

December 31, 2020

Vista Work Order No. 2002532

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 November 17, 2020 under your Project Name 'GascoSiltronic: US Moorings'.

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.

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 Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

Work Order 2002532 Page 1 of 725

Vista Work Order No. 2002532 Case Narrative

Sample Condition on Receipt:

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

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-DIOXIN GC column.

Holding Times

The 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 the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

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

Work Order 2002532 Page 2 of 725

TABLE OF CONTENTS

Case Narrative	1
Table of Contents	3
Sample Inventory	4
Analytical Results	5
Qualifiers	22
Certifications	23
Sample Receipt	26
Extraction Information	31
Sample Data - EPA Method 1613	38
Continuing Calibration	435
Initial Calibration	559

Work Order 2002532 Page 3 of 725

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002532-01	USMPDI-001SC-A-01-02-201111	11-Nov-20 10:55	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-02	USMPDI-001SC-A-02-03-201111	11-Nov-20 10:55	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-03	USMPDI-001SC-A-03-04-201111	11-Nov-20 10:55	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-04	USMPDI-001SC-A-04-05-201111	11-Nov-20 10:55	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-05	USMPDI-002SC-A-04-05-201111	11-Nov-20 15:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-06	USMPDI-002SC-A-05-06-201111	11-Nov-20 15:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-07	USMPDI-004SC-A-01-02-201111	11-Nov-20 08:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-08	USMPDI-004SC-A-02-03-201111	11-Nov-20 08:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-09	USMPDI-004SC-A-03-04-201111	11-Nov-20 08:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-10	USMPDI-004SC-A-04-05-201111	11-Nov-20 08:35	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-11	USMPDI-011SC-A-04-05-201111	11-Nov-20 13:25	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-12	USMPDI-011SC-A-05-06-201111	11-Nov-20 13:25	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-13	USMPDI-011SC-A-06-07-201111	11-Nov-20 13:25	17-Nov-20 10:43	Amber Glass, 120 mL
2002532-14	USMPDI-011SC-A-07-08-201111	11-Nov-20 13:25	17-Nov-20 10:43	Amber Glass, 120 mL

Vista Project: 2002532 Client Project: GascoSiltronic: US Moorings

Work Order 2002532 Page 4 of 725

ANALYTICAL RESULTS

Work Order 2002532 Page 5 of 725

Sample ID: Method	l Blank							EPA Me	thod 1613B
Matrix: Solid Sample Size: 10.0		QC Batch: Date Extracted:	B0L0082 12-Dec-2020 10:53	Zue zumpte. Bezovez Berri			6 Column: ZB-D	IOXIN	
Analyte Conc.	(pg/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0101			IS	13C-2,3,7,8-TCDD	101	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0283				13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0228				13C-1,2,3,4,7,8-HxCDD	112	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0235				13C-1,2,3,6,7,8-HxCDD	106	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0239				13C-1,2,3,7,8,9-HxCDD	103	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.142			J		13C-1,2,3,4,6,7,8-HpCDD	103	23 - 140	
OCDD	1.36			J		13C-OCDD	81.2	17 - 157	
2,3,7,8-TCDF	ND	0.00691				13C-2,3,7,8-TCDF	101	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0173				13C-1,2,3,7,8-PeCDF	111	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0171				13C-2,3,4,7,8-PeCDF	113	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0182				13C-1,2,3,4,7,8-HxCDF	98.3	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0179				13C-1,2,3,6,7,8-HxCDF	91.4	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0197				13C-2,3,4,6,7,8-HxCDF	96.5	28 - 136	
1,2,3,7,8,9-HxCDF	0.0332			J		13C-1,2,3,7,8,9-HxCDF	98.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0252				13C-1,2,3,4,6,7,8-HpCDF	76.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.0314			J		13C-1,2,3,4,7,8,9-HpCDF	94.6	26 - 138	
OCDF	0.124			J		13C-OCDF	76.9	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	97.0	35 - 197	
						Toxic Equivalent Quotient (TI	EQ) Data (pg/g d	ry wt)	
						TEQMinWHO2005Dioxin	0.00550		
TOTALS									
Total TCDD	ND	0.0101							
Total PeCDD	ND		0.0710						
Total HxCDD	ND	0.0239							
Total HpCDD	0.225								
Total TCDF	ND	0.00691							
Total PeCDF	ND	0.0173							
Total HxCDF	0.0332		0.0650						
Total HpCDF	0.0314		0.0310						
DL - Sample specifc est	imated detection limit		·		LCL-U	ICL- Lower control limit - upper control lin	nit		

EMPC - Estimated maximum possible concentration

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.

Page 6 of 725 Work Order 2002532

Sample ID: OPR								EPA Method 1613B
Matrix: Solid Sample Size: 10.0 g	,		B0L0082 12-Dec-2020) 10:53		Lab Sample: B0L0082-BS1 Date Analyzed: 17-Dec-20 15:13	Column: ZB-DIOXIN	
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	21.0	20.0	105	67 - 158	IS	13C-2,3,7,8-TCDD	102	20 - 175
1,2,3,7,8-PeCDD	106	100	106	70 - 142		13C-1,2,3,7,8-PeCDD	105	21 - 227
1,2,3,4,7,8-HxCDD	106	100	106	70 - 164		13C-1,2,3,4,7,8-HxCDD	114	21 - 193
1,2,3,6,7,8-HxCDD	103	100	103	76 - 134		13C-1,2,3,6,7,8-HxCDD	108	25 - 163
1,2,3,7,8,9-HxCDD	102	100	102	64 - 162		13C-1,2,3,7,8,9-HxCDD	105	21 - 193
1,2,3,4,6,7,8-HpCDD	97.3	100	97.3	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	106	26 - 166
OCDD	204	200	102	78 - 144		13C-OCDD	82.7	13 - 199
2,3,7,8-TCDF	18.7	20.0	93.7	75 - 158		13C-2,3,7,8-TCDF	103	22 - 152
1,2,3,7,8-PeCDF	102	100	102	80 - 134		13C-1,2,3,7,8-PeCDF	111	21 - 192
2,3,4,7,8-PeCDF	102	100	102	68 - 160		13C-2,3,4,7,8-PeCDF	114	13 - 328
1,2,3,4,7,8-HxCDF	98.0	100	98.0	72 - 134		13C-1,2,3,4,7,8-HxCDF	101	19 - 202
1,2,3,6,7,8-HxCDF	98.0	100	98.0	84 - 130		13C-1,2,3,6,7,8-HxCDF	94.2	21 - 159
2,3,4,6,7,8-HxCDF	98.3	100	98.3	70 - 156		13C-2,3,4,6,7,8-HxCDF	98.6	22 - 176
1,2,3,7,8,9-HxCDF	98.5	100	98.5	78 - 130		13C-1,2,3,7,8,9-HxCDF	101	17 - 205
1,2,3,4,6,7,8-HpCDF	96.9	100	96.9	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	79.8	21 - 158
1,2,3,4,7,8,9-HpCDF	99.9	100	99.9	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	98.7	20 - 186
OCDF	199	200	99.3	63 - 170		13C-OCDF	81.6	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	97.7	31 - 191

LCL-UCL - Lower control limit - upper control limit

Work Order 2002532 Page 7 of 725

Sample ID: USMPI	OI-001SC-A-01-02-20111	1				EPA Me	ethod 1613
Project: Gasco	or QEA, LLC Siltronic: US Moorings ov-2020 10:55	Sample Data Matrix: Sediment Sample Size: 15.8 g % Solids: 64.4	t	Laboratory Data Lab Sample: 2002532-01 QC Batch: B0L0082 Date Analyzed: 18-Dec-20 19:		ived: 17-Nov-2020 cted: 12-Dec-2020 -DIOXIN	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0126		IS 13C-2,3,7,8-TCDD	97.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0293		13C-1,2,3,7,8-PeCDD	109	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0266		13C-1,2,3,4,7,8-HxCDD	118	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0285		13C-1,2,3,6,7,8-HxCDD	111	28 - 130	
1,2,3,7,8,9-HxCDD	0.0442		J	13C-1,2,3,7,8,9-HxCDD	108	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.387		J, B	13C-1,2,3,4,6,7,8-HpCDD	109	23 - 140	
OCDD	3.03		J, B	13C-OCDD	86.3	17 - 157	
2,3,7,8-TCDF	ND	0.0164		13C-2,3,7,8-TCDF	101	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0171		13C-1,2,3,7,8-PeCDF	110	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0141		13C-2,3,4,7,8-PeCDF	115	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0126		13C-1,2,3,4,7,8-HxCDF	95.3	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0125		13C-1,2,3,6,7,8-HxCDF	87.7	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0137		13C-2,3,4,6,7,8-HxCDF	93.7	28 - 136	
1,2,3,7,8,9-HxCDF	0.0263		J, B	13C-1,2,3,7,8,9-HxCDF	94.1	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.0389		J	13C-1,2,3,4,6,7,8-HpCDF	75.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0112		13C-1,2,3,4,7,8,9-HpCDF	93.9	26 - 138	
OCDF	ND	0.0388		13C-OCDF	74.2	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	95.9	35 - 197	
				Toxic Equivalent Quotient (T	EQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	0.0122		
TOTALS							
Total TCDD	0.268						
Total PeCDD	0.177	0.254					
Total HxCDD	0.442	0.630					
Total HpCDD	0.976		В				
Total TCDF	0.151						
Total PeCDF	0.0151						
Total HxCDF	0.0263	0.0455	В				
Total HpCDF DL - Sample specifc esti	0.0389		В	LCL-UCL- Lower control limit - upper control lin			

Work Order 2002532 Page 8 of 725

EMPC - Estimated maximum possible concentration

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: USMPD	OI-001SC-A-02-03-201111					EPA Meth	od 1613B
Project: Gasco	or QEA, LLC Siltronic: US Moorings v-2020 10:55	Sample Data Matrix: Sediment Sample Size: 14.3 g % Solids: 70.0		Laboratory Data Lab Sample: 2002532-02 QC Batch: B0L0082 Date Analyzed: 20-Dec-20 10:44	Date Received Date Extracted 4 Column: ZB-DI	d: 12-Dec-2020 1	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0457		IS 13C-2,3,7,8-TCDD	92.3	25 - 164	
1,2,3,7,8-PeCDD	0.263		J	13C-1,2,3,7,8-PeCDD	106	25 - 181	
1,2,3,4,7,8-HxCDD	0.189		J	13C-1,2,3,4,7,8-HxCDD	100	32 - 141	
1,2,3,6,7,8-HxCDD	0.318		J	13C-1,2,3,6,7,8-HxCDD	93.8	28 - 130	
1,2,3,7,8,9-HxCDD	0.793		J	13C-1,2,3,7,8,9-HxCDD	90.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.30		J, B	13C-1,2,3,4,6,7,8-HpCDD	94.9	23 - 140	
OCDD	5.07		В	13C-OCDD	82.0	17 - 157	
2,3,7,8-TCDF	ND	0.0263		13C-2,3,7,8-TCDF	92.0	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0552		13C-1,2,3,7,8-PeCDF	103	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0490		13C-2,3,4,7,8-PeCDF	103	21 - 178	
1,2,3,4,7,8-HxCDF	0.0918		J	13C-1,2,3,4,7,8-HxCDF	90.9	26 - 152	
1,2,3,6,7,8-HxCDF	0.104		J	13C-1,2,3,6,7,8-HxCDF	82.9	26 - 123	
2,3,4,6,7,8-HxCDF	0.145		J	13C-2,3,4,6,7,8-HxCDF	87.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.129		13C-1,2,3,7,8,9-HxCDF	86.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.298		J	13C-1,2,3,4,6,7,8-HpCDF	70.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.279		J, B	13C-1,2,3,4,7,8,9-HpCDF	91.4	26 - 138	
OCDF	ND	0.655		13C-OCDF	77.9	17 - 157	
				CRS 37C1-2,3,7,8-TCDD	91.5	35 - 197	
				Toxic Equivalent Quotient (TEC	Q) Data (pg/g dry	wt)	
				TEQMinWHO2005Dioxin	0.447		
TOTALS							
Total TCDD	0.208						
Total PeCDD	0.844	1.49					
Total HxCDD	4.39						
Total HpCDD	3.08		В				
Total TCDF	ND	0.0263					
Total PeCDF	ND	0.0552					
Total HxCDF	0.342	0.543	В				
Total HpCDF	0.577 mated detection limit		В	LCL-UCL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Page 9 of 725 Work Order 2002532

Client Data Name: Anchor QEA, LI Project: GascoSiltronic: U Date Collected: 11-Nov-2020 10 Analyte Conc. (pg/g) 2,3,7,8-TCDD ND 1,2,3,4,7,8-PeCDD ND 1,2,3,4,7,8-HxCDD ND 1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	C-A-03-04-201111						EPA Me	thod 1613B
2,3,7,8-TCDD ND 1,2,3,7,8-PeCDD ND 1,2,3,4,7,8-HxCDD ND 1,2,3,6,7,8-HxCDD ND 1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,4,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	LC Ma US Moorings Sar	ple Data trix: Sediment mple Size: 13.6 g Solids: 75.1		Lab QC I	oratory Data Sample: 2002532-03 Batch: B0L0082 e Analyzed: 20-Dec-20 11:28		ed: 12-Dec-2020	
1,2,3,7,8-PeCDD ND 1,2,3,4,7,8-HxCDD ND 1,2,3,6,7,8-HxCDD ND 1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
1,2,3,4,7,8-HxCDD ND 1,2,3,6,7,8-HxCDD ND 1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,4,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0421			IS	13C-2,3,7,8-TCDD	98.6	25 - 164	
1,2,3,6,7,8-HxCDD ND 1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0690				13C-1,2,3,7,8-PeCDD	111	25 - 181	
1,2,3,7,8,9-HxCDD ND 1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0916				13C-1,2,3,4,7,8-HxCDD	106	32 - 141	
1,2,3,4,6,7,8-HpCDD 0.972 OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0933				13C-1,2,3,6,7,8-HxCDD	98.9	28 - 130	
OCDD 12.0 2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0932				13C-1,2,3,7,8,9-HxCDD	98.4	32 - 141	
2,3,7,8-TCDF ND 1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND			J, B		13C-1,2,3,4,6,7,8-HpCDD	104	23 - 140	
1,2,3,7,8-PeCDF ND 2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND			В		13C-OCDD	83.9	17 - 157	
2,3,4,7,8-PeCDF ND 1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0197				13C-2,3,7,8-TCDF	98.6	24 - 169	
1,2,3,4,7,8-HxCDF ND 1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0415				13C-1,2,3,7,8-PeCDF	110	24 - 185	
1,2,3,6,7,8-HxCDF ND 2,3,4,6,7,8-HxCDF ND	0.0342				13C-2,3,4,7,8-PeCDF	113	21 - 178	
2,3,4,6,7,8-HxCDF ND	0.0463				13C-1,2,3,4,7,8-HxCDF	92.6	26 - 152	
)-)	0.0479				13C-1,2,3,6,7,8-HxCDF	83.1	26 - 123	
	0.0483				13C-2,3,4,6,7,8-HxCDF	93.3	28 - 136	
1,2,3,7,8,9-HxCDF ND		0.0180			13C-1,2,3,7,8,9-HxCDF	95.7	29 - 147	
1,2,3,4,6,7,8-HpCDF ND	0.0681				13C-1,2,3,4,6,7,8-HpCDF	75.5	28 - 143	
1,2,3,4,7,8,9-HpCDF ND	0.0547				13C-1,2,3,4,7,8,9-HpCDF	101	26 - 138	
OCDF 0.119			J, B		13C-OCDF	81.1	17 - 157	
				CRS	37Cl-2,3,7,8-TCDD	101	35 - 197	
					Toxic Equivalent Quotient (TEQ)) Data (pg/g dry	v wt)	
					TEQMinWHO2005Dioxin	0.0134		
TOTALS								
Total TCDD 0.207								
Total PeCDD ND		0.119						
Total HxCDD 1.38								
Total HpCDD 2.65			В					
Total TCDF ND	0.0197							
Total PeCDF ND	0.0415							
Total HxCDF 0.0457		0.119	В					
Total HpCDF ND DL - Sample specife estimated detection	0.0681				L- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 10 of 725

Sample ID: USMPD	OI-001SC-A-04-05-201111			E	PA Method 16131
Project: Gasco	or QEA, LLC Siltronic: US Moorings v-2020 10:55	Sample Data Matrix: Sediment Sample Size: 12.3 g % Solids: 81.4		Laboratory DataLab Sample:2002532-04Date Received:17-NQC Batch:B0L0082Date Extracted:12-DDate Analyzed:20-Dec-20 12:13Column: ZB-DIOXIN	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard %R LCL-	UCL Qualifiers
2,3,7,8-TCDD	ND	0.0481		IS 13C-2,3,7,8-TCDD 105 25	- 164
1,2,3,7,8-PeCDD	ND	0.0655		13C-1,2,3,7,8-PeCDD 115 25	- 181
1,2,3,4,7,8-HxCDD	ND	0.0713		13C-1,2,3,4,7,8-HxCDD 107 32	- 141
1,2,3,6,7,8-HxCDD	ND	0.0733		13C-1,2,3,6,7,8-HxCDD 98.0 28	- 130
1,2,3,7,8,9-HxCDD	ND	0.0744		13C-1,2,3,7,8,9-HxCDD 97.6 32	- 141
1,2,3,4,6,7,8-HpCDD	0.778		J, B	13C-1,2,3,4,6,7,8-HpCDD 95.4 23	- 140
OCDD	6.62		В	13C-OCDD 75.0 17	- 157
2,3,7,8-TCDF	ND	0.0195		13C-2,3,7,8-TCDF 106 24	- 169
1,2,3,7,8-PeCDF	ND	0.0307		13C-1,2,3,7,8-PeCDF 119 24	- 185
2,3,4,7,8-PeCDF	ND	0.0286		13C-2,3,4,7,8-PeCDF 119 21	- 178
1,2,3,4,7,8-HxCDF	ND	0.0347		13C-1,2,3,4,7,8-HxCDF 96.0 26	- 152
1,2,3,6,7,8-HxCDF	ND	0.0344		13C-1,2,3,6,7,8-HxCDF 87.9 26	- 123
2,3,4,6,7,8-HxCDF	ND	0.0390		13C-2,3,4,6,7,8-HxCDF 95.1 28	- 136
1,2,3,7,8,9-HxCDF	ND	0.0444		13C-1,2,3,7,8,9-HxCDF 97.5 29	- 147
1,2,3,4,6,7,8-HpCDF	ND	0.0636		13C-1,2,3,4,6,7,8-HpCDF 68.7 28	- 143
1,2,3,4,7,8,9-HpCDF	ND	0.0494		13C-1,2,3,4,7,8,9-HpCDF 96.7 26	- 138
OCDF	ND	0.0691		13C-OCDF 75.9 17	- 157
				CRS 37Cl-2,3,7,8-TCDD 96.3 35	- 197
				Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)	
				TEQMinWHO2005Dioxin 0.00977	
TOTALS					
Total TCDD	0.230				
Total PeCDD	ND	0.287			
Total HxCDD	0.824	1.25			
Total HpCDD	2.23		В		
Total TCDF	ND	0.0195			
Total PeCDF	ND	0.0307			
Total HxCDF	ND	0.0444			
Total HpCDF DL - Sample specifc estin	ND	0.0636		.CL-UCL- Lower control limit - upper control limit	

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 11 of 725

Sample ID: USMPD	I-002SC-A-04-05-201111					EPA Me	thod 1613B
Project: Gascos	r QEA, LLC Siltronic: US Moorings v-2020 15:35	Sample Data Matrix: Sediment Sample Size: 15.1 g % Solids: 67.4		Laboratory Data Lab Sample: 2002532-05 QC Batch: B0L0082 Date Analyzed: 20-Dec-20 12:5	Date Extra	ved: 17-Nov-2020 cted: 12-Dec-2020 -DIOXIN	
Analyte Conc. ((pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0729		IS 13C-2,3,7,8-TCDD	87.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.131		13C-1,2,3,7,8-PeCDD	103	25 - 181	
1,2,3,4,7,8-HxCDD	0.201		J	13C-1,2,3,4,7,8-HxCDD	96.3	32 - 141	
1,2,3,6,7,8-HxCDD	2.14		J	13C-1,2,3,6,7,8-HxCDD	89.9	28 - 130	
1,2,3,7,8,9-HxCDD	0.547		J	13C-1,2,3,7,8,9-HxCDD	91.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	57.7		В	13C-1,2,3,4,6,7,8-HpCDD	94.6	23 - 140	
OCDD	579		В	13C-OCDD	76.5	17 - 157	
2,3,7,8-TCDF	0.614			13C-2,3,7,8-TCDF	91.7	24 - 169	
1,2,3,7,8-PeCDF	0.705		J	13C-1,2,3,7,8-PeCDF	107	24 - 185	
2,3,4,7,8-PeCDF	0.771		J	13C-2,3,4,7,8-PeCDF	104	21 - 178	
1,2,3,4,7,8-HxCDF	1.57		J	13C-1,2,3,4,7,8-HxCDF	87.6	26 - 152	
1,2,3,6,7,8-HxCDF	0.557		J	13C-1,2,3,6,7,8-HxCDF	80.3	26 - 123	
2,3,4,6,7,8-HxCDF	0.626		J	13C-2,3,4,6,7,8-HxCDF	85.0	28 - 136	
1,2,3,7,8,9-HxCDF	0.192		J, B	13C-1,2,3,7,8,9-HxCDF	85.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	13.8			13C-1,2,3,4,6,7,8-HpCDF	68.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.463		J, B	13C-1,2,3,4,7,8,9-HpCDF	86.2	26 - 138	
OCDF	9.83		В	13C-OCDF	73.0	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	87.2	35 - 197	
				Toxic Equivalent Quotient (TE	Q) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	1.79		
TOTALS							
Total TCDD	0.419	0.783					
Total PeCDD	0.132	1.44					
Total HxCDD	11.8						
Total HpCDD	106		В				
Total TCDF	4.73	4.88					
Total PeCDF	7.28						
Total HxCDF	19.5		В				
Total HpCDF DL - Sample specifc estin	32.4		В	LCL-UCL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 12 of 725

Sample ID: USMP	DI-002SC-A-05-06-20111	1		EPA Method 1613B
Project: Gasc	nor QEA, LLC coSiltronic: US Moorings Iov-2020 15:35	Sample Data Matrix: Sediment Sample Size: 15.5 g % Solids: 64.8		Laboratory Data Lab Sample: 2002532-06 Date Received: 17-Nov-2020 10:43 QC Batch: B0L0082 Date Extracted: 12-Dec-2020 10:53 Date Analyzed: 20-Dec-20 13:41 Column: ZB-DIOXIN
Analyte Conc	c. (pg/g)	DL EMPC	Qualifiers	Labeled Standard %R LCL-UCL Qualifiers
2,3,7,8-TCDD	ND	0.0513		IS 13C-2,3,7,8-TCDD 104 25 - 164
1,2,3,7,8-PeCDD	0.0773		J	13C-1,2,3,7,8-PeCDD 110 25 - 181
1,2,3,4,7,8-HxCDD	ND	0.0854		13C-1,2,3,4,7,8-HxCDD 112 32 - 141
1,2,3,6,7,8-HxCDD	0.289		J	13C-1,2,3,6,7,8-HxCDD 104 28 - 130
1,2,3,7,8,9-HxCDD	0.182		J	13C-1,2,3,7,8,9-HxCDD 105 32 - 141
1,2,3,4,6,7,8-HpCDD	6.24		В	13C-1,2,3,4,6,7,8-HpCDD 110 23 - 140
OCDD	73.5		В	13C-OCDD 94.8 17 - 157
2,3,7,8-TCDF	0.209		J	13C-2,3,7,8-TCDF 106 24 - 169
1,2,3,7,8-PeCDF	0.182		J	13C-1,2,3,7,8-PeCDF 113 24 - 185
2,3,4,7,8-PeCDF	0.157		J	13C-2,3,4,7,8-PeCDF 115 21 - 178
1,2,3,4,7,8-HxCDF	0.305		J	13C-1,2,3,4,7,8-HxCDF 101 26 - 152
1,2,3,6,7,8-HxCDF	0.125		J	13C-1,2,3,6,7,8-HxCDF 91.7 26 - 123
2,3,4,6,7,8-HxCDF	0.100		J	13C-2,3,4,6,7,8-HxCDF 100 28 - 136
1,2,3,7,8,9-HxCDF	0.0997		J, B	13C-1,2,3,7,8,9-HxCDF 101 29 - 147
1,2,3,4,6,7,8-HpCDF	1.29		J	13C-1,2,3,4,6,7,8-HpCDF 81.4 28 - 143
1,2,3,4,7,8,9-HpCDF	ND	0.0848		13C-1,2,3,4,7,8,9-HpCDF 107 26 - 138
OCDF	1.87		J, B	13C-OCDF 93.8 17 - 157
				CRS 37Cl-2,3,7,8-TCDD 97.3 35 - 197
				Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)
				TEQMinWHO2005Dioxin 0.359
TOTALS				
Total TCDD	0.380			
Total PeCDD	0.384	0.743		
Total HxCDD	1.94	2.89		
Total HpCDD	13.5		В	
Total TCDF	0.821	0.880		
Total PeCDF	1.48			
Total HxCDF	2.27		В	
Total HpCDF DL - Sample specife es	3.32	3.40	В	LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 13 of 725

Sample ID: USMPI	OI-004SC-A-01-02-201111								EPA Me	thod 1613B
Project: Gasco	or QEA, LLC oSiltronic: US Moorings ov-2020 8:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 17.5 g 57.4		Lab QC	Batch: te Analyzed :		Date Received: Date Extracted Column: ZB-DIC Column: ZB-DIC	: 12-Dec-2020 DXIN	
Analyte Conc.	(pg/g)	DL EMP	C	Qualifiers		Labeled Standa	rd	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.943				IS	13C-2,3,7,8-TCI	DD	96.5	25 - 164	
1,2,3,7,8-PeCDD	2.66					13C-1,2,3,7,8-Pe	eCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	4.18					13C-1,2,3,4,7,8-	HxCDD	103	32 - 141	
1,2,3,6,7,8-HxCDD	31.0					13C-1,2,3,6,7,8-	HxCDD	96.7	28 - 130	
1,2,3,7,8,9-HxCDD	9.30					13C-1,2,3,7,8,9-	HxCDD	97.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	841			В		13C-1,2,3,4,6,7,	8-HpCDD	110	23 - 140	
OCDD	8040			D, B		13C-OCDD		86.1	17 - 157	D
2,3,7,8-TCDF	20.2					13C-2,3,7,8-TCI	DF	97.6	24 - 169	
1,2,3,7,8-PeCDF	42.5					13C-1,2,3,7,8-Pe	eCDF	107	24 - 185	
2,3,4,7,8-PeCDF	20.0					13C-2,3,4,7,8-Pe	eCDF	104	21 - 178	
1,2,3,4,7,8-HxCDF	103					13C-1,2,3,4,7,8-	HxCDF	95.0	26 - 152	
1,2,3,6,7,8-HxCDF	25.6					13C-1,2,3,6,7,8-	HxCDF	86.5	26 - 123	
2,3,4,6,7,8-HxCDF	7.53					13C-2,3,4,6,7,8-	HxCDF	91.4	28 - 136	
1,2,3,7,8,9-HxCDF	2.04			J, B		13C-1,2,3,7,8,9-	HxCDF	93.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	95.2					13C-1,2,3,4,6,7,	8-HpCDF	75.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	16.0			В		13C-1,2,3,4,7,8,	9-HpCDF	99.8	26 - 138	
OCDF	146			В		13C-OCDF		91.0	17 - 157	
					CRS	37Cl-2,3,7,8-TC	DD	98.4	35 - 197	
						Toxic Equivalen	nt Quotient (TE	Q) Data (pg/g dry	wt)	
						TEQMinWHO20	005Dioxin	43.1		
TOTALS										
Total TCDD	12.2	12.0	5							
Total PeCDD	26.7	31.0	0							
Total HxCDD	338									
Total HpCDD	2460			В						
Total TCDF	74.8	75.0	0							
Total PeCDF	147									
Total HxCDF	269			В						
Total HpCDF DL - Sample specifc esti	250			В		L- Lower control 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.

Work Order 2002532 Page 14 of 725

Sample ID: USMPD	I-004SC-A-02-03-201111							EPA Me	thod 1613B
Project: Gascos	r QEA, LLC Siltronic: US Moorings v-2020 8:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 17.6 g 57.3		Lab QC	Doratory Data Sample: 2002532-08 Batch: B0L0082 e Analyzed: 20-Dec-20 15:10		ed: 12-Dec-2020	
Analyte Conc. ((pg/g)	DL EMP	PC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0836			IS	13C-2,3,7,8-TCDD	45.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.225				13C-1,2,3,7,8-PeCDD	48.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.205				13C-1,2,3,4,7,8-HxCDD	53.5	32 - 141	
1,2,3,6,7,8-HxCDD	1.13			J		13C-1,2,3,6,7,8-HxCDD	51.6	28 - 130	
1,2,3,7,8,9-HxCDD	0.396			J		13C-1,2,3,7,8,9-HxCDD	48.6	32 - 141	
1,2,3,4,6,7,8-HpCDD	43.6			В		13C-1,2,3,4,6,7,8-HpCDD	58.8	23 - 140	
OCDD	425			В		13C-OCDD	48.2	17 - 157	
2,3,7,8-TCDF	0.935					13C-2,3,7,8-TCDF	50.8	24 - 169	
1,2,3,7,8-PeCDF	ND	0.97	78			13C-1,2,3,7,8-PeCDF	53.6	24 - 185	
2,3,4,7,8-PeCDF	0.731			J		13C-2,3,4,7,8-PeCDF	56.3	21 - 178	
1,2,3,4,7,8-HxCDF	1.40			J		13C-1,2,3,4,7,8-HxCDF	47.2	26 - 152	
1,2,3,6,7,8-HxCDF	0.367			J		13C-1,2,3,6,7,8-HxCDF	43.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.141				13C-2,3,4,6,7,8-HxCDF	46.9	28 - 136	
1,2,3,7,8,9-HxCDF	0.192			J, B		13C-1,2,3,7,8,9-HxCDF	48.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	2.59					13C-1,2,3,4,6,7,8-HpCDF	39.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.35	58			13C-1,2,3,4,7,8,9-HpCDF	49.1	26 - 138	
OCDF	6.12			В		13C-OCDF	44.7	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	86.0	35 - 197	
						Toxic Equivalent Quotient (TEQ) Data (pg/g dr	y wt)	
						TEQMinWHO2005Dioxin	1.25		
TOTALS									
Total TCDD	0.252								
Total PeCDD	0.641	1.1	5						
Total HxCDD	14.4								
Total HpCDD	116			В					
Total TCDF	2.68	3.7							
Total PeCDF	3.46	4.8	8						
Total HxCDF	5.67			В					
Total HpCDF DL - Sample specifc estin	7.92	8.2	8	В		CL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 15 of 725

Sample ID: USMPI	DI-004SC-A-03-04-201111								EPA Me	ethod 1613B
Project: Gasco	or QEA, LLC oSiltronic: US Moorings ov-2020 8:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 17.3 g 58.3		Lab QC	Batch: e Analyzed :		Date Received Date Extracted 4 Column: ZB-DI6 6 Column: ZB-DI6	: 12-Dec-2020 DXIN	
Analyte Conc.	. (pg/g)	DL EMP	С	Qualifiers		Labeled Standa	rd	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.21				IS	13C-2,3,7,8-TC	DD	95.5	25 - 164	
1,2,3,7,8-PeCDD	2.01			J		13C-1,2,3,7,8-P	eCDD	104	25 - 181	
1,2,3,4,7,8-HxCDD	2.87					13C-1,2,3,4,7,8-	HxCDD	105	32 - 141	
1,2,3,6,7,8-HxCDD	18.3					13C-1,2,3,6,7,8-	HxCDD	97.5	28 - 130	
1,2,3,7,8,9-HxCDD	6.21					13C-1,2,3,7,8,9-	HxCDD	97.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	721			В		13C-1,2,3,4,6,7,	8-HpCDD	111	23 - 140	
OCDD	7740			D, B		13C-OCDD		84.2	17 - 157	D
2,3,7,8-TCDF	28.6					13C-2,3,7,8-TC	DF	101	24 - 169	
1,2,3,7,8-PeCDF	40.2					13C-1,2,3,7,8-P	eCDF	106	24 - 185	
2,3,4,7,8-PeCDF	24.6					13C-2,3,4,7,8-P	eCDF	107	21 - 178	
1,2,3,4,7,8-HxCDF	71.5					13C-1,2,3,4,7,8-	HxCDF	93.5	26 - 152	
1,2,3,6,7,8-HxCDF	18.9					13C-1,2,3,6,7,8-	HxCDF	86.0	26 - 123	
2,3,4,6,7,8-HxCDF	7.52					13C-2,3,4,6,7,8-	HxCDF	91.0	28 - 136	
1,2,3,7,8,9-HxCDF	1.26			J, B		13C-1,2,3,7,8,9-	HxCDF	93.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	99.4					13C-1,2,3,4,6,7,	8-HpCDF	78.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	13.8			В		13C-1,2,3,4,7,8,	9-HpCDF	97.6	26 - 138	
OCDF	191			В		13C-OCDF		89.7	17 - 157	
					CRS	37Cl-2,3,7,8-TC	DD	91.4	35 - 197	
						Toxic Equivaler	nt Quotient (TE	Q) Data (pg/g dry	wt)	
						TEQMinWHO2	005Dioxin	38.0		
TOTALS										
Total TCDD	10.3	10.8	3							
Total PeCDD	19.8									
Total HxCDD	226									
Total HpCDD	1650			В						
Total TCDF	103	118	3							
Total PeCDF	168									
Total HxCDF	218			В						
Total HpCDF DL - Sample specife est	263			В		L- Lower control 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.

Work Order 2002532 Page 16 of 725

Sample ID: USMPI	DI-004SC-A-04-05-201111					EPA Me	thod 16131
Project: Gasco	or QEA, LLC oSiltronic: US Moorings ov-2020 8:35	Sample Data Matrix: Sediment Sample Size: 17.6 g % Solids: 57.5		Laboratory Data Lab Sample: 2002532-10 QC Batch: B0L0082 Date Analyzed: 20-Dec-20 16:	Date Rece Date Extra :38 Column: ZB	cted: 12-Dec-2020	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0602		IS 13C-2,3,7,8-TCDD	67.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.140		13C-1,2,3,7,8-PeCDD	71.6	25 - 181	
1,2,3,4,7,8-HxCDD	0.226		J	13C-1,2,3,4,7,8-HxCDD	72.8	32 - 141	
1,2,3,6,7,8-HxCDD	1.46		J	13C-1,2,3,6,7,8-HxCDD	67.5	28 - 130	
1,2,3,7,8,9-HxCDD	0.460		J	13C-1,2,3,7,8,9-HxCDD	68.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	80.3		В	13C-1,2,3,4,6,7,8-HpCDD	75.5	23 - 140	
OCDD	637		В	13C-OCDD	65.5	17 - 157	
2,3,7,8-TCDF	7.93			13C-2,3,7,8-TCDF	68.0	24 - 169	
1,2,3,7,8-PeCDF	18.4			13C-1,2,3,7,8-PeCDF	73.7	24 - 185	
2,3,4,7,8-PeCDF	8.54			13C-2,3,4,7,8-PeCDF	74.9	21 - 178	
1,2,3,4,7,8-HxCDF	21.4			13C-1,2,3,4,7,8-HxCDF	61.7	26 - 152	
1,2,3,6,7,8-HxCDF	4.45			13C-1,2,3,6,7,8-HxCDF	55.9	26 - 123	
2,3,4,6,7,8-HxCDF	1.24		J	13C-2,3,4,6,7,8-HxCDF	64.9	28 - 136	
1,2,3,7,8,9-HxCDF	0.642		J, B	13C-1,2,3,7,8,9-HxCDF	65.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	6.83			13C-1,2,3,4,6,7,8-HpCDF	54.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.61		J, B	13C-1,2,3,4,7,8,9-HpCDF	68.4	26 - 138	
OCDF	15.4		В	13C-OCDF	61.3	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	93.2	35 - 197	
				Toxic Equivalent Quotient (T	EQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	7.98		
TOTALS							
Total TCDD	0.168						
Total PeCDD	0.544	1.01					
Total HxCDD	23.3						
Total HpCDD	196		В				
Total TCDF	17.9						
Total PeCDF	44.5	44.9					
Total HxCDF	36.0		В				
Total HpCDF DL - Sample specifc esti	17.8		В				

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 17 of 725

Sample ID: USMPD	DI-011SC-A-04-05-201111					EPA Met	thod 1613B
Project: Gasco	or QEA, LLC Siltronic: US Moorings ov-2020 13:25	Sample Data Matrix: Sediment Sample Size: 15.7 g % Solids: 63.8		Laboratory Data Lab Sample: 2002532-11 QC Batch: B0L0082 Date Analyzed: 20-Dec-20 17:2		cted: 12-Dec-2020	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.379		IS 13C-2,3,7,8-TCDD	100	25 - 164	
1,2,3,7,8-PeCDD	ND	0.401		13C-1,2,3,7,8-PeCDD	112	25 - 181	
1,2,3,4,7,8-HxCDD	0.287		J	13C-1,2,3,4,7,8-HxCDD	105	32 - 141	
1,2,3,6,7,8-HxCDD	1.52		J	13C-1,2,3,6,7,8-HxCDD	98.2	28 - 130	
1,2,3,7,8,9-HxCDD	0.686		J	13C-1,2,3,7,8,9-HxCDD	97.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	40.9		В	13C-1,2,3,4,6,7,8-HpCDD	102	23 - 140	
OCDD	556		В	13C-OCDD	87.0	17 - 157	
2,3,7,8-TCDF	10.2			13C-2,3,7,8-TCDF	101	24 - 169	
1,2,3,7,8-PeCDF	12.1			13C-1,2,3,7,8-PeCDF	112	24 - 185	
2,3,4,7,8-PeCDF	7.18			13C-2,3,4,7,8-PeCDF	115	21 - 178	
1,2,3,4,7,8-HxCDF	14.9			13C-1,2,3,4,7,8-HxCDF	95.3	26 - 152	
1,2,3,6,7,8-HxCDF	3.76			13C-1,2,3,6,7,8-HxCDF	87.4	26 - 123	
2,3,4,6,7,8-HxCDF	1.35		J	13C-2,3,4,6,7,8-HxCDF	93.0	28 - 136	
1,2,3,7,8,9-HxCDF	0.894		J, B	13C-1,2,3,7,8,9-HxCDF	93.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	10.8			13C-1,2,3,4,6,7,8-HpCDF	76.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	2.86		В	13C-1,2,3,4,7,8,9-HpCDF	98.3	26 - 138	
OCDF	29.7		В	13C-OCDF	83.8	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	101	35 - 197	
				Toxic Equivalent Quotient (TE	Q) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	6.60		
TOTALS							
Total TCDD	1.38	1.86					
Total PeCDD	1.53	2.66					
Total HxCDD	13.9						
Total HpCDD	93.4		В				
Total TCDF	37.4	37.8					
Total PeCDF	39.4	39.7					
Total HxCDF	33.7		В				
Total HpCDF	29.0 mated detection limit		В	LCL-UCL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 18 of 725

Sample ID: USMPD	OI-011SC-A-05-06-201111					EPA Met	hod 1613B
Project: Gasco	or QEA, LLC Siltronic: US Moorings v-2020 13:25	Sample Data Matrix: Sediment Sample Size: 14.3 g % Solids: 70.0		Laboratory Data Lab Sample: 2002532-12 QC Batch: B0L0082 Date Analyzed: 20-Dec-20 18:07		ed: 12-Dec-2020	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.106		IS 13C-2,3,7,8-TCDD	93.0	25 - 164	
1,2,3,7,8-PeCDD	0.241		J	13C-1,2,3,7,8-PeCDD	97.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.120		13C-1,2,3,4,7,8-HxCDD	98.9	32 - 141	
1,2,3,6,7,8-HxCDD	0.379		J	13C-1,2,3,6,7,8-HxCDD	92.8	28 - 130	
1,2,3,7,8,9-HxCDD	0.174		J	13C-1,2,3,7,8,9-HxCDD	91.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	8.15		В	13C-1,2,3,4,6,7,8-HpCDD	98.9	23 - 140	
OCDD	120		В	13C-OCDD	87.0	17 - 157	
2,3,7,8-TCDF	1.85			13C-2,3,7,8-TCDF	94.5	24 - 169	
1,2,3,7,8-PeCDF	2.10		J	13C-1,2,3,7,8-PeCDF	99.7	24 - 185	
2,3,4,7,8-PeCDF	1.28		J	13C-2,3,4,7,8-PeCDF	102	21 - 178	
1,2,3,4,7,8-HxCDF	2.63			13C-1,2,3,4,7,8-HxCDF	89.6	26 - 152	
1,2,3,6,7,8-HxCDF	0.744		J	13C-1,2,3,6,7,8-HxCDF	81.2	26 - 123	
2,3,4,6,7,8-HxCDF	0.336		J	13C-2,3,4,6,7,8-HxCDF	88.3	28 - 136	
1,2,3,7,8,9-HxCDF	0.113		J, B	13C-1,2,3,7,8,9-HxCDF	91.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	2.14		J	13C-1,2,3,4,6,7,8-HpCDF	74.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.485		J, B	13C-1,2,3,4,7,8,9-HpCDF	94.7	26 - 138	
OCDF	5.06		В	13C-OCDF	82.9	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	92.5	35 - 197	
				Toxic Equivalent Quotient (TEQ	2) Data (pg/g dr	y wt)	
				TEQMinWHO2005Dioxin	1.46		
TOTALS							
Total TCDD	2.12	2.49					
Total PeCDD	1.29	1.86					
Total HxCDD	3.97						
Total HpCDD	23.8		В				
Total TCDF	14.3	14.8					
Total PeCDF	8.62						
Total HxCDF	6.88		В				
Total HpCDF	5.90 mated detection limit		В	LCL-UCL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 19 of 725

Sample ID: USMPD	OI-011SC-A-06-07-201111				EPA Method 1613
Project: Gasco	or QEA, LLC Siltronic: US Moorings v-2020 13:25	Sample D Matrix: Sample % Solid	Sediment Size: 15.4 g		Laboratory Data Lab Sample: 2002532-13 Date Received: 17-Nov-2020 10:43 QC Batch: B0L0082 Date Extracted: 12-Dec-2020 10:53 Date Analyzed: 20-Dec-20 18:51 Column: ZB-DIOXIN
Analyte Conc.	(pg/g)	DL	EMPC	Qualifiers	Labeled Standard %R LCL-UCL Qualifier
2,3,7,8-TCDD	ND	0.0332			IS 13C-2,3,7,8-TCDD 92.8 25 - 164
1,2,3,7,8-PeCDD	ND	0.0703			13C-1,2,3,7,8-PeCDD 105 25 - 181
1,2,3,4,7,8-HxCDD	ND	0.0704			13C-1,2,3,4,7,8-HxCDD 101 32 - 141
1,2,3,6,7,8-HxCDD	ND	0.0752			13C-1,2,3,6,7,8-HxCDD 94.0 28 - 130
1,2,3,7,8,9-HxCDD	ND	0.0749			13C-1,2,3,7,8,9-HxCDD 92.2 32 - 141
1,2,3,4,6,7,8-HpCDD	0.795			J, B	13C-1,2,3,4,6,7,8-HpCDD 94.6 23 - 140
OCDD	ND	0.155			13C-OCDD 73.4 17 - 157
2,3,7,8-TCDF	0.110			J	13C-2,3,7,8-TCDF 96.8 24 - 169
1,2,3,7,8-PeCDF	ND		0.0465		13C-1,2,3,7,8-PeCDF 109 24 - 185
2,3,4,7,8-PeCDF	ND		0.0411		13C-2,3,4,7,8-PeCDF 107 21 - 178
1,2,3,4,7,8-HxCDF	0.0956			J	13C-1,2,3,4,7,8-HxCDF 93.3 26 - 152
1,2,3,6,7,8-HxCDF	ND	0.0424			13C-1,2,3,6,7,8-HxCDF 84.5 26 - 123
2,3,4,6,7,8-HxCDF	ND	0.0462			13C-2,3,4,6,7,8-HxCDF 90.7 28 - 136
1,2,3,7,8,9-HxCDF	ND	0.0545			13C-1,2,3,7,8,9-HxCDF 91.2 29 - 147
1,2,3,4,6,7,8-HpCDF	ND		0.133		13C-1,2,3,4,6,7,8-HpCDF 69.6 28 - 143
1,2,3,4,7,8,9-HpCDF	ND	0.0350			13C-1,2,3,4,7,8,9-HpCDF 91.3 26 - 138
OCDF	0.338			J, B	13C-OCDF 72.6 17 - 157
					CRS 37C1-2,3,7,8-TCDD 92.3 35 - 197
					Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)
					TEQMinWHO2005Dioxin 0.0286
TOTALS					
Total TCDD	0.0630				
Total PeCDD	ND	0.0703			
Total HxCDD	0.298				
Total HpCDD	1.95			В	
Total TCDF	0.233				
Total PeCDF	ND		0.0876		
Total HxCDF	0.209			В	
Total HpCDF DL - Sample specifc estir	ND		0.276		LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 20 of 725

Sample ID: USMPD	I-011SC-A-07-08-201111							EPA Me	thod 1613B
Project: Gascos	r QEA, LLC Siltronic: US Moorings v-2020 13:25	Sample L Matrix: Sample % Solid	Sediment Size: 15.5 g		Lab QC	boratory Data 2002532-14 Batch: B0L0082 20-Dec-20 19:35		: 17-Nov-2020 : 12-Dec-2020 OXIN	
Analyte Conc. ((pg/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0346			IS	13C-2,3,7,8-TCDD	94.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0558				13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0648				13C-1,2,3,4,7,8-HxCDD	101	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0667				13C-1,2,3,6,7,8-HxCDD	92.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0686				13C-1,2,3,7,8,9-HxCDD	92.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.396			J, B		13C-1,2,3,4,6,7,8-HpCDD	94.9	23 - 140	
OCDD	4.30			J, B		13C-OCDD	76.5	17 - 157	
2,3,7,8-TCDF	ND	0.0383				13C-2,3,7,8-TCDF	93.9	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0350				13C-1,2,3,7,8-PeCDF	104	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0319				13C-2,3,4,7,8-PeCDF	102	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0475				13C-1,2,3,4,7,8-HxCDF	92.1	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0485				13C-1,2,3,6,7,8-HxCDF	84.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0511				13C-2,3,4,6,7,8-HxCDF	88.6	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0626				13C-1,2,3,7,8,9-HxCDF	90.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0649				13C-1,2,3,4,6,7,8-HpCDF	71.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0512				13C-1,2,3,4,7,8,9-HpCDF	92.8	26 - 138	
OCDF	0.298			J, B		13C-OCDF	76.7	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	95.7	35 - 197	
						Toxic Equivalent Quotient (TEQ)) Data (pg/g dry	wt)	
						TEQMinWHO2005Dioxin	0.00534		
TOTALS									
Total TCDD	ND	0.0346							
Total PeCDD	ND	0.0558							
Total HxCDD	ND	0.0686							
Total HpCDD	0.396		0.710	В					
Total TCDF	ND	0.0383							
Total PeCDF	ND	0.0350							
Total HxCDF	ND		0.120						
Total HpCDF DL - Sample specife estin	ND	0.0649				L- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002532 Page 21 of 725

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

K EMPC (specific projects only)

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

MDL Method Detection Limit

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)

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

Work Order 2002532 Page 22 of 725

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-В
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.

Work Order 2002532 Page 23 of 725

NELAP Accredited Test Methods

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

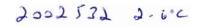
MATRIX: Biological Tissue				
Description of Test	Method			
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B			
Dilution GC/HRMS				
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A			
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue	EPA 1668A/C			
by GC/HRMS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

Work Order 2002532 Page 25 of 725



OEA 2013 rd Avenue Suite 2600. Seattle. WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

000 ID	VICTA 20201111 154027
COC ID:	VISTA-20201111-154027

GascoSiltronic: US Moorings CO POC: " Delaney Peterson (360-715-2707) Project: Sample Custodian: **VISTA NW Natural** 1605 Cornwall Avenue, Bellingham, WA 98225 Client: Lab: Containers Sample COC Lab Type Matrix Collected QC* Sample Field Sample ID Test Request TAT** Method Preservative Number Date Time USMPDI-001SC-A-01-02-201111 10:55 001 Ν SE 11/11/2020 4°C Dioxin/Furans E1613B 30 4°C Total solids (VISTA) SM2540G 30 002 USMPDI-001SC-A-02-03-201111 Ν SE 11/11/2020 10:55 4°C E1613B 30 Dioxin/Furans 4°C Total solids (VISTA) SM2540G 30 USMPDI-001SC-A-03-04-201111 SE 11/11/2020 003 Ν 10:55 4°C Dioxin/Furans E1613B 30 4°C Total solids (VISTA) SM2540G 30 USMPDI-001SC-A-04-05-201111 Ν SE 11/11/2020 10:55 004 4°C Dioxin/Furans E1613B 30 4°C SM2540G 30 Total solids (VISTA) USMPDI-002SC-A-04-05-201111 11/11/2020 15:35 005 Ν SE E1613B 30 4°C Dioxin/Furans 4°C Total solids (VISTA) SM2540G 30 USMPDI-002SC-A-05-06-201111 Ν 15:35 006 SE 11/11/2020 4°C Dioxin/Furans E1613B 30 4°C Total solids (VISTA) SM2540G 30 007 USMPDI-004SC-A-01-02-201111 Ν SE 11/11/2020 8:35 4°C E1613B Dioxin/Furans 30

Comment:					
Relinguished By	Received By	Relinquished By	Received By:	Relinquished By:	Received By:
Signature Well	Signature Duy K	Signature	Signature	Signature	Signature
Print Name TANCE NEUTO	Print Name Viget	Print Name	Print Name	Print Name	Print Name
Company	Company VAL	Company	Company	Company	Company
Date/Time	Date/Time 10:413	Date/Time	Date/Time	Date/Time	Date/Time

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

Date Printed: 11/11/2020



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

2002537

COC ID:

VISTA-20201111-154027

Delaney Peterson (360-715-2707) POC: *

Project:

GascoSiltronic: US Moorings

Sample Custodian:

CO

1605 Cornwall Avenue, Bellingham, WA 98225

Client:

NW Natural

VISTA Lab:

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
007	USMPDI-004SC-A-01-02-201111	N	SE	11/11/2020	8:35	1					
								Total solids (VISTA)	SM2540G	30	4°C
800	USMPDI-004SC-A-02-03-201111	N	SE	11/11/2020	8:35	1	$\overline{\square}$				
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
009	USMPDI-004SC-A-03-04-201111	N	SE	11/11/2020	8:35	1	ΙП	10 11 11 11 11 11 11 11 11 11 11 11 11 1			
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
010	USMPDI-004SC-A-04-05-201111	N	SE	11/11/2020	8:35	1		100 H 100 公司 (100 A) 100 H 100 K			
010					0.00			Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
011	USMPDI-011SC-A-04-05-201111	N	SE	11/11/2020	13:25	1			11.10.51	WATER	Tar Time
		1	<u> </u>					Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
012	USMPDI-011SC-A-05-06-201111	N	SE	11/11/2020	13:25	1			1. 万在平台市 地名美国		100
<u> </u>			, - <u>-</u>					Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
013	USMPDI-011SC-A-06-07-201111	N	SE	11/11/2020	13:25	1					
0.10							_	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
										<u> </u>	
Comr	ment:					_					
Relin	puished By: Received By			& Relinquis	hed By	_		Received By	Relinquished By:	Received By	
Signate	a helts	hg21	WW	Signature				Signature	Signature	Signature	
Pnnt ti	- 1	2 1	Usult	Print Name	,			Print Name	Print Name	Print Name	
	Company V	AL	11.	Company				Company	Company	Company	
Date/Ti	me , Date/Time)	1/20	10:	43 Date/Time				Date/Time	Date/Time	Date/Time	

Date Printed: 11/11/2020

* 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

2002537

COC ID:

VISTA-20201111-154027

POC: * Delaney Peterson (360-715-2707)

Project:

GascoSiltronic: US Moorings

Sample Custodian:

CO

1605 Cornwall Avenue, Bellingham, WA 98225

Client:

NW Natural

Lab:

VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
014	USMPDI-011SC-A-07-08-201111	N	SE	11/11/2020	13:25	1					
		•						Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C

Comment:					
1					
_Relinquished By:	Received By:	Relinquished By:	Received By:	Relinguished By:	Received By:
Signature Welly	Signature Hundlund	Signature	Signature	Signature	Signature
Print None	Print Name William R Wright	Print Name	Pnnt Name	Print Name	Print Name
Company			Company	Company	Company
Date/Time	Date/Time 10:413	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/11/2020



Sample Log-In Checklist

							Pa	age#_	<u> </u>	of <u> </u>	_
Vista Work Orde	r #: _	0023	532				T.	AT	StJ		_
Samples	Date/Tim		In	itials:		Loca	ition:	U	UR-	2	
Arrival:	11/17	10	10:43		WRI		Shel	f/Rack	:)	NA	-
Delivered By:	FedEx	UPS	On Tra	ac	GLS	DHL		Hand Delive	d		ner -
Preservation:	(lo	è	Bit	ue I	Ice	Ted		Dry	Ice	No	ne
Temp °C: 2.6 (uncorrected) Temp °C: 2.6 (corrected) Probe used: Y / N Thermom									eter ID: IR-3		3
									YES	NO	NA
Shipping Contain	er(s) Intac	t?									
Shipping Custody	y Seals Int	act?									
Airbill	Trk	# 77	720 9	79	73 2	36	5		~		
Shipping Docume	entation Pi	resent?							1		
Shipping Contain	ier		Vista		Client	R	etain	Re	eturn	Disp	ose
Chain of Custody	/ / Sample	Docum	entation Pr	ese	ent?				V		:
Chain of Custody	/ / Sample	Docum	entation Co	omp	plete?				/		:
Holding Time Ac	ceptable?										
	Date/Time Initials: Location:								WR-	2	
Logged In:	11/18/	120	8:23		160		Shel	f/Rack	k:_ <i>H - Y</i>		
COC Anomaly/Sa				nple	eted?					~	

Comments:

ID.: LR - SLC Rev No.: 6 Rev Date: 07/16/2020 Page: 1 of 1

Work Order 2002532 Page 29 of 725

CoC/Label Reconciliation Report WO# 2002532

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002 532-01	A USMPDI-001SC-A-01-02-201111	4		11-Nov-20 10:55	/ Amber Glass, 120 mL	Solid	
2002532-02	A USMPDI-001SC-A-02-03-201111		P4441 - 15	11-Nov-20 10:55	Amber Glass, 120 mL	Solid	
2002532-03	A USMPDI-001SC-A-03-04-201111		200	11-Nov-20 10:55	Amber Glass, 120 mL	Solid	
2002532-04	A USMPDI-001SC-A-04-05-201111	0		11-Nov-20 10:55	Amber Glass, 120 mL	Solid	
2002532-05	A USMPDI-002SC-A-04-05-201111			11-Nov-20 15:35	Amber Glass, 120 mL	Solid	4
2002532-06	A USMPDI-002SC-A-05-06-201111		and State of	11-Nov-20 15:35	Amber Glass, 120 mL	Solid	
2002532-07	A USMPDI-004SC-A-01-02-201111		5.12	11-Nov-20 08:35	Amber Glass, 120 mL	Solid	
2002532-08	A USMPDI-004SC-A-02-03-201111	51	19541 811	11-Nov-20 08:35	Amber Glass, 120 mL	Solid	
2002532-09	A USMPDI-004SC-A-03-04-201111		4.7	11-Nov-20 08:35	Amber Glass, 120 mL	Solid	
2002532-10	A USMPDI-004SC-A-04-05-201111			11-Nov-20 08:35	Amber Glass, 120 mL	Solid	
2002532-11	A USMPDI-011SC-A-04-05-201111			11-Nov-20 13:25	Amber Glass, 120 mL	Solid	
2002532-12	A USMPDI-011SC-A-05-06-201111	A SAMAN HAND	2.4	11-Nov-20 13:25	Amber Glass, 120 mL	Solid	
2002532-13	A USMPDI-011SC-A-06-07-201111			11-Nov-20 13:25	Amber Glass, 120 mL	Solid	
2002532-14	A USMPDI-011SC-A-07-08-201111			11-Nov-20 13:25	Amber Glass, 120 mL	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label. Any discrepancies are noted in the following columns.

	Yes	No	NA	Commen
Sample Container Intact?	V			
Sample Custody Seals Intact?		V		1
Adequate Sample Volume?	√			1
Container Type Appropriate for Analysis(es)	V			
Preservation Documented: Na2S2O3 Trizma None Other			V	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			V	

Verifed by/Date: HS 11/18/20

Printed: 11/18/2020 9:04:12AM 2002532 Page 1 of 1

EXTRACTION INFORMATION

Work Order 2002532 Page 31 of 725

Process Sheet

Workorder: 2002532

Prep Expiration: 2021-11-11 Client: Anchor QEA, LLC

Workorder Due: 17-Dec-20 00:00

TAT: 30

Method: 1613 Full List

Matrix: Solid Client Matrix: Sediment Also run: Percent Solids Prep Batch:

Prep Data Entered:

Initial Sequence: SoLoo46

LabSampleID Recor		on ClientSampleID	Date Received	Location	Comments
2002532-01 A	1	USMPDI-001SC-A-01-02-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-02	1	USMPDI-001SC-A-02-03-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-03	1	USMPDI-001SC-A-03-04-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-04	1	USMPDI-001SC-A-04-05-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-05	1	USMPDI-002SC-A-04-05-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-06		USMPDI-002SC-A-05-06-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-07	1	USMPDI-004SC-A-01-02-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-08	V	USMPDI-004SC-A-02-03-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-09	1	USMPDI-004SC-A-03-04-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-10	1	USMPDI-004SC-A-04-05-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-11	\checkmark	USMPDI-011SC-A-04-05-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-12	\checkmark	USMPDI-011SC-A-05-06-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-13	1	USMPDI-011SC-A-06-07-201111	17-Nov-20 10:43	WR-2 H-4	
2002532-14	1	USMPDI-011SC-A-07-08-201111	17-Nov-20 10:43	WR-2 H-4	

WO Comments: 1613: 10g dw

Pre-Prep Check Out: M 12/01/20 Pre-Prep Check In: M 12/01/20

Prep Reconciled Initals/Date: IM 12/01/20

Page 1 of 1

Work Order 2002532

Page 32 of 725

PREPARATION BENCH SHEET

		~	
Mo	ıtrix:	S O	lid.
1410	ILI IA.	20	II.U

Method: 1613 Full List

Method: 8290 2.3.7.8s Only

	B0L0	082	

Chemist:

Prepared using: HRMS - Soxhlet

Prep Date/Time: 12-Dec-20 10:53

				•	Column Packer:	NIA	IM 12/14/20	IM 12/14/20	DG 12/15/20] .
	VISTA	G	Sample .	IS/NS CHEM/WIT	CRS/PS CHEM/WIT	AP CHEM/	ABSG CHEM/	AA CHEM/	Florisil CHEM/	RS CHEM/WIT
Sox	Sample ID	Eqv	Amt. (g)	DATE	DATE	DATE	DATE	DATE	DATE	DATE
A١	B0L0082-BLK1	AU	(10.00)	DG 142/10/20	IM RR 12/14/20	NA	IM 12/14/20	IM 12/14/20	06- 12/15/20	DGRP 12/15/20
A2	B0L0082-BS1 €	NA	(10.00)		T	T	T			
A3	B0L0082-MS1 2002645-01	10.65					line, brown & green 44x			
A4	B0L0082-MSD1 2002645-01	10.65					\Box			
A5	2002492-09RE1	12.14	12.20				beige & pink lines			
A7	2002532-01		15.78				brown & red, lines; grey, yellow			
AB	2002532-02	14.28					beige by violet lines			
A9	2002532-03	13.32	13.56				beige 2 violet imes			
AIO	2002532-04	12.28	12.32				beide & pink lines			
All	2002532-05		15.08				promy drew allow,			
BI	2002532-06	15.44	15.47							
B2	2002532-07 (H)	17.43	17.52							
B3	2002532-08	17.46	17.55				beige & red lines; grey			
B 5	2002532-09	17.17	17.26				briwn, orange hellow, black, green			
B6	2002532-10	17.38	17.55	V	<u> </u>	V	beige burd times;	W	VØ	
IS:	20F1101, 10,4L	(√2) Cy	cle Time	APP: SEFUN SO	SDS Check Out:	N- 12/13/20 S	oxhlet Siphoned Chemist/Date: A 12 13 20 Vial Transfer	es:		,,,
NS:	20F0107, 10mL		rt Date/Time	SOLV: 10	Check In:		V- 12/15/03	thimble looked dri M 12/14/20	y at Stop date/t	ime 14 12/14/20
PS/CR	s: 2060701,10ml	() <u> </u>	13/20	Other NA	Chemist/Date:	1)2 1213/20	Vial Transfer	ormed precipitate	while being rote	ovapped/exchanged m/
	20H2502, 10ml (V6) Sto	p Date/Time	Final Volume(s) 2	Balance ID:	סבטוחן	Chemist/Date:	14% in ABSGa turne 150 opp of	d yellow in 12/14	1/20 /sample b/c RB fell
	PCB PAH PEST PBDE	HCB 12	H/20 0637		<u> </u>		S 12/15/20@19	M 12/14/20'	a column w/ 20%	1/20 /sample b/c RB fell
	nents:			Camala hamananinad	in secondary container	1	(I)	Sharpie get on	, somple during	floreal. DG 12/15/2

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 extaction; pipetted and used Nitrogen to assist
- 7 = Sohxlet approached dryness

PREPARATION BENCH SHEET

Matrix: Solid

B0L0082

Prep Date/Time: 12-Dec-20 10:53

Method: 1613 Full List Method: 8290 2.3.7.8s Only

Prepared using: HRMS - Soxhlet

					Column Packer:	4 V	1M 12/14/20	IM 12/14/20	NG 12/15/20		
So	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS/PS CHEM/WIT DATE	AP ABSG CHEM/ CHEM/ DATE DATE		AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE	
B	2002532-11	15.66	15.70	DGAM12/13/20	IM 12/14/20	Alu	IM 12/14/20	IM 12/14/20	DG_12/15/20	DE PR 12/15/20	
B	3 2002532-12	14.28	14.34		T	T	lines; gray		(G)		
B	2002532-13	15.22	15.38				violet lines		7		
BI	0000500 11	15.39	15.54				verge a				
B	2002627-01	5.36	5.42				beige line		©		
B		5.7l	5.77							_	
D C		10.65	10.74				red line; black, brown, frey, aveca				
C		10.67	10.70			4	VI		V		

PS/CRS: 2060701, 10 L V6 RS: 20H2502, 10 L V6 Diox/F) PCB PAH PEST PBDE HCB PS/CRS: 2060701, 10 L V6 Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Stop Date/Time Diox/F) PCB PAH PEST PBDE HCB Pinal Volume(s) 20L Pi
--

- 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 extaction; pipetted and used Nitrogen to assist
- 7 = Sohxlet approached dryness

Batch: B0L0082 Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2002492-09RE1	12.2 🗸	82.35294	10.0471	20	07-Dec-20 11:51	DG	~p		Sediment	1613 Full List
2002532-01	15.78	64.36525	10.1568	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-02	14.33	70.02584	10.0347 🗸	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-03	13.56	75.07507	10.1802 /	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-04	12.32	81.41361	10.0302	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-05	15.08	67.44791	10.1711	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-06	15.47	64.76427	10.0190	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-07	17.52 ✓	57.36842	10.0509	20	12-Dec-20-10:53	ACO			Sediment	1613 Full List
2002532-08	17.55	57.25807	10.0488	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-09	17.26	58.33333	10.0683	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-10	17.55	57.52689	10.0960	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-11	15.7	63.84615	10.0238	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-12	14.34 🗸	70.04951	10.0451	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-13	15.38 V	65.72165	10.1080	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002532-14	15.54	64.96163	10.0950	20	12-Dec-20 10:53	ACO			Sediment	1613 Full List
2002627-01	5.42	93.34028	5.0590	20	12-Dec-20 10:53	ACO			Solid	1613 Full List
2002627-02	5.77	87.62791	5.0561	20	12-Dec-20 10:53	ACO			Solid	1613 Full List
2002645-01	10.74	93.90244	10.0851	20	12-Dec-20 10:53	ACO			Soil	1613 Full List
2002645-01	10.74			20	12-Dec-20 10:53	ACO			Soil	8290 2,3,7,8s Only
2002645-02	10.7 🗸	93.73602	10.0298	20	12-Dec-20 10:53	ACO			Soil	8290 2,3,7,8s Only
B0L0082-BLK1	10			20	12-Dec-20 10:53	ACO				QC
B0L0082-BS1	10			20	12-Dec-20 10:53	ACO	20F0107	10 🗸		QC
B0L0082-MS1	10.78	93.34028-93.	90244 10.12	2720	12-Dec-20 10:53	ACO	20F0107	10		QC
B0L0082-MSD1	10.69	93.34028 93.			12-Dec-20 10:53	ACO	20F0107	/ 10		QC

12/21/2020

All bolded data on report verified against written benchsheet by (initial/date)_

DG 12/15/20

Printed: 12/15/2020 4:25:38PN Page 1 of 1

C

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0K0217

Analyst: IM	Test Code: %Moist/%Solids	
Analyte: Drie	Units: %	Data Entry Verified by: (Initial and Date)
		(Initial and Date)

11	HRMS-9		Date/Time IN: 12/01/20 1250	Date/Time OUT 12/02/20 0800										
Inst	нкм5-9		12/01/20 1250	12/02/20 0800	J									
	В	С	D	Ε	F	G	н	1	К	L	M	N	0	Р
						AO 12/02/20			IM 12/01/20			NA		IM 12/01/20 ✓
Particle Size	SamplD		SampType	Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	CI-		pH After	Acid Added	Sample Homogenized*
	2002532-01	A	Sample	1.2700	5.7600 🗸	4.1600 🗸	2.8900	64.37	MUD V	NA	NA	NA	NA	x
	2002532-02	A	Sample	1.2600 🗸	5.1300	3.9700 🗸	2.7100	70.03	SAND	NA	NA	NA	NA	x
	2002532-03	A	Sample	1.2600	4.5900 🗸	3.7600 🗸	2.5000	75.08	SAND	NA	NA	NA	NA	х
_	2002532-04	A	Sample	1.2600	5.0800	4.3700	3,1100	81.41	SAND	NA	NA	NA	NA	x
	2002532-05	A	Sample	1.2700	5.1100 🗸	3.8600	2.5900	67.45	MUD -	NA	NA	NA	NA	х
	2002532-06	A	Sample	1.2600	5.2900 🗸	3.8700 ✓	2.6100	64.76	MUD	NA	NA	NA	NA	x
	2002532-07	A	Sample	1.2600 🗸	5.0600 🗸	3.4400 🗸	2.1800	57.37	MUD V	NA	NA	NA	NA	x
	2002532-08	A	Sample	1.2700	4.9900 ✓	3.4000 🗸	2.1300	57.26	MUD 🗸	NA	NA	NA	NA	x
	2002532-09	A	Sample	1.2600 🗸	5.3400	3.6400 🗸	2.3800	58.33	MUD 🗸	NA	NA	NA	NA	х
	2002532-10	A	Sample	1.2500	4.9700 ✓	3.3900 🗸	2.1400	57.53	MUD ~	NA	NA	NA	NA	х
	2002532-11	A	Sample	1.2500	5.1500	3.7400 🗸	2.4900	63.85	MUD 🗸	NA	NA	NA	NA	x
	2002532-12	A	Sample	1.2600 🗸	5.3000 🗸	4.0900	2.8300	70.05	MUD V	NA	NA	NA	NA	x
	2002532-13	A	Sample	1.2500 🗸	5.1300 🗸	3.8000	2.5500	65.72	MUD	NA	NA	NA	NA	x
	2002532-14	A	Sample	1.2600	5.1700	3.8000	2.5400	64.96	MUD	NA	NA	NA	NA	x
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^{*}Sample homogenized in sample container unless otherwise noted.

BCH_PMOIST_80K0217.xls

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0K0217

Analyst:	Test Co	ode: %Moist/%Solids	· · · · · ·
Analyte:	1367		Data Entry Verified by: (Initial and Date) NA
Oven ID:	Dried at 110°C+/-5°C 01 02		

Date/Time IN: Date/Time OUT 12/01/20 1250 12 02 120

	В	С	D	Intial and Date:	F 1M 12/01/20	GO 12/02/20	Н	1	K IM 12/01	L	M	N	0	P 12/01/10
Particle Size	SampID		SampType	Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	CI-	pH Before	pH After	Acid Added	Sample Homogenized*
	2002532-01	A	Sample	1.27	5.76	4.10	NA	NA	HUD	NA	Alm	AM	HIA	×
	2002532-02	T	Sample	1.26	5.13	3.97	1-	T	INAS	T	T	T	1	×
	2002532-03		Sample	1.26	4.59	3.76			T					×
	2002532-04		Sample	1.26	5.08	4.37			•					×
	2002532-05	1	Sample	127	5.11	3.80			MUD					×
	2002532-06		Sample	1.26	5.29	3.87			T					×
	2002532-07		Sample		5.06	3.44								×
	2002532-08		Sample	1.27	4.99	3.40								X
	2002532-09		Sample	1.26	6.34	3.64								×
	2002532-10		Sample	1.25	4.97	3.39	14							×
	2002532-11		Sample	1.25	5.15	3.74 4.09 3.80								X
	2002532-12		Sample	1.26	5.30	4.09'	N							×
	2002532-13		Sample	1.25	5.13	3.80	4							×
	2002532-14	V	Sample	1.26	5.17	3.80	V	V	A	V	V	V	-	×
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										<u> </u>				P

^{&#}x27;Sample homogenized in sample container unless otherwise noted.

BCH_PMOIST_B0K0217.xls

11/28/2020 6:51 AM

SAMPLE DATA – EPA METHOD 1613

Work Order 2002532 Page 38 of 725

Quantify Sample Summary Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_4.qld

Last Altered:

Tuesday, December 22, 2020 12:00:36 PM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 12:01:09 PM Pacific Standard Time

GRB 12/22/2020 CT 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

# Name	Resp	RA	L n/y	RRF.	wt/vol.;	Pred.RT	J'RT.	[Pred.RRT]	RRT	L_Conc.	L%Rec_j_	DL:	EMPC
1. 61 2.3.7.8-TCDD	1		NO	0.980	10.000	26.381		1.001				0.0101	
2 1.2.3.7.8-PeCDI)		NO	0.932	10.000	31.064		1.001				0.0283	
3 1,2,3,4,7,8-HxCl	OD		NO	1.02	10.000	34.358		1.001			•	0.0228	
4 1,2,3,6,7,8-HxCl	OD		NO	0.902	10.000	34.483		1.001			į	0.0235	
5 1,2,3,7,8,9-HxCl	OD		NO	0.954	10.000	34.734		1.000				0.0239	
6 1,2,3,4,6,7,8-Hp	CDD 6.72e	2 1.19	NO	0.918	10.000	38.211	38.22	1.000	1.001	0.14152	4	0.0345	0.142
7 7 OCDD	4.20e	3 0.89	NO	0.866	10.000	41.113	41.12	1.000	1.000	1.3599		0.0730	1.36
8- 8 2.3.7.8-TCDF			NO	0.848	10.000	25.657		1.000			1	0.00691	
9 1.2.3.7.8-PeCDF	:		NO	0.960	10.000	29.785		1.000				0.0173	
10 35 10 2.3.4.7.8-PeCDF	:		NO	1.07	10.000	30.874		1.001				0.0171	
117 E 11 1,2,3,4,7,8-HxCl	OF .		NO	0.986	10.000	33.447		1.000				0.0182	
12 - 12 1,2,3,6,7,8-HxCl	DF		NO	1.04	10.000	33.582		1.001				0.0179	
13 7 13 2,3,4,6,7,8-HxCl	DF		NO	1.02	10.000	34.253		1.001				0.0197	
14 7 1 14 1,2,3,7,8,9-HxCl	DF 2.24e	2 1.22	NO	0.991	10.000	35.238	35.24	1.000	1.000	0.033198		0.0232	0.0332
15 1,2,3,4,6,7,8-Hp	CDF		NO	1.05	10.000	36.814		1.000				0.0252	
16 1,2,3,4,7,8,9-Hp	CDF 1.52e	2 1.12	NO	1.18	10.000	38.818	38.84	1.000	1.001	0.031446		0.0122	0.0314
17 17 OCDF	4.28e	2 0.95	NO	0.896	10.000	41.396	41.40	1.000	1.000	0.12407		0.0204	0.124
18 13C-2,3,7,8-TCI	DD 2.02e	6 0.78	NO	1.06	10.000	26.353	26.35	1.030	1.030	201.18	101	0.0774	
19 13C-1,2,3,7,8-P	eCDD 1.57e	6 0.63	NO	0.785	10.000	31.192	31.03	1.219	1.213	210.30	105	0.118	
20 13C-1,2,3,4,7,8-	HxCDD 1.23e	6 1.28	NO	0.621	10.000	34.337	34.34	1.014	1.014	223.19	112	0.279	
21 13C-1,2,3.6,7,8-	HxCDD 1.38e	6 1.27	NO	0.734	10.000	34.459	34.46	1.017	1.017	211.49	106	0.236	
22 7 1 22 13C-1,2,3,7,8,9-	HxCDD 1.32e	6 1.25	NO	0.723	10.000	34.743	34.72	1.026	1.025	205.79	103	0.240	
23 £ 23 13C-1.2.3,4.6.7.	8-HpCDD 1.03e	6 1.04	NO	0.568	• 10.000	38.243	38.20	1.129	1.128	205.63	103	0.603	
24 13C-OCDD	1.43e	6 0.89	NO	0.496	10.000	41.180	41.10	1.216	1.213	324.81	81.2	0.547	
25 13C-2,3,7,8-TCI	DF 2.63e	6 0.77	NO	0.919	10.000	25.652	25.65	1.003	1.003	202.21	101	0.0852	
26 26 13C-1,2,3,7,8-P	eCDF 2.24e	6 1.57	NO	0.715	10.000	29.903	29.78	1.169	1.164	220.91	110	0.208	
27 27 13C-2,3,4,7,8-P	eCDF 2.20e	6 1.58	NO	0.689	10.000	30.990	30.85	1.212	1.206	225.95	113	0.216	
28 13C-1,2,3,4,7,8-	HxCDF 1.52e	6 0.50	NO	0.873	10.000	33.442	33.44	0.987	0.987	196.66	98.3	0.305	
29 13C-1,2,3,6,7,8-	HxCDF 1.51e	6 0.51	NO	0.933	10.000	33.571	33.56	0.991	0.991	182.81	91.4	0.286	
30 13C-2,3,4,6,7,8-	HxCDF 1.44e	6 0.51	NO	0.843	10.000	34.238	34.23	1.011	1.011	193.06	96.5	0.316	
31. 31 13C-1,2,3,7,8,9-	HxCDF 1.36e	6 0.51	NO	0.780	10.000	35.238	35.23	1.040	1.040	196.99	98.5	0.342	

U:\VG12.PRO\Results\201217R4\201217R4_4.qld

Last Altered: Printed:

Tuesday, December 22, 2020 12:00:36 PM Pacific Standard Time Tuesday, December 22, 2020 12:01:09 PM Pacific Standard Time

Name: 201217R4_4, Date: 17-Dec-2020, Time: 16:46:12, ID: B0L0082-BLK1 Method Blank 10, Description: Method Blank

_ introces	sr#Name	Resp.	I RA'JI	n/y_	RRF 5	wt/vol.1E	Pred.RT į	RT_ i	Pred.RRT	RRT	Conc.	J⊬%Rec fi	JDL 1	EMPC
32	1. 32 13C-1,2,3,4,6,7,8-HpCDF	9.81e5	0.43	NO	0.726	10.000	36.813	36.80	1.087	1.086	152.39	76.2	0.381	
33	្ទី 33 13C-1,2,3,4,7,8,9-HpCDF	8.23e5	0.43	NO	0.491	10.000	38.822	38.81	1.146	1.146	189.18	94.6	0.564	
34	∯ 34 13C-OCDF	1.54e6	0.88	NO	0.565	10.000	41.396	41.39	1.222	1.222	307.57	76.9	0.354	
35	₹ 35 37CI-2,3,7,8-TCDD	9.00e5			1.22	10.000	26.347	26.36	1.030	1.031	77.619	97.0	0.0243	
36	36 13C-1,2,3,4-TCDD	1.91e6	0.79	NO	1.00	10.000	25.640	25.58	1.000	1.000	200.00	100	0.0817	
37	37 13C-1,2,3,4-TCDF	2.83e6	0.79	NO	1.00	10.000	24.130	24.07	1.000	1.000	200.00	100	0.0783	
38	38 13C-1,2,3,4,6,9-HxCDF	1.77e6	0.51	NO	1.00	10.000	33.920	33.88	1.000	1.000	200.00	100	0.267	
39	39 Total Tetra-Dioxins				0.980	10.000	24.620		0.000				0.00550	
40	40 Total Penta-Dioxins				0.932	10.000	29.960		0.000		0.00000		0.00751	0.0708
41	41 Total Hexa-Dioxins				0.902	10.000	33.635		0.000				0.0138	
42	42 Total Hepta-Dioxins				0.918	10.000	37.640		0.000		0.22452		0.0345	0.225
43	43 Total Tetra-Furans				0.848	10.000	23.610		0.000				0.00346	
44	3 44 1st Func. Penta-Furans				0.960	10.000	26.930		0.000				0.00286	
45	🛂 45 Total Penta-Furans				0.960	10.000	29.275		0.000				0.0104	
46	46 Total Hexa-Furans				1.02	10.000	33.555		0.000		0.033198		0.0194	0.0650
47	* 47 Total Hepta-Furans				1.05	10.000	37.835		0.000		0.031446		0.0140	0.0314

Work Order 2002532 Page 40 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_4.qld

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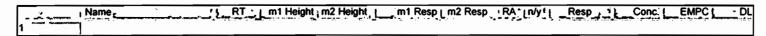
Tuesday, December 22, 2020 12:00:36 PM Pacific Standard Time Tuesday, December 22, 2020 12:01:09 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_4, Date: 17-Dec-2020, Time: 16:46:12, ID: B0L0082-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins



Penta-Dioxins

Name Name	_RT	m1 Height i r	n2 Height	m1 Resp	m2 Resp	, RA	_n/y]	_Resp	Conc.	EMPC	. DL
1 Total Penta-Dioxins	29.60	3.181e3	1.850e4	2.003e2	1.233e3	0.16	YES	0.000e0	0.00000	0.070765	0.0283

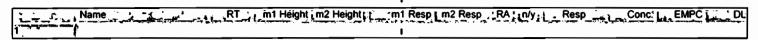
Hexa-Dioxins

	= -	<u>-</u> _	Name	-1	R1	m1 Height m2 Height	m1 Resp m2 Resp	[RA: In/y,]	Resp	Conc. L. EMPC	DL
1-	,4		£.								

Hepta-Dioxins

. •	Name	RT_L	m1 Height	m2 Height]	m1 Resp [m2 Resp_	RA,	n/y , i	Resp	Conc.	EMPC	-DL
1 7	Total Hepta-Dioxins	37.21	3.389e3	2.698e3	2.021e2	1.920e2	1.05	NO	3.942e2	0.082998	0.082998	0.0345
2**	1,2,3,4,6,7,8-HpCDD	38.22	8.529e3	5.420e3	3.658e2	3.064e2	1.19	NO	6.722e2	0.14152	0.14152	0.0345

Tetra-Furans



Penta-Furans function 1

Name RT r m1 Height m2 Height m1 Resp m2 Resp r RA; n/y r Resp r Conc. EMPC Di

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_4.qld

Last Altered: Printed:

Tuesday, December 22, 2020 12:00:36 PM Pacific Standard Time Tuesday, December 22, 2020 12:01:09 PM Pacific Standard Time

Name: 201217R4_4, Date: 17-Dec-2020, Time: 16:46:12, ID: B0L0082-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

- 1	* r Namor *	RT m1 Height m2 Height m1 Resp m2 Resp RA In/y Resp Conc EMPC DL
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L		

Hexa-Furans

Name '1,2,3,7,8,9-HxCDF	RT 1 m1 H	leight , m	2 Height	n1 Resp į	m2 Resp	[RA]]	n/y , L	Resp ₁	Conc.	EMPC)	DL
1,2,3,7,8,9-HxCDF	35.24 3.3	306e3	3.383e3	1.232e2	1.008e2	1.22	NO	2.240e2	0.033198	0.033198	0.0232
2 Total Hexa-Furans	35.27 2.9	972e3	3.321e3	1.216e2	1.151e2	1.06	NO	0.000e0	0.00000	0.031787	0.0194

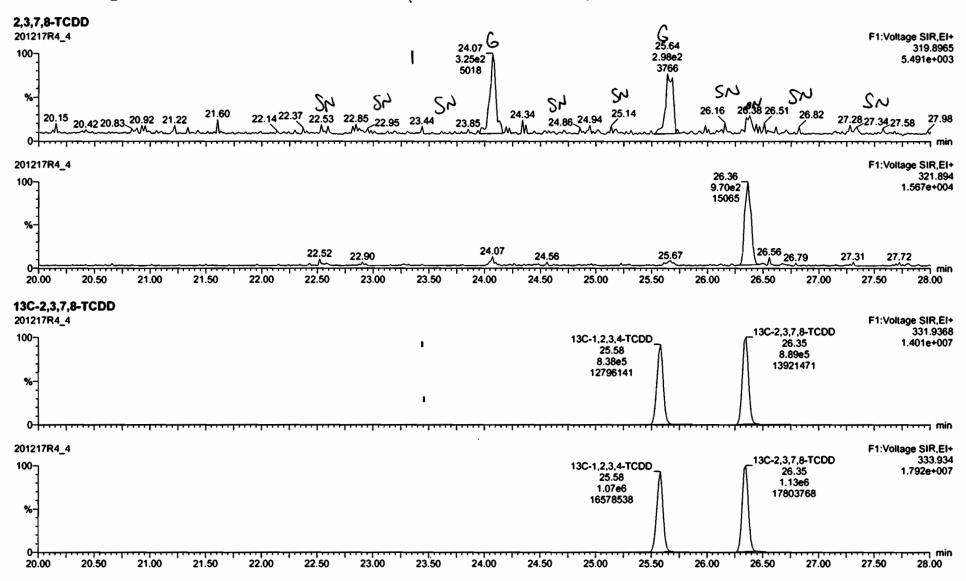
Hepta-Furans

Name .	RT `	m1 Height m2 Height	m1 Resp m2 Resp	. ¿RA′[n/yː[Resp	Conc. EMPC	J DL
1,2,3,4,7,8,9-HpCDF	38.84	1.557e3 1.685e3				0.031446 0.031446	

Work Order 2002532

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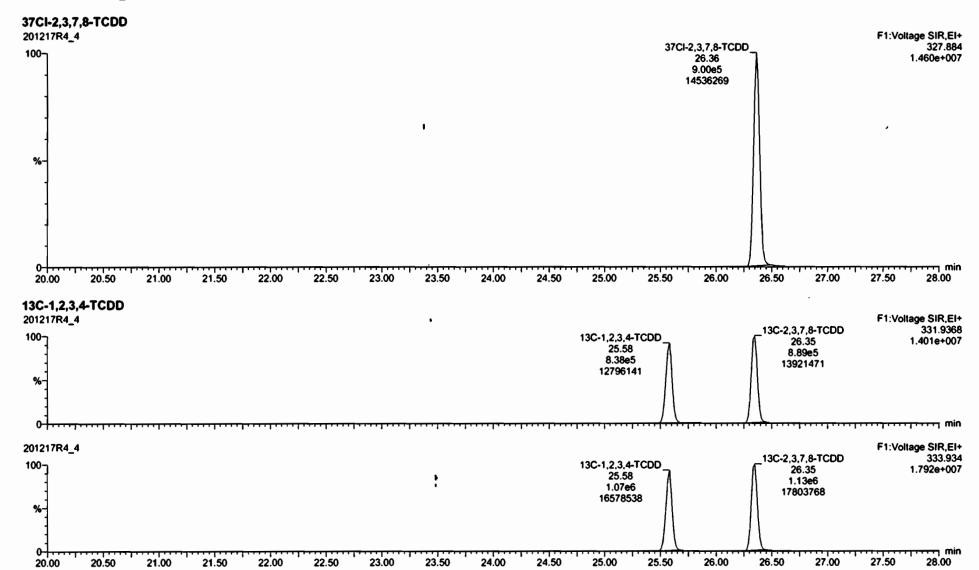
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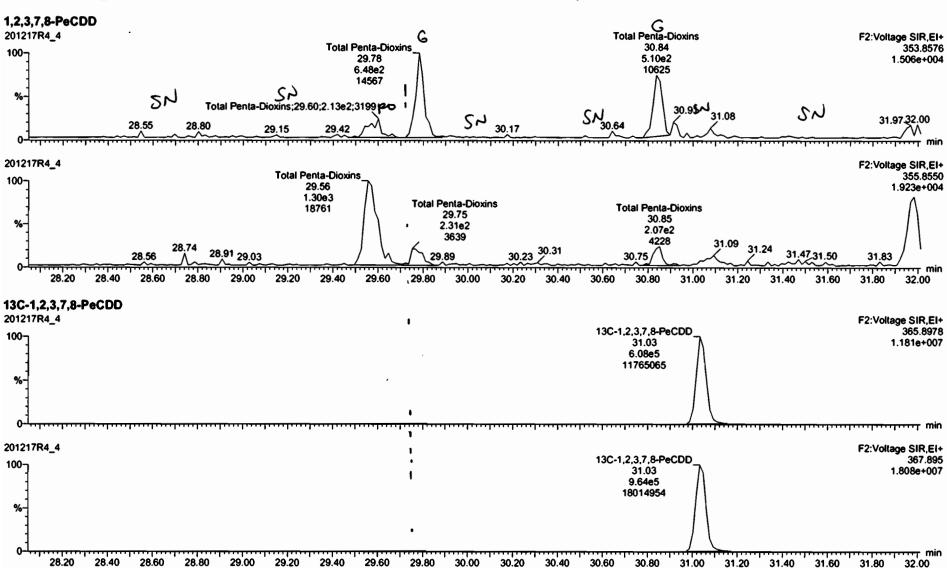
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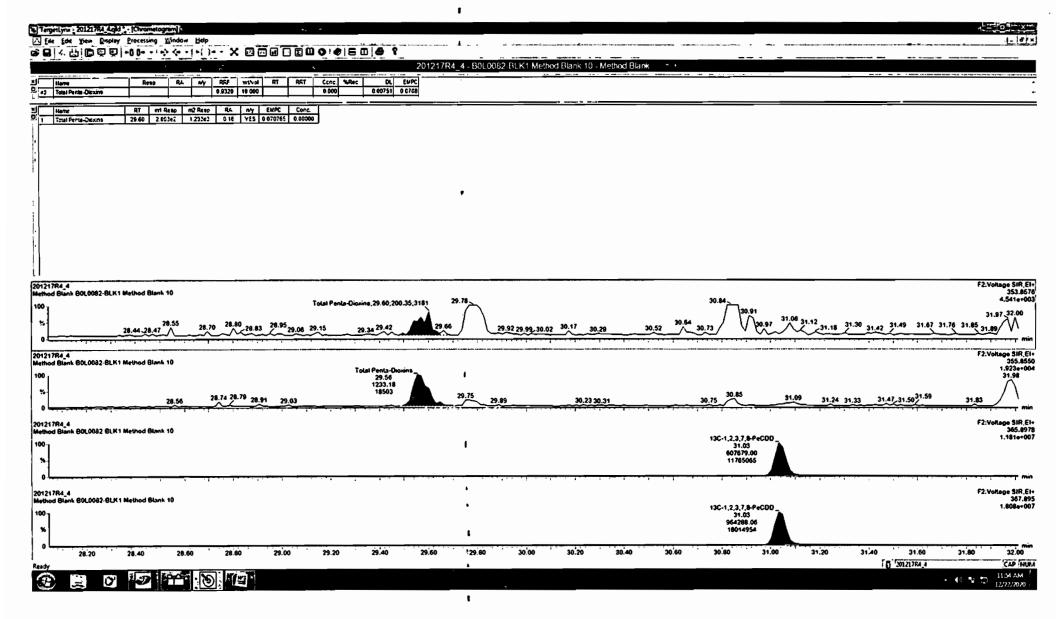
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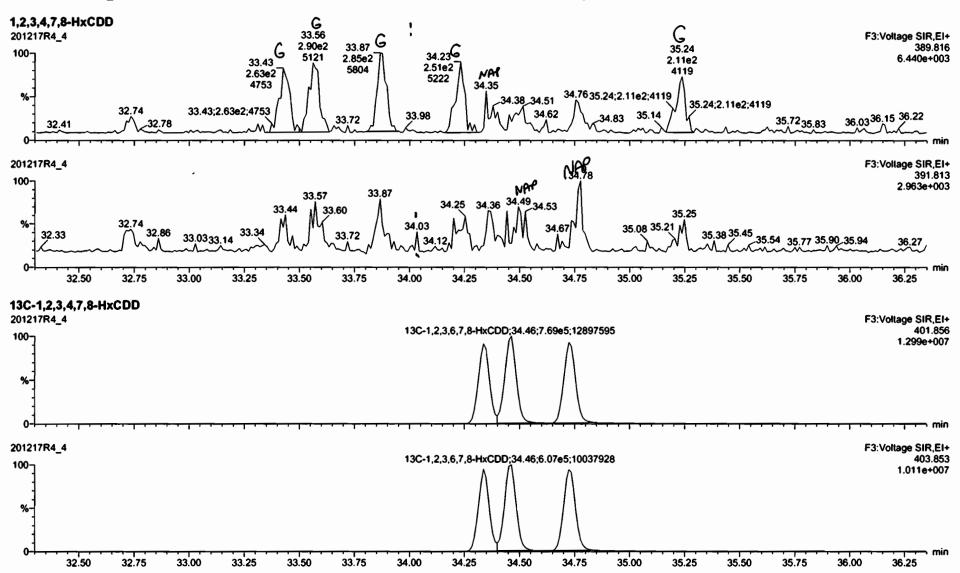




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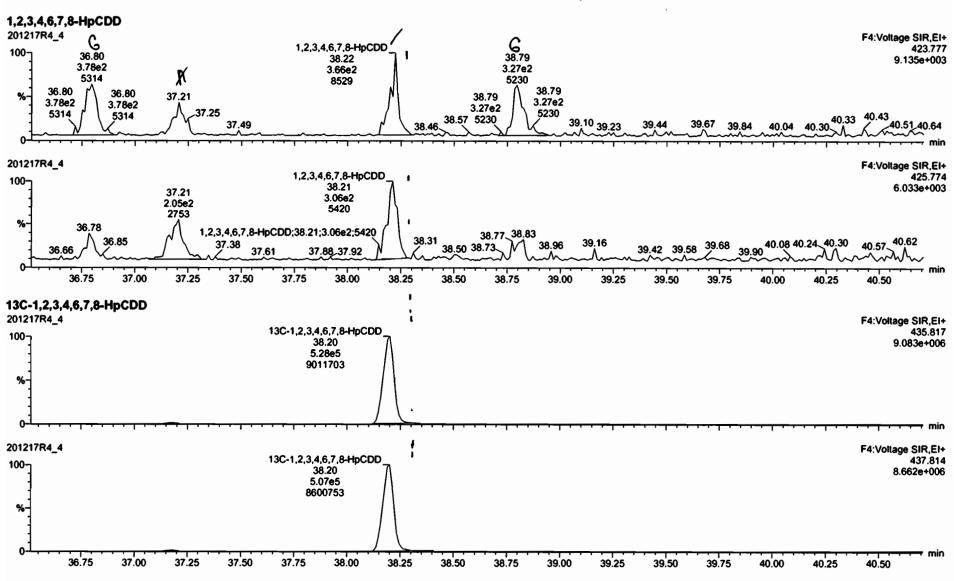
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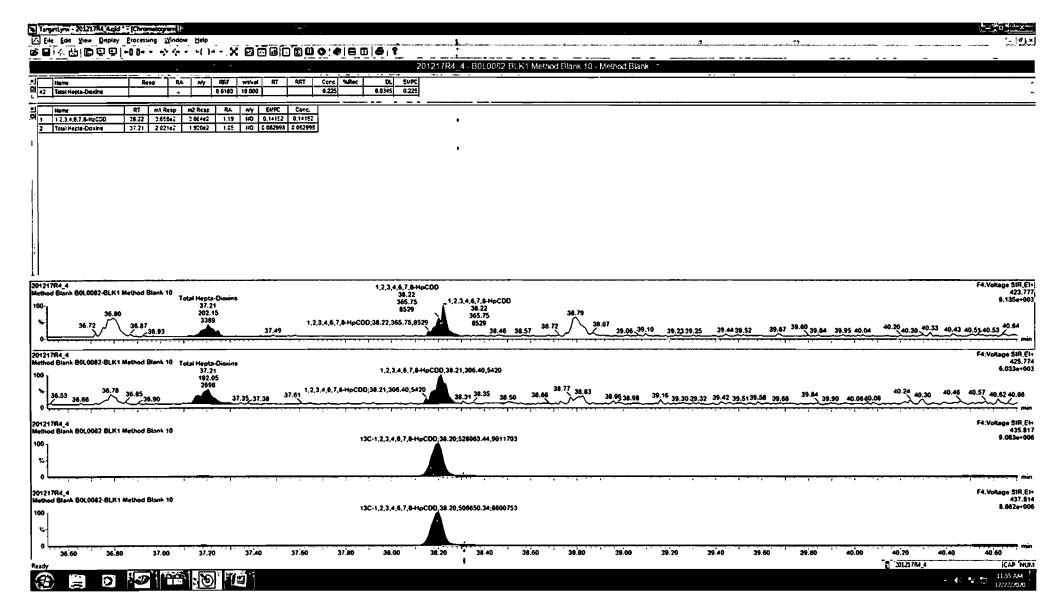
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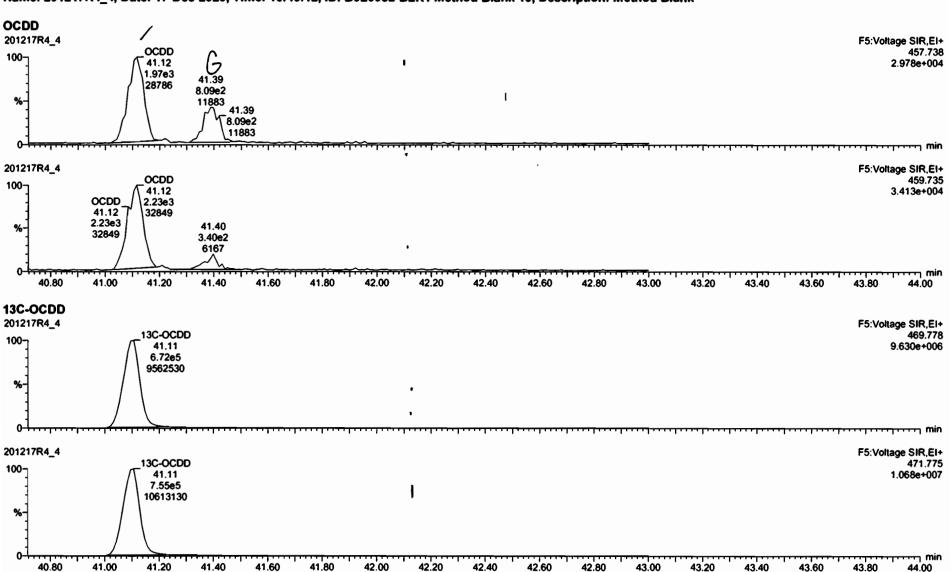
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Work Order 2002532 Page 49 of 725

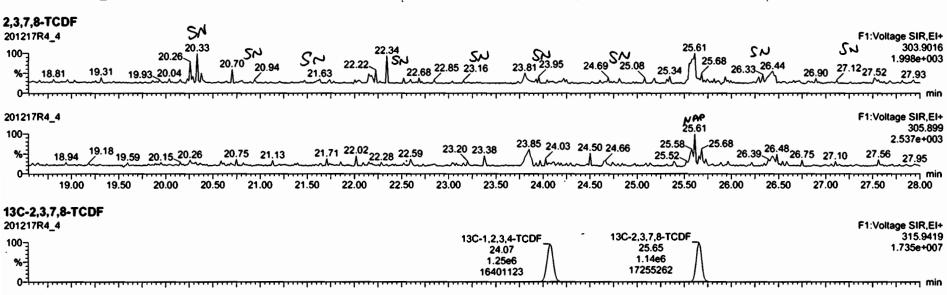


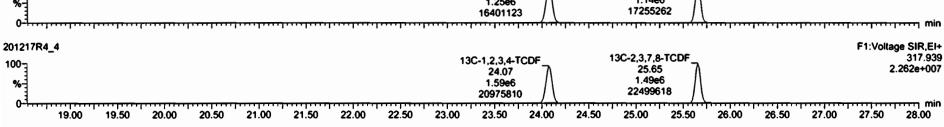


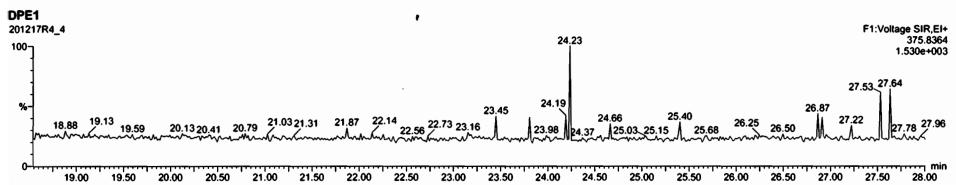
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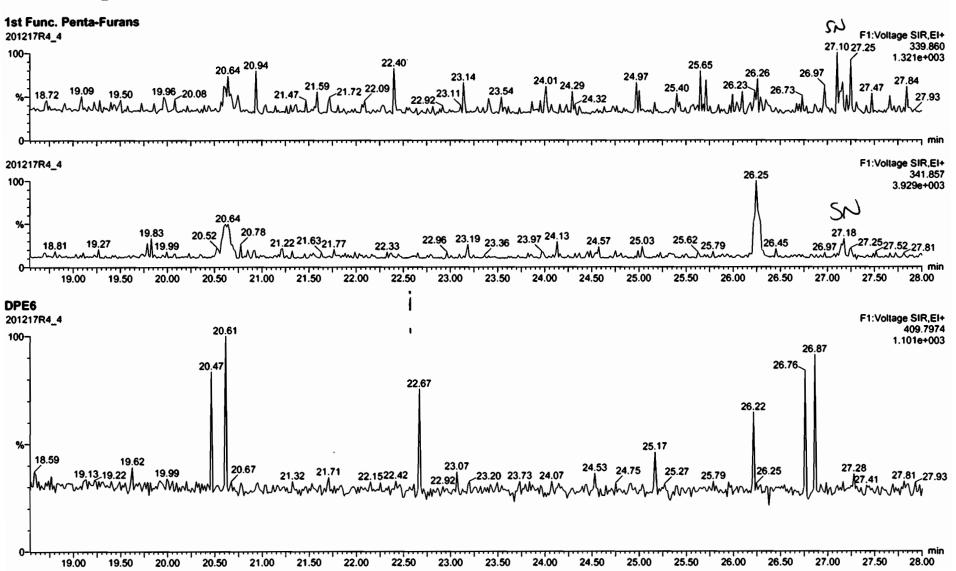






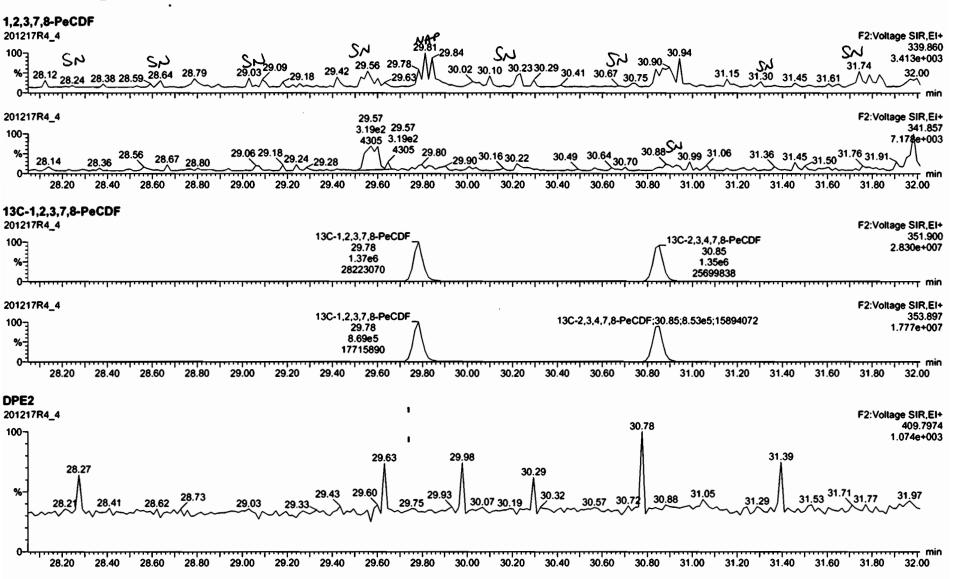
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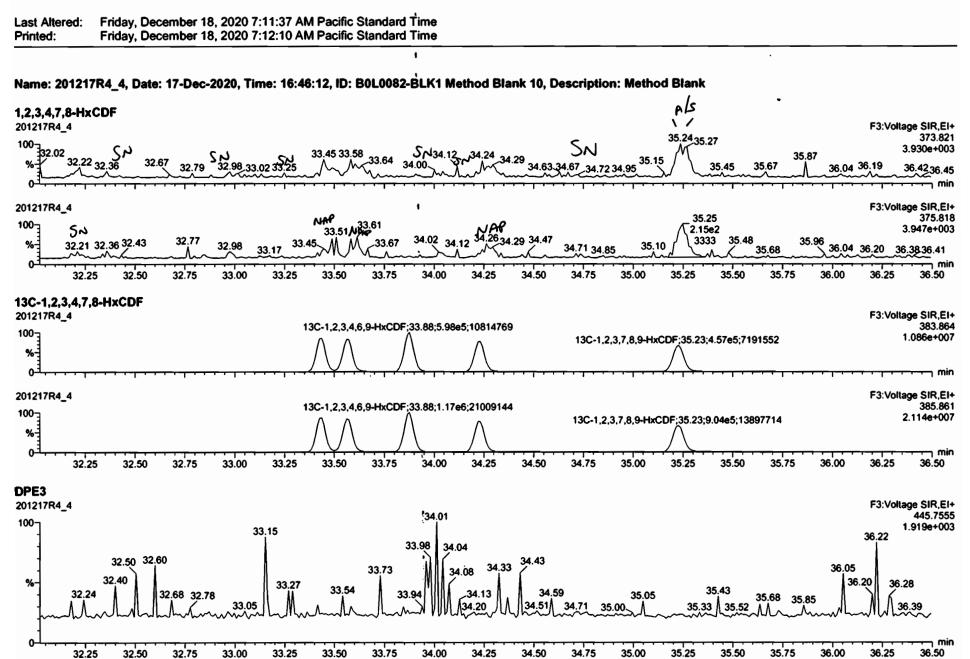


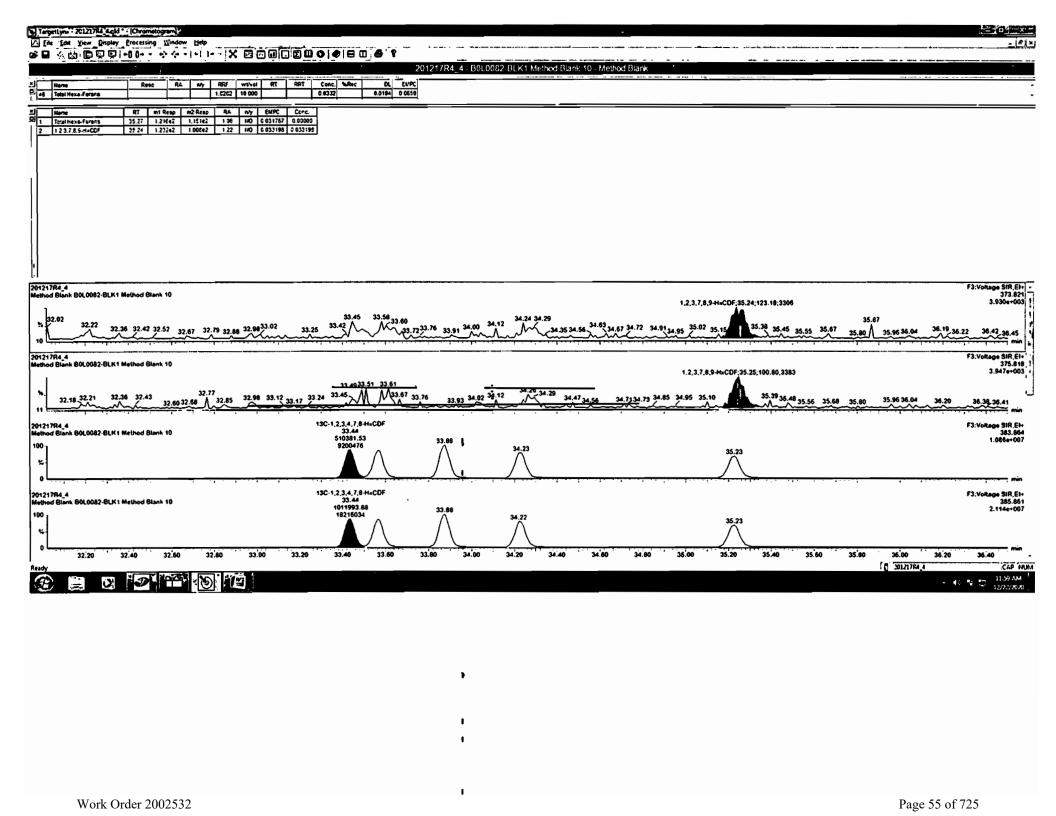
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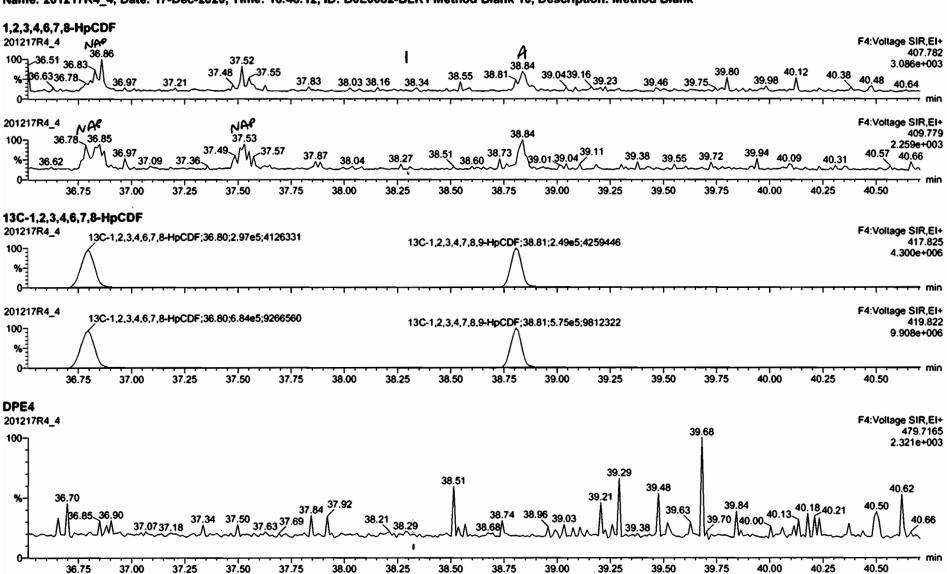
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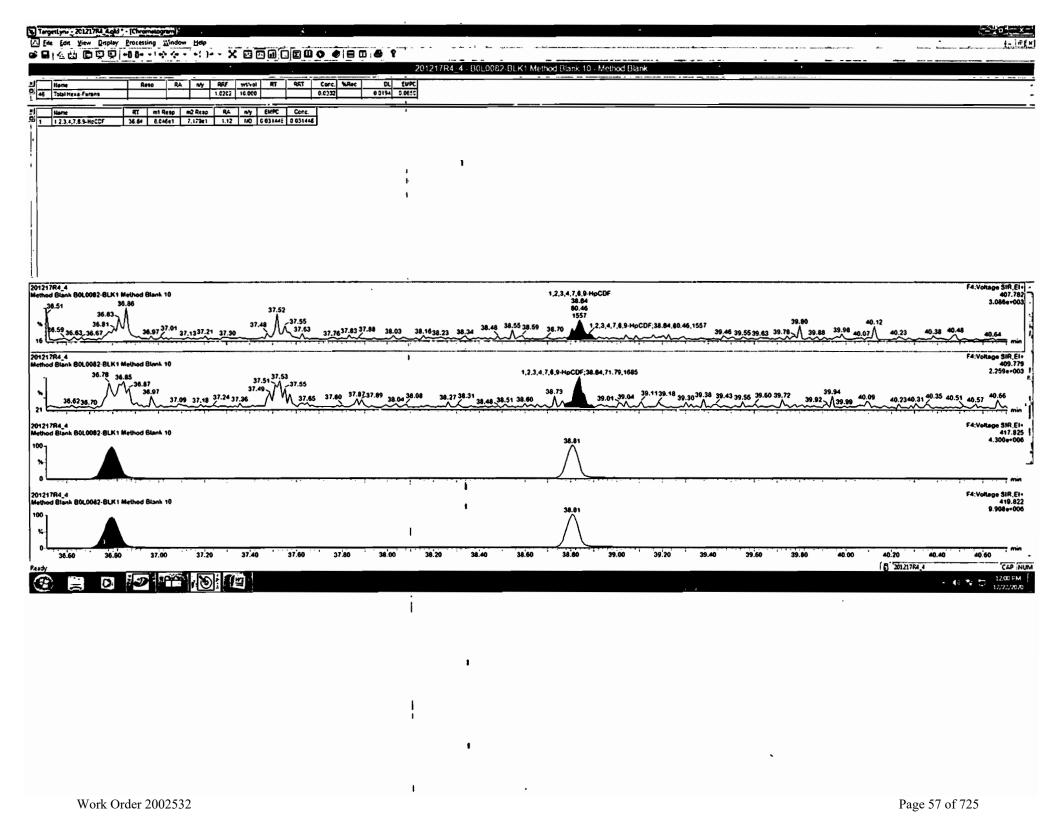


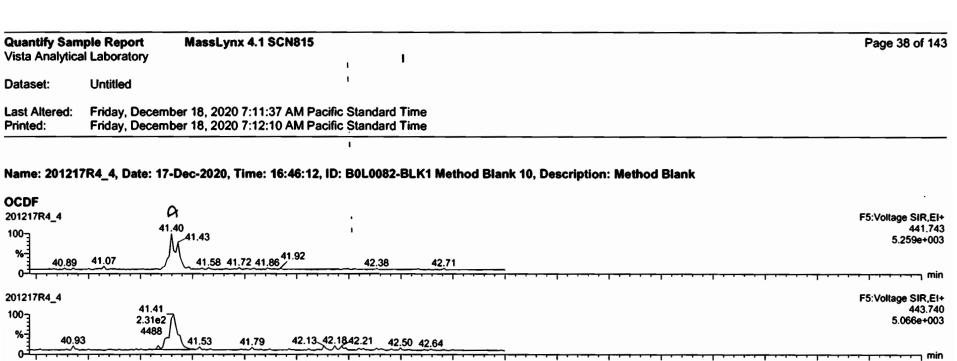


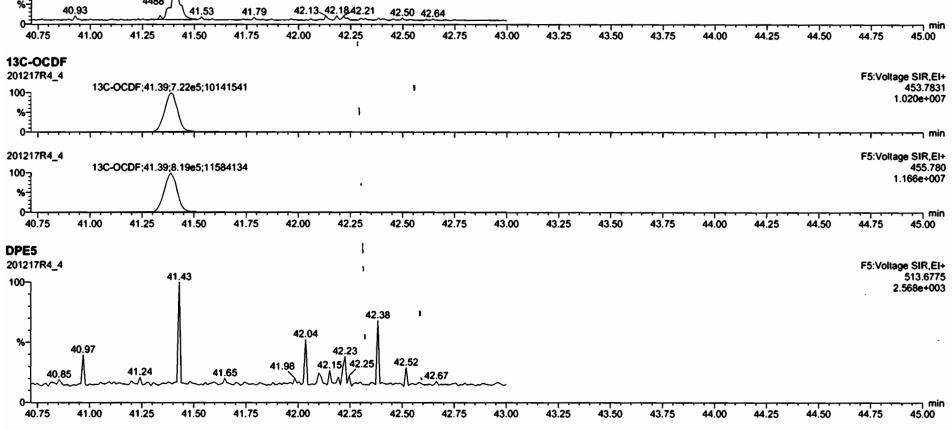
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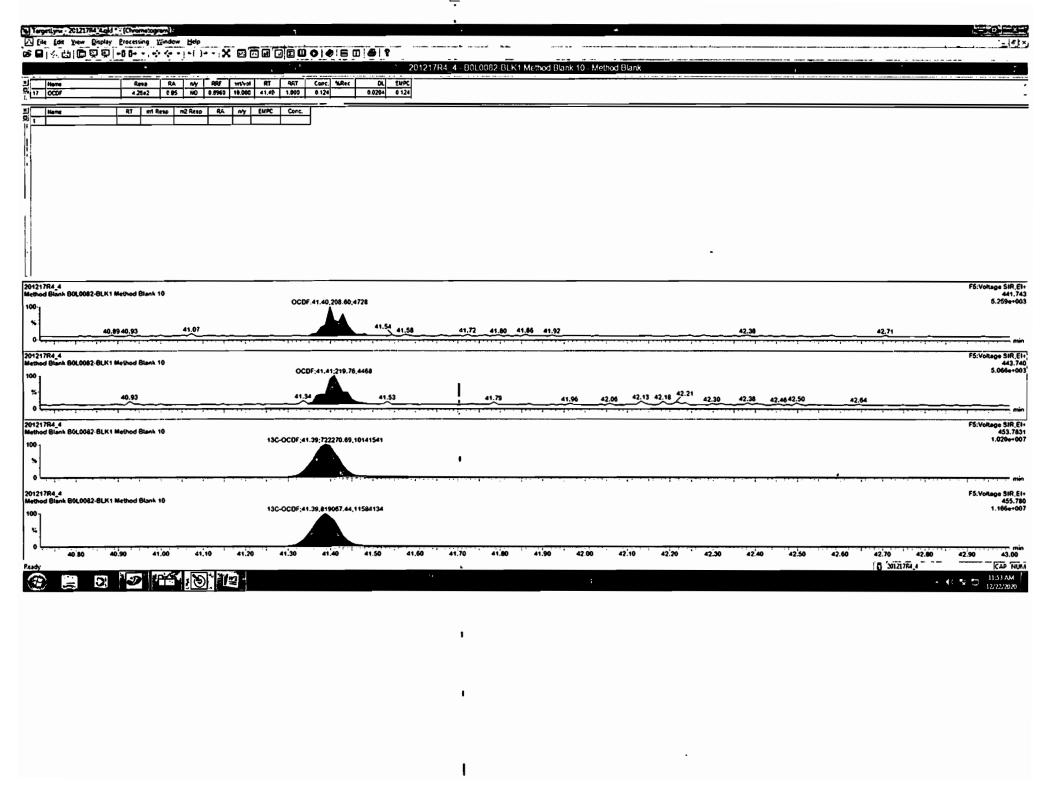
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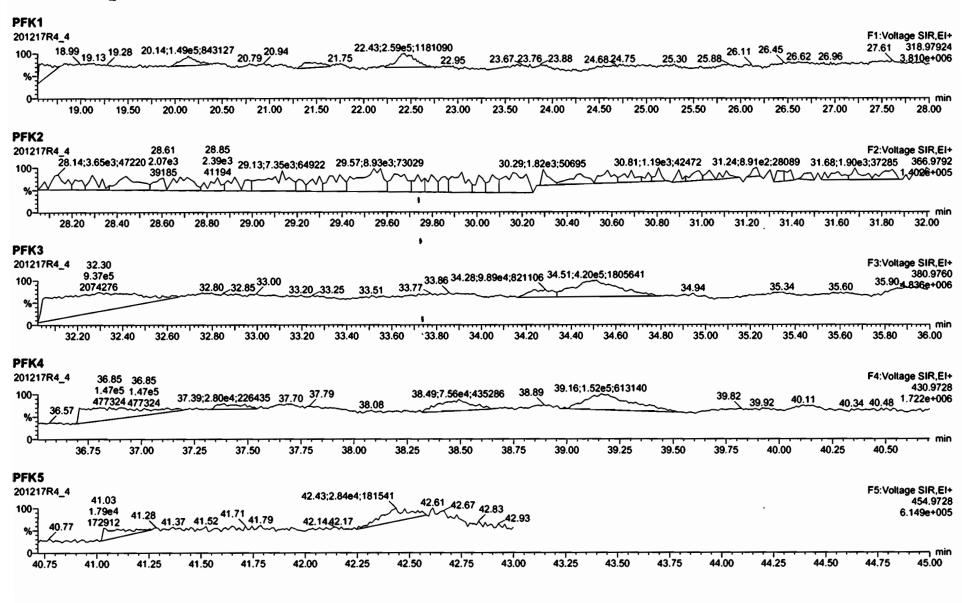




Work Order 2002532 Page 59 of 725

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Last Altered: Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Friday, December 18, 2020 7:12:10 AM Pacific Standard Time



Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_2.qld

Last Altered: Printed:

Thursday, December 17, 2020 3:58:38 PM Pacific Standard Time Tuesday, December 22, 2020 11:50:30 AM Pacific Standard Time

GRB 12/22/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_2, Date: 17-Dec-2020, Time: 15:13:49, ID: B0L0082-BS1 OPR 10, Description: OPR

4	# Name	Resp	IL RA	ŗ.n/y	RRF 3	wt/vol_1	Pred.RT.	RT_',	Pred.RRT	RRT	_Conc	JL%RecDL	EMPC
1	1 2,3,7,8-TCDD	2.04e5	0.76	NO	0.980	10.000	26.380	26.36	1.001	1.001	20.965	0.0186	21.0
2	2 1,2,3,7,8-PeCDD	7.51e5	0.62	NO	0.932	10.000	31.064	31.05	1.001	1.000	106.41	0.0666	106
3	3 1,2,3,4,7,8-HxCDD	6.34e5	1.24	NO	1.02	10.000	34.357	34.35	1.001	1.000	105.56	0.142	106
4	4 1,2,3,6,7,8-HxCDD	6.19e5	1.24	NO	0.902	10.000	34.472	34.47 -	1.001	1.001	103.24	0.147	103
5	5 1,2,3,7,8,9-HxCDD	6.15e5	1.24	NO	0.954	10.000	34.734	34.73	1.000	1.000	101.79	0.152	102
6	6 1,2,3,4,6,7,8-HpCDD	4.47e5	1.03	NO	0.918	10.000	38.201	38.20	1.000	1.000	97.271	0.289	97.3
7 - 2	7 OCDD	6.05e5	0.86	NO	0.866	10.000	41.102	41.10	1.000	1.000	204.15	0.317	204
8	8 2,3,7,8-TCDF	2.09e5	0.73	NO	0.848	10.000	25.657	25.68	1.000	1.001	18.743	0.0204	18.7
3 Vilen	9 1,2,3,7,8-PeCDF	1.08e6	1.54	NO	0.960	10.000	29.784	29.80	1.000	1.000	102.13	0.0651	102
10	10 2,3,4,7,8-PeCDF	1.18e6	1.55	NO	1.07	10.000	30.858	30.85	1.001	1.000	101.74	0.0622	102
11	11 1,2,3,4,7,8-HxCDF	7.13e5	1.21	NO	0.986	10.000	33.436	33.44	1.000	1.000	98.002	0.116	98.0
12	12 1,2,3,6,7,8-HxCDF	7.47e5	1.21	NO	1.04	10.000	33.582	33.57 -	1.001	1.000	97.997	0.117	98.0
13	13 2,3,4,6,7,8-HxCDF	6.95e5	1.22	NO	1.02	10.000	34.242	34.24	1.001	1.001	98.285	0.132	98.3
14	14 1,2,3,7,8,9-HxCDF	6.43e5	1.21	NO	0.991	10.000	35.226	35.24	1.000	1.001	98.509	0.159	98.5
15	15 1,2,3,4,6,7,8-HpCDF	4.92e5	1.01	NO	1.05	10.000	36.803	36.81	1.000	1.001	96.927	0.288	96.9
16	16 1,2,3,4,7,8,9-HpCDF	4.75e5	1.02	NO	1.18	10.000	38.817	38.82	1.000	1.000	99.880	0.246	99.9
17 -7-2-4	17 OCDF	6.85e5	0.87	NO	0.896	10.000	41.385	41.40	1.000	1.000	198.69	0.222	199
18	18 13C-2,3,7,8-TCDD	1.98e6	0.79	NO	1.06	10.000	26.353	26.35	1.030	1.030	203.28	102 0.0498	
19:	19 13C-1,2,3,7,8-PeCDD	1.51e6	0.62	NO	0.785	10.000	31.192	31.03	1.219	1.213	208.93	104 0.113	
20	20 13C-1,2,3,4,7,8-HxCDD	1.18e6	1.28	NO	0.621	10.000	34.326	34.34	1.014	1.014	227.26	114 0.311	
21 3 5	21 13C-1,2,3,6,7,8-HxCDD	1.33e6	1.26	NO	0.734	10.000	34.448	34.45	1.017	1.017	216.88	108 0.263	
22	22 13C-1,2,3,7,8,9-HxCDD	1.27e6	1.25	NO	0.723	10.000	34.732	34.72	1.026	1.025	209.84	105 0.267	•
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.00e6	1.05	NO	0.568	10.000	38.231	38.19	1.129	1.128	211.47	106 0.583	
24	24 13C-OCDD	1.37e6	0.90	NO	0.496	10.000	41.167	41.09	1.216	1.214	330.83	82.7 0.421	
25	25 13C-2,3,7,8-TCDF	2.62e6	0.77	NO	0.919	10.000	25.652	25.65	1.003	1.003	206.21	103 0.0777	
26	26 13C-1,2,3,7,8-PeCDF	2.20e6	1.58	NO	0.715	10.000	29.903	29.78	1.169	1.164	221.99	111 0.245	
27	27 13C-2,3,4,7,8-PeCDF	2.18e6	1.58	NO	0.689	10.000	30.990	30.84	1.212	1.206	228.30	114 0.254	
28	28 13C-1,2,3,4,7,8-HxCDF	1.48e6	0.50	NO	0.873	10.000	33.432	33.43	0.987	0.987	202.47	101 0.314	
29	29 13C-1,2,3,6,7,8-HxCDF	1.47e6	0.51	NO	0.933	10.000	33.561	33.56	0.991	0.991	188.35	94.2 0.294	
30	30 13C-2,3,4,6,7,8-HxCDF	1.39e6	0.50	NO	0.843	10.000	34.228	34.22	1.011	1.010	197.18	98.6 0.325	
31	31 13C-1,2,3,7,8,9-HxCDF	1.32e6	0.50	NO	0.780	10.000	35.227	35.22	1.040	1.040	202.49	101 0.352	

Page 61 of 725 Work Order 2002532

Page 2 of 2

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U:\VG12.PRO\Results\201217R4\201217R4_2.qld

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Name: 201217R4_2, Date: 17-Dec-2020, Time: 15:13:49, ID: B0L0082-BS1 OPR 10, Description: OPR

Name ***	Resp	L_RA	į i n/y	RRF	[withou]	, Pred.RT	RT	Pred.RRT	RRT	Conc.	յլ.%Rec	DL EMF
32 32 13C-1,2,3,4,6,7,8-HpCDF	9.68e5	0.43	NO	0.726	10.000	36.801	36.78	1.087	1.086	159.67	79.8	0.387
33 13C-1,2,3,4,7,8,9-HpCDF	8.09e5	0.43	NO	0.491	10.000	38.810	38.81	1.146	1.146	197.47	98.7	0.572
34 13C-OCDF	1.54e6	0.88	NO	0.565	10.000	41.383	41.38	1.222	1.222	326.36	81.6	0.353
35 37CI-2,3,7,8-TCDD	8.78e5			1.22	10.000	26.348	26.36	1.030	1.031	78.188	97.7	0.0160
36- 36 13C-1,2,3,4-TCDD	1.85e6	0.78	NO	1.00	10.000	25.640	25.58	1.000	1.000	200.00	100	0.0525
37 ₁ 37 13C-1,2,3,4-TCDF	2.77e6	0.78	NO	1.00	10.000	24.130	24.09	1.000	1.000	200.00	100	0.0714
38 13C-1,2,3,4,6,9-HxCDF	1.67e6	0.51	NO	1.00	10.000	33.920	33.87	1.000	1.000	200.00	100	0.274

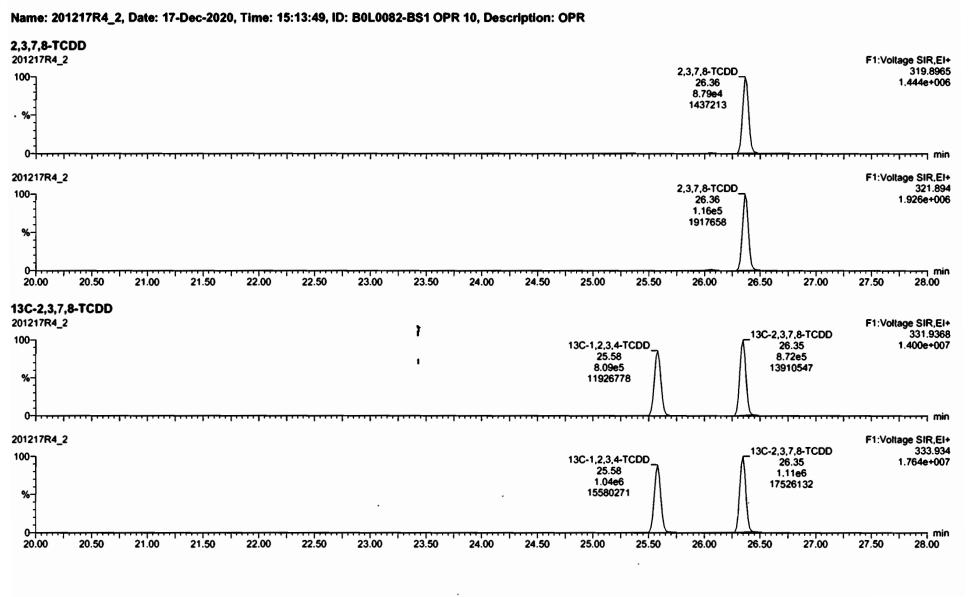
Work Order 2002532 Page 62 of 725

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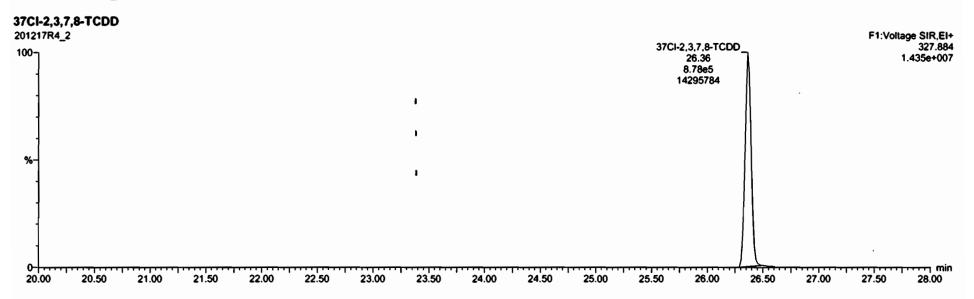
Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Friday, December 18, 2020 7:12:10 AM Pacific Standard Time

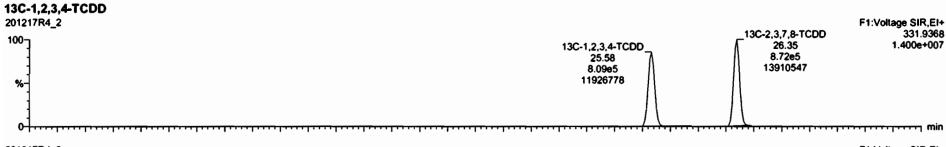
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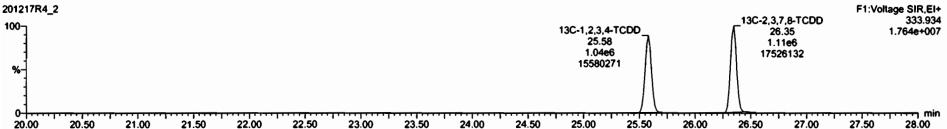


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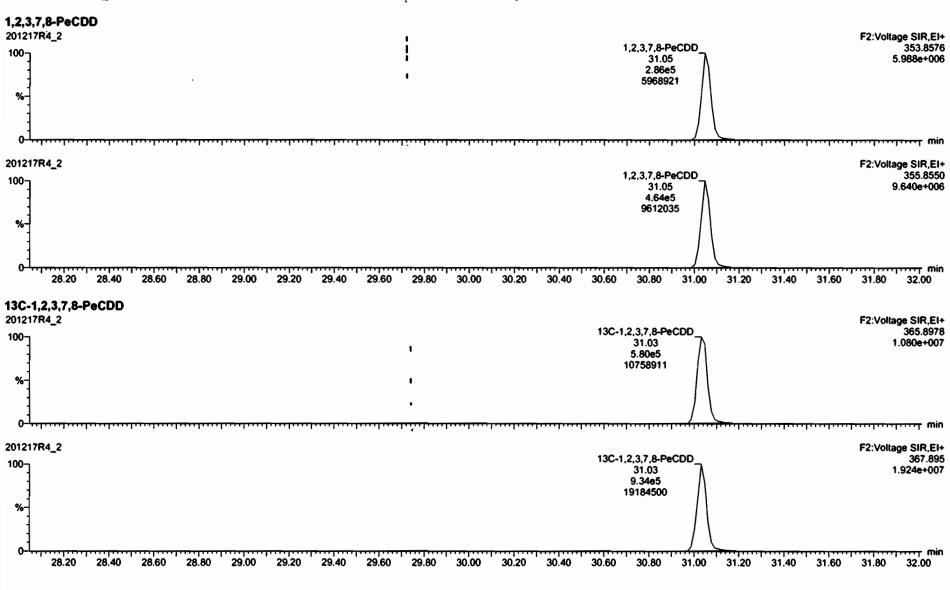




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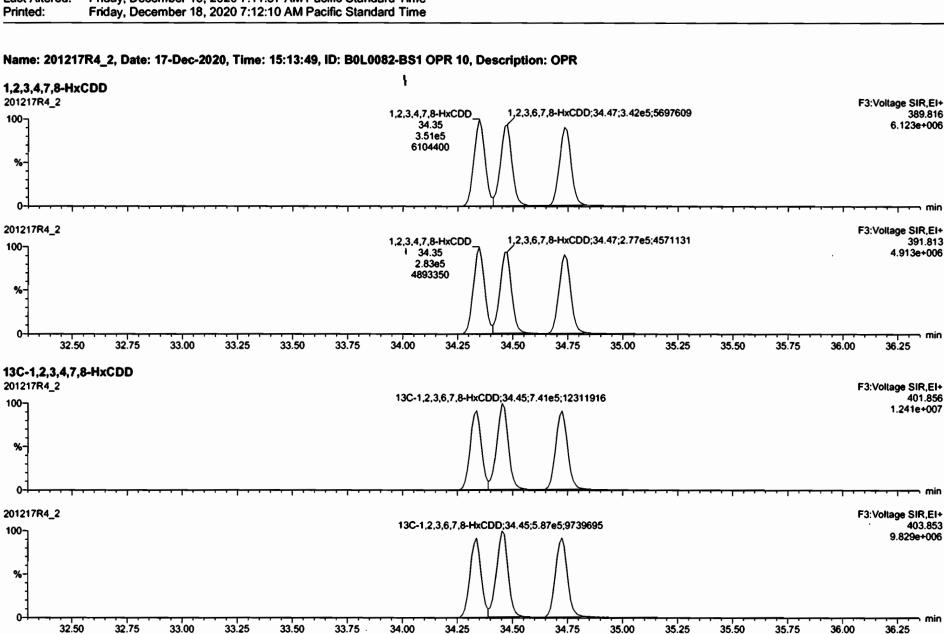
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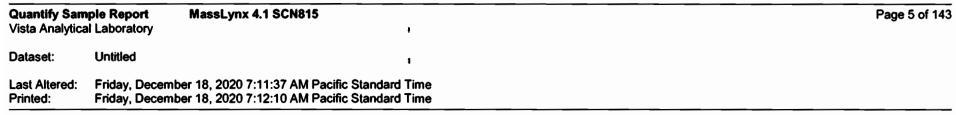


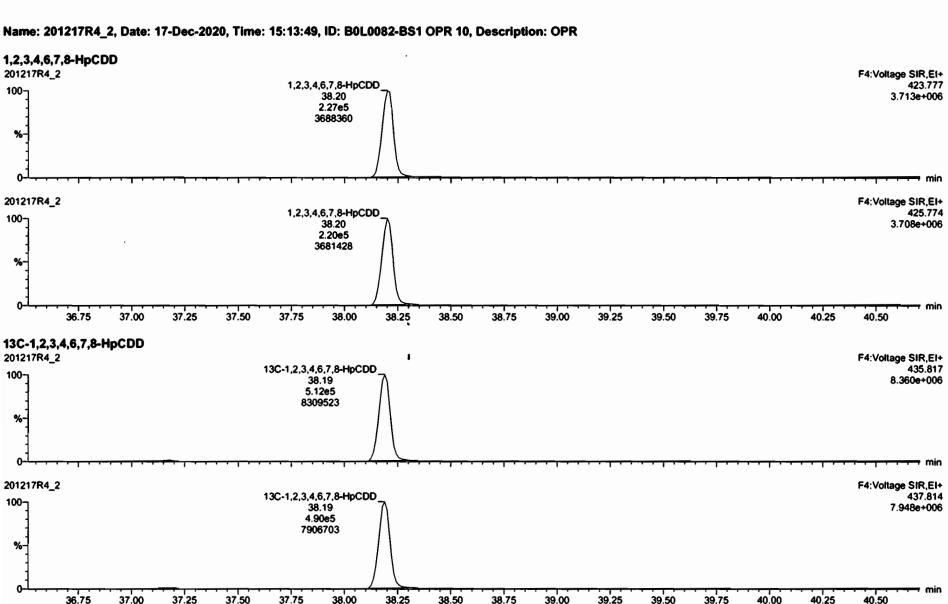
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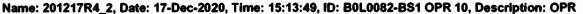


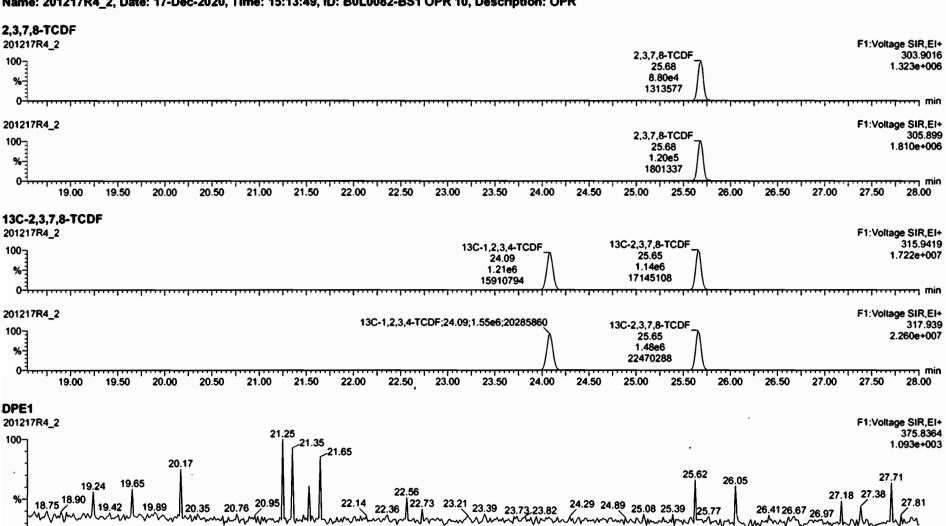


Work Order 2002532 Page 67 of 725

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Last Altered: Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Friday, December 18, 2020 7:12:10 AM Pacific Standard Time Printed:





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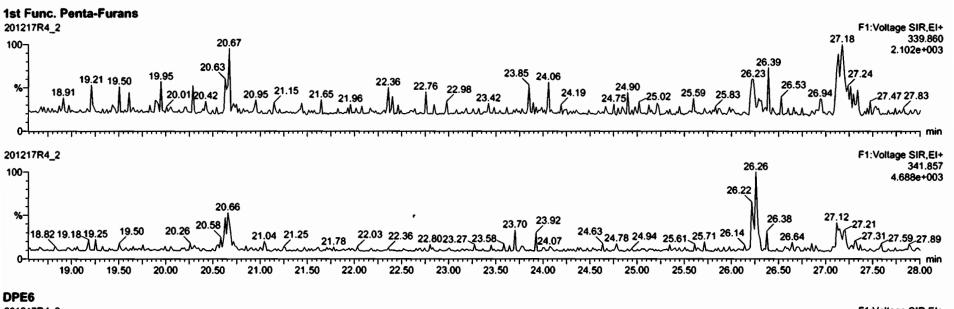
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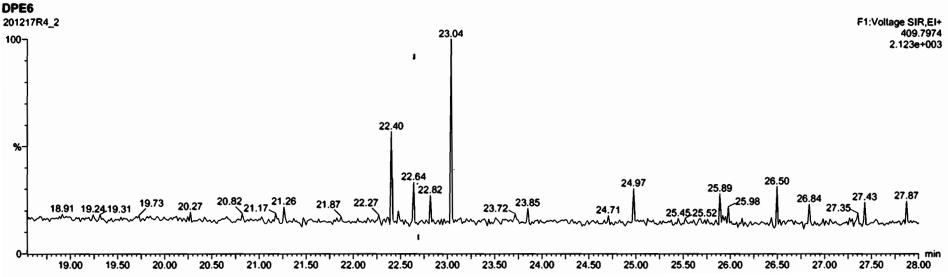
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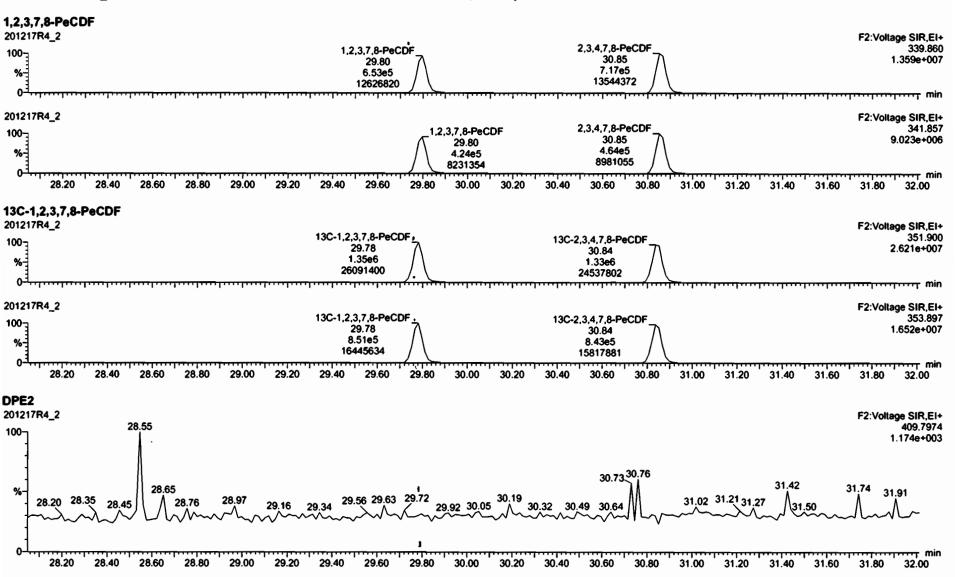
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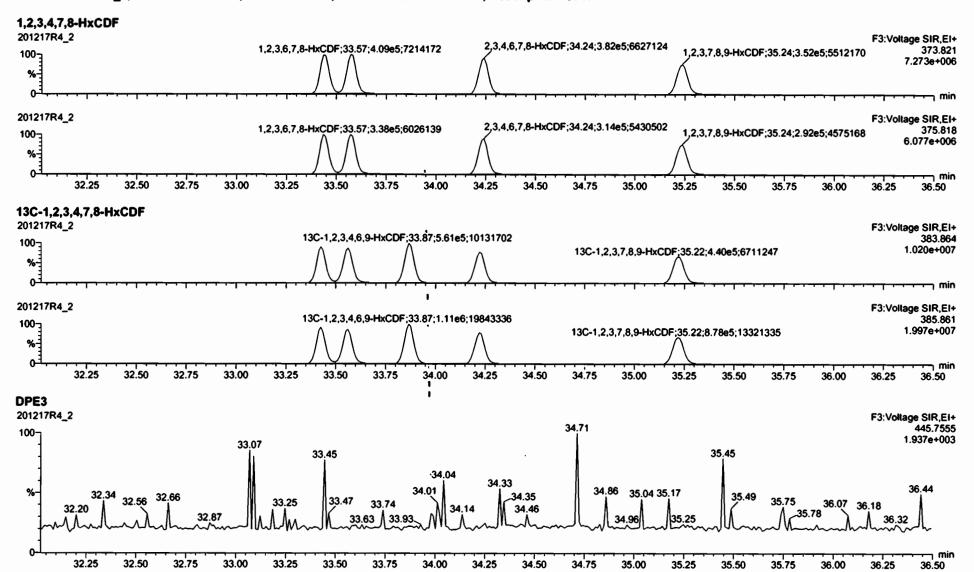




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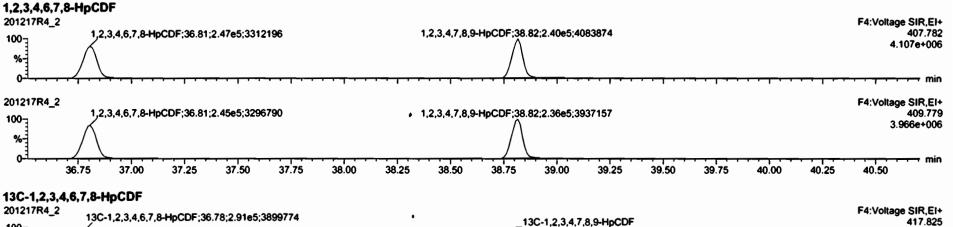


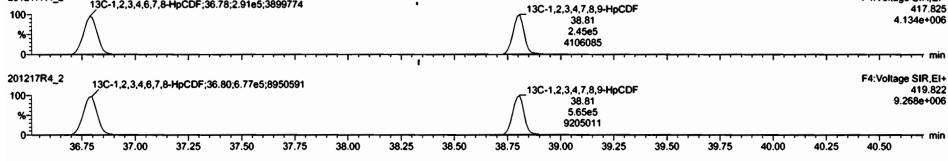
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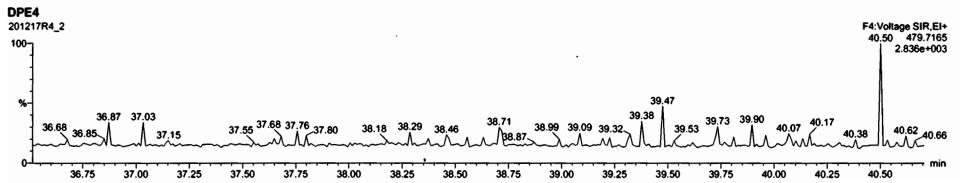
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Name: 201217R4_2, Date: 17-Dec-2020, Time: 15:13:49, ID: B0L0082-BS1 OPR 10, Description: OPR





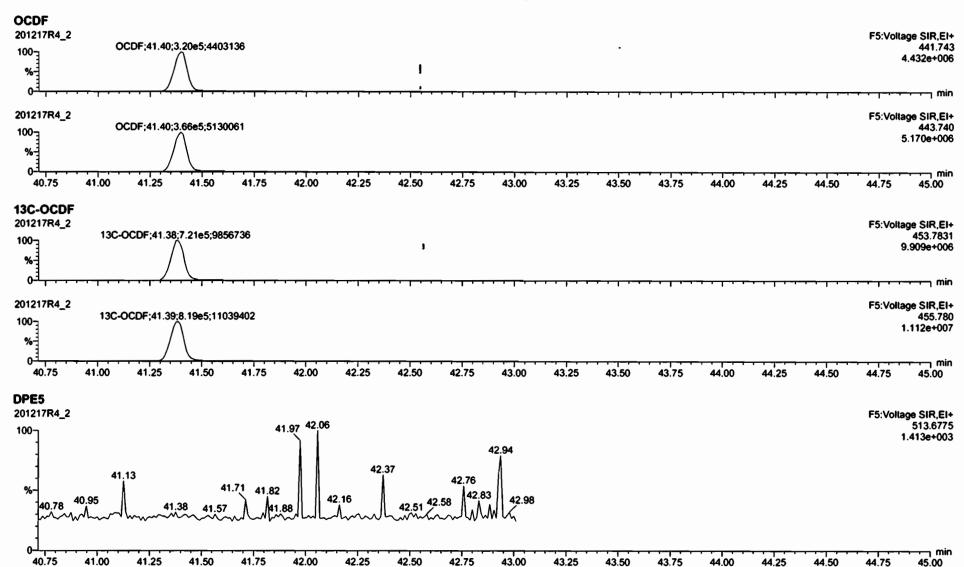


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Name: 201217R4_2, Date: 17-Dec-2020, Time: 15:13:49, ID: B0L0082-BS1 OPR 10, Description: OPR

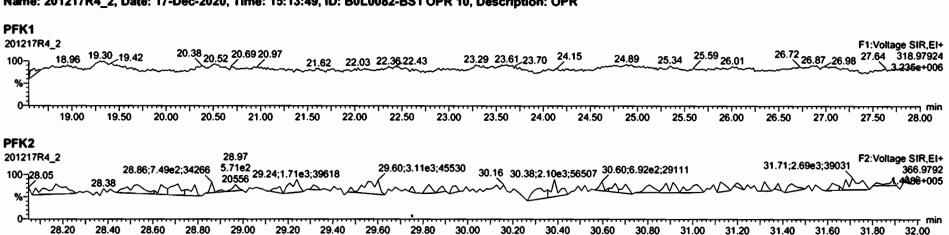


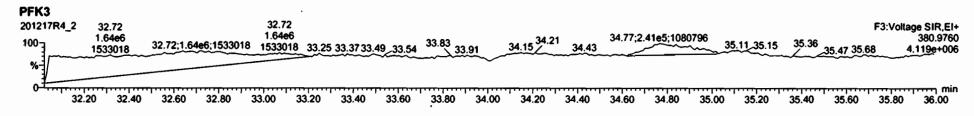
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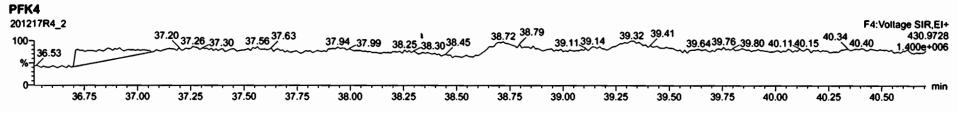
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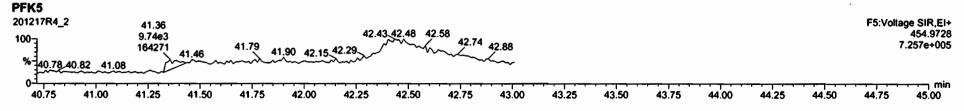
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Name: 201217R4 2, Date: 17-Dec-2020, Time: 15:13:49, ID: B0L0082-BS1 OPR 10, Description: OPR









Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201218R1\201218R1_13.qld

Last Altered:

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Printed:

Tuesday, December 22, 2020 2:31:13 PM Pacific Standard Time

GRB 12/22/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_13, Date: 18-Dec-2020, Time: 19:13:47, ID: 2002532-01 USMPDI-001SC-A-01-02-201111 15.78, Description: USMPDI-001SC-A-01-02-201111

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1.5	1 2,3,7,8-TCDD			NO	0.980	10.157	26.351		1.001				0.0126	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.157	31.049		1.001				0.0293	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.157	34.347		1.001				0.0266	
4	4 1,2.3,6,7,8-HxCDD			NO	0.902	10.157	34.462		1.001				0.0285	
5	5 1,2,3,7,8,9-HxCDD	2.74e2	1.21	NO	0.954	10.157	34.724	34.72	1.000	1.000	0.044187		0.0277	0.0442
6	6 1,2,3,4,6,7,8-HpCDD	1.82e3	1.09	NO	0.918	10.157	38.200	38.20	1.000	1.000	0.38665		0.0346	0.387
7	7 OCDD	9.34e3	0.84	NO	0.866	10.157	41.113	41.12	1 000	1.000	3.0303		0.103	3.03
8	8 2,3,7,8-TCDF			NO	0.848	10.157	25.628		1.000				0.0164	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.157	29.754		1.000				0.0171	1
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.157	30.844		1.001				0.0141	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.157	33.426		1.000				0.0126	
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.157	33.571		1.001				0.0125	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.157	34.232		1.001				0.0137	
14	14 1,2,3,7,8,9-HxCDF	1.59e2	1.35	NO	0.991	10.157	35.217	35.22	1.000	1.000	0.026323		0.0105	0.0263
15	15 1,2,3,4,6,7,8-HpCDF	1.85e2	1.05	NO	1.05	10.157	36.792	36.80	1.000	1.001	0.038942		0.00699	0.0389
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.157	38.817		1.000				0.0112	
17	17 OCDF			NO	0.896	10.157	41.406		1.000				0.0388	
18	18 13C-2,3,7,8-TCDD	1.97e6	0.77	NO	1.06	10.157	26.307	26.32	1.030	1.031	192.70	97.9	0.0485	
19	19 13C-1,2,3,7,8-PeCDD	1.62e6	0.62	NO	0.785	10.157	31.139	31.02	1.219	1.215	213.78	109	0.105	
20	20 13C-1,2,3,4,7,8-HxCDD	1.19 e 6	1.27	NO	0.621	10.157	34.315	34.33	1.014	1.014	231.44	118	0.265	
21	21 13C-1,2,3,6,7,8-HxCDD	1.33e6	1.25	NO	0.734	10.157	34.437	34.44	1.017	1.017	217.70	111	0.224	
22	22 13C-1,2.3,7,8,9-HxCDD	1.2 8 e6	1.25	NO	0.723	10.157	34.722	34.71/	1.026	1.025	212.85	108	0.227	
23	23 13C-1,2,3,4,6,7.8-HpCDD	1.01e6	1.05	NO	0.568	10.157	38.219	38 19	1.129	1.128	214.34	109	0.521	
24	24 13C-OCDD	1. 4 0e6	0.92	NO	0.496	10.157	41.154	41.10	1.216	1.214	340.02	86.3	0.349	
25	25 13C-2,3,7,8-TCDF	2.48e6	0.77	NO	0.919	10.157	25.608	25.63	1.003	1.003	198.60	101	0.0682	
26	26 13C-1,2,3,7,8-PeCDF	2.11e6	1.58	NO	0.715	10.157	29.852	29.75	1.169	1.165	216.84	110	0.311	
27	27 13C-2,3,4,7,8-PeCDF	2.12e6	1 57	NO	0.689	10.157	30.937	30.82	1.212	1.207	226.11	115	0.323	
28	28 13C-1,2,3,4,7,8-HxCDF	1.36e6	0.50	NO	0.873	10.157	33.422	33.42	0.987	0.987	187.73	95.3	0.253	
29	29 13C-1,2,3,6,7,8-HxCDF	1.34e6	0.51	NO	0.933	10.157	33.550	33.55	0.991	0.991	172.60	87.7	0.237	
30	30 13C-2,3,4,6,7,8-HxCDF	1.29e6	0.51	NO	0.843	10.157	34.217	34.21	1.011	1.011	184.42	93.7	0.262	
31	31 13C-1,2,3,7,8,9-HxCDF	1.20e6	0.50	NO	0.780	10.157	35.216	35.21	1.040	1.040	185.36	94.1	0.283	

Work Order 2002532 Page 76 of 725

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

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Tuesday, December 22, 2020 2:31:13 PM Pacific Standard Time

Name: 201218R1_13, Date: 18-Dec-2020, Time: 19:13:47, ID: 2002532-01 USMPDI-001SC-A-01-02-201111 15.78, Description: USMPDI-001SC-A-01-02-201111

58Wz -	# 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	8.92e5	0.43	NO	0.726	10.157	36.790	36.77	1.087	1.086	147.68	75.0	0.353	
33	33 13C-1,2,3,4,7,8,9-HpCDF	7.55e5	0.43	NO	0.491	10.157	38.798	38.81	1.146	1.146	184.88	93.9	0.523	}
34	34 13C-OCDF	1.37e6	0.86	NO	0.565	10.157	41.371	41.40	1.222	1.223	292.03	74.2	0.347	
35	35 37CI-2,3,7,8-TCDD	8.89e5			1.22	10.157	26.302	26.33	1.030	1.031	75.546	95.9	0.0157	
36	36 13C-1,2,3,4-TCDD	1.90e6	0.78	NO	1.00	10.157	25.640	25.54	1.000	1.000	196.91	100	0.0512	
37	37 13C-1,2,3,4-TCDF	2.68e6	0.78	NO	1.00	10.157	24.130	24.04	1.000	1.000	196.91	100	0.0627	
38	38 13C-1,2,3,4,6,9-HxCDF	1.64e6	0.50	NO	1.00	10.157	33.920	33.85	1.000	1.000	196.91	100	0.221	
39	39 Total Tetra-Dioxins				0.980	10.157	24.620		0.000		0.26820		0.0126	0.268
40	40 Total Penta-Dioxins				0.932	10.157	29.960		0.000		0.17657		0.0293	0.254
41	41 Total Hexa-Dioxins				0.902	10.157	33.635		0.000		0.44241		0.0292	0.630
42	42 Total Hepta-Dioxins				0.918	10.157	37.640		0.000		0.97557		0.0346	0.976
43	43 Total Tetra-Furans				0.848	10.157	23.610		0.000		0.15063		0.0164	0.151
44	44 1st Func. Penta-Furans				0.960	10.157	26.930		0.000		0.015054		0.00345	0.0151
45	45 Total Penta-Furans				0.960	10.157	29.275		0.000				0.00799	
46	46 Total Hexa-Furans				1.02	10.157	33.555		0.000		0.026323		0.00858	0.0455
47	47 Total Hepta-Furans				1.05	10.157	37.835		0.000		0.038942		0.00670	0.0389

Work Order 2002532 Page 77 of 725

Vista Analytical Laboratory

Dataset: L

U:\VG12.PRO\Results\201218R1\201218R1_13.qld

Last Altered:

Tuesday, December 22, 2020 2:30:38 PM Pacific Standard Time

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Tuesday, December 22, 2020 2:31:13 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PR0\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_13, Date: 18-Dec-2020, Time: 19:13:47, ID: 2002532-01 USMPDI-001SC-A-01-02-201111 15.78, Description: USMPDI-001SC-A-01-02-201111

Tetra-Dioxins

17 17 18 18	Name	RT	m1 Height	m2 Height	m1 R	esp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.51	1.907e3	4.043e3	1.70	e2	2.280e2	0.75	NO	3.987e2	0.040701	0.040701	0.0126
2	Total Tetra-Dioxins	22.87	2.255e3	3.114e3	2.18	e2	2.481e2	0.88	NO	4.662e2	0.047596	0.047596	0.0126
3	Total Tetra-Dioxins	23.41	2.022e3	2.978e3	1.62	ie2	2.067e2	0.79	NO	3.693e2	0.037696	0.037696	0.0126
4	Total Tetra-Dioxins	24.24	9.207e3	1.128e4	5.92	e2	8.006e2	0.74	NO	1.393e3	0.14221	0.14221	0.0126

Penta-Dioxins

WATER TO	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.79	2.728e3	3.065e3	1.324e2	2.146e2	0.62	NO	3.469e2	0.045183	0.045183	0.0293
2	Total Penta-Dioxins	29.25	6.002e3	7.376e3	2.247e2	3.658e2	0.61	NO	5.905e2	0.076903	0.076903	0.0293
3	Total Penta-Dioxins	29.54	5.961e3	2.213e4	2.298e2	1.159e3	0.20	YES	0.000e0	0.00000	0.077439	0.0293
4	Total Penta-Dioxins	30.25	2.400e3	3.347e3	1.616e2	2.567e2	0.63	NO	4.184e2	0.054483	0.054483	0.0293

Hexa-Dioxins

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.70	2.400e4	2.250e4	1,156e3	9.864e2	1.17	NO	2.142e3	0.36893	0.36893	0.0292
2	Total Hexa-Dioxins	33.28	1.946e3	1.597e3	9.684e1	7.321e1	1.32	NO	1.701e2	0.029290	0.029290	0.0292
3	Total Hexa-Dioxins	33.55	1.046e4	6.485e3	7.132e2	4.850e2	1.47	YES	0.000e0	0.00000	0.18714	0.0292
4	1,2,3,7,8,9-HxCDD	34.72	3.280e3	3.003e3	1.500e2	1.237e2	1.21	NO	2.737e2	0.044187	0.044187	0.0277

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hepta-Dioxins	37.17	2.269e4	2.180e4	1.396e3	1.380e3	1.01	NO	2.777e3	0.58892	0.58892	0.0346
2 1,2,3,4,6,7,8-HpCDD	38.20	1.623e4	1.743e4	9.511e2	8.721e2	1.09	NO	1.823e3	0.38665	0.38665	0.0346

Work Order 2002532 Page 78 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed: Tuesday, December 22, 2020 2:30:38 PM Pacific Standard Time Tuesday, December 22, 2020 2:31:13 PM Pacific Standard Time

Name: 201218R1_13, Date: 18-Dec-2020, Time: 19:13:47, ID: 2002532-01 USMPDI-001SC-A-01-02-201111 15.78, Description: USMPDI-001SC-A-01-02-201111

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.21	1.407e3	1.944e3	1.018e2	1.501e2	0.68	NO	2.519e2	0.023582	0.023582	0.0164
2	Total Tetra-Furans	21.62	8.567e3	9.583e3	5.567e2	8.003e2	0.70	NO	1.357e3	0.12705	0.12705	0.0164

Penta-Furans function 1

volen 6.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.13	1.171e3	7.790e2	8.848e1	6.643e1	1.33	NO	1.549e2	0.015054	0.015054	0.00345

Penta-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1.5 1.5								

Hexa-Furans

50	900	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1		1,2,3,7,8,9-HxCDF	35.22	2.979e3	2.634e3	9.137e1	6.779e1	1.35	NO	1.592e2	0.026323	0.026323	0.0105
2	THE STATE OF	Total Hexa-Furans	35.24	2.547e3	2.356e3	7.135e1	7.486e1	0.95	YES	0.000e0	0.00000	0.019154	0.00858

Hepta-Furans

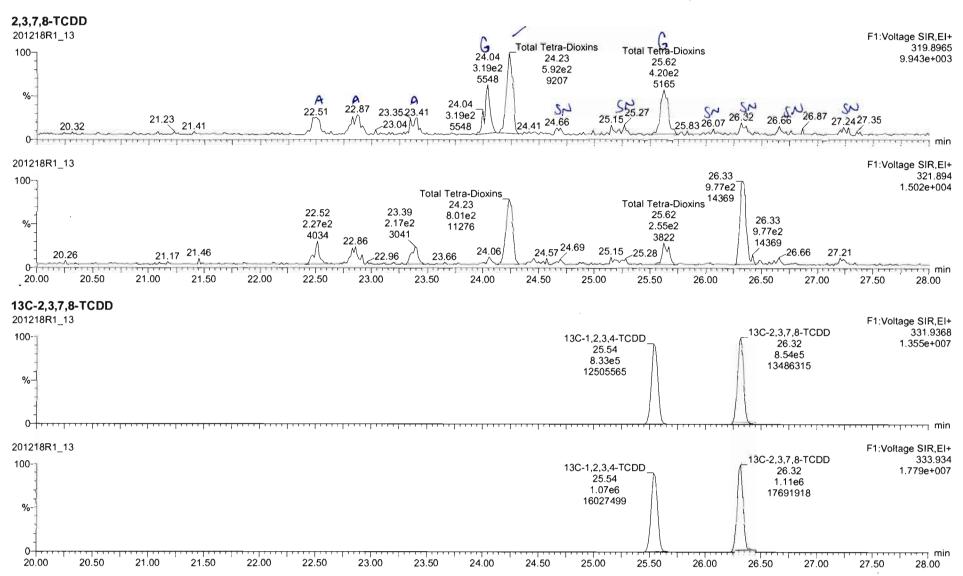
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1/10	1,2,3,4,6,7,8-HpCDF	36.80	2.361e3 1.242e3	9.488e1	9.013e1	1.05	NO	1.850e2	0.038942	0.038942	0.00699

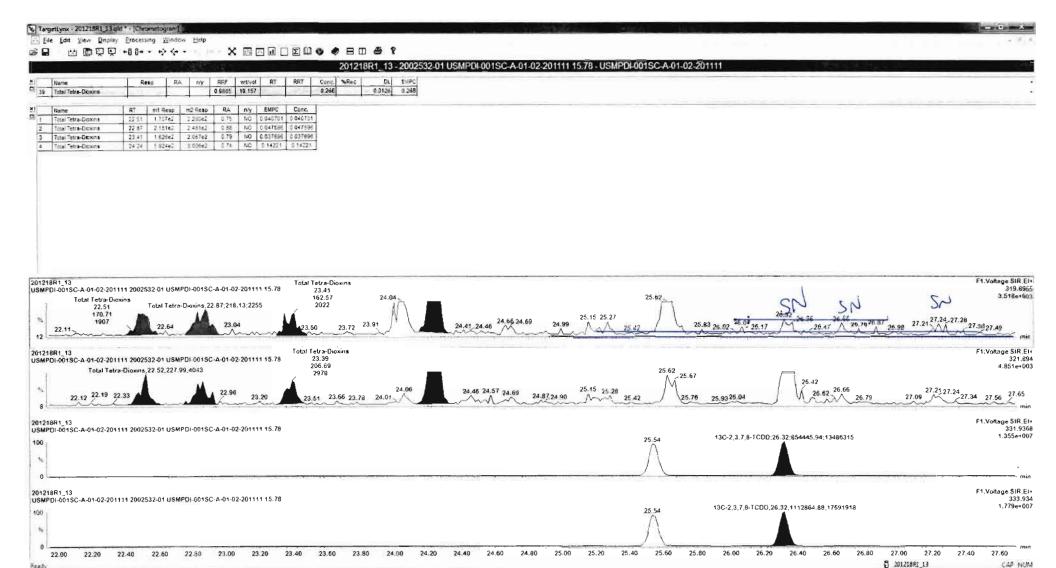
Work Order 2002532 Page 79 of 725

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Sunday, December 20, 2020 08:09:36 Pacific Standard Time Sunday, December 20, 2020 08:10:42 Pacific Standard Time





Work Order 2002532 Page 81 of 725

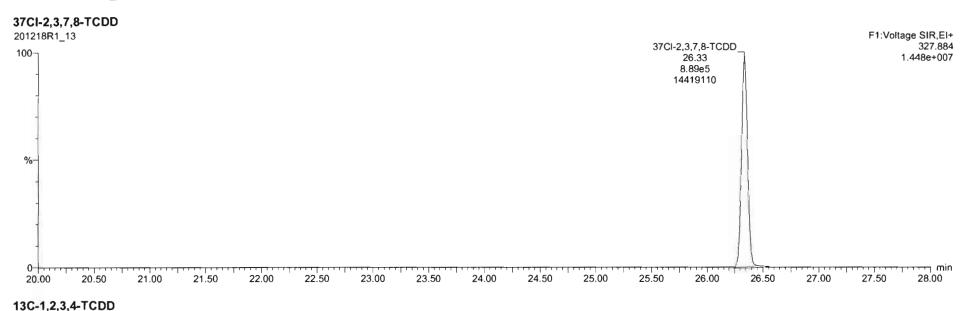
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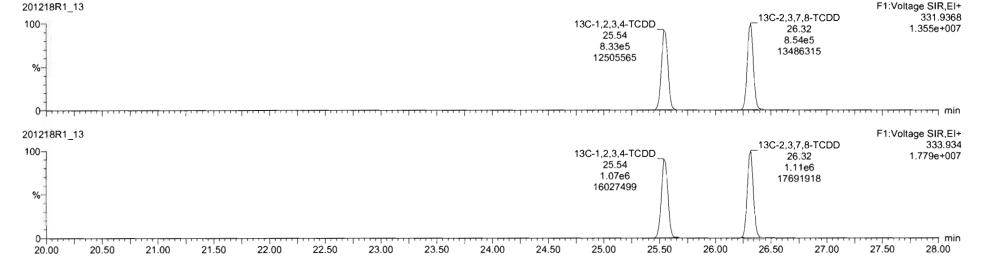
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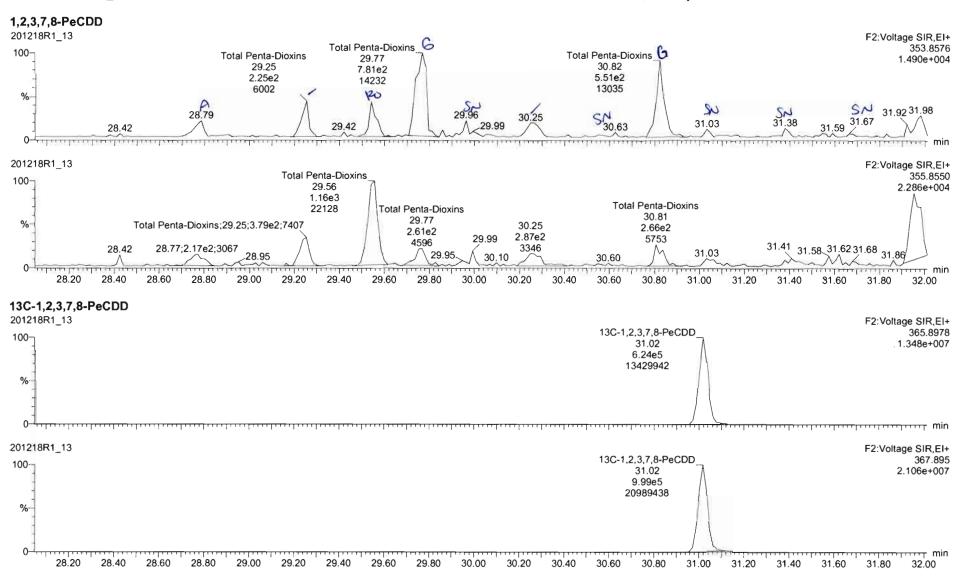
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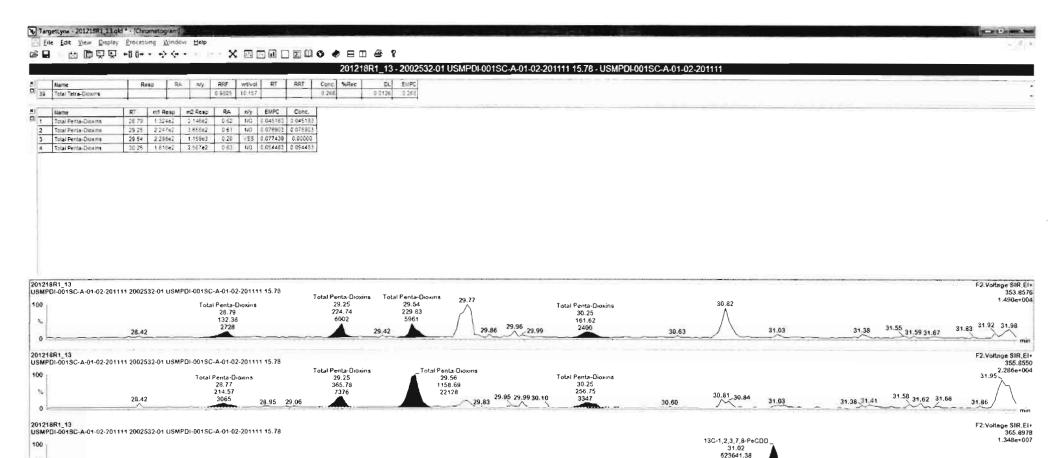




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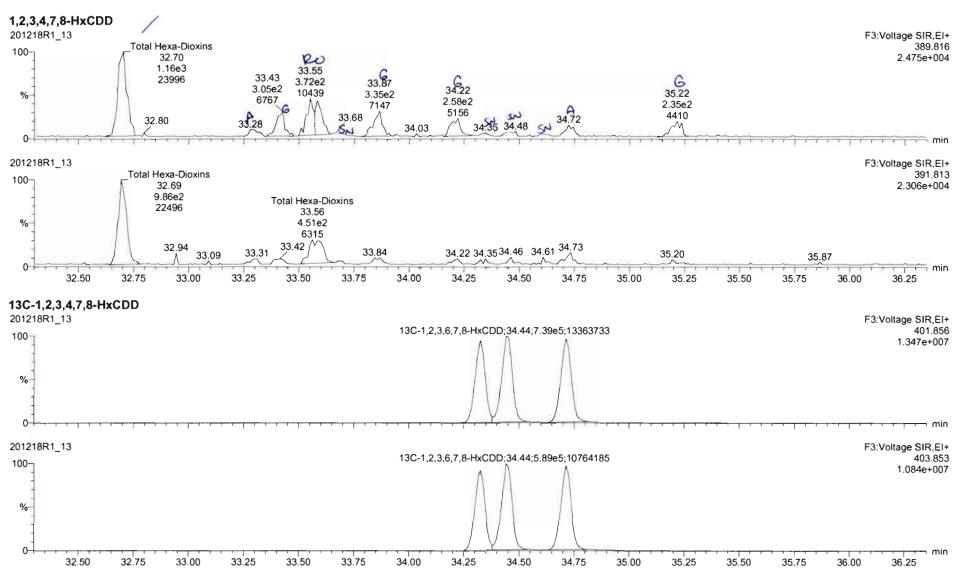
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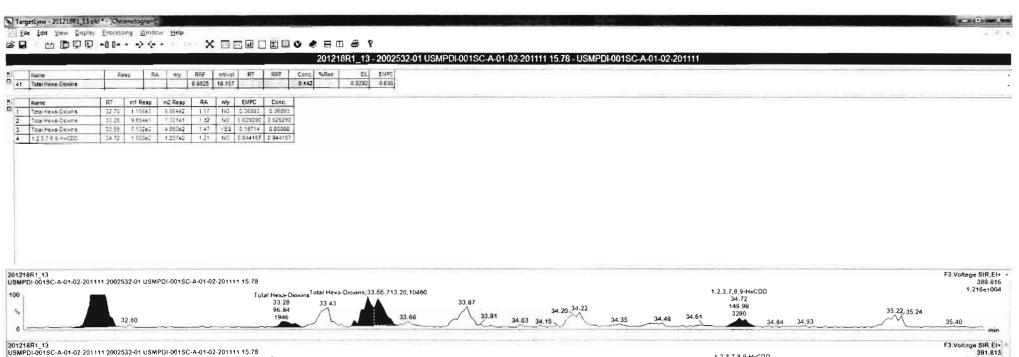
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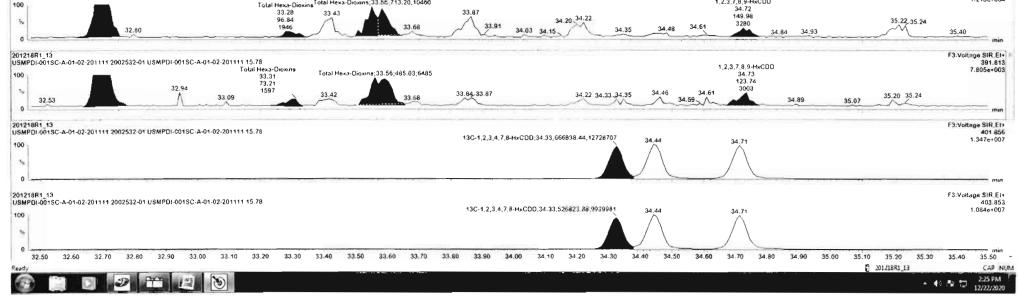
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Work Order 2002532 Page 84 of 725

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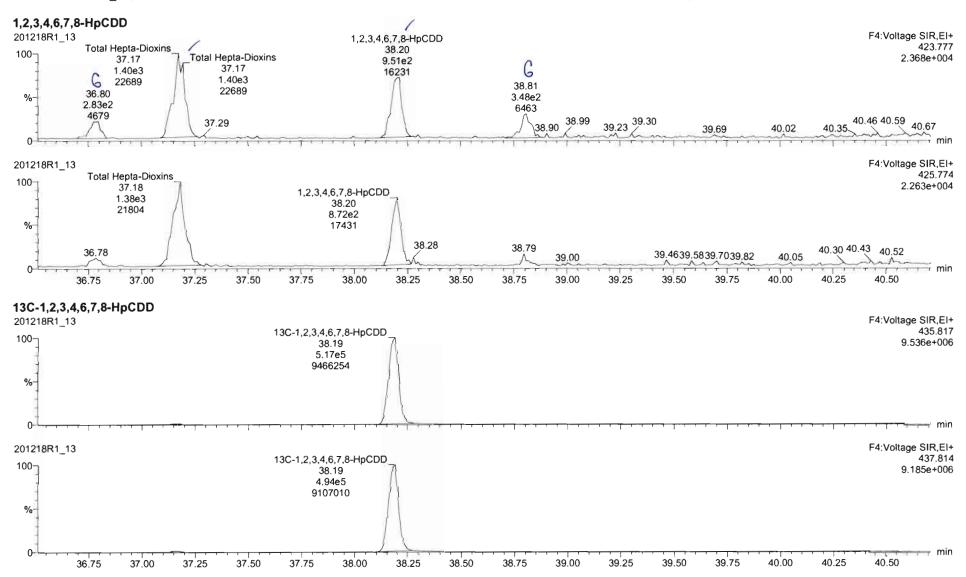




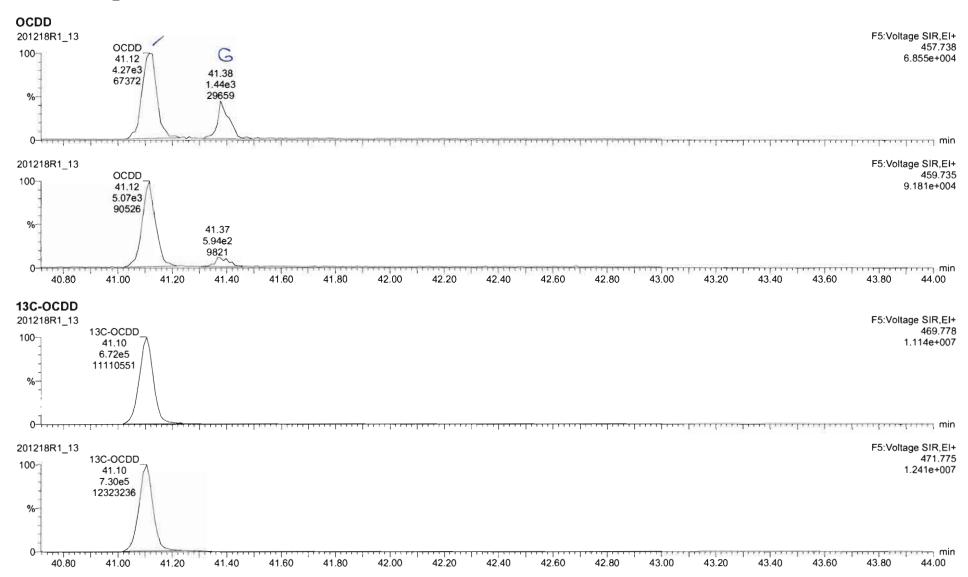


Work Order 2002532 Page 86 of 725

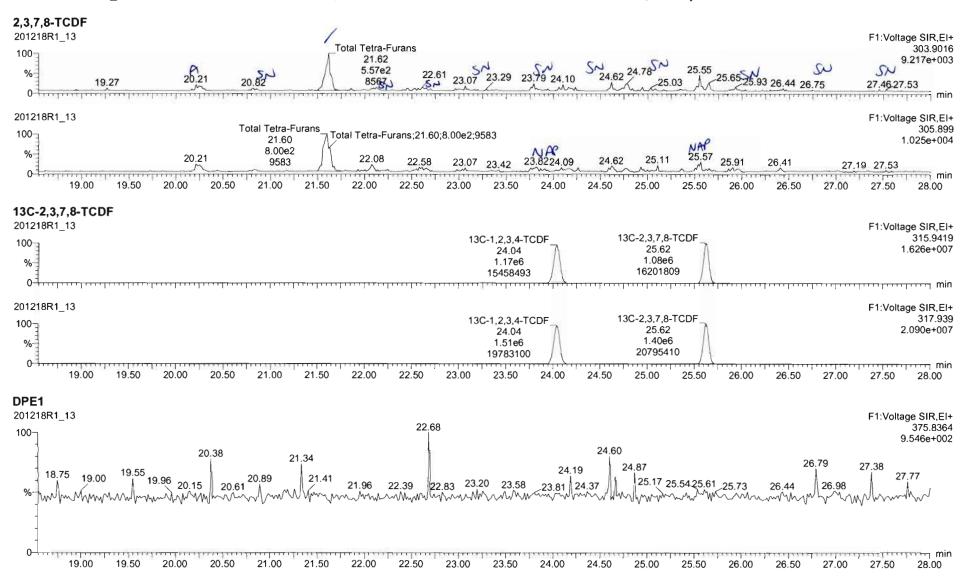
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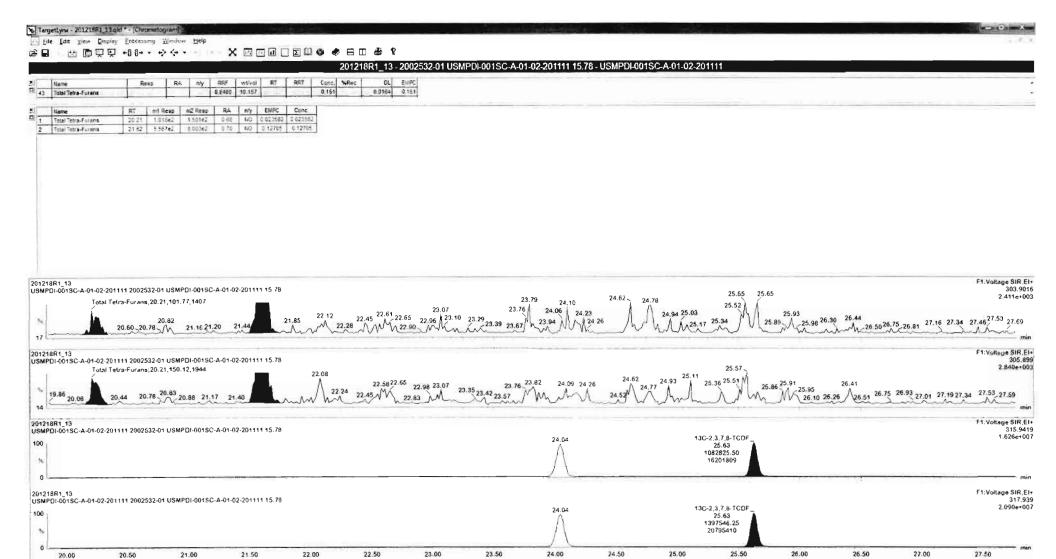


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Page 90 of 725

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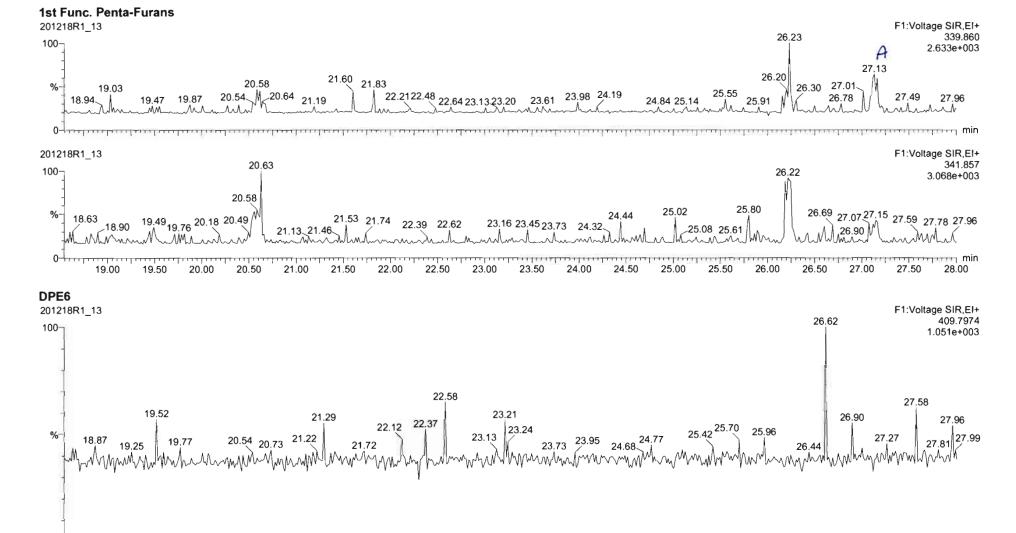
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Sunday, December 20, 2020 08:09:36 Pacific Standard Time Sunday, December 20, 2020 08:10:42 Pacific Standard Time

