



April 03, 2020

**Vista Work Order No. 2000412**

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 February 27, 2020 under your Project Name 'Gasco PDI 000029-02.59'.

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

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

Sincerely,

Martha Maier  
Laboratory Director



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

**Vista Work Order No. 2000412**

**Case Narrative**

**Sample Condition on Receipt:**

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

**Analytical Notes:**

**EPA Method 1613B**

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

**Holding Times**

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 above 1/2 the quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

A duplicate analysis was performed on sample "PDI-055SC-A-07-08-191015". The RPDs were outside of the acceptance criteria for 1,2,3,4,6,7,8-HpCDD and OCDD.

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

## TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	25
Certifications.....	26
Sample Receipt.....	29
Extraction Information.....	33
Sample Data - EPA Method 1613.....	40
Confirmation.....	592
Continuing Calibration.....	614
Initial Calibration.....	722

# Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2000412-01	PDI-055SC-A-07-08-191015	DUP15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-02	PDI-055SC-A-08-09-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-03	PDI-055SC-A-09-10-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-04	PDI-055SC-A-10-11-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-05	PDI-079SC-A-10-11-191014	14-Oct-19 13:26	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-06	PDI-081SC-A-10-11-191002	02-Oct-19 08:49	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-07	PDI-081SC-A-11-12-191002	02-Oct-19 08:49	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-08	PDI-082SC-A-06-07-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-09	PDI-082SC-A-07-08-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-10	PDI-082SC-A-08-09-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-11	PDI-082SC-A-09-10-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-12	PDI-082SC-A-10-11-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-13	PDI-082SC-A-11-12-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-14	PDI-082SC-A-12-13-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL
2000412-15	PDI-082SC-A-13-14-191002	02-Oct-19 14:14	27-Feb-20 08:43	Amber Glass, 120 mL

## **ANALYTICAL RESULTS**

<b>Sample ID: Method Blank</b>	<b>EPA Method 1613B</b>
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Matrix: Solid	QC Batch: B0C0040	Lab Sample: B0C0040-BLK1
Sample Size: 10.0 g	Date Extracted: 04-Mar-2020 6:56	Date Analyzed: 19-Mar-20 21:05 Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.128			IS 13C-2,3,7,8-TCDD	87.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.110			13C-1,2,3,7,8-PeCDD	78.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0865			13C-1,2,3,4,7,8-HxCDD	77.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0902			13C-1,2,3,6,7,8-HxCDD	75.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0986			13C-1,2,3,7,8,9-HxCDD	77.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.207			13C-1,2,3,4,6,7,8-HpCDD	83.4	23 - 140	
OCDD	0.235			J	13C-OCDD	75.0	17 - 157	
2,3,7,8-TCDF	ND	0.0639			13C-2,3,7,8-TCDF	77.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0740			13C-1,2,3,7,8-PeCDF	69.8	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0706			13C-2,3,4,7,8-PeCDF	68.4	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0636			13C-1,2,3,4,7,8-HxCDF	92.2	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0609			13C-1,2,3,6,7,8-HxCDF	91.4	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0647			13C-2,3,4,6,7,8-HxCDF	89.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0400		13C-1,2,3,7,8,9-HxCDF	90.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0914			13C-1,2,3,4,6,7,8-HpCDF	89.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.105			13C-1,2,3,4,7,8,9-HpCDF	88.9	26 - 138	
OCDF	ND	0.136			13C-OCDF	85.4	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	90.5	35 - 197	

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

TEQMinWHO2005Dioxin      0.000071

<b>TOTALS</b>								
Total TCDD	ND	0.128						
Total PeCDD	ND	0.110						
Total HxCDD	ND	0.0986						
Total HpCDD	ND	0.207						
Total TCDF	ND	0.0639						
Total PeCDF	ND	0.0740						
Total HxCDF	0.0288		0.0690					
Total HpCDF	ND	0.105						

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

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

Sample ID: OPR					EPA Method 1613B		
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0C0040 Date Extracted: 04-Mar-2020 6:56		Lab Sample: B0C0040-BS1 Date Analyzed: 19-Mar-20 18:42 Column: ZB-5MS			
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	20.3	20.0	102	67 - 158	IS 13C-2,3,7,8-TCDD	77.4	20 - 175
1,2,3,7,8-PeCDD	107	100	107	70 - 142	13C-1,2,3,7,8-PeCDD	77.9	21 - 227
1,2,3,4,7,8-HxCDD	104	100	104	70 - 164	13C-1,2,3,4,7,8-HxCDD	72.7	21 - 193
1,2,3,6,7,8-HxCDD	106	100	106	76 - 134	13C-1,2,3,6,7,8-HxCDD	69.7	25 - 163
1,2,3,7,8,9-HxCDD	102	100	102	64 - 162	13C-1,2,3,7,8,9-HxCDD	74.9	21 - 193
1,2,3,4,6,7,8-HpCDD	100	100	100	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	80.3	26 - 166
OCDD	193	200	96.3	78 - 144	13C-OCDD	75.6	13 - 199
2,3,7,8-TCDF	19.1	20.0	95.5	75 - 158	13C-2,3,7,8-TCDF	67.0	22 - 152
1,2,3,7,8-PeCDF	107	100	107	80 - 134	13C-1,2,3,7,8-PeCDF	60.8	21 - 192
2,3,4,7,8-PeCDF	107	100	107	68 - 160	13C-2,3,4,7,8-PeCDF	63.1	13 - 328
1,2,3,4,7,8-HxCDF	96.6	100	96.6	72 - 134	13C-1,2,3,4,7,8-HxCDF	83.0	19 - 202
1,2,3,6,7,8-HxCDF	100	100	100	84 - 130	13C-1,2,3,6,7,8-HxCDF	82.3	21 - 159
2,3,4,6,7,8-HxCDF	98.6	100	98.6	70 - 156	13C-2,3,4,6,7,8-HxCDF	82.6	22 - 176
1,2,3,7,8,9-HxCDF	98.4	100	98.4	78 - 130	13C-1,2,3,7,8,9-HxCDF	83.4	17 - 205
1,2,3,4,6,7,8-HpCDF	95.1	100	95.1	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	84.5	21 - 158
1,2,3,4,7,8,9-HpCDF	95.9	100	95.9	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	82.0	20 - 186
OCDF	204	200	102	63 - 170	13C-OCDF	84.4	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	82.7	31 - 191

LCL-UCL - Lower control limit - upper control limit

**Sample ID: PDI-055SC-A-07-08-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-01      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.6 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 15-Oct-2019 10:51	% Solids: 74.1	Date Analyzed: 20-Mar-20 15:26      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.128			IS 13C-2,3,7,8-TCDD	60.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.108			13C-1,2,3,7,8-PeCDD	69.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0983			13C-1,2,3,4,7,8-HxCDD	75.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0985			13C-1,2,3,6,7,8-HxCDD	76.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.106			13C-1,2,3,7,8,9-HxCDD	81.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.23			J	13C-1,2,3,4,6,7,8-HpCDD	89.8	23 - 140	
OCDD	10.6			B	13C-OCDD	76.0	17 - 157	
2,3,7,8-TCDF	ND	0.110			13C-2,3,7,8-TCDF	55.3	24 - 169	
1,2,3,7,8-PeCDF	ND		0.0631		13C-1,2,3,7,8-PeCDF	63.3	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0506			13C-2,3,4,7,8-PeCDF	62.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.0695		13C-1,2,3,4,7,8-HxCDF	79.5	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0489			13C-1,2,3,6,7,8-HxCDF	80.3	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0468			13C-2,3,4,6,7,8-HxCDF	84.4	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0653			13C-1,2,3,7,8,9-HxCDF	85.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND		0.131		13C-1,2,3,4,6,7,8-HpCDF	93.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0980			13C-1,2,3,4,7,8,9-HpCDF	92.3	26 - 138	
OCDF	ND	0.104			13C-OCDF	81.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	61.4	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0155

<b>TOTALS</b>								
Total TCDD	ND		0.189					
Total PeCDD	0.173		0.281					
Total HxCDD	1.26							
Total HpCDD	3.15							
Total TCDF	ND	0.110						
Total PeCDF	ND		0.0631					
Total HxCDF	0.0382		0.108	B				
Total HpCDF	ND		0.131					

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

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



Sample ID: Duplicate					EPA Method 1613B			
Source Client ID: PDI-055SC-A-07-08-191015		QC Batch: B0C0040		Lab Sample: B0C0040-DUP1				
Source LabNumber: 2000412-01		Date Extracted: 04-Mar-2020 6:56		Date Analyzed: 20-Mar-20 16:14 Column: ZB-5MS				
Matrix: Solid								
Sample Size: 13.5 g								
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.126		IS 13C-2,3,7,8-TCDD	94.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.113			13C-1,2,3,7,8-PeCDD	95.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.102			13C-1,2,3,4,7,8-HxCDD	81.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0993			13C-1,2,3,6,7,8-HxCDD	78.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.121		13C-1,2,3,7,8,9-HxCDD	79.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.88			J	13C-1,2,3,4,6,7,8-HpCDD	85.3	23 - 140	
OCDD	23.6			B	13C-OCDD	68.7	17 - 157	
2,3,7,8-TCDF	ND	0.0639			13C-2,3,7,8-TCDF	82.3	24 - 169	
1,2,3,7,8-PeCDF	ND		0.0268		13C-1,2,3,7,8-PeCDF	87.3	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0546			13C-2,3,4,7,8-PeCDF	88.4	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.109			13C-1,2,3,4,7,8-HxCDF	85.2	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.100			13C-1,2,3,6,7,8-HxCDF	85.7	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.106			13C-2,3,4,6,7,8-HxCDF	85.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.153			13C-1,2,3,7,8,9-HxCDF	86.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.111			J	13C-1,2,3,4,6,7,8-HpCDF	84.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0680			13C-1,2,3,4,7,8,9-HpCDF	89.0	26 - 138	
OCDF	ND		0.136		13C-OCDF	75.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	96.0	35 - 197	
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>			
					TEQMinWHO2005Dioxin 0.0270			
<b>TOTALS</b>								
Total TCDD	0.100		0.536					
Total PeCDD	0.231		0.293					
Total HxCDD	1.67		1.79					
Total HpCDD	5.23							
Total TCDF	ND	0.0639						
Total PeCDF	ND		0.0268					
Total HxCDF	ND	0.153						
Total HpCDF	0.111							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

The sample size is reported in wet weight.

Sample ID: Duplicate					EPA Method 1613B				
Source Client ID: PDI-055SC-A-07-08-191015					Duplicate Lab Sample: B0C0040-DUP1				
Source LabNumber: 2000412-01									
Matrix: Solid									
Analyte	Dup Conc. (pg/g )	Source Conc.	RPD	RPD Limits	Labeled Standard	Dup %R	Source %R	LCL-UCL	
2,3,7,8-TCDD	ND	ND	NA	25	IS 13C-2,3,7,8-TCDD	94.9	60.5	25 - 164	
1,2,3,7,8-PeCDD	ND	ND	NA	25	13C-1,2,3,7,8-PeCDD	95.8	69.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	ND	NA	25	13C-1,2,3,4,7,8-HxCDD	81.5	75.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND	ND	NA	25	13C-1,2,3,6,7,8-HxCDD	78.0	76.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	ND	NA	25	13C-1,2,3,7,8,9-HxCDD	79.5	81.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.88	1.23	41.6	25	13C-1,2,3,4,6,7,8-HpCDD	85.3	89.8	23 - 140	
OCDD	23.6	10.6	75.8	25	13C-OCDD	68.7	76.0	17 - 157	
2,3,7,8-TCDF	ND	ND	NA	25	13C-2,3,7,8-TCDF	82.3	55.3	24 - 169	
1,2,3,7,8-PeCDF	ND	ND	NA	25	13C-1,2,3,7,8-PeCDF	87.3	63.3	24 - 185	
2,3,4,7,8-PeCDF	ND	ND	NA	25	13C-2,3,4,7,8-PeCDF	88.4	62.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND	ND	NA	25	13C-1,2,3,4,7,8-HxCDF	85.2	79.5	26 - 152	
1,2,3,6,7,8-HxCDF	ND	ND	NA	25	13C-1,2,3,6,7,8-HxCDF	85.7	80.3	26 - 123	
2,3,4,6,7,8-HxCDF	ND	ND	NA	25	13C-2,3,4,6,7,8-HxCDF	85.2	84.4	28 - 136	
1,2,3,7,8,9-HxCDF	ND	ND	NA	25	13C-1,2,3,7,8,9-HxCDF	86.8	85.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.111	ND	#	25	13C-1,2,3,4,6,7,8-HpCDF	84.8	93.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	ND	NA	25	13C-1,2,3,4,7,8,9-HpCDF	89.0	92.3	26 - 138	
OCDF	ND	ND	NA	25	13C-OCDF	75.0	81.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	96.0	61.4	35 - 197	

LCL-UCL - Lower control limit - upper control limit  
The results are reported in dry weight.  
The sample size is reported in wet weight. Results reported to the MDL

**Sample ID: PDI-055SC-A-08-09-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-02      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.6 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 15-Oct-2019 10:51	% Solids: 73.6	Date Analyzed: 20-Mar-20 17:01      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0953			IS 13C-2,3,7,8-TCDD	92.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0854			13C-1,2,3,7,8-PeCDD	88.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0813			13C-1,2,3,4,7,8-HxCDD	82.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0827			13C-1,2,3,6,7,8-HxCDD	78.6	28 - 130	
1,2,3,7,8,9-HxCDD	0.180			J	13C-1,2,3,7,8,9-HxCDD	79.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.21			J	13C-1,2,3,4,6,7,8-HpCDD	94.7	23 - 140	
OCDD	10.7			B	13C-OCDD	87.7	17 - 157	
2,3,7,8-TCDF	ND	0.113			13C-2,3,7,8-TCDF	85.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0335			13C-1,2,3,7,8-PeCDF	82.7	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0317			13C-2,3,4,7,8-PeCDF	82.6	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0330			13C-1,2,3,4,7,8-HxCDF	85.1	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0312			13C-1,2,3,6,7,8-HxCDF	82.3	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0327			13C-2,3,4,6,7,8-HxCDF	83.4	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0626		13C-1,2,3,7,8,9-HxCDF	86.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.118			13C-1,2,3,4,6,7,8-HpCDF	87.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.139			13C-1,2,3,4,7,8,9-HpCDF	94.9	26 - 138	
OCDF	0.152			J	13C-OCDF	89.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	91.1	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0334

<b>TOTALS</b>								
Total TCDD	0.286							
Total PeCDD	ND		0.188					
Total HxCDD	1.15		1.44					
Total HpCDD	3.38							
Total TCDF	ND	0.113						
Total PeCDF	ND	0.0335						
Total HxCDF	ND		0.0626					
Total HpCDF	ND	0.139						

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

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

**Sample ID: PDI-055SC-A-09-10-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-03      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.5 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 15-Oct-2019 10:51	% Solids: 74.1	Date Analyzed: 20-Mar-20 17:49      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0736			IS 13C-2,3,7,8-TCDD	90.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0785			13C-1,2,3,7,8-PeCDD	94.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0691			13C-1,2,3,4,7,8-HxCDD	86.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0703			13C-1,2,3,6,7,8-HxCDD	80.1	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0807			13C-1,2,3,7,8,9-HxCDD	82.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.12			J	13C-1,2,3,4,6,7,8-HpCDD	93.5	23 - 140	
OCDD	9.62			B	13C-OCDD	84.6	17 - 157	
2,3,7,8-TCDF	ND	0.0493			13C-2,3,7,8-TCDF	87.5	24 - 169	
1,2,3,7,8-PeCDF	0.0741			J	13C-1,2,3,7,8-PeCDF	90.2	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0492			13C-2,3,4,7,8-PeCDF	91.1	21 - 178	
1,2,3,4,7,8-HxCDF	0.0979			J	13C-1,2,3,4,7,8-HxCDF	86.0	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0440			13C-1,2,3,6,7,8-HxCDF	85.0	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0460			13C-2,3,4,6,7,8-HxCDF	85.7	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0288		13C-1,2,3,7,8,9-HxCDF	88.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0635			13C-1,2,3,4,6,7,8-HpCDF	85.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0750			13C-1,2,3,4,7,8,9-HpCDF	93.9	26 - 138	
OCDF	ND		0.172		13C-OCDF	87.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.5	35 - 197	

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

TEQMinWHO2005Dioxin      0.0261

<b>TOTALS</b>								
Total TCDD	0.207							
Total PeCDD	ND		0.166					
Total HxCDD	1.15							
Total HpCDD	2.87							
Total TCDF	ND	0.0493						
Total PeCDF	0.0741							
Total HxCDF	0.0979		0.150	B				
Total HpCDF	ND	0.0750						

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

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

**Sample ID: PDI-055SC-A-10-11-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-04      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 14.5 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 15-Oct-2019 10:51	% Solids: 70.5	Date Analyzed : 20-Mar-20 18:37      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0774			IS 13C-2,3,7,8-TCDD	95.7	25 - 164	
1,2,3,7,8-PeCDD	ND		0.0330		13C-1,2,3,7,8-PeCDD	93.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0505			13C-1,2,3,4,7,8-HxCDD	83.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0524			13C-1,2,3,6,7,8-HxCDD	80.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0603			13C-1,2,3,7,8,9-HxCDD	83.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.939			J	13C-1,2,3,4,6,7,8-HpCDD	94.8	23 - 140	
OCDD	8.74			B	13C-OCDD	77.4	17 - 157	
2,3,7,8-TCDF	ND	0.0339			13C-2,3,7,8-TCDF	89.5	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0346			13C-1,2,3,7,8-PeCDF	90.0	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0305			13C-2,3,4,7,8-PeCDF	88.4	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0196			13C-1,2,3,4,7,8-HxCDF	88.6	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0185			13C-1,2,3,6,7,8-HxCDF	88.6	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0201			13C-2,3,4,6,7,8-HxCDF	87.7	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0267			13C-1,2,3,7,8,9-HxCDF	89.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0337			13C-1,2,3,4,6,7,8-HpCDF	89.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0413			13C-1,2,3,4,7,8,9-HpCDF	93.5	26 - 138	
OCDF	ND	0.0475			13C-OCDF	82.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	96.7	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0120

<b>TOTALS</b>								
Total TCDD	0.332							
Total PeCDD	0.185		0.363					
Total HxCDD	1.25							
Total HpCDD	2.72							
Total TCDF	ND		0.0691					
Total PeCDF	ND	0.0346						
Total HxCDF	ND	0.0267						
Total HpCDF	ND	0.0413						

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

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

**Sample ID: PDI-079SC-A-10-11-191014** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-05      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 12.2 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 14-Oct-2019 13:26	% Solids: 82.0	Date Analyzed: 20-Mar-20 19:25      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0754			IS 13C-2,3,7,8-TCDD	91.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0611			13C-1,2,3,7,8-PeCDD	88.2	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0707			13C-1,2,3,4,7,8-HxCDD	79.9	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0717			13C-1,2,3,6,7,8-HxCDD	75.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0847			13C-1,2,3,7,8,9-HxCDD	78.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.480			J	13C-1,2,3,4,6,7,8-HpCDD	91.1	23 - 140	
OCDD	2.68			J, B	13C-OCDD	77.4	17 - 157	
2,3,7,8-TCDF	ND	0.0424			13C-2,3,7,8-TCDF	86.1	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0324			13C-1,2,3,7,8-PeCDF	83.4	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0308			13C-2,3,4,7,8-PeCDF	85.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0329			13C-1,2,3,4,7,8-HxCDF	83.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0326			13C-1,2,3,6,7,8-HxCDF	82.4	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0320			13C-2,3,4,6,7,8-HxCDF	84.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0522		13C-1,2,3,7,8,9-HxCDF	85.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0340			13C-1,2,3,4,6,7,8-HpCDF	86.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0394			13C-1,2,3,4,7,8,9-HpCDF	92.5	26 - 138	
OCDF	ND	0.0853			13C-OCDF	79.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	98.4	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00560

<b>TOTALS</b>								
Total TCDD	ND	0.0754						
Total PeCDD	ND	0.0611						
Total HxCDD	0.250							
Total HpCDD	1.01							
Total TCDF	ND	0.0424						
Total PeCDF	ND	0.0324						
Total HxCDF	ND		0.0522					
Total HpCDF	ND	0.0394						

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

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

**Sample ID: PDI-081SC-A-10-11-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-06      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 16.8 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 8:49	% Solids: 59.5	Date Analyzed : 20-Mar-20 20:12      Column: ZB-5MS 25-Mar-20 16:08      Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.28				IS 13C-2,3,7,8-TCDD	95.1	25 - 164	
1,2,3,7,8-PeCDD	1.59			J	13C-1,2,3,7,8-PeCDD	95.9	25 - 181	
1,2,3,4,7,8-HxCDD	1.74			J	13C-1,2,3,4,7,8-HxCDD	90.9	32 - 141	
1,2,3,6,7,8-HxCDD	11.0				13C-1,2,3,6,7,8-HxCDD	86.4	28 - 130	
1,2,3,7,8,9-HxCDD	4.96				13C-1,2,3,7,8,9-HxCDD	87.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	327				13C-1,2,3,4,6,7,8-HpCDD	105	23 - 140	
OCDD	4680			B	13C-OCDD	103	17 - 157	
2,3,7,8-TCDF	93.2				13C-2,3,7,8-TCDF	91.1	24 - 169	
1,2,3,7,8-PeCDF	168				13C-1,2,3,7,8-PeCDF	92.6	24 - 185	
2,3,4,7,8-PeCDF	84.0				13C-2,3,4,7,8-PeCDF	92.0	21 - 178	
1,2,3,4,7,8-HxCDF	296				13C-1,2,3,4,7,8-HxCDF	93.3	26 - 152	
1,2,3,6,7,8-HxCDF	82.3				13C-1,2,3,6,7,8-HxCDF	89.2	26 - 123	
2,3,4,6,7,8-HxCDF	21.6				13C-2,3,4,6,7,8-HxCDF	89.1	28 - 136	
1,2,3,7,8,9-HxCDF	16.5				13C-1,2,3,7,8,9-HxCDF	94.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	214				13C-1,2,3,4,6,7,8-HpCDF	93.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	54.7				13C-1,2,3,4,7,8,9-HpCDF	102	26 - 138	
OCDF	513				13C-OCDF	99.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.6	35 - 197	

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

TEQMinWHO2005Dioxin      93.4

<b>TOTALS</b>								
Total TCDD	19.1		19.2					
Total PeCDD	17.2		19.7					
Total HxCDD	107							
Total HpCDD	800							
Total TCDF	300		311					
Total PeCDF	518							
Total HxCDF	593			B				
Total HpCDF	632							

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

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

**Sample ID: PDI-081SC-A-11-12-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-07      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 12.9 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 8:49	% Solids: 77.8	Date Analyzed : 20-Mar-20 21:00 Column: ZB-5MS 25-Mar-20 14:33 Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.177		IS 13C-2,3,7,8-TCDD	89.7	25 - 164	
1,2,3,7,8-PeCDD	0.265			J	13C-1,2,3,7,8-PeCDD	88.5	25 - 181	
1,2,3,4,7,8-HxCDD	0.266			J	13C-1,2,3,4,7,8-HxCDD	80.9	32 - 141	
1,2,3,6,7,8-HxCDD	1.58			J	13C-1,2,3,6,7,8-HxCDD	76.3	28 - 130	
1,2,3,7,8,9-HxCDD	0.820			J	13C-1,2,3,7,8,9-HxCDD	78.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	47.8				13C-1,2,3,4,6,7,8-HpCDD	91.3	23 - 140	
OCDD	537			B	13C-OCDD	81.5	17 - 157	
2,3,7,8-TCDF	11.0				13C-2,3,7,8-TCDF	85.4	24 - 169	
1,2,3,7,8-PeCDF	21.7				13C-1,2,3,7,8-PeCDF	85.4	24 - 185	
2,3,4,7,8-PeCDF	6.59				13C-2,3,4,7,8-PeCDF	86.8	21 - 178	
1,2,3,4,7,8-HxCDF	50.1				13C-1,2,3,4,7,8-HxCDF	84.3	26 - 152	
1,2,3,6,7,8-HxCDF	10.2				13C-1,2,3,6,7,8-HxCDF	82.4	26 - 123	
2,3,4,6,7,8-HxCDF	2.43			J	13C-2,3,4,6,7,8-HxCDF	83.3	28 - 136	
1,2,3,7,8,9-HxCDF	2.36			J	13C-1,2,3,7,8,9-HxCDF	88.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	26.9				13C-1,2,3,4,6,7,8-HpCDF	85.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	9.01				13C-1,2,3,4,7,8,9-HpCDF	93.1	26 - 138	
OCDF	56.7				13C-OCDF	83.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	89.9	35 - 197	

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

TEQMinWHO2005Dioxin      11.8

<b>TOTALS</b>								
Total TCDD	2.67		3.05					
Total PeCDD	2.57		3.12					
Total HxCDD	15.6		15.9					
Total HpCDD	111							
Total TCDF	35.2		38.5					
Total PeCDF	63.0							
Total HxCDF	85.1			B				
Total HpCDF	71.0		71.3					

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

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



**Sample ID: PDI-082SC-A-06-07-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-08      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 16.6 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 60.4	Date Analyzed : 20-Mar-20 21:48 Column: ZB-5MS 25-Mar-20 13:29 Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0865			IS 13C-2,3,7,8-TCDD	88.2	25 - 164	
1,2,3,7,8-PeCDD	ND		0.222		13C-1,2,3,7,8-PeCDD	87.0	25 - 181	
1,2,3,4,7,8-HxCDD	0.210			J	13C-1,2,3,4,7,8-HxCDD	77.5	32 - 141	
1,2,3,6,7,8-HxCDD	1.27			J	13C-1,2,3,6,7,8-HxCDD	75.0	28 - 130	
1,2,3,7,8,9-HxCDD	0.561			J	13C-1,2,3,7,8,9-HxCDD	76.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	26.0				13C-1,2,3,4,6,7,8-HpCDD	89.4	23 - 140	
OCDD	387			B	13C-OCDD	78.7	17 - 157	
2,3,7,8-TCDF	3.80				13C-2,3,7,8-TCDF	84.0	24 - 169	
1,2,3,7,8-PeCDF	3.58				13C-1,2,3,7,8-PeCDF	84.3	24 - 185	
2,3,4,7,8-PeCDF	2.95				13C-2,3,4,7,8-PeCDF	84.4	21 - 178	
1,2,3,4,7,8-HxCDF	4.59				13C-1,2,3,4,7,8-HxCDF	80.8	26 - 152	
1,2,3,6,7,8-HxCDF	3.14				13C-1,2,3,6,7,8-HxCDF	79.4	26 - 123	
2,3,4,6,7,8-HxCDF	1.26			J	13C-2,3,4,6,7,8-HxCDF	80.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.678			J	13C-1,2,3,7,8,9-HxCDF	84.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	12.9				13C-1,2,3,4,6,7,8-HpCDF	84.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.49			J	13C-1,2,3,4,7,8,9-HpCDF	89.1	26 - 138	
OCDF	29.5				13C-OCDF	82.1	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	87.5	35 - 197	

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

TEQMinWHO2005Dioxin      3.07

<b>TOTALS</b>				
Total TCDD	2.65			
Total PeCDD	3.11		3.33	
Total HxCDD	13.2			
Total HpCDD	70.1			
Total TCDF	20.1		20.2	
Total PeCDF	26.5		26.8	
Total HxCDF	25.1			B
Total HpCDF	40.3			

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

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

**Sample ID: PDI-082SC-A-07-08-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-09      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 17.2 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 58.2	Date Analyzed : 20-Mar-20 22:36      Column: ZB-5MS 25-Mar-20 16:40      Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	2.02				IS 13C-2,3,7,8-TCDD	85.1	25 - 164	
1,2,3,7,8-PeCDD	2.19			J	13C-1,2,3,7,8-PeCDD	83.4	25 - 181	
1,2,3,4,7,8-HxCDD	2.34			J	13C-1,2,3,4,7,8-HxCDD	71.5	32 - 141	
1,2,3,6,7,8-HxCDD	13.8				13C-1,2,3,6,7,8-HxCDD	71.2	28 - 130	
1,2,3,7,8,9-HxCDD	5.92				13C-1,2,3,7,8,9-HxCDD	70.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	417				13C-1,2,3,4,6,7,8-HpCDD	73.8	23 - 140	
OCDD	5450			B	13C-OCDD	26.5	17 - 157	
2,3,7,8-TCDF	148				13C-2,3,7,8-TCDF	79.9	24 - 169	
1,2,3,7,8-PeCDF	232				13C-1,2,3,7,8-PeCDF	84.6	24 - 185	
2,3,4,7,8-PeCDF	139				13C-2,3,4,7,8-PeCDF	80.6	21 - 178	
1,2,3,4,7,8-HxCDF	335				13C-1,2,3,4,7,8-HxCDF	79.4	26 - 152	
1,2,3,6,7,8-HxCDF	109				13C-1,2,3,6,7,8-HxCDF	77.8	26 - 123	
2,3,4,6,7,8-HxCDF	28.4				13C-2,3,4,6,7,8-HxCDF	72.8	28 - 136	
1,2,3,7,8,9-HxCDF	19.2				13C-1,2,3,7,8,9-HxCDF	79.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	225				13C-1,2,3,4,6,7,8-HpCDF	72.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	63.9				13C-1,2,3,4,7,8,9-HpCDF	77.9	26 - 138	
OCDF	462				13C-OCDF	46.6	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	81.8	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      128

<b>TOTALS</b>			
Total TCDD	20.2		
Total PeCDD	27.1	27.8	
Total HxCDD	143	145	
Total HpCDD	1090		
Total TCDF	492	511	
Total PeCDF	738	739	
Total HxCDF	736	737	B
Total HpCDF	719		

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

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

**Sample ID: PDI-082SC-A-08-09-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-10      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 15.8 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 63.9	Date Analyzed : 20-Mar-20 23:23      Column: ZB-5MS 25-Mar-20 15:04      Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.753				IS 13C-2,3,7,8-TCDD	83.8	25 - 164	
1,2,3,7,8-PeCDD	0.894			J	13C-1,2,3,7,8-PeCDD	81.7	25 - 181	
1,2,3,4,7,8-HxCDD	0.633			J	13C-1,2,3,4,7,8-HxCDD	71.2	32 - 141	
1,2,3,6,7,8-HxCDD	5.08				13C-1,2,3,6,7,8-HxCDD	69.5	28 - 130	
1,2,3,7,8,9-HxCDD	1.85			J	13C-1,2,3,7,8,9-HxCDD	69.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	222				13C-1,2,3,4,6,7,8-HpCDD	77.6	23 - 140	
OCDD	2110			B	13C-OCDD	64.9	17 - 157	
2,3,7,8-TCDF	21.1				13C-2,3,7,8-TCDF	77.5	24 - 169	
1,2,3,7,8-PeCDF	25.7				13C-1,2,3,7,8-PeCDF	78.2	24 - 185	
2,3,4,7,8-PeCDF	19.1				13C-2,3,4,7,8-PeCDF	79.1	21 - 178	
1,2,3,4,7,8-HxCDF	78.0				13C-1,2,3,4,7,8-HxCDF	75.8	26 - 152	
1,2,3,6,7,8-HxCDF	18.1				13C-1,2,3,6,7,8-HxCDF	74.8	26 - 123	
2,3,4,6,7,8-HxCDF	8.44				13C-2,3,4,6,7,8-HxCDF	74.2	28 - 136	
1,2,3,7,8,9-HxCDF	8.75				13C-1,2,3,7,8,9-HxCDF	76.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	108				13C-1,2,3,4,6,7,8-HpCDF	75.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	19.0				13C-1,2,3,4,7,8,9-HpCDF	78.2	26 - 138	
OCDF	124				13C-OCDF	65.6	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	81.9	35 - 197	

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

TEQMinWHO2005Dioxin      26.5

<b>TOTALS</b>				
Total TCDD	11.1			
Total PeCDD	16.7	17.0		
Total HxCDD	68.9			
Total HpCDD	491			
Total TCDF	117	118		
Total PeCDF	196			
Total HxCDF	227		B	
Total HpCDF	262			

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

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

**Sample ID: PDI-082SC-A-09-10-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-11      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 17.5 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 57.3	Date Analyzed : 21-Mar-20 00:11      Column: ZB-5MS 25-Mar-20 15:36      Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.527				IS 13C-2,3,7,8-TCDD	92.3	25 - 164	
1,2,3,7,8-PeCDD	1.15			J	13C-1,2,3,7,8-PeCDD	93.0	25 - 181	
1,2,3,4,7,8-HxCDD	1.25			J	13C-1,2,3,4,7,8-HxCDD	86.4	32 - 141	
1,2,3,6,7,8-HxCDD	12.4				13C-1,2,3,6,7,8-HxCDD	79.6	28 - 130	
1,2,3,7,8,9-HxCDD	3.33				13C-1,2,3,7,8,9-HxCDD	83.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	578				13C-1,2,3,4,6,7,8-HpCDD	103	23 - 140	
OCDD	4310			B	13C-OCDD	98.2	17 - 157	
2,3,7,8-TCDF	72.4				13C-2,3,7,8-TCDF	89.8	24 - 169	
1,2,3,7,8-PeCDF	76.4				13C-1,2,3,7,8-PeCDF	91.0	24 - 185	
2,3,4,7,8-PeCDF	48.8				13C-2,3,4,7,8-PeCDF	90.6	21 - 178	
1,2,3,4,7,8-HxCDF	87.8				13C-1,2,3,4,7,8-HxCDF	87.0	26 - 152	
1,2,3,6,7,8-HxCDF	24.0				13C-1,2,3,6,7,8-HxCDF	83.2	26 - 123	
2,3,4,6,7,8-HxCDF	9.82				13C-2,3,4,6,7,8-HxCDF	85.2	28 - 136	
1,2,3,7,8,9-HxCDF	10.4				13C-1,2,3,7,8,9-HxCDF	88.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	83.4				13C-1,2,3,4,6,7,8-HpCDF	88.9	28 - 143	
1,2,3,4,7,8,9-HpCDF	17.9				13C-1,2,3,4,7,8,9-HpCDF	100	26 - 138	
OCDF	227				13C-OCDF	93.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.5	35 - 197	

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

TEQMinWHO2005Dioxin      48.9

<b>TOTALS</b>				
Total TCDD	15.0			
Total PeCDD	21.9	22.1		
Total HxCDD	149			
Total HpCDD	1280			
Total TCDF	263	272		
Total PeCDF	286	336		
Total HxCDF	236		B	
Total HpCDF	314			

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

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

**Sample ID: PDI-082SC-A-10-11-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-12      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.8 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 72.8	Date Analyzed : 21-Mar-20 03:29      Column: ZB-5MS 25-Mar-20 14:01      Column: DB-225

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.306		IS 13C-2,3,7,8-TCDD	89.1	25 - 164	
1,2,3,7,8-PeCDD	0.421			J	13C-1,2,3,7,8-PeCDD	87.7	25 - 181	
1,2,3,4,7,8-HxCDD	0.220			J	13C-1,2,3,4,7,8-HxCDD	75.0	32 - 141	
1,2,3,6,7,8-HxCDD	0.920			J	13C-1,2,3,6,7,8-HxCDD	74.6	28 - 130	
1,2,3,7,8,9-HxCDD	0.492			J	13C-1,2,3,7,8,9-HxCDD	75.1	32 - 141	
1,2,3,4,6,7,8-HpCDD	18.8				13C-1,2,3,4,6,7,8-HpCDD	78.3	23 - 140	
OCDD	238			B	13C-OCDD	71.2	17 - 157	
2,3,7,8-TCDF	7.36				13C-2,3,7,8-TCDF	85.2	24 - 169	
1,2,3,7,8-PeCDF	10.5				13C-1,2,3,7,8-PeCDF	84.8	24 - 185	
2,3,4,7,8-PeCDF	3.47				13C-2,3,4,7,8-PeCDF	85.7	21 - 178	
1,2,3,4,7,8-HxCDF	27.6				13C-1,2,3,4,7,8-HxCDF	81.5	26 - 152	
1,2,3,6,7,8-HxCDF	9.34				13C-1,2,3,6,7,8-HxCDF	81.0	26 - 123	
2,3,4,6,7,8-HxCDF	1.48			J	13C-2,3,4,6,7,8-HxCDF	79.0	28 - 136	
1,2,3,7,8,9-HxCDF	1.91			J	13C-1,2,3,7,8,9-HxCDF	81.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	16.3				13C-1,2,3,4,6,7,8-HpCDF	78.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	4.28				13C-1,2,3,4,7,8,9-HpCDF	82.1	26 - 138	
OCDF	24.6				13C-OCDF	74.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	88.5	35 - 197	

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

TEQMinWHO2005Dioxin      7.18

<b>TOTALS</b>			
Total TCDD	0.853	1.55	
Total PeCDD	1.93	2.80	
Total HxCDD	8.46		
Total HpCDD	42.7		
Total TCDF	27.3	27.8	
Total PeCDF	30.5		
Total HxCDF	50.9	51.4	B
Total HpCDF	34.6	34.9	

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

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

**Sample ID: PDI-082SC-A-11-12-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-13      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 14.7 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 68.8	Date Analyzed : 21-Mar-20 04:17      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0598		IS 13C-2,3,7,8-TCDD	104	25 - 164	
1,2,3,7,8-PeCDD	ND		0.0317		13C-1,2,3,7,8-PeCDD	104	25 - 181	
1,2,3,4,7,8-HxCDD	0.0409			J	13C-1,2,3,4,7,8-HxCDD	87.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND		0.0692		13C-1,2,3,6,7,8-HxCDD	86.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.111		13C-1,2,3,7,8,9-HxCDD	86.6	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.21			J	13C-1,2,3,4,6,7,8-HpCDD	99.1	23 - 140	
OCDD	26.9			B	13C-OCDD	85.8	17 - 157	
2,3,7,8-TCDF	ND		0.0382		13C-2,3,7,8-TCDF	96.1	24 - 169	
1,2,3,7,8-PeCDF	0.0646			J	13C-1,2,3,7,8-PeCDF	97.9	24 - 185	
2,3,4,7,8-PeCDF	0.0111			J	13C-2,3,4,7,8-PeCDF	99.4	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.0899		13C-1,2,3,4,7,8-HxCDF	92.7	26 - 152	
1,2,3,6,7,8-HxCDF	ND		0.0292		13C-1,2,3,6,7,8-HxCDF	91.9	26 - 123	
2,3,4,6,7,8-HxCDF	ND		0.0164		13C-2,3,4,6,7,8-HxCDF	93.7	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0388		13C-1,2,3,7,8,9-HxCDF	93.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND		0.105		13C-1,2,3,4,6,7,8-HpCDF	93.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0473			13C-1,2,3,4,7,8,9-HpCDF	102	26 - 138	
OCDF	0.240			J	13C-OCDF	91.1	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	101	35 - 197	

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

TEQMinWHO2005Dioxin      0.0296

<b>TOTALS</b>								
Total TCDD	0.0463		0.725					
Total PeCDD	ND		0.384					
Total HxCDD	1.52		1.73					
Total HpCDD	3.15							
Total TCDF	0.0413		0.193					
Total PeCDF	0.0757		0.148					
Total HxCDF	0.0331		0.268	B				
Total HpCDF	ND		0.222					

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

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

**Sample ID: PDI-082SC-A-12-13-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-14      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 16.5 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 60.8	Date Analyzed: 21-Mar-20 05:05      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0713		IS 13C-2,3,7,8-TCDD	72.9	25 - 164	
1,2,3,7,8-PeCDD	0.0387			J	13C-1,2,3,7,8-PeCDD	81.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.0404		13C-1,2,3,4,7,8-HxCDD	73.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0582			13C-1,2,3,6,7,8-HxCDD	73.2	28 - 130	
1,2,3,7,8,9-HxCDD	0.126			J	13C-1,2,3,7,8,9-HxCDD	77.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.15			J	13C-1,2,3,4,6,7,8-HpCDD	86.7	23 - 140	
OCDD	9.90			B	13C-OCDD	74.0	17 - 157	
2,3,7,8-TCDF	ND	0.0548			13C-2,3,7,8-TCDF	68.3	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0328			13C-1,2,3,7,8-PeCDF	78.0	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0297			13C-2,3,4,7,8-PeCDF	76.9	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0291			13C-1,2,3,4,7,8-HxCDF	77.1	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0273			13C-1,2,3,6,7,8-HxCDF	77.8	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0271			13C-2,3,4,6,7,8-HxCDF	80.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0428		13C-1,2,3,7,8,9-HxCDF	80.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0324			13C-1,2,3,4,6,7,8-HpCDF	79.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0394			13C-1,2,3,4,7,8,9-HpCDF	84.4	26 - 138	
OCDF	ND		0.0341		13C-OCDF	75.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	71.0	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0658

<b>TOTALS</b>								
Total TCDD	0.757		1.21					
Total PeCDD	0.478		0.619					
Total HxCDD	1.85		1.94					
Total HpCDD	3.20							
Total TCDF	0.384							
Total PeCDF	ND	0.0328						
Total HxCDF	ND		0.0872					
Total HpCDF	0.0138							

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

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

**Sample ID: PDI-082SC-A-13-14-191002** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000412-15      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 16.0 g	QC Batch: B0C0040      Date Extracted: 04-Mar-2020 6:56
Date Collected: 02-Oct-2019 14:14	% Solids: 62.6	Date Analyzed : 21-Mar-20 05:52      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0660		IS 13C-2,3,7,8-TCDD	96.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0827			13C-1,2,3,7,8-PeCDD	95.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND		0.0330		13C-1,2,3,4,7,8-HxCDD	83.6	32 - 141	
1,2,3,6,7,8-HxCDD	0.0716			J	13C-1,2,3,6,7,8-HxCDD	81.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.148		13C-1,2,3,7,8,9-HxCDD	84.1	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.45			J	13C-1,2,3,4,6,7,8-HpCDD	97.6	23 - 140	
OCDD	17.4			B	13C-OCDD	87.3	17 - 157	
2,3,7,8-TCDF	ND	0.0364			13C-2,3,7,8-TCDF	90.2	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0323			13C-1,2,3,7,8-PeCDF	90.3	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0312			13C-2,3,4,7,8-PeCDF	90.7	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0279			13C-1,2,3,4,7,8-HxCDF	87.1	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0272			13C-1,2,3,6,7,8-HxCDF	86.9	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0274			13C-2,3,4,6,7,8-HxCDF	87.5	28 - 136	
1,2,3,7,8,9-HxCDF	0.0415			J	13C-1,2,3,7,8,9-HxCDF	91.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND		0.0420		13C-1,2,3,4,6,7,8-HpCDF	93.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0364			13C-1,2,3,4,7,8,9-HpCDF	97.0	26 - 138	
OCDF	ND	0.0381			13C-OCDF	87.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.1	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0310

<b>TOTALS</b>								
Total TCDD	0.892		1.21					
Total PeCDD	0.312		0.418					
Total HxCDD	1.65		2.00					
Total HpCDD	4.06							
Total TCDF	0.267		0.293					
Total PeCDF	0.0173		0.0170					
Total HxCDF	0.0656		0.0660	B				
Total HpCDF	ND		0.0420					

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

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



## DATA QUALIFIERS & ABBREVIATIONS

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

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

### Vista Analytical Laboratory Certifications

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

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

## NELAP Accredited Test Methods

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


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

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

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

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

2000412 2.1°C

Laboratory Number:				<b>Test Parameters</b>																												
Date: 2.25.20				<b>No. of Containers</b> Diouxin/furans (1613B) Total solids (SM 2540G)																												
Project Name: Gasco PDI																																
Project Number: 000029-02.59																																
Project Manager: Delaney Peterson																																
Phone Number: 360.715.2707																																
Shipment Method: FedEx																																
Samplers: dep																																
Line	Field Sample ID	Collection	Matrix		Comments/Preservation																											
16	PDI-055SC-A-07-08-191015	10/15/2019 10:51:00	SE	1	X	X																										
17	PDI-055SC-A-08-09-191015	10/15/2019 10:51:00	SE	1	X	X																										
18	PDI-055SC-A-09-10-191015	10/15/2019 10:51:00	SE	1	X	X																										
19	PDI-055SC-A-10-11-191015	10/15/2019 10:51:00	SE	1	X	X																										
20	PDI-079SC-A-10-11-191014	10/14/2019 13:26:00	SE	1	X	X																										
21	PDI-081SC-A-10-11-191002	10/02/2019 08:49:00	SE	1	X	X																										
22	PDI-081SC-A-11-12-191002	10/02/2019 08:49:00	SE	1	X	X																										
23	PDI-082SC-A-06-07-191002	10/02/2019 14:14:00	SE	1	X	X																										
24	PDI-082SC-A-07-08-191002	10/02/2019 14:14:00	SE	1	X	X																										
25	PDI-082SC-A-08-09-191002	10/02/2019 14:14:00	SE	1	X	X																										
26	PDI-082SC-A-09-10-191002	10/02/2019 14:14:00	SE	1	X	X																										
27	PDI-082SC-A-10-11-191002	10/02/2019 14:14:00	SE	1	X	X																										
28	PDI-082SC-A-11-12-191002	10/02/2019 14:14:00	SE	1	X	X																										
29	PDI-082SC-A-12-13-191002	10/02/2019 14:14:00	SE	1	X	X																										
30	PDI-082SC-A-13-14-191002	10/02/2019 14:14:00	SE	1	X	X																										

Please analyze a duplicate on one per 20 samples.

\*\*2-week TAT\*\*

Relinquished By: Sasha Myerwood Company: Anchor QEA, LLC  
 Signature/Printed Name: *[Signature]* Date/Time: 2/26/20 0900

Received By: \_\_\_\_\_ Company: VAL  
 Signature/Printed Name: *[Signature]* Date/Time: 02/27/20 0903

Relinquished By: \_\_\_\_\_ Company: \_\_\_\_\_  
 Signature/Printed Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Company: \_\_\_\_\_  
 Signature/Printed Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

## Sample Log-In Checklist

 Page # 1 of 2

 Vista Work Order #: 2000412 TAT Std

Samples Arrival:	Date/Time <u>02/27/20 0843</u>	Initials: <u>JP</u>	Location: <u>WR-2</u>				
			Shelf/Rack: <u>MA</u>				
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac	<input type="checkbox"/> GLS	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice		<input type="checkbox"/> Dry Ice		<input type="checkbox"/> None	
Temp °C: <u>3.0</u> (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N			Thermometer ID: <u>IR-4</u>			
Temp °C: <u>3.0</u> (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill <u>1042</u> Trk # <u>7778 6671 1399</u>	✓		
Shipping Documentation Present?	✓		
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain
		<input checked="" type="checkbox"/> Return	Dispose
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	Date/Time <u>02/27/20 1207</u>	Initials: <u>KS</u>	Location: <u>WR-2</u>			
			Shelf/Rack: <u>D-7</u>			
COC Anomaly/Sample Acceptance Form completed?						
					✓	✓

Comments:

# Sample Log-In Checklist

 Page # 2 of 2

 Vista Work Order #: 2000412 TAT Std

<b>Samples Arrival:</b>	<b>Date/Time</b> 02/27/20 0943	<b>Initials:</b> KP	<b>Location:</b> WP-2
			<b>Shelf/Rack:</b> NA
<b>Delivered By:</b>	<input checked="" type="radio"/> FedEx	<input type="radio"/> UPS	<input type="radio"/> On Trac
		<input type="radio"/> GLS	<input type="radio"/> DHL
		<input type="radio"/> Hand Delivered	<input type="radio"/> Other
<b>Preservation:</b>	<input checked="" type="radio"/> Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
	<input type="radio"/> None		
<b>Temp °C:</b> 2.1 (uncorrected)	<b>Probe used:</b> Y / <input checked="" type="radio"/> N		<b>Thermometer ID:</b> IR-4
<b>Temp °C:</b> 2.1 (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Airbill <u>2 of 2</u> Trk # <u>7778 6671 1414</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<input type="radio"/> Vista	<input checked="" type="radio"/> Client	<input type="radio"/> Retain
			<input checked="" type="radio"/> Return
			<input type="radio"/> Dispose
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Logged In:</b>	<b>Date/Time</b> 02/27/20 1207	<b>Initials:</b> KS	<b>Location:</b> WP-2
			<b>Shelf/Rack:</b> D-7
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

# CoC/Label Reconciliation Report WO# 2000412

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
C2 2000412-01	A PDI-055SC-A-07-08-191015	<input checked="" type="checkbox"/>	15-Oct-19 10:51	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid DUP
2000412-02	A PDI-055SC-A-08-09-191015	<input checked="" type="checkbox"/>	15-Oct-19 10:51	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-03	A PDI-055SC-A-09-10-191015	<input checked="" type="checkbox"/>	15-Oct-19 10:51	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-04	A PDI-055SC-A-10-11-191015	<input checked="" type="checkbox"/>	15-Oct-19 10:51	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-05	A PDI-079SC-A-10-11-191014	<input checked="" type="checkbox"/>	14-Oct-19 13:26	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-06	A PDI-081SC-A-10-11-191002	<input checked="" type="checkbox"/>	02-Oct-19 08:49	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-07	A PDI-081SC-A-11-12-191002	<input checked="" type="checkbox"/>	02-Oct-19 08:49	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
C1 2000412-08	A PDI-082SC-A-06-07-191002	<input checked="" type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
C1 2000412-09	A PDI-082SC-A-07-08-191002	<input checked="" type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
C2 2000412-10	A PDI-082SC-A-08-09-191002	<input checked="" type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-11	A PDI-082SC-A-09-10-191002	<input checked="" type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-12	A PDI-082SC-A-10-11-191002	<input checked="" type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-13	A PDI-082SC-A-11-12-191002	<input type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-14	A PDI-082SC-A-12-13-191002	<input type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	Amber Glass, 120 mL	Solid
2000412-15	A PDI-082SC-A-13-14-191002	<input type="checkbox"/>	02-Oct-19 14:14	<input checked="" type="checkbox"/>	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
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

C1 = cooler 1  
C2 = cooler 2

Verified by/Date: KS 02/27/20



## **EXTRACTION INFORMATION**



PREPARATION BENCH SHEET

Matrix: Solid

B0C0040

Chemist: RR

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 04-Mar-20 06:56

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B0C0040-BLK1 (A)	NA	(10.00)	DF RR 03/04/20	AO AZ 03/05/20	NA	AZ 03/05/20	AZ 03/05/20	AO 03/05/20	AO AZ 03/06/20
<input type="checkbox"/>	B0C0040-BS1		(10.00)							
<input type="checkbox"/>	B0C0040-DUP1 (A)	13.49	13.49							
<input type="checkbox"/>	2000412-01	13.59	13.58							
<input type="checkbox"/>	2000412-02	13.59	13.61							
<input type="checkbox"/>	2000412-03 (A)	13.50	13.52							
<input type="checkbox"/>	2000412-04	14.19	14.45							
<input type="checkbox"/>	2000412-05	12.19	12.24							
<input type="checkbox"/>	2000412-06	16.79	16.81							
<input type="checkbox"/>	2000412-07	12.85	12.87				orange			
<input type="checkbox"/>	2000412-08	16.56	16.59				yellow			
<input type="checkbox"/>	2000412-09	17.19	17.20				orange			
<input type="checkbox"/>	2000412-10	15.65	15.76							
<input type="checkbox"/>	2000412-11	17.46	17.47							
<input type="checkbox"/>	2000412-12	13.74	13.76				yellow			

IS Name (V5)	NS Name (V3)	CRS Name (V3)	RS Name (V3)	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: RR 03/04/20
PCDD/F 19L2301, 10mL	PCDD/F 18F1913, 10mL	PCDD/F 19L1602, 10mL	PCDD/F 19L1603, 10mL	Start Date/Time 03/04/20 *1309	SOLV: Toluene	Check In: RR 03/04/20
PCB	PCB	PCB	PCB	Stop Date/Time 03/05/20 609	Other NA	Balance ID: HRMS-8
PAH	PAH	PAH	PAH		Final Volume(s) C14 20mL	

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume

- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

\* 1409 RR 03/04/20

PREPARATION BENCH SHEET

Matrix: Solid

B0C0040

Chemist: RR

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 04-Mar-20 06:56

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	2000412-13	14.53	14.66	DFRR 03/04/20	AO AZ 03/05/20	NA	AZ 03/05/20	AZ 03/05/20	AO 03/05/20	AO AZ 03/06/20
<input type="checkbox"/>	2000412-14	16.46	16.49	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000412-15	15.97	16.00	↓	↓	↓	↓	↓	↓	↓

Ⓐ 44% in ABS6 turned yellow AZ 03/05/20

IS Name	NS Name	CRS Name	RS Name	Cycle Time	APP: SEFUN SOX (SDS)	Check Out:
PCDD/F 19L2301, 10mL	PCDD/F 18F1913, 10mL	PCDD/F 19L1602, 10mL	PCDD/F 19L1603, 10mL	Start Date/Time 03-04-20	SOLV: Toluene	Chemist/Date: RR 03/04/20
PCB	PCB	PCB	PCB	Stop Date/Time	Other: NA	Check In:
PAH	PAH	PAH	PAH	Final Volume(s)	C14 20mL	Chemist/Date: RR 03/04/20
						Balance ID: HRMS-8

Comments:

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



Percent Moisture/ Percent Solids

D2216-90

BATCH ID BOB0293

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

Inst HRMS-10

Date/Time IN: 02/28/20 11:34 Date/Time OUT: 02/02/20 13:08

Particle Size	SampID	SampType	Initial and Date:		Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	Cl-	pH Before	pH After	Acid Added	Sample Homogenized*
			Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)										
				<u>ell 02/28/20</u>		<u>ell 03/02/20</u>			<u>ell 02/28/20</u>		<u>N/A</u>		<u>ell 02/28/20</u>	
	2000412-01	Sample	<u>1.27</u>	<u>6.64</u>	<u>5.25</u>			<u>dirt</u>					<u>X</u>	
	2000412-02	Sample	<u>1.26</u>	<u>7.85</u>	<u>6.11</u>			<u>dirt</u>					<u>X</u>	
	2000412-03	Sample	<u>1.28</u>	<u>7.84</u>	<u>6.14</u>			<u>dirt</u>					<u>X</u>	
	2000412-04	Sample	<u>1.28</u>	<u>9.61</u>	<u>7.15</u>			<u>mud</u>					<u>X</u>	
	2000412-05	Sample	<u>1.27</u>	<u>8.01</u>	<u>6.80</u>			<u>dirt</u>					<u>X</u>	
	2000412-06	Sample	<u>1.26</u>	<u>8.70</u>	<u>5.69</u>		<u>N/A</u>	<u>mud</u>			<u>N/A</u>		<u>X</u>	
	2000412-07	Sample	<u>1.26</u>	<u>7.94</u>	<u>6.46</u>			<u>dirt</u>					<u>X</u>	
	2000412-08	Sample	<u>1.27</u>	<u>9.50</u>	<u>6.24</u>			<u>mud</u>					<u>X</u>	
	2000412-09	Sample	<u>1.27</u>	<u>9.83</u>	<u>6.25</u>			<u>mud</u>					<u>X</u>	
	2000412-10	Sample	<u>1.27</u>	<u>9.77</u>	<u>6.70</u>			<u>mud</u>					<u>X</u>	
	2000412-11	Sample	<u>1.26</u>	<u>11.11</u>	<u>6.90</u>			<u>mud</u>					<u>X</u>	
	2000412-12	Sample	<u>1.27</u>	<u>10.24</u>	<u>7.80</u>			<u>mud</u>					<u>X</u>	
	2000412-13	Sample	<u>1.27</u>	<u>10.63</u>	<u>7.71</u>			<u>dirt</u>					<u>X</u>	
	2000412-14	Sample	<u>1.27</u>	<u>7.59</u>	<u>5.11</u>			<u>mud</u>					<u>X</u>	
	2000412-15	Sample	<u>1.27</u>	<u>10.15</u>	<u>6.83</u>			<u>mud</u>					<u>X</u>	

\*Sample homogenized in sample container unless otherwise noted.

Batch: B0C0040

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2000412-01	13.58 ✓	74.11546	10.0649	20 ✓	04-Mar-20 06:56	DFO ✓			Sediment	1613 Full List
2000412-02	13.61 ✓	73.59636	10.0165	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-03	13.52 ✓	74.08537	10.0163	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-04	14.45 ✓	70.46819	10.1827	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-05	12.24 ✓	82.04748	10.0426	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-06	16.81 ✓	59.54301	10.0092	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-07	12.87 ✓	77.84431	10.0186	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-08	16.59 ✓	60.38882	10.0185	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-09	17.2 ✓	58.17757	10.0065	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-10	15.76 ✓	63.88235	10.0679	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-11	17.47 ✓	57.25888	10.0031	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-12	13.76 ✓	72.79822	10.0170	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-13	14.66 ✓	68.80342	10.0866	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-14	16.49 ✓	60.75949	10.0192	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
2000412-15	16 ✓	62.61261	10.0180	20	04-Mar-20 06:56	DFO			Sediment	1613 Full List
B0C0040-BLK1	10 ✓			20	04-Mar-20 06:56	DFO				QC
B0C0040-BS1	10 ✓			20	04-Mar-20 06:56	DFO	18F1913 ✓	10 ✓		QC
B0C0040-DUP1	13.49 ✓	74.11546	9.9982	20 ✓	04-Mar-20 06:56	DFO ✓				QC

All bolded data on report verified against written benchsheet by (initial/date) AZ 03/06/20

SAMPLE DATA – EPA METHOD 1613



Dataset: U:\VG12.PRO\Results\200319R1\200319R1-7.qld

Last Altered: Friday, March 20, 2020 15:04:56 Pacific Daylight Time  
Printed: Friday, March 20, 2020 15:06:07 Pacific Daylight Time

*GRB 03/20/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*CT 04/02/2020*

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.983	10.000	25.796		1.001				0.128	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.000	31.086		1.001				0.110	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.000	34.480		1.000				0.0865	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.000	34.566		1.000				0.0902	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.000	34.842		1.000				0.0986	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.000	38.262		1.000				0.207	
7	7 OCDD	1.65e2	0.96	NO	1.05	10.000	41.318	41.34	1.000	1.001	0.23504		0.135	0.235
8	8 2,3,7,8-TCDF			NO	0.915	10.000	24.787		1.001				0.0639	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.000	29.742		1.001				0.0740	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.000	30.774		1.001				0.0706	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.000	33.618		1.000				0.0636	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.000	33.745		1.000				0.0609	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.000	34.333		1.001				0.0647	
14	14 1,2,3,7,8,9-HxCDF	6.83e1	2.03	YES	1.03	10.000	35.173	35.18	1.000	1.000	0.053718		0.0396	0.0397
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.892		1.001				0.0914	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.000	38.911		1.000				0.105	
17	17 OCDF			NO	0.947	10.000	41.499		1.000				0.136	
18	18 13C-2,3,7,8-TCDD	3.13e5	0.82	NO	1.18	10.000	25.750	25.76	1.029	1.029	173.91	87.0	0.385	
19	19 13C-1,2,3,7,8-PeCDD	2.07e5	0.65	NO	0.864	10.000	30.937	31.06	1.236	1.241	157.18	78.6	0.485	
20	20 13C-1,2,3,4,7,8-HxCDD	1.81e5	1.30	NO	0.754	10.000	34.474	34.47	1.014	1.014	153.94	77.0	0.449	
21	21 13C-1,2,3,6,7,8-HxCDD	2.18e5	1.26	NO	0.925	10.000	34.582	34.57	1.017	1.017	150.78	75.4	0.366	
22	22 13C-1,2,3,7,8,9-HxCDD	2.01e5	1.26	NO	0.829	10.000	34.844	34.83	1.025	1.024	155.39	77.7	0.409	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.56e5	1.05	NO	0.598	10.000	38.306	38.25	1.127	1.125	166.81	83.4	0.529	
24	24 13C-OCDD	2.68e5	0.88	NO	0.571	10.000	41.457	41.32	1.219	1.215	300.12	75.0	0.745	
25	25 13C-2,3,7,8-TCDF	4.93e5	0.79	NO	1.09	10.000	24.772	24.76	0.990	0.989	154.40	77.2	0.500	
26	26 13C-1,2,3,7,8-PeCDF	3.59e5	1.59	NO	0.876	10.000	29.608	29.72	1.183	1.187	139.66	69.8	0.793	
27	27 13C-2,3,4,7,8-PeCDF	3.38e5	1.60	NO	0.844	10.000	30.619	30.74	1.223	1.228	136.72	68.4	0.824	
28	28 13C-1,2,3,4,7,8-HxCDF	2.88e5	0.51	NO	1.00	10.000	33.620	33.62	0.989	0.989	184.50	92.2	0.673	
29	29 13C-1,2,3,6,7,8-HxCDF	3.19e5	0.51	NO	1.12	10.000	33.729	33.74	0.992	0.992	182.76	91.4	0.603	
30	30 13C-2,3,4,6,7,8-HxCDF	2.89e5	0.52	NO	1.04	10.000	34.310	34.30	1.009	1.009	178.51	89.3	0.651	
31	31 13C-1,2,3,7,8,9-HxCDF	2.48e5	0.51	NO	0.873	10.000	35.184	35.17	1.035	1.034	181.48	90.7	0.772	

Dataset: U:\VG12.PRO\Results\200319R1\200319R1-7.qld

Last Altered: Friday, March 20, 2020 15:04:56 Pacific Daylight Time

Printed: Friday, March 20, 2020 15:06:07 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.15e5	0.43	NO	0.771	10.000	36.901	36.85	1.085	1.084	178.23	89.1	0.611	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.44e5	0.42	NO	0.519	10.000	38.989	38.91	1.147	1.144	177.80	88.9	0.907	
34	34 13C-OCDF	3.72e5	0.89	NO	0.696	10.000	41.638	41.50	1.225	1.221	341.68	85.4	0.457	
35	35 37Cl-2,3,7,8-TCDD	1.29e5			1.17	10.000	25.760	25.78	1.029	1.030	72.370	90.5	0.0969	
36	36 13C-1,2,3,4-TCDD	3.04e5	0.82	NO	1.00	10.000	25.050	25.03	1.000	1.000	200.00	100	0.456	
37	37 13C-1,2,3,4-TCDF	5.86e5	0.80	NO	1.00	10.000	23.190	23.09	1.000	1.000	200.00	100	0.544	
38	38 13C-1,2,3,4,6,9-HxCDF	3.13e5	0.52	NO	1.00	10.000	33.880	34.00	1.000	1.000	200.00	100	0.674	
39	39 Total Tetra-Dioxins				0.983	10.000	24.620		0.000				0.0823	
40	40 Total Penta-Dioxins				0.921	10.000	29.960		0.000				0.0519	
41	41 Total Hexa-Dioxins				0.984	10.000	33.635		0.000				0.0480	
42	42 Total Hepta-Dioxins				1.01	10.000	37.640		0.000				0.112	
43	43 Total Tetra-Furans				0.915	10.000	23.610		0.000				0.0293	
44	44 1st Func. Penta-Furans				0.959	10.000	27.090		0.000				0.0244	
45	45 Total Penta-Furans				0.959	10.000	29.275		0.000				0.0352	
46	46 Total Hexa-Furans				1.09	10.000	33.555		0.000		0.028810		0.0291	0.0685
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0527	

Dataset: U:\VG12.PRO\Results\200319R1\200319R1-7.qld

Last Altered: Friday, March 20, 2020 15:04:56 Pacific Daylight Time

Printed: Friday, March 20, 2020 15:06:07 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

**Tetra-Dioxins**

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

**Penta-Dioxins**

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

**Hexa-Dioxins**

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

**Hepta-Dioxins**

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

**Tetra-Furans**

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

**Penta-Furans function 1**

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

Dataset: U:\VG12.PRO\Results\200319R1\200319R1-7.qld

Last Altered: Friday, March 20, 2020 15:04:56 Pacific Daylight Time  
 Printed: Friday, March 20, 2020 15:06:07 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

**Penta-Furans**

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

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8,9-HxCDF	35.18	1.751e3	1.102e3	4.575e1	2.253e1	2.03	YES	6.828e1	0.00000	0.039708	0.0398
2	Total Hexa-Furans	35.22	5.810e2	8.880e2	2.643e1	1.856e1	1.42	NO	4.499e1	0.028810	0.028810	0.0291

**Hepta-Furans**

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

Dataset: Untitled

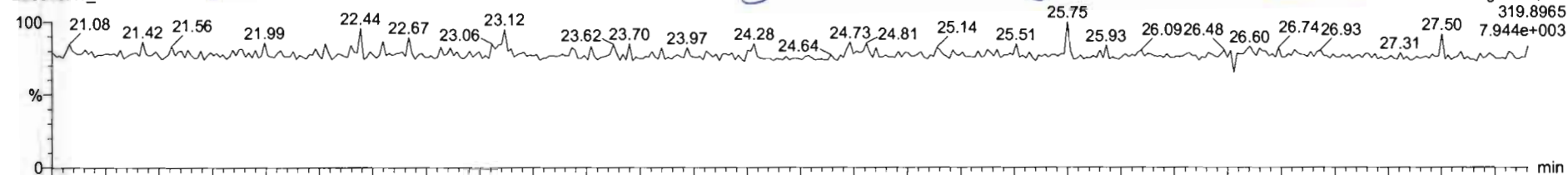
Last Altered: Friday, March 20, 2020 07:45:25 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

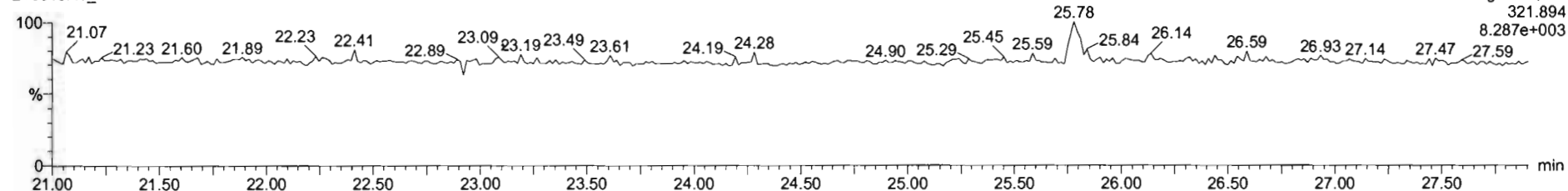
Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

2,3,7,8-TCDD

200319R1\_7

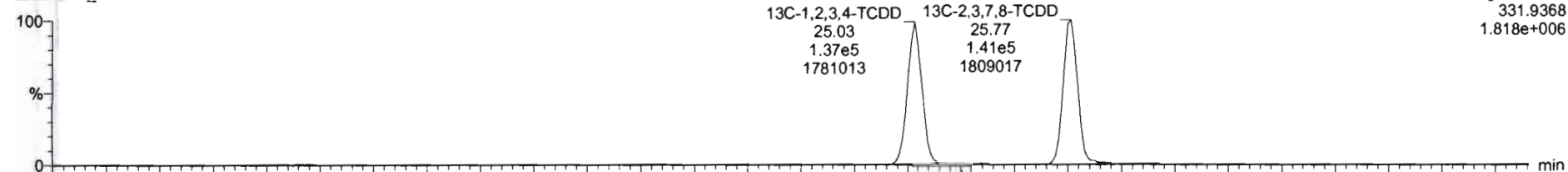


200319R1\_7

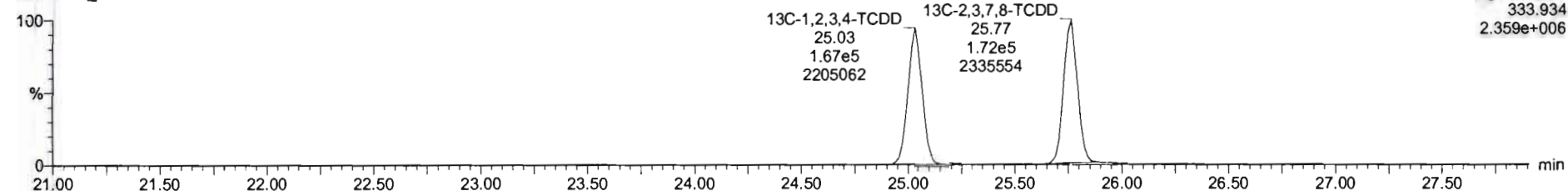


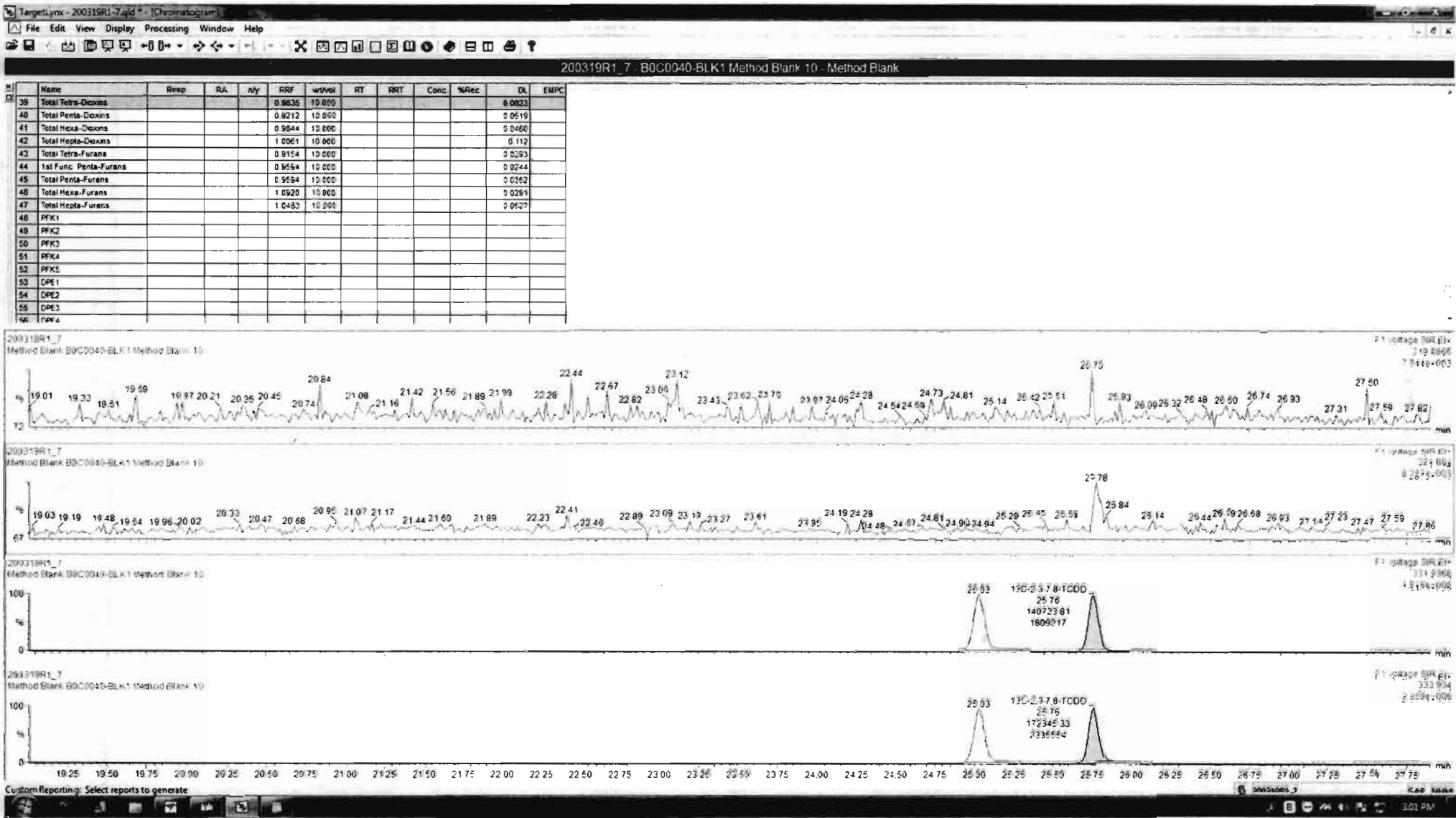
13C-2,3,7,8-TCDD

200319R1\_7



200319R1\_7





Dataset: Untitled

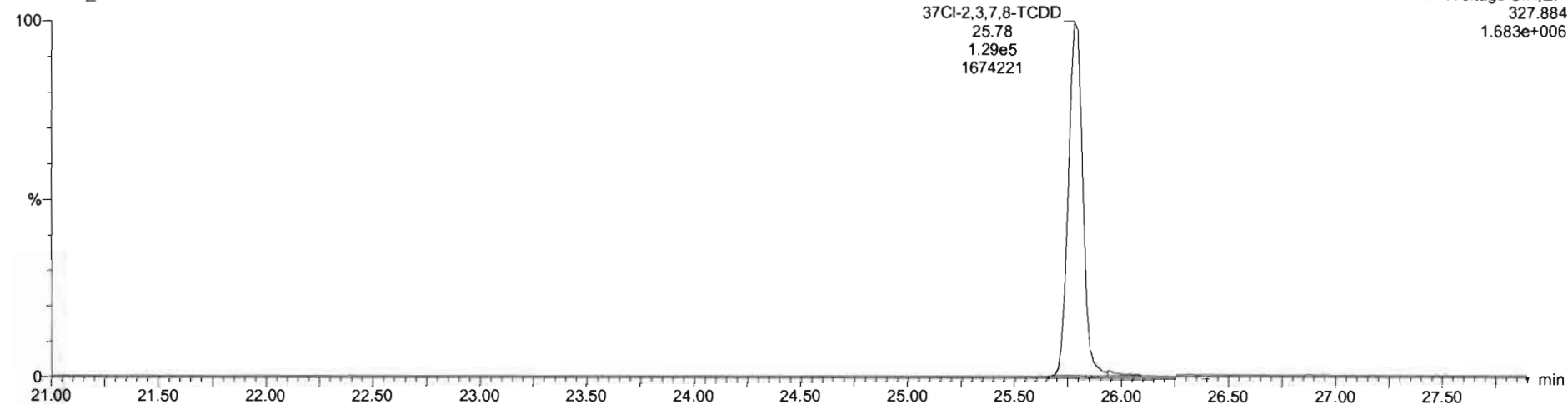
Last Altered: Friday, March 20, 2020 07:45:25 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

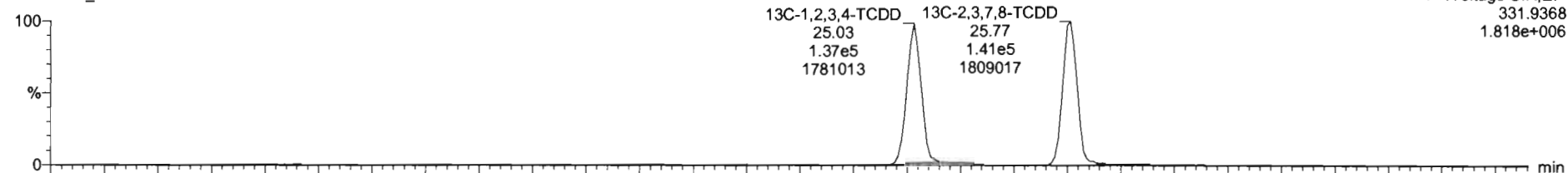
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200319R1\_7

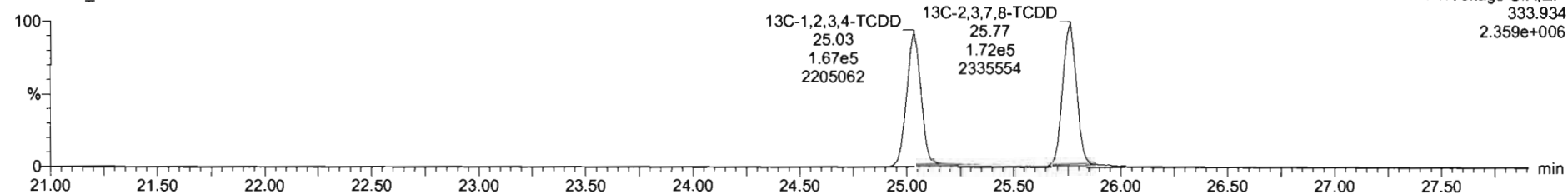


**13C-1,2,3,4-TCDD**

200319R1\_7



200319R1\_7



Dataset: Untitled

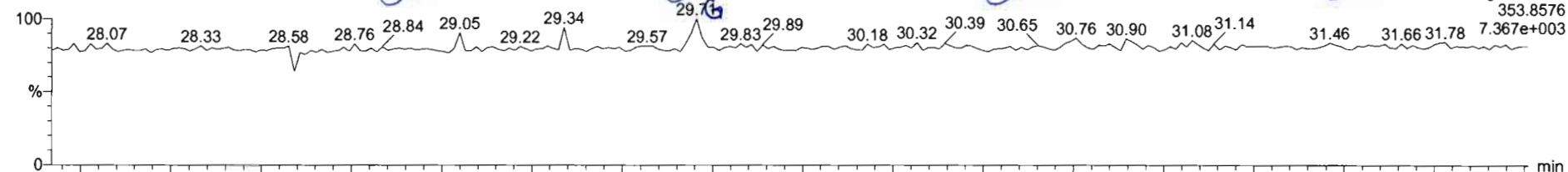
Last Altered: Friday, March 20, 2020 07:45:25 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

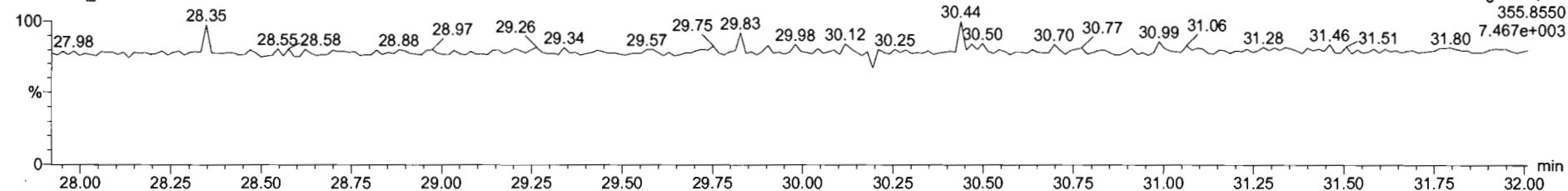
Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

1,2,3,7,8-PeCDD

200319R1\_7

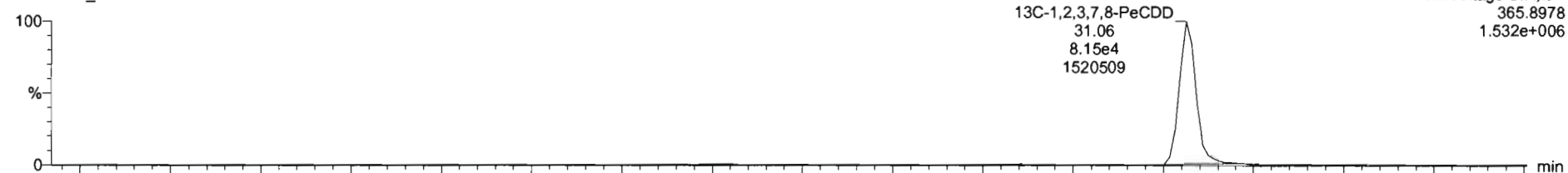


200319R1\_7

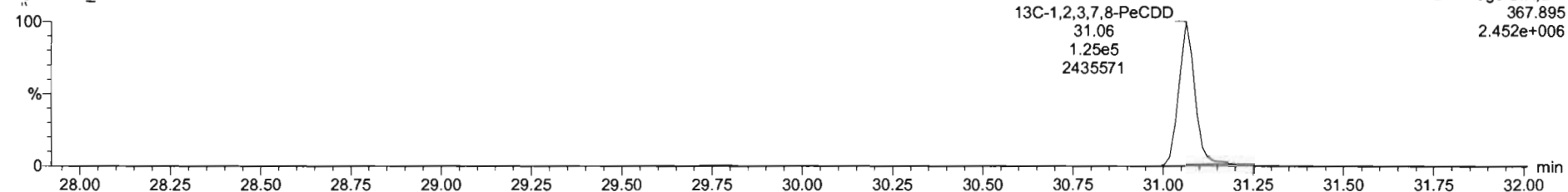


13C-1,2,3,7,8-PeCDD

200319R1\_7

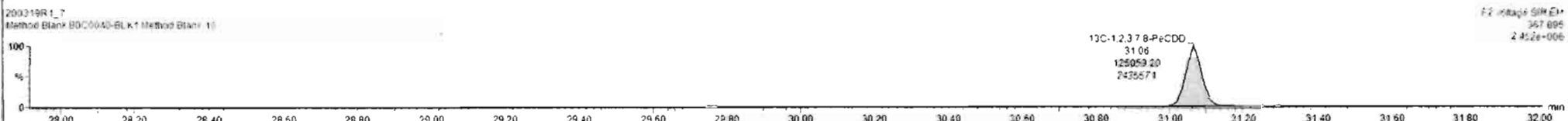
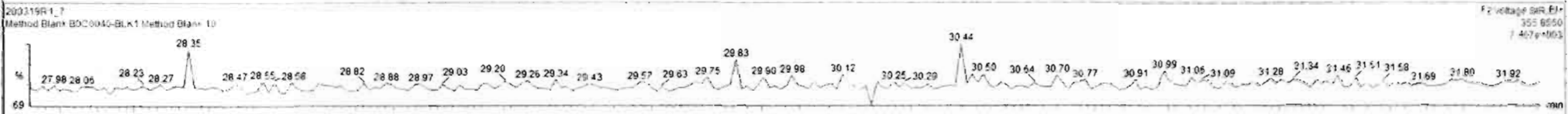
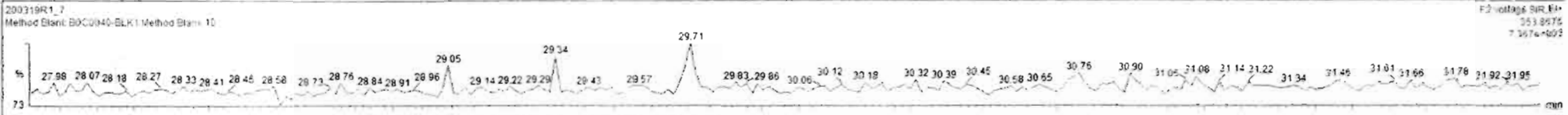


200319R1\_7





#	Name	Resp	RA	ny	RRF	w/hol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9825	10.000					0.0623	
40	Total Penta-Dioxins				0.9212	10.000					0.0519	
41	Total Hexa-Dioxins				0.9844	10.000					0.0460	
42	Total Hepta-Dioxins				1.0061	10.000					0.112	
43	Total Tetra-Furans				0.9154	10.000					0.0293	
44	1st Func. Penta-Furans				0.9594	10.000					0.0244	
45	Total Penta-Furans				0.9594	10.000					0.0252	
46	Total Hexa-Furans				1.0920	10.000					0.0291	
47	Total Hepta-Furans				1.0482	10.000					0.0227	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											



Dataset: Untitled

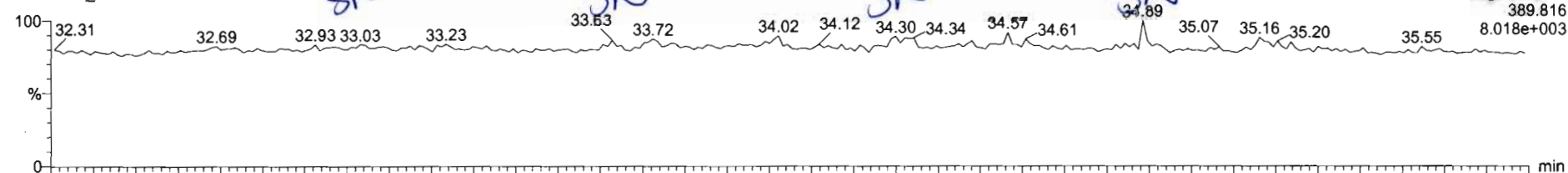
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

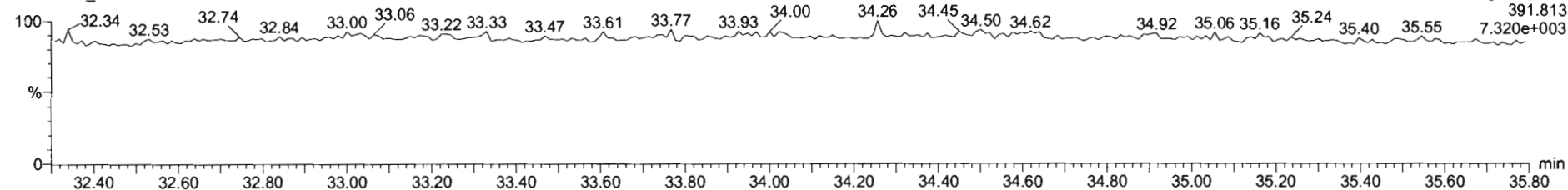
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**1,2,3,4,7,8-HxCDD**

200319R1\_7

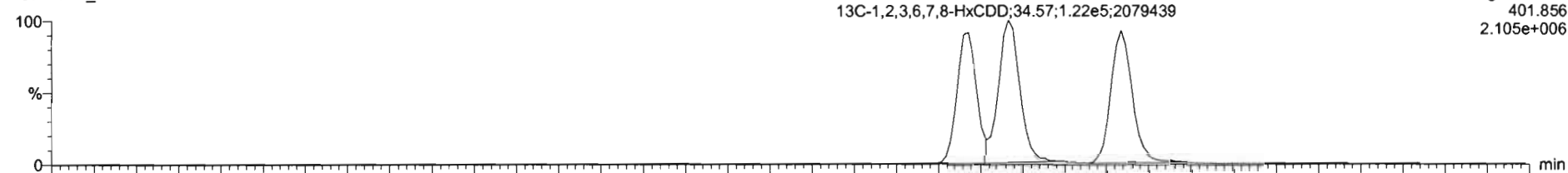


200319R1\_7

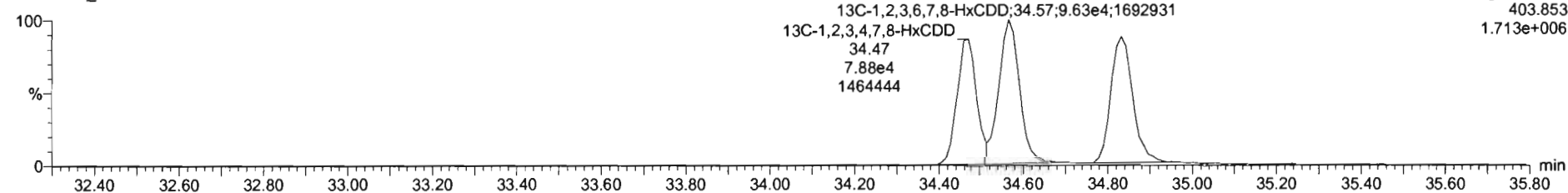


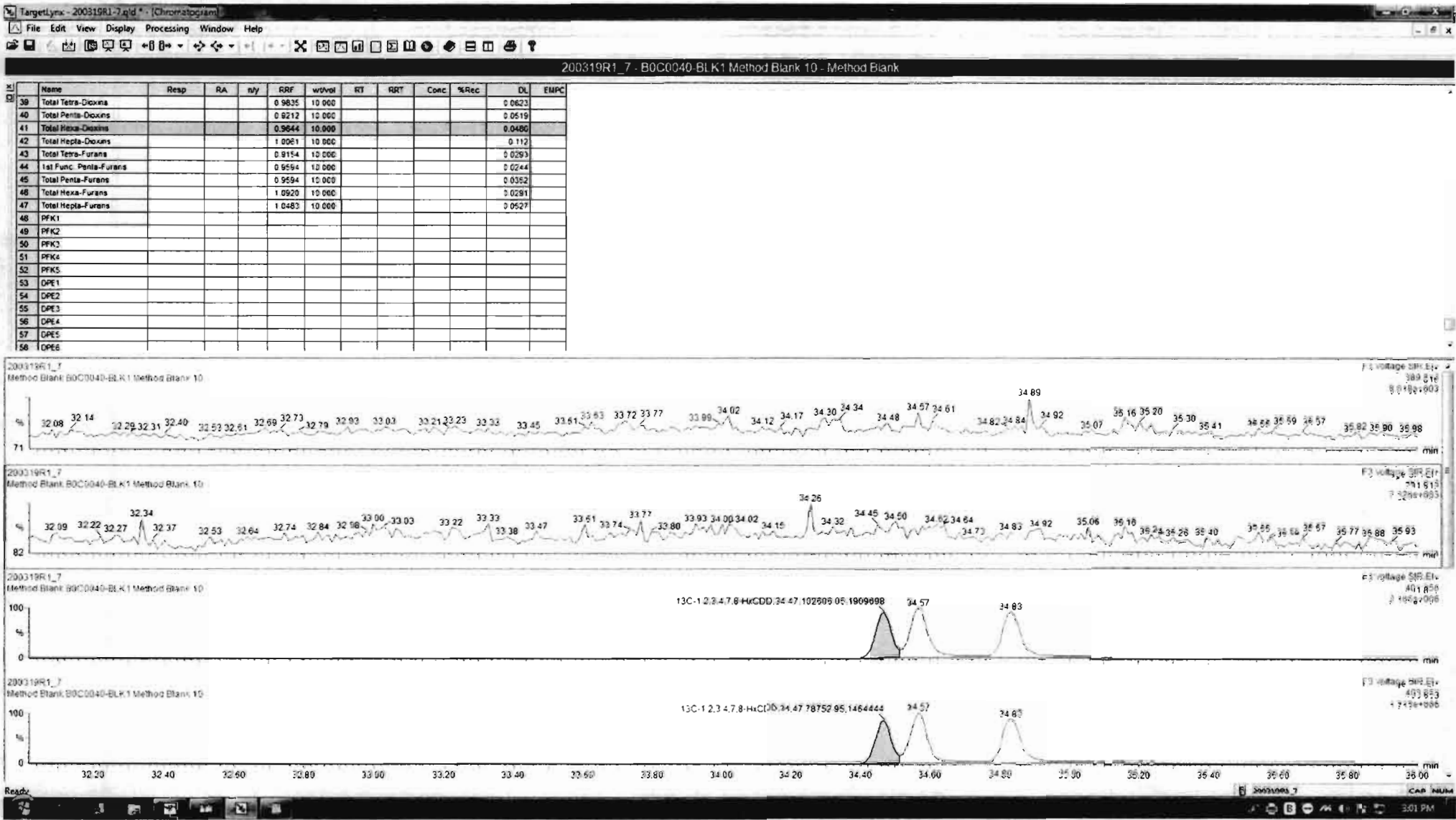
**13C-1,2,3,4,7,8-HxCDD**

200319R1\_7



200319R1\_7





Dataset: Untitled

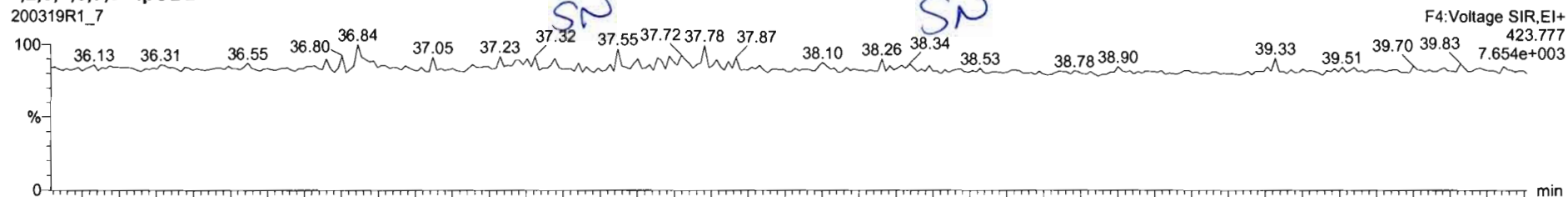
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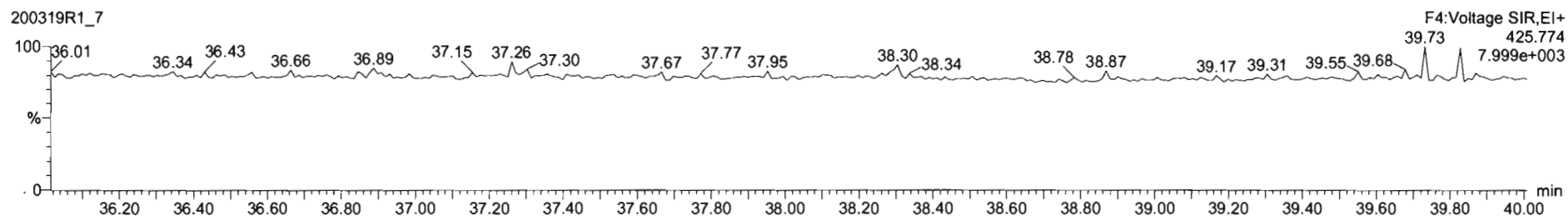
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1,2,3,4,6,7,8-HpCDD

200319R1\_7

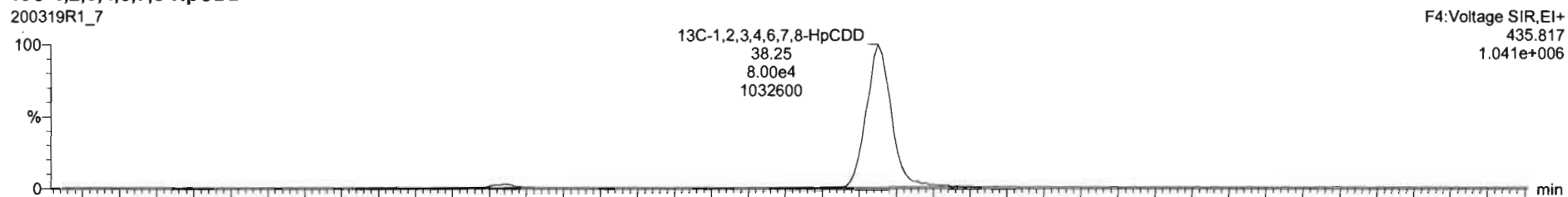


200319R1\_7

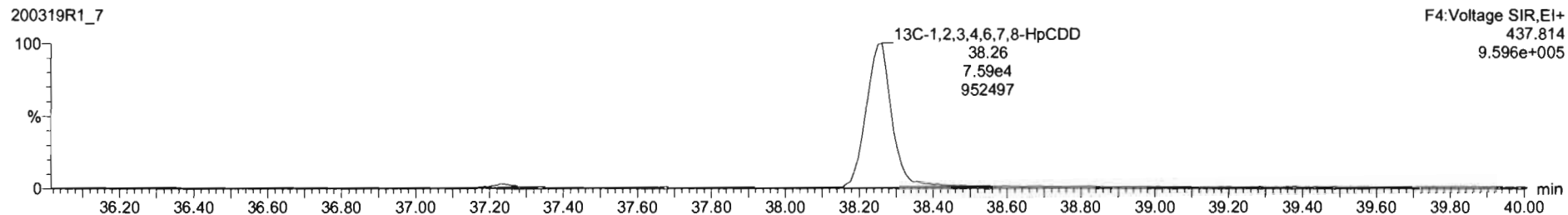


13C-1,2,3,4,6,7,8-HpCDD

200319R1\_7

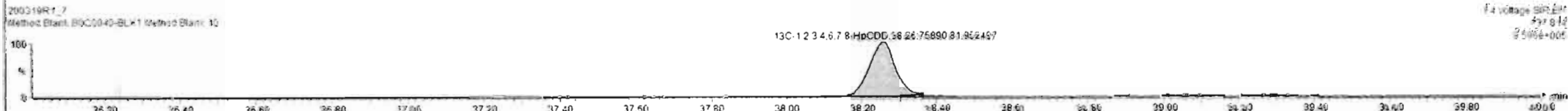
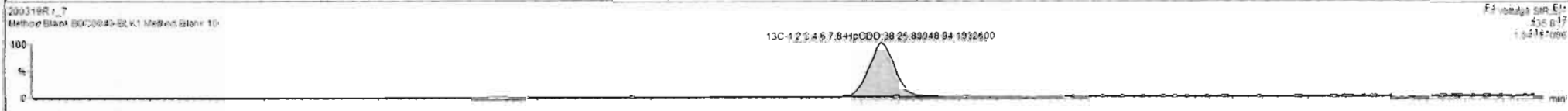
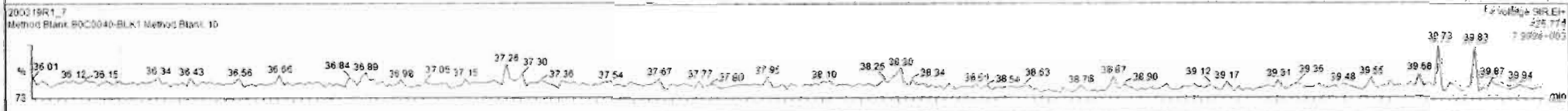
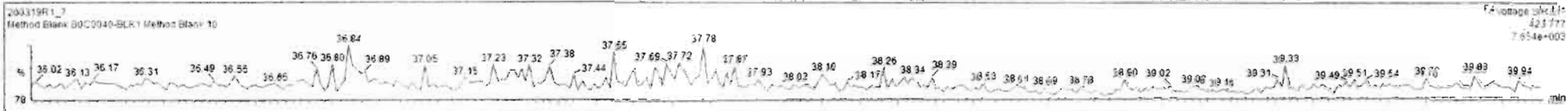


200319R1\_7



200319R1\_7 - B0C0040-BLK1 Method Blank 10 - Method Blank

SL	Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9825	10.000				0.0823		
40	Total Penta-Dioxins				0.8212	10.000				0.0519		
41	Total Hexa-Dioxins				0.9844	10.000				0.0460		
42	Total Hepta-Dioxins				1.0081	10.000				0.112		
43	Total Tetra-Furans				0.9154	10.000				0.0293		
44	1st Func. Penta-Furans				0.9554	10.000				0.0244		
45	Total Penta-Furans				0.9594	10.000				0.0352		
46	Total Hexa-Furans				1.0920	10.000				0.0291		
47	Total Hepta-Furans				1.0483	10.000				0.0527		
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											
58	DPE6											

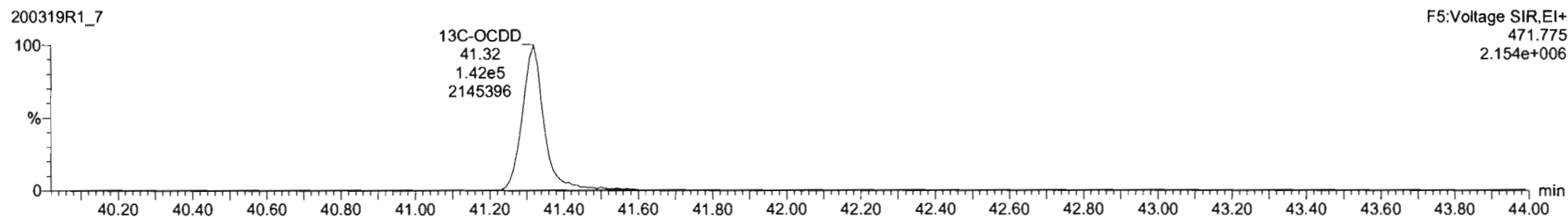
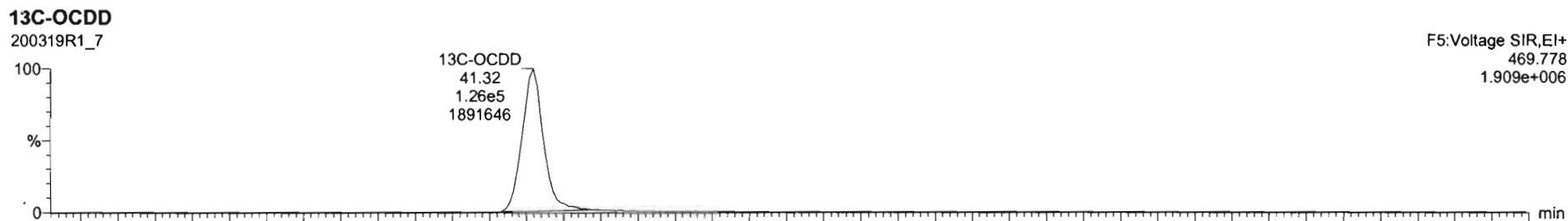
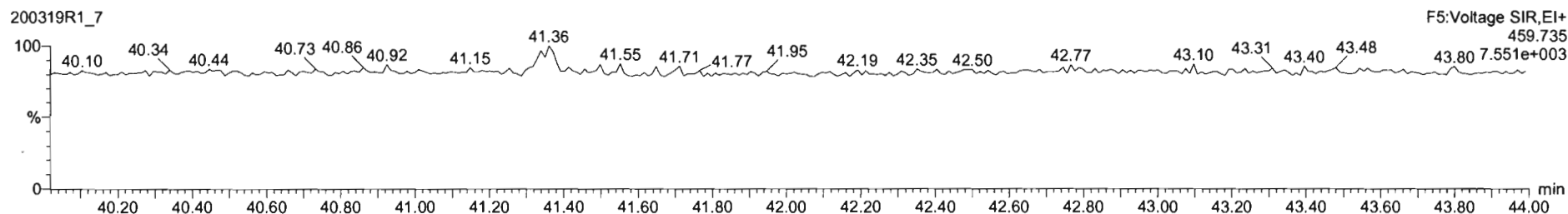
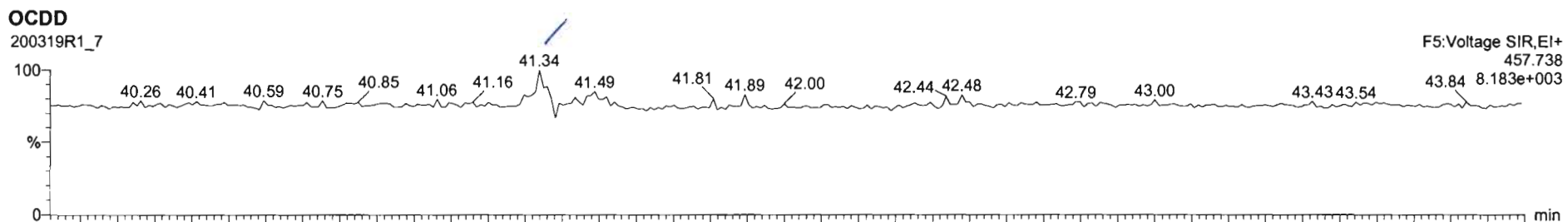


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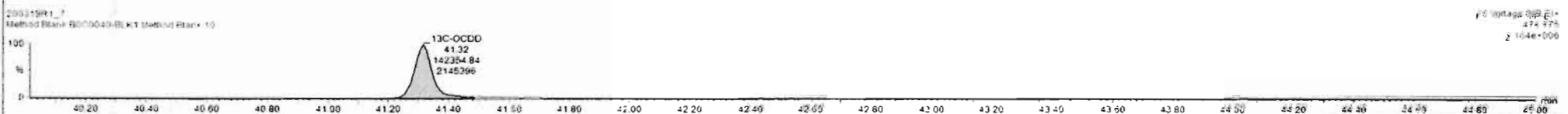
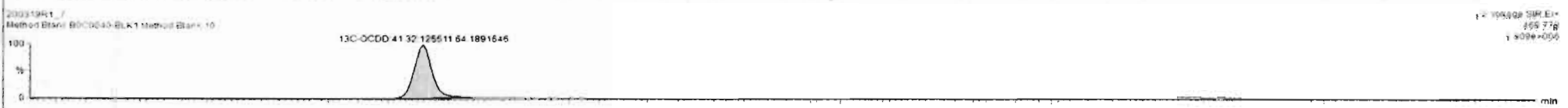
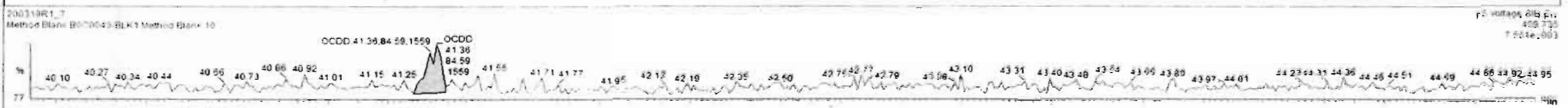
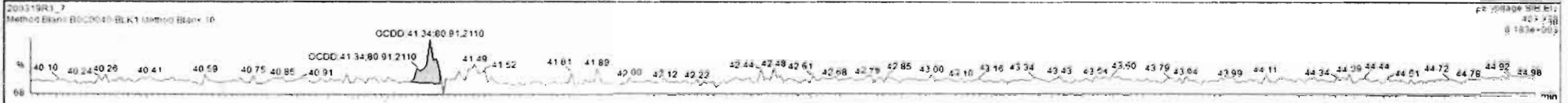
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank



