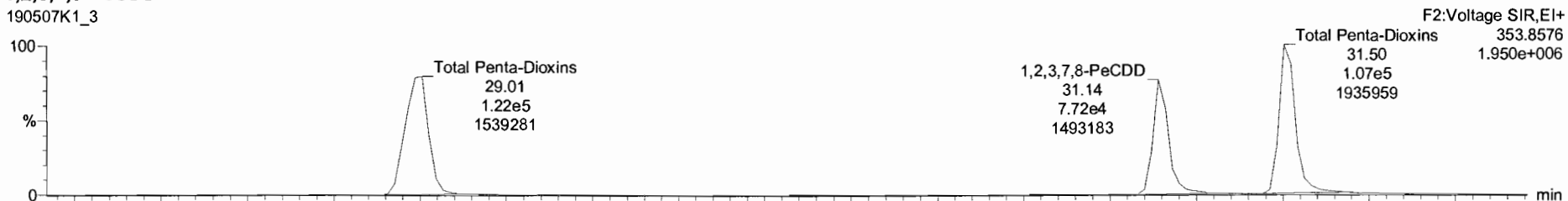
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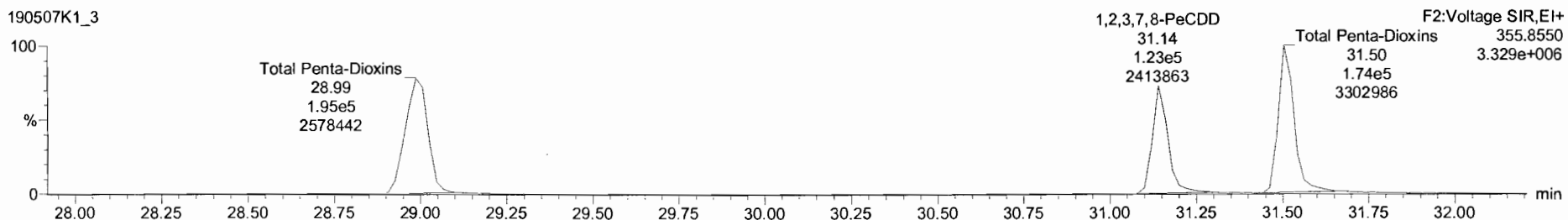
Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**1,2,3,7,8-PeCDD**

190507K1\_3

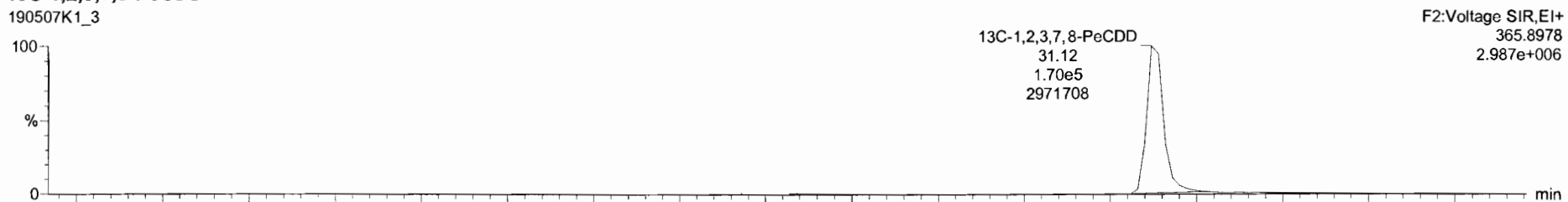


190507K1\_3

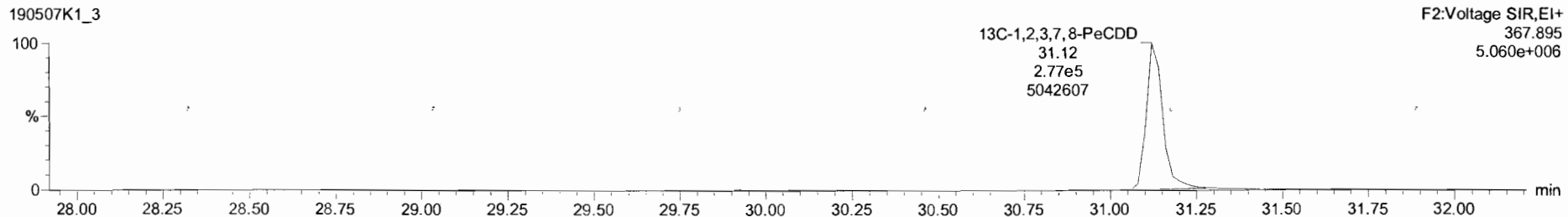


**13C-1,2,3,7,8-PeCDD**

190507K1\_3



190507K1\_3

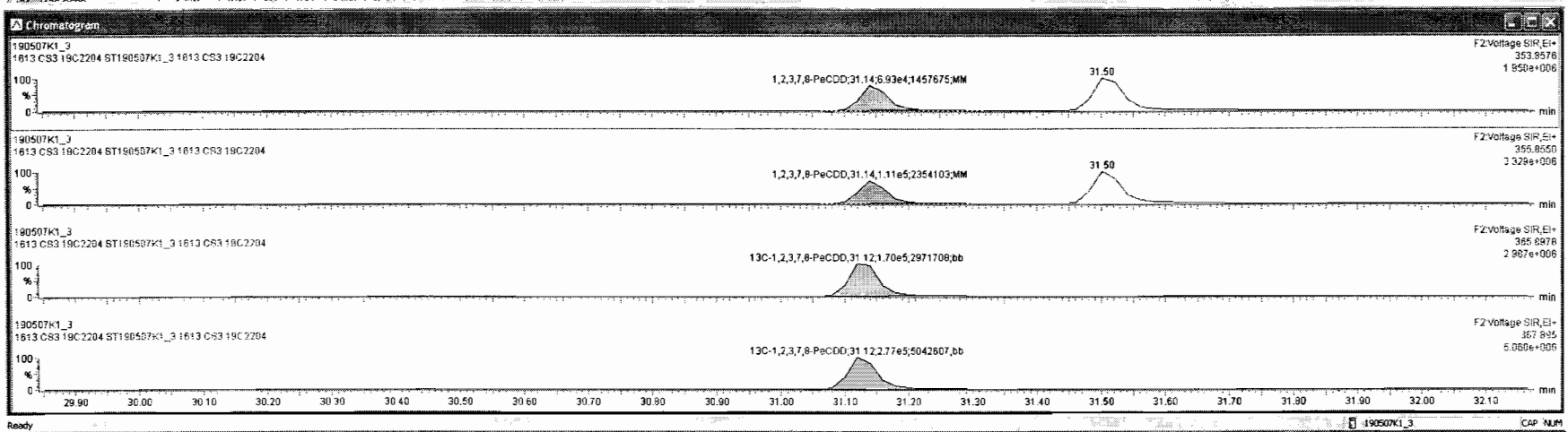


TargetLynx - 190507K1.CRV.qid

File Edit View Display Processing Window Help

190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Name	Resp	RA	nV	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0900	9.87
2 1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.80	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3 1,2,3,4,7,8-HxCDD	1.76e5	1.26	NO	1.07	1.000	34.42	1.000	49.0	96.0	0.299	49.0
4 1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5 1,2,3,7,8-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6 1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7 OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8 2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9 1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.81	1.001	49.4	96.7	0.135	49.4
10 2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	98.5	0.149	49.7
11 1,2,3,4,7,8-HxCDF	2.68e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	98.2	0.274	49.1
12 1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13 2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14 1,2,3,7,8-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15 1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16 1,2,3,4,7,8-HpCDF	1.68e5	1.10	NO	1.26	1.000	38.67	1.000	46.6	93.2	0.350	46.6
17 OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18 13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.275	
19 13C-1,2,3,7,8-PeCDD	4.47e5	0.81	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20 13C-1,2,3,4,7,8-HxCDD	3.38e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21 13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22 13C-1,2,3,7,8-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23 13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	



Dataset: Untitled

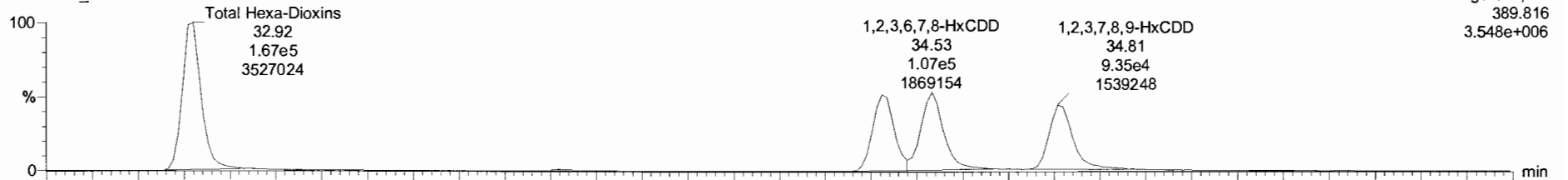
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

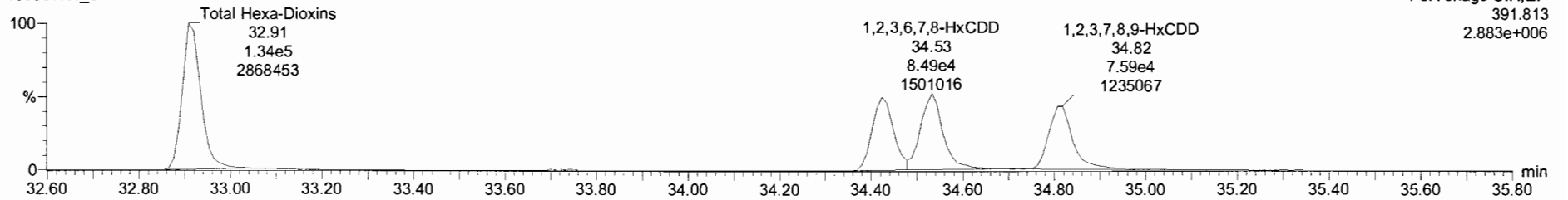
Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**1,2,3,4,7,8-HxCDD**

190507K1\_3

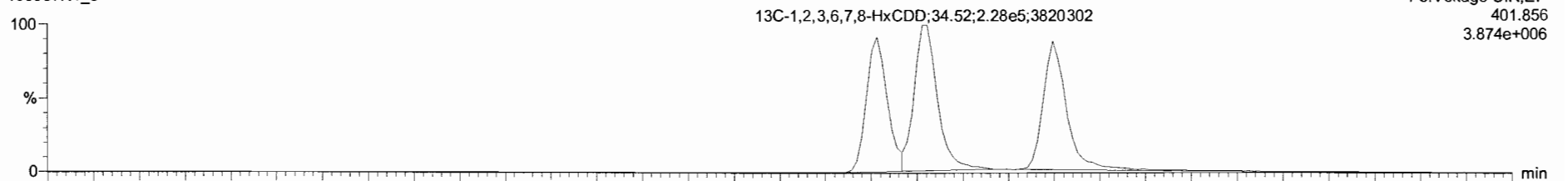


190507K1\_3

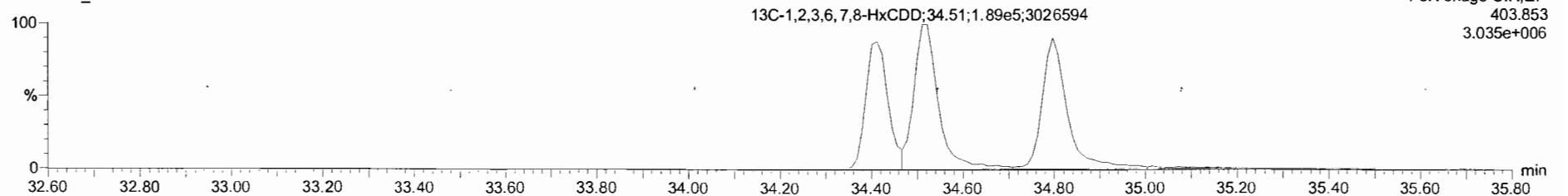


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_3



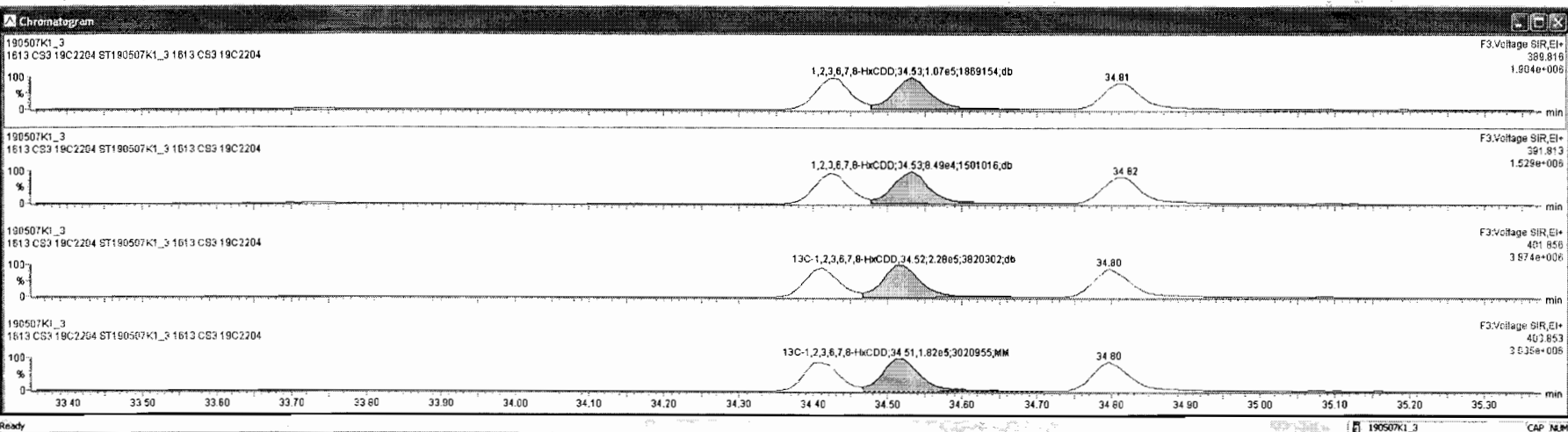
190507K1\_3



Target1.ymx - 190507K1\_CRV.qld

190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Peak	Name	Resp	RA	n/y	RRF	WAcq	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	25.36	1.001	9.87	96.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.28	NO	0.97	1.000	34.53	1.006	46.5	97.0	0.308	46.5
5	1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7	OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.79	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10	2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.145	49.7
11	1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	98.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.89	1.000	50.6	101	0.280	50.6
13	2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.89e5	1.10	NO	1.26	1.000	38.87	1.000	46.8	93.2	0.350	46.5
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	25.34	1.026	98.4	98.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.38e5	1.24	NO	0.85	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.86	1.000	34.80	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	36.31	1.126	100	100	0.557	

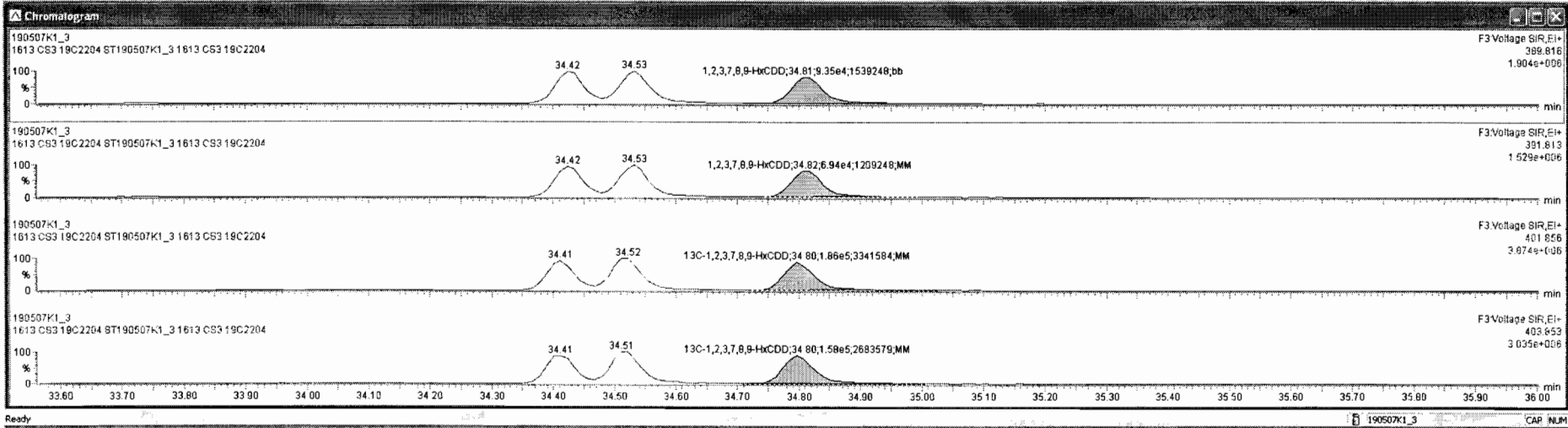


Target: ymx\_190507K1\_CRV.qld

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190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

PK	Name	Resp	RA	dy	RF	WtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	46.5	97.0	0.308	46.5
5	1,2,3,7,8-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7	OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10	1,2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11	1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	98.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13	2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.69e5	1.10	NO	1.26	1.000	38.87	1.000	46.6	93.2	0.350	46.6
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	28.34	1.026	98.4	98.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.38e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.78e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	



Dataset: Untitled

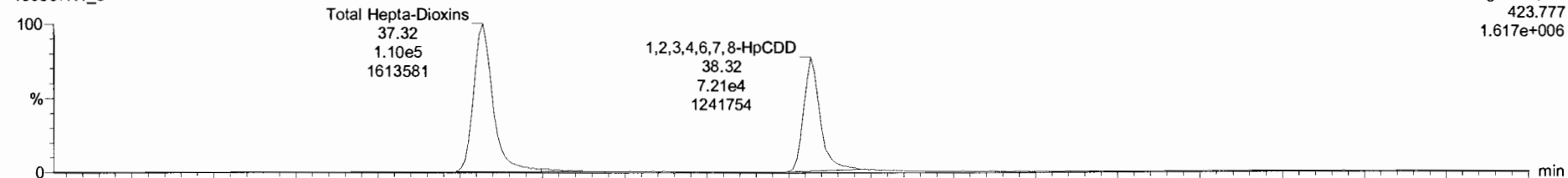
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

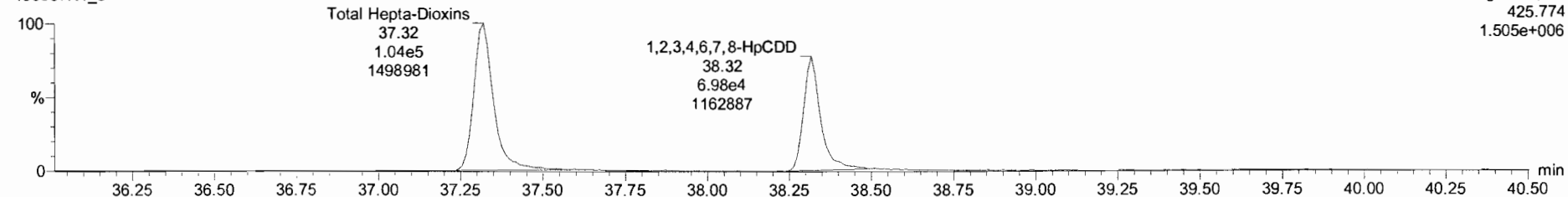
Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

**1,2,3,4,6,7,8-HpCDD**

190507K1\_3

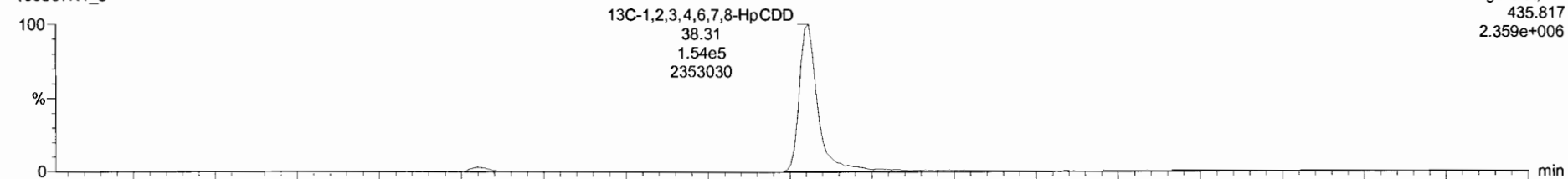


190507K1\_3

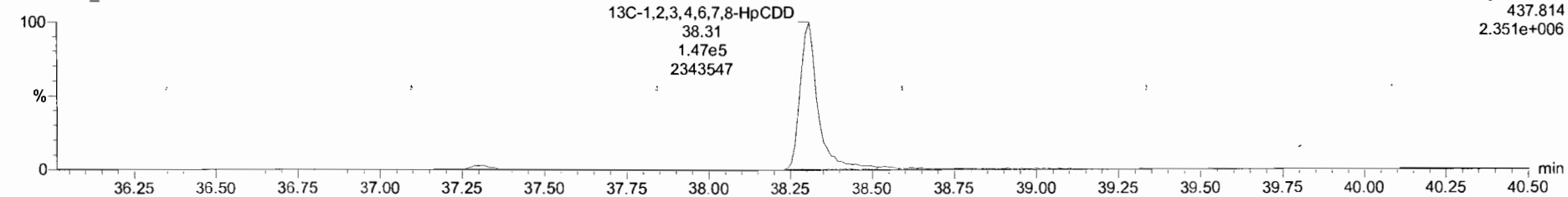


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_3

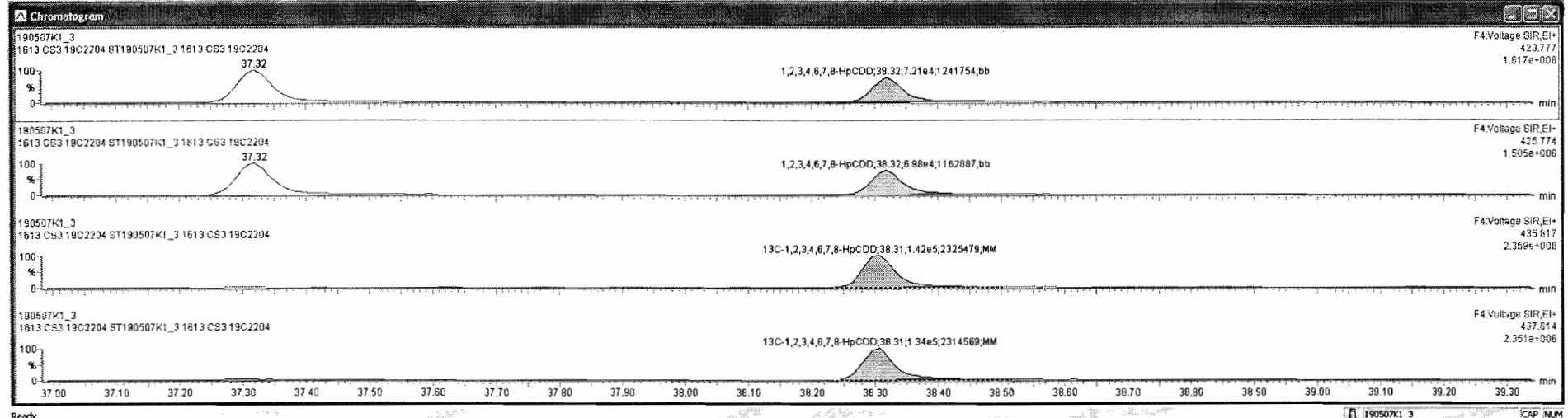
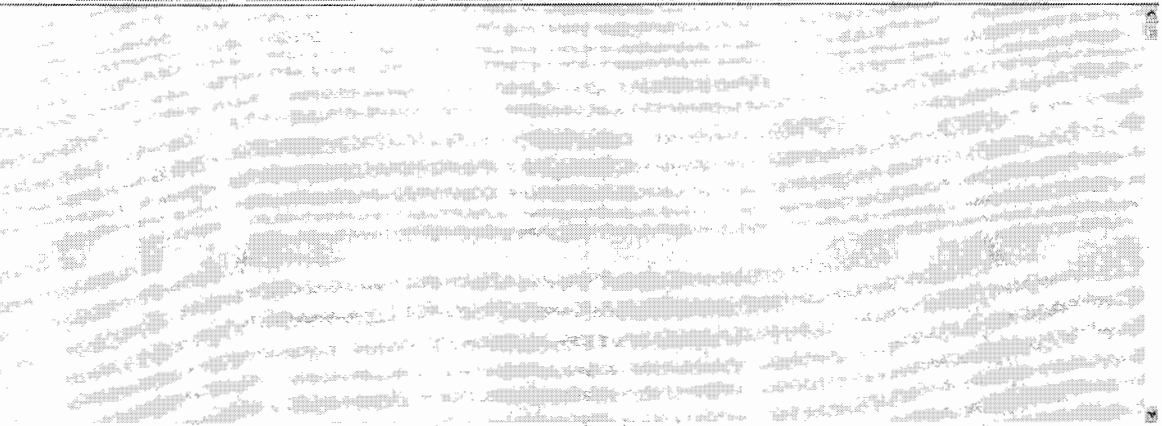


190507K1\_3



190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Name	Resp	RA	RY	RRF	wVoi	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	5.85e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0800	9.87
2 1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	69.0	0.154	44.5
3 1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	88.0	0.299	49.0
4 1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5 1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6 1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7 OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8 2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	85.9	0.0857	9.59
9 1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10 2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11 1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.58	1.001	49.1	98.2	0.274	49.1
12 1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13 2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14 1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15 1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16 1,2,3,4,7,8,9-HpCDF	1.69e5	1.10	NO	1.28	1.000	38.87	1.000	46.6	93.2	0.350	46.6
17 OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18 13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19 13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20 13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21 13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.68	1.000	34.80	1.025	102	102	0.529	
23 13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	





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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

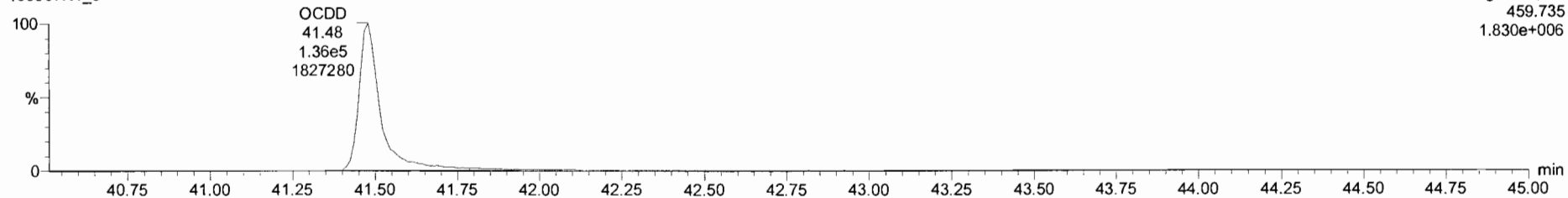
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**OCDD**

190507K1\_3

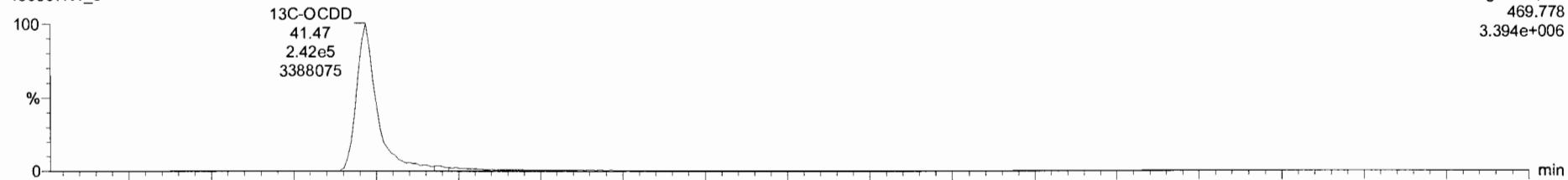


190507K1\_3

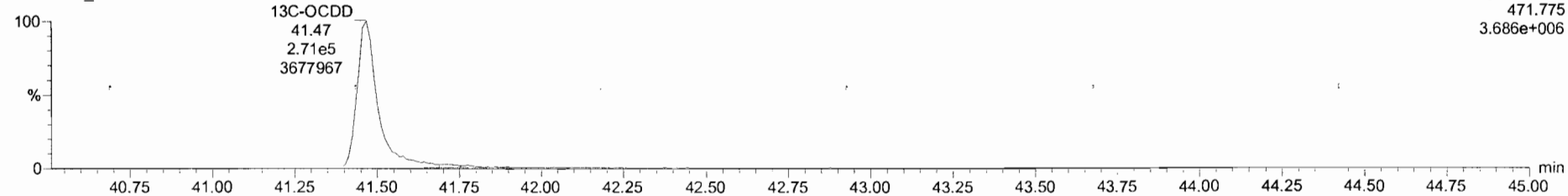


**13C-OCDD**

190507K1\_3



190507K1\_3

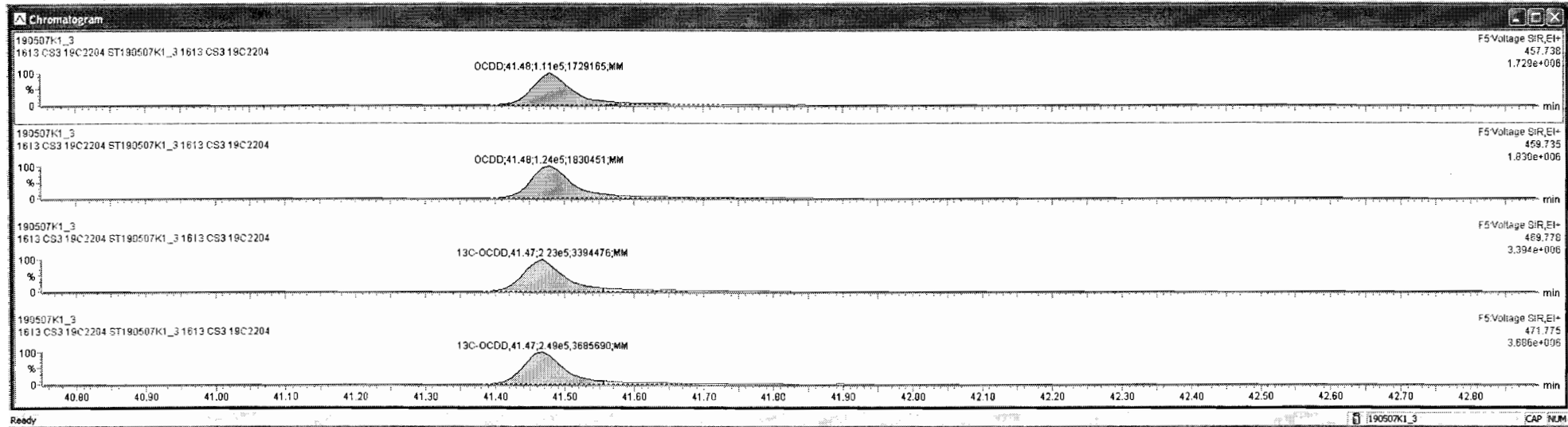


TargetLynx - 190507K1 - CRV.qld

File Edit View Display Processing Window Help

190507K1\_3 - ST190507K1\_3\_1613\_CS3\_19C2204 - 1613\_CS3\_19C2204

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC	
1	2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.97	96.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.83	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.306	48.5
5	1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7	OCDD	2.35e5	0.80	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10	2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	98.5	0.148	49.7
11	1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	98.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.88	1.000	50.6	101	0.280	50.6
13	1,2,3,6,7,8-HxCDF	2.75e5	1.26	NO	1.16	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.89e5	1.10	NO	1.26	1.000	38.87	1.000	46.6	93.2	0.360	46.6
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	96.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.81	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.86	1.000	34.60	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	

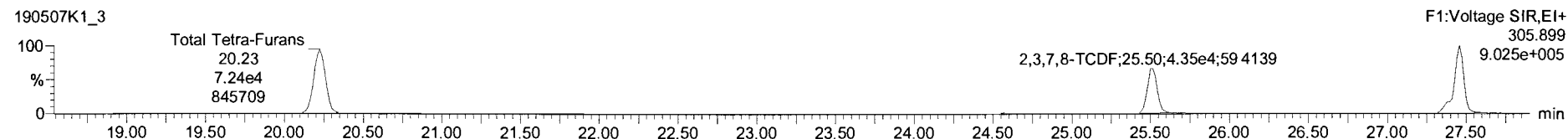


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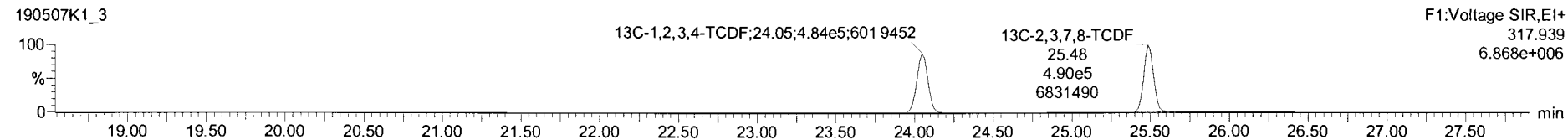
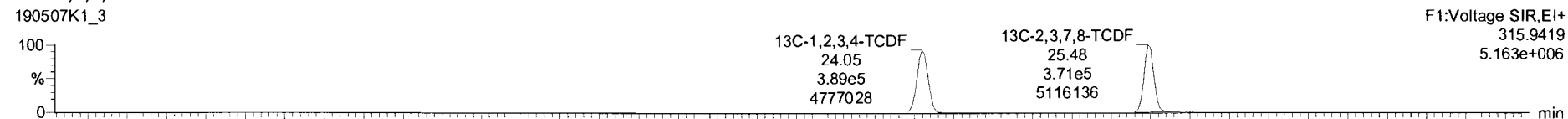
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

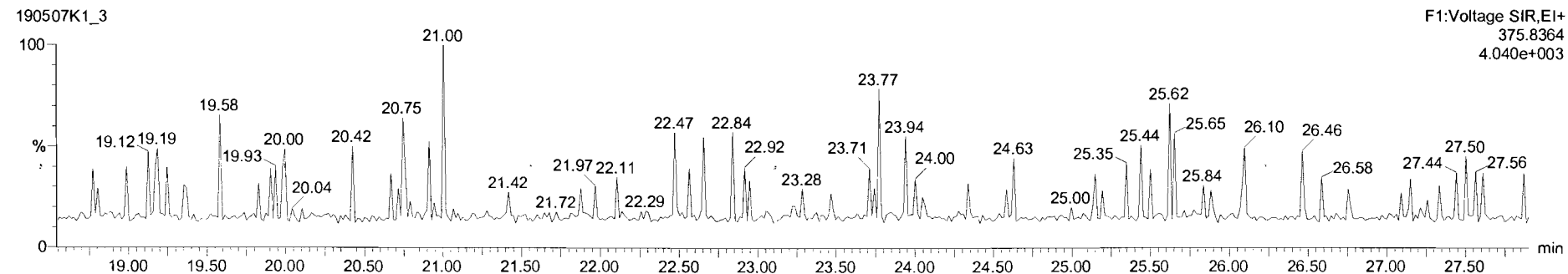
### 2,3,7,8-TCDF



### 13C-2,3,7,8-TCDF



### DPE1



Dataset: Untitled

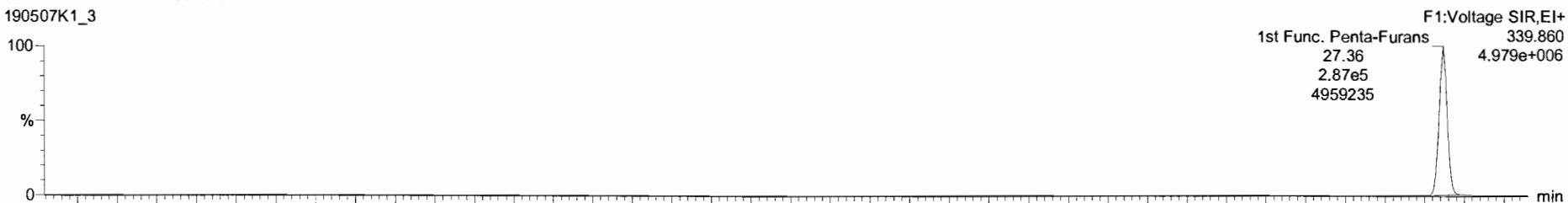
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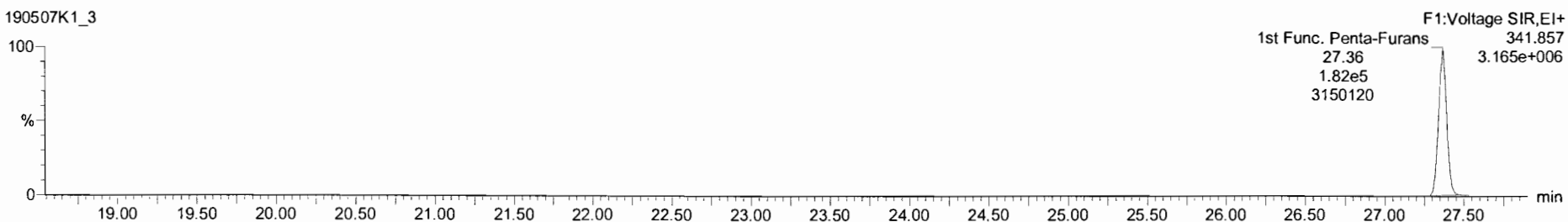
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1st Func. Penta-Furans

190507K1\_3

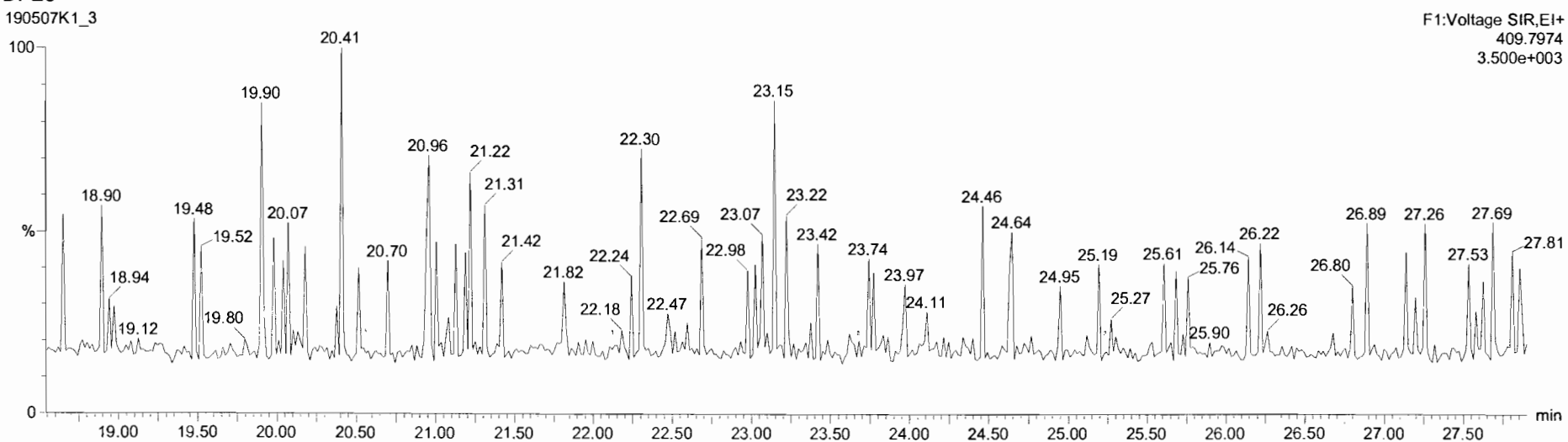


190507K1\_3



DPE6

190507K1\_3



Dataset: Untitled

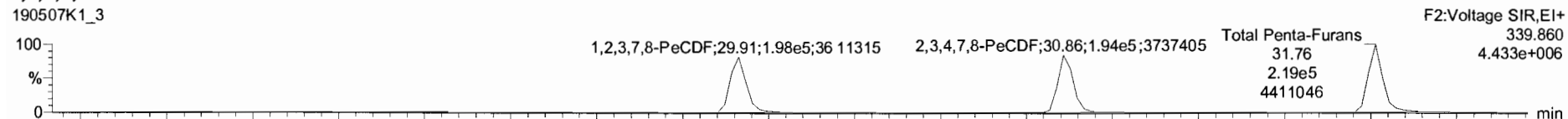
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

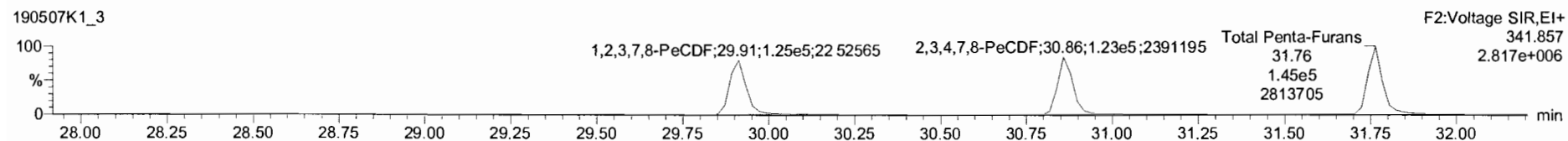
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### 1,2,3,7,8-PeCDF

190507K1\_3

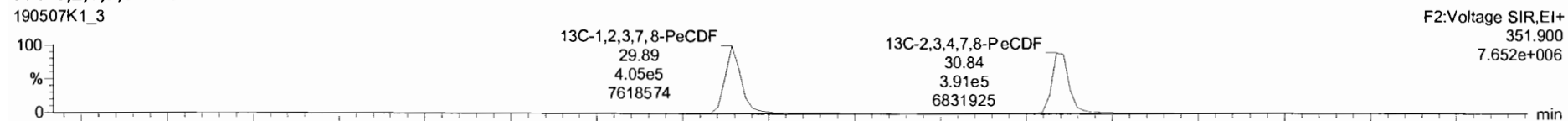


190507K1\_3

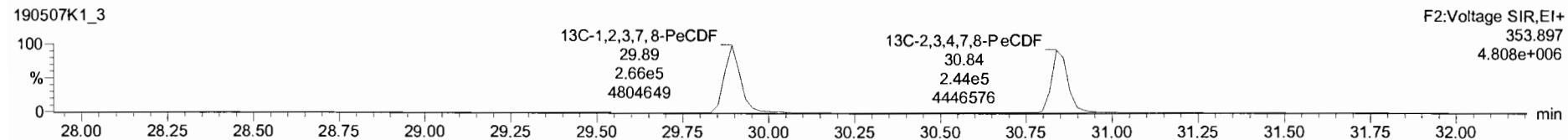


### 13C-1,2,3,7,8-PeCDF

190507K1\_3

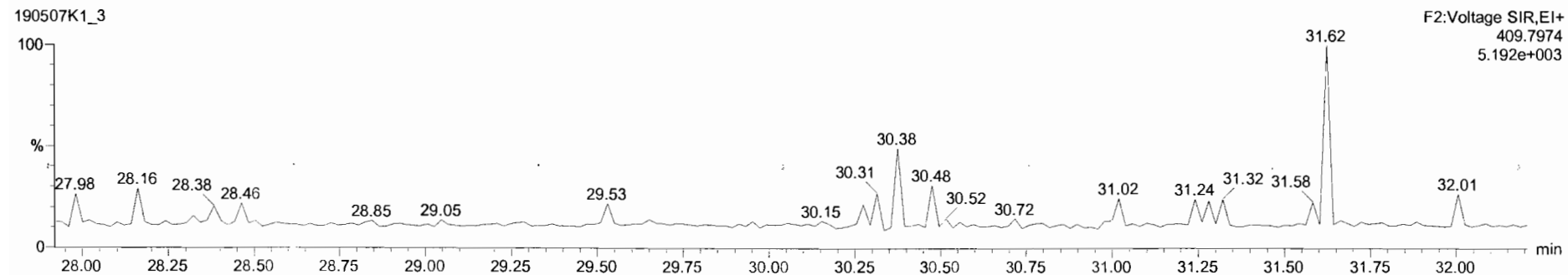


190507K1\_3



### DPE2

190507K1\_3



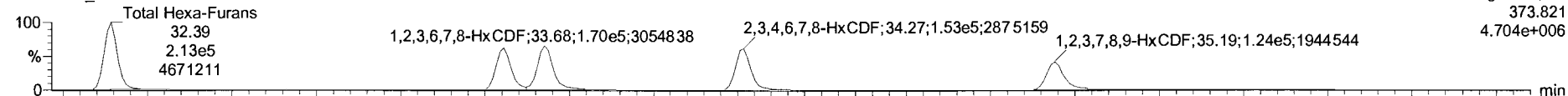
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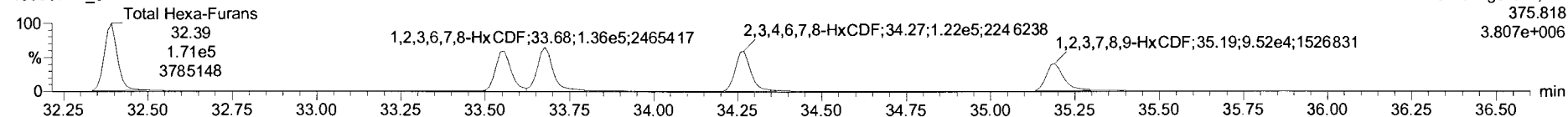
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**1,2,3,4,7,8-HxCDF**

190507K1\_3

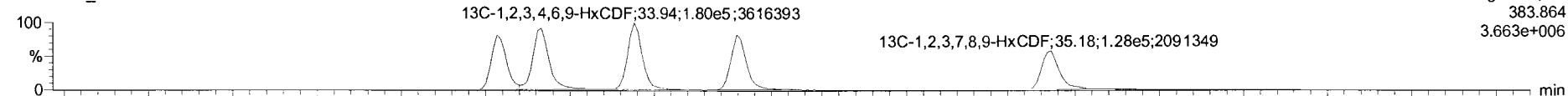


190507K1\_3

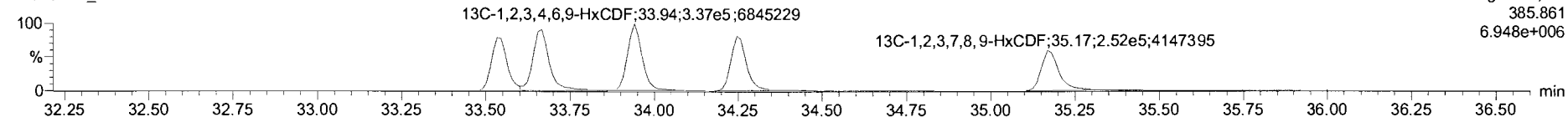


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_3

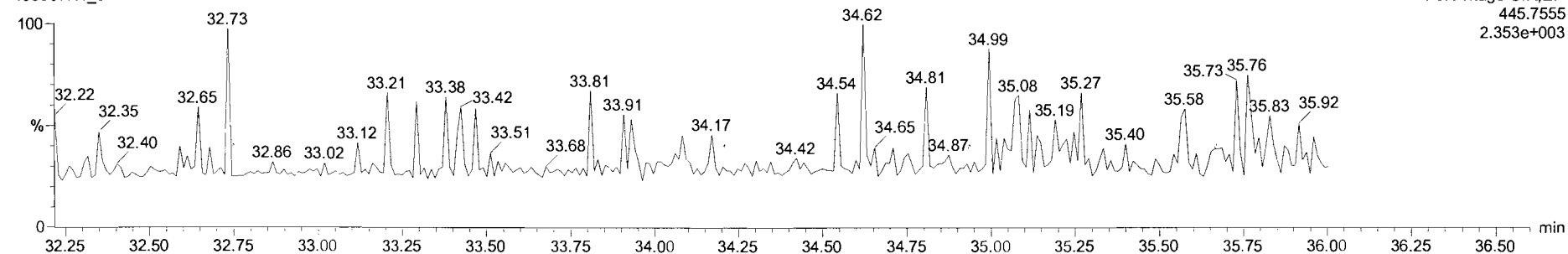


190507K1\_3



**DPE3**

190507K1\_3

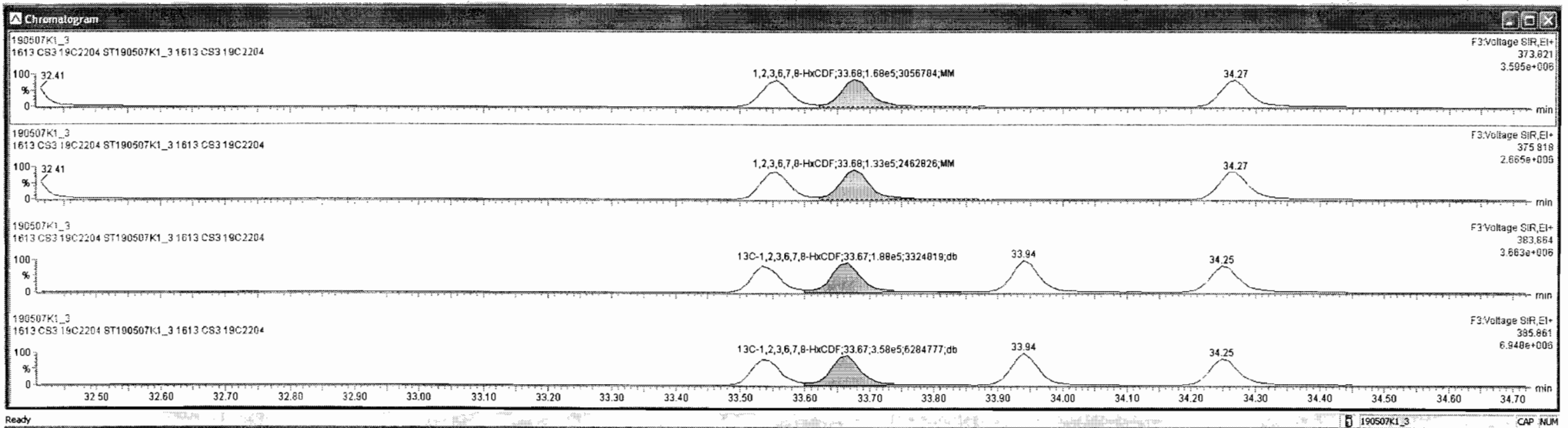


Targetlynx - 190507K1\_CRV.qld

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190507K1\_3 - ST 190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Name	Resp	RA	nV	RRF	wVvol	RT	RRT	Conc	%Rec	DL	EMPC	
1	2,3,7,8-TCDD	5.85e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	99.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	96.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.306	48.5
5	1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.61	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7	OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	96.7	0.135	49.4
10	1,2,3,4,7,8-HxCDF	3.17e5	1.59	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11	1,2,3,4,7,8-HxCDF	2.69e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	98.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13	2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.69e5	1.10	NO	1.26	1.000	38.87	1.000	46.6	93.2	0.350	46.6
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.028	98.4	98.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.85	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	

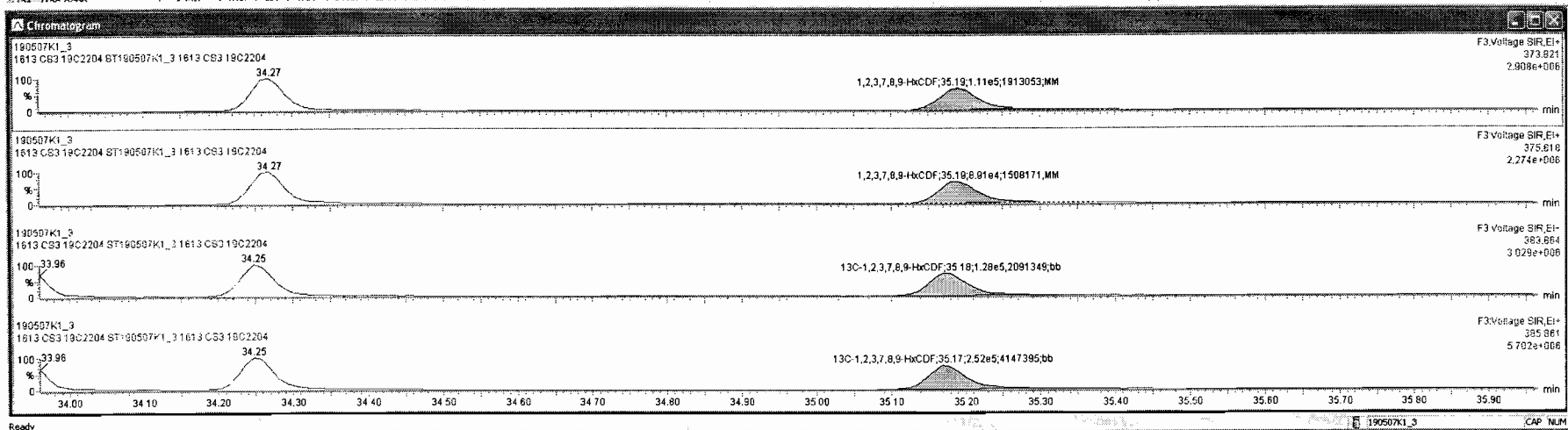


Target: ymx - 190507K1\_CRV.qld

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190507K1\_3 ST:190507K1\_3 1613 CS3 19C2204 1613 CS3 19C2204

Name	Resp	RA	NY	RRF	WtVol	RT	RR1	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0900	9.87
2 1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3 1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4 1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	46.5	97.0	0.308	46.5
5 1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6 1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7 OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8 2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9 1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10 2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11 1,2,3,4,7,8-HxCDF	2.89e5	1.25	NO	1.24	1.000	33.58	1.001	49.1	98.2	0.274	49.1
12 1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13 2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14 1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15 1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16 1,2,3,4,7,8,9-HpCDF	1.89e5	1.10	NO	1.26	1.000	38.87	1.000	46.6	93.2	0.350	46.6
17 OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18 13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19 13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20 13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21 13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23 13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	



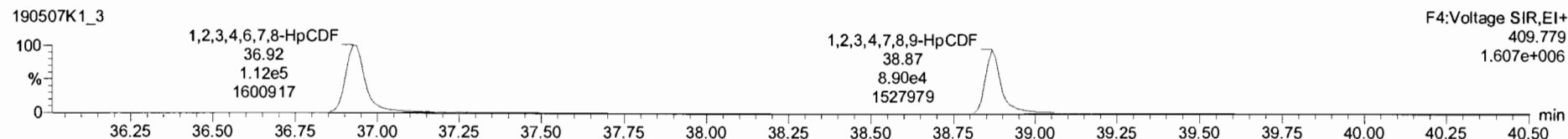
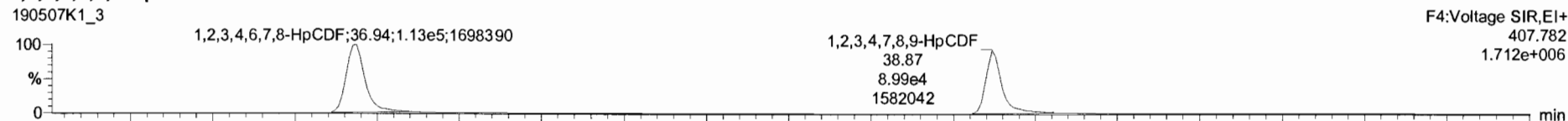


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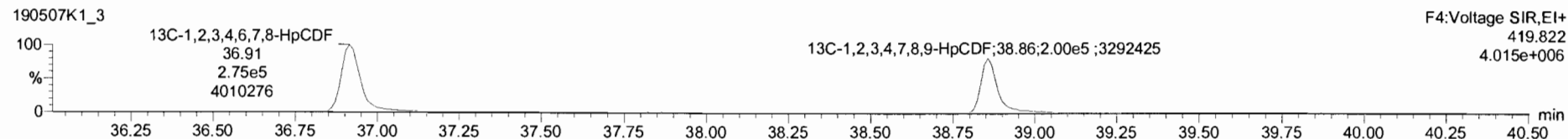
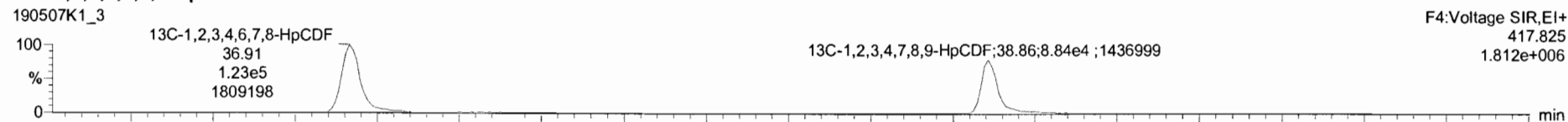
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

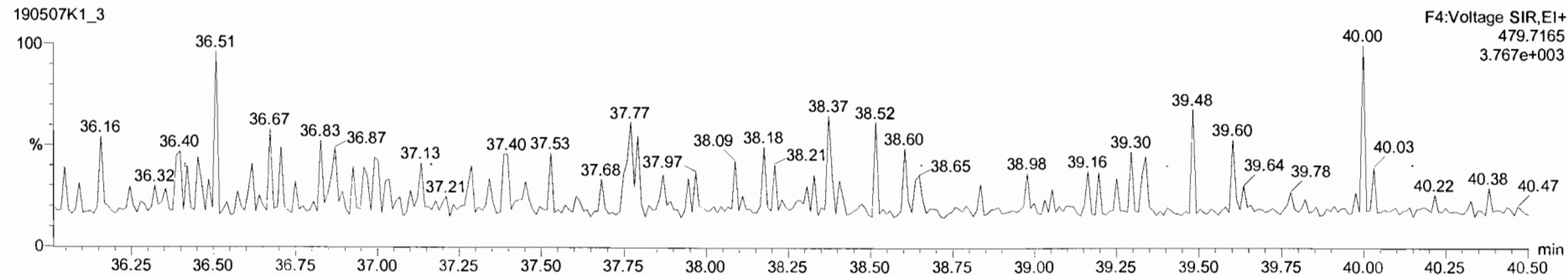
### 1,2,3,4,6,7,8-HpCDF



### 13C-1,2,3,4,6,7,8-HpCDF

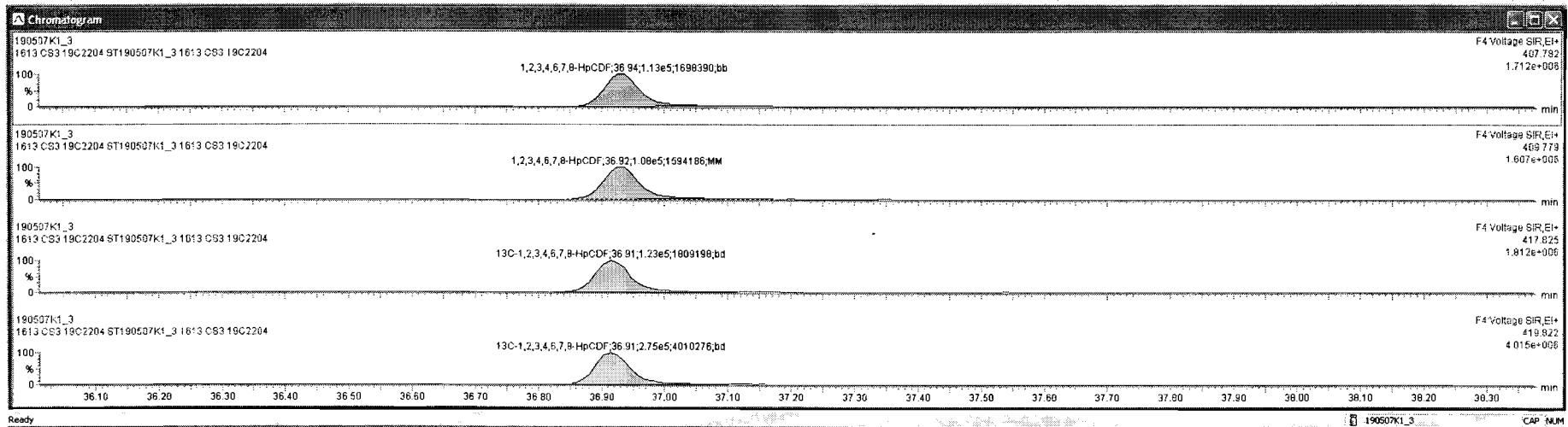


### DPE4



190507K1\_3-ST190507K1\_3\_1613 CS3 19C2204 - 1613 CS3 19C2204

SL	Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	98.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5	1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.61	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HxCDD	1.42e5	1.03	NO	1.03	1.000	36.32	1.000	50.1	100	0.364	50.1
7	OCDF	2.35e5	0.90	NO	0.97	1.000	41.46	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0657	9.59
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	98.7	0.135	49.4
10	2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11	1,2,3,4,7,8-HxCDF	2.89e5	1.25	NO	1.24	1.000	33.96	1.001	49.1	98.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13	2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.22e5	1.05	NO	1.13	1.000	36.54	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.89e5	1.10	NO	1.26	1.000	38.67	1.000	46.6	93.2	0.350	46.6
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.78e5	1.05	NO	0.54	1.000	36.31	1.129	100	100	0.557	

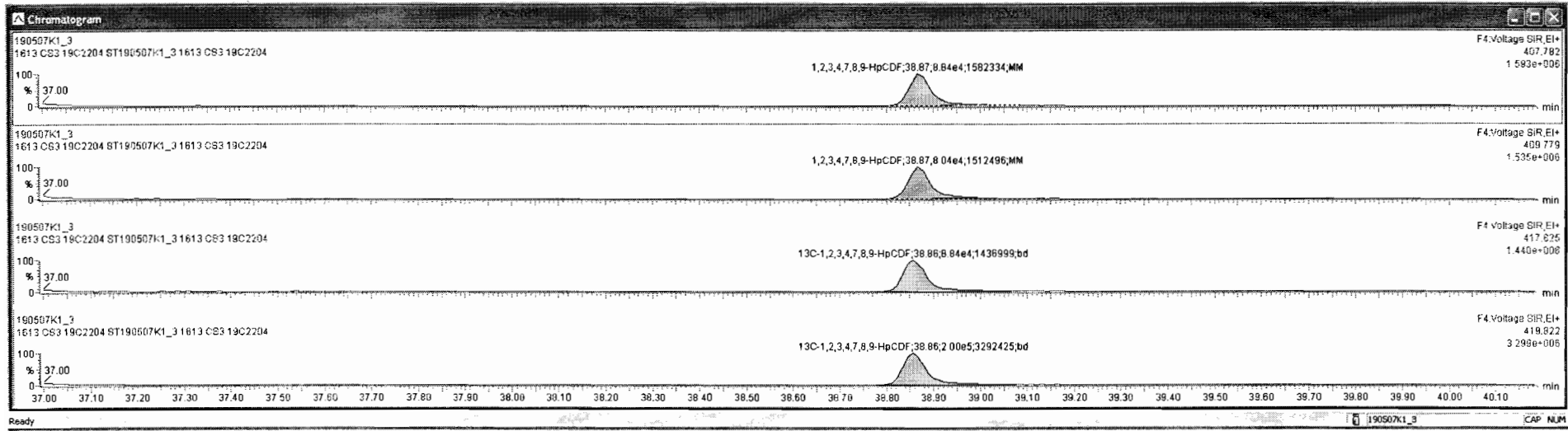


Target: ynx - 190507K1.CRV.qid

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190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

#	Name	Resp	RA	nly	RRF	wtVol	RT	RR1	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.87	96.7	0.0900	9.87
2	1,2,3,7,8-PeCDD	1.80e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3	1,2,3,4,7,8-HxCDD	1.78e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4	1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5	1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6	1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	38.32	1.000	50.1	100	0.364	50.1
7	OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8	2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.58	95.9	0.0857	9.58
9	1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	99.7	0.135	49.4
10	2,3,4,7,8-HxCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11	1,2,3,4,7,8-HxCDF	2.89e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	99.2	0.274	49.1
12	1,2,3,6,7,8-HxCDF	3.02e5	1.25	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13	2,3,4,6,7,8-HxCDF	2.75e5	1.25	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14	1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	98.2	0.443	49.1
15	1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	98.5	0.311	49.3
16	1,2,3,4,7,8,9-HpCDF	1.89e5	1.10	NO	1.26	1.000	38.97	1.000	46.6	93.2	0.350	46.6
17	OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	90.4	90.4	0.372	90.4
18	13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19	13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20	13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.65	1.000	34.41	1.014	102	102	0.543	
21	13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22	13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.66	1.000	34.80	1.025	102	102	0.529	
23	13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	



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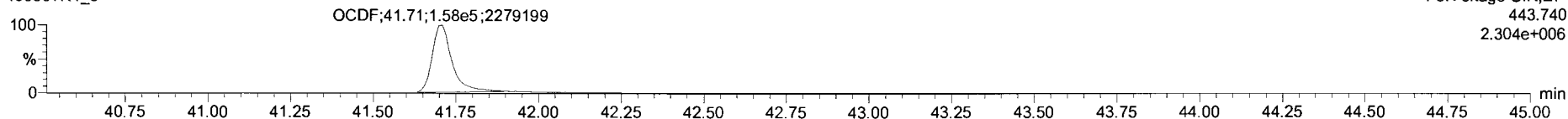
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**OCDF**

190507K1\_3

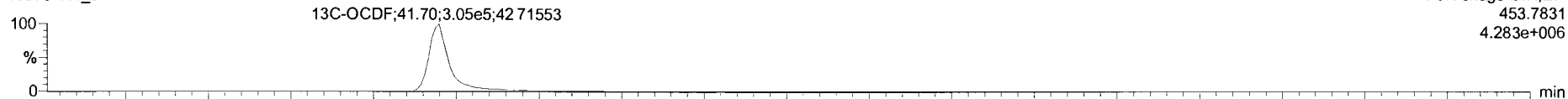


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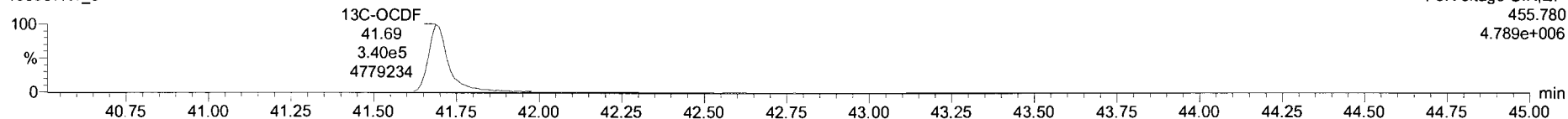


**13C-OCDF**

190507K1\_3

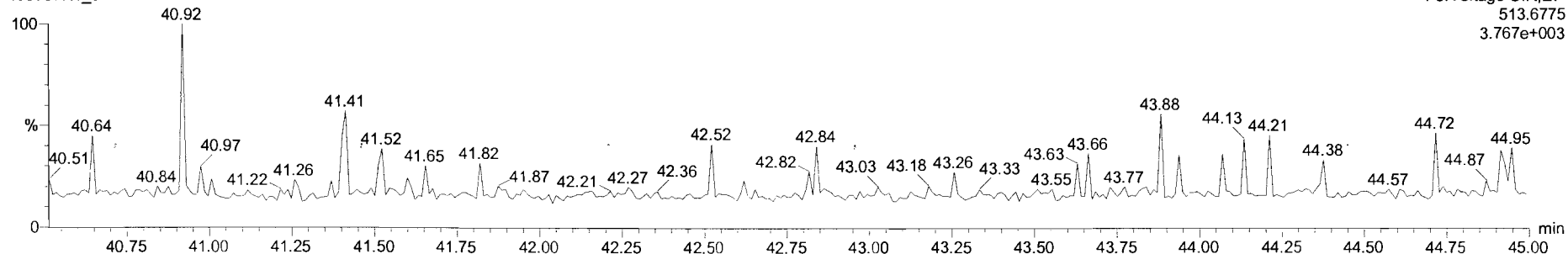


190507K1\_3



**DPE5**

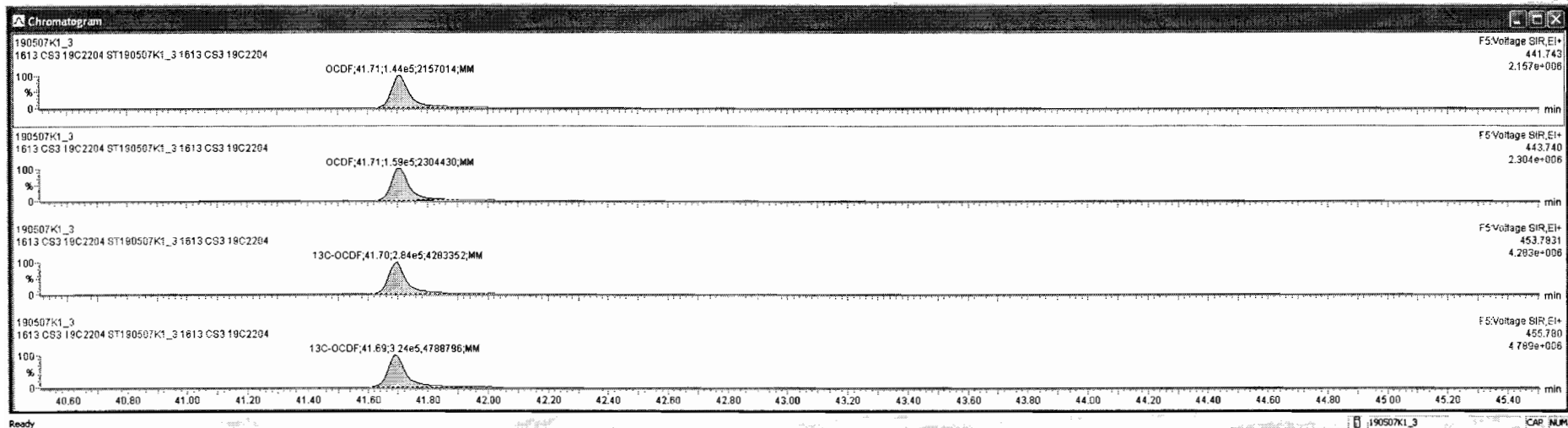
190507K1\_3



Target: ynx - 190507K1\_CRW.qld

190507K1\_3 - ST190507K1\_3 1613 CS3 19C2204 - 1613 CS3 19C2204

Name	Resp	RA	DV	RRF	WtWol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	5.65e4	0.78	NO	0.92	1.000	26.36	1.001	9.97	98.7	0.0900	9.97
2 1,2,3,7,8-PeCDD	1.89e5	0.63	NO	0.90	1.000	31.14	1.001	44.5	89.0	0.154	44.5
3 1,2,3,4,7,8-HxCDD	1.76e5	1.28	NO	1.07	1.000	34.42	1.000	49.0	98.0	0.299	49.0
4 1,2,3,6,7,8-HxCDD	1.92e5	1.26	NO	0.97	1.000	34.53	1.000	48.5	97.0	0.308	48.5
5 1,2,3,7,8,9-HxCDD	1.63e5	1.35	NO	0.97	1.000	34.81	1.000	48.7	97.3	0.340	48.7
6 1,2,3,4,6,7,8-HpCDD	1.42e5	1.03	NO	1.03	1.000	39.32	1.000	50.1	100	0.364	50.1
7 OCDD	2.35e5	0.90	NO	0.97	1.000	41.48	1.000	103	103	0.327	103
8 2,3,7,8-TCDF	7.75e4	0.78	NO	0.94	1.000	25.51	1.001	9.59	95.9	0.0857	9.59
9 1,2,3,7,8-PeCDF	3.23e5	1.58	NO	0.97	1.000	29.91	1.001	49.4	99.7	0.135	49.4
10 2,3,4,7,8-PeCDF	3.17e5	1.58	NO	1.00	1.000	30.86	1.001	49.7	99.5	0.149	49.7
11 1,2,3,4,7,8-HxCDF	2.89e5	1.25	NO	1.24	1.000	33.56	1.001	49.1	99.2	0.274	49.1
12 1,2,3,6,7,8-HxCDF	3.02e5	1.26	NO	1.09	1.000	33.68	1.000	50.6	101	0.280	50.6
13 2,3,4,6,7,8-HxCDF	2.75e5	1.26	NO	1.18	1.000	34.27	1.001	51.0	102	0.287	51.0
14 1,2,3,7,8,9-HxCDF	2.00e5	1.25	NO	1.07	1.000	35.19	1.000	49.1	99.2	0.443	49.1
15 1,2,3,4,6,7,8-HpCDF	2.21e5	1.05	NO	1.13	1.000	36.94	1.001	49.3	99.5	0.311	49.3
16 1,2,3,4,7,8,9-HpCDF	1.69e5	1.10	NO	1.26	1.000	38.67	1.000	46.8	93.2	0.350	46.8
17 OCDF	3.03e5	0.90	NO	1.10	1.000	41.71	1.000	80.4	80.4	0.372	80.4
18 13C-2,3,7,8-TCDD	6.19e5	0.80	NO	1.05	1.000	26.34	1.026	98.4	98.4	0.276	
19 13C-1,2,3,7,8-PeCDD	4.47e5	0.61	NO	0.74	1.000	31.12	1.212	100	100	0.183	
20 13C-1,2,3,4,7,8-HxCDD	3.36e5	1.24	NO	0.85	1.000	34.41	1.014	102	102	0.543	
21 13C-1,2,3,6,7,8-HxCDD	4.10e5	1.25	NO	0.78	1.000	34.52	1.017	103	103	0.452	
22 13C-1,2,3,7,8,9-HxCDD	3.44e5	1.18	NO	0.86	1.000	34.80	1.025	102	102	0.529	
23 13C-1,2,3,4,6,7,8-HpCDD	2.76e5	1.05	NO	0.54	1.000	38.31	1.129	100	100	0.557	

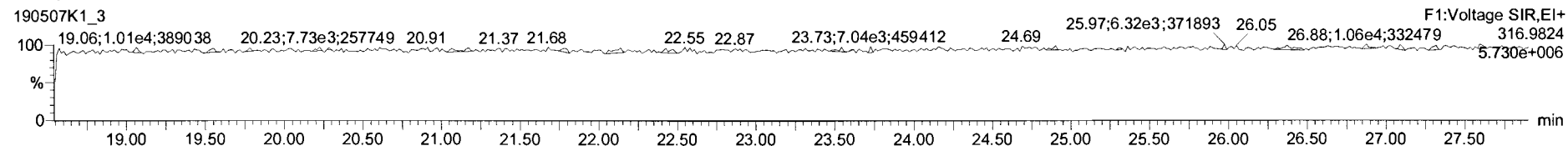


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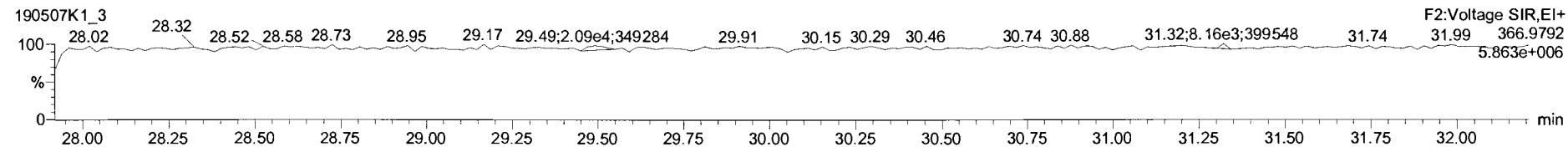
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Name: 190507K1\_3, Date: 07-May-2019, Time: 12:16:36, ID: ST190507K1\_3 1613 CS3 19C2204, Description: 1613 CS3 19C2204

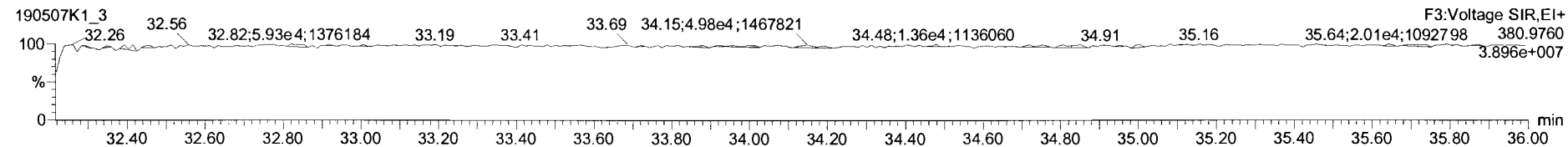
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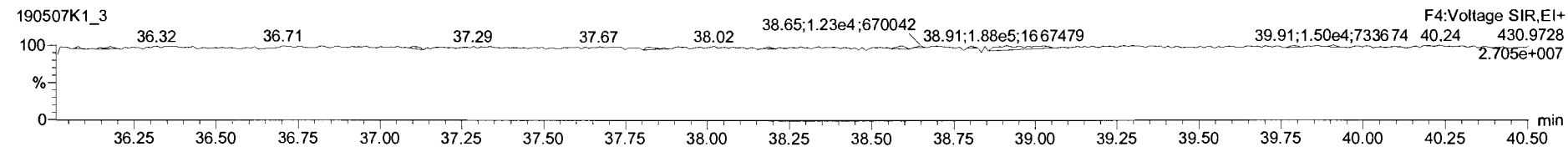
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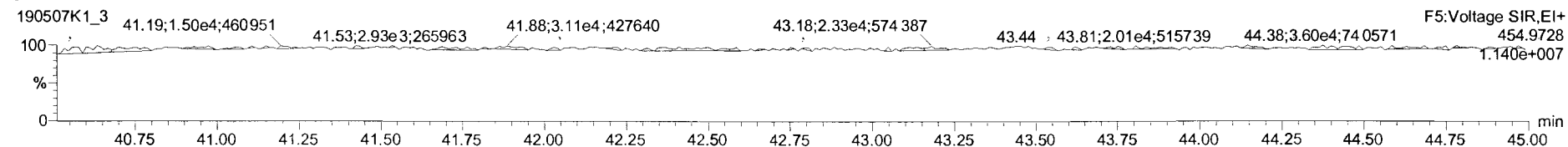
**PFK3**



**PFK4**



**PFK5**



Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_6, Date: 07-May-2019, Time: 14:39:24, ID: ST190507K1\_6 1613 CS4 19C2205, Description: 1613 CS4 19C2205

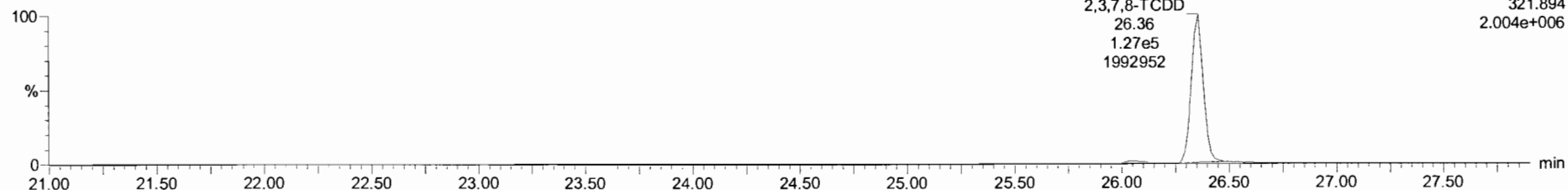
### 2,3,7,8-TCDD

190507K1\_6



F1:Voltage SIR,EI+  
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1.616e+006

190507K1\_6



F1:Voltage SIR,EI+  
321.894  
2.004e+006

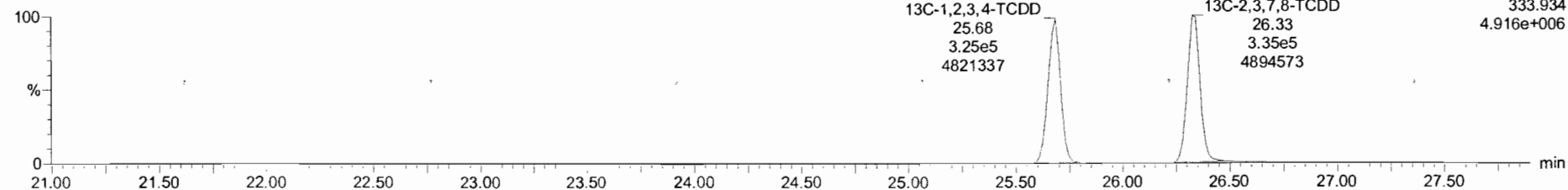
### 13C-2,3,7,8-TCDD

190507K1\_6



F1:Voltage SIR,EI+  
331.9368  
3.869e+006

190507K1\_6



F1:Voltage SIR,EI+  
333.934  
4.916e+006

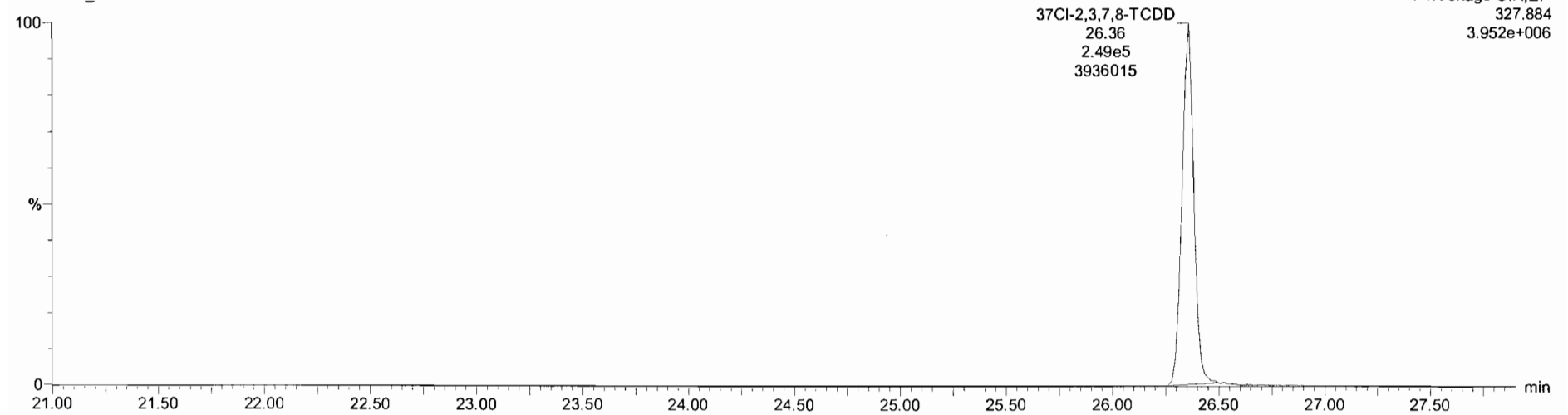
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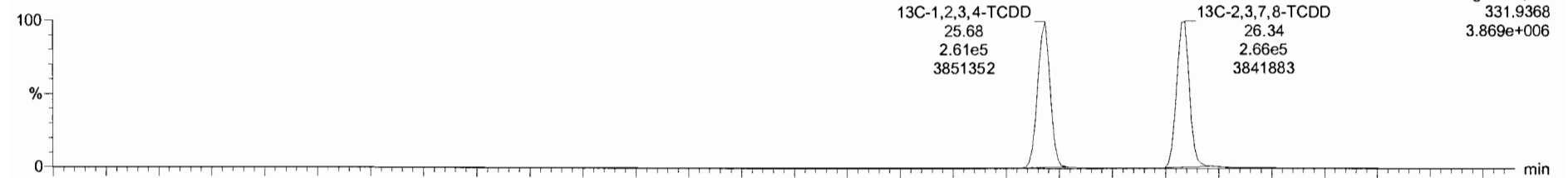
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190507K1\_6

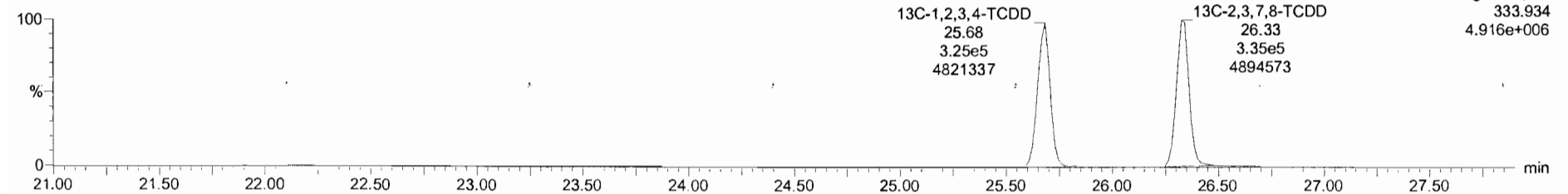


**13C-1,2,3,4-TCDD**

190507K1\_6



190507K1\_6





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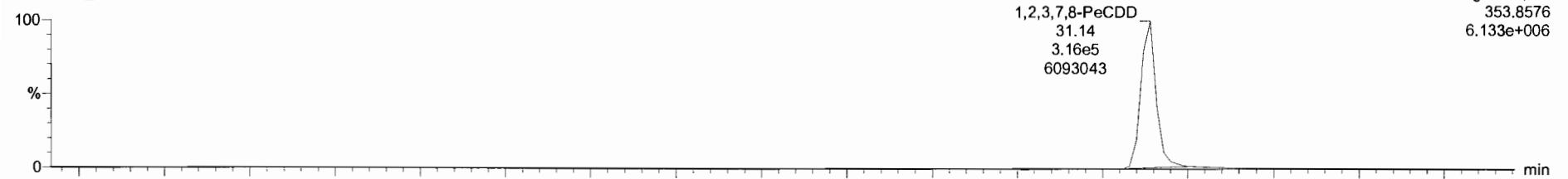
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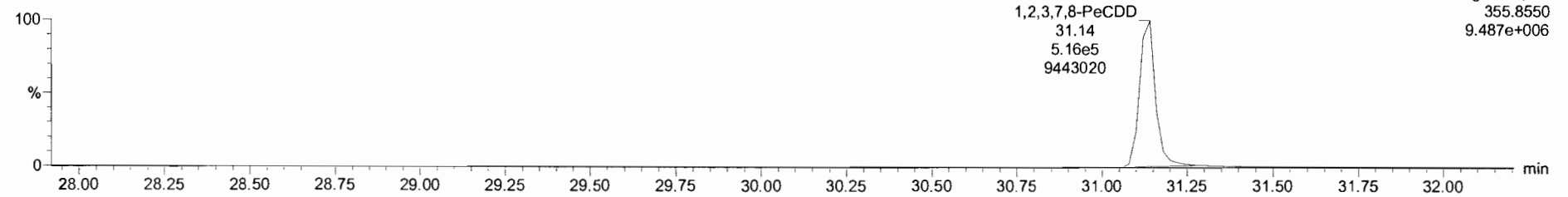
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**1,2,3,7,8-PeCDD**

190507K1\_6

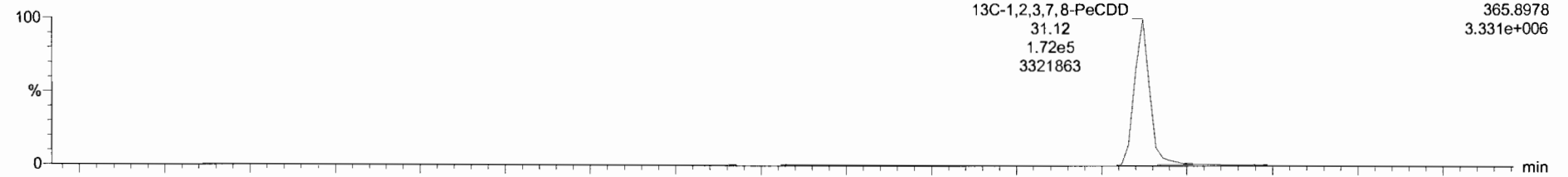


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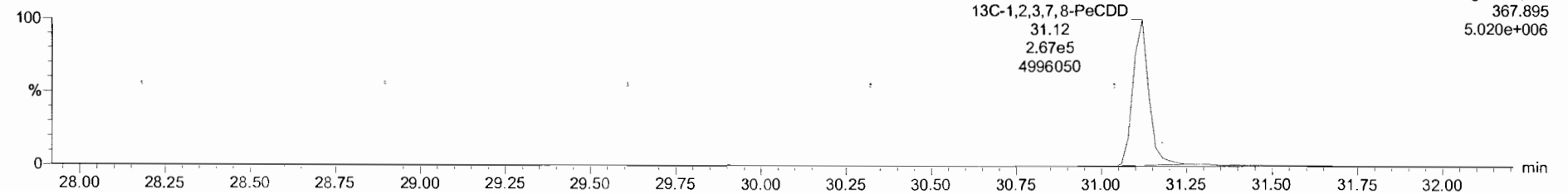


**13C-1,2,3,7,8-PeCDD**

190507K1\_6

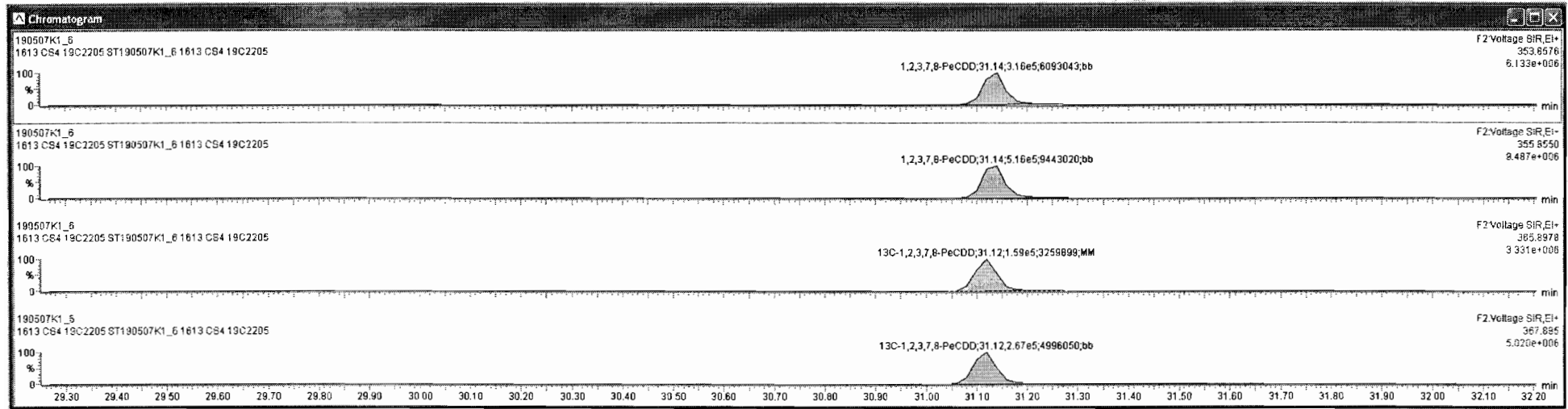
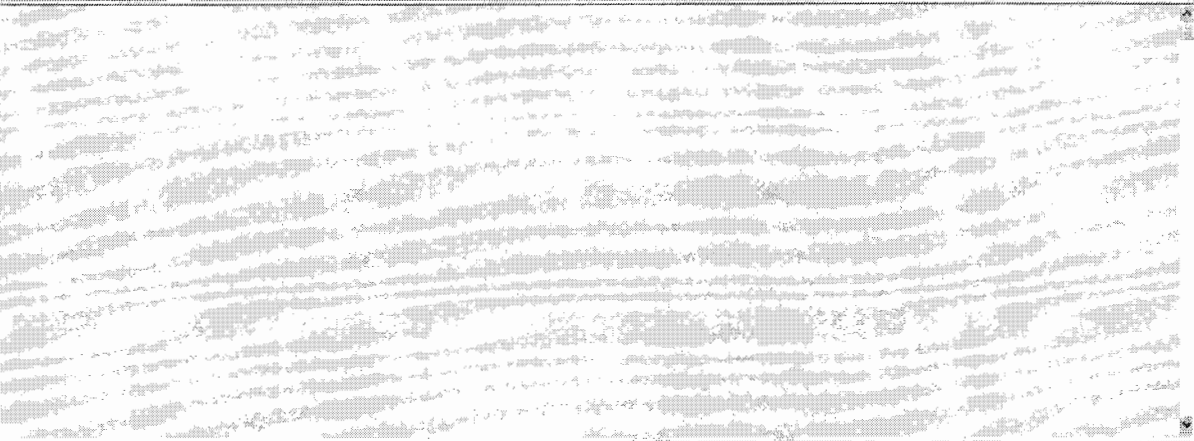


190507K1\_6



190507K1\_6 - ST:190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0876	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	198	0.152	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.366	210
4 1,2,3,6,7,8-HxCDD	7.88e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.367	211
5 1,2,3,7,8,9-HxCDD	6.68e5	1.22	NO	0.97	1.000	34.80	1.000	204	102	0.434	204
6 1,2,3,6,7,8-HpCDD	5.83e5	1.03	NO	1.03	1.000	38.31	1.000	194	97.0	0.503	194
7 OCDD	9.61e5	0.89	NO	0.97	1.000	41.47	1.000	410	102	0.534	410
8 2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0721	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.87	1.000	29.89	1.000	214	107	0.142	214
10 2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.124	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.310	211
12 1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.306	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.16	1.000	34.26	1.001	216	108	0.314	216
14 1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.483	221
15 1,2,3,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.435	208
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.507	217
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.484	378
18 13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.223	
19 13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.303	
20 13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	98.5	98.5	0.789	
21 13C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.656	
22 13C-1,2,3,7,8,9-HxCDD	3.37e5	1.40	NO	0.66	1.000	34.78	1.025	100	100	0.789	
23 13C-1,2,3,4,6,7,8-HpCDD	2.93e5	1.05	NO	0.54	1.000	38.30	1.129	106	106	0.468	



Dataset: Untitled

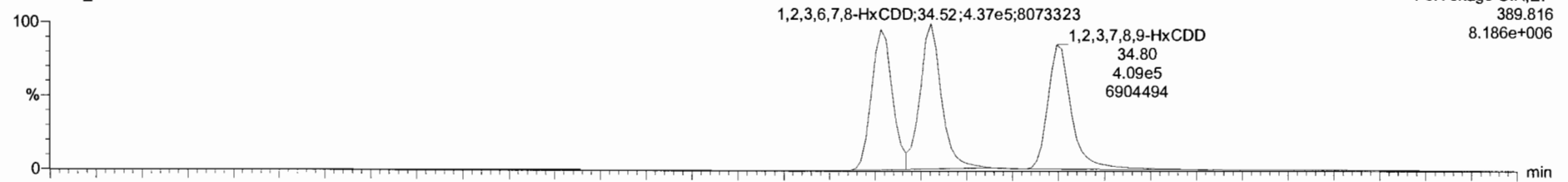
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_6, Date: 07-May-2019, Time: 14:39:24, ID: ST190507K1\_6 1613 CS4 19C2205, Description: 1613 CS4 19C2205

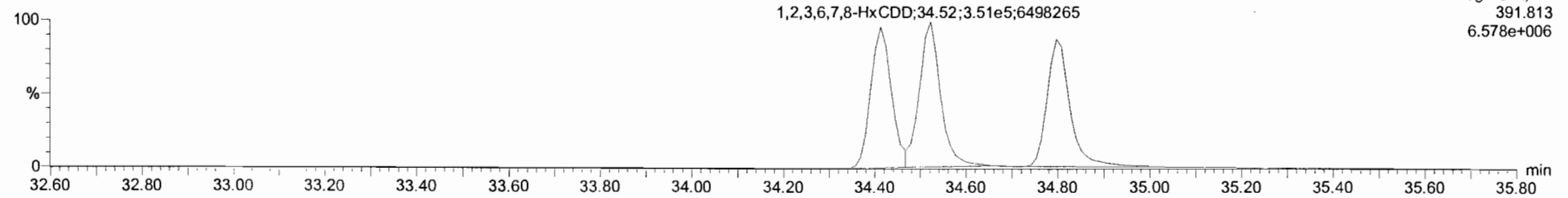
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190507K1\_6



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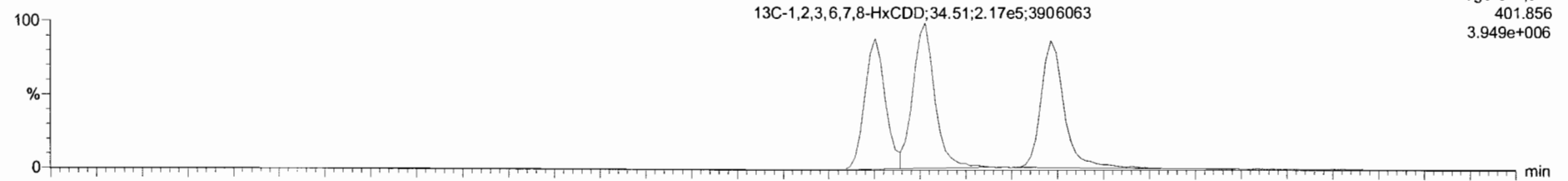
190507K1\_6



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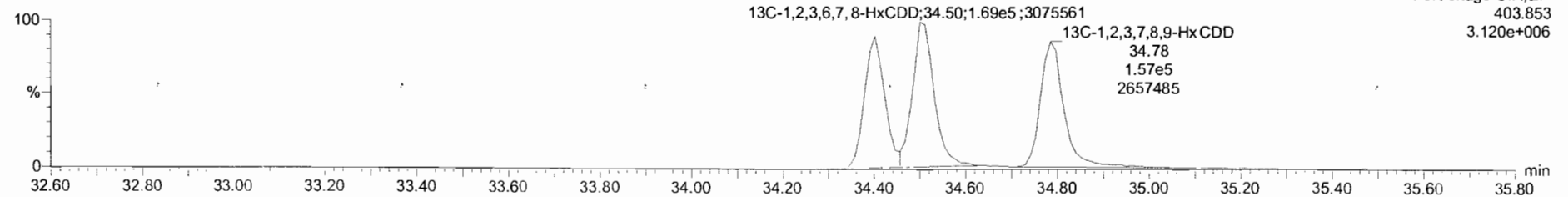
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190507K1\_6



F3: Voltage SIR, EI+  
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190507K1\_6



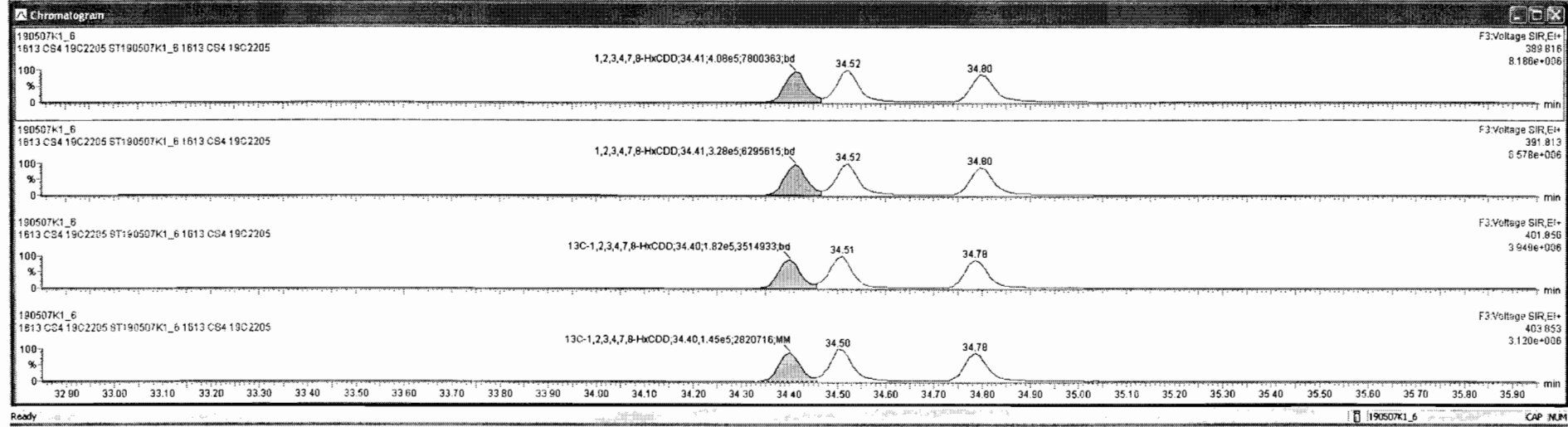
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3.120e+006

Target:lynx - 190507K1\_CRY.qld

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190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

Name	Resp	RA	nA	RRF	wtAval	RT	RRT	Conc.	%Rec	DL	EMPC	
1	2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0676	40.7
2	1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.152	216
3	1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.366	210
4	1,2,3,6,7,8-HxCDD	7.88e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.367	211
5	1,2,3,7,8-HxCDD	6.68e5	1.22	NO	0.97	1.000	34.80	1.000	204	102	0.434	204
6	1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.03	1.000	38.31	1.000	194	97.0	0.503	194
7	OCDD	9.61e5	0.89	NO	0.97	1.000	41.47	1.000	410	102	0.534	410
8	2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0721	42.0
9	1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.142	214
10	2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.66	1.001	214	107	0.124	214
11	1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.310	211
12	1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.306	211
13	2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.314	216
14	1,2,3,7,8-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.483	221
15	1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.435	208
16	1,2,3,4,7,8,9-HpCDF	7.13e5	1.06	NO	1.26	1.000	38.88	1.000	217	109	0.507	217
17	OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.464	378
18	13C-2,3,7,8-TCDD	5.01e5	0.78	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.223	
19	13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.303	
20	13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.789	
21	13C-1,2,3,6,7,8-HxCDD	3.86e5	1.26	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.656	
22	13C-1,2,3,7,8-HxCDD	3.37e5	1.40	NO	0.66	1.000	34.78	1.025	100	100	0.769	
23	13C-1,2,3,4,6,7,8-HpCDD	2.93e5	1.05	NO	0.54	1.000	36.30	1.129	106	106	0.488	

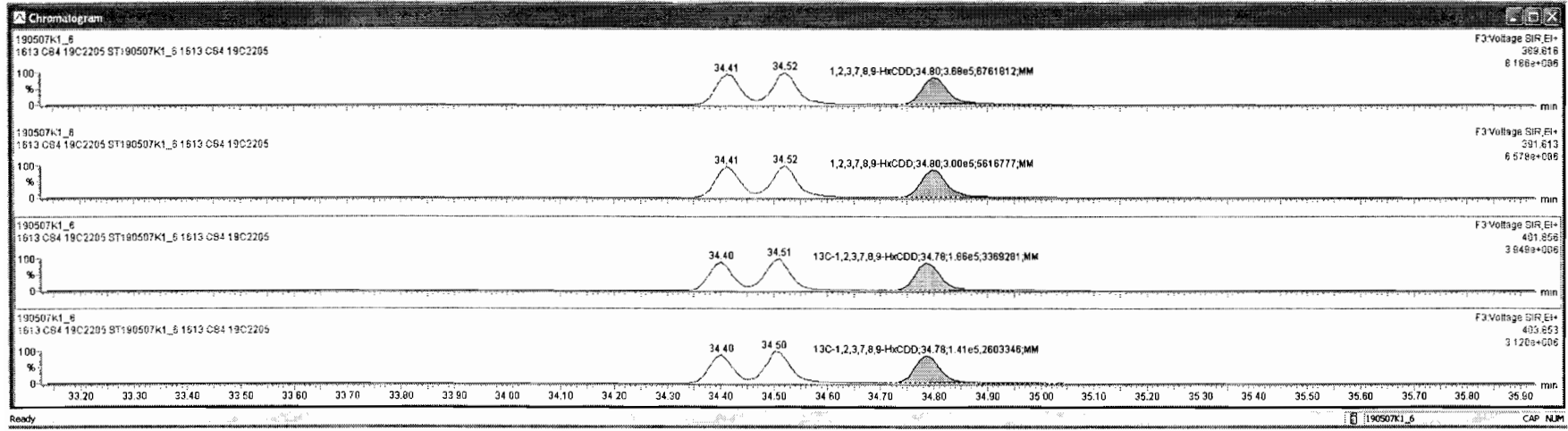


TargetLynx - 190507K1\_CRY.qld

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190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

SL	Name	Resp	RA	inj	RRF	wtVoi	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2	1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3	1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4	1,2,3,6,7,8-HxCDD	7.89e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5	1,2,3,7,8,9-HxCDD	8.89e5	1.22	NO	0.98	1.000	34.80	1.000	208	105	0.356	208
6	1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.03	1.000	38.31	1.000	194	97.0	0.419	194
7	OCDD	9.61e5	0.80	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8	2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9	1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10	2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11	1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12	1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.255	211
13	2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14	1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.402	221
15	1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.363	208
16	1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17	OCDF	1.21e6	0.80	NO	1.10	1.000	41.70	1.000	378	94.5	0.387	378
18	13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19	13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20	13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.657	
21	13C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22	13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.66	1.000	34.78	1.025	97.2	97.3	0.644	
23	13C-1,2,3,4,6,7,8-HpCDD	2.93e5	1.05	NO	0.54	1.000	38.30	1.128	106	106	0.390	



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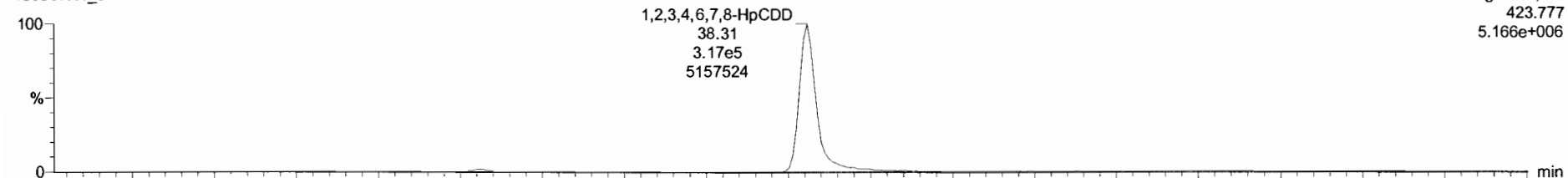
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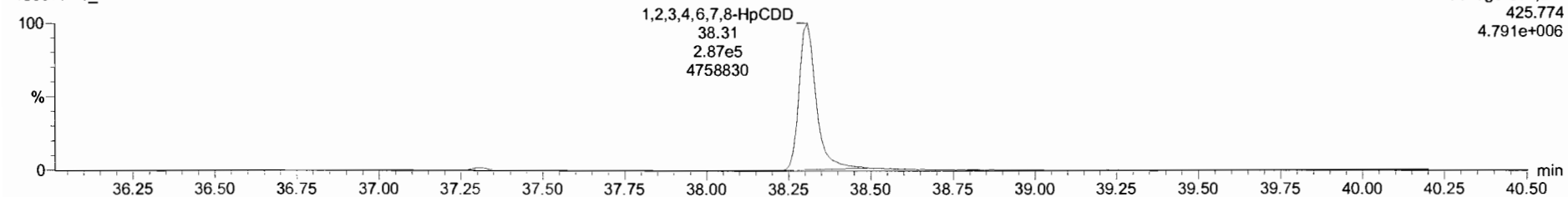
Name: 190507K1\_6, Date: 07-May-2019, Time: 14:39:24, ID: ST190507K1\_6 1613 CS4 19C2205, Description: 1613 CS4 19C2205

**1,2,3,4,6,7,8-HpCDD**

190507K1\_6

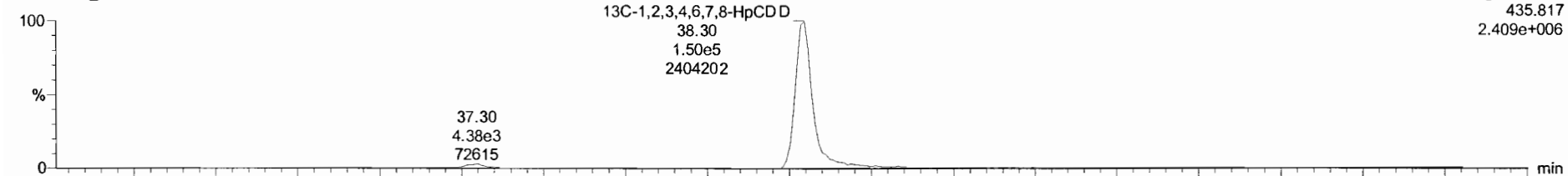


190507K1\_6

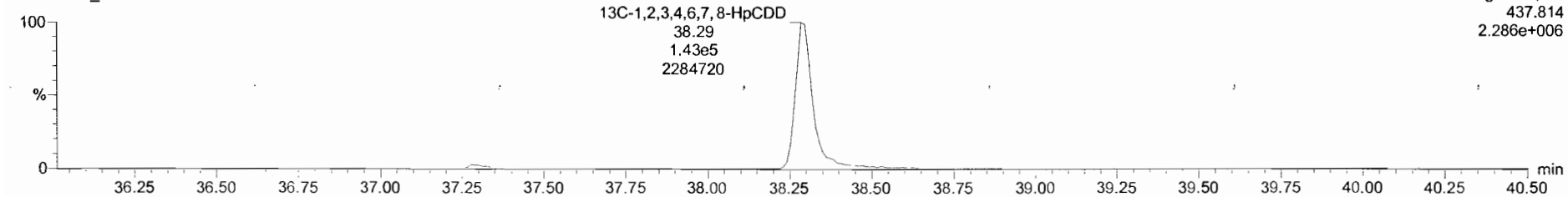


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_6



190507K1\_6

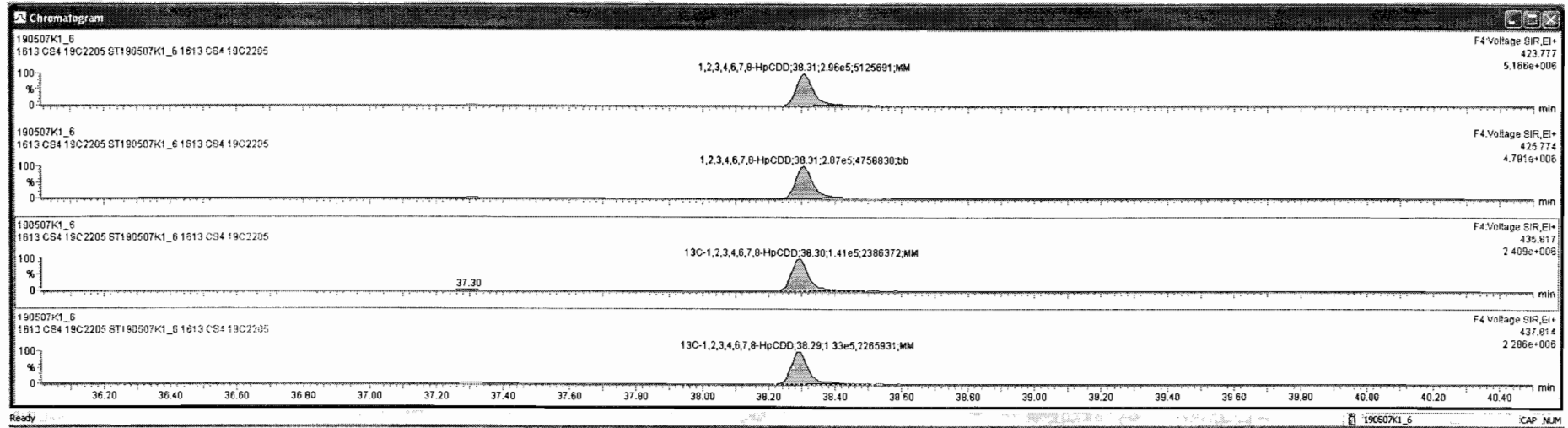


TargetLynx 190507K1\_6.DRV.qld

File Edit View Display Processing Window Help

190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

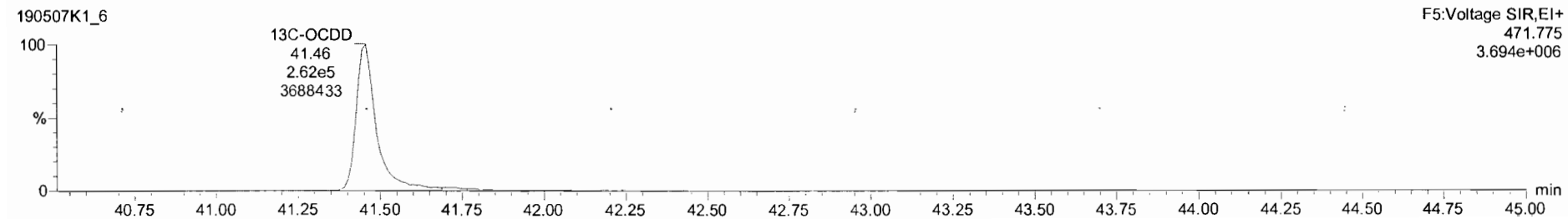
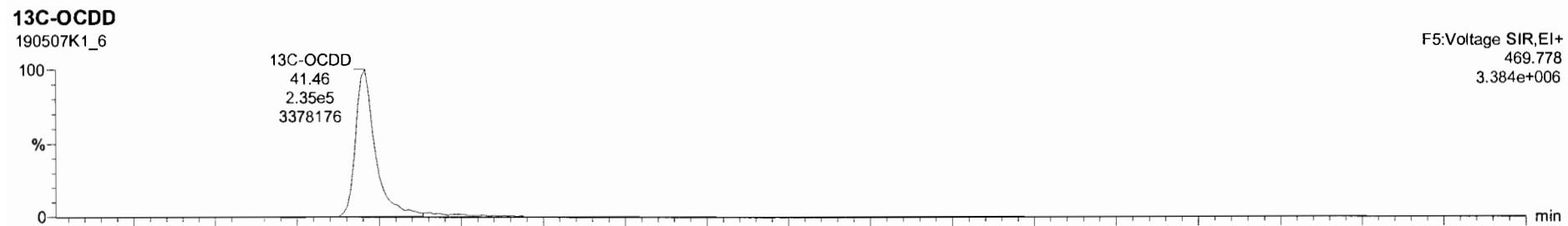
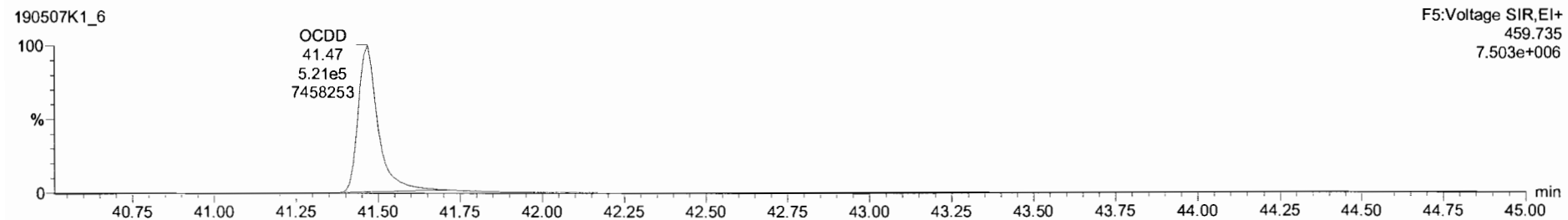
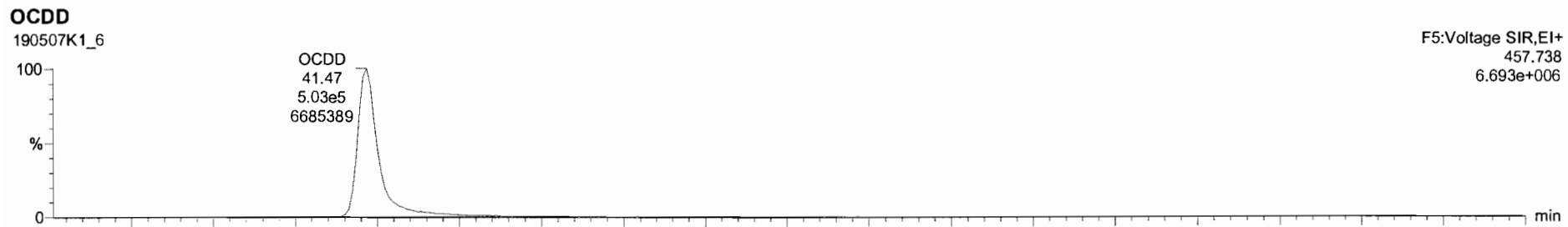
Name	Resp	RA	riy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4 1,2,3,6,7,8-HxCDD	7.88e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5 1,2,3,7,8,9-HxCDD	6.68e5	1.22	NO	0.98	1.000	34.80	1.000	209	105	0.356	209
6 1,2,3,4,6,7,8-HpCDD	5.29e5	1.03	NO	1.04	1.000	38.31	1.000	295	102	0.423	295
7 OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8 2,3,7,8-TCDF	3.19e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10 2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12 1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.255	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14 1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.402	221
15 1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.363	208
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.387	378
18 13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19 13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20 13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.657	
21 13C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22 13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.66	1.000	34.78	1.025	97.3	97.3	0.644	
23 13C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.06	NO	0.53	1.000	38.30	1.129	101	101	0.394	



Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

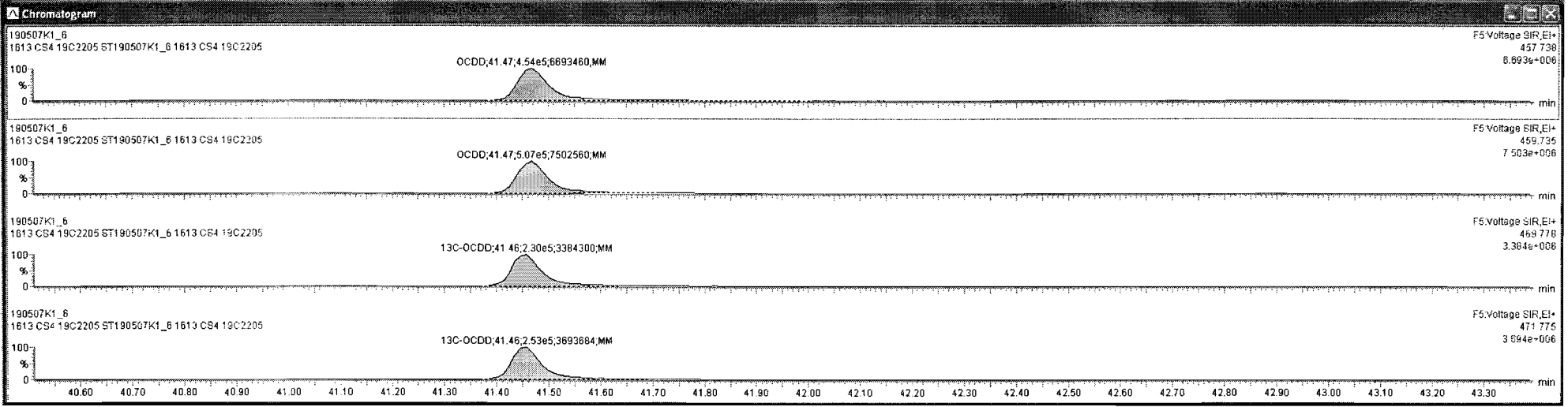
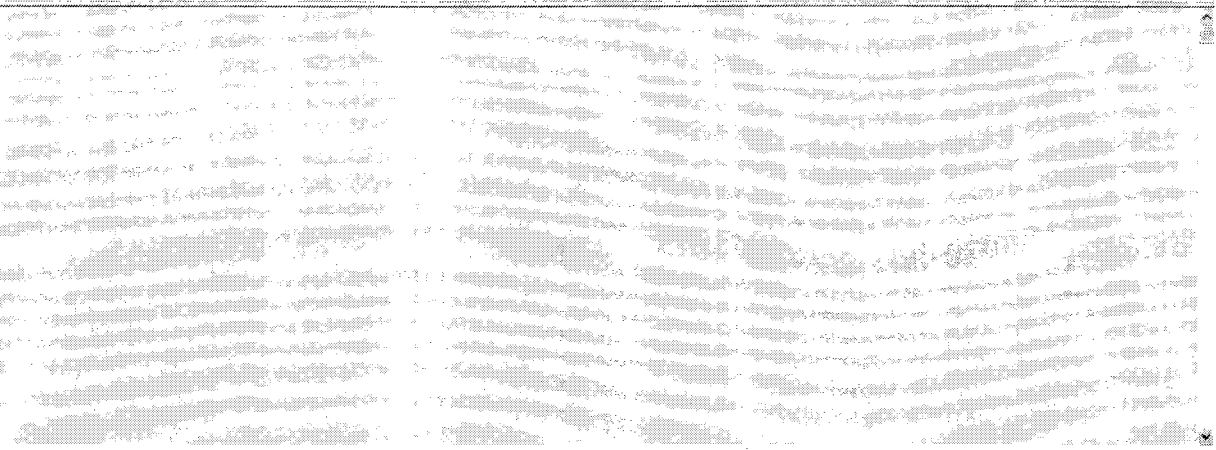
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190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

Name	Resp	RA	NA	RRF	wt/wt	RT	RRV	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.29e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4 1,2,3,6,7,8-HxCDD	7.88e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5 1,2,3,7,8,9-HxCDD	6.69e5	1.22	NO	0.98	1.000	34.80	1.000	209	105	0.356	209
6 1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.04	1.000	38.31	1.000	205	102	0.421	205
7 OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8 2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10 2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12 1,2,3,6,7,8-HxCDF	1.19e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.255	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14 1,2,3,7,8,9-HxCDF	9.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.402	221
15 1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	209	104	0.363	209
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	376	94.5	0.367	376
18 13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19 13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20 13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.657	
21 13C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22 13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.66	1.000	34.78	1.025	97.3	97.3	0.644	
23 13C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.06	NO	0.53	1.000	38.30	1.129	101	101	0.394	



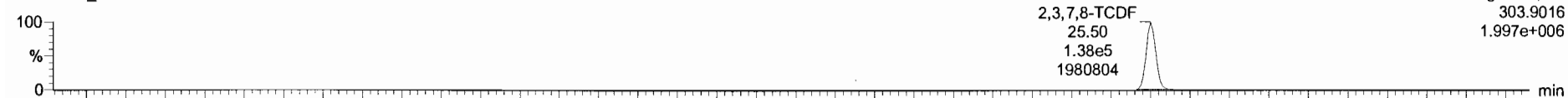
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

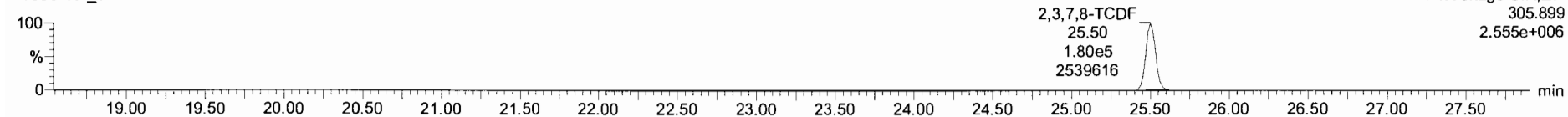
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**2,3,7,8-TCDF**

190507K1\_6

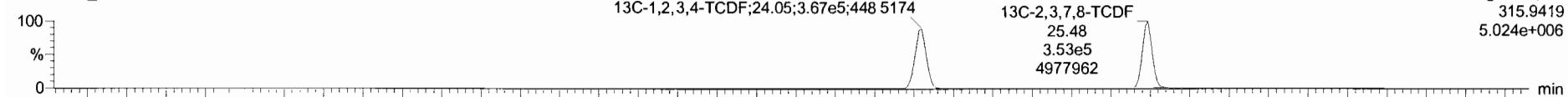


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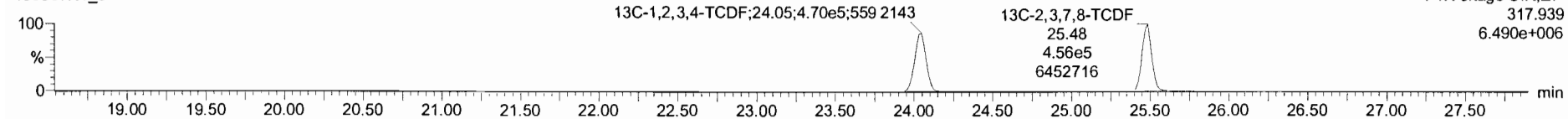


**13C-2,3,7,8-TCDF**

190507K1\_6

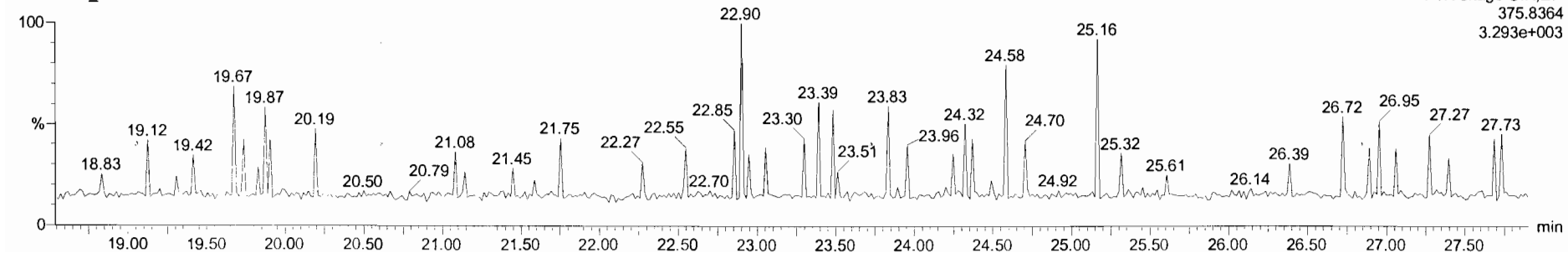


190507K1\_6



**DPE1**

190507K1\_6



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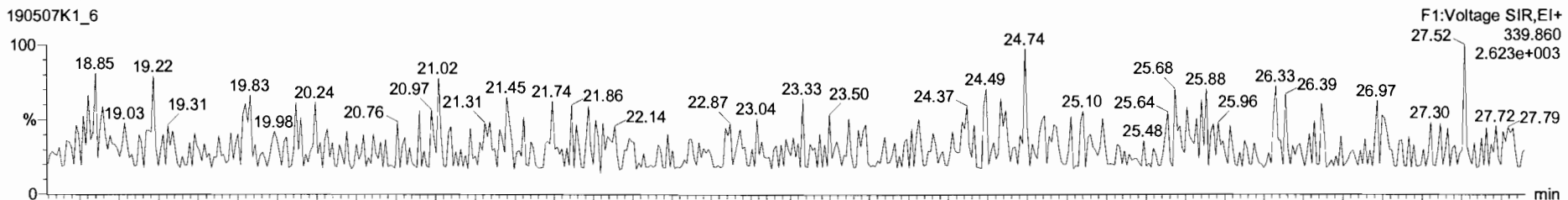
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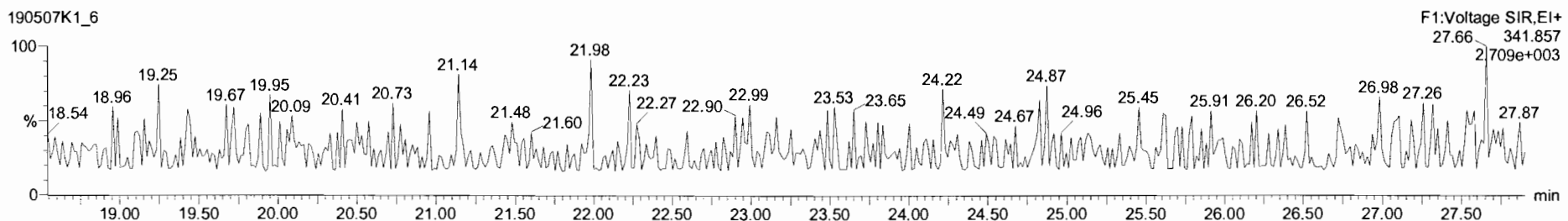
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1st Func. Penta-Furans

190507K1\_6

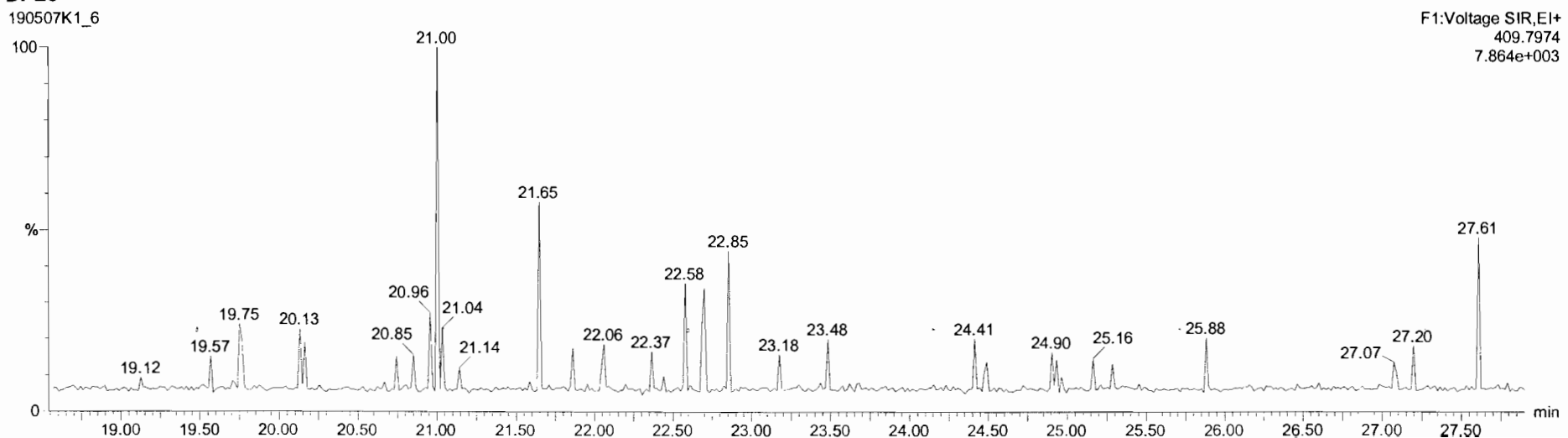


190507K1\_6



DPE6

190507K1\_6

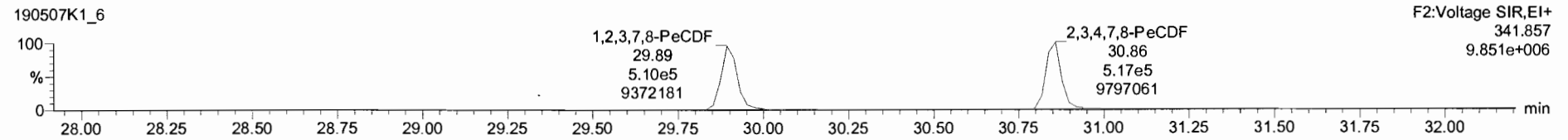
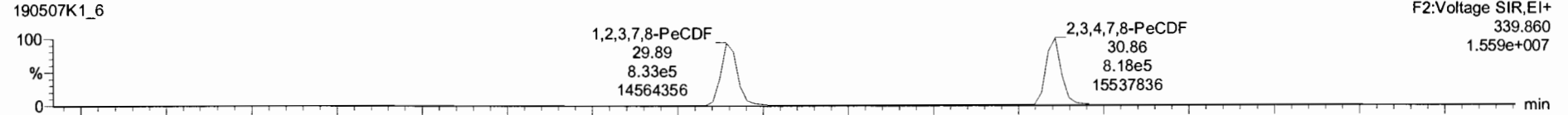


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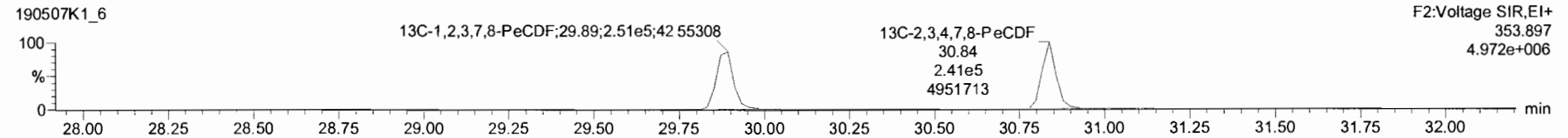
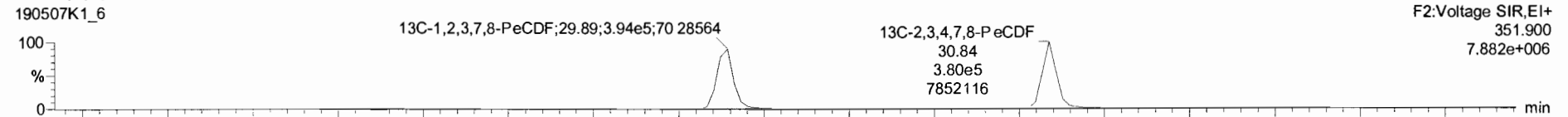
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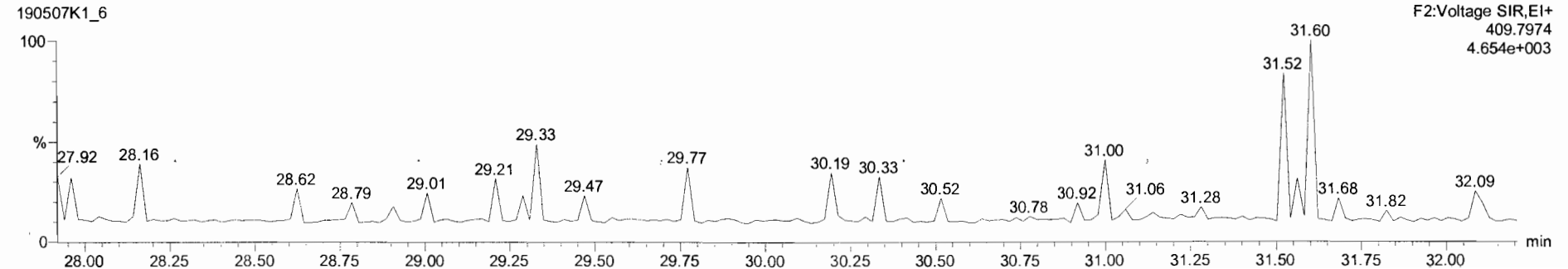
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



Dataset: Untitled

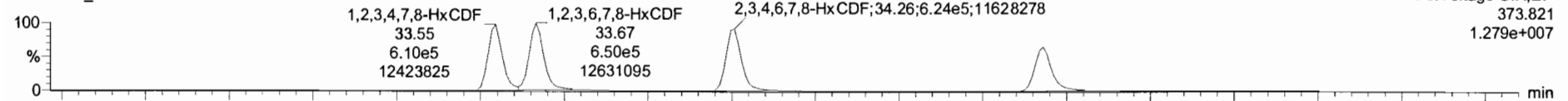
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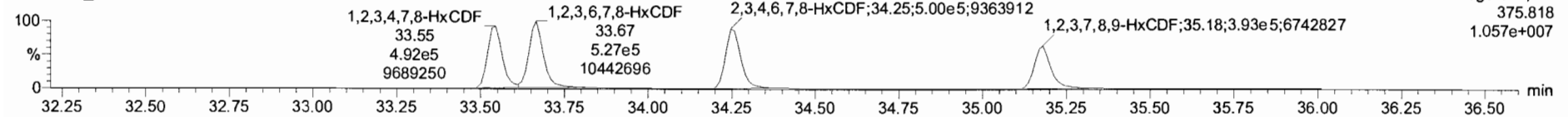
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**1,2,3,4,7,8-HxCDF**

190507K1\_6

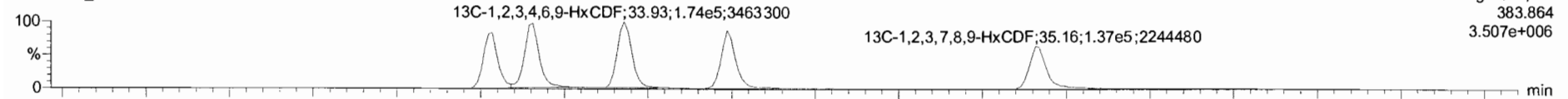


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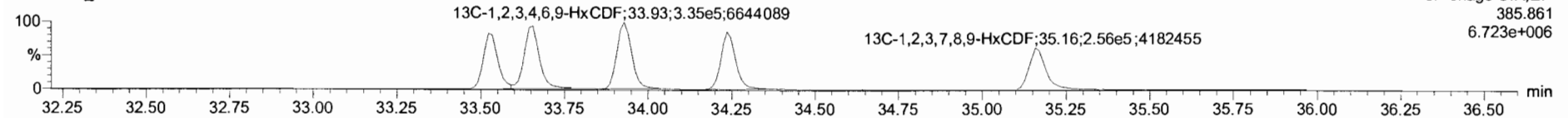


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_6

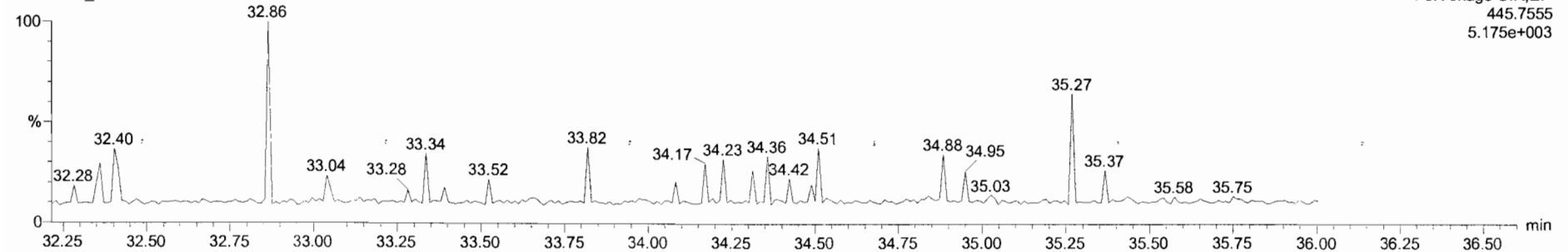


190507K1\_6



**DPE3**

190507K1\_6

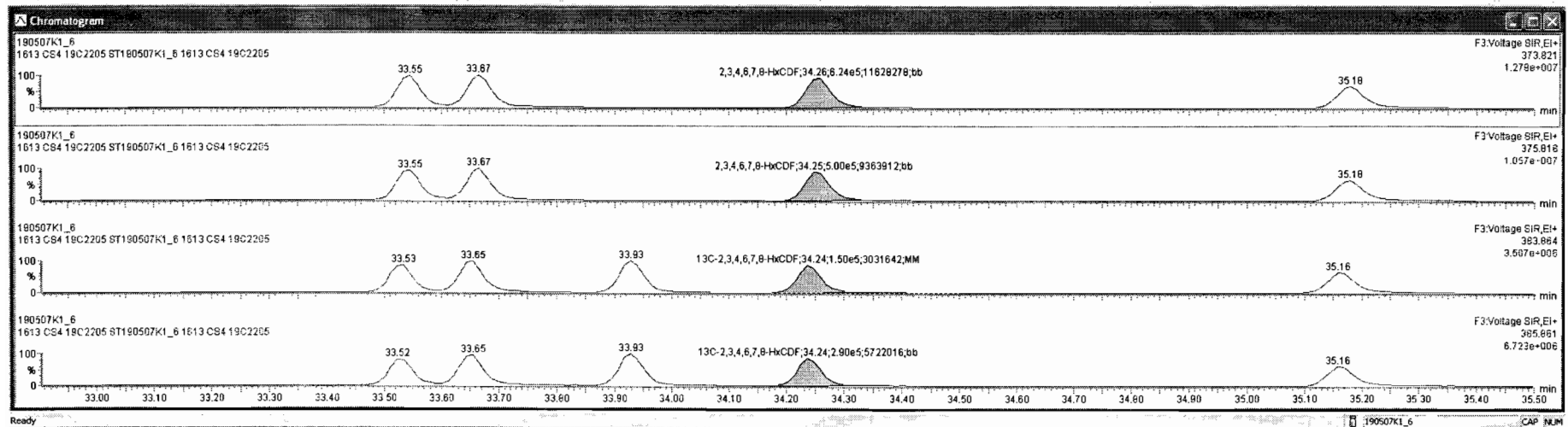


TargetLynk - 190507K1.CRV.qld

File Edit View Display Processing Window Help

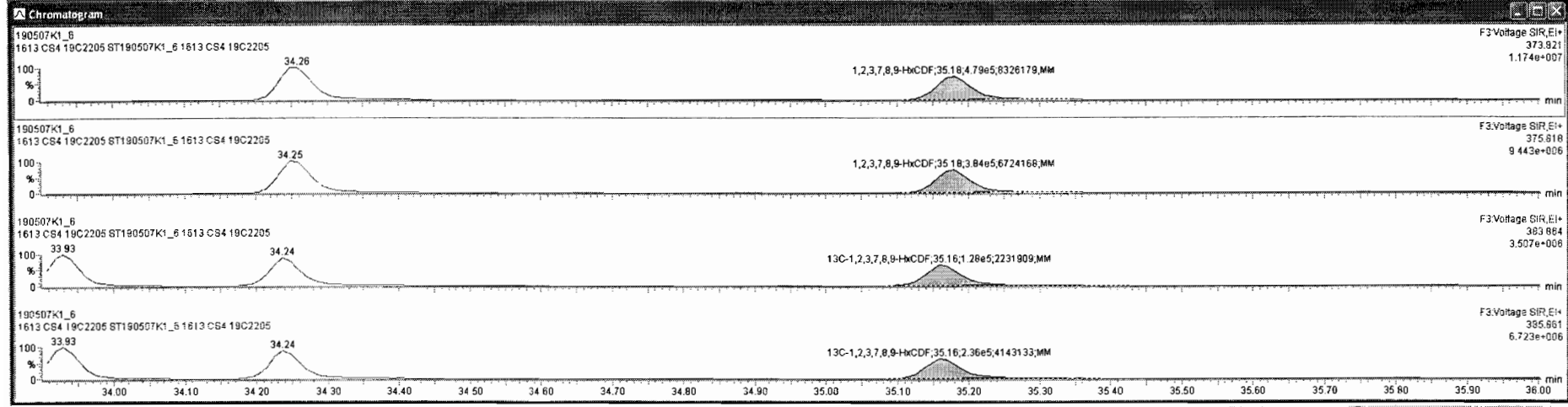
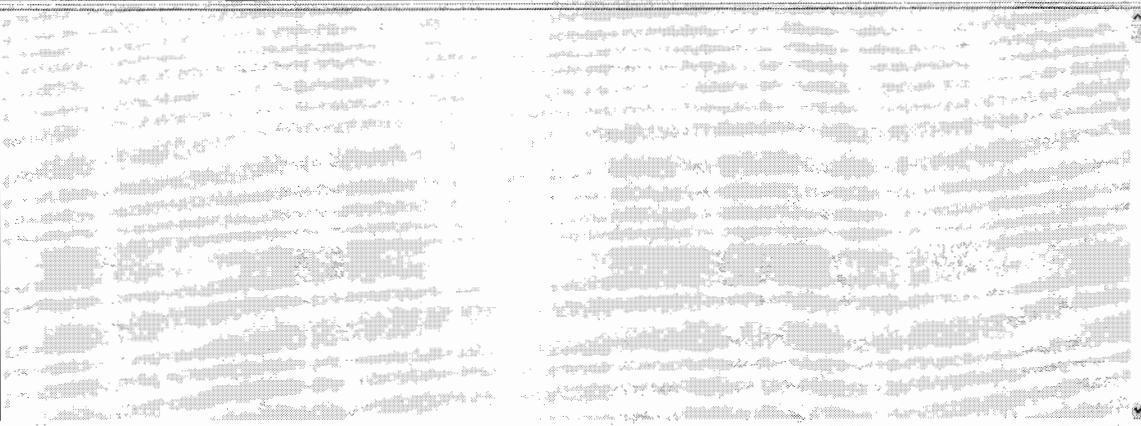
190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

#	Name	Resp	RA	oxy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2	1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	218	108	0.127	216
3	1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4	1,2,3,6,7,8-HxCDD	7.86e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5	1,2,3,7,8,9-HxCDD	6.68e5	1.22	NO	0.96	1.000	34.80	1.000	209	105	0.356	209
6	1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.04	1.000	38.31	1.000	205	102	0.421	205
7	OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8	2,3,7,8-TCDF	3.19e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0801	42.0
9	1,2,3,7,8-PeCDF	1.34e5	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10	2,3,4,7,8-PeCDF	1.34e5	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11	1,2,3,4,7,8-HxCDF	1.10e5	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12	1,2,3,6,7,8-HxCDF	1.18e5	1.23	NO	1.10	1.000	33.67	1.000	211	108	0.255	211
13	2,3,4,6,7,8-HxCDF	1.12e5	1.25	NO	1.10	1.000	34.26	1.001	210	108	0.262	210
14	1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.19	1.001	221	110	0.402	221
15	1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.363	208
16	1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17	OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.387	378
18	13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19	13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20	13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.657	
21	13C-1,2,3,6,7,8-HxCDD	3.86e5	1.26	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22	13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.66	1.000	34.78	1.025	97.3	97.3	0.644	
23	13C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.06	NO	0.53	1.000	38.30	1.129	101	101	0.394	



190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205

Name	Resp	RA	NY	RRF	WtVol	RT	RRT	Conc.	%Rec	DL	EMEC
1 2,3,7,8-TCDD	2.29e5	0.78	NO	0.52	1.000	26.36	1.001	40.7	102	0.0730	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.51	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4 1,2,3,6,7,8-HxCDD	7.89e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5 1,2,3,7,8,9-HxCDD	6.69e5	1.22	NO	0.98	1.000	34.80	1.000	209	105	0.356	209
6 1,2,3,4,6,7,8-HpCDD	5.89e5	1.03	NO	1.04	1.000	38.31	1.000	205	102	0.421	205
7 OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8 2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10 2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12 1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.255	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14 1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.402	221
15 1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.363	208
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.387	378
18 13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19 13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20 13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.65	1.000	34.40	1.014	99.5	99.5	0.657	
21 13C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22 13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.66	1.000	34.78	1.025	97.3	97.3	0.644	
23 13C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.08	NO	0.53	1.000	38.30	1.129	101	101	0.394	



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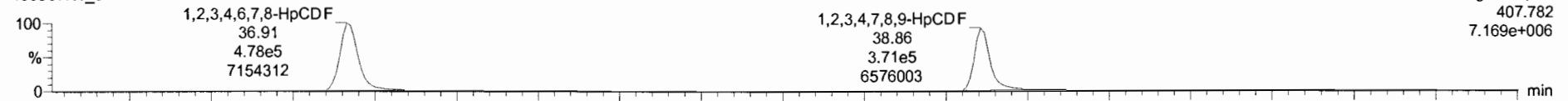
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

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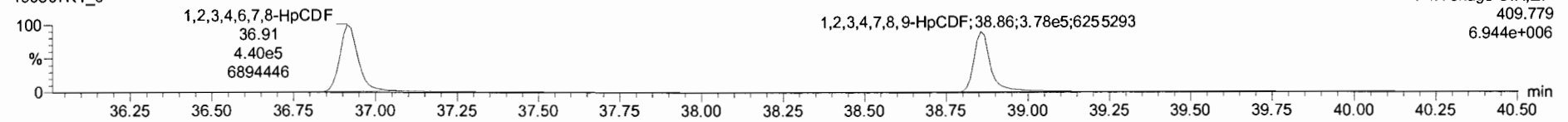
**1,2,3,4,6,7,8-HpCDF**

190507K1\_6



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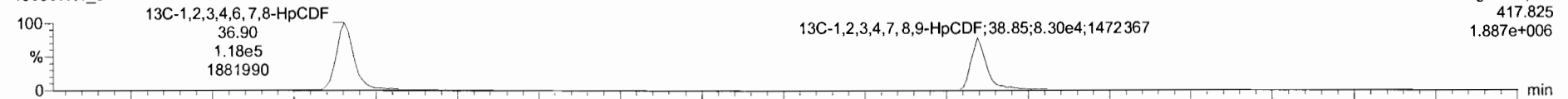
190507K1\_6



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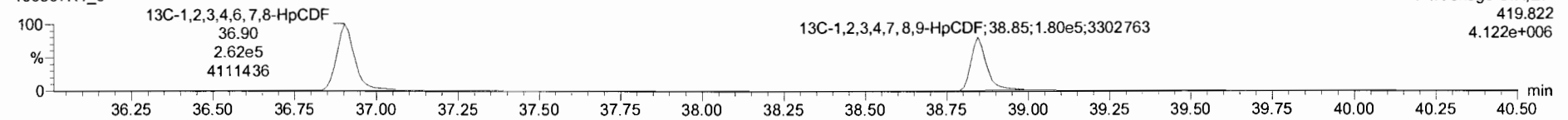
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190507K1\_6



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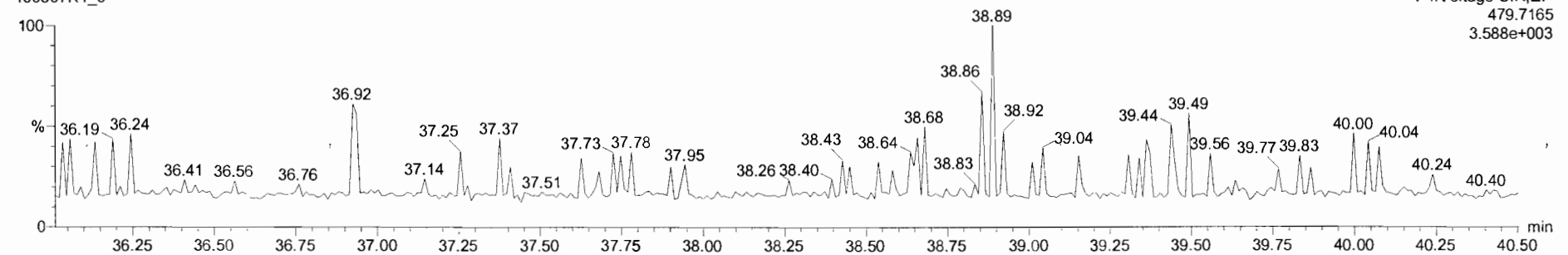
190507K1\_6



F4:Voltage SIR,EI+  
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**DPE4**