Name: 201218R1_13, Date: 18-Dec-2020, Time: 19:13:47, ID: 2002532-01 USMPDI-001SC-A-01-02-201111 15.78, Description: USMPDI-001SC-A-01-02-201111



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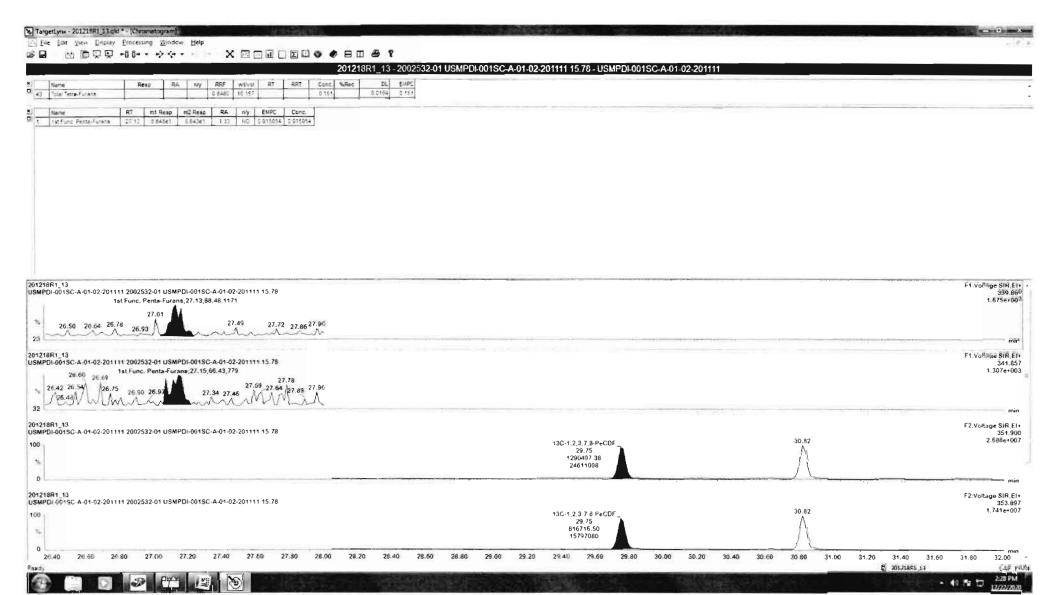
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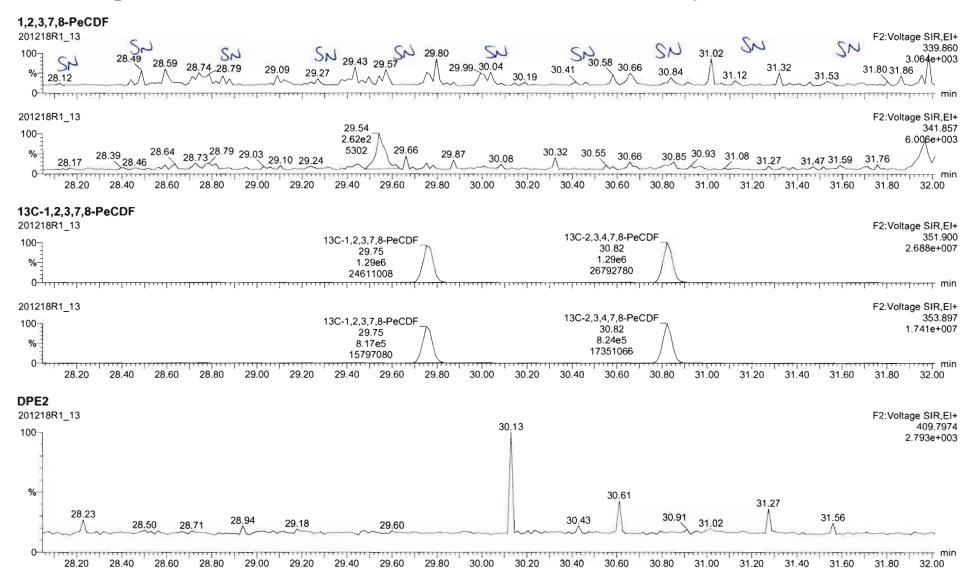
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Page 92 of 725

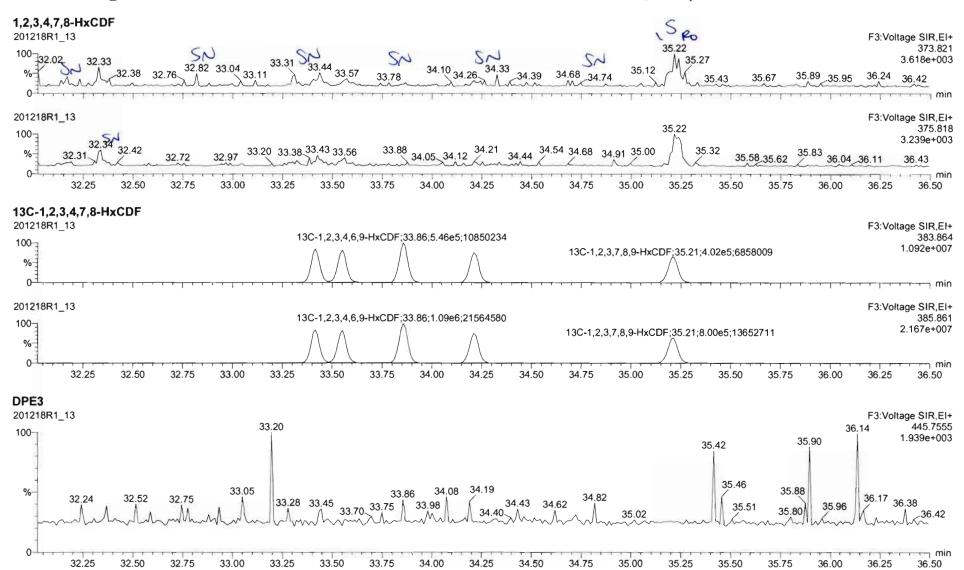
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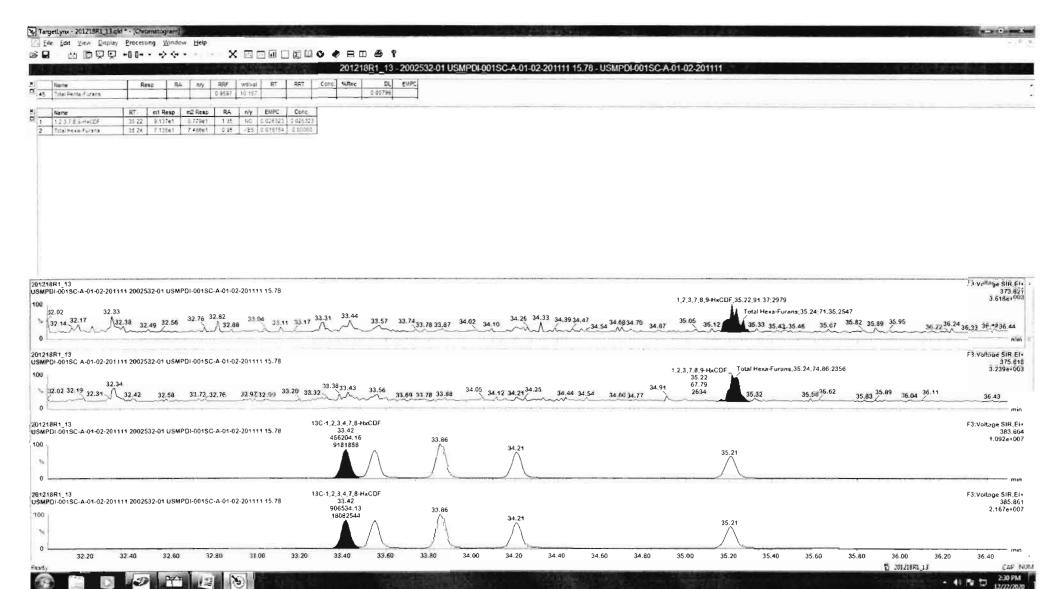
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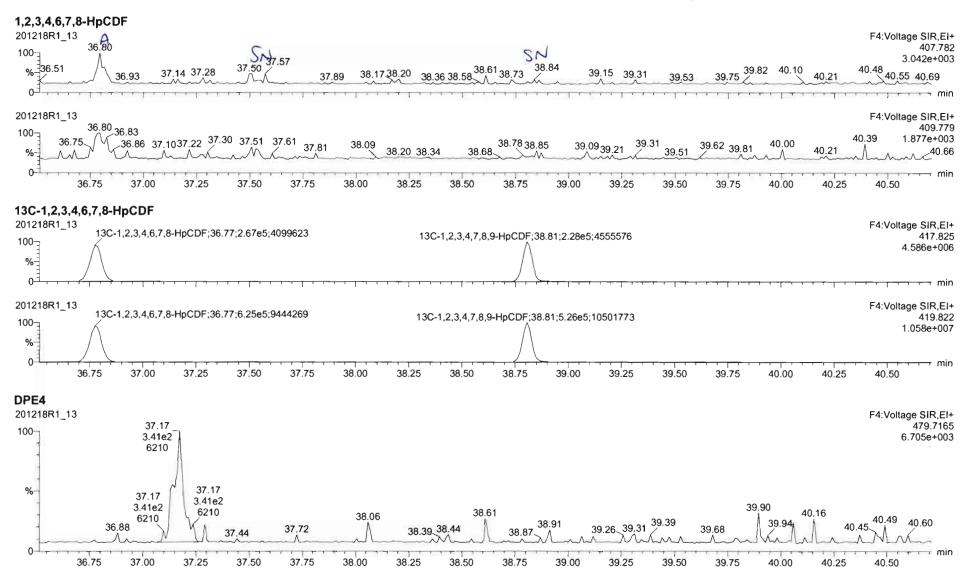


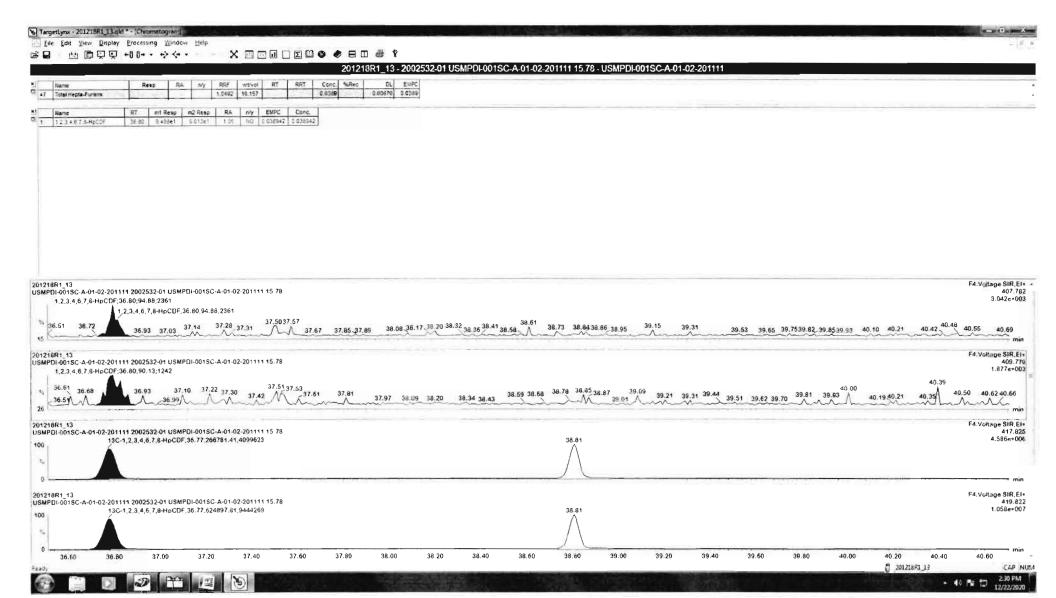
Page 95 of 725

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Sunday, December 20, 2020 08:09:36 Pacific Standard Time Sunday, December 20, 2020 08:10:42 Pacific Standard Time





Page 97 of 725

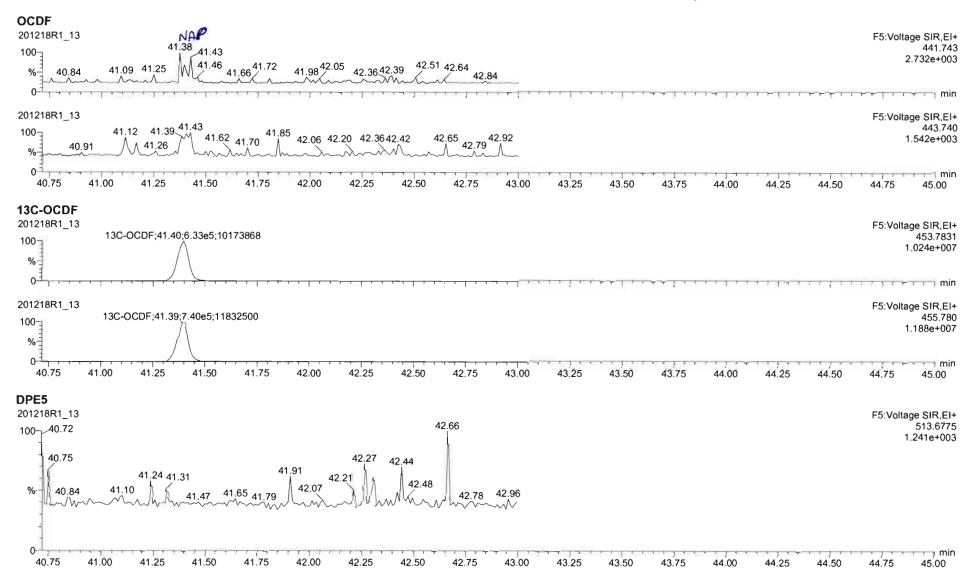
Page 142 of 143

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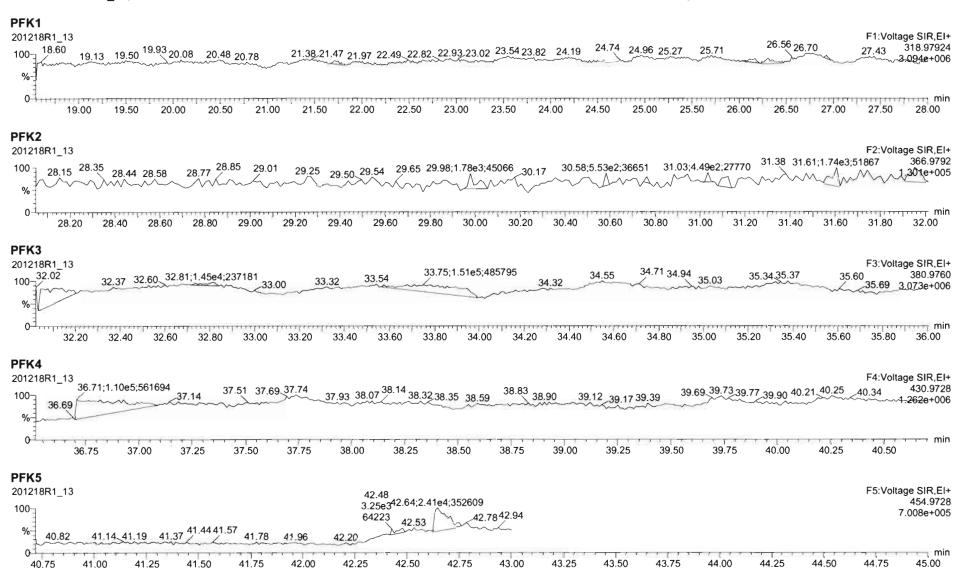
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Vista Analytical Laboratory

Dataset:

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Last Altered: Printed:

Tuesday, December 22, 2020 3:03:58 PM Pacific Standard Time Tuesday, December 22, 2020 3:04:14 PM Pacific Standard Time

GRB 12/22/2020

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_4, Date: 20-Dec-2020, Time: 10:44:30, ID: 2002532-02 USMPDI-001SC-A-02-03-201111 14.33, Description: USMPDI-001SC-A-02-03-201111

120 100	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1.549.75	1 2,3,7,8-TCDD			NO	0.980	10.035 🗸	26.322		1.001				0.0457	
2	2 1,2,3,7,8-PeCDD	8.11e2	0.70	NO	0.932	10.035	31.034	31.02	1.001	1.000	0.26341		0.130	0.263
3	3 1,2,3,4,7,8-HxCDD	4.25e2	1.35	NO	1.02	10.035	34.316	34.33	1.001	1.001	0.18862		0.170	0.189
4 3 1000 331	4 1,2,3,6,7,8-HxCDD	7.03e2	1.39	NO	0.902	10.035	34.442	34.43	1.001	1.000	0.31757		0.174	0.318
5	5 1,2,3,7,8,9-HxCDD	1.77e3	1.18	NO	0.954	10.035	34.692	34.70	1.000	1.001	0.79331		0.182	0.793
6	6 1,2,3,4,6,7,8-HpCDD	2.30e3	1.05	NO	0.918	10.035	38.168	38.18	1.000	1.001	1.3043		0.101	1.30
7	7 OCDD	6.35e3	0.90	NO	0.866	10.035	41.092	41 10	1.000	1.000	5.0654		0.138	5.07
8	8 2,3,7,8-TCDF			NO	0.848	10.035	25.598		1.000				0.0263	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.035	29.739		1.000				0.0552	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.035	30.829		1.001				0.0490	
11	11 1,2,3,4,7,8-HxCDF	2.56e2	1.13	NO	0.986	10.035	33.405	33.42 <	1.000	1.001	0.091801		0.0284	0.0918
12	12 1,2,3,6,7,8-HxCDF	2.99e2	1.16	NO	1.04	10.035	33.551	33.54	1.001	1.000	0.10436		0.0292	0.104
13	13 2,3,4,6,7,8-HxCDF	3.89e2	1.37	NO	1.02	10.035	34.211	34.22	1.001	1.001	0.14543		0.0310	0.145
14	14 1,2,3,7,8,9-HxCDF	3.47e2	0.96	YES	0.991	10.035	35.196	35.21	1.000	1.001	0.14543		0.0412	0.129
15	15 1,2,3,4,6,7,8-HpCDF	5.69e2	1.18	NO	1.05	10.035	36.760	36.77	1.000	1.001	0.29788		0.0712	0.298
16	16 1,2,3,4,7,8,9-HpCDF	5.24e2	1.01	NO	1.18	10.035	38.796	38.81	1.000	1.001	0.27882		0.0555	0.279
17	17 OCDF	1.03e3	1.11	YES	0.896	10.035	41.375	41.38	1.000	1.000	0.73079		0.0724	0.655
18	18 13C-2,3,7,8-TCDD	7.74e5	0.78	NO	1.06	10.035	26.292	26.29	1.030	1.030	183.99	92.3	0.197	
19.	19 13C-1,2,3,7,8-PeCDD	6.58e5	0.62	NO	0.785	10.035	31.120	31.00	1.219	1.215	210.42	106	0.215	1
20	20 13C-1,2,3,4,7,8-HxCDD	4.40e5	1.28	NO	0.621	10.035	34.294	34.29	1.014	1.014	199.25	100	0.351	
21	21 13C-1,2,3,6,7,8-HxCDD	4.89e5	1.25	NO	0.734	10.035	34.416	34.42	1.017	1.017	187.03	93.8	0.297	
22	22 13C-1,2,3,7,8,9-HxCDD	4.66e5	1.27	NO	0.723	10.035	34.700	34.68	1.026	1.025	181.08	90.9	0.302	
23	23 13C-1.2,3,4,6,7,8-HpCDD	3.83e5	1.06	NO	0.568	10.035	38.195	38.16	1.129	1.128	189.24	94.9	0.897	
24	24 13C-OCDD	5.77e5	0.87	NO	0.496	10.035	41.129	41.08	1.216	1.214	326.95	82.0	0.709	
25	25 13C-2,3,7,8-TCDF	1.03e6	0.77	NO	0.919	10.035	25.592	25.59	1.003	1.003	183.36	92.0	0.267	
26	26 13C-1,2,3,7,8-PeCDF	8.95e5	1.60	NO	0.715	10.035	29.834	29.74	1.169	1.165	205.16	103	0.398	
27	27 13C-2,3,4,7,8-PeCDF	8.63e5	1,58	NO	0.689	10.035	30.919	30.81	1.212	1.207	205.38	103	0.413	
28	28 13C-1,2,3,4,7,8-HxCDF	5.63e5	0 51	NO	0.873	10.035	33.401	33.40 /	0.987	0.987	181.09	90.9	0.510	
29	29 13C-1,2,3,6,7.8-HxCDF	5.49e5	0.50	NO	0.933	10.035	33.529	33.53 /	0.991	0.991	165.26	82.9	0.478	
30	30 13C-2,3,4,6,7,8-HxCDF	5.22e5	0.50	NO	0.843	10.035	34.196	34.19 /	1.011	1.011	173.96	87.3	0.529	
31	31 13C-1,2,3,7,8,9-HxCDF	4.80e5	0.50	NO	0.780	10.035	35.194	35 19	1.040	1.040	172.74	86.7	0.572	

Work Order 2002532 Page 100 of 725

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-4.qld

Last Altered:

Tuesday, December 22, 2020 3:03:58 PM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 3:04:14 PM Pacific Standard Time

Name: 201220R1_4, Date: 20-Dec-2020, Time: 10:44:30, ID: 2002532-02 USMPDI-001SC-A-02-03-201111 14.33, Description: USMPDI-001SC-A-02-03-201111

125	# 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	3.63e5	0.43	NO	0.726	10.035	36.767	36.74	1.087	1.086	140.30	70.4	0.533	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.19e5	0.43	NO	0.491	10.035	38.774	38.78	1.146	1.146	182.15	91.4	0.789	
34	34 13C-OCDF	6.25e5	0.87	NO	0.565	10.035	41.345	41.37	1.222	1.223	310.53	77.9	0.425	
35	35 37Cl-2,3,7,8-TCDD	3.54e5			1.22	10.035	26.287	26.31	1.030	1.031	72.932	91.5	0.0383	
36	36 13C-1,2,3,4-TCDD	7.95e5	0.78	NO	1.00	10.035	25.640	25.52	1.000	1.000	199.31	100	0.208	
37	37 13C-1,2,3,4-TCDF	1.22e6	0.78	NO	1.00	10.035	24.130	24.01	1.000	1.000	199.31	100	0.245	
38	38 13C-1,2,3,4,6,9-HxCDF	7.10e5	0.51	NO	1.00	10.035	33.920	33.83	1.000	1.000	199.31	100	0.446	
39	39 Total Tetra-Dioxins				0.980	10.035	24.620		0.000		0.20837		0.0457	0.208
40	40 Total Penta-Dioxins				0.932	10.035	29.960		0.000		0.84403		0.130	1.49
41	41 Total Hexa-Dioxins				0.902	10.035	33.635		0.000		4.3910		0.186	4.39
42	42 Total Hepta-Dioxins				0.918	10.035	37.640		0.000		3.0784		0.101	3.08
43	43 Total Tetra-Furans				0.848	10.035	23.610		0.000				0.0127	
44	44 1st Func. Penta-Furans				0.960	10.035	26.930		0.000				0.00643	
45	45 Total Penta-Furans				0.960	10.035	29.275		0.000				0.0181	
46	46 Total Hexa-Furans				1.02	10.035	33.555		0.000		0.34159		0.0318	0.543
47	47 Total Hepta-Furans				1.05	10.035	37.835		0.000		0.57670		0.0670	0.577

Work Order 2002532 Page 101 of 725

Vista Analytical Laboratory

Dataset:

Printed:

U:\VG12.PRO\Results\201220R1\201220R1-4.qld

Last Altered:

Tuesday, December 22, 2020 3:03:58 PM Pacific Standard Time Tuesday, December 22, 2020 3:04:14 PM Pacific Standard Time

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_4, Date: 20-Dec-2020, Time: 10:44:30, ID: 2002532-02 USMPDI-001SC-A-02-03-201111 14.33, Description: USMPDI-001SC-A-02-03-201111

Tetra-Dioxins

Na	ame	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Tot	etal Tetra-Dioxins	24.19	4.471e3	6.623e3	3.430e2	4.509e2	0.76	NO	7.939e2	0.20837	0.20837	0.0457

Penta-Dioxins

2 43 (0 - 97)	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.22	3.712e3	6.490e3	2.219e2	4.064e2	0.55	NO	6.283e2	0.20405	0.20405	0.130
2	Total Penta-Dioxins	29.51	1.917e3	9.477e3	7.917e1	4.728e2	0.17	YES	0.000e0	0.00000	0.066528	0.130
3	Total Penta-Dioxins	29.74	9.682e3	2.837e3	3.797e2	2.006e2	1.89	YES	0.000e0	0.00000	0.10620	0.130
4	Total Penta-Dioxins	29.92	2.365e3	2.308e3	5.440e1	9.361e1	0.58	NO	0.000e0	0.00000	0.048071	0.130
5	Total Penta-Dioxins	29.95	2.252e3	4.563e3	1.217e2	2.682e2	0.45	YES	0.000e0	0.00000	0.10222	0.130
6	Total Penta-Dioxins	30.23	4.940e3	1.049e4	3.800e2	7.528e2	0.50	YES	0.000e0	0.00000	0.31927	0.130
7.00	1,2,3,7,8-PeCDD	31.02	7.720e3	9.975e3	3.348e2	4.762e2	0.70	NO	8.110e2	0.26341	0.26341	0.130
8	Total Penta-Dioxins	31.36	1.091e4	1.384e4	4.565e2	7.030e2	0.65	NO	1.159e3	0.37657	0.37657	0.130

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Dioxins	32.68	3.546e4	2.770e4	1.780e3	1.494e3	1.19	NO	3.274e3	1.5549	1.5549	0.186
2 Total Hexa-Dioxins	33.55	2.578e4	2.159e4	1.686e3	1.365e3	1.24	NO	3.052e3	1.4491	1.4491	0.186
3 1,2,3,4,7,8-HxCDD	34.33	6.486e3	3.396e3	2.442e2	1.809e2	1.35	NO	4.251e2	0.18862	0.18862	0.170
4 1,2,3,6,7,8-HxCDD	34.43	6.801e3	4.712e3	4.085e2	2.945e2	1.39	NO	7.030e2	0.31757	0.31757	0.174
5 Total Hexa-Dioxins	34.63	2.273e3	1.523e3	9.889e1	8.543e1	1.16	NO	1.843e2	0.087521	0.087521	0.186
6 1,2,3,7,8,9-HxCDD	34.70	1.835e4	1.529e4	9.577e2	8.121e2	1.18	NO	1.770e3	0.79331	0.79331	0.182

Hepta-Dioxins

	and the same	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1		Total Hepta-Dioxins	37.16	2.097e4	1.892e4	1.565e3	1.562e3	1.00	NO	3.126e3	1.7741	1.7741	0.101
2		1,2,3,4,6,7,8-HpCDD	38.18	1.994e4	2.086e4	1.180e3	1.119e3	1.05	NO	2.299e3	1.3043	1.3043	0.101

Work Order 2002532 Page 102 of 725

Page 2 of 2

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-4.qld

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Tuesday, December 22, 2020 3:03:58 PM Pacific Standard Time Tuesday, December 22, 2020 3:04:14 PM Pacific Standard Time

Name: 201220R1_4, Date: 20-Dec-2020, Time: 10:44:30, ID: 2002532-02 USMPDI-001SC-A-02-03-201111 14.33, Description: USMPDI-001SC-A-02-03-201111

Tetra-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/	Resp	Conc.	EMPC	DL
170500 539								

Penta-Furans function 1

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1945								

Penta-Furans

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

Hexa-Furans

AP DESIGN	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.14	1.552e3	1.545e3	8.238e1	5.236e1	1.57	YES	0.000e0	0.00000	0.043343	0.0318
2	1,2,3,4,7,8-HxCDF	33.42	3.042e3	2.205e3	1.354e2	1.204e2	1.13	NO	2.558 e 2	0.091801	0.091801	0.0284
3	1,2,3,6,7,8-HxCDF	33.54	3.186e3	3.987e3	1.608e2	1.381e2	1.16	NO	2.988e2	0.10436	0.10436	0.0292
4	2,3,4,6,7,8-HxCDF	34.22	4.746e3	2.921e3	2.244e2	1.643e2	1.37	NO	3.888e2	0.14543	0.14543	0.0310
5	1,2,3,7,8,9-HxCDF	35.21	4.021e3	4.425e3	1.703e2	1.767e2	0.96	YES	3.469e2	0.00000	0.12893	0.0412
6	Total Hexa-Furans	35.24	3.025e3	1.914e3	6.241e1	3.494e1	1.79	YES	0.000e0	0.00000	0.028925	0.0318

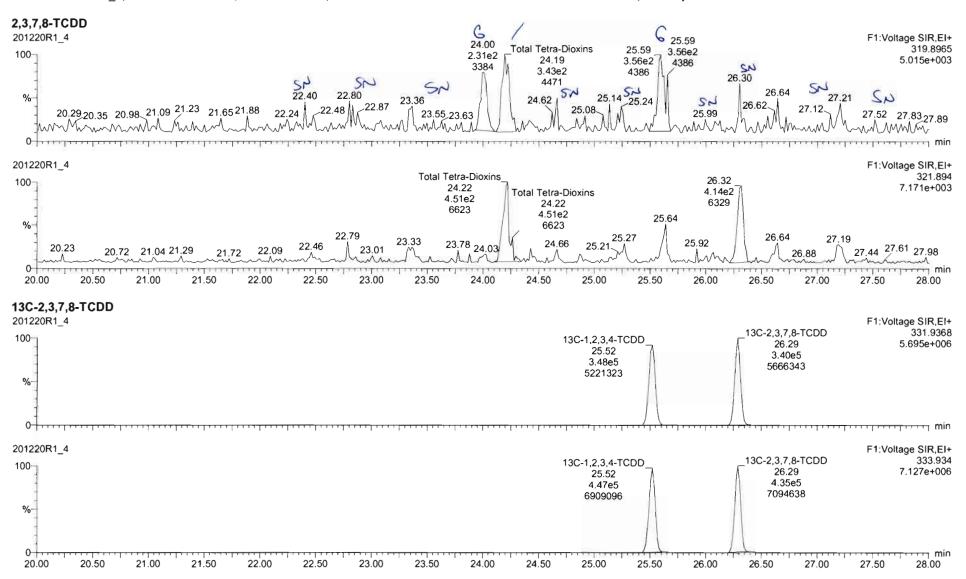
Hepta-Furans

1000	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	36.77	6.125e3	5.027e3	3.080e2	2.612e2	1.18	NO	5.692e2	0.29788	0.29788	0.0712
2	1,2,3,4,7,8,9-HpCDF	38.81	5.372e3	6.058e3	2.633e2	2.608e2	1.01	NO	5.241e2	0.27882	0.27882	0.0555

Work Order 2002532 Page 103 of 725

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

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Work Order 2002532 Page 104 of 725

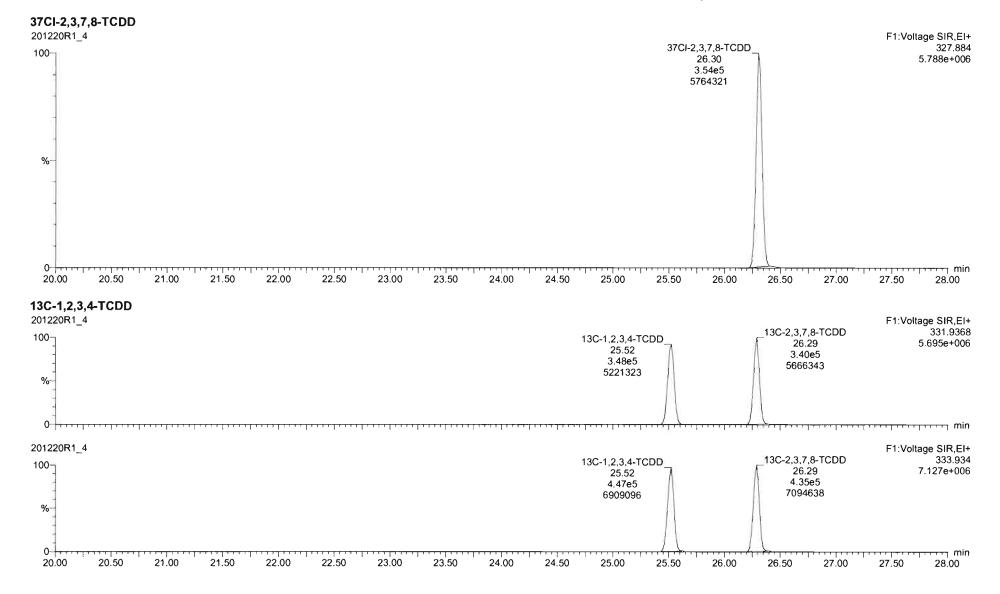
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Vista Analytical Laboratory

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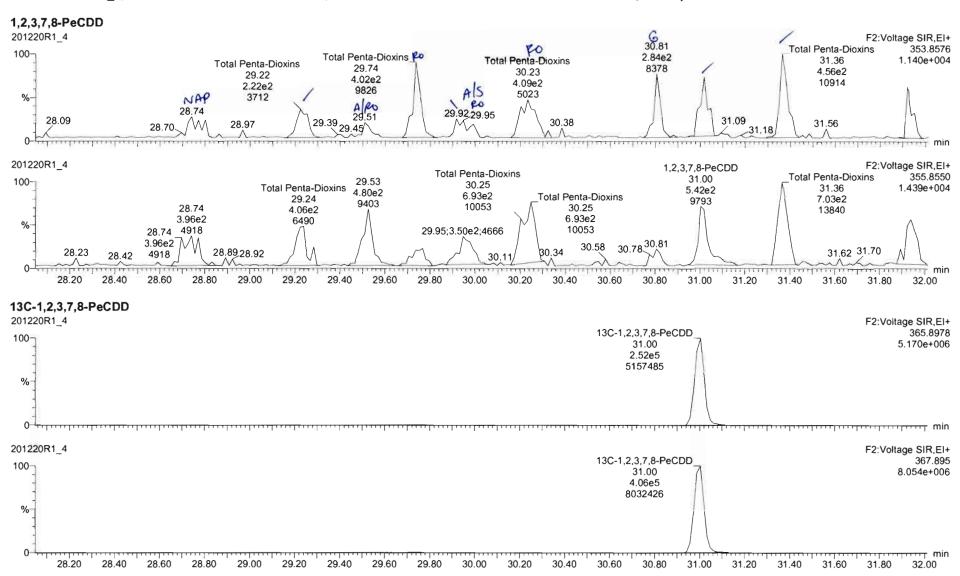


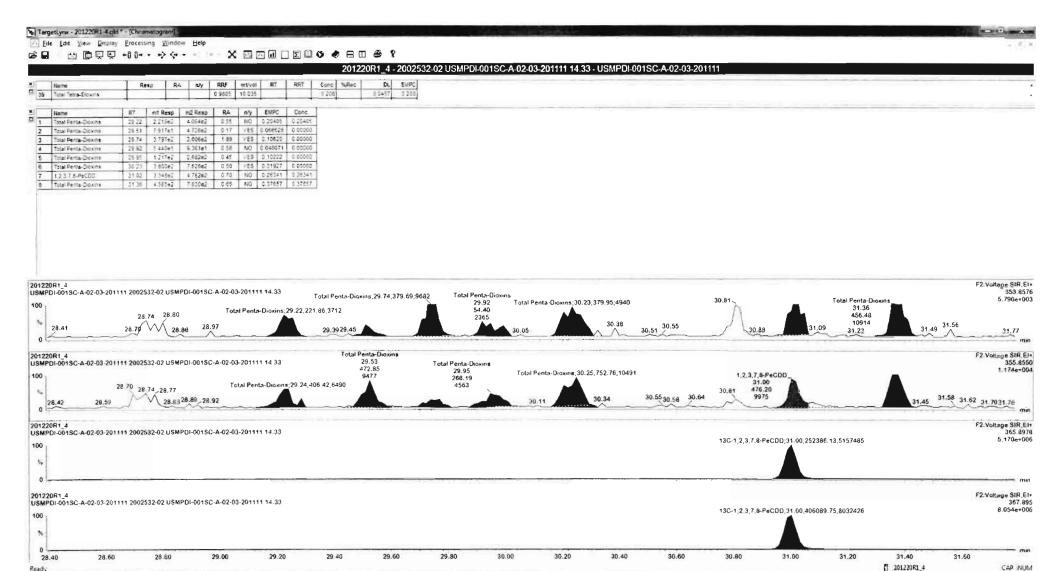
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Work Order 2002532 Page 107 of 725

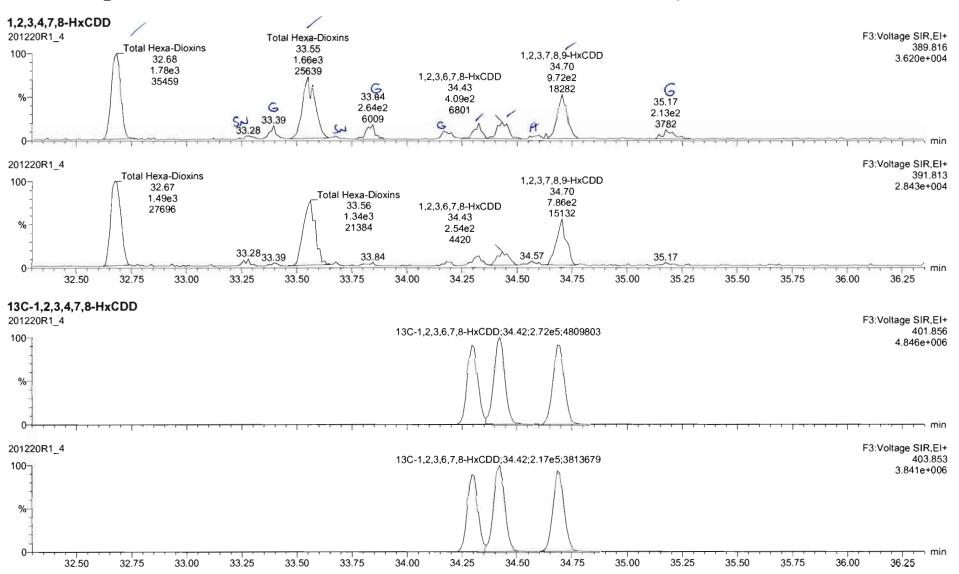
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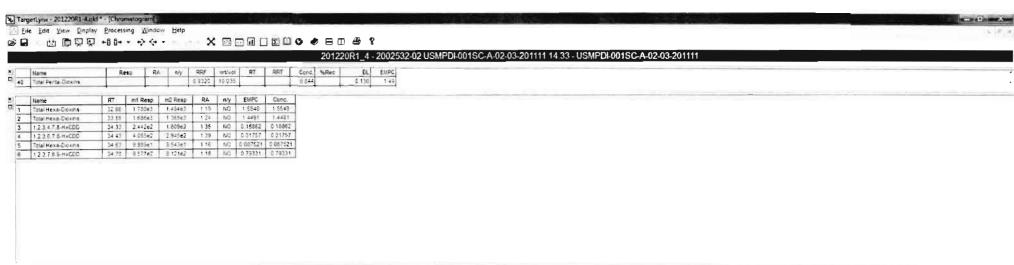
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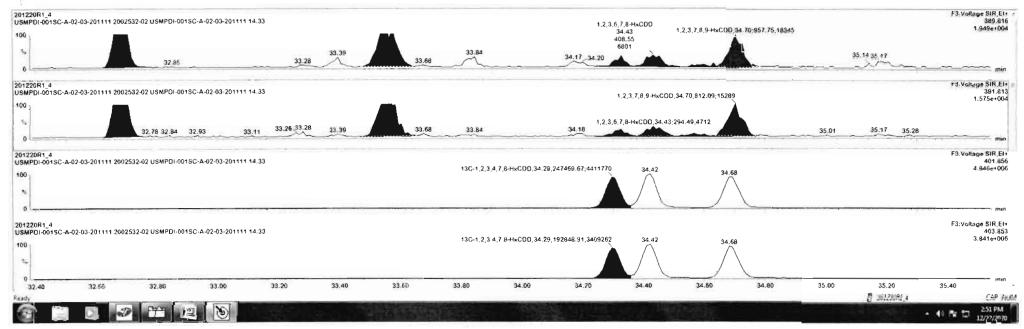
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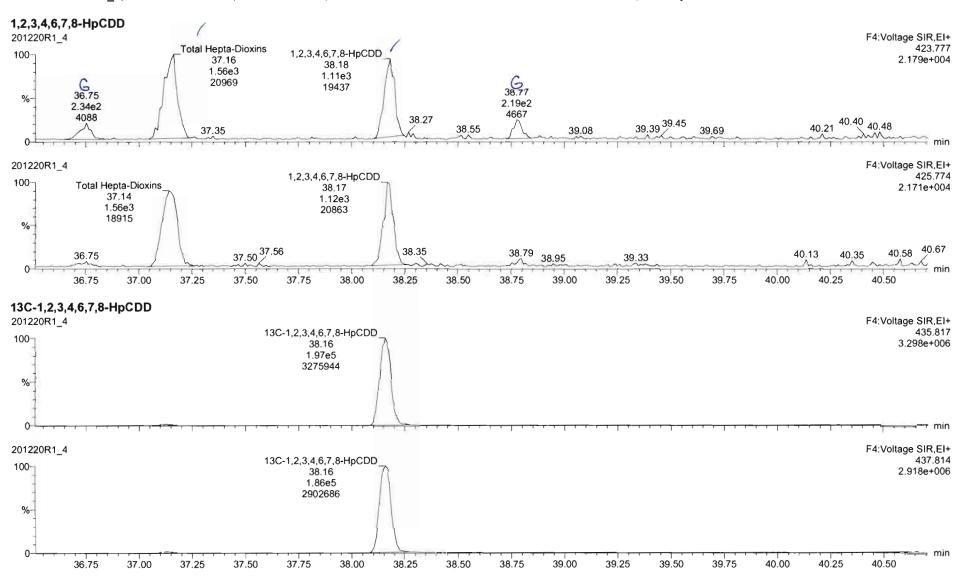


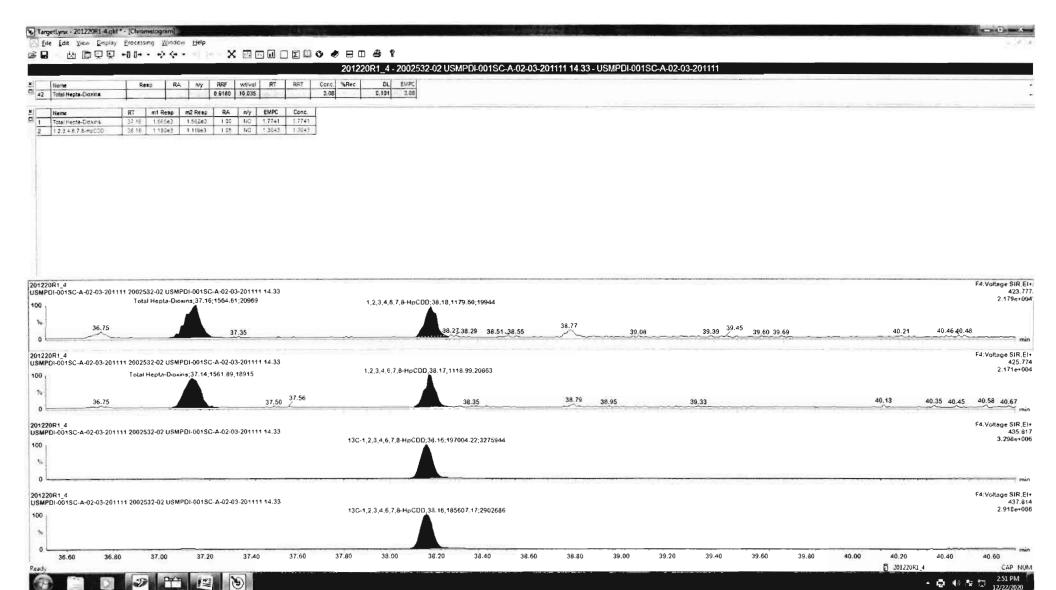
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Dataset: Untitled

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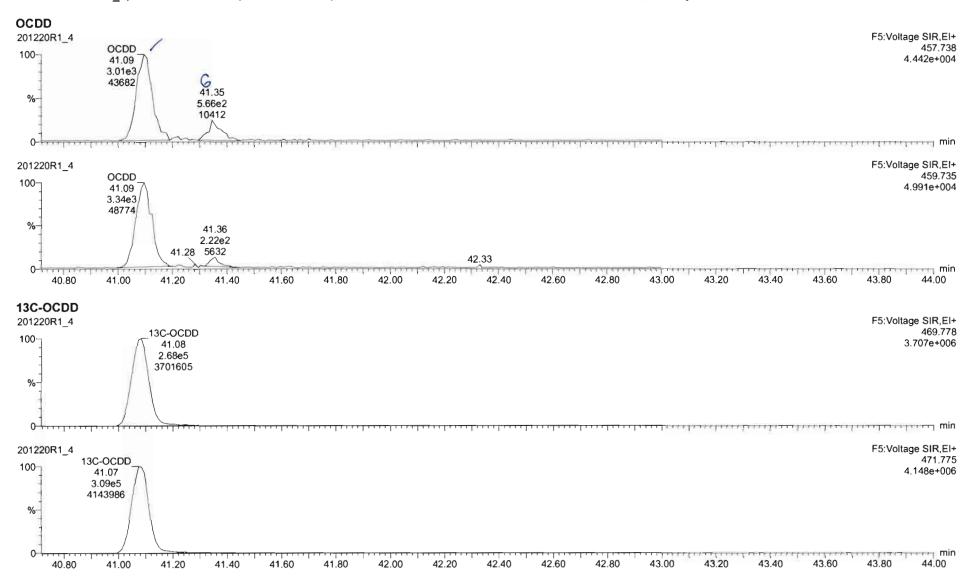


Work Order 2002532 Page 111 of 725

Dataset: Untitled

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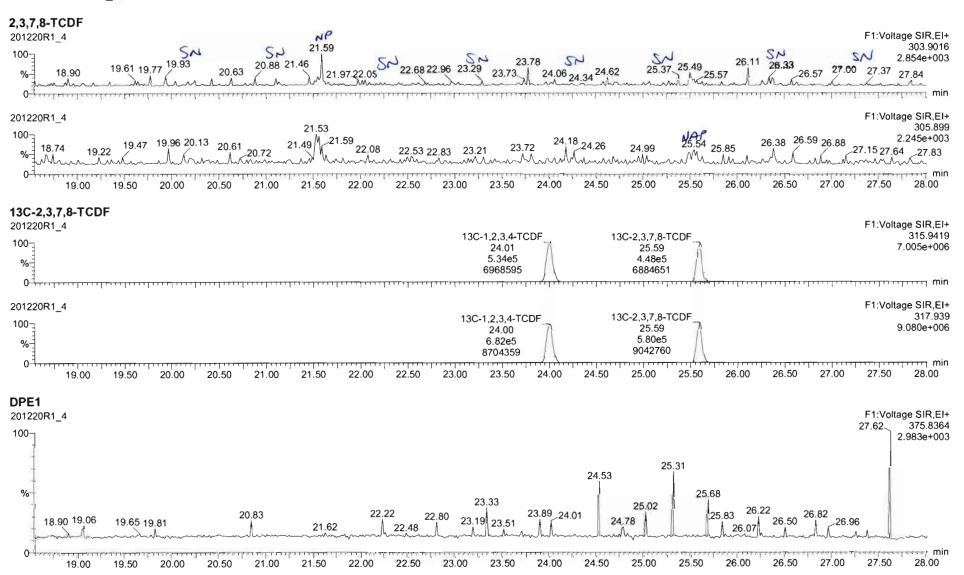


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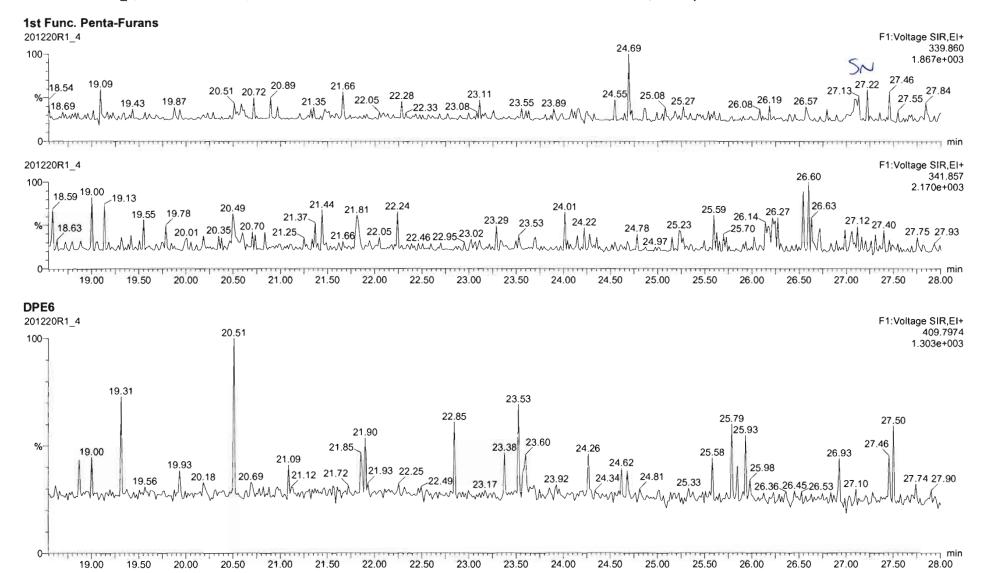


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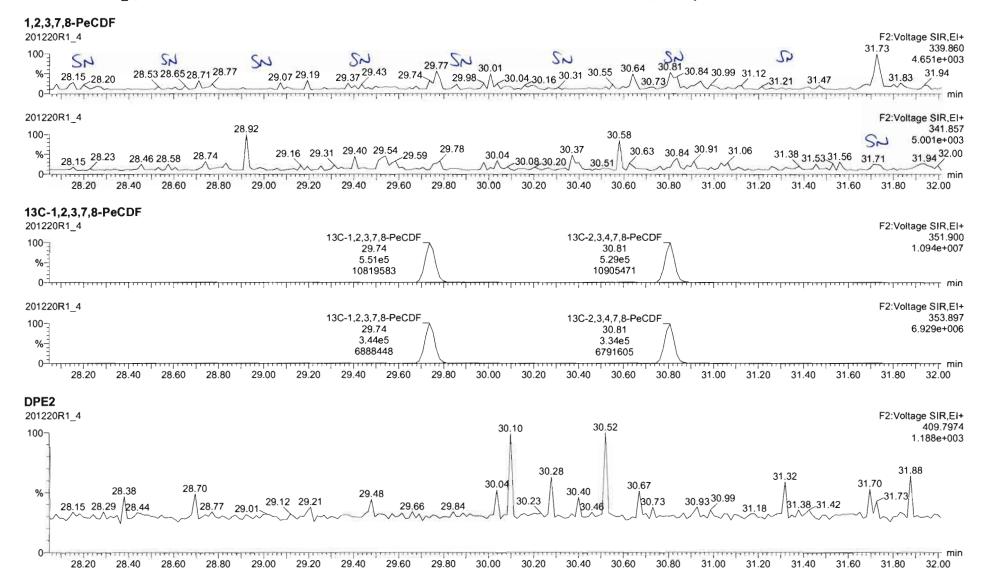


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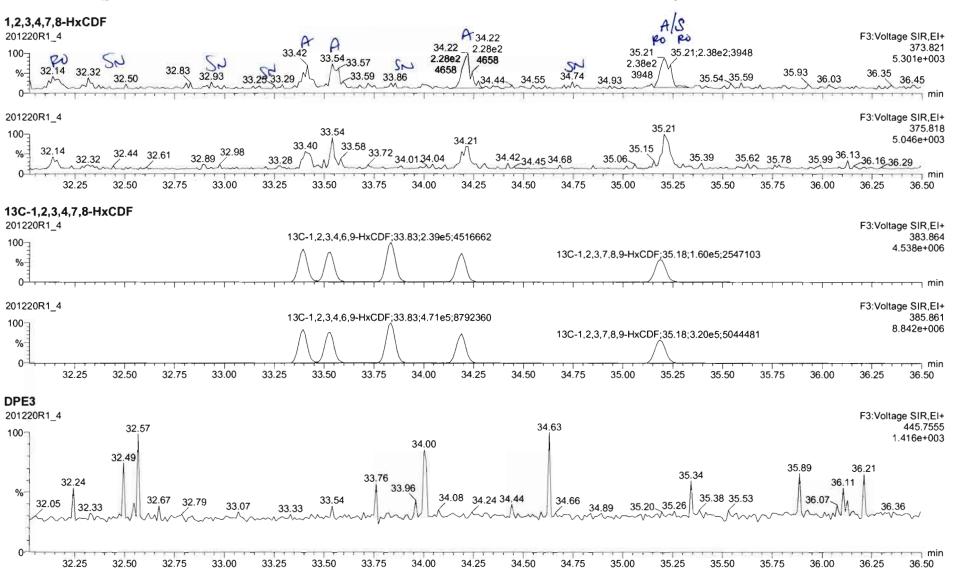
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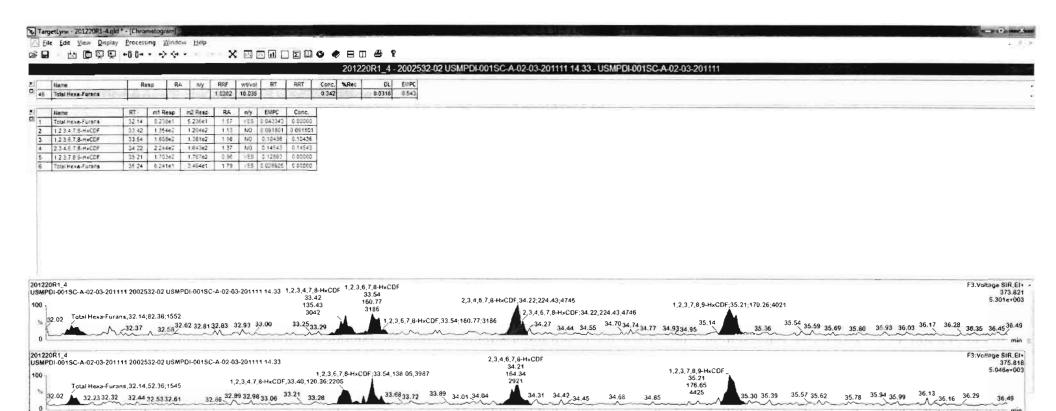


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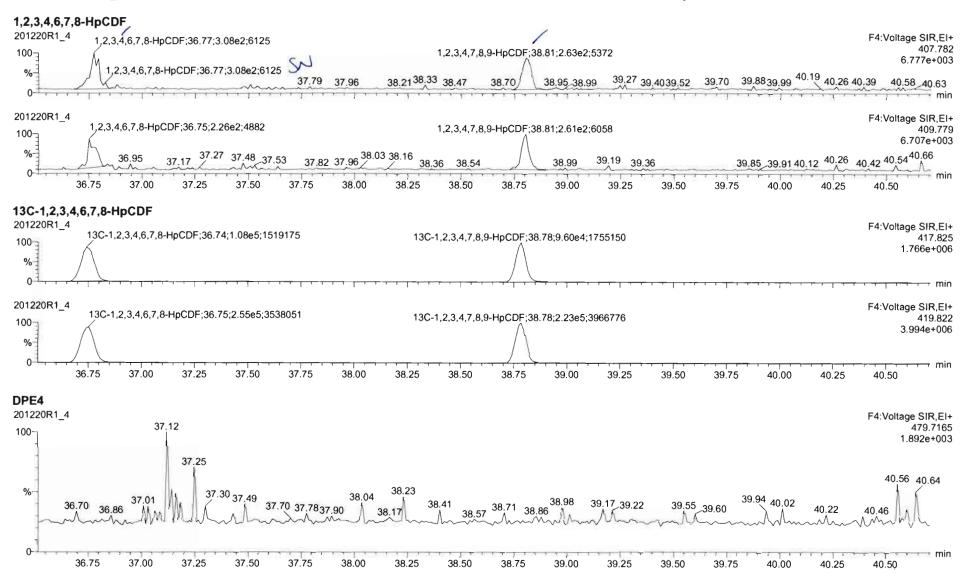
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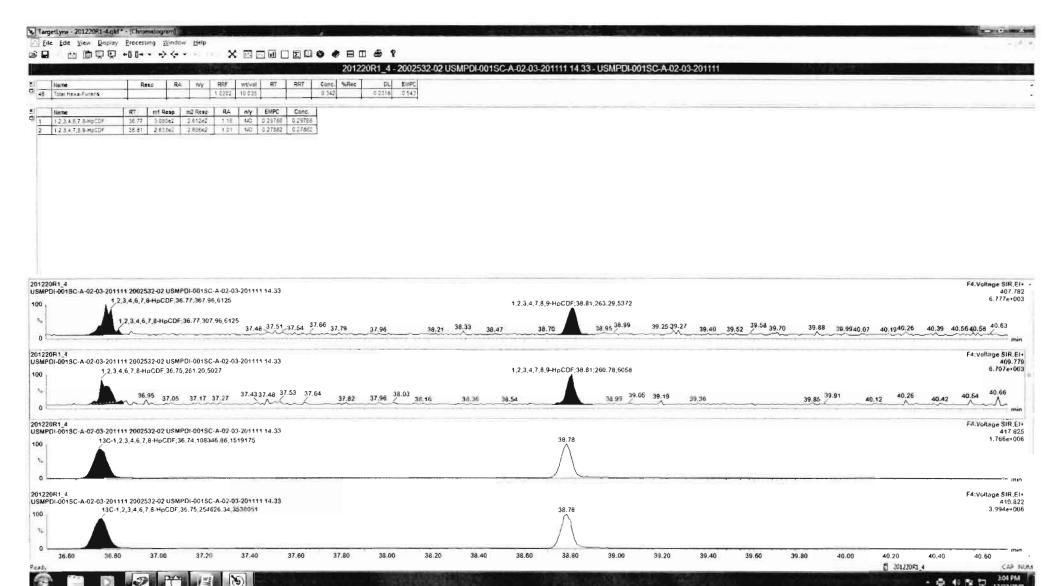
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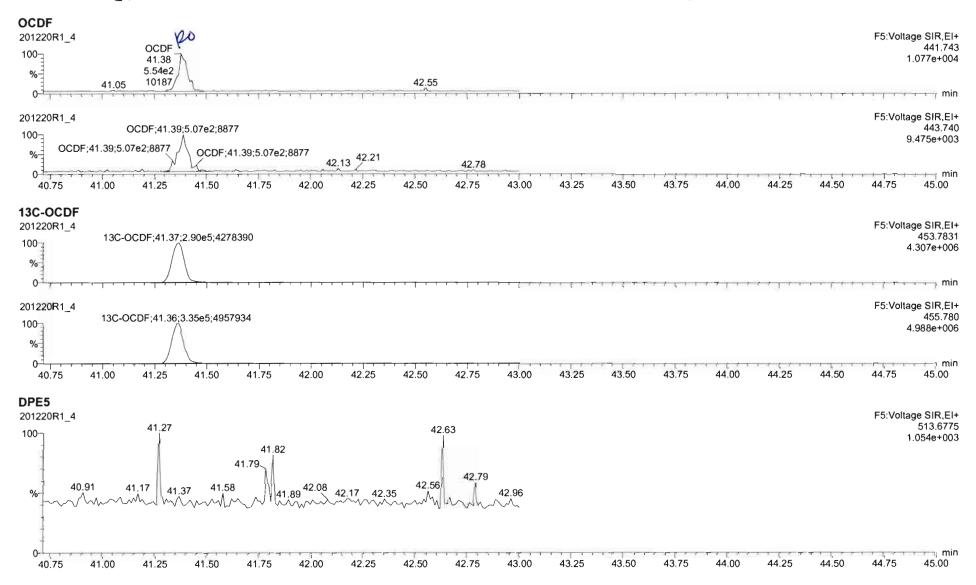


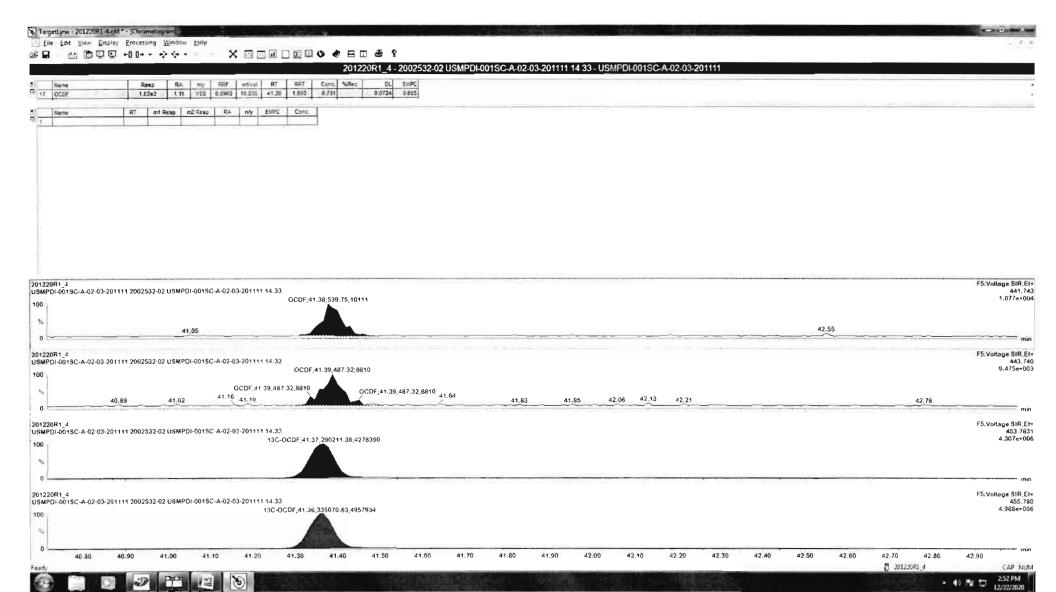
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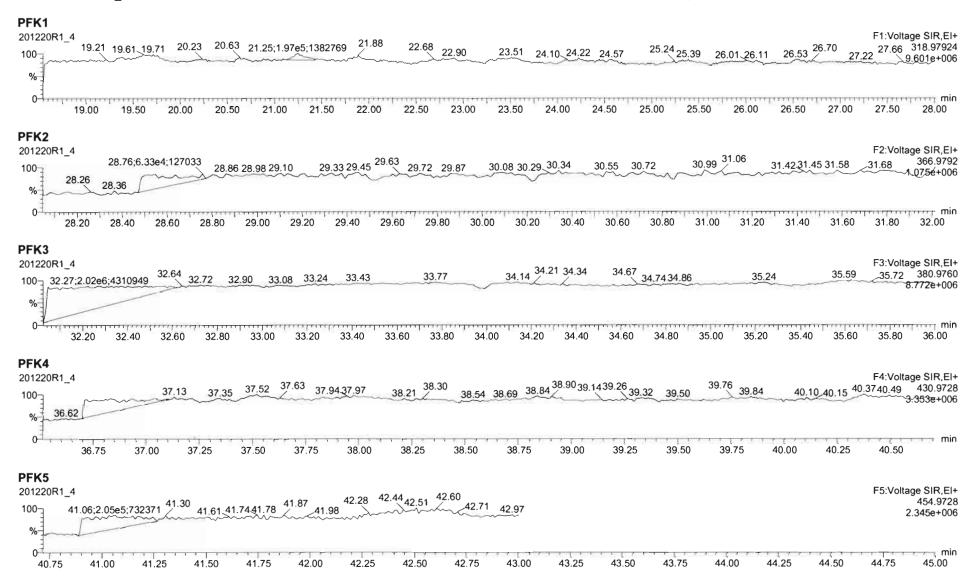


Work Order 2002532 Page 121 of 725

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Vista Analytical Laboratory

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-5.qld

Last Altered: Tuesday, December 22, 2020 3:12:59 PM Pacific Standard Time Tuesday, December 22, 2020 3:13:12 PM Pacific Standard Time

GPB 12/22/2020

Method: Untitled 11 Dec 2020 08:35:32

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17.55	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
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2	2 1,2,3,7,8-PeCDD			NO	0.932	10.180	31.034		1.001				0.0690	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.180	34.326		1.001				0.0916	
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.180	34.442		1.001				0.0933	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.180	34.703		1.000				0.0932	
6	6 1,2,3,4,6,7,8-HpCDD	1.85e3	0.96	NO	0.918	10.180	38.179	38.18	1.000	1.000	0.97195		0.111	0.972
7	7 OCDD	1.53e4	0.90	NO	0.866	10 180	41.113	41.12	1.000	1.000	12.040		0.138	12.0
8	8 2,3,7,8-TCDF			NO	0.848	10.180	25.613		1.000				0.0197	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.180	29.739		1.000				0.0415	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.180	30.829		1.001				0.0342	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.180	33.415		1.000				0.0463	
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.180	33.551		1.001				0.0479	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.180	34.211		1.001				0.0483	
14	14 1,2,3,7,8,9-HxCDF	5.73e1	0.85	YES	0.991	10.180	35.185	3 5.18	1.000	1.000	0.021938		0.0328	0.0182
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.180	36.781		1.000				0.0681	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.180	38.796		1.000				0.0547	
17	17 OCDF	1.73e2	0.81	NO	0.896	10.180	41.406	41.42	1.000	1.001	0.11912		0.0858	0.119
18	18 13C-2,3,7,8-TCDD	7.90e5	0.78	NO	1.06	10.180	26.307	26.31	1.030	1.030	193.72	98.6	0.159	
19	19 13C-1,2,3,7,8-PeCDD	6.64e5	0.63	NO	0.785	10.180	31.139	31.00	1.219	1.214	218.88	111	0.344	
20	20 13C-1,2,3,4,7,8-HxCDD	4.56e5	1.32	NO	0.621	10.180	34.305	34.31	1.014	1.014	208.16	106	0.433	
21	21 13C-1,2,3,6,7,8-HxCDD	5.03e5	1.28	NO	0.734	10.180	34.427	34.42	1.017	1.017	194.27	98.9	0.366	
22	22 13C-1,2,3,7,8,9-HxCDD	4.93e5	1.24	NO	0.723	10.180	34.711	34.69	1.026	1.025	193.29	98.4	0.372	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.08e5	1.04	NO	0.568	10.180	38.208	38.17	1.129	1.128	203.40	104	0.985	
24	24 13C-OCDD	5.77e5	0.85	NO	0.496	10.180	41.142	41.10	1.216	1.215	329.77	83.9	0.786	
25	25 13C-2,3,7,8-TCDF	1.04e6	0.76	NO	0.919	10.180	25.608	25.61	1.003	1.003	193.76	98.6	0.272	
26	26 13C-1,2,3,7,8-PeCDF	9.00e5	1.60	NO	0.715	10 180	29.852	29.74	1.169	1.164	215.78	110	0.394	
27	27 13C-2,3,4,7,8-PeCDF	8.91e5	1.59	NO	0.689	10.180	30.937	30.81	1.212	1.206	221.86	113	0.410	
28	28 13C-1,2,3,4,7,8-HxCDF	5 61e5	0.53	NO	0.873	10 180	33.412	33.40	0.987	0 987	182.02	92.6	0.429	
29	29 13C-1,2,3,6,7,8-HxCDF	5.38e5	0.53	NO	0.933	10.180	33.540	33.53	0.991	0.991	163.31	83.1	0.402	
30	30 13C-2,3,4,6,7,8-HxCDF	5.45e5	0.50	NO	0.843	10.180	34.207	34.19	1.011	1.010	183.23	93.3	0.445	
31	31_13C-1,2,3,7,8,9-HxCDF	5.18e5	0.50	NO	0.780	10.180	35.206	35.19 /	1.040	1.040	188.11	95.7	0.481	

Work Order 2002532 Page 123 of 725

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-5.qld

Last Altered:

Tuesday, December 22, 2020 3:12:59 PM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 3:13:12 PM Pacific Standard Time

Name: 201220R1_5, Date: 20-Dec-2020, Time: 11:28:45, ID: 2002532-03 USMPDI-001SC-A-03-04-201111 13.56, Description: USMPDI-001SC-A-03-04-201111

Hall had	# 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	3.80e5	0.43	NO	0.726	10.180	36.779	36.76	1.087	1.086	148.32	75.5	0.546	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.43e5	0.43	NO	0.491	10.180	38.786	38.78	1.146	1.146	198.02	101	0.807	
34	34 13C-OCDF	6.36e5	0.86	NO	0.565	10.180	41.359	41.40	1.222	1.223	318.68	81.1	0.582	
35	35 37CI-2,3,7,8-TCDD	3.73e5			1.22	10.180	26.302	26.32	1.030	1.031	79.359	101	0.0342	
36	36 13C-1,2,3,4-TCDD	7.59e5	0.80	NO	1.00	10.180	25.640	25.54	1.000	1.000	196. 4 6	100	0.168	
37	37 13C-1,2,3,4-TCDF	1.15e6	0.78	NO	1.00	10.180	24.130	24.03	1.000	1.000	196.46	100	0.250	
38	38 13C-1,2,3,4,6,9-HxCDF	6.94e5	0.51	NO	1.00	10.180	33.920	33.85	1.000	1.000	196.46	100	0.375	
39	39 Total Tetra-Dioxins				0.980	10.180	24.620		0.000		0.20701		0.0421	0.207
40	40 Total Penta-Dioxins				0.932	10.180	29.960		0.000		0.00000		0.0269	0.119
41	41 Total Hexa-Dioxins				0.902	10.180	33.635		0.000		1.3797		0.0983	1.38
42	42 Total Hepta-Dioxins				0.918	10.180	37.640		0.000		2.6457		0.111	2.65
43	43 Total Tetra-Furans				0.848	10.180	23.610		0.000				0.00876	
44	44 1st Func. Penta-Furans				0.960	10.180	26.930		0.000				0.00898	
45	45 Total Penta-Furans				0.960	10.180	29.275		0.000				0.0216	
46	46 Total Hexa-Furans				1.02	10.180	33.555		0.000		0.045707		0.0284	0.119
47	47 Total Hepta-Furans				1.05	10.180	37.835		0.000				0.0277	

Work Order 2002532 Page 124 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-5.qld

Last Altered: Tuesday, December 22, 2020 3:12:59 PM Pacific Standard Time Printed: Tuesday, December 22, 2020 3:13:12 PM Pacific Standard Time

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_5, Date: 20-Dec-2020, Time: 11:28:45, ID: 2002532-03 USMPDI-001SC-A-03-04-201111 13.56, Description: USMPDI-001SC-A-03-04-201111

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
11-20-	Total Tetra-Dioxins	24.22	4.216e3	6.736e3	3.321e2	4.841e2	0.69	NO	8.162e2	0.20701	0.20701	0.0421

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Penta-Dioxins	30.25	4.475e3	3.865e3	1.934e2	2.308e2	0.84	YE\$	0.000e0	0.00000	0.11949	0.0690

Hexa-Dioxins

70 6 Yes	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 0103 3 16	Total Hexa-Dioxins	32.69	2.045e4	1.749e4	1.043e3	7.937e2	1.31	NO	1.836e3	0.82559	0.82559	0.0983
2	Total Hexa-Dioxins	33.30	1.379e3	1.525e3	6.292e1	4.904e1	1.28	NO	1.120e2	0.050338	0.050338	0.0983
3	Total Hexa-Dioxins	33.56	9.485 e 3	7.567e3	6.450e2	4.756e2	1.36	NO	1.121e3	0.50381	0.50381	0.0983

Hepta-Dioxins

This is	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
17.5	Total Hepta-Dioxins	37.16	2.709e4	2.161e4	1.681e3	1.507e3	1.12	NO	3.189e3	1.6738	1.6738	0.111
2	1,2,3,4,6,7,8-HpCDD	38.18	1.751e4	1.506e4	9.093e2	9.423e2	0.96	NO	1.852e3	0.97195	0.97195	0.111

Tetra-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
CH 1777								

Penta-Furans function 1

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

Work Order 2002532 Page 125 of 725

Page 1 of 2

Page 2 of 2

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-5.qld

Tuesday, December 22, 2020 3:12:59 PM Pacific Standard Time Last Altered: Tuesday, December 22, 2020 3:13:12 PM Pacific Standard Time Printed:

Name: 201220R1_5, Date: 20-Dec-2020, Time: 11:28:45, ID: 2002532-03 USMPDI-001SC-A-03-04-201111 13.56, Description: USMPDI-001SC-A-03-04-201111

Penta-Furans

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

Hexa-Furans

HE BY CALL	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.95	1.942e3	3.396e3	8.608e1	1.179e2	0.73	YES	0.000e0	0.00000	0.055383	0.0284
2	1,2,3,7,8,9-HxCDF	35.18	8.060e2	9.010e2	2.627e1	3.104e1	0.85	YES	5.731e1	0.00000	0.018166	0.0328
3	Total Hexa-Furans	35.21	1.969e3	1.630e3	7.211e1	5.621e1	1.28	NO	1.283e2	0.045707	0.045707	0.0284

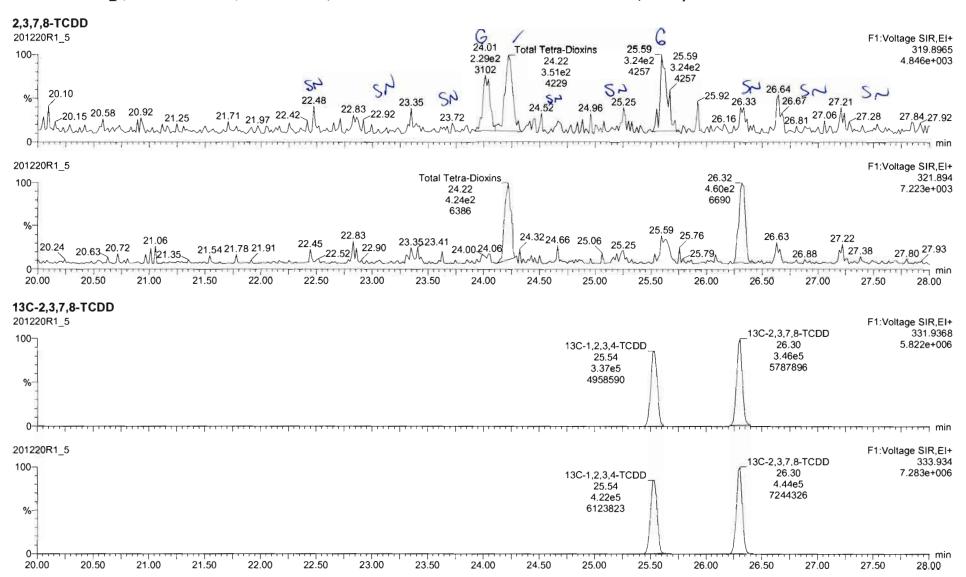
Hepta-Furans

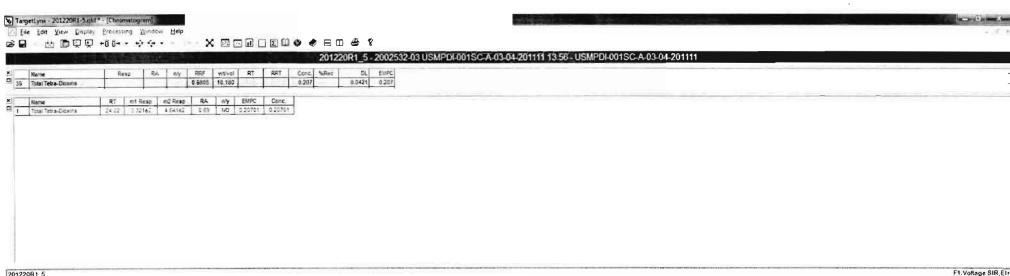
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1											

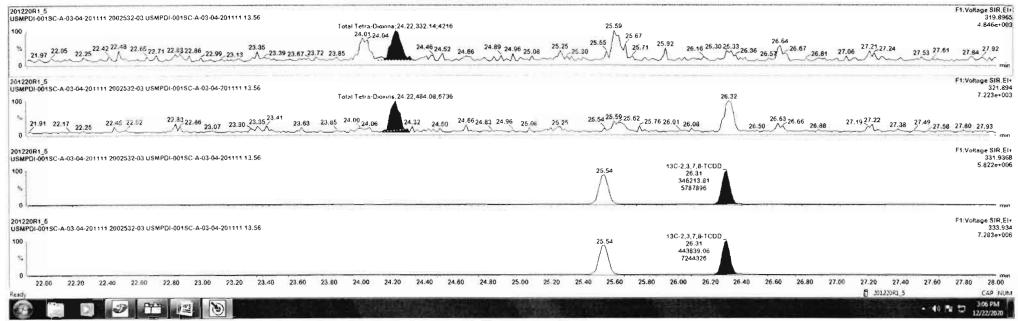
Page 126 of 725 Work Order 2002532

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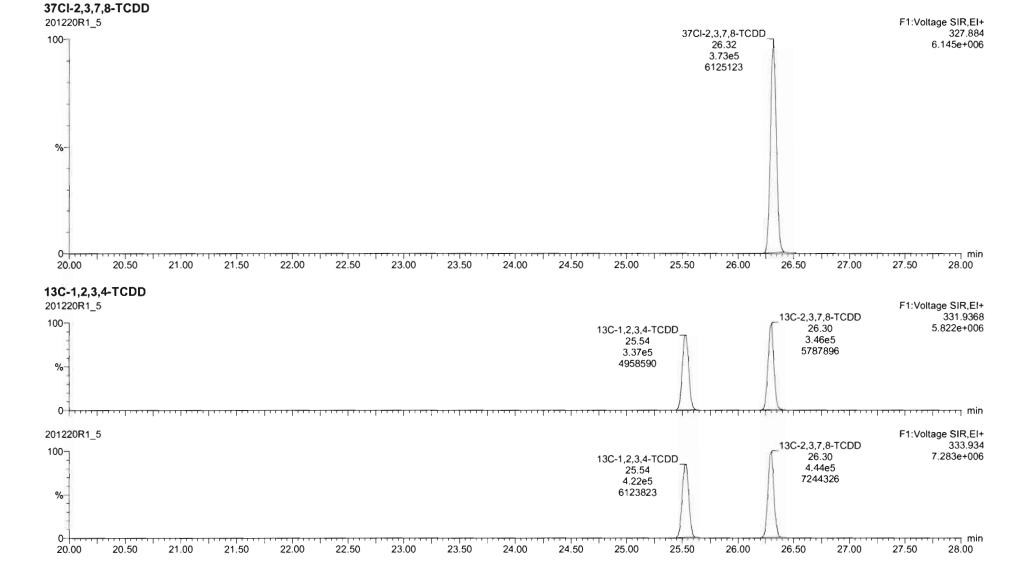




Work Order 2002532 Page 128 of 725

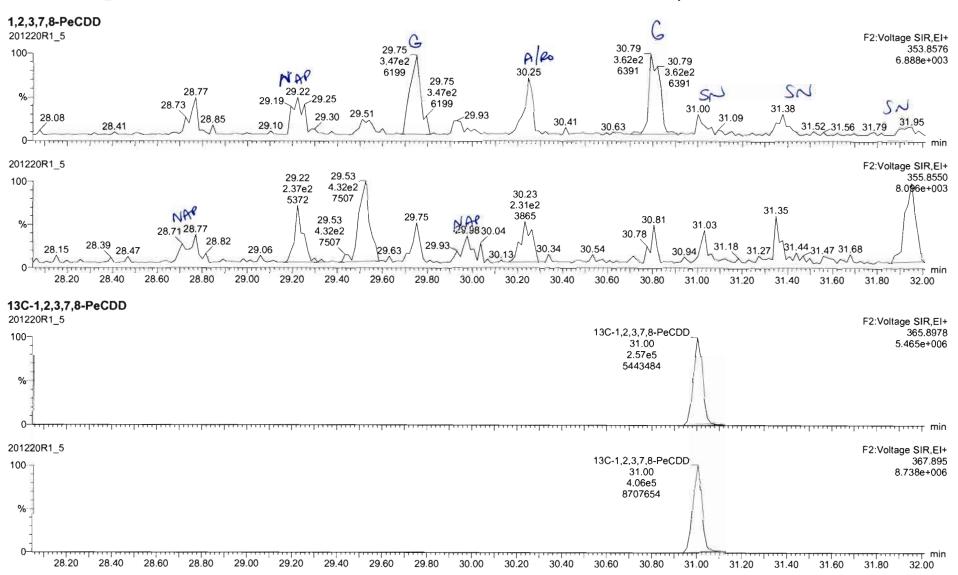
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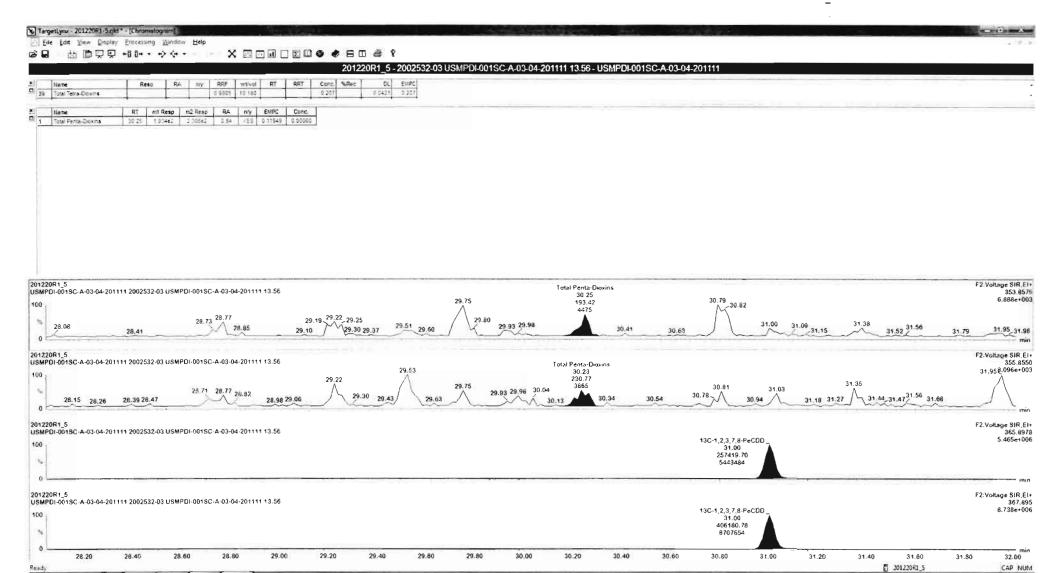
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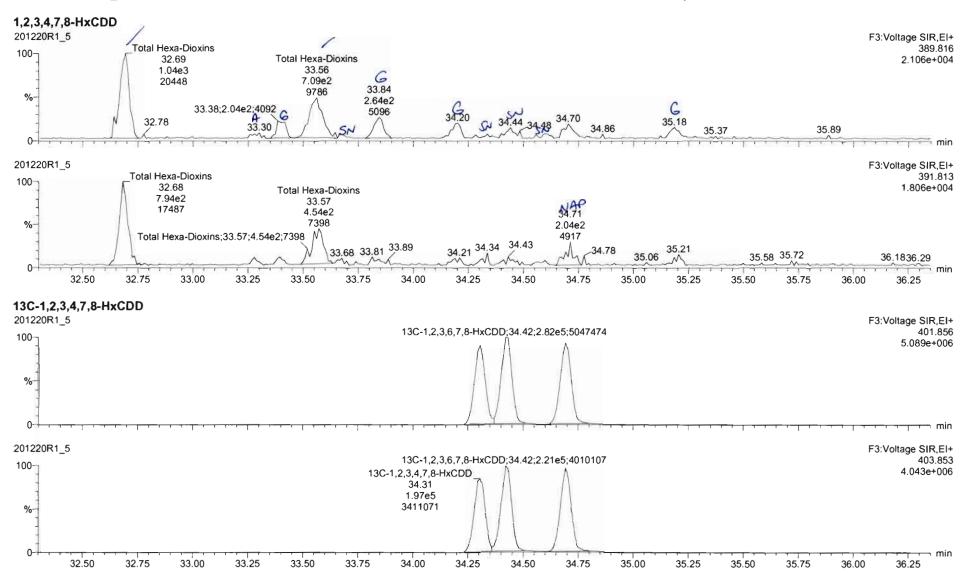
Work Order 2002532 Page 131 of 725

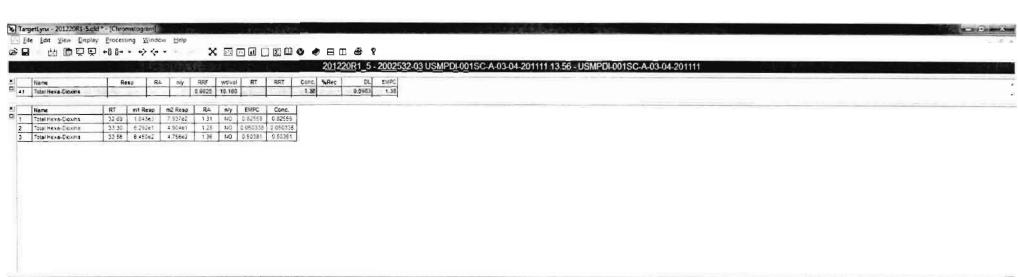
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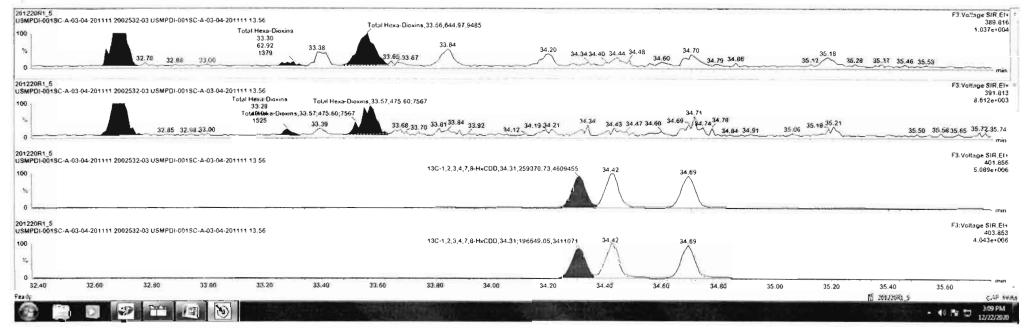
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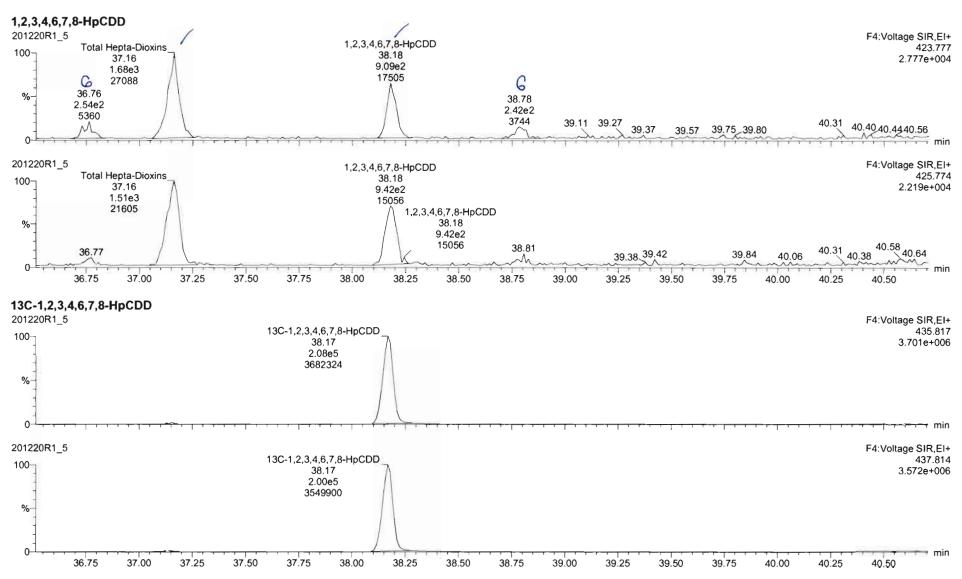




Work Order 2002532 Page 133 of 725

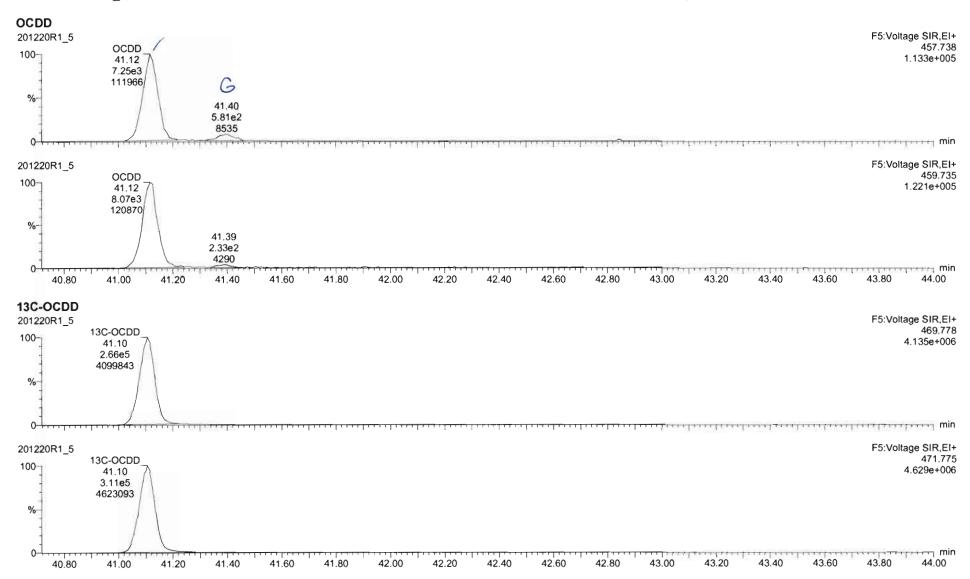
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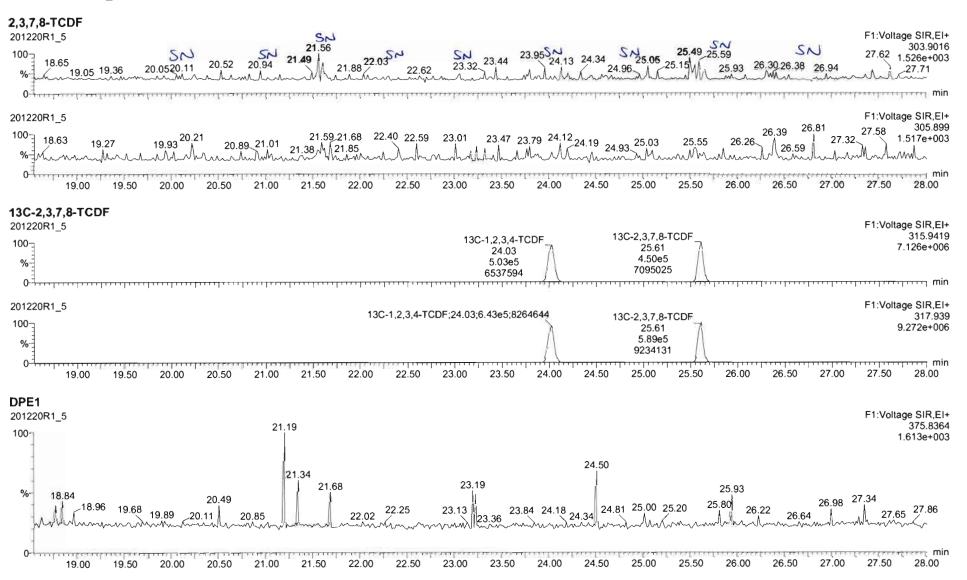
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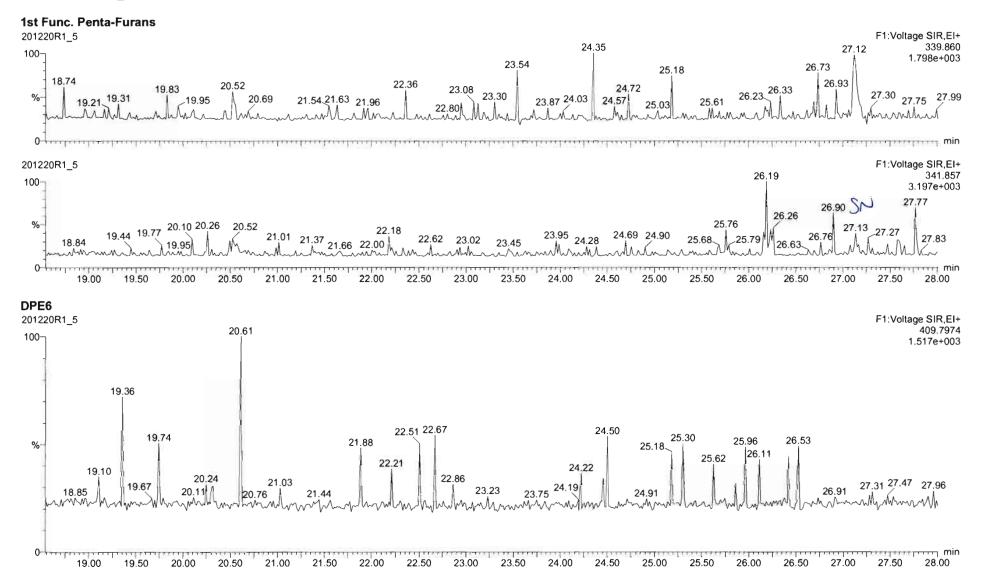
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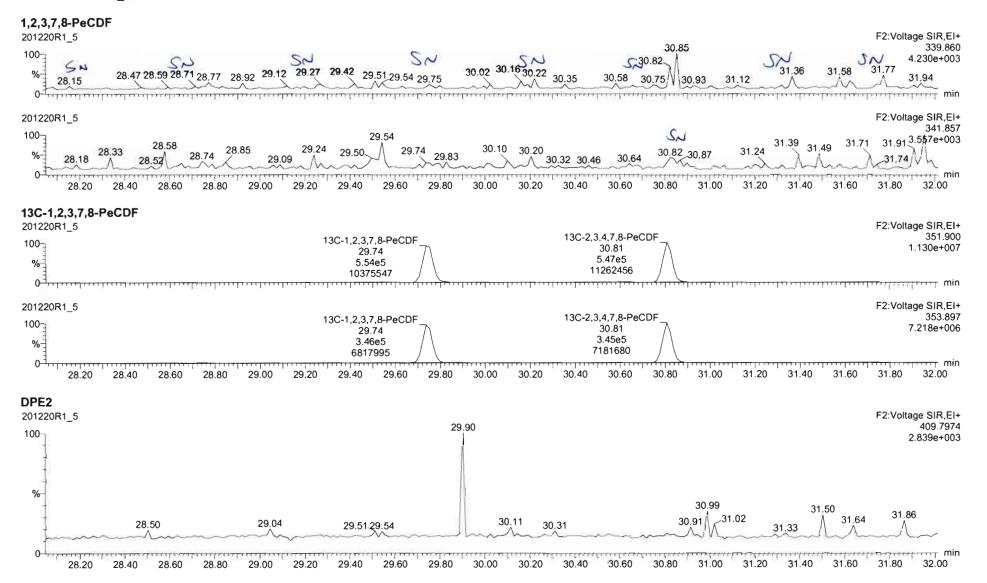
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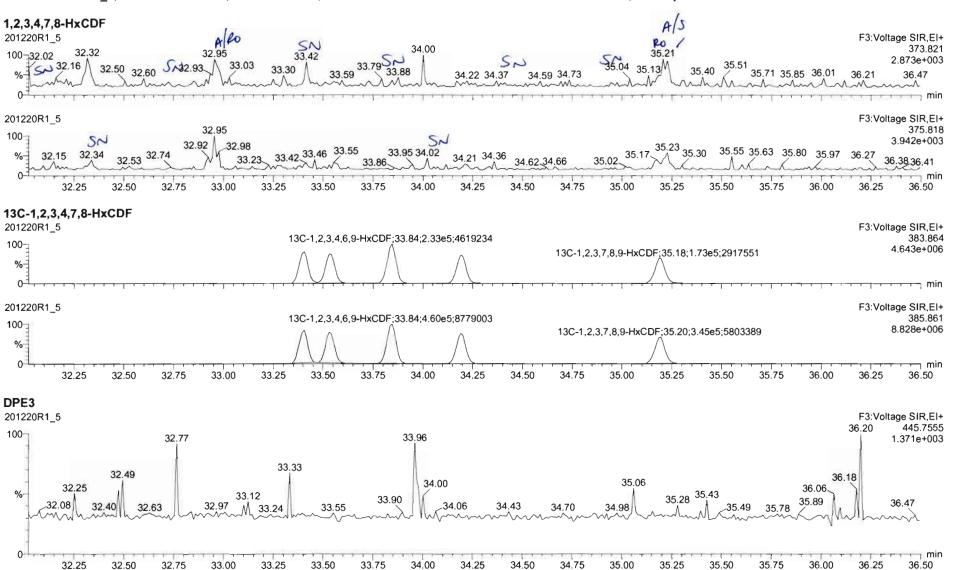
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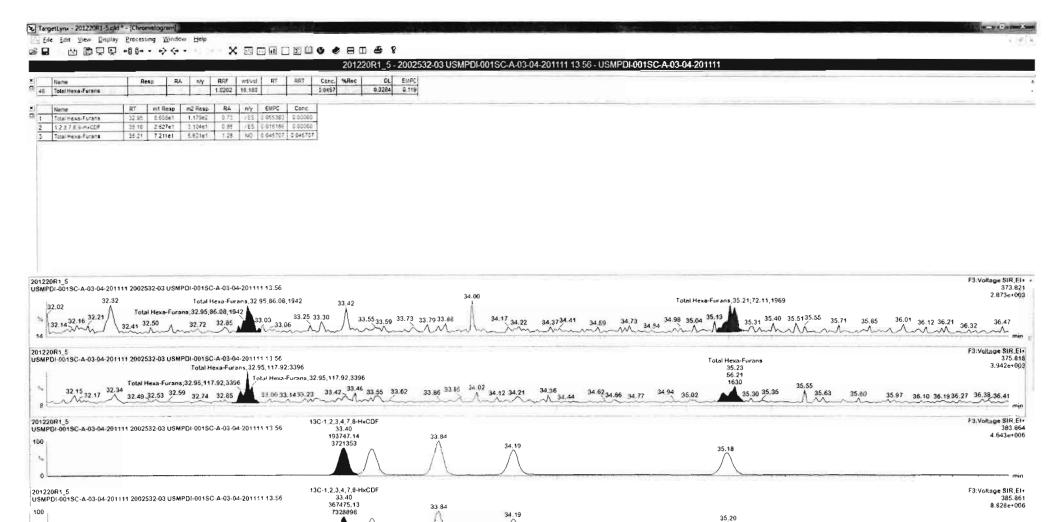
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Work Order 2002532 Page 140 of 725

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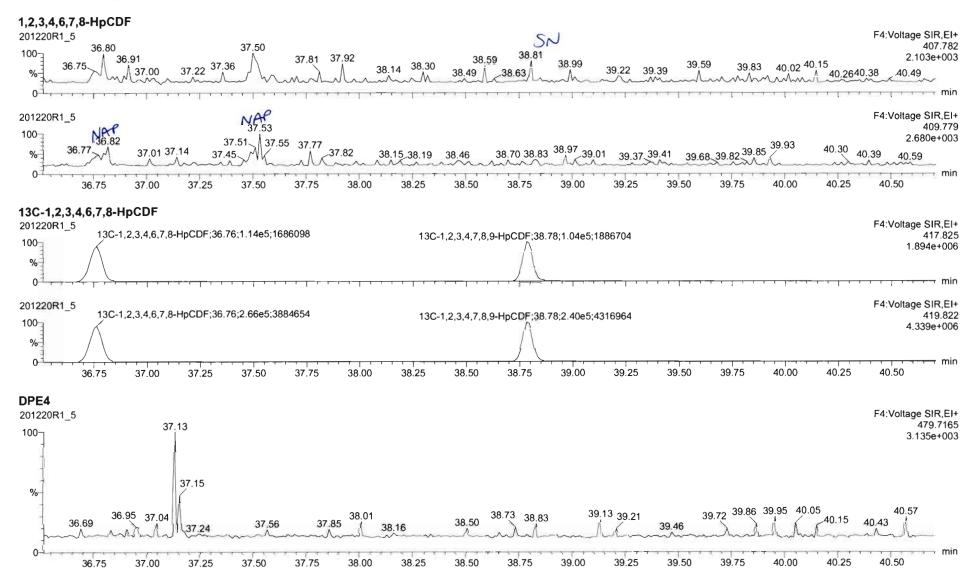
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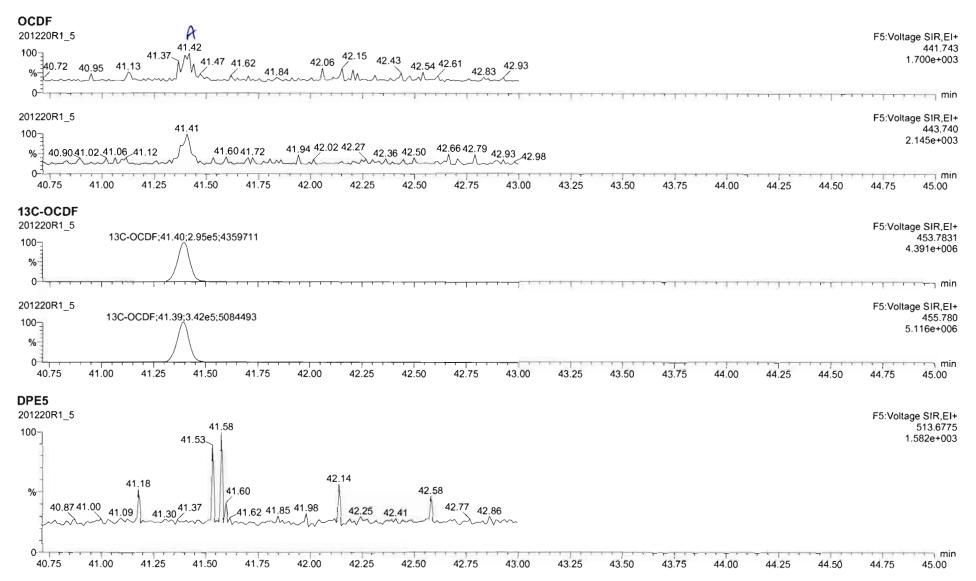
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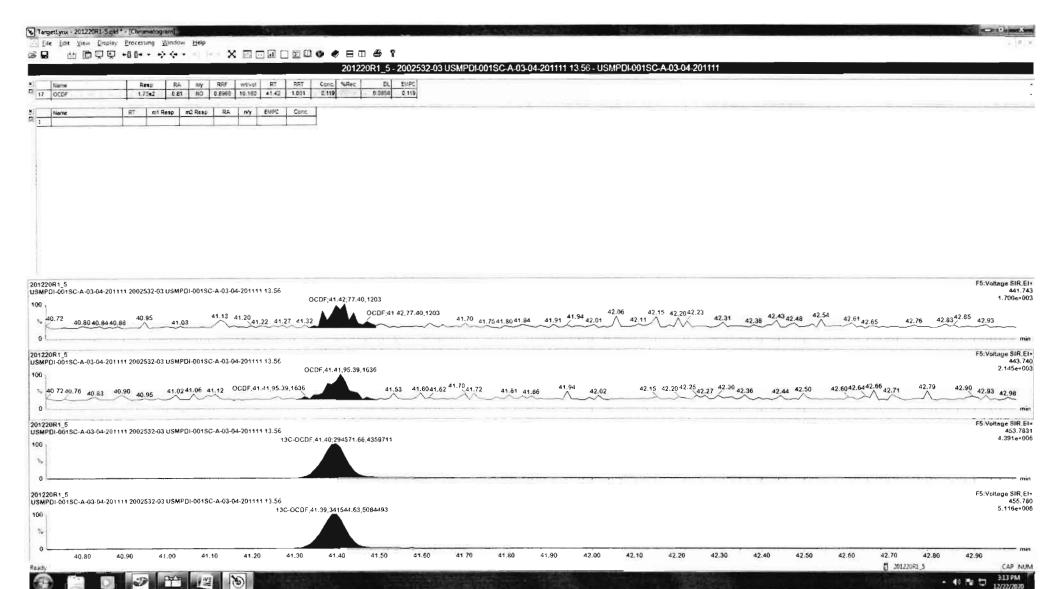
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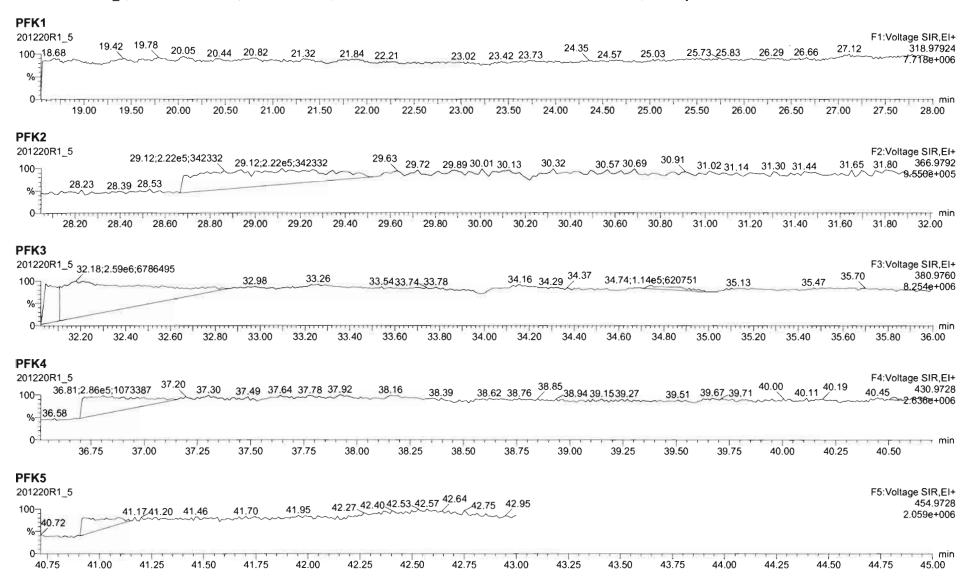




Work Order 2002532 Page 143 of 725

Dataset: Untitled

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time



MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-6.qld

Last Altered:

Tuesday, December 22, 2020 3:19:07 PM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 3:20:48 PM Pacific Standard Time

GPB 12/22/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_6, Date: 20-Dec-2020, Time: 12:13:01, ID: 2002532-04 USMPDI-001SC-A-04-05-201111 12:32, Description: USMPDI-001SC-A-04-05-201111

	# 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	0.980	10.030 /	26.351		1.001				0.0481	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.030	31.049		1.001				0.0655	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.030	34.347		1.001				0.0713	
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.030	34.463		1.001				0.0733	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.030	34.724		1.000				0.0744	
6	6 1,2,3,4,6,7,8-HpCDD	1.28e3	0.96	NO	0.918	10.030	38.190	38.21	1.000	1.001	0.77784		0.111	0.778
7	7 OCDD	7.02e3	0.85	NO	0.866	10.030	41.103	41.10	1.000	1.000	6.6208		0.169	6.62
8	8 2,3,7,8-TCDF			NO	0.848	10.030	25.628		1.000				0.0195	[
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.030	29.754		1.000				0.0307	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.030	30.844		1.001				0.0286	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.030	33.426		1.000				0.0347	
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.030	33.571		1.001				0.0344	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.030	34.232		1.001				0.0390	
14	14 1,2,3,7,8,9-HxCDF			NO	0.991	10.030	35.217		1.000				0.0444	
15	15 1,2,3.4,6,7,8-HpCDF			NO	1.05	10.030	36.792		1.000				0.0636	1
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.030	38.817		1.000				0.0494	
17	17 OCDF			NO	0.896	10.030	41.396		1.000				0.0691	
18	18 13C-2,3,7,8-TCDD	8.25e5	0.78	NO	1.06	10.030	26.323	26.32	1.030	1.030	209.35	105	0.177	
19	, 19 13C-1,2,3,7,8-PeCDD	6.74e5	0.63	NO	0.785	10.030	31.157	31.02	1.219	1.214	229.98	115	0.253	
20	20 13C-1,2,3,4,7,8-HxCDD	4.35e5	1.29	NO	0.621	10.030	34.315	34.33	1.014	1.014	212.91	107	0.468	
21	21 13C-1,2,3,6,7.8-HxCDD	4.73e5	1.27	NO	0.734	10.030	34.437	34.44	1.017	1.017	195.51	98.0	0.396	
22	22 13C-1,2,3,7,8,9-HxCDD	4.64e5	1.27	NO	0.723	10.030	34.722	34.71	1.026	1.025	194.59	97.6	0.402	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.56e5	1.04	NO	0.568	10.030	38.219	38.18	1.129	1.128	190.30	95.4	0.973	
24	24 13C-OCDD	4.89e5	0.90	NO	0.496	10.030	41.154	41.10	1.216	1.214	298.99	75.0	0.527	
25	25 13C-2,3,7,8-TCDF	1.09e6	0.78	NO	0.919	10.030	25.623	25.63	1.003	1.003	211.20	106	0.250	
26	26 13C-1,2,3,7,8-PeCDF	9.57e5	1.59	NO	0.715	10.030	29.869	29.75	1.169	1.164	237.90	119	0.338	
27	27 13C-2,3,4,7,8-PeCDF	9.17e5	1.60	NO	0.689	10.030	30.955	30.82	1.212	1.206	236.80	119	0.351	
28	28 13C-1,2,3,4,7,8-HxCDF	5.51e5	0.51	NO	0.873	10.030	33.422	33.42	0.987	0.987	191.36	96.0	0.453	
29	29 13C-1,2,3.6,7,8-HxCDF	5.39e5	0.50	NO	0.933	10.030	33.550	33.55	0.991	0.991	175.32	87.9	0.424	
30	30 13C-2,3,4,6,7,8-HxCDF	5.27e5	0.51	NO	0.843	10.030	34.217	34.21	1.011	1.011	189.62	95.1	0.469	
31	31 13C-1.2,3,7,8,9-HxCDF	5.00e5	0.50	NO	0.780	10.030	35.216	35.21	1.040	1.040	194.43	97.5	0.507	

Work Order 2002532 Page 145 of 725 MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-6.qld

Last Altered:

Tuesday, December 22, 2020 3:19:07 PM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 3:20:48 PM Pacific Standard Time

Name: 201220R1_6, Date: 20-Dec-2020, Time: 12:13:01, ID: 2002532-04 USMPDI-001SC-A-04-05-201111 12:32, Description: USMPDI-001SC-A-04-05-201111

DET:	# 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-H pC DF	3.28e5	0.42	NO	0.726	10.030	36.790	36.77	1.087	1.086	137.08	68.7	0.533	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.12e5	0.42	NO	0.491	10.030	38.798	38.81	1.146	1.146	192.81	96.7	0.789	
34	34 13C-OCDF	5.64e5	0.87	NO	0.565	10.030	41.371	41.39	1.222	1.223	302.59	75.9	0.569	
35	35 37Cl-2,3,7,8-TCDD	3.49e5			1.22	10.030	26.318	26.33	1.030	1.031	76.816	96.3	0.0471	
36	36 13C-1,2,3,4-TCDD	7.44e5	0.79	NO	1.00	10.030	25.640	25.55	1.000	1.000	199.40	100	0.187	
37	37 13C-1,2,3,4-TCDF	1.12e6	0.79	NO	1.00	10.030	24.130	24.04	1.000	1.000	199.40	100	0.230	
38	38 13C-1,2,3,4,6,9-HxCDF	6.57e5	0.51	NO	1.00	10.030	33.920	33.85	1.000	1.000	199.40	100	0.395	
39	39 Total Tetra-Dioxins				0.980	10.030	24.620		0.000		0.22962		0.0481	0.230
40	40 Total Penta-Dioxins				0.932	10.030	29.960		0.000		0.00000		0.0295	0.287
41	41 Total Hexa-Dioxins				0.902	10.030	33.635		0.000		0.82411		0.0774	1.25
42	42 Total Hepta-Dioxins				0.918	10.030	37.640		0.000		2.2268		0.111	2.23
43	43 Total Tetra-Furans				0.848	10.030	23.610		0.000				0.00966	
44	44 1st Func. Penta-Furans				0.960	10.030	26.930		0.000				0.00640	
45	45 Total Penta-Furans				0.960	10.030	29.275		0.000				0.0129	
46	46 Total Hexa-Furans				1.02	10.030	33.555		0.000				0.0189	
47	47 Total Hepta-Furans				1.05	10.030	37.835		0.000				0.0290	

Work Order 2002532 Page 146 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

U:\VG12.PRO\Results\201220R1\201220R1-6.qld

Last Altered: Printed:

Dataset:

Tuesday, December 22, 2020 3:19:07 PM Pacific Standard Time Tuesday, December 22, 2020 3:20:48 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PR0\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_6, Date: 20-Dec-2020, Time: 12:13:01, ID: 2002532-04 USMPDI-001SC-A-04-05-201111 12.32, Description: USMPDI-001SC-A-04-05-201111

Page 1 of 2

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Tetra-Dioxins	24.24	5.037e3	7.568e3	4.057e2	5.258e2	0.77	NO	9.315e2	0.22962	0.22962	0.0481

Penta-Dioxins

3.1	Name	RT	m1 Height	m2 Height	10%	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.74	1.740e3	3.239e3		1.222e2	1.567e2	0.78	YES	0.000e0	0.00000	0.081120	0.0295
2	Total Penta-Dioxins	29.24	4.538e3	5.575e3		1.546e2	2.082e2	0.74	YES	0.000e0	0.00000	0.10775	0.0655
3	Total Penta-Dioxins	29.56	3.060e3	6.849e3		1.200e2	3.666e2	0.33	YES	0.000e0	0.00000	0.098568	0.0655

Hexa-Dioxins

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.70	1.901e4	1.572e4	9.504e2	7.554e2	1.26	NO	1.706e3	0.82411	0.82411	0.0774
2	Total Hexa-Dioxins	33.59	8.232e3	5.640e3	6.418e2	3.905e2	1.64	YES	0.000e0	0.00000	0.42259	0.0774

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.16	1.585e4	1.699e4	1.143e3	1.233e3	0.93	NO	2.376e3	1.4489	1.4489	0.111
2	1,2,3,4,6,7,8-HpCDD	38.21	1.136e4	9.621e3	6.253e2	6.500e2	0.96	NO	1.275e3	0.77784	0.77784	0.111

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 rendu.								

Work Order 2002532 Page 147 of 725

Page 2 of 2

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-6.qld

Last Altered:

Tuesday, December 22, 2020 3:19:07 PM Pacific Standard Time

Printed: Tuesday, December 22, 2020 3:20:48 PM Pacific Standard Time

Name: 201220R1_6, Date: 20-Dec-2020, Time: 12:13:01, ID: 2002532-04 USMPDI-001SC-A-04-05-201111 12:32, Description: USMPDI-001SC-A-04-05-201111

Penta-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1) (1) F = (1)								

Hexa-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
183.0858								

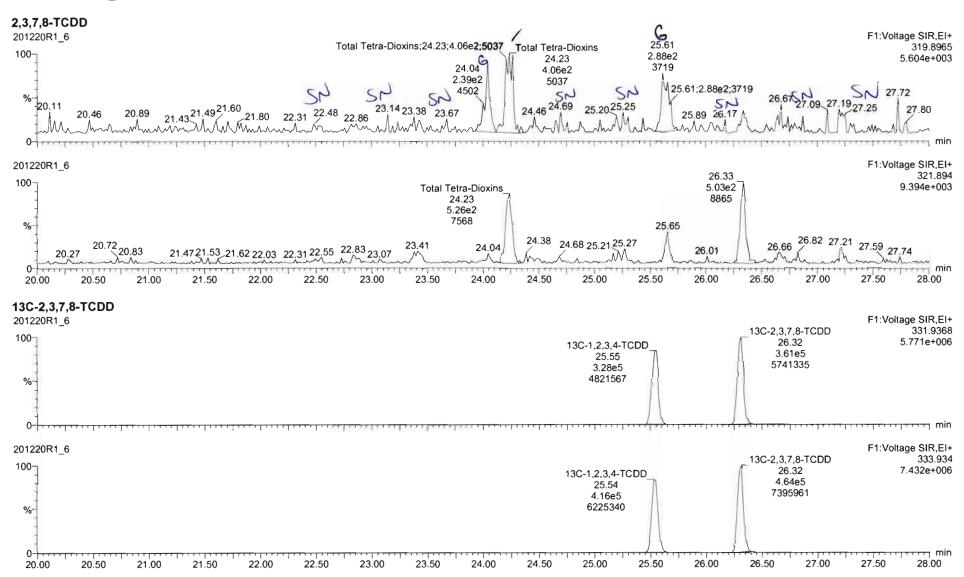
Hepta-Furans

Name	- Carolina	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
10 to the bare										

Work Order 2002532 Page 148 of 725

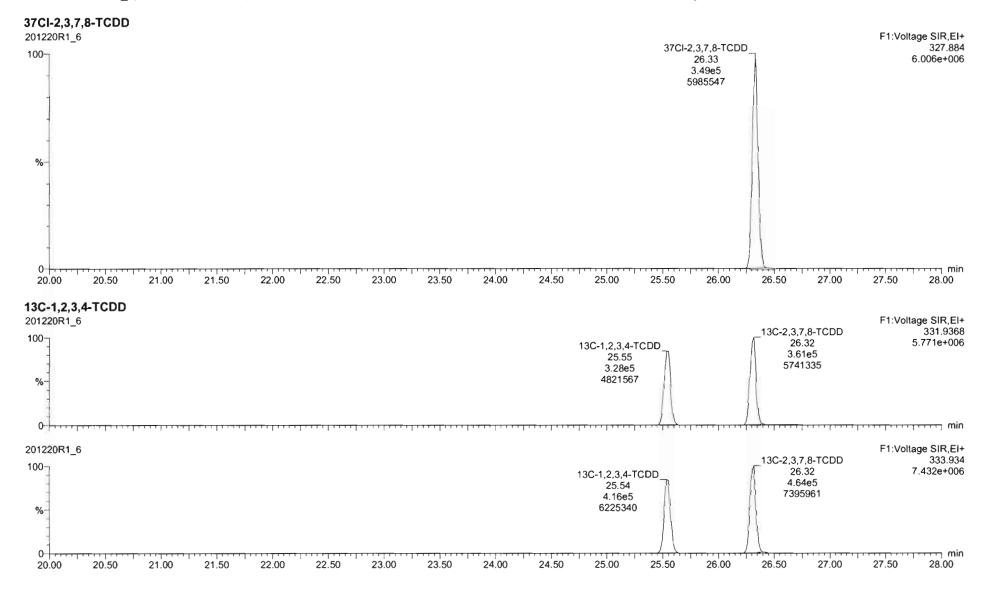
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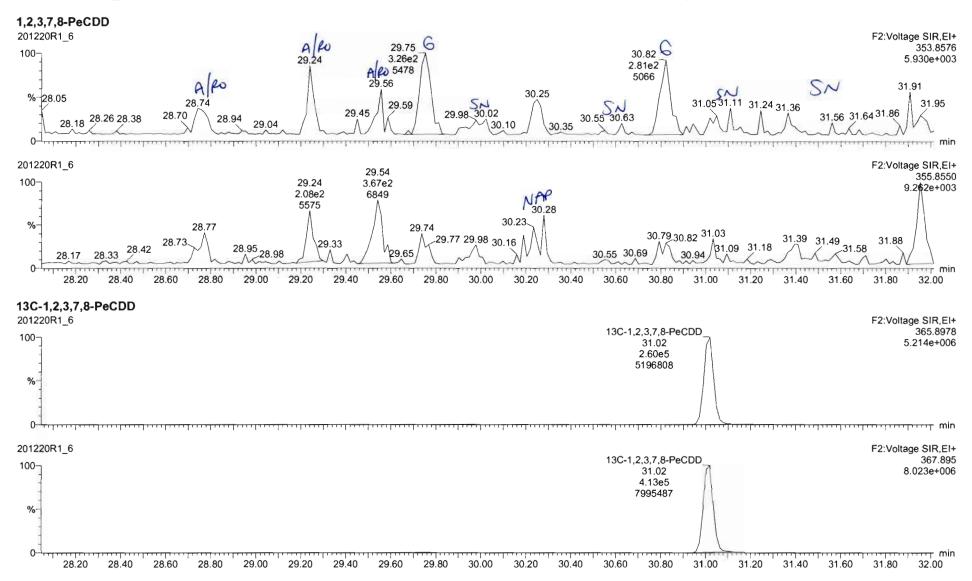
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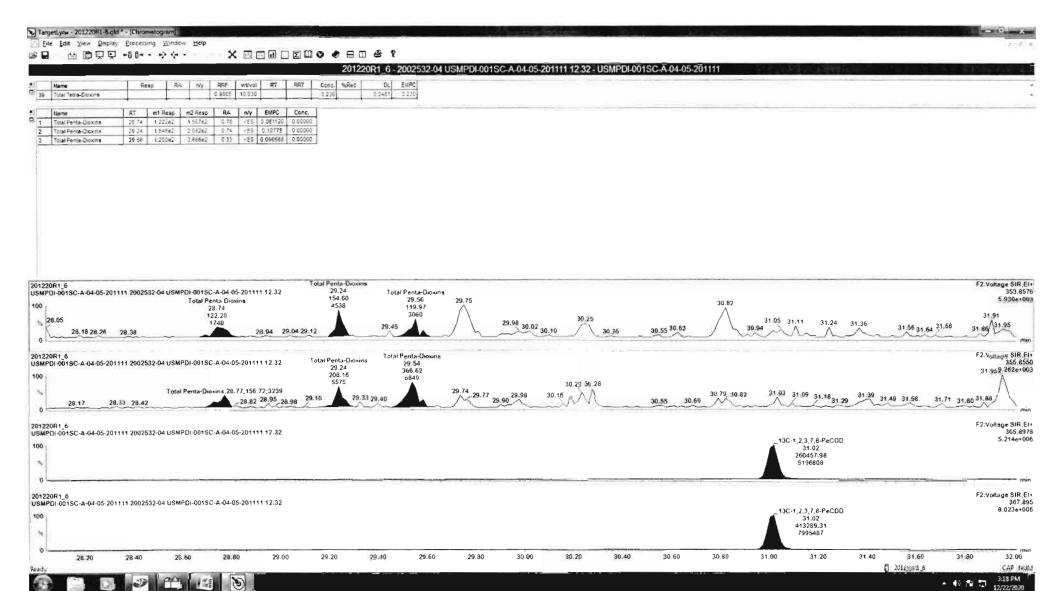


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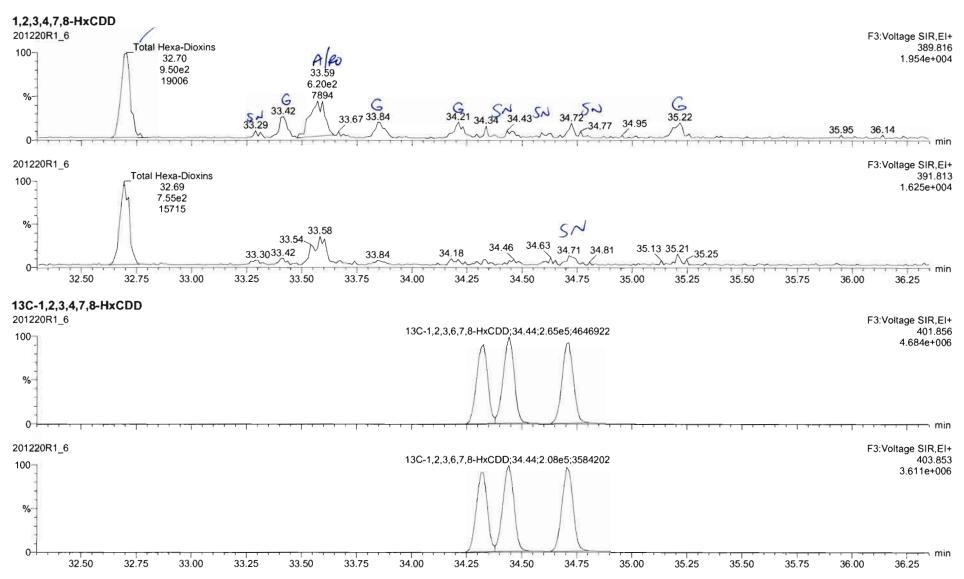


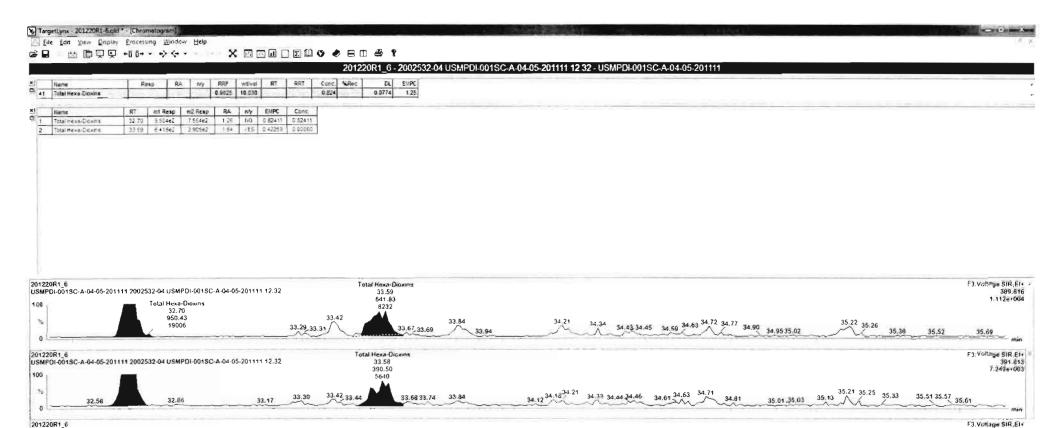
Work Order 2002532 Page 152 of 725

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Last Altered: Printed:

Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time





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13C-1,2,3,4,7,8-HxCDD;34.32,190311.13;3275310

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34 44

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34,71

34 70

34.80

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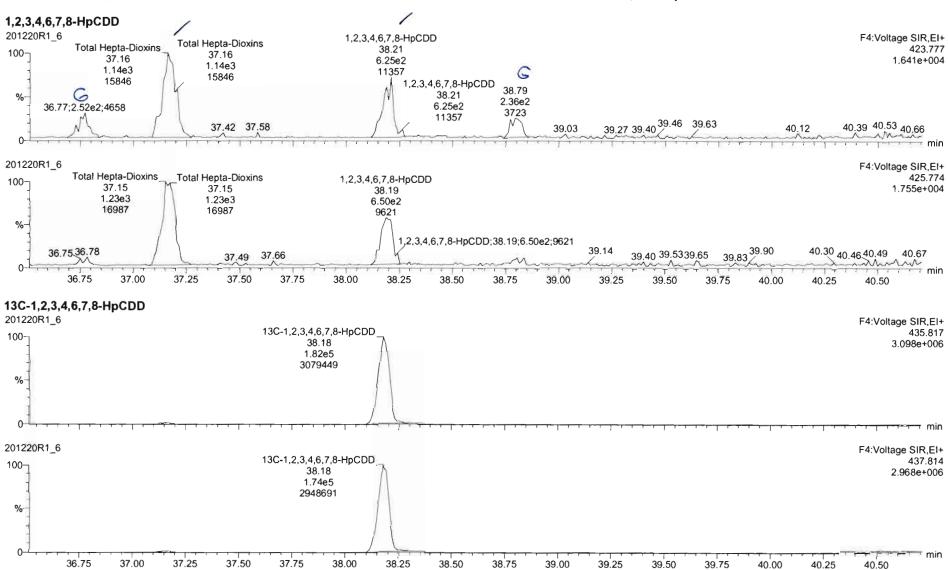
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201220R1_6

Work Order 2002532 Page 154 of 725

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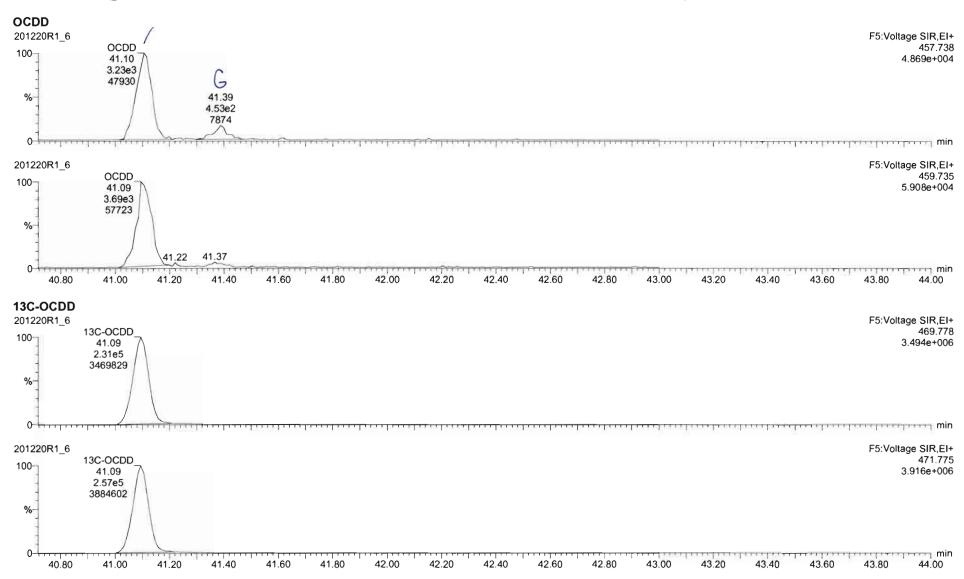
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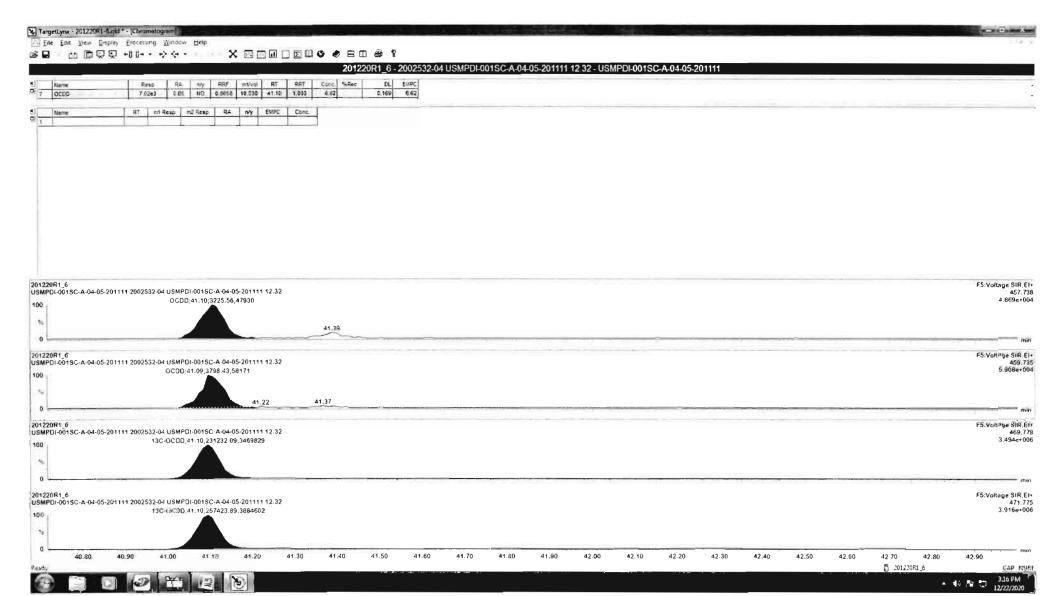


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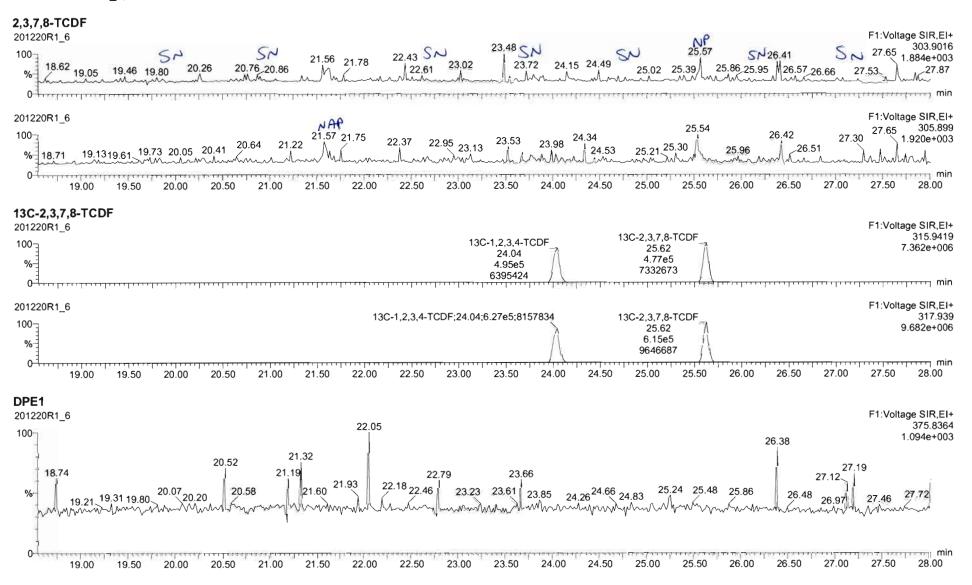
Work Order 2002532 Page 157 of 725

Vista Analytical Laboratory

Dataset:

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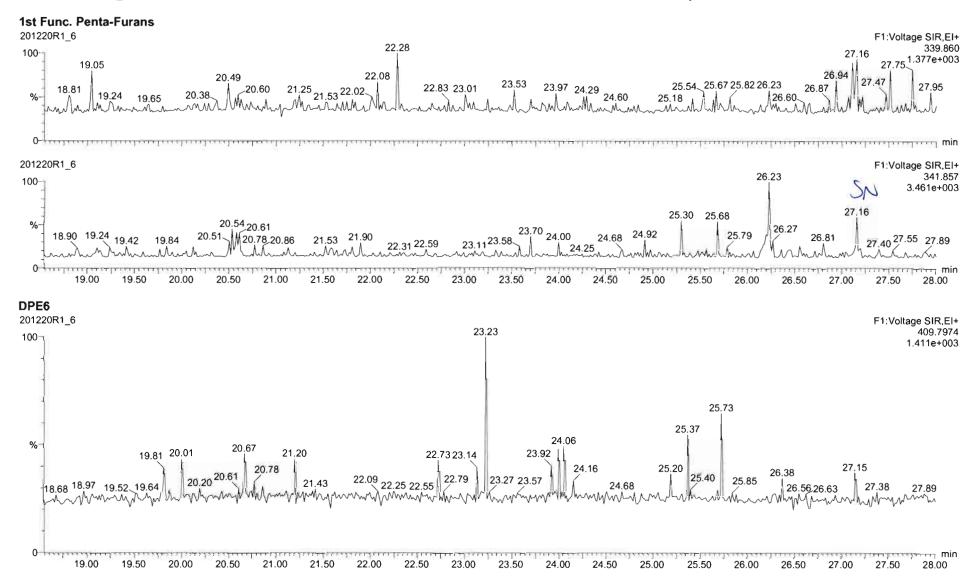
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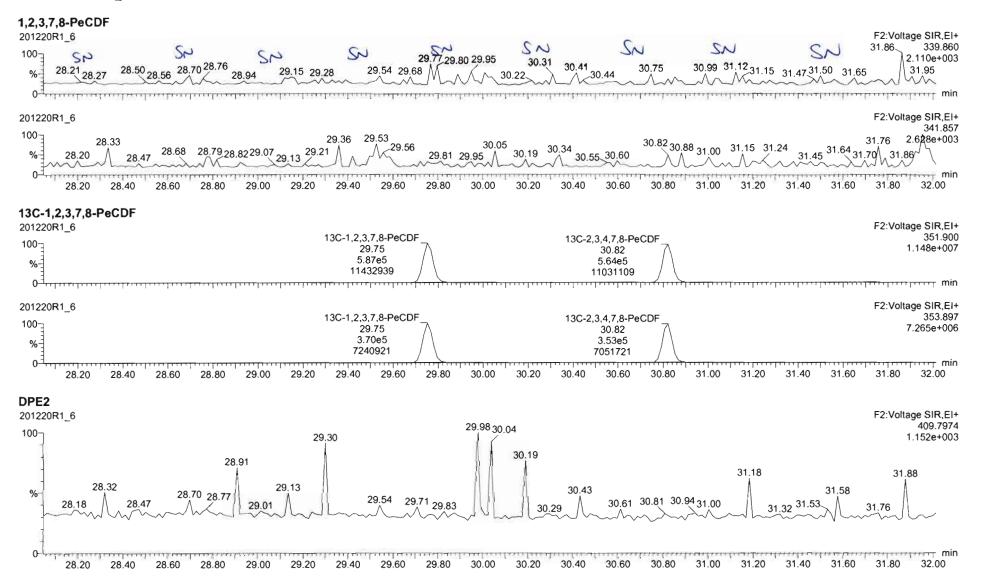
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



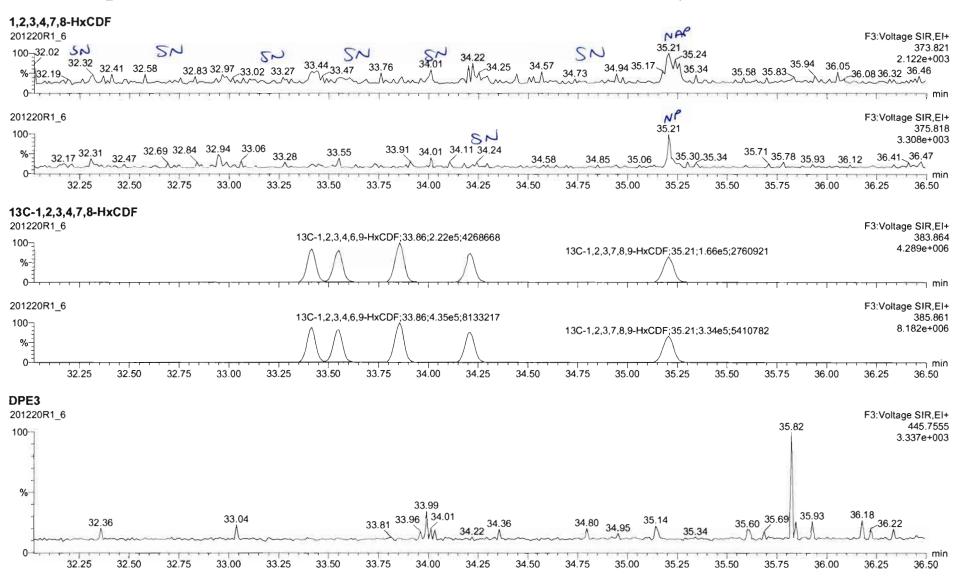
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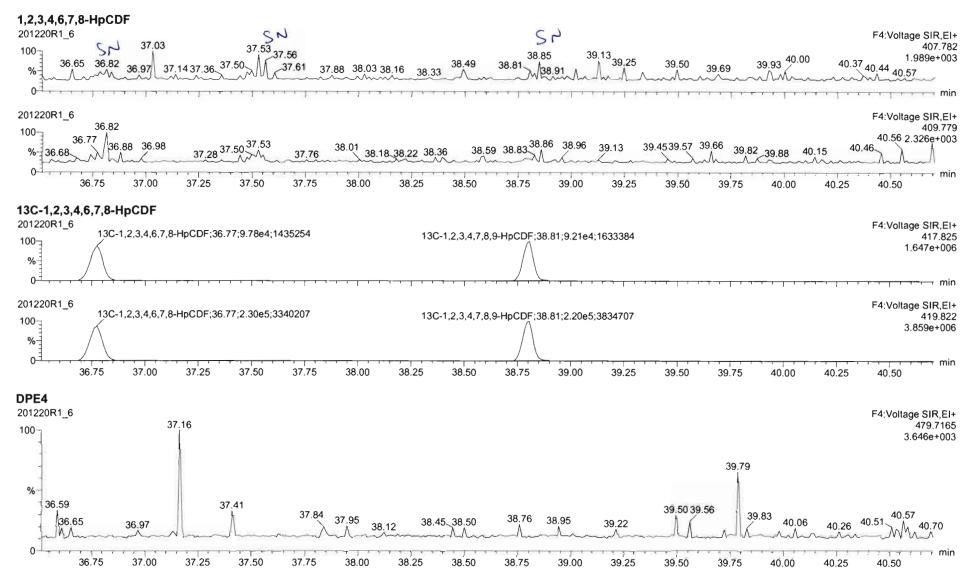
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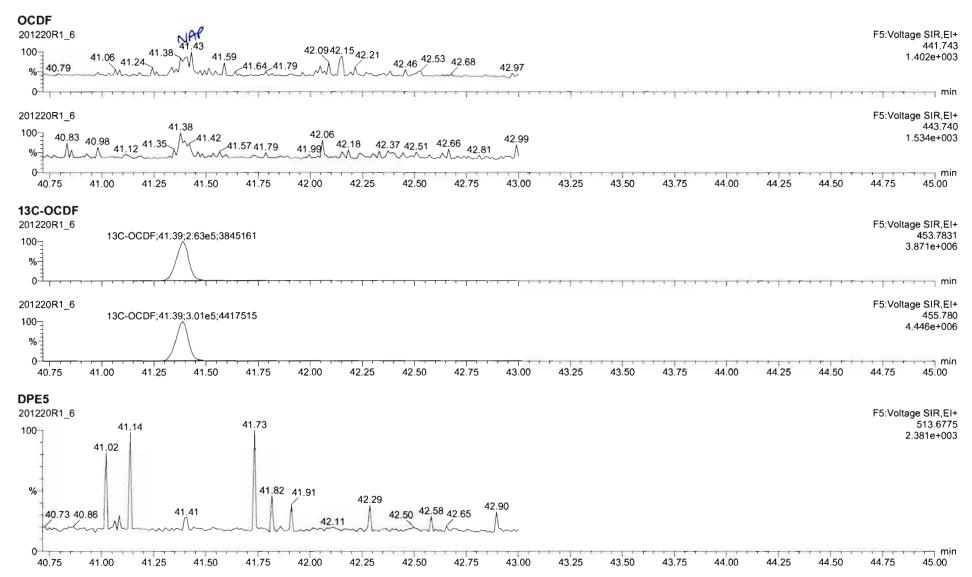
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



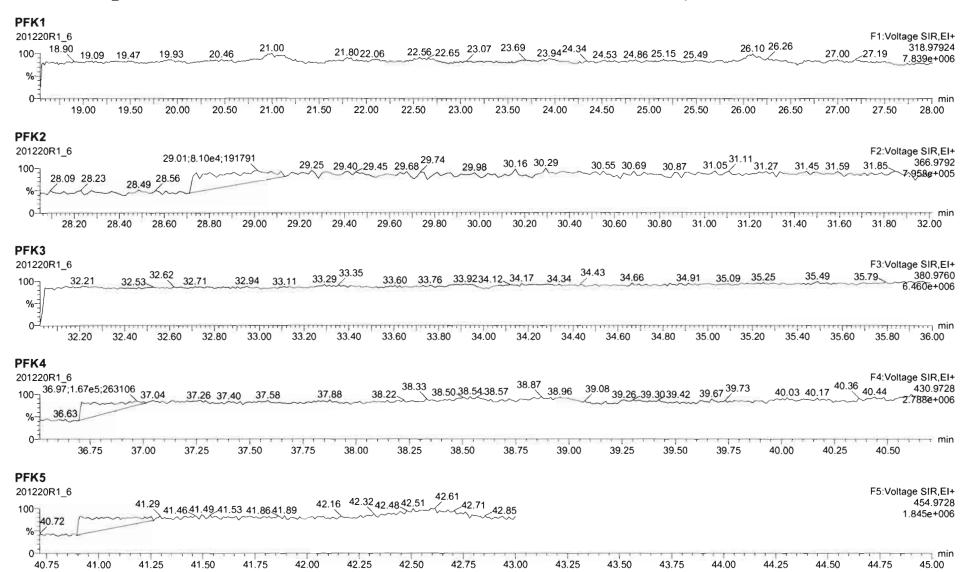
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Last Altered: Printed: Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



Page 1 of 2

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-7.qld

Last Altered: Wednesday, December 23, 2020 8:17:30 AM Pacific Standard Time Printed: Wednesday, December 23, 2020 8:17:53 AM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15:08, Description: USMPDI-002SC-A-04-05-201111

W. J. W.	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL EMPC
1 SEP A	1 2,3,7,8-TCDD	6.25e2	0.24	YES	0.980	10.171 🗸	26.351	26.33	1.001	1.001	0.16426	0.05	73 0.0729
2	2 1,2,3,7,8-PeCDD	4.67e2	0.84	YES	0.932	10.171	31.048	31.03	1.001	1.001	0.14755	0.08	12 0.131
3	3 1,2,3,4,7,8-HxCDD	4.70e2	1.30	NO	1.02	10.171	34.336	34.33	1.001	1.000	0.20108	0.1	57 0.201
4	4 1,2,3,6,7,8-HxCDD	4.90e3	1.21	NO	0.902	10.171	34.462	34.45	1.001	1.000	2.1449	0.1	66 2.14
5	5 1,2,3,7,8,9-HxCDD	1.32e3	1.21	NO	0.954	10.171	34.723	34.71	1.000	1.000	0.54693	0.1	61 0.547
6	6 1,2,3,4,6,7,8-HpCDD	1.09e5	1.01	NO	0.918	10.171	38.189	38.19	1.000	1.000	57.709	0.7	15 57.7
7	7 OCDD	7.28e5	0.87	NO	0.866	10.171	41.102	41.12	1.000	1.001	578.58	0.7	96 579
8	8 2,3,7,8-TCDF	2.76e3	0.67	NO	0.848	10.171	25.628	25.64	1.000	1.001	0.61362	0.08	38 0.614
9	9 1,2,3,7,8-PeCDF	3.26e3	1.64	NO	0.960	10.171	29.754	29.78	1.000	1.001	0.70539	0.07	0.705
10	10 2,3,4,7,8-PeCDF	3.71e3	1.46	NO	1.07	10.171	30.844	30.84	1.001	1.000	0.77070	0.06	10 0.771
11	11 1,2,3,4,7,8-HxCDF	4.53e3	1.17	NO	0.986	10.171	33.425	33.42	1.000	1.000	1.5657	0.1	01 1.57
12	12 1,2,3,6,7,8-HxCDF	1.66e3	1.29	NO	1.04	10.171	33.561	33.55 /	1.001	1.000	0.55658	0.1	0.557
13	13 2,3,4,6,7,8-HxCDF	1.76e3	1.32	NO	1.02	10.171	34.232	34.23	1.001	1.001	0.62624	0.1	13 0.626
14	14 1,2,3,7,8,9-HxCDF	4.89e2	1.24	NO	0.991	10.171	35.216	35.24	1.000	1.001	0.19189	0.1	39 0.192
15	15 1,2,3,4,6,7,8-HpCDF	2.75e4	1.01	NO	1.05	10.171	36.781	36.78	1.000	1.001	13.779	0.1	60 13.8
16	16 1,2,3,4,7,8,9-HpCDF	8.85e2	1.17	NO	1.18	10.171	38.817	38.83	1.000	1.001	0.46328	0.1	33 0.463
17	17 OCDF	1.39e4	0.90	NO	0.896	10.171	41.396	41.40	1.000	1.000	9.8251	0.2	17 9.83
18	18 13C-2,3,7,8-TCDD	7.64e5	0.77	NO	1.06	10.171	26.323	26.32	1.030	1.030	171.85	87.4 0.1	69
19	19 13C-1,2,3,7,8-PeCDD	6.68e5	0.63	NO	0.785	10.171	31.157	31.02	1.219	1.214	202.34	103 0.1	52
20	20 13C-1,2,3,4,7,8-HxCDD	4.51e5	1.31	NO	0.621	10.171	34.315	34.31	1.014	1.014	189.35	96.3 0.3	80
21	21 13C-1,2,3,6,7,8-HxCDD	4.98e5	1.27	NO	0.734	10.171	34.437	34.44	1.017	1.017	176.83	89.9 0.3	21
22	22 13C-1,2,3,7,8,9-HxCDD	4.96e5	1.28	NO	0.723	10.171	34.722	34.71	1.026	1.025	178.86	91.0 0.3	26
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.05e5	1.05	NO	0.568	10.171	38.219	38.18	1.129	1.128	186.04	94.6 0.8	34
24	24 13C-OCDD	5.72e5	0.87	NO	0.496	10.171	41.154	41.09	1.216	1.214	300.67	76.5 0.6	91
25	25 13C-2,3,7,8-TCDF	1.04e6	0.77	NO	0.919	10.171	25.623	25.63	1.003	1.003	180.34	91.7 0.2	27
26	26 13C-1,2,3,7,8-PeCDF	9.46e5	1.59	NO	0.715	10.171	29.869	29.75	1.169	1.164	210.06	107 0.3	75
27	27 13C-2,3,4,7,8-PeCDF	8.87e5	1.57	NO	0.689	10.171	30.955	30.82	1.212	1.206	204.50	104 0.3	89
28	28 13C-1,2,3,4,7,8-HxCDF	5.77e5	0.51	NO	0.873	10.171	33 422	33.42	0.987	0.987	172.16	87 6 0.5	33
29	29 13C-1,2,3,6,7,8-HxCDF	5.66e5	0.50	NO	0.933	10.171	33.550	33.54	0.991	0.991	157.97	80.3 0.4	99
30	30 13C-2,3,4,6,7,8-HxCDF	5.41e5	0.50	NO	0.843	10.171	34.217	34.21 /	1.011	1.011	167.15	85.0 0.5	52
31	31 13C-1,2,3,7,8,9-HxCDF	5.05e5	0.50	NO	0.780	10.171	35.216	35.21 /	1.040	1.040	168.87	85.9 0.5	97

Work Order 2002532 Page 165 of 725

Page 2 of 2

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-7.qld

Last Altered: Wednesday, December 23, 2020 8:17:30 AM Pacific Standard Time Printed: Wednesday, December 23, 2020 8:17:53 AM Pacific Standard Time

Name: 201220R1_7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15:08, Description: USMPDI-002SC-A-04-05-201111

U185-1	# 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	3.74e5	0.43	NO	0.726	10.171	36.790	36.76	1.087	1.086	134.11	68.2	0.564	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.19e5	0.42	NO	0.491	10.171	38.798	38.81	1.146	1.146	169.52	86.2	0.835	
34	34 13C-OCDF	6.23e5	0.87	NO	0.565	10.171	41.371	41.39	1.222	1.223	287.13	73.0	0.637	
35	35 37CI-2,3,7,8-TCDD	3.51e5			1.22	10.171	26.318	26.33	1.030	1.031	68.616	87.2	0.0661	
36	36 13C-1,2,3,4-TCDD	8.28e5	0.78	NO	1.00	10.171	25.640	25.55	1.000	1.000	196.63	100	0.178	
37	37 13C-1,2,3,4-TCDF	1.24e6	0.79	NO	1.00	10.171	24.130	24.03	1.000	1.000	196.63	100	0.208	
38	38 13C-1,2,3,4,6,9-HxCDF	7.54e5	0.51	NO	1.00	10.171	33.920	33.85	1.000	1.000	196.63	100	0.466	Ì
39	39 Total Tetra-Dioxins				0.980	10.171	24.620		0.000		0.41888		0.0573	0.783
40	40 Total Penta-Dioxins				0.932	10.171	29.960		0.000		0.13200		0.0812	1.44
41	41 Total Hexa-Dioxins				0.902	10.171	33.635		0.000		11.848		0.171	11.8
42	42 Total Hepta-Dioxins				0.918	10.171	37.640		0.000		105.90		0.715	106
43	43 Total Tetra-Furans				0.848	10.171	23.610		0.000		4.7316		0.0838	4.88
44	44 1st Func. Penta-Furans				0.960	10.171	26.930		0.000		3.2089		0.0252	3.21
45	45 Total Penta-Furans				0.960	10.171	29.275		0.000		4.0731		0.0693	4.07
46	46 Total Hexa-Furans				1.02	10.171	33.555		0.000		19.533		0.112	19.5
47	47 Total Hepta-Furans				1.05	10.171	37.835		0.000		32.437		0.155	32.4

Work Order 2002532 Page 166 of 725

Page 1 of 3

Vista Analytical Laboratory

Dataset:

U:\VG12.PR0\Results\201220R1\201220R1-7.qld

Last Altered: Printed: Wednesday, December 23, 2020 8:17:30 AM Pacific Standard Time Wednesday, December 23, 2020 8:17:53 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1 7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15.08, Description: USMPDI-002SC-A-04-05-201111

Tetra-Dioxins

41 -420	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.50	7.387e3	6.864e3	5.909e2	6.258e2	0.94	YES	0.000e0	0.00000	0.29092	0.0573
2	Total Tetra-Dioxins	22.83	4.213e3	3.160e3	2.593e2	2.985e2	0.87	NO	5.578e2	0.14652	0.14652	0.0573
3	Total Tetra-Dioxins	24.24	4.865e3	5.102e3	2.263e2	3.232e2	0.70	NO	5.495e2	0.14434	0.14434	0.0573
4	Total Tetra-Dioxins	26.07	2.856e3	3.047e3	2.249e2	2.625e2	0.86	NO	4.874e2	0.12801	0.12801	0.0573
5	2,3,7,8-TCDD	26.33	2.674e3	9.340e3	1.208e2	5.046e2	0.24	YES	6.254e2	0.00000	0.072925	0.0573

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.76	8.287e3	1.268e4	5.868e2	8.264e2	0.71	NO	0.000e0	0.00000	0.44616	0.0812
2	Total Penta-Dioxins	29.24	4.898e3	7.677e3	1.502e2	2.679e2	0.56	NO	4.181e2	0.13200	0.13200	0.0812
3	Total Penta-Dioxins	29.77	9.075e3	8.794e3	5.688e2	5.927e2	0.96	YES	0.000e0	0.00000	0.30501	0.0812
4	Total Penta-Dioxins	29.95	5.402e3	6.792e3	1.809e2	2.995e2	0.60	NO	0.000e0	0.00000	0.15166	0.0812
5	Total Penta-Dioxins	29.99	3.498e3	4.916e3	1.553e2	2.285e2	0.68	NO	0.000e0	0.00000	0.12119	0.0812
6	Total Penta-Dioxins	30.23	3.947e3	3.630e3	2.359e2	2.930e2	0.81	YES	0.000e0	0.00000	0.15076	0.0812
7	1,2,3,7,8-PeCDD	31.03	5.345e3	5.757e3	2.129e2	2.545e2	0.84	YES	4.674e2	0.00000	0.13094	0.0812

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.69	8.431e4	6.752e4	4.140e3	3.432e3	1.21	NO	7.572e3	3.4264	3.4264	0.171
2	Total Hexa-Dioxins	33.30	1.227e4	8.101e3	6.052e2	4.759e2	1.27	NO	1.081e3	0.48921	0.48921	0.171
3	Total Hexa-Dioxins	33.58	8.562e4	7.332e4	5.622e3	4.595e3	1.22	NO	1.022e4	4.6234	4.6234	0.171
4	Total Hexa-Dioxins	33.66	8.246e3	4.401e3	3.269e2	2.554e2	1.28	NO	5.823e2	0.26350	0.26350	0.171
5	1,2,3,4,7,8-HxCDD	34.33	6.507e3	5.031e3	2.662e2	2.040e2	1.30	NO	4.703e2	0.20108	0.20108	0.157
6	1,2,3,6,7,8-HxCDD	34.45	4.650e4	3.668e4	2.679e3	2.222e3	1.21	NO	4.901e3	2.1449	2.1449	0.166
7	Total Hexa-Dioxins	34.63	4.229e3	3.111e3	1 918e2	1.450e2	1.32	NO	3.368e2	0.15243	0.15243	0.171
8	1,2,3,7,8,9-HxCDD	34.71	1.207e4	9.366e3	7.217e2	5.941e2	1.21	NO	1.316e3	0.54693	0.54693	0.161

Work Order 2002532 Page 167 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201220R1\201220R1-7.qld

Last Altered: Wednesday, December 23, 2020 8:17:30 AM Pacific Standard Time Printed: Wednesday, December 23, 2020 8:17:53 AM Pacific Standard Time

Name: 201220R1_7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15:08, Description: USMPDI-002SC-A-04-05-201111

Page 2 of 3

Hepta-Dioxins

13.84	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1197	Total Hepta-Dioxins	37.16	6.152e5	6.184e5	4.500e4	4.615e4	0.97	NO	9.115e4	48.191	48.191	0.715
2	1,2,3,4,6,7,8-HpCDD	38.19	8.940e5	8.843e5	5.494e4	5.422e4	1.01	NO	1.092e5	57.709	57.709	0.715

Tetra-Furans

S SWEETS	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.79	4.009e3	8.521e3	2.854e2	4.263e2	0.67	NO	7.117e2	0.15804	0.15804	0.0838
2	Total Tetra-Furans	21.57	1.665e4	2.509e4	1.746e3	2.243e3	0.78	NO	3.989e3	0.88588	0.88588	0.0838
3	Total Tetra-Furans	22.55	8.429e3	1.450e4	9.525e2	1.266e3	0.75	NO	2.219e3	0.49273	0.49273	0.0838
4	Total Tetra-Furans	23.02	9.615e3	1.264e4	7.614e2	9.807e2	0.78	NO	1.742e3	0.38688	0.38688	0.0838
5	Total Tetra-Furans	23.11	1.660e3	2.661e3	1.165e2	1.645e2	0.71	NO	2.810e2	0.062404	0.062404	0.0838
6	Total Tetra-Furans	23.36	2.784e3	2.679e3	2.092e2	2.495e2	0.84	NO	0.000e0	0.00000	0.10186	0.0838
7	Total Tetra-Furans	23.84	2.191e3	2.615e3	1.295e2	1.504e2	0.86	NO	2.799e2	0.062153	0.062153	0.0838
8	Total Tetra-Furans	23.91	2.331e3	2.594e3	1.618e2	2.070e2	0.78	NO	3.688e2	0.081904	0.081904	0.0838
9	Total Tetra-Furans	24.09	5.473e3	6.792e3	2.710e2	3.236e2	0.84	NO	5.946e2	0.13203	0.13203	0.0838
10	Total Tetra-Furans	24.18	1.192e4	1.604e4	9.743e2	1. 472 e3	0.66	NO	2.446e3	0.54317	0.54317	0.0838
11	Total Tetra-Furans	24.63	1.419e4	1.987e4	9.804e2	1.455e3	0.67	NO	2.436e3	0.54092	0.54092	0.0838
12	Total Tetra-Furans	24.94	1.934e3	3.848e3	1.373e2	2.058e2	0.67	NO	3.431e2	0.076181	0.076181	0.0838
13	Total Tetra-Furans	25.08	2.125e3	2.378e3	1.143e2	1.479e2	0.77	NO	2.622e2	0.058220	0.058220	0.0838
14	Total Tetra-Furans	25.36	2.200e3	2.177e3	1.119e2	1.493e2	0.75	NO	2.612e2	0.058014	0.058014	0.0838
15	Total Tetra-Furans	25.51	6.237e3	8.777e3	4.475e2	5.342e2	0.84	NO	9.817e2	0.21801	0.21801	0.0838
16	2,3,7,8-TCDF	25.64	1.699e4	2.585e4	1.105e3	1.658e3	0.67	NO	2.763e3	0.61362	0.61362	0.0838
17	Total Tetra-Furans	25.92	3.107e3	4.308e3	2.935e2	3.439e2	0.85	NO	6.374e2	0.14156	0.14156	0.0838
18	Total Tetra-Furans	26.84	2.744e3	1.868e3	1.080e2	1.120e2	0.96	YES	0.000e0	0.00000	0.044017	0.0838
19	Total Tetra-Furans	26.98	1.377e3	1.694e3	7.164e1	8.857e1	0.81	NO	1.602e2	0.035578	0.035578	0.0838
20	Total Tetra-Furans	27.16	3.848e3	6.606e3	2.364e2	3.452e2	0.68	NO	5.816e2	0.12915	0.12915	0.0838
21	Total Tetra-Furans	27.53	2.203e3	2.050e3	1.151e2	1.333e2	0.86	NO	2.484e2	0.055170	0.055170	0.0838

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 1st Func. Pe	enta-Furans 27.15	1.464e5	9.263e4	8.768e3	5.590e3	1.57	NO	1.436e4	3.2089	3.2089	0.0252

Work Order 2002532 Page 168 of 725

Page 3 of 3

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-7.qld

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Penta-Furans

10	EW. 85	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	31717	Total Penta-Furans	28.62	5.655e3	4.010e3	3.728e2	2.617e2	1.42	NO	6.345e2	0.14182	0.14182	0.0693
2	57.72	Total Penta-Furans	28.79	5.063e4	3.004e4	3.775e3	2.352e3	1.60	NO	6.127e3	1.3693	1.3693	0.0693
3		Total Penta-Furans	29.42	2.112e4	1.728e4	1.162e3	8.712e2	1.33	NO	2.033e3	0.45447	0.45447	0.0693
4		Total Penta-Furans	29.56	7.895e3	4.870e3	4.118e2	2.531e2	1.63	NO	6.649e2	0.14861	0.14861	0.0693
5		1,2,3,7,8-PeCDF	29.78	3.736e4	2.500e4	2.025e3	1.233e3	1.64	NO	3.258e3	0.70539	0.70539	0.0707
6	1150	Total Penta-Furans	30.04	2.402e4	1.313e4	1.351e3	8.099e2	1.67	NO	2.160e3	0.48287	0.48287	0.0693
7		2,3,4,7,8-PeCDF	30.84	4.072e4	2.897e4	2.200e3	1.511e3	1.46	NO	3.711e3	0.77070	0.77070	0.0610

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.17	8.980e4	7.622e4	4.093e3	3.549e3	1.15	NO	7.641e3	2.6924	2.6924	0.112
2	Total Hexa-Furans	32.34	1.742e5	1.621e5	8.322e3	7.279e3	1.14	NO	1.560e4	5.4969	5.4969	0.112
3	Total Hexa-Furans	32.97	2.522e5	2.119e5	1.250e4	1.068e4	1.17	NO	2.317e4	8.1653	8.1653	0.112
4	1,2,3,4,7,8-HxCDF	33.42	4.469e4	4.278e4	2.444e3	2.084e3	1.17	NO	4.528e3	1.5657	1.5657	0.101
5	1,2,3,6,7,8-HxCDF	33.55	1.633e4	1.325e4	9.367e2	7.264e2	1.29	NO	1.663e3	0.55658	0.55658	0.102
6	2,3,4,6,7,8-HxCDF	34.23	1.615e4	1.515e4	9.981e2	7.581e2	1.32	NO	1.756e3	0.62624	0.62624	0.113
7	1,2,3,7,8,9-HxCDF	35.24	8.558e3	6.371e3	2.700e2	2.186e2	1.24	NO	4.885e2	0.19189	0.19189	0.139
8	Total Hexa-Furans	35.25	9.63 4e 3	7.925e3	3.798e2	2.945e2	1.29	NO	6.743e2	0.23759	0.23759	0.112

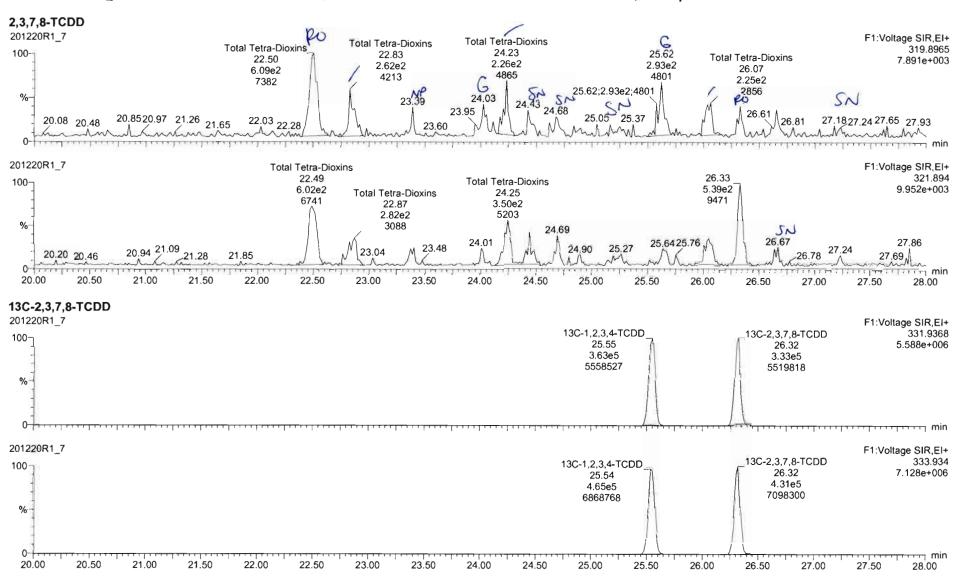
Hepta-Furans

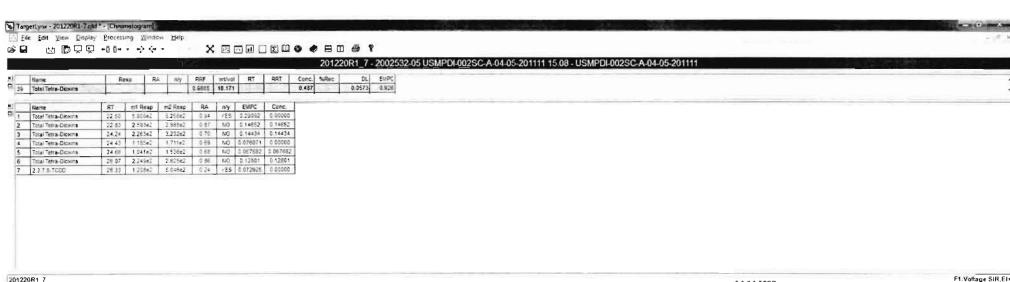
54-0	Name	RT	m1 Height m2 H	ight m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.78	1.882e5 1.86	le5 1.381e4	1.366e4	1.01	NO	2.747e4	13.779	13.779	0.160
2	Total Hepta-Furans	37.52	2.330e5 2.49	e5 1.659e4	1.705e4	0.97	NO	3.364e4	18.195	18.195	0.155
3	1,2,3,4,7,8,9-HpCDF	38.83	8.624e3 7.59	ie3 4.774e2	4.073e2	1.17	NO	8.847e2	0.46328	0.46328	0.133

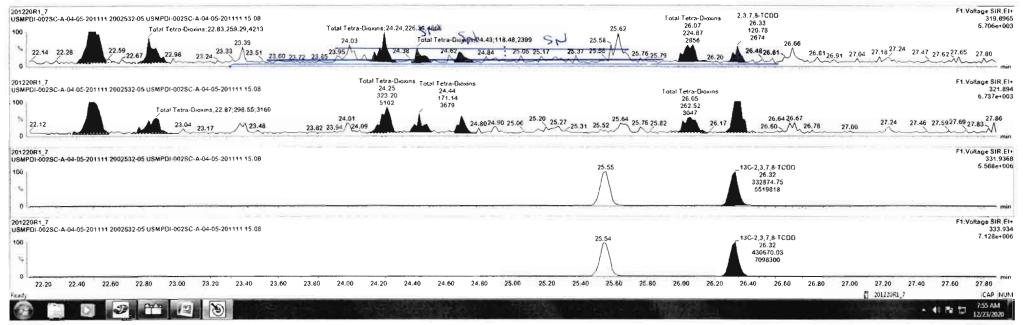
Work Order 2002532 Page 169 of 725

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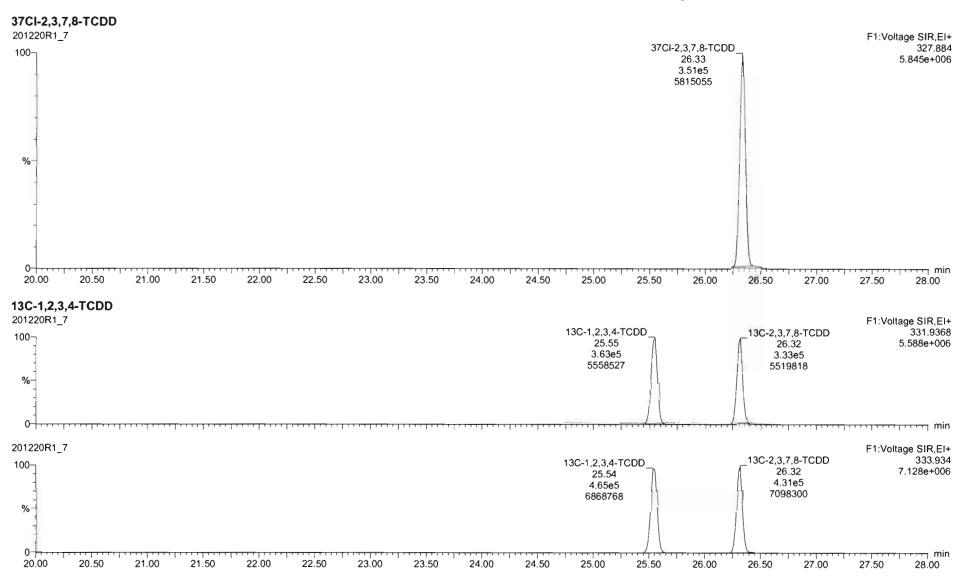




Work Order 2002532 Page 171 of 725

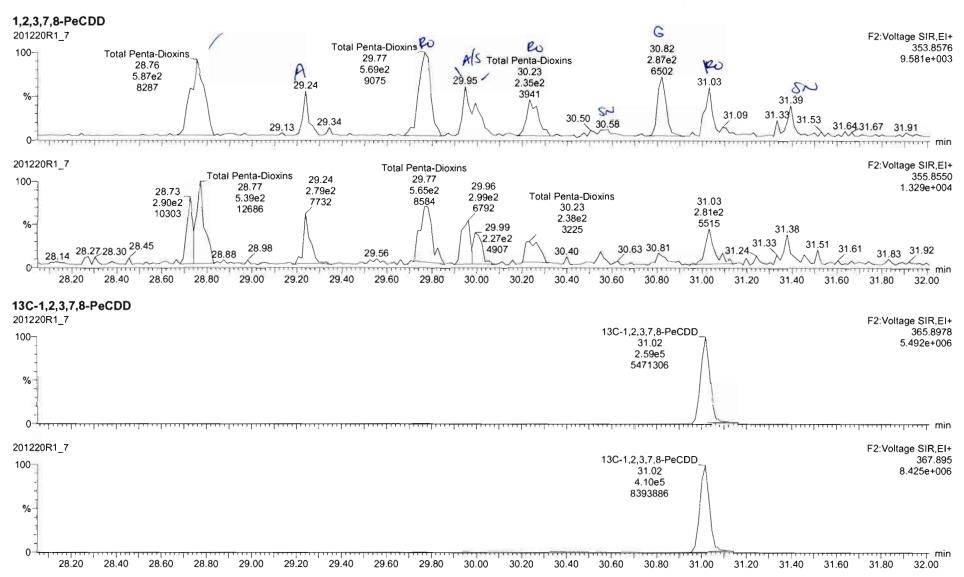
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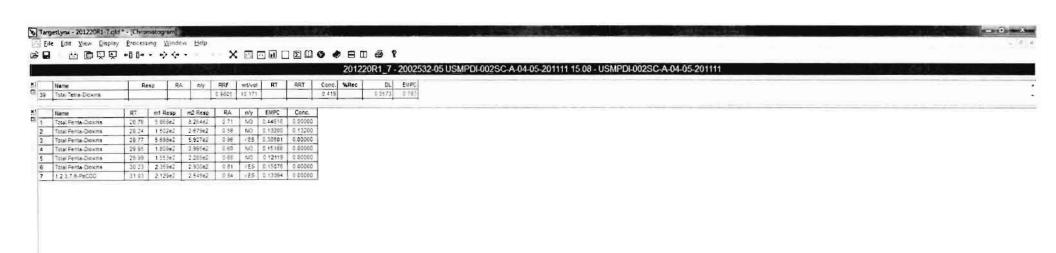
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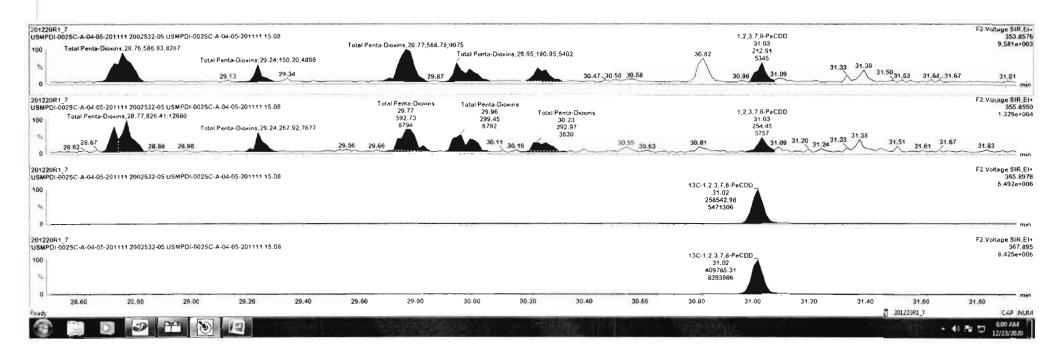


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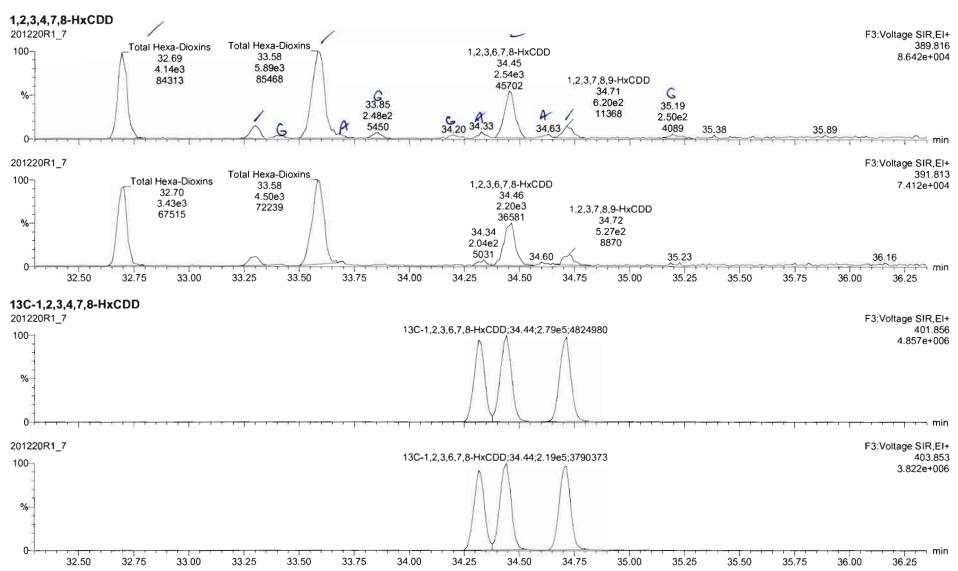


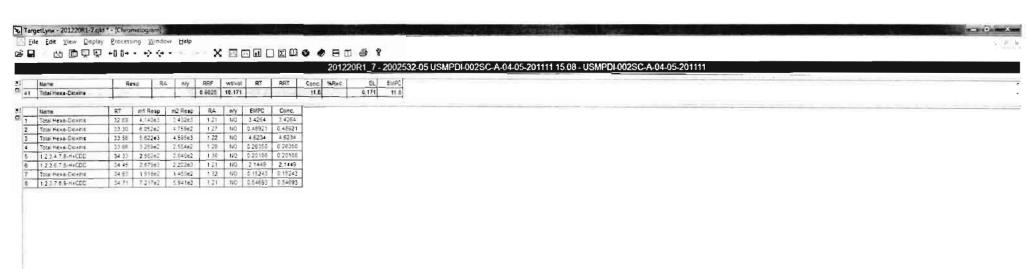
Work Order 2002532 Page 174 of 725

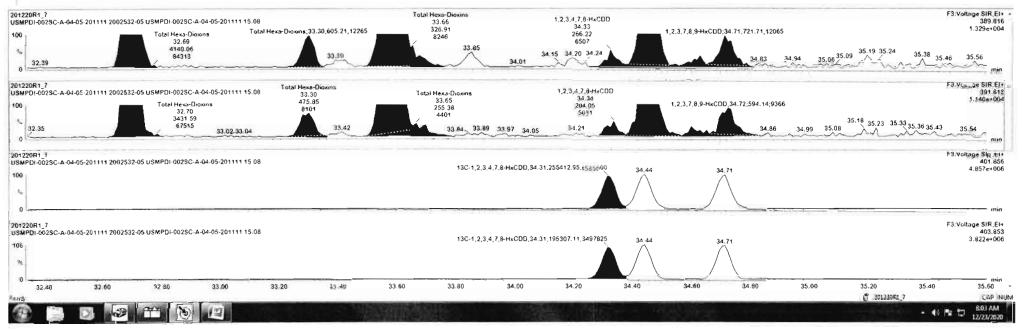
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