SI	Name	Resp	RA	nY	RRF	wtVcl	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.983E	10.000					0.126	
2	1,2,3,7,8-PeCDD			NO	0.921E	10.000					0.110	
3	1,2,3,4,7,8-HxCDD			NO	1.132E	10.000					0.2885	
4	1,2,3,6,7,8-HxCDD			NO	0.884E	10.000					0.0962	
5	1,2,3,7,8,9-HxCDD			NO	0.987E	10.000					0.0986	
6	1,2,3,4,6,7,8-HpCDD			NO	1.008E	10.000					0.207	
7	OCDD	1.85e2	0.96	NO	1.051E	10.000	41.34	1.001	0.235		0.135	0.235
8	2,3,7,8-TCDF			NO	0.815E	10.000					0.0629	
9	1,2,3,7,8-PeCDF			NO	0.959E	10.000					0.0740	
10	2,3,4,7,8-PeCDF			NO	1.002E	10.000					0.0706	
11	1,2,3,4,7,8-HxCDF			NO	1.038E	10.000					0.0636	
12	1,2,3,6,7,8-HxCDF			NO	1.012E	10.000					0.0609	
13	2,3,4,6,7,8-HxCDF			NO	1.092E	10.000					0.0647	
14	1,2,3,7,8,9-HxCDF			NO	1.026E	10.000					0.0596	
15	1,2,3,4,6,7,8-HpCDF			NO	1.042E	10.000					0.0914	
16	1,2,3,4,7,8,9-HpCDF			NO	1.209E	10.000					0.105	
17	OCDF			NO	0.948E	10.000					0.136	
18	1,2,3,7,8,9-CDF	1.13e4	0.82	NO	1.164E	10.000	36.76	1.026	174	57.0	0.164	



Dataset: Untitled

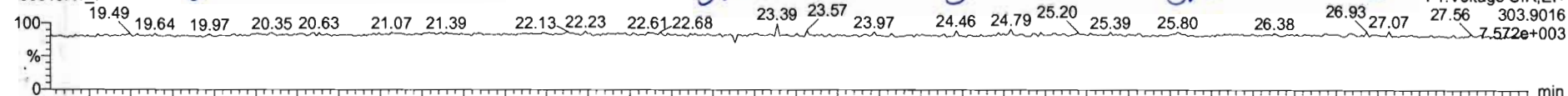
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

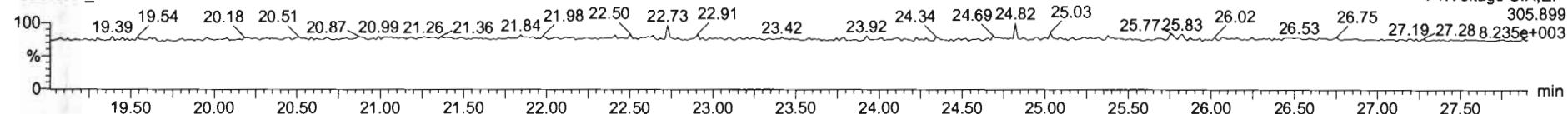
Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

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

200319R1\_7

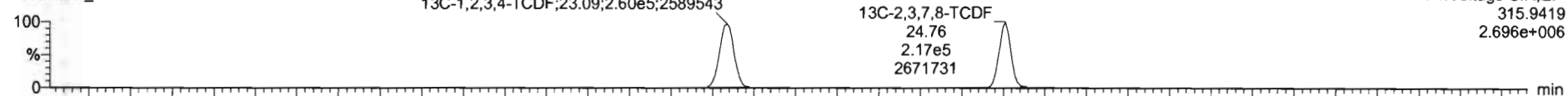


200319R1\_7

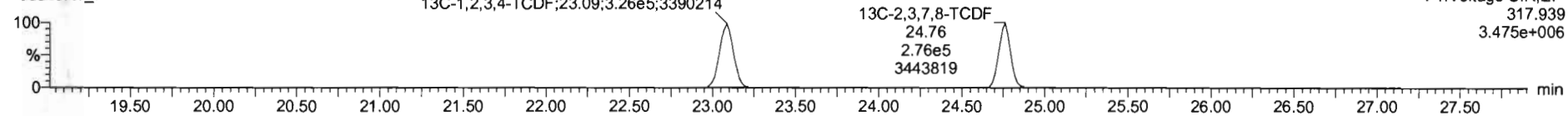


**13C-2,3,7,8-TCDF**

200319R1\_7

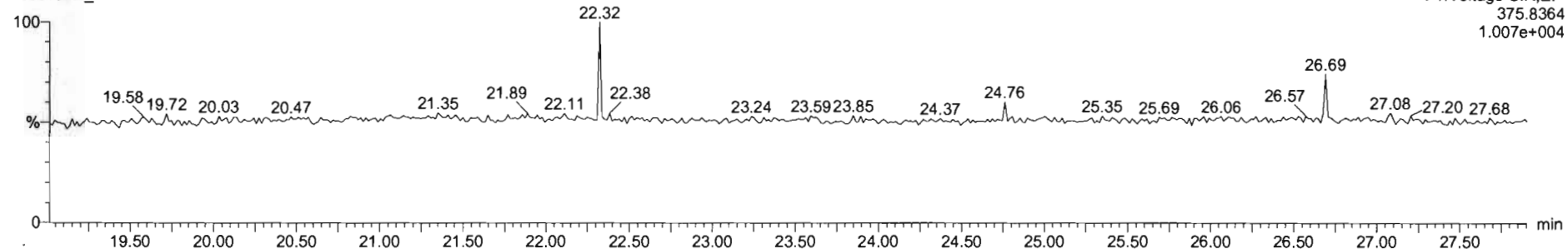


200319R1\_7



**DPE1**

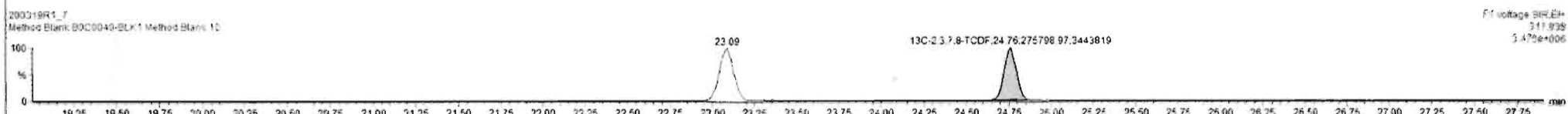
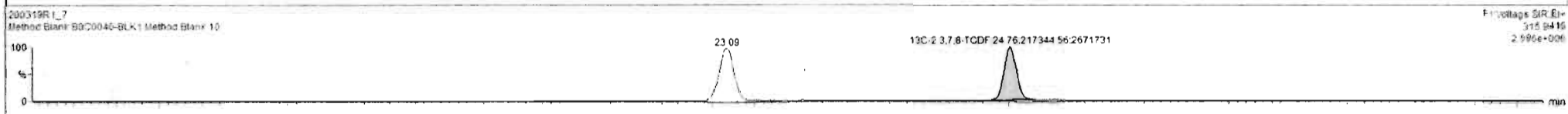
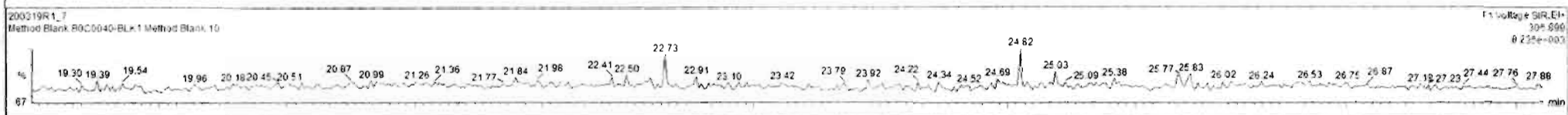
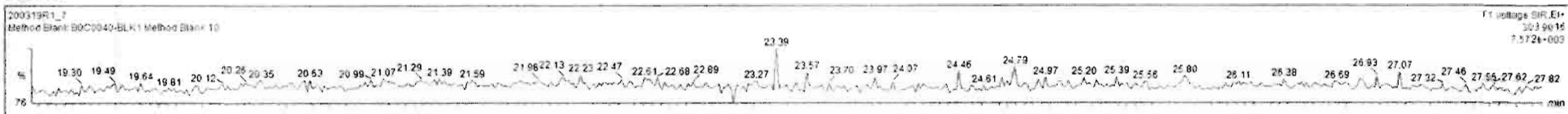
200319R1\_7





200319R1\_7 - B0C0040-BLK1 Method Blank 10 - Method Blank

#	Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	10.000				0.0623		
40	Total Penta-Dioxins				0.8212	10.000				0.0519		
41	Total Hexa-Dioxins				0.9844	10.000				0.0460		
42	Total Hepta-Dioxins				1.0061	10.000				0.112		
43	Total Tetra-Furans				0.9154	10.000				0.0293		
44	1st Func. Penta-Furans				0.6464	10.000				0.0244		
45	Total Penta-Furans				0.9594	10.000				0.0362		
46	Total Hexa-Furans				1.0920	10.000				0.0291		
47	Total Hepta-Furans				1.0482	10.000				0.0527		
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											
58	DPE6											



Dataset: Untitled

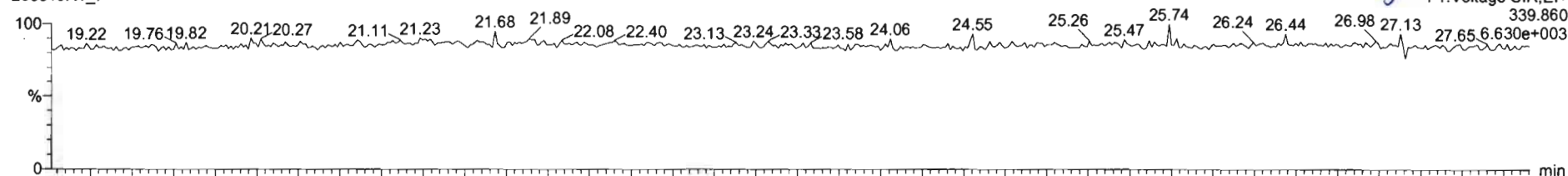
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

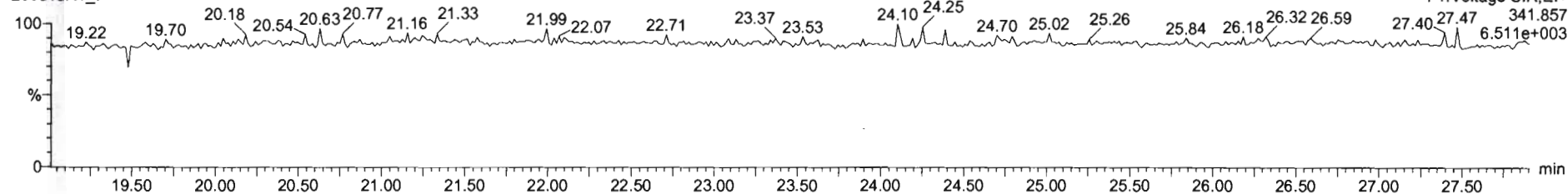
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1st Func. Penta-Furans

200319R1\_7

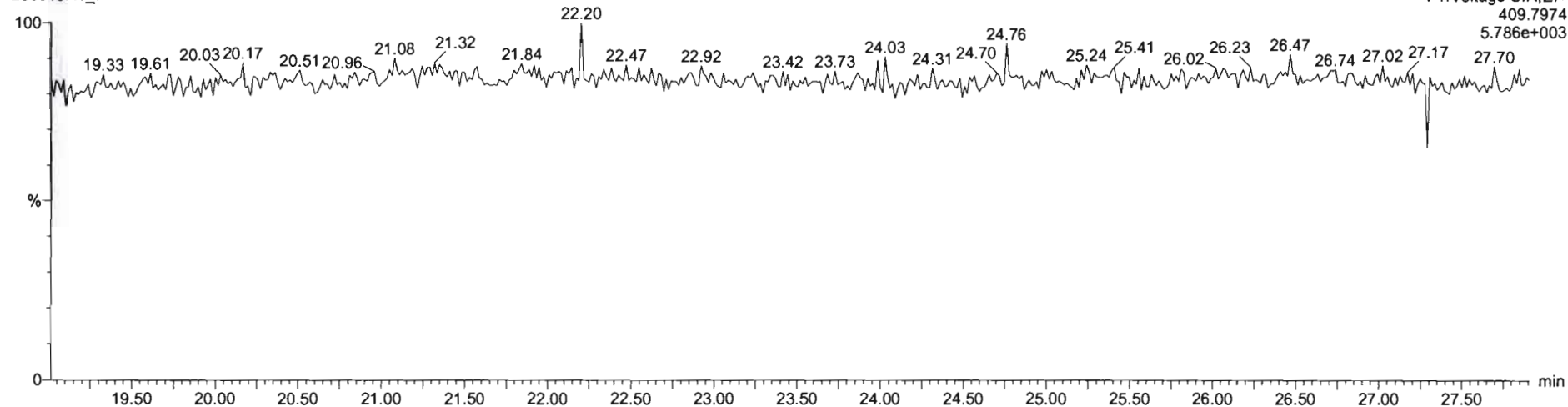


200319R1\_7



DPE6

200319R1\_7



Dataset: Untitled

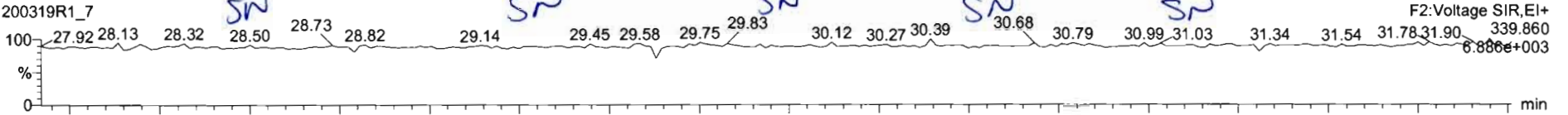
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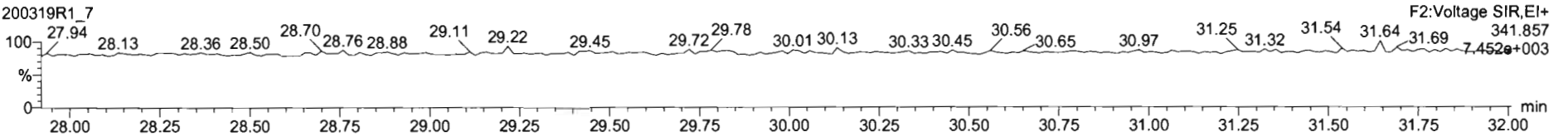
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**1,2,3,7,8-PeCDF**

200319R1\_7

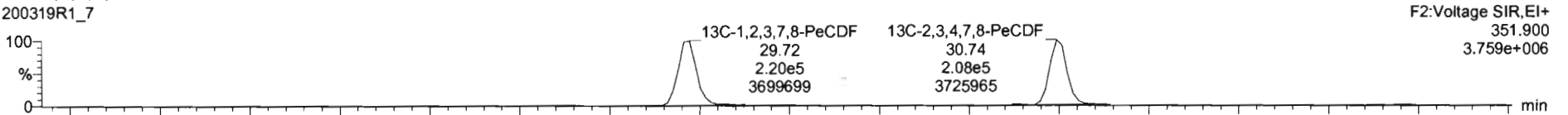


200319R1\_7

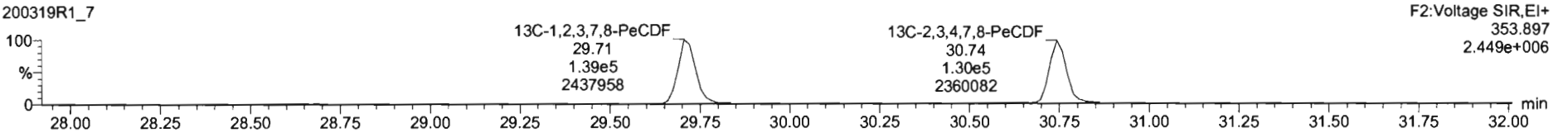


**13C-1,2,3,7,8-PeCDF**

200319R1\_7

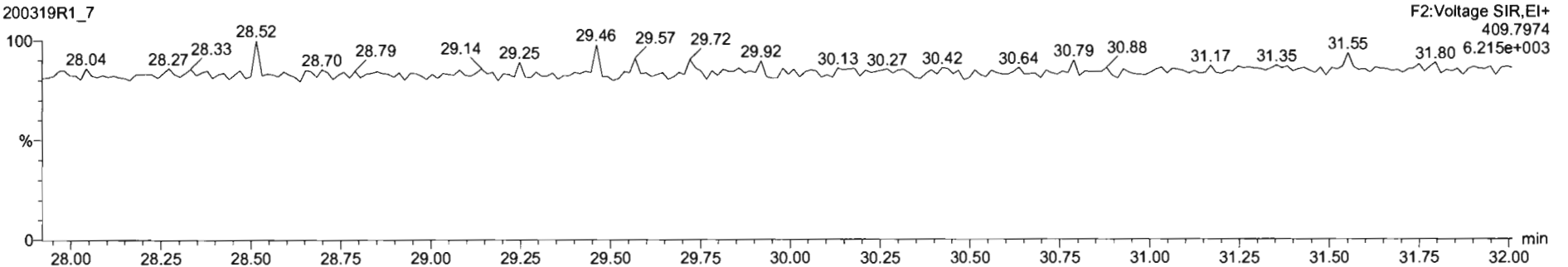


200319R1\_7

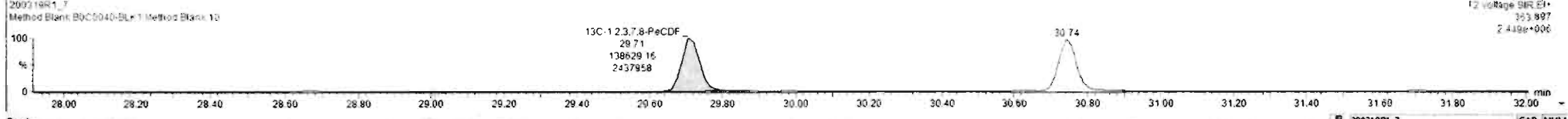
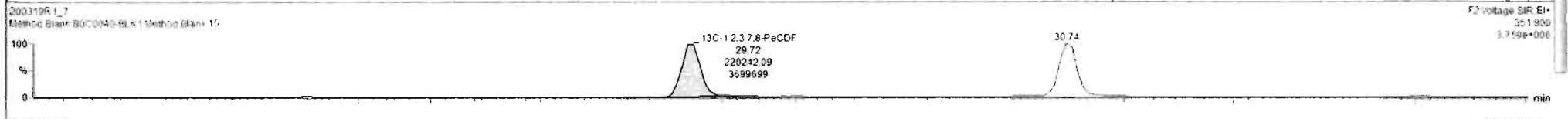
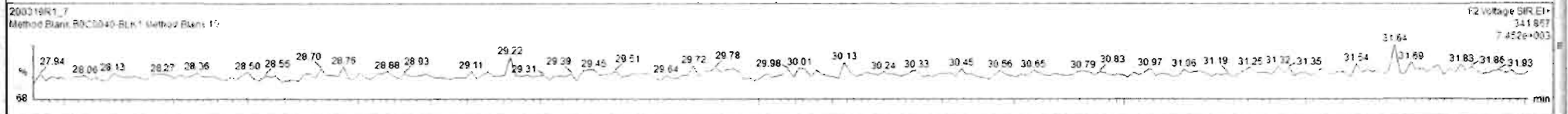
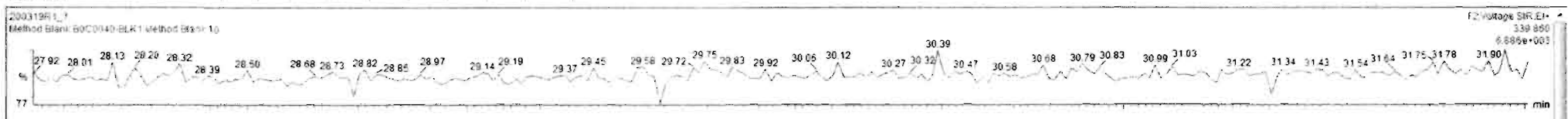


**DPE2**

200319R1\_7



Name	Resp	RA	nty	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9825	10.000					0.0623	
40 Total Penta-Dioxins				0.9212	10.000					0.0519	
41 Total Hexa-Dioxins				0.9844	10.000					0.0460	
42 Total Hepta-Dioxins				1.0061	10.000					0.112	
43 Total Tetra-Furans				0.9154	10.000					0.0293	
44 1st Func. Penta-Furans				0.9594	10.000					0.0244	
45 Total Penta-Furans				0.9594	10.000					0.0362	
46 Total Hexa-Furans				1.0520	10.000					0.0291	
47 Total Hepta-Furans				1.0483	10.000					0.0527	
48 PKK1											
49 PKK2											
50 PKK3											
51 PKK4											
52 PKK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											
58 DPE6											



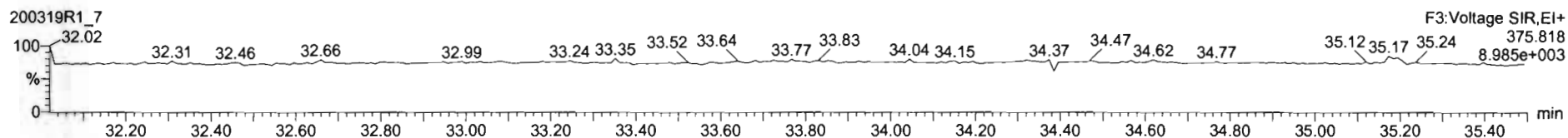
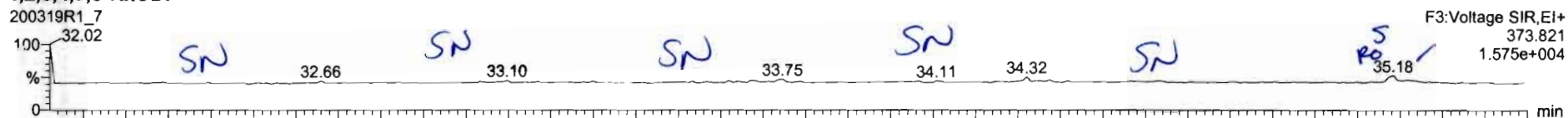
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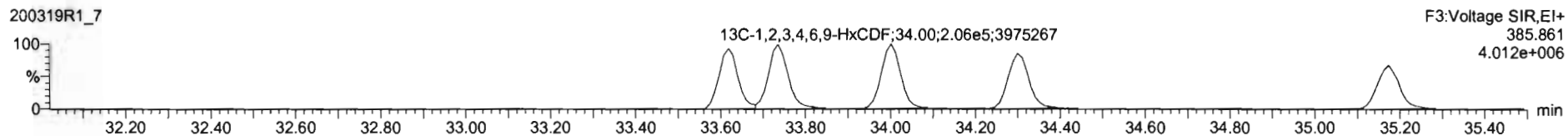
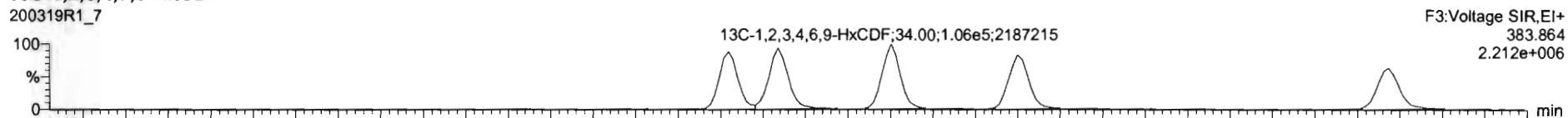
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Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

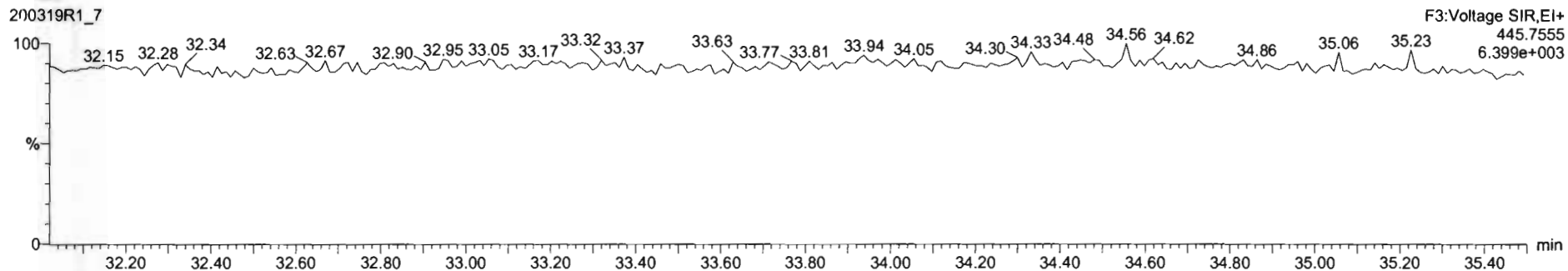
**1,2,3,4,7,8-HxCDF**



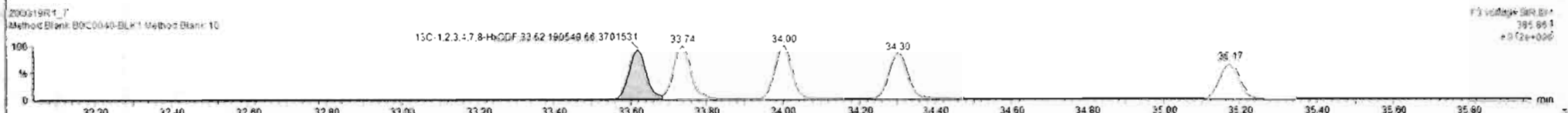
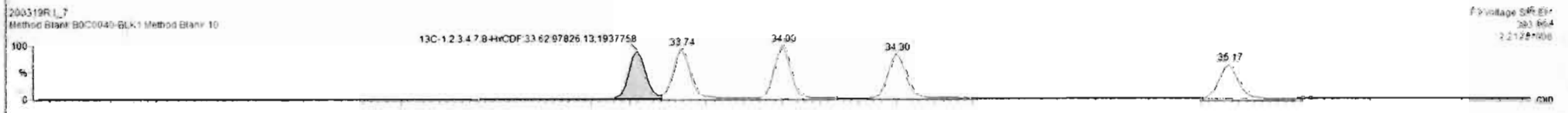
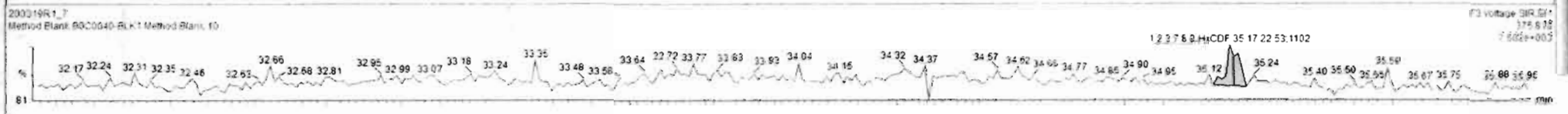
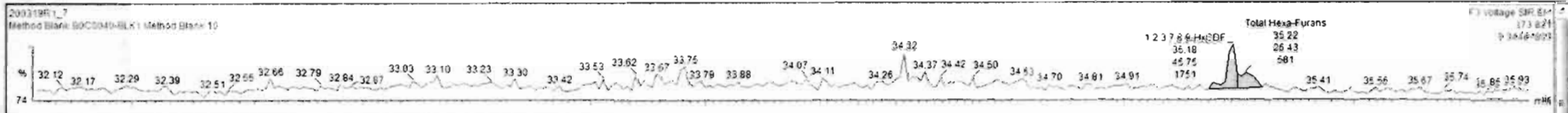
**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



#	Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	10.000					0.0623	
40	Total Penta-Dioxins				0.9212	10.000					0.0519	
41	Total Hexa-Dioxins				0.9844	10.000					0.0460	
42	Total Hepta-Dioxins				1.0061	10.000					0.112	
43	Total Tetra-Furans				0.9154	10.000					0.0293	
44	1st Func. Penta-Furans				0.9594	10.000					0.0244	
45	Total Penta-Furans				0.9594	10.000					0.0352	
46	Total Hexa-Furans				1.0920	10.000			0.0288		0.0291	0.0665
47	Total Hepta-Furans				1.0483	10.000					0.0527	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											
58	DPE6											

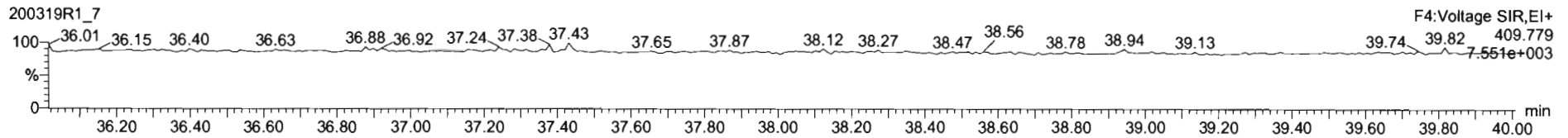
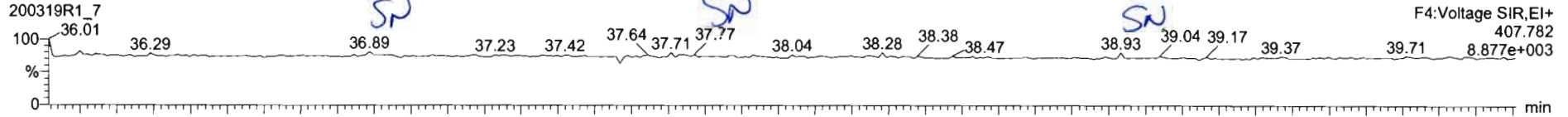


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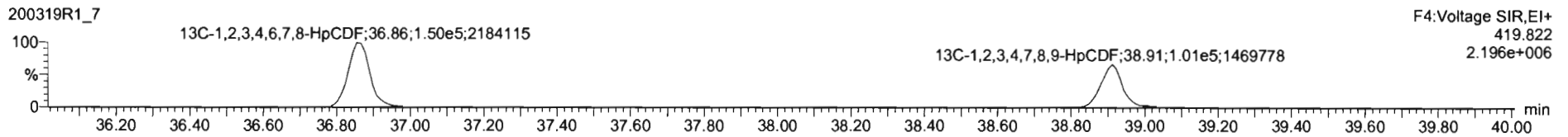
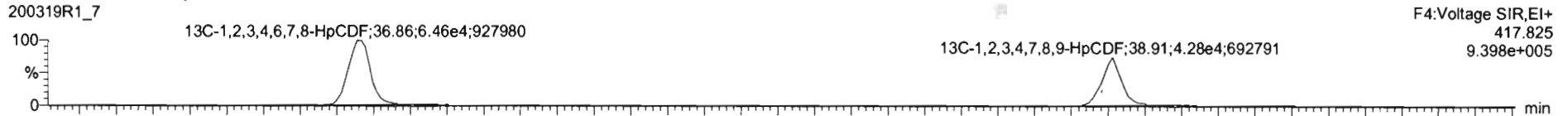
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank

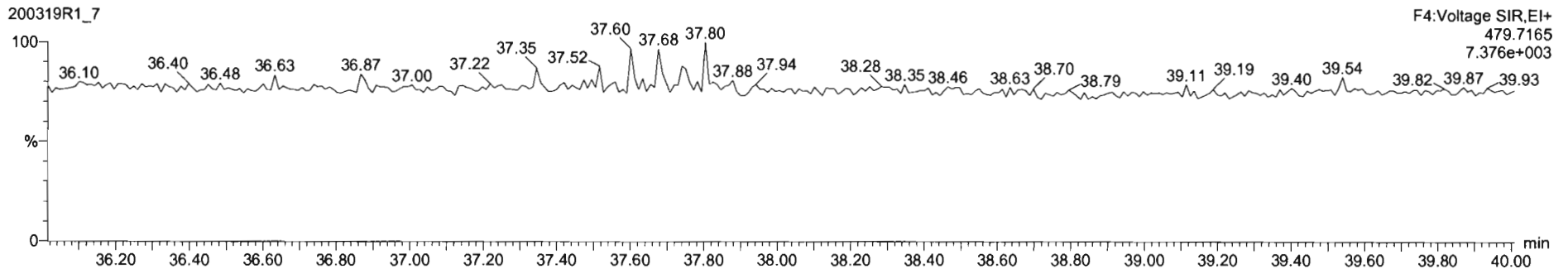
1,2,3,4,6,7,8-HpCDF



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



DPE4

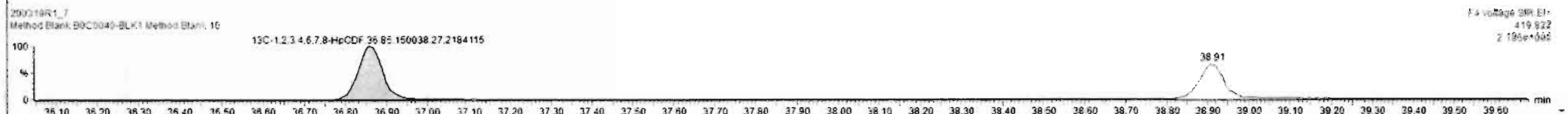
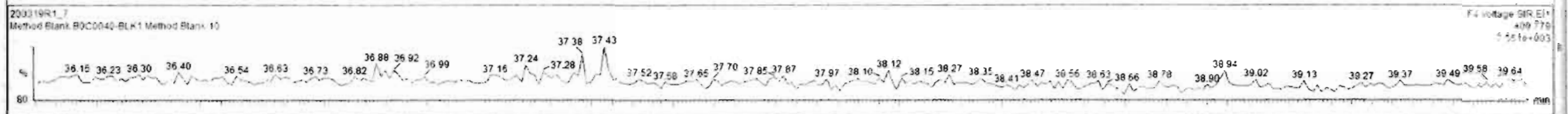
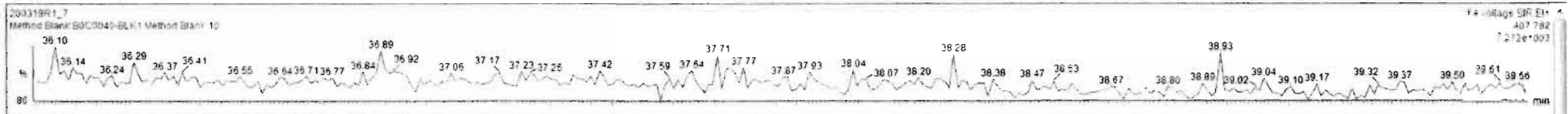


TargetLynx - 200319R1\_7.qld - [Chromatogram]

File Edit View Display Processing Window Help

200319R1\_7 - BOC0040-BLK1 Method Blank 10 - Method Blank

SI	Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	10.000					0.0823	
40	Total Penta-Dioxins				0.9212	10.000					0.0519	
41	Total Hexa-Dioxins				0.9644	10.000					0.0486	
42	Total Hepta-Dioxins				1.0061	10.000					0.112	
43	Total Tetra-Furans				0.9154	10.000					0.0293	
44	1st Func. Penta-Furans				0.9554	10.000					0.0244	
45	Total Penta-Furans				0.9594	10.000					0.0342	
46	Total Hexa-Furans				1.0920	10.000			0.0268		0.0291	0.0685
47	Total Hepta-Furans				1.0483	10.000					0.0527	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											
58	DPE6											



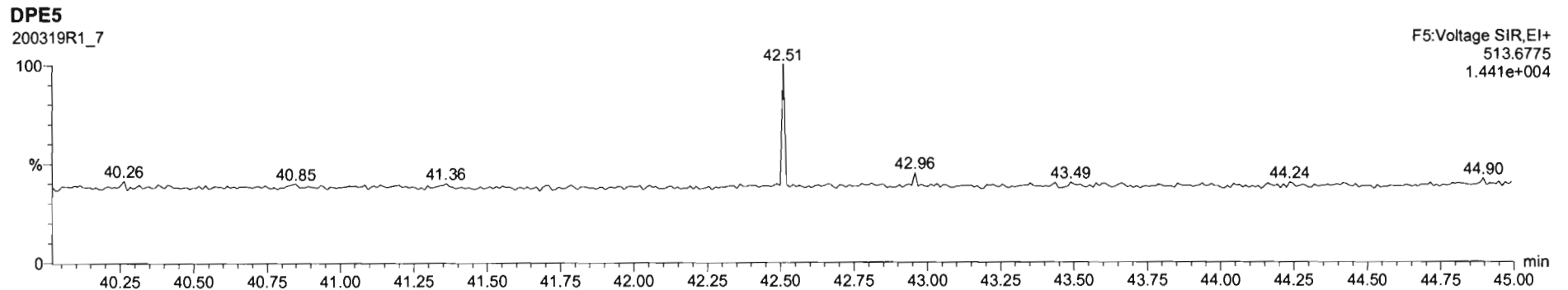
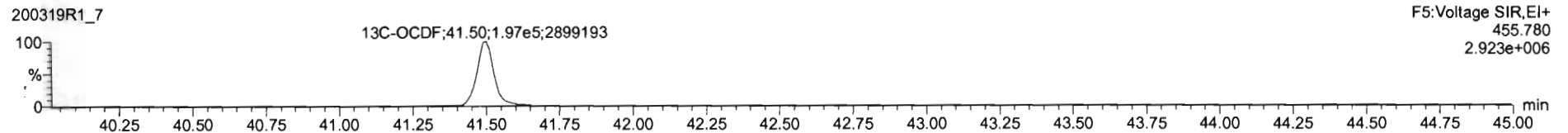
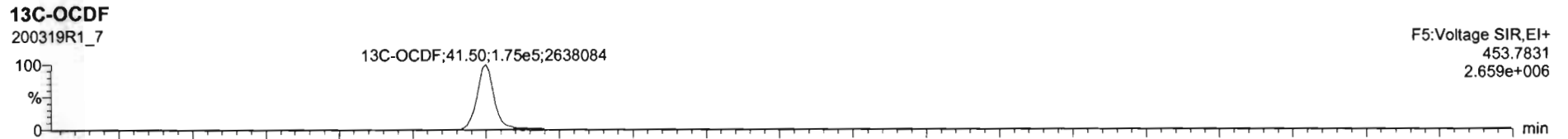
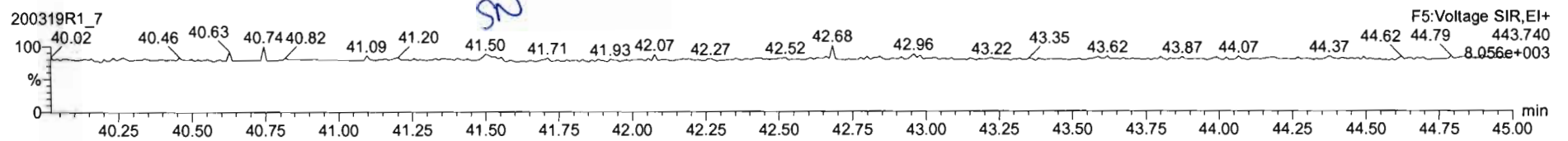
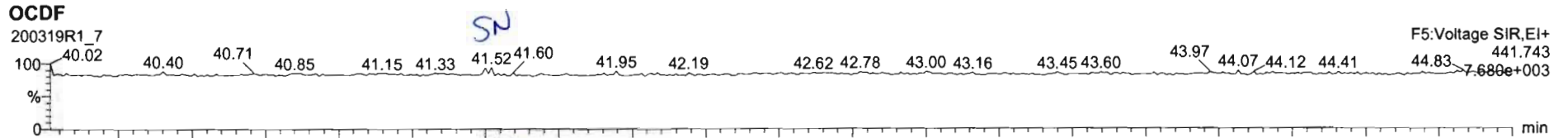


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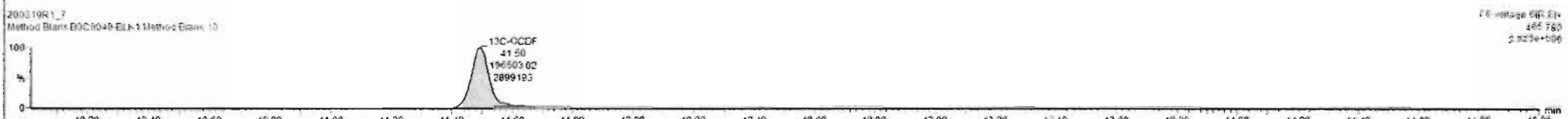
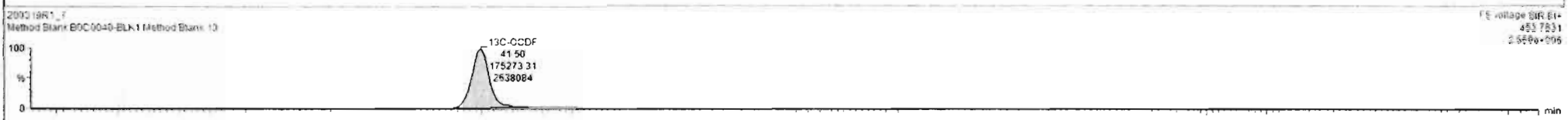
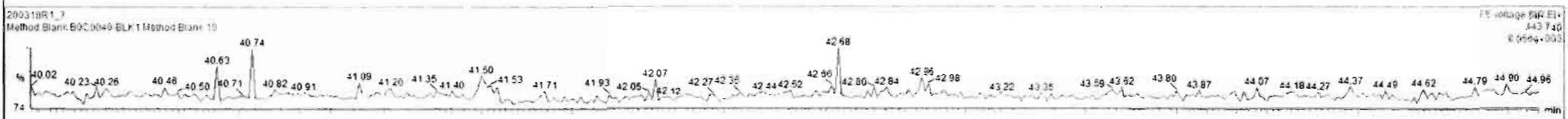
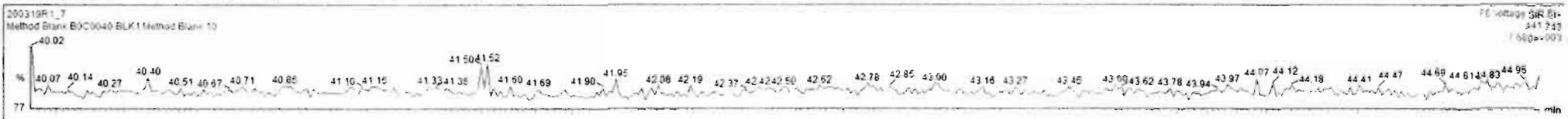
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Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank



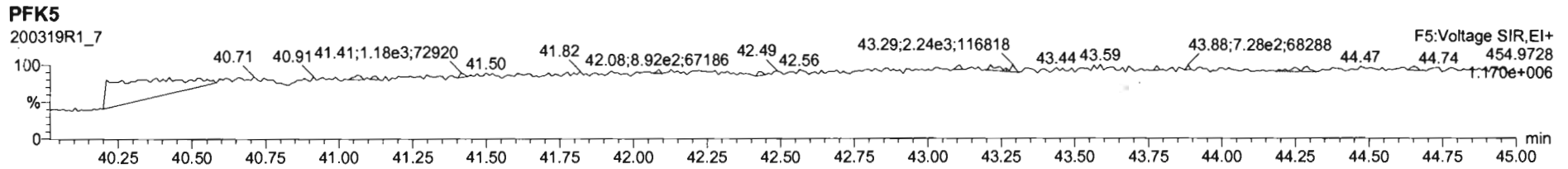
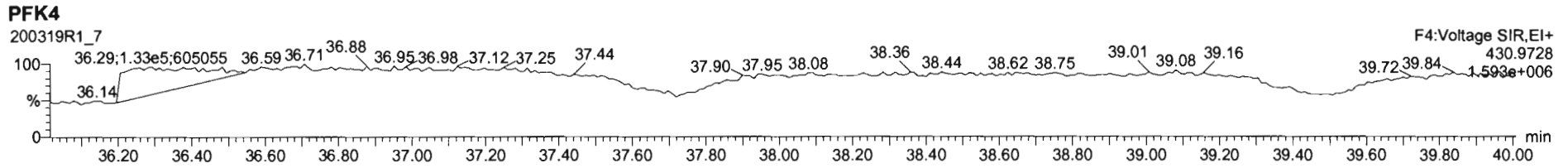
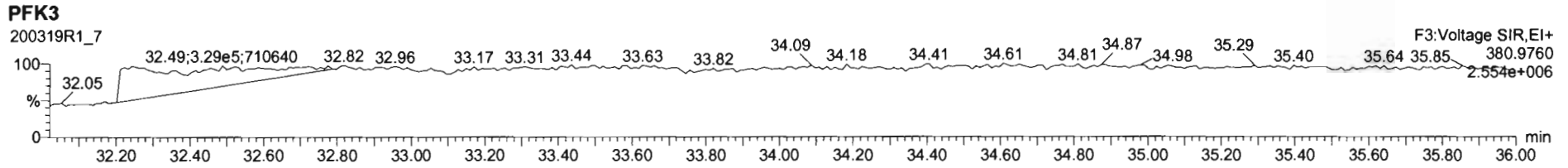
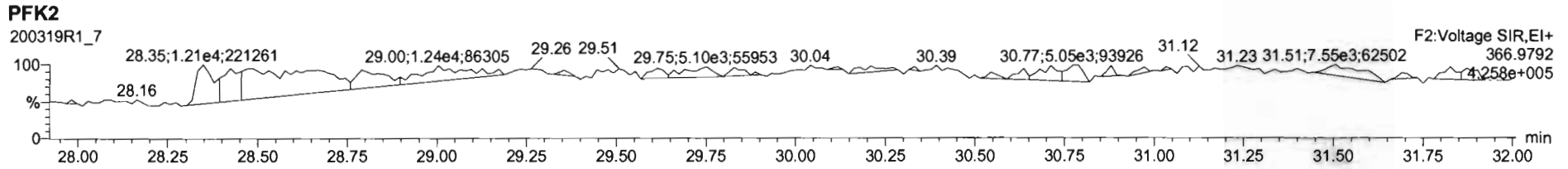
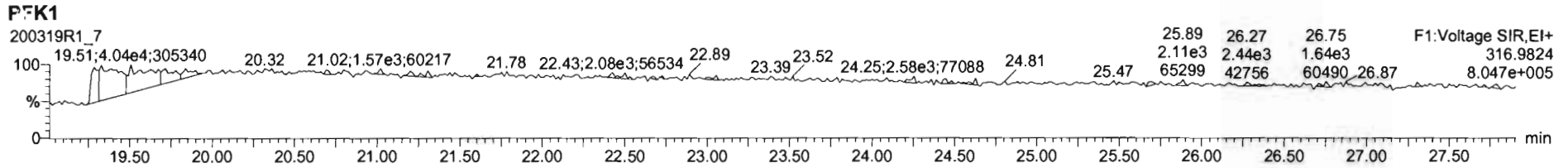
DI	Name	Resp	RA	ny	RRF	wtvol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.9835	10.000					0.128	
2	1,2,3,7,8-PeCDD			NO	0.9212	10.000					0.110	
3	1,2,3,4,7,8-HxCDD			NO	1.1325	10.000					0.0865	
4	1,2,3,6,7,8-HxCDD			NO	0.9844	10.000					0.0902	
5	1,2,3,7,8,9-HxCDD			NO	0.9674	10.000					0.0866	
6	1,2,3,4,6,7,8-HpCDD			NO	1.0061	10.000					0.207	
7	OCDD	1.6542	0.96	NO	1.0515	10.000	41.24	1.001	0.235		0.135	0.235
8	2,3,7,8-TCDF			NO	0.9154	10.000					0.0839	
9	1,2,3,7,8-PeCDF			NO	0.9594	10.000					0.0740	
10	2,3,4,7,8-PeCDF			NO	1.0035	10.000					0.0706	
11	1,2,3,4,7,8-HxCDF			NO	1.0281	10.000					0.0636	
12	1,2,3,6,7,8-HxCDF			NO	1.0128	10.000					0.0609	
13	2,3,4,6,7,8-HxCDF			NO	1.0920	10.000					0.0647	
14	1,2,3,7,8,9-HxCDF			NO	1.0268	10.000					0.0896	
15	1,2,3,4,6,7,8-HpCDF			NO	1.0483	10.000					0.0914	
16	1,2,3,4,7,8,9-HpCDF			NO	1.2099	10.000					0.105	
17	OCDF			NO	0.9458	10.000					0.130	
18	1,2,3,4,7,8,9-TCDF	1.1545	0.82	NO	1.1847	10.000	24.78	1.039	174	87.0	0.065	



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:45:25 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1\_7, Date: 19-Mar-2020, Time: 21:05:36, ID: B0C0040-BLK1 Method Blank 10, Description: Method Blank



Dataset: U:\VG12.PRO\Results\200319R1\200319R1-4.qld

Last Altered: Friday, March 20, 2020 15:07:47 Pacific Daylight Time  
Printed: Friday, March 20, 2020 15:08:03 Pacific Daylight Time

GRB 03/20/2020

C7 04/02/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	2.60e4	0.78	NO	0.983	10.000	25.781	25.80	1.001	1.002	20.309		0.208	20.3
2	2 1,2,3,7,8-PeCDD	9.45e4	0.64	NO	0.921	10.000	31.086	31.08	1.001	1.000	107.35		0.270	107
3	3 1,2,3,4,7,8-HxCDD	9.18e4	1.26	NO	1.13	10.000	34.480	34.48	1.000	1.000	104.31		0.300	104
4	4 1,2,3,6,7,8-HxCDD	9.56e4	1.25	NO	0.984	10.000	34.576	34.59	1.000	1.000	106.15		0.299	106
5	5 1,2,3,7,8,9-HxCDD	8.68e4	1.27	NO	0.967	10.000	34.853	34.85	1.000	1.000	101.93		0.328	102
6	6 1,2,3,4,6,7,8-HpCDD	6.88e4	1.04	NO	1.01	10.000	38.273	38.27	1.000	1.000	100.37		0.664	100
7	7 OCDD	1.24e5	0.87	NO	1.05	10.000	41.329	41.34	1.000	1.000	192.67		0.480	193
8	8 2,3,7,8-TCDF	3.50e4	0.80	NO	0.915	10.000	24.772	24.79	1.001	1.002	19.093		0.101	19.1
9	9 1,2,3,7,8-PeCDF	1.51e5	1.59	NO	0.959	10.000	29.727	29.72	1.001	1.001	107.49		0.370	107
10	10 2,3,4,7,8-PeCDF	1.56e5	1.59	NO	1.00	10.000	30.774	30.76	1.001	1.000	106.64		0.314	107
11	11 1,2,3,4,7,8-HxCDF	1.18e5	1.21	NO	1.04	10.000	33.618	33.64	1.000	1.001	96.569		0.334	96.6
12	12 1,2,3,6,7,8-HxCDF	1.32e5	1.21	NO	1.01	10.000	33.745	33.76	1.000	1.001	100.17		0.325	100
13	13 2,3,4,6,7,8-HxCDF	1.31e5	1.24	NO	1.09	10.000	34.344	34.32	1.001	1.000	98.635		0.318	98.6
14	14 1,2,3,7,8,9-HxCDF	1.04e5	1.19	NO	1.03	10.000	35.173	35.19	1.000	1.001	98.357		0.449	98.4
15	15 1,2,3,4,6,7,8-HpCDF	9.20e4	1.02	NO	1.05	10.000	36.893	36.88	1.001	1.001	95.088		0.512	95.1
16	16 1,2,3,4,7,8,9-HpCDF	7.00e4	1.02	NO	1.21	10.000	38.911	38.93	1.000	1.001	95.925		0.695	95.9
17	17 OCDF	1.61e5	0.89	NO	0.947	10.000	41.499	41.51	1.000	1.000	204.12		0.340	204
18	18 13C-2,3,7,8-TCDD	2.60e5	0.78	NO	1.18	10.000	25.750	25.75	1.029	1.029	154.74	77.4	0.456	
19	19 13C-1,2,3,7,8-PeCDD	1.91e5	0.65	NO	0.864	10.000	30.937	31.06	1.236	1.241	155.77	77.9	0.486	
20	20 13C-1,2,3,4,7,8-HxCDD	1.55e5	1.30	NO	0.754	10.000	34.474	34.47	1.014	1.014	145.40	72.7	0.557	
21	21 13C-1,2,3,6,7,8-HxCDD	1.83e5	1.30	NO	0.925	10.000	34.582	34.58	1.017	1.017	139.44	69.7	0.454	
22	22 13C-1,2,3,7,8,9-HxCDD	1.76e5	1.28	NO	0.829	10.000	34.844	34.84	1.025	1.025	149.76	74.9	0.506	
23	23 13C-1,2,3,4,6,7,8-HpCDD	1.36e5	1.07	NO	0.598	10.000	38.306	38.26	1.127	1.125	160.68	80.3	0.730	
24	24 13C-OCDD	2.45e5	0.88	NO	0.571	10.000	41.457	41.33	1.219	1.216	302.54	75.6	0.753	
25	25 13C-2,3,7,8-TCDF	4.00e5	0.80	NO	1.09	10.000	24.772	24.75	0.990	0.989	134.02	67.0	0.514	
26	26 13C-1,2,3,7,8-PeCDF	2.92e5	1.66	NO	0.876	10.000	29.608	29.71	1.183	1.187	121.62	60.8	0.568	
27	27 13C-2,3,4,7,8-PeCDF	2.92e5	1.63	NO	0.844	10.000	30.619	30.74	1.223	1.228	126.29	63.1	0.590	
28	28 13C-1,2,3,4,7,8-HxCDF	2.35e5	0.52	NO	1.00	10.000	33.620	33.62	0.989	0.989	165.90	83.0	0.608	
29	29 13C-1,2,3,6,7,8-HxCDF	2.61e5	0.52	NO	1.12	10.000	33.729	33.74	0.992	0.992	164.52	82.3	0.544	
30	30 13C-2,3,4,6,7,8-HxCDF	2.42e5	0.52	NO	1.04	10.000	34.310	34.31	1.009	1.009	165.14	82.6	0.588	
31	31 13C-1,2,3,7,8,9-HxCDF	2.06e5	0.52	NO	0.873	10.000	35.184	35.17	1.035	1.034	166.85	83.4	0.697	

Dataset: U:\VG12.PRO\Results\200319R1\200319R1-4.qld

Last Altered: Friday, March 20, 2020 15:07:47 Pacific Daylight Time

Printed: Friday, March 20, 2020 15:08:03 Pacific Daylight Time

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	1.85e5	0.43	NO	0.771	10.000	36.901	36.86	1.085	1.084	169.01	84.5	0.565	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.21e5	0.43	NO	0.519	10.000	38.989	38.91	1.147	1.144	163.96	82.0	0.838	
34	34 13C-OCDF	3.33e5	0.89	NO	0.696	10.000	41.638	41.50	1.225	1.221	337.63	84.4	0.465	
35	35 37Cl-2,3,7,8-TCDD	1.10e5			1.17	10.000	25.760	25.78	1.029	1.030	66.193	82.7	0.106	
36	36 13C-1,2,3,4-TCDD	2.84e5	0.80	NO	1.00	10.000	25.050	25.03	1.000	1.000	200.00	100	0.539	
37	37 13C-1,2,3,4-TCDF	5.48e5	0.81	NO	1.00	10.000	23.190	23.09	1.000	1.000	200.00	100	0.560	
38	38 13C-1,2,3,4,6,9-HxCDF	2.83e5	0.51	NO	1.00	10.000	33.880	34.00	1.000	1.000	200.00	100	0.608	

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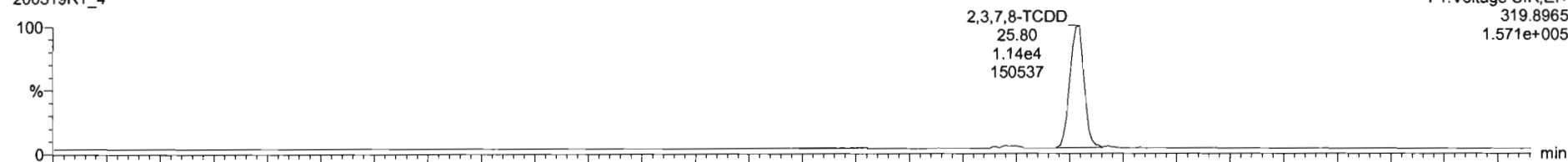
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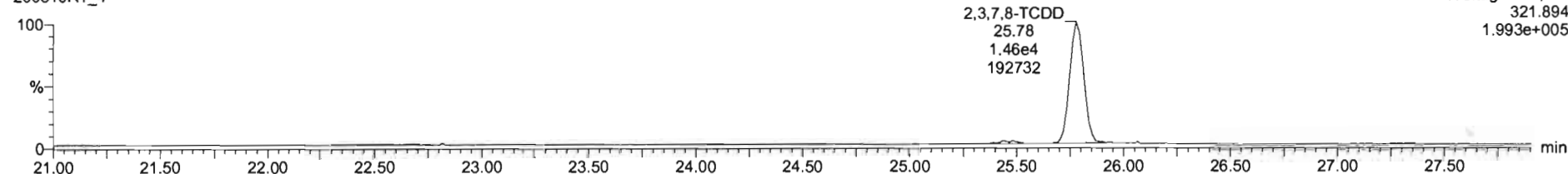
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**2,3,7,8-TCDD**

200319R1\_4

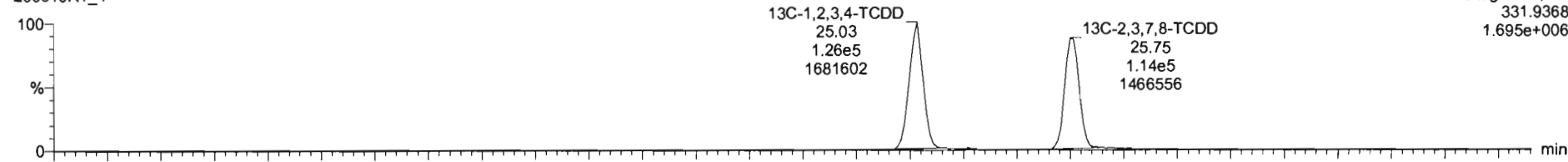


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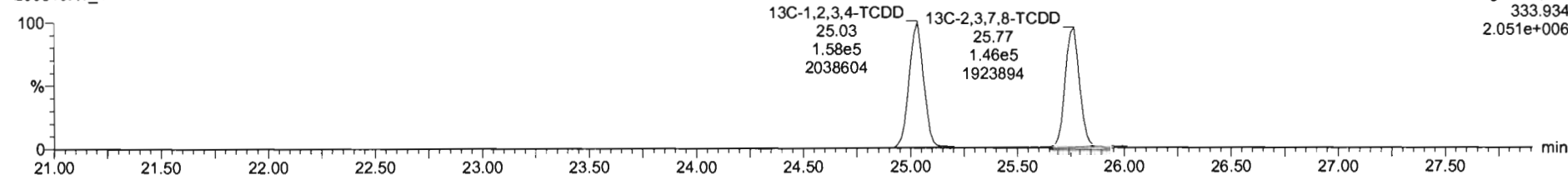


**13C-2,3,7,8-TCDD**

200319R1\_4



200319R1\_4



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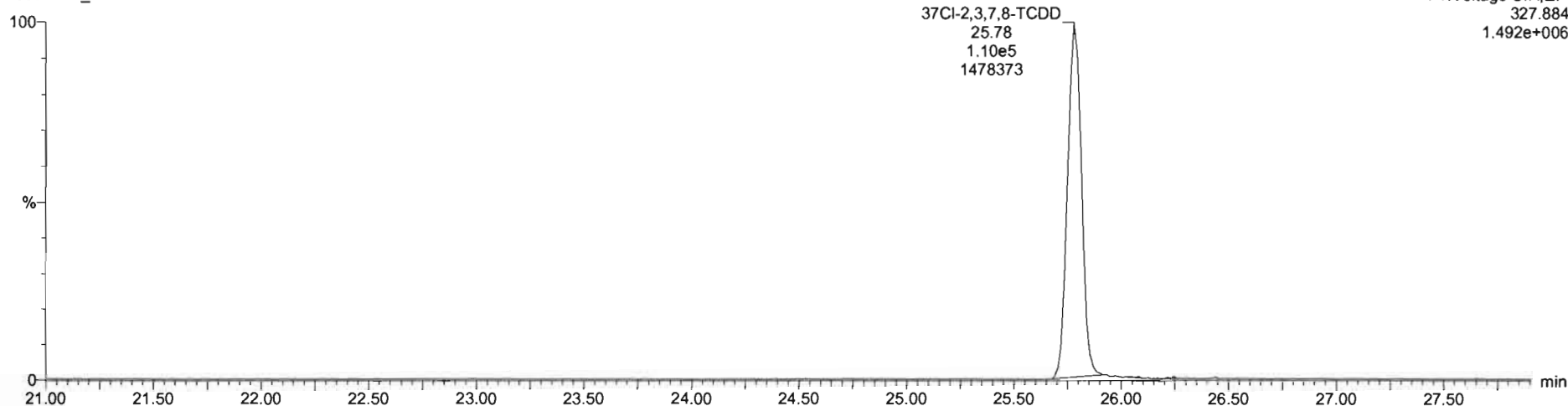
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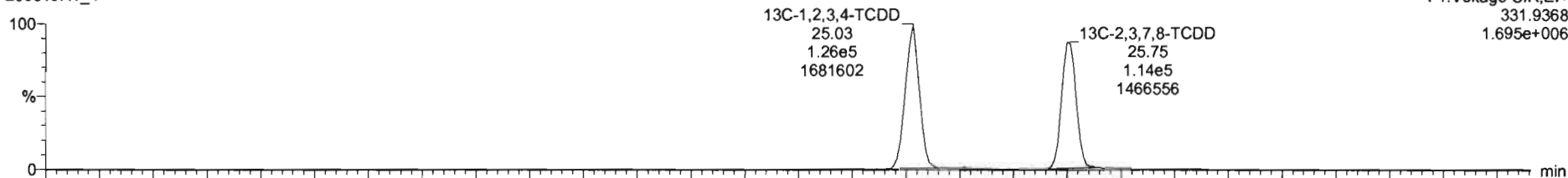
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200319R1\_4

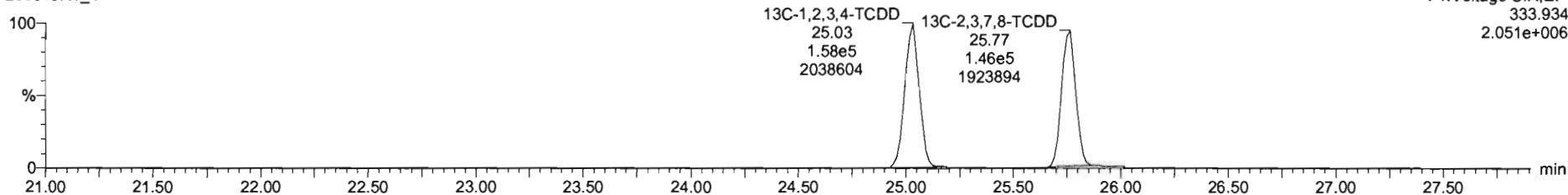


**13C-1,2,3,4-TCDD**

200319R1\_4



200319R1\_4



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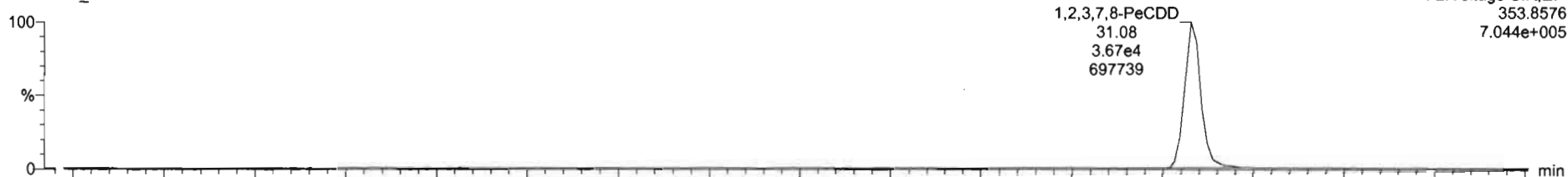
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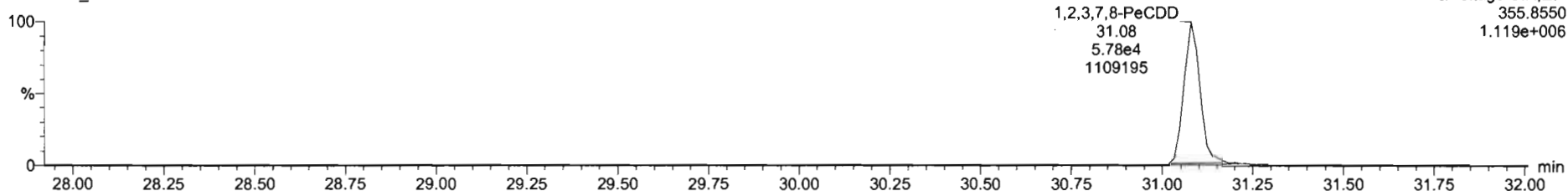
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**1,2,3,7,8-PeCDD**

200319R1\_4

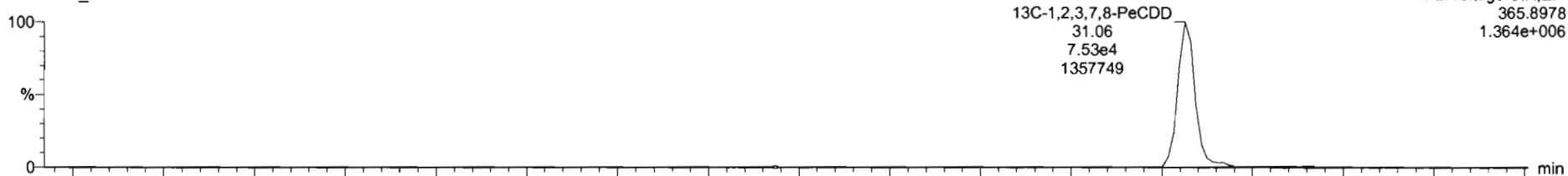


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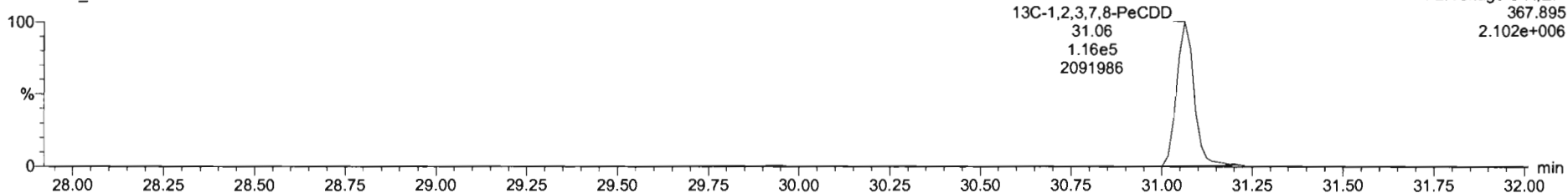


**13C-1,2,3,7,8-PeCDD**

200319R1\_4



200319R1\_4





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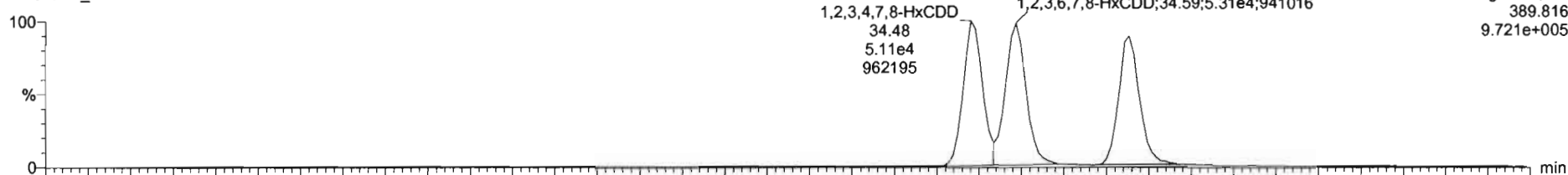
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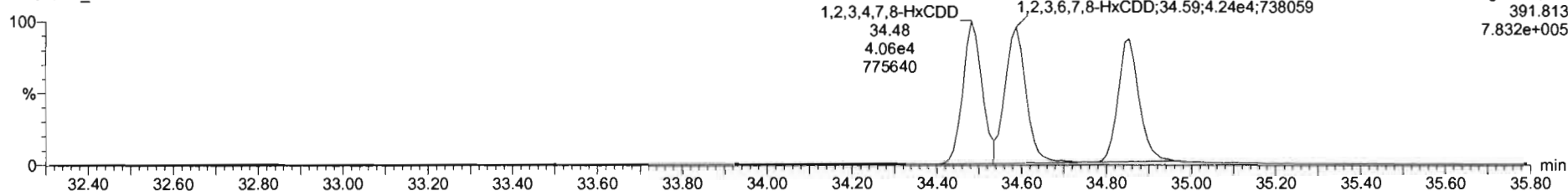
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**1,2,3,4,7,8-HxCDD**

200319R1\_4

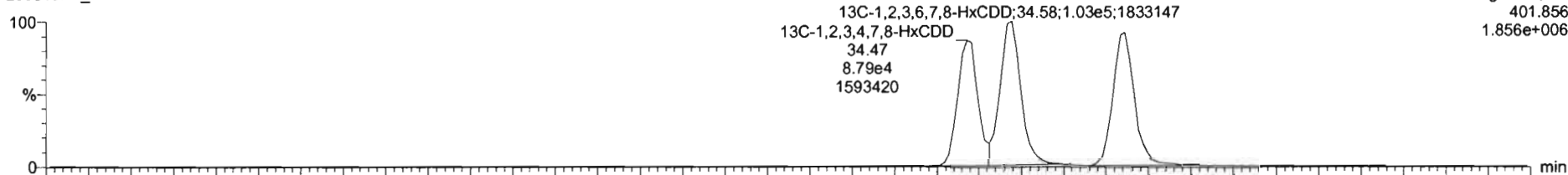


200319R1\_4

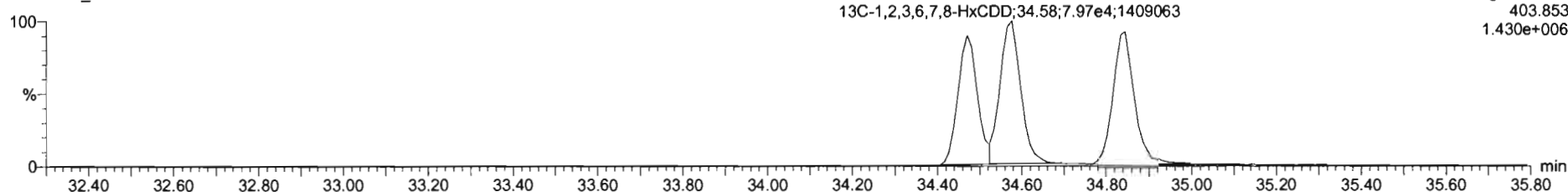


**13C-1,2,3,4,7,8-HxCDD**

200319R1\_4



200319R1\_4



Dataset: Untitled

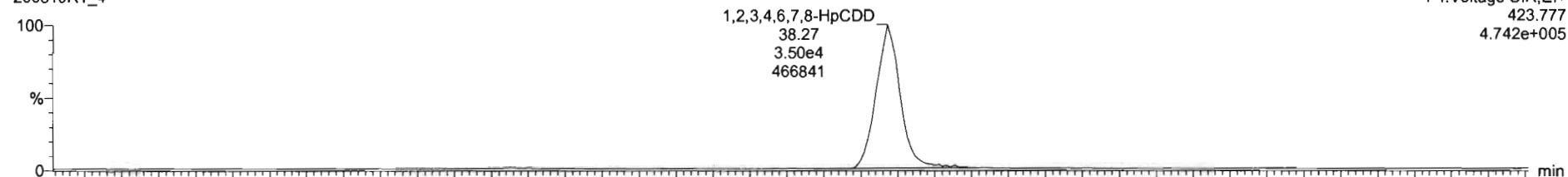
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Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

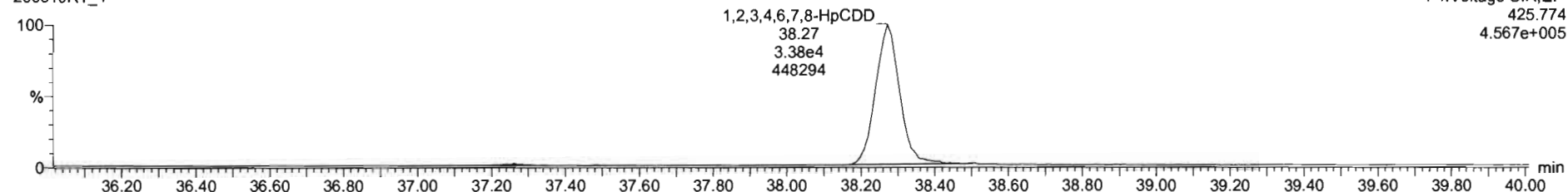
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**1,2,3,4,6,7,8-HpCDD**

200319R1\_4

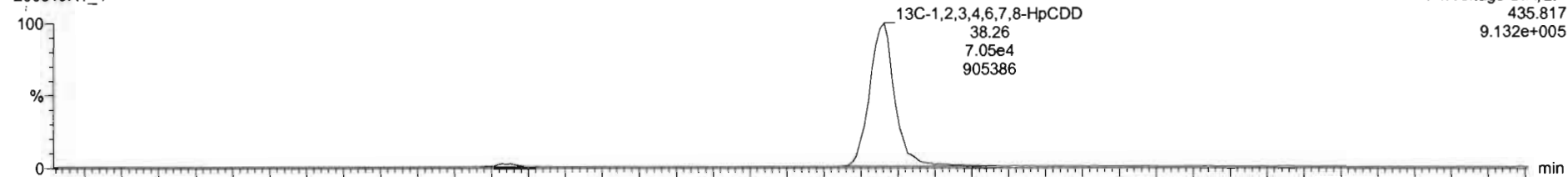


200319R1\_4

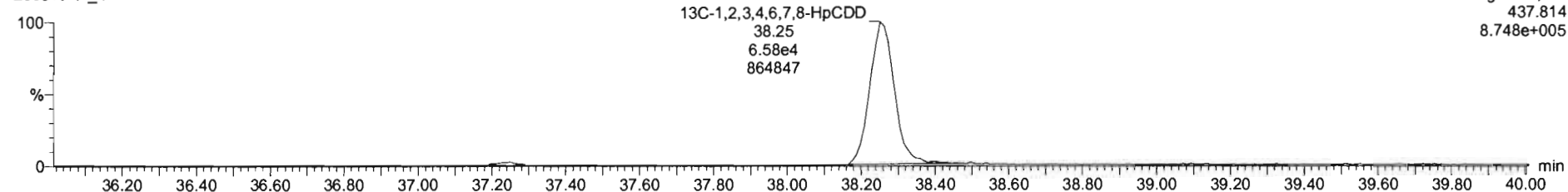


**13C-1,2,3,4,6,7,8-HpCDD**

200319R1\_4



200319R1\_4



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:44:52 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR

**OCDD**

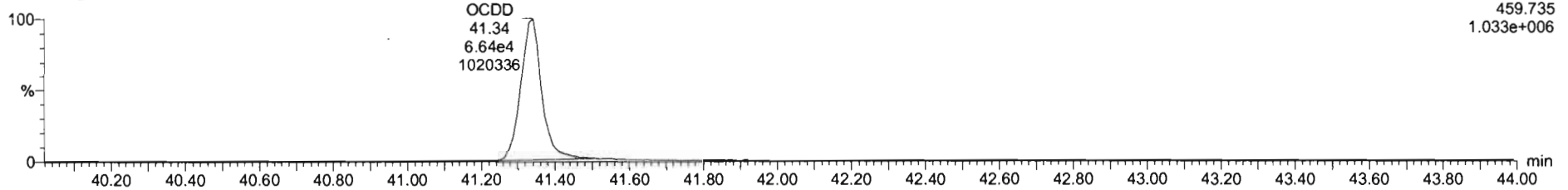
200319R1\_4

F5:Voltage SIR,EI+  
457.738  
9.165e+005



200319R1\_4

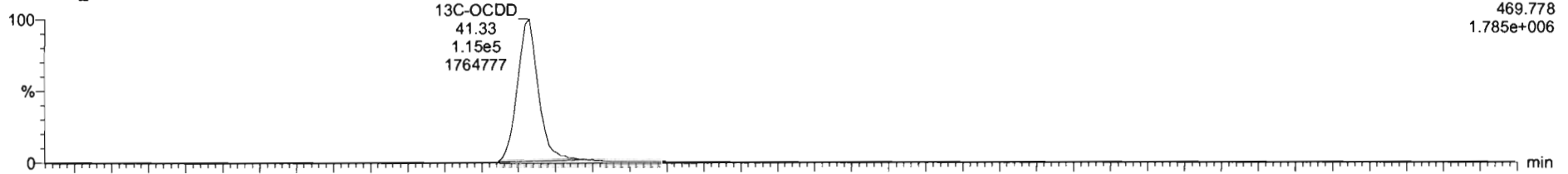
F5:Voltage SIR,EI+  
459.735  
1.033e+006



**13C-OCDD**

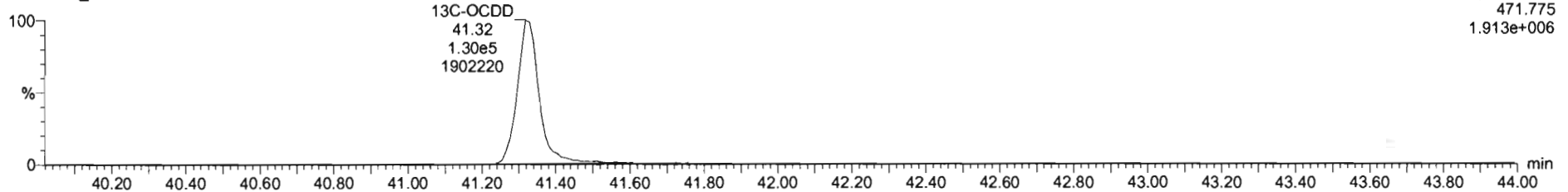
200319R1\_4

F5:Voltage SIR,EI+  
469.778  
1.785e+006



200319R1\_4

F5:Voltage SIR,EI+  
471.775  
1.913e+006



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:44:52 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR

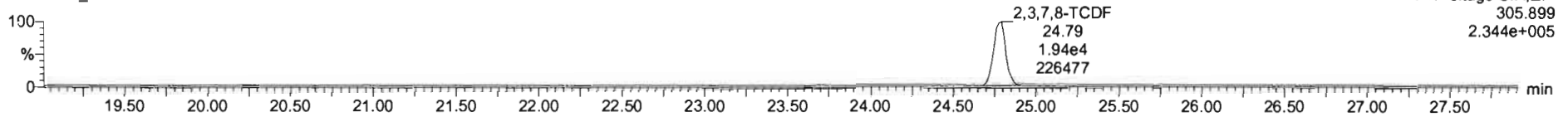
**2,3,7,8-TCDF**

200319R1\_4



F1:Voltage SIR,EI+  
303.9016  
1.888e+005

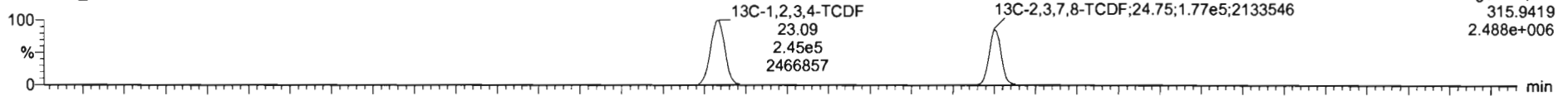
200319R1\_4



F1:Voltage SIR,EI+  
305.899  
2.344e+005

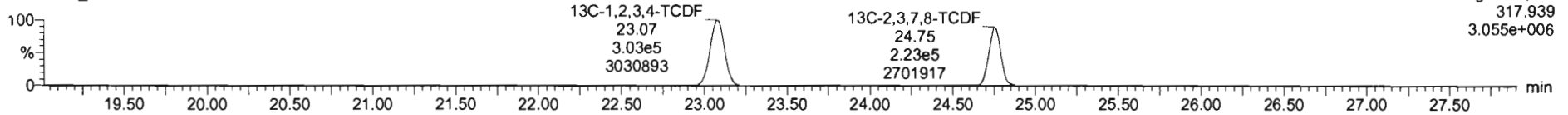
**13C-2,3,7,8-TCDF**

200319R1\_4



F1:Voltage SIR,EI+  
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2.488e+006

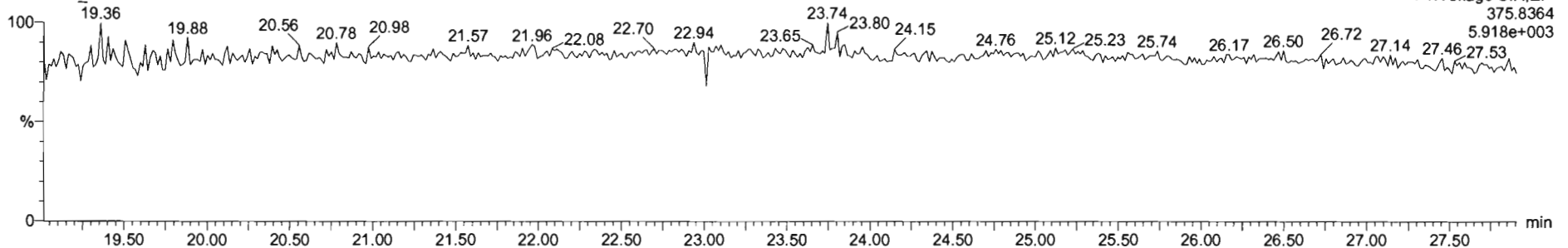
200319R1\_4



F1:Voltage SIR,EI+  
317.939  
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**DPE1**

200319R1\_4



F1:Voltage SIR,EI+  
375.8364  
5.918e+003

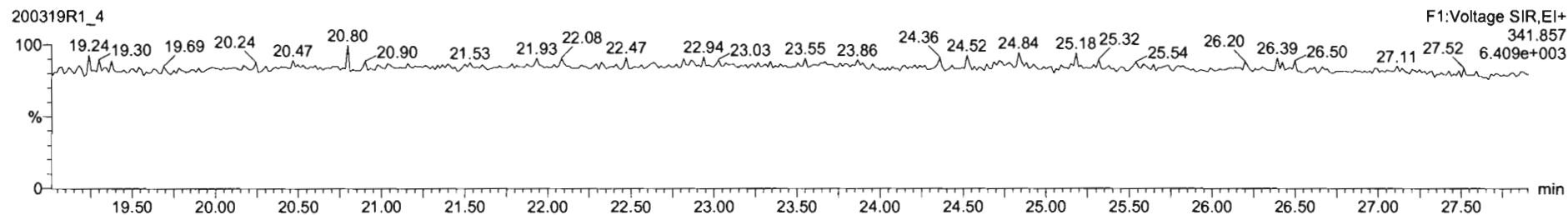
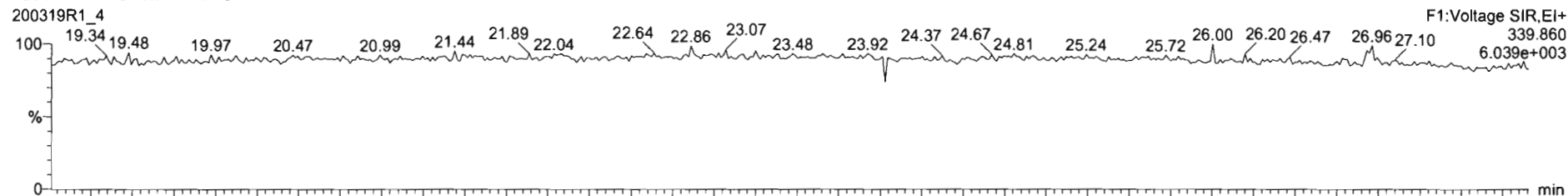
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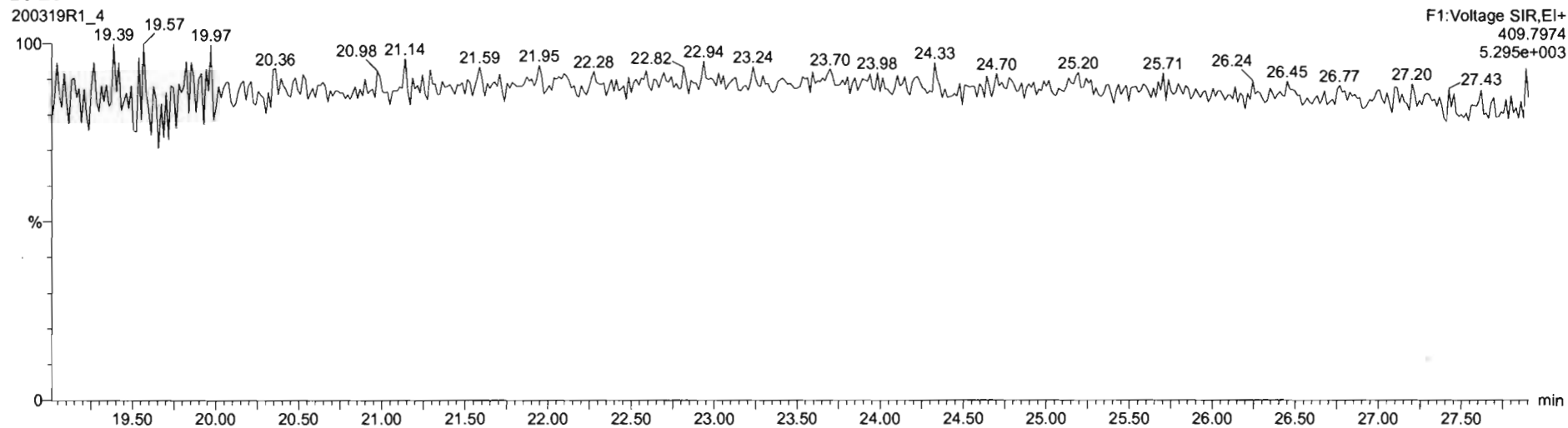
Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR

1st Func. Penta-Furans



DPE6



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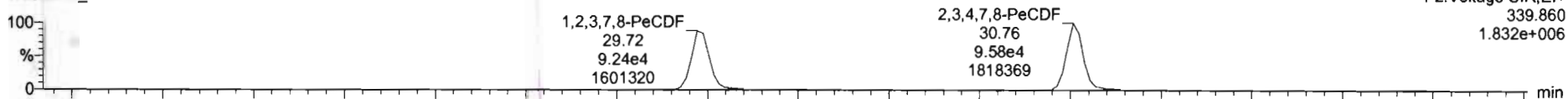
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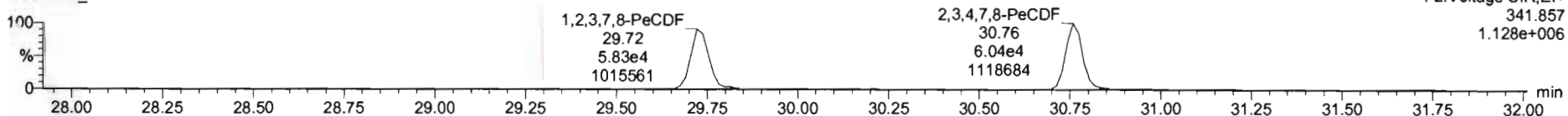
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**1,2,3,7,8-PeCDF**

200319R1\_4

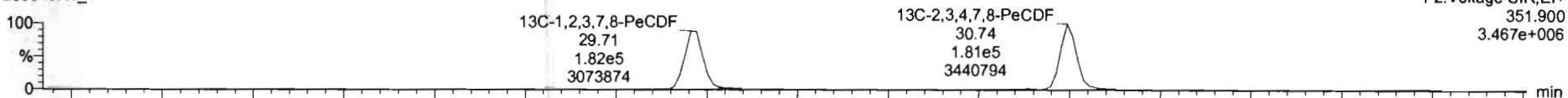


200319R1\_4

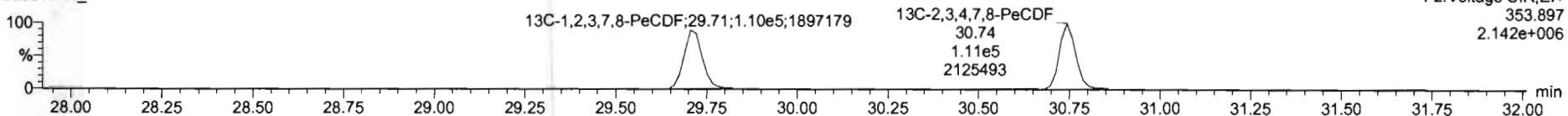


**13C-1,2,3,7,8-PeCDF**

200319R1\_4

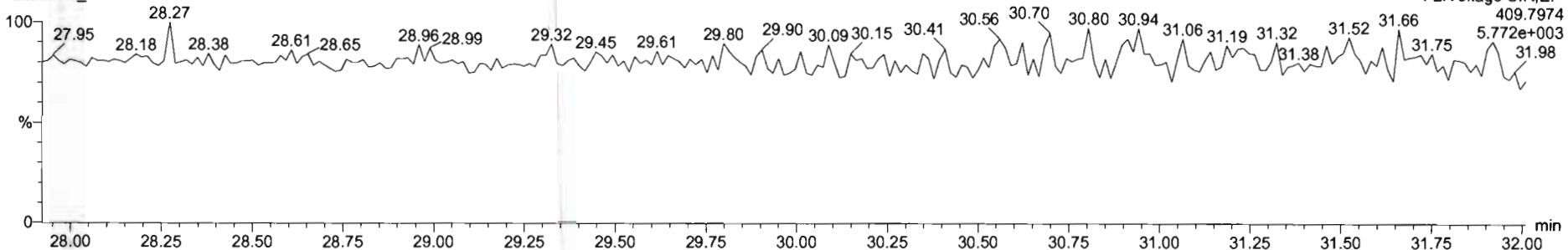


200319R1\_4



**DPE2**

200319R1\_4



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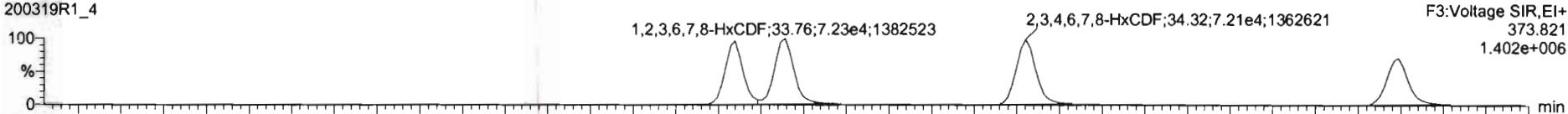
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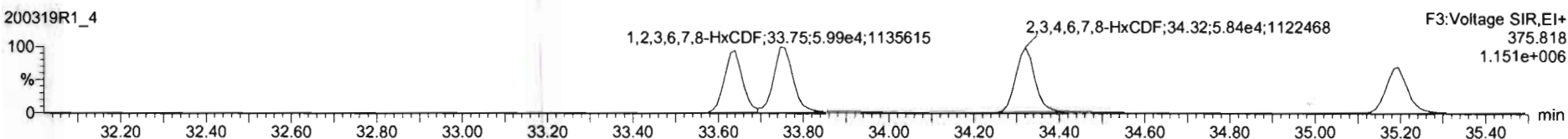
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**1,2,3,4,7,8-HxCDF**

200319R1\_4

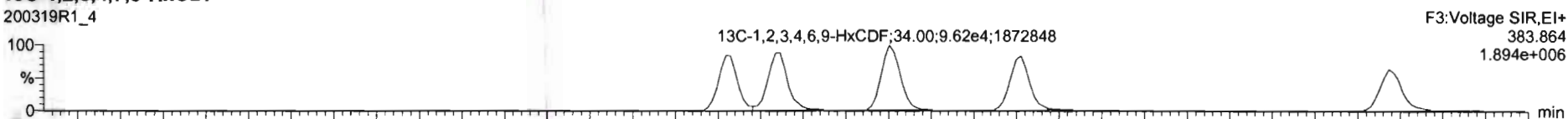


200319R1\_4

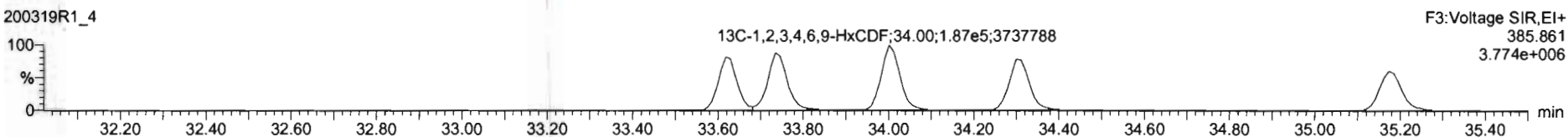


**13C-1,2,3,4,7,8-HxCDF**

200319R1\_4

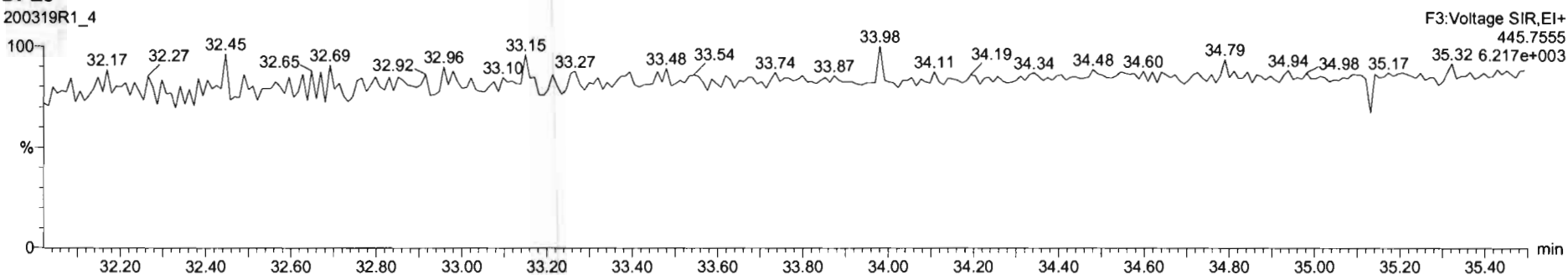


200319R1\_4

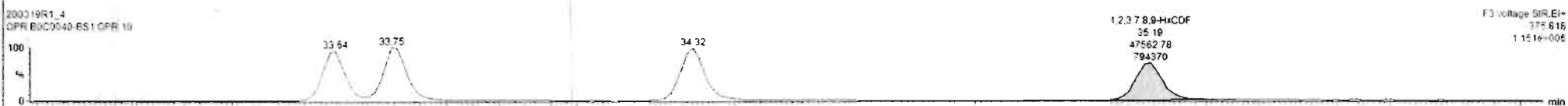


**DPE3**

200319R1\_4



#	Name	Resp	RA	inj	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.69e4	0.78	NO	0.9835	10.000	25.80	1.002	20.3		0.208	20.3
2	1,2,3,7,8-PeCDD	9.45e4	0.84	NO	0.9212	10.000	31.08	1.000	107		0.270	107
3	1,2,3,4,7,8-HxCDD	9.18e4	1.26	NO	1.1325	10.000	24.48	1.000	104		0.300	104
4	1,2,3,6,7,8-HxCDD	9.58e4	1.25	NO	0.9844	10.000	24.59	1.000	106		0.299	106
5	1,2,3,7,8,9-HxCDD	8.68e4	1.27	NO	0.9674	10.000	24.85	1.000	102		0.328	102
6	1,2,3,4,6,7,8-HpCDD	6.88e4	1.04	NO	1.0261	10.000	36.27	1.000	100		0.664	100
7	OCDD	1.24e5	0.87	NO	1.0515	10.000	41.34	1.000	193		0.480	193
8	2,3,7,8-TCDF	3.50e4	0.80	NO	0.9154	10.000	24.79	1.002	15.1		0.101	15.1
9	1,2,3,7,8-PeCDF	1.51e5	1.59	NO	0.9594	10.000	29.72	1.001	107		0.370	107
10	2,3,4,7,8-PeCDF	1.56e5	1.59	NO	1.0035	10.000	20.76	1.000	107		0.314	107
11	1,2,3,4,7,8-HxCDF	1.18e5	1.21	NO	1.0381	10.000	23.64	1.001	96.6		0.334	96.6
12	1,2,3,6,7,8-HxCDF	1.32e5	1.21	NO	1.0126	10.000	23.76	1.001	100		0.325	100
13	2,3,4,6,7,8-HxCDF	1.31e5	1.24	NO	1.0920	10.000	24.32	1.000	98.6		0.318	98.6
14	1,2,3,7,8,9-HxCDF	1.04e5	1.19	NO	1.0268	10.000	35.19	1.001	98.4		0.449	98.4
15	1,2,3,4,6,7,8-HpCDF	9.20e4	1.02	NO	1.0482	10.000	36.88	1.001	95.1		0.512	95.1
16	1,2,3,4,7,8,9-HpCDF	7.00e4	1.02	NO	1.2099	10.000	38.83	1.001	95.9		0.695	95.9
17	OCDF	1.63e5	0.90	NO	0.9485	10.000	41.51	1.000	207		0.340	207
18	13C-2,3,7,8-TCDD	2.60e5	0.78	NO	1.1842	10.000	25.75	1.029	155	77.4	0.456	
19	13C-1,2,3,7,8-PeCDD	1.91e5	0.85	NO	0.8644	10.000	21.06	1.241	156	77.9	0.486	
20	13C-1,2,3,4,7,8-HxCDD	1.55e5	1.30	NO	0.7539	10.000	24.47	1.014	145	72.7	0.557	





Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:44:52 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

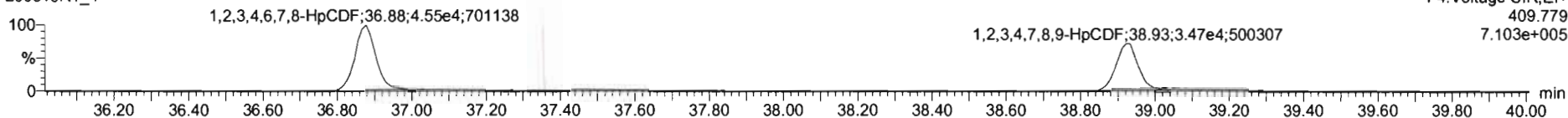
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**1,2,3,4,6,7,8-HpCDF**

200319R1\_4

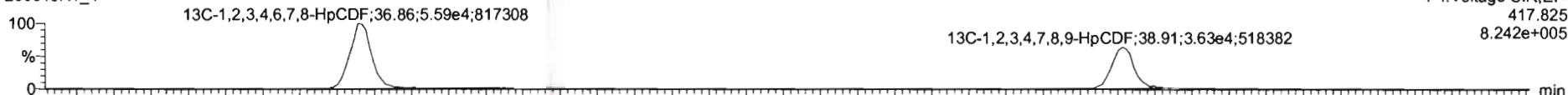


200319R1\_4

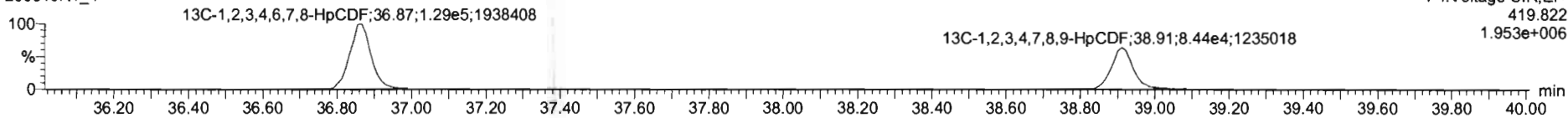


**13C-1,2,3,4,6,7,8-HpCDF**

200319R1\_4

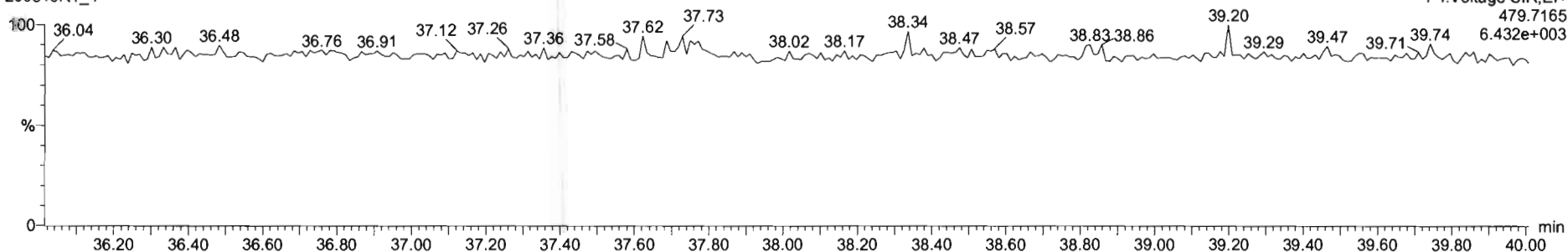


200319R1\_4



**DPE4**

200319R1\_4



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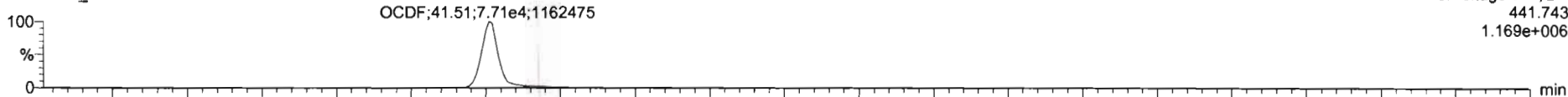
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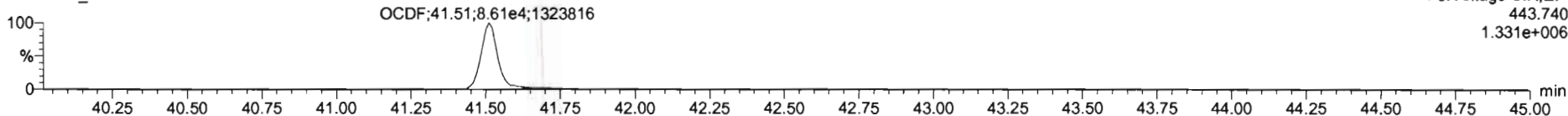
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**OCDF**