190507K1\_6



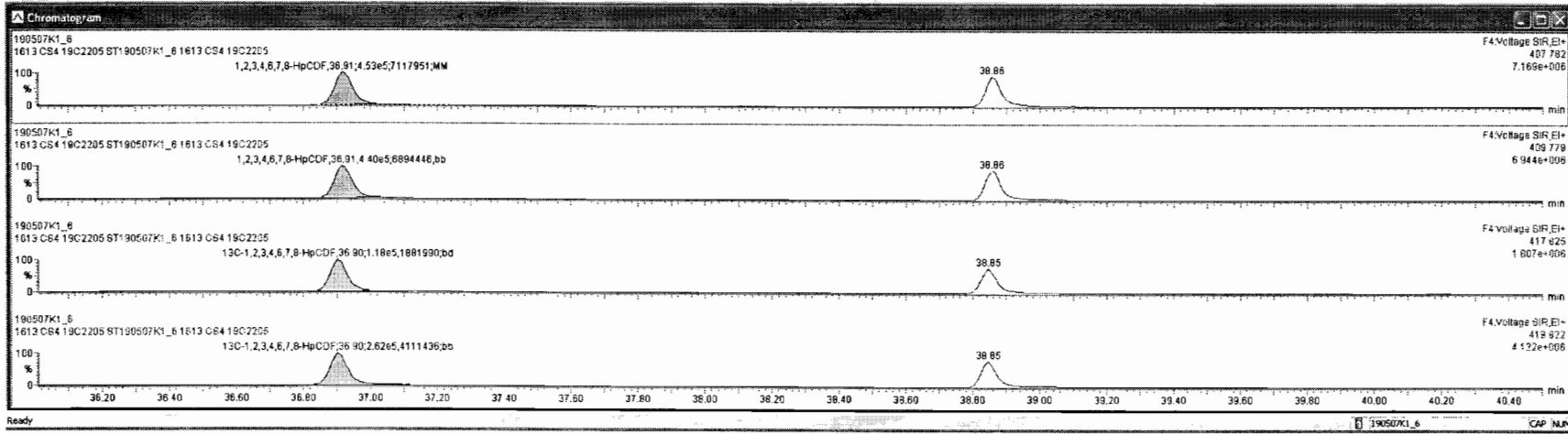
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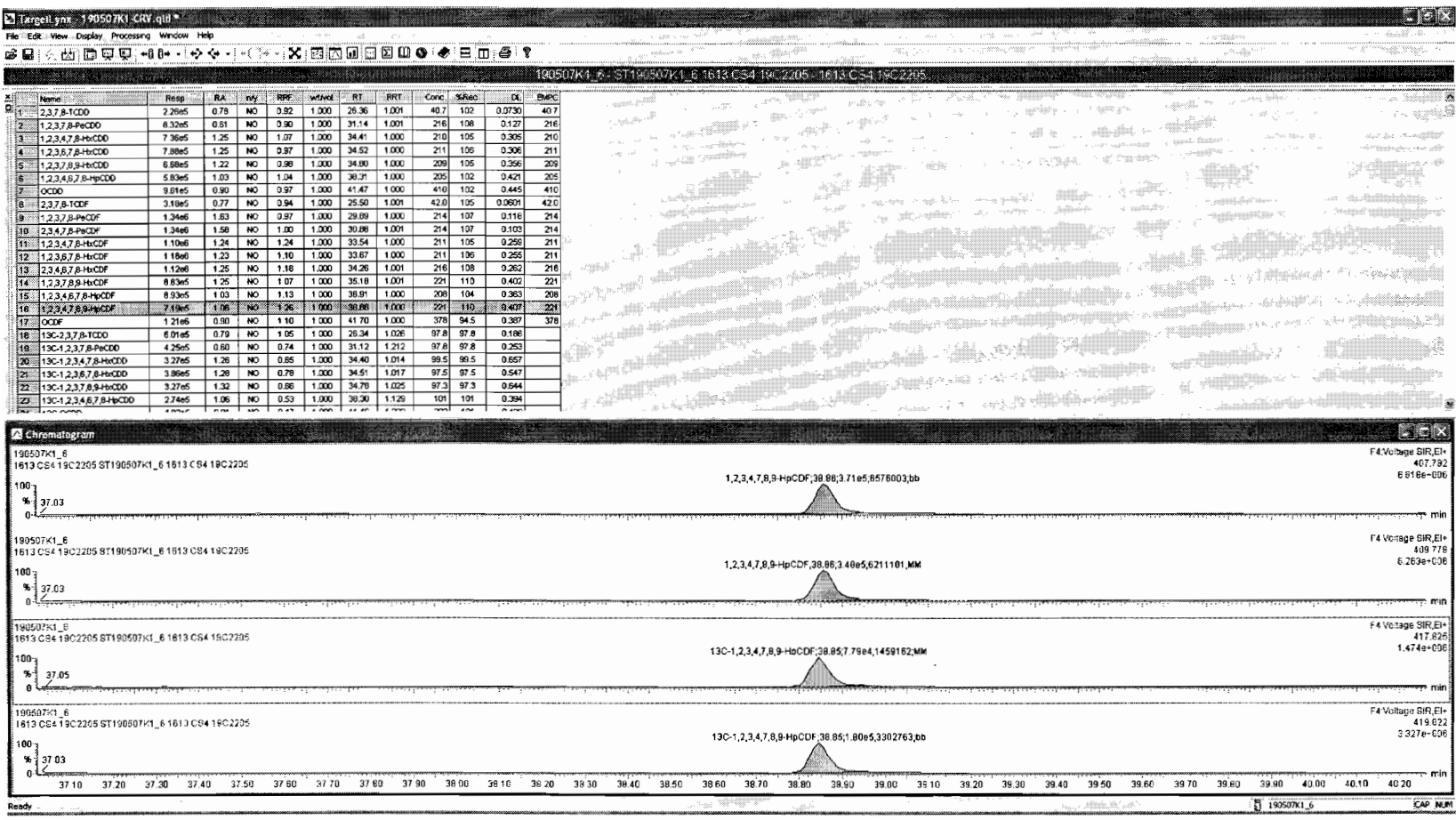


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190507K1\_6 - ST190507K1\_6\_1613 CS4 19C2205 - 1613 CS4 19C2205

Name	Resp	RA	ntf	RPF	Vol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.26e5	0.76	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4 1,2,3,6,7,8-HxCDD	7.88e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5 1,2,3,7,8,9-HxCDD	6.68e5	1.22	NO	0.98	1.000	34.80	1.000	209	105	0.356	209
6 1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.04	1.000	36.91	1.000	205	102	0.421	205
7 OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8 2,3,7,8-TCDF	3.10e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.85	1.000	214	107	0.118	214
10 2,3,4,7,8-HxCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12 1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.265	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14 1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.10	1.001	221	110	0.402	221
15 1,2,3,6,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	206	104	0.363	206
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	217	109	0.423	217
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.367	378
18 1,3C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19 1,3C-1,2,3,7,8-PeCDD	4.25e5	0.80	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20 1,3C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.85	1.000	34.40	1.014	99.5	99.5	0.657	
21 1,3C-1,2,3,6,7,8-HxCDD	3.86e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22 1,3C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.86	1.000	34.78	1.025	97.3	97.3	0.644	
23 1,3C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.06	NO	0.53	1.000	36.30	1.129	101	101	0.394	





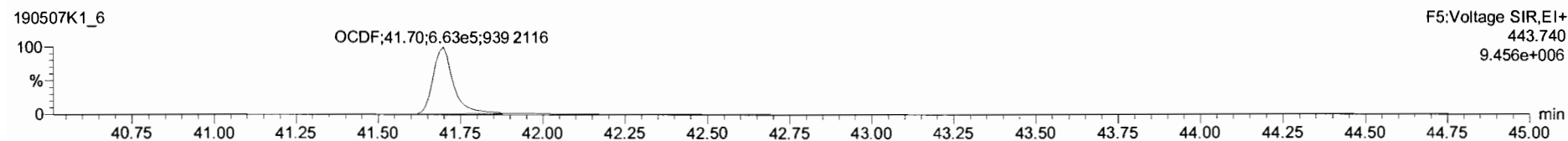
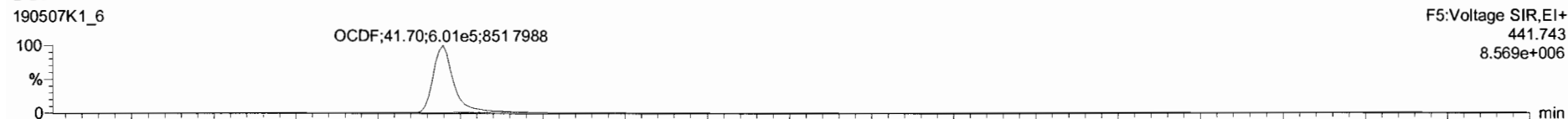
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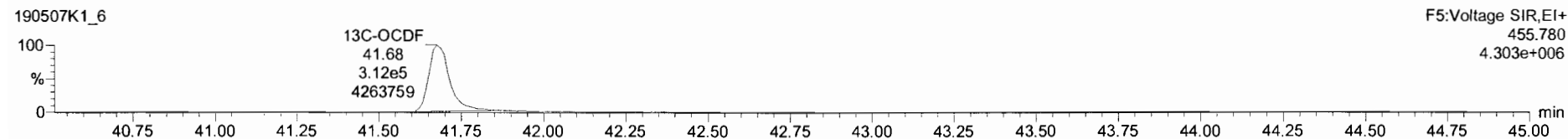
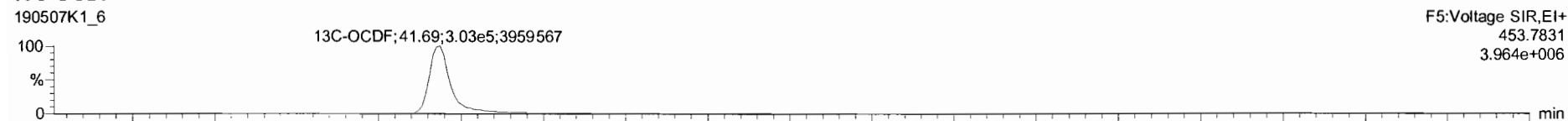
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Name: 190507K1\_6, Date: 07-May-2019, Time: 14:39:24, ID: ST190507K1\_6 1613 CS4 19C2205, Description: 1613 CS4 19C2205

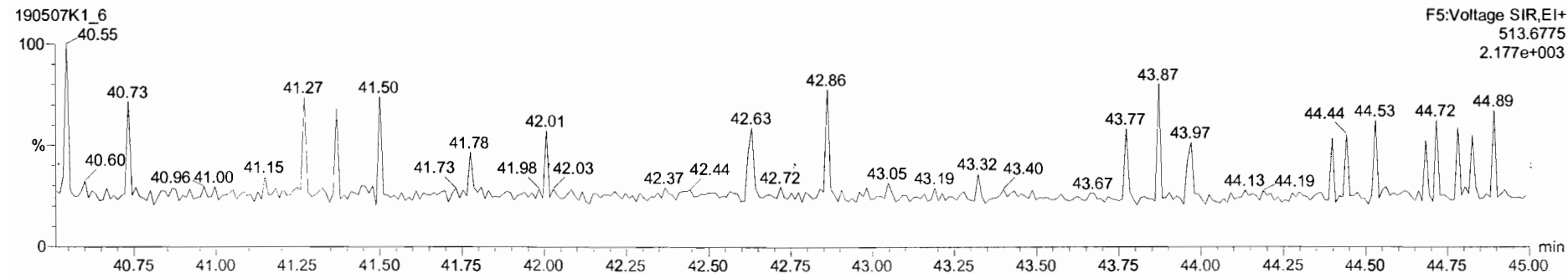
**OCDF**



**13C-OCDF**

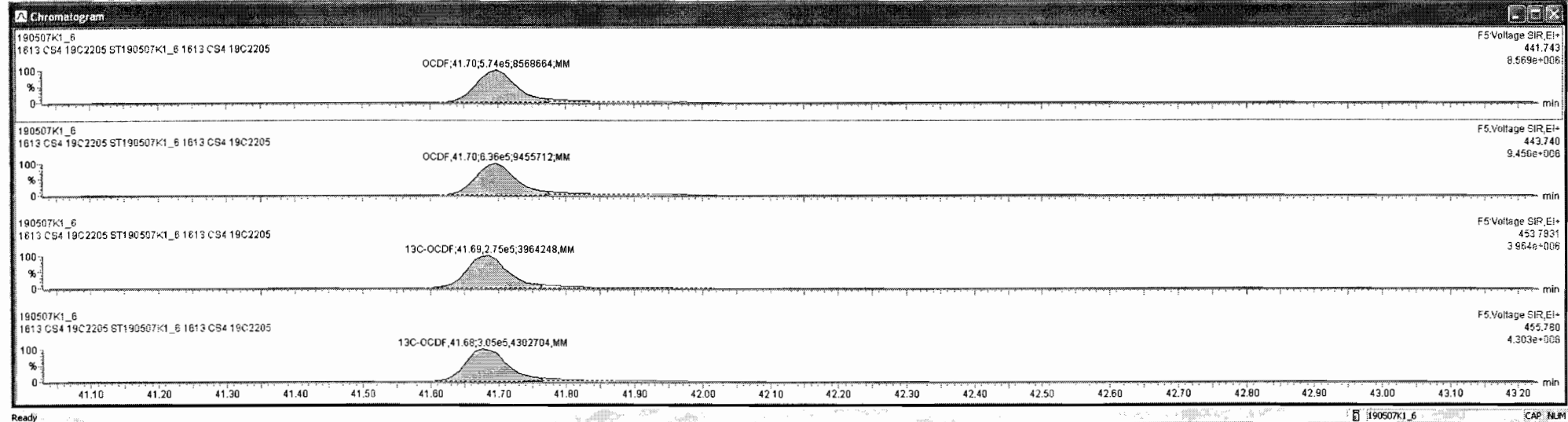


**DPE5**



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.26e5	0.78	NO	0.92	1.000	26.36	1.001	40.7	102	0.0730	40.7
2 1,2,3,7,8-PeCDD	8.32e5	0.61	NO	0.90	1.000	31.14	1.001	216	108	0.127	216
3 1,2,3,4,7,8-HxCDD	7.36e5	1.25	NO	1.07	1.000	34.41	1.000	210	105	0.305	210
4 1,2,3,6,7,8-HxCDD	7.89e5	1.25	NO	0.97	1.000	34.52	1.000	211	106	0.306	211
5 1,2,3,7,8,9-HxCDD	6.69e5	1.22	NO	0.98	1.000	34.80	1.000	209	105	0.356	209
6 1,2,3,4,6,7,8-HpCDD	5.83e5	1.03	NO	1.04	1.000	38.31	1.000	205	102	0.421	205
7 OCDD	9.61e5	0.90	NO	0.97	1.000	41.47	1.000	410	102	0.445	410
8 2,3,7,8-TCDF	3.18e5	0.77	NO	0.94	1.000	25.50	1.001	42.0	105	0.0601	42.0
9 1,2,3,7,8-PeCDF	1.34e6	1.63	NO	0.97	1.000	29.89	1.000	214	107	0.118	214
10 2,3,4,7,8-PeCDF	1.34e6	1.58	NO	1.00	1.000	30.86	1.001	214	107	0.103	214
11 1,2,3,4,7,8-HxCDF	1.10e6	1.24	NO	1.24	1.000	33.54	1.000	211	105	0.259	211
12 1,2,3,6,7,8-HxCDF	1.18e6	1.23	NO	1.10	1.000	33.67	1.000	211	106	0.255	211
13 2,3,4,6,7,8-HxCDF	1.12e6	1.25	NO	1.18	1.000	34.26	1.001	216	108	0.262	216
14 1,2,3,7,8,9-HxCDF	8.63e5	1.25	NO	1.07	1.000	35.18	1.001	221	110	0.402	221
15 1,2,3,4,6,7,8-HpCDF	8.93e5	1.03	NO	1.13	1.000	36.91	1.000	208	104	0.363	208
16 1,2,3,4,7,8,9-HpCDF	7.19e5	1.06	NO	1.26	1.000	38.86	1.000	221	110	0.407	221
17 OCDF	1.21e6	0.90	NO	1.10	1.000	41.70	1.000	378	94.5	0.387	378
18 13C-2,3,7,8-TCDD	6.01e5	0.79	NO	1.05	1.000	26.34	1.026	97.8	97.8	0.186	
19 13C-1,2,3,7,8-PeCDD	4.25e5	0.60	NO	0.74	1.000	31.12	1.212	97.8	97.8	0.253	
20 13C-1,2,3,4,7,8-HxCDD	3.27e5	1.26	NO	0.85	1.000	34.40	1.014	99.5	99.5	0.657	
21 13C-1,2,3,6,7,8-HxCDD	3.88e5	1.28	NO	0.78	1.000	34.51	1.017	97.5	97.5	0.547	
22 13C-1,2,3,7,8,9-HxCDD	3.27e5	1.32	NO	0.86	1.000	34.78	1.025	97.3	97.3	0.644	
23 13C-1,2,3,4,6,7,8-HpCDD	2.74e5	1.06	NO	0.53	1.000	38.30	1.129	101	101	0.394	

190507K1\_6 - ST190507K1\_6 1613 CS4 19C2205 - 1613 CS4 19C2205



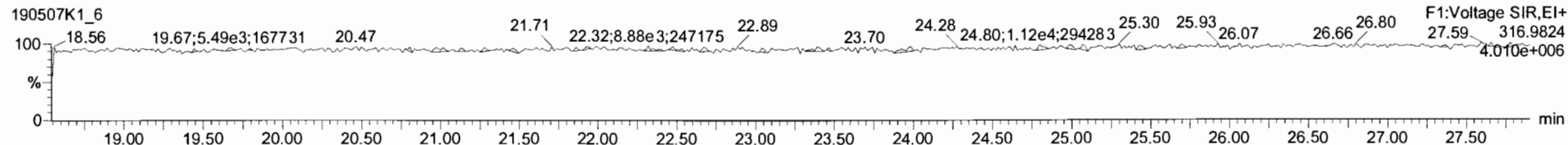
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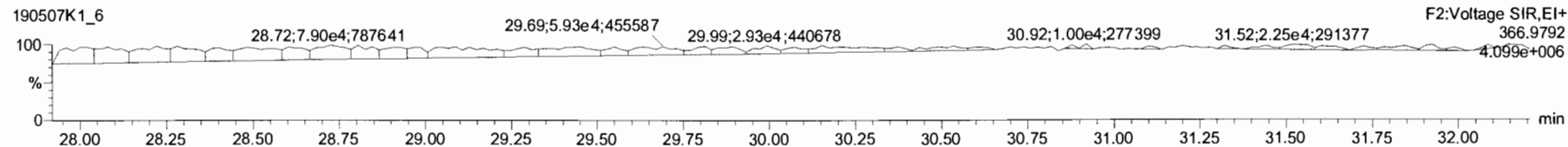
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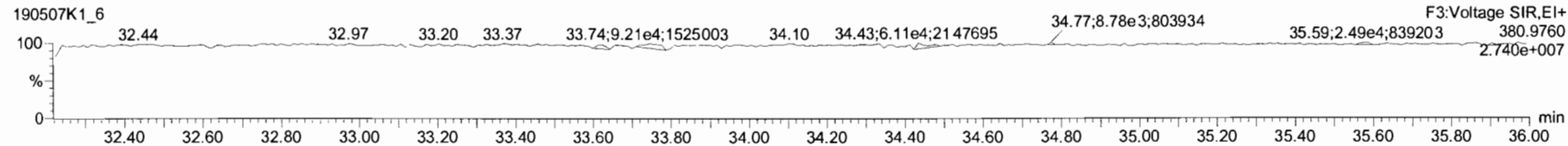
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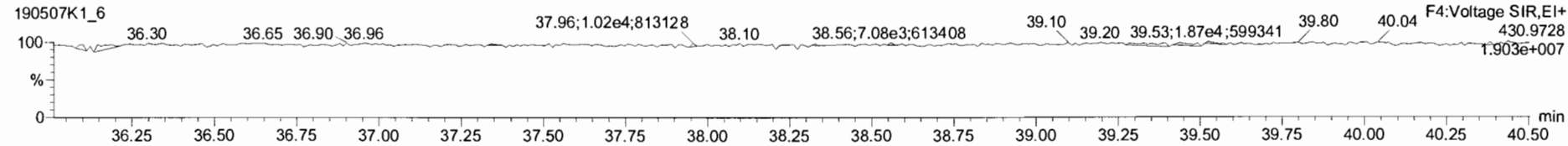
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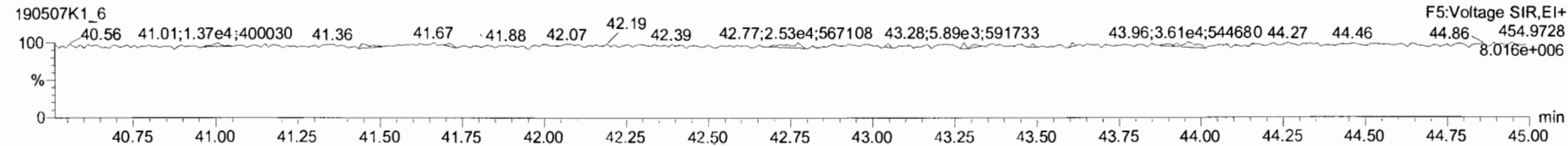
**PFK3**



**PFK4**



**PFK5**



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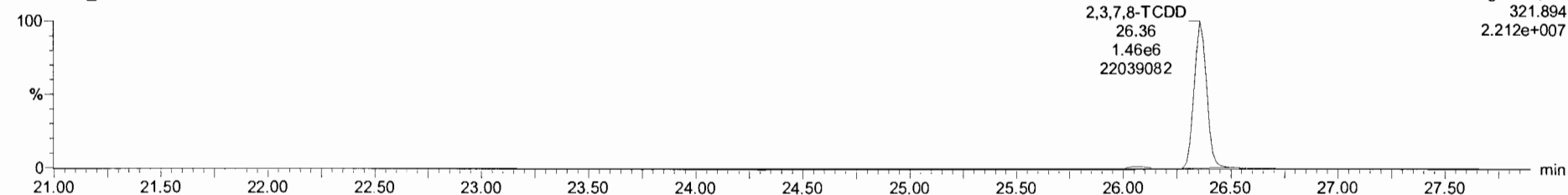
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**2,3,7,8-TCDD**

190507K1\_7



190507K1\_7

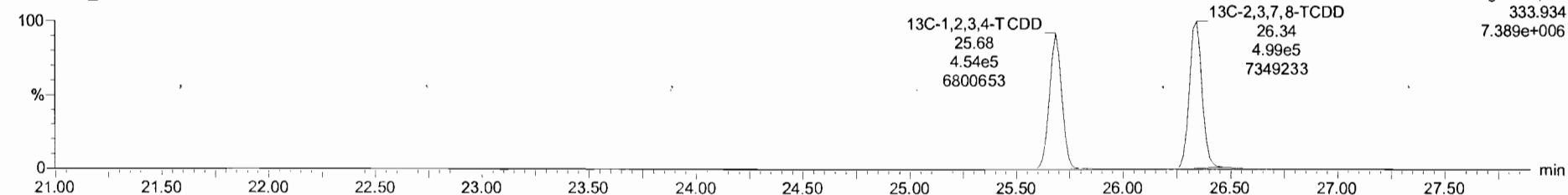


**13C-2,3,7,8-TCDD**

190507K1\_7



190507K1\_7



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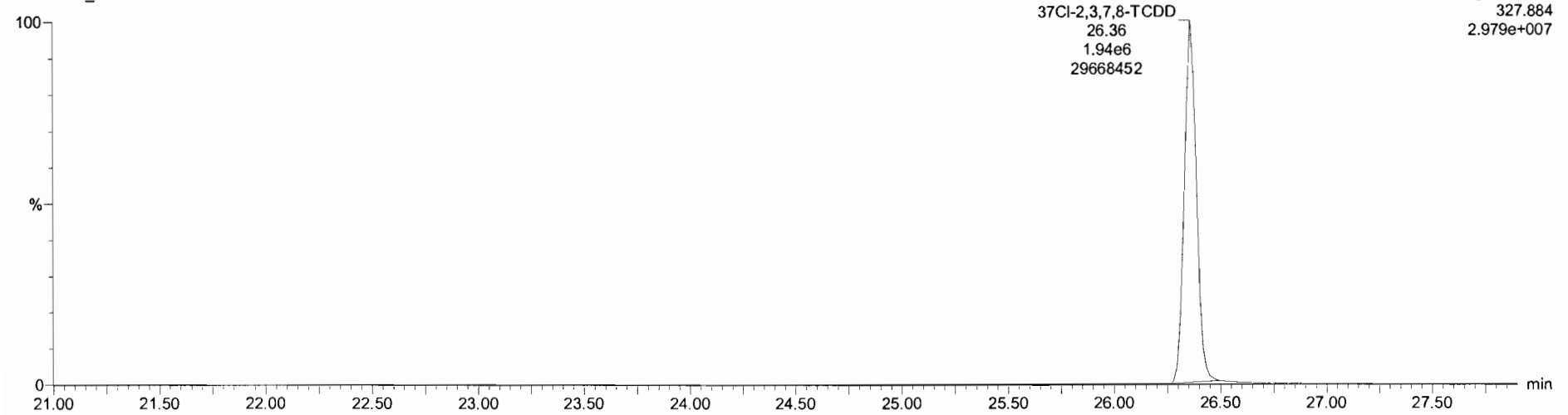
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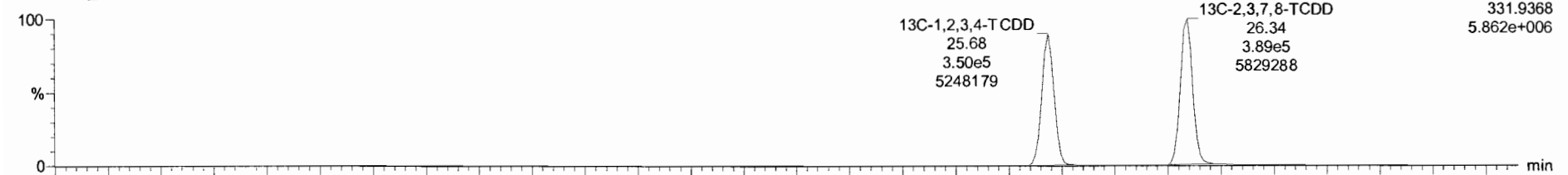
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190507K1\_7

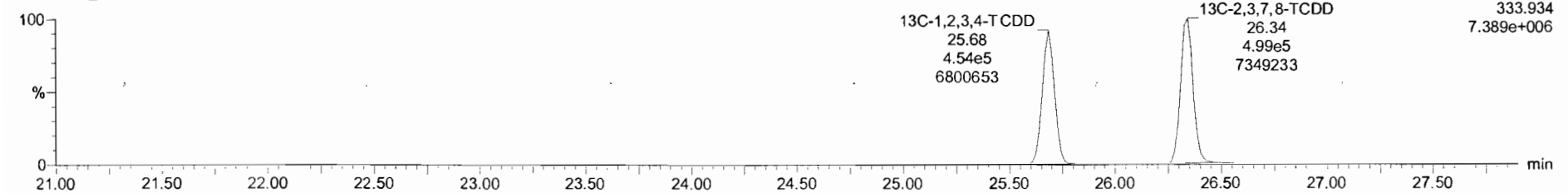


**13C-1,2,3,4-TCDD**

190507K1\_7



190507K1\_7



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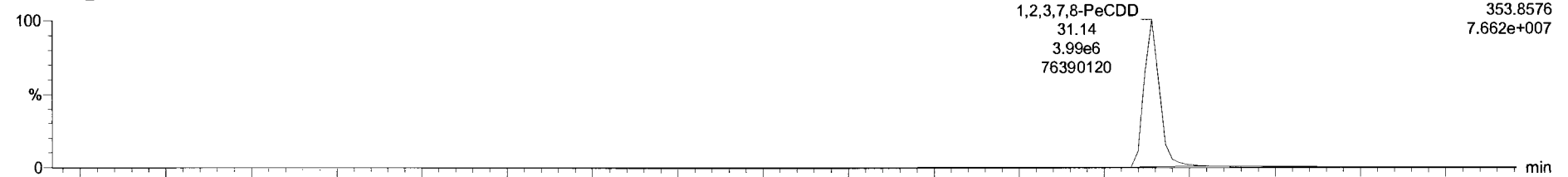
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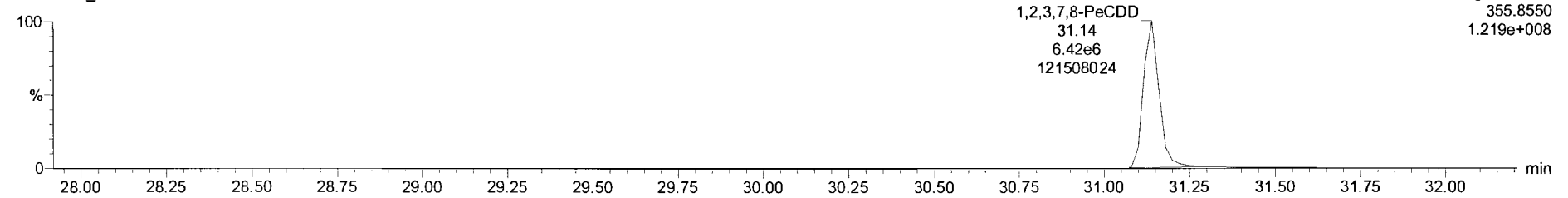
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**1,2,3,7,8-PeCDD**

190507K1\_7

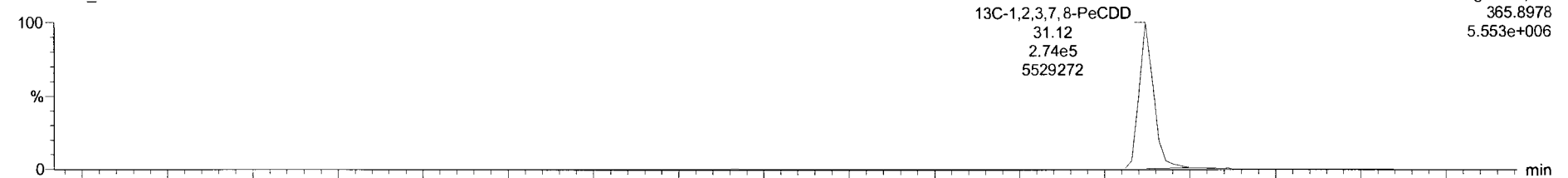


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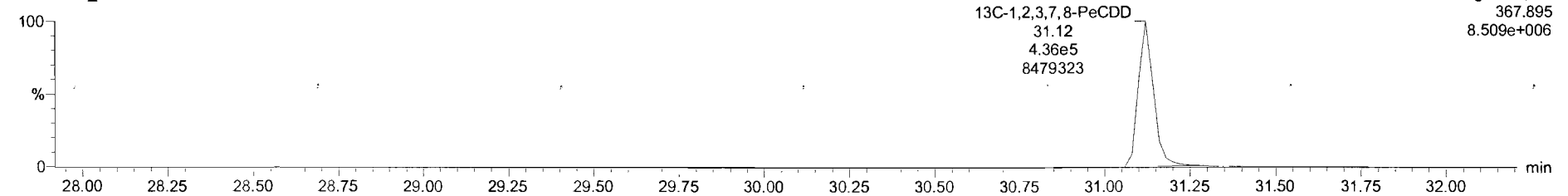


**13C-1,2,3,7,8-PeCDD**

190507K1\_7



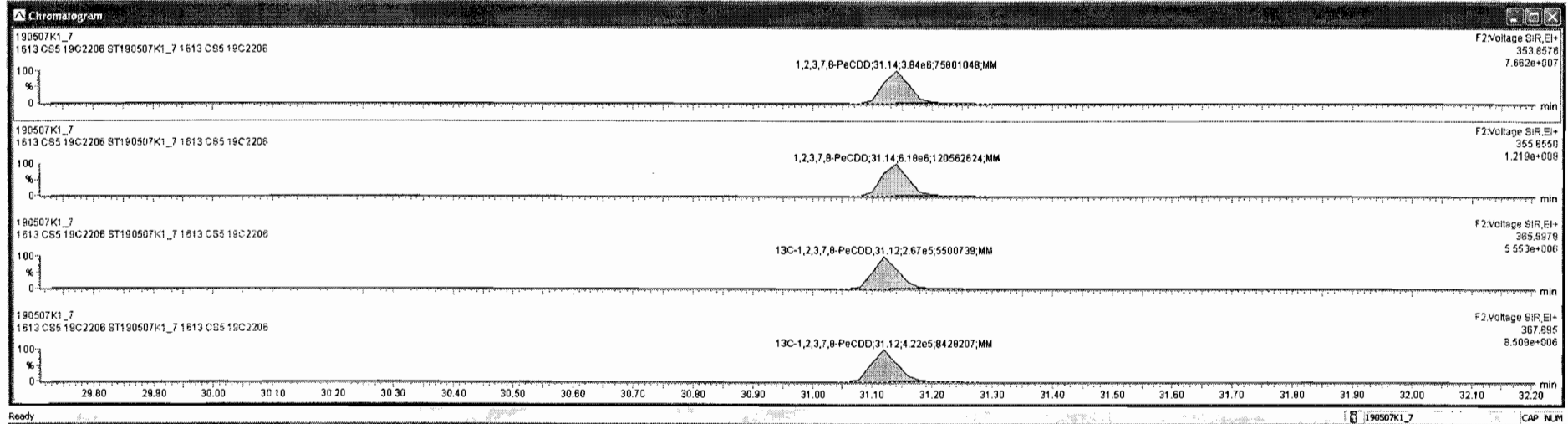
190507K1\_7





190507K1\_7 - ST190507K1\_7\_1613 CS5 19C2206 - 1613 CS5 19C2206

SL	Name	Resp	RA	nV	RRF	WtNol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2	1,2,3,7,8-PeCDD	1.00e7	0.52	NO	0.90	1.000	31.14	1.001	1610	107	0.0666	1610
3	1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4	1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1580	104	0.446	1580
5	1,2,3,7,8,9-HxCDD	8.89e6	1.20	NO	0.98	1.000	34.61	1.000	1530	102	0.497	1530
6	1,2,3,4,6,7,8-HpCDD	7.56e6	1.05	NO	1.04	1.000	36.31	1.000	1570	105	0.634	1570
7	OCDD	1.35e7	0.90	NO	0.97	1.000	41.48	1.000	3210	107	1.20	3210
8	2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0887	320
9	1,2,3,7,8-PeCDF	1.56e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10	2,3,4,7,8-PeCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11	1,2,3,4,7,8-HxCDF	1.36e7	1.24	NO	1.24	1.000	33.54	1.000	1580	105	0.629	1580
12	1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13	2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1640	109	0.693	1640
14	1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15	1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	106	0.892	1620
16	1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	38.67	1.000	1600	107	0.926	1600
17	OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	99.7	0.468	2960
18	13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.028	105	105	0.169	
19	13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20	13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.65	1.000	34.40	1.014	108	108	0.235	
21	13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22	13C-1,2,3,7,8,9-HxCDD	5.93e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23	13C-1,2,3,4,6,7,8-HpCDD	4.65e5	1.07	NO	0.53	1.000	36.31	1.129	113	113	0.326	



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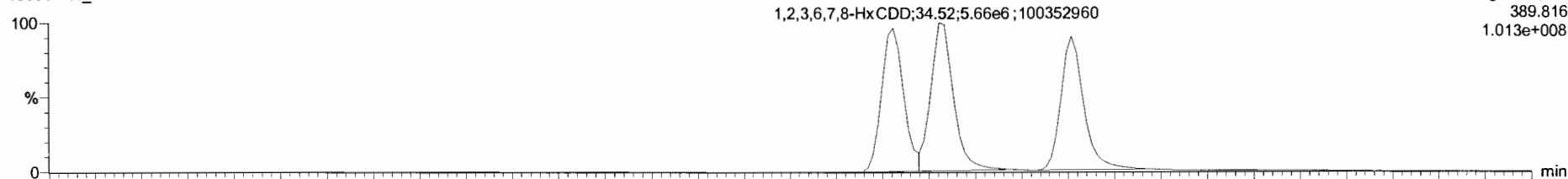
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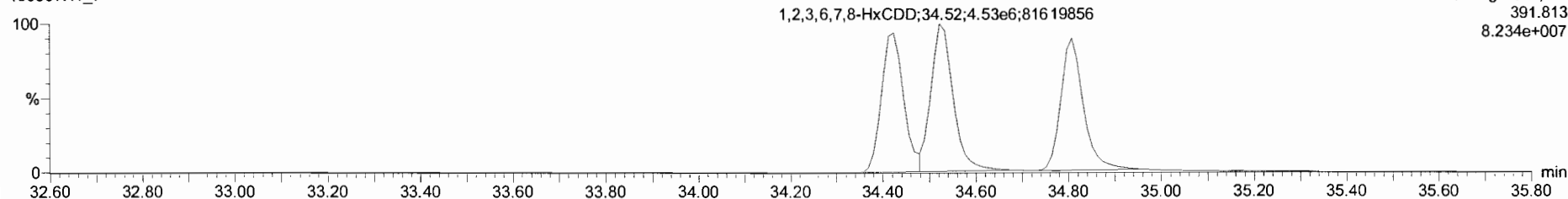
Name: 190507K1\_7, Date: 07-May-2019, Time: 15:27:02, ID: ST190507K1\_7 1613 CS5 19C2206, Description: 1613 CS5 19C2206

**1,2,3,4,7,8-HxCDD**

190507K1\_7

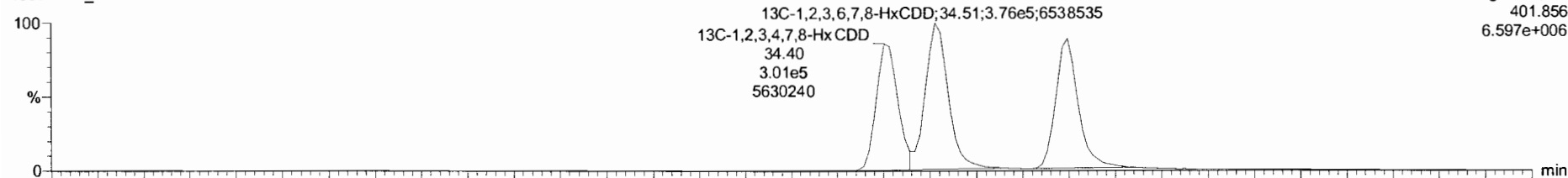


190507K1\_7

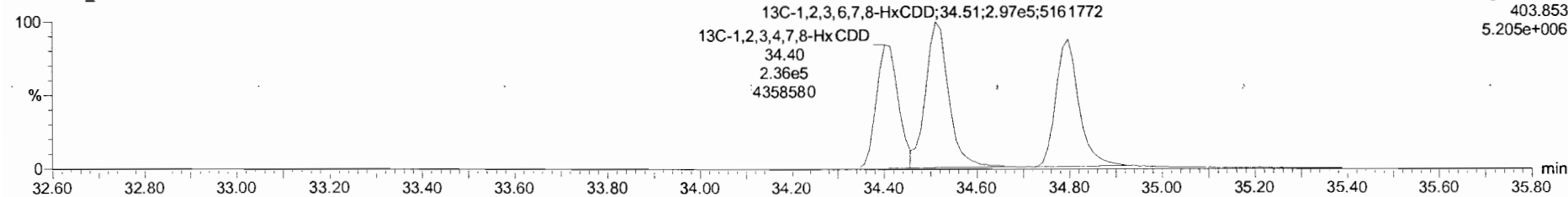


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_7



190507K1\_7

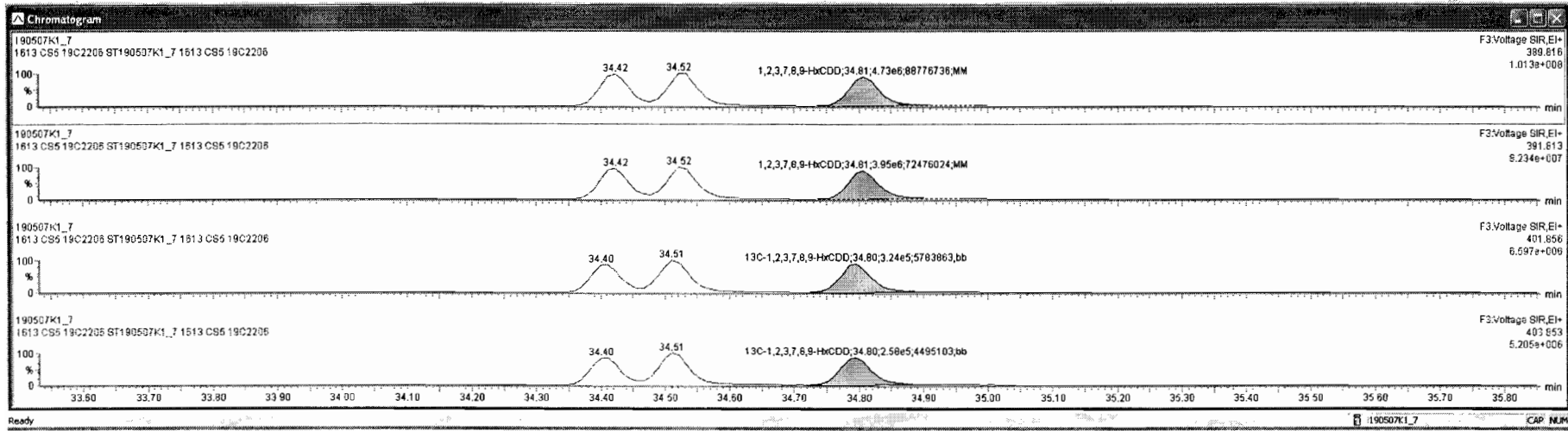


Target: ynx - 190507K1-CRV.qld

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190507K1\_7 - ST190507K1\_7 1613 CS5 19C2206 - 1613 CS5 19C2206

#	Name	Resp	RA	IV	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.60e6	0.76	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2	1,2,3,7,8-PeCDD	1.00e7	0.62	NO	0.90	1.000	31.14	1.001	1610	107	0.0869	1610
3	1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4	1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1560	104	0.446	1560
5	1,2,3,7,8,9-HxCDD	8.89e6	1.20	NO	0.96	1.000	34.81	1.000	1530	102	0.497	1530
6	1,2,3,4,6,7,8-HpCDD	7.58e6	1.05	NO	1.04	1.000	38.31	1.000	1570	105	0.634	1570
7	OCDD	1.35e7	0.90	NO	0.97	1.000	41.48	1.000	3210	107	1.20	3210
8	2,3,7,8-TCDF	3.44e6	0.76	NO	0.94	1.000	25.51	1.001	320	107	0.0867	320
9	1,2,3,7,8-PeCDF	1.58e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10	2,3,4,7,8-HxCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.224	1610
11	1,2,3,4,7,8-HxCDF	1.38e7	1.24	NO	1.24	1.000	33.54	1.000	1580	105	0.629	1580
12	1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13	2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1640	109	0.693	1640
14	1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15	1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.52	1.000	1620	108	0.852	1620
16	1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	38.87	1.000	1600	107	0.926	1600
17	OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	99.7	0.468	2960
18	13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.169	
19	13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20	13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.65	1.000	34.40	1.014	108	108	0.235	
21	13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22	13C-1,2,3,7,8,9-HxCDD	5.82e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23	13C-1,2,3,4,6,7,8-HpCDD	4.85e5	1.07	NO	0.53	1.000	38.31	1.129	113	113	0.326	



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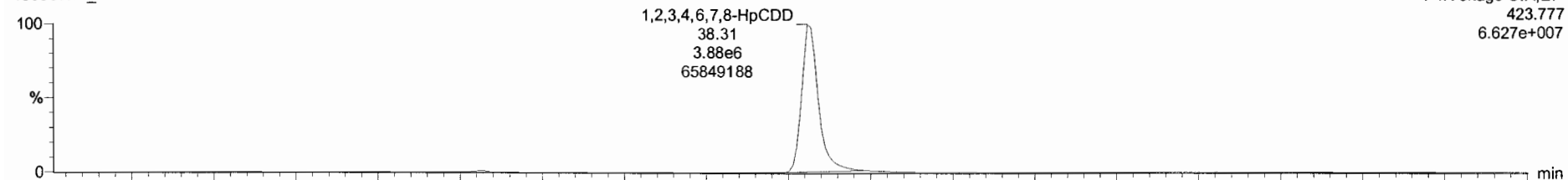
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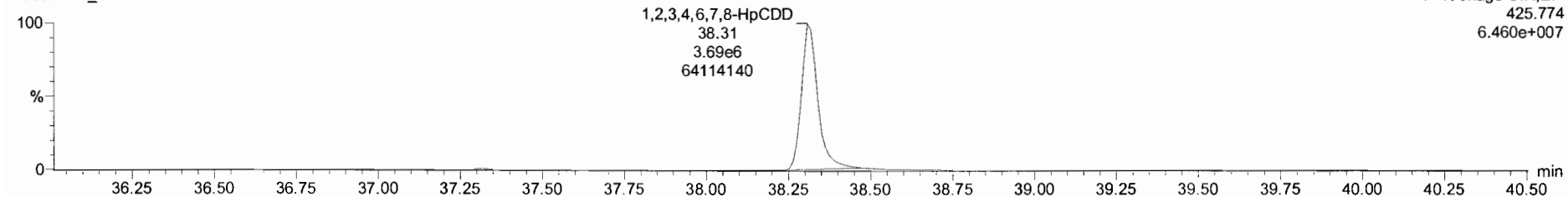
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**1,2,3,4,6,7,8-HpCDD**

190507K1\_7

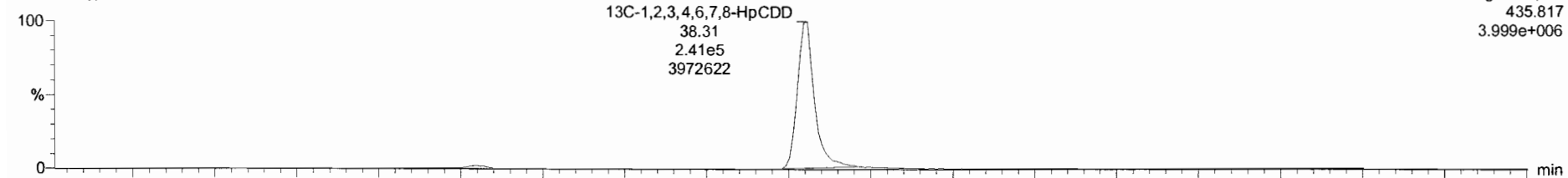


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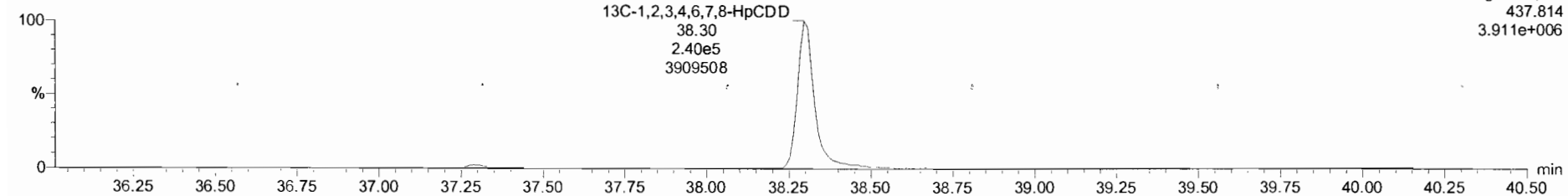


**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_7



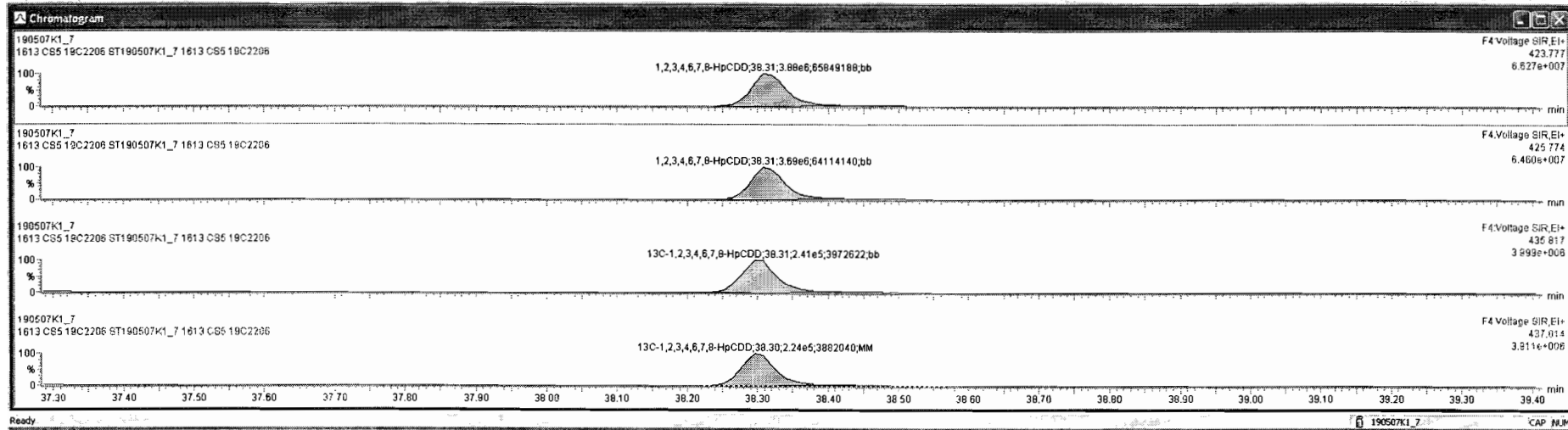
190507K1\_7



TargetLynx - 190507K1-CRV.qld

190507K1\_7 - ST190507K1\_7 1613 CS5 19C2206 - 1613 CS5 19C2206

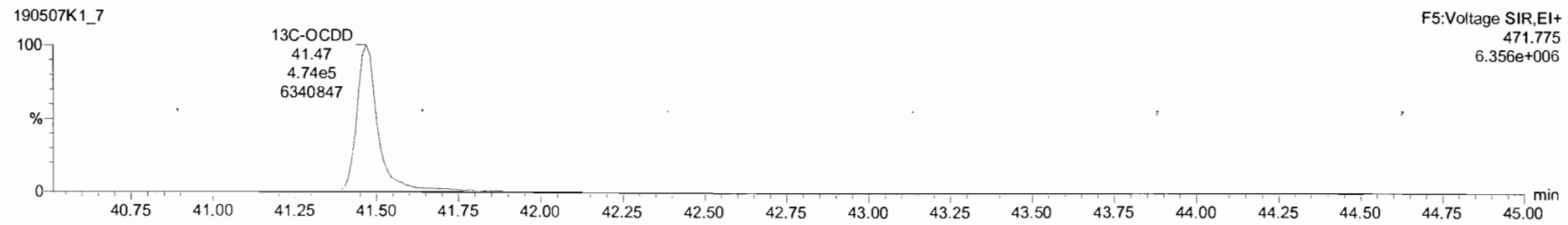
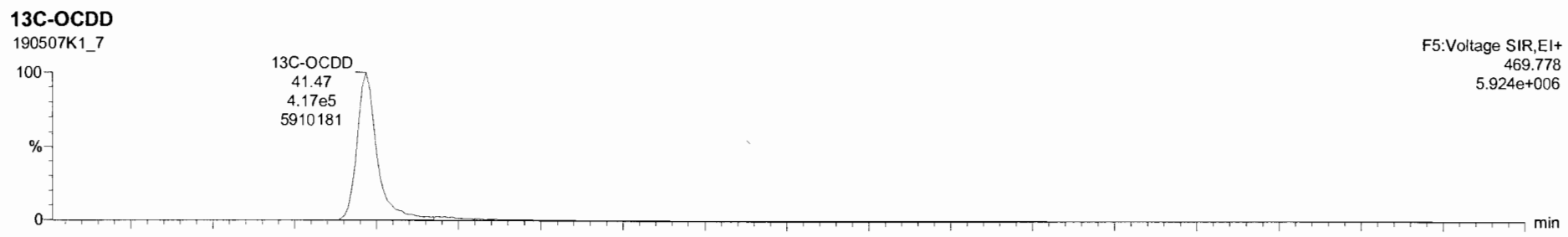
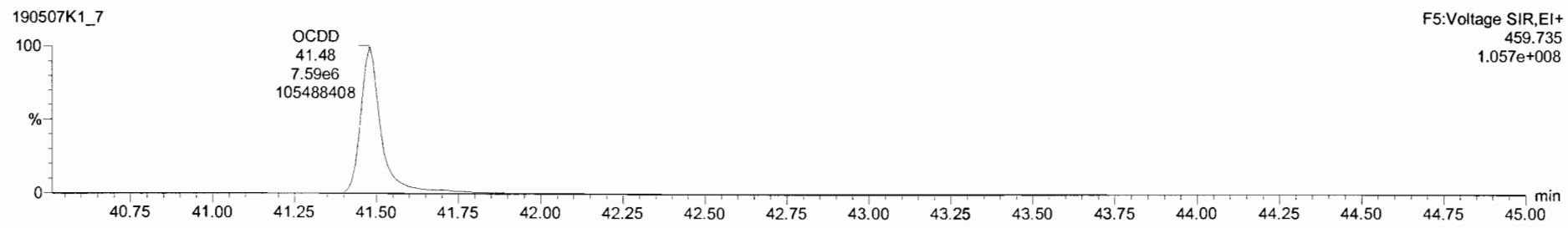
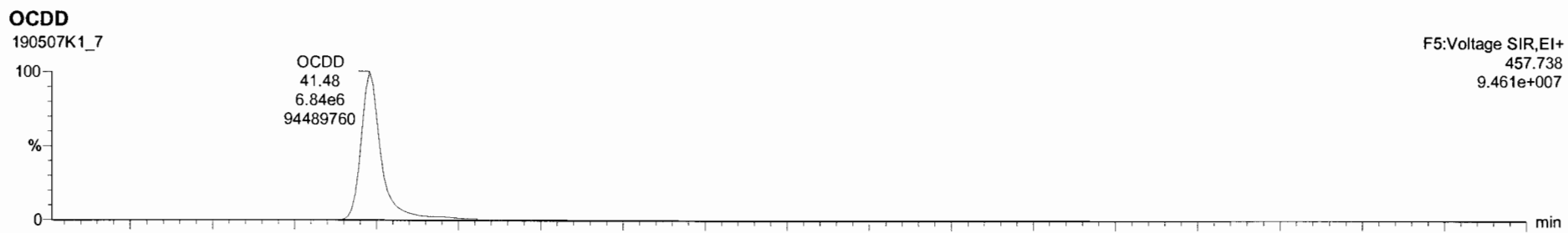
PKT	Name	Resp	RA	Inv	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2	1,2,3,7,8-PeCDD	1.00e7	0.62	NO	0.90	1.000	31.14	1.001	1610	107	0.0868	1610
3	1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4	1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1560	104	0.446	1560
5	1,2,3,7,8-HxCDD	6.68e6	1.20	NO	0.98	1.000	34.81	1.000	1530	102	0.497	1530
6	1,2,3,4,6,7,8-HpCDD	7.59e6	1.05	NO	1.04	1.000	36.31	1.000	1570	105	0.634	1570
7	OCDD	1.35e7	0.90	NO	0.97	1.000	41.46	1.000	3210	107	1.20	3210
8	2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0997	320
9	1,2,3,7,8-PeCDF	1.59e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10	2,3,4,7,8-PeCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11	1,2,3,4,7,8-HxCDF	1.38e7	1.24	NO	1.24	1.000	33.54	1.000	1580	105	0.629	1580
12	1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.66	1.000	1620	108	0.664	1620
13	2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1540	109	0.693	1540
14	1,2,3,7,8-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15	1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	108	0.892	1620
16	1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	36.87	1.000	1600	107	0.926	1600
17	OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	98.7	0.468	2960
18	13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.169	
19	13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20	13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.65	1.000	34.40	1.014	108	108	0.235	
21	13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.198	
22	13C-1,2,3,7,8-HxCDD	5.82e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23	13C-1,2,3,4,6,7,8-HpCDD	4.65e5	1.07	NO	0.53	1.000	36.31	1.129	113	113	0.326	



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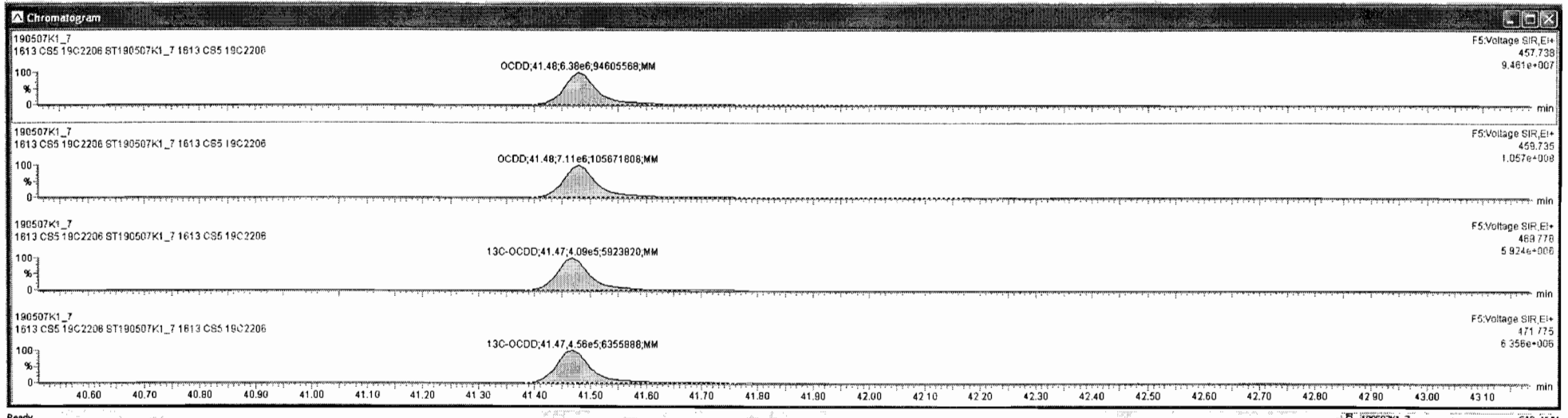
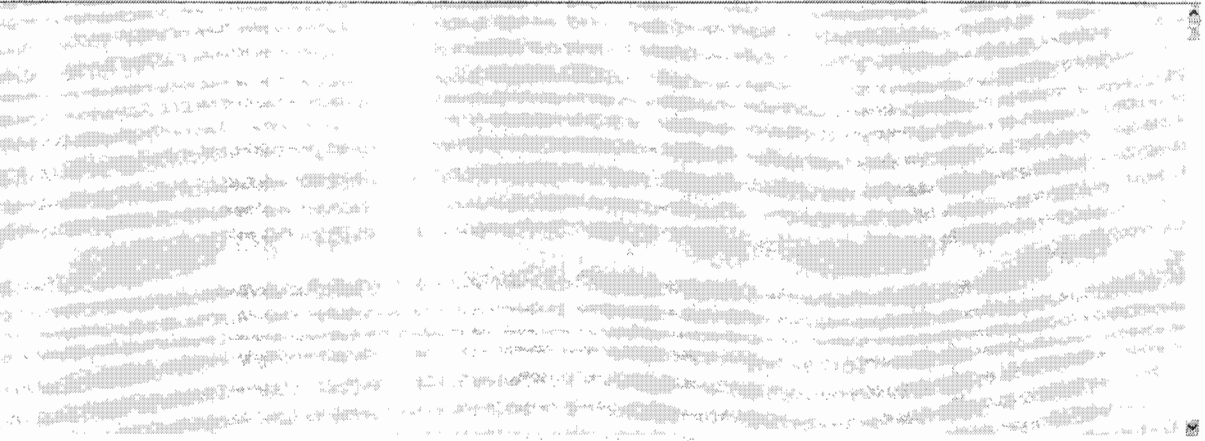
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_7, Date: 07-May-2019, Time: 15:27:02, ID: ST190507K1\_7 1613 CS5 19C2206, Description: 1613 CS5 19C2206



190507K1\_7 - ST190507K1\_7 1613 CS5 19C2206 - 1613 CS5 19C2206

Name	Resp	RA	nV	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2 1,2,3,7,8-PeCDD	1.00e7	0.62	NO	0.90	1.000	31.14	1.001	1610	107	0.0868	1610
3 1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4 1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1590	104	0.446	1590
5 1,2,3,7,8,9-HxCDD	8.68e6	1.20	NO	0.98	1.000	34.81	1.000	1530	102	0.497	1530
6 1,2,3,4,6,7,8-HpCDD	7.58e6	1.05	NO	1.04	1.000	38.31	1.000	1570	105	0.634	1570
7 OCDD	1.35e7	0.90	NO	0.97	1.000	41.46	1.000	3210	107	1.20	3210
8 2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0867	320
9 1,2,3,7,8-PeCDF	1.58e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10 2,3,4,7,8-PeCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11 1,2,3,4,7,8-HxCDF	1.38e7	1.24	NO	1.24	1.000	33.54	1.000	1590	105	0.629	1590
12 1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13 2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1640	109	0.693	1640
14 1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15 1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	108	0.892	1620
16 1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	36.67	1.000	1600	107	0.926	1600
17 OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	98.7	0.466	2960
18 13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.169	
19 13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20 13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.85	1.000	34.40	1.014	108	108	0.235	
21 13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22 13C-1,2,3,7,8,9-HxCDD	5.82e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23 13C-1,2,3,4,6,7,8-HpCDD	4.85e5	1.07	NO	0.53	1.000	38.31	1.129	113	113	0.326	



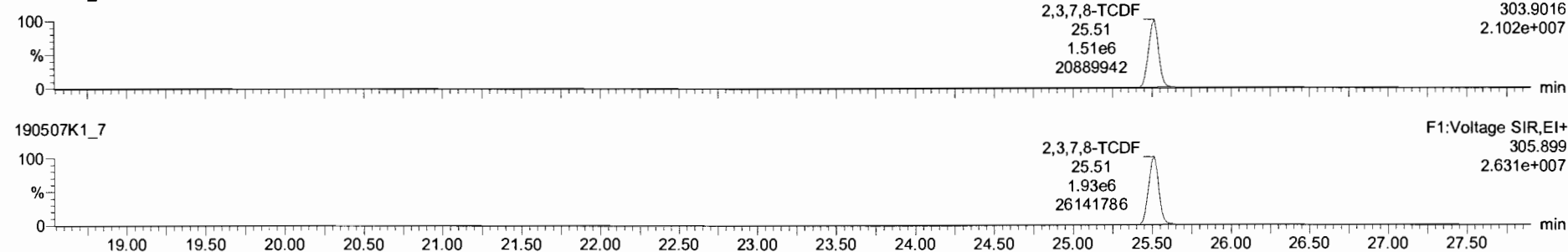
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_7, Date: 07-May-2019, Time: 15:27:02, ID: ST190507K1\_7 1613 CS5 19C2206, Description: 1613 CS5 19C2206

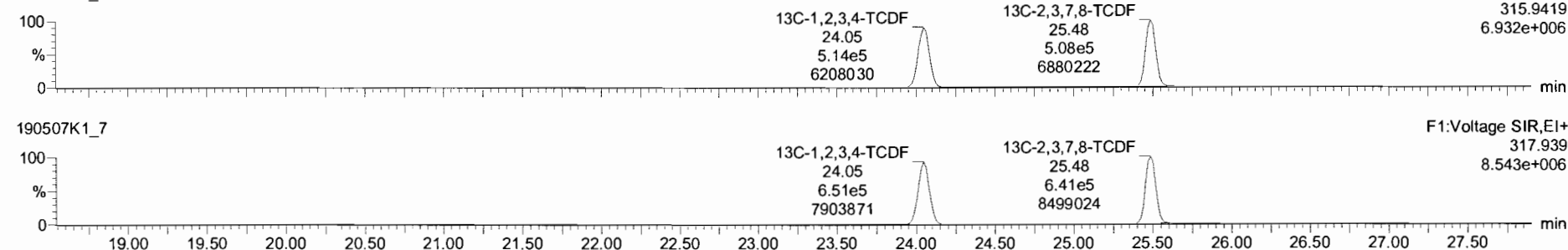
### 2,3,7,8-TCDF

190507K1\_7



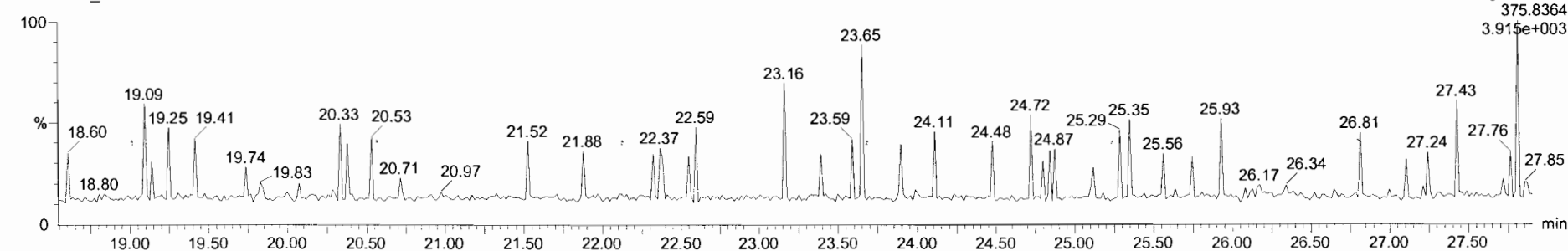
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190507K1\_7



### DPE1

190507K1\_7





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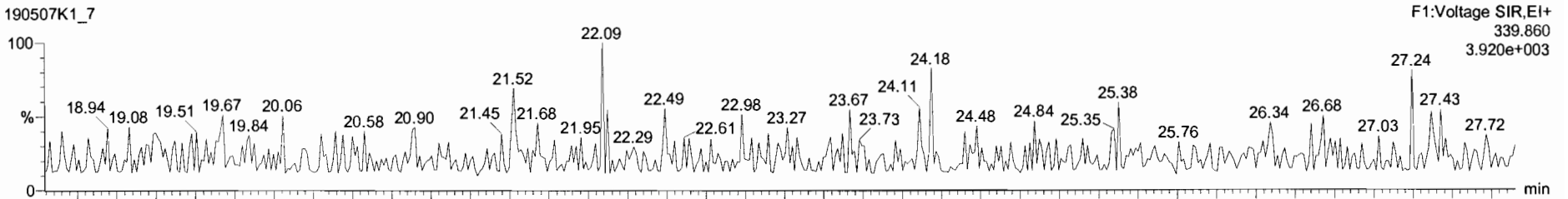
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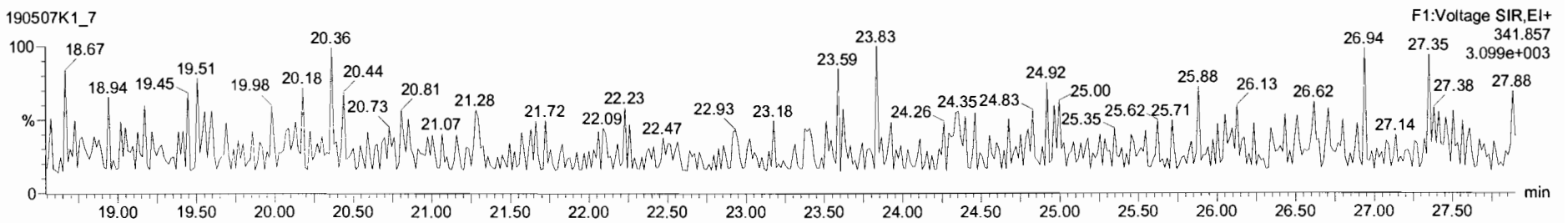
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1st Func. Penta-Furans

190507K1\_7

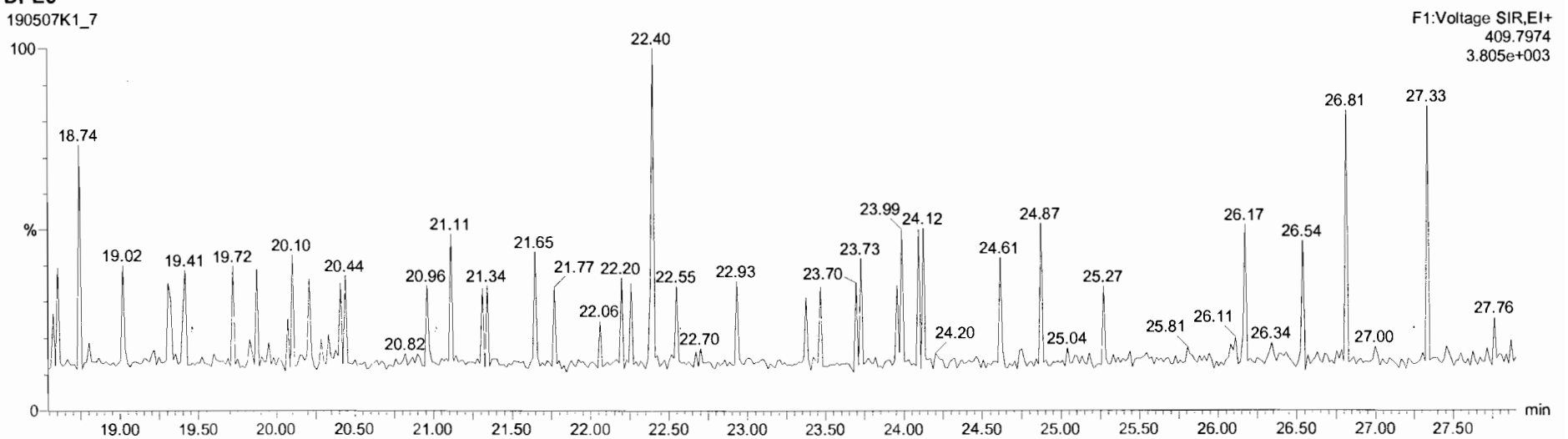


190507K1\_7



DPE6

190507K1\_7



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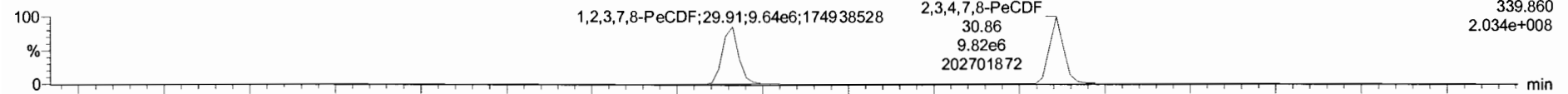
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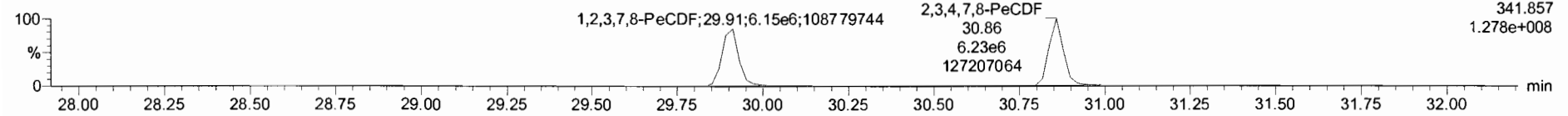
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**1,2,3,7,8-PeCDF**

190507K1\_7

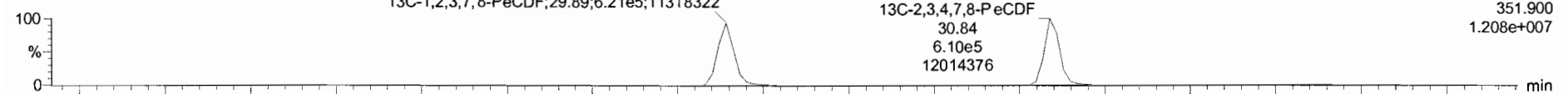


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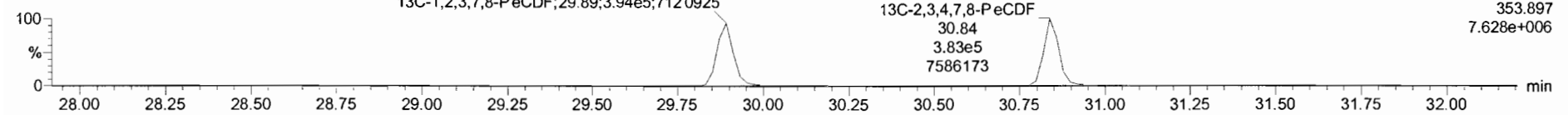


**13C-1,2,3,7,8-PeCDF**

190507K1\_7

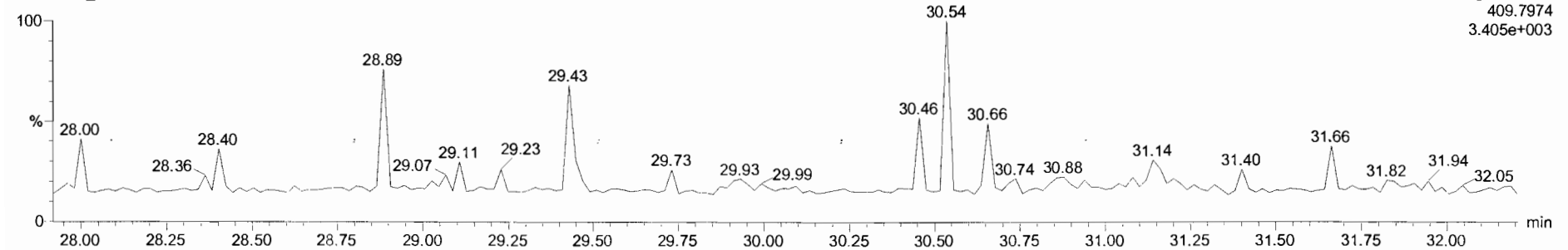


190507K1\_7



**DPE2**

190507K1\_7



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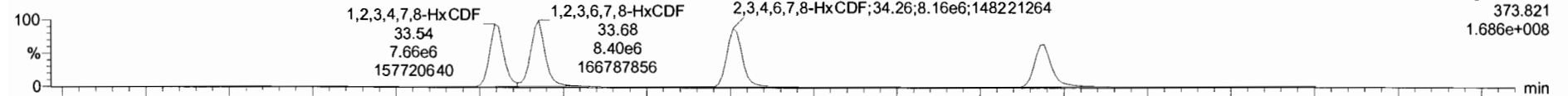
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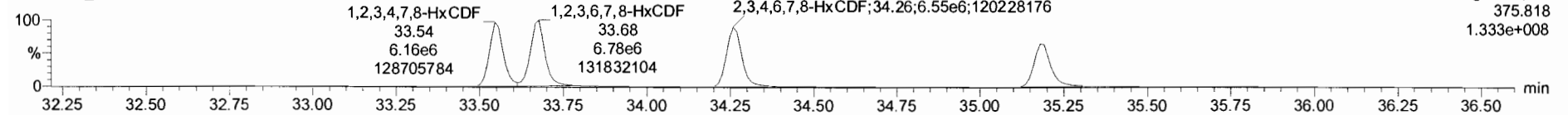
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**1,2,3,4,7,8-HxCDF**

190507K1\_7

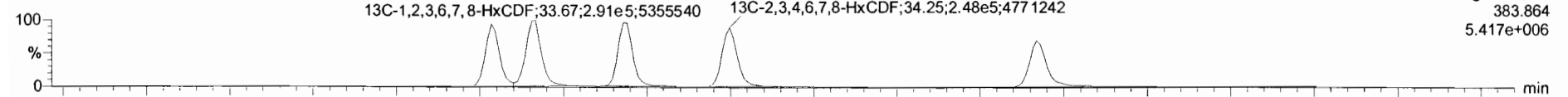


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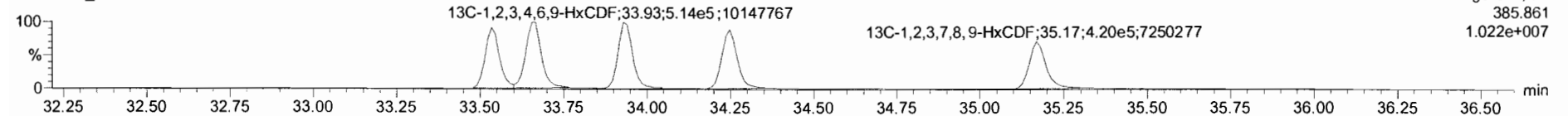


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_7

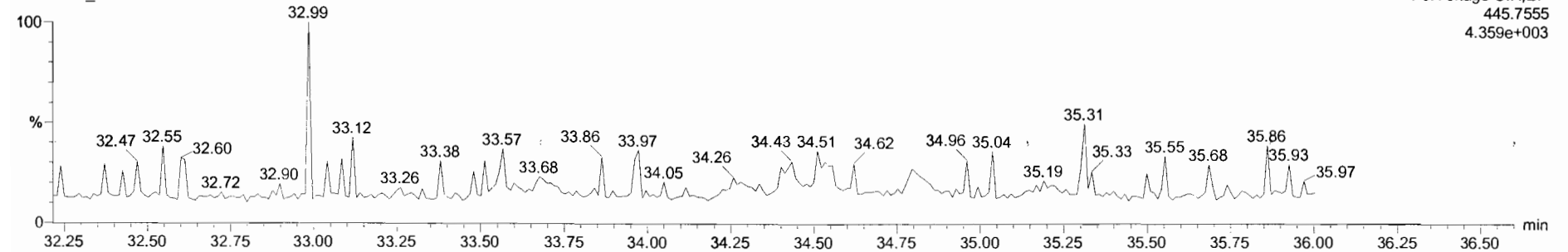


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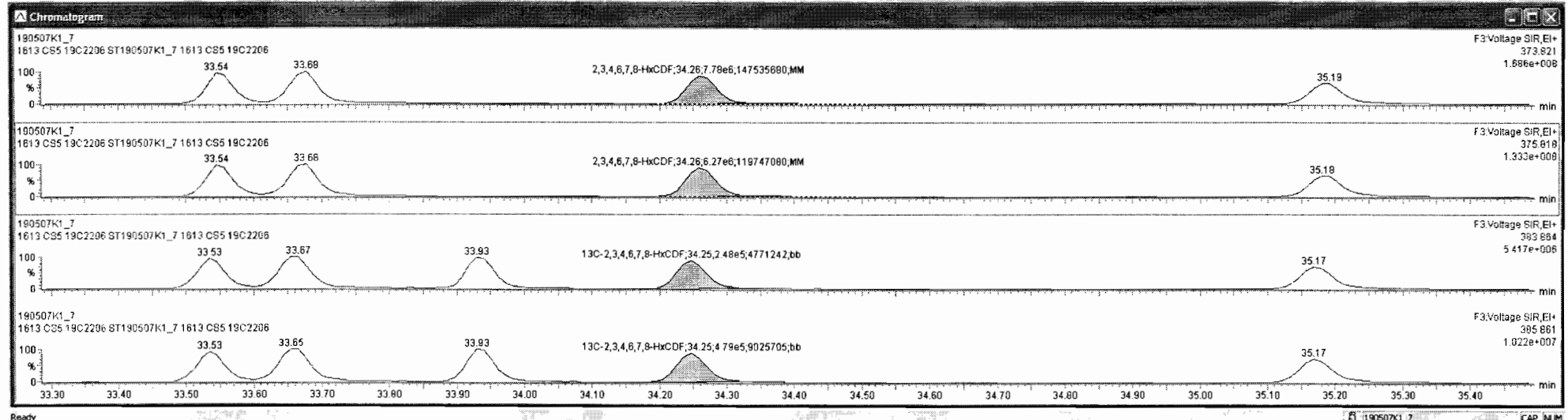
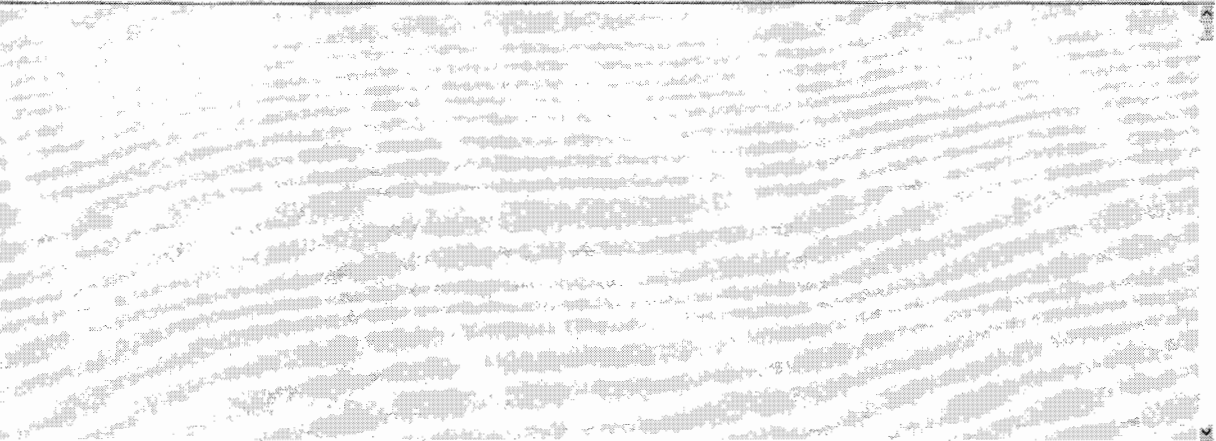


**DPE3**

190507K1\_7

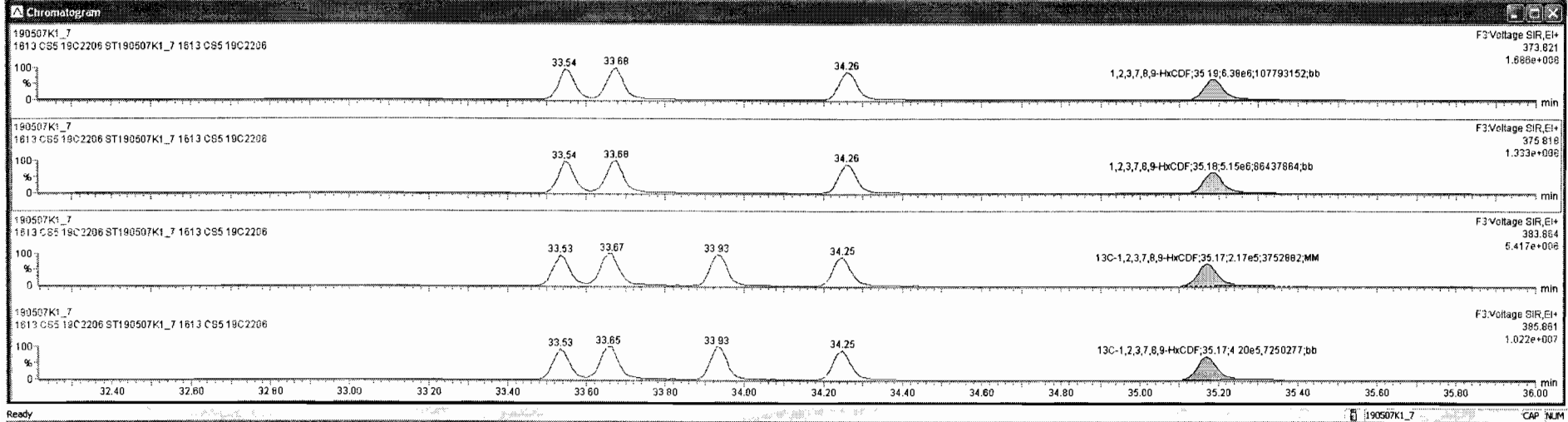
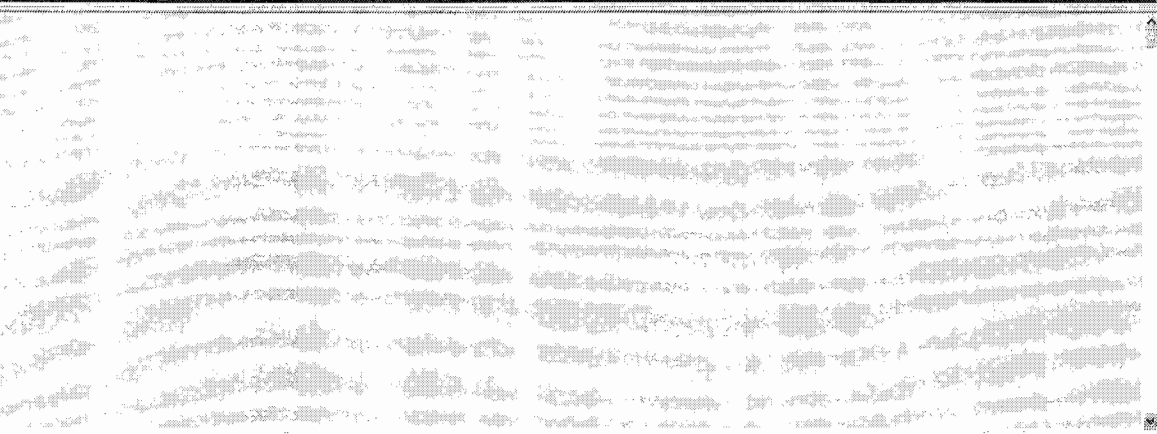


Name	Resp	RA	nAy	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2 1,2,3,7,8-PeCDD	1.00e7	0.62	NO	0.90	1.000	31.14	1.001	1610	107	0.0868	1610
3 1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4 1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1560	104	0.446	1560
5 1,2,3,7,8,9-HxCDD	8.88e6	1.20	NO	0.98	1.000	34.81	1.000	1530	102	0.497	1530
6 1,2,3,4,6,7,8-HpCDD	7.58e6	1.05	NO	1.04	1.000	38.31	1.000	1570	105	0.634	1570
7 OCDD	1.35e7	0.90	NO	0.97	1.000	41.48	1.000	3210	107	1.20	3210
8 2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0887	320
9 1,2,3,7,8-PeCDF	1.58e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10 2,3,4,7,8-PeCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11 1,2,3,4,7,8-HxCDF	1.38e7	1.24	NO	1.24	1.000	33.54	1.000	1580	105	0.529	1580
12 1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13 2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.25	1.000	1490	109	0.683	1490
14 1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15 1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	108	0.852	1620
16 1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	38.87	1.000	1600	107	0.926	1600
17 OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	98.7	0.468	2960
18 13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.169	
19 13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20 13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.55	1.000	34.40	1.014	108	108	0.235	
21 13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22 13C-1,2,3,7,8,9-HxCDD	5.82e5	1.25	NO	0.86	1.000	34.80	1.026	115	115	0.231	
23 13C-1,2,3,4,6,7,8-HpCDD	4.65e5	1.07	NO	0.53	1.000	38.31	1.129	113	113	0.326	



190507K1\_7-ST190507K1\_7\_1613 CS5 19C2206 - 1613 CS5 19C2206

Name	Resp	RA	RY	RRF	wt/val	RT	RRF	Conc	%Rec	DL	EMPG
1 2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2 1,2,3,7,8-PeCDD	1.00e7	0.62	NO	0.90	1.000	31.14	1.001	1610	107	0.0868	1610
3 1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1680	111	0.470	1680
4 1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1560	104	0.446	1560
5 1,2,3,7,8,9-HxCDD	8.68e6	1.20	NO	0.99	1.000	34.81	1.000	1530	102	0.497	1530
6 1,2,3,4,6,7,8-HpCDD	7.58e6	1.05	NO	1.04	1.000	38.31	1.000	1570	105	0.634	1570
7 OCDD	1.35e7	0.90	NO	0.97	1.000	41.46	1.000	3210	107	1.20	3210
8 2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0887	320
9 1,2,3,7,8-PeCDF	1.58e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10 2,3,4,7,8-PeCDF	1.81e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11 1,2,3,4,7,8-HxCDF	1.38e7	1.24	NO	1.24	1.000	33.54	1.000	1580	105	0.629	1580
12 1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13 2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1640	109	0.693	1640
14 1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.13	1.001	1690	112	0.968	1690
15 1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	108	0.892	1620
16 1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	36.87	1.000	1600	107	0.928	1600
17 OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	98.7	0.468	2960
18 13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.189	
19 13C-1,2,3,7,8-PeCDD	6.89e5	0.63	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20 13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.65	1.000	34.40	1.014	108	108	0.235	
21 13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22 13C-1,2,3,7,8,9-HxCDD	5.82e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23 13C-1,2,3,4,6,7,8-HpCDD	4.65e5	1.07	NO	0.53	1.000	38.31	1.129	113	113	0.326	

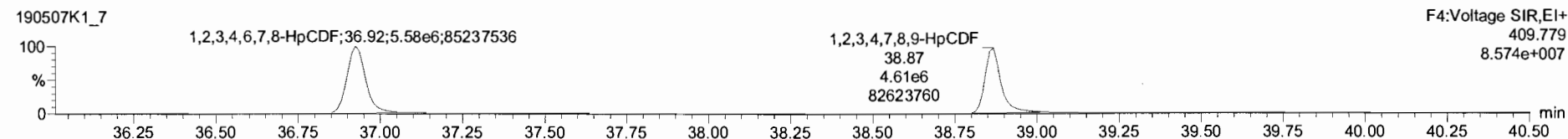
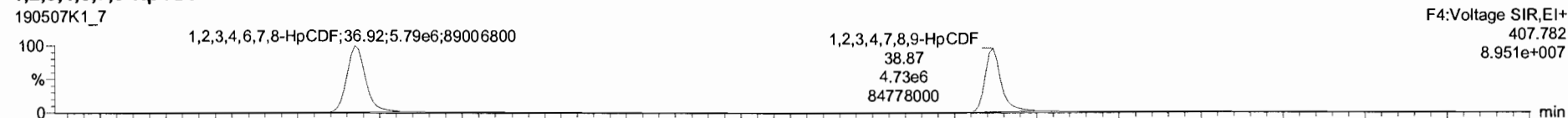


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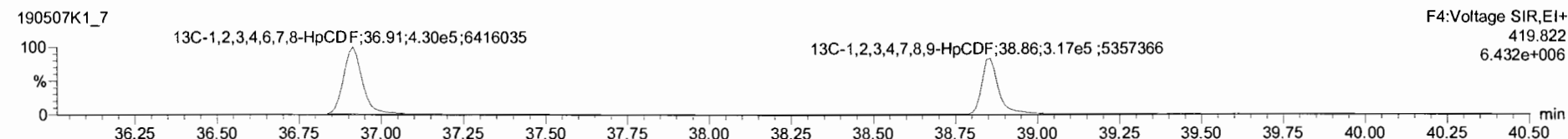
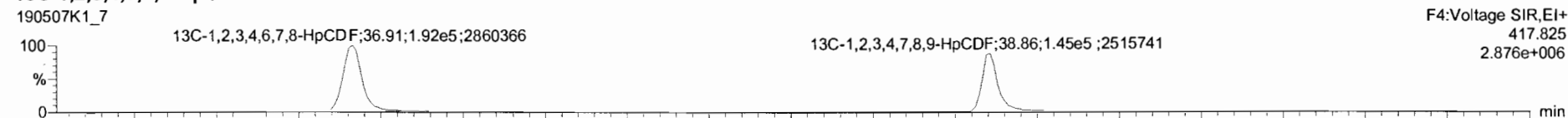
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_7, Date: 07-May-2019, Time: 15:27:02, ID: ST190507K1\_7 1613 CS5 19C2206, Description: 1613 CS5 19C2206

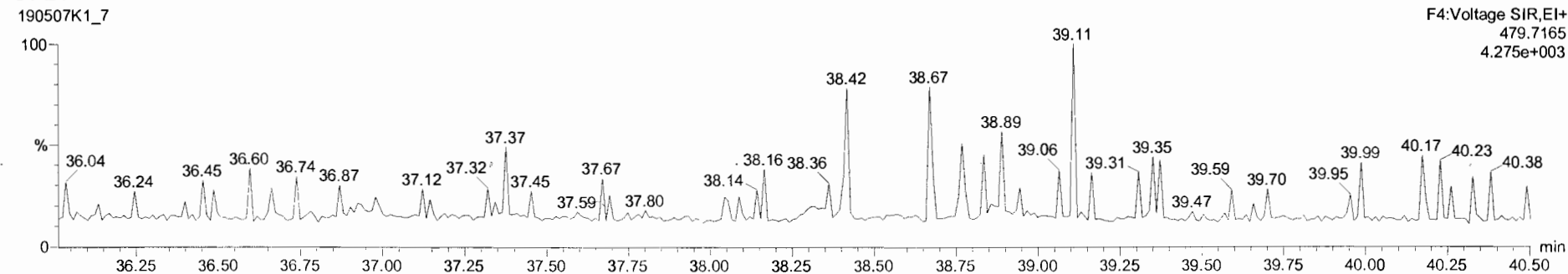
### 1,2,3,4,6,7,8-HpCDF



### 13C-1,2,3,4,6,7,8-HpCDF



### DPE4

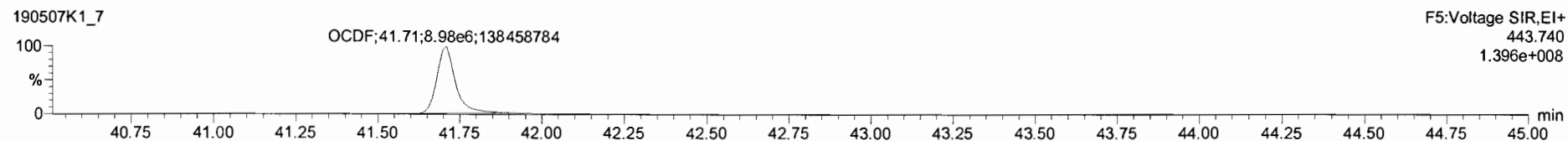
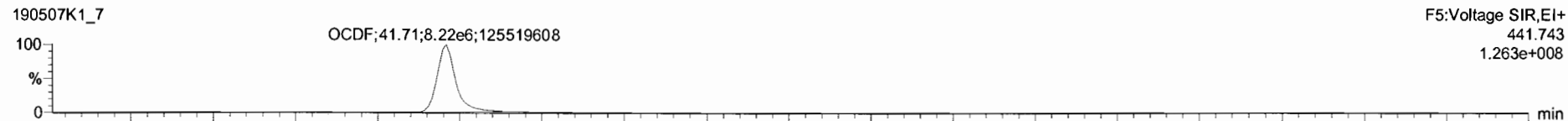


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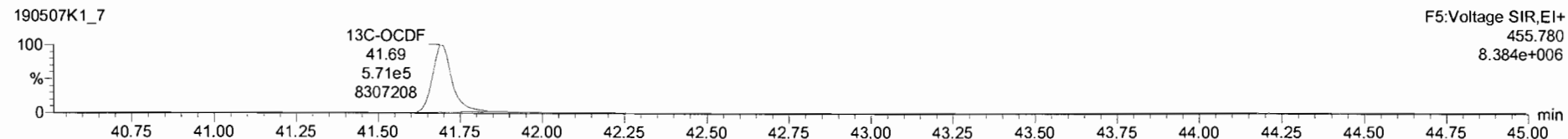
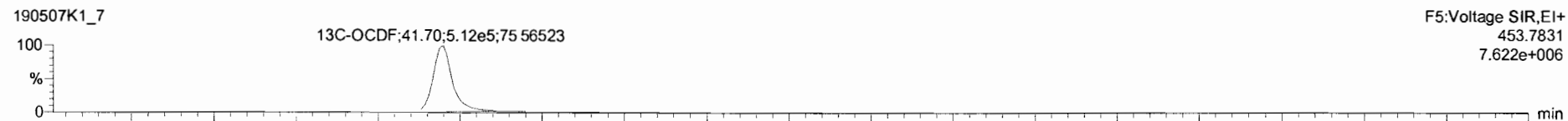
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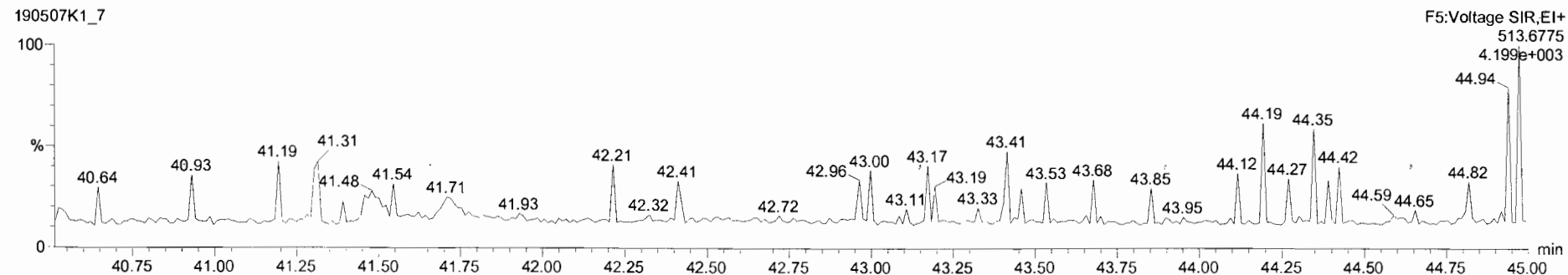
**OCDF**



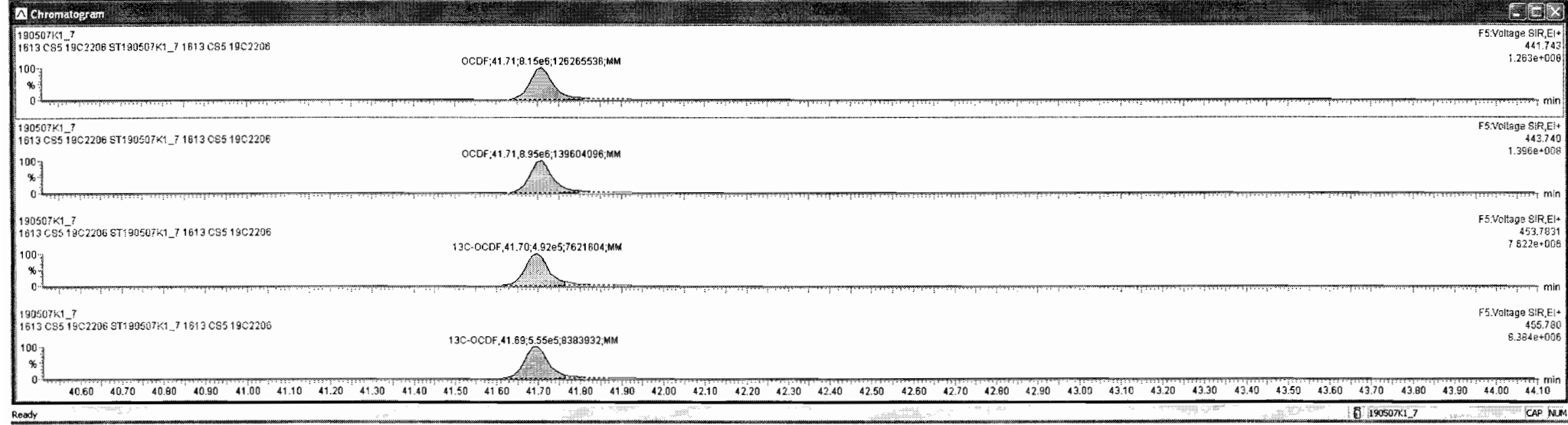
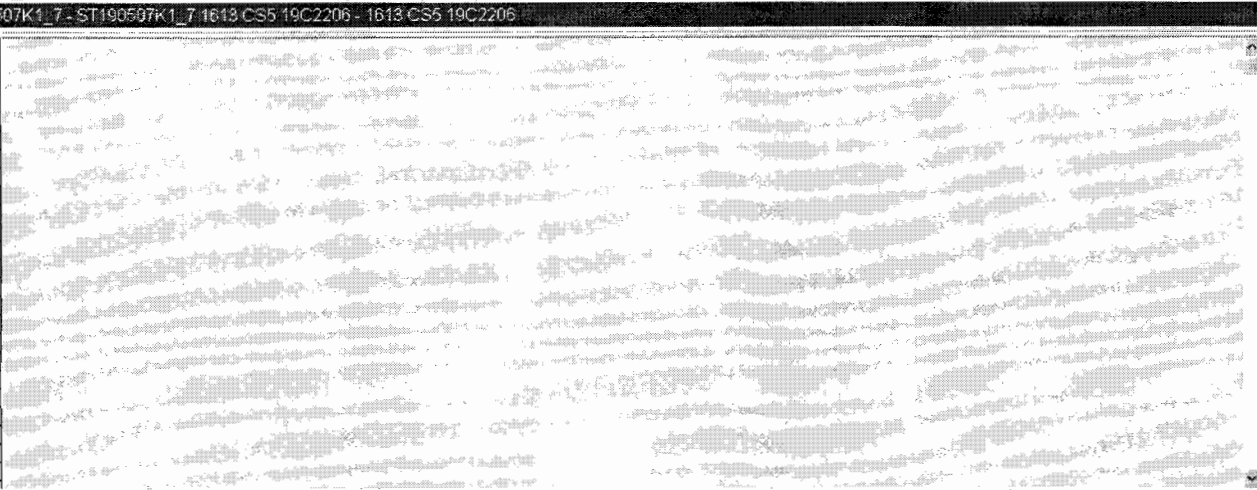
**13C-OCDF**



**DPE5**



Name	Resp	RA	nly	RFF	wMVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	2.60e6	0.78	NO	0.92	1.000	26.36	1.001	316	105	0.0742	316
2 1,2,3,7,8-PeCDD	1.00e7	0.82	NO	0.90	1.000	31.14	1.001	1610	107	0.0888	1610
3 1,2,3,4,7,8-HxCDD	9.53e6	1.25	NO	1.07	1.000	34.42	1.001	1660	111	0.470	1660
4 1,2,3,6,7,8-HxCDD	1.02e7	1.25	NO	0.97	1.000	34.52	1.000	1560	104	0.446	1560
5 1,2,3,7,8,9-HxCDD	8.68e6	1.20	NO	0.98	1.000	34.81	1.000	1530	102	0.497	1530
6 1,2,3,4,6,7,8-HpCDD	7.58e6	1.05	NO	1.04	1.000	38.31	1.000	1570	105	0.634	1570
7 OCDD	1.35e7	0.90	NO	0.97	1.000	41.48	1.000	3210	107	1.20	3210
8 2,3,7,8-TCDF	3.44e6	0.78	NO	0.94	1.000	25.51	1.001	320	107	0.0887	320
9 1,2,3,7,8-PeCDF	1.58e7	1.57	NO	0.97	1.000	29.91	1.001	1600	106	0.255	1600
10 2,3,4,7,8-PeCDF	1.61e7	1.58	NO	1.00	1.000	30.86	1.001	1610	107	0.234	1610
11 1,2,3,4,7,8-HxCDF	1.36e7	1.24	NO	1.24	1.000	33.54	1.000	1590	105	0.628	1590
12 1,2,3,6,7,8-HxCDF	1.52e7	1.24	NO	1.10	1.000	33.68	1.000	1620	108	0.664	1620
13 2,3,4,6,7,8-HxCDF	1.40e7	1.24	NO	1.18	1.000	34.26	1.000	1640	109	0.693	1640
14 1,2,3,7,8,9-HxCDF	1.15e7	1.24	NO	1.07	1.000	35.19	1.001	1690	112	0.966	1690
15 1,2,3,4,6,7,8-HpCDF	1.14e7	1.04	NO	1.13	1.000	36.92	1.000	1620	108	0.892	1620
16 1,2,3,4,7,8,9-HpCDF	9.34e6	1.03	NO	1.26	1.000	38.87	1.000	1600	107	0.926	1600
17 OCDF	1.71e7	0.91	NO	1.10	1.000	41.71	1.000	2960	96.7	0.468	2960
18 13C-2,3,7,8-TCDD	8.87e5	0.78	NO	1.05	1.000	26.34	1.026	105	105	0.169	
19 13C-1,2,3,7,8-PeCDD	6.89e5	0.83	NO	0.74	1.000	31.12	1.212	115	115	0.166	
20 13C-1,2,3,4,7,8-HxCDD	5.37e5	1.27	NO	0.65	1.000	34.40	1.014	108	108	0.235	
21 13C-1,2,3,6,7,8-HxCDD	6.73e5	1.27	NO	0.78	1.000	34.51	1.017	113	113	0.196	
22 13C-1,2,3,7,8,9-HxCDD	5.82e5	1.25	NO	0.66	1.000	34.80	1.026	115	115	0.231	
23 13C-1,2,3,4,6,7,8-HpCDD	4.65e5	1.07	NO	0.53	1.000	38.31	1.129	113	113	0.326	

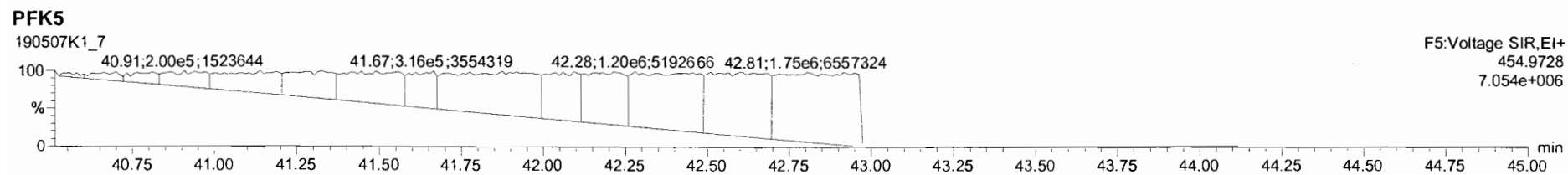
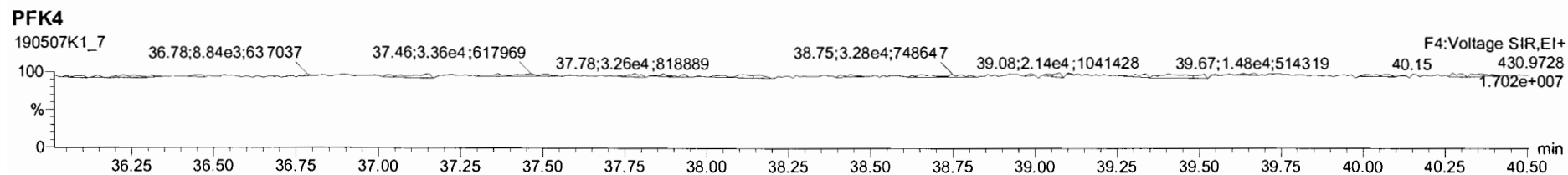
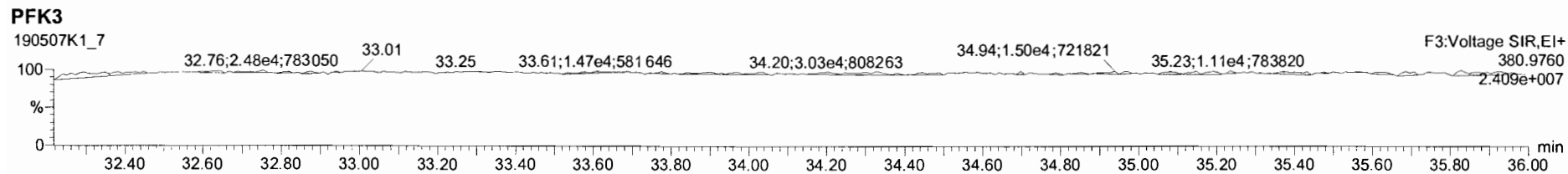
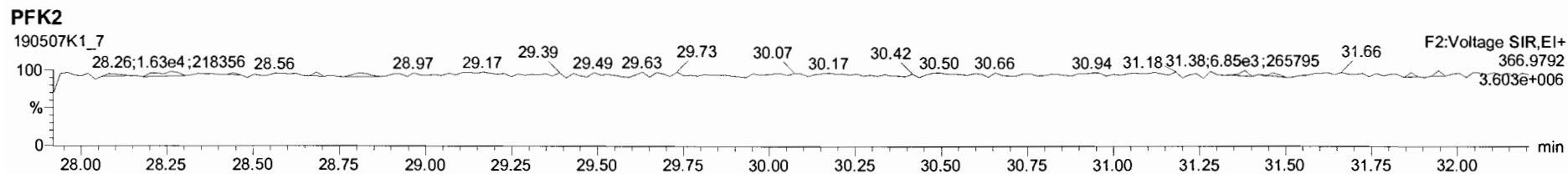
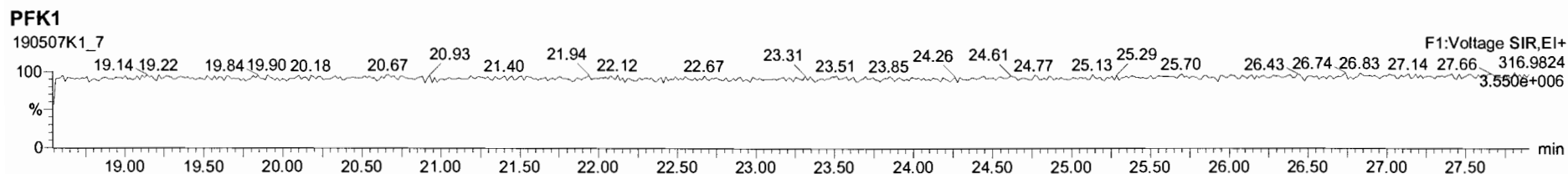




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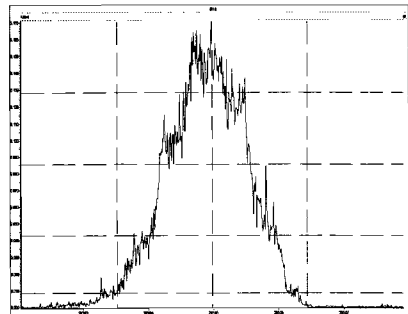
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_7, Date: 07-May-2019, Time: 15:27:02, ID: ST190507K1\_7 1613 CS5 19C2206, Description: 1613 CS5 19C2206

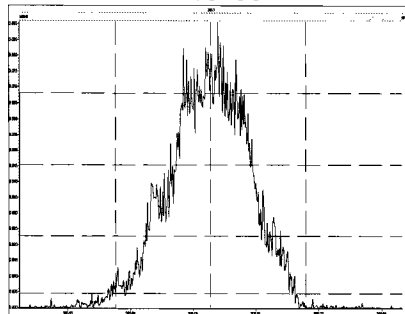


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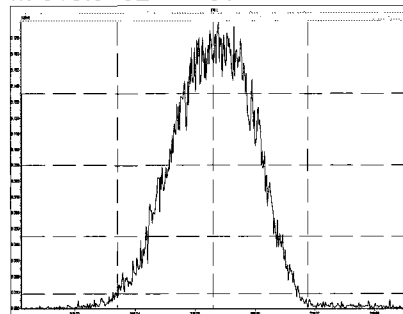
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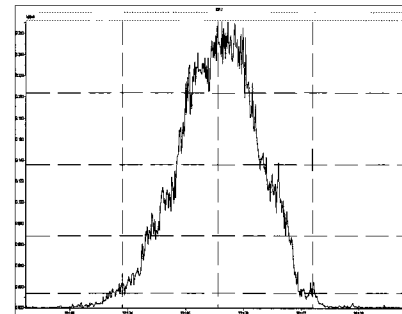
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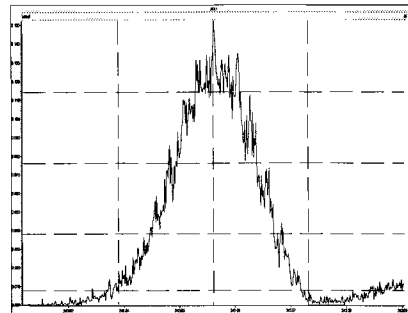
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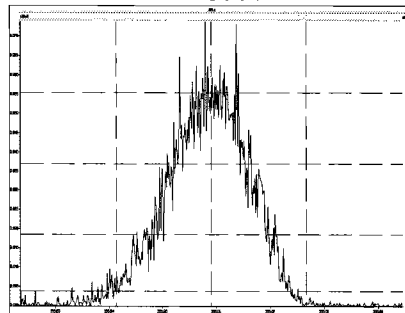
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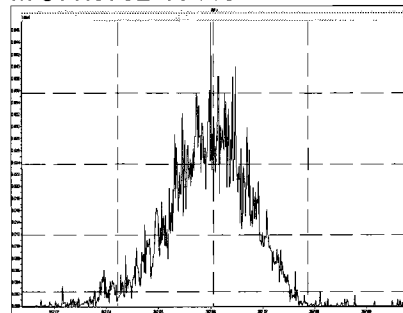
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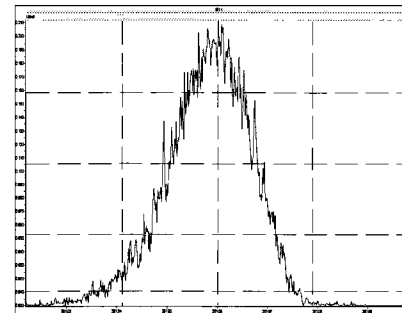
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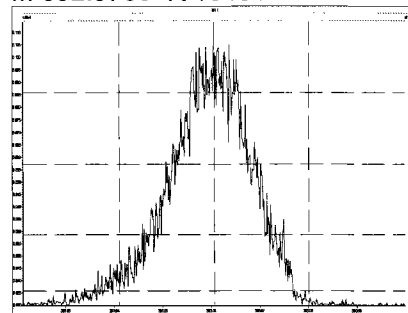
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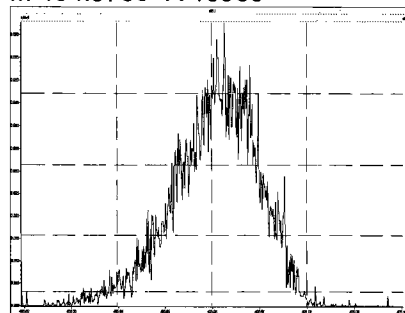
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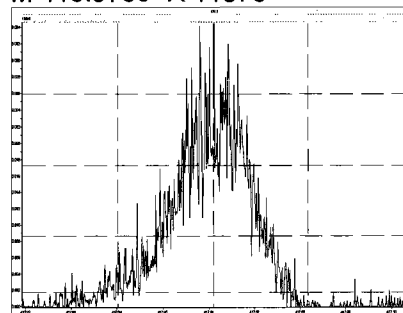
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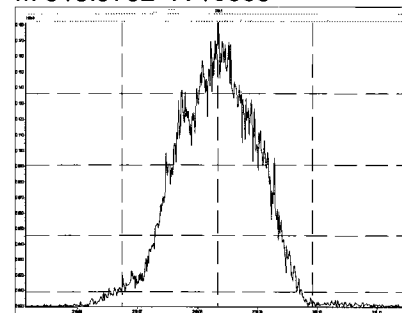
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M 416.9760 R 11876

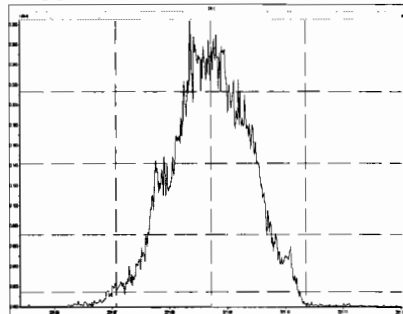


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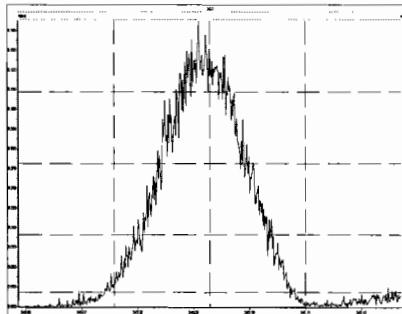


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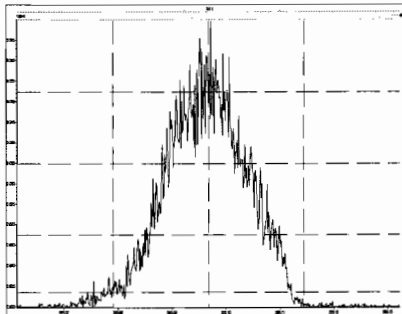
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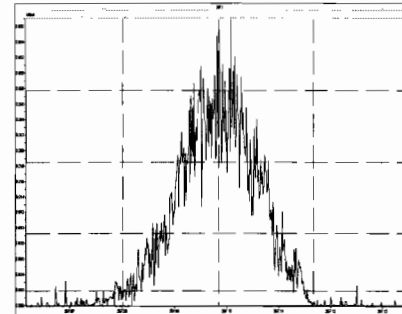
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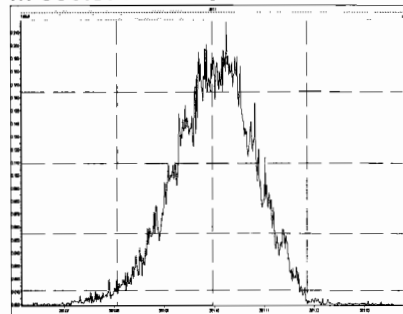
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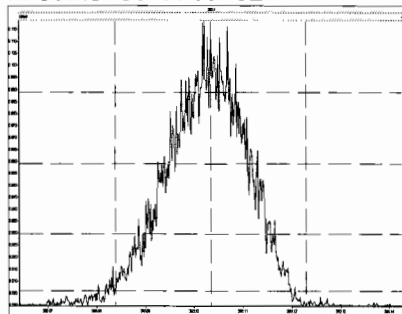
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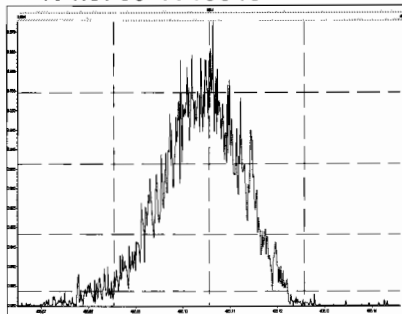
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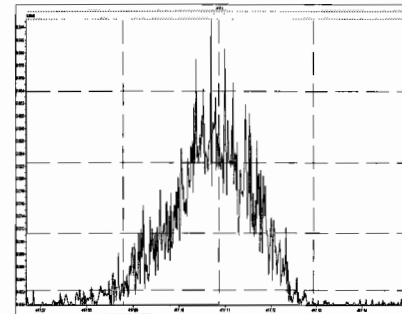
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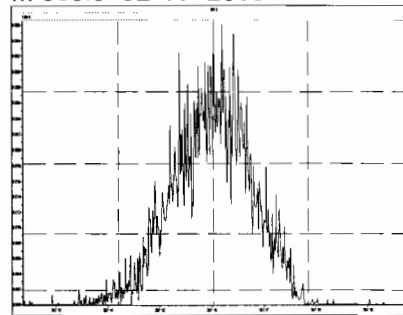
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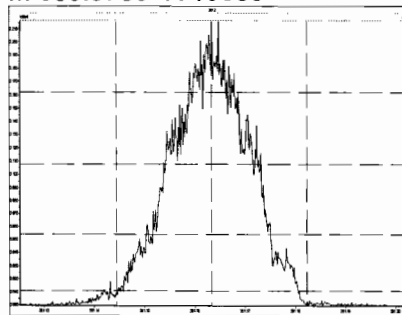
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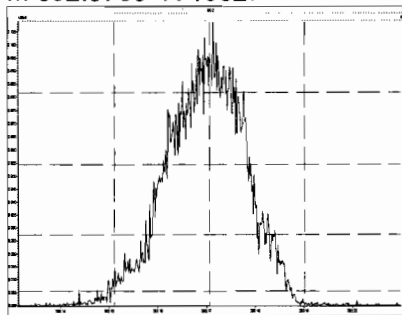
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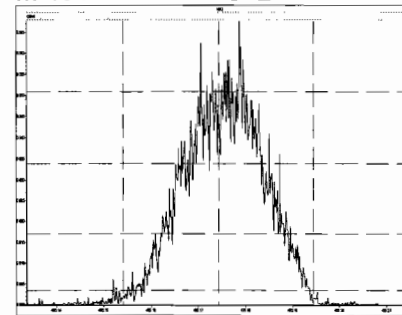
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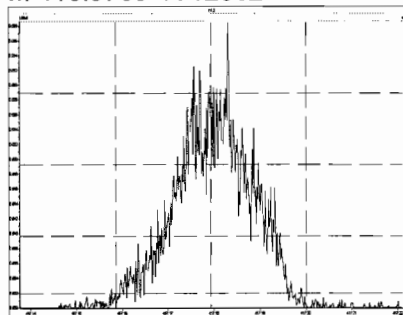


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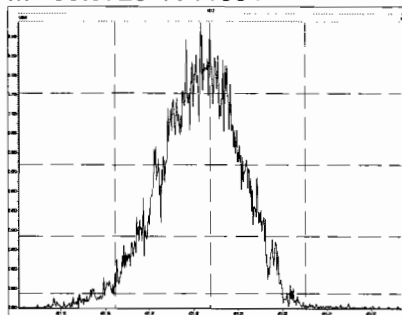


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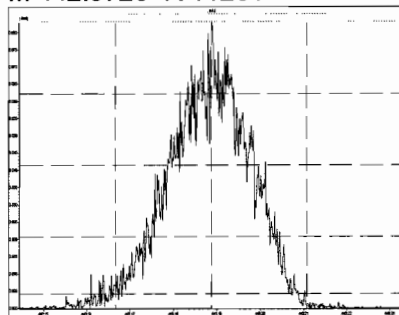
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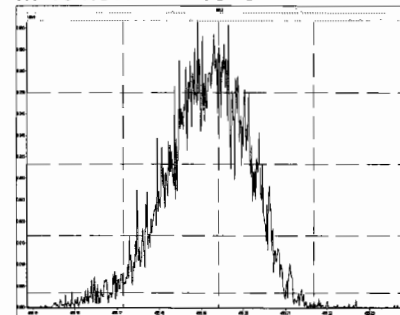
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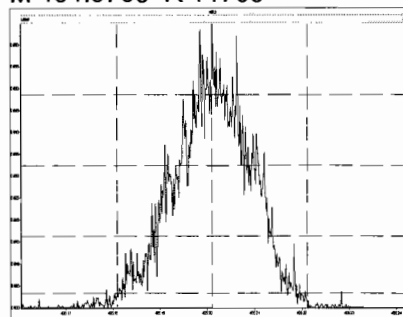
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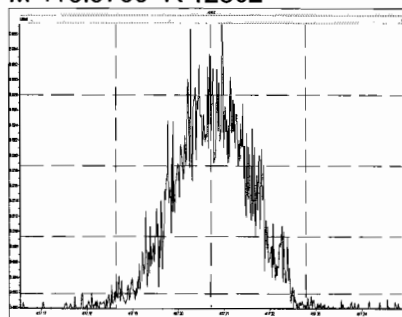
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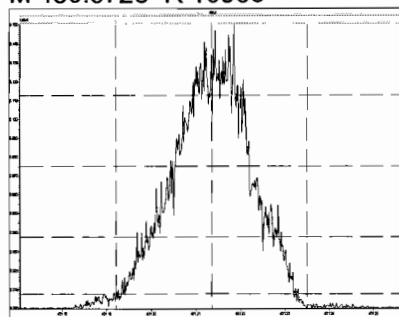
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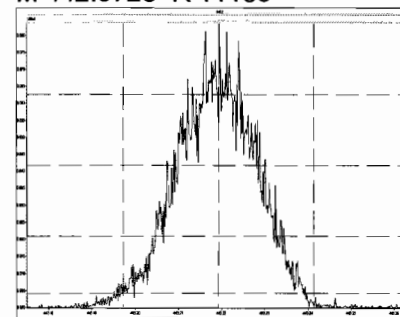
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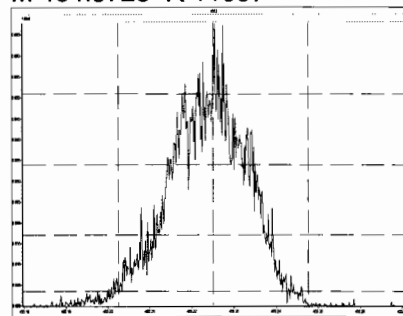
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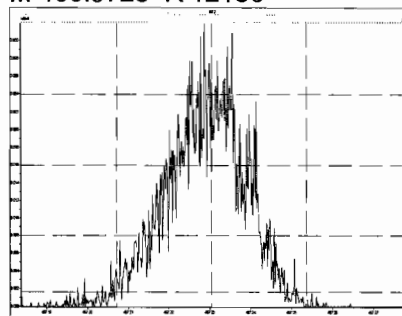
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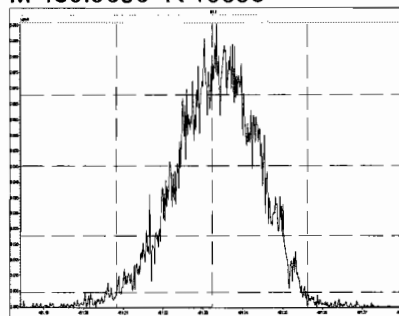
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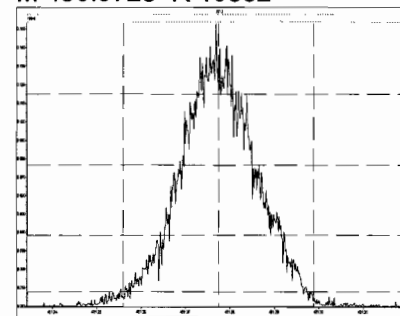
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M 480.9696 R 10695

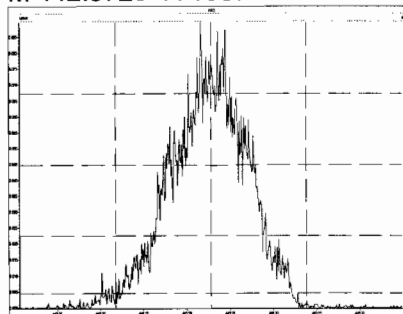


M 430.9728 R 10552

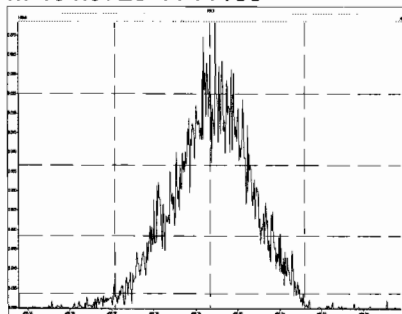


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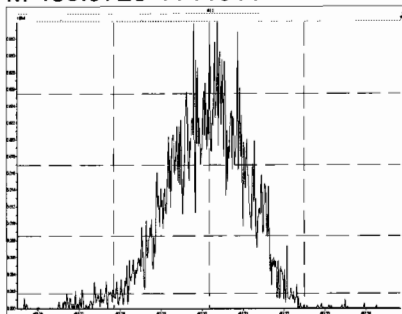
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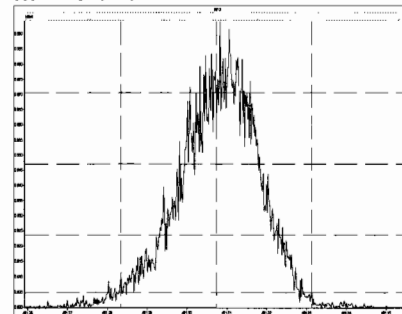
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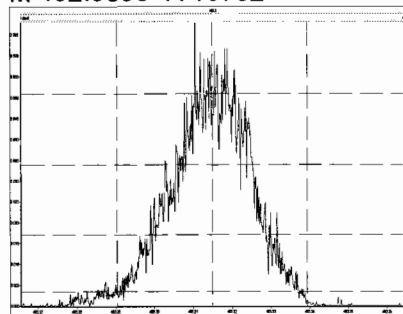
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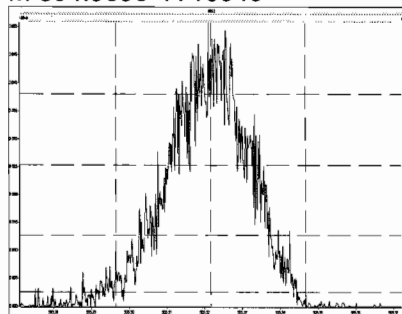
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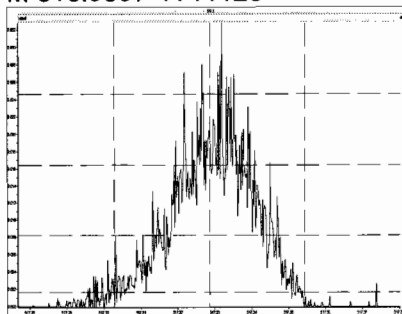
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M 504.9696 R 10949



M 516.9697 R 11126



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*hz 5.8.19 DB 5/20/19*

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Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	7.60e4	0.76	NO	0.925	1.000	26.372	26.36	1.001	1.001	9.9167	99.2	0.0527	9.92
2	1,2,3,7,8-PeCDD	2.83e5	0.63	NO	0.905	1.000	31.141	31.14	1.001	1.001	52.411	105	0.0779	52.4
3	1,2,3,4,7,8-HxCDD	2.56e5	1.24	NO	1.07	1.000	34.422	34.42	1.000	1.000	51.689	103	0.157	51.7
4	1,2,3,6,7,8-HxCDD	2.85e5	1.28	NO	0.967	1.000	34.511	34.53	1.000	1.001	54.377	109	0.161	54.4
5	1,2,3,7,8,9-HxCDD	2.46e5	1.25	NO	0.978	1.000	34.831	34.81	1.001	1.000	50.269	101	0.173	50.3
6	1,2,3,4,6,7,8-HpCDD	1.96e5	1.05	NO	1.04	1.000	38.308	38.32	1.000	1.001	47.654	95.3	0.186	47.7
7	OCDD	3.61e5	0.90	NO	0.972	1.000	41.457	41.47	1.000	1.000	105.18	105	0.228	105
8	2,3,7,8-TCDF	1.06e5	0.77	NO	0.938	1.000	25.510	25.51	1.001	1.001	10.161	102	0.0528	10.2
9	1,2,3,7,8-PeCDF	4.45e5	1.56	NO	0.976	1.000	29.913	29.91	1.001	1.001	51.910	104	0.0756	51.9
10	2,3,4,7,8-PeCDF	4.90e5	1.55	NO	1.00	1.000	30.869	30.86	1.001	1.001	56.296	113	0.0742	56.3
11	1,2,3,4,7,8-HxCDF	3.98e5	1.24	NO	1.24	1.000	33.534	33.56	1.000	1.001	53.288	107	0.159	53.3
12	1,2,3,6,7,8-HxCDF	4.37e5	1.15	NO	1.10	1.000	33.665	33.68	1.000	1.001	54.868	110	0.164	54.9
13	2,3,4,6,7,8-HxCDF	3.80e5	1.25	NO	1.18	1.000	34.282	34.27	1.001	1.001	51.927	104	0.183	51.9
14	1,2,3,7,8,9-HxCDF	3.02e5	1.22	NO	1.07	1.000	35.169	35.19	1.000	1.001	53.429	107	0.261	53.4
15	1,2,3,4,6,7,8-HpCDF	3.31e5	1.04	NO	1.13	1.000	36.951	36.92	1.001	1.000	56.517	113	0.264	56.5
16	1,2,3,4,7,8,9-HpCDF	2.56e5	0.99	NO	1.26	1.000	38.856	38.87	1.000	1.000	53.867	108	0.275	53.9
17	OCDF	4.34e5	0.87	NO	1.10	1.000	41.687	41.70	1.000	1.000	93.430	93.4	0.200	93.4
18	13C-2,3,7,8-TCDD	8.29e5	0.78	NO	1.05	1.000	26.343	26.34	1.026	1.026	102.10	102	0.130	
19	13C-1,2,3,7,8-PeCDD	5.96e5	0.63	NO	0.743	1.000	31.123	31.12	1.212	1.212	103.75	104	0.218	
20	13C-1,2,3,4,7,8-HxCDD	4.63e5	1.29	NO	0.646	1.000	34.402	34.41	1.014	1.014	102.33	102	0.354	
21	13C-1,2,3,6,7,8-HxCDD	5.41e5	1.25	NO	0.777	1.000	34.510	34.51	1.017	1.017	99.464	99.5	0.295	
22	13C-1,2,3,7,8,9-HxCDD	5.00e5	1.25	NO	0.659	1.000	34.799	34.80	1.025	1.025	108.25	108	0.347	
23	13C-1,2,3,4,6,7,8-HpCDD	3.97e5	1.11	NO	0.534	1.000	38.301	38.30	1.128	1.128	106.06	106	0.355	
24	13C-OCDD	7.05e5	0.93	NO	0.470	1.000	41.461	41.46	1.222	1.222	214.10	107	0.519	
25	13C-2,3,7,8-TCDF	1.11e6	0.77	NO	0.977	1.000	25.483	25.48	0.992	0.992	101.03	101	0.194	
26	13C-1,2,3,7,8-PeCDF	8.78e5	1.59	NO	0.778	1.000	29.892	29.89	1.164	1.164	100.03	100	0.293	
27	13C-2,3,4,7,8-PeCDF	8.67e5	1.59	NO	0.750	1.000	30.843	30.84	1.201	1.201	102.41	102	0.304	
28	13C-1,2,3,4,7,8-HxCDF	6.01e5	0.51	NO	0.845	1.000	33.529	33.53	0.988	0.988	101.56	102	0.419	
29	13C-1,2,3,6,7,8-HxCDF	7.27e5	0.52	NO	1.03	1.000	33.652	33.65	0.992	0.992	101.03	101	0.345	
30	13C-2,3,4,6,7,8-HxCDF	6.20e5	0.53	NO	0.893	1.000	34.249	34.25	1.009	1.009	99.164	99.2	0.397	
31	13C-1,2,3,7,8,9-HxCDF	5.26e5	0.53	NO	0.734	1.000	35.169	35.17	1.036	1.036	102.34	102	0.483	

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Last Altered: Wednesday, May 08, 2019 8:00:45 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 8:07:46 AM Pacific Daylight Time

Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	5.19e5	0.45	NO	0.754	1.000	36.900	36.91	1.087	1.088	98.155	98.2	0.323	
33	13C-1,2,3,4,7,8,9-HpCDF	3.76e5	0.44	NO	0.539	1.000	38.851	38.86	1.145	1.145	99.700	99.7	0.452	
34	13C-OCDF	8.43e5	0.90	NO	0.593	1.000	41.689	41.69	1.228	1.228	202.98	101	0.322	
35	37Cl-2,3,7,8-TCDD	8.22e4			1.07	1.000	26.343	26.36	1.026	1.026	9.9341	99.3	0.0341	
36	13C-1,2,3,4-TCDD	7.74e5	0.80	NO	1.00	1.000	25.680	25.68	1.000	1.000	100.00	100	0.137	
37	13C-1,2,3,4-TCDF	1.13e6	0.79	NO	1.00	1.000	24.050	24.05	1.000	1.000	100.00	100	0.190	
38	13C-1,2,3,4,6,9-HxCDF	7.01e5	0.53	NO	1.00	1.000	33.940	33.94	1.000	1.000	100.00	100	0.354	

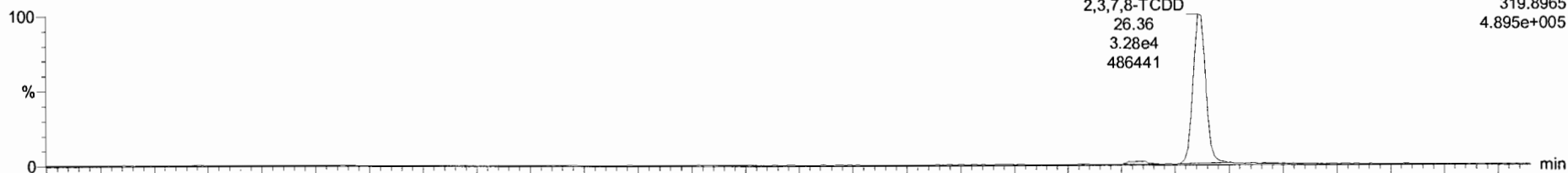
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

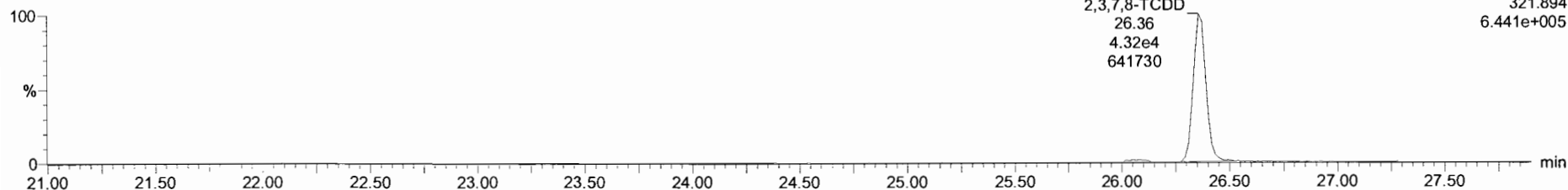
Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

**2,3,7,8-TCDD**

190507K1\_8

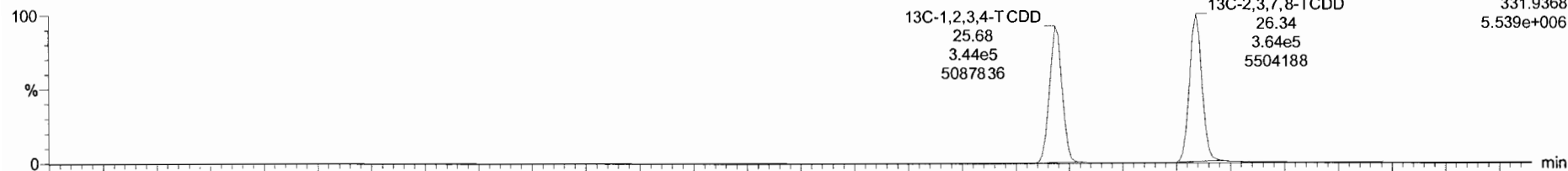


190507K1\_8

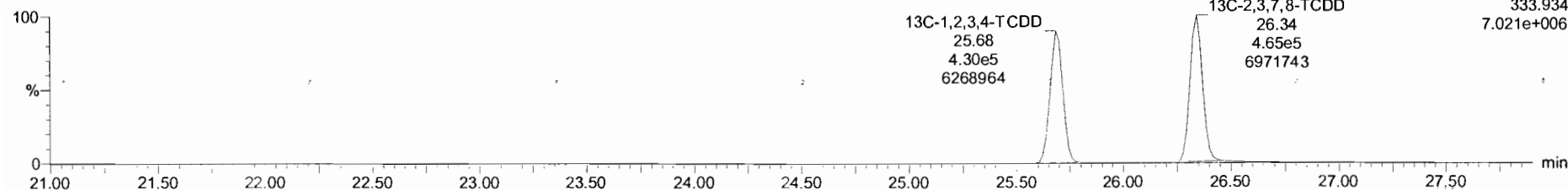


**13C-2,3,7,8-TCDD**

190507K1\_8



190507K1\_8





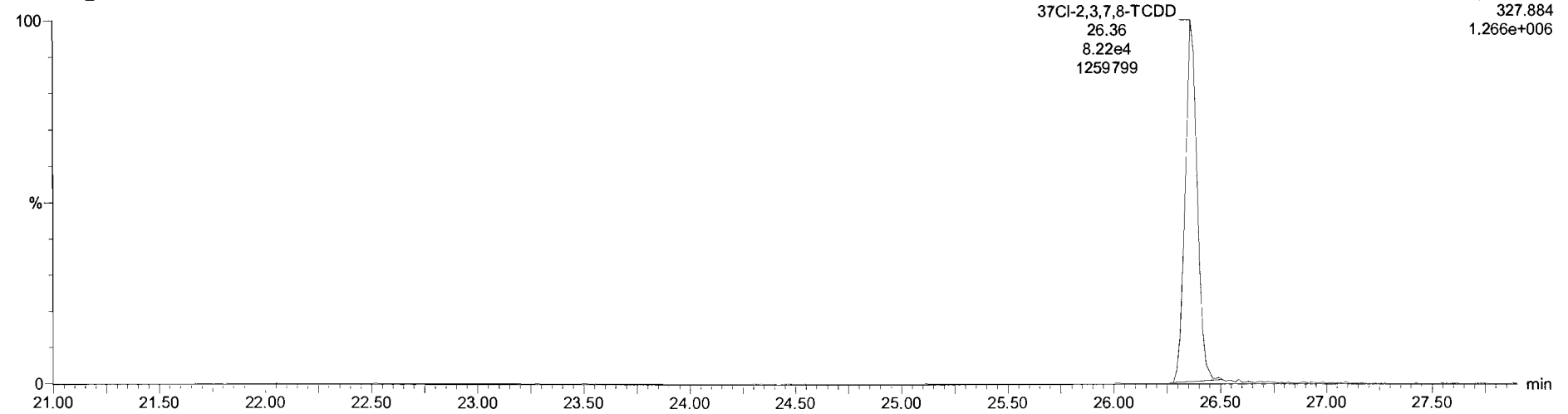
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Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

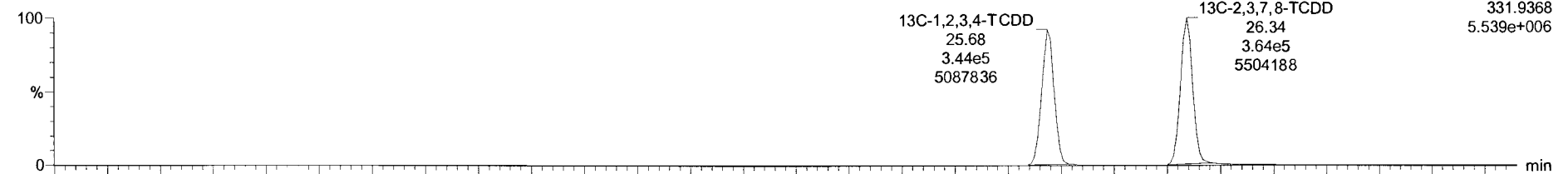
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190507K1\_8

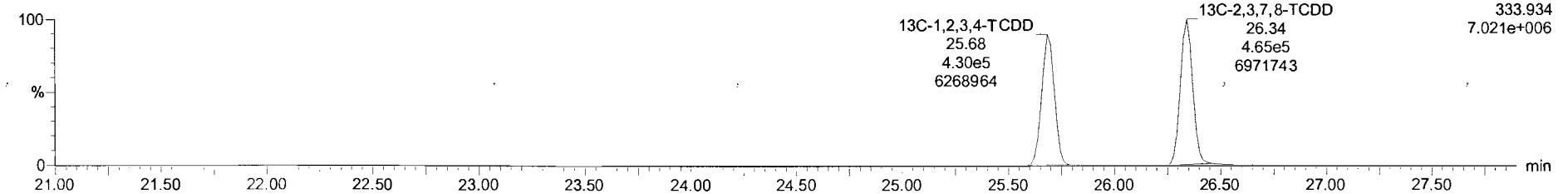


**13C-1,2,3,4-TCDD**

190507K1\_8



190507K1\_8



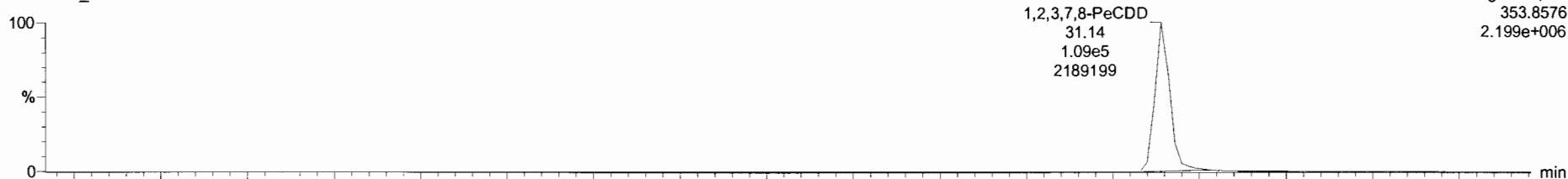
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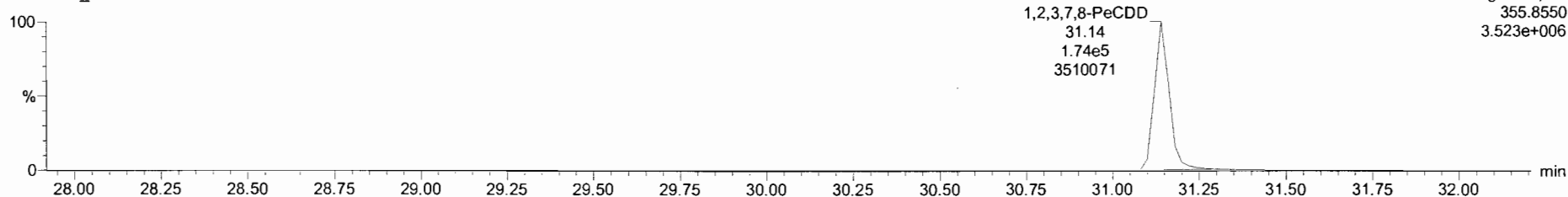
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**1,2,3,7,8-PeCDD**

190507K1\_8

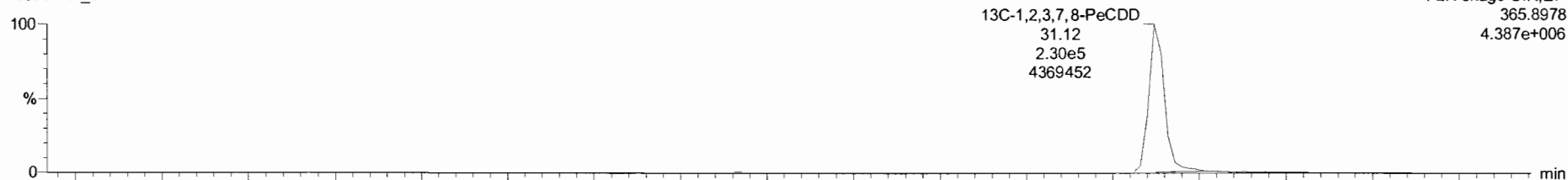


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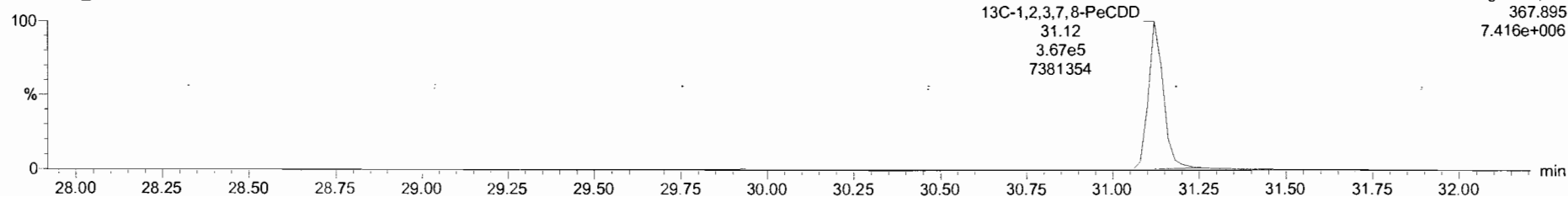


**13C-1,2,3,7,8-PeCDD**

190507K1\_8



190507K1\_8



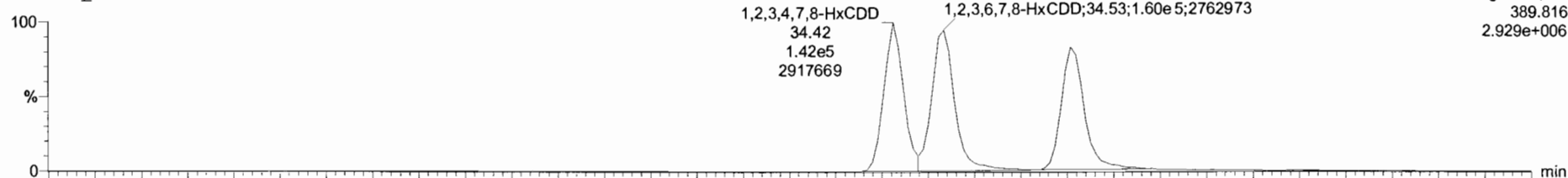
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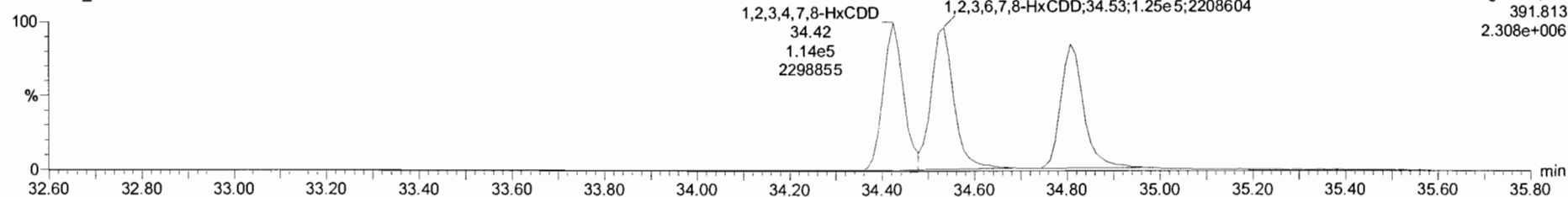
Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

**1,2,3,4,7,8-HxCDD**

190507K1\_8

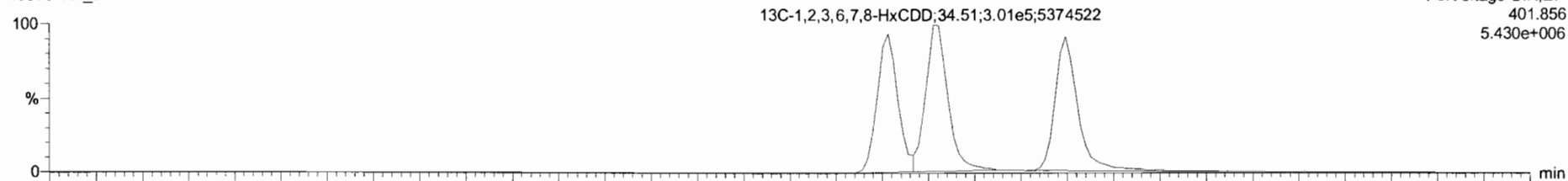


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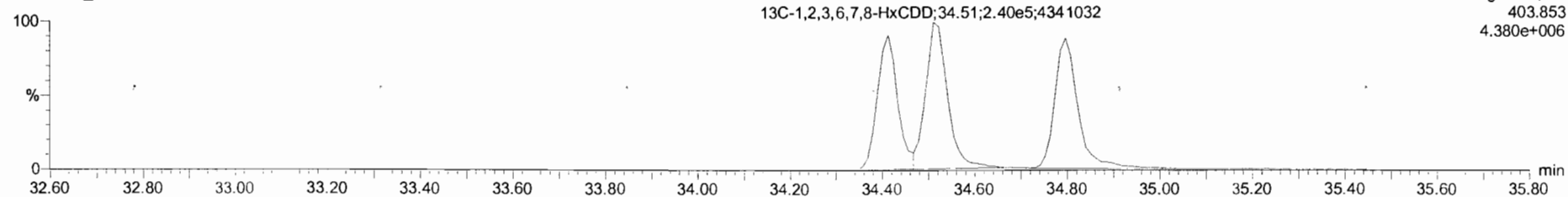