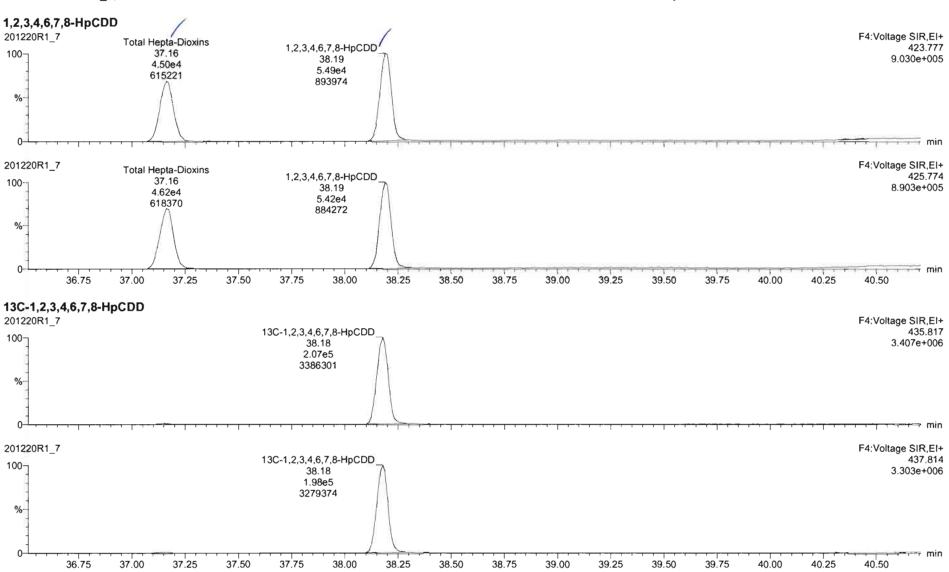




Work Order 2002532 Page 176 of 725

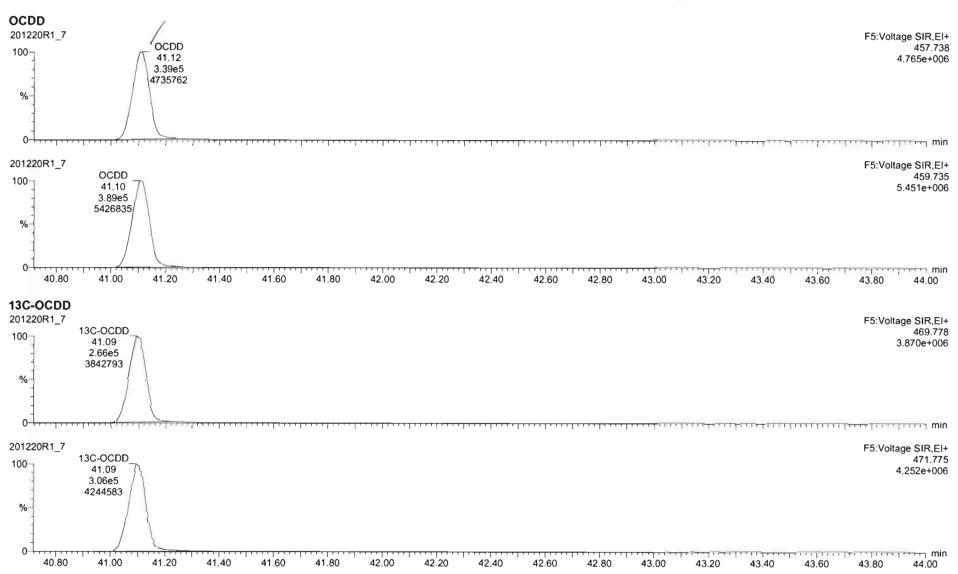
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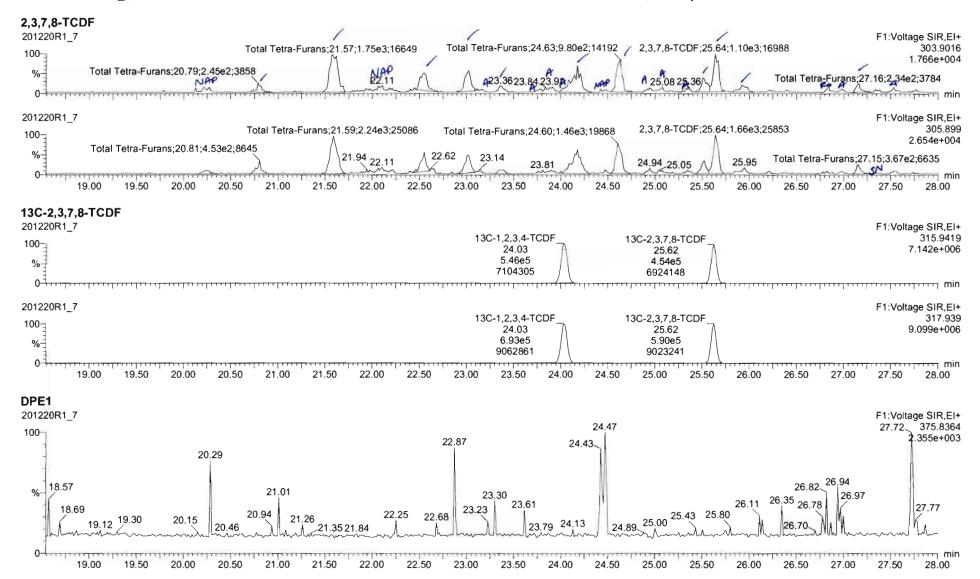
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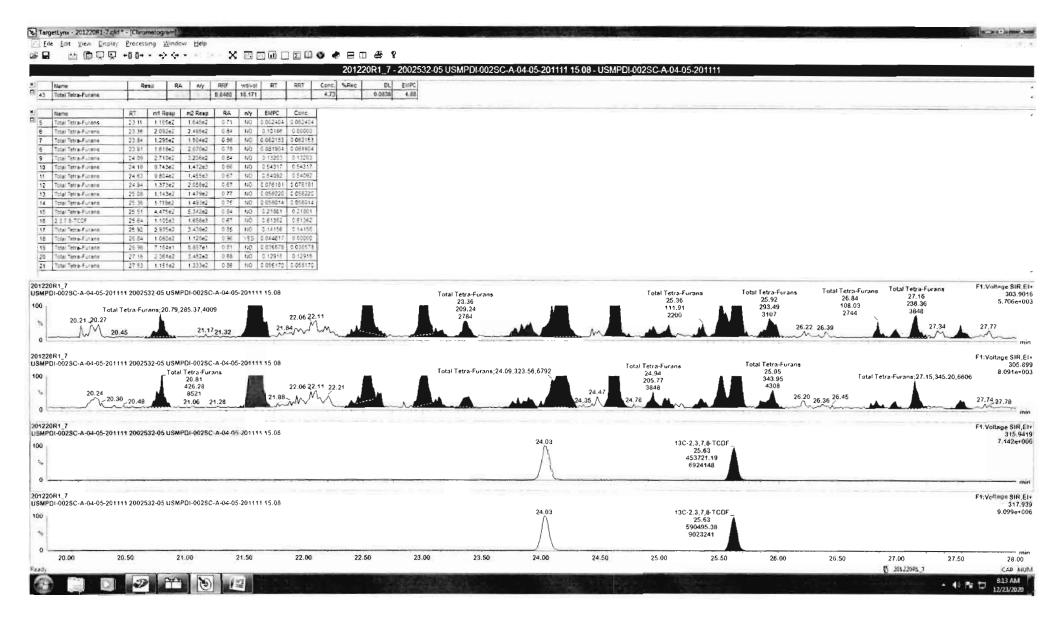
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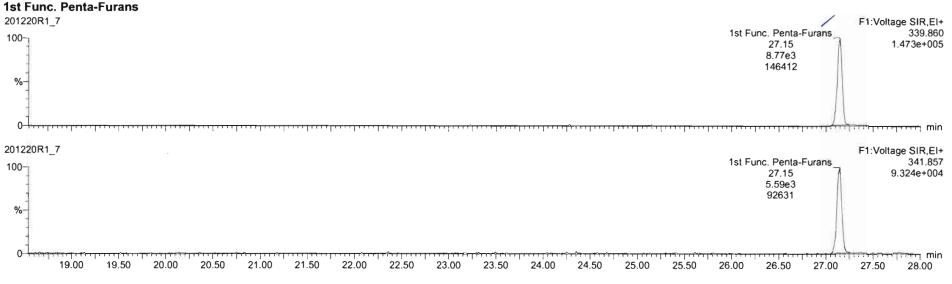
Work Order 2002532 Page 180 of 725

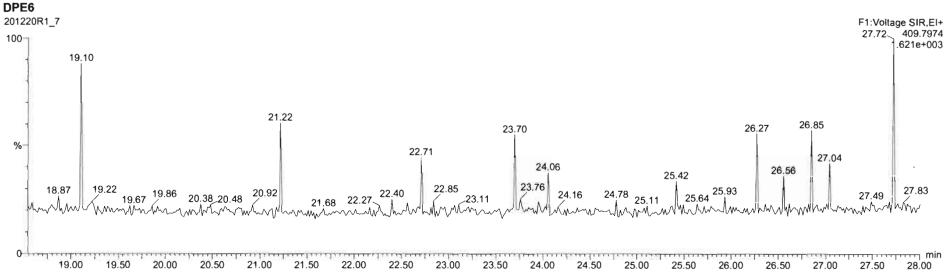
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1_7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15:08, Description: USMPDI-002SC-A-04-05-201111

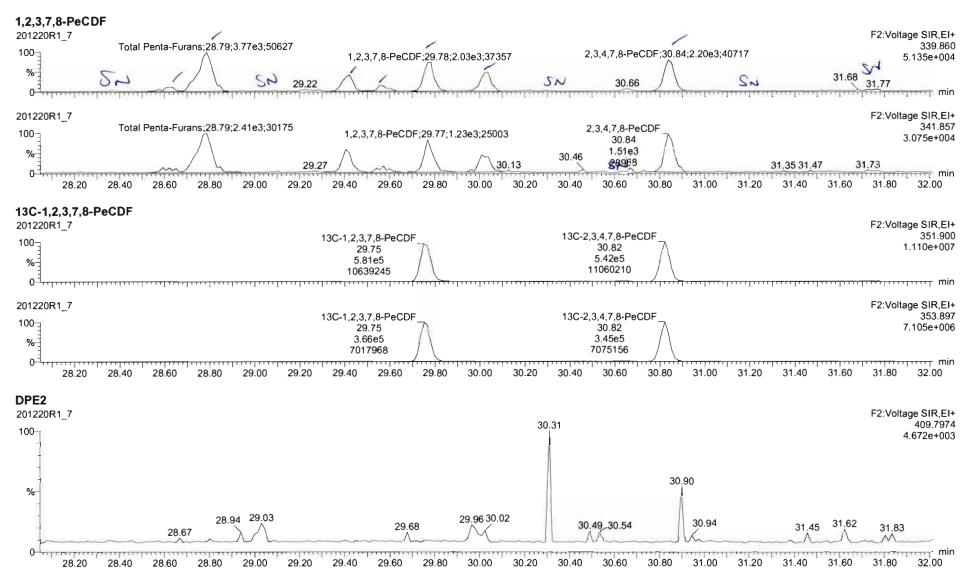


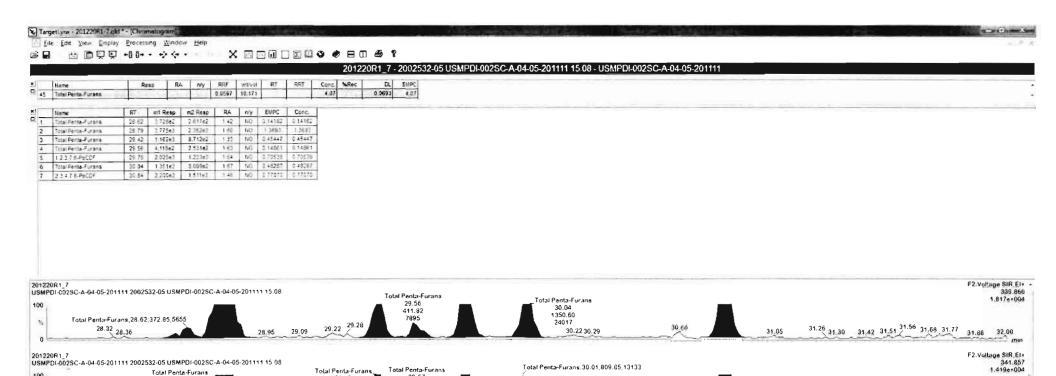


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31.32_31.35 31.47 31.59 31.73

F2.Veltage SIR EI 351.900 1.110e+007

F2.Voltage SIR,EI+

353.897 7.105e+006

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CAP NUM

29.57 253.10

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

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28.36

28.89

28.80

29.00

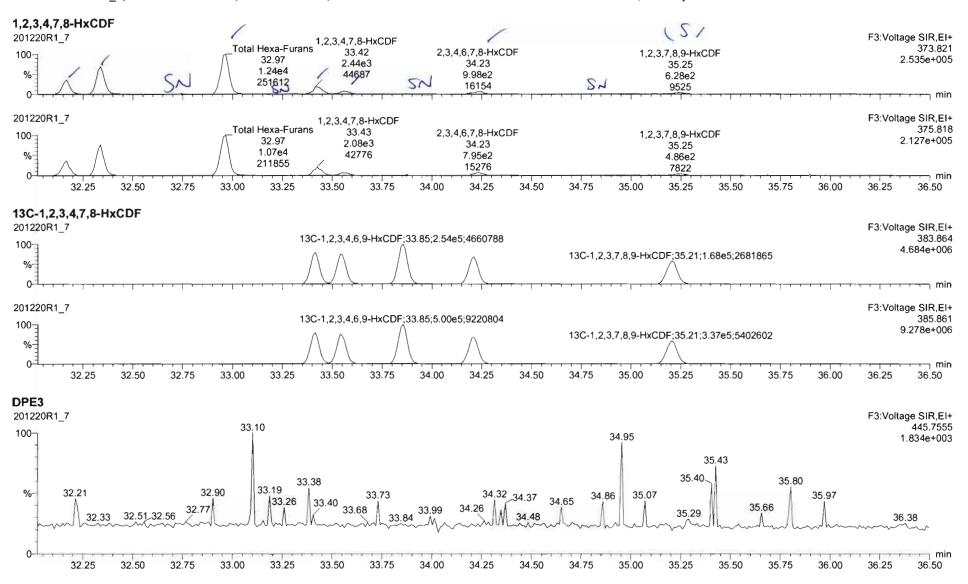
Work Order 2002532 Page 183 of 725

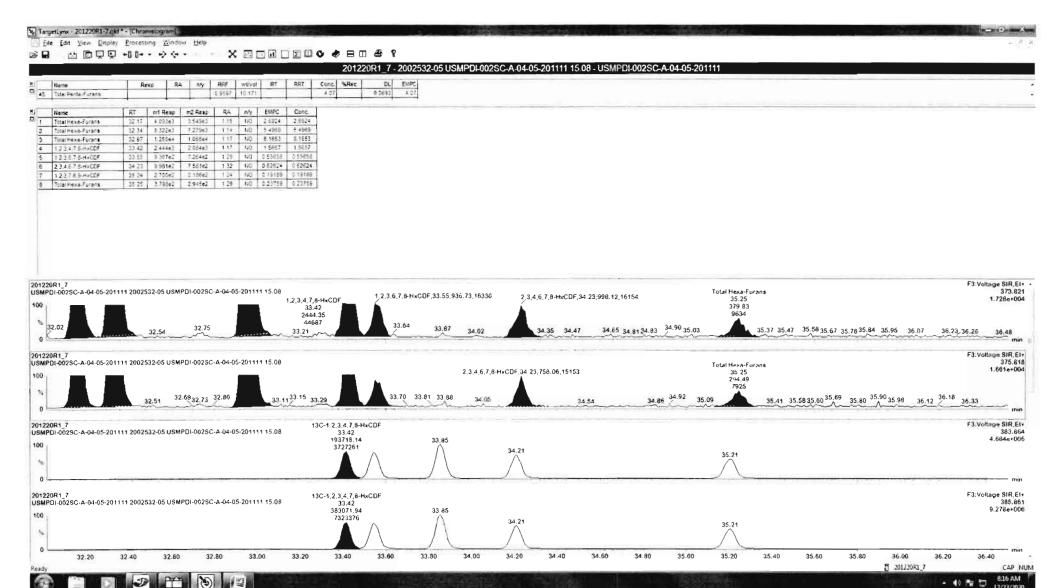
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1 7, Date: 20-Dec-2020, Time: 12:57:15, ID: 2002532-05 USMPDI-002SC-A-04-05-201111 15.08, Description: USMPDI-002SC-A-04-05-201111

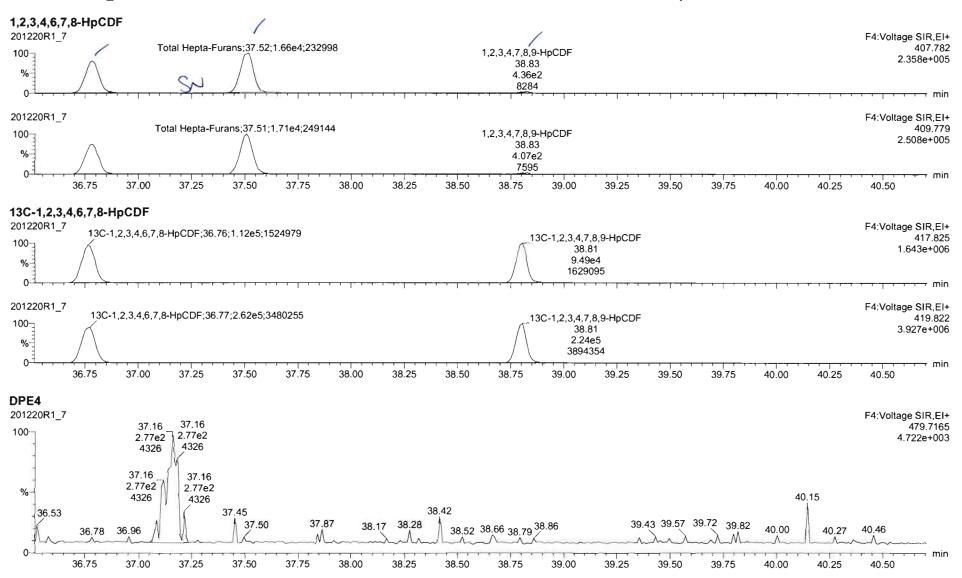


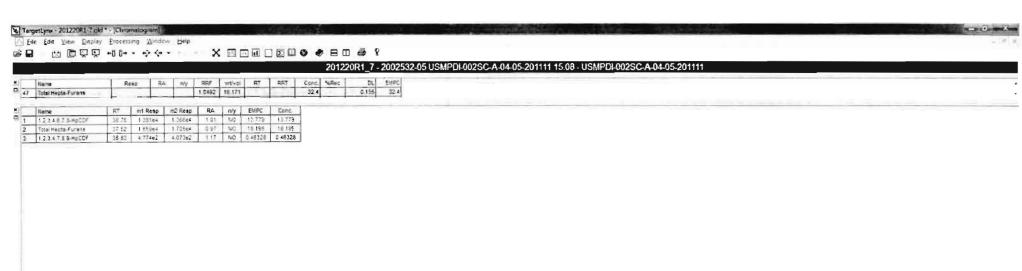


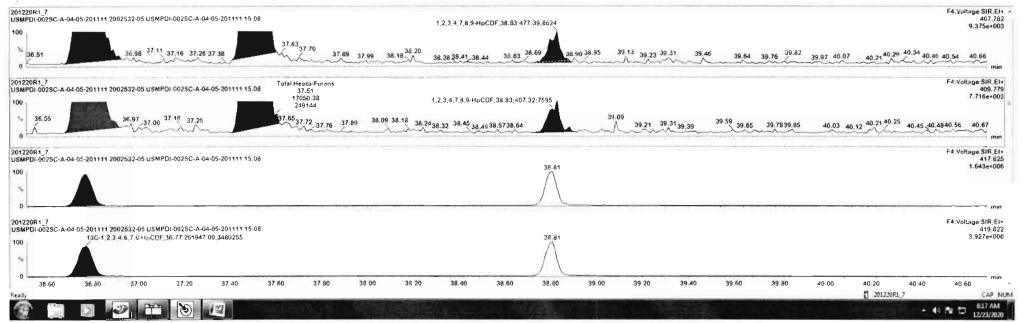
Work Order 2002532 Page 185 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





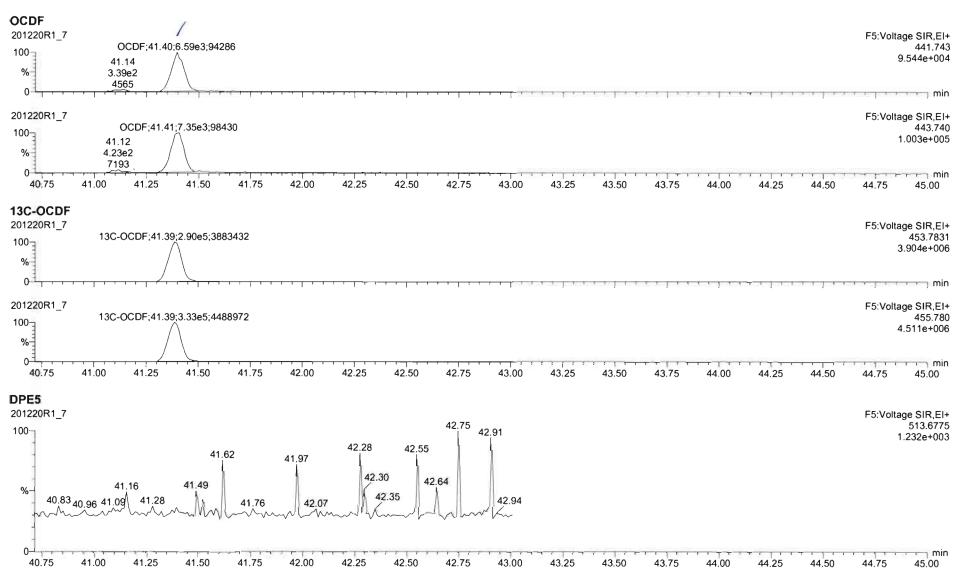


Work Order 2002532 Page 187 of 725

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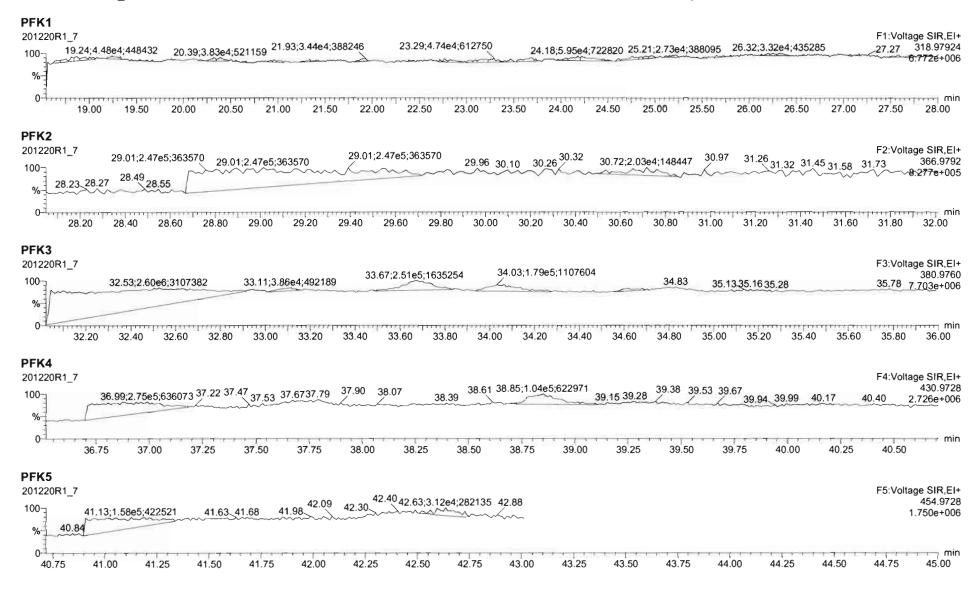
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Work Order 2002532 Page 189 of 725

MassLynx 4.1 SCN815

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-8.qld

Last Altered: Wednesday, December 23, 2020 9:05:54 AM Pacific Standard Time Printed: Wednesday, December 23, 2020 9:06:19 AM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_8, Date: 20-Dec-2020, Time: 13:41:32, ID: 2002532-06 USMPDI-002SC-A-05-06-201111 15.47, Description: USMPDI-002SC-A-05-06-201111

0.1.090	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL EMPC
1 FOACUE	1 2,3,7,8-TCDD			NO	0.980	10.019	26.337		1.001			0.0	513
2	2 1,2,3,7,8-PeCDD	2.53e2	0.59	NO	0.932	10.019	31.034	31.02	1.001	1.000	0.077280	0.0	916 0.0773
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.019	34.326		1.001			0.0	854
4	4 1,2,3,6,7,8-HxCDD	7.32e2	1.25	NO	0.902	10.019	34.452	34.44	1.001	1.000	0.28949	0.0	866 0.289
5	5 1,2,3,7,8,9-HxCDD	4.83e2	1.25	NO	0.954	10.019	34.713	34.70	1.000	1.000	0.18150	0.0	872 0.182
6	6 1,2,3,4,6,7,8-HpCDD	1.31e4	1.02	NO	0.918	10.019	38.190	38.19	1.000	1.000	6.2354	0.	279 6.24
7 - >==	7 OCDD	1.10e5	0.87	NO	0.866	10.019	41.113	41.12	1.000	1.000	73.471	0.	231 73.5
8	8 2,3,7,8-TCDF	1.04e3	0.80	NO	0.848	10.019	25.613	25.65	1.000	1.002	0.20850	0.0	459 0.209
9	9 1,2,3,7,8-PeCDF	8.56e2	1.36	NO	0.960	10.019	29.754	29.77	1.000	1.001	0.18203	0.0	511 0.182
10	10 2,3,4,7,8-PeCDF	8.02e2	1.60	NO	1.07	10.019	30.828	30.82	1.001	1.001	0.15670	0.0	458 0.157
11	11 1,2,3,4,7,8-HxCDF	9.71e2	1.06	NO	0.986	10.019	33.415	33.42 <	1.000	1.000	0.30490	0.0	774 0.305
12	12 1,2,3,6,7,8-HxCDF	4.08e2	1.26	NO	1.04	10.019	33.561	33.55	1.001	1.000	0.12509	0.0	786 0.125
13	13 2,3,4,6,7,8-HxCDF	3.17e2	1.13	NO	1.02	10.019	34.221	34.22 /	1.001	1.001	0.10005	0.0	835 0.100
14	14 1,2,3,7,8,9-HxCDF	2.86e2	1.12	NO	0.991	10.019	35.217	35.21	1.000	1.000	0.099682	0.	103 0.0997
15	15 1,2,3,4,6,7,8-HpCDF	2.93e3	1.00	NO	1.05	10.019	36.781	36.78	1.000	1.001	1.2862	0.0	560 1.29
16	16 1,2,3,4,7,8,9-HpCDF	2.16e2	0.84	YES	1.18	10.019	38.806	38.82	1.000	1.001	0.095004	0.0	450 0.0848
17	17 OCDF	3.26e3	0.81	NO	0.896	10.019	41.385	41.39	1.000	1.000	1.8680	0.0	768 1.87
18	18 13C-2,3,7,8-TCDD	8.85e5	0.77	NO	1.06	10.019	26.307	26.31	1.030	1.030	206.93	104 0.	161
19	19 13C-1,2,3,7,8-PeCDD	7.01e5	0.62	NO	0.785	10.019	31.139	31.00	1.219	1.214	220.37	110 0.	181
20	20 13C-1,2,3,4,7,8-HxCDD	5.10e5	1.27	NO	0.621	10.019	34.305	34.31	1.014	1.014	223.80	112 0.	432
21	21 13C-1,2,3,6,7,8-HxCDD	5.60e5	1.28	NO	0.734	10.019	34.427	34.43	1.017	1.017	207.68	104 0.	366
22	22 13C-1,2,3,7,8,9-HxCDD	5.56e5	1.27	NO	0.723	10.019	34.711	34.70	1.026	1.025	209.72	105 0.	371
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.58e5	1.08	NO	0.568	10.019	38.208	38.18	1.129	1.128	219.90	110 0.	882
24	24 13C-OCDD	6.89e5	0.90	NO	0.496	10.019	41.142	41.10	1.216	1.215	378.63	94.8 0.	546
25	25 13C-2,3,7,8-TCDF	1.18e6	0.77	NO	0.919	10.019	25.608	25.61	1.003	1.003	211.75	106 0.	222
26	26 13C-1,2,3,7,8-PeCDF	9.78e5	1.56	NO	0.715	10.019	29.852	29.75	1.169	1.165	226.04	113 0.	414
27	27 13C-2,3,4,7,8-PeCDF	9.58e5	1.59	NO	0 689	10.019	30.937	30.81	1.212	1.206	229.87	115 0.	430
28	28 13C-1,2,3,4,7,8-HxCDF	6.45e5	0.51	NO	0.873	10.019	33.412	33.40	0.987	0 987	201.19	101 0.	515
29	29 13C-1,2,3,6,7,8-HxCDF	6.27e5	0.50	NO	0.933	10.019	33.540	33.54 /	0.991	0.991	183.02	91.7 0.	482
30	30 13C-2,3,4.6,7.8-HxCDF	6.19e5	0.50	NO	0.843	10.019	34.207	34.20 *	1.011	1.010	200.18	100 0.	533
31	31 13C-1,2,3,7,8,9-HxCDF	5.77e5	0.50	NO	0.780	10.019	35.206	35.21 /	1.040	1.040	201.69	101 0.	576

Work Order 2002532 Page 190 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-8.qld

Last Altered: Printed:

Wednesday, December 23, 2020 9:05:54 AM Pacific Standard Time Wednesday, December 23, 2020 9:06:19 AM Pacific Standard Time

Name: 201220R1_8, Date: 20-Dec-2020, Time: 13:41:32, ID: 2002532-06 USMPDI-002SC-A-05-06-201111 15.47, Description: USMPDI-002SC-A-05-06-201111

Profit let	# 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	4.33e5	0.43	NO	0.726	10.019	36.779	36.76	1.087	1.086	162.46	81.4	0.612	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.86e5	0.43	NO	0.491	10.019	38.786	38.79	1.146	1.146	214.08	107	0.905	
34	34 13C-OCDF	7.77e5	0.87	NO	0.565	10.019	41.359	41.38	1.222	1.223	374.57	93.8	0.801	
35	35 37Cl-2,3,7,8-TCDD	3.83e5			1.22	10.019	26.302	26.32	1.030	1.031	77.659	97.3	0.0390	
36	36 13C-1,2,3,4-TCDD	8.09e5	0.79	NO	1.00	10.019	25.640	25.54	1.000	1.000	199.62	100	0.169	
37	37 13C-1,2,3,4-TCDF	1.21e6	0.79	NO	1.00	10.019	24.130	24.03	1.000	1.000	199.62	100	0.204	
38	38 13C-1,2,3,4,6,9-HxCDF	7.33e5	0.51	NO	1.00	10.019	33.920	33.85	1.000	1.000	199.62	100	0.450	1
39	39 Total Tetra-Dioxins				0.980	10.019	24.620		0.000		0.38043		0.0513	0.380
40	40 Total Penta-Dioxins				0.932	10.019	29.960		0.000		0.38352		0.0916	0.743
41	41 Total Hexa-Dioxins				0.902	10.019	33.635		0.000		1.9362		0.0916	2.89
42	42 Total Hepta-Dioxins				0.918	10.019	37.640		0.000		13.523		0.279	13.5
43	43 Total Tetra-Furans				0.848	10.019	23.610		0.000		0.82122		0.0459	0.880
44	44 1st Func. Penta-Furans				0.960	10.019	26.930		0.000		0.49746		0.0189	0.497
45	45 Total Penta-Furans				0.960	10.019	29.275		0.000		0.98243		0.0510	0.982
46	46 Total Hexa-Furans				1.02	10.019	33.555		0.000		2.2690		0.0842	2.27
47	47 Total Hepta-Furans				1.05	10.019	37.835		0.000		3.3165		0.0534	3.40

Work Order 2002532 Page 191 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-8.qld

Last Altered: Printed:

Wednesday, December 23, 2020 9:05:54 AM Pacific Standard Time Wednesday, December 23, 2020 9:06:19 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1 8, Date: 20-Dec-2020, Time: 13:41:32, ID: 2002532-06 USMPDI-002SC-A-05-06-201111 15.47, Description: USMPDI-002SC-A-05-06-201111

Page 1 of 3

Tetra-Dioxins

Hules held	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.50	3.597e3	3.138e3	2.855e2	3.241e2	0.88	NO	6.096e2	0.14020	0.14020	0.0513
2	Total Tetra-Dioxins	22.86	1.683e3	3.330e3	1.800e2	2.684e2	0.67	NO	4.484e2	0.10313	0.10313	0.0513
3	Total Tetra-Dioxins	24.22	4.911e3	5.131e3	2.605e2	3.356e2	0.78	NO	5.961e2	0.13710	0.13710	0.0513

Penta-Dioxins

113-1107	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.76	2.689e3	4.835e3	2.242e2	3.935e2	0.57	NO	6.177e2	0.18878	0.18878	0.0916
2	Total Penta-Dioxins	29.24	2.456e3	4.696e3	1.560e2	2.283e2	0.68	NO	3.843e2	0.11746	0.11746	0.0916
3	Total Penta-Dioxins	29.54	1.715e3	1.043e4	8.234e1	5.582e2	0.15	YES	0.000e0	0.00000	0.065109	0.0916
4	Total Penta-Dioxins	29.75	1.064e4	5.516e3	4.137e2	3.332e2	1.24	YES	0.000e0	0.00000	0.16599	0.0916
5	Total Penta-Dioxins	30.23	5.647e3	3.644e3	2.458e2	1.798e2	1.37	YES	0.000e0	0.00000	0.089549	0.0916
6	1,2,3,7,8-PeCDD	31.02	1.985e3	3.310e3	9.364e1	1.592e2	0.59	NO	2.528e2	0.077280	0.077280	0.0916
7	Total Penta-Dioxins	31.36	2.704e3	2.788e3	9.391e1	7.854e1	1.20	YES	0.000e0	0.00000	0.039128	0.0916

Hexa-Dioxins

131 15	Name	RT	m1 Height	m2 Height	26/4	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.68	3.778e4	3.238e4		1.627e3	1.453e3	1.12	NO	3.081e3	1.2576	1.2576	0.0916
2	Total Hexa-Dioxins	33.28	6.416e3	4.608e3		2.644e2	2.442e2	1.08	NO	5.086e2	0.20763	0.20763	0.0916
3	Total Hexa-Dioxins	33.55	1.832e4	1.286e4		1.496e3	1.048e3	1.43	YES	0.000e0	0.00000	0.95855	0.0916
43 145	1,2,3,6,7,8-HxCDD	34.44	8.060e3	6.393e3		4.063e2	3.260e2	1.25	NO	7.323e2	0.28949	0.28949	0.0866
5	1,2,3,7.8,9-HxCDD	34.70	4.500e3	4.868e3		2.682e2	2.144e2	1.25	NO	4.826e2	0.18150	0.18150	0.0872

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.17	1.056e5	1.067e5	7.745e3	7.613e3	1.02	NO	1.536e4	7.2877	7.2877	0.279
2	1,2,3,4,6,7,8-HpCDD	38.19	1.109e5	1.062e5	6.627e3	6.514e3	1.02	NO	1.314e4	6.2354	6.2354	0.279

Work Order 2002532 Page 192 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-8.qld

Last Altered: Printed:

Wednesday, December 23, 2020 9:05:54 AM Pacific Standard Time Wednesday, December 23, 2020 9:06:19 AM Pacific Standard Time

Name: 201220R1_8, Date: 20-Dec-2020, Time: 13:41:32, ID: 2002532-06 USMPDI-002SC-A-05-06-201111 15.47, Description: USMPDI-002SC-A-05-06-201111

Tetra-Furans

The Control of the	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.60	8.497e3	9.176e3	7.827e2	9.481e2	0.83	NO	1.731e3	0.34596	0.34596	0.0459
2	Total Tetra-Furans	23.01	2.781e3	3.967e3	2.030e2	2.470e2	0.82	NO	4.500e2	0.089948	0.089948	0.0459
3	Total Tetra-Furans	24.62	4.806e3	6.905e3	3.510e2	5.336e2	0.66	NO	8.846e2	0.17681	0.17681	0.0459
4	Total Tetra-Furans	25.51	1.611e3	2.851e3	1.270e2	2.111e2	0.60	YES	0.000e0	0.00000	0.058364	0.0459
5	2,3,7,8-TCDF	25.65	6.922e3	7.794e3	4.643e2	5.789e2	0.80	NO	1.043e3	0.20850	0.20850	0.0459

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 1st Fu	nc. Penta-Furans 27.13	2.499e4	1.474e4	1.394e3	9.215e2	1.51	NO	2.315e3	0.49746	0.49746	0.0189

Penta-Furans

SECTION	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.5	Total Penta-Furans	28.61	3.490e3	1.446e3	1.729e2	1.083e2	1.60	NO	2.812e2	0.060422	0.060422	0.0510
2	Total Penta-Furans	28.77	1.159e4	7.005e3	9.074e2	6.055e2	1.50	NO	1.513e3	0.32507	0.32507	0.0510
3	Total Penta-Furans	29.41	6.198e3	4.114e3	3.358e2	2.248e2	1.49	NO	5.607e2	0.12047	0.12047	0.0510
4	1,2,3,7,8-PeCDF	29.77	9.514e3	7.265e3	4.935e2	3.626e2	1.36	NO	8.561e2	0.18203	0.18203	0.0511
5	Total Penta-Furans	30.01	6.827e3	5.099e3	3.672e2	2.738e2	1.34	NO	6.411e2	0.13774	0.13774	0.0510
6	2,3,4,7,8-PeCDF	30.82	9.375e3	5.515e3	4.944e2	3.080e2	1.60	NO	8.024e2	0.15670	0.15670	0.0458

Hexa-Furans

77.2	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
100001-10	Total Hexa-Furans	32.15	7.282e3	5.691e3	3.022e2	2.821e2	1.07	NO	5.843e2	0.18524	0.18524	0.0842
2	Total Hexa-Furans	32.33	1.924e4	1.763e4	9.924e2	8.812e2	1.13	NO	1.874e3	0.59398	0.59398	0.0842
3	Total Hexa-Furans	32.94	2.800e4	2.216e4	1.434e3	1.175e3	1.22	NO	2.610e3	0.82739	0.82739	0.0842
4	1,2,3,4,7,8-HxCDF	33.42	9.810e3	1.283e4	4.995e2	4.717e2	1.06	NO	9.712e2	0.30490	0.30490	0.0774
5	1,2,3,6,7,8-HxCDF	33.55	4.378e3	3.832e3	2.279e2	1.803e2	1.26	NO	4.082e2	0.12509	0.12509	0.0786
6	2,3,4,6,7,8-HxCDF	34.22	3.076e3	2.515e3	1.680e2	1.487e2	1.13	NO	3.167e2	0.10005	0.10005	0.0835
7	1,2,3,7,8,9-HxCDF	35.21	3.277e3	2.371e3	1.511e2	1.346e2	1 12	NO	2.857e2	0.099682	0.099682	0.103
8	Total Hexa-Furans	35.27	1.581e3	1.304e3	5.435e1	4.881e1	1.11	NO	1.032e2	0.032707	0.032707	0.0842

Work Order 2002532 Page 193 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-8.qld

Last Altered: Printed: Wednesday, December 23, 2020 9:05:54 AM Pacific Standard Time Wednesday, December 23, 2020 9:06:19 AM Pacific Standard Time

Name: 201220R1_8, Date: 20-Dec-2020, Time: 13:41:32, ID: 2002532-06 USMPDI-002SC-A-05-06-201111 15.47, Description: USMPDI-002SC-A-05-06-201111

Page 3 of 3

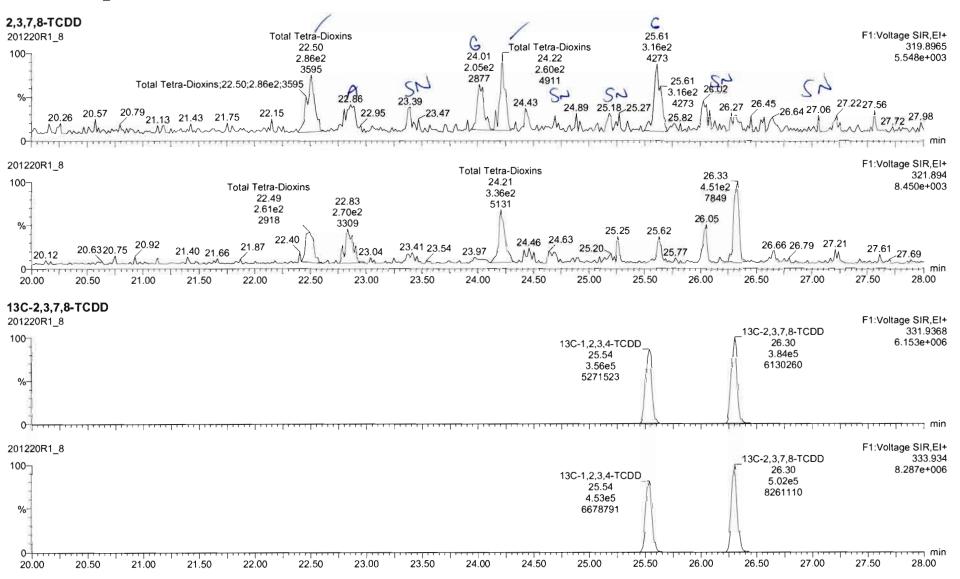
Hepta-Furans

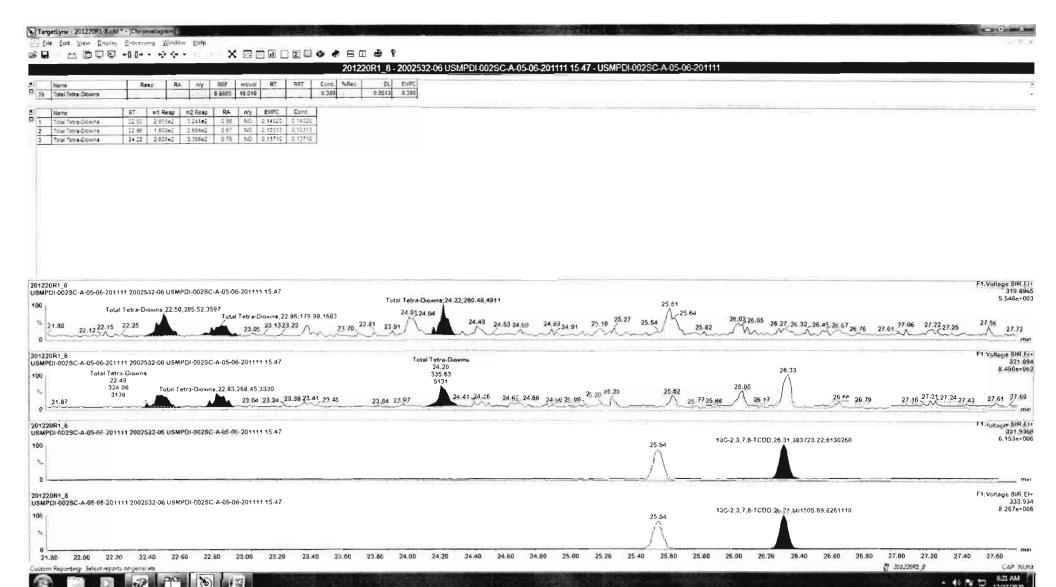
24 27	Name	RT	m1 Height	m2 Height	The second	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1-30 505	1,2,3,4,6,7,8-HpCDF	36.78	1.841e4	1.946e4		1.461e3	1.468e3	1.00	NO	2.929e3	1.2862	1.2862	0.0560
2	Total Hepta-Furans	37.51	3.055e4	3.077e4		2.197e3	2.173e3	1.01	NO	4.370e3	2.0303	2.0303	0.0534
3	1,2,3,4,7,8,9-HpCDF	38.82	1.599e3	2.068e3		9.831e1	1.177e2	0.84	YES	2.160e2	0.00000	0.084827	0.0450

Work Order 2002532

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

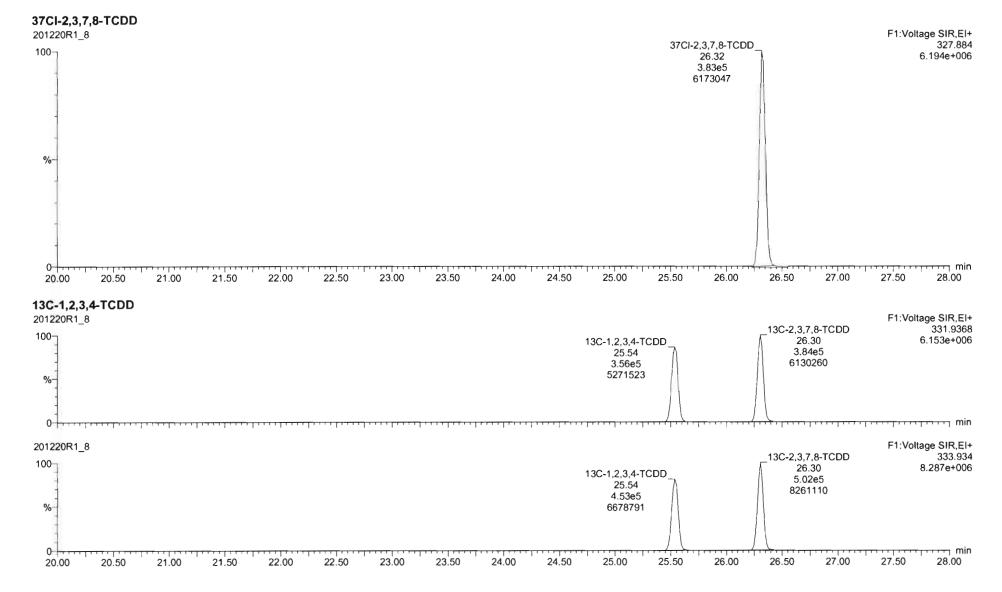




Work Order 2002532 Page 196 of 725

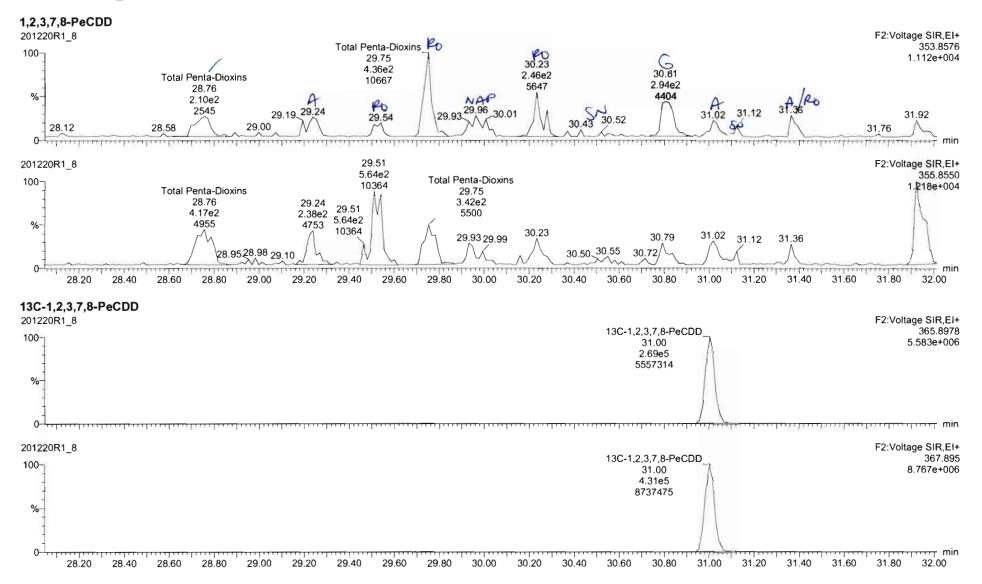
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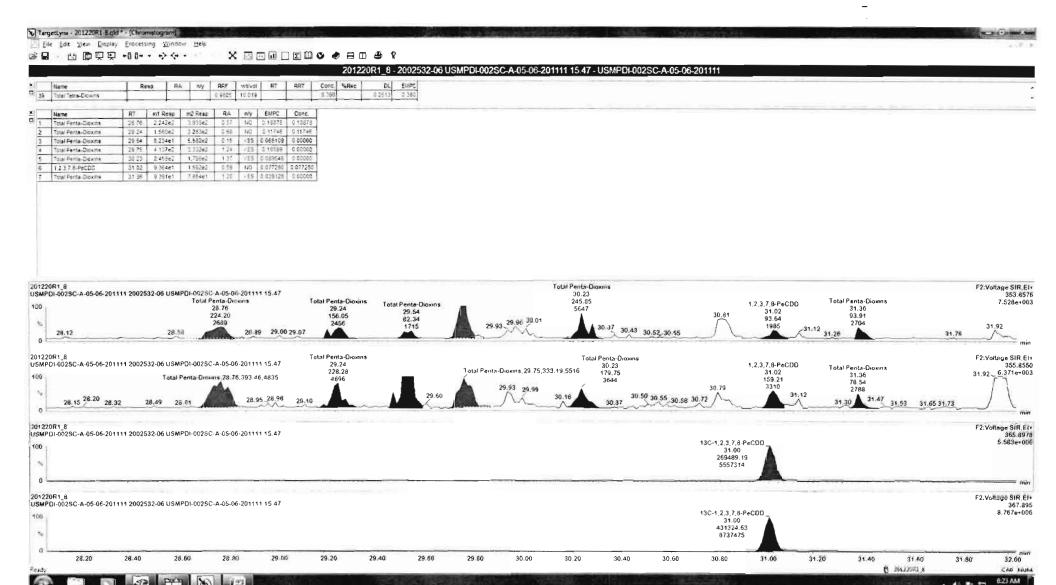
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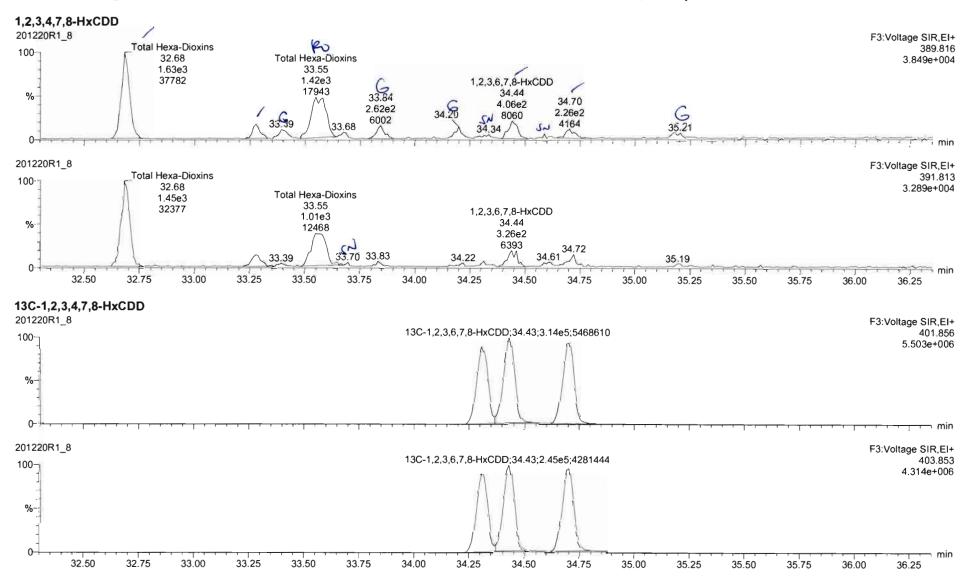
Work Order 2002532 Page 199 of 725

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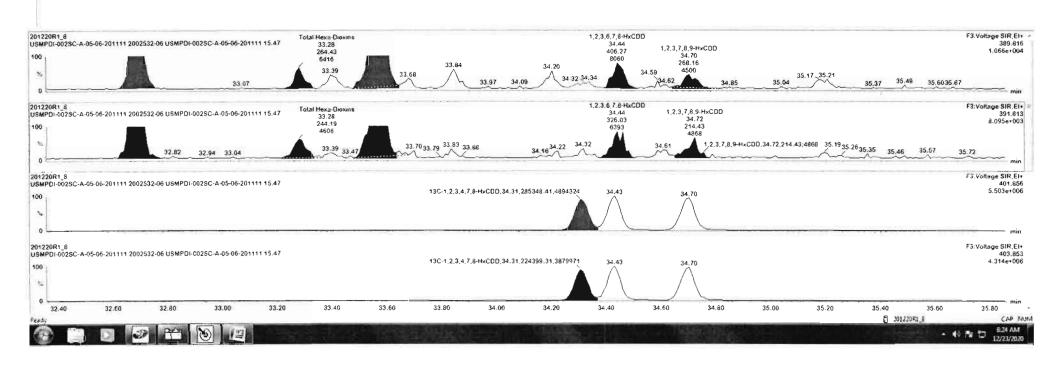
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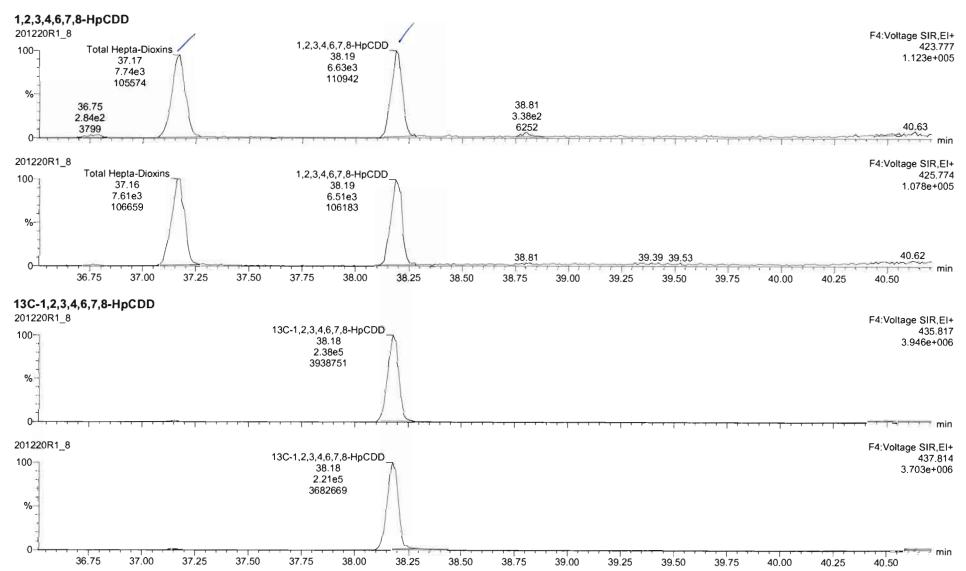




Work Order 2002532 Page 201 of 725

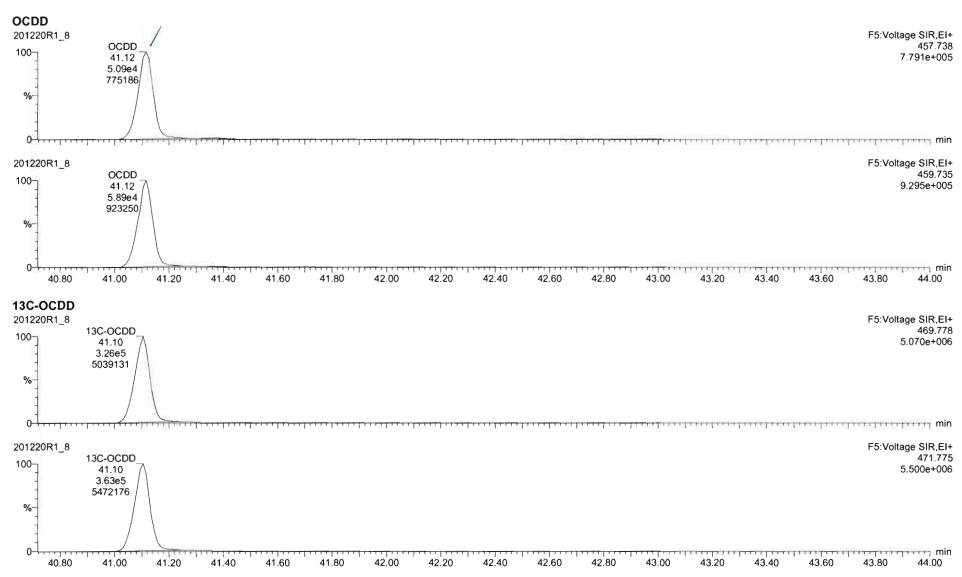
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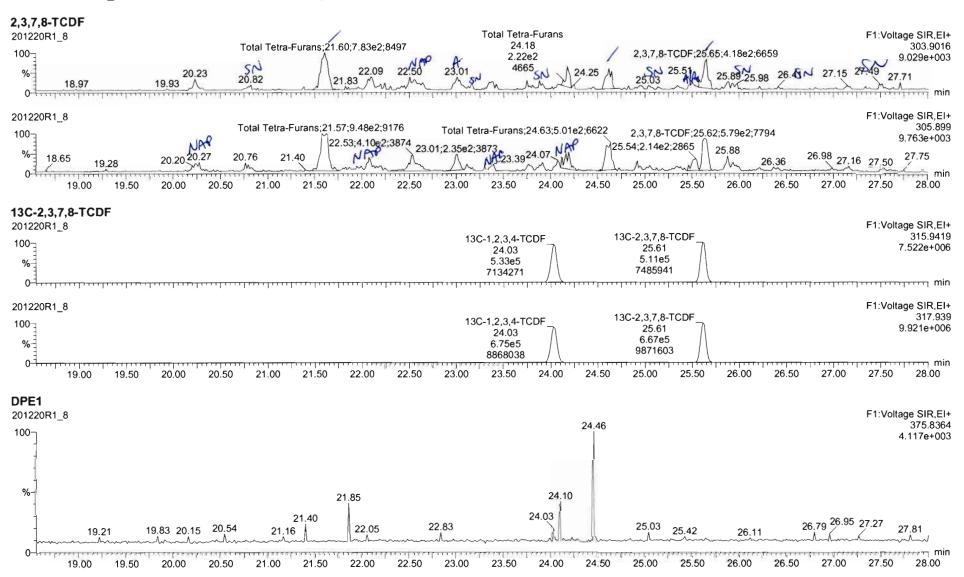
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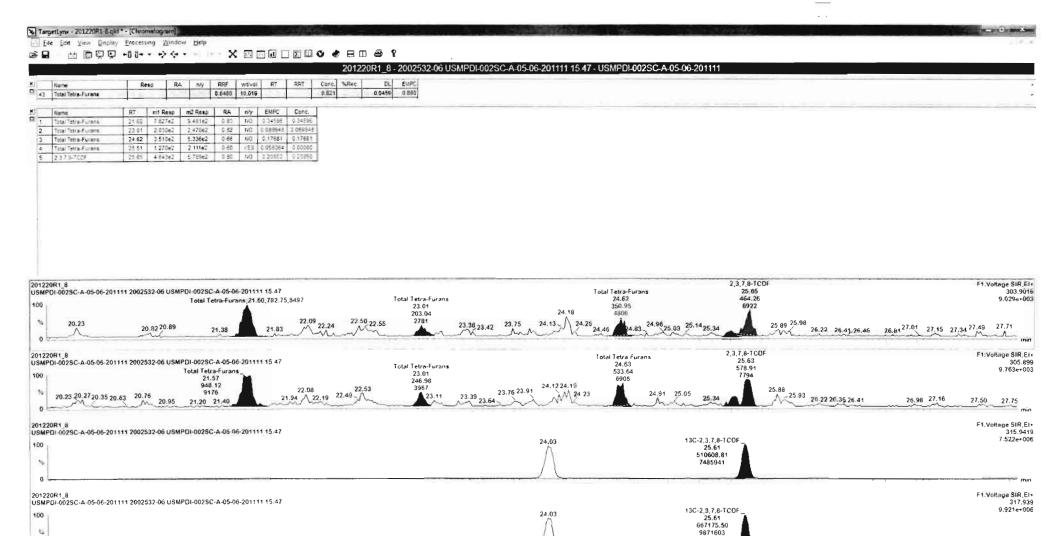


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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time





Work Order 2002532 Page 205 of 725

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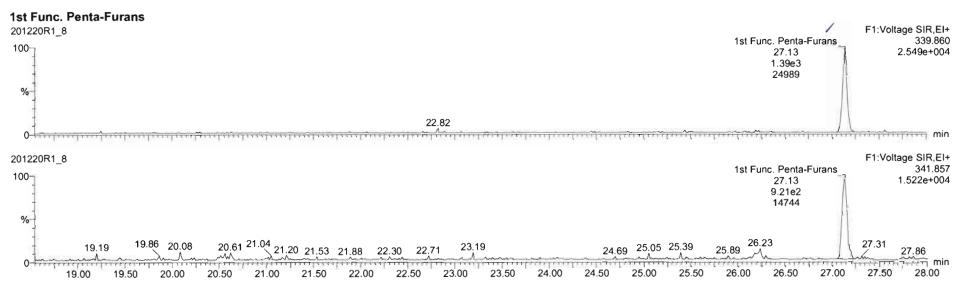
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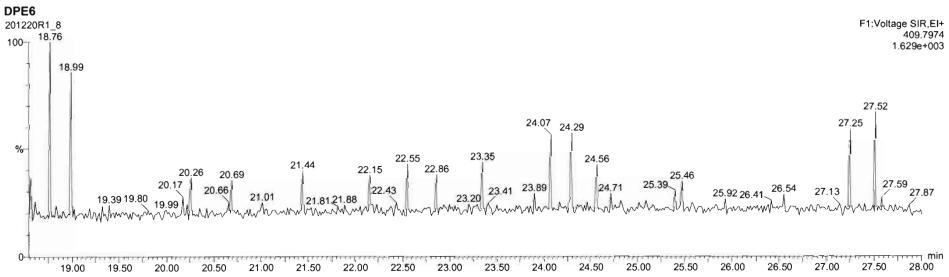
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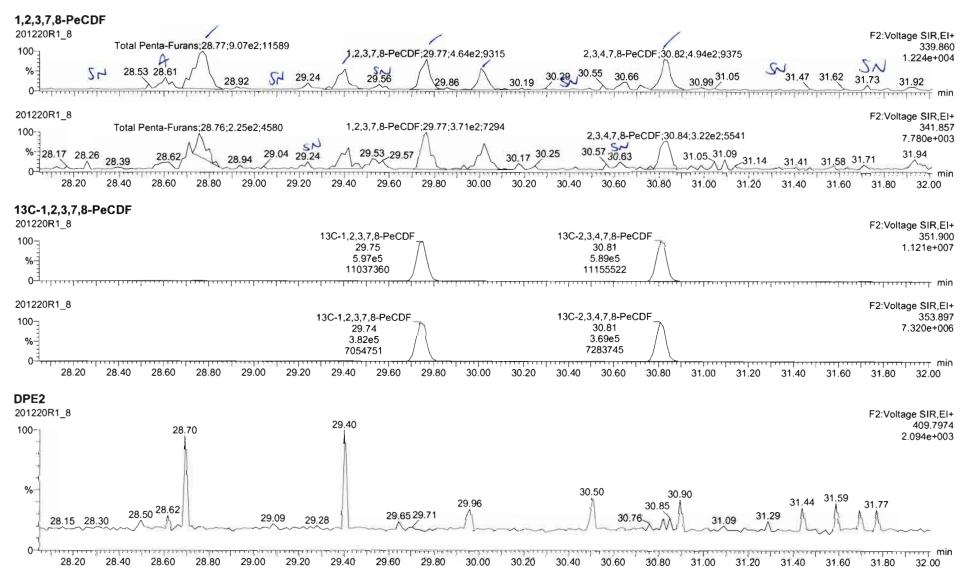
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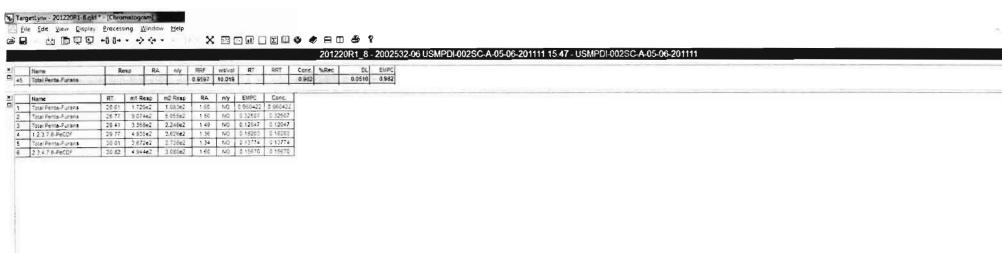


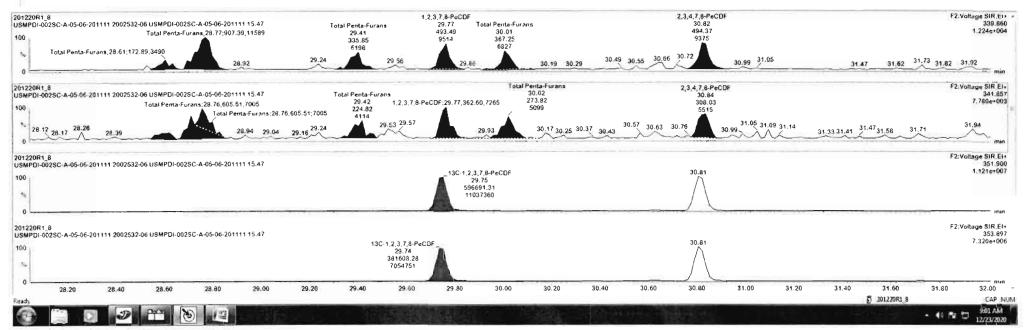


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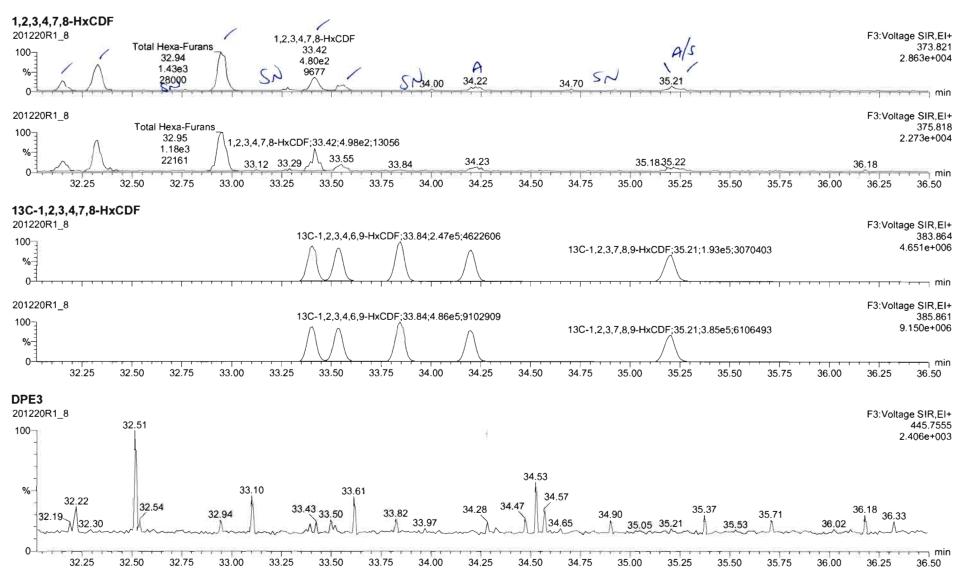


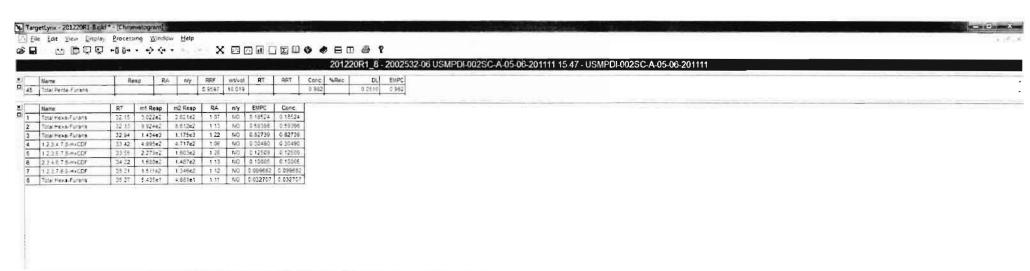


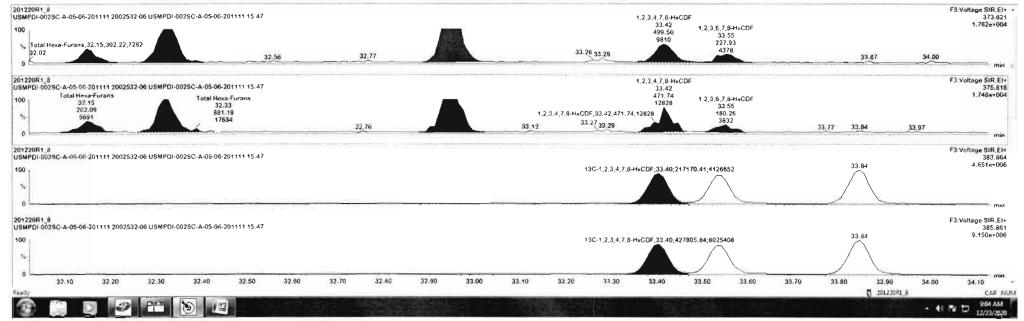
Work Order 2002532 Page 208 of 725

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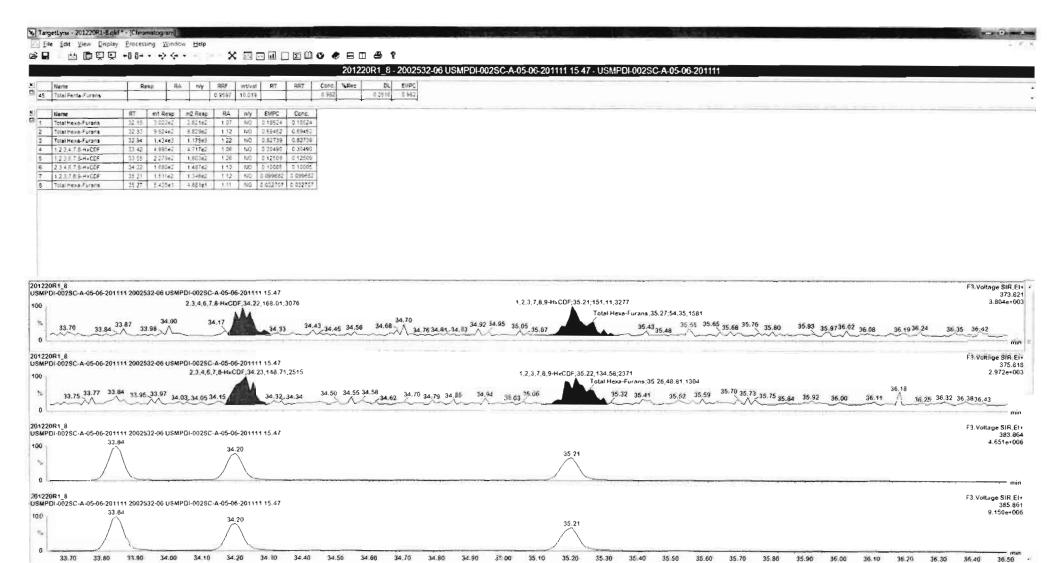
Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time







Work Order 2002532 Page 210 of 725



Work Order 2002532 Page 211 of 725

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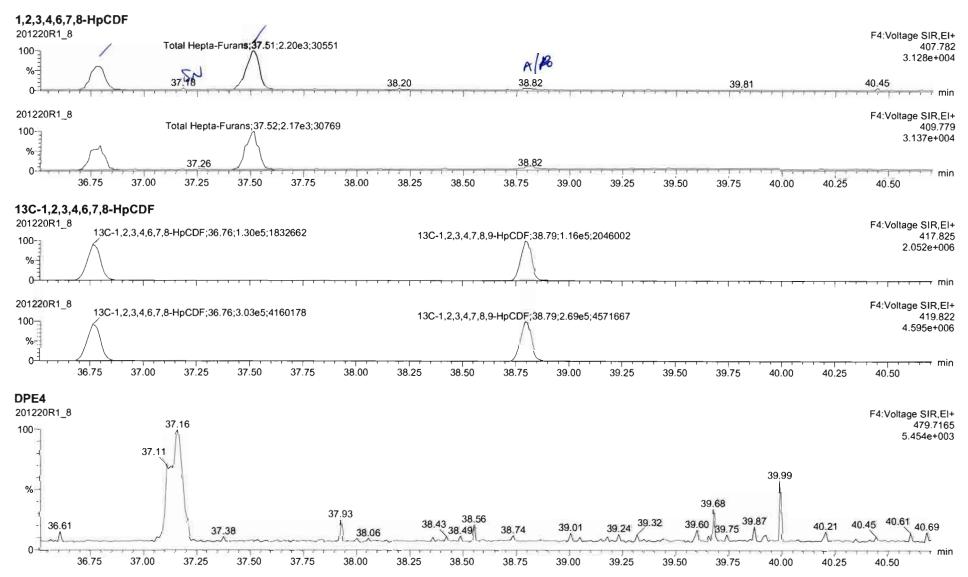
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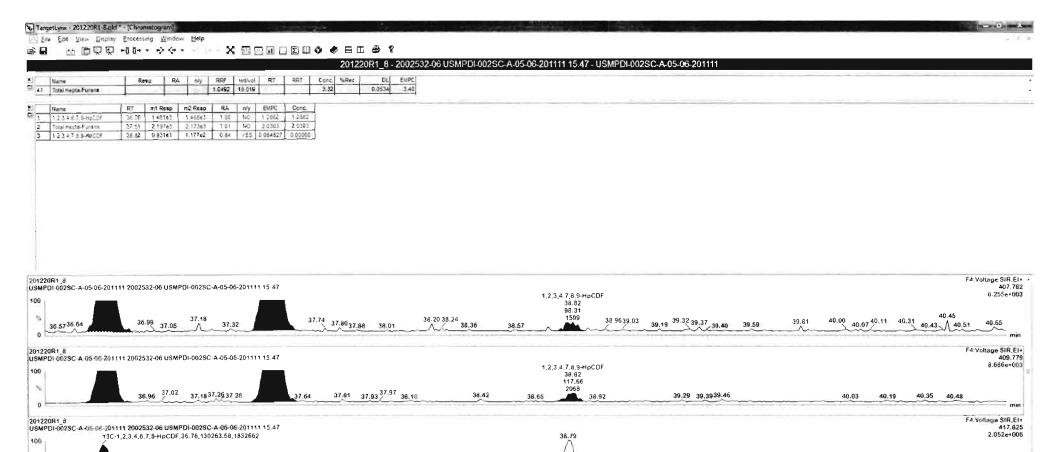
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Last Altered: Printed:

Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time





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201220R1_8 USMPDI-002SC-A-05-06-201111 2002532-06 USMPDI-002SC-A-05-06-201111 15.47

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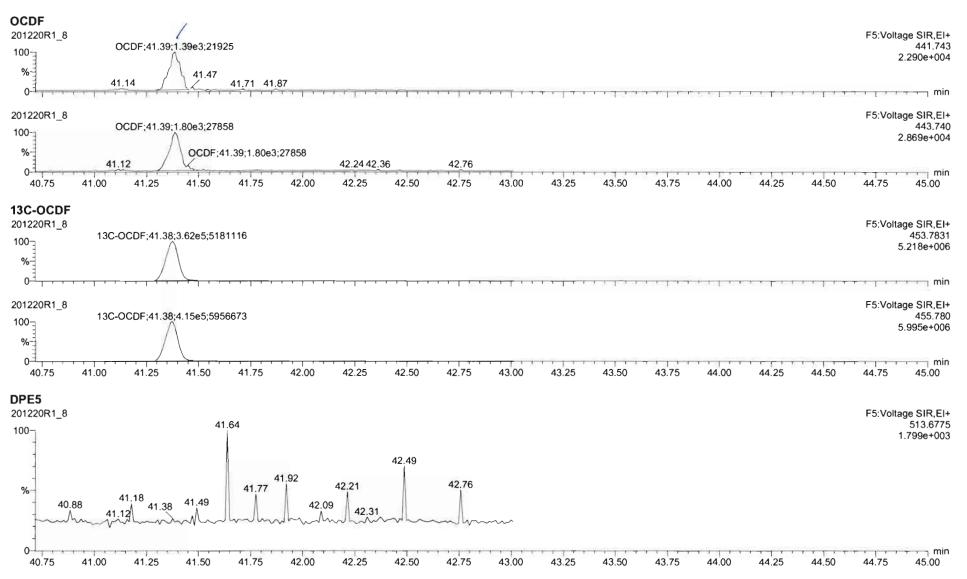
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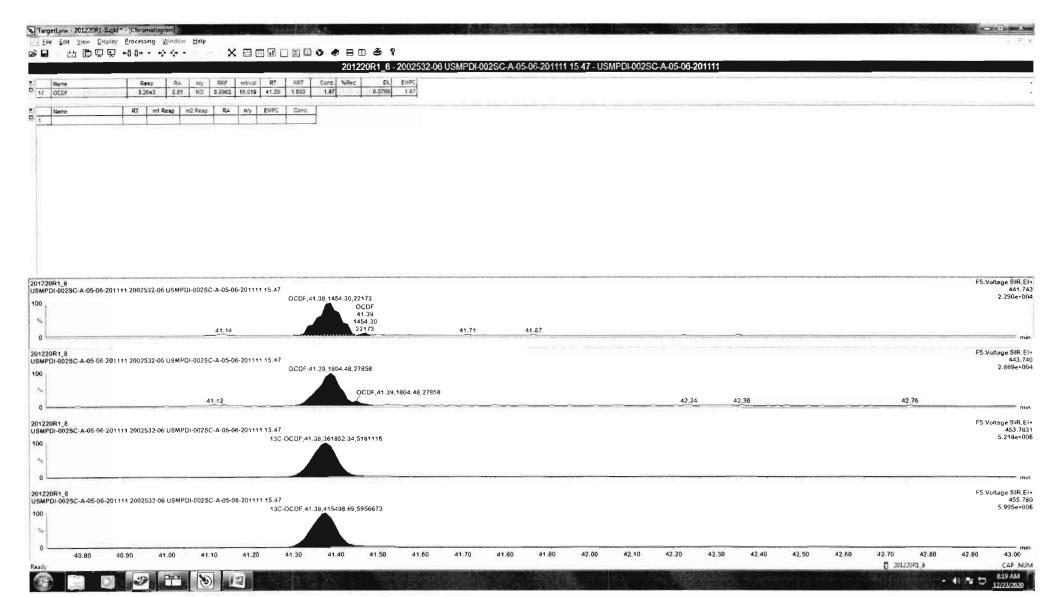
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Work Order 2002532 Page 213 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

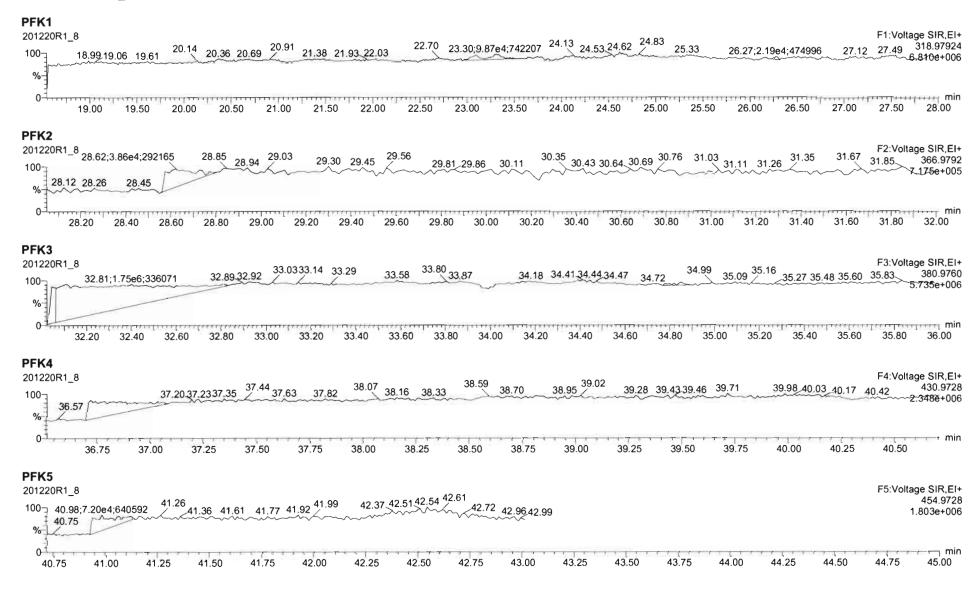




Work Order 2002532 Page 215 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time



Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-9B.qld

Last Altered:

Monday, December 28, 2020 8:03:02 AM Pacific Standard Time

Printed:

Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

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Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec DL	EMPC
150.00	1 2.3,7,8-TCDD	3.20e3	0.67	NO	0.980	10.051	26.337	26.32	1.001	1.001	0.94323	0.0738	0.943
2	2 1,2,3,7,8-PeCDD	6.93e3	0.60	NO	0.932	10.051	31.049	31.03	1.001	1.000	2.6568	0.100	2.66
3	3 1,2,3,4,7,8-HxCDD	8.27e3	1.18	NO	1.02	10.051	34.337	34.33	1.001	1.000	4.1827	0.670	4.18
4	4 1,2,3,6,7,8-HxCDD	5.99e4	1.25	NO	0.902	10.051	34.462	34.45	1.001	1.000	30.984	0.690	31.0
5	5 1.2,3,7,8,9-HxCDD	1.88e4	1.20	NO	0.954	10.051	34.724	34.72	1.000	1.000	9.3036	0.695	9.30
6	6 1,2,3,4,6,7,8-HpCDD	1.45e6	1.03	NO	0.918	10.051	38.190	38.19	1.000	1.000	840.60	2.13	841
7	7 OCDD	9.84e6	0.88	NO	0.866	10.051	41.103	41.12	1.000	1.001	7160.3 EX	2.04	7160
8	8 2,3,7,8-TCDF	7.89e4	0.73	NO	0.848	10.051	25.613	25.64	1.000	1.001	20.179	0.138	20.2
9	9 1,2,3,7.8-PeCDF	1.61e5	1.57	NO	0.960	10.051	29.754	29.77	1.000	1.001	42.505	0.156	42.5
10	10 2,3,4,7,8-PeCDF	7.89e4	1.58	NO	1.07	10.051	30.844	30.84	1.001	1.000	20.037	0.138	20.0
11	11 1,2,3,4,7,8-HxCDF	2.53e5	1.22	NO	0.986	10.051	33.425	33.43	1.000	1.000	102.71	0.258	103
12	12 1,2,3,6,7.8-HxCDF	6.49e4	1.27	NO	1.04	10.051	33.571	33.56	1.001	1.000	25.646	0.260	25.6
13	13 2,3,4,6,7,8-HxCDF	1.79e4	1.19	NO	1.02	10.051	34.232	34.23	1.001	1.001	7.5283	0.292	7.53
14	14 1,2,3,7,8,9-HxCDF	4.45e3	1.09	NO	0.991	10.051	35.217	35.23	1.000	1.001	2.0408	0.343	2.04
15	15 1,2,3,4,6,7,8-HpCDF	1.65e5	0.99	NO	1.05	10.051	36.792	36.80	1.000	1.001	95.237	0.563	95.2
16	16 1,2,3,4,7,8,9-HpCDF	2.78e4	0.98	NO	1.18	10.051	38.817	38.82	1.000	1.000	15.998	0.426	16.0
17	17 OCDF	2.04e5	0.86	NO	0.896	10.051	41.396	41.40	1.000	1.000	146.44	0.331	146
18	18 13C-2,3,7,8-TCDD	6.89e5	0.77	NO	1.06	10.051	26.307	26.31	1.030	1.030	192.10	96.5 0.162	
19	19 13C-1,2,3,7,8-PeCDD	5.57e5	0.62	NO	0.785	10.051	31.139	31.02	1.219	1.215	208.88	105 0.255	
20	20 13C-1,2,3,4,7,8-HxCDD	3.85e5	1.28	NO	0.621	10.051	34.315	34.32	1.014	1.014	205.84	103 0.476	[
21	21 13C-1,2,3,6,7,8-HxCDD	4.26e5	1.28	NO	0.734	10.051	34.437	34.44	1.017	1.017	192.34	96.7 0.403	
22	22 13C-1,2,3,7,8,9-HxCDD	4.21e5	1.22	NO	0.723	10.051	34.722	34.71	1.026	1.025	192.92	97.0 0.409	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.74e5	1.04	NO	0.568	10.051	38.219	38.18	1,129	1.128	218.21	110 0.946	- [
24	24 13C-OCDD	6.32e5	0.90	NO	0.496	10.051	41.154	41.10	1.216	1.214	422.45	106 0.753	1
25	25 13C-2,3,7,8-TCDF	9.17e5	0.78	NO	0.919	10.051	25.608	25.61	1.003	1.003	194.22	97.6 0.262	
26	26 13C-1,2,3,7,8-PeCDF	7.85e5	1.61	NO	0.715	10.051	29.852	29.75	1 169	1.165	213.68	107 0.380	1
27	27 13C-2,3,4,7,8-PeCDF	7.35e5	1.59	NO	0.689	10.051	30.937	30.82	1.212	1.207	207.62	104 0.394	
28	28 13C-1,2,3,4,7,8-HxCDF	4.98e5	0.50	NO	0.873	10.051	33.422	33.42	0.987	0.987	189.02	95.0 0.539	
29	29 13C-1,2,3,6,7,8-HxCDF	4.85e5	0.50	NO	0.933	10.051	33.550	33.55	0.991	0.991	172.11	86.5 0.504	
30	30 13C-2,3,4,6,7,8-HxCDF	4.63e5	0.51	NO	0.843	10.051	34.217	34.21	1.011	1.011	181.94	91.4 0.558	
31	31 13C-1,2,3,7,8,9-HxCDF	4.38e5	0.51	NO	0.780	10.051	35.216	35.21	1.040	1.040	186.09	93.5 0.603	

Page 217 of 725 Work Order 2002532

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Last Altered:

Monday, December 28, 2020 8:03:02 AM Pacific Standard Time

Printed: Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

STEHES	# 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	3.28e5	0.44	NO	0.726	10.051	36.790	36.77	1.087	1.086	149.70	75.2	0.701	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.94e5	0.43	NO	0.491	10.051	38.798	38.81	1.146	1.146	198.66	99.8	1.04	
34	34 13C-OCDF	6.18e5	0.88	NO	0.565	10.051	41.371	41.39	1.222	1.223	362.29	91.0	0.655	
35	35 37Cl-2,3,7,8-TCDD	3.23e5			1.22	10.051	26.302	26.33	1.030	1.031	78.288	98.4	0.0899	Ì
36	36 13C-1,2,3,4-TCDD	6.76e5	0.79	NO	1.00	10.051	25.640	25.54	1.000	1.000	198.99	100	0.171	
37	37 13C-1,2,3,4-TCDF	1.02e6	0.79	NO	1.00	10.051	24.130	24.03	1.000	1.000	198.99	100	0.240	
38	38 13C-1,2,3,4,6,9-HxCDF	6.00e5	0.50	NO	1.00	10.051	33.920	33.85	1.000	1.000	198.99	100	0.470	
39	39 Total Tetra-Dioxins				0.980	10.051	24.620		0.000		12.242		0.0738	12.6
40	40 Total Penta-Dioxins				0.932	10.051	29.960		0.000		26.729		0.100	31.0
41	41 Total Hexa-Dioxins				0.902	10.051	33.635		0.000		337.58		0.727	338
42	42 Total Hepta-Dioxins				0.918	10.051	37.640		0.000		2457.4		2.13	2460
43	43 Total Tetra-Furans				0.848	10.051	23.610		0.000		74.823		0.138	75.0
44	44 1st Func. Penta-Furans				0.960	10.051	26.930		0.000		34.496		0.0212	34.5
45	45 Total Penta-Furans				0.960	10.051	29.275		0.000		112.05		0.155	112
46	46 Total Hexa-Furans				1.02	10.051	33.555		0.000		269.44		0.283	269
47	47 Total Hepta-Furans				1.05	10.051	37.835		0.000		250.26		0.522	250

Work Order 2002532 Page 218 of 725

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-9B.qld

Last Altered: Printed:

Monday, December 28, 2020 8:03:02 AM Pacific Standard Time Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

Tetra-Dioxins

SAPELLE.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.48	6.162e4	8.126e4	5.894e3	7.456e3	0.79	NO	1.335e4	3.9352	3.9352	0.0738
2	Total Tetra-Dioxins	22.84	2.275e4	2.742e4	2.103e3	2.465e3	0.85	NO	4.568e3	1.3465	1.3465	0.0738
3	Total Tetra-Dioxins	23.36	1.707e4	2.429e4	1.468e3	1.839e3	0.80	NO	3.307e3	0.97469	0.97469	0.0738
4	Total Tetra-Dioxins	24.24	6.473e3	8.783e3	5.835e2	6.628e2	0.88	NO	1.246e3	0.36734	0.36734	0.0738
5	Total Tetra-Dioxins	24.44	1.102e4	1.268e4	8.954e2	1.034e3	0.87	NO	1.929e3	0.56859	0.56859	0.0738
6	Total Tetra-Dioxins	24.68	2.538e4	3.291e4	1.867e3	2.217e3	0.84	NO	4.084e3	1.2038	1.2038	0.0738
7	Total Tetra-Dioxins	24.89	7.820e3	7.308e3	4.508e2	4.769e2	0.95	YES	0.000e0	0.00000	0.24883	0.0738
8	Total Tetra-Dioxins	25.18	1.099e4	1.285e4	7.034e2	8.581e2	0.82	NO	1.561e3	0.46025	0.46025	0.0738
9	Total Tetra-Dioxins	25.24	8.113e3	8.260e3	4.976e2	5.645e2	0.88	NO	1.062e3	0.31305	0.31305	0.0738
10	Total Tetra-Dioxins	25.58	3.529e3	3.723e3	2.239e2	2.284e2	0.98	YES	0.000e0	0.00000	0.11916	0.0738
11	Total Tetra-Dioxins	25.63	6.856e3	6.978e3	3.894e2	4.804e2	0.81	NO	8.698e2	0.25637	0.25637	0.0738
12	Total Tetra-Dioxins	26.05	3.054e4	3.586e4	2.061e3	2.633e3	0.78	NO	4.694e3	1.3836	1.3836	0.0738
13	2,3,7,8-TCDD	26.32	1.951e4	3.036e4	1.279e3	1.921e3	0.67	NO	3.200e3	0.94323	0.94323	0.0738
14	Total Tetra-Dioxins	26.65	9.676e3	9.796e3	5.096e2	6.930e2	0.74	NO	1.203e3	0.35449	0.35449	0.0738
15	Total Tetra-Dioxins	27.21	3.894e3	5.042e3	2.004e2	2.563e2	0.78	NO	4.566e2	0.13459	0.13459	0.0738

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.76	1.446e5	2.356e5	1.181e4	1.869e4	0.63	NO	3.050e4	11.701	11.701	0.100
2	Total Penta-Dioxins	29.24	5.333e4	9.3 3 6e4	3.080e3	5.115e3	0.60	NO	8.195e3	3.1437	3.1437	0.100
3	Total Penta-Dioxins	29.77	6.610e4	1.154e5	3.560e3	5.429e3	0.66	NO	8.989e3	3.4484	3.4484	0.100
4	Total Penta-Dioxins	29.95	5.385e4	9.072e4	2.766e3	4.213e3	0.66	NO	0.000e0	0.00000	2.6774	0.100
5	Total Penta-Dioxins	29.99	3.557e4	6.426e4	1.594e3	2.601e3	0.61	NO	0.000e0	0.00000	1.6096	0.100
6	Total Penta-Dioxins	30.25	6.894e4	9.231e4	3.905e3	5.779e3	0.68	NO	9.684e3	3.7151	3.7151	0.100
7	Total Penta-Dioxins	30.57	1.200e4	2.198e4	6.674e2	1.171e3	0.57	NO	1.839e3	0.70533	0.70533	0.100
8	1,2,3,7,8-PeCDD	31.03	5.179e4	8.631e4	2.601e3	4.325e3	0.60	NO	6.926e3	2.6568	2.6568	0.100
9	Total Penta-Dioxins	31.11	1.136e4	1.874e4	6.583e2	9.987e2	0.66	NO	1.657e3	0.63565	0.63565	0.100
10	Total Penta-Dioxins	31.40	1.345e4	2.006e4	7.746e2	1.111e3	0.70	NO	1.885e3	0.72323	0.72323	0.100

Work Order 2002532 Page 219 of 725

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-9B.qld

Last Altered: Printed: Monday, December 28, 2020 8:03:02 AM Pacific Standard Time Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.69	3.124e6	2.516e6	1.475e5	1.171e5	1.26	NO	2.647e5	142.10	142.10	0.727
2	Total Hexa-Dioxins	33.29	2.773e5	2.314e5	1.396e4	1.129e4	1.24	NO	2.525e4	13.556	13.556	0.727
3	Total Hexa-Dioxins	33.58	1.765e6	1.438e6	1.186e5	9.614e4	1.23	NO	2.147e5	115.30	115.30	0.727
4	Total Hexa-Dioxins	33.69	3.450e5	2.739e5	1.820e4	1.401e4	1.30	NO	3.221e4	17.295	17.295	0.727
5	1,2,3,4,7,8-HxCDD	34.33	8.534e4	6.896e4	4.480e3	3.785e3	1.18	NO	8.265e3	4.1827	4.1827	0.670
6	1,2,3,6,7,8-HxCDD	34.45	6.024e5	4.788e5	3.326e4	2.660e4	1.25	NO	5.986e4	30.984	30.984	0.690
7	Total Hexa-Dioxins	34.61	9.367e4	7.073e4	4.867e3	4.191e3	1.16	NO	9.058e3	4.8633	4.8633	0.727
8	1,2,3,7,8,9-HxCDD	34.72	1.713e5	1.482e5	1.025e4	8.515e3	1.20	NO	1.877e4	9.3036	9.3036	0.695

Hepta-Dioxins

64/100,00	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.17	2.019e7	1.965e7	1.406e6	1.382e6	1.02	NO	2.788e6	1616.8	1616.8	2.13
2	1,2,3,4,6,7,8-HpCDD	38.19	1.296e7	1.277e7	7.359e5	7.137e5	1.03	NO	1.450e6	840.60	840.60	2.13

Work Order 2002532 Page 220 of 725

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-9B.qld

Last Altered: Monday, December 28, 2020 8:03:02 AM Pacific Standard Time Printed: Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

Tetra-Furans

VE PARTY	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.23	1.860e4	1.799e4	1.283e3	1.586e3	0.81	NO	2.869e3	0.73402	0.73402	0.138
2	Total Tetra-Furans	20.79	2.400e4	2.859e4	1.930e3	2.619e3	0.74	NO	4.549 e 3	1.1640	1.1640	0.138
3	Total Tetra-Furans	21.59	9.209e4	1.223e5	8.218e3	1.134e4	0.72	NO	1.955e4	5.0034	5.0034	0.138
4	Total Tetra-Furans	21.97	8.758e3	1.172e4	6.172e2	9.191e2	0.67	NO	1.536e3	0.39309	0.39309	0.138
5	Total Tetra-Furans	22.06	3.267e4	3.782e4	3.202e3	4.004e3	0.80	NO	7.205e3	1.8436	1.8436	0.138
6	Total Tetra-Furans	22.15	1.303e4	1.666e4	9.432e2	1.395e3	0.68	NO	2.338e3	0.59830	0.59830	0.138
7	Total Tetra-Furans	22.43	9.147e3	1.020e4	4.774e2	6.181e2	0.77	NO	1.095e3	0.28030	0.28030	0.138
8	Total Tetra-Furans	22.52	1.207e5	1.717e5	1.118e4	1.503e4	0.74	NO	2.620e4	6.7050	6.7050	0.138
9	Total Tetra-Furans	23.01	7.244e4	1.043e5	6.858e3	9.168e3	0.75	NO	1.603e4	4.1004	4.1004	0.138
10	Total Tetra-Furans	23.14	1.740e4	2.224e4	1.184e3	1.476e3	0.80	NO	2.661e3	0.68075	0.68075	0.138
11	Total Tetra-Furans	23.36	3.183e4	4.497e4	2.562e3	3.506e3	0.73	NO	6.068e3	1.5526	1.5526	0.138
12	Total Tetra-Furans	23.78	8.510e3	9.588e3	5.032e2	6.956e2	0.72	NO	1.199e3	0.30675	0.30675	0.138
13	Total Tetra-Furans	23.90	1.317e4	1.365e4	9.273e2	1.198e3	0.77	NO	2.125e3	0.54379	0.54379	0.138
14	Total Tetra-Furans	24.12	6.108e4	8.394e4	4.502e3	6.292e3	0.72	NO	1.079e4	2.7618	2.7618	0.138
15	Total Tetra-Furans	24.16	6.195e4	7.959e4	4.369e3	5.952e3	0.73	NO	1.032e4	2.6409	2.6409	0.138
16	Total Tetra-Furans	24.60	3.994e5	5.322e5	2.800e4	3.830e4	0.73	NO	6.629e4	16.963	16.963	0.138
17	Total Tetra-Furans	24.93	2.547e4	2.841e4	1.569e3	1.790e3	0.88	NO	3.360e3	0.85960	0.85960	0.138
18	Total Tetra-Furans	25.03	6.234e3	6.312e3	3.183e2	3.655e2	0.87	NO	6.838e2	0.17496	0.17496	0.138
19	Total Tetra-Furans	25.18	5.070e3	6.106e3	2.879e2	3.812e2	0.76	NO	6.691e2	0.17120	0.17120	0.138
20	Total Tetra-Furans	25.34	1.153e4	1.519e4	7.059e2	9.949e2	0.71	NO	1.701e3	0.43518	0.43518	0.138
21	Total Tetra-Furans	25 51	6.729e4	9.525e4	4.247e3	5.558e3	0.76	NO	9.805e3	2.5087	2.5087	0.138
22	2,3,7,8-TCDF	25.64	5.096e5	6.950e5	3.320e4	4.566e4	0.73	NO	7.886e4	20.179	20.179	0.138
23	Total Tetra-Furans	25 88	9.982e3	1.379e4	5.719e2	8.323e2	0.69	NO	1.404e3	0.35929	0.35929	0.138
24	Total Tetra-Furans	25 95	2.400e4	3.119e4	1.638e3	2.224e3	0.74	NO	3.862e3	0.98813	0.98813	0.138
25	Total Tetra-Furans	26.20	8.264e3	1.194e4	5.176e2	7.218e2	0.72	NO	1.239e3	0.31714	0.31714	0.138
26	Total Tetra-Furans	26.85	4.527e3	4.417e3	4.040e2	3.779e2	1.07	YES	0.000e0	0.00000	0.17117	0.138
27	Total Tetra-Furans	27.15	3.192e4	4.007e4	1.897e3	2.517e3	0.75	NO	4.413e3	1.1292	1.1292	0.138
28	Total Tetra-Furans	27.53	4.365e4	4.930e4	2.392e3	3.196e3	0.75	NO	5.587e3	1.4297	1.4297	0.138

Work Order 2002532 Page 221 of 725

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-9B.qld

Last Altered: Printed: Monday, December 28, 2020 8:03:02 AM Pacific Standard Time Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

Penta-Furans function 1

LEIVE W	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 1 4875	1st Func. Penta-Furans	27.13	1.326e6	8.388e5	7.769e4	4.873e4	1.59	NO	1.264e5	34.496	34.496	0.0212

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DŁ
1	Total Penta-Furans	28.61	5.410e4	3.132e4	3.471e3	1.995e3	1.74	NO	5.466e3	1.4915	1.4915	0.155
2	Total Penta-Furans	28.79	1.020 e 6	6.770e5	6.158e4	3.884e4	1.59	NO	1.004e5	27.403	27.403	0.155
3	Total Penta-Furans	29.21	1.216e4	7.222e3	8.548e2	6.187e2	1.38	NO	1.474e3	0.40210	0.40210	0.155
4	Total Penta-Furans	29.41	1.611e5	1.027e5	9.432e3	6.025e3	1.57	NO	1.546e4	4.2183	4.2183	0.155
5	Total Penta-Furans	29.57	1.233e5	7.579e4	6.145e3	4.000e3	1.54	NO	1.015e4	2.7685	2.7685	0.155
6	1,2,3,7,8-PeCDF	29.77	2.005e6	1.260e6	9.843e4	6.252e4	1.57	NO	1.610e5	42.505	42.505	0.156
7	Total Penta-Furans	30.02	5.664e5	3.404e5	2.667e4	1.680e4	1.59	NO	4.347e4	11.864	11.864	0.155
8	Total Penta-Furans	30.64	1.950e4	1.442e4	1.002e3	6.834e2	1.47	NO	1.686e3	0.46002	0.46002	0.155
9	2,3,4,7,8-PeCDF	30.84	9.910e5	6.406e5	4.832e4	3.061e4	1.58	NO	7.893e4	20.037	20.037	0.138
10	Total Penta-Furans	31.74	4.242e4	2.675e4	2.021e3	1.282e3	1.58	NO	3.303e3	0.90140	0.90140	0.155

Hexa-Furans

		Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1		Total Hexa-Furans	32.17	4.289e5	3.429e5	1.980e4	1.607e4	1.23	NO	3.587e4	14.860	14.860	0.283
2		Total Hexa-Furans	32.34	1.344e6	1.114e6	6.091e4	4.997e4	1.22	NO	1.109e5	45.933	45.933	0.283
3		Total Hexa-Furans	32.74	1.698e4	1.505e4	9.708e2	7.628e2	1.27	NO	1.734e3	0.71811	0.71811	0.283
4		Total Hexa-Furans	32.96	1.733e6	1.426e6	8.359e4	6.712e4	1.25	NO	1.507e5	62.430	62.430	0.283
5		Total Hexa-Furans	33.29	2.234e4	2.172e4	1.187e3	9.404e2	1.26	NO	2.128e3	0.88135	0.88135	0.283
6	100	1,2,3,4,7,8-HxCDF	33.43	2.771e6	2.264e6	1.394e5	1.141e5	1.22	NO	2.535e5	102.71	102.71	0.258
7		1,2,3,6,7,8-HxCDF	33.56	7.005e5	5.627e5	3.626e4	2.864e4	1.27	NO	6.490e4	25.646	25.646	0.260
8		Total Hexa-Furans	33.88	9.594e3	9.530e3	6.175e2	5.218e2	1.18	NO	1.139e3	0.47195	0.47195	0.283
9		2,3,4,6,7,8-HxCDF	3423	1.554e5	1.371e5	9.719e3	8.143e3	1.19	NO	1.786e4	7.5283	7.5283	0.292
10	<+5.	1,2,3,7,8,9-HxCDF	35.23	1.135e5	9.612e4	2.317e3	2.133e3	1.09	NO	4.450e3	2.0408	2.0408	0.343
11		Total Hexa-Furans	35.25	1.692e5	1.312e5	8.311e3	6.714e3	1.24	NO	1.502e4	6.2239	6.2239	0.283

Work Order 2002532 Page 222 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

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Last Altered:

Monday, December 28, 2020 8:03:02 AM Pacific Standard Time Monday, December 28, 2020 8:03:17 AM Pacific Standard Time

Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

Page 5 of 5

Hepta-Furans

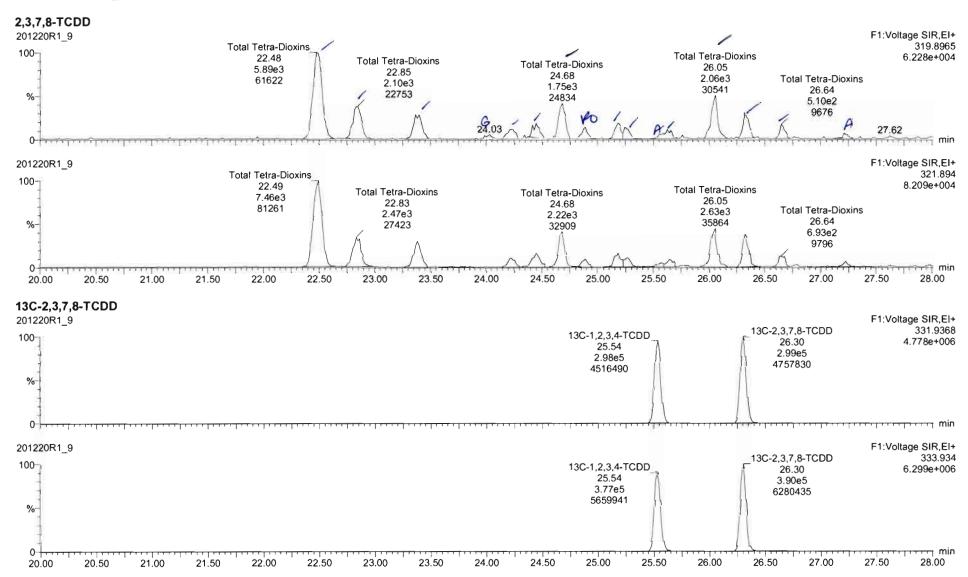
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1.0000000000000000000000000000000000000	1,2,3,4,6,7,8-HpCDF	36.80	1.186e6	1.178e6	8.211e4	8.265e4	0.99	NO	1.648e5	95.237	95.237	0.563
2	Total Hepta-Furans	37 19	1.716e4	1.802e4	2.150e3	2.078e3	1.03	NO	4.228e3	2.5765	2.5765	0.522
3	Total Hepta-Furans	37 52	1.725e6	1.672e6	1.123e5	1.117e5	1.01	NO	2.239e5	136.45	136.45	0.522
4	1,2,3,4,7,8,9-HpCDF	38.82	2.522e5	2.599e5	1.380e4	1.402e4	0.98	NO	2.783e4	15.998	15.998	0.426

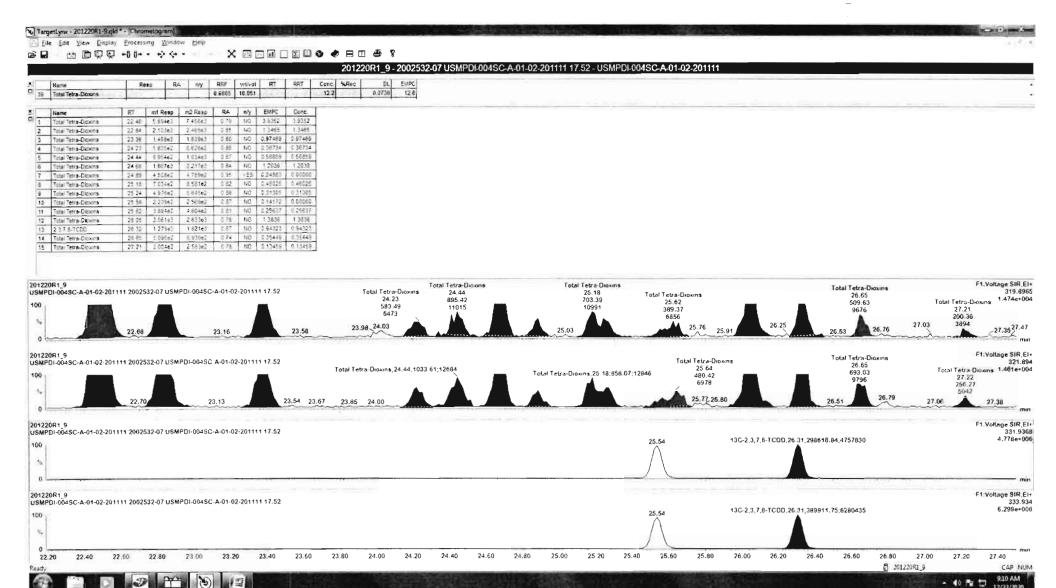
Work Order 2002532 Page 223 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

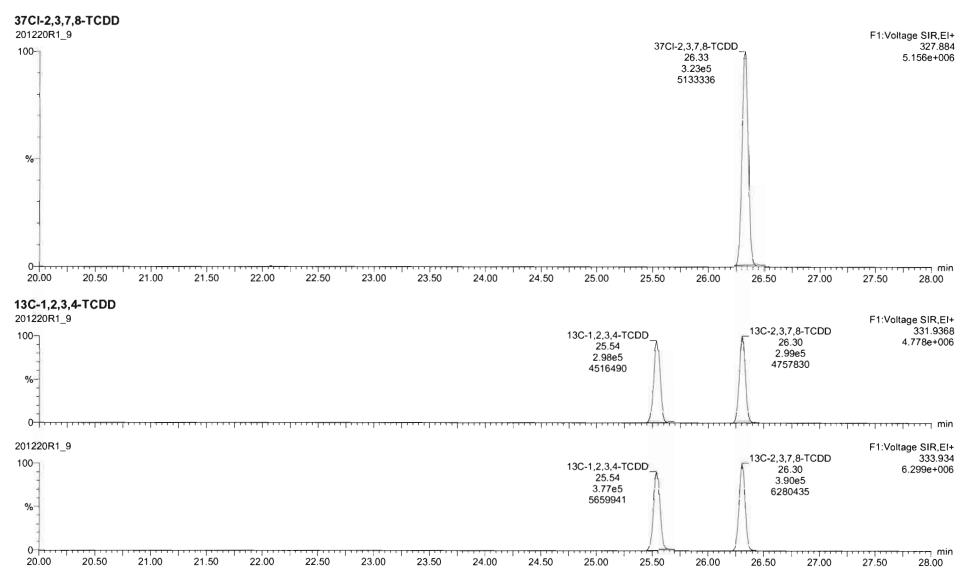




Work Order 2002532 Page 225 of 725

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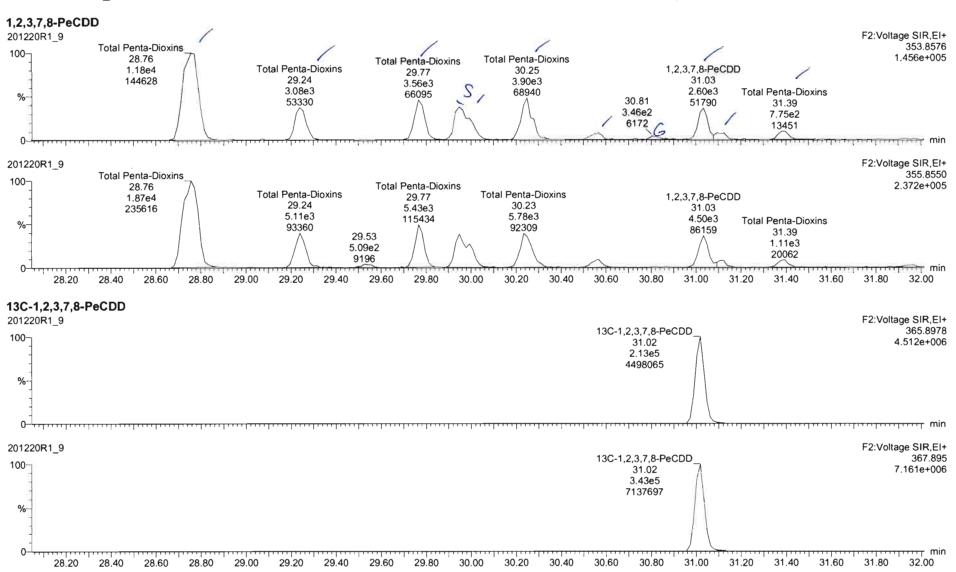
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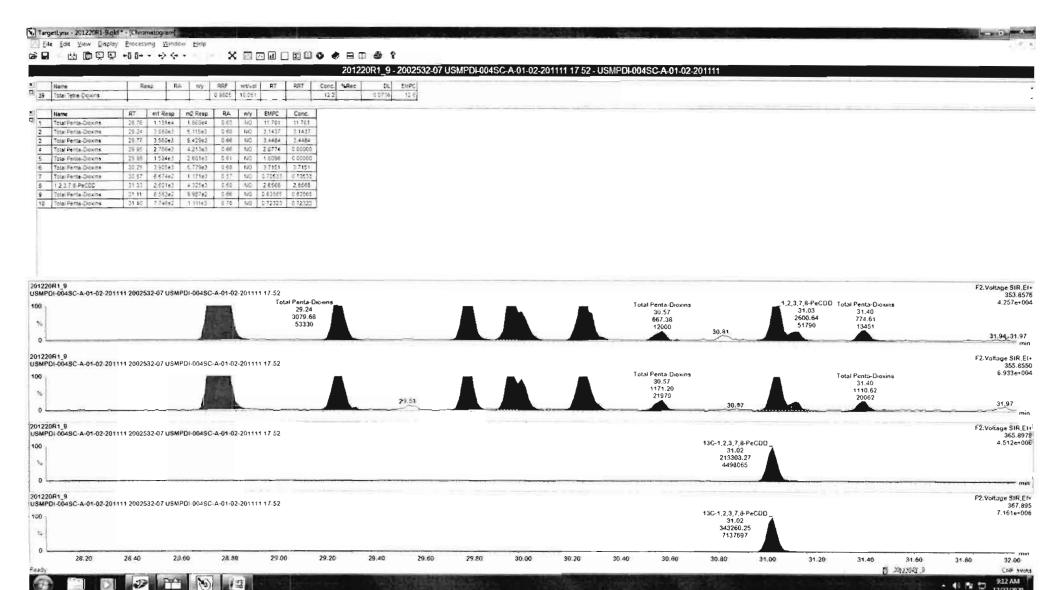


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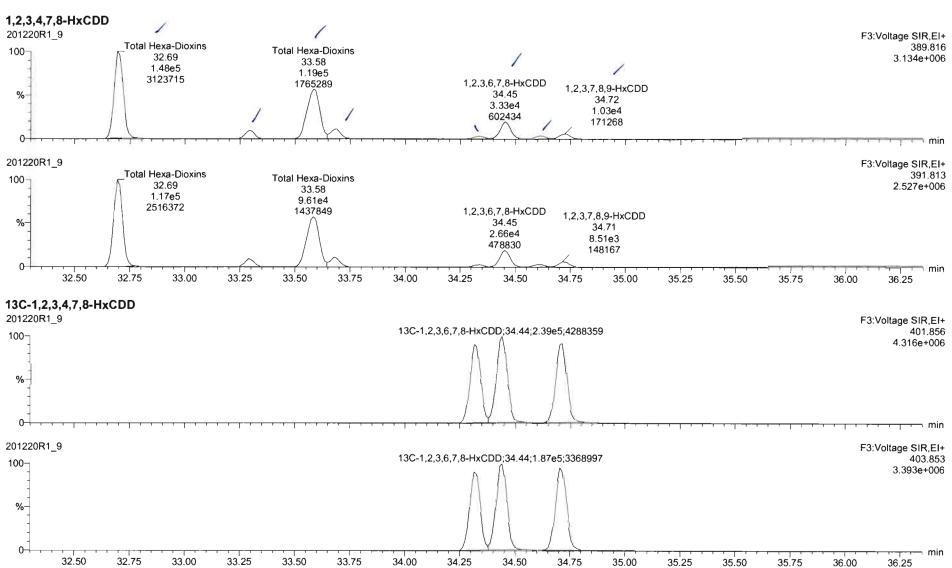


Work Order 2002532 Page 228 of 725

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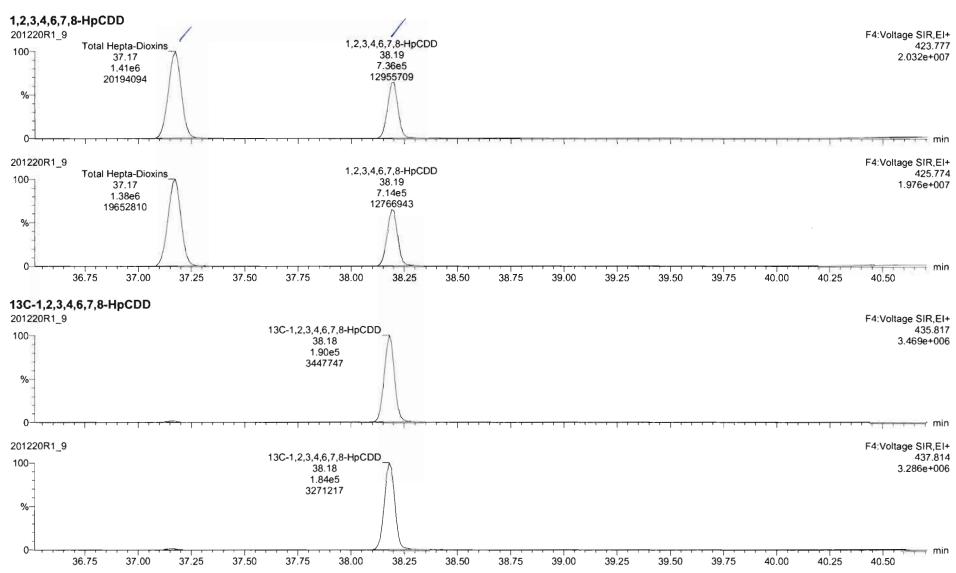
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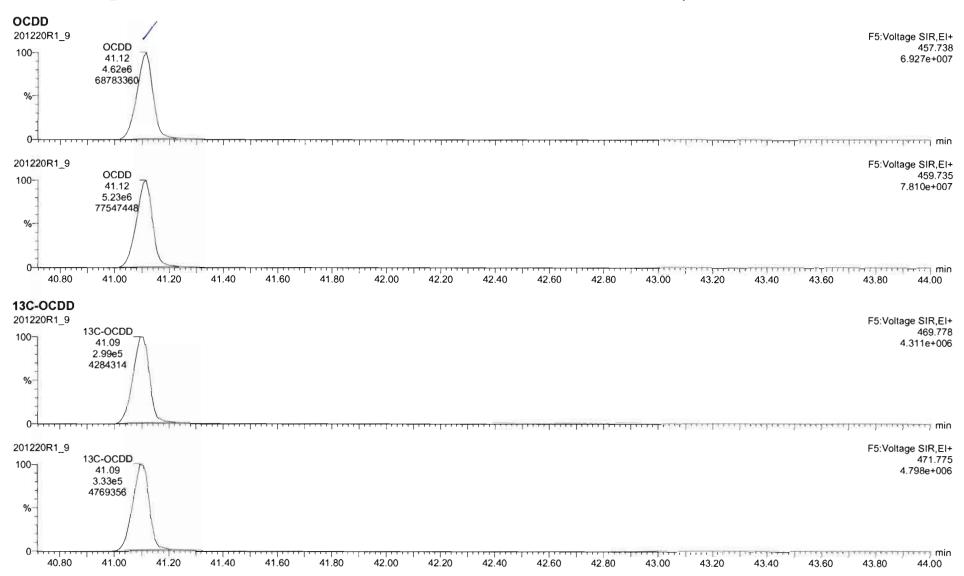
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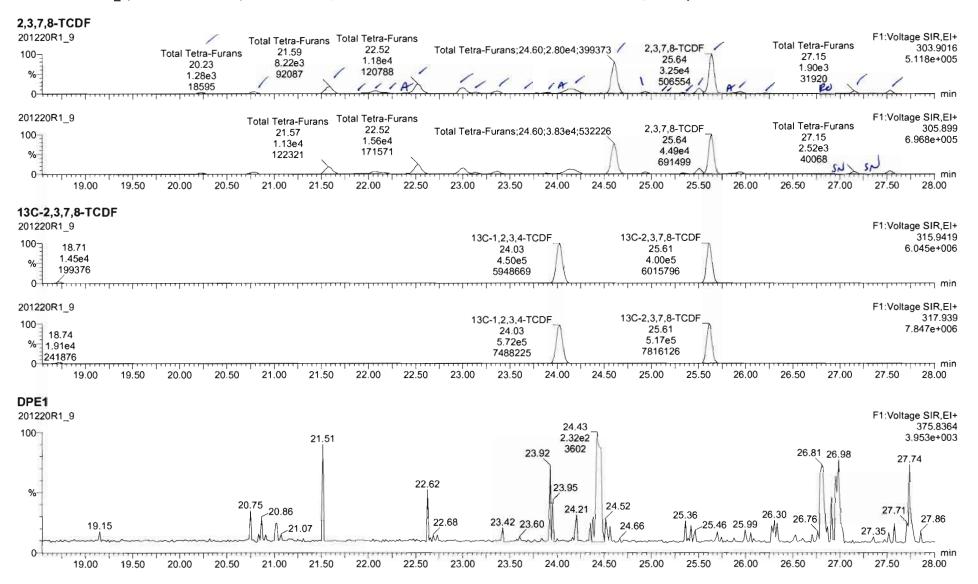
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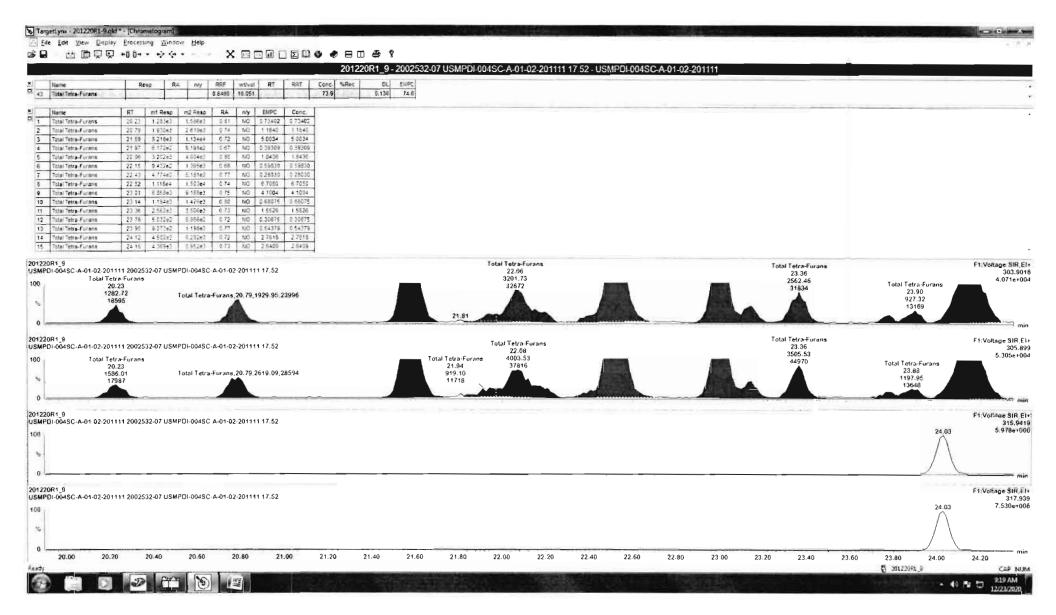
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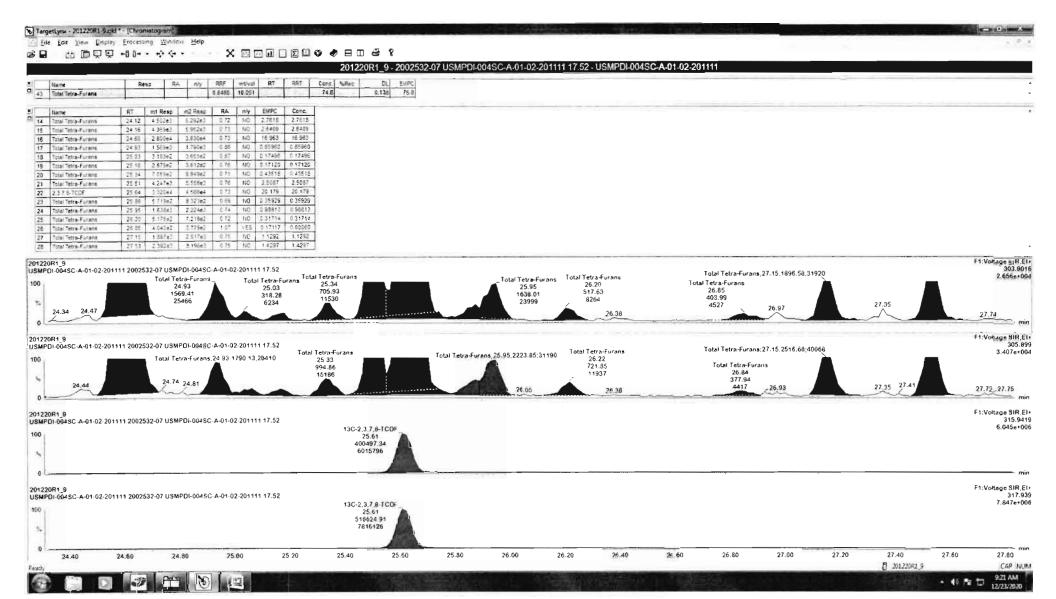
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Work Order 2002532 Page 233 of 725



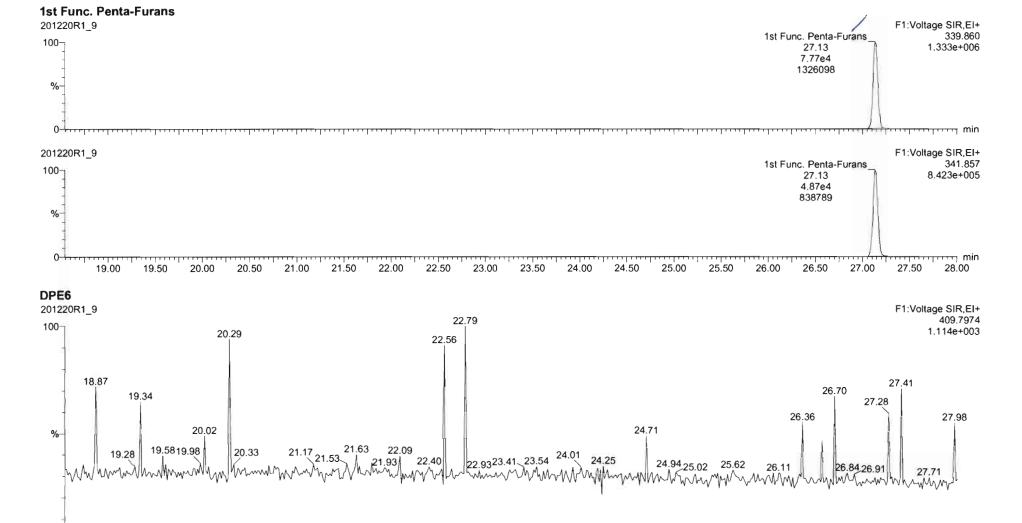
Work Order 2002532 Page 234 of 725

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Name: 201220R1_9, Date: 20-Dec-2020, Time: 14:25:47, ID: 2002532-07 USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111



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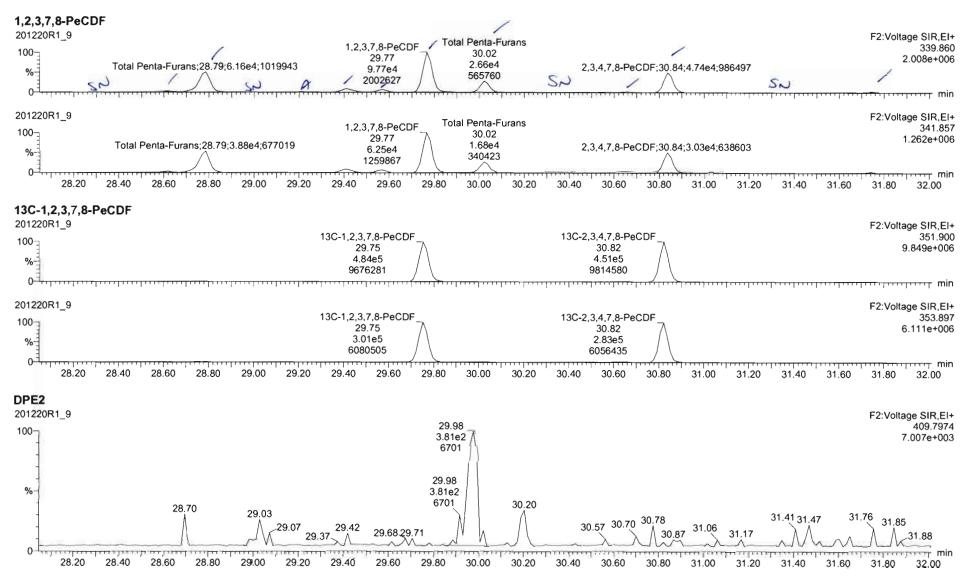
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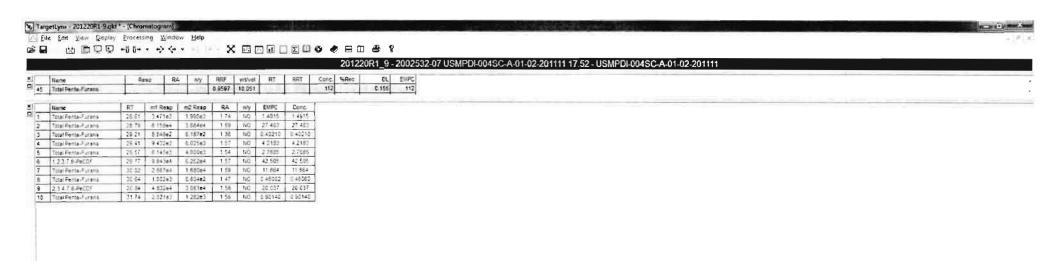
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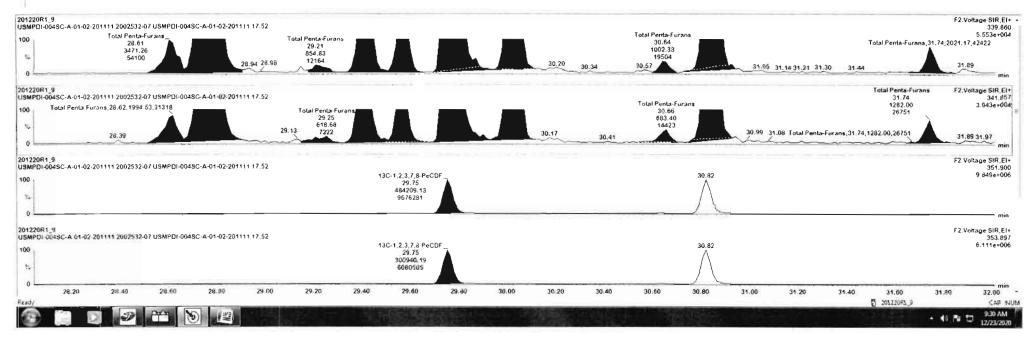
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



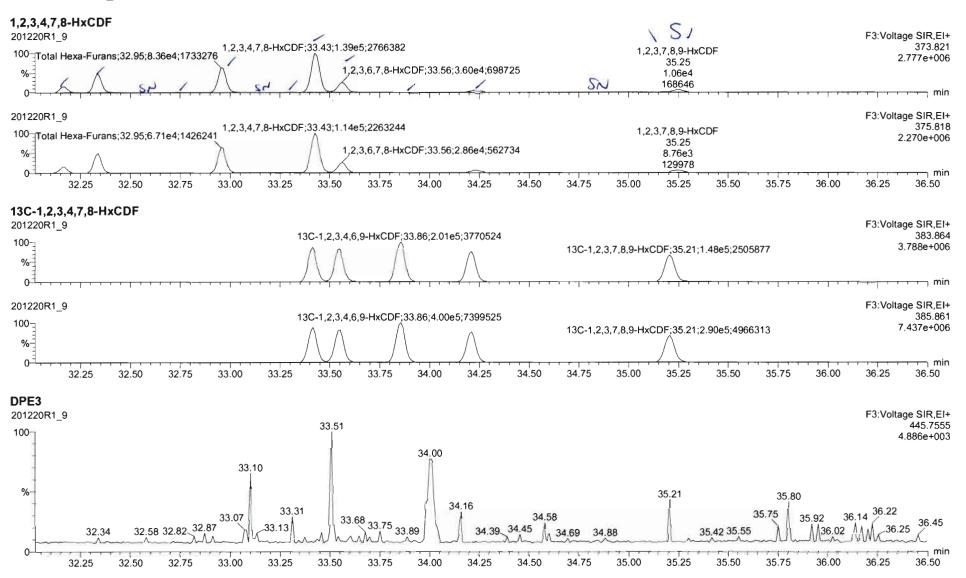


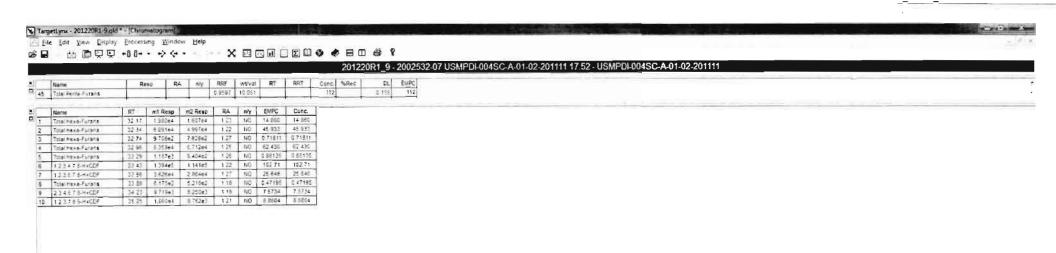


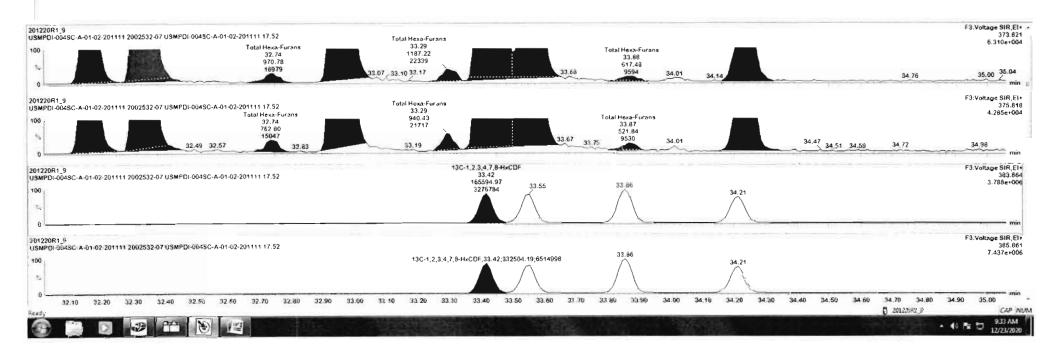
Work Order 2002532 Page 237 of 725

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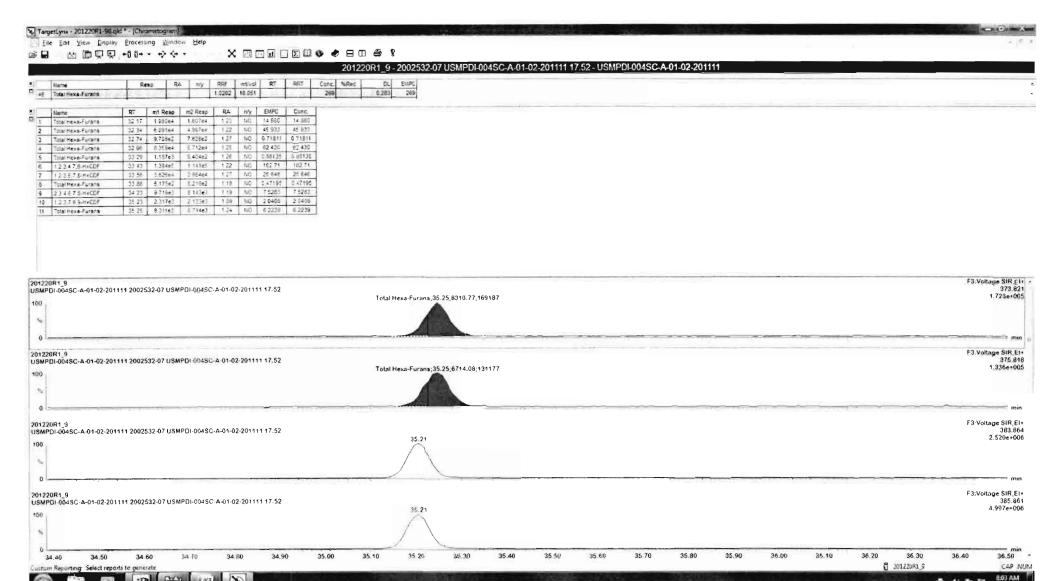
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Work Order 2002532 Page 239 of 725

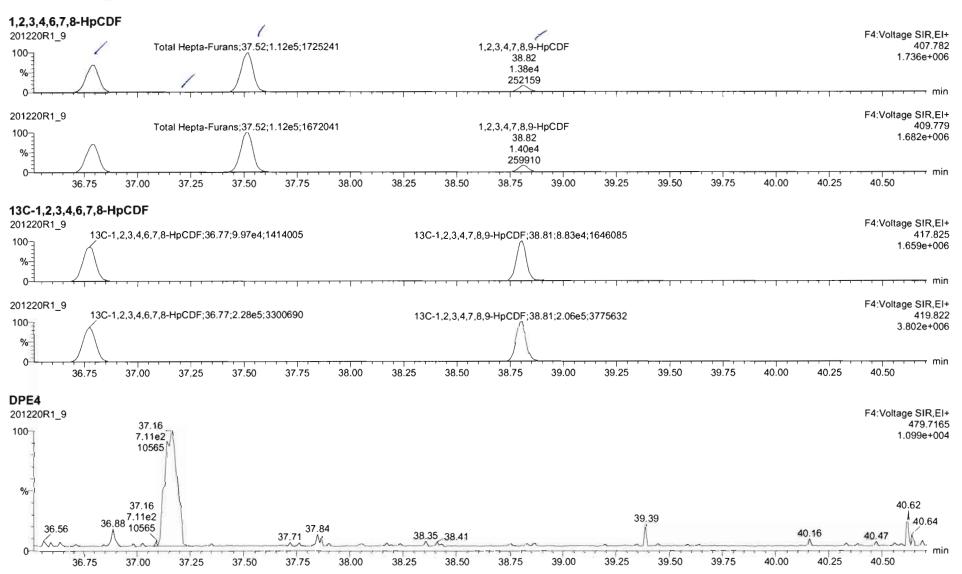


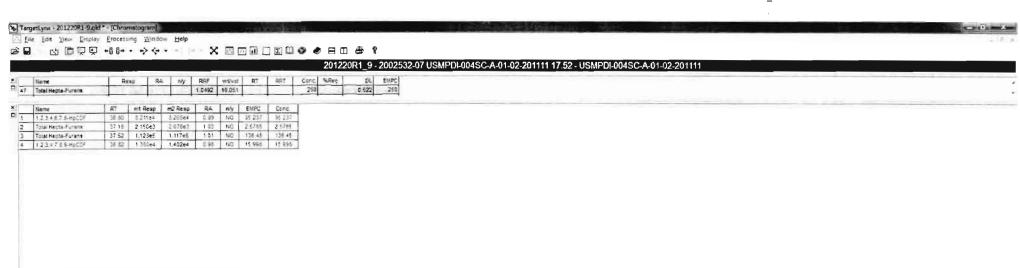
Work Order 2002532 Page 240 of 725

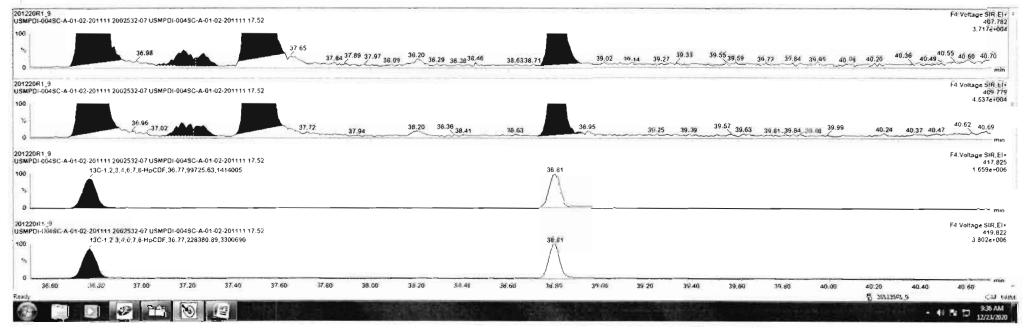
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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



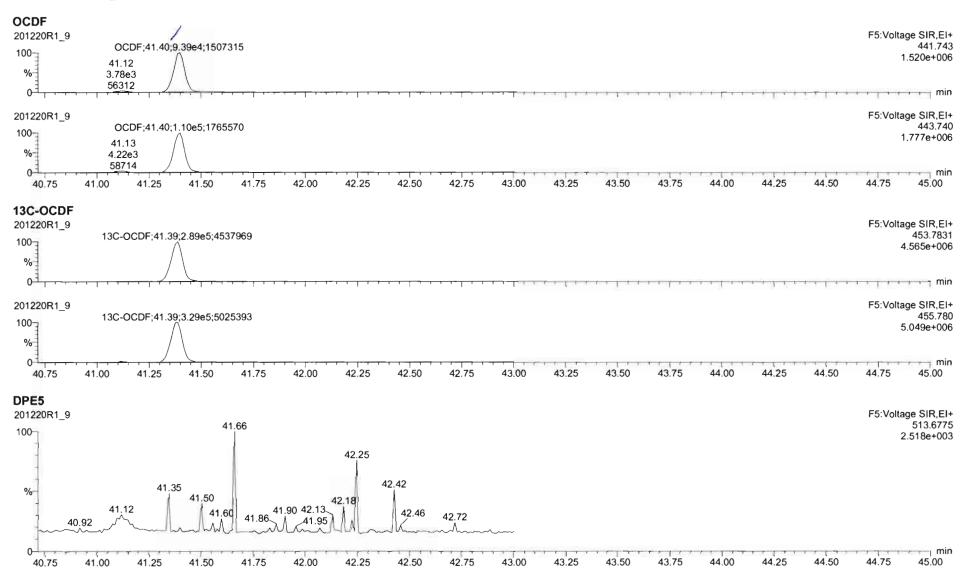




Work Order 2002532 Page 242 of 725

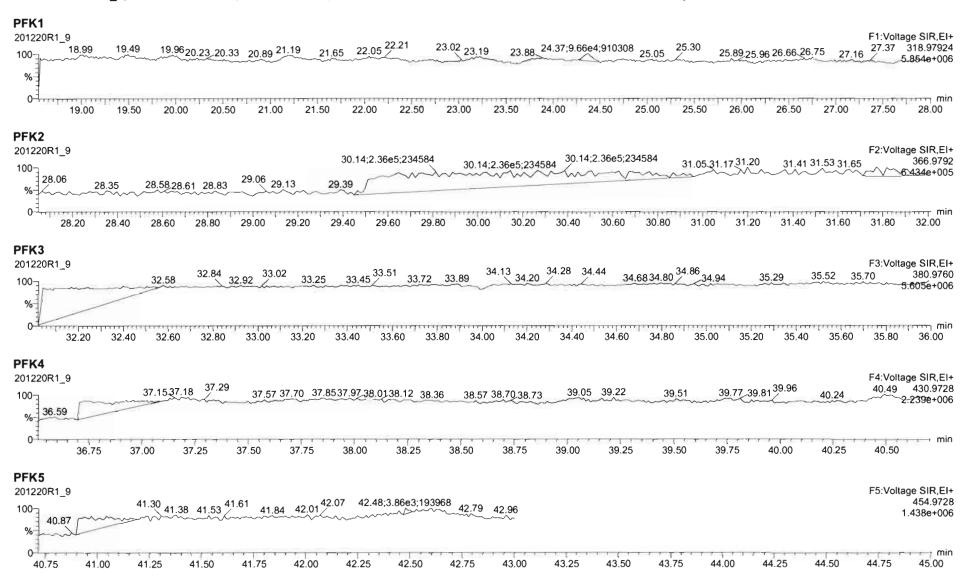
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Last Altered: Printed: Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



Page 1 of 1

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-11.qld

Last Altered:

Tuesday, December 22, 2020 6:59:01 AM Pacific Standard Time

Printed:

Wednesday, December 23, 2020 9:43:13 AM Pacific Standard Time

GPB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201221R1_11, Date: 21-Dec-2020, Time: 15:32:22, ID: 2002532-07@10X USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111

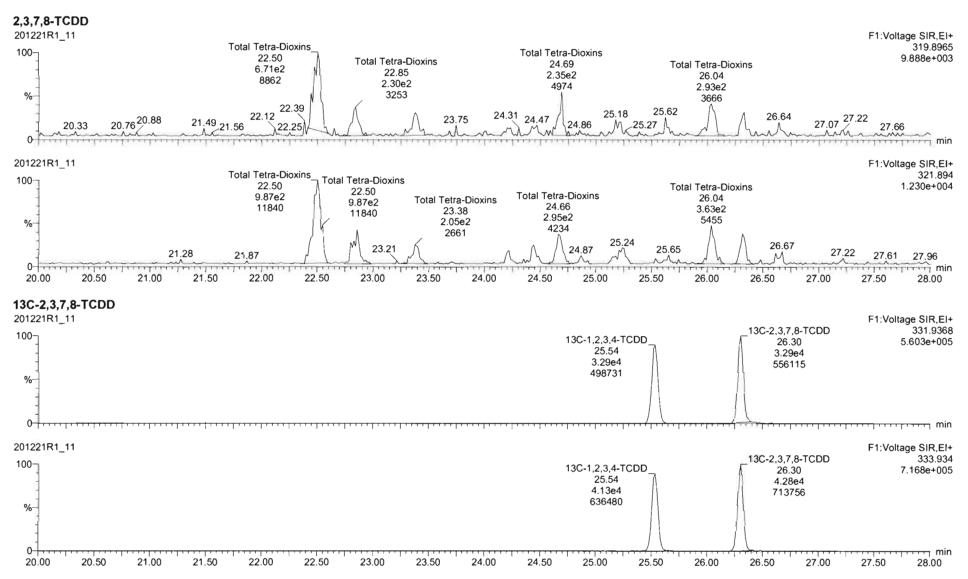
THE WEST	# Name	Resp	RA	n/y	RRF	wt/vol /	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1 207 1 12	7 OCDD	1.01e6	0.88	NO	0.866	10.051	41.103	41.10	1.000	1.000	8043.3		7.66	8040
2	24 13C-OCDD	5.77e4	0.93	NO	0.496	10.051	41.141	41.09	1.216	1.214	342.49	86.1	2.77	
3	35 37Cl-2,3,7,8-TCDD	3.54e4			1.22	10.051	26.302	26.32	1.030	1.031	78.010	98.0	0.286	
4	36 13C-1,2,3,4-TCDD	7.41e4	0.80	NO	1.00	10.051	25.640	25.54	1.000	1.000	198.99	100	1.02	
5	37 13C-1,2,3,4-TCDF	1.19e5	0.76	NO	1.00	10.051	24.130	24.03	1.000	1.000	198.99	100	1.08	
6	38 13C-1,2,3,4,6,9-HxCDF	6.76e4	0.51	NO	1.00	10.051	33.920	33.85	1.000	1.000	198.99	100	1.85	

Work Order 2002532 Page 245 of 725

Untitled

Last Altered: Printed:

Tuesday, December 22, 2020 6:56:08 AM Pacific Standard Time Tuesday, December 22, 2020 6:57:36 AM Pacific Standard Time

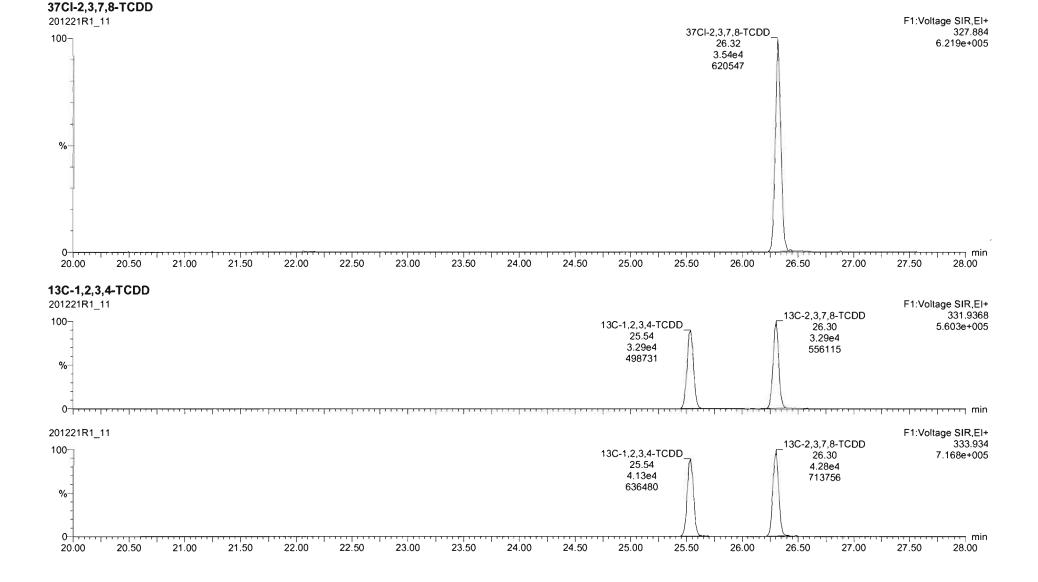


Quantify Sample Report Vista Analytical Laboratory

Dataset:

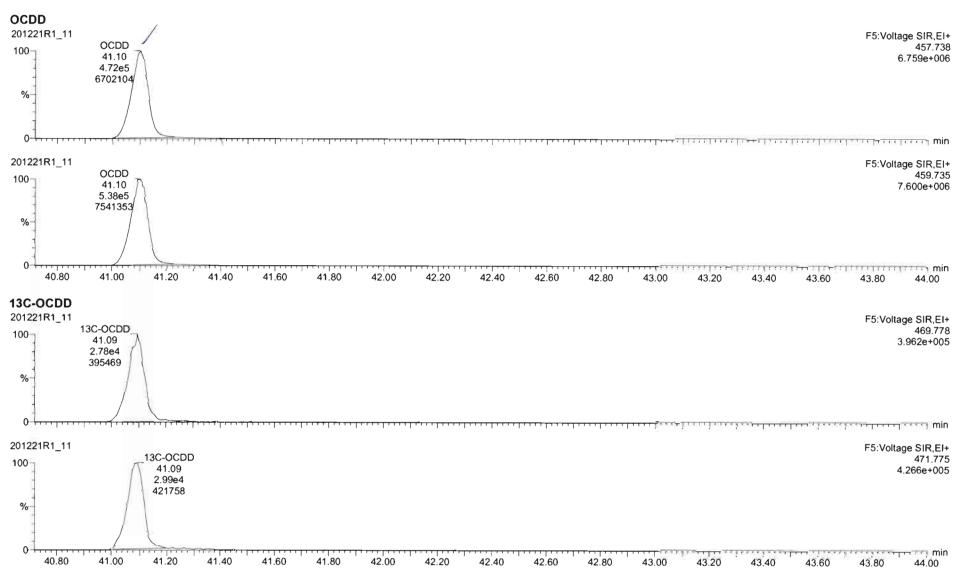
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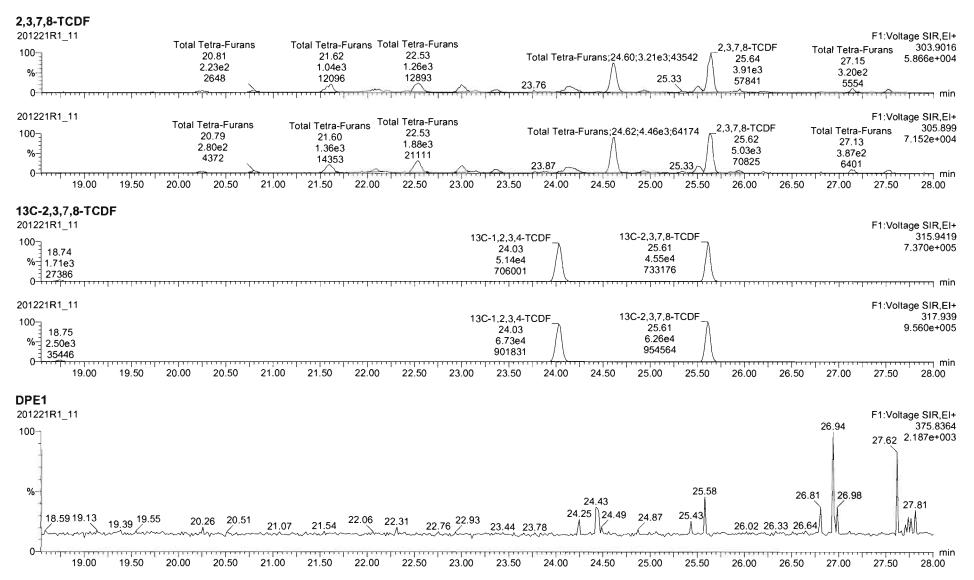
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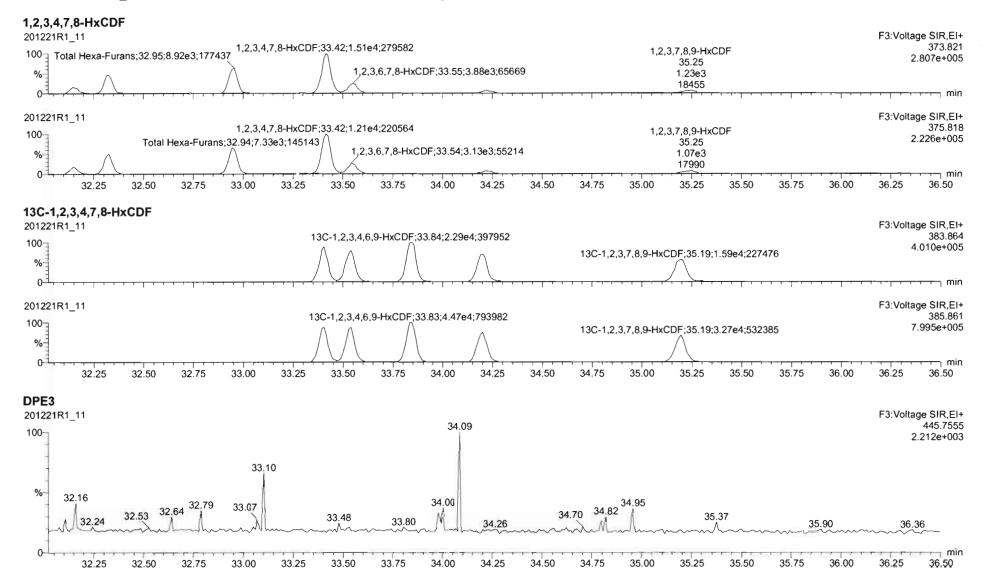
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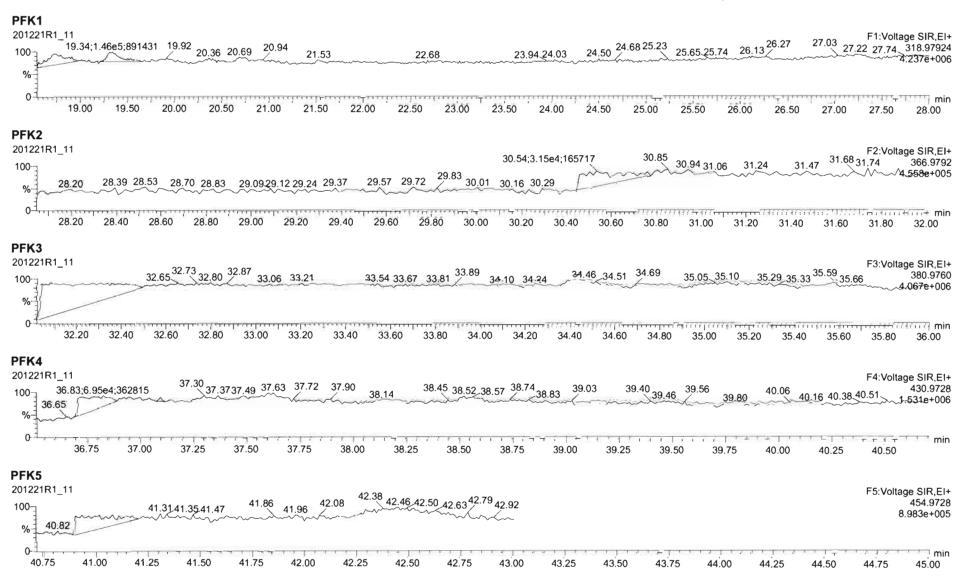
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Dataset: Untitled

Last Altered: Tuesday, December 22, 2020 6:56:08 AM Pacific Standard Time Printed: Tuesday, December 22, 2020 6:57:36 AM Pacific Standard Time

Name: 201221R1_11, Date: 21-Dec-2020, Time: 15:32:22, ID: 2002532-07@10X USMPDI-004SC-A-01-02-201111 17.52, Description: USMPDI-004SC-A-01-02-201111



Work Order 2002532

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-10.qld

Last Altered:

Printed:

Wednesday, December 23, 2020 10:13:47 AM Pacific Standard Time Wednesday, December 23, 2020 10:14:06 AM Pacific Standard Time

GRB 12/23/2000

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_10, Date: 20-Dec-2020, Time: 15:10:02, ID: 2002532-08 USMPDI-004SC-A-02-03-201111 17.55, Description: USMPDI-004SC-A-02-03-201111

112000	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1270 UCK 10	1 2,3,7,8-TCDD			NO	0.980	10.049 🗸	26.351		1.001				0.0836	
2	2 1,2,3,7.8-PeCDD			NO	0.932	10.049	31.064		1.001				0.225	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.049	34.358		1.001				0.205	
4	4 1,2,3,6,7,8-HxCDD	1.55e3	1.16	NO	0.902	10.049	34.473	34.47	1.001	1.001	1.1289		0.209	1.13
5	5 1,2,3,7,8,9-HxCDD	5.32e2	1.30	NO	0.954	10.049	34.734	34.73	1.000	1.000	0.39596		0.210	0.396
6	6 1,2,3,4,6,7,8-HpCDD	5.37e4	1.04	NO	0.918	10.049	38.200	38.20	1.000	1.000	43.603		0.599	43.6
7	7 OCDD	3.53e5	0.85	NO	0.866	10.049	41.123	41.13	1.000	1.000	424.68		0.768	425
8	8 2,3,7,8-TCDF	2.24e3	0.75	NO	0.848	10.049	25.642	25.65	1.000	1.001	0.93471		0.0966	0.935
9	9 1,2,3,7,8-PeCDF	2.44e3	1.19	YES	0.960	10.049	29.770	29.78	1.000	1.000	1.0948		0.149	0.978
10	10 2,3,4,7,8-PeCDF	1.83e3	1.43	NO	1.07	10.049	30.859	30.85	1.001	1 000	0.73059		0.136	0.731
11	11 1,2,3,4,7,8-HxCDF	2.28e3	1.19	NO	0.986	10.049	33.436	33.44	1.000	1.000	1.3958		0.133	1.40
12	12 1,2,3,6,7,8-HxCDF	6.22e2	1.25	NO	1.04	10.049	33.571	33.56	1.001	1.000	0.36705		0.128	0.367
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.049	34.243		1.001				0.141	1
14	14 1,2,3,7,8,9-HxCDF	2.88e2	1.11	NO	0.991	10.049	35.227	35.26	1.000	1.001	0.19196		0.167	0.192
15	15 1,2,3.4,6,7,8-HpCDF	3.11e3	1.00	NO	1.05	10.049	36.814	36.80	1.000	1.000	2.5870		0.165	2.59
16	16 1,2,3,4,7,8,9-HpCDF	4.51e2	0.85	YES	1.18	10.049	38.817	38.82	1.000	1.000	0.39613		0.142	0.358
17	17 OCDF	5.57e3	0.82	NO	0.896	10.049	41.417	41.43	1.000	1.000	6.1162		0.201	6.12
18	18 13C-2,3,7,8-TCDD	4.11e5	0.76	NO	1.06	10.049	26.323	26.32	1.030	1.030	89.741	45.1	0.155	
19	19 13C-1,2,3,7,8-PeCDD	3.29e5	0.62	NO	0.785	10.049	31.157	31.03	1.219	1.215	96.737	48.6	0.123	
20	20 13C-1,2,3,4,7,8-HxCDD	2.66e5	1.29	NO	0.621	10.049	34.327	34.34	1.014	1.014	106.53	53.5	0.294	
21	21 13C-1,2,3,6,7,8-HxCDD	3.03e5	1.27	NO	0.734	10.049	34.448	34.45	1.017	1.017	102.64	51.6	0.249	ì
22	22 13C-1,2,3,7,8,9-HxCDD	2.80e5	1.23	NO	0.723	10.049	34.733	34.72	1.026	1.025	96.635	48.6	0.253	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.67e5	1.04	NO	0.568	10 049	38.231	38.19	1,129	1.128	117.08	58.8	0.487	
24	24 13C-OCDD	3.82e5	0.86	NO	0.496	10.049	41.168	41.12	1.216	1.214	192.05	48.2	0.528	}
25	25 13C-2,3,7,8-TCDF	5 63e5	0.78	NO	0.919	10.049	25.623	25.64	1.003	1.003	101.15	50.8	0.210	
26	26 13C-1,2,3,7,8-PeCDF	4.62e5	1.61	NO	0.715	10.049	29.869	29.77	1.169	1.165	106.58	53.6	0.322	
27	27 13C-2,3,4,7,8-PeCDF	4.67e5	1.60	NO	0.689	10.049	30.955	30.84	1.212	1 207	111.98	56.3	0.334	
28	28 13C-1,2,3,4,7,8-HxCDF	3 29e5	0.50	NO	0.873	10.049	33 433	33.43	0.987	0.987	93.869	47.2	0.282	
29	29 13C-1,2,3,6,7,8-HxCDF	3.24e5	0.50	NO	0.933	10 049	33.561	33.55	0.991	0.991	86.538	43.5	0.264	
30	30 13C-2.3,4,6,7,8-HxCDF	3.16e5	0.50	NO	0.843	10 049	34.228	34.22	1.011	1.011	93.380	46 .9	0.292	
31	31 13C-1,2,3,7,8,9-HxCDF	3.01e5	0.50	NO	0.780	10.049	35.227	35.22	1.040	1.040	96.034	48.3	0.316	

Work Order 2002532 Page 252 of 725

U:\VG12.PRO\Results\201220R1\201220R1-10.qld

Last Altered: Printed:

Wednesday, December 23, 2020 10:13:47 AM Pacific Standard Time Wednesday, December 23, 2020 10:14:06 AM Pacific Standard Time

Name: 201220R1_10, Date: 20-Dec-2020, Time: 15:10:02, ID: 2002532-08 USMPDI-004SC-A-02-03-201111 17.55, Description: USMPDI-004SC-A-02-03-201111

全社 かいかく	# 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	2.28e5	0.41	NO	0.726	10.049	36.802	36.80	1.087	1.087	78.221	39.3	0.398	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.93e5	0.43	NO	0.491	10.049	38.810	38.81	1.146	1.146	97.690	49.1	0.588	
34	34 13C-OCDF	4.05e5	0.87	NO	0.565	10.049	41.384	41.41	1.222	1.223	178.12	44.7	0.406	
35	35 37CI-2,3,7,8-TCDD	3.61e5			1.22	10.049	26.318	26.35	1.030	1.031	68.481	86.0	0.0365	
36	36 13C-1,2,3,4-TCDD	8.63e5	0.77	NO	1.00	10.049	25.640	25.55	1.000	1.000	199.03	100	0.164	
37	37 13C-1,2,3,4-TCDF	1.21e6	0.79	NO	1.00	10.049	24.130	24.06	1.000	1.000	199.03	100	0.193	
38	38 13C-1,2,3,4,6,9-HxCDF	7.99e5	0.51	NO	1.00	10.049	33.920	33.87	1.000	1.000	199.03	100	0.246	
39	39 Total Tetra-Dioxins				0.980	10.049	24.620		0.000		0.25233		0.0836	0.252
40	40 Total Penta-Dioxins				0.932	10.049	29.960		0.000		0.64070		0.225	1.15
41	41 Total Hexa-Dioxins				0.902	10.049	33.635		0.000		14.393		0.220	14.4
42	42 Total Hepta-Dioxins				0.918	10.049	37.640		0.000		116.44		0.599	116
43	43 Total Tetra-Furans				0.848	10.049	23.610		0.000		2.6780		0.0966	3.78
44	44 1st Func. Penta-Furans				0.960	10.049	26.930		0.000		1.3165		0.0381	1.32
45	45 Total Penta-Furans				0.960	10.049	29.275		0.000		2.1423		0.150	3.56
46	46 Total Hexa-Furans				1.02	10.049	33.555		0.000		5.6724		0.140	5.67
47	47 Total Hepta-Furans				1.05	10.049	37.835		0.000		7.9190		0.162	8.28

Work Order 2002532 Page 253 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-10.qld

Last Altered: Wednesday, December 23, 2020 10:13:47 AM Pacific Standard Time Printed: Wednesday, December 23, 2020 10:14:06 AM Pacific Standard Time

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_10, Date: 20-Dec-2020, Time: 15:10:02, ID: 2002532-08 USMPDI-004SC-A-02-03-201111 17.55, Description: USMPDI-004SC-A-02-03-201111

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Tetra-Dioxins	22.55	2.361e3	4.788e3	2.087e2	3.020e2	0.69	NO	5.107e2	0.25233	0.25233	0.0836

Penta-Dioxins

AND PARTY	Name	RT	m1 Height	m2 Height	HA	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
10 - 31	Total Penta-Dioxins	28.76	2.955e3	6.211e3		2.310e2	4.170e2	0.55	NO	6.481e2	0.42038	0.42038	0.225
2	Total Penta-Dioxins	29.24	2.435e3	3.250e3		1.254e2	2.142e2	0.59	NO	3.396e2	0.22032	0.22032	0.225
3	Total Penta-Dioxins	29.80	6.470e3	5.261e3		3.220e2	2.682e2	1.20	YES	0.000e0	0.00000	0.28357	0.225
4	Total Penta-Dioxins	30.23	3.792e3	4.483e3		2.106e2	2.167e2	0.97	YES	0.000e0	0.00000	0.22912	0.225

Hexa-Dioxins

S. Files	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 : 1.00	Total Hexa-Dioxins	32.70	8.873e4	6.769e4	4.277e3	3.454e3	1.24	NO	7.732e3	6.0276	6.0276	0.220
2	Total Hexa-Dioxins	33.30	1.512e4	1.109e4	6.648e2	5.290e2	1.26	NO	1.194e3	0.93068	0.93068	0.220
3	Total Hexa-Dioxins	33.59	5.355e4	3.798e4	3.355e3	2.749e3	1.22	NO	6.104e3	4.7589	4.7589	0.220
4	Total Hexa-Dioxins	33.69	8.898e3	6.667e3	4.934e2	3.551e2	1.39	NO	8.485e2	0.66150	0.66150	0.220
5	1,2,3,6,7,8-HxCDD	34.47	1.802e4	1.168e4	8.316e2	7.175e2	1.16	NO	1.549e3	1.1289	1.1289	0.209
6	Total Hexa-Dioxins	34.62	7.629e3	5.839e3	3.673e2	2.606e2	1.41	NO	6.279e2	0.48948	0.48948	0.220
7	1,2,3,7,8,9-HxCDD	34.73	4.775e3	3.501e3	3.008e2	2.317e2	1.30	NO	5.325e2	0.39596	0.39596	0.210

Hepta-Dioxins

CARTY TED	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.18	6.561e5	6.497e5	4.534e4	4.436e4	1.02	NO	8.970e4	72.836	72.836	0.599
2	1,2,3,4,6,7,8-HpCDD	38.20	5.079e5	4.986e5	2.740e4	2.629e4	1.04	NO	5.370e4	43.603	43.603	0.599

Work Order 2002532 Page 254 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-10.qld

Last Altered: Printed:

Wednesday, December 23, 2020 10:13:47 AM Pacific Standard Time Wednesday, December 23, 2020 10:14:06 AM Pacific Standard Time

Name: 201220R1_10, Date: 20-Dec-2020, Time: 15:10:02, ID: 2002532-08 USMPDI-004SC-A-02-03-201111 17.55, Description: USMPDI-004SC-A-02-03-201111

Tetra-Furans

- THE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
17 11111 11	Total Tetra-Furans	21.60	4.376e3	6.509e3	3.921e2	4.758e2	0.82	NO	8.679e2	0.36164	0.36164	0.0966
2	Total Tetra-Furans	22.52	5.094e3	7.829e3	4.718e2	6.456e2	0.73	NO	1.117e3	0.46555	0.46555	0.0966
3	Total Tetra-Furans	23.01	2.694e3	3.621e3	2.558e2	3.414e2	0.75	NO	0.000e0	0.00000	0.24885	0.0966
4	Total Tetra-Furans	24.15	7.212e3	5.958e3	6.551e2	7.503e2	0.87	NO	0.000e0	0.00000	0.58560	0.0966
5	Total Tetra-Furans	24.63	1.238e4	1.903e4	8.894e2	1.309e3	0.68	NO	2.199e3	0.91614	0.91614	0.0966
6	Total Tetra-Furans	25.54	6.027e3	4.545e3	3.722e2	3.643e2	1.02	YES	0.000e0	0.00000	0.26865	0.0966
7	2,3,7,8-TCDF	25.65	1.276e4	2.029e4	9.581e2	1.285e3	0.75	NO	2.243e3	0.93471	0.93471	0.0966

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	27.15	3.056e4	1.591e4	1.867e3	1.082e3	1.73	NO	2.949e3	1.3165	1.3165	0.0381

Penta-Furans

POPE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.80	1.678e4	1.349e4	1.173e3	8.438e2	1.39	NO	2.017e3	0.90049	0.90049	0.150
2	Total Penta-Furans	29.42	9.387e3	5.424e3	4.526e2	2.981e2	1.52	NO	7.508e2	0.33519	0.33519	0.150
3	Total Penta-Furans	29.57	3.917e3	2.599e3	2.254e2	1.688e2	1.33	NO	3.942e2	0.17600	0.17600	0.150
4	1,2,3,7,8-PeCDF	29 78	2.276e4	1.901e4	1.324e3	1.114e3	1.19	YES	2.438e3	0.00000	0.97830	0.149
5	Total Penta-Furans	30.04	9.954e3	7.366e3	6.928e2	3.868e2	1.79	YES	0.000e0	0.00000	0.44041	0.150
6	2,3,4,7,8-PeCDF	30.85	2.409e4	1.591e4	1.078e3	7.519e2	1.43	NO	1.830e3	0.73059	0.73059	0.136

Work Order 2002532 Page 255 of 725

Page 3 of 3

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-10.qld

Last Altered: Printed:

Wednesday, December 23, 2020 10:13:47 AM Pacific Standard Time Wednesday, December 23, 2020 10:14:06 AM Pacific Standard Time

Name: 201220R1_10, Date: 20-Dec-2020, Time: 15:10:02, ID: 2002532-08 USMPDI-004SC-A-02-03-201111 17.55, Description: USMPDI-004SC-A-02-03-201111

Hexa-Furans

7174	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
15 00-2	Total Hexa-Furans	32.18	8.426e3	7.567e3	3.590e2	2.944e2	1.22	NO	6.534e2	0.40122	0.40122	0.140
2	Total Hexa-Furans	32.35	2.563e4	1.770e4	1.138e3	8.436e2	1.35	NO	1.982e3	1.2168	1.2168	0.140
3	Total Hexa-Furans	32.97	3.374e4	2.745e4	1.631e3	1.430e3	1.14	NO	3.061e3	1.8799	1.8799	0.140
4	1,2,3,4,7,8-HxCDF	33.44	2.198e4	2.239e4	1.237e3	1.040e3	1.19	NO	2.277e3	1.3958	1.3958	0.133
5	1,2,3,6,7,8-HxCDF	33.56	6.956e3	4.918e3	3.459e2	2.756e2	1.25	NO	6.216e2	0.36705	0.36705	0.128
6	Total Hexa-Furans	34.03	3.332e3	2.770e3	1.425e2	1.294e2	1.10	NO	2.718e2	0.16694	0.16694	0.140
7	1,2,3,7,8,9-HxCDF	35.26	3.332e3	2.268e3	1.516e2	1.360e2	1.11	NO	2.875e2	0.19196	0.19196	0.167
8	Total Hexa-Furans	35.29	2.404e3	1.574e3	4.575e1	3.998e1	1.14	NO	8.573e1	0.052644	0.052644	0.140

Hepta-Furans

100	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	36.80	1.993e4	2.301e4	1.559e3	1.553e3	1.00	NO	3.113e3	2.5870	2.5870	0.165
2	Total Hepta-Furans	37.53	4.772e4	4.599e4	2.968e3	2.948e3	1.01	NO	5.916e3	5.3320	5.3320	0.162
3	1,2,3,4,7,8,9-HpCDF	38.82	3.805e3	5.585e3	2.075e2	2.435e2	0.85	YES	4.510e2	0.00000	0.35758	0.142

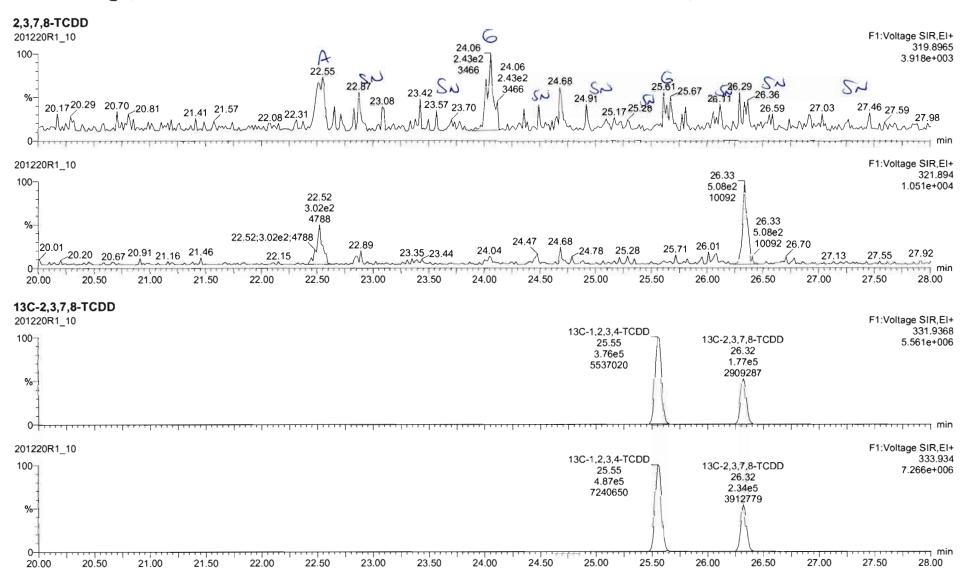
Work Order 2002532 Page 256 of 725

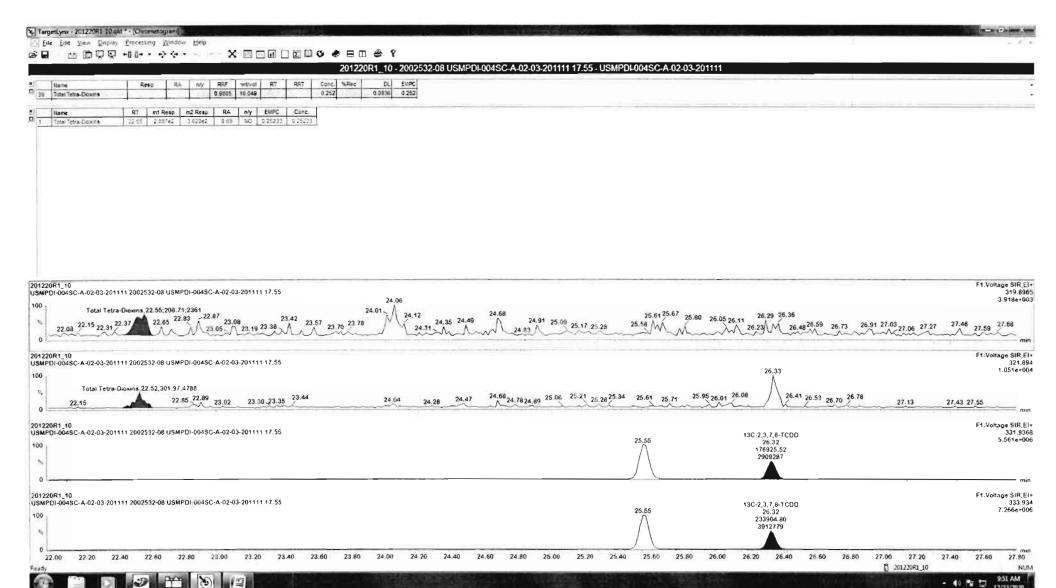
Quantify Sample Report Vista Analytical Laboratory

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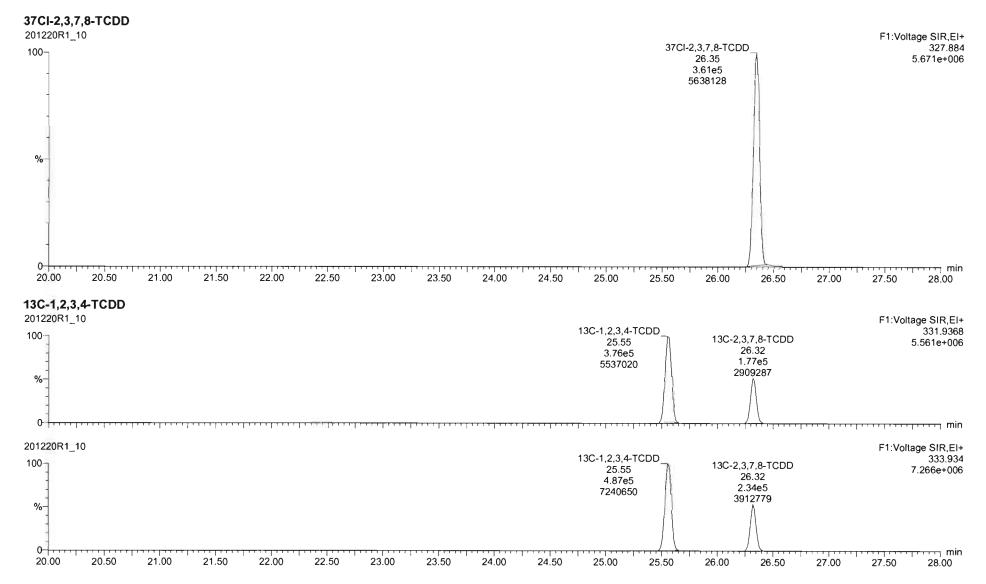


Work Order 2002532 Page 258 of 725

Quantify Sample Report Vista Analytical Laboratory Page 93 of 182

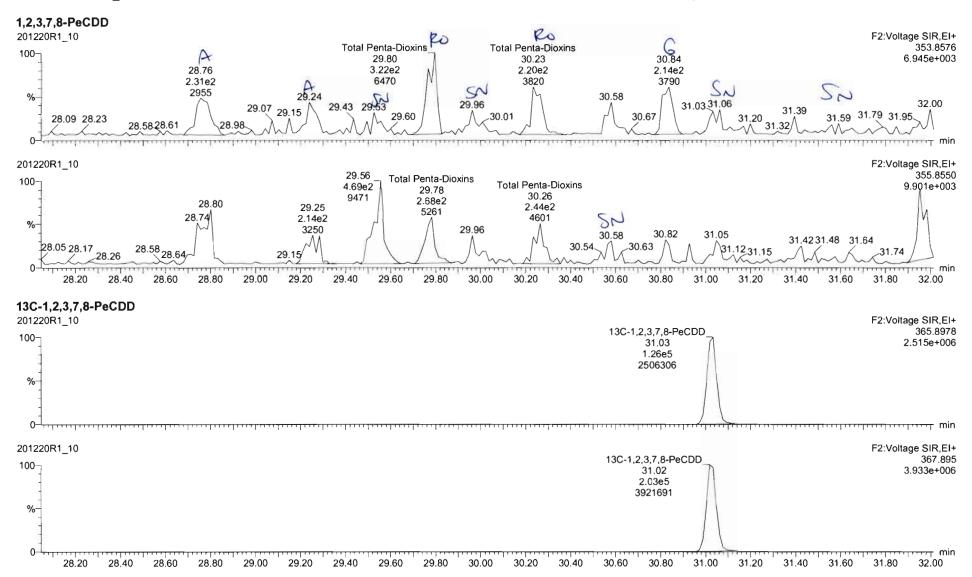
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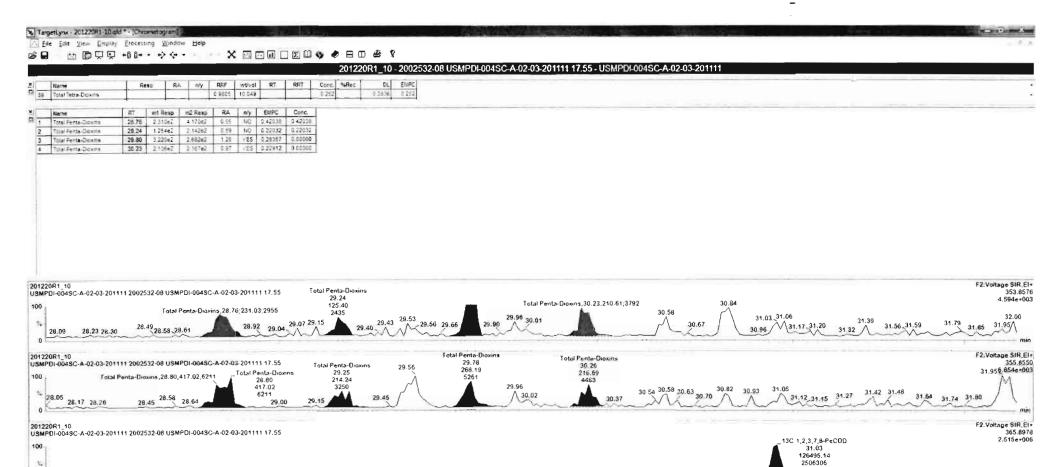
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13C-1,2,3,7,8-PeCDD