200319R1\_4

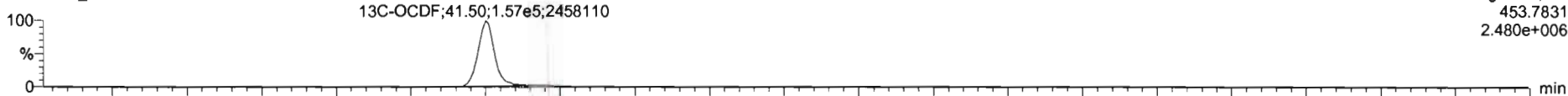


200319R1\_4

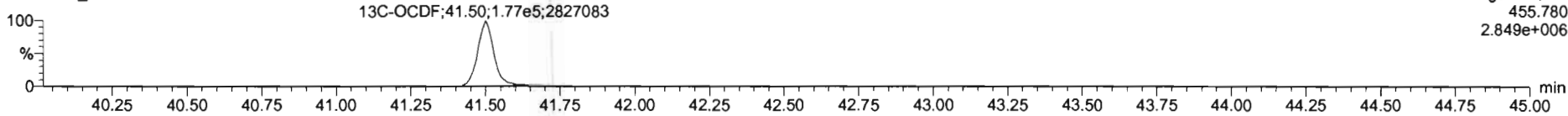


**13C-OCDF**

200319R1\_4

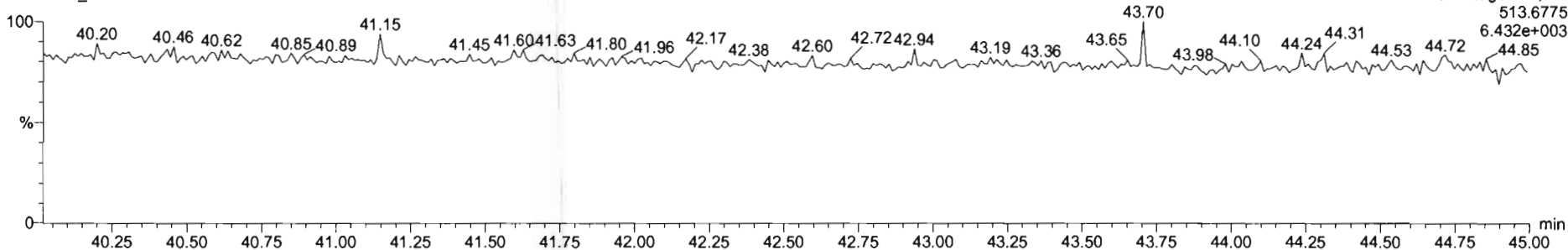


200319R1\_4



**DPE5**

200319R1\_4

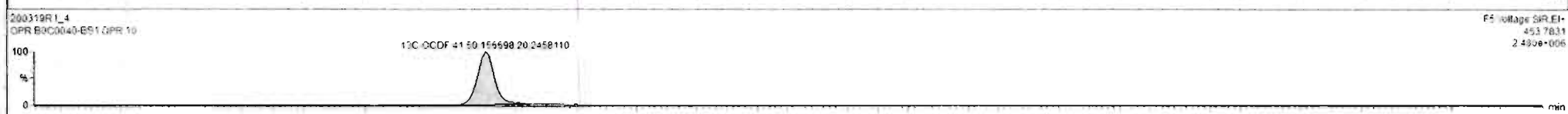
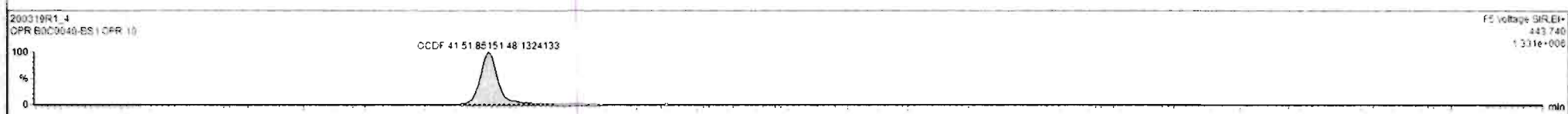
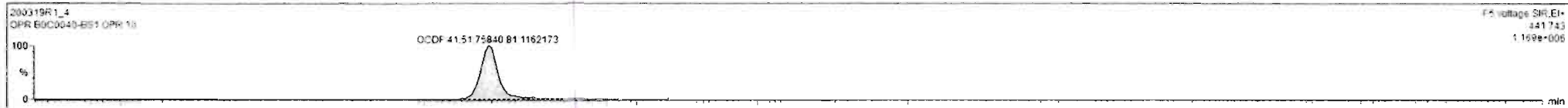


TargetLynx - 200319R1\_4.qcd - [Chromatogram]

File Edit View Display Processing Window Help

200319R1\_4\_B0C0040-BS1 OPR 10 - OPR

#	Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.60e4	0.78	NO	0.9835	10.000	25.80	1.002	20.3		0.208	20.3
2	1,2,3,7,8-PeCDD	9.45e4	0.64	NO	0.9212	10.000	31.08	1.000	107		0.270	167
3	1,2,3,4,7,8-HxCDD	9.18e4	1.26	NO	1.1325	10.000	34.48	1.000	104		0.300	104
4	1,2,3,6,7,8-HxCDD	9.56e4	1.25	NO	0.9844	10.000	34.55	1.000	106		0.259	106
5	1,2,3,7,8,9-HxCDD	8.68e4	1.27	NO	0.9674	10.000	34.85	1.000	162		0.328	152
6	1,2,3,4,6,7,8-HpCDD	6.88e4	1.04	NO	1.0061	10.000	38.27	1.000	100		0.584	130
7	OCDD	1.24e5	0.87	NO	1.0515	10.000	41.34	1.000	193		0.480	193
8	2,3,7,8-TCDF	2.50e4	0.80	NO	0.9154	10.000	24.75	1.002	15.1		0.101	19.1
9	1,2,3,7,8-PeCDF	1.51e5	1.59	NO	0.9594	10.000	29.72	1.001	107		0.370	107
10	2,3,4,7,8-PeCDF	1.56e5	1.59	NO	1.0025	10.000	30.76	1.000	107		0.314	107
11	1,2,3,4,7,8-HxCDF	1.18e5	1.21	NO	1.0381	10.000	33.64	1.001	96.6		0.334	96.6
12	1,2,3,6,7,8-HxCDF	1.32e5	1.21	NO	1.0126	10.000	33.76	1.001	100		0.325	100
13	2,3,4,6,7,8-HxCDF	1.31e5	1.24	NO	1.0920	10.000	34.32	1.000	98.6		0.318	98.6
14	1,2,3,7,8,9-HxCDF	1.04e5	1.19	NO	1.0258	10.000	35.19	1.001	98.4		0.449	96.4
15	1,2,3,4,6,7,8-HpCDF	9.20e4	1.02	NO	1.0483	10.000	36.48	1.001	95.1		0.512	95.1
16	1,2,3,4,7,8,9-HpCDF	7.00e4	1.02	NO	1.2069	10.000	36.92	1.001	55.9		0.695	65.9
17	OCDF	1.61e5	0.89	NO	0.9486	10.000	41.61	1.000	204		0.340	204
18	13C-2,3,7,8-TCDD	2.60e5	0.76	NO	1.1842	10.000	25.75	1.029	155	77.4	0.456	
19	13C-1,2,3,7,8-PeCDD	1.91e5	0.65	NO	0.9644	10.000	31.06	1.241	156	77.9	0.486	
20	13C-1,2,3,4,7,8-HxCDD	1.55e5	1.30	NO	0.7539	10.000	34.47	1.014	145	72.7	0.557	

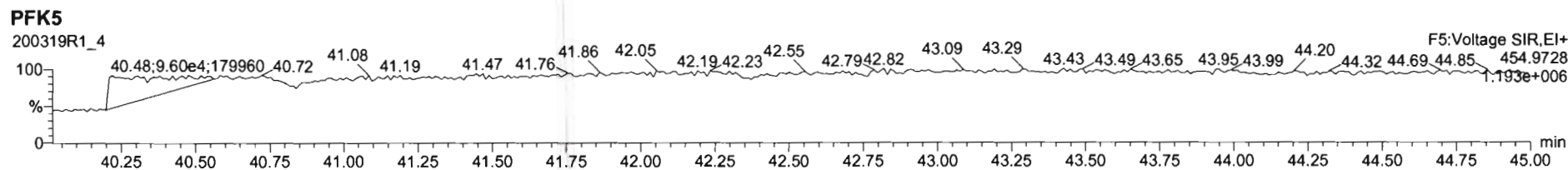
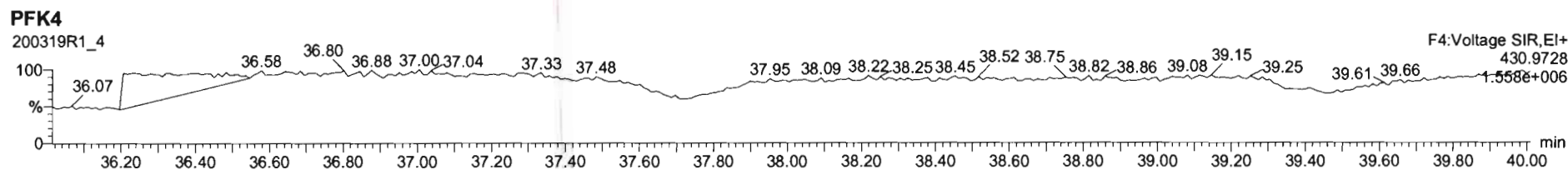
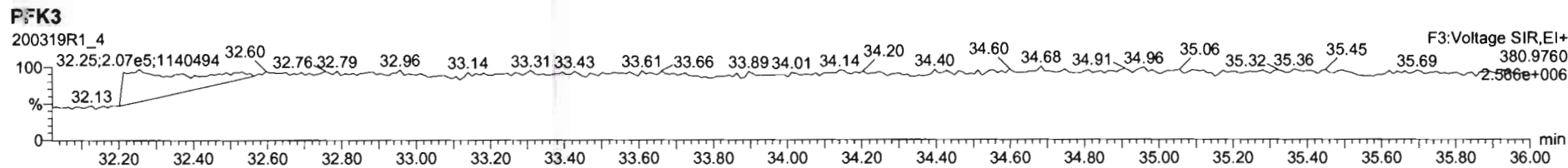
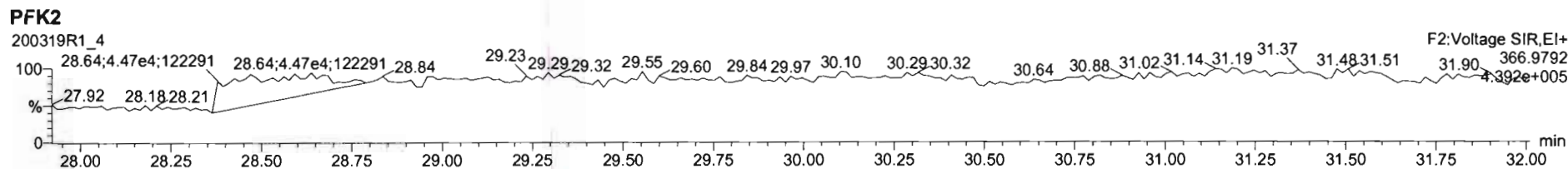
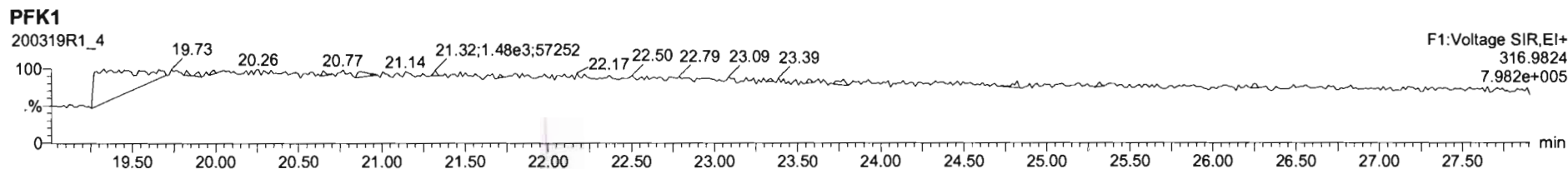


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Last Altered: Friday, March 20, 2020 07:44:52 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:45:03 Pacific Daylight Time

Name: 200319R1\_4, Date: 19-Mar-2020, Time: 18:42:22, ID: B0C0040-BS1 OPR 10, Description: OPR



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-3.qld

Last Altered: Thursday, March 26, 2020 12:25:23 Pacific Daylight Time  
Printed: Thursday, March 26, 2020 12:27:38 Pacific Daylight Time

GPB 03/26/2020

0704/02/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

#	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	0.983	10.065	25.781		1.001				0.128	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.065	31.101		1.001				0.108	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.065	34.501		1.000				0.0983	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.065	34.587		1.000				0.0985	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.065	34.864		1.000				0.106	
6	6 1,2,3,4,6,7,8-HpCDD	3.76e3	1.01	NO	1.01	10.065	38.283	38.28	1.000	1.000	1.2299		0.152	1.23
7	7 OCDD	2.75e4	0.92	NO	1.05	10.065	41.340	41.35	1.000	1.000	10.639		0.172	10.6
8	8 2,3,7,8-TCDF			NO	0.915	10.065	24.772		1.001				0.110	
9	9 1,2,3,7,8-PeCDF	3.31e2	1.27	YES	0.959	10.065	29.742	29.74	1.001	1.001	0.068459		0.0209	0.0631
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.065	30.790		1.001				0.0506	
11	11 1,2,3,4,7,8-HxCDF	3.82e2	1.64	YES	1.04	10.065	33.639	33.65	1.000	1.000	0.081786		0.0217	0.0695
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.065	33.766		1.000				0.0489	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.065	34.355		1.001				0.0468	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.065	35.194		1.000				0.0653	
15	15 1,2,3,4,6,7,8-HpCDF	6.24e2	0.84	YES	1.05	10.065	36.914	36.91	1.001	1.001	0.14851		0.0772	0.131
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.065	38.932		1.000				0.0980	
17	17 OCDF			NO	0.947	10.065	41.521		1.000				0.104	
18	18 13C-2,3,7,8-TCDD	7.96e5	0.79	NO	1.18	10.065	25.758	25.75	1.030	1.029	120.25	60.5	0.261	
19	19 13C-1,2,3,7,8-PeCDD	6.70e5	0.64	NO	0.864	10.065	31.064	31.08	1.242	1.242	138.71	69.8	0.211	
20	20 13C-1,2,3,4,7,8-HxCDD	6.36e5	1.28	NO	0.754	10.065	34.493	34.49	1.014	1.014	149.21	75.1	0.303	
21	21 13C-1,2,3,6,7,8-HxCDD	7.94e5	1.26	NO	0.925	10.065	34.595	34.59	1.017	1.017	151.68	76.3	0.247	
22	22 13C-1,2,3,7,8,9-HxCDD	7.61e5	1.22	NO	0.829	10.065	34.863	34.85	1.025	1.024	162.31	81.7	0.275	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.04e5	1.08	NO	0.598	10.065	38.283	38.27	1.125	1.125	178.45	89.8	0.405	
24	24 13C-OCDD	9.75e5	0.91	NO	0.571	10.065	41.345	41.34	1.215	1.215	301.87	76.0	0.403	
25	25 13C-2,3,7,8-TCDF	1.09e6	0.78	NO	1.09	10.065	24.747	24.75	0.989	0.989	109.88	55.3	0.377	
26	26 13C-1,2,3,7,8-PeCDF	1.00e6	1.60	NO	0.876	10.065	29.705	29.72	1.187	1.188	125.82	63.3	0.383	
27	27 13C-2,3,4,7,8-PeCDF	9.51e5	1.63	NO	0.844	10.065	30.683	30.76	1.227	1.230	124.14	62.5	0.398	
28	28 13C-1,2,3,4,7,8-HxCDF	8.94e5	0.52	NO	1.00	10.065	33.642	33.64	0.989	0.989	157.94	79.5	0.355	
29	29 13C-1,2,3,6,7,8-HxCDF	1.01e6	0.54	NO	1.12	10.065	33.764	33.76	0.992	0.992	159.63	80.3	0.318	
30	30 13C-2,3,4,6,7,8-HxCDF	9.82e5	0.53	NO	1.04	10.065	34.322	34.32	1.009	1.009	167.66	84.4	0.343	
31	31 13C-1,2,3,7,8,9-HxCDF	8.37e5	0.52	NO	0.873	10.065	35.193	35.19	1.034	1.034	169.44	85.3	0.407	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-3.qld

Last Altered: Thursday, March 26, 2020 12:25:23 Pacific Daylight Time

Printed: Thursday, March 26, 2020 12:27:38 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	8.07e5	0.45	NO	0.771	10.065	36.895	36.88	1.084	1.084	185.20	93.2	0.364	
33	13C-1,2,3,4,7,8,9-HpCDF	5.39e5	0.45	NO	0.519	10.065	38.933	38.93	1.144	1.144	183.40	92.3	0.540	
34	13C-OCDF	1.28e6	0.89	NO	0.696	10.065	41.525	41.52	1.220	1.220	325.67	81.9	0.387	
35	37Cl-2,3,7,8-TCDD	3.21e5			1.17	10.065	25.788	25.78	1.031	1.030	48.814	61.4	0.0921	
36	13C-1,2,3,4-TCDD	1.11e6	0.81	NO	1.00	10.065	25.030	25.02	1.000	1.000	198.71	100	0.309	
37	13C-1,2,3,4-TCDF	1.81e6	0.80	NO	1.00	10.065	23.090	23.07	1.000	1.000	198.71	100	0.411	
38	13C-1,2,3,4,6,9-HxCDF	1.12e6	0.52	NO	1.00	10.065	34.020	34.02	1.000	1.000	198.71	100	0.355	
39	Total Tetra-Dioxins				0.983	10.065	24.620		0.000		0.00000		0.0727	0.189
40	Total Penta-Dioxins				0.921	10.065	29.960		0.000		0.17273		0.108	0.281
41	Total Hexa-Dioxins				0.984	10.065	33.635		0.000		1.2607		0.105	1.26
42	Total Hepta-Dioxins				1.01	10.065	37.640		0.000		3.1498		0.152	3.15
43	Total Tetra-Furans				0.915	10.065	23.610		0.000				0.0574	
44	1st Func. Penta-Furans				0.959	10.065	27.090		0.000				0.0336	
45	Total Penta-Furans				0.959	10.065	29.275		0.000		0.00000		0.0209	0.0631
46	Total Hexa-Furans				1.09	10.065	33.555		0.000		0.038200		0.0213	0.108
47	Total Hepta-Furans				1.05	10.065	37.835		0.000		0.00000		0.0454	0.131

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-3.qld

Last Altered: Thursday, March 26, 2020 12:25:23 Pacific Daylight Time

Printed: Thursday, March 26, 2020 12:27:38 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.28	7.040e3	5.642e3	3.992e2	4.210e2	0.95	YES	0.000e0	0.00000	0.18911	0.128

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.75	2.549e3	2.916e3	2.064e2	2.063e2	1.00	YES	0.000e0	0.00000	0.10818	0.108
2	Total Penta-Dioxins	29.28	2.791e3	5.951e3	2.028e2	3.340e2	0.61	NO	5.368e2	0.17273	0.17273	0.108

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.03	3.383e4	3.039e4	1.732e3	1.438e3	1.20	NO	3.170e3	0.87587	0.87587	0.105
2	Total Hexa-Dioxins	33.84	1.411e4	1.122e4	7.581e2	6.348e2	1.19	NO	1.393e3	0.38485	0.38485	0.105

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.27	4.358e4	4.589e4	3.005e3	2.865e3	1.05	NO	5.869e3	1.9198	1.9198	0.152
2	1,2,3,4,6,7,8-HpCDD	38.28	2.517e4	2.678e4	1.893e3	1.867e3	1.01	NO	3.760e3	1.2299	1.2299	0.152

**Tetra-Furans**

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

**Penta-Furans function 1**

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

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-3.qld

Last Altered: Thursday, March 26, 2020 12:25:23 Pacific Daylight Time

Printed: Thursday, March 26, 2020 12:27:38 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8-PeCDF	29.74	3.618e3	2.625e3	1.855e2	1.455e2	1.27	YES	3.311e2	0.00000	0.063120	0.0209

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.61	2.135e3	1.984e3	1.013e2	9.397e1	1.08	NO	1.953e2	0.038200	0.038200	0.0213
2	1,2,3,4,7,8-HxCDF	33.65	4.008e3	3.369e3	2.370e2	1.448e2	1.64	YES	3.818e2	0.00000	0.069472	0.0217

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	5.198e3	6.250e3	2.855e2	3.386e2	0.84	YES	6.241e2	0.00000	0.13148	0.0772



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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

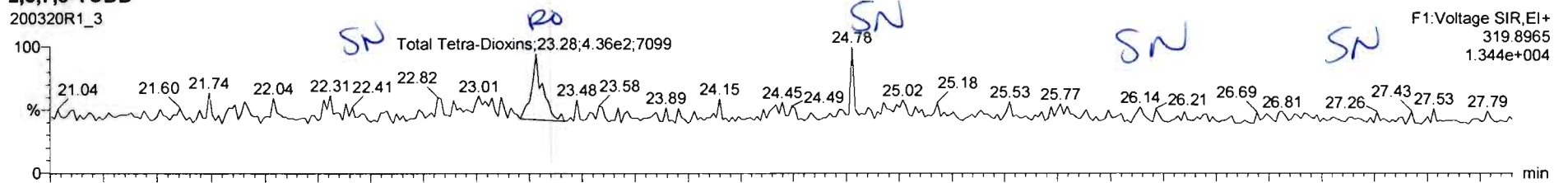
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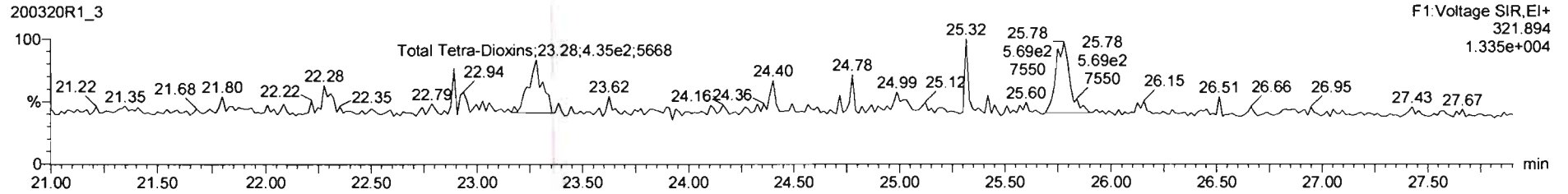
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2,3,7,8-TCDD

200320R1\_3

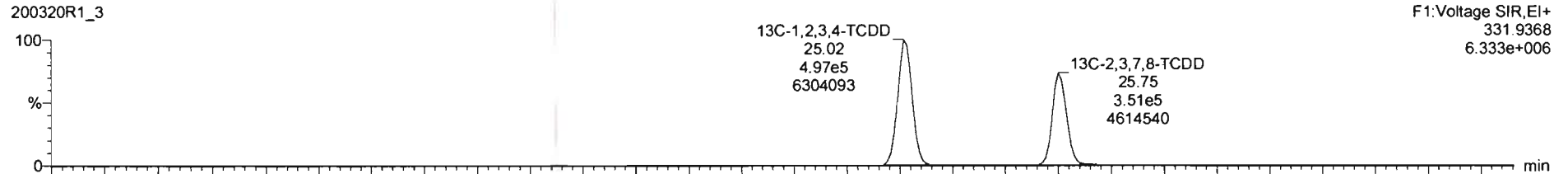


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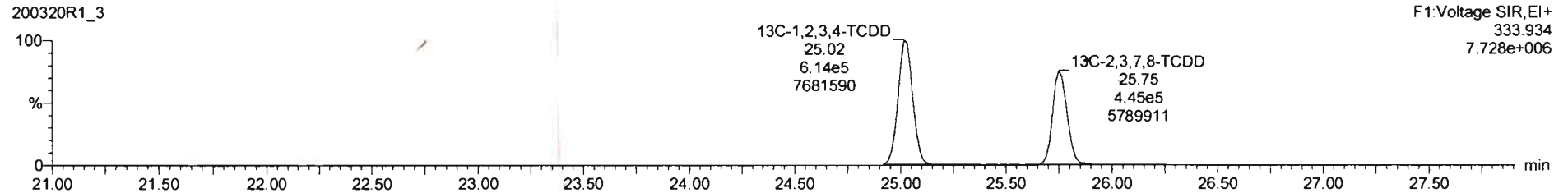


13C-2,3,7,8-TCDD

200320R1\_3

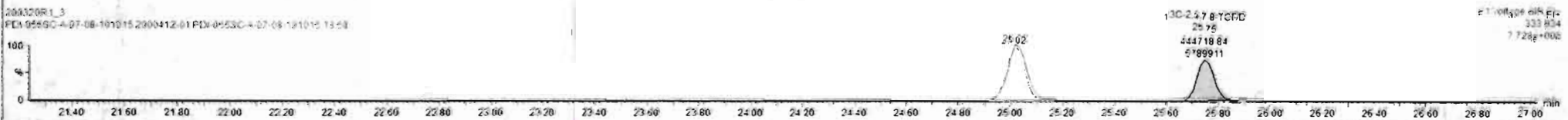
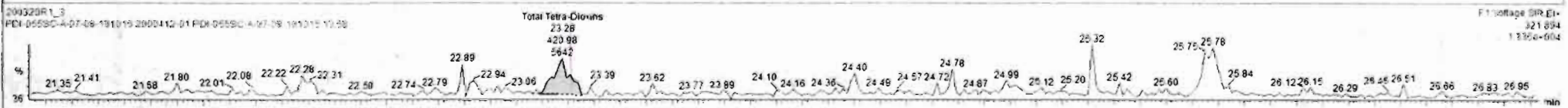
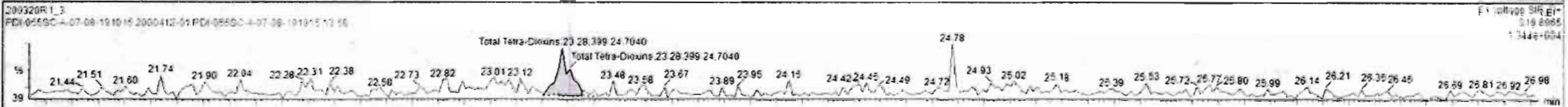


200320R1\_3



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.065			0.000	0.0727	0.189	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Tetra-Dioxins	23.28	3.992e2	4.210e2	0.95	YES	0.18911	0.00000



Dataset: Untitled

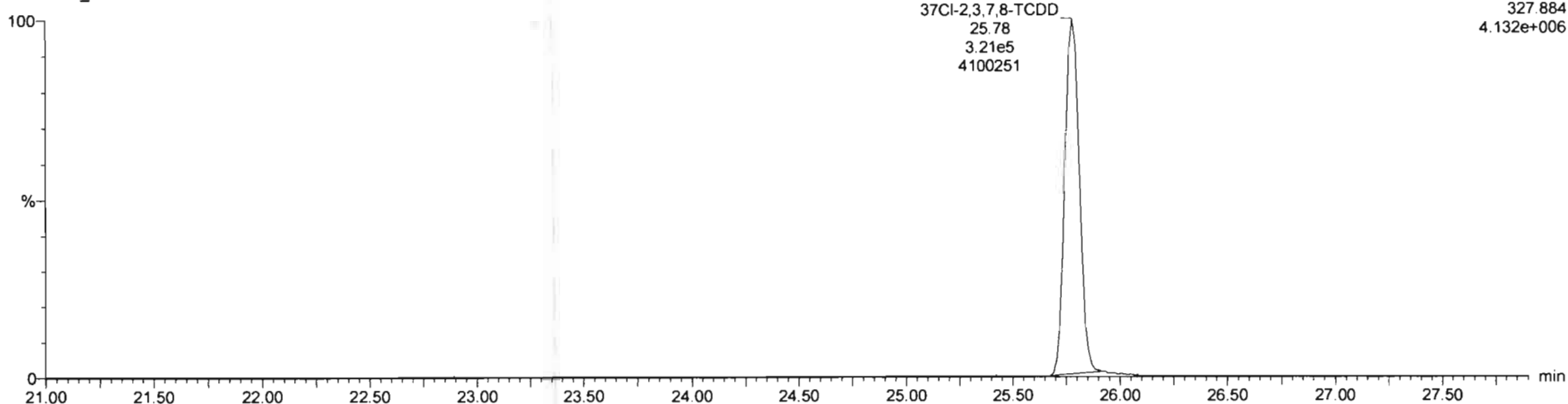
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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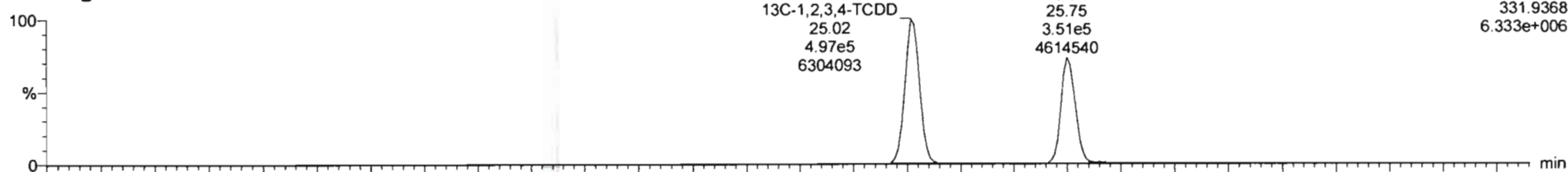
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200320R1\_3

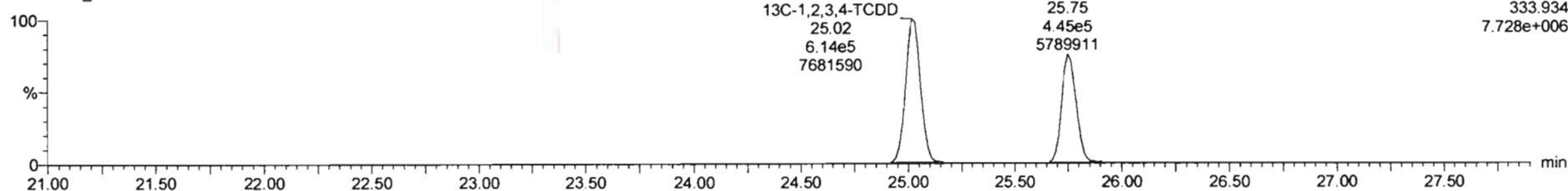


**13C-1,2,3,4-TCDD**

200320R1\_3



200320R1\_3



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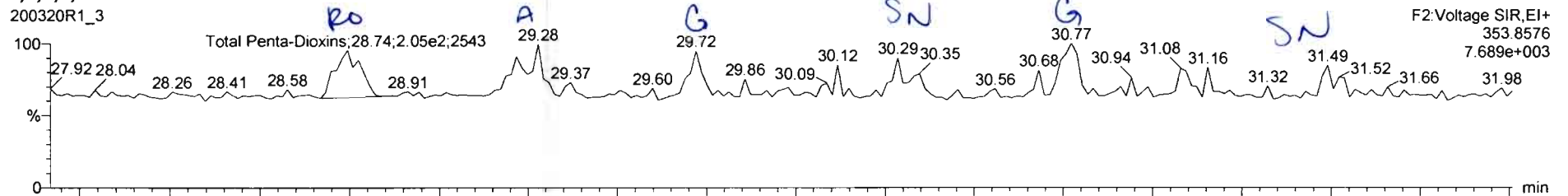
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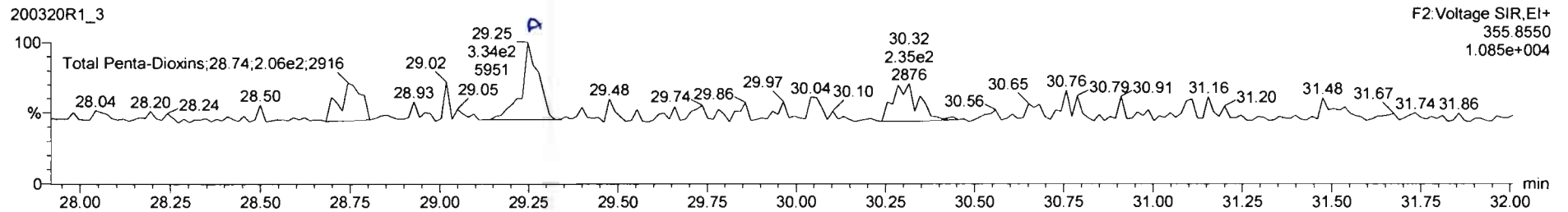
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1,2,3,7,8-PeCDD

200320R1\_3

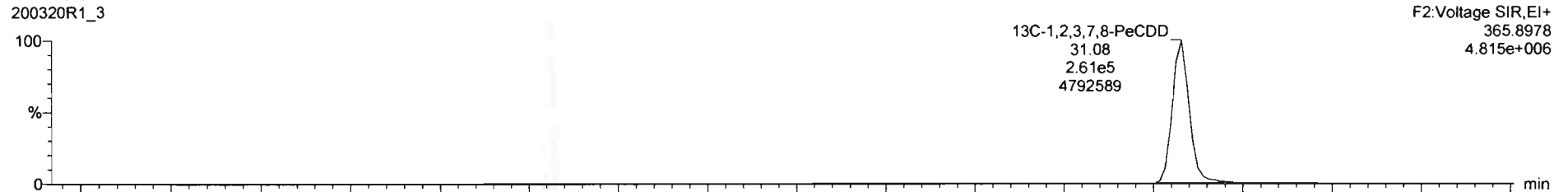


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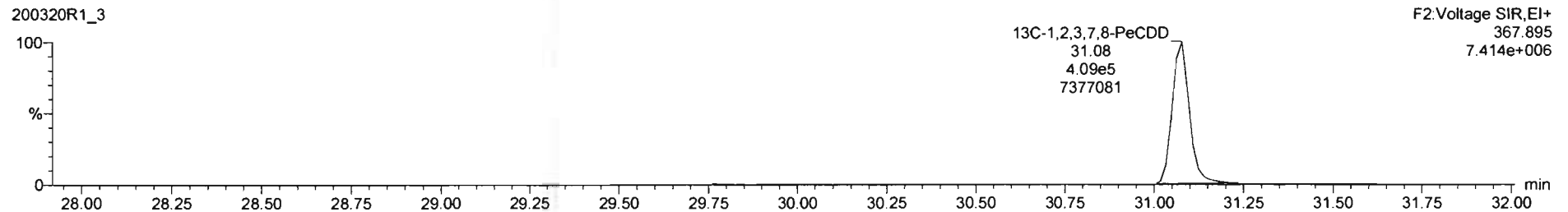


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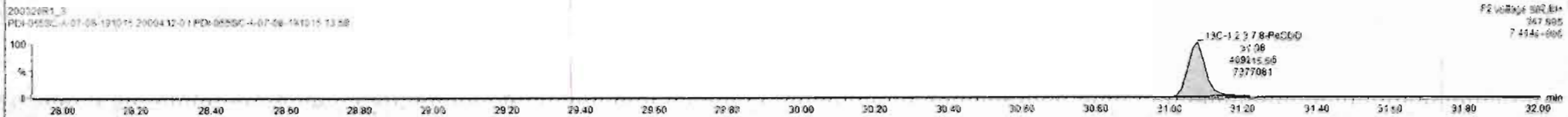
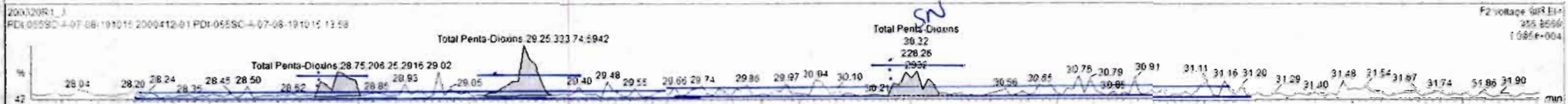
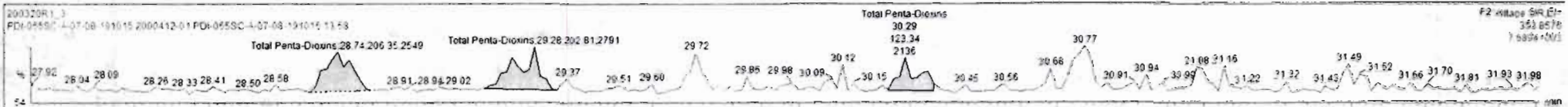


200320R1\_3



Name	Resp	RA	ny	RRF	whvol	RT	RRT	Conc	%Rec	UL	EMPC
36 Total Tetra-Dioxins				0.9835	10.065			0.000		0.0727	6.185

Name	RT	m1 Resp	m2 Resp	RA	ny	EMPC	Conc
1 Total Penta-Dioxins	28.74	2.064e2	2.063e2	1.00	YES	0.10616	0.00000
2 Total Penta-Dioxins	29.28	2.026e2	3.337e2	0.61	NO	0.17266	0.17266
3 Total Penta-Dioxins	30.29	1.233e2	2.283e2	0.54	NO	0.11214	0.11214



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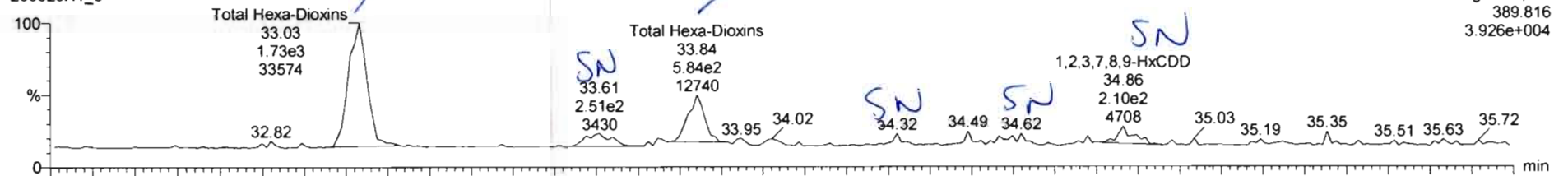
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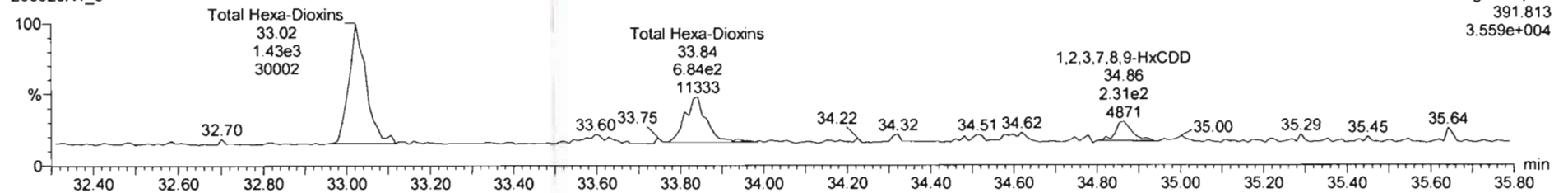
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1,2,3,4,7,8-HxCDD

200320R1\_3

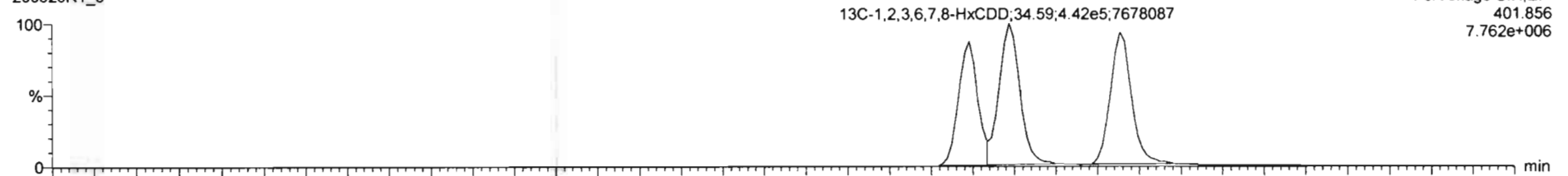


200320R1\_3

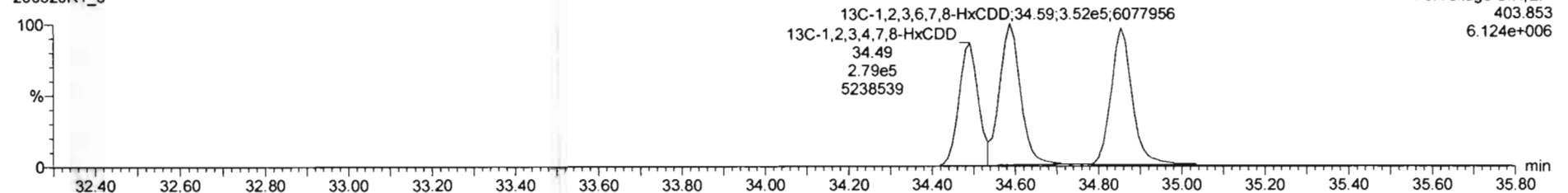


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200320R1\_3

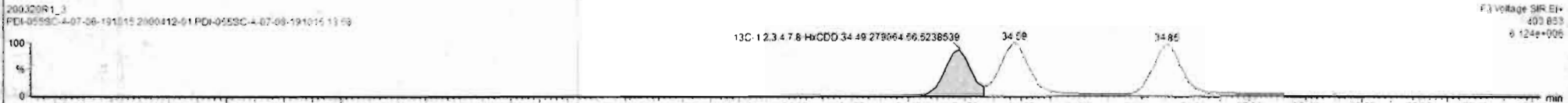
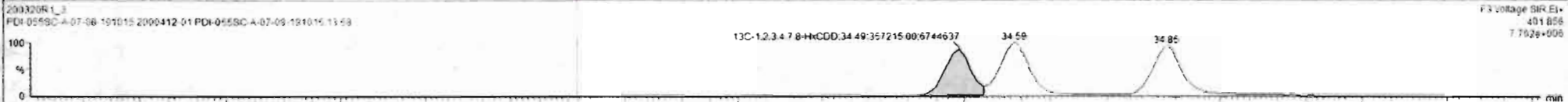
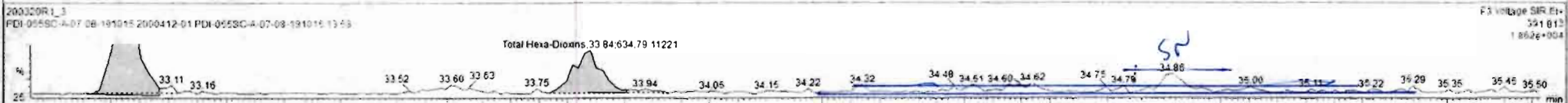
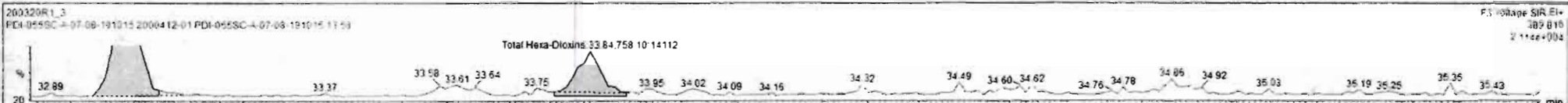


200320R1\_3



Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9544	10.065			1.26		0.105	1.26
42 Total Hepta-Dioxins				1.0261	12.065			3.15		0.152	3.15

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	33.03	1.732e3	1.438e2	1.20	NO	0.87587	0.87587
2 Total Hexa-Dioxins	33.64	7.581e2	6.348e2	1.15	NO	0.38485	0.38485



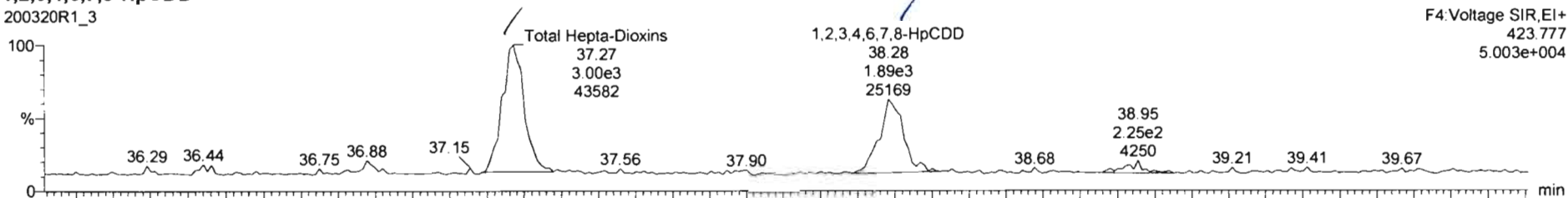
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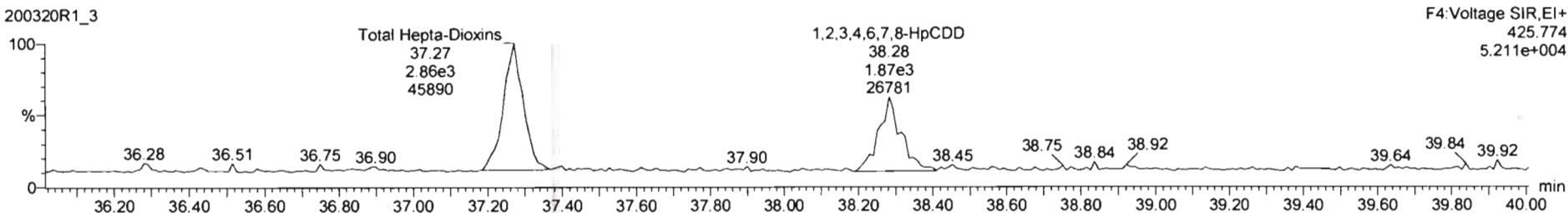
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1,2,3,4,6,7,8-HpCDD

200320R1\_3

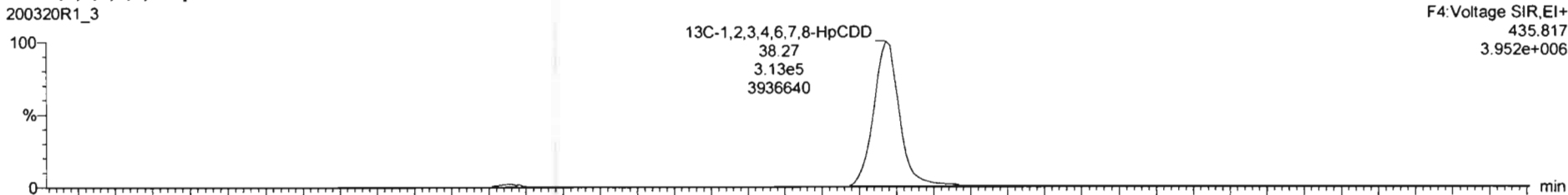


200320R1\_3

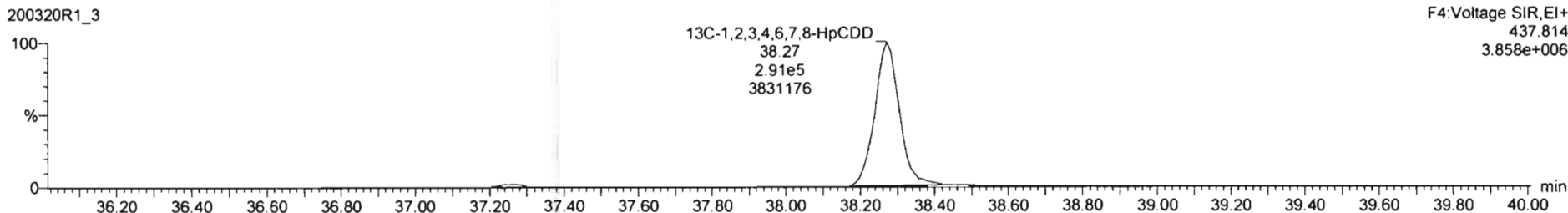


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_3



200320R1\_3



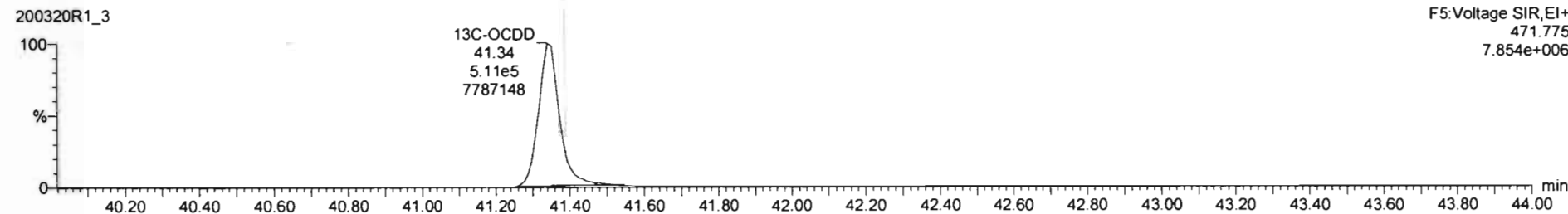
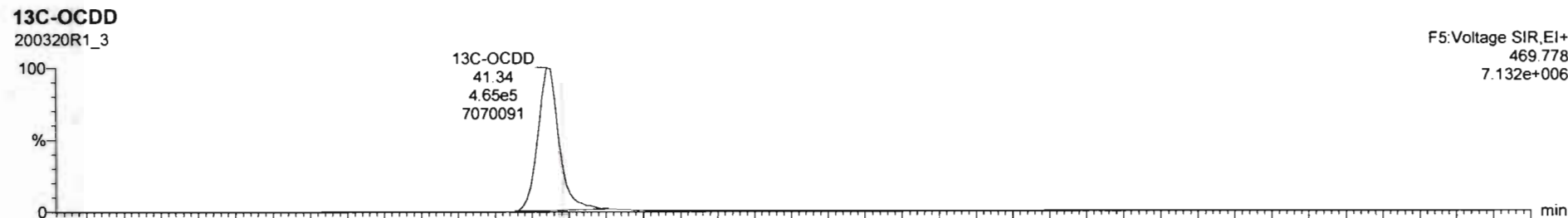
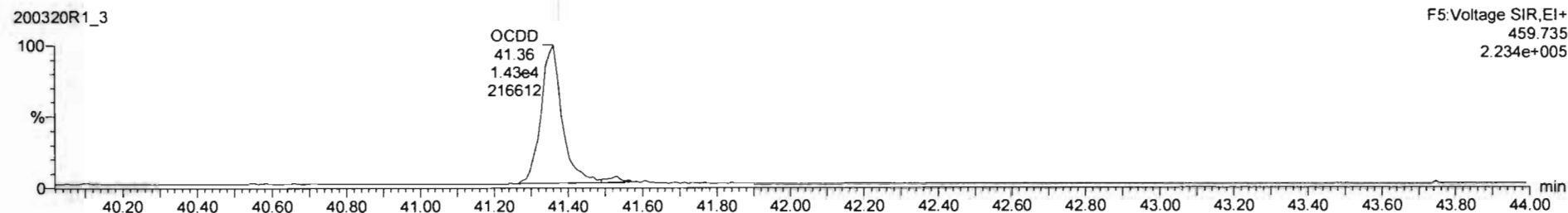
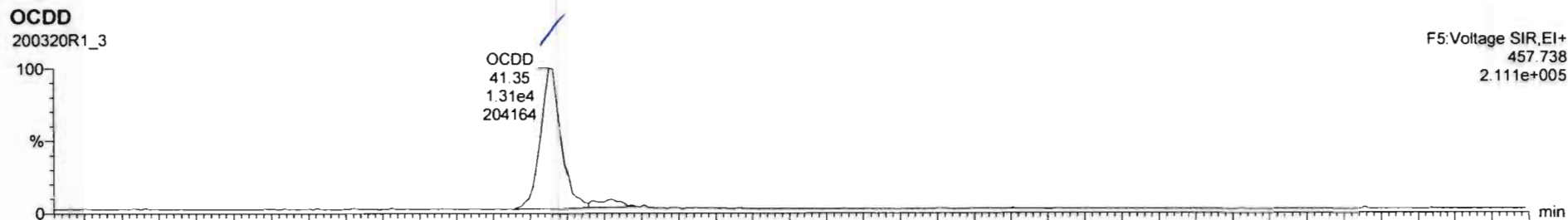


Dataset: Untitled

Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015



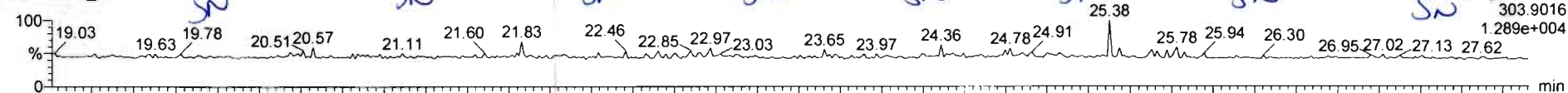
Dataset: Untitled

Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

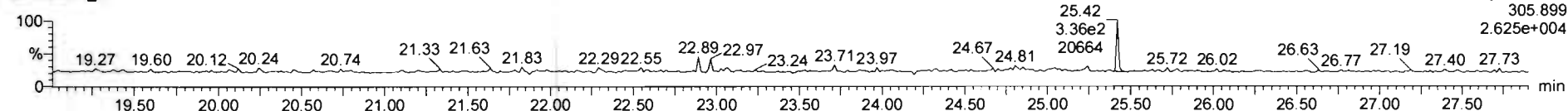
Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

2,3,7,8-TCDF

200320R1\_3

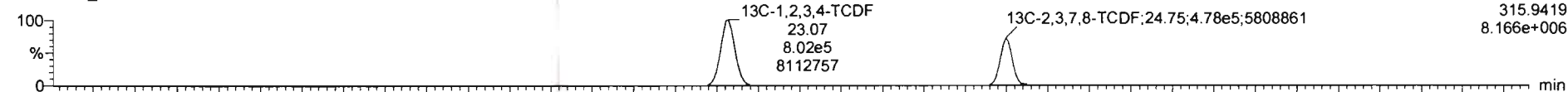


200320R1\_3

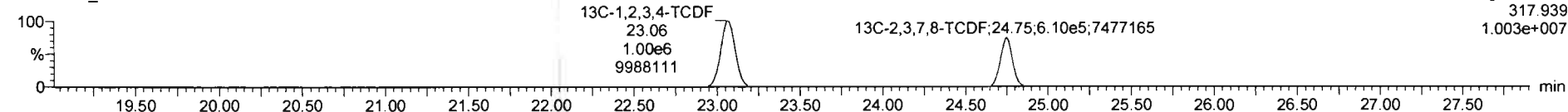


13C-2,3,7,8-TCDF

200320R1\_3

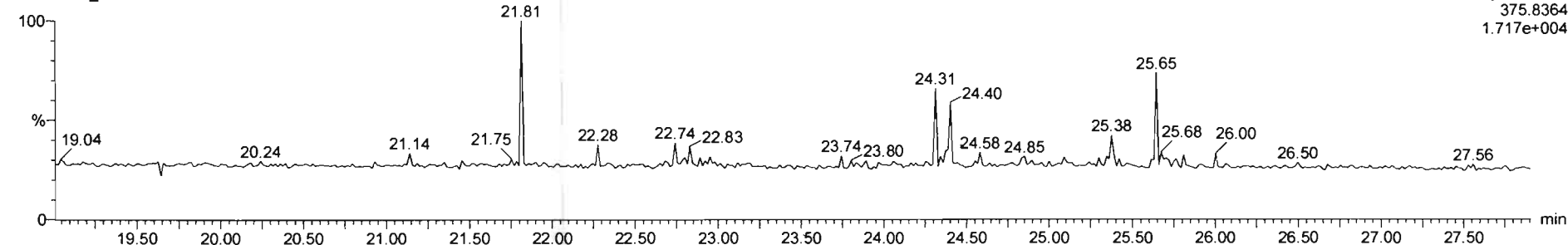


200320R1\_3



DPE1

200320R1\_3



Dataset: Untitled

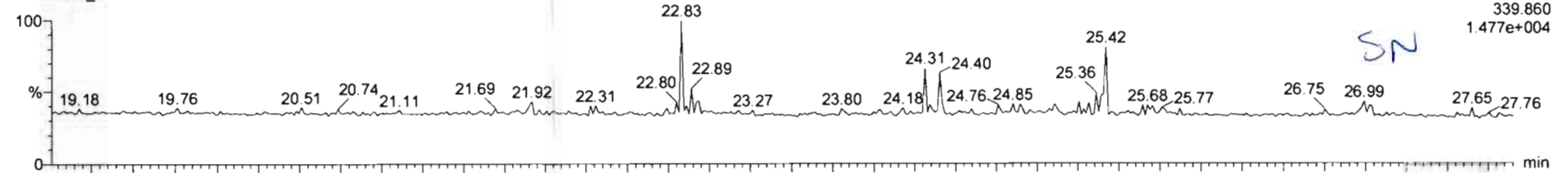
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

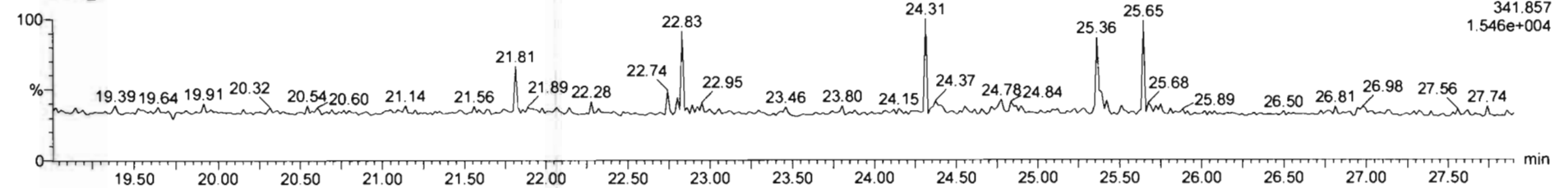
1st Func. Penta-Furans

200320R1\_3



F1: Voltage SIR, EI+  
339.860  
1.477e+004

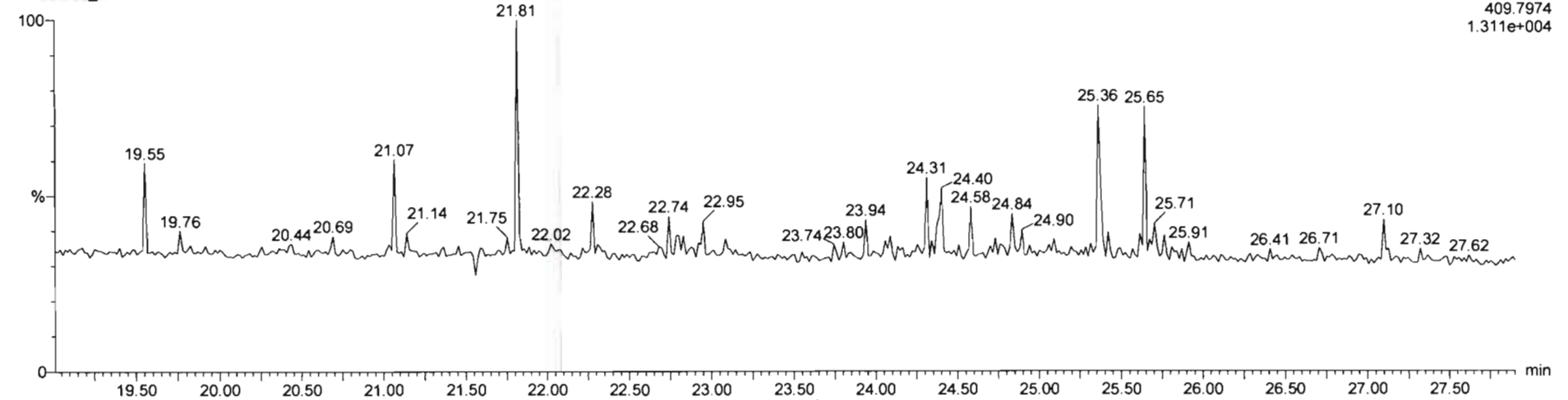
200320R1\_3



F1: Voltage SIR, EI+  
341.857  
1.546e+004

DPE6

200320R1\_3



F1: Voltage SIR, EI+  
409.7974  
1.311e+004

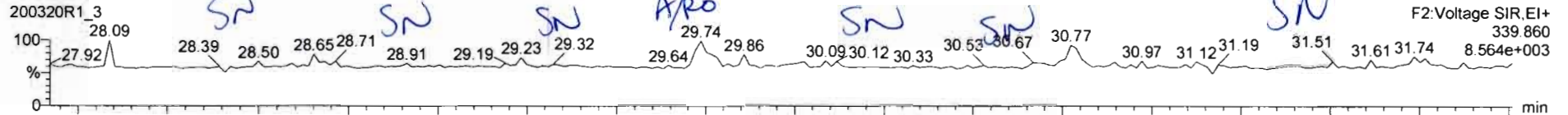
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

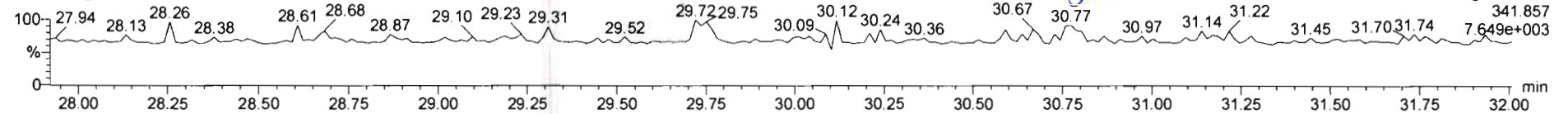
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

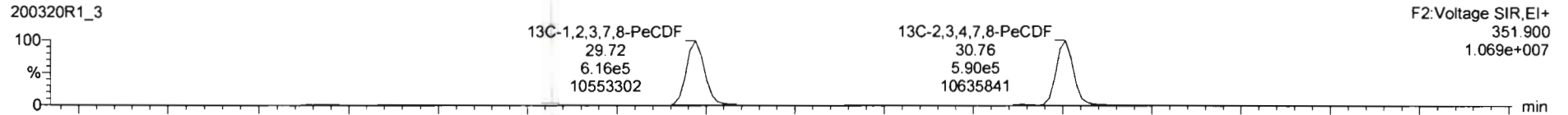
1,2,3,7,8-PeCDF



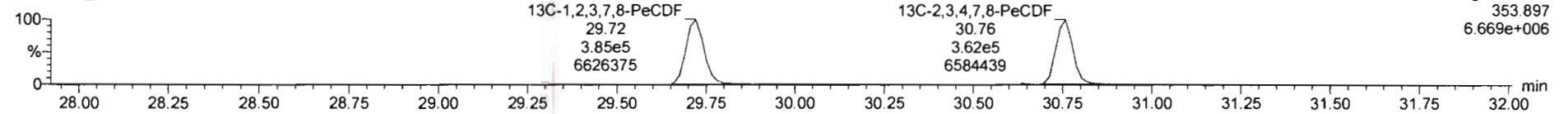
200320R1\_3



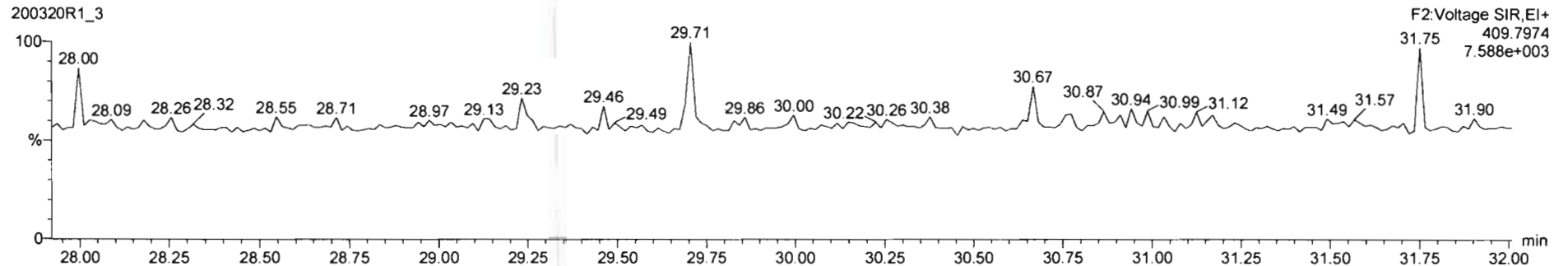
13C-1,2,3,7,8-PeCDF

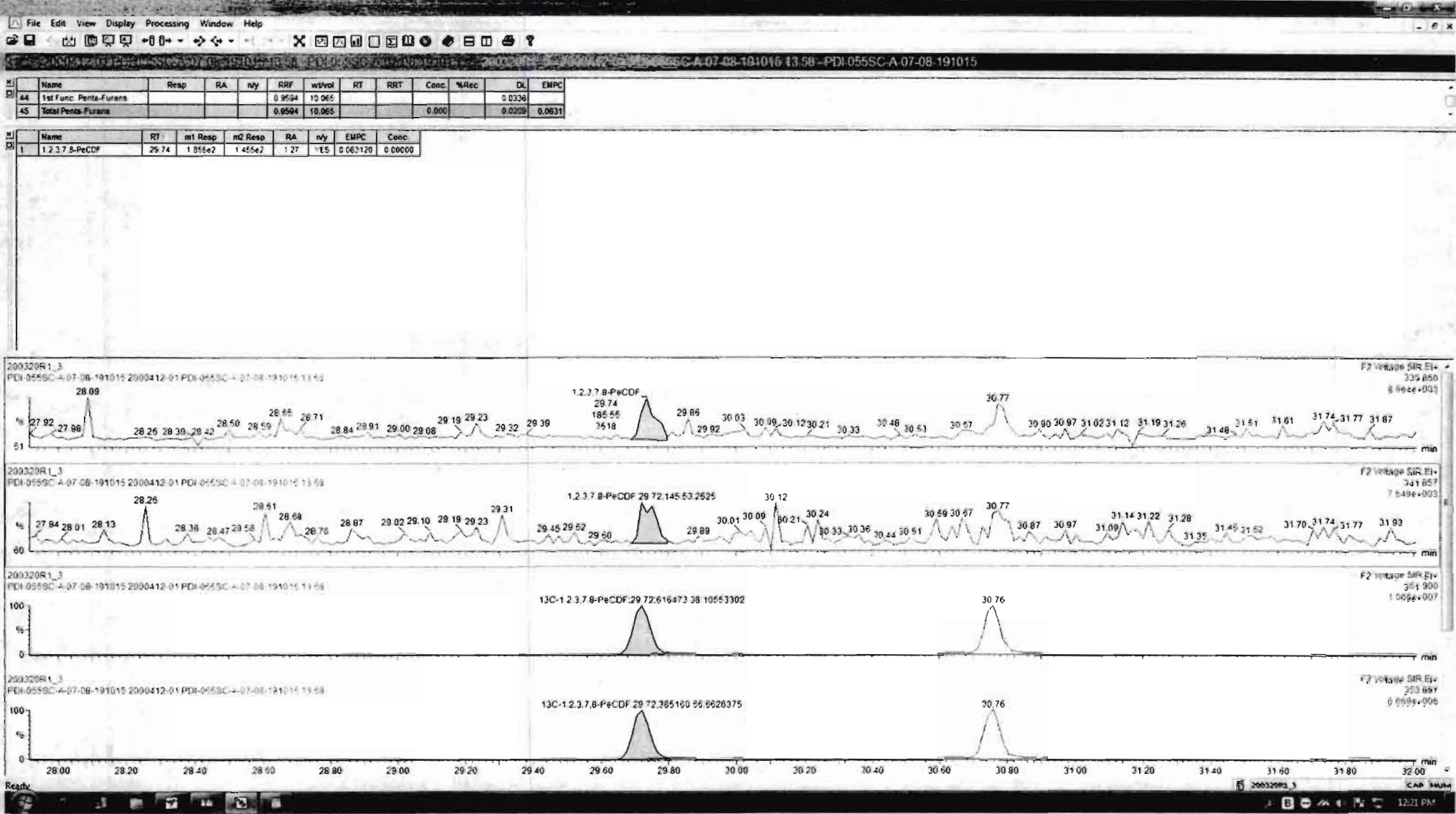


200320R1\_3



DPE2





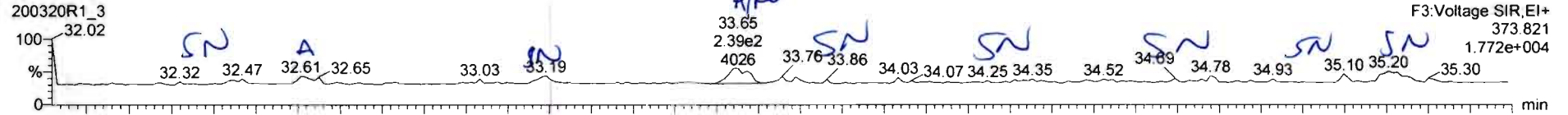
Dataset: Untitled

Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

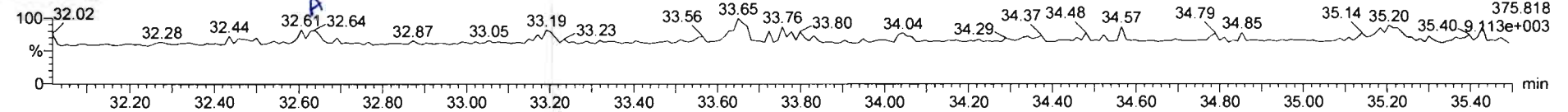
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

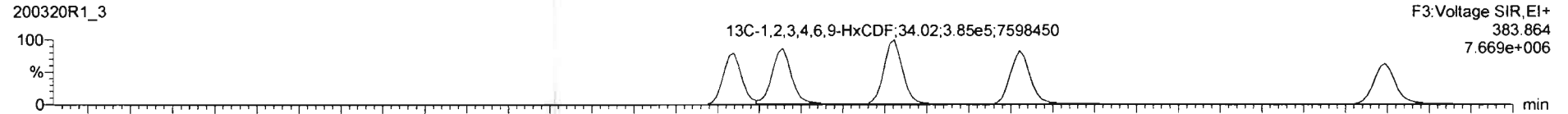
1,2,3,4,7,8-HxCDF



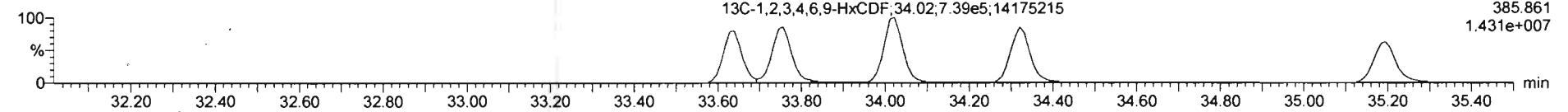
200320R1\_3



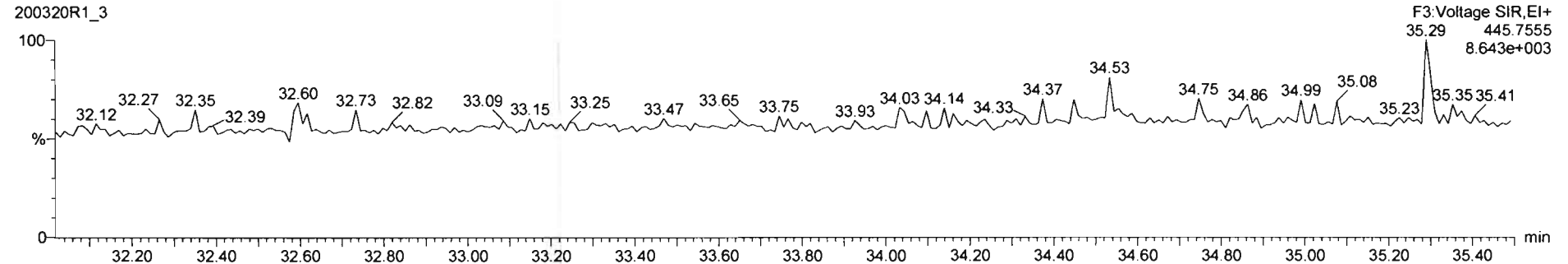
13C-1,2,3,4,7,8-HxCDF



200320R1\_3

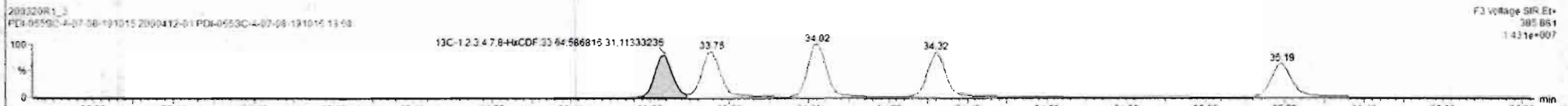
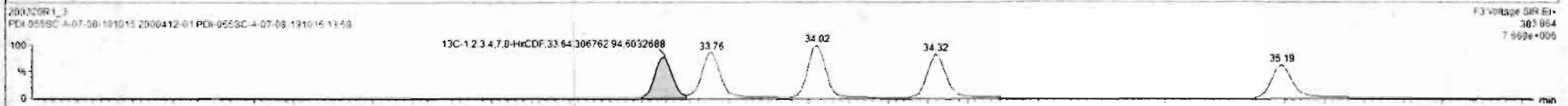
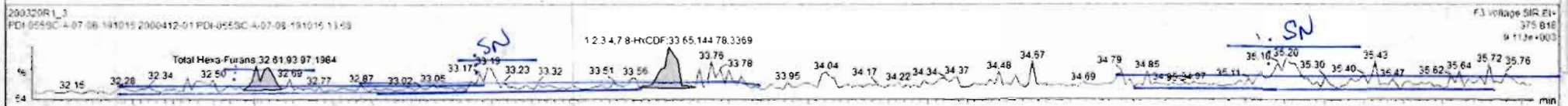
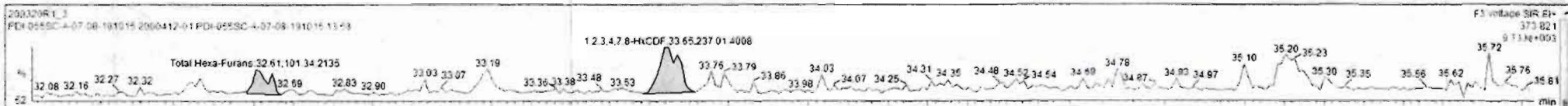


DPE3



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9584	10.065					0.0336	
45 Total Penta-Furans				0.9584	10.065			0.000		0.0209	0.0E31

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.61	1.813e2	9.197e1	1.05	NO	0.038208	0.038200
2 1,2,3,4,7,8-HxCDF	33.65	2.370e2	1.445e2	1.64	YES	0.069472	0.06000



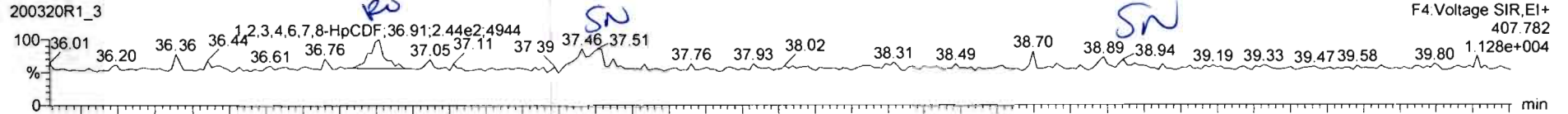
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

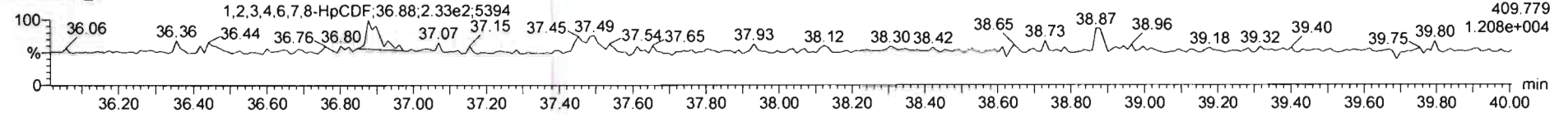
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015

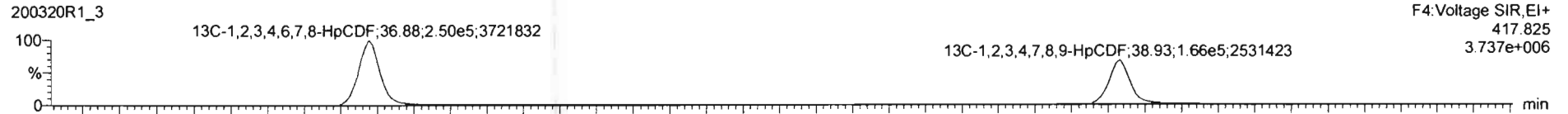
1,2,3,4,6,7,8-HpCDF



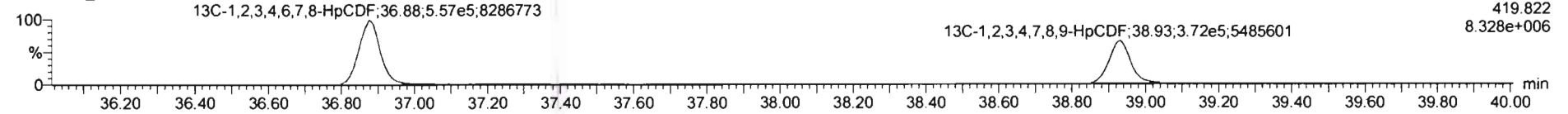
200320R1\_3



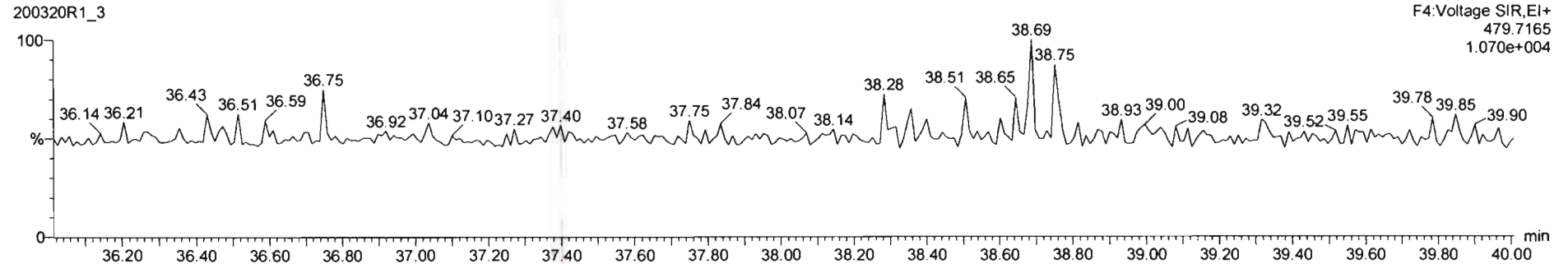
13C-1,2,3,4,6,7,8-HpCDF



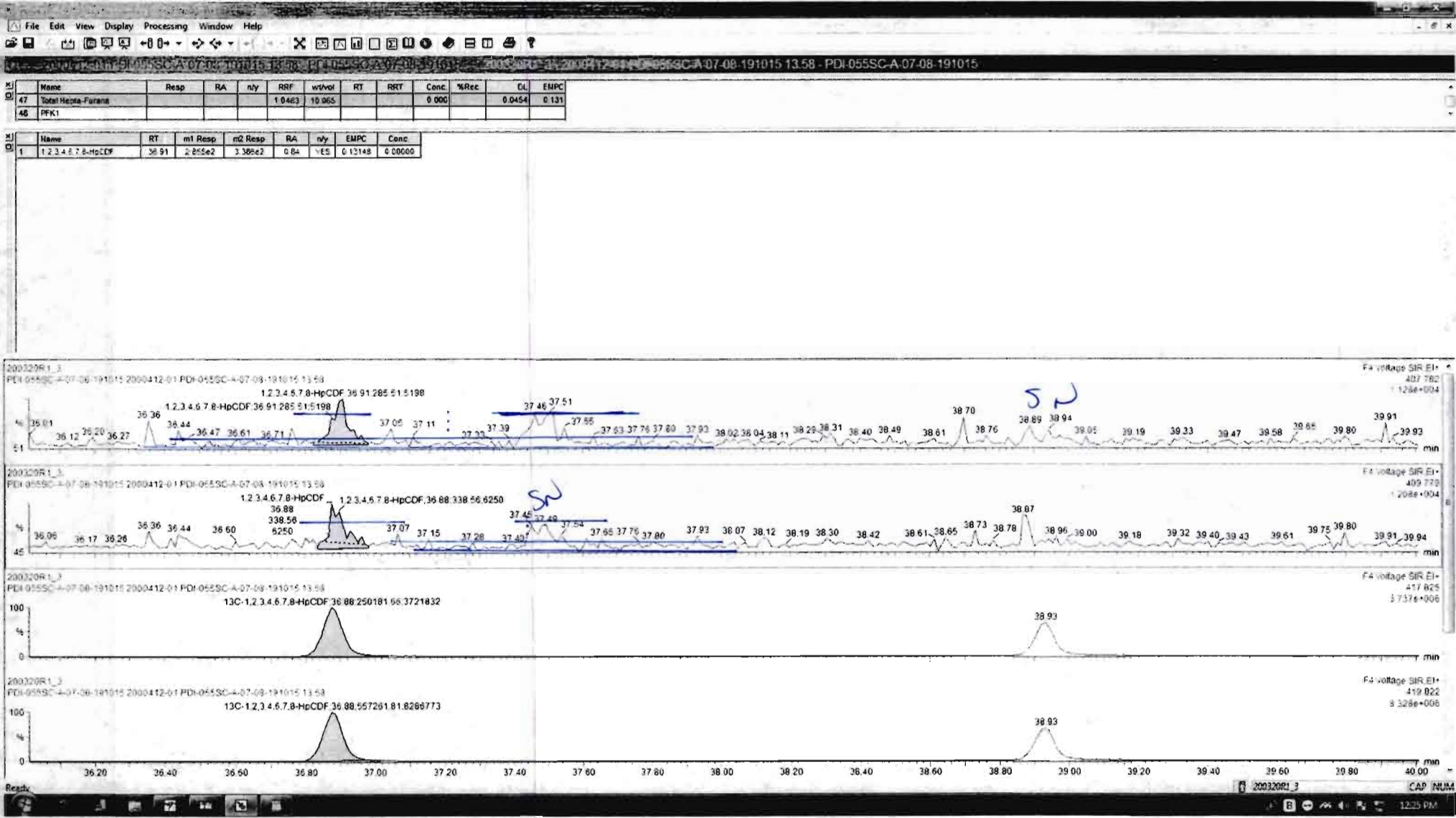
200320R1\_3



DPE4



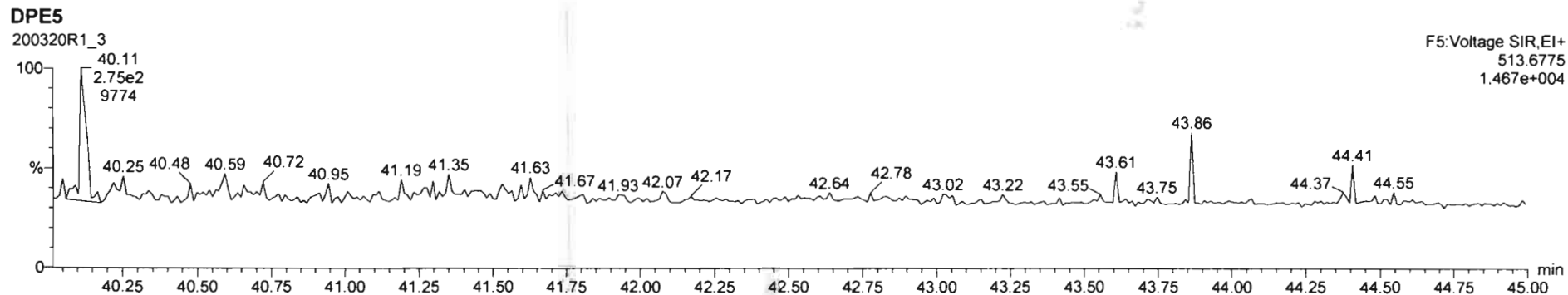
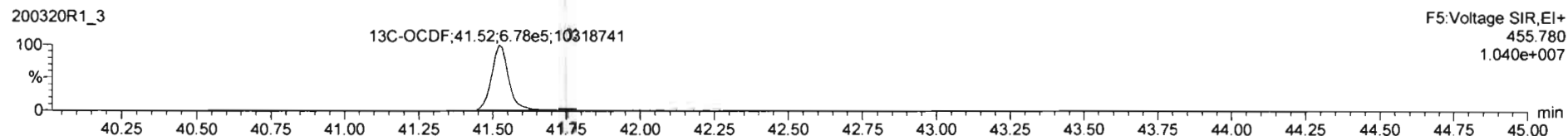
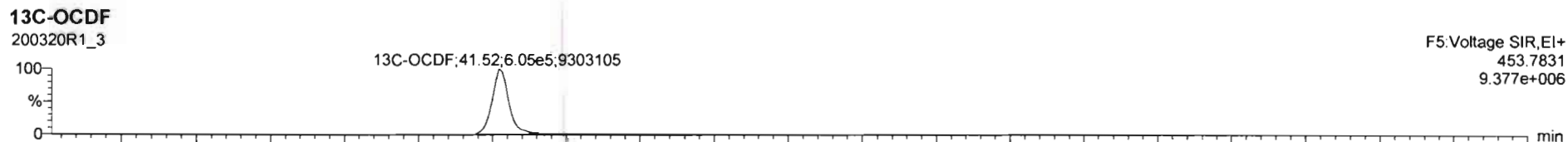
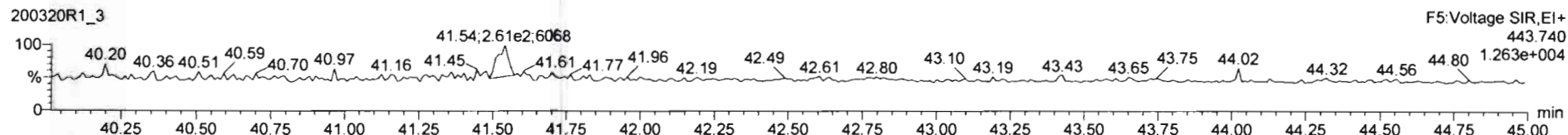
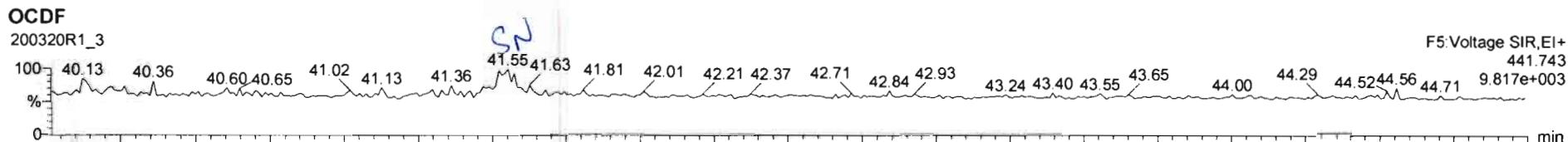




Dataset: Untitled

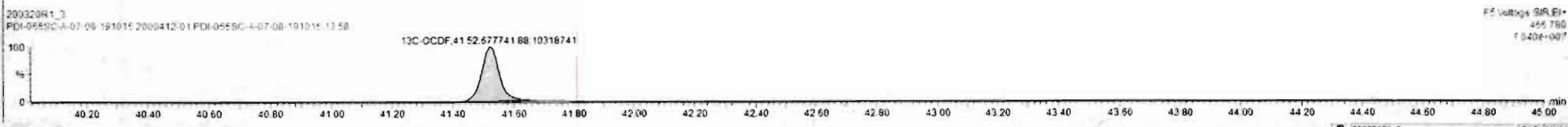
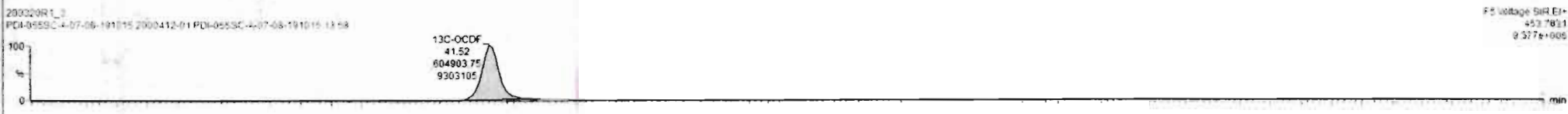
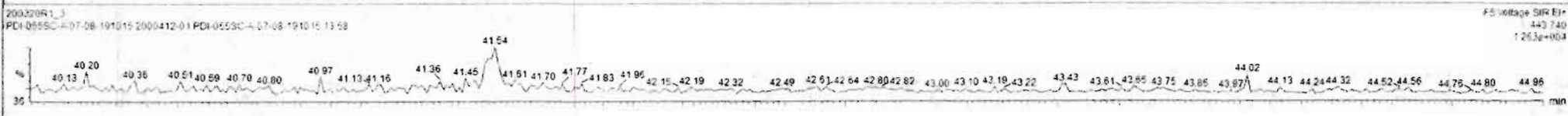
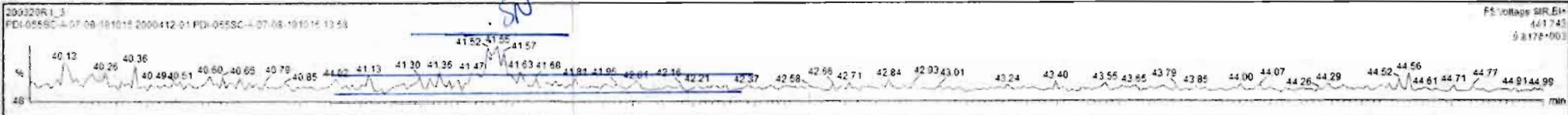
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015



Name	Resp	RA	dy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDP		NO	0.9468	10.065					0.104	

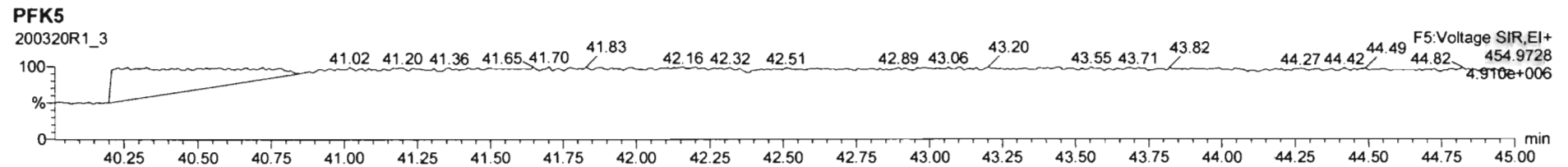
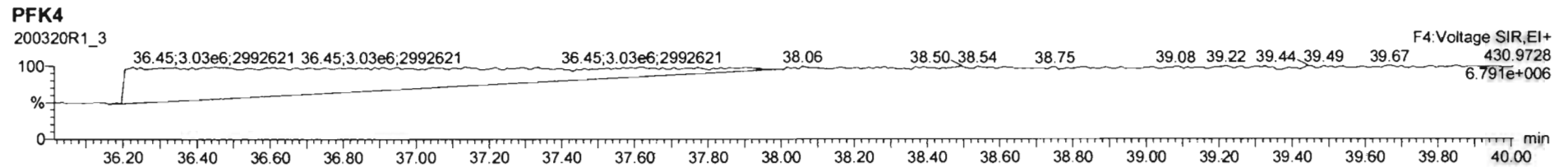
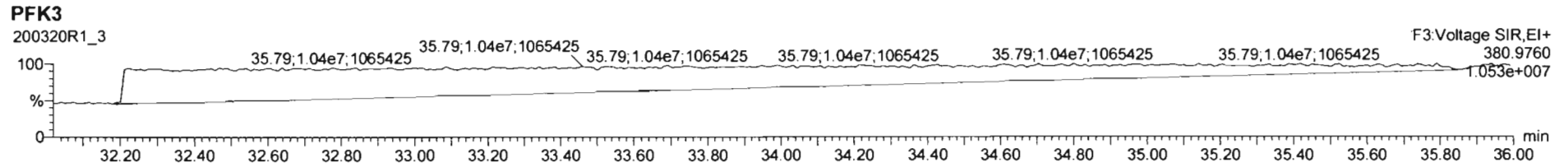
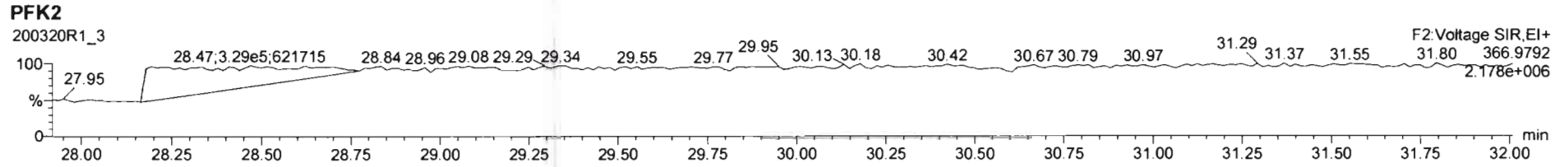
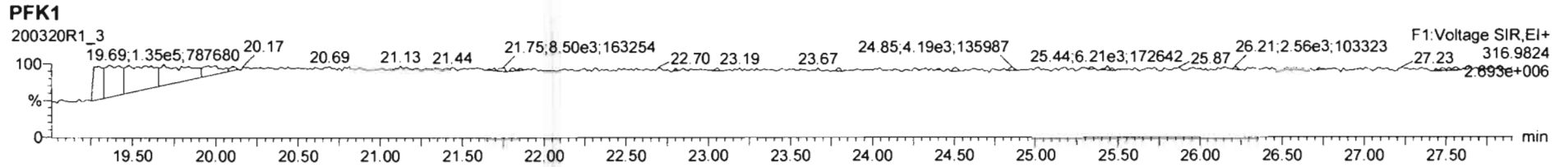
Name	RT	m1 Resp	m2 Resp	RA	dy	EMPC	Conc
1							



Dataset: Untitled

Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_3, Date: 20-Mar-2020, Time: 15:26:26, ID: 2000412-01 PDI-055SC-A-07-08-191015 13.58, Description: PDI-055SC-A-07-08-191015



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-4B.qld

Last Altered: Thursday, April 02, 2020 11:00:14 Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:02:37 Pacific Daylight Time

*BL 04/02/2020*

*C704/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09, ID: B0C0040-DUP1 Duplicate 13.49, Description: Duplicate

#	Name	Area	IS Area	RA	n/y	WL/Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	8.19e2	1.04e6	0.520	YES	10.00	25.81	25.84	1.00	1.00	NO	0.18064		0.093	0.12637
2	2 1,2,3,7,8-PeCDD		7.65e5			10.00	31.12		1.00		NO			0.113	
3	3 1,2,3,4,7,8-HxCDD		6.60e5			10.00	34.50		1.00		NO			0.102	
4	4 1,2,3,6,7,8-HxCDD		7.76e5			10.00	34.60		1.00		NO			0.099	
5	5 1,2,3,7,8,9-HxCDD	5.02e2	7.09e5	1.720	YES	10.00	34.87	34.86	1.00	1.00	NO	0.14642		0.149	0.12058
6	6 1,2,3,4,6,7,8-HpCDD	5.18e3	5.49e5	0.988	NO	10.00	38.29	38.29	1.00	1.00	NO	1.8760		0.118	1.8760
7	7 OCDD	5.24e4	8.44e5	0.903	NO	10.00	41.35	41.36	1.00	1.00	NO	23.629		0.113	23.629
8	8 2,3,7,8-TCDF		1.37e6			10.00	24.82		1.00		NO			0.064	
9	9 1,2,3,7,8-PeCDF	2.11e2	1.17e6	2.588	YES	10.00	29.76	29.78	1.00	1.00	NO	0.037689		0.031	0.0267...
10	10 2,3,4,7,8-PeCDF		1.14e6			10.00	30.80		1.00		NO			0.055	
11	11 1,2,3,4,7,8-HxCDF		9.16e5			10.00	33.65		1.00		NO			0.109	
12	12 1,2,3,6,7,8-HxCDF		1.03e6			10.00	33.78		1.00		NO			0.100	
13	13 2,3,4,6,7,8-HxCDF		9.49e5			10.00	34.37		1.00		NO			0.106	
14	14 1,2,3,7,8,9-HxCDF		8.14e5			10.00	35.19		1.00		NO			0.153	
15	15 1,2,3,4,6,7,8-HpCDF	4.09e2	7.03e5	1.023	NO	10.00	36.92	36.91	1.00	1.00	NO	0.1110E		0.053	0.1110E
16	16 1,2,3,4,7,8,9-HpCDF		4.97e5			10.00	38.93		1.00		NO			0.068	
17	17 OCDF	4.72e2	1.12e6	0.567	YES	10.00	41.53	41.54	1.00	1.00	NO	0.17742		0.080	0.13628
18	18 13C-2,3,7,8-TCDD	1.04e6	9.24e5	0.798	NO	10.00	25.80	25.78	1.03	1.03	NO	189.76	94.9	0.293	
19	19 13C-1,2,3,7,8-PeCDD	7.65e5	9.24e5	0.636	NO	10.00	31.12	31.09	1.24	1.24	NO	191.63	95.8	0.236	
20	20 13C-1,2,3,4,7,8-HxCDD	6.60e5	1.08e6	1.269	NO	10.00	34.49	34.49	1.01	1.01	NO	162.97	81.5	0.428	
21	21 13C-1,2,3,6,7,8-HxCDD	7.76e5	1.08e6	1.279	NO	10.00	34.59	34.60	1.02	1.02	NO	156.00	78.0	0.349	
22	22 13C-1,2,3,7,8,9-HxCDD	7.09e5	1.08e6	1.229	NO	10.00	34.86	34.86	1.02	1.02	NO	159.06	79.5	0.389	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.49e5	1.08e6	1.058	NO	10.00	38.28	38.28	1.13	1.13	NO	170.59	85.3	0.373	
24	24 13C-OCDD	8.44e5	1.08e6	0.914	NO	10.00	41.34	41.35	1.22	1.22	NO	274.96	68.7	0.485	
25	25 13C-2,3,7,8-TCDF	1.37e6	1.53e6	0.784	NO	10.00	24.79	24.79	0.99	0.99	NO	164.54	82.3	0.444	
26	26 13C-1,2,3,7,8-PeCDF	1.17e6	1.53e6	1.591	NO	10.00	29.76	29.74	1.19	1.19	NO	174.54	87.3	0.538	
27	27 13C-2,3,4,7,8-PeCDF	1.14e6	1.53e6	1.596	NO	10.00	30.74	30.77	1.23	1.23	NO	176.75	88.4	0.559	
28	28 13C-1,2,3,4,7,8-HxCDF	9.16e5	1.08e6	0.509	NO	10.00	33.64	33.65	0.99	0.99	NO	170.40	85.2	0.329	
29	29 13C-1,2,3,6,7,8-HxCDF	1.03e6	1.08e6	0.520	NO	10.00	33.76	33.77	0.99	0.99	NO	171.34	85.7	0.294	
30	30 13C-2,3,4,6,7,8-HxCDF	9.49e5	1.08e6	0.527	NO	10.00	34.32	34.33	1.01	1.01	NO	170.49	85.2	0.317	
31	31 13C-1,2,3,7,8,9-HxCDF	8.14e5	1.08e6	0.523	NO	10.00	35.19	35.19	1.03	1.03	NO	173.53	86.8	0.376	
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.03e5	1.08e6	0.447	NO	10.00	36.89	36.89	1.08	1.08	NO	169.59	84.8	0.353	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-4B.qld

Last Altered: Thursday, April 02, 2020 11:00:14 Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:02:37 Pacific Daylight Time

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09, ID: B0C0040-DUP1 Duplicate 13.49, Description: Duplicate

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.97e5	1.08e6	0.440	NO	10.00	38.93	38.93	1.14	1.14	NO	178.00	89.0	0.524	
34	34 13C-OCDF	1.12e6	1.08e6	0.913	NO	10.00	41.53	41.53	1.22	1.22	NO	300.17	75.0	0.333	
35	35 37Cl-2,3,7,8-TCDD	4.16e5	9.24e5			10.00	25.83	25.81	1.03	1.03	NO	76.794	96.0	0.055	
36	36 13C-1,2,3,4-TCDD	9.24e5	9.24e5	0.806	NO	10.00	25.03	25.06	1.00	1.00	NO	200.04	100.0	0.347	
37	37 13C-1,2,3,4-TCDF	1.53e6	1.53e6	0.796	NO	10.00	23.09	23.10	1.00	1.00	NO	200.04	100.0	0.483	
38	38 13C-1,2,3,4,6,9-HxCDF	1.08e6	1.08e6	0.516	NO	10.00	34.02	34.02	1.00	1.00	NO	200.04	100.0	0.329	
39	39 Total Tetra-Dioxins		1.04e6			10.00	24.62		0.00		NO	0.10014		0.093	0.53602
40	40 Total Penta-Dioxins		7.65e5			10.00	29.96		0.00		NO	0.23102		0.113	0.29343
41	41 Total Hexa-Dioxins		0.00e0			10.00	33.63		0.00		NO	1.6692		0.111	1.7898
42	42 Total Hepta-Dioxins		5.49e5			10.00	37.64		0.00		NO	5.2297		0.118	5.2297
43	43 Total Tetra-Furans		1.37e6			10.00	23.61		0.00		NO			0.036	
44	44 1st Func. Penta-Furans		0.00e0			10.00	27.09		0.00		NO			0.012	
45	45 Total Penta-Furans		0.00e0			10.00	29.27		0.00		NO	0.00000		0.030	0.0267...
46	46 Total Hexa-Furans		0.00e0			10.00	33.56		0.00		NO			0.062	
47	47 Total Hepta-Furans		0.00e0			10.00	37.83		0.00		NO	0.11106		0.063	0.11106

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-4B.qld

Last Altered: Thursday, April 02, 2020 11:00:14 Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:02:37 Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09

**Tetra-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	1 2,3,7,8-TCDD	25.84	0.520	YES	2.80e2	4.60e5	0.000	0.126
2	39 Total Tetra-Dioxins	23.34	0.803	NO	7.03e2	4.60e5	0.000	0.310
3	39 Total Tetra-Dioxins	25.02	0.814	NO	2.29e2	4.60e5	0.100	0.100

**Penta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	40 Total Penta-Dioxins	29.28	0.724	NO	3.42e2	2.97e5	0.231	0.231
2	40 Total Penta-Dioxins	28.79	1.077	YES	1.45e2	2.97e5	0.000	0.0624

**Hexa-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	5 1,2,3,7,8,9-HxCDD	34.86	1.720	YES	3.18e2	3.91e5	0.000	0.121
2	41 Total Hexa-Dioxins	33.83	1.172	NO	1.08e3	3.99e5	0.569	0.569
3	41 Total Hexa-Dioxins	33.05	1.298	NO	2.19e3	3.99e5	1.10	1.10

**Hepta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	38.29	0.988	NO	2.57e3	2.82e5	1.88	1.88
2	42 Total Hepta-Dioxins	37.28	1.044	NO	4.73e3	2.82e5	3.35	3.35

**Tetra-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Penta-Furans function 1**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-4B.qld

Last Altered: Thursday, April 02, 2020 11:00:14 Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:02:37 Pacific Daylight Time

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09

**Penta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	9 1,2,3,7,8-PeCDF	29.78	2.588	YES	1.52e2	7.16e5	0.000	0.0268

**Hexa-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Hepta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	15 1,2,3,4,6,7,8-HpCDF	36.91	1.023	NO	2.07e2	2.17e5	0.111	0.111