**13C-1,2,3,4,7,8-HxCDD**

190507K1\_8



190507K1\_8



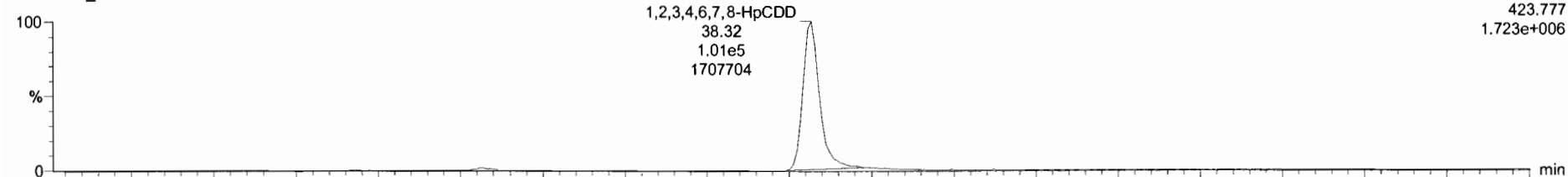
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

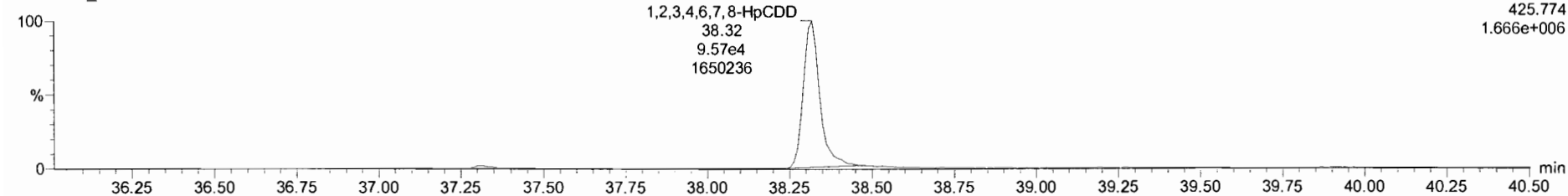
**1,2,3,4,6,7,8-HpCDD**

190507K1\_8



F4:Voltage SIR,EI+  
423.777  
1.723e+006

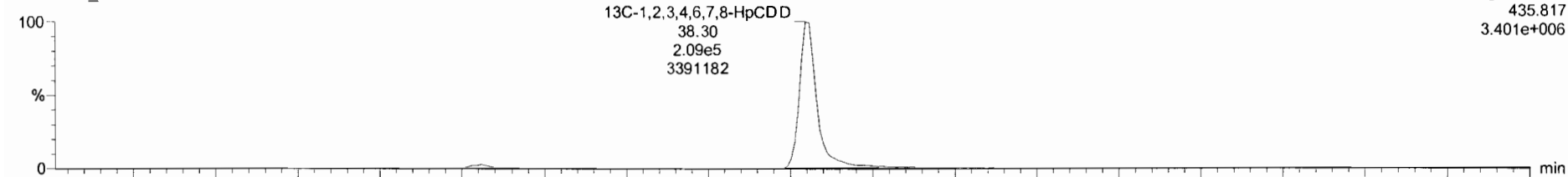
190507K1\_8



F4:Voltage SIR,EI+  
425.774  
1.666e+006

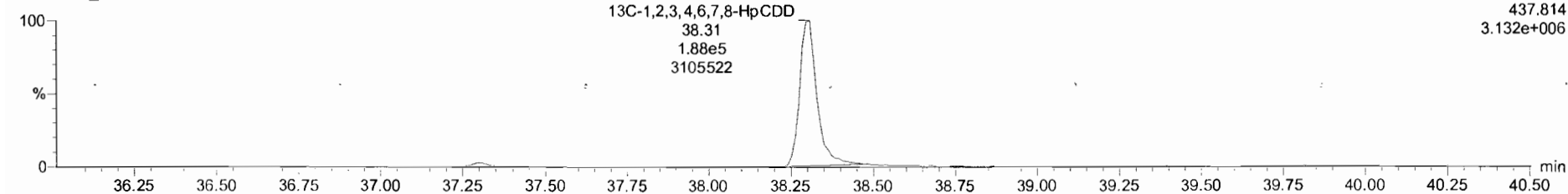
**13C-1,2,3,4,6,7,8-HpCDD**

190507K1\_8



F4:Voltage SIR,EI+  
435.817  
3.401e+006

190507K1\_8

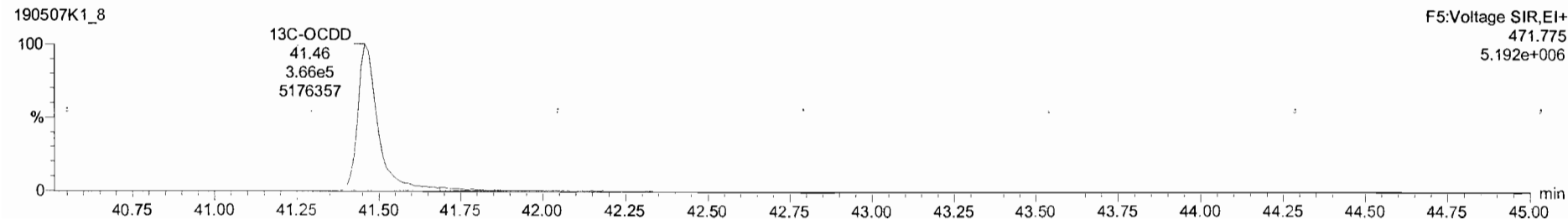
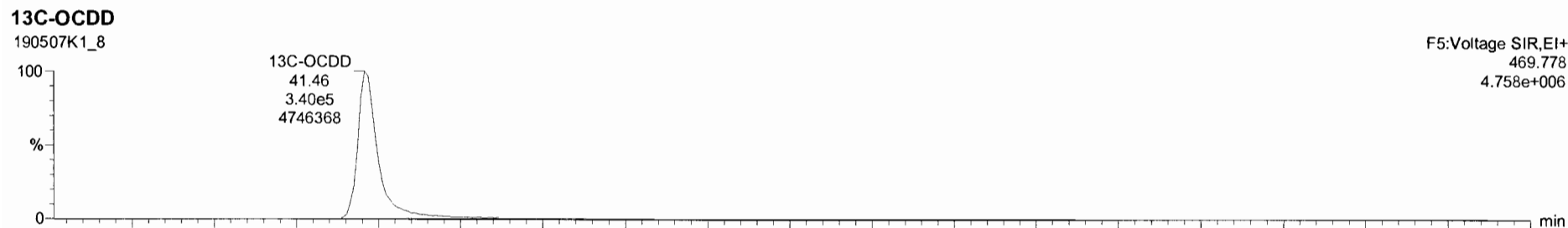
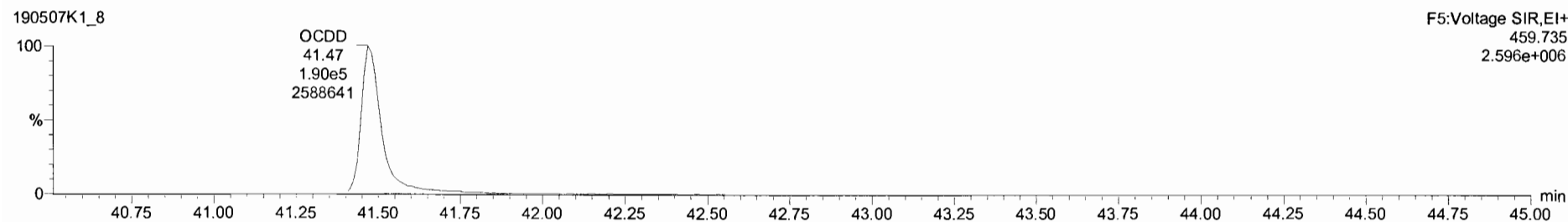
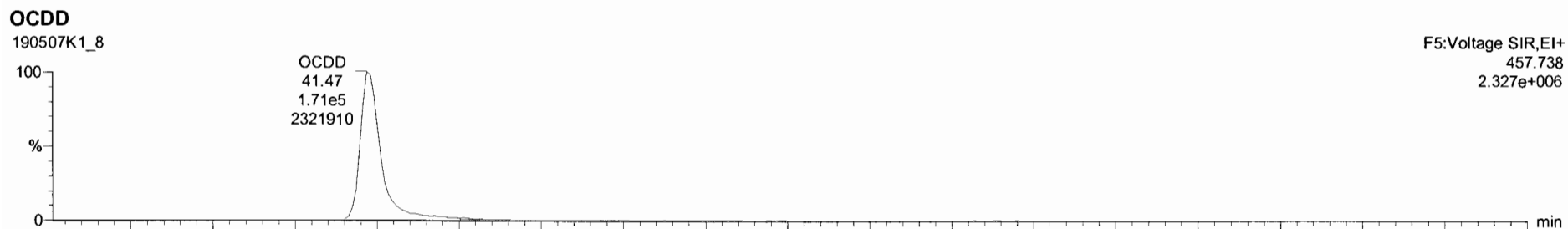


F4:Voltage SIR,EI+  
437.814  
3.132e+006

Dataset: Untitled

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Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207



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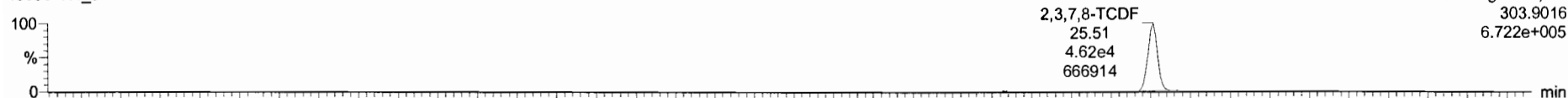
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

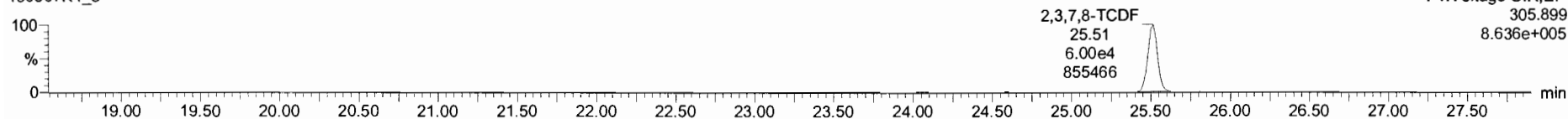
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**2,3,7,8-TCDF**

190507K1\_8

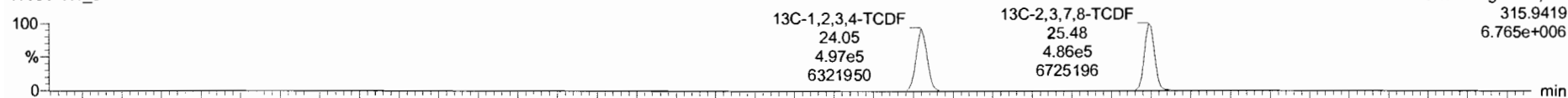


190507K1\_8

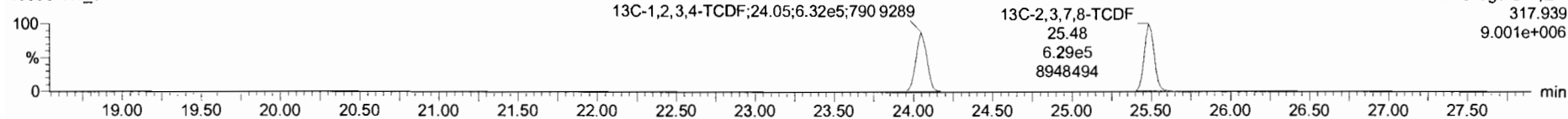


**13C-2,3,7,8-TCDF**

190507K1\_8

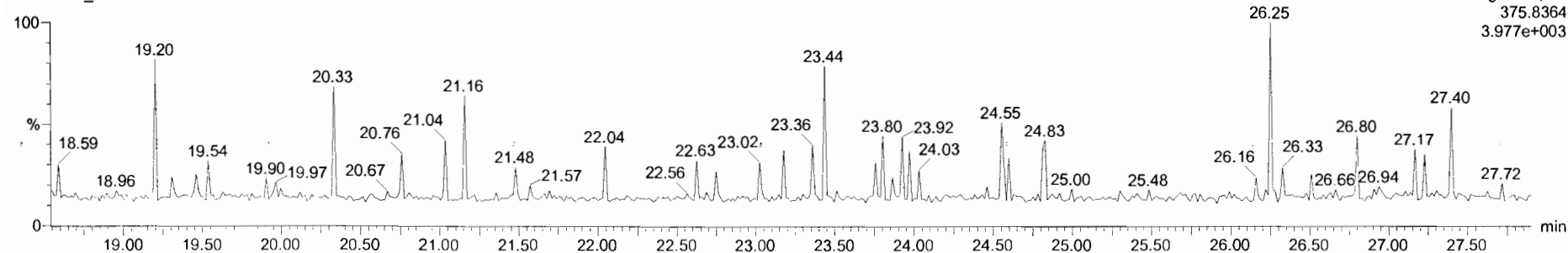


190507K1\_8



**DPE1**

190507K1\_8

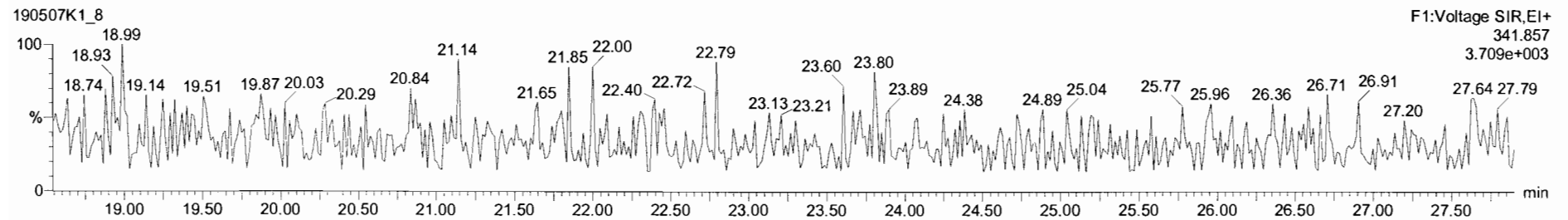
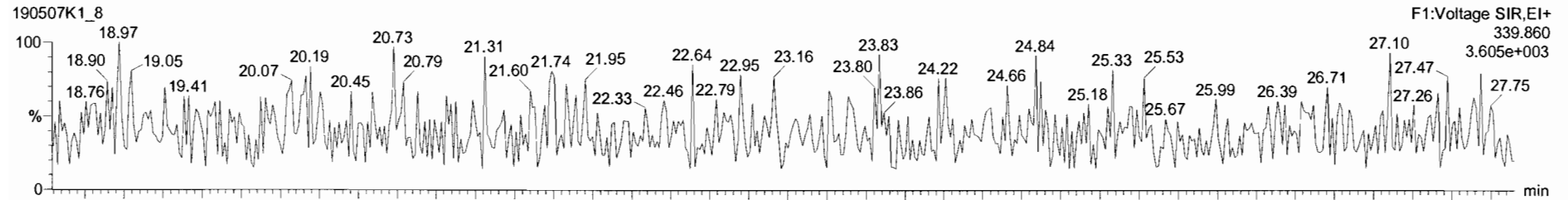


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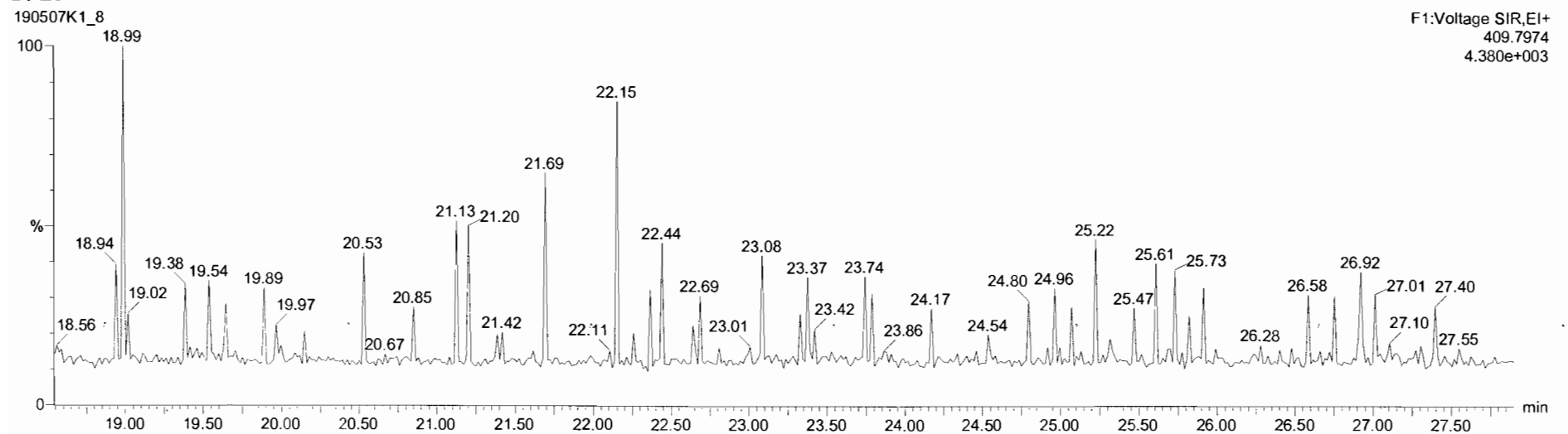
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Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

1st Func. Penta-Furans



DPE6



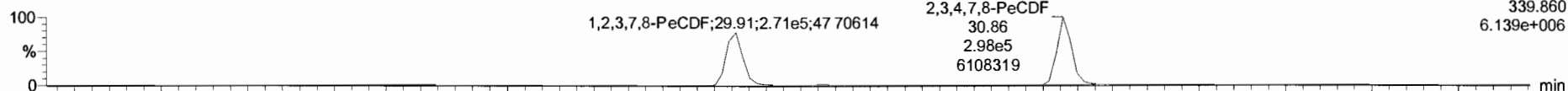
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Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

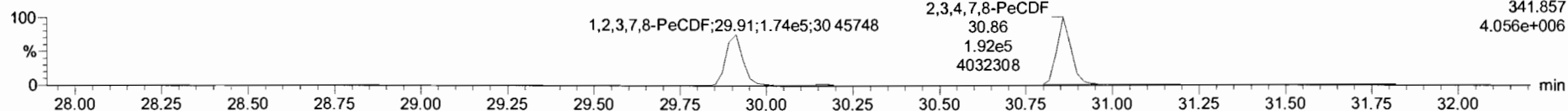
**1,2,3,7,8-PeCDF**

190507K1\_8



F2:Voltage SIR,EI+  
339.860  
6.139e+006

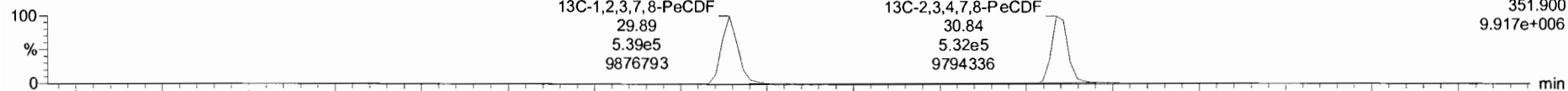
190507K1\_8



F2:Voltage SIR,EI+  
341.857  
4.056e+006

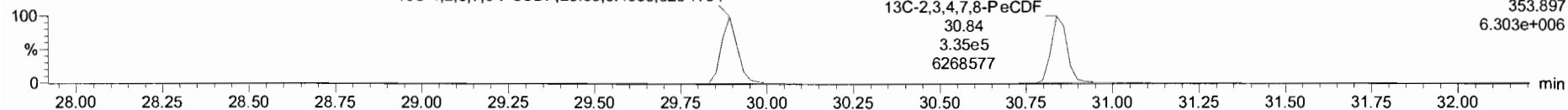
**13C-1,2,3,7,8-PeCDF**

190507K1\_8



F2:Voltage SIR,EI+  
351.900  
9.917e+006

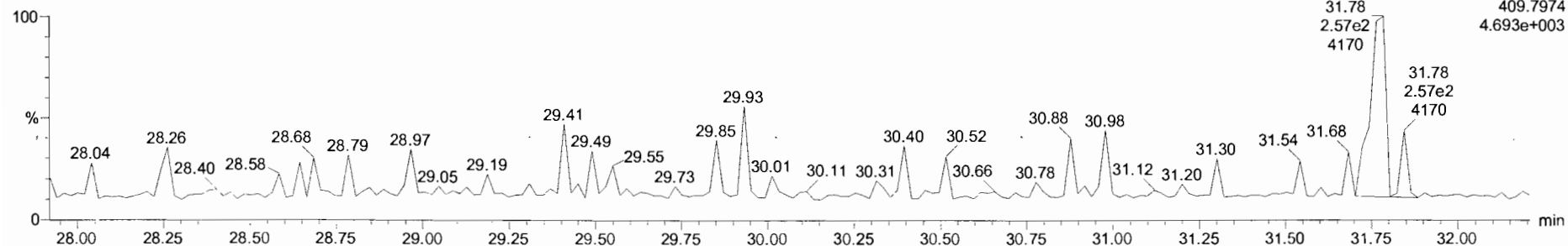
190507K1\_8



F2:Voltage SIR,EI+  
353.897  
6.303e+006

**DPE2**

190507K1\_8



F2:Voltage SIR,EI+  
409.7974  
4.693e+003



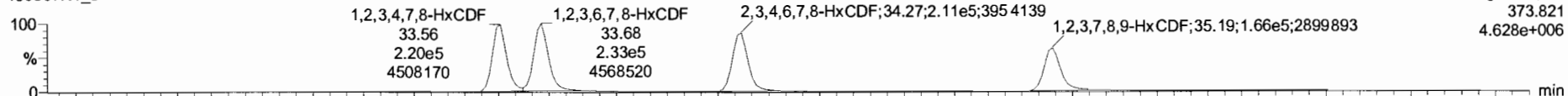
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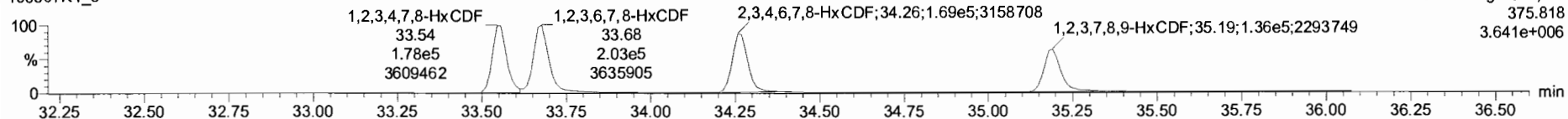
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**1,2,3,4,7,8-HxCDF**

190507K1\_8

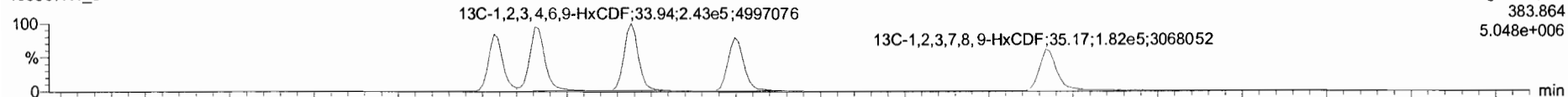


190507K1\_8

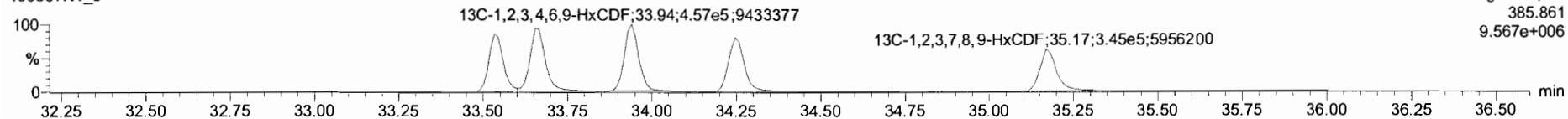


**13C-1,2,3,4,7,8-HxCDF**

190507K1\_8

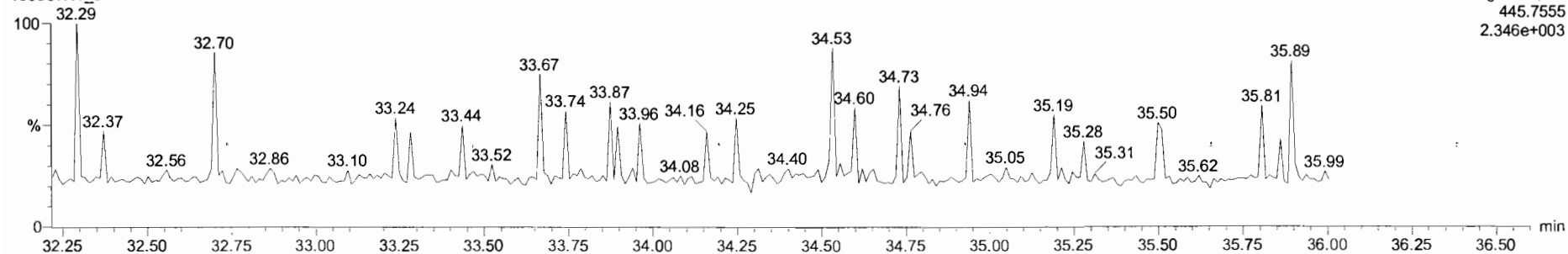


190507K1\_8



**DPE3**

190507K1\_8

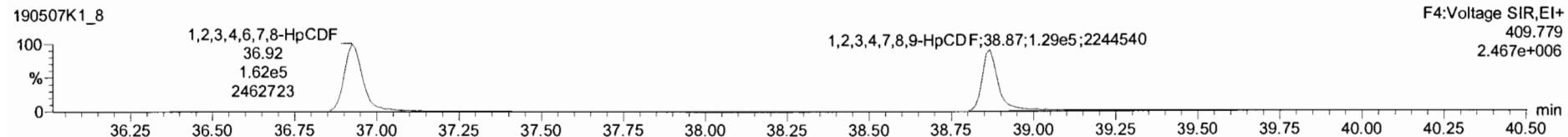
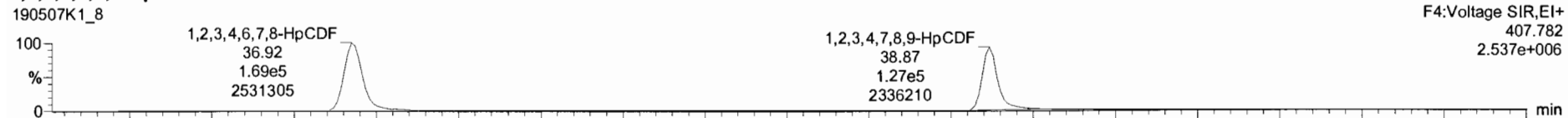


Dataset: Untitled

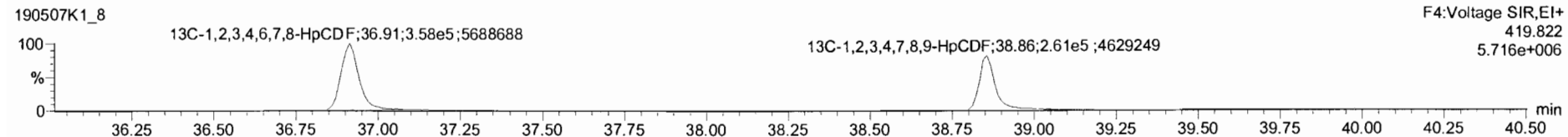
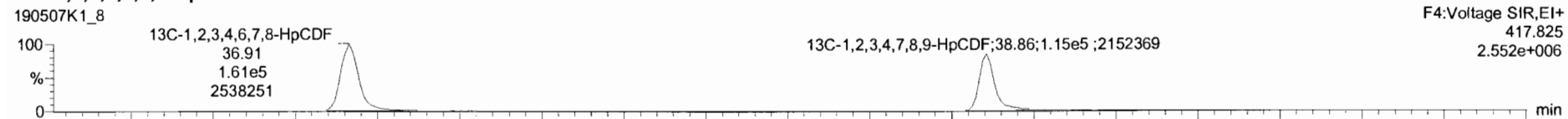
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

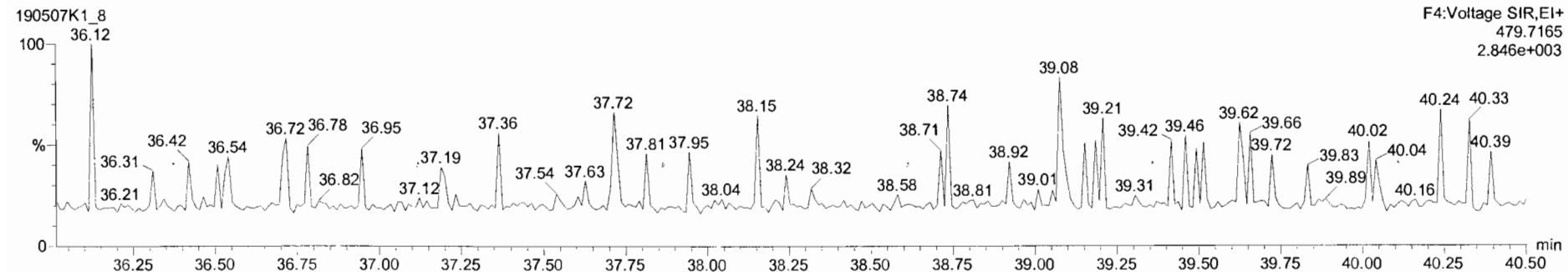
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

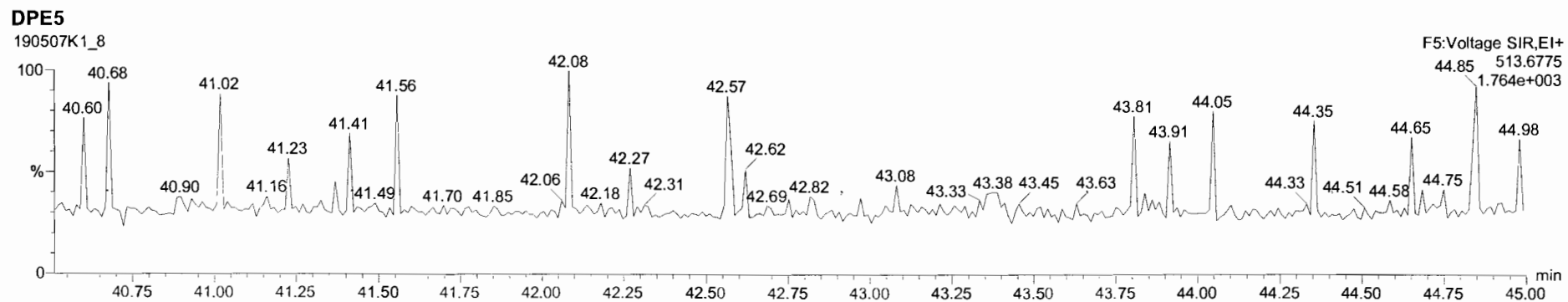
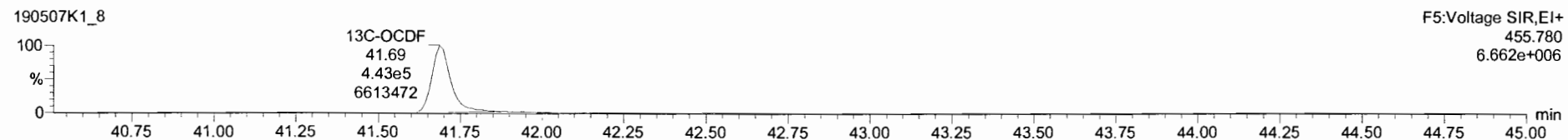
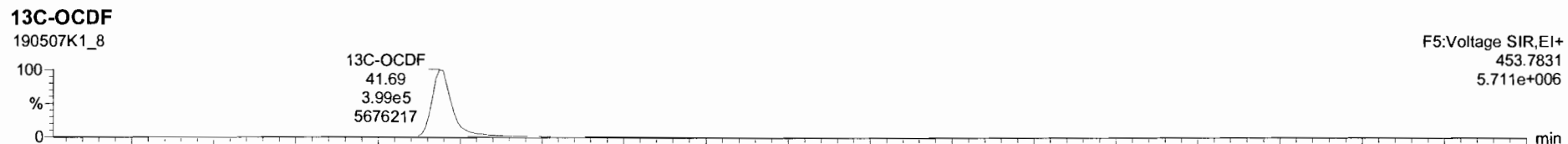
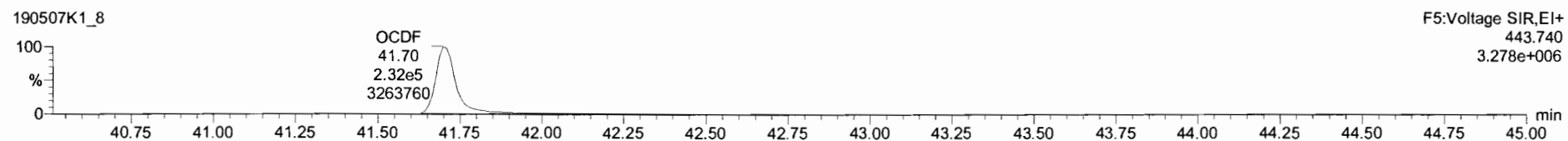
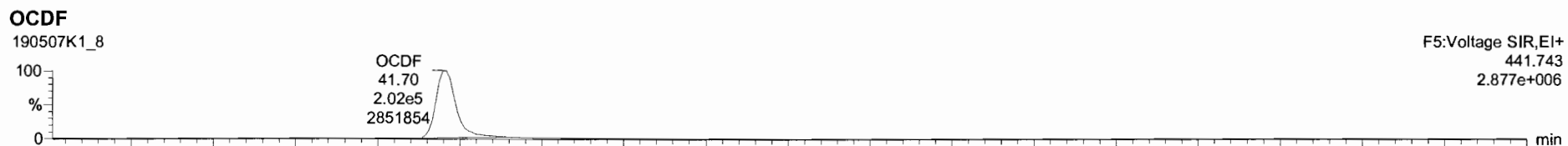


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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207



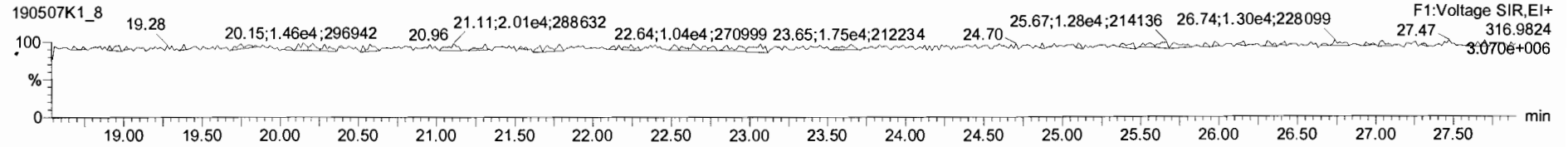
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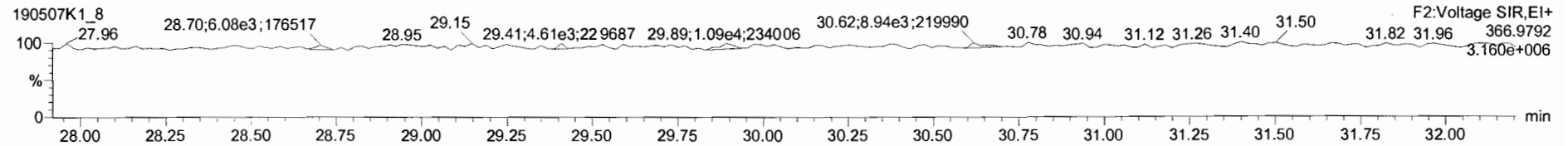
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K1\_8, Date: 07-May-2019, Time: 16:16:59, ID: SS190507K1\_1 1613 SSS 19C2207, Description: 1613 SSS 19C2207

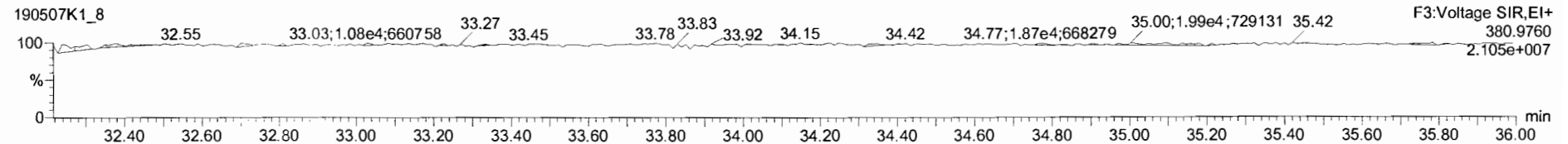
**PFK1**



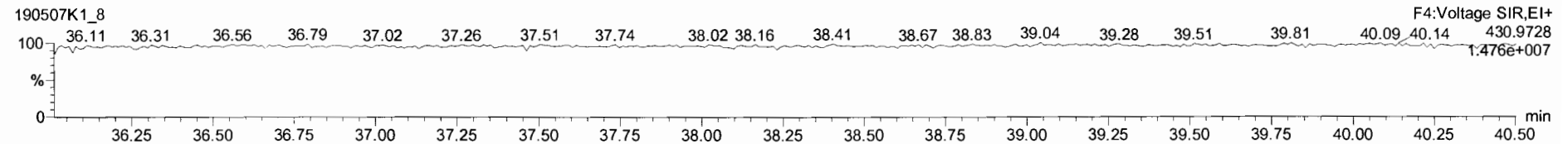
**PFK2**



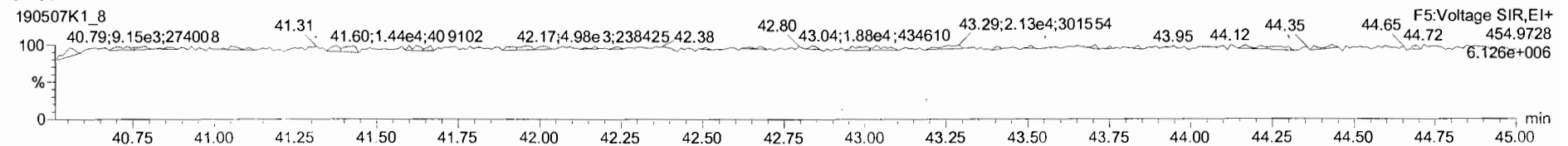
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG11.PRO\Results\190507K1\190507K2-1.qld

Last Altered: Wednesday, May 08, 2019 8:10:45 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 8:11:52 AM Pacific Daylight Time

*Hc 5-8-19*

*DB 5/20/19*

Method: U:\VG11.PRO\MethDB\1613\_rrt-5-7-19.mdb 07 May 2019 12:51:47  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	4.96e4	0.78	NO	0.925	1.000	26.372	26.36	1.001	1.001	9.7504	97.5	0.0601	9.75
2	2 1,2,3,7,8-PeCDD	1.92e5	0.60	NO	0.905	1.000	31.141	31.14	1.001	1.001	52.019	104	0.135	52.0
3	3 1,2,3,4,7,8-HxCDD	1.65e5	1.26	NO	1.07	1.000	34.422	34.42	1.000	1.000	40.468	80.9	0.208	40.5
4	4 1,2,3,6,7,8-HxCDD	1.70e5	1.27	NO	0.967	1.000	34.522	34.53	1.000	1.000	52.044	104	0.299	52.0
5	5 1,2,3,7,8,9-HxCDD	1.57e5	1.21	NO	0.978	1.000	34.831	34.81	1.001	1.000	49.488	99.0	0.295	49.5
6	6 1,2,3,4,6,7,8-HpCDD	1.25e5	1.09	NO	1.04	1.000	38.308	38.32	1.000	1.001	46.558	93.1	0.278	46.6
7	7 OCDD	2.20e5	0.89	NO	0.972	1.000	41.468	41.48	1.000	1.000	116.21	116	0.310	116
8	8 2,3,7,8-TCDF	6.88e4	0.78	NO	0.938	1.000	25.510	25.51	1.001	1.001	9.8653	98.7	0.0599	9.87
9	9 1,2,3,7,8-PeCDF	2.98e5	1.59	NO	0.976	1.000	29.913	29.91	1.001	1.001	48.808	97.6	0.107	48.8
10	10 2,3,4,7,8-PeCDF	3.02e5	1.60	NO	1.00	1.000	30.869	30.86	1.001	1.001	50.503	101	0.112	50.5
11	11 1,2,3,4,7,8-HxCDF	2.51e5	1.28	NO	1.24	1.000	33.534	33.56	1.000	1.001	42.310	84.6	0.183	42.3
12	12 1,2,3,6,7,8-HxCDF	2.65e5	1.25	NO	1.10	1.000	33.676	33.68	1.000	1.000	49.107	98.2	0.216	49.1
13	13 2,3,4,6,7,8-HxCDF	2.52e5	1.24	NO	1.18	1.000	34.282	34.27	1.001	1.001	47.589	95.2	0.219	47.6
14	14 1,2,3,7,8,9-HxCDF	1.94e5	1.26	NO	1.07	1.000	35.169	35.19	1.000	1.001	48.711	97.4	0.322	48.7
15	15 1,2,3,4,6,7,8-HpCDF	1.91e5	1.04	NO	1.13	1.000	36.951	36.92	1.001	1.000	50.687	101	0.231	50.7
16	16 1,2,3,4,7,8,9-HpCDF	1.57e5	0.99	NO	1.26	1.000	38.856	38.87	1.000	1.000	51.308	103	0.248	51.3
17	17 OCDF	2.63e5	0.85	NO	1.10	1.000	41.687	41.70	1.000	1.000	92.671	92.7	0.237	92.7
18	18 13C-2,3,7,8-TCDD	5.49e5	0.79	NO	1.05	1.000	26.343	26.34	1.026	1.026	101.33	101	0.176	
19	19 13C-1,2,3,7,8-PeCDD	4.08e5	0.63	NO	0.743	1.000	31.123	31.12	1.212	1.212	106.23	106	0.222	
20	20 13C-1,2,3,4,7,8-HxCDD	3.81e5	1.26	NO	0.646	1.000	34.402	34.41	1.014	1.014	127.08	127	0.322	
21	21 13C-1,2,3,6,7,8-HxCDD	3.37e5	1.28	NO	0.777	1.000	34.510	34.52	1.017	1.017	93.509	93.5	0.268	
22	22 13C-1,2,3,7,8,9-HxCDD	3.24e5	1.27	NO	0.659	1.000	34.799	34.80	1.025	1.025	105.79	106	0.315	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.59e5	1.05	NO	0.534	1.000	38.301	38.30	1.128	1.128	104.55	105	0.389	
24	24 13C-OCDD	3.90e5	0.88	NO	0.470	1.000	41.461	41.47	1.222	1.222	178.53	89.3	0.468	
25	25 13C-2,3,7,8-TCDF	7.44e5	0.79	NO	0.977	1.000	25.483	25.48	0.992	0.992	101.65	102	0.294	
26	26 13C-1,2,3,7,8-PeCDF	6.25e5	1.56	NO	0.778	1.000	29.893	29.89	1.164	1.164	107.38	107	0.390	
27	27 13C-2,3,4,7,8-PeCDF	5.95e5	1.57	NO	0.750	1.000	30.843	30.84	1.201	1.201	106.00	106	0.405	
28	28 13C-1,2,3,4,7,8-HxCDF	4.78e5	0.51	NO	0.845	1.000	33.529	33.53	0.988	0.988	121.85	122	0.545	
29	29 13C-1,2,3,6,7,8-HxCDF	4.92e5	0.52	NO	1.03	1.000	33.652	33.67	0.992	0.992	103.24	103	0.448	
30	30 13C-2,3,4,6,7,8-HxCDF	4.49e5	0.52	NO	0.893	1.000	34.249	34.25	1.009	1.009	108.34	108	0.515	
31	31 13C-1,2,3,7,8,9-HxCDF	3.71e5	0.54	NO	0.734	1.000	35.169	35.17	1.036	1.036	108.96	109	0.627	
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.34e5	0.43	NO	0.754	1.000	36.900	36.91	1.087	1.088	95.313	95.3	0.389	

Dataset: U:\VG11.PRO\Results\190507K1\190507K2-1.qld

Last Altered: Wednesday, May 08, 2019 8:10:45 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 8:11:52 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

#	Name	Resp	RA	n/y	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.42e5	0.47	NO	0.539	1.000	38.851	38.86	1.145	1.145	96.836	96.8	0.545	
34	34 13C-OCDF	5.14e5	0.89	NO	0.593	1.000	41.689	41.69	1.228	1.228	186.97	93.5	0.402	
35	35 37Cl-2,3,7,8-TCDD	5.28e4			1.07	1.000	26.343	26.36	1.026	1.026	9.5583	95.6	0.0488	
36	36 13C-1,2,3,4-TCDD	5.17e5	0.77	NO	1.00	1.000	25.680	25.68	1.000	1.000	100.00	100	0.184	
37	37 13C-1,2,3,4-TCDF	7.49e5	0.80	NO	1.00	1.000	24.050	24.06	1.000	1.000	100.00	100	0.288	
38	38 13C-1,2,3,4,6,9-HxCDF	4.64e5	0.51	NO	1.00	1.000	33.940	33.94	1.000	1.000	100.00	100	0.460	

Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 8:05:38 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 8:05:41 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\CPSM-5-7-19.mdb 07 May 2019 13:29:19  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

#	Name	RT
1	1,3,6,8-TCDD (First)	22.41
2	1,2,8,9-TCDD (Last)	27.29
3	1,2,4,7,9-PeCDD (First)	28.99
4	1,2,3,8,9-PeCDD (Last)	31.50
5	1,2,4,6,7,9-HxCDD (First)	32.91
6	1,2,3,7,8,9-HxCDD (Last)	34.81
7	1,2,3,4,6,7,9-HpCDD (First)	37.31
8	1,2,3,4,6,7,8-HpCDD (Last)	38.32
9	1,3,6,8-TCDF (First)	20.23
10	1,2,8,9-TCDF (Last)	27.46
11	1,3,4,6,8-PeCDF (First)	27.36
12	1,2,3,8,9-PeCDF (Last)	31.76
13	1,2,3,4,6,8-HxCDF (First)	32.38
14	1,2,3,7,8,9-HxCDF (Last)	35.19
15	1,2,3,4,6,7,8-HpCDF (First)	36.92
16	1,2,3,4,7,8,9-HpCDF (Last)	38.87

Dataset: Untitled

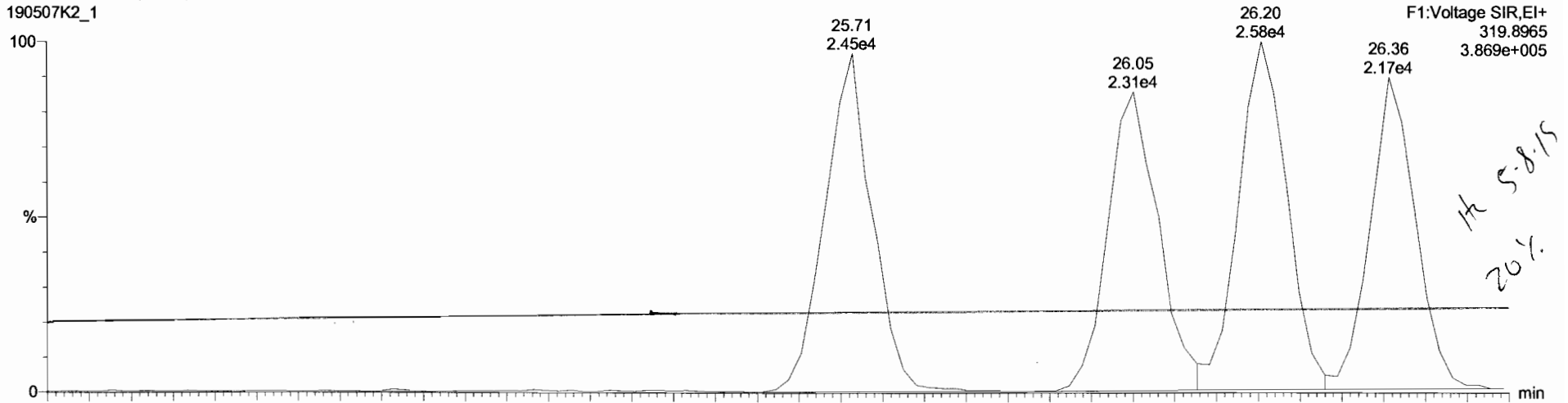
Last Altered: Wednesday, May 08, 2019 8:05:38 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 8:05:41 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\CPSM-5-7-19.mdb 07 May 2019 13:29:19  
Calibration: U:\VG11.PRO\CurveDB\db5\_1613vg11-5-7-19.cdb 08 May 2019 07:55:45

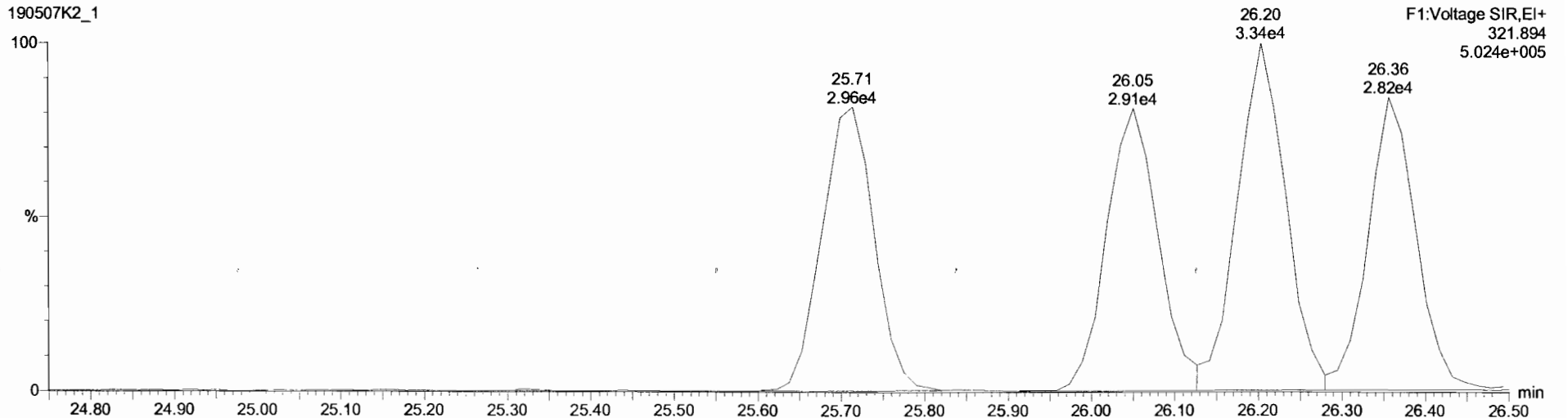
Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

1,3,6,8-TCDD (First)

190507K2\_1



190507K2\_1





Dataset: Untitled

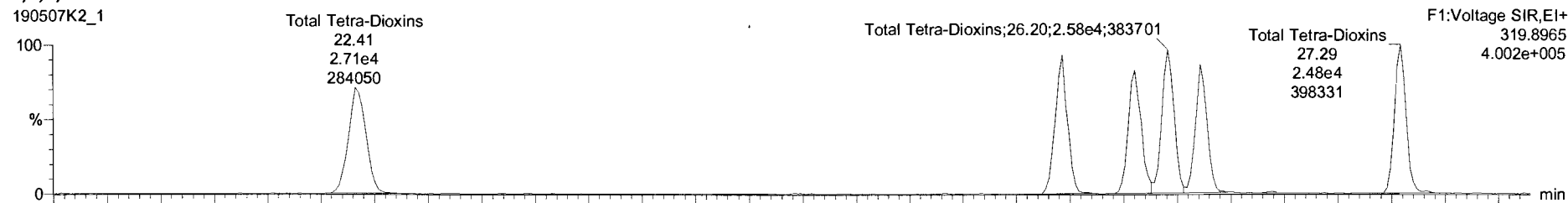
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

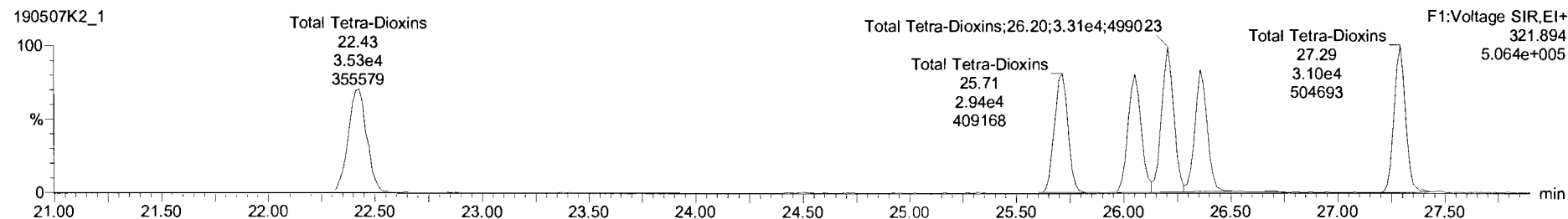
Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

**2,3,7,8-TCDD**

190507K2\_1



190507K2\_1

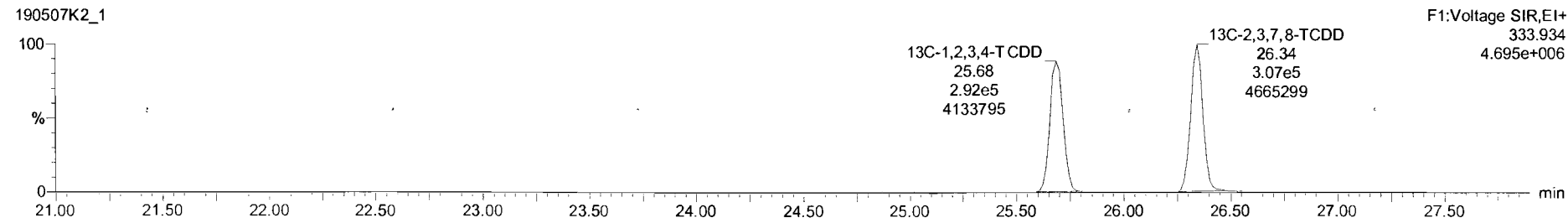


**13C-2,3,7,8-TCDD**

190507K2\_1



190507K2\_1



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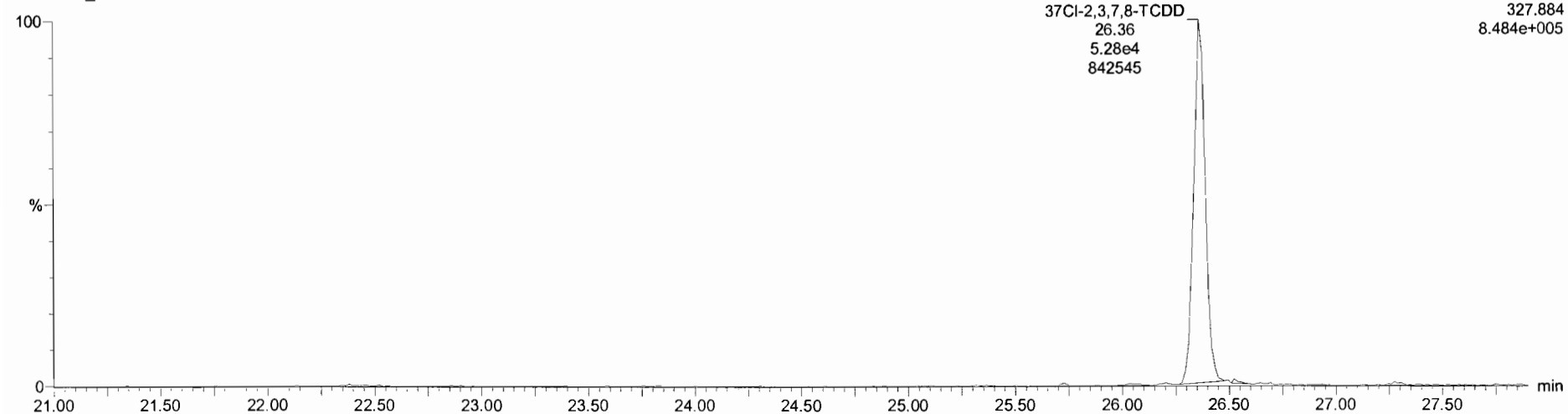
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

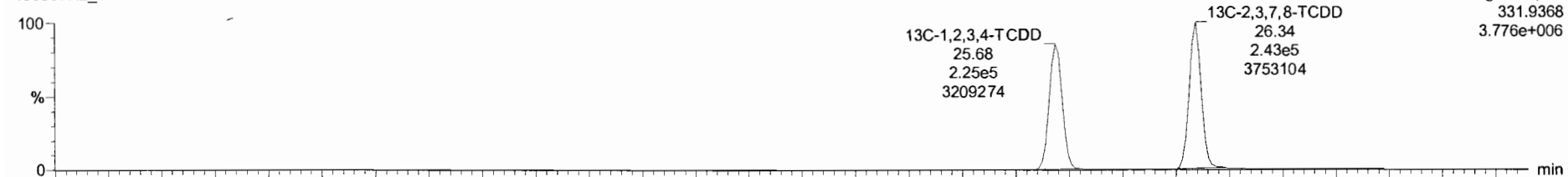
**37Cl-2,3,7,8-TCDD**

190507K2\_1

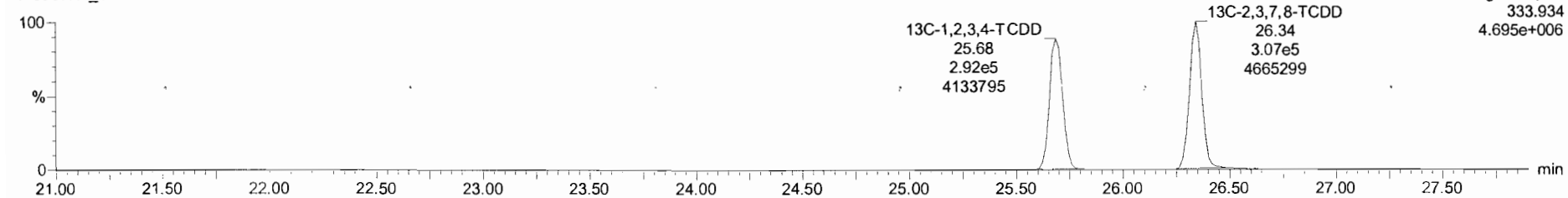


**13C-1,2,3,4-TCDD**

190507K2\_1



190507K2\_1

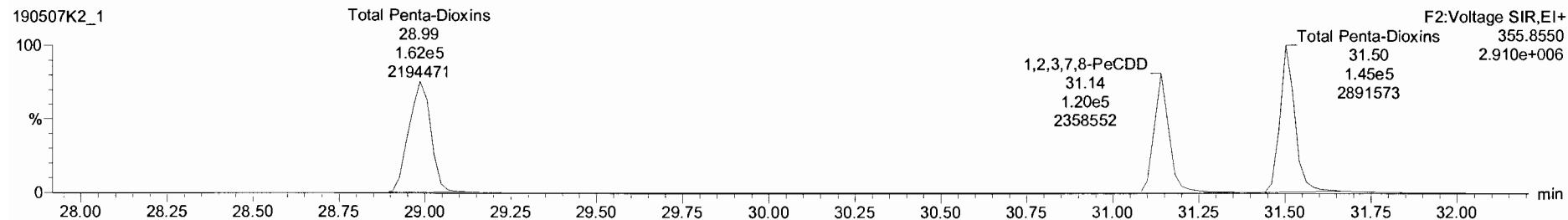
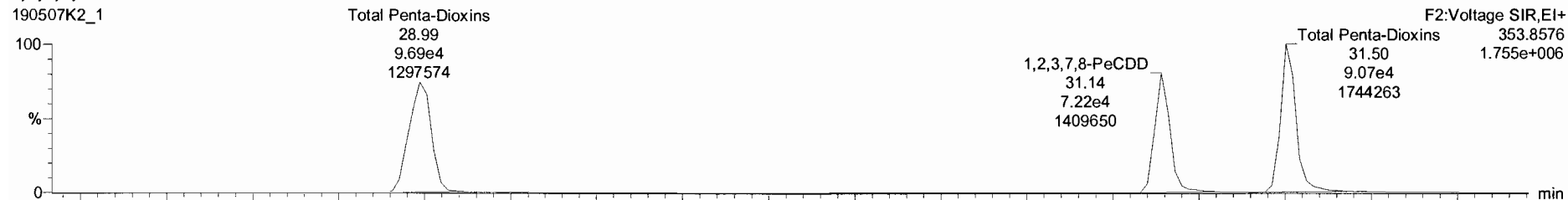


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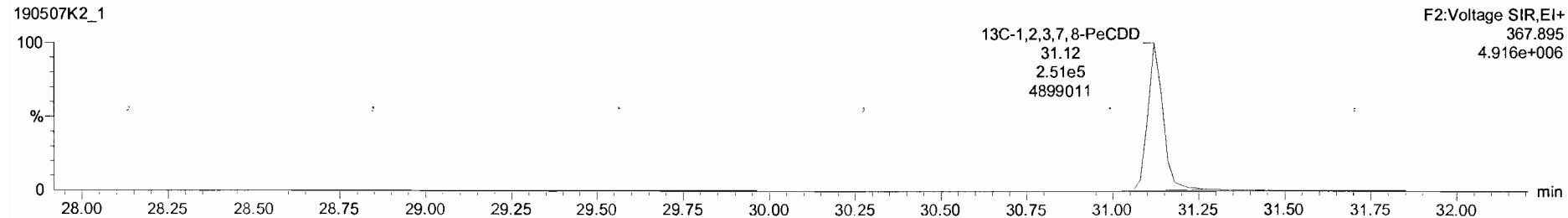
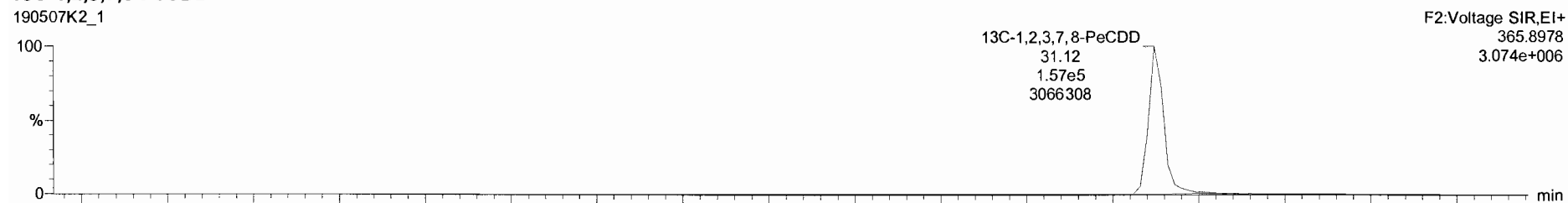
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

**1,2,3,7,8-PeCDD**



**13C-1,2,3,7,8-PeCDD**



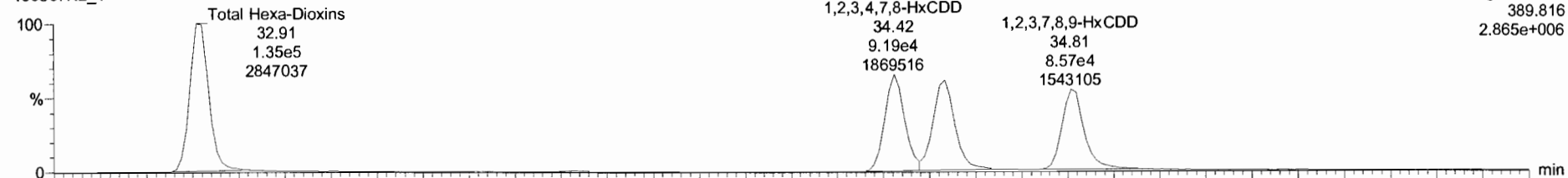
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

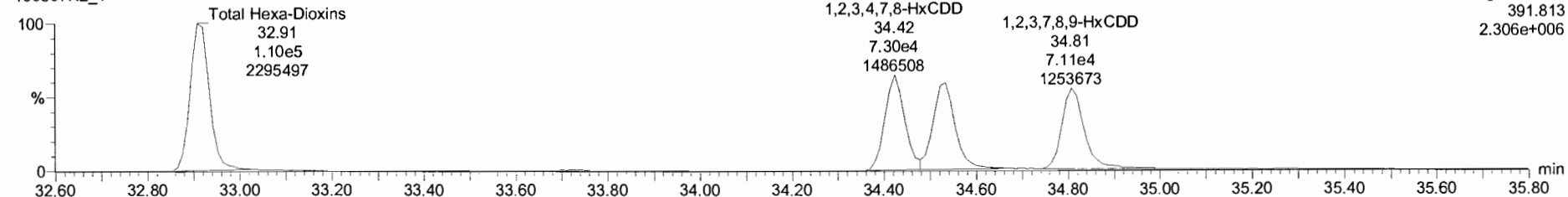
Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

**1,2,3,4,7,8-HxCDD**

190507K2\_1

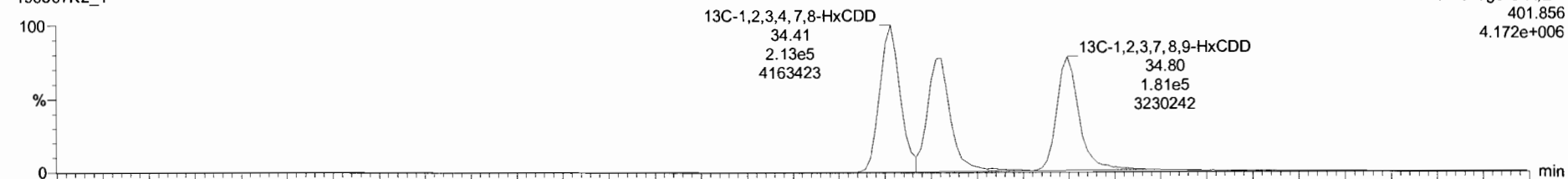


190507K2\_1

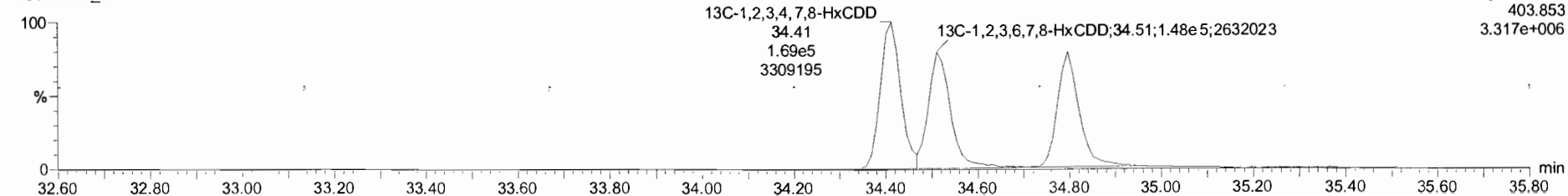


**13C-1,2,3,4,7,8-HxCDD**

190507K2\_1



190507K2\_1



Dataset: Untitled

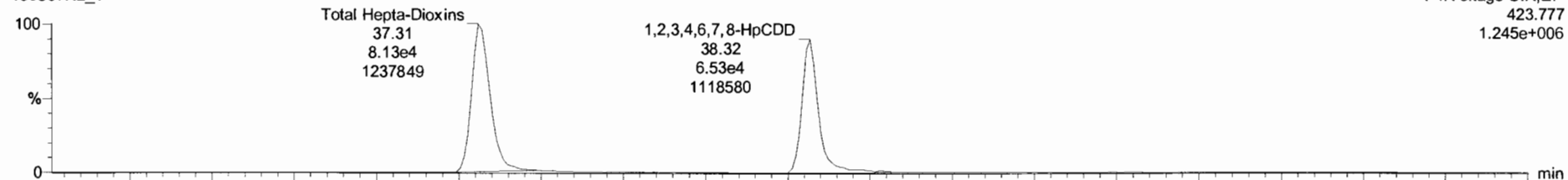
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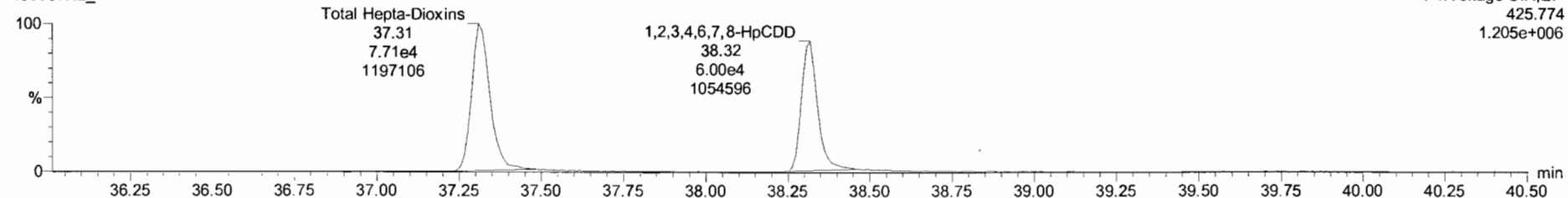
Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

1,2,3,4,6,7,8-HpCDD

190507K2\_1

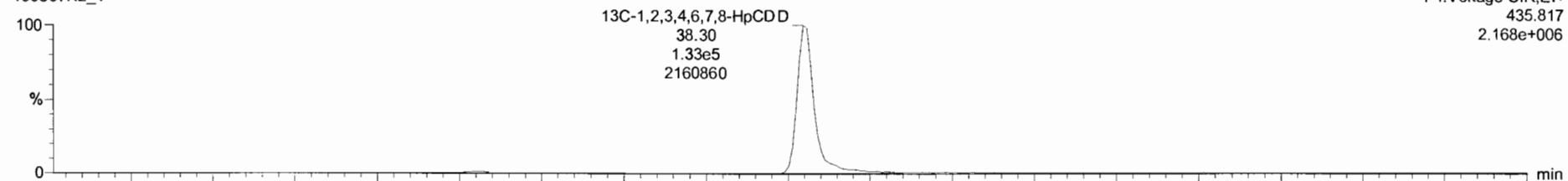


190507K2\_1

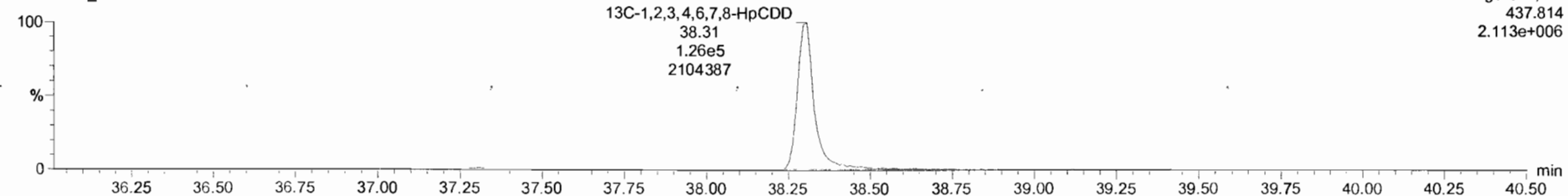


13C-1,2,3,4,6,7,8-HpCDD

190507K2\_1



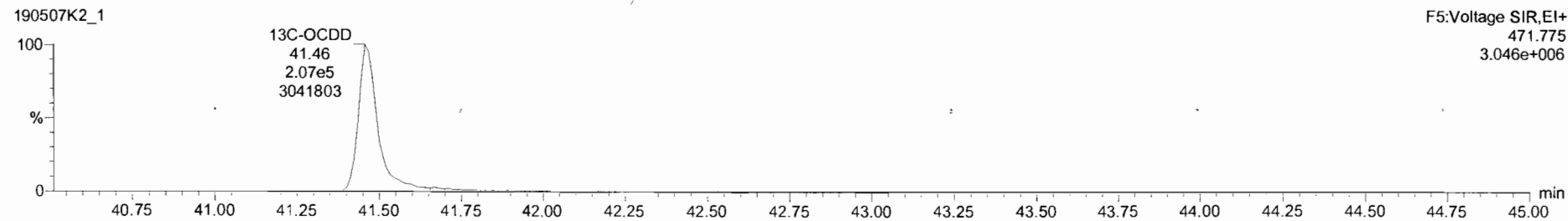
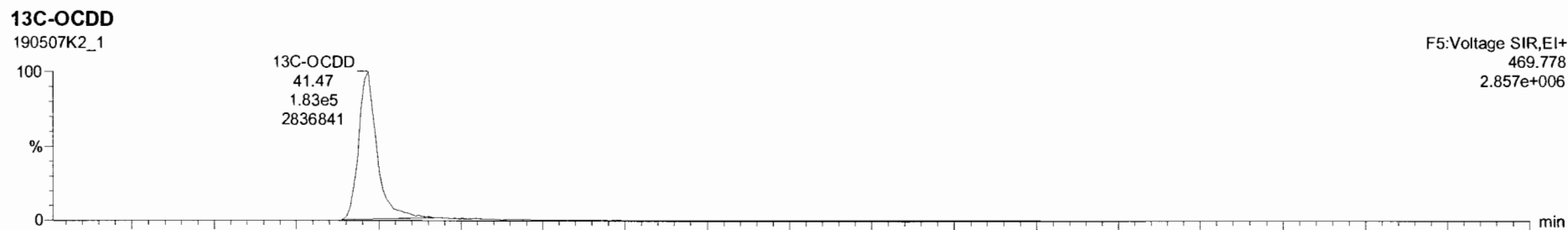
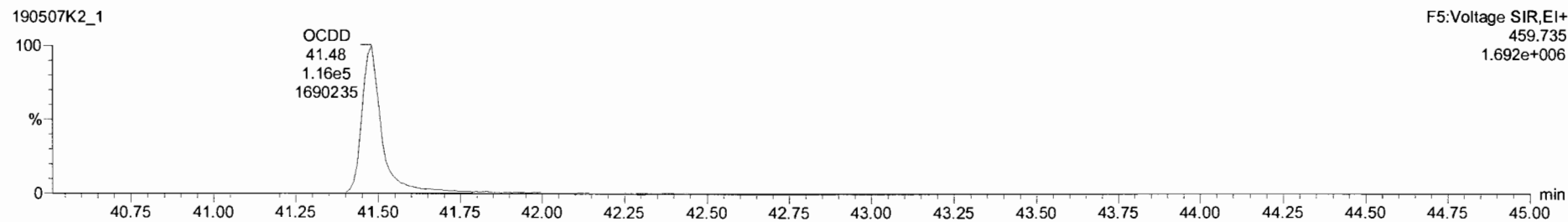
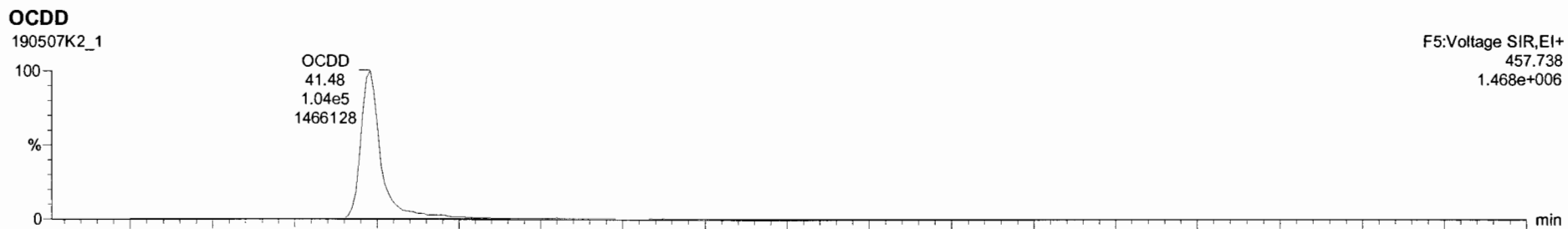
190507K2\_1



Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

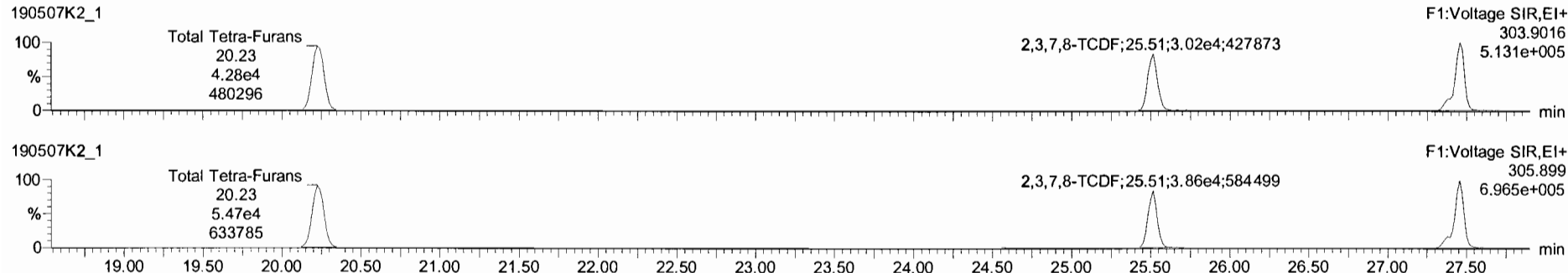


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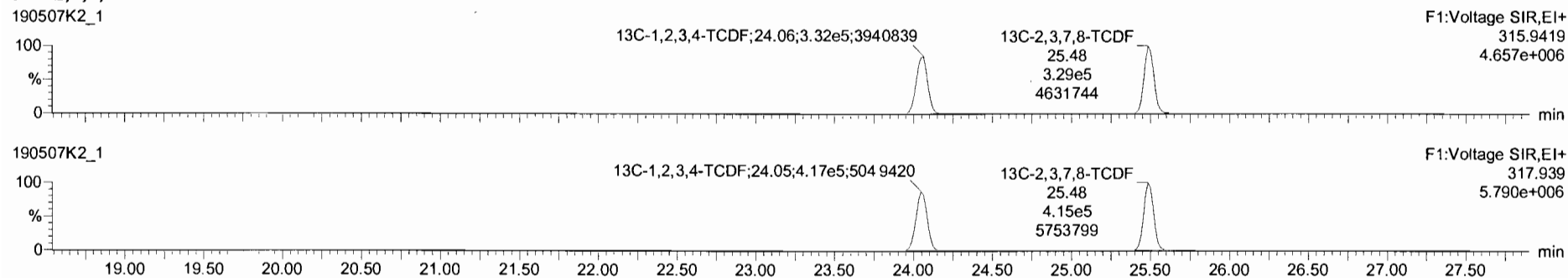
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

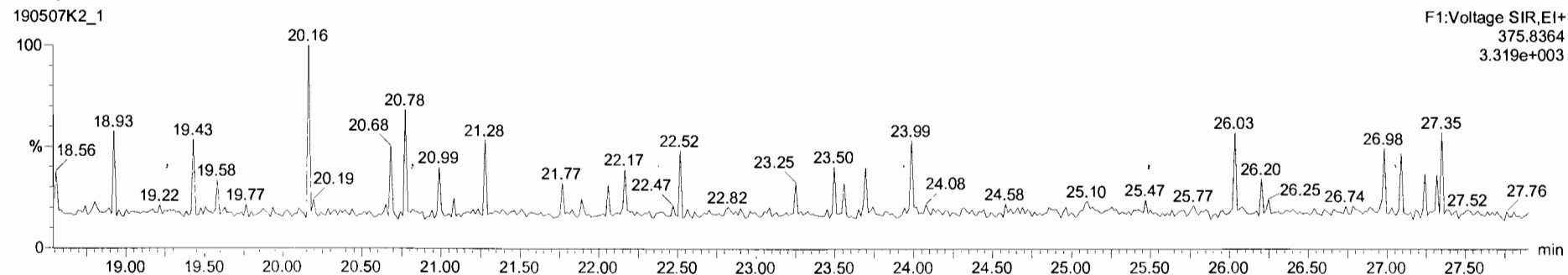
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



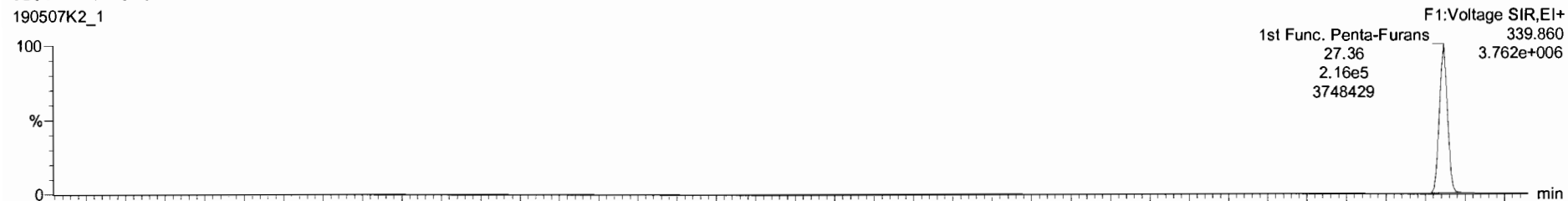
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

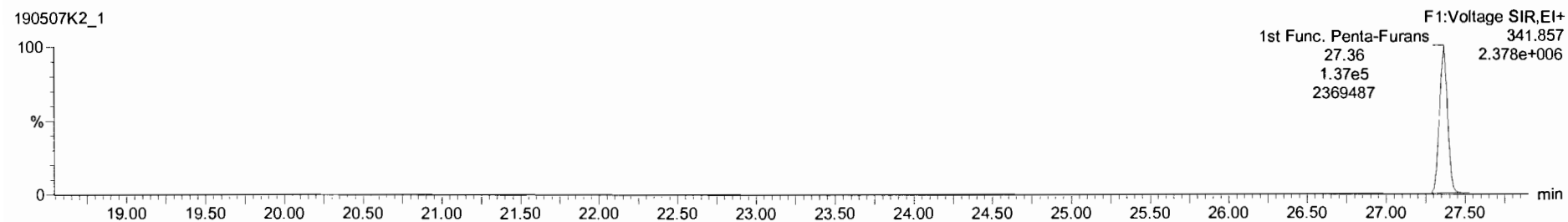
Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

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190507K2\_1

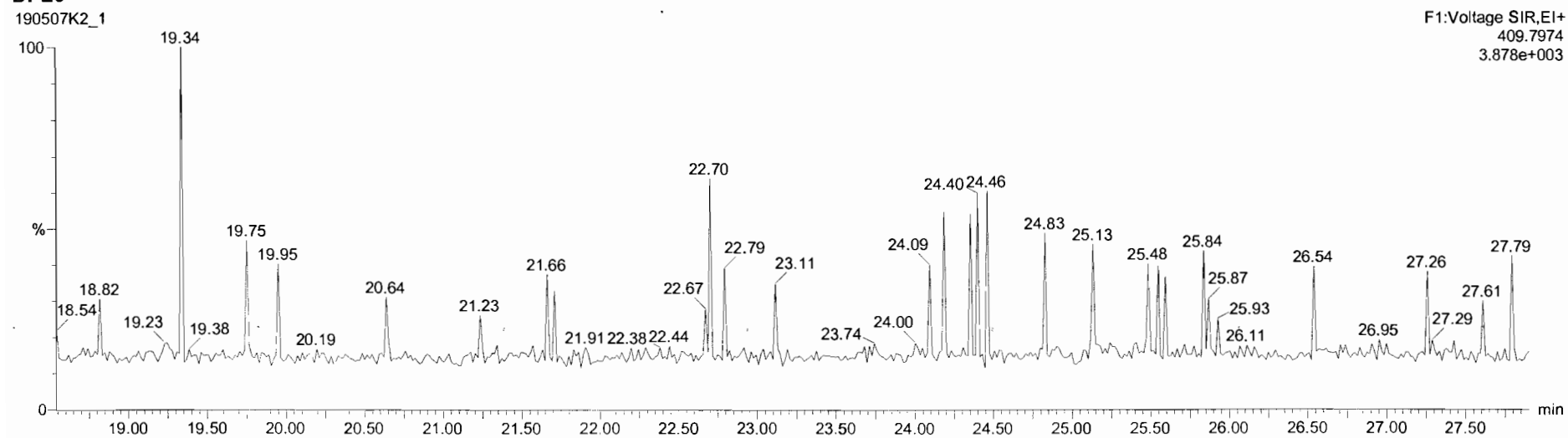


190507K2\_1



DPE6

190507K2\_1





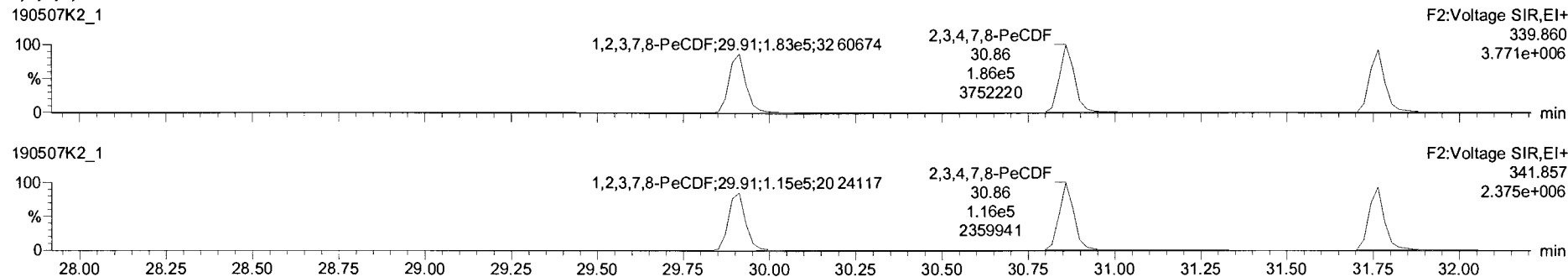
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Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

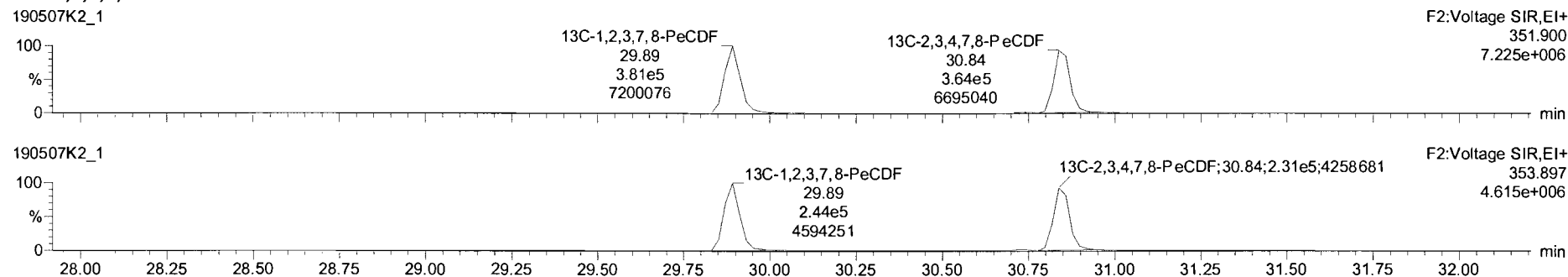
**1,2,3,7,8-PeCDF**

190507K2\_1



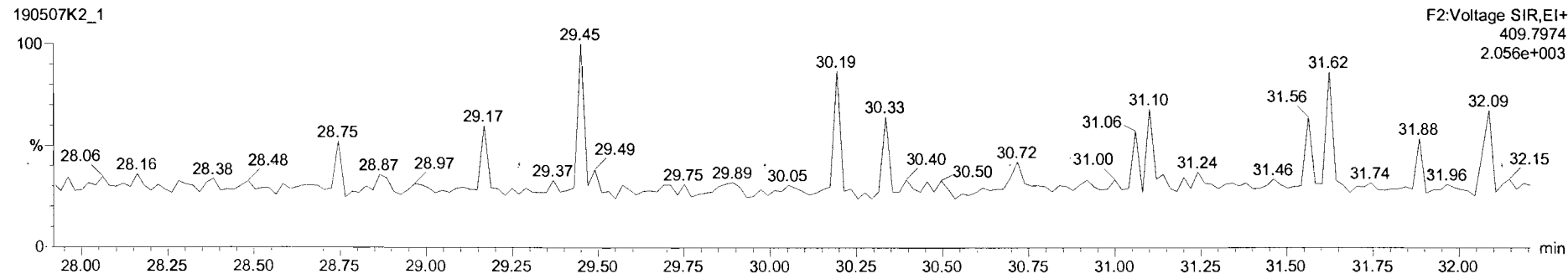
**13C-1,2,3,7,8-PeCDF**

190507K2\_1



**DPE2**

190507K2\_1



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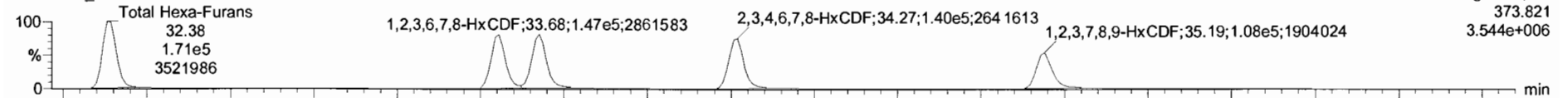
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time

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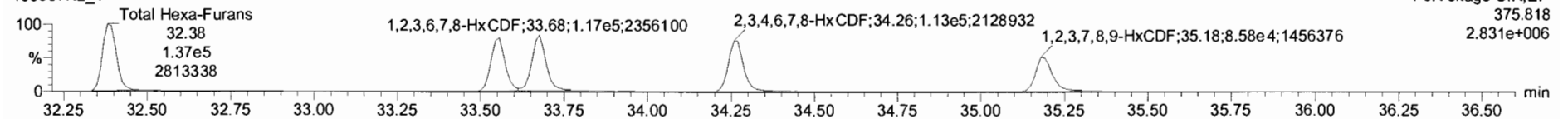
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**1,2,3,4,7,8-HxCDF**

190507K2\_1

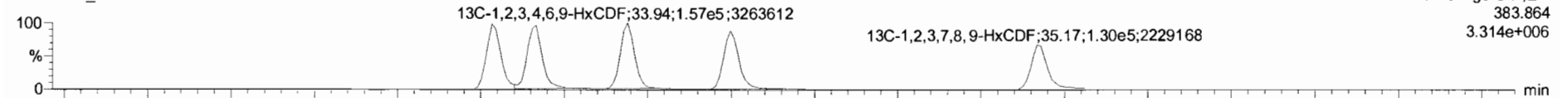


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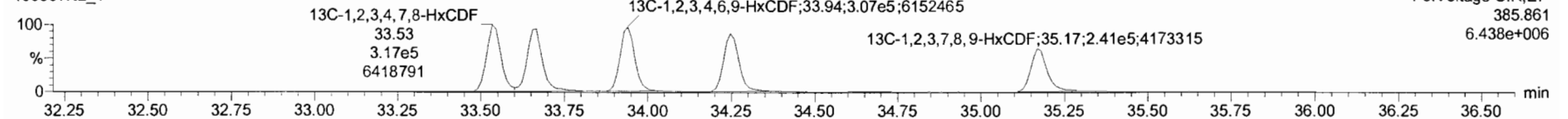


**13C-1,2,3,4,7,8-HxCDF**

190507K2\_1

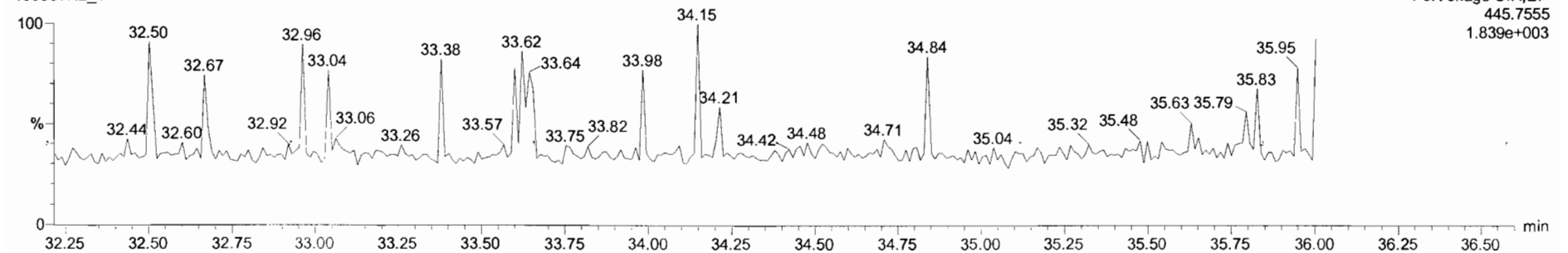


190507K2\_1



**DPE3**

190507K2\_1

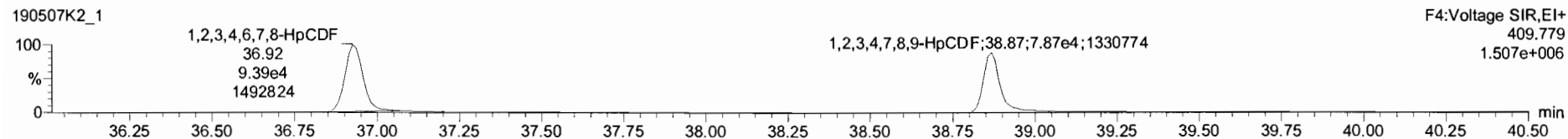
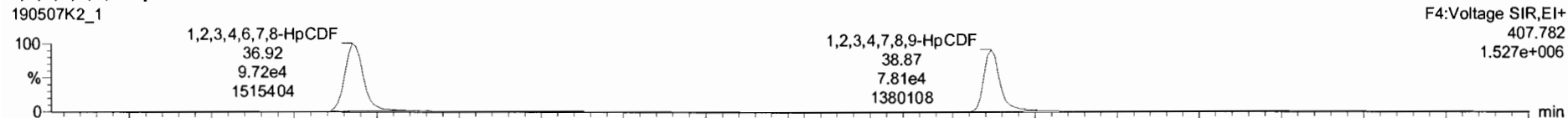


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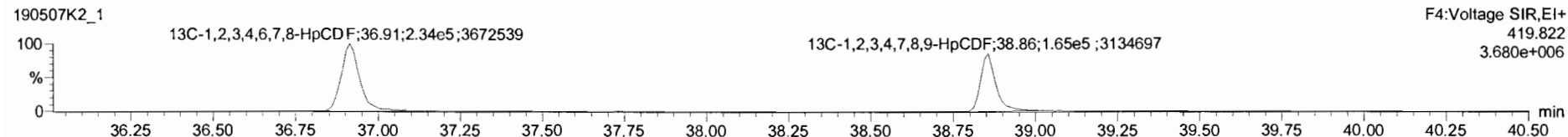
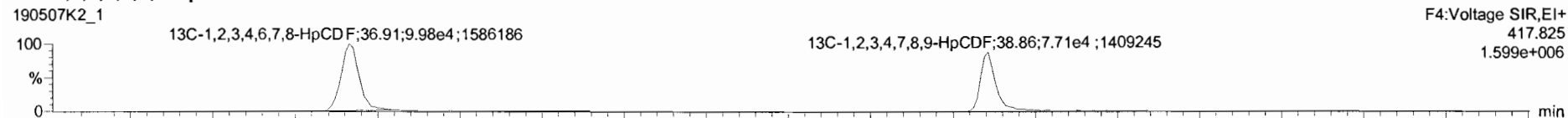
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Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

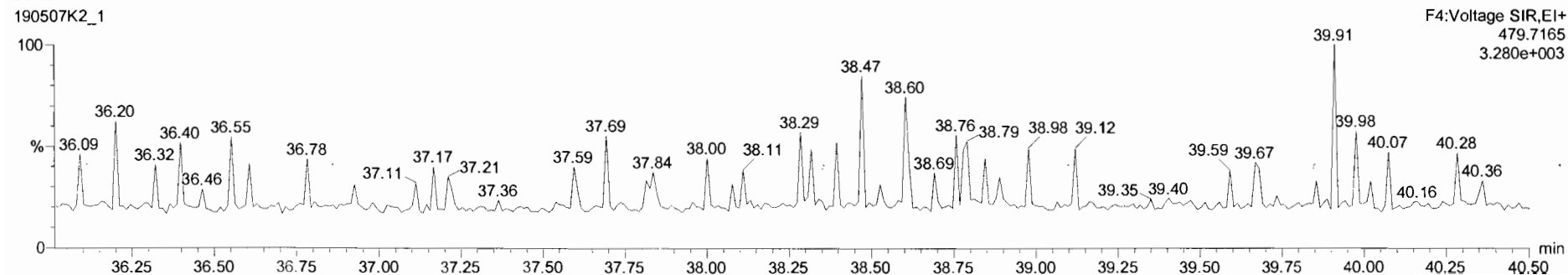
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

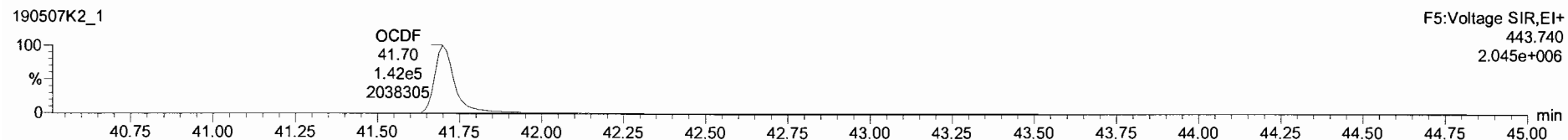
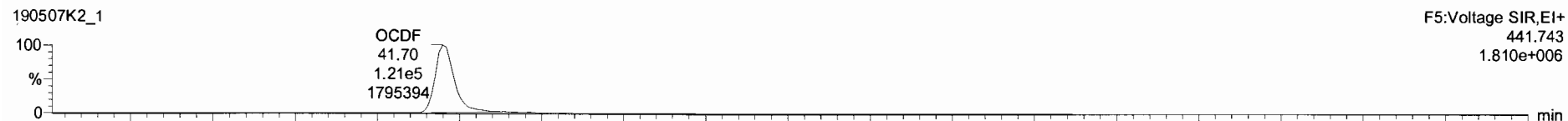


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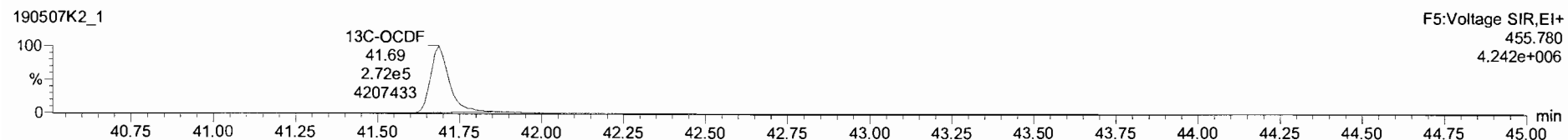
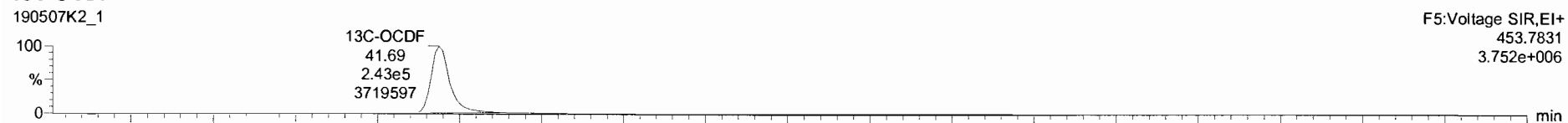
Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008

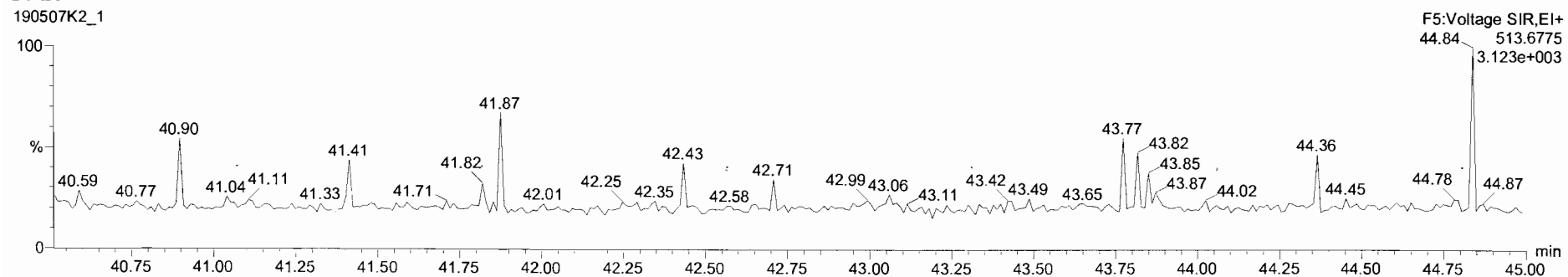
**OCDF**



**13C-OCDF**



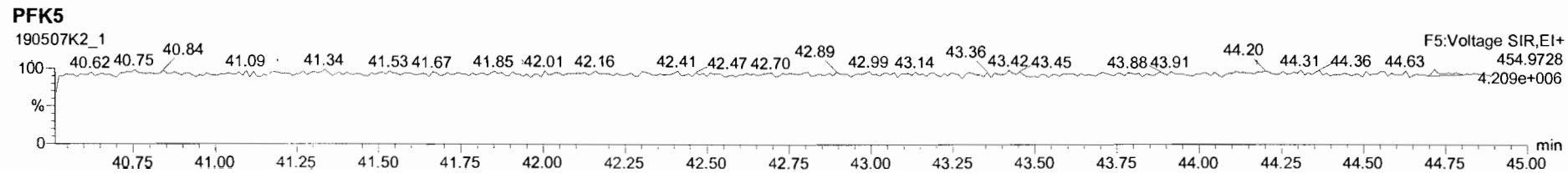
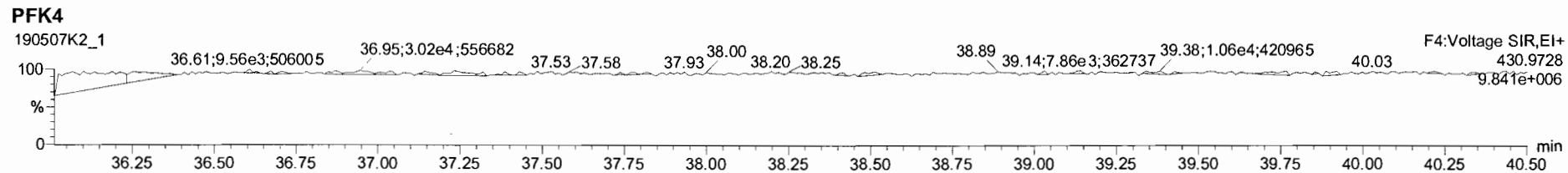
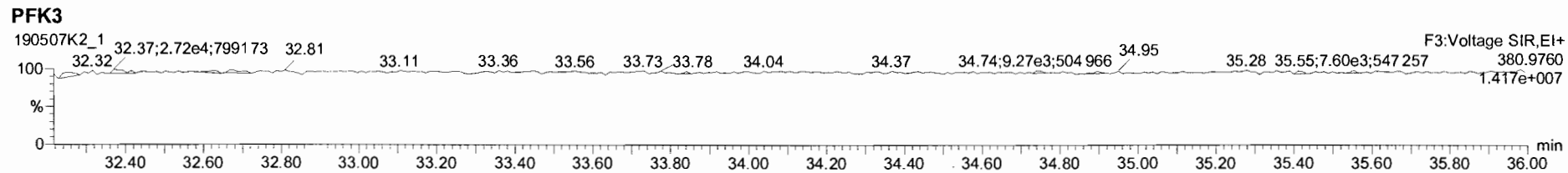
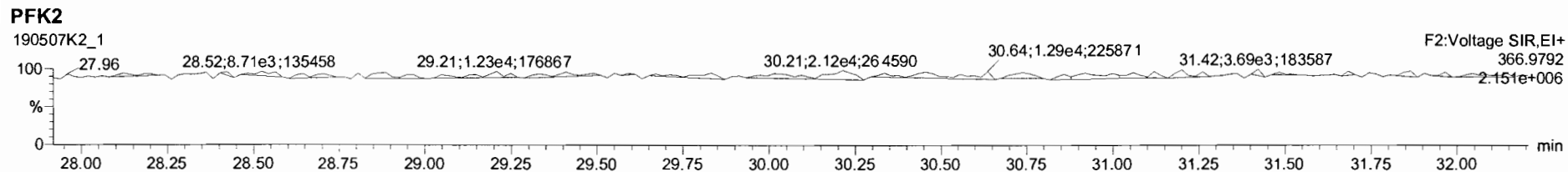
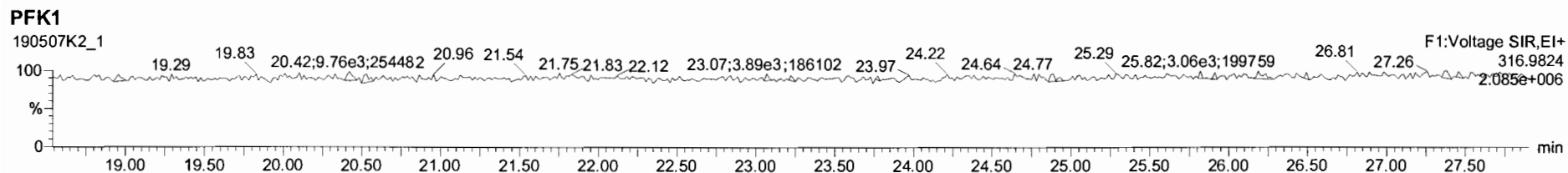
**DPE5**



Dataset: Untitled

Last Altered: Wednesday, May 08, 2019 7:14:27 AM Pacific Daylight Time  
Printed: Wednesday, May 08, 2019 7:19:34 AM Pacific Daylight Time

Name: 190507K2\_1, Date: 07-May-2019, Time: 18:48:10, ID: ST190507K2\_1 1613 CS3 18J1008, Description: 1613 CS3 18J1008



Data filename: 191009D1  
 Samp# 1 0.25 Samp# 2 0.50 Samp# 3 2.0 Samp# 4 10 Samp# 5 40 Samp# 6 300

Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
2,3,7,8-TCDD	0.9053	7.55 %	0.84	0.83	0.87	0.99	0.92	0.98
1,2,3,7,8-PeCDD	0.9027	4.95 %	0.86	0.87	0.88	0.88	0.96	0.96
1,2,3,4,7,8-HxCDD	1.1013	3.97 %	1.12	1.13	1.03	1.08	1.09	1.15
1,2,3,6,7,8-HxCDD	0.9386	7.68 %	0.83	0.88	1.01	0.92	0.98	1.00
1,2,3,7,8,9-HxCDD	0.9613	4.62 %	0.95	0.90	0.93	0.95	1.00	1.03
1,2,3,4,6,7,8-HpCDD	0.9794	5.84 %	0.90	0.97	0.95	0.96	1.03	1.06
OCDD	0.9585	4.07 %	0.93	0.94	0.92	0.94	1.01	1.01
2,3,7,8-TCDF	0.9501	8.27 %	1.09	0.90	0.89	0.89	0.95	0.99
1,2,3,7,8-PeCDF	0.9603	4.05 %	0.94	0.94	0.92	0.95	1.00	1.01
2,3,4,7,8-PeCDF	1.0148	3.01 %	1.00	0.99	1.00	1.00	1.03	1.07
1,2,3,4,7,8-HxCDF	1.1768	4.35 %	1.23	1.11	1.15	1.14	1.20	1.24
1,2,3,6,7,8-HxCDF	1.0689	3.63 %	1.01	1.07	1.06	1.05	1.12	1.11
2,3,4,6,7,8-HxCDF	1.1136	5.58 %	1.06	1.03	1.12	1.11	1.16	1.20
1,2,3,7,8,9-HxCDF	1.0616	3.91 %	1.05	1.02	1.02	1.06	1.08	1.13
1,2,3,4,6,7,8-HpCDF	1.1276	3.90 %	1.13	1.13	1.06	1.10	1.17	1.18
1,2,3,4,7,8,9-HpCDF	1.2799	3.29 %	1.30	1.24	1.25	1.25	1.31	1.34
OCDF	0.9472	3.80 %	0.95	0.92	0.91	0.92	1.00	0.98
13C-2,3,7,8-TCDD	1.0954	1.91 %	1.11	1.08	1.06	1.10	1.12	1.11
13C-1,2,3,7,8-PeCDD	0.8814	5.11 %	0.89	0.86	0.83	0.86	0.89	0.96
13C-1,2,3,4,7,8-HxCDD	0.6421	10.35 %	0.65	0.60	0.58	0.61	0.65	0.77
13C-1,2,3,6,7,8-HxCDD	0.8555	4.13 %	0.86	0.87	0.82	0.87	0.80	0.90
13C-1,2,3,7,8,9-HxCDD	0.8066	5.57 %	0.84	0.80	0.76	0.80	0.76	0.88
13C-1,2,3,4,6,7,8-HpCDD	0.6539	9.07 %	0.70	0.63	0.59	0.62	0.63	0.75
13C-OCDD	0.5797	10.98 %	0.60	0.52	0.53	0.55	0.59	0.69
13C-2,3,7,8-TCDF	1.0349	1.62 %	1.04	1.00	1.03	1.05	1.04	1.04
13C-1,2,3,7,8-PeCDF	0.8542	4.58 %	0.84	0.82	0.82	0.87	0.86	0.92
13C-2,3,4,7,8-PeCDF	0.8471	3.79 %	0.81	0.84	0.83	0.84	0.85	0.91
13C-1,2,3,4,7,8-HxCDF	0.8317	8.50 %	0.76	0.80	0.79	0.86	0.83	0.96
13C-1,2,3,6,7,8-HxCDF	1.0344	5.35 %	1.00	1.03	1.03	1.03	0.98	1.14
13C-2,3,4,6,7,8-HxCDF	0.9533	6.17 %	0.94	0.94	0.90	0.93	0.93	1.07
13C-1,2,3,7,8,9-HxCDF	0.8277	8.68 %	0.82	0.80	0.77	0.78	0.83	0.96
13C-1,2,3,4,6,7,8-HpCDF	0.7575	6.47 %	0.76	0.73	0.72	0.75	0.73	0.85
13C-1,2,3,4,7,8,9-HpCDF	0.5812	8.97 %	0.62	0.54	0.52	0.55	0.58	0.66
13C-OCDF	0.6890	12.48 %	0.69	0.62	0.62	0.65	0.72	0.85
37Cl-2,3,7,8-TCDD	1.1977	8.83 %	1.40	1.16	1.16	1.11	1.15	1.21
13C-1,2,3,4-TCDD	1.0000	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.0000	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4,6,9-HxCDF	1.0000	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

DB CT  
 10/10/19 10/10/19

Filename: 191009D1 S: 1 Acquired: 9-OCT-19 16:13:04  
 Run: 191009D1 Analyte: Cal: 1613VG7-10-9-19 Results:  
 Sample text: ST191009D1-1 1613 CS0 19C2201

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	1.97e+04	0.80 y	26:32	-	0.84
2	Unk	1,2,3,7,8-PeCDD	1.25	8.06e+04	0.62 y	30:54	-	0.86
3	Unk	1,2,3,4,7,8-HxCDD	1.25	7.34e+04	1.23 y	34:16	-	1.12
4	Unk	1,2,3,6,7,8-HxCDD	1.25	7.23e+04	1.12 y	34:23	-	0.83
5	Unk	1,2,3,7,8,9-HxCDD	1.25	8.01e+04	1.19 y	34:43	-	0.95
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	6.39e+04	1.06 y	38:05	-	0.90
7	Unk	OCDD	2.50	1.14e+05	0.95 y	41:28	-	0.93
8	Unk	2,3,7,8-TCDF	0.25	3.62e+04	0.85 y	25:49	-	1.09
9	Unk	1,2,3,7,8-PeCDF	1.25	1.26e+05	1.52 y	29:46	-	0.94
10	Unk	2,3,4,7,8-PeCDF	1.25	1.31e+05	1.52 y	30:40	-	1.00
11	Unk	1,2,3,4,7,8-HxCDF	1.25	9.36e+04	1.22 y	33:22	-	1.23
12	Unk	1,2,3,6,7,8-HxCDF	1.25	1.02e+05	1.11 y	33:29	-	1.01
13	Unk	2,3,4,6,7,8-HxCDF	1.25	1.01e+05	1.30 y	34:07	-	1.06
14	Unk	1,2,3,7,8,9-HxCDF	1.25	8.74e+04	1.10 y	35:08	-	1.05
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	8.63e+04	1.01 y	36:57	-	1.13
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	8.18e+04	1.14 y	38:40	-	1.30
17	Unk	OCDF	2.50	1.32e+05	0.94 y	41:43	-	0.95
36	IS	13C-2,3,7,8-TCDD	100.00	9.40e+06	0.78 y	26:32	-	1.11
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.48e+06	0.62 y	30:55	-	0.89
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	5.24e+06	1.19 y	34:15	-	0.65
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.96e+06	1.32 y	34:22	-	0.86
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	6.74e+06	1.31 y	34:42	-	0.84
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.68e+06	1.05 y	38:05	-	0.70
42	IS	13C-OCDD	200.00	9.75e+06	0.88 y	41:28	-	0.60
43	IS	13C-2,3,7,8-TCDF	100.00	1.33e+07	0.79 y	25:49	-	1.04
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.07e+07	1.58 y	29:46	-	0.84
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.05e+07	1.58 y	30:39	-	0.81
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	6.11e+06	0.51 y	33:21	-	0.76
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	8.04e+06	0.50 y	33:29	-	1.00
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	7.61e+06	0.50 y	34:07	-	0.94
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	6.66e+06	0.48 y	35:07	-	0.82
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	6.12e+06	0.42 y	36:57	-	0.76
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	5.02e+06	0.45 y	38:41	-	0.62
52	IS	13C-OCDF	200.00	1.11e+07	0.90 y	41:43	-	0.69
53	C/Up	37Cl-2,3,7,8-TCDD	0.25	2.97e+04		26:33	-	1.40
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.45e+06	0.80 y	25:59	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.28e+07	0.79 y	24:39	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.07e+06	0.52 y	33:47	-	1.00

DB  
10/10/14

Filename: 191009D1 S: 2 Acquired: 9-OCT-19 17:00:45  
 Run: 191009D1 Analyte: Cal: 1613VG7-10-9-19 Results:  
 Sample text: ST191009D1-2 1613 CS1 19C2202

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.50	3.54e+04	0.78 y	26:34	-	0.83
2	Unk	1,2,3,7,8-PeCDD	2.50	1.46e+05	0.60 y	30:56	-	0.87
3	Unk	1,2,3,4,7,8-HxCDD	2.50	1.25e+05	1.20 y	34:16	-	1.13
4	Unk	1,2,3,6,7,8-HxCDD	2.50	1.40e+05	1.22 y	34:23	-	0.88
5	Unk	1,2,3,7,8,9-HxCDD	2.50	1.33e+05	1.15 y	34:43	-	0.90
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	1.13e+05	0.97 y	38:06	-	0.97
7	Unk	OCDD	5.00	1.78e+05	0.90 y	41:28	-	0.94
8	Unk	2,3,7,8-TCDF	0.50	5.25e+04	0.74 y	25:51	-	0.90
9	Unk	1,2,3,7,8-PeCDF	2.50	2.25e+05	1.59 y	29:48	-	0.94
10	Unk	2,3,4,7,8-PeCDF	2.50	2.42e+05	1.50 y	30:40	-	0.99
11	Unk	1,2,3,4,7,8-HxCDF	2.50	1.62e+05	1.16 y	33:22	-	1.11
12	Unk	1,2,3,6,7,8-HxCDF	2.50	2.03e+05	1.20 y	33:30	-	1.07
13	Unk	2,3,4,6,7,8-HxCDF	2.50	1.79e+05	1.30 y	34:07	-	1.03
14	Unk	1,2,3,7,8,9-HxCDF	2.50	1.49e+05	1.24 y	35:08	-	1.02
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	1.51e+05	0.91 y	36:57	-	1.13
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	1.23e+05	0.94 y	38:41	-	1.24
17	Unk	OCDF	5.00	2.09e+05	0.91 y	41:43	-	0.92
36	IS	13C-2,3,7,8-TCDD	100.00	8.50e+06	0.78 y	26:34	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	6.74e+06	0.63 y	30:56	-	0.86
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	4.41e+06	1.38 y	34:16	-	0.60
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.35e+06	1.20 y	34:23	-	0.87
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	5.87e+06	1.26 y	34:42	-	0.80
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	4.64e+06	1.05 y	38:05	-	0.63
42	IS	13C-OCDD	200.00	7.58e+06	0.89 y	41:28	-	0.52
43	IS	13C-2,3,7,8-TCDF	100.00	1.17e+07	0.80 y	25:51	-	1.00
44	IS	13C-1,2,3,7,8-PeCDF	100.00	9.60e+06	1.59 y	29:48	-	0.82
45	IS	13C-2,3,4,7,8-PeCDF	100.00	9.80e+06	1.58 y	30:40	-	0.84
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	5.84e+06	0.52 y	33:21	-	0.80
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	7.58e+06	0.51 y	33:29	-	1.03
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	6.92e+06	0.51 y	34:07	-	0.94
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	5.84e+06	0.49 y	35:08	-	0.80
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.38e+06	0.43 y	36:57	-	0.73
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	3.99e+06	0.43 y	38:41	-	0.54
52	IS	13C-OCDF	200.00	9.05e+06	0.88 y	41:43	-	0.62
53	C/Up	37Cl-2,3,7,8-TCDD	0.50	4.55e+04		26:34	-	1.16
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.86e+06	0.77 y	26:01	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.17e+07	0.83 y	24:41	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	7.33e+06	0.52 y	33:47	-	1.00

DB  
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Filename: 191009D1 S: 3 Acquired: 9-OCT-19 17:48:27

Run: 191009D1 Analyte: Cal: 1613VG7-10-9-19

Results:

Sample text: ST191009D1-3 1613 CS2 19C2203

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	2.00	1.35e+05	0.74 y	26:33	-	0.87
2	Unk	1,2,3,7,8-PeCDD	10.00	5.33e+05	0.64 y	30:56	-	0.88
3	Unk	1,2,3,4,7,8-HxCDD	10.00	3.94e+05	1.22 y	34:16	-	1.03
4	Unk	1,2,3,6,7,8-HxCDD	10.00	5.50e+05	1.25 y	34:23	-	1.01
5	Unk	1,2,3,7,8,9-HxCDD	10.00	4.71e+05	1.36 y	34:43	-	0.93
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	3.70e+05	1.02 y	38:06	-	0.95
7	Unk	OCDD	20.00	6.41e+05	0.90 y	41:29	-	0.92
8	Unk	2,3,7,8-TCDF	2.00	1.90e+05	0.83 y	25:49	-	0.89
9	Unk	1,2,3,7,8-PeCDF	10.00	7.88e+05	1.58 y	29:47	-	0.92
10	Unk	2,3,4,7,8-PeCDF	10.00	8.71e+05	1.56 y	30:40	-	1.00
11	Unk	1,2,3,4,7,8-HxCDF	10.00	6.02e+05	1.14 y	33:22	-	1.15
12	Unk	1,2,3,6,7,8-HxCDF	10.00	7.20e+05	1.27 y	33:30	-	1.06
13	Unk	2,3,4,6,7,8-HxCDF	10.00	6.66e+05	1.26 y	34:08	-	1.12
14	Unk	1,2,3,7,8,9-HxCDF	10.00	5.16e+05	1.16 y	35:08	-	1.02
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	5.02e+05	1.05 y	36:57	-	1.06
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	4.31e+05	1.08 y	38:41	-	1.25
17	Unk	OCDF	20.00	7.38e+05	0.91 y	41:44	-	0.91
36	IS	13C-2,3,7,8-TCDD	100.00	7.73e+06	0.78 y	26:33	-	1.06
37	IS	13C-1,2,3,7,8-PeCDD	100.00	6.03e+06	0.62 y	30:55	-	0.83
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	3.81e+06	1.24 y	34:15	-	0.58
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	5.44e+06	1.28 y	34:22	-	0.82
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	5.03e+06	1.21 y	34:42	-	0.76
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	3.89e+06	1.09 y	38:05	-	0.59
42	IS	13C-OCDD	200.00	6.97e+06	0.90 y	41:28	-	0.53
43	IS	13C-2,3,7,8-TCDF	100.00	1.08e+07	0.82 y	25:49	-	1.03
44	IS	13C-1,2,3,7,8-PeCDF	100.00	8.55e+06	1.59 y	29:47	-	0.82
45	IS	13C-2,3,4,7,8-PeCDF	100.00	8.70e+06	1.59 y	30:40	-	0.83
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	5.22e+06	0.49 y	33:21	-	0.79
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	6.80e+06	0.51 y	33:29	-	1.03
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	5.93e+06	0.52 y	34:07	-	0.90
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	5.05e+06	0.51 y	35:08	-	0.77
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	4.73e+06	0.44 y	36:57	-	0.72
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	3.46e+06	0.45 y	38:41	-	0.52
52	IS	13C-OCDF	200.00	8.15e+06	0.92 y	41:44	-	0.62
53	C/Up	37Cl-2,3,7,8-TCDD	2.00	1.69e+05		26:33	-	1.16
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.29e+06	0.77 y	25:59	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.04e+07	0.82 y	24:39	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	6.60e+06	0.52 y	33:47	-	1.00

DB  
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Filename: 191009D1 S: 4 Acquired: 9-OCT-19 18:36:09  
 Run: 191009D1 Analyte: Cal: 1613VG7-10-9-19 Results:  
 Sample text: ST191009D1-4 1613 CS3 19C2204

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	10.00	8.37e+05	0.80 y	26:35	-	0.99
2	Unk	1,2,3,7,8-PeCDD	50.00	2.94e+06	0.61 y	30:56	-	0.88
3	Unk	1,2,3,4,7,8-HxCDD	50.00	2.38e+06	1.21 y	34:16	-	1.08
4	Unk	1,2,3,6,7,8-HxCDD	50.00	2.90e+06	1.19 y	34:23	-	0.92
5	Unk	1,2,3,7,8,9-HxCDD	50.00	2.74e+06	1.24 y	34:42	-	0.95
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	2.15e+06	1.03 y	38:05	-	0.96
7	Unk	OCDD	100.00	3.73e+06	0.91 y	41:28	-	0.94
8	Unk	2,3,7,8-TCDF	10.00	1.05e+06	0.80 y	25:51	-	0.89
9	Unk	1,2,3,7,8-PeCDF	50.00	4.65e+06	1.59 y	29:47	-	0.95
10	Unk	2,3,4,7,8-PeCDF	50.00	4.70e+06	1.68 y	30:40	-	1.00
11	Unk	1,2,3,4,7,8-HxCDF	50.00	3.52e+06	1.24 y	33:21	-	1.14
12	Unk	1,2,3,6,7,8-HxCDF	50.00	3.92e+06	1.25 y	33:29	-	1.05
13	Unk	2,3,4,6,7,8-HxCDF	50.00	3.74e+06	1.22 y	34:07	-	1.11
14	Unk	1,2,3,7,8,9-HxCDF	50.00	3.00e+06	1.19 y	35:07	-	1.06
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	2.97e+06	1.04 y	36:57	-	1.10
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	2.49e+06	1.07 y	38:41	-	1.25
17	Unk	OCDF	100.00	4.33e+06	0.91 y	41:43	-	0.92
36	IS	13C-2,3,7,8-TCDD	100.00	8.46e+06	0.74 y	26:33	-	1.10
37	IS	13C-1,2,3,7,8-PeCDD	100.00	6.66e+06	0.62 y	30:55	-	0.86
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	4.42e+06	1.25 y	34:15	-	0.61
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.30e+06	1.28 y	34:22	-	0.87
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	5.76e+06	1.27 y	34:41	-	0.80
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	4.47e+06	1.05 y	38:05	-	0.62
42	IS	13C-OCDD	200.00	7.90e+06	0.94 y	41:27	-	0.55
43	IS	13C-2,3,7,8-TCDF	100.00	1.18e+07	0.79 y	25:50	-	1.05
44	IS	13C-1,2,3,7,8-PeCDF	100.00	9.79e+06	1.62 y	29:47	-	0.87
45	IS	13C-2,3,4,7,8-PeCDF	100.00	9.43e+06	1.61 y	30:39	-	0.84
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	6.19e+06	0.50 y	33:21	-	0.86
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	7.47e+06	0.51 y	33:29	-	1.03
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	6.75e+06	0.49 y	34:06	-	0.93
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	5.64e+06	0.49 y	35:07	-	0.78
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.40e+06	0.43 y	36:55	-	0.75
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	3.99e+06	0.44 y	38:40	-	0.55
52	IS	13C-OCDF	200.00	9.37e+06	0.89 y	41:43	-	0.65
53	C/Up	37Cl-2,3,7,8-TCDD	10.00	8.56e+05		26:35	-	1.11
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.70e+06	0.75 y	26:00	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.13e+07	0.82 y	24:41	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	7.23e+06	0.51 y	33:47	-	1.00

DB

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Filename: 191009D1 S: 5      Acquired: 9-OCT-19 19:23:46  
Run: 191009D1    Analyte:            Cal: 1613VG7-10-9-19      Results:  
Sample text: ST191009D1-5 1613 CS4 19C2205

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	40.00	3.53e+06	0.81 y	26:35	-	0.92
2	Unk	1,2,3,7,8-PeCDD	200.00	1.48e+07	0.63 y	30:55	-	0.96
3	Unk	1,2,3,4,7,8-HxCDD	200.00	1.19e+07	1.19 y	34:15	-	1.09
4	Unk	1,2,3,6,7,8-HxCDD	200.00	1.34e+07	1.20 y	34:22	-	0.98
5	Unk	1,2,3,7,8,9-HxCDD	200.00	1.30e+07	1.18 y	34:41	-	1.00
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	1.10e+07	1.03 y	38:04	-	1.03
7	Unk	OCDD	400.00	2.03e+07	0.91 y	41:26	-	1.01
8	Unk	2,3,7,8-TCDF	40.00	5.17e+06	0.77 y	25:52	-	0.95
9	Unk	1,2,3,7,8-PeCDF	200.00	2.24e+07	1.58 y	29:47	-	1.00
10	Unk	2,3,4,7,8-PeCDF	200.00	2.29e+07	1.55 y	30:40	-	1.03
11	Unk	1,2,3,4,7,8-HxCDF	200.00	1.69e+07	1.21 y	33:21	-	1.20
12	Unk	1,2,3,6,7,8-HxCDF	200.00	1.85e+07	1.21 y	33:29	-	1.12
13	Unk	2,3,4,6,7,8-HxCDF	200.00	1.83e+07	1.21 y	34:06	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	200.00	1.53e+07	1.22 y	35:06	-	1.08
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	1.46e+07	1.04 y	36:56	-	1.17
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	1.30e+07	1.05 y	38:39	-	1.31
17	Unk	OCDF	400.00	2.42e+07	0.91 y	41:41	-	1.00
36	IS	13C-2,3,7,8-TCDD	100.00	9.63e+06	0.75 y	26:34	-	1.12
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.72e+06	0.63 y	30:54	-	0.89
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	5.48e+06	1.31 y	34:14	-	0.65
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.83e+06	1.22 y	34:21	-	0.80
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	6.48e+06	1.26 y	34:40	-	0.76
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.36e+06	1.08 y	38:03	-	0.63
42	IS	13C-OCDD	200.00	1.01e+07	0.91 y	41:25	-	0.59
43	IS	13C-2,3,7,8-TCDF	100.00	1.36e+07	0.80 y	25:51	-	1.04
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.12e+07	1.57 y	29:46	-	0.86
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.11e+07	1.52 y	30:39	-	0.85
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	7.05e+06	0.50 y	33:20	-	0.83
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	8.28e+06	0.49 y	33:28	-	0.98
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	7.90e+06	0.51 y	34:05	-	0.93
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	7.08e+06	0.51 y	35:06	-	0.83
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	6.23e+06	0.46 y	36:55	-	0.73
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.95e+06	0.44 y	38:38	-	0.58
52	IS	13C-OCDF	200.00	1.22e+07	0.90 y	41:40	-	0.72
53	C/Up	37Cl-2,3,7,8-TCDD	40.00	3.96e+06		26:35	-	1.15
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.64e+06	0.78 y	26:00	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.30e+07	0.83 y	24:41	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.48e+06	0.51 y	33:46	-	1.00

DB  
10/10/19

Filename: 191009D1 S: 6 Acquired: 9-OCT-19 20:11:17  
 Run: 191009D1 Analyte: Cal: 1613VG7-10-9-19 Results:  
 Sample text: ST191009D1-6 1613 CS5 19C2206

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	300.00	2.80e+07	0.81 y	26:35	0.98
2	Unk	1,2,3,7,8-PeCDD	1500.00	1.19e+08	0.62 y	30:55	0.96
3	Unk	1,2,3,4,7,8-HxCDD	1500.00	1.04e+08	1.22 y	34:15	1.15
4	Unk	1,2,3,6,7,8-HxCDD	1500.00	1.07e+08	1.21 y	34:22	1.00
5	Unk	1,2,3,7,8,9-HxCDD	1500.00	1.06e+08	1.23 y	34:41	1.03
6	Unk	1,2,3,4,6,7,8-HpCDD	1500.00	9.32e+07	1.05 y	38:03	1.06
7	Unk	OCDD	3000.00	1.64e+08	0.92 y	41:25	1.01
8	Unk	2,3,7,8-TCDF	300.00	3.95e+07	0.79 y	25:52	0.99
9	Unk	1,2,3,7,8-PeCDF	1500.00	1.79e+08	1.58 y	29:47	1.01
10	Unk	2,3,4,7,8-PeCDF	1500.00	1.86e+08	1.57 y	30:39	1.07
11	Unk	1,2,3,4,7,8-HxCDF	1500.00	1.40e+08	1.20 y	33:21	1.24
12	Unk	1,2,3,6,7,8-HxCDF	1500.00	1.48e+08	1.21 y	33:29	1.11
13	Unk	2,3,4,6,7,8-HxCDF	1500.00	1.51e+08	1.22 y	34:06	1.20
14	Unk	1,2,3,7,8,9-HxCDF	1500.00	1.28e+08	1.25 y	35:06	1.13
15	Unk	1,2,3,4,6,7,8-HpCDF	1500.00	1.18e+08	1.03 y	36:55	1.18
16	Unk	1,2,3,4,7,8,9-HpCDF	1500.00	1.04e+08	1.05 y	38:38	1.34
17	Unk	OCDF	3000.00	1.96e+08	0.91 y	41:40	0.98
36	IS	13C-2,3,7,8-TCDD	100.00	9.53e+06	0.73 y	26:33	1.11
37	IS	13C-1,2,3,7,8-PeCDD	100.00	8.28e+06	0.64 y	30:54	0.96
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	6.01e+06	1.21 y	34:14	0.77
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	7.08e+06	1.32 y	34:21	0.90
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	6.90e+06	1.26 y	34:39	0.88
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.86e+06	1.08 y	38:03	0.75
42	IS	13C-OCDD	200.00	1.08e+07	0.92 y	41:25	0.69
43	IS	13C-2,3,7,8-TCDF	100.00	1.33e+07	0.80 y	25:51	1.04
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.18e+07	1.59 y	29:46	0.92
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.16e+07	1.60 y	30:38	0.91
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	7.52e+06	0.51 y	33:20	0.96
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	8.92e+06	0.50 y	33:28	1.14
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	8.38e+06	0.51 y	34:05	1.07
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	7.57e+06	0.52 y	35:05	0.96
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	6.70e+06	0.43 y	36:54	0.85
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	5.19e+06	0.43 y	38:37	0.66
52	IS	13C-OCDF	200.00	1.33e+07	0.89 y	41:39	0.85
53	C/Up	37Cl-2,3,7,8-TCDD	199.98	2.09e+07		26:35	1.21
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.62e+06	0.76 y	26:01	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.27e+07	0.84 y	24:41	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	7.85e+06	0.49 y	33:45	1.00

DB

10/10/19

Run: 191009D1 Analyte: Cal: 1613VG7-10 9-19 Inst. ID. VG-7

Data filename: 191009D1

Samp# 1	Samp# 2	Samp# 3	Samp# 4	Samp# 5	Samp# 6
0.25	0.50	2.0	10	40	300

Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
Total Tetra-Dioxins	0.9053	7.55 %	0.84	0.83	0.87	0.99	0.92	0.98
TCDD EMPC	0.9053	7.55 %	0.84	0.83	0.87	0.99	0.92	0.98
Total Penta-Dioxins	0.9027	4.95 %	0.86	0.87	0.88	0.88	0.96	0.96
PeCDD EMPC	0.9027	4.95 %	0.86	0.87	0.88	0.88	0.96	0.96
Total Hexa-Dioxins	0.9918	4.02 %	0.95	0.96	0.99	0.97	1.02	1.06
HxCDD EMPC	0.9918	4.02 %	0.95	0.96	0.99	0.97	1.02	1.06
Total Hepta-Dioxins	0.9794	5.84 %	0.90	0.97	0.95	0.96	1.03	1.06
HpCDD EMPC	0.9794	5.84 %	0.90	0.97	0.95	0.96	1.03	1.06
Total Tetra-Furans	0.9501	8.27 %	1.09	0.90	0.89	0.89	0.95	0.99
TCDF EMPC	0.9501	8.27 %	1.09	0.90	0.89	0.89	0.95	0.99
1st Func. Penta-Furans	0.9875	3.40 %	0.97	0.96	0.96	0.97	1.02	1.04
1st Func. PeCDF EMPC	0.9875	3.40 %	0.97	0.96	0.96	0.97	1.02	1.04
Total Penta-Furans	0.9875	3.40 %	0.97	0.96	0.96	0.97	1.02	1.04
PeCDF EMPC	0.9875	3.40 %	0.97	0.96	0.96	0.97	1.02	1.04
Total Hexa-Furans	1.1033	3.70 %	1.08	1.06	1.09	1.09	1.14	1.17
HxCDF EMPC	1.1033	3.70 %	1.08	1.06	1.09	1.09	1.14	1.17
Total Hepta-Furans	1.1937	3.56 %	1.21	1.17	1.14	1.16	1.23	1.25
HpCDF EMPC	1.1937	3.56 %	1.21	1.17	1.14	1.16	1.23	1.25

DB  
10/10/19

Run: 191009D1

Analyte:

Cal: 1613VG7-10-9-19

Inst. ID: VG-7

Data filename: 191009D1

		Samp# 1	Samp# 2	Samp# 3	Samp# 4	Samp# 5	Samp# 6	
		0.25	0.50	2.0	10	40	300	
	RRT Limits							
Name	Lower	Upper	RRT#1	RRT#2	RRT#3	RRT#4	RRT#5	RRT#6
2,3,7,8-TCDD	0.999	-1.002	1.000	1.000	1.000	1.001	1.001	1.001
1,2,3,7,8-PeCDD	0.999	-1.002	0.999	1.000	1.001	1.001	1.001	1.001
1,2,3,4,7,8-HxCDD	0.999	-1.001	1.000	1.000	1.001	1.000	1.000	1.000
1,2,3,6,7,8-HxCDD	0.998	-1.004	1.000	1.000	1.000	1.001	1.001	1.000
1,2,3,7,8,9-HxCDD	0.998	-1.004	1.001	1.000	1.000	1.000	1.001	1.001
1,2,3,4,6,7,8-HpCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
2,3,7,8-TCDF	0.999	-1.003	1.000	1.000	1.000	1.001	1.001	1.001
1,2,3,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.001
2,3,4,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.001	1.001	1.001
1,2,3,4,7,8-HxCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,6,7,8-HxCDF	0.997	-1.005	1.000	1.000	1.001	1.000	1.000	1.000
2,3,4,6,7,8-HxCDF	0.999	-1.001	1.000	1.000	1.000	1.001	1.001	1.000
1,2,3,7,8,9-HxCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,6,7,8-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.001	1.000	1.000
1,2,3,4,7,8,9-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
13C-2,3,7,8-TCDD	0.976	-1.043	1.022	1.022	1.022	1.021	1.021	1.021
13C-1,2,3,7,8-PeCDD	1.000	-1.567	1.190	1.189	1.190	1.189	1.188	1.188
13C-1,2,3,4,7,8-HxCDD	1.002	-1.026	1.014	1.014	1.014	1.014	1.014	1.014
13C-1,2,3,6,7,8-HxCDD	1.007	-1.029	1.017	1.018	1.018	1.017	1.017	1.018
13C-1,2,3,7,8,9-HxCDD	1.014	-1.038	1.027	1.027	1.027	1.027	1.027	1.027
13C-1,2,3,4,6,7,8-HpCDD	1.117	-1.141	1.127	1.127	1.128	1.127	1.127	1.127
13C-OCDD	1.085	-1.365	1.227	1.227	1.228	1.227	1.227	1.227
13C-2,3,7,8-TCDF	0.923	-1.103	0.994	0.994	0.994	0.994	0.994	0.994
13C-1,2,3,7,8-PeCDF	1.000	-1.425	1.146	1.146	1.146	1.145	1.145	1.144
13C-2,3,4,7,8-PeCDF	1.011	-1.526	1.180	1.179	1.180	1.179	1.178	1.178
13C-1,2,3,4,7,8-HxCDF	0.975	-1.001	0.987	0.987	0.987	0.987	0.987	0.987
13C-1,2,3,6,7,8-HxCDF	0.979	-1.005	0.991	0.991	0.991	0.991	0.991	0.991
13C-2,3,4,6,7,8-HxCDF	1.001	-1.020	1.010	1.010	1.010	1.009	1.009	1.010
13C-1,2,3,7,8,9-HxCDF	1.002	-1.072	1.040	1.040	1.040	1.039	1.039	1.039
13C-1,2,3,4,6,7,8-HpCDF	1.069	-1.111	1.093	1.093	1.094	1.093	1.093	1.093
13C-1,2,3,4,7,8,9-HpCDF	1.098	-1.192	1.145	1.145	1.145	1.145	1.144	1.144
13C-OCDF	1.091	-1.371	1.235	1.234	1.235	1.235	1.234	1.234
37Cl-2,3,7,8-TCDD	0.989	-1.052	1.022	1.021	1.022	1.022	1.022	1.022
13C-1,2,3,4-TCDD	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4-TCDF	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4,6,9-HxCDF	0.000	-0.000	*	*	*	*	*	*

D)B  
10/10/19

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 10-9-19

RT Window Data Filename: 191009D1 S#4 Analysis Date: 9-OCT-19 Time: 18:36:09

ZB-5MS IS Data Filename: 191009D1 S#4 Analysis Date: 9-OCT-19 Time: 18:36:09

DB\_225 IS Data Filename: Analysis Date: Time:

ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:24	1,3,6,8-TCDF (F)	21:25
1,2,8,9-TCDD (L)	27:24	1,2,8,9-TCDF (L)	27:33
1,2,4,7,9-PeCDD (F)	28:55	1,3,4,6,8-PeCDF (F)	27:28
1,2,3,8,9-PeCDD (L)	31:17	1,2,3,8,9-PeCDF (L)	31:32
1,2,4,6,7,9-HxCDD (F)	32:41	1,2,3,4,6,8-HxCDF (F)	32:08
1,2,3,7,8,9-HxCDD (L)	34:42	1,2,3,7,8,9-HxCDF (L)	35:07
1,2,3,4,6,7,9-HpCDD (F)	37:16	1,2,3,4,6,7,8-HpCDF (F)	36:57
1,2,3,4,6,7,8-HpCDD (L)	38:05	1,2,3,4,7,8,9-HpCDF (L)	38:41

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

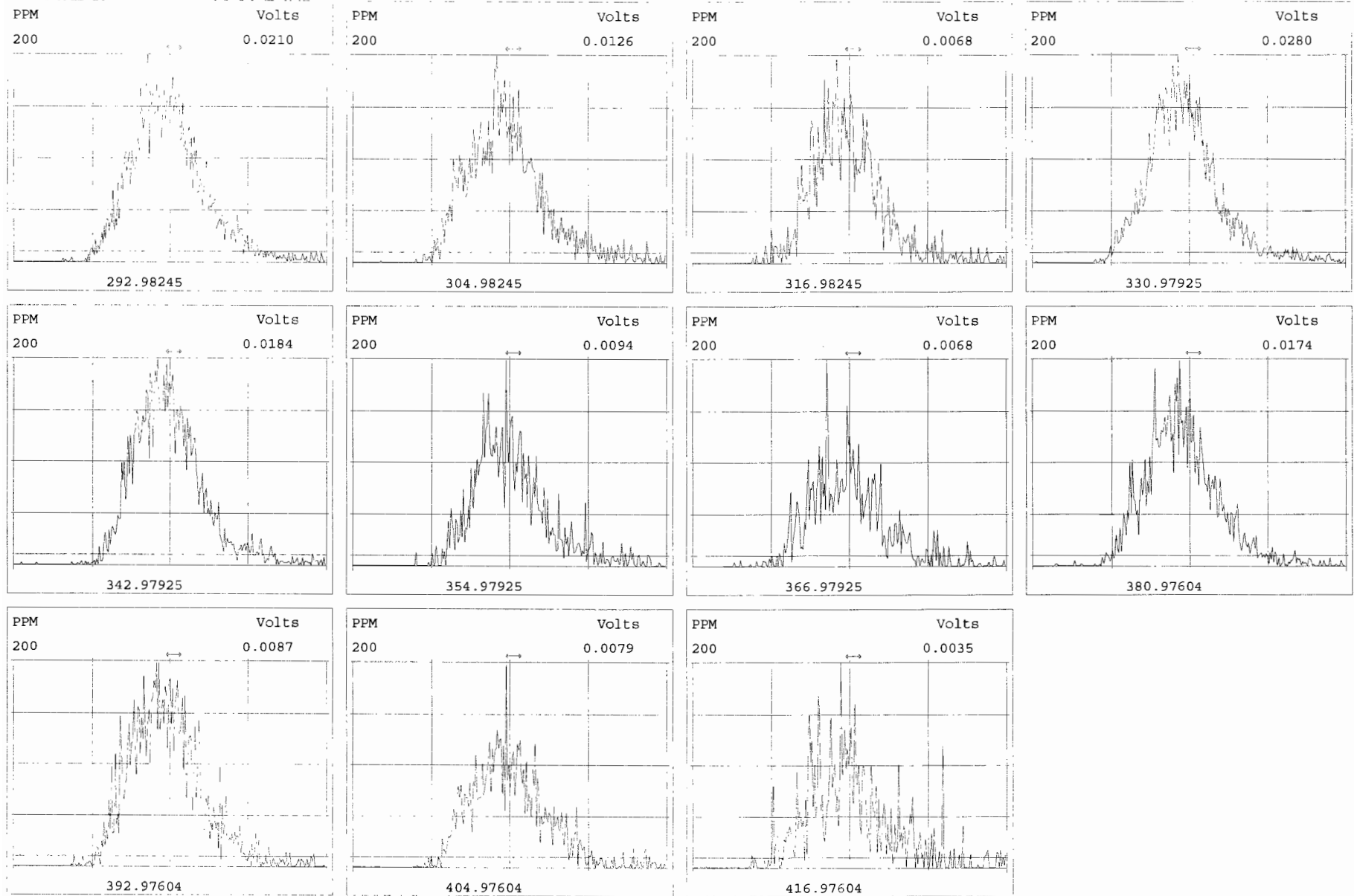
% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: DB

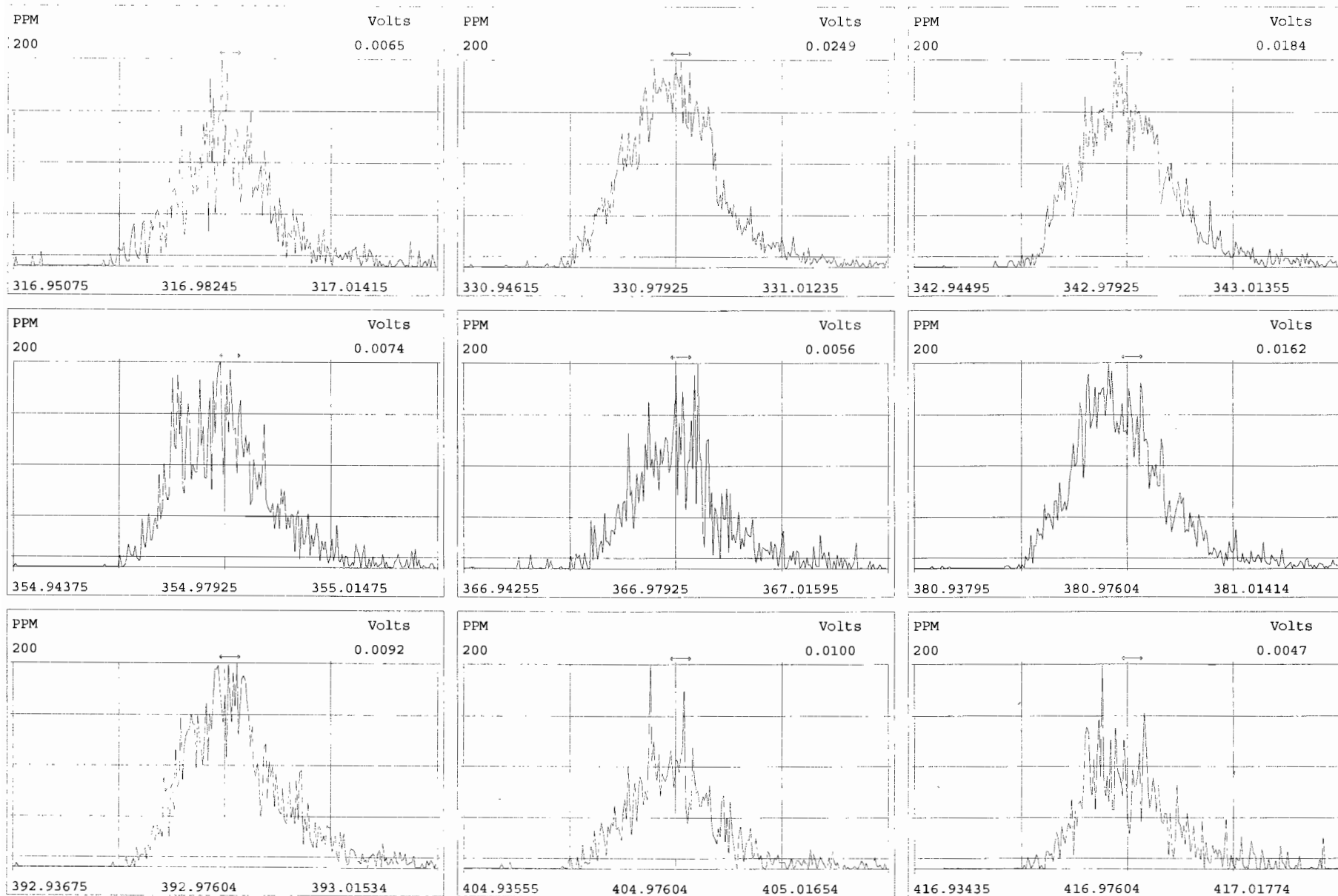
Date: 10/10/19

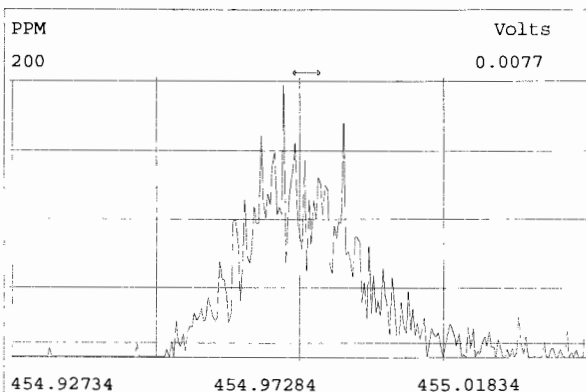
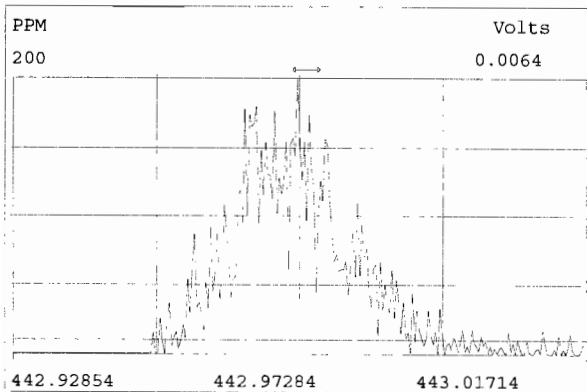
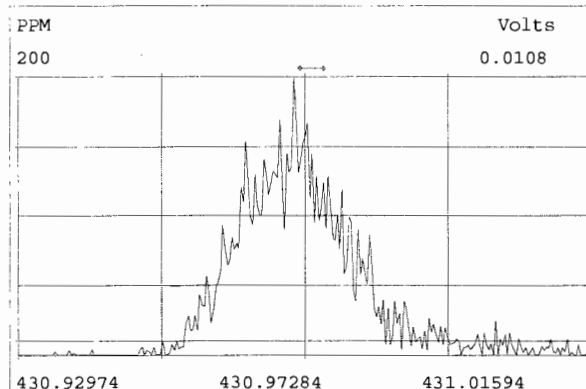
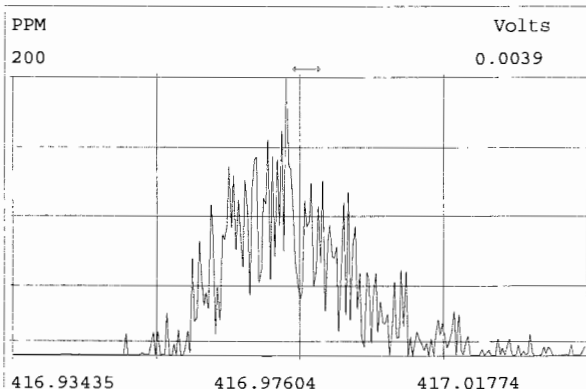
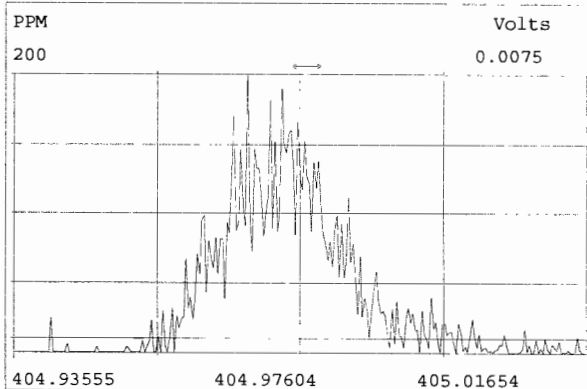
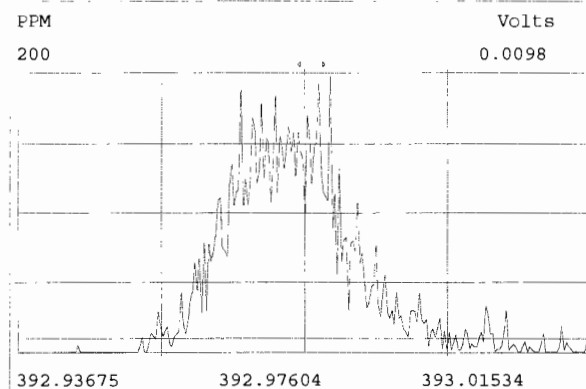
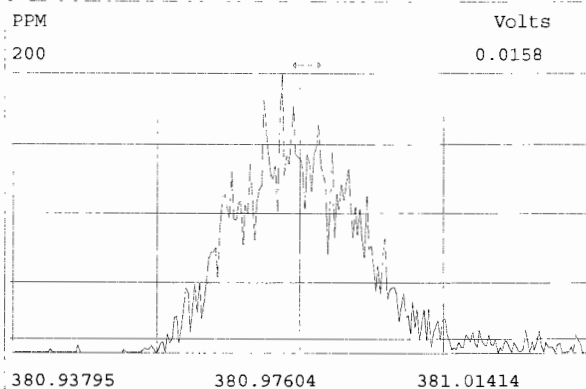
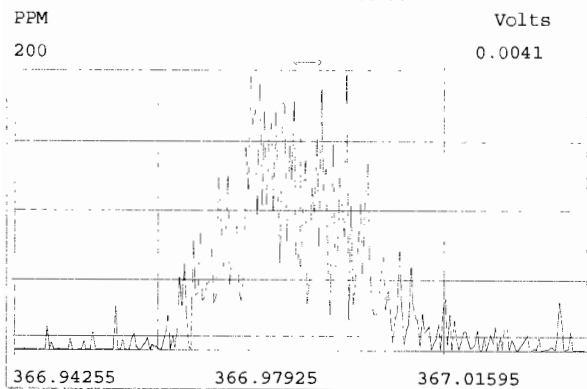