31.02 202722.69 3921691

31.00

31.20

31.40

31.60

8 201229RI_10

31.90

- 40 PE TO

30.80

F2. Voltage SIR, EI+

367.895 3.933e+006

32.00

953 AM

0

100

0

28.20

201220R1_10

USMPDI-004SC-A-02-03-201111 2002532-08 USMPDI-004SC-A-02-03-201111 17.55

28.60

28.80

29.00

29.20

29.40

29.60

29.80

30.00

30.26

30.40

30.60

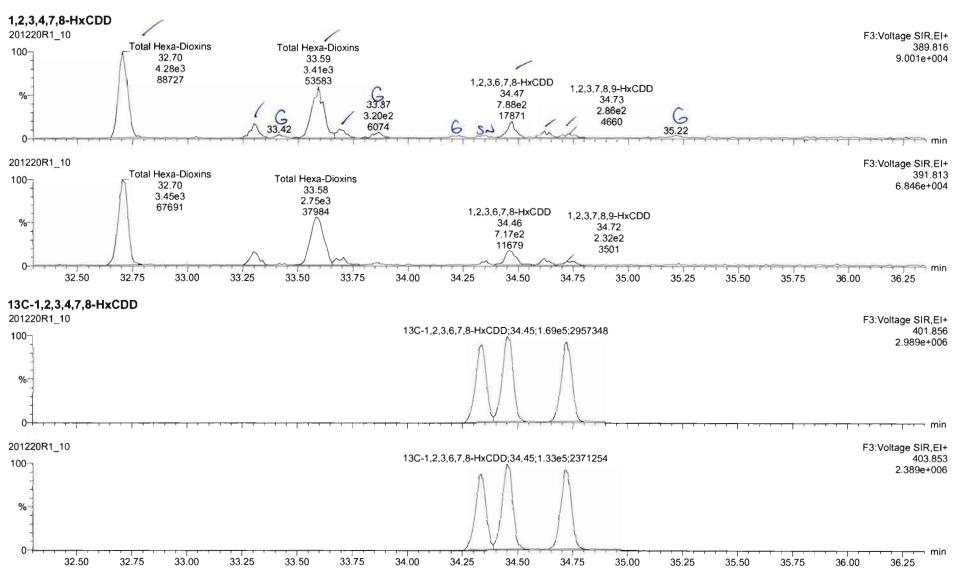
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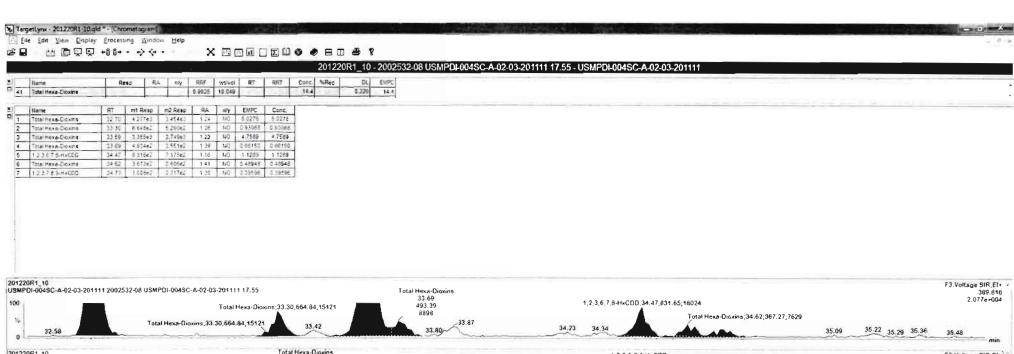
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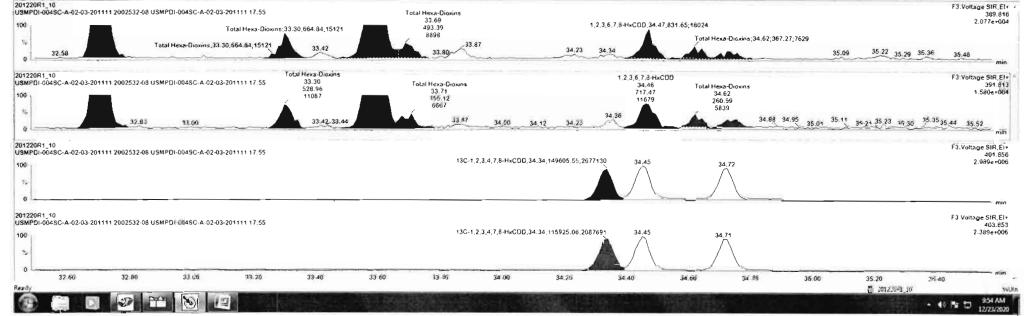
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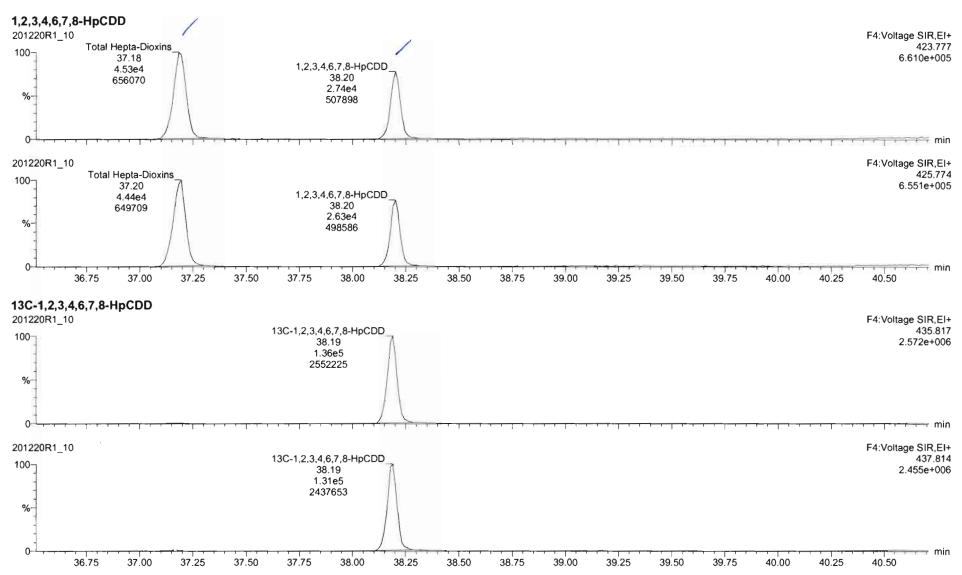




Work Order 2002532 Page 263 of 725

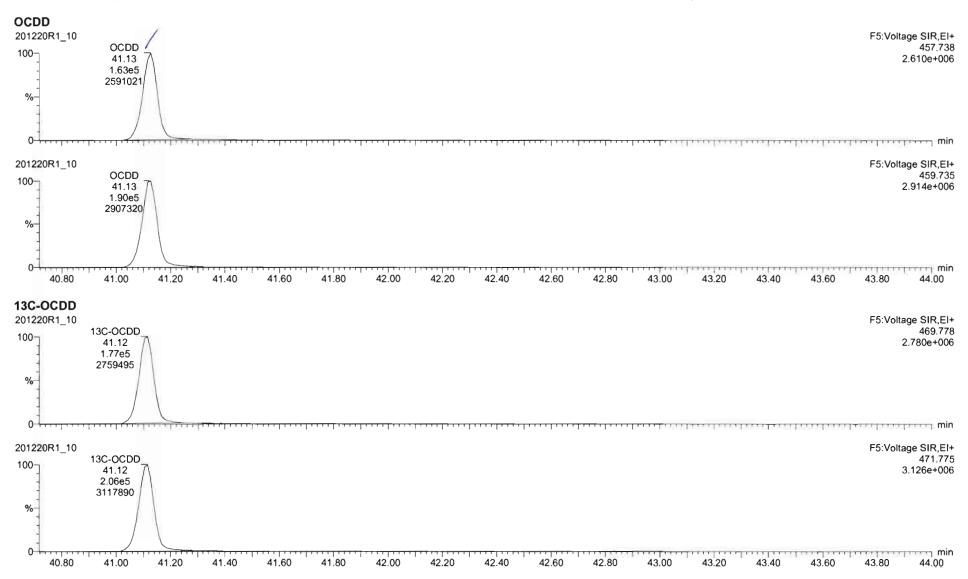
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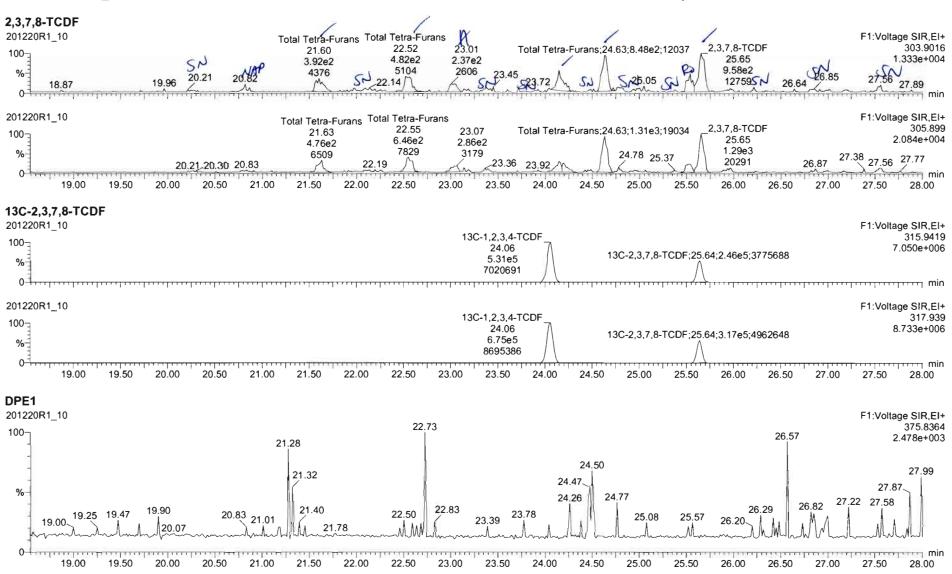
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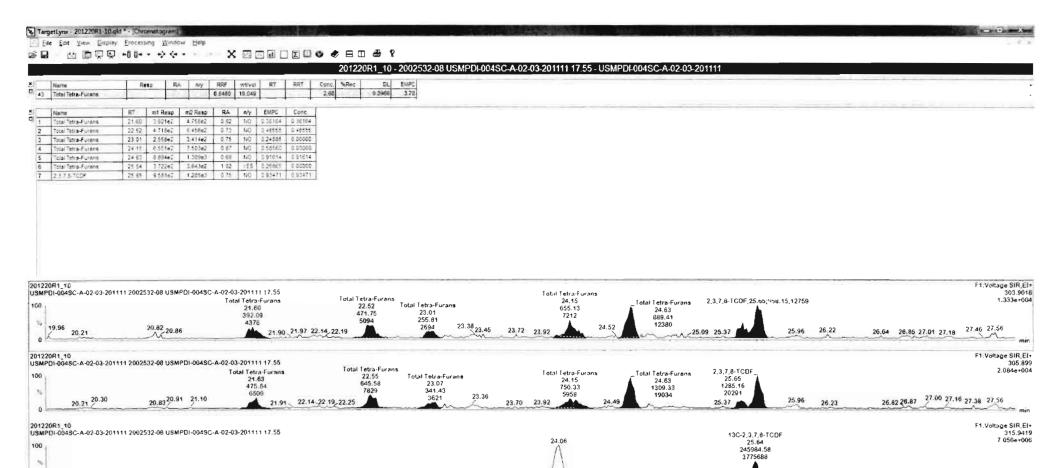
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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





24.06

24.00

24.50

25.00

201220R1_10

20.00

100

16

USMPDI 004SC-A-02-03-201111 2002532-08 USMPDI-004SC-A-02-03-201111 17.55

21.00

21.50

22.00

22.50

23.00

23.50

20.50

F1.Voltage SIR,EI+

27 50

- 40 PE TO

317.939 8.733e+006

NUM

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

317329.31 4962648

26.00

26.50

27.00

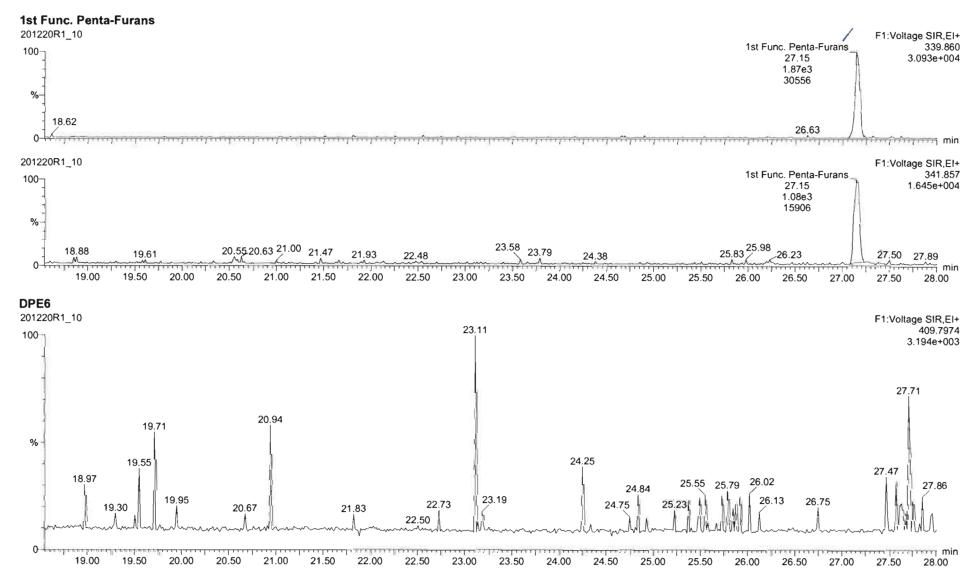
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25.50

Work Order 2002532 Page 267 of 725

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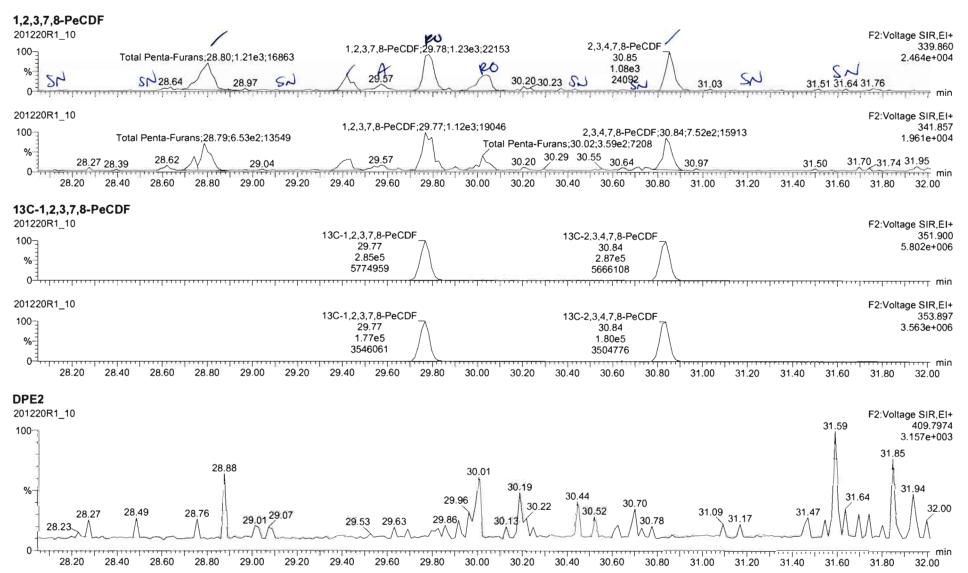
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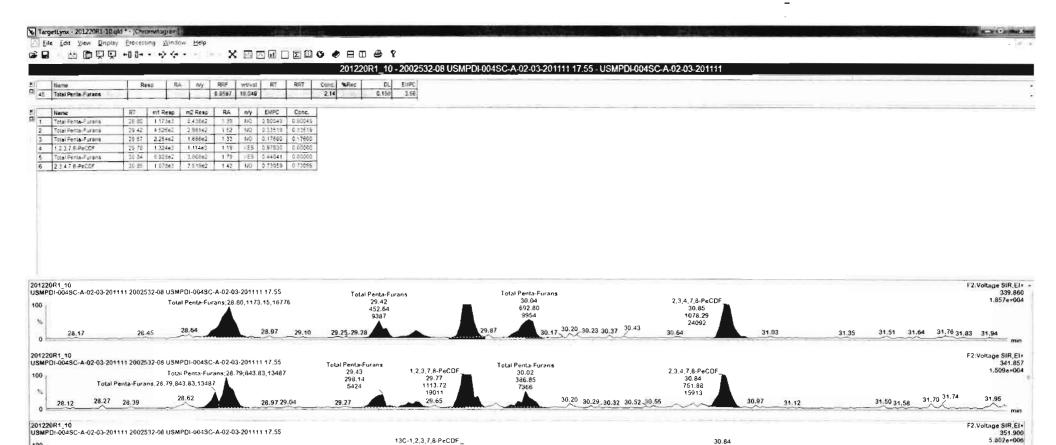


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Last Altered: Printed:

Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time





29.77 285128 13 5774959

13C-1,2.3,7,8-PeCDF

29.77 176734.69 3546061

29.60

29.80

30.00

30.20

30.40

30.60

29.40

29.20

100

100

28.20

USMPDI-004SC-A-02-03-201111 2002532-08 USMPDI-004SC-A-02-03-201111 17.55

28.60

28.80

29.00

28.40

30.84

30.84

31.00

31.20

31.40

31.60

6 201220R1_10

31.80

- 春 40 10 10

30.80

F2. Voltage SIR, EI+

353.897 3.563e+006

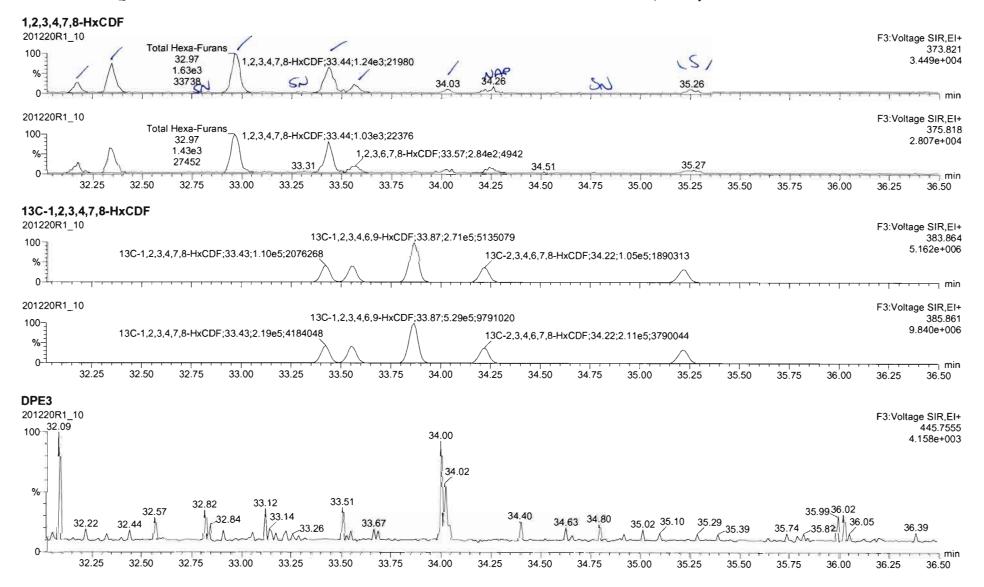
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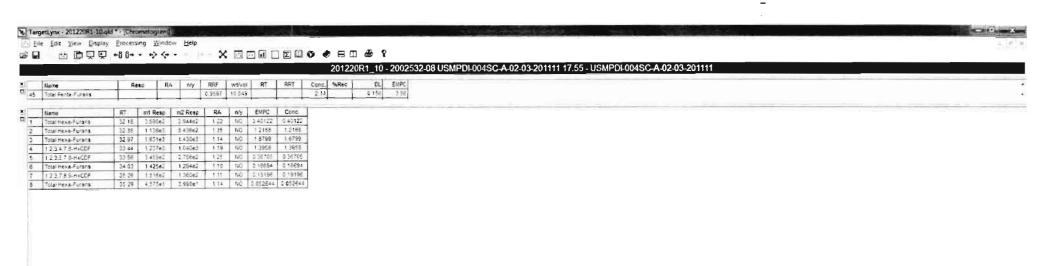
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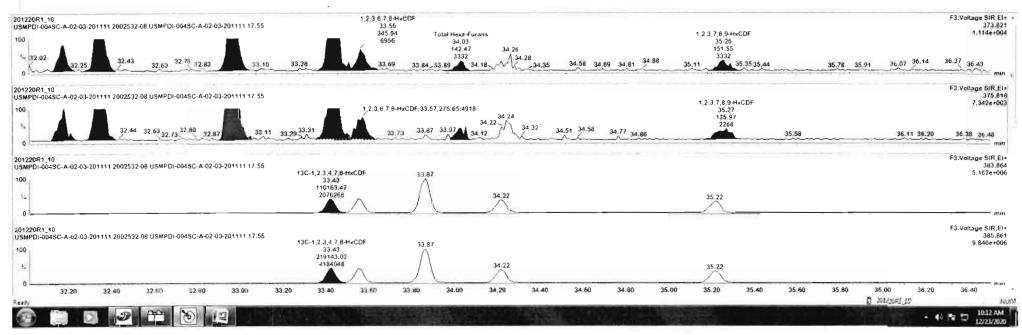
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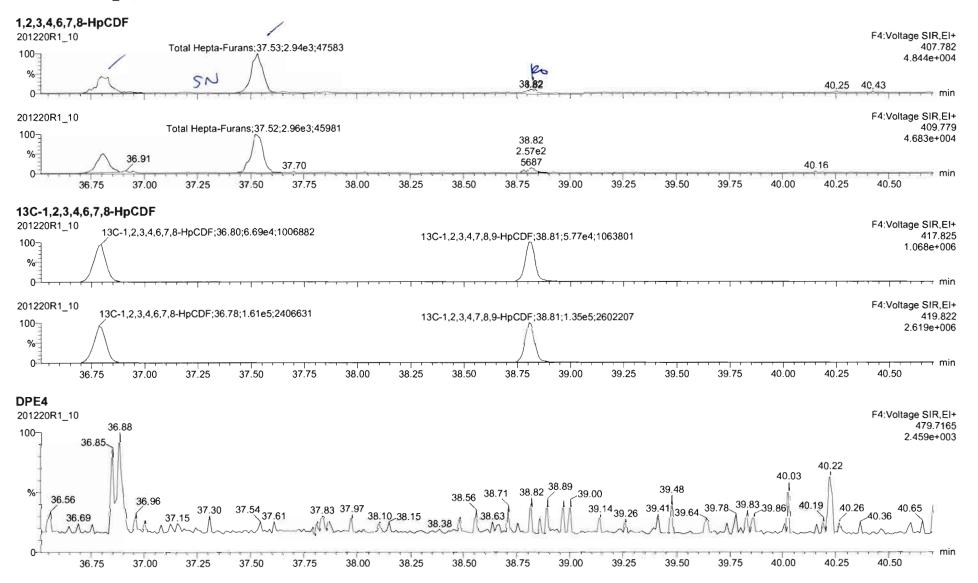


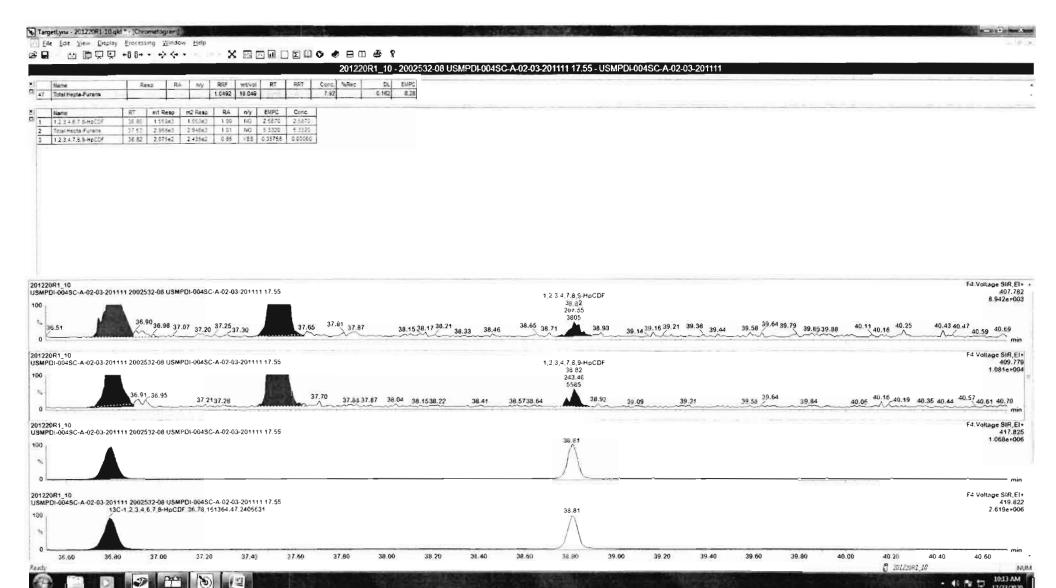


Work Order 2002532 Page 272 of 725

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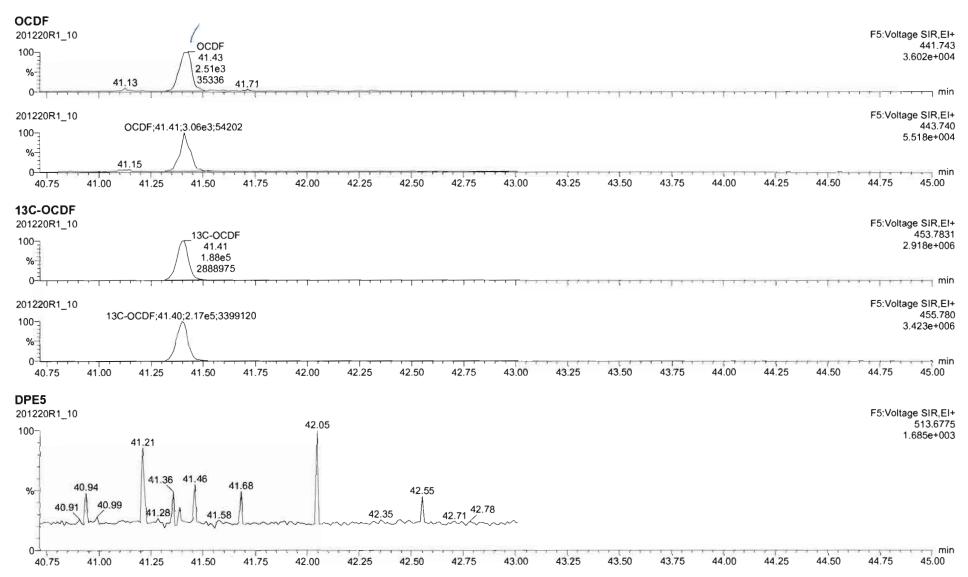




Work Order 2002532 Page 274 of 725

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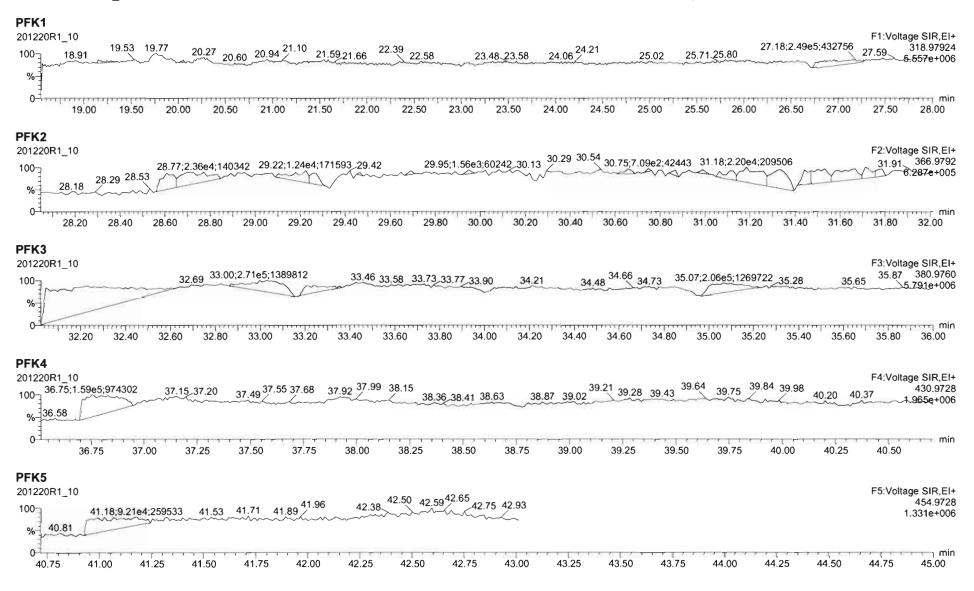
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Work Order 2002532

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-11B.qld

Last Altered:

Monday, December 28, 2020 7:57:06 AM Pacific Standard Time

Printed:

Monday, December 28, 2020 7:57:52 AM Pacific Standard Time

GRE 12/28/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

FSEE DIL. Matrila

Name: 201220R1_11, Date: 20-Dec-2020, Time: 15:54:19, ID: 2002532-09 USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111

14/9/E-52 /	# 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	4.77e3	0.71	NO	0.980	10.068	26.337	26.33	1.001	1.001	1.2091		0.0593	1.21
2	2 1,2,3,7,8-PeCDD	6.08e3	0.66	NO	0.932	10.068	31.049	31.03	1.001	1.000	2.0105		0.0824	2.01
3	3 1,2,3,4,7,8-HxCDD	6.87 e 3	1.28	NO	1.02	10.068	34.347	34.34	1.001	1.000	2.8703		0.459	2.87
4	4 1,2,3,6,7,8-HxCDD	4.25e4	1.29	NO	0.902	10.068	34.462	34.46	1.001	1.001	18.272		0.496	18.3
5	5 1,2,3,7,8,9-HxCDD	1.51e4	1.26	NO	0.954	10.068	34.724	34.72	1.000	1.000	6.2130		0.483	6.21
6	6 1,2,3,4,6,7,8-HpCDD	1.49e6	1.02	NO	0.918	10.068	38.200	38.20	1.000	1.000	720.52		2.20	721
7	7 OCDD	1.13e7	0.88	NO	0.866	10.068	41.113	41.12	1.000	1.000	6737.6 EX	(1.03	6740
8	8 2,3,7,8-TCDF	1.33e5	0.75	NO	0.848	10.068	25.628	25.64	1.000	1.001	28.551		0.0868	28.6
9	9 1,2,3,7,8-PeCDF	1.72e5	1.57	NO	0.960	10.068	29.754	29.77	1.000	1.001	40.225		0.224	40.2
10	10 2.3.4,7,8-PeCDF	1.14e5	1.54	NO	1.07	10.068	30.844	30.84	1.001	1.000	24.554		0.211	24.6
11	11 1,2,3,4,7,8-HxCDF	2.07e5	1.24	NO	0.986	10.068	33.426	33.44	1.000	1.001	71.463		0.209	71.5
12	12 1,2,3,6,7,8-HxCDF	5.68e4	1.30	NO	1.04	10.068	33.571	33.56	1.001	1.000	18.912		0.195	18.9
13	13 2,3,4,6,7,8-HxCDF	2.12e4	1.23	NO	1.02	10.068	34.232	34.24	1.001	1.001	7.5237		0.217	7.52
14	14 1,2,3,7,8,9-HxCDF	3.28e3	1.18	NO	0.991	10.068	35.217	35.23	1.000	1.001	1.2572		0.265	1.26
15	15 1,2,3,4,6,7,8-HpCDF	2.13e5	1.01	NO	1.05	10.068	36.792	36.80	1.000	1.001	99.375		0.410	99.4
16	16 1,2,3,4,7,8,9-HpCDF	2.80e4	1.02	NO	1.18	10.068	38.817	38.82	1.000	1.000	13.774		0.326	13.8
17	17 OCDF	3.12e5	0.90	NO	0.896	10.068	41.396	41.41	1.000	1.001	190.66		0.396	191
18	18 13C-2,3,7,8-TCDD	7.99e5	0.77	NO	1.06	10.068	26.323	26.31	1.030	1.030	189.80	95.5	0.162	
19	19 13C-1,2,3,7,8-PeCDD	6.45e5	0.63	NO	0.785	10.068	31.157	31.02	1.219	1.214	206.08	104	0.228	
20	20 13C-1,2,3,4,7,8-HxCDD	4.66e5	1.30	NO	0.621	10.068	34.315	34.33	1.014	1.014	208.53	105	0.379	
21	21 13C-1,2,3,6,7,8-HxCDD	5.12e5	1.26	NO	0.734	10.068	34.437	34.44	1.017	1.017	193.66	97.5	0.321	Į.
22	22 13C-1,2,3,7,8,9-HxCDD	5.05e5	1.27	NO	0.723	10.068	34.722	34.71	1.026	1.025	194.02	97.7	0.326	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.49e5	1.05	NO	0.568	10.068	38.219	38.19	1.129	1.128	219.46	110	0.742	
24	24 13C-OCDD	7.68e5	0.88	NO	0.496	10.068	41.154	41.10	1.216	1.214	430.05	108	0.472	l
25	25 13C-2,3,7,8-TCDF	1.09e6	0.78	NO	0.919	10.068	25.623	25.63	1.003	1.003	201.36	101	0.211	
26	26 13C-1,2,3,7,8-PeCDF	8.86e5	1.60	NO	0.715	10.068	29.869	29.75	1.169	1.164	210.33	106	0.340	
27	27 13C-2,3,4,7,8-PeCDF	8.62e5	1.56	NO	0.689	10.068	30.955	30.82	1.212	1.206	212.52	107	0.353	
28	28 13C-1,2,3,4,7,8-HxCDF	5.85e5	0.51	NO	0.873	10.068	33.422	33.42	0.987	0.987	185.83	93.5	0.505	
29	29 13C-1,2,3,6,7,8-HxCDF	5. 74e5	0.50	NO	0.933	10.068	33.550	33.55	0.991	0.991	170.77	86.0	0.472	
30	30 13C-2,3,4,6,7,8-HxCDF	5.49e5	0.50	NO	0.843	10.068	34.217	34.21	1.011	1.011	180.69	91.0	0.523	
31	31 13C-1,2,3,7,8,9-HxCDF	5.23e5	0.51	NO	0.780	10.068	35.216	35.21	1.040	1.040	186.24	93.8	0.565	

Work Order 2002532 Page 277 of 725

U:\VG12.PRO\Results\201220R1\201220R1-11B.qld

Last Altered:

Monday, December 28, 2020 7:57:06 AM Pacific Standard Time

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Monday, December 28, 2020 7:57:52 AM Pacific Standard Time

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	# 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	4.06e5	0.42	NO	0.726	10.068	36.790	36.77	1.087	1.086	155.04	78.1	0.583	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.43e5	0.43	NO	0.491	10.068	38.798	38.81	1.146	1.146	193.80	97.6	0.863)
34	34 13C-OCDF	7.26e5	0.85	NO	0.565	10.068	41.371	41.39	1.222	1.223	356.40	89.7	0.429	
35	35 37CI-2,3,7,8-TCDD	3.52e5			1.22	10.068	26.318	26.33	1.030	1.031	72.623	91.4	0.0441	1
36	36 13C-1,2,3,4-TCDD	7.92e5	0.78	NO	1.00	10.068	25.640	25.55	1.000	1.000	198.64	100	0.171	
37	37 13C-1,2,3,4-TCDF	1.17e6	0.78	NO	1.00	10.068	24.130	24.04	1.000	1.000	198.64	100	0.194	
38	38 13C-1,2,3,4,6,9-HxCDF	7.16e5	0.51	NO	1.00	10.068	33.920	33.85	1.000	1.000	198.64	100	0.441	1
39	39 Total Tetra-Dioxins				0.980	10.068	24.620		0.000		10.341		0.0593	10.8
40	40 Total Penta-Dioxins				0.932	10.068	29.960		0.000		19.832		0.0824	19.8
41	41 Total Hexa-Dioxins				0.902	10.068	33.635		0.000		226.45		0.508	226
42	42 Total Hepta-Dioxins				0.918	10.068	37.640		0.000		1649.1		2.20	1650
43	43 Total Tetra-Furans				0.848	10.068	23.610		0.000		103.37		0.0868	118
44	44 1st Func. Penta-Furans				0.960	10.068	26.930		0.000		36.351		0.0283	36.4
45	45 Total Penta-Furans				0.960	10.068	29.275		0.000		131.71		0.229	132
46	46 Total Hexa-Furans				1.02	10.068	33.555		0.000		218.17		0.218	218
47	47 Total Hepta-Furans				1.05	10.068	37.835		0.000		263.22		0.390	263

Work Order 2002532 Page 278 of 725

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-11B.qld

Last Altered: Monday, December 28, 2020 7:57:06 AM Pacific Standard Time Printed: Monday, December 28, 2020 7:57:52 AM Pacific Standard Time

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Name: 201220R1_11, Date: 20-Dec-2020, Time: 15:54:19, ID: 2002532-09 USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111

Tetra-Dioxins

THE PARTY	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 7 7 7 7	Total Tetra-Dioxins	22.50	7.548e4	9.574e4	6.562e3	8.392e3	0.78	NO	1.495e4	3.7922	3.7922	0.0593
2	Total Tetra-Dioxins	22.84	2.390e4	2.531e4	1.843e3	2.190e3	0.84	NO	4.033e3	1.0227	1.0227	0.0593
3	Total Tetra-Dioxins	23.39	1.195e4	1.586e4	9.199e2	1.215e3	0.76	NO	2.135e3	0.54135	0.54135	0.0593
4	Total Tetra-Dioxins	24.22	7.246e3	9.401e3	5.584e2	6.791e2	0.82	NO	1.238e3	0.31383	0.31383	0.0593
5	Total Tetra-Dioxins	24.44	1.236e4	1.531e4	9.347e2	1.297e3	0.72	NO	2.231e3	0.56589	0.56589	0.0593
6	Total Tetra-Dioxins	24.68	2.015e4	2.827e4	1.322e3	1.978e3	0.67	NO	3.300e3	0.83689	0.83689	0.0593
7	Total Tetra-Dioxins	24.89	5.920e3	7.313e3	3.070e2	4.360e2	0.70	NO	7.431e2	0.18845	0.18845	0.0593
8	Total Tetra-Dioxins	25.18	7.160e3	8.030e3	3.913e2	4.484e2	0.87	NO	0.000e0	0.00000	0.21295	0.0593
9	Total Tetra-Dioxins	25.25	6.893e3	7.055e3	5.311e2	6.099e2	0.87	NO	1.141e3	0.28937	0.28937	0.0593
10	Total Tetra-Dioxins	25 58	6.760e3	5.689e3	3.036e2	3.669e2	0.83	NO	6.705e2	0.17003	0.17003	0.0593
11	Total Tetra-Dioxins	25 64	6.621e3	5.844e3	5.017e2	4.769e2	1.05	YES	0.000e0	0.00000	0.21407	0.0593
12	Total Tetra-Dioxins	26.05	2.068e4	3.037e4	1.767e3	2.332e3	0.76	NO	4.099e3	1.0395	1.0395	0.0593
13	2,3,7,8-TCDD	26.33	3.558e4	4.412e4	1.986e3	2.782e3	0.71	NO	4.768e3	1.2091	1.2091	0.0593
14	Total Tetra-Dioxins	26.66	7.666e3	8.505e3	4.921e2	6.018e2	0.82	NO	1.094e3	0.27740	0.27740	0.0593
15	Total Tetra-Dioxins	27.22	2.611e3	3.740e3	1.603e2	2.095e2	0.77	NO	3.698e2	0.093791	0.093791	0.0593

Penta-Dioxins

- 5-178	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 7 3	Total Penta-Dioxins	28.77	9.716e4	1.491e5	7.541e3	1.205e4	0.63	NO	1.959e4	6.4769	6.4769	0.0824
2	Total Penta-Dioxins	29.24	3.409e4	5.055e4	1.692e3	2.591e3	0.65	NO	4.283e3	1.4158	1.4158	0.0824
3	Total Penta-Dioxins	29.77	7.453e4	1.166e5	3.983e3	5.833e3	0.68	NO	9.816e3	3.2446	3.2446	0.0824
4	Total Penta-Dioxins	29.95	4.196e4	6.241e4	1.487e3	2.449e3	0.61	NO	3.936e3	1.3011	1.3011	0.0824
5	Total Penta-Dioxins	29.96	3.024e4	4.455e4	1.639e3	2.485e3	0.66	NO	4.125e3	1.3634	1.3634	0.0824
6	Total Penta-Dioxins	30.23	4.407e4	6.639e4	2.599e3	4.608e3	0.56	NO	7.208e3	2.3825	2.3825	0.0824
7	Total Penta-Dioxins	30.55	1.080e4	1.970e4	7.290e2	1.026e3	0.71	NO	1.756e3	0.58027	0.58027	0.0824
8	1,2,3,7,8-PeCDD	31.03	5.218e4	7.825e4	2.420e3	3.662e3	0.66	NO	6.082e3	2.0105	2.0105	0.0824
9	Total Penta-Dioxins	31 11	8.678e3	1.709e4	5.131e2	9.436e2	0.54	NO	1.457e3	0.48151	0.48151	0.0824
10	Total Penta-Dioxins	31.38	1.421e4	2.072e4	7.053e2	1.035e3	0.68	NO	1.741e3	0.57533	0.57533	0.0824

Work Order 2002532 Page 279 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-11B.qld

Last Altered: Printed:

Monday, December 28, 2020 7:57:06 AM Pacific Standard Time Monday, December 28, 2020 7:57:52 AM Pacific Standard Time

Name: 201220R1_11, Date: 20-Dec-2020, Time: 15:54:19, ID: 2002532-09 USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111

Page 2 of 5

Hexa-Dioxins

20-1-1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.69	2.825e6	2.366e6	1.292e5	1.036e5	1.25	NO	2.328e5	103.63	103.63	0.508
2	Total Hexa-Dioxins	33.29	2.481e5	1.886e5	1.160e4	9.345e3	1.24	NO	2.094e4	9.3202	9.3202	0.508
3	Total Hexa-Dioxins	33.59	1.423e6	1.136e6	9.772e4	7.854e4	1.24	NO	1.763e5	78.450	78.450	0.508
4	Total Hexa-Dioxins	33.69	1.123e5	8.776e4	5.524e3	4.320e3	1.28	NO	9.844e3	4.3813	4.3813	0.508
5	1,2,3,4,7,8-HxCDD	34.34	7.532e4	5.646e4	3.864e3	3.009e3	1.28	NO	6.873e3	2.8703	2.8703	0.459
6	1,2,3,6,7,8-HxCDD	34.46	4.590e5	3.454e5	2.392e4	1.860e4	1.29	NO	4.252e4	18.272	18.272	0.496
7	Total Hexa-Dioxins	34.62	7.836e4	5.665e4	4.344e3	3.092e3	1.40	NO	7.436e3	3.3098	3.3098	0.508
8	1,2,3,7,8,9-HxCDD	34.72	1.574e5	1.254e5	8.415e3	6.662e3	1.26	NO	1.508e4	6.2130	6.2130	0.483

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hepta-Dioxins	37.17	1.467e7	1.469e7	9.721e5	9.544e5	1.02	NO	1.927e6	928.60	928.60	2.20
1,2,3,4,6,7,8-HpCDE	38.20	1.451e7	1.420e7	7.540e5	7.408e5	1.02	NO	1.495e6	720.52	720.52	2.20

Work Order 2002532 Page 280 of 725

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed: Monday, December 28, 2020 7:57:06 AM Pacific Standard Time Monday, December 28, 2020 7:57:52 AM Pacific Standard Time

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Tetra-Furans

41-166	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
19-99-97	Total Tetra-Furans	20.26	2.214e4	3.009e4	1.865e3	2.597e3	0.72	NO	4.462e3	0.95847	0.95847	0.0868
2	Total Tetra-Furans	20.81	3.427e4	4.431e4	2.877e3	4.181e3	0.69	NO	7.058e3	1.5162	1.5162	0.0868
3	Total Tetra-Furans	21.60	1.884e5	2.443e5	1.689e4	2.199e4	0.77	NO	3.888e4	8.3524	8.3524	0.0868
4	Total Tetra-Furans	21.97	1.661e4	1.973e4	1.524e3	1.839 e 3	0.83	NO	3.363e3	0.72245	0.72245	0.0868
5	Total Tetra-Furans	22.09	3.649e4	4.922e4	3.856e3	5.224e3	0.74	NO	9.080e3	1.9505	1.9505	0.0868
6	Total Tetra-Furans	22.21	2.245e4	2.530e4	1.392e3	1.664e3	0.84	NO	3.056e3	0.65644	0.65644	0.0868
7	Total Tetra-Furans	22.46	2.010e4	3.185e4	8.813e2	1.259e3	0.70	NO	2.141e3	0.45983	0.45983	0.0868
8	Total Tetra-Furans	22.55	2.389e5	3.248e5	2.129e4	2.907e4	0.73	NO	5.035e4	10.817	10.817	0.0868
9	Total Tetra-Furans	23.01	1.312e5	1.737e5	1.135e4	1.520e4	0.75	NO	2.656e4	5.7051	5.7051	0.0868
10	Total Tetra-Furans	23.14	2.841e4	3.477e4	1.904e3	2.275e3	0.84	NO	4.179e3	0.89775	0.89775	0.0868
11	Total Tetra-Furans	23.36	5.374e4	6.841e4	4.311e3	5.801e3	0.74	NO	1.011e4	2.1723	2.1723	0.0868
12	Total Tetra-Furans	23.81	1.071e4	1.370e4	7.604e2	1.008e3	0.75	NO	1.769e3	0.37997	0.37997	0.0868
13	Total Tetra-Furans	23.91	1.890e4	2.763e4	1.619e3	2.113e3	0.77	NO	3.731e3	0.80155	0.80155	0.0868
14	Total Tetra-Furans	24.09	8.948e4	1.417e5	3.550e3	4.728e3	0.75	NO	0.000e0	0.00000	1.7783	0.0868
15	Total Tetra-Furans	24.13	2.150e5	2.954e5	2.543e4	3.432e4	0.74	NO	0.000e0	0.00000	12.834	0.0868
16	Total Tetra-Furans	24.62	6.452e5	9.218e5	4.762e4	6.430e4	0.74	NO	1.119e5	24.044	24.044	0.0868
17	Total Tetra-Furans	24.94	3.224e4	3.775e4	2.228e3	2.880e3	0.77	NO	5.108e3	1.0972	1.0972	0.0868
18	Total Tetra-Furans	25.06	2.205e4	2.866e4	1.396e3	1.790e3	0.78	NO	3.186e3	0.68436	0.68436	0.0868
19	Total Tetra-Furans	25.15	7.929e3	7.603e3	4.560e2	5.355e2	0.85	NO	9.915e2	0.21299	0.21299	0.0868
20	Total Tetra-Furans	25.34	1.521e4	1.958e4	9.957e2	1.306e3	0.76	NO	2.301e3	0.49440	0.49440	0.0868
21	Total Tetra-Furans	25.52	2.016e5	2.628e5	1.292e4	1.740e4	0.74	NO	3.032e4	6.5135	6.5135	0.0868
22	2,3,7,8-TCDF	25.64	8.846e5	1.204e6	5.679e4	7.611 e4	0.75	NO	1.329e5	28.551	28.551	0.0868
23	Total Tetra-Furans	25.89	2.195e4	2.281e4	8.773e2	1.209e3	0.73	NO	2.086e3	0.44822	0.44822	0.0868
24	Total Tetra-Furans	25.95	6.539e4	7.304e4	3.990e3	5.020e3	0.79	NO	9.011e3	1.9356	1.9356	0.0868
25	Total Tetra-Furans	26.22	1.947e4	2.330e4	1.017e3	1.347e3	0.76	NO	2.364e3	0.50781	0.50781	0.0868
26	Total Tetra-Furans	26.97	6.147e3	7.106e3	3.554e2	4.067e2	0.87	NO	7.621e2	0.16371	0.16371	0.0868
27	Total Tetra-Furans	27.15	3.834e4	4.467e4	2.311e3	3.077e3	0.75	NO	5.388e3	1.1574	1.1574	0.0868
28	Total Tetra-Furans	27.35	1.726e4	1.221e4	1.050e3	6.180e2	1.70	YES	0.000e0	0.00000	0.23500	0.0868
29	Total Tetra-Furans	27.55	7.030e4	9.892e4	4.352e3	5.750e3	0.76	NO	1.010e4	2.1699	2.1699	0.0868

Work Order 2002532 Page 281 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-11B.qld

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Name: 201220R1_11, Date: 20-Dec-2020, Time: 15:54:19, ID: 2002532-09 USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111

Penta-Furans function 1

24.95 T	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.15	1.650e6	1.005e6	9.523e4	5.831e4	1.63	NO	1.535e5	36.351	36.351	0.0283

Penta-Furans

Albert Co.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.61	6.942e4	5.540e4	4.490e3	3.327e3	1.35	NO	7.817e3	1.8506	1.8506	0.229
2	Total Penta-Furans	28.77	1.341e6	9.051e5	9.258e4	5.862e4	1.58	NO	1.512e5	35.797	35.797	0.229
3	Total Penta-Furans	29.22	2.038e4	1.178e4	1.339e3	7.970e2	1.68	NO	2.136e3	0.50578	0.50578	0.229
4	Total Penta-Furans	29.41	4.971e5	2.870e5	2.515e4	1.577e4	1.59	NO	4.092e4	9.6877	9.6877	0.229
5	Total Penta-Furans	29.56	2.229e5	1.333e5	1.190e4	7.444e3	1.60	NO	1.934e4	4.5788	4.5788	0.229
6	1,2,3,7,8-PeCDF	29.77	2.153e6	1.336e6	1.052e5	6.709e4	1.57	NO	1.722e5	40.225	40.225	0.224
7	Total Penta-Furans	30.02	6.604e5	4.322e5	3.332e4	2.137e4	1.56	NO	5.469e4	12.948	12.948	0.229
8	Total Penta-Furans	30 64	2.921e4	1.923e4	1.339e3	7.967e2	1.68	NO	2.135e3	0.50555	0.50555	0.229
9	2,3,4,7,8-PeCDF	30.84	1.407e6	9.081e5	6.893e4	4.481e4	1.54	NO	1.137e5	24.554	24.554	0.211
10	Total Penta-Furans	31.74	6.053e4	3.313e4	2.818e3	1.654e3	1.70	NO	4.472e3	1.0588	1.0588	0.229

Hexa-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.16	4.683e5	4.002e5	2.164e4	1.744e4	1.24	NO	3.909e4	13.644	13.644	0.218
2	Total Hexa-Furans	32.33	1.393e6	1.149e6	6.589e4	5.393e4	1.22	NO	1.198e5	41.824	41.824	0.218
3	Total Hexa-Furans	32.74	2.215e4	1.665e4	1.103e3	8.572e2	1.29	NO	1.960e3	0.68425	0.68425	0.218
4	Total Hexa-Furans	32.96	1.843e6	1.478e6	8.747e4	7.115e4	1.23	NO	1.586e5	55.370	55.370	0.218
5	Total Hexa-Furans	33.30	2.956e4	3.246e4	1.605e3	1.433e3	1.12	NO	3.038e3	1.0605	1.0605	0.218
6	1,2,3,4,7,8-HxCDF	33.44	2.241e6	1.788e6	1.148e5	9.263e4	1.24	NO	2.074e5	71.463	71.463	0.209
7	1,2,3,6,7,8-HxCDF	33.56	6.304e5	5.169e5	3.207e4	2.473e4	1.30	NO	5.680e4	18.912	18.912	0.195
8	Total Hexa-Furans	33.88	1.240e4	1.124e4	7.452e2	6.883e2	1.08	NO	1.434e3	0.50039	0.50039	0.218
9	2,3,4,6,7,8-HxCDF	34.24	2.010e5	1.536e5	1.171e4	9.500e3	1.23	NO	2.121e4	7.5237	7.5237	0.217
10	1,2,3,7,8,9-HxCDF	35.23	9.989e4	7.852e4	1.780e3	1.502e3	1.18	NO	3.282e3	1.2572	1.2572	0.265
11	Total Hexa-Furans	35.25	1.852e5	1.460e5	9.388e3	7.610e3	1.23	NO	1.700e4	5.9334	5.9334	0.218

Work Order 2002532 Page 282 of 725

Quantify Totals Report MassLynx 4.1 SCN815

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Dataset:

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Page 5 of 5

Hepta-Furans

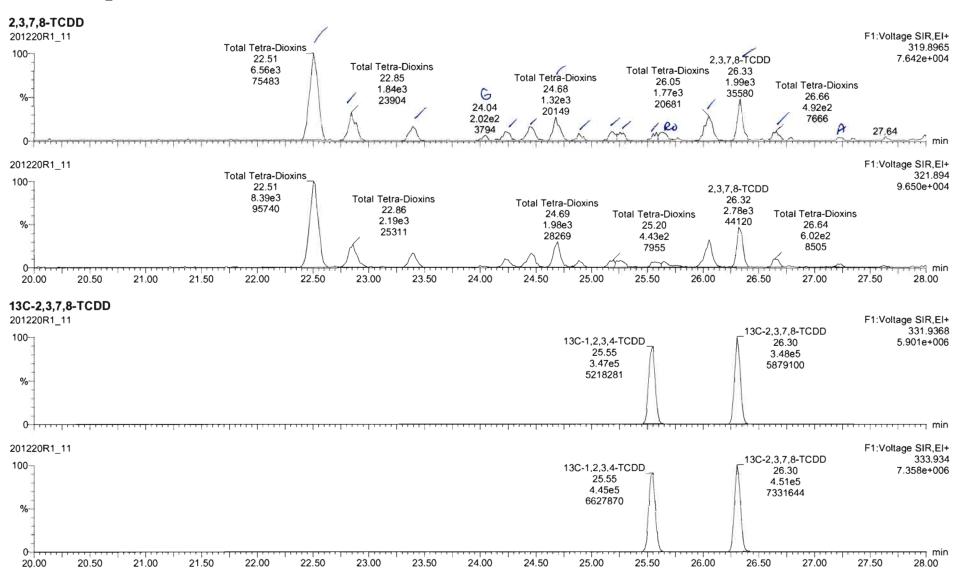
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1	1,2,3,4,6,7,8-HpCDF	36.80	1.749e6	1.729e6	1.070e5	1.060e5	1.01	NO	2.130e5	99.375	99.375	0.410
2	Total Hepta-Furans	37.27	1.499e4	1.582e4	1.619e3	1.612e3	1.00	NO	3.230e3	1.6336	1.6336	0.390
3	Total Hepta-Furans	37.52	2.406e6	2.365e6	1.470e5	1.465e5	1.00	NO	2.935e5	148.44	148.44	0.390
4	1,2,3,4,7,8,9-HpCDF	38.82	2.909e5	2.908e5	1.409e4	1.387e4	1.02	NO	2.796e4	13.774	13.774	0.326

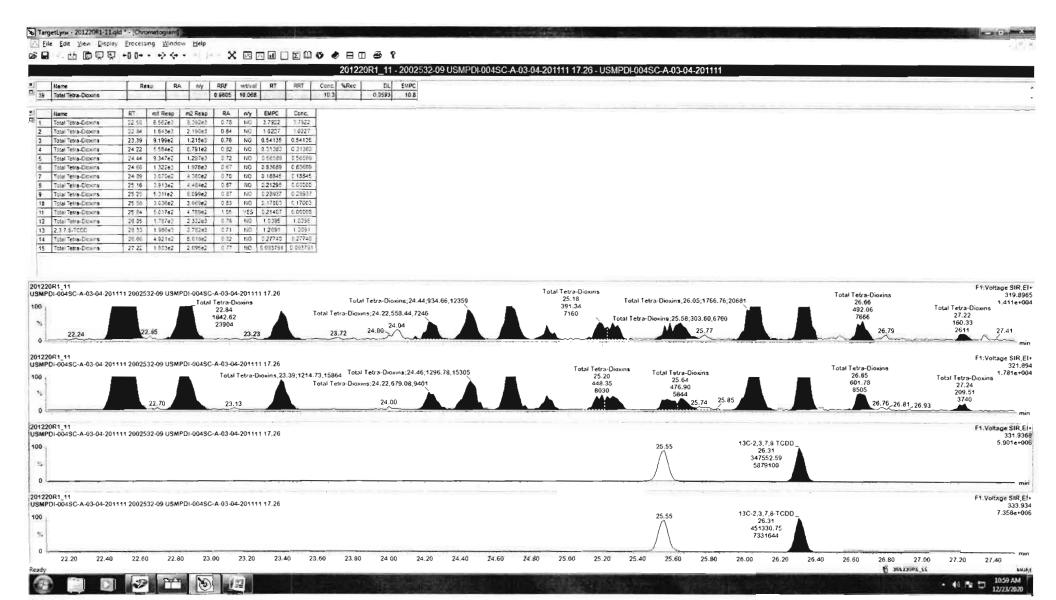
Work Order 2002532 Page 283 of 725

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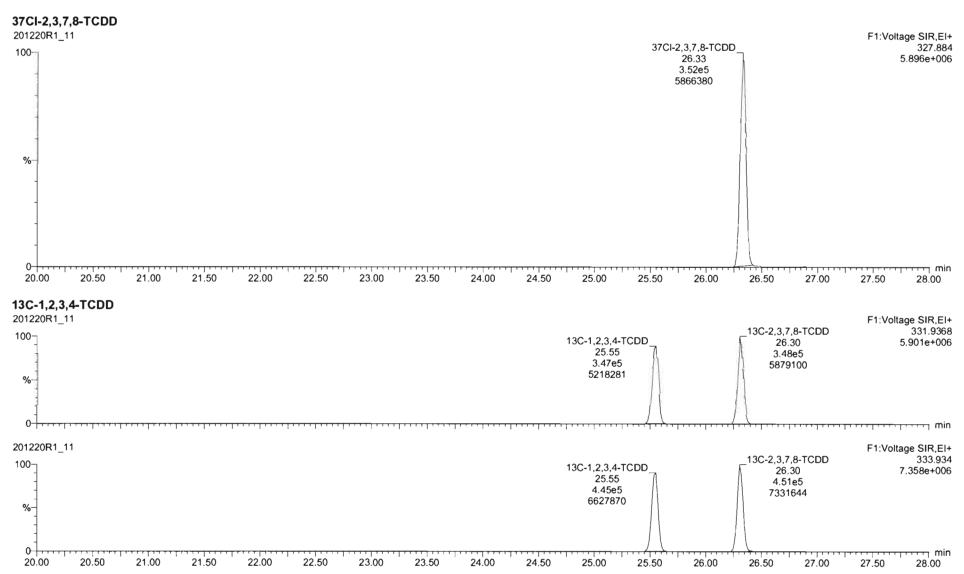




Work Order 2002532 Page 285 of 725

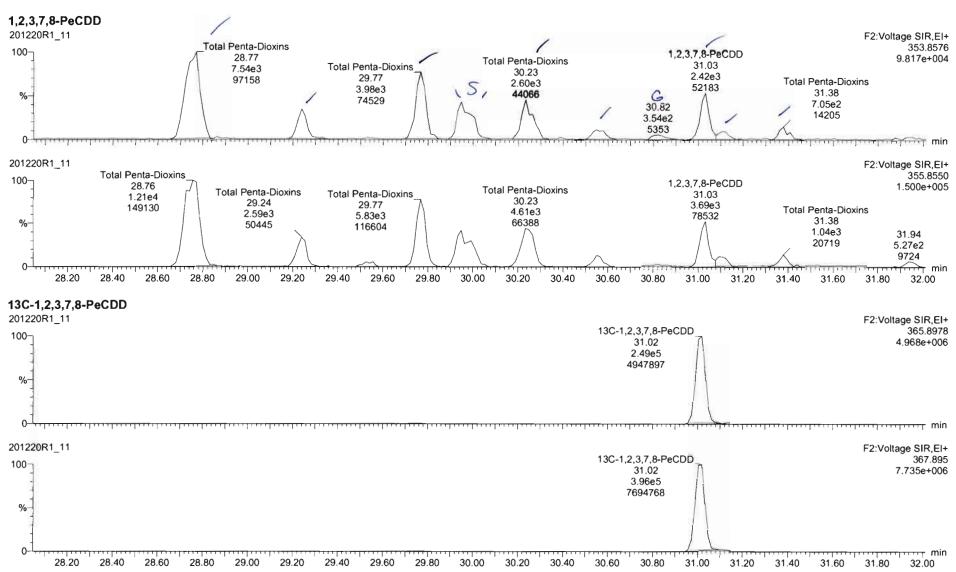
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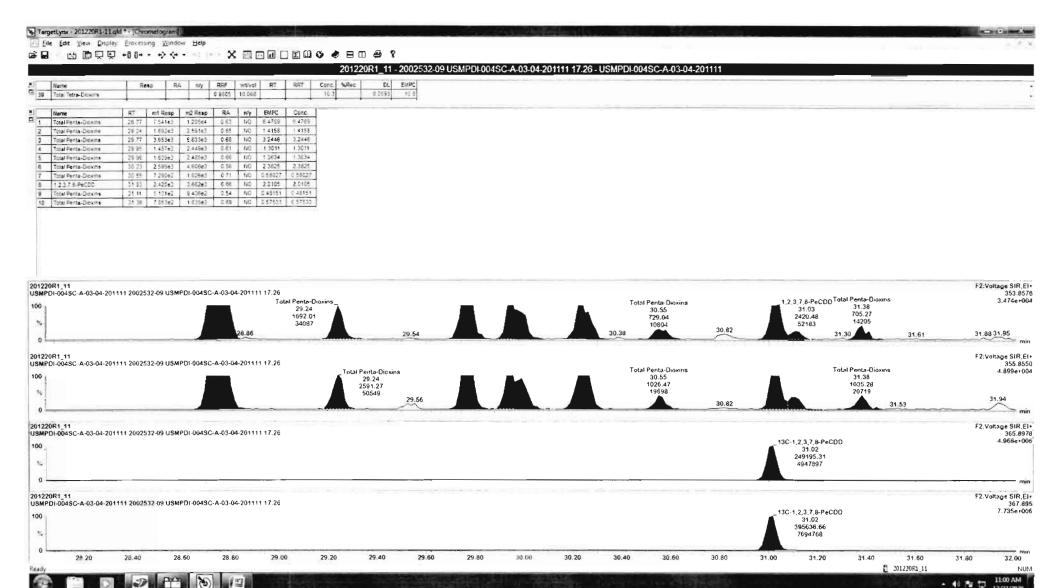
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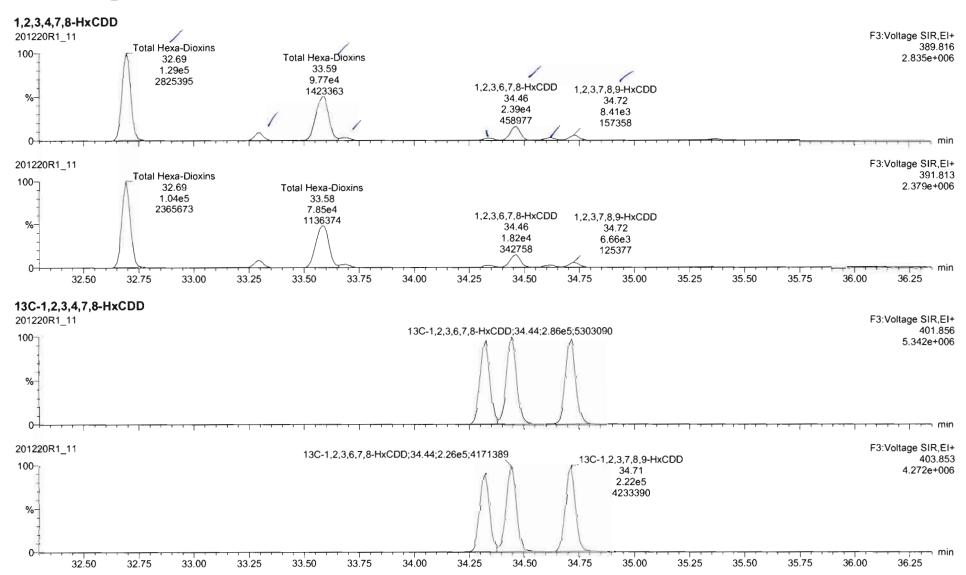
Work Order 2002532 Page 288 of 725

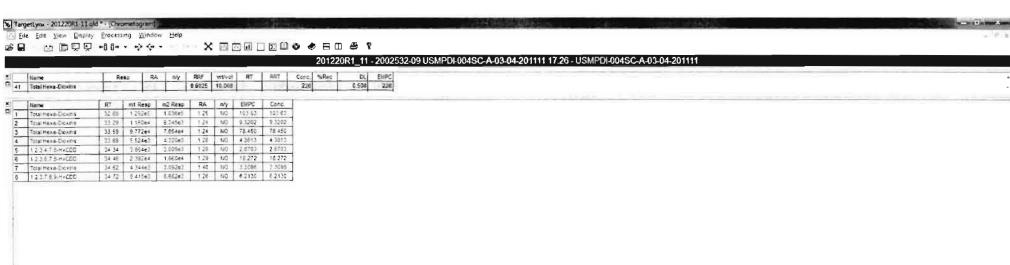
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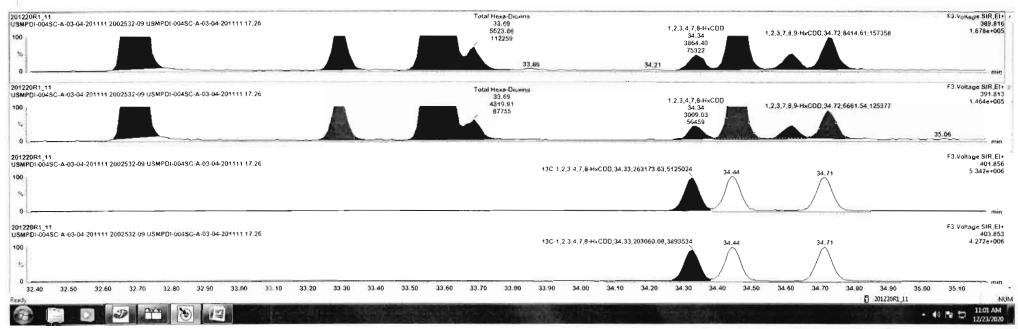
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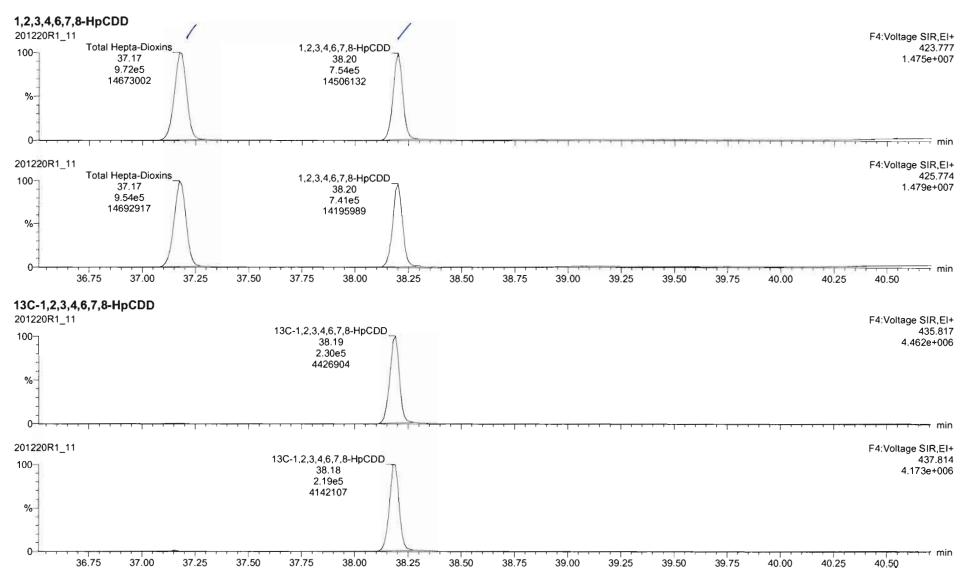
Work Order 2002532 Page 290 of 725

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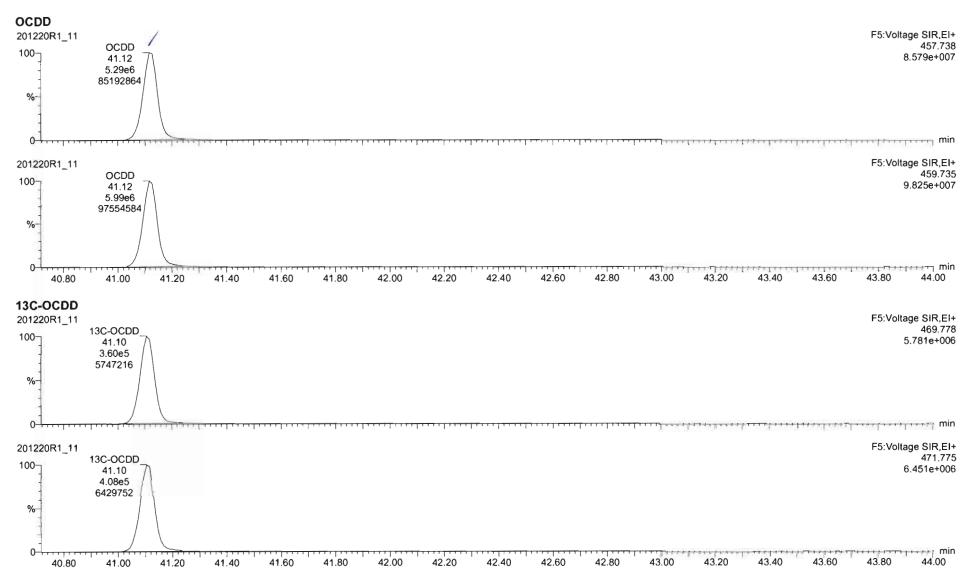
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Work Order 2002532 Page 291 of 725

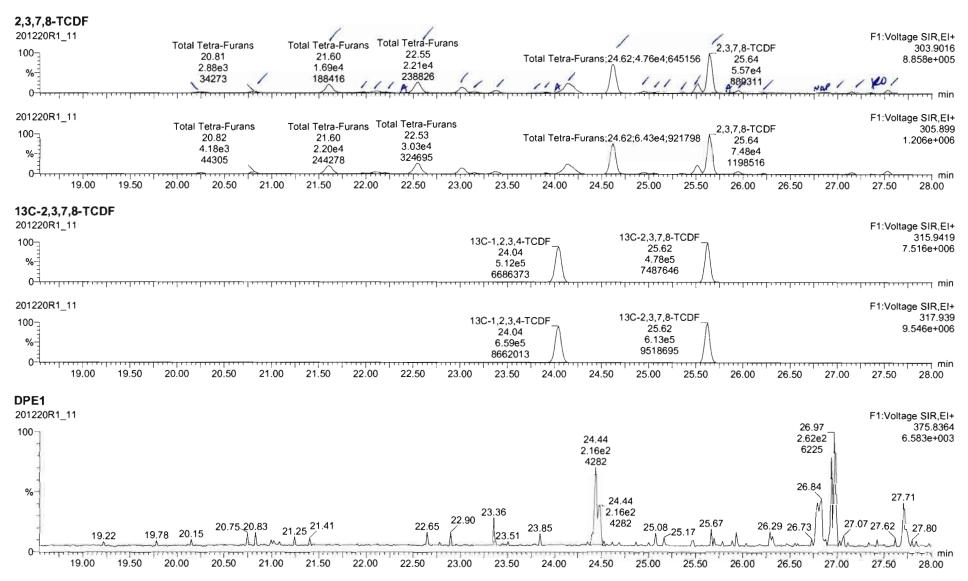
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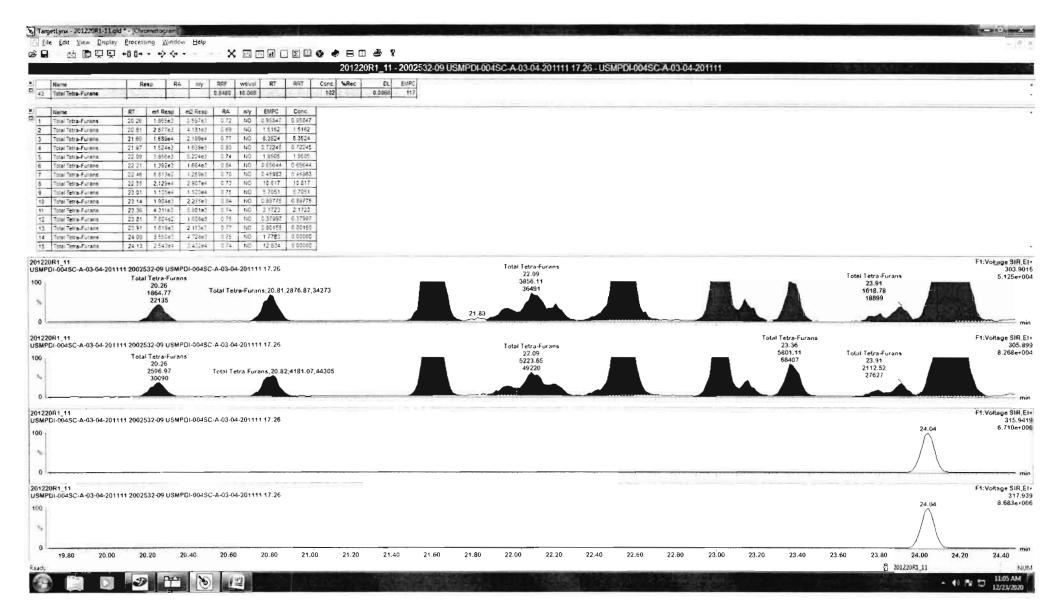
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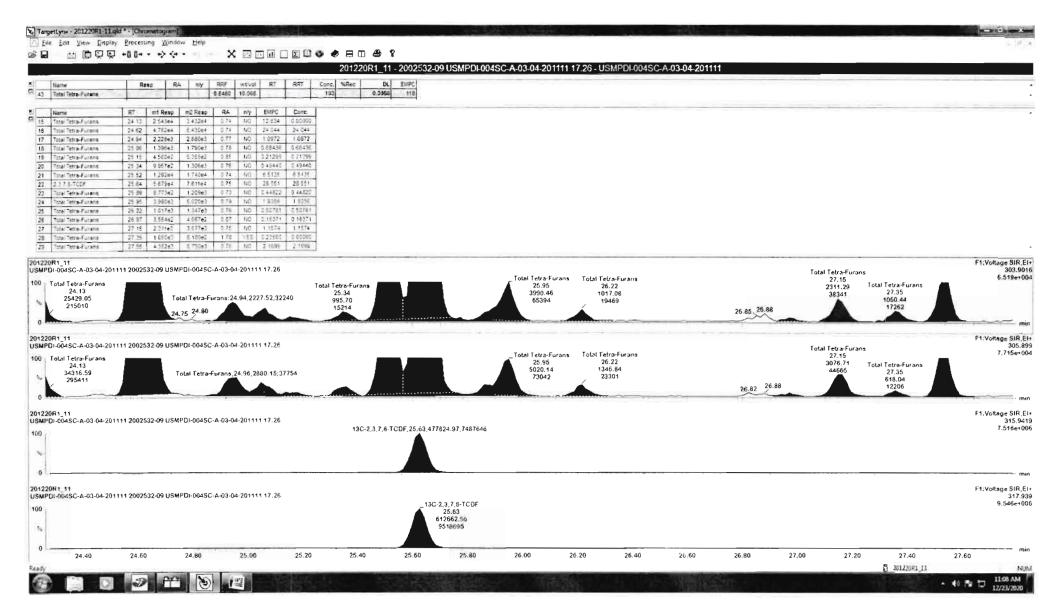
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Work Order 2002532 Page 294 of 725

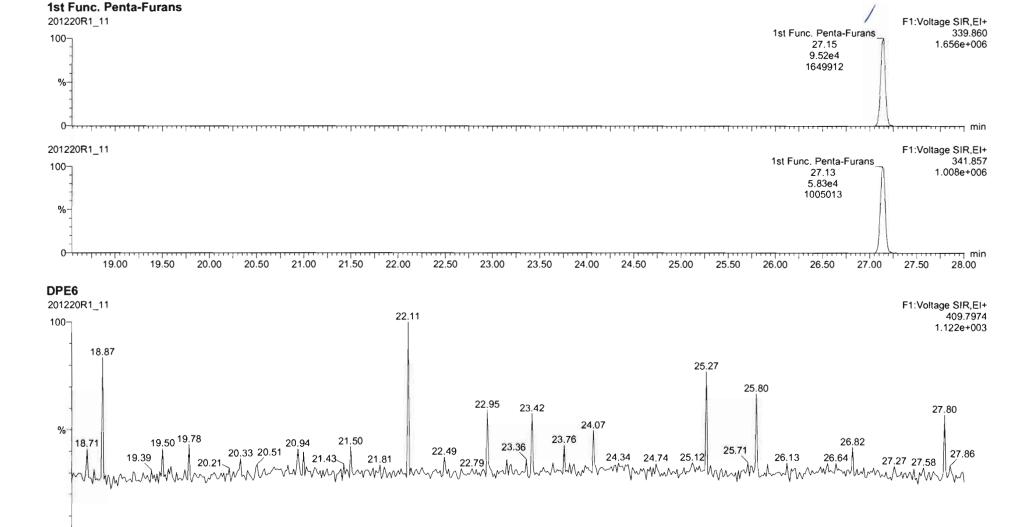


Work Order 2002532 Page 295 of 725

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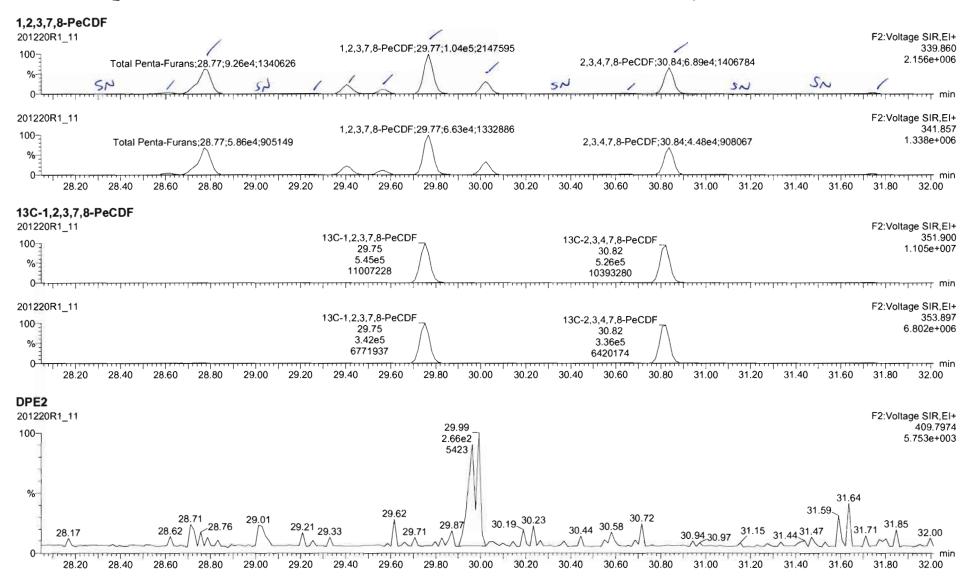
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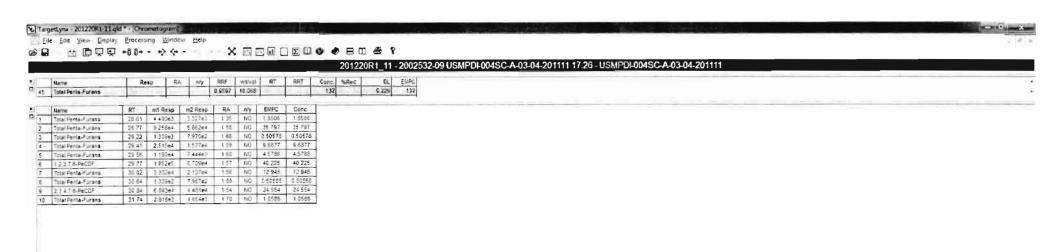
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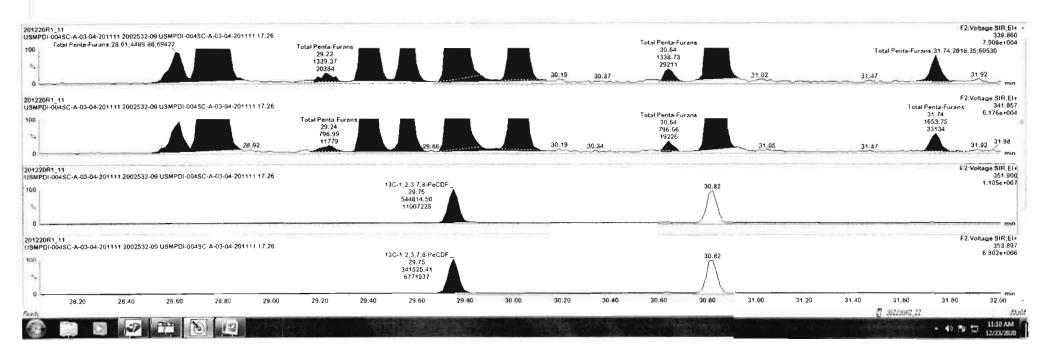
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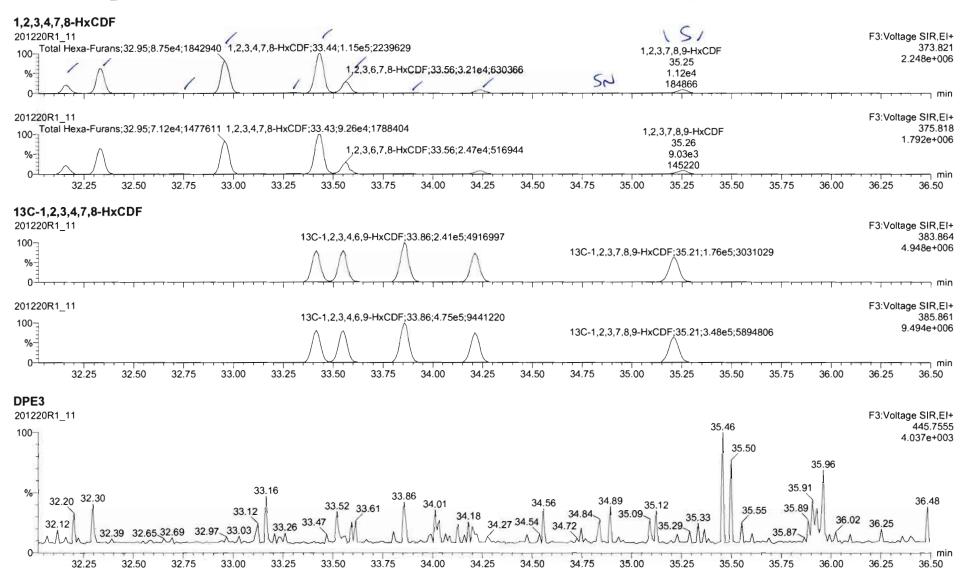


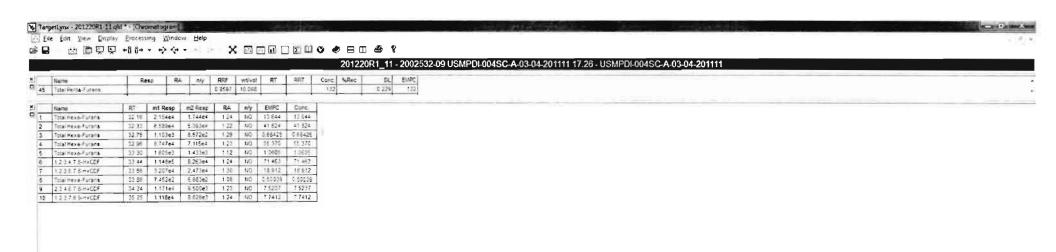
Work Order 2002532 Page 298 of 725

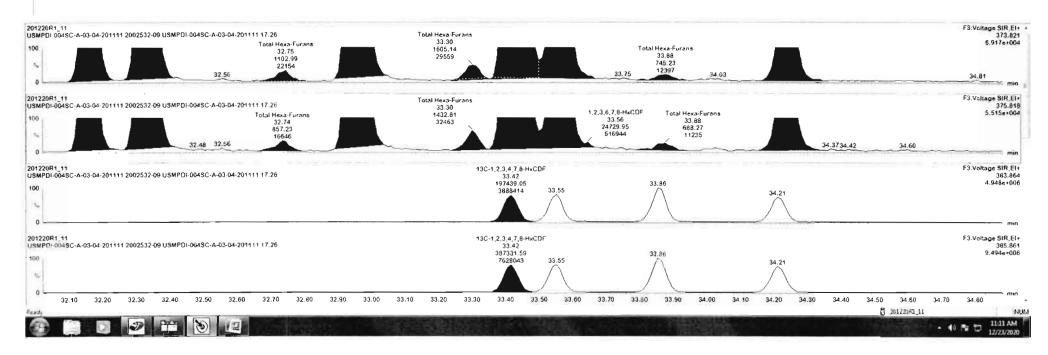
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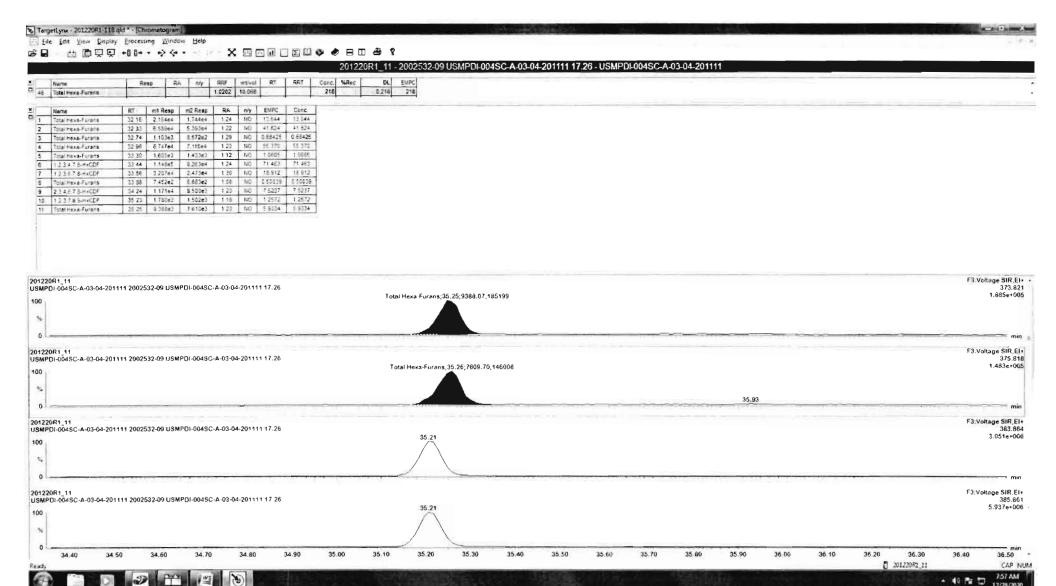
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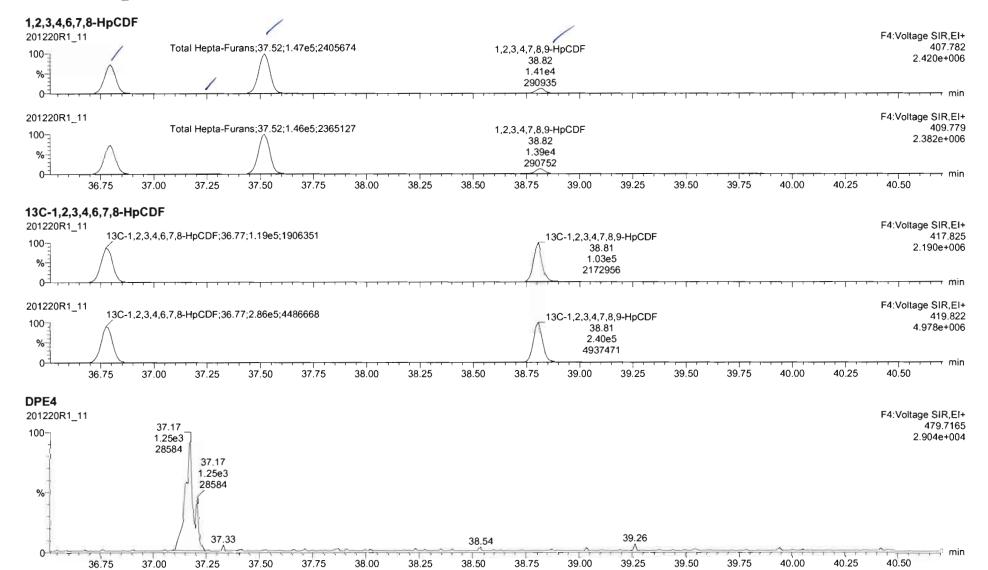
Work Order 2002532 Page 300 of 725

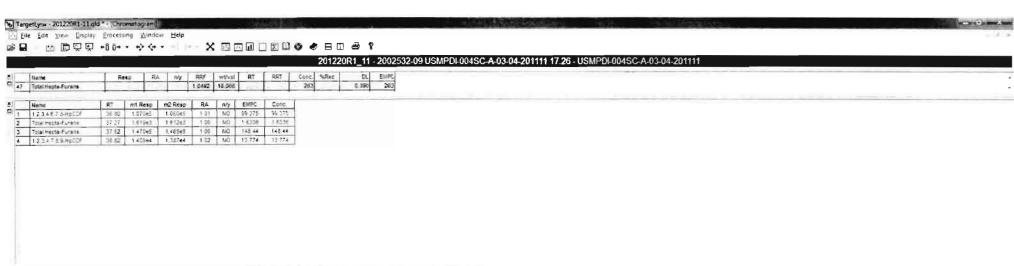


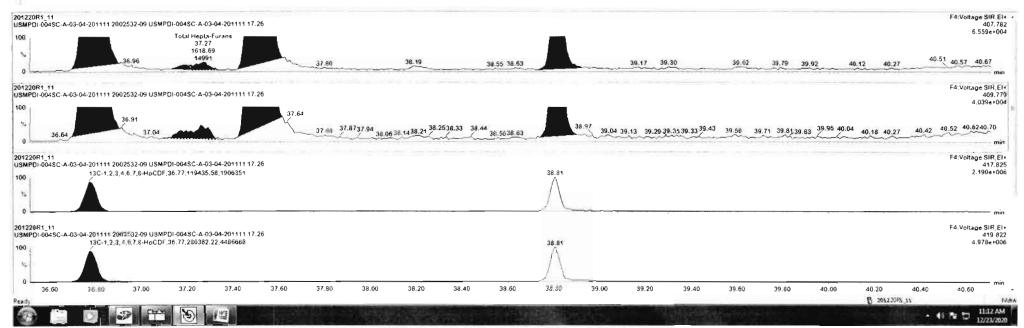
Work Order 2002532 Page 301 of 725

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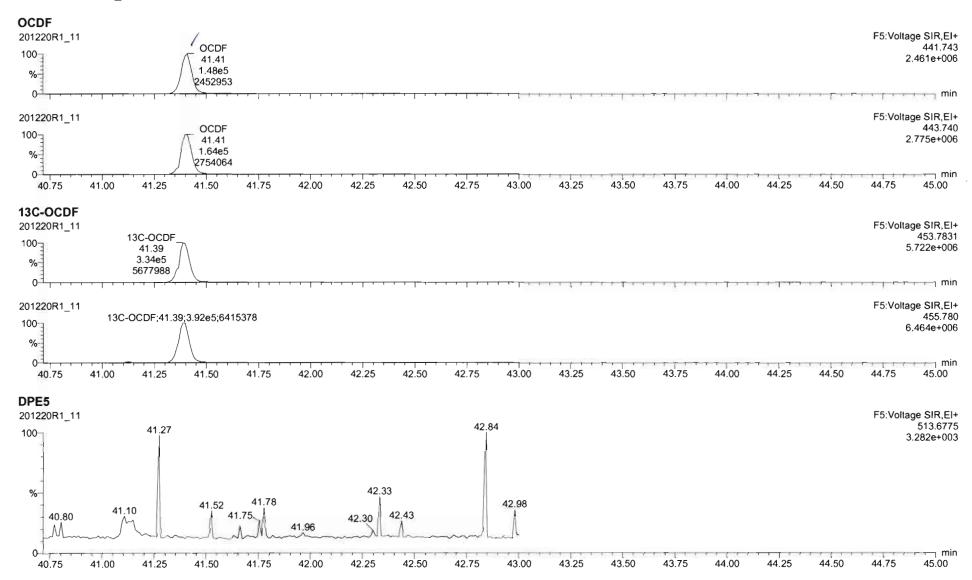




Work Order 2002532 Page 303 of 725

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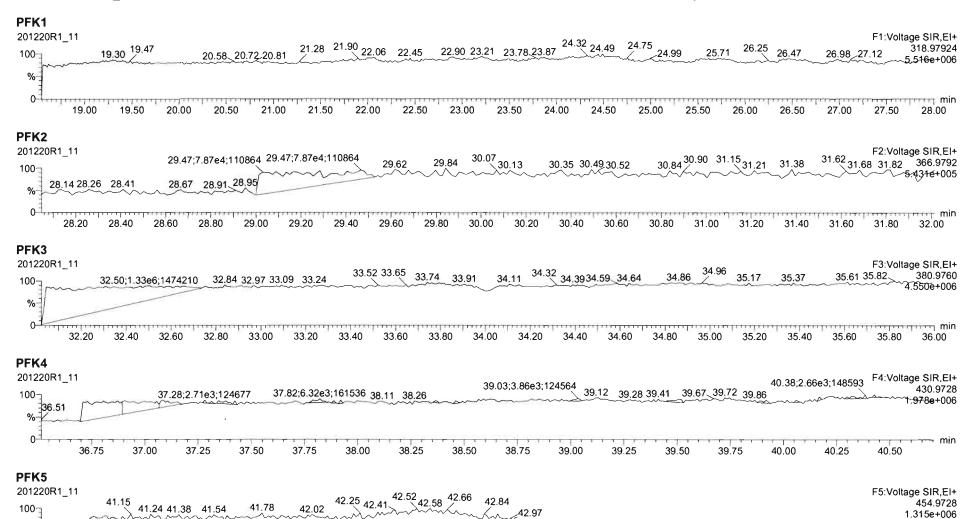
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1_11, Date: 20-Dec-2020, Time: 15:54:19, ID: 2002532-09 USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111



Work Order 2002532

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Vista Analytical Laboratory

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Page 1 of 1

Dataset:

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U:\VG12.PRO\Results\201221R1\201221R1-12.qld

Last Altered:

Tuesday, December 22, 2020 6:59:15 AM Pacific Standard Time Wednesday, December 23, 2020 11:16:38 AM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

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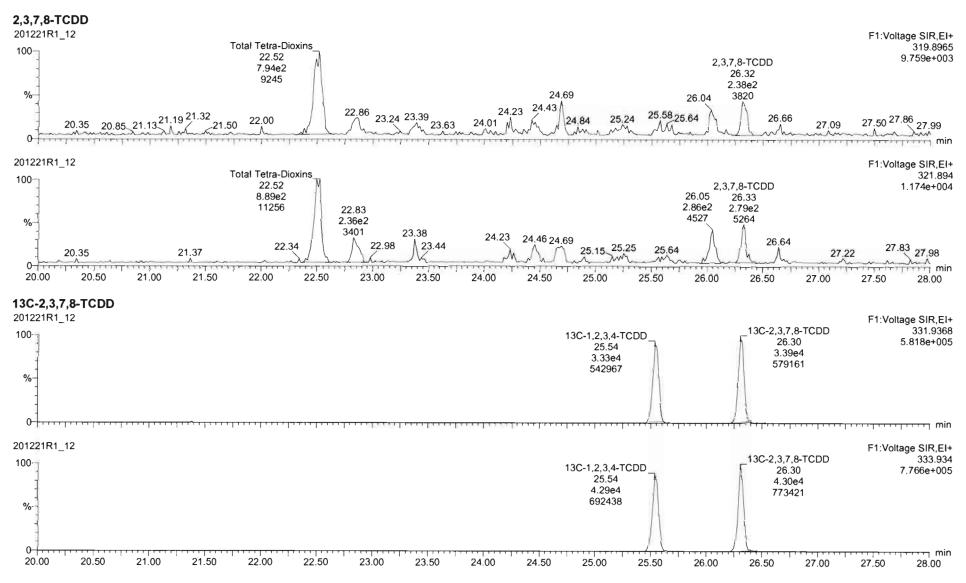
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VIET II CONTRACTOR	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	7 OCDD	9.19e5	0.88	NO	0.866	10.068	41.113	41.12	1.000	1.000	7744.1		8.90	7740
2	24 13C-OCDD	5.45 e 4	0.91	NO	0.496	10.068	41.154	41.10	1.216	1.214	334.56	84.2	2.91	
3	35 37CI-2,3,7,8-TCDD	3.31e4			1.22	10.068	26.302	26.33	1.030	1.031	71.051	89.4	0.128	
4	36 13C-1,2,3,4-TCDD	7.61e4	0.78	NO	1.00	10.068	25.640	25.54	1.000	1.000	198.64	100	0.934	
5	37 13C-1,2,3,4-TCDF	1.21e5	0.76	NO	1.00	10.068	24.130	24.03	1.000	1.000	198.64	100	1.27	
6	38 13C-1,2,3,4,6,9-HxCDF	6. 52e4	0.48	NO	1.00	10.068	33.920	33.85	1.000	1.000	198.64	100	1.48	

Work Order 2002532 Page 306 of 725

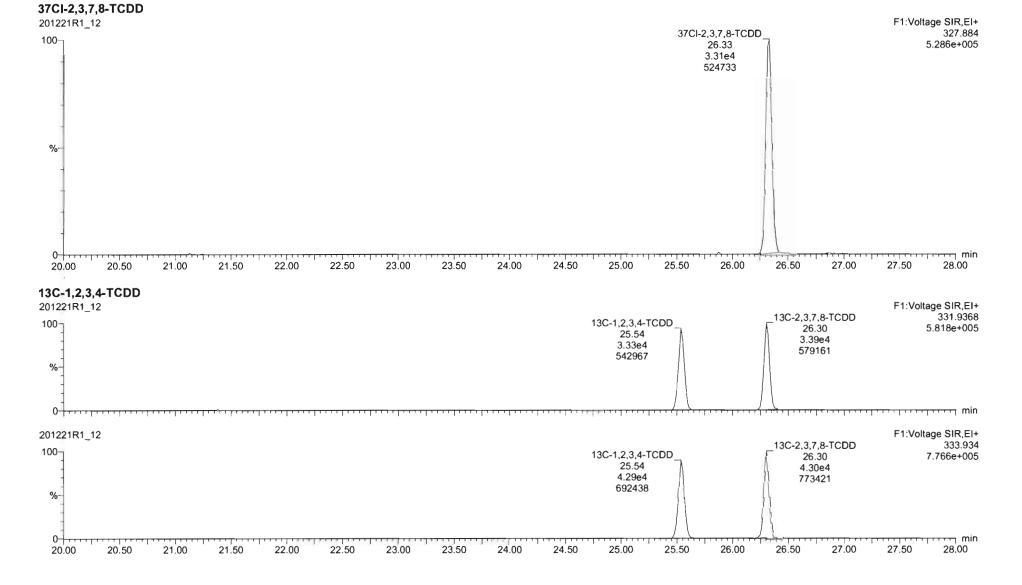
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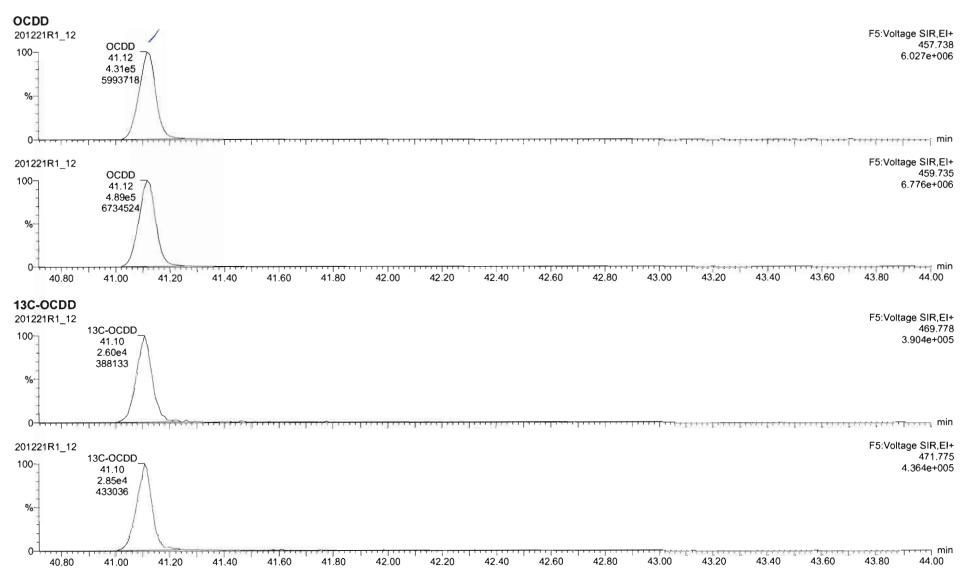
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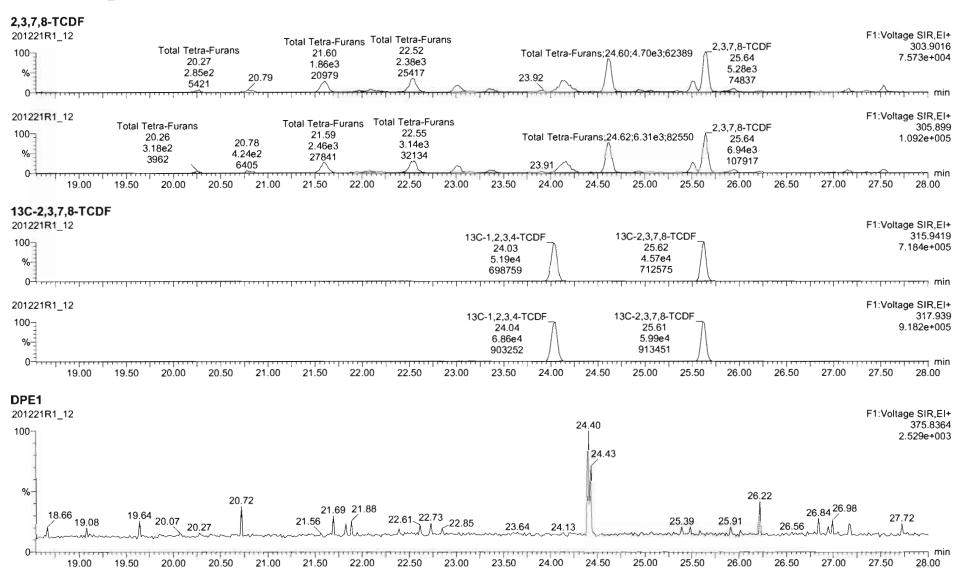
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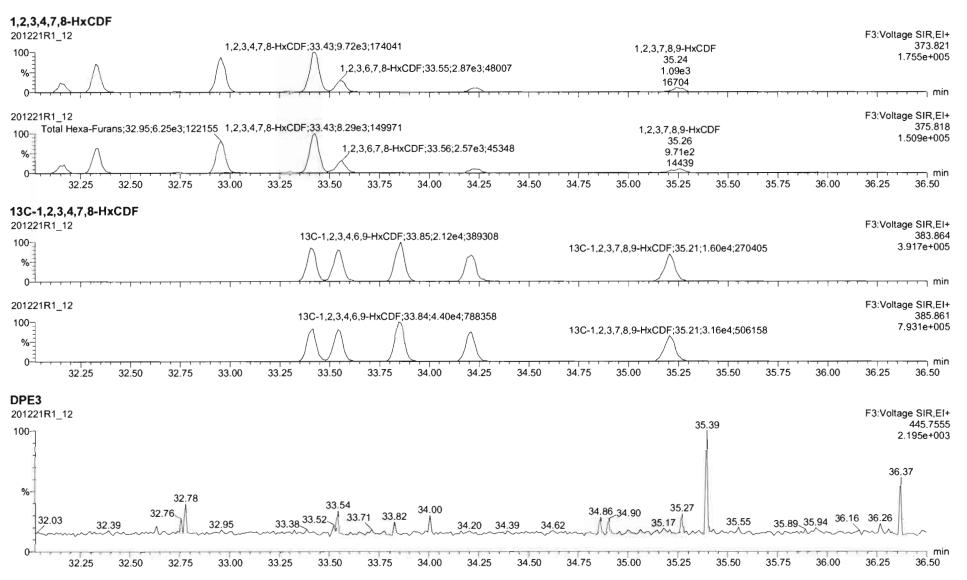


Quantify Sample Report Vista Analytical Laboratory

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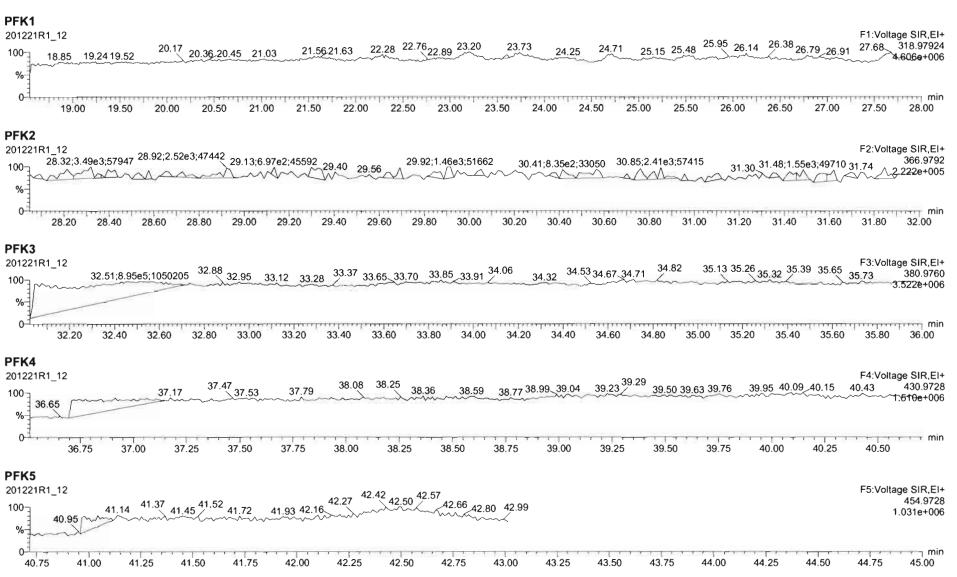
Quantify Sample Report Vista Analytical Laboratory

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Name: 201221R1_12, Date: 21-Dec-2020, Time: 16:16:42, ID: 2002532-09@10X USMPDI-004SC-A-03-04-201111 17.26, Description: USMPDI-004SC-A-03-04-201111



Work Order 2002532

Page 1 of 2

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Printed:

U:\VG12.PRO\Results\201220R1\201220R1-12.qld

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Wednesday, December 23, 2020 12:04:16 PM Pacific Standard Time Wednesday, December 23, 2020 12:04:34 PM Pacific Standard Time

_GRB_12/23/2020_

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

3000	# 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	0.980	10.096	26.337		1.001			0	.0602	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.096	31.048		1.001				0.140	
3	3 1,2,3,4,7,8-Hx C DD	3.87e2	1.23	NO	1.02	10.096	34.336	34.33 >	1.001	1.000	0.22576		0.257	0.226
4	4 1,2,3,6,7,8-HxCDD	2.42e3	1.10	NO	0.902	10.096	34.462	34.45	1.001	1.000	1.4594		0.266	1.46
5	5 1,2,3,7,8,9-HxCDD	8.05e2	1.21	NO	0.954	10.096	34.723	34.74	1.000	1.001	0.45955		0.269	0.460
6	6 1,2,3,4,6,7,8-HpCDD	1.17e5	1.01	NO	0.918	10.096	38.189	38.20	1.000	1.001	80.334		0.831	80.3
7	7 OCDD	6.65e5	0.88	NO	0.866	10.096	41.102	41.12	1.000	1.001	636.58		0.866	637
8	8 2,3,7,8-TCDF	2.52e4	0.73	NO	0.848	10.096	25.628	25.64	1.000	1.001	7.9309	0	.0750	7.93
9	9 1,2,3,7,8-PeCDF	5.60e4	1.55	NO	0.960	10.096	29.754	29.77	1.000	1.001	18.426		0.122	18.4
10	10 2,3,4,7,8-PeCDF	2.82e4	1.53	NO	1.07	10.096	30.844	30.84	1.001	1.000	8.5445		0.106	8.54
11	11 1,2,3,4,7,8-HxCDF	4.22e4	1.22	NO	0.986	10.096	33.425	33.43	1.000	1.000	21.387		0.117	21.4
12	12 1,2,3,6,7,8-HxCDF	8.96e3	1.19	NO	1.04	10.096	33.561	33.56	1.001	1,001	4.4518		0.121	4.45
13	13 2.3,4,6,7,8-HxCDF	2.58e3	1.19	NO	1.02	10.096	34.232	34.23	1.001	1.001	1.2446		0.119	1.24
14	14 1,2,3,7,8,9-HxCDF	1.21e3	1.27	NO	0.991	10.096	35.217	35,24/	1.000	1.001	0.64243		0.146	0.642
15	15 1,2,3,4,6,7,8-HpCDF	1.05e4	0.98	NO	1.05	10.096	36.792	36.78	1.000	1.000	6.8250		0.177	6.83
16	16 1,2,3,4,7,8,9-HpCDF	2.37e3	0.97	NO	1.18	10.096	38.817	38.83	1.000	1.001	1.6108		0.151	1.61
17	17 OCDF	1.78e4	0.88	NO	0.896	10.096	41.395	41.40	1.000	1.000	15.399		0.209	15.4
18	18 13C-2,3,7,8-TCDD	5.65e5	0.77	NO	1.06	10.096	26.323	26.31	1.030	1.030	132.77	67.0	0.139	
19	19 13C-1,2,3,7,8-PeCDD	4.48e5	0.63	NO	0.785	10.096	31.157	31.02	1.219	1.214	141.74	71.6	0.169	
20	20 13C-1,2,3,4,7,8-HxCDD	3.33e5	1.27	NO	0.621	10.096	34.315	34.31	1.014	1.014	144.18	72.8	0.322	
21	21 13C-1,2,3,6,7,8-HxCDD	3.65e5	1.27	NO	0.734	10.096	34.437	34.44	1.017	1.017	133.68	67.5	0.272	
22	22 13C-1,2,3,7,8,9-HxCDD	3.64e5	1.26	NO	0.723	10.096	34.722	34.71	1.026	1.025	135.33	68.3	0.276	- 1
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.16e5	1 10	NO	0.568	10.096	38.219	38.18	1.129	1.128	149.52	75.5	0.716	
24	24 13C-OCDD	4.78e5	0.89	NO	0.496	10.096	41.154	41.09	1.216	1.214	259.50	65.5	0.647	
25	25 13C-2,3,7,8-TCDF	7.43e5	0.77	NO	0.919	10.096	25.623	25.63	1.003	1.003	134.69	68.0	0.201	
26	26 13C-1.2.3.7.8-PeCDF	6.27e5	1.64	NO	0.715	10.096	29.869	29.75	1.169	1.164	146.09	73.7	0.325	
27	27 13C-2,3,4 7,8-PeCDF	6.13e5	1.60	NO	0.689	10.096	30.955	30.82	1.212	1.206	148.47	74.9	0.337	
28	28 13C-1,2,3,4,7,8-HxCDF	3.97e5	0.50	NO	0.873	10.096	33.422	33.42	0.987	0.987	122.17	61.7	0.422	
29	29 13C-1,2,3,6,7,8-HxCDF	3.84e5	0.51	NO	0 933	10.096	33.550	33.54	0.991	0.991	110.68	55.9	0.395	
30	30 13C-2,3,4,6,7,8-HxCDF	4.03e5	0.51	NO	0.843	10.096	34.217	34.21/	1.011	1.011	128.50	64.9	0.438	
31	31 13C-1,2,3,7,8,9-HxCDF	3.75e5	0.51	NO	0.780	10.096	35.216	35.21	1.040	1.040	129.37	65.3	0.473	

Work Order 2002532 Page 313 of 725

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-12.qld

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250	# 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	2.89e5	0.41	NO	0.726	10.096	36.790	36.77	1.087	1.086	107.08	54.1	0.449	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.47e5	0.43	NO	0.491	10.096	38.798	38.81	1.146	1.146	135.54	68.4	0.665	
34	34 13C-OCDF	5.11e5	0.88	NO	0.565	10.096	41.371	41.39	1.222	1.222	242.95	61.3	0.506	
35	35 37CI-2,3,7,8-TCDD	3.62e5			1.22	10.096	26.318	26.33	1.030	1.031	73.843	93.2	0.0352	
36	36 13C-1,2,3,4-TCDD	7.98e5	0.78	NO	1.00	10.096	25.640	25.55	1.000	1.000	198.10	100	0.147	
37	37 13C-1,2,3,4-TCDF	1.19e6	0.79	NO	1.00	10.096	24.130	24.04	1.000	1.000	198.10	100	0.184	
38	38 13C-1,2,3,4,6,9-HxCDF	7.36e5	0.51	NO	1.00	10.096	33.920	33.85	1.000	1.000	198.10	100	0.369	
39	39 Total Tetra-Dioxins				0.980	10.096	24.620		0.000		0.16788		0.0602	0.168
40	40 Total Penta-Dioxins				0.932	10.096	29.960		0.000		0.54437		0.140	1.01
41	41 Total Hexa-Dioxins				0.902	10.096	33.635		0.000		23.314		0.280	23.3
42	42 Total Hepta-Dioxins				0.918	10.096	37.640		0.000		196.49		0.831	196
43	43 Total Tetra-Furans				0.848	10.096	23.610		0.000		17.911		0.0750	17.9
44	44 1st Func. Penta-Furans				0.960	10.096	26.930		0.000		1.6766		0.0226	1.68
45	45 Total Penta-Furans				0.960	10.096	29.275		0.000		42.812		0.120	43.2
46	46 Total Hexa-Furans				1.02	10.096	33.555		0.000		35.951		0.124	36.0
47	47 Total Hepta-Furans				1.05	10.096	37.835		0.000		17.809		0.174	17.8

Work Order 2002532 Page 314 of 725

Page 1 of 3

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Dataset:

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U:\VG12.PRO\Results\201220R1\201220R1-12.qld

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Wednesday, December 23, 2020 12:04:16 PM Pacific Standard Time Wednesday, December 23, 2020 12:04:34 PM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

Tetra-Dioxins

(UNITED BY	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1-57 1 20 1	Total Tetra-Dioxins	22.50	3.592e3	4.516e3	2.051e2	2.640e2	0.78	NO	4.691e2	0.16788	0.16788	0.0602

Penta-Dioxins

U 10 1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.74	4.896e3	6.855e3	2.516e2	4.279e2	0.59	NO	6.795e2	0.32238	0.32238	0.140
2	Total Penta-Dioxins	29.22	3.810e3	4.303e3	1.729e2	2.364e2	0.73	YES	0.000e0	0.00000	0.18284	0.140
3	Total Penta-Dioxins	29.75	6.513e3	9.059e3	3.829e2	3.657e2	1.05	YES	0.000e0	0.00000	0.28282	0.140
4	Total Penta-Dioxins	30.26	2.862e3	4.421e3	1.752e2	2.927e2	0.60	NO	4.679e2	0.22200	0.22200	0.140

Hexa-Dioxins

William Control	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.69	2.109e5	1.576e5	9.882e3	7.775e3	1.27	NO	1.766e4	10.961	10.961	0.280
2	Total Hexa-Dioxins	33.30	1.883e4	1.633e4	1.017e3	8.451e2	1.20	NO	1.862e3	1.1559	1.1559	0.280
3	Total Hexa-Dioxins	33.58	9.586e4	7.981e4	7.045e3	5.337e3	1.32	NO	1.238e4	7.6864	7.6864	0.280
4	Total Hexa-Dioxins	33.69	1.553e4	8.083e3	6.266e2	4.941e2	1.27	NO	1.121e3	0.69575	0.69575	0.280
5	1,2,3,4,7,8-HxCDD	34.33	4.762e3	3.197e3	2.129e2	1.737 e 2	1.23	NO	3.867e2	0.22576	0.22576	0.257
6	1,2,3,6,7,8-HxCDD	34.45	2.351e4	1.901e4	1.273e3	1.152e3	1.10	NO	2.425e3	1.4594	1.4594	0.266
7	Total Hexa-Dioxins	34.62	8.307e3	9.207e3	5.593e2	5.201e2	1.08	NO	1.079e3	0.67007	0.67007	0.280
8	1,2,3,7,8,9-HxCDD	34.74	7.629e3	7.513 e 3	4.404e2	3.642e2	1.21	NO	8.046e2	0.45955	0.45955	0.269

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hepta-Dioxins	37.17	1.328e6	1.264e6	8.614e4	8.370e4	1.03	NO	1.698e5	116.15	116.15	0.831
2 1,2,3,4,6,7,8-HpCDD	38.20	1.074e6	1.084e6	5.915e4	5.832e4	1.01	NO	1.175e5	80.334	80.334	0.831

Work Order 2002532 Page 315 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-12.qld

Last Altered: Printed:

Wednesday, December 23, 2020 12:04:16 PM Pacific Standard Time Wednesday, December 23, 2020 12:04:34 PM Pacific Standard Time

Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

Tetra-Furans

TO THE PARTY.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.82	1.672e3	1.985e3	1.015e2	1.413e2	0.72	NO	2.428e2	0.076365	0.076365	0.0750
2	Total Tetra-Furans	21.59	6.449e3	9.599e3	5.468e2	7.138e2	0.77	NO	1.261e3	0.39647	0.39647	0.0750
3	Total Tetra-Furans	22.53	2.556e4	2.955e4	2.013e3	2.710e3	0.74	NO	4.722e3	1.4853	1.4853	0.0750
4	Total Tetra-Furans	23.01	6.702e3	1.075e4	5.989e2	7.067e2	0.85	NO	1.306e3	0.41061	0.41061	0.0750
5	Total Tetra-Furans	23.38	2.707e3	3.518e3	2.014e2	2.812e2	0.72	NO	4.826e2	0.15179	0.15179	0.0750
6	Total Tetra-Furans	24.16	7.615e3	9.372e3	7.939e2	9.447e2	0.84	NO	1.739e3	0.54681	0.54681	0.0750
7	Total Tetra-Furans	24.60	1.177e5	1.600e5	8.592e3	1.169e4	0.74	NO	2.028e4	6.3786	6.3786	0.0750
8	Total Tetra-Furans	25.52	5.603e3	9.188e3	4.217e2	6.017e2	0.70	NO	1.023e3	0.32187	0.32187	0.0750
9	2,3,7,8-TCDF	25.64	1.573e5	2.292e5	1.066e4	1. 455e4	0.73	NO	2.522e4	7.9309	7.9309	0.0750
10	Total Tetra-Furans	27.53	4.686e3	9.789e3	2.675e2	4.081e2	0.66	NO	6.756e2	0.21248	0.21248	0.0750

Penta-Furans function 1

ſ	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
ŀ	1 1st Func. Penta-l	urans 27.15	5.220e4	3.230e4	3.086e3	1.951e3	1.58	NO	5.037e3	1.6766	1.6766	0.0226

Penta-Furans

Maria September	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.61	6.737e3	4.386e3	3.528e2	2.034e2	1.73	NO	5.562e2	0.18513	0.18513	0.120
2	Total Penta-Furans	28.77	2.514e5	1.527e5	1.440e4	9.302e3	1.55	NO	2.371e4	7.8910	7.8910	0.120
3	Total Penta-Furans	29.42	1.104e4	1.176e4	6.707e2	6.203e2	1.08	YES	0.000e0	0.00000	0.36729	0.120
4	Total Penta-Furans	29.57	5.606e4	3.712e4	2.494e3	1.888e3	1.32	NO	4.382e3	1.4585	1.4585	0.120
5	1,2,3,7,8-PeCDF	29.77	6.541e5	4.414e5	3.398e4	2.198e4	1.55	NO	5.596e4	18.426	18.426	0.122
6	Total Penta-Furans	29.84	8.906e3	4.752e3	3.721e2	2.237e2	1.66	NO	5.958e2	0.19831	0.19831	0.120
7	Total Penta-Furans	30.02	2.187e5	1.337e5	1.074e4	6.815e3	1.58	NO	1.755e4	5.8427	5.8427	0.120
8	2,3,4,7,8-PeCDF	30.84	3.403e5	2.314e5	1.706e4	1.117e4	1.53	NO	2.823e4	8.5445	8.5445	0.106
9	Total Penta-Furans	31.73	1.003e4	5.122e3	4.992e2	2.993e2	1.67	NO	7.985e2	0.26579	0.26579	0.120

Work Order 2002532 Page 316 of 725

Page 3 of 3

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-12.qld

Last Altered: Wednesday, December 23, 2020 12:04:16 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 12:04:34 PM Pacific Standard Time

Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.11	Total Hexa-Furans	32.17	1.766e4	1.421e4	8.120e2	6.490e2	1.25	NO	1.461e3	0.72824	0.72824	0.124
2	Total Hexa-Furans	32.34	7.416e4	5.788e4	3.406e3	2.875e3	1.18	NO	6.281e3	3.1308	3.1308	0.124
3	Total Hexa-Furans	32.97	6.273e4	4.817e4	3.164e3	2.601e3	1.22	NO	5.765e3	2.8735	2.8735	0.124
4	Total Hexa-Furans	33.30	4.365e3	4.183e3	2.053e2	1.898e2	1.08	NO	3.951e2	0.19694	0.19694	0.124
5	1,2,3,4,7,8-HxCDF	33.43	4.711e5	3.936e5	2.320e4	1.901e4	1.22	NO	4.221e4	21.387	21.387	0.117
6	1,2,3,6,7,8-HxCDF	33.56	9.846e4	7.413e4	4.865e3	4.099e3	1.19	NO	8.964e3	4.4518	4.4518	0.121
7 5 5 4 5 5	2,3,4,6,7,8-HxCDF	34.23	2.290e4	2.089e4	1.404e3	1.177e3	1.19	NO	2.581e3	1.2446	1.2446	0.119
8	1,2,3,7,8,9-HxCDF	35.24	2.644e4	2.270e4	6.732e2	5.320e2	1.27	NO	1.205e3	0.64243	0.64243	0.146
9	Total Hexa-Furans	35.25	3.177e4	2.807e4	1.387e3	1.212e3	1.14	NO	2.599e3	1.2956	1.2956	0.124

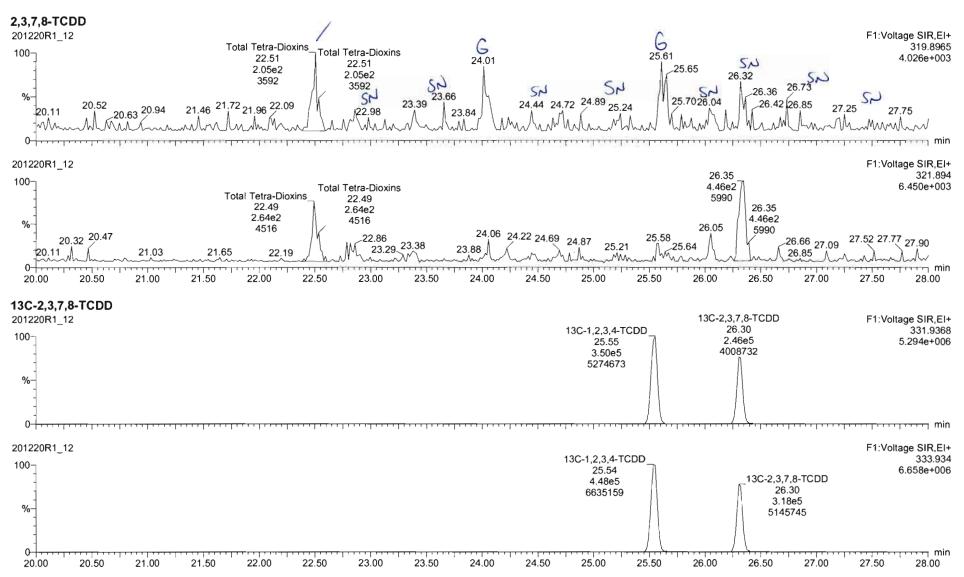
Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 300 650	1,2,3,4,6,7,8-HpCDF	36.78	7.657e4	8.165e4	5.186e3	5.266e3	0.98	NO	1.045e4	6.8250	6.8250	0.177
2	Total Hepta-Furans	37.51	1.026e5	1.011e5	6.862e3	6.456e3	1.06	NO	1.332e4	9.3734	9.3734	0.174
3	1,2,3,4,7,8,9-HpCDF	38.83	2.074e4	2.278e4	1.167e3	1.199e3	0.97	NO	2.366e3	1.6108	1.6108	0.151

Work Order 2002532 Page 317 of 725

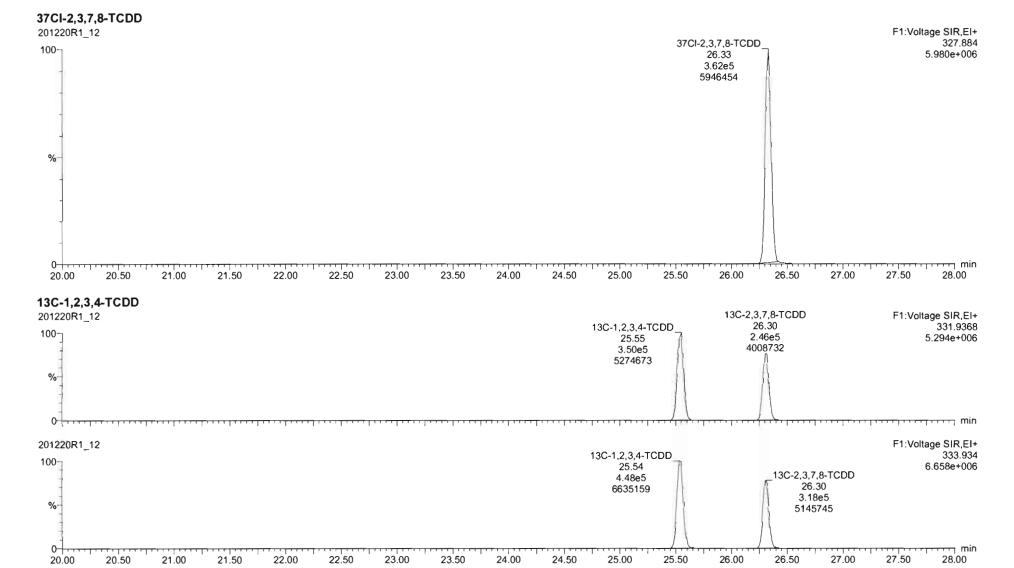
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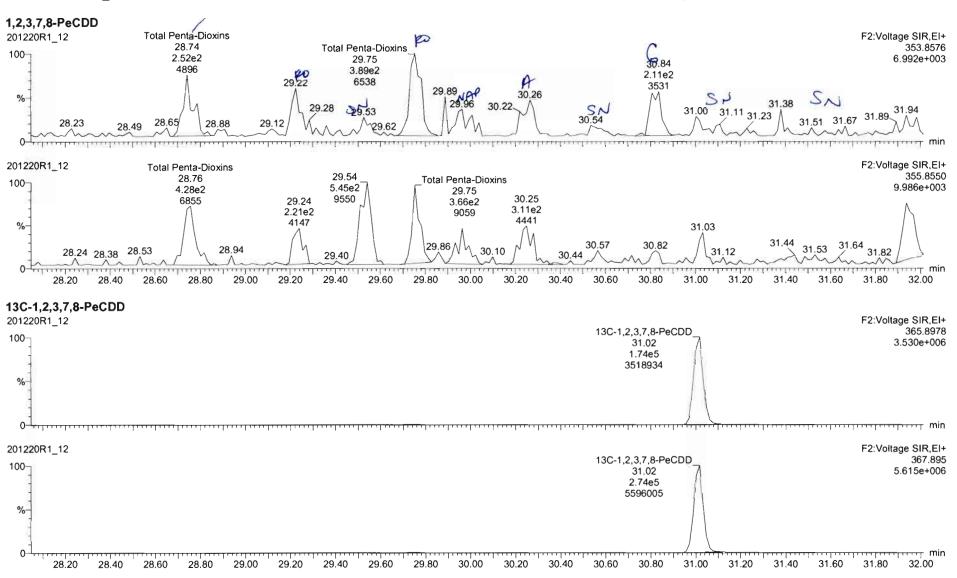
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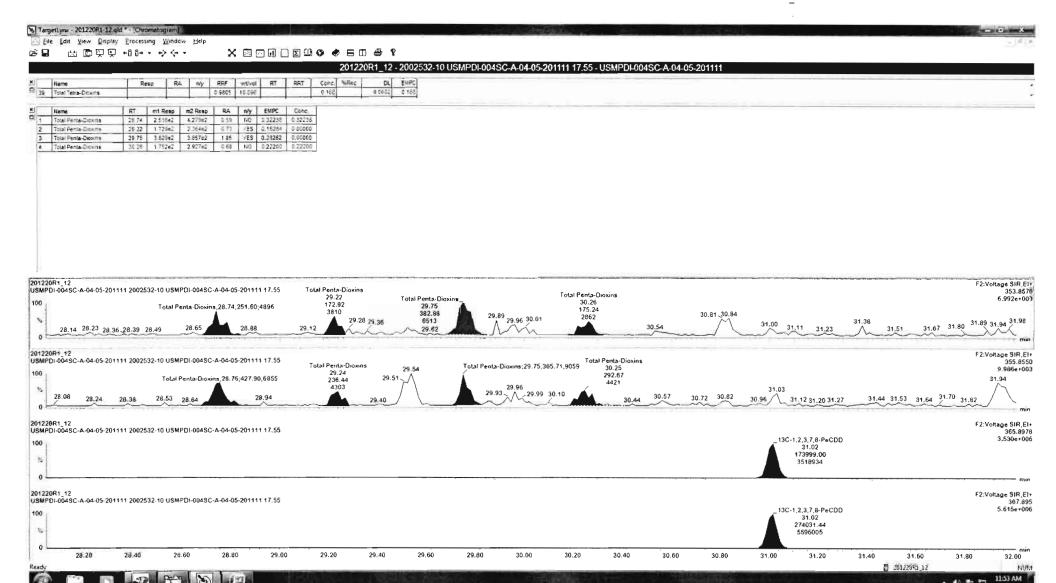
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Work Order 2002532 Page 321 of 725

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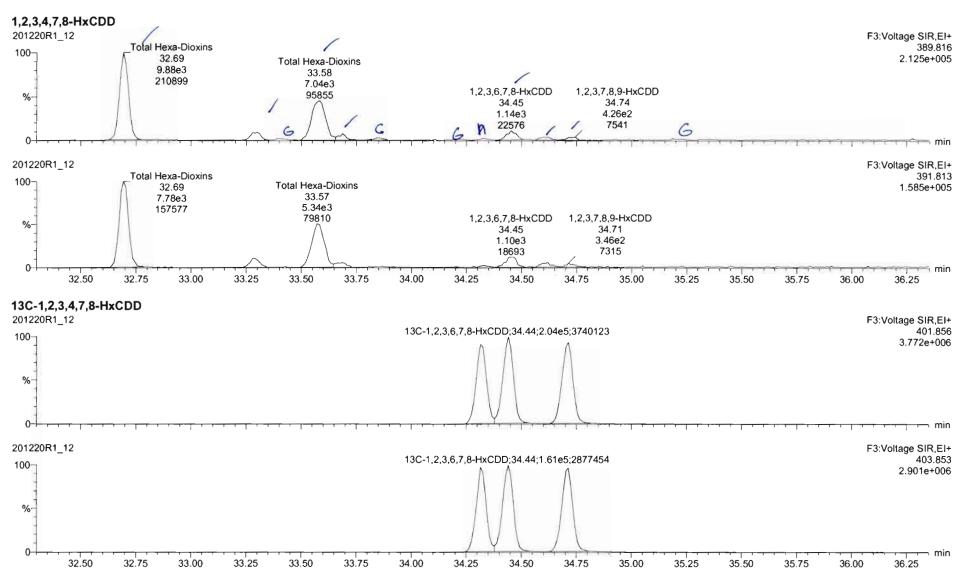
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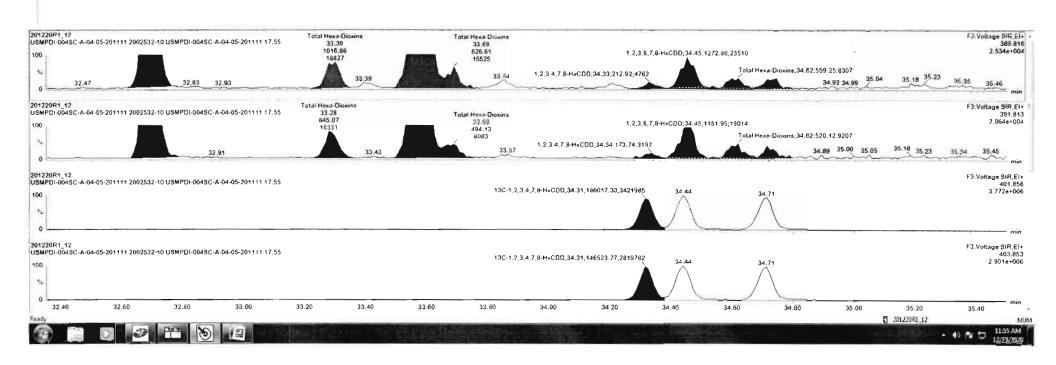


Conc. %Rec

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41	Total Hexa-Dioxins	- 100	BIT I	N 1915	0.9025	10.096	13/16		
	Name	RT-	mt Resp	m2 Resp	RA.	nly	EMPC	Conc.	r
1	Total Hexa-Dioxins	32.69	9.832e3	7.775e3	1,27	NO.	10.951	16.961	ŀ
2	Total Hexa-Dioxels	33.30	1.017e3	8.451e2	1.28	140	1 1559	1 1559	l
3	Total Hexa-Dioxins	33.50	7.045e3	5.337e3	1.32	140	7,6864	7.8864	l
4	Total Hexa-Doxes	33.69	8.266e2	4.941e2	1.27	140	0.69675	0.69575	ľ
5	1.2.3.4:7.8-H+CDD	34 33	2.129e2	1.737e2	1 23	NO.	0.22578	5 72576	ľ
6	1:2 3.6 7.8-HXCDC	24 45	1.273e3	1 152e3	1.10	NO.	1.4554	1.4594	ĺ
7	Total Hexa-Doxina	34.62	5 583e2	5.201e2	1.08	110	0.67007	0.67007	l
0	1.2.3.7.8.9-HxCDD	34:74	4,404e2	3.642e2	1.21	NO.	0.45955	0.45965	ľ

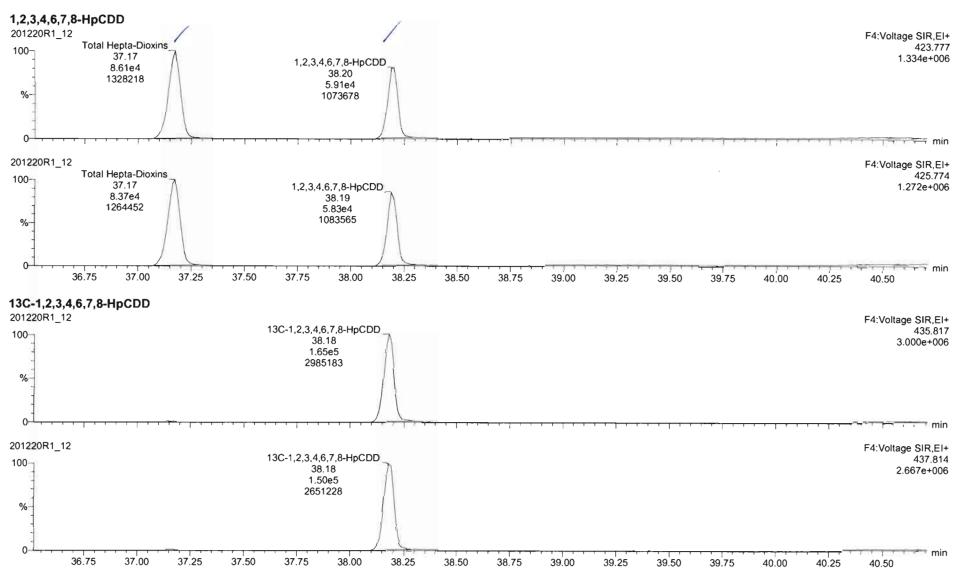


Page 323 of 725 Work Order 2002532

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Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

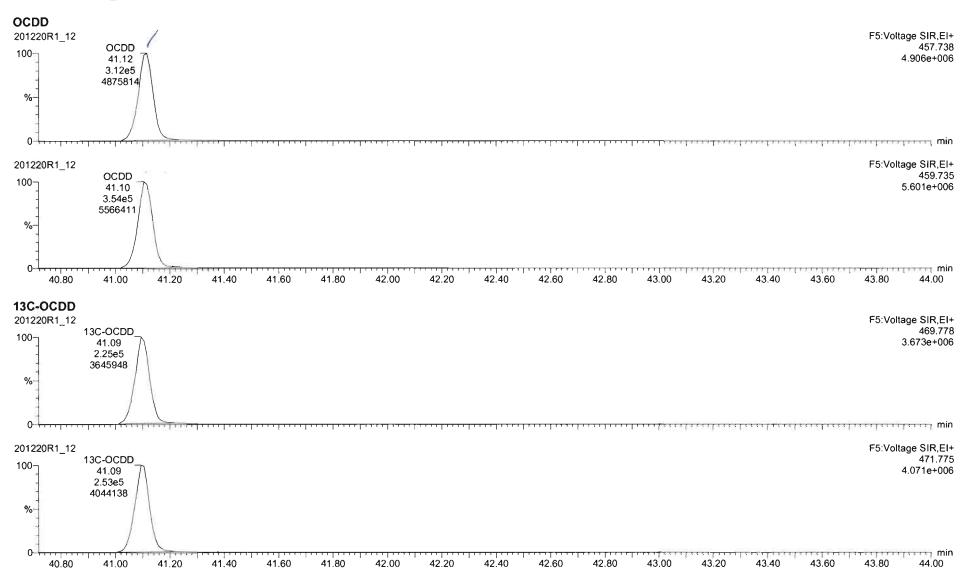


Work Order 2002532

Page 324 of 725

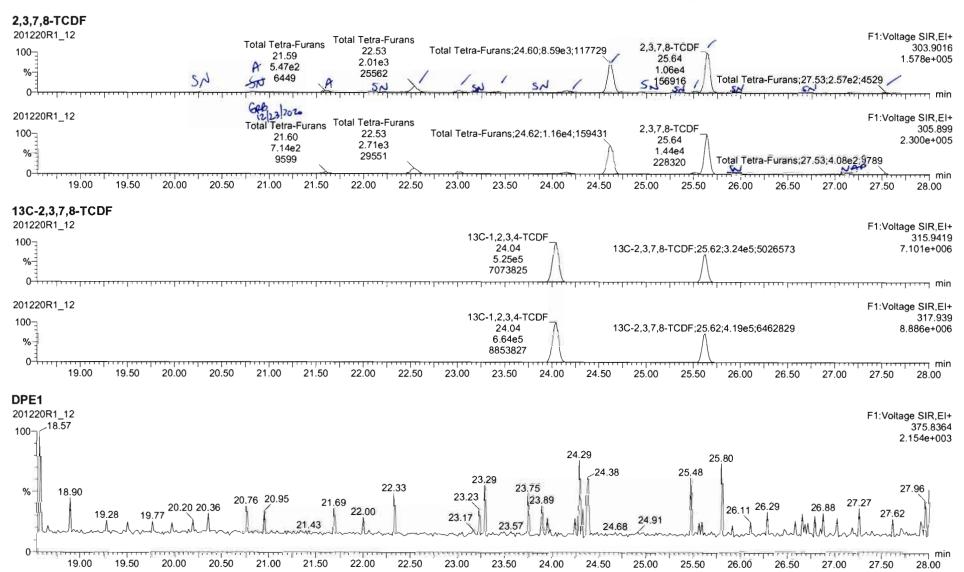
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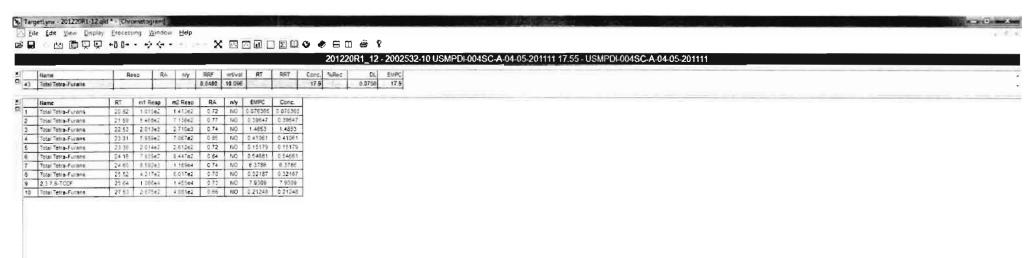
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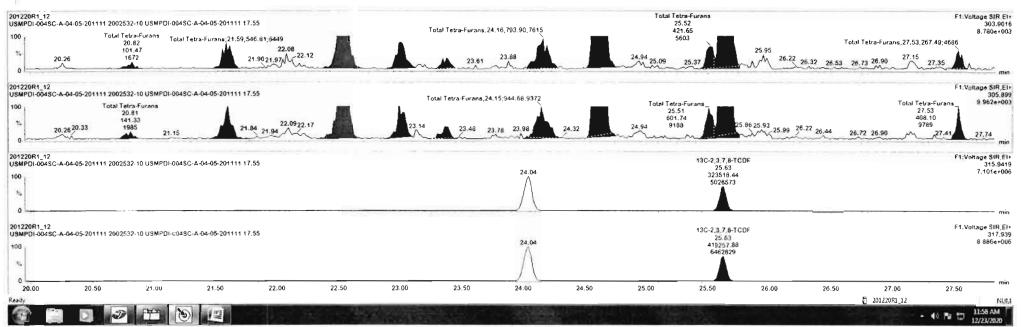


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Work Order 2002532 Page 327 of 725

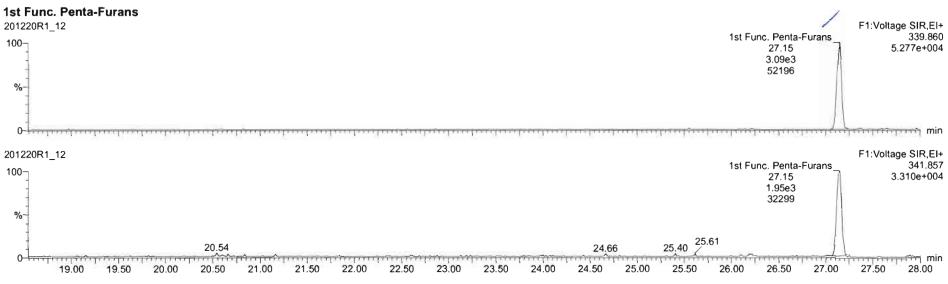
Quantify Sample Report Vista Analytical Laboratory

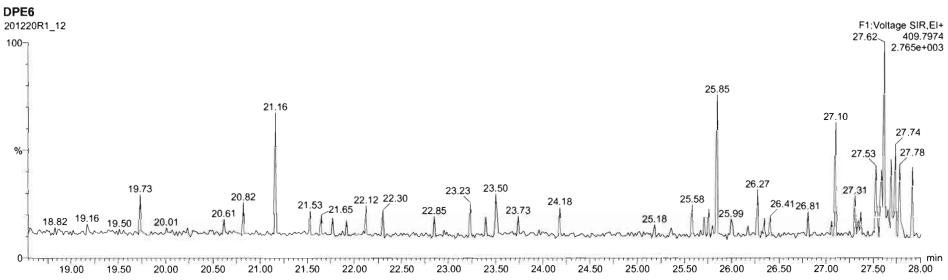
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Name: 201220R1_12, Date: 20-Dec-2020, Time: 16:38:35, ID: 2002532-10 USMPDI-004SC-A-04-05-201111 17.55, Description: USMPDI-004SC-A-04-05-201111

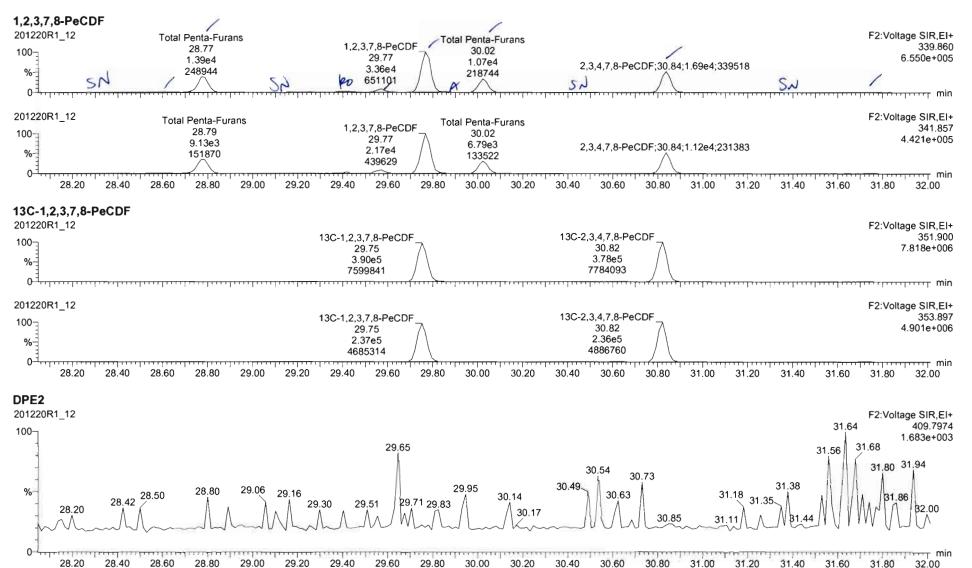


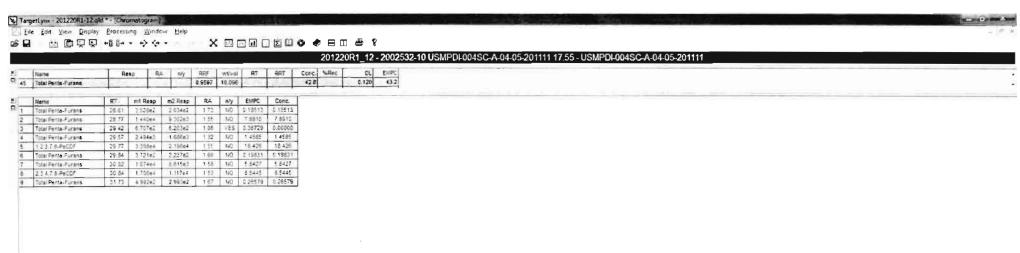


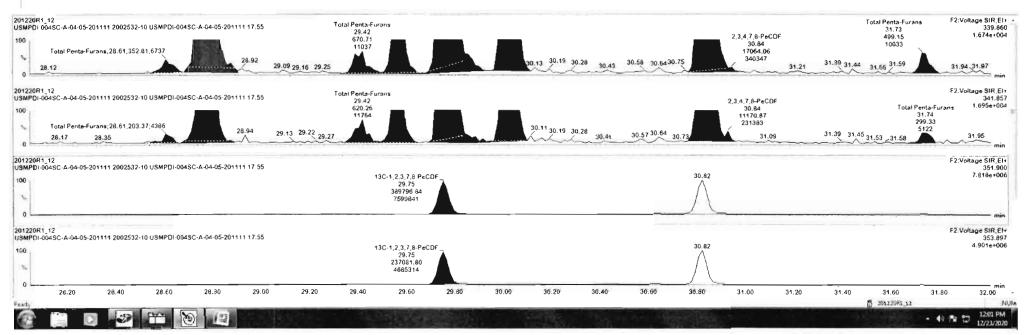
Work Order 2002532 Page 328 of 725

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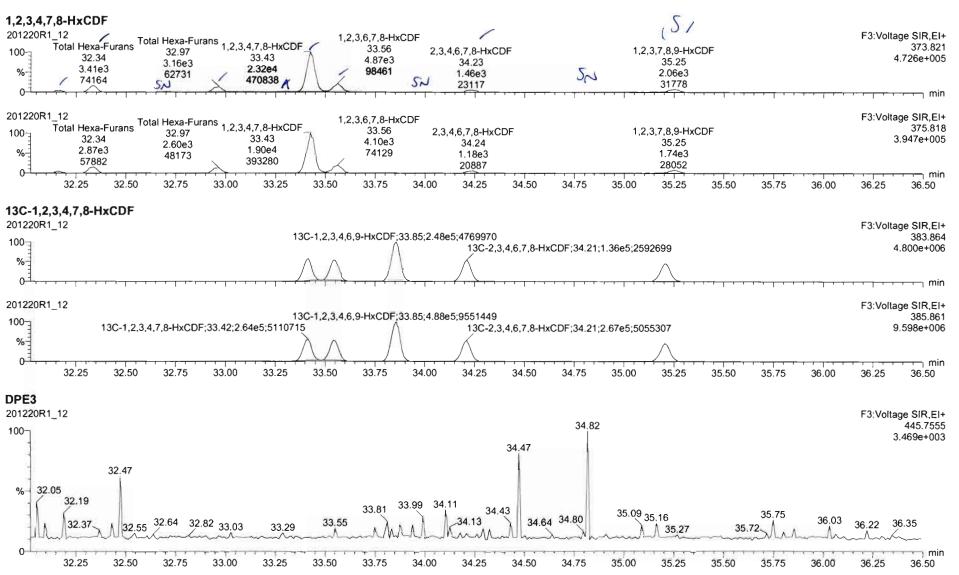


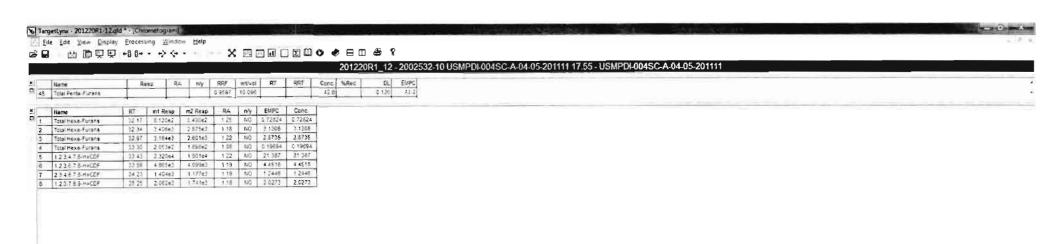


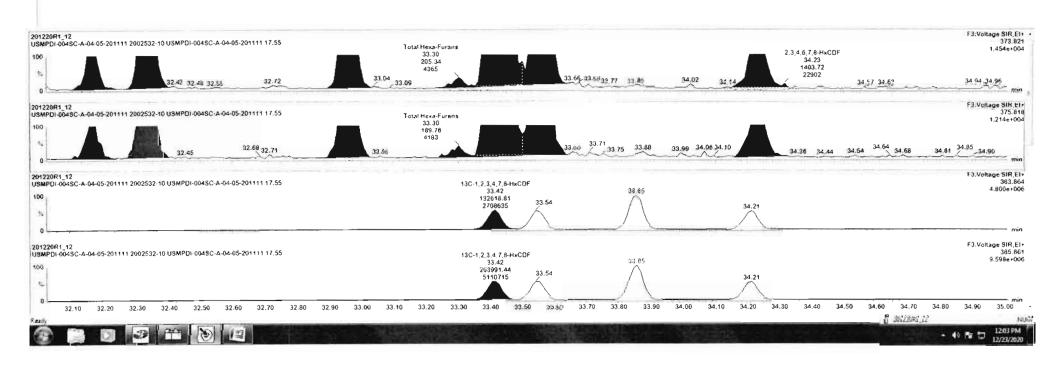
Work Order 2002532 Page 330 of 725

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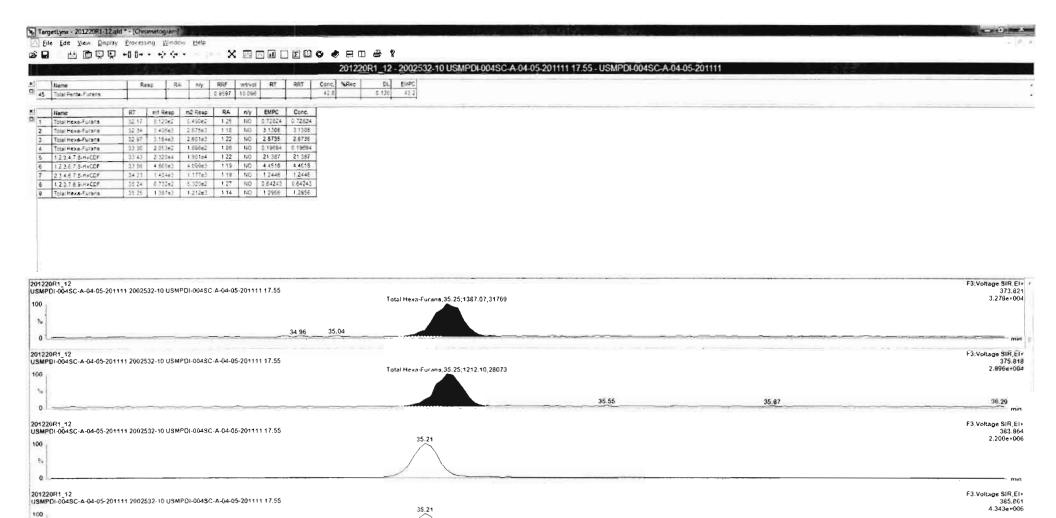
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Work Order 2002532 Page 332 of 725



Work Order 2002532 Page 333 of 725

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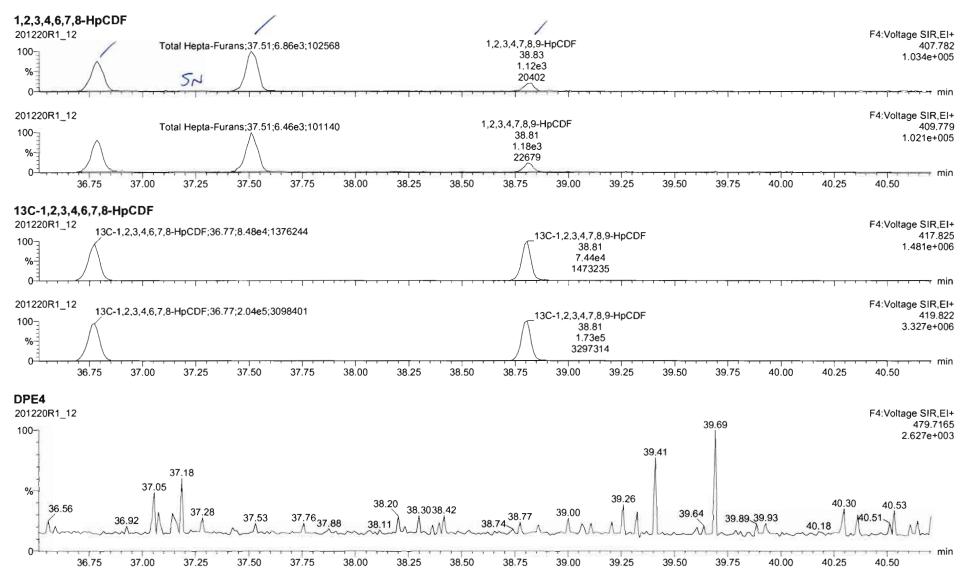
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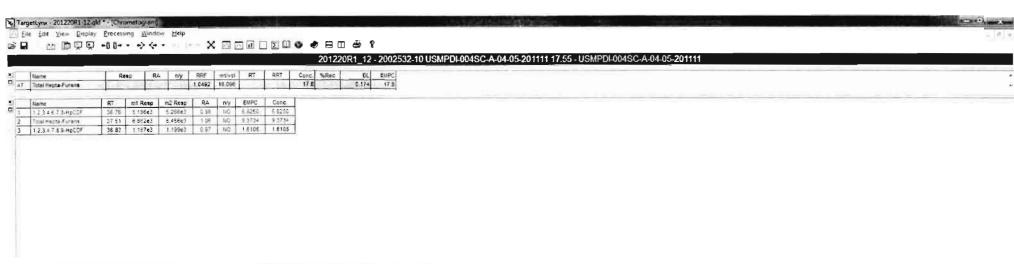
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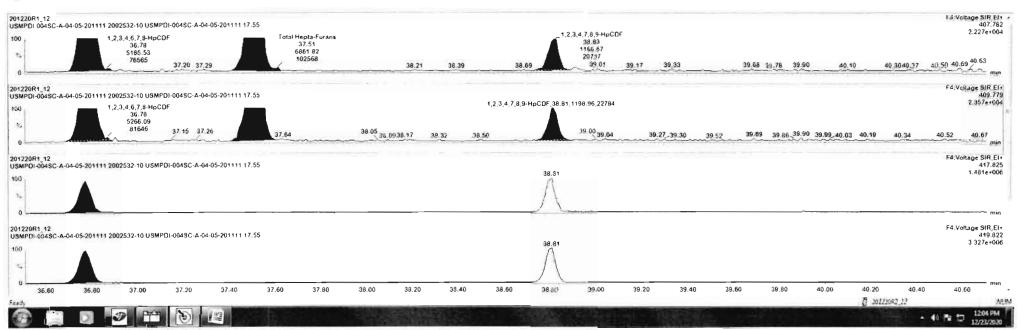
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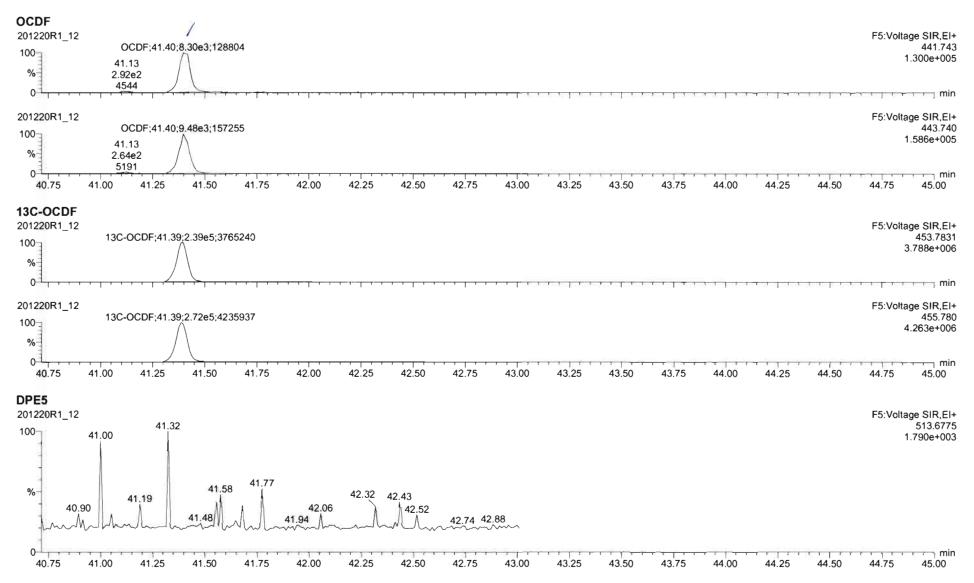




Work Order 2002532 Page 335 of 725

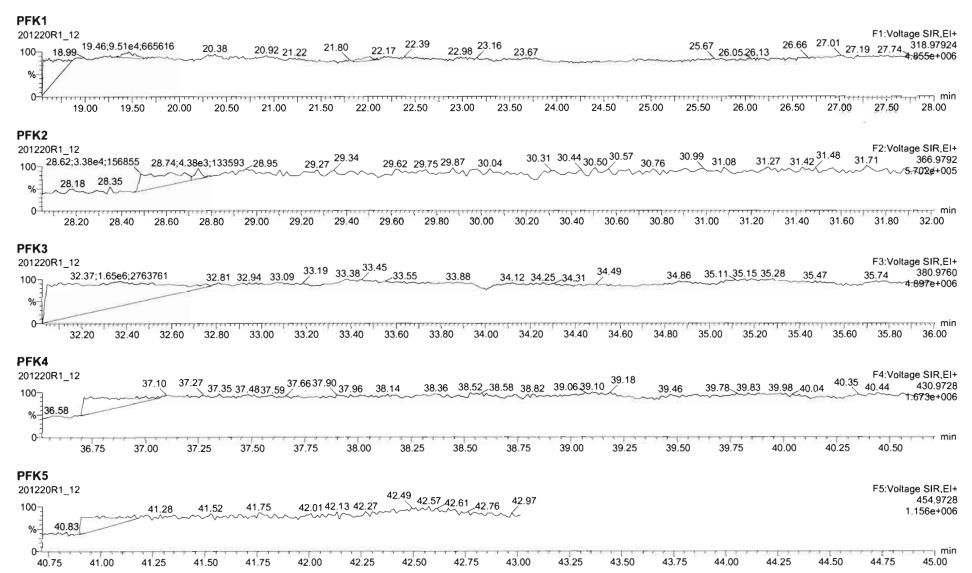
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Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-13.qld

Last Altered:

Printed:

Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

(3)	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1.578/76/2	1 2,3,7,8-TCDD	1.64e3	0.60	YES	0.980	10.024	26.351	26.35	1.001	1.001	0.43846	(0.0437	0.379
2	2 1,2,3,7.8-PeCDD	1.33e3	0.53	YES	0.932	10.024	31.048	31.03	1.001	1.001	0.45004		0.115	0.401
3	3 1,2,3,4,7,8-HxCDD	6.51e2	1.24	NO	1.02	10.024	34.347	34.33	1.001	1.000	0.28663		0.163	0.287
4	4 1,2,3,6,7,8-HxCDD	3.39e3	1.18	NO	0.902	10.024	34.462	34.46	1.001	1.001	1.5214		0.172	1.52
5	5 1,2,3,7,8,9-HxCDD	1.57e3	1.36	NO	0.954	10.024	34.724	34.73	1.000	1.001	0.68642		0.166	0.686
6	6 1,2,3,4,6,7,8-HpCDD	7.43e4	1.03	NO	0.918	10.024	38.211	38.21	1.000	1.000	40.914		0.670	40.9
7	7 OCDD	7.11e5	0.87	NO	0.866	10.024	41.123	41.13	1.000	1.000	555.64		0.595	556
8	8 2,3,7,8-TCDF	4.37e4	0.76	NO	0.848	10.024	25.627	25.65	1.000	1.001	10.247		0.105	10.2
9	9 1,2,3,7,8-PeCDF	5.07e4	1.65	NO	0.960	10.024	29.770	29.77	1.000	1.000	12.145		0.134	12.1
10	10 2,3,4,7,8-PeCDF	3.27e4	1.66	NO	1.07	10.024	30.844	30.84	1.001	1.000	7.1823		0.113	7.18
11	11 1,2,3,4,7,8-HxCDF	4.20e4	1.24	NO	0.986	10.024	33.425	33.44	1.000	1.001	14.945		0.108	14.9
12	12 1,2,3,6,7,8-HxCDF	1.09e4	1.21	NO	1.04	10.024	33.571	33.57	1.001	1.001	3.7552		0.106	3.76
13	13 2,3,4,6,7,8-HxCDF	3.70e3	1.24	NO	1.02	10.024	34.232	34.24	1.001	1.001	1.3494		0.118	1.35
14	14 1,2,3,7,8,9-HxCDF	2.21e3	1.12	NO	0.991	10.024	35.217	35.25	1.000	1.001	0.89398		0.145	0.894
15	15 1,2,3,4,6,7,8-HpCDF	2.15e4	0.98	NO	1.05	10.024	36.803	36.81	1.000	1.001	10.802		0.208	10.8
16	16 1,2,3,4,7,8,9-HpCDF	5.57e3	1.01	NO	1.18	10.024	38.828	38.83	1.000	1.000	2.8623		0.164	2.86
17	17 OCDF	4.32e4	0.88	NO	0.896	10.024	41.417	41.42	1.000	1.000	29.664		0.206	29.7
18	18 13C-2,3,7,8-TCDD	7.62e5	0.77	NO	1.06	10.024	26.323	26.32	1.030	1.030	200.22	100	0.149	-
19	19 13C-1,2,3,7,8-PeCDD	6.34e5	0.63	NO	0.785	10.024	31.157	31.02	1.219	1.214	224.06	112	0.222	
20	20 13C-1,2,3,4,7,8-HxCDD	4.44e5	1.30	NO	0.621	10.024	34.315	34.33	1.014	1.014	208.71	105	0.455	
21	21 13C-1,2,3,6,7,8-HxCDD	4.93e5	1.28	NO	0.734	10.024	34.437	34.44	1.017	1.017	195.88	98.2	0.385	
22	22 13C-1.2.3,7,8,9-HxCDD	4.79e5	1.25	NO	0.723	10.024	34.722	34.71	1.026	1.025	193.48	97.0	0.391	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.95e5	1.05	NO	0.568	10.024	38 219	38.20	1.129	1.128	202.73	102	1.11	
24	24 13C-OCDD	5.90e5	0.91	NO	0.496	10.024	41.154	41.12	1.216	1.214	347.01	87.0	0.839	
25	25 13C-2,3,7,8-TCDF	1.00e6	0 78	NO	0.919	10.024	25.623	25.62	1.003	1.003	201.74	101	0.237	
26	26 13C-1,2,3,7,8-PeCDF	8.67e5	1.60	NO	0.715	10.024	29.869	29.77	1.169	1.165	224.01	112	0.401	
27	27 13C-2,3,4,7,8-PeCDF	8.52e5	1.59	NO	0.689	10.024	30 955	30.82	1.212	1.206	228.58	115	0.416	
28	28 13C-1,2.3,4,7,8-HxCDF	5 69e5	0.50	NO	0.873	10.024	33.422	33.42	0.987	0.987	190.09	95.3	0.561	
29	29 13C-1,2,3,6,7,8-HxCDF	5 58e5	0.50	NO	0.933	10.024	33.550	33.55	0.991	0.991	174.42	87.4	0.524	
30	30 13C-2,3,4,6,7,8-HxCDF	5 37e5	0.50	NO	0.843	10.024	34 217	34.21	1.011	1.011	185.65	93.0	0.581	
31	31 13C-1,2,3,7,8,9-HxCDF	4.99e5	0.51	NO	0 780	10.024	35.216	35.21	1.040	1.040	186 47	93.5	0.628	

Work Order 2002532 Page 338 of 725

U:\VG12.PRO\Results\201220R1\201220R1-13.qld

Last Altered: Printed:

Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

SHALL HE	# 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	3.79e5	0.43	NO	0.726	10.024	36.790	36.78	1.087	1.087	152.06	76.2	0.632	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.30e5	0.43	NO	0.491	10.024	38.798	38.82	1.146	1.147	196.17	98.3	0.936	
34	34 13C-OCDF	6.49e5	0.87	NO	0.565	10.024	41.371	41.41	1.222	1.223	334.56	83.8	0.530	
35	35 37CI-2,3,7,8-TCDD	3.53e5			1.22	10.024	26.318	26.33	1.030	1.031	80.363	101	0.0424	ļ
36	36 13C-1,2,3,4-TCDD	7.20e5	0.78	NO	1.00	10.024	25.640	25.55	1.000	1.000	199.52	100	0.157	
37	37 13C-1,2,3,4-TCDF	1.08e6	0.79	NO	1.00	10.024	24.130	24.04	1.000	1.000	199.52	100	0.217	
38	38 13C-1,2,3,4,6,9-HxCDF	6.84e5	0.50	NO	1.00	10.024	33.920	33.85	1.000	1.000	199.52	100	0.490	
39	39 Total Tetra-Dioxins				0.980	10.024	24.620		0.000		1.3810		0.0437	1.86
40	40 Total Penta-Dioxins				0.932	10.024	29.960		0.000		1.5307		0.115	2.66
41	41 Total Hexa-Dioxins				0.902	10.024	33.635		0.000		13.877		0.177	13.9
42	42 Total Hepta-Dioxins				0.918	10.024	37.640		0.000		93.387		0.670	93.4
43	43 Total Tetra-Furans				0.848	10.024	23.610		0.000		37.351		0.105	37.8
44	44 1st Func. Penta-Furans				0.960	10.024	26.930		0.000		3.0886		0.0273	3.09
45	45 Total Penta-Furans				0.960	10.024	29.275		0.000		36.285		0.130	36.6
46	46 Total Hexa-Furans				1.02	10.024	33.555		0.000		33.723		0.117	33.7
47	47 Total Hepta-Furans				1.05	10.024	37.835		0.000		28.961		0.197	29.0

Work Order 2002532 Page 339 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-13.qld

Last Altered: Printed:

Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.49	1.349e4	1.894e4	1.198e3	1.478e3	0.81	NO	2.676e3	0.71415	0.71415	0.0437
2	Total Tetra-Dioxins	22.86	3.645e3	5.857e3	3.022e2	3.954e2	0.76	NO	6.976e2	0.18616	0.18616	0.0437
3	Total Tetra-Dioxins	23.41	2.456e3	2.617e3	1.270e2	1.533e2	0.83	NO	2.803e2	0.074807	0.074807	0.0437
4	Total Tetra-Dioxins	24.47	2.534e3	3.082e3	1.995e2	2.171e2	0.92	YES	0.000e0	0.00000	0.10256	0.0437
5	Total Tetra-Dioxins	24.69	5.120e3	5.279e3	2.609e2	3.753e2	0.70	NO	6.362e2	0.16978	0.16978	0.0437
6	Total Tetra-Dioxins	26.05	4.864e3	7.423e3	3.620e2	5.227e2	0.69	NO	8.847e2	0.23611	0.23611	0.0437
7	2,3,7,8-TCDD	26.35	9.390e3	1.586e4	6.173e2	1.026e3	0.60	YES	1.643e3	0.00000	0.37867	0.0437

Penta-Dioxins

3 0115	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28 74	1.397e4	2.449e4	9.825e2	1.559e3	0.63	NO	2.541e3	0.85761	0.85761	0.115
2	Total Penta-Dioxins	29.25	2.444e3	5.276e3	1.279e2	2.983e2	0.43	YES	0.000e0	0.00000	0.11165	0.115
3	Total Penta-Dioxins	29.54	2.336e3	1.062e4	1.228e2	5.401e2	0.23	YES	0.000e0	0.00000	0.10726	0.115
4	Total Penta-Dioxins	29.77	1.803e4	1.677e4	8.457e2	9.303e2	0.91	YES	0.000e0	0.00000	0.51177	0.115
5	Total Penta-Dioxins	29.96	5.779e3	6.957e3	2.240e2	3.503e2	0.64	NO	5.743e2	0.19383	0.19383	0.115
6	Total Penta-Dioxins	30.01	4.163e3	1.064e4	1.898e2	3.342e2	0.57	NO	5.239e2	0.17683	0.17683	0.115
7	Total Penta-Dioxins	30.23	6.932e3	7.451e3	3.683e2	5.277e2	0.70	NO	8.960e2	0.30241	0.30241	0.115
8	1,2,3, 7 ,8-PeCDD	31.03	8.108e3	1.559e4	4.595e2	8.739e2	0.53	YES	1.333e3	0.00000	0.40124	0.115

Work Order 2002532 Page 340 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-13.qld

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Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

Page 2 of 4

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.70	1.168e5	1.028e5	5.885e3	5.069e3	1.16	NO	1.095e4	5.1297	5.1297	0.177
2	Total Hexa-Dioxins	33.30	2.107e4	1.608e4	1.007e3	7.669e2	1.31	NO	1.774e3	0.83053	0.83053	0.177
3	Total Hexa-Dioxins	33.59	8.432e4	6.546e4	5.970e3	4.548e3	1.31	NO	1.052e4	4.9255	4.9255	0.177
4	Total Hexa-Dioxins	33.67	8.183e3	5.066e3	3.487e2	3.076e2	1.13	NO	6.563e2	0.30731	0.30731	0.177
5	1,2,3,4,7,8-HxCDD	34.33	8.361e3	4.608e3	3.605e2	2.903e2	1.24	NO	6.508e2	0.28663	0.28663	0.163
6	1,2,3,6,7,8-HxCDD	34.46	3.497e4	2.670e4	1.836e3	1.556e3	1.18	NO	3.392e3	1.5214	1.5214	0.172
7	Total Hexa-Dioxins	34.61	3.978e3	4.388e3	2.272e2	1.778e2	1.28	NO	4.050e2	0.18965	0.18965	0.177
8	1,2,3,7,8,9-HxCDD	34.73	1.671e4	9.439e3	9.077e2	6.659e2	1.36	NO	1.574e3	0.68642	0.68642	0.166

Hepta-Dioxins

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.18	6.885e5	6.742e5	4.795e4	4.732e4	1.01	NO	9.527e4	52.473	52.473	0.670
2	1,2,3,4,6,7,8-HpCDD	38.21	6.833 e 5	6.601e5	3.772e4	3.656e4	1.03	NO	7.428e4	40.914	40.914	0.670

Work Order 2002532 Page 341 of 725

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-13.qld

Last Altered: Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

Tetra-Furans

GEVE!	Name	RT	m1 Height	m2 Height	R.L	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.26	3.735e3	5.121e3		3.351e2	4.006e2	0.84	NO	7.357e2	0.17248	0.17248	0.105
2	Total Tetra-Furans	20.77	6.816e3	7.593e3		5.045e2	6.788e2	0.74	NO	1.183e3	0.27745	0.27745	0.105
3	Total Tetra-Furans	21.60	2.901e4	3.550e4		2.743e3	3.584e3	0.77	NO	6.327e3	1.4833	1.4833	0.105
4	Total Tetra-Furans	21.96	3.723e3	6.600e3		3.881e2	5.453e2	0.71	NO	9.334e2	0.21884	0.21884	0.105
5	Total Tetra-Furans	22.11	7.465e3	8.357e3		8.030e2	7.494e2	1.07	YES	0.000e0	0.00000	0.31101	0.105
6	Total Tetra-Furans	22.19	4.454e3	5.702e3		3.289e2	4.575e2	0.72	NO	7.864e2	0.18438	0.18438	0.105
7	Total Tetra-Furans	22.53	6.354e4	8.581e4		6.218e3	8.394e3	0.74	NO	1.461e4	3.4258	3.4258	0.105
8	Total Tetra-Furans	23.04	2.427e4	2.916e4		1.942e3	2.581e3	0.75	NO	4.523e3	1.0606	1.0606	0.105
9	Total Tetra-Furans	23.16	6.257e3	5.862e3		3.897e2	4.633e2	0.84	NO	8.529e2	0.19998	0.19998	0.105
10	Total Tetra-Furans	23.38	1.799e4	1.876e4		1.201e3	1.476e3	0.81	NO	2.678e3	0.62784	0.62784	0.105
11	Total Tetra-Furans	23.81	2.483e3	3.908e3		1.978e2	2.931e2	0.68	NO	0.000e0	0.00000	0.11509	0.105
12	Total Tetra-Furans	23.92	3.993e3	5.601e3		3.056e2	4.274e2	0.71	NO	7.330e2	0.17185	0.17185	0.105
13	Total Tetra-Furans	24.13	7.980e4	9.721e4		9.094e3	1.201e4	0.76	NO	2.110e4	4.9470	4.9470	0.105
14	Total Tetra-Furans	24.62	2.271e5	3.145e5		1.618e4	2.202e4	0.73	NO	3.820e4	8.9575	8.9575	0.105
15	Total Tetra-Furans	24.96	1.038e4	1.506e4		7.331e2	8.838e2	0.83	NO	1.617e3	0.37909	0.37909	0.105
16	Total Tetra-Furans	25.06	8.101e3	9.895e 3		5.123e2	5.888e2	0.87	NO	1.101e3	0.25817	0.25817	0.105
17	Total Tetra-Furans	25.37	3.499e3	4.924e3		2.070e2	2.883e2	0.72	NO	4.953e2	0.11613	0.11613	0.105
18	Total Tetra-Furans	25.52	7.096e4	1.066e5		4.642e3	6.736e3	0.69	NO	1.138e4	2.6679	2.6679	0.105
19	2,3,7,8-TCDF	25.65	2.864e5	3.707e5		1.890e4	2.480e4	0.76	NO	4.370e4	10.247	10.247	0.105
20	Total Tetra-Furans	25.93	1.719e4	1.887e4		1.260e3	1.445e3	0.87	NO	2.705e3	0.63424	0.63424	0.105
21	Total Tetra-Furans	26.23	4.604e3	6.875e3		2.874e2	4.094e2	0.70	NO	6.968e2	0.16337	0.16337	0.105
22	Total Tetra-Furans	27.15	4.011e3	5.240e3		2.359e2	3.246e2	0.73	NO	5.605e2	0.13141	0.13141	0.105
23	Total Tetra-Furans	27.37	5.476e3	2.529e3		3.155e2	1.650e2	1.91	YES	0.000e0	0.00000	0.068475	0.105
24	Total Tetra-Furans	27.53	3.545e4	4.212e4		1.934e3	2.445e3	0.79	NO	4.378e3	1.0266	1.0266	0.105

Penta-Furans function 1

Name	RT	m1 Heigh	t m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 1st Func.	Penta-Furans 27.	15 1.358e	5 8.434e4	7.678e3	5.090e3	1.51	NO	1.277e4	3.0886	3.0886	0.0273

Work Order 2002532 Page 342 of 725

Page 4 of 4

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-13.qld

Last Altered: Wednesday, December 23, 2020 12:27:03 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 12:27:27 PM Pacific Standard Time

Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
100	Total Penta-Furans	28.62	1.812e4	1.012e4	9.888e2	5.779e2	1.71	NO	1.567e3	0.37897	0.37897	0.130
2	Total Penta-Furans	28.79	3.227e5	1.826e5	2.174e4	1.298e4	1.68	NO	3.472e4	8.3979	8.3979	0.130
3	Total Penta-Furans	29.41	8.644e4	5.476e4	5.225e3	3.032e3	1.72	NO	8.257e3	1.9973	1.9973	0.130
4	Total Penta-Furans	29.57	8.815e4	6.171e4	4.393e3	3.162e3	1.39	NO	7.555e3	1.8276	1.8276	0.130
5	1,2,3,7,8-PeCDF	29.77	5.877e5	3.661e5	3.155e4	1.910e4	1.65	NO	5.065e4	12.145	12.145	0.134
6	Total Penta-Furans	29.84	1.438e4	6.043e3	3.363e2	2.069e2	1.63	NO	5.432e2	0.13140	0.13140	0.130
7	Total Penta-Furans	30.04	1.982e5	1.196e5	1.036e4	6.488e3	1.60	NO	1.685e4	4.0754	4.0754	0.130
8	Total Penta-Furans	30.66	1.011e4	4.350e3	3.882e2	2.294e2	1.69	NO	6.176e2	0.14940	0.14940	0.130
9	2,3,4,7,8-PeCDF	30.84	3.908e5	2.457e5	2.044e4	1.228e4	1.66	NO	3.272e4	7.1823	7.1823	0.113
10	Total Penta-Furans	31.74	2.003e4	1.150e4	9.808e2	5.376e2	1.82	YES	0.000e0	0.00000	0.33164	0.130

Hexa-Furans

200	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32 16	5.709e4	4.796e4	2.633e3	2.143e3	1.23	NO	4.777e3	1.7279	1.7279	0.117
2	Total Hexa-Furans	32.34	1.491e5	1.178e5	7.139e3	6.087e3	1.17	NO	1.323e4	4.7845	4.7845	0.117
3	Total Hexa-Furans	32.96	1.548e5	1.203e5	7.429e3	6.143e3	1.21	NO	1.357e4	4.9100	4.9100	0.117
4	Total Hexa-Furans	33.31	1.024e4	6.153e3	3.684e2	3.364e2	1.10	NO	7.048e2	0.25498	0.25498	0.117
5	1,2,3,4,7,8-HxCDF	33.44	4.366e5	3.464e5	2.325e4	1.878e4	1.24	NO	4.203e4	14.945	14.945	0.108
6	1,2,3,6,7,8-HxCDF	33.57	1.133e5	8.416e4	5.966e3	4.947e3	1.21	NO	1.091e4	3.7552	3.7552	0.106
7	2,3,4,6,7,8-HxCDF	34.24	3.227e4	2.584e4	2.049e3	1.654e3	1.24	NO	3.702e3	1.3494	1.3494	0.118
8	1,2,3,7,8,9-HxCDF	35.25	3.422e4	3.129e4	1.169e3	1.045e3	1.12	NO	2.214e3	0.89398	0.89398	0.145
9	Total Hexa-Furans	35.26	4.403e4	3.692e4	1.681e3	1.365e3	1.23	NO	3.046e3	1.1019	1.1019	0.117