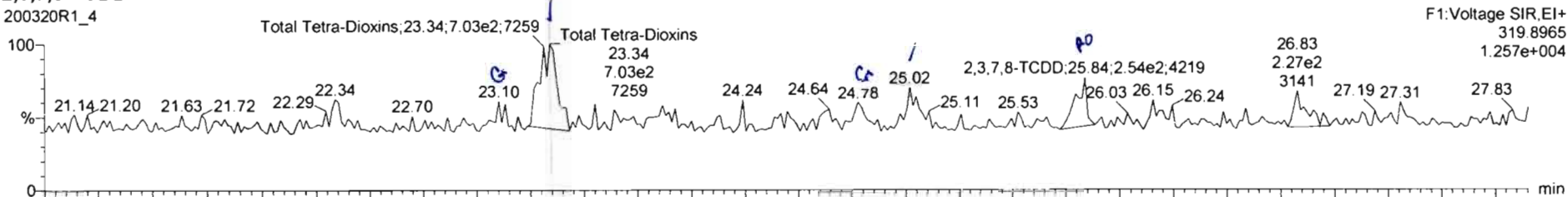
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

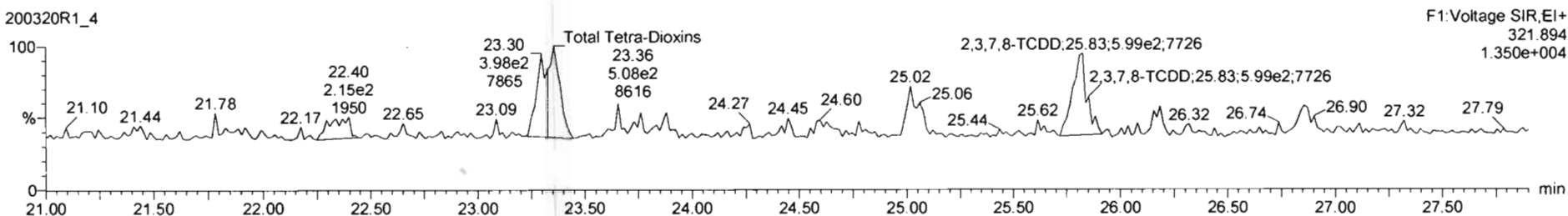
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**2,3,7,8-TCDD**

200320R1\_4

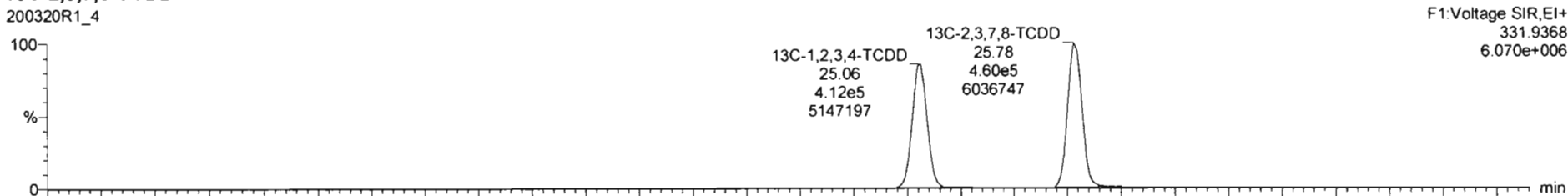


200320R1\_4

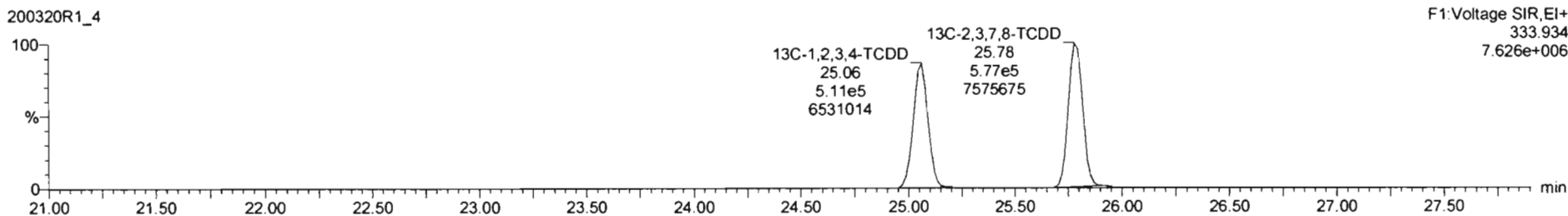


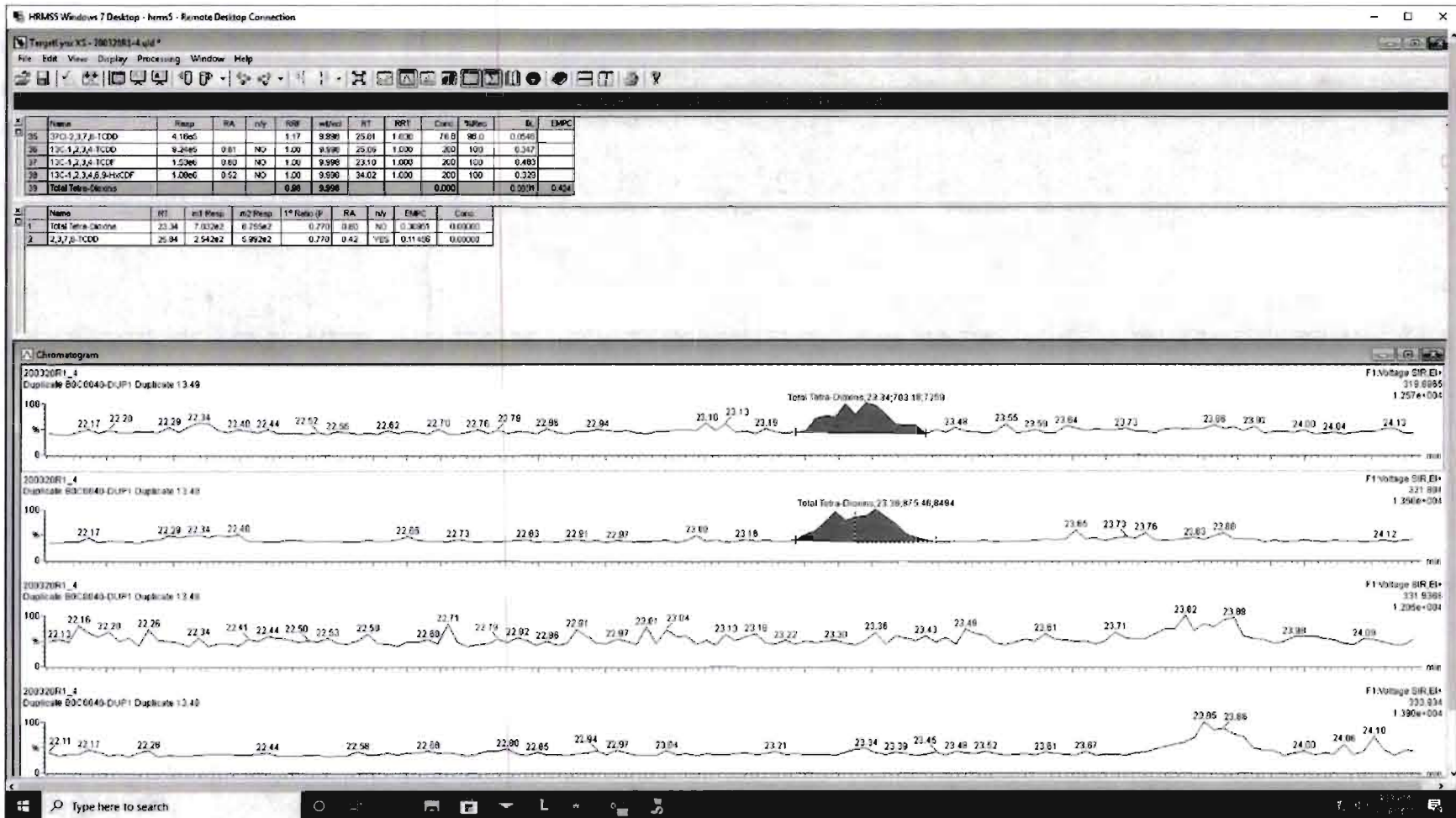
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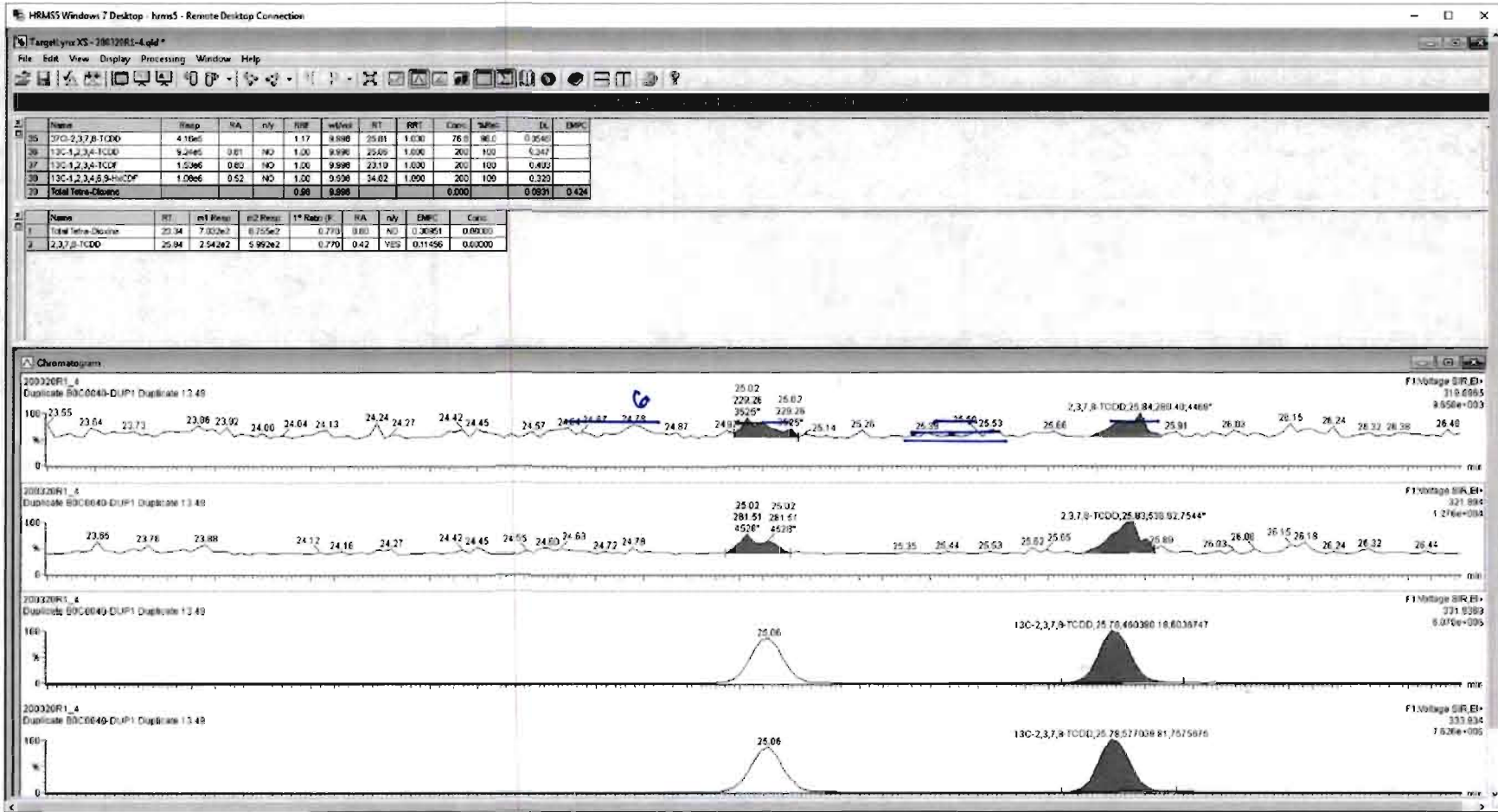
200320R1\_4



200320R1\_4







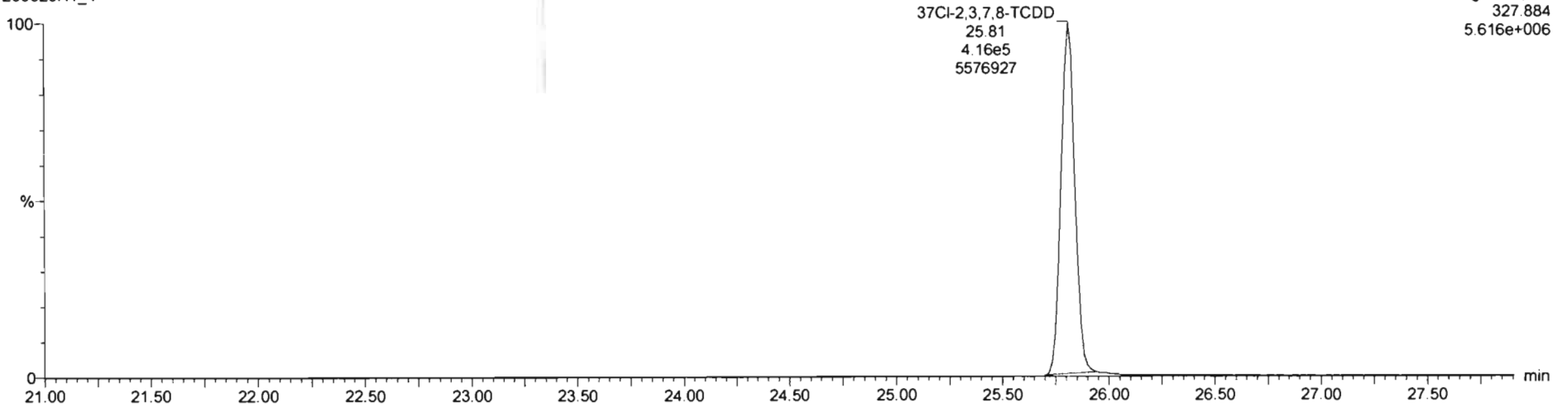
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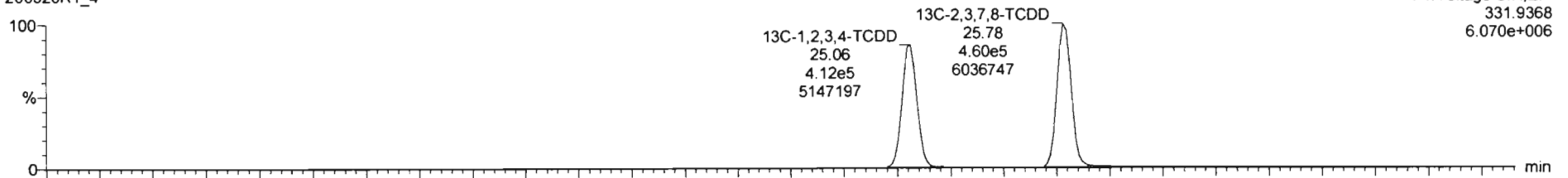
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200320R1\_4

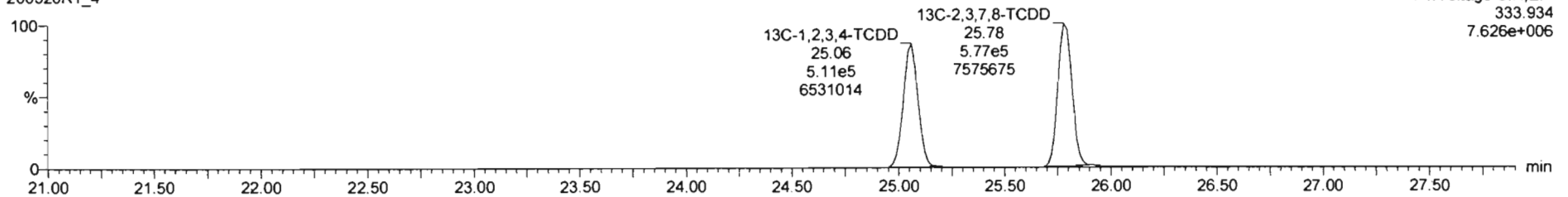


13C-1,2,3,4-TCDD

200320R1\_4



200320R1\_4



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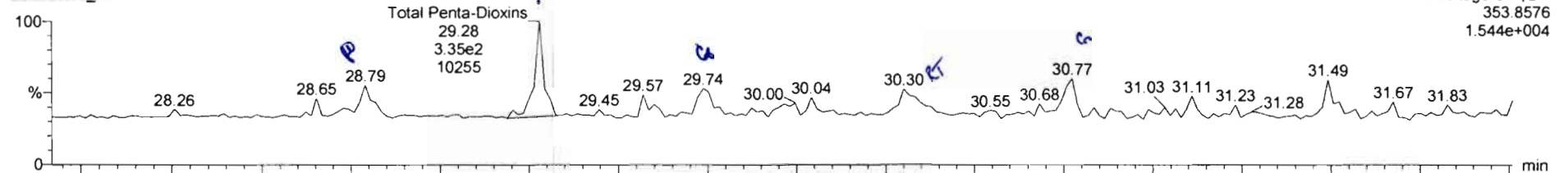
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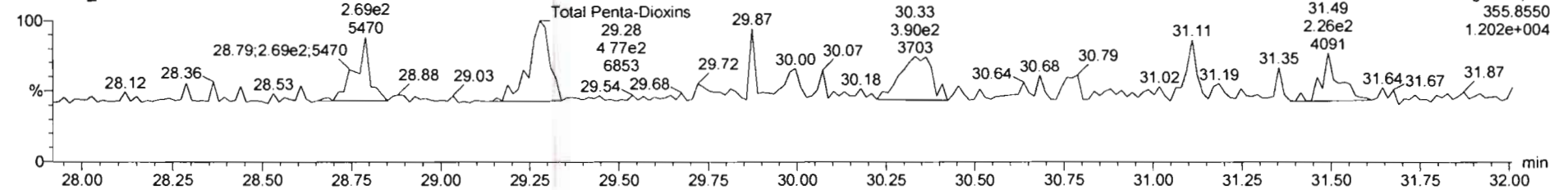
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1,2,3,7,8-PeCDD

200320R1\_4

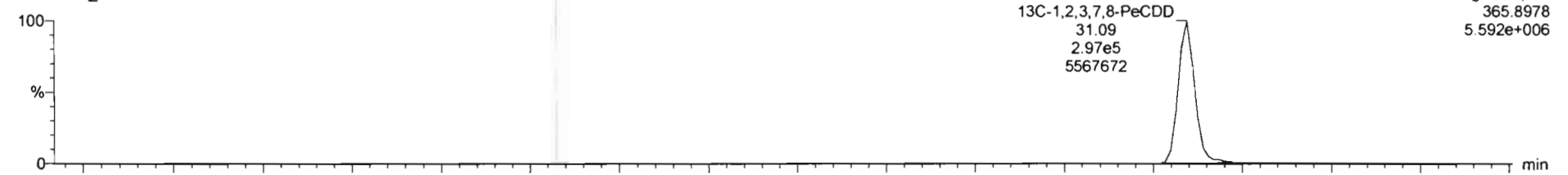


200320R1\_4

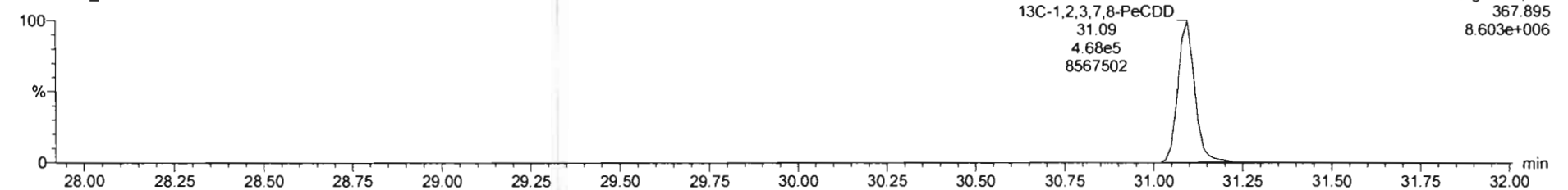


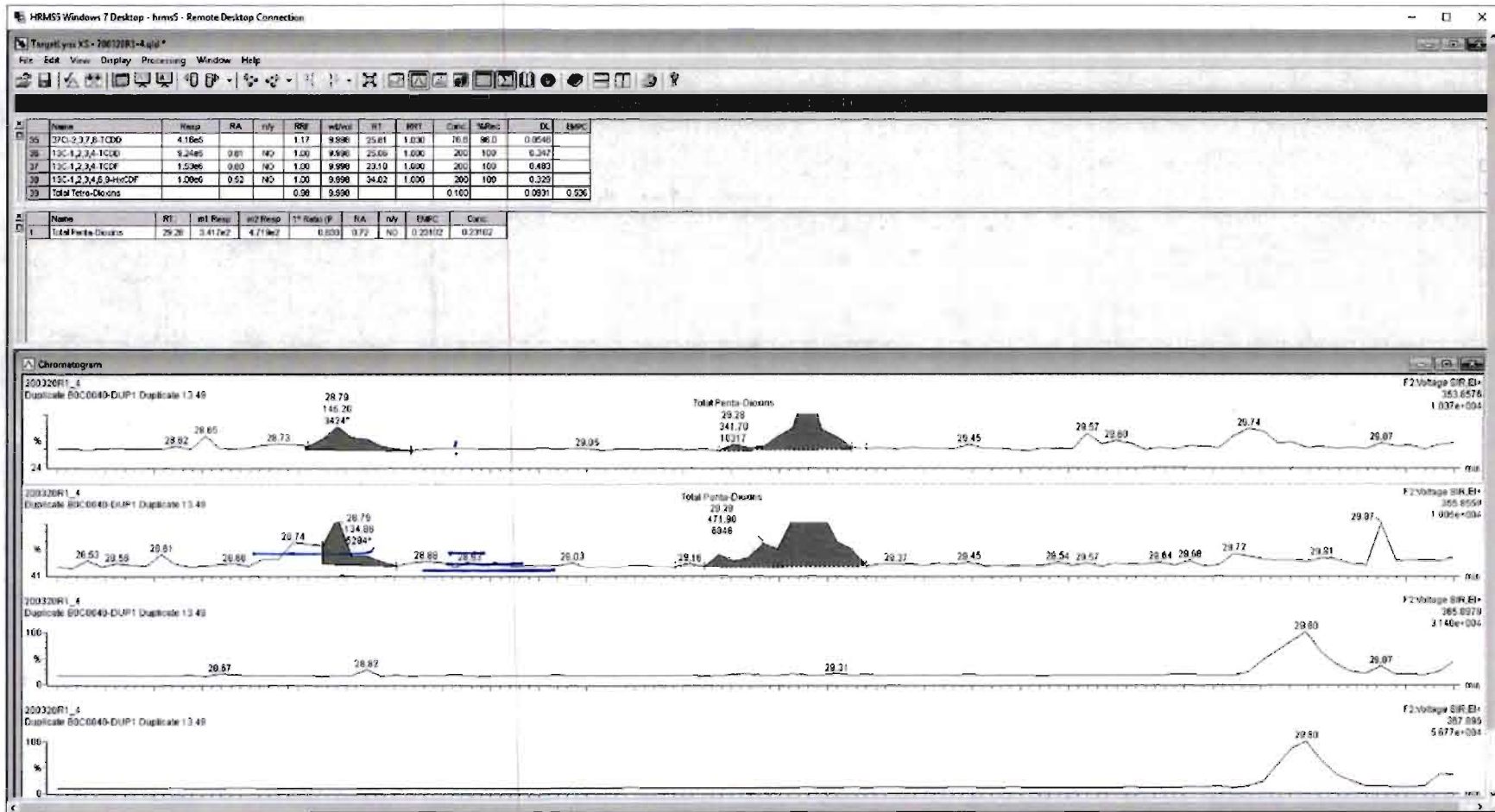
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200320R1\_4



200320R1\_4





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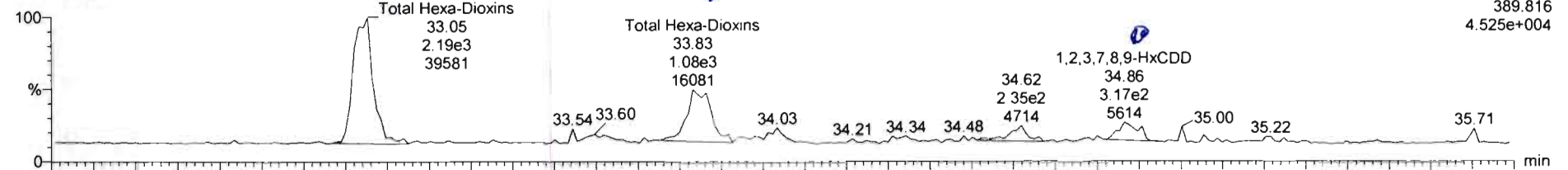
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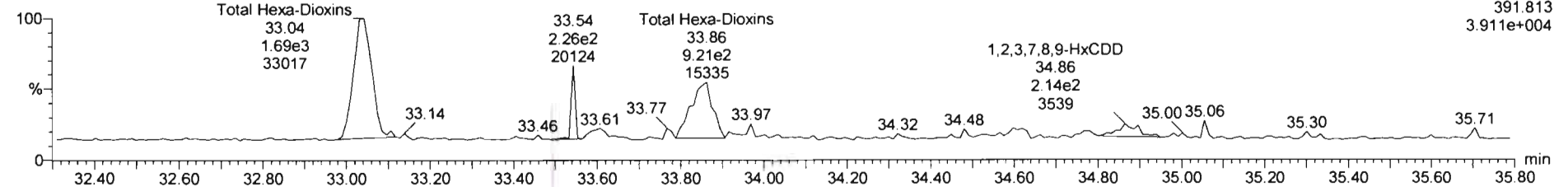
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1,2,3,4,7,8-HxCDD

200320R1\_4

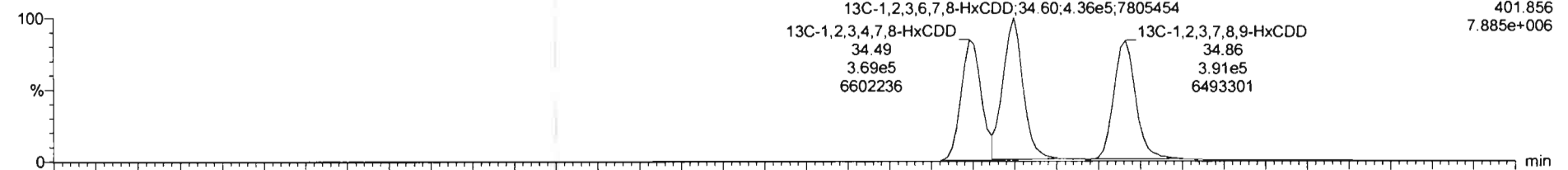


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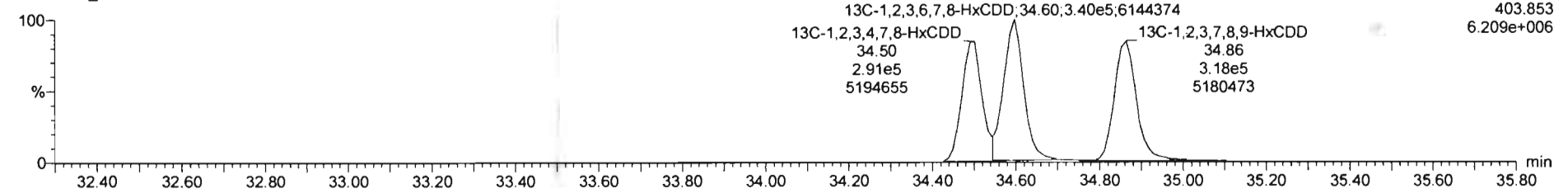


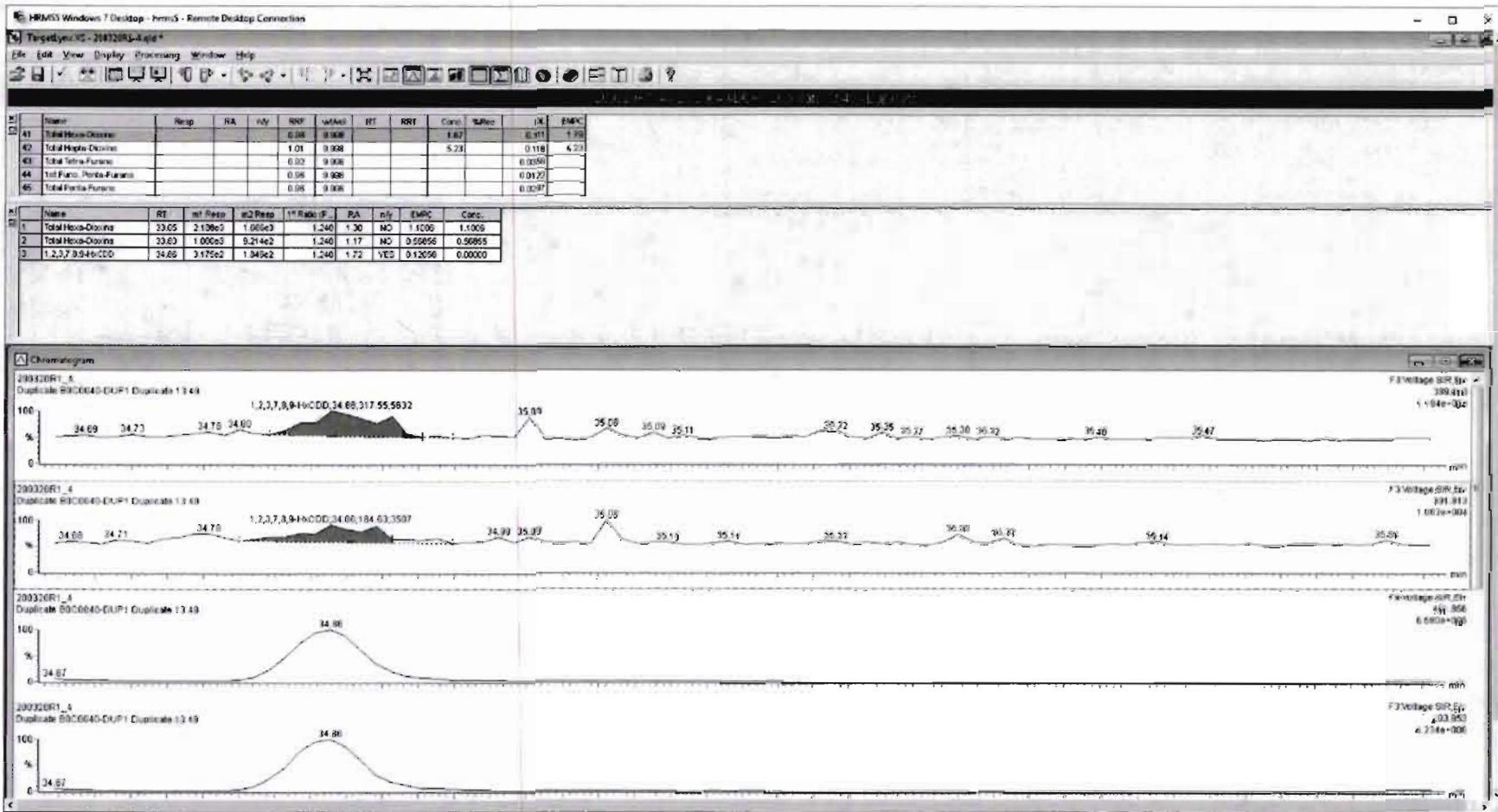
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200320R1\_4



200320R1\_4







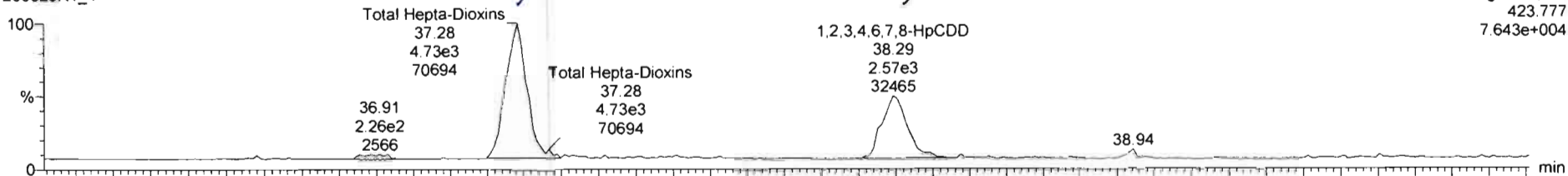
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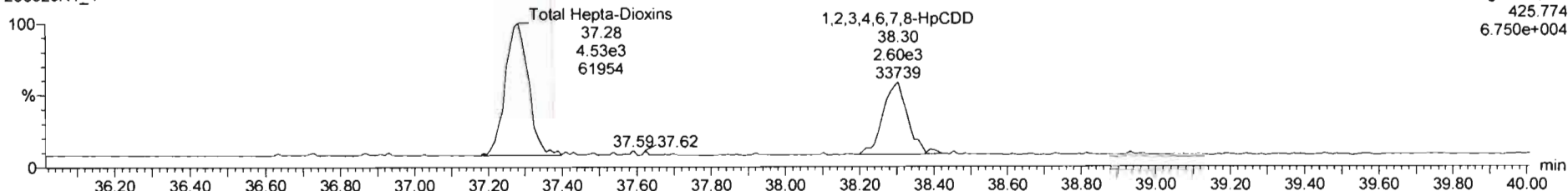
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1,2,3,4,6,7,8-HpCDD

200320R1\_4

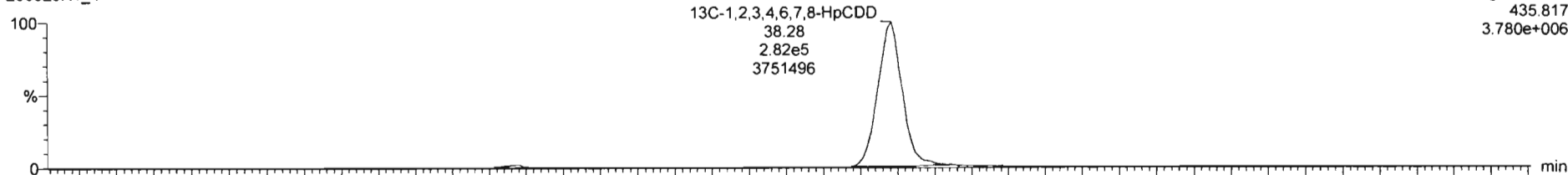


200320R1\_4

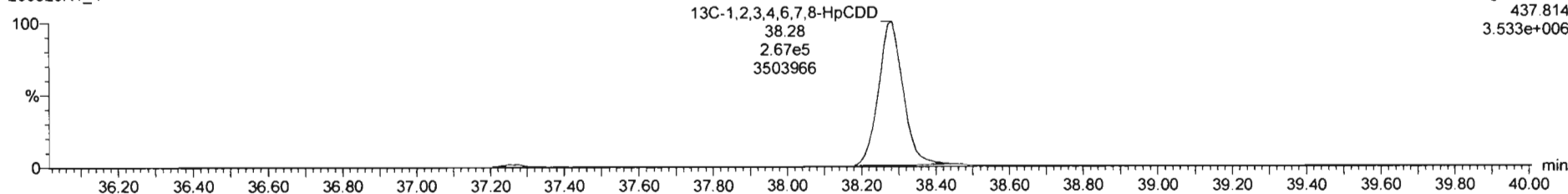


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_4



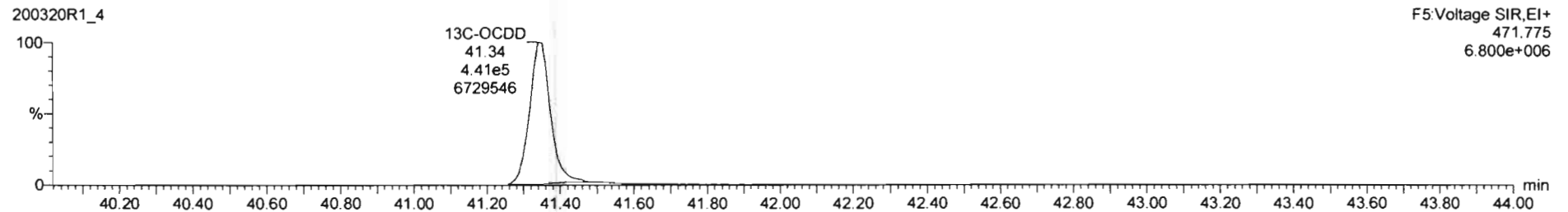
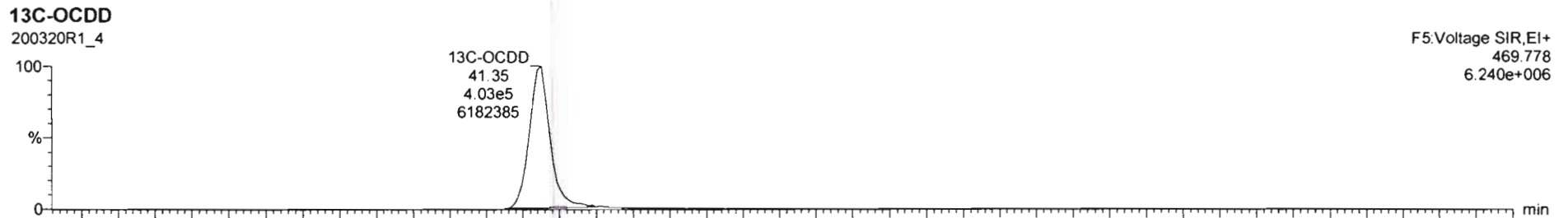
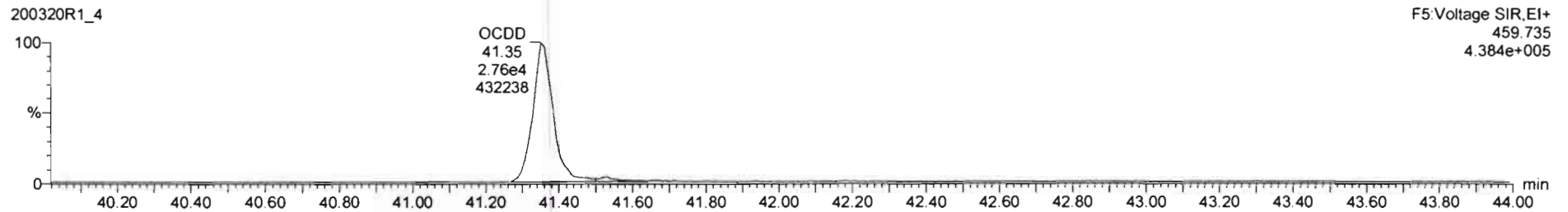
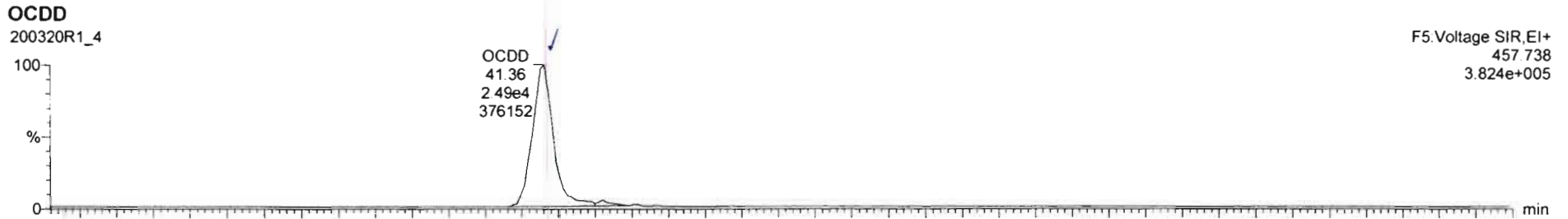
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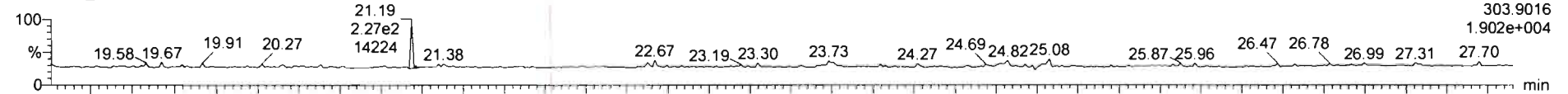
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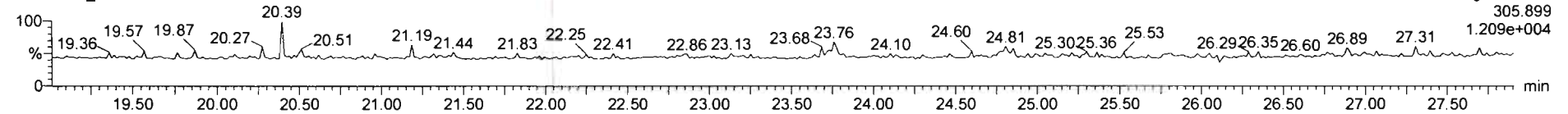
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**2,3,7,8-TCDF**

200320R1\_4

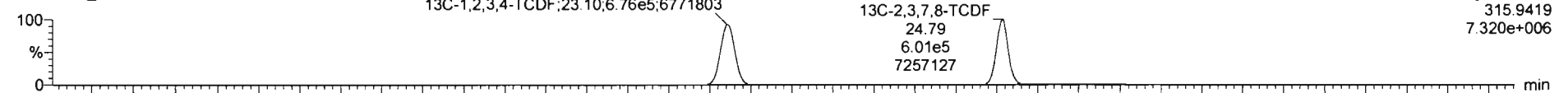


200320R1\_4

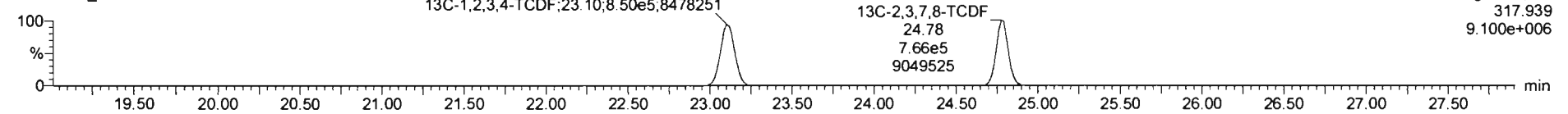


**13C-2,3,7,8-TCDF**

200320R1\_4

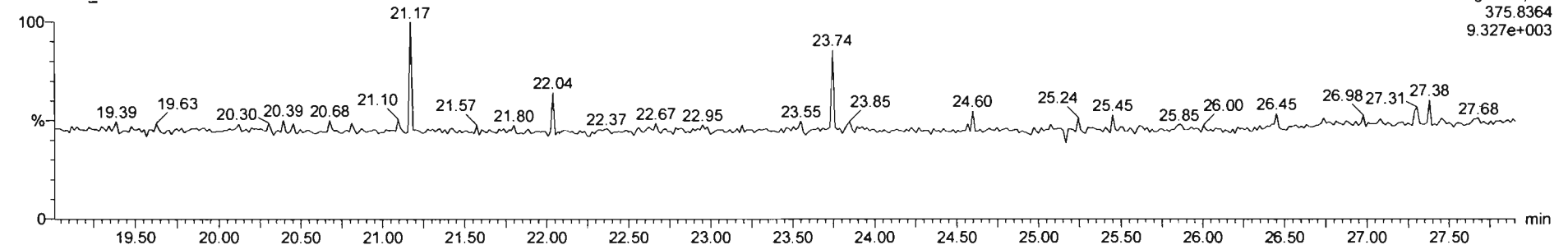


200320R1\_4



**DPE1**

200320R1\_4



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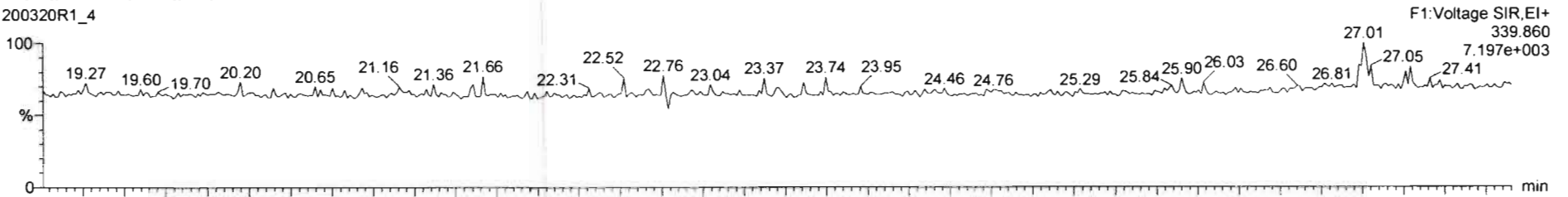
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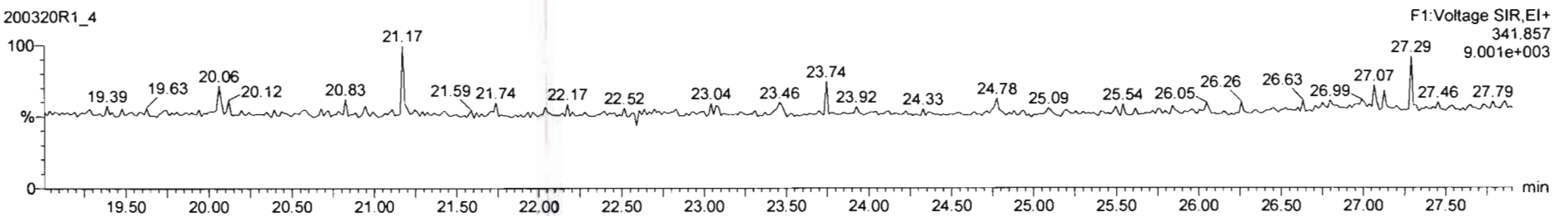
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1st Func. Penta-Furans

200320R1\_4

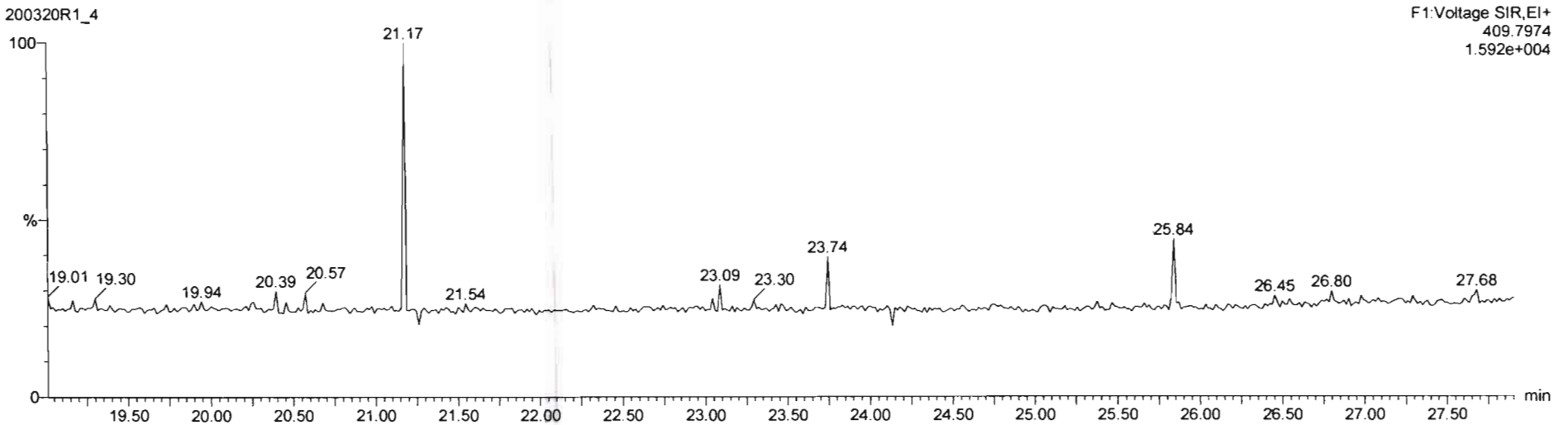


200320R1\_4



DPE6

200320R1\_4

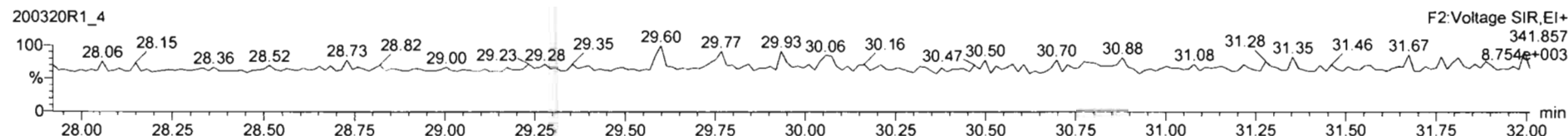
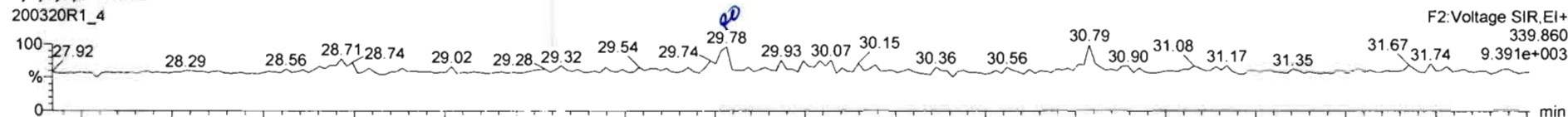


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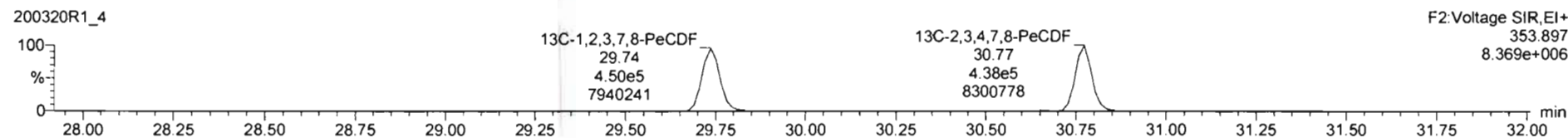
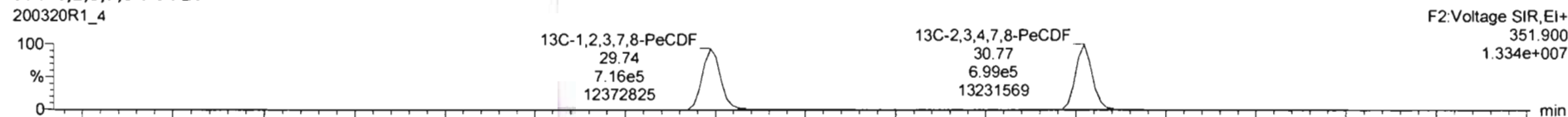
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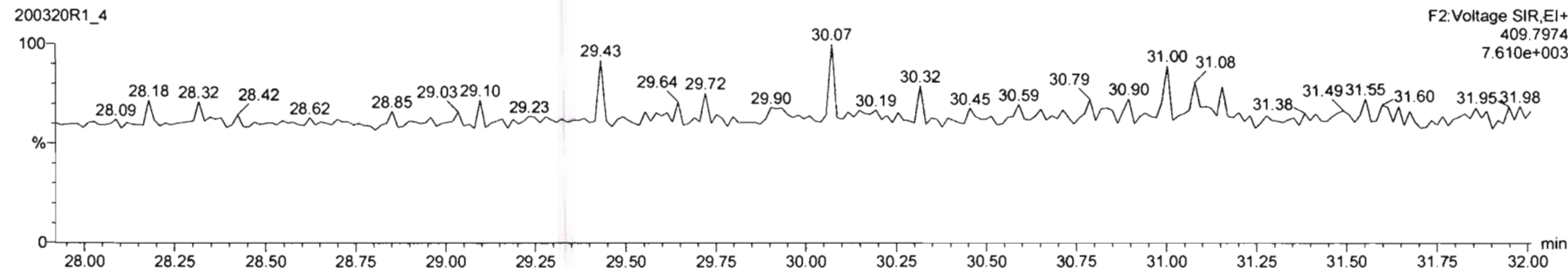
**1,2,3,7,8-PeCDF**

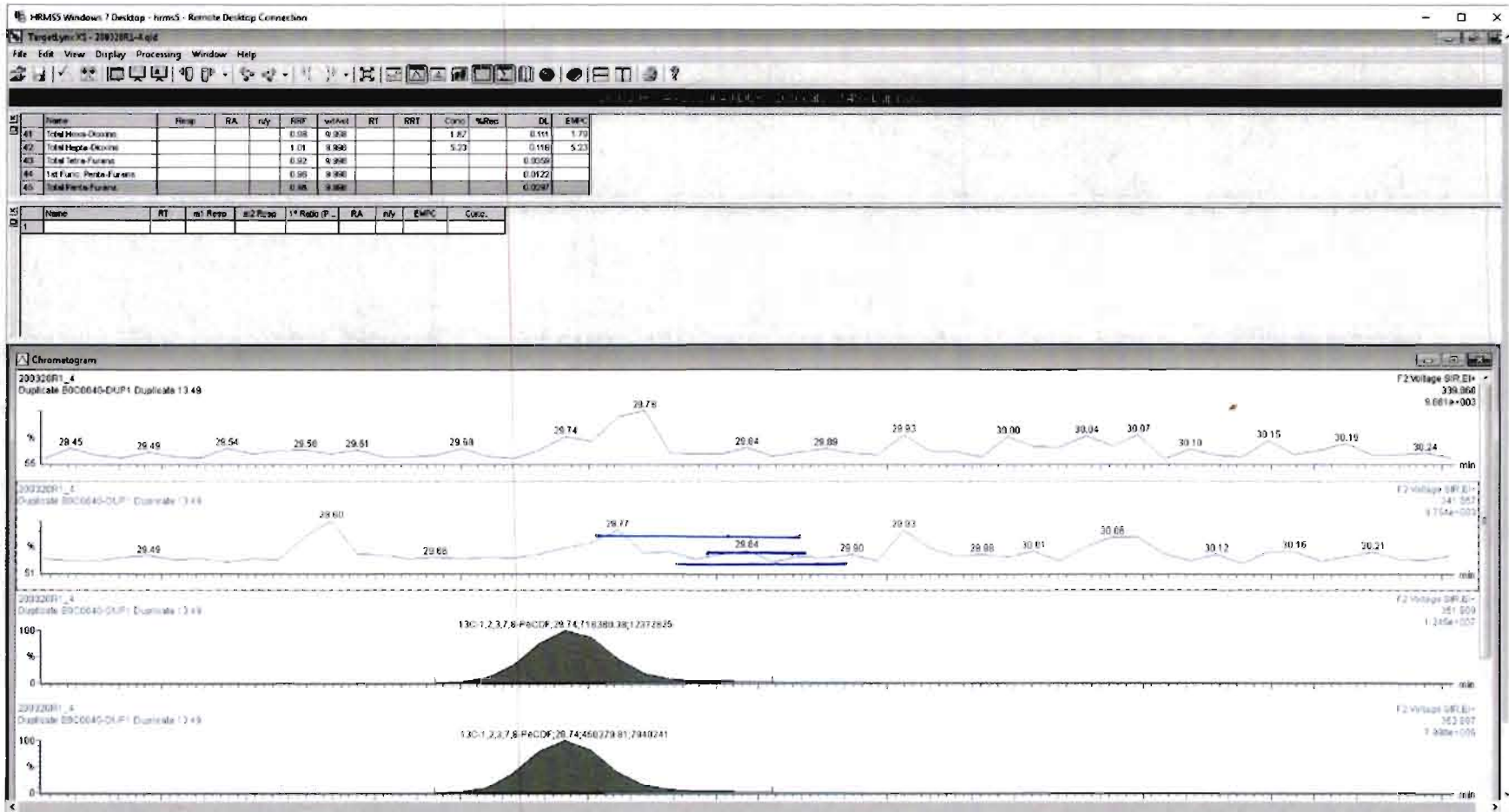


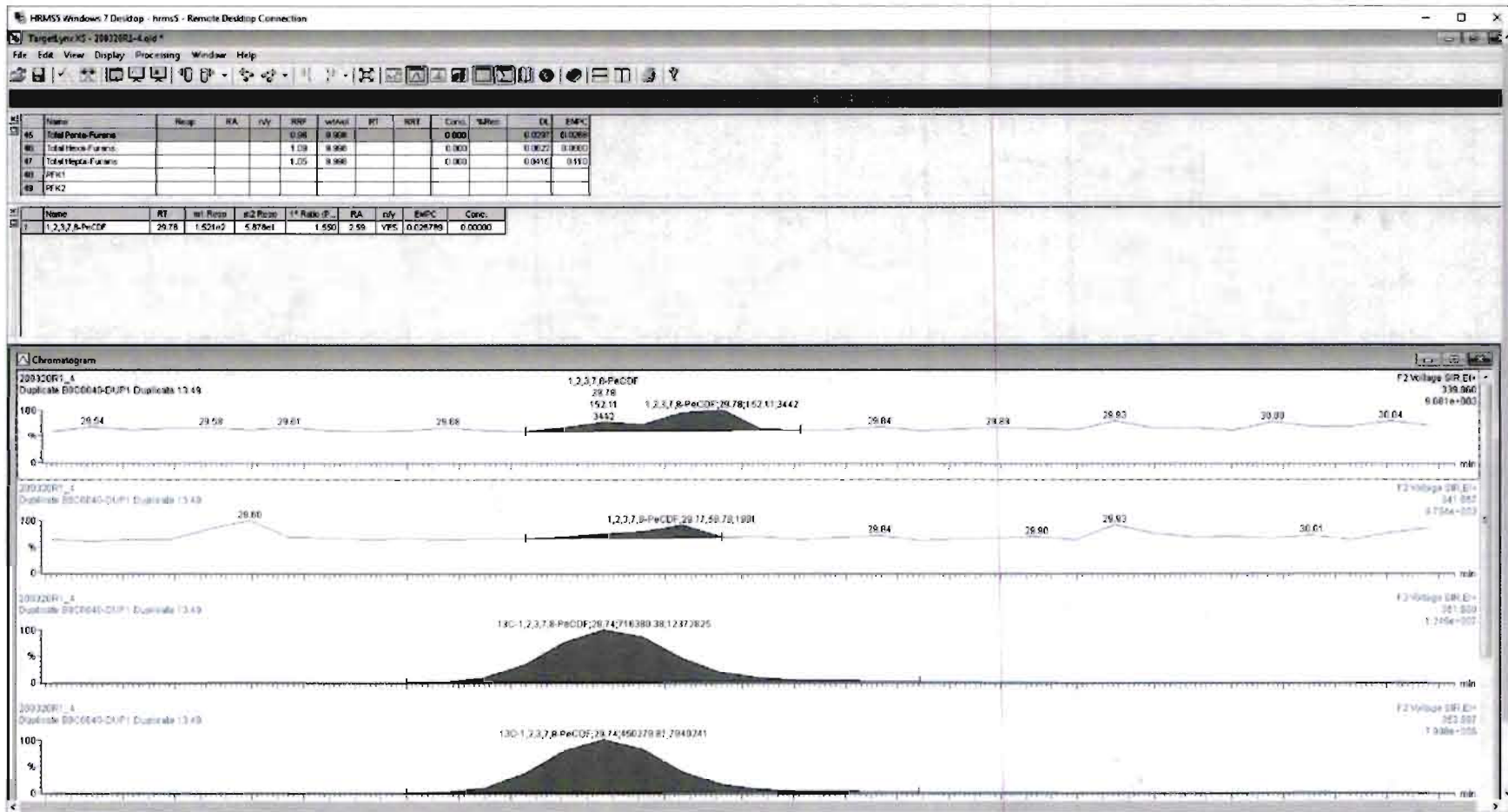
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**DPE2**







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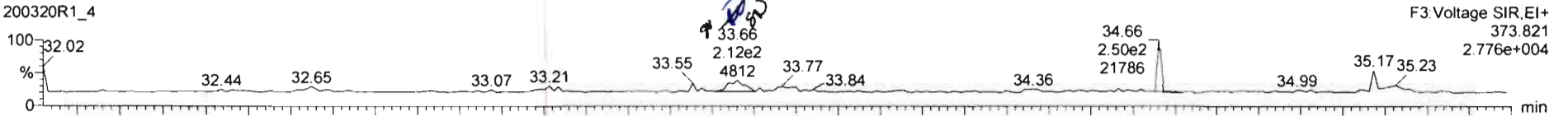
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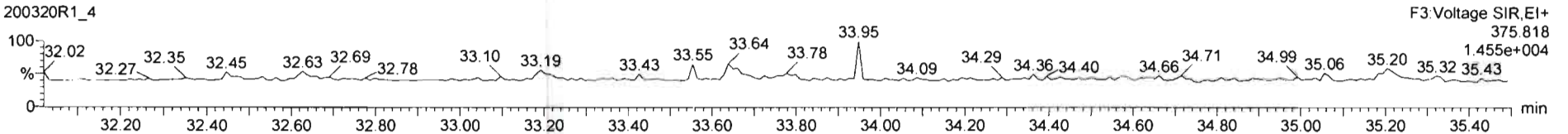
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**1,2,3,4,7,8-HxCDF**

200320R1\_4

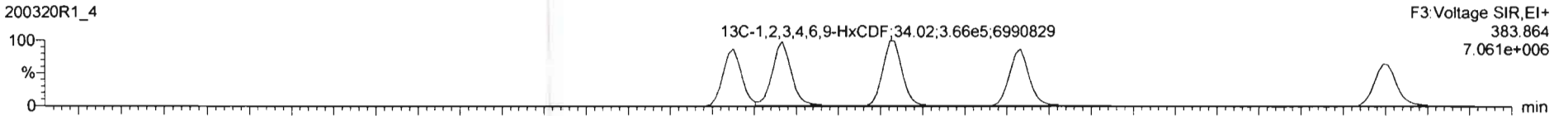


200320R1\_4

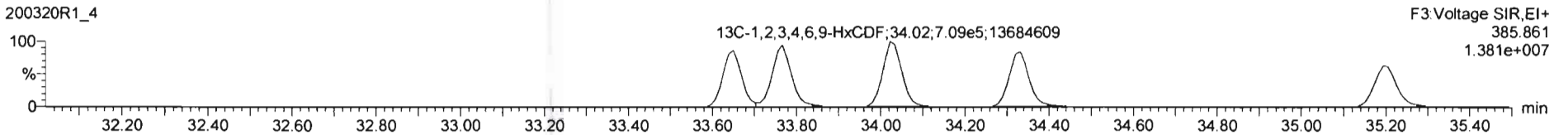


**13C-1,2,3,4,7,8-HxCDF**

200320R1\_4

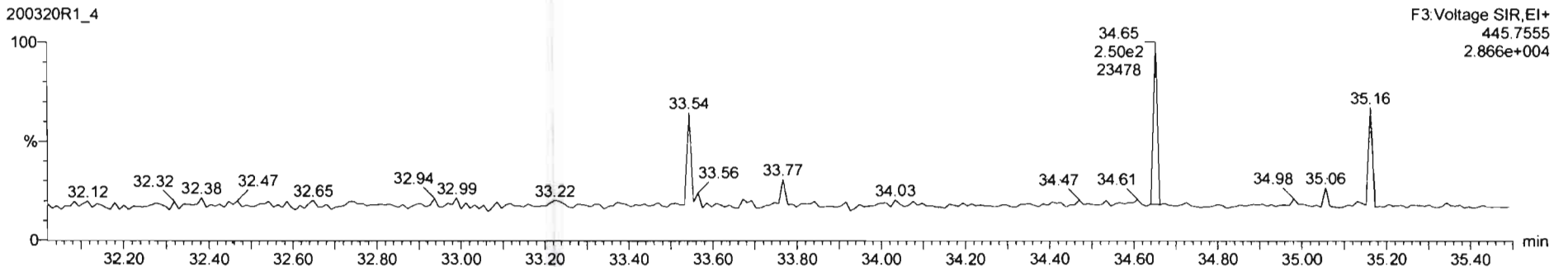


200320R1\_4



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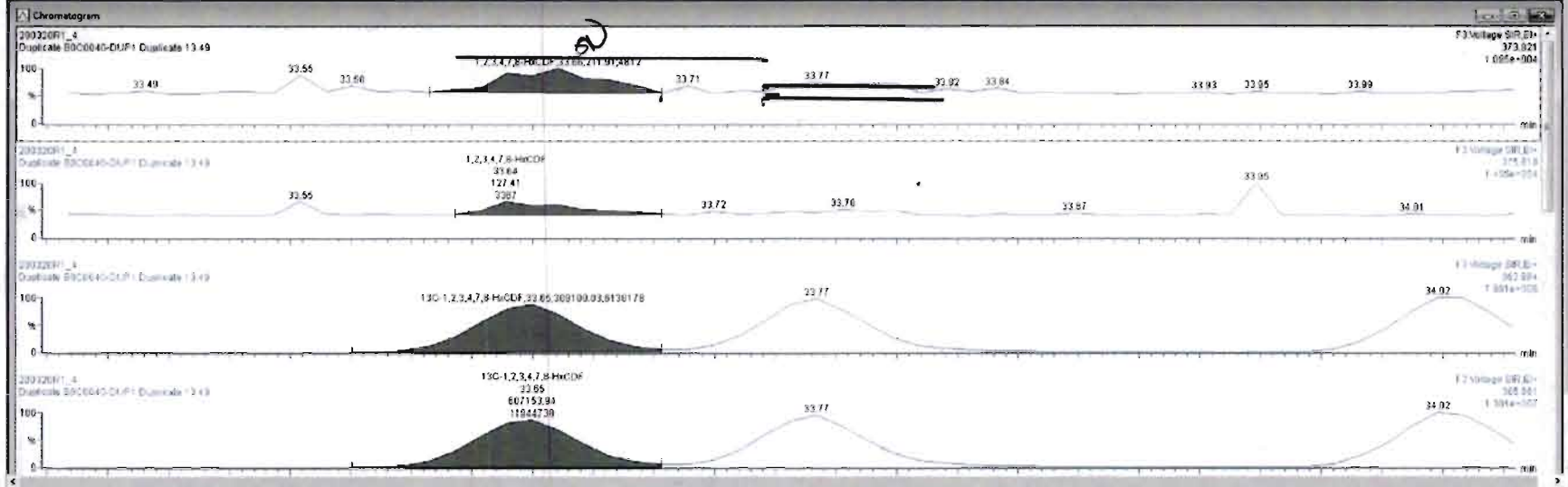
200320R1\_4





#	Name	Resp	RA	Qty	AVF	StdAve	RT	RRT	Conc	%Rec	DL	EMPC
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42	Total Hepta-Chloro				1.01	9.900			5.23	0.118	5.23	
43	Total Tetra-Furane				0.92	9.900				0.0298		
44	1st Fluor. Perflu-Furane				0.98	9.900				0.0122		
45	Total Perflu-Furane				0.98	9.900			0.000	0.0297	0.000	

#	Name	RT	Int Resp	#2 Peak	1st Peak P.	RA	Qty	EMPC	Conc.
1	1,2,3,4,7,8-PeCDF	33.68	2.110e2	1.274e2	1.240	1.68	YES	0.000025	0.00000



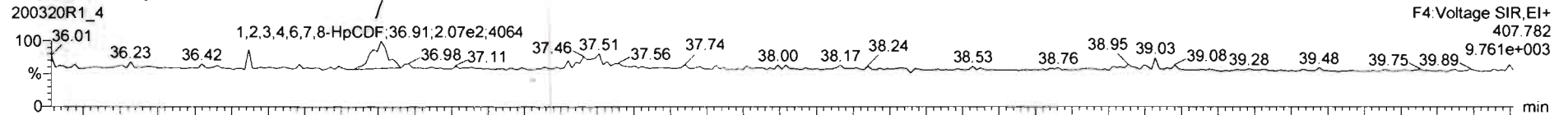
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

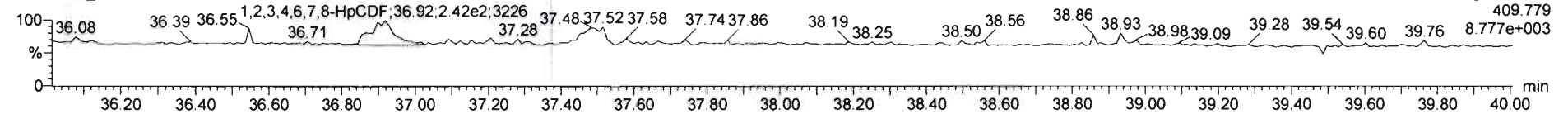
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09, ID: B0C0040-DUP1 Duplicate 13.49, Description: Duplicate

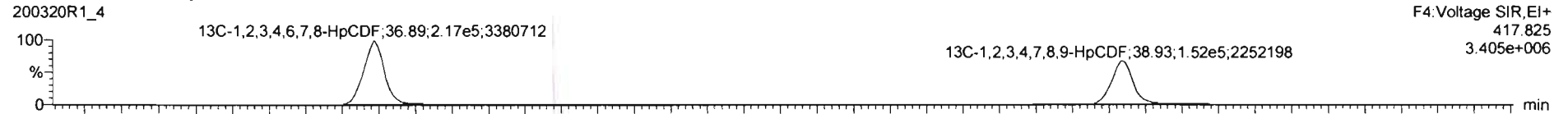
1,2,3,4,6,7,8-HpCDF



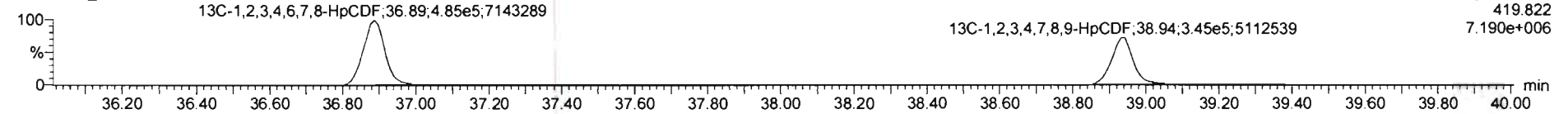
200320R1\_4



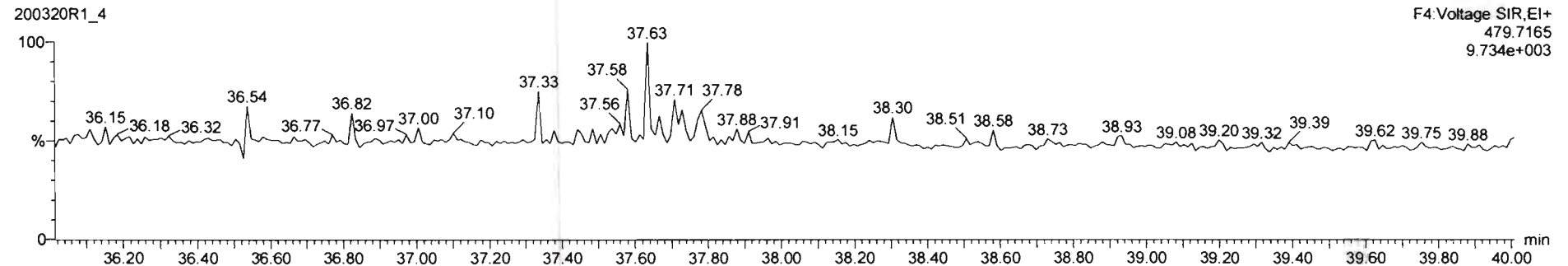
13C-1,2,3,4,6,7,8-HpCDF



200320R1\_4



DPE4



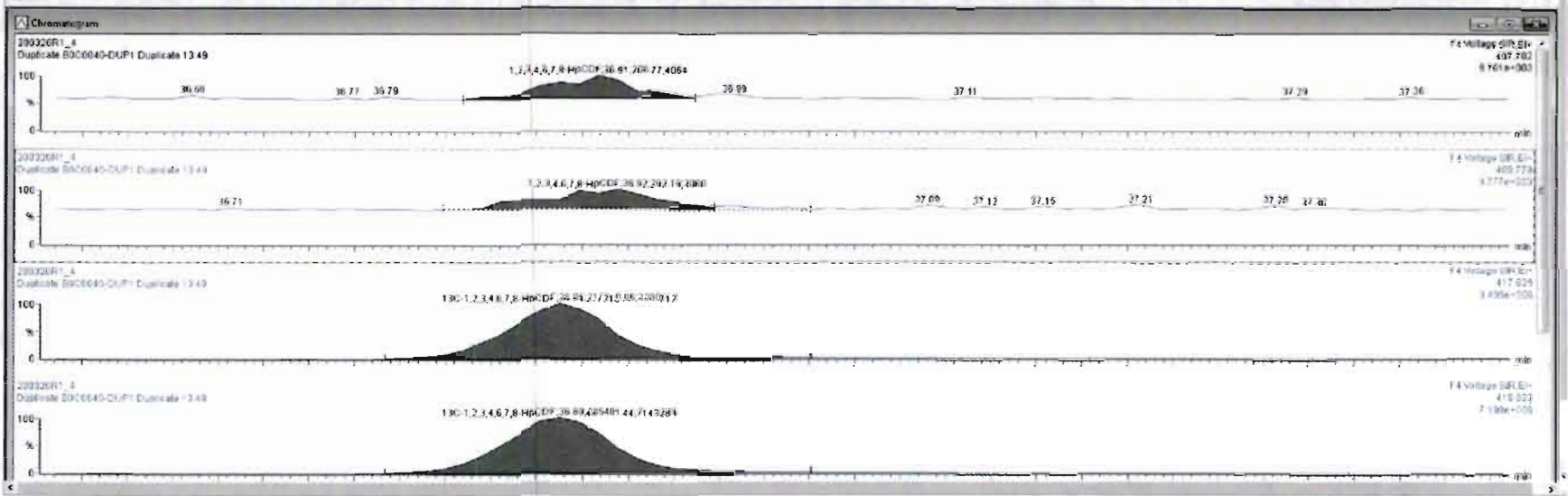
HRMSS Windows 7 Desktop - hrms3 - Remote Desktop Connection

Targetlyn-X3 - 200320R1-4.qtd\*

File Edit View Display Processing Window Help

SI	Name	RT	RA	n/y	RF	Wt/Std	RT	RRT	Comp	%Res	DL	EMPC
46	Total Penta-Furans				0.58	9.908			0.003		0.0297	0.0292
48	Total Hexa-Furans				1.09	9.908			0.003		0.0625	0.0620
47	Total Hepta-Furans				1.05	9.908			0.011		0.0636	0.111
49	PF1											
49	PF2											

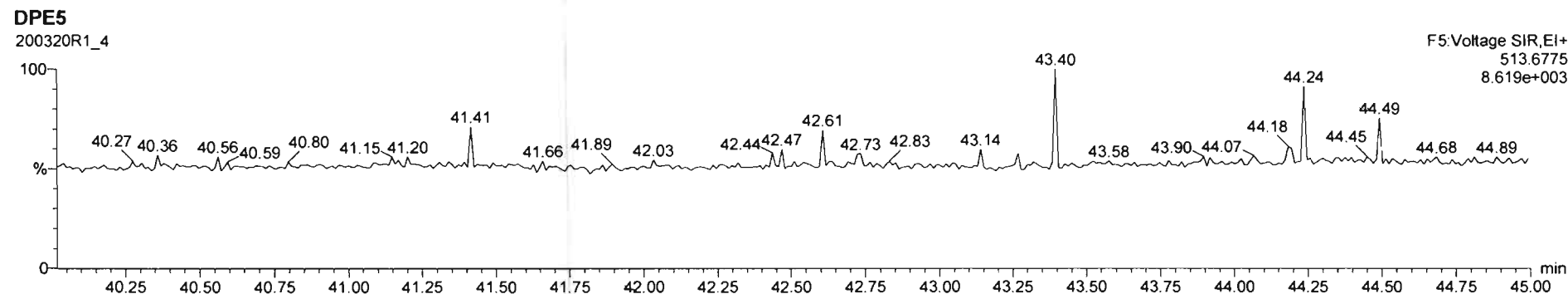
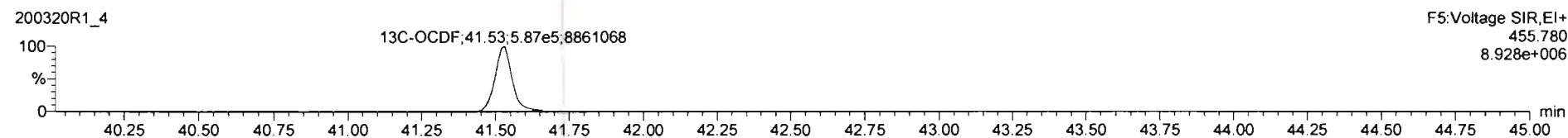
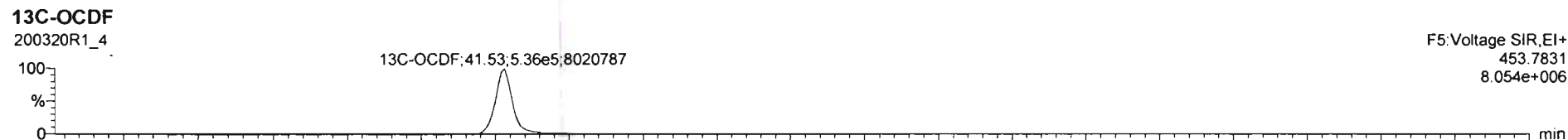
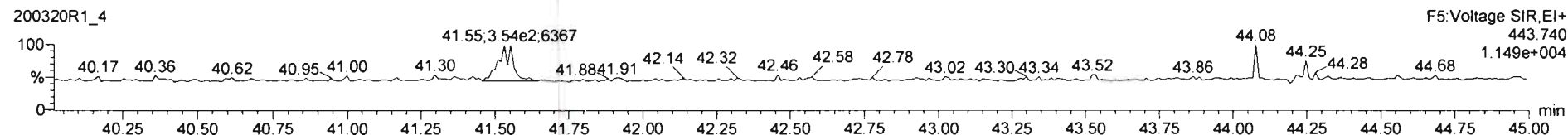
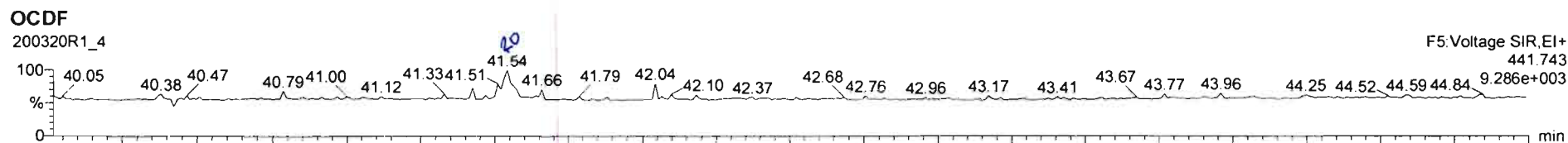
SI	Name	RT	Int Retno	Int Retno	I* Ratio (P...)	RA	n/y	EMPC	Comp
1	1,2,3,4,6,7,8-HpCDF	36.91	2.068e2	3.022e2	1.640	1.02	NO	0.11108	0.11108



Dataset: Untitled

Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09, ID: B0C0040-DUP1 Duplicate 13.49, Description: Duplicate

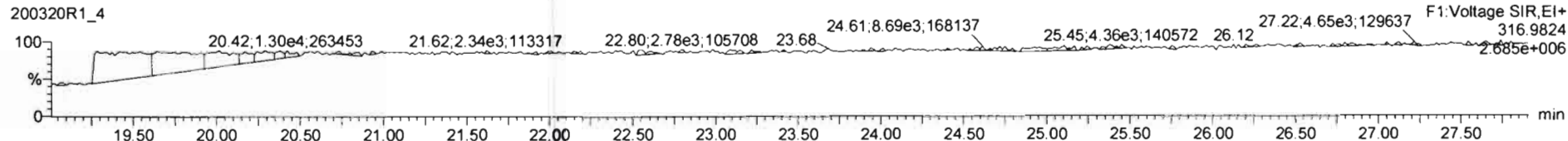


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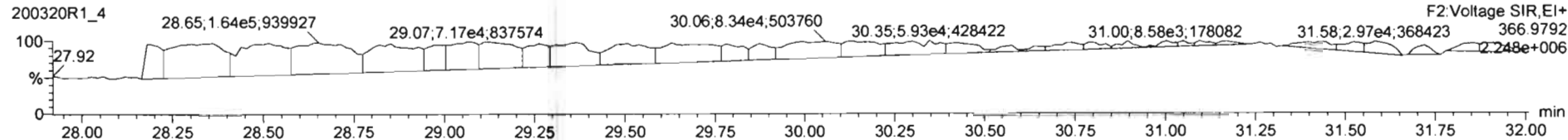
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_4, Date: 20-Mar-2020, Time: 16:14:09, ID: B0C0040-DUP1 Duplicate 13.49, Description: Duplicate

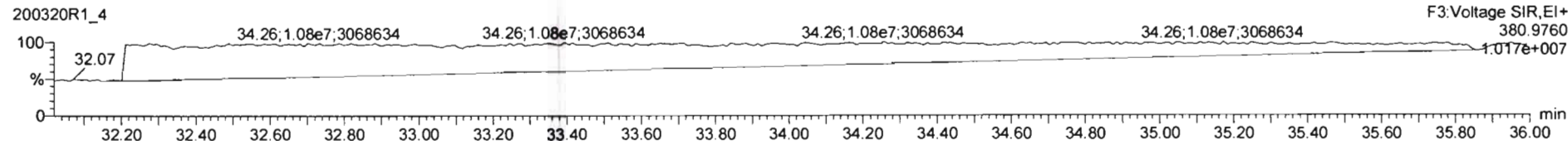
PFK1



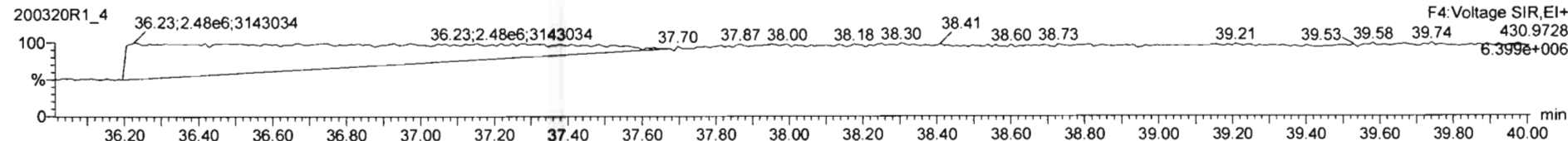
PFK2



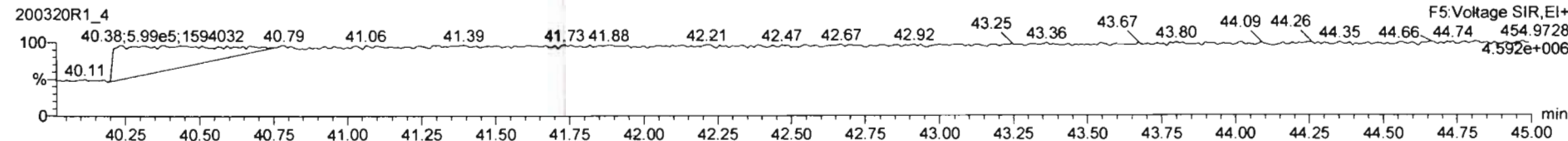
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-5.qld

Last Altered: Thursday, March 26, 2020 13:27:09 Pacific Daylight Time

Printed: Thursday, March 26, 2020 13:28:32 Pacific Daylight Time

*2003/20/2020*

*0704/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD		1.30e6			10.02	25.81		1.00		NO			0.095	
2	2 1,2,3,7,8-PeCDD		9.07e5			10.02	31.10		1.00		NO			0.085	
3	3 1,2,3,4,7,8-HxCDD		7.42e5			10.02	34.50		1.00		NO			0.081	
4	4 1,2,3,6,7,8-HxCDD		8.70e5			10.02	34.60		1.00		NO			0.083	
5	5 1,2,3,7,8,9-HxCDD	6.91e2	7.92e5	1.172	NO	10.02	34.87	34.88	1.00	1.00	NO	0.18007		0.096	0.18007
6	6 1,2,3,4,6,7,8-HpCDD	4.12e3	6.78e5	1.083	NO	10.02	38.29	38.29	1.00	1.00	NO	1.2058		0.217	1.2058
7	7 OCDD	3.38e4	1.20e6	0.883	NO	10.02	41.35	41.36	1.00	1.00	NO	10.723		0.137	10.723
8	8 2,3,7,8-TCDF		1.75e6			10.02	24.80		1.00		NO			0.113	
9	9 1,2,3,7,8-PeCDF		1.37e6			10.02	29.74		1.00		NO			0.034	
10	10 2,3,4,7,8-PeCDF		1.31e6			10.02	30.79		1.00		NO			0.032	
11	11 1,2,3,4,7,8-HxCDF		1.02e6			10.02	33.64		1.00		NO			0.033	
12	12 1,2,3,6,7,8-HxCDF		1.10e6			10.02	33.77		1.00		NO			0.031	
13	13 2,3,4,6,7,8-HxCDF		1.03e6			10.02	34.37		1.00		NO			0.033	
14	14 1,2,3,7,8,9-HxCDF	3.42e2	9.08e5	1.624	YES	10.02	35.19	35.19	1.00	1.00	NO	0.073289		0.022	0.0625...
15	15 1,2,3,4,6,7,8-HpCDF		8.09e5			10.02	36.91		1.00		NO			0.118	
16	16 1,2,3,4,7,8,9-HpCDF		5.90e5			10.02	38.94		1.00		NO			0.139	
17	17 OCDF	5.39e2	1.50e6	0.757	NO	10.02	41.53	41.56	1.00	1.00	NO	0.15209		0.181	0.15209
18	18 13C-2,3,7,8-TCDD	1.30e6	1.19e6	0.783	NO	10.02	25.80	25.78	1.03	1.03	NO	184.32	92.3	0.254	
19	19 13C-1,2,3,7,8-PeCDD	9.07e5	1.19e6	0.638	NO	10.02	31.12	31.08	1.24	1.24	NO	175.82	88.1	0.283	
20	20 13C-1,2,3,4,7,8-HxCDD	7.42e5	1.20e6	1.347	NO	10.02	34.49	34.49	1.01	1.01	NO	164.23	82.3	0.305	
21	21 13C-1,2,3,6,7,8-HxCDD	8.70e5	1.20e6	1.242	NO	10.02	34.59	34.60	1.02	1.02	NO	156.91	78.6	0.248	
22	22 13C-1,2,3,7,8,9-HxCDD	7.92e5	1.20e6	1.255	NO	10.02	34.86	34.86	1.02	1.02	NO	159.34	79.8	0.277	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.78e5	1.20e6	1.016	NO	10.02	38.28	38.28	1.13	1.13	NO	189.01	94.7	0.377	
24	24 13C-OCDD	1.20e6	1.20e6	0.930	NO	10.02	41.34	41.35	1.22	1.22	NO	350.14	87.7	0.420	
25	25 13C-2,3,7,8-TCDF	1.75e6	1.89e6	0.786	NO	10.02	24.79	24.78	0.99	0.99	NO	170.22	85.2	0.341	
26	26 13C-1,2,3,7,8-PeCDF	1.37e6	1.89e6	1.581	NO	10.02	29.76	29.72	1.19	1.19	NO	165.22	82.7	0.271	
27	27 13C-2,3,4,7,8-PeCDF	1.31e6	1.89e6	1.581	NO	10.02	30.74	30.76	1.23	1.23	NO	164.86	82.6	0.282	
28	28 13C-1,2,3,4,7,8-HxCDF	1.02e6	1.20e6	0.516	NO	10.02	33.64	33.64	0.99	0.99	NO	169.90	85.1	0.329	
29	29 13C-1,2,3,6,7,8-HxCDF	1.10e6	1.20e6	0.522	NO	10.02	33.76	33.76	0.99	0.99	NO	164.36	82.3	0.294	
30	30 13C-2,3,4,6,7,8-HxCDF	1.03e6	1.20e6	0.518	NO	10.02	34.32	34.33	1.01	1.01	NO	166.44	83.4	0.318	
31	31 13C-1,2,3,7,8,9-HxCDF	9.08e5	1.20e6	0.515	NO	10.02	35.19	35.19	1.03	1.03	NO	173.57	86.9	0.377	
32	32 13C-1,2,3,4,6,7,8-HpCDF	8.09e5	1.20e6	0.450	NO	10.02	36.89	36.88	1.08	1.08	NO	175.00	87.6	0.395	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-5.qld

Last Altered: Thursday, March 26, 2020 13:27:09 Pacific Daylight Time

Printed: Thursday, March 26, 2020 13:28:32 Pacific Daylight Time

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
33	13C-1,2,3,4,7,8,9-HpCDF	5.90e5	1.20e6	0.443	NO	10.02	38.93	38.94	1.14	1.14	NO	189.47	94.9	0.587	
34	13C-OCDF	1.50e6	1.20e6	0.886	NO	10.02	41.53	41.53	1.22	1.22	NO	358.28	89.7	0.460	
35	37Cl-2,3,7,8-TCDD	5.10e5	1.19e6			10.02	25.83	25.81	1.03	1.03	NO	72.755	91.1	0.071	
36	13C-1,2,3,4-TCDD	1.19e6	1.19e6	0.807	NO	10.02	25.03	25.06	1.00	1.00	NO	199.67	100.0	0.301	
37	13C-1,2,3,4-TCDF	1.89e6	1.89e6	0.795	NO	10.02	23.09	23.12	1.00	1.00	NO	199.67	100.0	0.371	
38	13C-1,2,3,4,6,9-HxCDF	1.20e6	1.20e6	0.519	NO	10.02	34.02	34.02	1.00	1.00	NO	199.67	100.0	0.329	
39	Total Tetra-Dioxins		1.30e6			10.02	24.62		0.00		NO	0.28622		0.095	0.28622
40	Total Penta-Dioxins		9.07e5			10.02	29.96		0.00		NO	0.00000		0.028	0.18843
41	Total Hexa-Dioxins		0.00e0			10.02	33.63		0.00		NO	1.1466		0.090	1.4442
42	Total Hepta-Dioxins		6.78e5			10.02	37.64		0.00		NO	3.3838		0.217	3.3838
43	Total Tetra-Furans		1.75e6			10.02	23.61		0.00		NO			0.056	
44	1st Func. Penta-Furans		0.00e0			10.02	27.09		0.00		NO			0.017	
45	Total Penta-Furans		0.00e0			10.02	29.27		0.00		NO			0.014	
46	Total Hexa-Furans		0.00e0			10.02	33.56		0.00		NO	0.00000		0.017	0.0625...
47	Total Hepta-Furans		0.00e0			10.02	37.83		0.00		NO			0.048	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-5.qld

Last Altered: Thursday, March 26, 2020 13:27:09 Pacific Daylight Time  
 Printed: Thursday, March 26, 2020 13:28:32 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15  
 Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54

**Tetra-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	39 Total Tetra-Dioxins	23.33	0.873	NO	8.56e2	5.72e5	0.286	0.286

**Penta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	40 Total Penta-Dioxins	28.76	0.740	YES	2.08e2	3.53e5	0.000	0.109
2	40 Total Penta-Dioxins	29.26	0.297	YES	1.28e2	3.53e5	0.000	0.0790

**Hexa-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	41 Total Hexa-Dioxins	33.03	1.364	NO	2.20e3	4.50e5	0.967	0.967
2	5 1,2,3,7,8,9-HxCDD	34.88	1.172	NO	3.73e2	4.41e5	0.180	0.180
3	41 Total Hexa-Dioxins	33.85	0.905	YES	6.51e2	4.50e5	0.000	0.298

**Hepta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	38.29	1.083	NO	2.14e3	3.42e5	1.21	1.21
2	42 Total Hepta-Dioxins	37.28	0.936	NO	3.60e3	3.42e5	2.18	2.18

**Tetra-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Penta-Furans function 1**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-5.qld

Last Altered: Thursday, March 26, 2020 13:27:09 Pacific Daylight Time

Printed: Thursday, March 26, 2020 13:28:32 Pacific Daylight Time

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54

**Penta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Hexa-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	14 1,2,3,7,8,9-HxCDF	35.19	1.624	YES	2.12e2	3.09e5	0.000	0.0626

**Hepta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

Dataset: Untitled

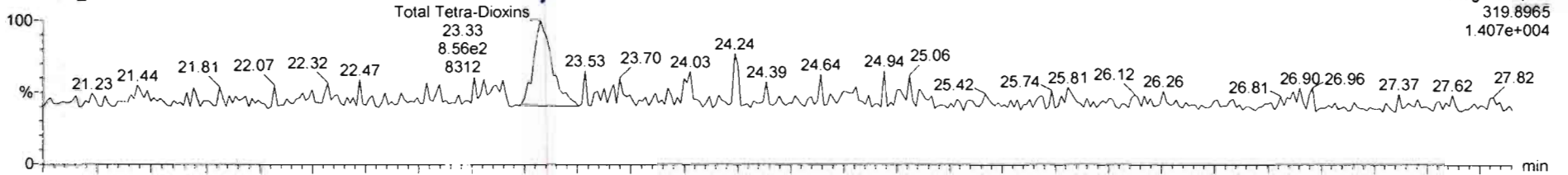
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

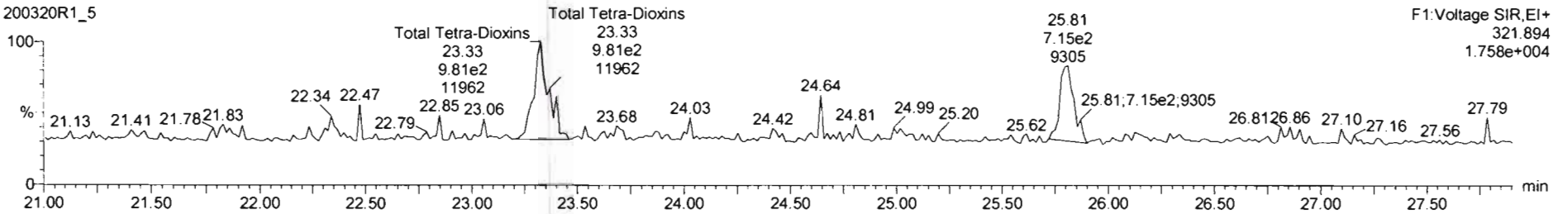
Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

2,3,7,8-TCDD

200320R1\_5

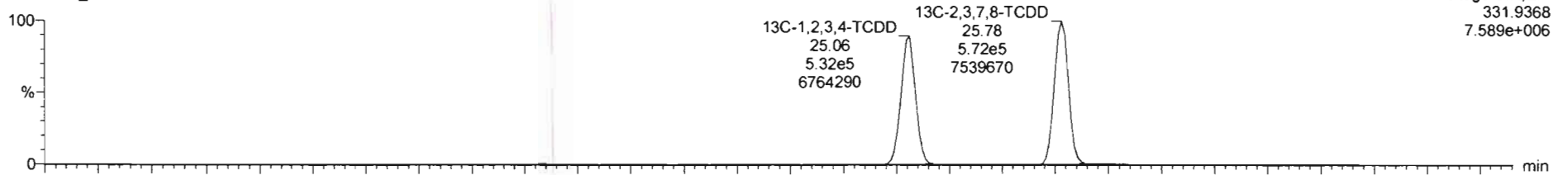


200320R1\_5

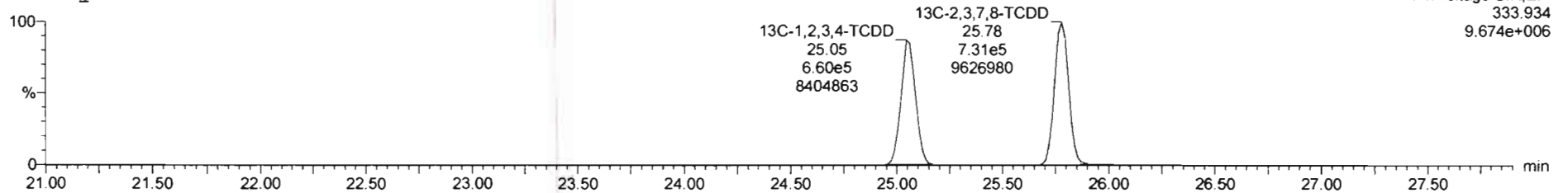


13C-2,3,7,8-TCDD

200320R1\_5



200320R1\_5

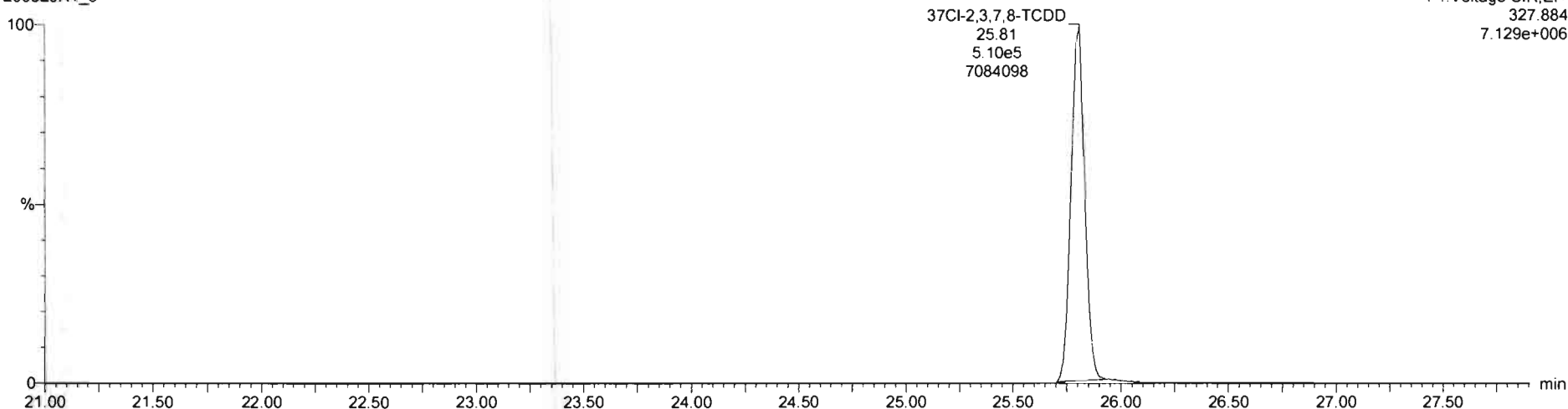


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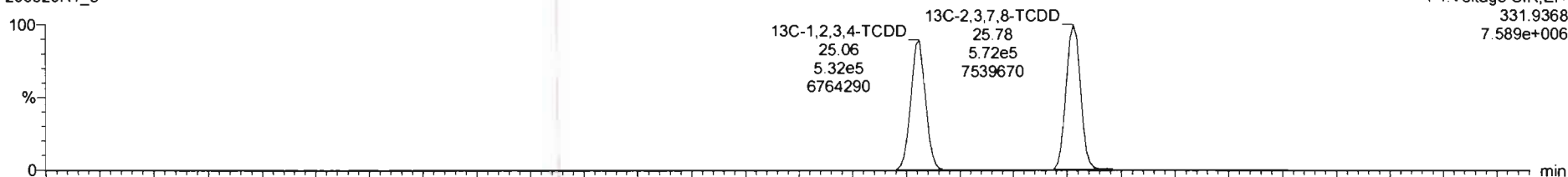
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

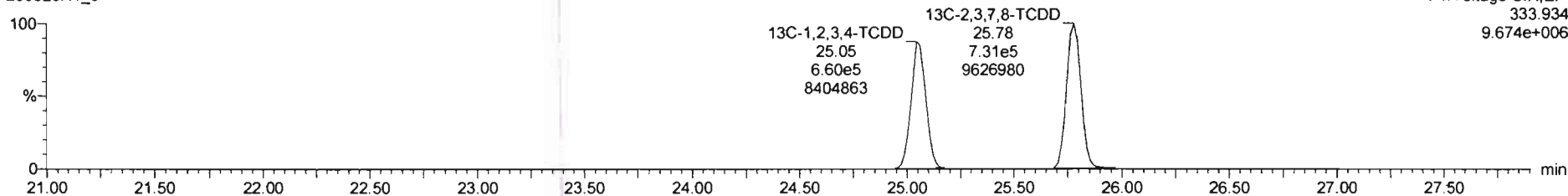
37Cl-2,3,7,8-TCDD  
200320R1\_5



13C-1,2,3,4-TCDD  
200320R1\_5



200320R1\_5



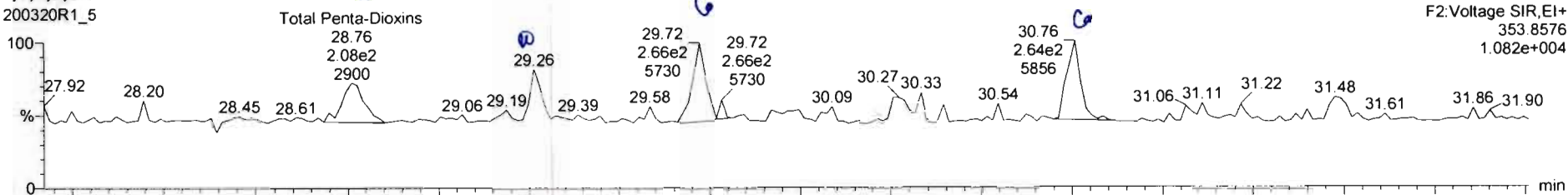
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

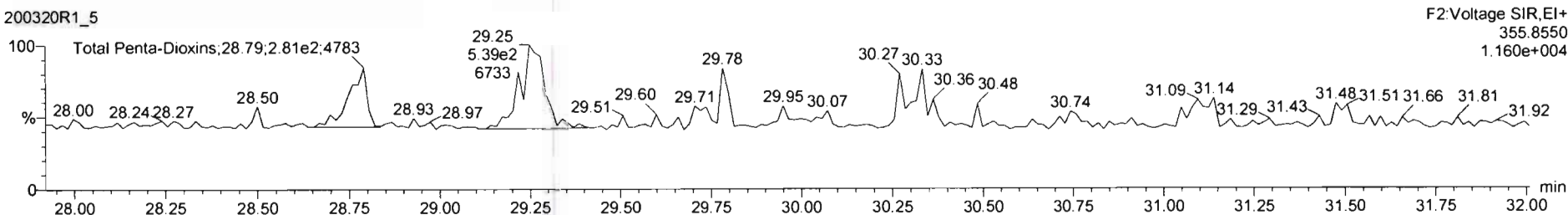
Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