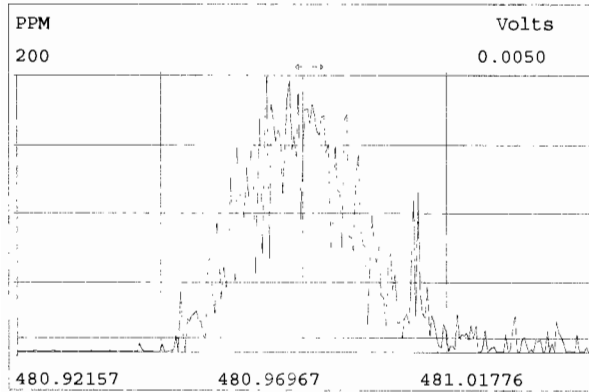
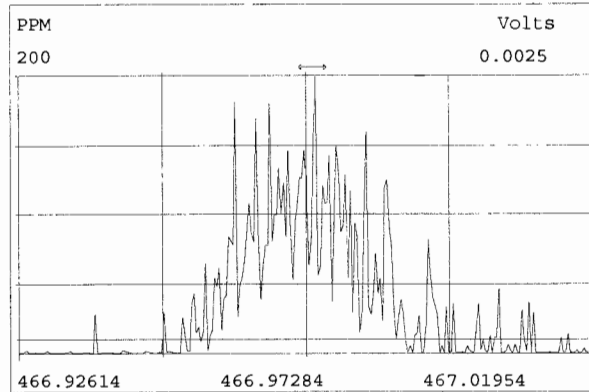
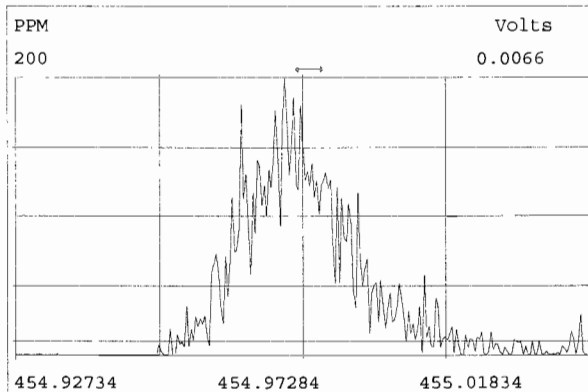
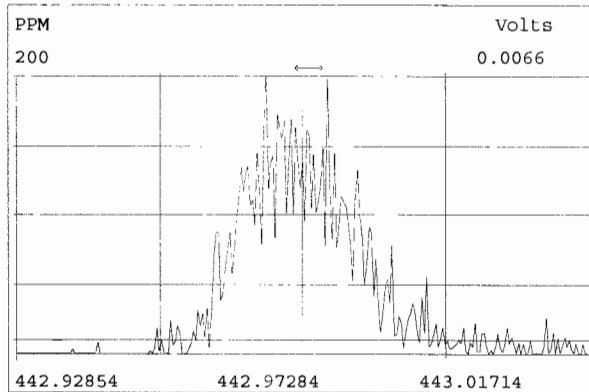
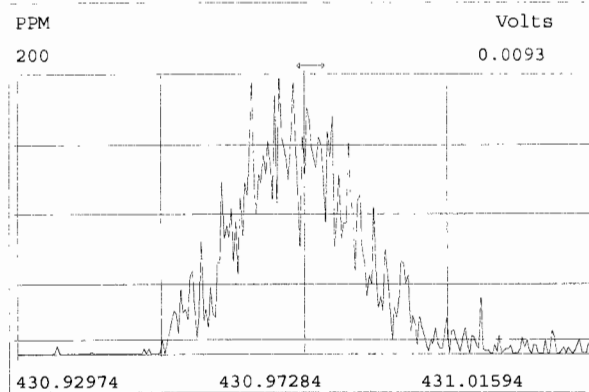
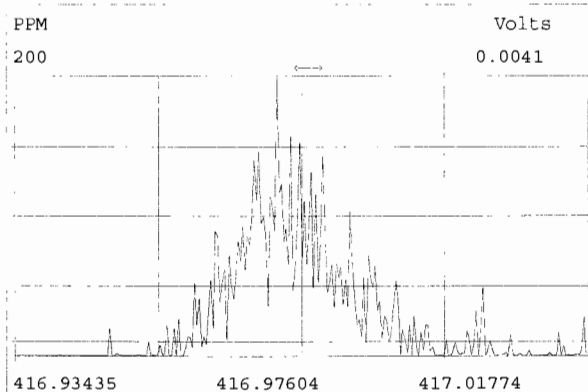
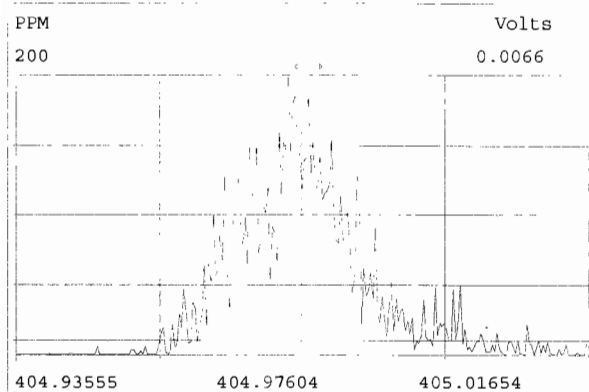


Peak Locate Examination: 9-OCT-2019:16:10 File:191009D1

Experiment:OCDD\_DB5 Function:2 Reference:PFK

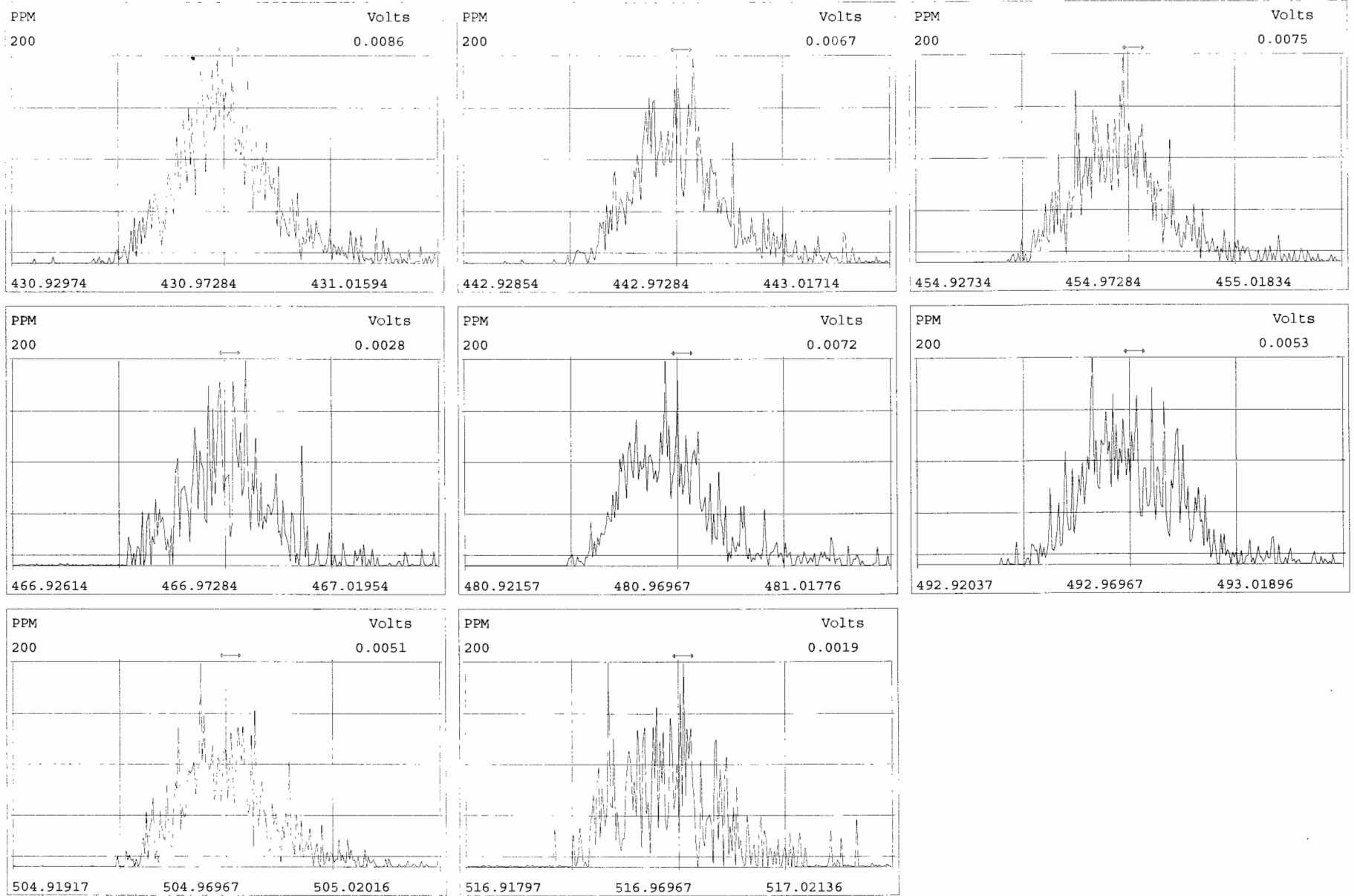






Peak Locate Examination: 9-OCT-2019:16:12 File:191009D1

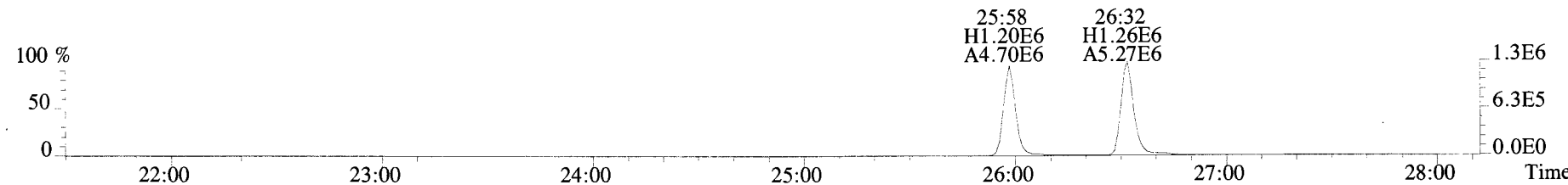
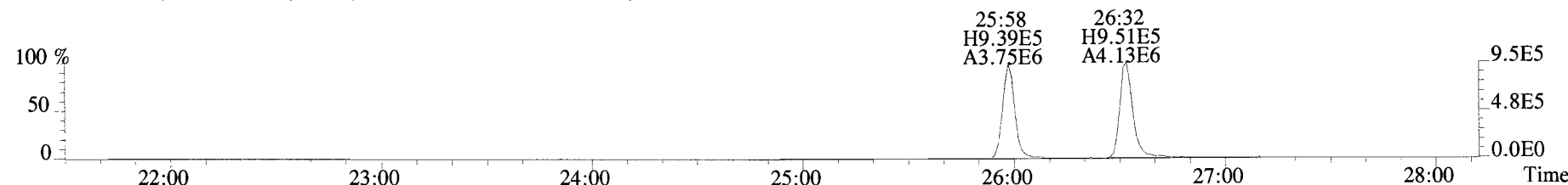
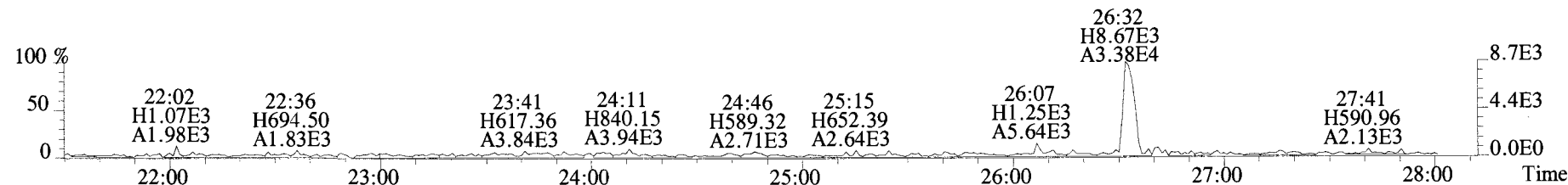
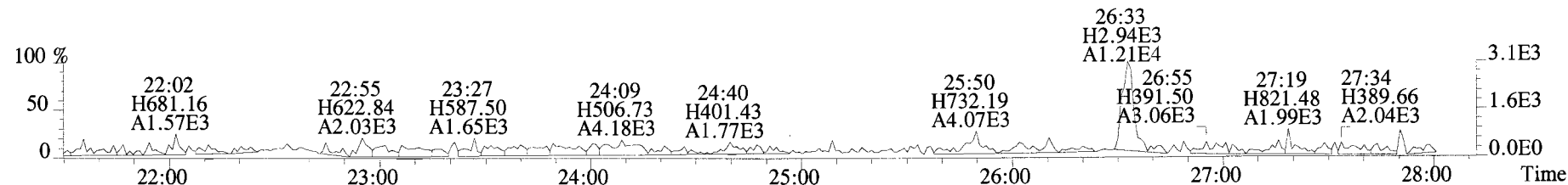
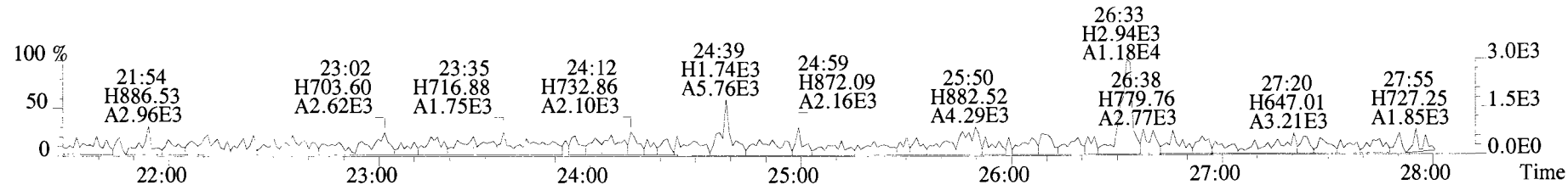
Experiment:OCDD\_DB5 Function:5 Reference:PFK



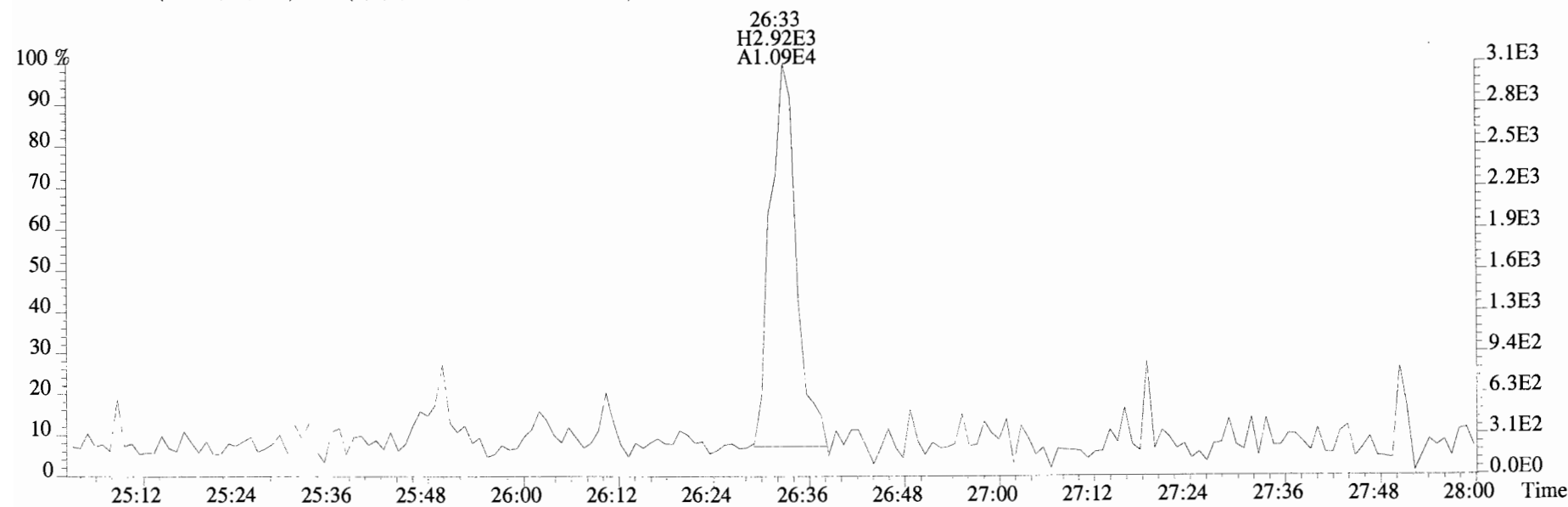
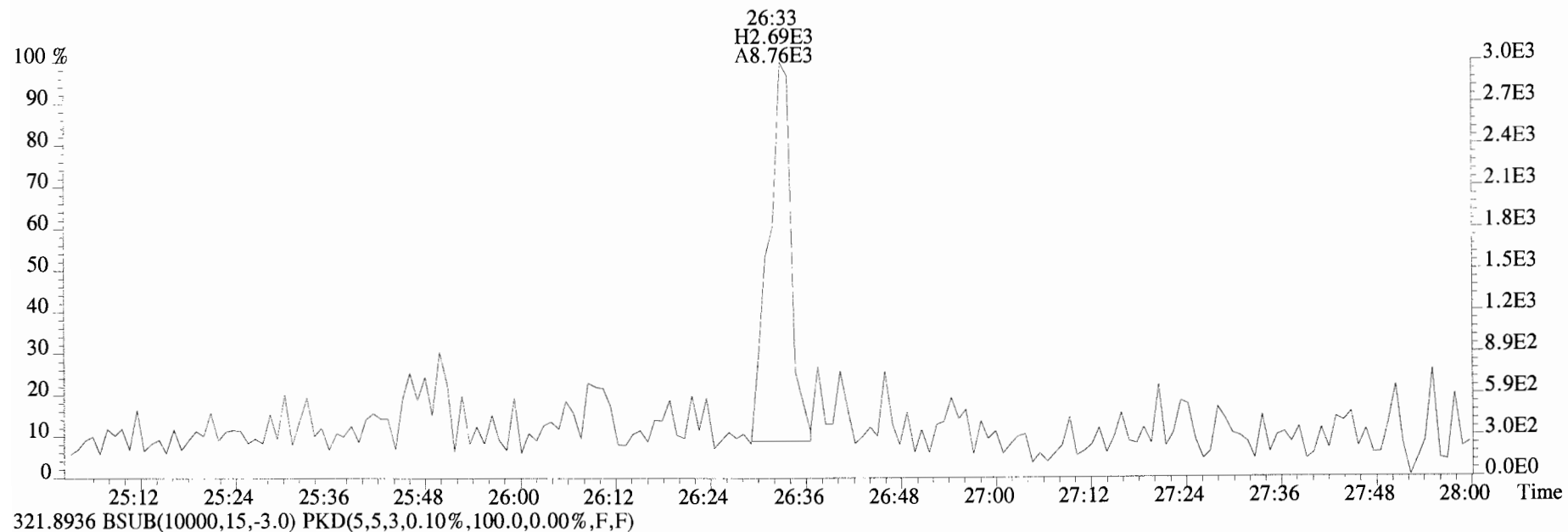
Vista Analytical Laboratory - Injection Log Run file: 191009D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
191009D1	1	ST191009D1-1	DB	9-OCT-19	16:13:04	ST191009D1-4	NA
191009D1	2	ST191009D1-2	DB	9-OCT-19	17:00:45	ST191009D1-4	NA
191009D1	3	ST191009D1-3	DB	9-OCT-19	17:48:27	ST191009D1-4	NA
191009D1	4	ST191009D1-4	DB	9-OCT-19	18:36:09	ST191009D1-4	NA
191009D1	5	ST191009D1-5	DB	9-OCT-19	19:23:46	ST191009D1-4	NA
191009D1	6	ST191009D1-6	DB	9-OCT-19	20:11:17	ST191009D1-4	NA
191009D1	7	SOLVENT BLANK	DB	9-OCT-19	20:58:57	ST191009D1-4	NA
191009D1	8	SS191009D1-1	DB	9-OCT-19	21:46:34	ST191009D1-4	NA
191009D1	9	B9J0001-BS1	DB	9-OCT-19	22:34:09	ST191009D1-4	NA
191009D1	10	SOLVENT BLANK	DB	9-OCT-19	23:21:45	ST191009D1-4	NA
191009D1	11	B9J0001-BLK1	DB	10-OCT-19	00:09:30	ST191009D1-4	NA
191009D1	12	QC191007D1-1	DB	10-OCT-19	00:57:00	ST191009D1-4	NA
191009D1	13	1903285-08	DB	10-OCT-19	01:44:36	ST191009D1-4	NA
191009D1	14	1903285-09	DB	10-OCT-19	02:32:11	ST191009D1-4	NA
191009D1	15	1903285-10	DB	10-OCT-19	03:19:47	ST191009D1-4	NA
191009D1	16	1903103-02@5X	DB	10-OCT-19	04:07:23	ST191009D1-4	NA
191009D1	17	1903103-01@5X	DB	10-OCT-19	04:54:54	ST191009D1-4	NA
191009D1	18	B9I0240-DUP1@5X	DB	10-OCT-19	05:42:38	ST191009D1-4	NA

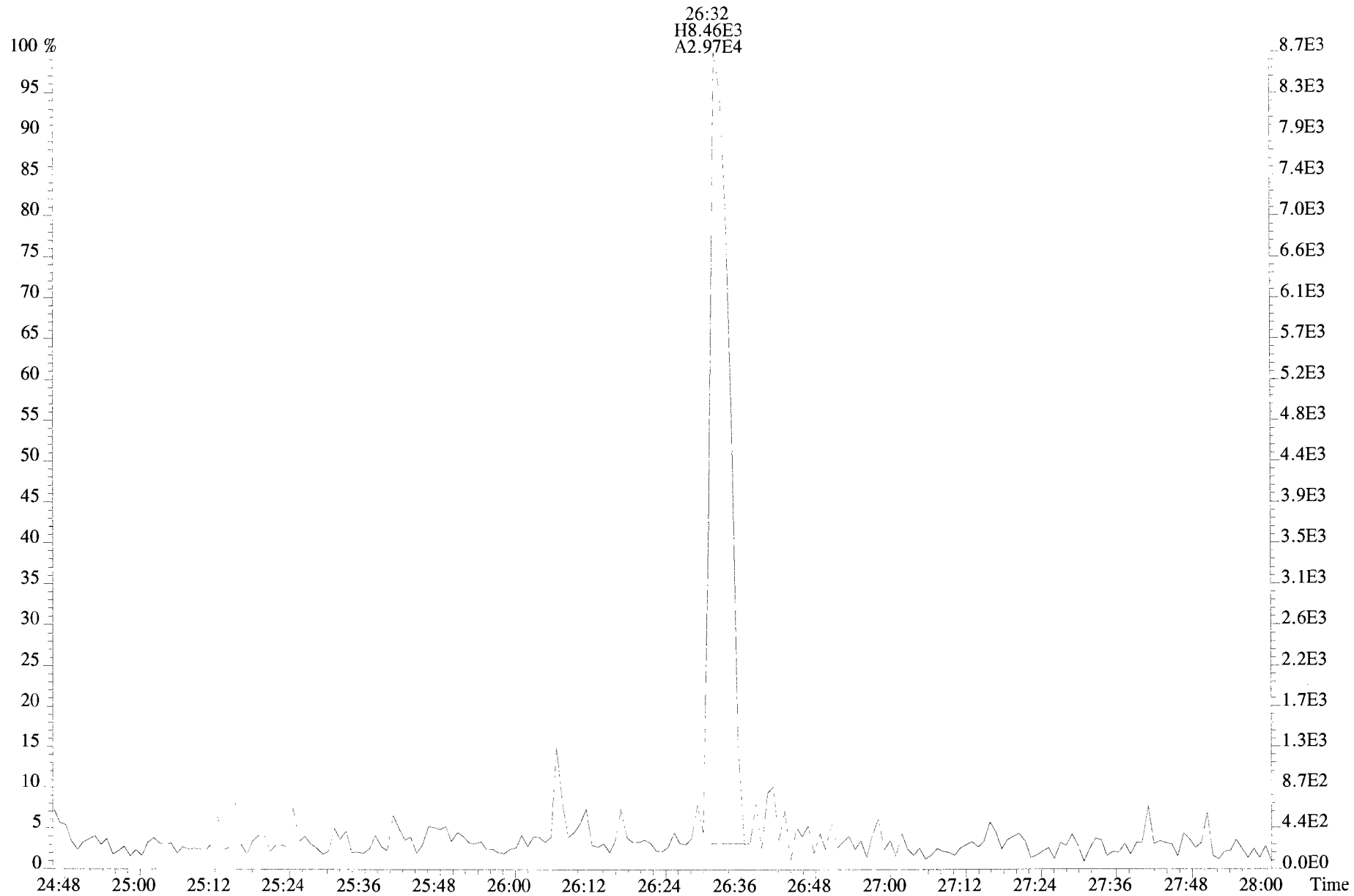
File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

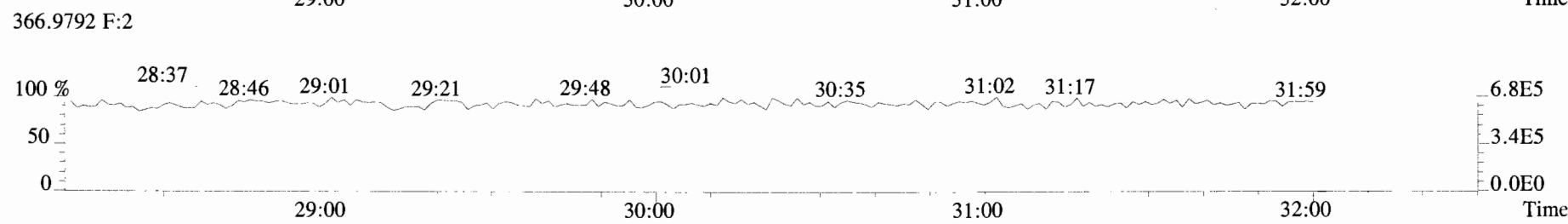
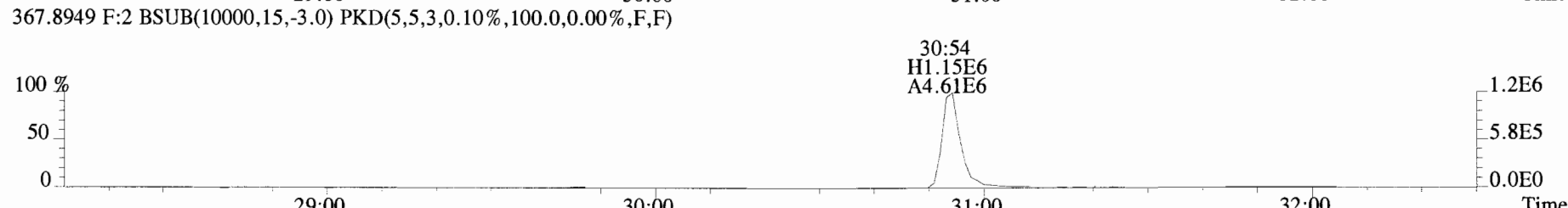
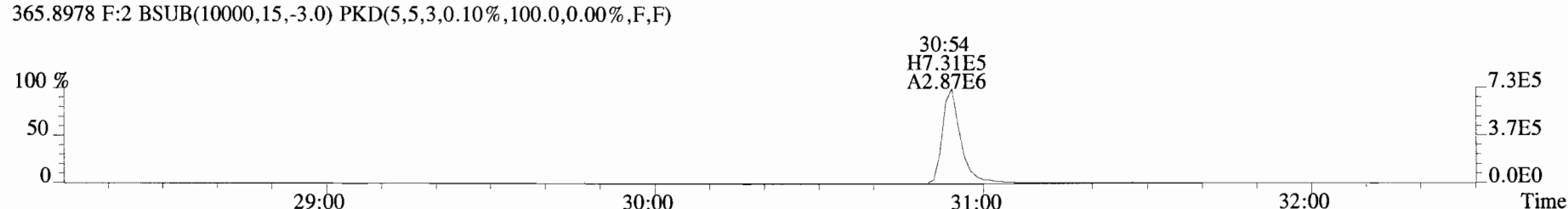
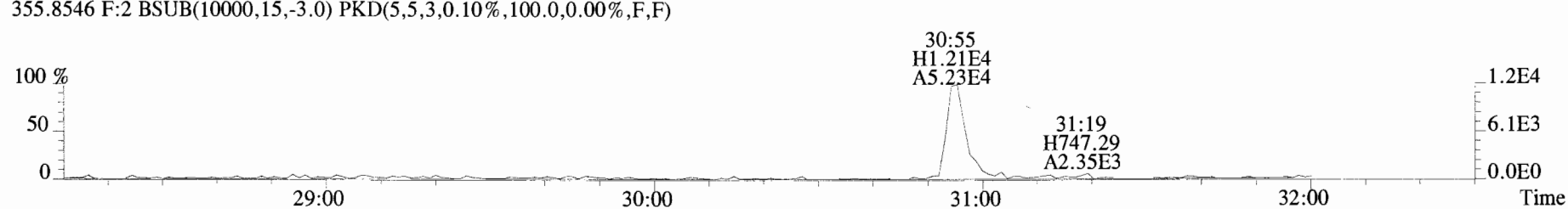
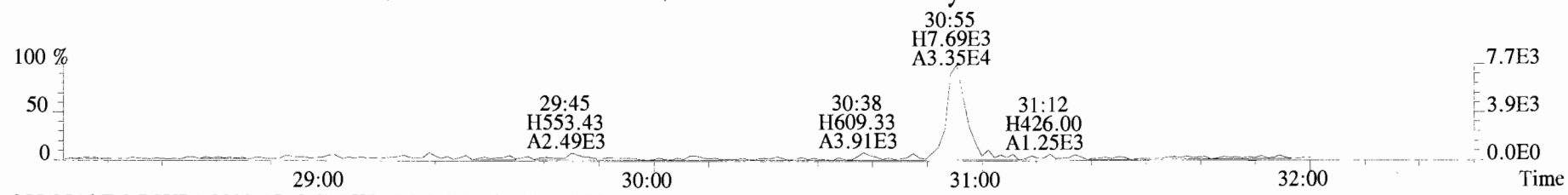


File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
327.8847 BSUB(10000,15,-3.0)

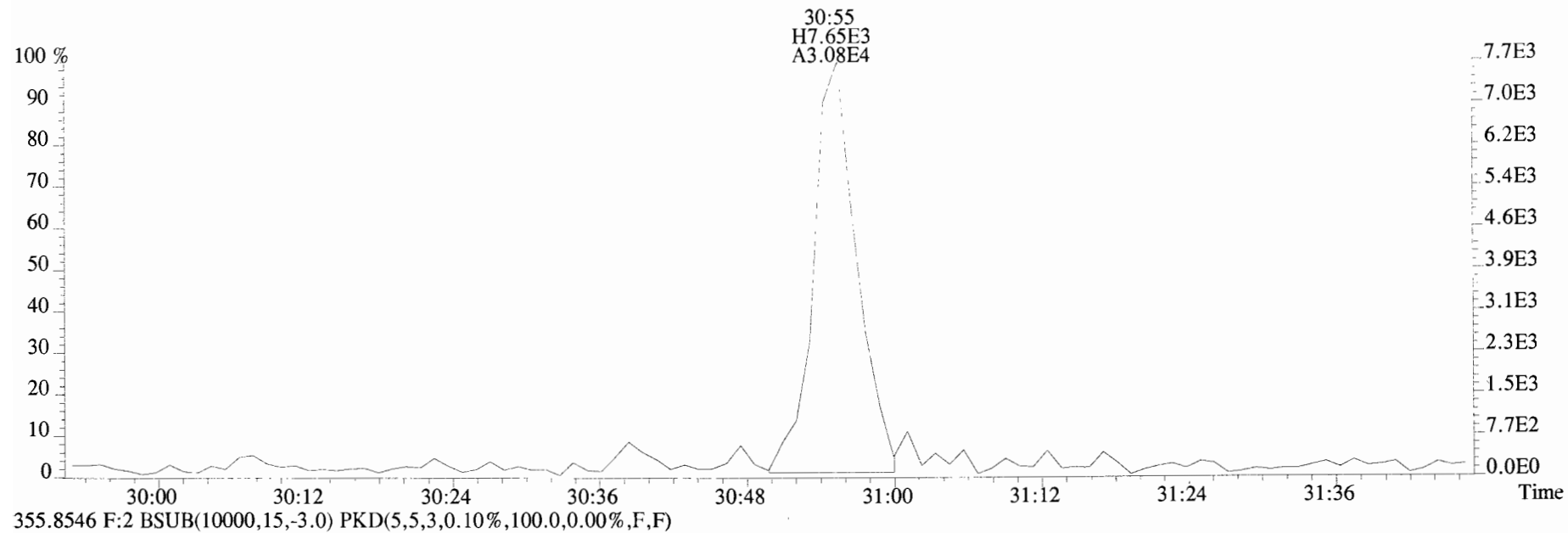




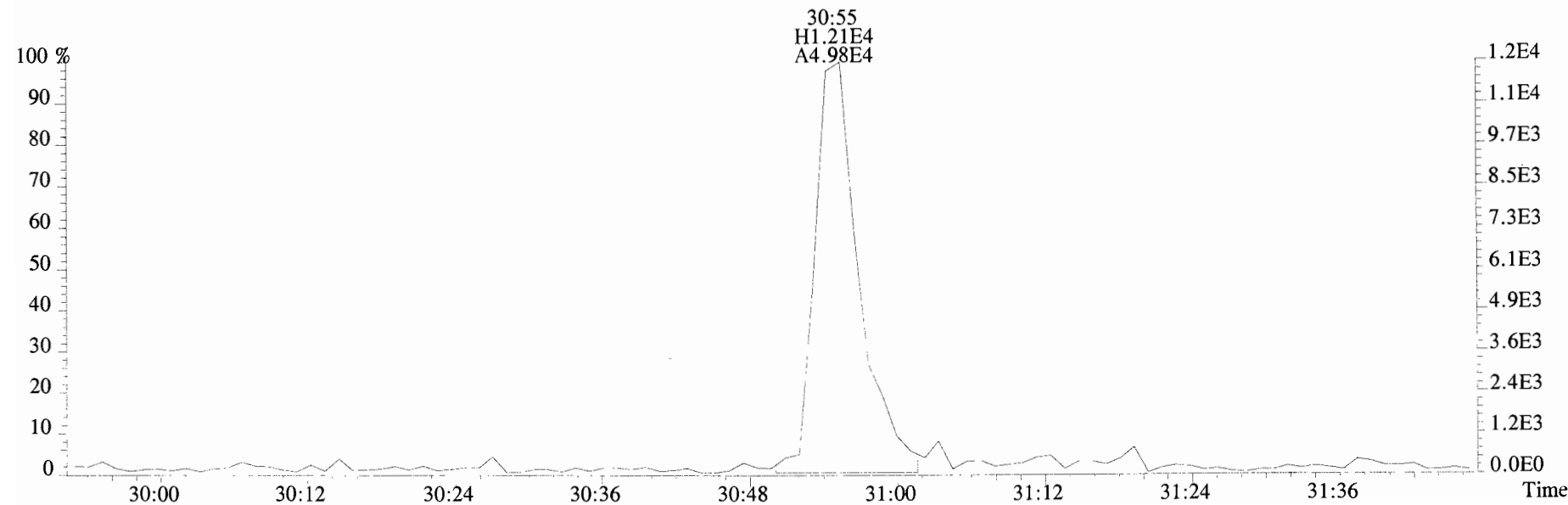
File:191009D1 #1-210 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



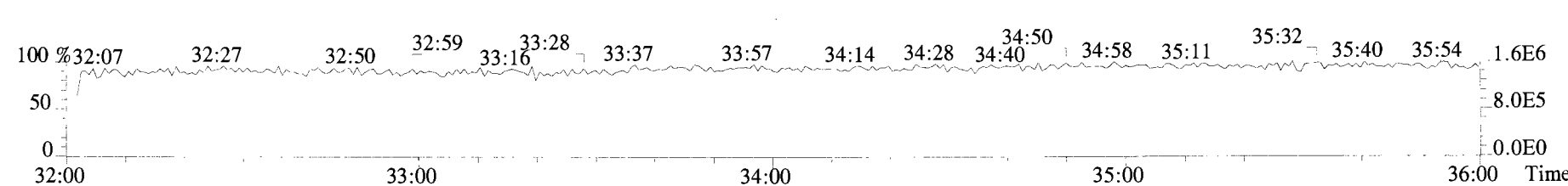
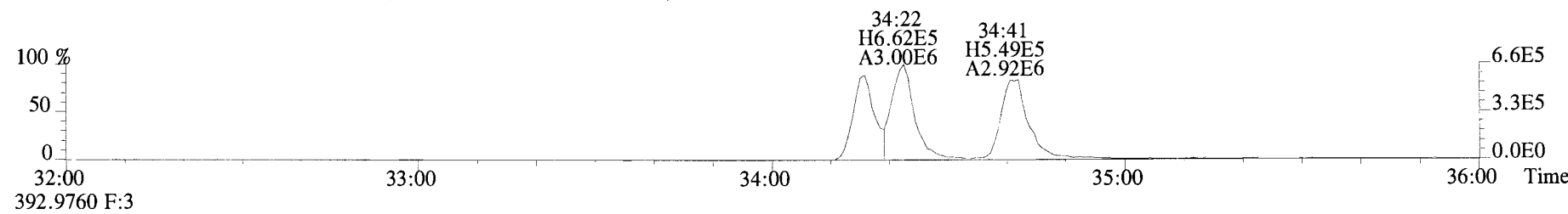
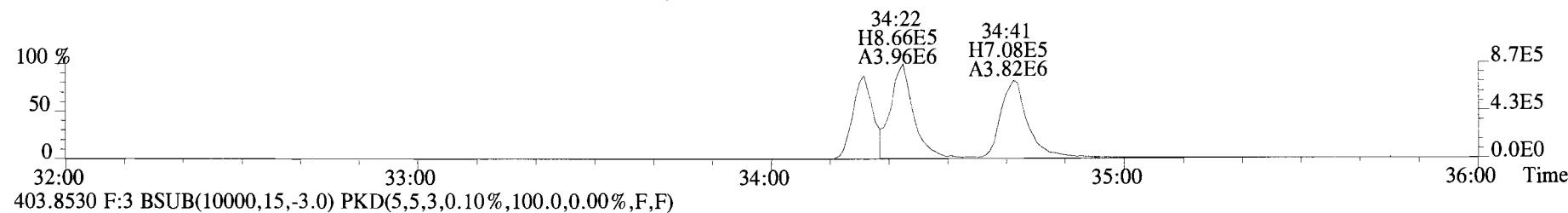
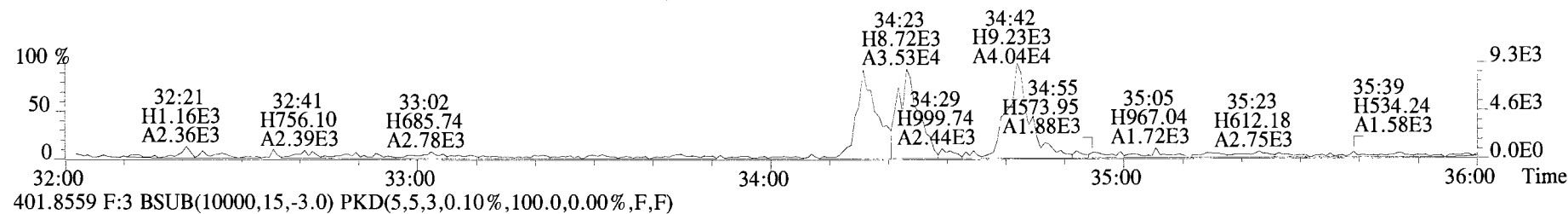
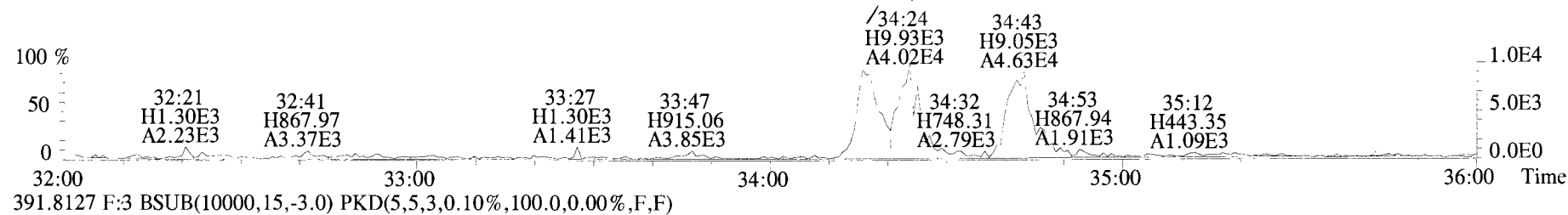
File:191009D1 #1-210 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



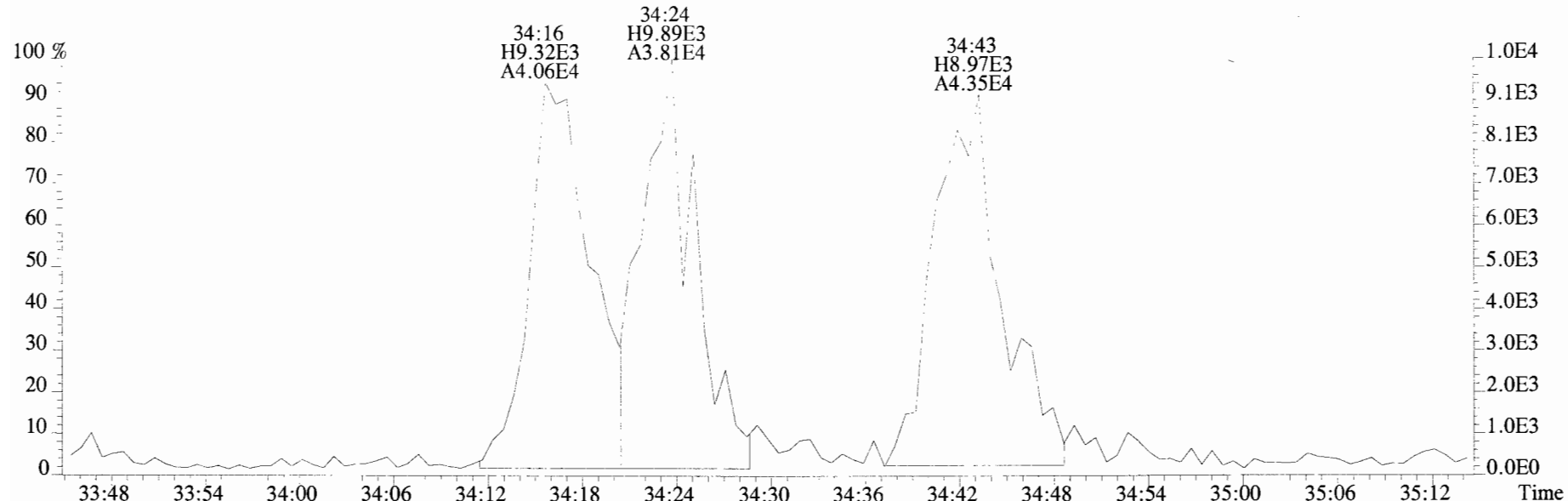
355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



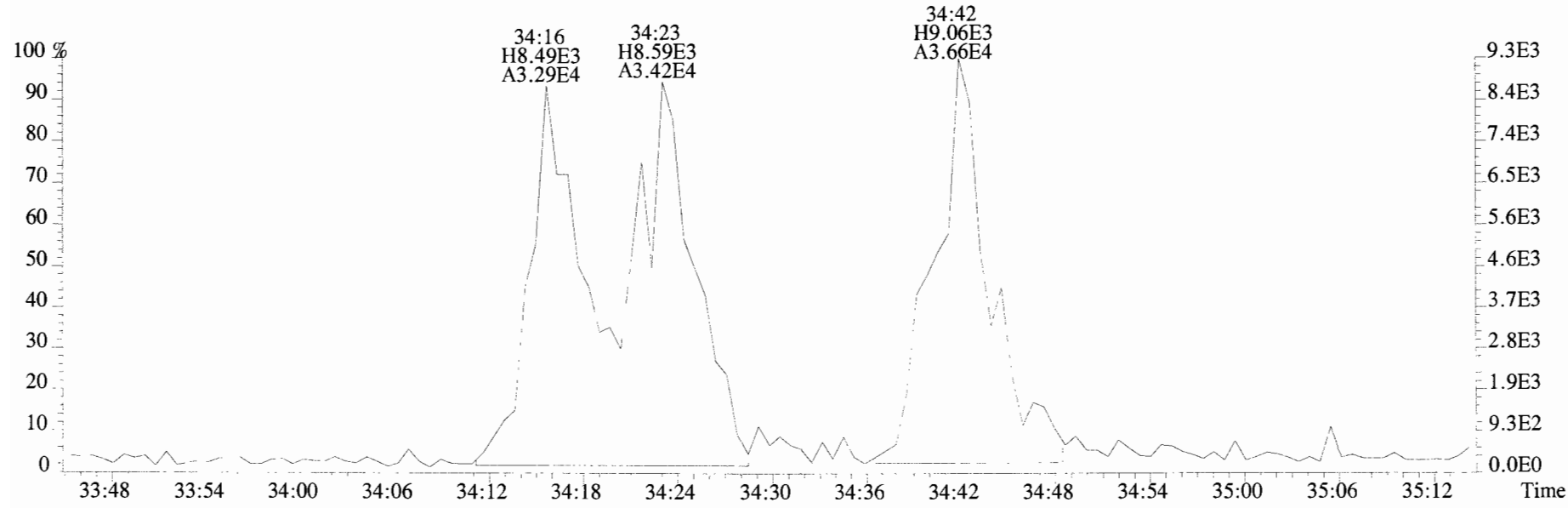
File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



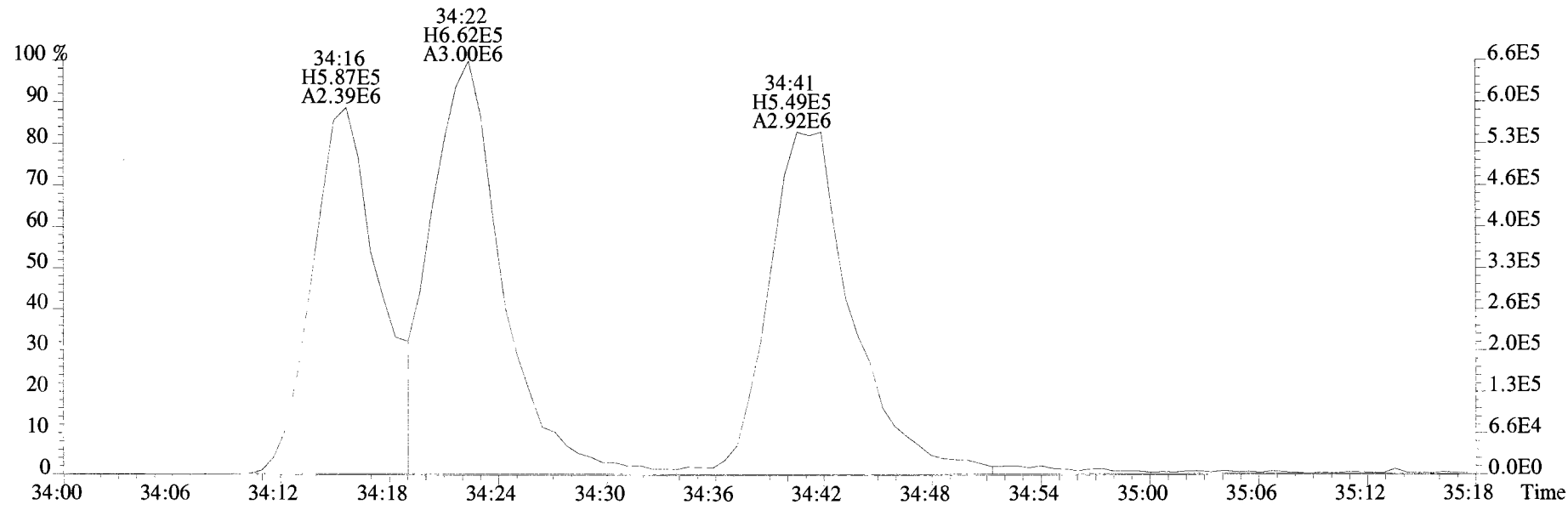
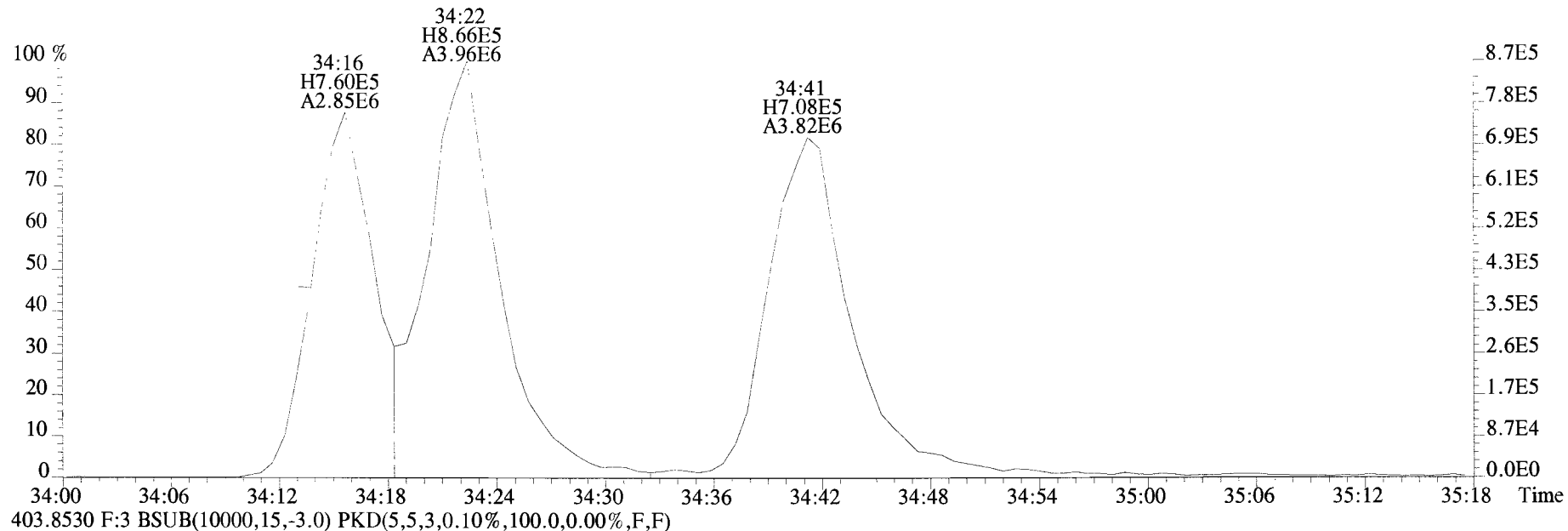
File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



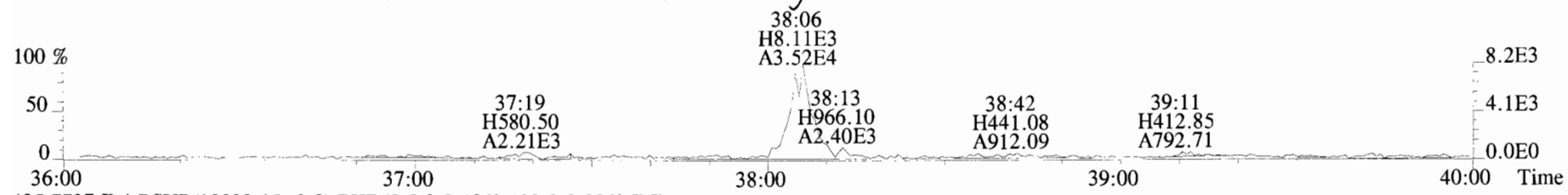
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



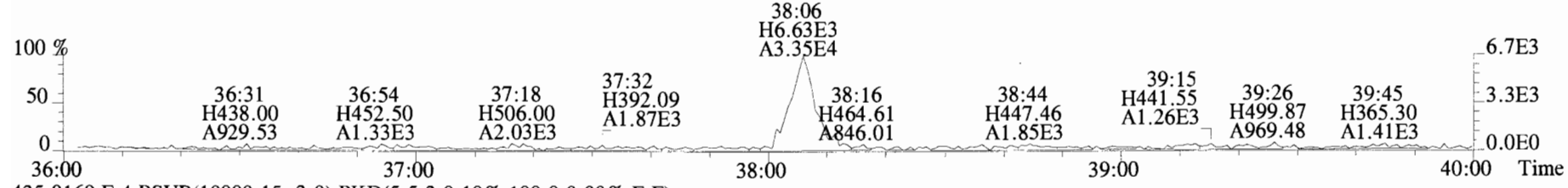
File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



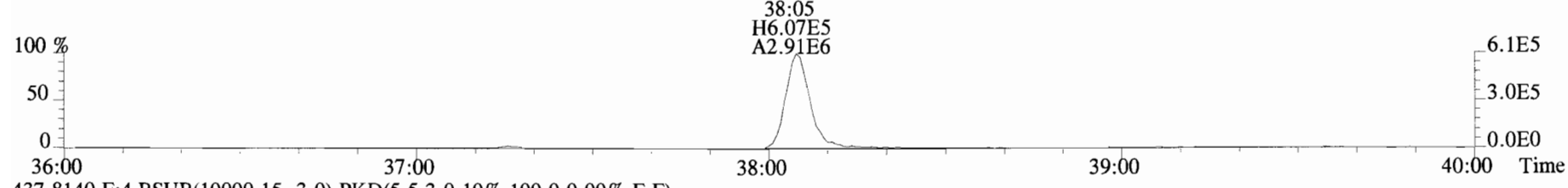
File:191009D1 #1-355 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
 423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



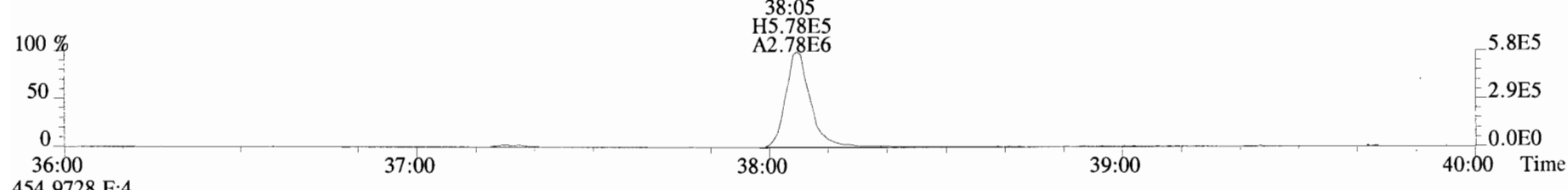
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



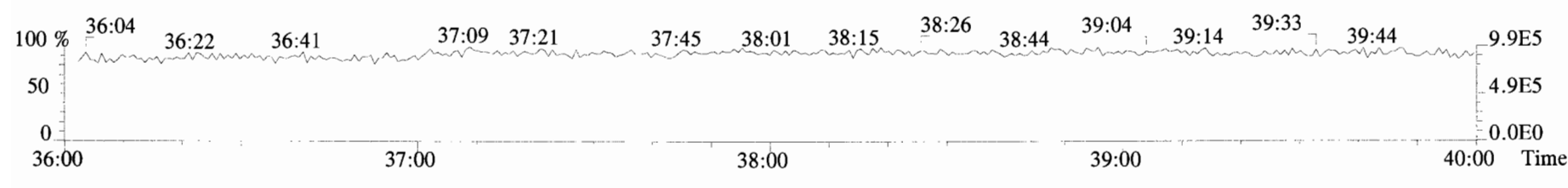
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



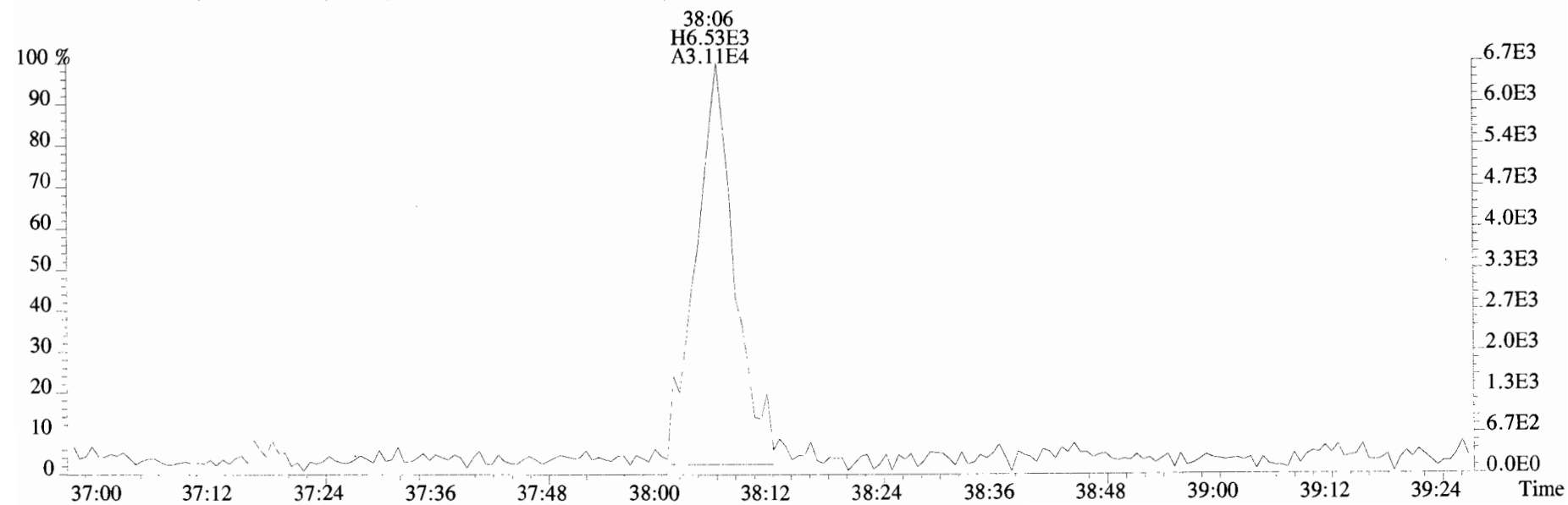
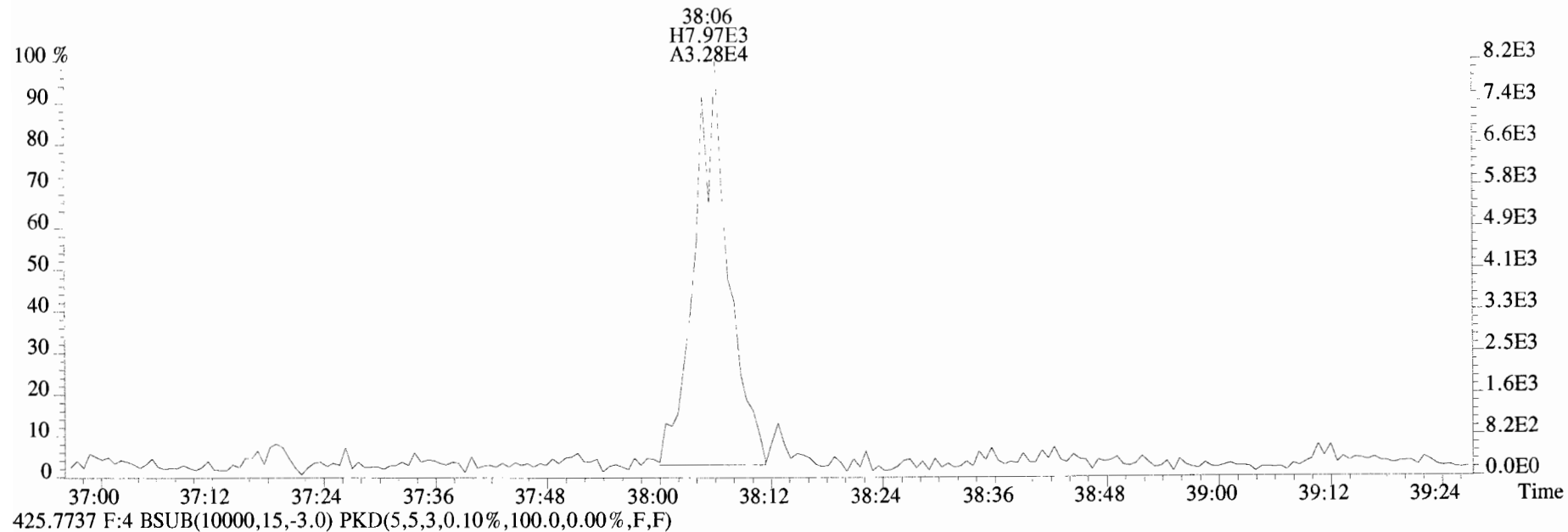
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



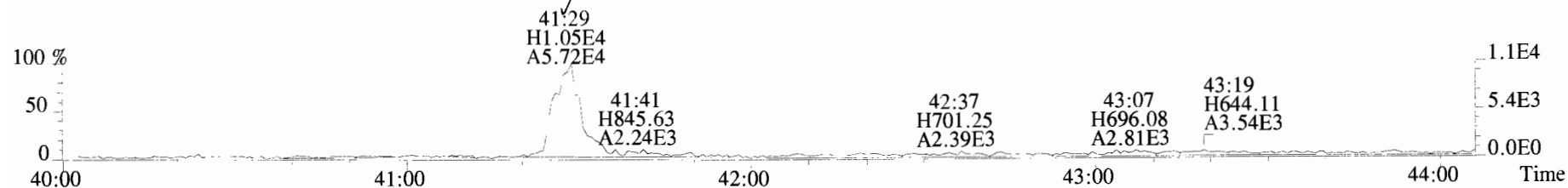
454.9728 F:4



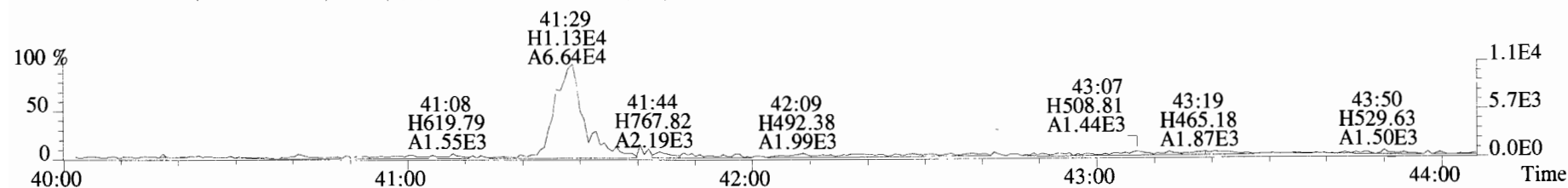
File:191009D1 #1-355 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



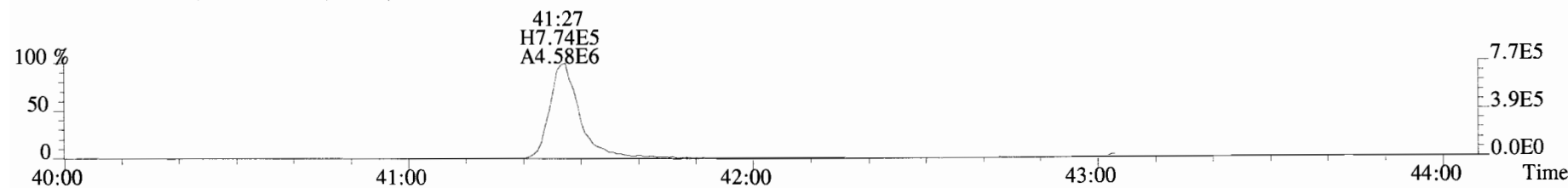
File:191009D1 #1-432 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



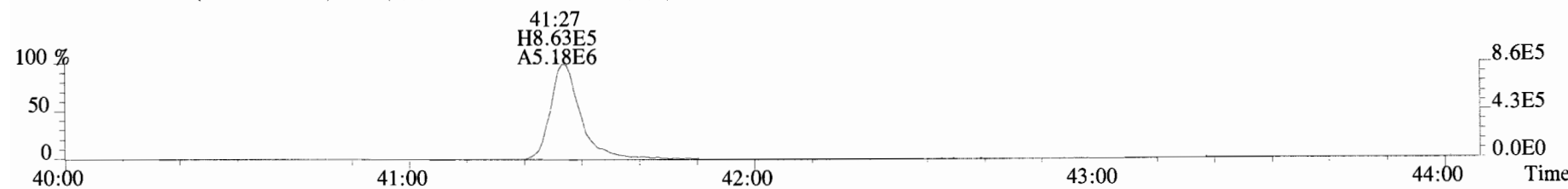
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



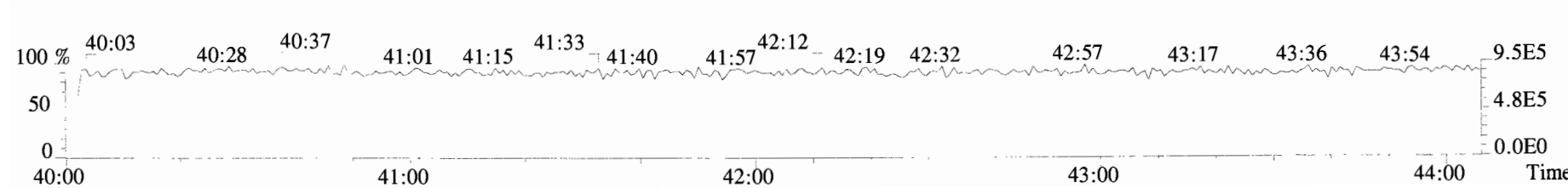
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

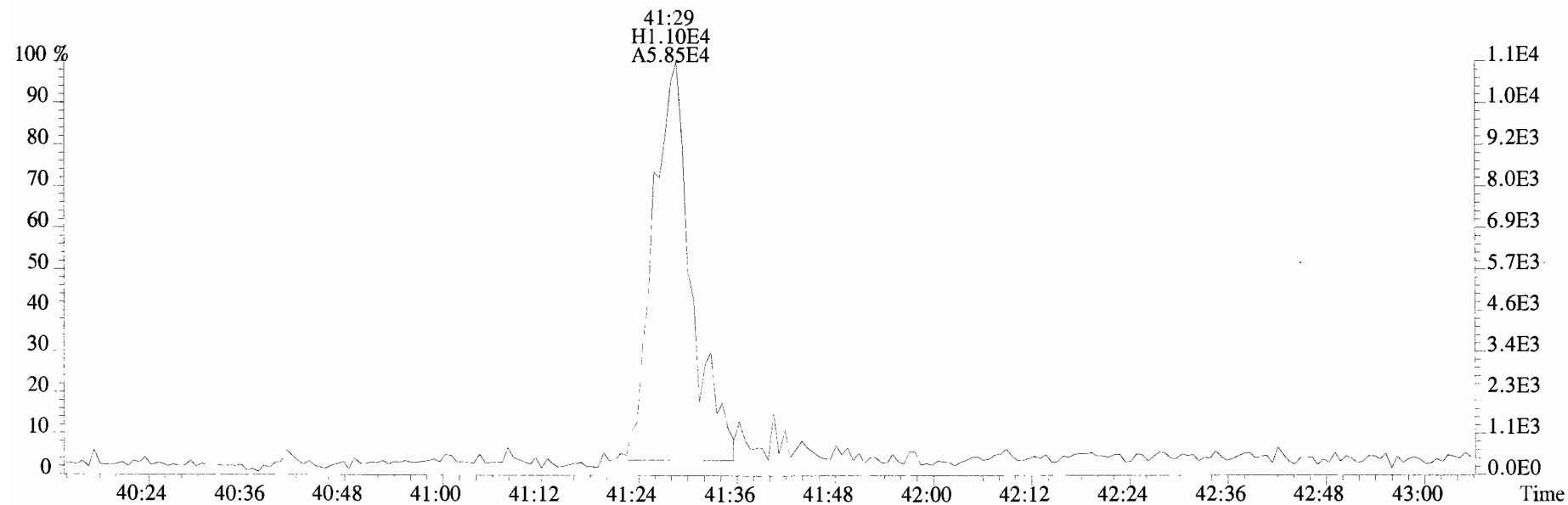
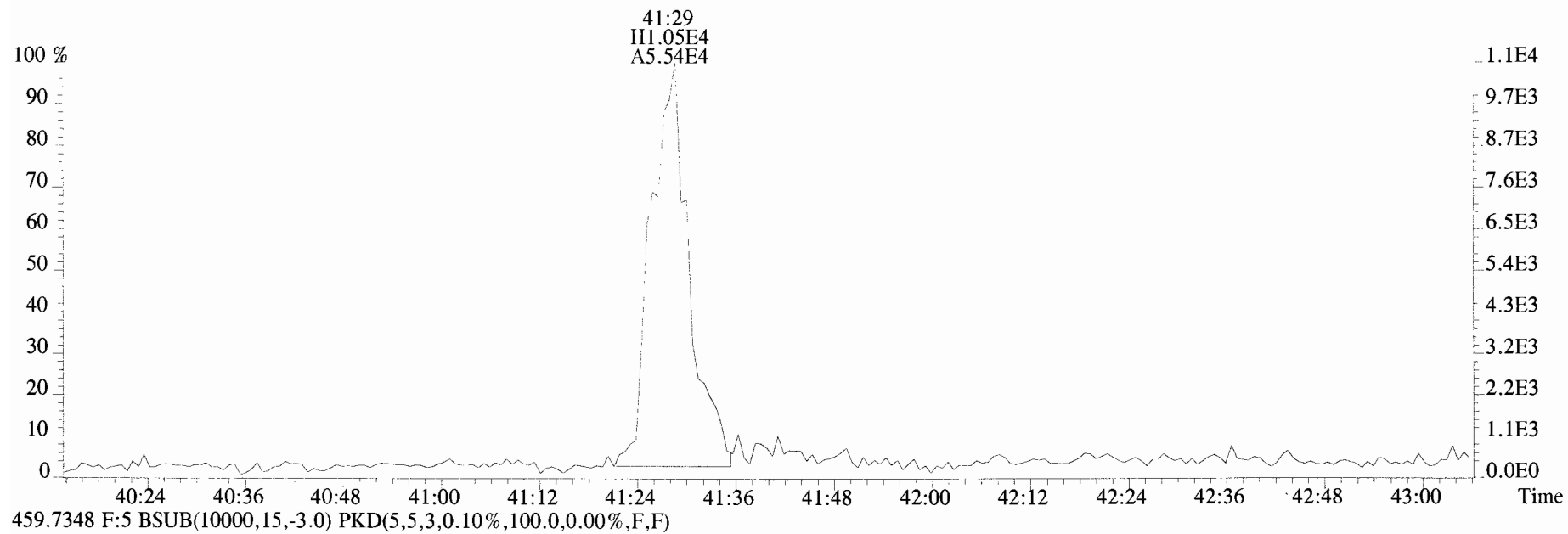


454.9728 F:5

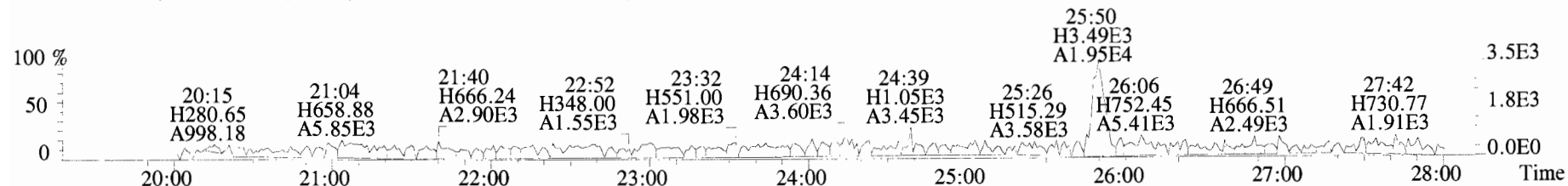




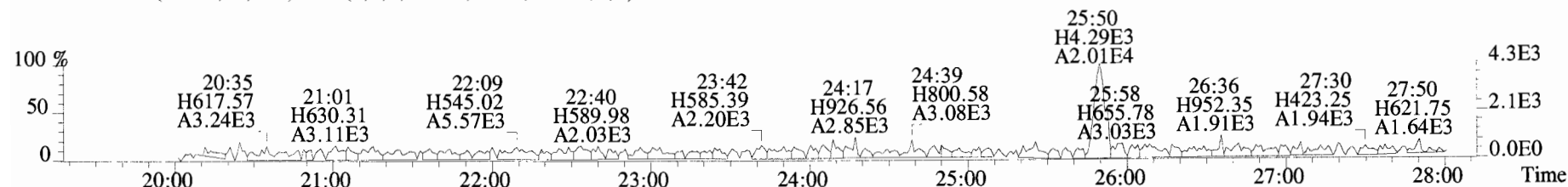
File:191009D1 #1-432 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



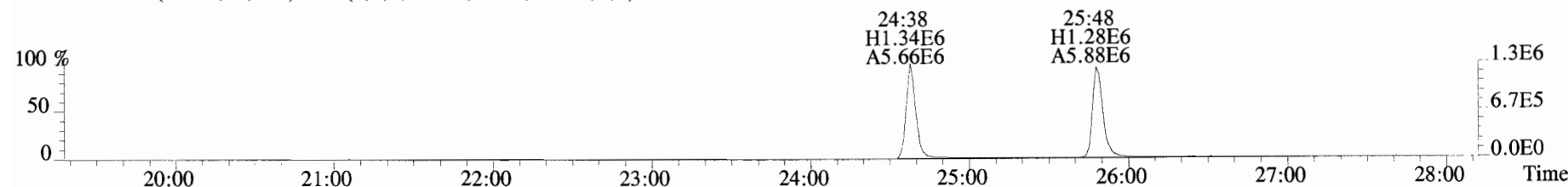
File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



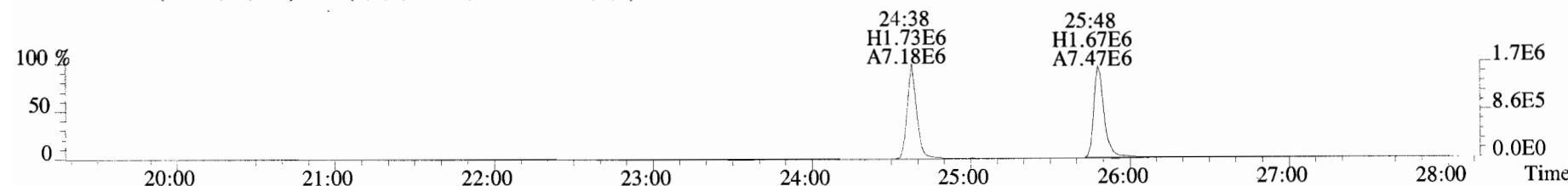
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



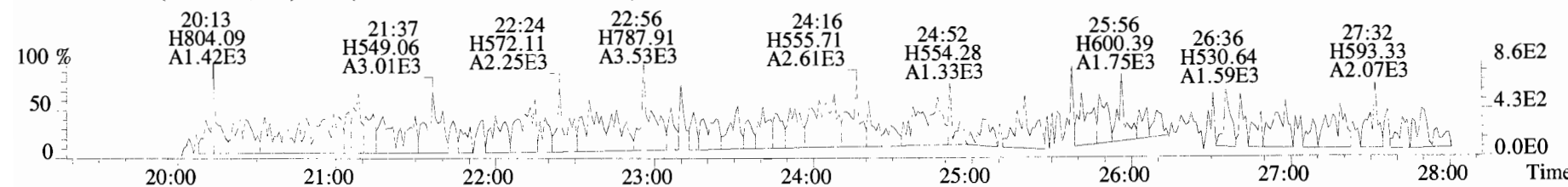
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



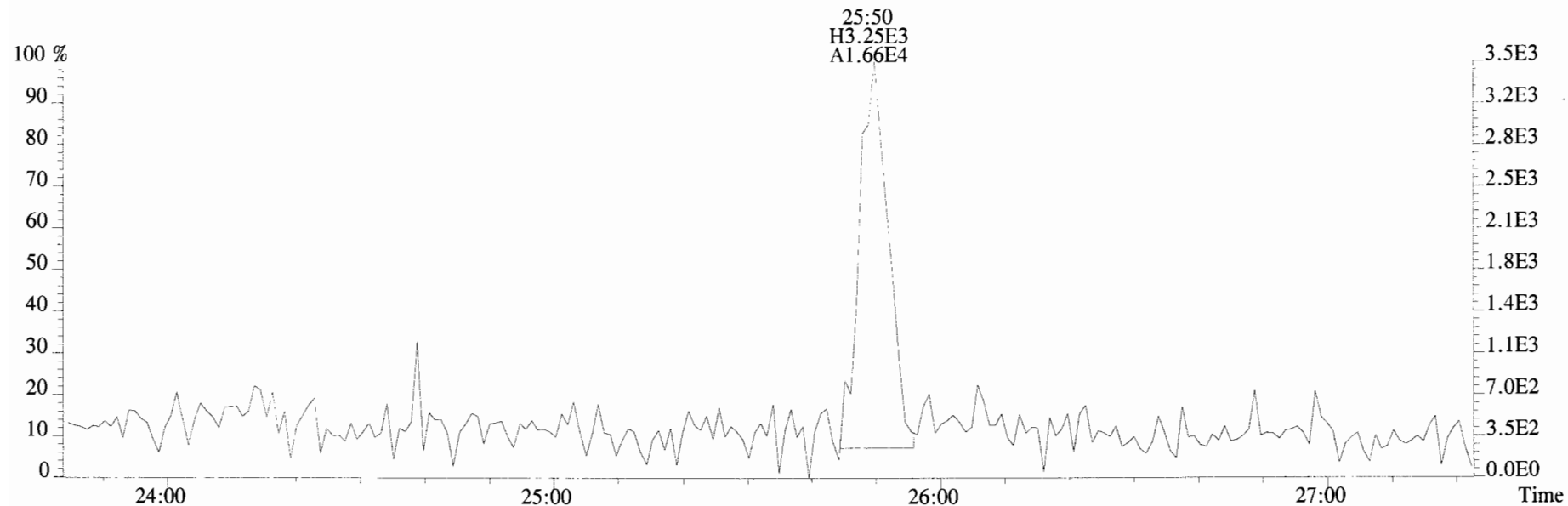
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



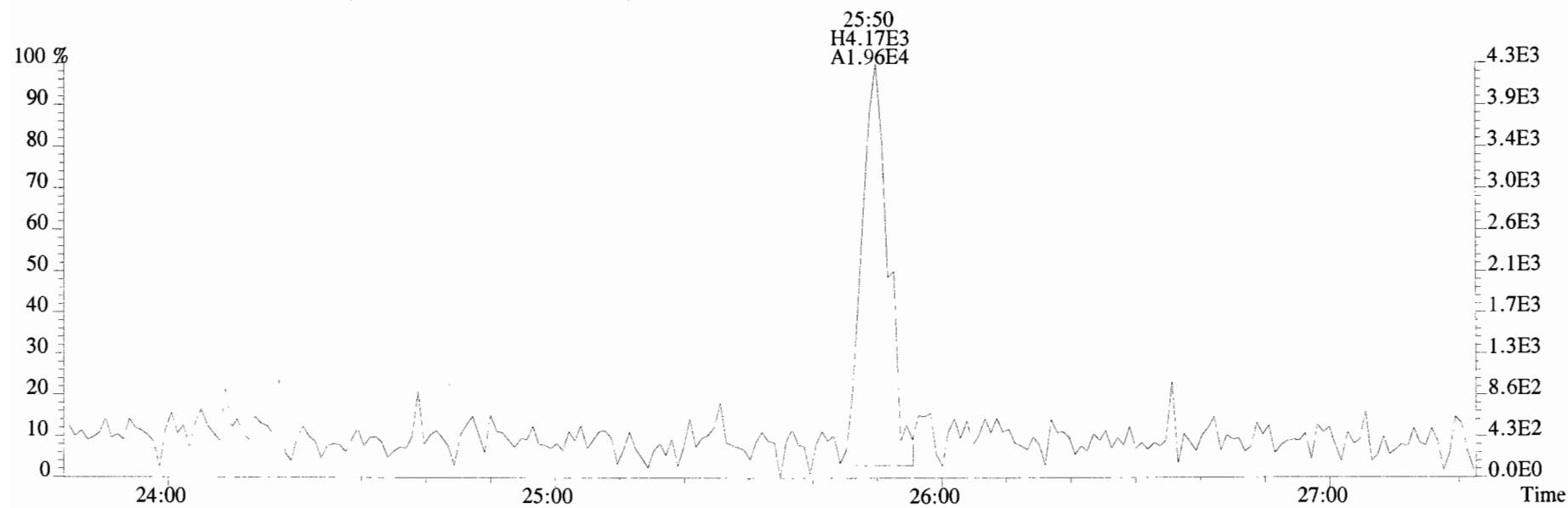
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



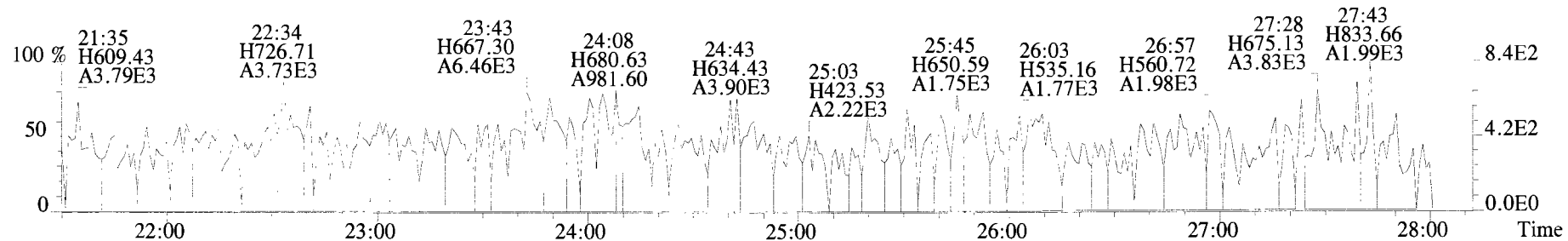
File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



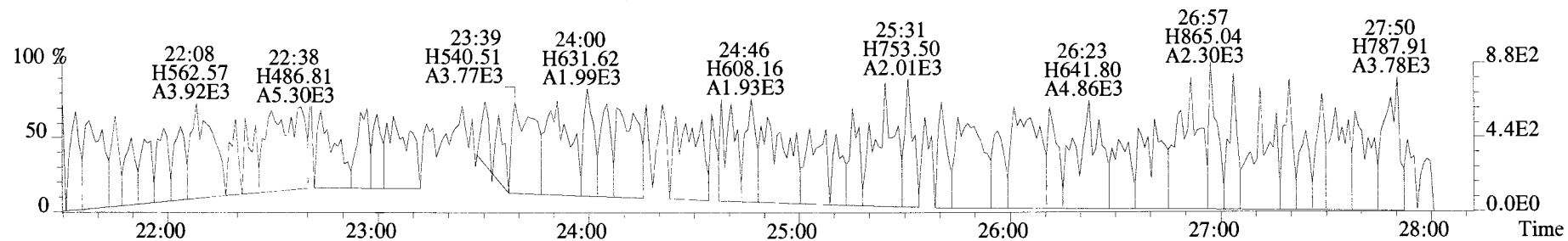
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



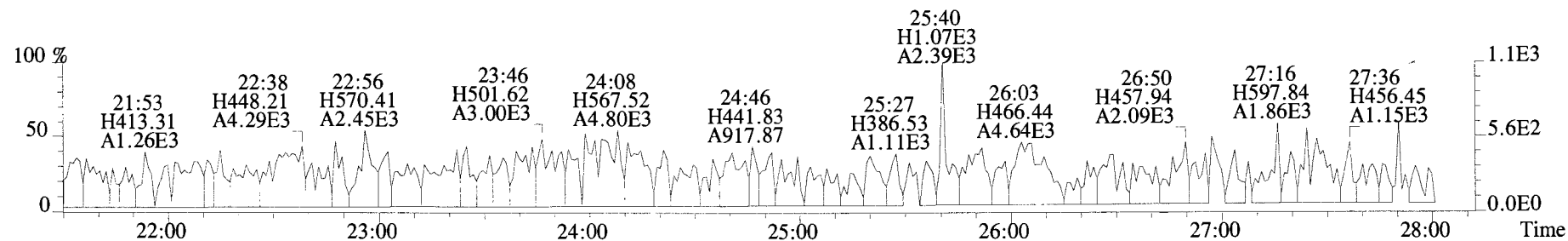
File:191009D1 #1-514 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
 339.8597 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



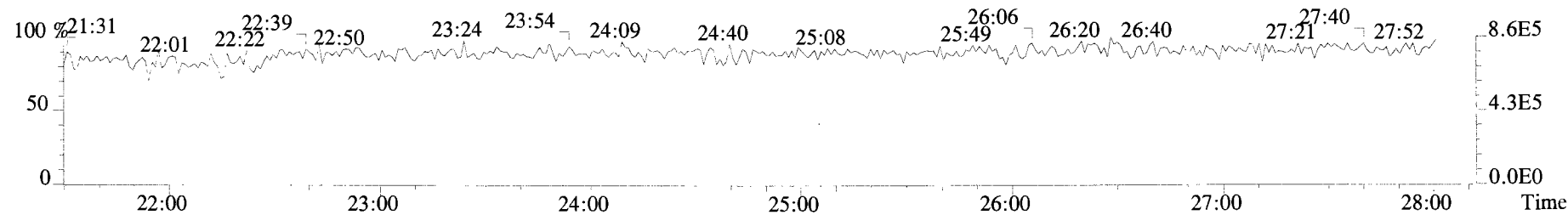
341.8568 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



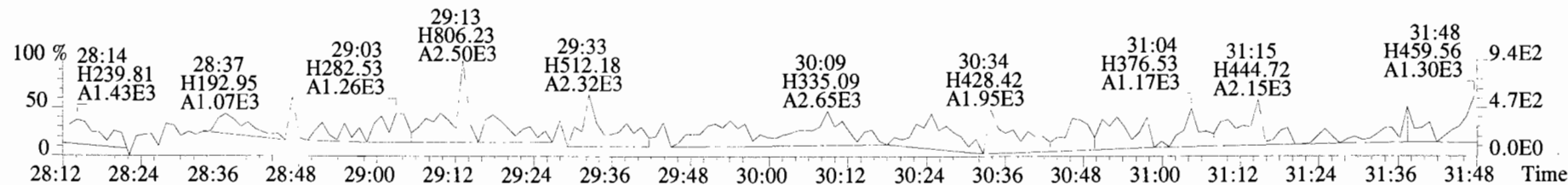
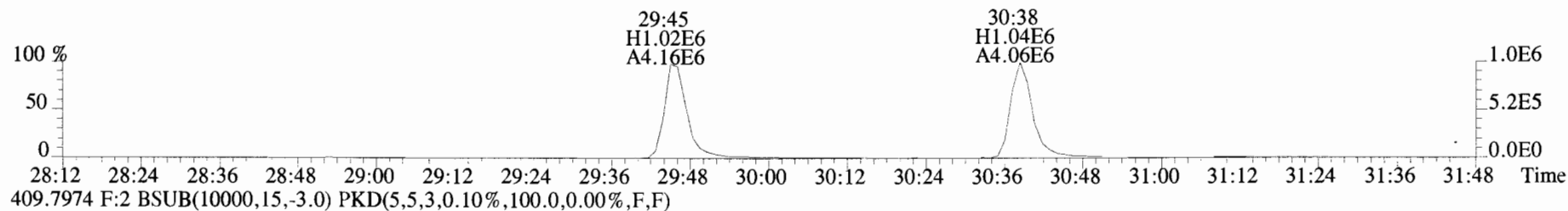
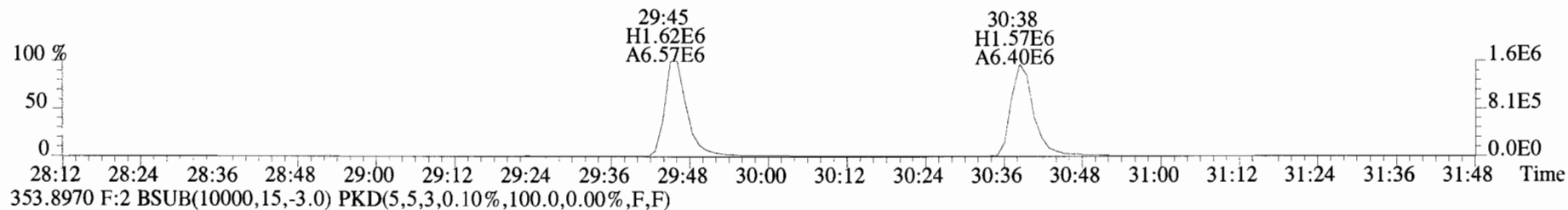
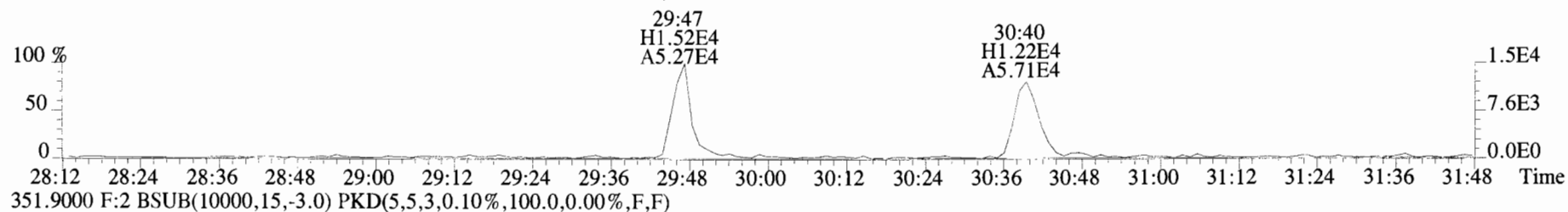
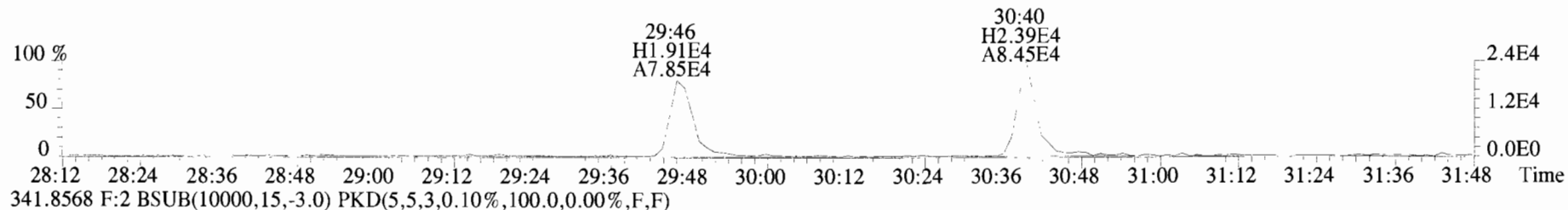
409.7974 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



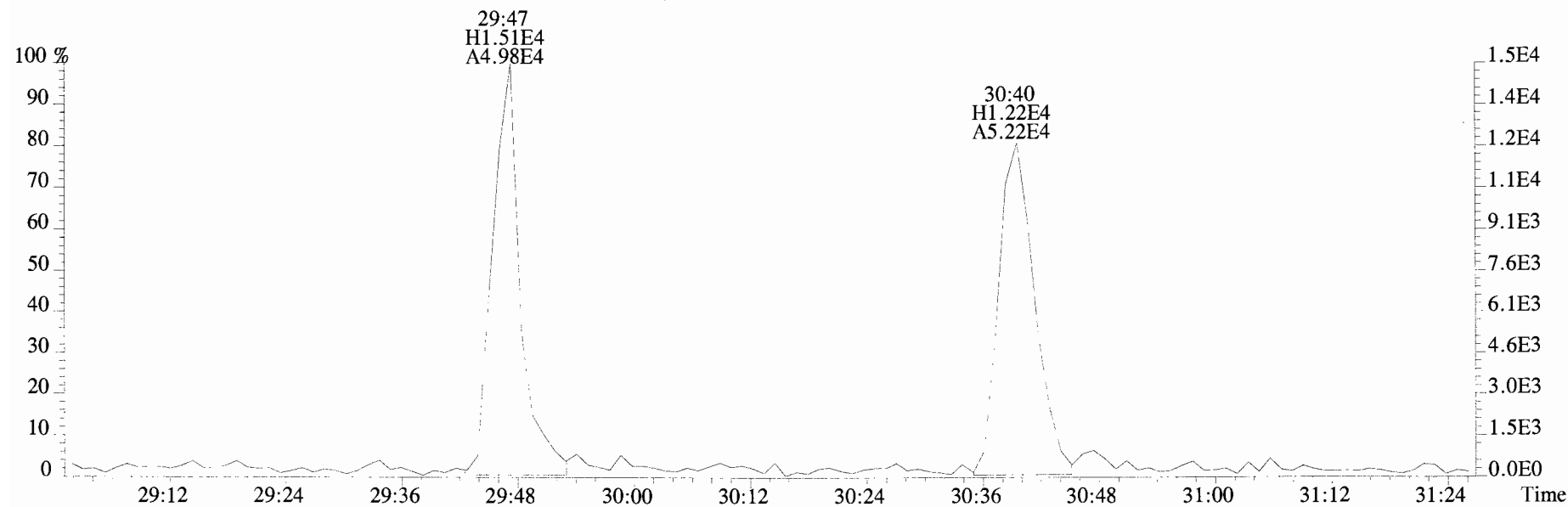
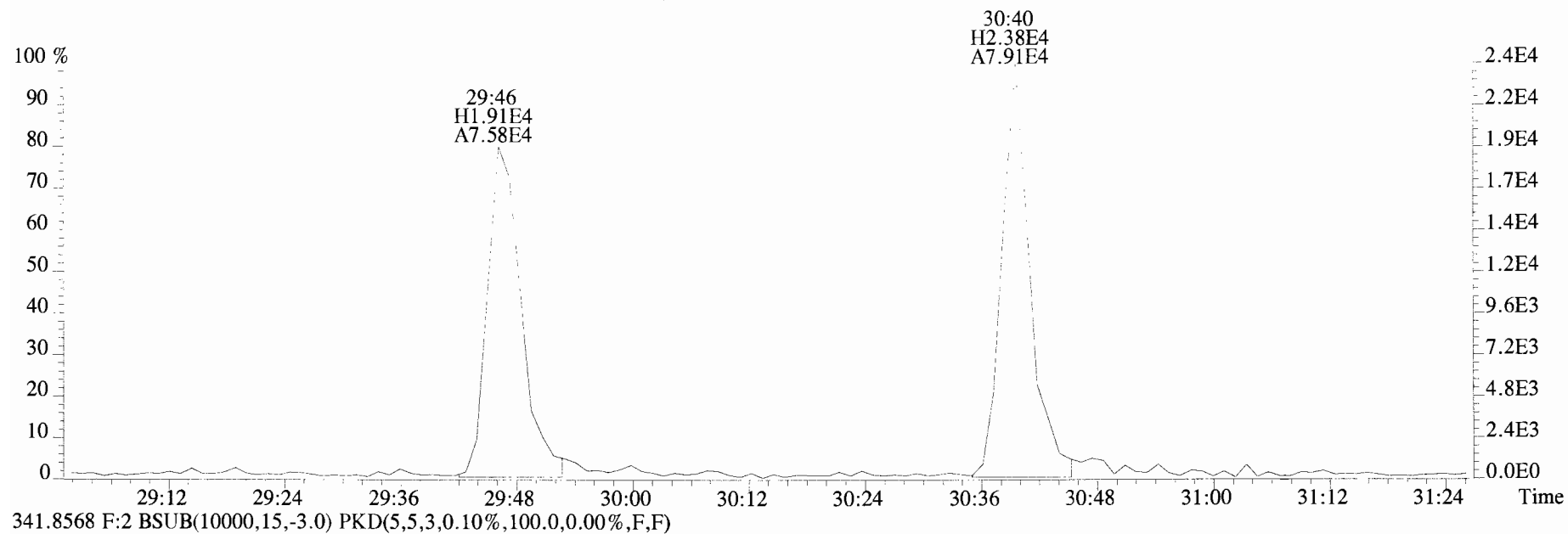
316.9824



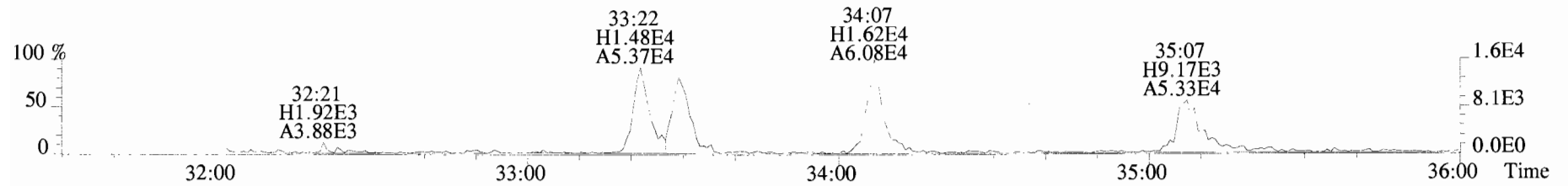
File:191009D1 #1-210 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



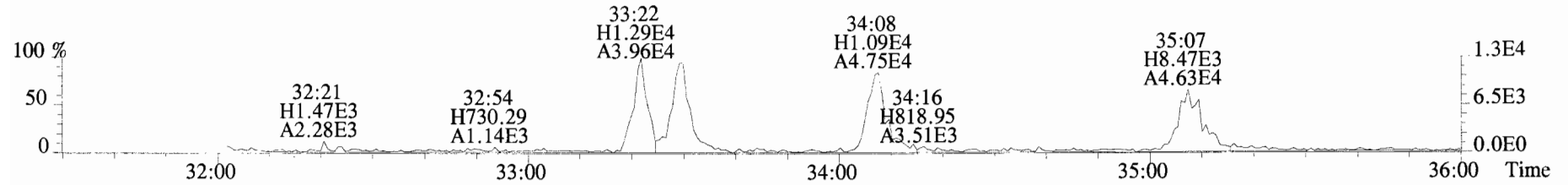
File:191009D1 #1-210 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



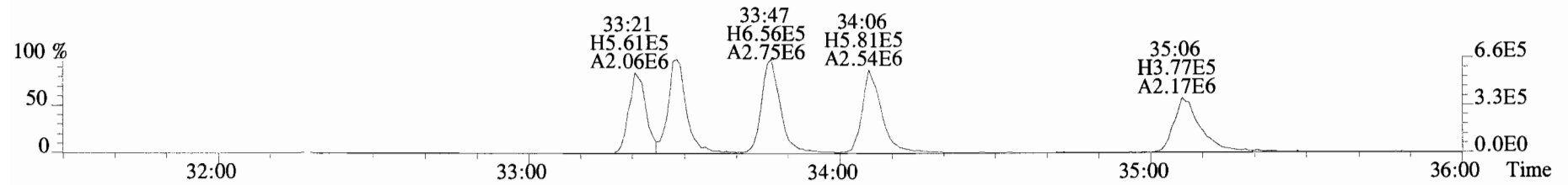
File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



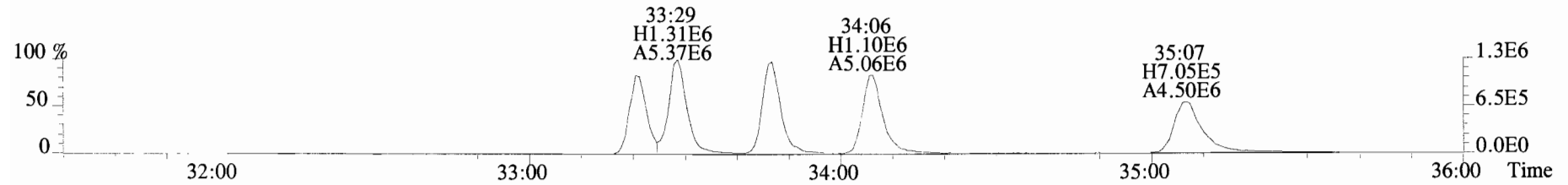
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



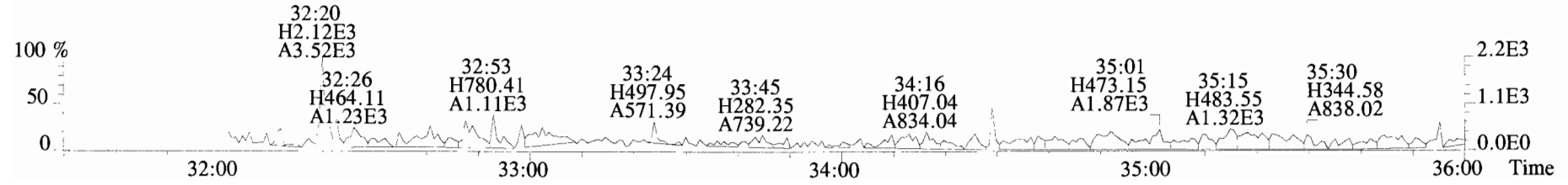
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



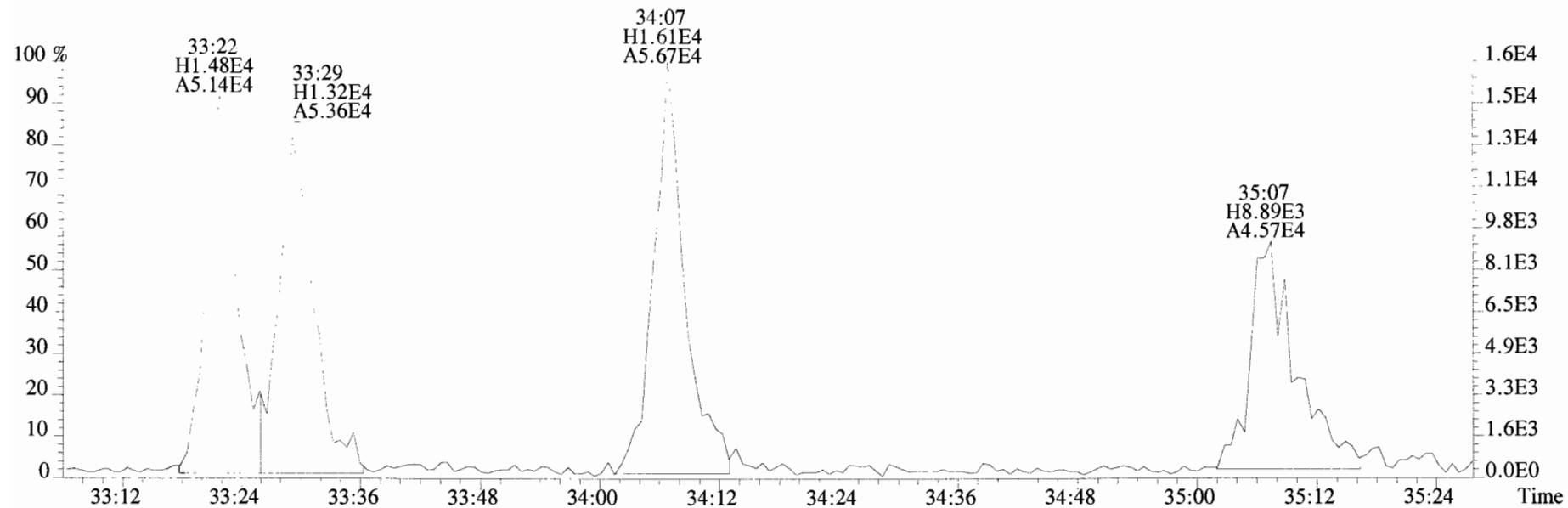
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



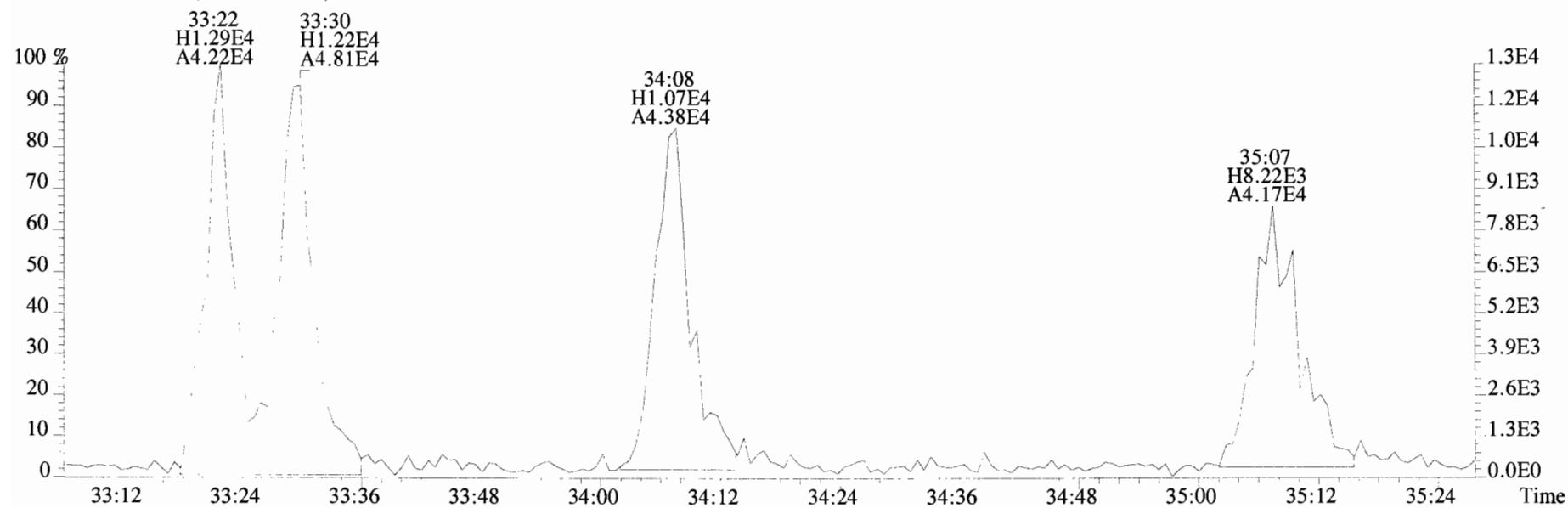
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical\_Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
373.8207 F:3 BSUB(10000,15,-3.0)

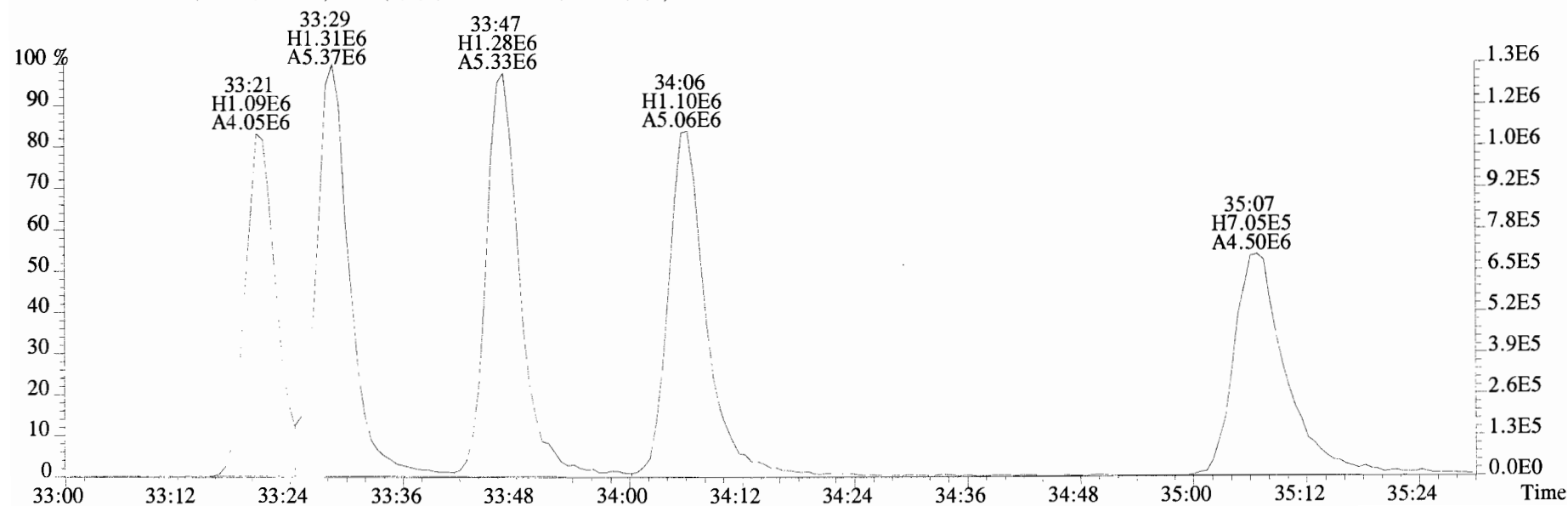
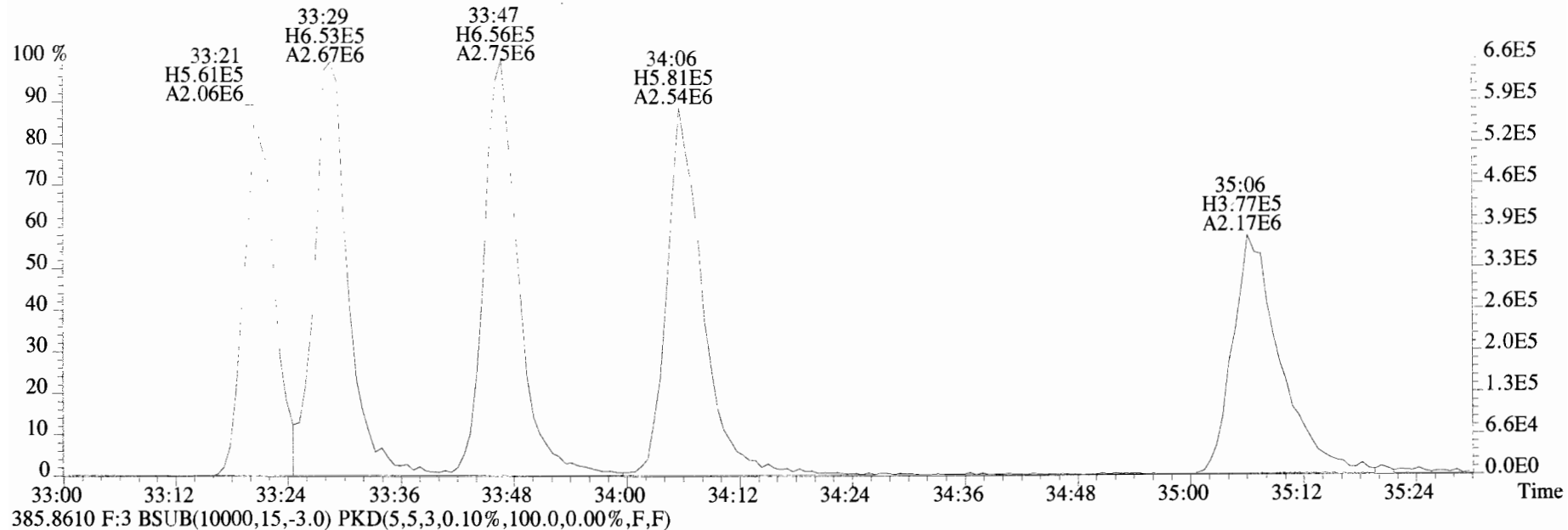


375.8178 F:3 BSUB(10000,15,-3.0)

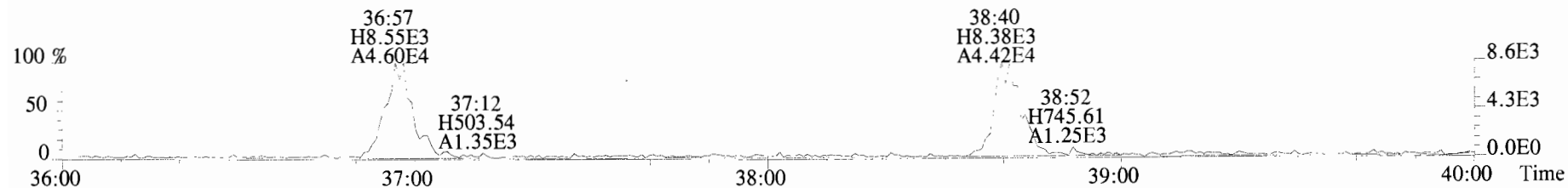




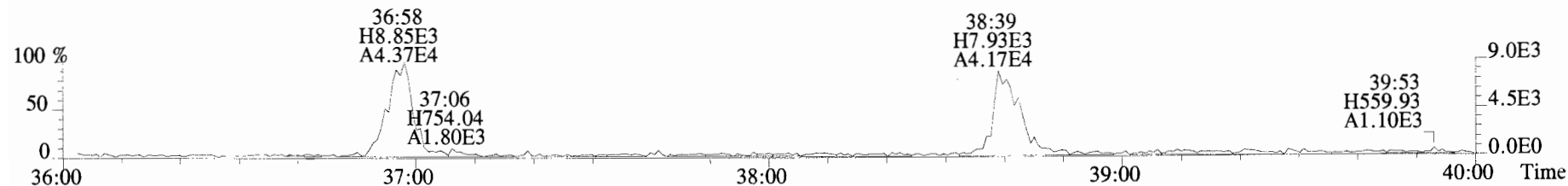
File:191009D1 #1-356 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



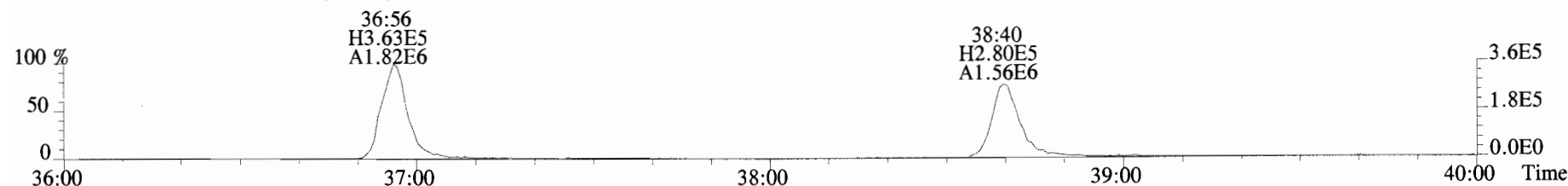
File:191009D1 #1-355 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



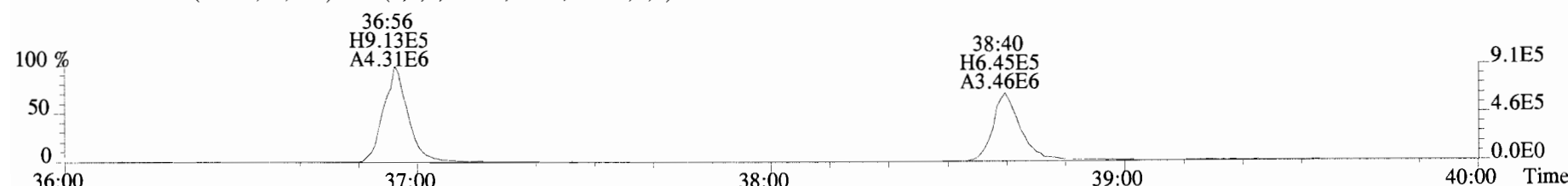
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



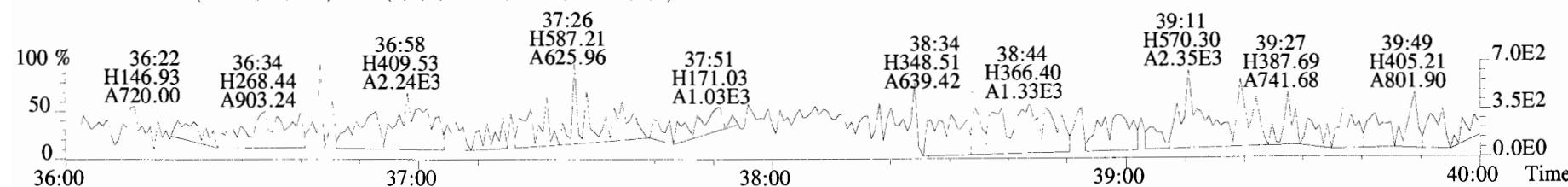
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



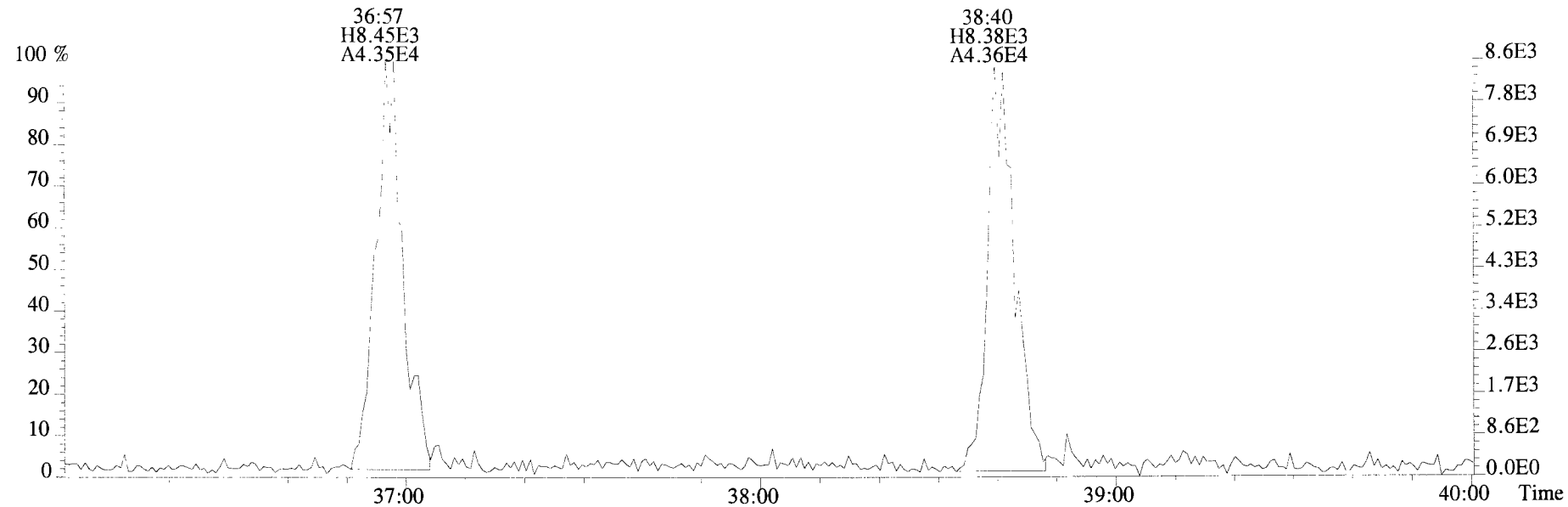
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



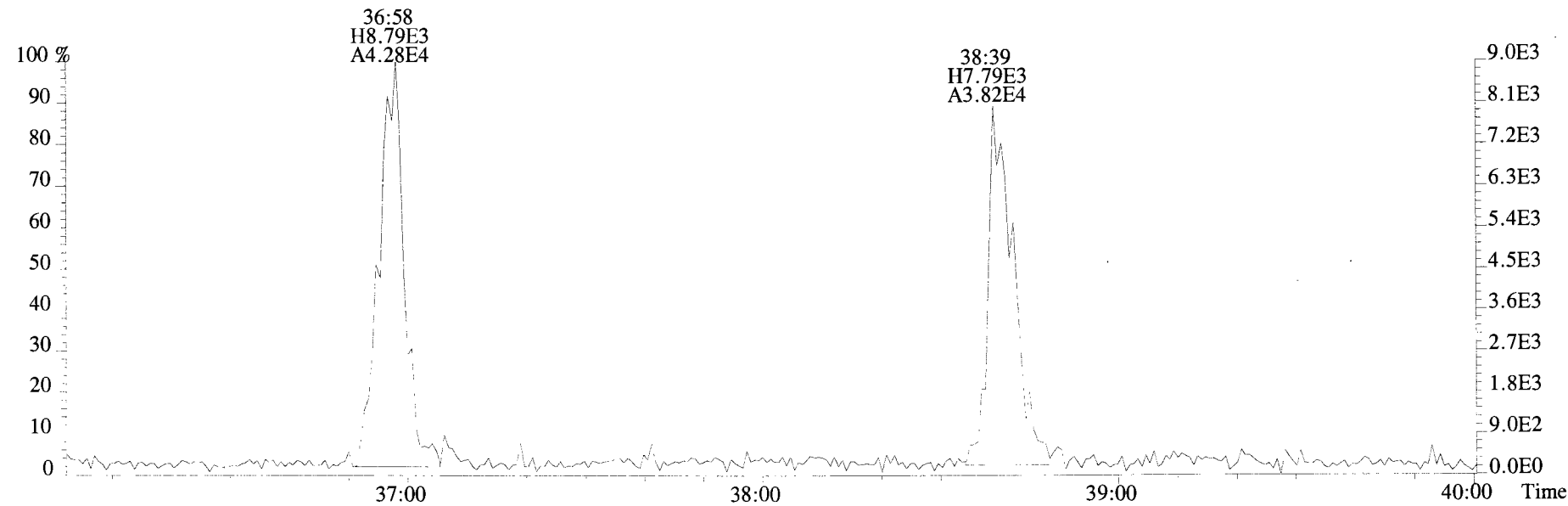
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



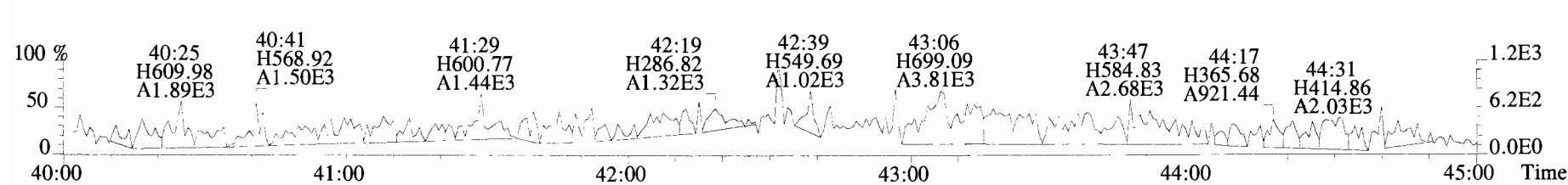
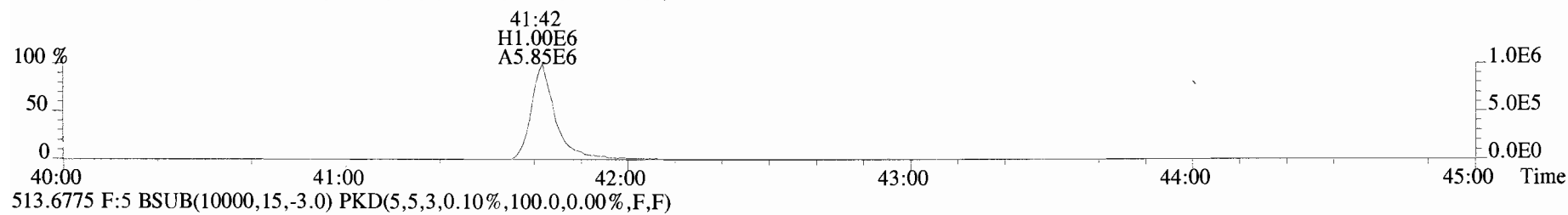
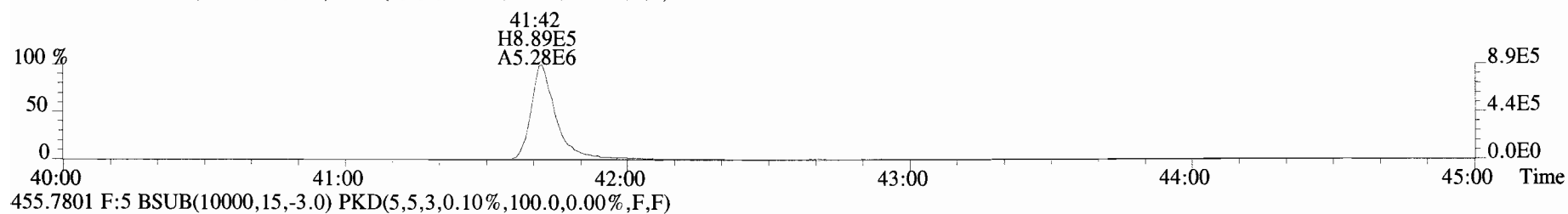
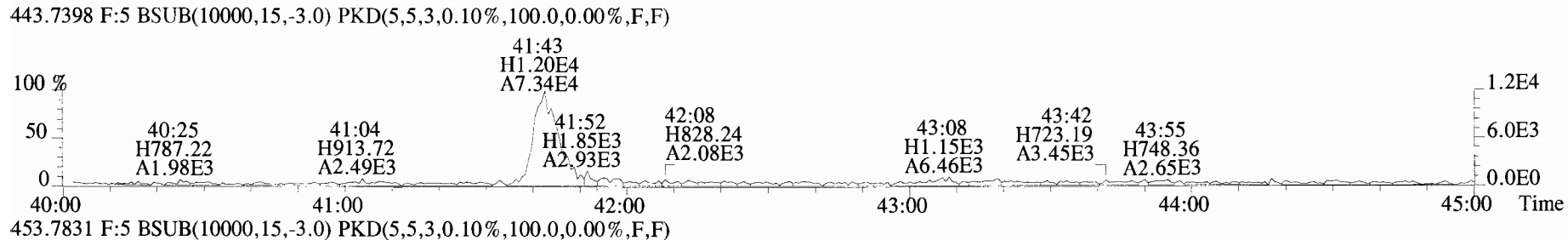
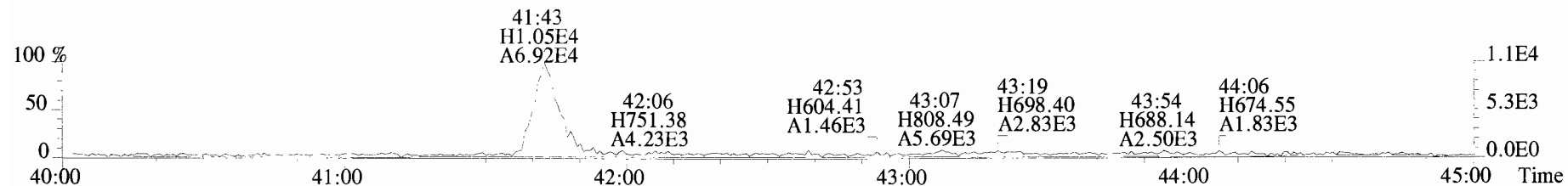
File:191009D1 #1-355 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



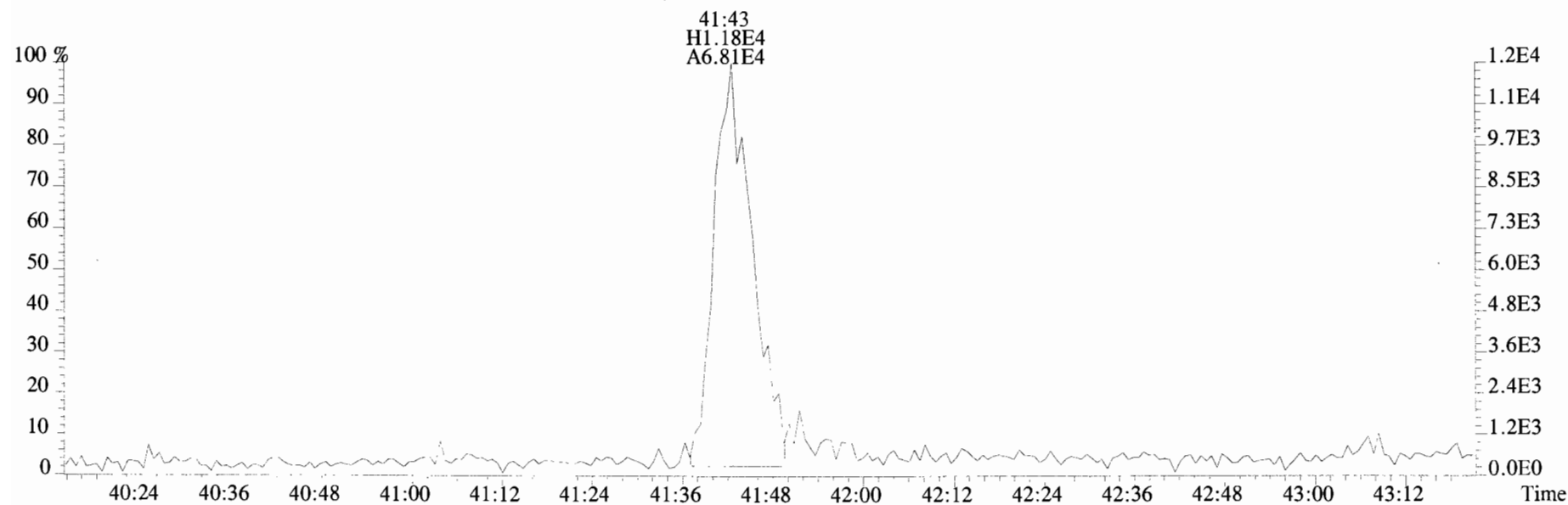
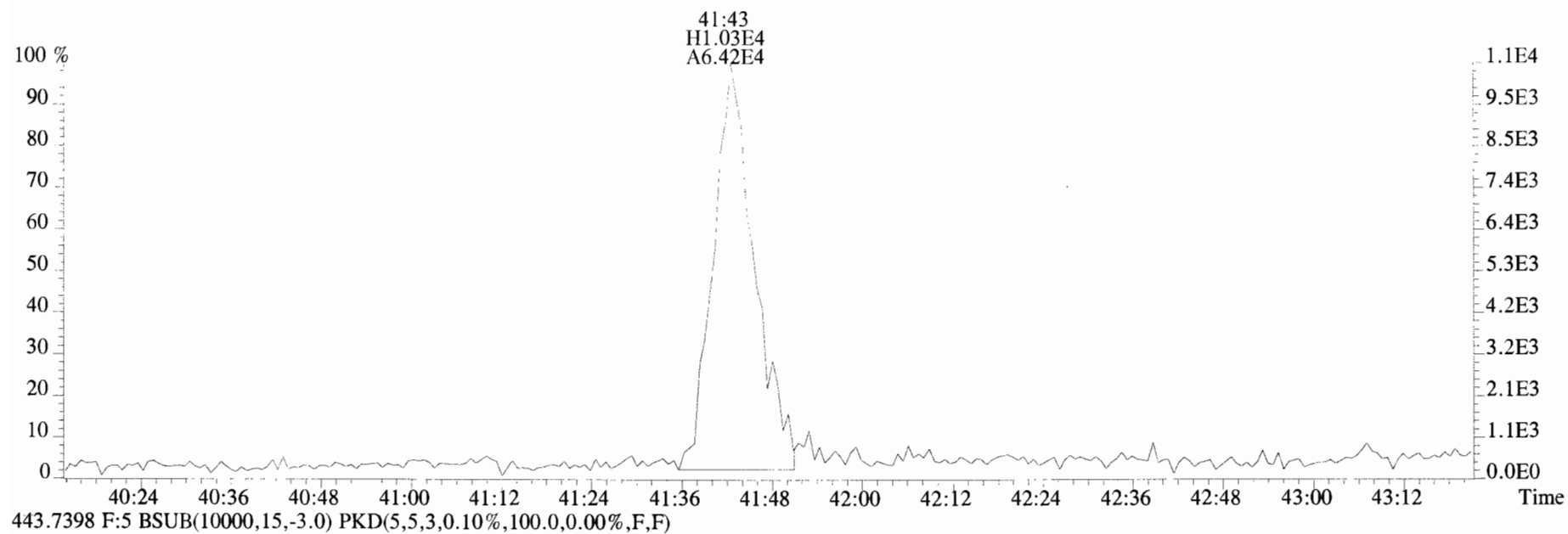
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



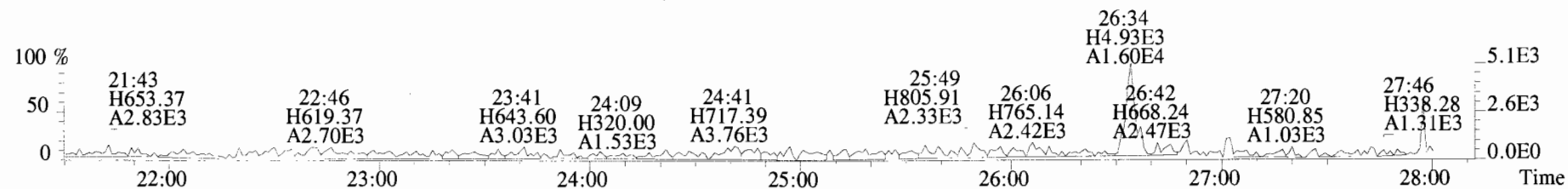
File:191009D1 #1-432 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



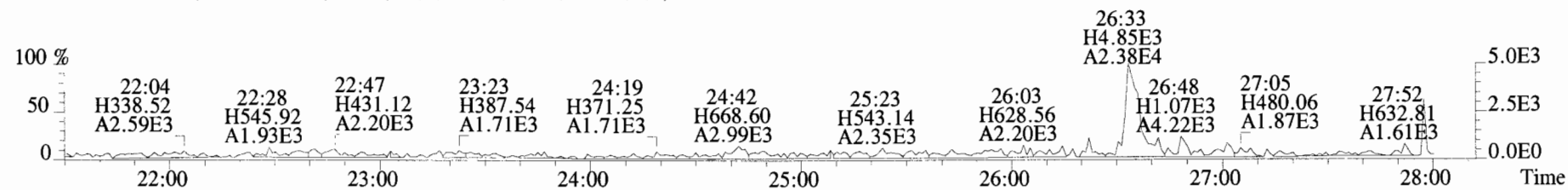
File:191009D1 #1-432 Acq: 9-OCT-2019 16:13:04 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-1 1613 CS0 19C2201 Exp:OCDD\_DB5  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



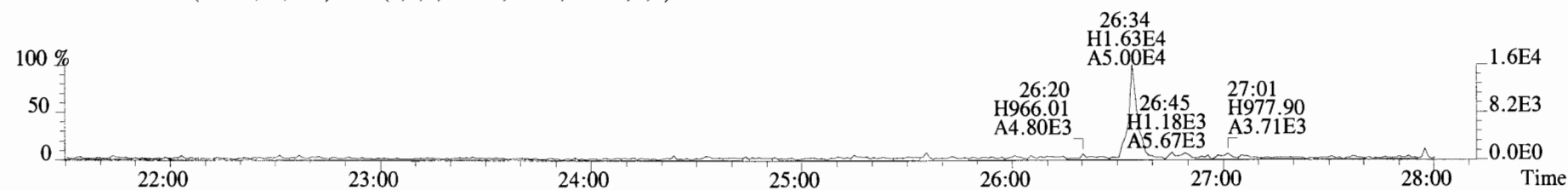
File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



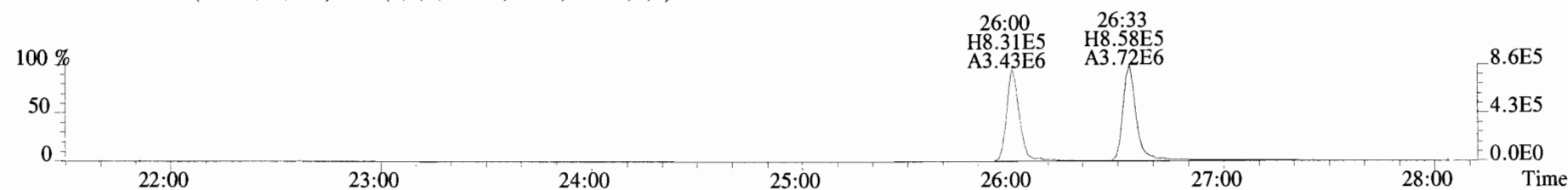
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



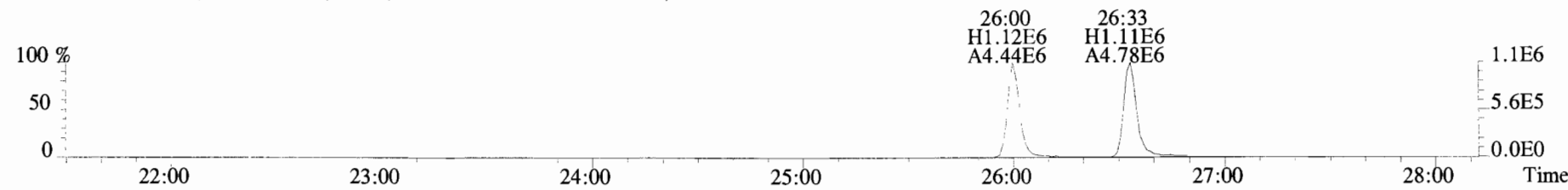
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



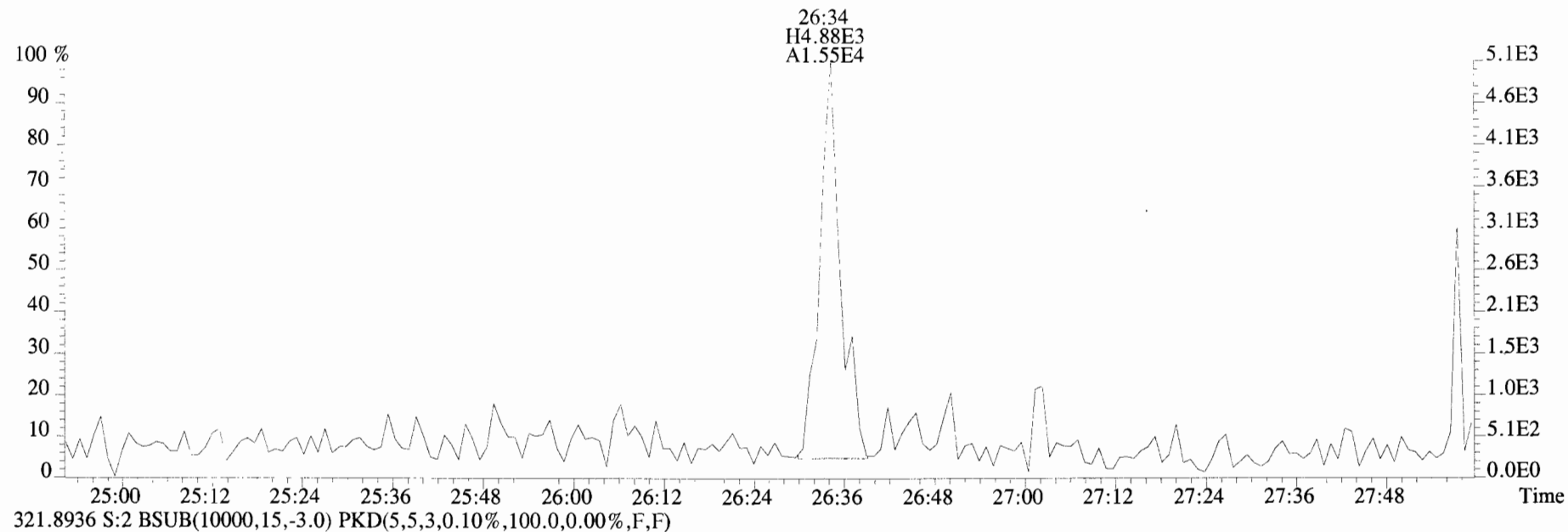
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



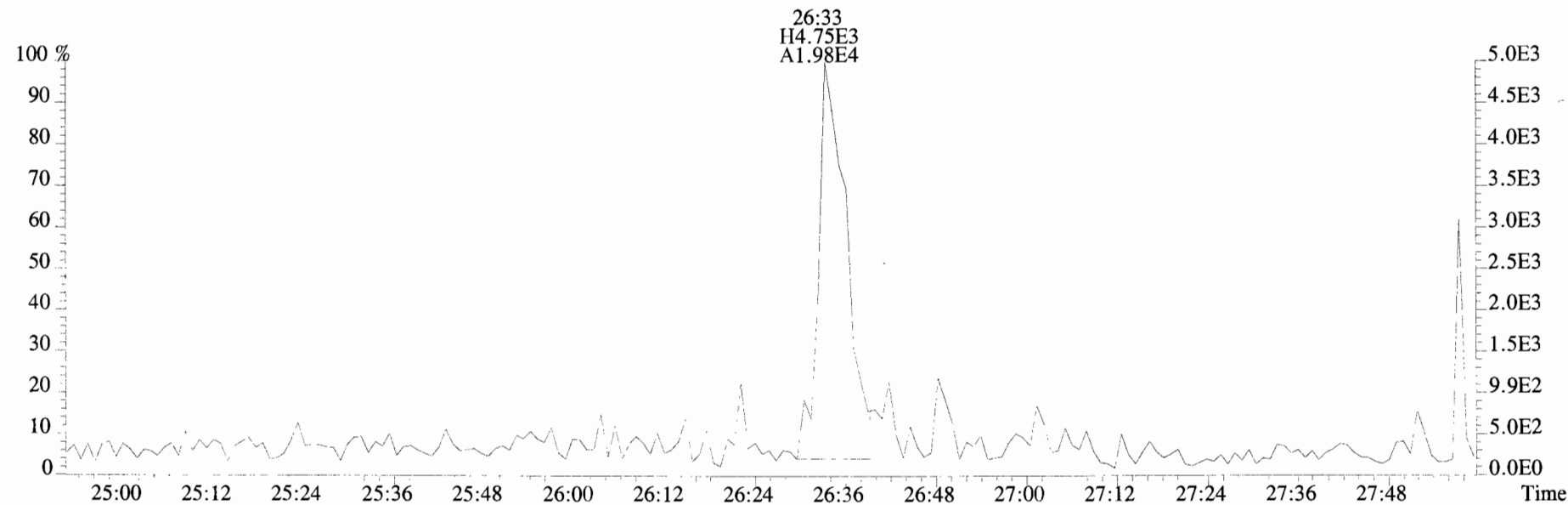
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



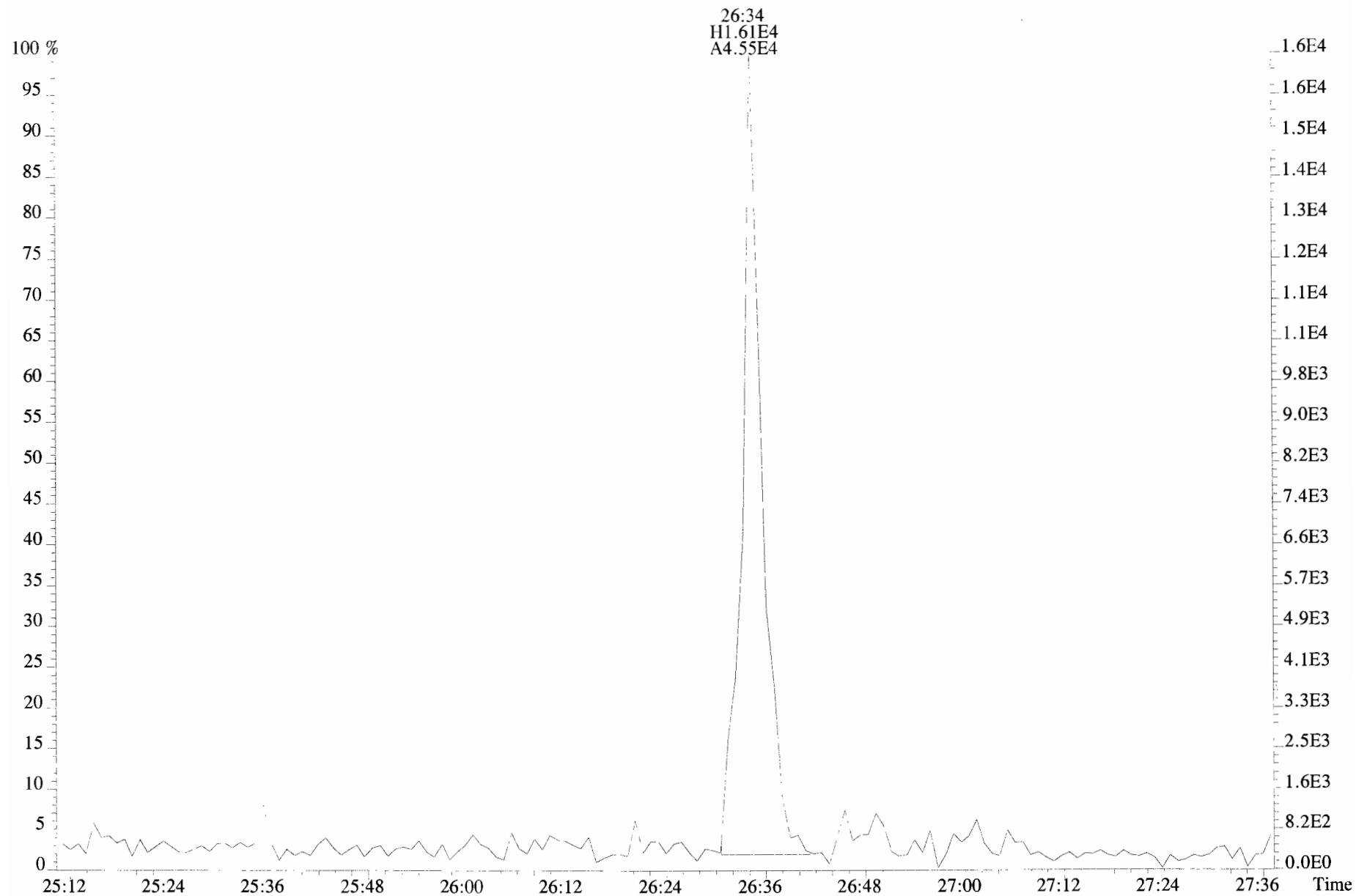
File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

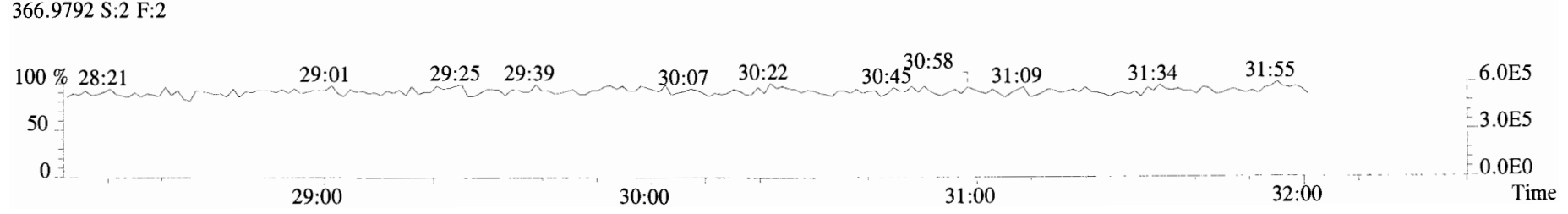
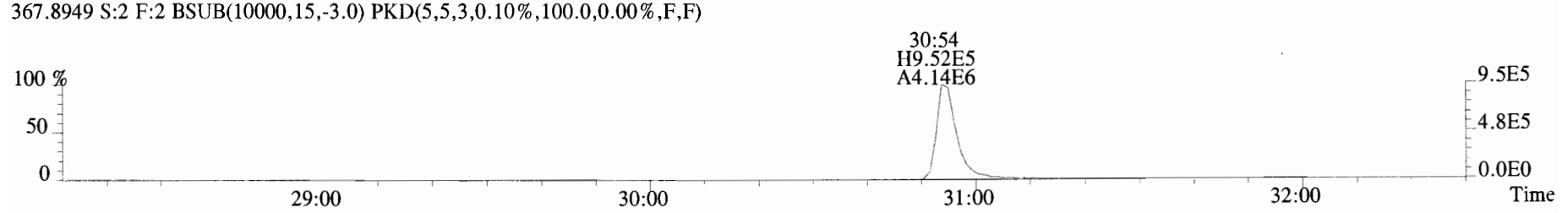
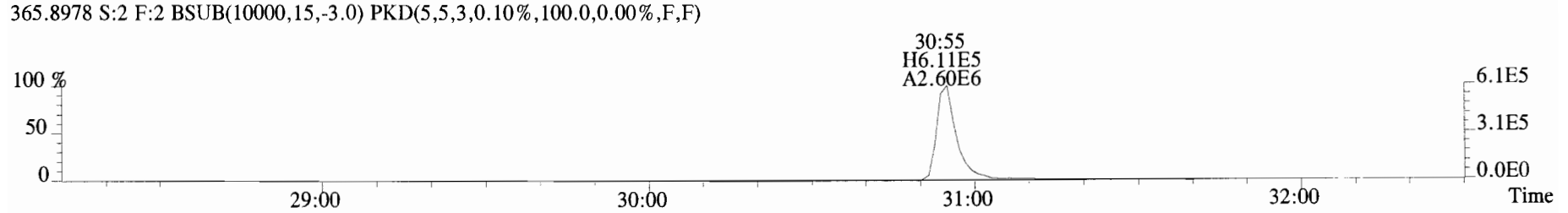
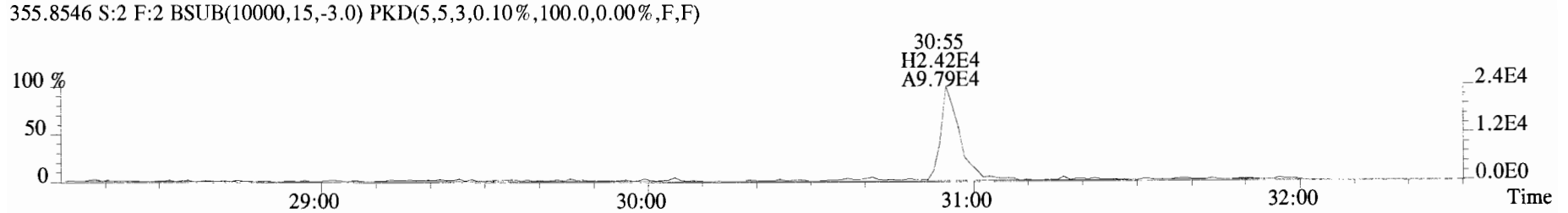
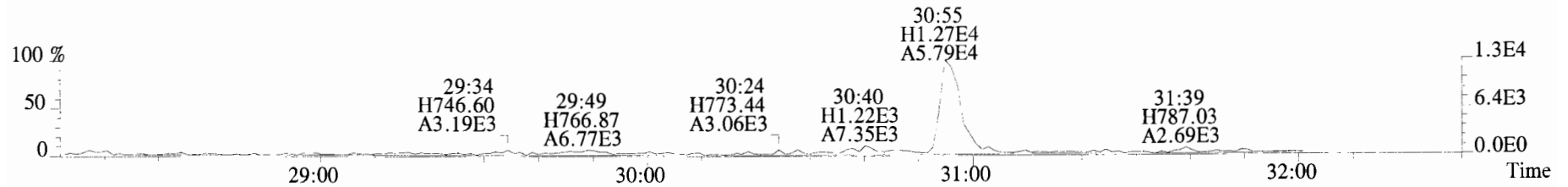