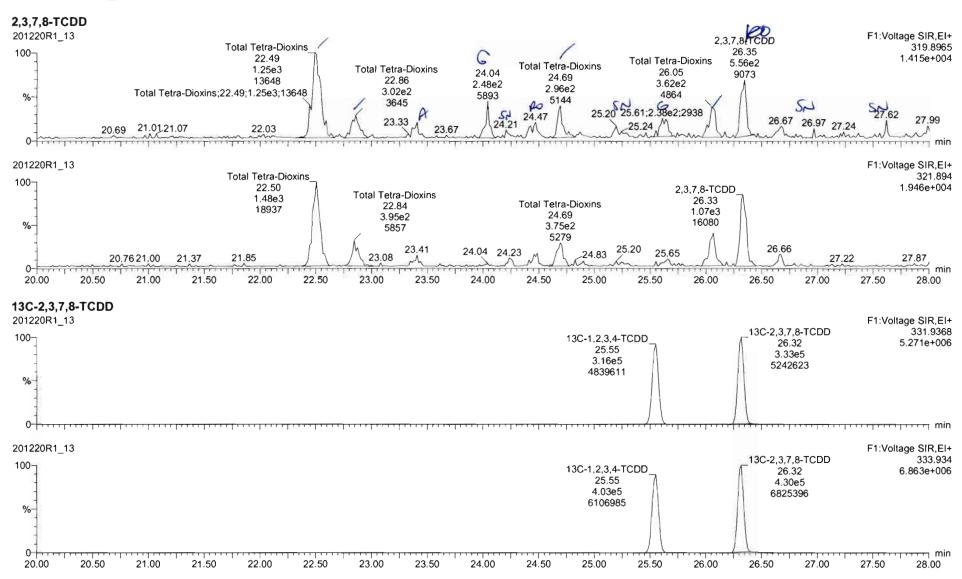
Hepta-Furans

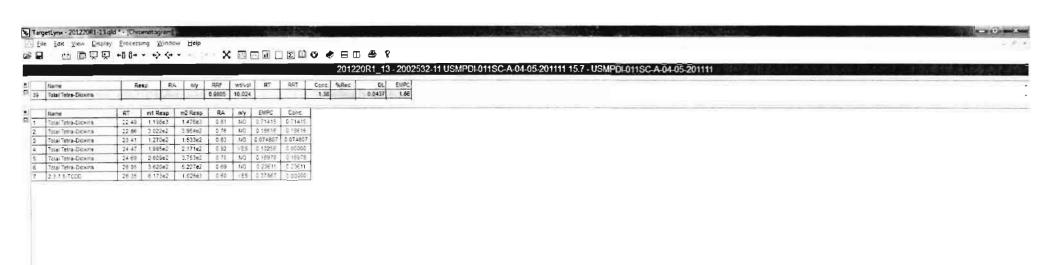
10	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.81	1.611e5	1.528e5	1.066e4	1.085e4	0.98	NO	2.151e4	10.802	10.802	0.208
2	Total Hepta-Furans	37.53	2.092e5	2.157e5	1.438e4	1.414e4	1.02	NO	2.852e4	15.298	15.298	0.197
3	1,2,3,4,7,8,9-HpCDF	38.83	5.289e4	4.751e4	2.800e3	2.772e3	1.01	NO	5.572e3	2.8623	2.8623	0.164

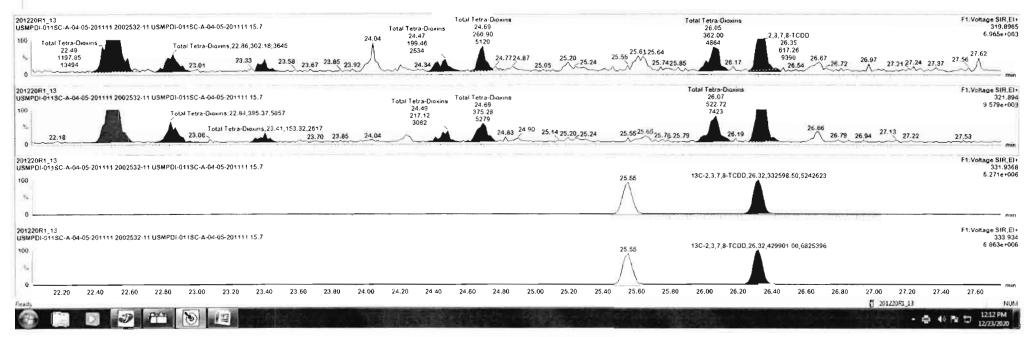
Work Order 2002532 Page 343 of 725

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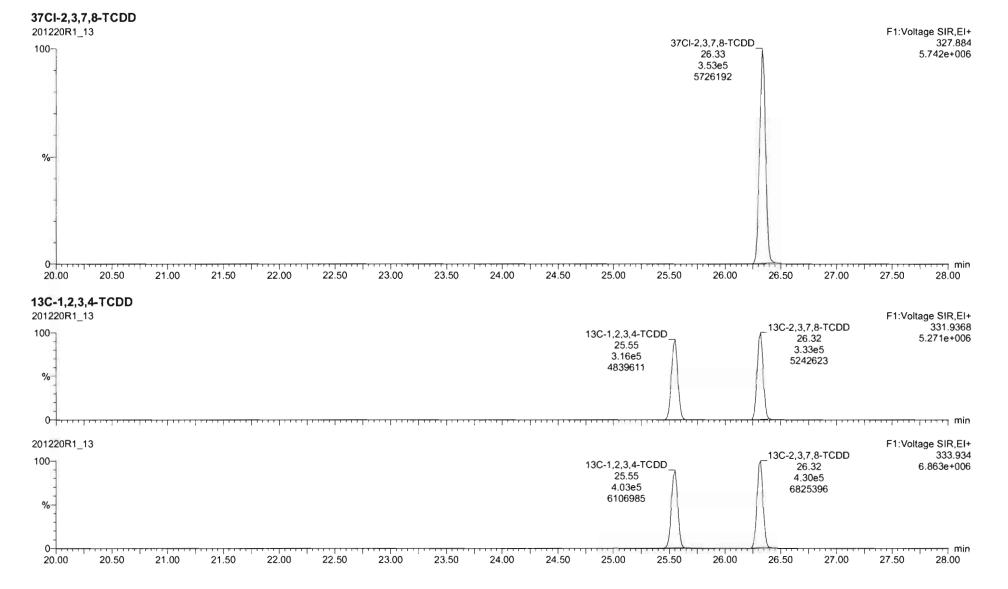


Work Order 2002532 Page 345 of 725

Vista Analytical Laboratory

Dataset: Untitled

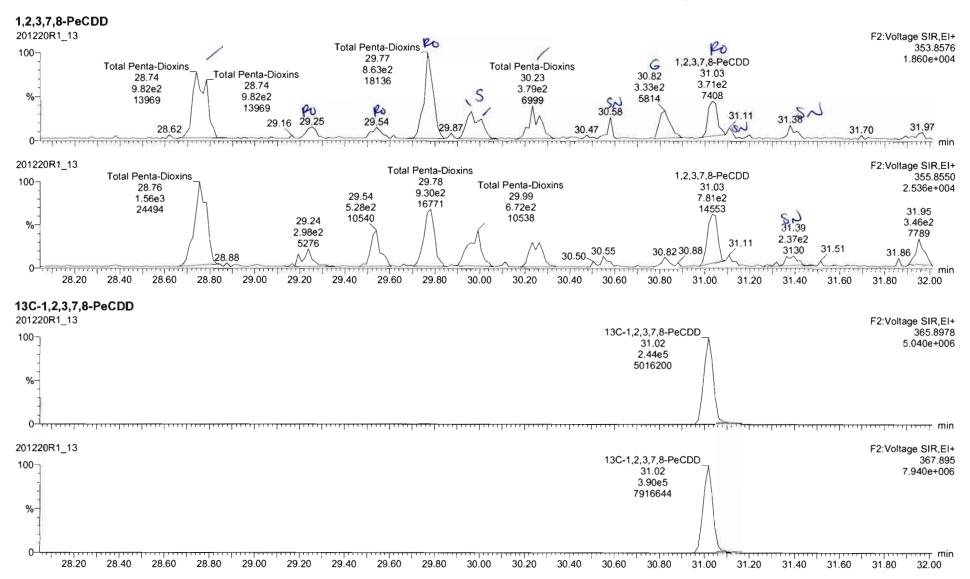
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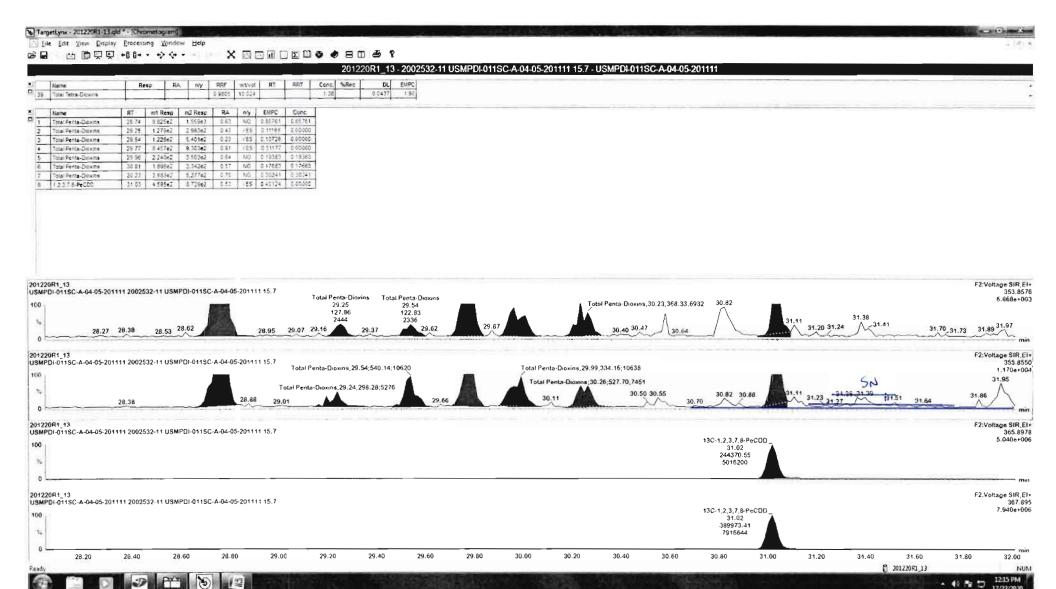
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Name: 201220R1_13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111



Work Order 2002532



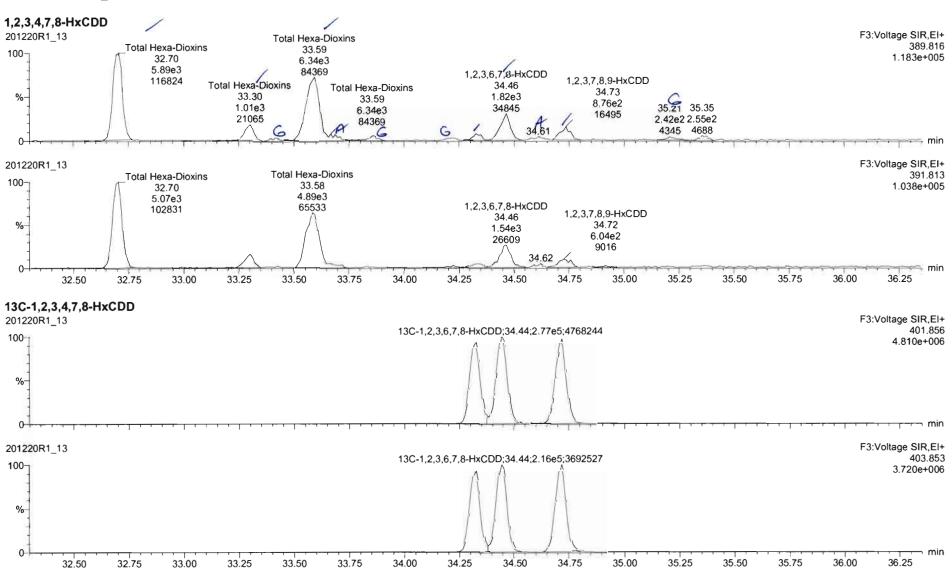
Work Order 2002532 Page 348 of 725

Quantify Sample Report Vista Analytical Laboratory

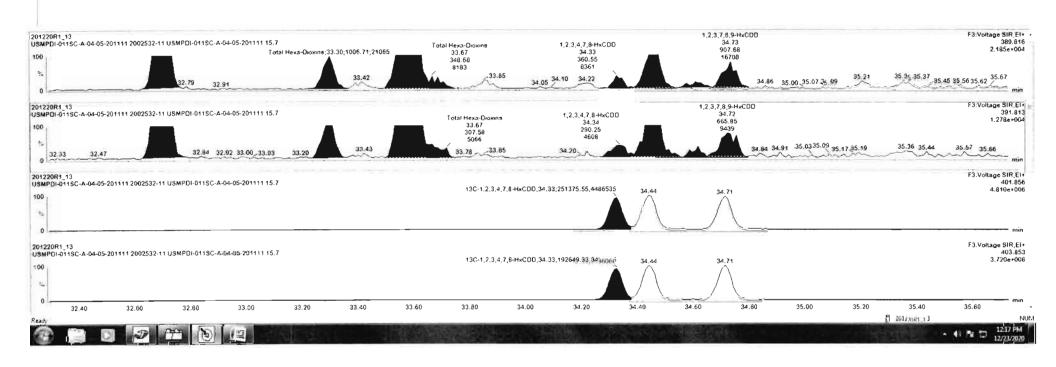
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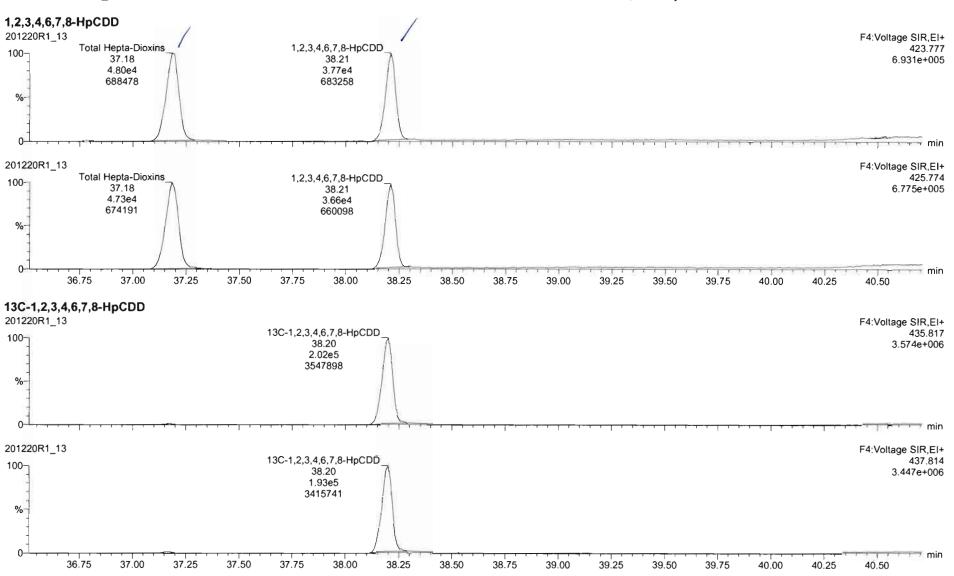




Work Order 2002532 Page 350 of 725

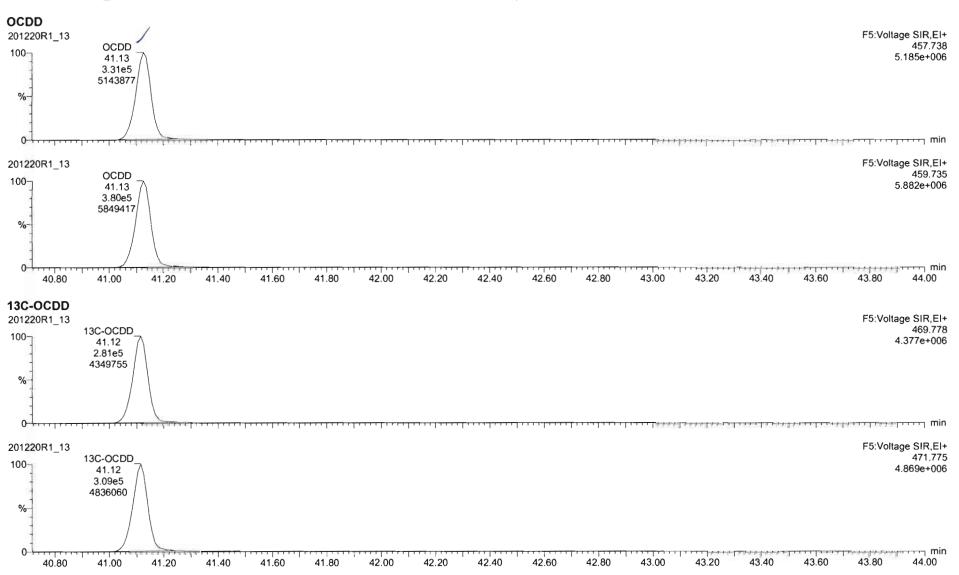
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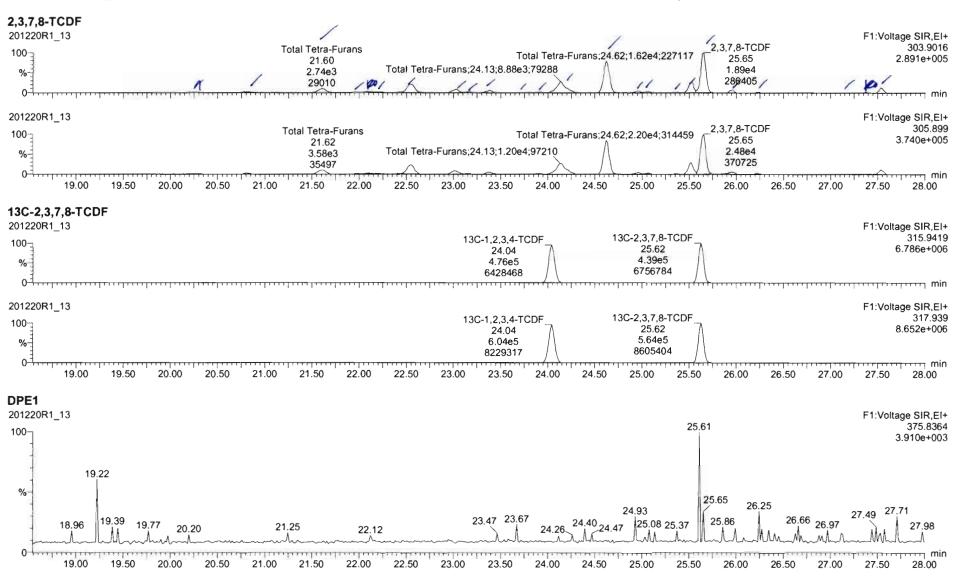
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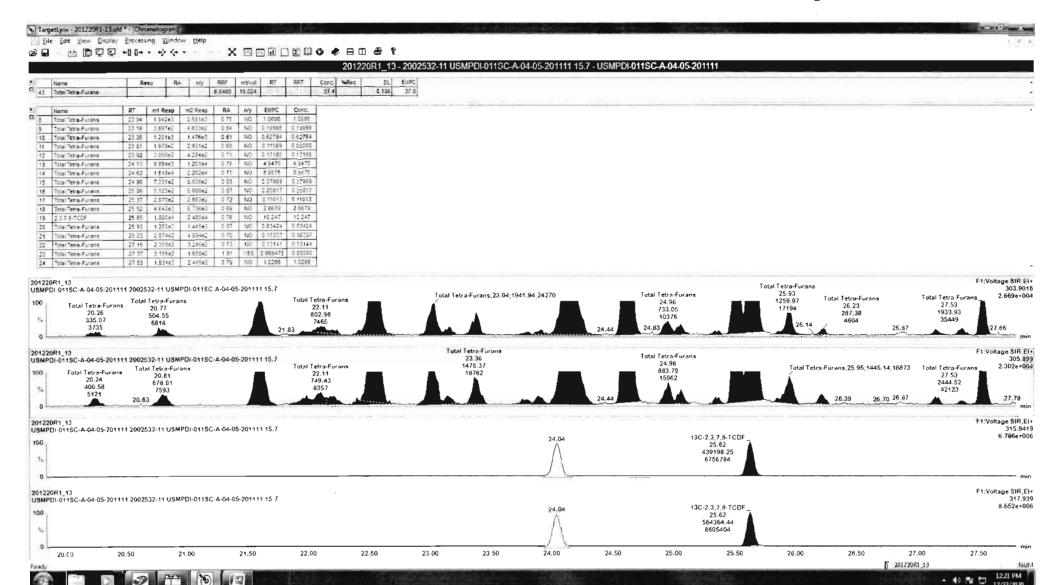
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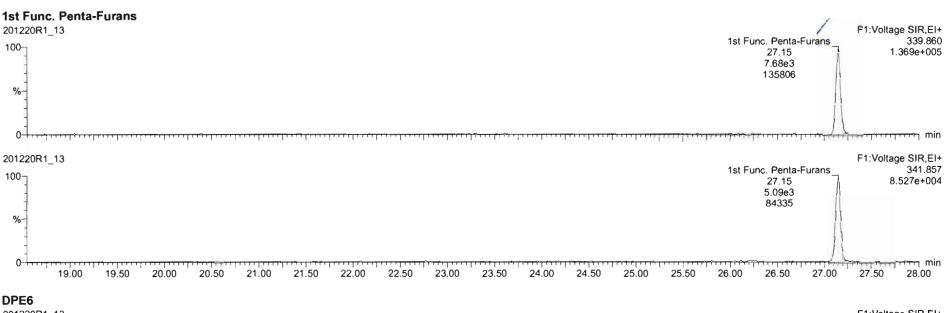


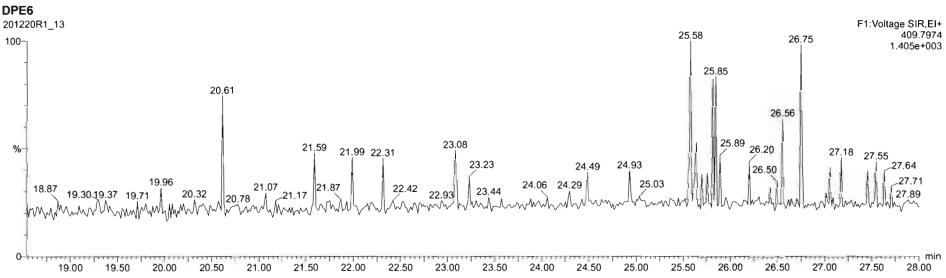


Work Order 2002532 Page 354 of 725

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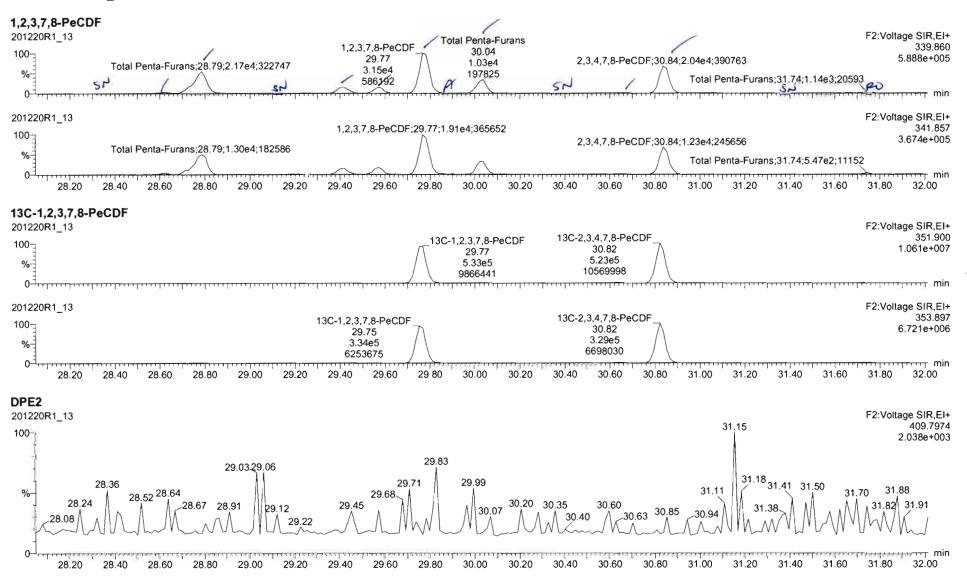
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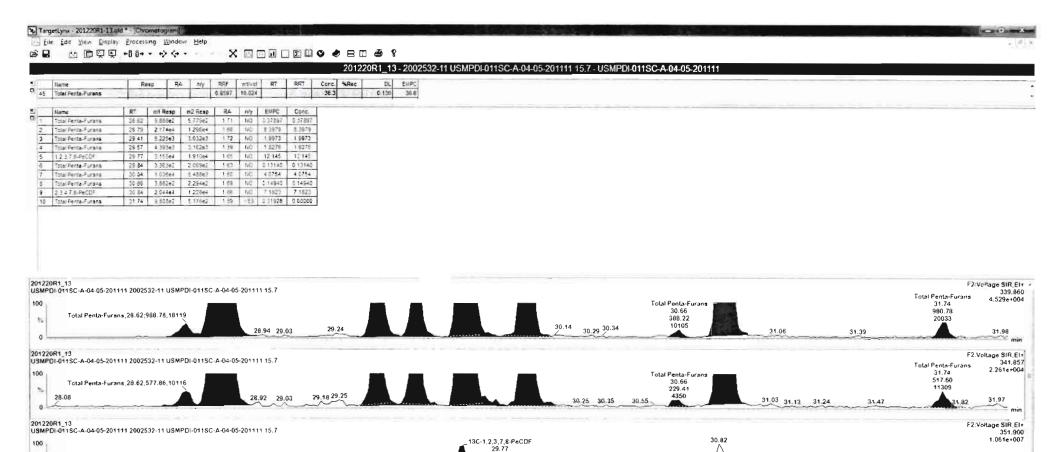




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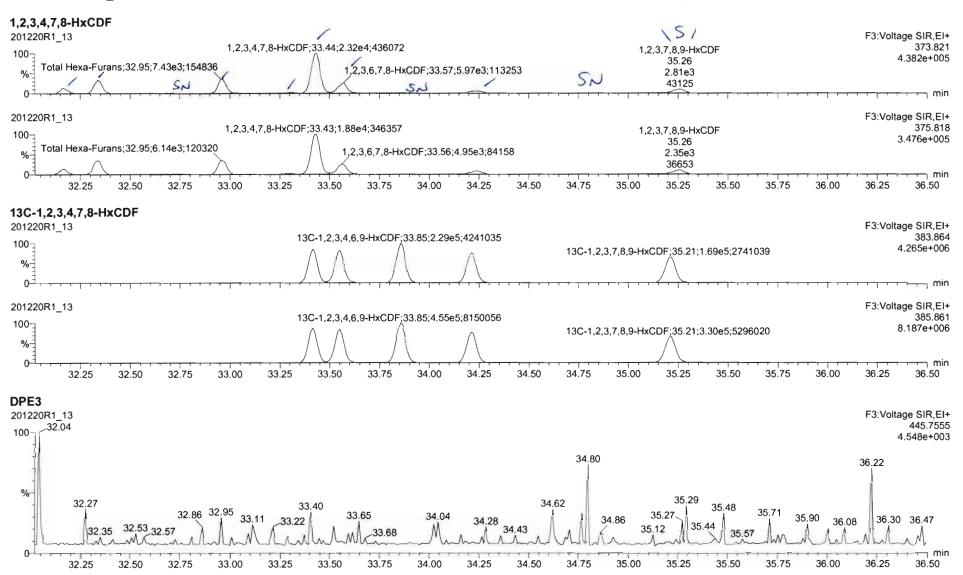
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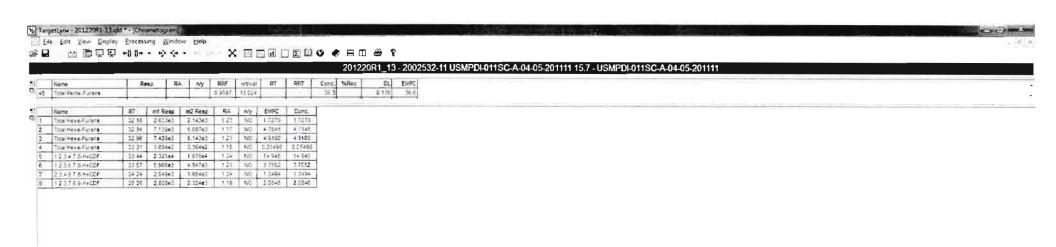
Work Order 2002532 Page 357 of 725

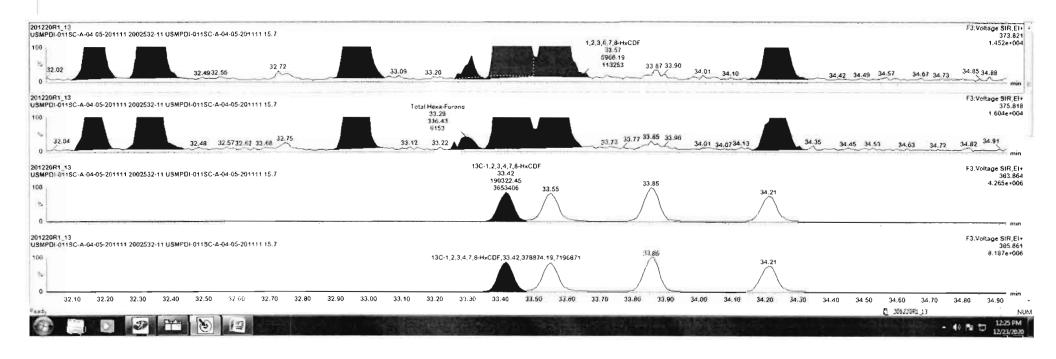
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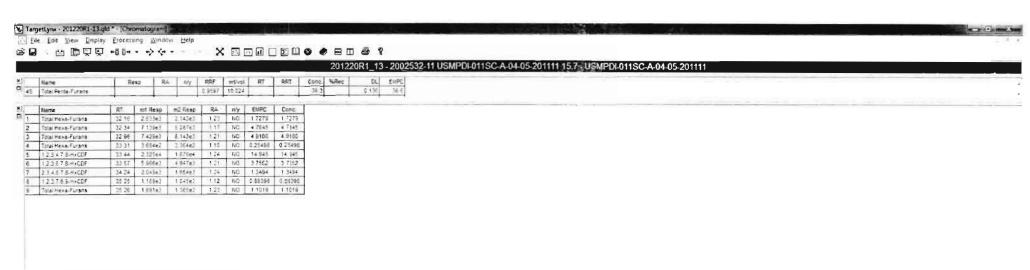
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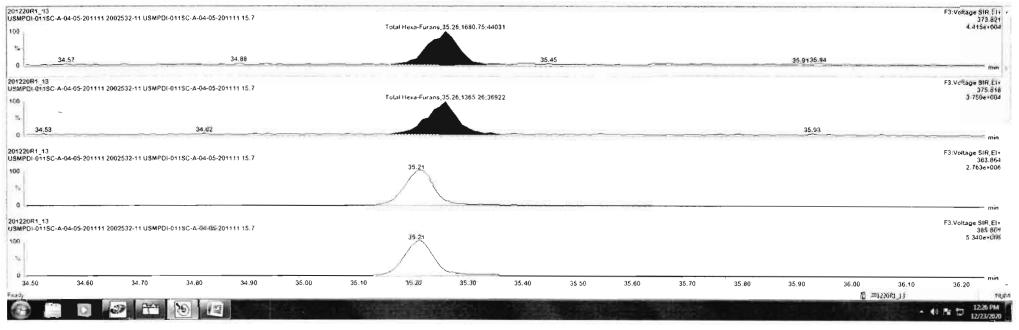






Work Order 2002532 Page 359 of 725

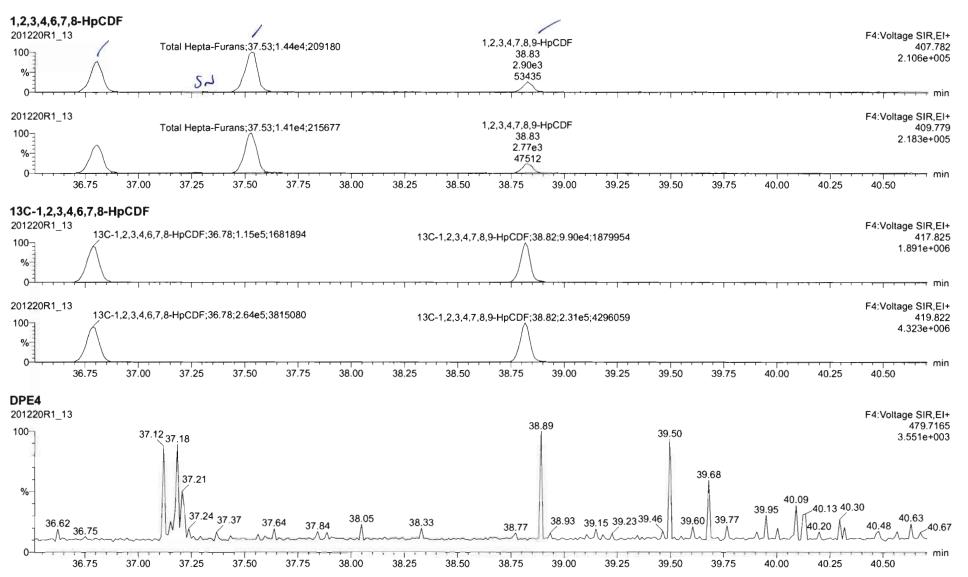


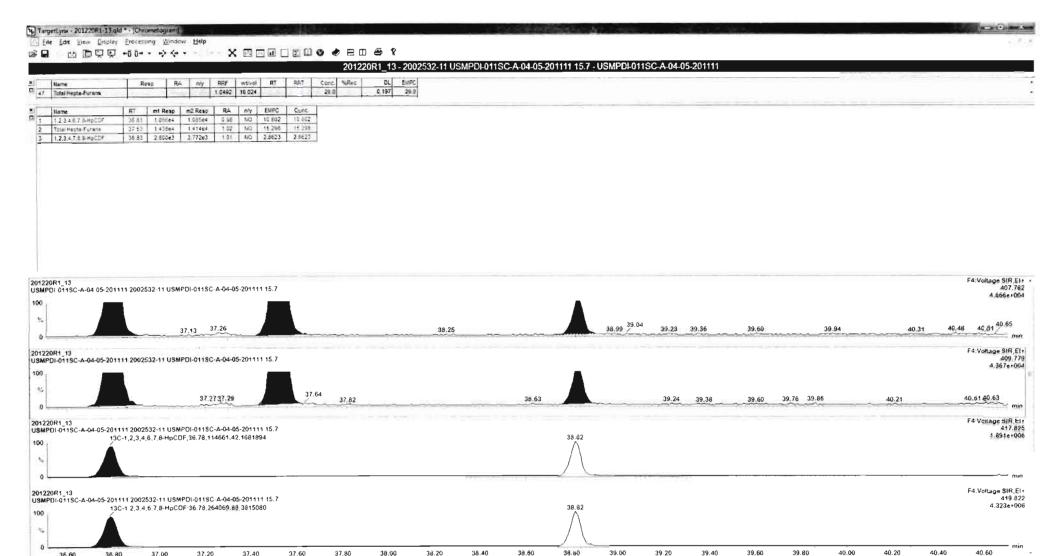


Work Order 2002532 Page 360 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





Work Order 2002532 Page 362 of 725

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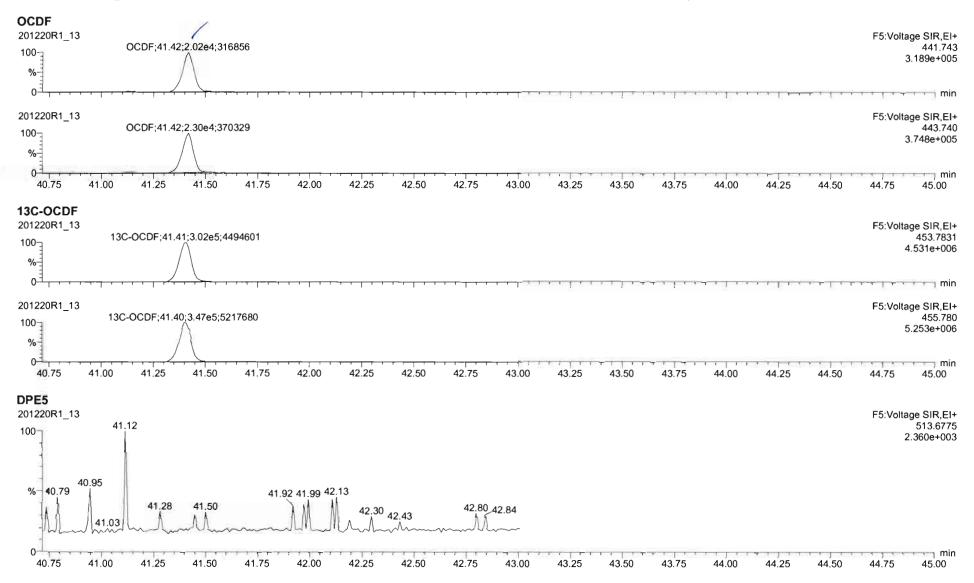
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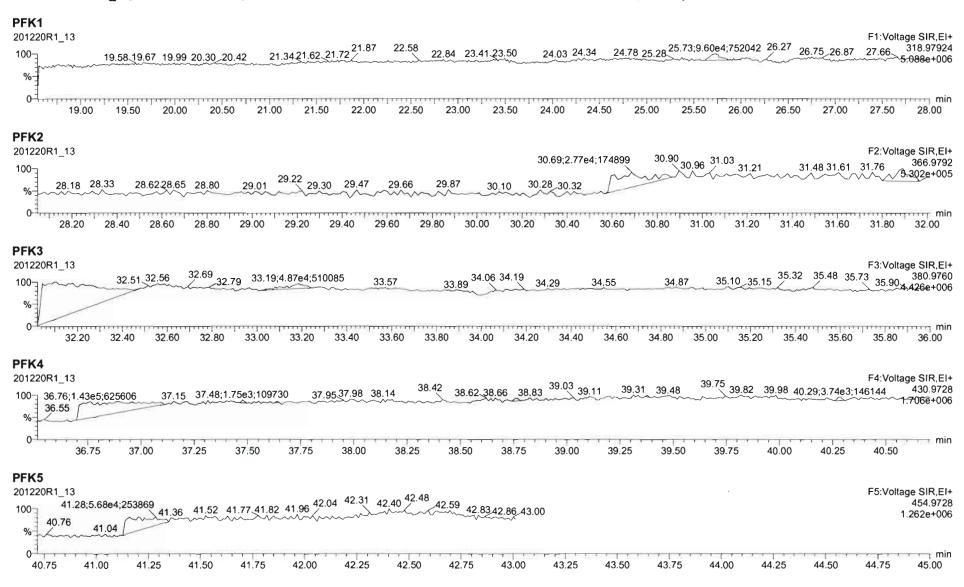
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Name: 201220R1 13, Date: 20-Dec-2020, Time: 17:22:50, ID: 2002532-11 USMPDI-011SC-A-04-05-201111 15.7, Description: USMPDI-011SC-A-04-05-201111



Work Order 2002532 Page 364 of 725

MassLynx 4.1 SCN815

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-14.qld

Last Altered: Wednesday, December 23, 2020 12:44:52 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 12:45:10 PM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_14, Date: 20-Dec-2020, Time: 18:07:05, ID: 2002532-12 USMPDI-011SC-A-05-06-201111 14:34, Description: USMPDI-011SC-A-05-06-201111

からまるよ	# 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	6.27e2	0.37	YES	0.980	10.045	26.337	26.33	1.001	1.001	0.16938	0.0665	0.106
2	2 1,2,3,7,8-PeCDD	6.57e2	0.71	NO	0.932	10.045	31.034	31.02	1.001	1.000	0.24064	0.131	0.241
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.045	34.337		1.001			0.120	
4	4 1,2,3,6,7,8-HxCDD	8.23e2	1.40	NO	0.902	10.045	34.452	34.44	1.001	1.000	0.37860	0.120	0.379
5	5 1,2,3,7,8,9-HxCDD	3.89e2	1.22	NO	0.954	10.045	34.713	34.72	1.000	1.001	0.17363	0.121	0.174
6	6 1,2,3,4,6,7,8-HpCDD	1.49e4	1.01	NO	0.918	10.045	38.190	38.19	1.000	1.000	8.1531	0.297	8.15
7	7 OCDD	1.58e5	0.86	NO	0.866	10.045	41.113	41.12	1.000	1.000	119.94	0.485	120
8	8 2,3,7,8-TCDF	7.86e3	0.73	NO	0.848	10.045	25.613	25.63	1.000	1.001	1.8526	0.109	1.85
9	9 1,2,3,7,8-PeCDF	8.27e3	1.58	NO	0.960	10.045	29.739	29.75	1.000	1.001	2.0972	0.128	2.10
10	10 2,3,4,7,8-PeCDF	5.50e3	1.64	NO	1.07	10.045	30.829	30.82	1.001	1.000	1.2754	0.113	1.28
115-5	11 1,2,3,4,7,8-HxCDF	7.19e3	1.27	NO	0.986	10.045	33.415	33.42	1.000	1.000	2.6335	0.0849	2.63
12	12 1,2,3,6,7,8-HxCDF	2.07e3	1.18	NO	1.04	10.045	33.561	33.55	1.001	1.000	0.74426	0.0861	0.744
13	13 2,3,4,6,7,8-HxCDF	9.02e2	1.28	NO	1.02	10.045	34.222	34.22	1.001	1.001	0.33566	0.0890	0.336
14	14 1,2,3,7,8,9-HxCDF	2.84e2	1.27	NO	0.991	10.045	35.206	35.22/	1.000	1.001	0.11314	0.104	0.113
15	15 1,2,3,4,6,7,8-HpCDF	4.28e3	0.97	NO	1.05	10.045	36.792	36.78	1.000	1.000	2.1381	0.102	2.14
16	16 1,2,3,4,7,8,9-HpCDF	9.39e2	0.94	NO	1.18	10.045	38.817	38.82	1.000	1.000	0.48511	0.0819	0.485
17	17 OCDF	7.52e3	0.82	NO	0.896	10.045	41.406	41.42	1.000	1.001	5.0579	0.117	5.06
18	18 13C-2,3,7,8-TCDD	7.52e5	0.78	NO	1.06	10.045	26.307	26.31	1.030	1.030	185.19	93.0 0.148	
19	19 13C-1,2,3,7,8-PeCDD	5.83e5	0.64	NO	0.785	10.045	31.139	31.00	1.219	1.214	193.15	97.0 0.218	
20	20 13C-1,2,3,4,7,8-HxCDD	4.33e5	1.31	NO	0.621	10.045	34.305	34.32	1.014	1.014	196.99	98.9 0.468	
21	21 13C-1,2,3,6,7,8-HxCDD	4.80e5	1.27	NO	0.734	10.045	34.427	34.43	1.017	1.017	184.76	92.8 0.396	
22	22 13C-1,2,3,7,8,9-HxCDD	4.68e5	1.26	NO	0.723	10.045	34.711	34.70	1.026	1.025	183.00	91.9 0.402	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.95e5	1.05	NO	0.568	10.045	38.208	38.18	1.129	1.128	196.85	98.9 0.929	
24	24 13C-OCDD	6.08e5	0.88	NO	0.496	10.045	41.142	41.10	1.216	1.215	346.28	87.0 0.725	
25	25 13C-2,3,7,8-TCDF	9.97e5	0.78	NO	0.919	10.045	25.608	25.61	1.003	1.003	188.15	94.5 0.214	
26	26 13C-1,2,3,7,8-PeCDF	8.18e5	1.59	NO	0.715	10.045	29.852	29.74	1.169	1.164	198.50	99.7 0.289	
27	27 13C-2,3,4,7,8-PeCDF	8.05e5	1.60	NO	0.689	10.045	30.937	30.81	1.212	1.206	202.84	102 0.301	
28	28 13C-1,2,3,4,7,8-HxCDF	5.51e5	0.51	NO	0.873	10.045	33.412	33.40	0.987	0.987	178.42	89.6 0.444	
29	29 13C-1,2,3,6,7,8-HxCDF	5.34e5	0.50	NO	0.933	10.045	33.540	33.54	0.991	0.991	161.66	81.2 0.416	
30	30 13C-2,3,4,6,7,8-HxCDF	5.25e5	0.50	NO	0.843	10.045	34.207	34.20	1.011	1.011	175.90	88.3 0.460	
31	31 13C-1,2,3,7,8,9-HxCDF	5.04e5	0.50	NO	0.780	10.045	35.206	35.19	/ 1.040	1.040	182.75	91.8 0.497	

Work Order 2002532 Page 365 of 725

U:\VG12.PRO\Results\201220R1\201220R1-14.qld

Last Altered: Printed: Wednesday, December 23, 2020 12:44:52 PM Pacific Standard Time Wednesday, December 23, 2020 12:45:10 PM Pacific Standard Time

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	# 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	3.80e5	0.42	NO	0.726	10.045	36.779	36.77	1.087	1.087	147.78	74.2	0.576	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.28e5	0.42	NO	0.491	10.045	38.786	38.81	1.146	1.147	188.53	94.7	0.851	
34	34 13C-OCDF	6.60e5	0.88	NO	0.565	10.045	41.359	41.40	1.222	1.223	330.12	82.9	0.714	
35	35 37CI-2,3,7,8-TCDD	3.45e5			1.22	10.045	26.302	26.32	1.030	1.031	73.649	92.5	0.0234	
36	36 13C-1,2,3,4-TCDD	7.66e5	0.78	NO	1.00	10.045	25.640	25.54	1.000	1.000	199.10	100	0.156	
37	37 13C-1,2,3,4-TCDF	1.15e6	0.79	NO	1.00	10.045	24.130	24.03	1.000	1.000	199.10	100	0.197	
38	38 13C-1,2,3,4,6,9-HxCDF	7.04e5	0.50	NO	1.00	10.045	33.920	33.85	1.000	1.000	199.10	100	0.388	
39	39 Total Tetra-Dioxins				0.980	10.045	24.620		0.000		2.1229		0.0665	2.49
40	40 Total Penta-Dioxins				0.932	10.045	29.960		0.000		1.2868		0.131	1.86
41	41 Total Hexa-Dioxins				0.902	10.045	33.635		0.000		3.9673		0.128	3.97
42	42 Total Hepta-Dioxins				0.918	10.045	37.640		0.000		23.801		0.297	23.8
43	43 Total Tetra-Furans				0.848	10.045	23.610		0.000		14.259		0.109	14.8
44	44 1st Func. Penta-Furans				0.960	10.045	26.930		0.000		1.0559		0.0165	1.06
45	45 Total Penta-Furans				0.960	10.045	29.275		0.000		7.5622		0.127	7.56
46	46 Total Hexa-Furans				1.02	10.045	33.555		0.000		6.8785		0.0897	6.88
47	47 Total Hepta-Furans				1.05	10.045	37.835		0.000		5.8961		0.0972	5.90

Work Order 2002532 Page 366 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-14.qld

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Wednesday, December 23, 2020 12:44:52 PM Pacific Standard Time Wednesday, December 23, 2020 12:45:10 PM Pacific Standard Time

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Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	10	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.48	8.301e3	1.147e4		7.520e2	9.375e2	0.80	NO	1.689e3	0.45616	0.45616	0.0665
2	Total Tetra-Dioxins	22.85	4.175e3	5.306e3		3.434e2	4.814e2	0.71	NO	8.248e2	0.22269	0.22269	0.0665
3	Total Tetra-Dioxins	23.41	2.277e3	3.384e3		1.713e2	2.485e2	0.69	NO	0.000e0	0.00000	0.11336	0.0665
4	Total Tetra-Dioxins	24.41	6.353e3	8.693e3		5.587e2	7.692e2	0.73	NO	1.328e3	0.35853	0.35853	0.0665
5	Total Tetra-Dioxins	24.68	5.646e3	7.260e3		4.513e2	5.197e2	0.87	NO	9.710e2	0.26217	0.26217	0.0665
6	Total Tetra-Dioxins	24.84	3.943e3	4.490e3		2.567e2	3.002e2	0.85	NO	0.000e0	0.00000	0.15037	0.0665
7	Total Tetra-Dioxins	25.24	3.925e3	4.966e3		3.769e2	4.313e2	0.87	NO	8.082e2	0.21823	0.21823	0.0665
8	Total Tetra-Dioxins	26.01	7.440e3	8.277e3		7.262e2	8.257e2	0.88	NO	1.552e3	0.41902	0.41902	0.0665
9	2.3,7,8-TCDD	26.33	3.734e3	7.752e3		1.703e2	4.570e2	0.37	YES	6.273e2	0.00000	0.10571	0.0665
10	Total Tetra-Dioxins	26.64	3.883e3	4.408e3		2.233e2	2.779e2	0.80	NO	5.012e2	0.13532	0.13532	0.0665
11	Total Tetra-Dioxins	26.78	1.129e3	2.177e3		7.991e1	1.083e2	0.74	NO	1.882e2	0.050812	0.050812	0.0665

Penta-Dioxins

SAME	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.77	6.031e3	8.987e3	4.983e2	7.496e2	0.66	NO	1.248e3	0.45718	0.45718	0.131
2	Total Penta-Dioxins	29.75	1.204e4	1.234e4	6.130e2	7.054e2	0.87	YES	0.000e0	0.00000	0.42121	0.131
3	Total Penta-Dioxins	29.93	4.930e3	5.084e3	2.205e2	2.509e2	0.88	YES	0.000e0	0.00000	0.14981	0.131
4	Total Penta-Dioxins	30.01	6.105e3	6.405e3	1.855e2	2.890e2	0.64	NO	4.745e2	0.17384	0.17384	0.131
5	Total Penta-Dioxins	30.20	2.707e3	6.528e3	2.308e2	4.161e2	0.55	NO	6.470e2	0.23703	0.23703	0.131
6	Total Penta-Dioxins	30.55	4.659e3	5.435e3	1.925e2	2.938e2	0.66	NO	4.863e2	0.17816	0.17816	0.131
7	1,2,3,7,8-PeCDD	31,02	6.355e3	6.136e3	2.720e2	3.849e2	0.71	NO	6.569e2	0.24064	0.24064	0.131

Work Order 2002532 Page 367 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-14.qld

Last Altered: Printed: Wednesday, December 23, 2020 12:44:52 PM Pacific Standard Time Wednesday, December 23, 2020 12:45:10 PM Pacific Standard Time

Name: 201220R1_14, Date: 20-Dec-2020, Time: 18:07:05, ID: 2002532-12 USMPDI-011SC-A-05-06-201111 14.34, Description: USMPDI-011SC-A-05-06-201111

Hexa-Dioxins

18 -8	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.69	3.582e4	3.072e4	1.596e3	1.396e3	1.14	NO	2.992e3	1.4346	1.4346	0.128
2	Total Hexa-Dioxins	33.29	8.519e3	8.167e3	4.290e2	3.973e2	1.08	NO	8.263e2	0.39621	0.39621	0.128
3	Total Hexa-Dioxins	33.58	2.392e4	2.156e4	1.595e3	1.353e3	1.18	NO	2.948e3	1.4136	1.4136	0.128
4	Total Hexa-Dioxins	33.68	3.872e3	3.523e3	1.942e2	1.616e2	1.20	NO	3.558e2	0.17062	0.17062	0.128
5	1,2,3,6,7,8-HxCDD	34.44	7.517e3	7.504e3	4.806e2	3.429e2	1.40	NO	8.235e2	0.37860	0.37860	0.120
6	1,2,3,7,8,9-HxCDD	34.72	4.140e3	3.113e3	2.139e2	1.754e2	1.22	NO	3.894e2	0.17363	0.17363	0.121

Hepta-Dioxins

12.00	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.17	1.992e5	1.983e5	1.448e4	1.405e4	1.03	NO	2.853e4	15.648	15.648	0.297
2	1,2,3,4,6,7,8-HpCDD	38.19	1.286e5	1.286e5	7.455e3	7.411e3	1.01	NO	1.487e4	8.1531	8.1531	0.297

Work Order 2002532 Page 368 of 725

Page 3 of 4

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-14.qld

Last Altered: Wednesday, December 23, 2020 12:44:52 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 12:45:10 PM Pacific Standard Time

Name: 201220R1_14, Date: 20-Dec-2020, Time: 18:07:05, ID: 2002532-12 USMPDI-011SC-A-05-06-201111 14.34, Description: USMPDI-011SC-A-05-06-201111

Tetra-Furans

5.5	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.21	4.830e3	7.587e3	4.697e2	6.112e2	0.77	NO	1.081e3	0.25465	0.25465	0.109
2	Total Tetra-Furans	20.82	6.494e3	7.774e3	5.101e2	7.072e2	0.72	NO	1.217e3	0.28678	0.28678	0.109
3	Total Tetra-Furans	21.59	9.441e3	1.142e4	8.182e2	1.155e3	0.71	NO	1.973e3	0.46471	0.46471	0.109
4	Total Tetra-Furans	21.83	5.190e3	6.460e3	3.626e2	5.007e2	0.72	NO	8.633e2	0.20337	0.20337	0.109
5	Total Tetra-Furans	21.94	5.250e3	5.454e3	4.010e2	4.699e2	0.85	NO	8.709e2	0.20515	0.20515	0.109
6	Total Tetra-Furans	22.11	1.154e4	1.709e4	1.238e3	1.741e3	0.71	NO	2.979e3	0.70167	0.70167	0.109
7	Total Tetra-Furans	22.18	6.344e3	9.475e3	4.571e2	6.976e2	0.66	NO	1.155e3	0.27201	0.27201	0.109
8	Total Tetra-Furans	22.42	4.513e3	6.280e3	2.840e2	4.251e2	0.67	NO	7.091e2	0.16704	0.16704	0.109
9	Total Tetra-Furans	22.50	1.662e4	2.497e4	1.986e3	2.861e3	0.69	NO	4.847e3	1.1418	1.1418	0.109
10	Total Tetra-Furans	22.99	1.215e4	1.582e4	8.675e2	1.301e3	0.67	NO	2.169e3	0.51085	0.51085	0.109
11	Total Tetra-Furans	23.11	5.735e3	8.857e3	5.303e2	7.149e2	0.74	NO	1.245e3	0.29332	0.29332	0.109
12	Total Tetra-Furans	23.36	8.842e3	1.265e4	6.648e2	9.098e2	0.73	NO	1.575e3	0.37093	0.37093	0.109
13	Total Tetra-Furans	23.78	8.950e3	1.101e4	6.561e2	9.058e2	0.72	NO	1.562e3	0.36792	0.36792	0.109
14	Total Tetra-Furans	23.91	7.532e3	1.310e4	6.404e2	9.072e2	0.71	NO	1.548e3	0.36456	0.36456	0.109
15	Total Tetra-Furans	24.12	2.336e4	3.058e4	2.244e3	3.191e3	0.70	NO	5.436e3	1.2805	1.2805	0.109
16	Total Tetra-Furans	24.16	2.335e4	2.758e4	1.978e3	2.545e3	0.78	NO	4.523e3	1.0655	1.0655	0.109
17	Total Tetra-Furans	24.60	5.212e4	6.965e4	3.860e3	4.709e3	0.82	NO	8.569e3	2.0187	2.0187	0.109
18	Total Tetra-Furans	24.93	1.348e4	1.656e4	7.818e2	1.009e3	0.77	NO	1.791e3	0.42192	0.42192	0.109
19	Total Tetra-Furans	25.03	9.909e3	1.000e4	5.607e2	6.921e2	0.81	NO	1.253e3	0.29512	0.29512	0.109
20	Total Tetra-Furans	25.34	1.158e4	1.527e4	7.529e2	1.034e3	0.73	NO	1.787e3	0.42102	0.42102	0.109
21	Total Tetra-Furans	25.51	2.197e4	3.188e4	1.578e3	2.020e3	0.78	NO	3.598e3	0.84747	0.84747	0.109
22	2,3,7,8-TCDF	25.63	5.059e4	6.971e4	3.311e3	4.553e3	0.73	NO	7.864e3	1.8526	1.8526	0.109
23	Total Tetra-Furans	25.85	6.217e3	1.164e4	3.893e2	5.835e2	0.67	NO	9.728e2	0.22917	0.22917	0.109
24	Total Tetra-Furans	25.92	1.503e4	2.098e4	1.016e3	1.324e3	0.77	NO	0.000e0	0.00000	0.55127	0.109
25	Total Tetra-Furans	27.52	8.244e3	7.973e3	4.371e2	5.054e2	0.86	NO	9.425e2	0.22203	0.22203	0.109

Penta-Furans function 1

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1-1-1-1	1st Func Penta-Furan	s 27.13	3.680e4	2.608e4	2.497e3	1.634e3	1.53	NO	4.131e3	1.0559	1.0559	0.0165

Work Order 2002532 Page 369 of 725

Page 4 of 4

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-14.qld

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Penta-Furans

	Name	RT	m1 Height	m2 Height	141	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.88	Total Penta-Furans	28.58	9.751e3	5.275e3		7.878e2	4.508e2	1.75	NO	1.239e3	0.31659	0.31659	0.127
2	Total Penta-Furans	28.77	5.532e4	4.013e4		4.213e3	2.582e3	1.63	NO	6.795e3	1.7368	1.7368	0.127
3	Total Penta-Furans	29.41	1.948e4	1.732e4		1.300e3	9.824e2	1.32	NO	2.282e3	0.58342	0.58342	0.127
4	Total Penta-Furans	29.56	2.032e4	1.249e4		9.907e2	5.802e2	1.71	NO	1.571e3	0.40154	0.40154	0.127
5	1,2,3,7,8-PeCDF	29.75	9.773e4	6.539e4		5.066e3	3.205e3	1.58	NO	8.271e3	2.0972	2.0972	0.128
6	Total Penta-Furans	30.02	3.830e4	2.773e4		2.241e3	1.361e3	1.65	NO	3.603e3	0.92092	0.92092	0.127
7	Total Penta-Furans	30.64	1.106e4	7.509e3		5.204e2	3.803e2	1.37	NO	9.007e2	0.23022	0.23022	0.127
8	2,3,4,7,8-PeCDF	30.82	6.742e4	3.901e4		3.421e3	2.082e3	1.64	NO	5.503e3	1.2754	1.2754	0.113

Hexa-Furans

Maria S.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 10-12	Total Hexa-Furans	32.16	1.200e4	1.014e4	5.461e2	4.753e2	1.15	NO	1.021e3	0.37712	0.37712	0.0897
2	Total Hexa-Furans	32.32	3.225e4	2.645e4	1.582e3	1.326e3	1.19	NO	2.909e3	1.0740	1.0740	0.0897
3	Total Hexa-Furans	32.94	3.653e4	3.062e4	1.855e3	1.459e3	1.27	NO	3.314e3	1.2235	1.2235	0.0897
4	Total Hexa-Furans	33.28	3.782e3	3.315e3	1.398e2	1.182e2	1.18	NO	2.580e2	0.095258	0.095258	0.0897
5	1,2,3,4,7,8-HxCDF	33.42	7.460e4	6.310e4	4.019e3	3.171e3	1.27	NO	7.190e3	2.6335	2.6335	0.0849
6	1,2,3,6,7,8-HxCDF	33.55	2.435e4	2.043e4	1.122e3	9.511e2	1.18	NO	2.073e3	0.74426	0.74426	0.0861
7	2,3,4,6,7,8-HxCDF	34.22	9.463e3	6.197e3	5.069e2	3.955e2	1.28	NO	9.024e2	0.33566	0.33566	0.0890
8	1,2,3,7,8,9-HxCDF	35.22	6.051e3	6.131e3	1.587e2	1.253e2	1.27	NO	2.840e2	0.11314	0.11314	0.104
9	Total Hexa-Furans	35.26	7.470e3	7.200e3	4.143e2	3.496e2	1.19	NO	7.638e2	0.28203	0.28203	0.0897

Hepta-Furans

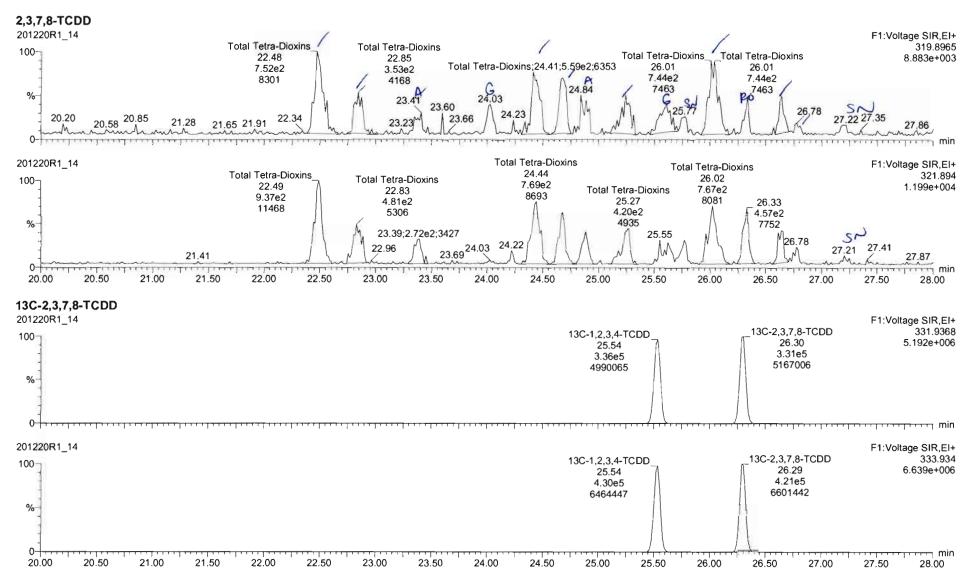
	Name	RT	m1 Height	m2 Height	77.5	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 3 150 0 15	1,2,3,4,6,7,8-HpCDF	36.78	3.118e4	2.951e4		2.110e3	2.170e3	0.97	NO	4.280e3	2.1381	2.1381	0.102
2	Total Hepta-Furans	37.51	4.616e4	4.639e4		2.957e3	3.144e3	0.94	NO	6.101e3	3.2729	3.2729	0.0972
3	1,2,3,4,7,8,9-HpCDF	38.82	8.267e3	9.270e3		4.544e2	4.843e2	0.94	NO	9.386e2	0.48511	0.48511	0.0819

Work Order 2002532 Page 370 of 725

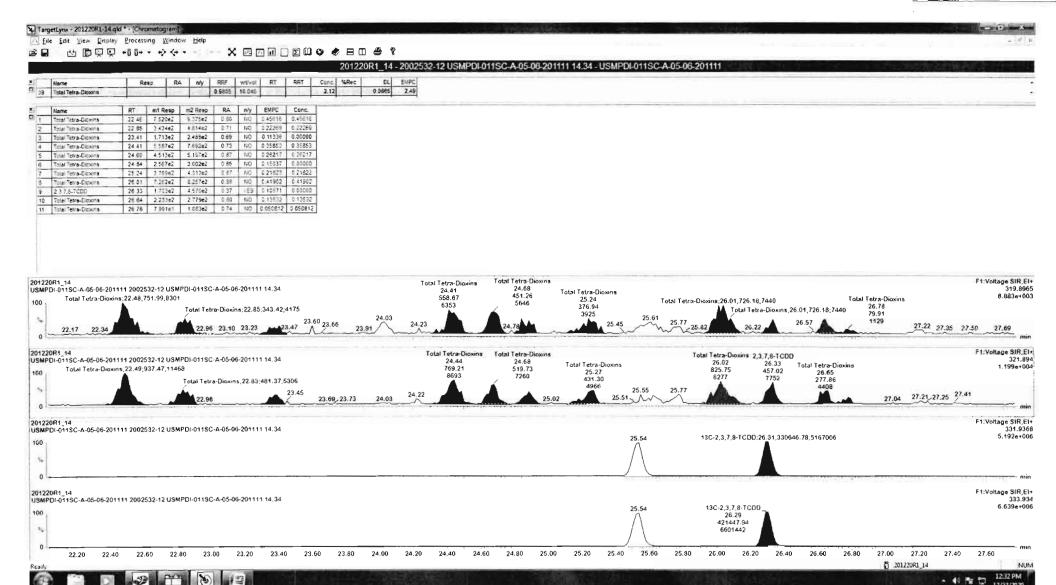
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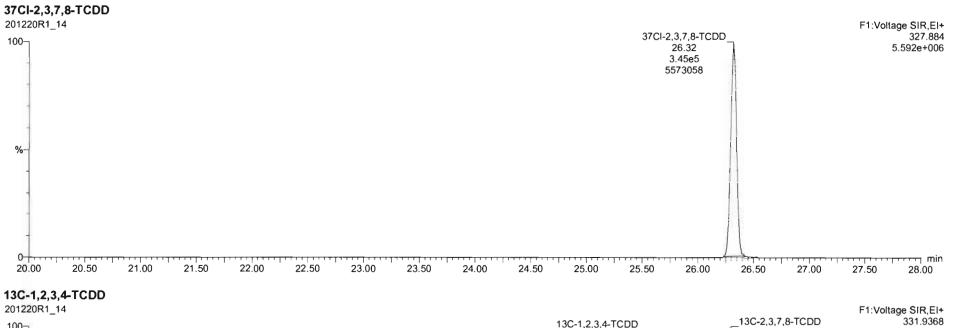
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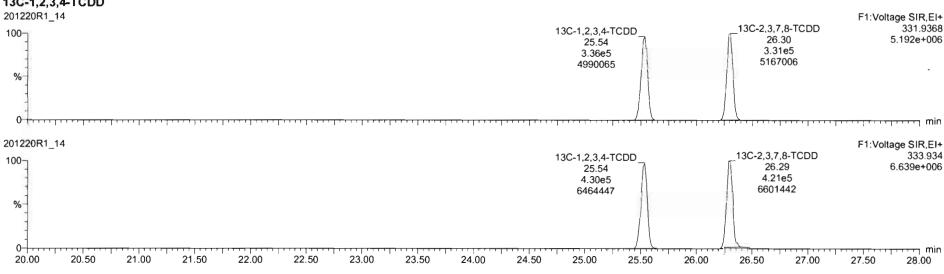


Work Order 2002532 Page 372 of 725

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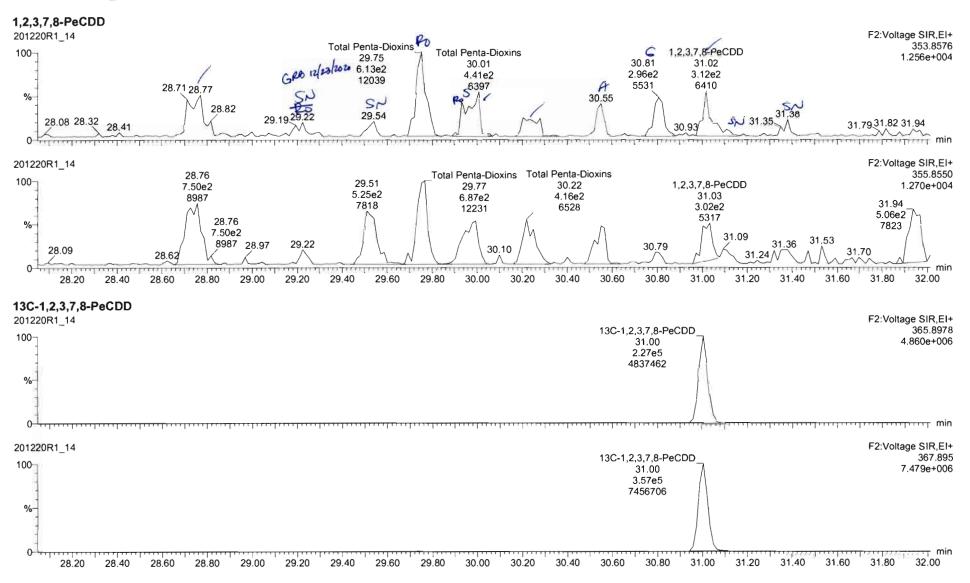


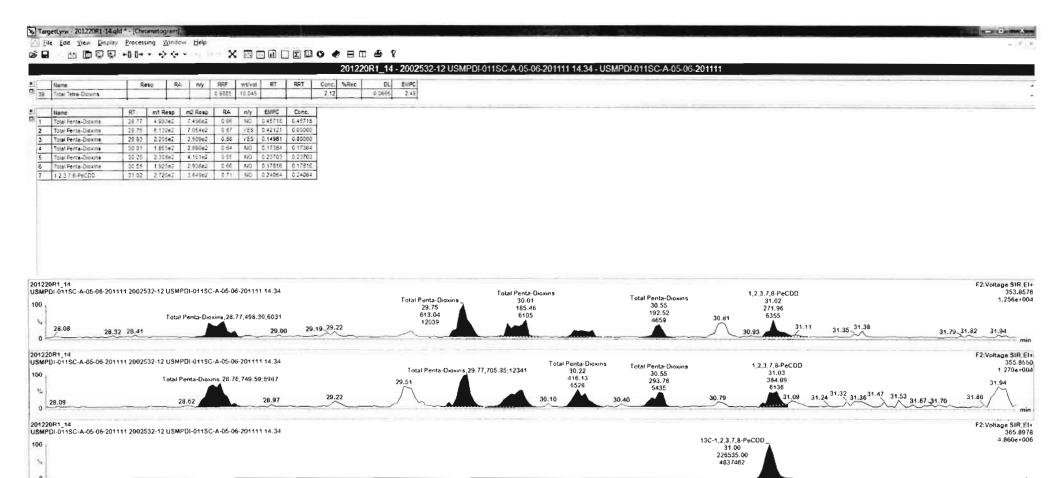
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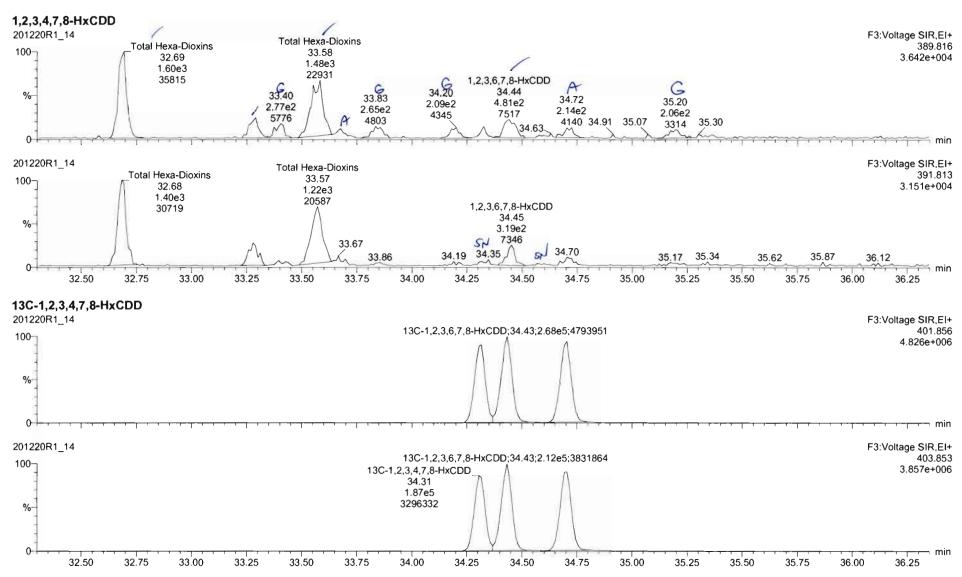
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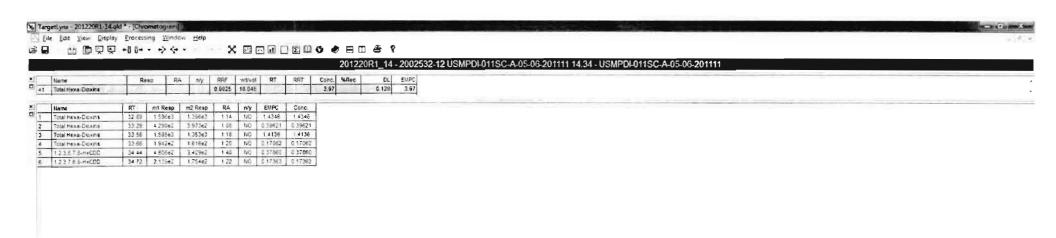
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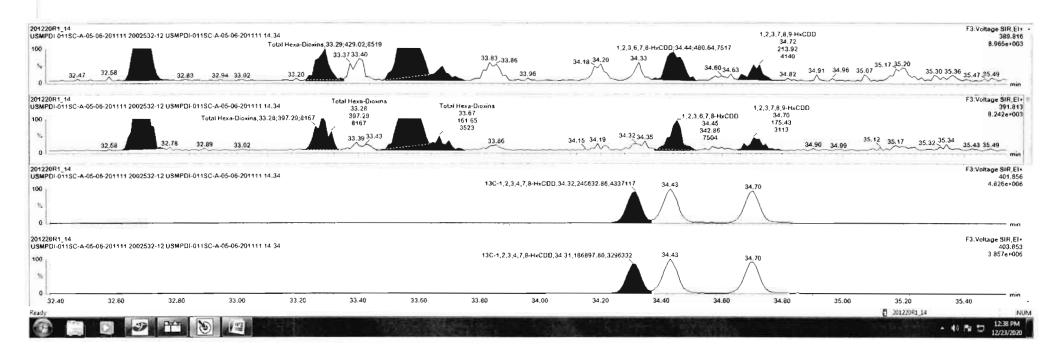
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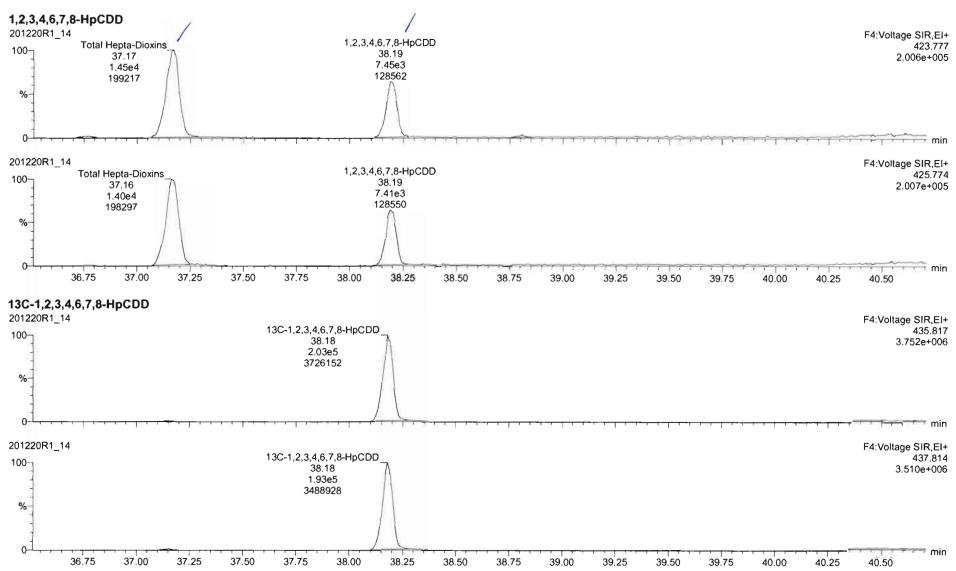


Work Order 2002532 Page 377 of 725

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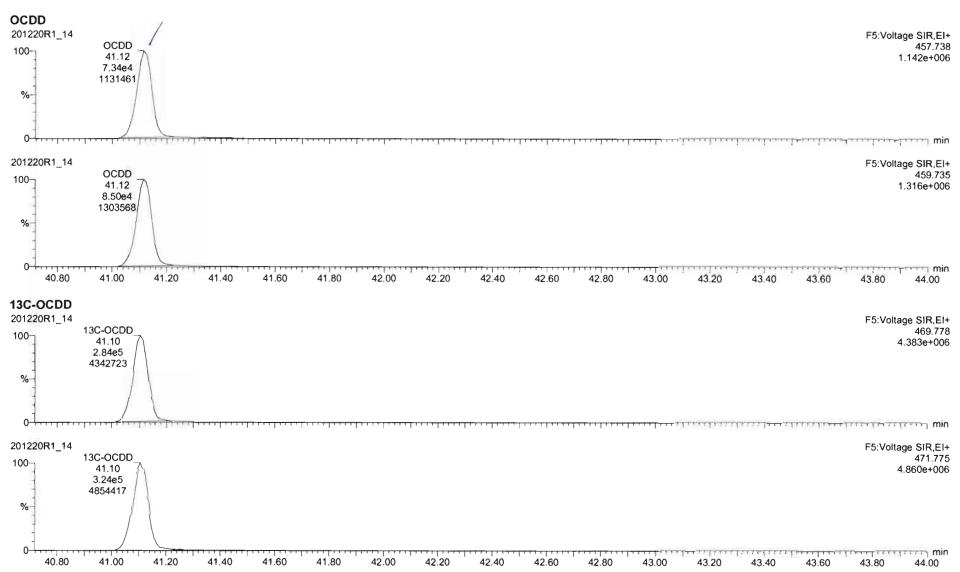
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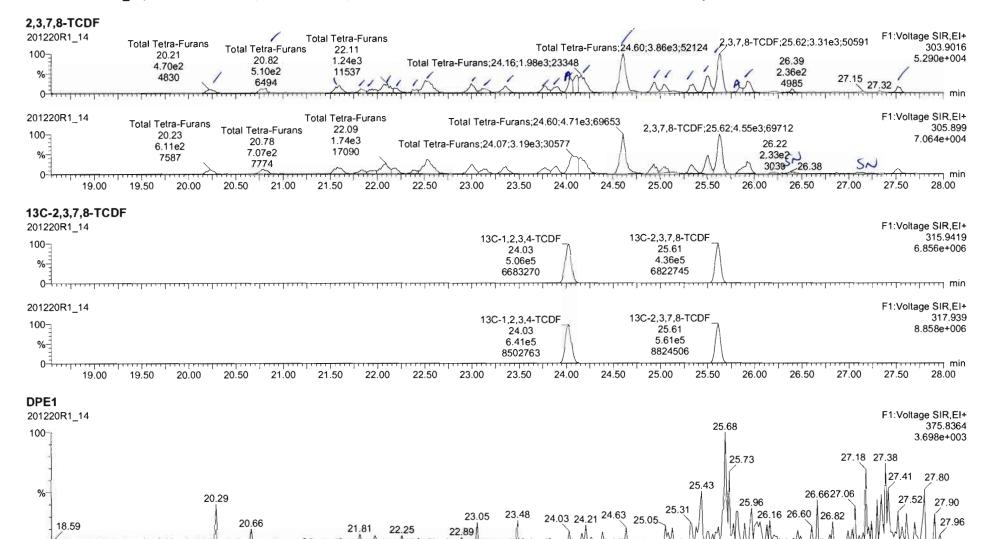
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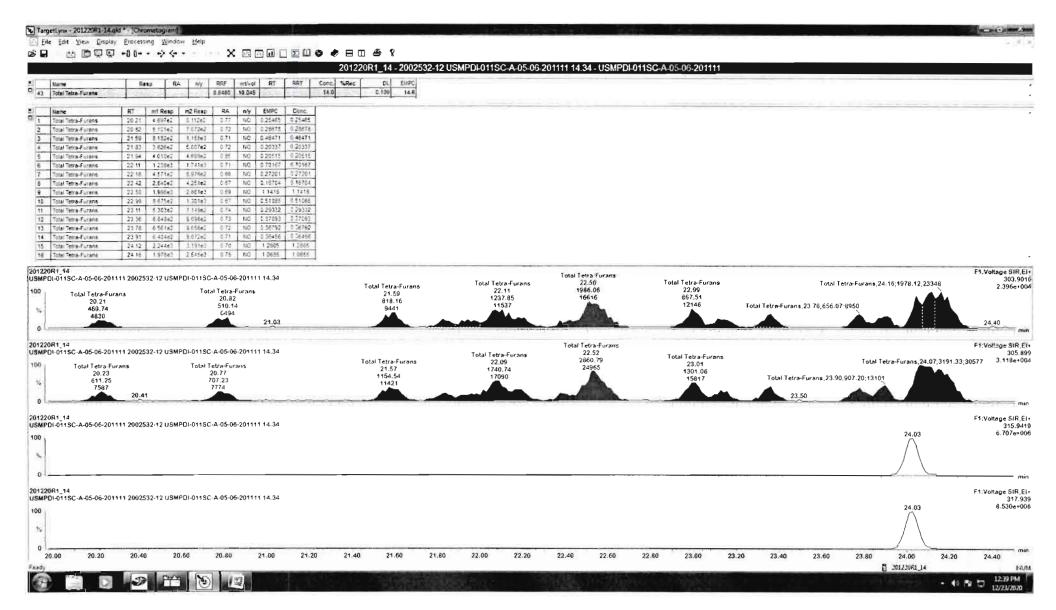
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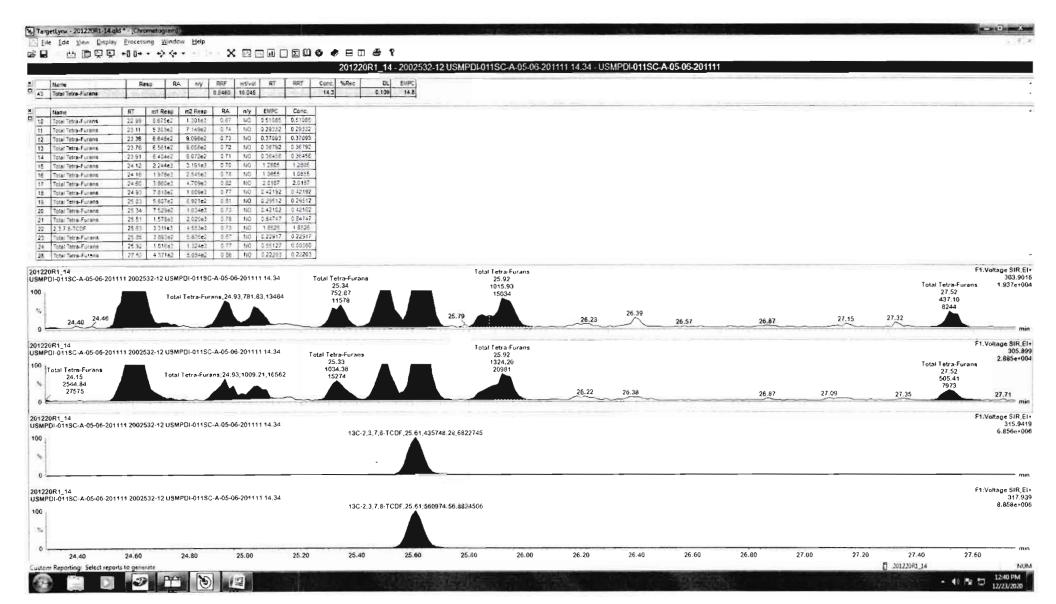
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Work Order 2002532 Page 381 of 725



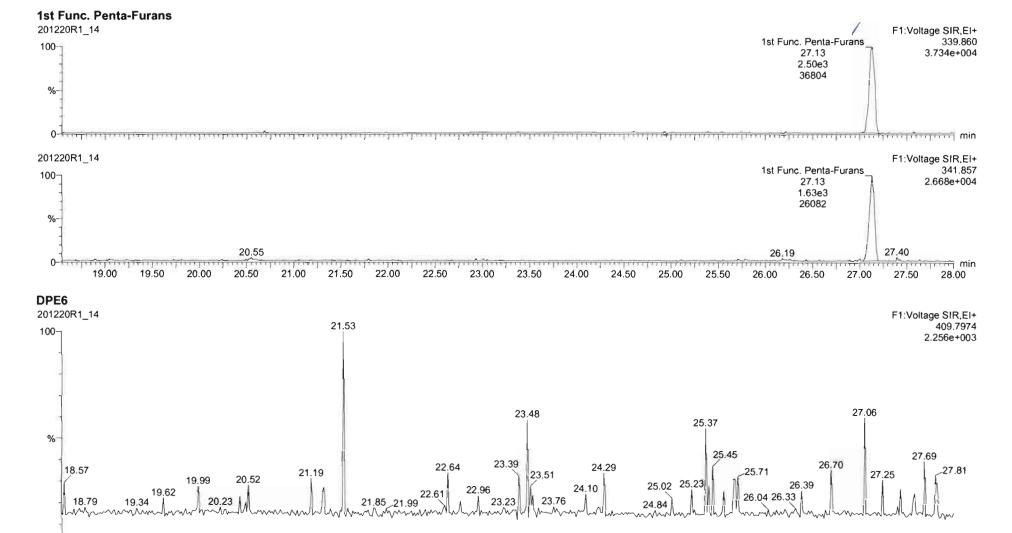
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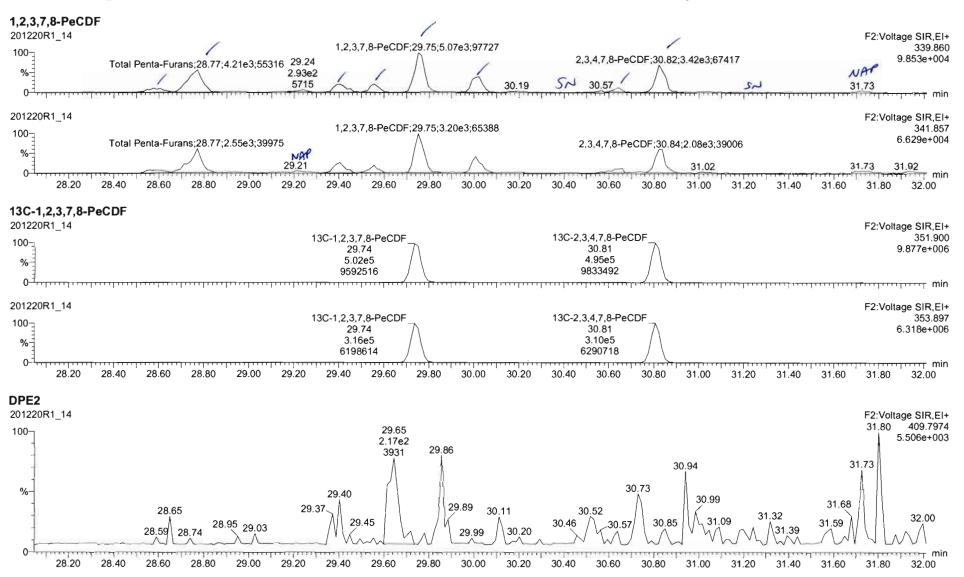
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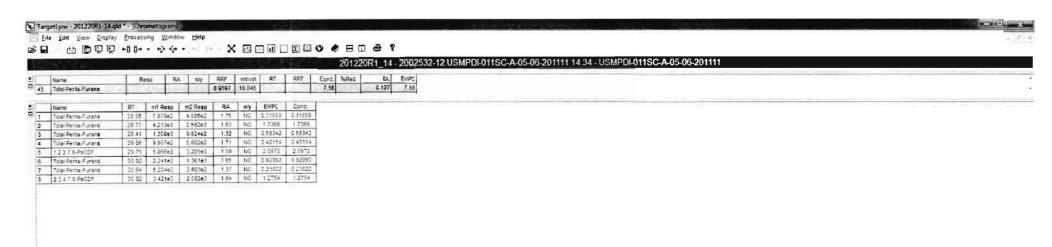
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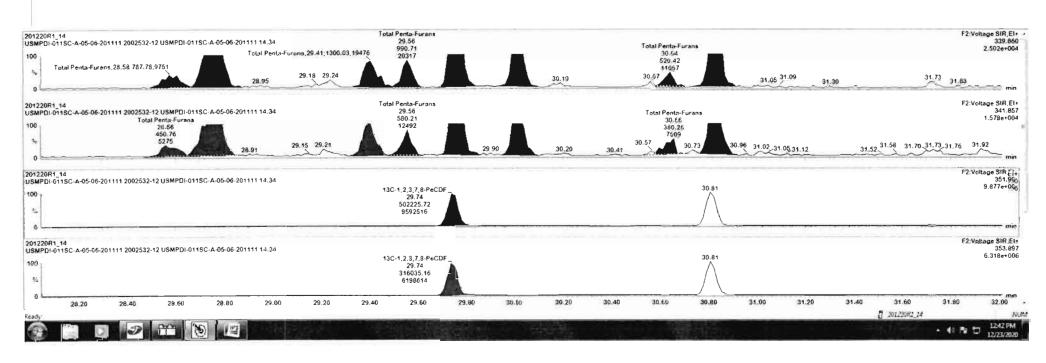
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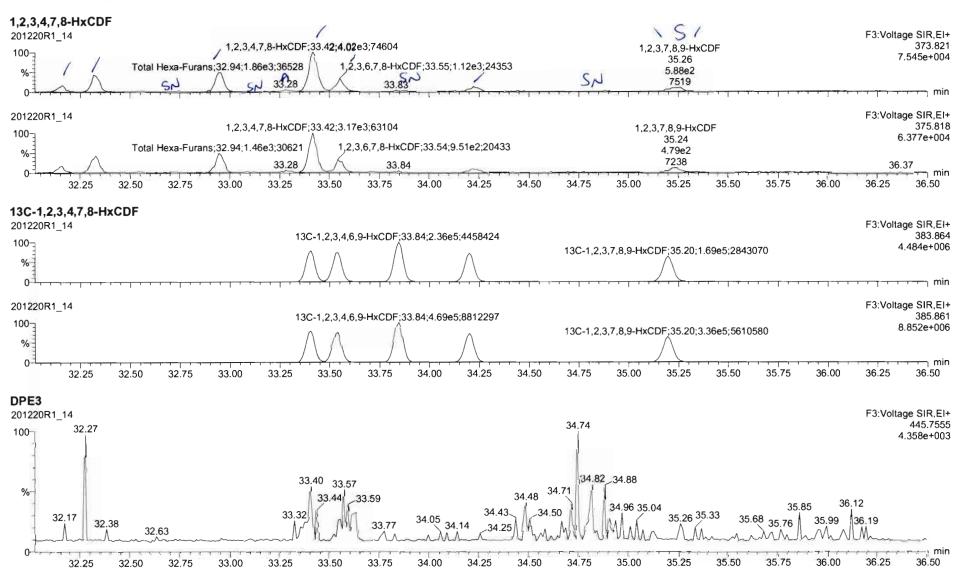


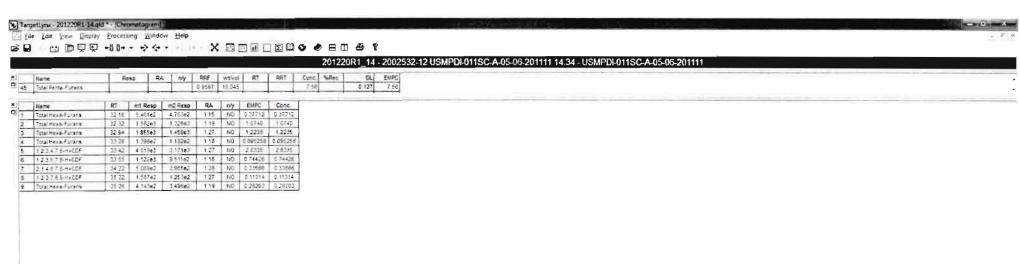
Work Order 2002532 Page 385 of 725

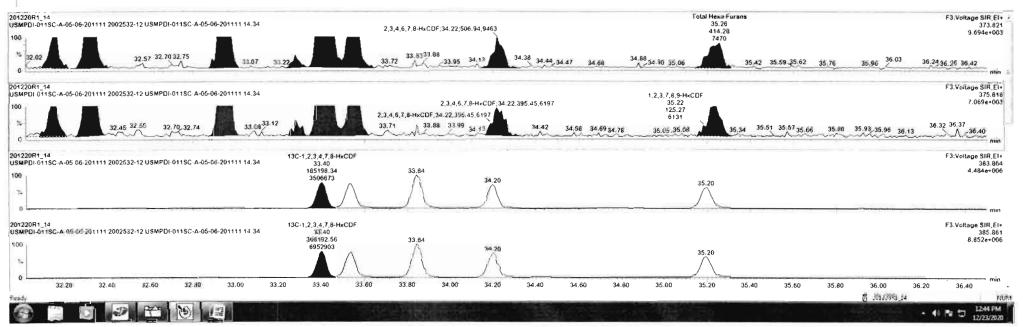
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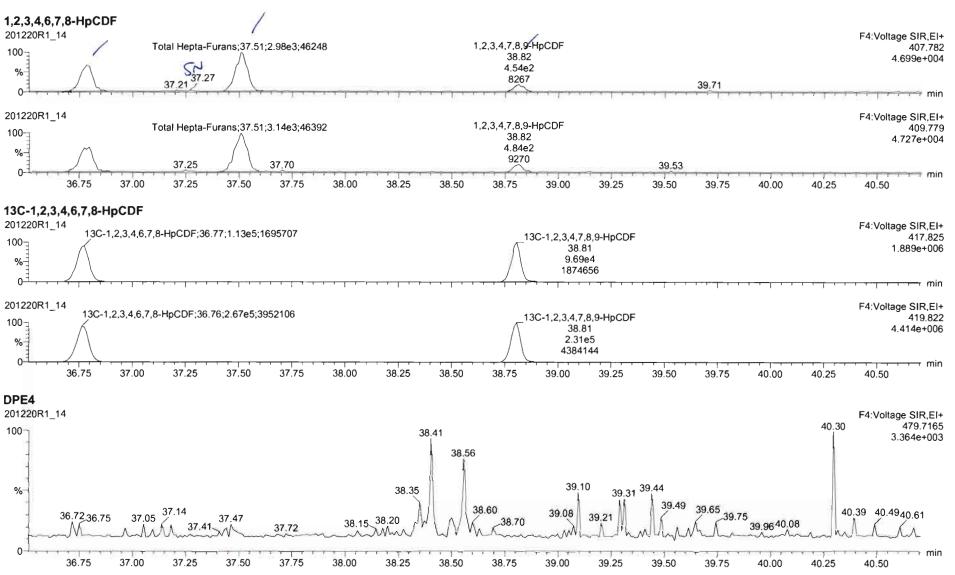


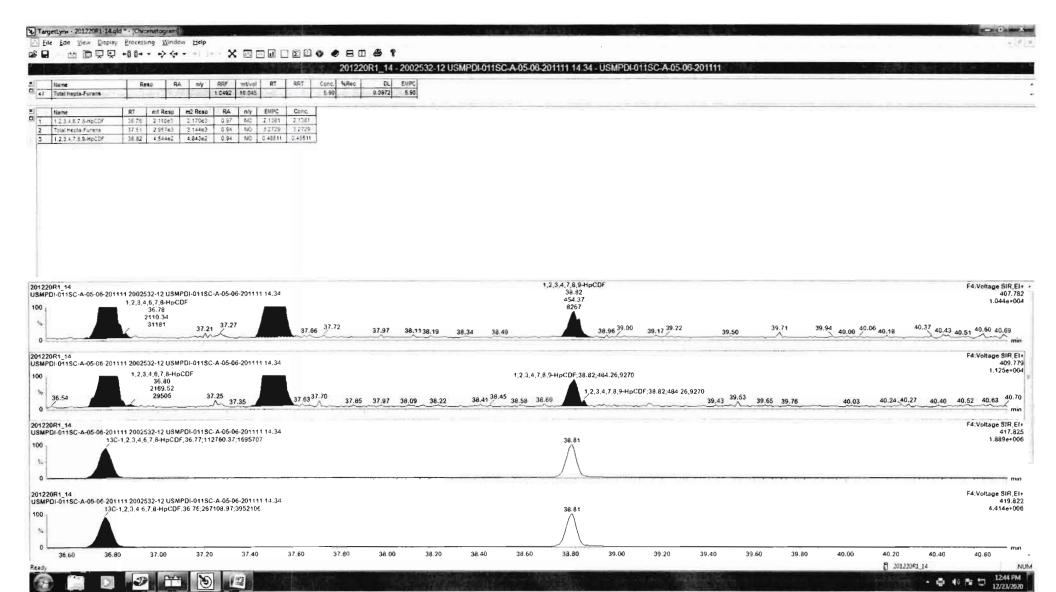


Work Order 2002532 Page 387 of 725

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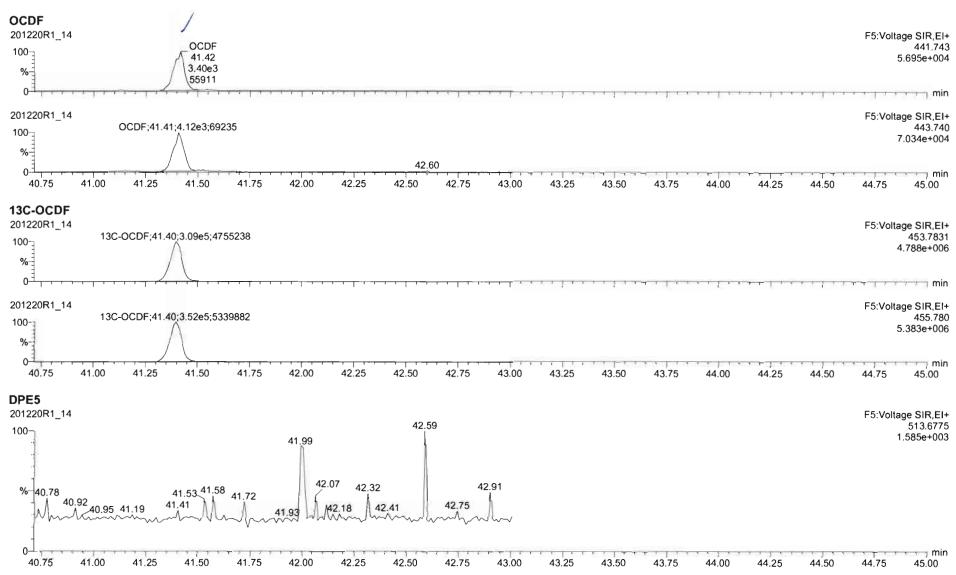




Work Order 2002532 Page 389 of 725

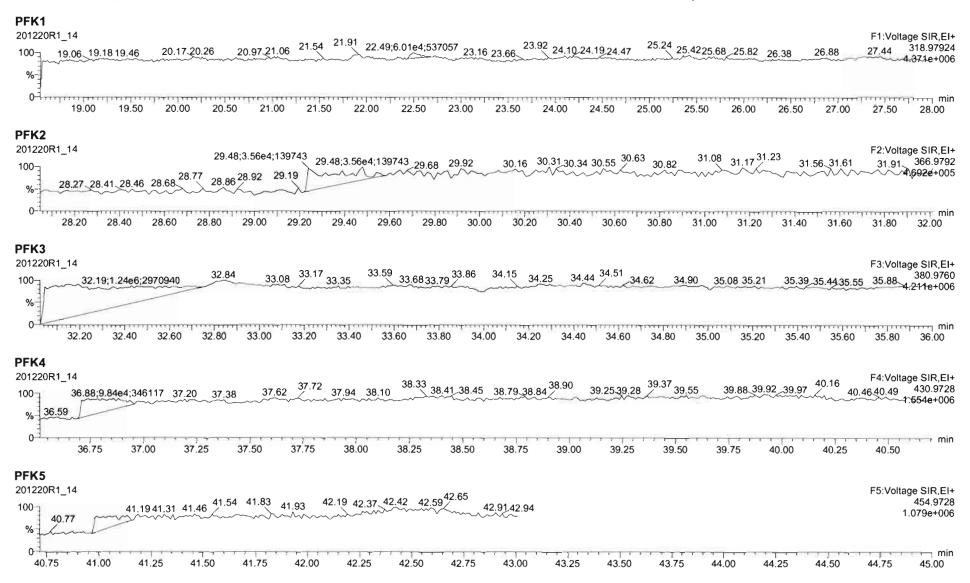
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Page 1 of 2

Dataset:

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Wednesday, December 23, 2020 12:54:22 PM Pacific Standard Time Wednesday, December 23, 2020 12:54:44 PM Pacific Standard Time

GRB_ 12/23/2020_

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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1	1 2,3,7,8-TCDD			No	0.980	10.108	26.836		1,001				0.0332	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.108	31.034		1.001				0.0703	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.108	34.337		1.001				0.0704	
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.108	34.452		1.001				0.0752	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.108	34.713		1.000				0.0749	
6	6 1,2,3,4,6,7,8-HpCDD	1.38e3	1.06	NO	0.918	10.108	38.190	38.19	1,000	1.000	0.79519		0.127	0.795
74 100-24 140	7 OCDD			NO	0.866	10.108	41.103		1.000				0.155	
8	8 2,3,7,8-TCDF	4.84e2	0.67	NO	0.848	10.108	25.613	25.62	1.000	1.001	0.10956		0.0338	0.110
9	9 1,2,3,7,8-PeCDF	2.37e2	1.10	YES	0.960	10.108	29.754	29.77	1.000	1.001	0.054025		0.0216	0.0465
10	10 2,3,4,7,8-PeCDF	2.11e2	1.19	YES	1.07	10.108	30.844	30.84	1.001	1.000	0.046031		0.0205	0.0411
11	11 1,2,3,4,7,8-HxCDF	2.71e2	1.32	NO	0.986	10.108	33.415	33.42	1.000	1.000	0.095590		0.0260	0.0956
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.108	33.561		1.001				0.0424	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.108	34.222		1.001				0.0462	
14	14 1,2,3,7,8,9-HxCDF			NO	0.991	10.108	35.206		1.000				0.0545	
15	15 1,2,3,4,6,7,8-HpCDF	3.06e2	0.71	YES	1.05	10.108	36.781	36.77	1.000	1.000	0.16341		0.0235	0.133
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.108	38.806		1.000				0.0350	
17	17 OCDF	4.38e2	0.84	NO	0.896	10.108	41.396	41.38	1.000	1.000	0.33766		0.117	0.338
18	18 13C-2,3,7,8-TCDD	7.57e5	0.78	NO	1.06	10.108	26.307	26.31	1.030	1.030	183.56	92.8	0.118	
19	19 13C-1,2,3,7,8-PeCDD	6.39e5	0.63	NO	0.785	10.108	31.139	31.00	1.219	1.214	208.40	105	0.199	
20	20 13C-1,2,3,4,7,8-HxCDD	4.38e5	1.29	NO	0.621	10.108	34.315	34.32	1.014	1.014	199.92	101	0.486	
21	21 13C-1,2,3,6,7,8-HxCDD	4.82e5	1.28	NO	0.734	10.108	34.437	34.43	1.017	1.017	186.00	94.0	0.411	
22	22 13C-1,2,3,7,8,9-HxCDD	4.65e5	1.26	NO	0.723	10.108	34.722	34.70	1.026	1.025	182.43	92.2	0.418	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.75e5	1.05	NO	0.568	10.108	38.219	38.18	1.129	1.128	187.09	94.6	0.786	
24	24 13C-OCDD	5.08e5	0.90	NO	0.496	10.108	41.154	41.10	1.216	1.214	290.27	73.4	0.662	
25	25 13C-2,3,7,8-TCDF	1.03e6	0.77	NO	0.919	10.108	25.608	25.61	1.003	1.003	191.44	96.8	0.207	
26	26 13C-1,2,3,7,8-PeCDF	9.04e5	1.57	NO	0.715	10.108	29.852	29.75	1.169	1.165	215.86	109	0.450	
27	27 13C-2,3,4,7,8-PeCDF	8.49e5	1.61	NO	0.689	10.108	30.937	30.82	1.212	1 207	210.70	106	0.467	
28	28 13C-1,2,3,4,7,8-HxCDF	5.69e5	0.51	NO	0 873	10.108	33.422	33.40 /	0.987	0.987	184.61	93.3	0.494	
29	29 13C-1,2,3,6,7,8-HxCDF	5.51e5	0.51	NO	0.933	10.108	33.550	33.54	0.991	0.991	167.22	84.5	0.462	
30	30 13C-2,3,4,6,7,8-HxCDF	5 34e5	0.51	NO	0.843	10.108	34.217	34.20 /	1.011	1.010	179.46	90.7	0.512	
31	31 13C-1,2,3,7,8,9-HxCDF	4.97e5	0.51	NO	0.780	10.108	35.216	35.19	1.040	1.040	180.41	91.2	0.553	

Work Order 2002532 Page 392 of 725

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-15.qld

Last Altered: Printed: Wednesday, December 23, 2020 12:54:22 PM Pacific Standard Time Wednesday, December 23, 2020 12:54:44 PM Pacific Standard Time

Name: 201220R1_15, Date: 20-Dec-2020, Time: 18:51:22, ID: 2002532-13 USMPDI-011SC-A-06-07-201111 15.38, Description: USMPDI-011SC-A-06-07-201111

THE RESERVE	# 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	3.53e5	0.43	NO	0.726	10.108	36.790	36.76	1.087	1.086	137.66	69.6	0.595	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.13e5	0.43	NO	0.491	10.108	38.798	38.79	1.146	1.146	180.64	91.3	0.880	
34	34 13C-OCDF	5.73e5	0.88	NO	0.565	10.108	41.371	41.39	1.222	1.223	287.23	72.6	0.525	
35	35 37CI-2,3,7,8-TCDD	3.47e5			1.22	10.108	26.302	26.32	1.030	1.031	73.040	92.3	0.0267	
36	36 13C-1,2,3,4-TCDD	7.73e5	0.78	NO	1.00	10.108	25.640	25.54	1.000	1.000	197.86	100	0.124	
37	37 13C-1,2,3,4-TCDF	1.16e6	0.78	NO	1.00	10.108	24.130	24.03	1.000	1.000	197.86	100	0.190	
38	38 13C-1,2,3,4,6,9-HxCDF	6.99e5	0.51	NO	1.00	10.108	33.920	33.85	1.000	1.000	197.86	100	0.432	
39	39 Total Tetra-Dioxins				0.980	10.108	24.620		0.000		0.062957		0.0203	0.0630
40	40 Total Penta-Dioxins				0.932	10.108	29.960		0.000				0.0248	
41	41 Total Hexa-Dioxins				0.902	10.108	33.635		0.000		0.29775		0.0779	0.298
42	42 Total Hepta-Dioxins				0.918	10.108	37.640		0.000		1.9547		0.127	1.95
43	43 Total Tetra-Furans				0.848	10.108	23.610		0.000		0.23291		0.0338	0.233
44	44 1st Func. Penta-Furans				0.960	10.108	26.930		0.000				0.00639	
45	45 Total Penta-Furans				0.960	10.108	29.275		0.000		0.00000		0.0222	0.0876
46	46 Total Hexa-Furans				1.02	10.108	33.555		0.000		0.20883		0.0274	0.209
47	47 Total Hepta-Furans				1.05	10.108	37.835		0.000		0.00000		0.0219	0.276

Work Order 2002532 Page 393 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-15.qld

Last Altered: Printed: Wednesday, December 23, 2020 12:54:22 PM Pacific Standard Time Wednesday, December 23, 2020 12:54:44 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_15, Date: 20-Dec-2020, Time: 18:51:22, ID: 2002532-13 USMPDI-011SC-A-06-07-201111 15:38, Description: USMPDI-011SC-A-06-07-201111

Page 1 of 2

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.21	1.565e3	1.422e3	1.065e2	1.298e2	0.82	NO	2.363e2	0.062957	0.062957	0.0203

Penta-Dioxins

Name Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1/2551023								

Hexa-Dioxins

AND THE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
	Total Hexa-Dioxins	32.69	7.999e3	6.647e3	3.567e2	2.706e2	1.32	NO	6.272e2	0.29775	0.29775	0.0779

Hepta-Dioxins

11-11-21	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.16	1.535e4	1.651e4	1.022e3	9.953e2	1.03	NO	2.018e3	1.1595	1.1595	0.127
2	1,2,3,4,6,7,8-HpCDD	38.19	1.251e4	1.201e4	7.134e2	6.703e2	1.06	NO	1.384e3	0.79519	0.79519	0.127

Tetra-Furans

O A SEL	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Committee	Total Tetra-Furans	21.56	3.146e3	4.255e3	2.213e2	3.231e2	0.68	NO	5.444e2	0.12335	0.12335	0.0338
2	2,3,7,8-TCDF	25.62	2.662e3	5.267e3	1.947e2	2.888e2	0.67	NO	4.835e2	0.10956	0.10956	0.0338

Penta-Furans function 1

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
13333				•				
Control Section 1977								

Work Order 2002532 Page 394 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-15.qld

Last Altered: Printed:

Wednesday, December 23, 2020 12:54:22 PM Pacific Standard Time Wednesday, December 23, 2020 12:54:44 PM Pacific Standard Time

Name: 201220R1_15, Date: 20-Dec-2020, Time: 18:51:22, ID: 2002532-13 USMPDI-011SC-A-06-07-201111 15.38, Description: USMPDI-011SC-A-06-07-201111

Penta-Furans

表义	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8-PeCDF	29.77	3.089e3	2.602e3	1.238e2	1.129e2	1.10	YES	2.367e2	0.00000	0.046481	0.0216
2	2,3,4,7,8-PeCDF	30.84	2.210e3	2.085e3	1.144e2	9.641e1	1.19	YES	2.108e2	0.00000	0.041097	0.0205

Hexa-Furans

35-36	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 1 1 1 1 1	Total Hexa-Furans	32.34	1.643e3	1.836e3	7.995e1	5.867e1	1.36	NO	1.386e2	0.049984	0.049984	0.0274
2	Total Hexa-Furans	32.95	1.836e3	2.041e3	9.617e1	7.925e1	1.21	NO	1.754e2	0.063256	0.063256	0.0274
3	1,2,3,4,7,8-HxCDF	33.42	2.849 e 3	4.099e3	1.545e2	1.167e2	1.32	NO	2.712e2	0.095590	0.095590	0.0260

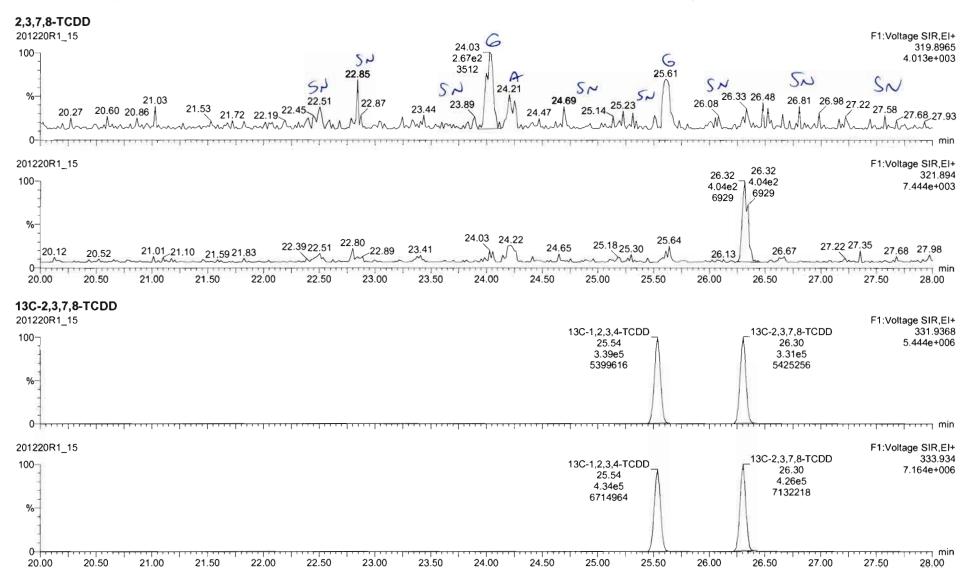
Hepta-Furans

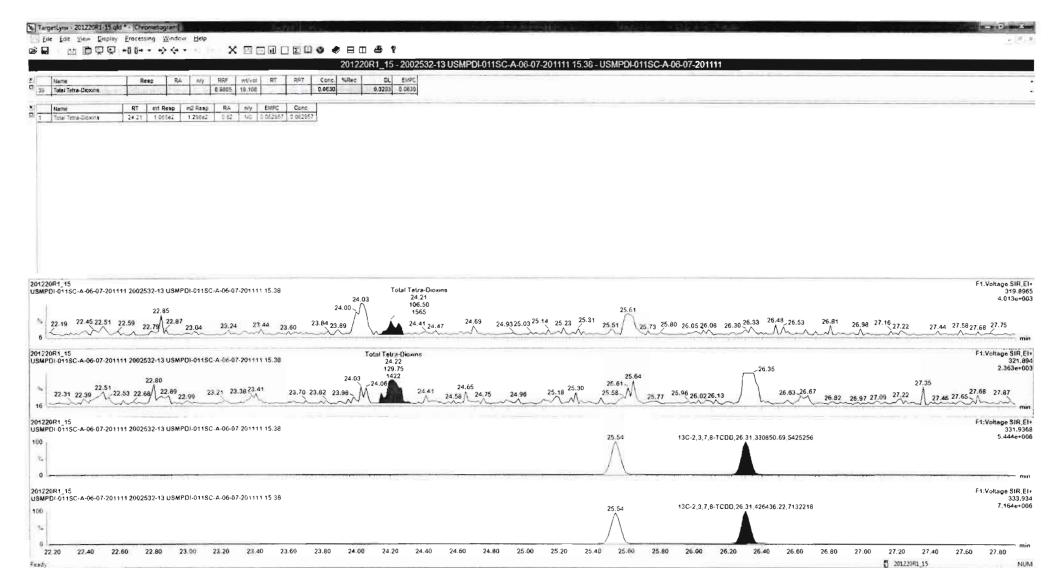
555	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.77	3.089e3	3.399e3	1.266e2	1.793e2	0.71	YES	3.060e2	0.00000	0.13266	0.0235
2	Total Hepta-Furans	37.51	2.758e3	2.824e3	1.294e2	1.919e2	0.67	YES	0.000e0	0.00000	0.14366	0.0219

Work Order 2002532 Page 395 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





Page 397 of 725 Work Order 2002532

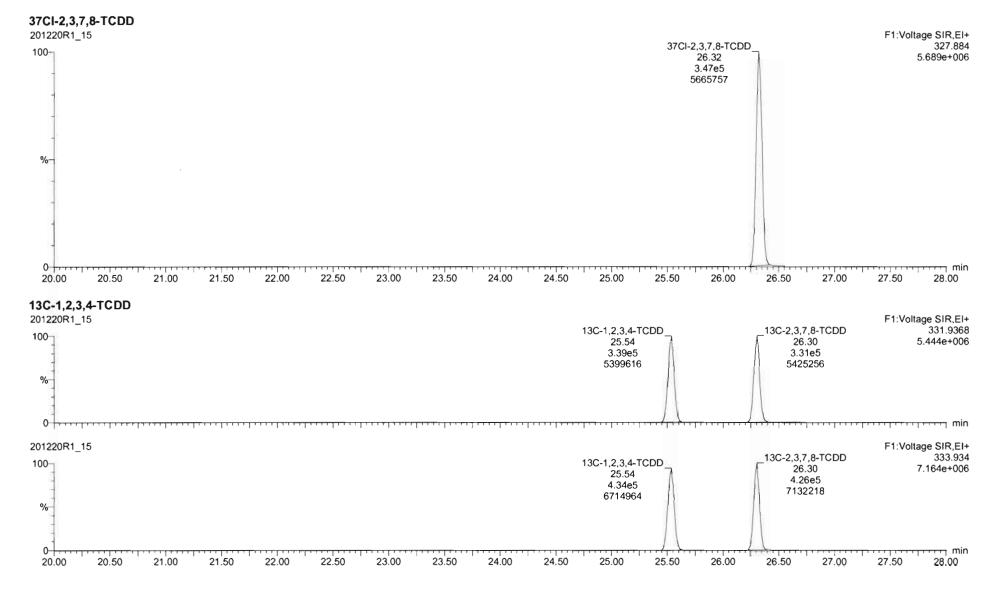
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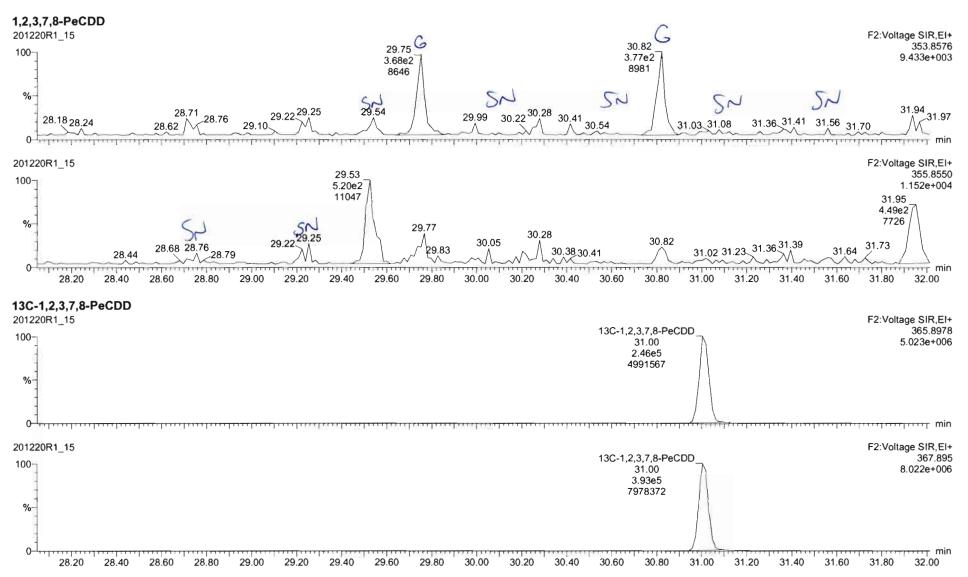
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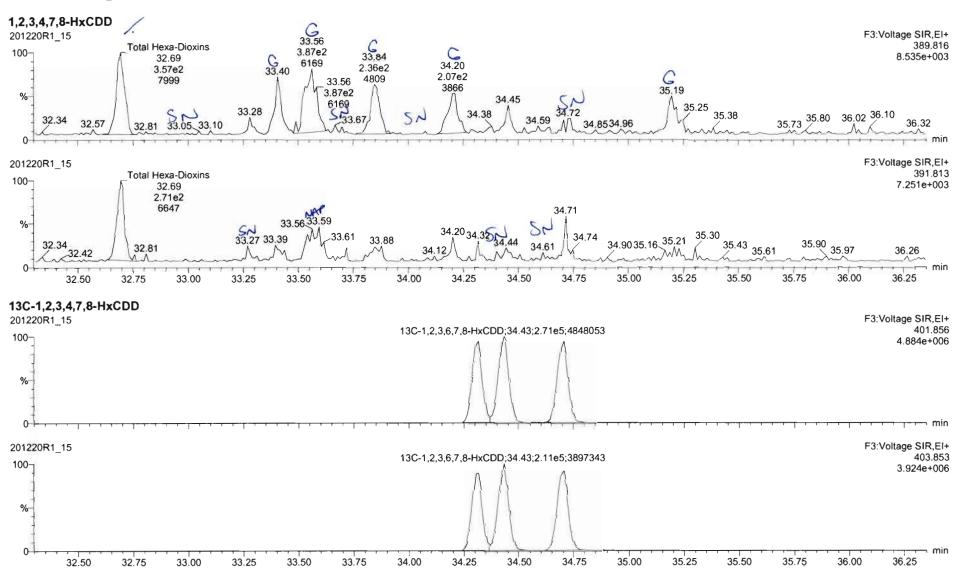
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Work Order 2002532

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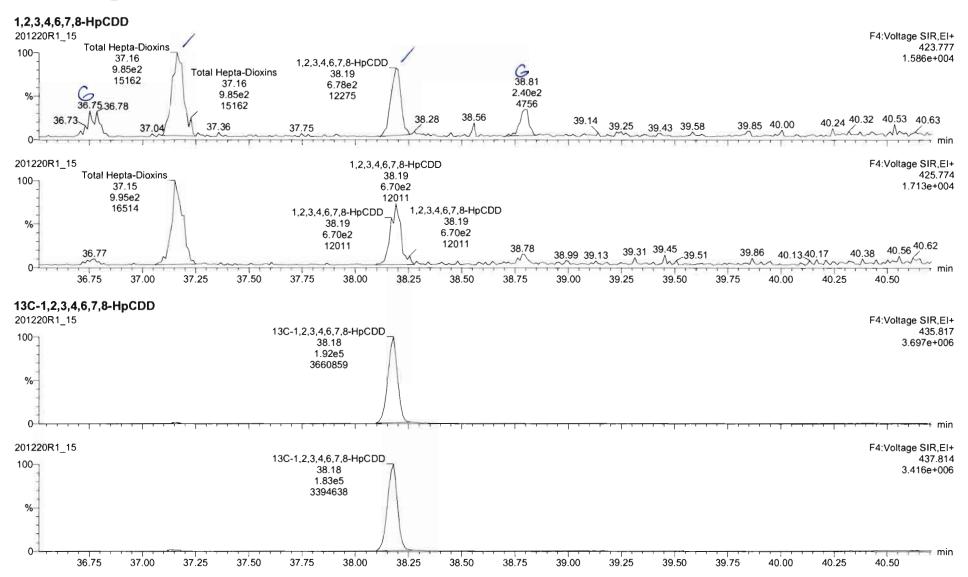
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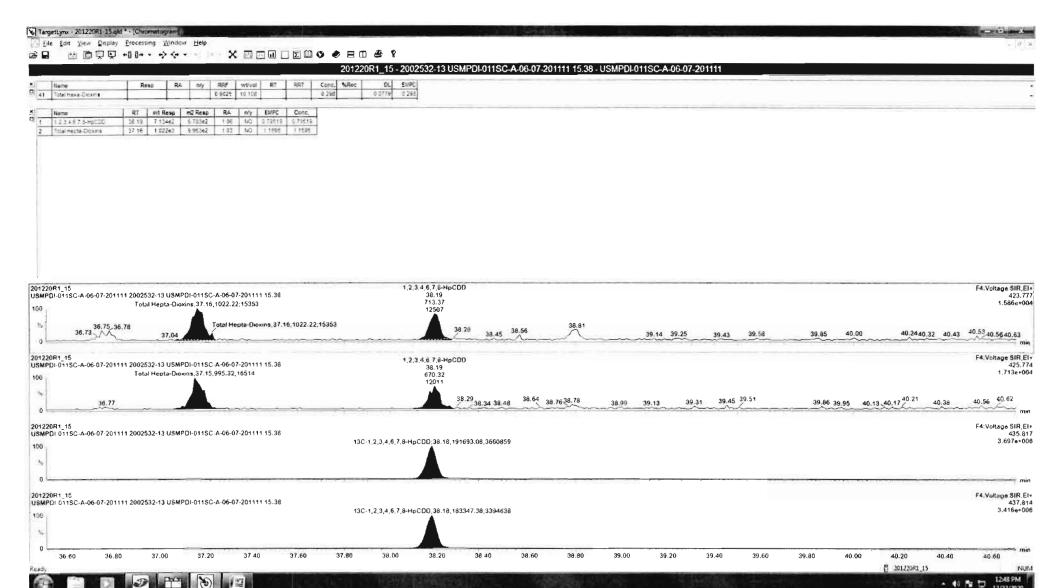
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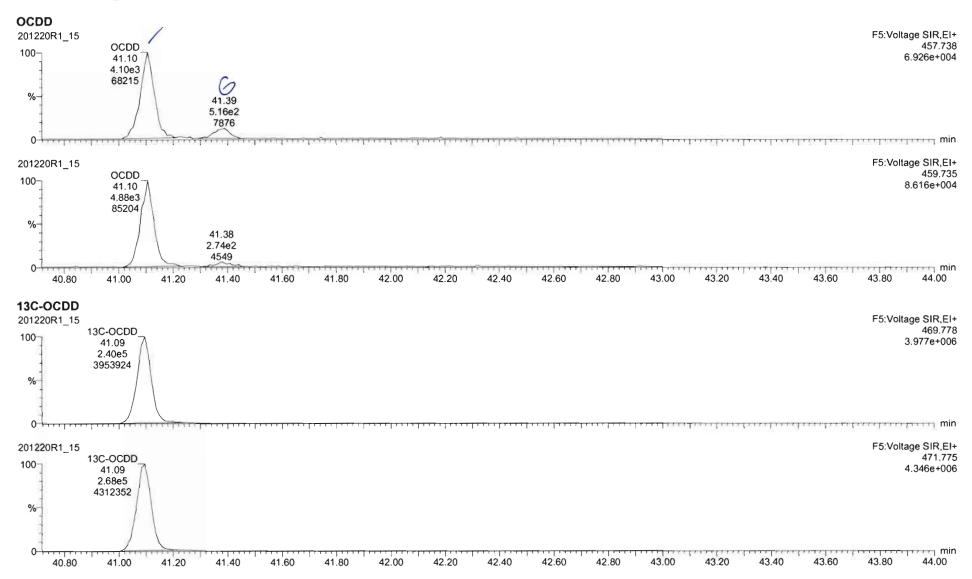
Work Order 2002532 Page 401 of 725



Work Order 2002532 Page 402 of 725

Untitled

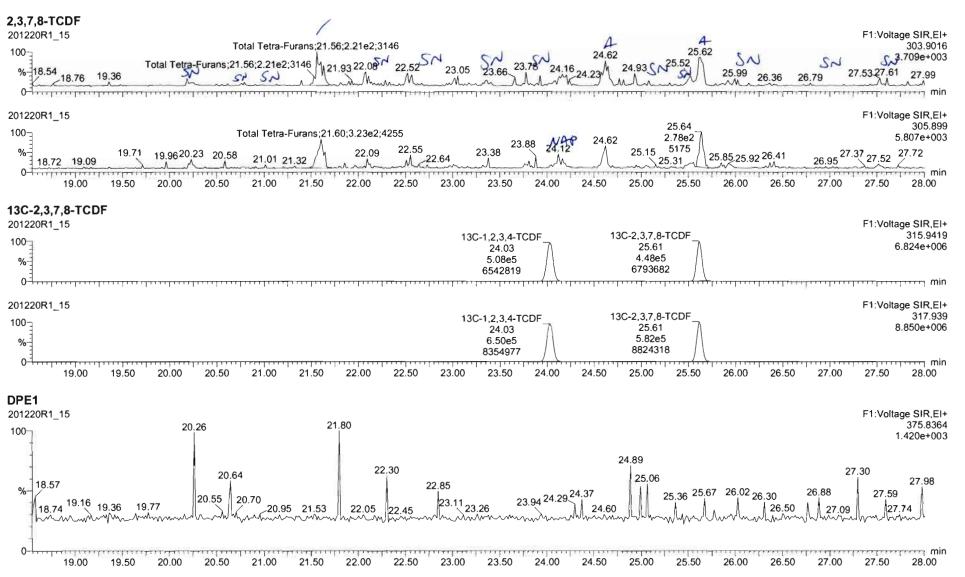
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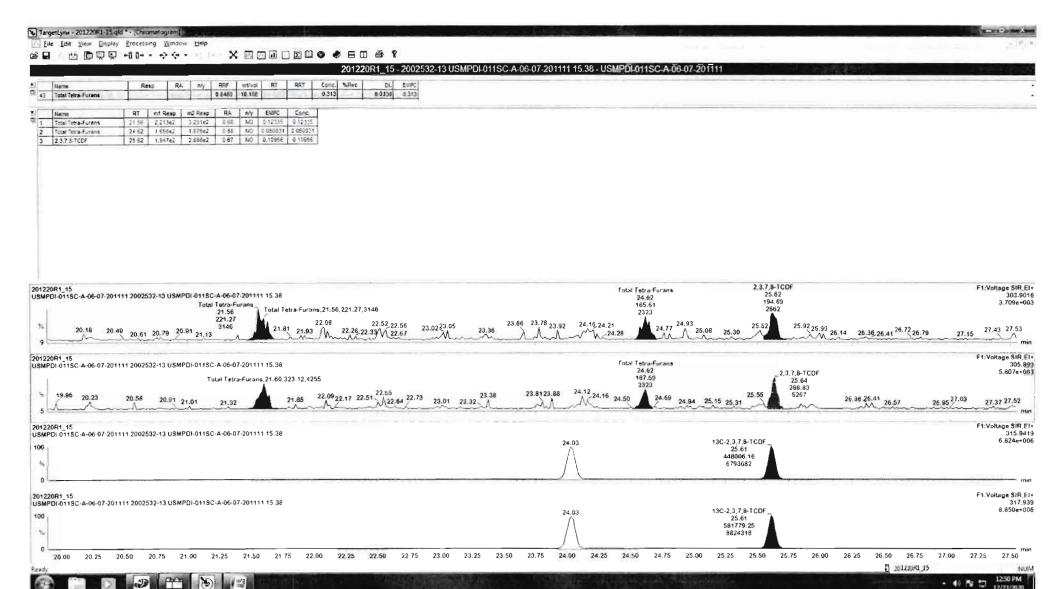


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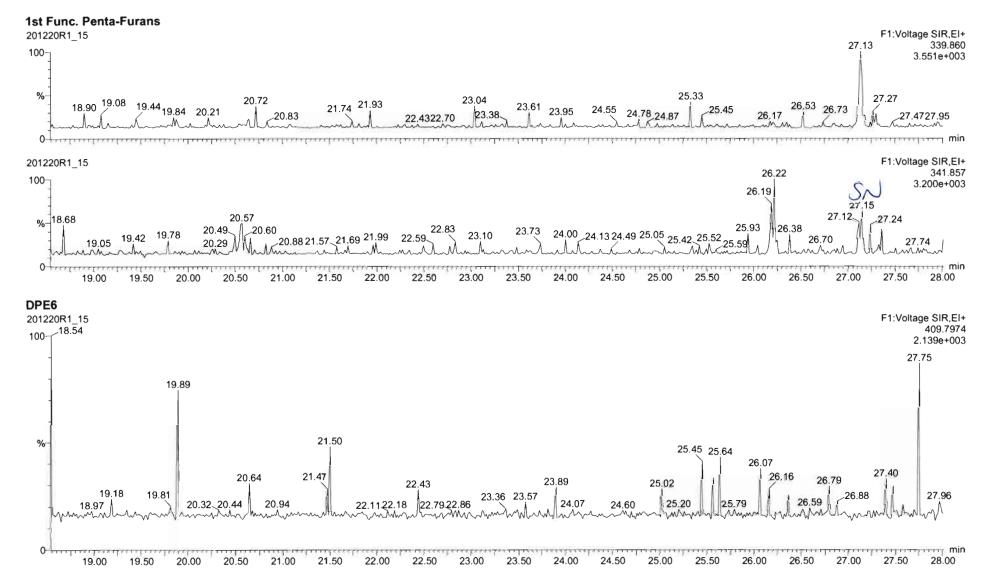
Work Order 2002532 Page 405 of 725

Quantify Sample Report Vista Analytical Laboratory

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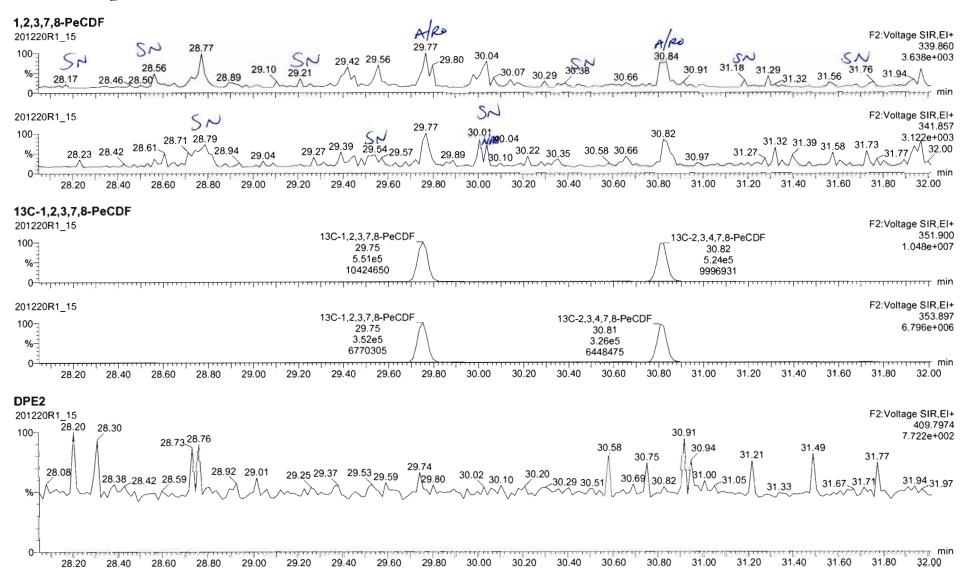
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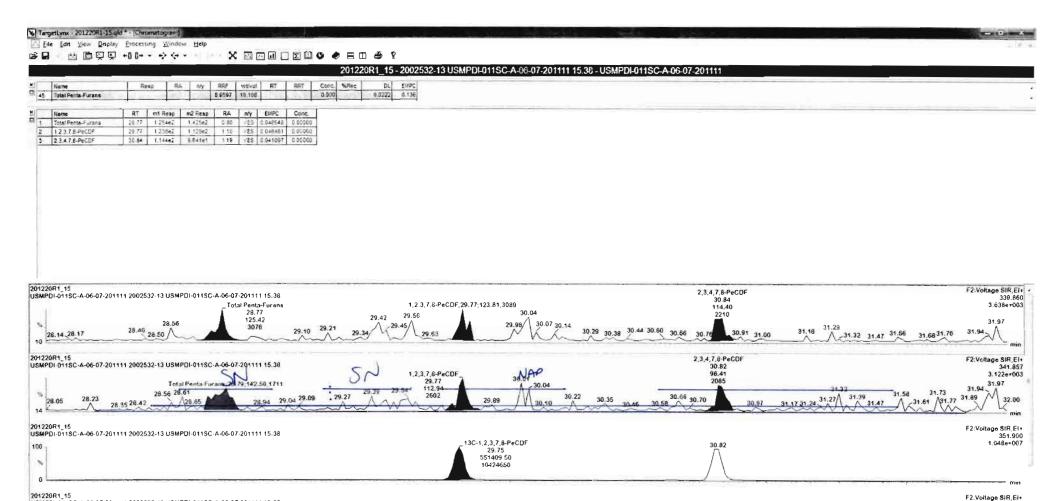
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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





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

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30.40

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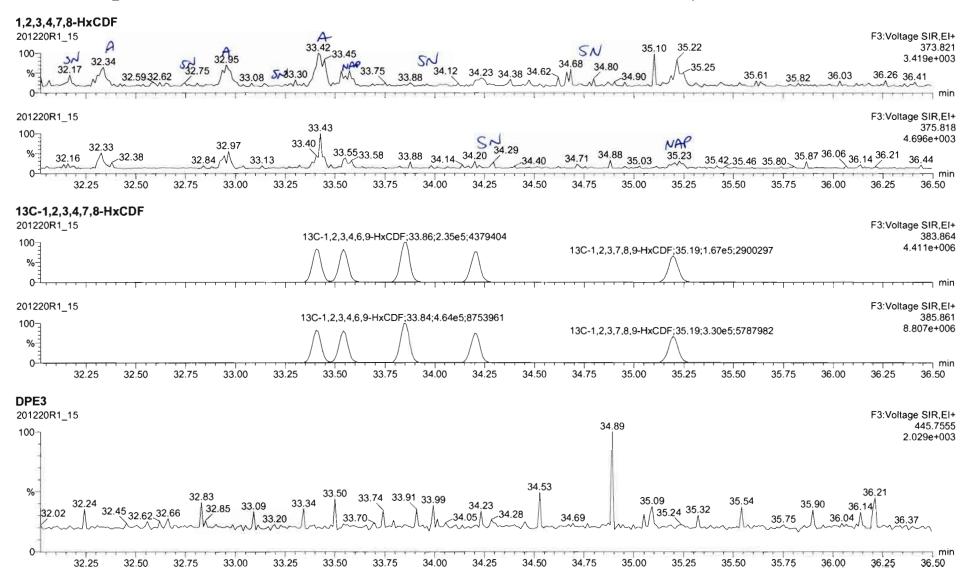
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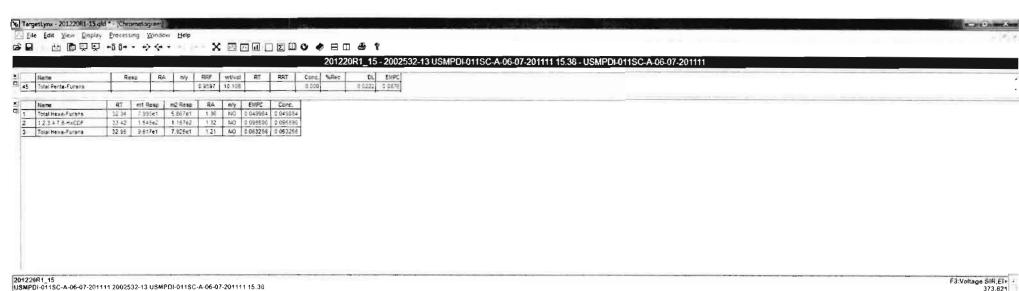
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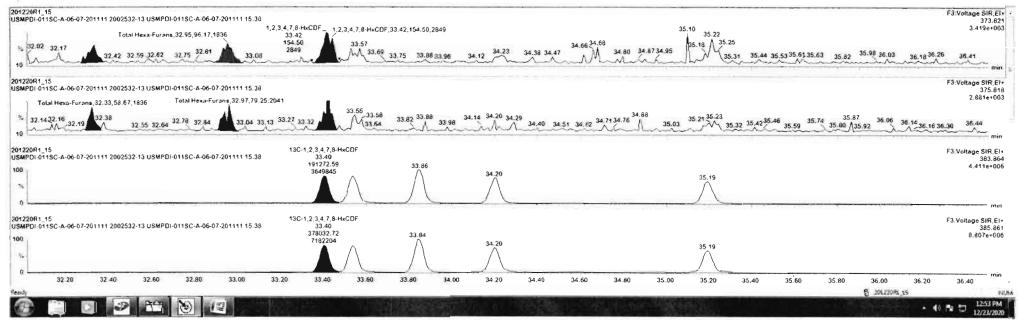
Work Order 2002532 Page 408 of 725

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time





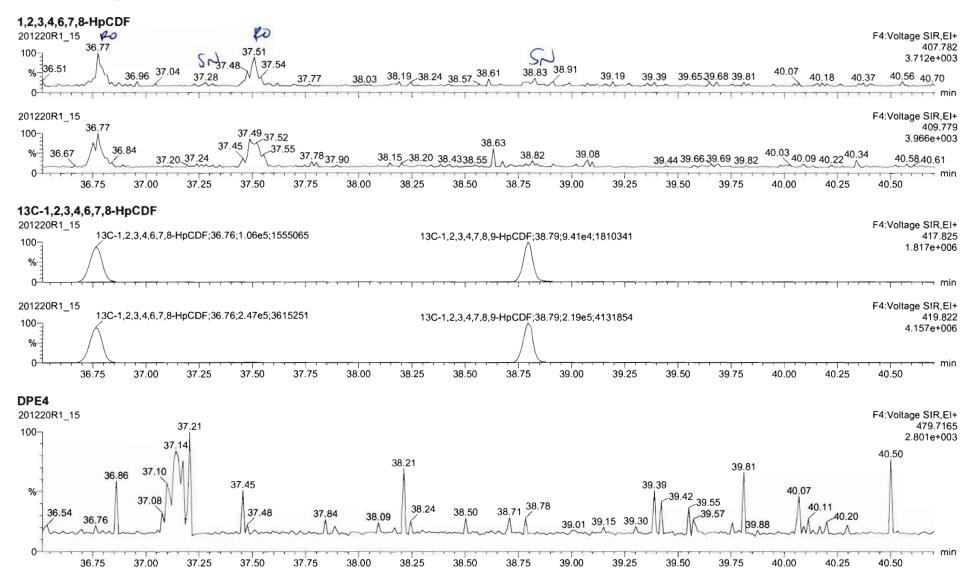


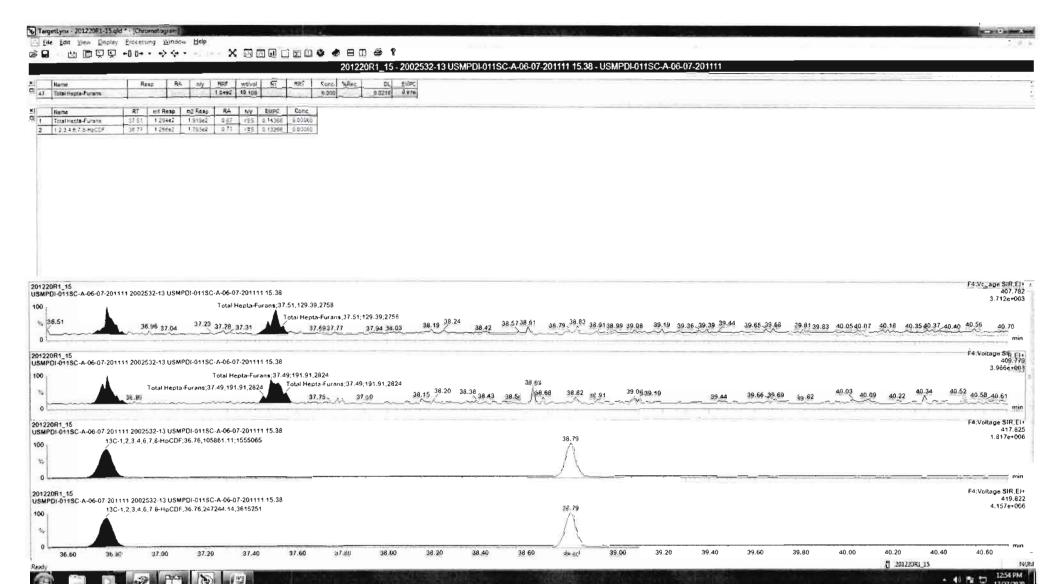
Work Order 2002532 Page 410 of 725

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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



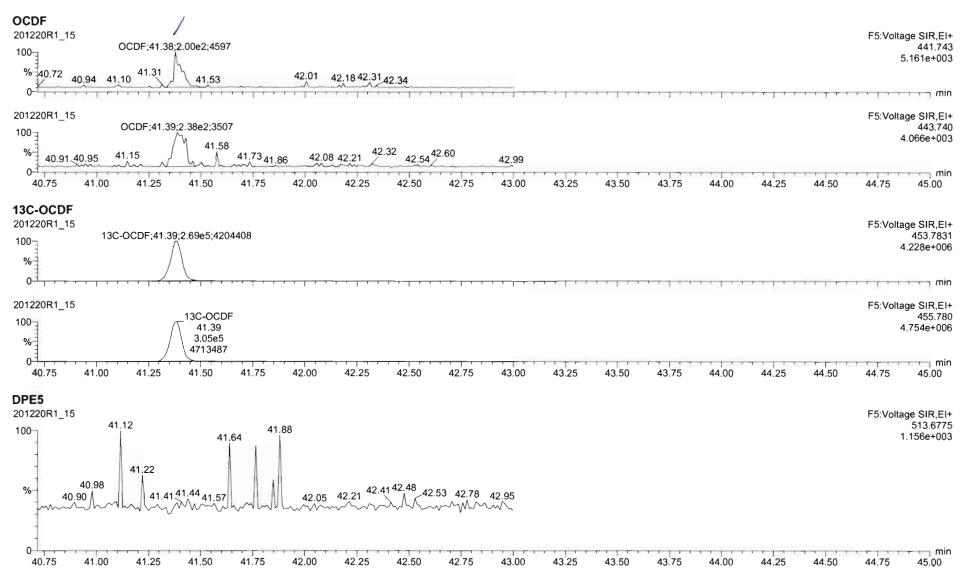


Work Order 2002532 Page 412 of 725

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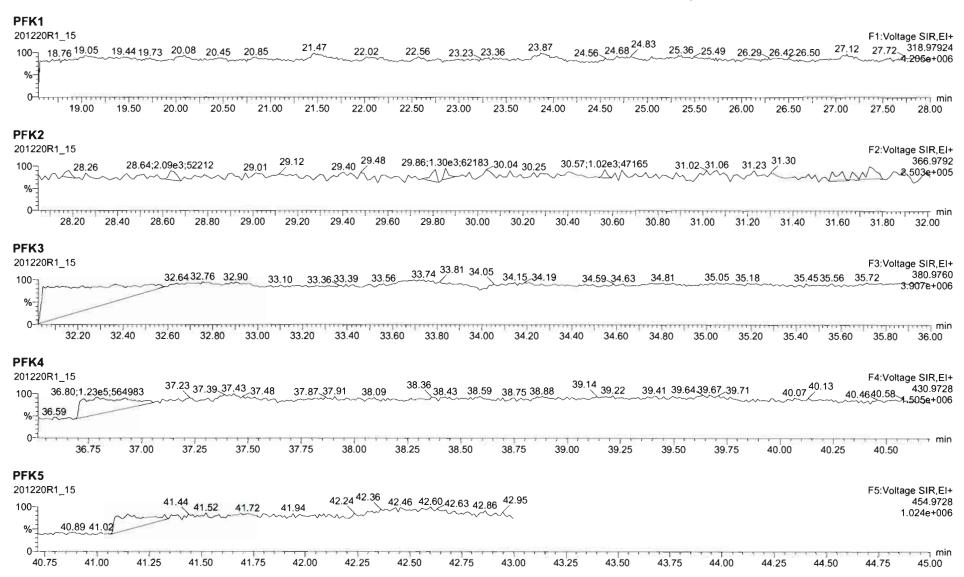
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Printed:

U:\VG12.PRO\Results\201220R1\201220R1-16.qld

Last Altered:

Wednesday, December 23, 2020 12:59:51 PM Pacific Standard Time Wednesday, December 23, 2020 1:00:41 PM Pacific Standard Time

GRB 12/23/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

STEEL CO	# 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	0.980	10.095	26.337		1.001				0.0346	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.095	31.049		1.001				0.0558	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.095	34.347		1.001				0.0648	
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.095	34.462		1.001				0.0667	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.095	34.713		1.000				0.0686	
6	6 1,2,3,4,6,7,8-HpCDD	5.56e2	1.05	NO	0.918	10.095	38.200	38.20	1,000	1.000	0.39564		0.132	0.396
7	7 OCDD	4.01e3	0.91	NO	0.866	10.095	41.113	41.12	1.000	1.000	4.2958		0.110	4.30
8	8 2,3,7,8-TCDF			NO	0.848	10.095	25.613		1.000				0.0383	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.095	29.754		1.000				0.0350	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.095	30.844		1.001				0.0319	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.095	33.425		1.000				0.0475	[
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.095	33.561		1.001				0.0485	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.095	34.232		1.001				0.0511	
14	14 1,2,3,7,8,9-HxCDF			NO	0.991	10.095	35.217		1.000				0.0626	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.095	36.792		1.000				0.0649	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.095	38.817		1.000				0.0512	Į
17	17 OCDF	3.29e2	0.90	NO	0.896	10.095	41.406	41.40	1.000	1.000	0.29751		0.153	0.298
18	18 13C-2,3,7,8-TCDD	6.33e5	0.76	NO	1.06	10.095	26.307	26.31	1.030	1.030	186.96	94.4	0.188	
19.	19 13C-1,2,3,7,8-PeCDD	5.23e5	0.62	NO	0.785	10.095	31.139	31.02	1.219	1.215	207.72	105	0.193	
20	20 13C-1,2,3,4,7,8-HxCDD	3.51e5	1.30	NO	0.621	10.095	34.315	34.33 /	1.014	1.014	199.02	100	0.386	
21	21 13C-1,2,3,6,7,8-HxCDD	3.83e5	1.27	NO	0.734	10.095	34.437	34.44	1.017	1.017	183.60	92.7	0.326	
22	22 13C-1,2,3,7,8,9-HxCDD	3.78e5	1.26	NO	0.723	10.095	34.722	34.70	1.026	1.025	183.99	92.9	0.331	1
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.03e5	1.04	NO	0.568	10.095	38.219	38.19	1.129	1.128	188.00	94.9	0.824	
24	24 13C-OCDD	4.27e5	0.89	NO	0.496	10.095	41.154	41.10	1.216	1.214	303.23	76.5	0.618	
25	25 13C-2,3,7,8-TCDF	8.31e5	0.79	NO	0.919	10.095	25.608	25.61	1.003	1.003	186.02	93.9	0.214	
26	26 13C-1,2,3,7,8-PeCDF	7.13e5	1.58	NO	0.715	10.095	29.852	29.75	1.169	1.165	205.02	103	0.355	
27	27 13C-2,3,4,7,8-PeCDF	6.78e5	1.60	NO	0.689	10.095	30.937	30.82	1.212	1.207	202.51	102	0.369	
28	28 13C-1,2,3,4,7,8-HxCDF	4 53e5	0.51	NO	0.873	10.095	33.422	33.42	0.987	0.987	182.38	92.1	0.541	
29	29 13C-1,2,3,6,7,8-HxCDF	4.44e5	0.51	NO	0.933	10.095	33.550	33.54	0.991	0.991	167.32	84.5	0.506	
30	30 13C-2,3,4,6,7,8-HxCDF	4.21e5	0.50	NO	0.843	10.095	34.217	34.21	1 011	1.011	175.49	88.6	0.560	
31	31 13C-1,2,3,7,8,9-HxCDF	3 98e5	0.50	NO	0.780	10.095	35.216	35.21	1.040	1.040	179.43	90.6	0.606	

Work Order 2002532 Page 415 of 725

U:\VG12.PRO\Results\201220R1\201220R1-16.qld

Last Altered: Printed: Wednesday, December 23, 2020 12:59:51 PM Pacific Standard Time Wednesday, December 23, 2020 1:00:41 PM Pacific Standard Time

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

	# 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	2.92e5	0.43	NO	0.726	10.095	36.790	36.77	1.087	1.086	141.49	71.4	0.623	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.57e5	0.43	NO	0.491	10.095	38.798	38.81	1.146	1.146	183.76	92.8	0.921	
34	34 13C-OCDF	4.89e5	0.87	NO	0.565	10.095	41.371	41.40	1.222	1.223	304.09	76.7	0.698	
35	35 37CI-2,3,7,8-TCDD	2.96e5			1.22	10.095	26.302	26.33	1.030	1.031	75.846	95.7	0.0302	
36	36 13C-1,2,3,4-TCDD	6.35e5	0.76	NO	1.00	10.095	25.640	25.54	1.000	1.000	198.12	100	0.198	
37	37 13C-1,2,3,4-TCDF	9.63e5	0.78	NO	1.00	10.095	24.130	24.03	1.000	1.000	198.12	100	0.197	
38	38 13C-1,2,3,4,6,9-HxCDF	5.63e5	0.51	NO	1.00	10.095	33.920	33.85	1.000	1.000	198.12	100	0.472	
39	39 Total Tetra-Dioxins				0.980	10.095	24.620		0.000				0.0197	
40	40 Total Penta-Dioxins				0.932	10.095	29.960		0.000				0.0164	
41	41 Total Hexa-Dioxins				0.902	10.095	33.635		0.000				0.0276	
42	42 Total Hepta-Dioxins				0.918	10.095	37.640		0.000		0.39564		0.132	0.710
43	43 Total Tetra-Furans				0.848	10.095	23.610		0.000				0.0156	
44	44 1st Func. Penta-Furans				0.960	10.095	26.930		0.000				0.00782	
45	45 Total Penta-Furans				0.960	10.095	29.275		0.000				0.0174	
46	46 Total Hexa-Furans				1.02	10.095	33.555		0.000		0.00000		0.0240	0.120
47	47 Total Hepta-Furans				1.05	10.095	37.835		0.000				0.0307	

Work Order 2002532 Page 416 of 725

Page 1 of 2

Vista Analytical Laboratory

Dataset:

Printed:

U:\VG12.PRO\Results\201220R1\201220R1-16.qld

Last Altered:

Wednesday, December 23, 2020 12:59:51 PM Pacific Standard Time Wednesday, December 23, 2020 1:00:41 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

Tetra-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
15001200									

Penta-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1 1 15 10								

Hexa-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp m	12 Resp	RA n/y	Resp	Conc.	EMPC	DL
1000000000									

Hepta-Dioxins

5000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.16	4.633e3	4.420e3	2.252e2	2.901e2	0.78	YES	0.000e0	0.00000	0.31425	0.132
2	1,2,3,4,6,7,8-HpCDD	38.20	5.279e3	5.281e3	2.853e2	2.709e2	1.05	NO	5.562e2	0.39564	0.39564	0.132

Tetra-Furans

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

Penta-Furans function 1

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

Work Order 2002532 Page 417 of 725

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-16.qld

Last Altered: Wednesday, December 23, 2020 12:59:51 PM Pacific Standard Time Printed: Wednesday, December 23, 2020 1:00:41 PM Pacific Standard Time

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

Page 2 of 2

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 34.0	3.680e3	4.044e3	1.469e2	1.654e2	0.89	YES	0.000e0	0.00000	0.12022	0.0240

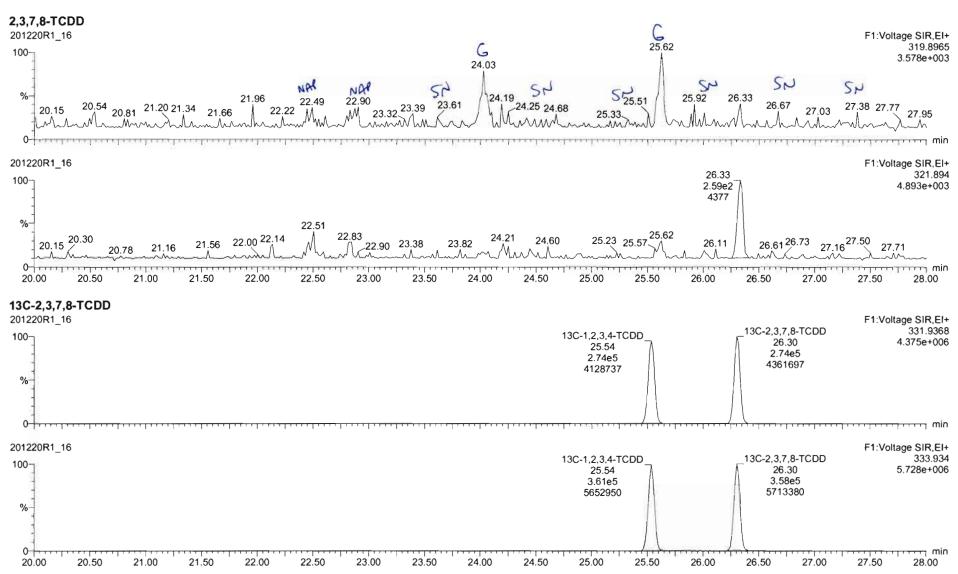
Hepta-Furans

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
13 4 7 7 7 4 7										

Work Order 2002532 Page 418 of 725

Untitled

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

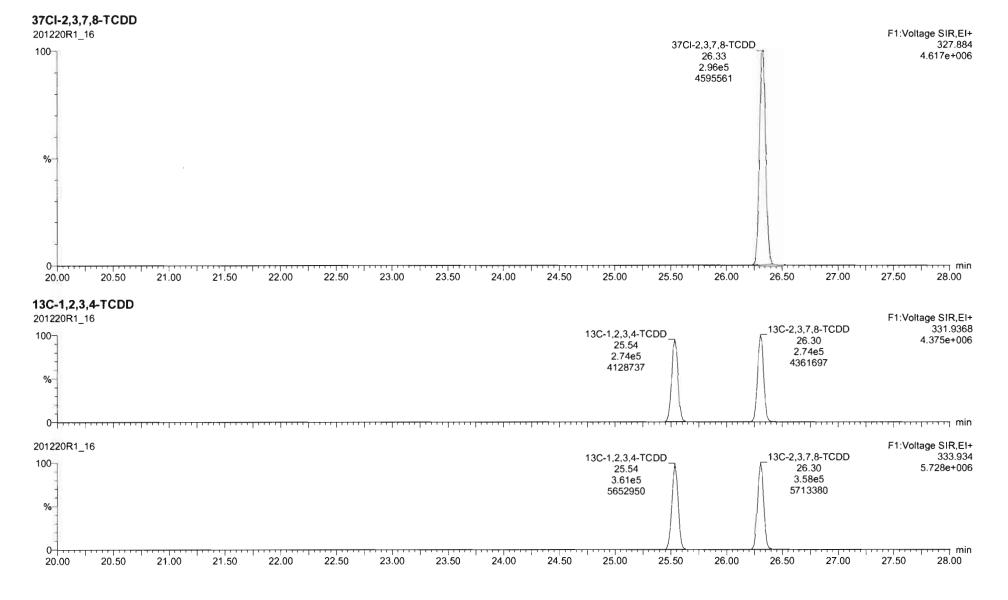


Quantify Sample Report Vista Analytical Laboratory

Dataset:

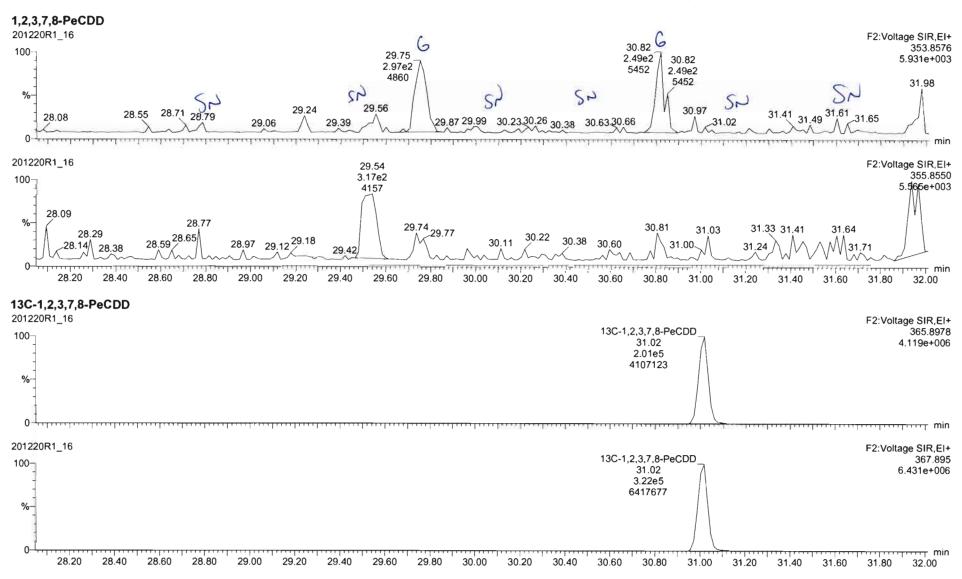
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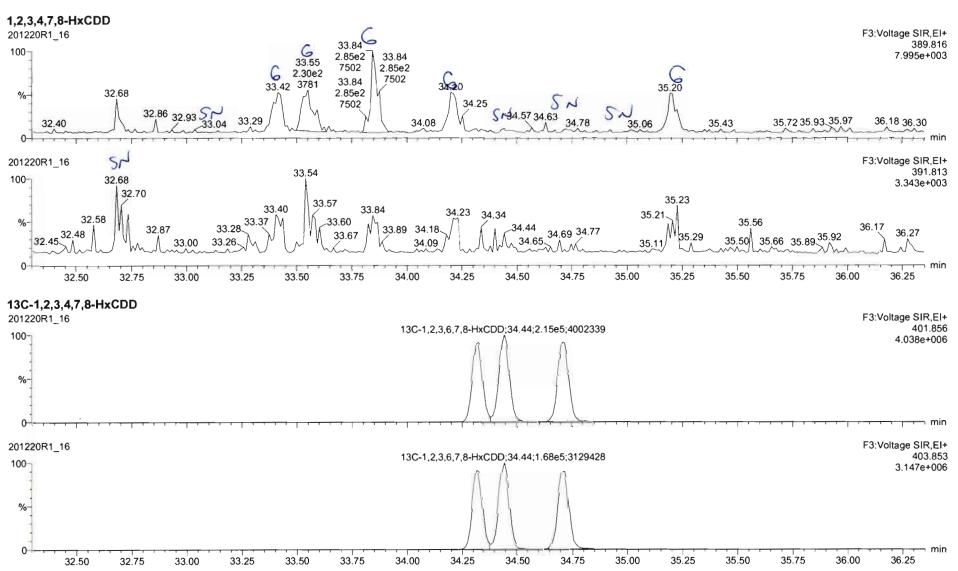
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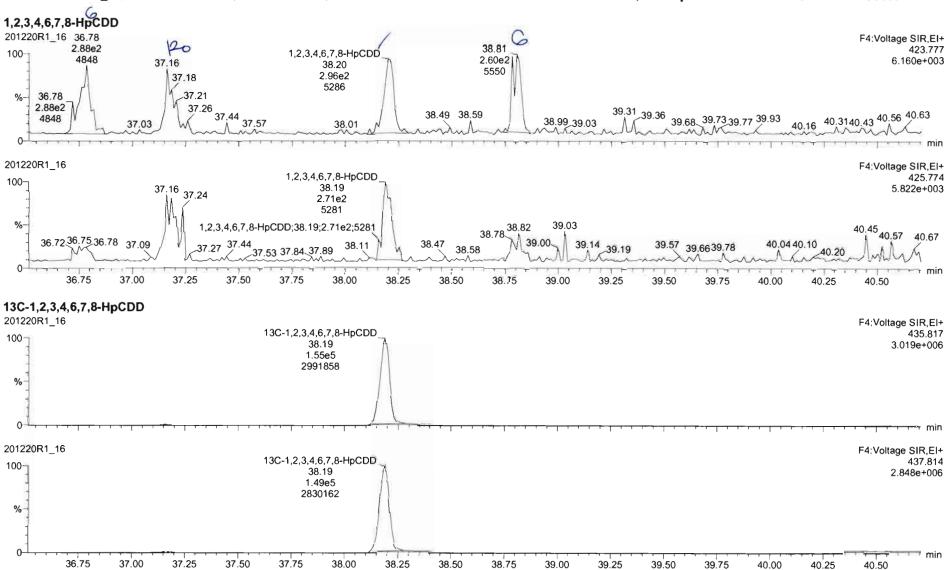
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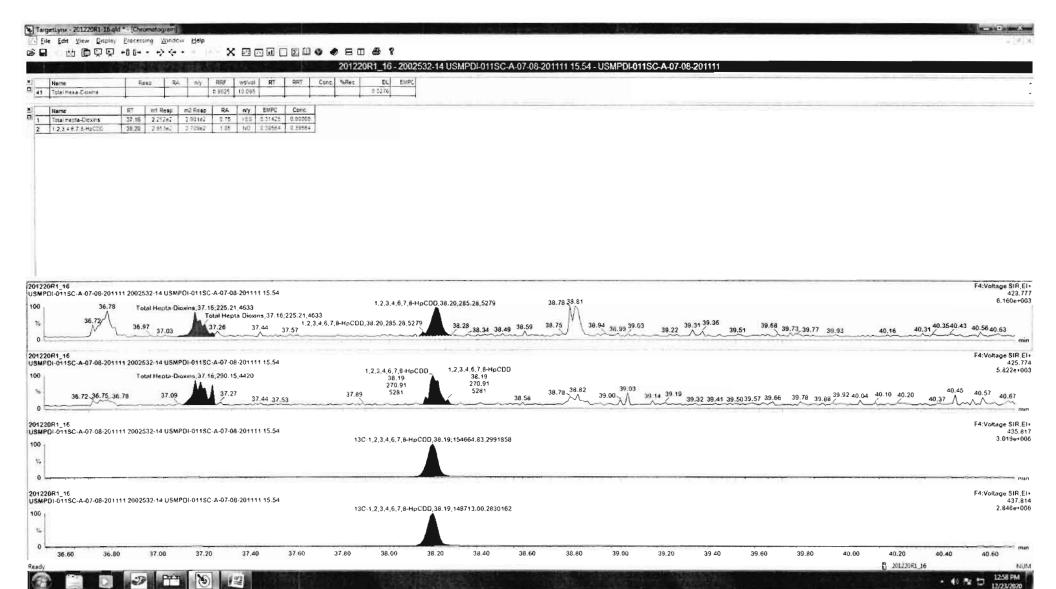
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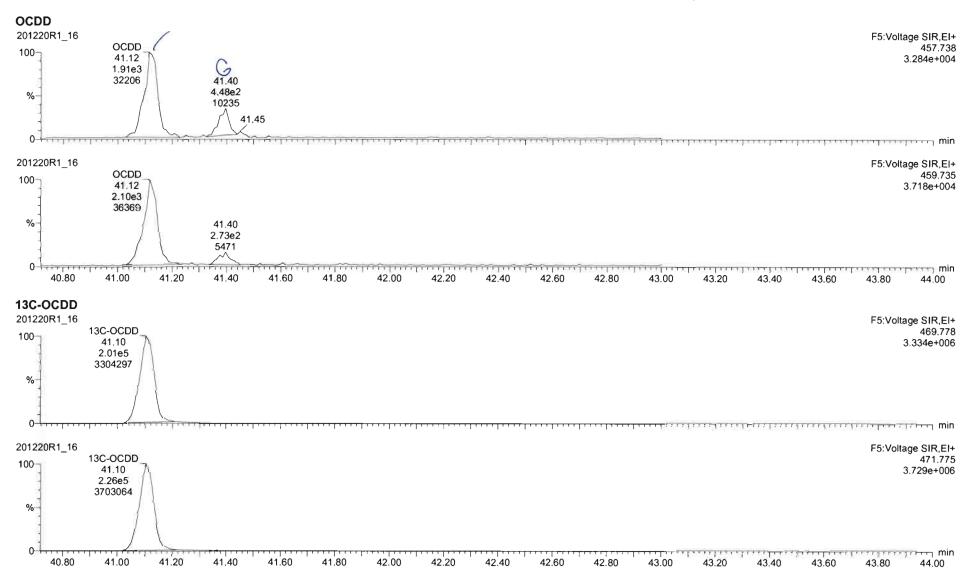
Work Order 2002532 Page 424 of 725

Untitled

Last Altered: Printed:

Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

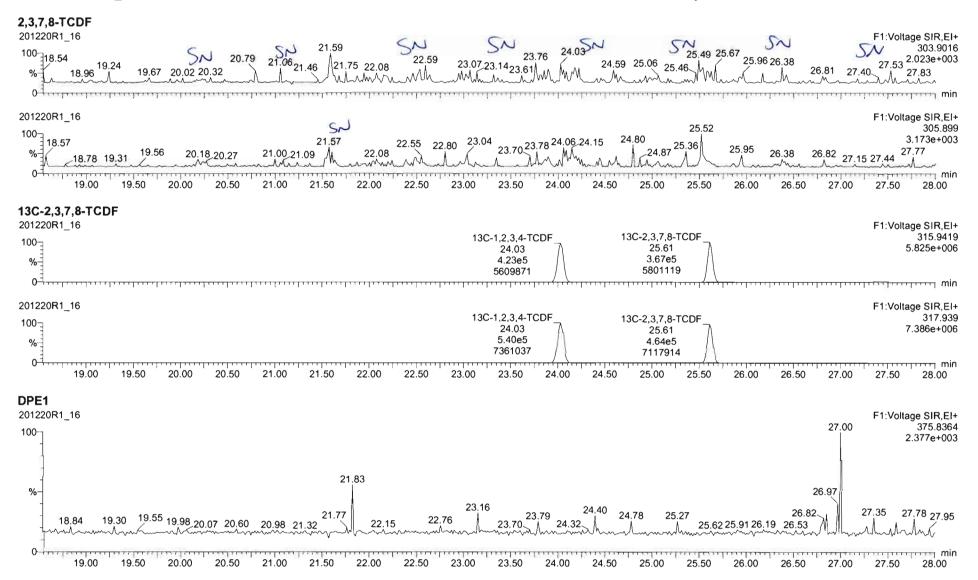


Work Order 2002532 Page 425 of 725

Untitled

Last Altered: Printed:

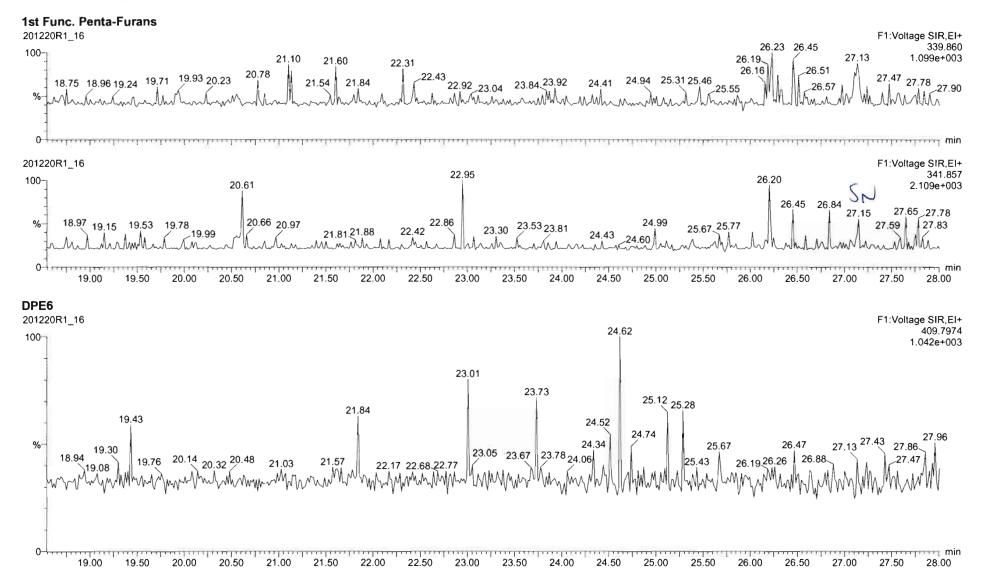
Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



Untitled

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

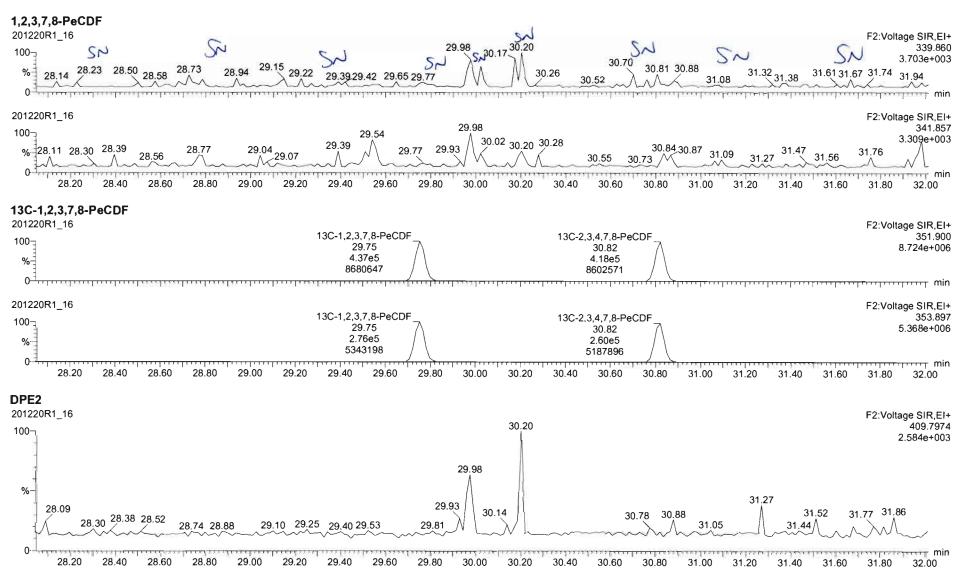


Work Order 2002532 Page 427 of 725

Untitled

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

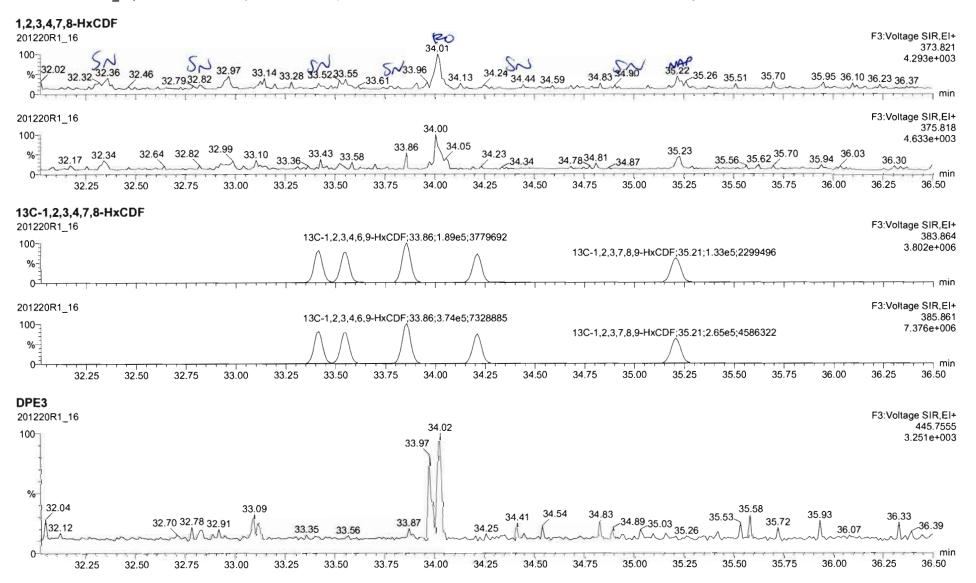
Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111

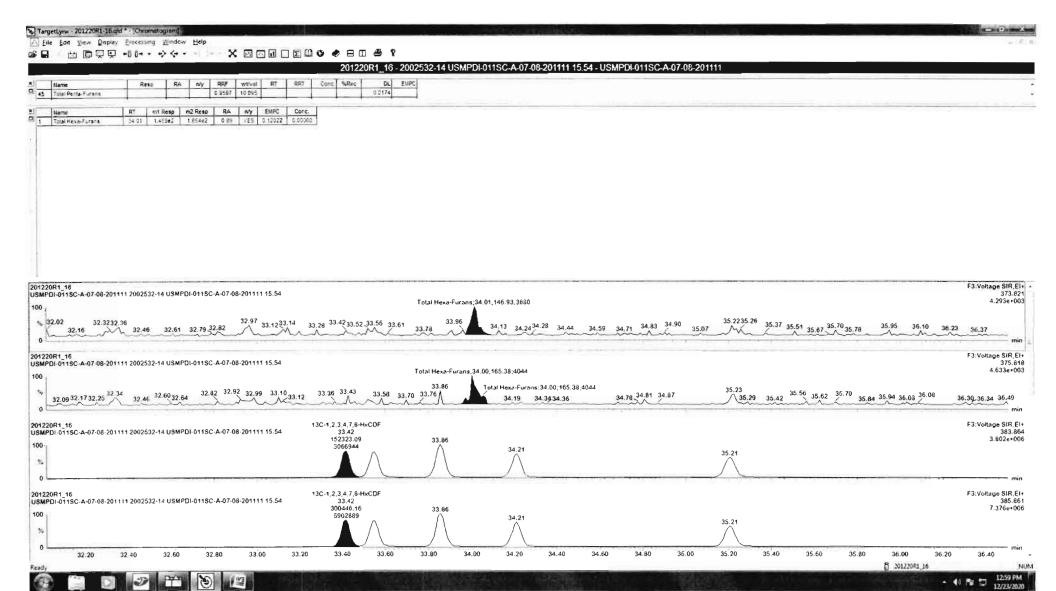


Work Order 2002532

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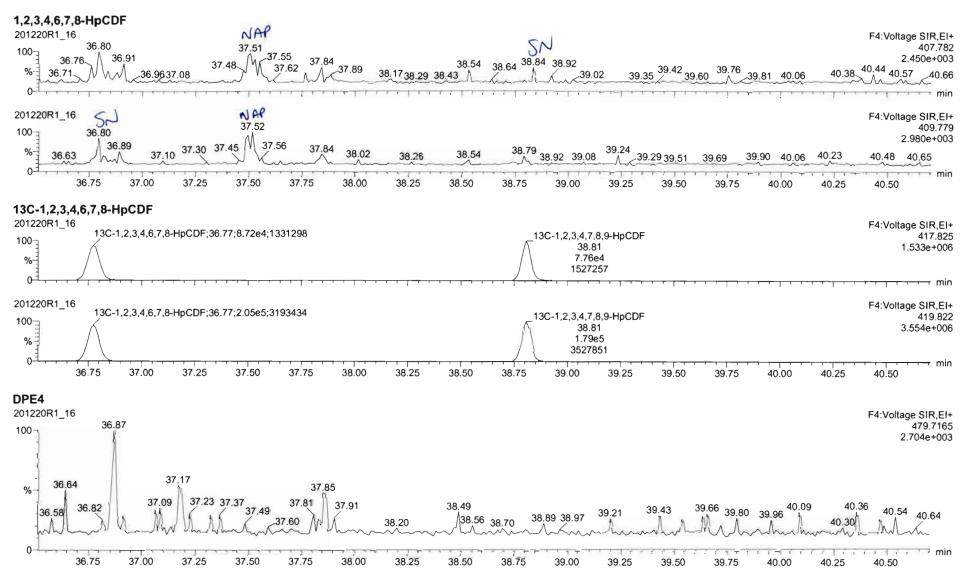




Work Order 2002532 Page 430 of 725

Untitled

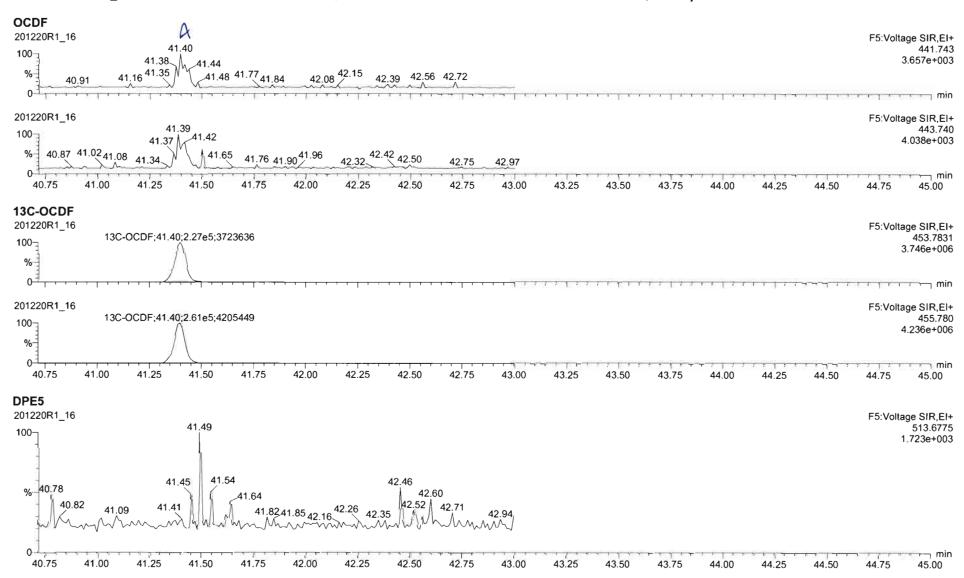
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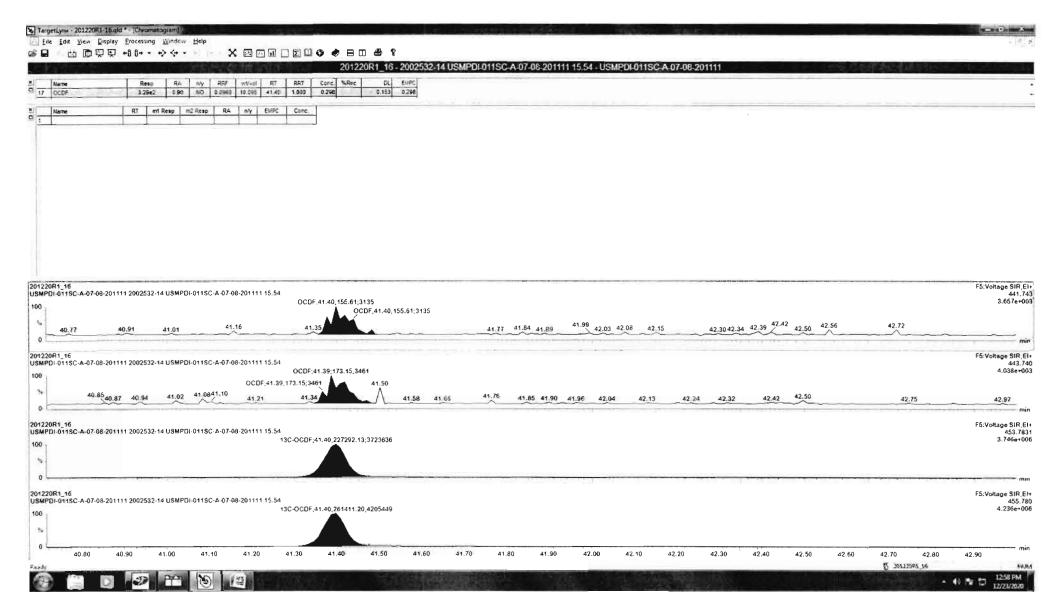


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Last Altered: Printed:

Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time





Work Order 2002532 Page 433 of 725

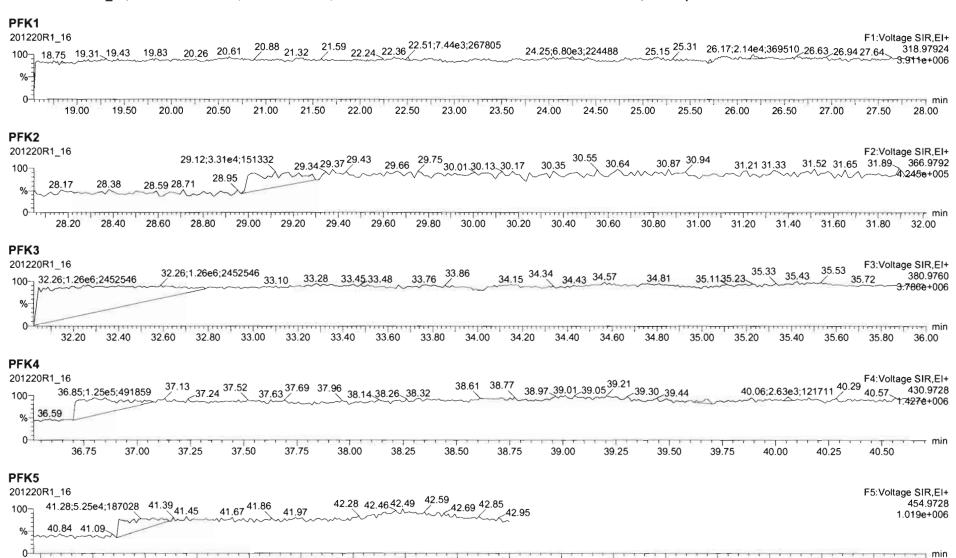
Vista Analytical Laboratory

Dataset:

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Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:49 Pacific Standard Time

Name: 201220R1_16, Date: 20-Dec-2020, Time: 19:35:36, ID: 2002532-14 USMPDI-011SC-A-07-08-201111 15.54, Description: USMPDI-011SC-A-07-08-201111



Work Order 2002532

41.00

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41.50

41.75

42.00

42.25

42.50

42.75

43.00

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44.00

44.25

44.50

40.75

44.75

45.00

CONTINUING CALIBRATION

Work Order 2002532 Page 435 of 725

LIBRALIUN STANDARDS REVIEW CHECKLIST Reviewed By: Initials & Date End Calibration ID: ST2012 17RS End Beg. Beg. Mass resolution > ion abundance within QC limits? □ 5k □ 6-8K □ 8K 10/10K **Concentrations within criteria?** 1614 1699 429 1613/1668/8280 Intergrated peaks display correctly? TCDD/TCDF Valleys <25% First and last eluters present? GC Break <20% Retention Times within criteria? 8280 CS1 End Standard: - Ratios within limits, S/N <2.5∰, CS1 **Verification Std. named correctly?** within 12 hours (ST-Year-Month-Day-VG ID) **Comments:** Forms signed and dated? Correct ICAL referenced? Run Log:

.