1,2,3,7,8-PeCDD

200320R1\_5

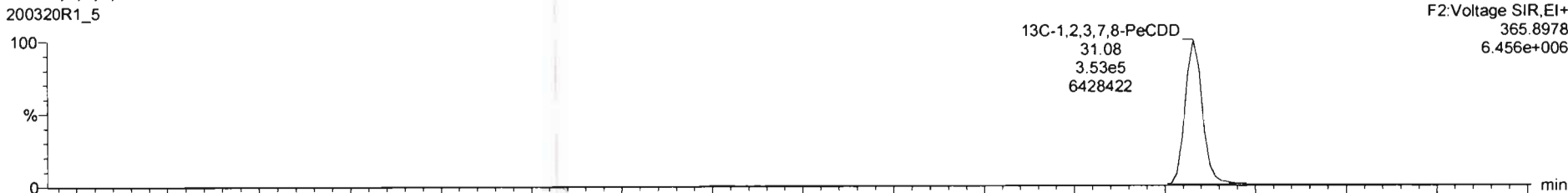


200320R1\_5

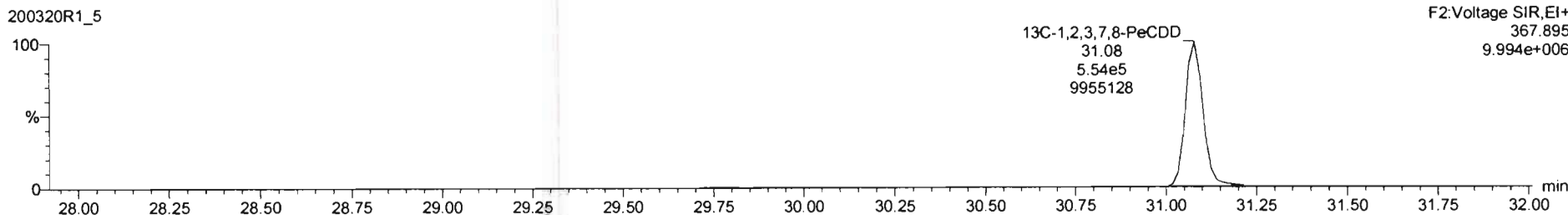


13C-1,2,3,7,8-PeCDD

200320R1\_5

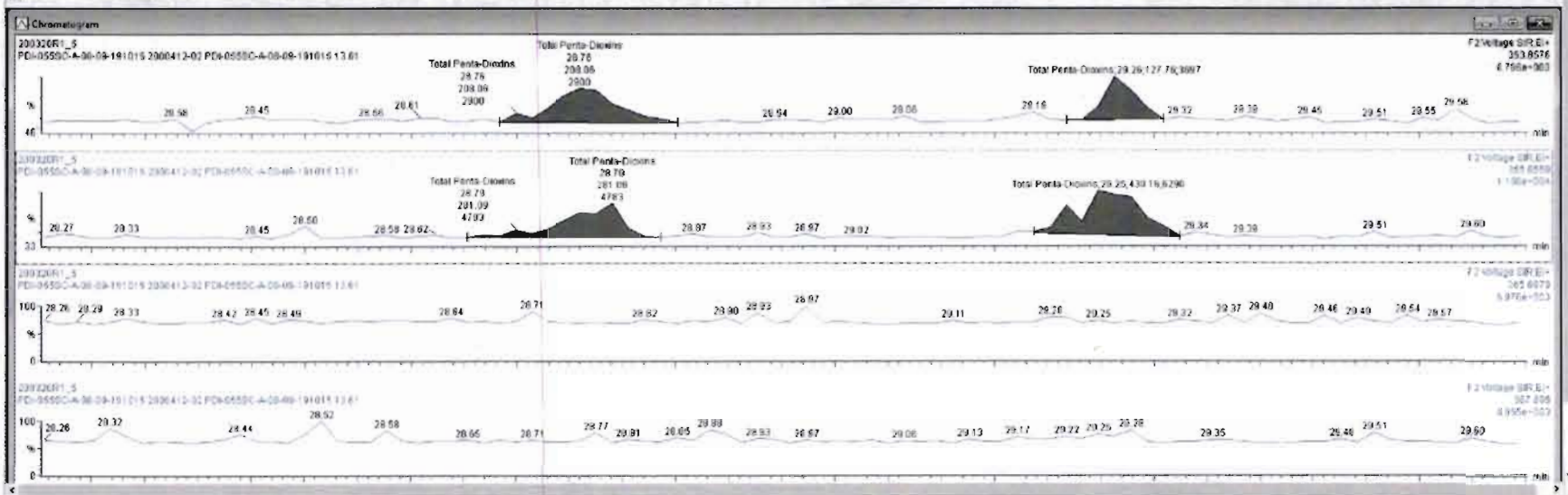


200320R1\_5



#	Name	Req	RA	rv	RF	sdms	RT	MT	Carb	sdms	DL	EMPC
25	TSC1,2,3,4-TCDF	1.13e0	0.81	NO	1.00	10.007	26.06	1.000	200	100	0.001	
27	TSC1,2,3,4-TCDF	1.89e0	0.80	NO	1.00	10.007	27.12	1.000	200	100	0.011	
28	TSC1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100	1.20e0	0.62	NO	1.00	10.007	24.02	1.000	200	100	0.028	
29	Total Penta-Chlorins								0.269		0.0650	0.280
30	Total Penta-Chlorins								0.000		0.0026	0.180

#	Name	RT	mt Resp	nt2 Peak	1st Peak IP	RA	rv	EMPC	Conc.
1	Total Penta-Chlorins	28.76	2.081e2	2.811e2	0.630	0.74	YES	0.19048	0.00000
2	Total Penta-Chlorins	29.26	1.278e2	4.302e2	0.630	0.30	YES	0.07898	0.00000



Dataset: Untitled

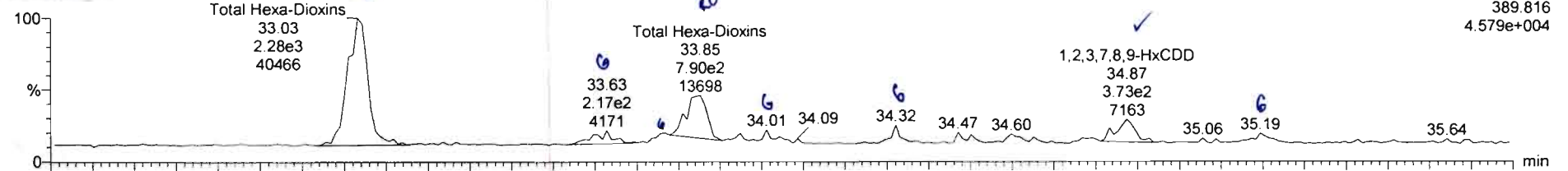
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

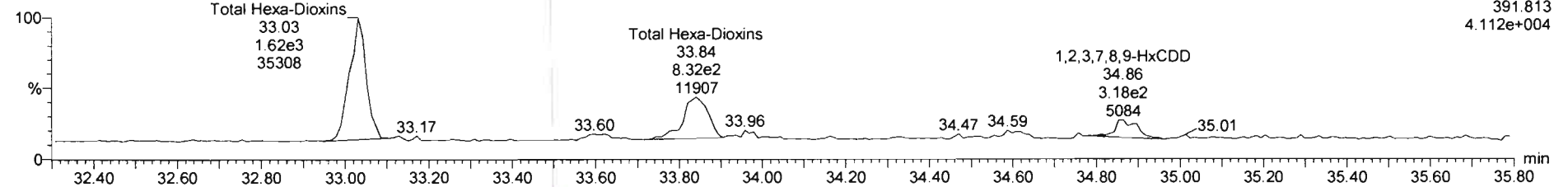
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1,2,3,4,7,8-HxCDD

200320R1\_5

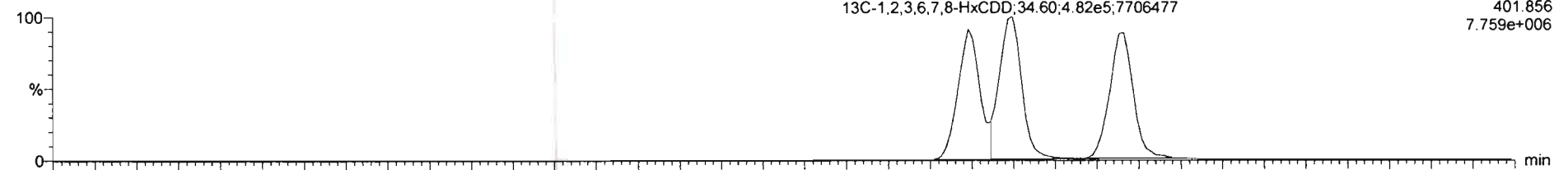


200320R1\_5

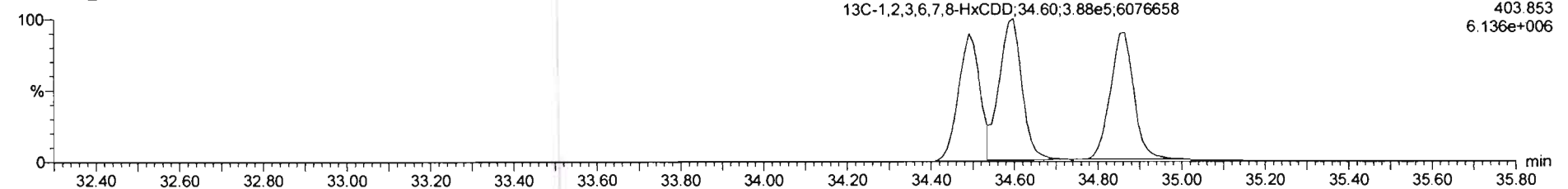


13C-1,2,3,4,7,8-HxCDD

200320R1\_5



200320R1\_5



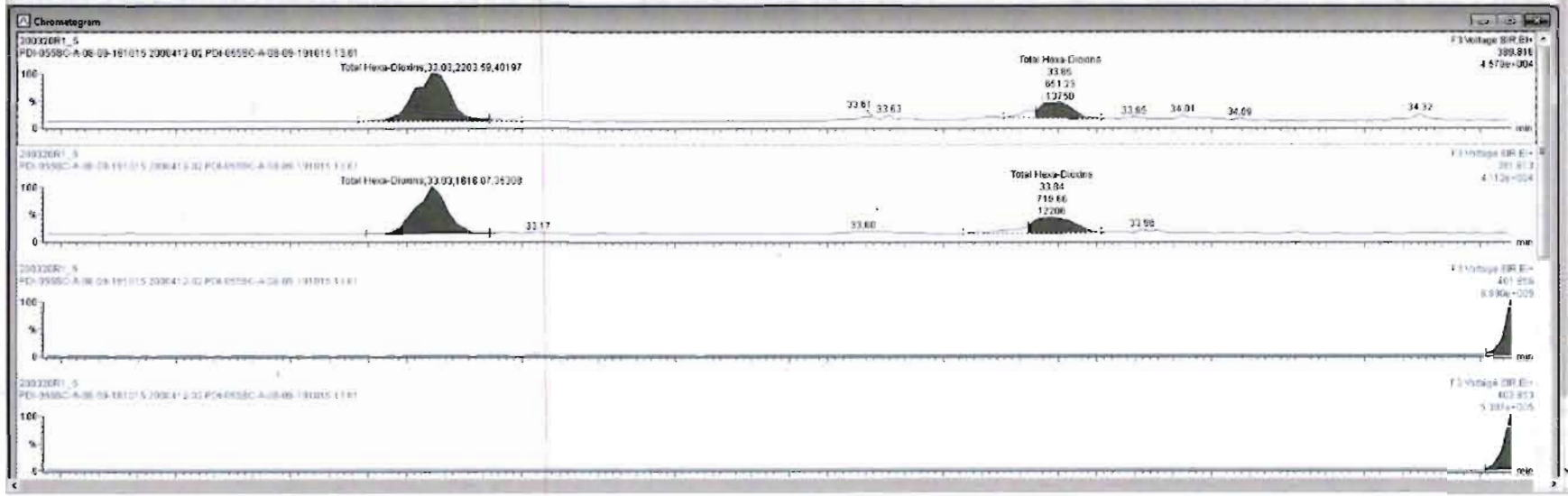
HRMS Windows 7 Desktop - hrms5 - Remote Desktop Connection

TargetLynx V5 - 20022001-5.qtd\*

File Edit View Display Processing Window Help

#1	Name	Resp	RA	RV	QSP	WAdj	RT	RRT	Conc	%Rec	DL	EMW
41	Total Hexa-Chlorine				0.89	10.017			1.15		0.0000	1.44
42	Total Hepta-Chlorine				1.01	10.017			3.30		0.217	3.30
43	Total Tetra-Furans				0.92	10.017					0.0562	
44	1st Func. Penta-Furans				0.99	10.017					0.0190	
45	Total Penta-Furans				0.99	10.017					0.0190	

#1	Name	RT	ret. Ratio	std. Error	1% Risk ID	Rel. RV	RV	FWSC	Conc
1	Total Hexa-Chlorine	33.03	2.304e3	1.819e3	1.240	1.36	NO	0.00850	0.00000
2	Total Hexa-Chlorine	33.85	0.512e2	7.187e2	1.240	0.90	YES	0.29787	0.00000
3	1,2,3,7,8-PeCDD	34.89	3.729e2	3.102e2	1.240	1.17	NO	0.10007	0.10007



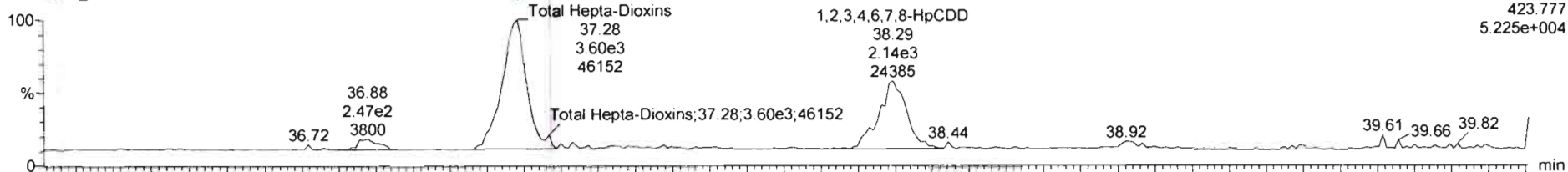
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

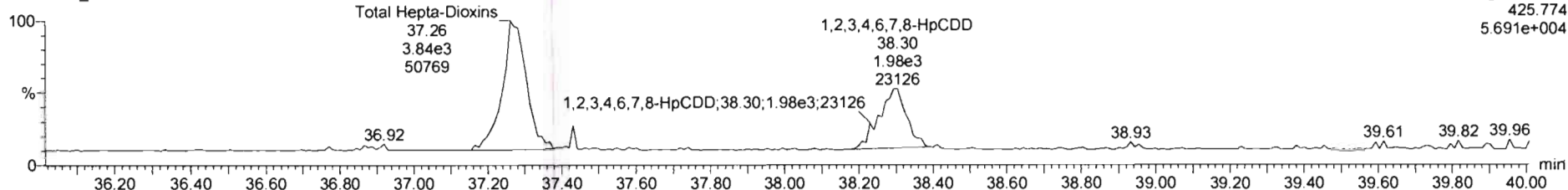
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1,2,3,4,6,7,8-HpCDD

200320R1\_5

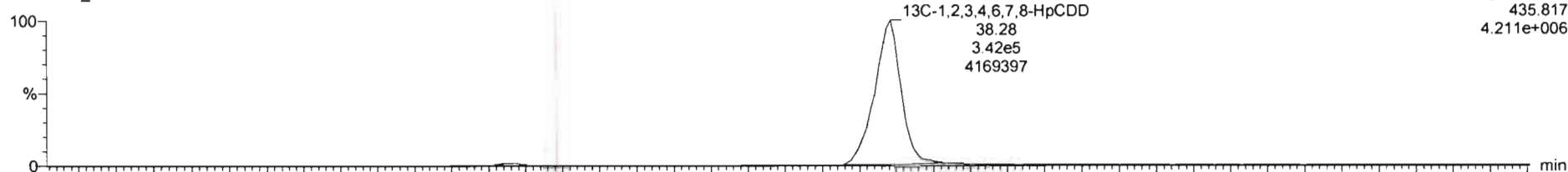


200320R1\_5

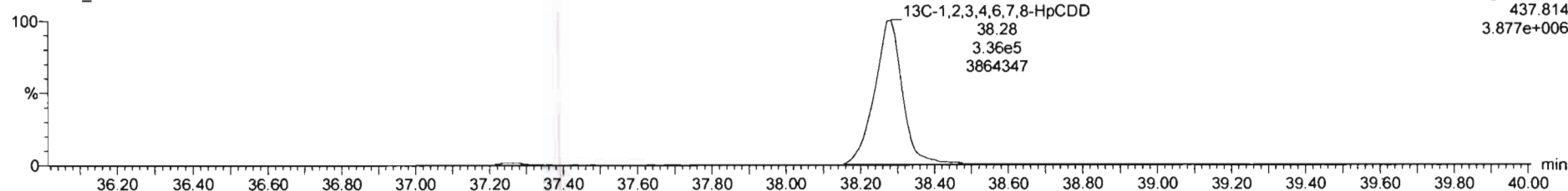


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_5



200320R1\_5



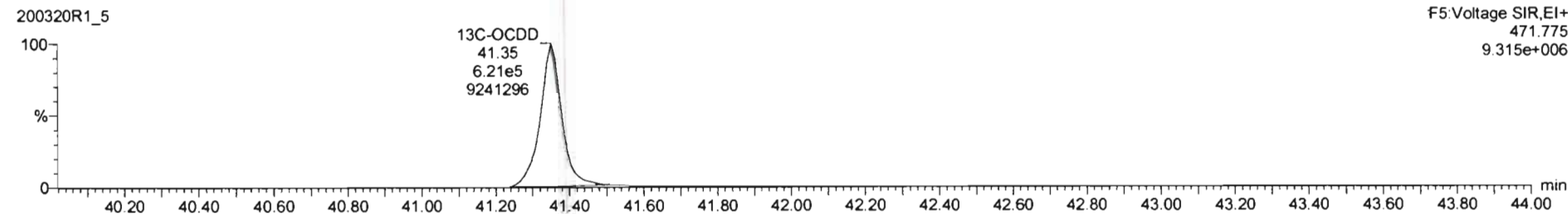
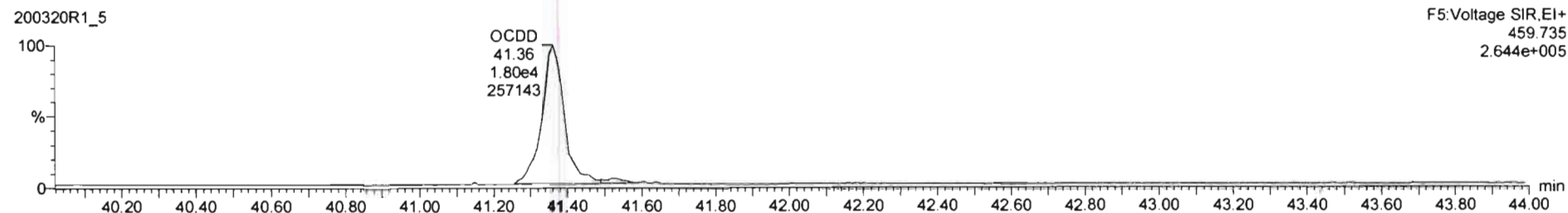
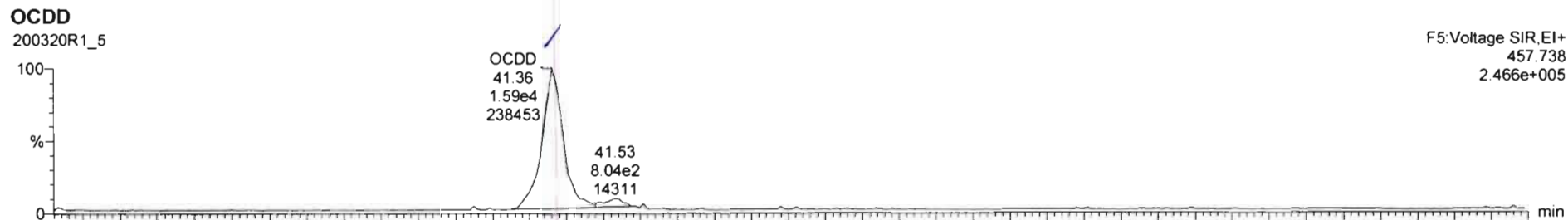


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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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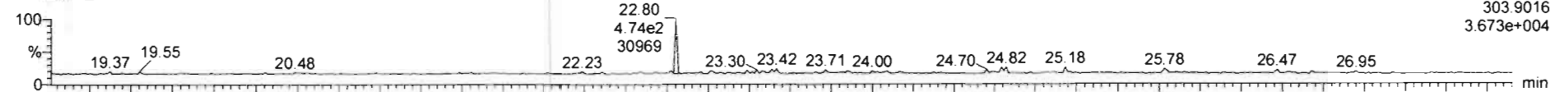
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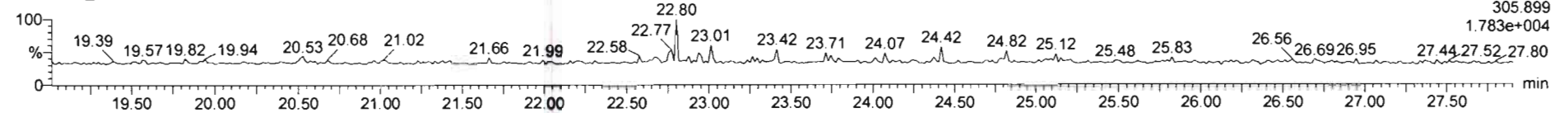
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**2,3,7,8-TCDF**

200320R1\_5

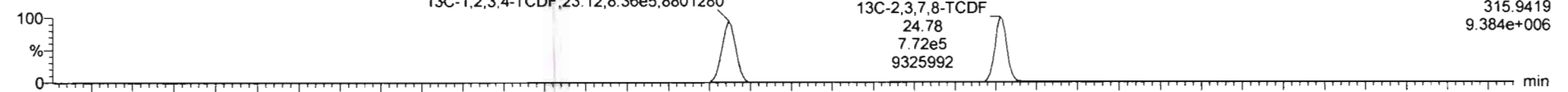


200320R1\_5

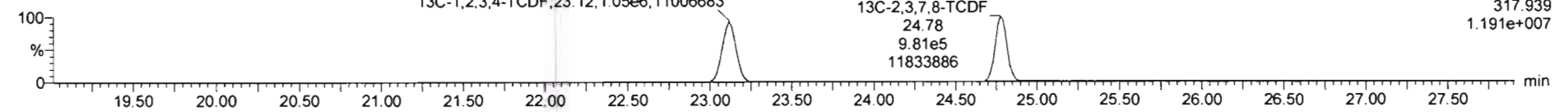


**13C-2,3,7,8-TCDF**

200320R1\_5

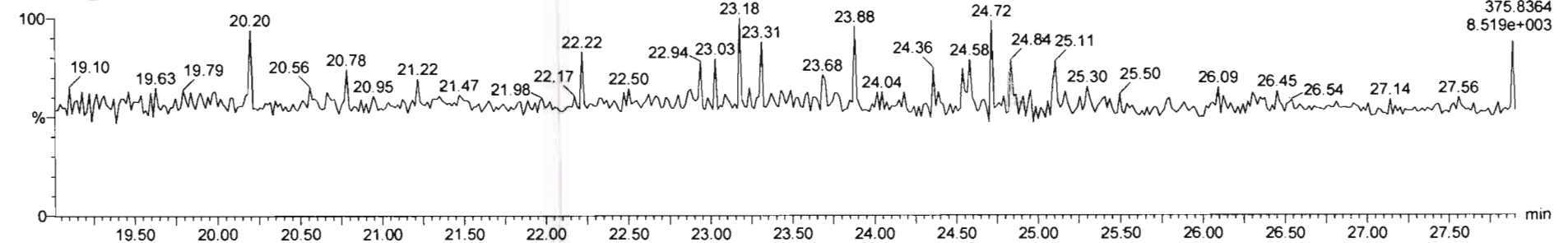


200320R1\_5



**DPE1**

200320R1\_5



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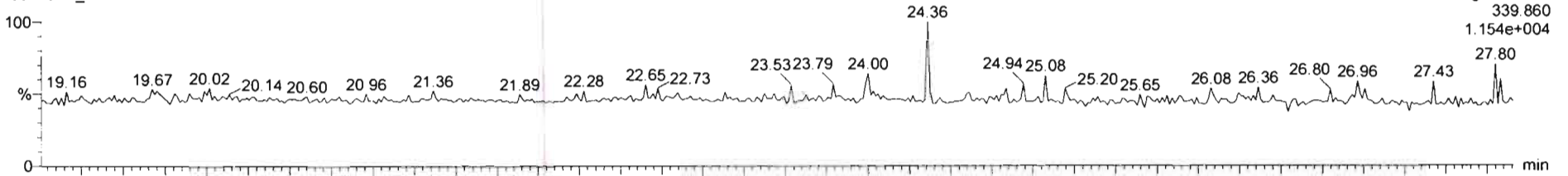
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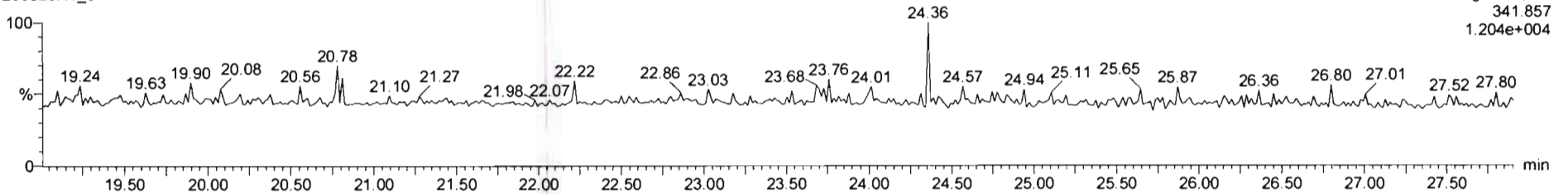
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1st Func. Penta-Furans

200320R1\_5

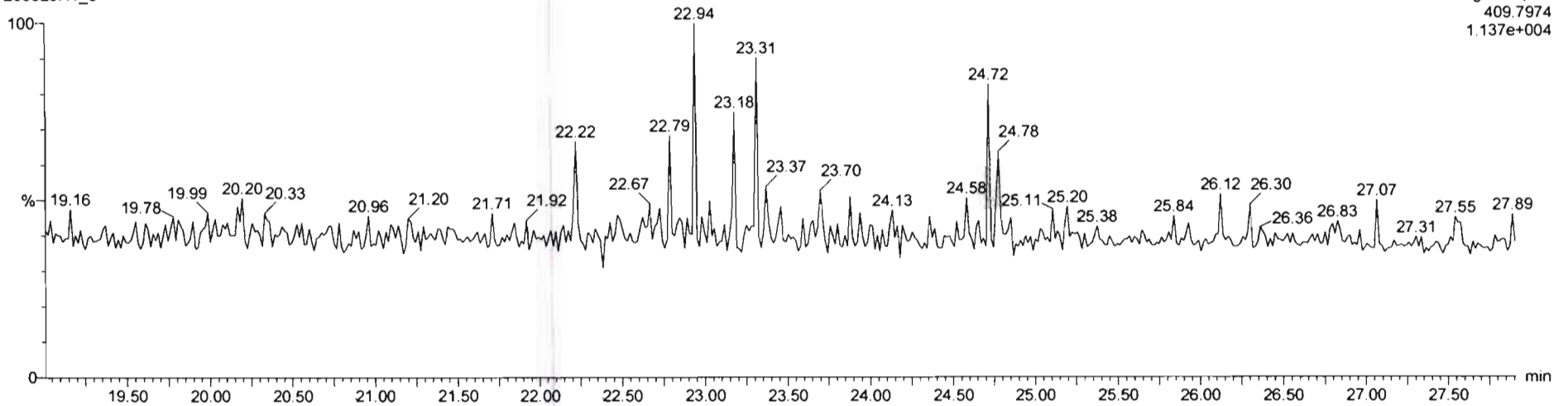


200320R1\_5



DPE6

200320R1\_5

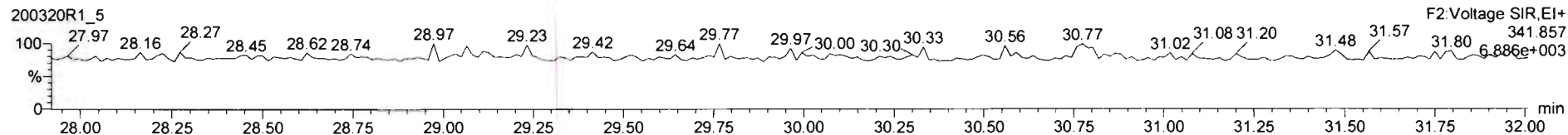
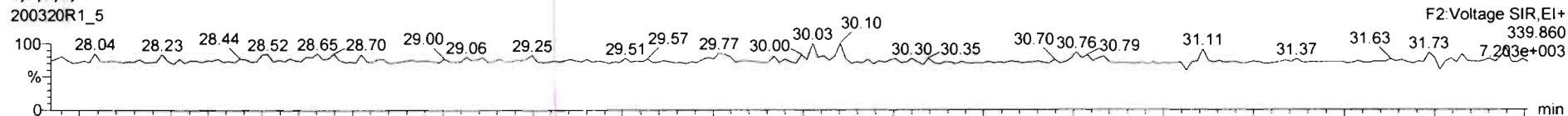


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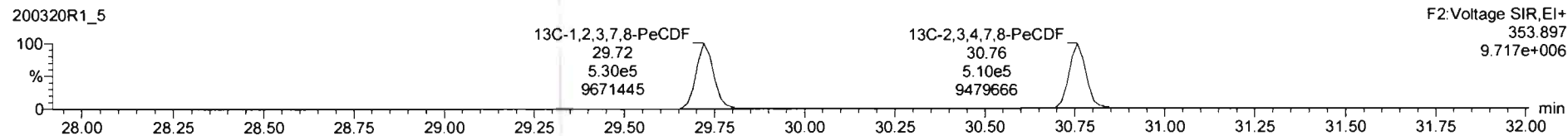
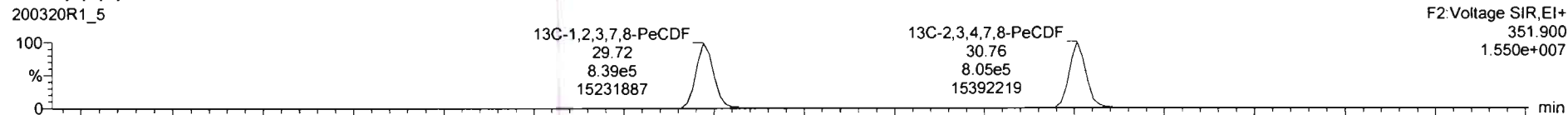
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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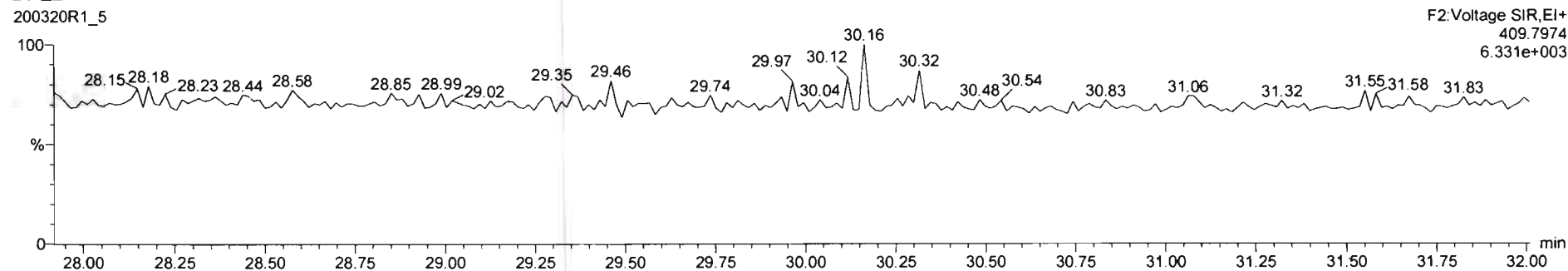
**1,2,3,7,8-PeCDF**



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



**DPE2**



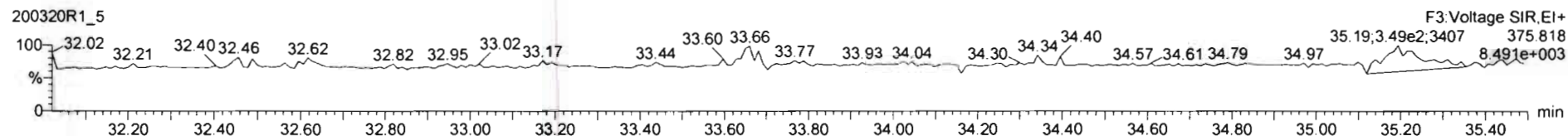
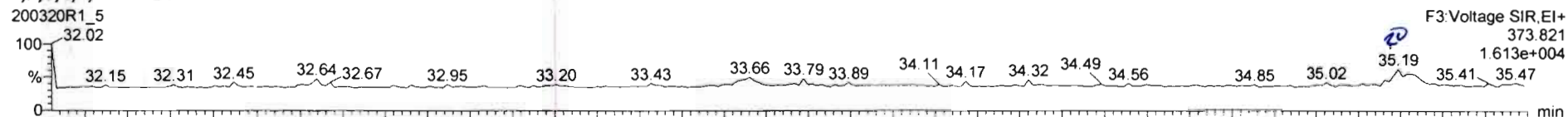
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

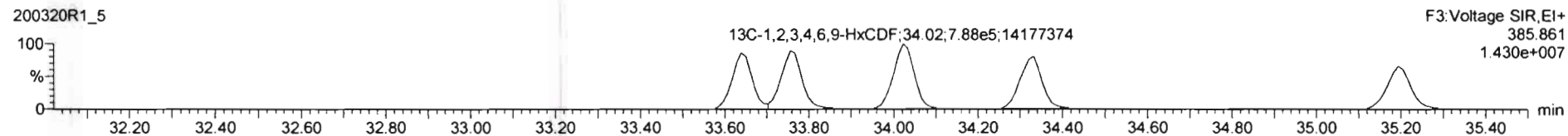
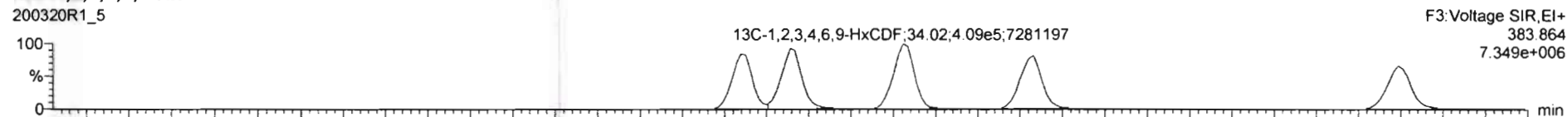
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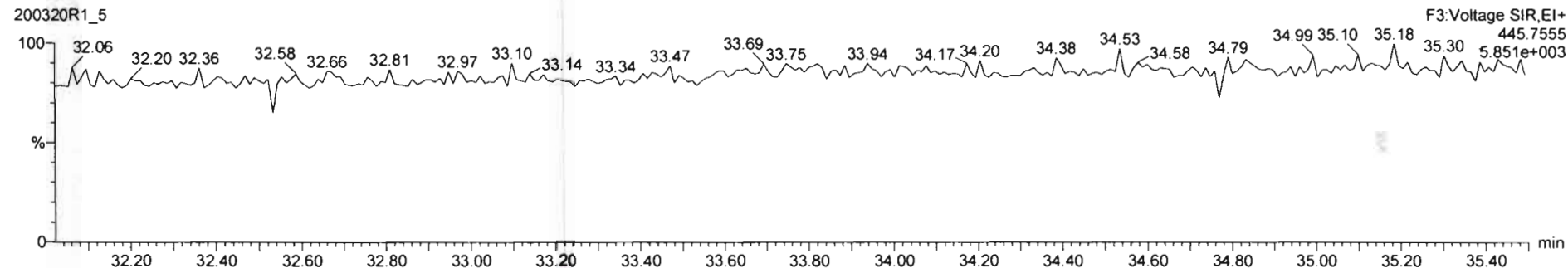
**1,2,3,4,7,8-HxCDF**



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

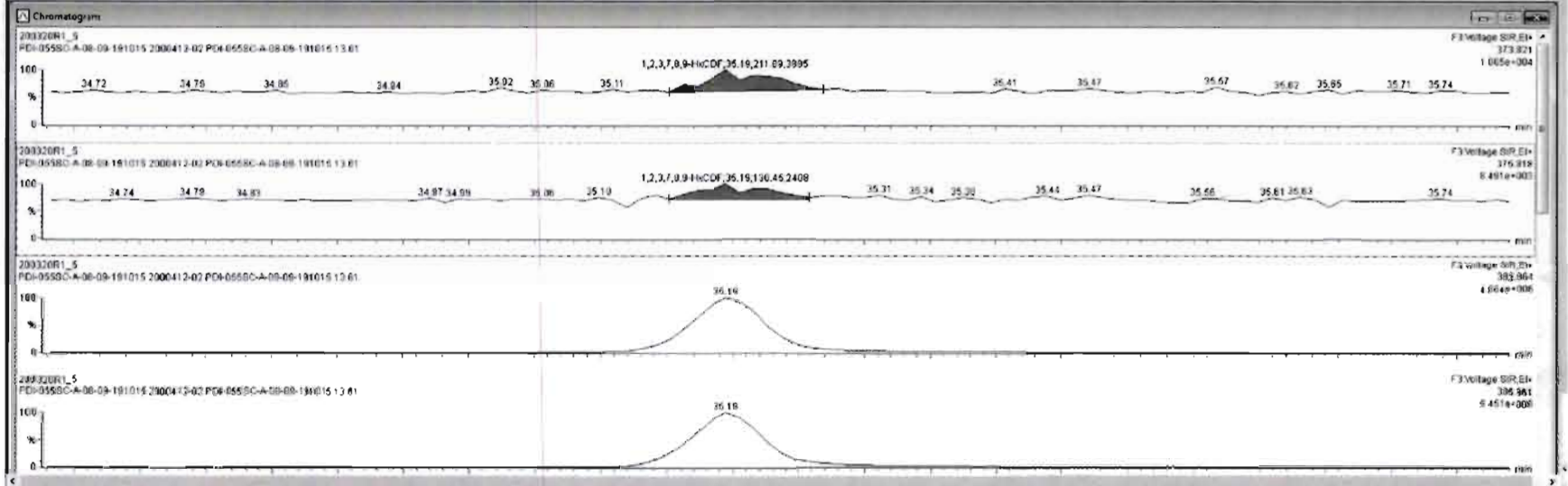


**DPE3**



#	Name	Resp	RA	rvy	RRF	setM	RT	RRF	Conc	%Res	TA	EMPC
43	Total Tetra-Furans				0.02	10.017					0.0450	
44	Total Penta-Furans				0.06	10.017					0.0936	
45	Total Hexa-Furans				0.08	10.017					0.0936	
46	Total Hepta-Furans				1.00	10.017			0.003		0.0071	0.0008
47	Total Octa-Furans				1.05	10.017					0.0450	

#	Name	RT	m1 Resp	m2 Pres	1 <sup>st</sup> Ratio P	RA	rvy	EMPC	Conc
1	1,2,3,7,8,9-tCDF	35.19	2119e2	1.305e2	1.240	1.62	YES	0.052590	0.00000



Dataset: Untitled

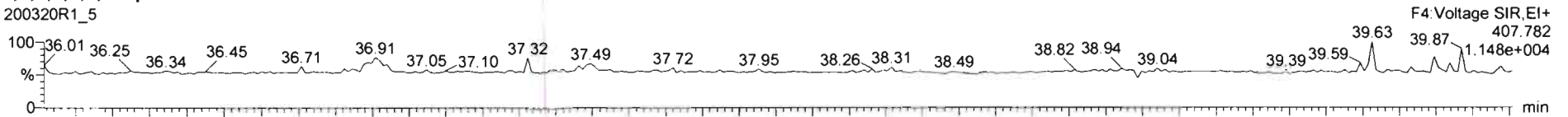
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

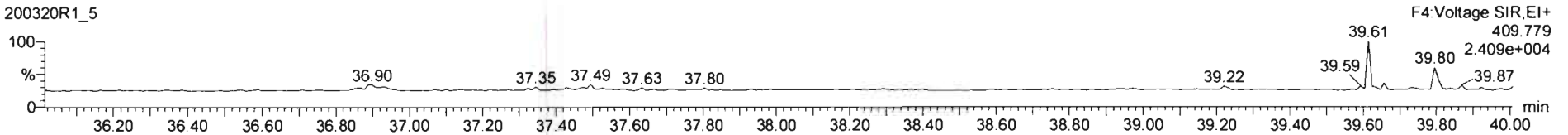
Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

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

200320R1\_5

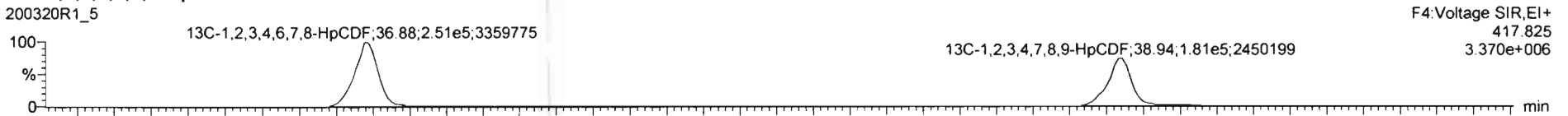


200320R1\_5

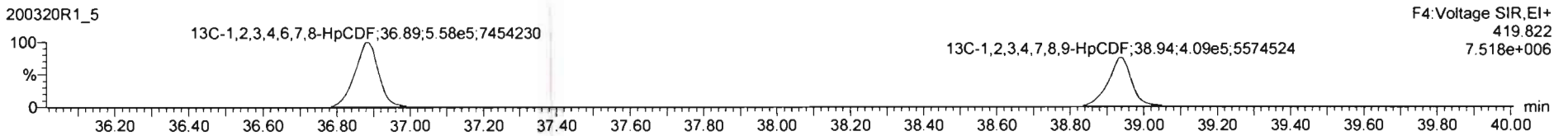


13C-1,2,3,4,6,7,8-HpCDF

200320R1\_5

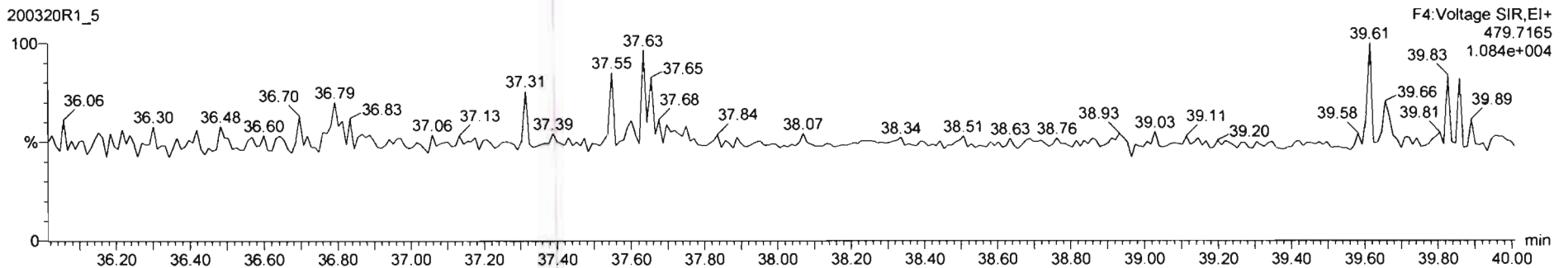


200320R1\_5



DPE4

200320R1\_5

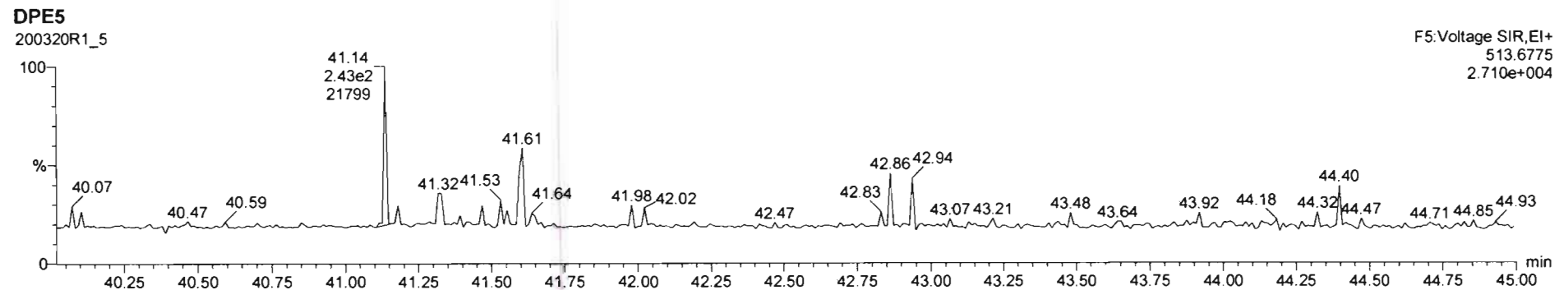
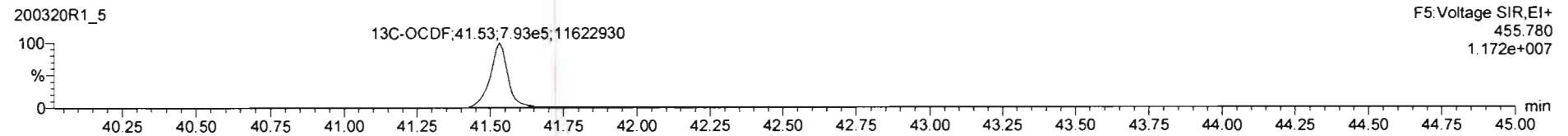
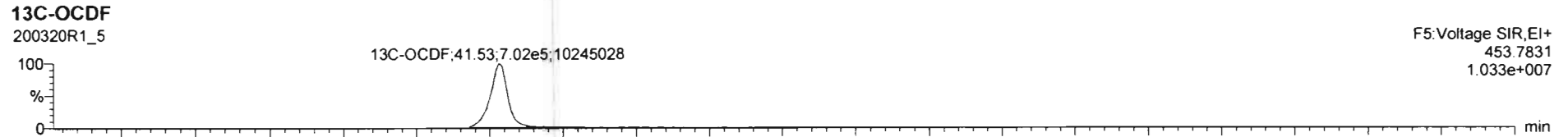
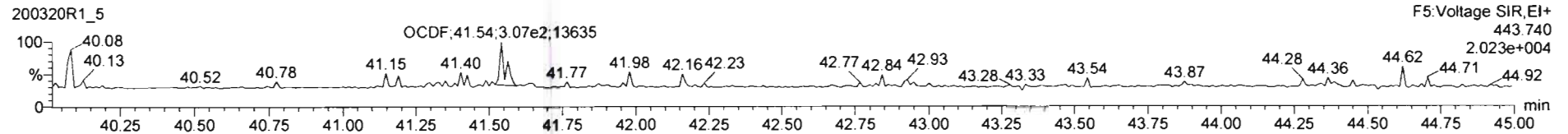
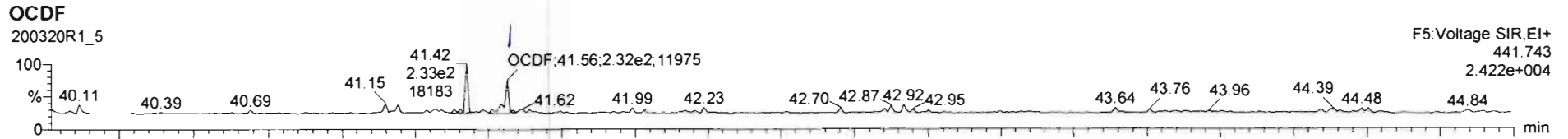


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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_5, Date: 20-Mar-2020, Time: 17:01:54, ID: 2000412-02 PDI-055SC-A-08-09-191015 13.61, Description: PDI-055SC-A-08-09-191015

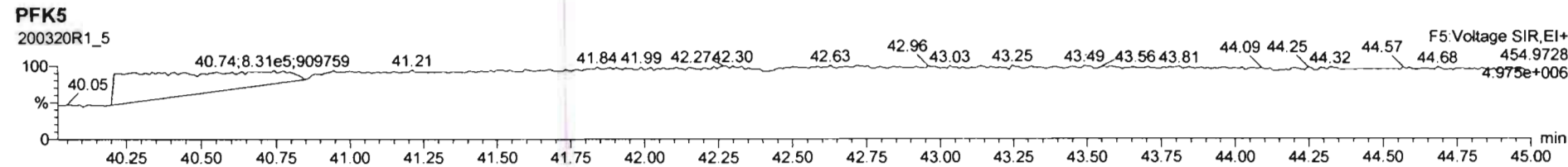
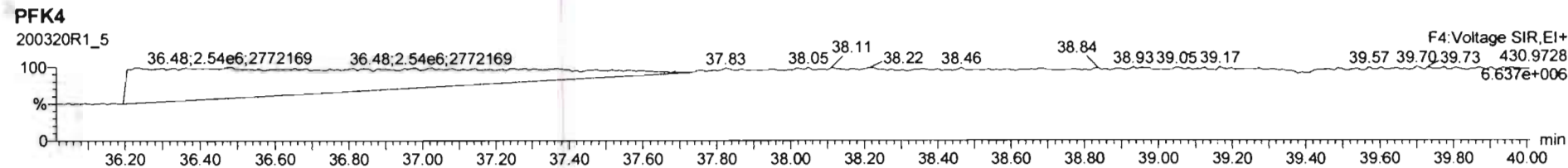
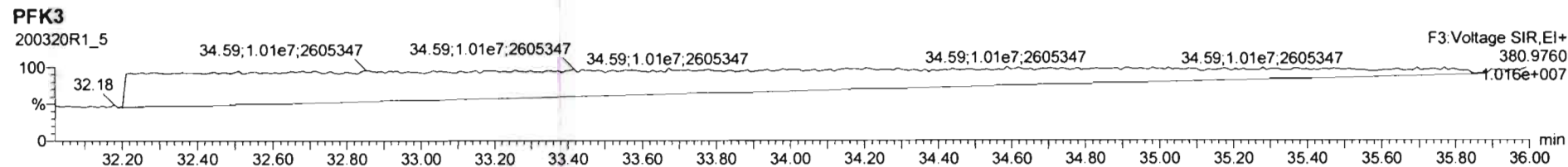
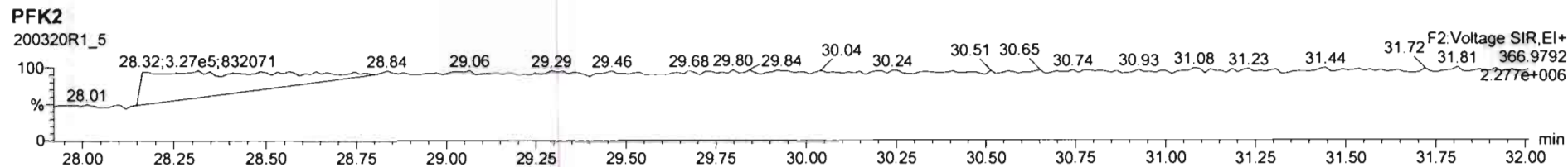
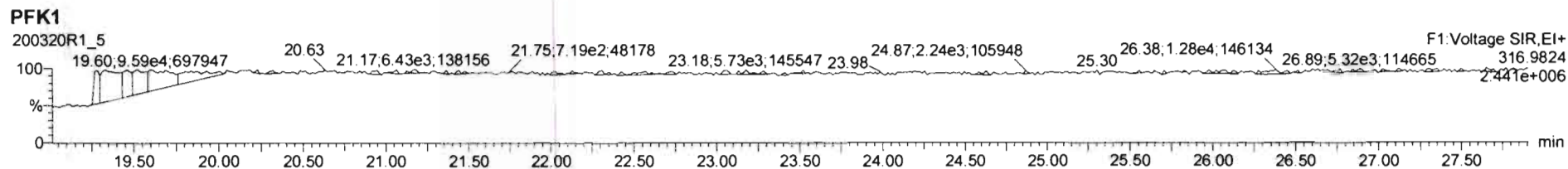




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Dataset: U:\VG12.PRO\Results\200320R1\200320R1-6.qld

Last Altered: Thursday, March 26, 2020 14:11:29 Pacific Daylight Time

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GRB 03/26/2020

C7 04/02/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

#	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	0.983	10.016	25.811		1.001				0.0736	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.016	31.086		1.001				0.0785	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.016	34.491		1.000				0.0691	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.016	34.587		1.000				0.0703	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.016	34.863		1.000				0.0807	
6	6 1,2,3,4,6,7,8-HpCDD	3.44e3	0.96	NO	1.01	10.016	38.294	38.29	1.000	1.000	1.1243		0.139	1.12
7	7 OCDD	2.66e4	0.87	NO	1.05	10.016	41.340	41.35	1.000	1.000	9.6189		0.0799	9.62
8	8 2,3,7,8-TCDF			NO	0.915	10.016	24.802		1.001				0.0493	
9	9 1,2,3,7,8-PeCDF	4.51e2	1.39	NO	0.959	10.016	29.742	29.72	1.001	1.000	0.074129		0.0259	0.0741
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.016	30.789		1.001				0.0492	
11	11 1,2,3,4,7,8-HxCDF	4.76e2	1.36	NO	1.04	10.016	33.629	33.64	1.000	1.000	0.097921		0.0453	0.0979
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.016	33.756		1.000				0.0440	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.016	34.355		1.001				0.0460	
14	14 1,2,3,7,8,9-HxCDF	1.81e2	2.27	YES	1.03	10.016	35.184	35.19	1.000	1.000	0.042041		0.0606	0.0288
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.016	36.925		1.001				0.0635	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.016	38.933		1.000				0.0750	
17	17 OCDF	5.94e2	1.07	YES	0.947	10.016	41.521	41.52	1.000	1.000	0.18886		0.0529	0.172
18	18 13C-2,3,7,8-TCDD	1.10e6	0.79	NO	1.18	10.016	25.788	25.78	1.030	1.029	180.28	90.3	0.241	
19	19 13C-1,2,3,7,8-PeCDD	8.40e5	0.65	NO	0.864	10.016	31.101	31.06	1.242	1.240	188.75	94.5	0.243	
20	20 13C-1,2,3,4,7,8-HxCDD	7.11e5	1.28	NO	0.754	10.016	34.481	34.48	1.014	1.014	173.23	86.8	0.330	
21	21 13C-1,2,3,6,7,8-HxCDD	8.06e5	1.28	NO	0.925	10.016	34.583	34.59	1.017	1.017	159.97	80.1	0.269	
22	22 13C-1,2,3,7,8,9-HxCDD	7.39e5	1.25	NO	0.829	10.016	34.852	34.85	1.025	1.025	163.64	82.0	0.300	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.08e5	1.05	NO	0.598	10.016	38.270	38.28	1.125	1.126	186.60	93.5	0.435	
24	24 13C-OCDD	1.05e6	0.87	NO	0.571	10.016	41.331	41.34	1.215	1.215	337.72	84.6	0.376	
25	25 13C-2,3,7,8-TCDF	1.53e6	0.78	NO	1.09	10.016	24.776	24.78	0.989	0.989	174.76	87.5	0.385	
26	26 13C-1,2,3,7,8-PeCDF	1.27e6	1.59	NO	0.876	10.016	29.741	29.72	1.187	1.187	180.16	90.2	0.451	
27	27 13C-2,3,4,7,8-PeCDF	1.23e6	1.61	NO	0.844	10.016	30.720	30.76	1.227	1.228	181.88	91.1	0.468	
28	28 13C-1,2,3,4,7,8-HxCDF	9.36e5	0.52	NO	1.00	10.016	33.631	33.63	0.989	0.989	171.78	86.0	0.371	
29	29 13C-1,2,3,6,7,8-HxCDF	1.03e6	0.52	NO	1.12	10.016	33.754	33.75	0.992	0.992	169.75	85.0	0.332	
30	30 13C-2,3,4,6,7,8-HxCDF	9.64e5	0.53	NO	1.04	10.016	34.311	34.32	1.009	1.009	171.02	85.7	0.359	
31	31 13C-1,2,3,7,8,9-HxCDF	8.36e5	0.51	NO	0.873	10.016	35.182	35.18	1.034	1.034	175.77	88.0	0.425	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-6.qld

Last Altered: Thursday, March 26, 2020 14:11:29 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:13:52 Pacific Daylight Time

Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

#	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	7.17e5	0.45	NO	0.771	10.016	36.883	36.89	1.084	1.085	170.95	85.6	0.354	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.30e5	0.45	NO	0.519	10.016	38.920	38.93	1.144	1.145	187.50	93.9	0.525	
34	34 13C-OCDF	1.33e6	0.89	NO	0.696	10.016	41.512	41.52	1.220	1.221	350.03	87.7	0.355	
35	35 37Cl-2,3,7,8-TCDD	4.47e5			1.17	10.016	25.818	25.80	1.031	1.030	73.888	92.5	0.0607	
36	36 13C-1,2,3,4-TCDD	1.03e6	0.80	NO	1.00	10.016	25.030	25.05	1.000	1.000	199.67	100	0.285	
37	37 13C-1,2,3,4-TCDF	1.60e6	0.81	NO	1.00	10.016	23.090	23.12	1.000	1.000	199.67	100	0.420	
38	38 13C-1,2,3,4,6,9-HxCDF	1.09e6	0.52	NO	1.00	10.016	34.020	34.01	1.000	1.000	199.67	100	0.371	
39	39 Total Tetra-Dioxins				0.983	10.016	24.620		0.000		0.20715		0.0736	0.207
40	40 Total Penta-Dioxins				0.921	10.016	29.960		0.000		0.00000		0.0312	0.166
41	41 Total Hexa-Dioxins				0.984	10.016	33.635		0.000		1.1529		0.0761	1.15
42	42 Total Hepta-Dioxins				1.01	10.016	37.640		0.000		2.8685		0.139	2.87
43	43 Total Tetra-Furans				0.915	10.016	23.610		0.000				0.0222	
44	44 1st Func. Penta-Furans				0.959	10.016	27.090		0.000				0.0116	
45	45 Total Penta-Furans				0.959	10.016	29.275		0.000		0.074129		0.0266	0.0741
46	46 Total Hexa-Furans				1.09	10.016	33.555		0.000		0.097921		0.0463	0.150
47	47 Total Hepta-Furans				1.05	10.016	37.835		0.000				0.0384	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-6.qld

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Printed: Thursday, March 26, 2020 14:13:52 Pacific Daylight Time

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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.34	6.692e3	7.873e3	4.776e2	6.444e2	0.74	NO	1.122e3	0.20715	0.20715	0.0736

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.26	5.018e3	7.931e3	2.493e2	4.881e2	0.51	YES	0.000e0	0.00000	0.16634	0.0785

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.03	3.036e4	2.691e4	1.543e3	1.332e3	1.16	NO	2.875e3	0.77548	0.77548	0.0761
2	Total Hexa-Dioxins	33.83	1.098e4	1.202e4	7.931e2	6.063e2	1.31	NO	1.399e3	0.37739	0.37739	0.0761

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.27	3.869e4	3.573e4	2.720e3	2.622e3	1.04	NO	5.342e3	1.7442	1.7442	0.139
2	1,2,3,4,6,7,8-HpCDD	38.29	1.888e4	2.324e4	1.691e3	1.752e3	0.96	NO	3.443e3	1.1243	1.1243	0.139

**Tetra-Furans**

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

**Penta-Furans function 1**

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

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-6.qld

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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8-PeCDF	29.72	3.357e3	4.250e3	2.622e2	1.892e2	1.39	NO	4.515e2	0.074129	0.074129	0.0259

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,7,8-HxCDF	33.64	5.148e3	4.613e3	2.743e2	2.020e2	1.36	NO	4.763e2	0.097921	0.097921	0.0453
2	1,2,3,7,8,9-HxCDF	35.19	4.535e3	1.921e3	1.255e2	5.519e1	2.27	YES	1.807e2	0.00000	0.028768	0.0606
3	Total Hexa-Furans	35.23	2.016e3	1.881e3	6.536e1	1.047e2	0.62	YES	0.000e0	0.00000	0.022913	0.0463

**Hepta-Furans**

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

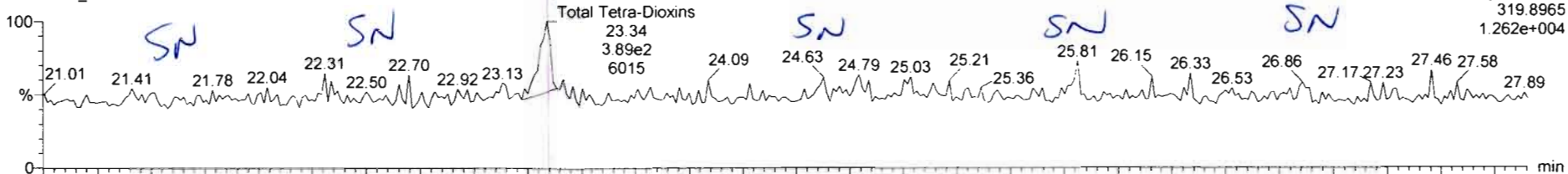
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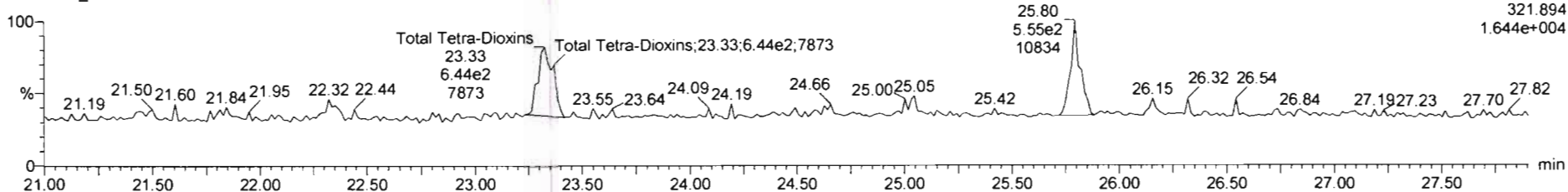
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200320R1\_6



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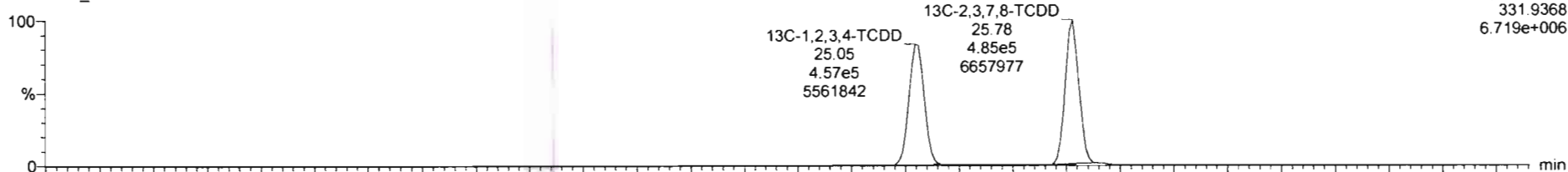
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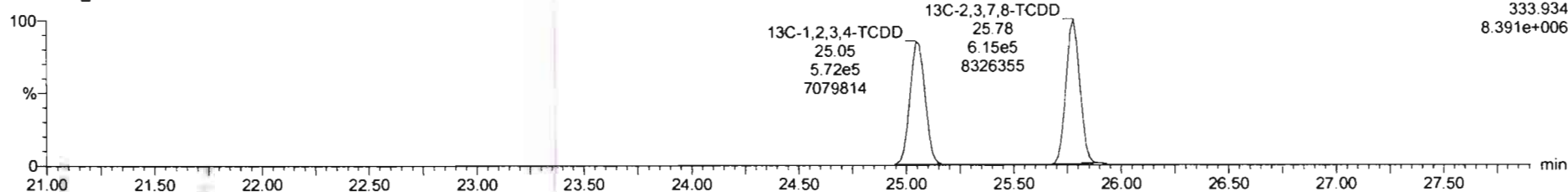
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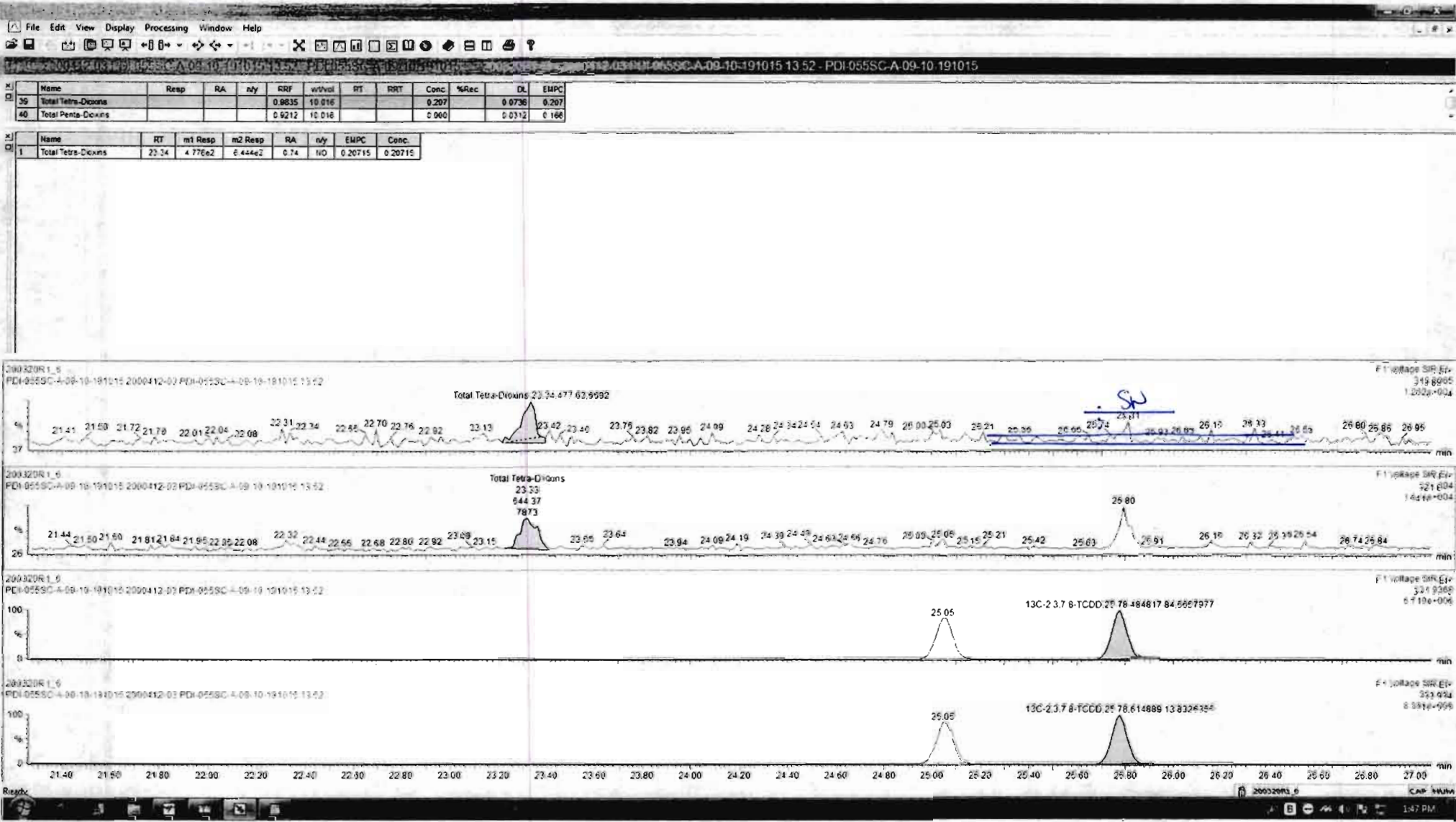


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200320R1\_6



F1: Voltage SIR, EI+  
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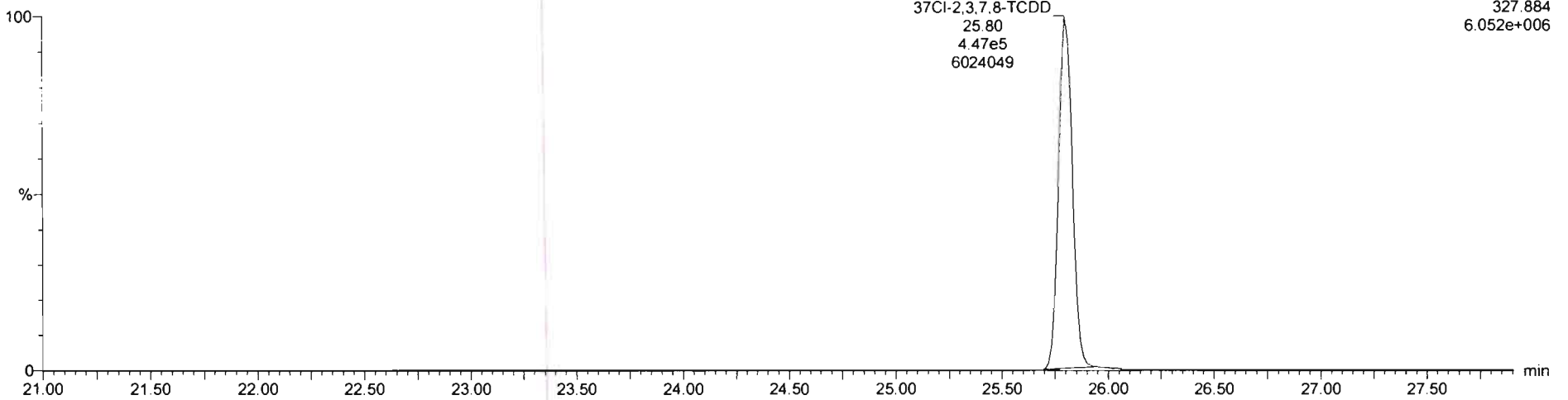
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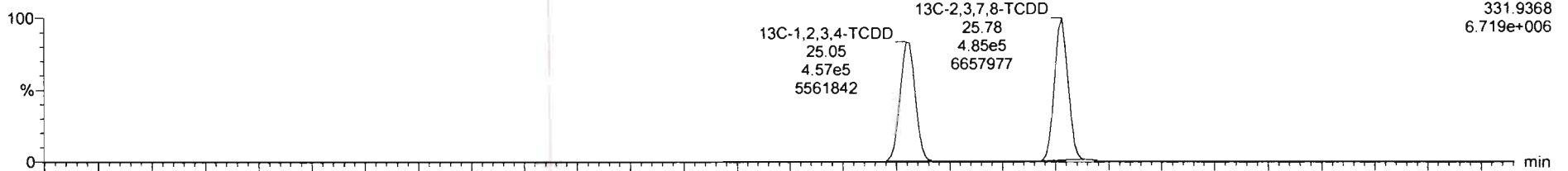
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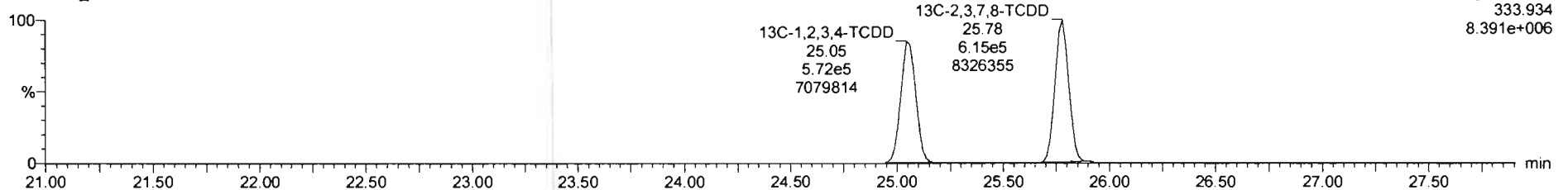


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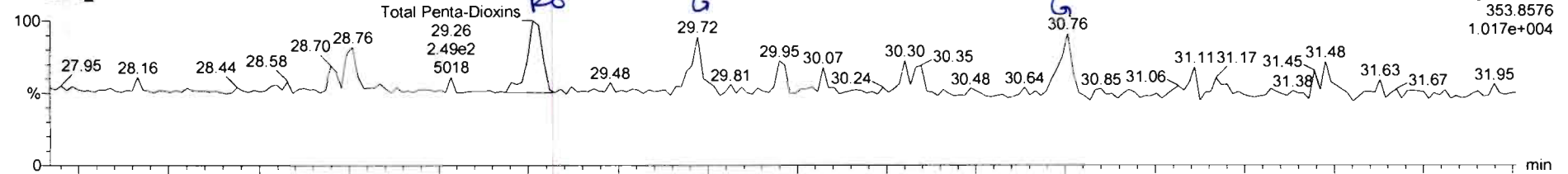
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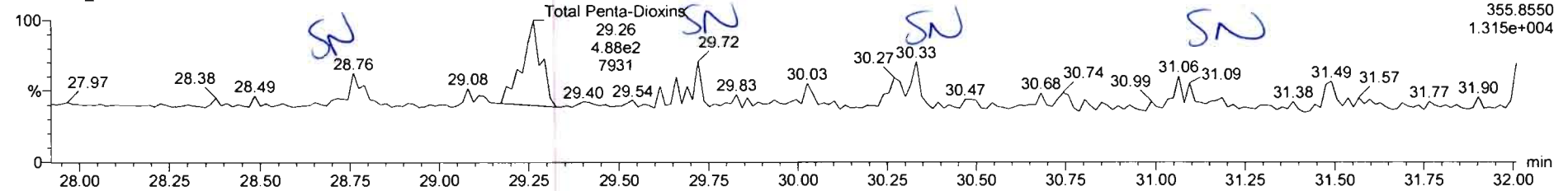
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1,2,3,7,8-PeCDD

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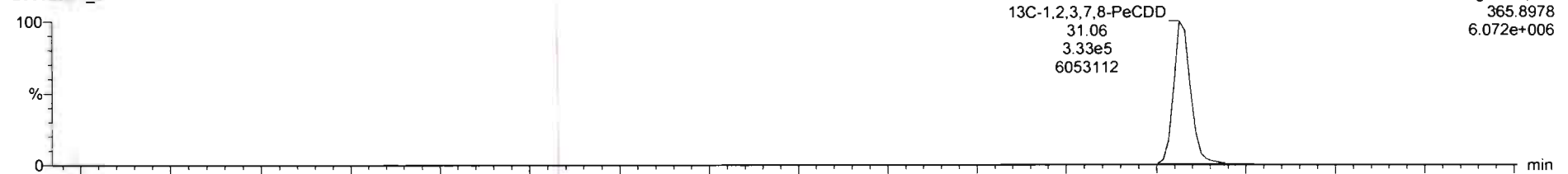


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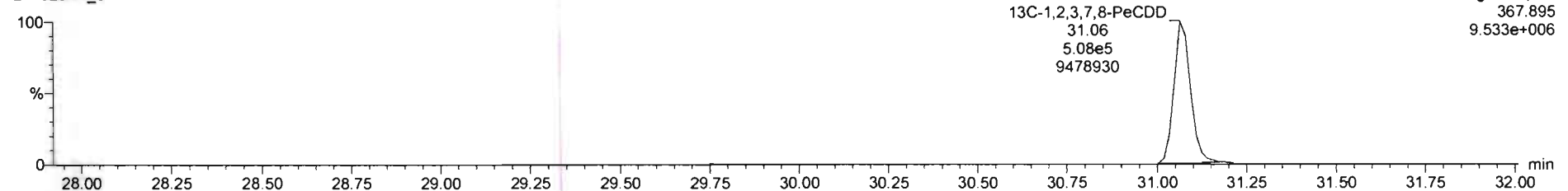


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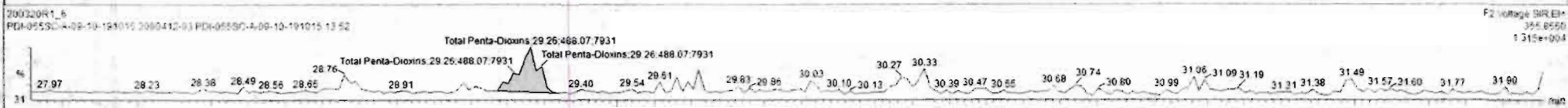
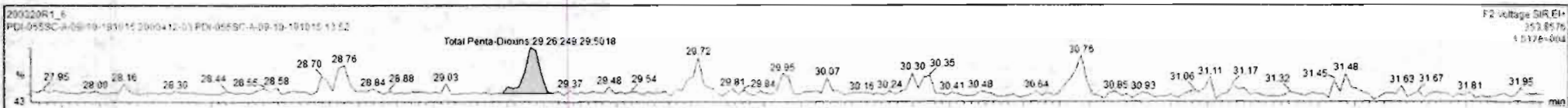


200320R1\_6



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9212	10.016			0.000	0.0312	0.166	
41 Total Hexa-Dioxins				0.9644	10.016			1.17	0.0761	1.17	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	29.26	2.493e2	4.881e2	0.51	YES	0.16600	0.00000



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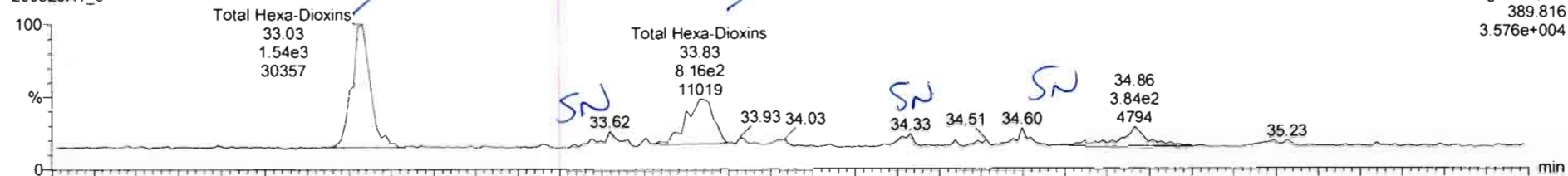
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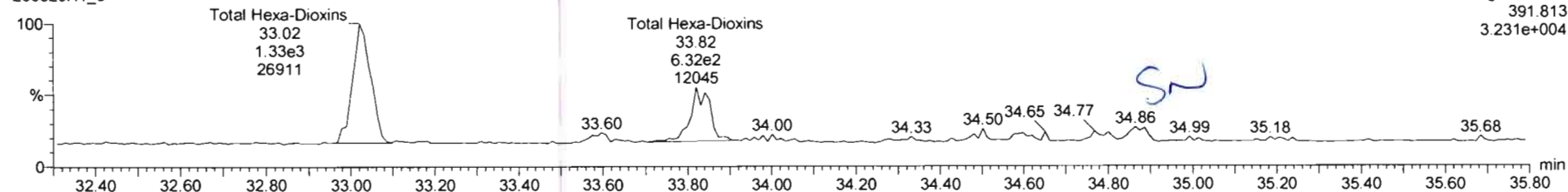
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1,2,3,4,7,8-HxCDD

200320R1\_6

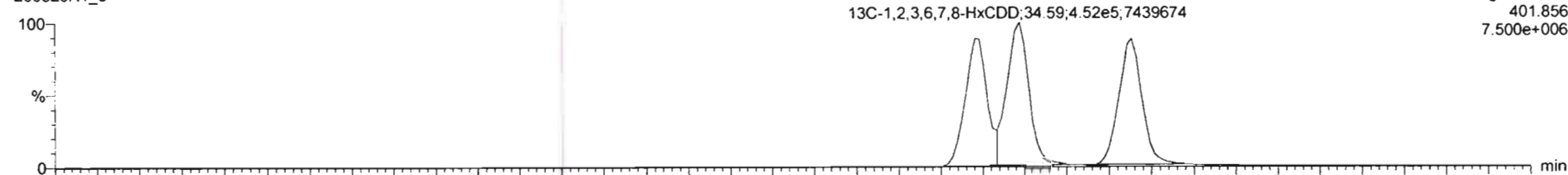


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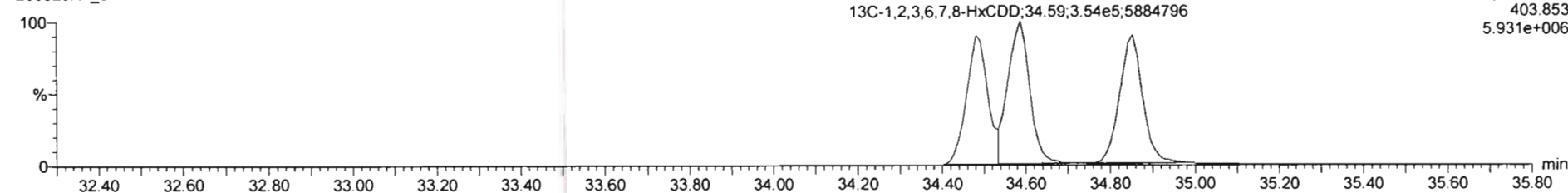


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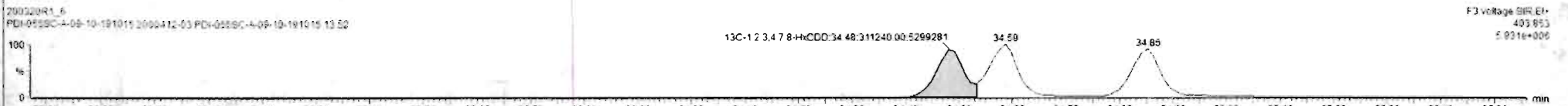
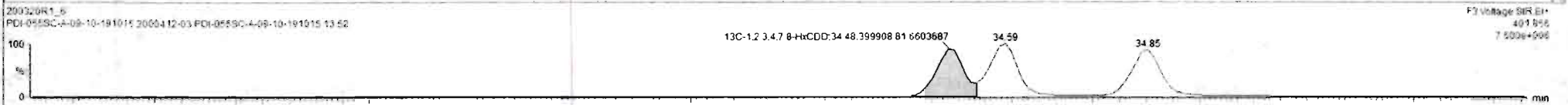
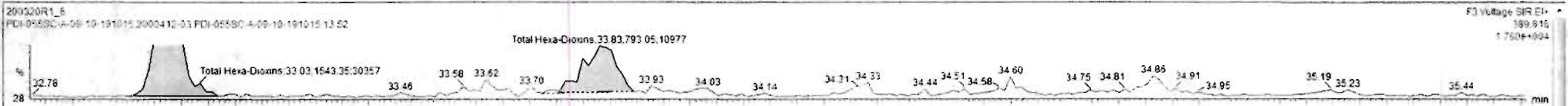


200320R1\_6



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9212	10.016			0.000	0.0312	0.166	
41 Total Hexa-Dioxins				0.9544	10.016			1.15	0.0761	1.15	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.63	7.931e2	6.063e2	1.31	NO	0.77739	0.37739
2 Total Hexa-Dioxins	33.63	1.543e3	1.332e3	1.16	NO	0.7754E	0.77548



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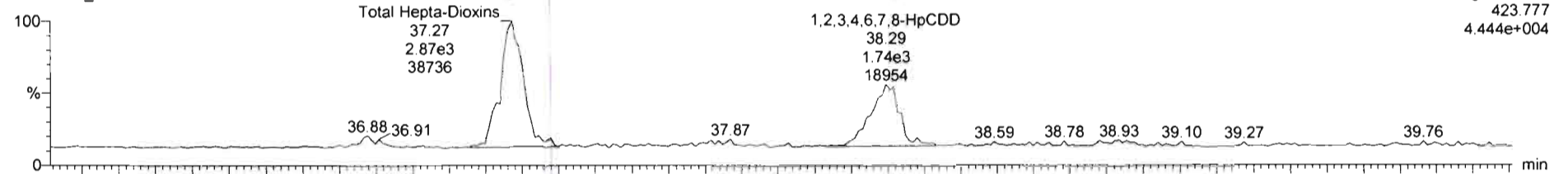
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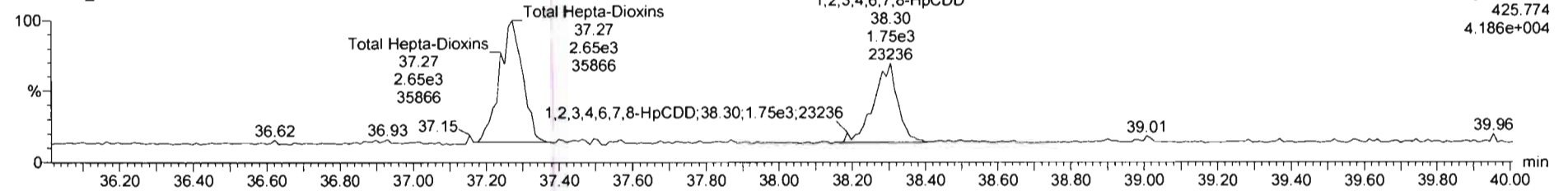
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1,2,3,4,6,7,8-HpCDD

200320R1\_6

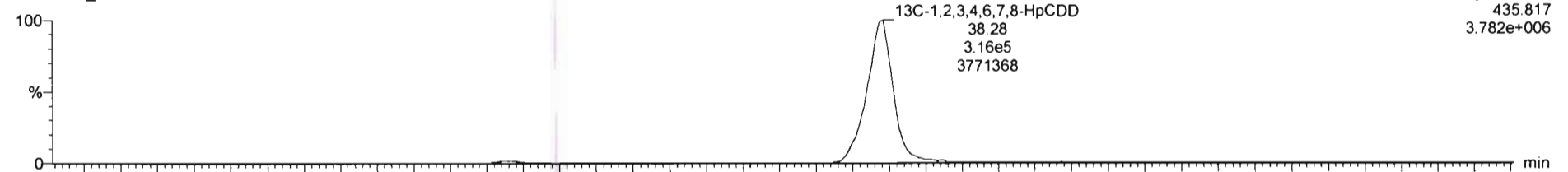


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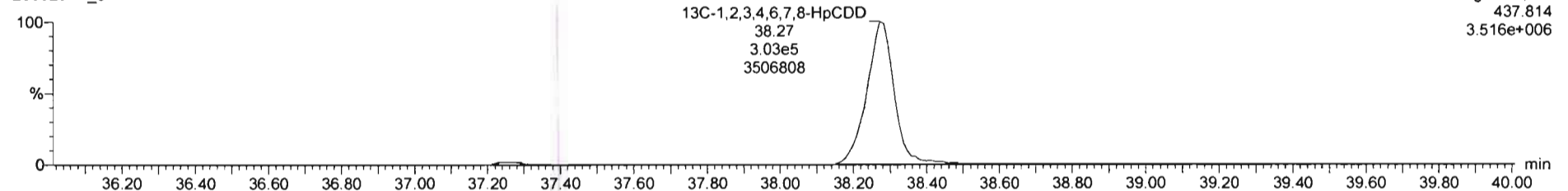


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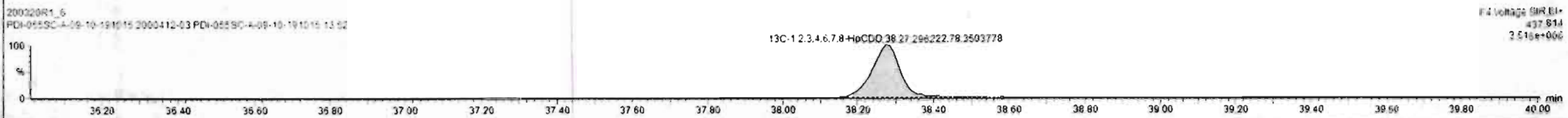
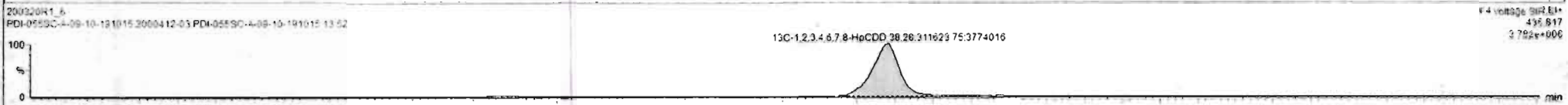
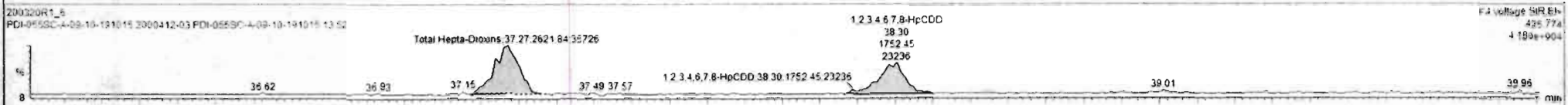


200320R1\_6



Name	Resp	RA	nly	RPF	wdw	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.016			2.67		0.139	2.67
43 Total Tetra-Furans				0.9154	10.016					0.0222	

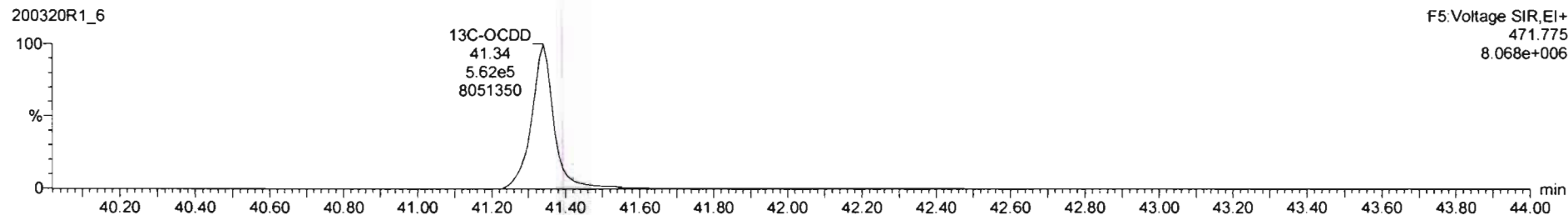
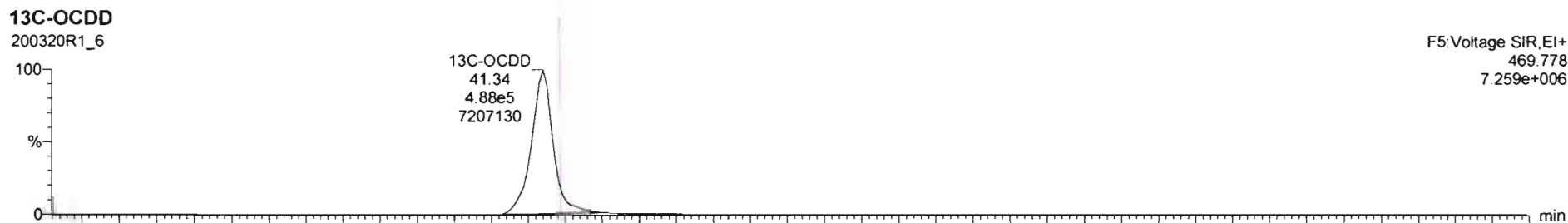
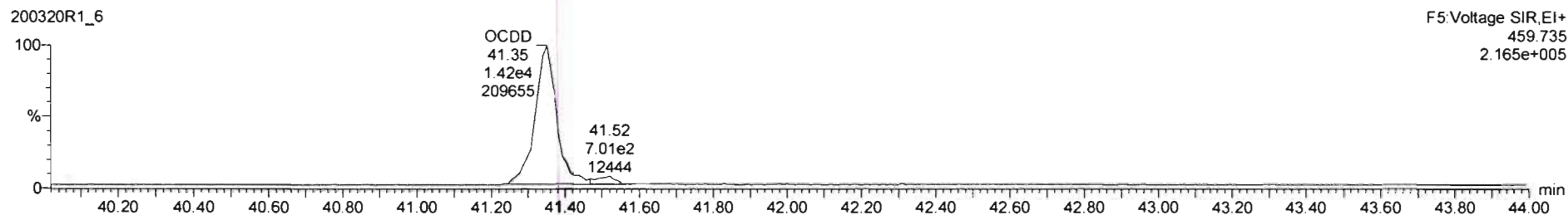
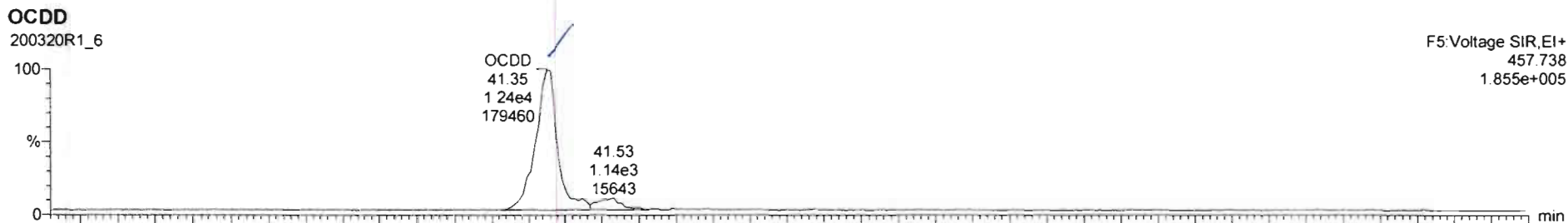
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 1,2,3,4,6,7,8-HpCDD	38.29	1.691e3	1.752e3	0.95	NO	1.1243	1.1243
2 Total Hepta-Dioxins	37.27	2.720e3	2.622e3	1.04	NO	1.7442	1.7442



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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015



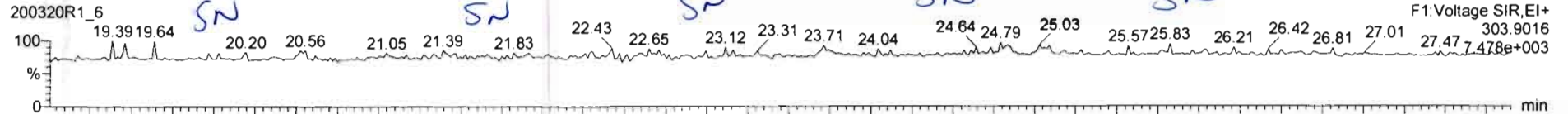
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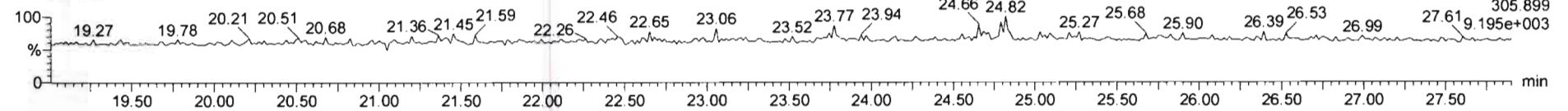
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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

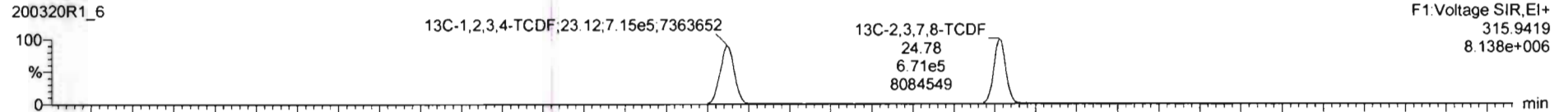
2,3,7,8-TCDF



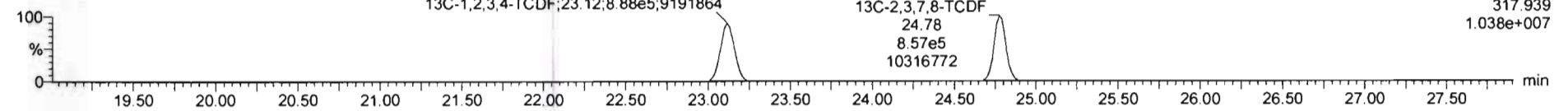
200320R1\_6



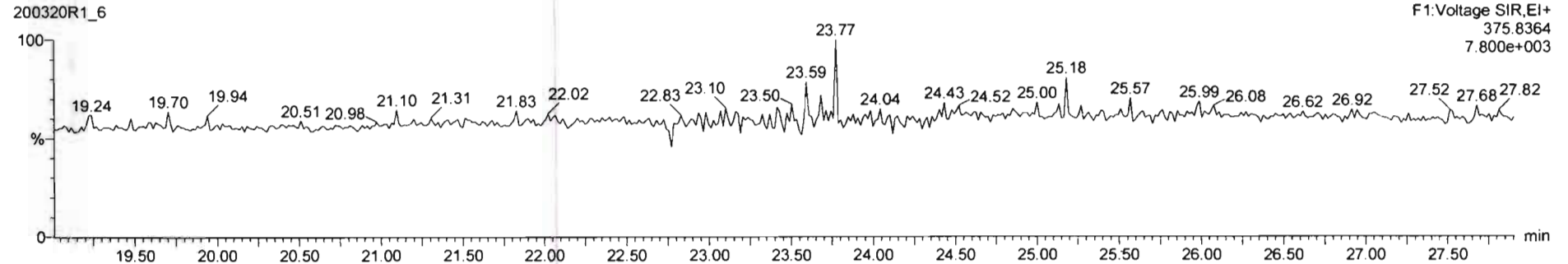
13C-2,3,7,8-TCDF



200320R1\_6



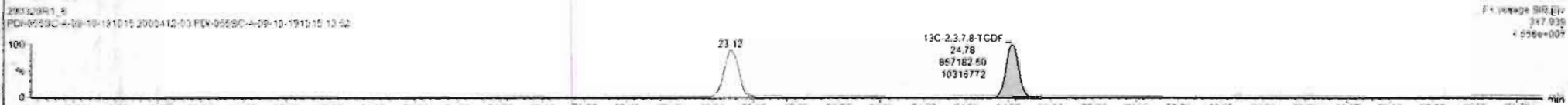
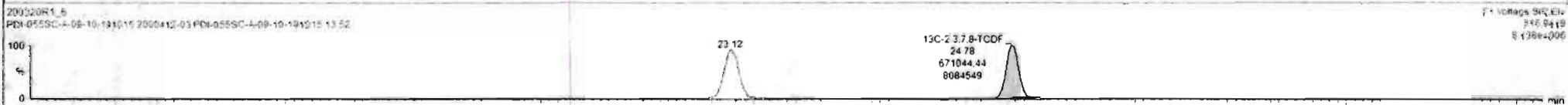
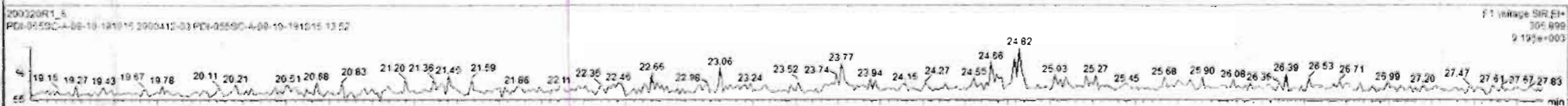
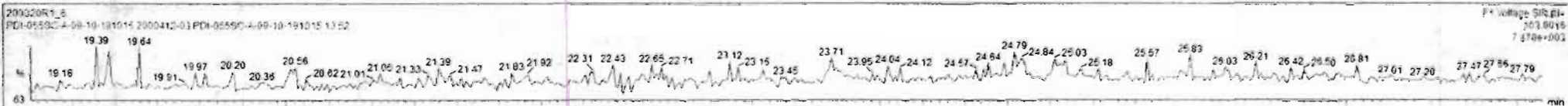
DPE1





Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0DE1	10.016			2.67	0.139	2.87	
43 Total Tetra-Furans				0.9154	10.016				0.0222		

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



Dataset: Untitled

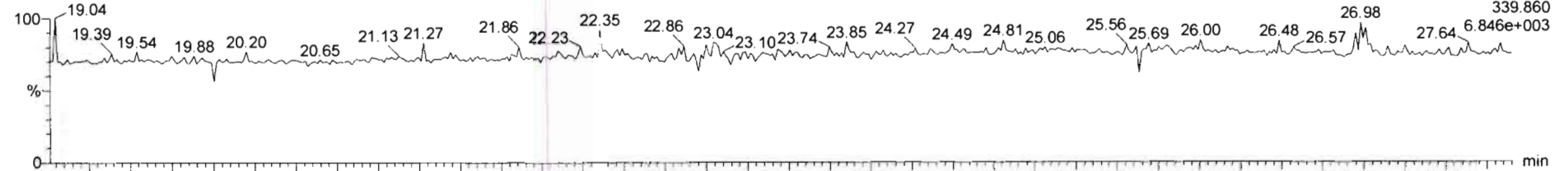
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

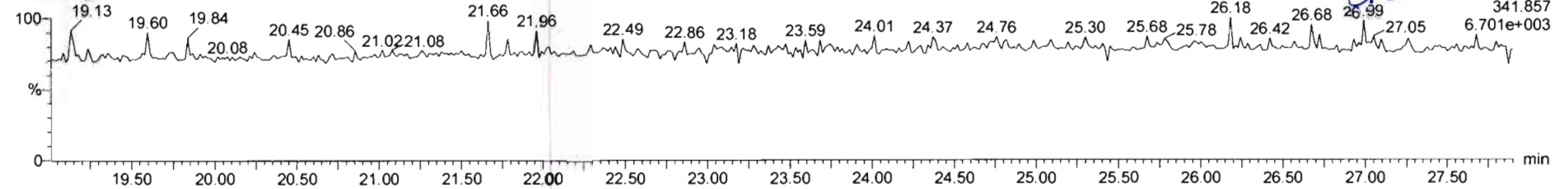
Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

1st Func. Penta-Furans

200320R1\_6

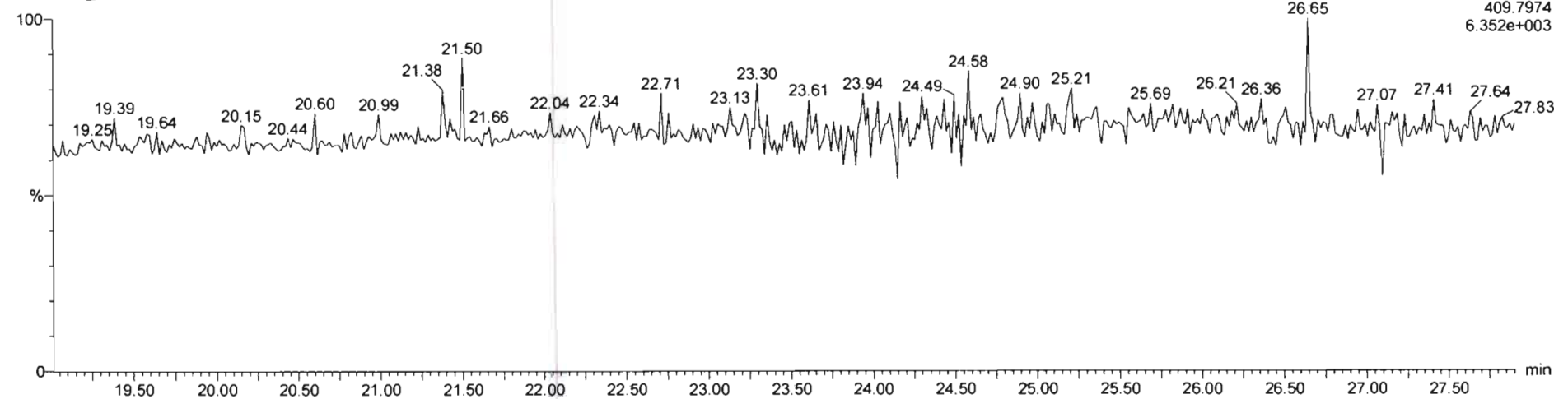


200320R1\_6



DPE6

200320R1\_6

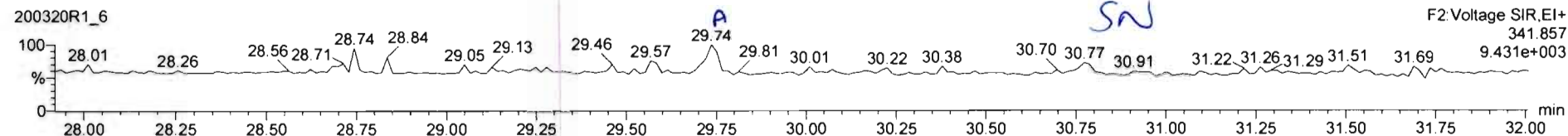
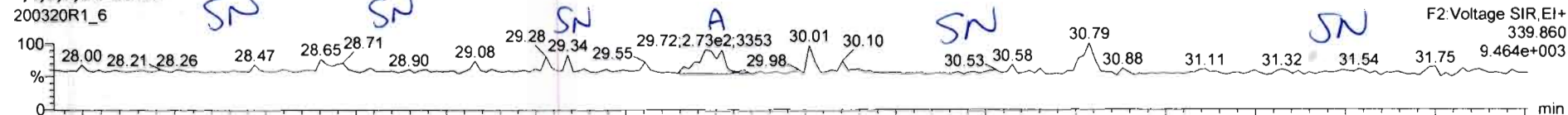