File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
327.8847 S:2 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

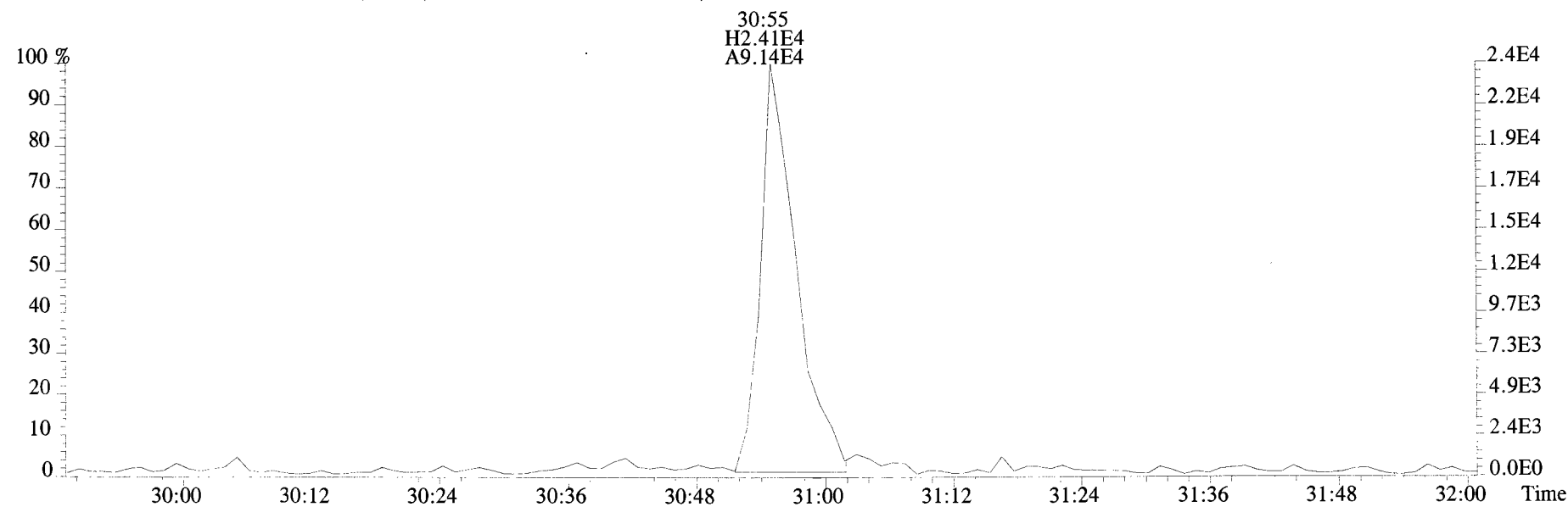
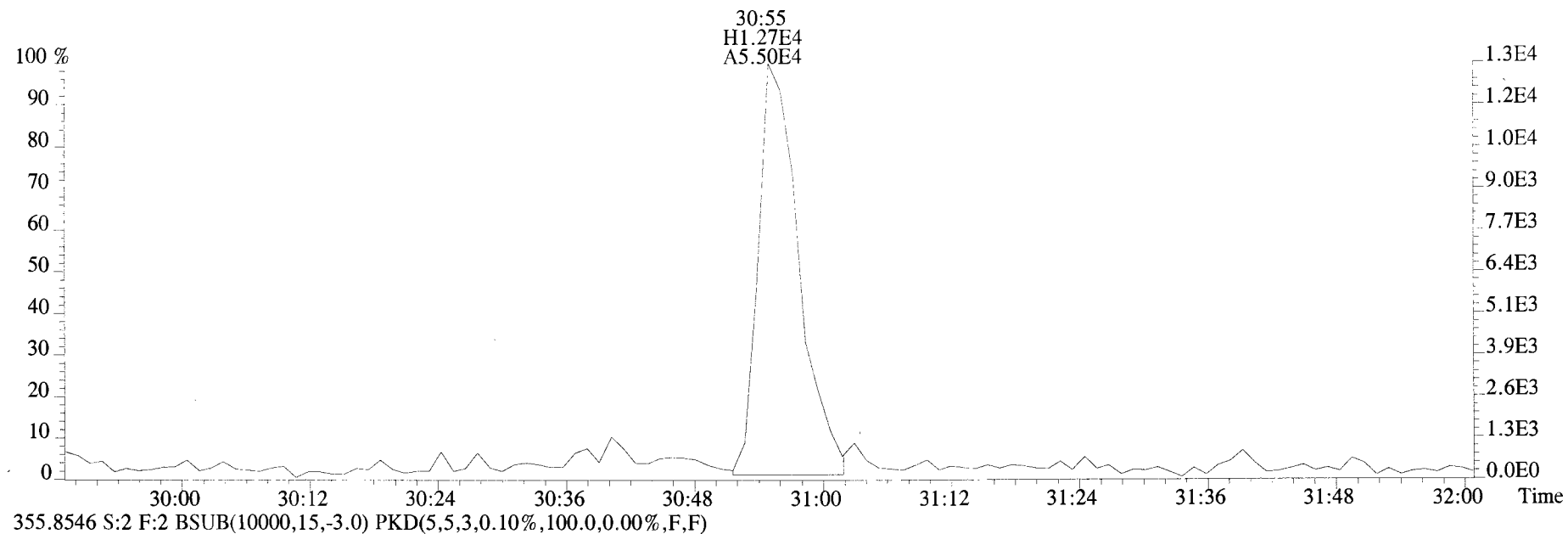




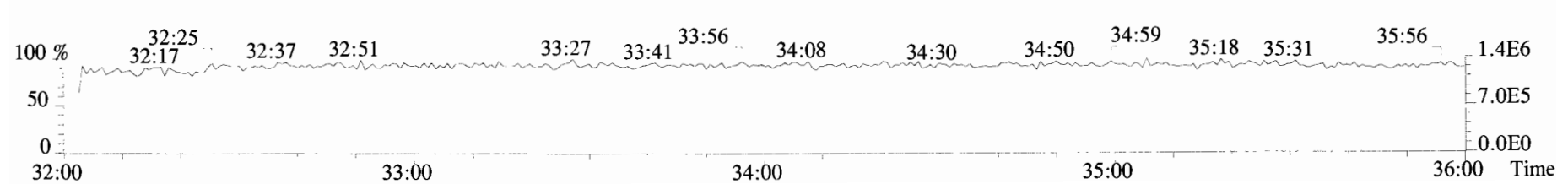
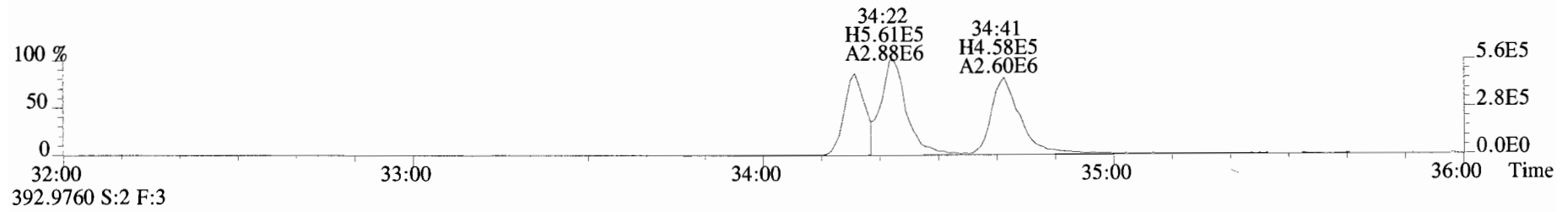
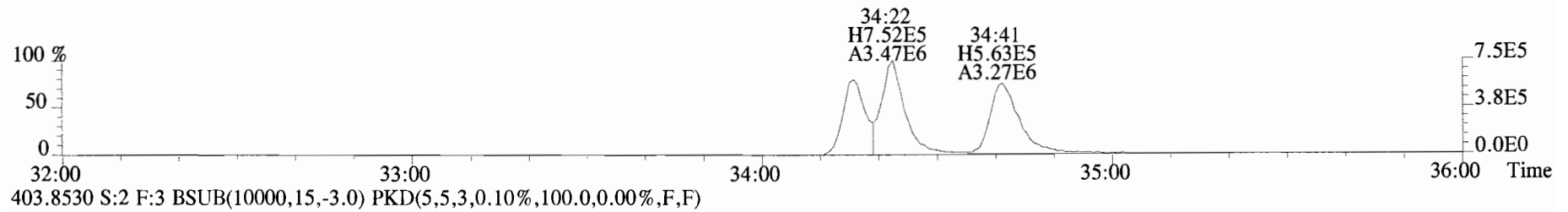
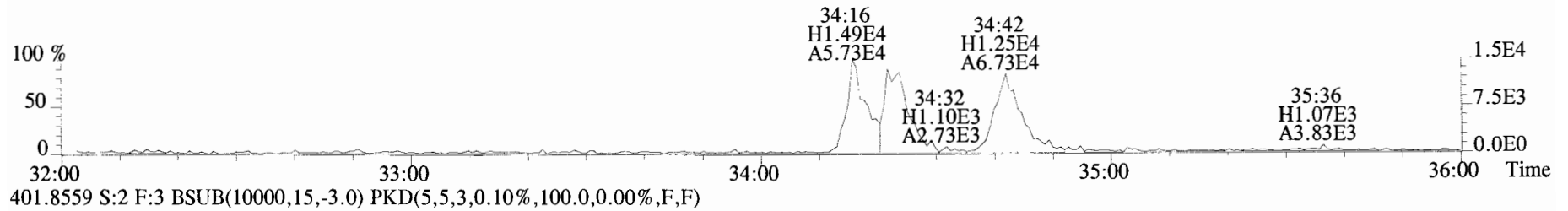
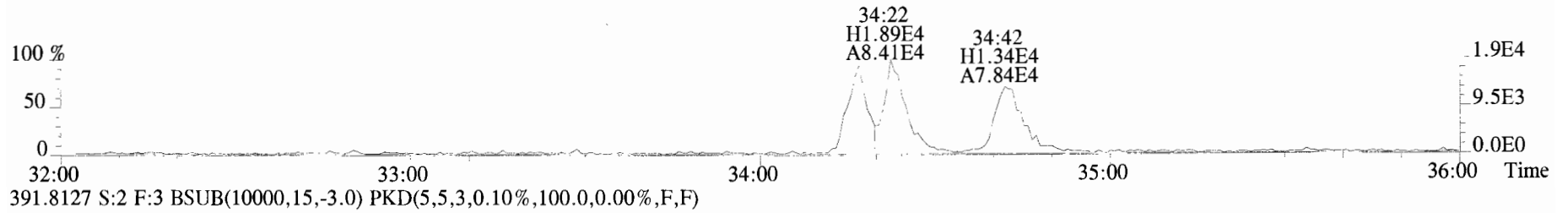
File:191009D1 #1-211 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text: Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



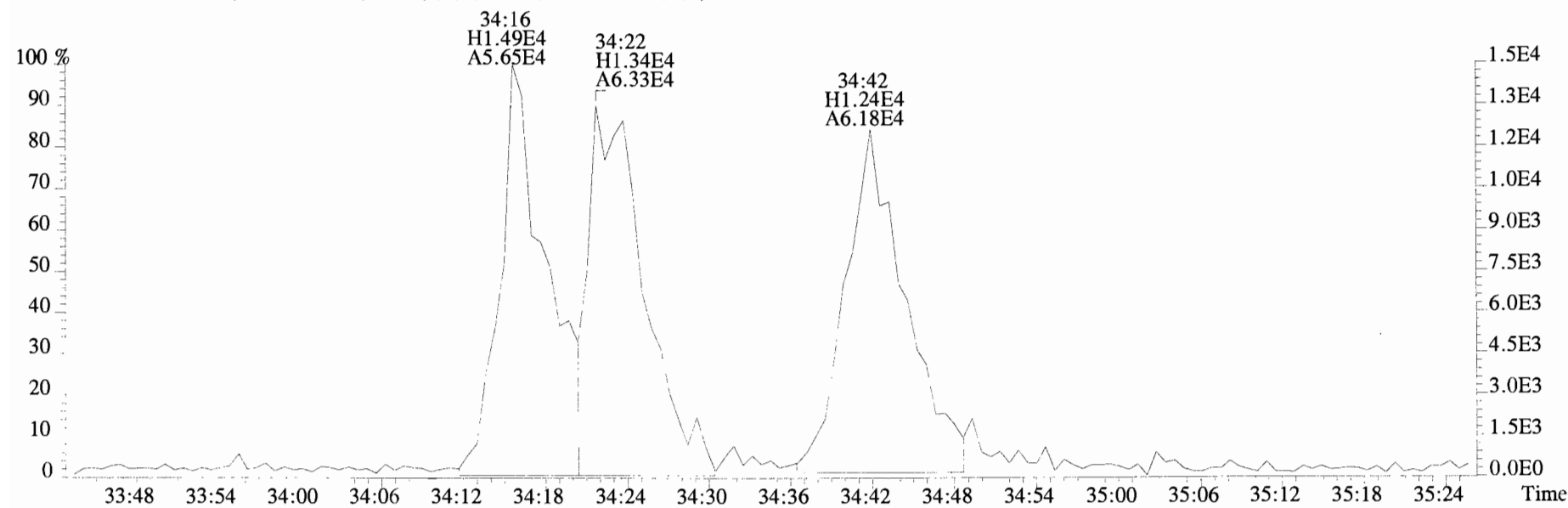
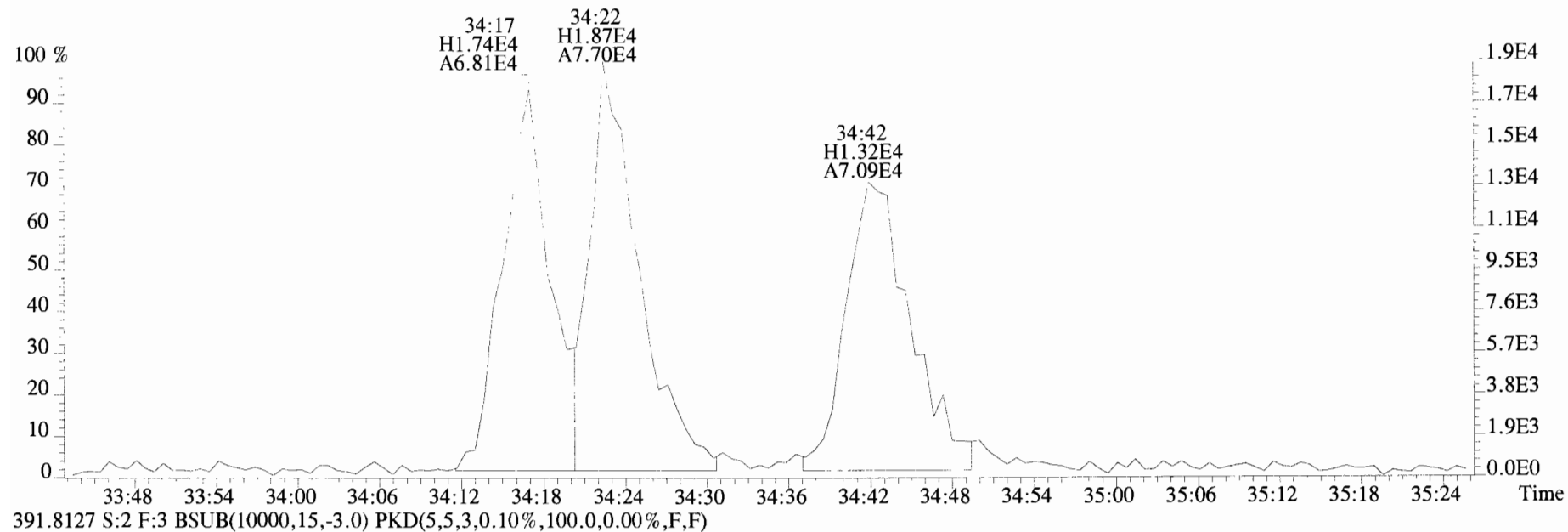
File:191009D1 #1-211 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



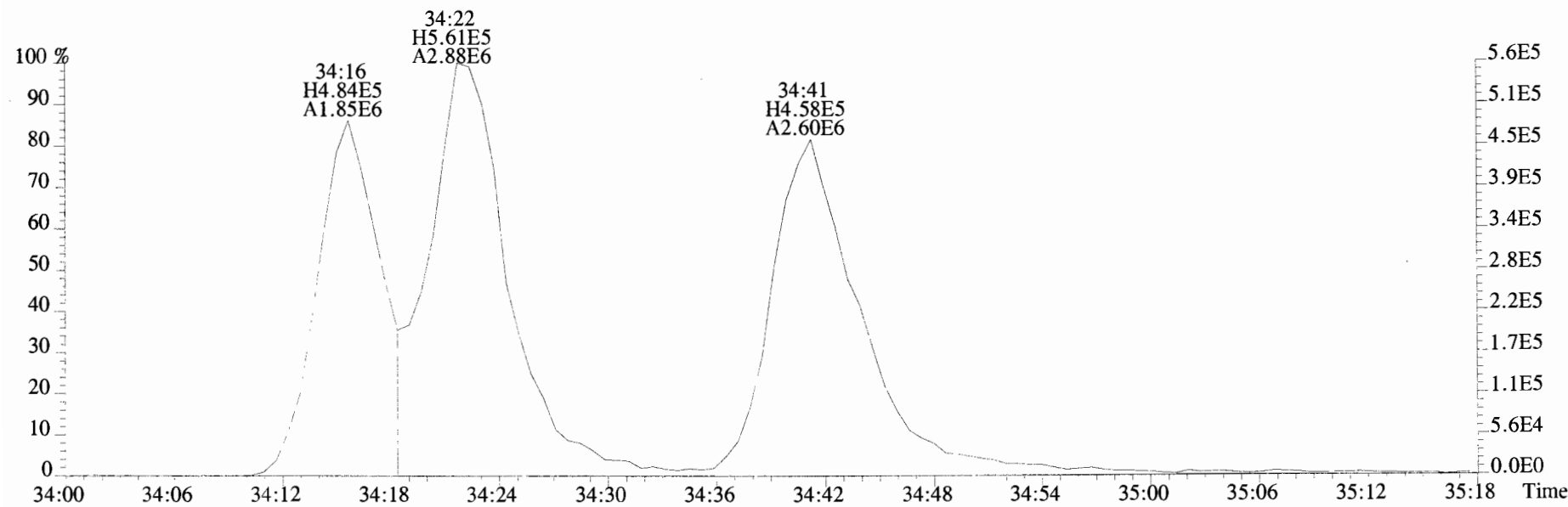
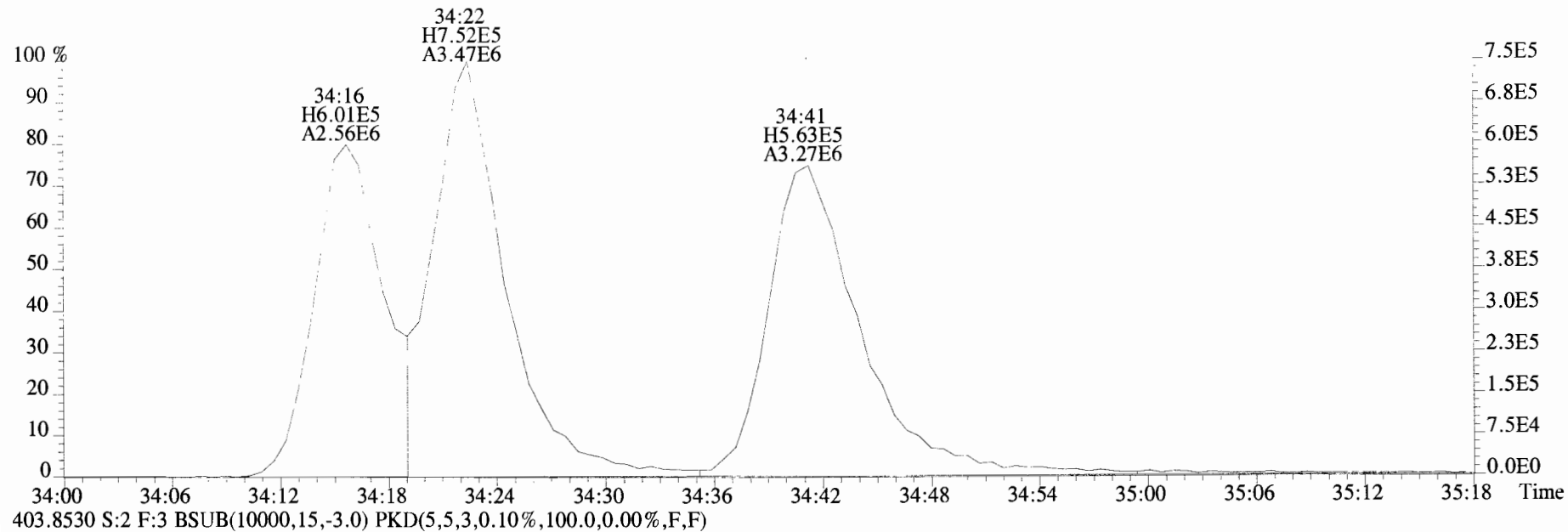
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



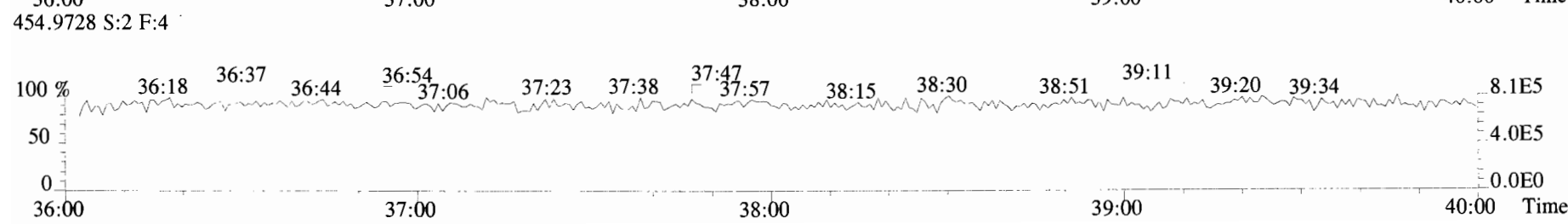
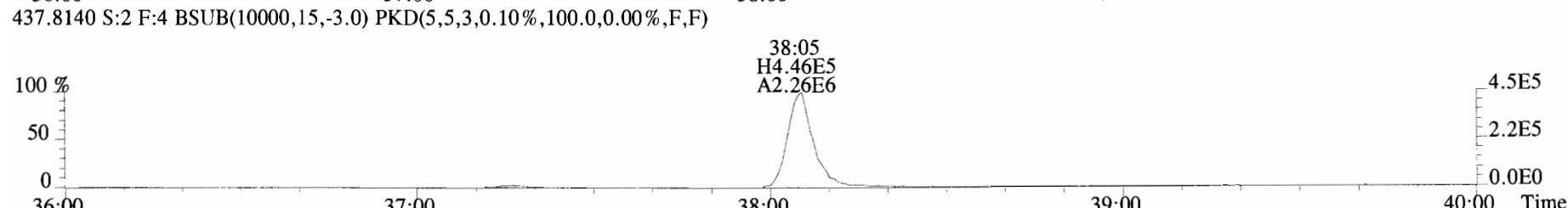
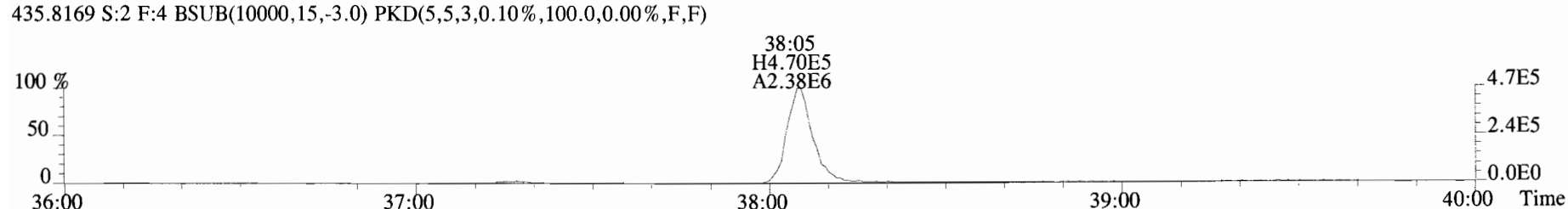
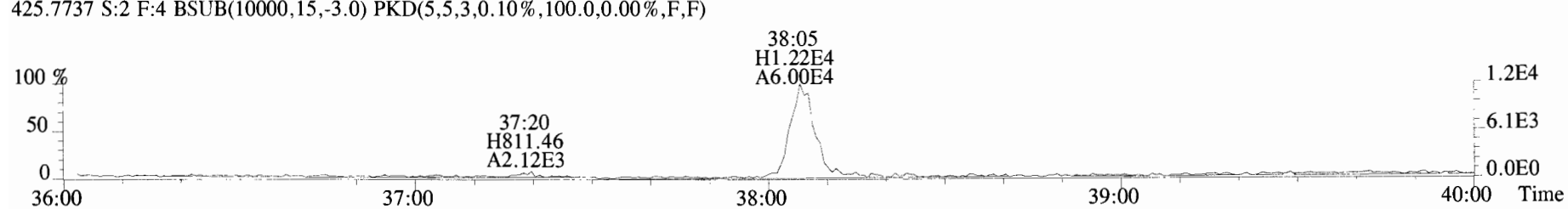
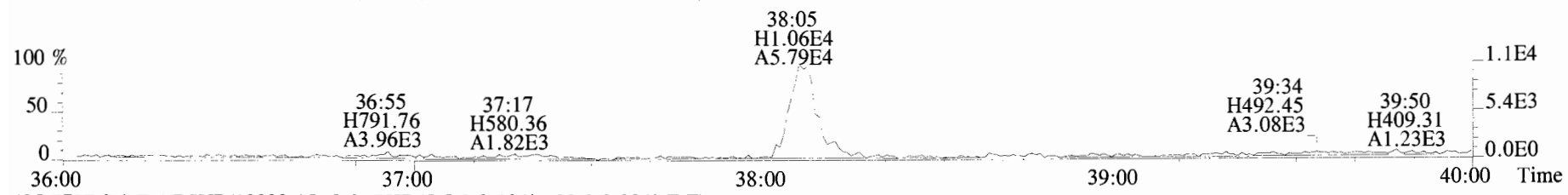
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



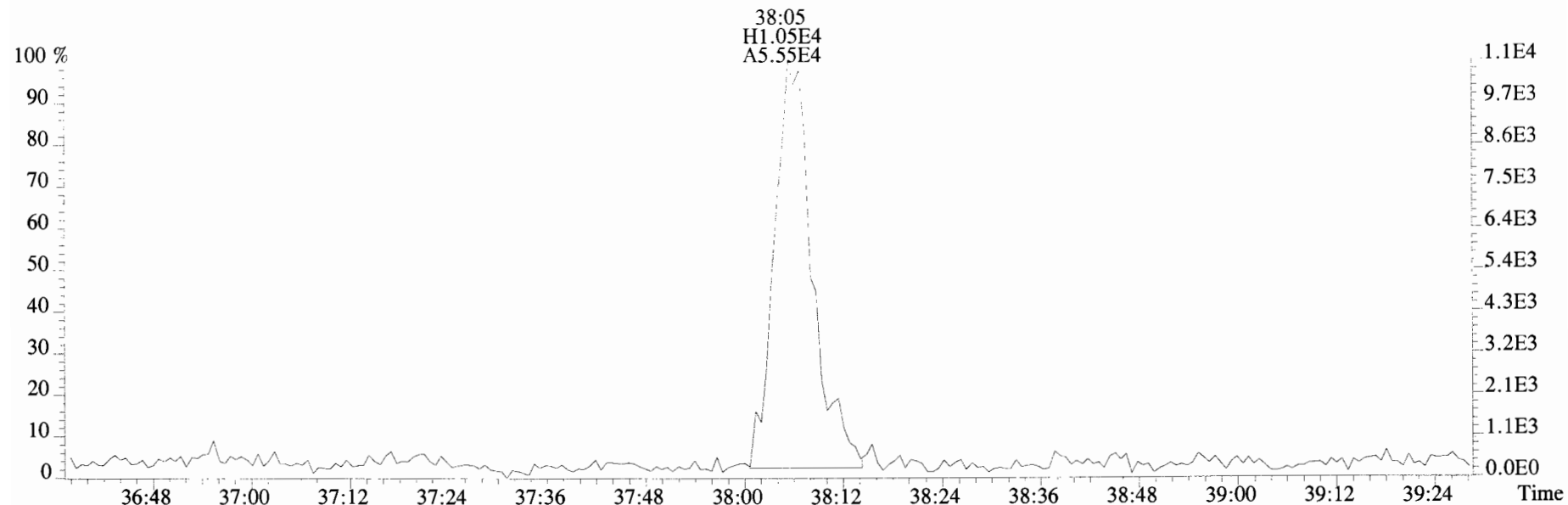
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



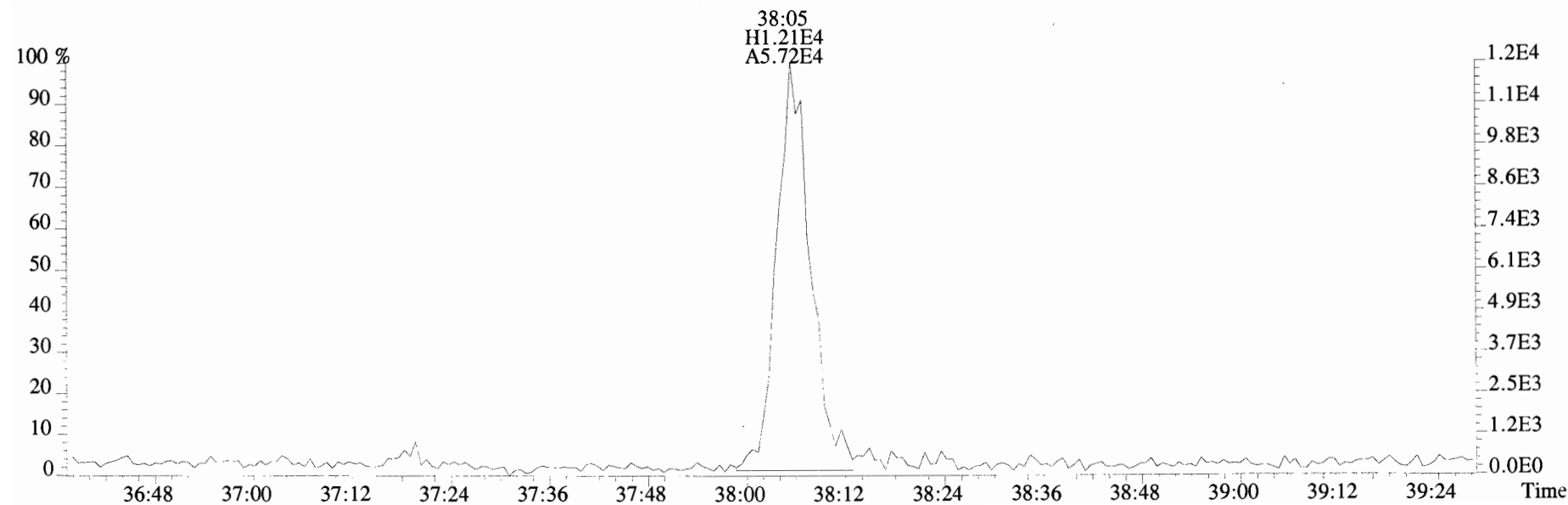
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
 423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



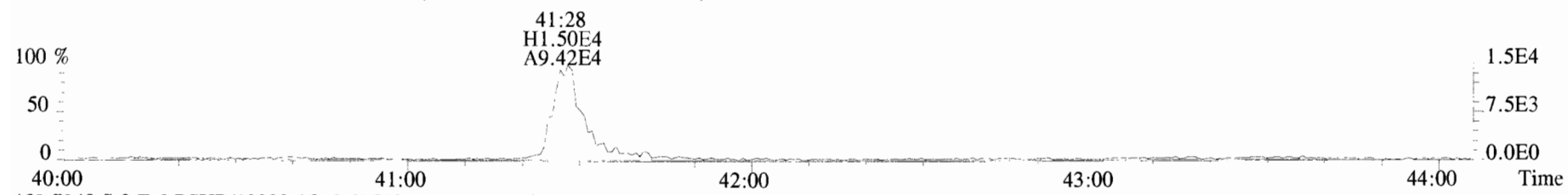
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
423.7767 S:2 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



425.7737 S:2 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



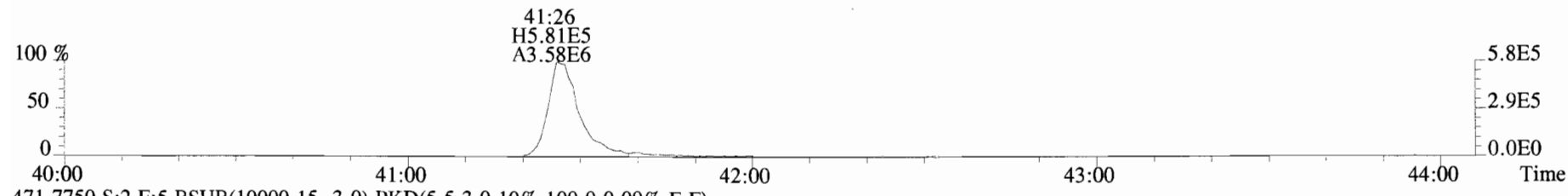
File:191009D1 #1-432 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



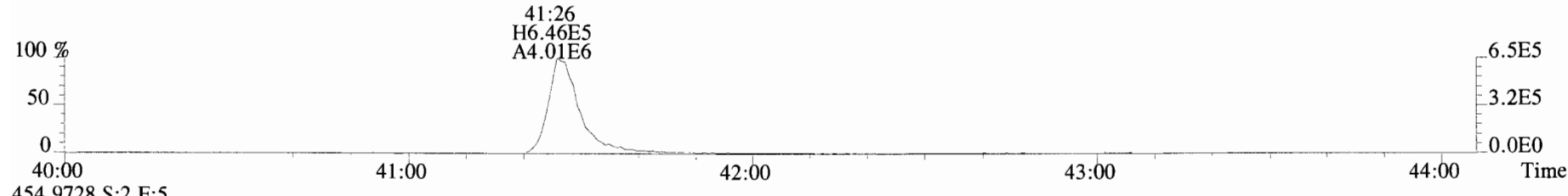
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



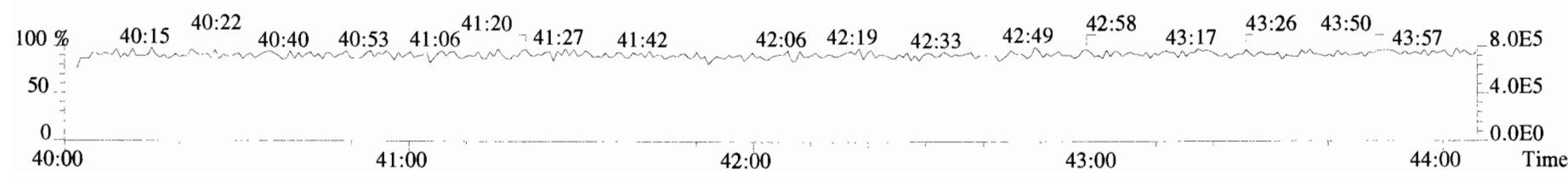
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

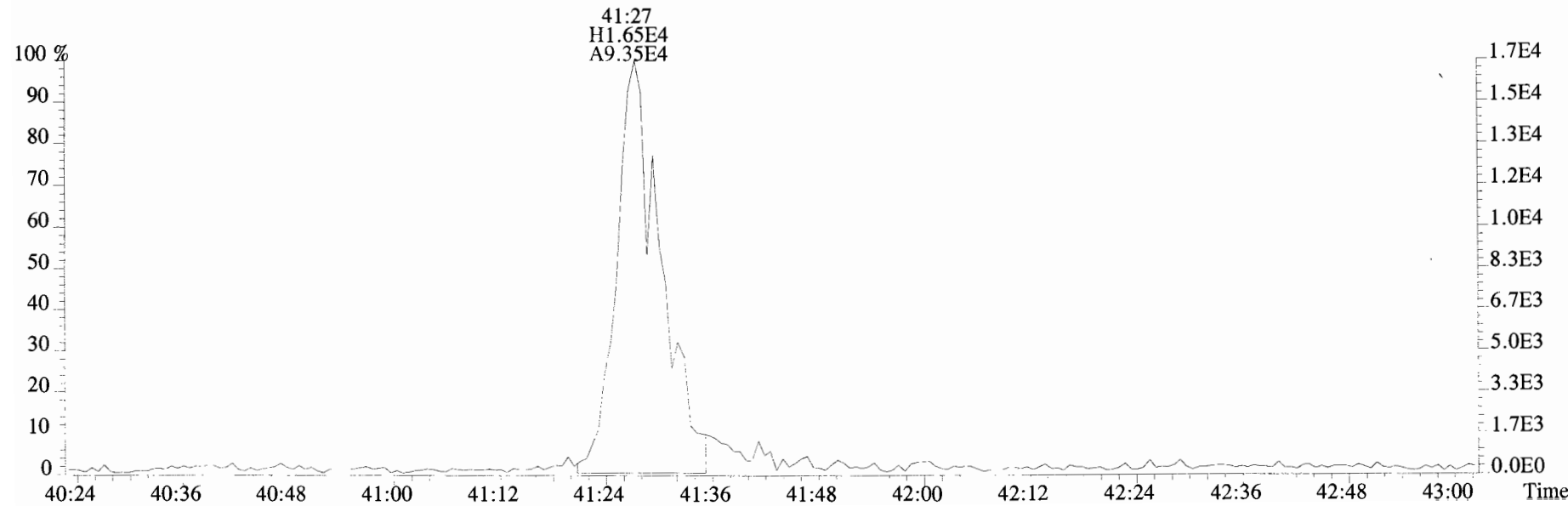
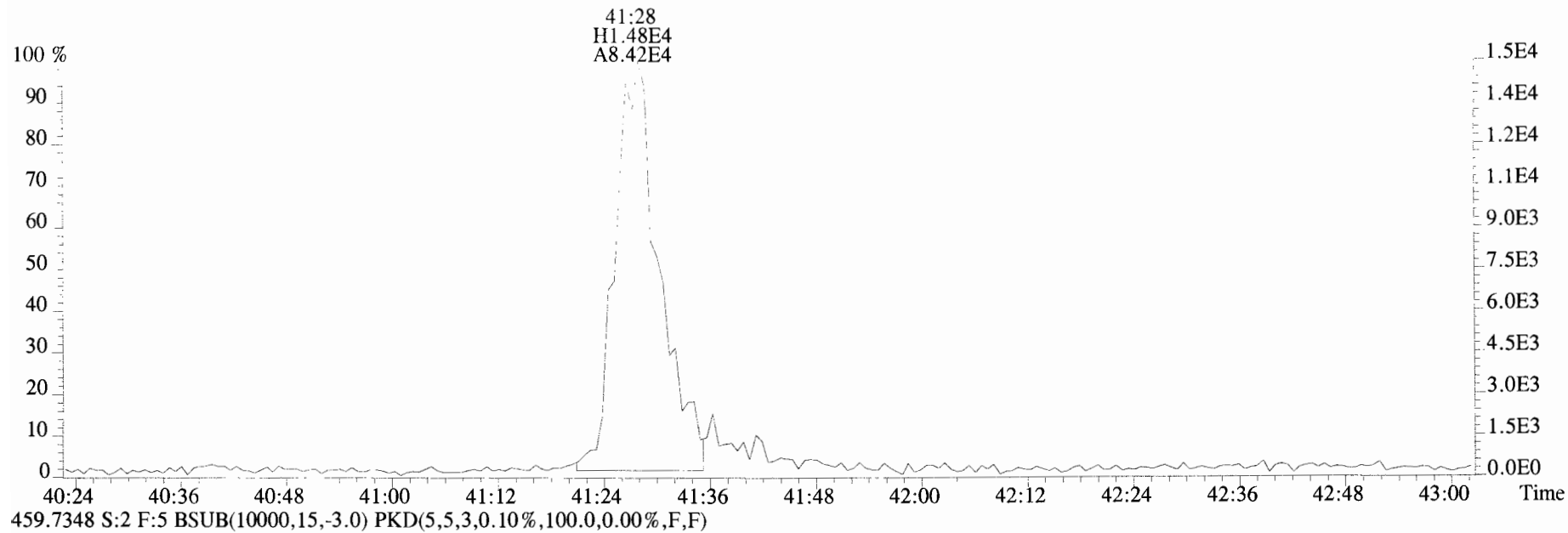


454.9728 S:2 F:5

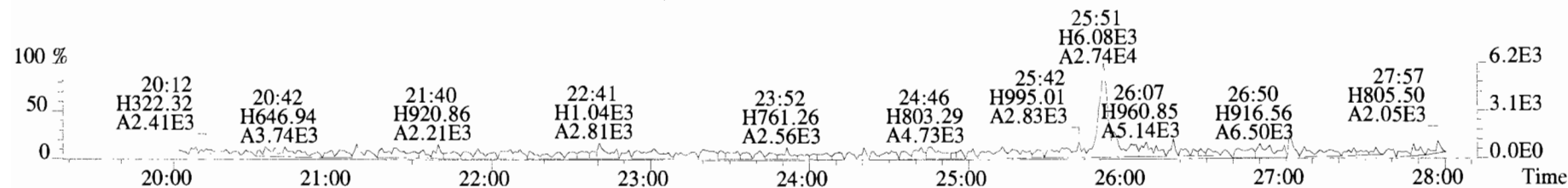




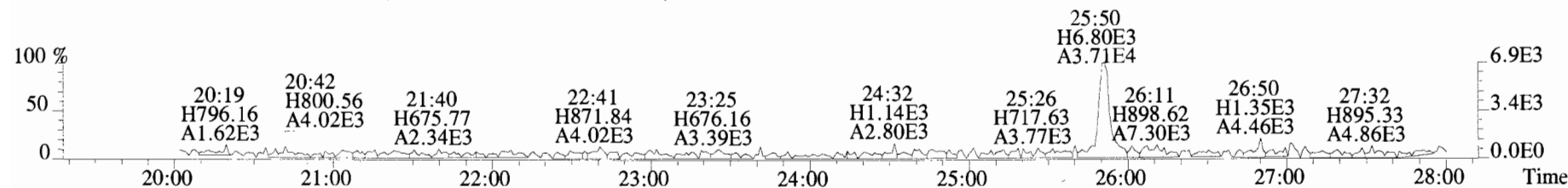
File:191009D1 #1-432 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



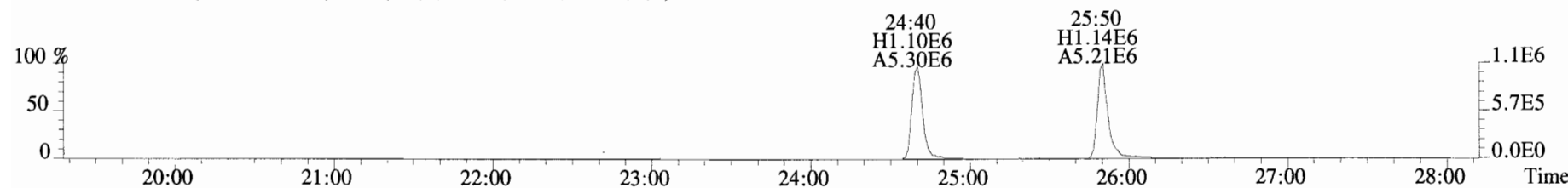
File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



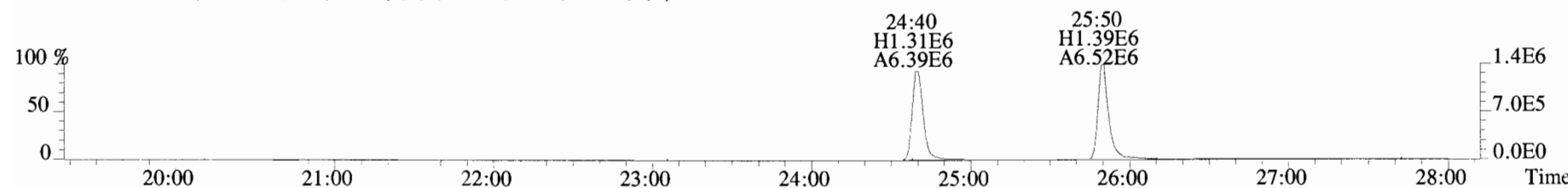
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



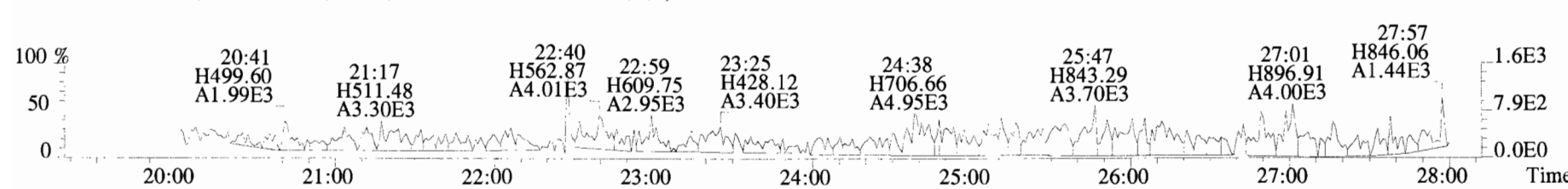
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



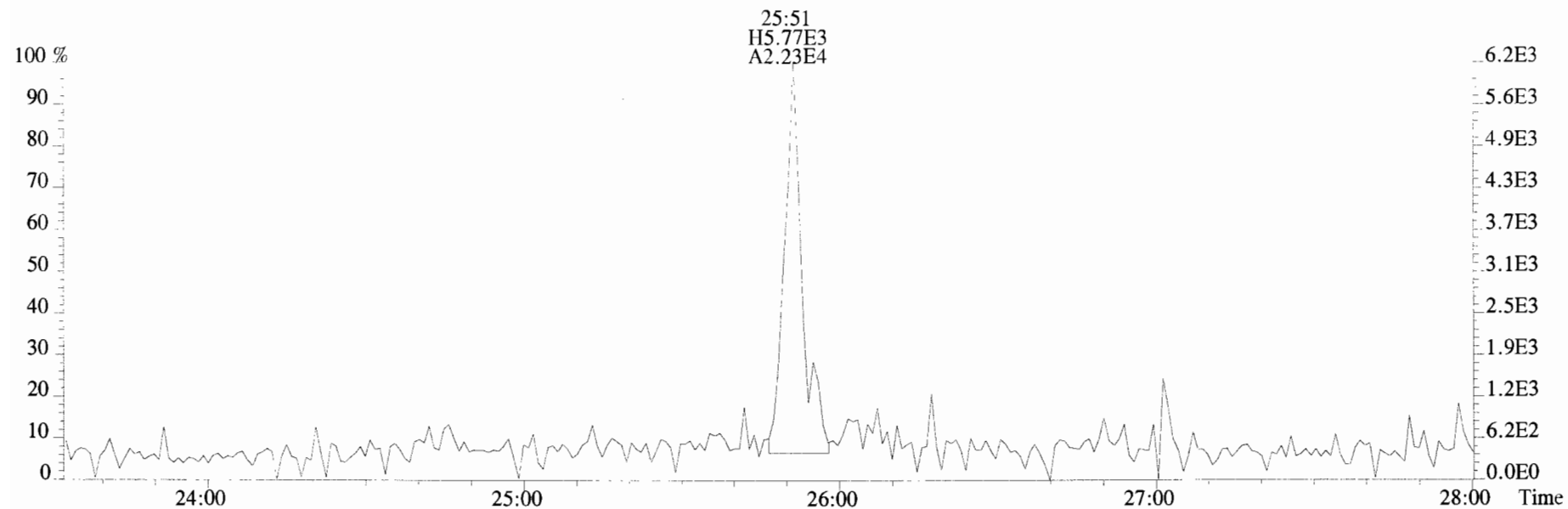
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



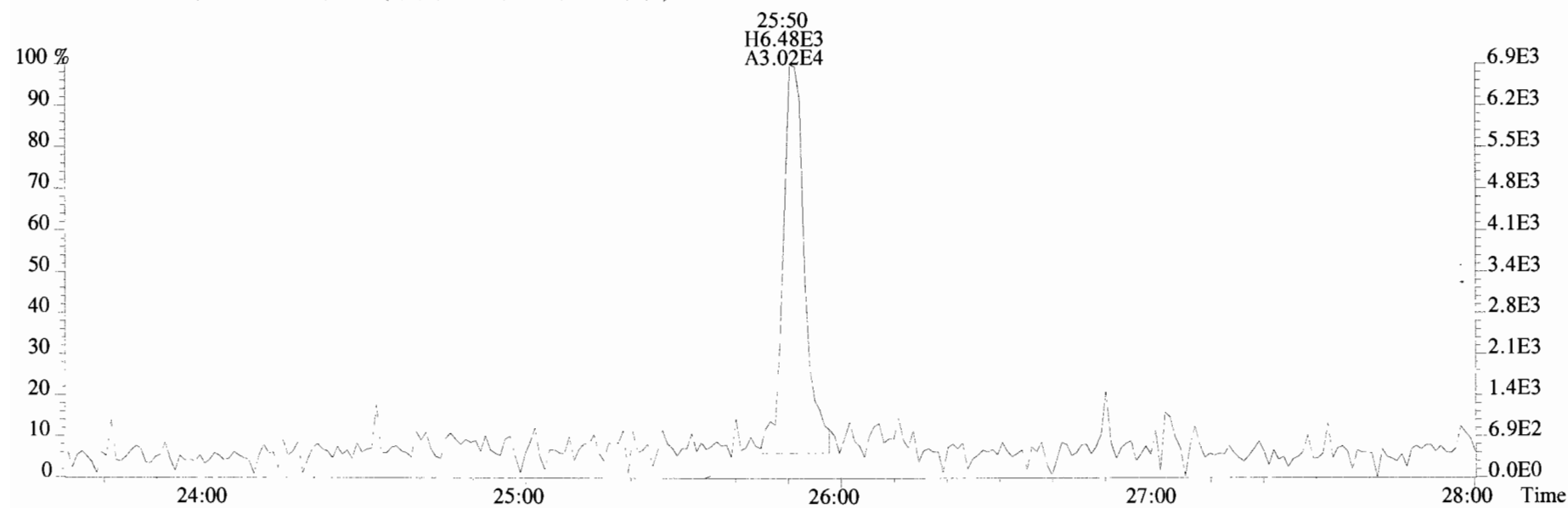
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



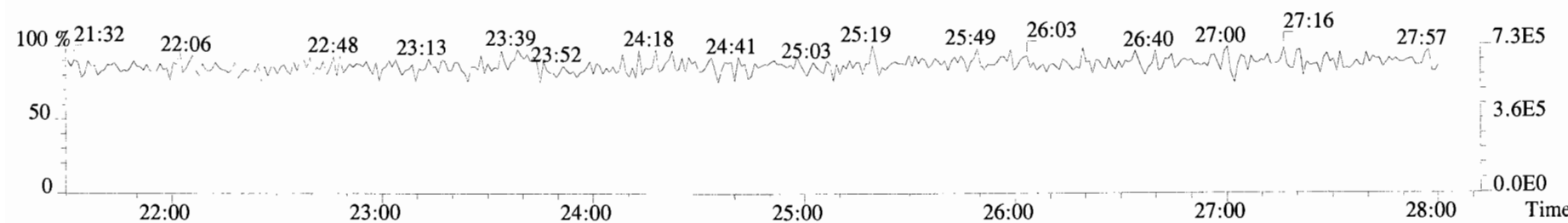
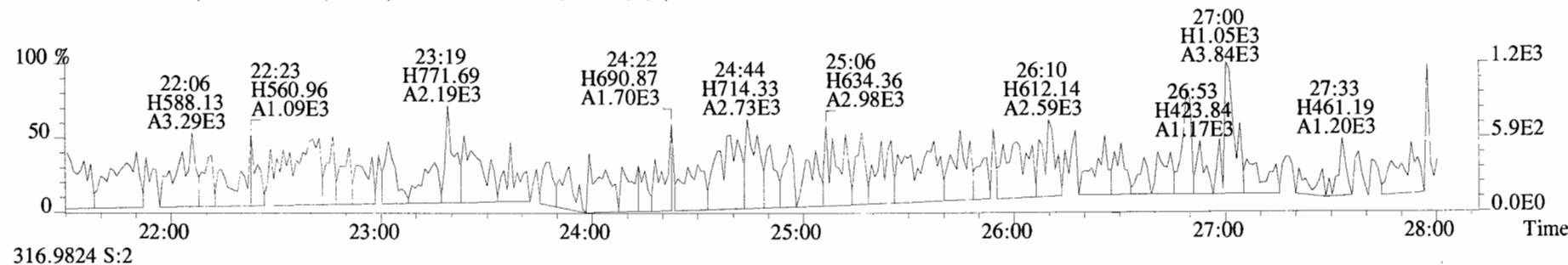
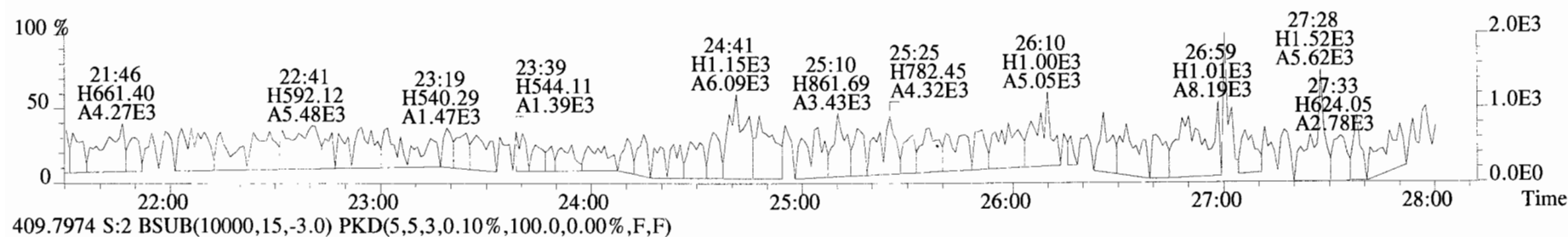
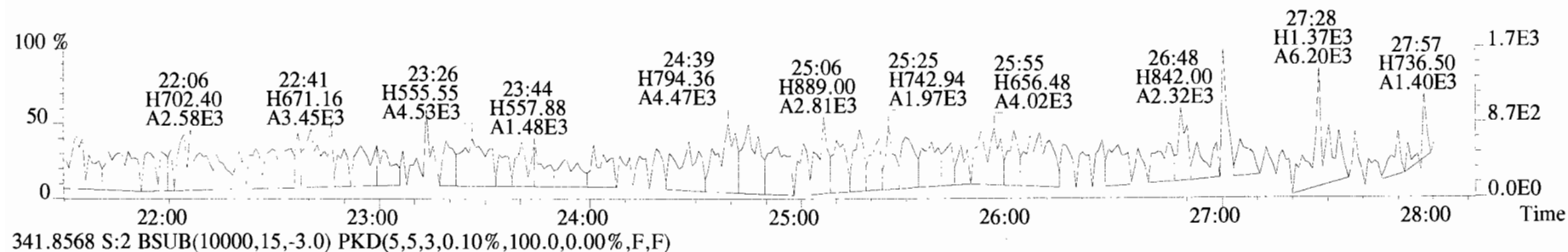
File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



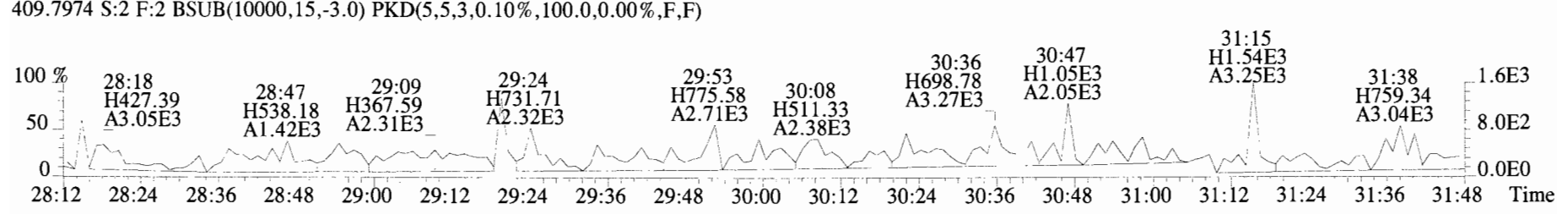
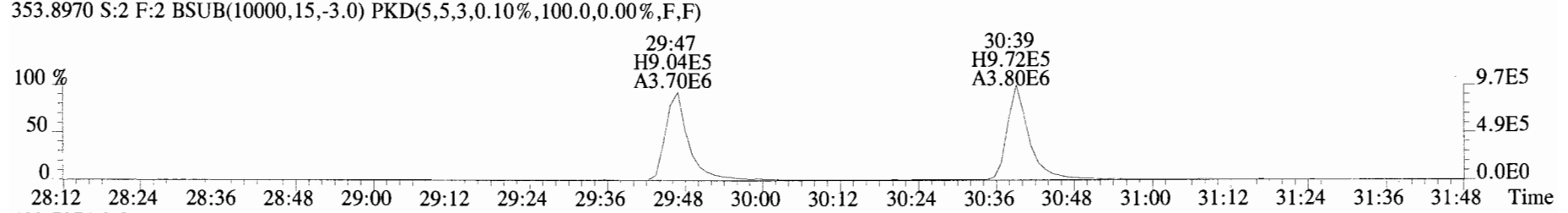
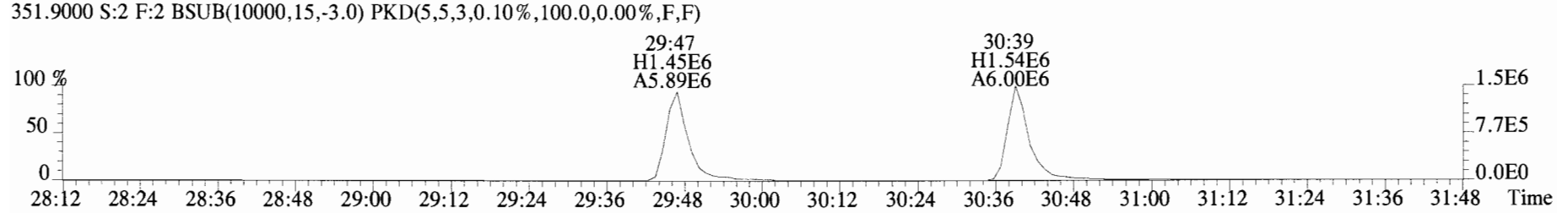
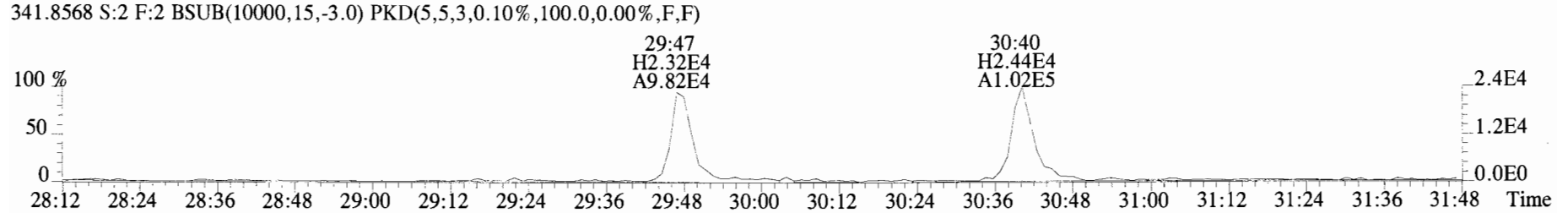
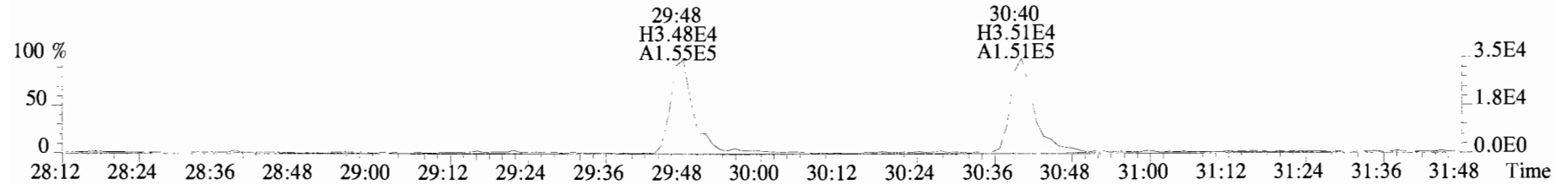
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



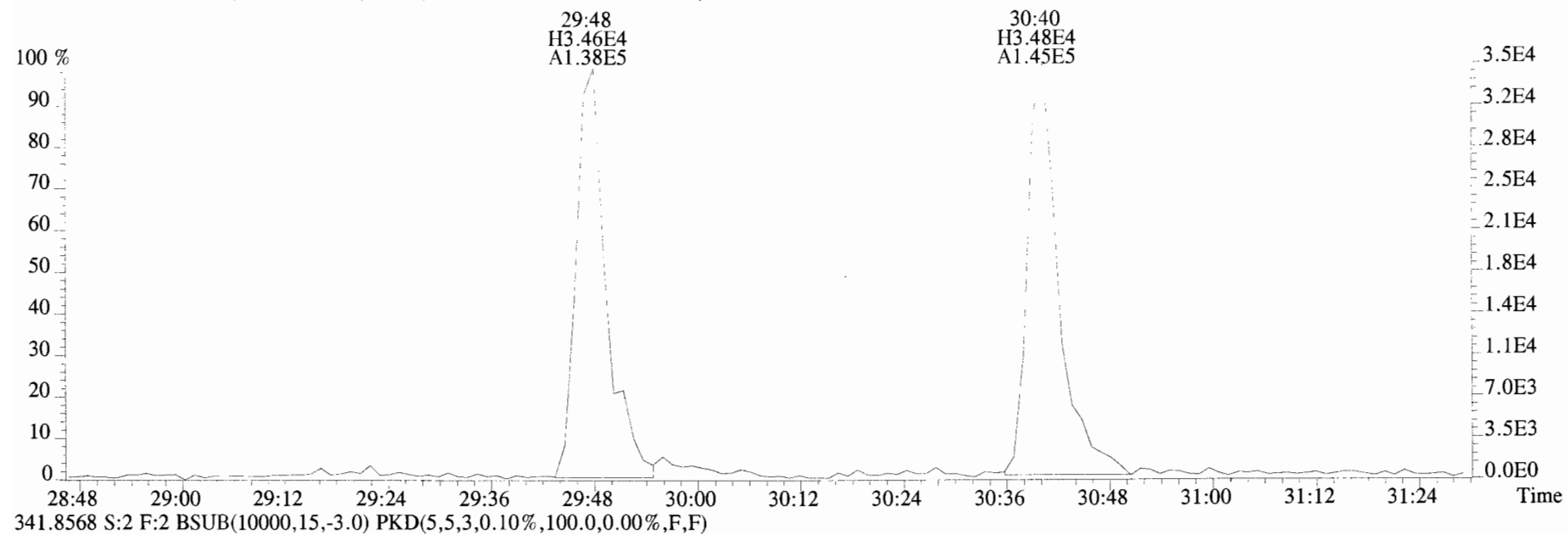
File:191009D1 #1-513 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



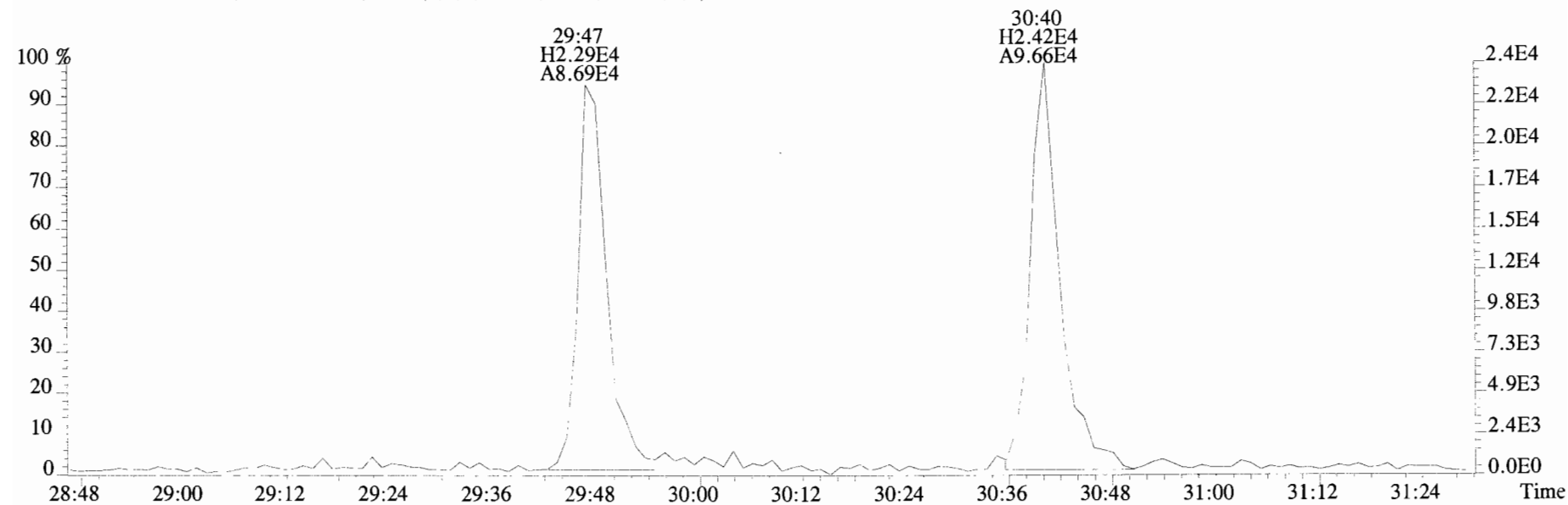
File:191009D1 #1-211 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



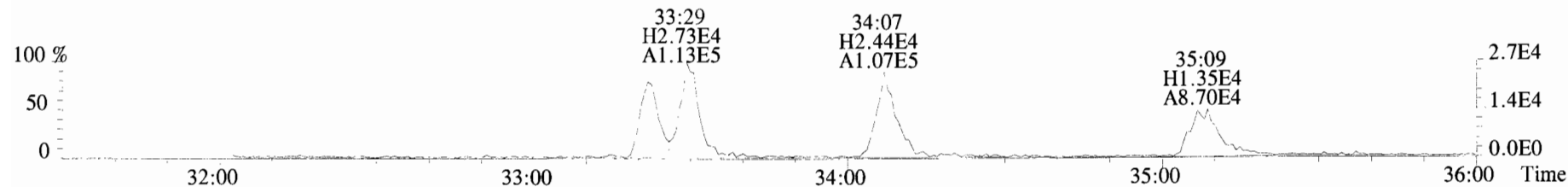
File:191009D1 #1-211 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



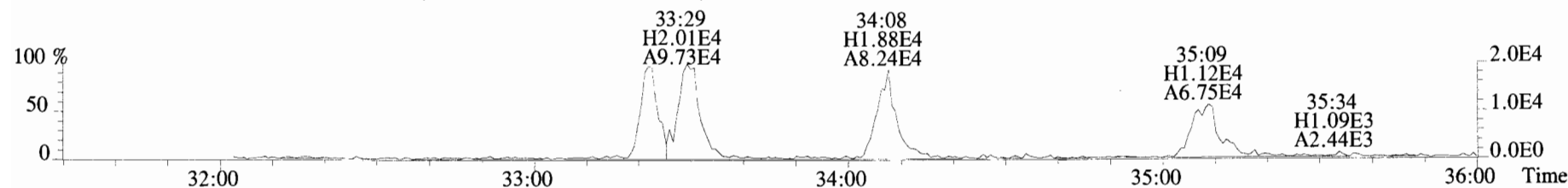
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



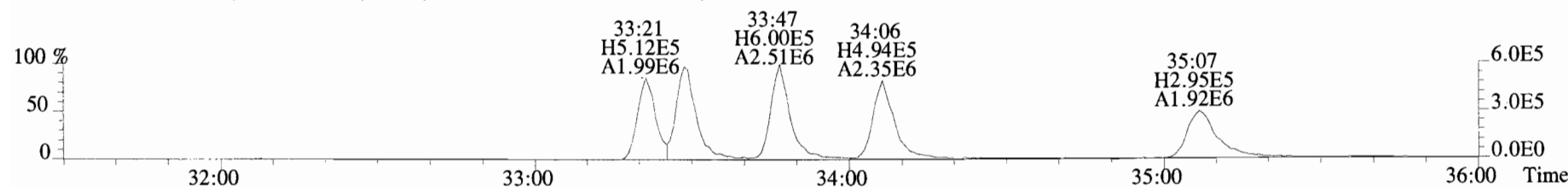
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
 373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



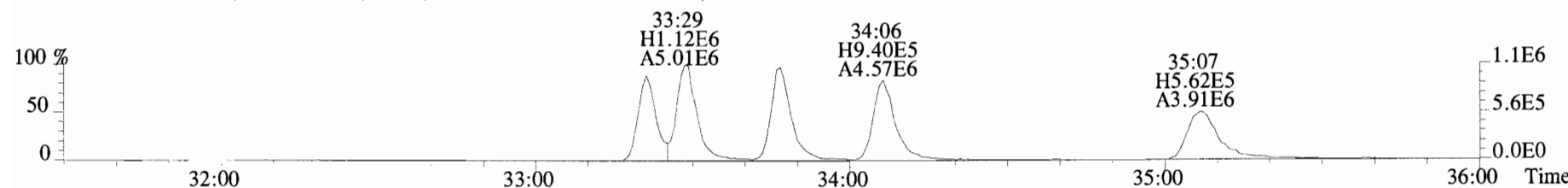
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



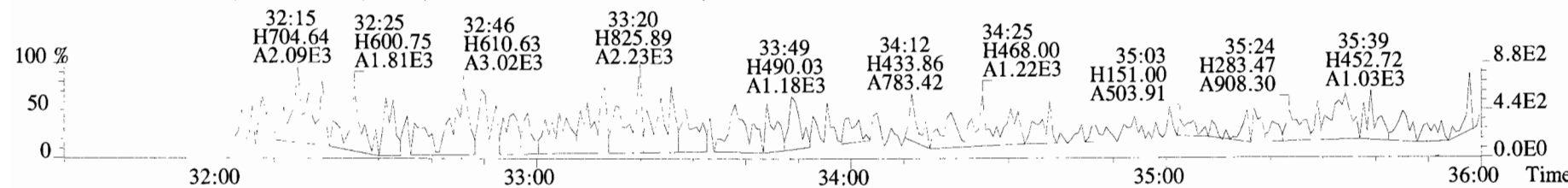
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



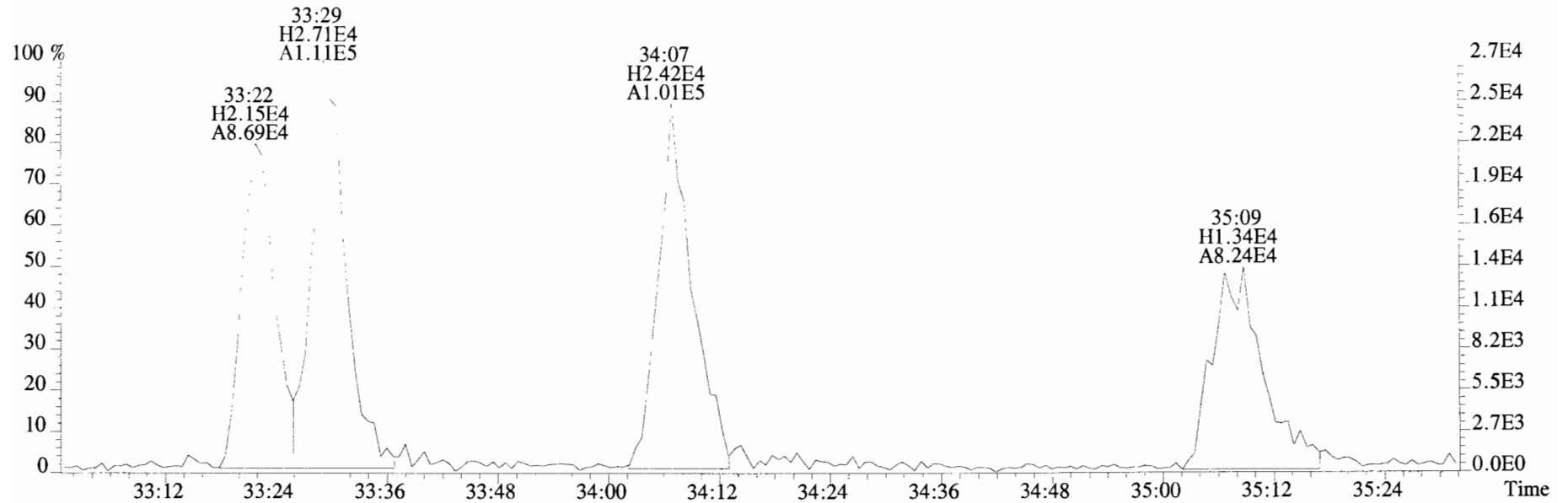
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



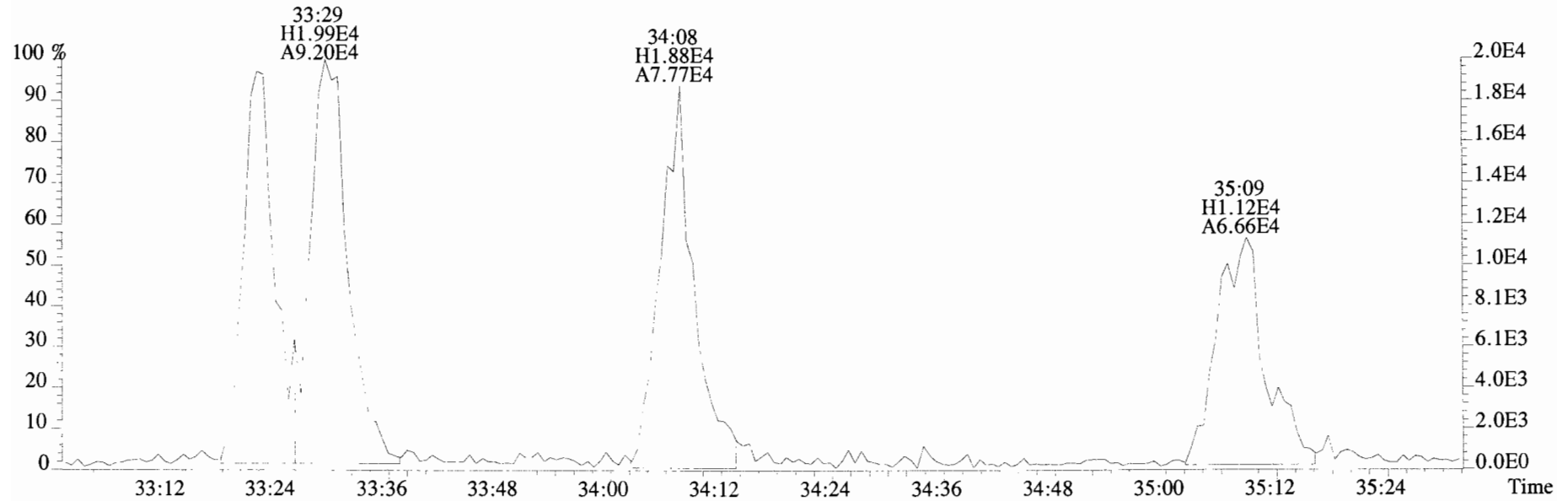
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

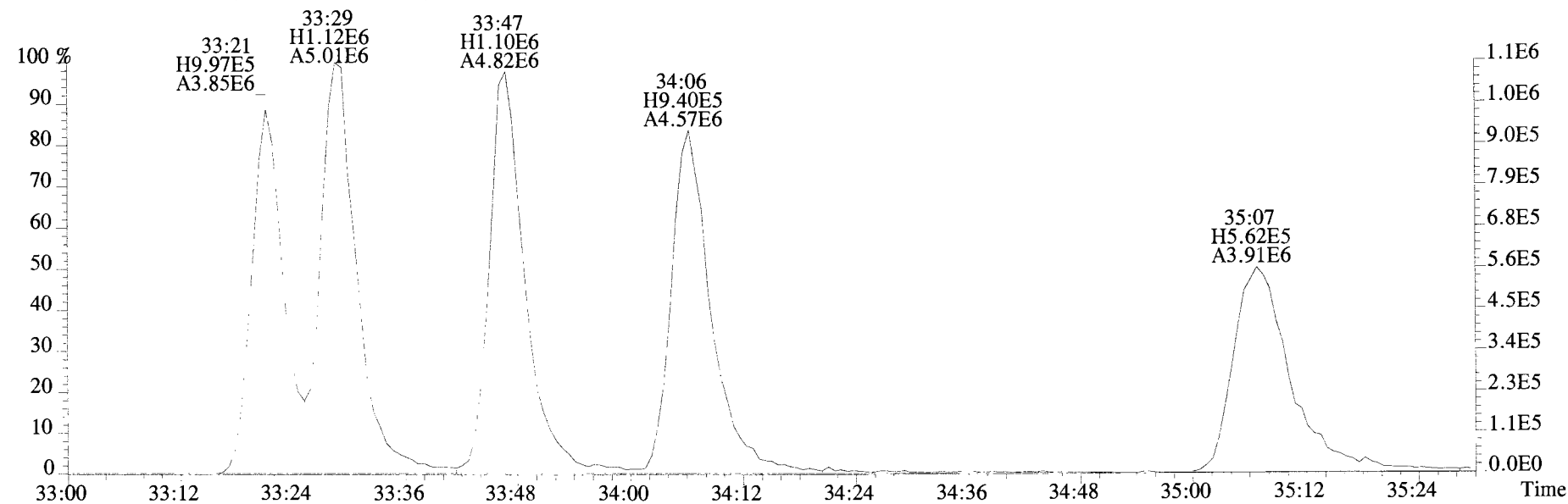
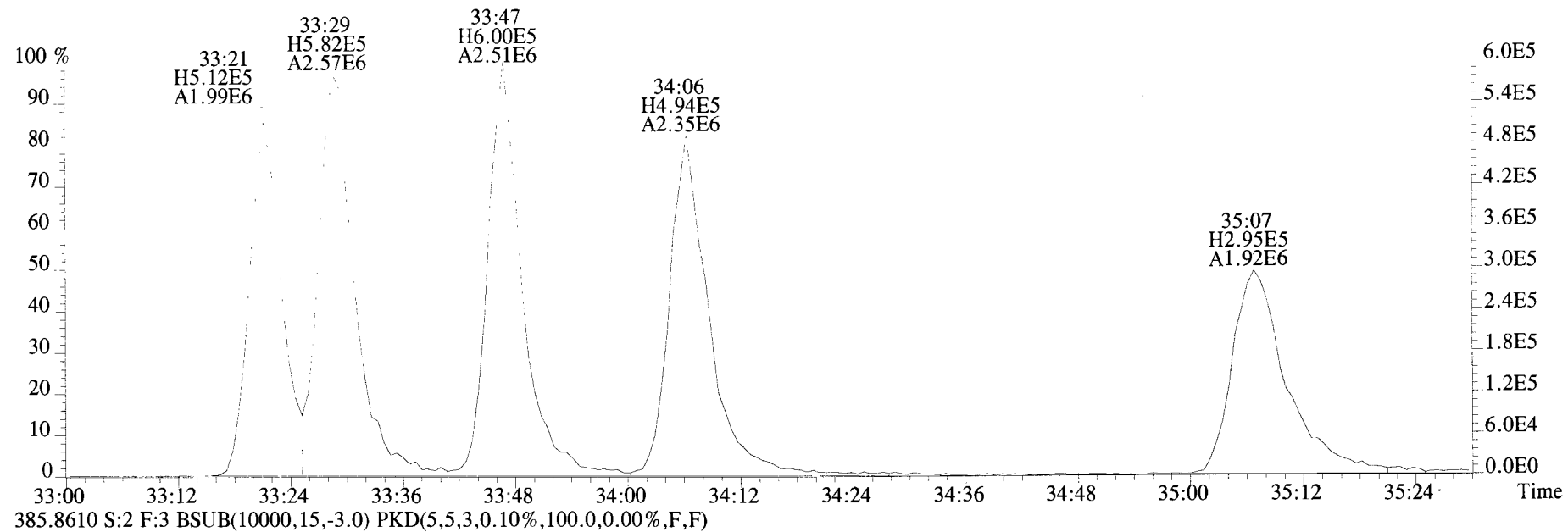


375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

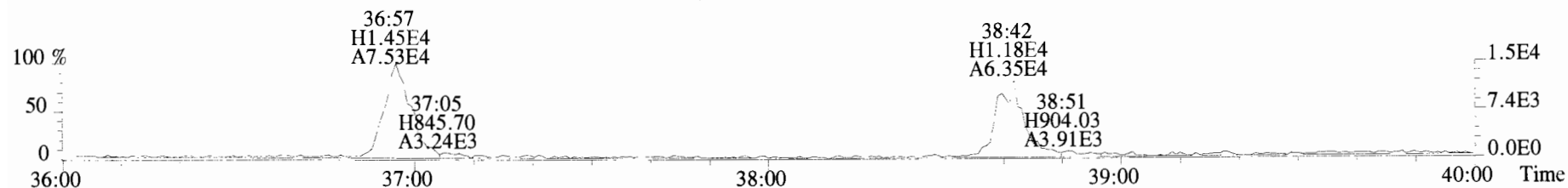




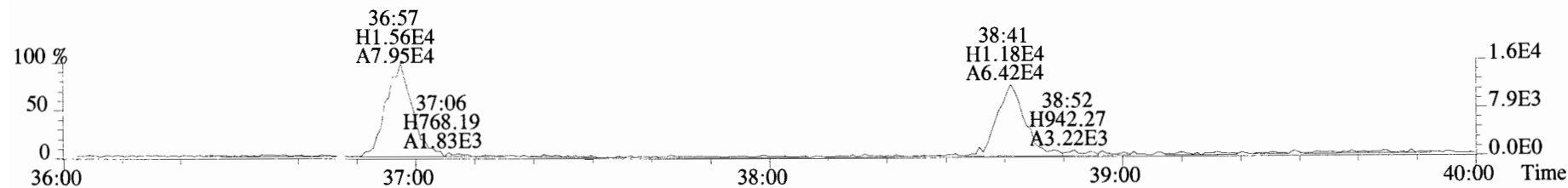
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



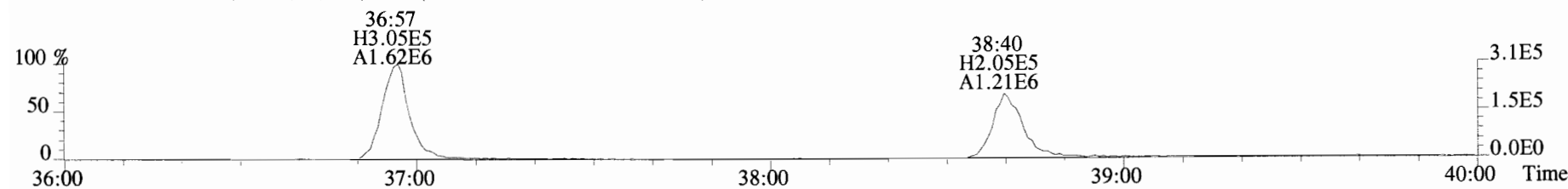
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text: Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



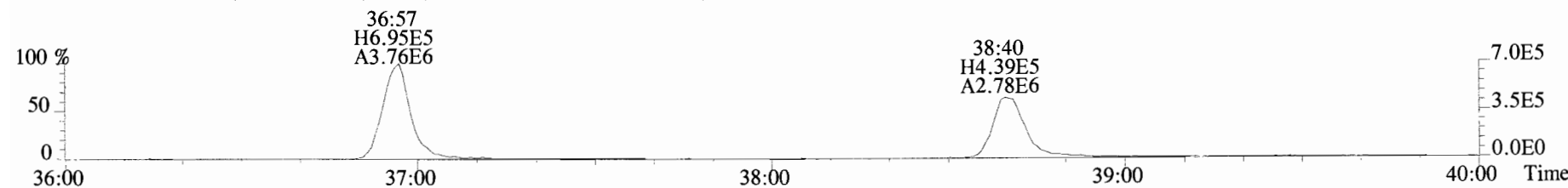
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



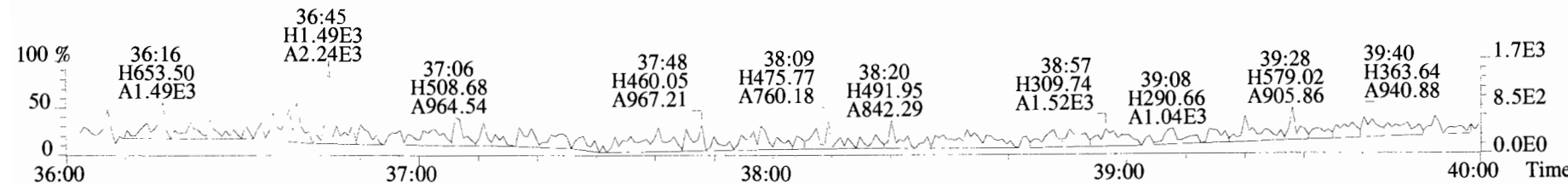
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



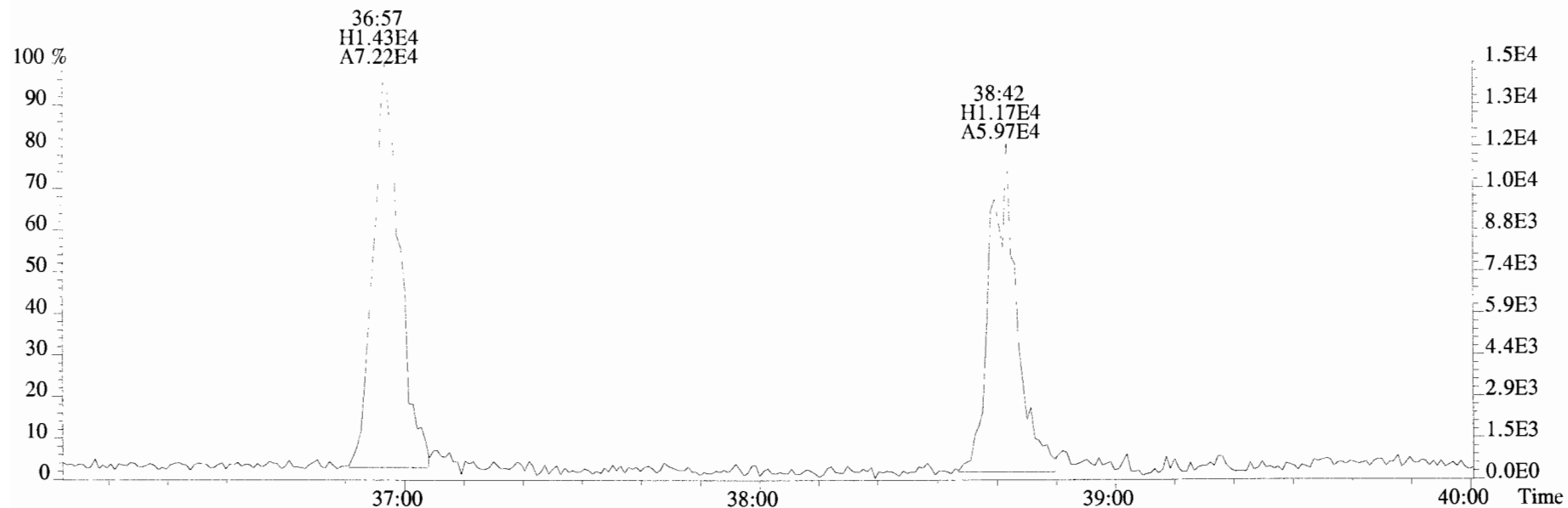
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



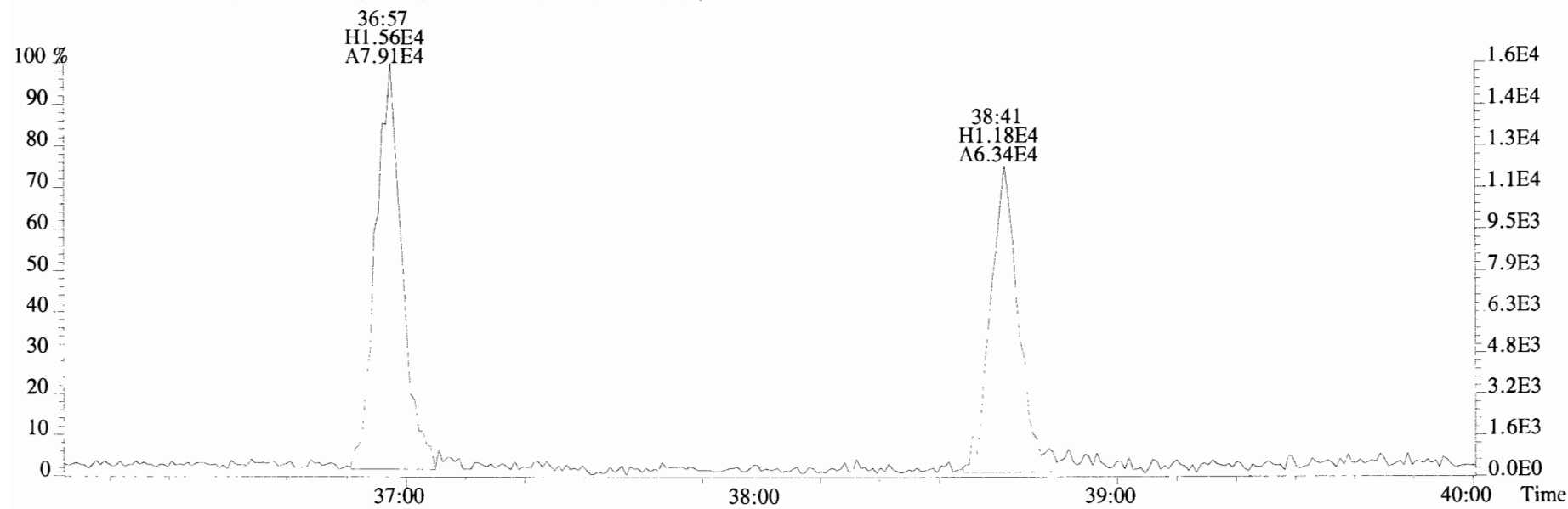
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



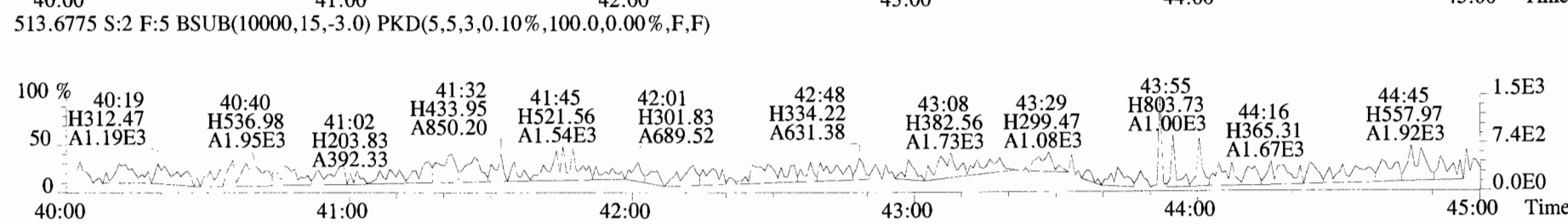
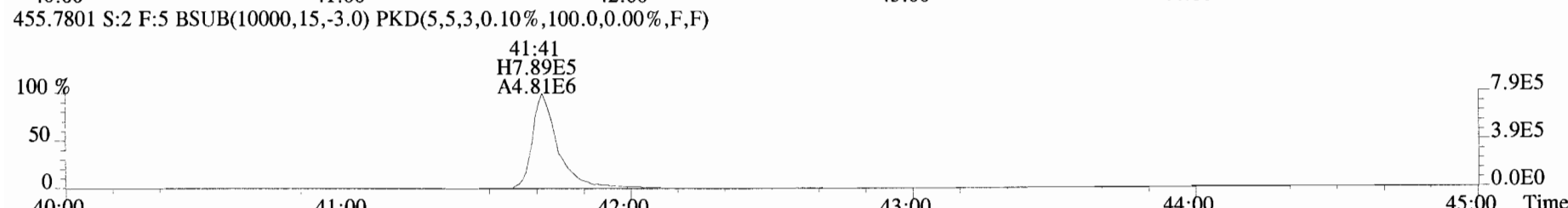
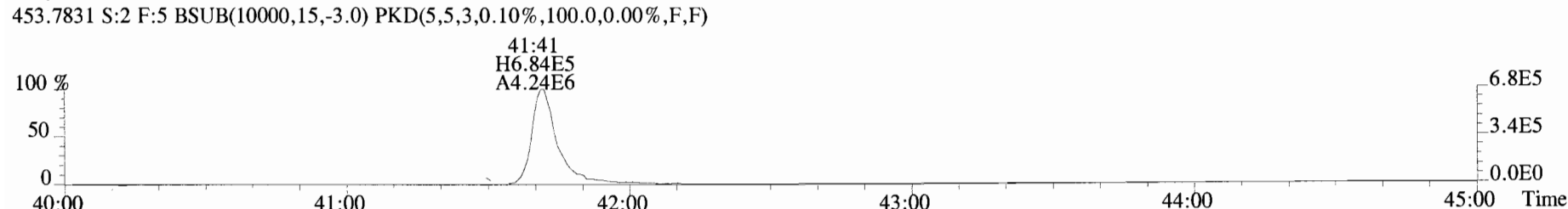
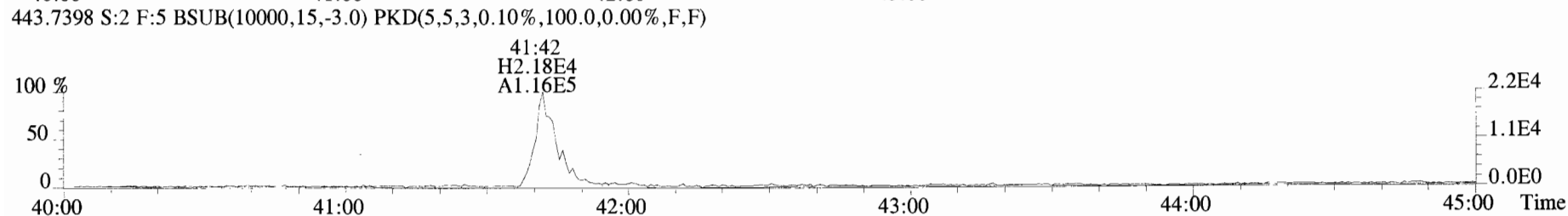
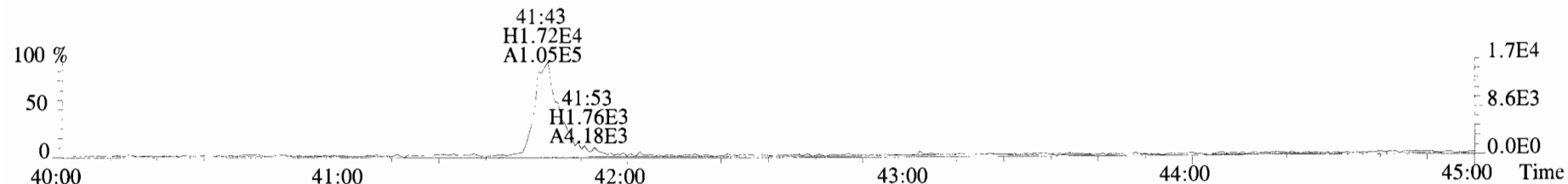
File:191009D1 #1-355 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



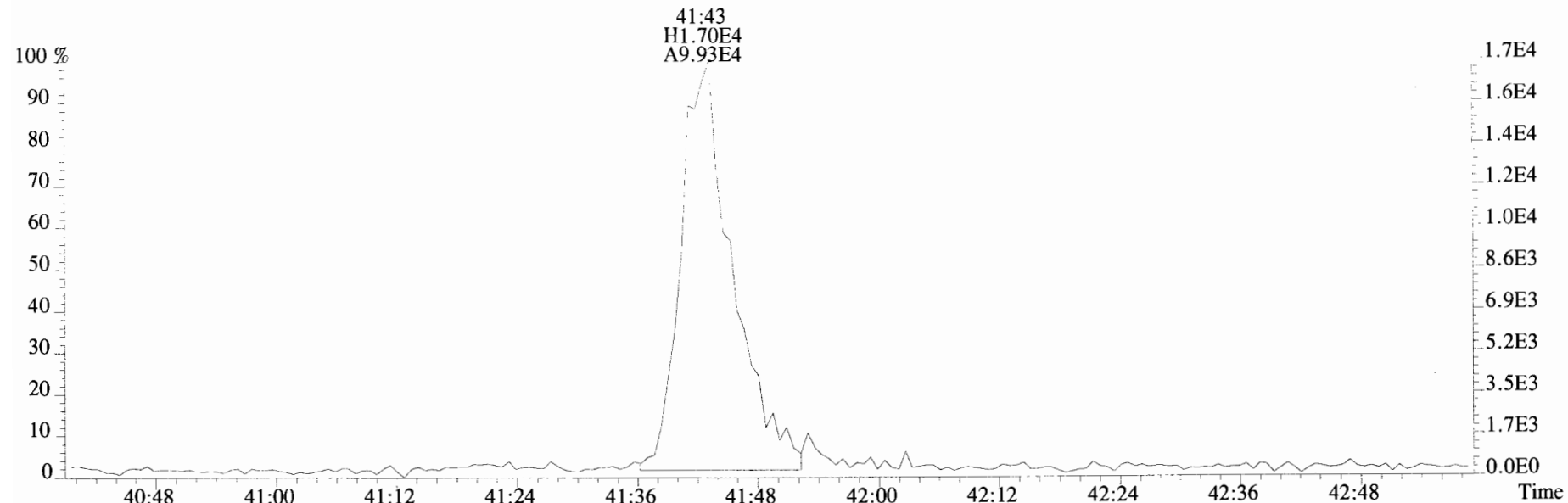
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



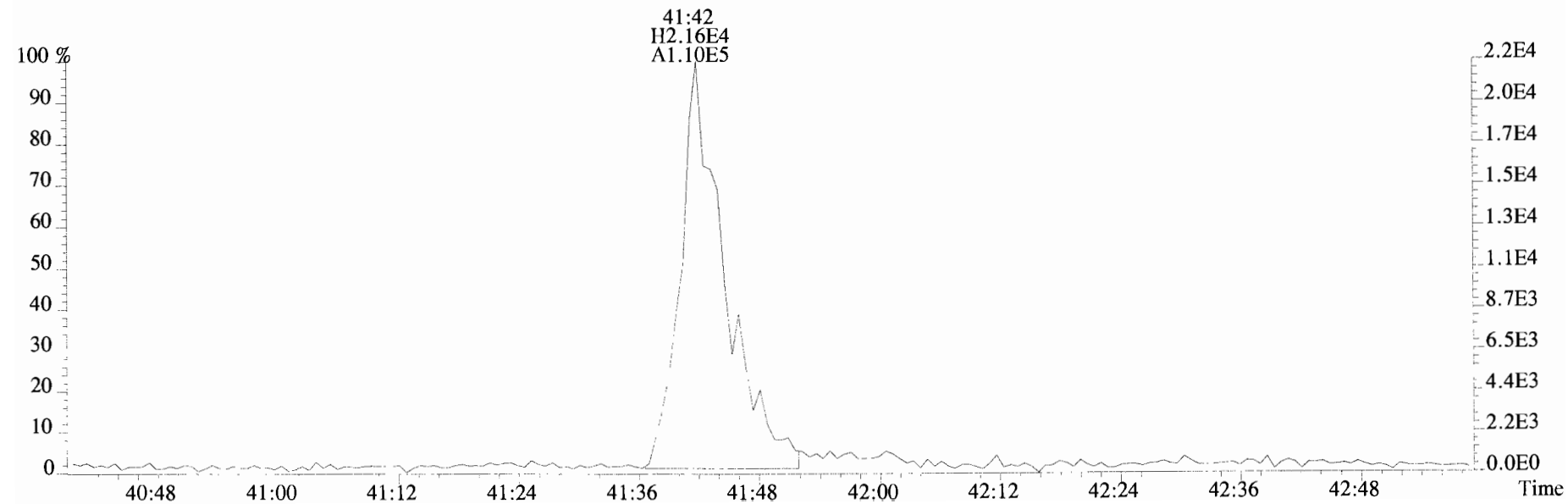
File:191009D1 #1-432 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



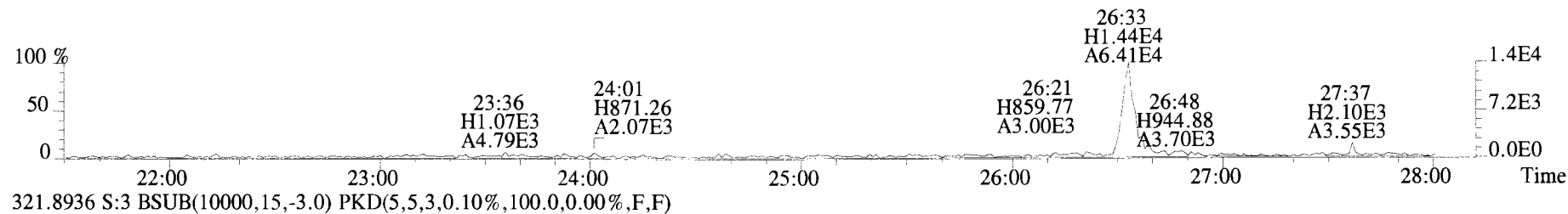
File:191009D1 #1-432 Acq: 9-OCT-2019 17:00:45 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-2 1613 CS1 19C2202 Exp:OCDD\_DB5  
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



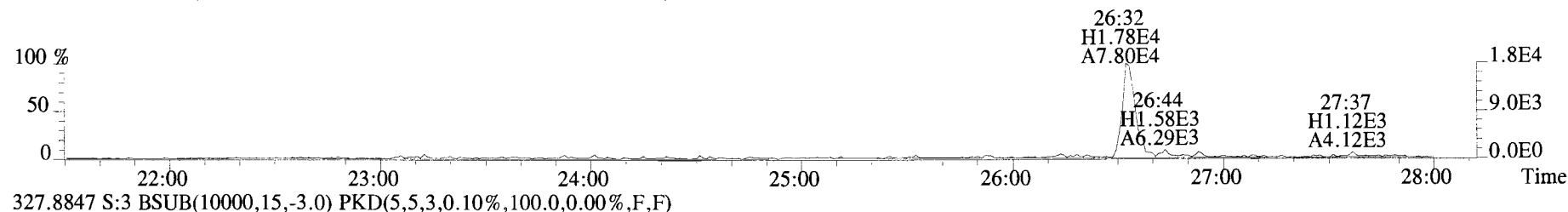
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



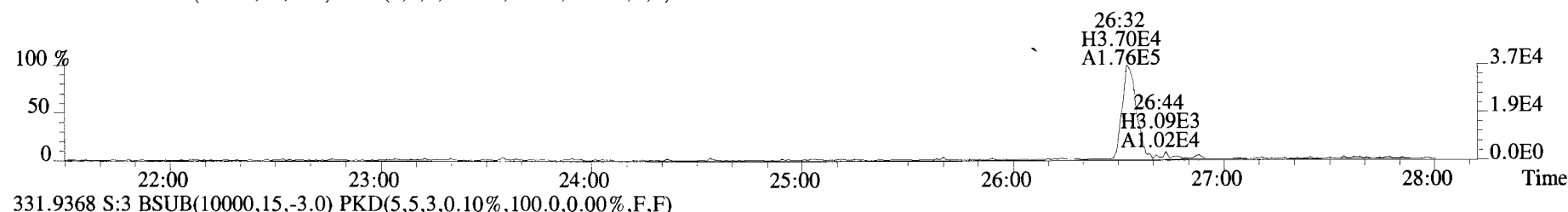
File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



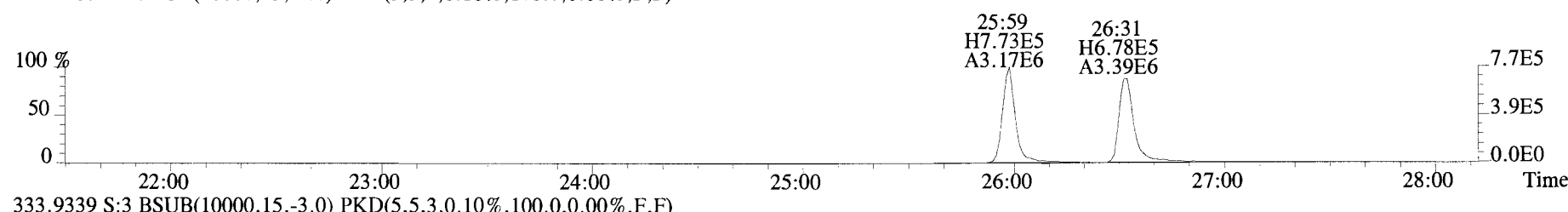
321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



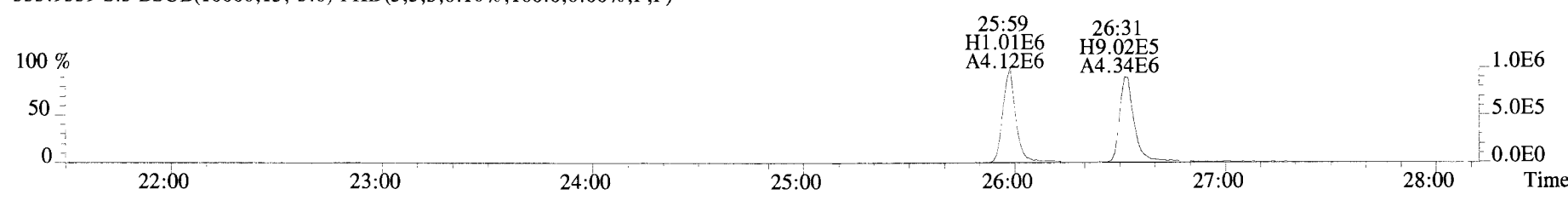
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



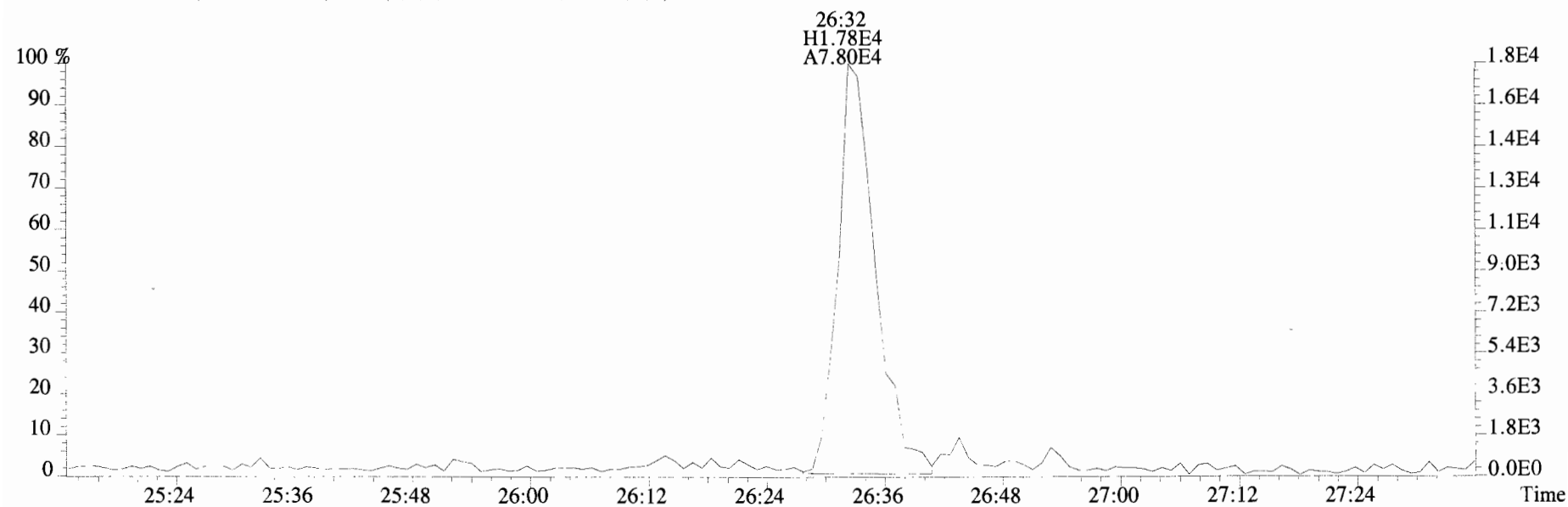
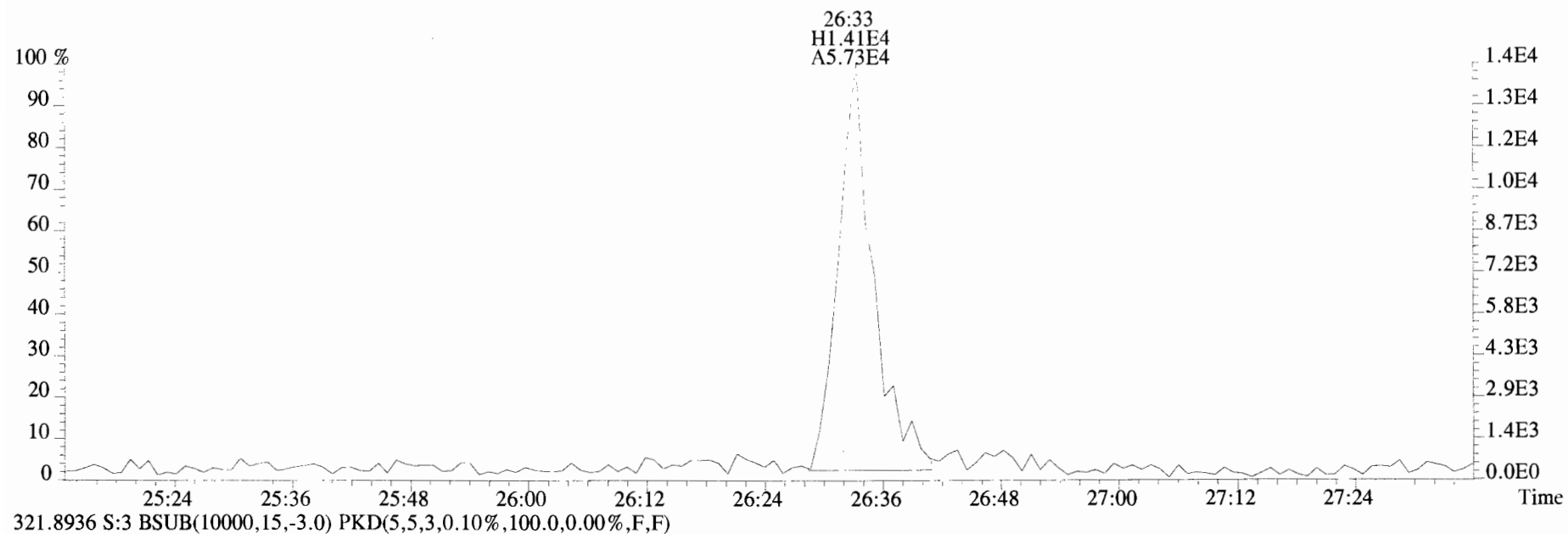
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



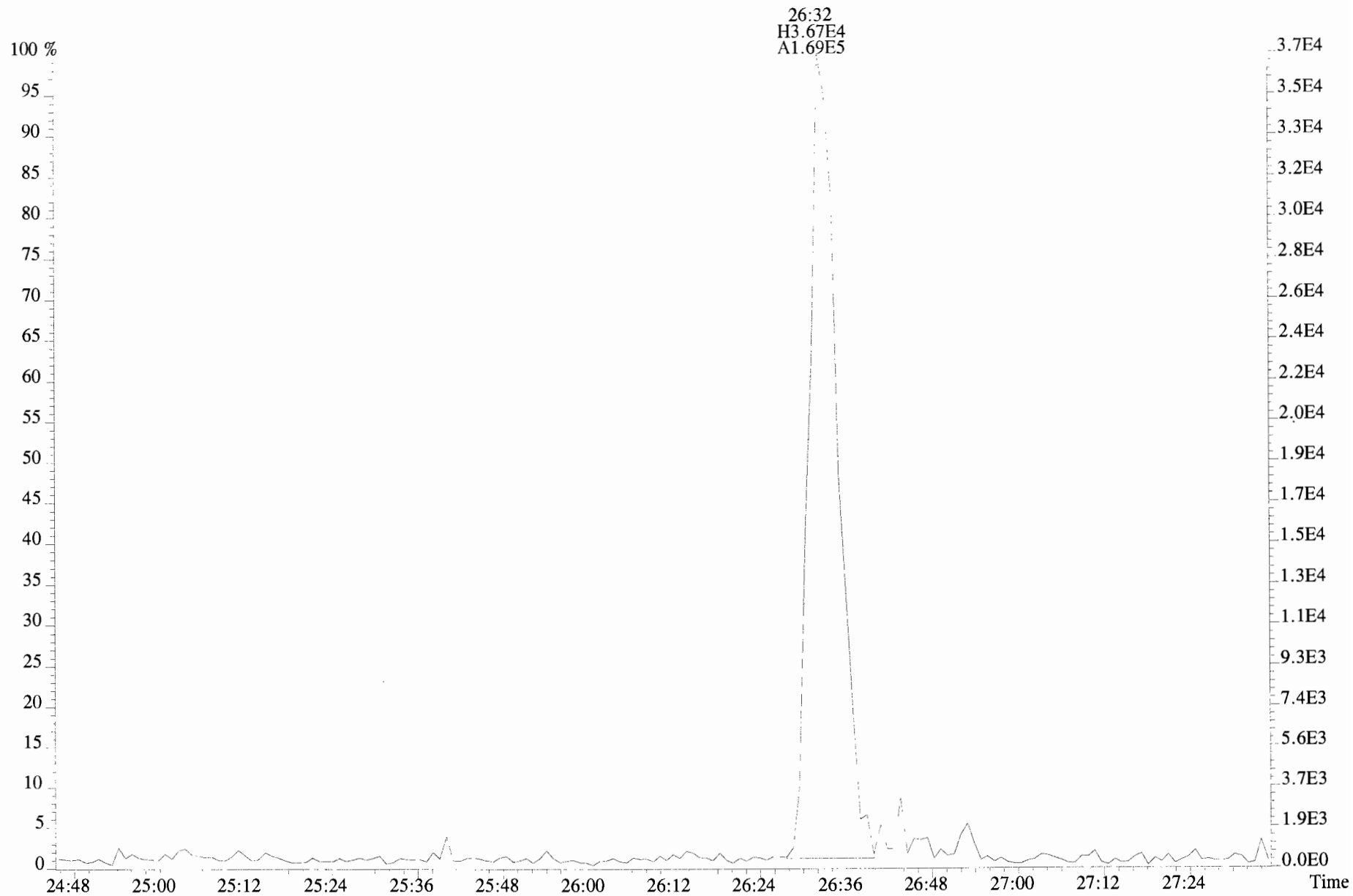
333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

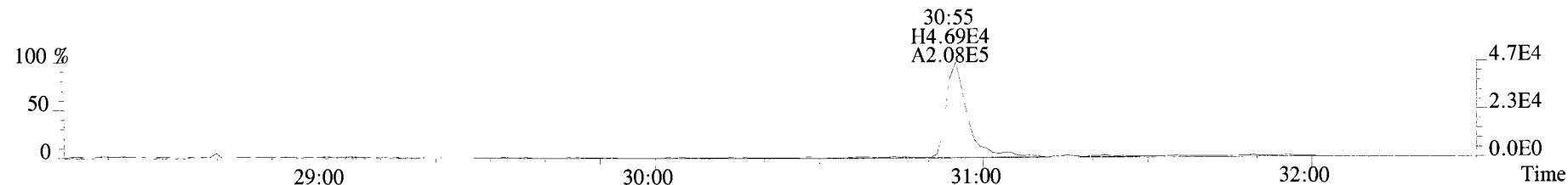


File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

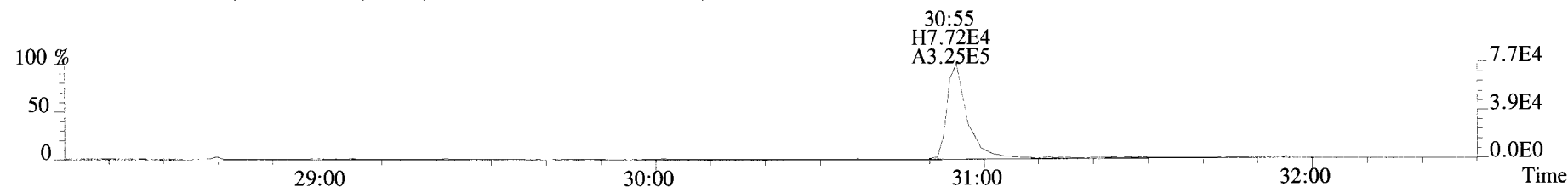




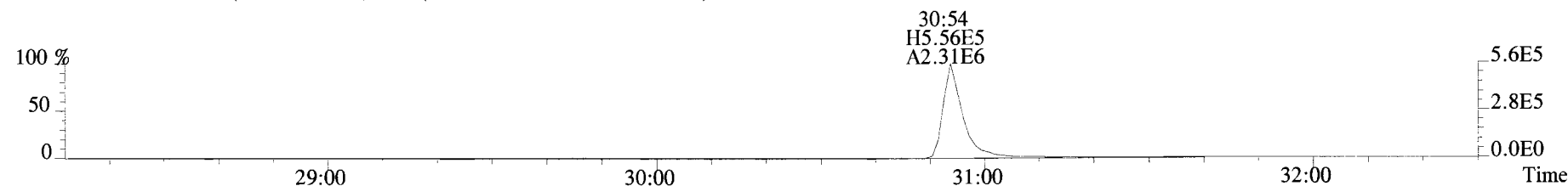
File:191009D1 #1-211 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
353.8576 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



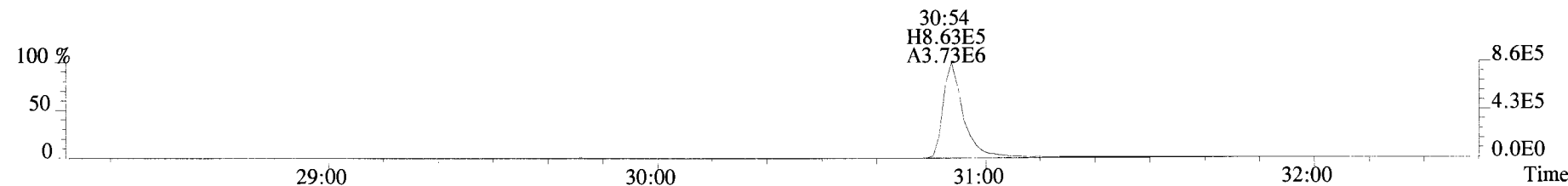
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



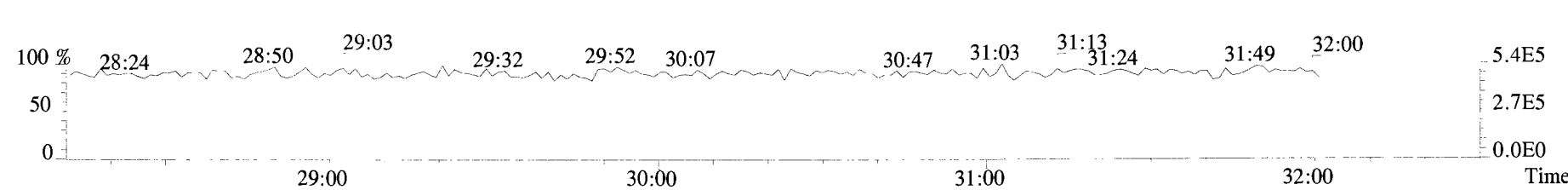
365.8978 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



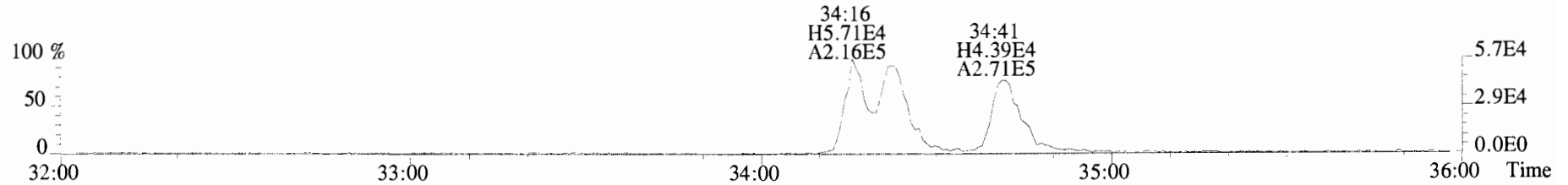
367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



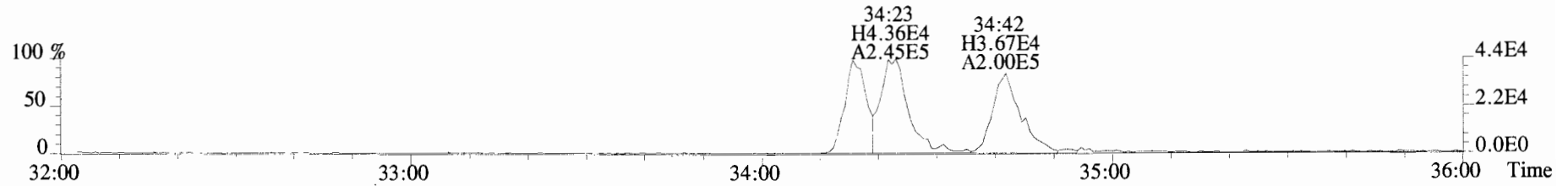
366.9792 S:3 F:2



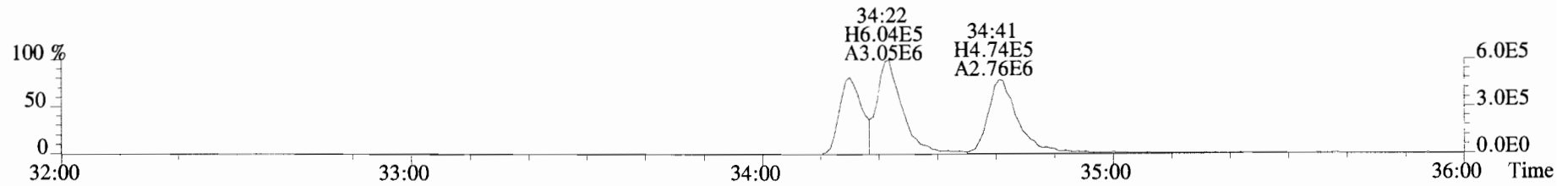
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



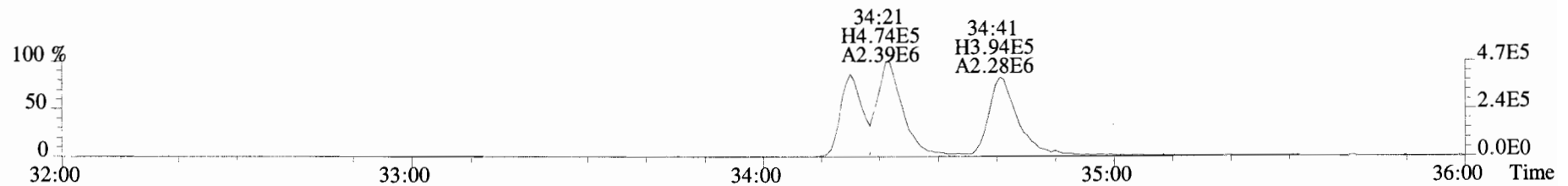
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



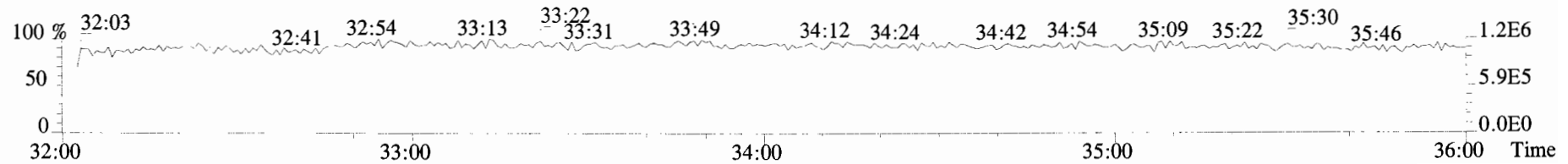
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



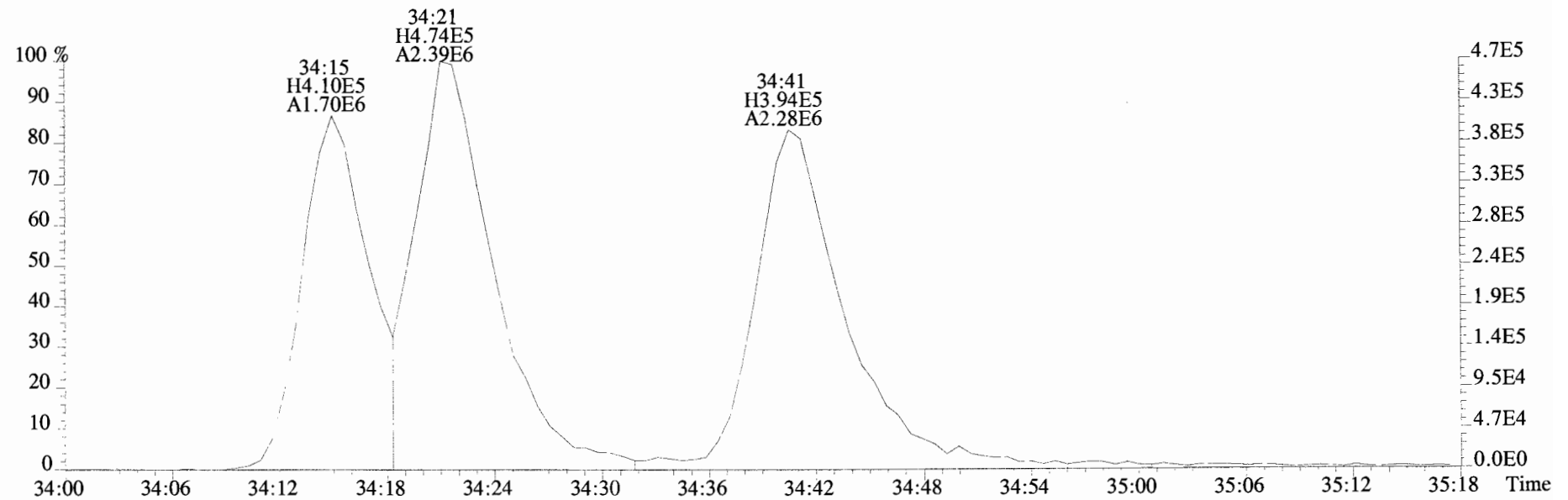
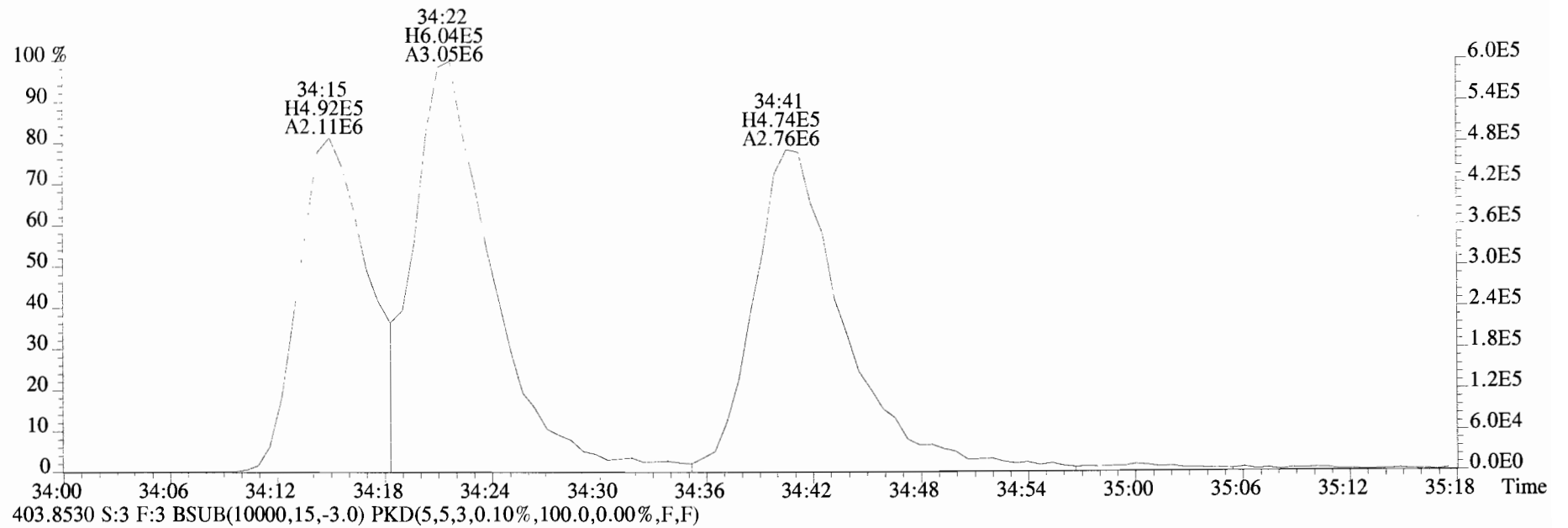
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



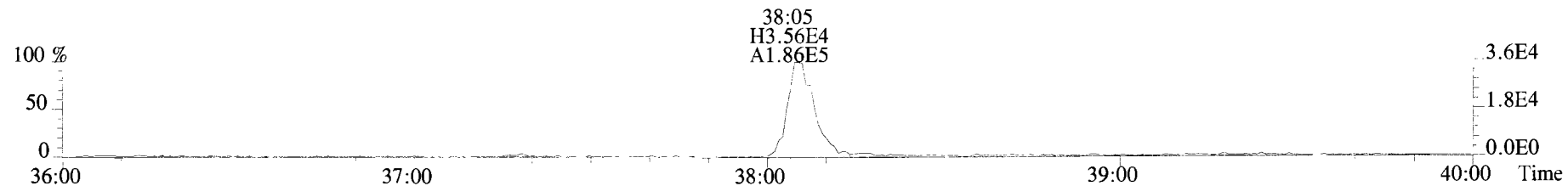
392.9760 S:3 F:3



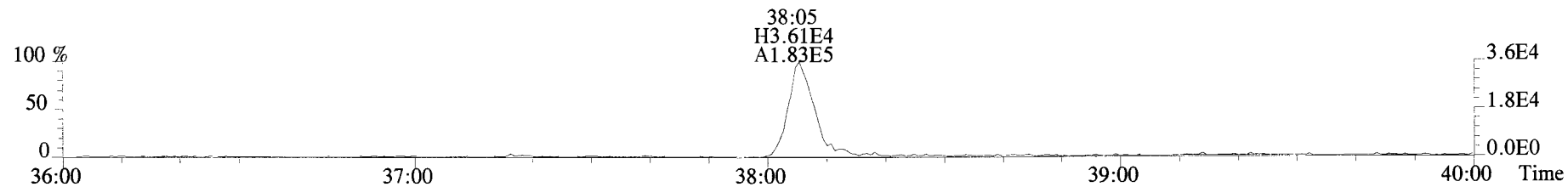
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text: Vista Analytical Laboratory VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



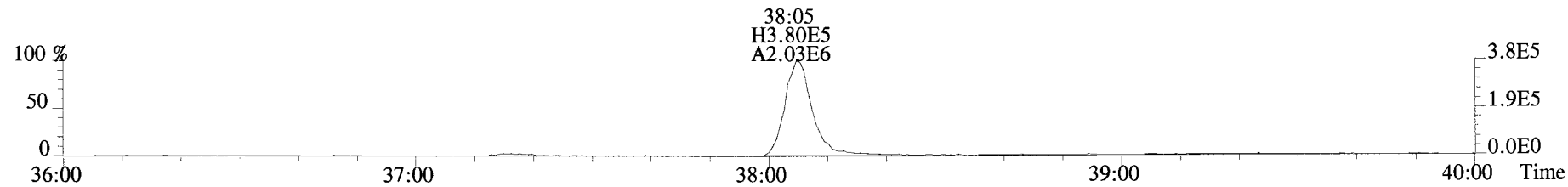
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



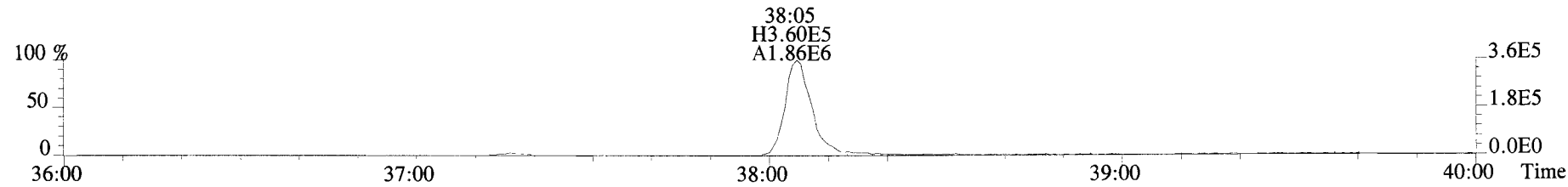
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



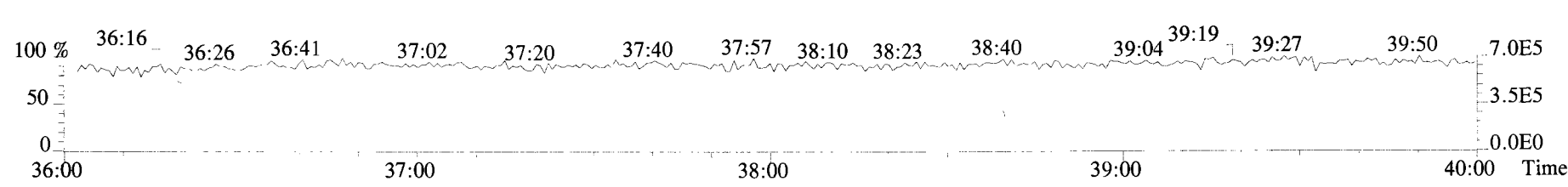
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



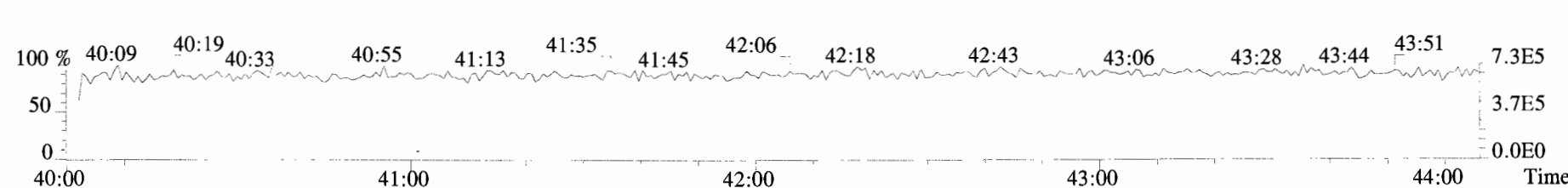
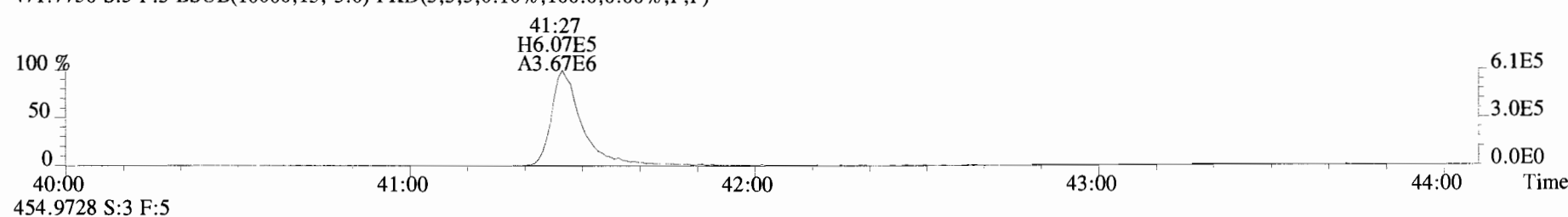
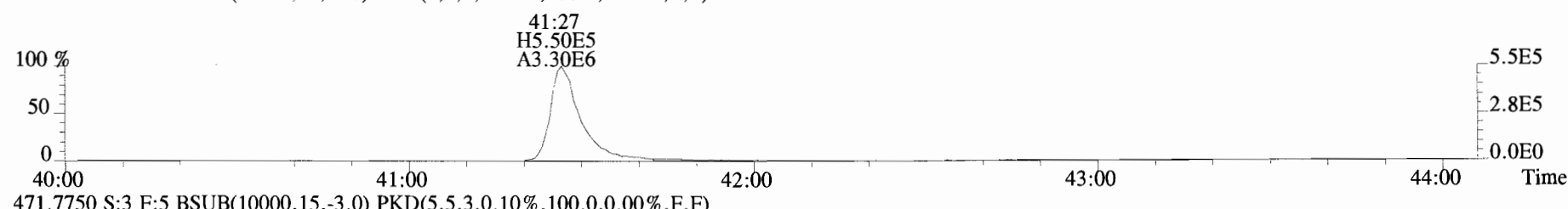
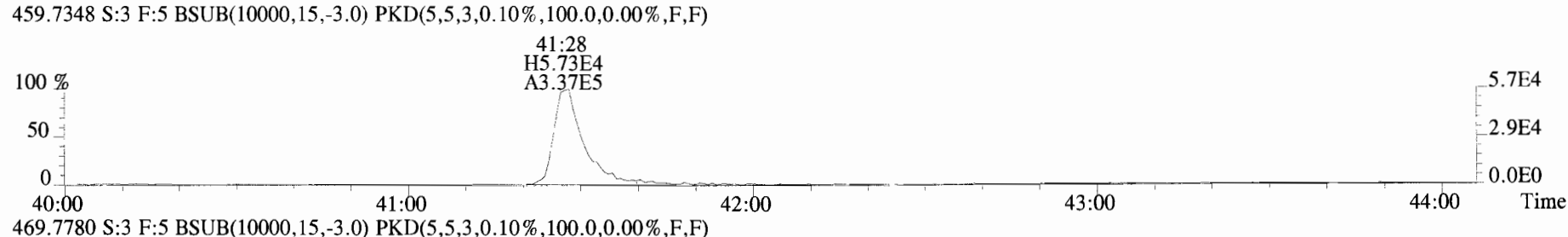
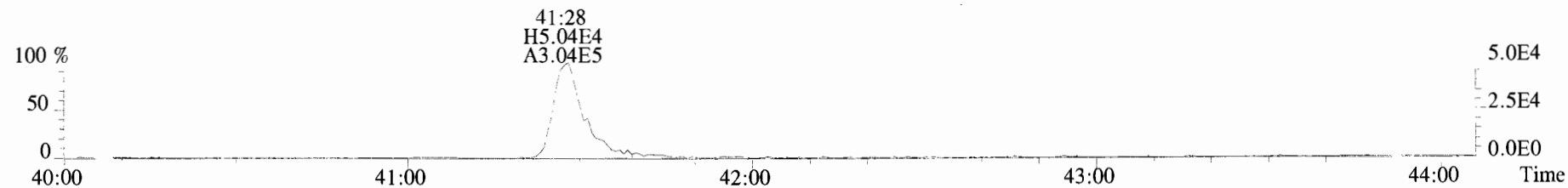
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



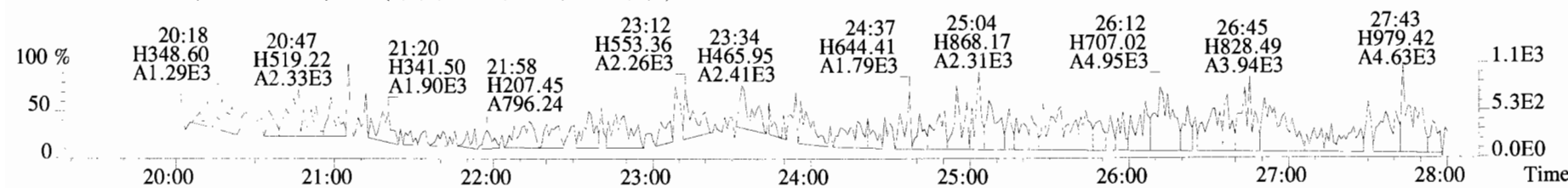
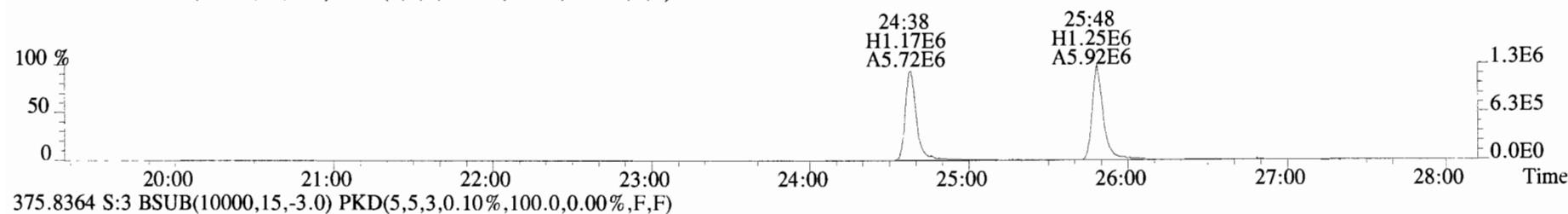
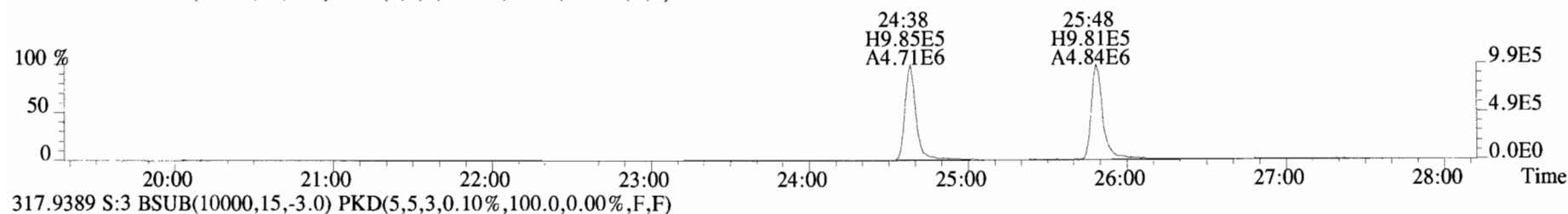
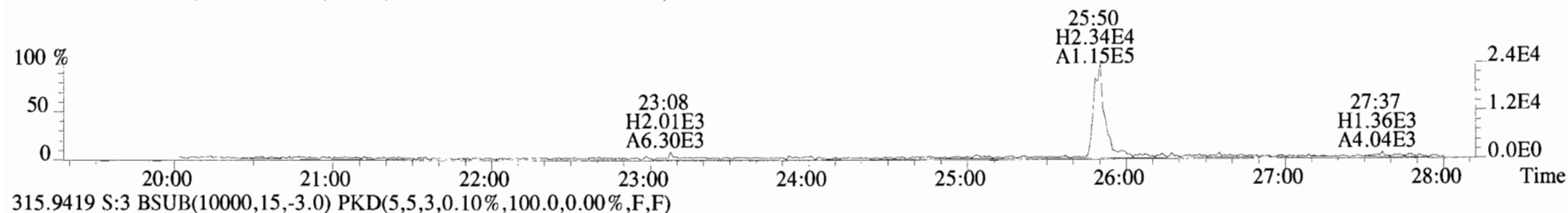
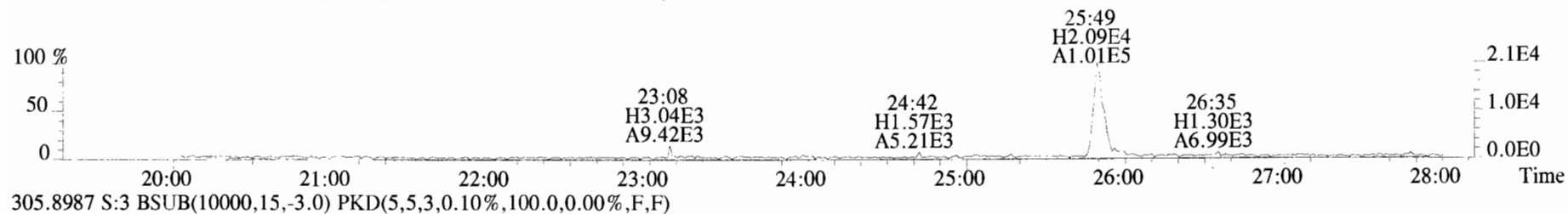
454.9728 S:3 F:4



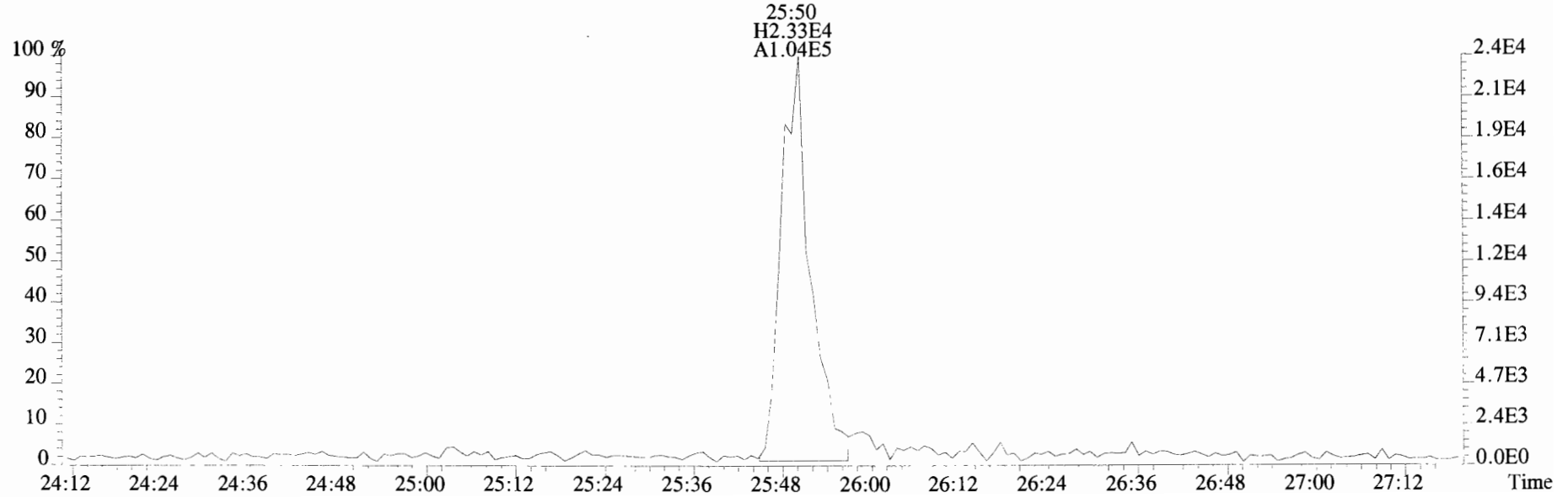
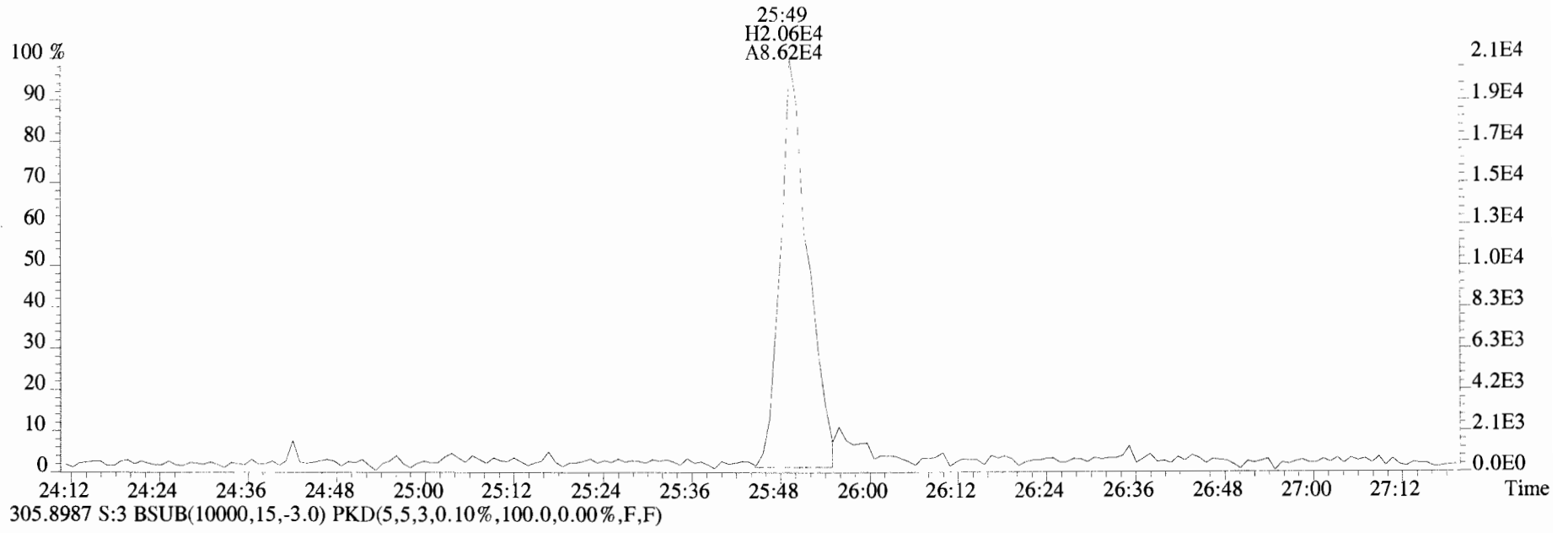
File:191009D1 #1-432 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