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Ν

Page: 1 of 1

- Correct instrument listed?

Bottle position verfied?

- Samples within 12 hour clock?

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:36 PM Pacific Standard Time

GRB 12/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

2 3 3	# 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	1.29e5	1.28e6	0.77	NO	0.980	26.41	26.39	NO	1.001	1.001	10.234	102	NO
2	2 1,2,3,7,8-PeCDD	4.75e5	9.81e5	0.62	NO	0.932	31.08	31.06	NO	1.001	1.000	52.022	104	NO
3	3 1,2,3,4,7,8-HxCDD	4.13e5	7.85e5	1.23	NO	1.02	34.37	34.37	NO	1.001	1.001	51.614	103	NO
4	4 1,2,3,6,7,8-HxCDD	4.11e5	8.96e5	1.24	NO	0.902	34.49	34.48	NO	1.001	1.000	50.877	102	NO
5	5 1,2,3,7,8,9-HxCDD	4.10e5	8.56e5	1.23	NO	0.954	34.76	34.76	NO	1.000	1.000	50.250	100	NO
6	6 1,2,3,4,6,7,8-HpCDD	3.13e5	7.02e5	1.03	NO	0.918	38.21	38.22	NO	1.000	1.001	48.678	97.4	NO
7	7 OCDD	5.26e5	1.17e6	0.86	NO	0.866	41.12	41.13	NO	1.000	1.000	104.12	104	NO
8	8 2,3,7,8-TCDF	1.42e5	1.77e6	0.74	NO	0.848	25.69	25.71	NO	1.000	1.001	9.4972	95.0	NO
9	9 1,2,3,7,8-PeCDF	7.10e5	1.45e6	1.54	NO	0.960	29.80	29.81	NO	1.000	1.001	50.884	102	NO
10	10 2,3,4,7,8-PeCDF	6.94e5	1.30e6	1.55	NO	1.07	30.87	30.87	NO	1.001	1.000	50.066	100	NO
11	11 1,2,3,4,7,8-HxCDF	4.67e5	9.73e5	1.21	NO	0.986	33.46	33.46	NO	1.000	1.000	48.657	97.3	NO
12	12 1,2,3,6,7,8-HxCDF	4.97e5	9.80e5	1.21	NO	1.04	33.59	33.59	NO	1.001	1.001	48.803	97.6	NO
13	13 2,3,4,6,7,8-HxCDF	4.56e5	9.21e5	1.21	NO	1.02	34.26	34.25	NO	1.001	1.000	48.500	97.0	NO
14	14 1,2,3,7,8,9-HxCDF	4.12e5	8.47e5	1.21	NO	0.991	35.25	35.26	NO	1.000	1.001	49.081	98.2	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.45e5	6.68e5	1.00	NO	1.05	36.83	36.83	NO	1.000	1.001	49.148	98.3	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.29e5	5.70e5	1.00	NO	1.18	38.84	38.84	NO	1.000	1.000	49.089	98.2	NO
17	17 OCDF	5.55e5	1.24e6	0.87	NO	0.896	41.42	41.42	NO	1.000	1.000	99.726	99.7	NO
18	18 13C-2,3,7,8-TCDD	1.28e6	1.22e6	0.78	NO	1.06	26.38	26.38	NO	1.030	1.030	99.826	99.8	NO
19	19 13C-1,2,3,7,8-PeCDD	9.81e5	1.22e6	0.65	NO	0.785	31.23	31.05	NO	1.219	1.212	102.72	103	NO
20	20 13C-1,2,3,4,7,8-HxCDD	7.85e5	1.09e6	1.27	NO	0.621	34.35	34.35	NO	1.014	1.014	116.40	116	NO
21	21 13C-1,2,3,6,7,8-HxCDD	8.96e5	1.09e6	1.26	NO	0.734	34.47	34.47	NO	1.017	1.017	112.27	112	NO
22	22 13C-1,2,3,7,8,9-HxCDD	8.56e5	1.09e6	1.25	NO	0.723	34.75	34.74	NO	1.026	1.025	108.97	109	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.02e5	1.09e6	1.06	NO	0.568	38.26	38.20	NO	1.129	1.127	113.67	114	NO
24	24 13C-OCDD	1.17e6	1.0 9 e6	0.90	NO	0.496	41.19	41.12	NO	1.216	1.213	216.36	108	NO
25	25 13C-2,3,7,8-TCDF	1.77e6	1.85e6	0.78	NO	0.919	25.68	25.68	NO	1.003	1.003	103.67	104	NO
26	26 13C-1,2,3,7,8-PeCDF	1.45e6	1.85e6	1.56	NO	0.715	29.94	29.80	NO	1.169	1.163	109.76	110	NO
27	27 13C-2,3,4,7,8-PeCDF	1.30e6	1.85e6	1.56	NO	0.689	31.03	30.85	NO	1.212	1.205	101.75	102	NO
28	28 13C-1,2,3,4,7,8-HxCDF	9.73e5	1.09e6	0.51	NO	0.873	33.45	33.45	NO	0.987	0.987	102.46	102	NO
29	29 13C-1,2,3,6,7,8-HxCDF	9.80e5	1.09e6	0.51	NO	0.933	33.58	33.57	NO	0.991	0.991	96.618	96.6	NO
30	30 13C-2,3,4,6,7,8-HxCDF	9.21e5	1.09e6	0.51	NO	0.843	34.25	34.24	NO	1.011	1.011	100.51	101	NO
31	31 13C-1,2,3,7,8,9-HxCDF	8.47e5	1.09e6	0.51	NO	0.780	35.25	35.24	NO	1.040	1.040	99.864	9 9.9	NO

Work Order 2002532 Page 437 of 725

U:\VG12.PRO\Results\201217R4\201217R4_1.qld Dataset:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Last Altered: Thursday, December 17, 2020 3:19:36 PM Pacific Standard Time Printed:

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.68e5	1.09e6	0.42	NO	0.726	36.83	36.81	NO	1.087	1.086	84.613	84.6	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.70e5	1.09e6	0.42	NO	0.491	38.83	38.83	NO	1.146	1.146	106.78	107	NO
34	34 13C-OCDF	1.24e6	1.09e6	0.87	NO	0.565	41.41	41.41	NO	1.222	1.222	202.18	101	NO
35	35 37Cl-2,3,7,8-TCDD	1.64e5	1.22e6			1.22	26.38	26.39	NO	1.030	1.031	11.066	111	NO
36	36 13C-1,2,3,4-TCDD	1.22e6	1.22e6	0.79	NO	1.00	25.64	25.61	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.85e6	1.85 e6	0.78	NO	1.00	24.13	24.12	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.09e6	1.09e6	0.51	NO	1.00	33.92	33.89	NO	1.000	1.000	100.00	100	YES OK

Work Order 2002532 Page 438 of 725 MassLynx 4.1 SCN815

Page 1 of 1

Dataset: Untitled

Last Altered: Friday, December 18, 2020 8:09:54 AM Pacific Standard Time Printed: Friday, December 18, 2020 8:10:19 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

		Name	ID	Acq.Date	Acq.Time
1		201217R4_1	ST201217R4_1 1613 CS3 20L0301	17-Dec-20	14:26:46
2		201217R4_2	B0L0082-BS1 OPR 10	17-Dec-20	15:13:49
3		201217R4_3	SOLVENT BLANK	17-Dec-20	16:01:58
4		201217R4_4	B0L0082-BLK1 Method Blank 10	17-Dec-20	16:46:12
5		201217R4_5	HRMS-201216-02 HEXANE EA350-US	17-Dec-20	17:30:27
6		201217R4_6	HRMS-201216-03 DCM EA237-US	17-Dec-20	18:14:44
7		201217R4_7	2002582-08 NCPDI-077SG-201119 7.67	17-Dec-20	18:58:58
8		201217R4_8	2002582-07 NCPDI-076SG-201119 10.8	17-Dec-20	19:43:13
9		201217R4_9	2002582-06 NCPDI-075SG-201119 14.28	17-Dec-20	20:27:29
10		201217R4_10	2002582-05 NCPDI-074SG-201119 13.37	17-Dec-20	21:11:44
11		201217R4_11	2002493-05@10X USMPDI-014SC-A-10-11-2	17-Dec-20	21:55:59
12	-	201217R4_12	2002493-06@10X USMPDI-014SC-A-11-12-2	17-Dec-20	22:40:14
13	(A)	201217R4_13			
14	Ť	201217R4_14			
15		201217R4_15			
16	14.5	201217R4_16			
17		201217R4_17			
18	1	201217R5_1			
19		201217R5_2	ST201217R5_1 1613 CS3 20L0301	18-Dec-20	07:08:19

(A) Instrument passed, and resolution check manually processed, injected and standard. HN 12/18/2020

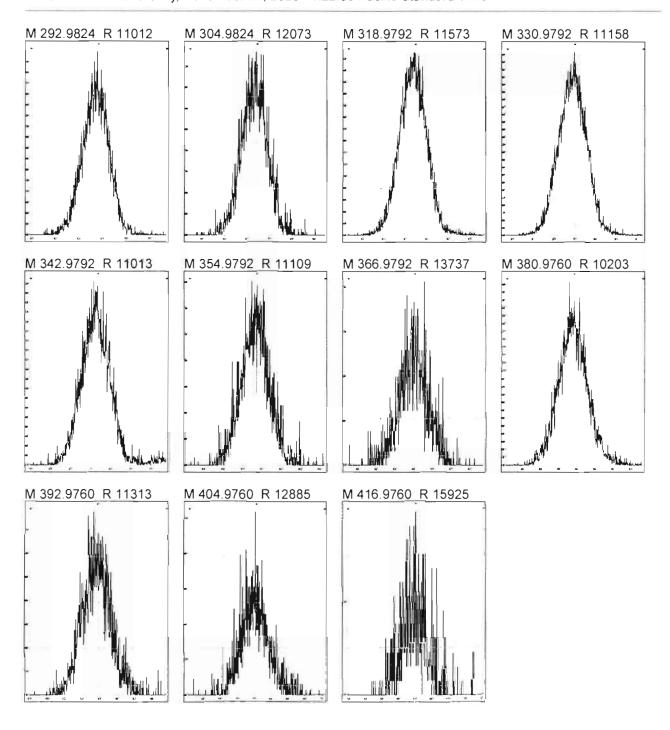
Work Order 2002532 Page 439 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:22:35 Pacific Standard Time



Work Order 2002532 Page 440 of 725

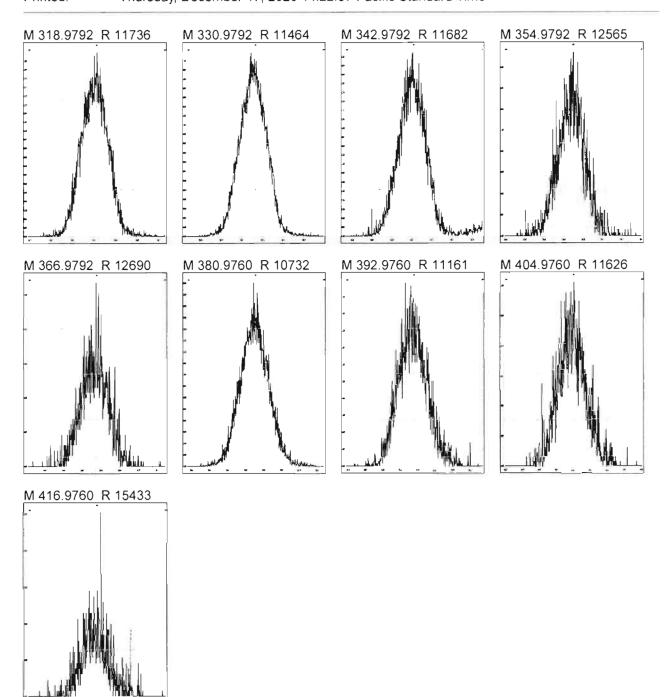
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:22:57 Pacific Standard Time



Work Order 2002532 Page 441 of 725

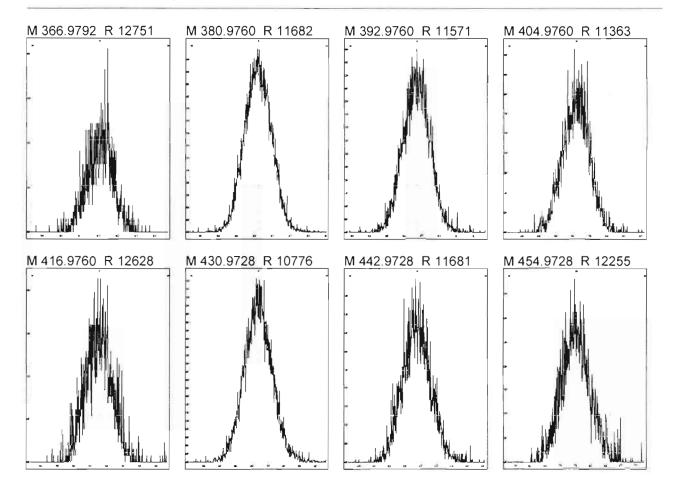
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:23:27 Pacific Standard Time



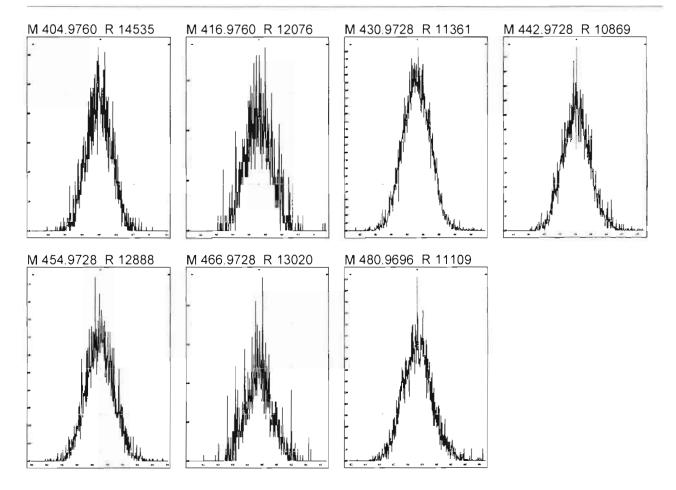
Work Order 2002532 Page 442 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:23:53 Pacific Standard Time



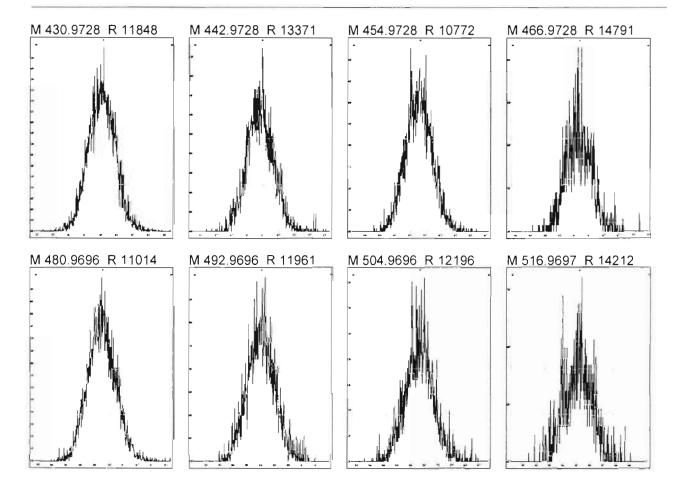
Work Order 2002532 Page 443 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:24:09 Pacific Standard Time



Work Order 2002532 Page 444 of 725

MassLynx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld

Last Altered: Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

1	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.59
2	2 1,2,8,9-TCDD (Last)	27.28
3	3 1,2,4,7,9-PeCDD (First)	28.82
4	4 1,2,3,8,9-PeCDD (Last)	31.42
5	5 1,2,4,6,7,9-HxCDD (First)	32.72
6	6 1,2,3,7,8,9-HxCDD (Last)	34.76
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.21
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.22
9	9 1,3,6,8-TCDF (First)	20.33
10	10 1,2,8,9-TCDF (Last)	27.59
11	11 1,3,4,6,8-PeCDF (First)	27.16
12	12 1,2,3,8,9-PeCDF (Last)	31.77
13	13 1,2,3,4,6,8-HxCDF (First)	32.19
14	14 1,2,3,7,8,9-HxCDF (Last)	35.26
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.83
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.84

Work Order 2002532 Page 445 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld

Last Altered:

Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time

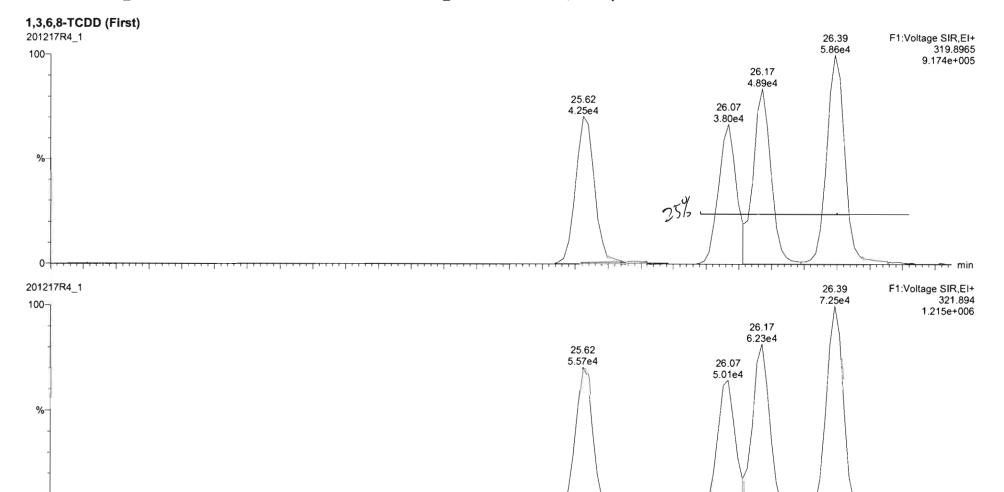
Printed:

Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



25.40

25.60

25.80

26.00

26.20

26.40

Work Order 2002532

24.20

24.40

24.60

24.80

25.00

25.20

24.00

Page 446 of 725

26.60

r min

FIN 12/17/2020 GPB 12/18/2020

Quantify Sample Report MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld Dataset:

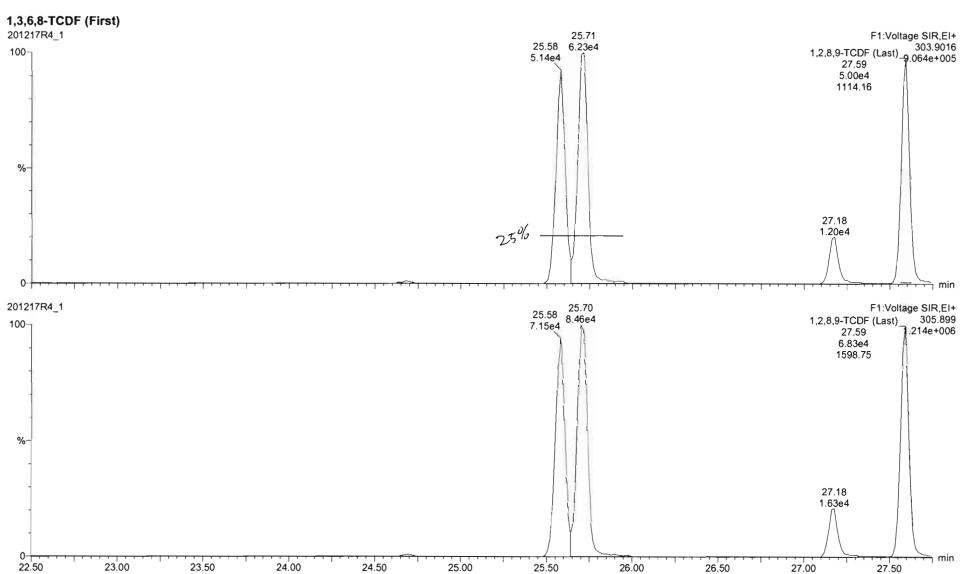
Last Altered: Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time Printed:

Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

HIN 12/17/2020 GPA 12/18/2020

Page 2 of 2

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Page 447 of 725 Work Order 2002532

Page 1 of 13

Vista Analytical Laboratory

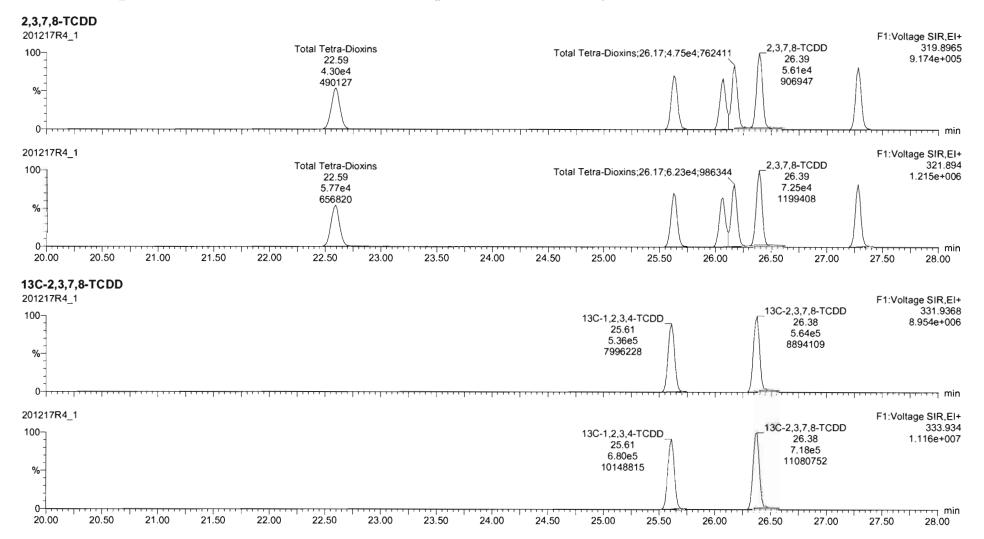
Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 448 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

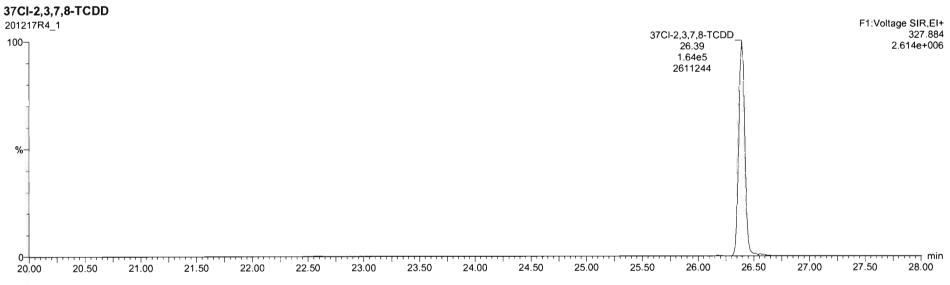
Dataset:

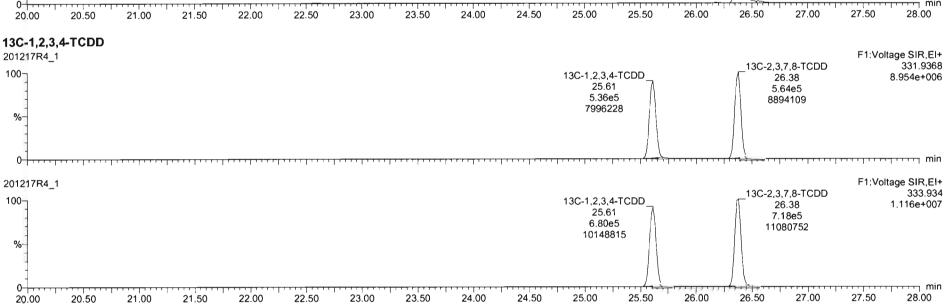
U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301





Work Order 2002532

Vista Analytical Laboratory

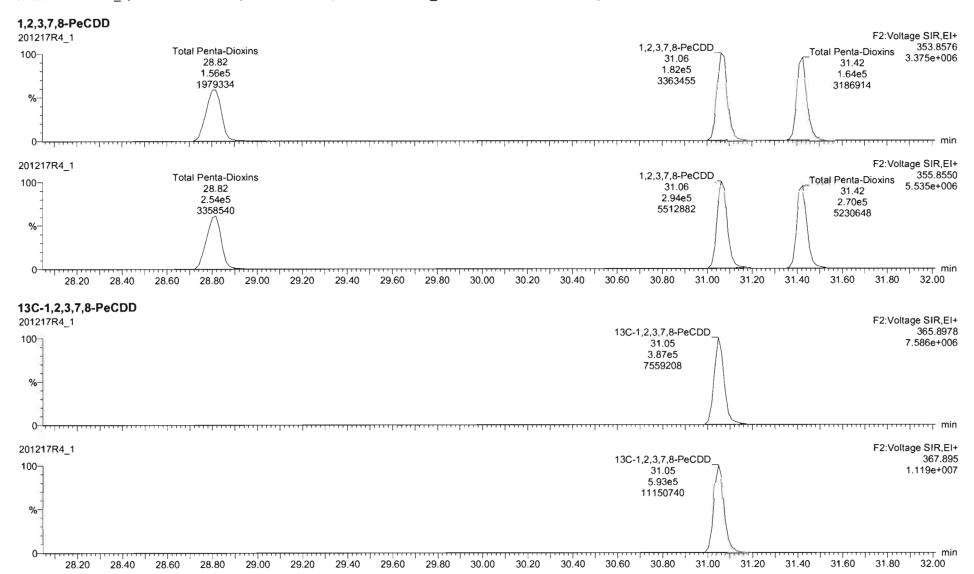
Dataset:

U:\VG12.PRO\Results\201217R4\201217R4 1.qld

Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Quantify Sample Report

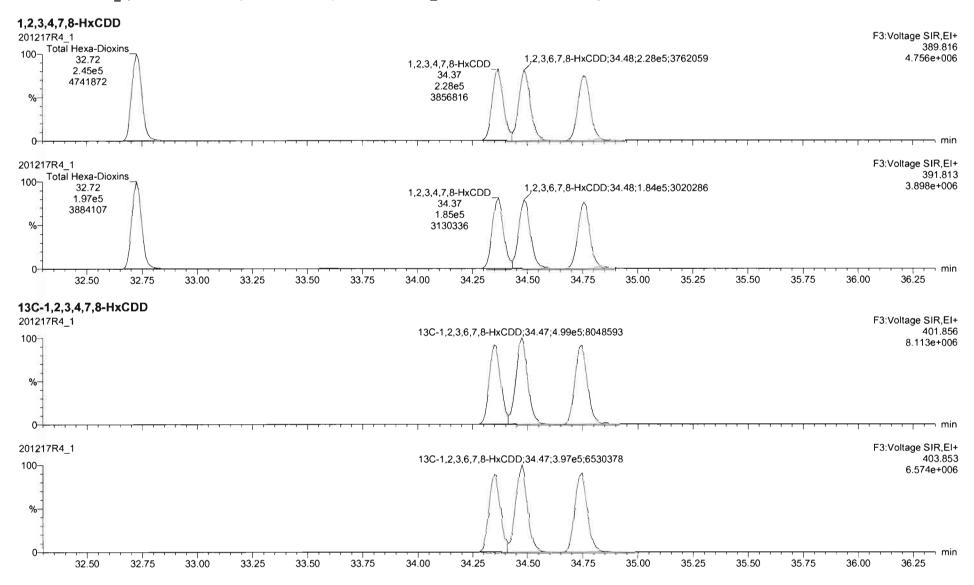
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

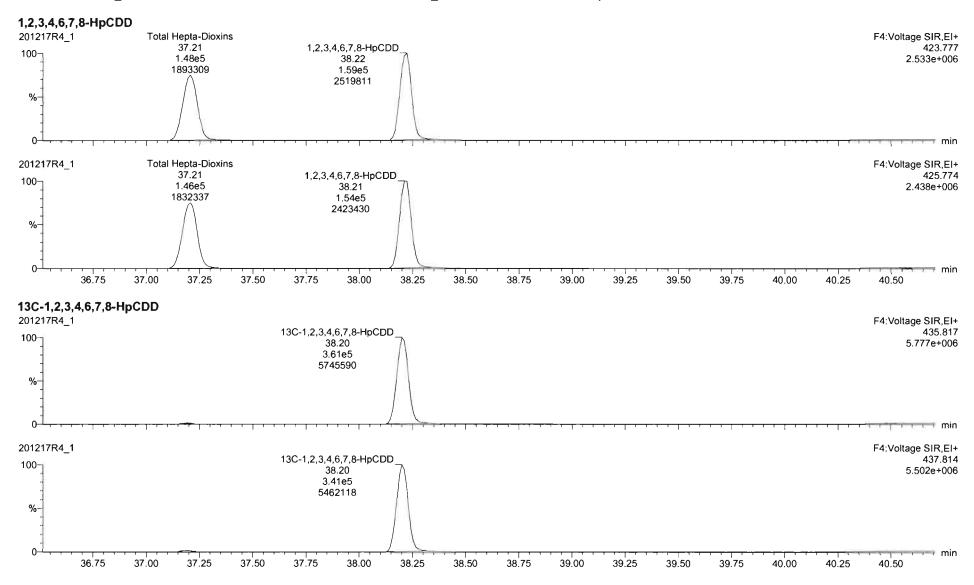
Page 5 of 13

Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 452 of 725

Quantify Sample Report Vista Analytical Laboratory

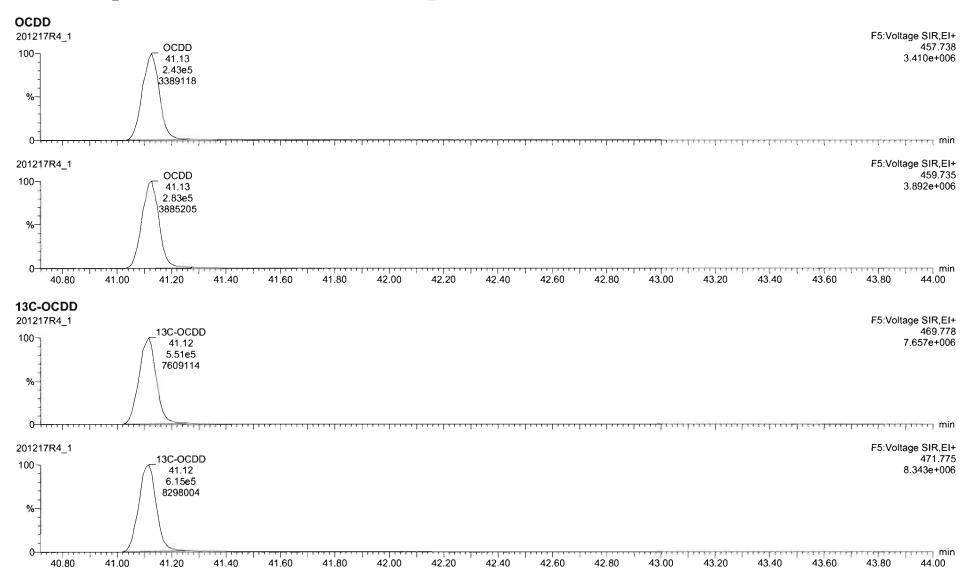
Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_1.qld

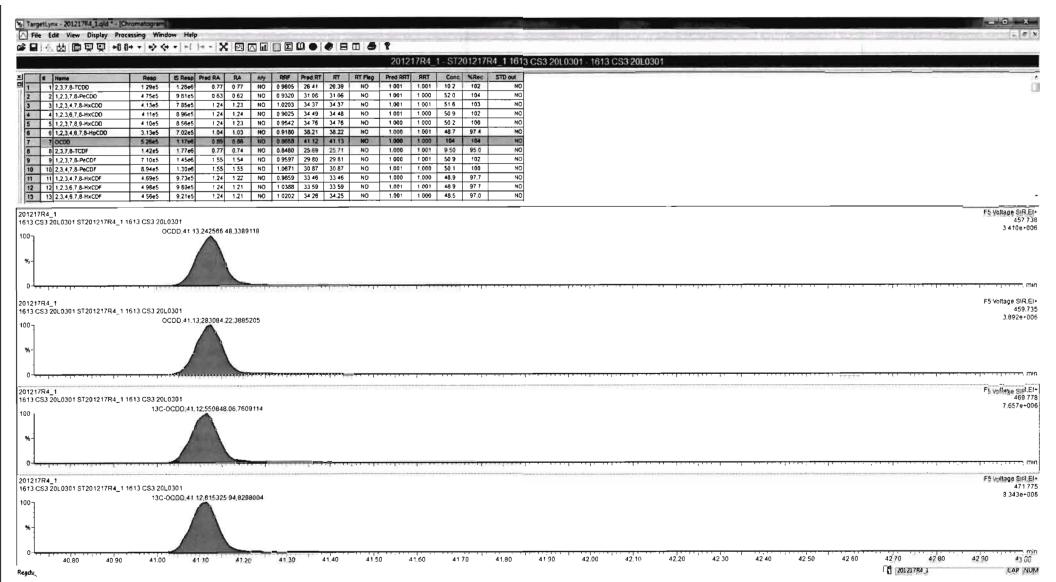
Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532



Work Order 2002532 Page 454 of 725

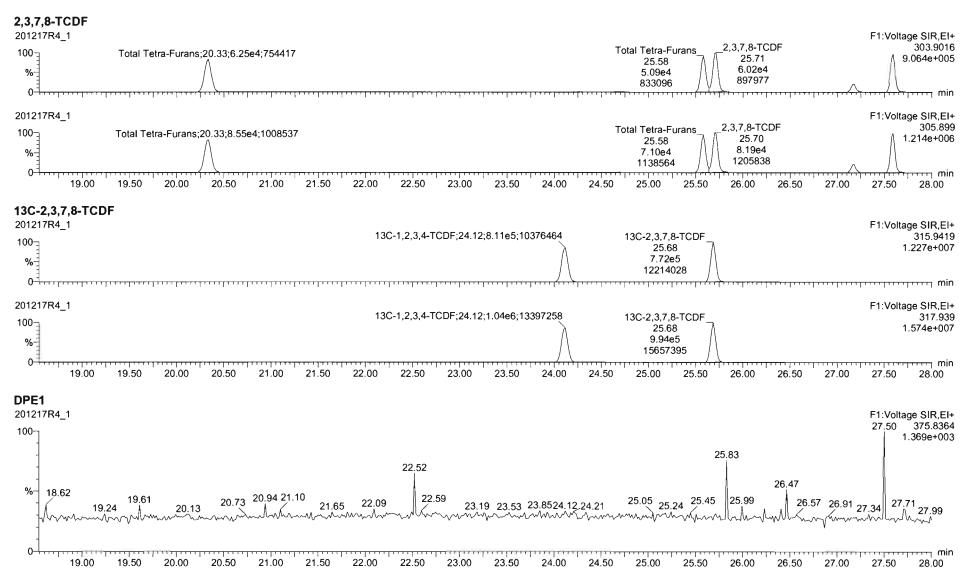
Page 455 of 725

Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4 1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



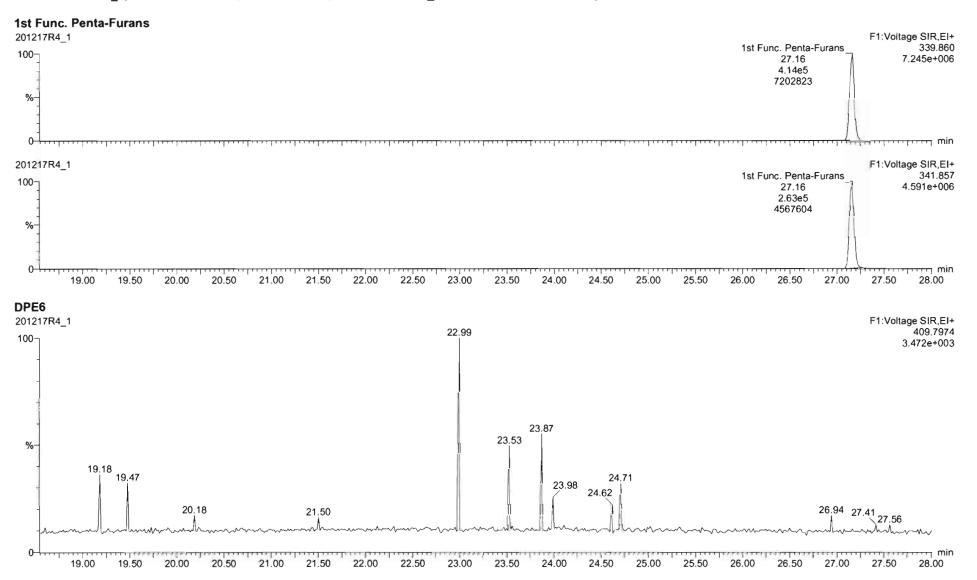
Work Order 2002532

Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4 1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 456 of 725

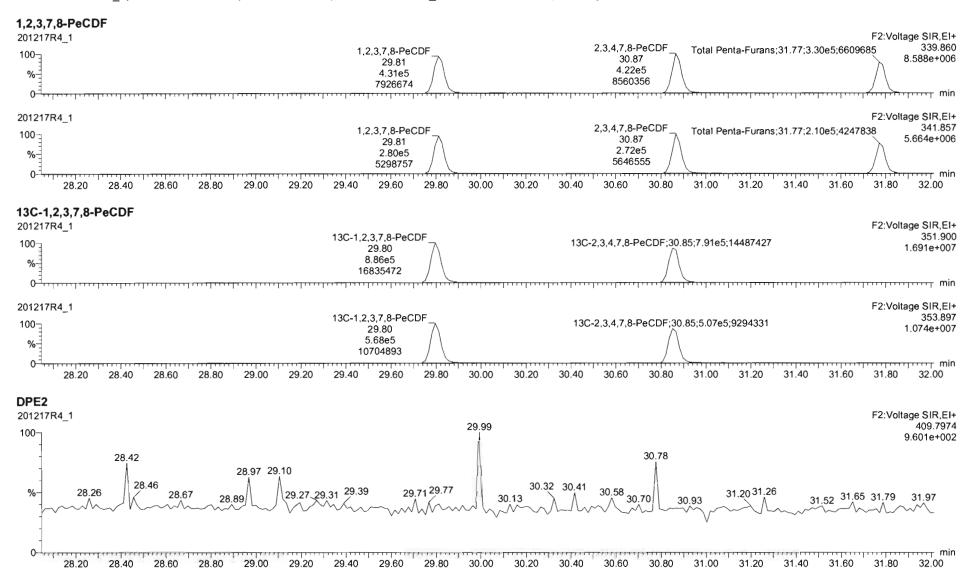
Quantify Sample Report Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Printed: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Quantify Sample Report

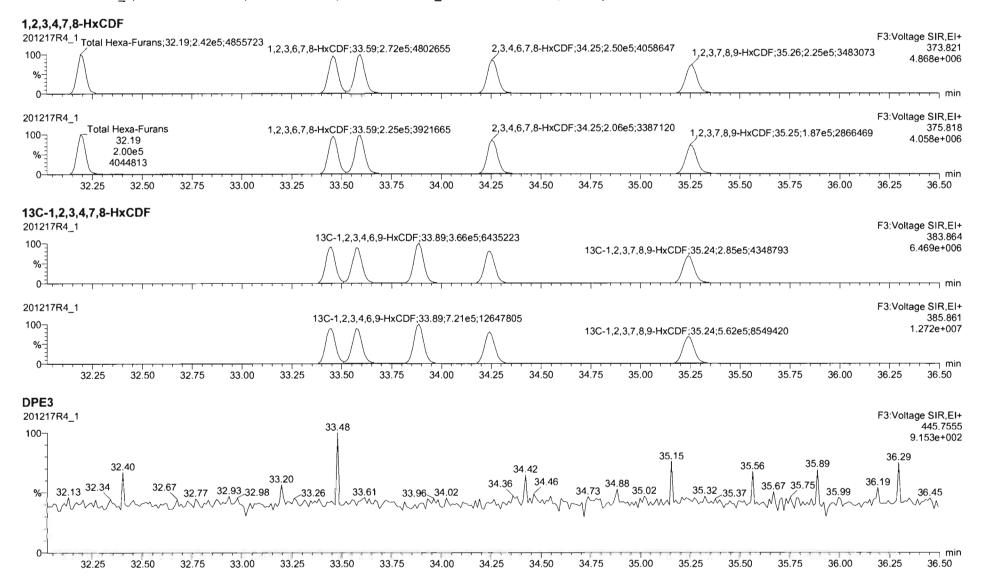
MassLynx 4.1 SCN815

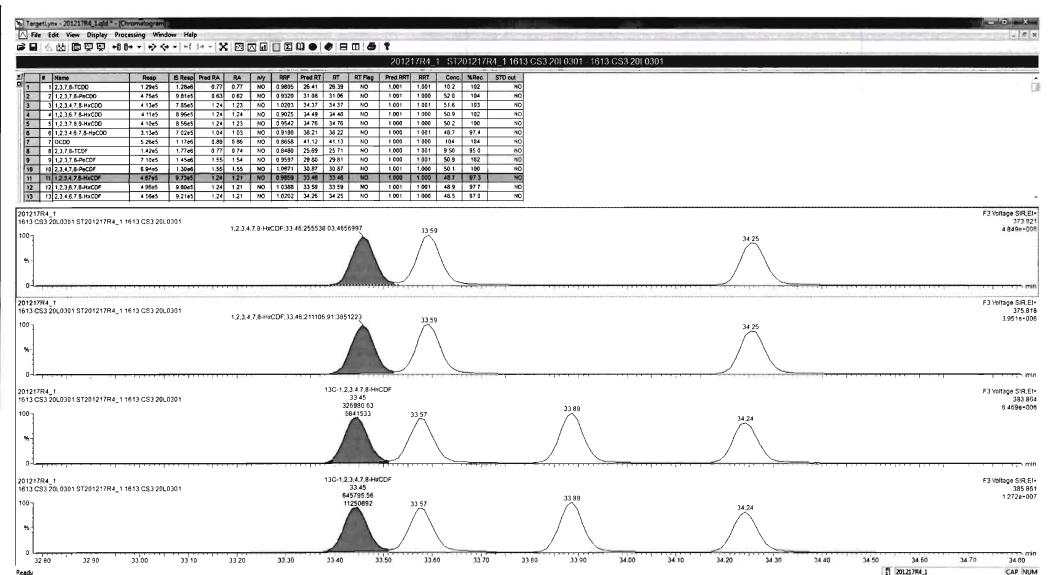
Vista Analytical Laboratory

U:\VG12.PRO\Results\201217R4\201217R4 1.qld Dataset:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Last Altered: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time Printed:

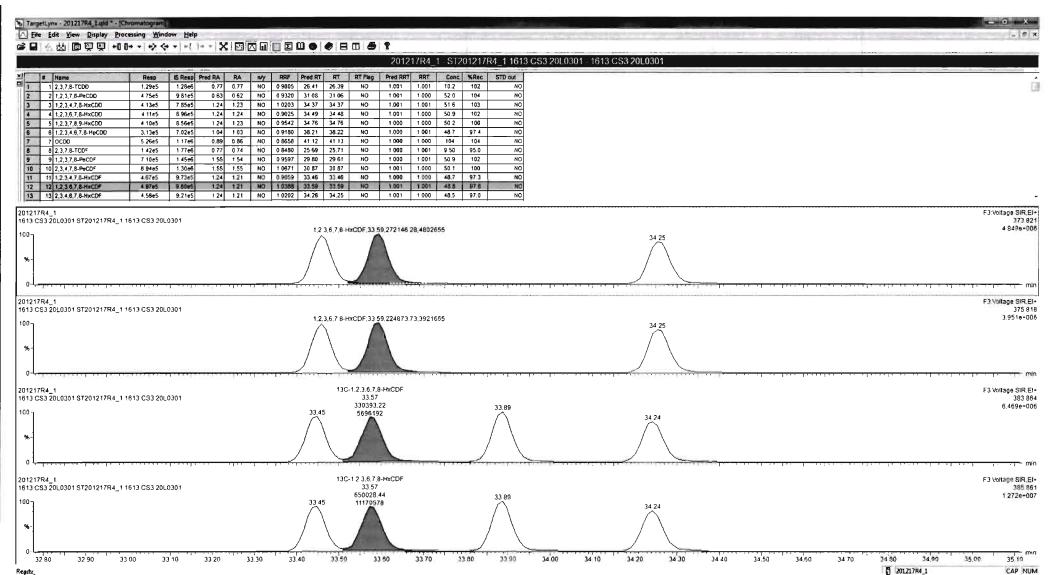
Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301





Work Order 2002532 Page 459 of 725

Ready

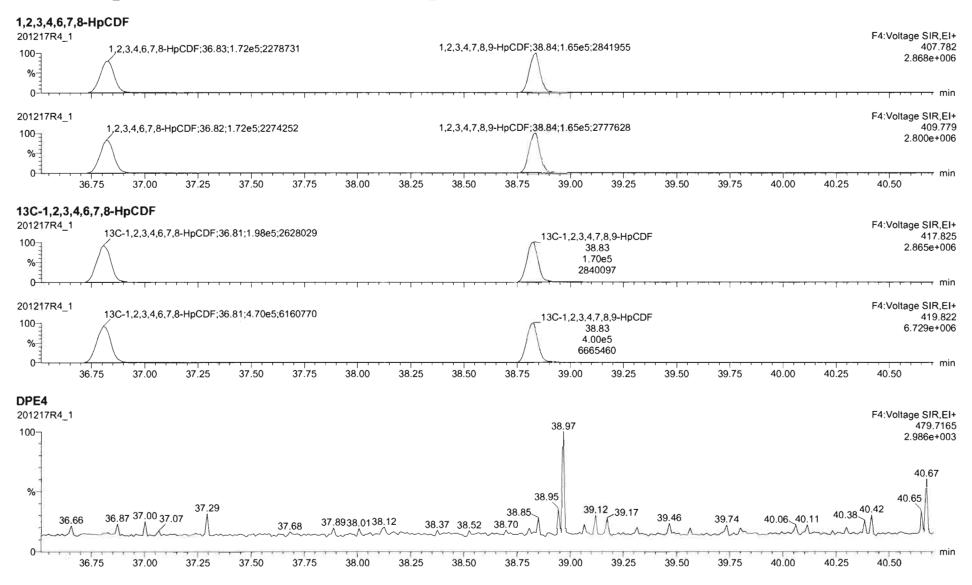


Work Order 2002532 Page 460 of 725 CAP NUM

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

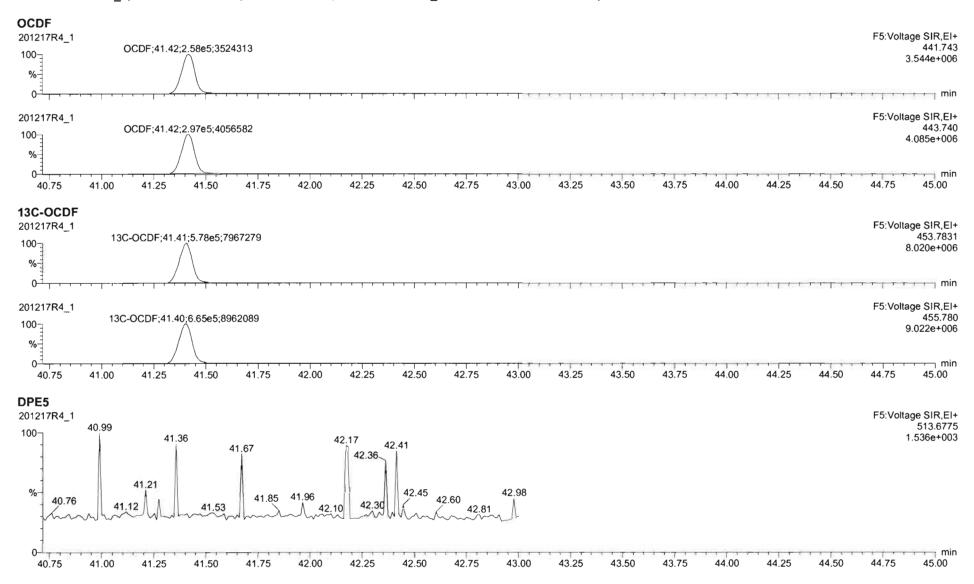


Quantify Sample Report Vista Analytical Laboratory

U:\VG12.PRO\Results\201217R4\201217R4_1.qld Dataset:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Last Altered: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time Printed:

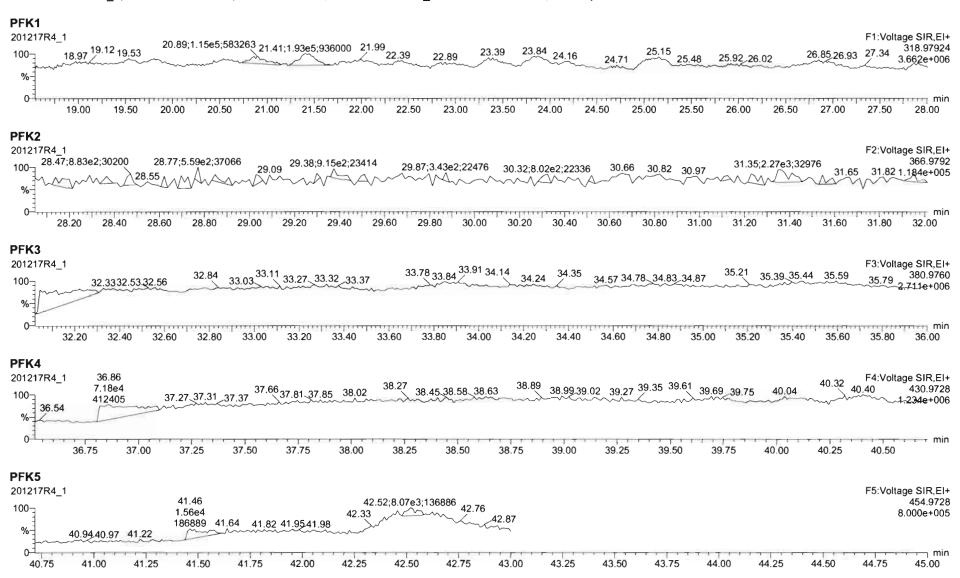
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Dataset: U:\VG12.PRO\Results\201217R4\201217R4 1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

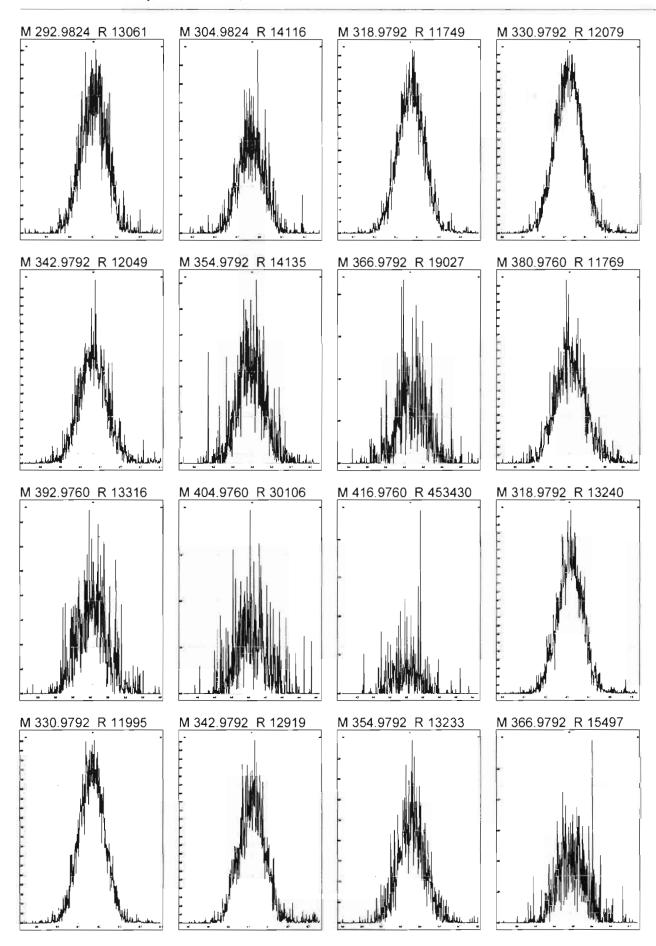
Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 463 of 725

Printed:

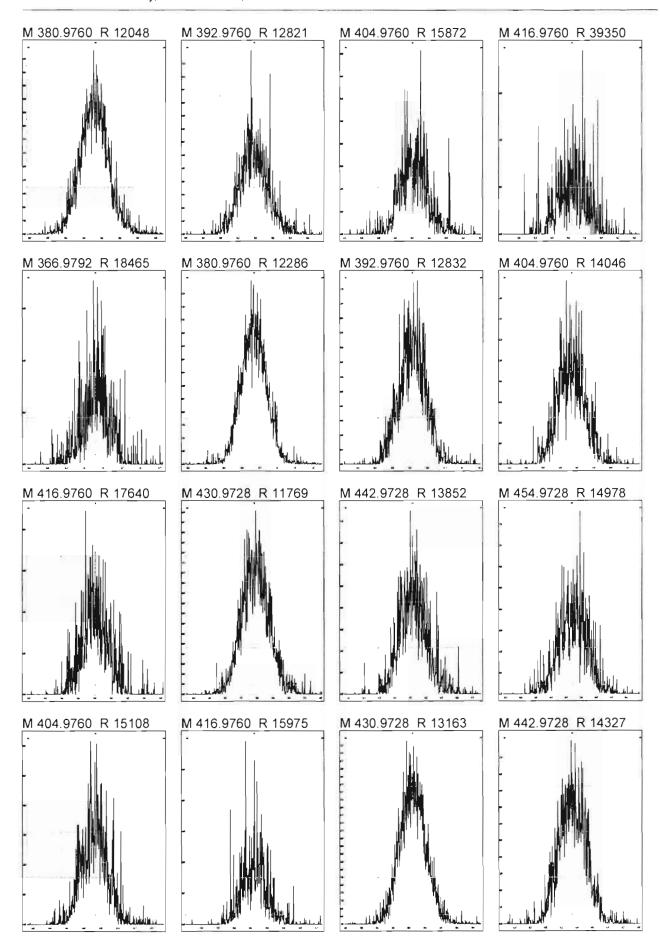
Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002532 Page 464 of 725

Printed:

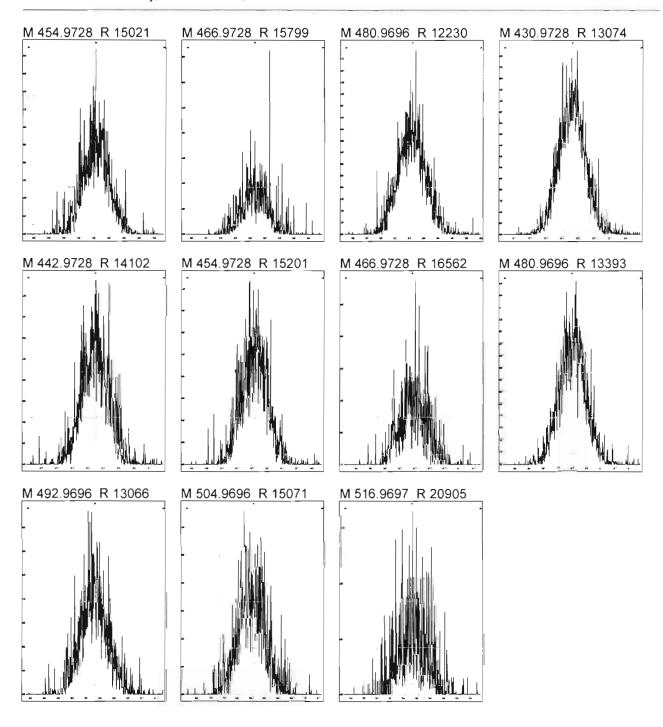
Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002532 Page 465 of 725

Printed:

Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002532 Page 466 of 725

..... VALIBRATIUM STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST ZUIZIBRI_I	<u>. </u>		Reviewed By: GPB 12/21/2020	. *
End Calibration ID:NA	 .	1	inidais a bate	· ·
	Beg.	End		Beg. End
ion abundance within QC limits?	4	M	Mass resolution ≥	
Concentrations within criteria?		П	□ 5k □ 6-8K □ 8K ☑ 10K 1614 1699 429 1613/1668/8280	
TCDD/TCDF Valleys <25%		中	Intergrated peaks display correctly?	AN P
First and last eluters present?			GC Break <20%	
Retention Times within criteria?	\square	Ф	8280 CS1 End Standard:	•
Verification Std. named correctly?	\square	Ф	- Ratios within limits, S/N <2.5Å, CS1 within 12 hours	NA.
(ST-Year-Month-Day-VG ID)			· · ·	
Forms signed and dated?	eg		Comments:	
Correct ICAL referenced?	HIM	1		÷.
Run Log:		\perp	· ·	Í
- Correct instrument listed?	$\overline{\mathcal{A}}$; ;
- Samples within 12 hour clock? - Bottle position verfied?	(V) HIV	N 1		

ID: LR - HCSRC

Rev. No.: 0' Rev. Date: 06/06/2017

Page: 1 of 1

Page 1 of 2

U:\VG12.PRO\Results\201218R1\201218R1_1.qld Dataset:

Last Altered: Friday, December 18, 2020 10:15:02 AM Pacific Standard Time Printed:

Friday, December 18, 2020 10:38:24 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

٠,	* # Name	Resp	IS Resp	RA	_ n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out 1
1	1 2,3,7,8-TCDD	1.41e5	1.45e6	0.78	NO	0.980	26.37	26.35	NO	1.001	1.001	9.9241	99.2	NO NO
2	2 1,2,3,7,8-PeCDD	5.13e5	1.08e6	0.60	NO	0.932	31.05	31.03	NO	1.001	1.000	50.777	102	NO
3	3 1,2,3,4,7,8-HxCDD	4.40e5	8.32e5	1.23	NO	1.02	34.35	34.35	NO	1.001	1.001	51.803	104	NO.
4	4 1,2,3,6,7,8-HxCDD	4.38e5	9.77e5	1.22	NO	0.902	34.47	34.46	NO	1.001	1.000	49.684	99.4	NO
5	5 1,2,3,7,8,9-HxCDD	4.34e5	9.42e5	1.21	NO	0.954	34.72	34.73	NO	1.000	1.001	48.326	96.7	NO
6.	6 1,2,3,4,6,7,8-HpCDD	3.23e5	7.50e5	1.00	NO	0.918	38.20	38.20	NO	1.000	1.000	46.907	93.8	NO
7	7 OCDD	5.51e5	1.26e6	0.86	NO	0.866	41.10	41.12	NO	1.000	1.000	101.07	101	NO
8	8 2,3,7,8-TCDF	1.45e5	1.91e6	0.74	NO	0.848	25.64	25.67	NO	1.000	1.001	8.9668	89.7	NO
9 ,	9 1,2,3,7,8-PeCDF	7.01e5	1.53e6	1.52	NO	0.960	29.77	29.78	NO	1.000	1.000	47.766	95.5	NO
10	10 2,3,4,7,8-PeCDF	7.50e5	1.44e6	1.52	NO	1.07	30.84	30.84	NO	1.001	1.000	48.858	97.7	NO
11	11 1,2,3,4,7,8-HxCDF	4.69e5	1.01e6	1.21	NO	0.986	33.42	33.44	NO	1.000	1.001	47.067	94.1	NO
12	12 1,2,3,6,7,8-HxCDF	4.94e5	1.01e6	1.20	NO	1.04	33.57	33.57	NO	1.001	1.001	46.888	93.8	NO
13 ू	13 2,3,4,6,7,8-HxCDF	4.58e5	9.44e5	1.19	NO	1.02	34.24	34.23	NO	1.001	1.000	47.548	95.1	NO
14	14 1,2,3,7,8,9-HxCDF	4.13e5	8.78e5	1.22	NO	0.991	35.23	35.23	NO	1.000	1.000	47.511	95.0	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.42e5	6.85e5	1.00	NO	1.05	36.80	36.80	NO	1.000	1.000	47.594	95.2	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.24e5	5.71e5	1.01	NO	1.18	38.82	38.82	NO	1.000	1.000	48.287	96.6	NO
17	17 OCDF	5.32e5	1.25e6	0.85	NO	0.896	41.40	41.40	NO	1.000	1.000	94.726	94.7	NO
18	18 13C-2,3,7,8-TCDD	1.45e6	1.36e6	0.78	NÓ	1.06	26.34	26.33	NO	1.030	1.030	100.88	101	NO
19	19 13C-1,2,3,7,8-PeCDD	1.08e6	1.36e6	0.61	NO	0.785	31.17	31.02	NO	1.219	1.213	101.48	101	NO
20	20 13C-1,2,3,4,7,8-HxCDD	8.32e5	1.15e6	1.28	NO	0.621	34.33	34.33	NO	1.014	1.014	116.93	117	NO
21	21 13C-1,2,3,6,7,8-HxCDD	9.77e5	1.15e6	1.25	NO	0.734	34.45	34.45	NO	1.017	1.017	116.09	116	NO
22	22 13C-1,2,3,7,8,9-HxCDD	9.42e5	1.15e6	1.25	NO	0.723	34.73	34.71	NO	1.026	1.025	113.68	114	NO
23 .	23 13C-1,2,3,4,6,7,8-HpCDD	7.50e5	1.15e6	1.03	NO	0.568	38.23	38.19	NO	1.129	1.128	115.26	115	NO
24 , ,	24 13C-OCDD	1.26e6	1.15e6	0.89	NO	0.496	41.17	41.09	NO	1.216	1.214	221.60	111	NO
25	25 13C-2,3,7,8-TCDF	1.91e6	1.97e6	0.77	NO	0.919	25.64	25.64	NO	1.003	1.003	105.37	105	NO
26 .	26 13C-1,2,3,7,8-PeCDF	1.53e6	1.97e6	1.57	NO	0.715	29.89	29.77	NO	1.169	1.164	108.65	109	NO
27'	27 13C-2,3,4,7,8-PeCDF	1.44e6	1.97e6	1.57	NO	0.689	30.97	30.82	NO	1.212	1.206	106.01	106	NO
28	28 13C-1,2,3,4,7,8-HxCDF	1.01e6	1.15e6	0.50	NO'	0.873	33.43	33.42	NO	0.987	0.987	101.04	101	NO
29	29 13C-1,2,3,6,7,8-HxCDF	1.01e6	1.15e6	0.50	NO	0.933	33.56	33.55	NO	0.991	0.991	94.729	94.7	NO
30 Ii	30 13C-2,3,4,6,7,8-HxCDF	9.44e5	1.15e6	0.50	NO	0.843	34.23	34.22	NO	1.011	1.010	97.699	97.7	NO
31	31_13C-1,2,3,7,8,9-HxCDF	8.78 e 5	1.15e6	0.51	NO	0.780	35.23	35.22	NO	1.040	1.040	98.173	98.2	NO

Page 468 of 725 Work Order 2002532

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201218R1\201218R1_1.qld

Last Altered: Friday, December 18, 2020 10:15:02 AM Pacific Standard Time Printed: Friday, December 18, 2020 10:38:24 AM Pacific Standard Time

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

		# Name	Resp	, IS Resp,	RA	n/y	RRF	Pred.RT	RT ၞ∙	RT Flag	Pred.RRT	RRT	Conc.	%Rec =	STD out
32		32 13C-1,2,3,4,6,7,8-HpCDF	6.85e5	1.15e6	0.43	NO	0.726	36.80	36.78	NO	1.087	1.086	82.216	82.2	NO
33.		33 13C-1,2,3,4,7,8,9-HpCDF	5.71e5	1.15e6	0.42	NO	0.491	38.81	38.81	NO	1.146	1.146	101.48	101	NO
34	i	34 13C-OCDF	1.25e6	1.15e6	0.87	NO	0.565	41.38	41.39	NO	1.222	1.222	193.44	96.7	NO
35		35 37CI-2,3,7,8-TCDD	1.82e5	1.36e6			1.22	26.33	26.35	NO	1.030	1.031	11.011	110	NO
36	۴.	36 13C-1,2,3,4-TCDD	1.36e6	1.36e6	0.78	NO	1.00	25.64	25.57	NO	1.000	1.000	100.00	100	NO
37		37 13C-1,2,3,4-TCDF	1.97e6	1.97e6	0.78	NO	1.00	24.13	24.07	NO	1.000	1.000	100.00	100	NO
38		38 13C-1,2,3,4,6,9-HxCDF	1.15e6	1.15e6	0.50	NO	1.00	33.92	. 33.87	NO	1.000	1.000	100.00	100	YES O

Page 2 of 2

Work Order 2002532 Page 469 of 725

Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed: Sunday, December 20, 2020 08:09:36 Pacific Standard Time Sunday, December 20, 2020 08:10:11 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq:Date	Acq.Time
1	201218R1_1	ST201218R1_1 1613 CS3 20L0301	18-Dec-20	09:17:52
2	(A) 201218R1_2			
3	,201218R1_3	B0L0082-BLK1 Method Blank 10	18-Dec-20	10:57:18
4	201218R1_4	2002582-04 NCPDI-071SG-201118 9.4	18-Dec-20	12:28:49
5	201218R1_5	2002582-03 NCPDI-055SG-201119 12.2	18-Dec-20	13:14:30
6	201218R1_6	2002582-02 NCPDI-050SG-201118 7.06	18-Dec-20	14:00:42
7	201218R1_7	2002582-01 NCPDi-048SG-201118 7.06	18-Dec-20	14:46:07
8.	201218R1_8	2002529-01 WIF LS Inlet Sump-20201112 1	18-Dec-20	15:32:17
9	201218R1_9	2002529-02 B 108-20201112 1	18-Dec-20	16:16:35
10	201218R1_10	2002529-03 B 108-20201112-FD 1	18-Dec-20	17:00:53
11	201218R1_11	2002529-04 WWTPInfluent 868 Bld 1	18-Dec-20	17:45:12
12	201218R1_12	2002492-09RE1 USMPDI-006SC-A-04-05-201	18-Dec-20	18:29:30
13	.201218R1_13	2002532-01 USMPDI-001SC-A-01-02-201111	18-Dec-20	19:13:47

A) Gy Solvent blank, instrument paused, allowed GC cycle to finish. Hu 12/21/2020

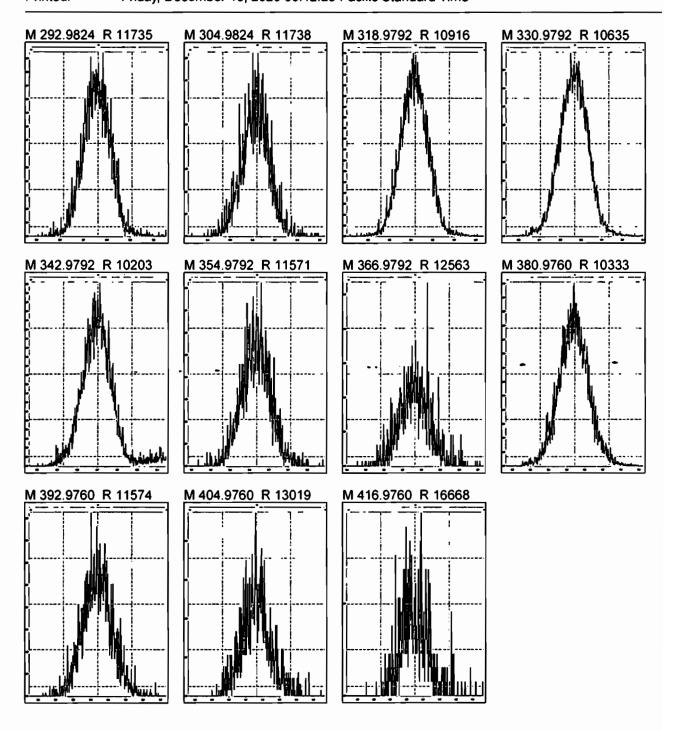
Work Order 2002532

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Friday, December 18, 2020 09:12:25 Pacific Standard Time



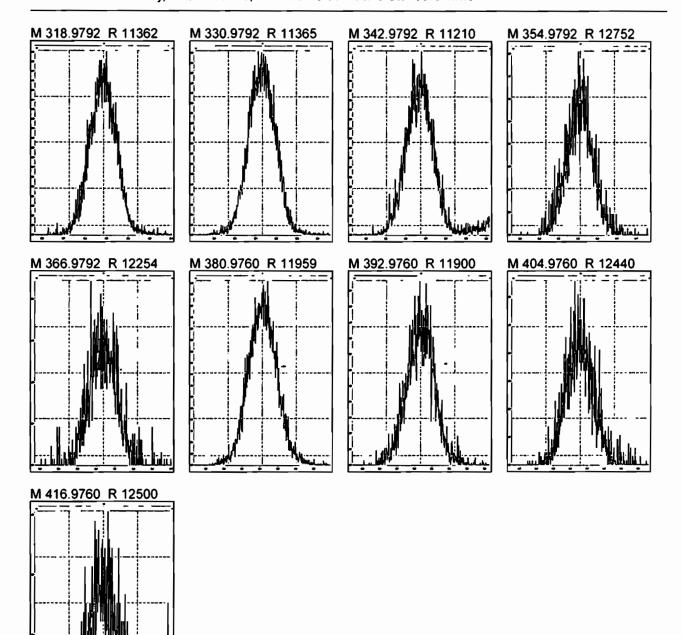
Work Order 2002532 - Page 471 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Friday, December 18, 2020 09:13:39 Pacific Standard Time



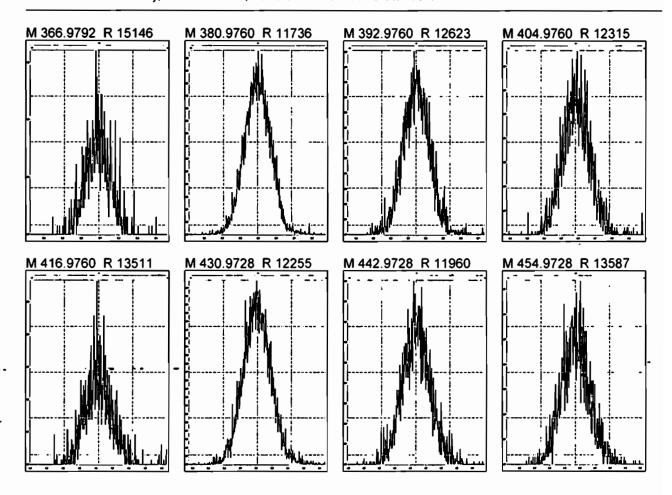
Work Order 2002532 Page 472 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Friday, December 18, 2020 09:15:16 Pacific Standard Time



Work Order 2002532 Page 473 of 725

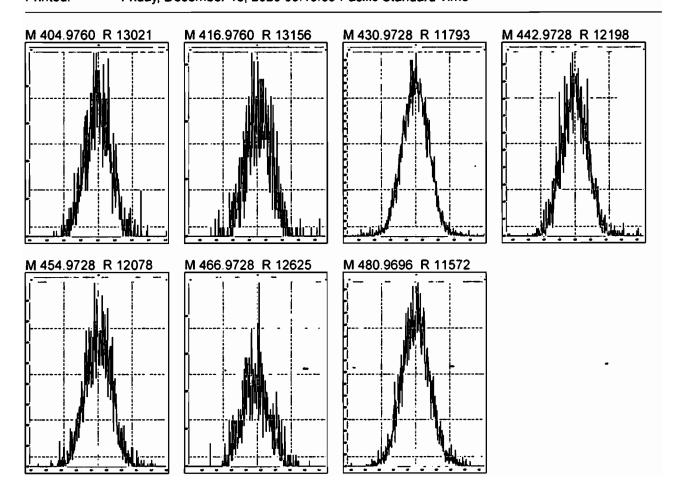
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: F

Friday, December 18, 2020 09:15:59 Pacific Standard Time



Work Order 2002532 Page 474 of 725

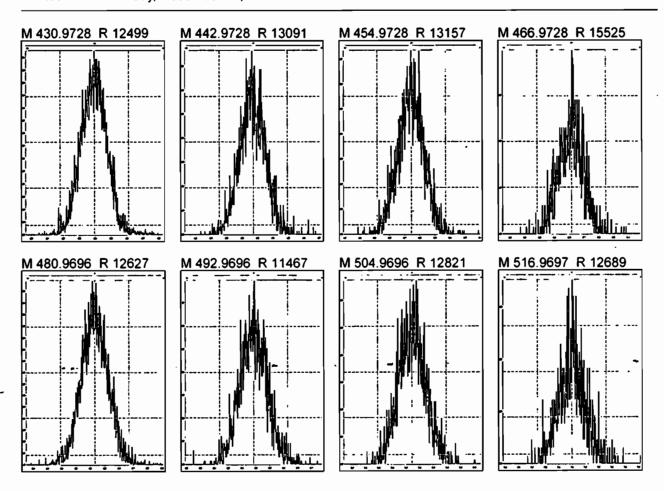
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Friday, December 18, 2020 09:16:28 Pacific Standard Time



Work Order 2002532 Page 475 of 725

Quantify Sample Summary Report MassLynx 4.1 SCN815 1 Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201218R1\201218R1_CPSM.qld ·

Last Altered: Friday, December 18, 2020 10:40:43 AM Pacific Standard Time Printed: Friday, December 18, 2020 10:41:32 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

J

_	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.53
2 '	2 1,2,8,9-TCDD (Last)	27.24
3	3 1,2,4,7,9-PeCDD (First)	28.79
4	4 1,2,3,8,9-PeCDD (Last)	31.39
5	5 1,2,4,6,7,9-HxCDD (First)	32.70
6	6 1,2,3,7,8,9-HxCDD (Last)	34.73
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.18
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.20
9	9 1,3,6,8-TCDF (First)	20.29
10	10 1,2,8,9-TCDF (Last)	27.55
11	11 1,3,4,6,8-PeCDF (First)	27.12
12	12 1,2,3,8,9-PeCDF (Last)	31.74
13	13 1,2,3,4,6,8-HxCDF (First)	32.17
14	14 1,2,3,7,8,9-HxCDF (Last)	35.23
15 "	15 1,2,3,4,6,7,8-HpCDF (First)	36.80
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Work Order 2002532 Page 476 of 725

Quantify Sample Report MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201218R1\201218R1_CPSM.qld

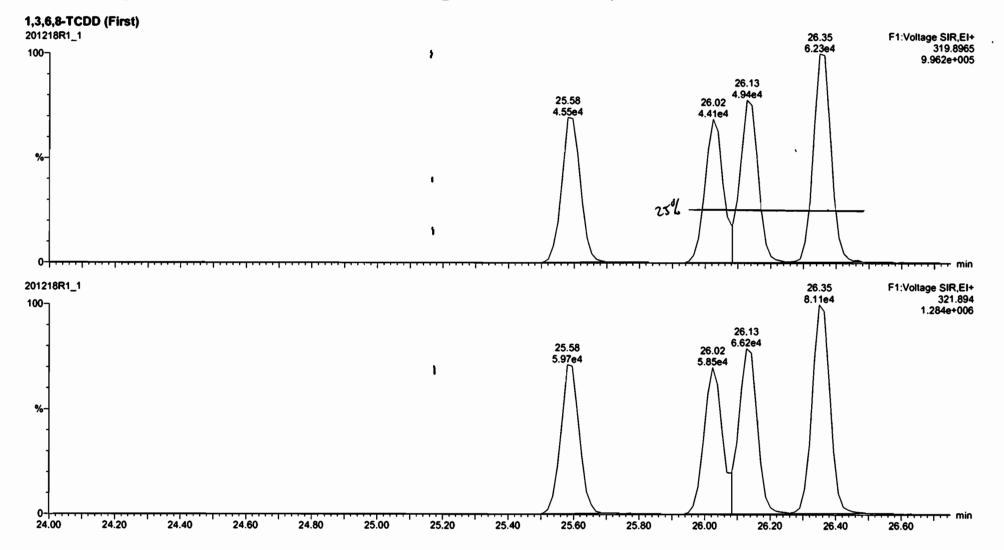
Friday, December 18, 2020 10:40:43 AM Pacific Standard Time Last Altered: Printed: Friday, December 18, 2020 10:41:32 AM Pacific Standard Time

HW 12/18/2020 GRB 12/21/2020

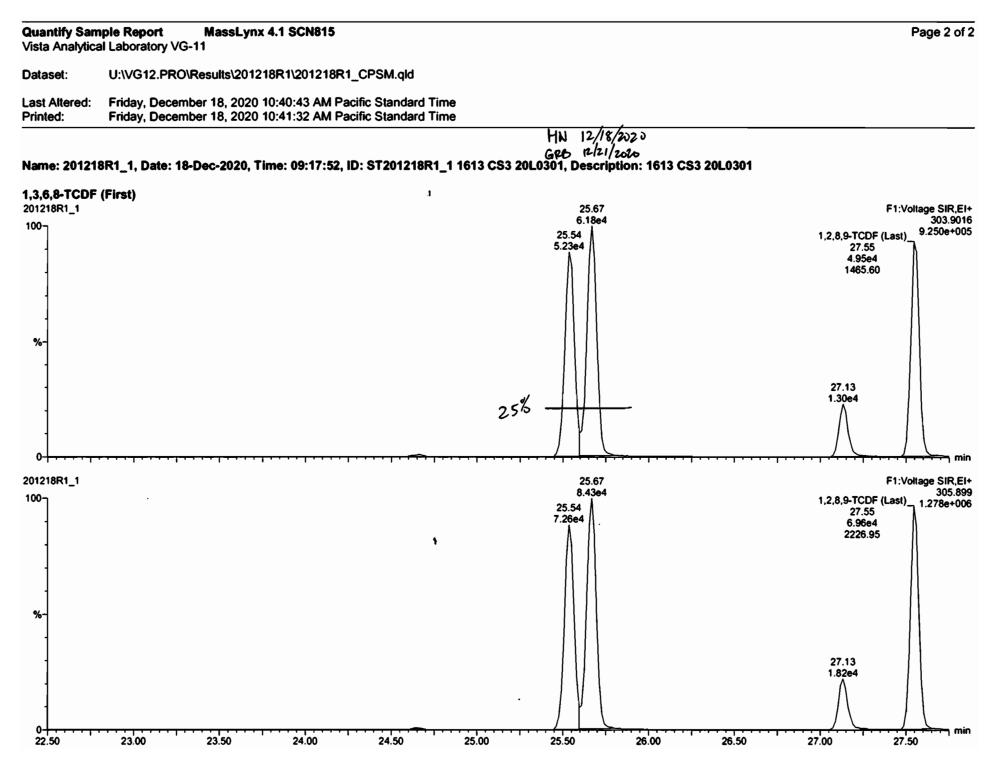
Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Page 1 of 2



Work Order 2002532 Page 478 of 725

Dataset:

Untitled

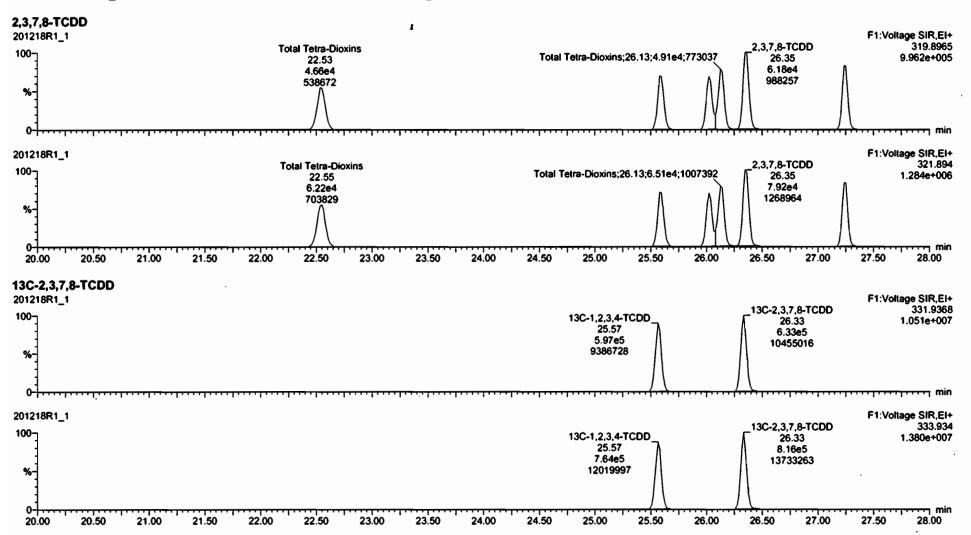
Last Altered: Printed:

Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

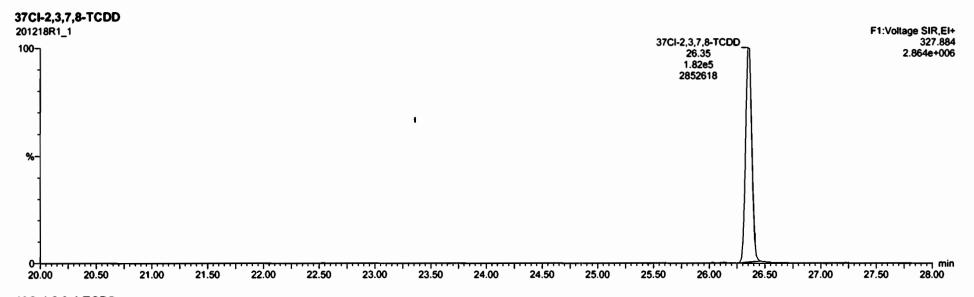
Page 2 of 13

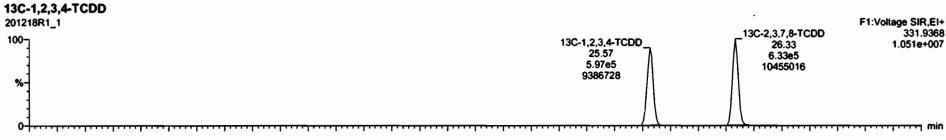
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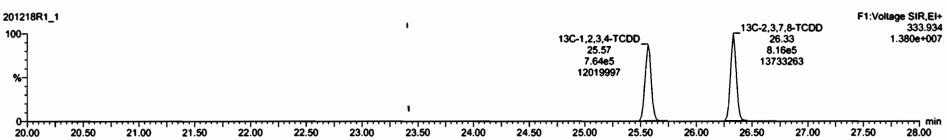
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Last Altered: Printed:

Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time







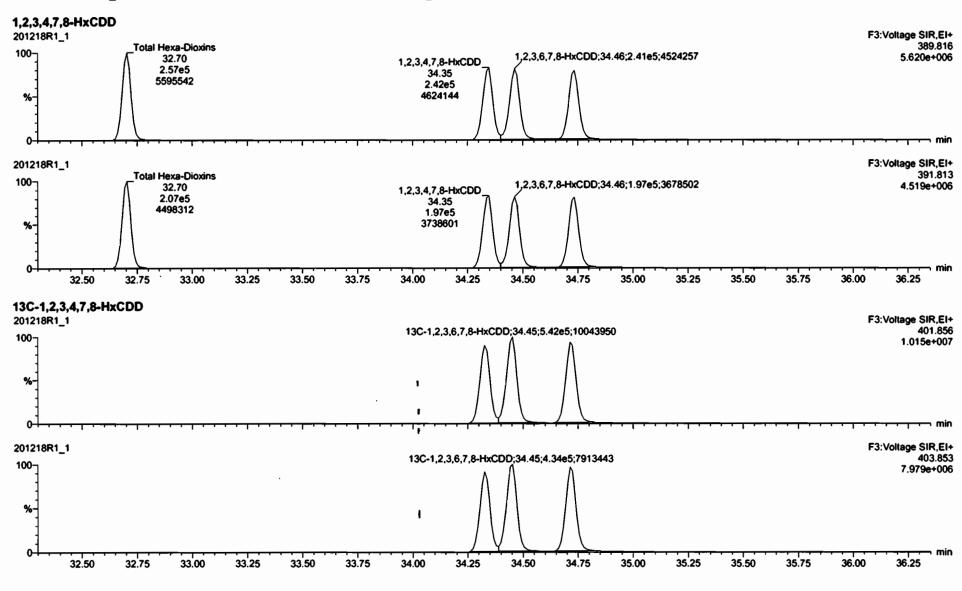
Work Order 2002532 Page 481 of 725

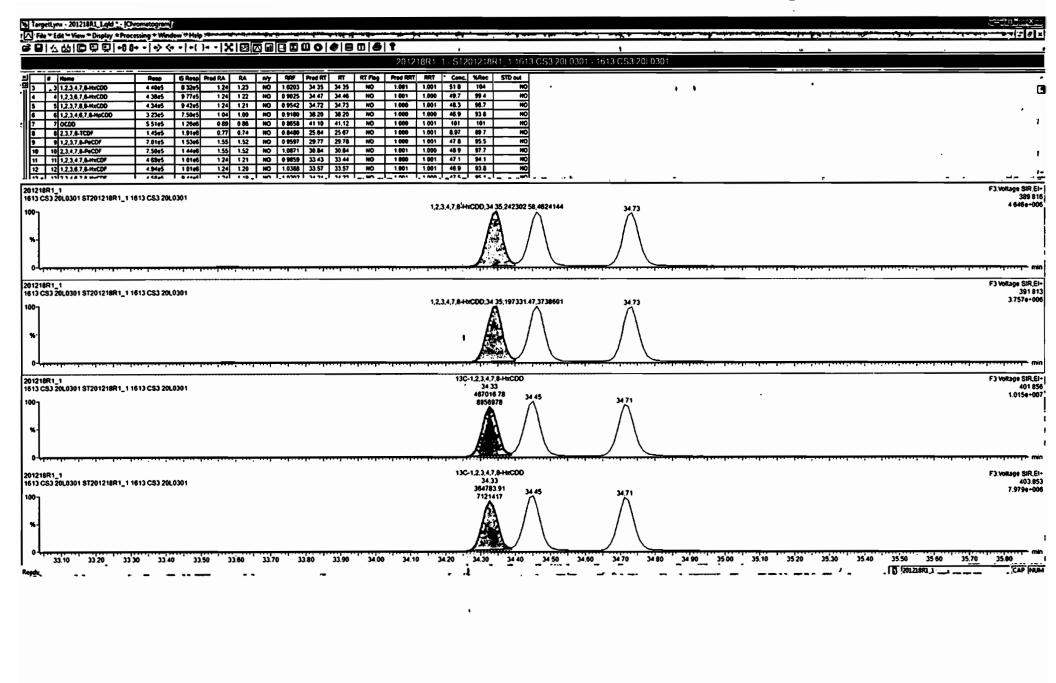
Dataset:

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Last Altered: Printed:

Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time





Work Order 2002532 Page 483 of 725

Work Order 2002532 Page 484 of 725

38.75

39.00

39.25

39.50

39.75

40.00

40.25

40.50

38.50

7088764

38.00

38.25

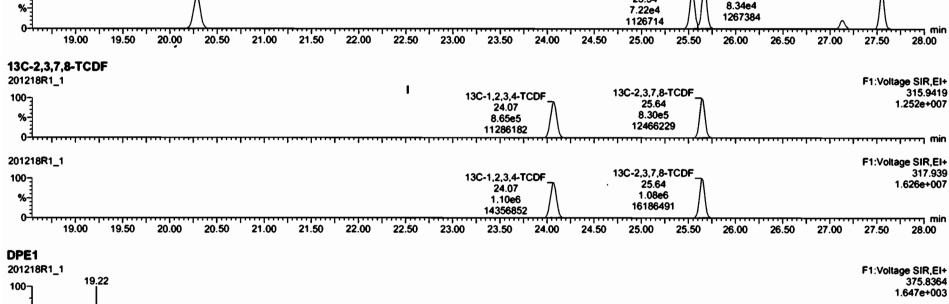
37.75

37.00

36.75

37.25

37.50



Work Order 2002532 Page 486 of 725

23.00

23.19 23.81

23.50

24.00

24.50

25.00

19.96,20.04

20.00

20.50

21.00

21.00

21.50

21.50

22.00

22.00

22.50

21.68

19.50

19.50

18.65

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27.99

28.00

27.84

26.36

26.69

26.50

25.67

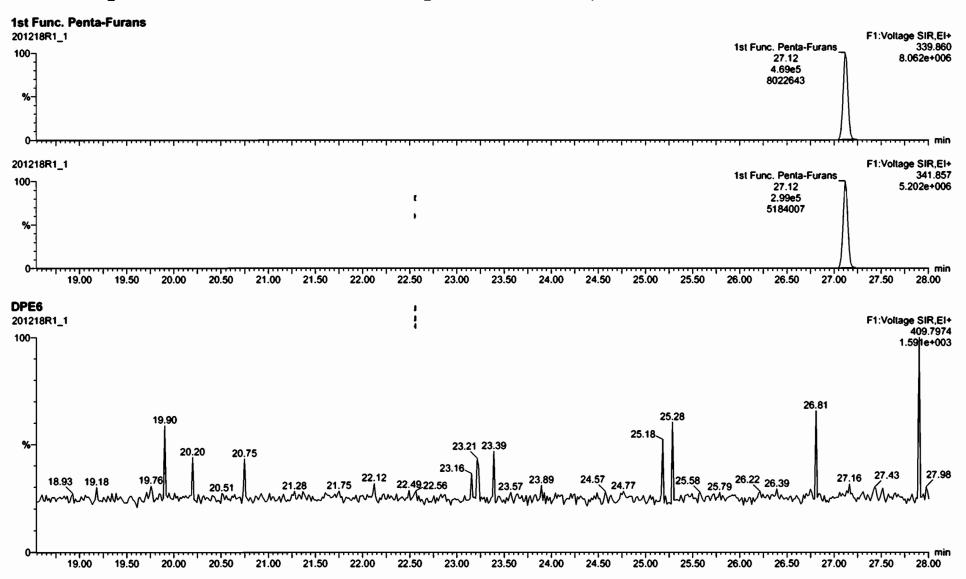
26.00

25.50

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time

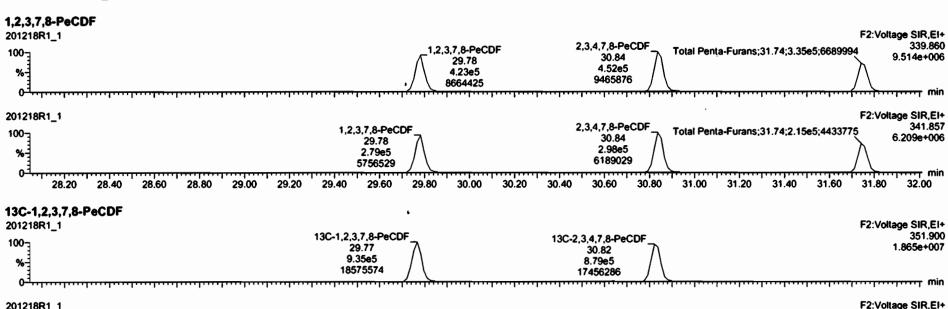


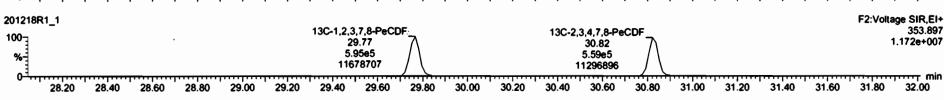
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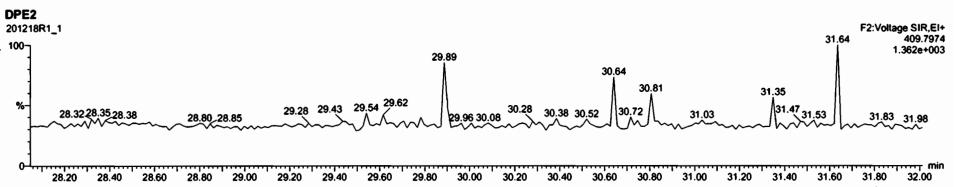
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Last Altered: Printed:

Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time



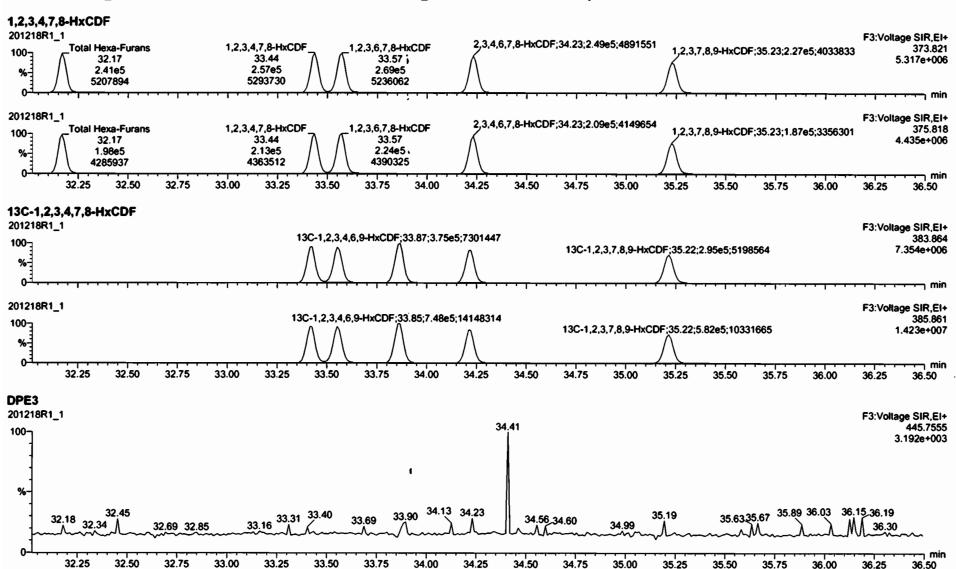


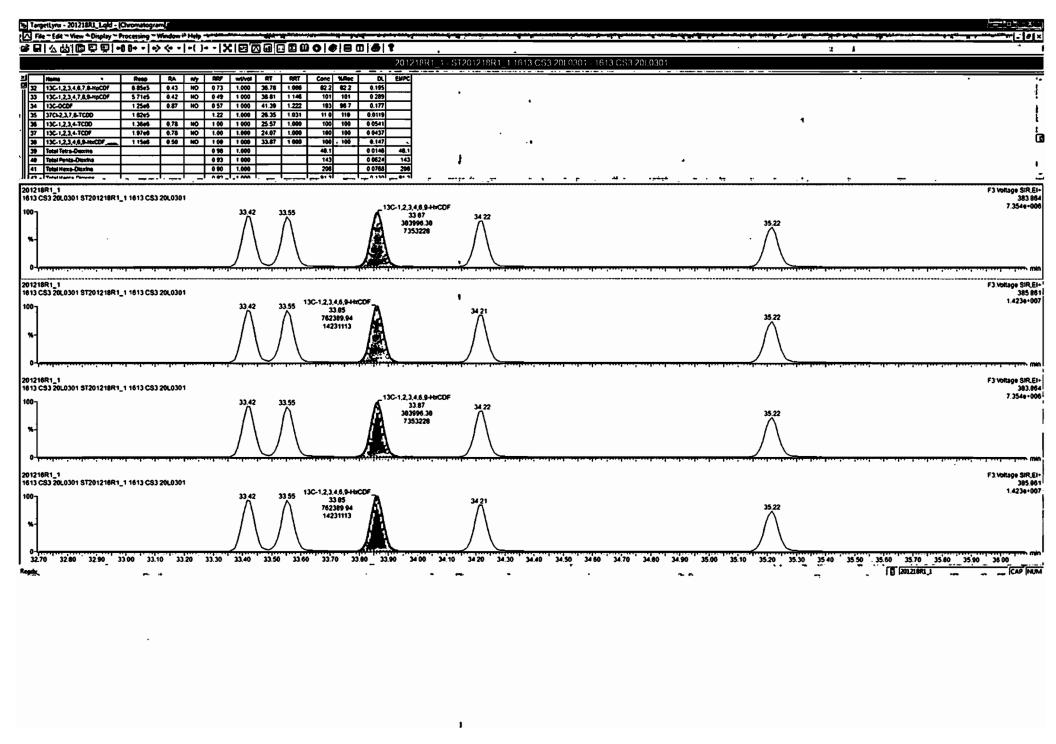


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Last Altered: Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time

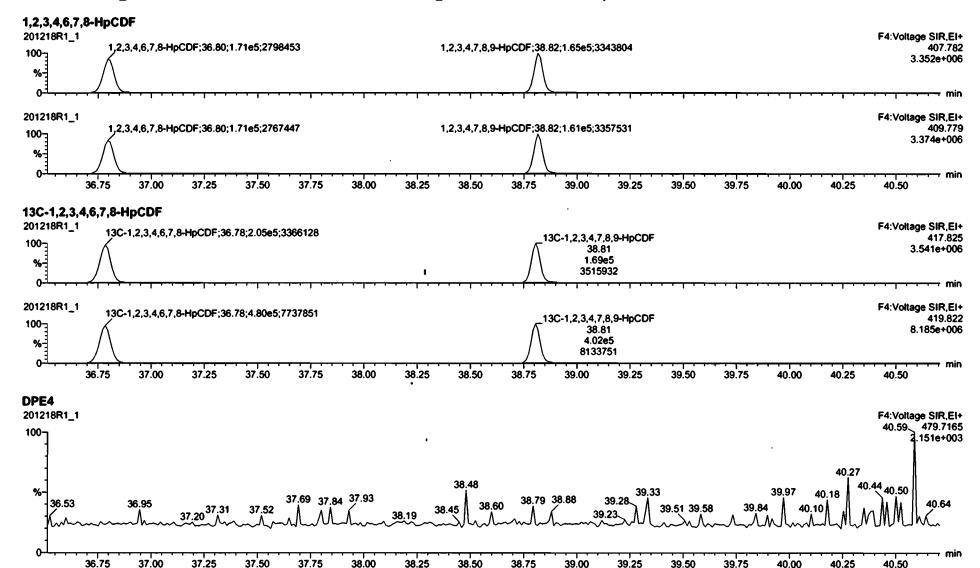


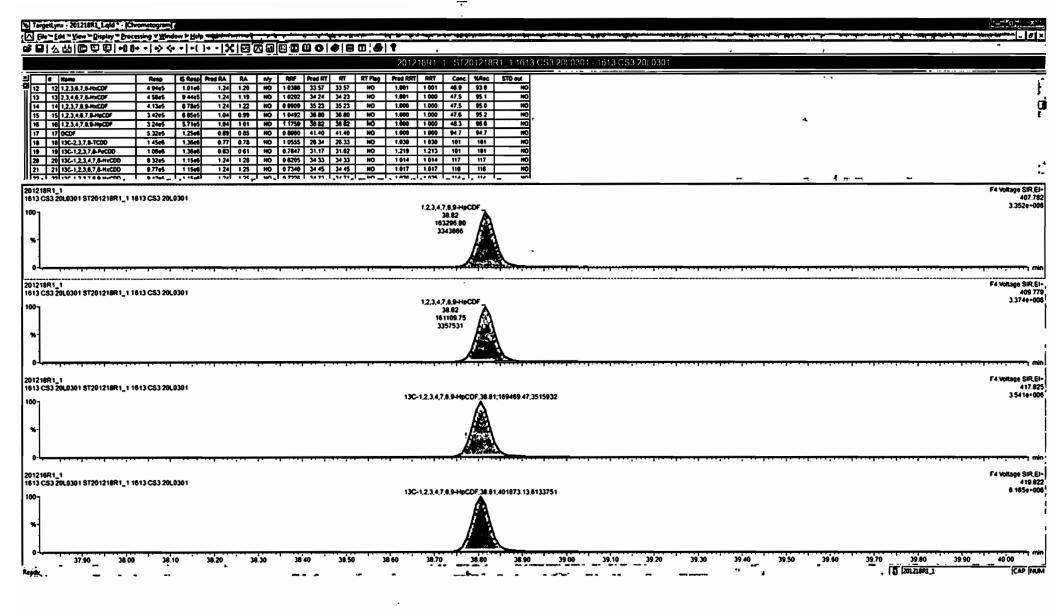


Work Order 2002532 Page 490 of 725

Dataset: Untitled

Last Altered: Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Printed: Friday, December 18, 2020 10:21:42 AM Pacific Standard Time



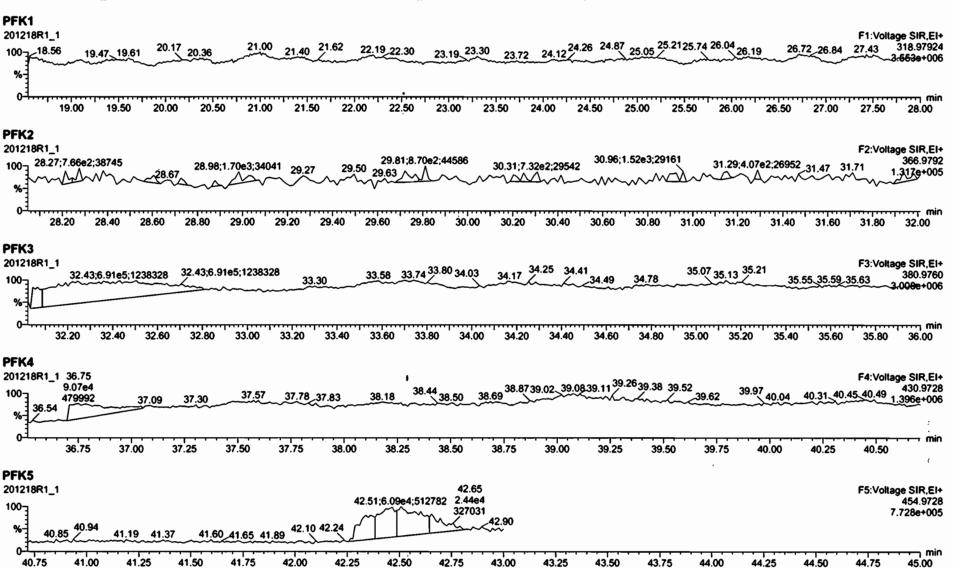


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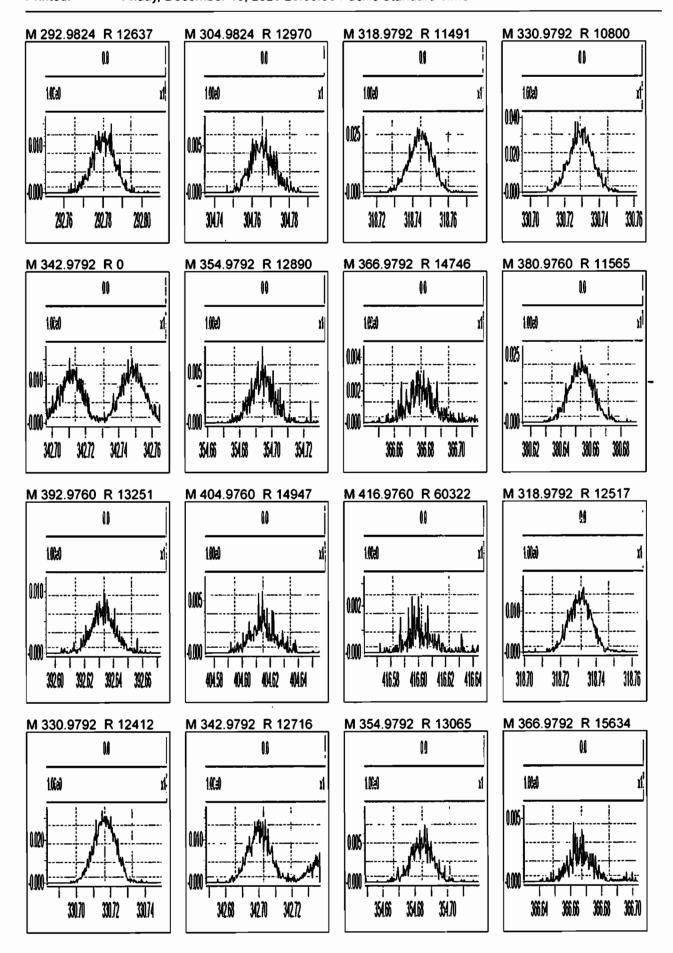
Last Altered: Friday, December 18, 2020 10:21:10 AM Pacific Standard Time Friday, December 18, 2020 10:21:42 AM Pacific Standard Time

Name: 201218R1_1, Date: 18-Dec-2020, Time: 09:17:52, ID: ST201218R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



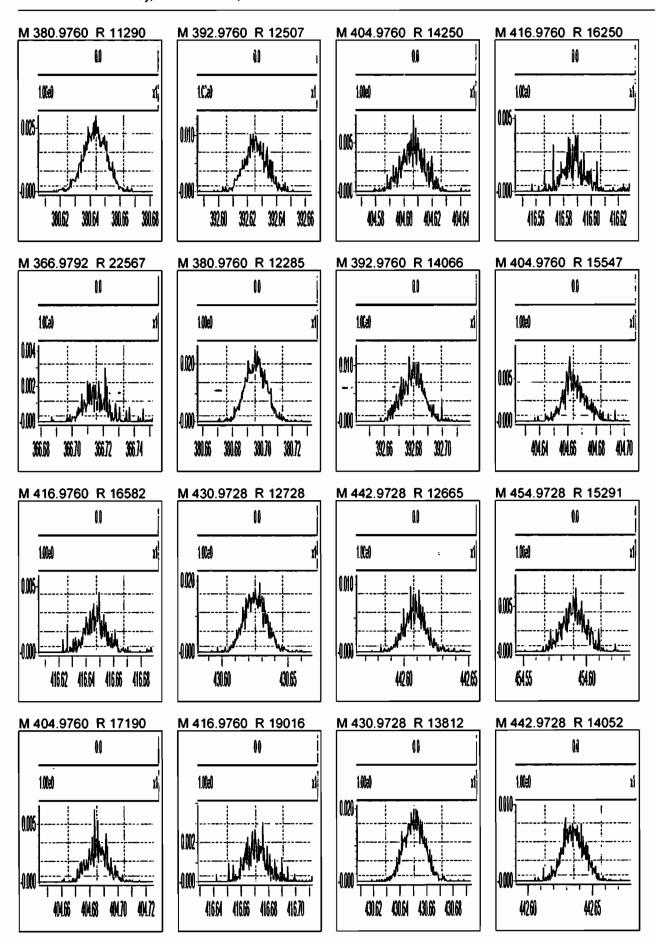
Work Order 2002532

Friday, December 18, 2020 20:06:56 Pacific Standard Time



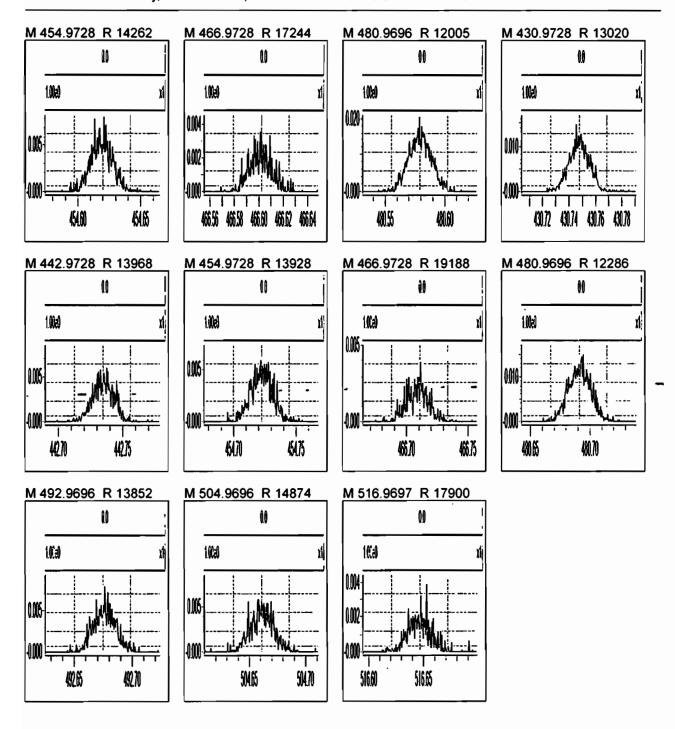
Work Order 2002532 Page 495 of 725

Friday, December 18, 2020 20:06:56 Pacific Standard Time



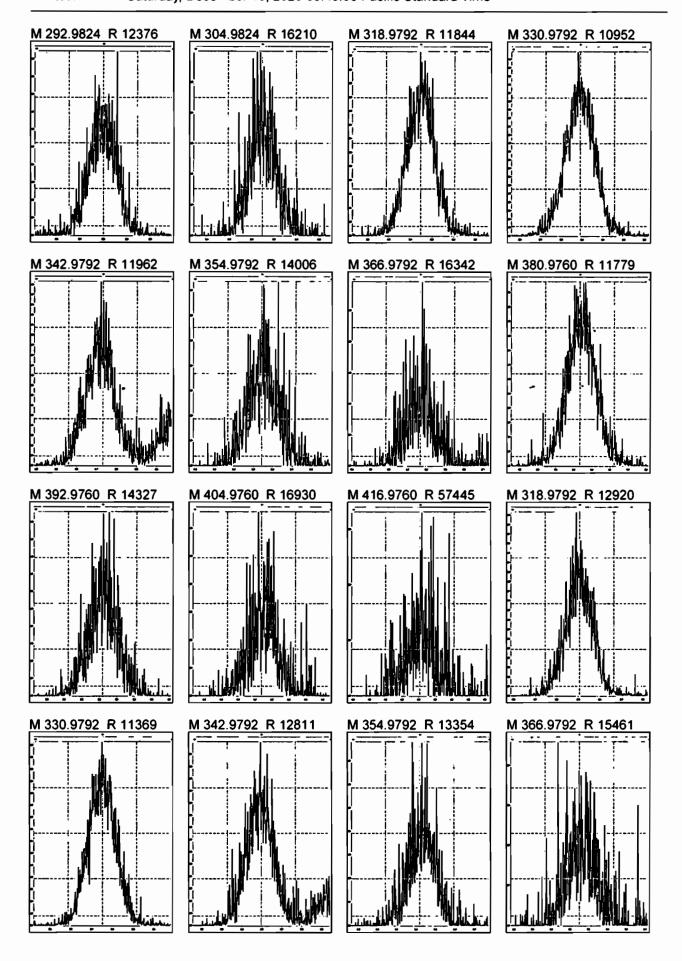
Work Order 2002532 Page 496 of 725

Friday, December 18, 2020 20:06:56 Pacific Standard Time



Work Order 2002532 Page 497 of 725

Saturday, December 19, 2020 09:43:06 Pacific Standard Time

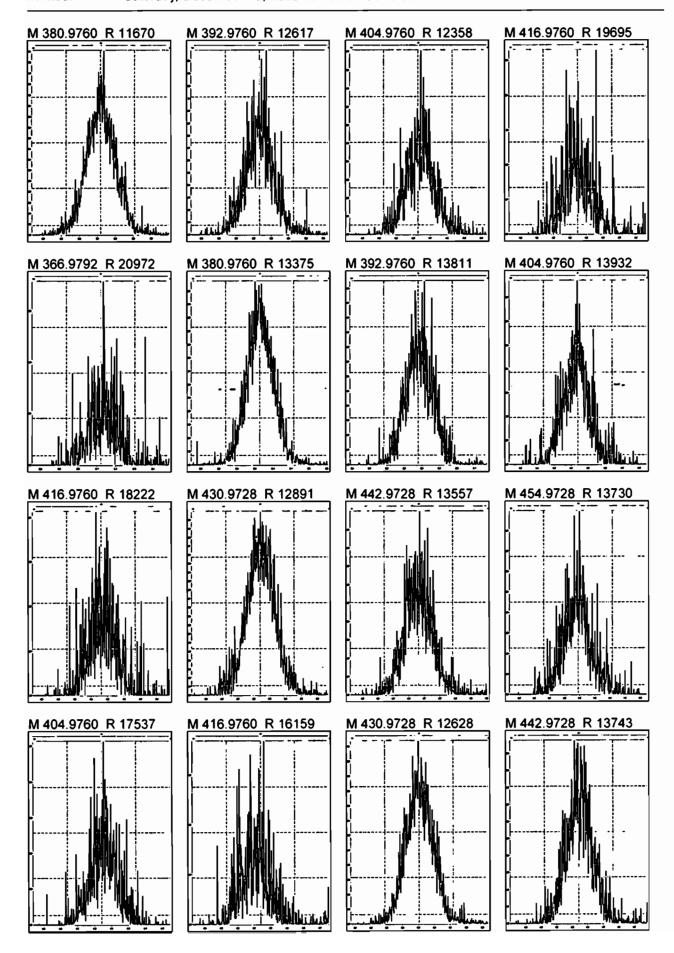


Work Order 2002532 Page 498 of 725

Page 2 of 3

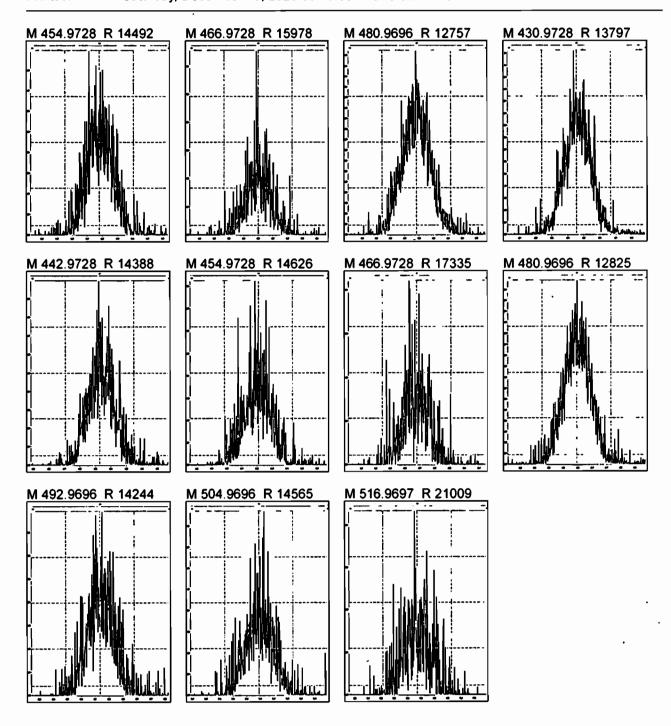
Printed:

Saturday, December 19, 2020 09:43:06 Pacific Standard Time



Work Order 2002532 Page 499 of 725

Saturday, December 19, 2020 09:43:06 Pacific Standard Time



Work Order 2002532 Page 500 of 725

...... JALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST201220 RI-1		Reviewed By: HN 12/21/2020	
		Initials & Date	
End Calibration ID: NA	Beg. End	<i>a</i>	Beg. End
Ion abundance within QC limits?	Beg. End	Mass resolution ≥	
Concentrations within criteria?	Ц Ц	□ 5k □ 6-8K □ 8K 対 10K 1614 1699 429 1613/1668/8280	. /
TCDD/TCDF Valleys <25%	回中	1614 1699 429 1613/1668/8280 Intergrated peaks display correctly?	NA
First and last eluters present?		GC Break <20%	
Retention Times within criteria?		8280 CS1 End Standard:	
Verification Std. named correctly?		- Ratios within limits, S/N <2.5Å, CS1 within 12 hours	NA
(ST-Year-Month-Day-VG ID)			
Forms signed and dated?		Comments:	
Correct ICAL referenced?	GRB		^-
Run Log:			
- Correct instrument listed?			÷ .
- Samples within 12 hour clock? - Bottle position verfied?	(Y) N GPB		

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201220R1\201220R1-2.qld

Last Altered: Printed: Monday, December 21, 2020 6:59:39 AM Pacific Standard Time Monday, December 21, 2020 7:52:38 AM Pacific Standard Time

GRB 12/21/2020 HN 12/21/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_2, Date: 20-Dec-2020, Time: 09:15:58, ID: ST201220R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

OF THE SHAPE	# 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	5.90e4	6.11e5	0.74	NO	0.980	26.32	26.32	NO	1.001	1.001	9.8504	98.5	NO
2	2 1,2,3,7,8-PeCDD	2.29e5	4.73e5	0.60	NO	0.932	31.03	31.02	NO	1.001	1.000	51.944	104	NO
3	3 1,2,3,4,7,8-HxCDD	1.96e5	3.70 e 5	1.25	NO	1.02	34.31	34.32	NO	1.001	1.001	51.950	104	NO
4	4 1,2,3,6,7,8-HxCDD	2.01e5	4.37e5	1.22	NO	0.902	34.44	34.43	NO	1.001	1.000	51.018	102	NO
5	5 1,2,3,7,8,9-HxCDD	2.05e5	4.32e5	1.25	NO	0.954	34.69	34.70	NO	1.000	1.001	49.875	99.8	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.52e5	3.36e5	1.02	NO	0.918	38.17	38.17	NO	1.000	1.000	49.153	98.3	NO
7	7 OCDD	2.59e5	5.93e5	0.87	NO	0.866	41.08	41.08	NO	1.000	1.000	100.95	101	NO
8	8 2,3,7,8-TCDF	6.65e4	8.59e5	0.73	NO	0.848	25.61	25.63	NO	1.000	1.001	9.1301	91.3	NO
9	9 1,2,3,7,8-PeCDF	3.24e5	6.57e5	1.56	NO	0.960	29.74	29.75	NO	1.000	1.000	51.405	103	NO
10	10 2,3,4,7,8-PeCDF	3.59e5	6.51e5	1.57	NO	1.07	30.83	30.82	NO	1.001	1.000	51.727	103	NO
11	11 1,2,3,4,7,8-HxCDF	2.29e5	4.77e5	1.21	NO	0.986	33 40	33.40	NO	1.000	1.000	48.672	97.3	NO
12	12 1,2,3,6,7,8-HxCDF	2.34e5	4.61e5	1.20	NO	1.04	33.55	33.54	NO	1.001	1.000	48.877	97.8	NO
13	13 2,3,4,6,7,8-HxCDF	2.18e5	4.36e5	1.22	NO	1.02	34.21	34.20	NO	1.001	1.000	48.908	97.8	NO
14	14 1,2,3,7,8,9-HxCDF	1.99 e 5	4.04e5	1.22	NO	0.991	35.19	35.19	NO	1.000	1.001	49.608	99.2	NO
15	15 1,2,3,4,6,7,8-HpCDF	1.75e5	3.44e5	1.01	NO	1.05	36.76	36.75	NO	1.000	1.000	48.501	97.0	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.57e5	2.74e5	0.99	NO	1.18	38.78	38.78	NO	1.000	1.000	48.738	97.5	NO
17	17 OCDF	2.71e5	6.11e5	0.87	NO	0.896	41.36	41.38	NO	1.000	1.000	98.863	98.9	NO
18	18 13C-2,3,7,8-TCDD	6.11e5	5.79e5	0.78	NO	1.06	26.29	26.29	NO	1.030	1.030	99.896	99.9	NO
19 .	19 13C-1,2,3,7,8-PeCDD	4.73e5	5.79e5	0.63	NO	0.785	31.12	31.00	NO	1.219	1.215	104.02	104	NO
20	20 13C-1,2,3,4,7,8-HxCDD	3.70e5	5.11e5	1.30	NO	0.621	34.29	34.29	NO	1.014	1.014	116.62	117	NO
21	21 13C-1,2,3,6,7,8-HxCDD	4.37e5	5.11e5	1.28	NO	0.734	34.42	34.42	NO	1.017	1.017	116.44	116	NO
22	22 13C-1,2,3,7,8,9-HxCDD	4.32e5	5.11e5	1.28	NO	0.723	34.70	34.68	NO	1.026	1.025	116.78	117	NO
23	23 13C-1.2.3,4,6,7,8-HpCDD	3.36e5	5.11e5	1.07	NO	0.568	38.19	38.16	NO	1.129	1.128	115.86	116	NO
24	24 13C-OCDD	5.93e5	5.11e5	0.87	NO	0.496	41.13	41.07	NO	1.216	1.214	233.76	117	NO
25	25 13C-2,3,7,8-TCDF	8.59e5	8.98e5	0.76	NO	0.919	25.59	25.61	NO	1.003	1.003	104.10	104	NO
26	26 13C-1,2,3,7,8-PeCDF	6.57e5	8.98e5	1.59	NO	0.715	29.83	29.74	NO	1.169	1.165	102.24	102	NO
27	27 13C-2,3,4,7,8-PeCDF	6.51e5	8.98e5	1.60	NO	0.689	30.92	30.81	NO	1.212	1.207	105.24	105	NO
28	28 13C-1,2,3,4,7,8-HxCDF	4.77e5	5.11e5	0 50	NO	0.873	33.40	33.40	NO	0.987	0.987	106.75	107	NO
29	29 13C-1,2,3,6,7,8-HxCDF	4.61e5	5.11e5	0.50	NO	0.933	33.53	33.53	NO	0.991	0.991	96.507	96.5	NO
30	30 13C-2,3,4,6,7,8-HxCDF	4.36e5	5.11e5	0.50	NO	0.843	34.20	34.19	NO	1.011	1.010	101.15	101	NO
31	31 13C-1,2,3,7,8,9-HxCDF	4.04e5	5.11e5	0.50	NO	0.780	35.19	35.17	NO	1.040	1.040	101.27	101	NO

Work Order 2002532 Page 502 of 725

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201220R1\201220R1-2.qld

Last Altered: Monday, December 21, 2020 6:59:39 AM Pacific Standard Time Printed: Monday, December 21, 2020 7:52:38 AM Pacific Standard Time

Name: 201220R1_2, Date: 20-Dec-2020, Time: 09:15:58, ID: ST201220R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

COSTERN SO	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.44e5	5.11e5	0.42	NO	0.726	36.77	36.74	NO	1.087	1.086	92.643	92.6	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.74e5	5.11e5	0.42	NO	0.491	38.77	38.77	NO	1.146	1.146	109.09	109	NO
34	34 13C-OCDF	6.11e5	5.11e5	0.87	NO	0.565	41.35	41.36	NO	1.222	1.222	211.46	106	NO
35	35 37CI-2,3,7,8-TCDD	7.52e4	5.79e5			1.22	26.29	26.32	NO	1.030	1.031	10.663	107	NO
36	36 13C-1.2,3,4-TCDD	5.79e5	5.79e5	0.77	NO	1.00	25.64	25.52	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	8.98e5	8.98e5	0.79	NO	1.00	24.13	24.01	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	5.11e5	5.11e5	0.50	NO	1.00	33.92	33.83	NO	1.000	1.000	100.00	100	YES OF

Work Order 2002532 Page 503 of 725

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Monday, December 21, 2020 06:50:00 Pacific Standard Time Printed: Monday, December 21, 2020 06:50:15 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	201220R1_1	SOLVENT BLANK	20-Dec-20	07:57:05
2	201220R1_2	ST201220R1_1 1613 CS3 20L0301	20-Dec-20	09:15:58
3	201220R1_3	SOLVENT BLANK	20-Dec-20	10:00:16
4	201220R1_4	2002532-02 USMPDI-001SC-A-02-03-201111	20-Dec-20	10:44:30
5	201220R1_5	2002532-03 USMPDI-001SC-A-03-04-201111	20-Dec-20	11:28:45
6	201220R1_6	2002532-04 USMPDI-001SC-A-04-05-201111	20-Dec-20	12:13:01
7	201220R1_7	2002532-05 USMPDI-002SC-A-04-05-201111	20-Dec-20	12:57:15
8	201220R1_8	2002532-06 USMPDI-002SC-A-05-06-201111	20-Dec-20	13:41:32
9	201220R1_9	2002532-07 USMPDI-004SC-A-01-02-201111	20-Dec-20	14:25:47
10	201220R1_10	2002532-08 USMPDI-004SC-A-02-03-201111	20-Dec-20	15:10:02
11	201220R1_11	2002532-09 USMPDI-004SC-A-03-04-201111	20-Dec-20	15:54:19
12	201220R1_12	2002532-10 USMPDI-004SC-A-04-05-201111	20-Dec-20	16:38:35
13	201220R1_13	2002532-11 USMPDI-011SC-A-04-05-201111	20-Dec-20	17:22:50
14	201220R1_14	2002532-12 USMPDI-011SC-A-05-06-201111	20-Dec-20	18:07:05
15	201220R1_15	2002532-13 USMPDI-011SC-A-06-07-201111	20-Dec-20	18:51:22
16	201220R1_16	2002532-14 USMPDI-011SC-A-07-08-201111	20-Dec-20	19:35:36

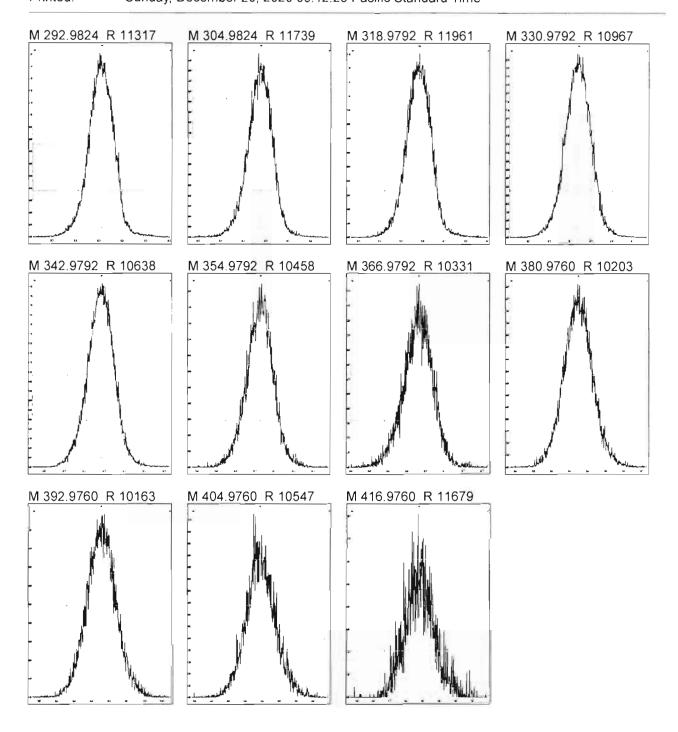
Work Order 2002532 Page 504 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Sunday, December 20, 2020 09:12:23 Pacific Standard Time



Work Order 2002532 Page 505 of 725

MassLynx 4.1 SCN815

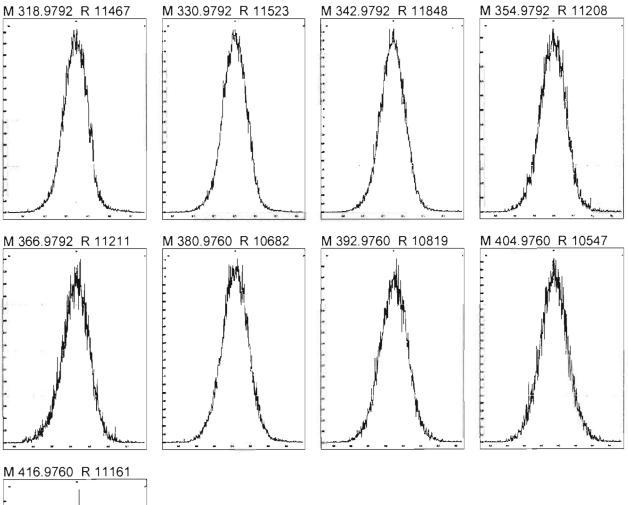
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Sunday, December 20, 2020 09:13:46 Pacific Standard Time



M 416.9760 R 11161

Work Order 2002532 Page 506 of 725

MassLynx 4.1 SCN815

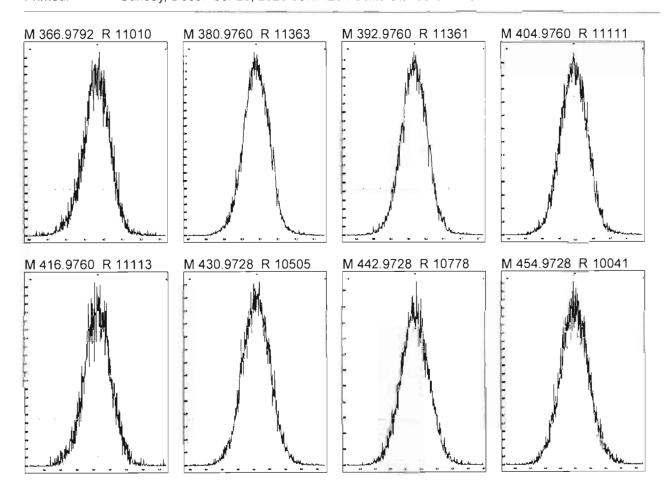
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Sunday, December 20, 2020 09:14:25 Pacific Standard Time



Work Order 2002532 Page 507 of 725

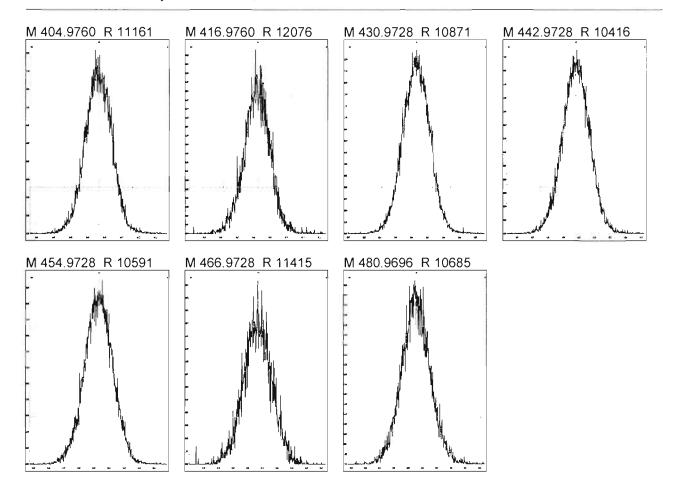
Page 1 of 1

File:

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Printed:

Sunday, December 20, 2020 09:14:43 Pacific Standard Time



Work Order 2002532 Page 508 of 725

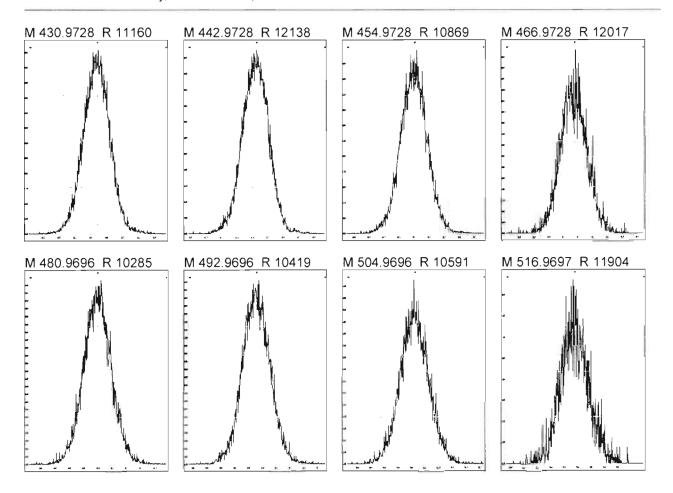
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Sunday, December 20, 2020 09:15:04 Pacific Standard Time



Work Order 2002532 Page 509 of 725

Untitled

Last Altered: Printed:

Monday, December 21, 2020 07:00:14 Pacific Standard Time Monday, December 21, 2020 07:00:35 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_2, Date: 20-Dec-2020, Time: 09:15:58, ID: ST201220R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.46
2	2 1,2,8,9-TCDD (Last)	27.21
3	3 1,2,4,7,9-PeCDD (First)	28.76
4	4 1,2,3,8,9-PeCDD (Last)	31.36
5	5 1,2,4,6,7,9-HxCDD (First)	32.67
6	6 1,2,3,7,8,9-HxCDD (Last)	34.70
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.14
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.17
9	9 1,3,6,8-TCDF (First)	20.21
10	10 1,2,8,9-TCDF (Last)	27.52
11	11 1,3,4,6,8-PeCDF (First)	27.09
12	12 1,2,3,8,9-PeCDF (Last)	31.73
13	13 1,2,3,4,6,8-HxCDF (First)	32.15
14	14 1,2,3,7,8,9-HxCDF (Last)	35.20
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.75
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.78

Work Order 2002532 Page 510 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

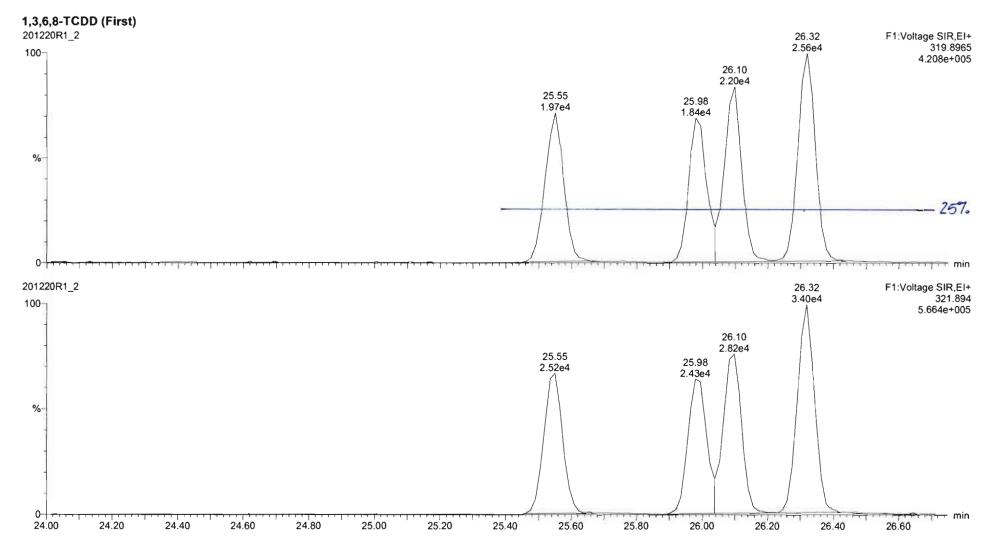
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GPB 12/21/2020 HN 12/21/2020

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201220R1_2, Date: 20-Dec-2020, Time: 09:15:58, ID: ST201220R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

Page 511 of 725

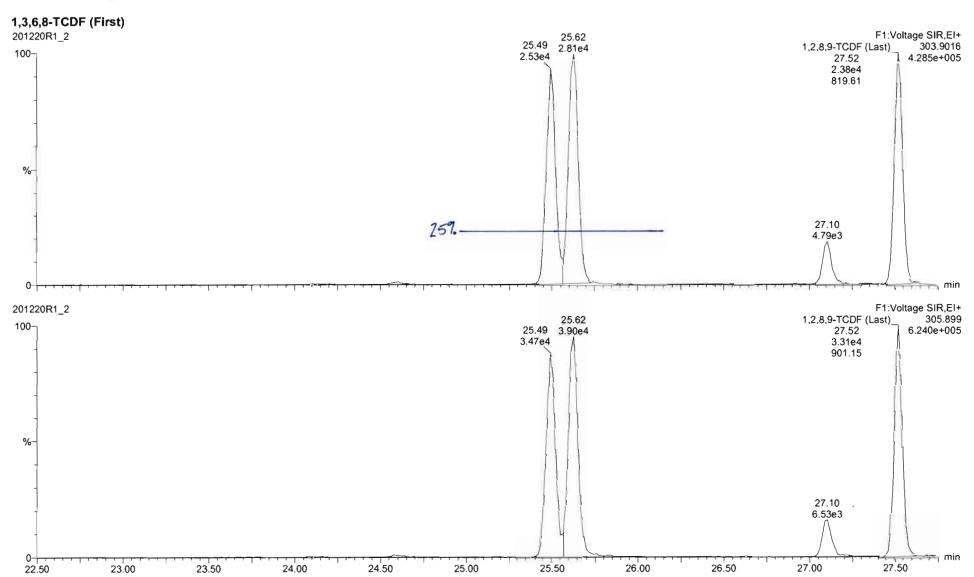
Vista Analytical Laboratory VG-11

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Printed: Monday, December 21, 2020 07:00:35 Pacific Standard Time

GBB 12/21/2020 HN 12/21/2020



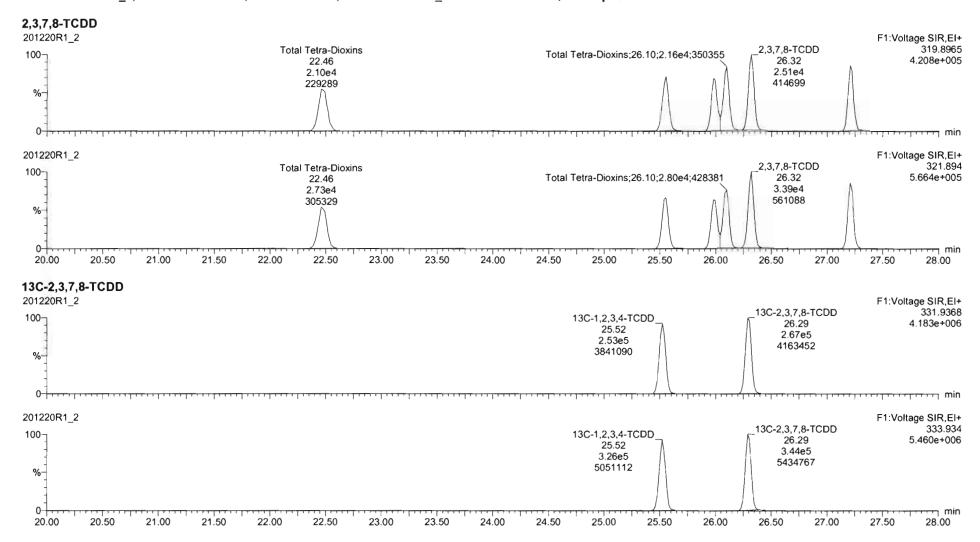
Page 1 of 182

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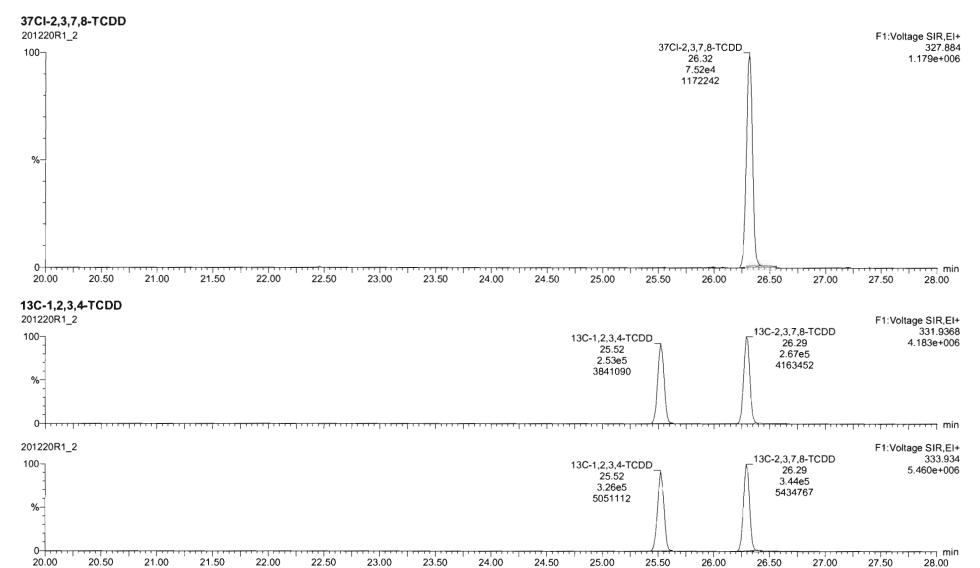
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Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07



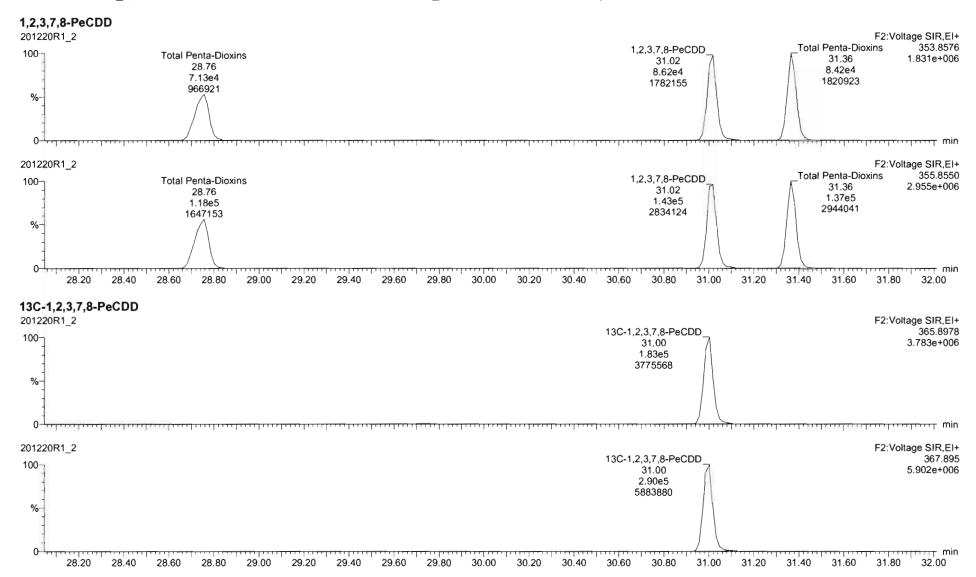
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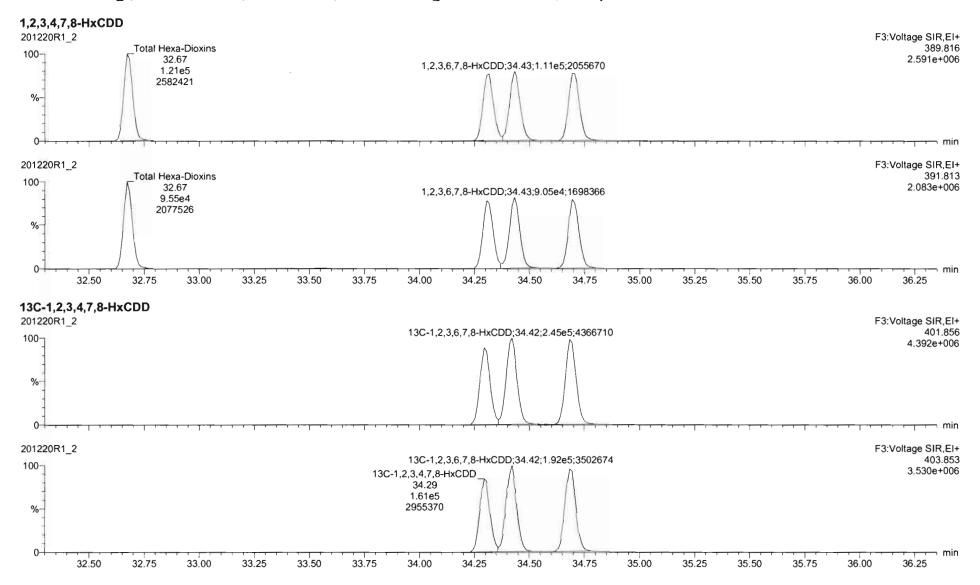
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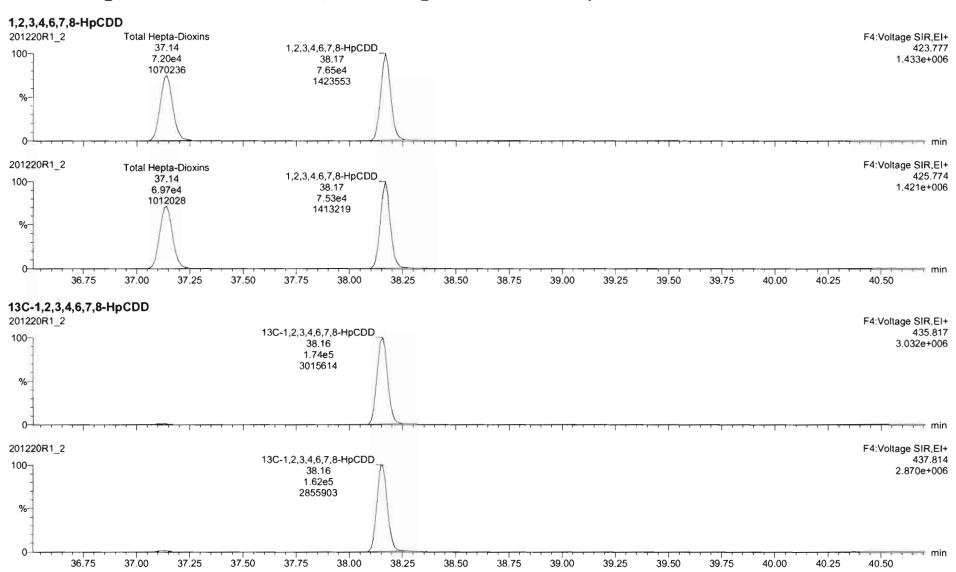
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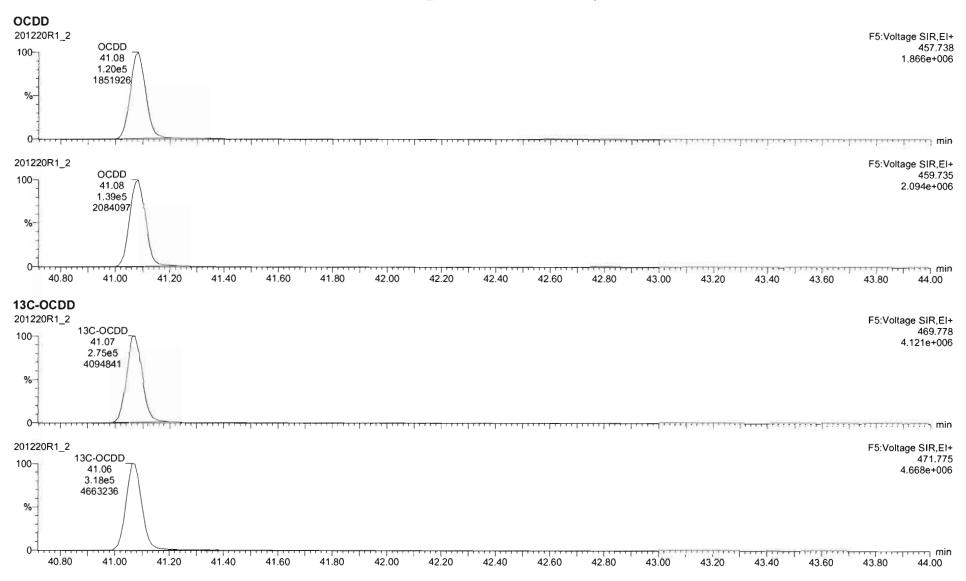
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Vista Analytical Laboratory

Dataset: Untitled

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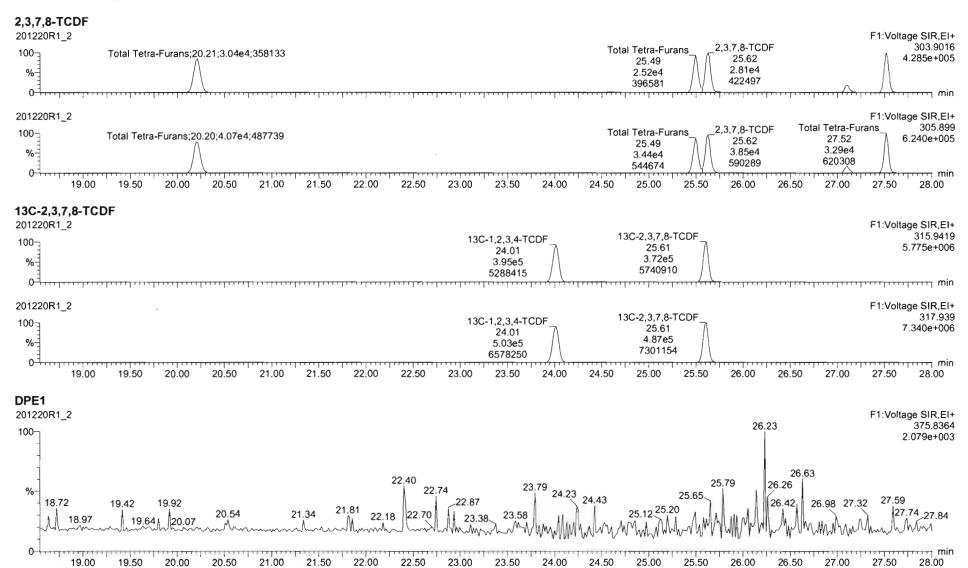


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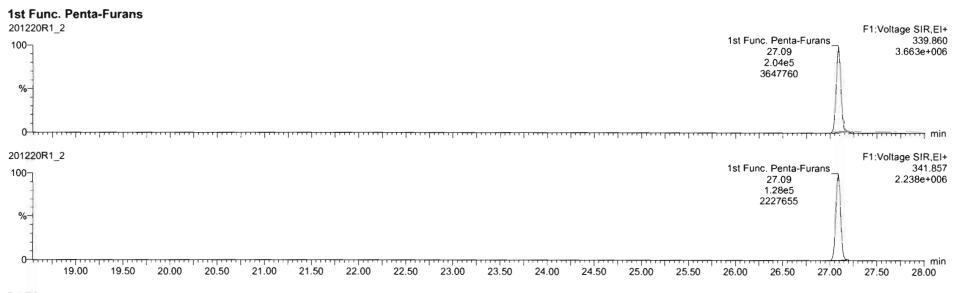
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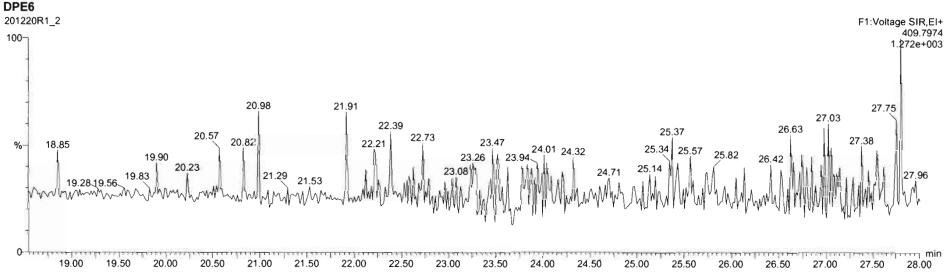
Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



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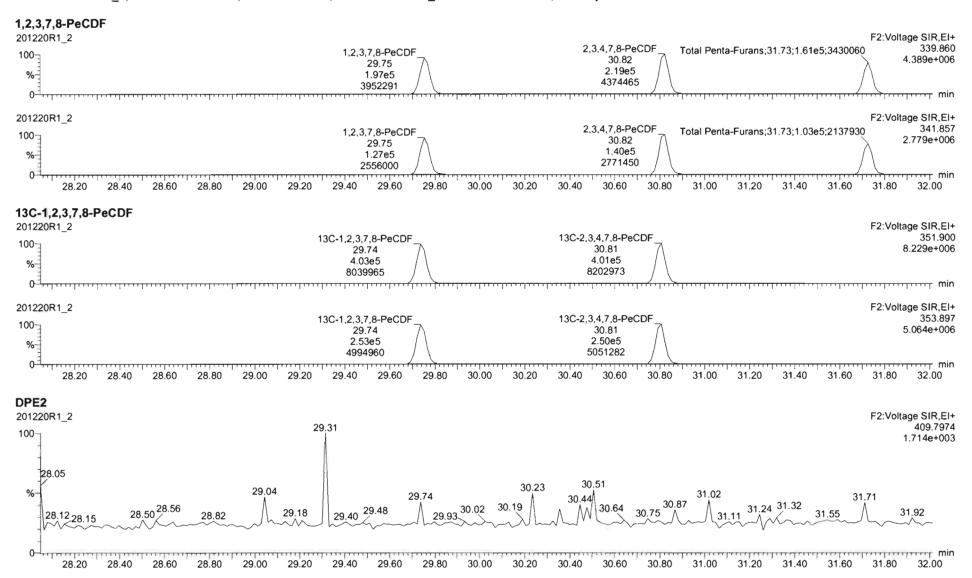




Quantify Sample Report Vista Analytical Laboratory

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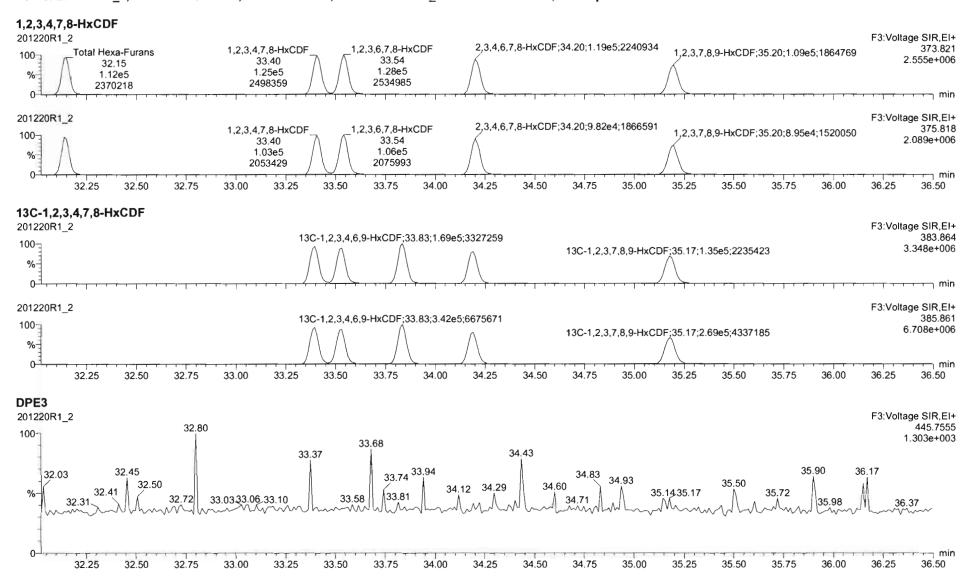
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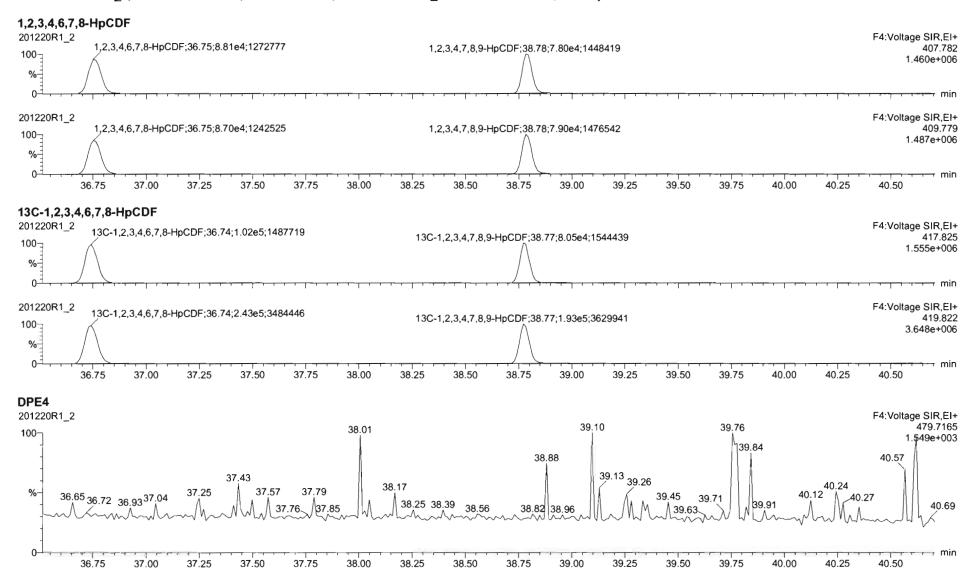
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Monday, December 21, 2020 06:50:00 Pacific Standard Time Monday, December 21, 2020 06:50:49 Pacific Standard Time



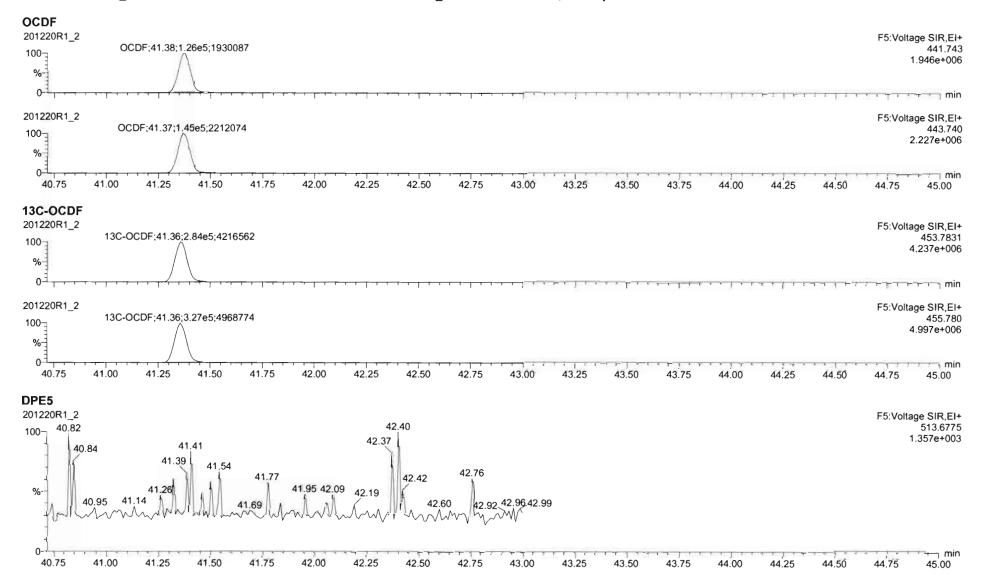
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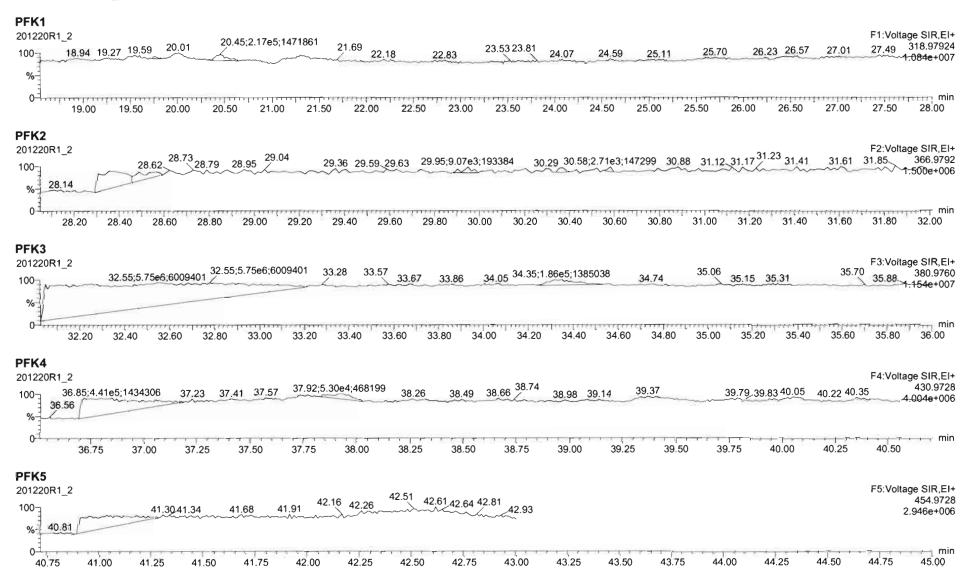


Vista Analytical Laboratory

Dataset:

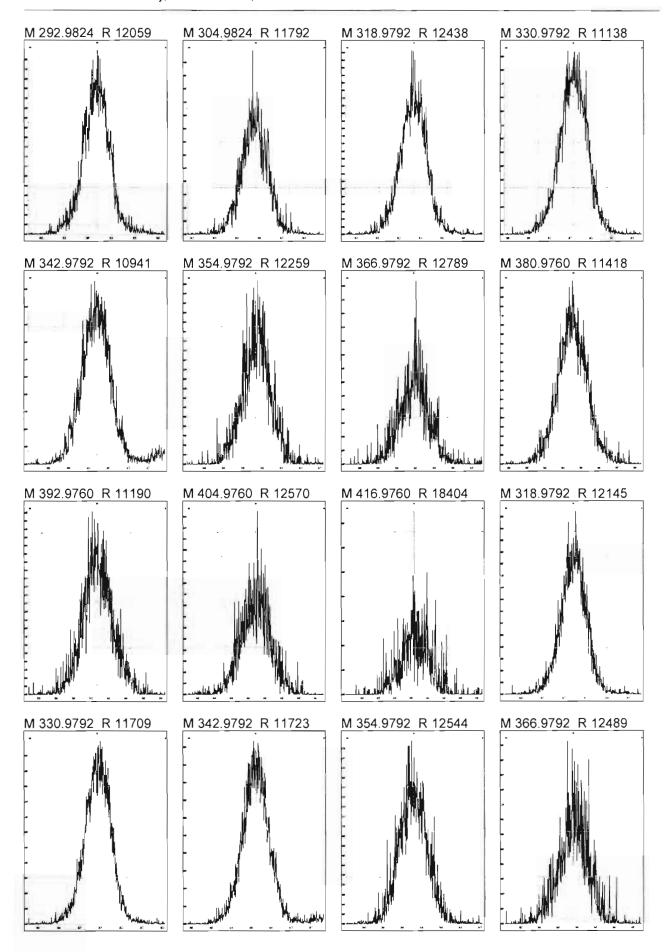
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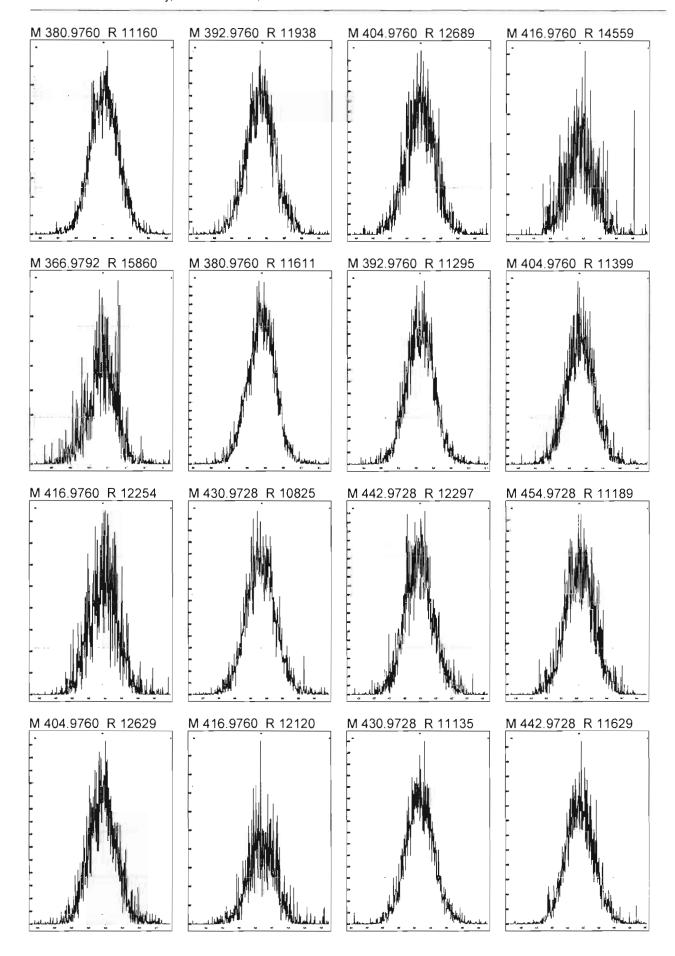
Sunday, December 20, 2020 20:28:47 Pacific Standard Time



Work Order 2002532 Page 526 of 725

Printed:

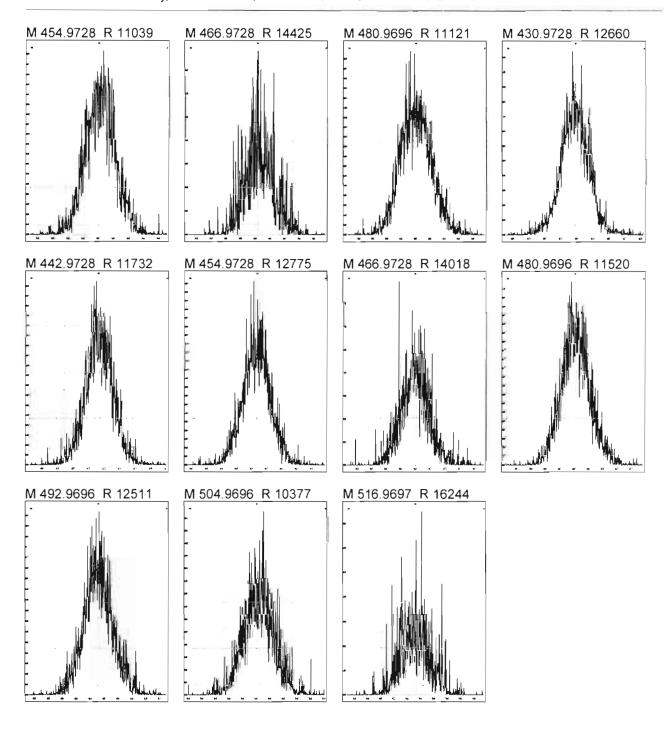
Sunday, December 20, 2020 20:28:47 Pacific Standard Time



Work Order 2002532 Page 527 of 725

Printed:

Sunday, December 20, 2020 20:28:47 Pacific Standard Time



Work Order 2002532 Page 528 of 725

HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST201221 RI_ \	1	, Re	eviewed By: 648 12/22/2010	- ,	
End Calibration ID: ST 201221R_3			Initials & Date		
	Beg.	End		Beg.	End
Ion abundance within QC limits?			Mass resolution ≥		
Concentrations within criteria?	V		□ 5k □ 6-8K □ 8K ⊠ 10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%			Intergrated peaks display correctly?		1
First and last eluters present?	\Box		GC Break <20%	,	
Retention Times within criteria?			8280 CS1 End Standard:		
Verification Std. named correctly?	7		- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		W.
(ST-Year-Month-Day-VG ID)		7.			
Forms signed and dated?			Comments:		
Correct ICAL referenced?	HIN	HN			
Run Log:					
- Correct instrument listed?		7			
- Samples within 12 hour clock?	②	N			
- Bottle position verfied?	FIN				

Vista Analytical Laboratory El Dorado Hills, CA 95762

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:36:34 Pacific Standard Time Printed:

FIN 12/21/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# 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	7.62e4	7.94e5	0.76	NO	0.980	26.34	26.33	NO	1.001	1.001	9.7949	97.9	NO
2	2 1,2,3,7,8-PeCDD	2.81e5	5.86e5	0.60	NO	0.932	31.05	31.03	NO	1.001	1.000	51.438	103	NO
3	3 1,2,3,4,7,8-HxCDD	2.45e5	4.73e5	1.24	NO	1.02	34.34	34.34	NO	1.001	1.001	50.828	102	NO
4	4 1,2,3,6,7,8-HxCDD	2.48e5	5.44e5	1.25	NO	0.902	34.46	34.45	NO	1.001	1.000	50.617	101	NO
5	5 1,2,3,7,8,9-HxCDD	2.45e5	5.07e5	1.25	NO	0.954	34.72	34.72	NO	1.000	1.000	50.769	102	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.91e5	4.30e5	1.01	NO	0.918	38.20	38.20	NO	1.000	1.000	48.255	96.5	NO
7	7 OCDD	3.34e5	7.57e5	0.87	NO	0.866	41.11	41.12	NO	1.000	1.000	102.08	102	NO
8	8 2,3,7,8-TCDF	9.08e4	1.15e6	0.73	NO	0.848	25.63	25.64	NO	1.000	1.001	9.3191	93.2	NO
9	9 1,2,3,7,8-PeCDF	4.12e5	8.41e5	1.55	NO	0.960	29.75	29.77	NO	1.000	1.000	51.095	102	NO
10	10 2,3,4,7,8-PeCDF	4.32e5	7.94e5	1.55	NO	1.07	30.84	30.84	NO	1.001	1.000	50.993	102	NO
11	11 1,2,3,4,7,8-HxCDF	2.85e5	5.85e5	1.23	NO	0.986	33.42	33.43	NO	1.000	1.000	49.394	98.8	NO
12	12 1,2,3,6,7,8-HxCDF	3.03e5	5.97e5	1.22	NO	1.04	33.56	33.56	NO	1.001	1.001	48.829	97.7	NO
13	13 2,3,4,6,7,8-HxCDF	2.79e5	5.63e5	1.21	NO	1.02	34.23	34.22	NO	1.001	1.000	48.693	97.4	NO
14	14 1,2,3,7,8,9-HxCDF	2.46e5	5.19e5	1.23	NO	0.991	35.22	35.23	NO	1.000	1.001	47.830	95.7	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.10e5	4.22e5	0.99	NO	1.05	36.79	36.78	NO	1.000	1.000	47.498	95.0	NO
16	16 1,2,3,4,7,8,9-HpCDF	2.02e5	3.51e5	1.00	NO	1.18	38.82	38.82	NO	1.000	1.000	48.815	97.6	NO
17	17 OCDF	3.81e5	8.57e5	0.87	NO	0.896	41.40	41.40	NO	1.000	1.000	99.110	99.1	NO
18	18 13C-2,3,7,8-TCDD	7.94e5	8.59e5	0.79	NO	1.06	26.31	26.31	NO	1.030	1.030	87.526	87.5	NO
19	19 13C-1,2,3,7,8-PeCDD	5.86e5	8.59e5	0.64	NO	0.785	31.14	31.02	NO	1.219	1.215	86.969	87.0	NO
20	20 13C-1,2,3,4,7,8-HxCDD	4.73e5	6.73e5	1.27	NO	0.621	34.31	34.32	NO	1.014	1.014	113.26	113	NO
21	21 13C-1,2,3,6,7,8-HxCDD	5.44e5	6.73e5	1.26	NO	0.734	34.44	34.44	NO	1.017	1.017	110.07	110	NO
22	22 13C-1,2,3,7,8,9-HxCDD	5.07e5	6.73e5	1.23	NO	0.723	34.72	34.71	NO	1.026	1.025	104.23	104	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.30e5	6.73e5	1.05	NO	0.568	38.22	38.19	NO	1.129	1.128	112.65	113	NO
24	24 13C-OCDD	7.57e5	6.73e5	0.89	NO	0.496	41.15	41.10	NO	1.216	1.214	226.81	113	NO
25	25 13C-2,3,7,8-TCDF	1.15e6	1.06e6	0.77	NO	0.919	25.61	25.62	NO	1.003	1.003	117.44	117	NO
26	26 13C-1,2,3,7,8-PeCDF	8.41e5	1.06e6	1.58	NO	0.715	29.85	29.75	NO	1.169	1.165	110.40	110	NO
27	27 13C-2,3,4,7,8-PeCDF	7.94e5	1.06e6	1.58	NO	0.689	30.94	30.82	NO	1.212	1.207	108.32	108	NO
28	28 13C-1,2,3,4,7,8-HxCDF	5.85e5	6.73e5	0.50	NO	0.873	33.42	33.42	NO	0.987	0.987	99.637	99.6	NO
29	29 13C-1,2,3,6,7,8-HxCDF	5.97e5	6.73e5	0.49	NO	0.933	33.55	33.54	NO	0.991	0.991	95.104	95.1	NO
30	30 13C-2,3,4,6,7,8-HxCDF	5.63e5	6.73e5	0.50	NO	0.843	34.22	34.21	NO	1.011	1.010	99.182	99.2	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.19e5	6.73e5	0.50	NO	0.780	35.22	35.21	NO	1.040	1.040	98.997	99.0	NO

Page 530 of 725 Work Order 2002532

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:36:34 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	4.22e5	6.73e5	0.42	NO	0.726	36.79	36.77	NO	1.087	1.086	86.294	86.3	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.51e5	6.73e5	0.43	NO	0.491	38.80	38.81	NO	1.146	1.146	106.30	106	NO
34	34 13C-OCDF	8.57e5	6.73e5	0.88	NO	0.565	41.37	41.39	NO	1.222	1.222	225.31	113	NO
35	35 37Cl-2,3,7,8-TCDD	9.59e4	8.59e5			1.22	26.30	26.33	NO	1.030	1.031	9.1696	91.7	NO
36	36 13C-1,2,3,4-TCDD	8.59e5	8.59e5	0.79	NO	1.00	25.64	25.54	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.06e6	1.06e6	0.79	NO	1.00	24.13	24.03	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	6.73e5	6.73e5	0.50	NO	1.00	33.92	33.85	NO	1.000	1.000	100.00	100	YES OK

Work Order 2002532 Page 531 of 725

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Tuesday, December 22, 2020 09:29:14 Pacific Standard Time Printed: Tuesday, December 22, 2020 09:30:34 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	201221R1_1	ST201221R1_1 1613 CS3 20L0301	21-Dec-20	07:25:05
2	201221R1_2	B0L0115-BS1 OPR 1	21-Dec-20	08:10:17
3	201221R1_3	SOLVENT BLANK	21-Dec-20	08:57:03
4	201221R1_4	ST201221R1_2 428 CS3 20L0801	21-Dec-20	09:43:32
5	201221R1_5	B0L0111-BS2 OPR 1	21-Dec-20	10:34:16
6	201221R1_6	B0L0111-BS7 OPR 1	21-Dec-20	11:24:04
7	201221R1_7	B0L0115-BLK1 Method Blank 1	21-Dec-20	12:20:42
8	201221R1_8	2002611-01 20201130-08-POD-001 0.96676	21-Dec-20	13:08:26
9	201221R1_9	2002611-02 20201130-08-POD-002 0.9443	21-Dec-20	13:59:11
10	201221R1_10	2002691-01 Forebay Composite (24hr) 0.96966	21-Dec-20	14:45:00
11	201221R1_11	2002532-07@10X USMPDI-004SC-A-01-02-2	21-Dec-20	15:32:22
12	201221R1_12	2002532-09@10X USMPDI-004SC-A-03-04-2	21-Dec-20	16:16:42
13	201221R1_13	SOLVENT BLANK	21-Dec-20	17:09:54
14	201221R1_14	ST201221R1_3 1613 CS3 20L0301	21-Dec-20	17:54:10
15	201221R1_15	ST201221R1_4 428 CS3 20L0801	21-Dec-20	18:38:27

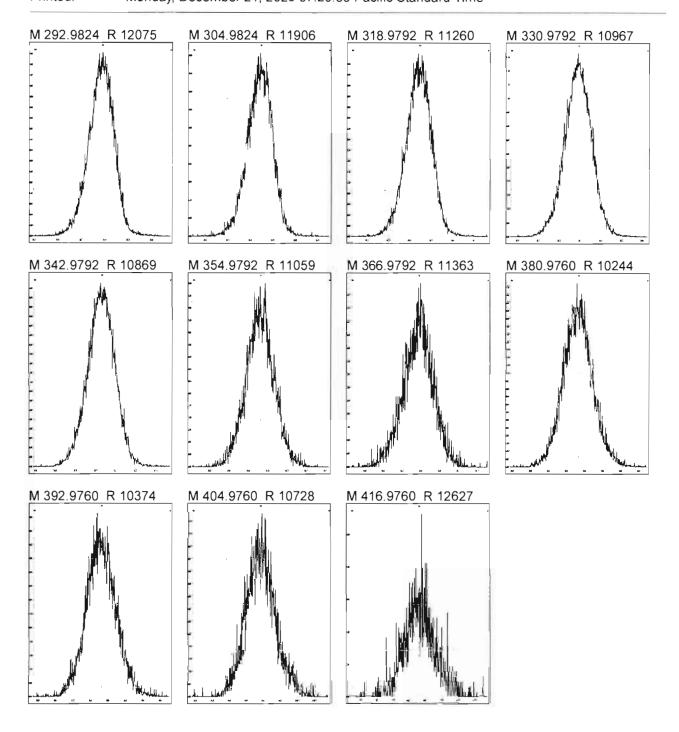
Work Order 2002532 Page 532 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Monday, December 21, 2020 07:20:36 Pacific Standard Time



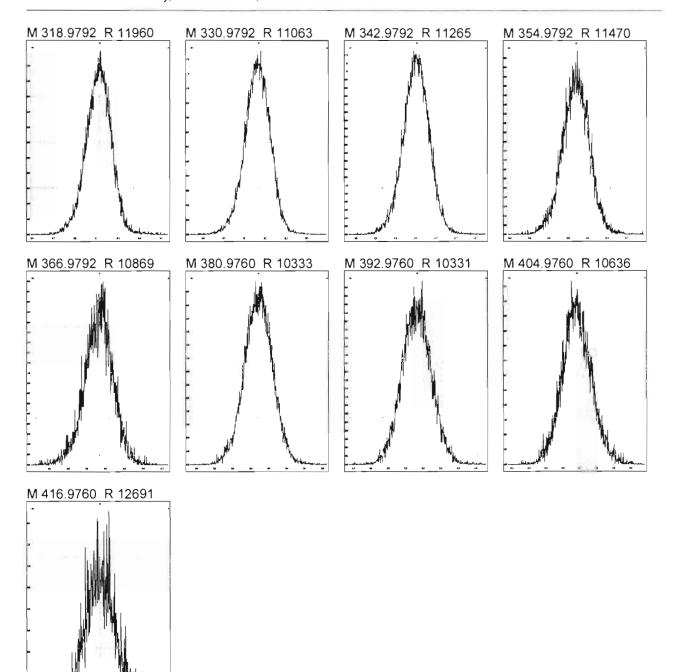
Work Order 2002532 Page 533 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Monday, December 21, 2020 07:21:21 Pacific Standard Time



Work Order 2002532 Page 534 of 725

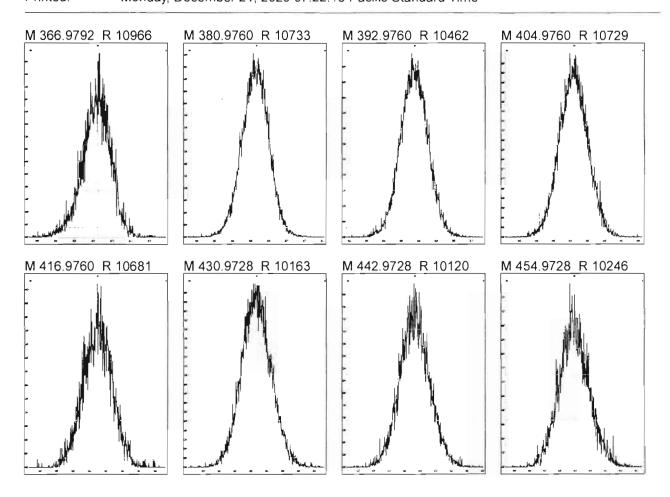
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Monday, December 21, 2020 07:22:16 Pacific Standard Time



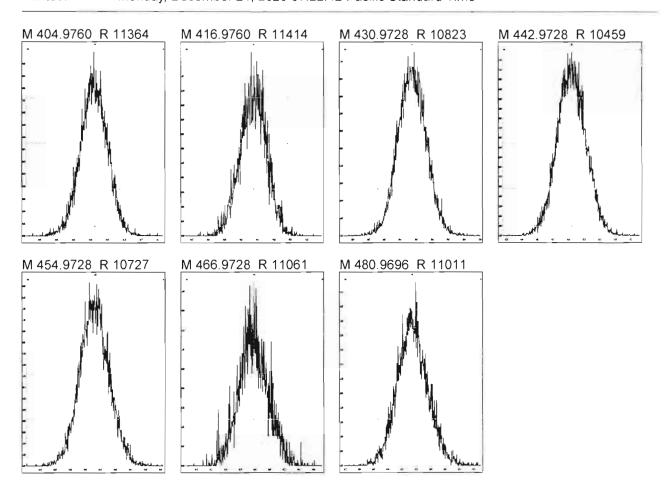
Work Order 2002532 Page 535 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Monday, December 21, 2020 07:22:42 Pacific Standard Time