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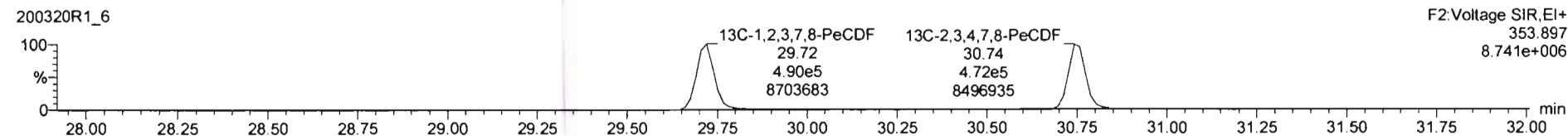
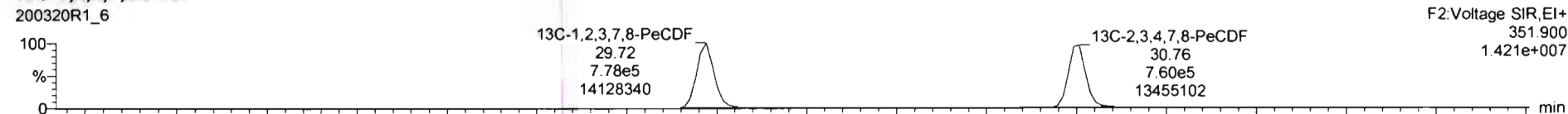
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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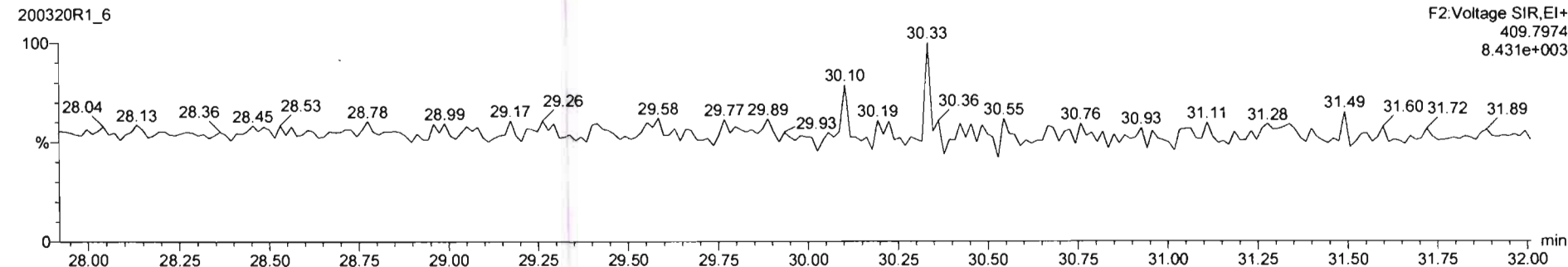
1,2,3,7,8-PeCDF



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

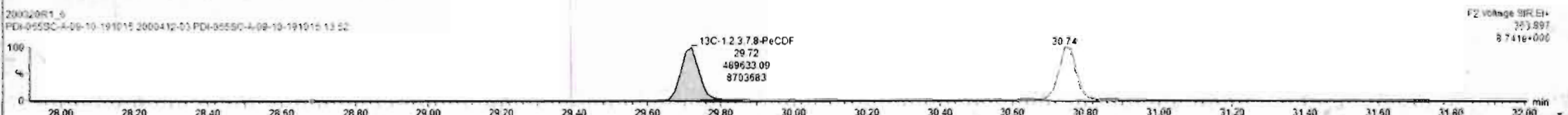
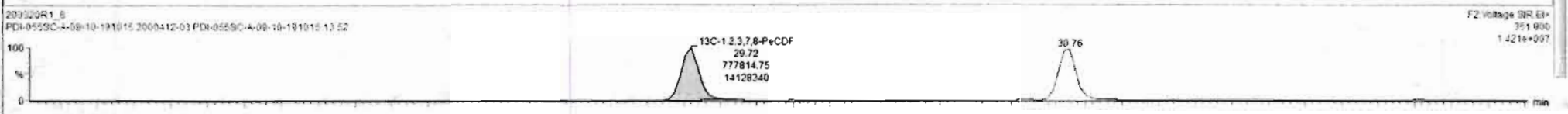
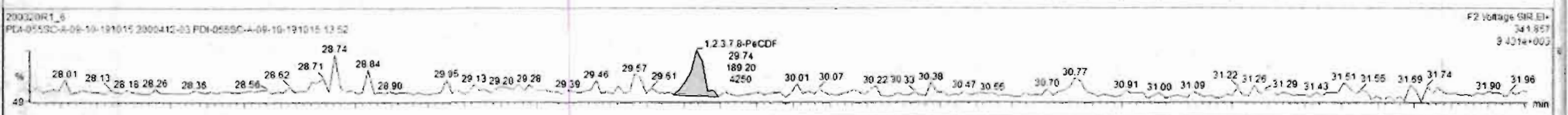
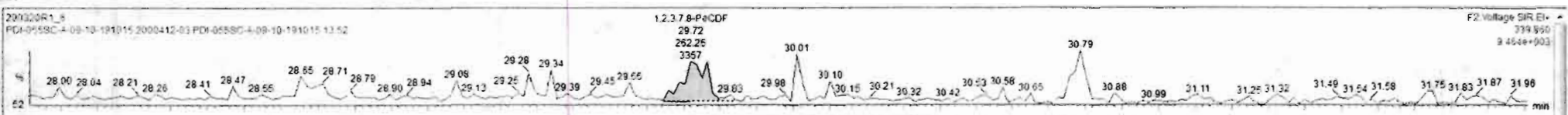


DPE2



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func Penta-Furans				0.9594	10.016					0.0116	
45 Total Penta-Furans				0.9594	10.016			0.0741		0.0266	0.0741

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Coec
1 1,2,3,7,8-PeCDF	29.72	2.622e2	1.892e2	1.39	NO	0.074129	0.074129

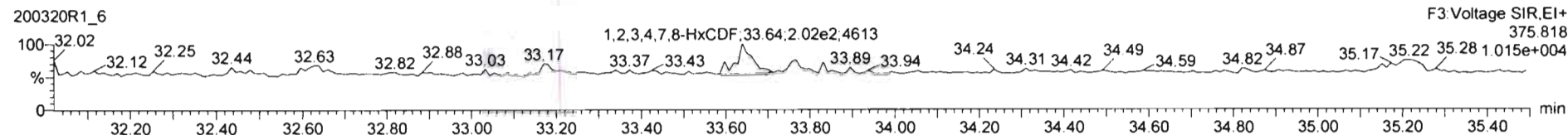
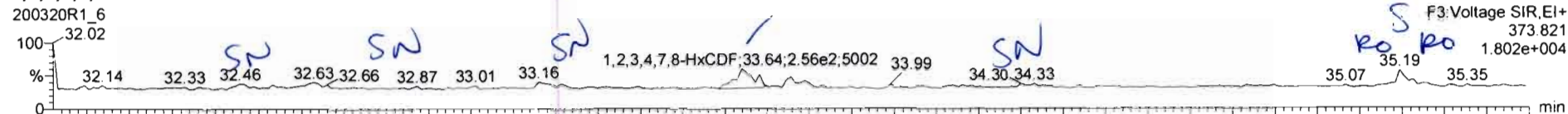


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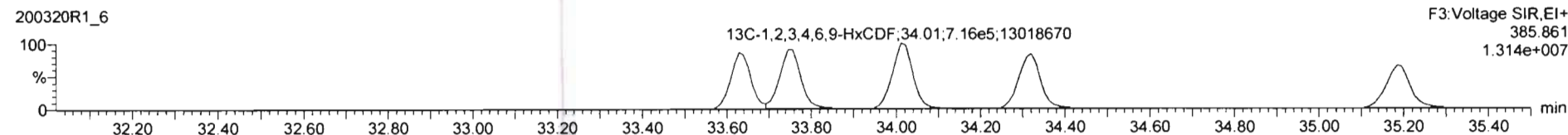
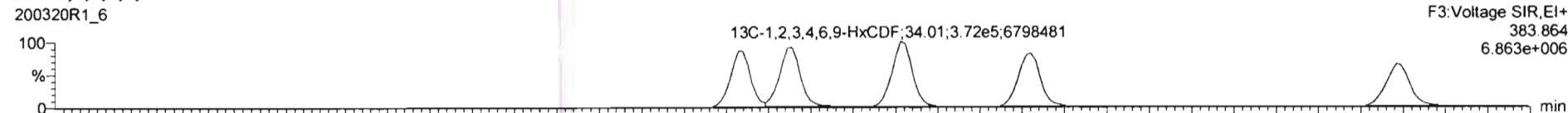
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

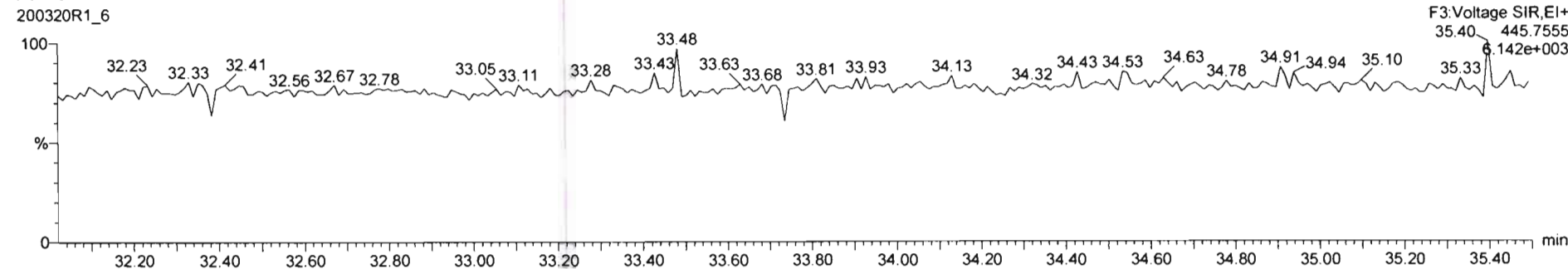
1,2,3,4,7,8-HxCDF



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

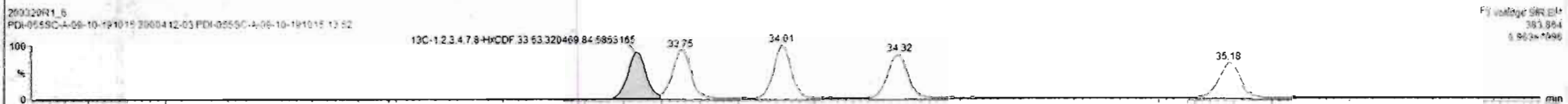
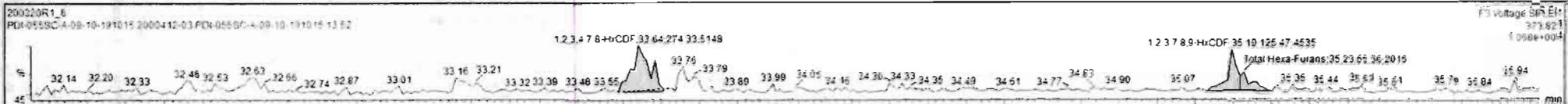


DPE3



Name	Resp	RA	rvy	RFV	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.016			0.0979		0.0413	0.150
47 Total Hepta-Furans				1.0482	10.016					0.0364	

Name	RT	m1 Resp	m2 Resp	RA	rvy	EMPC	Conc
1 1,2,3,4,7,8-HxCDF	33.64	2.743e2	2.020e2	1.36	NO	0.097521	0.097921
2 Total Hexa-Furans	35.23	6.536e1	1.047e2	0.62	YES	0.022913	0.00000
3 1,2,3,7,8,9-HxCDF	35.19	1.256e2	5.519e1	2.27	YES	0.026768	0.00000



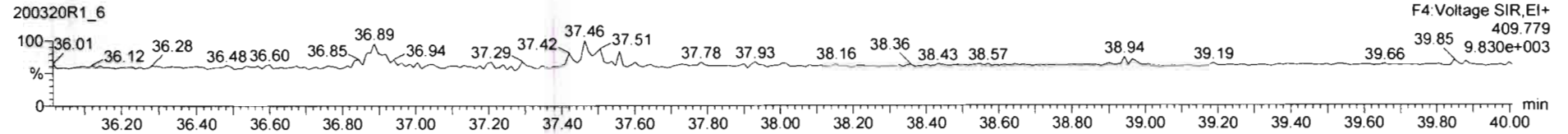
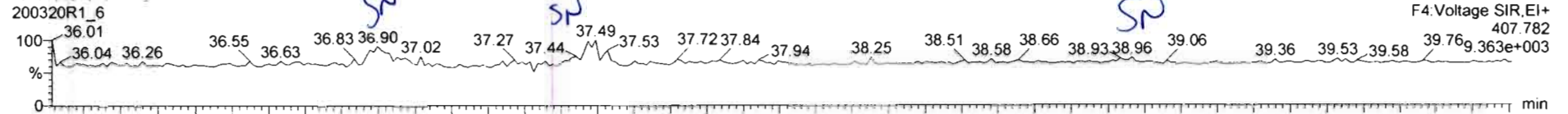
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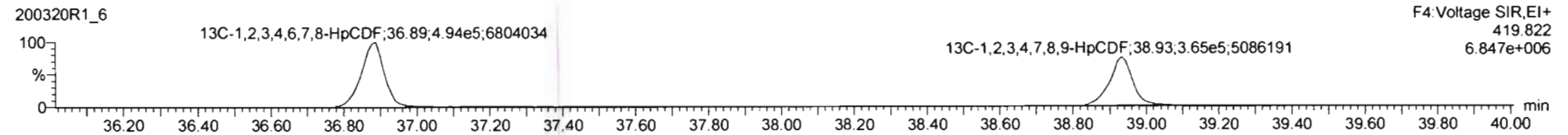
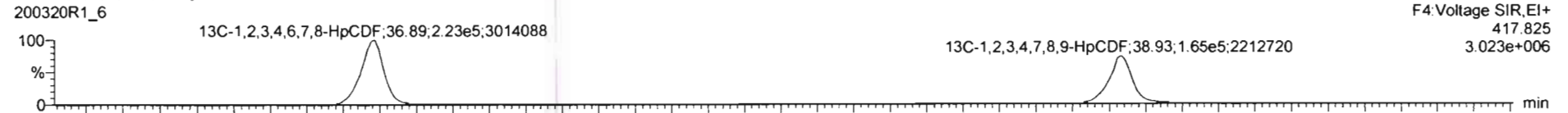
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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

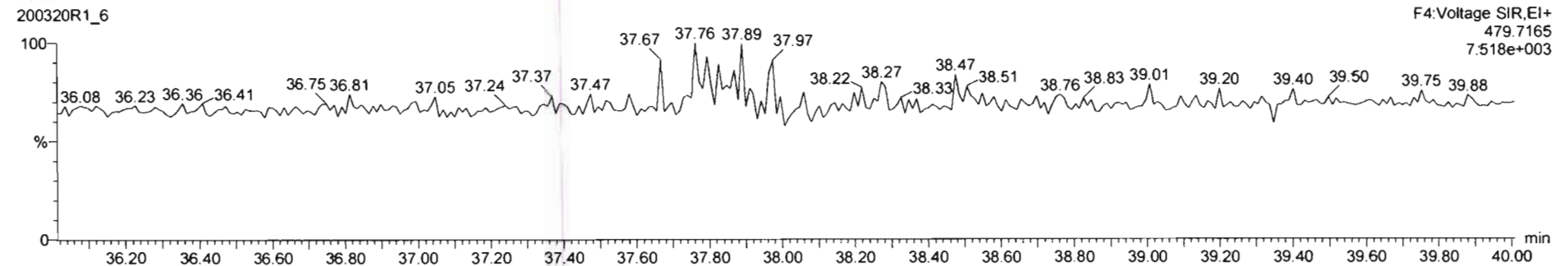
1,2,3,4,6,7,8-HpCDF



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

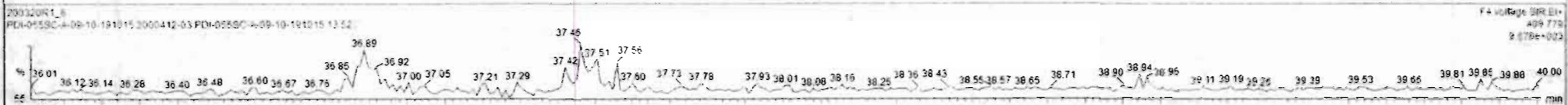
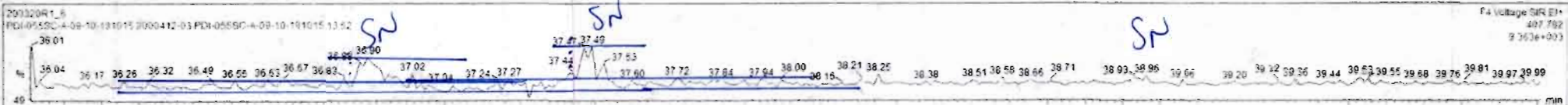


DPE4



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0520	10.016			0.0975	0.0463	0.150	
47 Total Hepta-Furans				1.0483	10.016				0.0384		

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



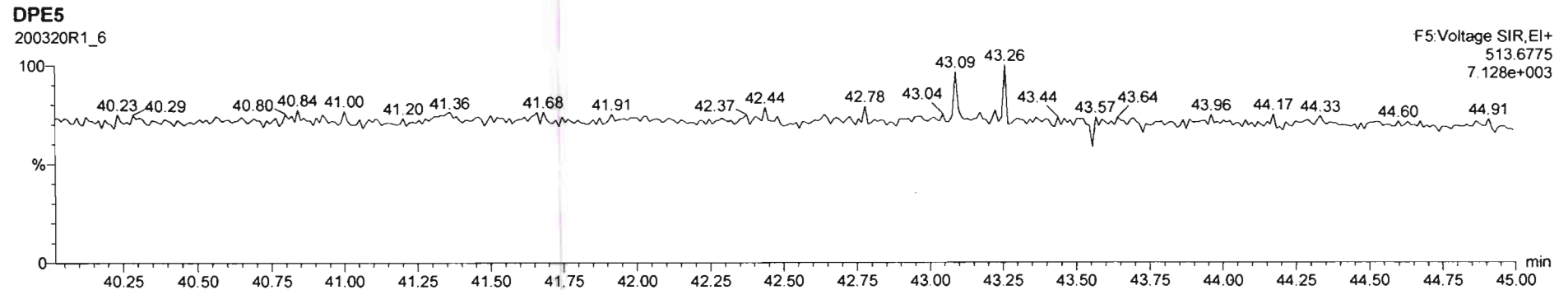
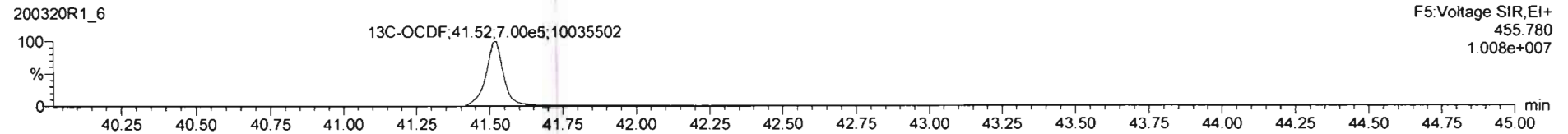
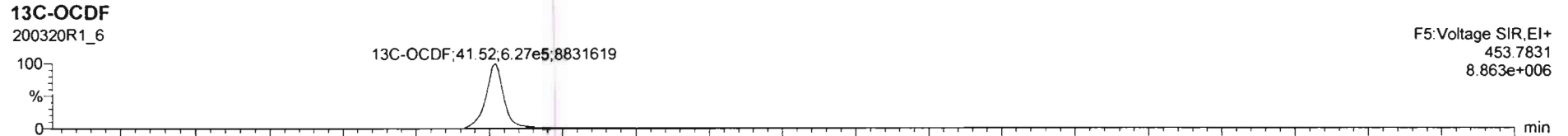
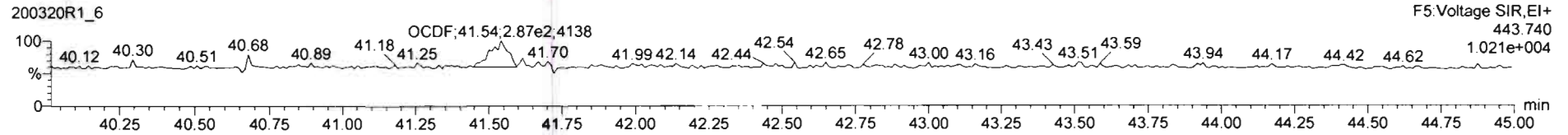
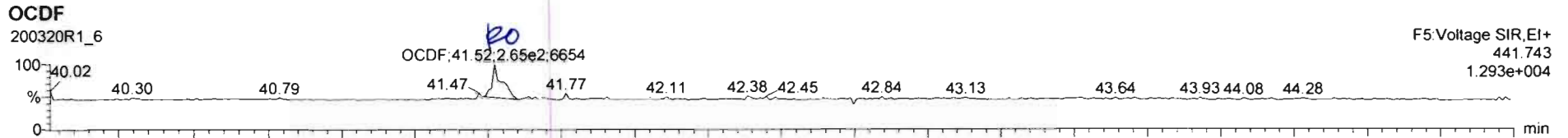


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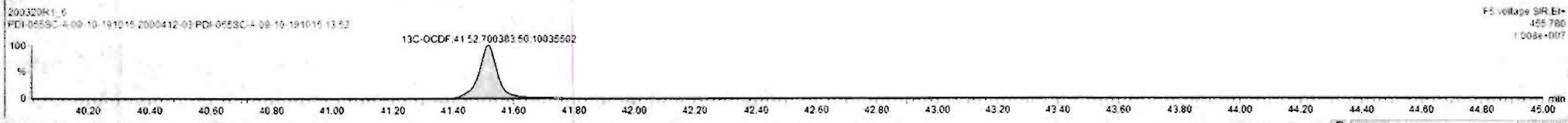
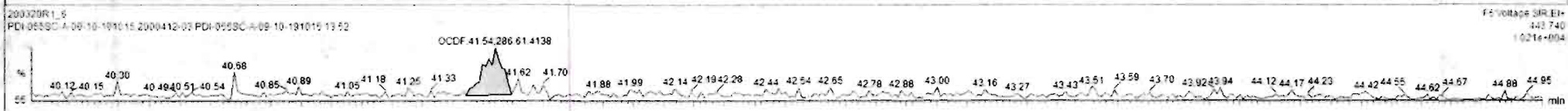
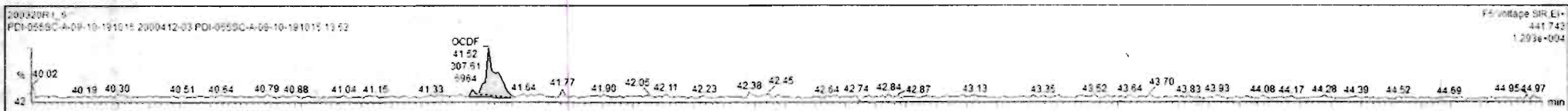
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Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015



Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
17 OCDF	5.94e2	1.07	YES	0.9483	10.016	41.52	1.000	0.189	0.0529	0.172	
18 13C-2,3,7,8-TCDD	1.10e8	0.79	NO	1.1842	10.016	25.78	1.029	180	90.3	0.241	

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

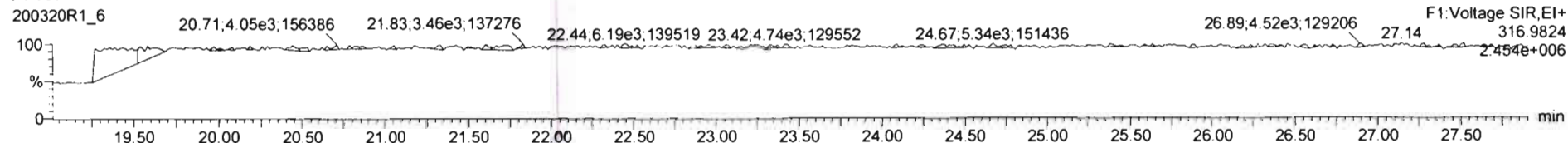


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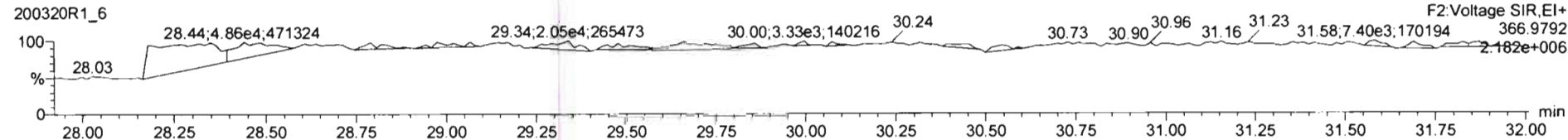
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_6, Date: 20-Mar-2020, Time: 17:49:39, ID: 2000412-03 PDI-055SC-A-09-10-191015 13.52, Description: PDI-055SC-A-09-10-191015

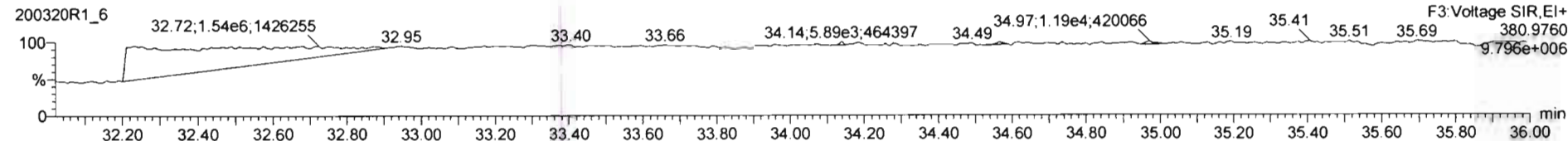
PFK1



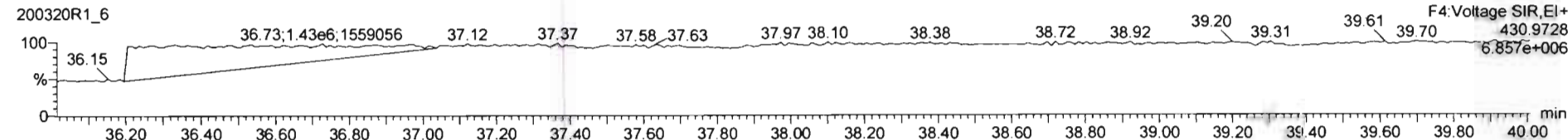
PFK2



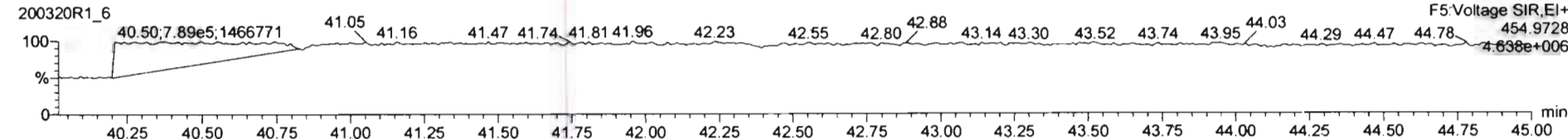
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-7.qld

Last Altered: Thursday, March 26, 2020 14:00:49 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:04:03 Pacific Daylight Time

*BL 03/26/2020*

*C7 04/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24, ID: 2000412-04 PDI-055SC-A-10-11-191015 14.45, Description: PDI-055SC-A-10-11-191015

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD		1.23e6			10.18	25.80		1.00		NO			0.077	
2	2 1,2,3,7,8-PeCDD	1.83e2	8.74e5	1.207	YES	10.18	31.10	31.11	1.00	1.00	NO	0.044719		0.083	0.0330...
3	3 1,2,3,4,7,8-HxCDD		7.20e5			10.18	34.50		1.00		NO			0.050	
4	4 1,2,3,6,7,8-HxCDD		8.54e5			10.18	34.60		1.00		NO			0.052	
5	5 1,2,3,7,8,9-HxCDD		7.93e5			10.18	34.86		1.00		NO			0.060	
6	6 1,2,3,4,6,7,8-HpCDD	3.11e3	6.47e5	0.998	NO	10.18	38.28	38.29	1.00	1.00	NO	0.93914		0.084	0.93914
7	7 OCDD	2.36e4	1.01e6	0.874	NO	10.18	41.34	41.36	1.00	1.00	NO	8.7414		0.087	8.7414
8	8 2,3,7,8-TCDF		1.68e6			10.18	24.79		1.00		NO			0.034	
9	9 1,2,3,7,8-PeCDF		1.36e6			10.18	29.74		1.00		NO			0.035	
10	10 2,3,4,7,8-PeCDF		1.29e6			10.18	30.79		1.00		NO			0.031	
11	11 1,2,3,4,7,8-HxCDF		1.01e6			10.18	33.64		1.00		NO			0.020	
12	12 1,2,3,6,7,8-HxCDF		1.13e6			10.18	33.77		1.00		NO			0.018	
13	13 2,3,4,6,7,8-HxCDF		1.04e6			10.18	34.36		1.00		NO			0.020	
14	14 1,2,3,7,8,9-HxCDF		8.91e5			10.18	35.19		1.00		NO			0.027	
15	15 1,2,3,4,6,7,8-HpCDF		7.84e5			10.18	36.92		1.00		NO			0.034	
16	16 1,2,3,4,7,8,9-HpCDF		5.54e5			10.18	38.93		1.00		NO			0.041	
17	17 OCDF		1.31e6			10.18	41.53		1.00		NO			0.047	
18	18 13C-2,3,7,8-TCDD	1.23e6	1.09e6	0.780	NO	10.18	25.77	25.76	1.03	1.03	NO	187.88	95.7	0.204	
19	19 13C-1,2,3,7,8-PeCDD	8.74e5	1.09e6	0.648	NO	10.18	31.08	31.08	1.24	1.24	NO	182.71	93.0	0.243	
20	20 13C-1,2,3,4,7,8-HxCDD	7.20e5	1.14e6	1.285	NO	10.18	34.49	34.49	1.01	1.01	NO	164.40	83.7	0.308	
21	21 13C-1,2,3,6,7,8-HxCDD	8.54e5	1.14e6	1.276	NO	10.18	34.59	34.60	1.02	1.02	NO	158.81	80.9	0.251	
22	22 13C-1,2,3,7,8,9-HxCDD	7.93e5	1.14e6	1.250	NO	10.18	34.86	34.85	1.02	1.02	NO	164.55	83.8	0.280	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.47e5	1.14e6	1.075	NO	10.18	38.28	38.27	1.13	1.12	NO	186.24	94.8	0.482	
24	24 13C-OCDD	1.01e6	1.14e6	0.903	NO	10.18	41.34	41.34	1.22	1.22	NO	304.22	77.4	0.344	
25	25 13C-2,3,7,8-TCDF	1.68e6	1.73e6	0.781	NO	10.18	24.76	24.76	0.99	0.99	NO	175.85	89.5	0.359	
26	26 13C-1,2,3,7,8-PeCDF	1.36e6	1.73e6	1.594	NO	10.18	29.72	29.72	1.19	1.19	NO	176.85	90.0	0.333	
27	27 13C-2,3,4,7,8-PeCDF	1.29e6	1.73e6	1.605	NO	10.18	30.70	30.76	1.23	1.23	NO	173.58	88.4	0.346	
28	28 13C-1,2,3,4,7,8-HxCDF	1.01e6	1.14e6	0.512	NO	10.18	33.64	33.64	0.99	0.99	NO	173.98	88.6	0.373	
29	29 13C-1,2,3,6,7,8-HxCDF	1.13e6	1.14e6	0.516	NO	10.18	33.76	33.76	0.99	0.99	NO	174.07	88.6	0.333	
30	30 13C-2,3,4,6,7,8-HxCDF	1.04e6	1.14e6	0.531	NO	10.18	34.32	34.32	1.01	1.01	NO	172.18	87.7	0.360	
31	31 13C-1,2,3,7,8,9-HxCDF	8.91e5	1.14e6	0.514	NO	10.18	35.19	35.19	1.03	1.03	NO	175.65	89.4	0.427	
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.84e5	1.14e6	0.433	NO	10.18	36.89	36.89	1.08	1.08	NO	175.03	89.1	0.411	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-7.qld

Last Altered: Thursday, March 26, 2020 14:00:49 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:04:03 Pacific Daylight Time

Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24, ID: 2000412-04 PDI-055SC-A-10-11-191015 14.45, Description: PDI-055SC-A-10-11-191015

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.54e5	1.14e6	0.434	NO	10.18	38.93	38.93	1.14	1.14	NO	183.67	93.5	0.610	
34	34 13C-OCDF	1.31e6	1.14e6	0.922	NO	10.18	41.53	41.53	1.22	1.22	NO	323.98	82.5	0.292	
35	35 37Cl-2,3,7,8-TCDD	4.94e5	1.09e6			10.18	25.80	25.80	1.03	1.03	NO	75.952	96.7	0.071	
36	36 13C-1,2,3,4-TCDD	1.09e6	1.09e6	0.802	NO	10.18	25.03	25.03	1.00	1.00	NO	196.41	100.0	0.241	
37	37 13C-1,2,3,4-TCDF	1.73e6	1.73e6	0.792	NO	10.18	23.09	23.07	1.00	1.00	NO	196.41	100.0	0.391	
38	38 13C-1,2,3,4,6,9-HxCDF	1.14e6	1.14e6	0.523	NO	10.18	34.02	34.02	1.00	1.00	NO	196.41	100.0	0.373	
39	39 Total Tetra-Dioxins		1.23e6			10.18	24.62		0.00		NO	0.33211		0.077	0.33211
40	40 Total Penta-Dioxins		8.74e5			10.18	29.96		0.00		NO	0.18550		0.083	0.36291
41	41 Total Hexa-Dioxins		0.00e0			10.18	33.63		0.00		NO	1.2531		0.056	1.2531
42	42 Total Hepta-Dioxins		6.47e5			10.18	37.64		0.00		NO	2.7180		0.084	2.7180
43	43 Total Tetra-Furans		1.68e6			10.18	23.61		0.00		NO	0.00000		0.013	0.0690...
44	44 1st Func. Penta-Furans		0.00e0			10.18	27.09		0.00		NO			0.009	
45	45 Total Penta-Furans		0.00e0			10.18	29.27		0.00		NO			0.011	
46	46 Total Hexa-Furans		0.00e0			10.18	33.56		0.00		NO			0.012	
47	47 Total Hepta-Furans		0.00e0			10.18	37.83		0.00		NO			0.023	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-7.qld

Last Altered: Thursday, March 26, 2020 14:00:49 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:04:03 Pacific Daylight Time

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Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24

**Tetra-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	39 Total Tetra-Dioxins	23.30	0.681	NO	8.29e2	5.40e5	0.332	0.332

**Penta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	40 Total Penta-Dioxins	29.26	0.611	NO	2.89e2	3.44e5	0.185	0.185
2	40 Total Penta-Dioxins	30.30	0.490	YES	9.43e1	3.44e5	0.000	0.0595
3	2 1,2,3,7,8-PeCDD	31.11	1.207	YES	1.00e2	3.44e5	0.000	0.0330
4	40 Total Penta-Dioxins	28.78	0.886	YES	1.89e2	3.44e5	0.000	0.0849

**Hexa-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	41 Total Hexa-Dioxins	33.85	1.322	NO	7.67e2	4.41e5	0.341	0.341
2	41 Total Hexa-Dioxins	33.04	1.183	NO	1.96e3	4.41e5	0.912	0.912

**Hepta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	38.29	0.998	NO	1.56e3	3.35e5	0.939	0.939
2	42 Total Hepta-Dioxins	37.28	1.111	NO	3.10e3	3.35e5	1.78	1.78

**Tetra-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	43 Total Tetra-Furans	20.51	0.920	YES	2.82e2	7.38e5	0.000	0.0691

**Penta-Furans function 1**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-7.qld

Last Altered: Thursday, March 26, 2020 14:00:49 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:04:03 Pacific Daylight Time

Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24

**Penta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Hexa-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Hepta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

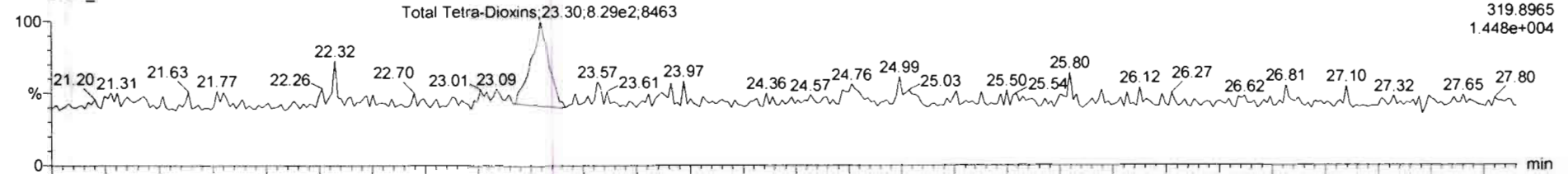
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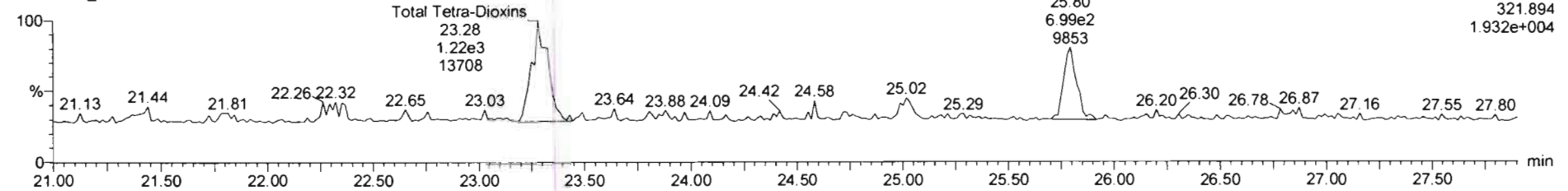
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**2,3,7,8-TCDD**

200320R1\_7

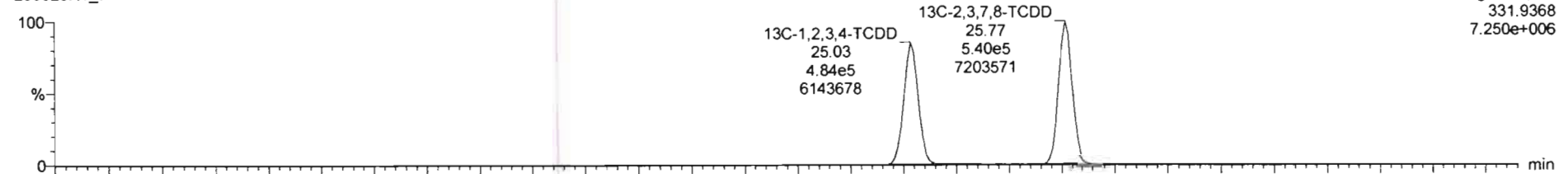


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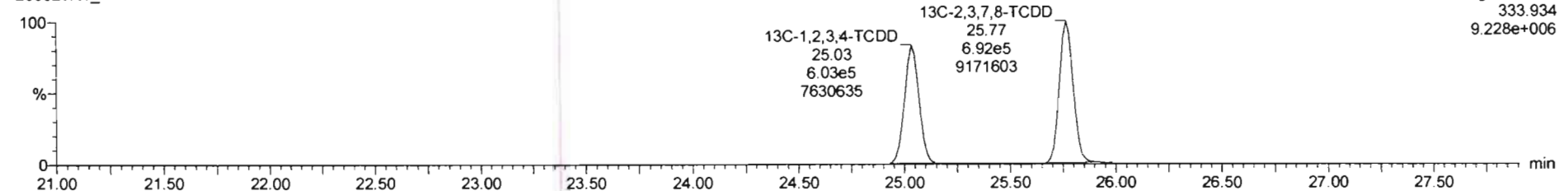


**13C-2,3,7,8-TCDD**

200320R1\_7



200320R1\_7





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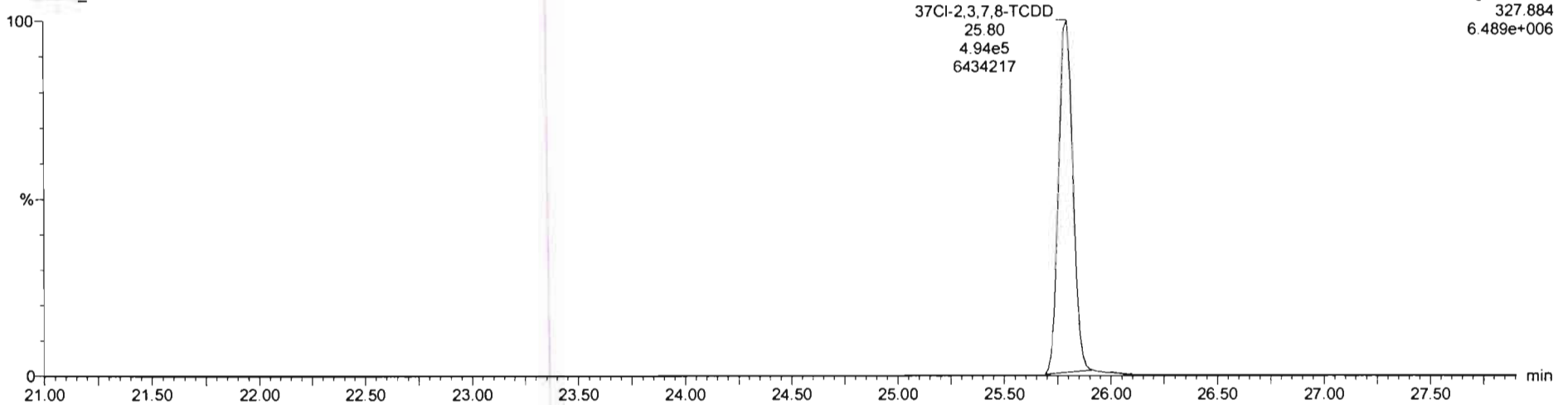
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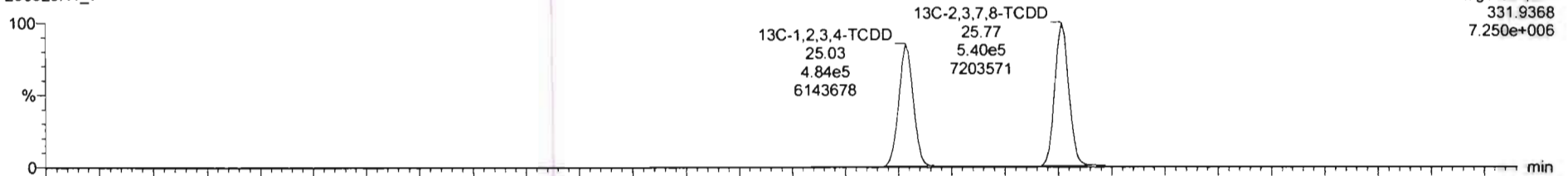
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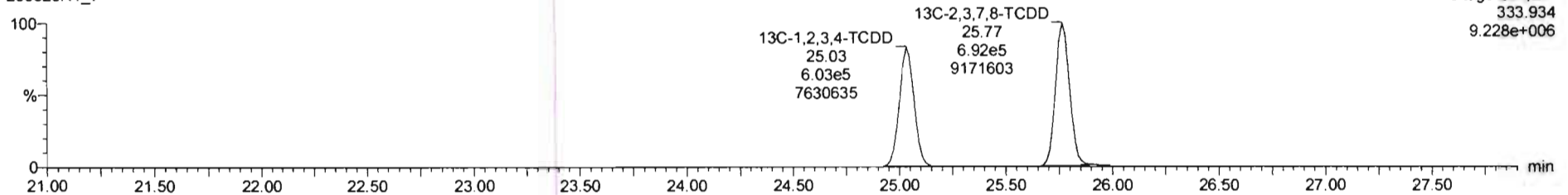


13C-1,2,3,4-TCDD

200320R1\_7



200320R1\_7



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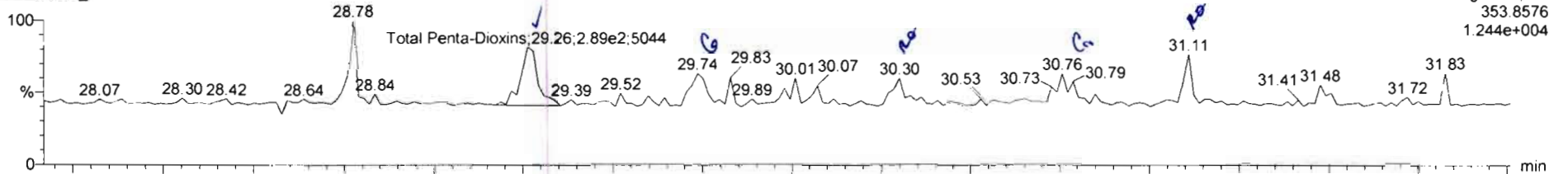
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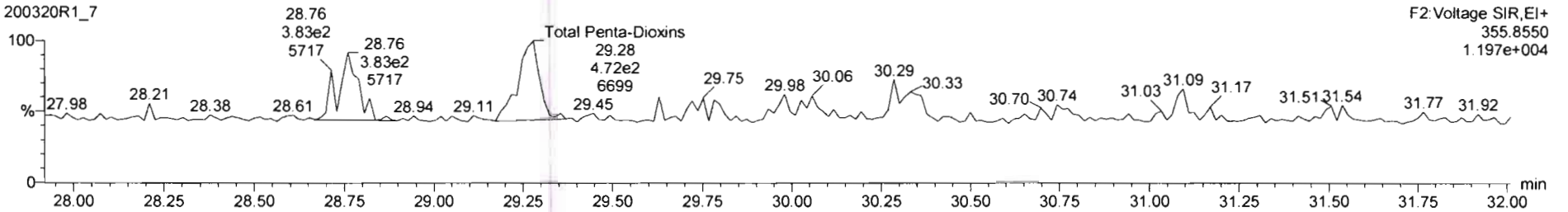
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1,2,3,7,8-PeCDD

200320R1\_7

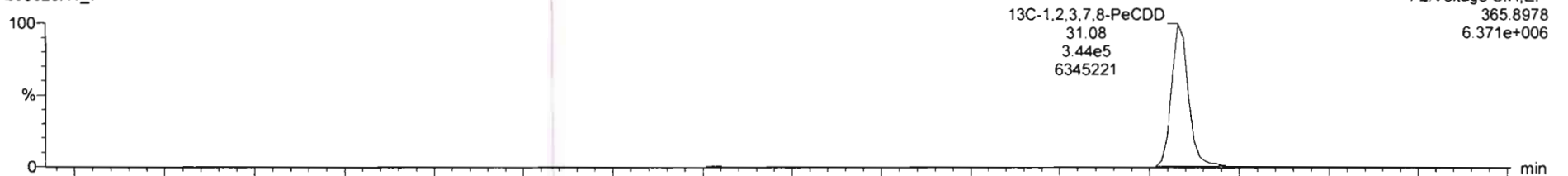


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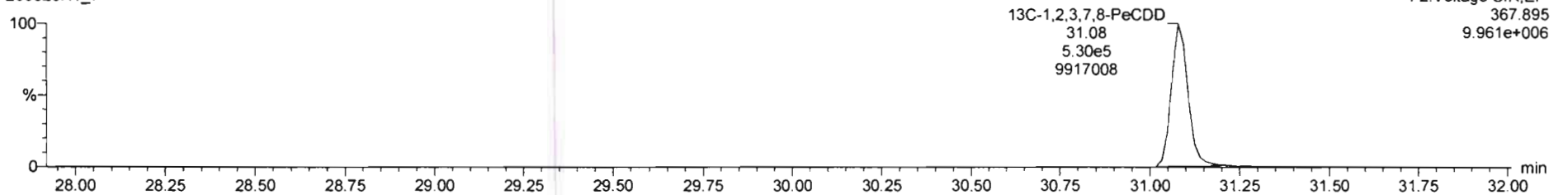


13C-1,2,3,7,8-PeCDD

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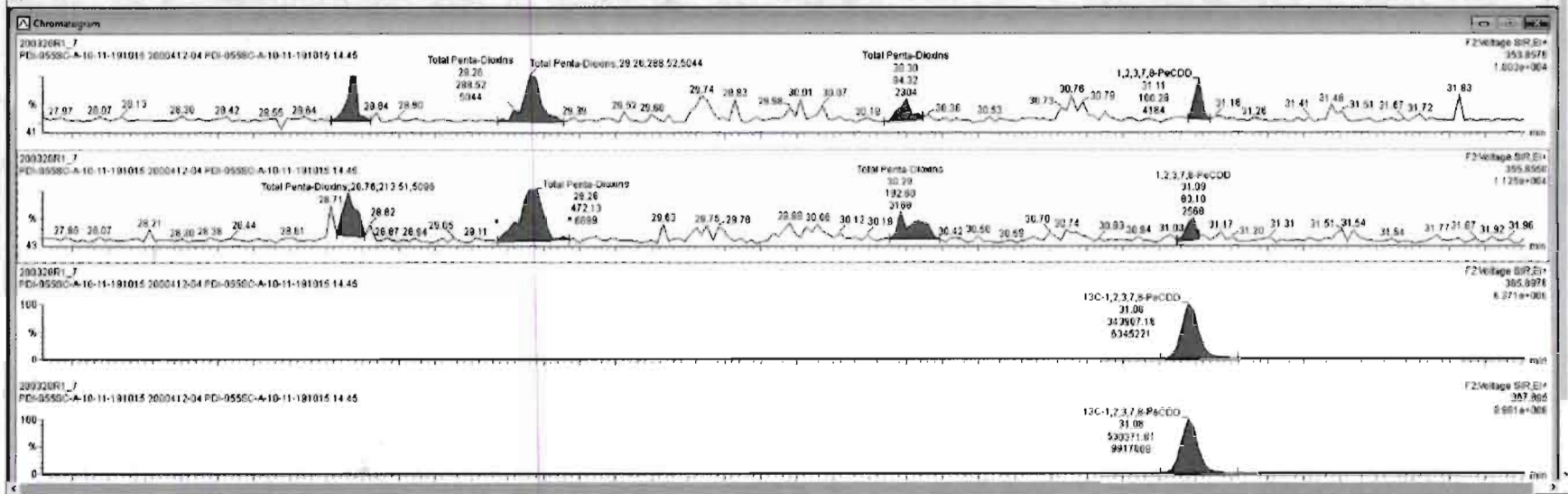


200320R1\_7



SI	Name	Ring	RA	nly	RRF	sdv	RT	NRT	Clas	SMC	DL	EMPC
26	27D-2,3,7,8-TCDD	4.94e6			1.17	10.183	26.90	1.023	76.0	98.7	8.0710	
28	12C-1,2,3,4-TCDD	1.00e6	0.80	NO	1.00	10.183	26.00	1.000	106	100	0.241	
27	13C-1,2,3,4-TCDF	1.72e6	0.79	NO	1.00	10.183	29.07	1.000	106	100	0.301	
28	13C-1,2,3,4,8-HxCDF	1.14e6	0.62	NO	1.00	10.183	34.02	1.000	106	100	0.373	
30	Total Tetra-Dioxins				0.88	10.183					8.0774	0.332

SI	Name	RT	m1 Resp	m2 Resp	1* Ratio (P)	RA	nly	EMPC	Conc.
1	Total Penta-Dioxins	29.70	1.001e2	2.135e2	0.630	0.89	YES	0.034909	0.00000
2	Total Penta-Dioxins	29.26	2.095e2	4.721e2	0.630	0.61	NO	0.19050	0.00550
3	Total Penta-Dioxins	30.30	9.432e1	1.926e2	0.630	0.49	YES	0.059512	0.00000
4	1,2,3,7,8-PeCDD	31.11	1.003e2	0.310e1	0.630	1.21	YES	0.623301	0.00000



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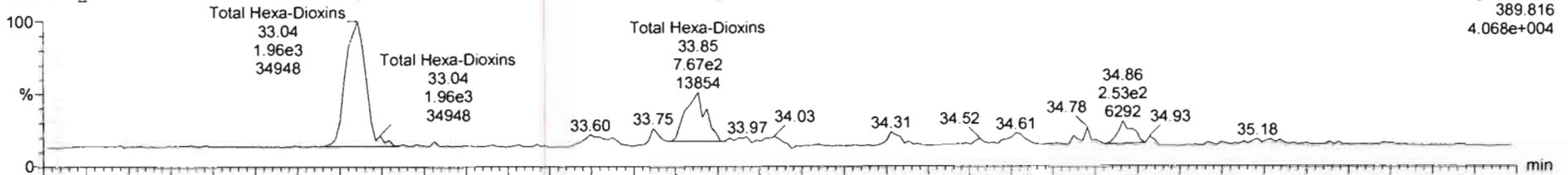
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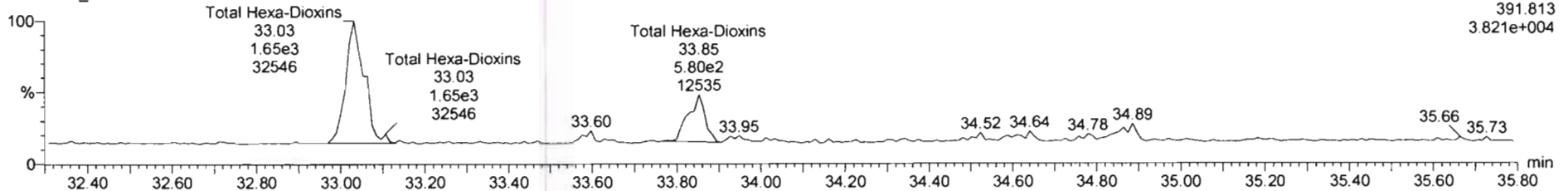
1,2,3,4,7,8-HxCDD

200320R1\_7



F3: Voltage SIR, EI+  
389.816  
4.068e+004

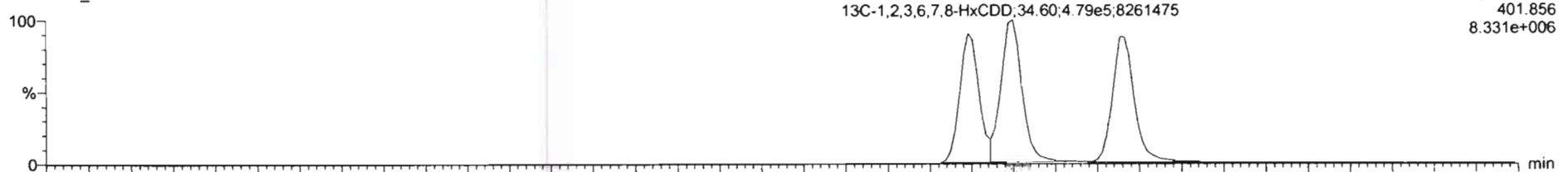
200320R1\_7



F3: Voltage SIR, EI+  
391.813  
3.821e+004

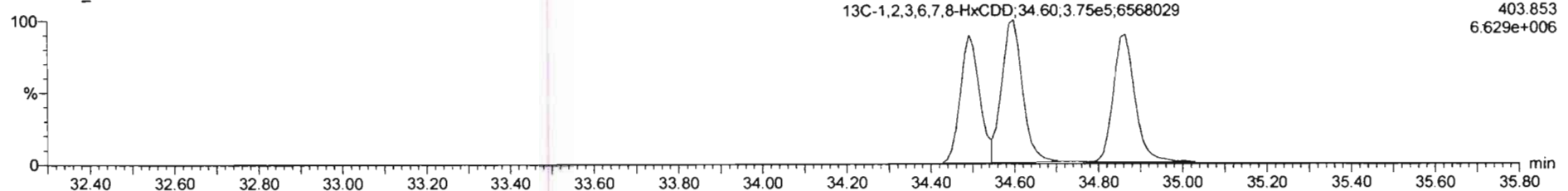
13C-1,2,3,4,7,8-HxCDD

200320R1\_7



F3: Voltage SIR, EI+  
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200320R1\_7



F3: Voltage SIR, EI+  
403.853  
6.629e+006

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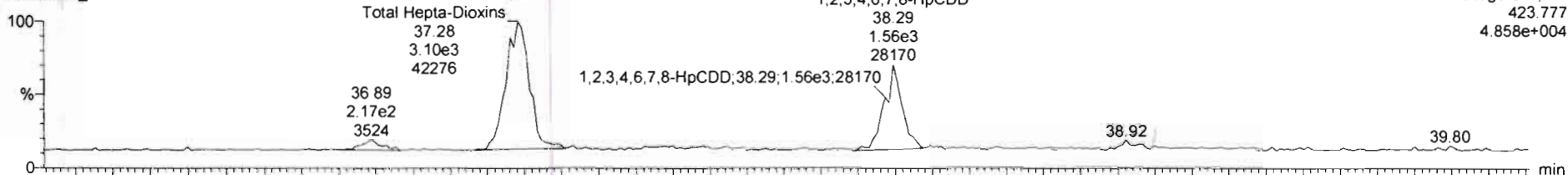
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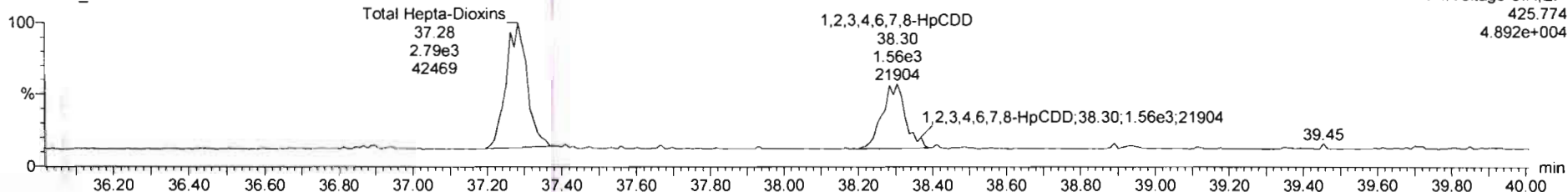
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1,2,3,4,6,7,8-HpCDD

200320R1\_7

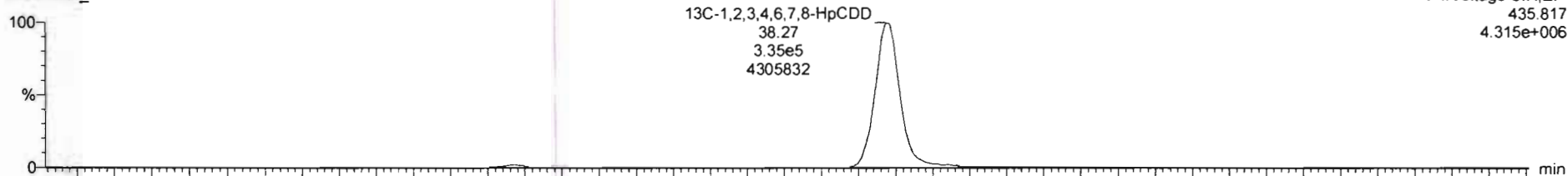


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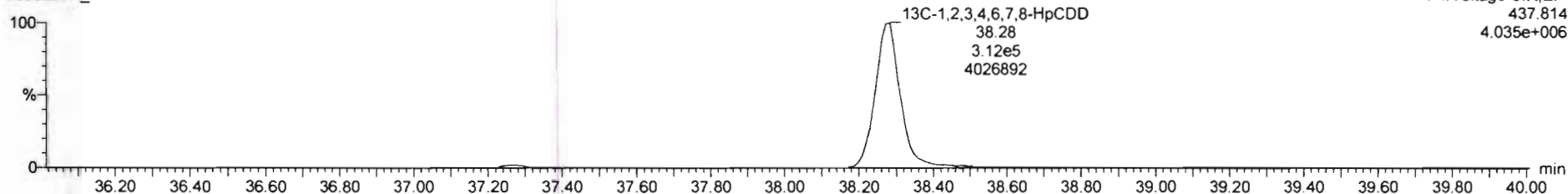


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_7



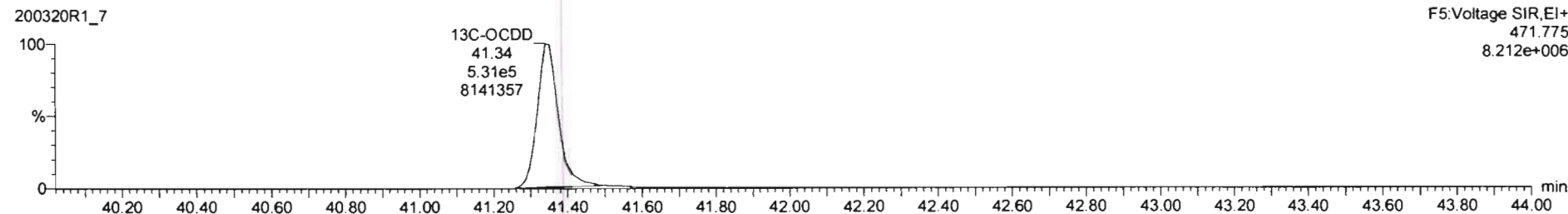
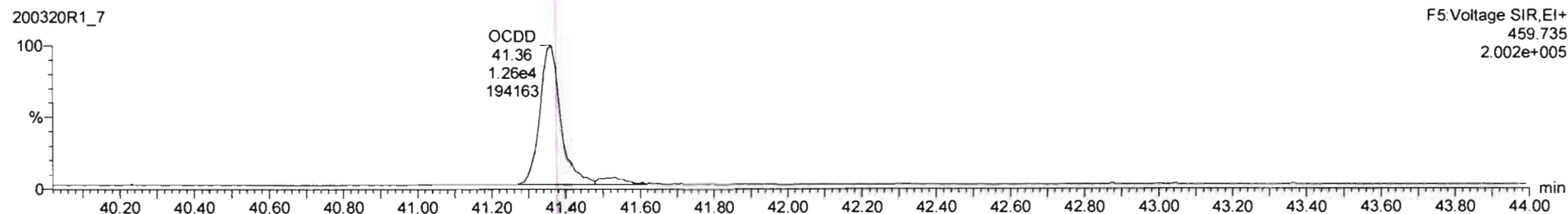
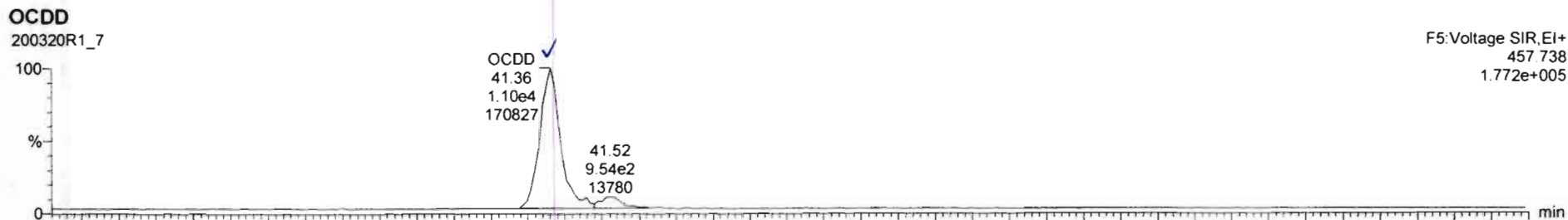
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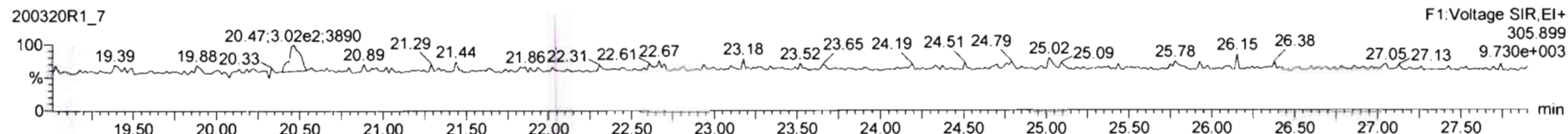
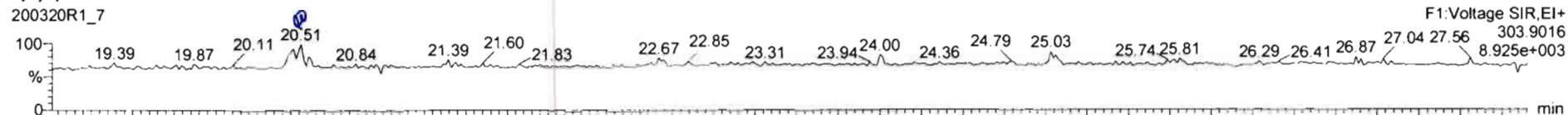


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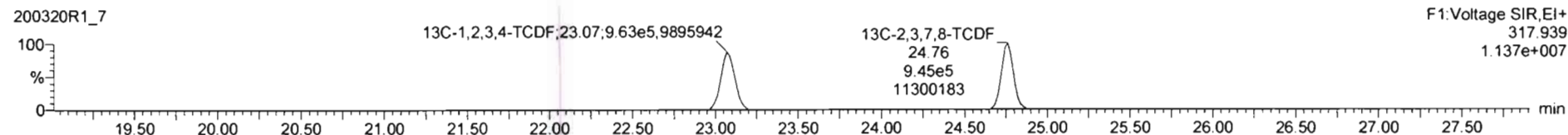
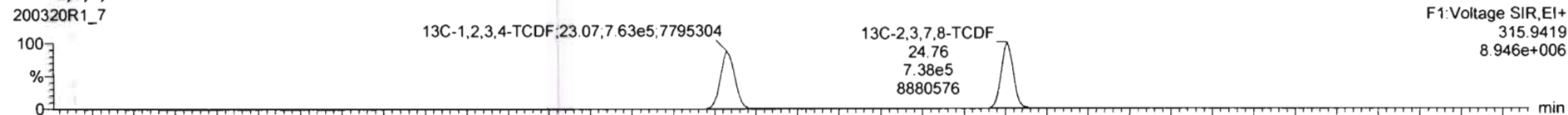
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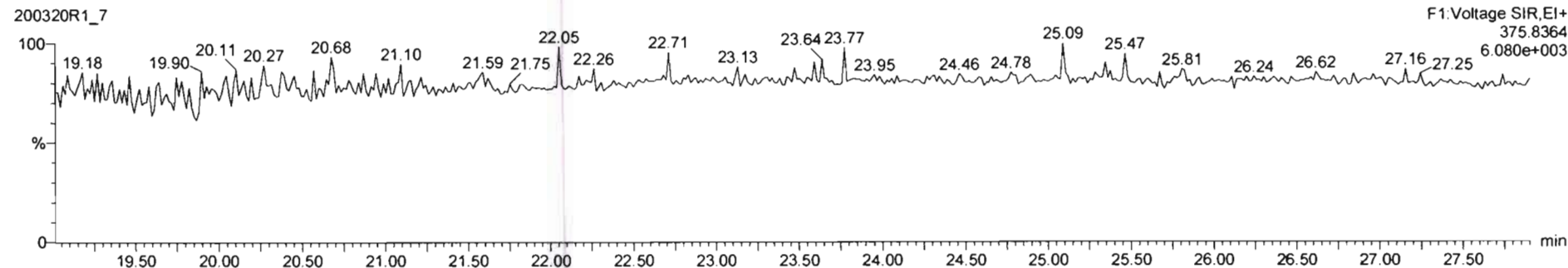
**2,3,7,8-TCDF**



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



**DPE1**



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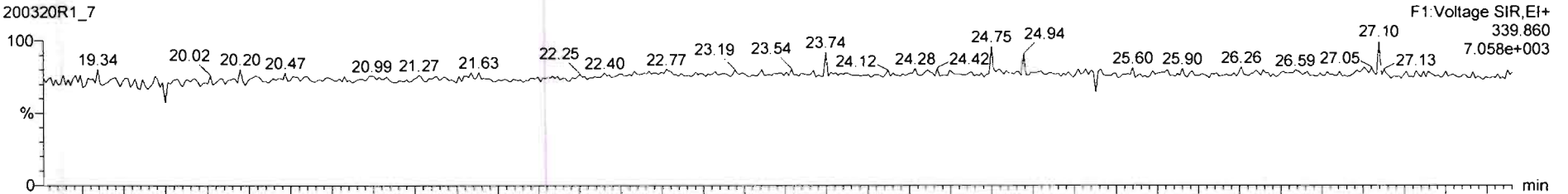
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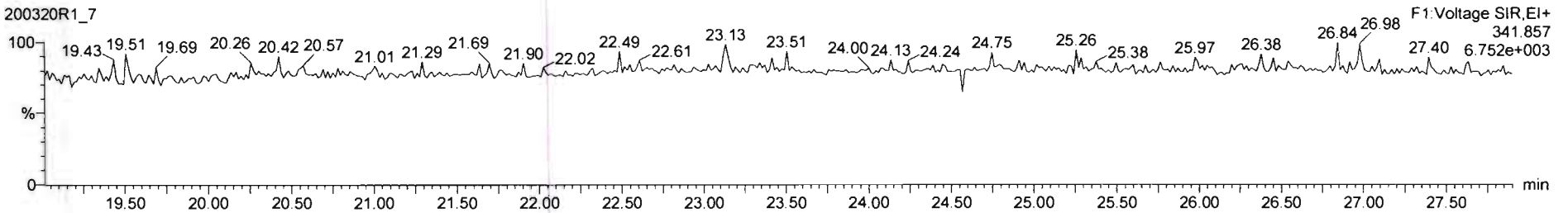
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1st Func. Penta-Furans

200320R1\_7

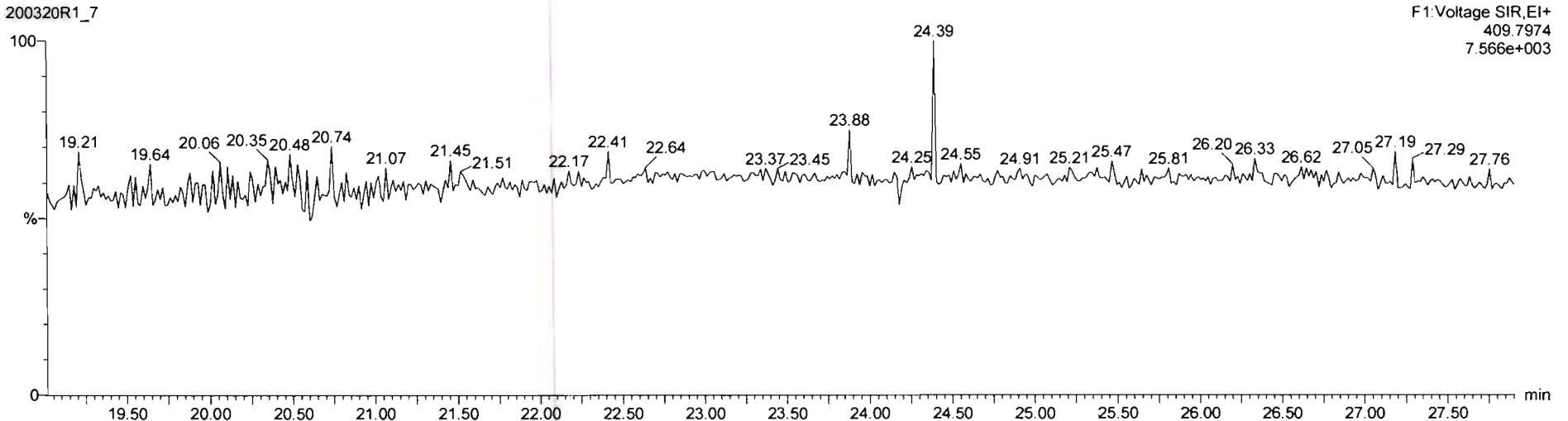


200320R1\_7



DPE6

200320R1\_7





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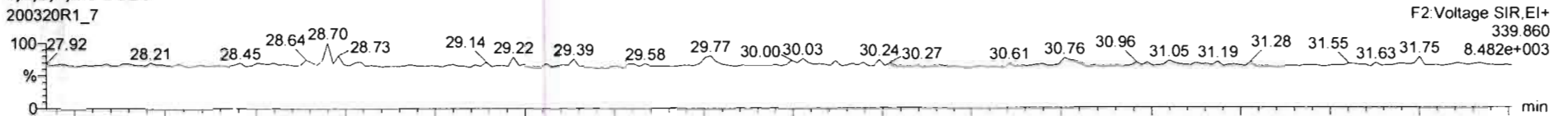
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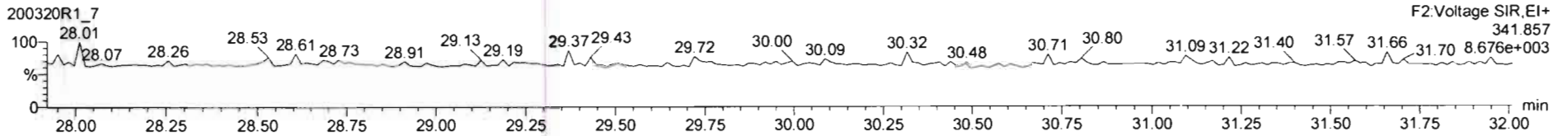
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**1,2,3,7,8-PeCDF**

200320R1\_7

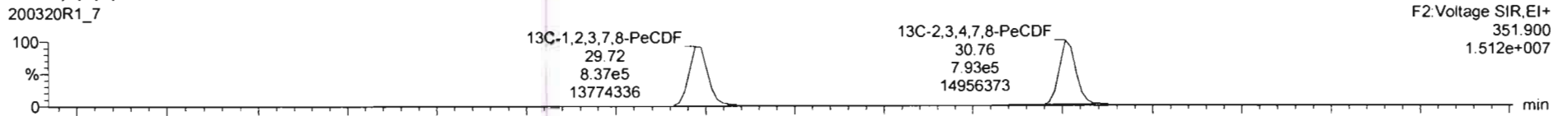


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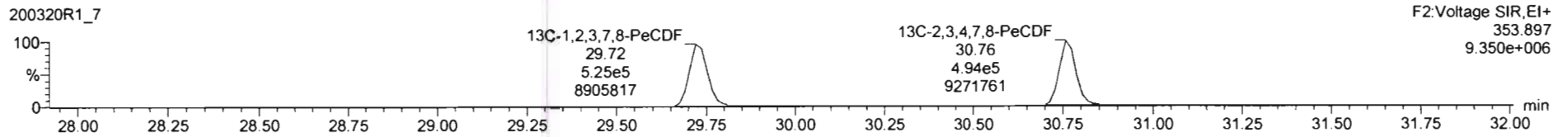


**13C-1,2,3,7,8-PeCDF**

200320R1\_7

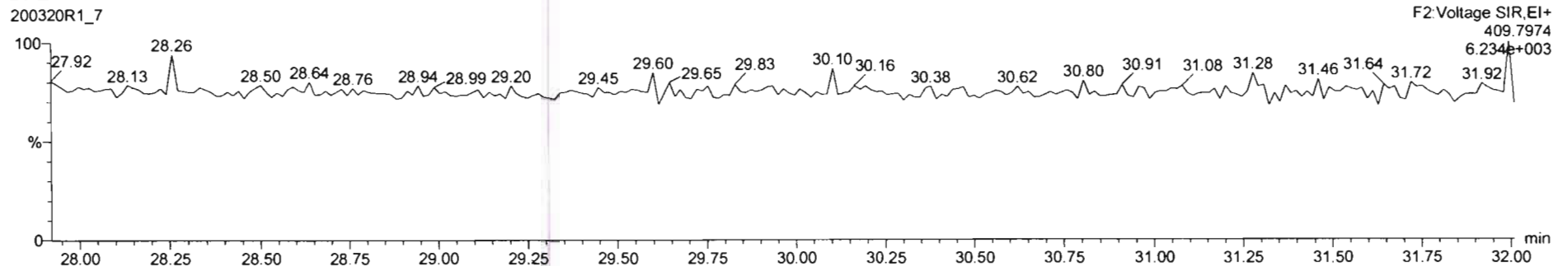


200320R1\_7



**DPE2**

200320R1\_7



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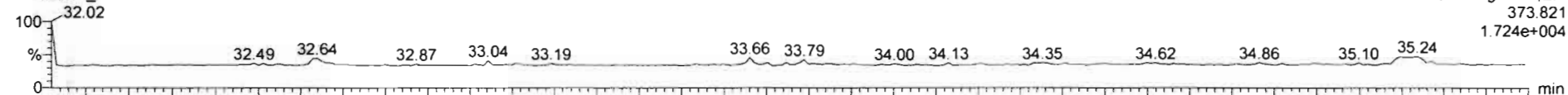
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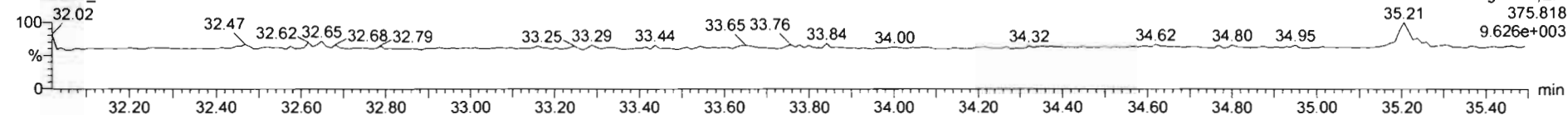
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**1,2,3,4,7,8-HxCDF**

200320R1\_7

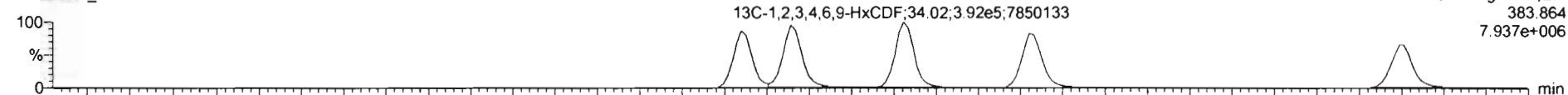


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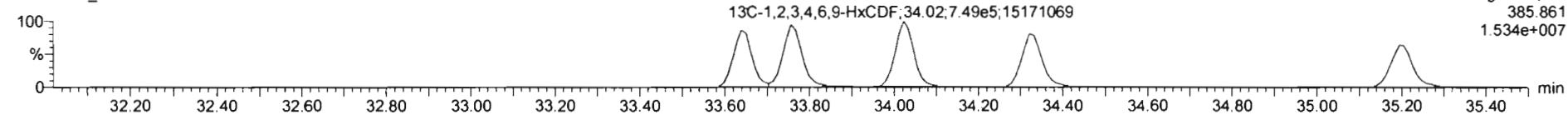


**13C-1,2,3,4,7,8-HxCDF**

200320R1\_7

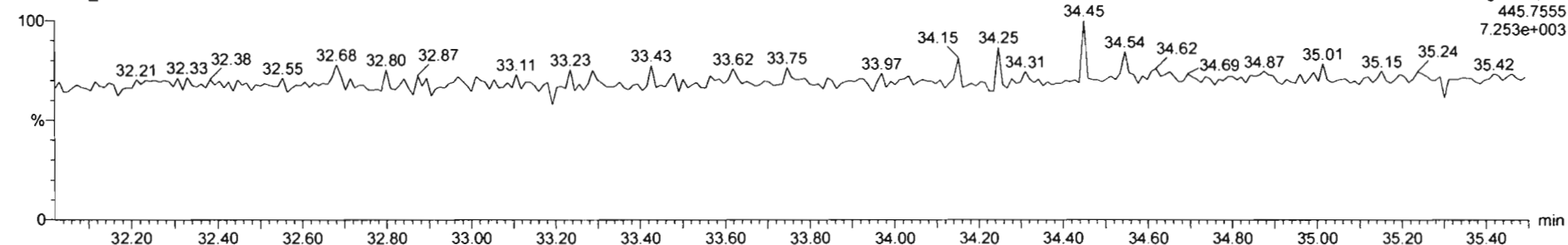


200320R1\_7



**DPE3**

200320R1\_7

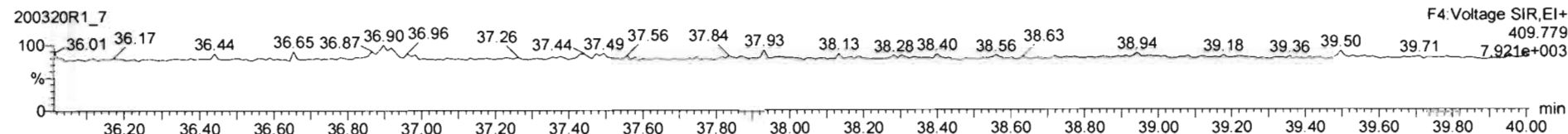
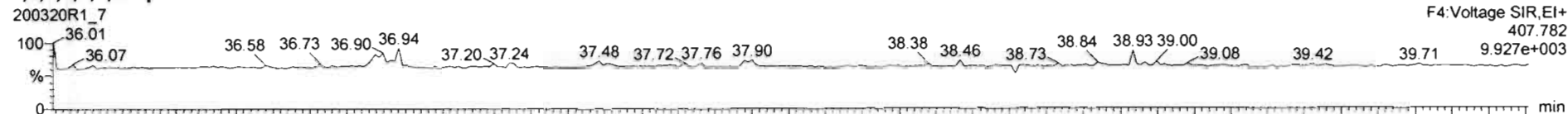


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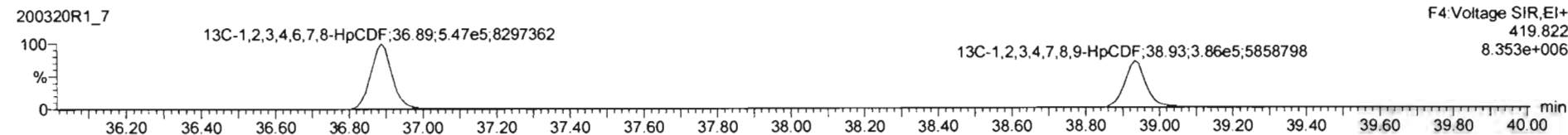
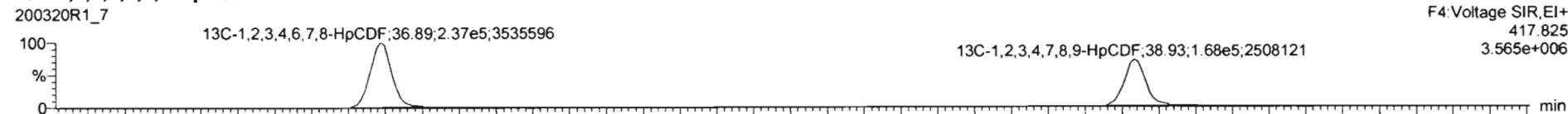
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24, ID: 2000412-04 PDI-055SC-A-10-11-191015 14.45, Description: PDI-055SC-A-10-11-191015

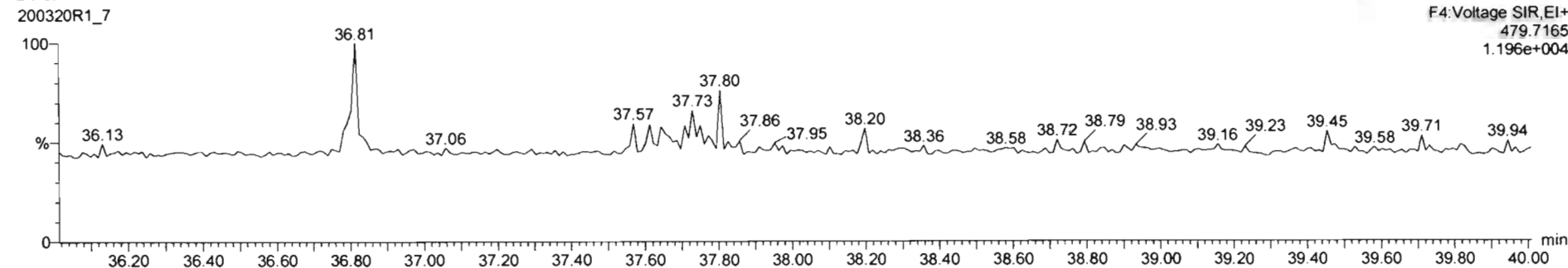
**1,2,3,4,6,7,8-HpCDF**



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



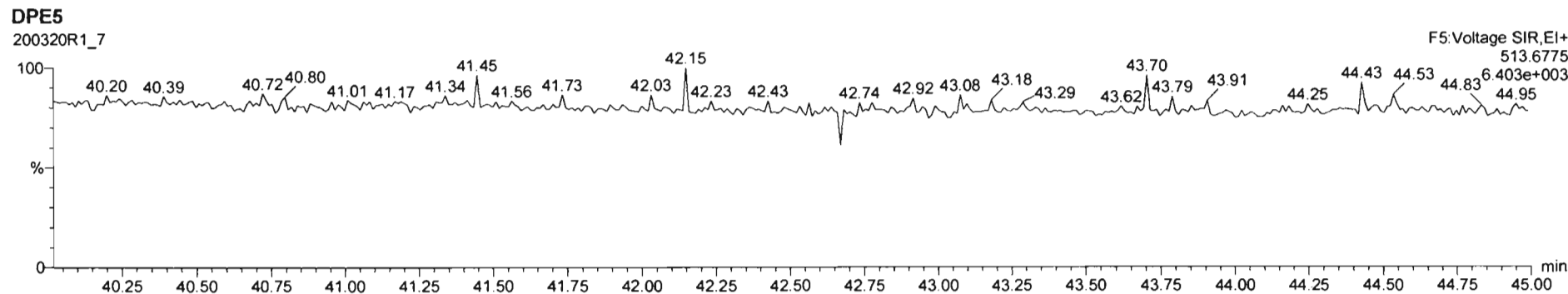
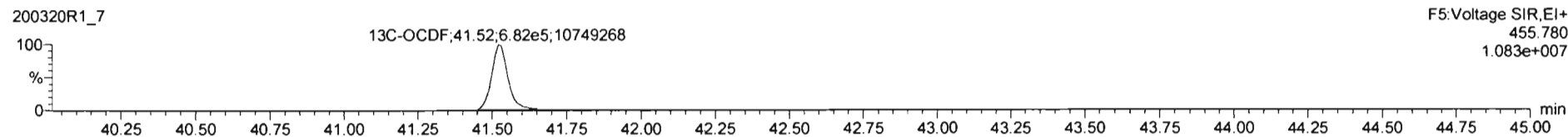
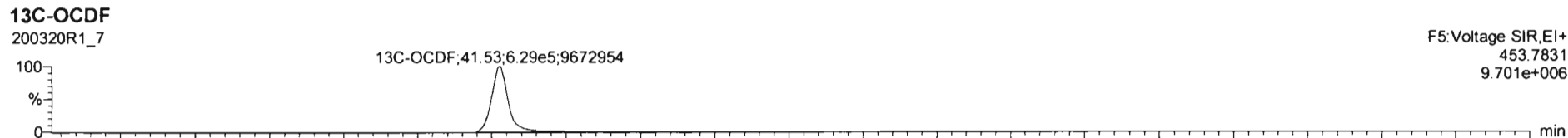
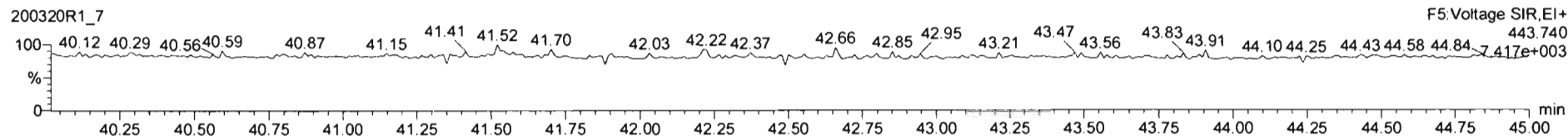
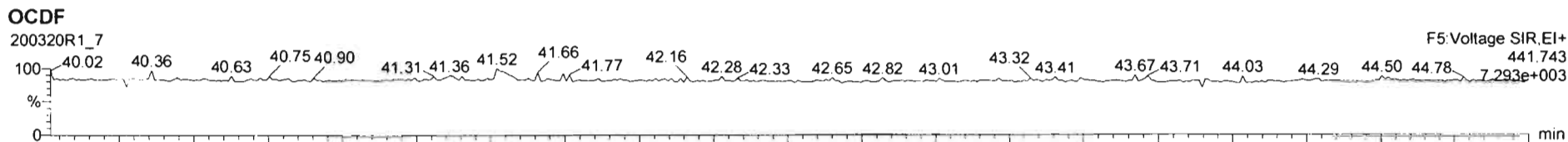
**DPE4**



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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_7, Date: 20-Mar-2020, Time: 18:37:24, ID: 2000412-04 PDI-055SC-A-10-11-191015 14.45, Description: PDI-055SC-A-10-11-191015



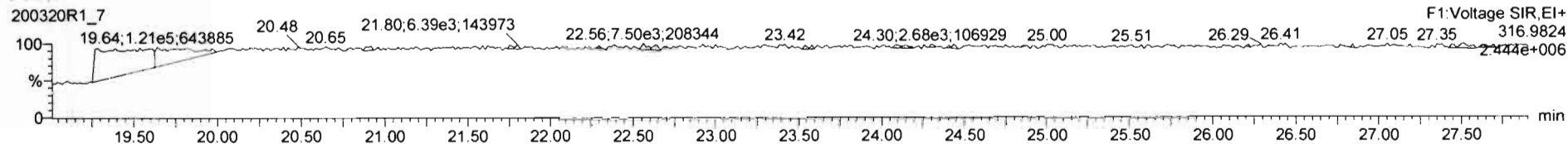
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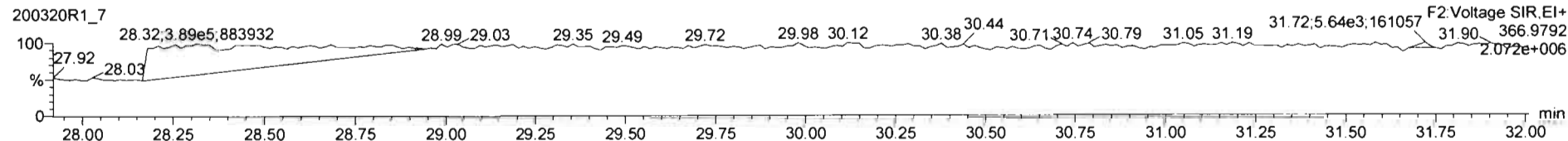
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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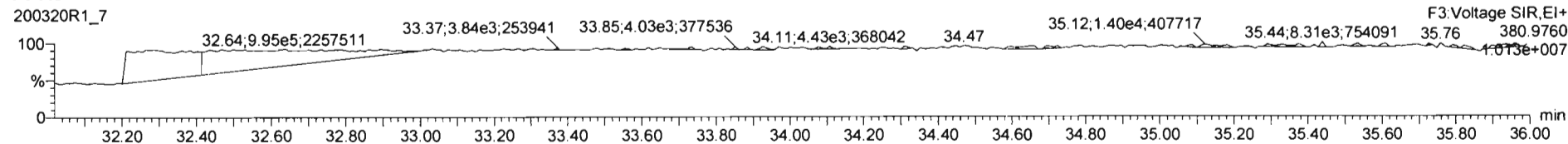
PFK1



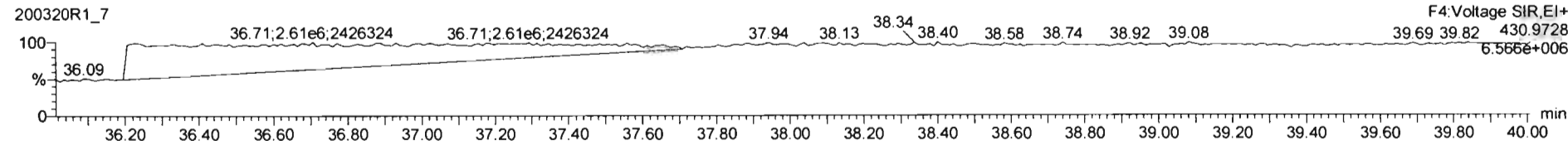
PFK2



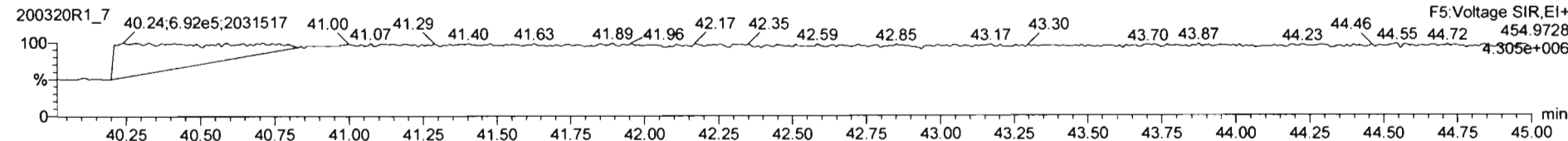
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-8.qld

Last Altered: Thursday, March 26, 2020 14:32:07 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:34:52 Pacific Daylight Time

*PA 03/26/2020*

*C104/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD		1.04e6			10.04	25.81		1.00		NO			0.075	
2	2 1,2,3,7,8-PeCDD		7.37e5			10.04	31.12		1.00		NO			0.061	
3	3 1,2,3,4,7,8-HxCDD		6.01e5			10.04	34.50		1.00		NO			0.071	
4	4 1,2,3,6,7,8-HxCDD		7.00e5			10.04	34.60		1.00		NO			0.072	
5	5 1,2,3,7,8,9-HxCDD		6.50e5			10.04	34.87		1.00		NO			0.085	
6	6 1,2,3,4,6,7,8-HpCDD	1.32e3	5.44e5	1.007	NO	10.04	38.29	38.30	1.00	1.00	NO	0.48038		0.092	0.48038
7	7 OCDD	6.26e3	8.83e5	0.887	NO	10.04	41.35	41.35	1.00	1.00	NO	2.6843		0.105	2.6843
8	8 2,3,7,8-TCDF		1.45e6			10.04	24.80		1.00		NO			0.042	
9	9 1,2,3,7,8-PeCDF		1.13e6			10.04	29.76		1.00		NO			0.032	
10	10 2,3,4,7,8-PeCDF		1.12e6			10.04	30.80		1.00		NO			0.031	
11	11 1,2,3,4,7,8-HxCDF		8.38e5			10.04	33.65		1.00		NO			0.033	
12	12 1,2,3,6,7,8-HxCDF		9.19e5			10.04	33.78		1.00		NO			0.033	
13	13 2,3,4,6,7,8-HxCDF		8.71e5			10.04	34.37		1.00		NO			0.032	
14	14 1,2,3,7,8,9-HxCDF	2.33e2	7.47e5	1.598	YES	10.04	35.20	35.23	1.00	1.00	NO	0.050569		0.024	0.0522...
15	15 1,2,3,4,6,7,8-HpCDF		6.66e5			10.04	36.92		1.00		NO			0.034	
16	16 1,2,3,4,7,8,9-HpCDF		4.79e5			10.04	38.94		1.00		NO			0.039	
17	17 OCDF		1.11e6			10.04	41.53		1.00		NO			0.085	
18	18 13C-2,3,7,8-TCDD	1.04e6	9.67e5	0.789	NO	10.04	25.79	25.78	1.03	1.03	NO	181.27	91.0	0.279	
19	19 13C-1,2,3,7,8-PeCDD	7.37e5	9.67e5	0.642	NO	10.04	31.10	31.09	1.24	1.24	NO	175.68	88.2	0.245	
20	20 13C-1,2,3,4,7,8-HxCDD	6.01e5	9.98e5	1.283	NO	10.04	34.50	34.49	1.01	1.01	NO	159.18	79.9	0.345	
21	21 13C-1,2,3,6,7,8-HxCDD	7.00e5	9.98e5	1.254	NO	10.04	34.60	34.60	1.02	1.02	NO	150.92	75.8	0.281	
22	22 13C-1,2,3,7,8,9-HxCDD	6.50e5	9.98e5	1.282	NO	10.04	34.87	34.86	1.02	1.02	NO	156.41	78.5	0.313	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.44e5	9.98e5	1.083	NO	10.04	38.29	38.28	1.13	1.12	NO	181.44	91.1	0.469	
24	24 13C-OCDD	8.83e5	9.98e5	0.932	NO	10.04	41.36	41.35	1.22	1.21	NO	308.45	77.4	0.545	
25	25 13C-2,3,7,8-TCDF	1.45e6	1.55e6	0.776	NO	10.04	24.78	24.78	0.99	0.99	NO	171.49	86.1	0.379	
26	26 13C-1,2,3,7,8-PeCDF	1.13e6	1.55e6	1.592	NO	10.04	29.74	29.74	1.19	1.19	NO	166.00	83.4	0.535	
27	27 13C-2,3,4,7,8-PeCDF	1.12e6	1.55e6	1.583	NO	10.04	30.72	30.77	1.23	1.23	NO	170.20	85.5	0.556	
28	28 13C-1,2,3,4,7,8-HxCDF	8.38e5	9.98e5	0.515	NO	10.04	33.65	33.65	0.99	0.99	NO	167.07	83.9	0.311	
29	29 13C-1,2,3,6,7,8-HxCDF	9.19e5	9.98e5	0.524	NO	10.04	33.77	33.77	0.99	0.99	NO	164.08	82.4	0.278	
30	30 13C-2,3,4,6,7,8-HxCDF	8.71e5	9.98e5	0.520	NO	10.04	34.33	34.33	1.01	1.01	NO	167.86	84.3	0.300	
31	31 13C-1,2,3,7,8,9-HxCDF	7.47e5	9.98e5	0.510	NO	10.04	35.20	35.20	1.03	1.03	NO	170.67	85.7	0.356	
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.66e5	9.98e5	0.442	NO	10.04	36.91	36.89	1.08	1.08	NO	172.50	86.6	0.379	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-8.qld

Last Altered: Thursday, March 26, 2020 14:32:07 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:34:52 Pacific Daylight Time

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.79e5	9.98e5	0.443	NO	10.04	38.94	38.94	1.14	1.14	NO	184.17	92.5	0.562	
34	34 13C-OCDF	1.11e6	9.98e5	0.882	NO	10.04	41.54	41.53	1.22	1.22	NO	317.76	79.8	0.274	
35	35 37Cl-2,3,7,8-TCDD	4.47e5	9.67e5			10.04	25.82	25.80	1.03	1.03	NO	78.376	98.4	0.062	
36	36 13C-1,2,3,4-TCDD	9.67e5	9.67e5	0.802	NO	10.04	25.03	25.05	1.00	1.00	NO	199.15	100.0	0.330	
37	37 13C-1,2,3,4-TCDF	1.55e6	1.55e6	0.797	NO	10.04	23.09	23.09	1.00	1.00	NO	199.15	100.0	0.413	
38	38 13C-1,2,3,4,6,9-HxCDF	9.98e5	9.98e5	0.527	NO	10.04	34.02	34.03	1.00	1.00	NO	199.15	100.0	0.311	
39	39 Total Tetra-Dioxins		1.04e6			10.04	24.62		0.00		NO			0.045	
40	40 Total Penta-Dioxins		7.37e5			10.04	29.96		0.00		NO			0.026	
41	41 Total Hexa-Dioxins		0.00e0			10.04	33.63		0.00		NO	0.25000		0.079	0.25000
42	42 Total Hepta-Dioxins		5.44e5			10.04	37.64		0.00		NO	1.0076		0.092	1.0076
43	43 Total Tetra-Furans		1.45e6			10.04	23.61		0.00		NO			0.020	
44	44 1st Func. Penta-Furans		0.00e0			10.04	27.09		0.00		NO			0.012	
45	45 Total Penta-Furans		0.00e0			10.04	29.27		0.00		NO			0.015	
46	46 Total Hexa-Furans		0.00e0			10.04	33.56		0.00		NO	0.00000		0.018	0.0522...
47	47 Total Hepta-Furans		0.00e0			10.04	37.83		0.00		NO			0.021	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-8.qld

Last Altered: Thursday, March 26, 2020 14:32:07 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:34:52 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10

**Tetra-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Penta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Hexa-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	41 Total Hexa-Dioxins	33.03	1.108	NO	4.23e2	3.64e5	0.250	0.250

**Hepta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	6 1,2,3,4,6,7,8-HpCDD	38.30	1.007	NO	6.63e2	2.83e5	0.480	0.480
2	42 Total Hepta-Dioxins	37.27	0.944	NO	7.04e2	2.83e5	0.527	0.527

**Tetra-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Penta-Furans function 1**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

**Penta-Furans**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-8.qld

Last Altered: Thursday, March 26, 2020 14:32:07 Pacific Daylight Time

Printed: Thursday, March 26, 2020 14:34:52 Pacific Daylight Time

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10

Hexa-Furans

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	14 1,2,3,7,8,9-HxCDF	35.23	1.598	YES	1.43e2	2.52e5	0.000	0.0522

Hepta-Furans

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1								

Dataset: Untitled

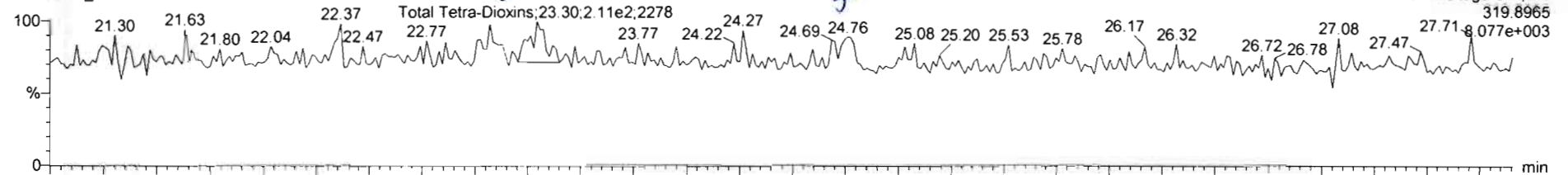
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

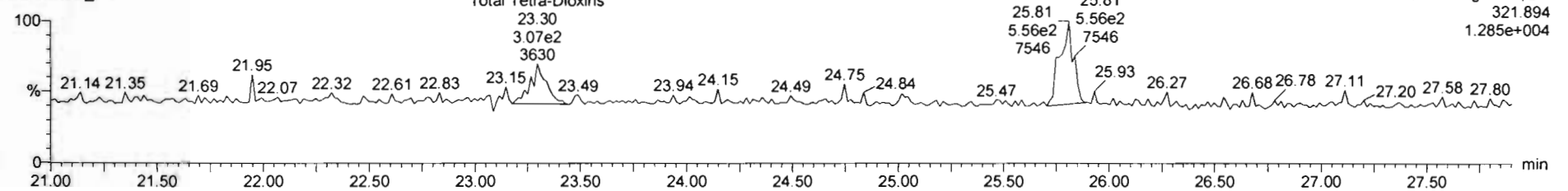
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2,3,7,8-TCDD