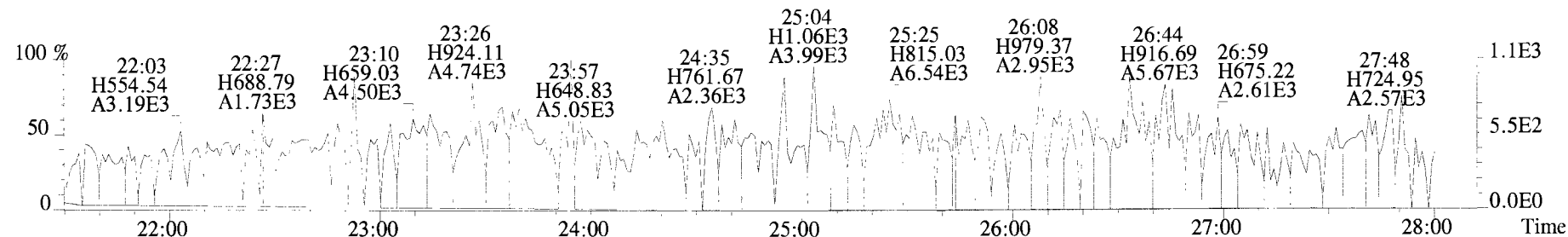
File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



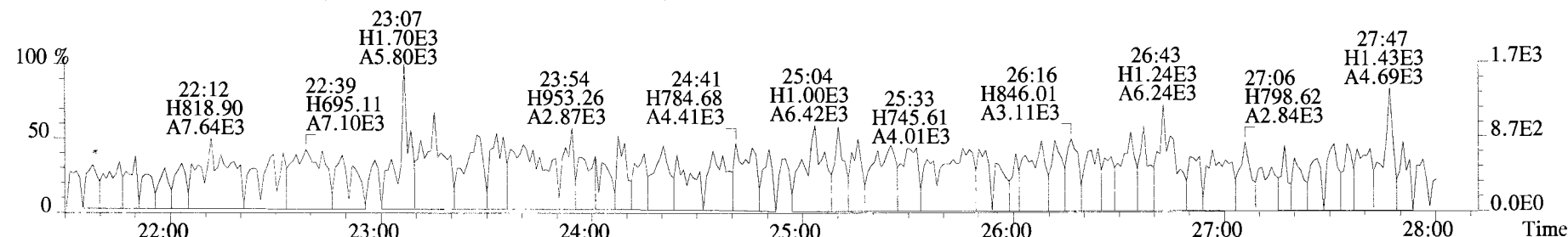
File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



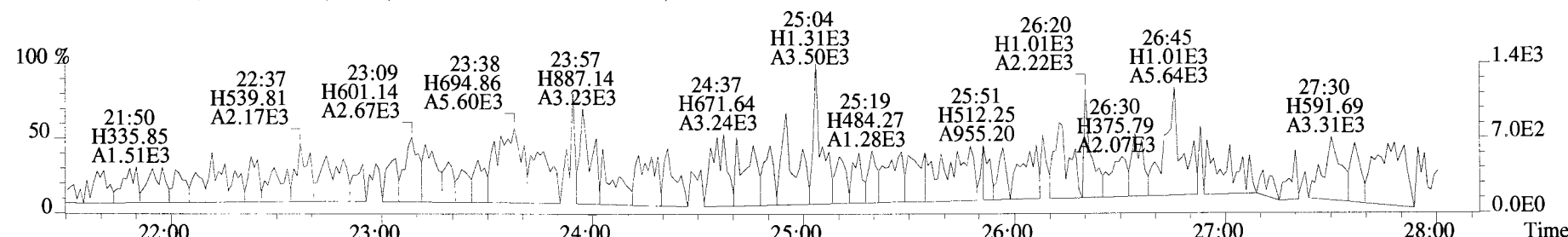
File:191009D1 #1-513 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
 339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



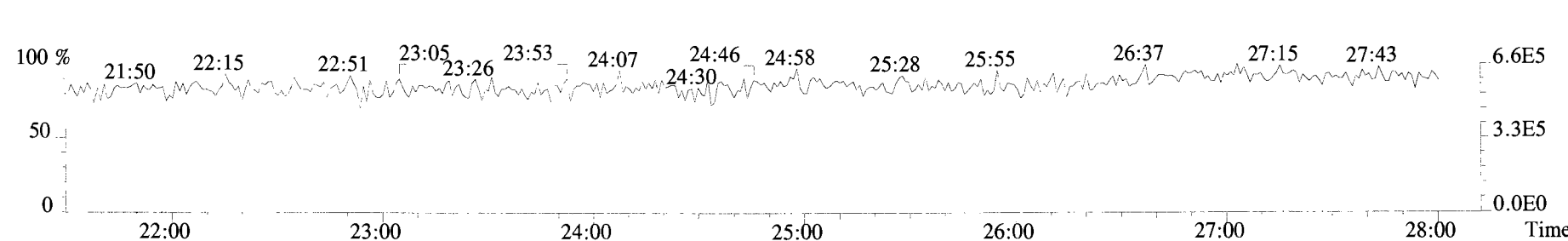
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

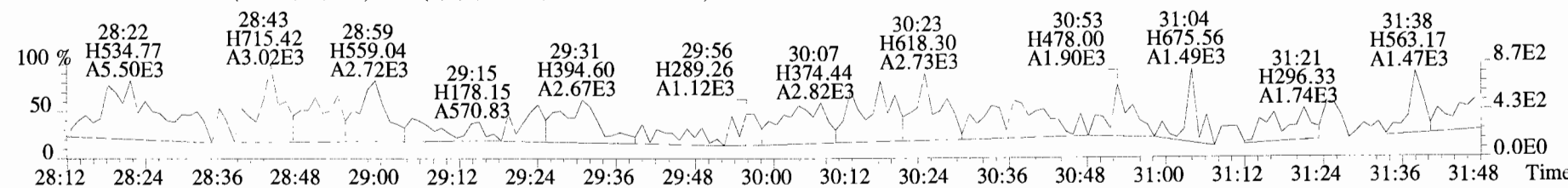
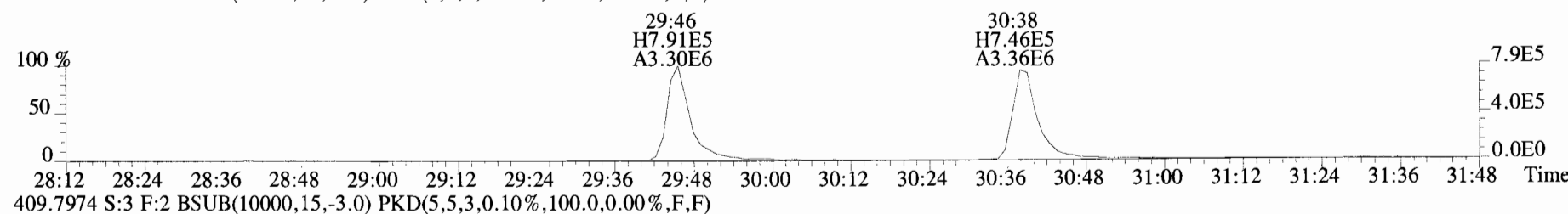
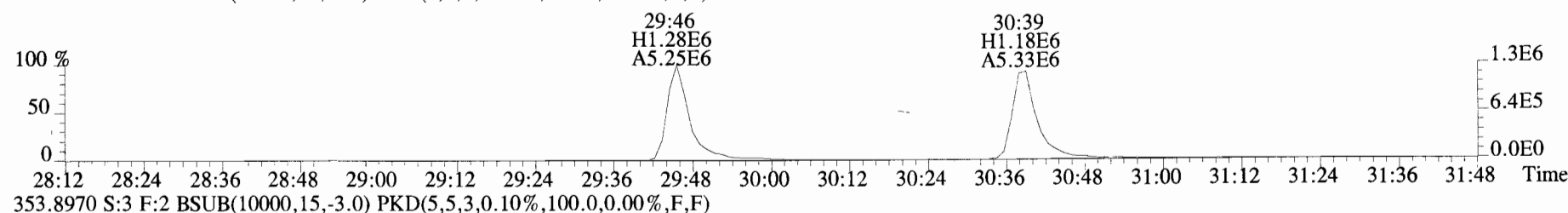
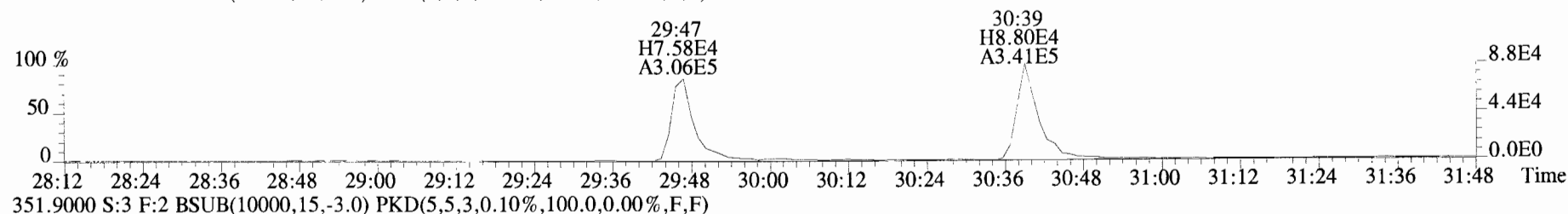
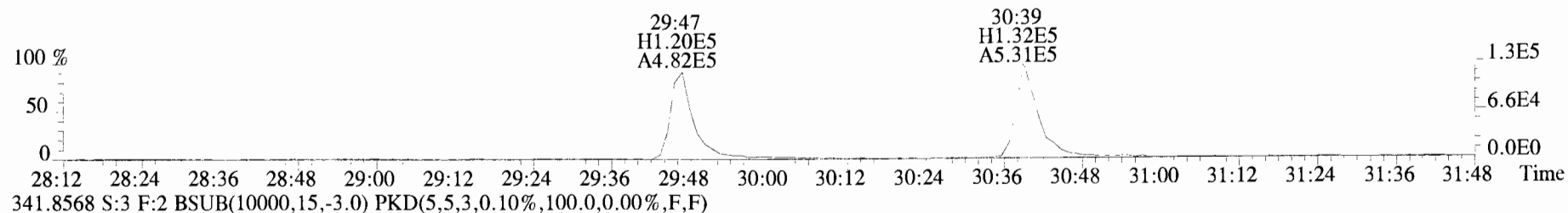


316.9824 S:3

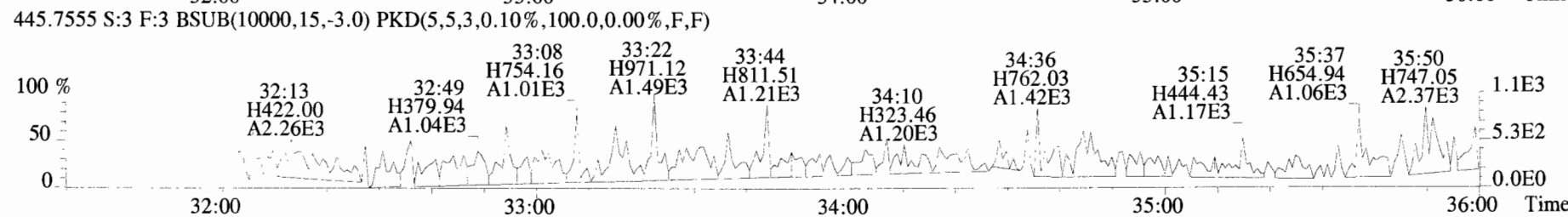
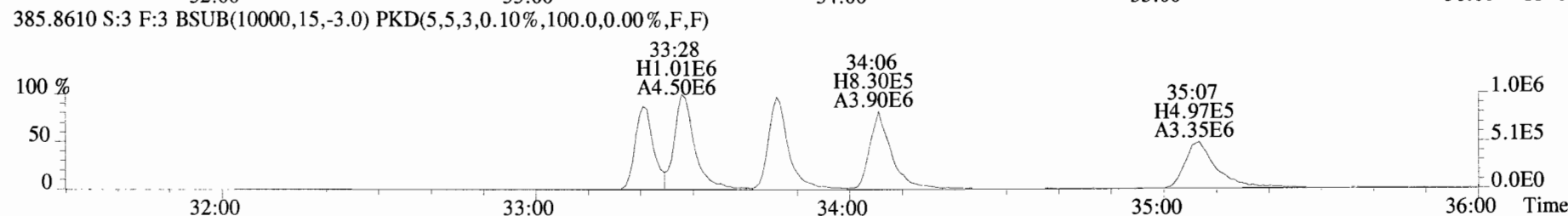
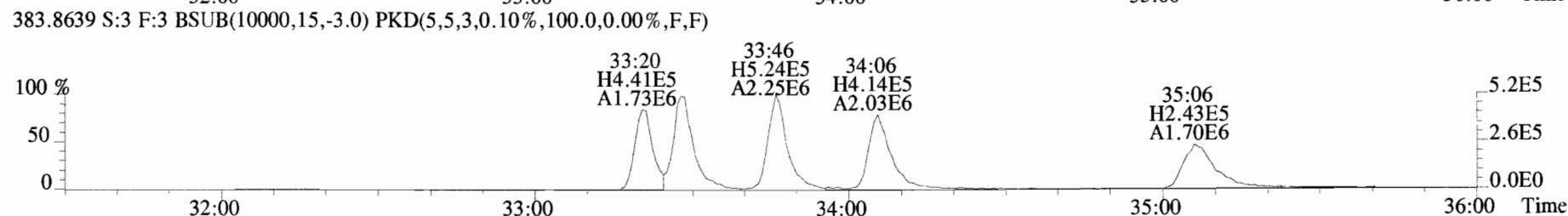
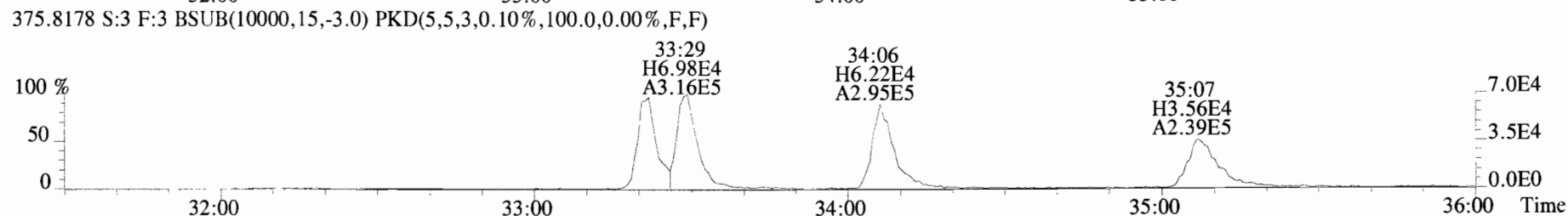
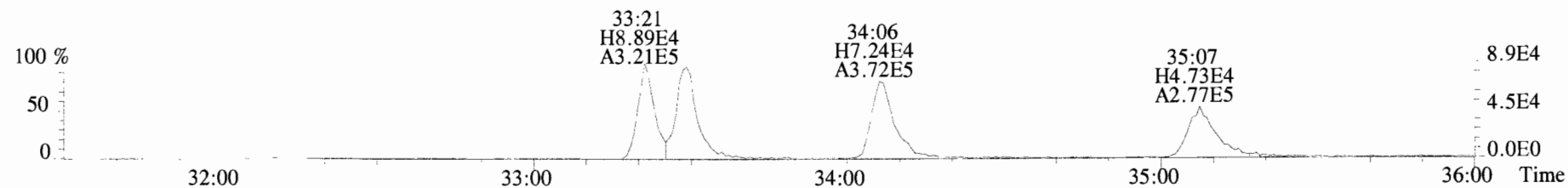




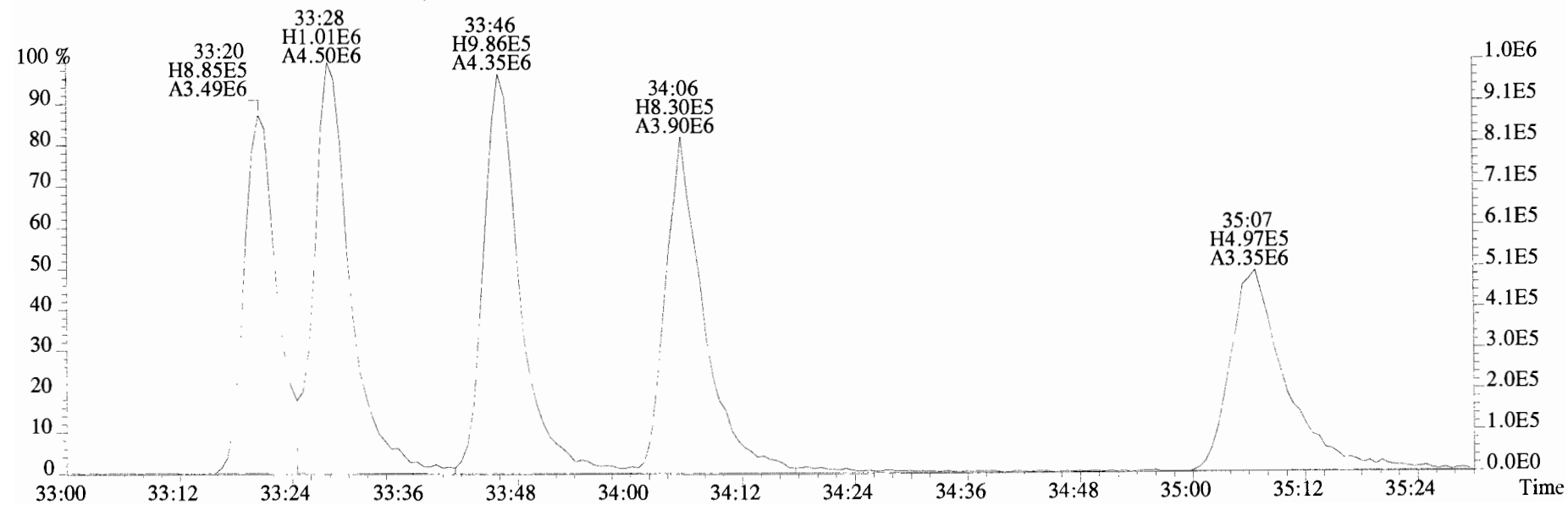
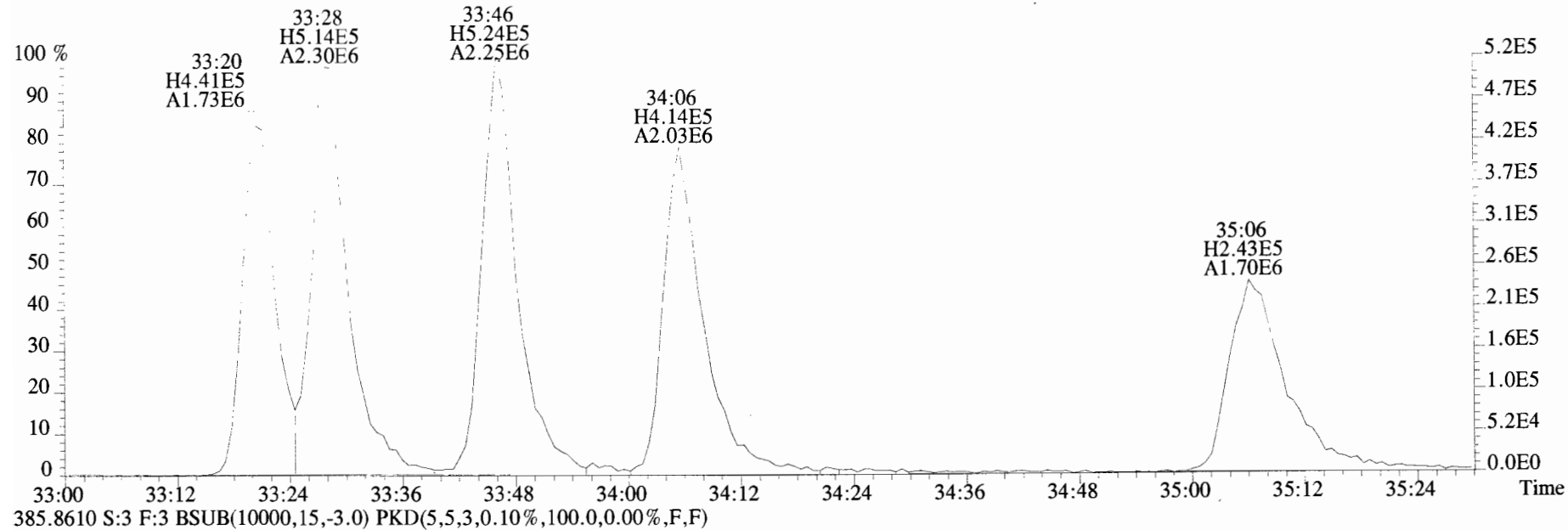
File:191009D1 #1-211 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



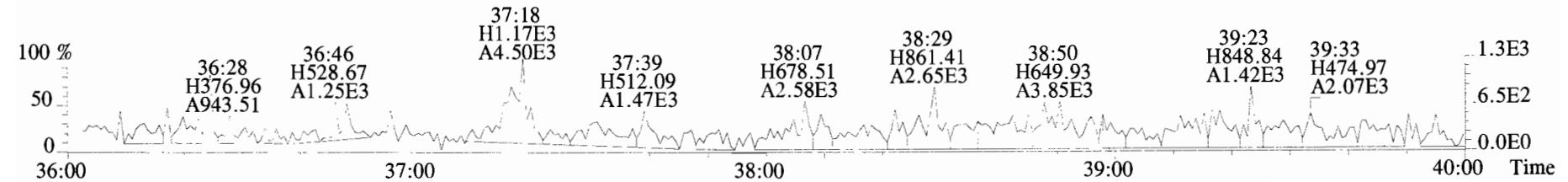
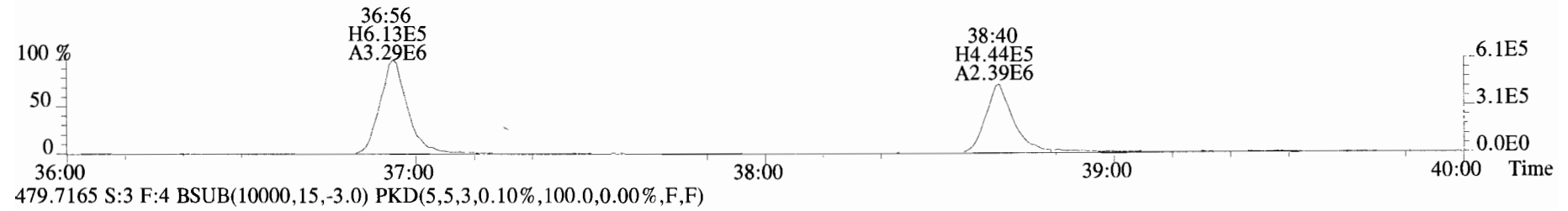
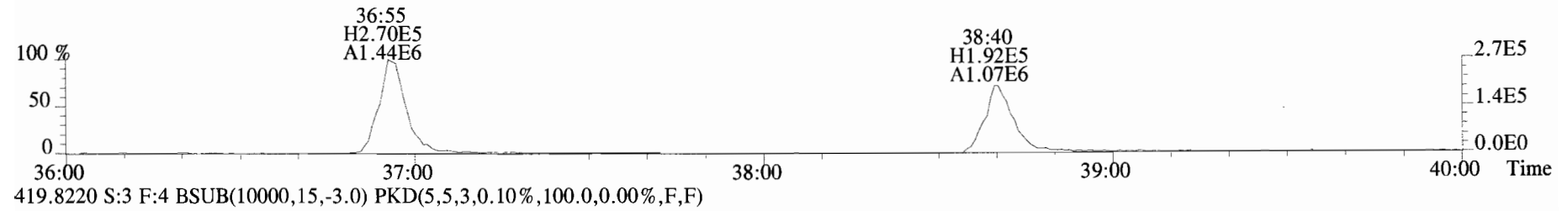
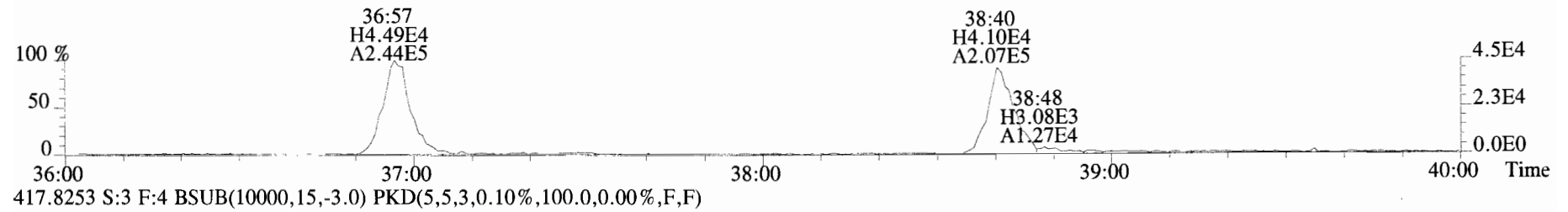
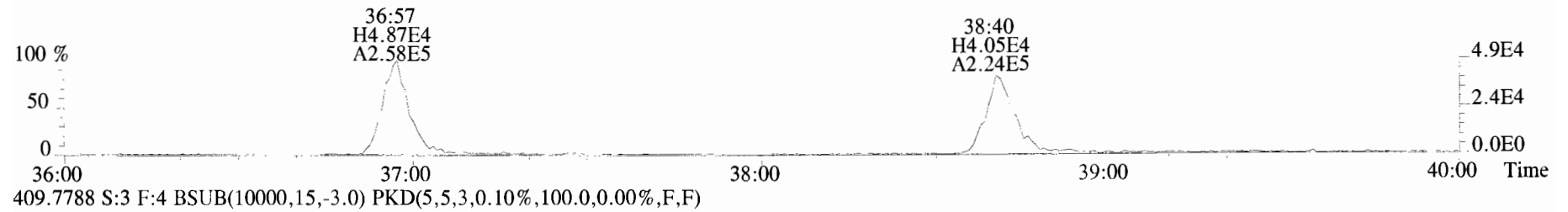
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
 373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



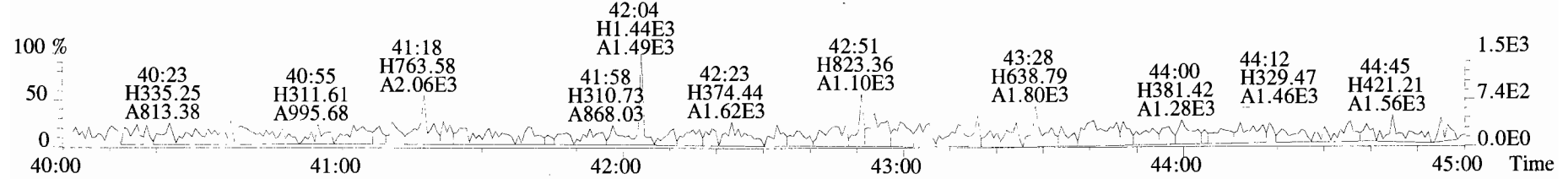
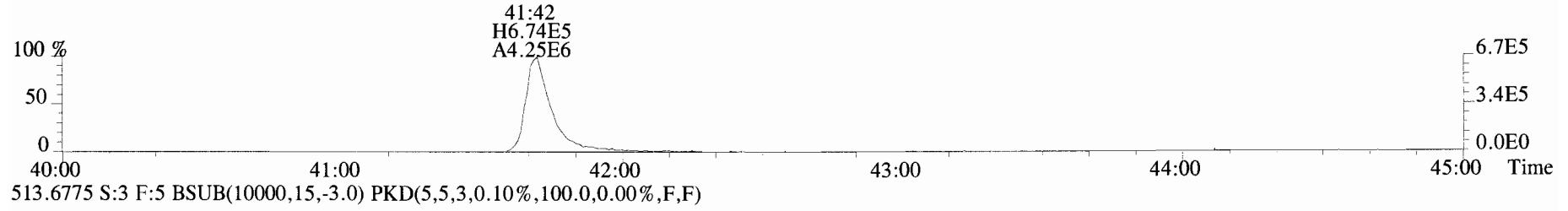
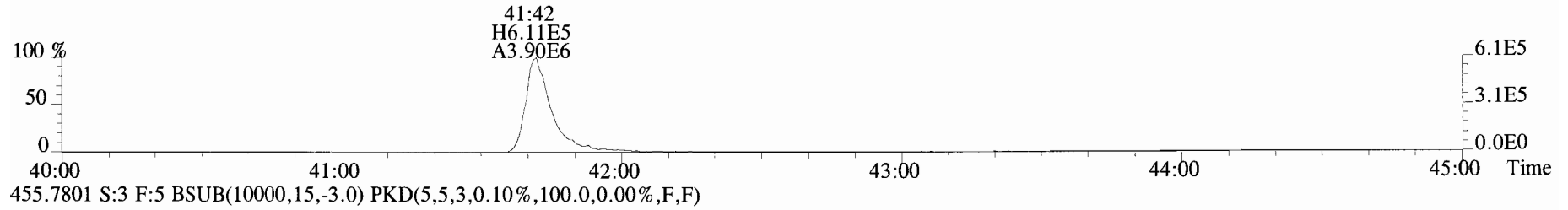
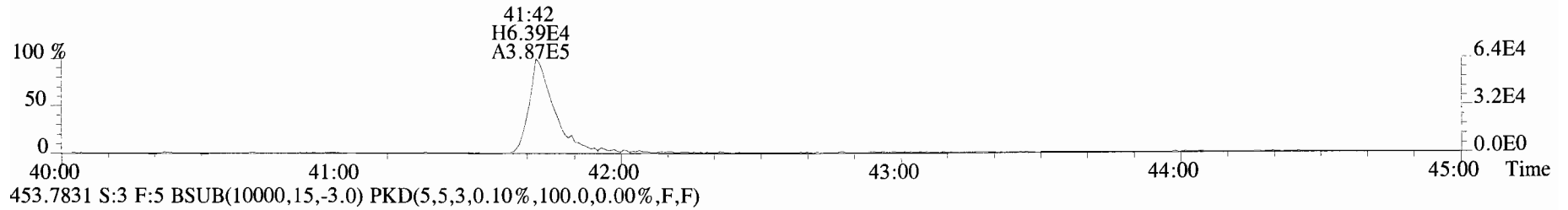
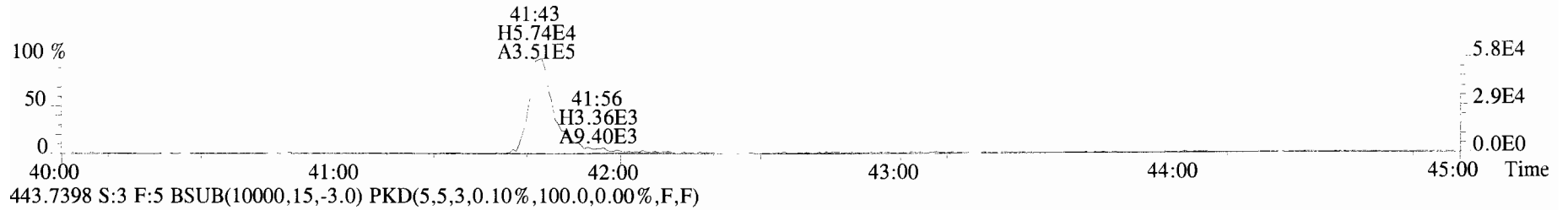
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
 383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



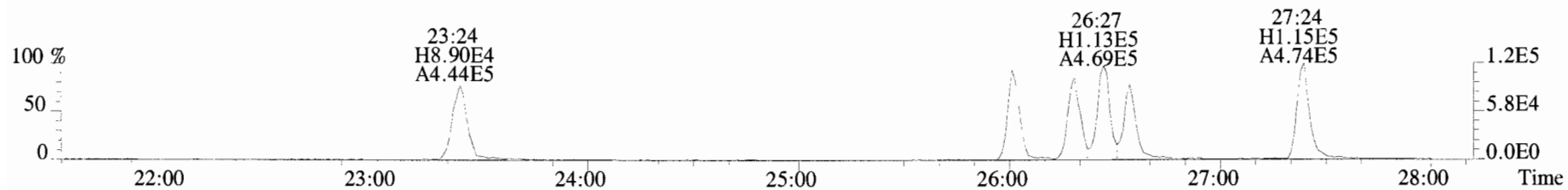
File:191009D1 #1-355 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



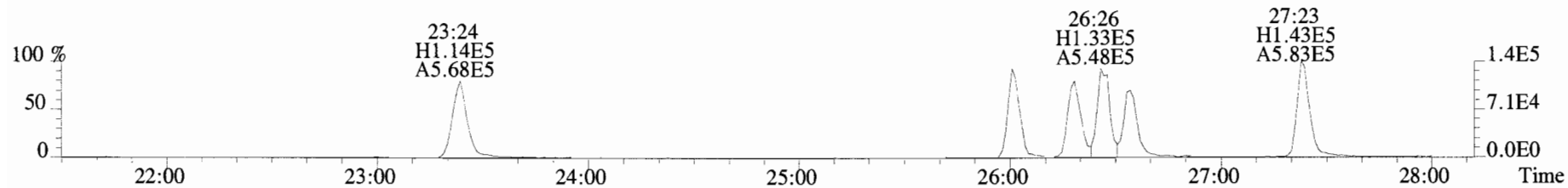
File:191009D1 #1-432 Acq: 9-OCT-2019 17:48:27 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-3 1613 CS2 19C2203 Exp:OCDD\_DB5  
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



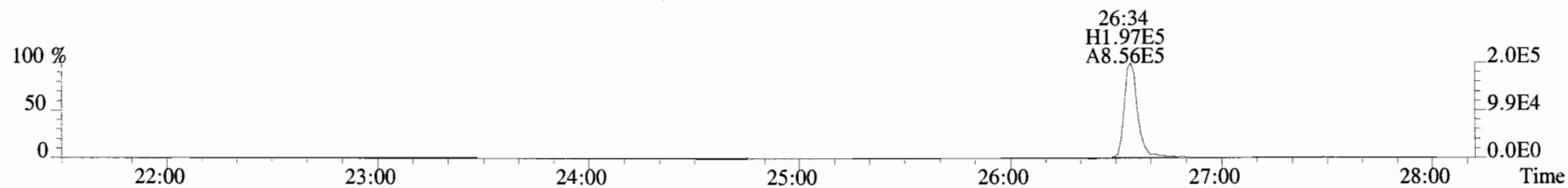
File:191009D1 #1-513 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



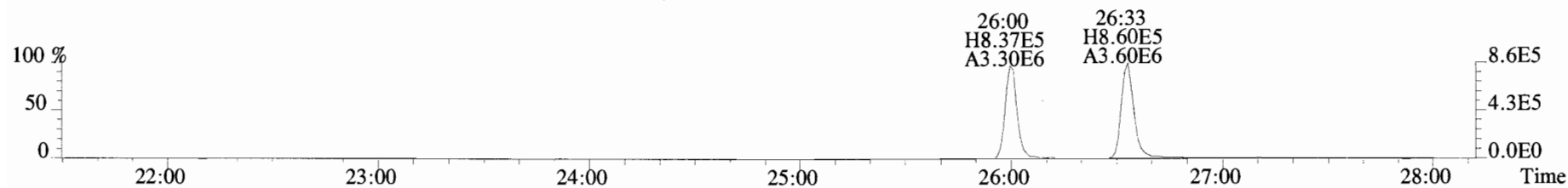
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



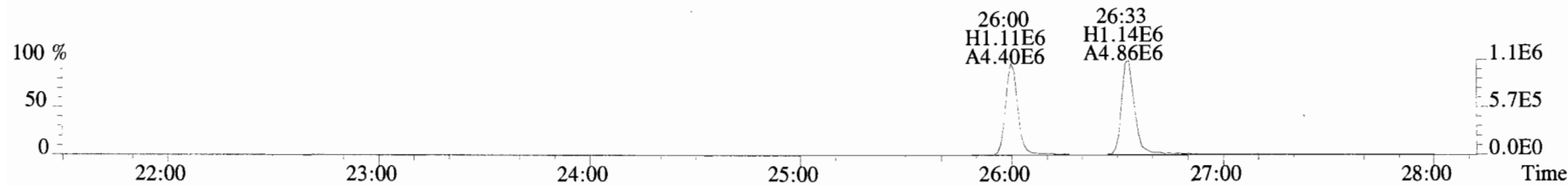
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



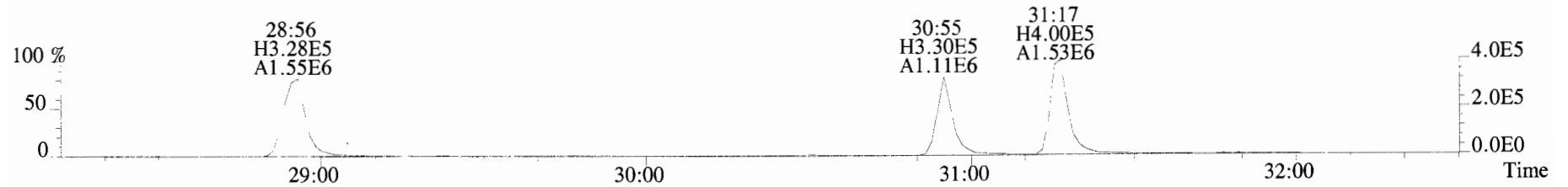
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



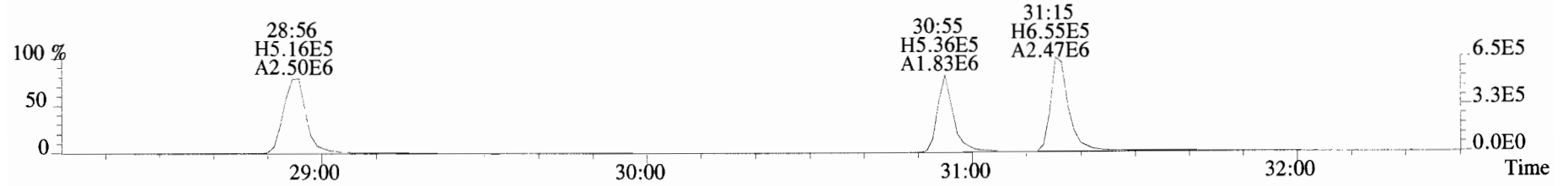
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



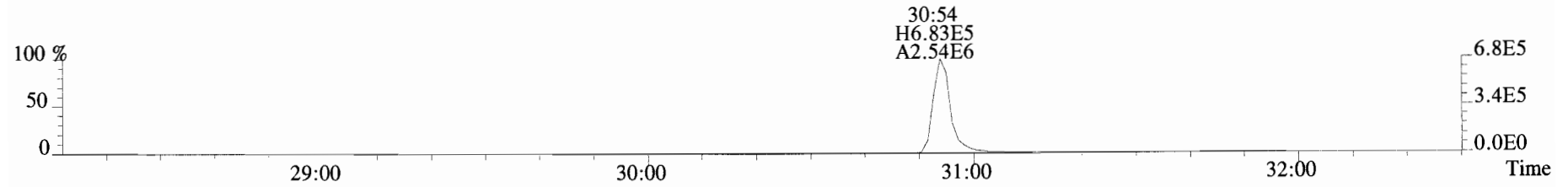
File:191009D1 #1-211 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



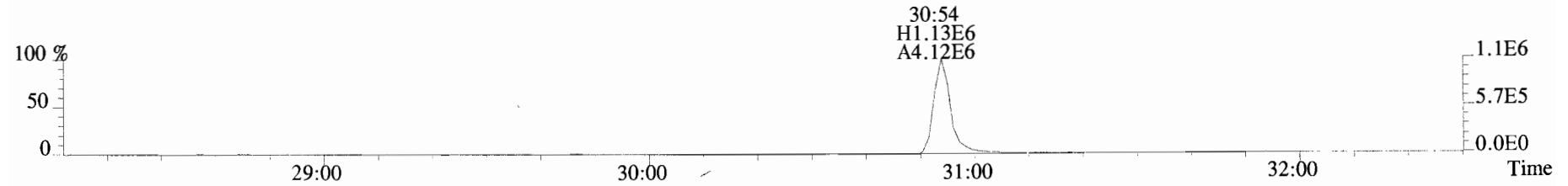
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



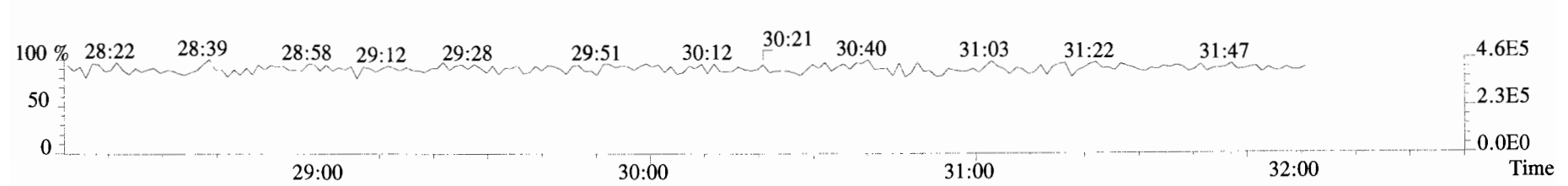
365.8978 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



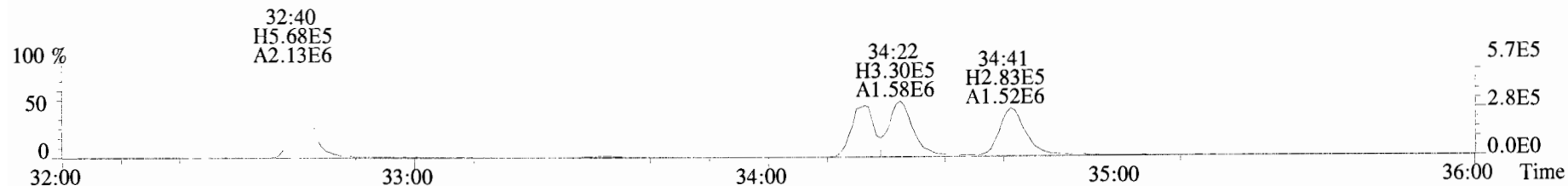
367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



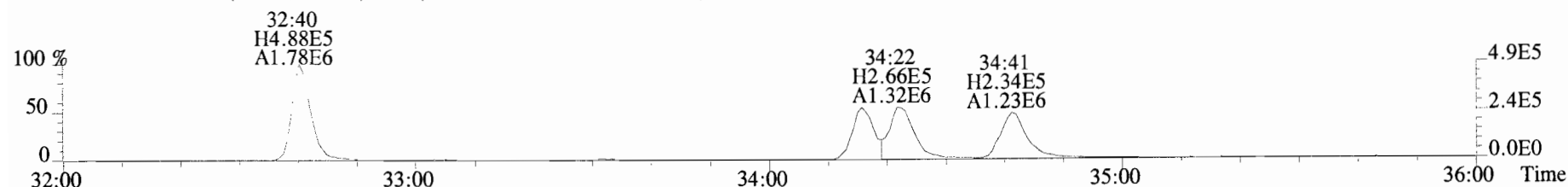
366.9792 S:4 F:2



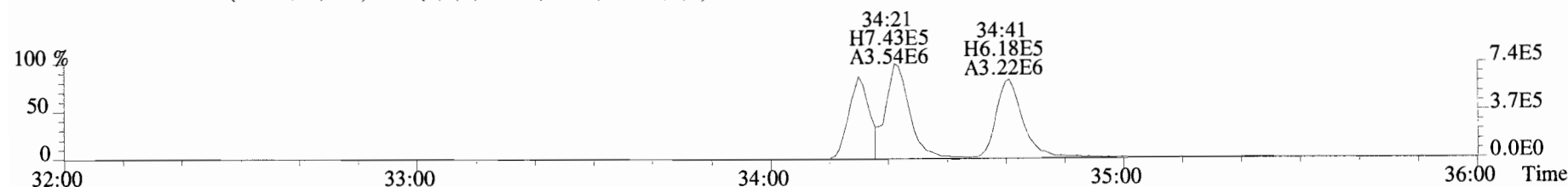
File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



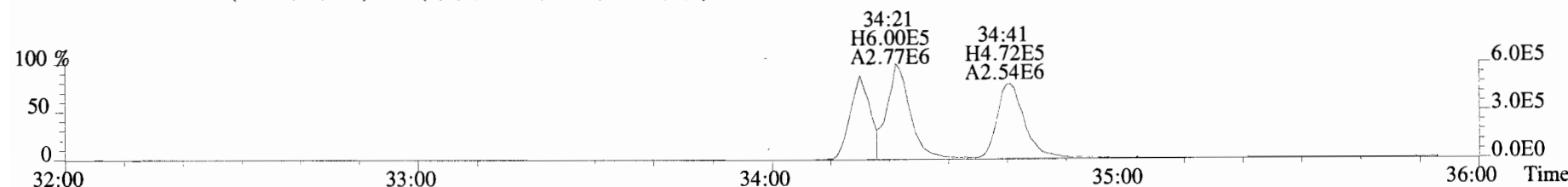
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



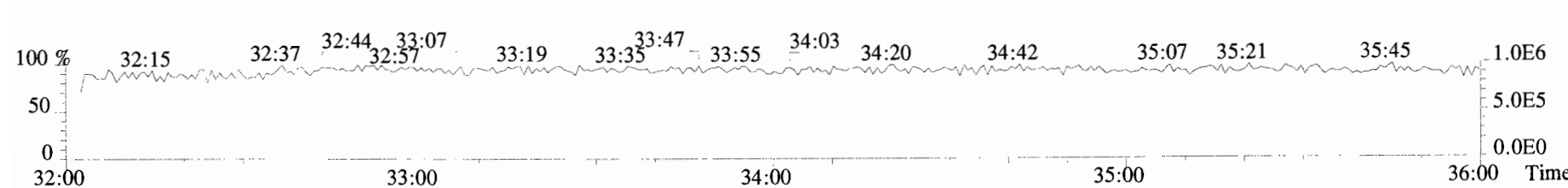
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

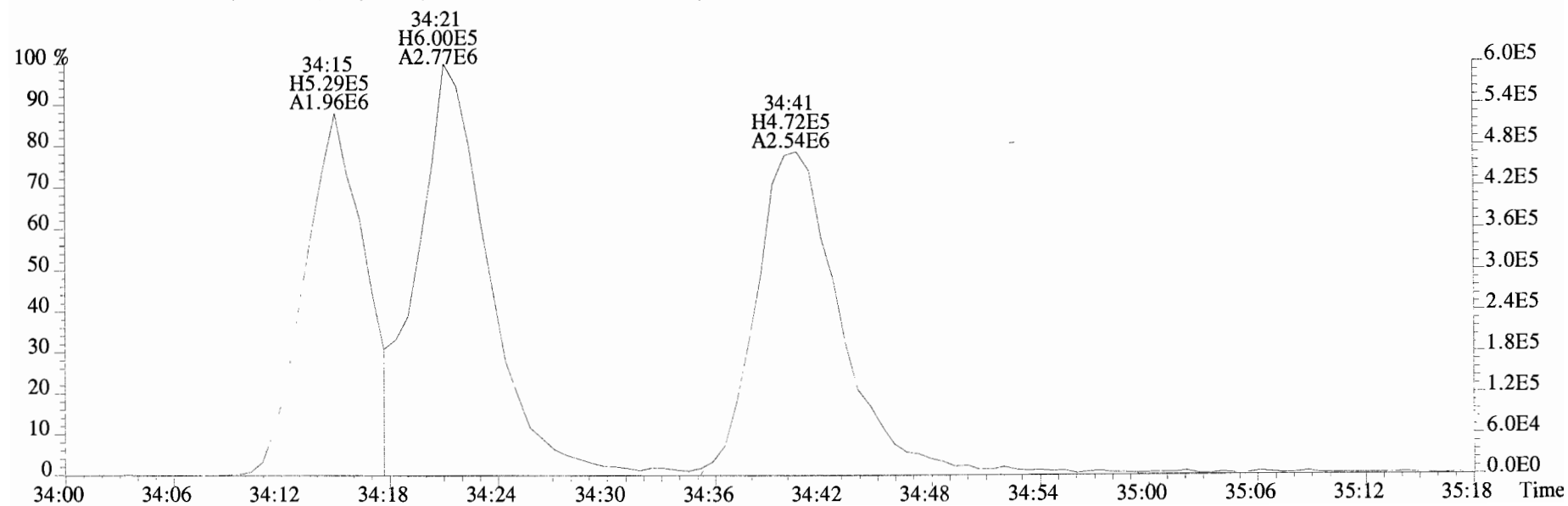
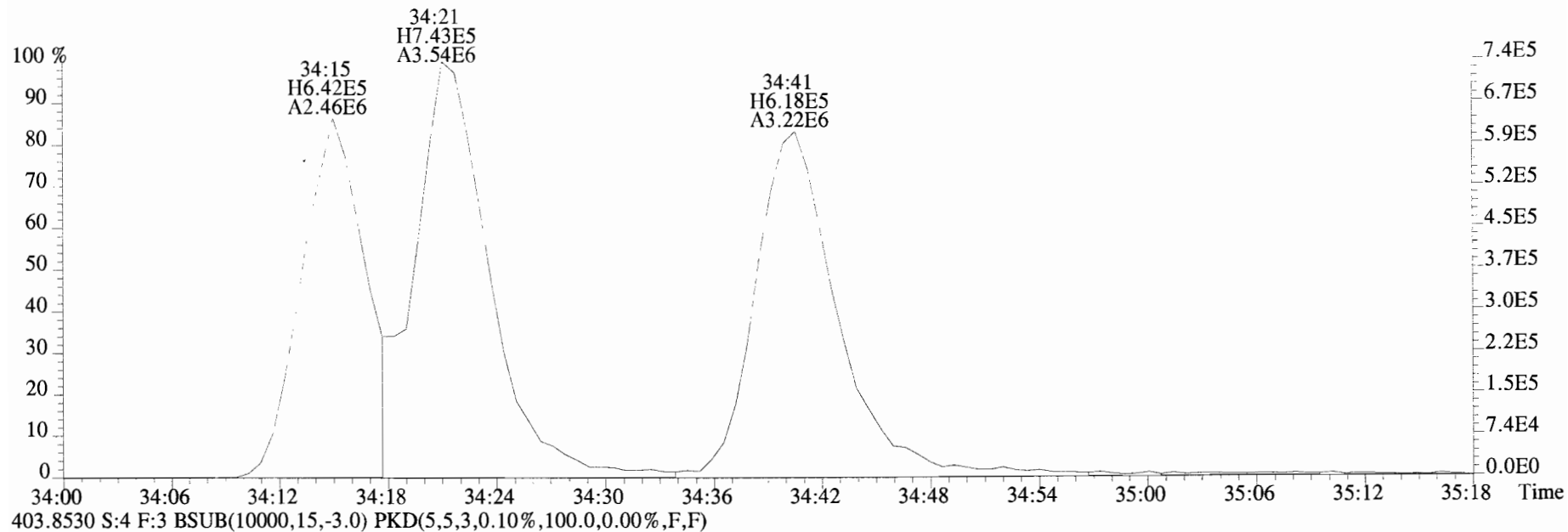


392.9760 S:4 F:3

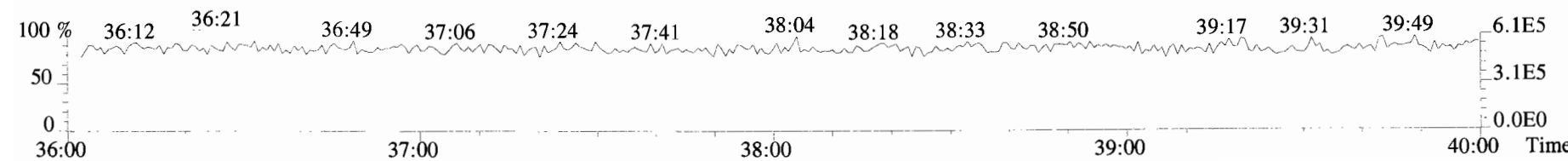
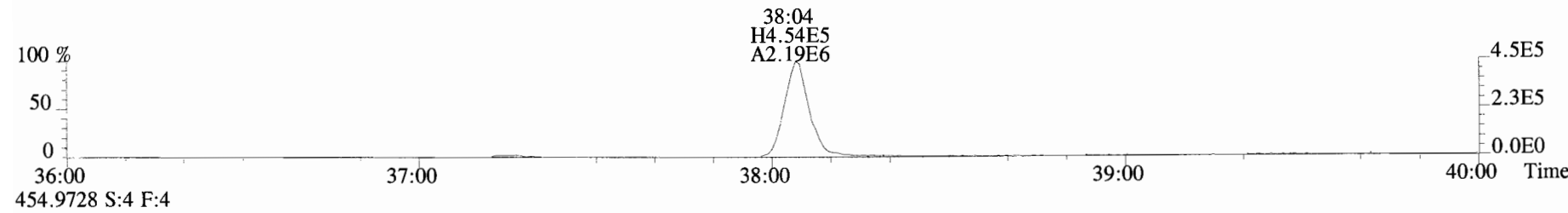
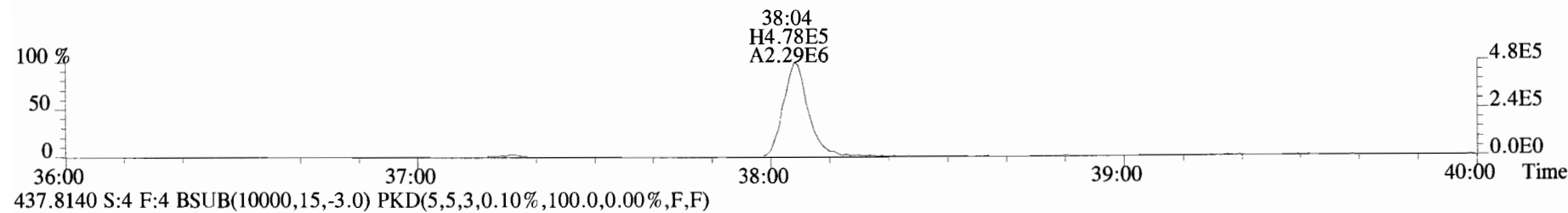
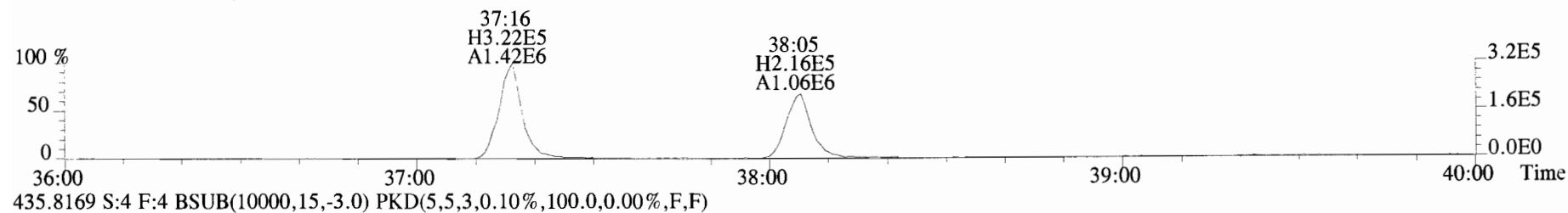
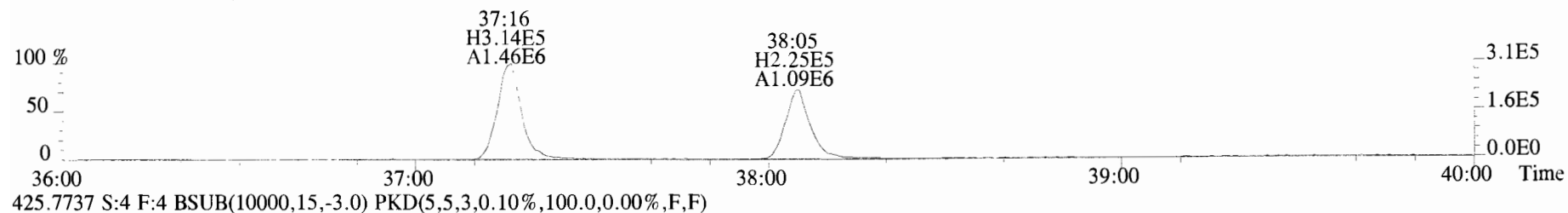




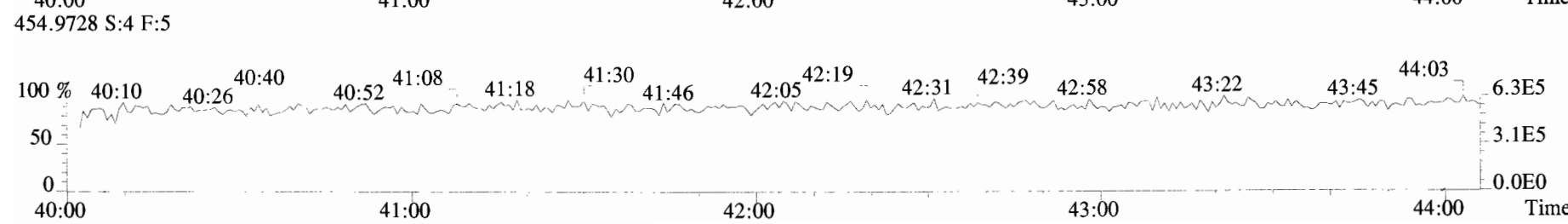
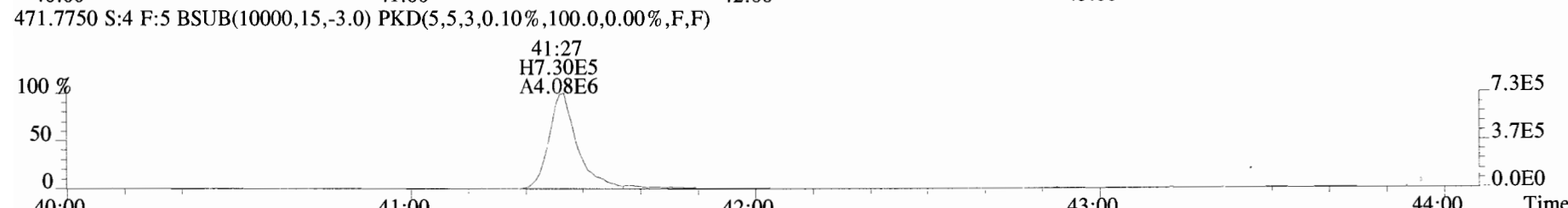
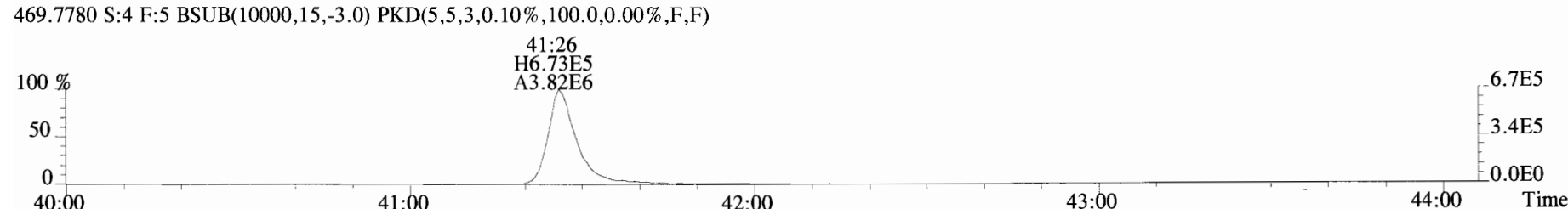
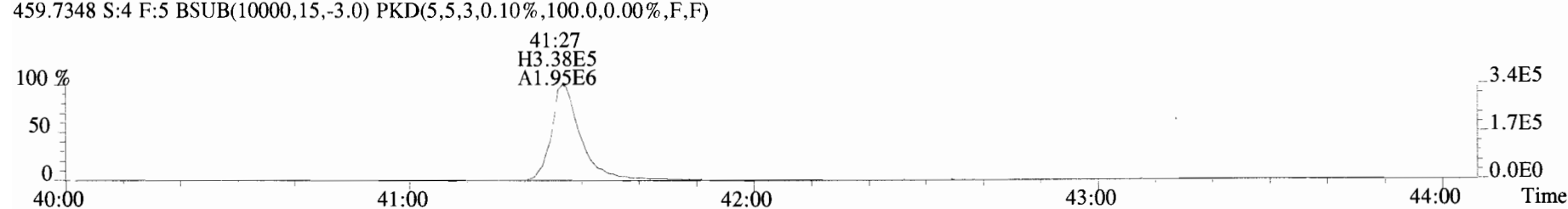
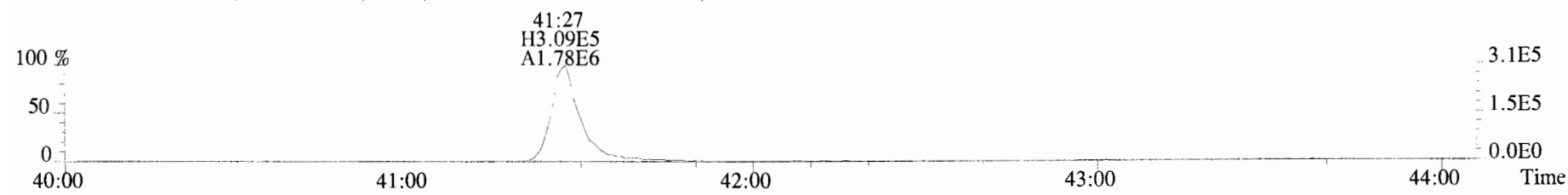
File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



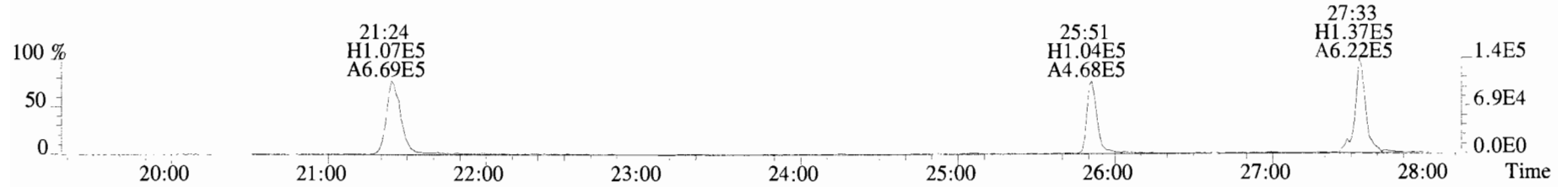
File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



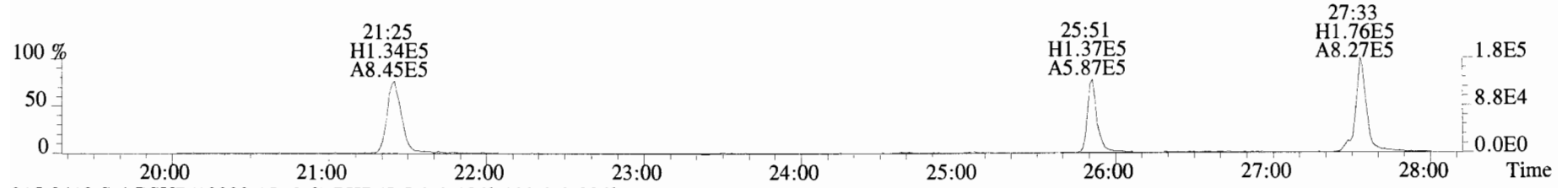
File:191009D1 #1-432 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



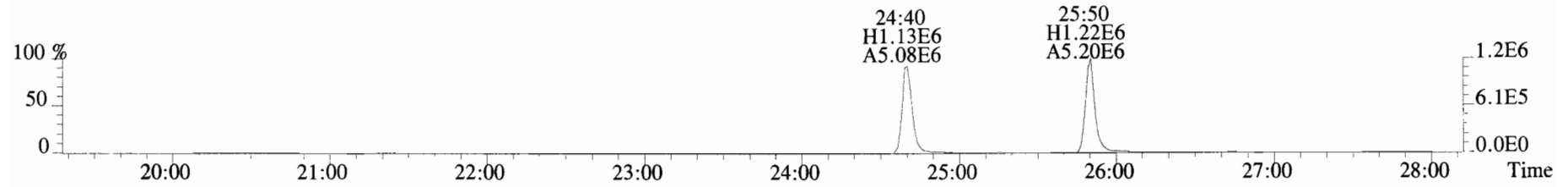
File:191009D1 #1-513 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#4 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



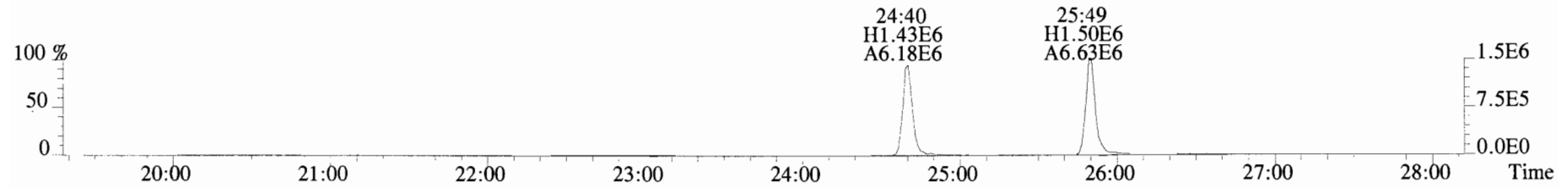
305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



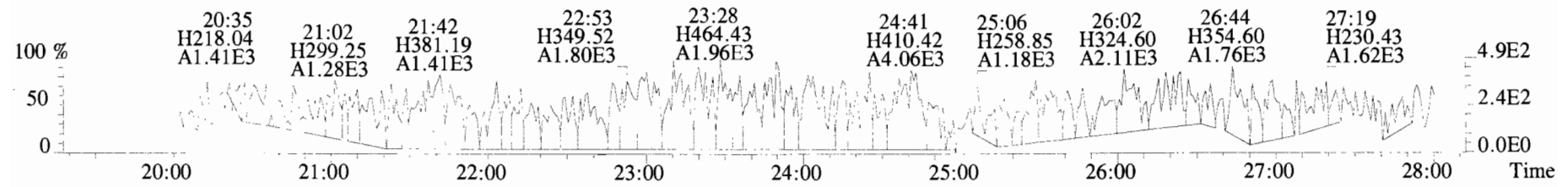
315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



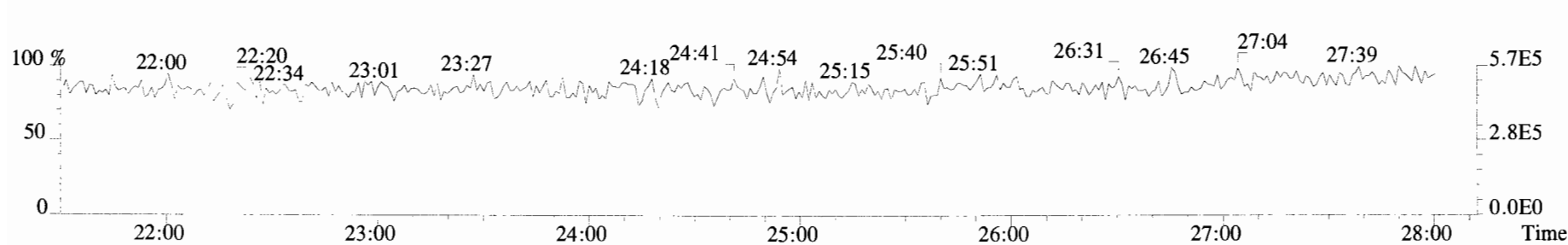
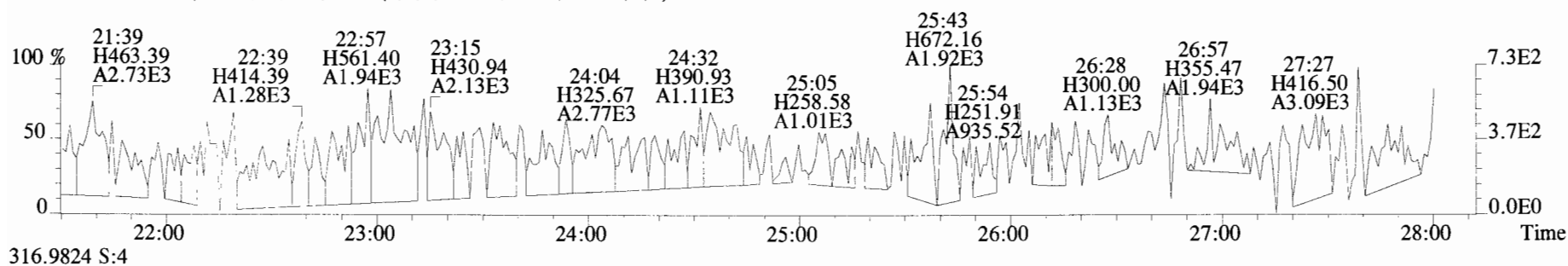
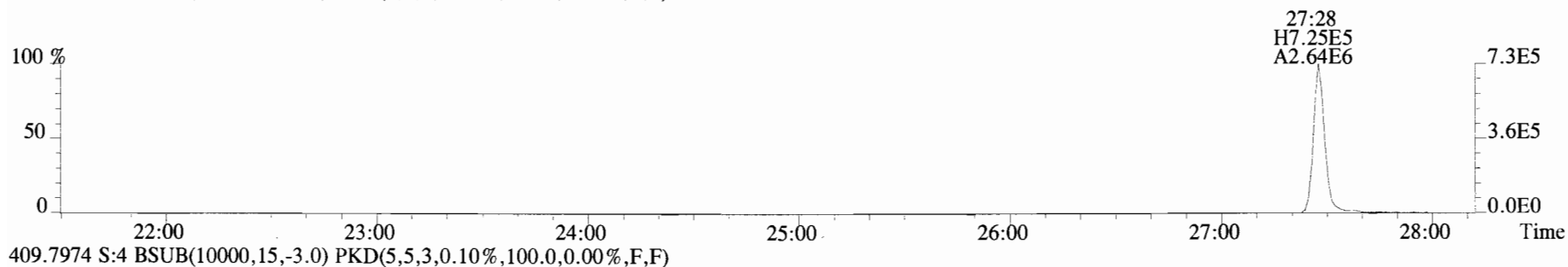
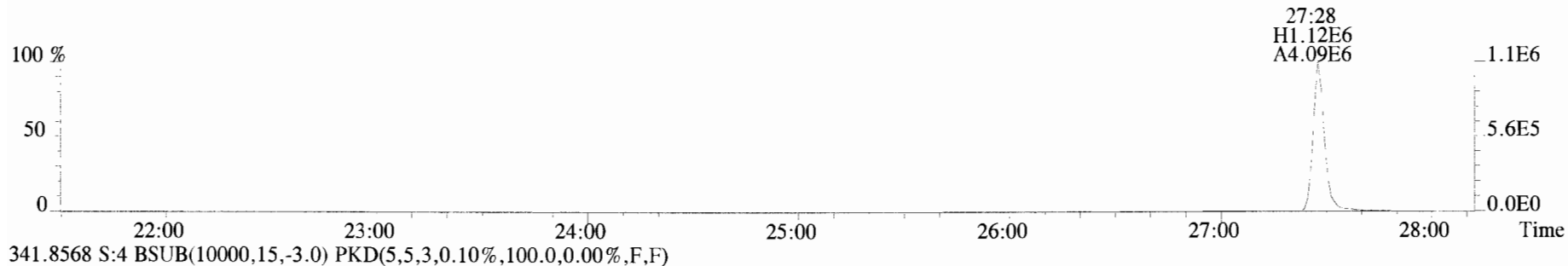
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



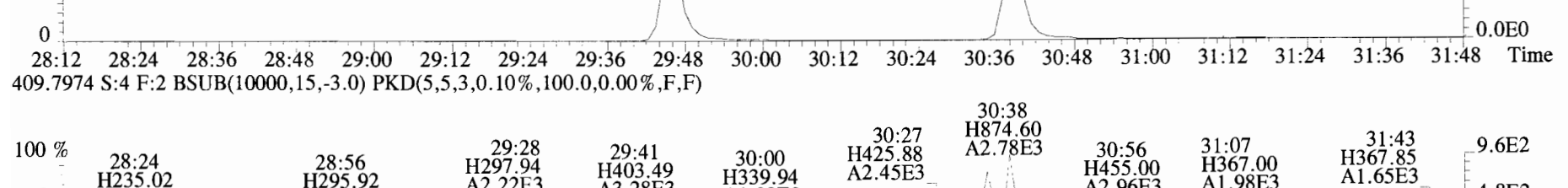
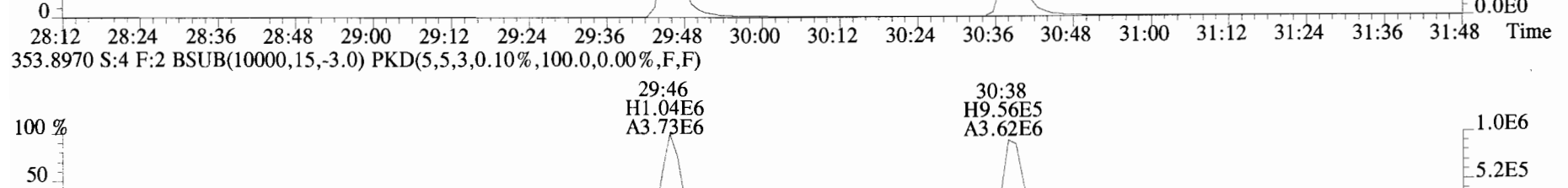
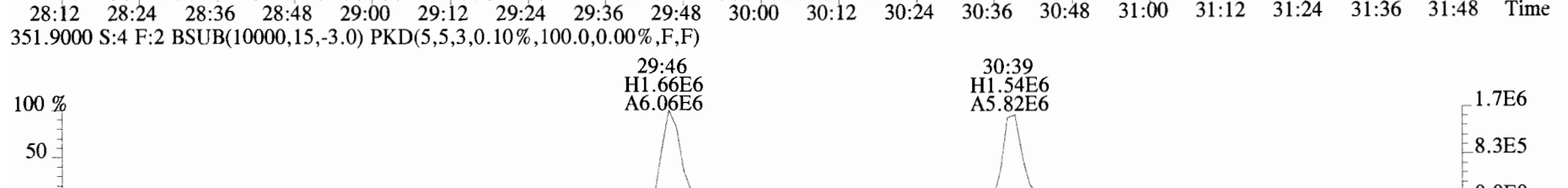
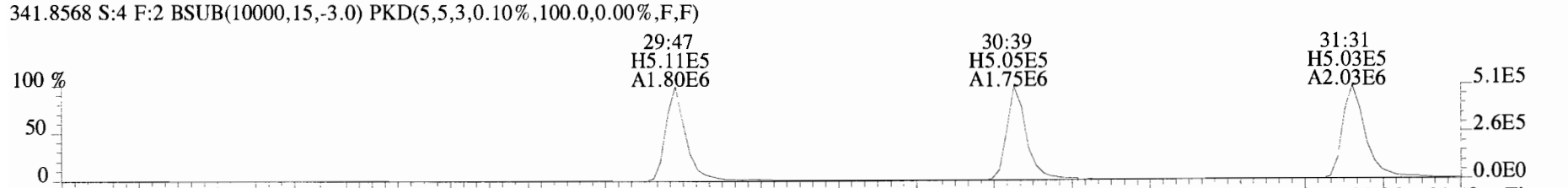
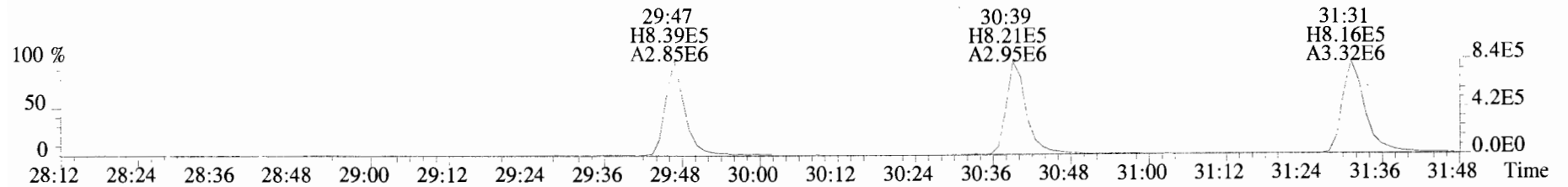
375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



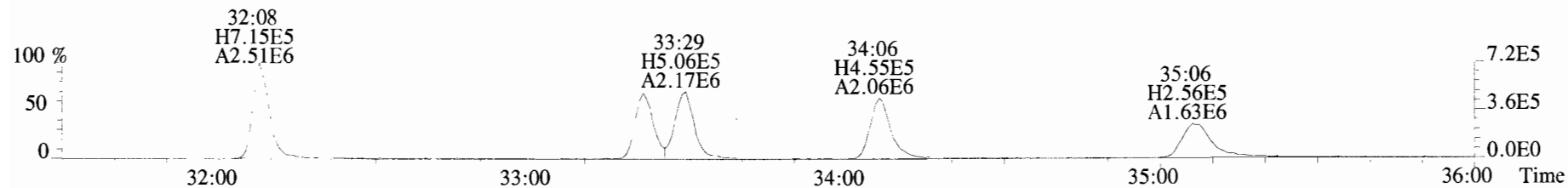
File:191009D1 #1-513 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



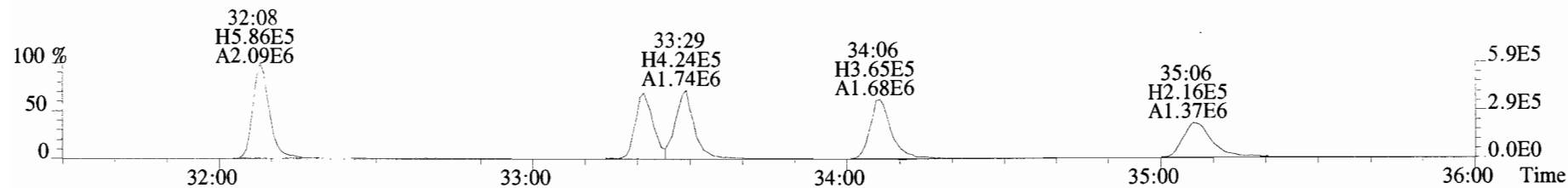
File:191009D1 #1-211 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



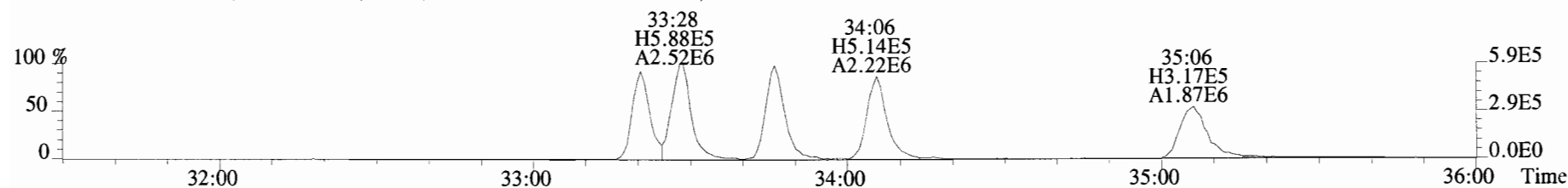
File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#4 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
 373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



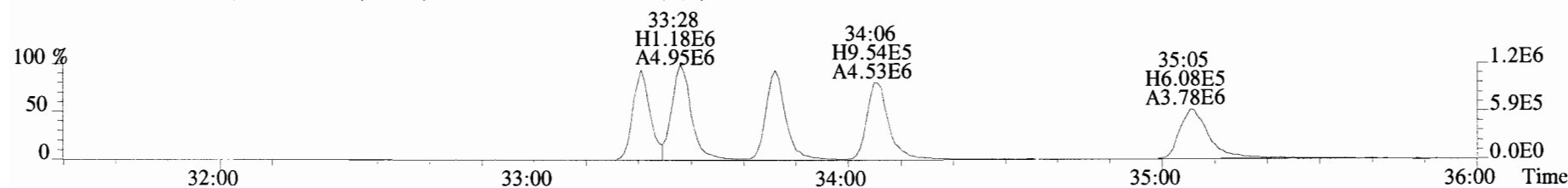
375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



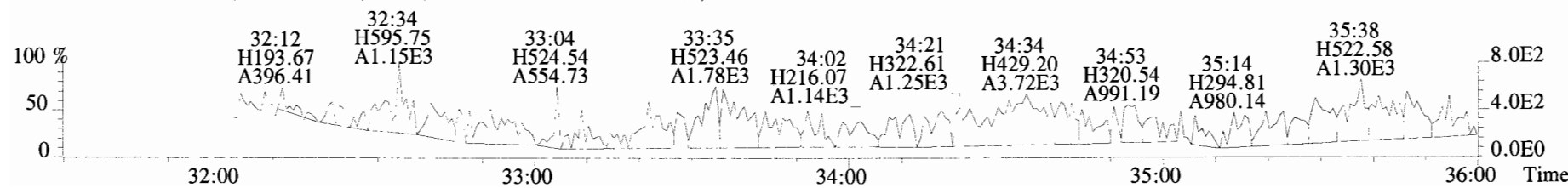
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



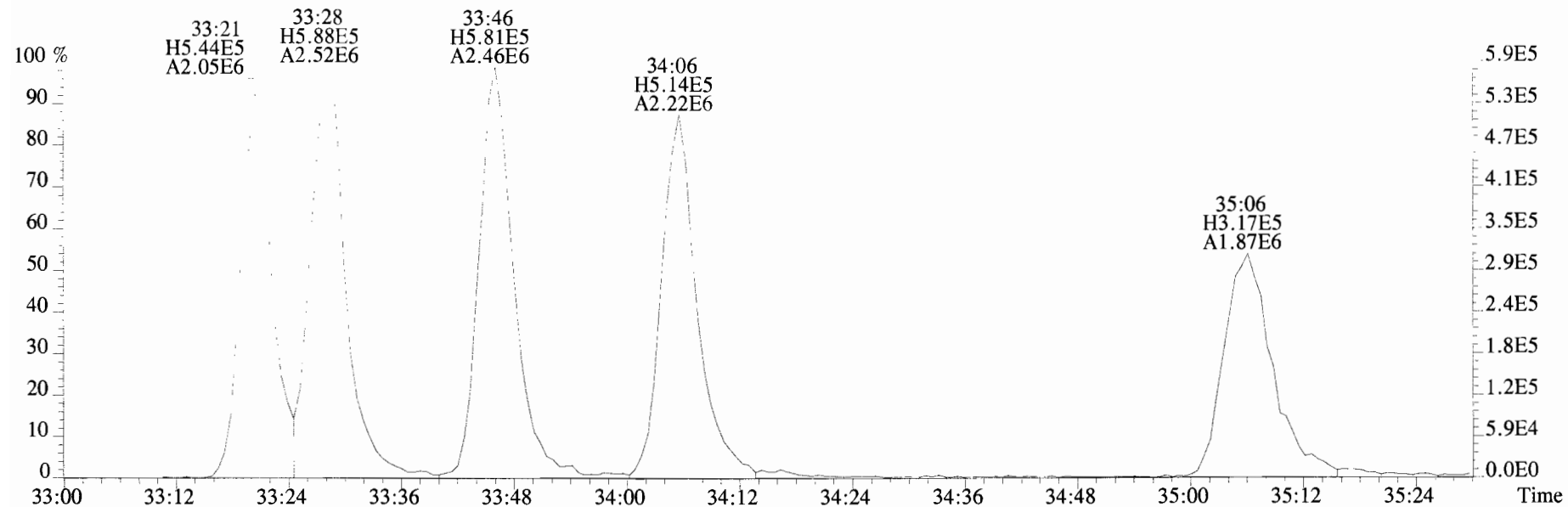
385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



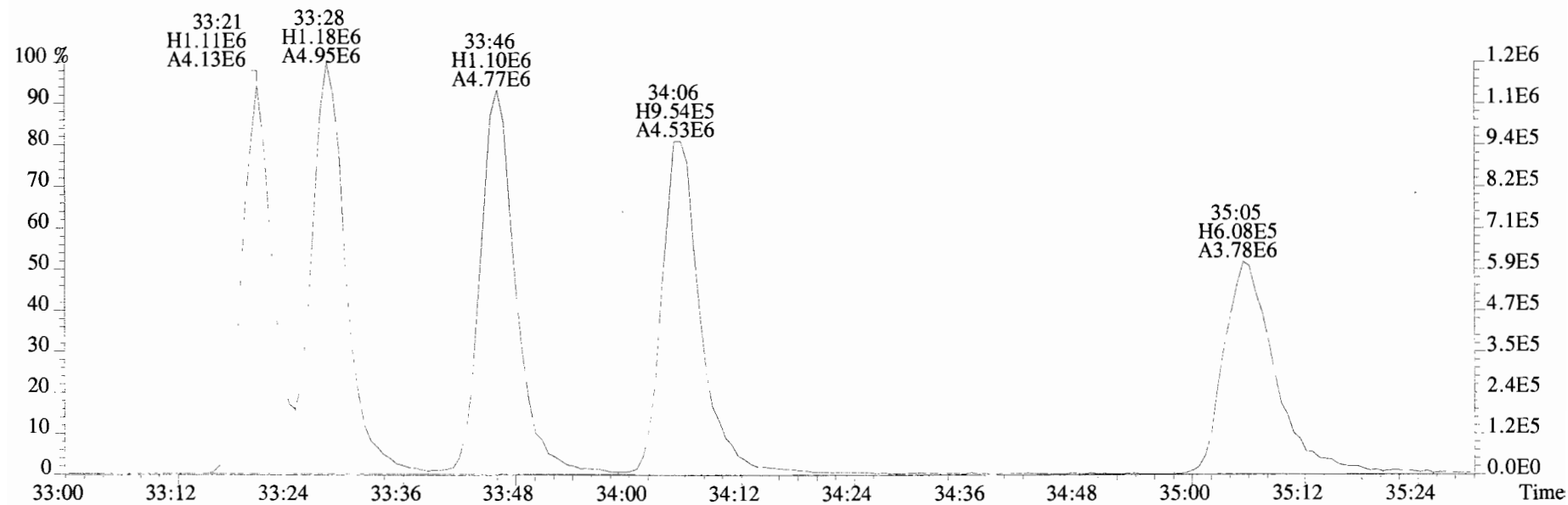
445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

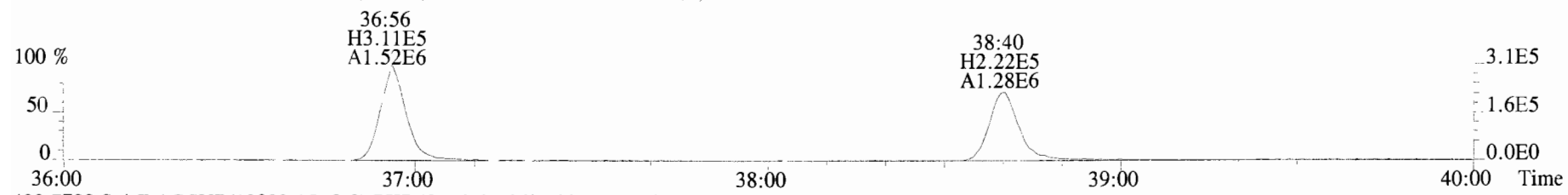


385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

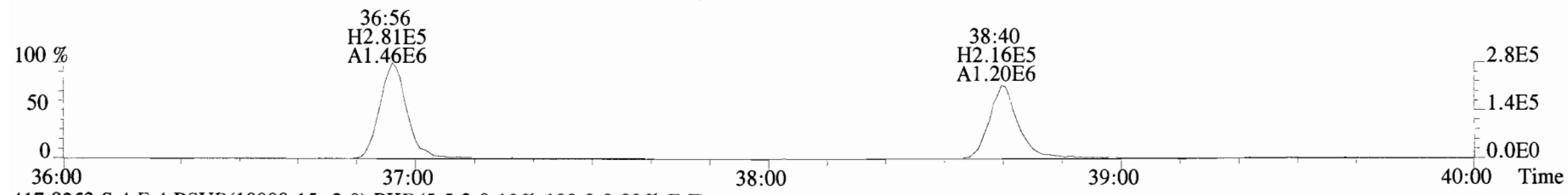




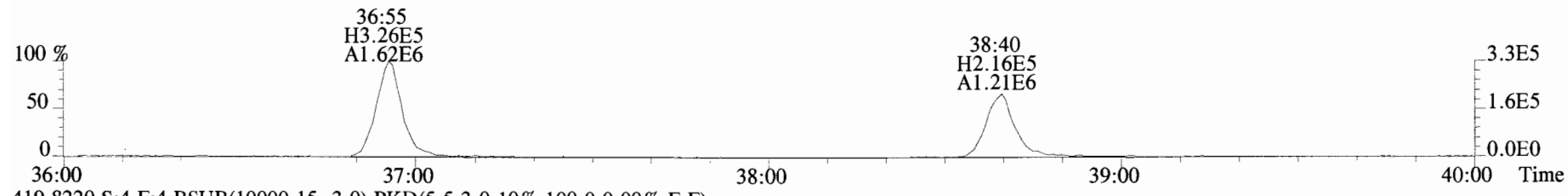
File:191009D1 #1-355 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#4 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
 407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



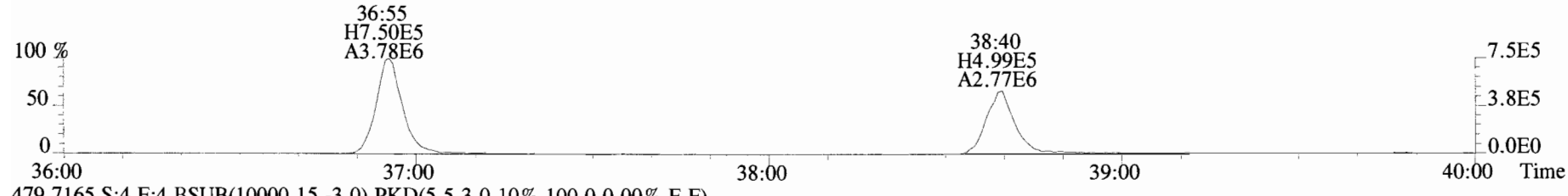
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



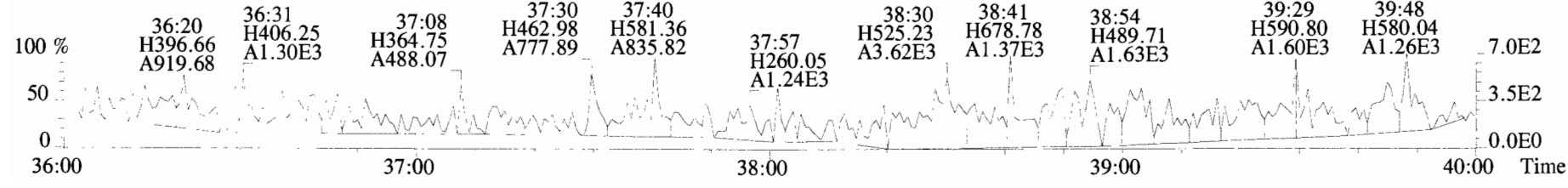
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



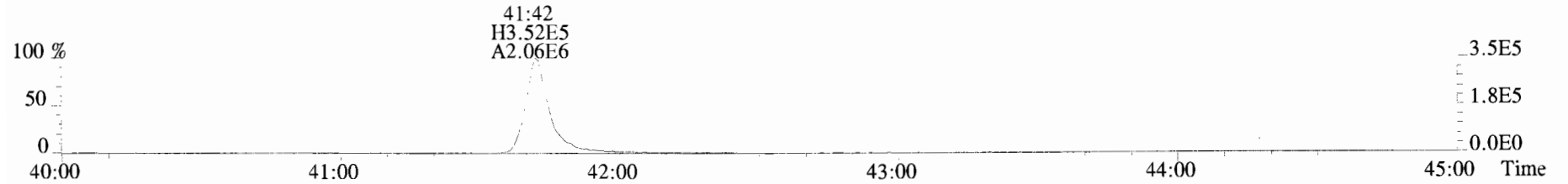
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



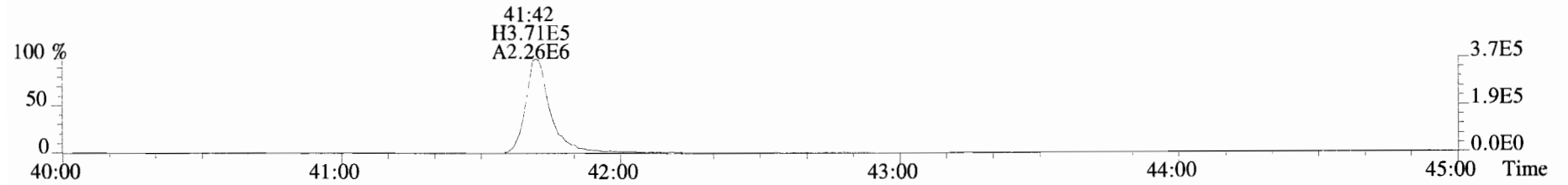
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



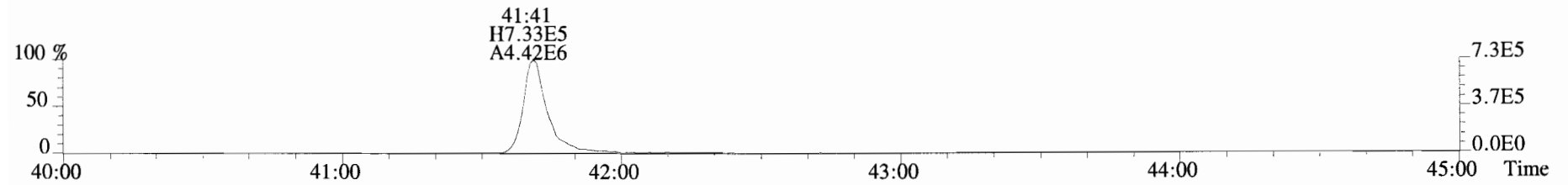
File:191009D1 #1-432 Acq: 9-OCT-2019 18:36:09 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical\_Laboratory\_VG7 Text:ST191009D1-4 1613 CS3 19C2204 Exp:OCDD\_DB5  
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



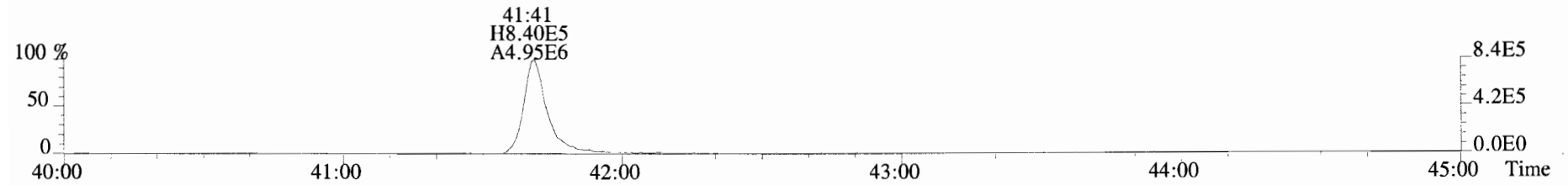
443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



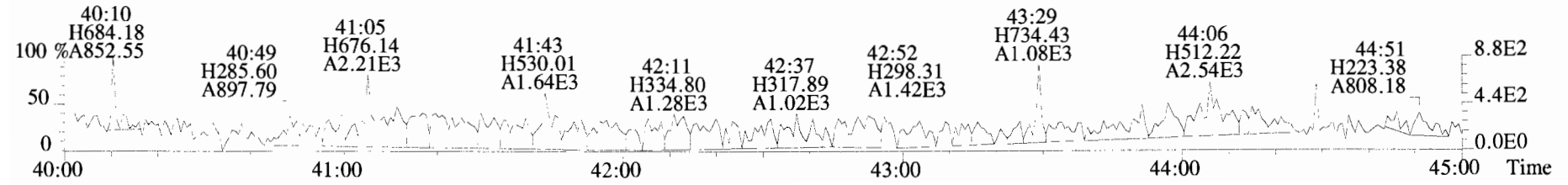
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



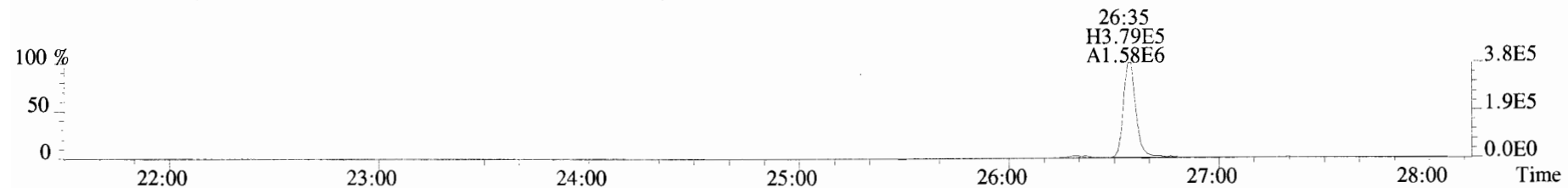
455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



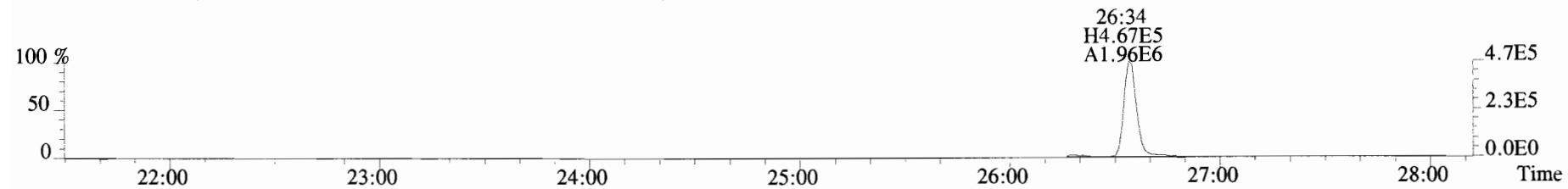
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



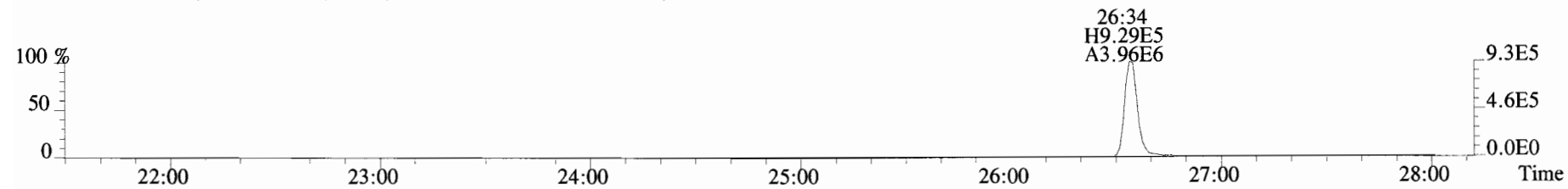
File:191009D1 #1-514 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



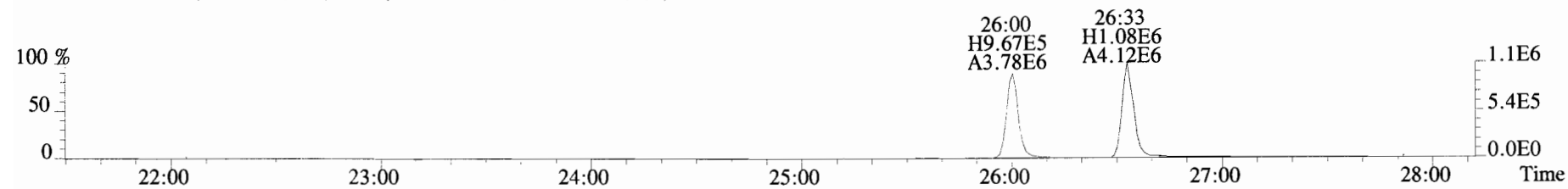
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



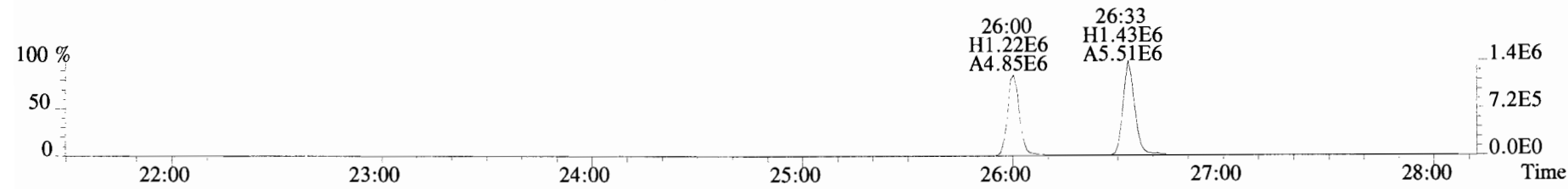
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



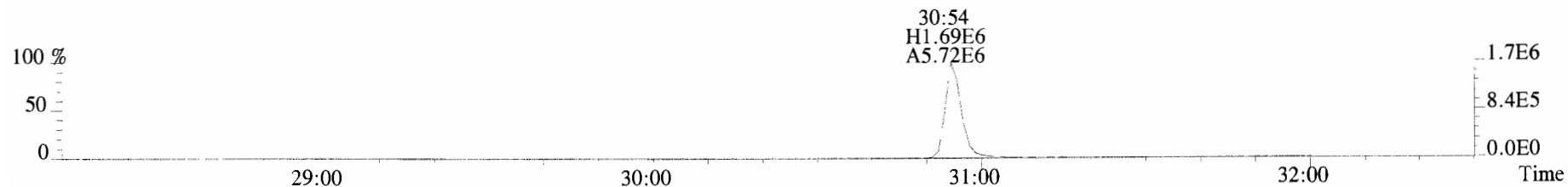
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



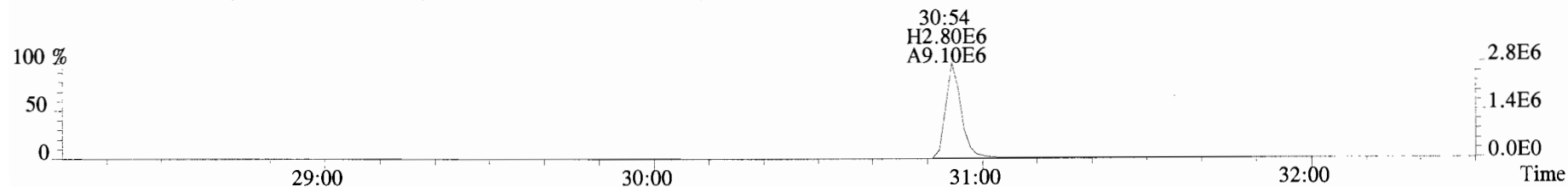
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



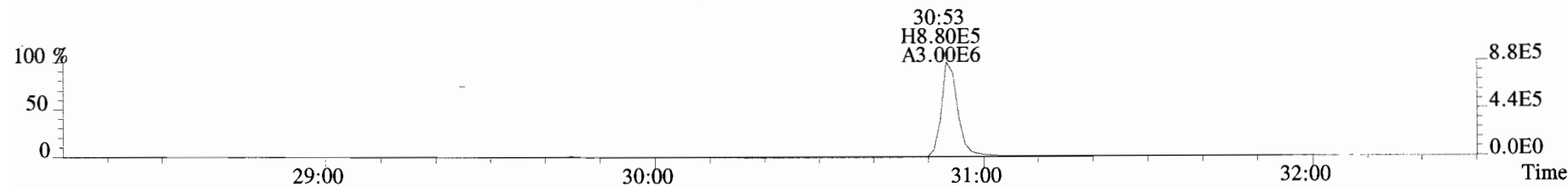
File:191009D1 #1-210 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text: Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
353.8576 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



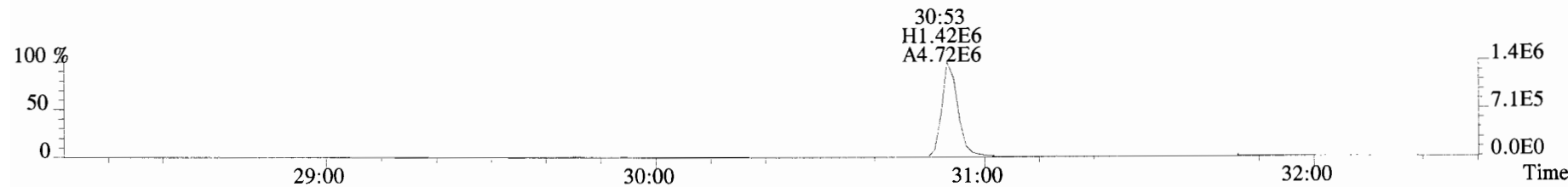
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



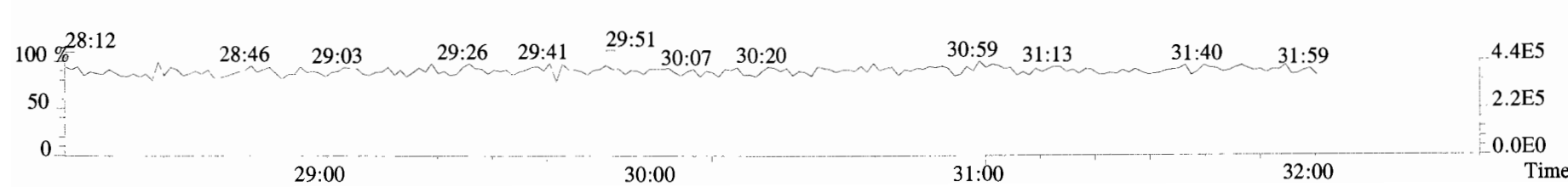
365.8978 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



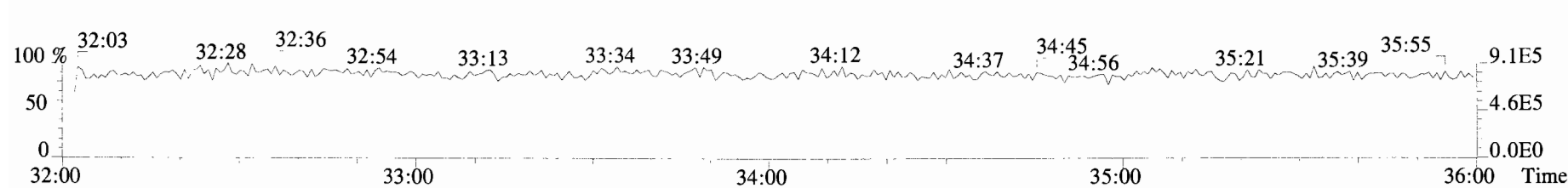
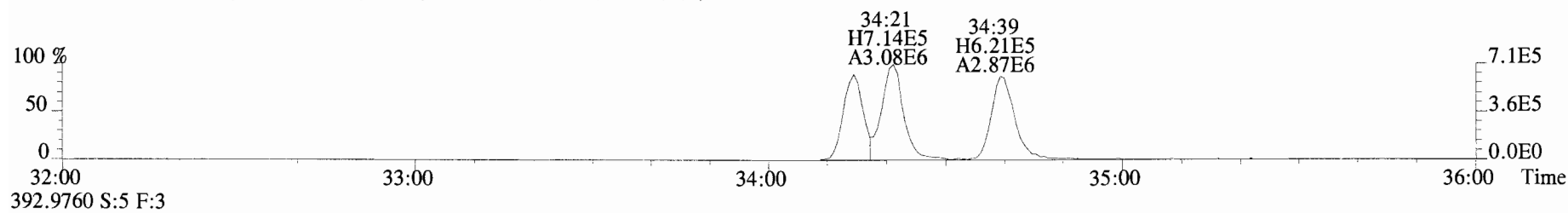
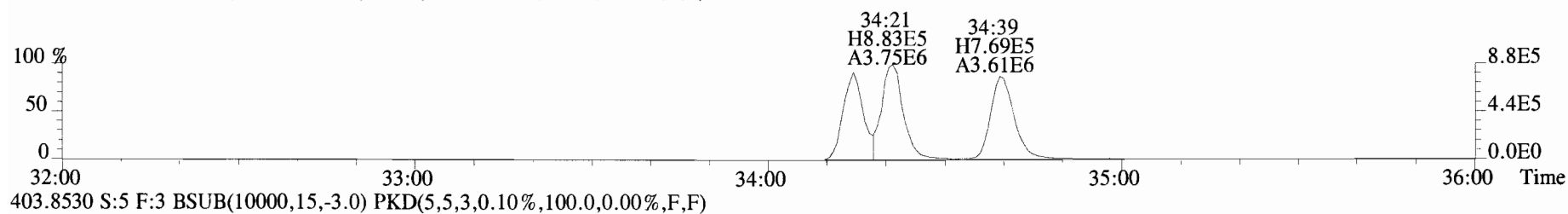
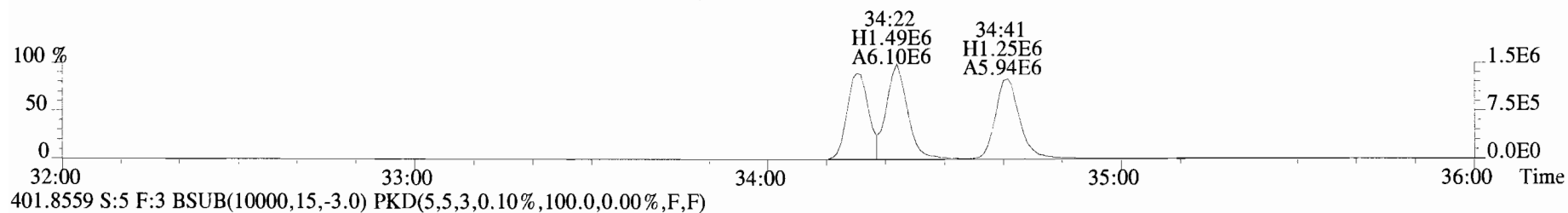
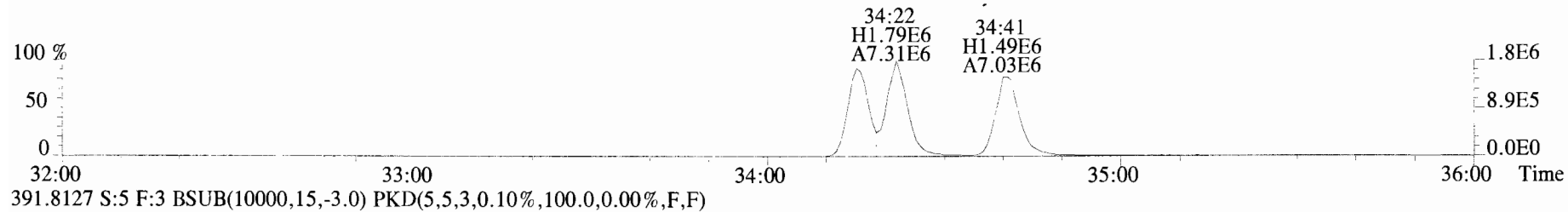
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



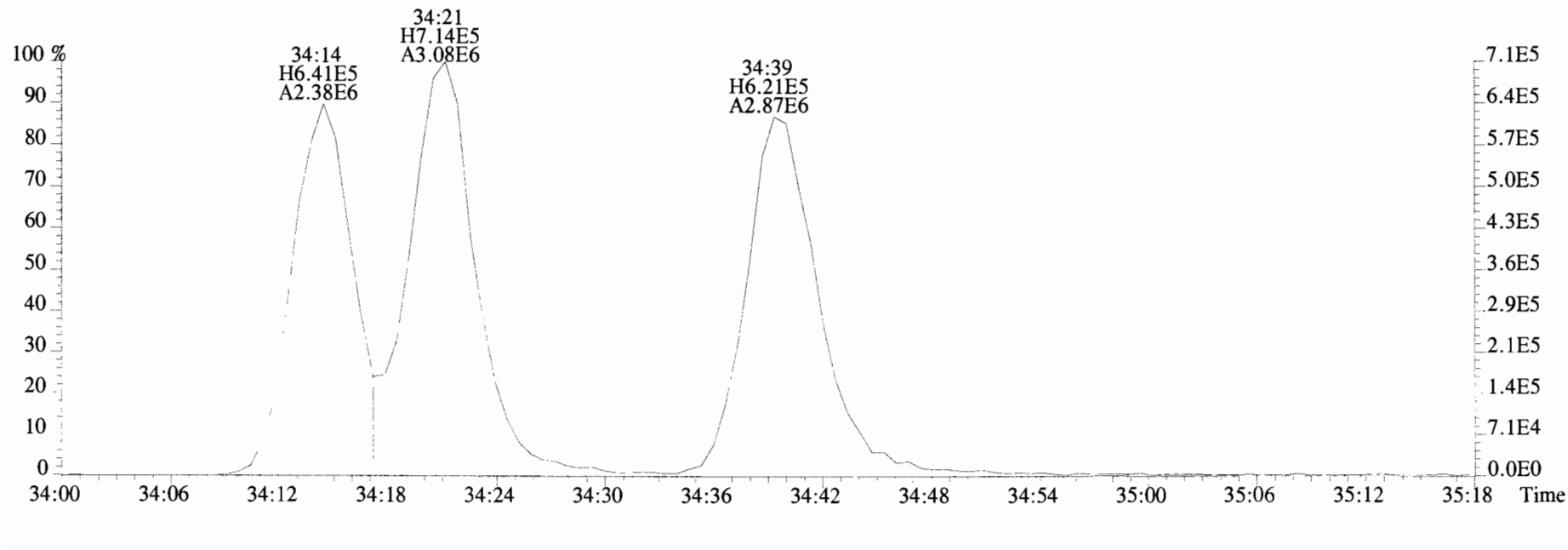
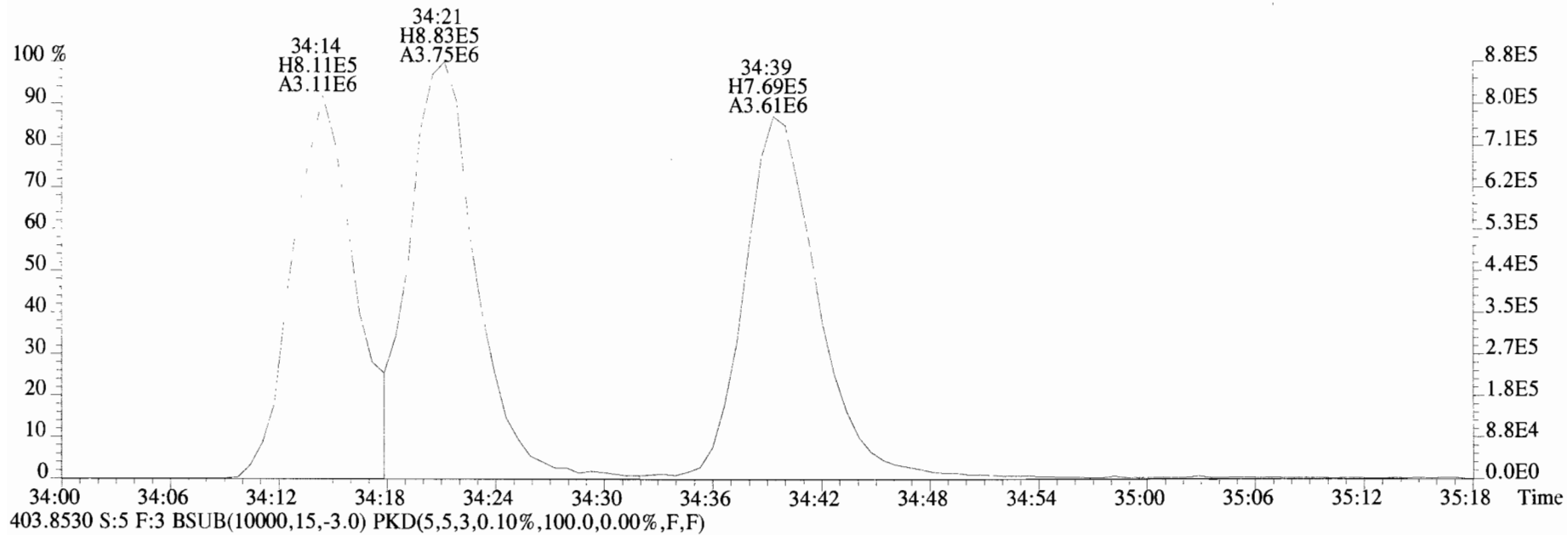
366.9792 S:5 F:2



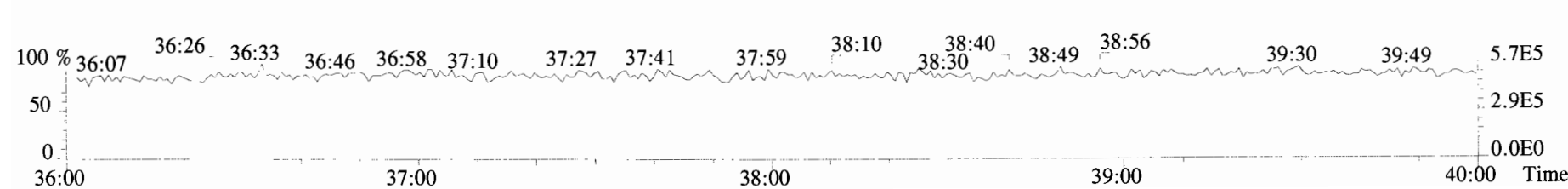
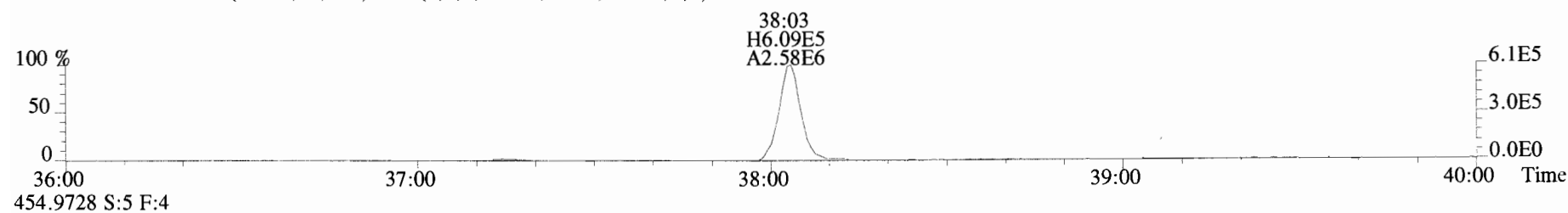
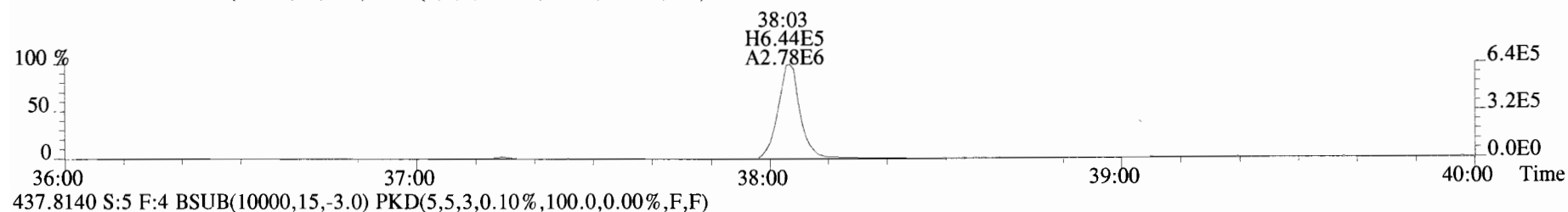
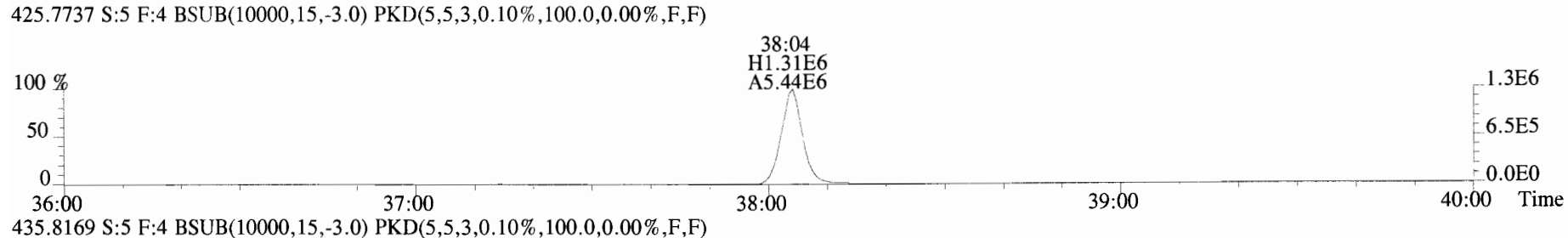
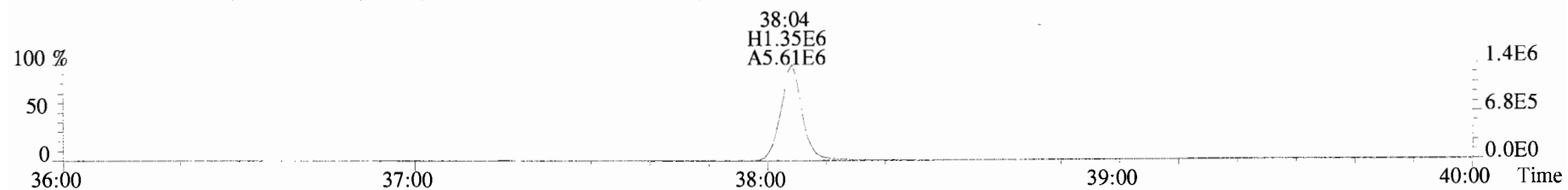
File:191009D1 #1-355 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



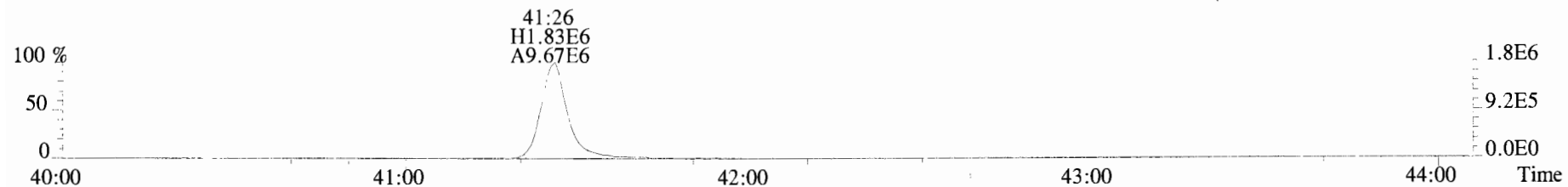
File:191009D1 #1-355 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text: Vista Analytical Laboratory VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



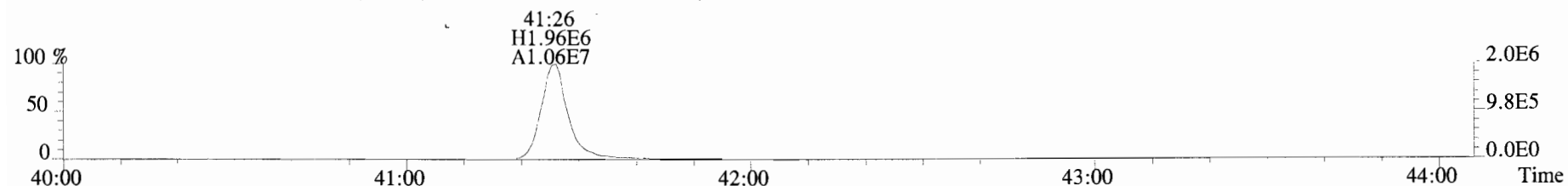
File:191009D1 #1-356 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



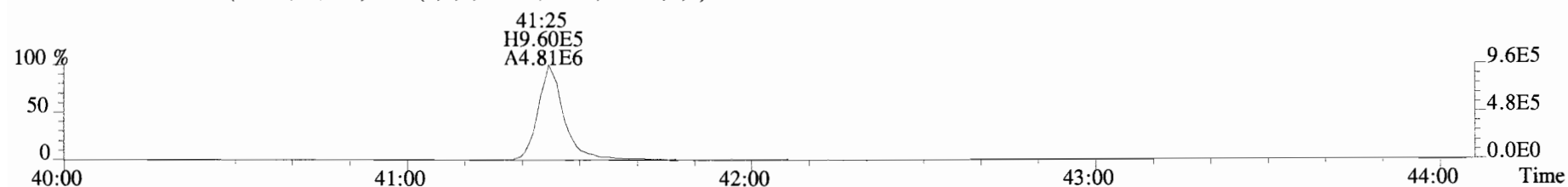
File:191009D1 #1-431 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



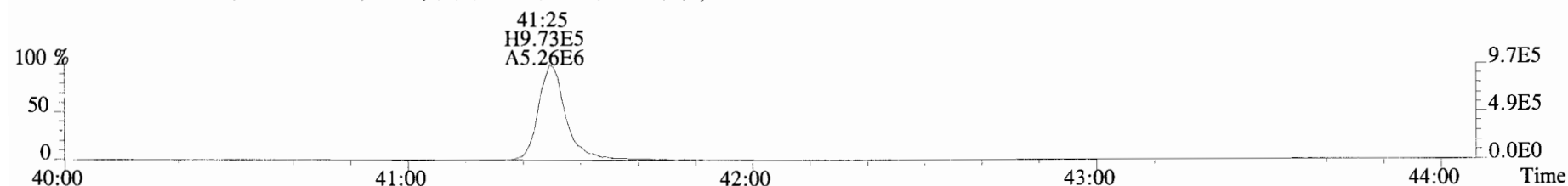
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



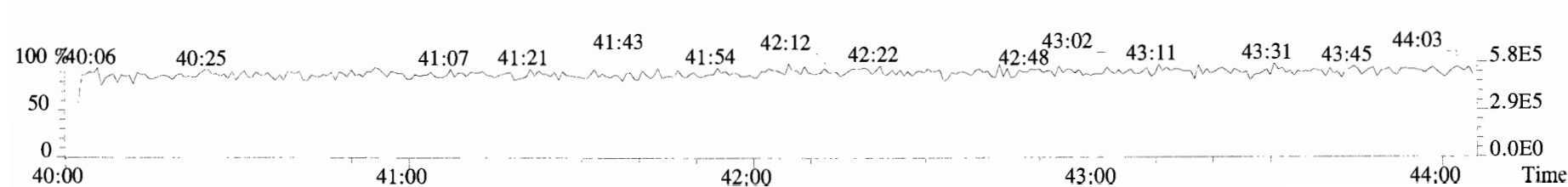
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

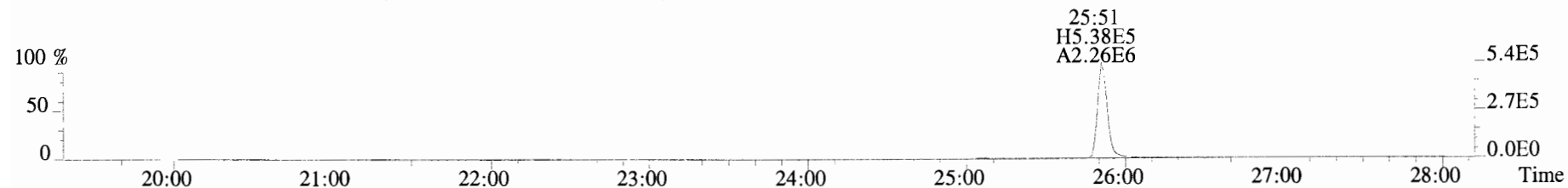


454.9728 S:5 F:5

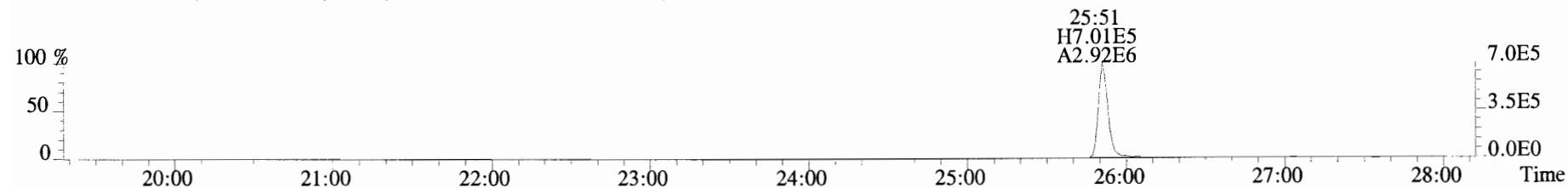




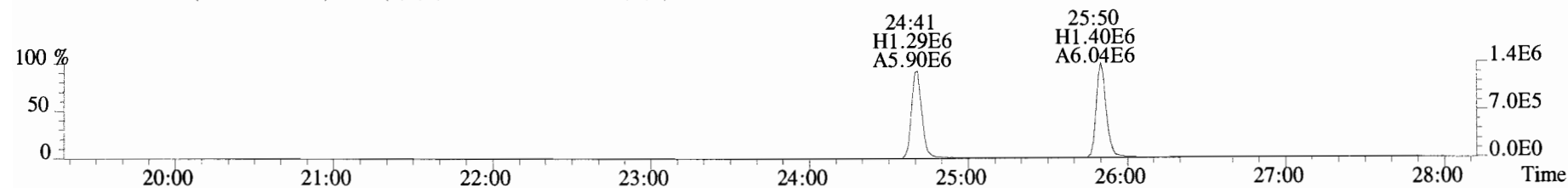
File:191009D1 #1-514 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



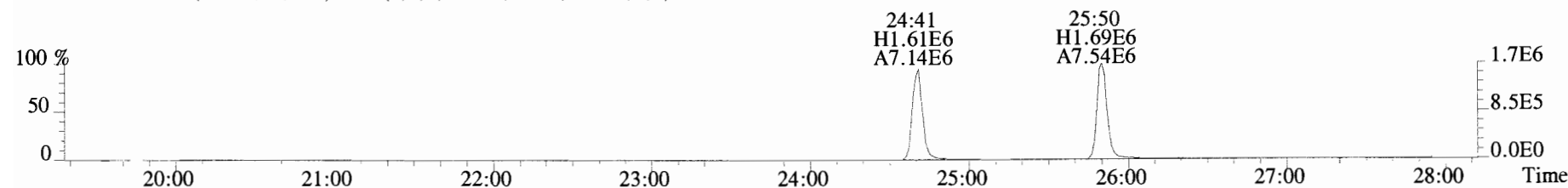
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



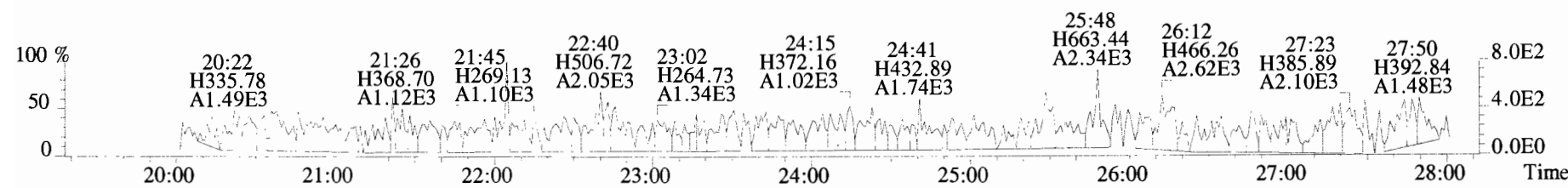
315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



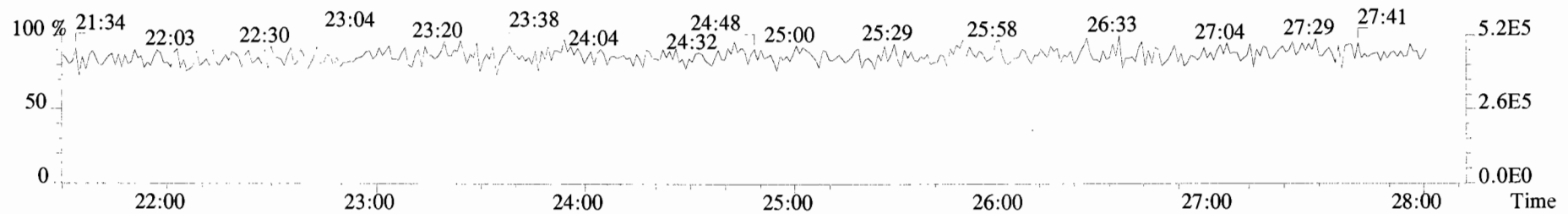
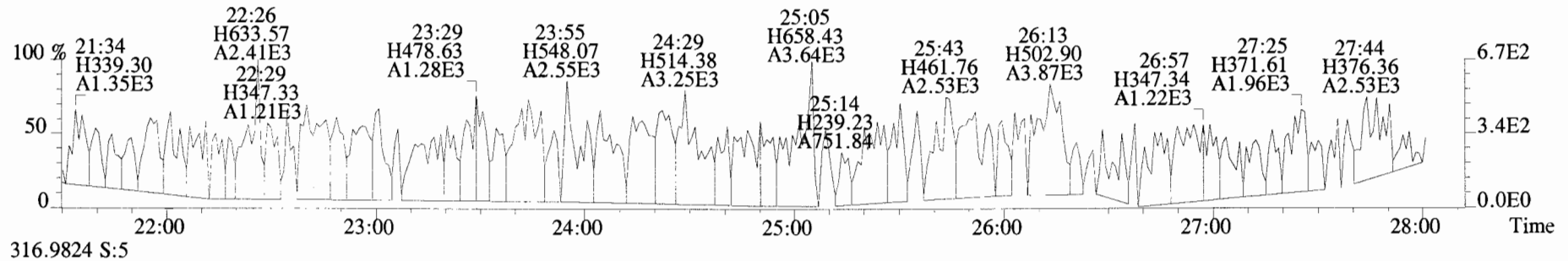
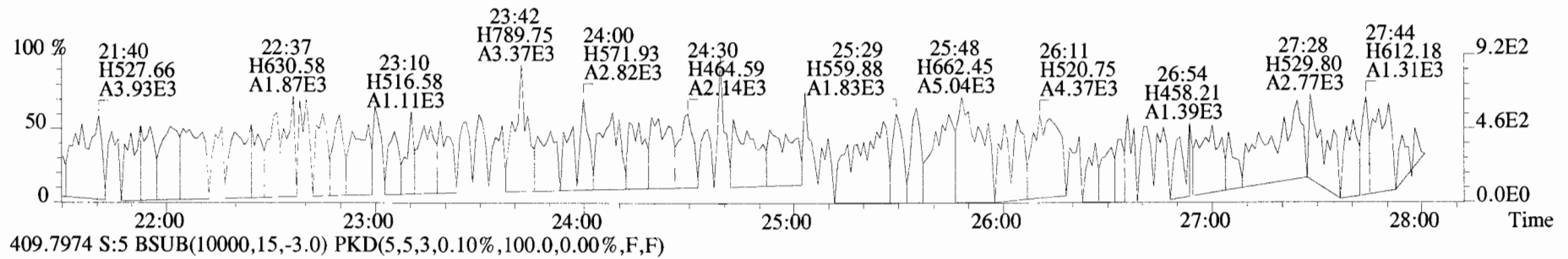
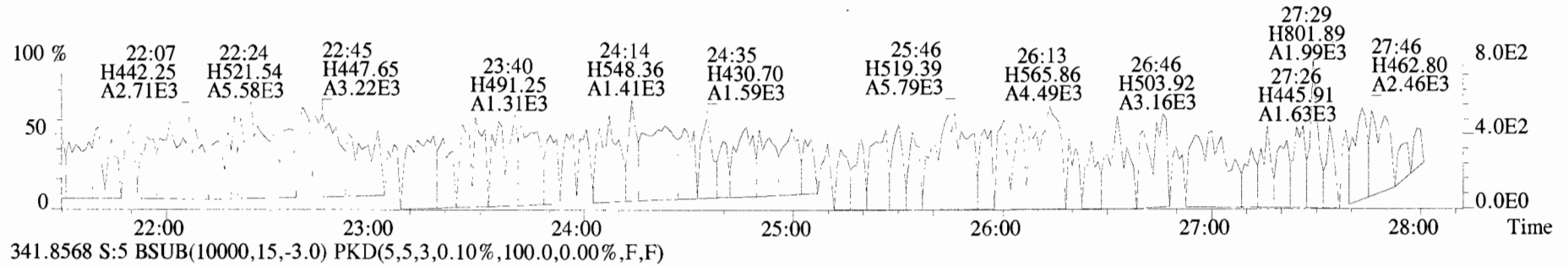
317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



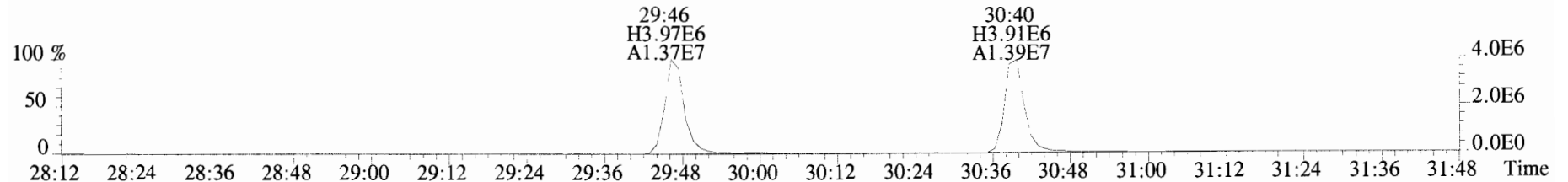
375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



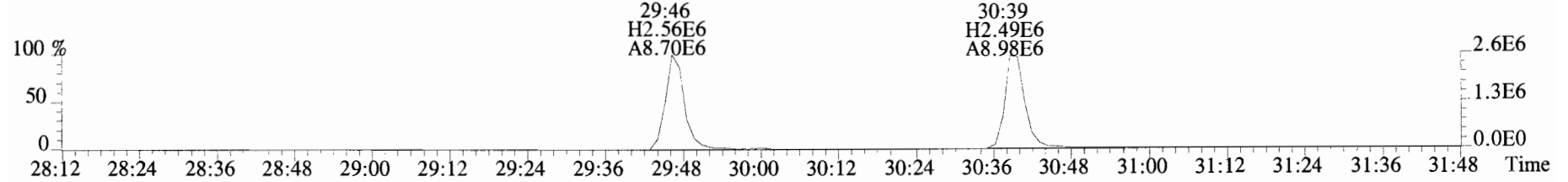
File:191009D1 #1-514 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



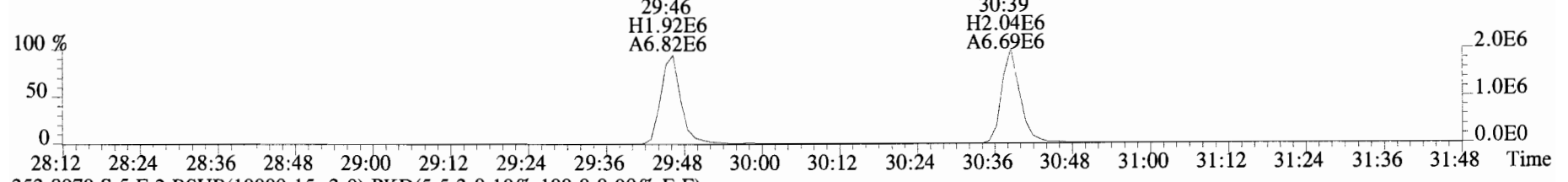
File:191009D1 #1-210 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



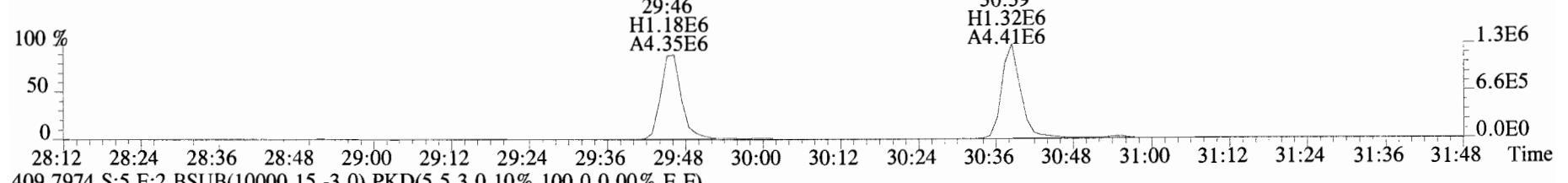
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



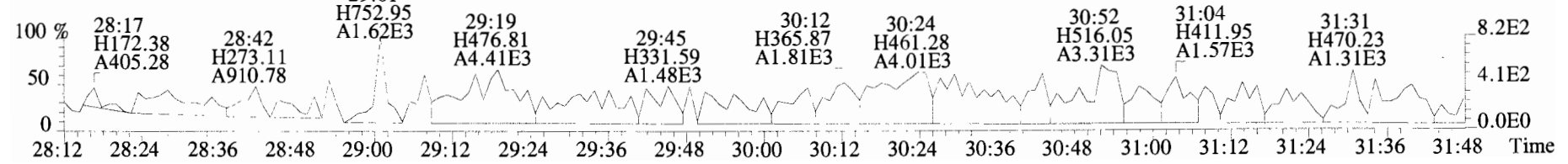
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



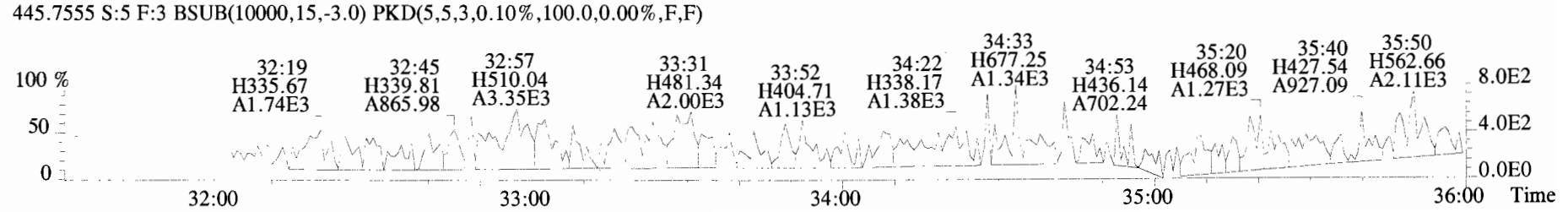
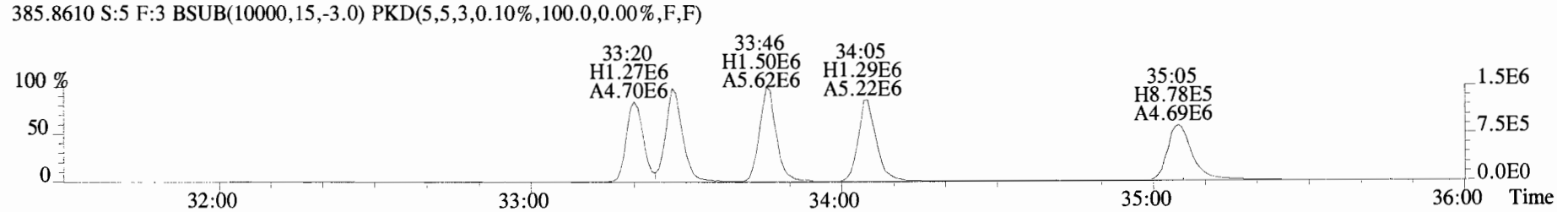
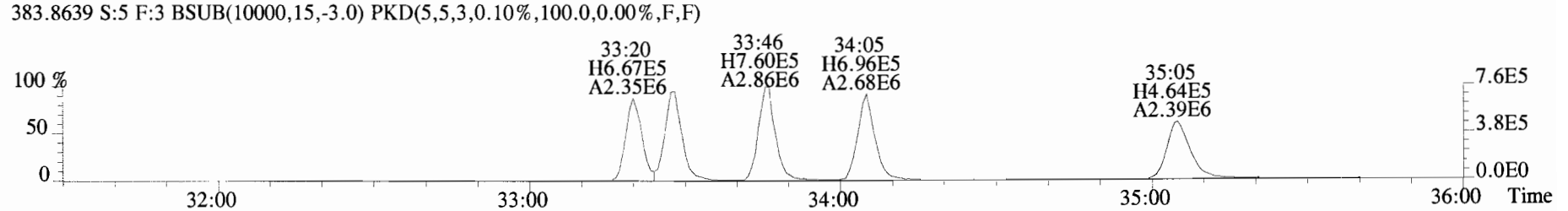
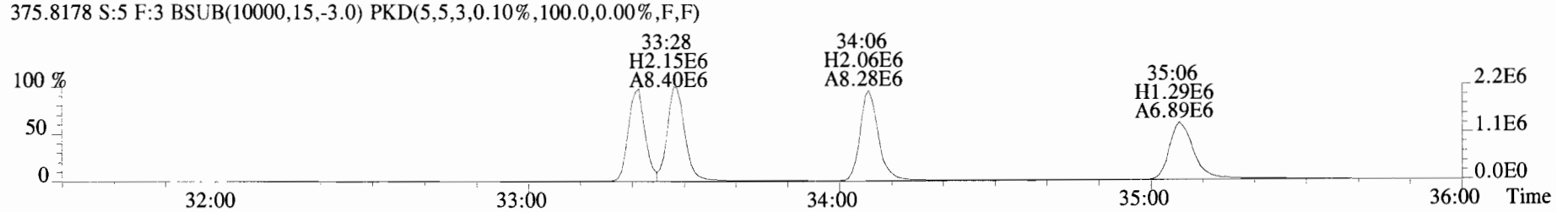
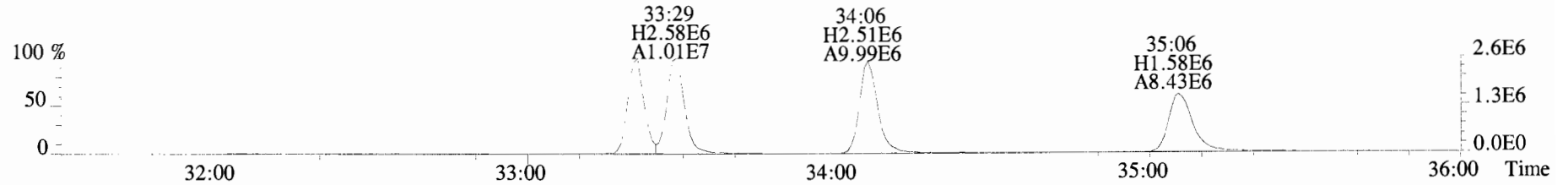
353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