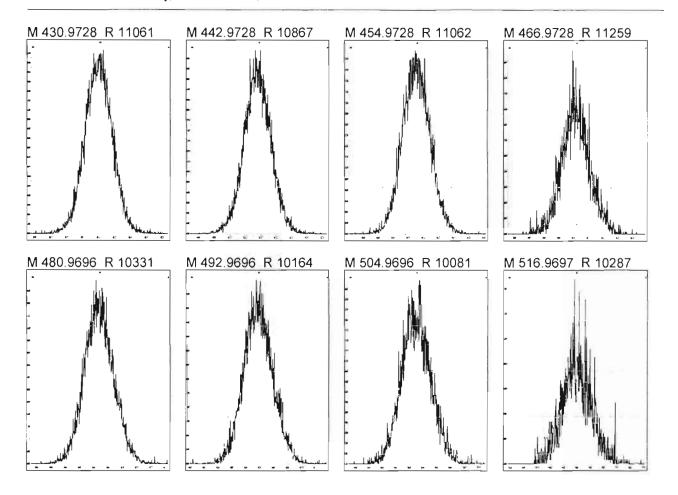
Work Order 2002532 Page 536 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Monday, December 21, 2020 07:23:03 Pacific Standard Time



Work Order 2002532 Page 537 of 725

Page 1 of 1

Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-CPSM.qld

Last Altered:

Monday, December 21, 2020 08:12:42 Pacific Standard Time

Printed:

Tuesday, December 22, 2020 09:52:10 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.49
2	2 1,2,8,9-TCDD (Last)	27.22
3	3 1,2,4,7,9-PeCDD (First)	28.77
4	4 1,2,3,8,9-PeCDD (Last)	31.38
5	5 1,2,4,6,7,9-HxCDD (First)	32.69
6	6 1,2,3,7,8,9-HxCDD (Last)	34.72
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.17
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.20
9	9 1,3,6,8-TCDF (First)	20.24
10	10 1,2,8,9-TCDF (Last)	27.53
11	11 1,3,4,6,8-PeCDF (First)	27.10
12	12 1,2,3,8,9-PeCDF (Last)	31.74
13	13 1,2,3,4,6,8-HxCDF (First)	32.16
14	14 1,2,3,7,8,9-HxCDF (Last)	35.23
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.78
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Work Order 2002532 Page 538 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-CPSM.qld

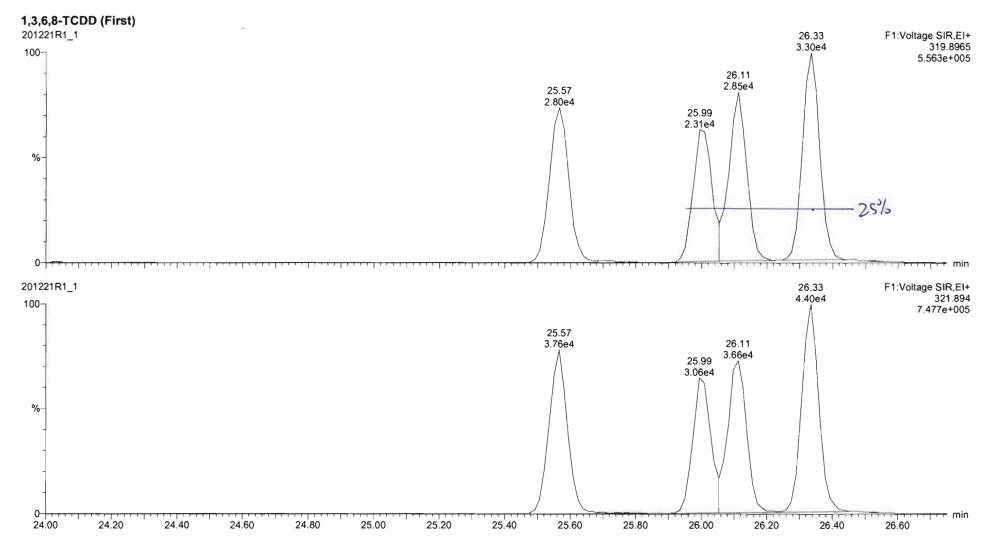
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Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

HN 12/22/2020 GRB 12/22/2020

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 539 of 725

Vista Analytical Laboratory VG-11

Dataset:

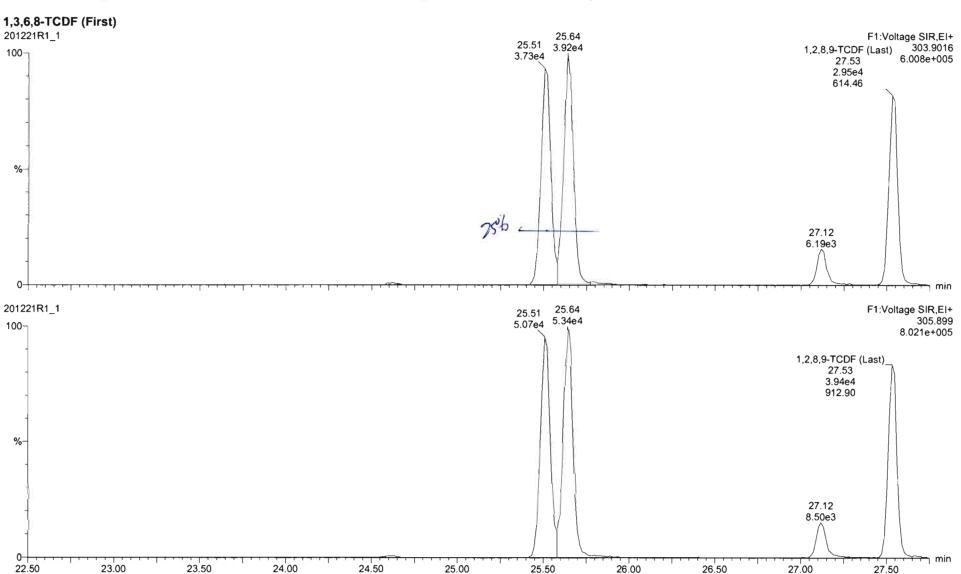
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Last Altered: Printed:

Monday, December 21, 2020 08:12:42 Pacific Standard Time Tuesday, December 22, 2020 09:52:10 Pacific Standard Time

HN 12/22/2020 GRB 12/22/2020

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

Page 540 of 725

Vista Analytical Laboratory

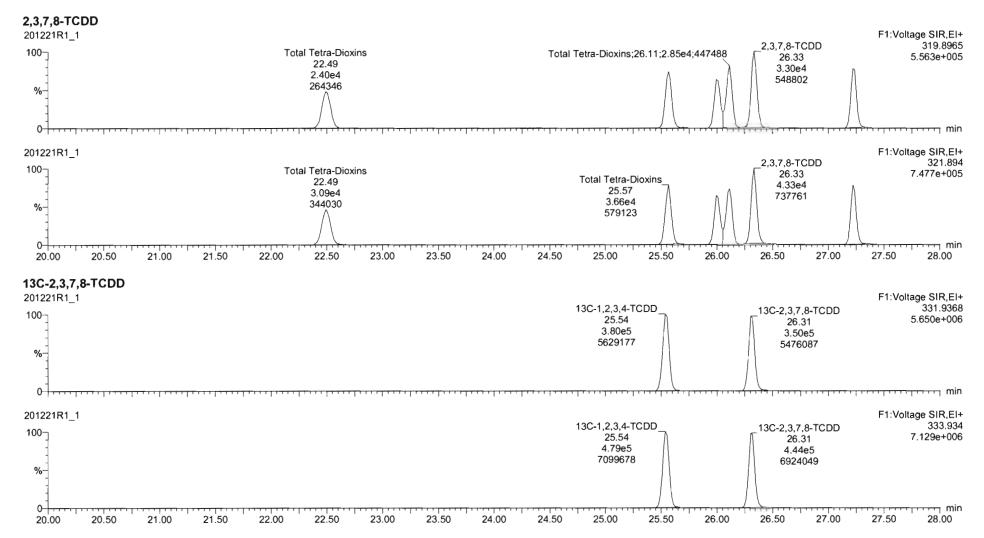
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Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



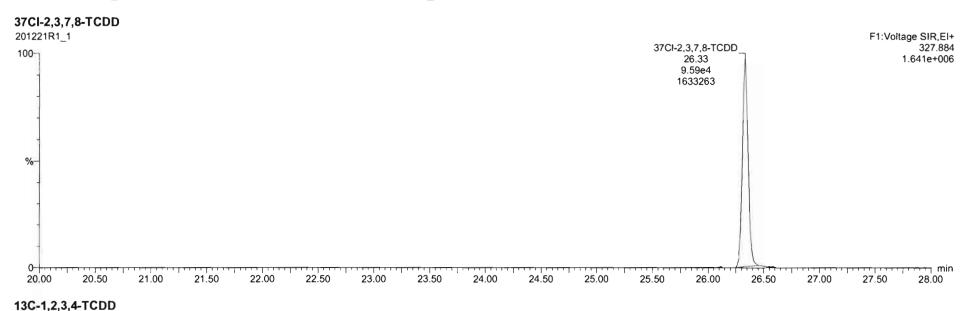
Work Order 2002532

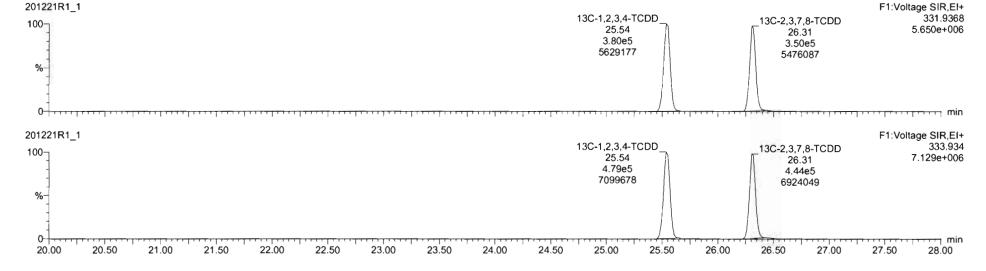
Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301





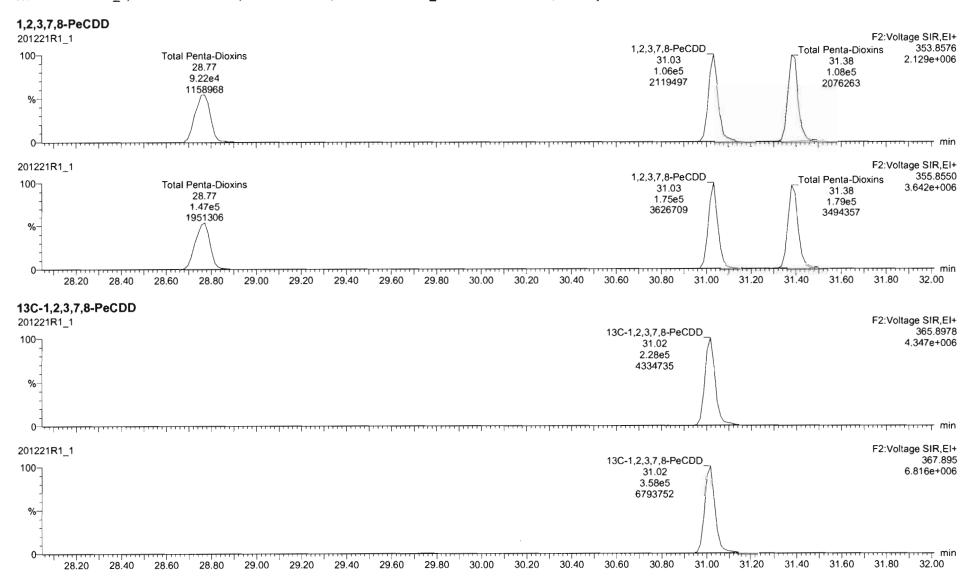
viola / maryticar =c

Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Printed: Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



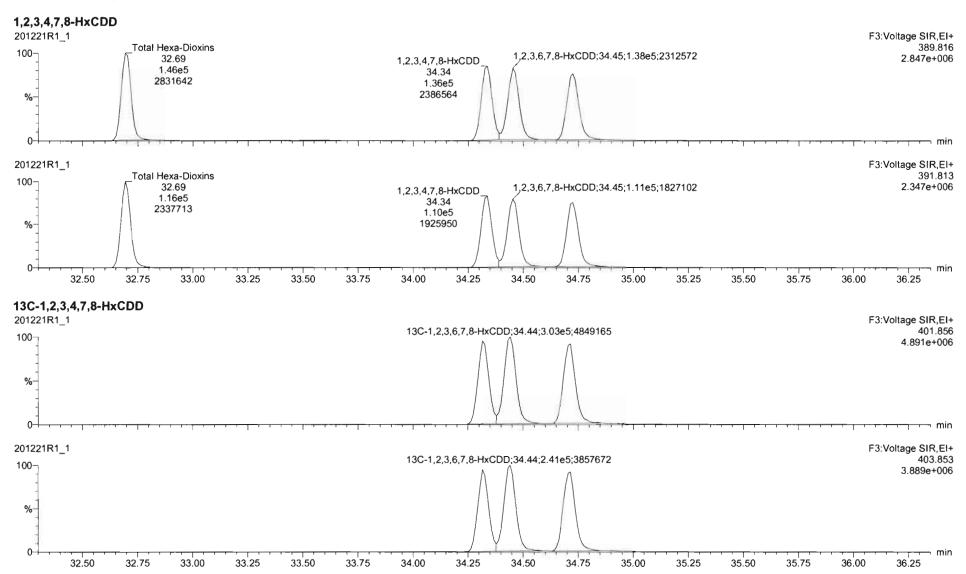
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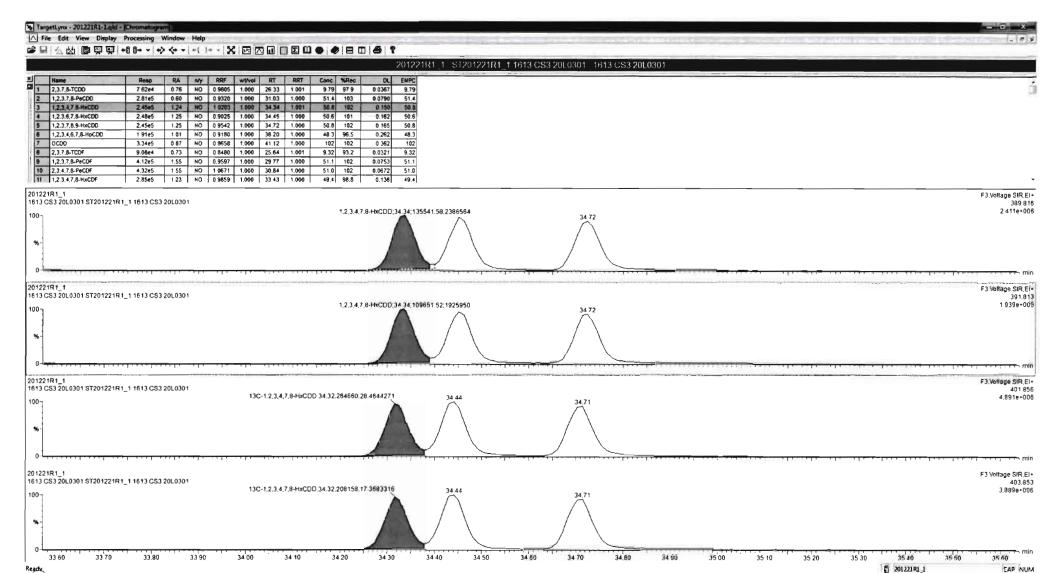
Last Altered: Printed:

Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

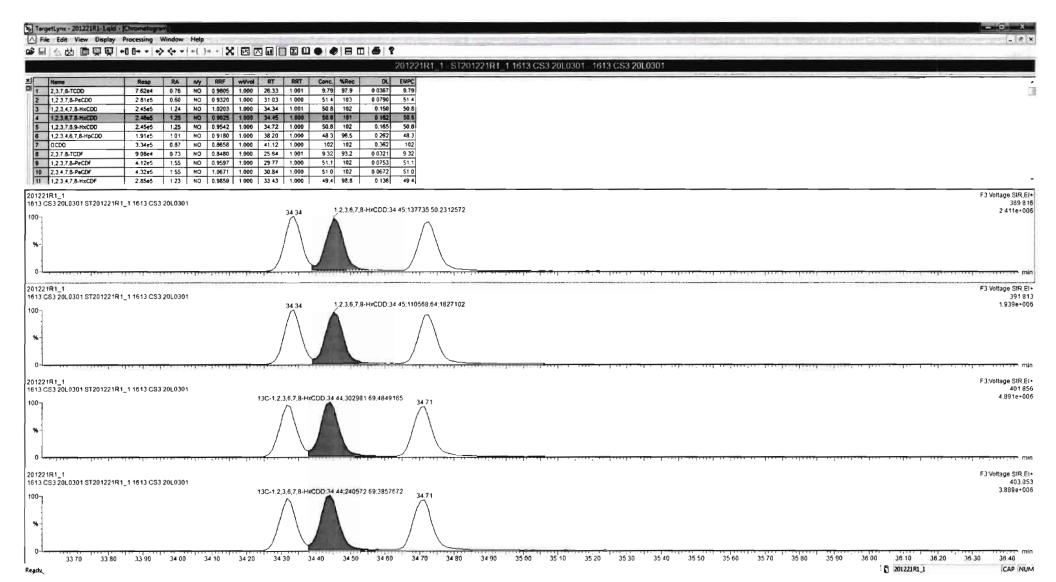
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Work Order 2002532



Work Order 2002532 Page 545 of 725

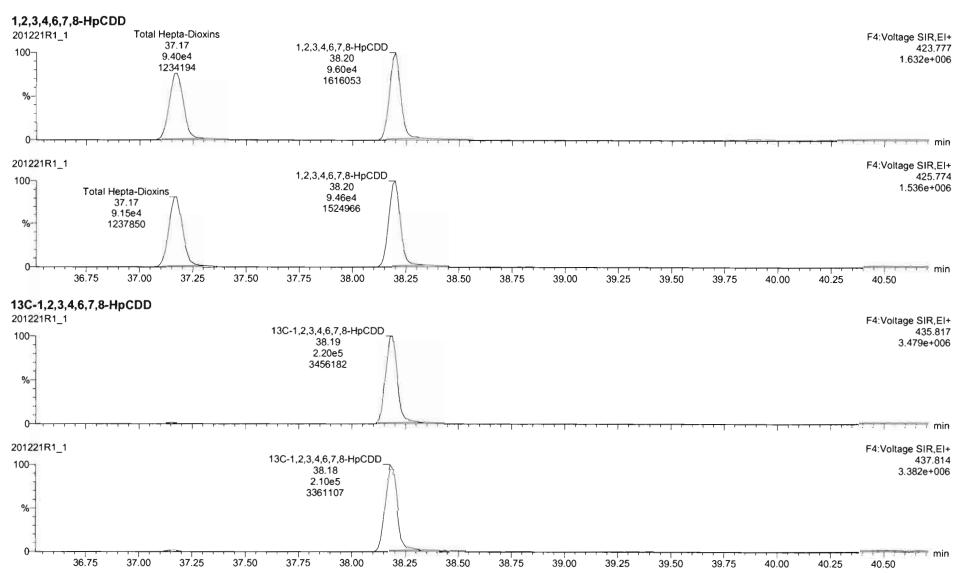


Work Order 2002532 Page 546 of 725

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

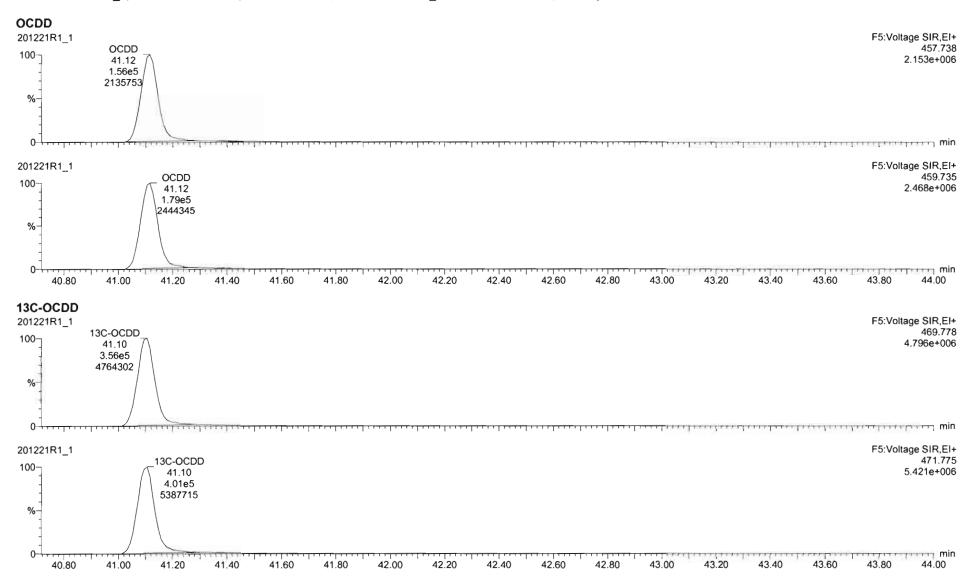


Work Order 2002532

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



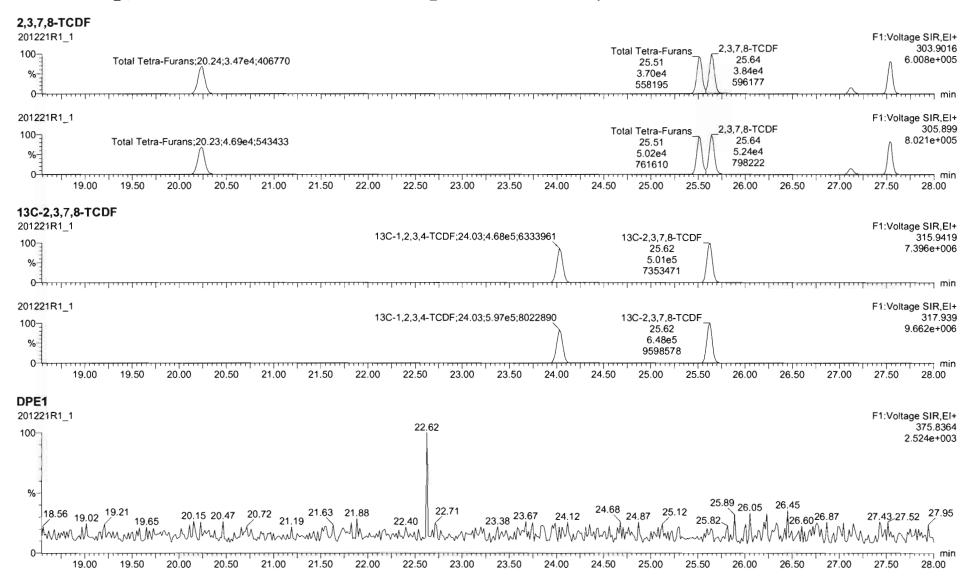
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Last Altered: Printed:

Dataset:

Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

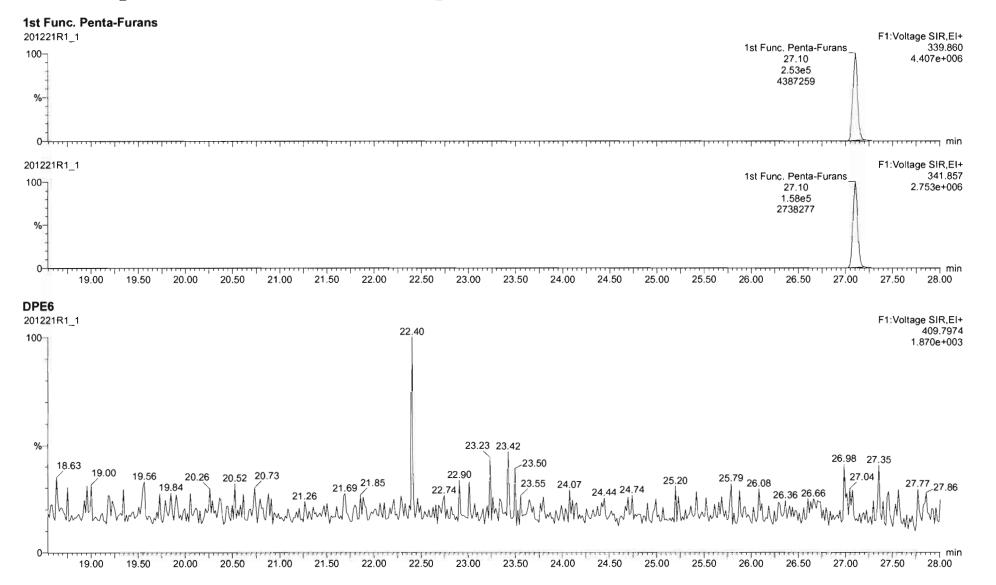
Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG

U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

Vista Analytical Laboratory

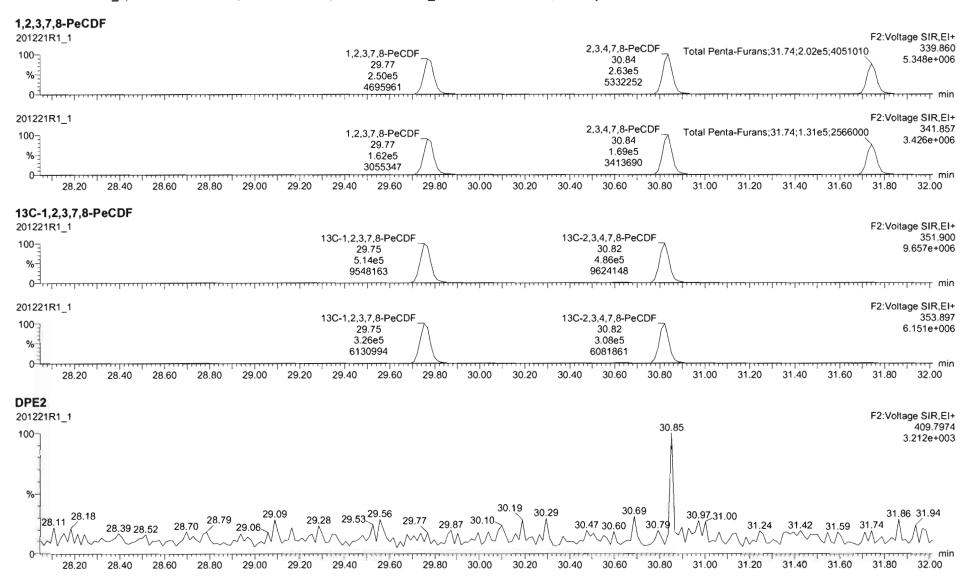
Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Printed:

Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

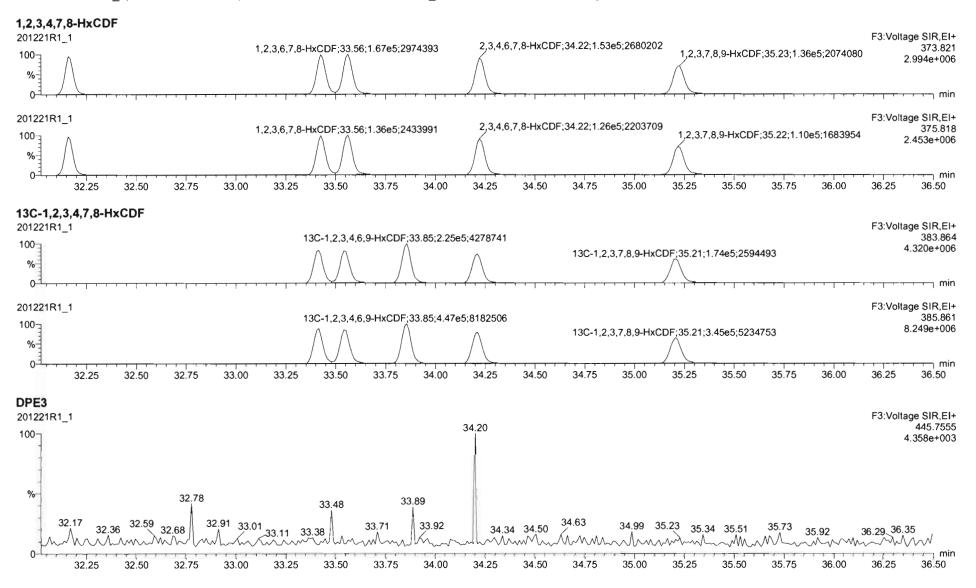
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Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

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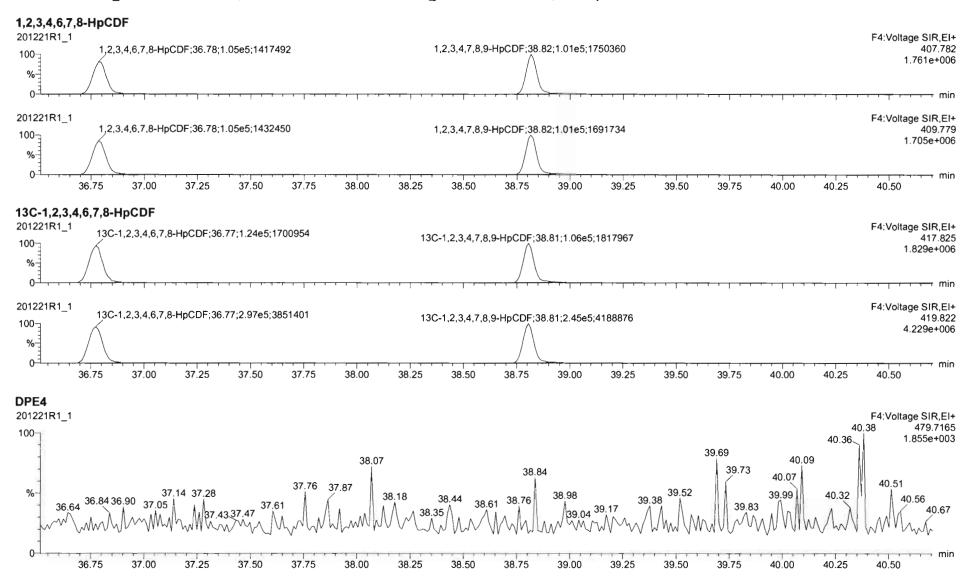


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Monday, December 21, 2020 08:11:17 Pacific Standard Time Printed: Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532 Page 553 of 725

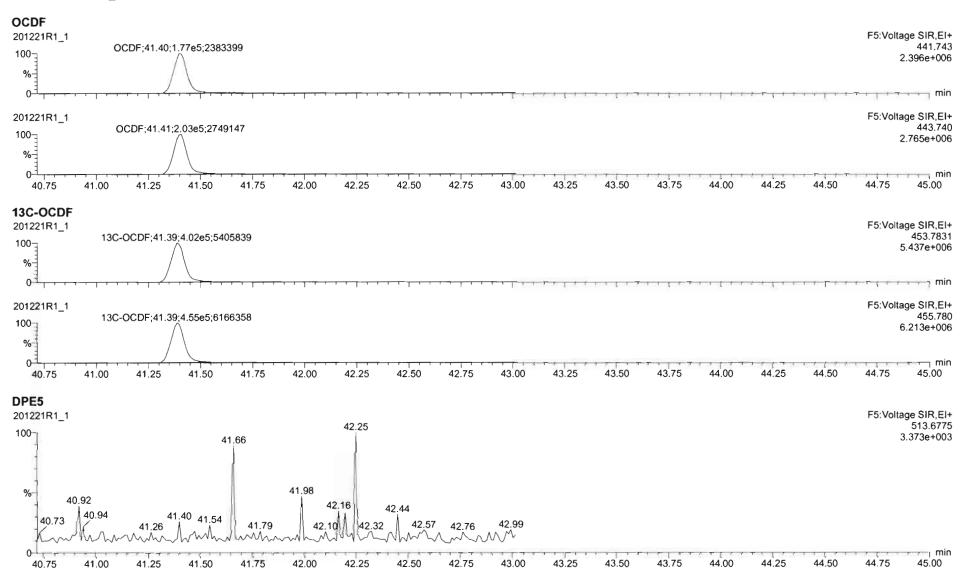
Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-1.qld

Last Altered: Printed:

Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201221R1\201221R1-1.qld

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40.75

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Monday, December 21, 2020 08:11:17 Pacific Standard Time Monday, December 21, 2020 12:32:46 Pacific Standard Time

Name: 201221R1_1, Date: 21-Dec-2020, Time: 07:25:05, ID: ST201221R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

PFK1 201221R1 1 F1:Voltage SIR,EI+ 19.96 20.11 21.38 21.56 22.11 24.00 24.13 24.56 24.86 25.06 22.33 100 18.78 19.18.19.25 20.92 318.97924 22.73 23.24 25.82 25.95 26.0526.53 27.31, 27.43 6:386e+006 %min min 19.00 19.50 20.00 20.50 21.00 21.50 22.00 22.50 23.00 23.50 24.00 24.50 25.00 25.50 26.00 26.50 27.00 27.50 28.00 PFK2 201221R1_1 F2:Voltage SIR,EI+ 30.32 30.47 30.54 29.84 29.89 29.95 30.11 29.22 29.36 29.53 30.93 31.17 366.9792 31.74 100 8:070e+005 28.06 28.30 28.20 28.40 28.60 28.80 29.00 29.20 29.40 29.60 29.80 30.20 30.40 30.00 30.60 30.80 31.00 31.20 31.40 31.60 31.80 32.00 PFK3 201221R1 1 F3:Voltage SIR,EI+ 35.25 35.31 33.6533.76_33.81 380.9760 35.65 35.70 32.34;9.89e5;1861166_32.54 34.19 34.33 34.46.34.49 100 32.84 33,13 34.85 35.00 8.280e+006 % 32.40 32.80 33.00 33.40 32.20 32.60 33.20 33.60 33.80 34.00 34.20 34.40 34.60 34.80 35.00 35.20 35.40 35.60 35.80 36.00 PFK4 201221R1 1 F4:Voltage SIR,EI+ 36.99;2.13e5;403080 37.64.37.6737.79 37.83.37.96 38.11 39.01 39.16.39.19 39.65 -39.70 40.35.40.38 430.9728 38.37 38.56 38.61 100 37.14 37.28 2:420e+006 36.64 36.75 37.00 37.25 37.50 37.75 38.00 38.25 38.50 38.75 39.00 39.25 39.50 39.75 40.00 40.25 40.50 PFK5 201221R1 1 F5:Voltage SIR,EI+ 42.31 42.48 42.52 42.58 454.9728 100 40.97;8.83e4;609584 41.69 41.73 41.76 41.31 42.99 1.752e+006 40.83 min

Work Order 2002532 Page 555 of 725

43.00

43.25

43.50

43.75

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44.50

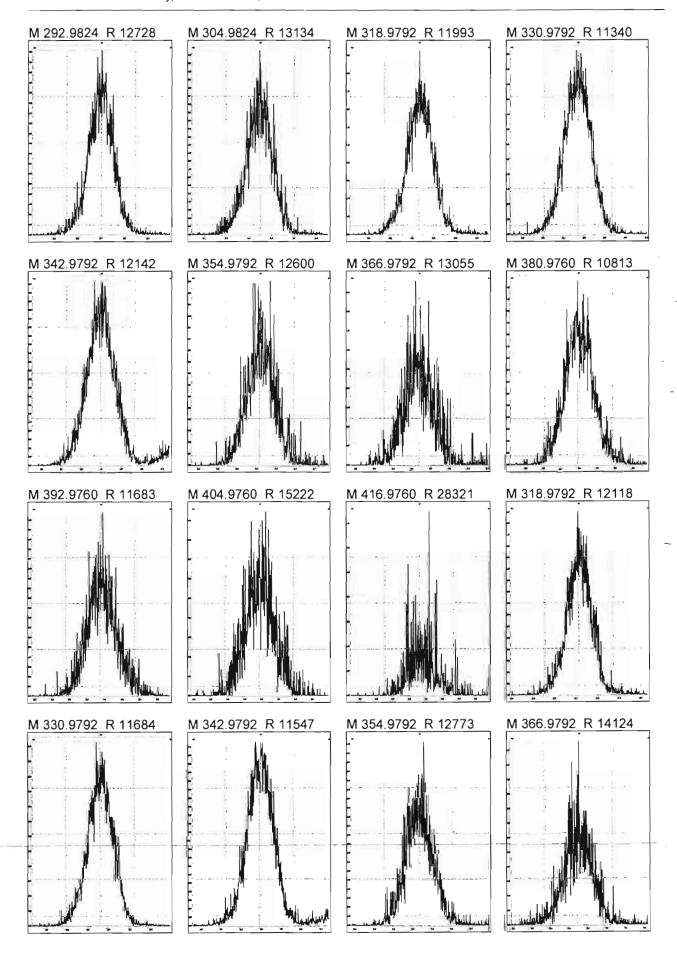
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Printed:

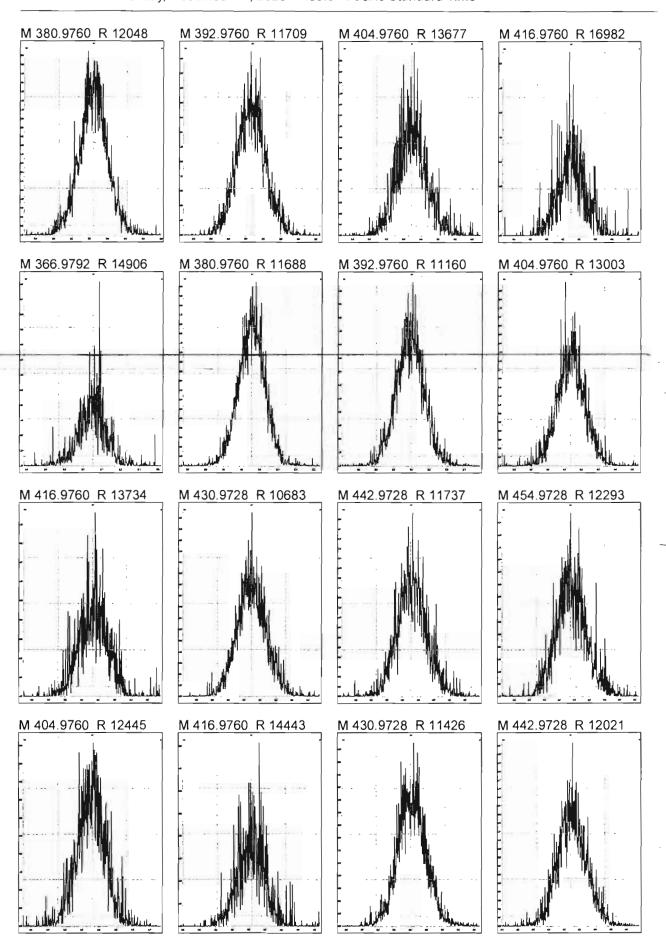
Monday, December 21, 2020 17:09:51 Pacific Standard Time



Work Order 2002532 Page 556 of 725

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Monday, December 21, 2020 17:09:51 Pacific Standard Time

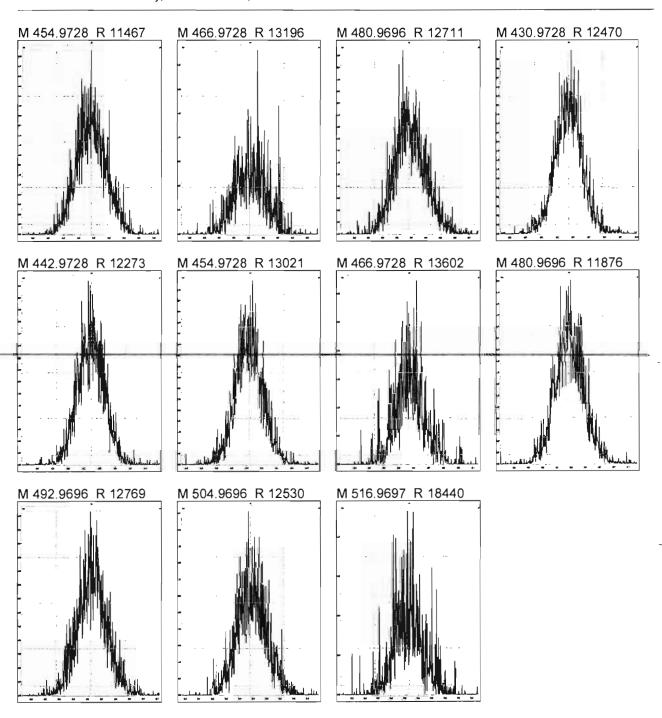


Work Order 2002532 Page 557 of 725

Page 3 of 3

Printed:

Monday, December 21, 2020 17:09:51 Pacific Standard Time



Work Order 2002532 Page 558 of 725

INITIAL CALIBRATION

Work Order 2002532 Page 559 of 725

Quantify Compound Summary Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

1-1N 12/04/2020 GRB 12/08/2020

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

Response Factor: 0.980478

RRF SD: 0.0566851, Relative SD: 5.78138

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

11.0	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	0.250	0.69	NO	25.98	1.000	1.86e3	7.27e5	0.261	4.5	1.02	MM
2	201203R2_2	0.500	0.81	NO	26.01	1.001	3.43e3	7.75e5	0.452	-9.6	0.886	MM
3	201203R2_3	2.00	0.78	NO	25.99	1.001	1.58e4	8.00e5	2.01	0.5	0.985	bb
4	201203R2_4	40.0	0.78	NO	25.99	1.001	3.98e5	9.54e5	42.5	6.4	1.04	bb
5	201203R2_5	300	0.78	NO	25.99	1.001	2.86e6	1.00e6	290	-3.3	0.948	bb
6	201203R2_6	10.0	0.77	NO	25.98	1.001	8.33e4	8.36e5	10.2	1.6	0.997	bb

Compound name: 1,2,3,7,8-PeCDD

Response Factor: 0.931961

RRF SD: 0.0759604, Relative SD: 8.1506

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

TO ST	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	0.56	NO	30.74	1.000	6.50e3	5.16e5	1.35	8.2	1.01	MM
2	201203R2_2	2.50	0.57	NO	30.76	1.001	1.18e4	5.51e5	2.29	-8.3	0.854	MM
3	201203R2_3	10.0	0.62	NO	30.74	1.000	5.55e4	5.88e5	10.1	1.3	0.944	MM
4	201203R2_4	200	0.62	NO	30.74	1.000	1.39e6	7.22e5	207	3.6	0.965	bb
5	201203R2_5	1500	0.63	NO	30.74	1.000	1.02e7	8.24e5	1330	-11.6	0.824	bb
6	201203R2_6	50.0	0.61	NO	30.73	1.000	2.93e5	5.89e5	53.4	6.8	0.996	bb

Work Order 2002532 Page 560 of 725

Page 2 of 16

Dataset:

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U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 1,2,3,4,7,8-HxCDD

Response Factor: 1.02027

RRF SD: 0.089298, Relative SD: 8.75242

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	201203R2_1	1.25	1.21	NO	34.05	1.001	4.47e3	3.55e5	1.23	-1.2	1.01	MM
2	201203R2_2	2.50	1.23	NO	34.06	1.001	8.64e3	3.81e5	2.22	-11.0	0.908	bd
3	201203R2_3	10.0	1.22	NO	34.05	1.001	4.12e4	4.06e5	9.96	-0.4	1.02	bd
4	201203R2_4	200	1.26	NO	34.05	1.000	1.17e6	5.28e5	217	8.5	1.11	bd
5	201203R2_5	1500	1.25	NO	34.04	1.000	9.00e6	6.35e5	1390	-7.4	0.945	bd
6	201203R2_6	50.0	1.23	NO	34.04	1.000	2.42e5	4.26e5	55.8	11.6	1.14	bd

Compound name: 1,2,3,6,7,8-HxCDD

Response Factor: 0.902494

RRF SD: 0.0671114, Relative SD: 7.43621

Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)

Curve type: RF

distribution of the same of th	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.19	NO	34.17	1.000	5.01e3	4.26e5	1.30	4.0	0.939	db
2	201203R2_2	2.50	1.17	NO	34.19	1.001	9.36e3	4.55e5	2.28	-8.8	0.823	MM
3	201203R2_3	10.0	1.32	NO	34.17	1.001	4.48e4	4.87e5	10.2	2.0	0.921	db
4	201203R2_4	200	1.26	NO	34.17	1.000	1.18e6	6.16e5	213	6.6	0.962	db
5	201203R2_5	1500	1.25	NO	34.17	1.001	8.88e6	7.28e5	1350	-9.9	0.813	db
6	201203R2_6	50.0	1.24	NO	34.16	1.000	2.46e5	5.13e5	53.0	6.1	0.957	db

Compound name: 1,2,3,7,8,9-HxCDD

Response Factor: 0.954157

RRF SD: 0.0657355, Relative SD: 6.88938

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	201203R2_1	1.25	1.32	NO	34.44	1.001	5.15e3	4.19e5	1.29	3.0	0.983	bb
2	201203R2_2	2.50	1.24	NO	34.44	1.000	1.00e4	4.56e5	2.30	-8.0	0.878	bb

Work Order 2002532 Page 561 of 725

Page 3 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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	201203R2_3	10.0	1.23	NO	34.44	1.001	4.69e4	4.87e5	10.1	0.9	0.963	bb
4	201203R2_4	200	1.24	NO	34.44	1.000	1.20e6	5.99e5	210	4.8	1.00	bb
5	201203R2_5	1500	1.24	NO	34.43	1.000	9.22e6	7.06e5	1370	-8.7	0.871	bb
6	201203R2_6	50.0	1.26	NO	34.43	1.000	2.61e5	5.07e5	54.0	8.0	1.03	MM

Compound name: 1,2,3,4,6,7,8-HpCDD

Response Factor: 0.918023

Ri.F SD: 0.0609394, Relative SD: 6.63811

Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)

Curve type: RF

4.45	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.05	NO	37.91	1.000	3.95e3	3.21e5	1.34	7.2	0.984	MM
2	201203R2_2	2.50	1.06	NO	37.92	1.000	7.18e3	3.37e5	2.32	-7.2	0.852	MM
3	201203R2_3	10.0	1.06	NO	37.92	1.001	3.39e4	3.72e5	9.91	-0.9	0.910	MM
4	201203R2_4	200	1.03	NO	37.92	1.000	9.39e5	4.93e5	208	3.8	0.953	bb
5	201203R2_5	1500	1.04	NO	37.91	1.001	7.38e6	5.85e5	1370	-8.5	0.840	bb
6	201203R2_6	50.0	1.02	NO	37.91	1.001	1.90e5	3.92e5	52.8	5.5	0.969	bb

Compound name: OCDD Response Factor: 0.865808

RRF SD: 0.07035, Relative SD: 8.12536

Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)

Curve type: RF

30.4	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	2.50	0.83	NO	40.81	1.000	6.00e3	5.55e5	2.50	-0.1	0.865	bb
2	201203R2_2	5.00	0.89	NO	40.83	1.000	1.11e4	5.80e5	4.43	-11.4	0.767	MM
3	201203R2_3	20.0	0.84	NO	40.81	1.000	5.89e4	6.66e5	20.4	2.1	0.884	bb
4	201203R2_4	400	0.88	NO	40.81	1.000	1.59e6	8.50e5	432	7.9	0.935	bb
5	201203R2_5	3000	0.89	NO	40.81	1.000	1.27e7	1.06e6	2780	-7.4	0.802	bb
6	201203R2_6	100	0.88	NO	40.81	1.000	3.12e5	6.62e5	109	8.9	0.942	bb

Work Order 2002532 Page 562 of 725

Quantify Compound Summary Report Mass Vista Analytical Laboratory

MassLynx 4.1 SCN815

Page 4 of 16

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Dataset:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 2,3,7,8-TCDF

Response Factor: 0.847967

RRF SD: 0.0725275, Relative SD: 8.5531

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	201203R2_1	0.250	0.73	NO	25.31	1.001	2.48 e 3	1.07 e 6	0.272	8.9	0.923	MM
2	201203R2_2	0.500	0.83	NO	25.30	1.001	4.29e3	1.14e6	0.442	-11.5	0.750	MM
3	201203R2_3	2.00	0.75	NO	25.30	1.001	1.90e4	1.17 e 6	1.92	-4.0	0.814	bb
4	201203R2_4	40.0	0.76	NO	25.30	1.001	4.93e5	1.37e6	42.3	5.8	0.897	MM
5	201203R2_5	300	0.76	NO	25.30	1.001	3.37e6	1.42e6	279	-6.8	0.790	bb
6	201203R2_6	10.0	0.75	NO	25.30	1.001	1.10e5	1.21e6	10.8	7.7	0.913	db

Compound name: 1,2,3,7,8-PeCDF

Response Factor: 0.959665

RRF SD: 0.0738522, Relative SD: 7.69562

Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)

Curve type: RF

STEELS.	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.56	NO	29.48	1.000	9.71e3	7.88e5	1.28	2.7	0.986	MM
2	201203R2_2	2.50	1.59	NO	29.49	1.000	1.84 e 4	8.48e5	2.26	-9.7	0.867	MM
3	201203R2_3	10.0	1.63	NO	29.48	1.000	8.91e4	9.03e5	10.3	2.8	0.986	bb
4	201203R2_4	200	1.57	NO	29.48	1.000	2.24e6	1.11e6	211	5.4	1.01	bb
5	201203R2_5	1500	1.57	NO	29.48	1.000	1.56e7	1.19e6	1360	-9.5	0.869	bb
6	201203R2_6	50.0	1.61	NO	29.46	1.000	4.70e5	9.04e5	54.1	8.3	1.04	bb

Compound name: 2,3,4,7,8-PeCDF

Response Factor: 1.06715

RRF SD: 0.100434, Relative SD: 9.41144

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	201203R2_1	1.25	1.52	NO	30.55	1.000	1.08e4	7.63e5	1.32	6.0	1.13	bb
2	201203R2_2	2.50	1.59	NO	30.55	1.000	1.87e4	8.14e5	2.16	-13.7	0.921	ММ

Work Order 2002532 Page 563 of 725

Page 5 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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	201203R2_3	10.0	1.63	NO	30.55	1.000	9.54e4	8.55e5	10.5	4.5	1.12	MM
4	201203R2_4	200	1.56	NO	30.55	1.000	2.37e6	1.06e6	208	4.2	1.11	bb
5	201203R2_5	1500	1.55	NO	30.55	1.000	1.67e7	1.16e6	1350	-10.0	0.961	bb
6	201203R2_6	50.0	1.56	NO	30.53	1.000	5.09e5	8.75e5	54.5	9.0	1.16	bb

Compound name: 1,2,3,4,7,8-HxCDF

Response Factor: 0.9859

RRF SD: 0.0865731, Relative SD: 8.78113

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	201203R2_1	1.25	1.29	NO	33.15	1.001	6.18e3	5.15e5	1.22	-2.7	0.959	bď
2	201203R2_2	2.50	1.18	NO	33.16	1.001	1.20e4	5.49e5	2.21	-11.6	0.872	bd
3	201203R2_3	10.0	1.26	NO	33.15	1.000	6.08e4	5.80e5	10.6	6.4	1.05	bd
4	201203R2_4	200	1.23	NO	33.16	1.001	1.55e6	7.36e5	213	6.5	1.05	bd
5	201203R2_5	1500	1.23	NO	33.15	1.001	1.15e7	8.47e5	1380	-8.3	0.904	bd
6	201203R2_6	50.0	1.23	NO	33.15	1.001	3.29e5	6.08e5	54.8	9.6	1.08	b d

Compound name: 1,2,3,6,7,8-HxCDF

Response Factor: 1.03876

RRF SD: 0.0872692, Relative SD: 8.40126

Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)

Curve type: RF

Art.		,										
100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.27	NO	33.29	1.001	7.32e3	5.47e5	1.29	3.1	1.07	MM
2	201203R2_2	2.50	1.22	NO	33.29	1.000	1.37e4	5.90e5	2.23	-10.8	0.927	MM
3	201203R2_3	10.0	1.27	NO	33.29	1.001	6.64e4	6.28e5	10.2	1.9	1.06	db
4	201203R2_4	200	1.22	NO	33.29	1.000	1.74e6	7.93e5	211	5.7	1.10	db
5	201203R2_5	1500	1.24	NO	33.28	1.000	1.26e7	8.97e5	1350	-9.7	0.938	db
6	201203R2_6	50.0	1.24	NO	33.28	1.001	3.68e5	6.44e5	54.9	9.9	1.14	db

Work Order 2002532 Page 564 of 725

Quantify Compound Summary Report Vista Analytical Laboratory MassLynx 4.1 SCN815

Page 6 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 2,3,4,6,7,8-HxCDF

Response Factor: 1.02016

RRF SD: 0.0860672, Relative SD: 8.43661

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	201203R2_1	1.25	1.25	NO	33.95	1.001	6.57e3	4.91e5	1.31	5.0	1.07	MM
2	201203R2_2	2.50	1.22	NO	33.96	1.001	1.17e4	5.25e5	2.19	-12.3	0.895	MM
3	201203R2_3	10.0	1.26	NO	33.95	1.001	5.87e4	5.65 e 5	10.2	1.8	1.04	bb
4	201203R2_4	200	1.23	NO	33.95	1.001	1.54e6	7.08e5	213	6.6	1.09	bb
5	201203R2_5	1500	1.22	NO	33.94	1.000	1.14e7	8.16e5	1370	-8.7	0.932	bb
6	201203R2_6	50.0	1.25	NO	33.94	1.001	3.27e5	5.97e5	53.8	7.6	1.10	bb

Compound name: 1,2,3,7,8,9-HxCDF

Response Factor: 0.99094

RRF SD: 0.0846908, Relative SD: 8.54651

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	201203R2_1	1.25	1.26	NO	34.94	1.001	5.61e3	4.28e5	1.32	5.8	1.05	MM
2	201203R2_2	2.50	1.32	NO	34.94	1.000	1.03e4	4.73e5	2.19	-12.6	0.867	bb
3	201203R2_3	10.0	1.25	NO	34.94	1.001	5.03e4	5.05e5	10.1	0.6	0.997	MM
4	201203R2_4	200	1.25	NO	34.93	1.000	1.43e6	6.76e5	213	6.7	1.06	bb
5	201203R2_5	1500	1.23	NO	34.92	1.000	1.09e7	7.99e5	1380	-8.3	0.909	bb
6	201203R2_6	50.0	1.25	NO	34.92	1.000	2.95e5	5.53e5	53.9	7.7	1.07	MM

Compound name: 1,2,3,4,6,7,8-HpCDF

Response Factor: 1.04917

RRF SD: 0.0785065, Relative SD: 7.48269

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	201203R2_1	1.25	1.07	NO	36.49	1.000	5.72e3	4.27e5	1.28	2.1	1.07	MM
2	201203R2_2	2.50	0.94	NO	36.50	1.000	1.06e4	4.51e5	2.24	-10.4	0.940	bb

Work Order 2002532 Page 565 of 725

Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

Page 7 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 1,2,3,4,6,7,8-HpCDF

736	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	10.0	0.98	NO	36.49	1.000	5.28e4	4.95e5	10.2	1.6	1.07	bb
4	201203R2_4	200	1.01	NO	36.50	1.000	1.36e6	6.02e5	215	7.7	1.13	bb
5	201203R2_5	1500	1.02	NO	36.49	1.001	1.02e7	7.02e5	1380	-7.8	0.967	bb
6	201203R2_6	50.0	1.02	NO	36.47	1.000	2.86e5	5.12e5	53.3	6.7	1.12	bb

Compound name: 1,2,3,4,7,8,9-HpCDF

Response Factor: 1.17589

RRF SD: 0.0886789, Relative SD: 7.54143

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	201203R2_1	1.25	0.89	NO	38.55	1.000	4.14e3	2.76e5	1.28	2.3	1.20	MM
2	201203R2_2	2.50	1.00	NO	38.55	1.000	7.84e3	2.93e5	2.27	-9.1	1.07	MM
3	201203R2_3	10.0	0.99	NO	38.55	1.001	3.75e4	3.22e5	9.90	-1.0	1.16	bb
4	201203R2_4	200	1.02	NO	38.54	1.001	1.06e6	4.21e5	214	7.1	1.26	bb
5	201203R2_5	1500	1.02	NO	38.53	1.000	8.34e6	5.15e5	1380	-8.2	1.08	bb
6	201203R2_6	50.0	1.03	NO	38.54	1.000	2.15e5	3.36e5	54.4	8.8	1.28	bb

Compound name: OCDF

Response Factor: 0.895953

RRF SD: 0.0701579, Relative SD: 7.83054

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)

Crove type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	2.50	0.93	NO	41.09	1.000	7.18e3	6.13e5	2.61	4.6	0.937	MM
2	201203R2_2	5.00	0.90	NO	41.11	1.000	1.32e4	6.61e5	4.46	-10.7	0.800	MM
3	201203R2_3	20.0	0.86	NO	41.10	1.000	6.64e4	7.40e5	20.0	0.2	0.898	bb
4	201203R2_4	400	0.89	NO	41.09	1.000	1.89e6	9.93e5	425	6.3	0.952	MM
5	201203R2_5	3000	0.89	NO	41.09	1.000	1.50e7	1.22e6	2750	-8.3	0.822	bb
6	201203R2_6	100	0.88	NO	41.09	1.000	3.70e5	7.64e5	108	7.9	0.967	bb

Work Order 2002532 Page 566 of 725

Page 8 of 16

Dataset:

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Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 13C-2,3,7,8-TCDD

Response Factor: 1.05554

RRF SD: 0.132152, Relative SD: 12.5199

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	201203R2_1	100	0.77	NO	25.98	1.031	7.27e5	7.80e5	88.4	-11.6	0.933	bb
2	201203R2_2	100	0.76	NO	25.98	1.031	7.75e5	8.11e5	90.5	-9.5	0.955	bb
3	201203R2_3	100	0.77	NO	25.98	1.031	8.00e5	8.35e5	90.8	-9.2	0.958	bb
4	201203R2_4	100	0.79	NO	25.98	1.031	9.54 e 5	8.19e5	110	10.3	1.16	bb
5	201203R2_5	100	0.78	NO	25.98	1.031	1.00e6	7.99e5	119	19.2	1.26	bb
6	201203R2_6	100	0.78	NO	25.97	1.031	8.36e5	7.85e5	101	0.9	1.07	bb

Compound name: 13C-1,2,3,7,8-PeCDD

Response Factor: 0.784679

RRF SD: 0.1443, Relative SD: 18.3896

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.62	NO	30.73	1.219	5.16e5	7.80e5	84.3	-15.7	0.662	bb
2	201203R2_2	100	0.63	NO	30.73	1.219	5.51 e 5	8.11e5	86.6	-13.4	0.679	bb
3	201203R2_3	100	0.62	NO	30.73	1.219	5.88e5	8.35e5	89.8	-10.2	0.704	bb
4	201203R2_4	100	0.63	NO	30.73	1.219	7.22e5	8.19e5	112	12.4	0.882	bb
5	201203R2_5	100	0.63	NO	30.73	1.219	8.24e5	7.99e5	131	31.4	1.03	bb
6	201203R2_6	100	0.64	NO	30.71	1.219	5.89e5	7.85e5	95.6	-4.4	0.750	bb

Compound name: 13C-1,2,3,4,7,8-HxCDD

Response Factor: 0.620541

RRF SD: 0.0984404, Relative SD: 15.8637

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	beaqquib = X
1	201203R2_1	100	1.26	NO	34.03	1.014	3.55e5	6.41 e 5	89.2	-10.8	0.553	bd
2	201203R2_2	100	1.27	NO	34.04	1.014	3.81e5	6.94 e 5	88.5	-11.5	0.549	bđ

Work Order 2002532 Page 567 of 725

Quantify Compound Summary Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8-HxCDD

Pro	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	100	1.27	NO	34.03	1.014	4.06e5	7.47e5	87.6	-12.4	0.544	bd
4	201203R2_4	100	1.30	NO	34.04	1.014	5.28e5	7.82e5	109	8.9	0.676	bd
5	201203R2_5	100	1.28	NO	34.03	1.013	6.35e5	8.01e5	128	27.7	0.793	bd
6	201203R2_6	100	1.28	NO	34.03	1.014	4.26e5	6.99e5	98.1	-1.9	0.609	bd

Compound name: 13C-1,2,3,6,7,8-HxCDD

Response Factor: 0.734012

RRF SD: 0.101028, Relative SD: 13.7638

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

The same	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.29	NO	34.16	1.018	4.26e5	6.41e5	90.7	-9.3	0.665	db
2 1-	201203R2_2	100	1.28	NO	34.16	1.017	4.55e5	6.94e5	89.4	-10.6	0.656	db
3	201203R2_3	100	1.28	NO	34.15	1.017	4.87e5	7.47e5	88.8	-11.2	0.651	db
4	201203R2_4	100	1.27	NO	34.16	1.017	6.16e5	7.82e5	107	7.3	0.788	db
5	201203R2_5	100	1.27	NO	34.15	1.017	7.28e5	8.01e5	124	23.8	0.909	db
6	201203R2_6	100	1.26	NO	34.15	1.017	5.13e5	6.99e5	100	0.1	0.735	db

Compound name: 13C-1,2,3,7,8,9-HxCDD

Response Factor: 0.72265

RRF SD: 0.0908822, Relative SD: 12.5762

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.25	NO	34.42	1.025	4.19e5	6.41e5	90.4	-9.6	0.653	bd
2	201203R2_2	100	1.26	NO	34.43	1.025	4.56e5	6.94e5	91.0	-9.0	0.657	bb
3	201203R2_3	100	1.26	NO	34.42	1.025	4.87e5	7.47e5	90.2	-9.8	0.652	MM
4	201203R2_4	100 .	1.24	NO	34.43	1.025	5.99e5	7.82e5	106	6.1	0.766	bb
5	201203R2_5	100	1.26	NO	34.42	1.025	7.06e5	8.01e5	122	22.0	0.882	bb
6	201203R2_6	100 ,	1.25	NO	34.42	1.025	5.07e5	6.99e5	100	0.3	0.725	bb

Work Order 2002532 Page 568 of 725

Page 10 of 16

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Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 0.567736

RRF SD: 0.0966968, Relative SD: 17.032

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	201203R2_1	100	1.06	NO	37.90	1.129	3.21e5	6.41e5	88.2	-11.8	0.501	MM
2	201203R2_2	100	1.05	NO	37.91	1.129	3.37e5	6.94e5	85.5	-14.5	0.485	bb
3	201203R2_3	100	1.06	NO	37.90	1.129	3.72e5	7.47e5	87.8	-12.2	0.498	MM
4	201203R2_4	100	1.04	NO	37.91	1.129	4.93e5	7.82e5	111	11.0	0.630	bb
5	201203R2_5	100	1.05	NO	37.89	1.128	5.85e5	8.01e5	129	28.8	0.731	bb
6	201203R2_6	100	٤ 1.06	NO	37.89	1.129	3.92e5	6.99e5	98.7	-1.3	0.561	bb

Compound name: 13C-OCDD

Response Factor: 0.49583

RRF SD: 0.0921522, Relative SD: 18.5854

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	201203R2_1	200	0.89	NO	40.80	1.215	5.55 e 5	6.41e5	175	-12.7	0.433	MM
2	201203R2_2	200	0.88	NO	40.81	1.215	5.80e5	6.94e5	169	-15.7	0.418	MM
3	201203R2_3	200	0.91	NO	40.80	1.215	6.66e5	7.47e5	180	-10.0	0.446	bd
4	201203R2_4	200	0.89	NO	40.80	1.215	8.50e5	7.82e5	219	9.7	0.544	bb
15	201203R2_5	200	0.89	NO	40.80	1.215	1.06e6	8.01e5	267	33.3	0.661	bb
16	201203R2_6	200	0.89	NO	40.80	1.215	6.62 e 5	6.99e5	191	-4.5	0.474	bb

Compound name: 13C-2,3,7,8-TCDF

Response Factor: 0.919039

RkF SD: 0.110551, Relative SD: 12.029

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

3	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.78	NO	25.28	1.003	1.07e6	1.32 e 6	88.7	-11.3	0.815	bb
2	201203R2_2	100	0.79	NO	25.28	1.003	1.14e6	1.36e6	91.6	-8.4	0.842	bb

Work Order 2002532 Page 569 of 725

Page 11 of 16

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Pinted: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 13C-2,3,7,8-TCDF

18 15	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	100	0.76	NO	25.28	1.003	1.17e6	1.40 e 6	90.7	-9.3	0.834	bb
4	201203R2_4	100	0.79	NO	25.28	1.003	1.37e6	1.36e6	110	9.9	1.01	bb
5	201203R2_5	100	0.77	NO	25.28	1.003	1.42e6	1.31e6	118	18.5	1.09	bb
6 .	201203R2_6	100	0.77	NO	25.27	1.003	1.21e6	1.30e6	101	0.7	0.925	bb

Compound name: 13C-1,2,3,7,8-PeCDF

Response Factor: 0.715118

RRF SD: 0.124185, Relative SD: 17.3657

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

42	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.62	NO	29.46	1.169	7.88e5	1.32e6	83.6	-16.4	0.598	MM
2	201203R2_2	100	1.60	NO	29.48	1.169	8.48e5	1.36e6	87.3	-12.7	0.624	bb
3	201203R2_3	100	1.61	NO	29.46	1.169	9.03e5	1.40e6	90.3	-9.7	0.646	bb
4	201203R2_4	100	1.57	NO	29.48	1.169	1.11e6	1.36e6	114	13.8	0.814	bb
5	201203R2_5	100	1.59	NO	29.46	1.169	1.19e6	1.31e6	128	28.0	0.915	рр
6	201203R2_6	100	1.63	NO	29.46	1.169	9.04e5	1.30e6	97.0	-3.0	0.694	bb

Compound name: 13C-2,3,4,7,8-PeCDF

Response Factor: 0.688531

RRF SD: 0.122291, Relative SD: 17.7611

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

3.	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.62	NO	30.53	1.211	7.63e5	1.32e6	84.1	-15.9	0.579	bb
2	201203R2_2	100	1.59	NO	30.53	1.211	8.14e5	1.36e6	87.1	-12.9	0.599	MM
3	201203R2_3	100	1.60	NO	30.53	1.212	8.55e5	1.40e6	88.8	-11.2	0.611	bb
4	201203R2_4	100	1.59	NO	30.53	1.211	1.06e6	1.36e6	114	13.6	0.782	bb
5	201203R2_5	100	1.59	NO	30.53	1.212	1.16e6	1.31e6	129	29.0	0.888	bb
6	201203R2_6	100	1.63	NO	30.52	1.211	8.75e5	1.30e6	97.5	-2.5	0.671	bb

Work Order 2002532 Page 570 of 725

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Dataset:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8-HxCDF

Response Factor: 0.873401

RRF SD: 0.109302, Relative SD: 12.5145

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

6 1 - 1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.51	NO	33.13	0.987	5.15e5	6.41e5	92.0	-8.0	0.804	bd
2	201203R2_2	100	0.51	NO	33.14	0.987	5.49e5	6.94e5	90.7	-9.3	0.792	bd
3	201203R2_3	100	0.50	NO	33.14	0.987	5.80e5	7.47e5	88.8	-11.2	0.776	bd
4	201203R2_4	100	0.51	NO	33.14	0.987	7.36e5	7.82e5	108	7.8	0.941	bd
5	201203R2_5	100	0.51	NO	33.13	0.987	8.47e5	8.01e5	121	21.1	1.06	bd
6	201203R2_6	100	0.50	NO	33.13	0.987	6.08e5	6.99e5	99.6	-0.4	0.870	bd

Compound name: 13C-1,2,3,6,7,8-HxCDF

Rusponse Factor: 0.933484

RRF SD: 0.112711, Relative SD: 12.0743

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

		٠,										
140	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.50	NO	33.27	0.991	5.47e5	6.41e5	91.4	-8.6	0.854	db
2	201203R2_2	100	0.52	NO	33.28	0.991	5.90e5	6.94e5	91.0	-9.0	0.850	MM
3	201203R2_3	100	0.51	NO	33.27	0.991	6.28e5	7.47 e 5	90.0	-10.0	0.841	db
4	201203R2_4	100	0.50	NO	33.28	0.991	7.93 e 5	7.82e5	109	8.7	1.01	db
5	201203R2_5	100	0.51	NO	33.27	0.991	8.97e5	8.01e5	120	20.0	1.12	db
6	201203R2_6	100	0.50	NO	33.26	0.991	6.44e5	6.99e5	98.8	-1.2	0.922	db

Compound name: 13C-2,3,4,6,7,8-HxCDF

Response Factor: 0.843038

RRF SD: 0.105848, Relative SD: 12.5555

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

14.74	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100 .	0.50	NO	33.93	1.011	4.91e5	6.41e5	90.9	-9.1	0.766	MM
2	201203R2_2	100	0.50	NO	33.94	1.011	5.25 e 5	6.94e5	89.8	-10.2	0.757	ММ

Work Order 2002532 Page 571 of 725

Page 13 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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	201203R2_3	100	0.51	NO	33.93	1.011	5.65e5	7.47e5	89.7	-10.3	0.756	bb
4	201203R2_4	100	0.51	NO	33.93	1.010	7.08e5	7.82e5	107	7.5	0.906	рр
5	201203R2_5	100	0.51	NO	33.93	1.010	8.16 e 5	8.01e5	121	20.9	1.02	bb
6	201203R2_6	100	0.51	NO	33.92	1.010	5.97 e 5	6.99e5	101	1.2	0.853	bb

Compound name: 13C-1,2,3,7,8,9-HxCDF

Response Factor: 0.7799

RRF SD: 0.132819, Relative SD: 17.0303

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	201203R2_1	100	0.51	NO	34.92	1.040	4.28e5	6.41e5	85.6	-14.4	0.667	MM
2	201203R2_2	100	0.50	NO	34.93	1.040	4.73e5	6.94e5	87.5	-12.5	0.682	MM
3	201203R2_3	100	0.52	NO	34.92	1.040	5.05e5	7.47e5	86.6	-13.4	0.676	MM
4	201203R2_4	100	0.52	NO	34.92	1.040	6.76e5	7.82e5	111	10.9	0.865	MM
5	201203R2_5	100	0.51	NO	34.91	1.040	7.99e5	8.01e5	128	28.0	0.998	bb
6	201203R2_6	100	0.49	NO	34.91	1.040	5.53e5	6.99e5	101	1.4	0.791	bb

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

Response Factor: 0.726456

R F SD: 0.0871718, Relative SD: 11.9.96

Response type: Internal Std (Ref 38), Frea * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.42	NO	36.48	1.087	4.27e5	6.41e5	91.8	-8.2	0.667	bb
2	201203R2_2	100	0.42	NO	36.49	1.087	4.51e5	6.94e5	89.6	-10.4	0.651	bb
3	201203R2_3	100	0.43	NO	36.47	1.087	4.95 e 5	7.47e5	91.2	-8.8	0.663	bb
4	201203R2_4	100	0.42	NO	36.49	1.087	6.02e5	7.82e5	106	6.0	0.770	bb
5	201203R2_5	100	0.43	NO	36.47	1.086	7.02e5	8.01e5	121	20.7	0.877	bb
6	201203R2 6	100	0.43	NO	36.47	1.086	5.12e5	6.99e5	101	0.7	0.732	bb

Work Order 2002532 Page 572 of 725

MassLynx 4.1 SCN815

Page 14 of 16

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Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Lest Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8,9-HpCDF

Response Factor: 0.49111

RRF SD: 0.0867845, Relative SD: 17.6711

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

C rve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.42	NO	38.53	1.148	2.76e5	6.41e5	87.5	-12.5	0.430	MM
2	201203R2_2	100	0.42	NO	38.54	1.148	2.93e5	6.94e5	86.1	-13.9	0.423	bb
3	201203R2_3	100	0.40	NO	38.53	1.148	3.22e5	7.47e5	87.7	-12.3	0.431	bb
4	201203R2_4	100	0.42	NO	38.52	1.147	4.21e5	7.82e5	110	9.8	0.539	bb
5	201203R2_5	100	0.42	NO	38.52	1.147	5.15 e 5	8.01e5	131	31.0	0.643	bb
6	201203R2_6	100	0.42	NO	38.53	1.148	3.36e5	6.99e5	97.9	-2.1	0.481	bb

Compound name: 13C-OCDF

Response Factor: 0.565418

RRF SD: 0.112698, Relative SD: 19.9318

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	200	0.87	NO	41.09	1.224	6.13 e 5	6.41e5	169	-15.4	0.478	MM
2	201203R2_2	200	0.89	NO	41.10	1.224	6.61 e 5	6.94e5	169	-15.7	0.477	MM
3	201203R2_3	200	0.89	NO	41.08	1.224	7.40e5	7.47e5	175	-12.4	0.495	bb
4	201203R2_4	200	0.89	NO	41.08	1.223	9.93 e 5	7.82e5	225	12.4	0.636	MM
5	201203R2_5	200	0.88	NO	41.07	1.223	1.22e6	8.01e5	269	34.4	0.760	bb
6	201203R2_6	200	0.87	NO	41.08	1.224	7.64e5	6.99e5	193	-3.3	0.547	bb



Compound name: 37CI-2,3,7,8-TCDD

Response Factor: 1.21674

RRF SD: 0.217315, Relative SD: 17.8605

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

140	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
	201203R2_1	0.250			26.01	1.032	2.03e3	7.80e5	0.214	-14.5	1.04	bb
2	201203R2_2	0.500	b)		26.01	1.032	4.12e3	8.11e5	0.418	-16.4	1.02	bb

Work Order 2002532 Page 573 of 725

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 37CI-2,3,7,8-TCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	2.00			25.99	1.032	1.69e4	8.35e5	1.66	-16.8	1.01	bb
4	201203R2_4	40.0			25.99	1.031	4.66 e 5	8.19e5	46.8	16.9	1.42	bb
5	201203R2_5	200			25.99	1.032	2.36 e 6	7.99e5	243	21.5	1.48	bb
6	201203R2_6	10.0			25.98	1.031	1.04e5	7.85e5	10.9	9.3	1.33	bb

Compound name: 13C-1,2,3,4-TCDD

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

F.)		ra ra										
	Name	Std. Conc ,	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.79	NO	25.21	1.000	7.80e5	7.80 e 5	100	0.0	1.00	bb
2	201203R2_2	100	0.78	NO	25.21	1.000	8.11e5	8.11e5	100	0.0	1.00	bb
3	201203R2_3	100 ,	0.78	NO	25.20	1.000	8.35e5	8.35e5	100	0.0	1.00	bb
4	201203R2_4	100	0.77	NO	25.21	1.000	8.19e5	8.19e5	100	0.0	1.00	bb
5	201203R2_5	100	0.77	NO	25.20	1.000	7.99e5	7.99e5	100	0.0	1.00	bb
6	201203R2_6	100	0.79	NO	25.20	1.000	7.85e5	7.85e5	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	201203R2_1	100	0.79	NO	23.69	1.000	1.32e6	1.32e6	100	0.0	1.00	bb
2	201203R2_2	100	0.78	NO	23.69	1.000	1.36e6	1.36e6	100	0.0	1.00	bb
3	201203R2_3	100	0.79	NO	23.67	1.000	1.40 e 6	1.40e6	100	0.0	1.00	bb
4	201203R2_4	100	0.78	NO	23.67	1.000	1.36e6	1.36e6	100	0.0	1.00	bb
5	201203R2_5	100	0.79	NO	23.69	1.000	1.31e6	1.31e6	100	0.0	1.00	bb
6	201203R2_6	100	0.79	NO	23.66	1.000	1.30e6	1.30e6	100	0.0	1.00	bb

Work Order 2002532 Page 574 of 725

Quantify Compound Summary Report MassLynx 4.1 SCN815 Page 16 of 16

Vi∴ta Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 11:36:07 Pacific Standard Time Printed: Friday, December 04, 2020 11:37:44 Pacific Standard 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

1750	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.50	NO	33.57	1.000	6.41e5	6.41e5	100	0.0	1.00	bb
2	201203R2_2	100	0.52	NO	33.58	1.000	6.94 e 5	6.94e5	100	0.0	1.00	bb
3	201203R2_3	100	0.51	NO	33.57	1.000	7.47e5	7.47e5	100	0.0	1.00	bb
4	201203R2_4	100	0.51	NO	33.58	1.000	7.82 e 5	7.82e5	100	0.0	1.00	bb
5	201203R2_5	100	0.51	NO	33.58	1.000	8.01e5	8.01e5	100	0.0	1.00	bb
6	201203R2_6	100	0.50	NO	33.57	1.000	6.99 e 5	6.99e5	100	0.0	1.00	bb

Work Order 2002532

Dataset:

Untitled

Last Altered:

Friday, December 04, 2020 12:05:28 Pacific Standard Time

Printed: Friday, December 04, 2020 12:05:43 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	201203R2_1	ST201203R2_1 1613 CS0 20K1901	03-Dec-20	10:36:45
2	201203R2_2	ST201203R2_2 1613 CS1 20K1902	03-Dec-20	11:28:04
3	201203R2_3	ST201203R2_3 1613 CS2 20K1903	03-Dec-20	12:14:40
4	201203R2_4	ST201203R2_4 1613 CS4 20L0302	03-Dec-20	13:00:37
5	201203R2_5	ST201203R2_5 1613 CS5 20L0303	03-Dec-20	13:47:04
6	201203R2_6	ST201203R2_6 1613 CS3 20L0301	03-Dec-20	14:35:05
7	201203R2_7	SOLVENT BLANK	03-Dec-20	15:21:59
8	201203R2_8	SS201203R2_1 1613 SSS 20K1907	03-Dec-20	16:09:07
9	201203R2_9	SOLVENT BLANK	03-Dec-20	17:02:58
10	201203R2_10	2002458-01 GW-1212 0.93004	03-Dec-20	17:47:52
11	201203R2_11	2002458-02 GW-1213 0.92278	03-Dec-20	18:32:46
12	201203R2_12	2002458-03 GW-1246 0.9578	03-Dec-20	19:17:40
13	201203R2_13	2002459-01 GW-1223 0.93891	03-Dec-20	20:02:33
14	201203R2_14	2002459-02 GW-1224 0.94848	03-Dec-20	20:47:27
15	201203R2_15	2002459-03 GW-1215 0.95546	03-Dec-20	21:32:21
16	201203R2_16	2002459-04 GW-1216 0.935	03-Dec-20	22:17:16
17	201203R2_17 (A)			
18	201203R2_18 T			
19	201203R2_19			
20	201203R2_20	SOLVENT BLANK	04-Dec-20	07:52:29
21	201203R2_21	ST201203R2_7 1613 CS3 20L0301	04-Dec-20	08:38:31

(A) Oven door open, run pawed LIN 12/04/2020

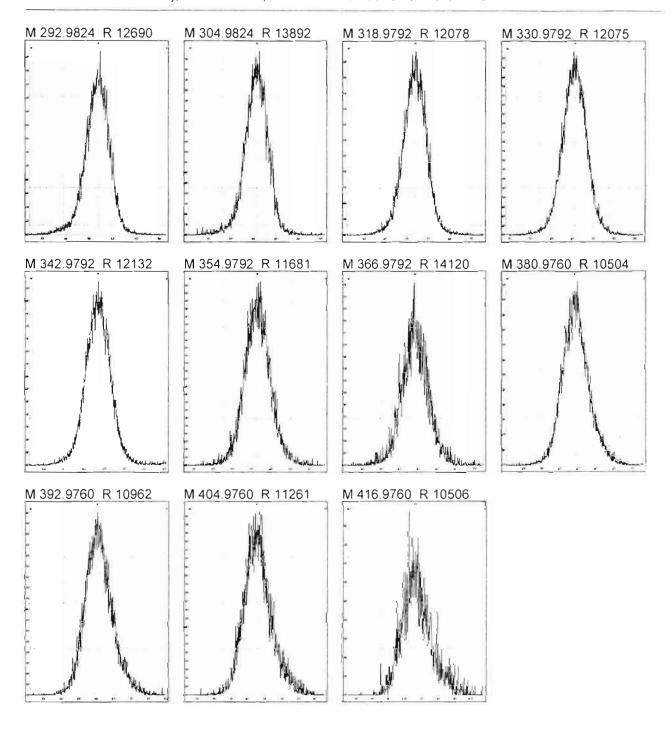
Work Order 2002532 Page 576 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:30:53 Pacific Standard Time



Work Order 2002532 Page 577 of 725

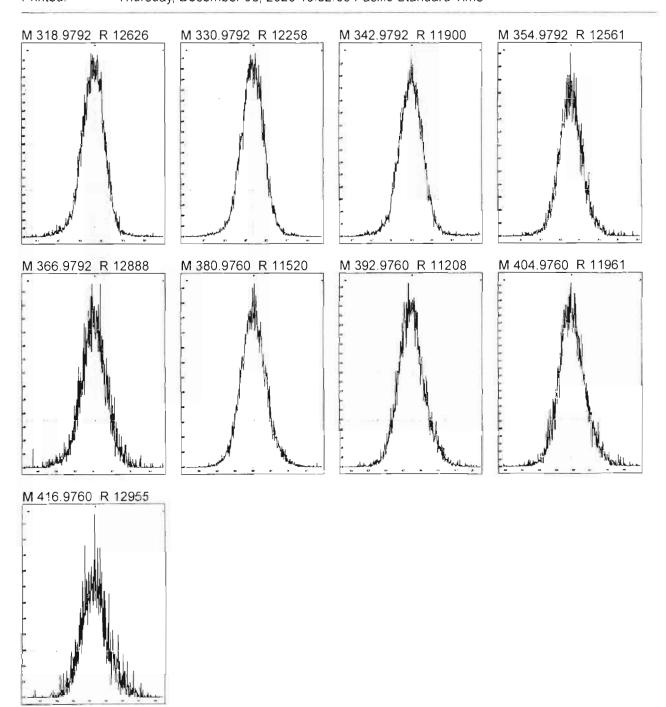
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:32:05 Pacific Standard Time



Work Order 2002532 Page 578 of 725

MassLynx 4.1 SCN815

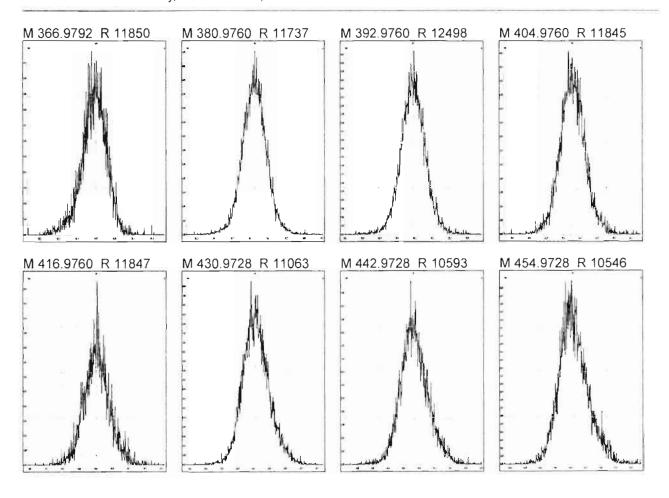
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:33:04 Pacific Standard Time



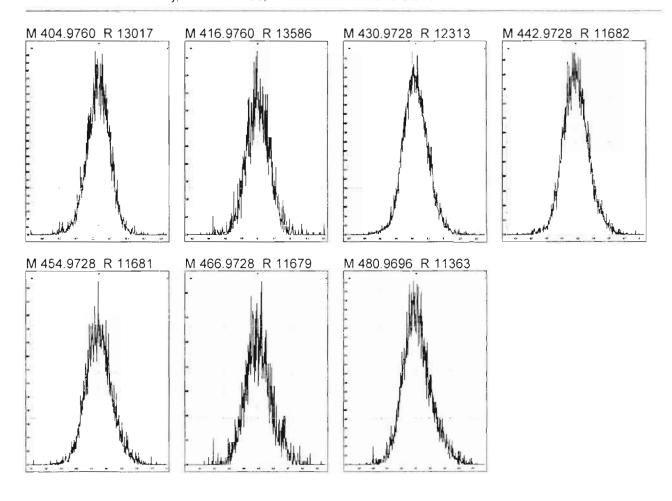
Work Order 2002532 Page 579 of 725

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:33:57 Pacific Standard Time



Work Order 2002532 Page 580 of 725

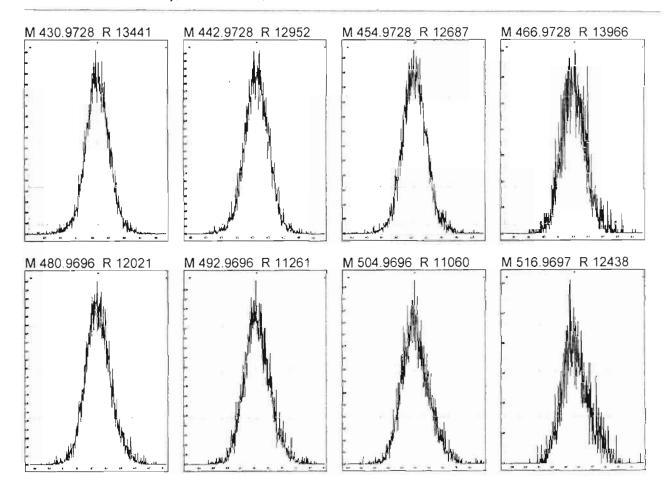
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:34:39 Pacific Standard Time



Work Order 2002532 Page 581 of 725

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CPSM.qld

Last Altered: Friday, December 04, 2020 12:03:49 Pacific Standard Time Printed: Friday, December 04, 2020 12:04:34 Pacific Standard Time

Method: Untitled 10 Nov 2020 10:04:22

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2_6 1613 CS3 20L0301, Description: 1613 CS3 20L0301

1	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.09
2	2 1,2,8,9-TCDD (Last)	26.90
3	3 1,2,4,7,9-PeCDD (First)	28.47
4	4 1,2,3,8,9-PeCDD (Last)	31.09
5	5 1,2,4,6,7,9-HxCDD (First)	32.42
6	6 1,2,3,7,8,9-HxCDD (Last)	34.43
7	7 1,2,3,4,6,7,9-HpCDD (First)	36.85
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.91
9	9 1,3,6,8-TCDF (First)	19.89
10	10 1,2,8,9-TCDF (Last)	27.21
11	11 1,3,4,6,8-PeCDF (First)	26.78
12	12 1,2,3,8,9-PeCDF (Last)	31.47
13	13 1,2,3,4,6,8-HxCDF (First)	31.90
14	14 1,2,3,7,8,9-HxCDF (Last)	34.92
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.48
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.54

Work Order 2002532 Page 582 of 725

MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

Friday, December 04, 2020 12:14:23 Pacific Standard Time

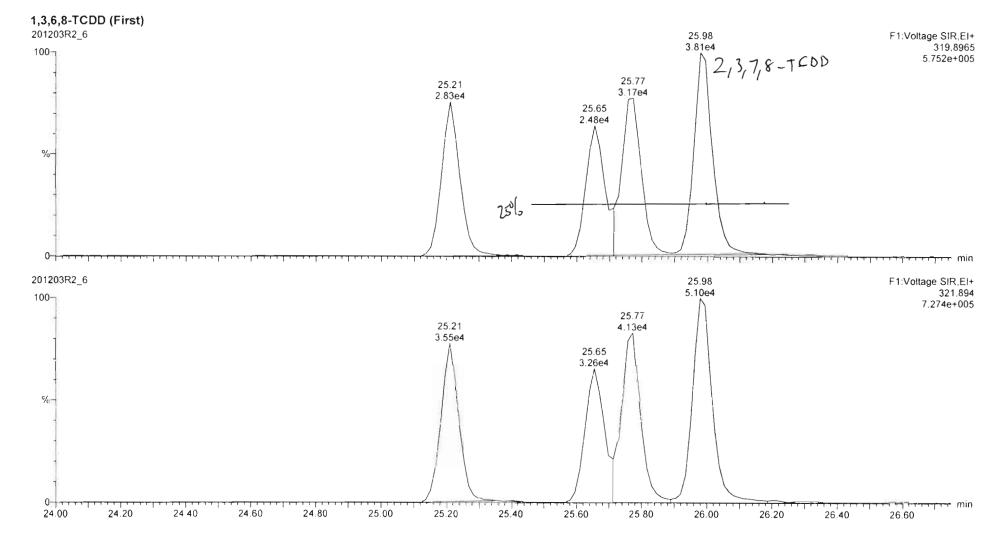
Friday, December 04, 2020 12:21:02 Pacific Standard Time

HN 12/04/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 10 Nov 2020 10:04:22

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2_6 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

Page 583 of 725

MassLynx 4.1 SCN815

Page 2 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered:

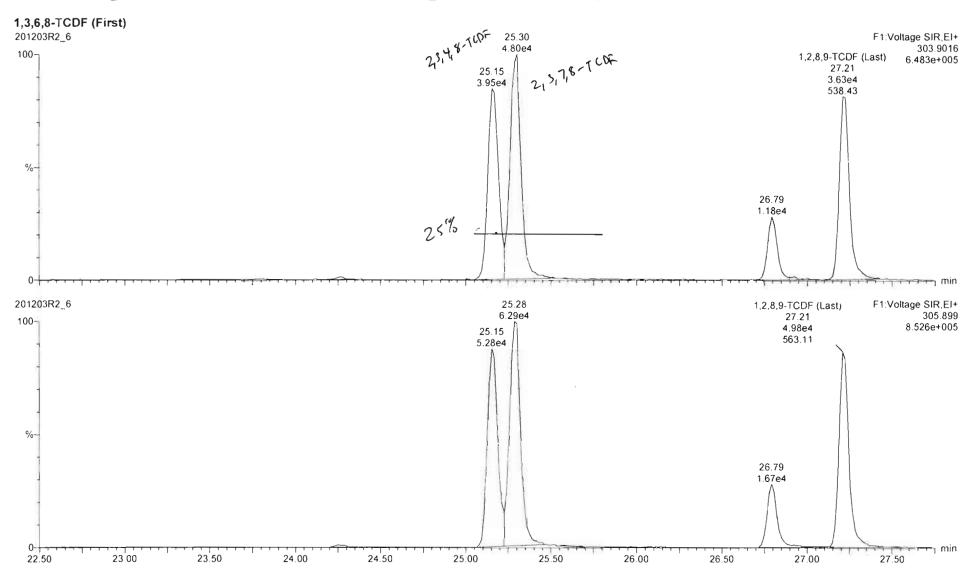
Friday, December 04, 2020 12:14:23 Pacific Standard Time

Printed:

Friday, December 04, 2020 12:21:02 Pacific Standard Time

FIN 12/04/2020

Name: 201203R2_6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2_6 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002532

Page 584 of 725

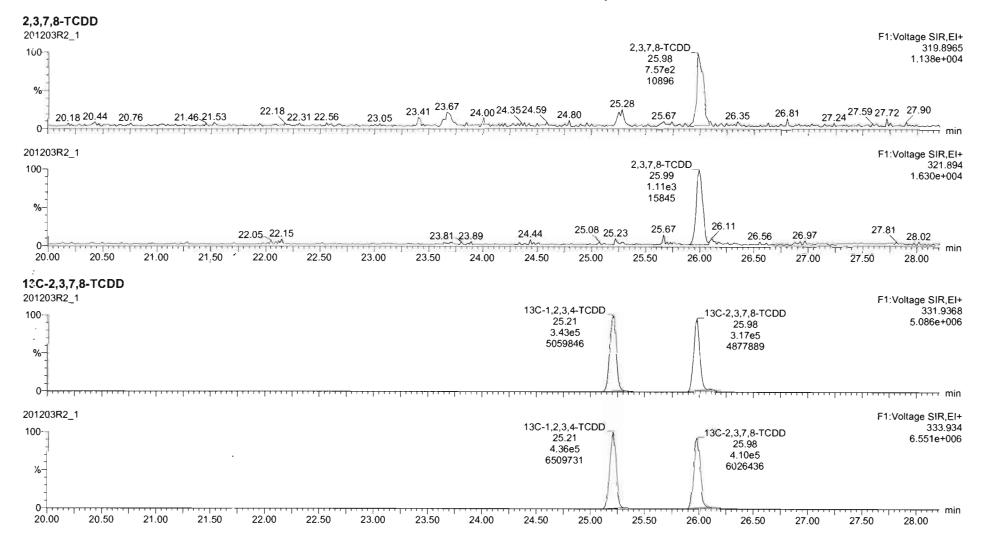
Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

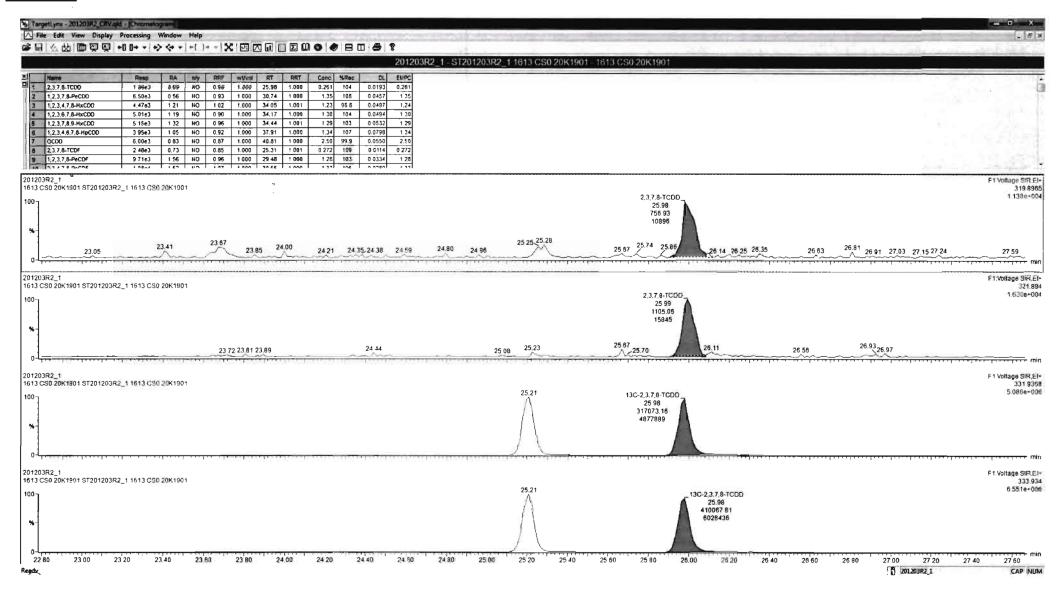
Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN 1613vg12-12-03-20.cdb 04 Dec 2020 08:58:11

Neme: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Work Order 2002532 Page 585 of 725



Work Order 2002532 Page 586 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

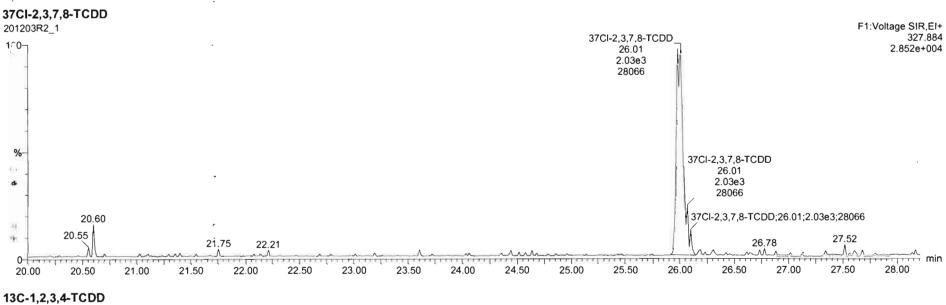
Vista Analytical Laboratory

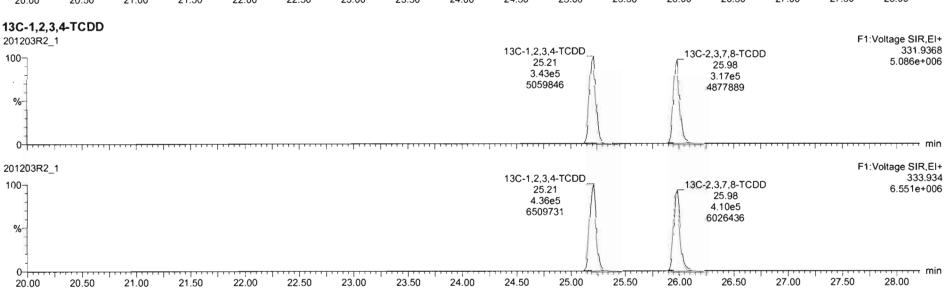
Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



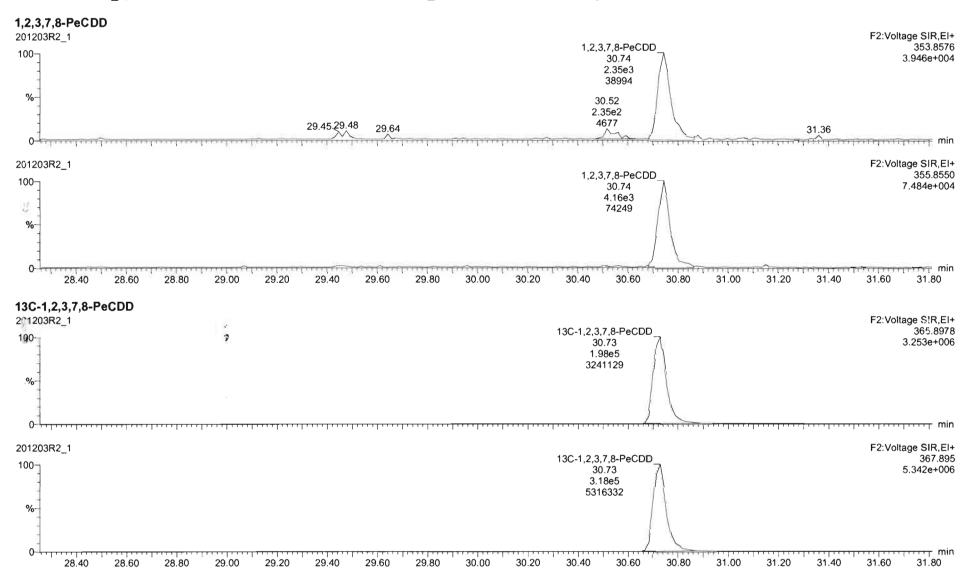


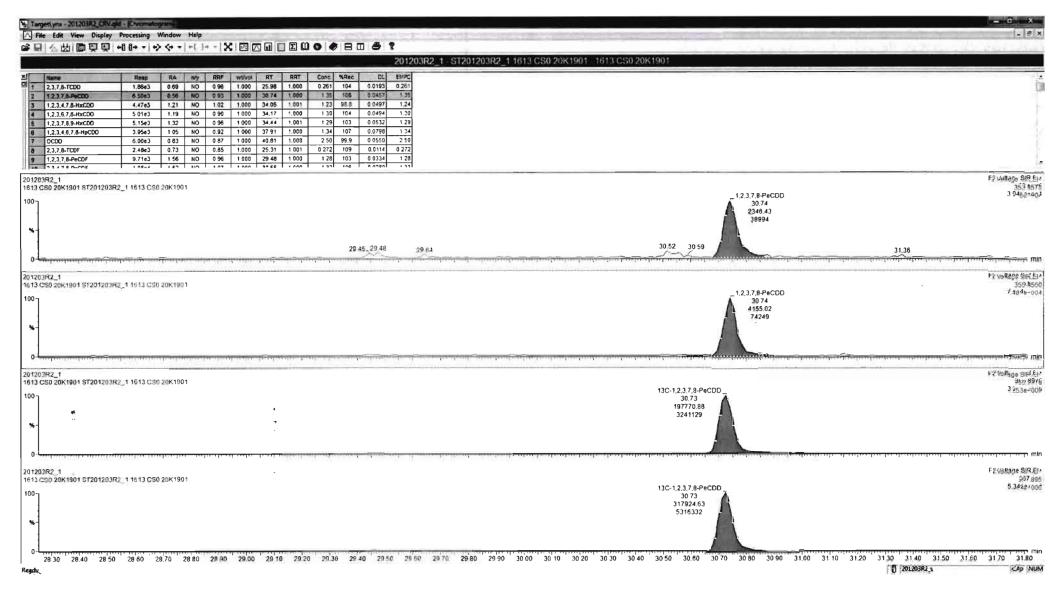
Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2 1 1613 CS0 20K1901, Description: 1613 CS0 20K1901





Work Order 2002532 Page 589 of 725

Quantify Sample Report

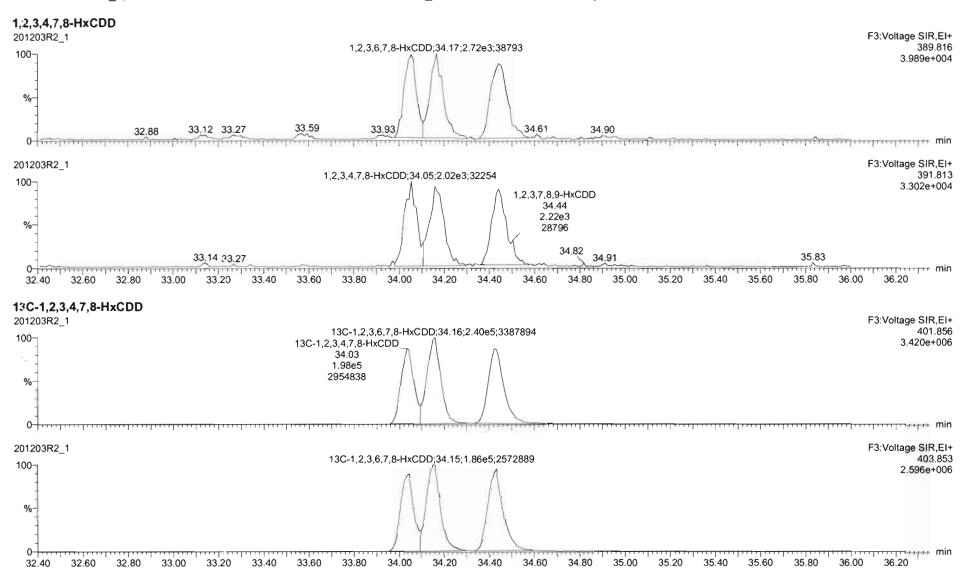
MassLynx 4.1 SCN815

Vista Analytical Laboratory

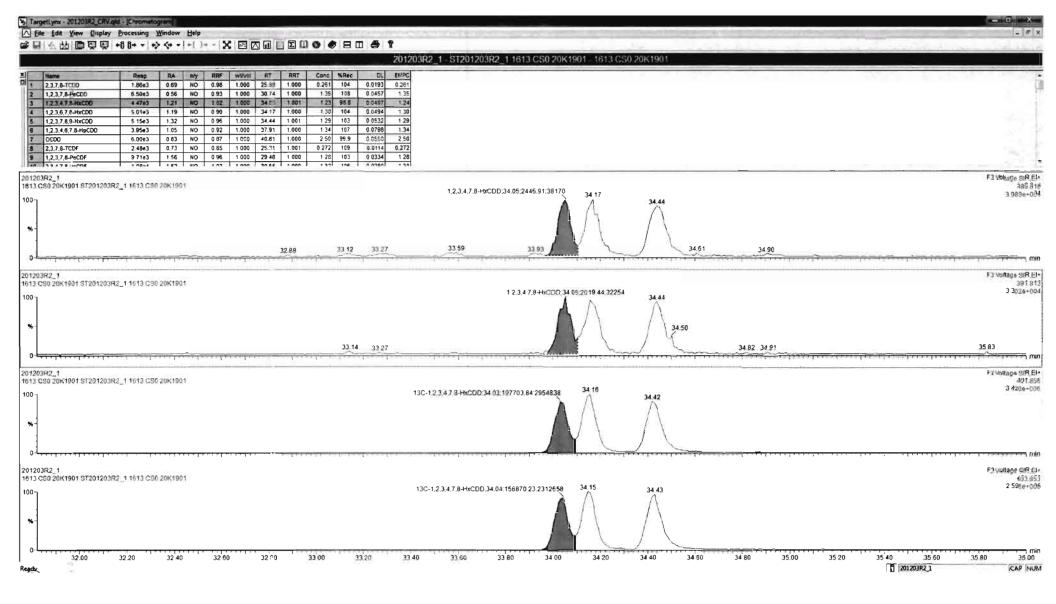
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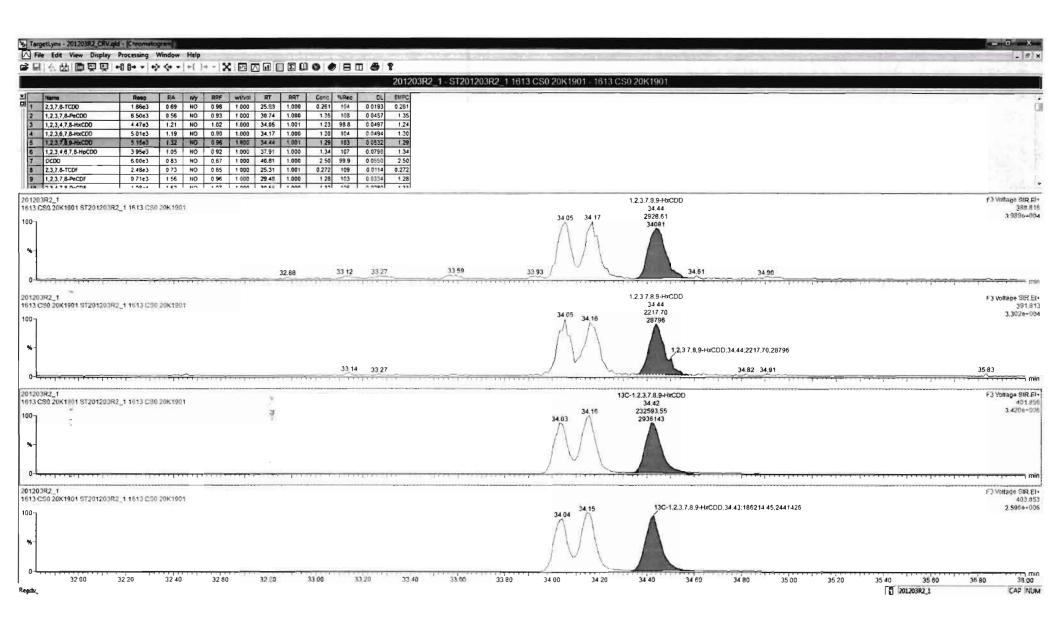
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Work Order 2002532



Work Order 2002532 Page 591 of 725



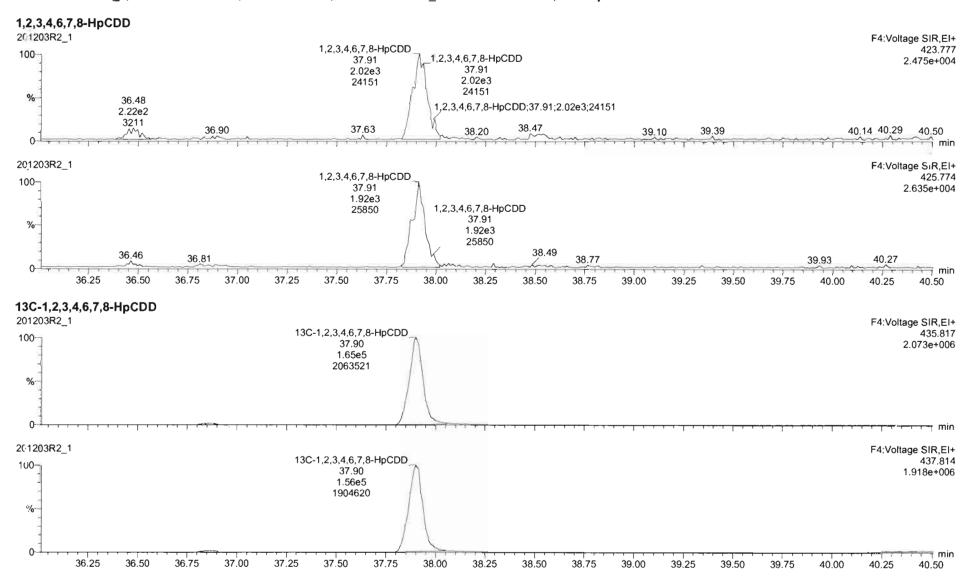
Work Order 2002532 Page 592 of 725

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

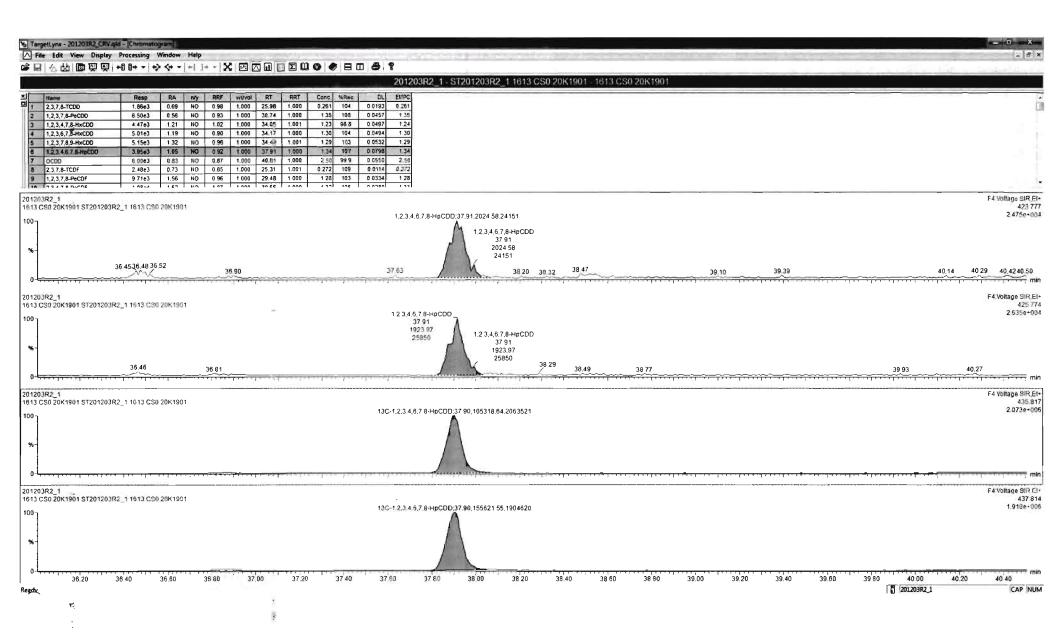
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Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Work Order 2002532

Page 593 of 725



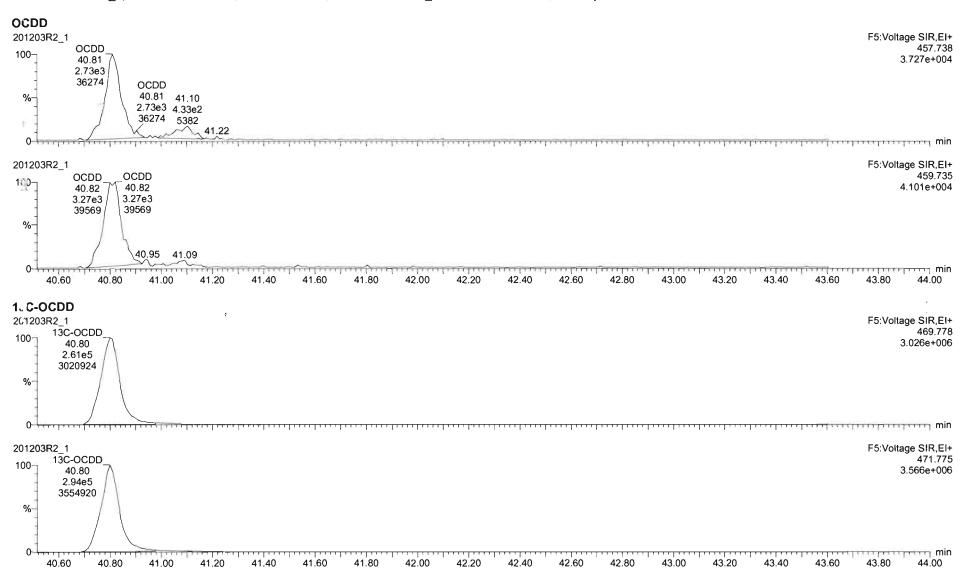
Work Order 2002532 Page 594 of 725

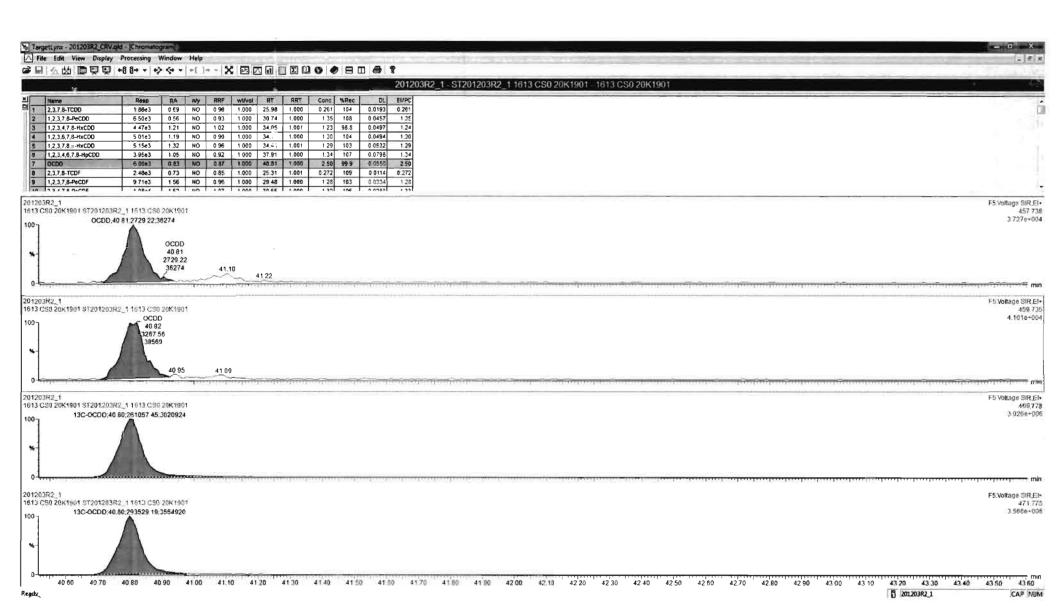
Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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Work Order 2002532 Page 596 of 725

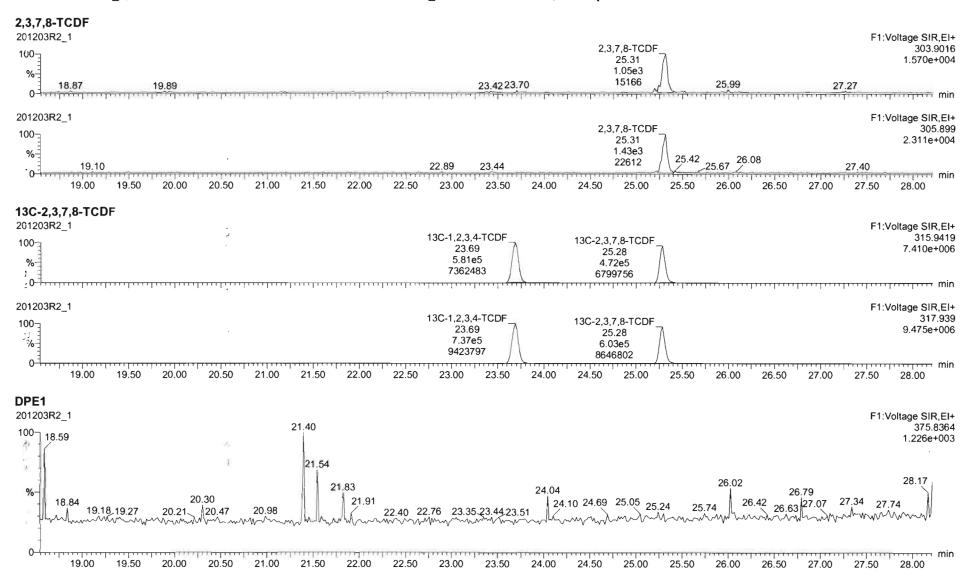
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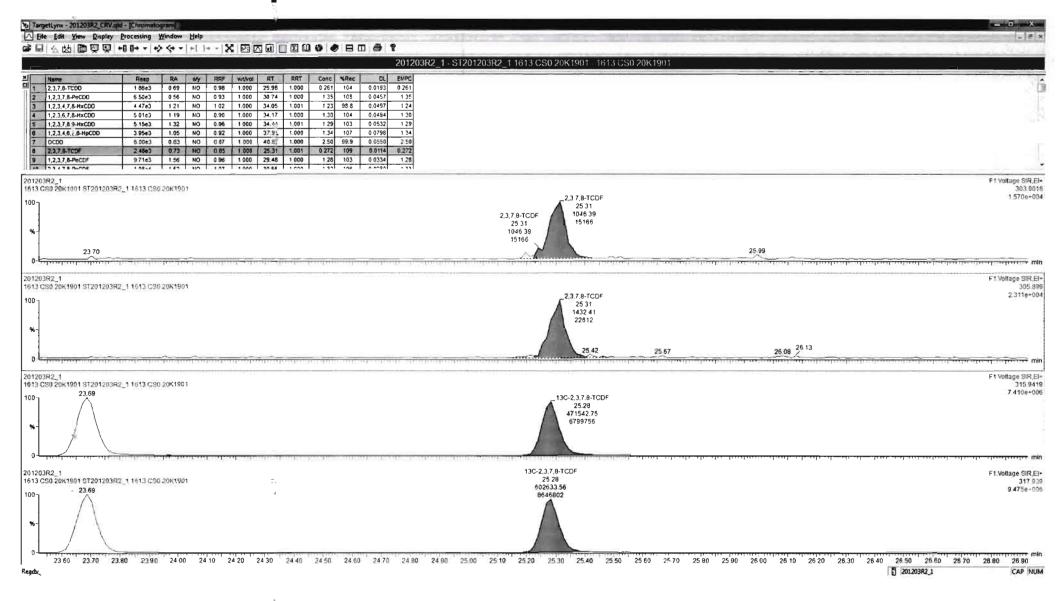
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Work Order 2002532 Page 598 of 725

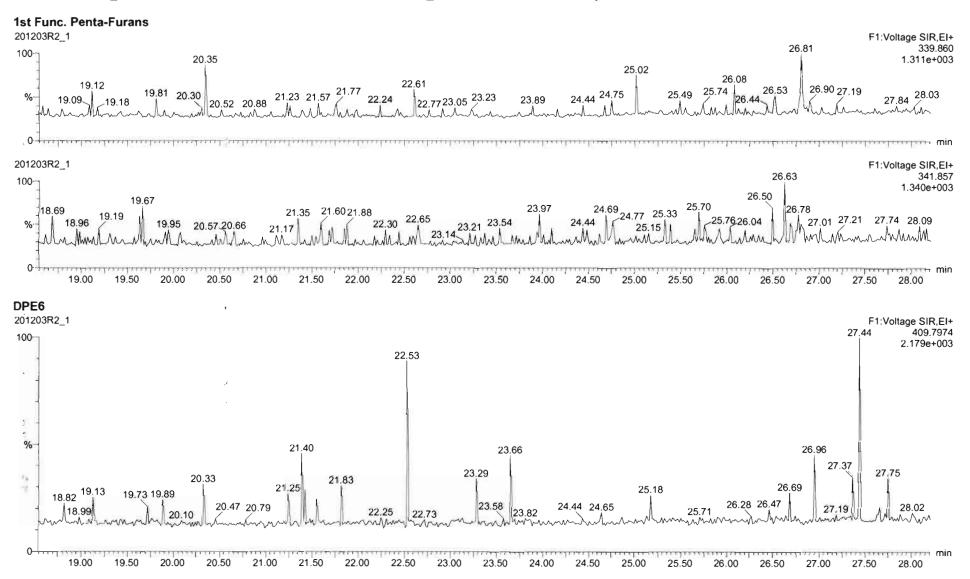
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Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

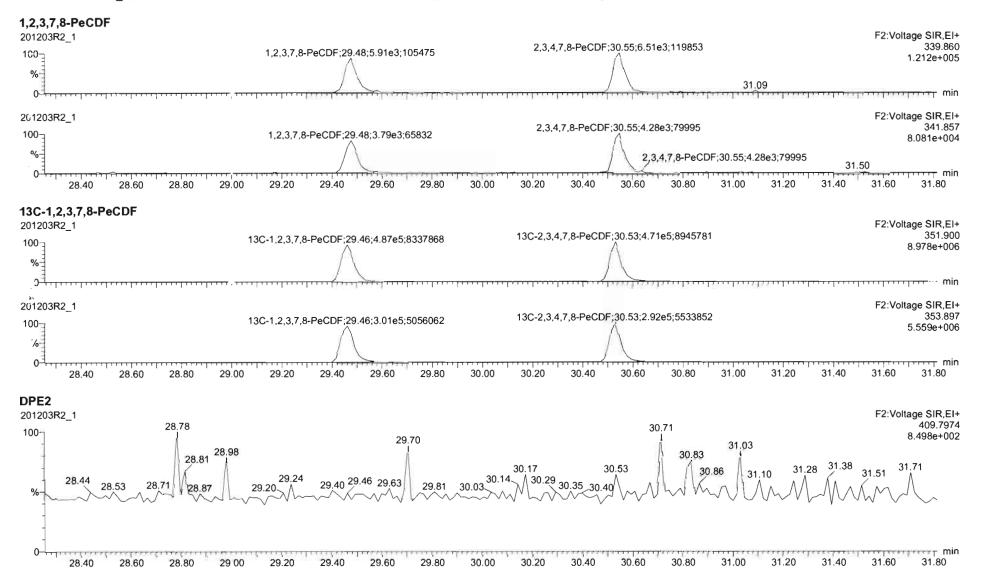
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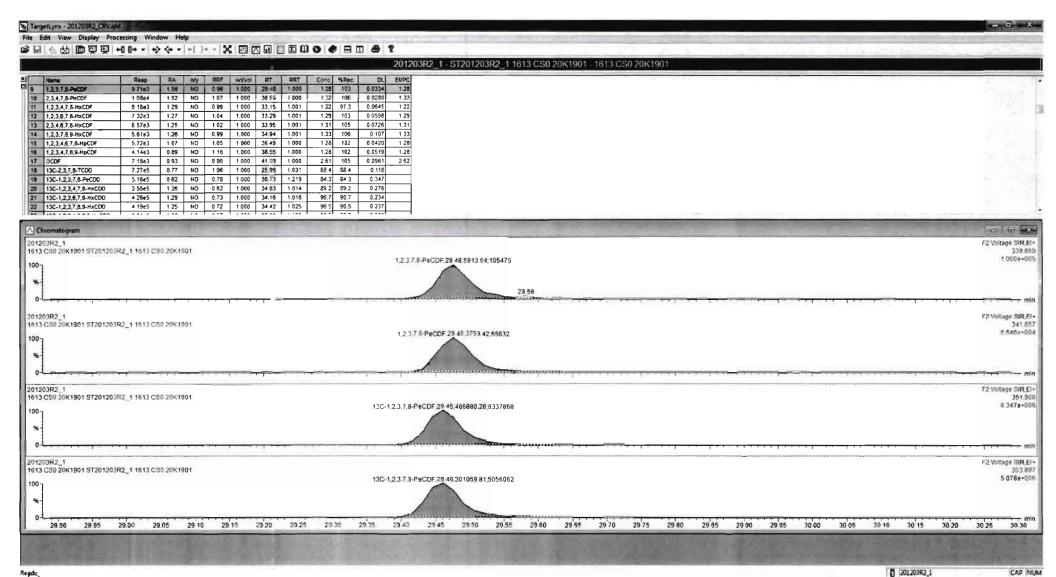
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Work Order 2002532 Page 601 of 725

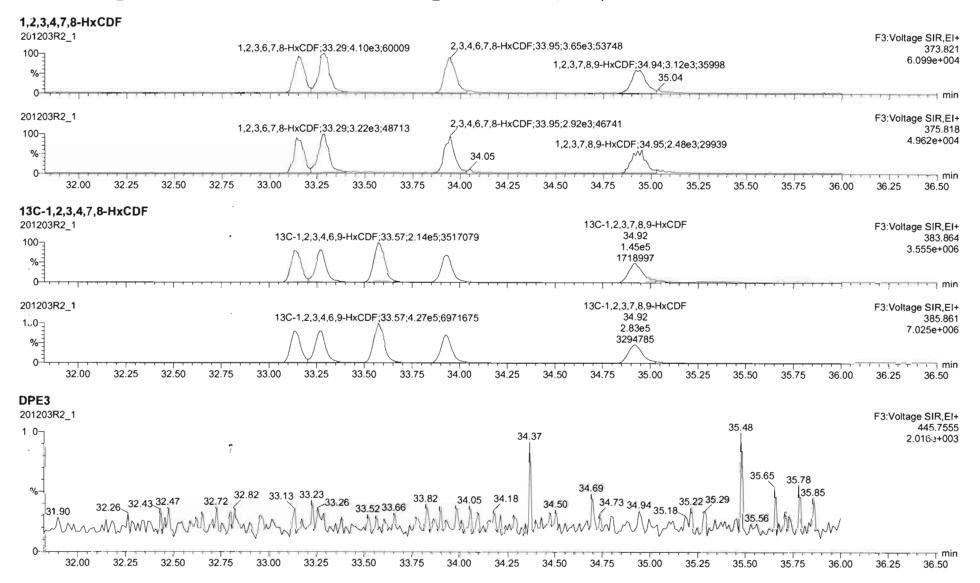
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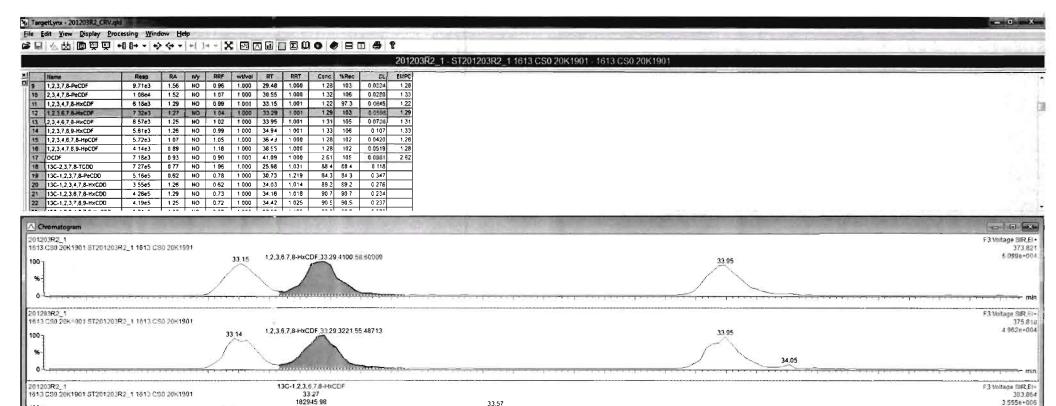
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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

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Work Order 2002532 Page 602 of 725



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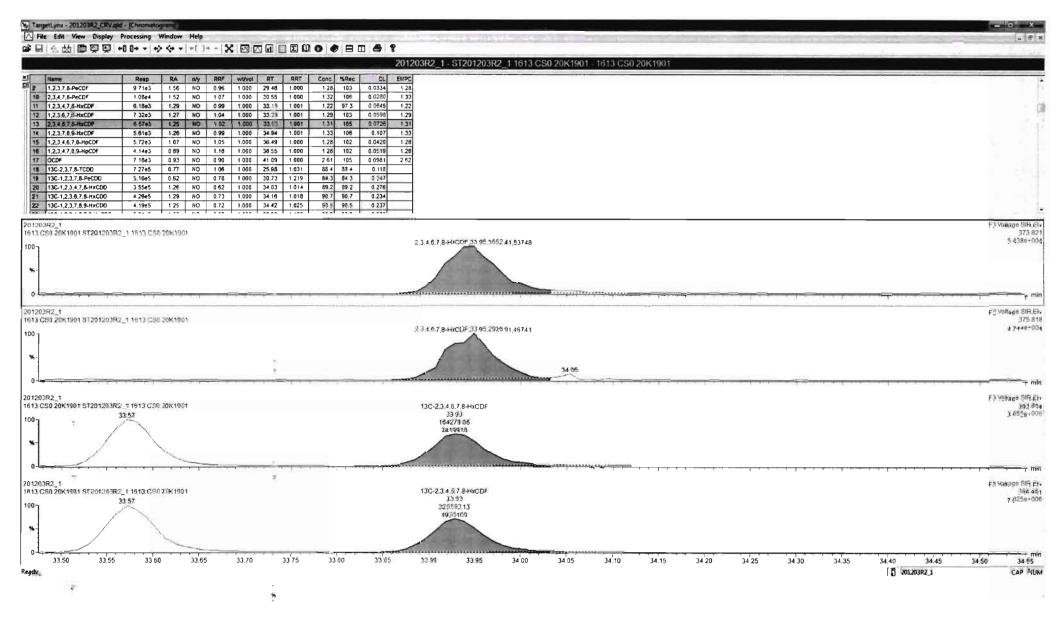
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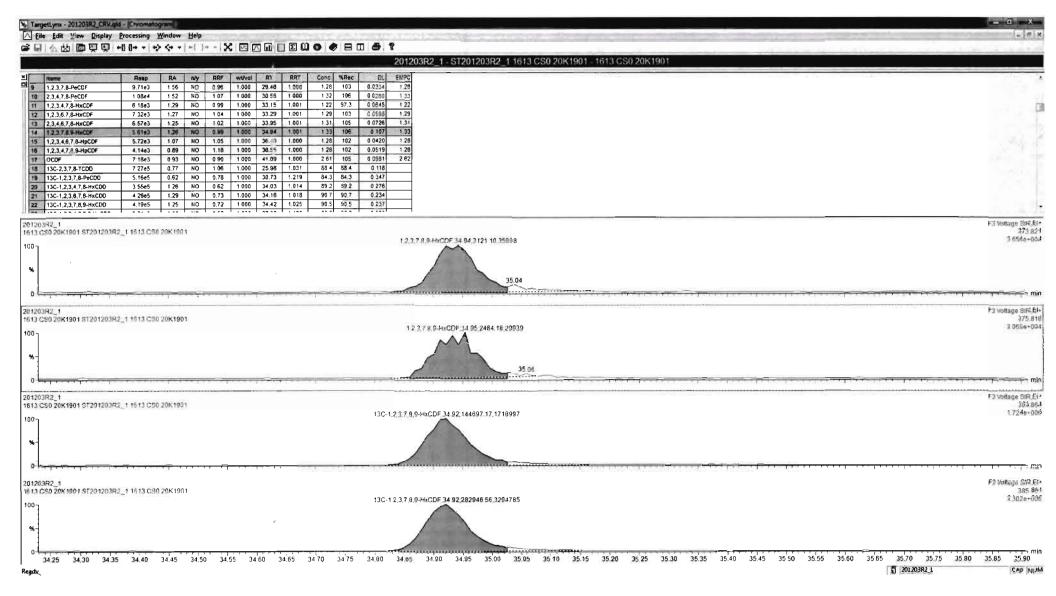
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Work Order 2002532 Page 603 of 725



Work Order 2002532 Page 604 of 725

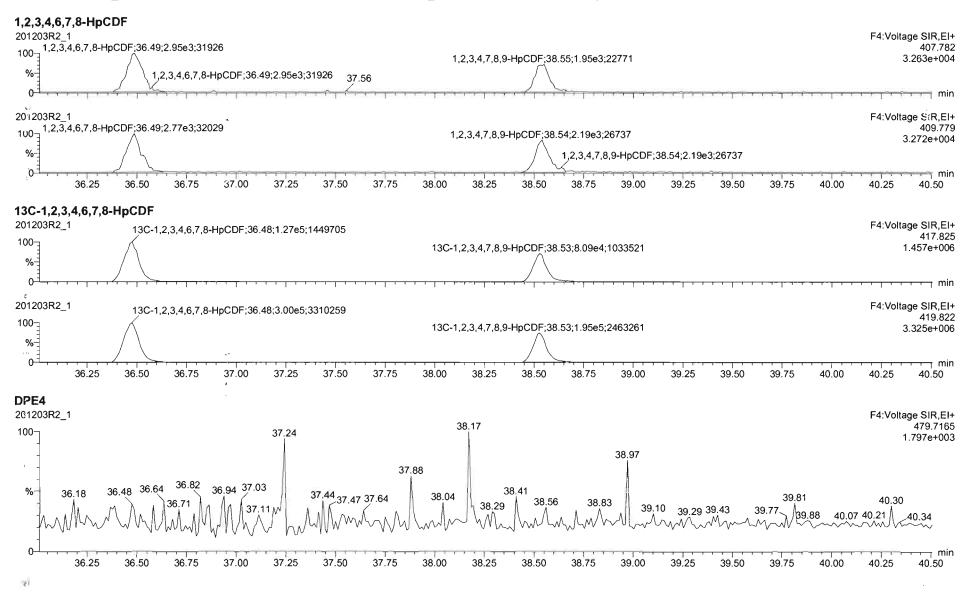


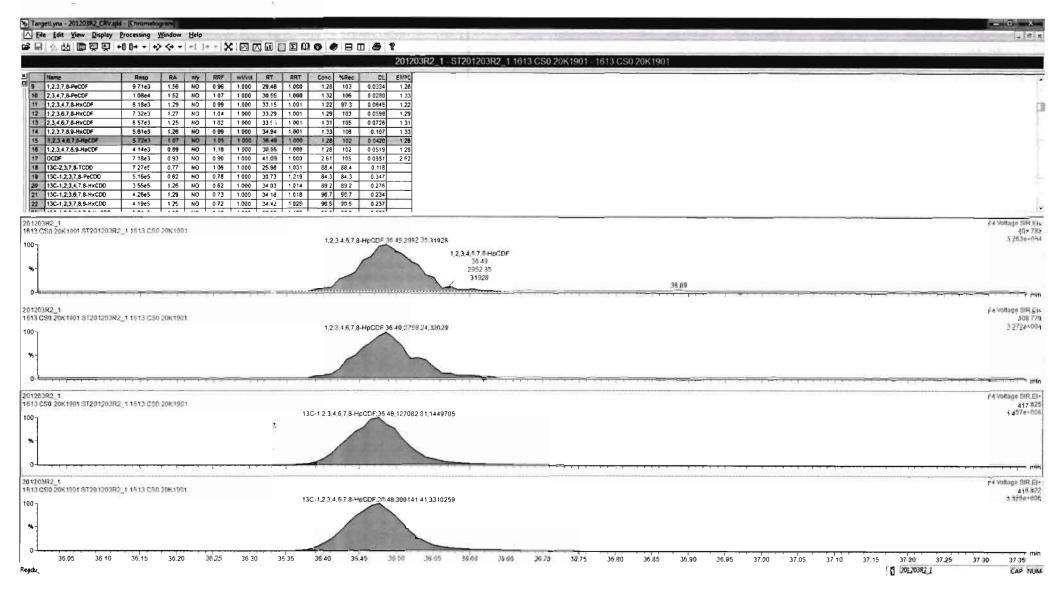
Work Order 2002532 Page 605 of 725

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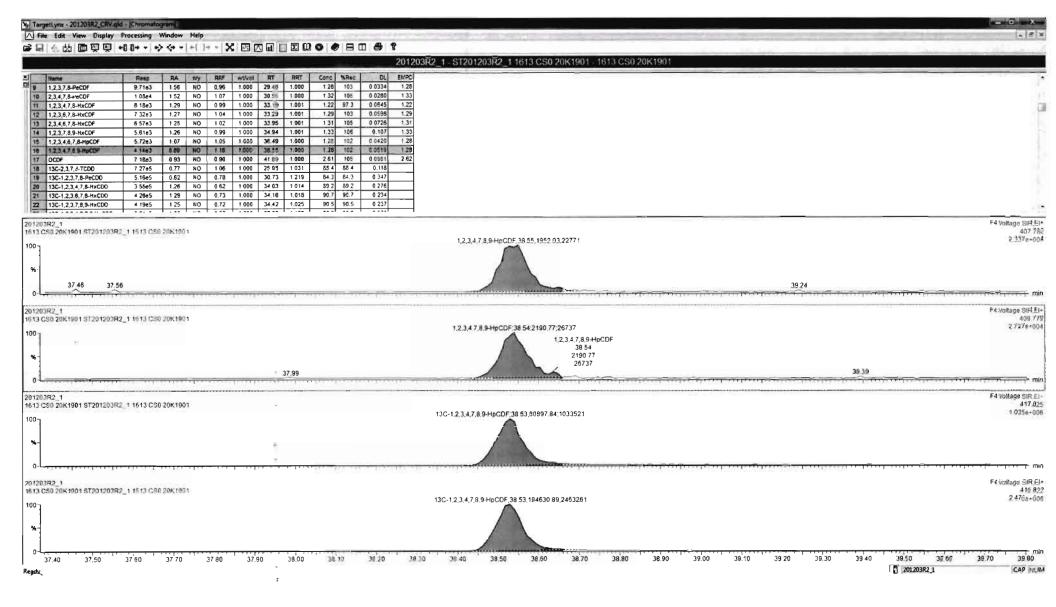
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Work Order 2002532 Page 607 of 725



Work Order 2002532 Page 608 of 725

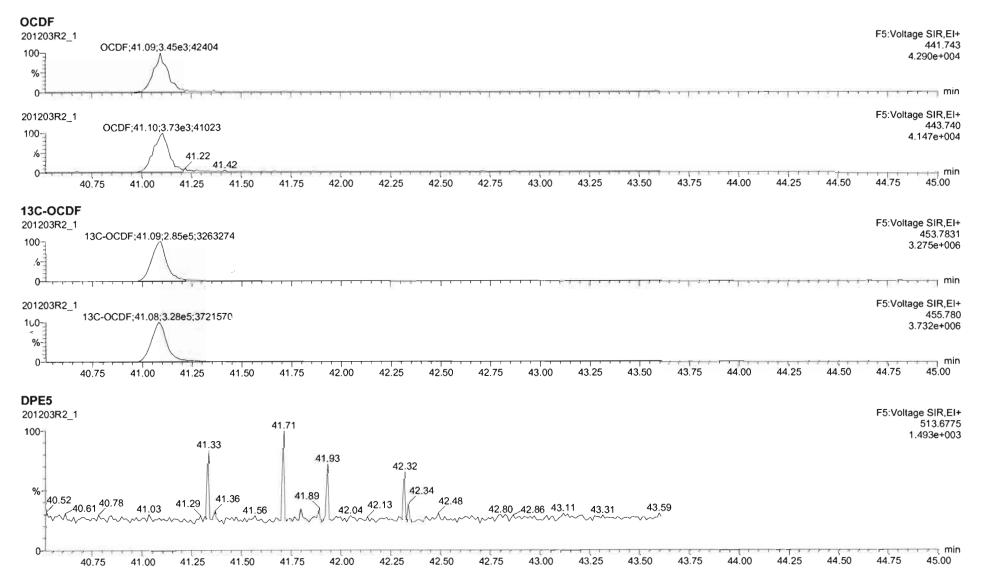
Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

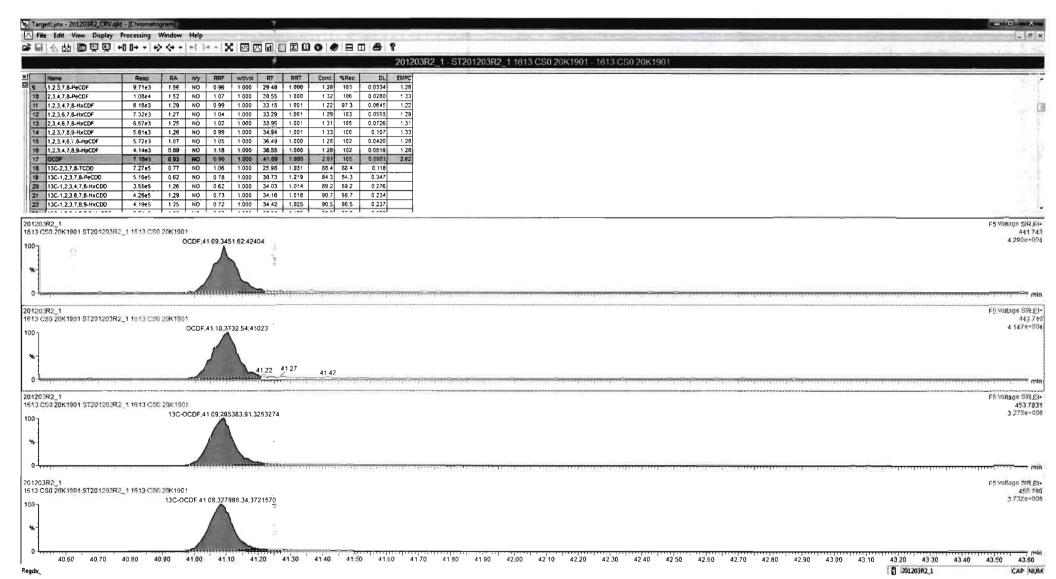
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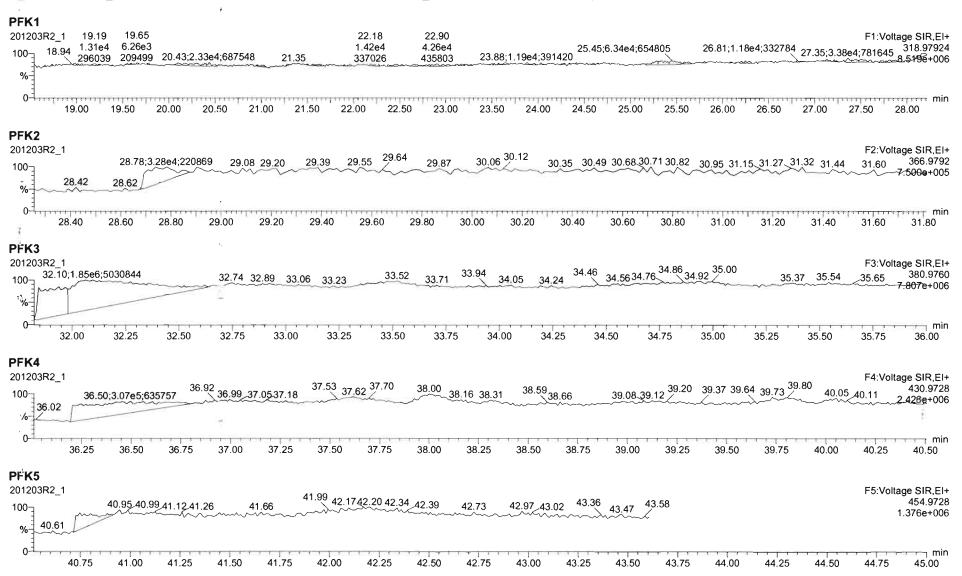
Work Order 2002532 Page 610 of 725

Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Vista Analytical Laboratory

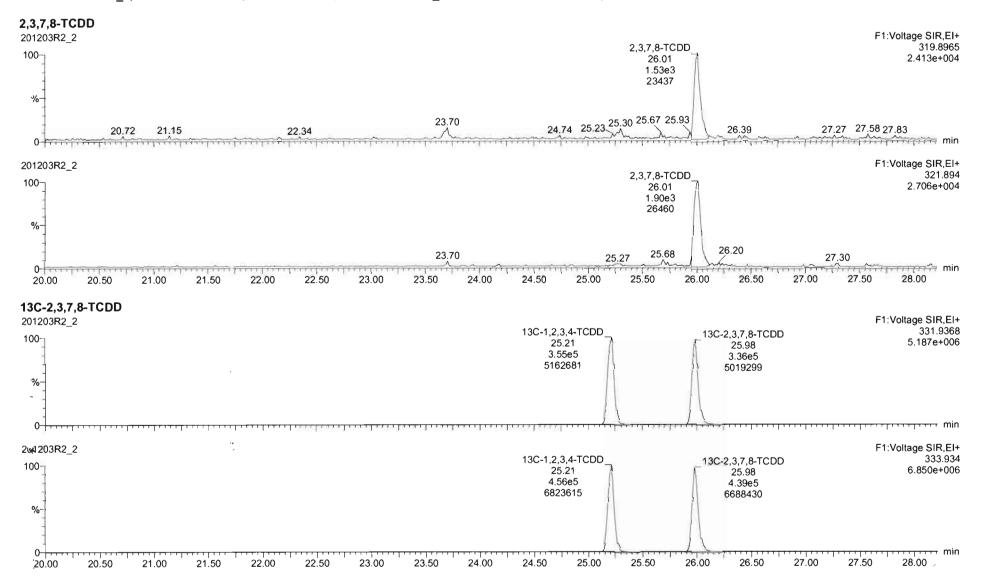
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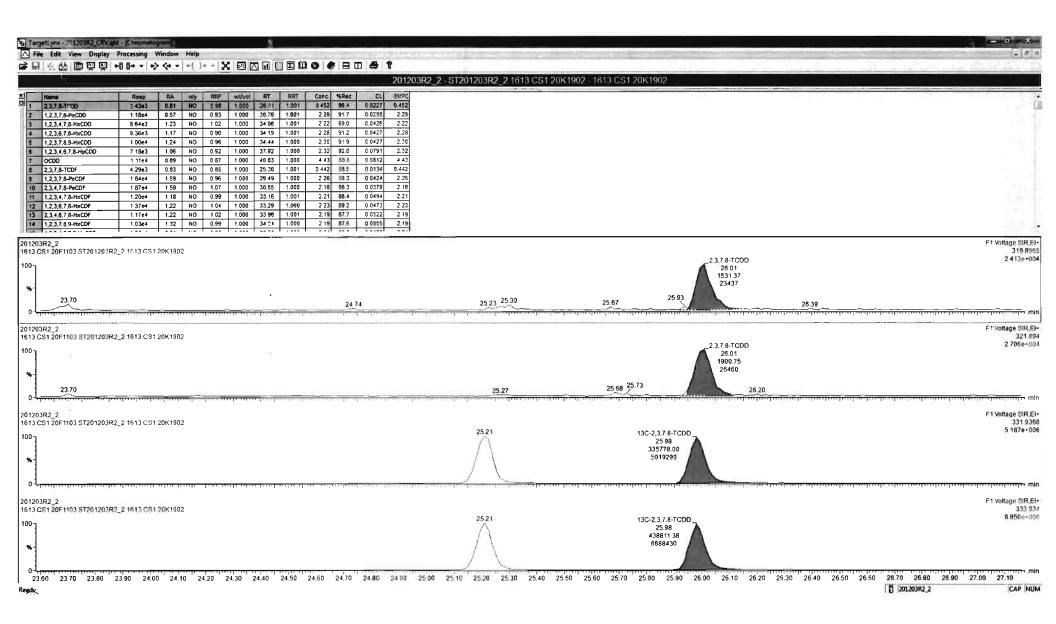
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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_2, Date: 03-Dec-2020, Time: 11:28:04, ID: ST201203R2_2 1613 CS1 20K1902, Description: 1613 CS1 20F1103





Work Order 2002532 Page 613 of 725

Page 15 of 78

Vista Analytical Laboratory

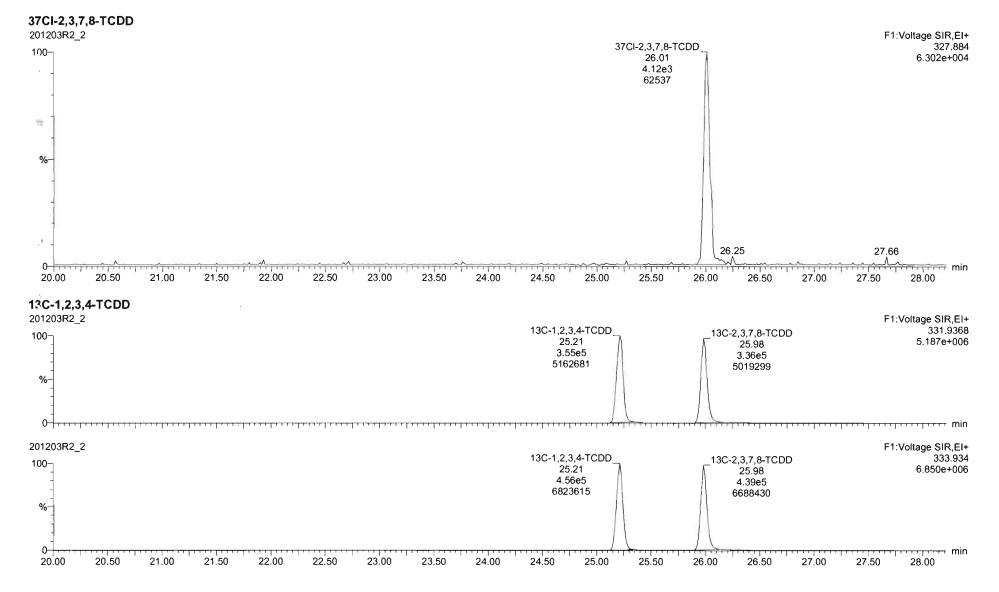
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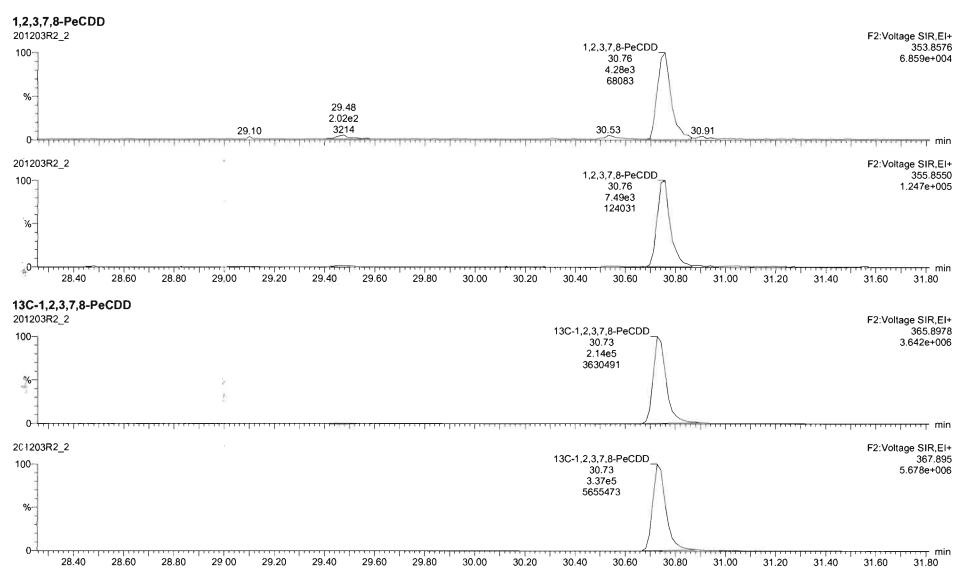


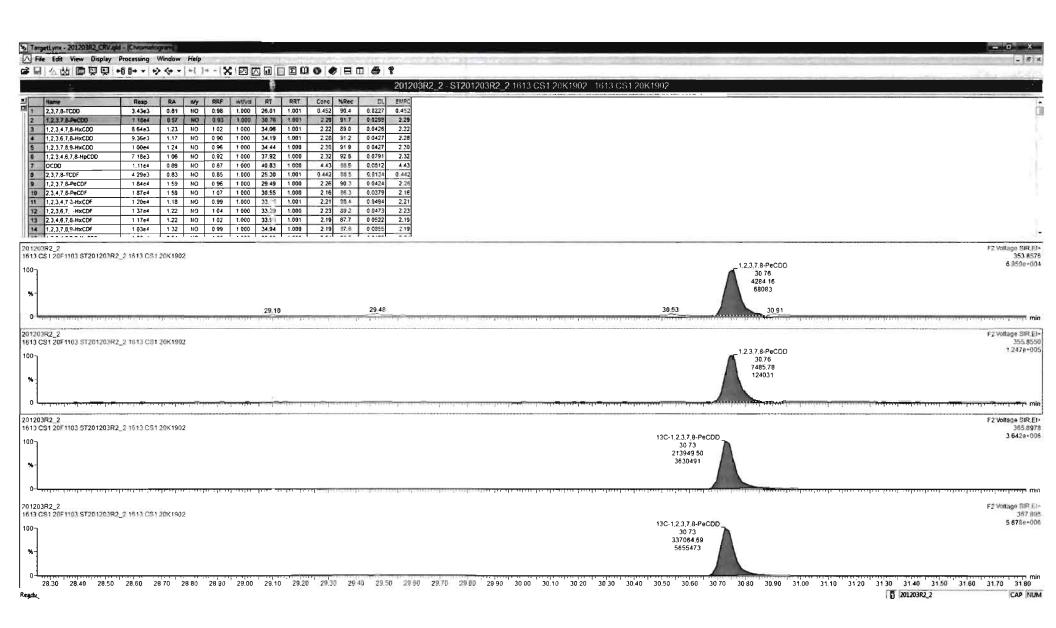
Work Order 2002532

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Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002532 Page 616 of 725

Quantify Sample Report

MassLynx 4.1 SCN815

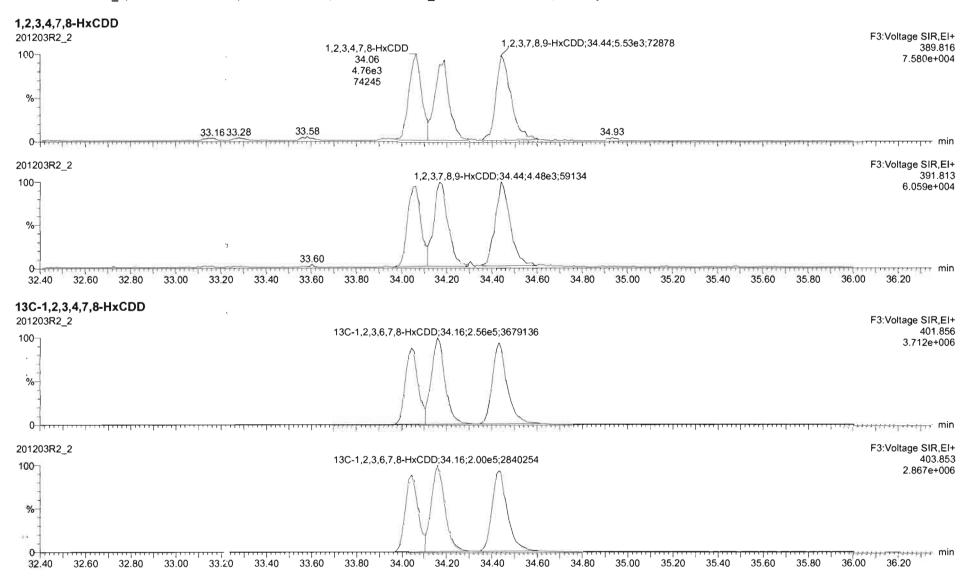
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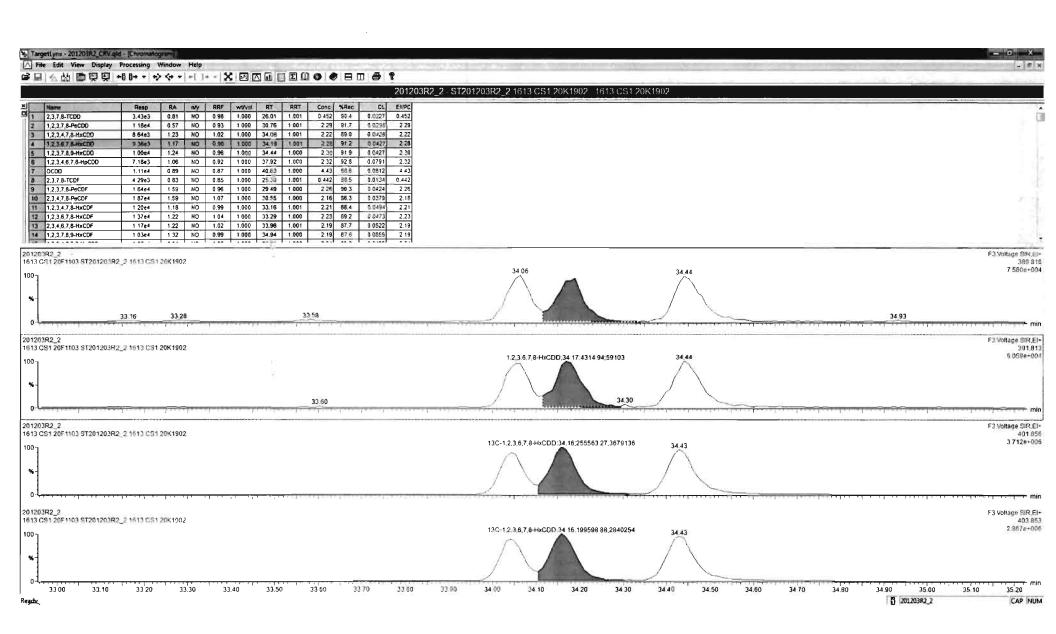
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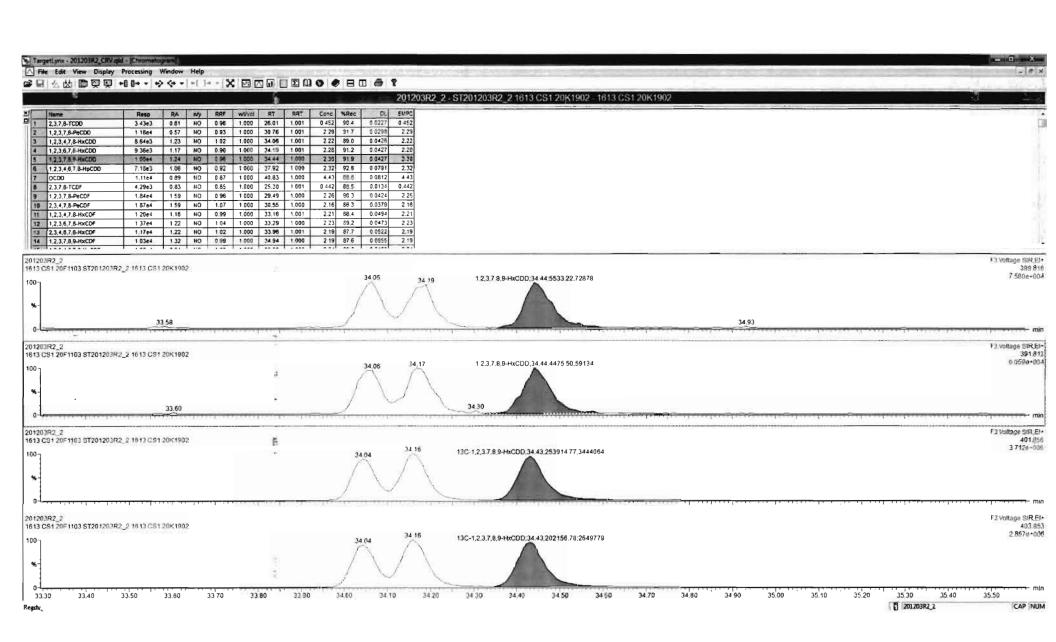
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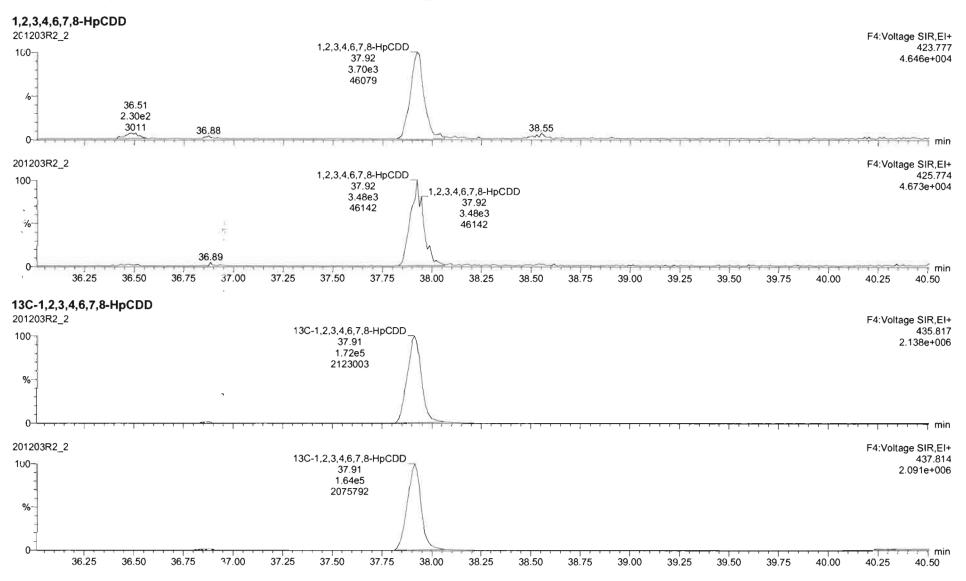
Work Order 2002532 Page 618 of 725

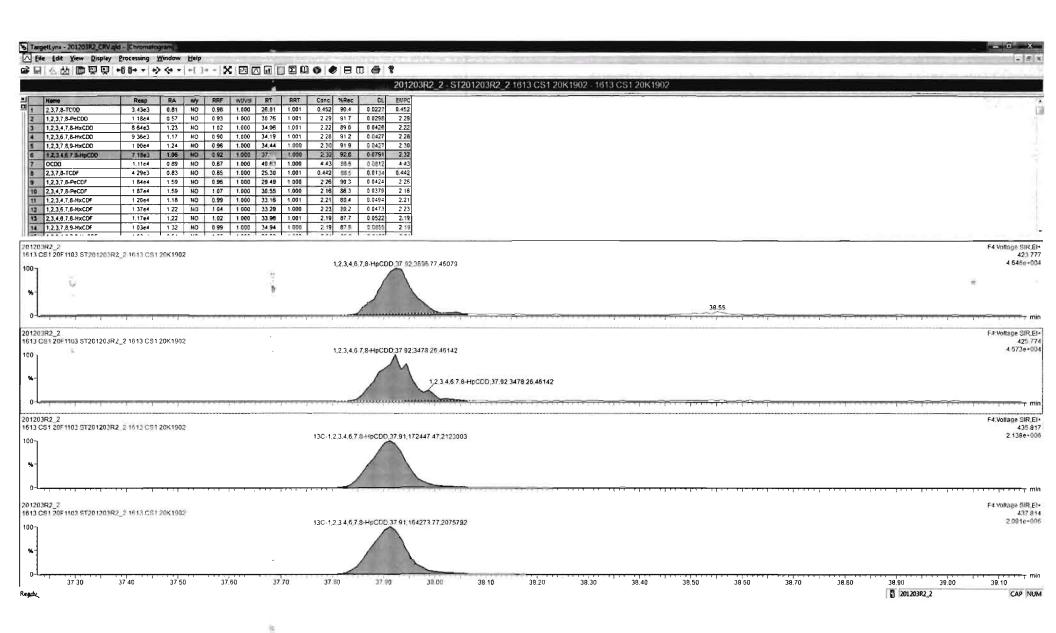


Work Order 2002532 Page 619 of 725

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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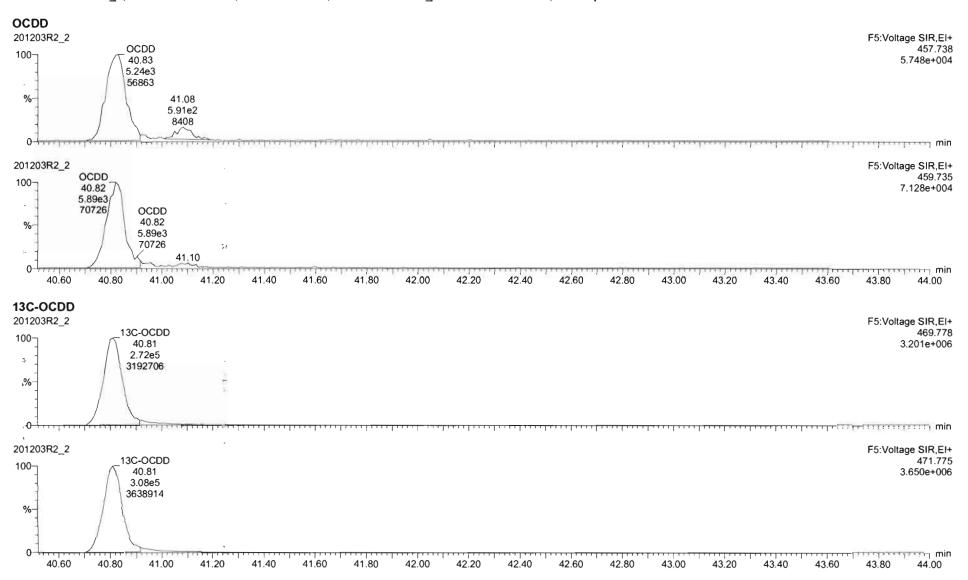


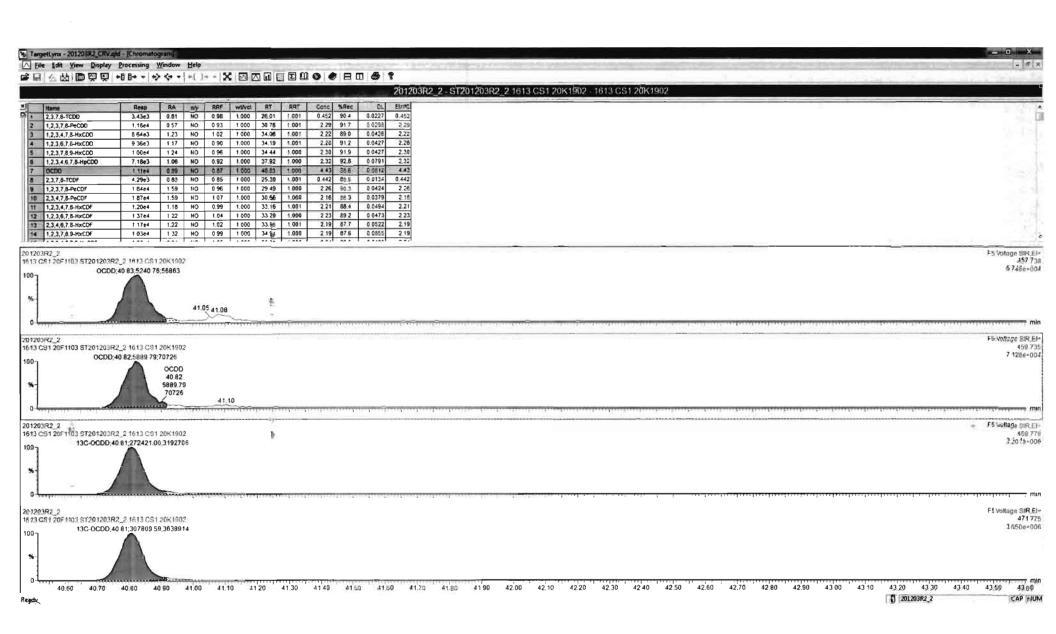
Work Order 2002532 Page 621 of 725

Dataset:

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Work Order 2002532 Page 623 of 725

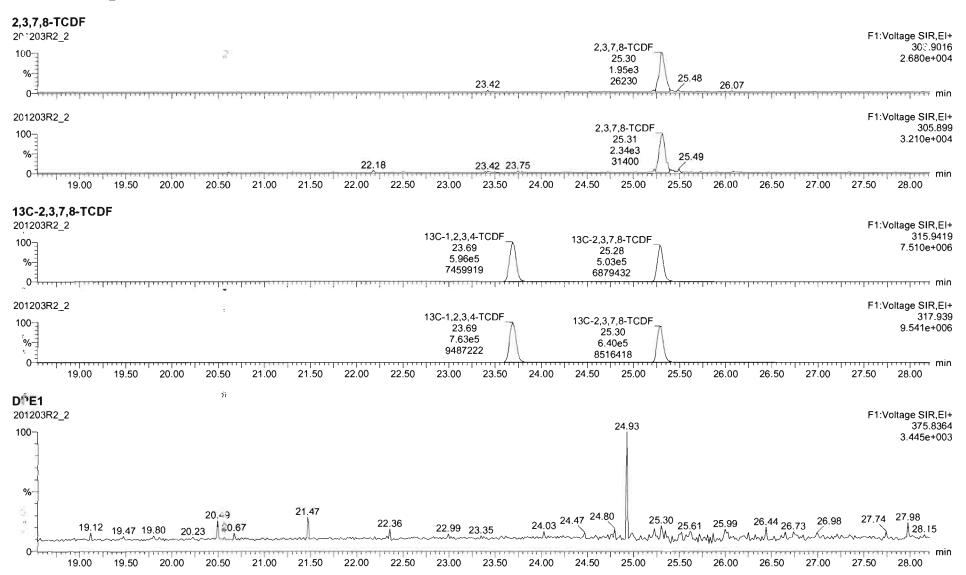
Vista Analytical Laboratory

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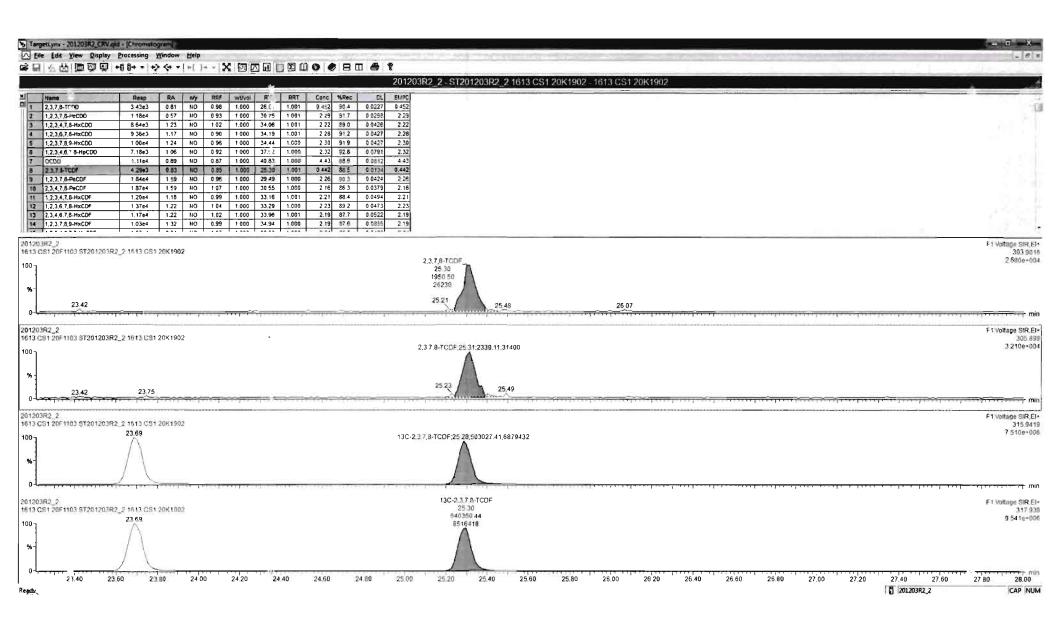
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MassLynx 4.1 SCN815

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Work Order 2002532



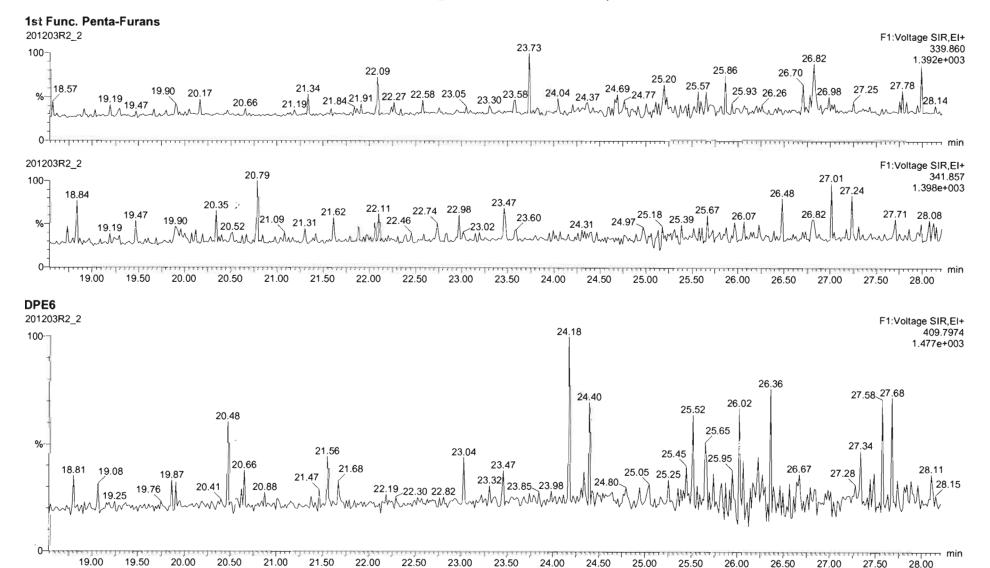
Work Order 2002532 Page 625 of 725

Dataset:

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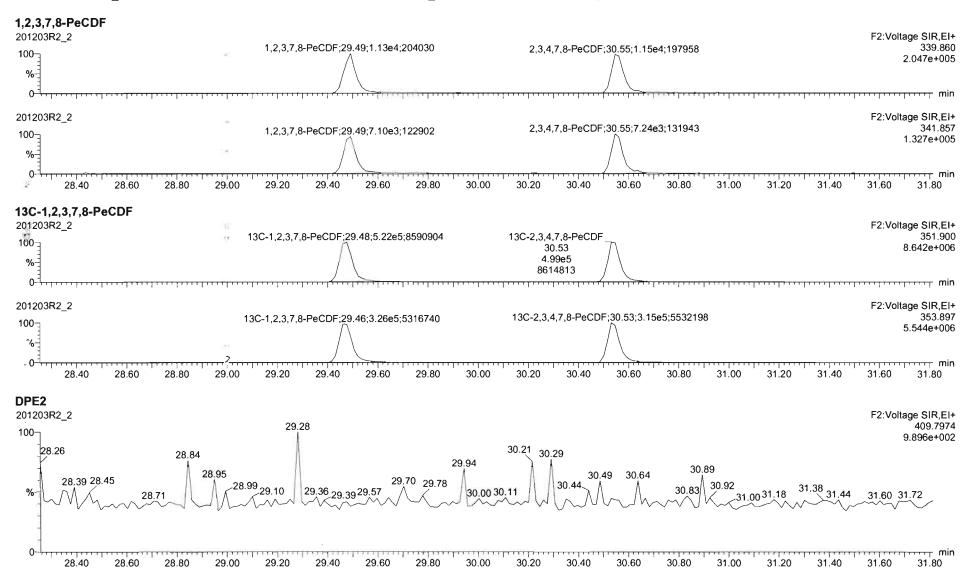


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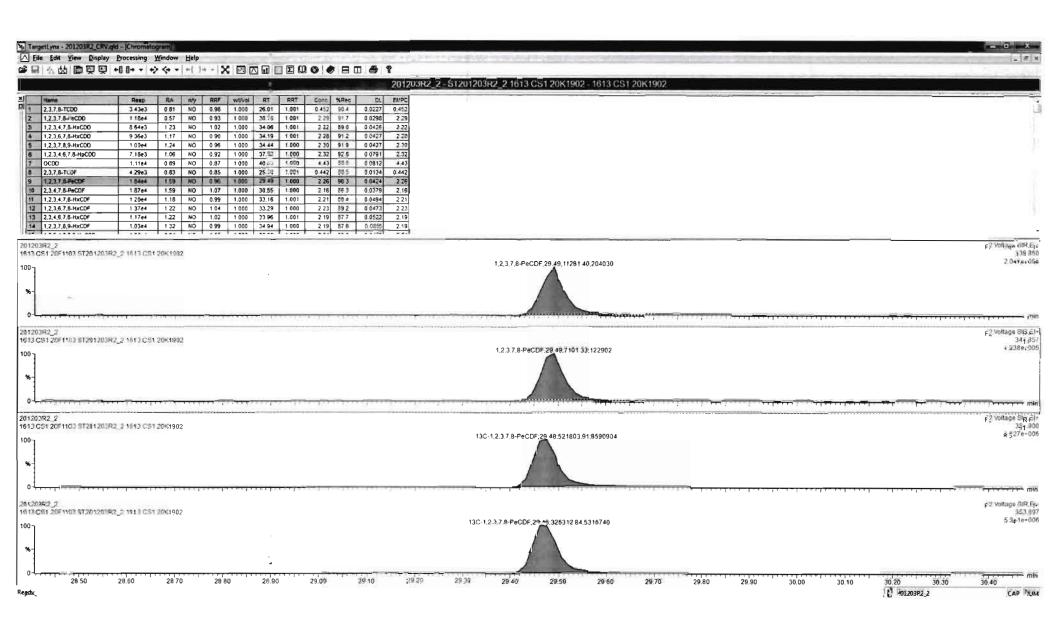
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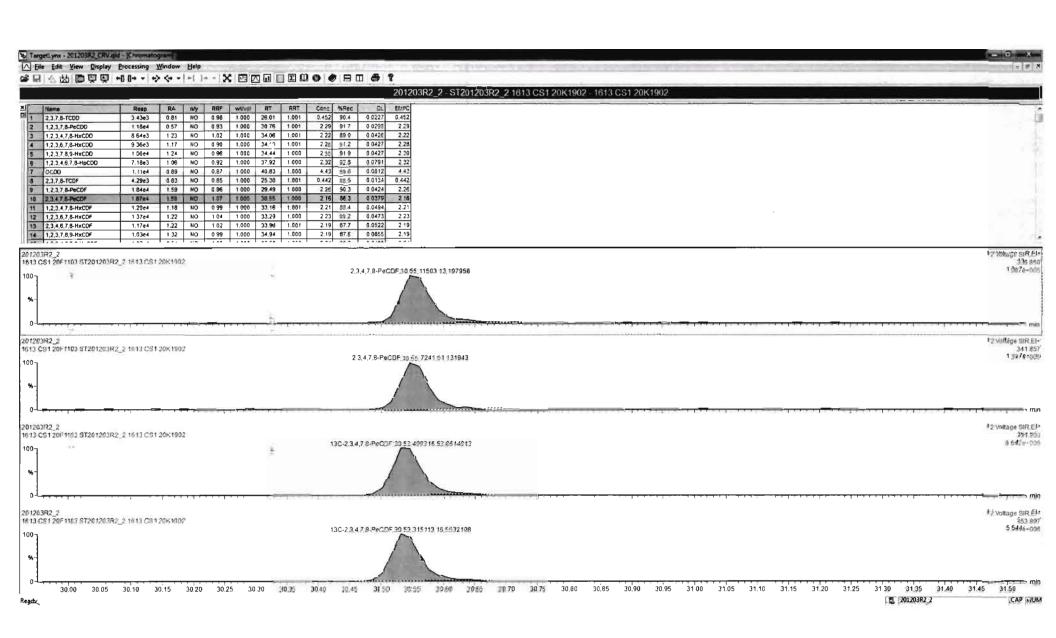
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Work Order 2002532 Page 627 of 725