200320R1\_8

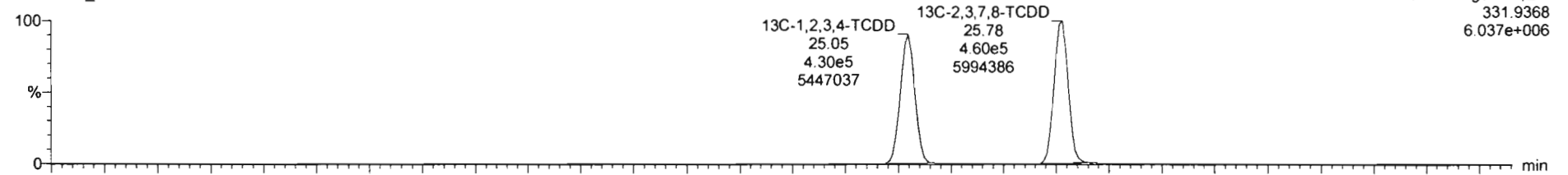


200320R1\_8

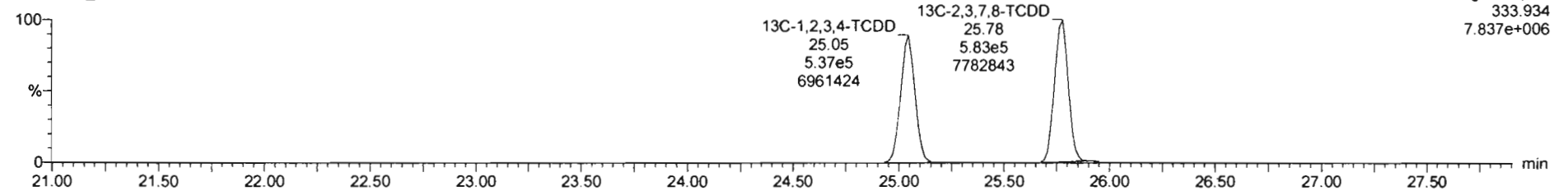


13C-2,3,7,8-TCDD

200320R1\_8



200320R1\_8



Dataset: Untitled

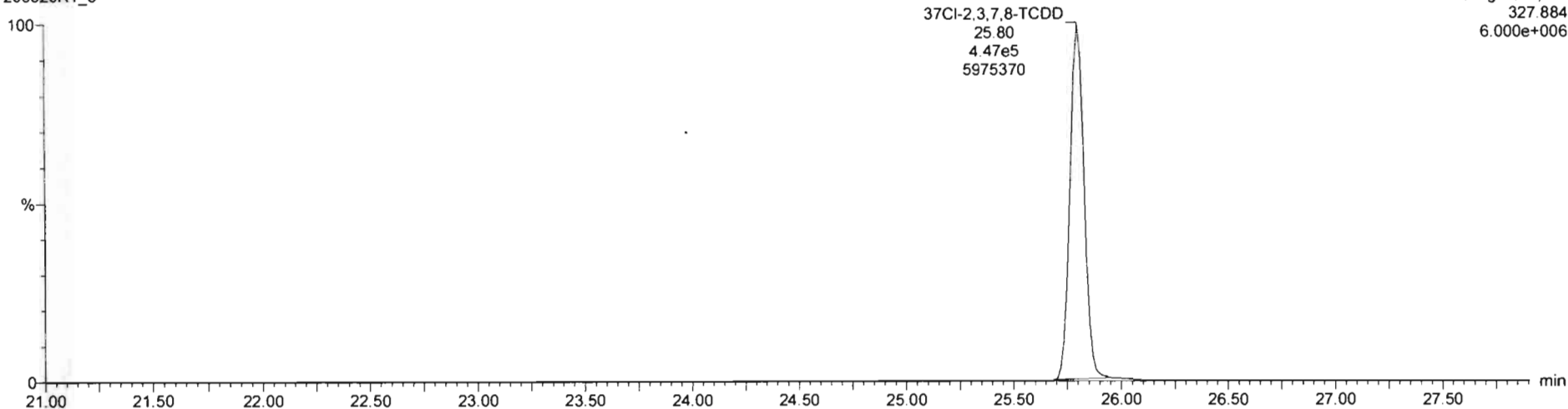
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

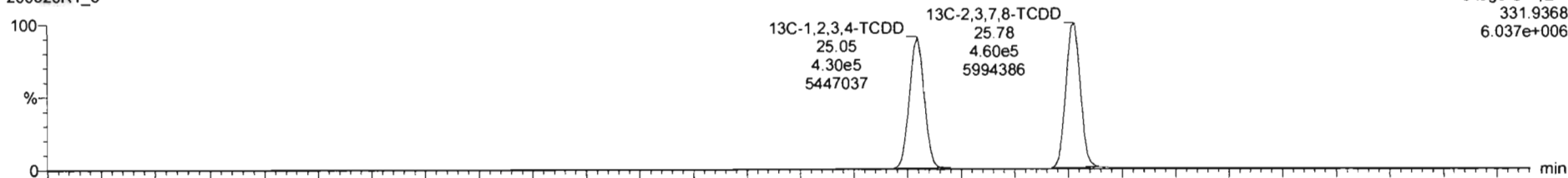
37Cl-2,3,7,8-TCDD

200320R1\_8

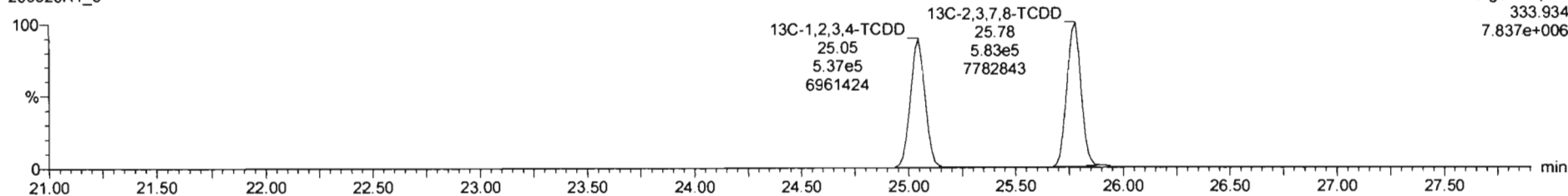


13C-1,2,3,4-TCDD

200320R1\_8



200320R1\_8



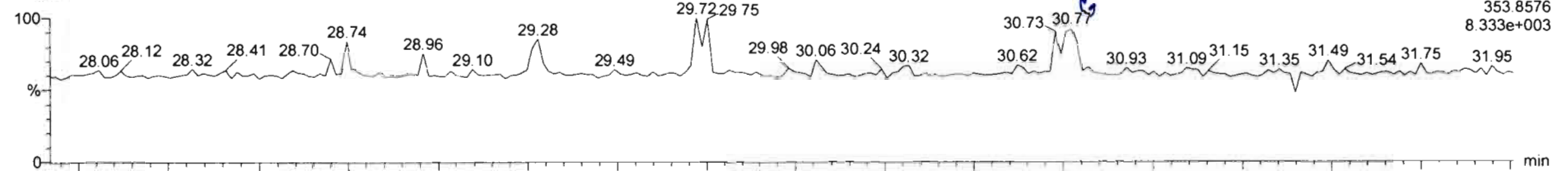
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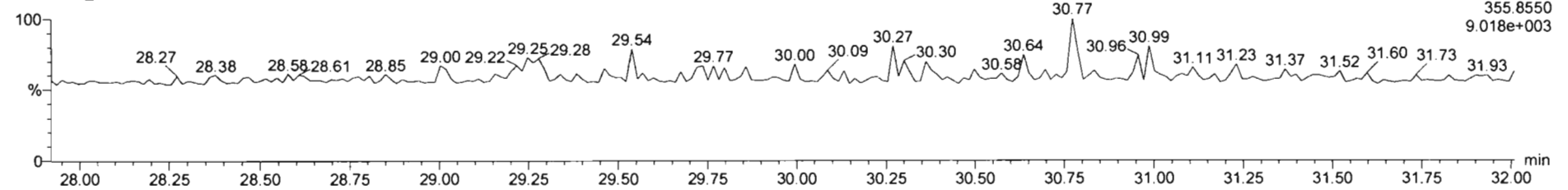
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**1,2,3,7,8-PeCDD**

200320R1\_8

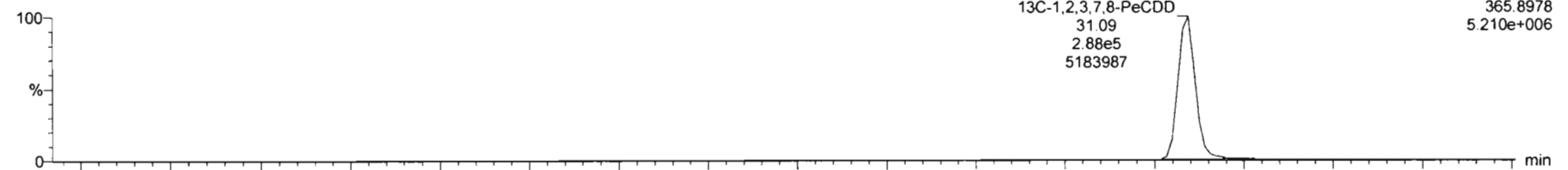


200320R1\_8

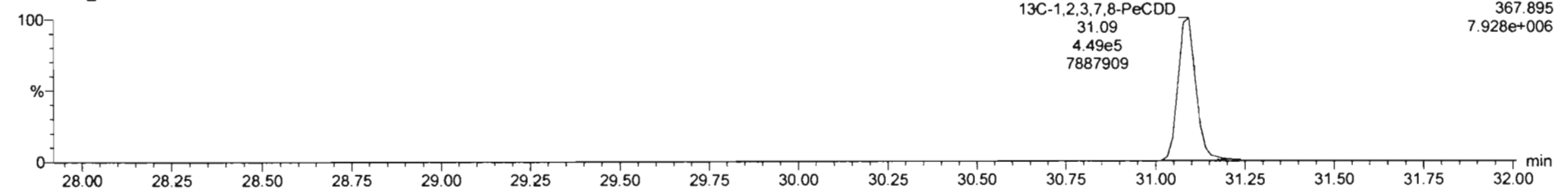


**13C-1,2,3,7,8-PeCDD**

200320R1\_8



200320R1\_8



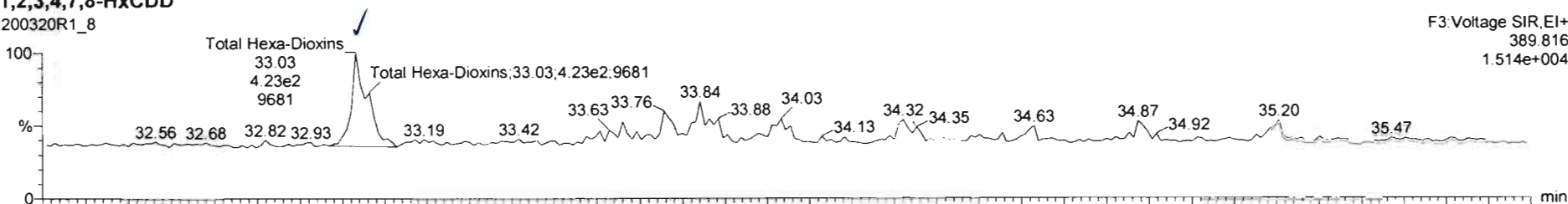
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

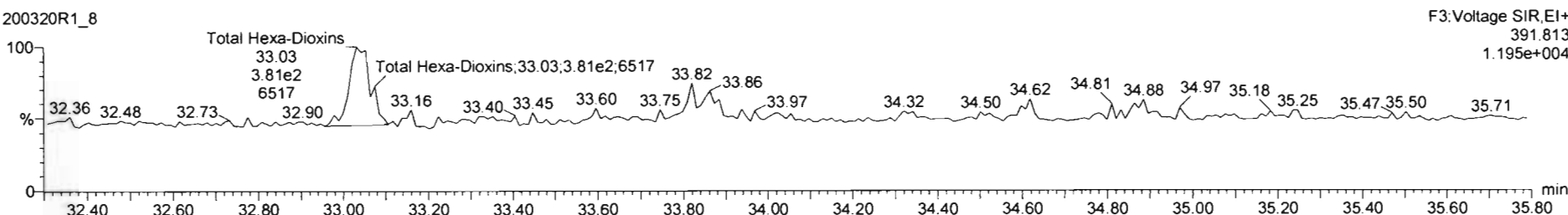
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1,2,3,4,7,8-HxCDD

200320R1\_8

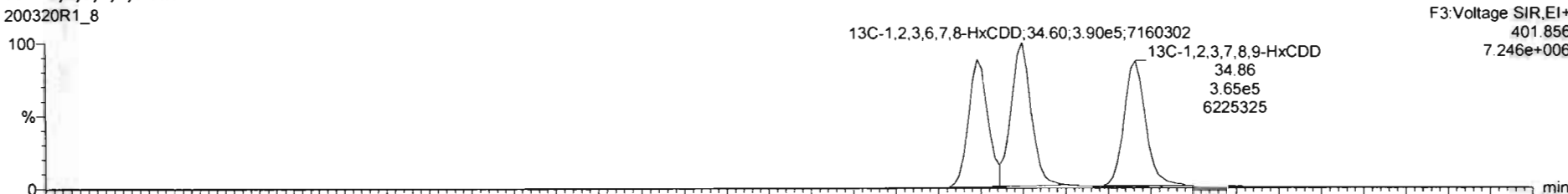


200320R1\_8

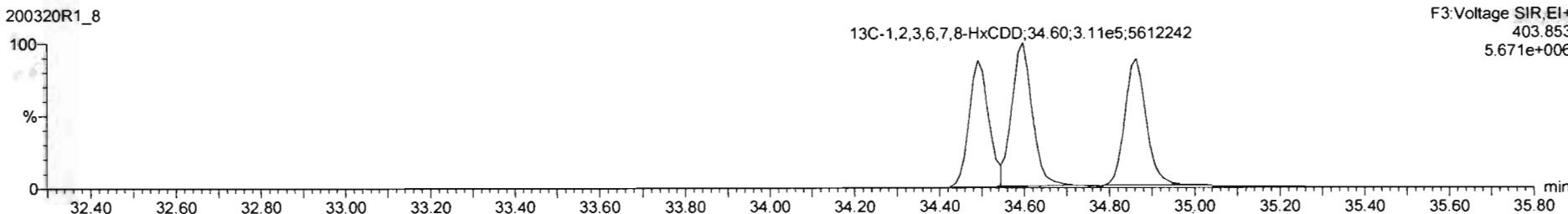


13C-1,2,3,4,7,8-HxCDD

200320R1\_8



200320R1\_8



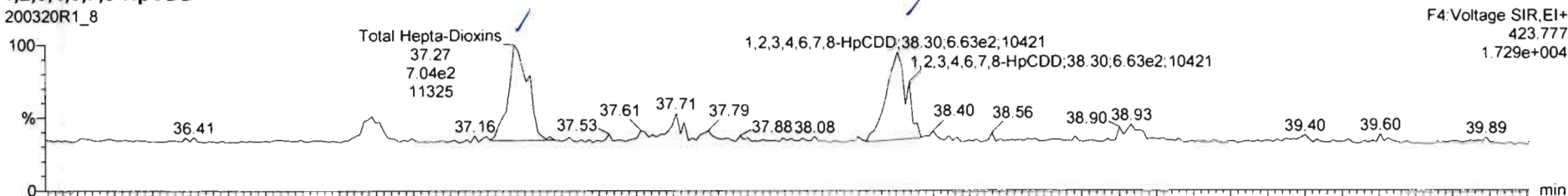
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

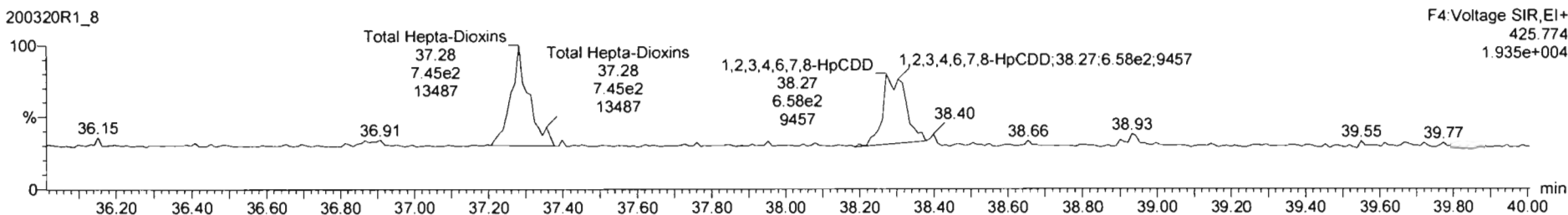
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1,2,3,4,6,7,8-HpCDD

200320R1\_8

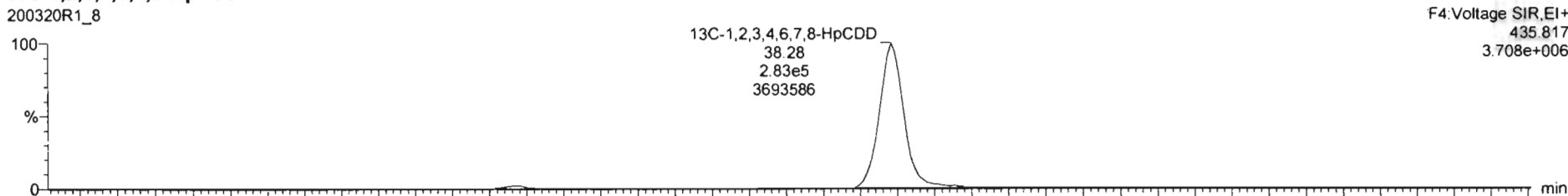


200320R1\_8

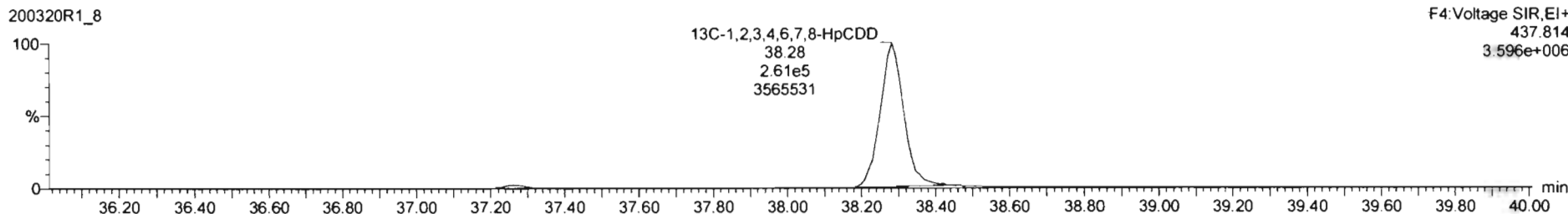


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_8



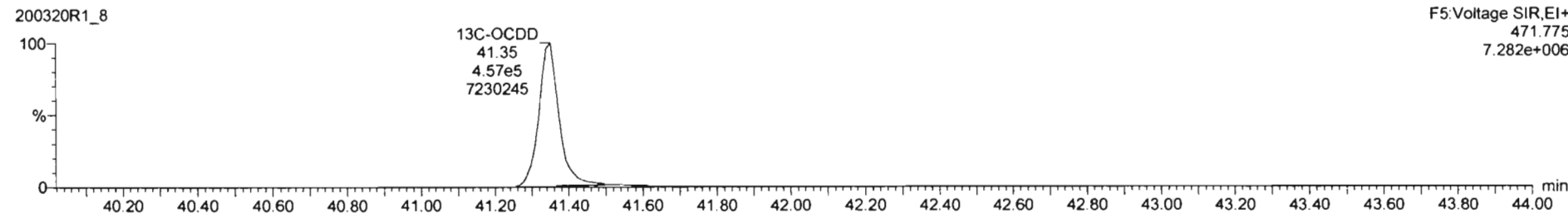
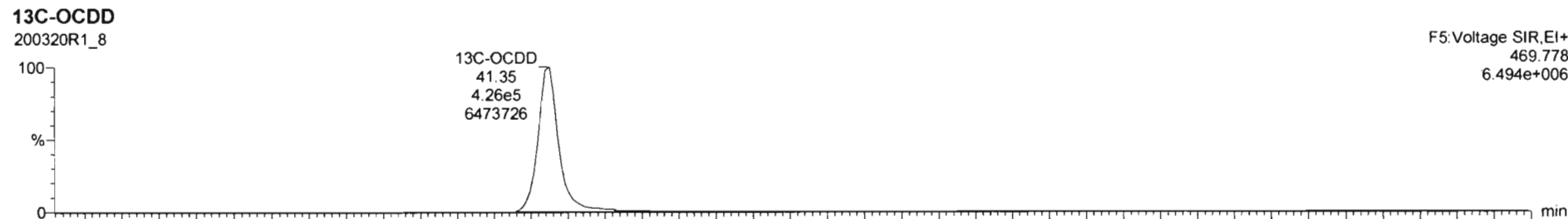
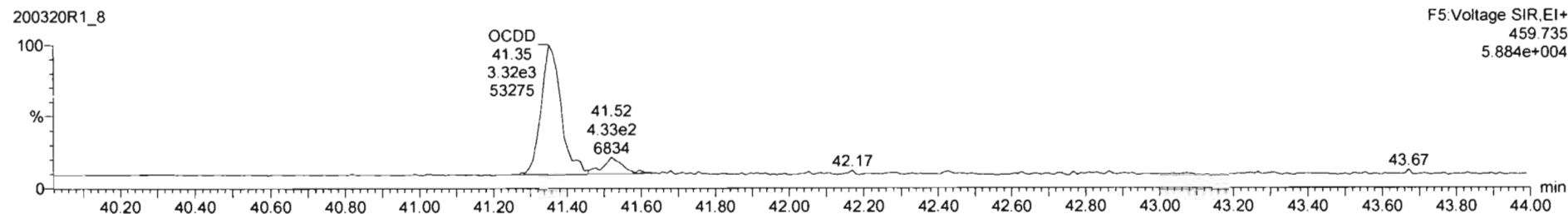
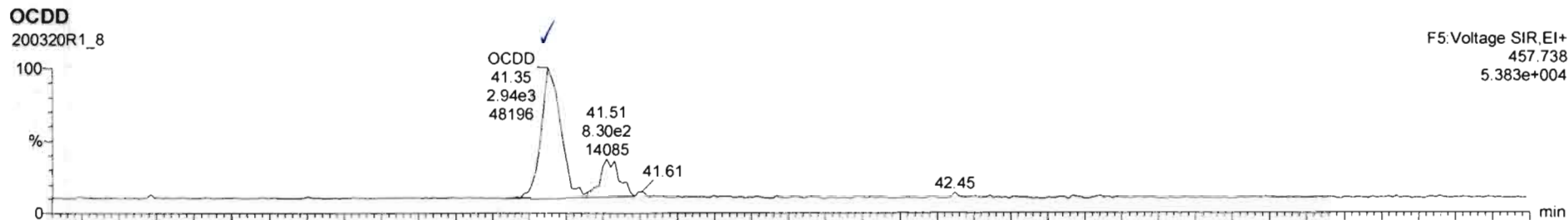
200320R1\_8



Dataset: Untitled

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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014



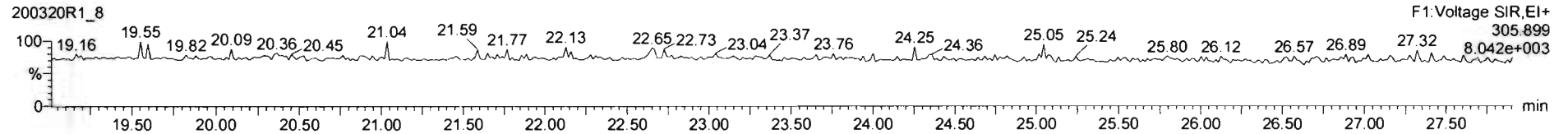
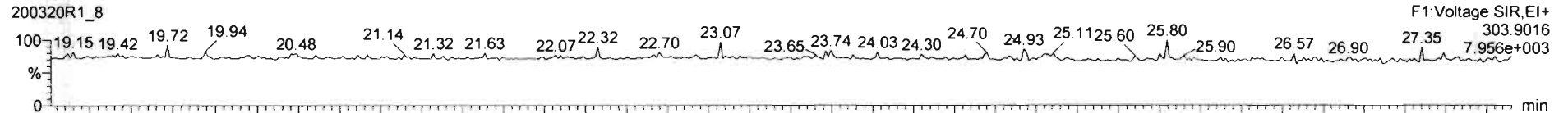
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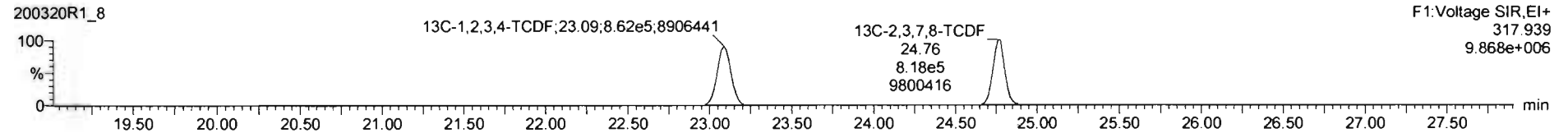
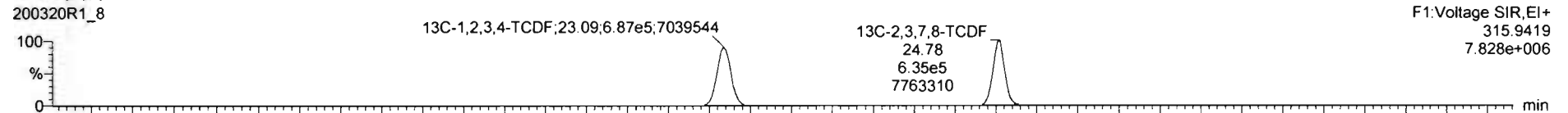
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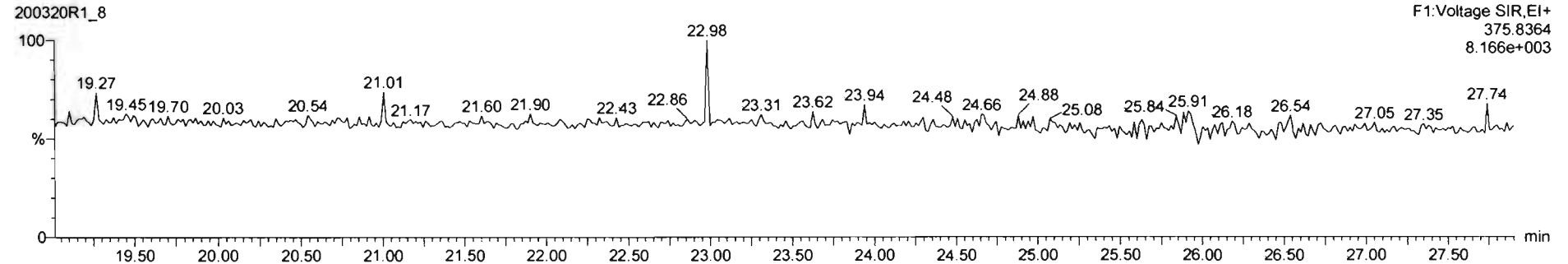
**2,3,7,8-TCDF**



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



**DPE1**





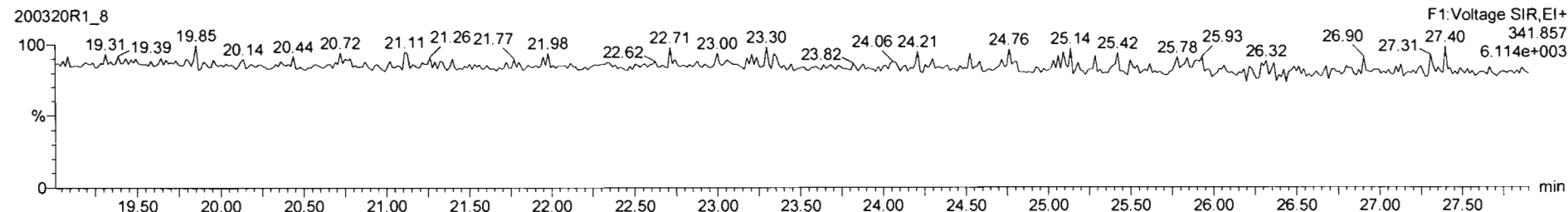
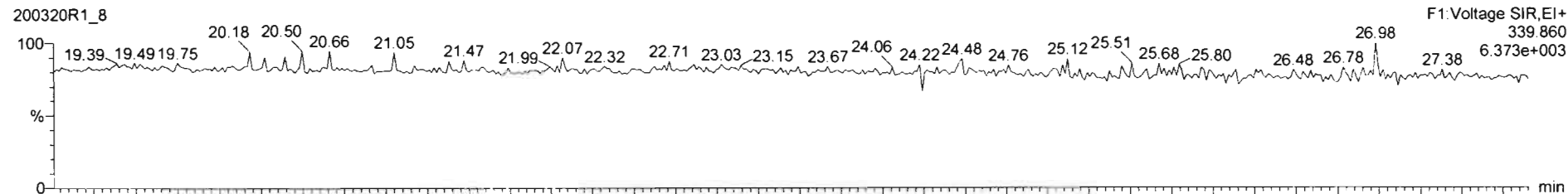
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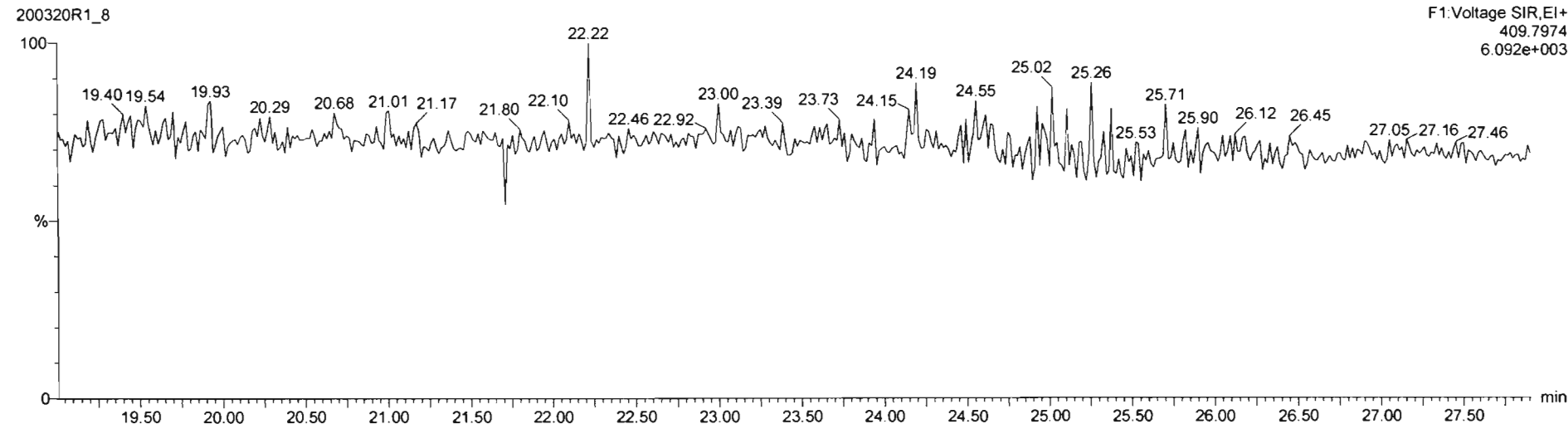
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Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

1st Func. Penta-Furans



DPE6



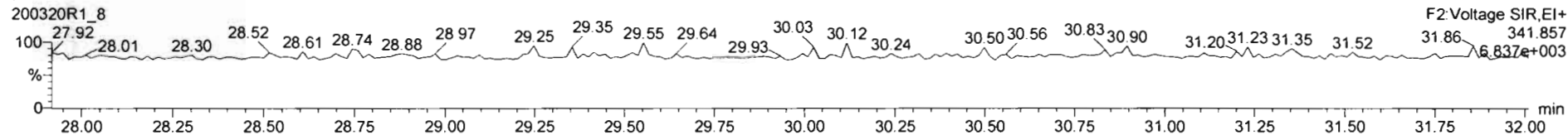
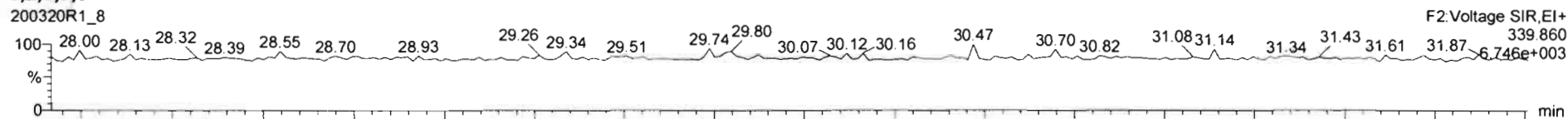
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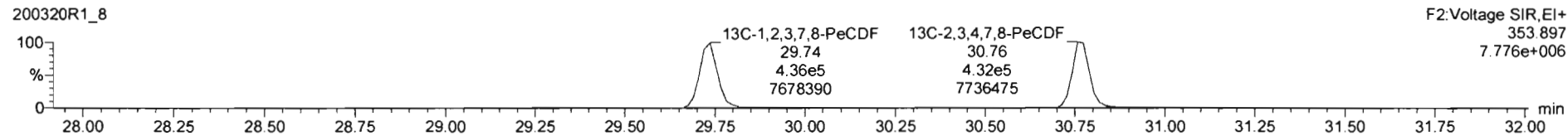
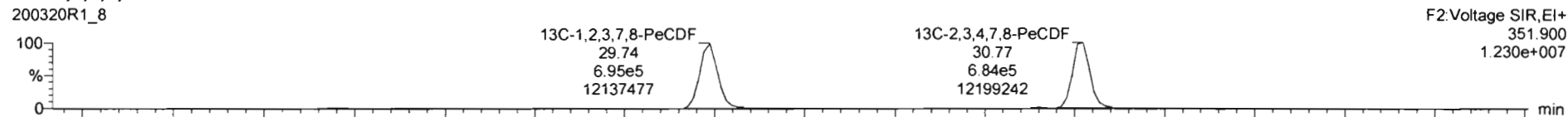
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Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

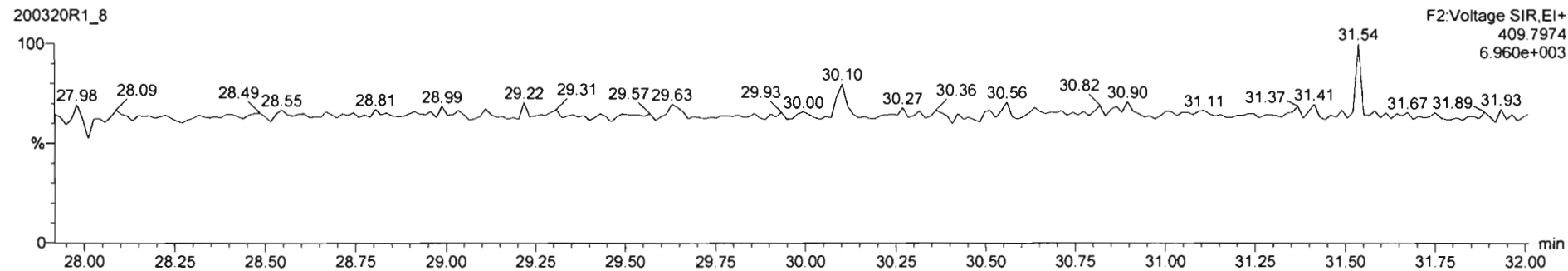
**1,2,3,7,8-PeCDF**



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



**DPE2**



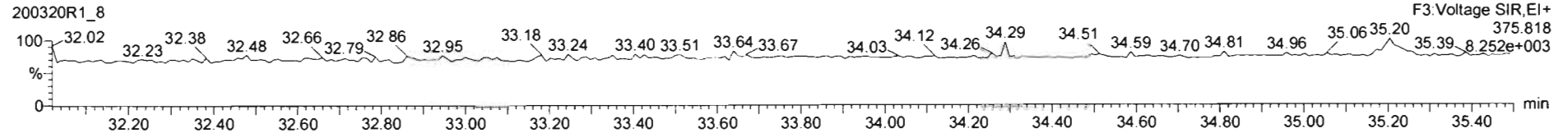
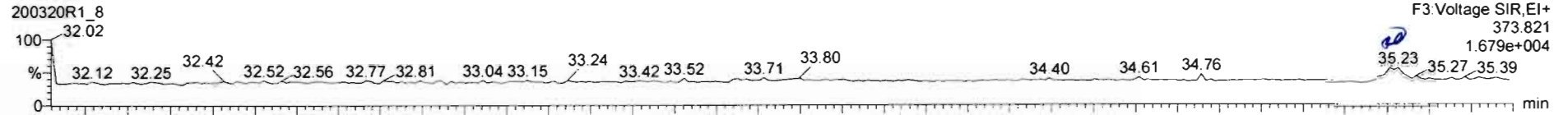
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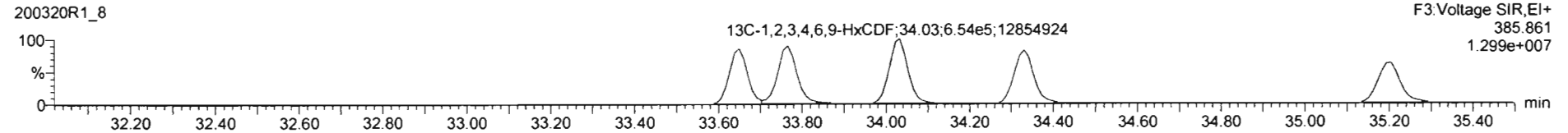
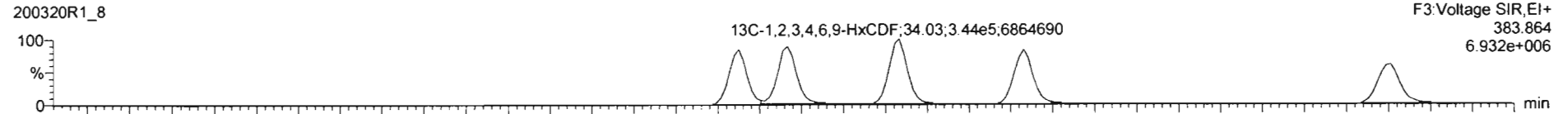
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Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

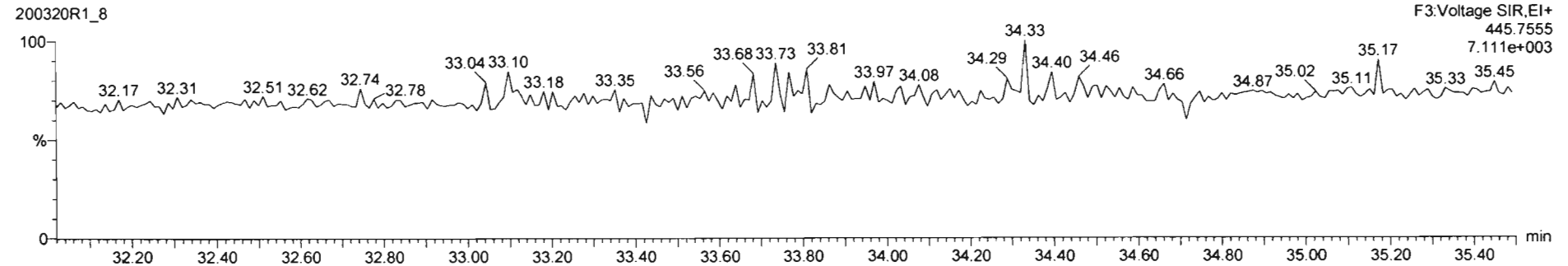
1,2,3,4,7,8-HxCDF

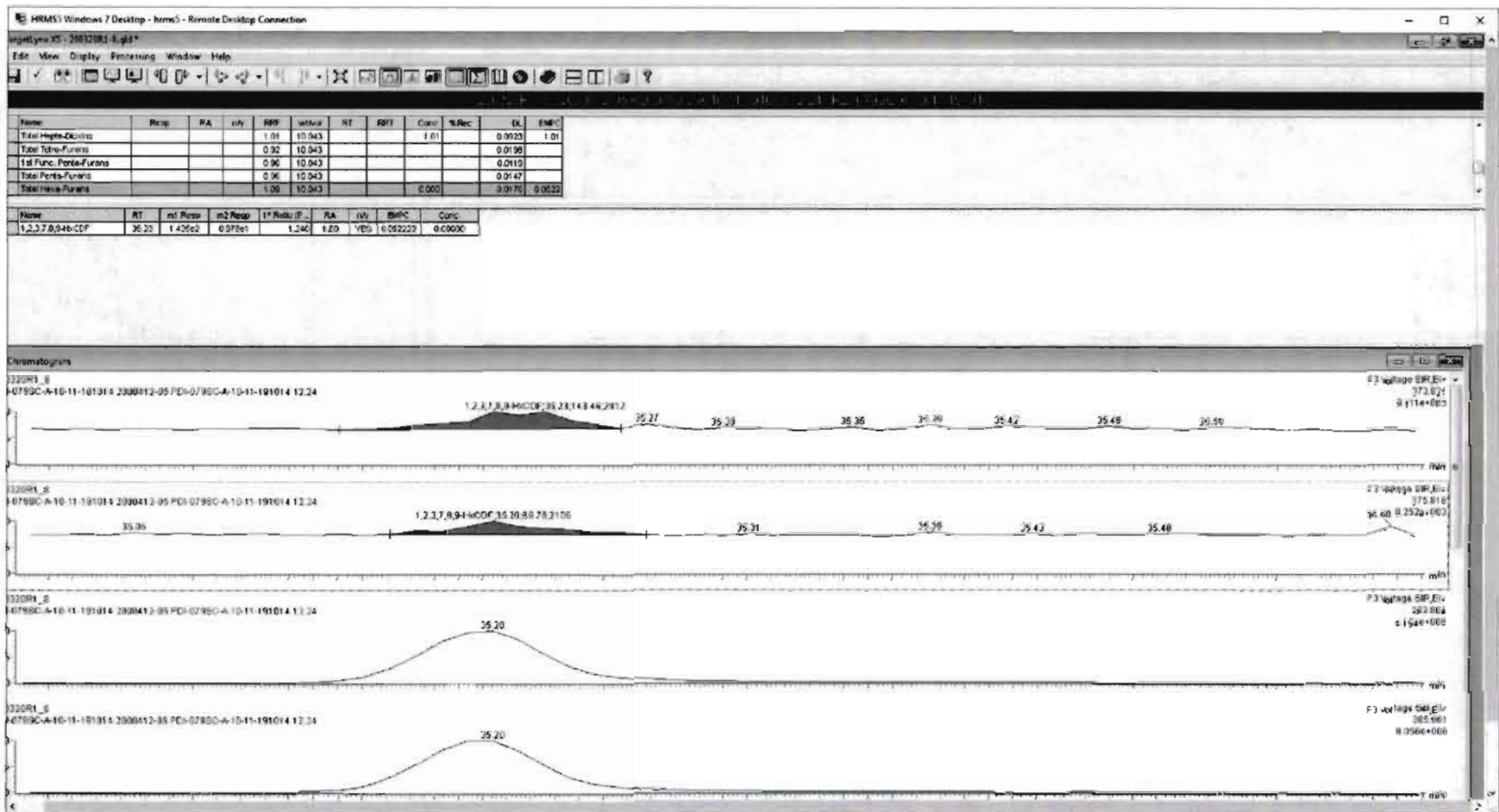


13C-1,2,3,4,7,8-HxCDF



DPE3





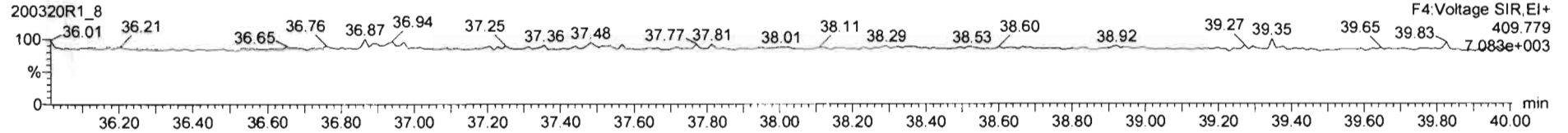
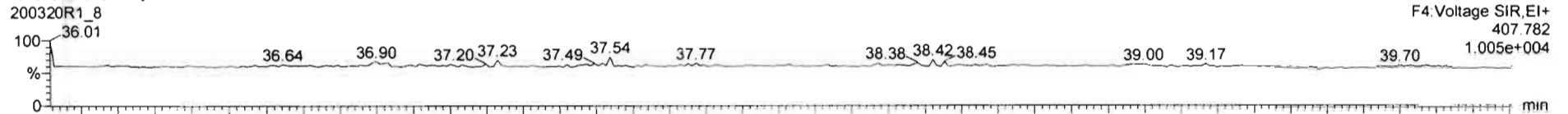
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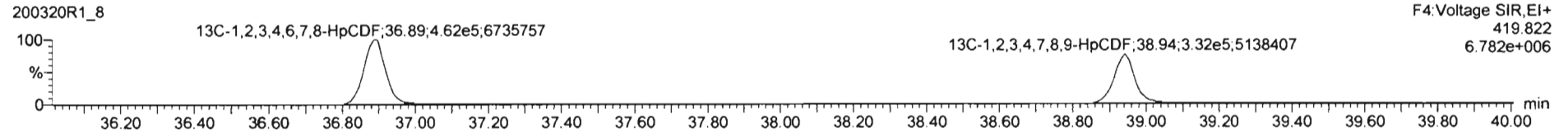
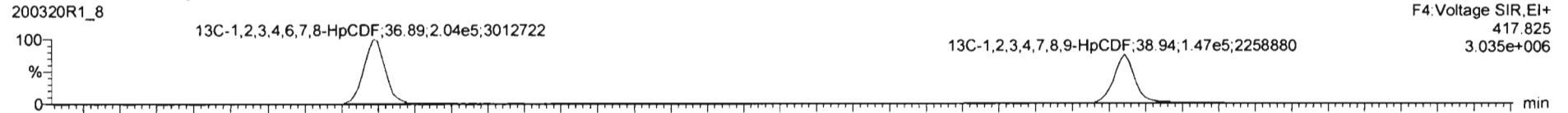
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Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014

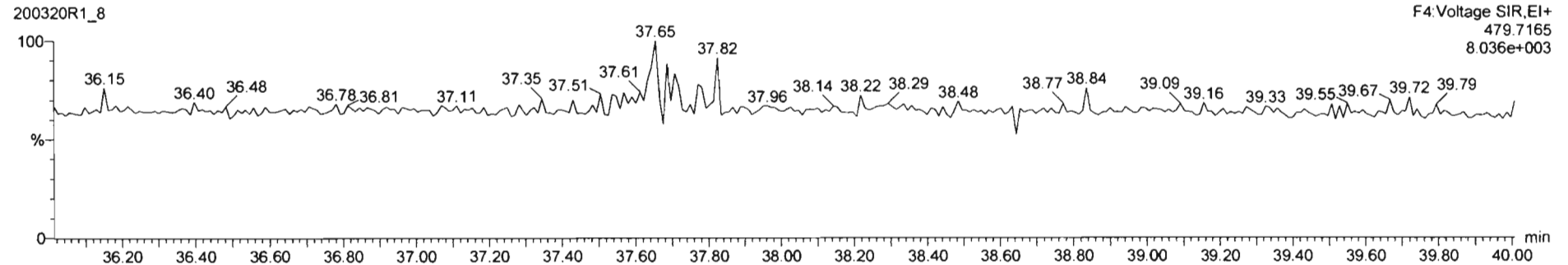
1,2,3,4,6,7,8-HpCDF



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



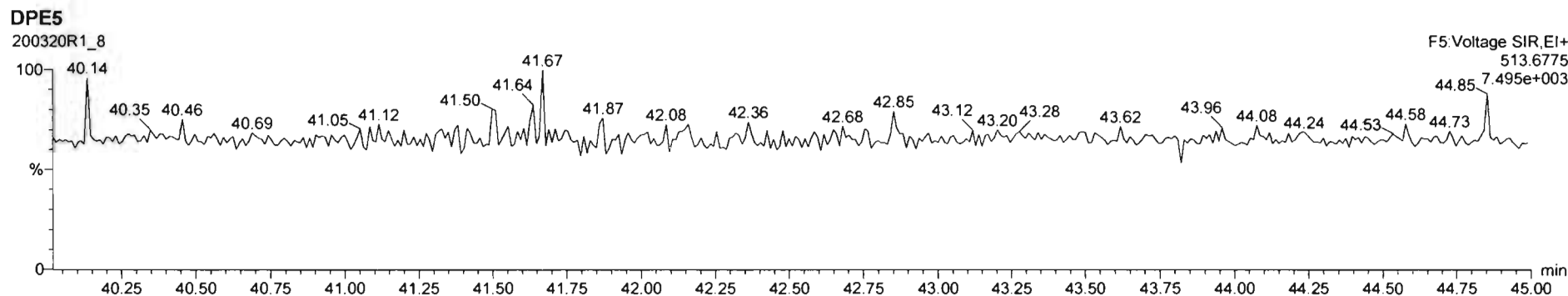
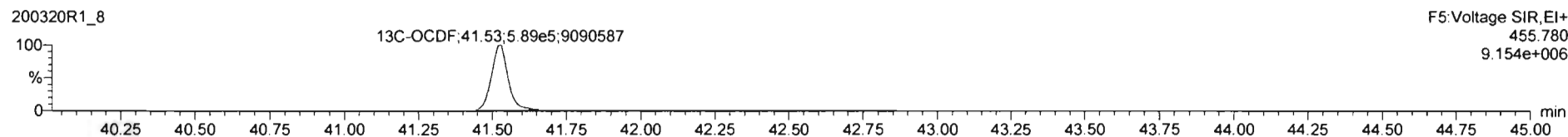
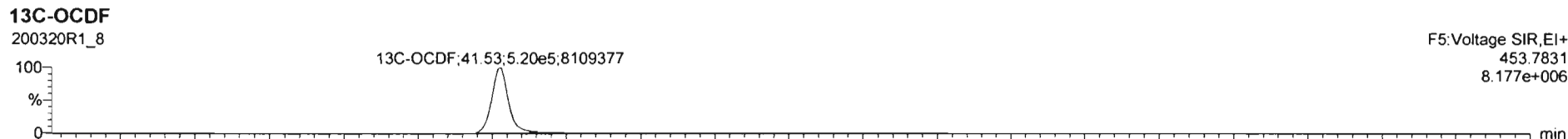
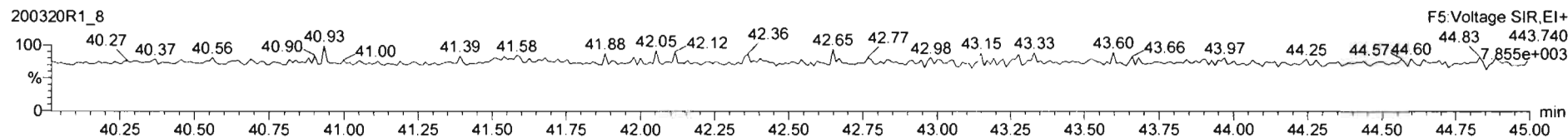
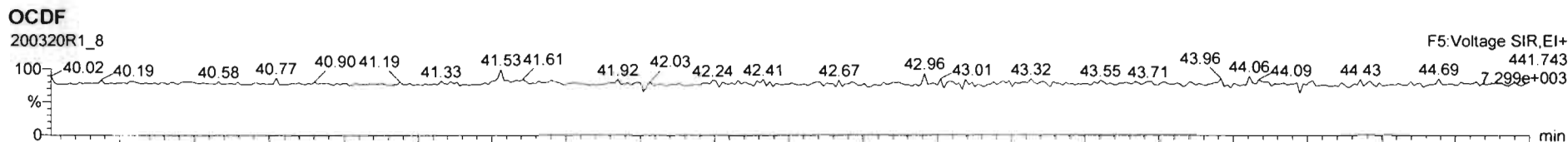
DPE4



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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_8, Date: 20-Mar-2020, Time: 19:25:10, ID: 2000412-05 PDI-079SC-A-10-11-191014 12.24, Description: PDI-079SC-A-10-11-191014



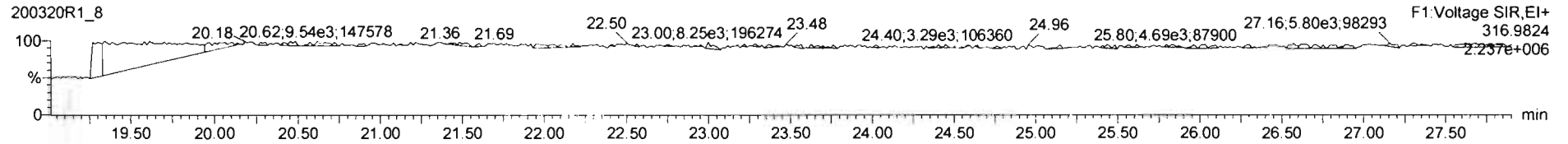
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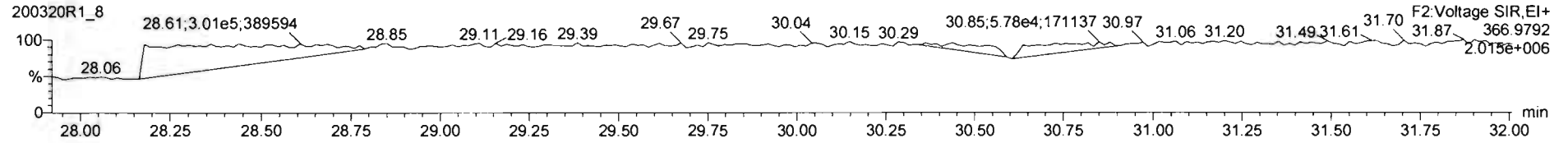
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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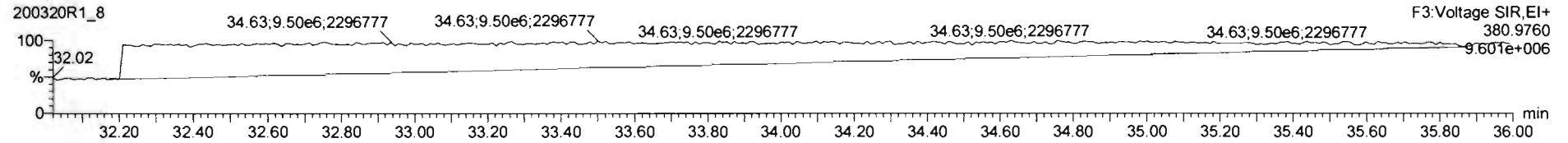
PFK1



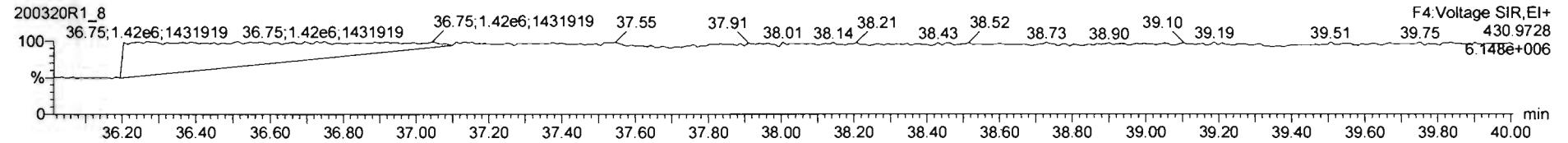
PFK2



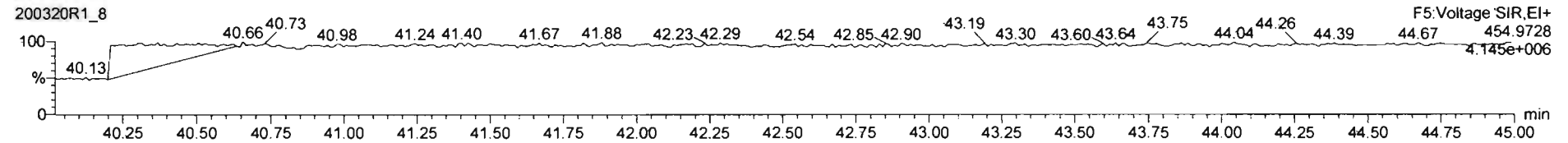
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

*GPB 03/26/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

#	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	8.19e3	0.68	NO	0.983	10.009	25.781	25.76	1.001	1.001	1.2805		0.112	1.28
2	2 1,2,3,7,8-PeCDD	7.01e3	0.69	NO	0.921	10.009	31.086	31.08	1.001	1.000	1.5889		0.114	1.59
3	3 1,2,3,4,7,8-HxCDD	7.94e3	1.37	NO	1.13	10.009	34.491	34.48	1.000	1.000	1.7391		0.273	1.74
4	4 1,2,3,6,7,8-HxCDD	5.09e4	1.28	NO	0.984	10.009	34.577	34.59	1.000	1.000	10.991		0.270	11.0
5	5 1,2,3,7,8,9-HxCDD	2.04e4	1.27	NO	0.967	10.009	34.853	34.85	1.000	1.000	4.9611		0.319	4.96
6	6 1,2,3,4,6,7,8-HpCDD	1.22e6	1.04	NO	1.01	10.009	38.273	38.28	1.000	1.001	327.24		0.961	327
7	7 OCDD	1.71e7	0.89	NO	1.05	10.009	41.340	41.35	1.000	1.000	4676.3		0.701	4680
8	8 2,3,7,8-TCDF	7.96e5	0.76	NO	0.915	10.009	24.772	24.78	1.001	1.001	98.115	(43.2)	0.197	98.1
9	9 1,2,3,7,8-PeCDF	1.17e6	1.56	NO	0.959	10.009	29.727	29.72	1.001	1.001	168.31		0.264	168
10	10 2,3,4,7,8-PeCDF	5.84e5	1.55	NO	1.00	10.009	30.759	30.76	1.001	1.001	83.989		0.259	84.0
11	11 1,2,3,4,7,8-HxCDF	1.69e6	1.22	NO	1.04	10.009	33.629	33.64	1.000	1.000	295.65		0.247	296
12	12 1,2,3,6,7,8-HxCDF	4.89e5	1.23	NO	1.01	10.009	33.756	33.76	1.000	1.000	82.284		0.254	82.3
13	13 2,3,4,6,7,8-HxCDF	1.28e5	1.23	NO	1.09	10.009	34.344	34.32	1.001	1.000	21.616		0.265	21.6
14	14 1,2,3,7,8,9-HxCDF	8.25e4	1.19	NO	1.03	10.009	35.184	35.23	1.000	1.001	16.490		0.351	16.5
15	15 1,2,3,4,6,7,8-HpCDF	9.56e5	1.02	NO	1.05	10.009	36.904	36.89	1.001	1.001	214.04		0.344	214
16	16 1,2,3,4,7,8,9-HpCDF	2.05e5	1.01	NO	1.21	10.009	38.922	38.93	1.000	1.000	54.660		0.397	54.7
17	17 OCDF	1.98e6	0.87	NO	0.947	10.009	41.521	41.53	1.000	1.000	512.81		0.301	513
18	18 13C-2,3,7,8-TCDD	1.30e6	0.79	NO	1.18	10.009	25.758	25.75	1.030	1.029	189.93	95.1	0.240	
19	19 13C-1,2,3,7,8-PeCDD	9.57e5	0.65	NO	0.864	10.009	31.064	31.06	1.242	1.242	191.59	95.9	0.227	
20	20 13C-1,2,3,4,7,8-HxCDD	8.06e5	1.28	NO	0.754	10.009	34.481	34.48	1.014	1.014	181.60	90.9	0.224	
21	21 13C-1,2,3,6,7,8-HxCDD	9.40e5	1.26	NO	0.925	10.009	34.583	34.58	1.017	1.017	172.63	86.4	0.182	
22	22 13C-1,2,3,7,8,9-HxCDD	8.51e5	1.25	NO	0.829	10.009	34.852	34.84	1.025	1.024	174.43	87.3	0.203	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.39e5	1.05	NO	0.598	10.009	38.270	38.26	1.125	1.125	209.92	105	0.410	
24	24 13C-OCDD	1.39e6	0.88	NO	0.571	10.009	41.331	41.34	1.215	1.215	413.29	103	0.341	
25	25 13C-2,3,7,8-TCDF	1.77e6	0.78	NO	1.09	10.009	24.747	24.75	0.989	0.989	182.08	91.1	0.328	
26	26 13C-1,2,3,7,8-PeCDF	1.45e6	1.59	NO	0.876	10.009	29.705	29.71	1.187	1.187	185.09	92.6	0.396	
27	27 13C-2,3,4,7,8-PeCDF	1.39e6	1.59	NO	0.844	10.009	30.683	30.73	1.227	1.228	183.85	92.0	0.412	
28	28 13C-1,2,3,4,7,8-HxCDF	1.10e6	0.52	NO	1.00	10.009	33.631	33.63	0.989	0.989	186.51	93.3	0.626	
29	29 13C-1,2,3,6,7,8-HxCDF	1.17e6	0.52	NO	1.12	10.009	33.754	33.75	0.992	0.992	178.23	89.2	0.560	
30	30 13C-2,3,4,6,7,8-HxCDF	1.08e6	0.52	NO	1.04	10.009	34.311	34.31	1.009	1.009	178.03	89.1	0.605	
31	31 13C-1,2,3,7,8,9-HxCDF	9.74e5	0.51	NO	0.873	10.009	35.182	35.18	1.034	1.034	189.56	94.9	0.717	



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	8.51e5	0.44	NO	0.771	10.009	36.883	36.87	1.084	1.084	187.66	93.9	0.367	
33	13C-1,2,3,4,7,8,9-HpCDF	6.20e5	0.44	NO	0.519	10.009	38.920	38.92	1.144	1.144	202.91	102	0.544	
34	13C-OCDF	1.63e6	0.88	NO	0.696	10.009	41.512	41.52	1.220	1.221	398.57	99.7	0.343	
35	37Cl-2,3,7,8-TCDD	5.03e5			1.17	10.009	25.788	25.76	1.031	1.030	74.043	92.6	0.0689	
36	13C-1,2,3,4-TCDD	1.15e6	0.79	NO	1.00	10.009	25.030	25.02	1.000	1.000	199.82	100	0.284	
37	13C-1,2,3,4-TCDF	1.78e6	0.79	NO	1.00	10.009	23.090	23.09	1.000	1.000	199.82	100	0.357	
38	13C-1,2,3,4,6,9-HxCDF	1.18e6	0.52	NO	1.00	10.009	34.020	34.01	1.000	1.000	199.82	100	0.626	
39	Total Tetra-Dioxins				0.983	10.009	24.620		0.000		19.074		0.112	19.2
40	Total Penta-Dioxins				0.921	10.009	29.960		0.000		17.216		0.114	19.7
41	Total Hexa-Dioxins				0.984	10.009	33.635		0.000		106.78		0.298	107
42	Total Hepta-Dioxins				1.01	10.009	37.640		0.000		800.42		0.961	800
43	Total Tetra-Furans				0.915	10.009	23.610		0.000		299.64		0.197	311
44	1st Func. Penta-Furans				0.959	10.009	27.090		0.000		43.653		0.0375	43.7
45	Total Penta-Furans				0.959	10.009	29.275		0.000		474.74		0.267	475
46	Total Hexa-Furans				1.09	10.009	33.555		0.000		593.27		0.264	593
47	Total Hepta-Furans				1.05	10.009	37.835		0.000		631.61		0.392	632

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

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Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.41	3.822e5	4.681e5	3.297e4	4.224e4	0.78	NO	7.521e4	11.756	11.756	0.112
2	Total Tetra-Dioxins	21.80	4.789e4	5.753e4	4.754e3	5.411e3	0.88	NO	1.016e4	1.5888	1.5888	0.112
3	Total Tetra-Dioxins	22.31	1.699e4	2.292e4	1.649e3	2.136e3	0.77	NO	3.784e3	0.59150	0.59150	0.112
4	Total Tetra-Dioxins	23.30	7.949e3	8.317e3	7.704e2	9.388e2	0.82	NO	1.709e3	0.26716	0.26716	0.112
5	Total Tetra-Dioxins	23.59	1.479e4	2.112e4	1.367e3	1.894e3	0.72	NO	3.262e3	0.50984	0.50984	0.112
6	Total Tetra-Dioxins	23.67	8.657e3	5.889e3	4.134e2	3.055e2	1.35	YES	0.000e0	0.00000	0.084530	0.112
7	Total Tetra-Dioxins	23.85	1.761e4	2.925e4	1.833e3	2.457e3	0.75	NO	4.290e3	0.67058	0.67058	0.112
8	Total Tetra-Dioxins	24.10	8.426e3	8.267e3	6.921e2	8.207e2	0.84	NO	1.513e3	0.23648	0.23648	0.112
9	Total Tetra-Dioxins	24.40	1.031e4	1.152e4	6.881e2	9.311e2	0.74	NO	1.619e3	0.25310	0.25310	0.112
10	Total Tetra-Dioxins	24.60	1.068e4	1.151e4	6.759e2	9.229e2	0.73	NO	1.599e3	0.24990	0.24990	0.112
11	Total Tetra-Dioxins	25.02	8.200e3	1.059e4	7.172e2	8.982e2	0.80	NO	1.615e3	0.25250	0.25250	0.112
12	Total Tetra-Dioxins	25.48	4.613e4	5.801e4	3.549e3	4.403e3	0.81	NO	7.952e3	1.2429	1.2429	0.112
13	2,3,7,8-TCDD	25.76	4.586e4	6.344e4	3.317e3	4.875e3	0.68	NO	8.192e3	1.2805	1.2805	0.112
14	Total Tetra-Dioxins	26.14	8.259e3	1.021e4	4.904e2	6.225e2	0.79	NO	1.113e3	0.17395	0.17395	0.112

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06-PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.75	1.226e5	2.049e5	9.996e3	1.527e4	0.65	NO	2.526e4	5.7252	5.7252	0.114
2	Total Penta-Dioxins	29.25	3.468e4	7.371e4	2.093e3	3.824e3	0.55	NO	5.917e3	1.3410	1.3410	0.114
3	Total Penta-Dioxins	29.77	1.300e5	2.152e5	7.739e3	1.158e4	0.67	NO	1.932e4	4.3780	4.3780	0.114
4	Total Penta-Dioxins	29.95	5.158e4	7.613e4	2.661e3	4.127e3	0.64	NO	6.788e3	1.5384	1.5384	0.114
5	Total Penta-Dioxins	30.03	3.494e4	5.409e4	2.089e3	3.071e3	0.68	NO	5.160e3	1.1694	1.1694	0.114
6	Total Penta-Dioxins	30.26	4.110e4	7.974e4	2.174e3	3.731e3	0.58	NO	0.000e0	0.00000	1.3383	0.114
7	Total Penta-Dioxins	30.29	3.456e4	5.721e4	1.722e3	2.589e3	0.67	NO	0.000e0	0.00000	0.97703	0.114
8	Total Penta-Dioxins	30.64	1.133e4	1.894e4	6.925e2	9.832e2	0.70	NO	1.676e3	0.37978	0.37978	0.114
9	1,2,3,7,8-PeCDD	31.08	5.555e4	7.361e4	2.868e3	4.143e3	0.69	NO	7.011e3	1.5889	1.5889	0.114
10	Total Penta-Dioxins	31.17	1.546e4	2.281e4	9.376e2	1.324e3	0.71	NO	2.262e3	0.51265	0.51265	0.114
11	Total Penta-Dioxins	31.37	1.414e4	1.338e4	7.364e2	5.865e2	1.26	YES	0.000e0	0.00000	0.21665	0.114
12	Total Penta-Dioxins	31.46	2.236e4	2.987e4	9.263e2	1.645e3	0.56	NO	2.572e3	0.58286	0.58286	0.114

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.01	1.753e6	1.420e6	9.341e4	7.429e4	1.26	NO	1.677e5	39.325	39.325	0.298
2	Total Hexa-Dioxins	33.58	1.900e5	1.700e5	1.031e4	8.409e3	1.23	NO	1.872e4	4.3890	4.3890	0.298
3	Total Hexa-Dioxins	33.83	1.426e6	1.124e6	9.944e4	7.993e4	1.24	NO	1.794e5	42.060	42.060	0.298
4	Total Hexa-Dioxins	33.93	9.550e4	7.360e4	5.174e3	3.867e3	1.34	NO	9.041e3	2.1201	2.1201	0.298
5	1,2,3,4,7,8-HxCDD	34.48	8.498e4	6.429e4	4.587e3	3.354e3	1.37	NO	7.940e3	1.7391	1.7391	0.273
6	1,2,3,6,7,8-HxCDD	34.59	4.961e5	3.896e5	2.853e4	2.237e4	1.28	NO	5.090e4	10.991	10.991	0.270
7	Total Hexa-Dioxins	34.76	5.224e4	4.011e4	2.820e3	2.281e3	1.24	NO	5.101e3	1.1963	1.1963	0.298
8	1,2,3,7,8,9-HxCDD	34.85	1.771e5	1.501e5	1.144e4	9.008e3	1.27	NO	2.045e4	4.9611	4.9611	0.319

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.26	1.221e7	1.189e7	8.931e5	8.673e5	1.03	NO	1.760e6	473.18	473.18	0.961
2	1,2,3,4,6,7,8-HpCDD	38.28	7.908e6	7.570e6	6.204e5	5.970e5	1.04	NO	1.217e6	327.24	327.24	0.961

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Sample Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.42	3.063e4	4.318e4	2.459e3	3.443e3	0.71	NO	5.903e3	0.72729	0.72729	0.197
2	Total Tetra-Furans	19.93	8.228e4	1.016e5	6.926e3	9.256e3	0.75	NO	1.618e4	1.9938	1.9938	0.197
3	Total Tetra-Furans	20.50	3.673e5	4.816e5	3.042e4	4.073e4	0.75	NO	7.115e4	8.7661	8.7661	0.197
4	Total Tetra-Furans	21.02	1.721e5	2.505e5	2.141e4	2.885e4	0.74	NO	5.026e4	6.1931	6.1931	0.197
5	Total Tetra-Furans	21.38	1.113e6	1.464e6	1.026e5	1.364e5	0.75	NO	2.390e5	29.444	29.444	0.197
6	Total Tetra-Furans	21.84	4.644e5	6.705e5	4.461e4	5.938e4	0.75	NO	1.040e5	12.812	12.812	0.197
7	Total Tetra-Furans	21.98	2.647e4	4.123e4	2.090e3	2.965e3	0.70	NO	5.055e3	0.62286	0.62286	0.197
8	Total Tetra-Furans	22.20	1.334e5	1.864e5	1.289e4	1.716e4	0.75	NO	3.005e4	3.7021	3.7021	0.197
9	Total Tetra-Furans	22.68	2.695e4	3.997e4	2.661e3	3.809e3	0.70	NO	6.470e3	0.79712	0.79712	0.197
10	Total Tetra-Furans	22.79	2.039e4	2.931e4	1.965e3	2.739e3	0.72	NO	4.704e3	0.57956	0.57956	0.197
11	Total Tetra-Furans	23.00	2.321e5	3.129e5	1.693e4	2.252e4	0.75	NO	3.945e4	4.8613	4.8613	0.197
12	Total Tetra-Furans	23.09	3.348e5	4.516e5	3.966e4	5.286e4	0.75	NO	9.252e4	11.400	11.400	0.197
13	Total Tetra-Furans	23.70	3.559e6	4.741e6	3.395e5	4.444e5	0.76	NO	7.838e5	96.578	96.578	0.197
14	Total Tetra-Furans	23.82	5.350e4	7.063e4	2.568e3	3.495e3	0.73	NO	6.064e3	0.74711	0.74711	0.197
15	Total Tetra-Furans	24.03	1.547e5	2.092e5	1.406e4	1.785e4	0.79	NO	3.191e4	3.9319	3.9319	0.197
16	Total Tetra-Furans	24.31	1.924e4	2.458e4	1.819e3	2.541e3	0.72	NO	4.360e3	0.53721	0.53721	0.197
17	Total Tetra-Furans	24.54	4.937e4	6.036e4	3.992e3	4.950e3	0.81	NO	8.942e3	1.1018	1.1018	0.197
18	Total Tetra-Furans	24.66	4.745e5	6.481e5	3.553e4	4.816e4	0.74	NO	8.369e4	10.311	10.311	0.197
19	2,3,7,8-TCDF	24.78	4.112e6	5.481e6	3.447e5	4.516e5	0.76	NO	7.963e5	98.115	98.115	0.197
20	Total Tetra-Furans	24.91	2.545e4	4.256e4	2.432e3	3.219e3	0.76	NO	5.651e3	0.69627	0.69627	0.197
21	Total Tetra-Furans	25.18	1.822e5	2.529e5	1.494e4	2.011e4	0.74	NO	3.505e4	4.3185	4.3185	0.197
22	Total Tetra-Furans	25.47	3.638e4	5.157e4	2.684e3	3.608e3	0.74	NO	6.292e3	0.77529	0.77529	0.197
23	Total Tetra-Furans	26.35	2.604e4	1.275e4	2.174e3	1.038e3	2.10	YES	0.000e0	0.00000	0.22627	0.197
24	Total Tetra-Furans	26.53	3.148e4	4.784e4	2.186e3	2.922e3	0.75	NO	5.108e3	0.62936	0.62936	0.197
25	Total Tetra-Furans	26.69	3.708e4	4.330e4	3.049e3	3.254e3	0.94	YES	0.000e0	0.00000	0.70975	0.197
26	Total Tetra-Furans	26.98	7.026e5	7.265e5	4.842e4	4.926e4	0.98	YES	0.000e0	0.00000	10.744	0.197

**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	26.98	2.777e6	1.685e6	1.830e5	1.140e5	1.61	NO	2.970e5	43.653	43.653	0.0375

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.53	2.156e5	1.435e5	1.272e4	9.027e3	1.41	NO	2.174e4	3.1958	3.1958	0.267
2	Total Penta-Furans	28.68	5.782e6	3.677e6	3.883e5	2.489e5	1.56	NO	6.372e5	93.654	93.654	0.267
3	Total Penta-Furans	28.74	3.537e5	2.174e5	1.223e4	7.804e3	1.57	NO	2.003e4	2.9441	2.9441	0.267
4	Total Penta-Furans	29.29	5.543e5	3.523e5	3.639e4	2.213e4	1.64	NO	5.852e4	8.6005	8.6005	0.267
5	Total Penta-Furans	29.36	1.878e5	1.199e5	6.994e3	4.165e3	1.68	NO	1.116e4	1.6400	1.6400	0.267
6	Total Penta-Furans	29.52	1.502e6	9.551e5	8.169e4	5.113e4	1.60	NO	1.328e5	19.520	19.520	0.267
7	1,2,3,7,8-PeCDF	29.72	1.241e7	7.828e6	7.135e5	4.574e5	1.56	NO	1.171e6	168.31	168.31	0.264
8	Total Penta-Furans	29.80	2.322e5	1.560e5	1.249e4	7.959e3	1.57	NO	2.045e4	3.0057	3.0057	0.267
9	Total Penta-Furans	30.00	4.763e6	3.126e6	2.731e5	1.747e5	1.56	NO	4.478e5	65.812	65.812	0.267
10	Total Penta-Furans	30.06	2.585e5	1.592e5	1.069e4	6.660e3	1.61	NO	1.735e4	2.5503	2.5503	0.267
11	Total Penta-Furans	30.51	2.717e4	1.632e4	1.135e3	6.609e2	1.72	NO	1.796e3	0.26397	0.26397	0.267
12	Total Penta-Furans	30.64	1.099e5	6.055e4	5.322e3	3.198e3	1.66	NO	8.520e3	1.2522	1.2522	0.267
13	2,3,4,7,8-PeCDF	30.76	6.573e6	4.245e6	3.550e5	2.293e5	1.55	NO	5.843e5	83.989	83.989	0.259
14	Total Penta-Furans	30.79	3.177e6	1.943e6	6.600e4	4.029e4	1.64	NO	1.063e5	15.622	15.622	0.267
15	Total Penta-Furans	31.72	3.580e5	2.215e5	1.841e4	1.139e4	1.62	NO	2.980e4	4.3796	4.3796	0.267

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.45	1.034e6	8.493e5	5.514e4	4.562e4	1.21	NO	1.008e5	17.039	17.039	0.264
2	Total Hexa-Furans	32.62	3.789e6	3.130e6	2.078e5	1.700e5	1.22	NO	3.778e5	63.882	63.882	0.264
3	Total Hexa-Furans	32.99	7.221e4	6.122e4	3.978e3	3.123e3	1.27	NO	7.101e3	1.2009	1.2009	0.264
4	Total Hexa-Furans	33.17	4.194e6	3.474e6	2.305e5	1.879e5	1.23	NO	4.184e5	70.750	70.750	0.264
5	Total Hexa-Furans	33.53	2.026e5	1.732e5	9.106e3	7.624e3	1.19	NO	1.673e4	2.8292	2.8292	0.264
6	1,2,3,4,7,8-HxCDF	33.64	1.824e7	1.465e7	9.255e5	7.604e5	1.22	NO	1.686e6	295.65	295.65	0.247
7	1,2,3,6,7,8-HxCDF	33.76	4.700e6	3.856e6	2.694e5	2.194e5	1.23	NO	4.888e5	82.284	82.284	0.254
8	Total Hexa-Furans	33.85	1.044e5	9.390e4	6.214e3	5.608e3	1.11	NO	1.182e4	1.9993	1.9993	0.264
9	Total Hexa-Furans	34.02	1.719e5	1.282e5	1.034e4	8.137e3	1.27	NO	1.848e4	3.1246	3.1246	0.264
10	Total Hexa-Furans	34.14	3.022e4	2.151e4	1.704e3	1.433e3	1.19	NO	3.137e3	0.53056	0.53056	0.264
11	2,3,4,6,7,8-HxCDF	34.32	1.266e6	1.015e6	7.070e4	5.741e4	1.23	NO	1.281e5	21.616	21.616	0.265
12	1,2,3,7,8,9-HxCDF	35.23	1.376e6	1.178e6	4.481e4	3.770e4	1.19	NO	8.252e4	16.490	16.490	0.351
13	Total Hexa-Furans	35.24	1.401e6	1.160e6	5.250e4	4.138e4	1.27	NO	9.389e4	15.877	15.877	0.264

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Dataset: U:\VG12.PRO\Results\200320R1\200320R1-9.qld

Last Altered: Thursday, March 26, 2020 15:10:48 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:11:22 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.89	6.704e6	6.529e6	4.817e5	4.739e5	1.02	NO	9.556e5	214.04	214.04	0.344
2	Total Hepta-Furans	37.26	1.198e5	9.649e4	8.384e3	7.521e3	1.11	NO	1.590e4	4.1220	4.1220	0.392
3	Total Hepta-Furans	37.47	9.220e6	9.162e6	6.975e5	6.869e5	1.02	NO	1.384e6	358.79	358.79	0.392
4	1,2,3,4,7,8,9-HpCDF	38.93	1.509e6	1.513e6	1.031e5	1.021e5	1.01	NO	2.052e5	54.660	54.660	0.397

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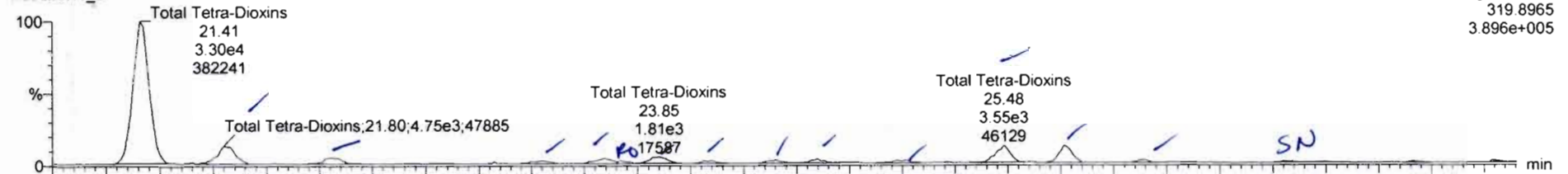
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

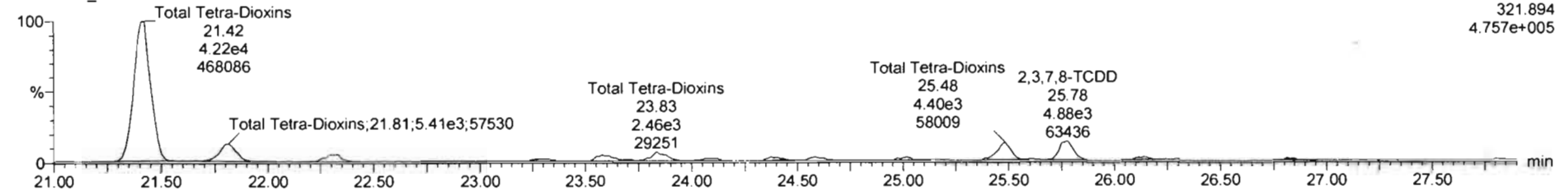
Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

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

200320R1\_9

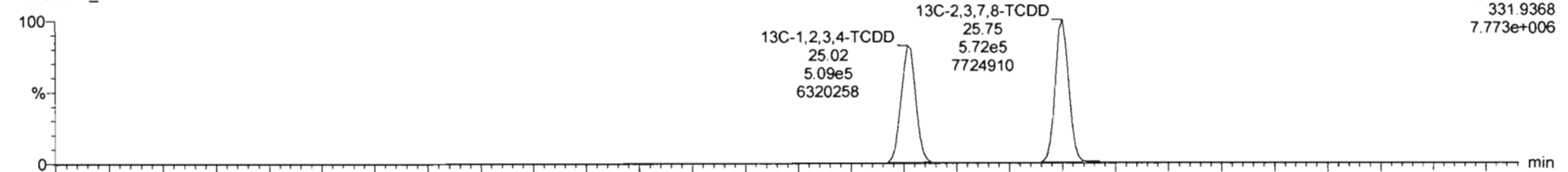


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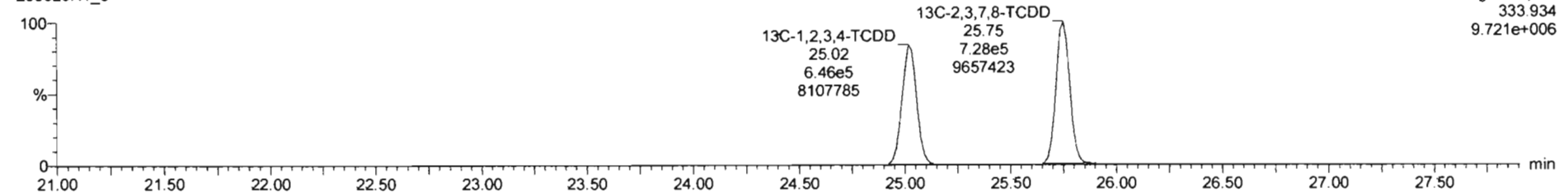


**13C-2,3,7,8-TCDD**

200320R1\_9

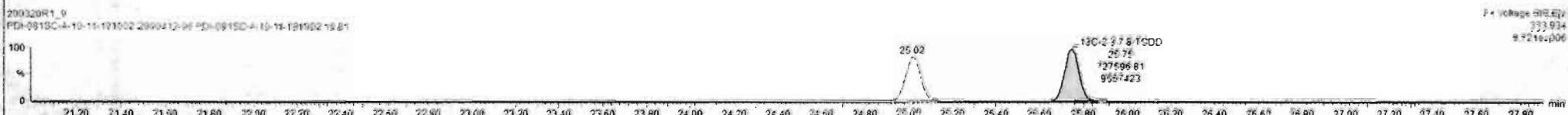
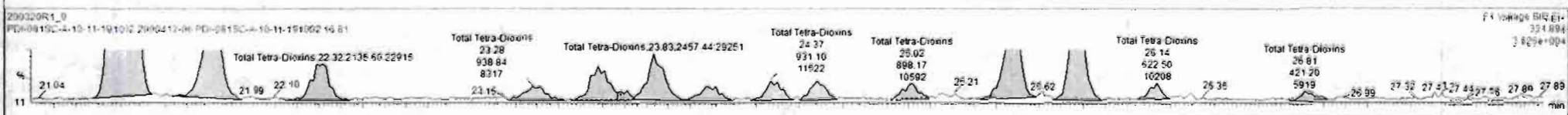
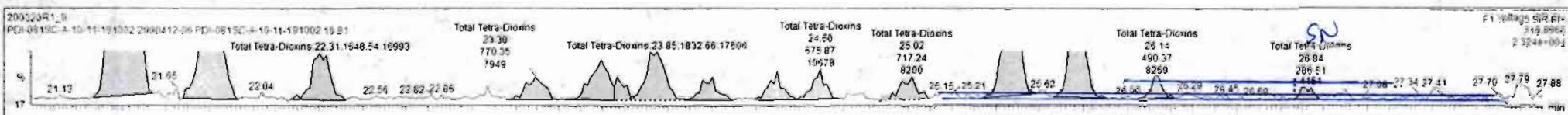


200320R1\_9



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9335	10.009			19.2		0.112	19.3
40 Total Penta-Dioxins				0.9212	10.005			16.3		0.114	15.7

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	21.41	3.297e4	4.224e4	0.78	NO	11.756	11.756
2 Total Tetra-Dioxins	21.80	4.754e3	5.411e3	0.86	NO	1.5888	1.5888
3 Total Tetra-Dioxins	22.31	1.649e3	2.126e3	0.77	NO	0.59159	0.59159
4 Total Tetra-Dioxins	23.30	7.704e2	9.368e2	0.82	NO	0.26716	0.26716
5 Total Tetra-Dioxins	23.59	1.367e3	1.694e3	0.72	NO	0.50984	0.50984
6 Total Tetra-Dioxins	23.67	4.134e2	3.055e2	1.35	YES	0.084530	0.00000
7 Total Tetra-Dioxins	23.65	1.833e3	2.457e3	0.75	NO	0.67058	0.67058
8 Total Tetra-Dioxins	24.10	6.921e2	8.207e2	0.84	NO	0.23648	0.23648
9 Total Tetra-Dioxins	24.40	6.881e2	9.311e2	0.74	NO	0.25310	0.25310
10 Total Tetra-Dioxins	24.60	6.759e2	9.229e2	0.73	NO	0.24990	0.24990
11 Total Tetra-Dioxins	25.02	7.172e2	8.582e2	0.80	NO	0.25250	0.25250
12 Total Tetra-Dioxins	25.48	3.549e3	4.403e3	0.81	NO	1.2429	1.2429
13 2,3,7,8-TCDD	25.76	3.317e3	4.875e3	0.68	NO	1.2805	1.2805
14 Total Tetra-Dioxins	26.14	4.904e2	6.225e2	0.79	NO	0.17395	0.17395
15 Total Tetra-Dioxins	26.54	2.585e2	4.212e2	0.62	NO	0.11062	0.11062





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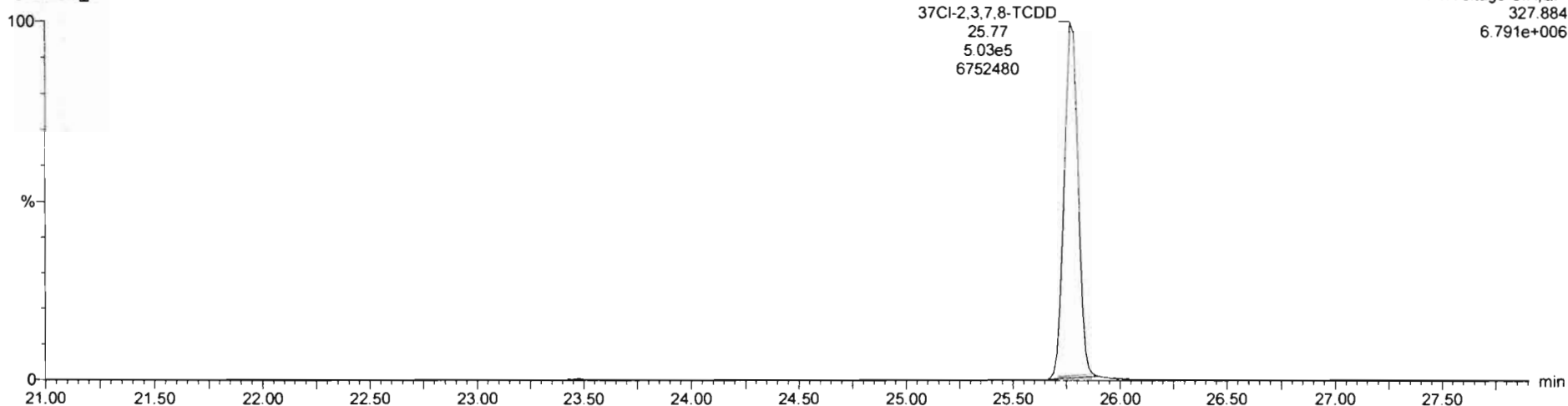
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

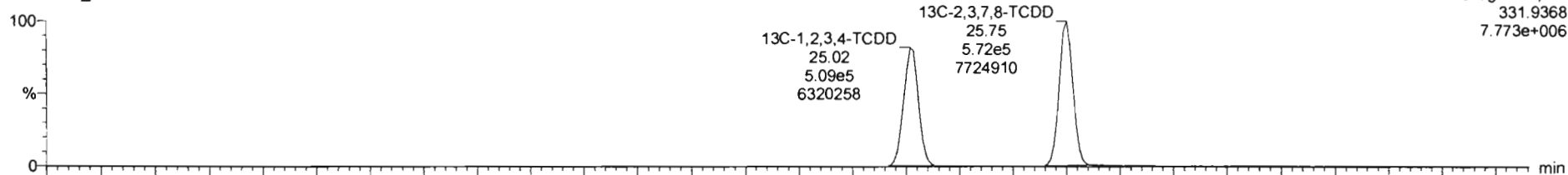
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200320R1\_9

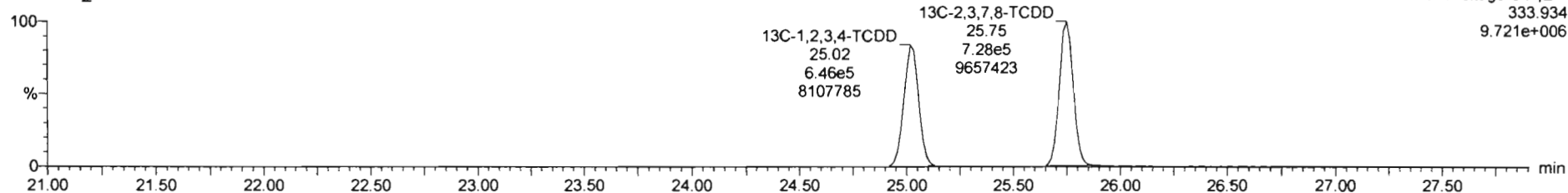


**13C-1,2,3,4-TCDD**

200320R1\_9



200320R1\_9



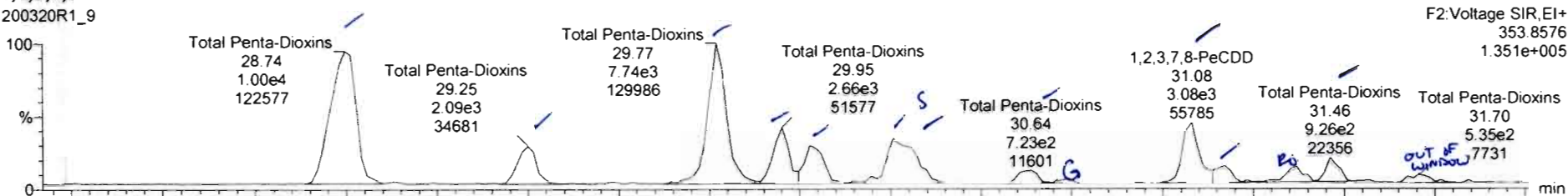
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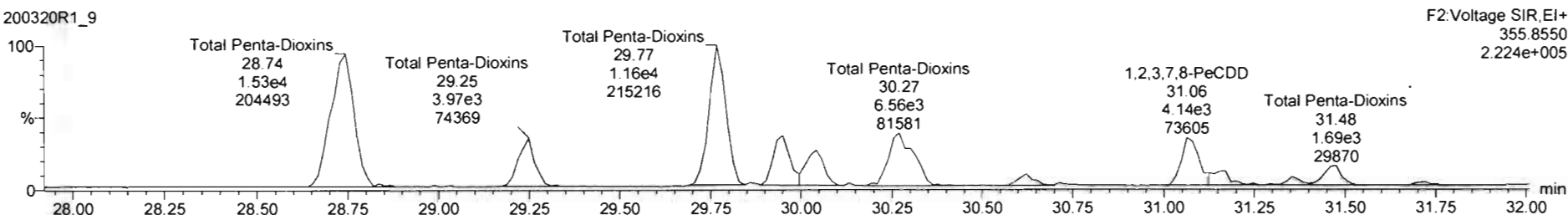
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1,2,3,7,8-PeCDD

200320R1\_9

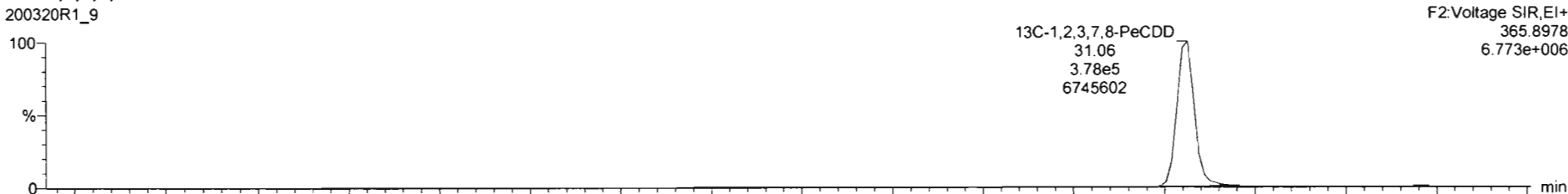


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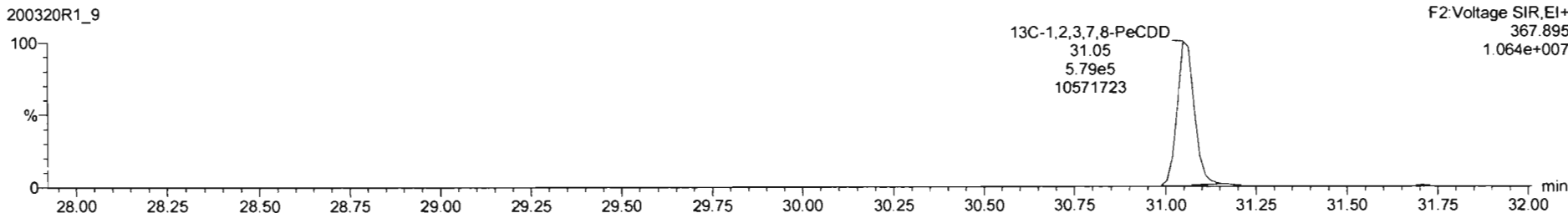


13C-1,2,3,7,8-PeCDD

200320R1\_9

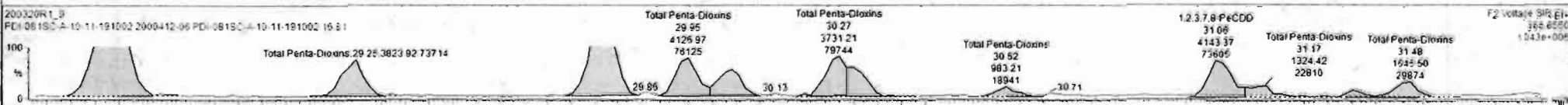
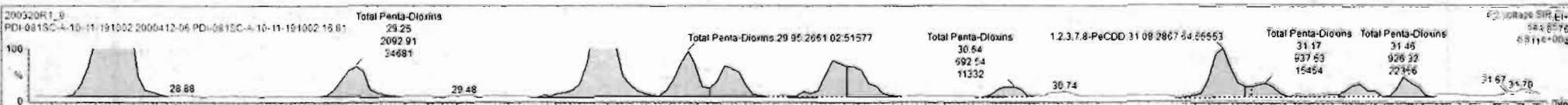


200320R1\_9



Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
38 Total Tetra-Dioxins				0.9835	10.009			19.1		0.112	19.2
40 Total Penta-Dioxins				0.9212	10.009			17.2		0.114	19.7

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Dioxins	28.75	9.596e3	1.527e4	0.65	NO	5.7252	5.7252
2 Total Penta-Dioxins	29.25	2.292e3	2.824e3	0.55	NO	1.3410	1.3410
3 Total Penta-Dioxins	29.77	7.739e3	1.158e4	0.67	NO	4.3780	4.3780
4 Total Penta-Dioxins	29.95	2.661e3	4.127e3	0.64	NO	1.5284	1.5284
5 Total Penta-Dioxins	30.03	2.089e3	2.071e3	0.68	NO	1.1694	1.1694
6 Total Penta-Dioxins	30.26	2.174e3	3.731e2	0.58	NO	1.3283	0.00000
7 Total Penta-Dioxins	30.29	1.722e3	2.589e3	0.67	NO	0.97703	0.00000
8 Total Penta-Dioxins	30.64	8.525e2	9.632e2	0.70	NO	0.37978	0.37978
9 1,2,3,7,8-PeCDD	31.08	2.968e2	4.143e3	0.69	NO	1.5889	1.5889
10 Total Penta-Dioxins	31.17	5.378e2	1.324e3	0.71	NO	0.51265	0.51265
11 Total Penta-Dioxins	31.37	7.364e2	5.865e2	1.26	YES	0.21665	0.00000
12 Total Penta-Dioxins	31.46	9.262e2	1.645e3	0.56	NO	0.58286	0.58286



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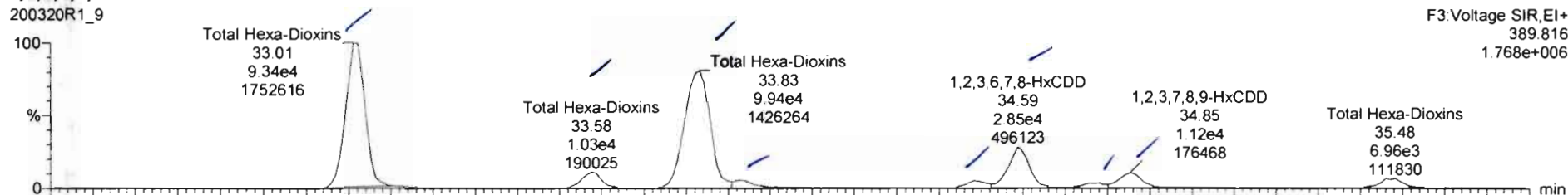
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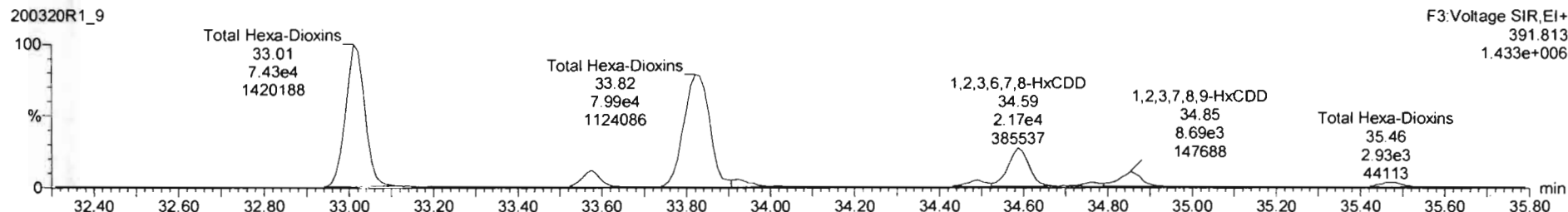
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1,2,3,4,7,8-HxCDD

200320R1\_9

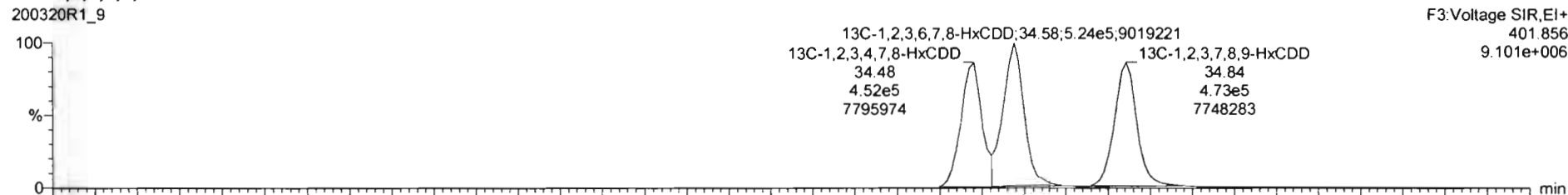


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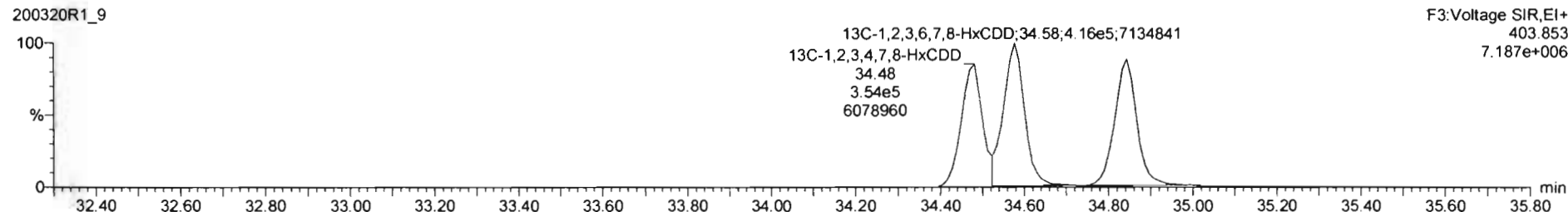


13C-1,2,3,4,7,8-HxCDD

200320R1\_9

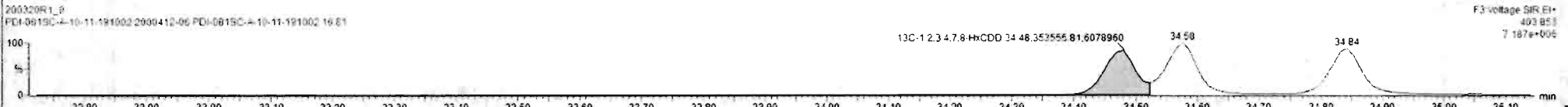
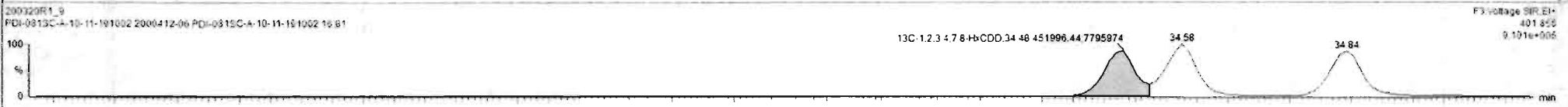
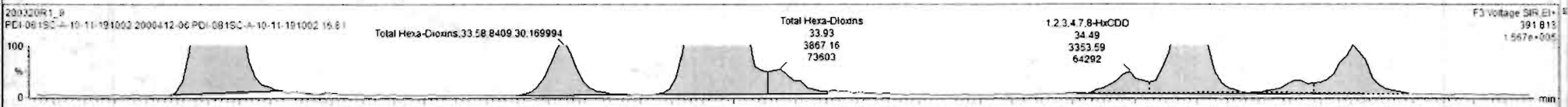
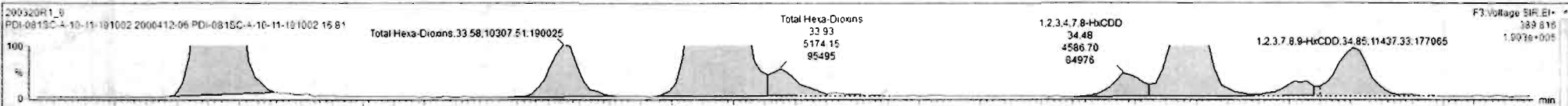