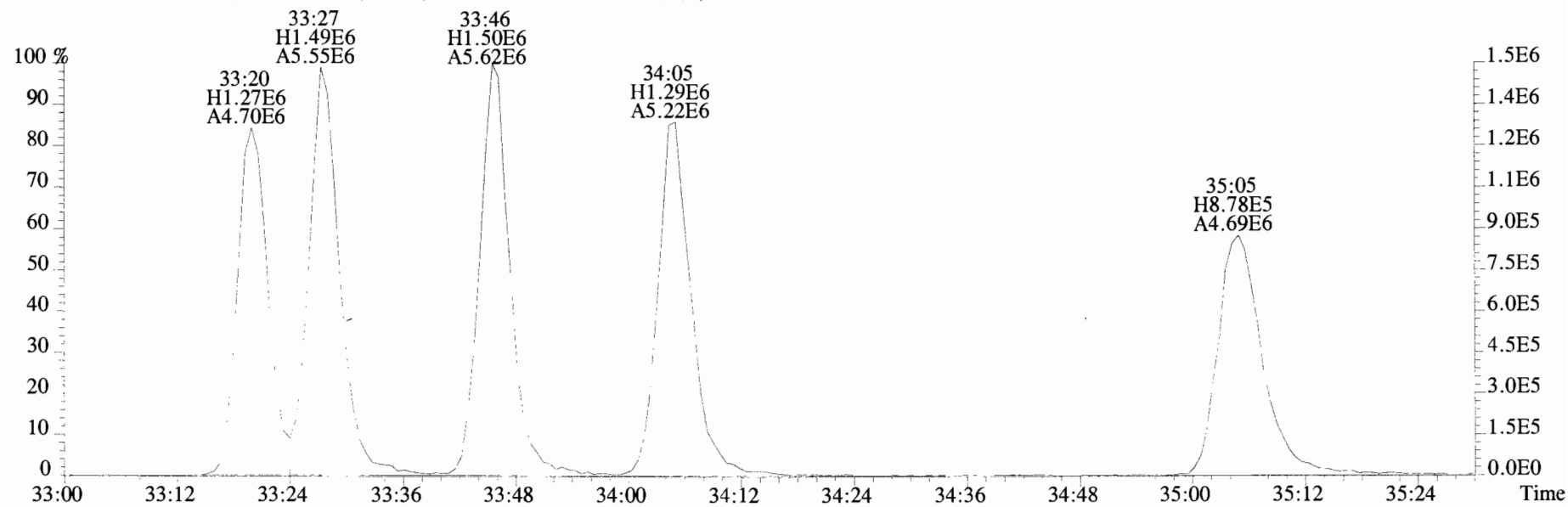
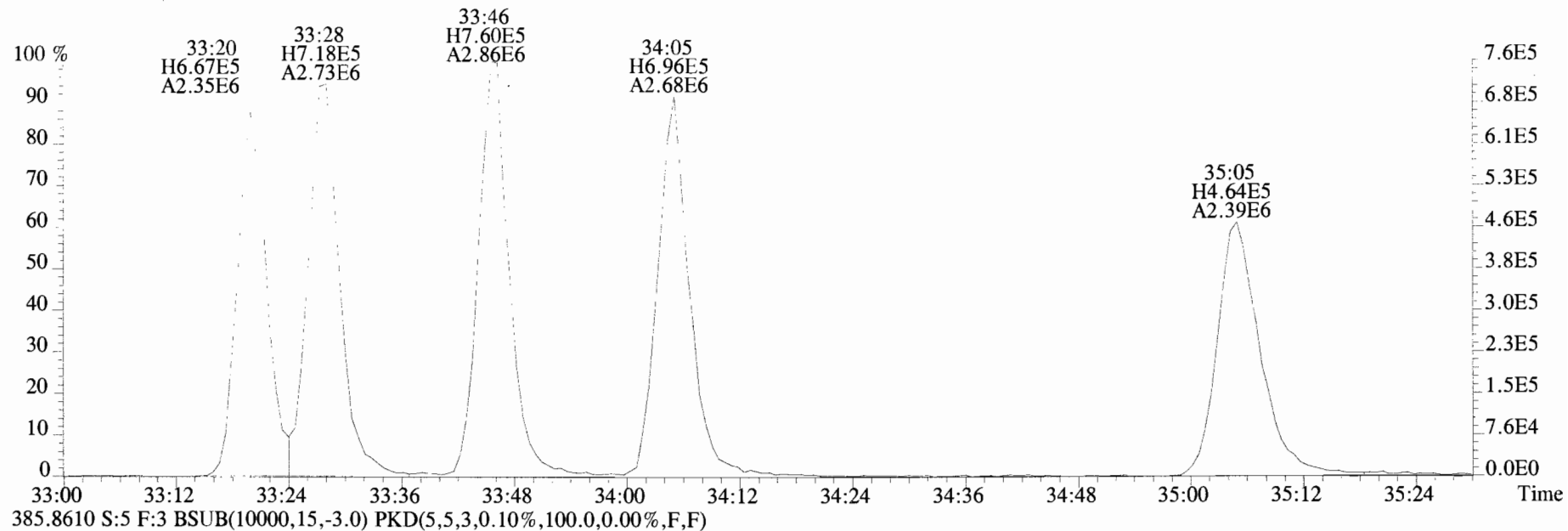
409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



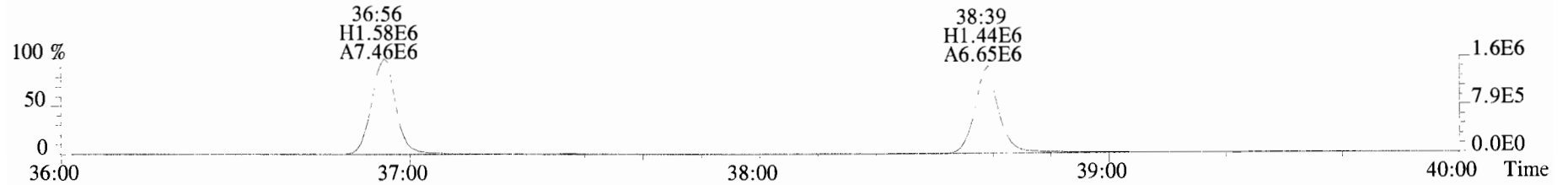
File:191009D1 #1-355 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#5 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
 373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



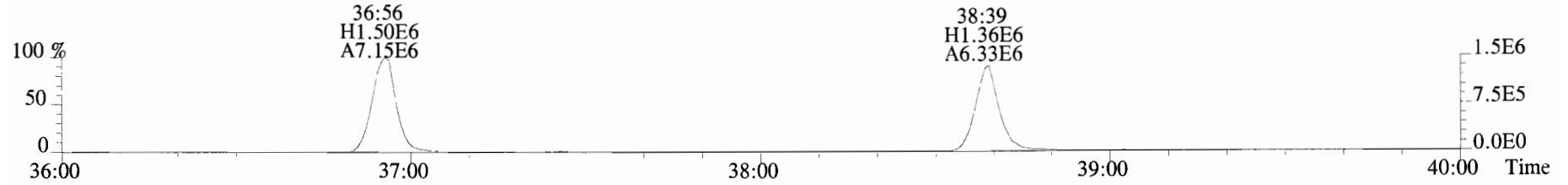
File:191009D1 #1-355 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



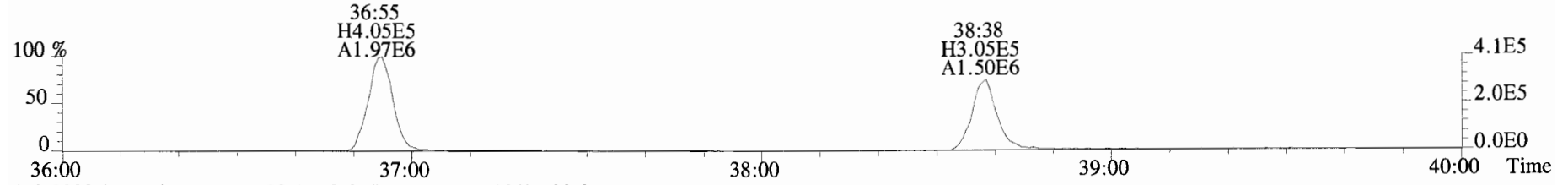
File:191009D1 #1-356 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text: Vista Analytical Laboratory\_VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



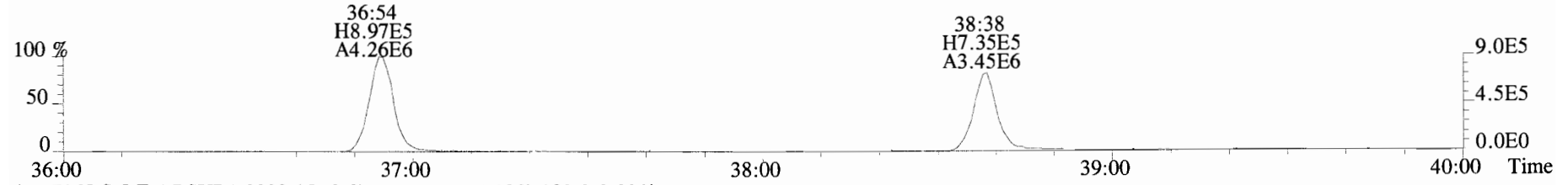
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



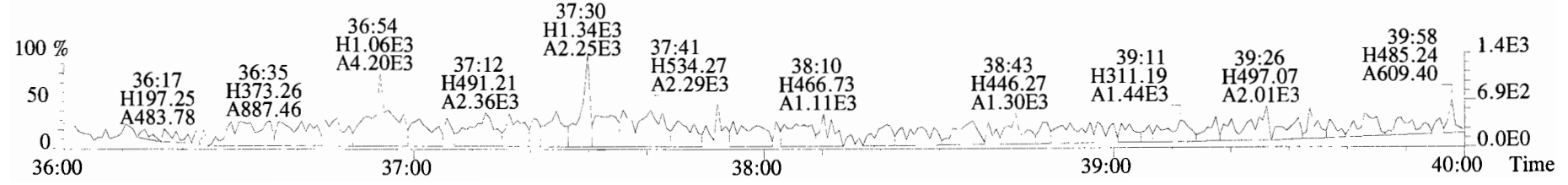
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



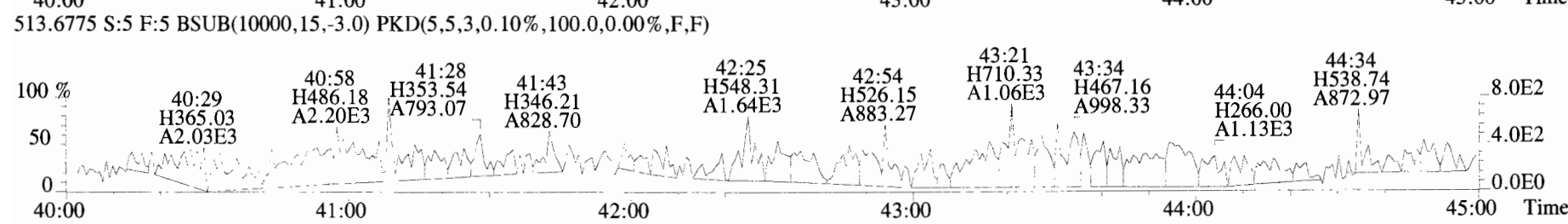
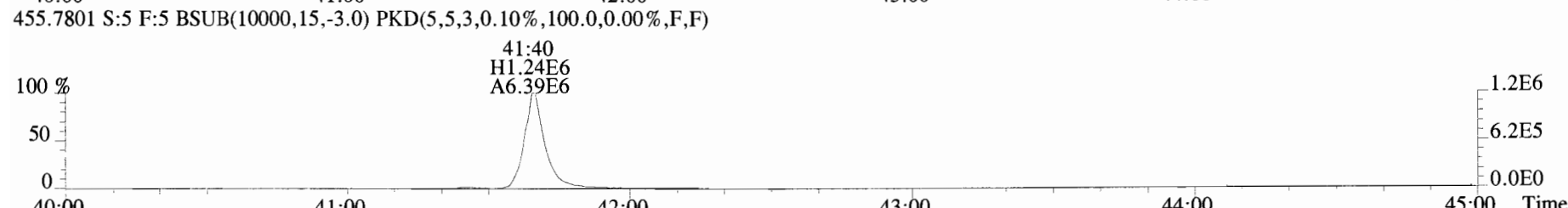
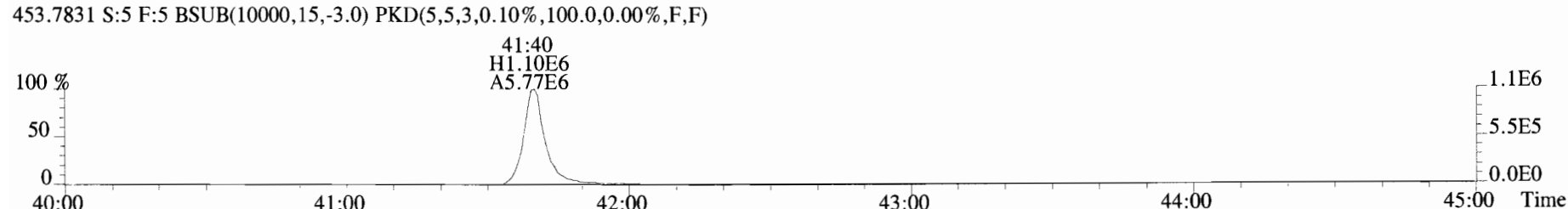
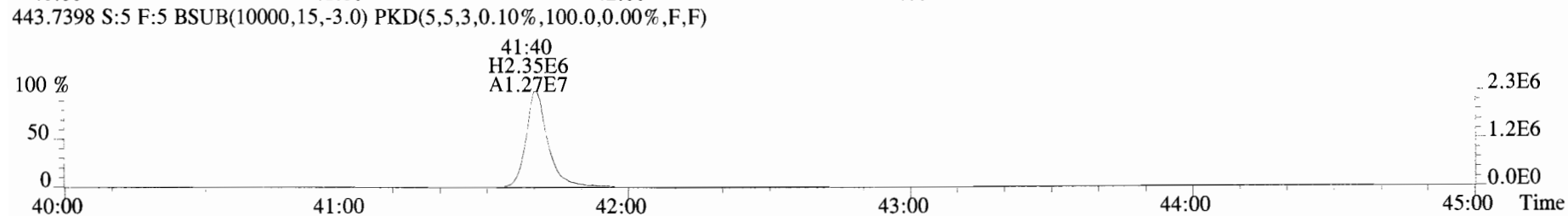
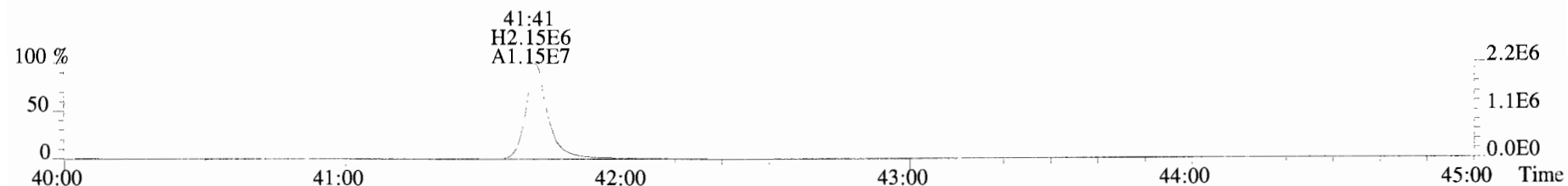
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



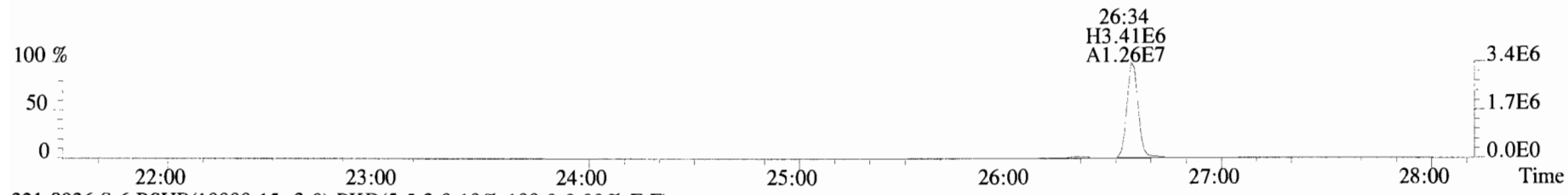
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



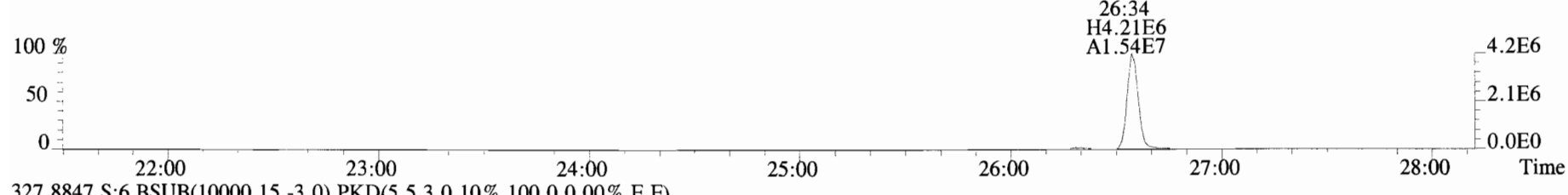
File:191009D1 #1-431 Acq: 9-OCT-2019 19:23:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-5 1613 CS4 19C2205 Exp:OCDD\_DB5  
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



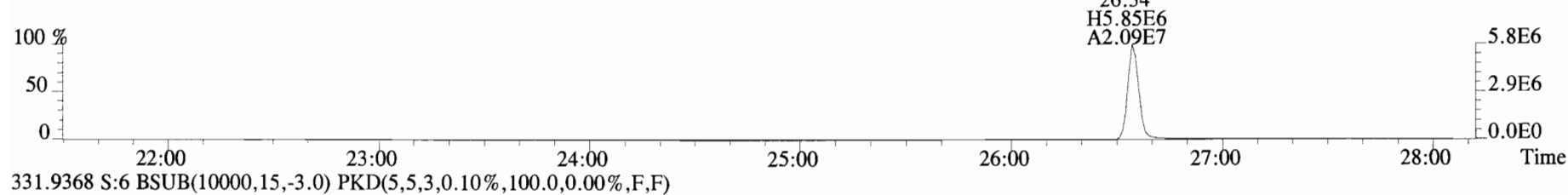
File:191009D1 #1-513 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



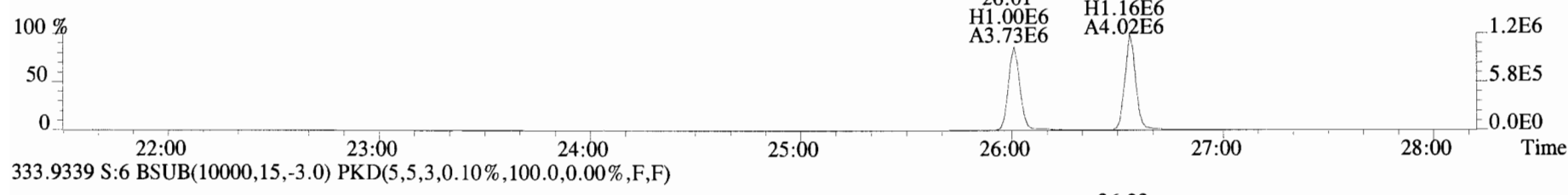
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



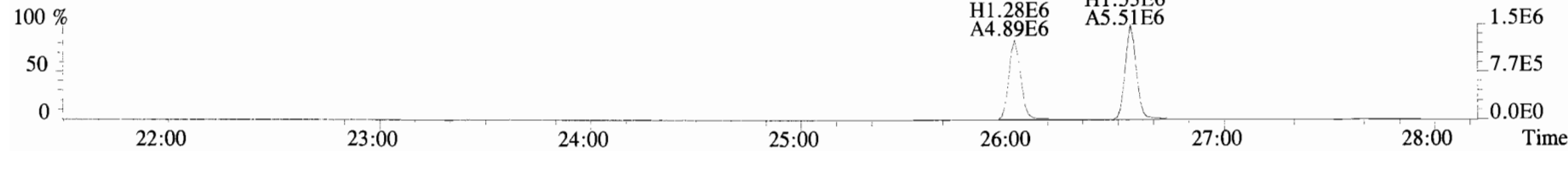
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

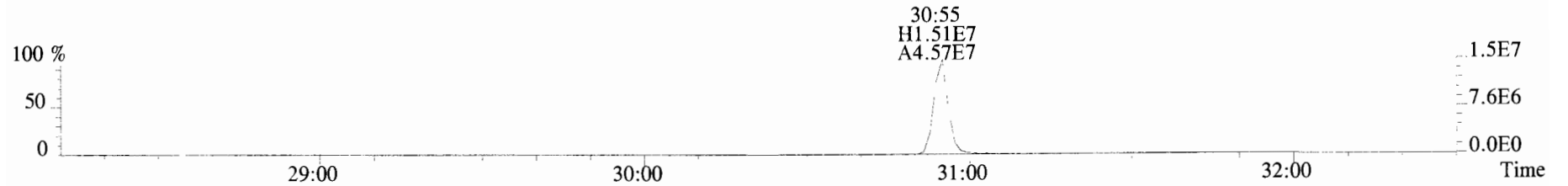


333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

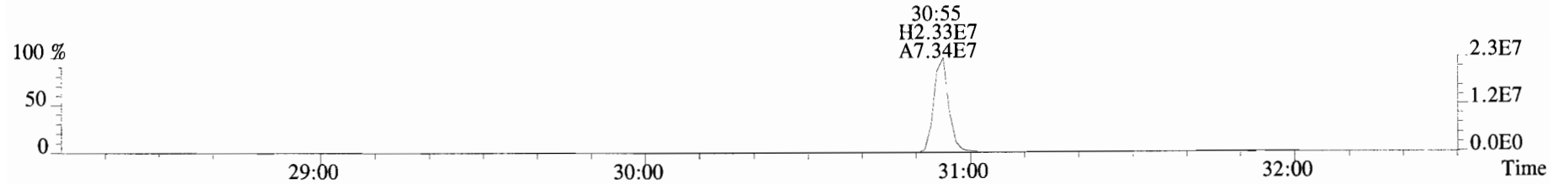




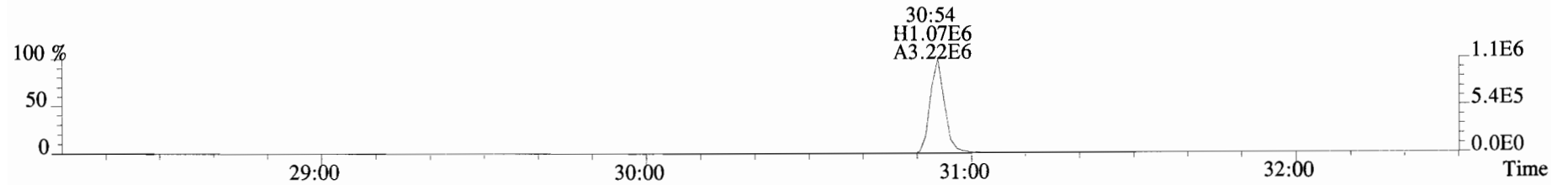
File:191009D1 #1-211 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



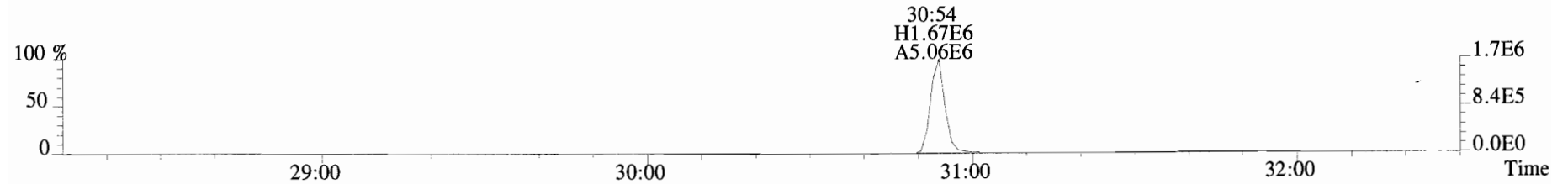
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



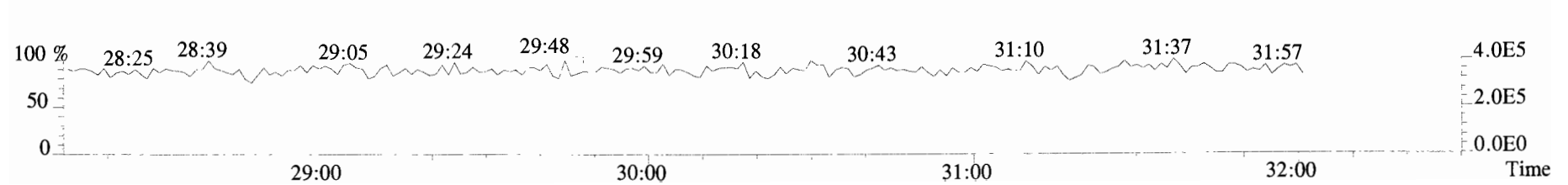
365.8978 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



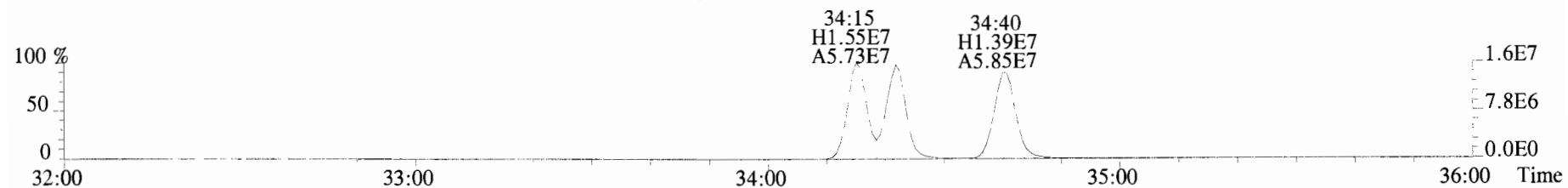
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



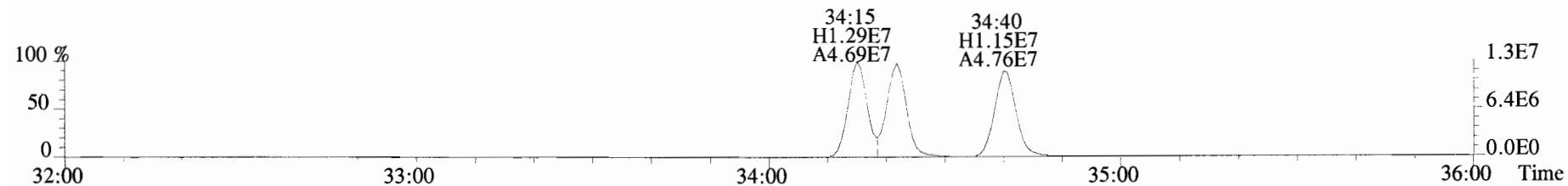
366.9792 S:6 F:2



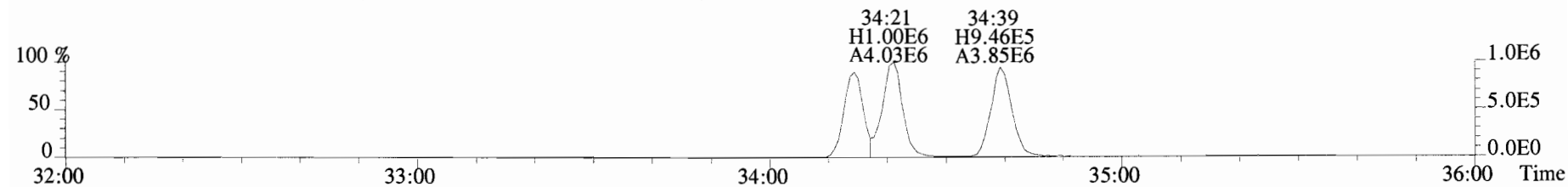
File:191009D1 #1-354 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



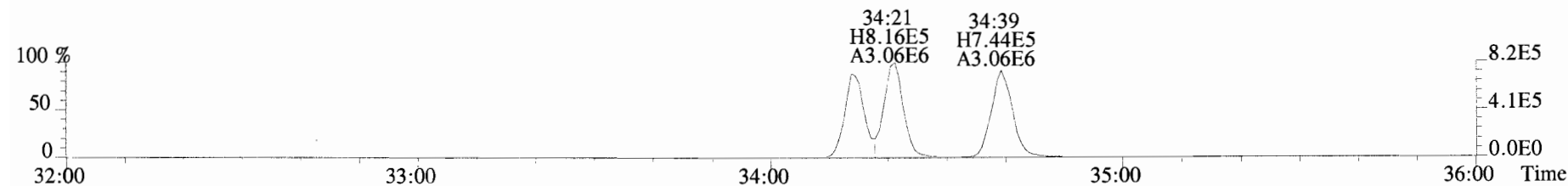
391.8127 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



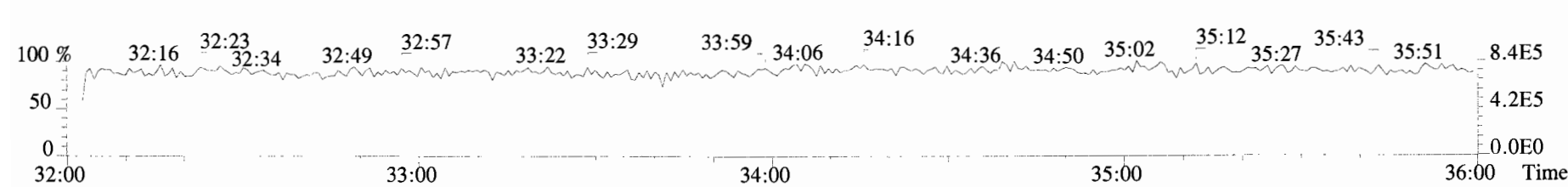
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



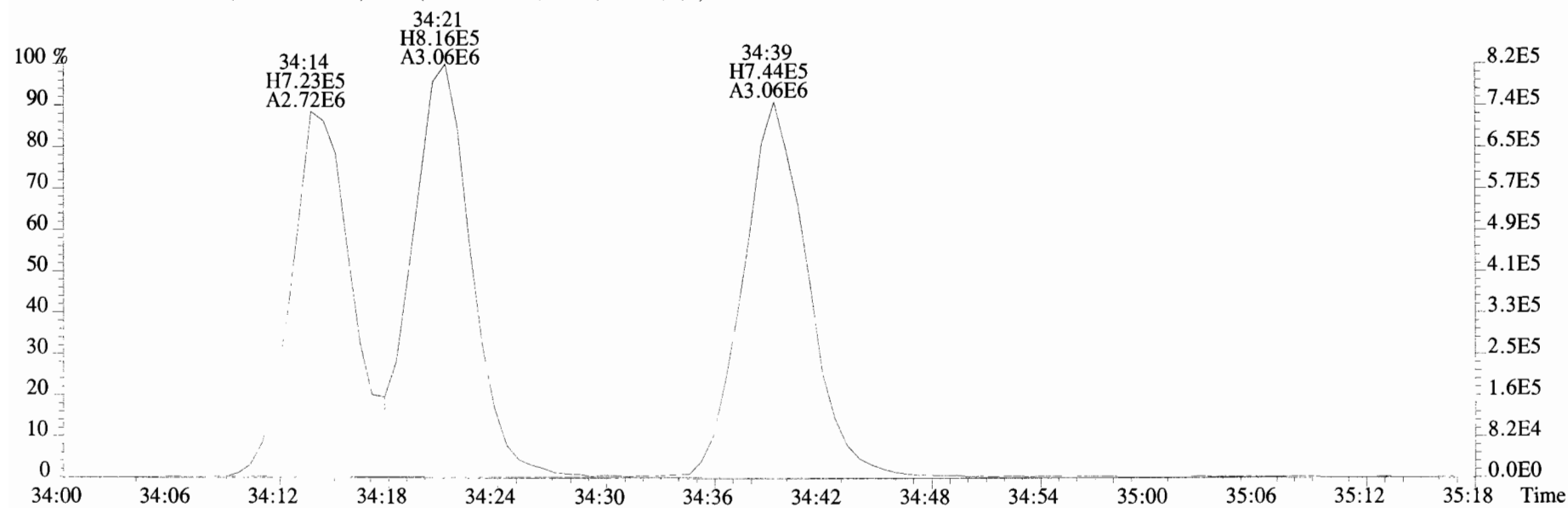
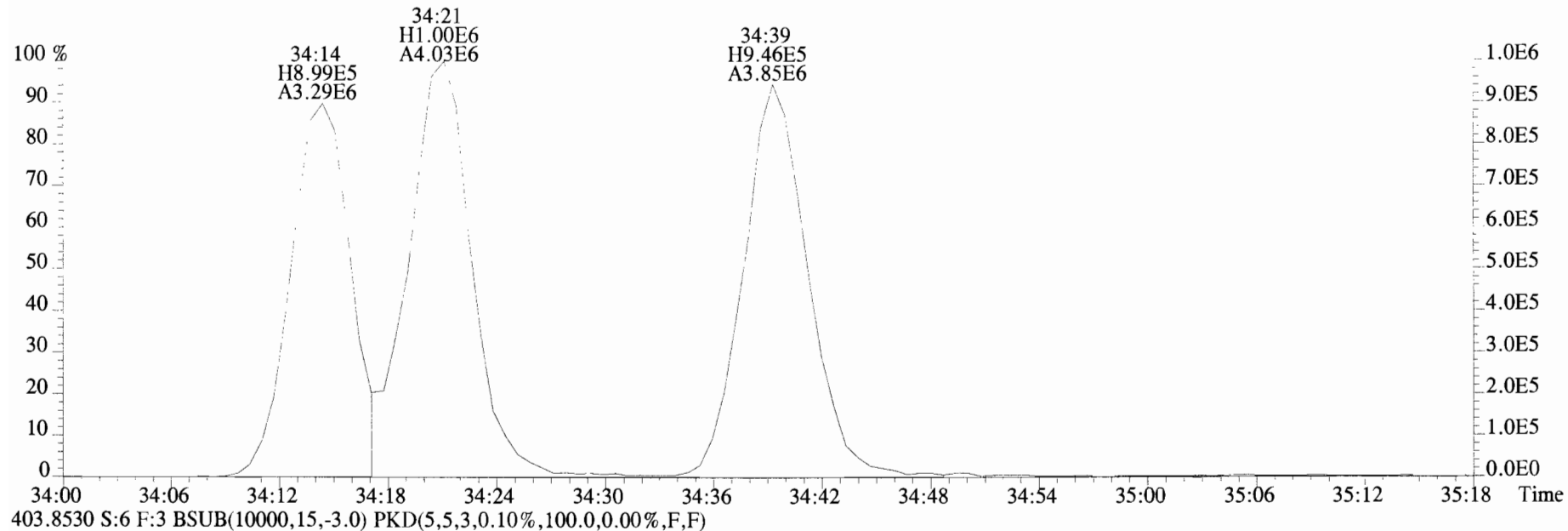
403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



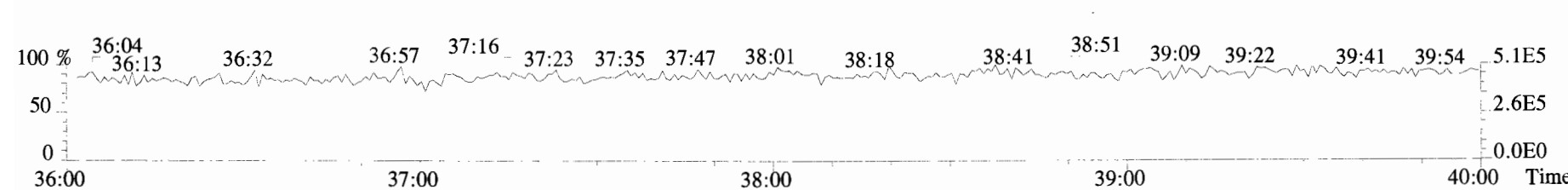
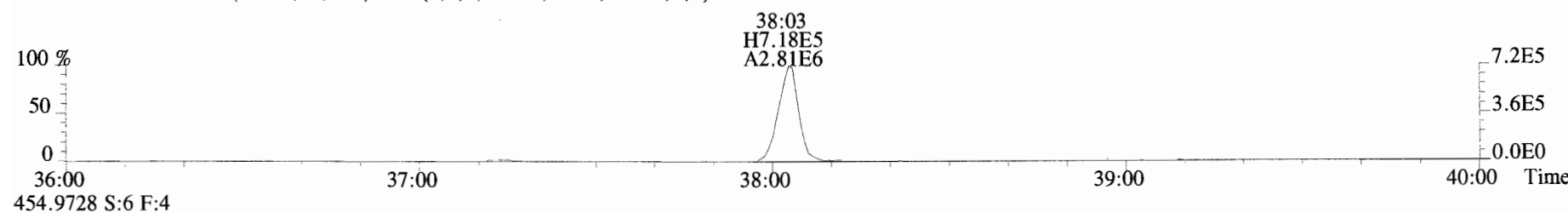
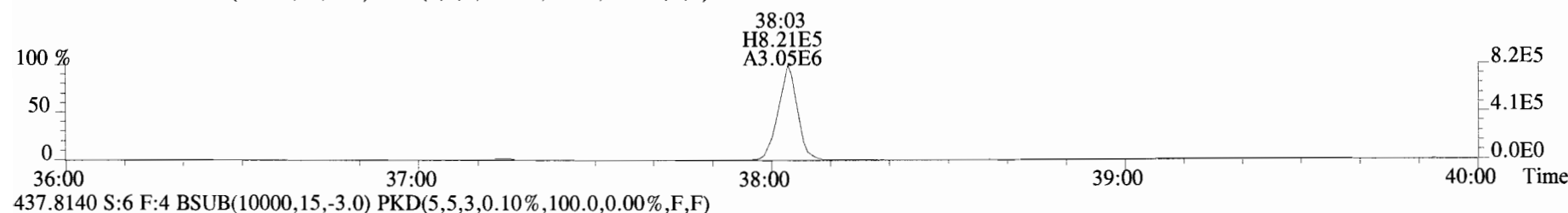
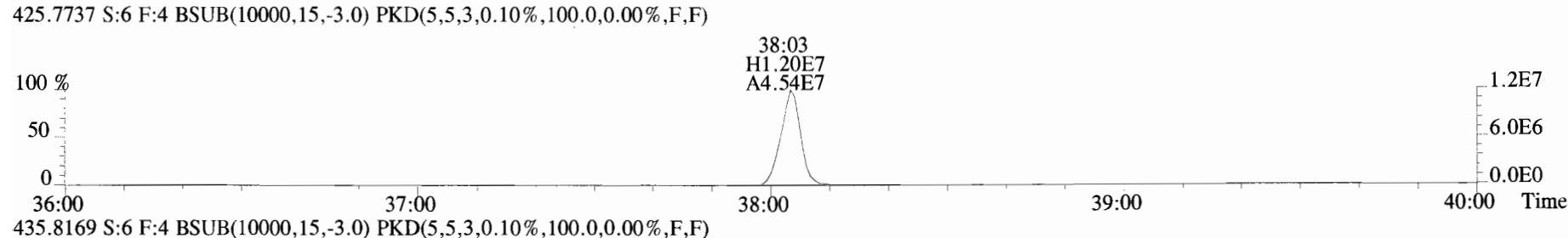
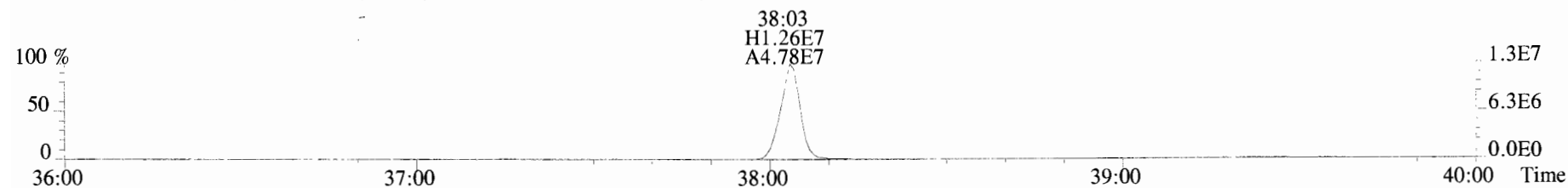
392.9760 S:6 F:3



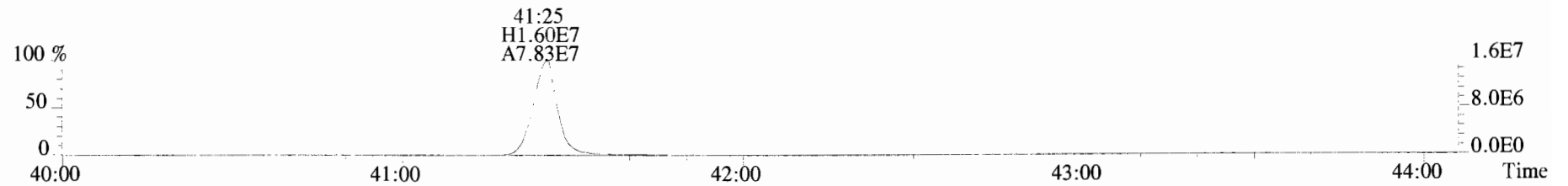
File:191009D1 #1-354 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



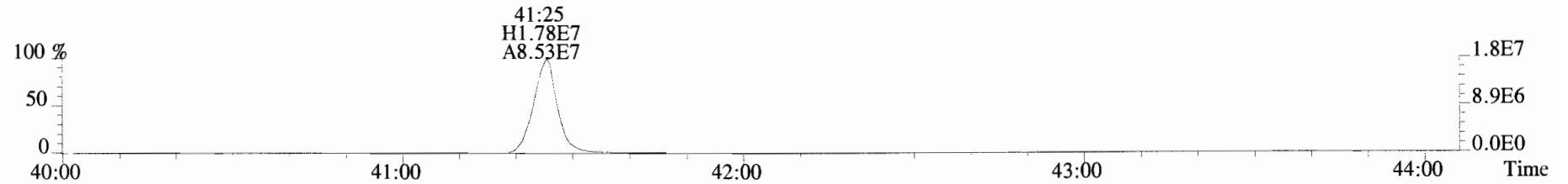
File:191009D1 #1-356 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



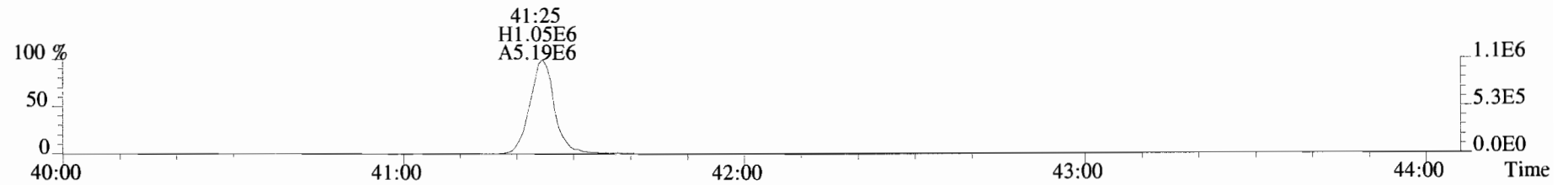
File:191009D1 #1-431 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



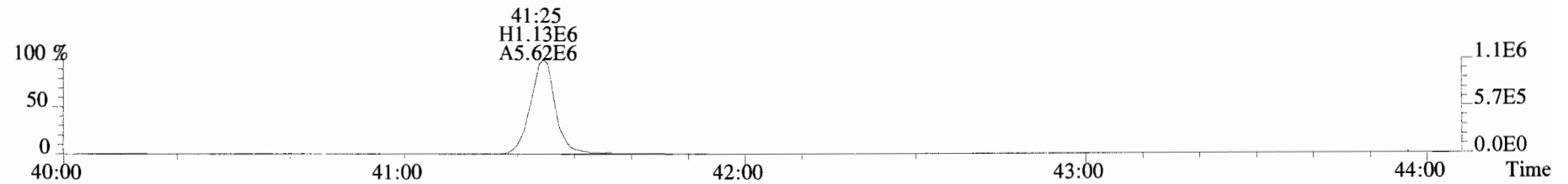
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



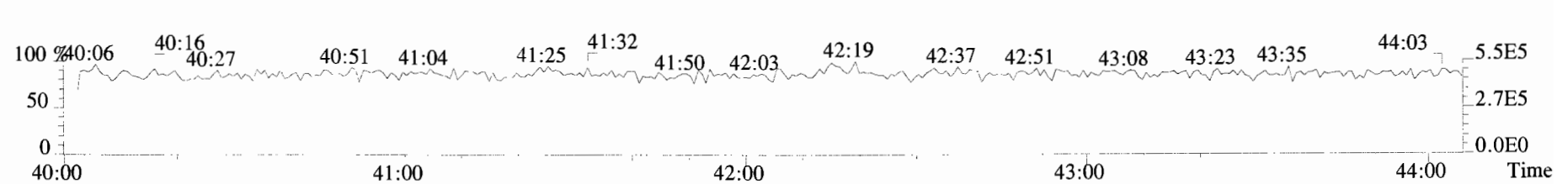
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



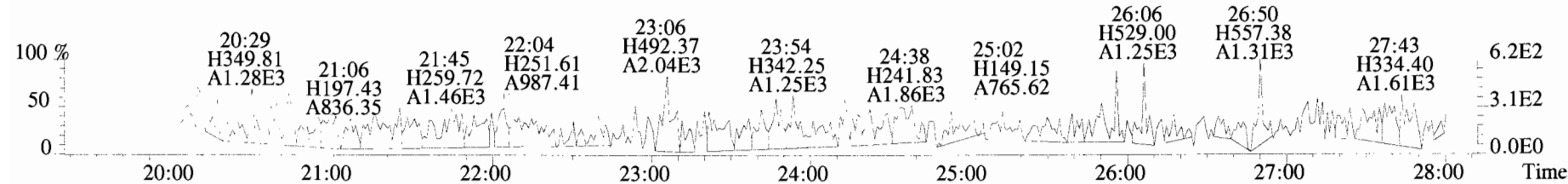
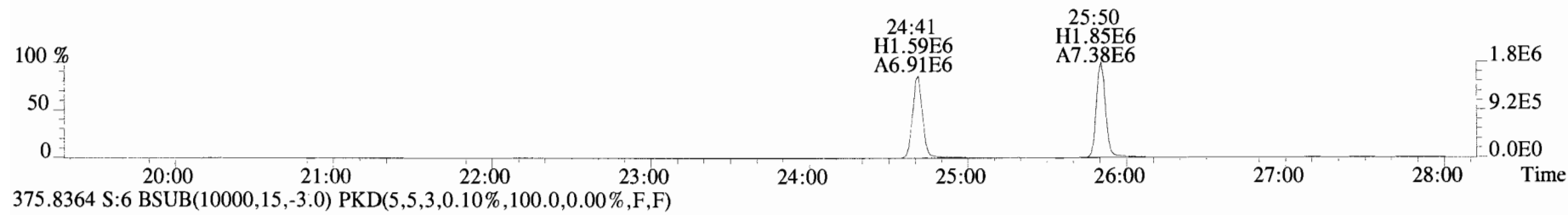
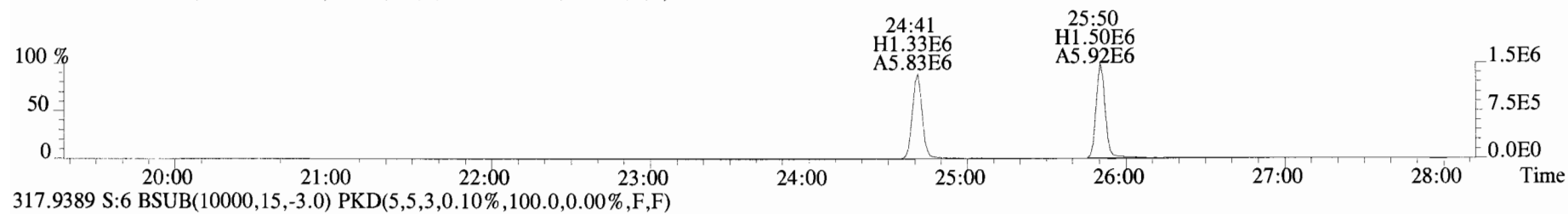
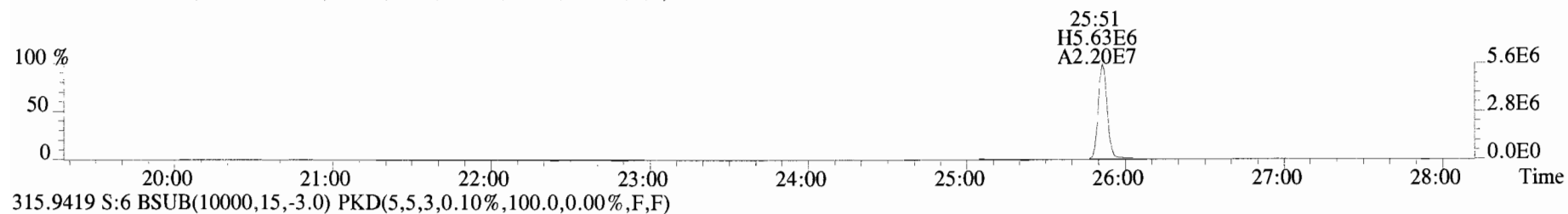
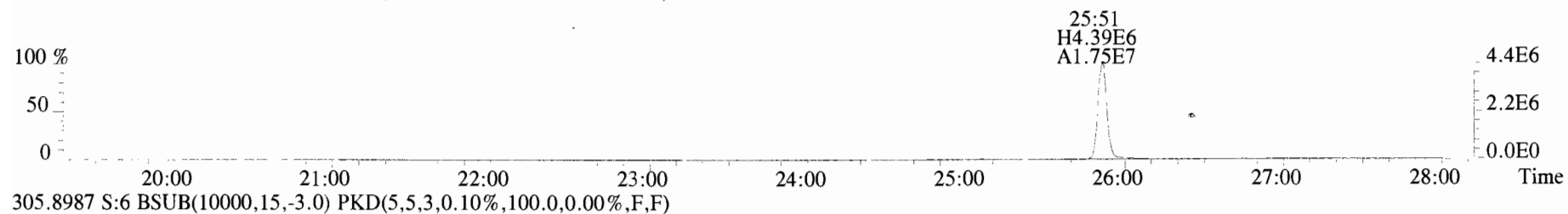
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



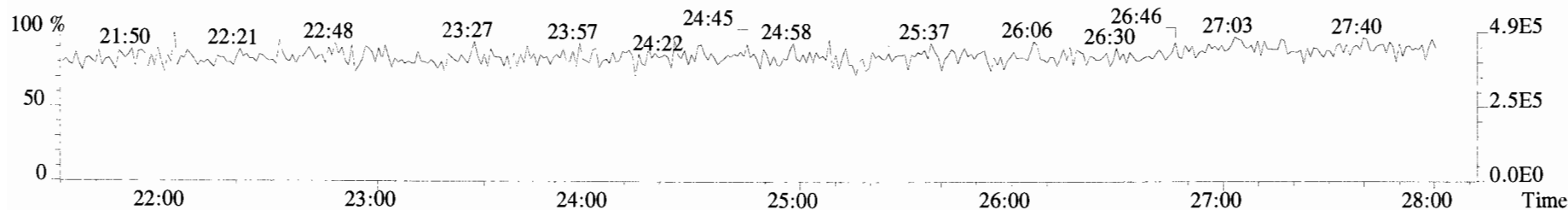
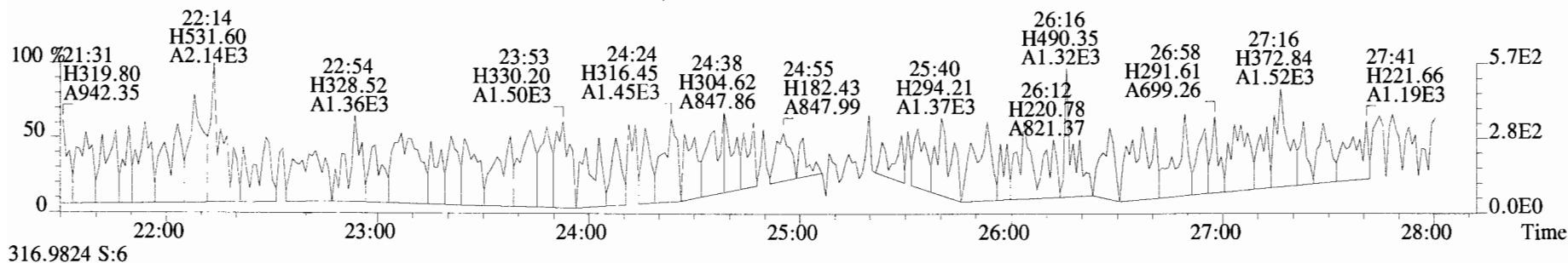
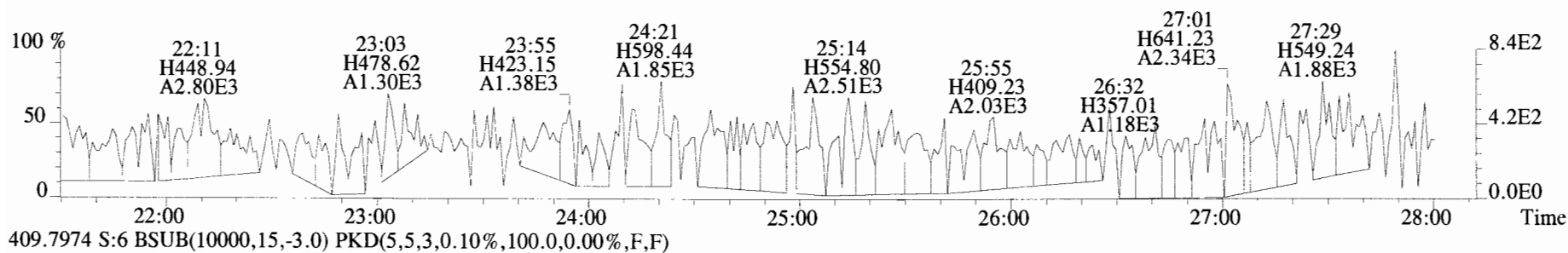
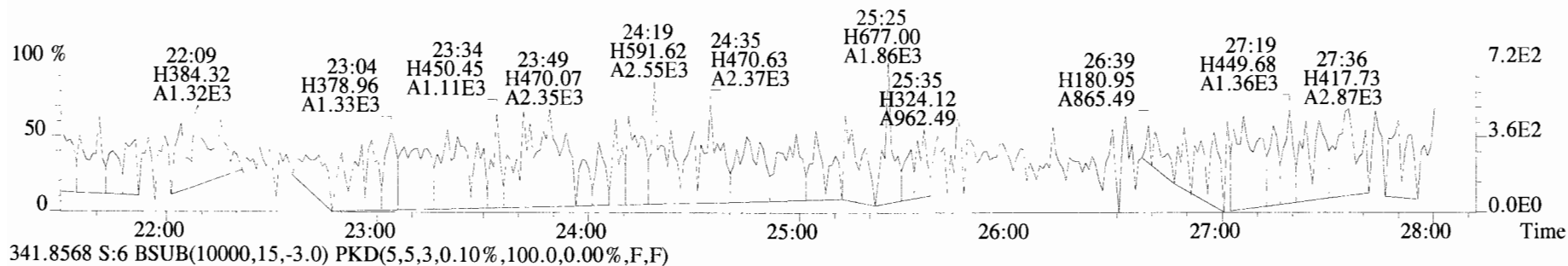
454.9728 S:6 F:5



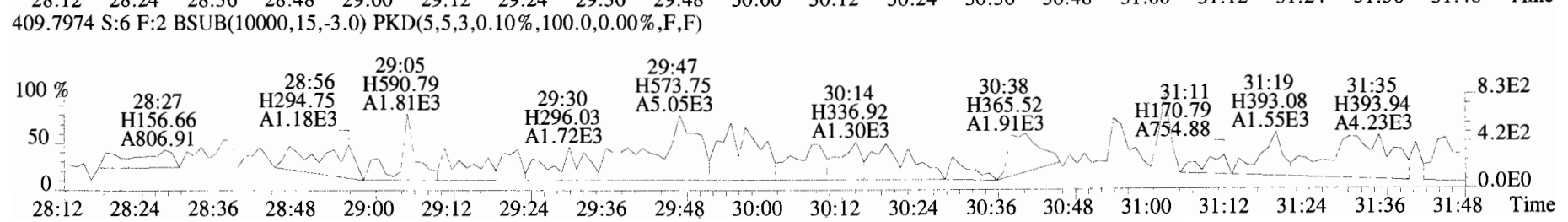
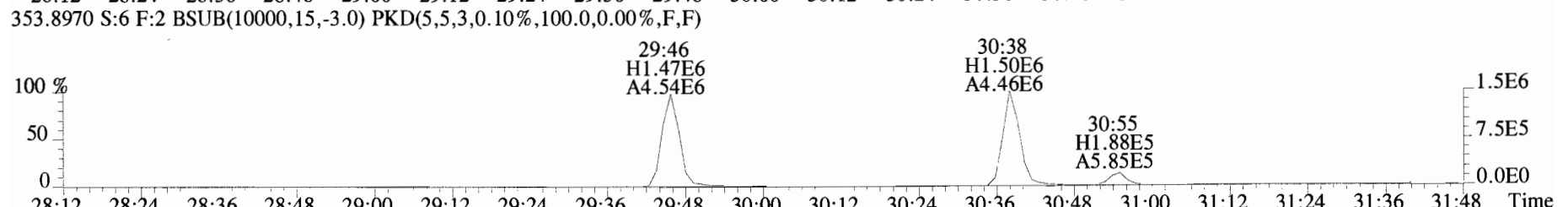
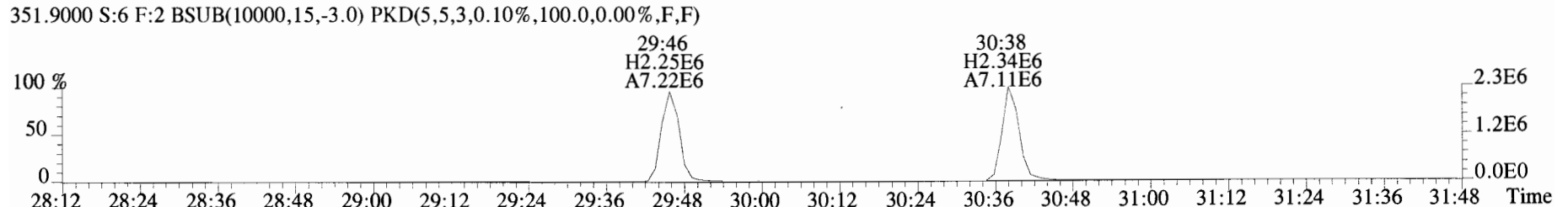
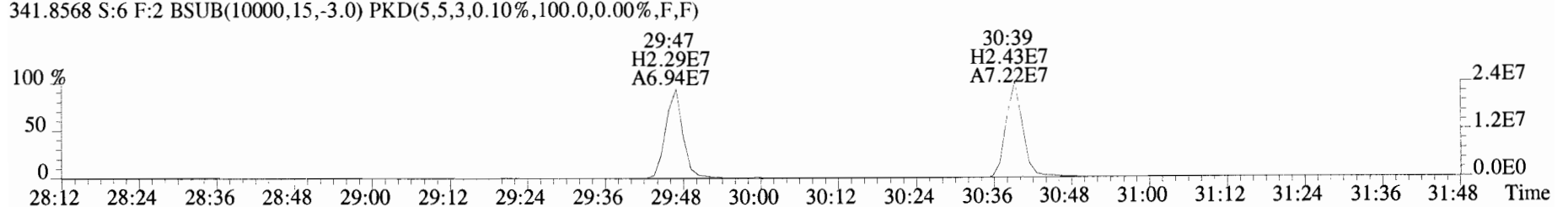
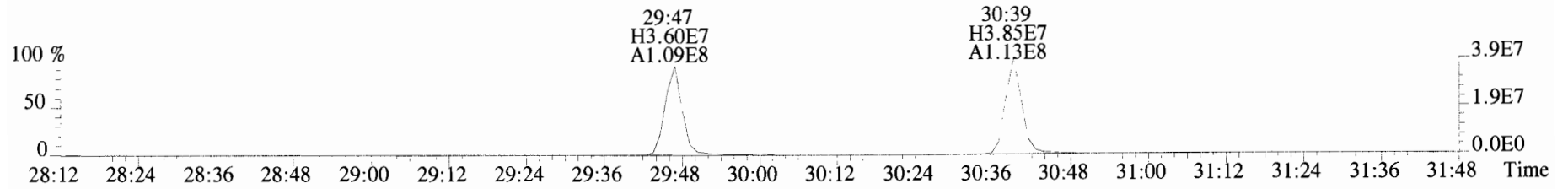
File:191009D1 #1-513 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-513 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

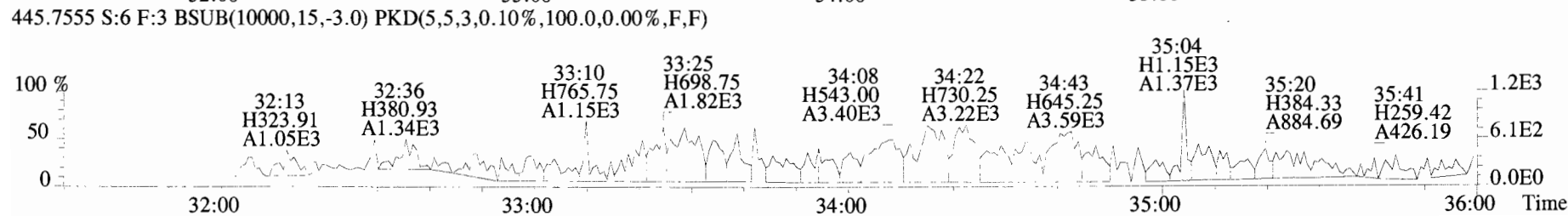
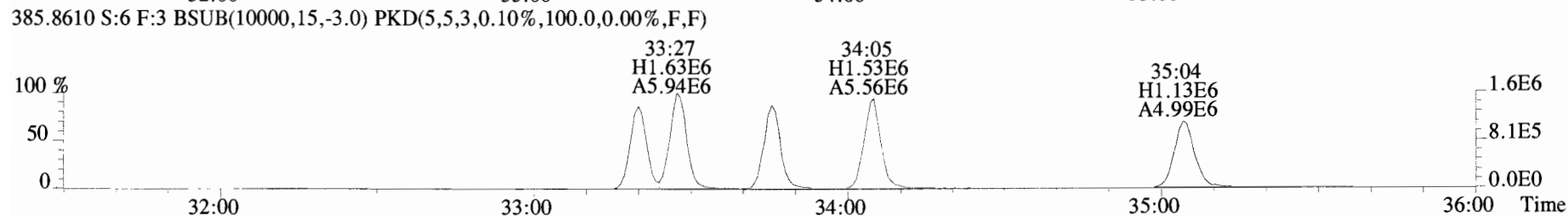
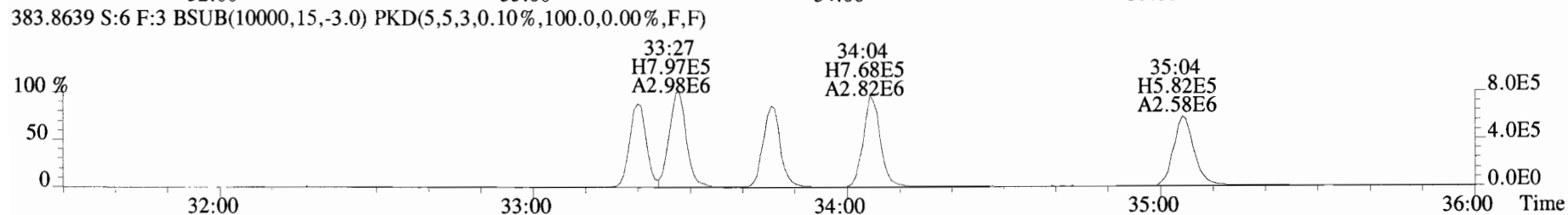
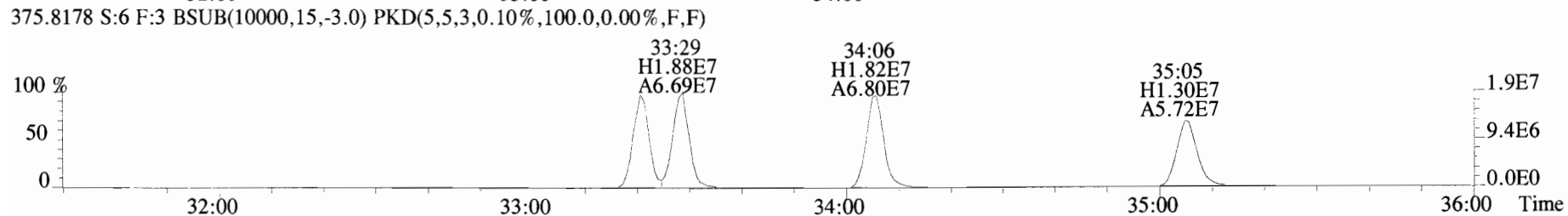
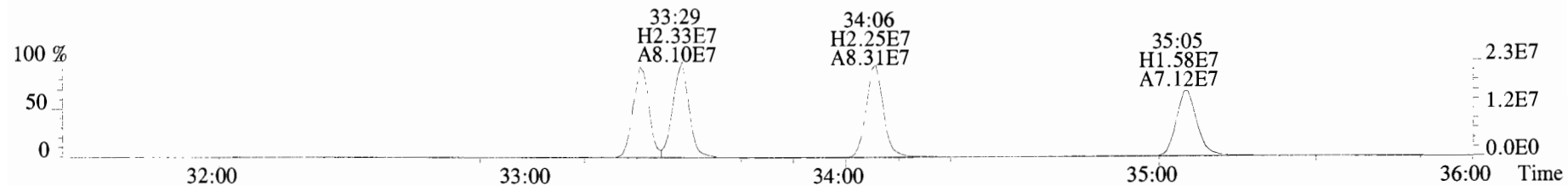


File:191009D1 #1-211 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
 339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

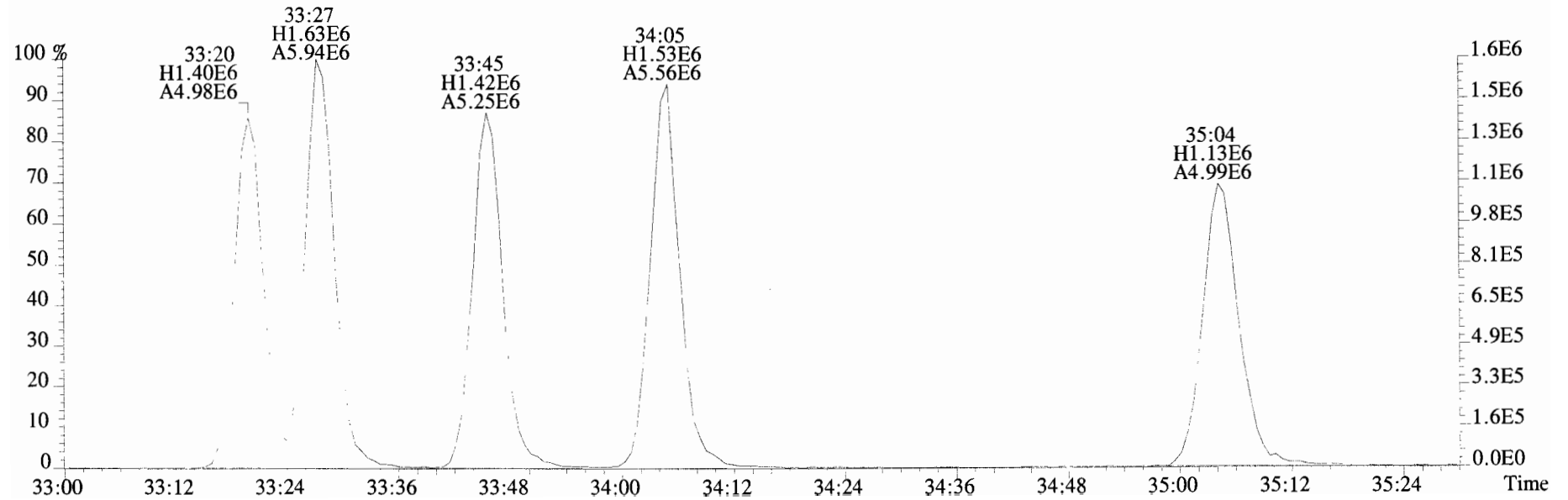
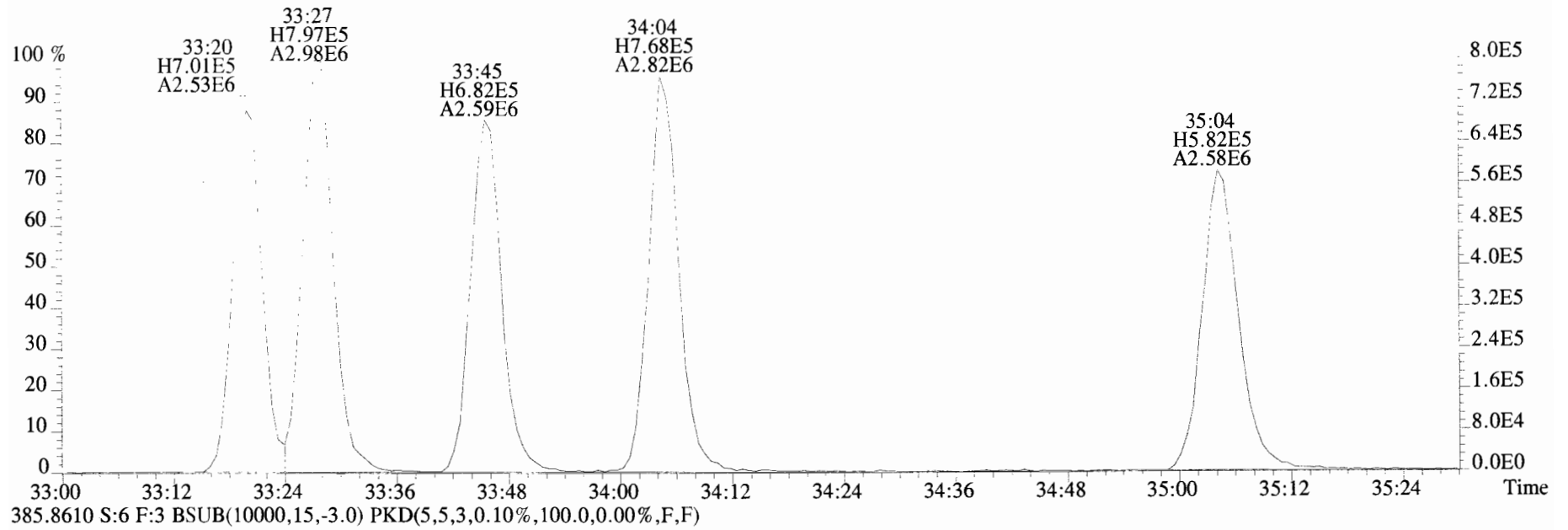




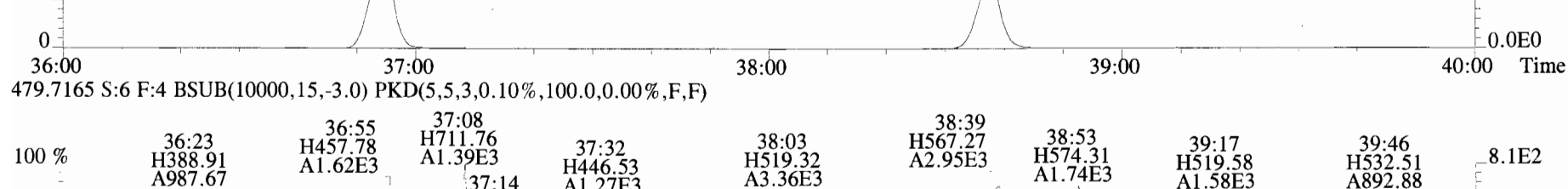
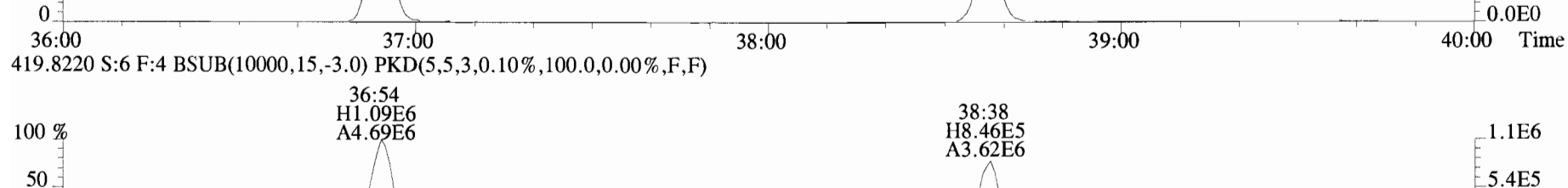
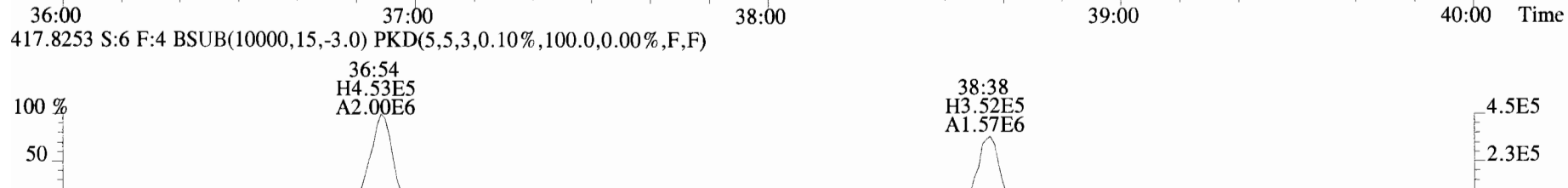
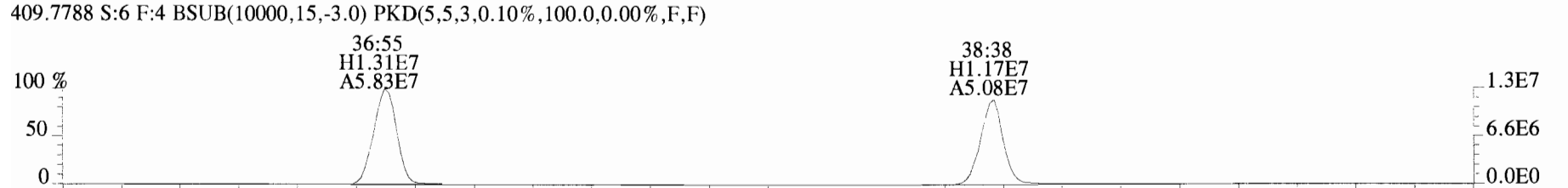
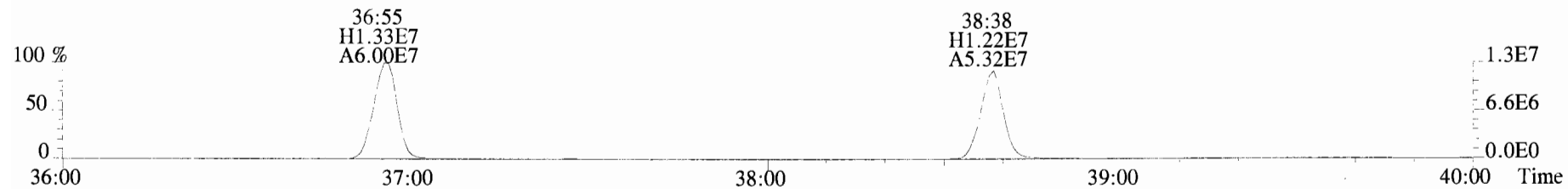
File:191009D1 #1-354 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
 373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



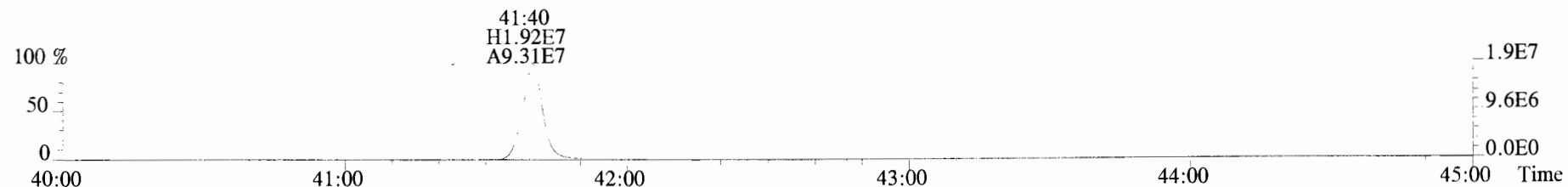
File:191009D1 #1-354 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



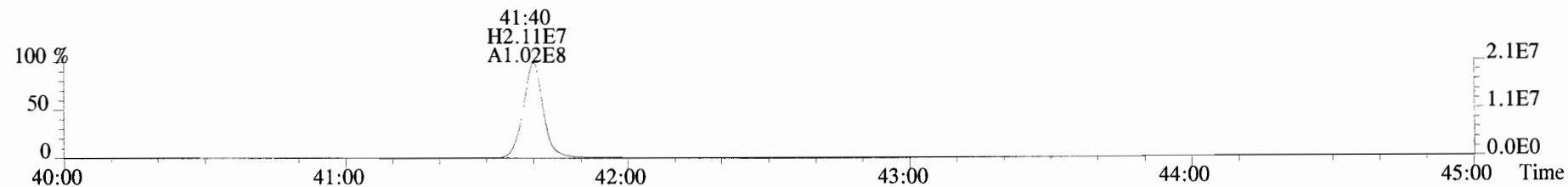
File:191009D1 #1-356 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
 407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



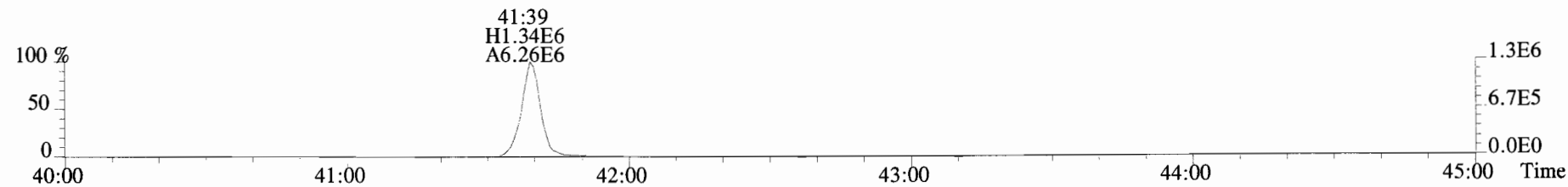
File:191009D1 #1-431 Acq: 9-OCT-2019 20:11:17 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#6 File Text:Vista Analytical Laboratory\_VG7 Text:ST191009D1-6 1613 CS5 19C2206 Exp:OCDD\_DB5  
 441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



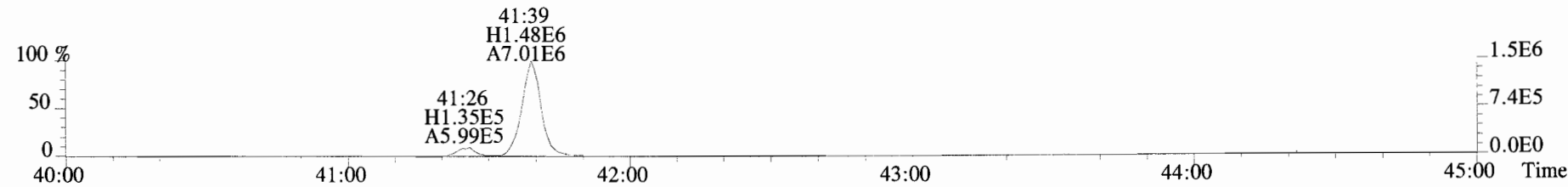
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



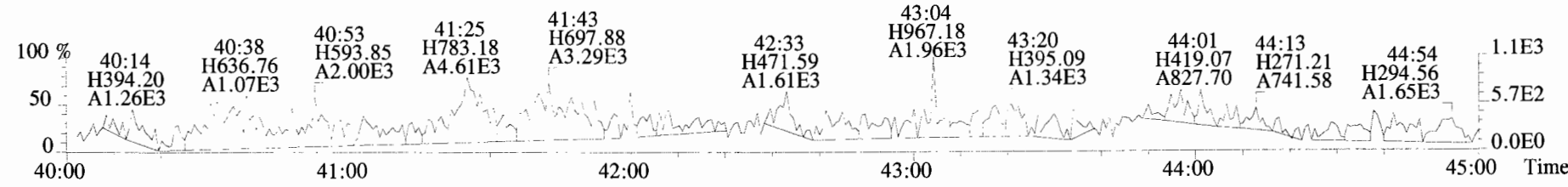
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

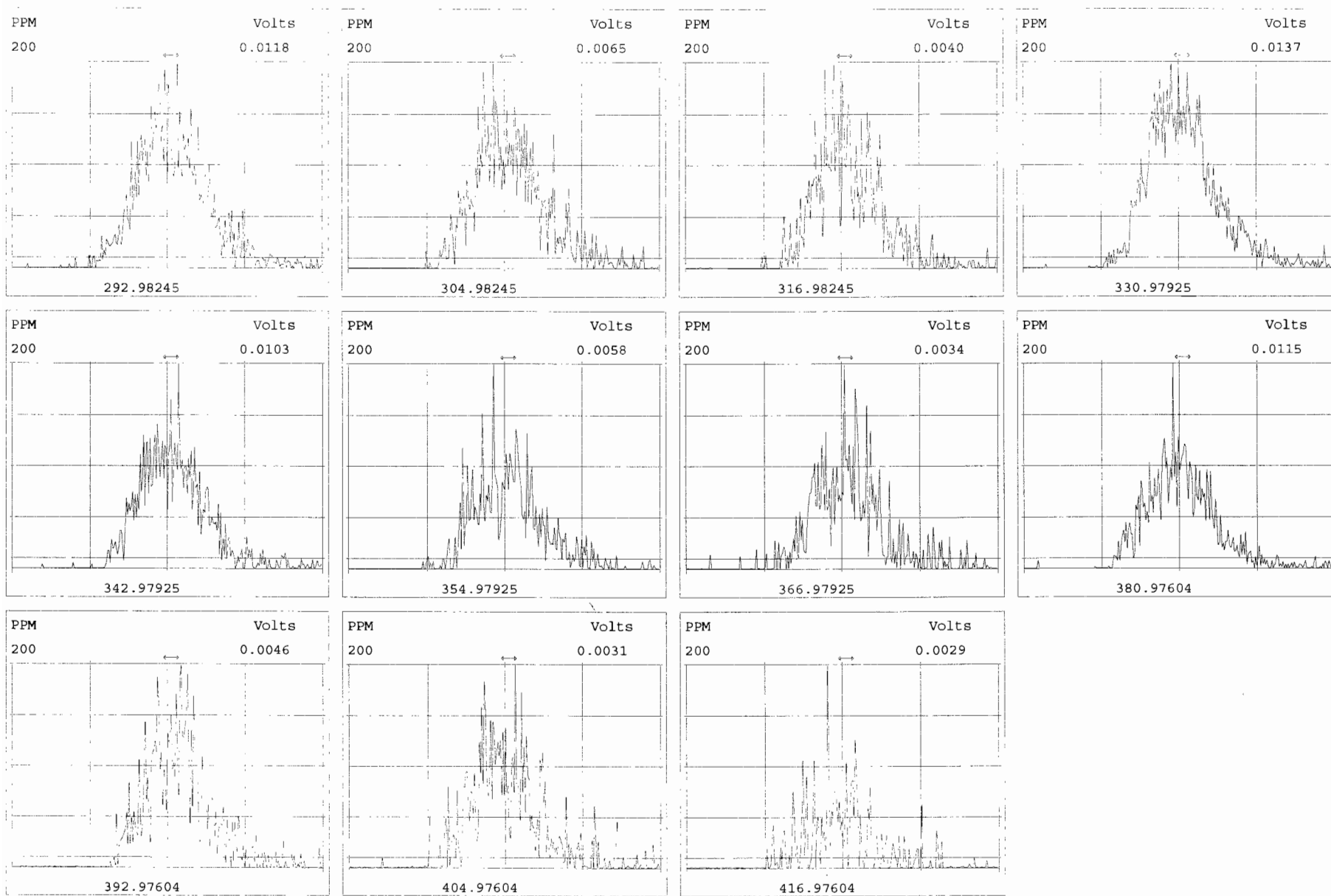


513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



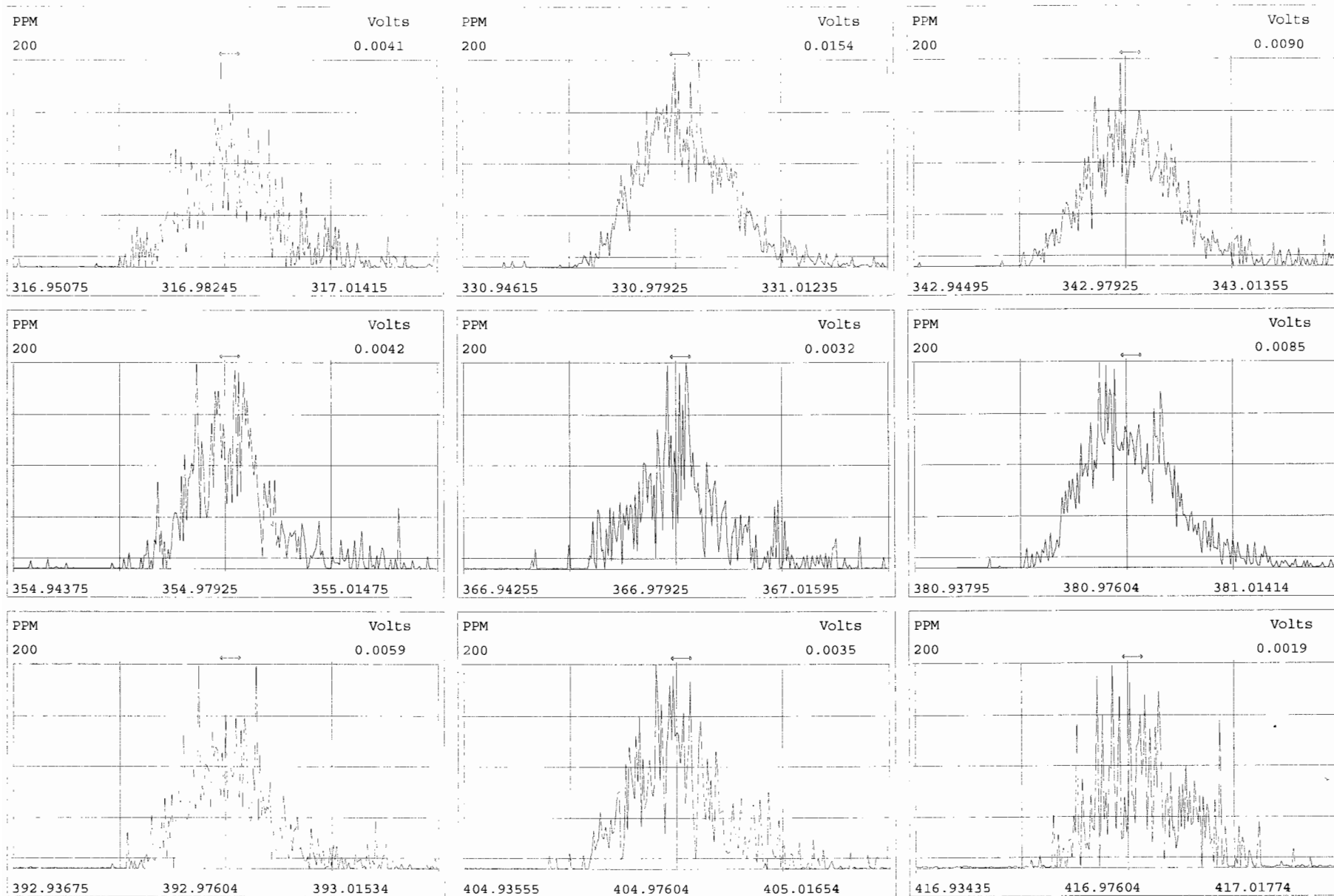
Peak Locate Examination:10-OCT-2019:06:40 File:RES\_CHECK

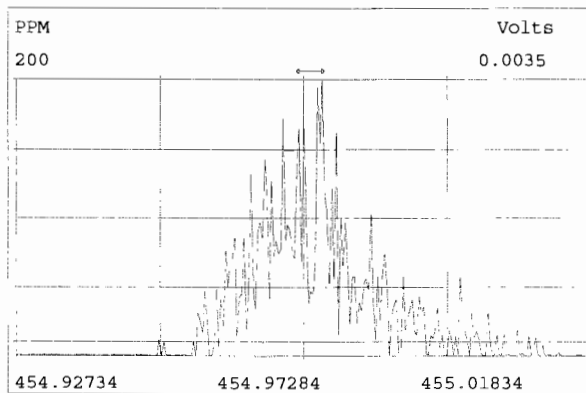
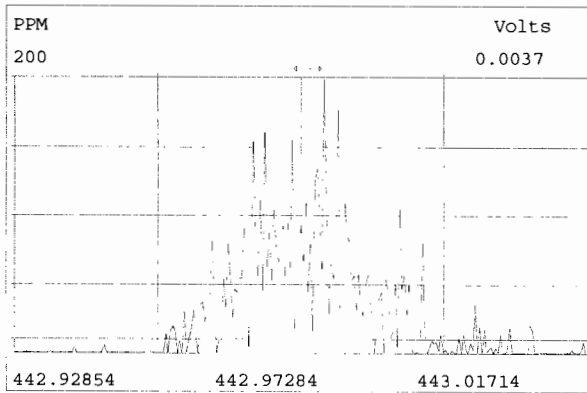
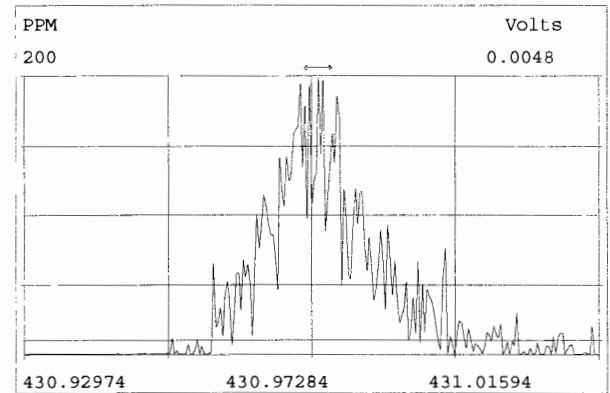
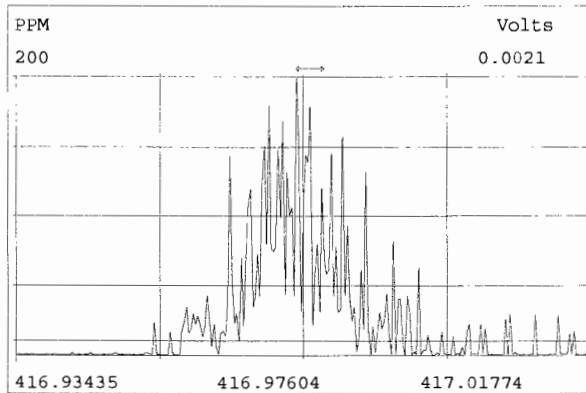
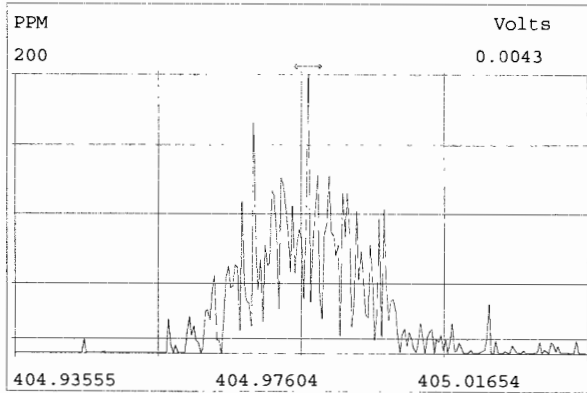
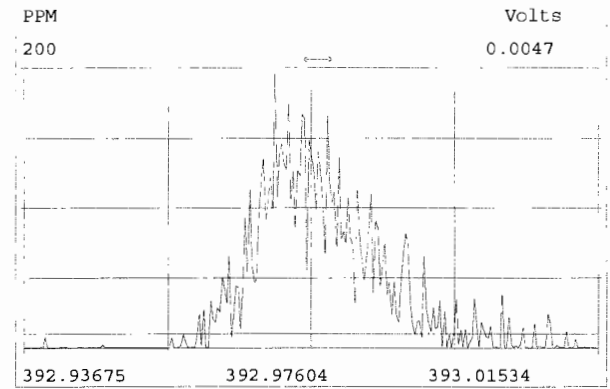
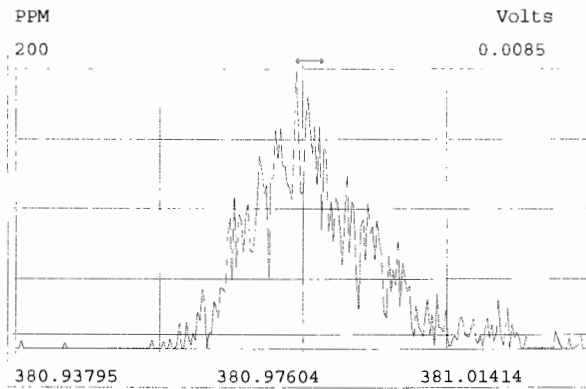
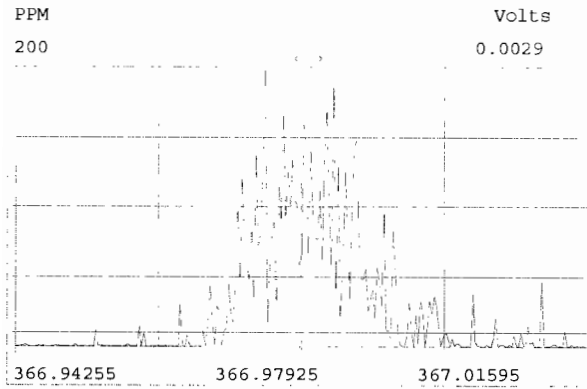
Experiment:OCDD\_DB5 Function:1 Reference:PFK

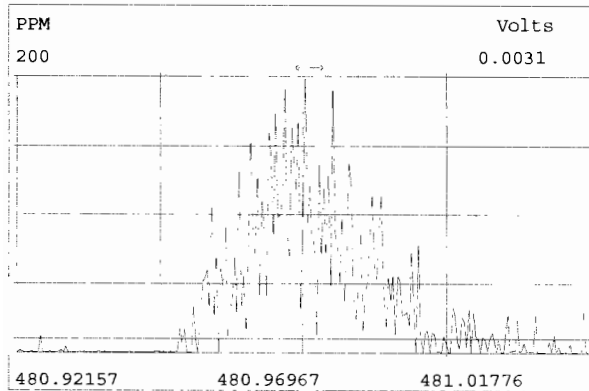
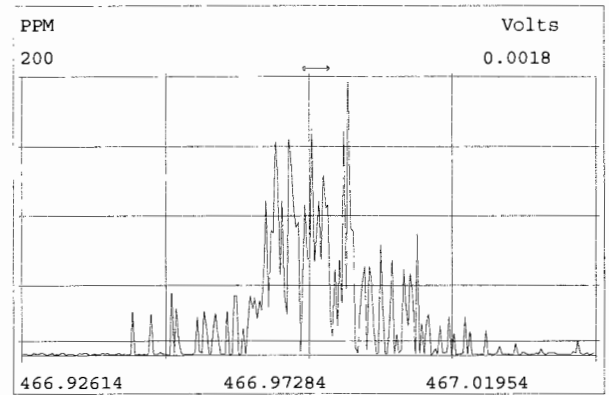
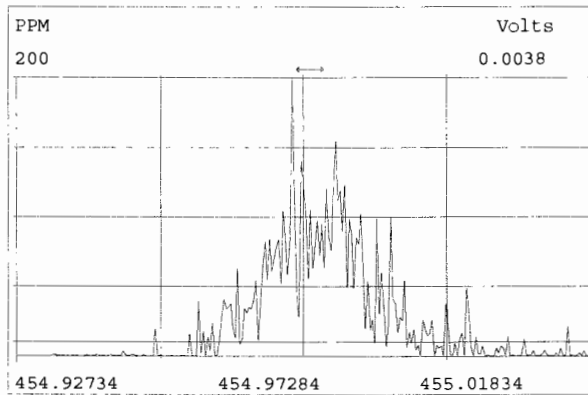
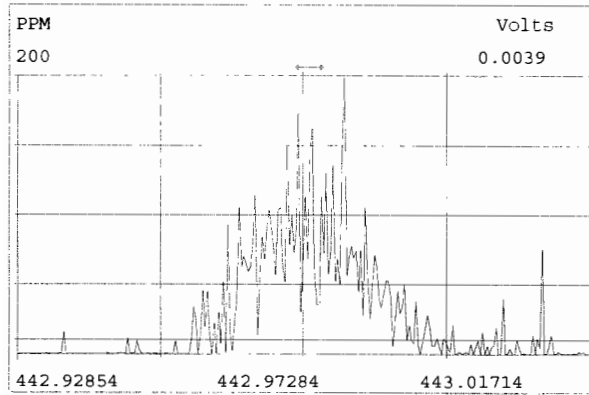
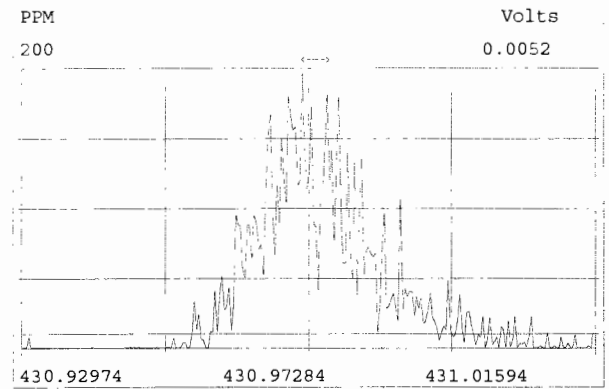
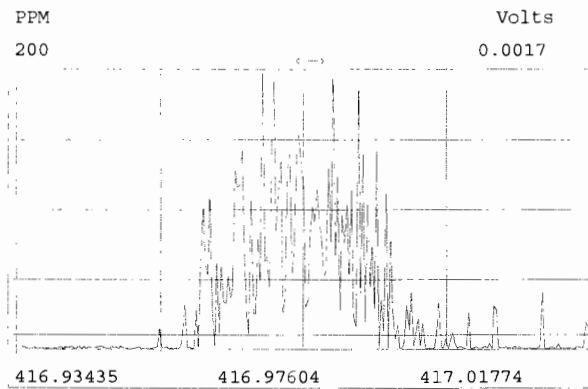
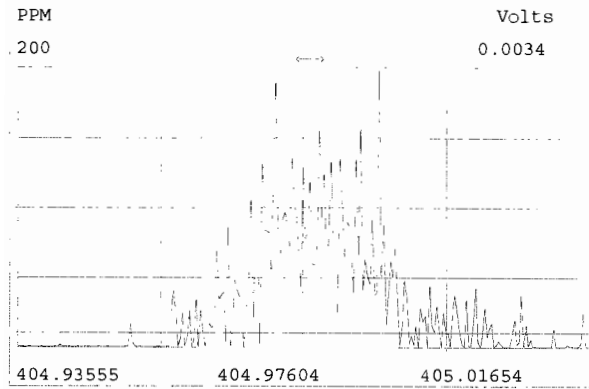


Peak Locate Examination:10-OCT-2019:06:41 File:RES\_CHECK

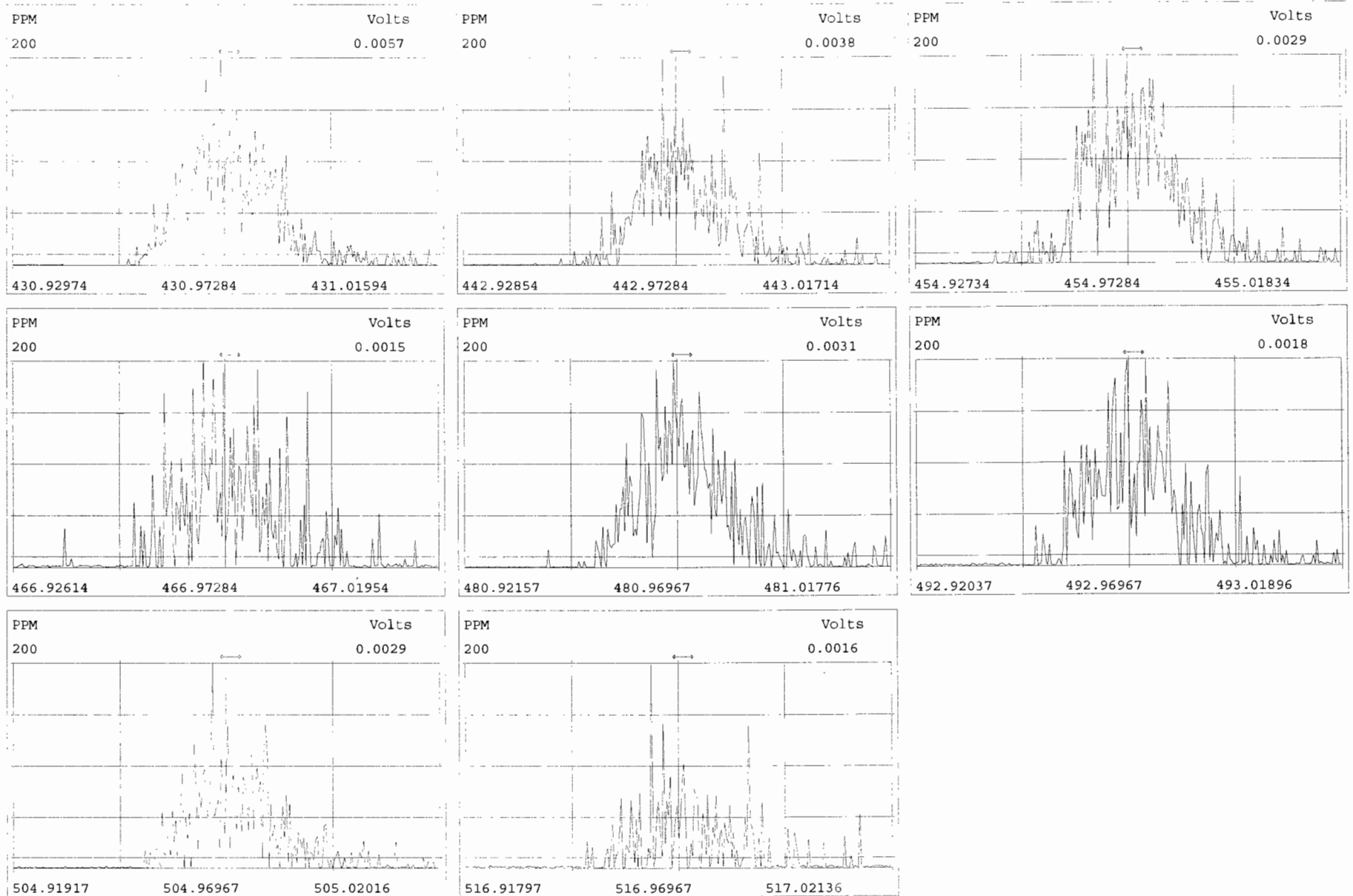
Experiment:OCDD\_DB5 Function:2 Reference:PFK











FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: SS191009D1-1

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7

GC Column ID: ZB-5MS

VER Data Filename: 191009D1 S#8 Analysis Date: 9-OCT-19 Time: 21:46:34

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC.	CONC.
	FORMING	ABUND.	LIMITS		FOUND	RANGE (3)
	RATIO (1)	RATIO	(2)		FOUND	(ng/mL)
2,3,7,8-TCDD	M/M+2	0.83	0.65-0.89	y	10.2	7.8 - 12.9 8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	51.3	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.05-1.43	y	48.9	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.18	1.05-1.43	y	52.4	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.17	1.05-1.43	y	50.4	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88-1.20	y	51.9	43.0 - 58.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	105	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	y	10.3	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	y	50.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	56.7	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	51.1	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	51.5	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.20	1.05-1.43	y	51.5	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	y	50.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	y	53.0	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	y	50.2	43.0 - 58.0
OCDF	M+2/M+4	0.92	0.76-1.02	y	102	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: DB

Date: 10/10/19

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 191009D1 S#8 Analysis Date: 9-OCT-19 Time: 21:46:34

LABELED COMPOUNDS	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
13C-2,3,7,8-TCDD	M/M+2	0.72	0.65-0.89	y	100	82.0 - 121.0
13C-1,2,3,7,8-PeCDD	M/M+2	0.64	0.54-0.72	y	101	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	95.9	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.6	85.0 - 118.0
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.05-1.43	y	94.3	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	91.7	72.0 - 138.0
13C-OCDD	M/M+2	0.92	0.76-1.02	y	190	96.0 - 415.0
13C-2,3,7,8-TCDF	M+2/M+4	0.78	0.65-0.89	y	97.2	71.0 - 140.0
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.62	1.32-1.78	y	97.4	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	96.6	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	102	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	101	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	97.1	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	y	99.0	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.43	0.37-0.51	y	96.6	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	102	77.0 - 129.0
13C-OCDF	M+2/M+4	0.88	0.76-1.02	y	197	96.0 - 415.0
CLEANUP STANDARD (3)						
37Cl-2,3,7,8-TCDD					9.08	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: DB

Date: 10/10/19

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 191009D1 S#8 Analysis Date: 9-OCT-19 Time: 21:46:34

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.189	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.994	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.145	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.179	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052

Analyst: DB

Date: 10/10/19

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10-9-19

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 191009D1 S#8 Analysis Date: 9-OCT-19 Time: 21:46:34

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998-1.004
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.010	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.040	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.145	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.127	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.227	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.235	1.091-1.371

Analyst: DB

Date: 10/10/19

Client ID: 1613 SSS 19C2207  
Lab ID: SS191009D1-1

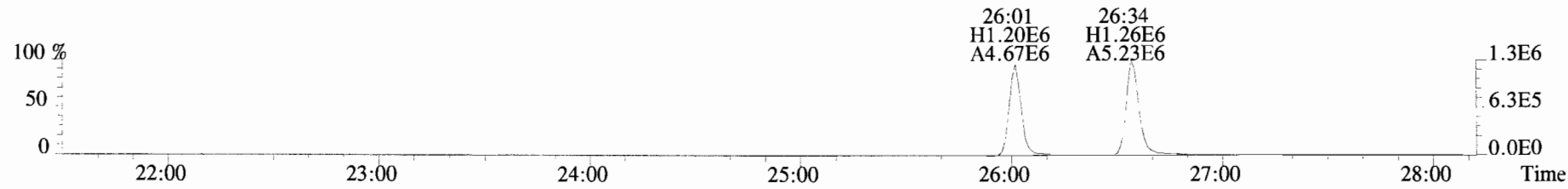
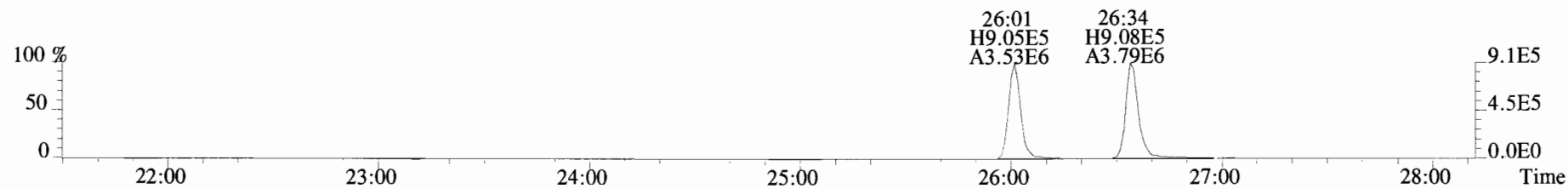
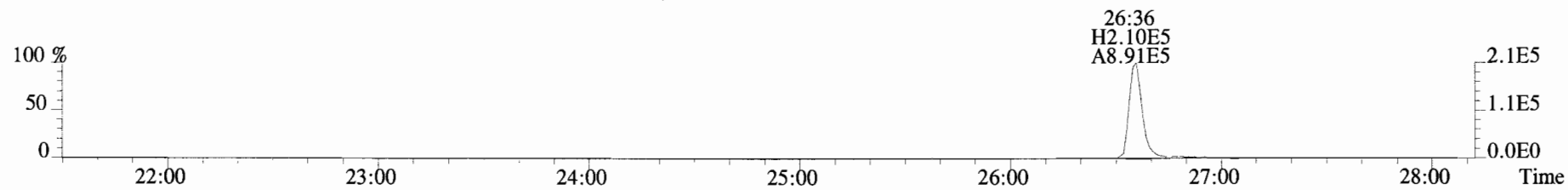
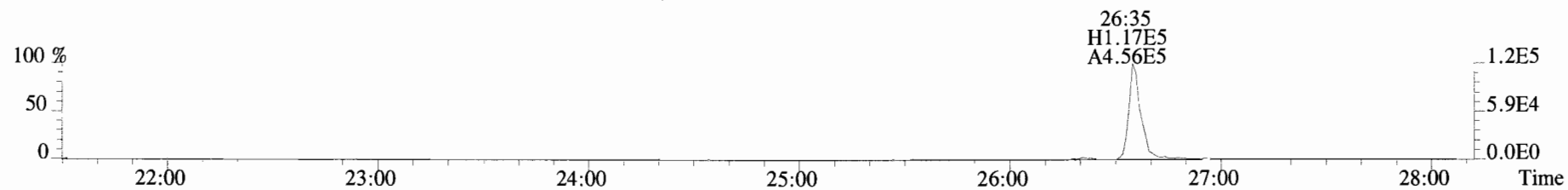
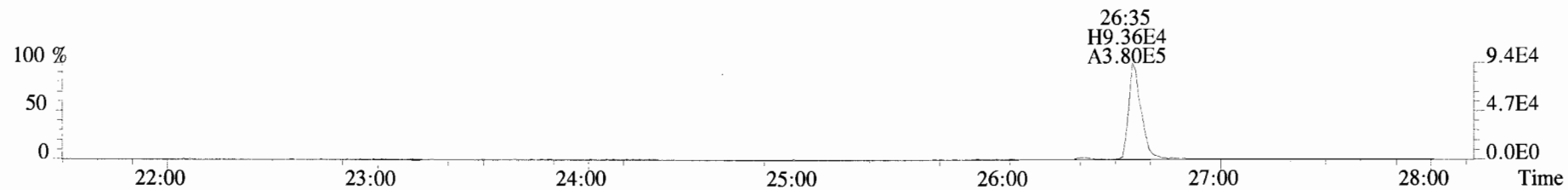
Filename: 191009D1 S:8 Acq: 9-OCT-19 21:46:34  
GC Column ID: ZB-5MS ICal: 1613VG7-10-9-19 wt/vol: 1.000

ConCal: ST191009D1-4  
EndCAL: NA

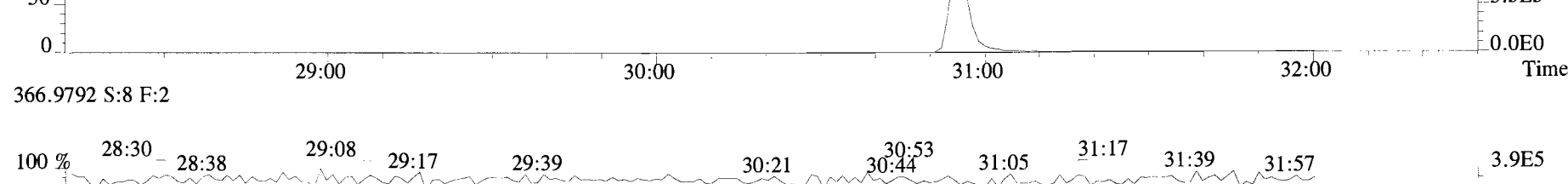
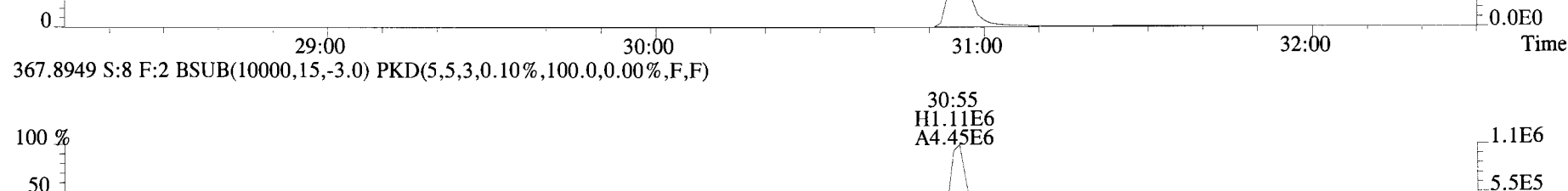
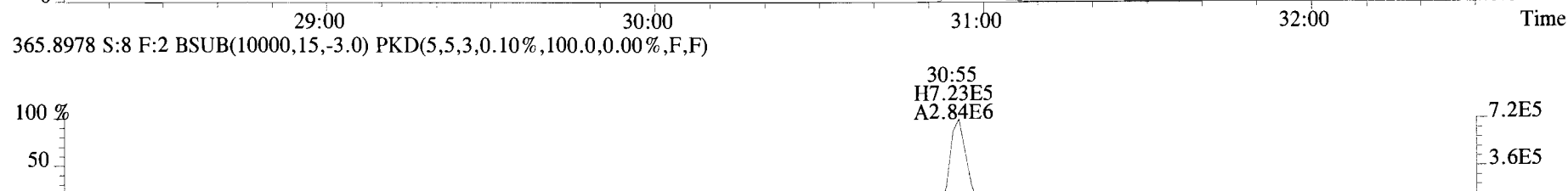
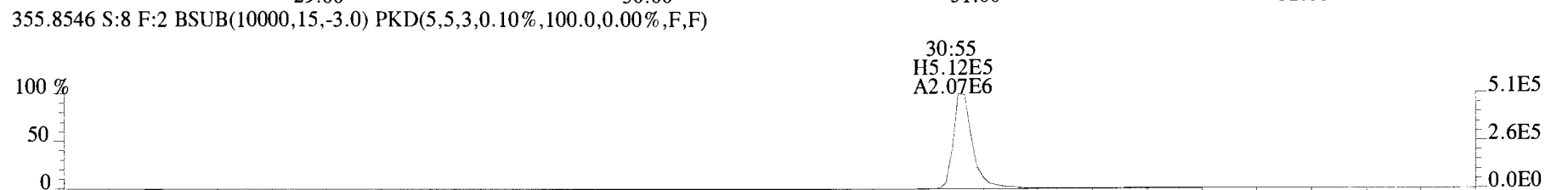
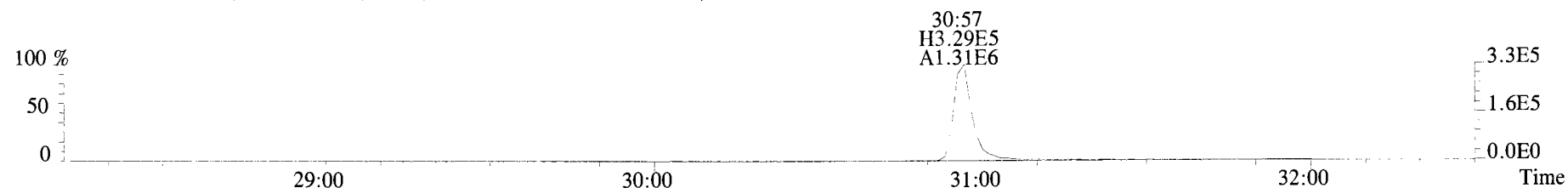
Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	8.36e+05	0.83 y	0.91	26:36	10.234		* 2.5		*	Total Tetra-Dioxins	10.4	11.4		*	*
1,2,3,7,8-PeCDD	3.38e+06	0.63 y	0.90	30:57	51.323		* 2.5		*	Total Penta-Dioxins	51.4	51.7		*	*
1,2,3,4,7,8-HxCDD	2.55e+06	1.31 y	1.10	34:18	48.909		* 2.5		*	Total Hexa-Dioxins	153	153		*	*
1,2,3,6,7,8-HxCDD	3.09e+06	1.18 y	0.94	34:24	52.378		* 2.5		*	Total Hepta-Dioxins	53.5	54.4		*	*
1,2,3,7,8,9-HxCDD	2.83e+06	1.17 y	0.96	34:44	50.434		* 2.5		*	Total Tetra-Furans	10.7	11.4		*	*
1,2,3,4,6,7,8-HpCDD	2.34e+06	1.02 y	0.98	38:07	51.915		* 2.5		*	Total Penta-Furans	110.38	111.73		*	*
OCDD	4.27e+06	0.92 y	0.96	41:30	105.37		* 2.5		*	Total Hexa-Furans	205	207		*	*
										Total Hepta-Furans	104	106		*	*
2,3,7,8-TCDF	1.24e+06	0.78 y	0.95	25:53	10.342		* 2.5		*						
1,2,3,7,8-PeCDF	5.03e+06	1.54 y	0.96	29:48	50.200		* 2.5		*						
2,3,4,7,8-PeCDF	5.90e+06	1.60 y	1.01	30:42	56.719		* 2.5		*						
1,2,3,4,7,8-HxCDF	3.94e+06	1.22 y	1.18	33:23	51.086		* 2.5		*						
1,2,3,6,7,8-HxCDF	4.44e+06	1.23 y	1.07	33:31	51.491		* 2.5		*						
2,3,4,6,7,8-HxCDF	4.08e+06	1.20 y	1.11	34:08	51.474		* 2.5		*						
1,2,3,7,8,9-HxCDF	3.40e+06	1.24 y	1.06	35:10	50.903		* 2.5		*						
1,2,3,4,6,7,8-HpCDF	3.36e+06	1.05 y	1.13	36:58	53.010		* 2.5		*						
1,2,3,4,7,8,9-HpCDF	2.94e+06	1.05 y	1.28	38:42	50.216		* 2.5		*						
OCDF	5.04e+06	0.92 y	0.95	41:45	102.23		* 2.5		*						
IS	13C-2,3,7,8-TCDD	9.02e+06	0.72 y	1.10	26:35	100.49				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	7.29e+06	0.64 y	0.88	30:56	100.87				100					
IS	13C-1,2,3,4,7,8-HxCDD	4.73e+06	1.23 y	0.64	34:16	95.948				101					
IS	13C-1,2,3,6,7,8-HxCDD	6.28e+06	1.25 y	0.86	34:24	95.558				95.9					
IS	13C-1,2,3,7,8,9-HxCDD	5.85e+06	1.26 y	0.81	34:43	94.306				95.6					
IS	13C-1,2,3,4,6,7,8-HpCDD	4.61e+06	1.06 y	0.65	38:06	91.680				94.3					
IS	13C-OCDD	8.45e+06	0.92 y	0.58	41:29	189.68				91.7					
IS	13C-2,3,7,8-TCDF	1.26e+07	0.78 y	1.03	25:52	97.199				94.8					
IS	13C-1,2,3,7,8-PeCDF	1.04e+07	1.62 y	0.85	29:48	97.425				97.2					
IS	13C-2,3,4,7,8-PeCDF	1.03e+07	1.59 y	0.85	30:41	96.649				97.4					
IS	13C-1,2,3,4,7,8-HxCDF	6.55e+06	0.51 y	0.83	33:22	102.43				96.6					
IS	13C-1,2,3,6,7,8-HxCDF	8.06e+06	0.51 y	1.03	33:30	101.42				102					
IS	13C-2,3,4,6,7,8-HxCDF	7.11e+06	0.51 y	0.95	34:08	97.073				101					
IS	13C-1,2,3,7,8,9-HxCDF	6.30e+06	0.51 y	0.83	35:09	98.999				97.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	5.62e+06	0.43 y	0.76	36:57	96.588				99.0					
IS	13C-1,2,3,4,7,8,9-HpCDF	4.58e+06	0.44 y	0.58	38:42	102.46				96.6					
IS	13C-OCDF	1.04e+07	0.88 y	0.69	41:44	196.65				102					
C/Up	37Cl-2,3,7,8-TCDD	8.91e+05		1.20	26:36	9.0817				98.3					
RS/RT	13C-1,2,3,4-TCDD	8.20e+06	0.76 y	1.00	26:01	100.00				90.8					
RS	13C-1,2,3,4-TCDF	1.25e+07	0.82 y	1.00	24:42	100.00									
RS/RT	13C-1,2,3,4,6,9-HxCDF	7.68e+06	0.50 y	1.00	33:48	100.00									

Integrations Reviewed  
by DB by  
Analyst: DB Analyst: CT  
Date: 10/10/19 Date: 10/10/19

File:191009D1 #1-514 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

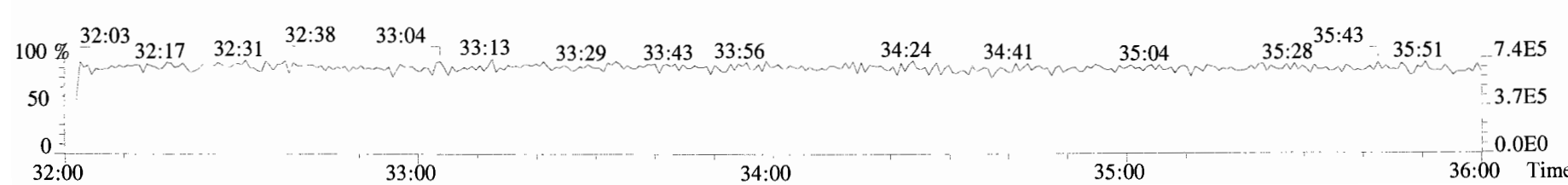
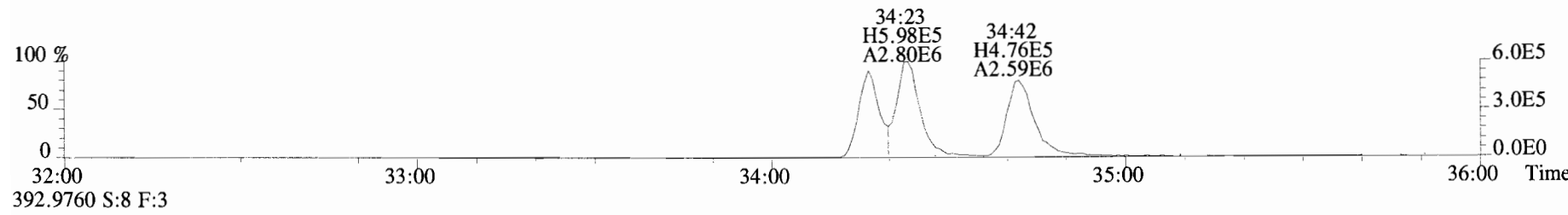
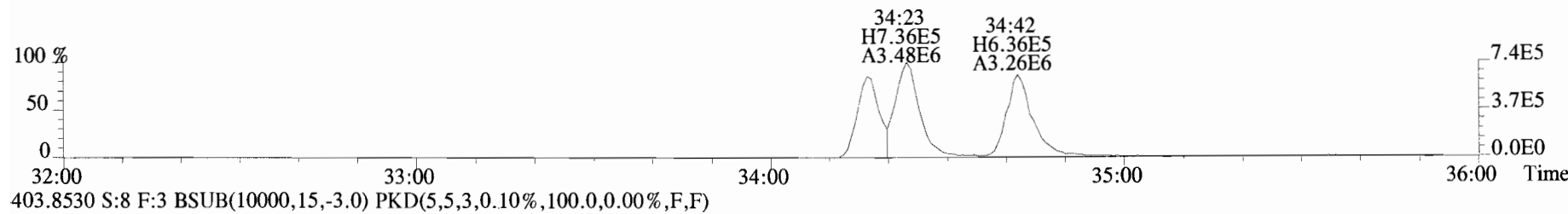
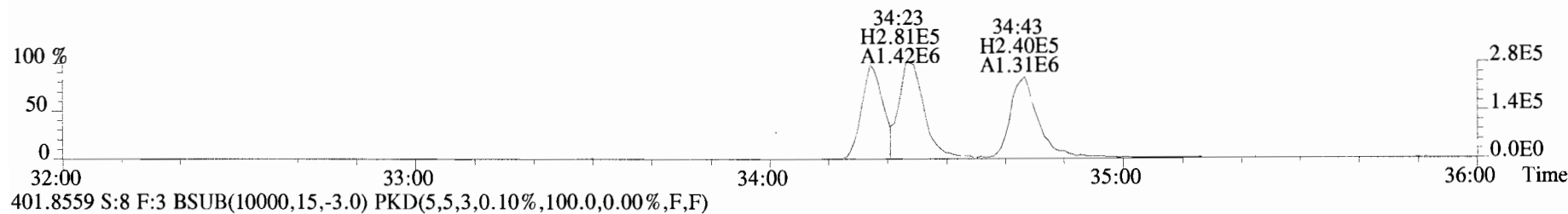
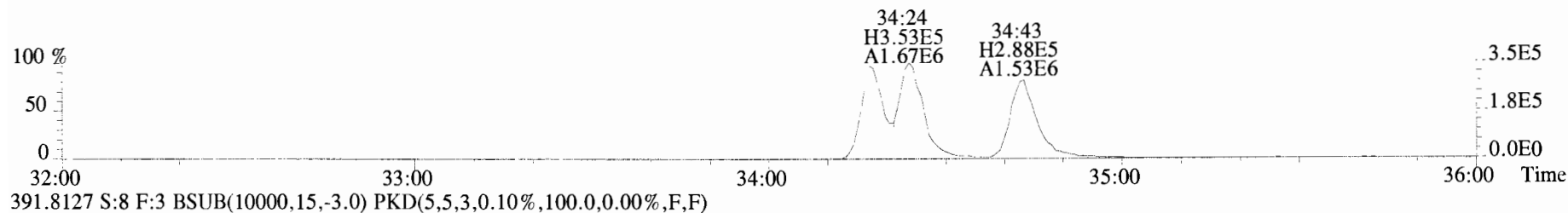


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353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

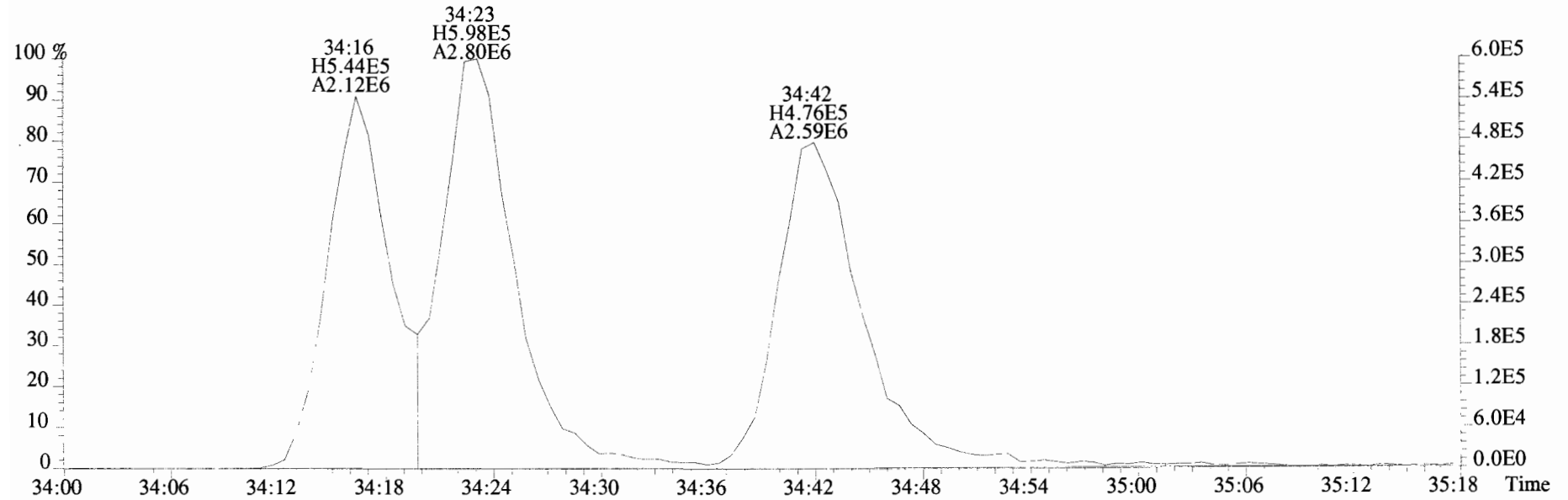
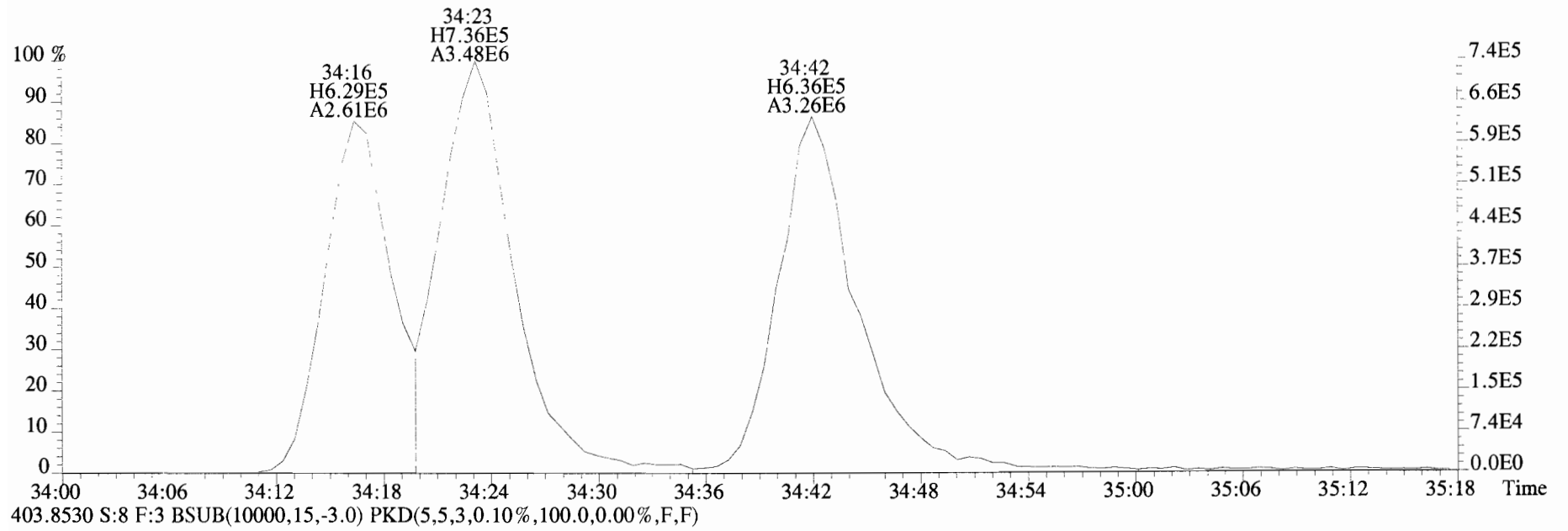




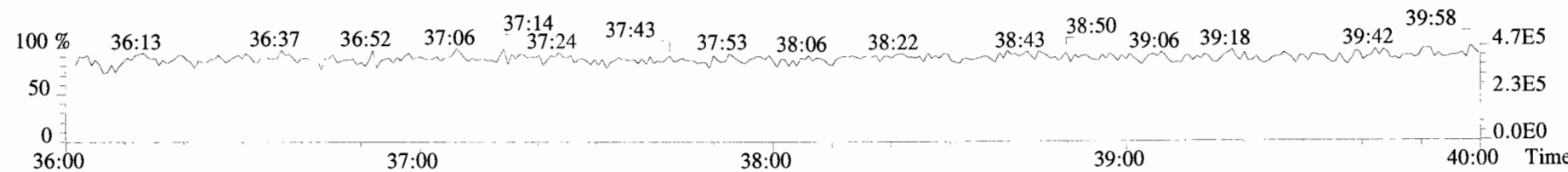
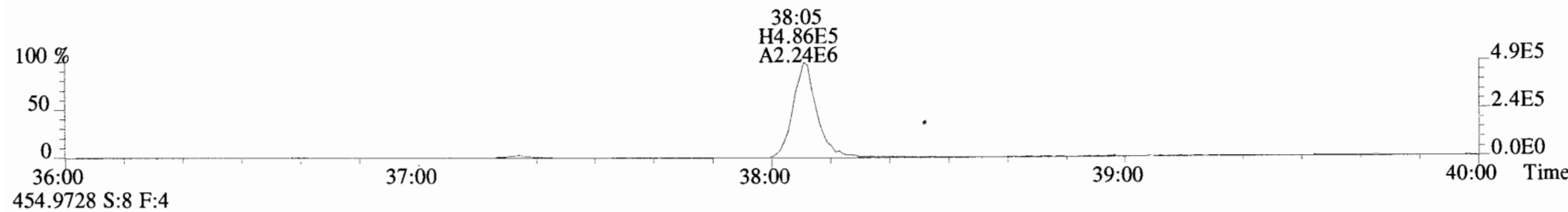
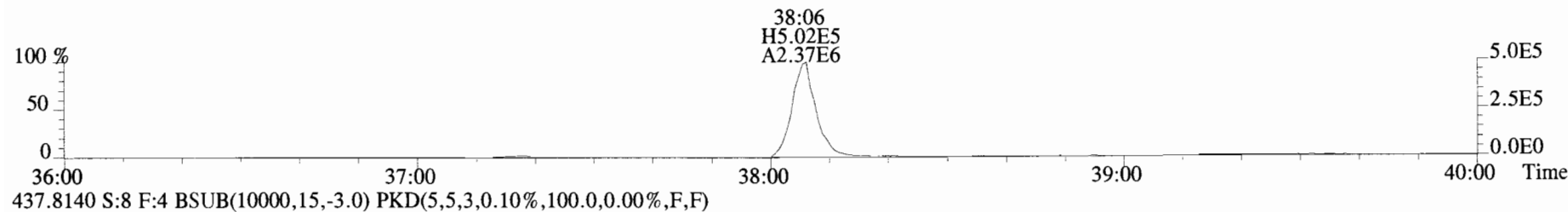
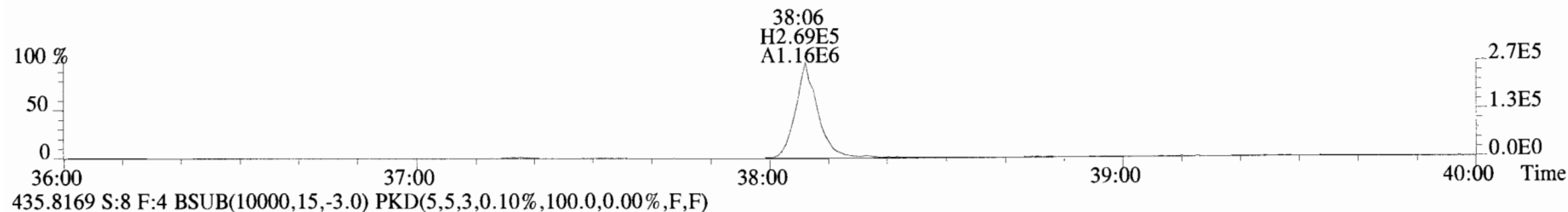
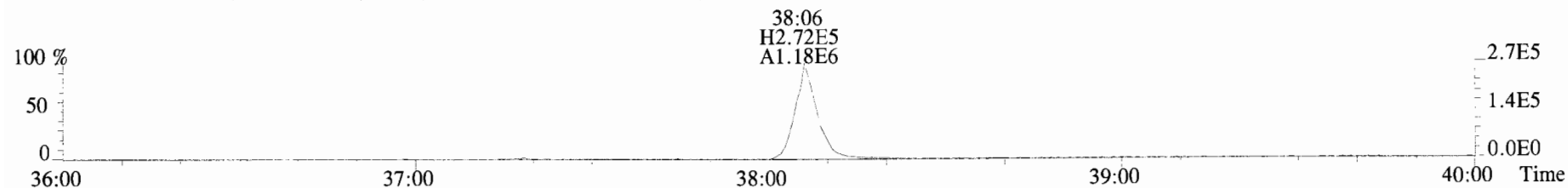
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Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



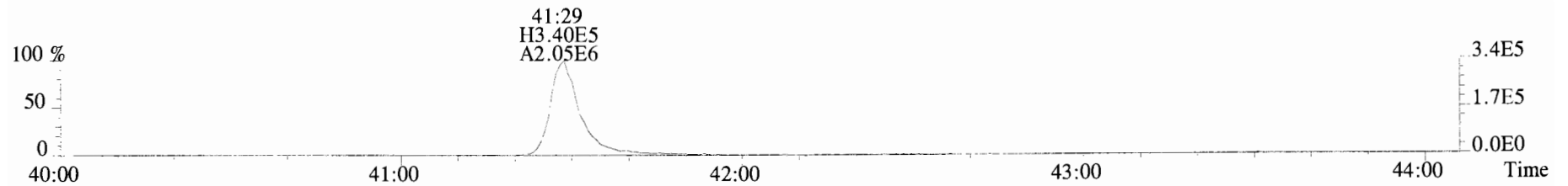
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Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



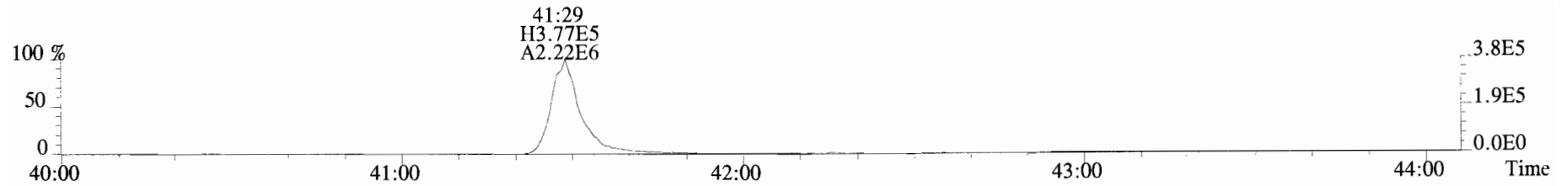
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Sample#8 File Text:Vista Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



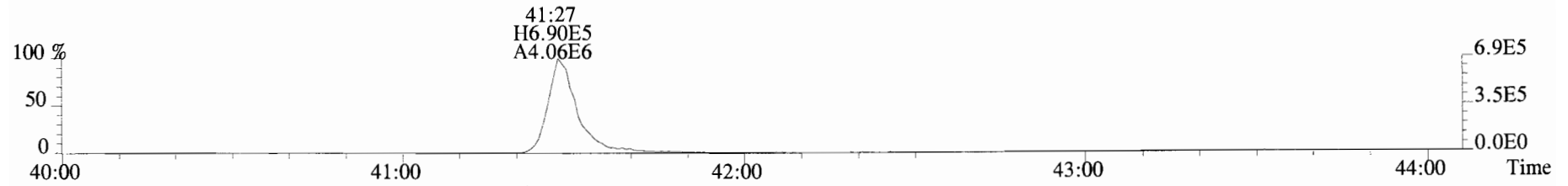
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Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



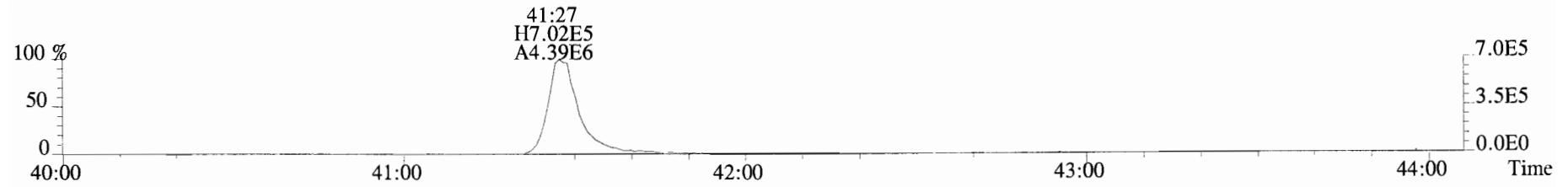
459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



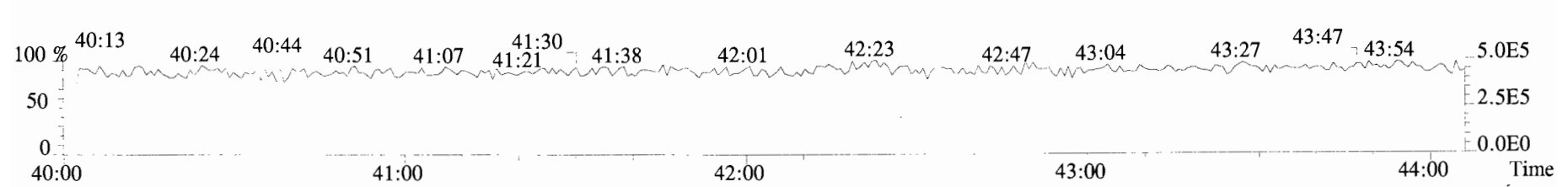
469.7780 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



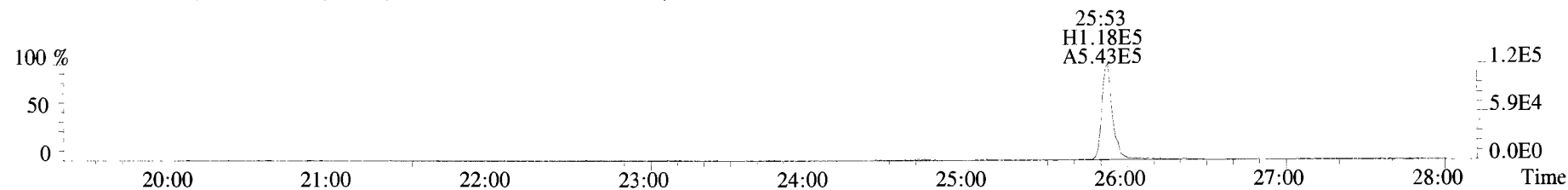
471.7750 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



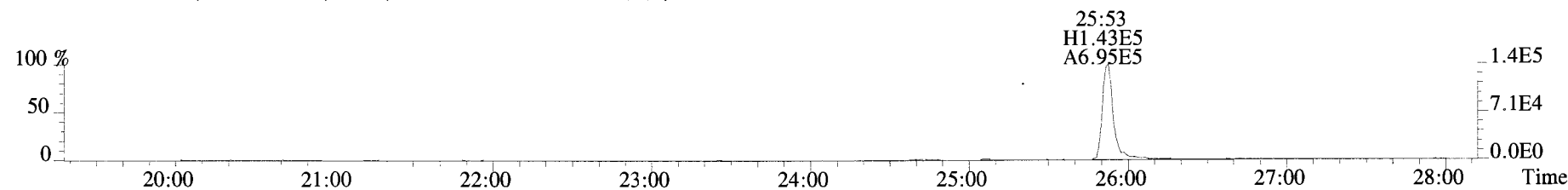
454.9728 S:8 F:5



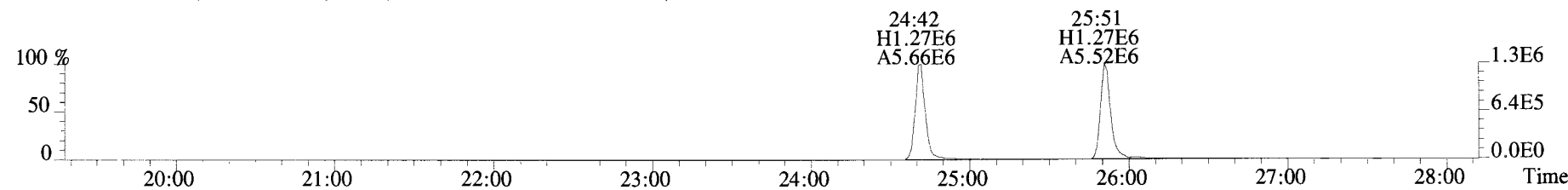
File:191009D1 #1-514 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



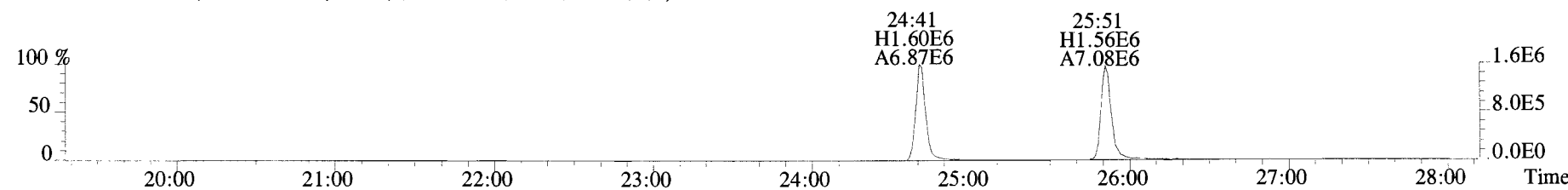
305.8987 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



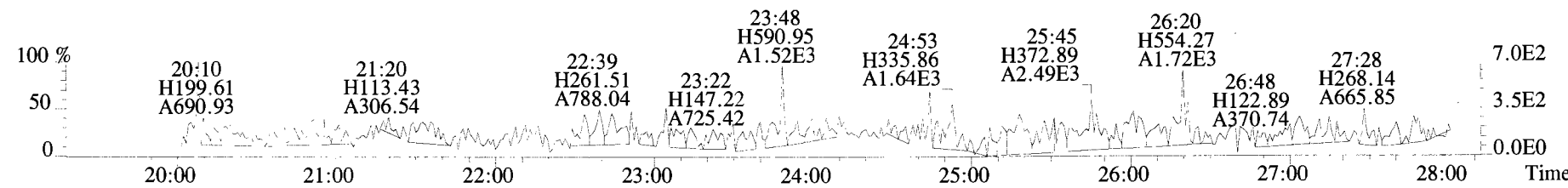
315.9419 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



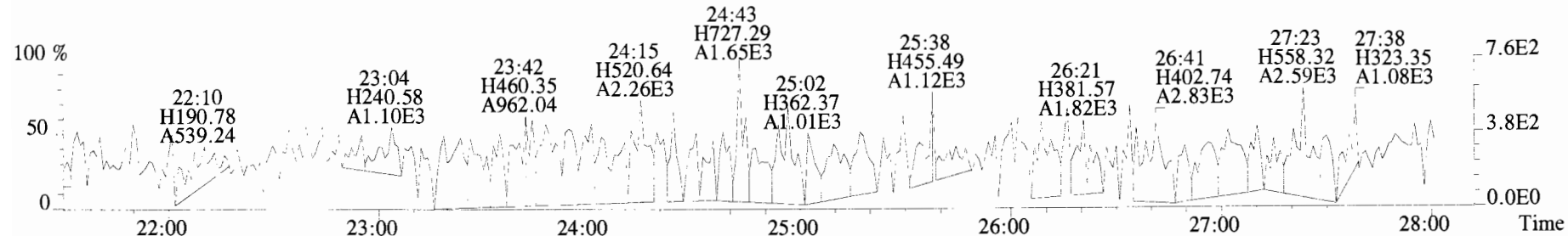
317.9389 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



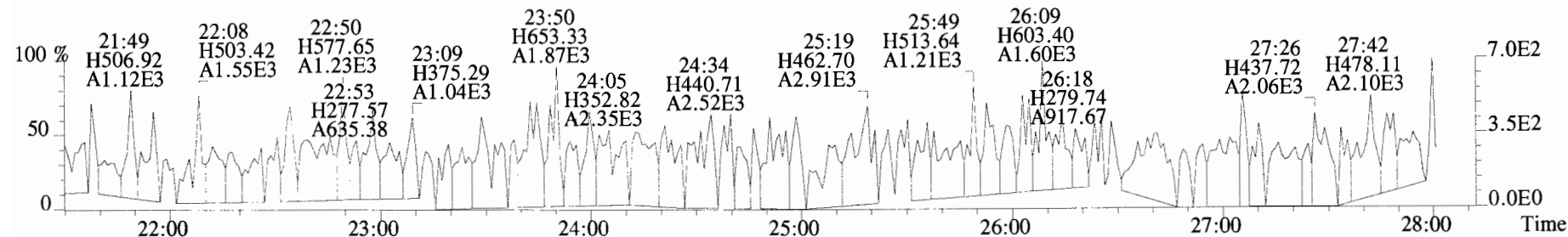
375.8364 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



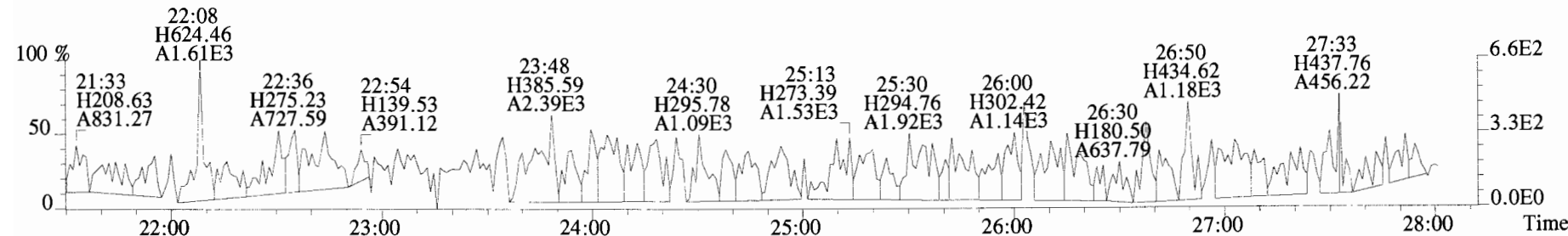
File:191009D1 #1-514 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
 339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



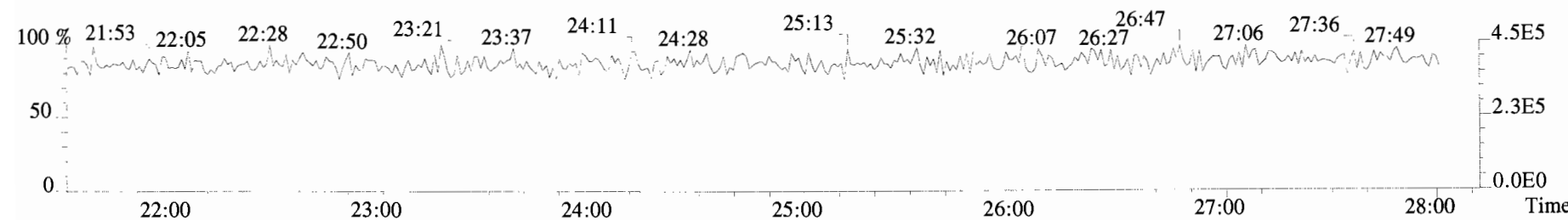
341.8568 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



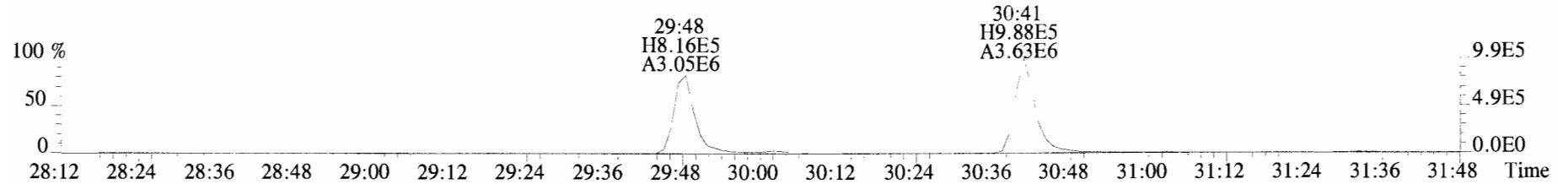
409.7974 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