Work Order 2002532 Page 628 of 725



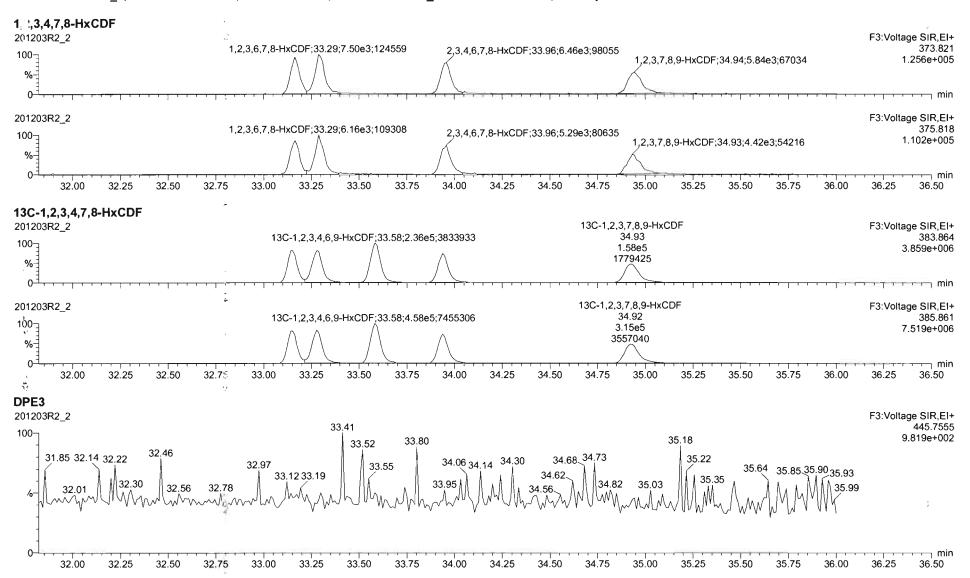
Work Order 2002532 Page 629 of 725

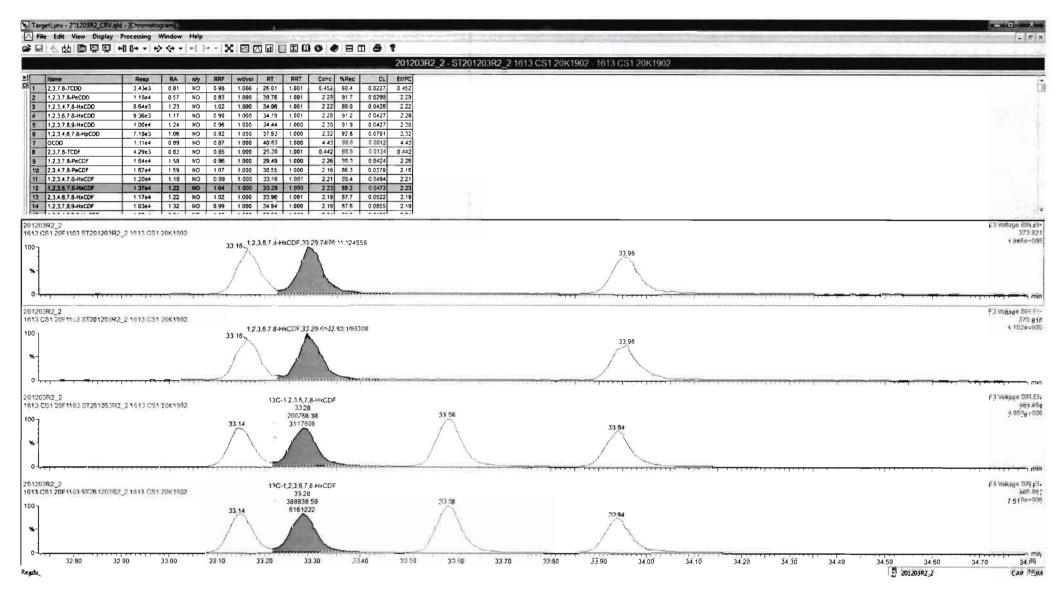
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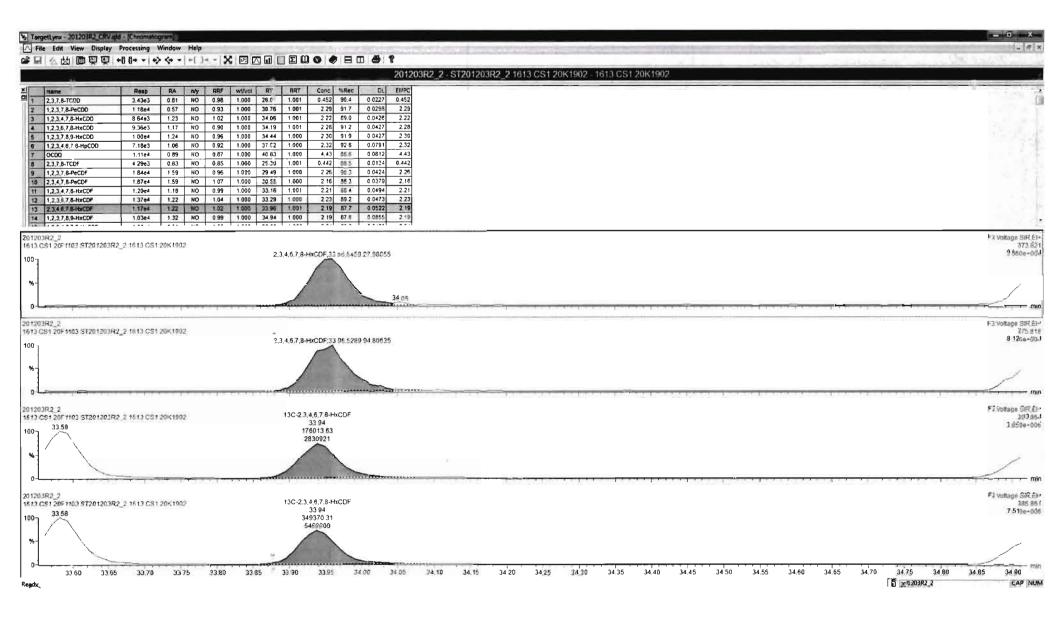
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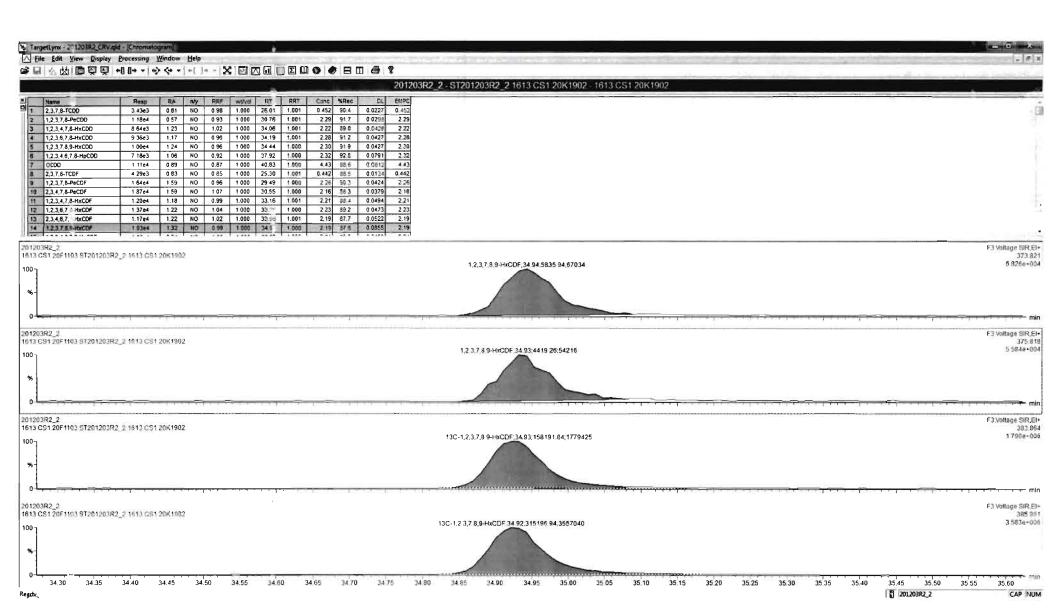




Work Order 2002532 Page 631 of 725



Work Order 2002532 Page 632 of 725



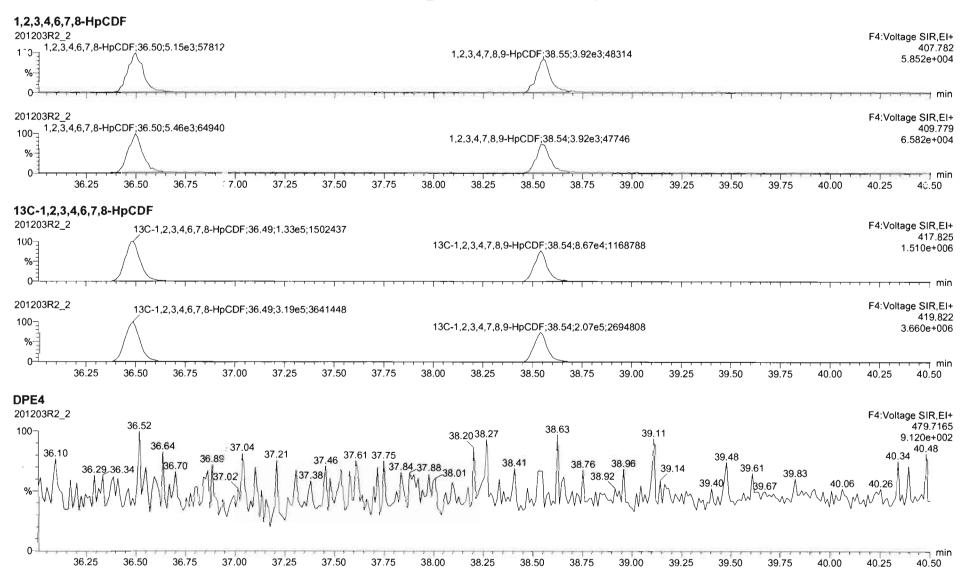
Work Order 2002532 Page 633 of 725

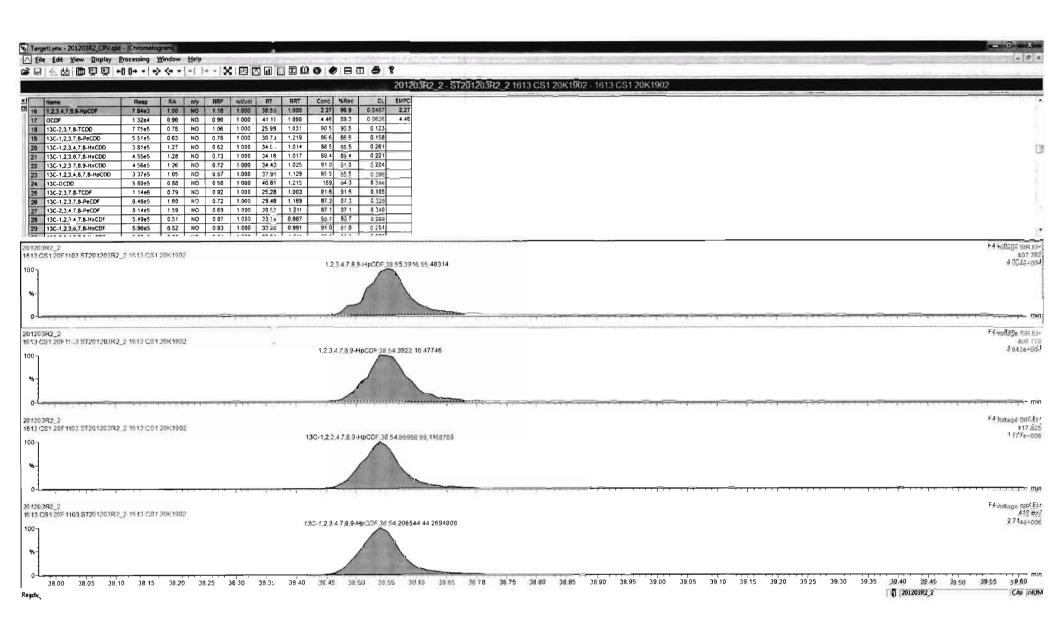
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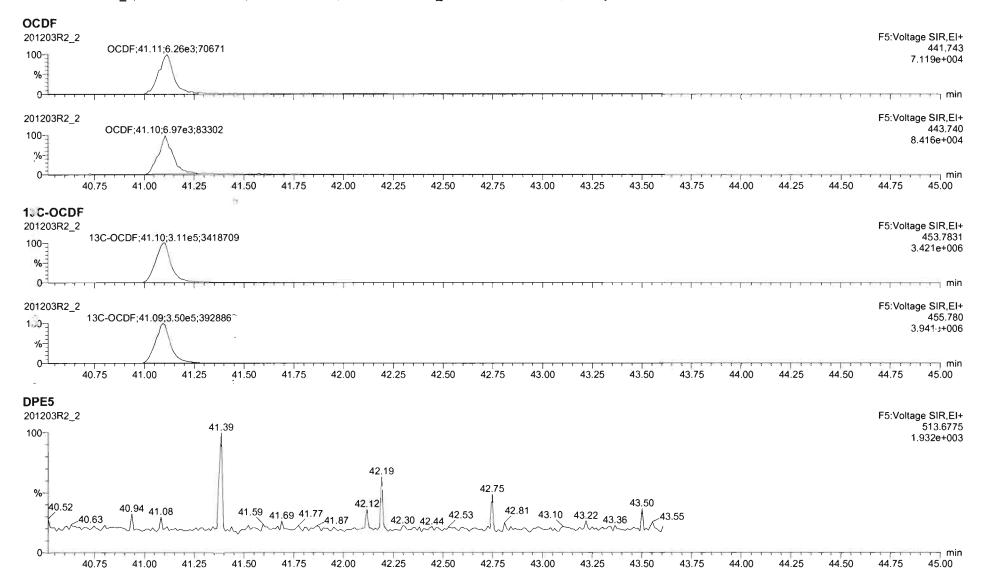
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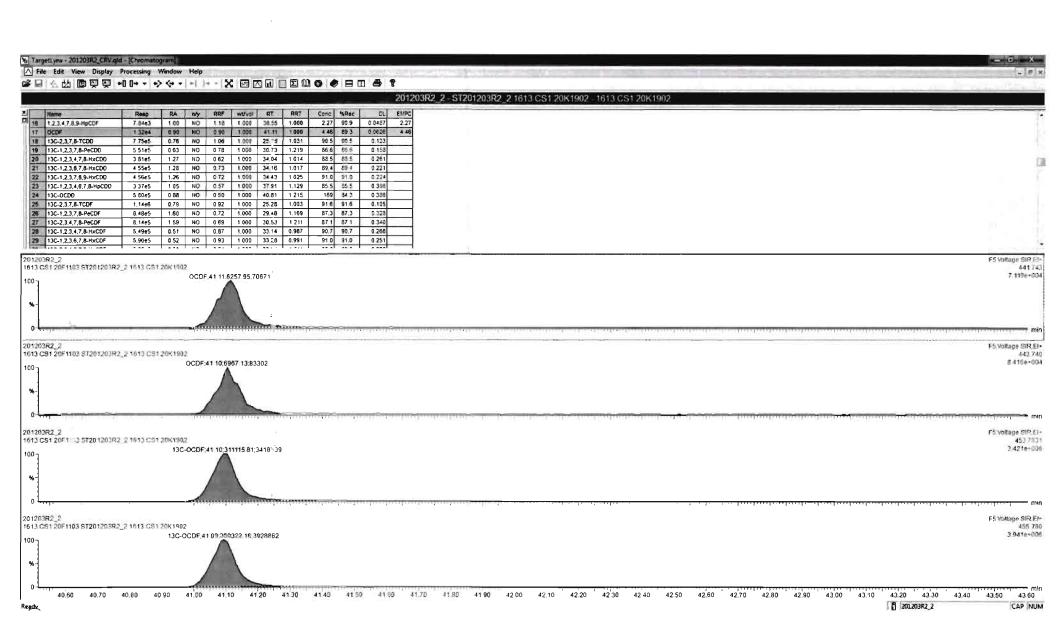
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Work Order 2002532 Page 637 of 725

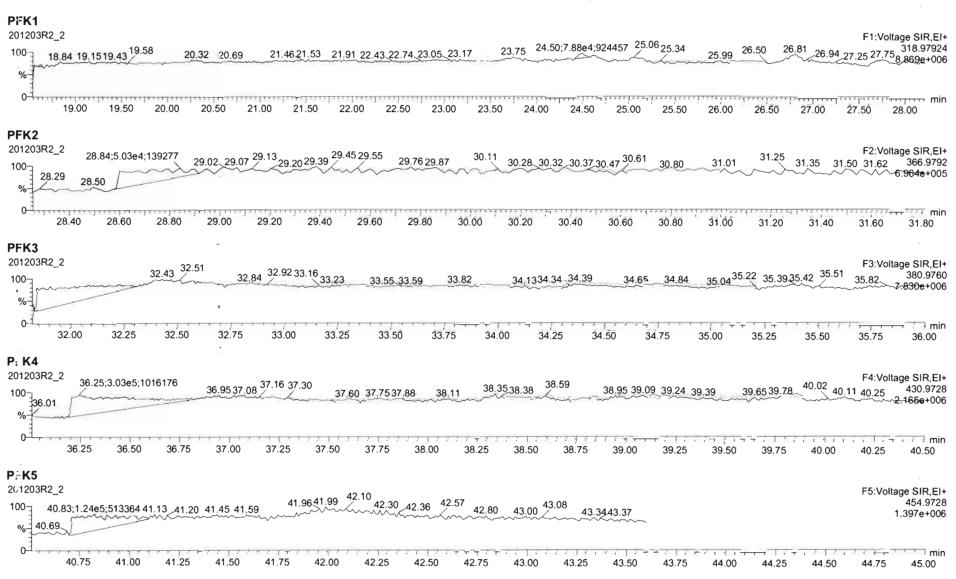
Vista Analytical Laboratory

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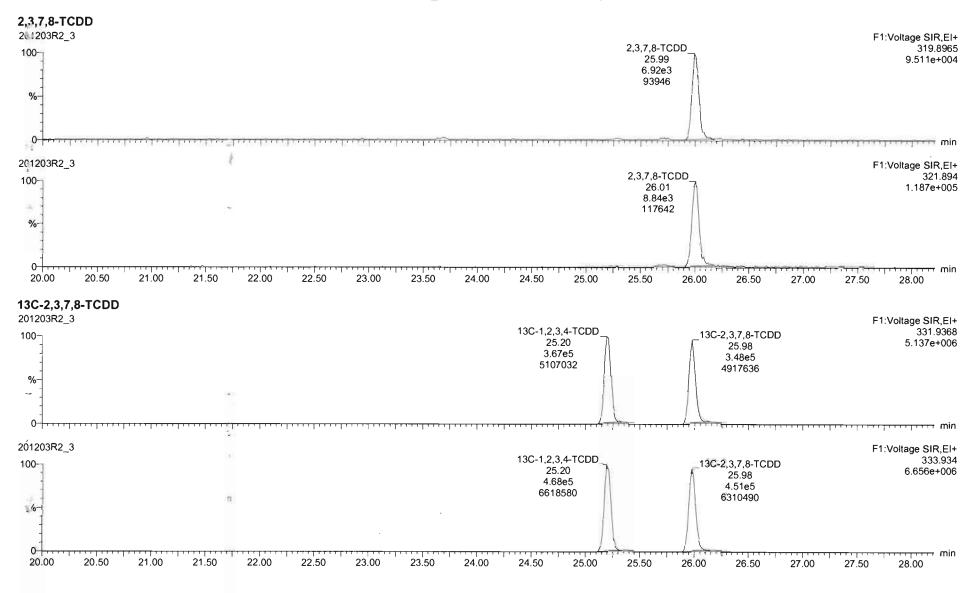


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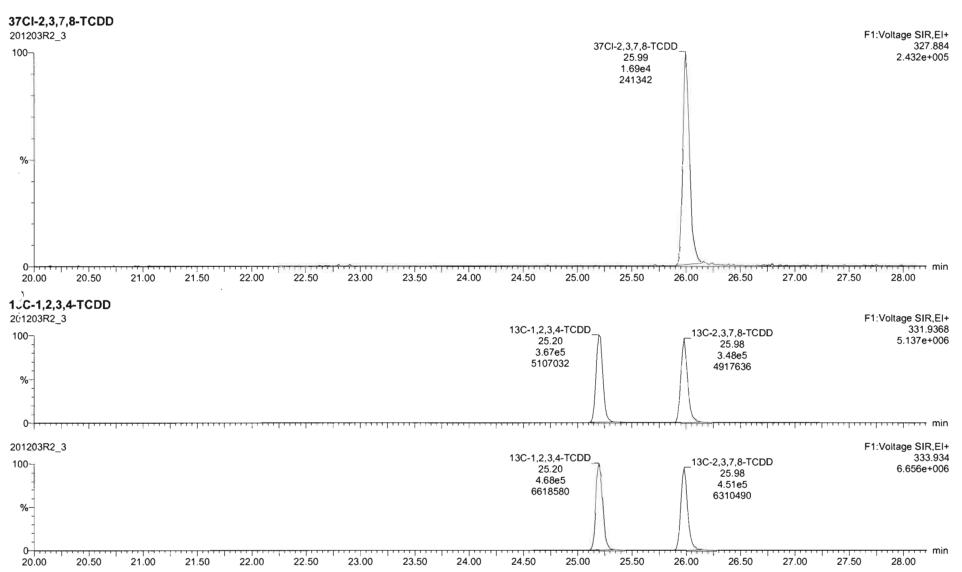


Quantify Sample Report Vista Analytical Laboratory

Dataset:

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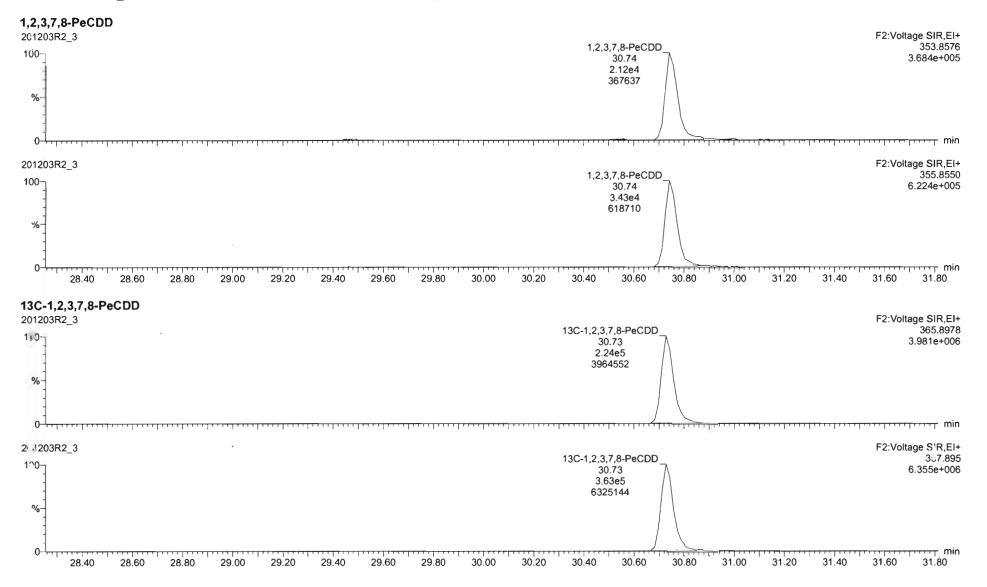
Q antify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

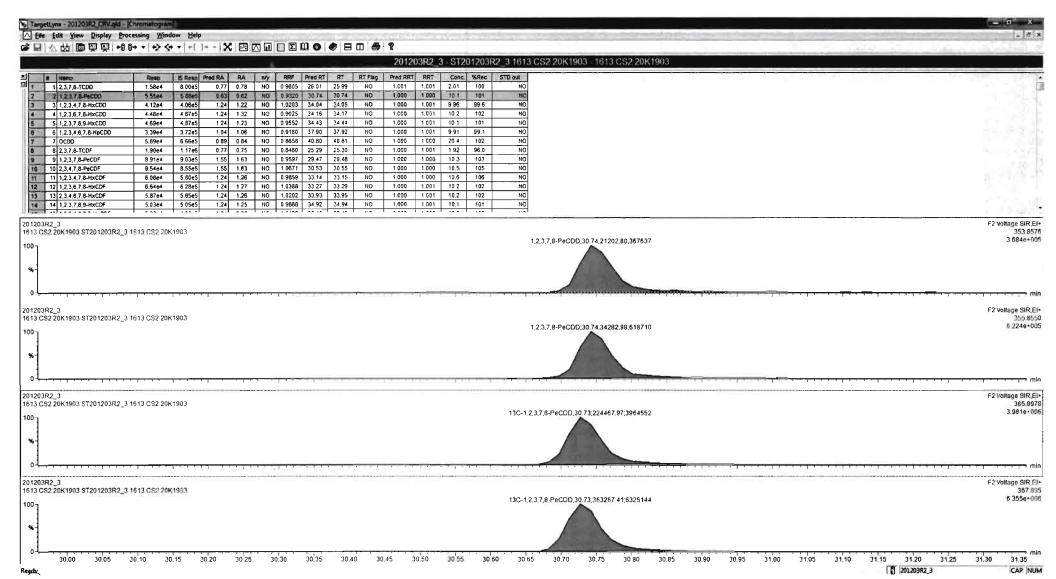
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Dataset:

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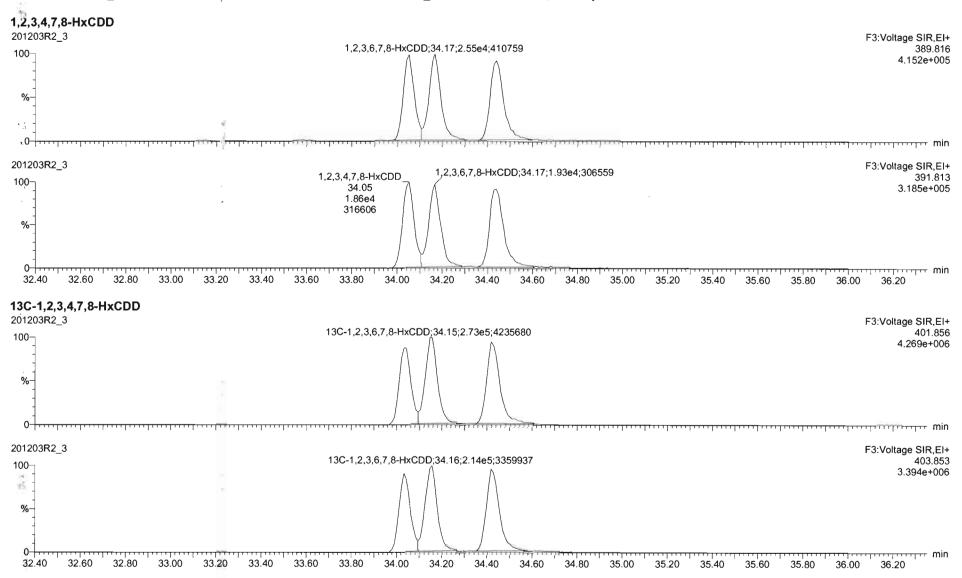
Work Order 2002532 Page 642 of 725

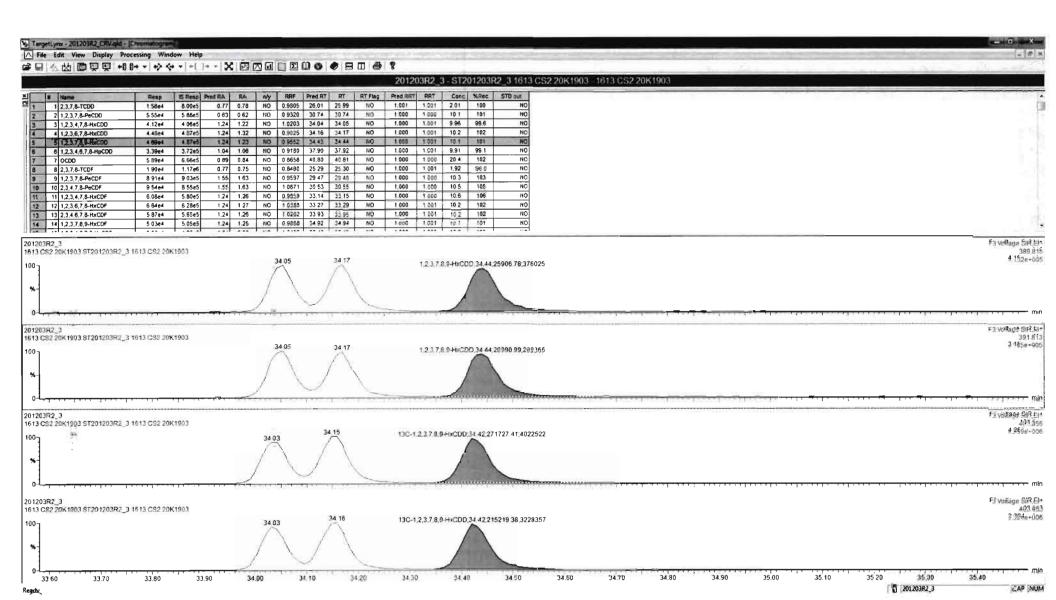
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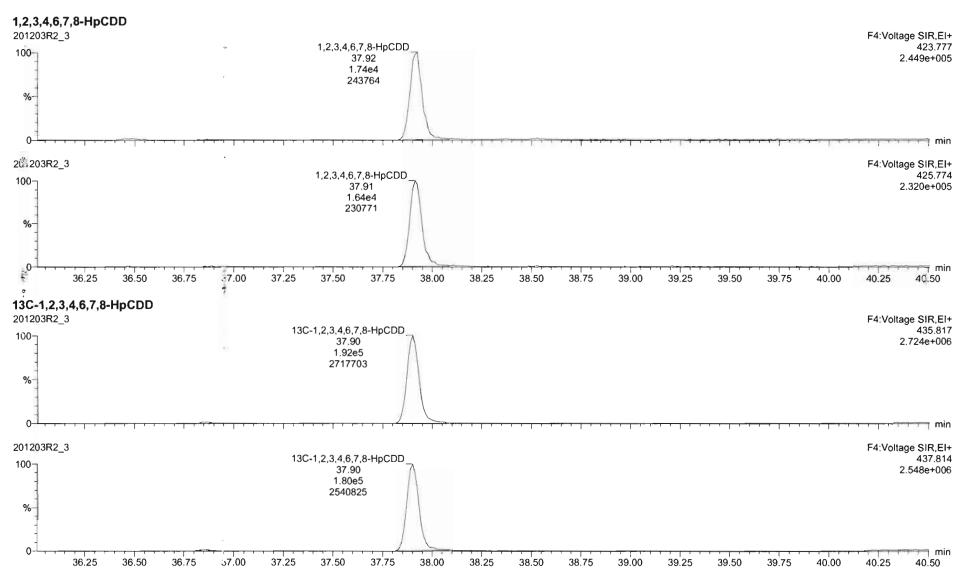


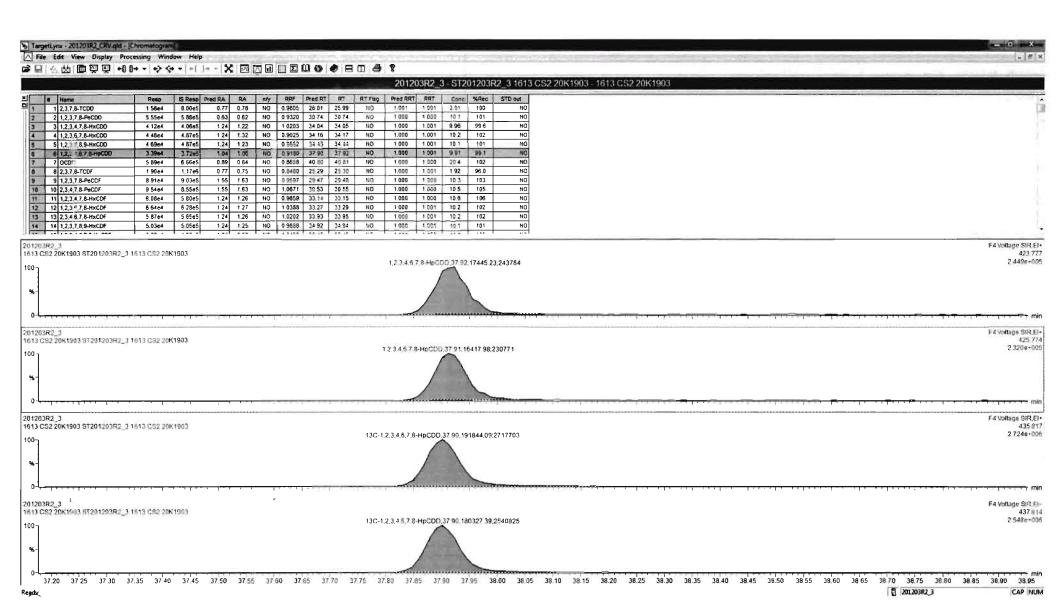


Work Order 2002532 Page 644 of 725

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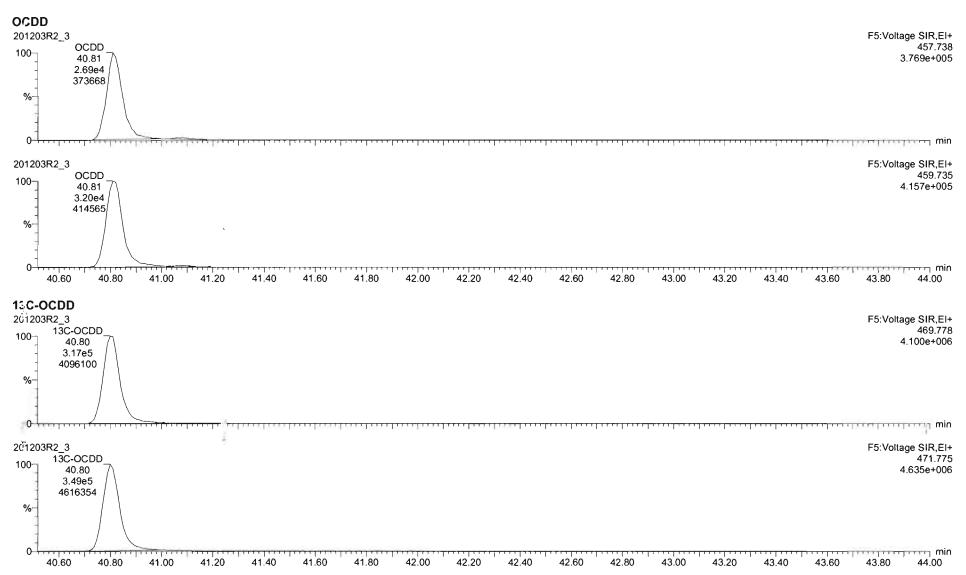
Work Order 2002532 Page 646 of 725

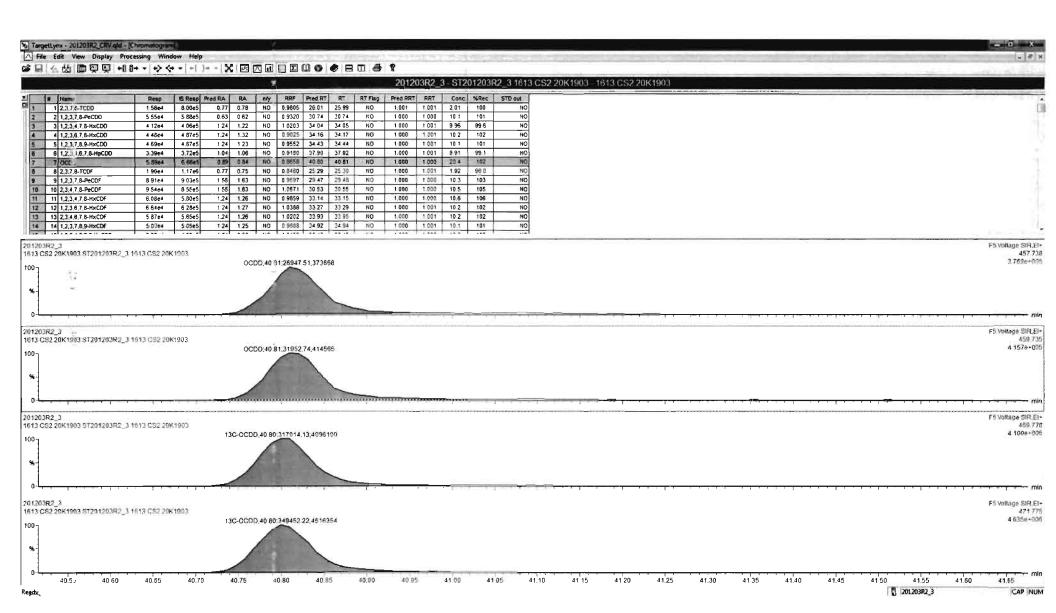
Vista Analytical Laboratory

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Work Order 2002532 Page 648 of 725

Quantify Sample Report Vista Analytical Laboratory

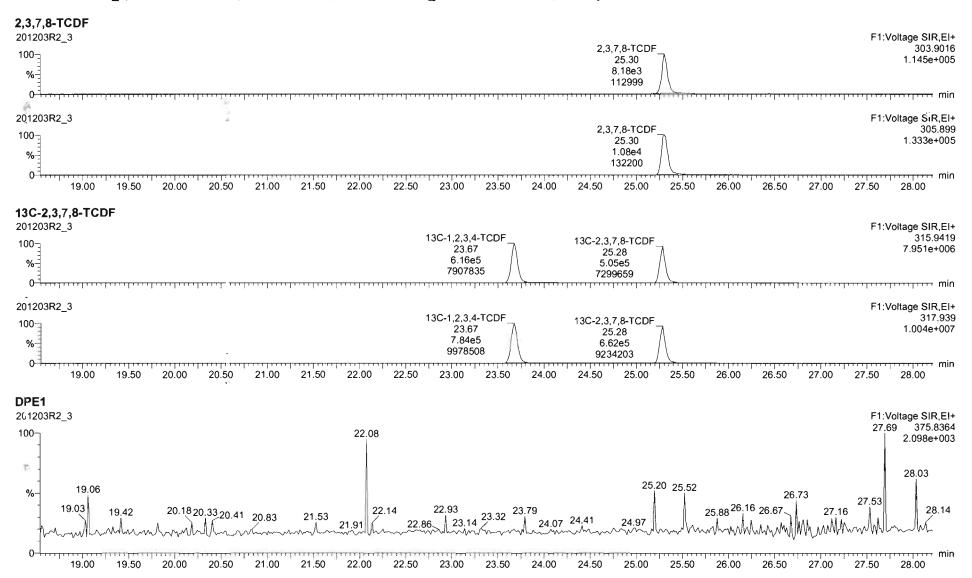
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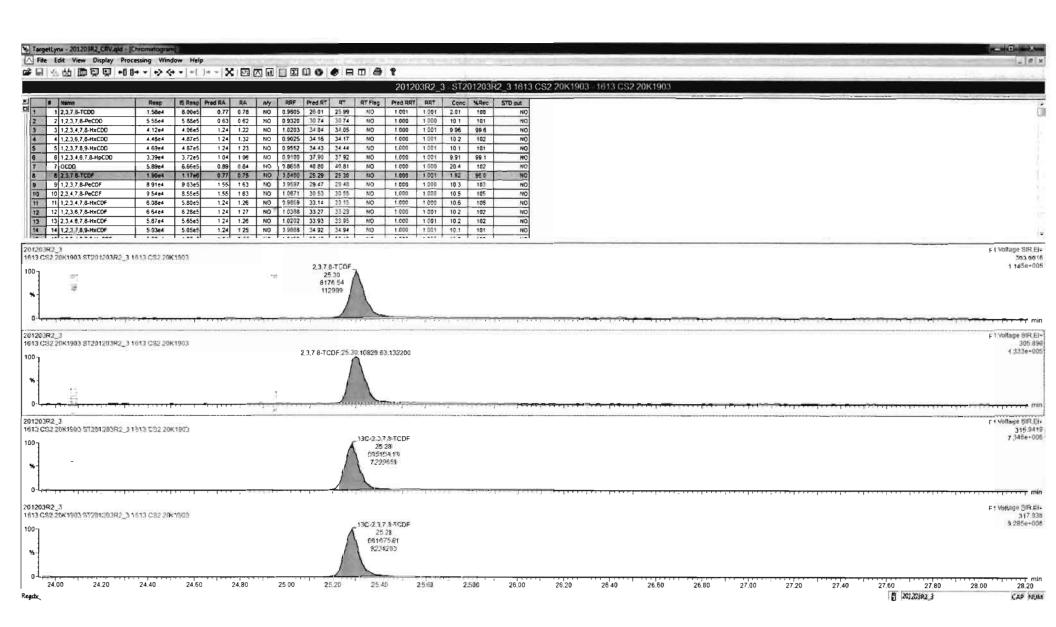
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Work Order 2002532 Page 650 of 725

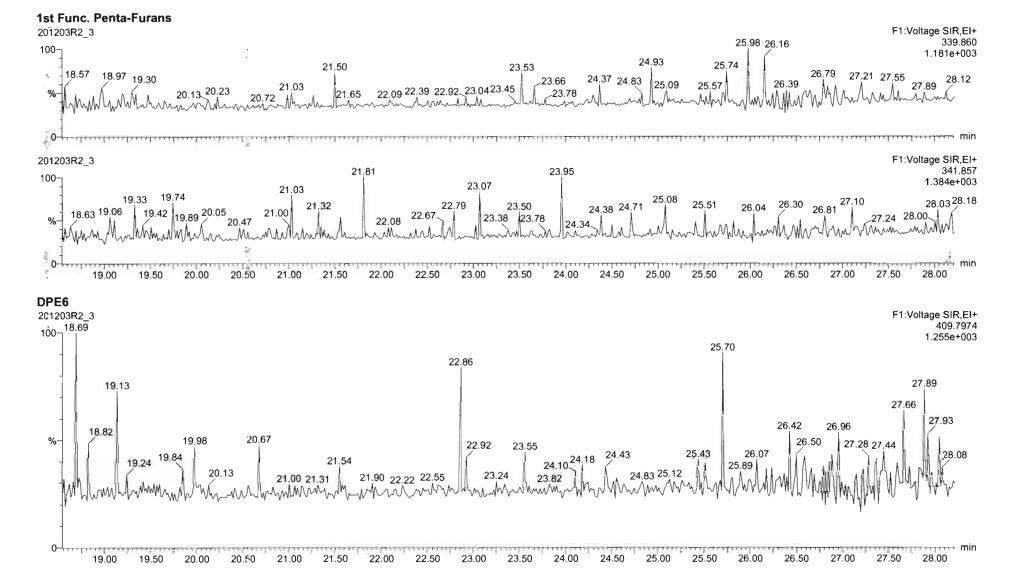
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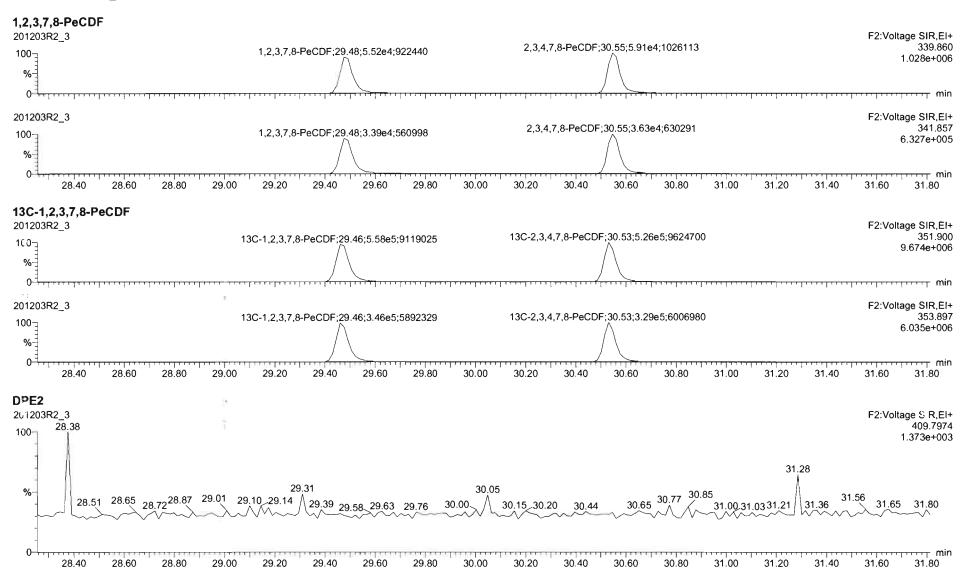
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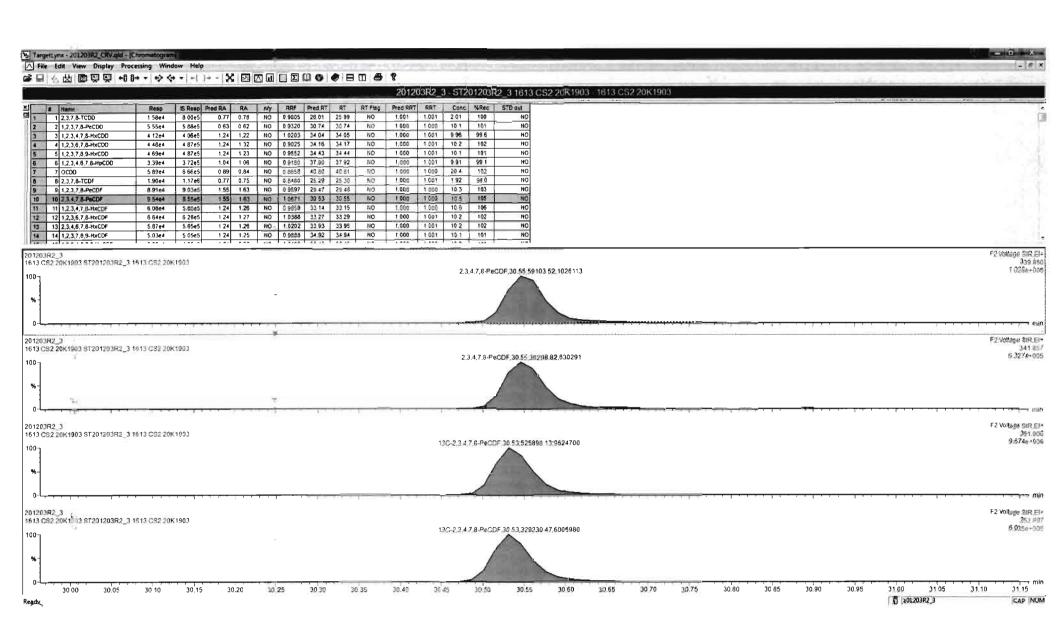
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Last Altered: Friday, December 04, 2)20 08:58:11 Pacific Standard Time Friday, December 04, 2)20 09:59:16 Pacific Standard Time

Name: 201203R2_3, Date: 03-Dec-2020, Time: 12:14:40, ID: ST201203R2_3 1613 CS2 20K1903, Description: 1613 CS2 20K1903



Work Order 2002532



Work Order 2002532 Page 653 of 725

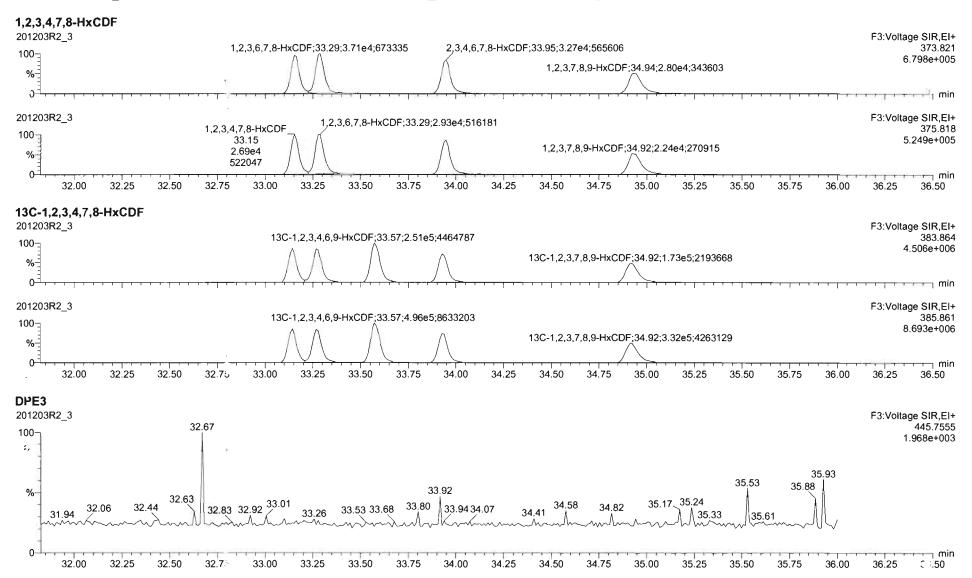
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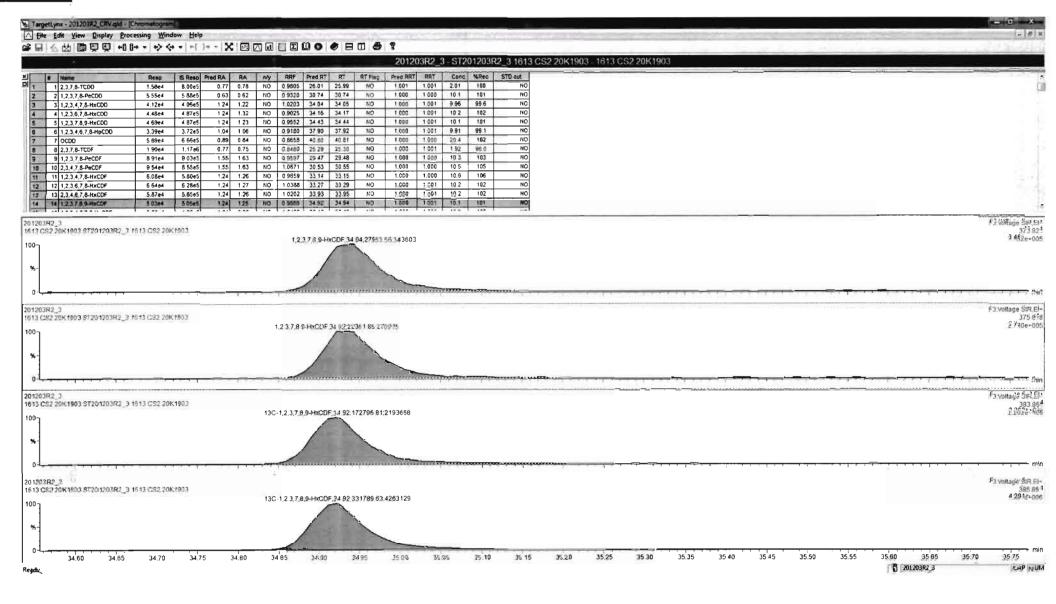
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Work Order 2002532



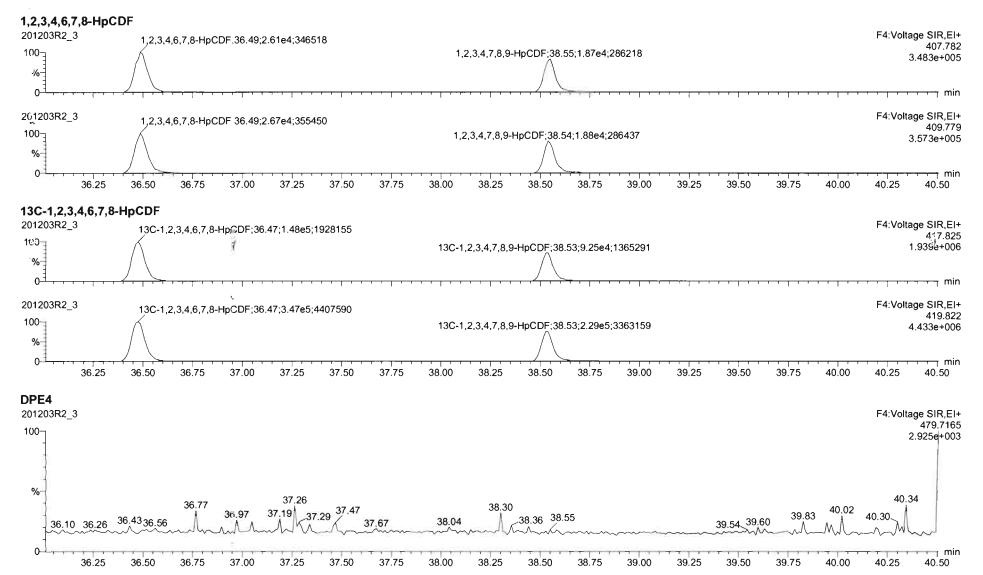
Work Order 2002532 Page 655 of 725

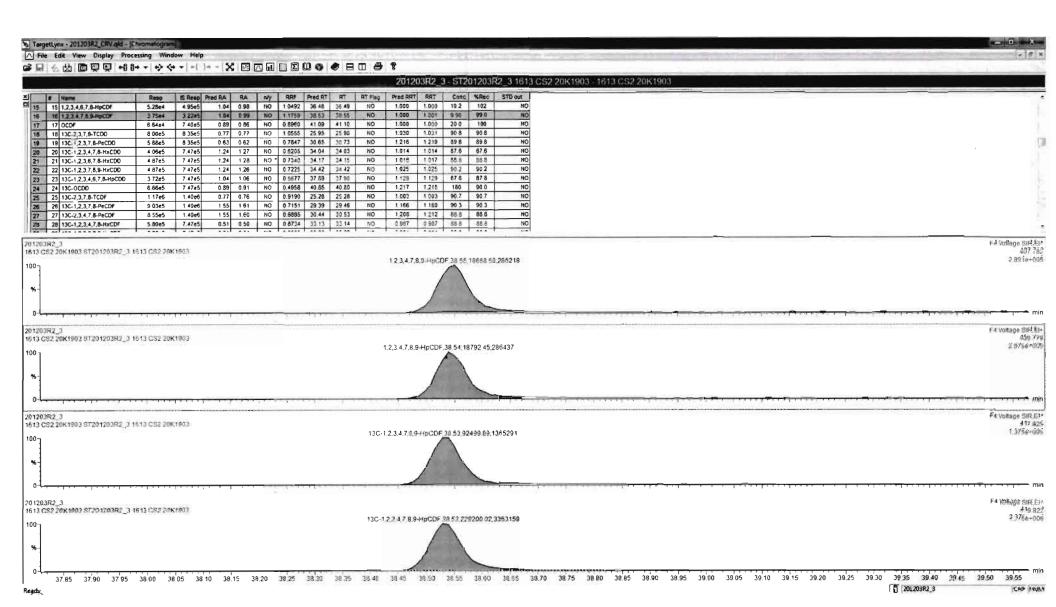
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Last Altered: Printed:

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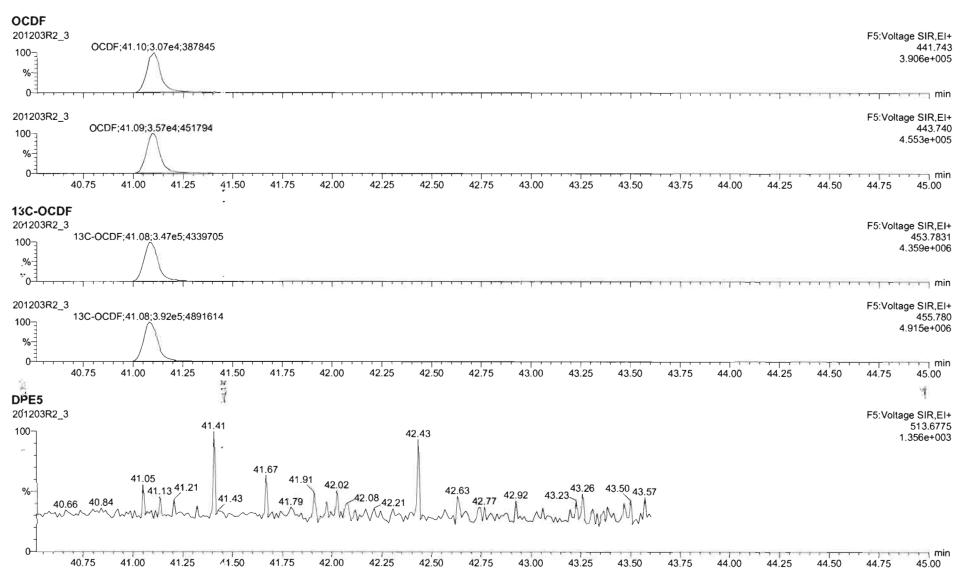


Work Order 2002532 Page 657 of 725

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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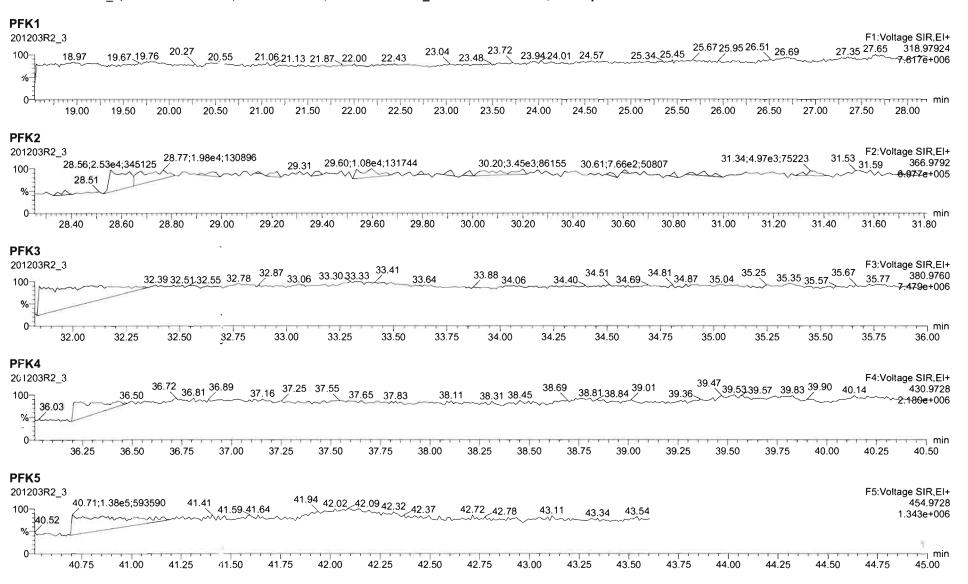
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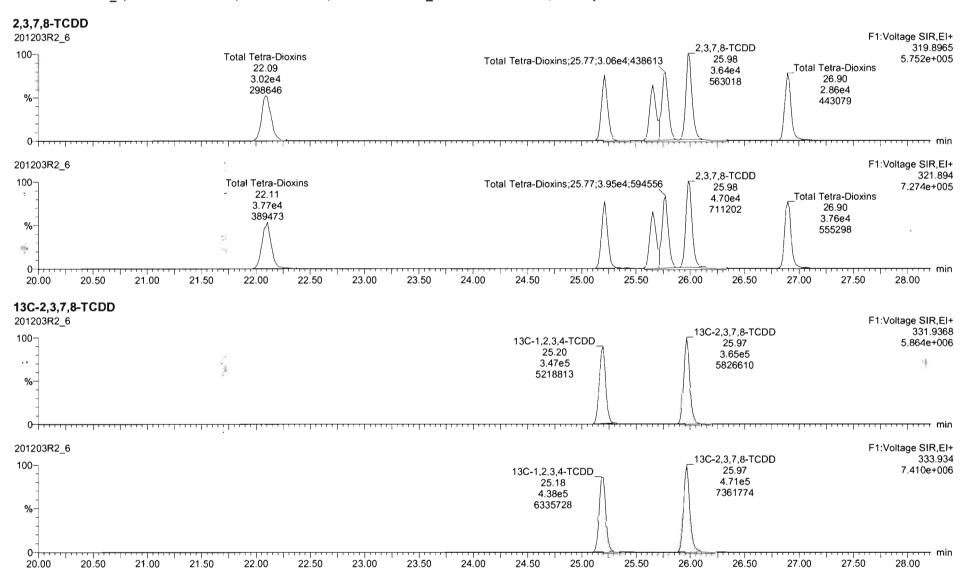
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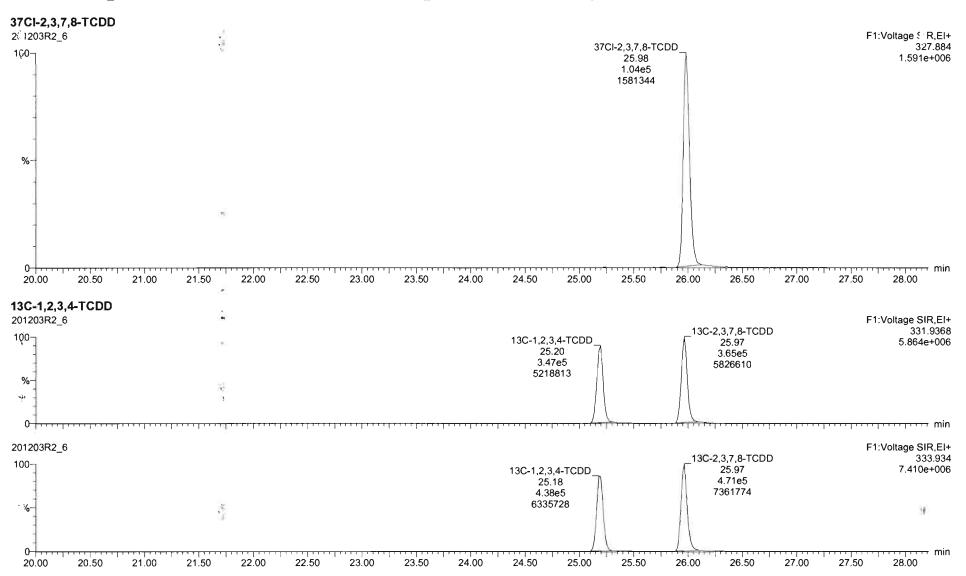
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Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Quantify Sample Report

MassLynx 4.1 SCN815

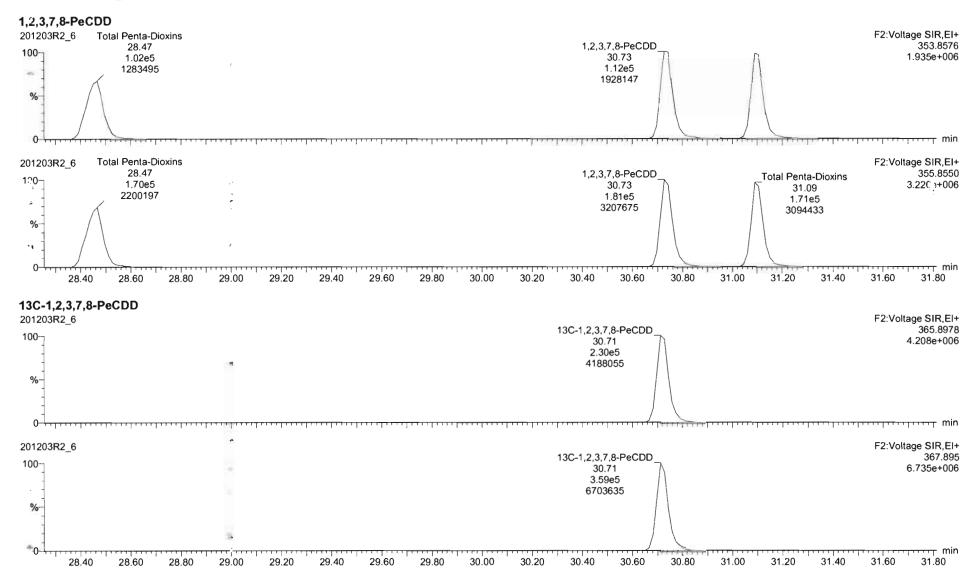
Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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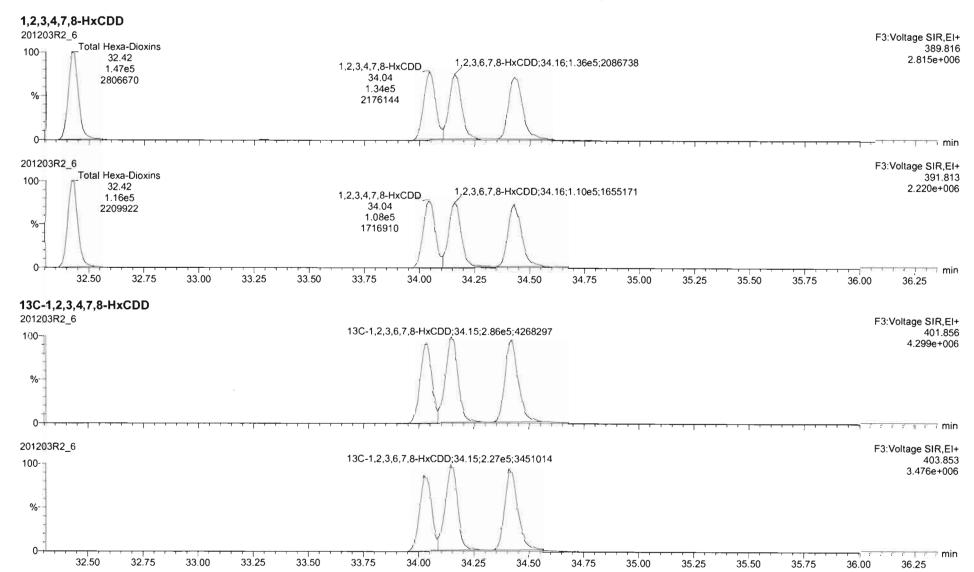
Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

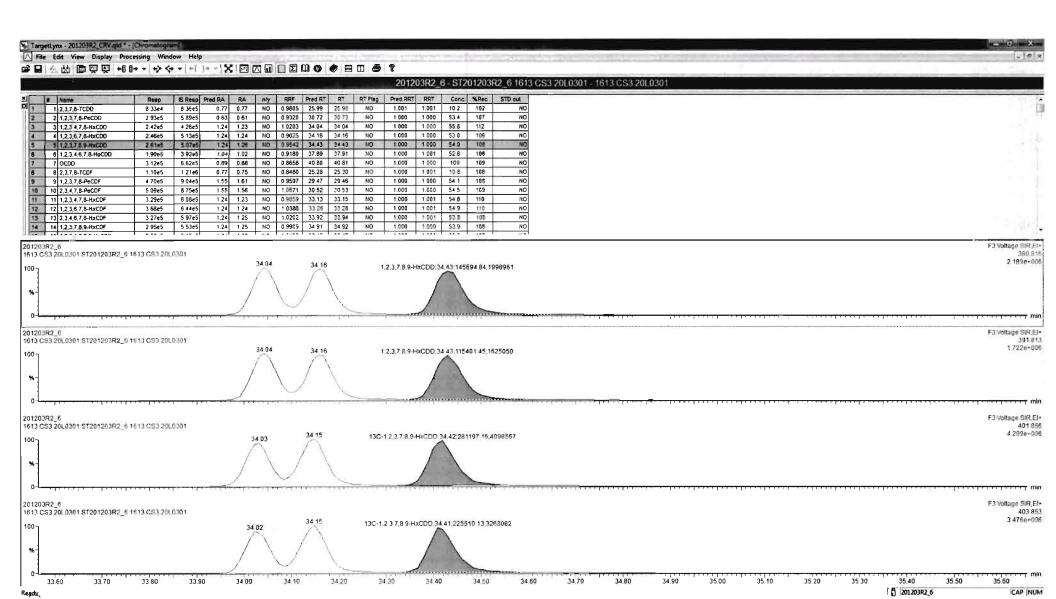


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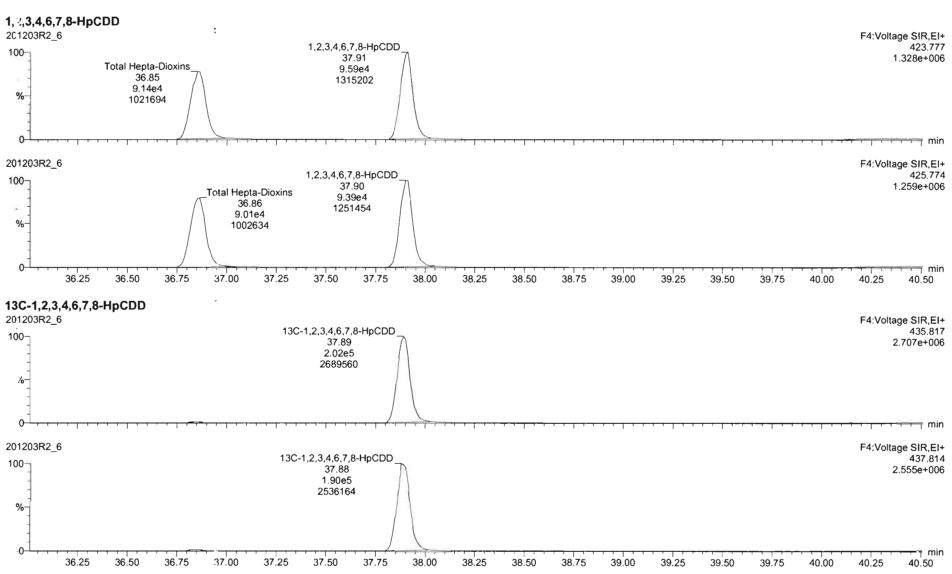
Work Order 2002532 Page 664 of 725

D: taset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

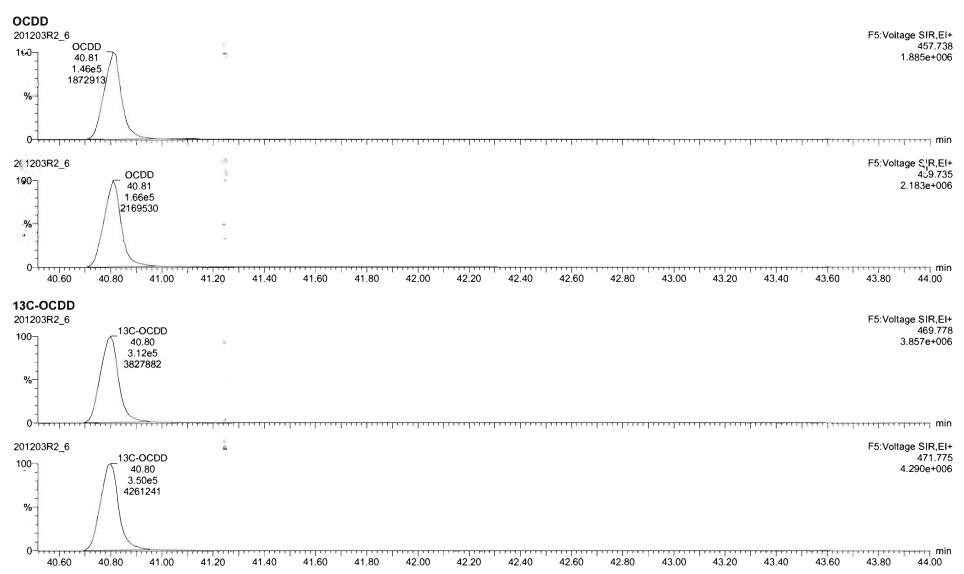
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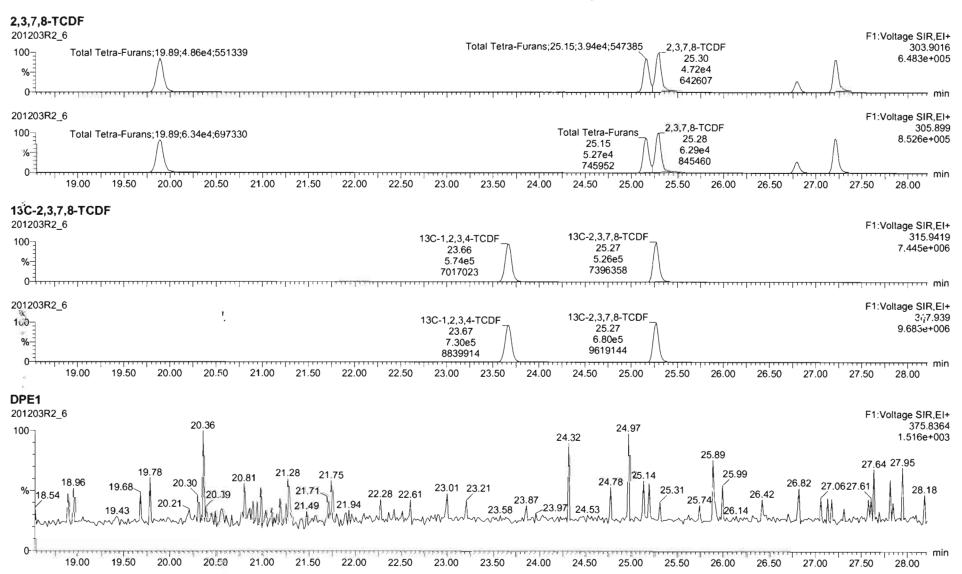
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U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

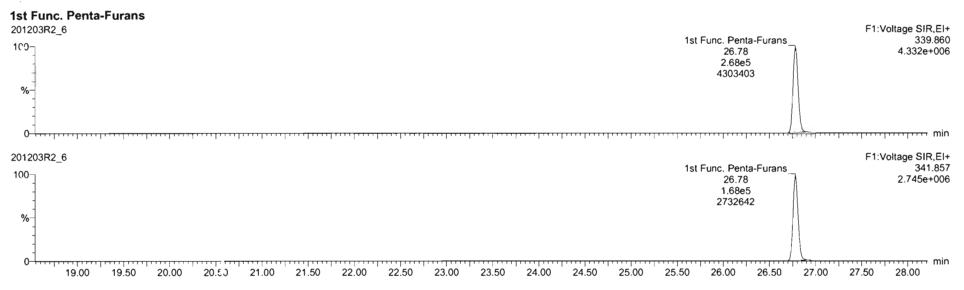
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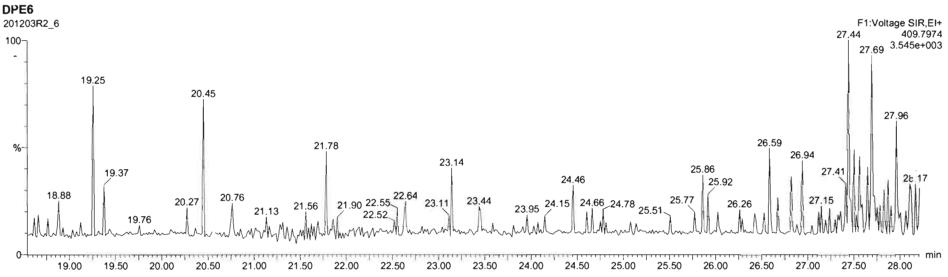
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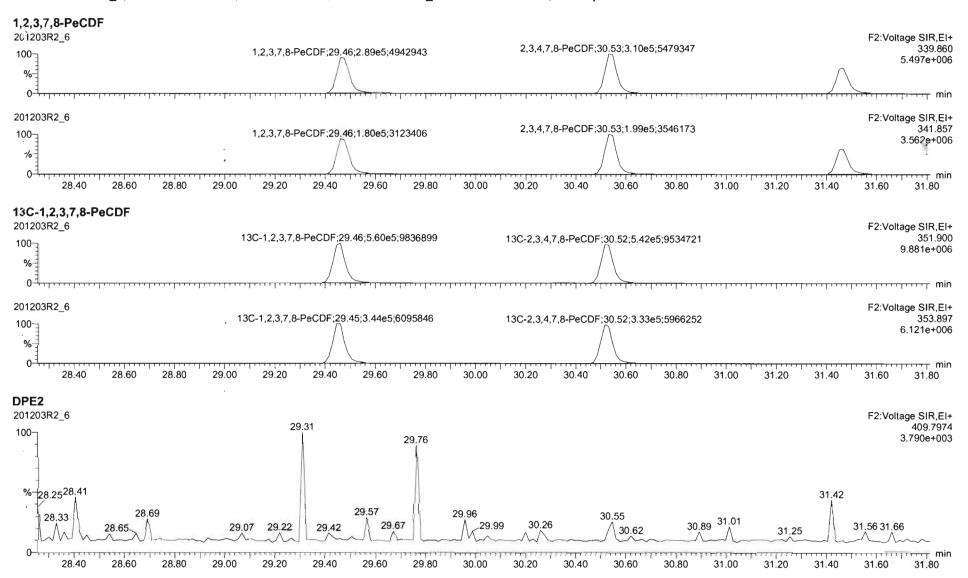




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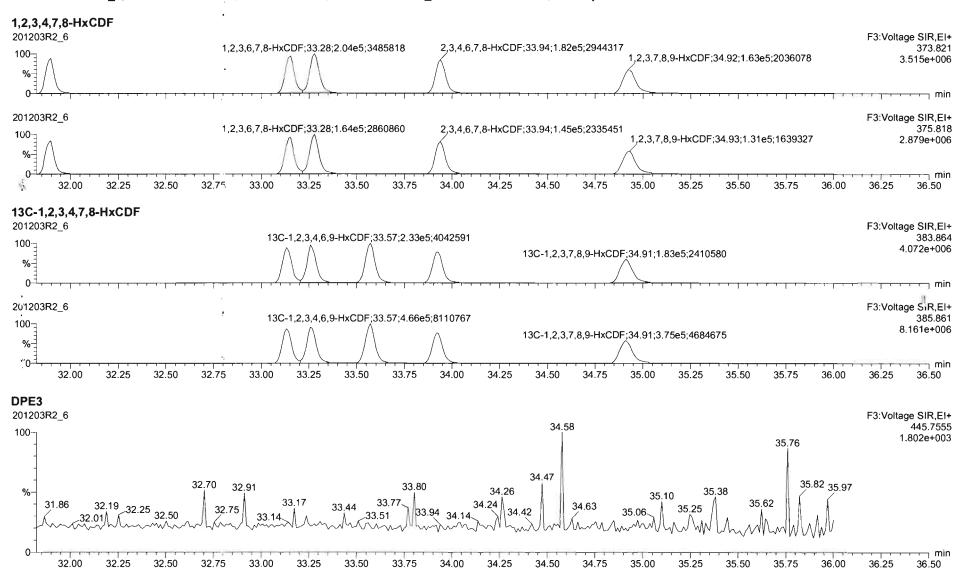
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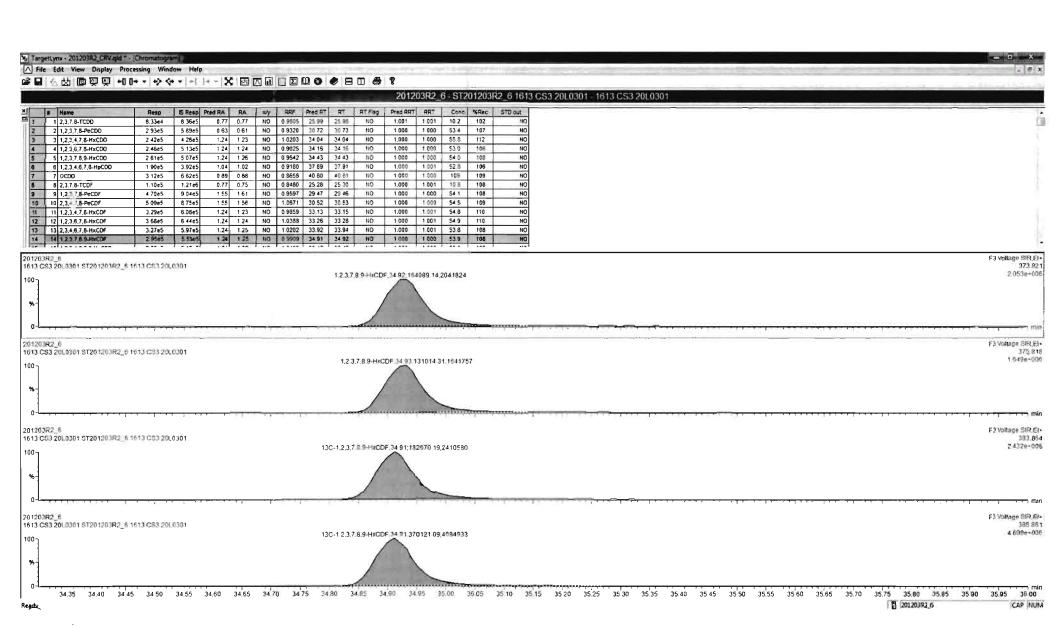


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002532 Page 671 of 725

Quantify Sample Report Vista Analytical Laboratory Mass!_ynx 4.1 SCN815

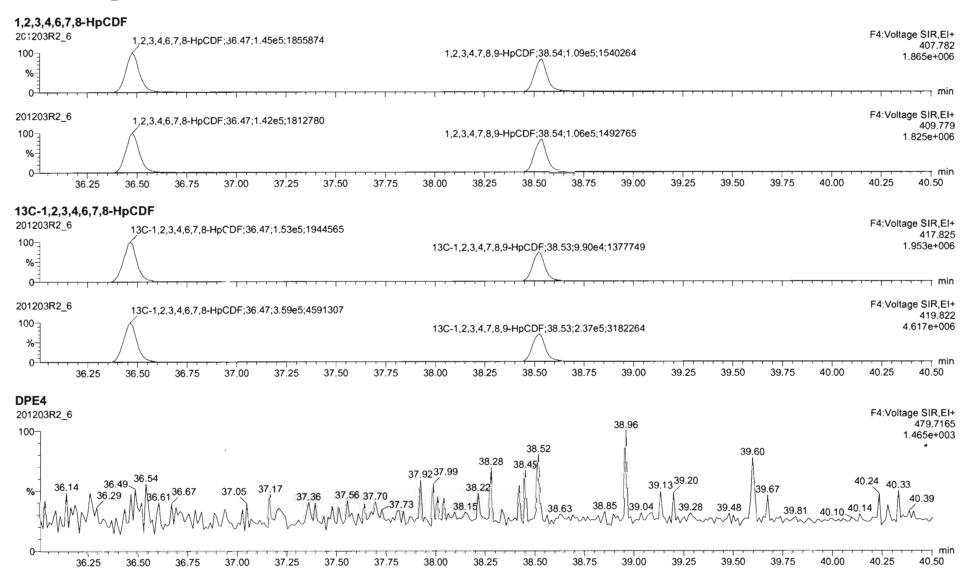
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Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

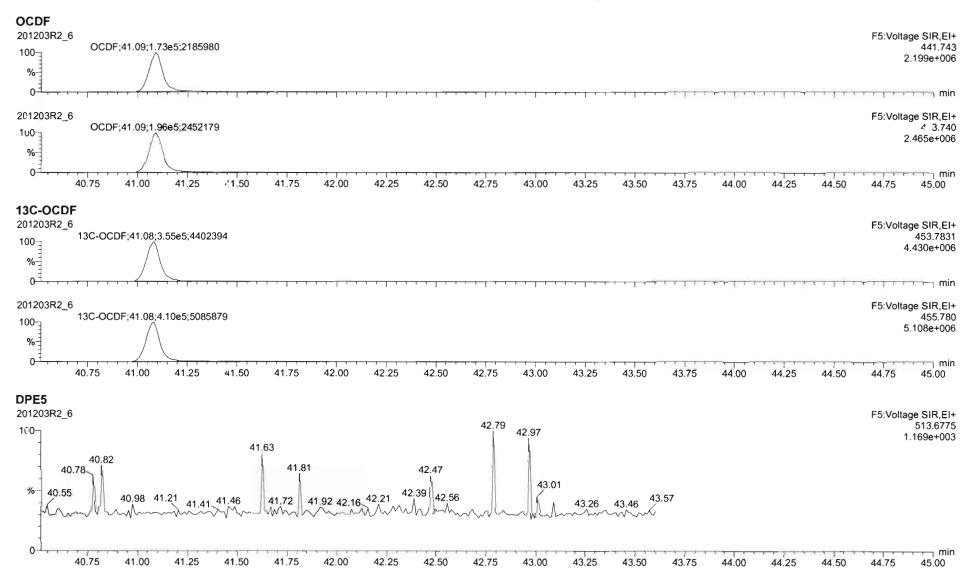
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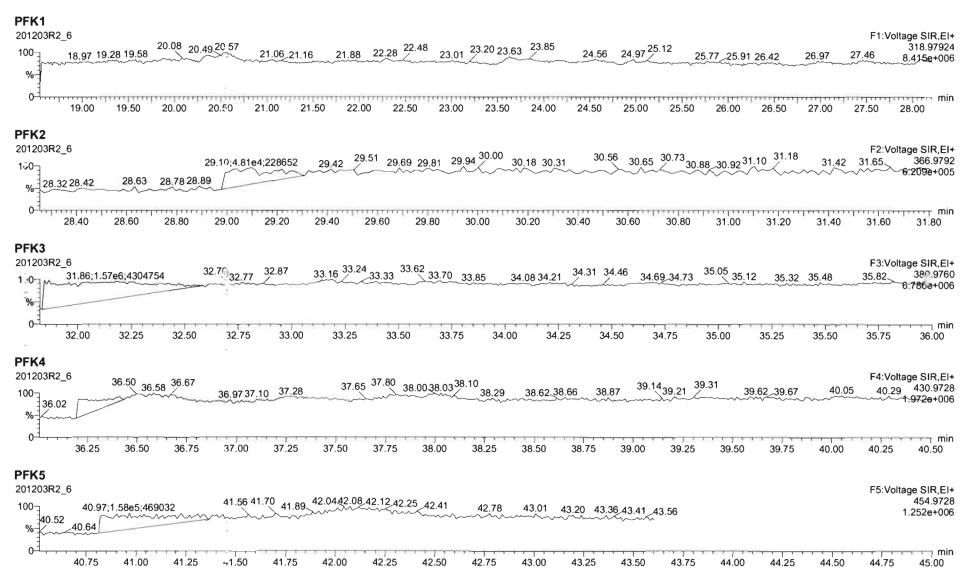
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U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report

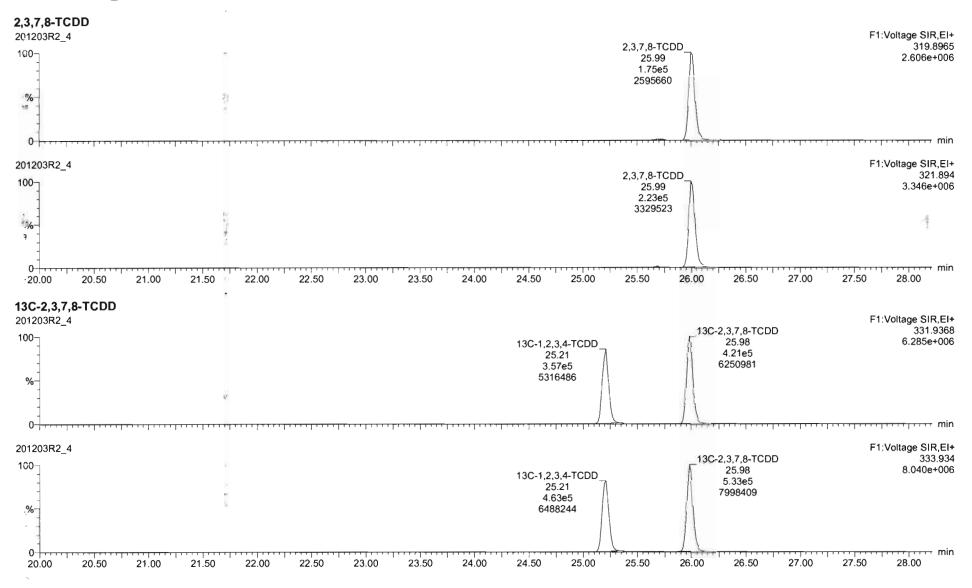
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Fnday, December 04, 2020 08:58:11 Pacific Standard Time

Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report Vista Analytical Laboratory

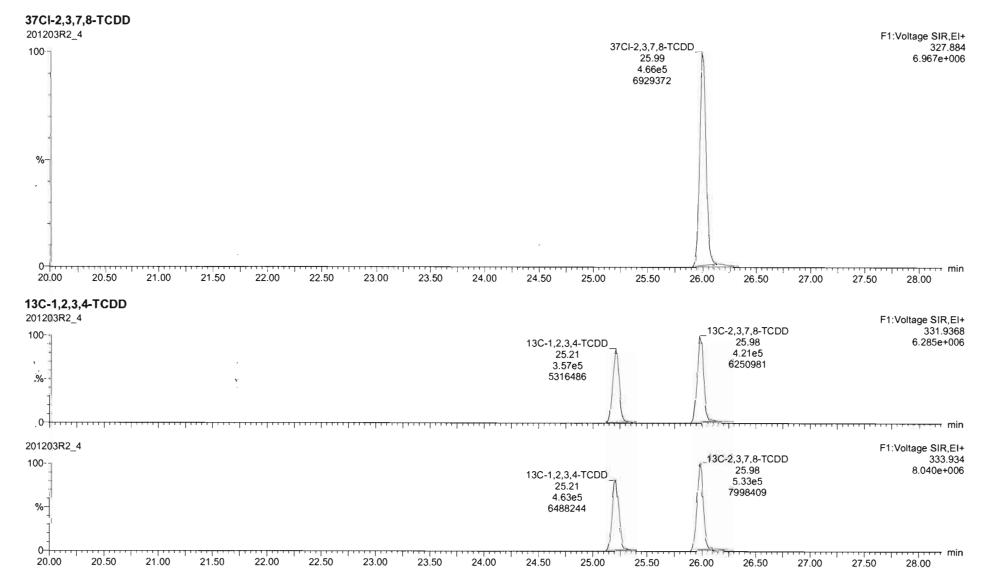
Page 41 of 78

Dataset:

U:\VG12.PRO\Results\::01203R2\201203R2_CRV.qld

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Quantify Sample Report MassLynx 4.1 SCN815

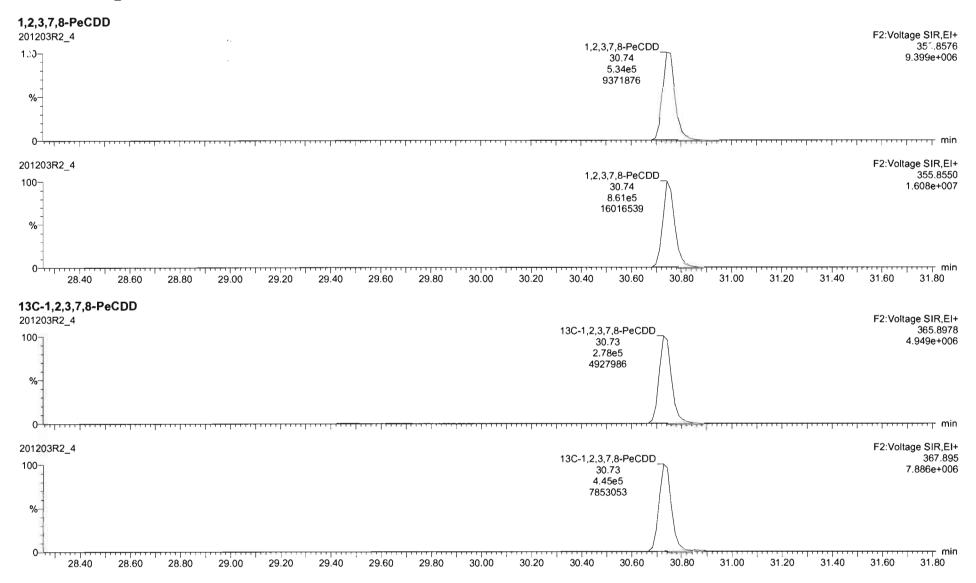
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Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report

Vista Analytical Laboratory

Dataset:

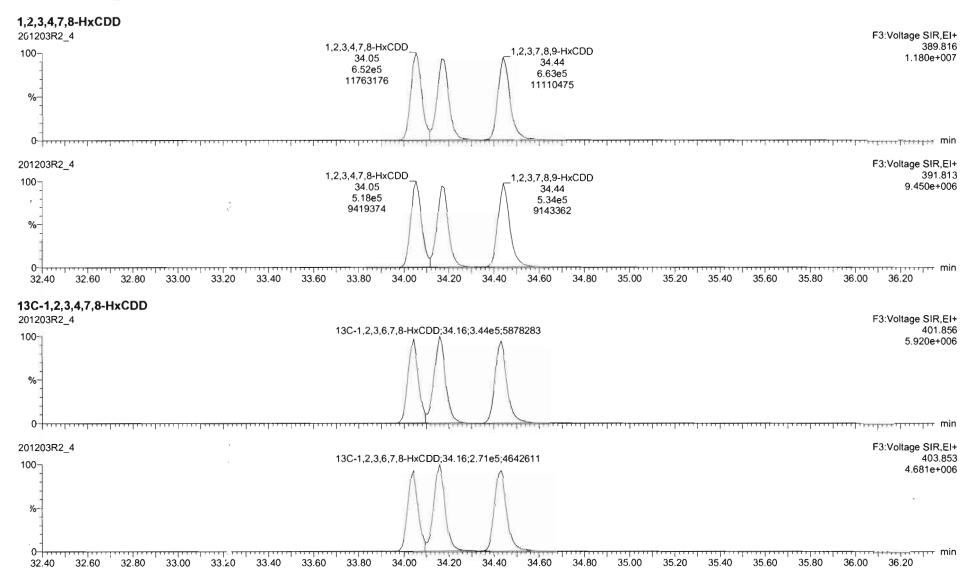
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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

MassLynx 4.1 SCN815

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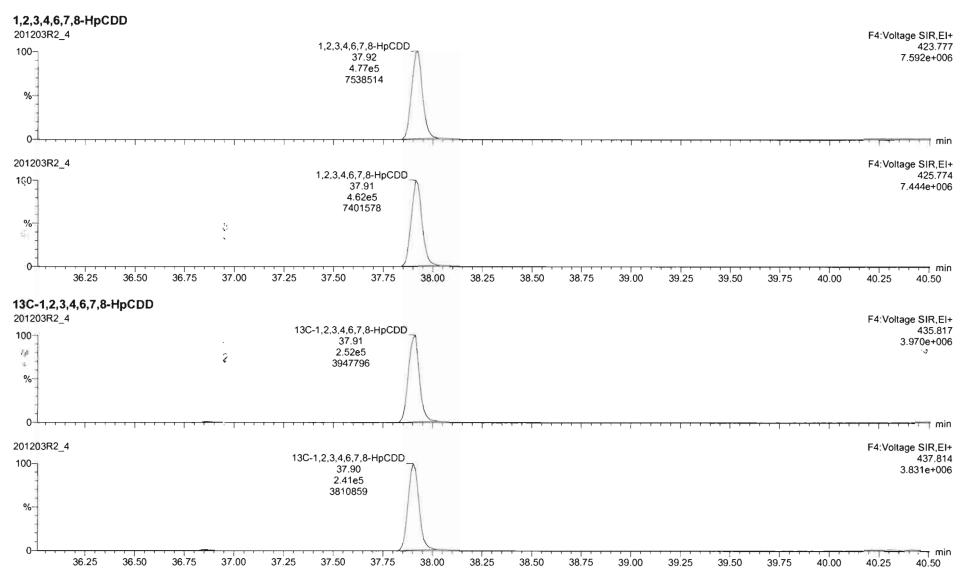


Work Order 2002532

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Name: 201203R2_4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2_4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



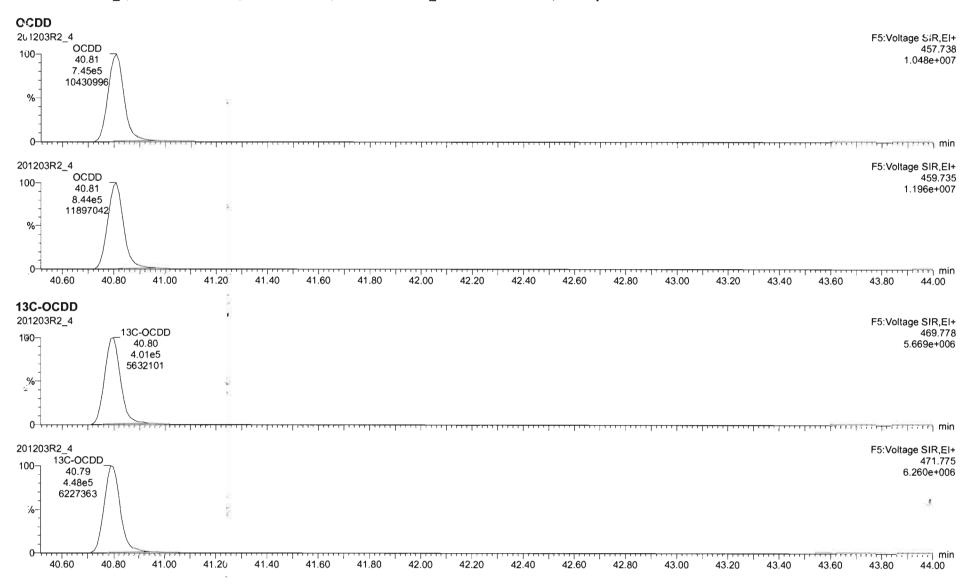
Work Order 2002532

Quantify Sample Report Vista Analytical Laboratory

Dataset:

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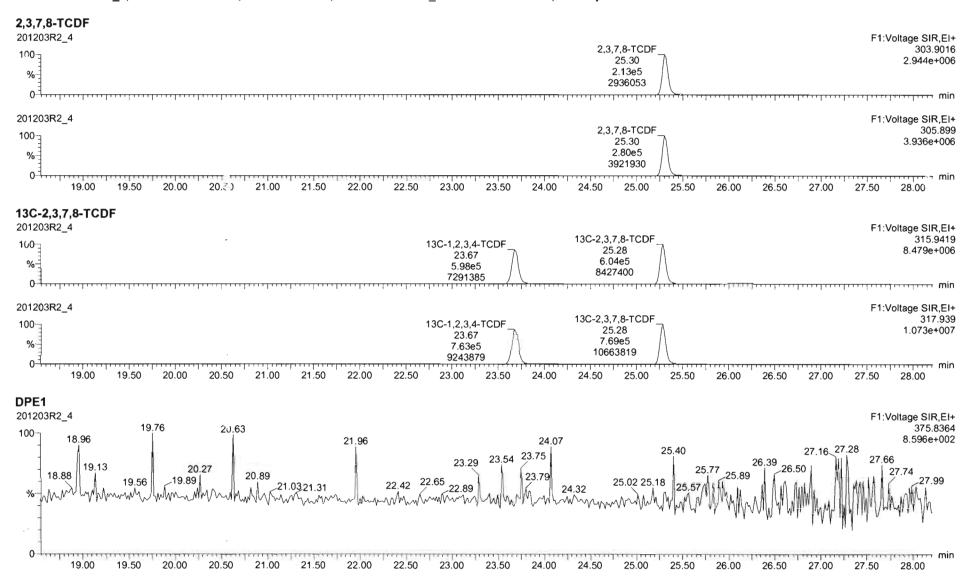


Quantify Sample Report Vista Analytical Laboratory

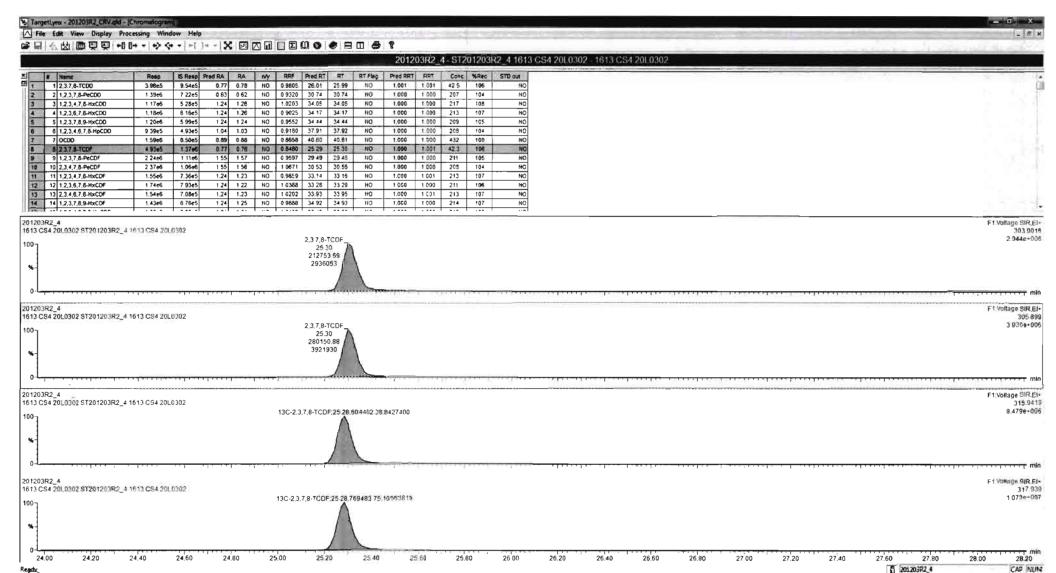
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Name: 201203R2_4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2_4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



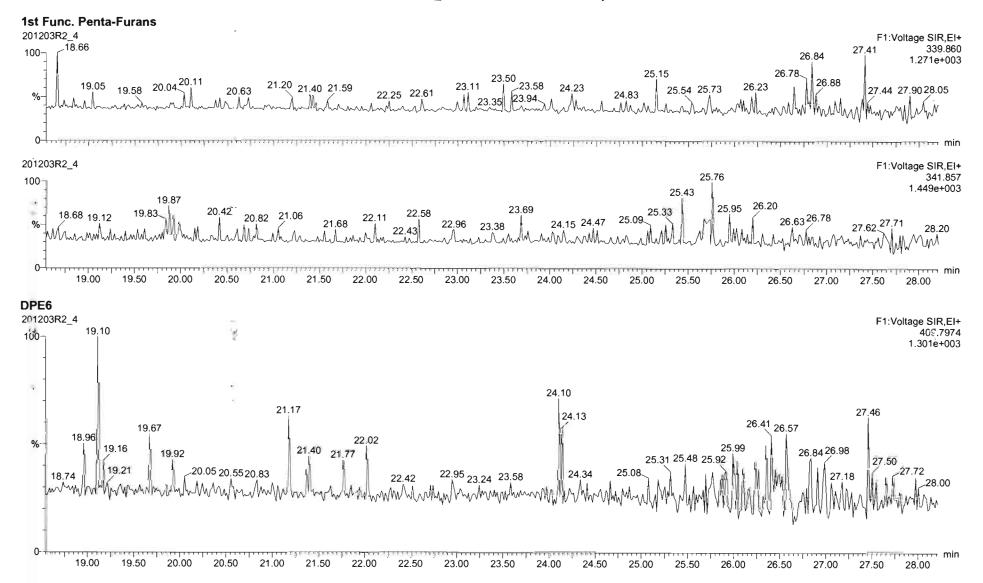
Work Order 2002532 Page 681 of 725



Work Order 2002532 Page 682 of 725

U:\VG12.PRO\Results\201203R2\201203R2 CRV.gld

Last Altered: Printed: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

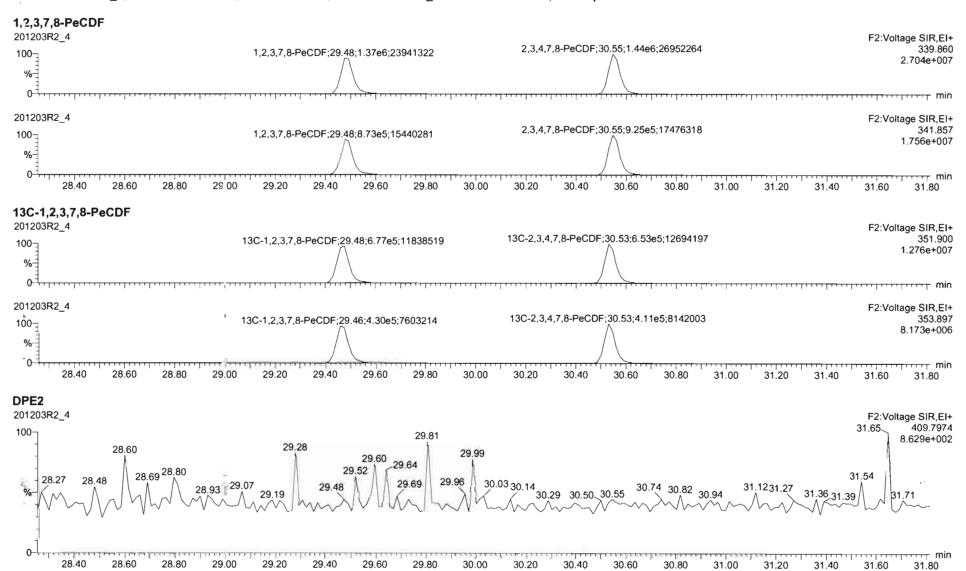


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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2 4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



Work Order 2002532

Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

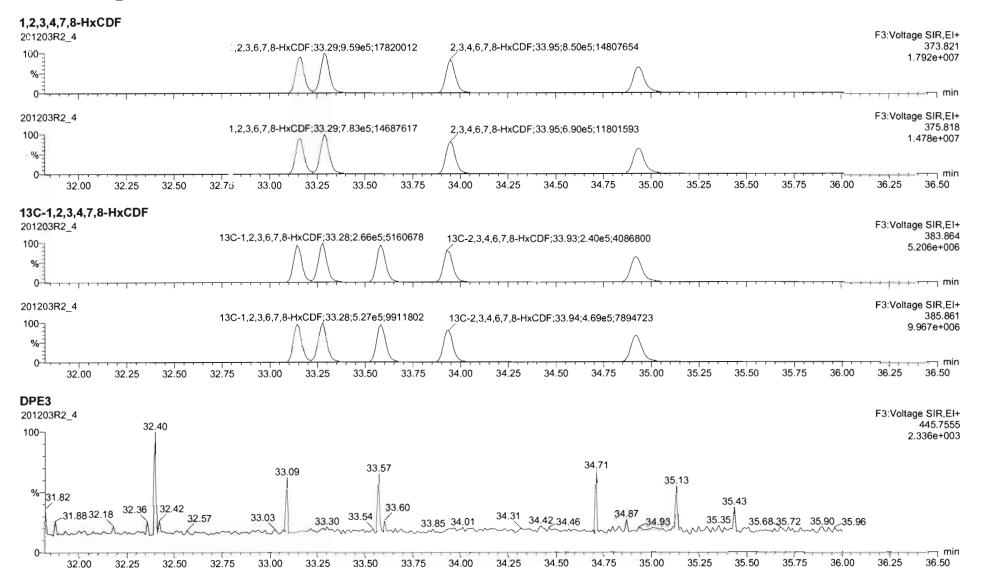
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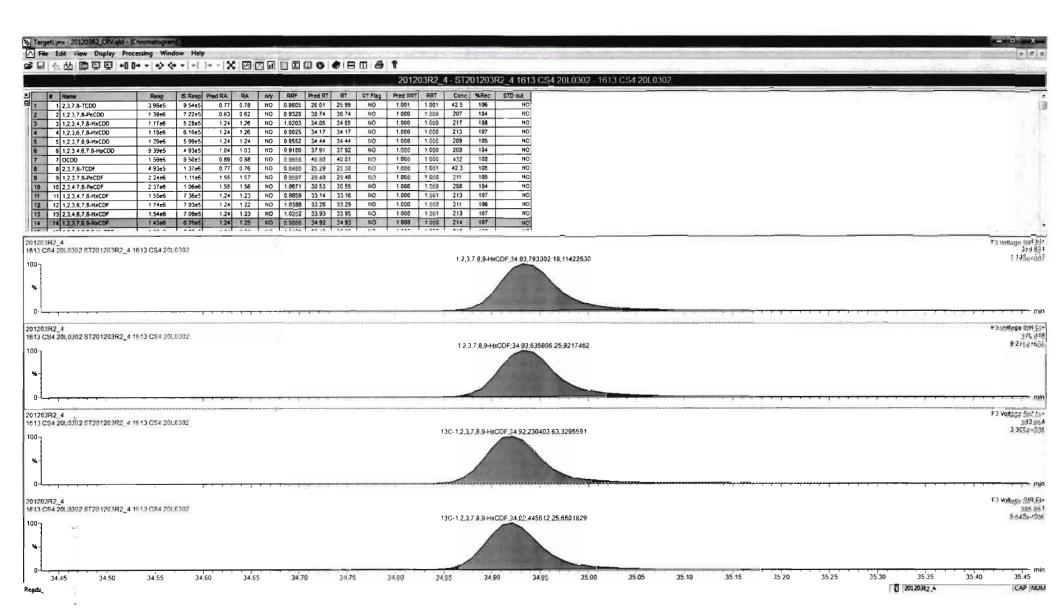
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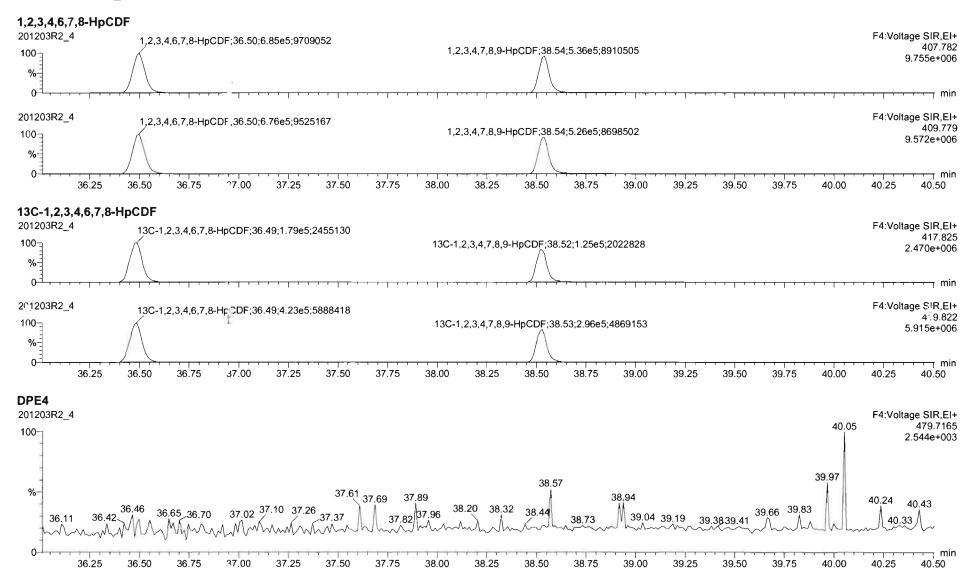


Work Order 2002532 Page 686 of 725

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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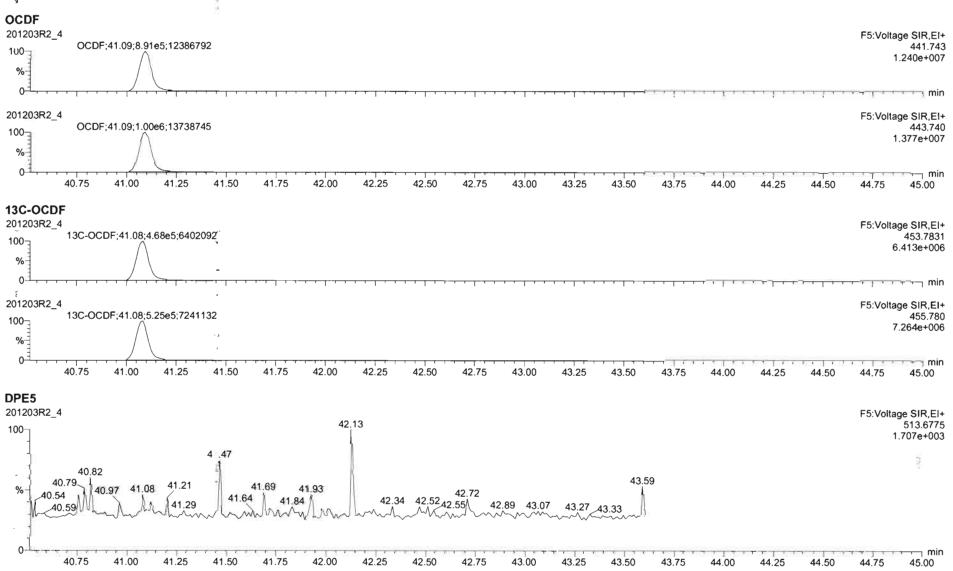
Page 51 of 78

Vista Analytical Laboratory

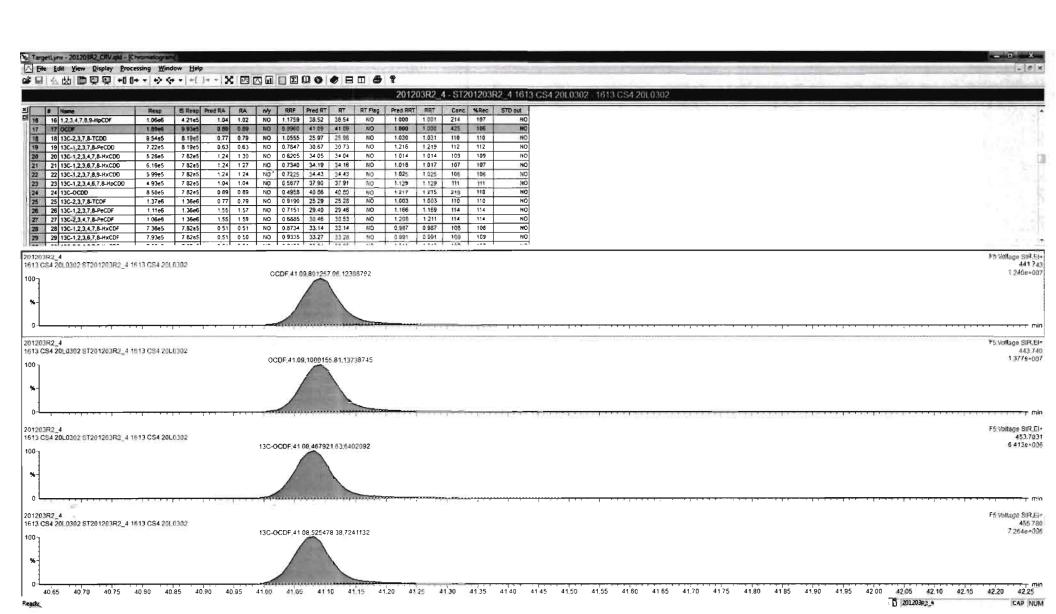
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Name: 201203R2_4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2_4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



Work Order 2002532 Page 688 of 725



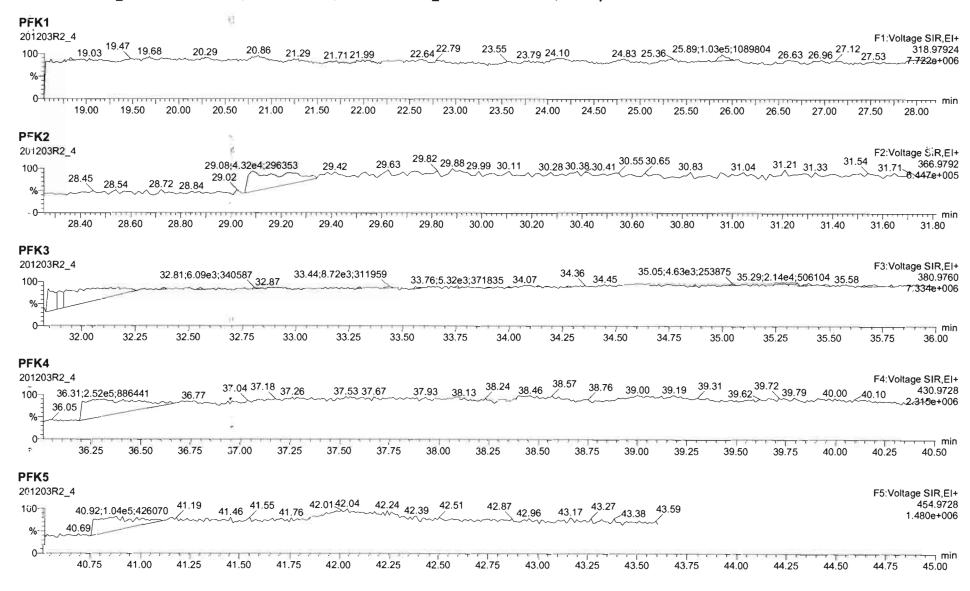
Work Order 2002532 Page 689 of 725

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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Viota Analytical Laboratory

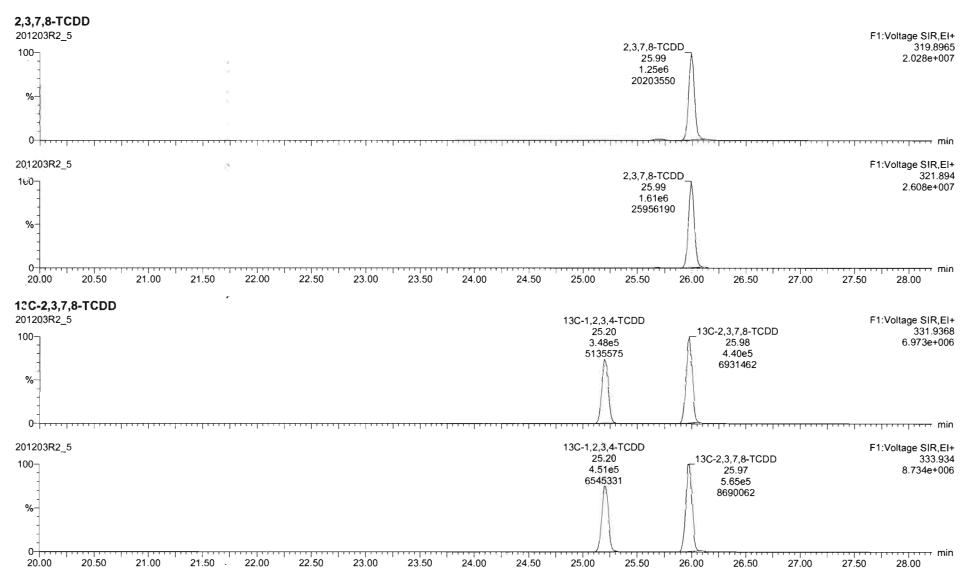
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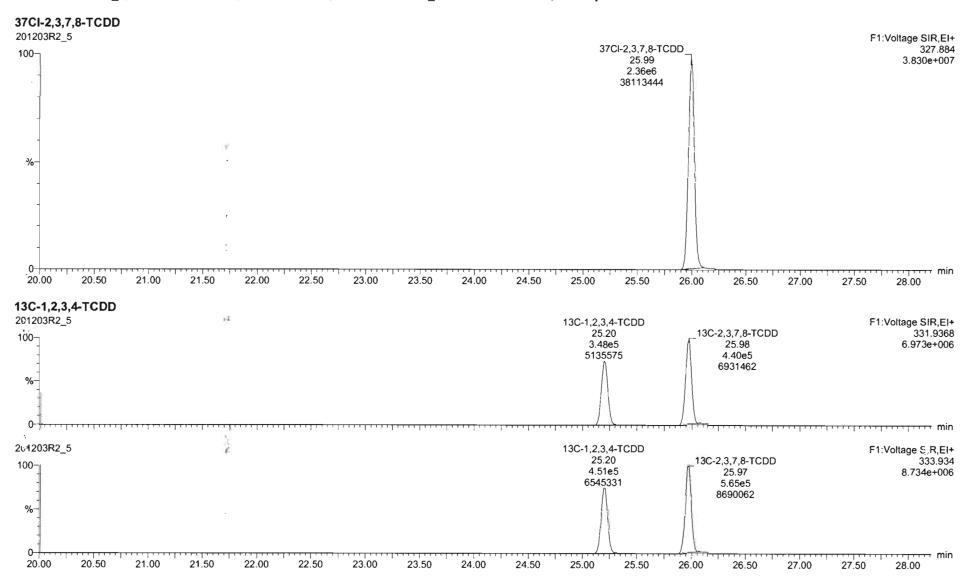
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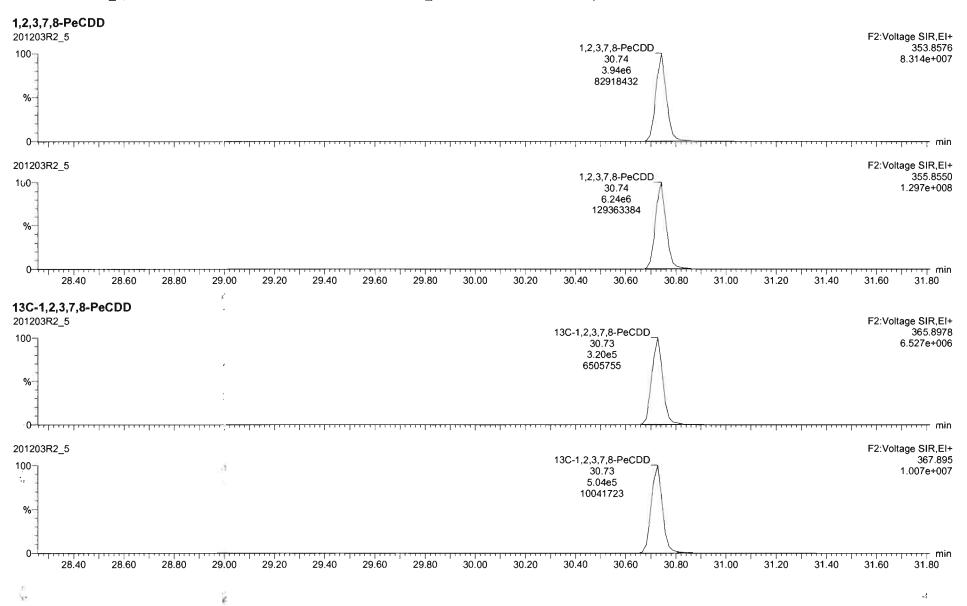
Work Order 2002532

Page 692 of 725

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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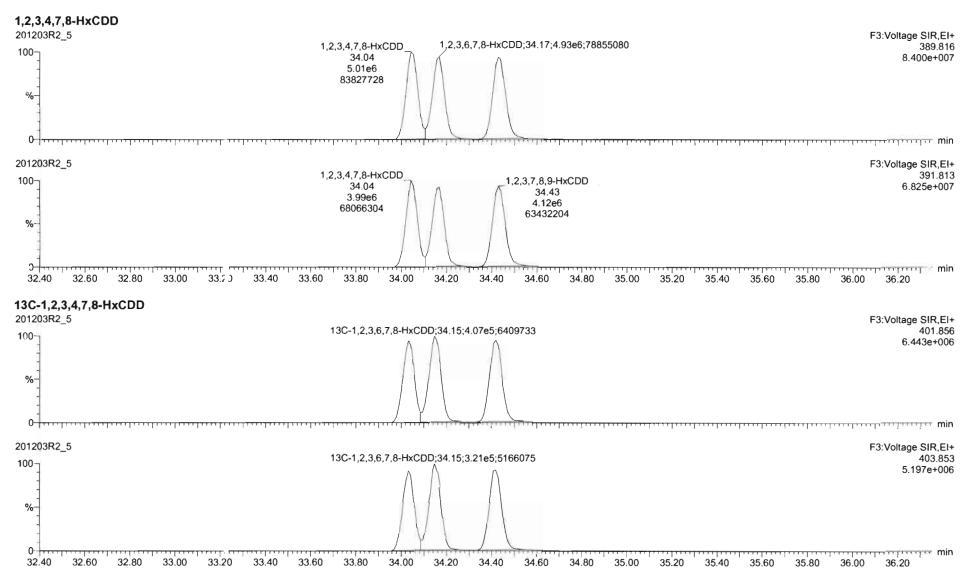
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Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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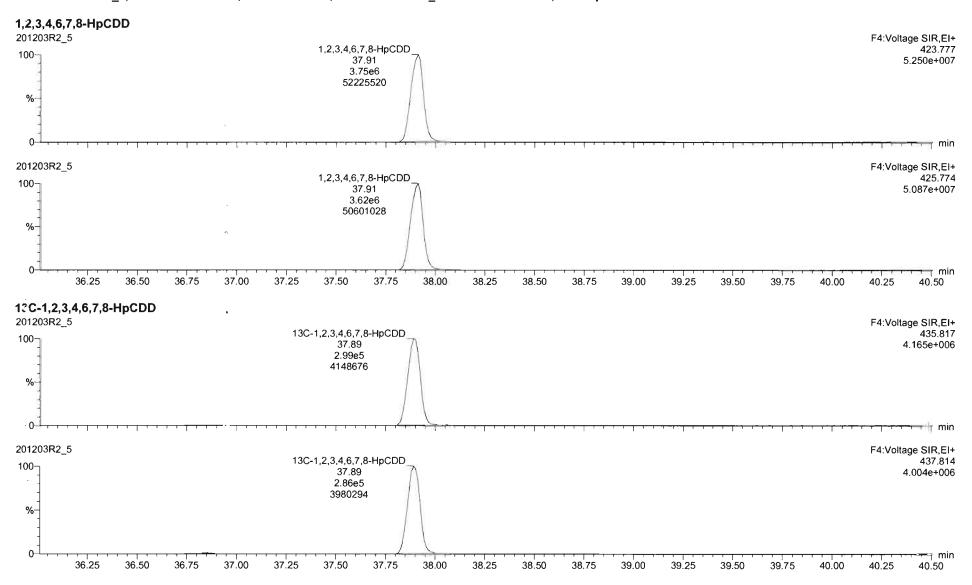
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U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

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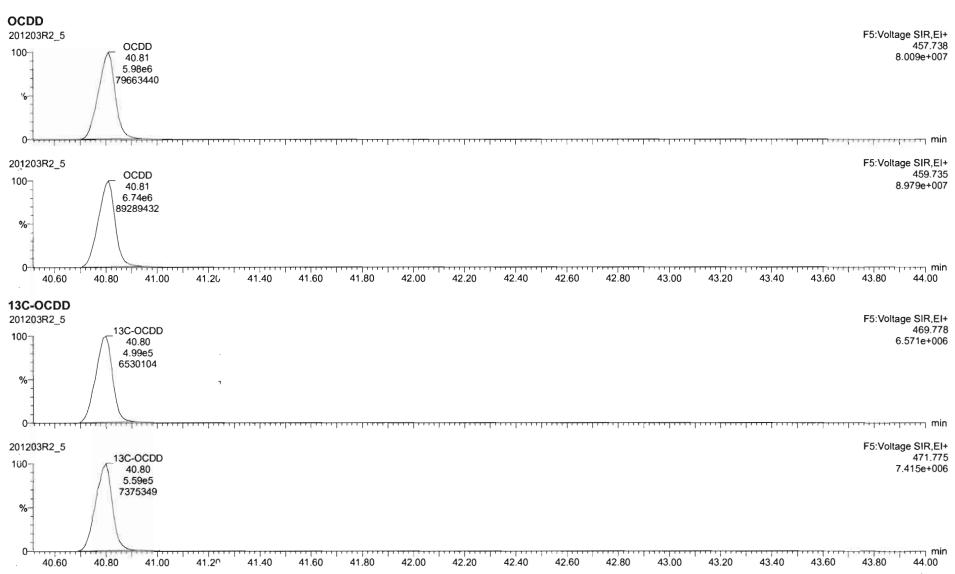


Vista Analytical Laboratory

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Vista Analytical Laboratory

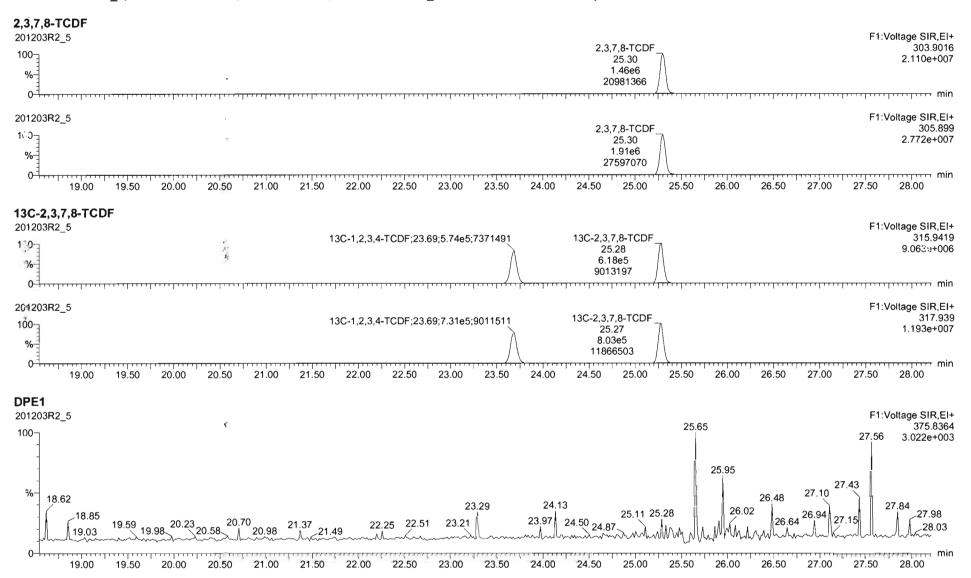
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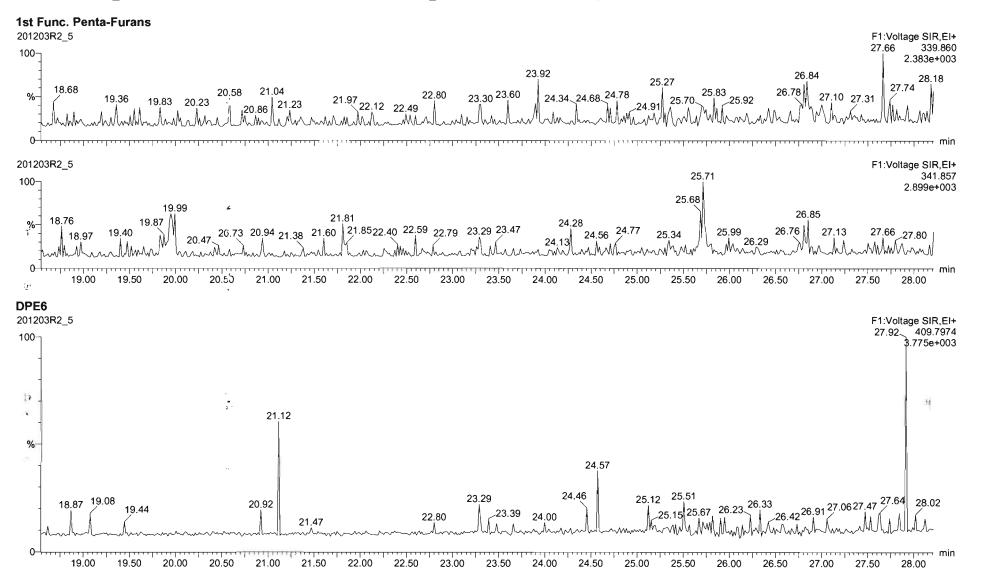


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Vista Analytical Laboratory

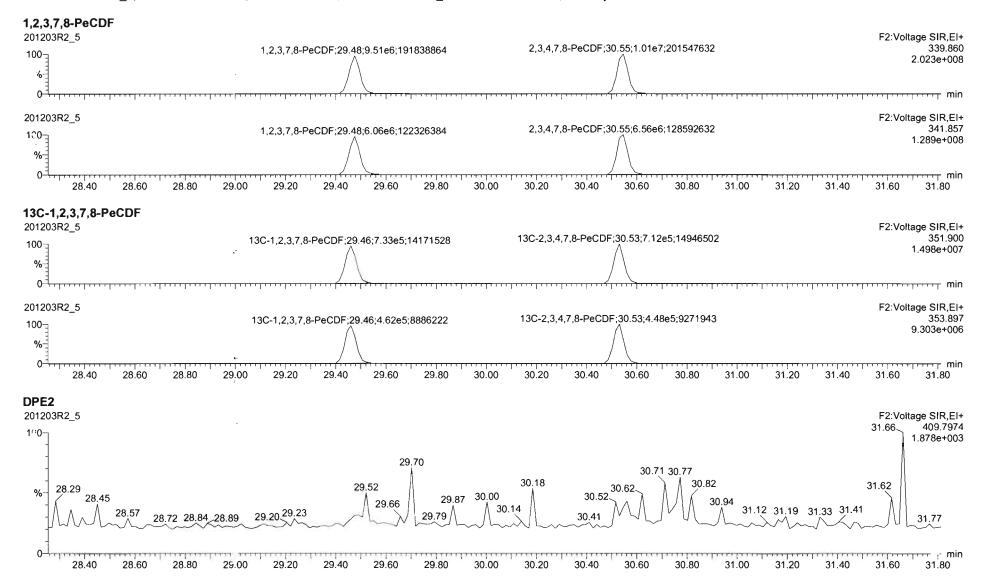
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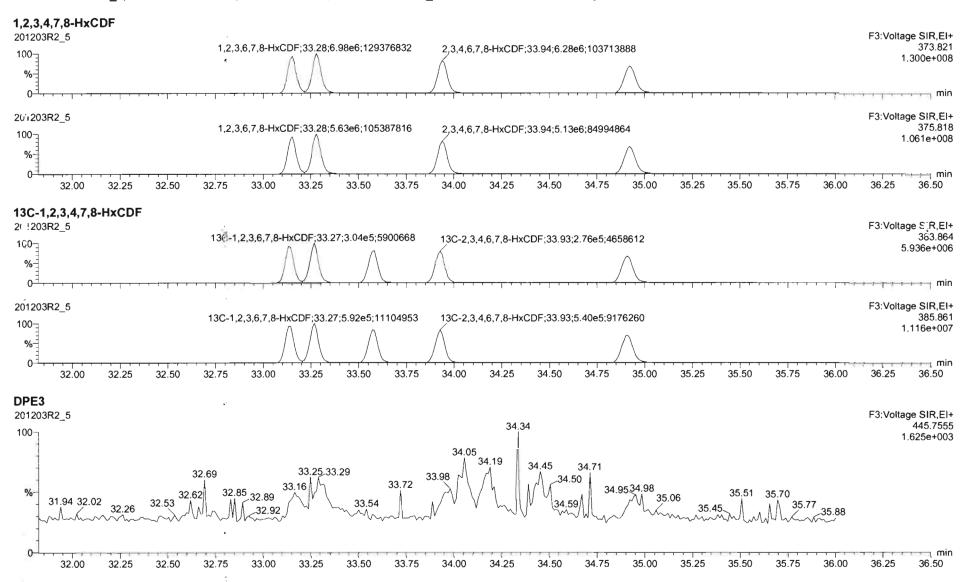


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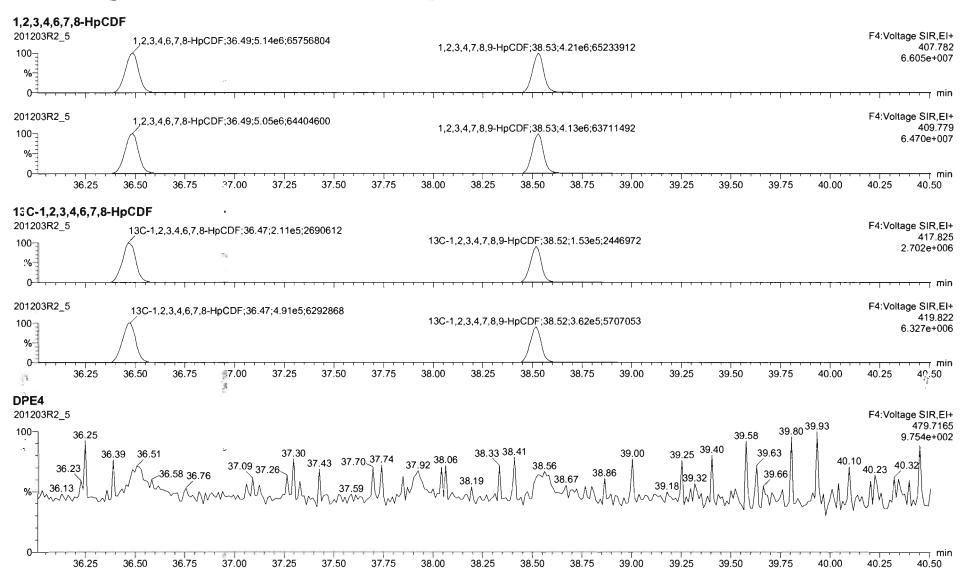


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U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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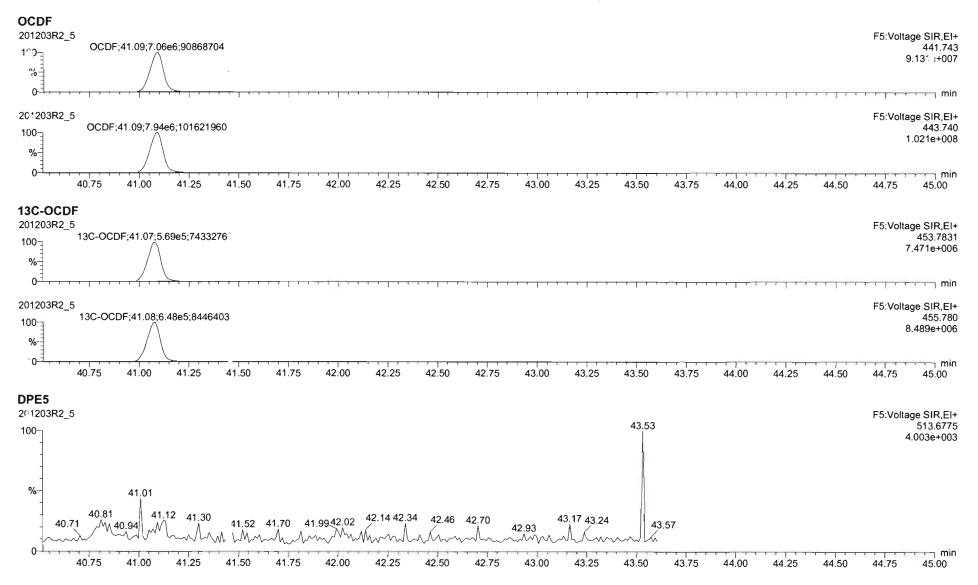


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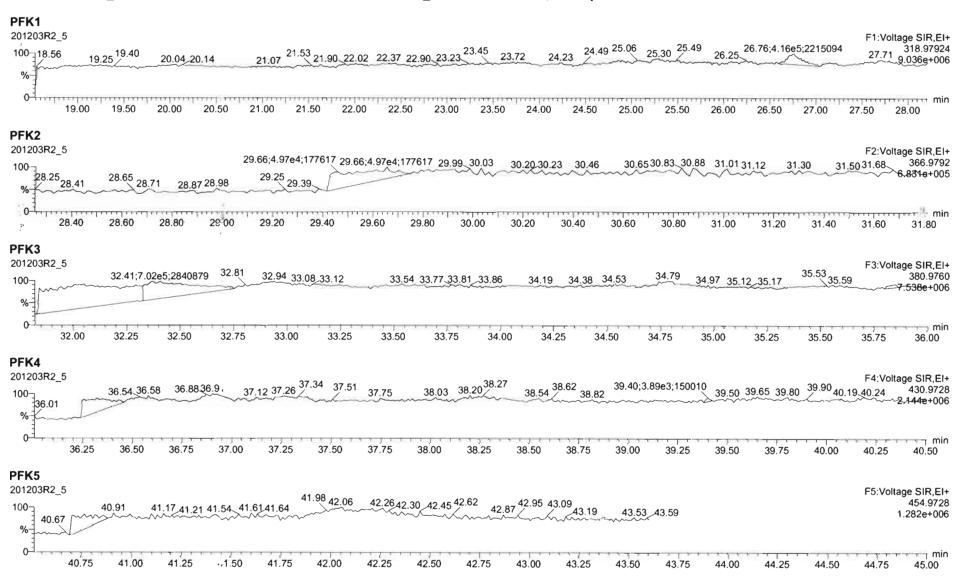


Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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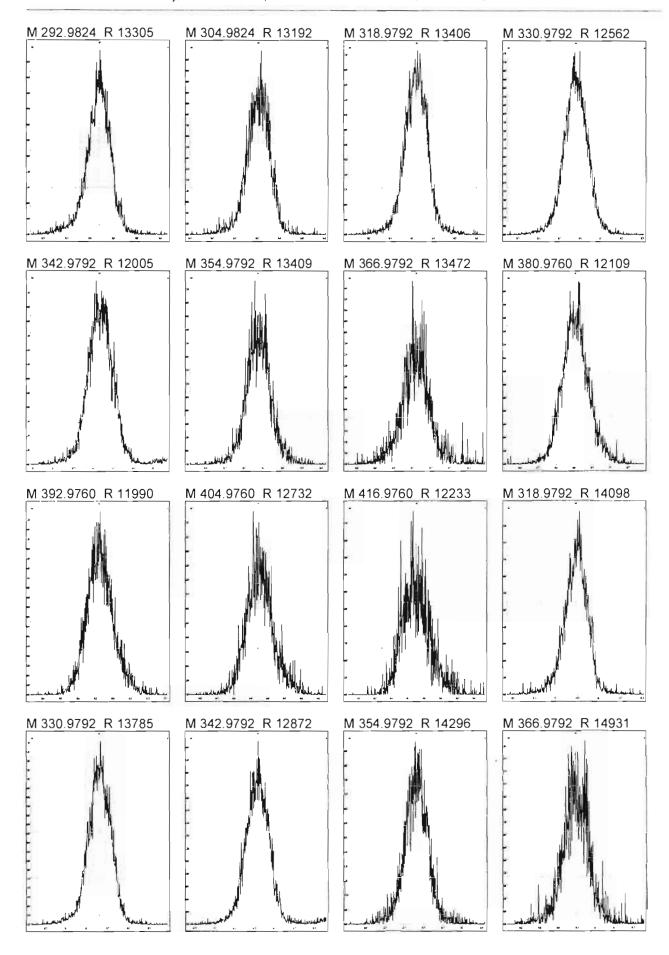
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Work Order 2002532

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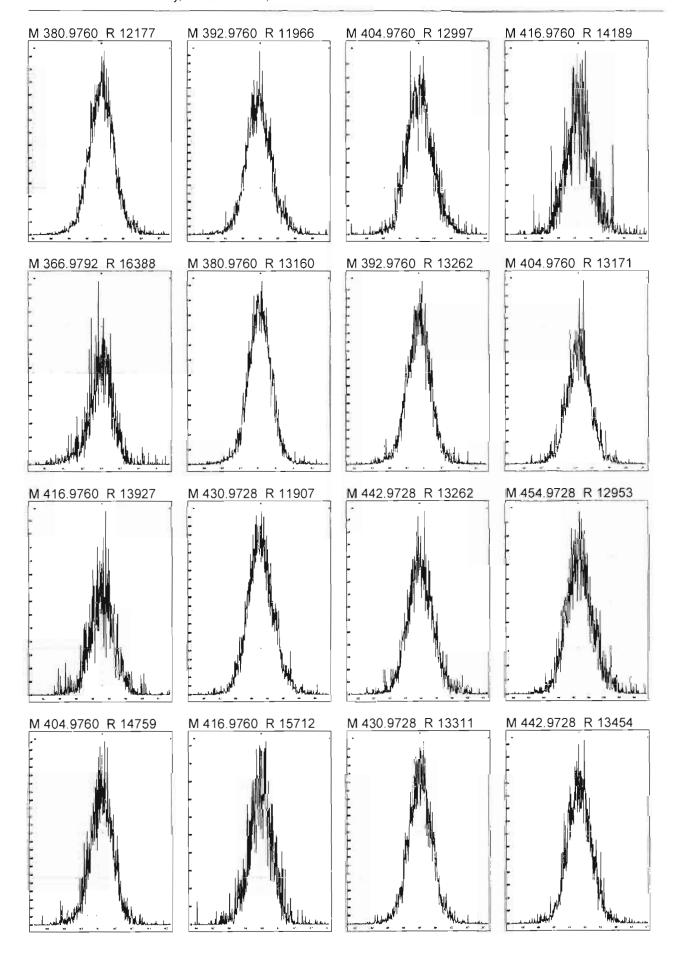
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Work Order 2002532 Page 704 of 725

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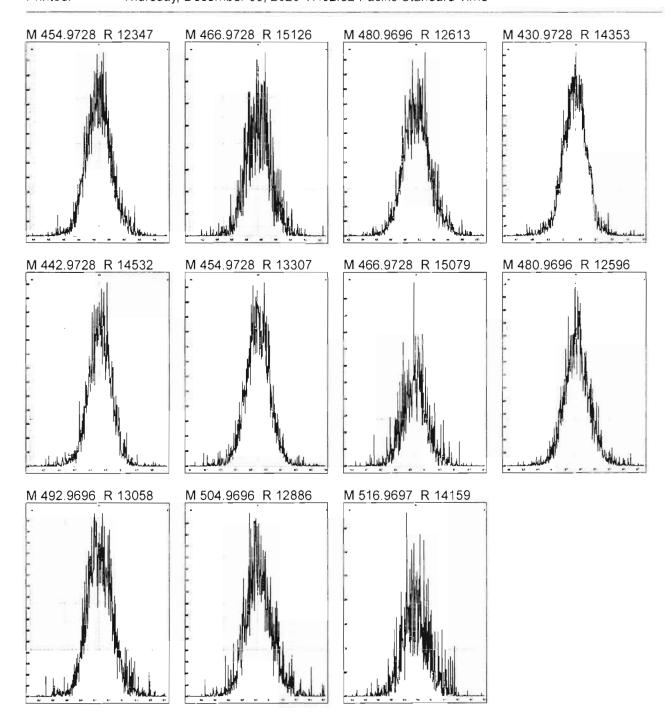
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Work Order 2002532 Page 705 of 725

Printed:

Thursday, December 03, 2020 17:02:52 Pacific Standard Time



Work Order 2002532 Page 706 of 725

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_8.qld

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19

Friday, December 04, 2020 11:51:09 Pacific Standard Time

Printed:

Friday, December 04, 2020 11:57:34 Pacific Standard Time

HN 12/04/2020 GRB 12/08/2020

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907

	# 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	8.12e4	0.75	NO	0.980	1.000	26.008	26.01	1.001	1.001	11.221	112 50-	50% 0.0338	11.2
2	2 1,2,3,7,8-PeCDD	2.78e5	0.63	NO	0.932	1.000	30.751	30.76	1.000	1.000	57.143	114	0.109	57.1
3	3 1,2,3,4,7,8-HxCDD	2.27e5	1.26	NO	1.02	1.000	34.053	34.05	1.000	1.000	57.544	115	0.126	57.5
4	4 1,2,3,6,7,8-HxCDD	2.58e5	1.25	NO	0.902	1.000	34.168	34.18	1.000	1.001	62.459	125	0.119	62.5
5	5 1,2,3,7,8,9-HxCDD	2.43e5	1.27	NO	0.954	1.000	34.440	34.45	1.000	1.001	58.002	116	0.129	58.0
6	6 1,2,3,4,6,7,8-HpCDD	1.75e5	1.04	NO	0.918	1.000	37.902	37.91	1.000	1.000	54.920	110	0.206	54.9
7	7 OCDD .	3.13e5	0.90	NO	0.866	1.000	40.810	40.81	1.000	1.000	123.69	124	0.226	124
8	8 2,3,7,8-TCDF	1.01e5	0.74	NO	0.848	1.000	25.292	25.30	1.000	1.001	10.949	109	0.0323	10.9
9	9 1,2,3,7,8-PeCDF	4.31e5	1.59	NO	0.960	1.000	29.485	29.49	1.000	1.001	55.891	112	0.145	55.9
10	10 2,3,4,7,8-PeCDF	5.03e5	1.62	NO	1.07	1.000	30.546	30.56	1.000	1.000	61.255	123	0.126	61.3
11	11 1,2,3,4,7,8-HxCDF	3.21e5	1.24	NO	0.986	1.000	33.153	33.16	1.000	1.000	61.557	123	0.127	61.6
12	12 1,2,3,6,7,8-HxCDF	3.50e5	1.24	NO	1.04	1.000	33.278	33.30	1.000	1.001	58.959	118	0.121	59.0
13	13 2,3,4,6,7,8-HxCDF	3.27e5	1.24	NO	1.02	1.000	33.941	33.95	1.000	1.000	61.252	123	0.143	61.3
14	14 1,2,3,7,8,9-HxCDF	2.66e5	1.23	NO	0.991	1.000	34.922	34.94	1.000	1.001	57.127	114	0.209	57.1
15	15 1,2,3,4,6,7,8-HpCDF	2.70e5	1.01	NO	1.05	1.000	36.490	36.50	1.000	1.00 0	60.349	121	0.233	60.3
16	16 1,2,3,4,7,8,9-HpCDF	1.98e5	1.01	NO	1.18	1.000	38.528	38.54	1.000	1.000	57.224	114	0.262	57.2
17	17 OCDF	3.54e5	0.90	NO	0.896	1.000	41.100	41.10	1.000	1.000	118.85	119	y 0.359	119
18	18 13C-2,3,7,8-TCDD	7.38e5	0.78	NO	1.06	1.000	25.952	25.98	1.030	1.031	101.50	102	0.148	
19	19 13C-1,2,3,7,8-PeCDD	5.22e5	0.62	NO	0.785	1.000	30.648	30.74	1.216	1.220	96.571	96.6	0.135	
20	20 13C-1,2,3,4,7,8-HxCDD	3.8 7 e5	1.28	NO	0.621	1.000	34.048	34.04	1.014	1.014	103.46	103	0.285	
21	21 13C-1,2,3,6,7,8-HxCDD	4.58e5	1.29	NO	0.734	1.000	34.186	34.16	1.018	1.017	103.62	104	0.241	
22	22 13C-1,2,3,7,8,9-HxCDD	4.38e5	1.28	NO	0.723	1.000	34.428	34.43	1.025	1.025	100.66	101	0.245	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.48e5	1.06	NO	0.568	1.000	37.904	37.90	1.129	1.129	101.76	102	0.392	
24	24 13C-OCDD	5.85e5	0.90	NO	0.496	1.000	40.862	40.81	1.217	1.215	195.89	97.9	0.404	
25	25 1 3 C-2,3,7,8-TCDF	1.08e6	0.78	NO	0.919	1.000	25.276	25.28	1.003	1.004	103.53	104	0.146	
26	26 13C-1,2,3,7,8-PeCDF	8.04e5	1.61	NO	0.715	1.000	29.386	29.48	1.166	1.170	98.865	98.9	0.247	
27	27 13C-2,3,4,7,8-PeCDF	7.69e5	1.59	NO	0.689	1.000	30.439	30.55	1.208	1.212	98.136	98.1	0.256	
28	28 13C-1,2,3,4,7,8-HxCDF	5.30e5	0.51	NO	0.873	1.000	33.142	33.15	0.987	0.987	100.67	101	0.314	
29	29 13C-1,2,3,6,7,8-HxCDF	5.72e5	0.51	NO	0.933	1.000	33.273	3 3 .28	0.991	0.991	101.77	102	0.294	
30	30 13C-2,3,4,6,7,8-HxCDF	5.23e5	0.51	NO	0.843	1.000	33.941	33.94	1.011	1,011	102.97	103	0.326	
31	31_13C-1,2,3,7,8,9-HxCDF	4.69e5	0.51	NO	0.780	1.000	34.935	34.92	1.040	1:040	99.930	99.9	0.352	

Page 707 of 725 Work Order 2002532

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_8.qld

Last Altered: Friday, December 04, 2020 11:51:09 Pacific Standard Time Friday, December 04, 2020 11:57:34 Pacific Standard Time

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907

1000	# 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	4.26e5	0.42	NO	0.726	1.000	36.500	36.49	1.087	1.086	97.268	97.3	0.265	
3.	33 13C-1,2,3,4,7,8,9-HpCDF	2.94e5	0.42	NO	0.491	1.000	38.532	38.53	1.147	1.147	99.221	99.2	0.391	
34	34 13C-OCDF	6.65e5	0.87	NO	0.565	1.000	41.144	41.09	1.225	1.224	195.35	97.7	0.348	
35	35 37Cl-2,3,7,8-TCDD	9.13e4			1.22	1.000	25.952	25.99	1.030	1.032	10.891	109	0.0217	
36	36 13C-1,2,3,4-TCDD	6.89e5	0.77	NO	1.00	1.000	25.370	25.20	1.000	1.000	100.00	100	0.157	
37	37 13C-1,2,3,4-TCDF	1.14e6	0.78	NO	1.00	1.000	23.870	23.67	1.000	1.000	100.00	100	0.134	
38	38 13C-1,2,3,4,6,9-HxCDF	6.02e5	0.51	NO	1.00	1.000	33.710	33.58	1.000	1.000	100.00	100	0.274	

Work Order 2002532 Page 708 of 725

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 8.qld

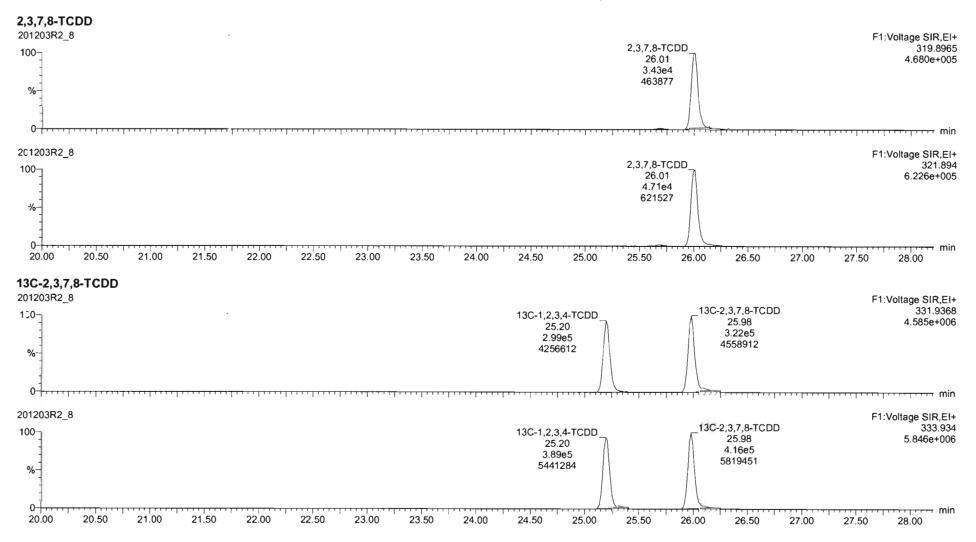
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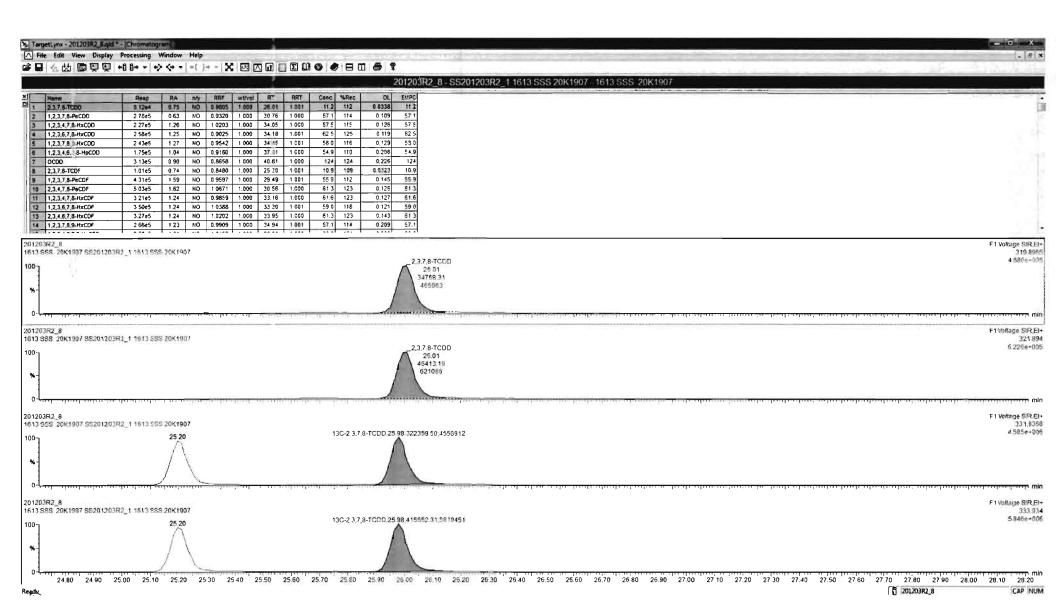
Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907





Work Order 2002532 Page 710 of 725

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Quantify Sample Report Vista Analytical Laboratory

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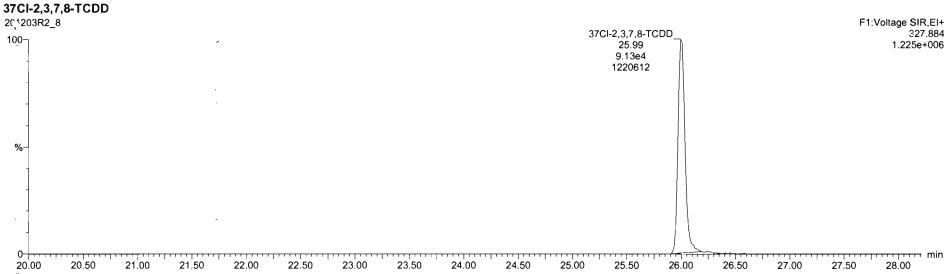
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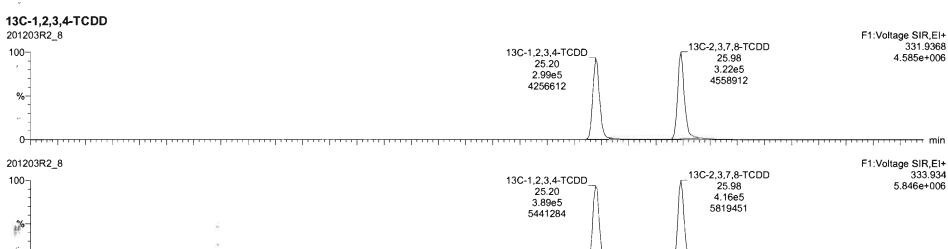
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Page 711 of 725 Work Order 2002532

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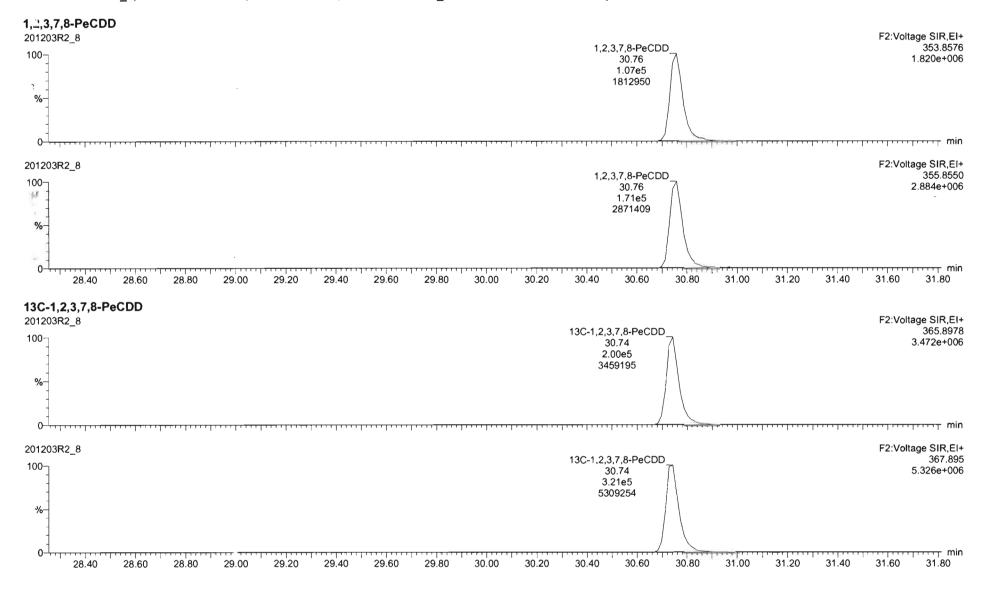
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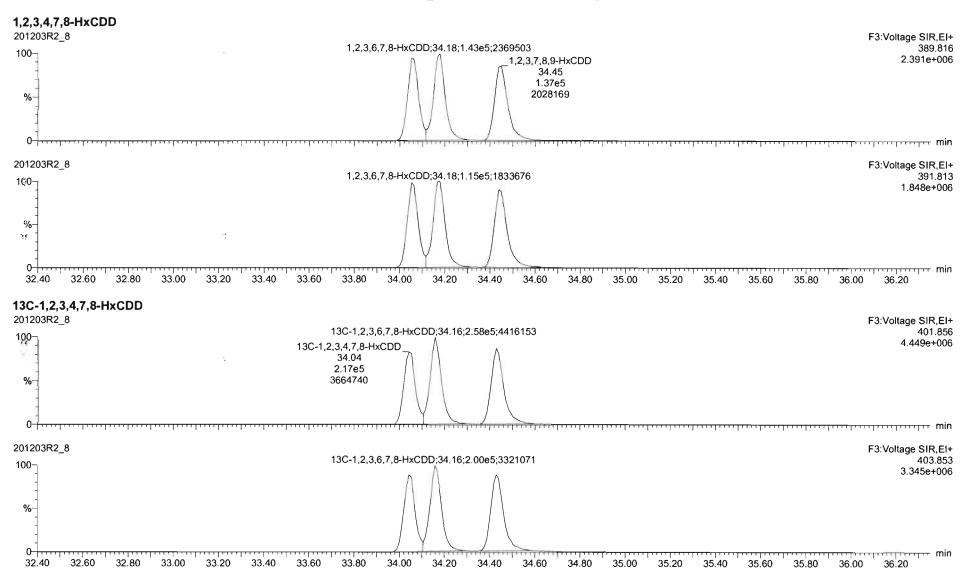


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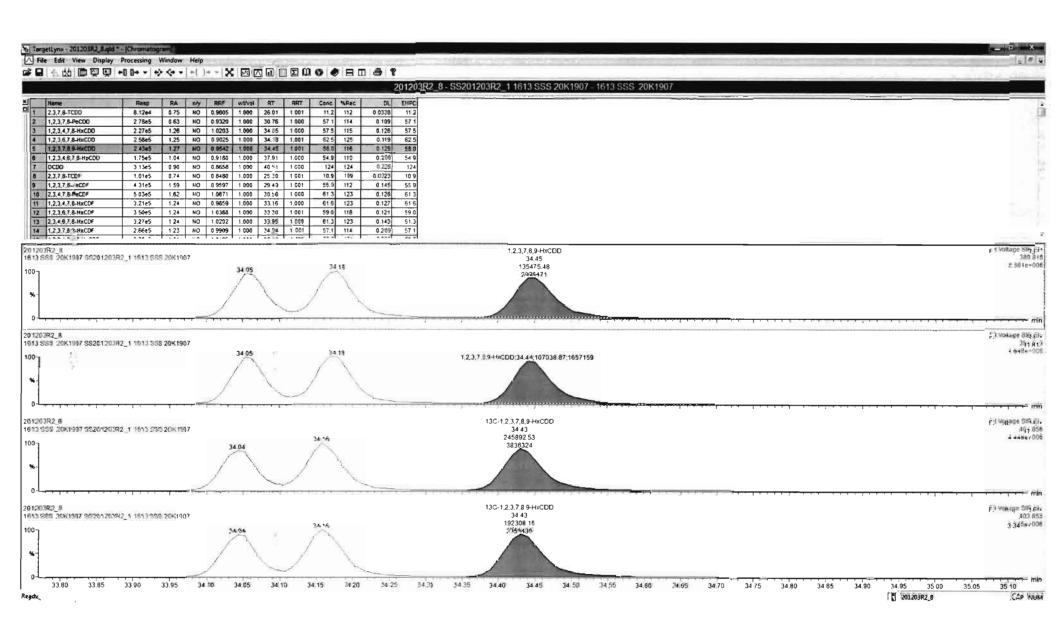
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Work Order 2002532



Work Order 2002532 Page 714 of 725

Quantify Sample Report Vista Analytical Laboratory

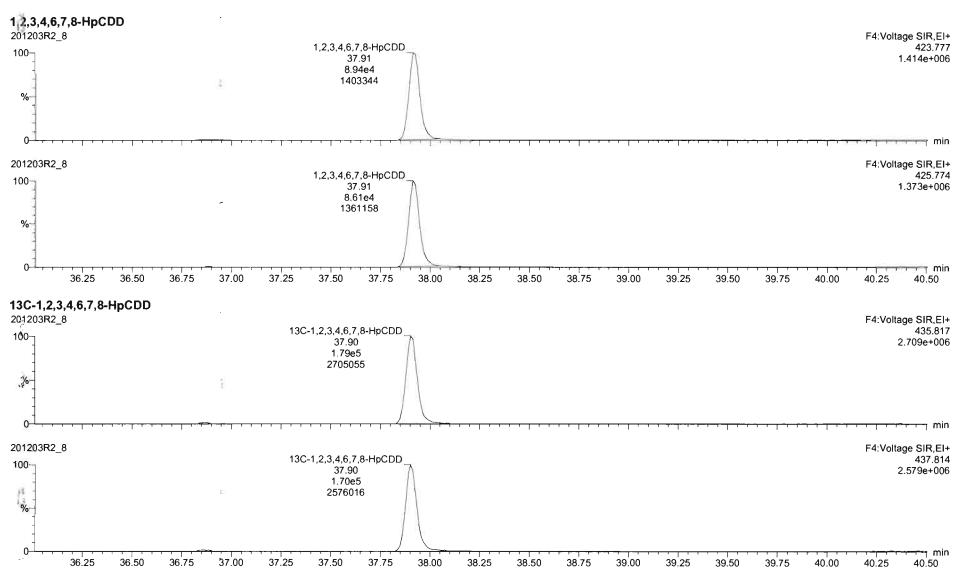
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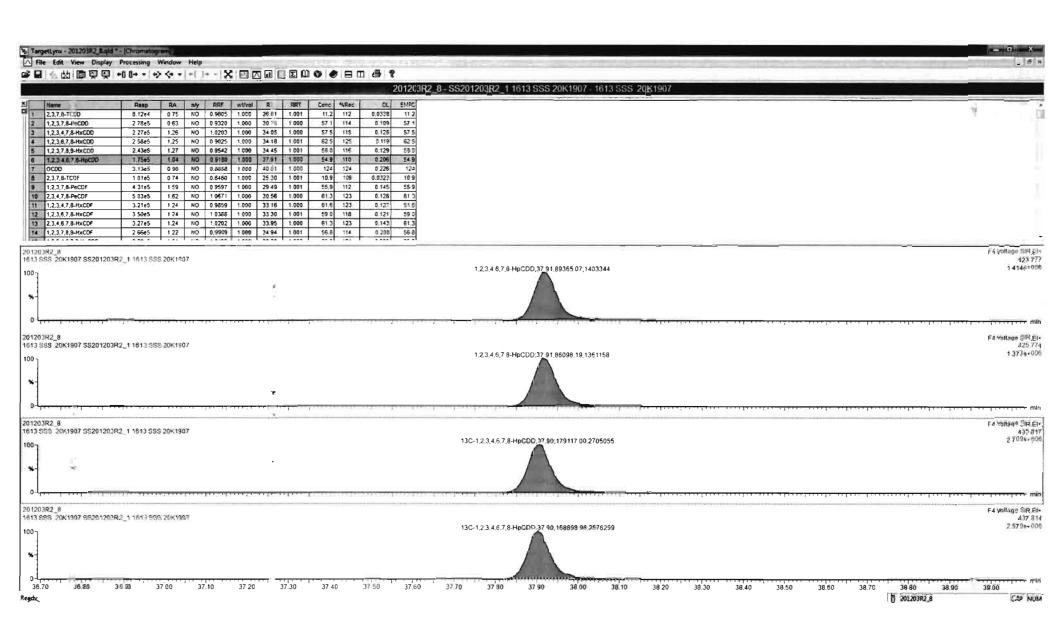
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Work Order 2002532



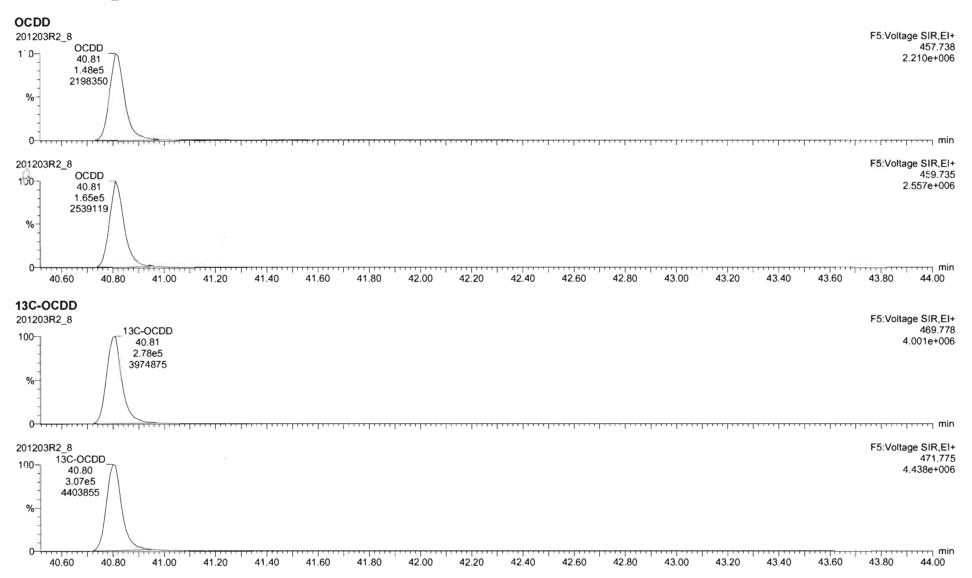
Work Order 2002532 Page 716 of 725

Quantify Sample Report Vista Analytical Laboratory

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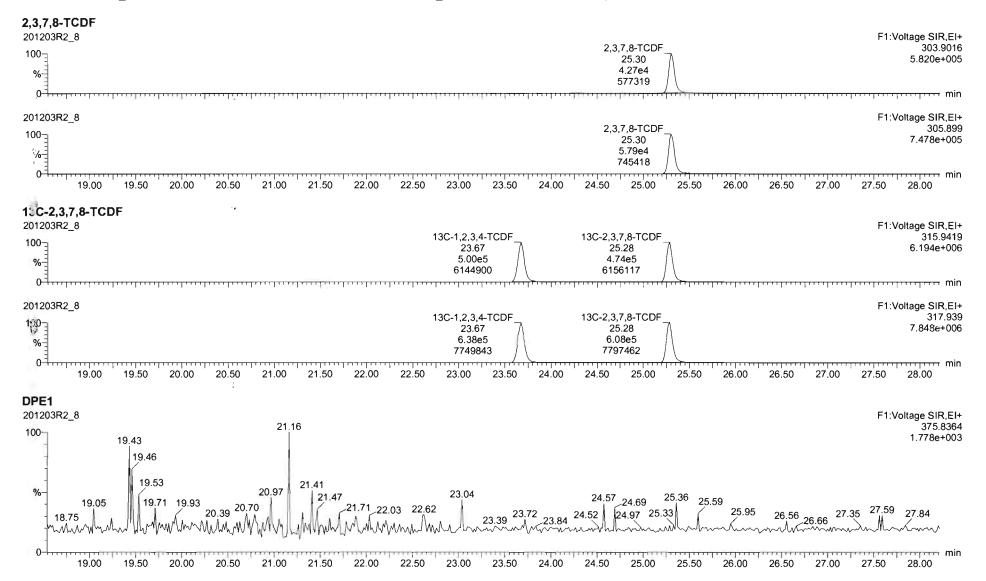
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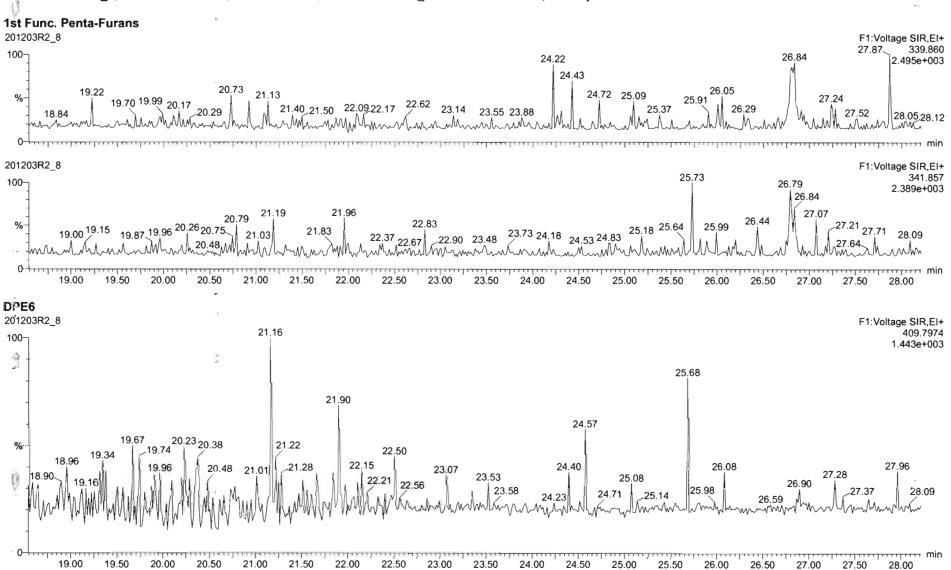


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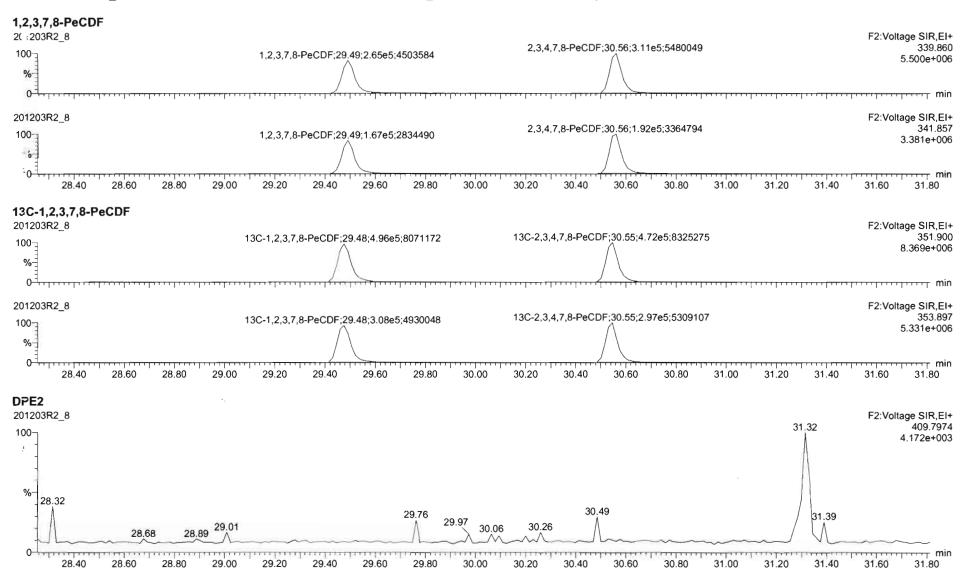
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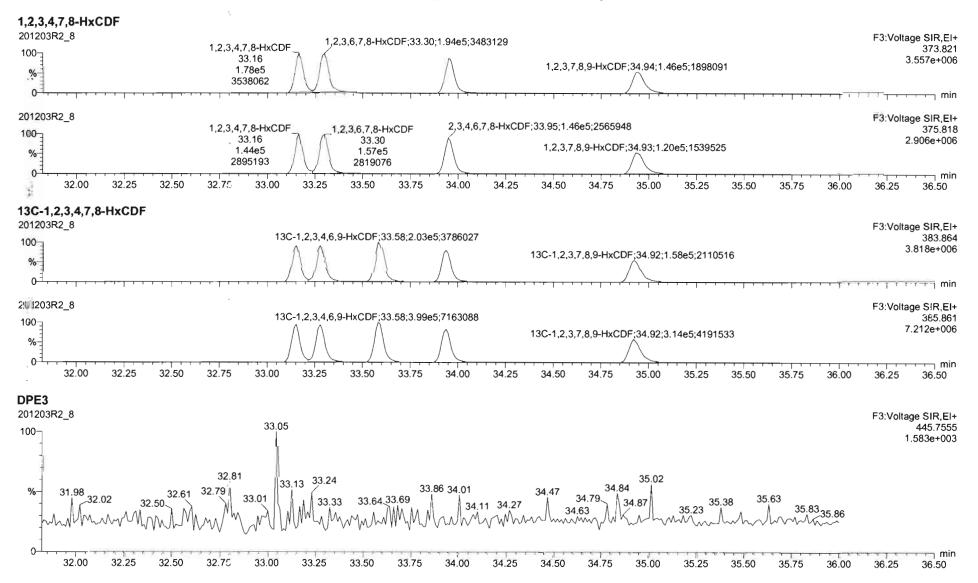


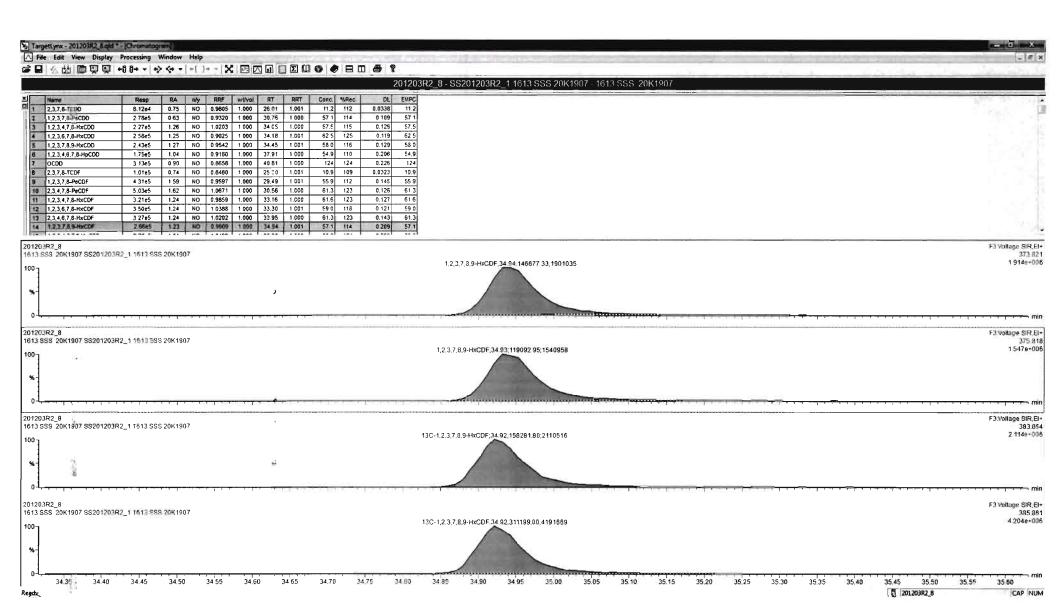
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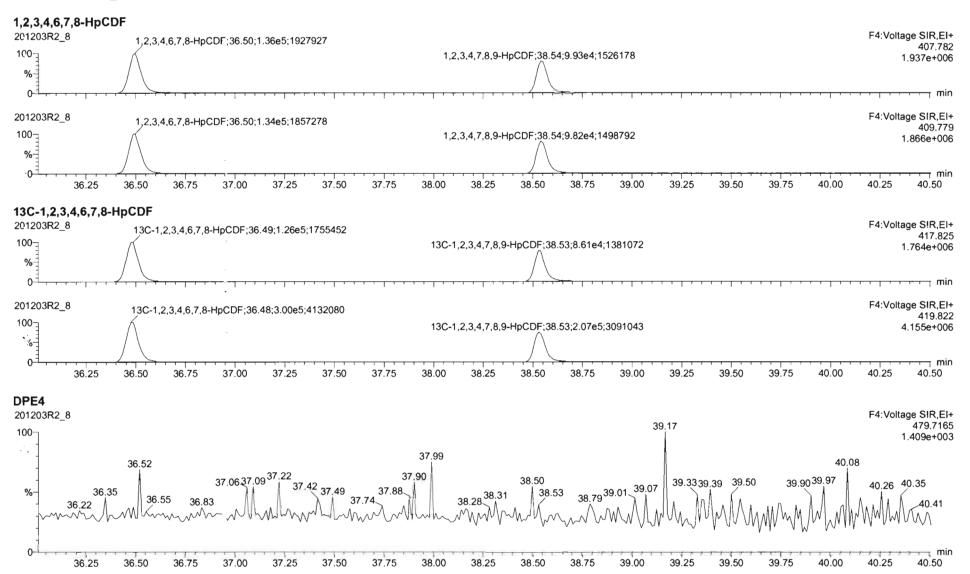


Work Order 2002532 Page 722 of 725

U:\VG12.PRO\Results\201203R2\201203R2_8.qld

Last Altered: Printed: Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907

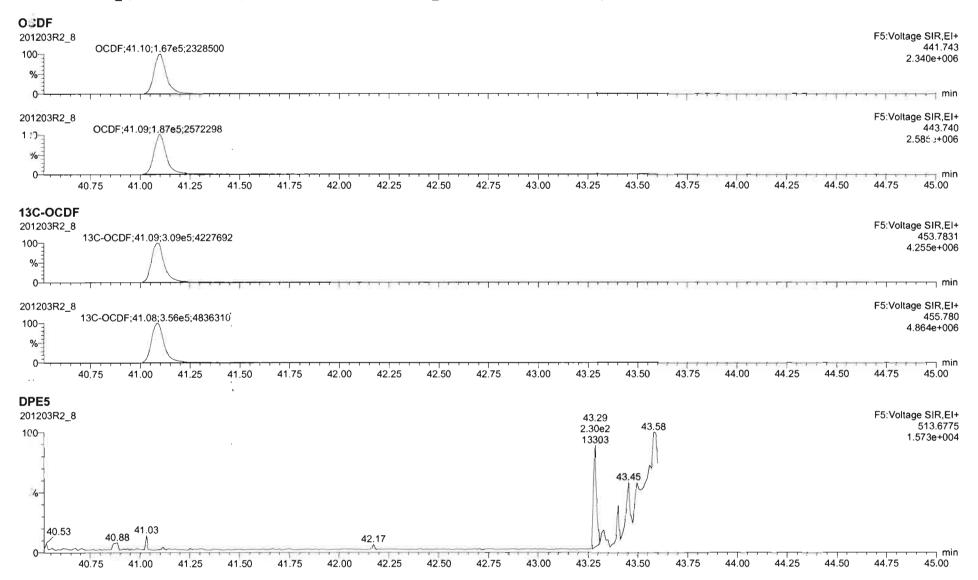


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Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907



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Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 8.qld

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