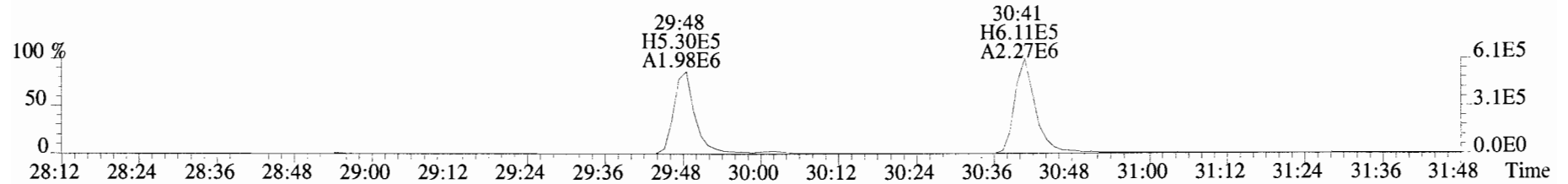
316.9824 S:8



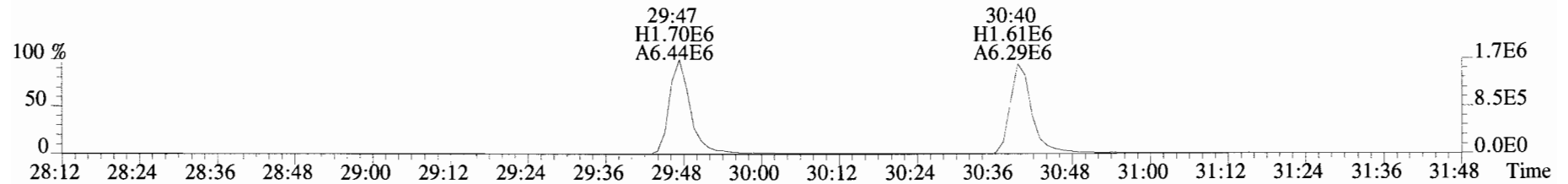
File:191009D1 #1-210 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
 339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



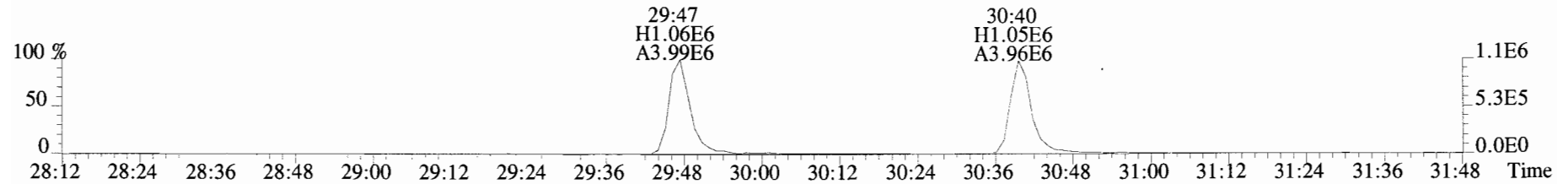
341.8568 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



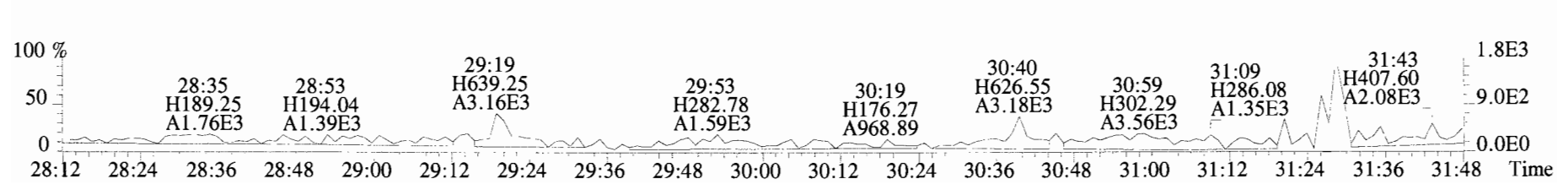
351.9000 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



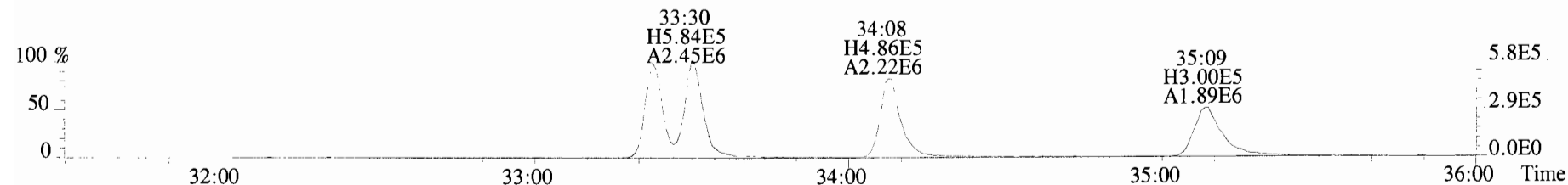
353.8970 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



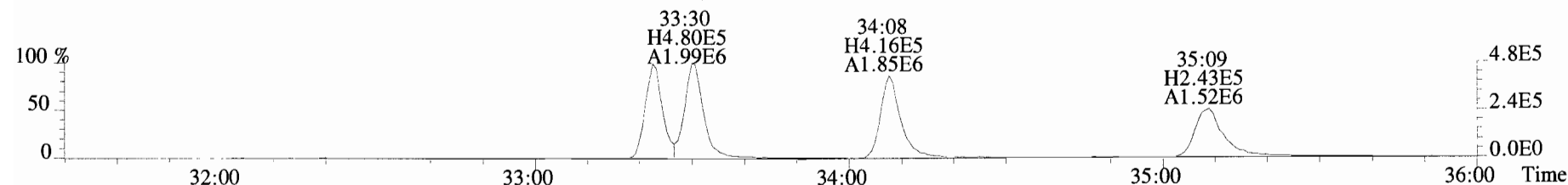
409.7974 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



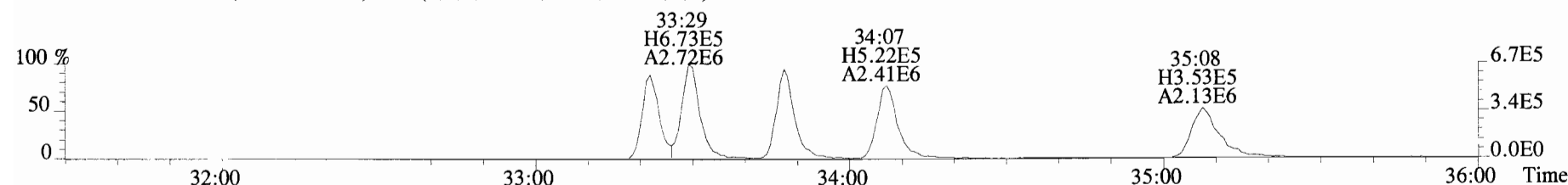
File:191009D1 #1-355 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
 373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



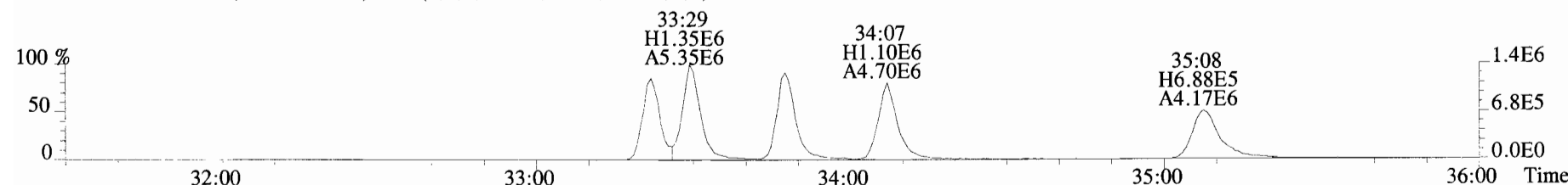
375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



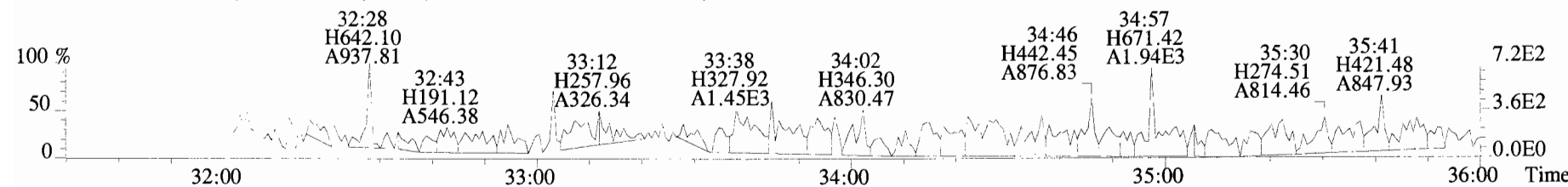
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

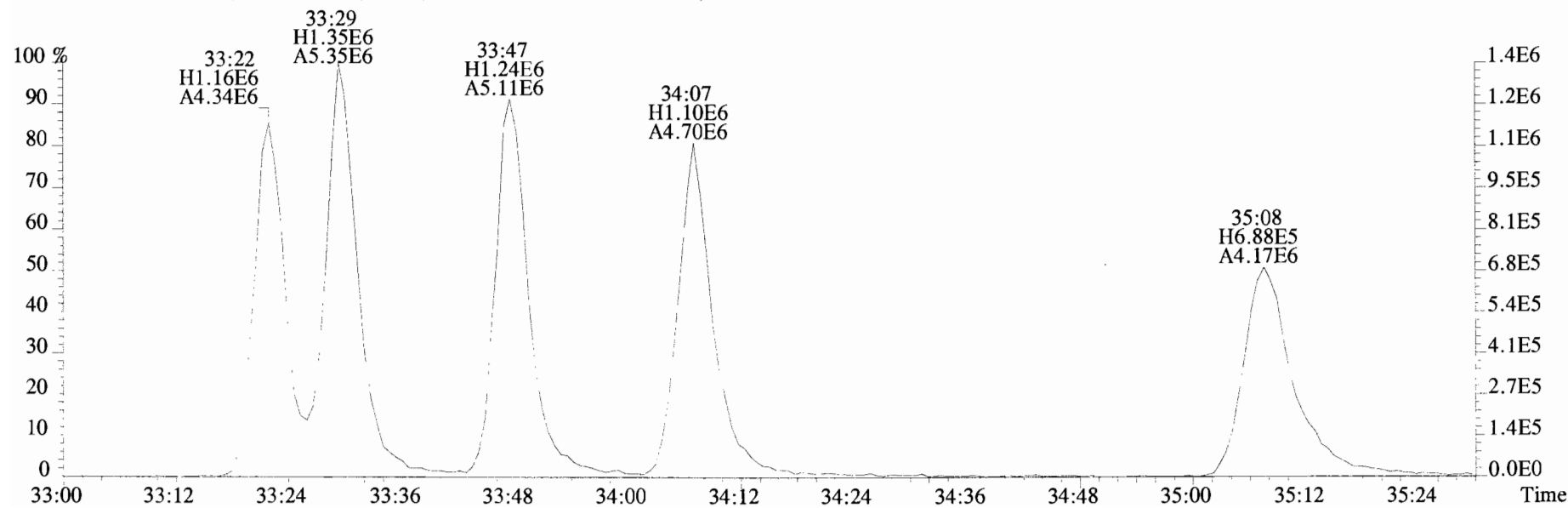
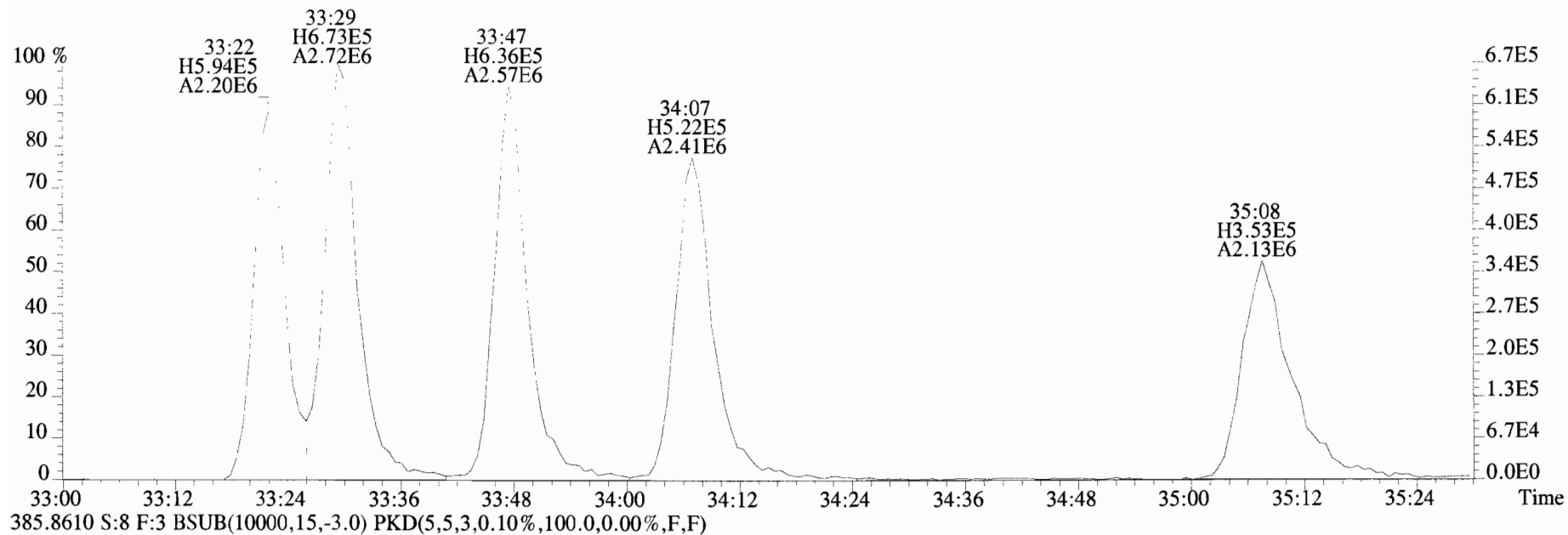


445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

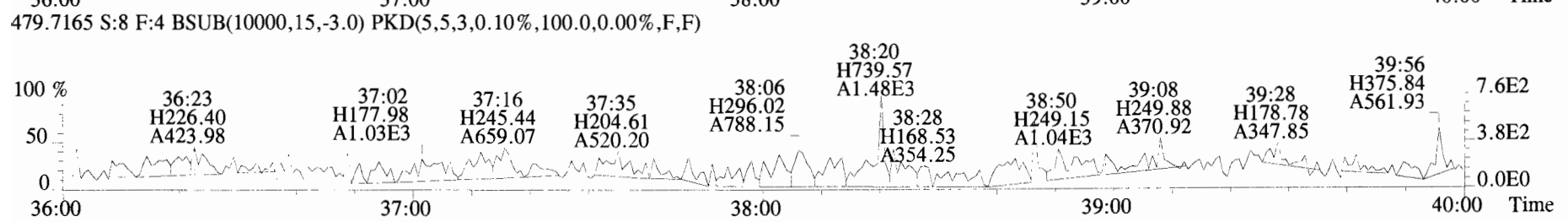
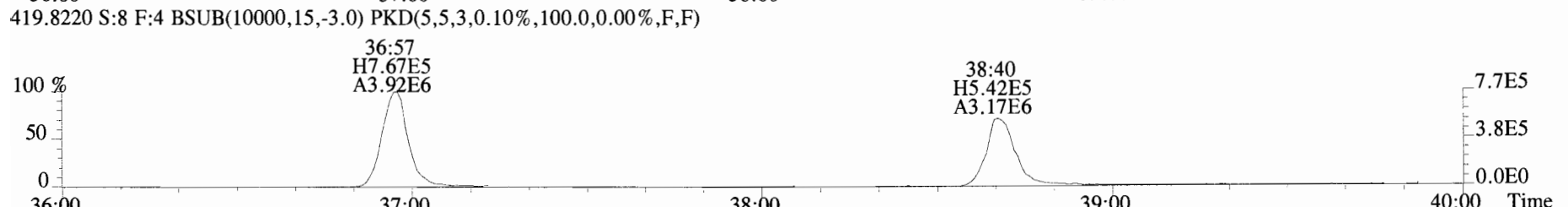
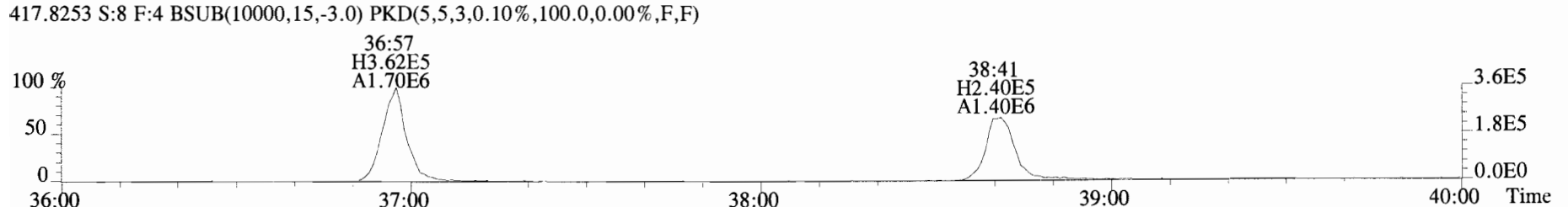
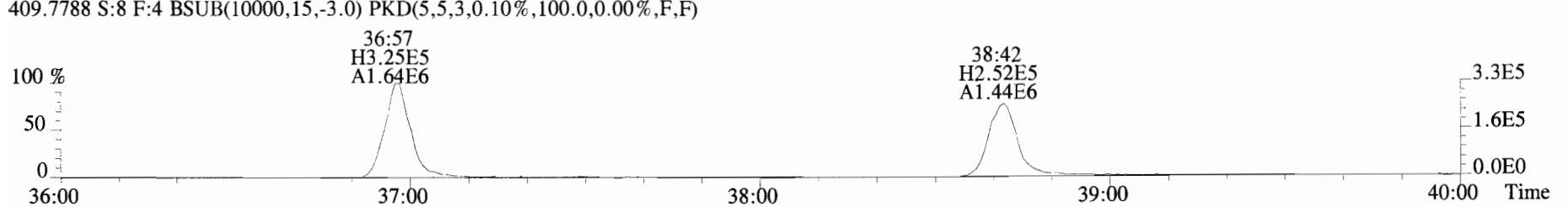
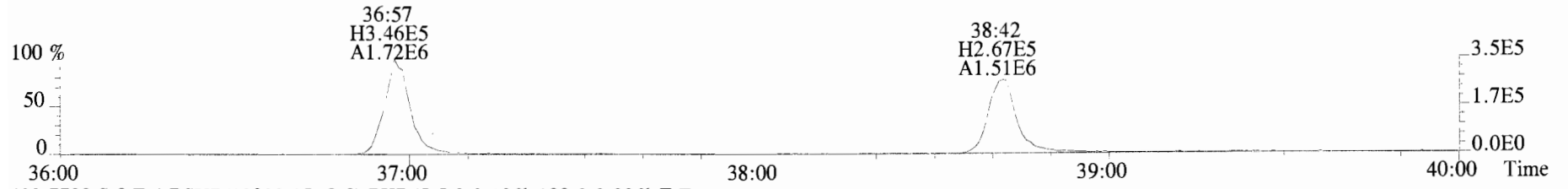




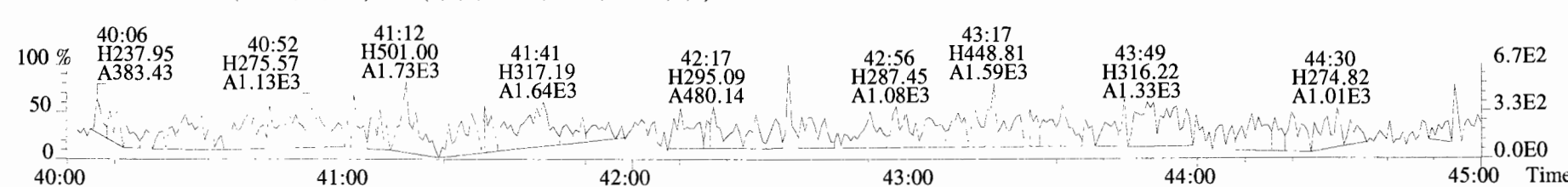
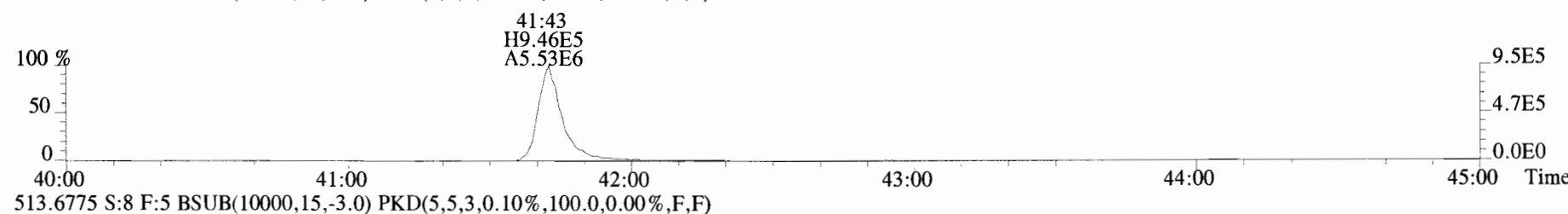
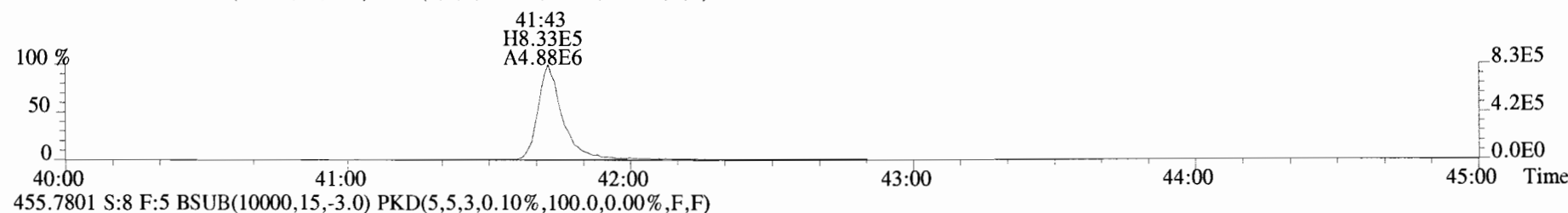
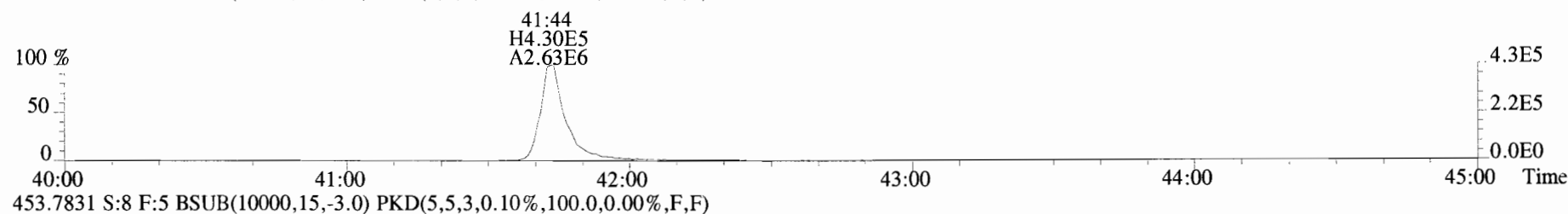
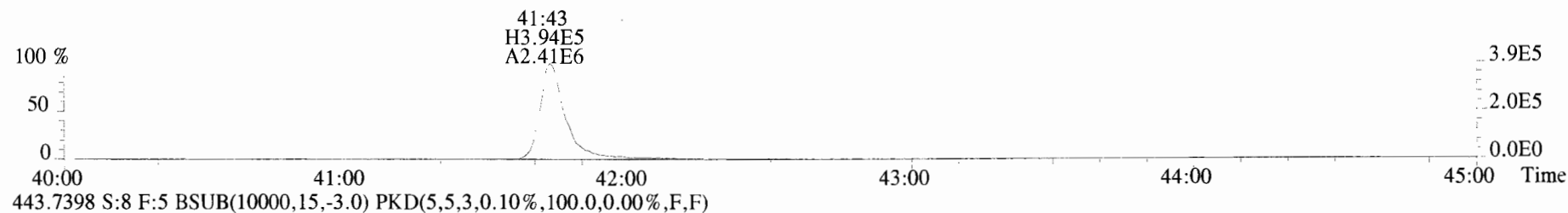
File:191009D1 #1-355 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-356 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista Analytical Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:191009D1 #1-431 Acq: 9-OCT-2019 21:46:34 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#8 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:SS191009D1-1 1613 SSS 19C2207 Exp:OCDD\_DB5  
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Initial Calibration RRF Summary (ICAL)

Vista Analytical Laboratory

Run: Analyte: TCDF

Cal: 1613TCDFVG7-5-30-19

Inst. ID. VG-7

Data filename: 190530D1

Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7	Samp# 8
100	100	100	100	100	100

Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
13C-1,2,3,4-TCDF	1.0000	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-2,3,7,8-TCDF	1.0212	4.27 %	1.07	1.04	1.03	1.05	0.98	0.96
2,3,7,8-TCDF	0.9476	9.58 %	1.12	0.93	0.88	0.87	0.97	0.92

DB CT  
5/30/19 05/31/19

Filename: 190530D1 S: 3      Acquired: 30-MAY-19 12:05:38  
Run:                      Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-1 1613 CS0 19C2201

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.38e+07	0.80 y	15:49	-	1.00
13C-2,3,7,8-TCDF	100	1.47e+07	0.81 y	18:05	-	1.07
2,3,7,8-TCDF	0.250	4.11e+04	0.87 y	18:06	-	1.12

DB  
5/30/19

Filename: 190530D1 S: 4      Acquired: 30-MAY-19 12:37:29  
Run:                      Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-2 1613 CS1 19C2202

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.24e+07	0.82 y	15:49	-	1.00
13C-2,3,7,8-TCDF	100	1.30e+07	0.78 y	18:05	-	1.04
2,3,7,8-TCDF	0.500	6.06e+04	0.67 y	18:05	-	0.93

DB  
5/30/19

Filename: 190530D1 S: 5      Acquired: 30-MAY-19 13:09:20  
Run:                      Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-3 1613 CS2 19C2203

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.21e+07	0.82 y	15:48	-	1.00
13C-2,3,7,8-TCDF	100	1.24e+07	0.80 y	18:04	-	1.03
2,3,7,8-TCDF	2.00	2.18e+05	0.74 y	18:05	-	0.88

DB  
5/30/19

Filename: 190530D1 S: 6      Acquired: 30-MAY-19 13:41:11  
Run:                      Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-4 1613 CS3 19C2204

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.28e+07	0.81 y	15:49	-	1.00
13C-2,3,7,8-TCDF	100	1.34e+07	0.80 y	18:05	-	1.05
2,3,7,8-TCDF	10.0	1.17e+06	0.73 y	18:06	-	0.87

DB  
5/30/19



Filename: 190530D1 S: 7      Acquired: 30-MAY-19 14:13:01  
Run:                    Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-5 1613 CS4 19C2205

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.30e+07	0.81 y	15:49	-	1.00
13C-2,3,7,8-TCDF	100	1.28e+07	0.80 y	18:05	-	0.98
2,3,7,8-TCDF	40.0	4.95e+06	0.77 y	18:06	-	0.97

DB  
5/30/19

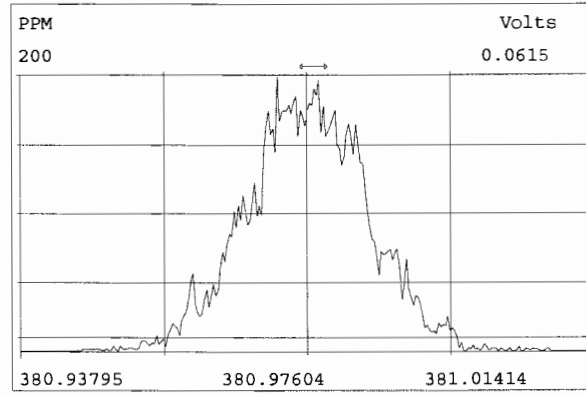
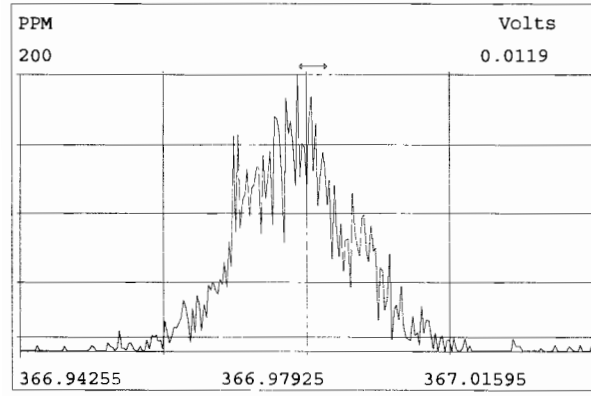
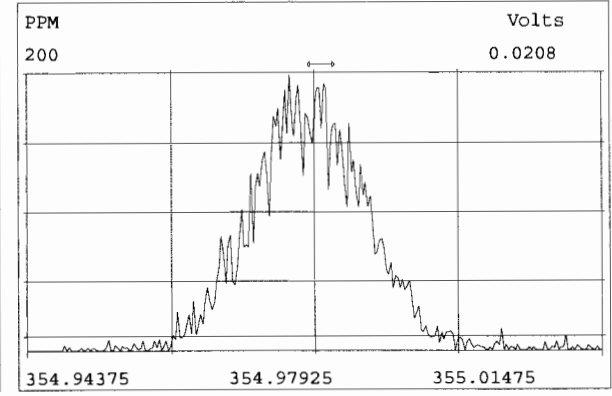
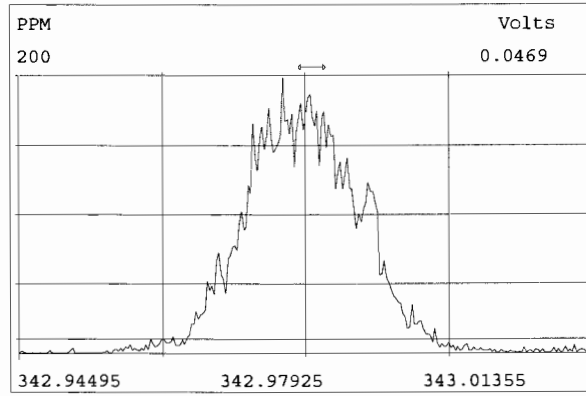
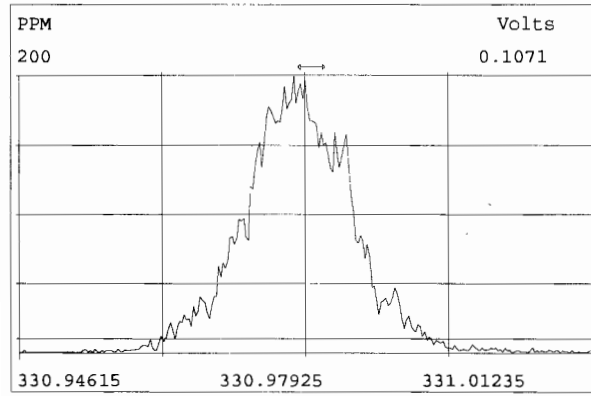
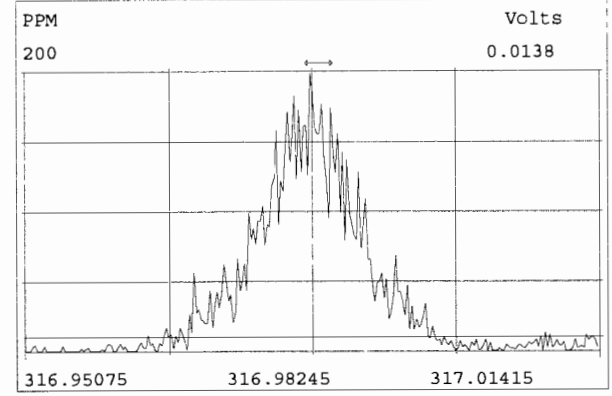
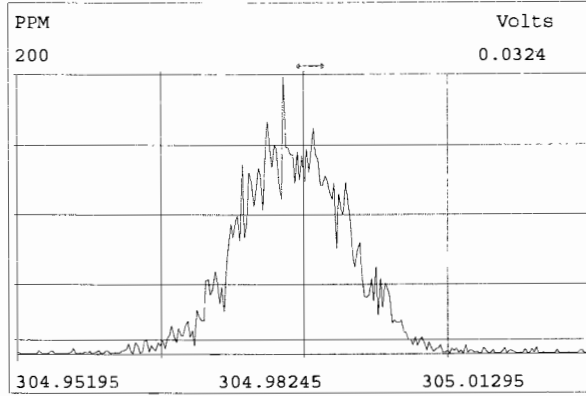
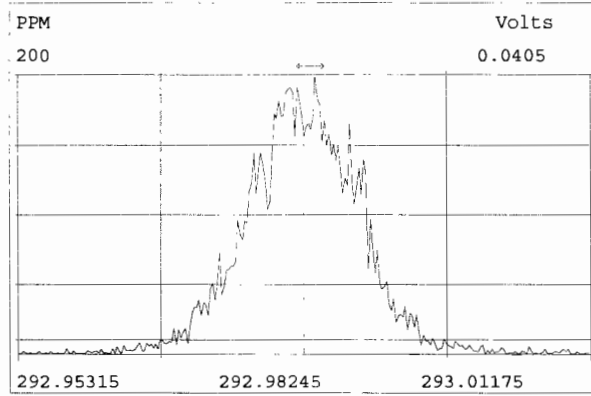
Filename: 190530D1 S: 8      Acquired: 30-MAY-19 14:44:52  
Run:                    Analyte: TCDF    Cal: 1613TCDFVG7-5-30-19Results:  
Sample text: ST190530D1-6 1613 CS5 19C2206

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	1.29e+07	0.80 y	15:48	-	1.00
13C-2,3,7,8-TCDF	100	1.24e+07	0.80 y	18:05	-	0.96
2,3,7,8-TCDF	300	3.42e+07	0.74 y	18:06	-	0.92

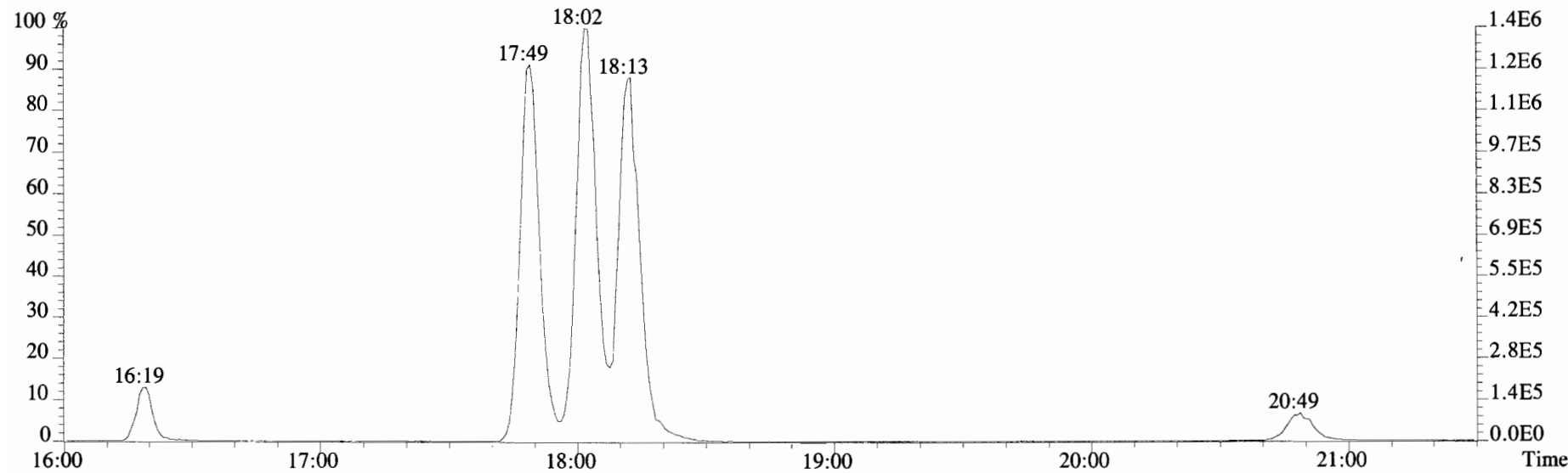
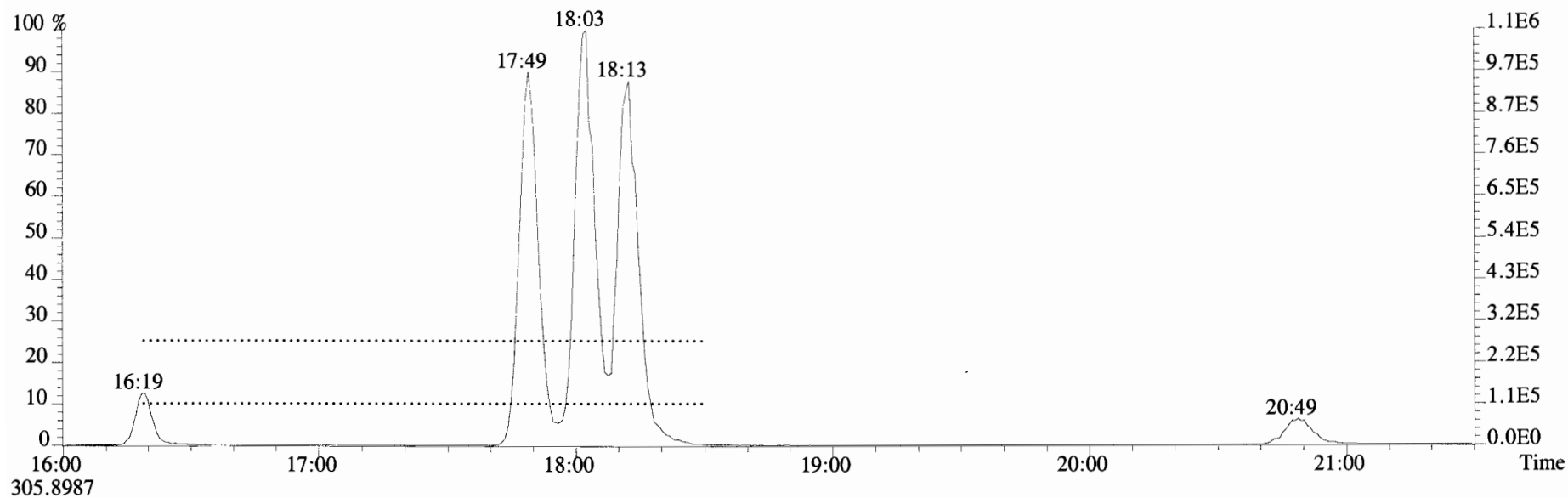
DB  
5/30/19

Vista Analytical Laboratory - Injection Log Run file: 190530D1 Instrument ID: VG-7 GC Column ID: DB-225

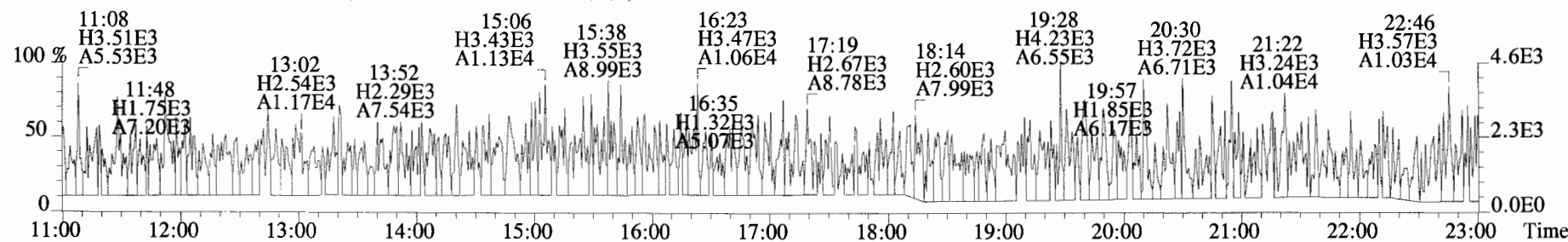
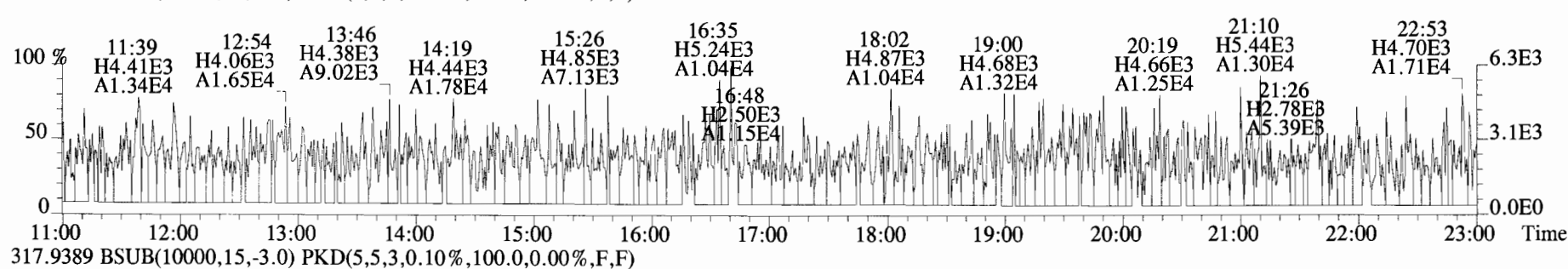
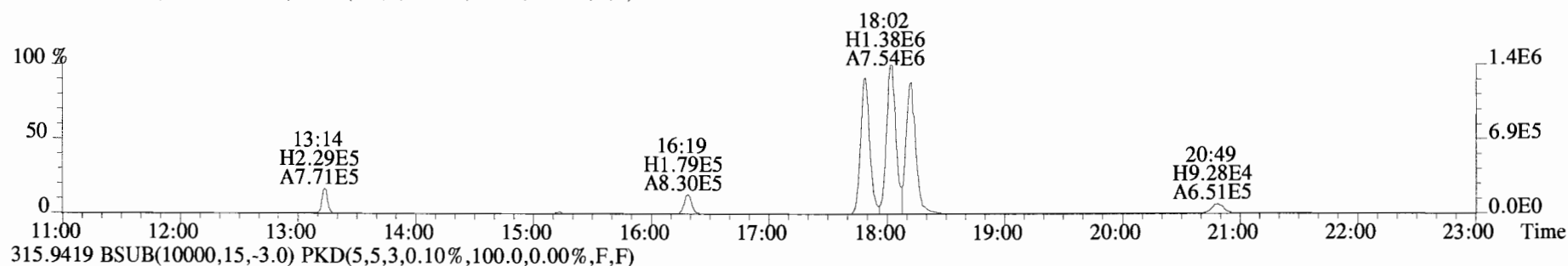
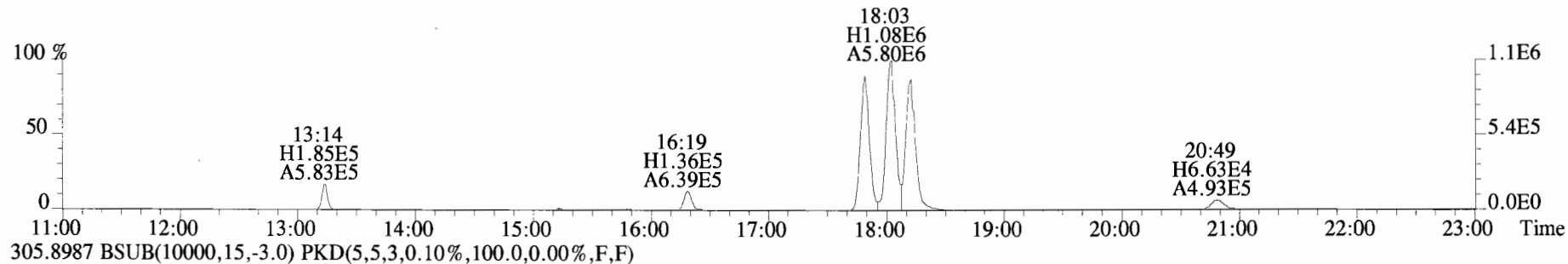
Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
190530D1	1	CP190530D1-1	DB	30-MAY-19	11:02:08	ST190530D1-4	NA
190530D1	2	SOLVENT BLANK	DB	30-MAY-19	11:33:52	ST190530D1-4	NA
190530D1	3	ST190530D1-1	DB	30-MAY-19	12:05:38	ST190530D1-4	NA
190530D1	4	ST190530D1-2	DB	30-MAY-19	12:37:29	ST190530D1-4	NA
190530D1	5	ST190530D1-3	DB	30-MAY-19	13:09:20	ST190530D1-4	NA
190530D1	6	ST190530D1-4	DB	30-MAY-19	13:41:11	ST190530D1-4	NA
190530D1	7	ST190530D1-5	DB	30-MAY-19	14:13:01	ST190530D1-4	NA
190530D1	8	ST190530D1-6	DB	30-MAY-19	14:44:52	ST190530D1-4	NA
190530D1	9	SOLVENT BLANK	DB	30-MAY-19	15:16:42	ST190530D1-4	NA
190530D1	10	SS190528D1-1	DB	30-MAY-19	15:48:32	ST190530D1-4	NA
190530D1	11	SOLVENT BLANK	DB	30-MAY-19	16:20:23	ST190530D1-4	NA
190530D1	12	1901028-05RE1	DB	30-MAY-19	16:52:12	ST190530D1-4	NA
190530D1	13	1901028-07RE1	DB	30-MAY-19	17:24:02	ST190530D1-4	NA
190530D1	14	1901028-08RE1	DB	30-MAY-19	17:55:52	ST190530D1-4	NA
190530D1	15	1901028-09RE1	DB	30-MAY-19	18:27:41	ST190530D1-4	NA



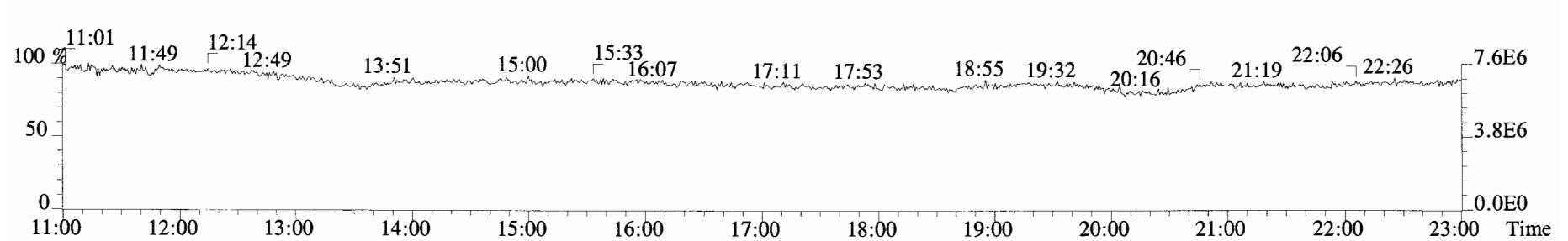
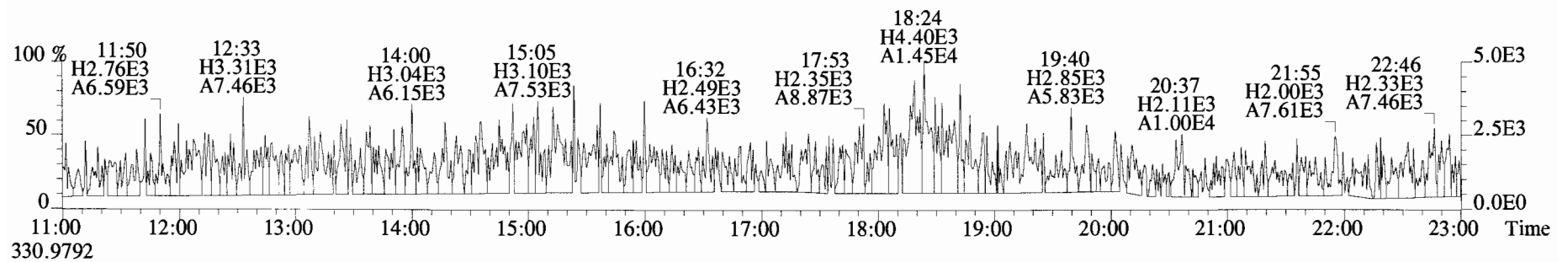
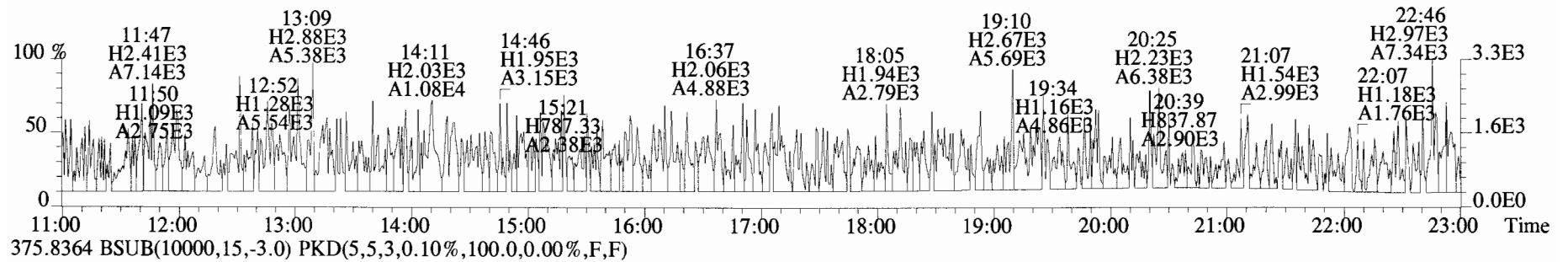
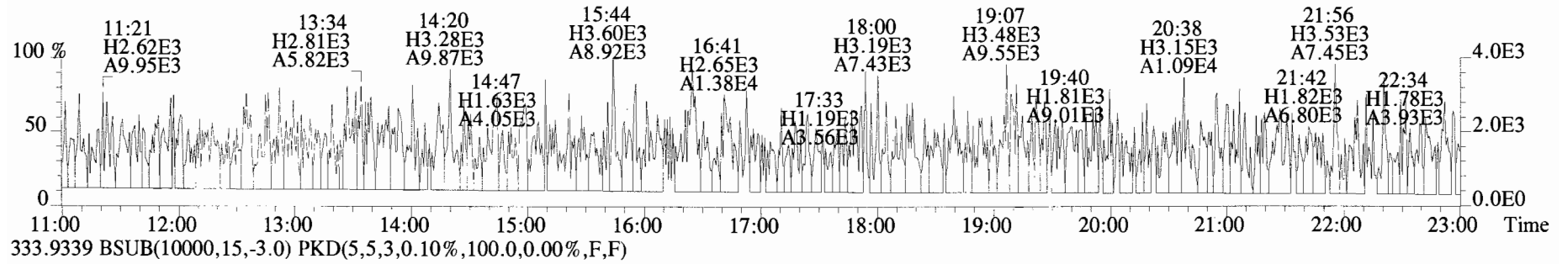
File:190530D1 #1-1559 Acq:30-MAY-2019 11:02:08 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:CP190530D1-1 DB225 CPSM Exp:TCDF\_DB225  
303.9016



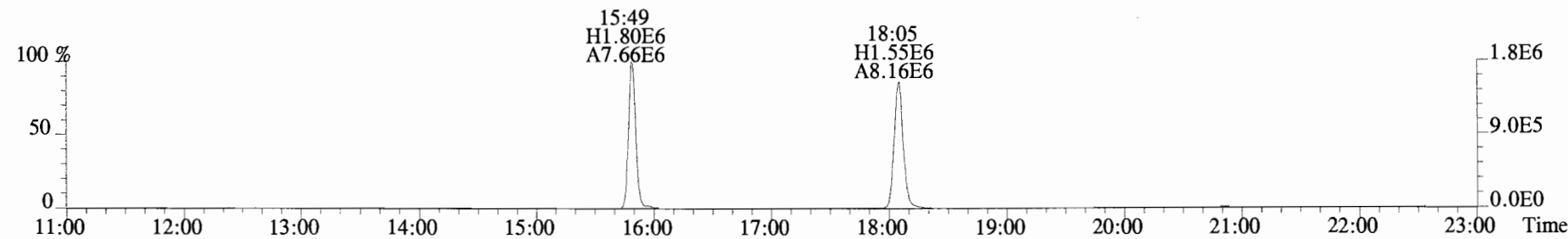
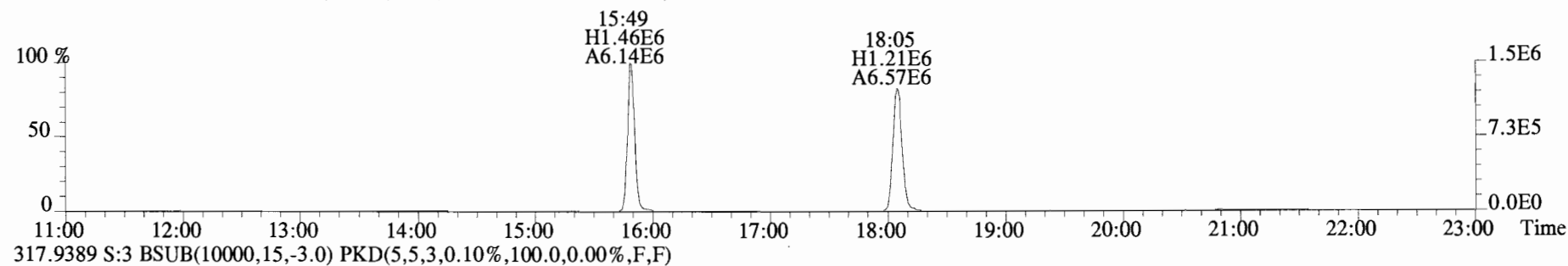
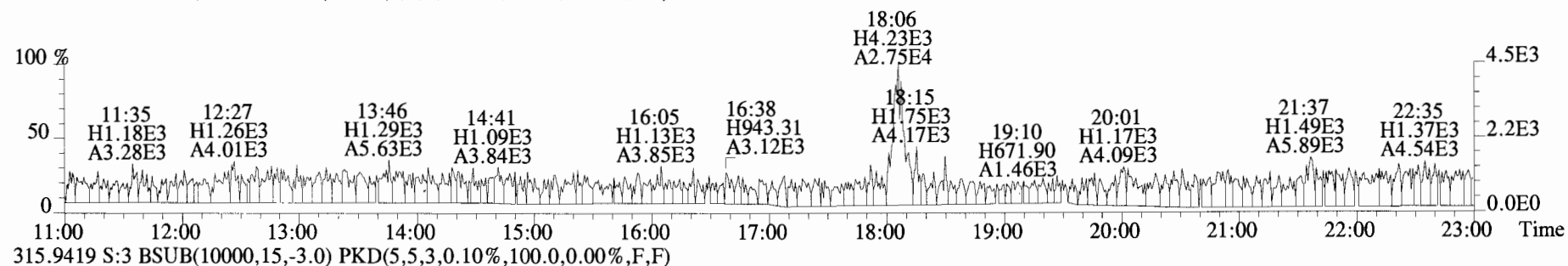
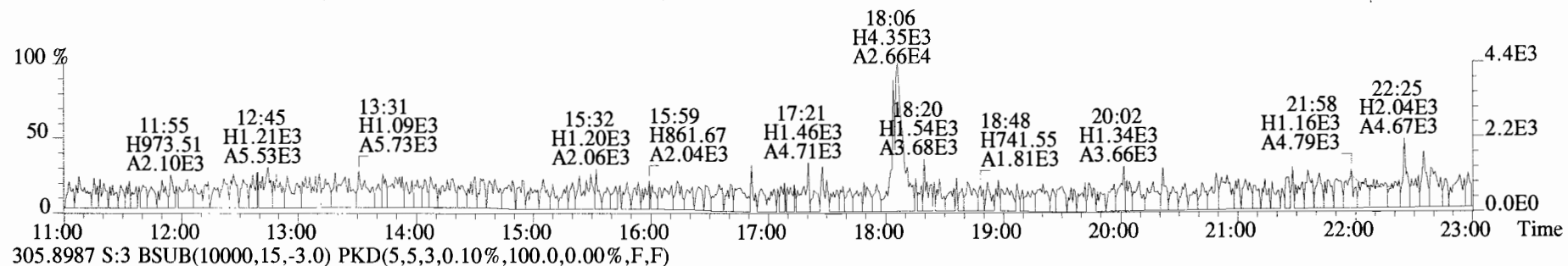
File:190530D1 #1-1682 Acq:30-MAY-2019 11:02:08 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:CP190530D1-1 DB225 CPSM Exp:TCDF\_DB225  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:190530D1 #1-1682 Acq:30-MAY-2019 11:02:08 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Vista Analytical Laboratory VG7 Text:CP190530D1-1 DB225 CPSM Exp:TCDF\_DB225  
331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

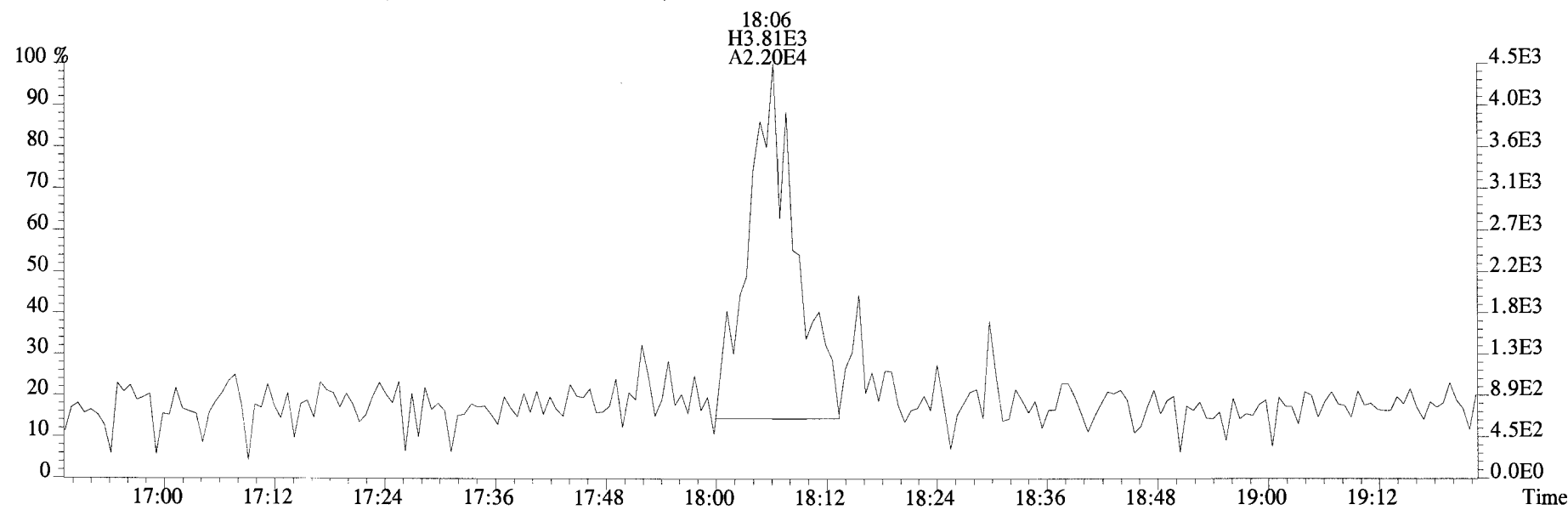
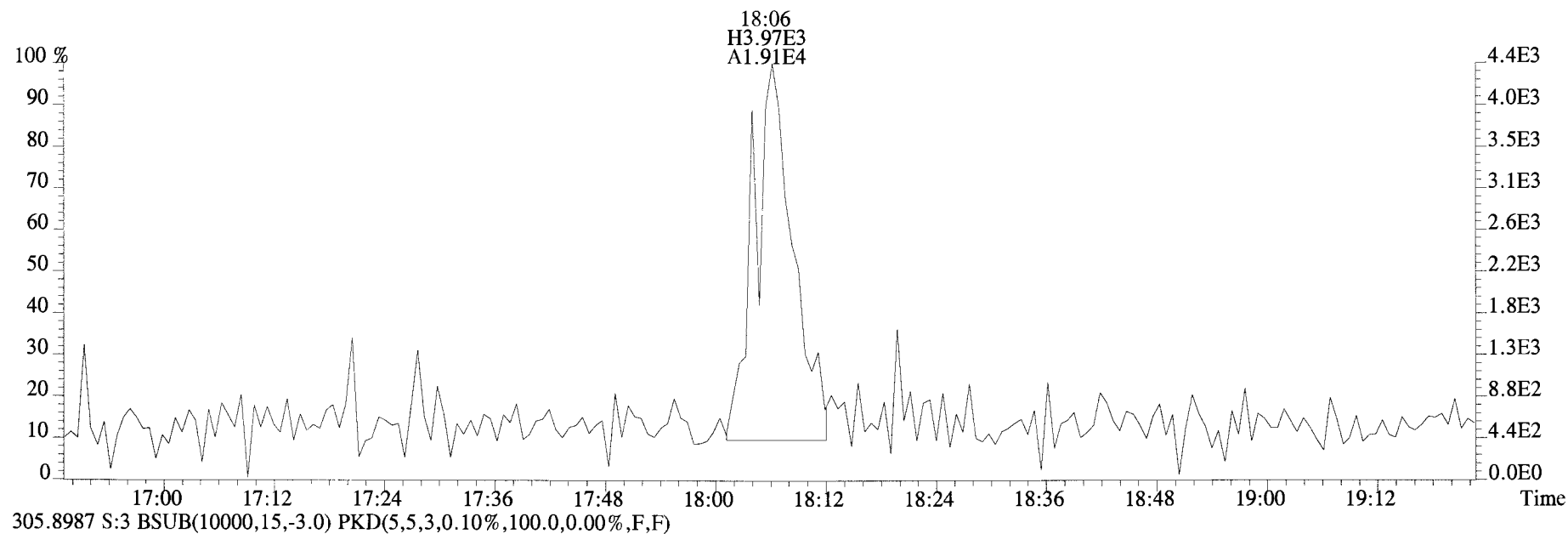


File:190530D1 #1-1682 Acq:30-MAY-2019 12:05:38 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-1 1613 CS0 19C2201 Exp:TCDF\_DB225  
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

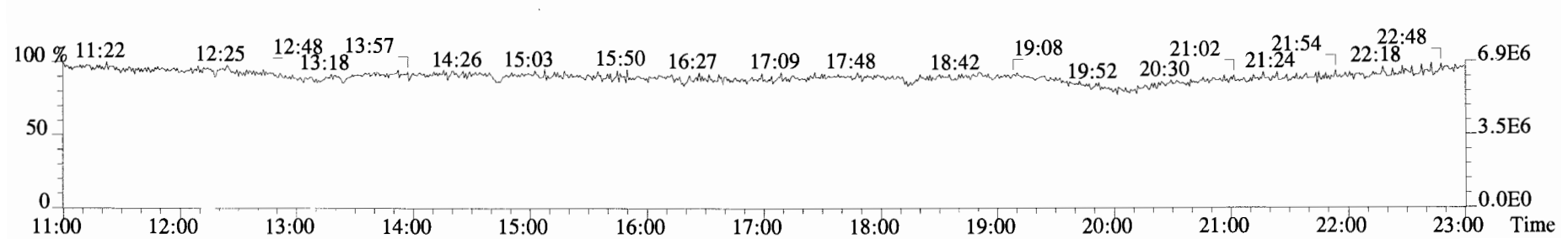
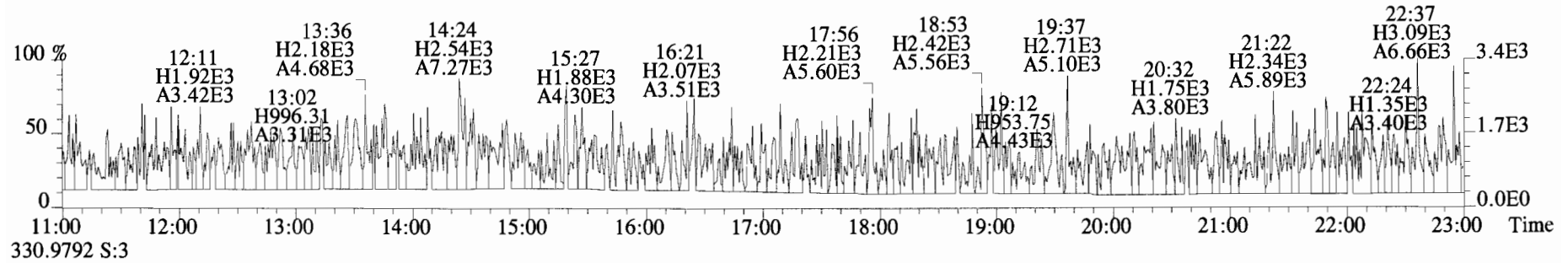
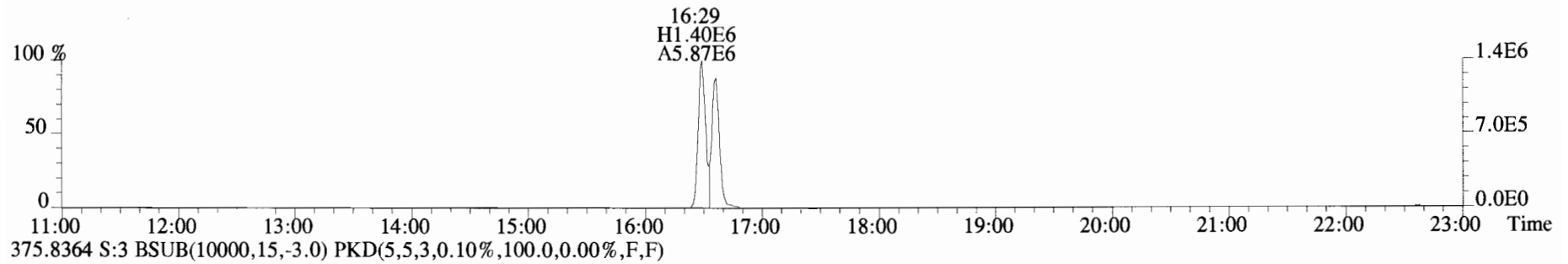
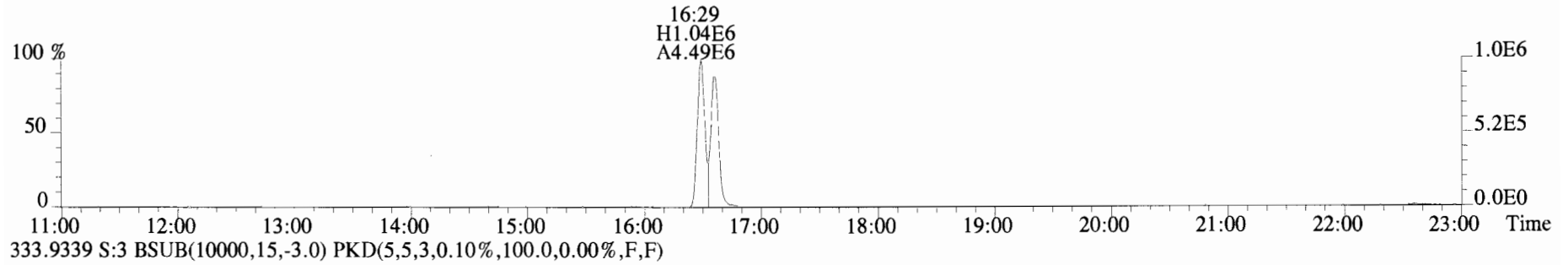




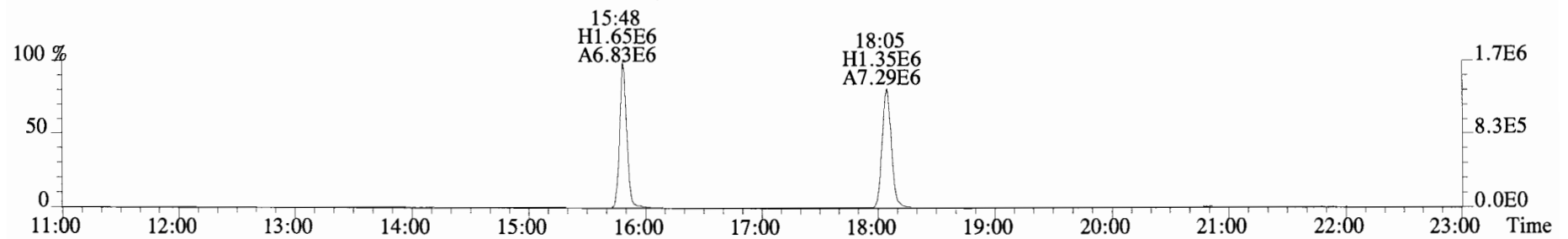
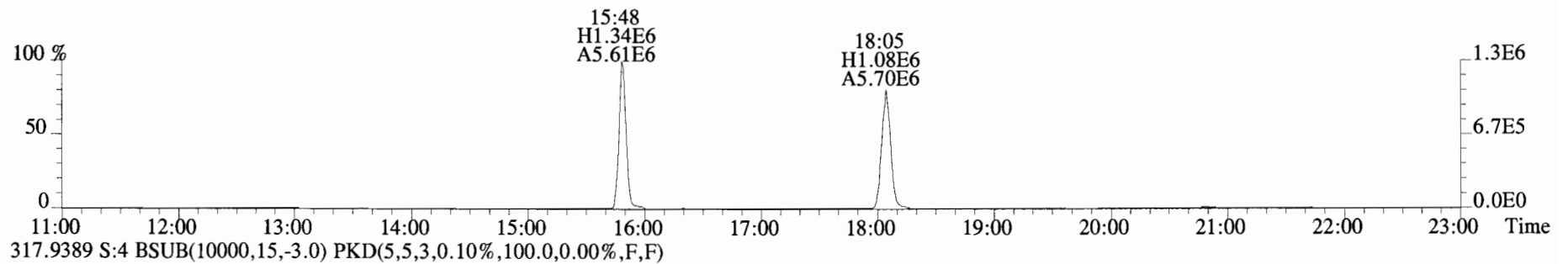
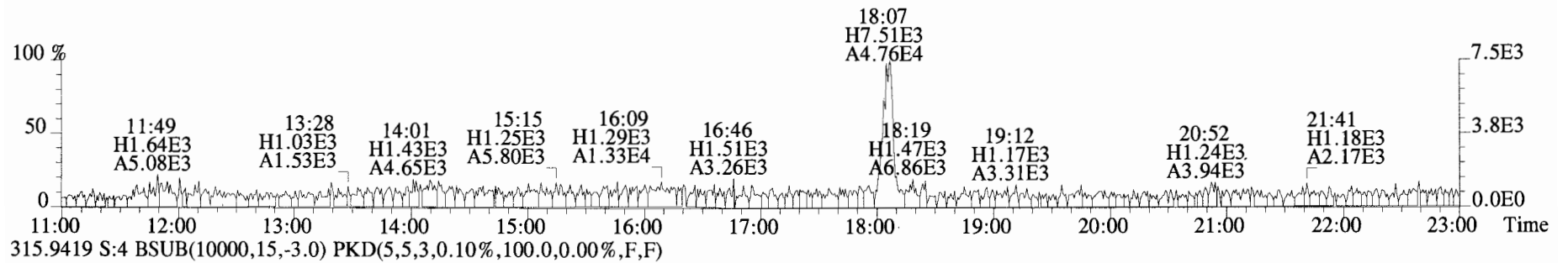
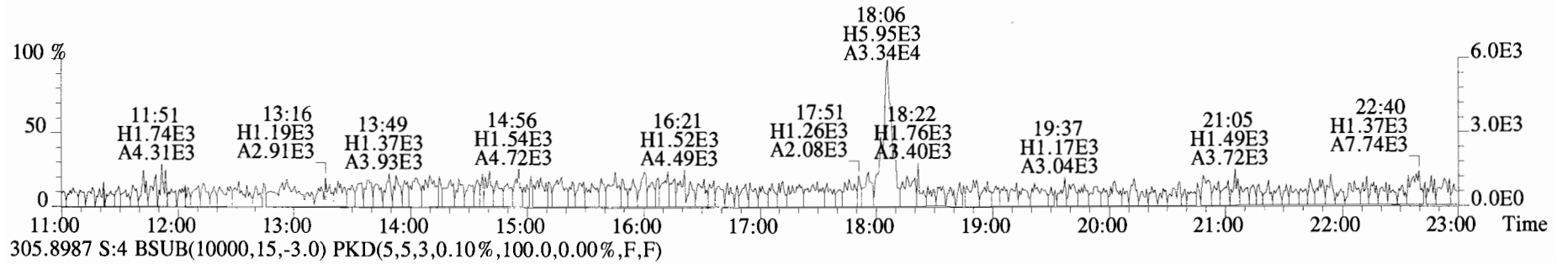
File:190530D1 #1-1682 Acq:30-MAY-2019 12:05:38 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-1 1613 CS0 19C2201 Exp:TCDF\_DB225  
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



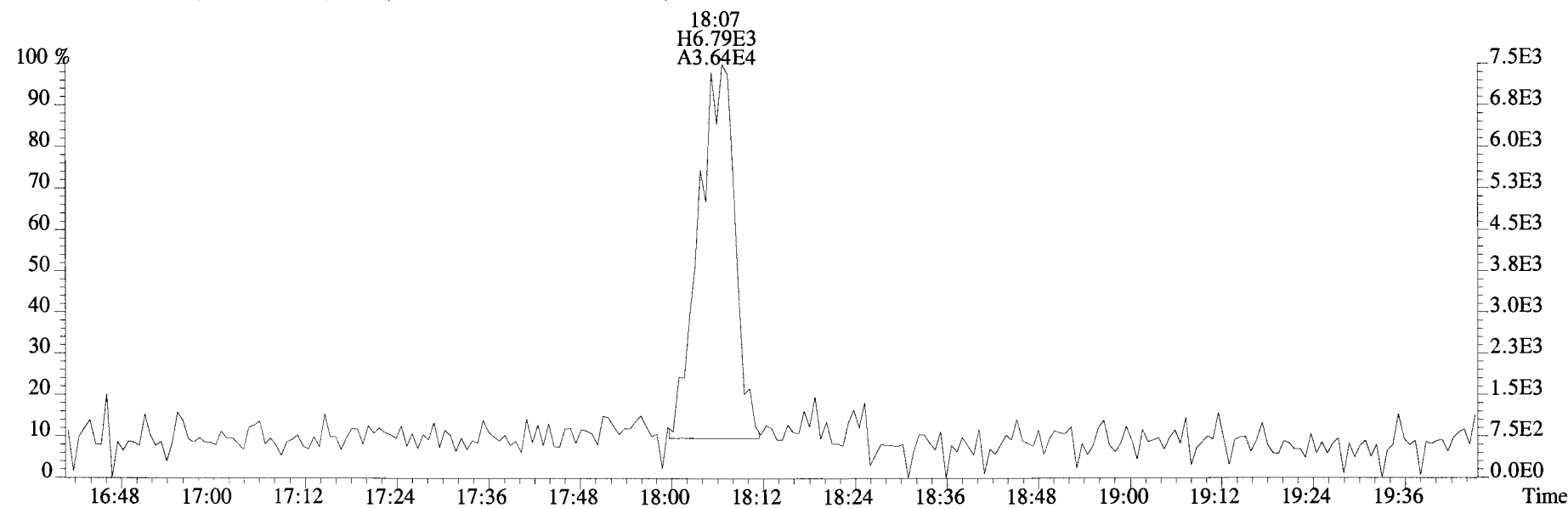
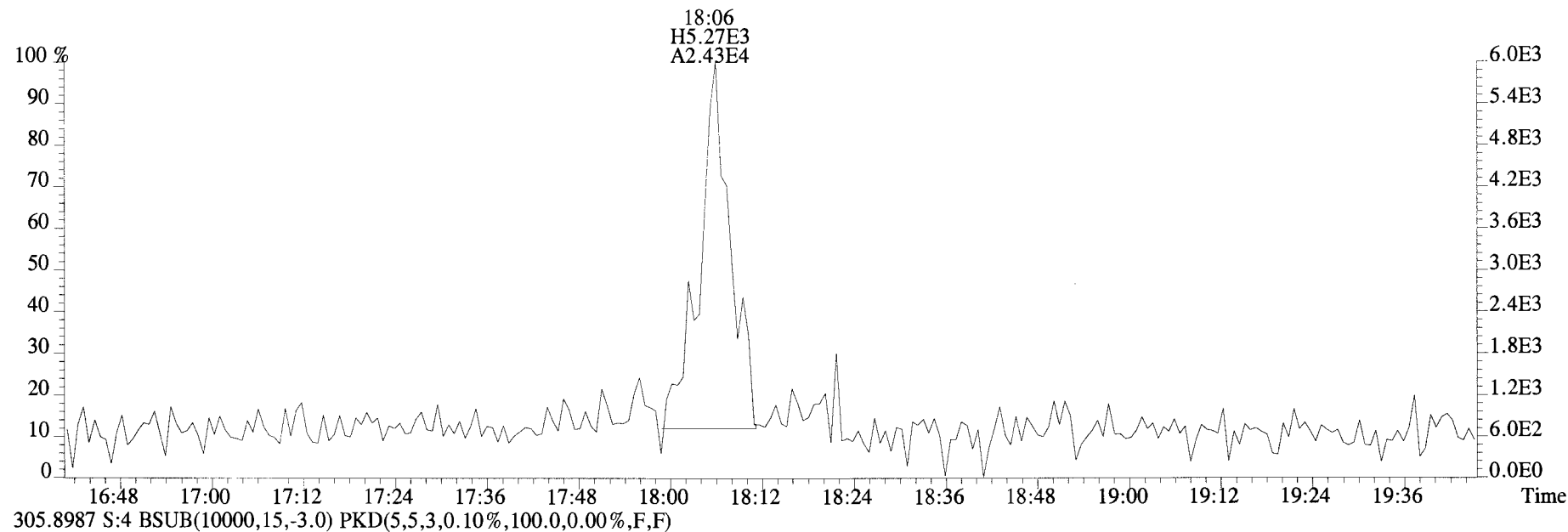
File:190530D1 #1-1682 Acq:30-MAY-2019 12:05:38 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Vista Analytical Laboratory\_VG7 Text:ST190530D1-1 1613 CS0 19C2201 Exp:TCDF\_DB225  
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



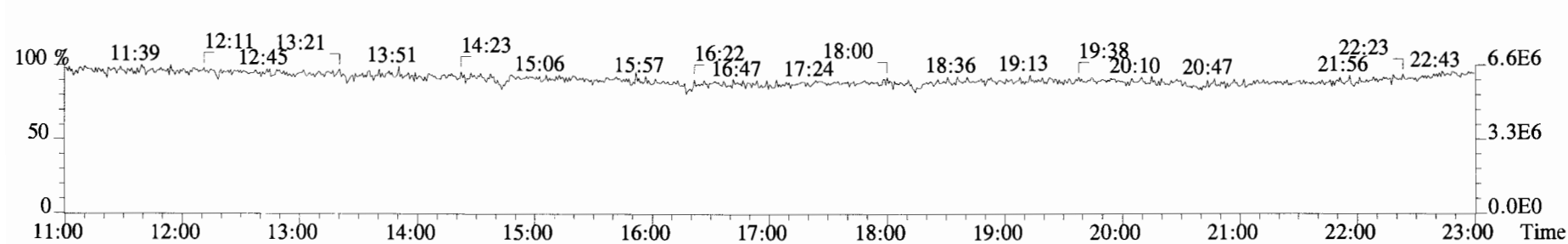
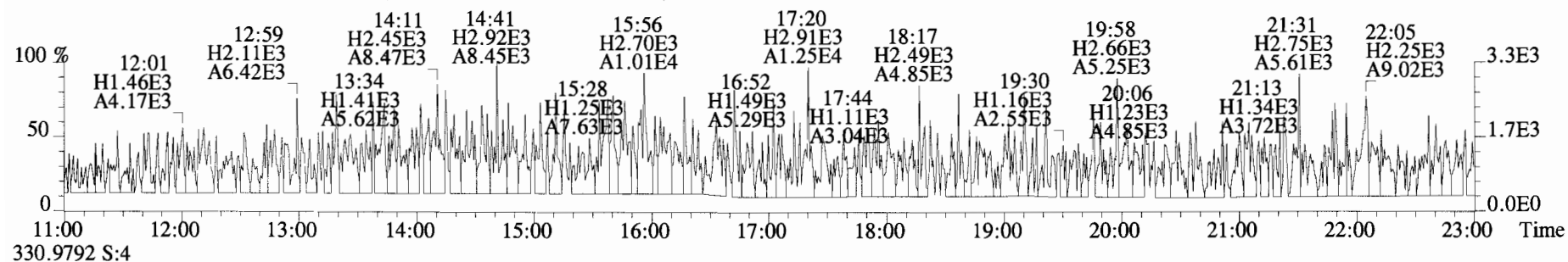
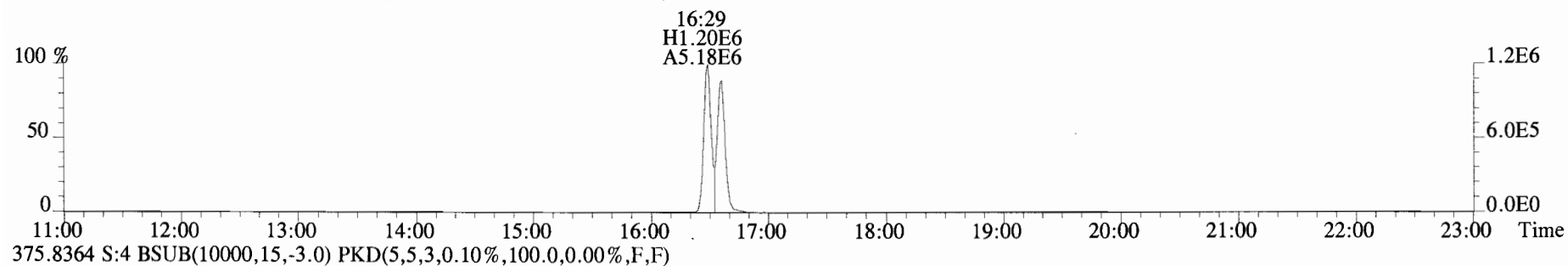
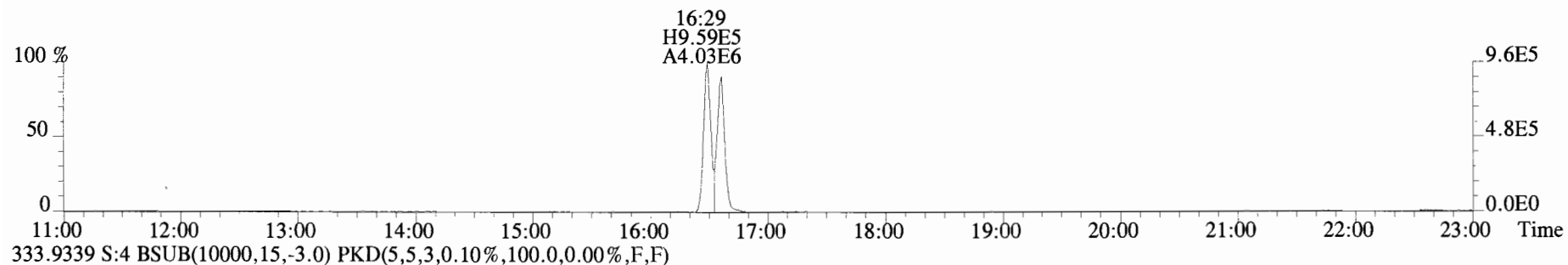
File:190530D1 #1-1683 Acq:30-MAY-2019 12:37:29 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#4 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-2 1613 CS1 19C2202 Exp:TCDF\_DB225  
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



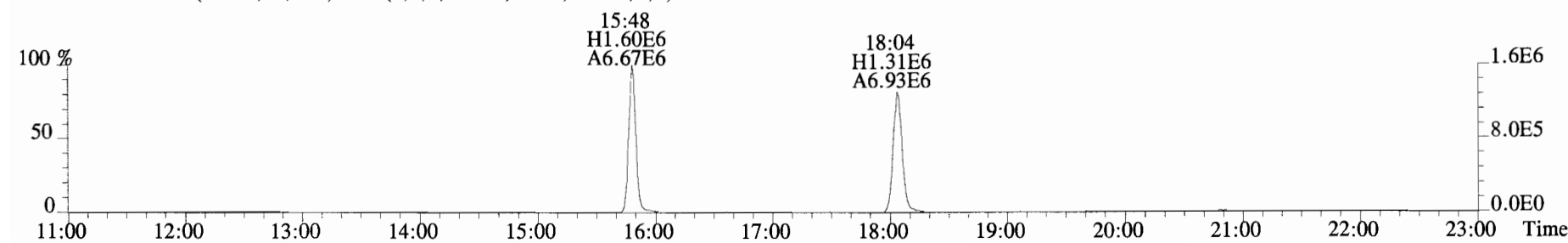
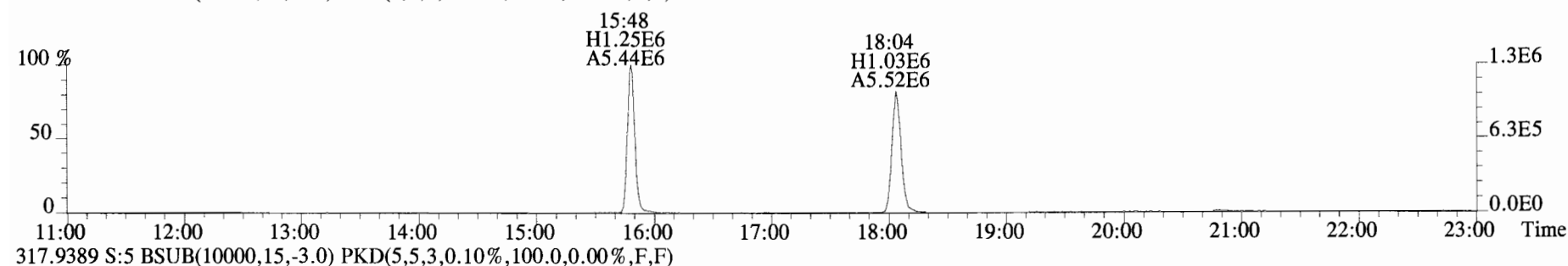
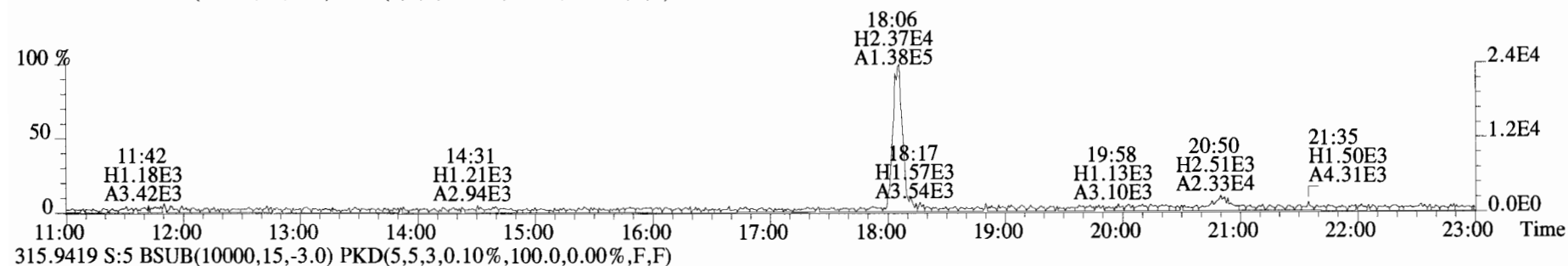
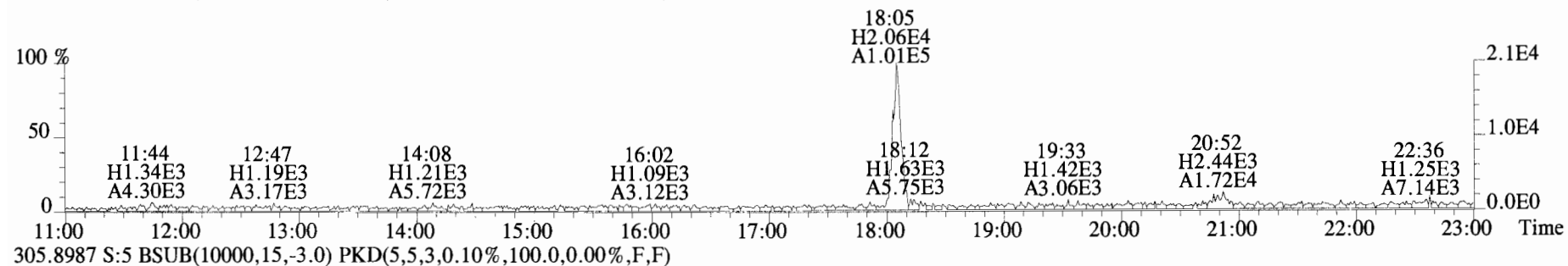
File:190530D1 #1-1683 Acq:30-MAY-2019 12:37:29 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-2 1613 CS1 19C2202 Exp:TCDF\_DB225  
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



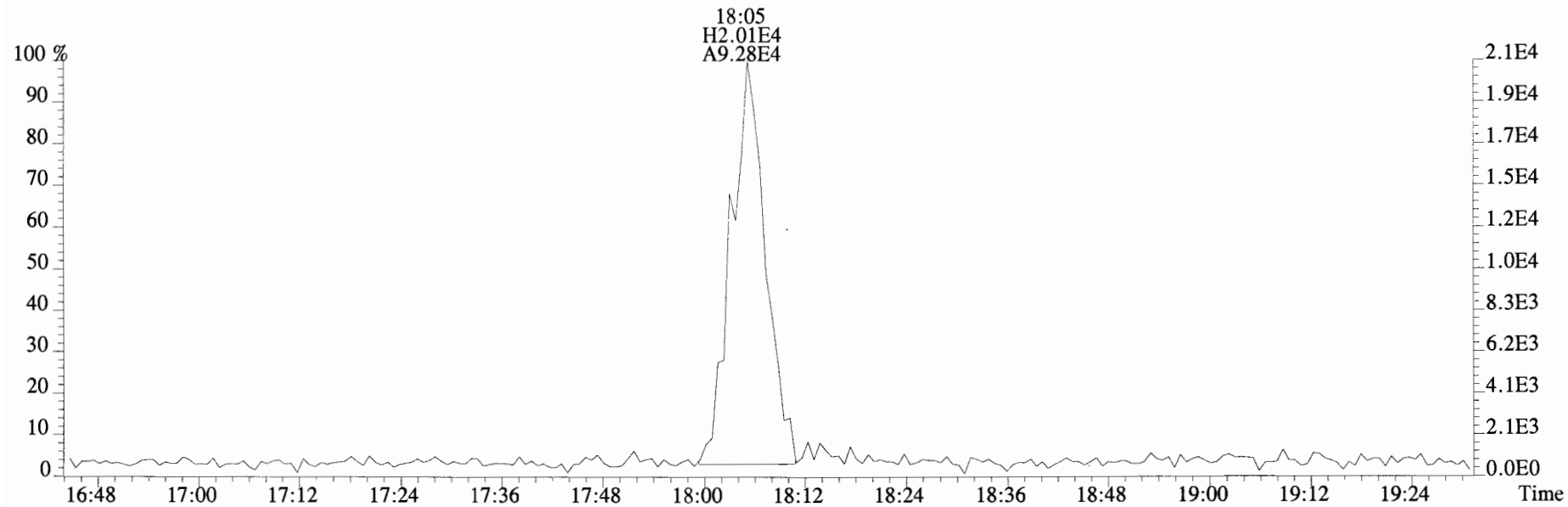
File:190530D1 #1-1683 Acq:30-MAY-2019 12:37:29 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Vista Analytical Laboratory\_VG7 Text:ST190530D1-2 1613 CS1 19C2202 Exp:TCDF\_DB225  
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



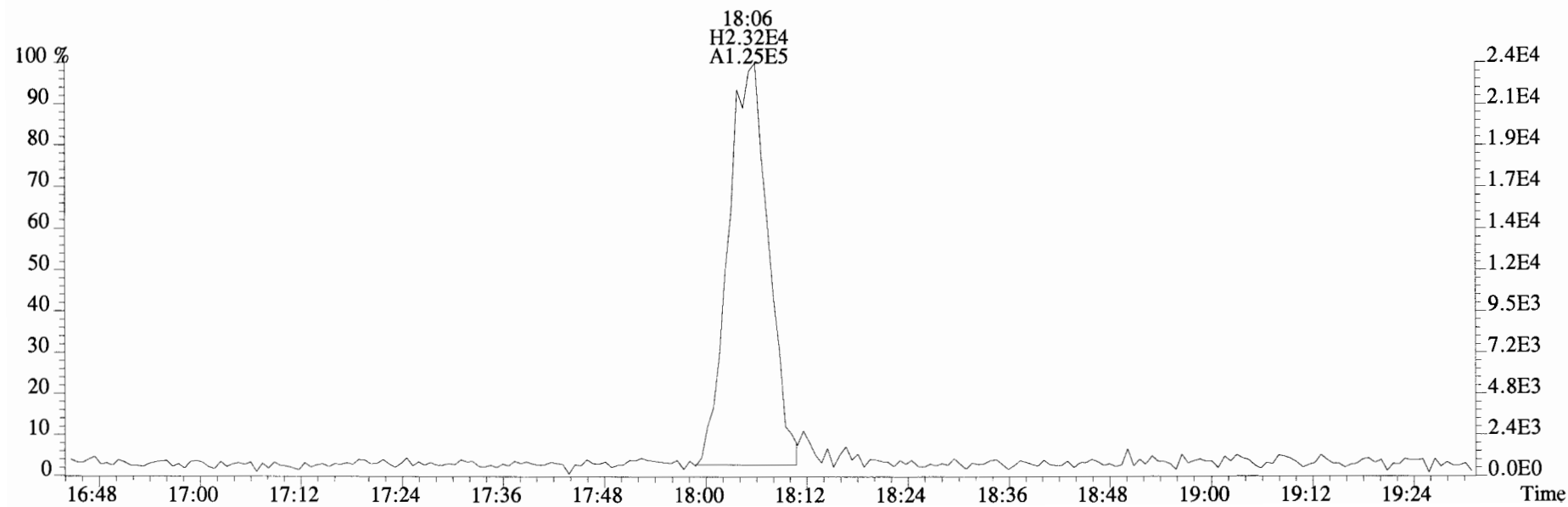
File:190530D1 #1-1683 Acq:30-MAY-2019 13:09:20 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-3 1613 CS2 19C2203 Exp:TCDF\_DB225  
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



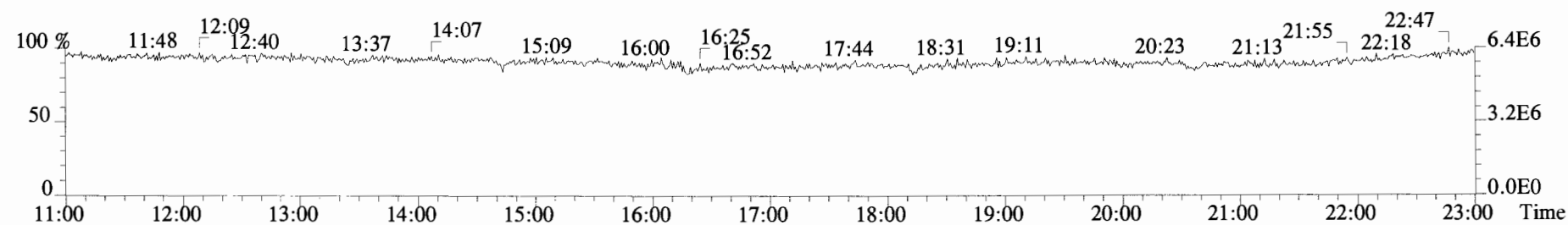
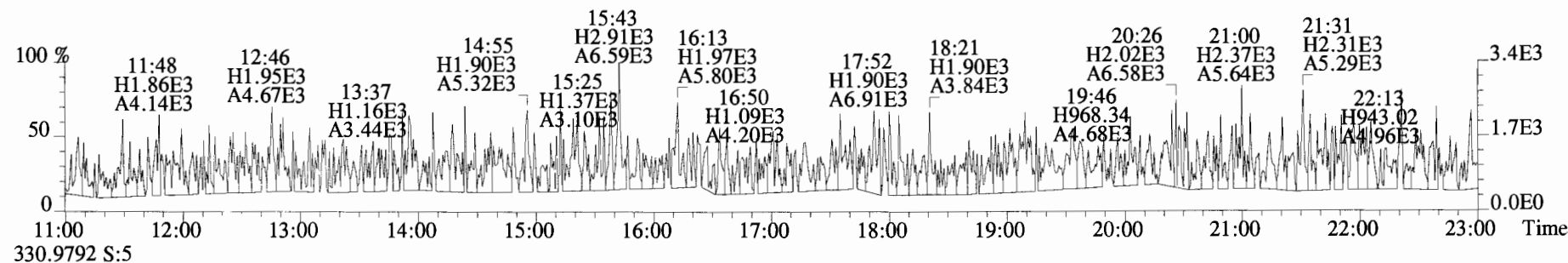
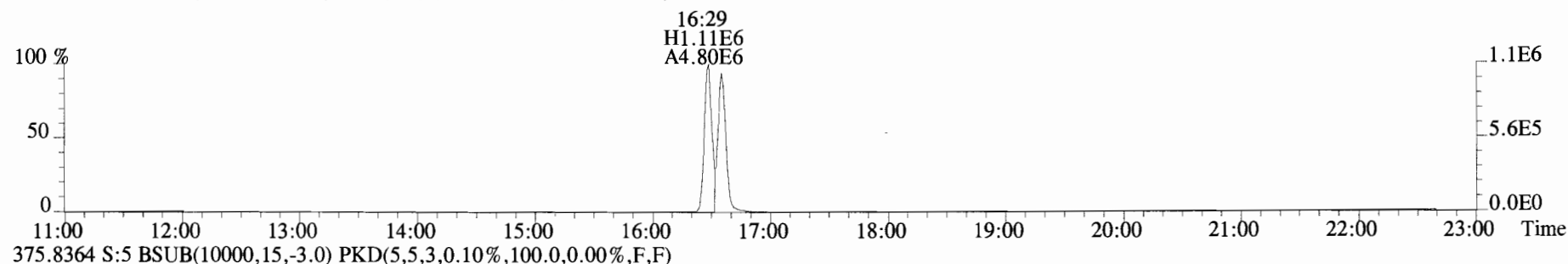
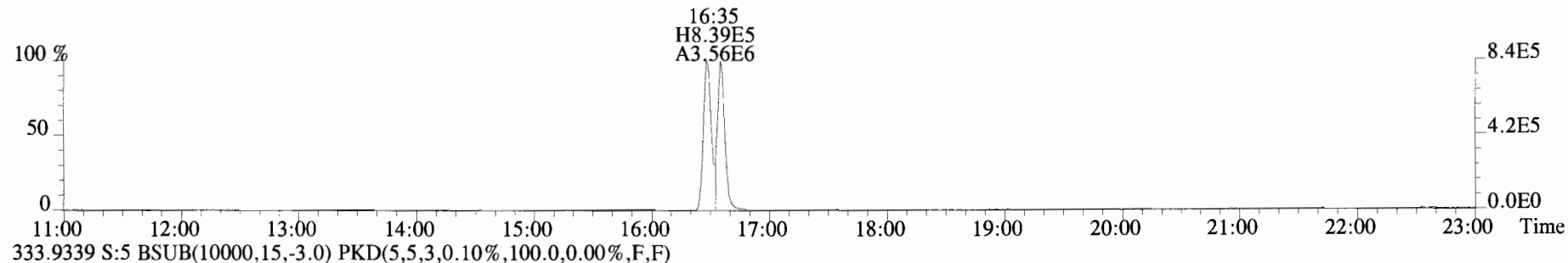
File:190530D1 #1-1683 Acq:30-MAY-2019 13:09:20 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-3 1613 CS2 19C2203 Exp:TCDF\_DB225  
303.9016 S:5 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



305.8987 S:5 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

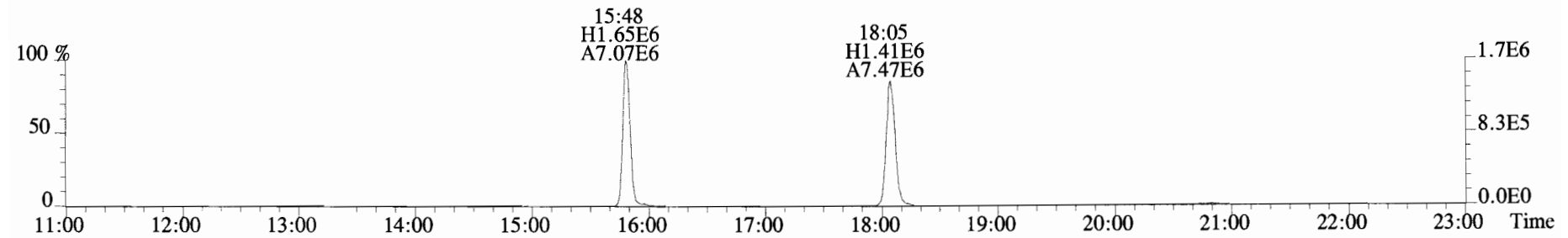
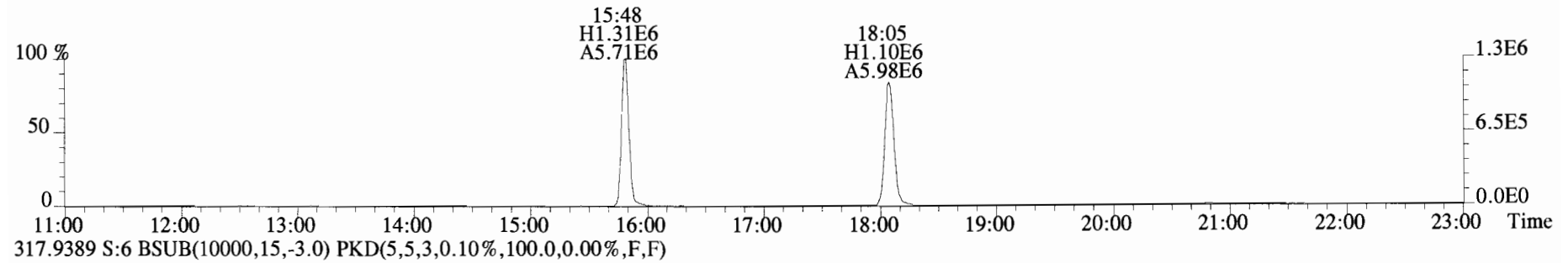
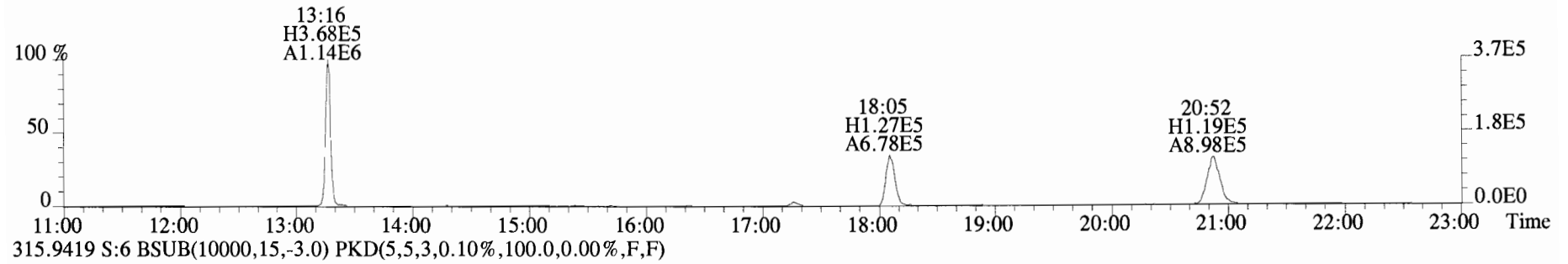
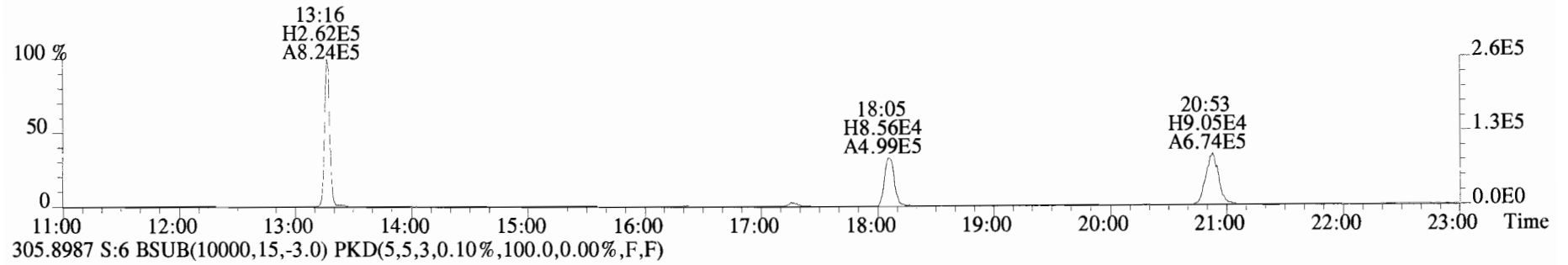


File:190530D1 #1-1683 Acq:30-MAY-2019 13:09:20 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-3 1613 CS2 19C2203 Exp:TCDF\_DB225  
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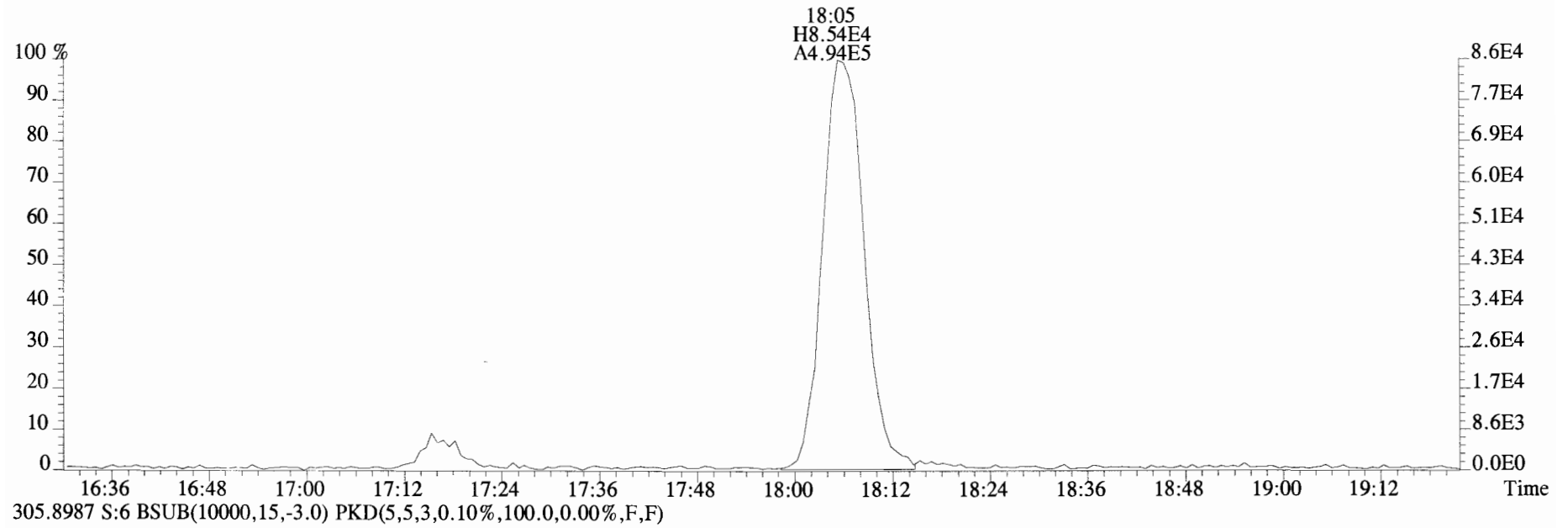




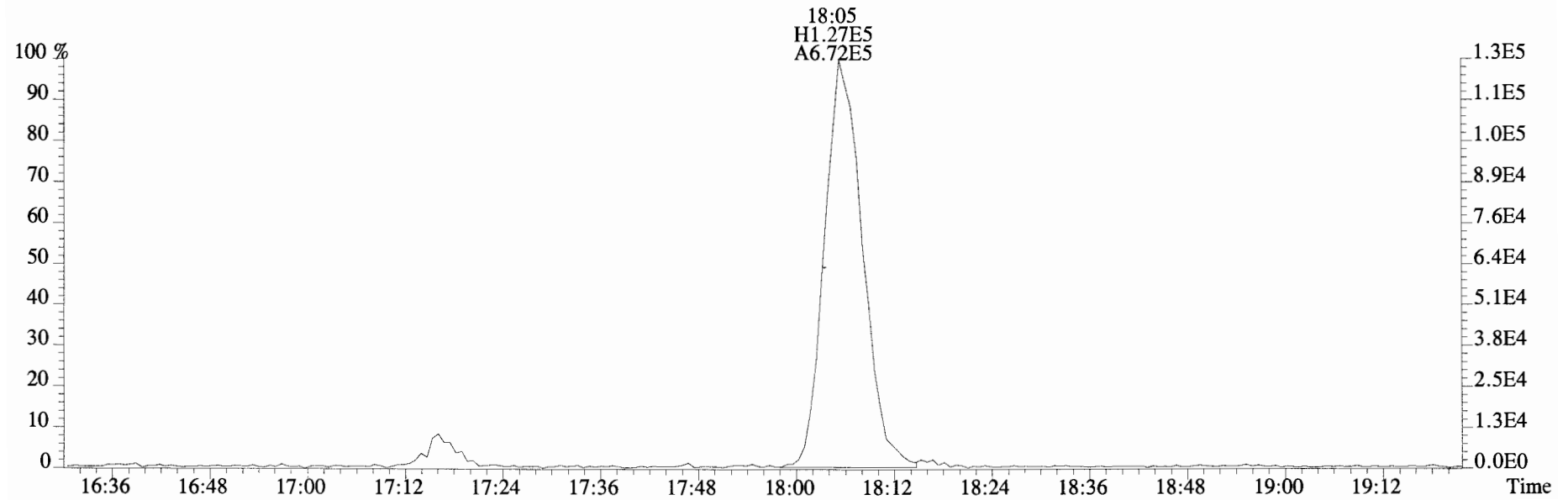
File:190530D1 #1-1682 Acq:30-MAY-2019 13:41:11 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-4 1613 CS3 19C2204 Exp:TCDF\_DB225  
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



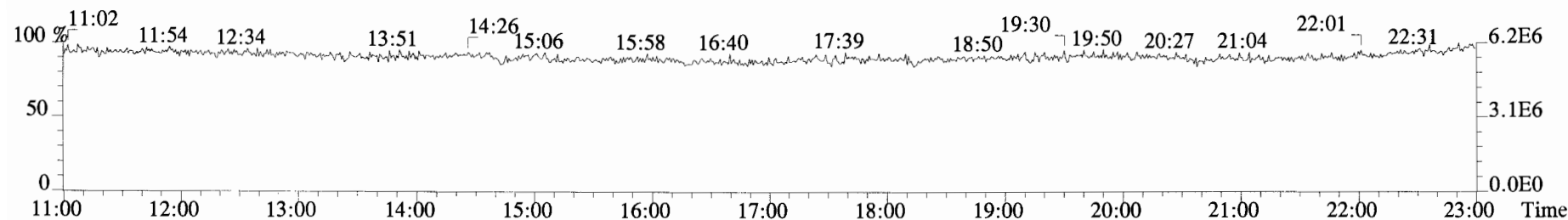
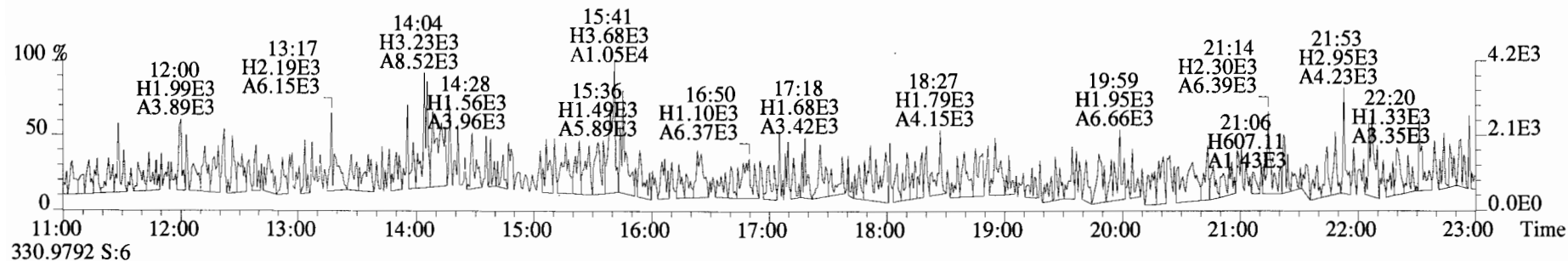
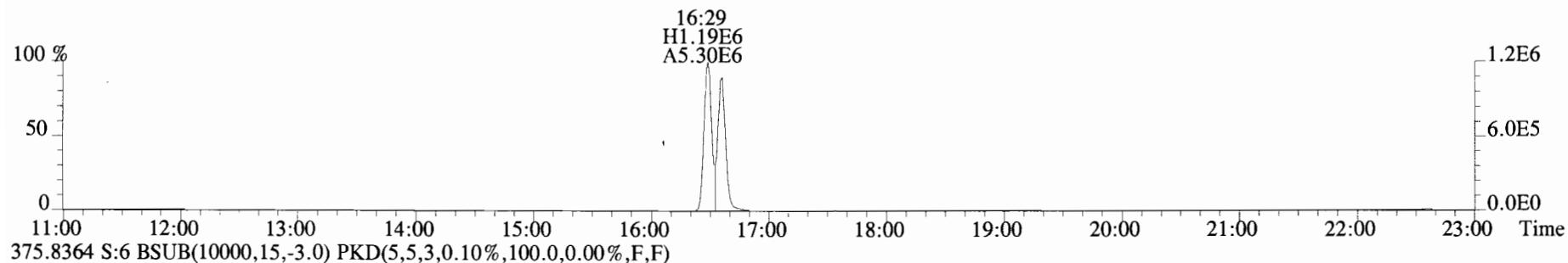
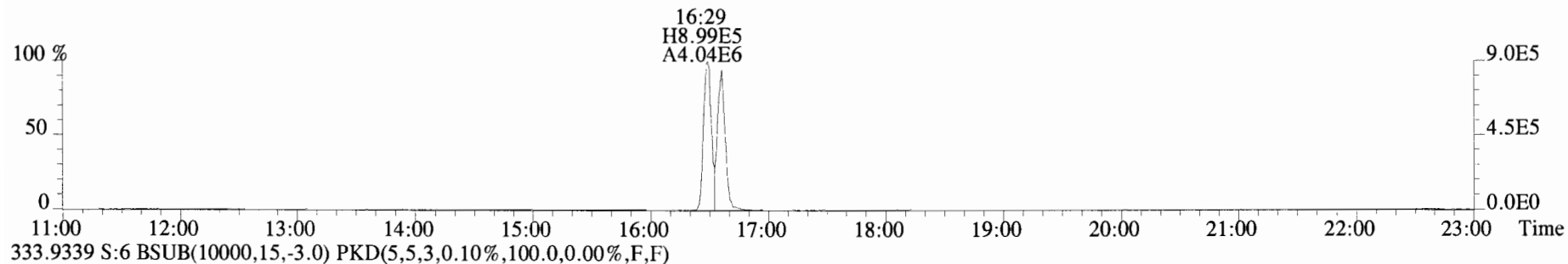
File:190530D1 #1-1682 Acq:30-MAY-2019 13:41:11 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista\_Analytical\_Laboratory\_VG7 Text:ST190530D1-4 1613 CS3 19C2204 Exp:TCDF\_DB225  
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



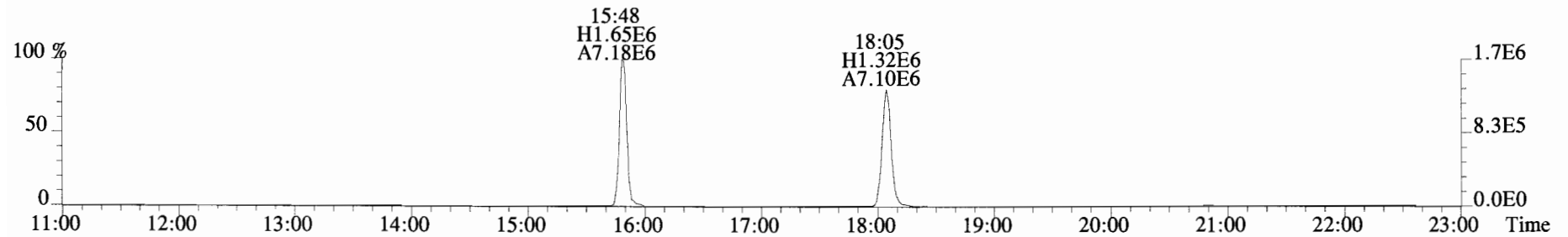
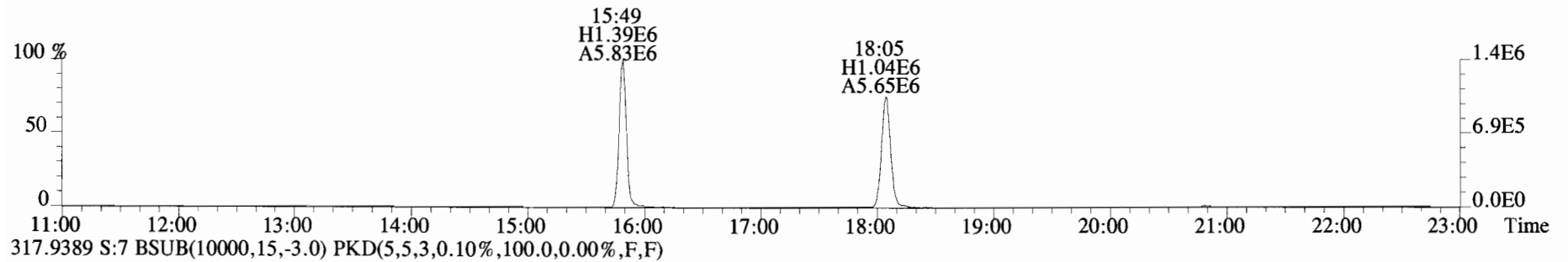
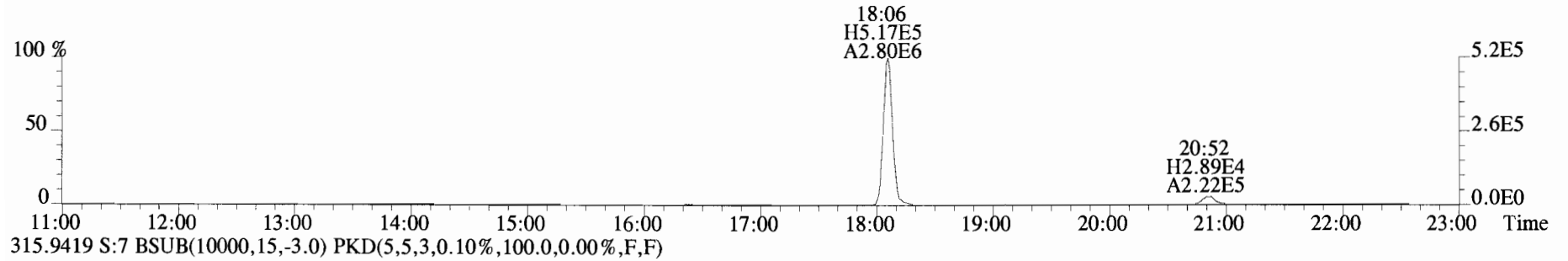
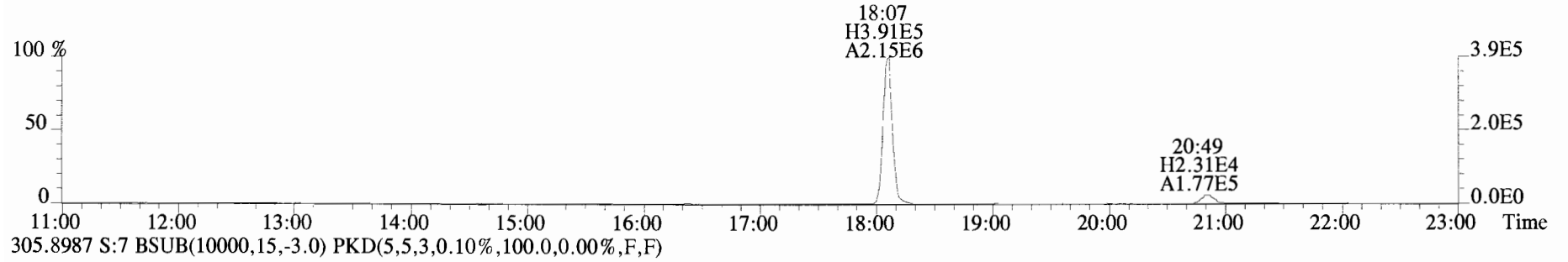
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



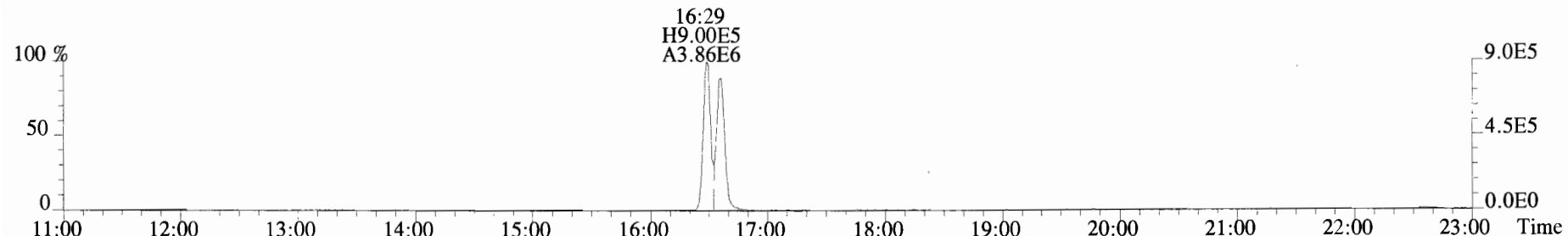
File:190530D1 #1-1682 Acq:30-MAY-2019 13:41:11 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-4 1613 CS3 19C2204 Exp:TCDF\_DB225  
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



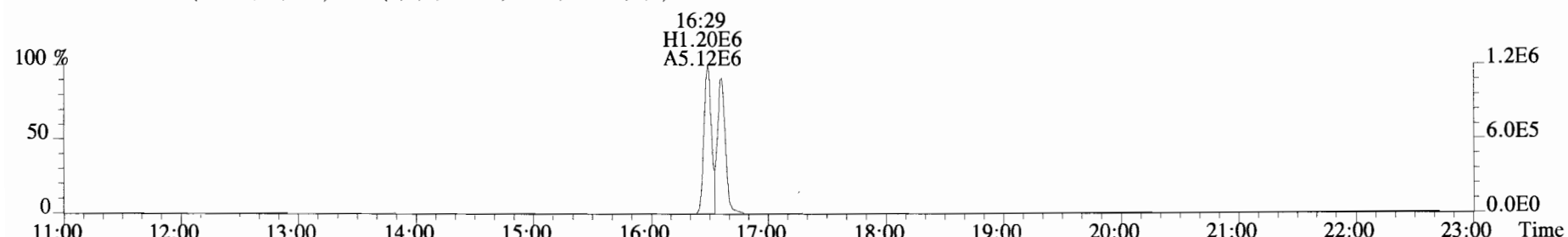
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Sample#7 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-5 1613 CS4 19C2205 Exp:TCDF\_DB225  
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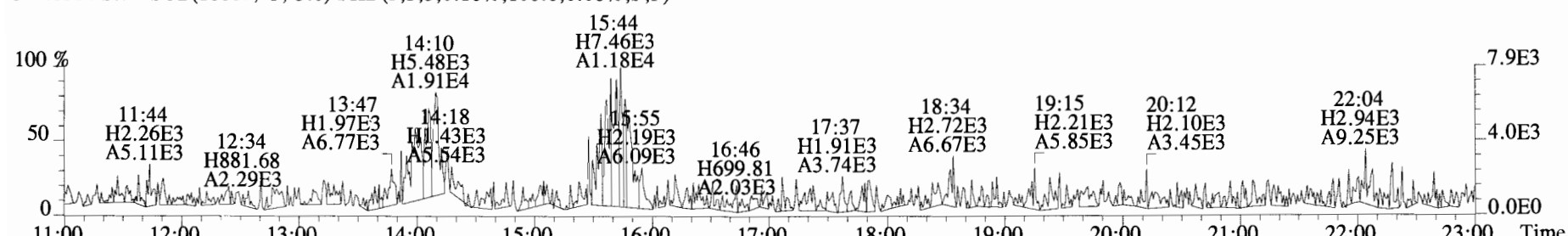
File:190530D1 #1-1682 Acq:30-MAY-2019 14:13:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-5 1613 CS4 19C2205 Exp:TCDF\_DB225  
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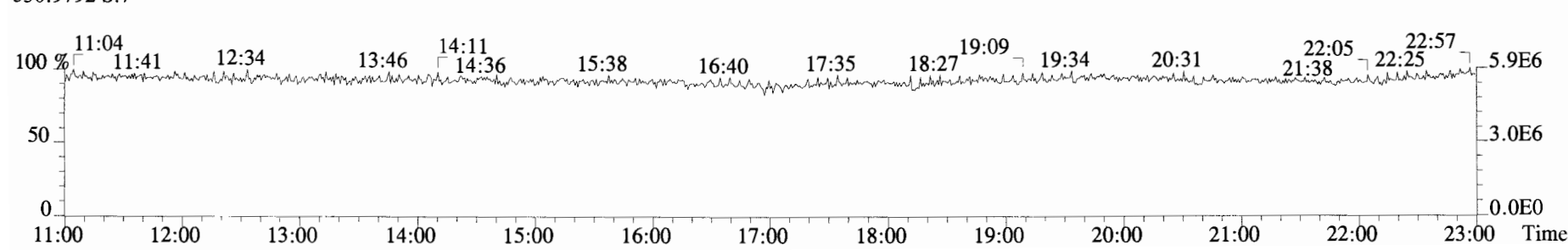
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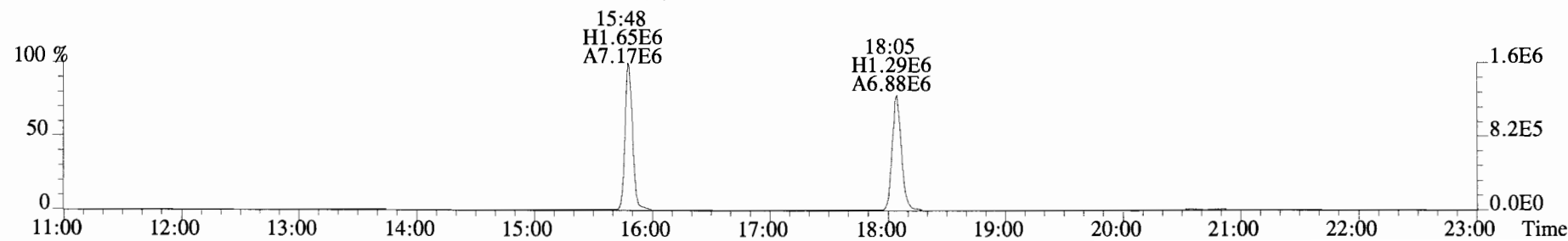
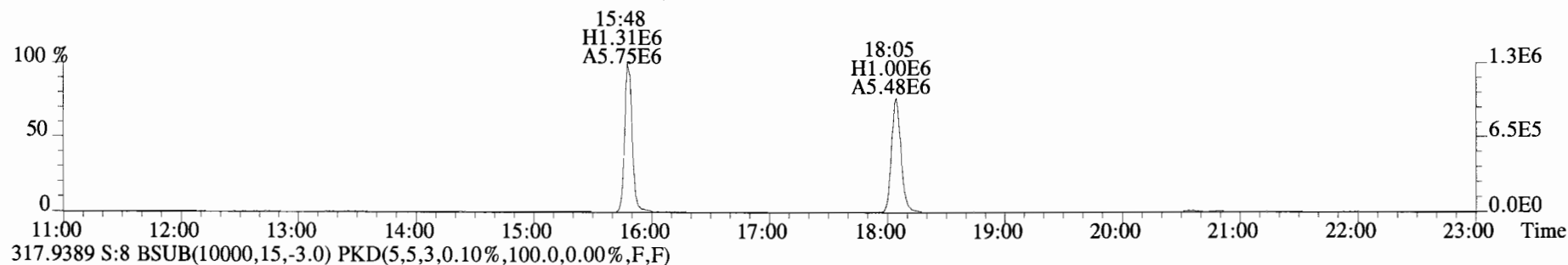
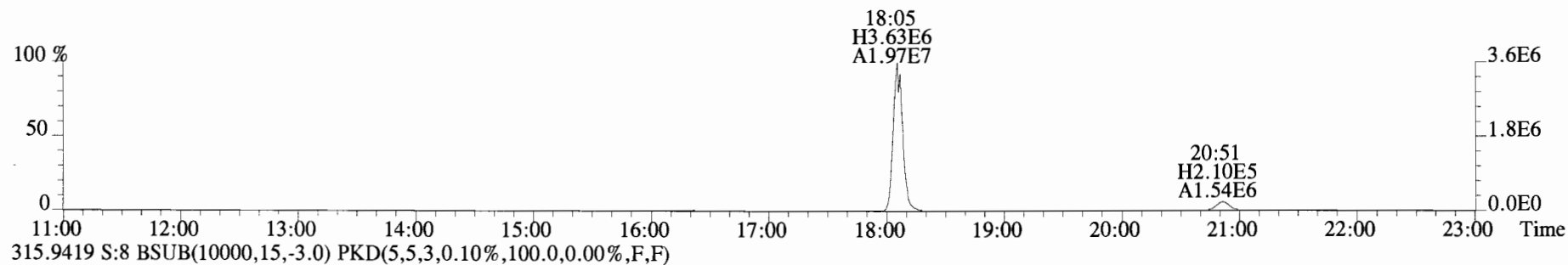
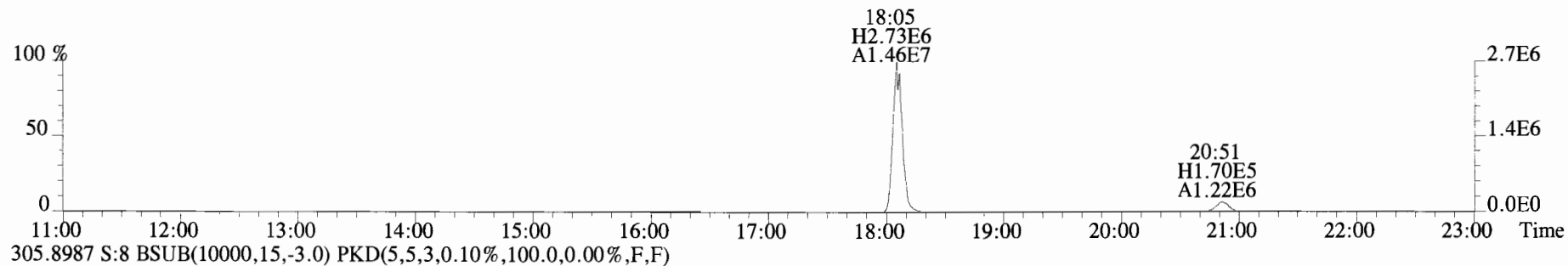
375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



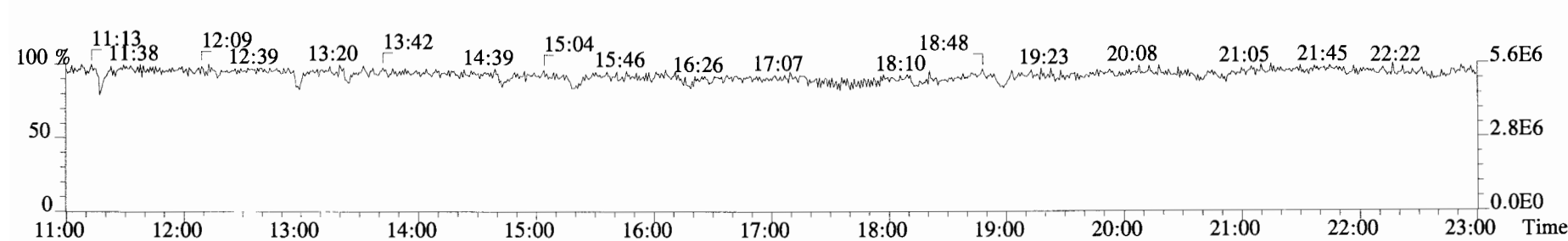
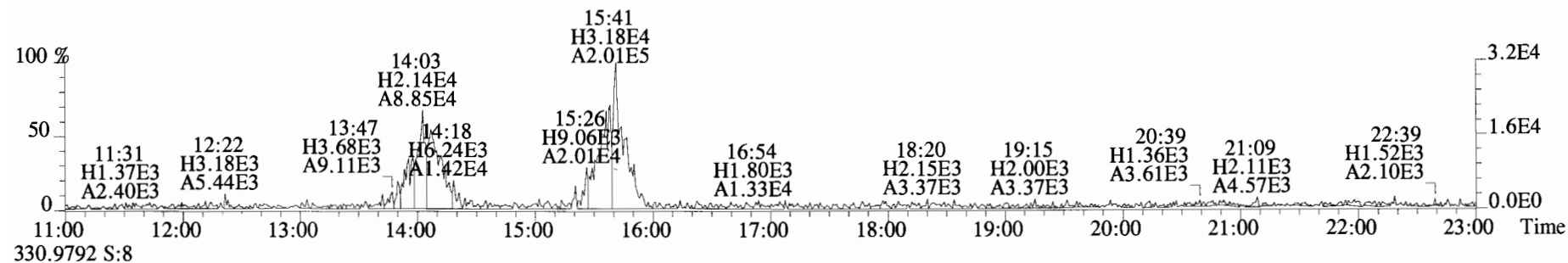
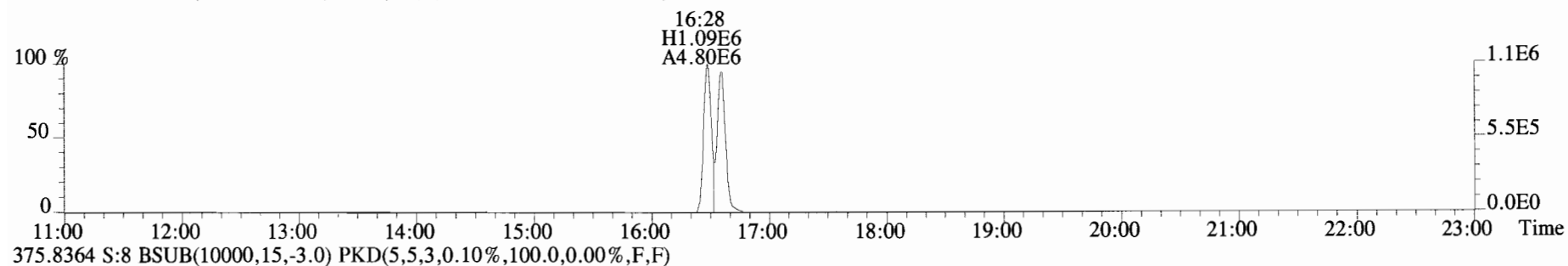
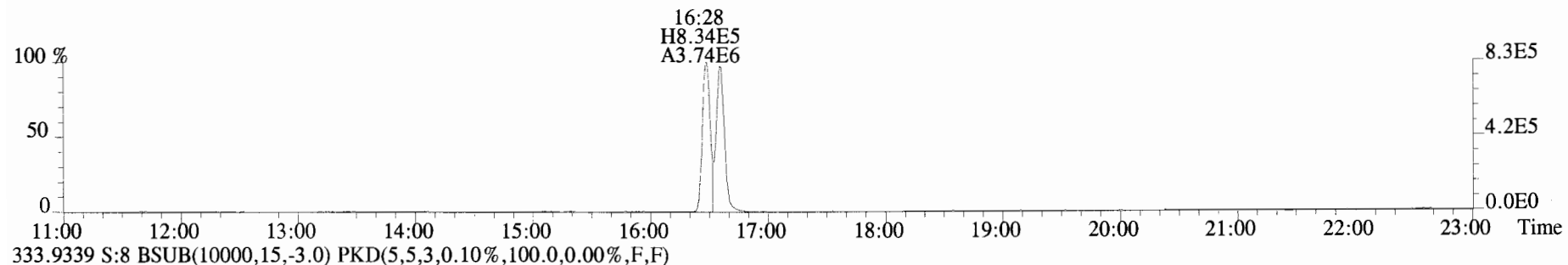
330.9792 S:7

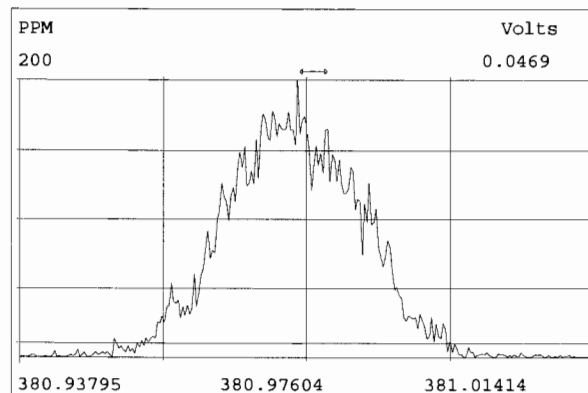
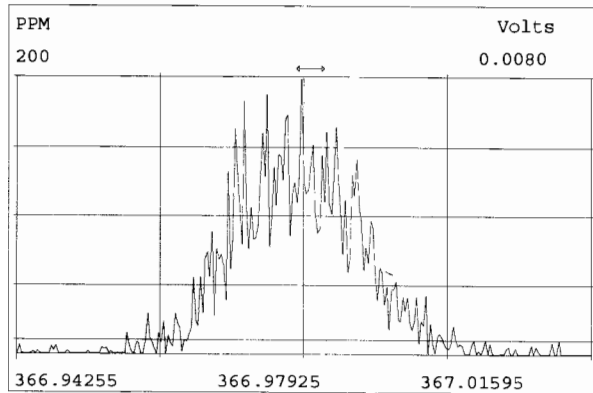
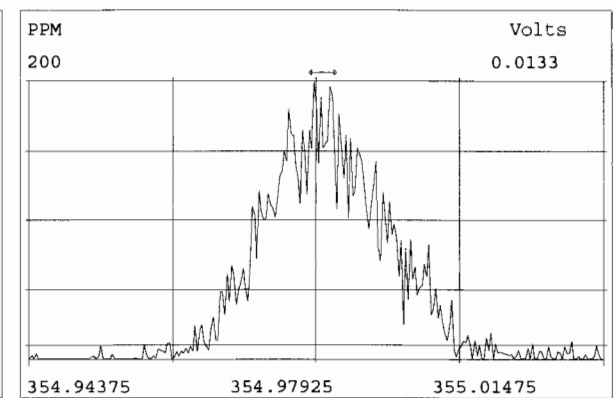
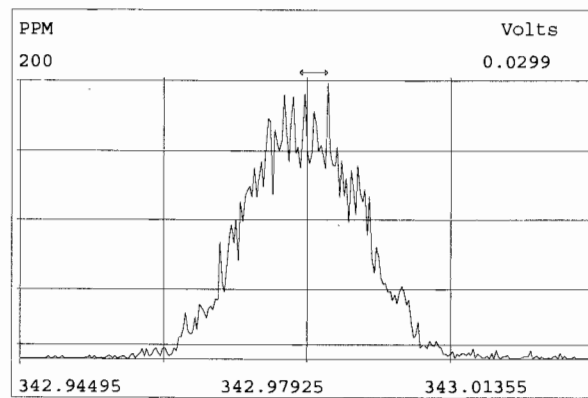
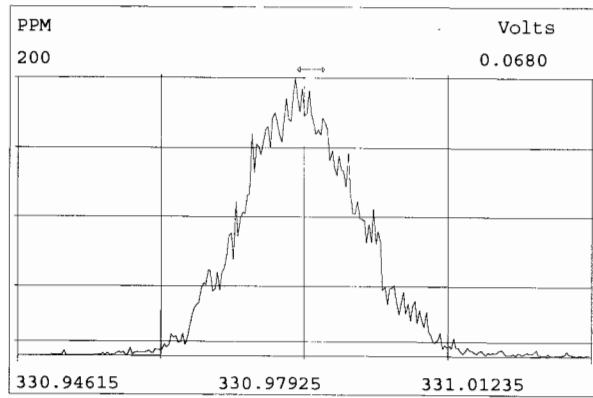
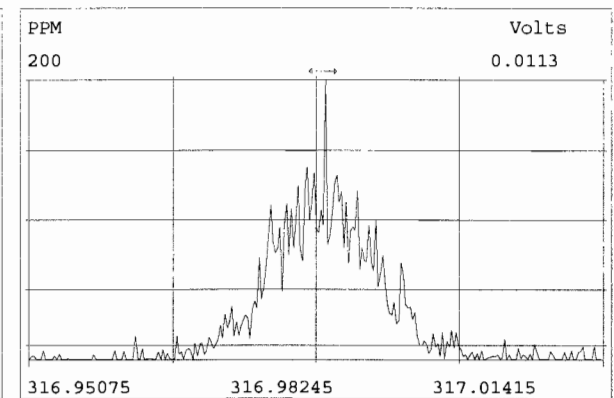
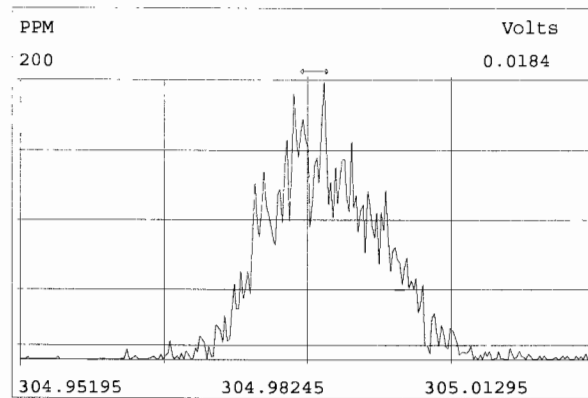
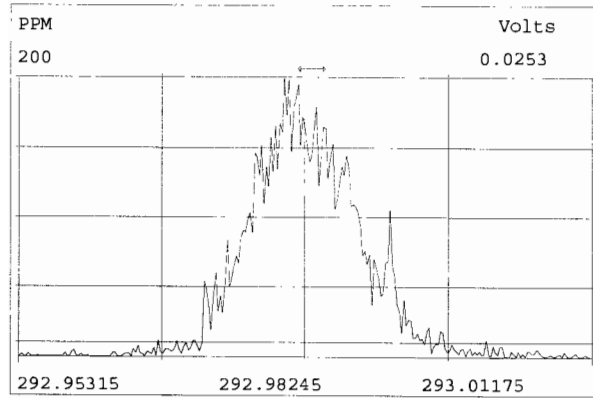


File:190530D1 #1-1682 Acq:30-MAY-2019 14:44:52 GC EI+ Voltage SIR Autospec-UltimaE  
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File:190530D1 #1-1682 Acq:30-MAY-2019 14:44:52 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#8 File Text:Vista Analytical Laboratory VG7 Text:ST190530D1-6 1613 CS5 19C2206 Exp:TCDF\_DB225  
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Client ID: 1613 SSS 19C2207  
Lab ID: SS190528D1-1

Filename: 190530D1 S:10 Acq:30-MAY-19 15:48:32  
GC Column ID: DB-225 ICal: 1613TCDFVG7-5-30-19 wt/vol: 1.000

ConCal: ST190530D1-4  
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	1.15e+07	0.82 y	15:48	1.00	100.0	-
13C-2,3,7,8-TCDF	1.18e+07	0.80 y	18:04	1.02	100.0	100.0
2,3,7,8-TCDF	1.08e+06	0.74 y	18:05	0.95	9.628	

Integrations

by  
Analyst: DB

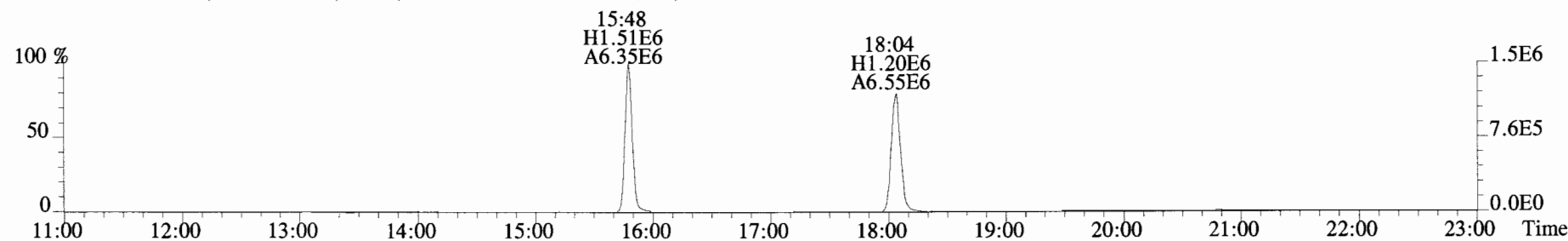
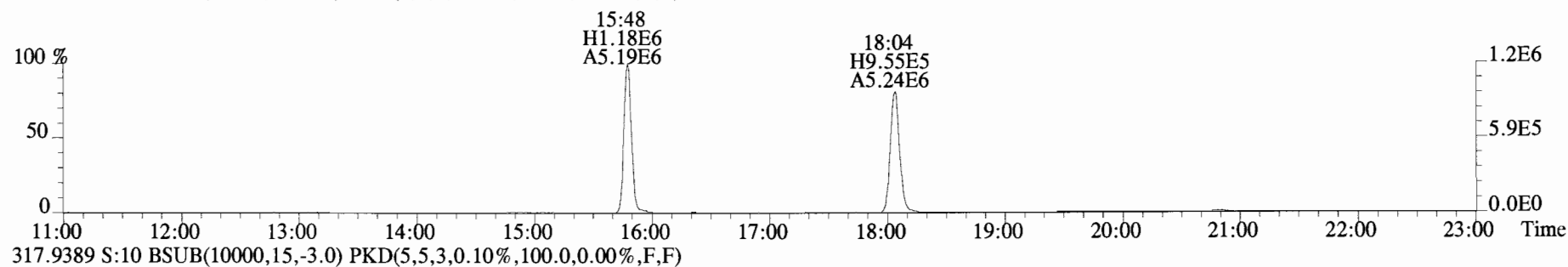
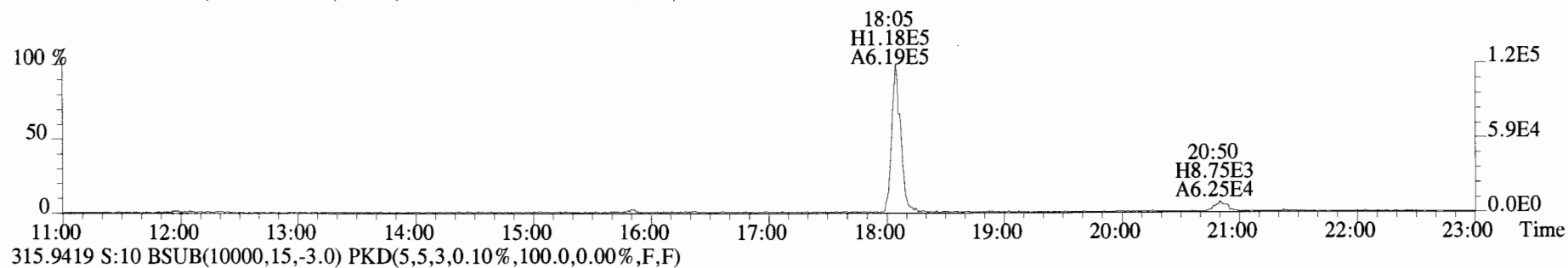
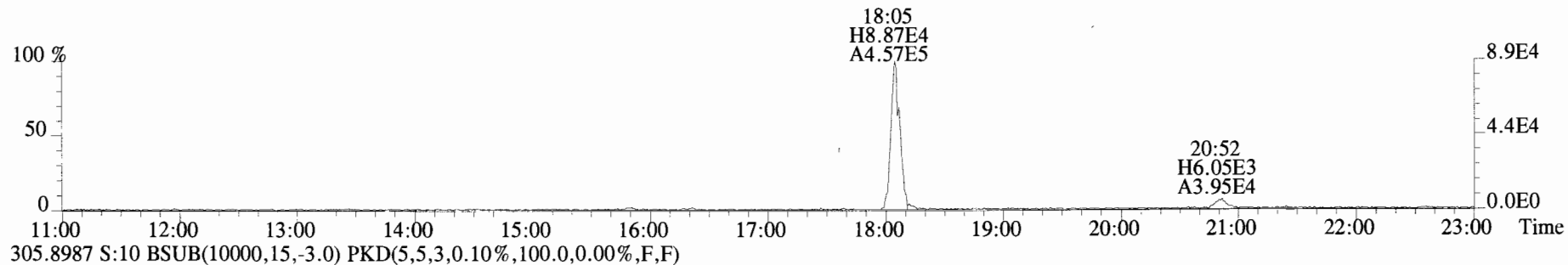
Date: 5/31/19

Reviewed

by  
Analyst: CT

Date: 05/31/19

File:190530D1 #1-1682 Acq:30-MAY-2019 15:48:32 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Vista Analytical Laboratory\_VG7 Text:SS190528D1-1 1613 SSS 19C2207 Exp:TCDF\_DB225  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:190530D1 #1-1682 Acq:30-MAY-2019 15:48:32 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#10 File Text: Vista Analytical Laboratory VG7 Text:SS190528D1-1 1613 SSS 19C2207 Exp:TCDF\_DB225  
 331.9368 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