200320R1\_9



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.009			15.1		0.112	19.2
40 Total Penta-Dioxins				0.9212	19.066			17.2		0.114	15.7

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	33.01	9.341e4	7.439e4	1.26	NO	39.326	39.326
2 Total Hexa-Dioxins	33.56	1.031e4	6.409e3	1.23	NO	4.3890	4.3890
3 Total Hexa-Dioxins	33.63	9.944e4	7.563e4	1.24	NO	42.060	42.060
4 Total Hexa-Dioxins	33.93	5.174e3	3.867e3	1.34	NO	2.1201	2.1201
5 1,2,3,4,7,8-HxCDD	34.46	4.587e3	3.354e3	1.37	NO	1.7391	1.7391
6 1,2,3,6,7,8-HxCDD	34.59	2.852e4	2.237e4	1.28	NO	10.991	10.991
7 Total Hexa-Dioxins	34.76	2.820e3	2.281e3	1.24	NO	1.1963	1.1963
8 1,2,3,7,8,9-HxCDD	34.85	1.144e4	9.006e3	1.27	NO	4.9611	4.9611



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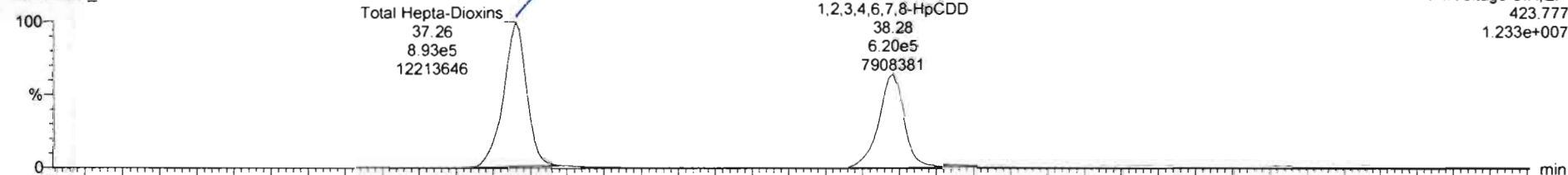
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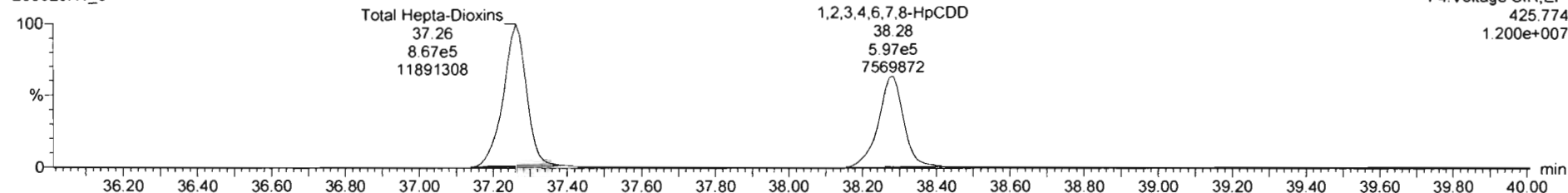
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1,2,3,4,6,7,8-HpCDD

200320R1\_9

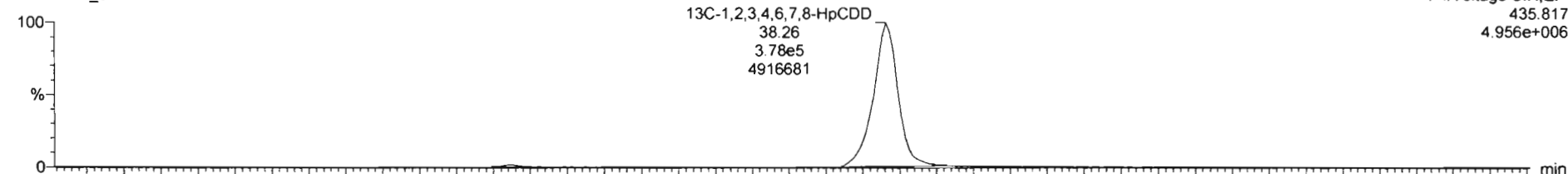


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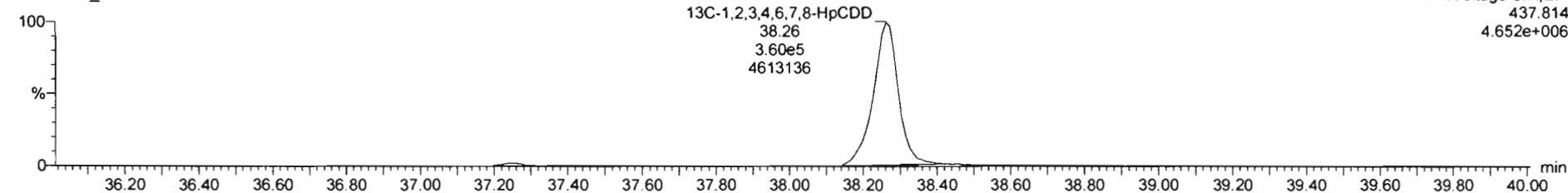


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_9



200320R1\_9

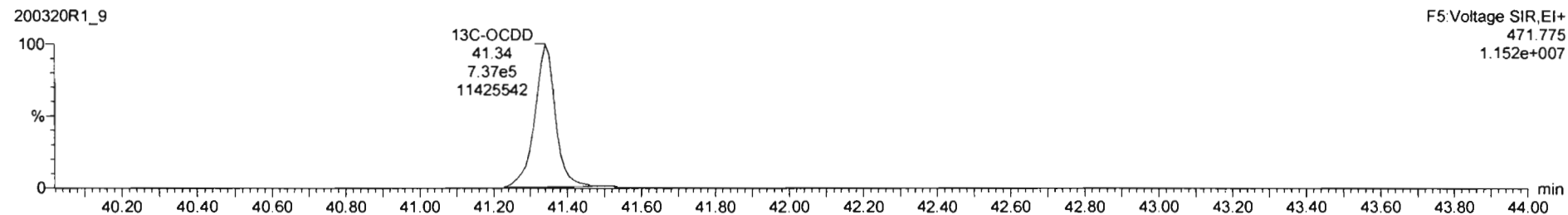
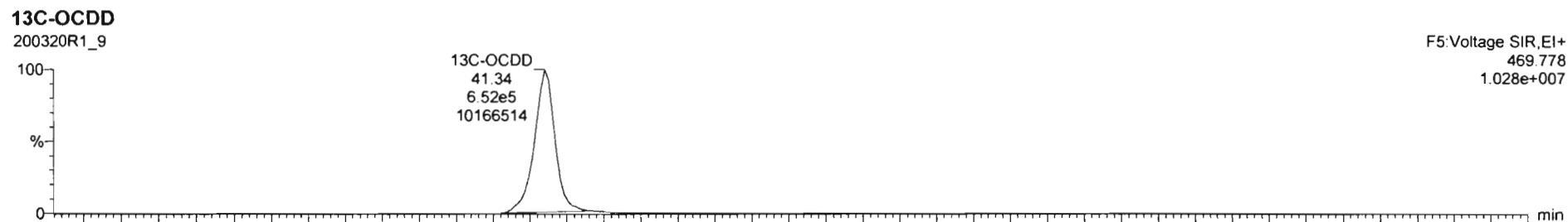
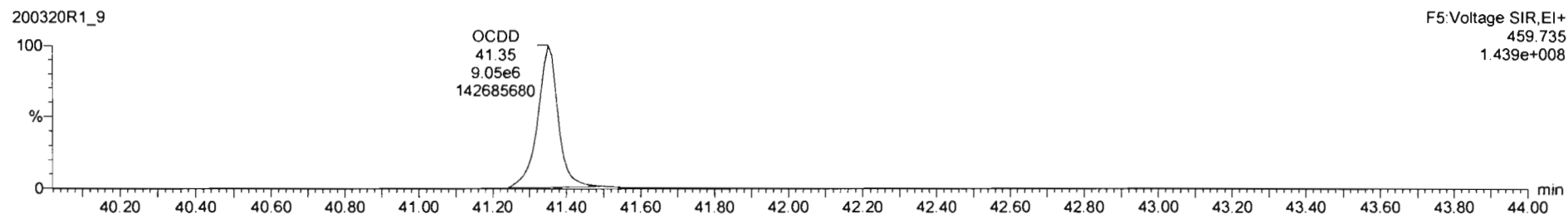
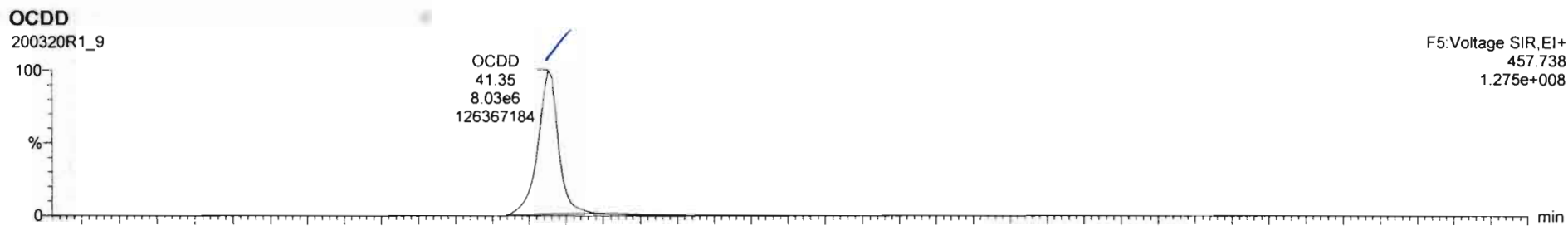


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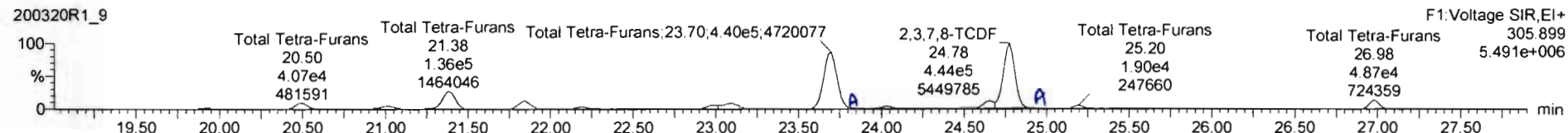
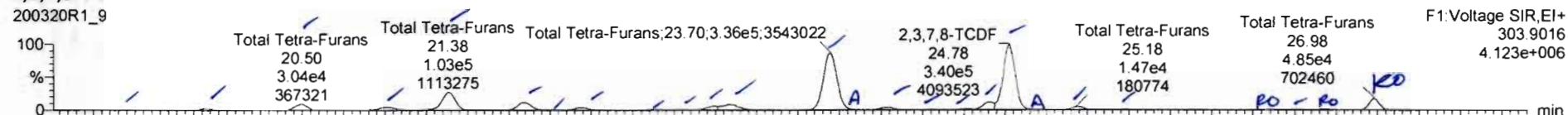
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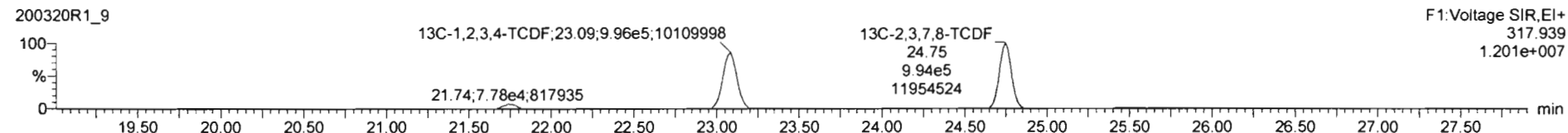
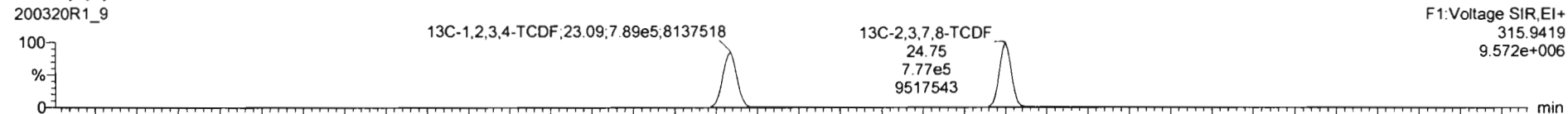
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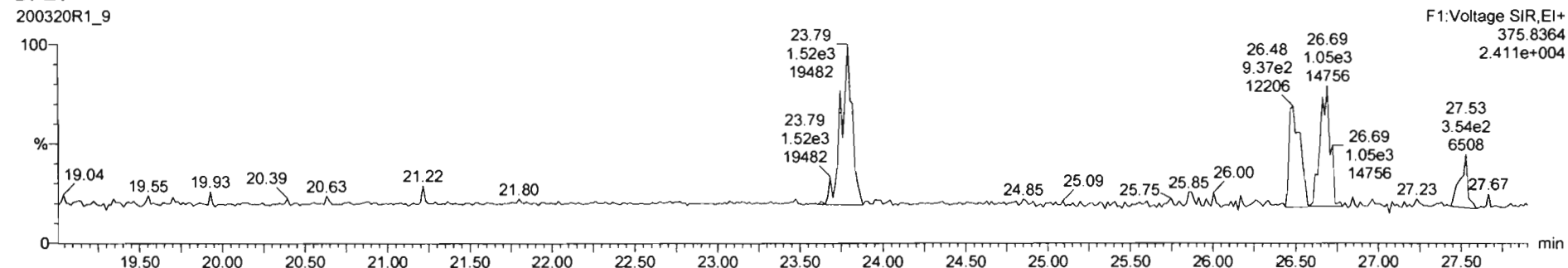
**2,3,7,8-TCDF**



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



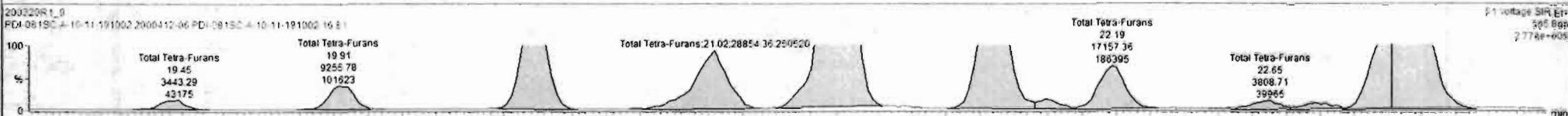
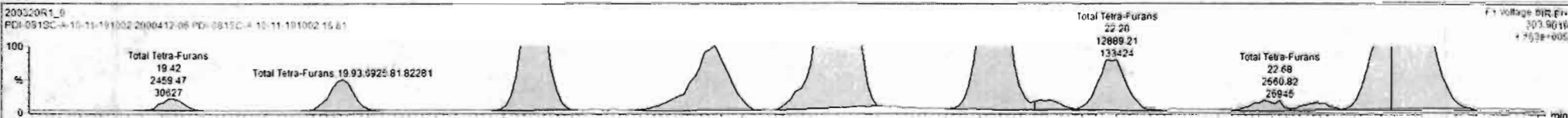
**DPE1**





Name	Resp	RA	nHy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hexa-Dioxins				1.00E1	10.000			800		0.961	800
43 Total Tetra-Furans				0.9154	10.000			295		0.197	308

Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc.
1 Total Tetra-Furans	19.42	2.459e3	2.443e3	0.71	NO	0.72729	0.72729
2 Total Tetra-Furans	19.93	6.526e3	6.256e3	0.75	NO	1.9935	1.9938
3 Total Tetra-Furans	20.50	3.042e4	4.073e4	0.75	NO	8.7661	8.7661
4 Total Tetra-Furans	21.02	2.141e4	2.885e4	0.74	NO	6.1931	6.1931
5 Total Tetra-Furans	21.38	1.526e5	1.364e5	0.75	NO	29.444	29.444
6 Total Tetra-Furans	21.84	4.461e4	5.938e4	0.75	NO	12.812	12.812
7 Total Tetra-Furans	21.98	2.090e3	2.965e3	0.70	NO	0.62286	0.62286
8 Total Tetra-Furans	22.20	1.289e4	1.716e4	0.75	NO	3.7021	3.7021
9 Total Tetra-Furans	22.68	2.861e2	3.609e3	0.70	NO	0.79712	0.79712
10 Total Tetra-Furans	22.79	1.955e3	2.739e3	0.72	NO	0.57956	0.57956
11 Total Tetra-Furans	23.00	1.693e4	2.252e4	0.75	NO	4.8613	4.8613
12 Total Tetra-Furans	23.08	3.966e4	5.286e4	0.75	NO	11.400	11.400



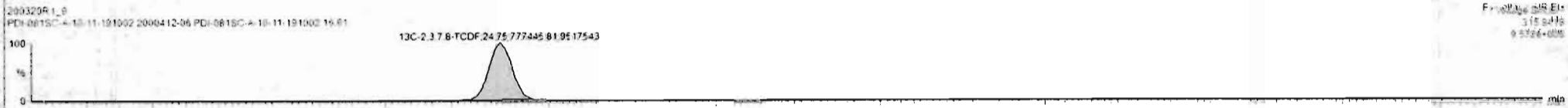
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200320R1\_9 CAP NUM 4

2:53 PM

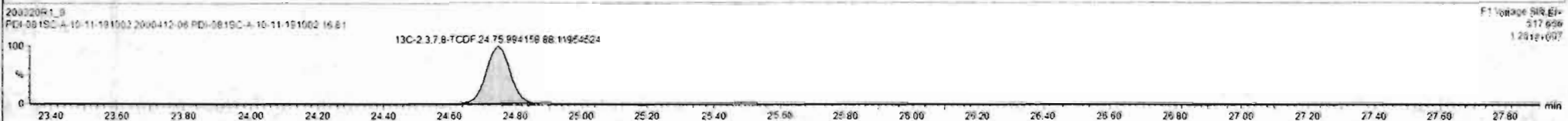
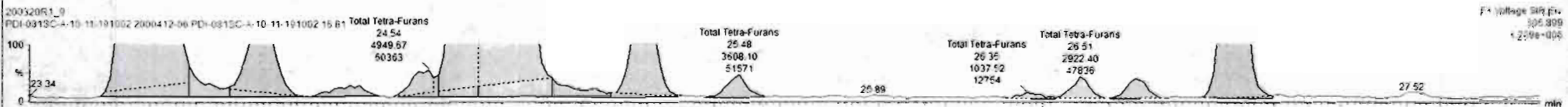
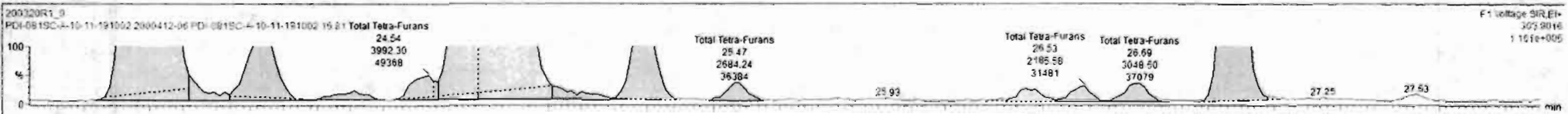
Name	Resp	RA	n1y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.00E1	10.000			800	0.961	800	
43 Total Tetra-Furans				0.8154	10.000			300	0.187	311	

Name	RT	m1 Resp	m2 Resp	RA	n1y	EMPC	Conc.
13 Total Tetra-Furans	23.70	2.395e5	4.444e5	0.76	NO	96.576	96.576
14 Total Tetra-Furans	23.62	2.568e3	3.495e3	0.73	NO	0.74711	0.74711
15 Total Tetra-Furans	24.03	1.406e4	1.765e4	0.79	NO	3.9319	3.9319
16 Total Tetra-Furans	24.31	1.819e3	2.541e3	0.72	NO	0.53721	0.53721
17 Total Tetra-Furans	24.54	3.992e3	4.950e3	0.81	NO	1.1018	1.1018
18 Total Tetra-Furans	24.66	3.552e4	4.816e4	0.74	NO	10.311	10.311
19 2,3,7,8-TCDF	24.78	3.447e5	4.516e5	0.76	NO	96.115	96.115
20 Total Tetra-Furans	24.51	2.432e3	3.219e3	0.76	NO	0.69627	0.69627
21 Total Tetra-Furans	25.16	1.494e4	2.011e4	0.74	NO	4.3185	4.3185
22 Total Tetra-Furans	25.47	2.684e3	3.608e3	0.74	NO	0.77529	0.77529
23 Total Tetra-Furans	26.35	2.174e3	1.038e3	2.10	ES	0.22627	0.00000
24 Total Tetra-Furans	26.53	2.186e3	2.922e3	0.75	NO	0.62936	0.62936
25 Total Tetra-Furans	26.69	3.049e2	3.254e3	0.94	ES	0.70975	0.00000
26 Total Tetra-Furans	26.98	4.842e4	4.926e4	0.98	ES	10.744	0.00000



Name	Resp	RA	rvy	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.009			800	0.961	800	
43 Total Tetra-Furans				0.9154	10.009			300	0.197	311	

Name	RT	m1 Resp	m2 Resp	RA	rvy	EMPC	Conc
13 Total Tetra-Furans	23.70	3.395e5	4.444e5	0.76	NO	96.578	96.578
14 Total Tetra-Furans	23.82	2.568e2	3.495e3	0.73	NO	0.74711	0.74711
15 Total Tetra-Furans	24.03	1.498e4	1.785e4	0.79	NO	3.9319	3.9319
16 Total Tetra-Furans	24.31	1.819e3	2.541e3	0.72	NO	0.53721	0.53721
17 Total Tetra-Furans	24.54	3.592e3	4.950e3	0.81	NO	1.1018	1.1018
18 Total Tetra-Furans	24.66	3.552e4	4.815e4	0.74	NO	10.311	10.311
19 2,3,7,8-TCDF	24.78	3.447e5	4.516e5	0.76	NO	98.115	98.115
20 Total Tetra-Furans	24.91	2.432e3	3.219e3	0.76	NO	0.69627	0.69627
21 Total Tetra-Furans	25.18	1.494e4	2.011e4	0.74	NO	4.3185	4.3185
22 Total Tetra-Furans	25.47	2.834e3	3.608e3	0.74	NO	0.77526	0.77526
23 Total Tetra-Furans	26.35	2.174e3	1.038e3	2.10	YES	0.22627	0.00000
24 Total Tetra-Furans	26.53	2.186e3	2.922e3	0.75	NO	0.62936	0.62936
25 Total Tetra-Furans	26.69	3.049e3	3.254e3	0.94	YES	0.70975	0.00000
26 Total Tetra-Furans	26.98	4.842e4	4.926e4	0.98	YES	10.744	0.00000



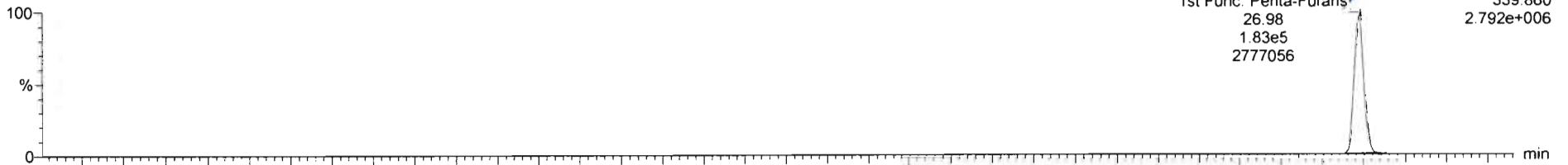
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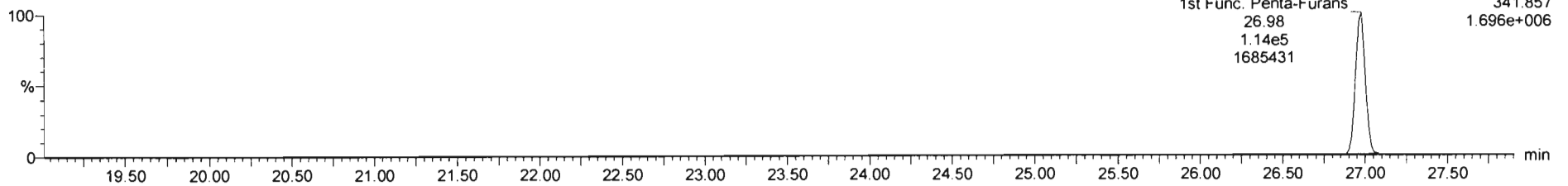
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1st Func. Penta-Furans

200320R1\_9

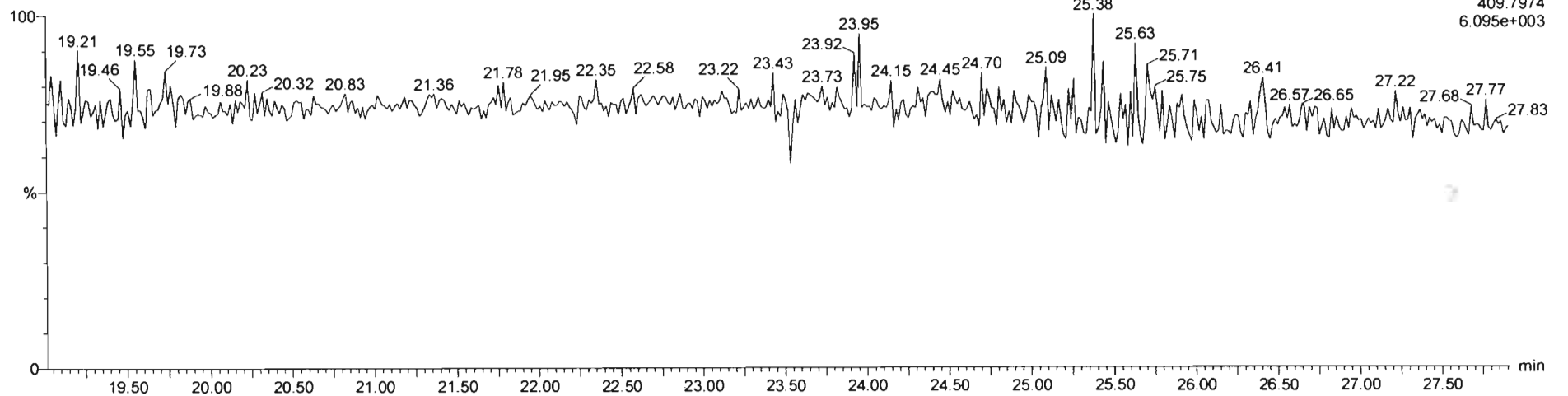


200320R1\_9



DPE6

200320R1\_9



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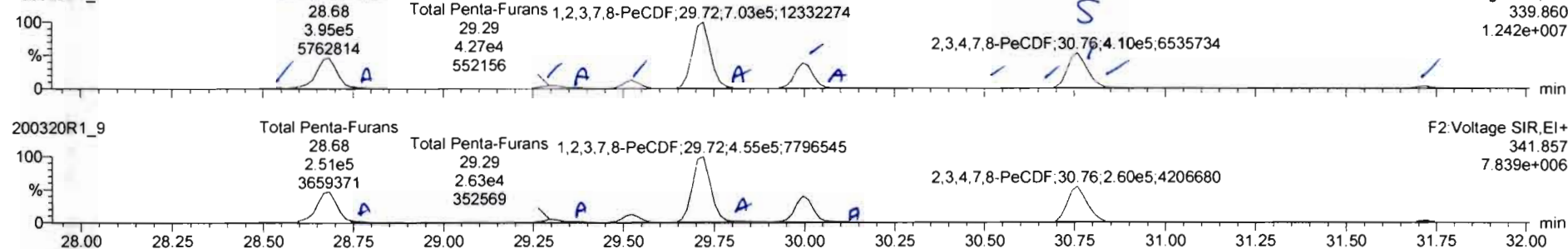
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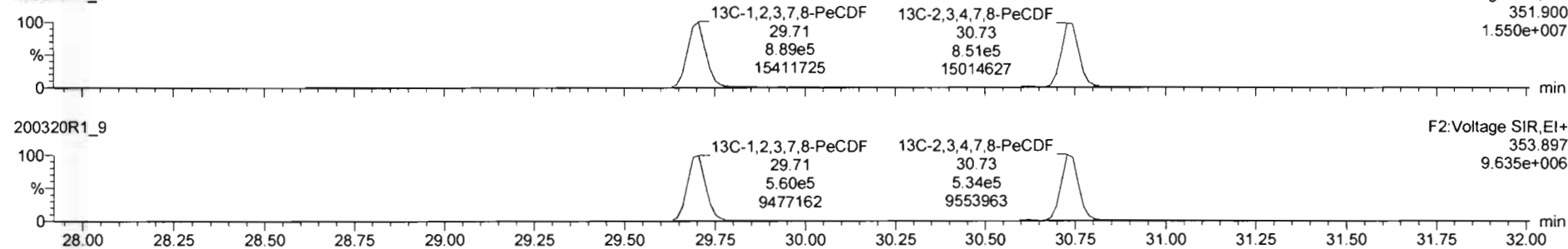
**1,2,3,7,8-PeCDF**

200320R1\_9



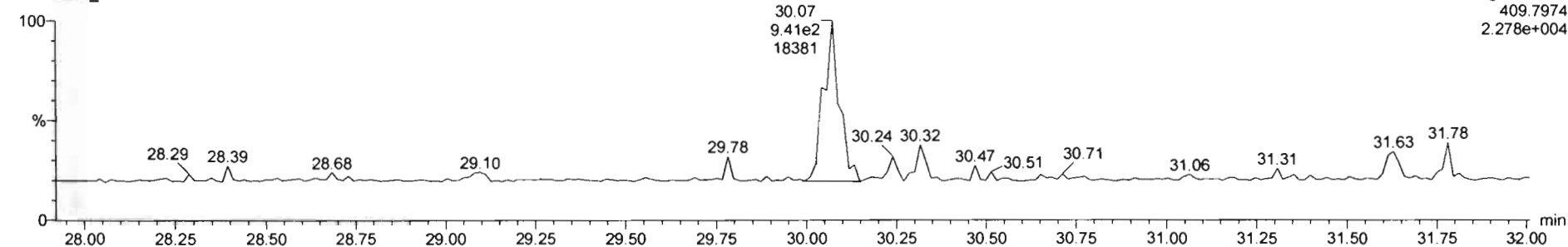
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200320R1\_9



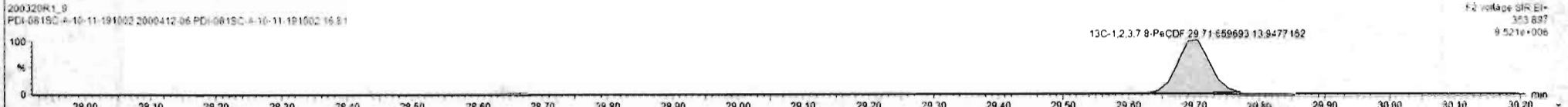
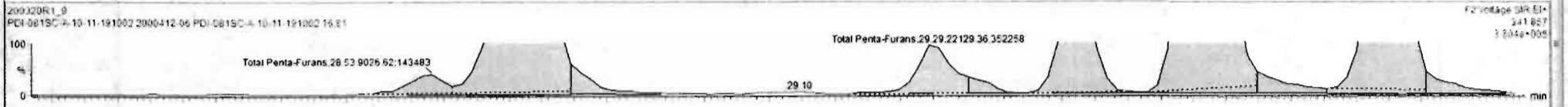
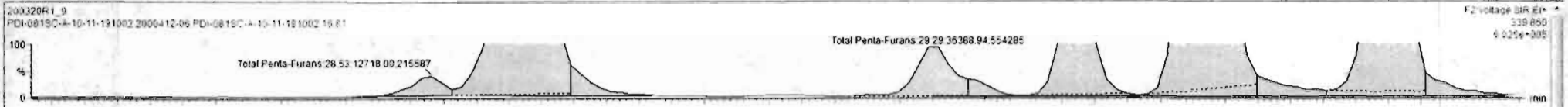
**DPE2**

200320R1\_9



Name	Resp	RA	nly	RRF	wVvol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.009			470	0.267	0.267	471
46 Total Hexa-Furans				1.0523	10.009			593	0.264	0.264	593

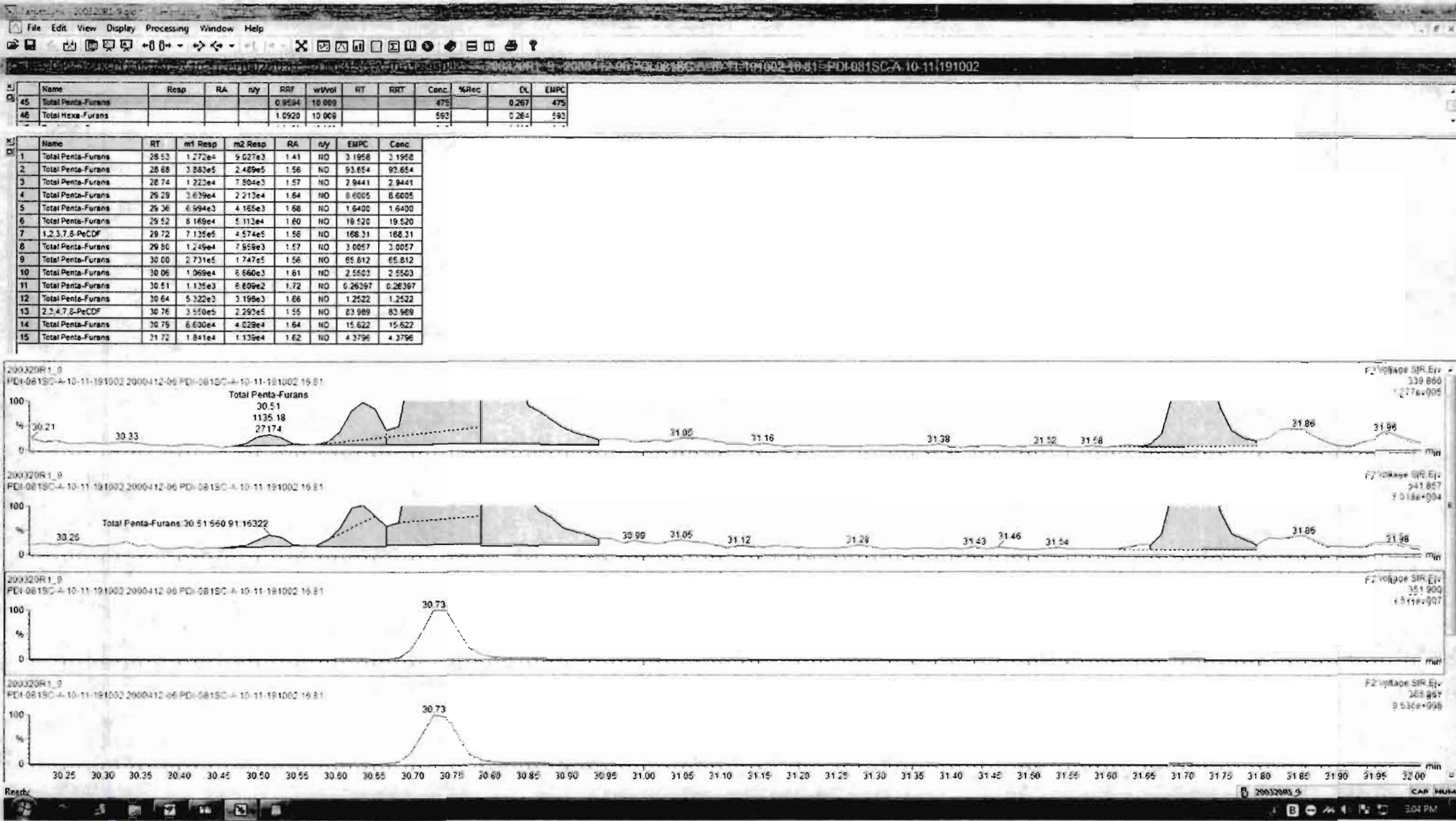
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Penta-Furans	28.53	1.272e4	9.027e3	1.41	NO	3.1958	3.1958
2 Total Penta-Furans	28.68	3.882e5	2.489e5	1.56	NO	93.654	93.654
3 Total Penta-Furans	28.74	1.223e4	7.894e3	1.57	NO	2.9441	2.9441
4 Total Penta-Furans	29.29	3.675e4	2.213e4	1.64	NO	6.6005	6.6005
5 Total Penta-Furans	29.36	6.994e3	4.165e3	1.66	NO	1.6400	1.6400
6 Total Penta-Furans	29.52	8.169e4	5.113e4	1.60	NO	16.520	19.520
7 1,2,3,7,8-PeCDF	29.72	7.135e5	4.574e5	1.58	NO	168.31	168.31
8 Total Penta-Furans	29.80	1.249e4	7.959e3	1.57	NO	3.0057	3.0057
9 Total Penta-Furans	30.00	2.731e5	1.747e5	1.56	NO	65.812	65.812
10 Total Penta-Furans	30.06	1.069e4	6.660e3	1.61	NO	2.5503	2.5503
11 Total Penta-Furans	30.33	3.606e2	2.314e2	1.56	NO	0.087010	0.087010
12 Total Penta-Furans	30.51	1.135e3	6.609e2	1.72	NO	0.26397	0.26397
13 Total Penta-Furans	30.64	4.519e3	6.372e2	4.82	YES	0.35124	0.00000
14 2,2,4,7,8-PeCDF	30.76	4.102e5	2.598e5	1.58	NO	96.317	96.317
15 Total Penta-Furans	31.72	1.855e4	1.162e4	1.60	NO	4.4346	4.4346
16 Total Penta-Furans	31.86	2.921e3	1.370e3	2.13	YES	0.51366	0.00000



Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.000			475		0.267	475
46 Total Hexa-Furans				1.0520	10.000			592		0.264	592

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.53	1.272e4	9.027e3	1.41	N/D	3.1958	3.1958
2 Total Penta-Furans	28.68	3.883e5	2.489e5	1.58	N/D	53.654	93.654
3 Total Penta-Furans	28.74	1.223e4	7.804e3	1.57	N/D	2.9441	2.9441
4 Total Penta-Furans	29.29	3.679e4	2.213e4	1.64	N/D	8.6005	8.6005
5 Total Penta-Furans	29.36	6.994e3	4.165e3	1.68	N/D	1.6400	1.6400
6 Total Penta-Furans	29.52	8.169e4	5.113e4	1.60	N/D	15.520	15.520
7 1,2,3,4,7,8-PeCDF	29.72	7.135e5	4.574e5	1.58	N/D	168.31	168.31
8 Total Penta-Furans	29.80	1.249e4	7.959e3	1.57	N/D	3.0057	3.0057
9 Total Penta-Furans	30.00	2.731e5	1.747e5	1.56	N/D	25.812	25.812
10 Total Penta-Furans	30.06	1.069e4	6.660e3	1.81	N/D	2.5503	2.5503
11 Total Penta-Furans	30.51	1.135e3	6.609e2	1.72	N/D	0.26397	0.26397
12 Total Penta-Furans	30.64	5.322e3	3.198e3	1.66	N/D	1.2522	1.2522
13 2,3,4,7,8-PeCDF	30.76	3.550e5	2.289e5	1.55	N/D	83.927	83.927
14 Total Penta-Furans	30.79	6.600e4	3.987e4	1.66	N/D	15.559	15.559
15 Total Penta-Furans	31.72	1.841e4	1.125e4	1.62	N/D	4.3796	4.3796





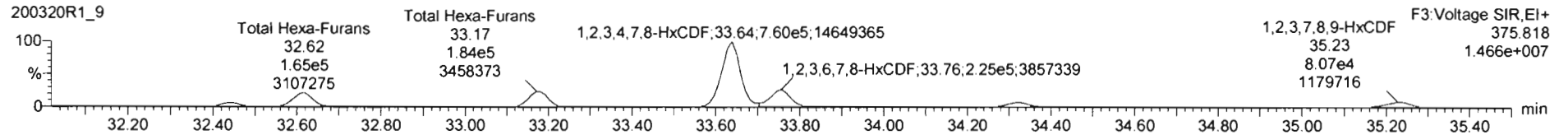
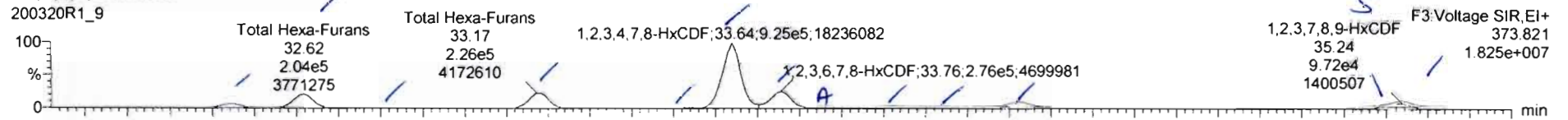


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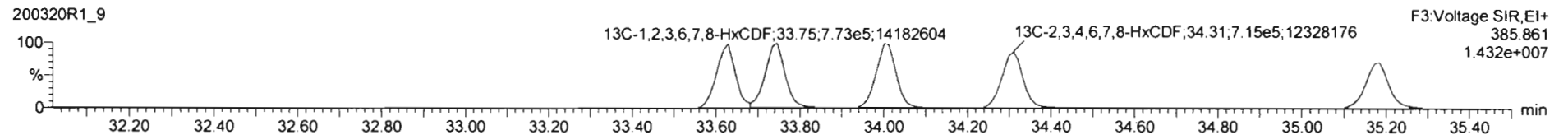
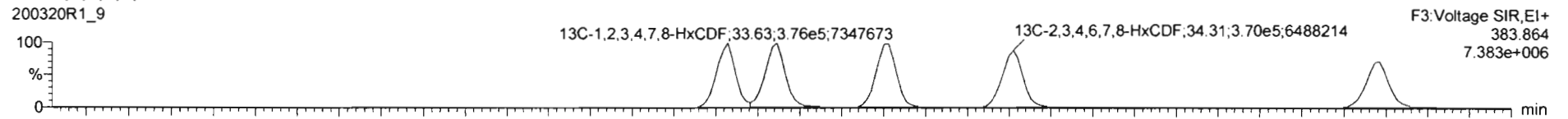
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

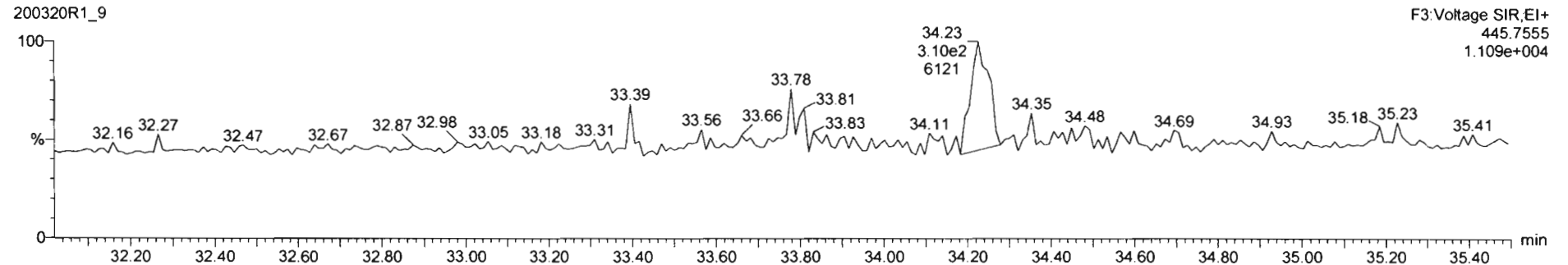
1,2,3,4,7,8-HxCDF



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

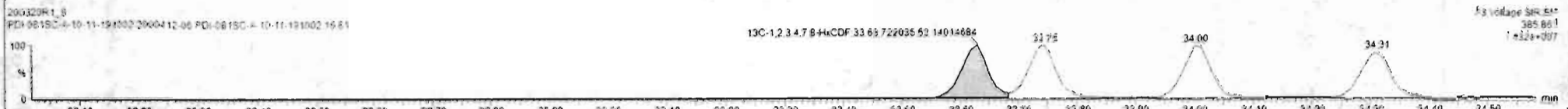
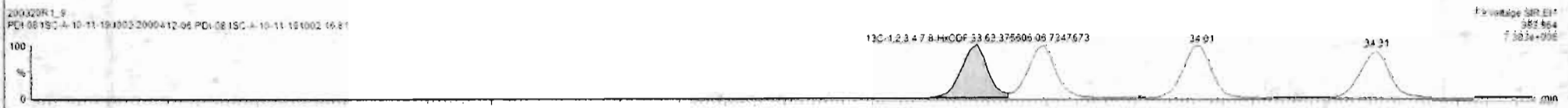
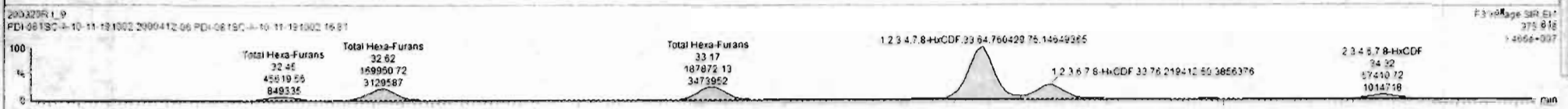
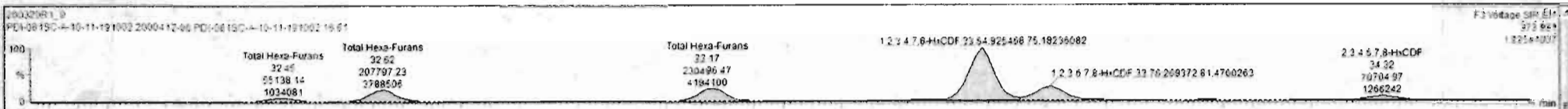


DPE3



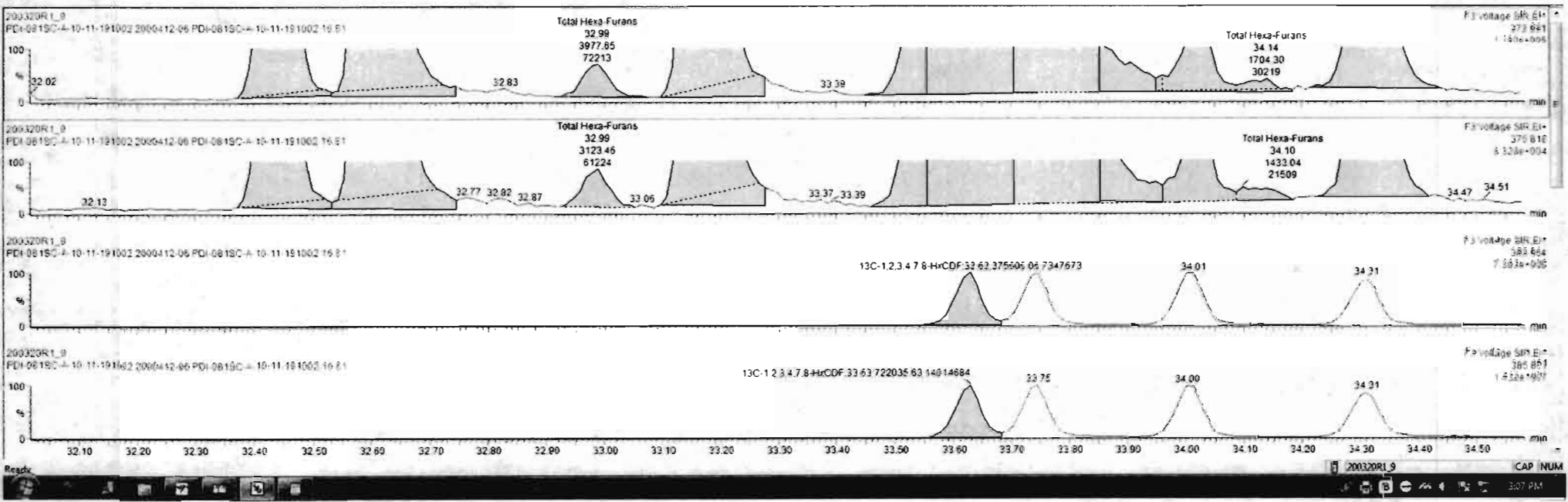
Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.000			475		0.267	475
46 Total Hexa-Furans				1.0920	10.000			596		0.264	596

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.45	5.514e4	4.562e4	1.21	NO	17.039	17.039
2 Total Hexa-Furans	32.62	2.078e5	1.700e5	1.22	NO	63.882	63.882
3 Total Hexa-Furans	32.96	3.976e3	3.123e3	1.27	NO	1.2609	1.2609
4 Total Hexa-Furans	33.17	2.305e5	1.879e5	1.23	NO	70.750	70.750
5 Total Hexa-Furans	33.53	9.196e2	7.624e3	1.19	NO	2.8292	2.8292
6 1,2,3,4,7,8-HxCDF	33.64	6.255e5	7.604e5	1.22	NO	295.65	295.65
7 1,2,3,6,7,8-HxCDF	33.76	2.694e5	2.194e5	1.23	NO	82.284	82.284
8 Total Hexa-Furans	33.85	6.214e3	5.808e3	1.11	NO	1.9993	1.9993
9 Total Hexa-Furans	34.02	1.034e4	8.137e3	1.27	NO	3.1246	3.1246
10 Total Hexa-Furans	34.14	1.704e2	1.433e3	1.19	NO	0.63056	0.63056
11 2,3,4,6,7,8-HxCDF	34.32	7.070e4	5.741e4	1.23	NO	21.616	21.616
12 1,2,3,7,8,9-HxCDF	35.24	6.721e4	8.070e4	1.20	NO	35.553	35.553



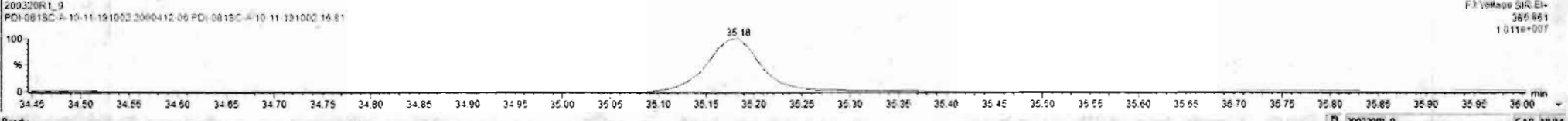
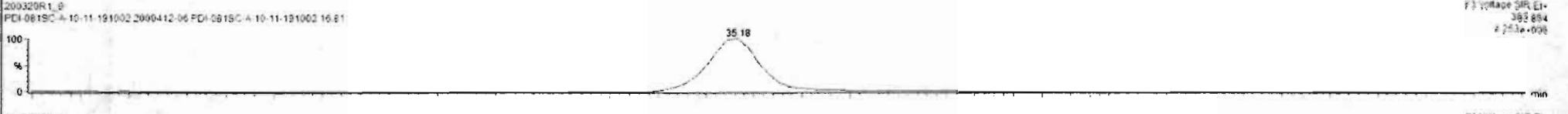
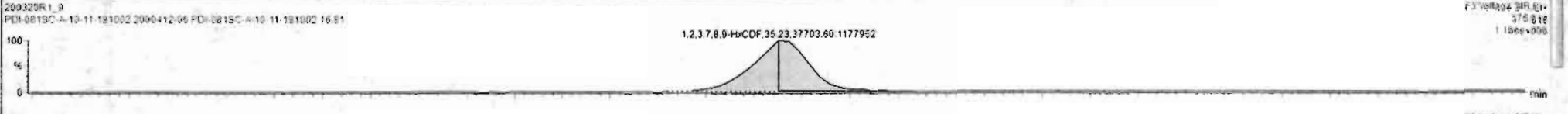
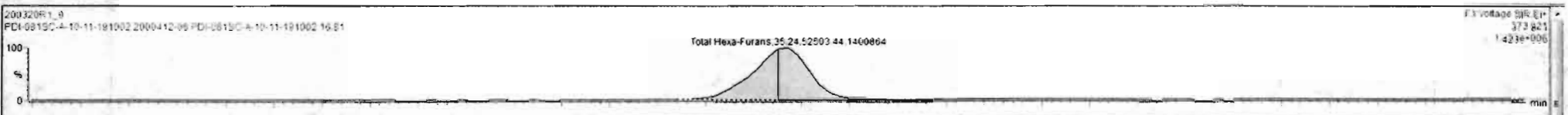
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9534	10.000			475		0.267	475
46 Total Hexa-Furans				1.6920	10.000			596		0.264	596

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.45	5.514e4	4.562e4	1.21	NO	17.039	17.039
2 Total Hexa-Furans	32.62	2.076e5	1.700e5	1.22	NO	63.682	63.682
3 Total Hexa-Furans	32.99	3.976e3	3.125e3	1.27	NO	1.209	1.209
4 Total Hexa-Furans	33.17	2.305e5	1.879e5	1.22	NO	70.750	70.750
5 Total Hexa-Furans	33.53	9.106e3	7.624e3	1.19	NO	2.8292	2.8292
6 1,2,3,4,7,8-HxCDF	33.64	9.255e5	7.604e5	1.22	NO	295.65	295.65
7 1,2,3,6,7,8-HxCDF	33.76	2.694e5	2.194e5	1.23	NO	82.284	82.284
8 Total Hexa-Furans	33.85	6.214e3	5.606e3	1.11	NO	1.9993	1.9993
9 Total Hexa-Furans	34.02	1.034e4	8.137e3	1.27	NO	3.1246	3.1246
10 Total Hexa-Furans	34.14	1.704e3	1.433e3	1.15	NO	0.53056	0.53056
11 2,3,4,6,7,8-HxCDF	34.32	7.070e4	5.741e4	1.23	NO	21.616	21.616
12 1,2,3,7,8,9-HxCDF	35.24	9.721e4	8.070e4	1.20	NO	35.553	35.553



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.009			475		0.267	475
46 Total Hexa-Furans				1.6920	10.009			593		0.264	593

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hexa-Furans	32.45	5.514e4	4.562e4	1.21	NO	17.039	17.039
2 Total Hexa-Furans	32.82	2.078e5	1.700e5	1.22	NO	63.882	63.882
3 Total Hexa-Furans	32.99	3.976e3	3.123e3	1.27	NO	1.209	1.209
4 Total Hexa-Furans	33.17	2.305e5	1.879e5	1.23	NO	70.750	70.750
5 Total Hexa-Furans	33.53	9.106e3	7.624e3	1.19	NO	2.8292	2.8292
6 1,2,3,4,7,8-HxCDF	33.64	9.255e5	7.604e5	1.22	NO	295.85	295.85
7 1,2,3,6,7,8-HxCDF	33.76	2.654e5	2.194e5	1.23	NO	82.294	82.294
8 Total Hexa-Furans	33.85	6.214e3	5.606e3	1.11	NO	1.9993	1.9993
9 Total Hexa-Furans	34.02	1.034e4	8.137e3	1.27	NO	3.1246	3.1246
10 Total Hexa-Furans	34.14	1.794e3	1.433e3	1.19	NO	0.53056	0.53056
11 2,3,4,6,7,8-HxCDF	34.32	7.070e4	5.741e4	1.23	NO	21.616	21.616
12 1,2,3,7,8,9-HxCDF	35.23	4.481e4	3.770e4	1.19	NO	16.490	16.490
13 Total Hexa-Furans	35.24	5.250e4	4.139e4	1.27	NO	15.877	15.877

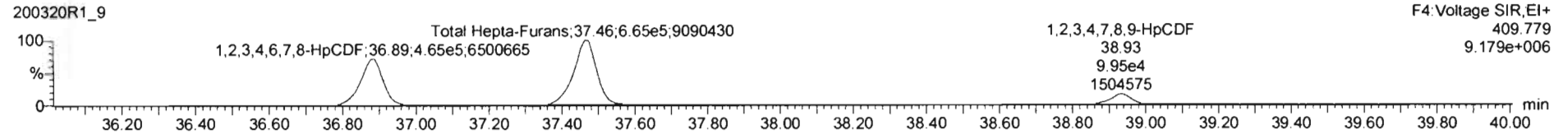
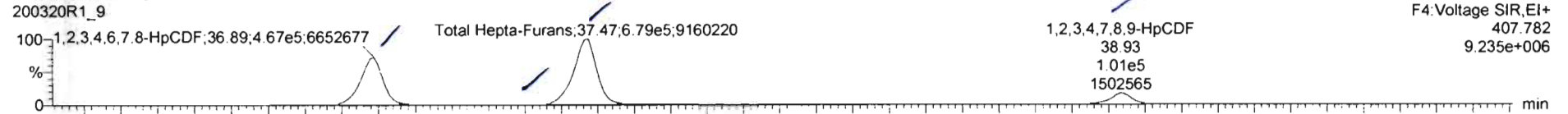


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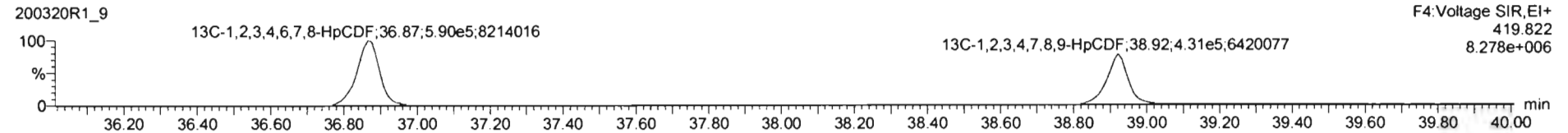
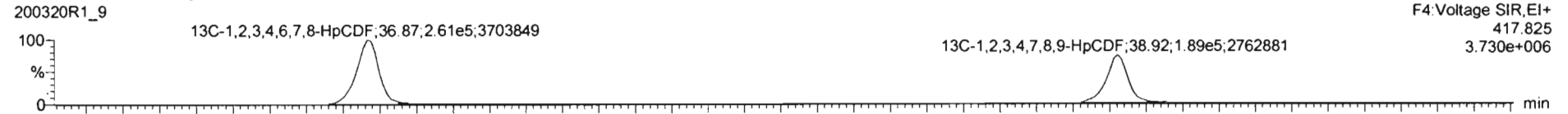
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Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

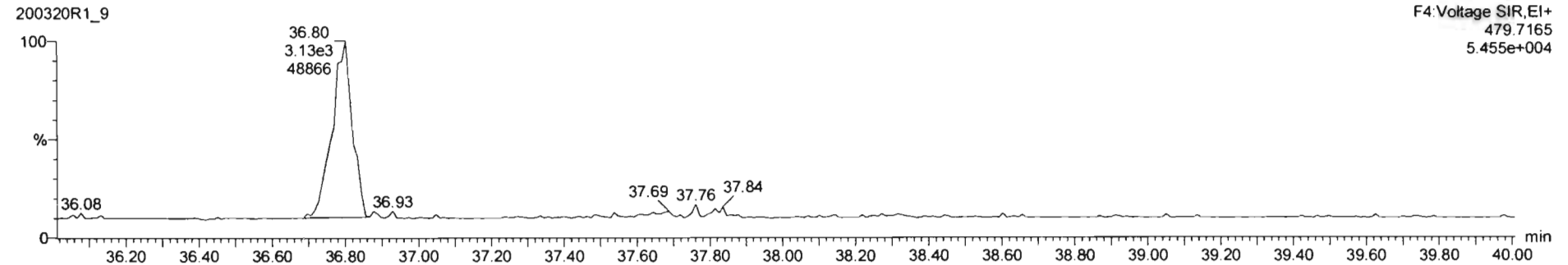
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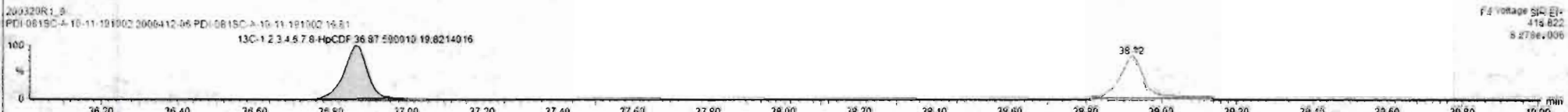
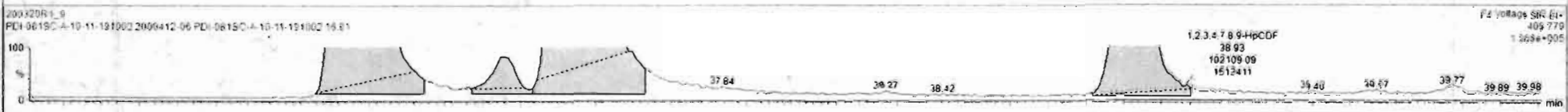
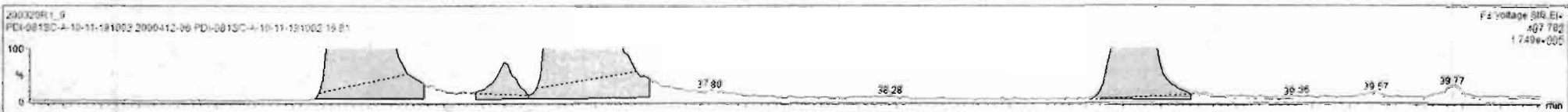


**DPE4**



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.009			475		0.267	475
46 Total Hexa-Furans				1.0920	10.009			593		0.264	593

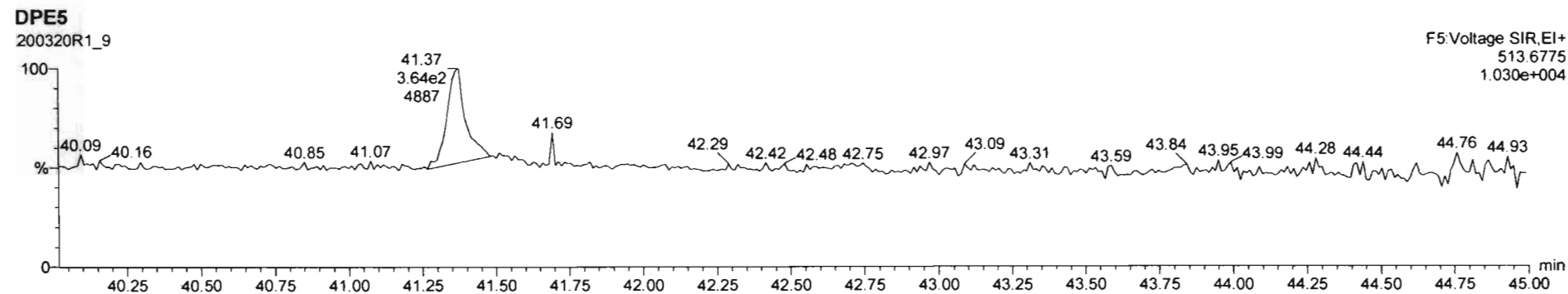
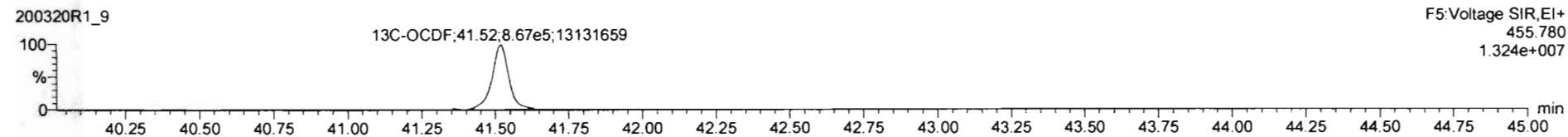
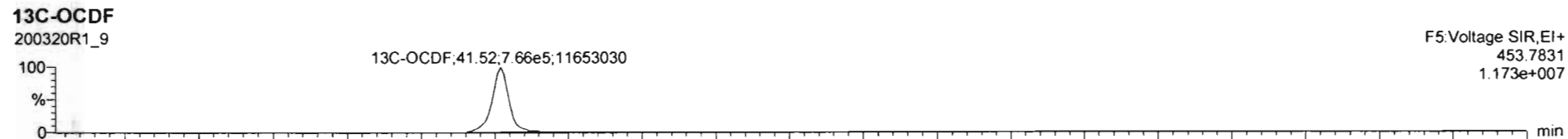
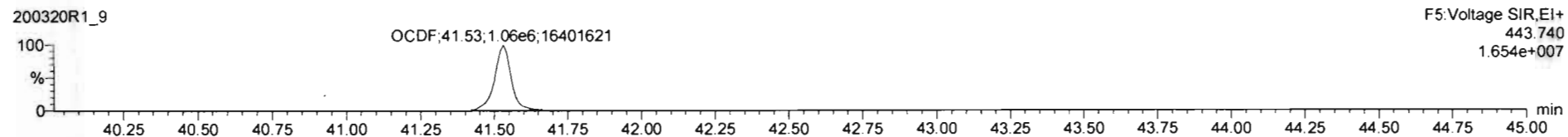
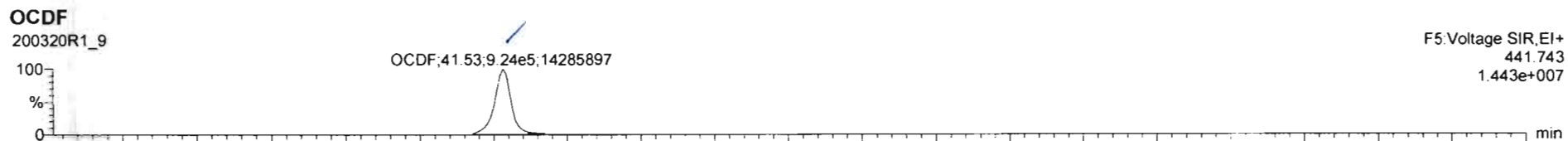
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 1,2,3,4,6,7,8-HpCDF	36.59	4.817e5	4.739e5	1.02	NO	214.04	214.04
2 Total Hepta-Furans	37.26	6.384e2	7.521e2	1.11	NO	4.1220	4.1220
3 Total Hepta-Furans	37.47	6.975e5	6.869e5	1.02	NO	358.79	358.79
4 1,2,3,4,7,8,9-HpCDF	38.93	1.031e5	1.021e5	1.01	NO	54.660	54.660



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Name: 200320R1\_9, Date: 20-Mar-2020, Time: 20:12:54, ID: 2000412-06 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002



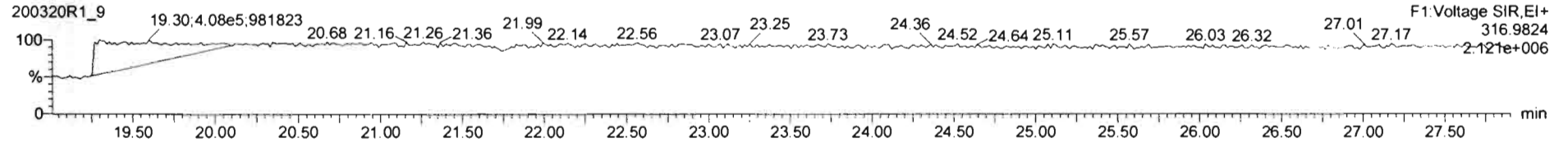
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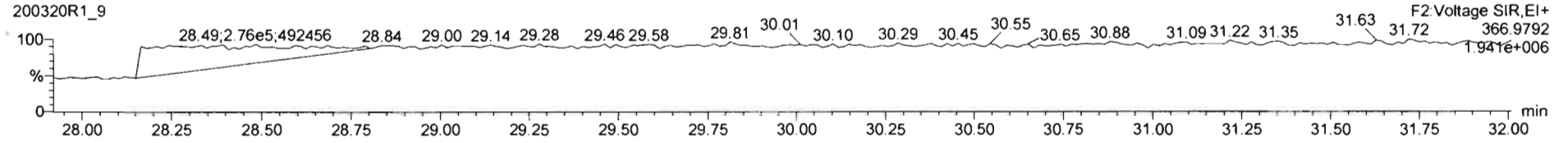
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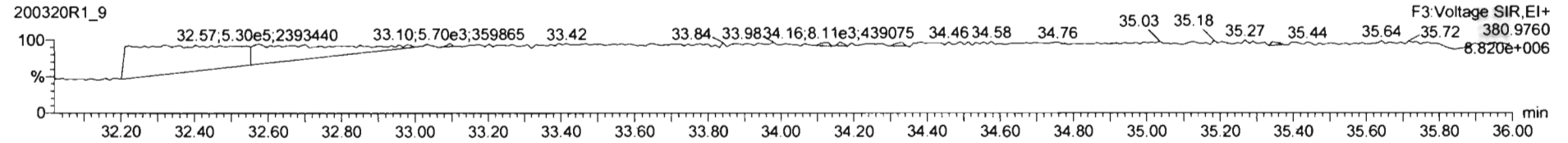
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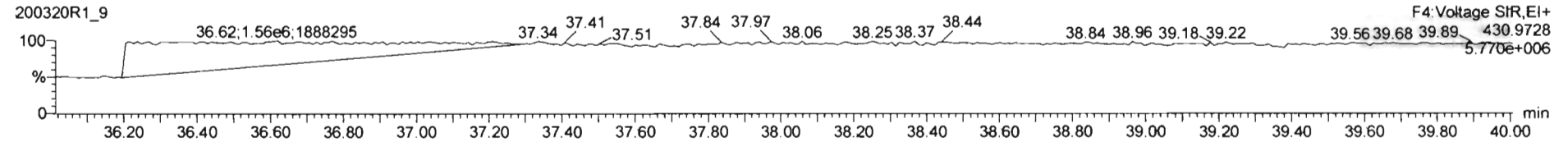
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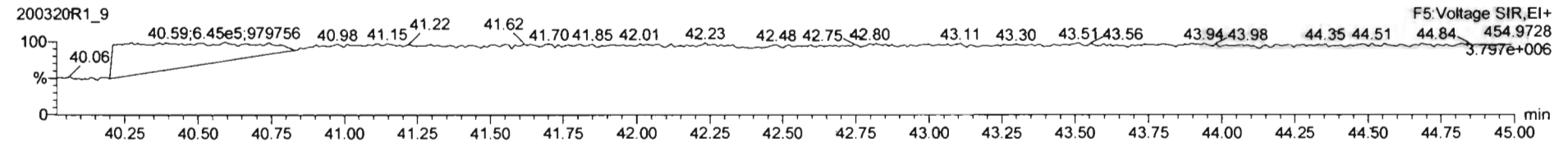
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PFK4



PFK5





Dataset: U:\VG12.PRO\Results\200320R1\200320R1-10.qld

Last Altered: Thursday, March 26, 2020 15:22:59 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:24:23 Pacific Daylight Time

*BL 03/26/2020*

*C704/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.70e3	1.27e6	0.395	YES	10.02	25.80	25.81	1.00	1.00	NO	0.27214		0.082	0.17724
2	2 1,2,3,7,8-PeCDD	1.12e3	9.14e5	0.542	NO	10.02	31.10	31.09	1.00	1.00	NO	0.26468		0.093	0.26468
3	3 1,2,3,4,7,8-HxCDD	1.15e3	7.65e5	1.232	NO	10.02	34.50	34.52	1.00	1.00	NO	0.26567		0.087	0.26567
4	4 1,2,3,6,7,8-HxCDD	6.88e3	8.85e5	1.306	NO	10.02	34.59	34.61	1.00	1.00	NO	1.5768		0.090	1.5768
5	5 1,2,3,7,8,9-HxCDD	3.24e3	8.15e5	1.224	NO	10.02	34.86	34.88	1.00	1.00	NO	0.81964		0.099	0.81964
6	6 1,2,3,4,6,7,8-HpCDD	1.65e5	6.85e5	1.002	NO	10.02	38.28	38.29	1.00	1.00	NO	47.847		0.365	47.847
7	7 OCDD	1.65e6	1.17e6	0.898	NO	10.02	41.34	41.36	1.00	1.00	NO	537.27		0.329	537.27
8	8 2,3,7,8-TCDF	9.28e4	1.75e6	0.766	NO	10.02	24.80	24.79	1.00	1.00	NO	11.595 (U.S)		0.131	11.595
9	9 1,2,3,7,8-PeCDF	1.47e5	1.41e6	1.550	NO	10.02	29.74	29.74	1.00	1.00	NO	21.739		0.154	21.739
10	10 2,3,4,7,8-PeCDF	4.55e4	1.37e6	1.551	NO	10.02	30.76	30.77	1.00	1.00	NO	6.5858		0.136	6.5858
11	11 1,2,3,4,7,8-HxCDF	2.76e5	1.06e6	1.209	NO	10.02	33.64	33.66	1.00	1.00	NO	50.118		0.105	50.118
12	12 1,2,3,6,7,8-HxCDF	5.99e4	1.15e6	1.230	NO	10.02	33.77	33.78	1.00	1.00	NO	10.222		0.103	10.222
13	13 2,3,4,6,7,8-HxCDF	1.44e4	1.08e6	1.246	NO	10.02	34.37	34.34	1.00	1.00	NO	2.4339		0.106	2.4339
14	14 1,2,3,7,8,9-HxCDF	1.17e4	9.69e5	1.202	NO	10.02	35.19	35.24	1.00	1.00	NO	2.3561		0.139	2.3561
15	15 1,2,3,4,6,7,8-HpCDF	1.17e5	8.28e5	1.004	NO	10.02	36.91	36.90	1.00	1.00	NO	26.882		0.157	26.882
16	16 1,2,3,4,7,8,9-HpCDF	3.31e4	6.06e5	1.043	NO	10.02	38.93	38.94	1.00	1.00	NO	9.0129		0.197	9.0129
17	17 OCDF	1.97e5	1.46e6	0.870	NO	10.02	41.52	41.53	1.00	1.00	NO	56.749		0.121	56.749
18	18 13C-2,3,7,8-TCDD	1.27e6	1.19e6	0.789	NO	10.02	25.79	25.76	1.03	1.03	NO	179.16	89.7	0.249	
19	19 13C-1,2,3,7,8-PeCDD	9.14e5	1.19e6	0.640	NO	10.02	31.10	31.08	1.24	1.24	NO	176.59	88.5	0.203	
20	20 13C-1,2,3,4,7,8-HxCDD	7.65e5	1.25e6	1.280	NO	10.02	34.49	34.49	1.01	1.01	NO	161.48	80.9	0.276	
21	21 13C-1,2,3,6,7,8-HxCDD	8.85e5	1.25e6	1.283	NO	10.02	34.59	34.59	1.02	1.02	NO	152.30	76.3	0.225	
22	22 13C-1,2,3,7,8,9-HxCDD	8.15e5	1.25e6	1.274	NO	10.02	34.86	34.85	1.02	1.02	NO	156.45	78.4	0.251	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.85e5	1.25e6	1.060	NO	10.02	38.28	38.27	1.13	1.12	NO	182.29	91.3	0.421	
24	24 13C-OCDD	1.17e6	1.25e6	0.969	NO	10.02	41.34	41.34	1.22	1.22	NO	325.21	81.5	0.369	
25	25 13C-2,3,7,8-TCDF	1.75e6	1.88e6	0.777	NO	10.02	24.78	24.78	0.99	0.99	NO	170.48	85.4	0.299	
26	26 13C-1,2,3,7,8-PeCDF	1.41e6	1.88e6	1.598	NO	10.02	29.74	29.72	1.19	1.19	NO	170.57	85.4	0.408	
27	27 13C-2,3,4,7,8-PeCDF	1.37e6	1.88e6	1.596	NO	10.02	30.72	30.76	1.23	1.23	NO	173.25	86.8	0.424	
28	28 13C-1,2,3,4,7,8-HxCDF	1.06e6	1.25e6	0.515	NO	10.02	33.64	33.64	0.99	0.99	NO	168.29	84.3	0.333	
29	29 13C-1,2,3,6,7,8-HxCDF	1.15e6	1.25e6	0.519	NO	10.02	33.76	33.76	0.99	0.99	NO	164.49	82.4	0.298	
30	30 13C-2,3,4,6,7,8-HxCDF	1.08e6	1.25e6	0.521	NO	10.02	34.32	34.33	1.01	1.01	NO	166.23	83.3	0.322	
31	31 13C-1,2,3,7,8,9-HxCDF	9.69e5	1.25e6	0.499	NO	10.02	35.19	35.19	1.03	1.03	NO	176.68	88.5	0.381	
32	32 13C-1,2,3,4,6,7,8-HpCDF	8.28e5	1.25e6	0.441	NO	10.02	36.89	36.88	1.08	1.08	NO	171.03	85.7	0.338	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-10.qld

Last Altered: Thursday, March 26, 2020 15:22:59 Pacific Daylight Time  
Printed: Thursday, March 26, 2020 15:24:23 Pacific Daylight Time

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

#	Name	Area	IS Area	RA	n/y	Wt./Vol	Pred.RT	RT	Pred.RRT	RRT	Check RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.06e5	1.25e6	0.455	NO	10.02	38.93	38.93	1.14	1.14	NO	185.84	93.1	0.502	
34	34 13C-OCDF	1.46e6	1.25e6	0.851	NO	10.02	41.53	41.52	1.22	1.22	NO	334.24	83.7	0.318	
35	35 37Cl-2,3,7,8-TCDD	5.05e5	1.19e6			10.02	25.82	25.80	1.03	1.03	NO	71.815	89.9	0.060	
36	36 13C-1,2,3,4-TCDD	1.19e6	1.19e6	0.794	NO	10.02	25.03	25.05	1.00	1.00	NO	199.63	100.0	0.294	
37	37 13C-1,2,3,4-TCDF	1.88e6	1.88e6	0.786	NO	10.02	23.09	23.09	1.00	1.00	NO	199.63	100.0	0.325	
38	38 13C-1,2,3,4,6,9-HxCDF	1.25e6	1.25e6	0.521	NO	10.02	34.02	34.02	1.00	1.00	NO	199.63	100.0	0.333	
39	39 Total Tetra-Dioxins		1.27e6			10.02	24.62		0.00		NO	2.6691		0.082	3.0501
40	40 Total Penta-Dioxins		9.14e5			10.02	29.96		0.00		NO	2.5667		0.093	3.1193
41	41 Total Hexa-Dioxins		0.00e0			10.02	33.63		0.00		NO	15.564		0.096	15.928
42	42 Total Hepta-Dioxins		6.85e5			10.02	37.64		0.00		NO	111.16		0.365	111.16
43	43 Total Tetra-Furans		1.75e6			10.02	23.61		0.00		NO	35.158		0.131	38.507
44	44 1st Func. Penta-Furans		0.00e0			10.02	27.09		0.00		NO	6.4707		0.028	6.4707
45	45 Total Penta-Furans		0.00e0			10.02	29.27		0.00		NO	56.516		0.148	56.516
46	46 Total Hexa-Furans		0.00e0			10.02	33.56		0.00		NO	85.122		0.107	85.122
47	47 Total Hepta-Furans		0.00e0			10.02	37.83		0.00		NO	70.967		0.187	71.316

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-10.qld

Last Altered: Thursday, March 26, 2020 15:22:59 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:24:23 Pacific Daylight Time

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Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39

**Tetra-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	39 Total Tetra-Dioxins	21.41	0.817	NO	5.79e3	5.60e5	2.06	2.06
2	39 Total Tetra-Dioxins	21.81	0.884	NO	7.33e2	5.60e5	0.250	0.250
3	39 Total Tetra-Dioxins	23.30	0.727	NO	4.03e2	5.60e5	0.153	0.153
4	39 Total Tetra-Dioxins	23.61	1.011	YES	3.25e2	5.60e5	0.000	0.0910
5	39 Total Tetra-Dioxins	23.85	0.974	YES	3.88e2	5.60e5	0.000	0.113
6	39 Total Tetra-Dioxins	25.51	0.880	NO	6.10e2	5.60e5	0.208	0.208
7	1 2,3,7,8-TCDD	25.81	0.395	YES	4.82e2	5.60e5	0.000	0.177

**Penta-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	40 Total Penta-Dioxins	28.76	0.606	NO	1.66e3	3.56e5	1.04	1.04
2	40 Total Penta-Dioxins	29.28	0.673	NO	4.59e2	3.56e5	0.270	0.270
3	40 Total Penta-Dioxins	29.80	0.718	NO	1.34e3	3.56e5	0.763	0.763
4	40 Total Penta-Dioxins	30.00	0.619	NO	3.62e2	3.56e5	0.225	0.225
5	40 Total Penta-Dioxins	30.07	0.825	YES	3.34e2	3.56e5	0.000	0.157
6	40 Total Penta-Dioxins	30.33	0.670	NO	6.70e2	3.56e5	0.000	0.396
7	2 1,2,3,7,8-PeCDD	31.09	0.542	NO	3.92e2	3.56e5	0.265	0.265

**Hexa-Dioxins**

#	Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	41 Total Hexa-Dioxins	33.03	1.281	NO	1.31e4	4.61e5	5.76	5.76
2	41 Total Hexa-Dioxins	33.61	1.117	NO	1.76e3	4.61e5	0.823	0.823
3	41 Total Hexa-Dioxins	33.84	1.238	NO	1.35e4	4.61e5	6.03	6.03
4	41 Total Hexa-Dioxins	33.91	1.028	YES	8.16e2	4.61e5	0.000	0.364
5	3 1,2,3,4,7,8-HxCDD	34.52	1.232	NO	6.36e2	4.29e5	0.266	0.266
6	4 1,2,3,6,7,8-HxCDD	34.61	1.306	NO	3.90e3	4.98e5	1.58	1.58
7	41 Total Hexa-Dioxins	34.78	1.252	NO	6.56e2	4.61e5	0.291	0.291
8	5 1,2,3,7,8,9-HxCDD	34.88	1.224	NO	1.78e3	4.57e5	0.820	0.820

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-10.qld

Last Altered: Thursday, March 26, 2020 15:22:59 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:24:23 Pacific Daylight Time

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39

**Hepta-Dioxins**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	42 Total Hepta-Dioxins	37.27	1.015	NO	1.10e5	3.52e5	63.3	63.3
2	6 1,2,3,4,6,7,8-HpCDD	38.29	1.002	NO	8.27e4	3.52e5	47.8	47.8

**Tetra-Furans**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	43 Total Tetra-Furans	19.42	0.710	NO	5.32e2	7.63e5	0.160	0.160
2	43 Total Tetra-Furans	19.93	0.829	NO	1.19e3	7.63e5	0.327	0.327
3	43 Total Tetra-Furans	20.48	0.758	NO	5.66e3	7.63e5	1.64	1.64
4	43 Total Tetra-Furans	20.99	0.803	NO	3.06e3	7.63e5	0.857	0.857
5	43 Total Tetra-Furans	21.38	0.776	NO	1.25e4	7.63e5	3.58	3.58
6	43 Total Tetra-Furans	21.84	0.751	NO	6.11e3	7.63e5	1.78	1.78
7	43 Total Tetra-Furans	22.01	0.836	NO	3.58e2	7.63e5	0.0981	0.0981
8	43 Total Tetra-Furans	22.19	0.690	NO	1.60e3	7.63e5	0.489	0.489
9	43 Total Tetra-Furans	22.62	0.814	NO	4.51e2	7.63e5	0.125	0.125
10	43 Total Tetra-Furans	22.80	1.013	YES	4.01e2	7.63e5	0.000	0.0876
11	43 Total Tetra-Furans	23.01	0.716	NO	3.40e3	7.63e5	1.02	1.02
12	43 Total Tetra-Furans	23.07	0.686	NO	5.54e3	7.63e5	0.000	1.70
13	43 Total Tetra-Furans	23.70	0.769	NO	3.82e4	7.63e5	11.0	11.0
14	43 Total Tetra-Furans	24.07	0.800	NO	1.55e3	7.63e5	0.436	0.436
15	43 Total Tetra-Furans	24.31	0.699	NO	4.40e2	7.63e5	0.134	0.134
16	43 Total Tetra-Furans	24.51	0.614	YES	4.00e2	7.63e5	0.000	0.115
17	43 Total Tetra-Furans	24.67	0.717	NO	4.41e3	7.63e5	1.32	1.32
18	8 2,3,7,8-TCDF	24.79	0.766	NO	4.03e4	7.63e5	11.6	11.6
19	43 Total Tetra-Furans	25.21	0.851	NO	1.95e3	7.63e5	0.531	0.531
20	43 Total Tetra-Furans	25.48	0.811	NO	3.54e2	7.63e5	0.0988	0.0988
21	43 Total Tetra-Furans	26.99	1.018	YES	6.65e3	7.63e5	0.000	1.44

**Penta-Furans function 1**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	44 1st Func. Penta-Furans	26.99	1.616	NO	2.67e4	8.54e5	6.47	6.47

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-10.qld

Last Altered: Thursday, March 26, 2020 15:22:59 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:24:23 Pacific Daylight Time

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39

**Penta-Furans**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	45 Total Penta-Furans	28.55	1.587	NO	1.92e3	8.54e5	0.468	0.468
2	45 Total Penta-Furans	28.70	1.581	NO	4.68e4	8.54e5	11.4	11.4
3	45 Total Penta-Furans	29.32	1.479	NO	7.18e3	8.54e5	1.80	1.80
4	45 Total Penta-Furans	29.54	1.536	NO	8.31e3	8.54e5	2.06	2.06
5	9 1,2,3,7,8-PeCDF	29.74	1.550	NO	8.92e4	8.64e5	21.7	21.7
6	45 Total Penta-Furans	30.03	1.514	NO	2.59e4	8.54e5	6.45	6.45
7	45 Total Penta-Furans	30.67	1.558	NO	7.83e2	8.54e5	0.192	0.192
8	10 2,3,4,7,8-PeCDF	30.77	1.551	NO	2.77e4	8.45e5	6.59	6.59
9	45 Total Penta-Furans	31.74	1.649	NO	2.22e3	8.54e5	0.533	0.533
10	45 Total Penta-Furans	30.79	1.606	NO	2.16e4	8.54e5	5.25	5.25

**Hexa-Furans**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	46 Total Hexa-Furans	32.47	1.232	NO	6.17e3	3.62e5	1.92	1.92
2	46 Total Hexa-Furans	32.64	1.227	NO	2.27e4	3.62e5	7.08	7.08
3	46 Total Hexa-Furans	33.20	1.194	NO	2.47e4	3.62e5	7.78	7.78
4	46 Total Hexa-Furans	33.55	1.074	NO	9.04e2	3.62e5	0.299	0.299
5	11 1,2,3,4,7,8-HxCDF	33.66	1.209	NO	1.51e5	3.60e5	50.1	50.1
6	12 1,2,3,6,7,8-HxCDF	33.78	1.230	NO	3.30e4	3.94e5	10.2	10.2
7	13 2,3,4,6,7,8-HxCDF	34.34	1.246	NO	7.98e3	3.70e5	2.43	2.43
8	14 1,2,3,7,8,9-HxCDF	35.24	1.202	NO	6.41e3	3.22e5	2.36	2.36
9	46 Total Hexa-Furans	35.25	1.349	NO	9.77e3	3.62e5	2.92	2.92

**Hepta-Furans**

	# Name	RT	RA	y/n	Area	IS Area	Conc.	EMPC
1	15 1,2,3,4,6,7,8-HpCDF	36.90	1.004	NO	5.86e4	2.53e5	26.9	26.9
2	47 Total Hepta-Furans	37.27	0.816	YES	6.71e2	2.21e5	0.000	0.349
3	47 Total Hepta-Furans	37.48	1.010	NO	6.63e4	2.21e5	35.1	35.1
4	16 1,2,3,4,7,8,9-HpCDF	38.94	1.043	NO	1.69e4	1.90e5	9.01	9.01

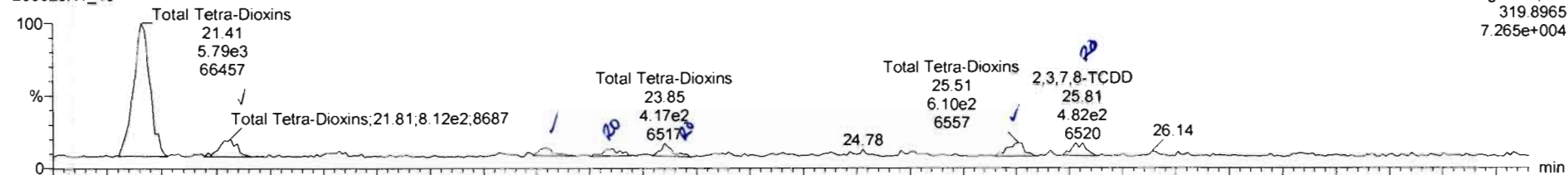
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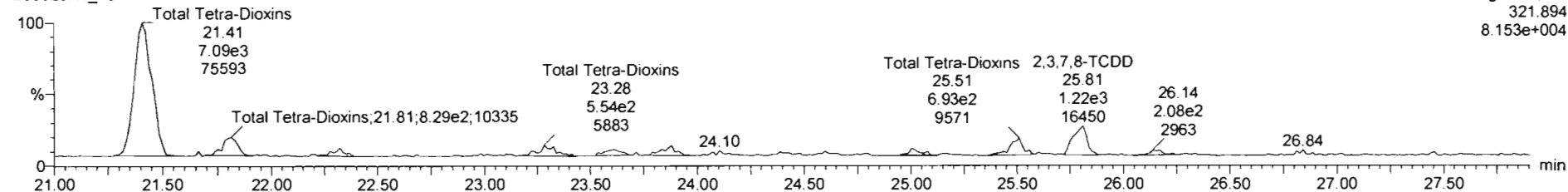
Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

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

200320R1\_10

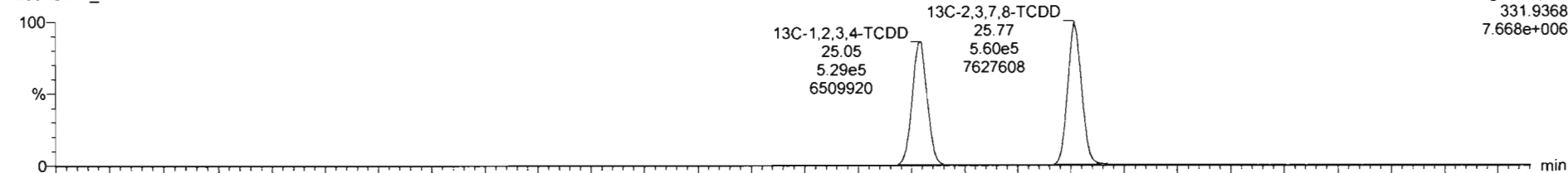


200320R1\_10

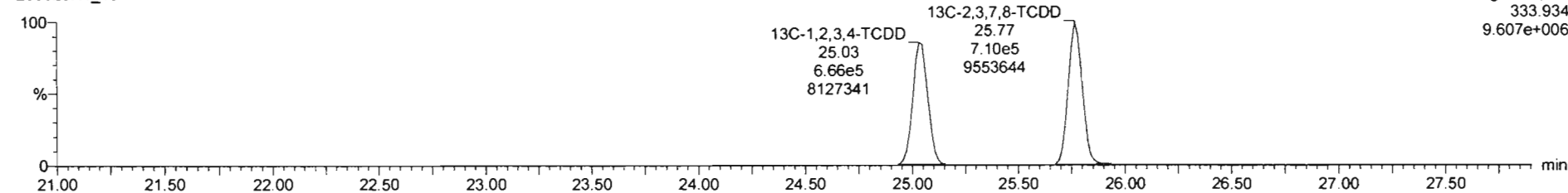


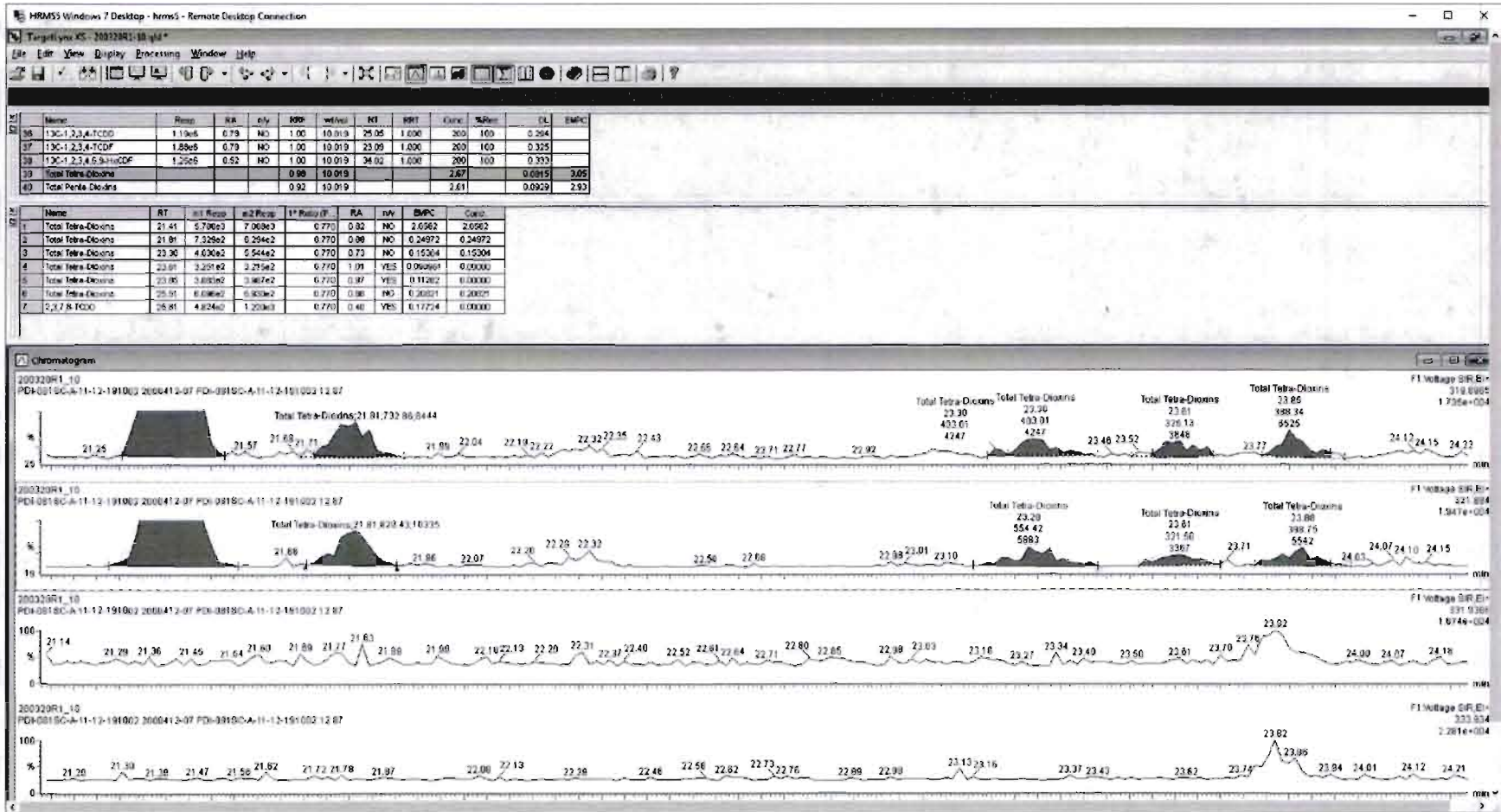
**13C-2,3,7,8-TCDD**

200320R1\_10



200320R1\_10





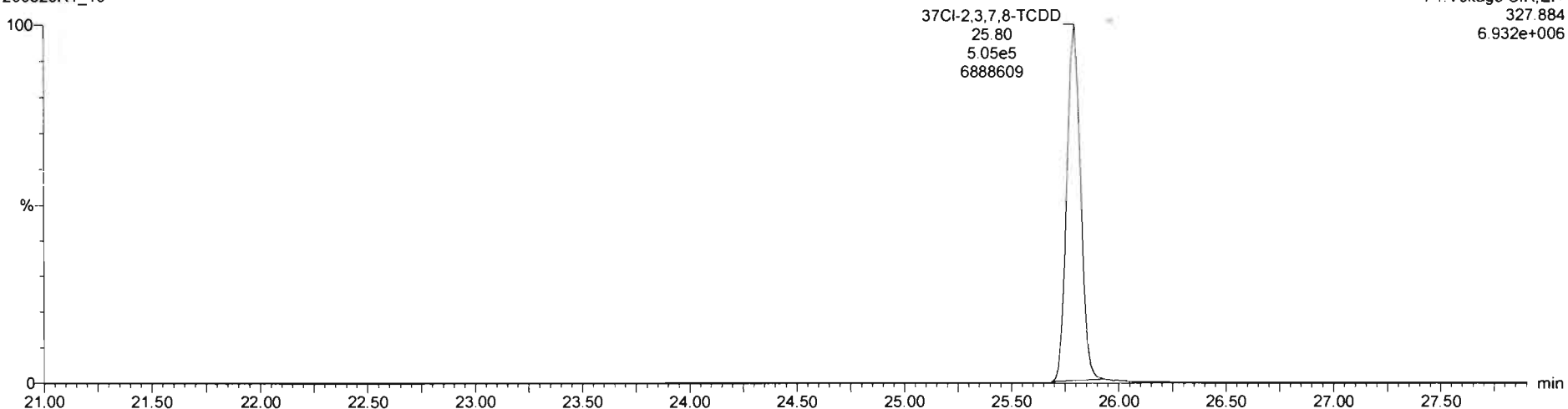
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

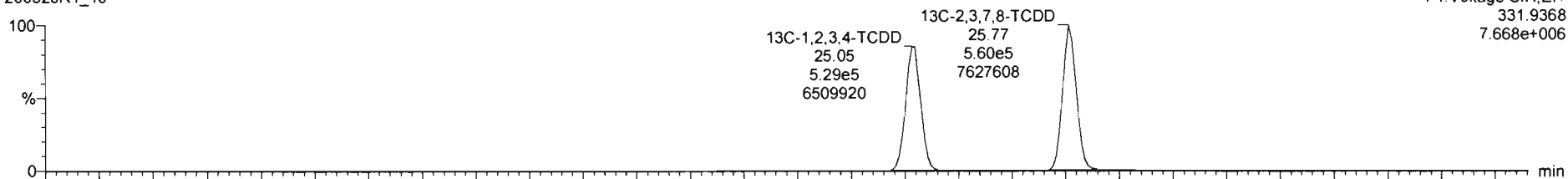
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200320R1\_10

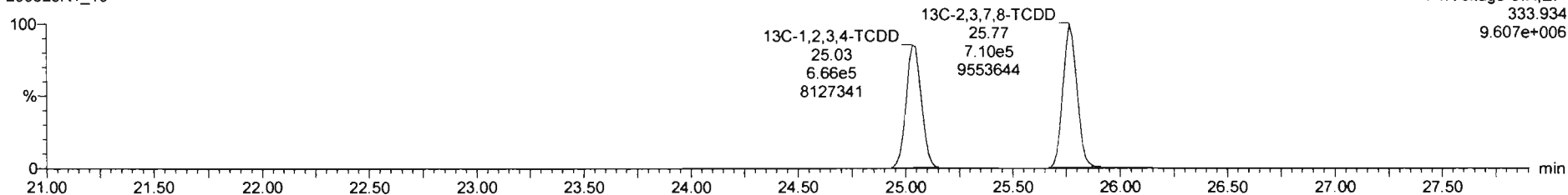


**13C-1,2,3,4-TCDD**

200320R1\_10



200320R1\_10





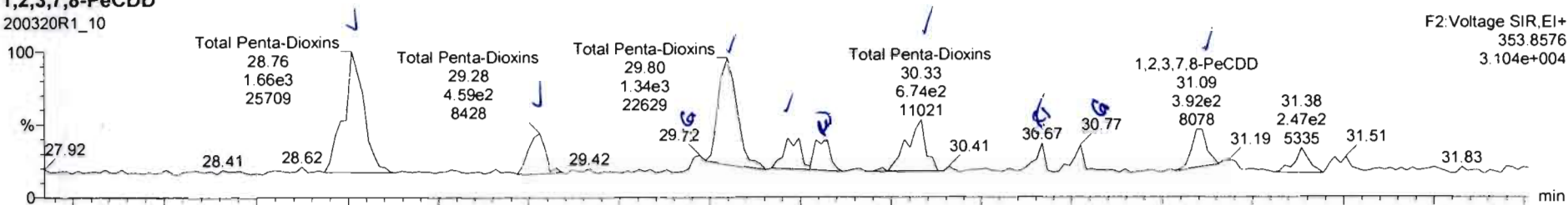
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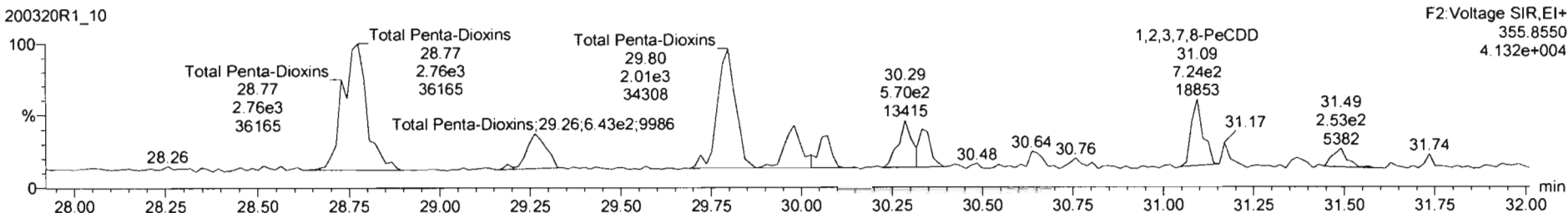
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1,2,3,7,8-PeCDD

200320R1\_10

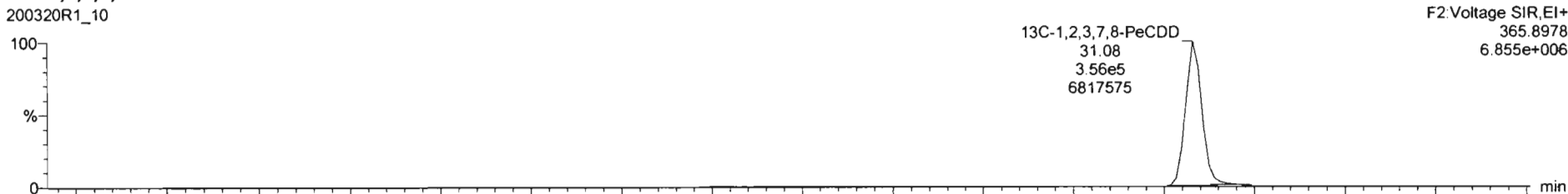


200320R1\_10

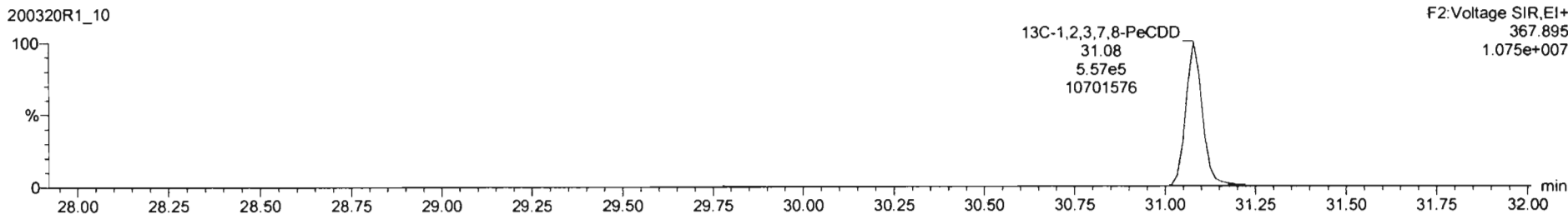


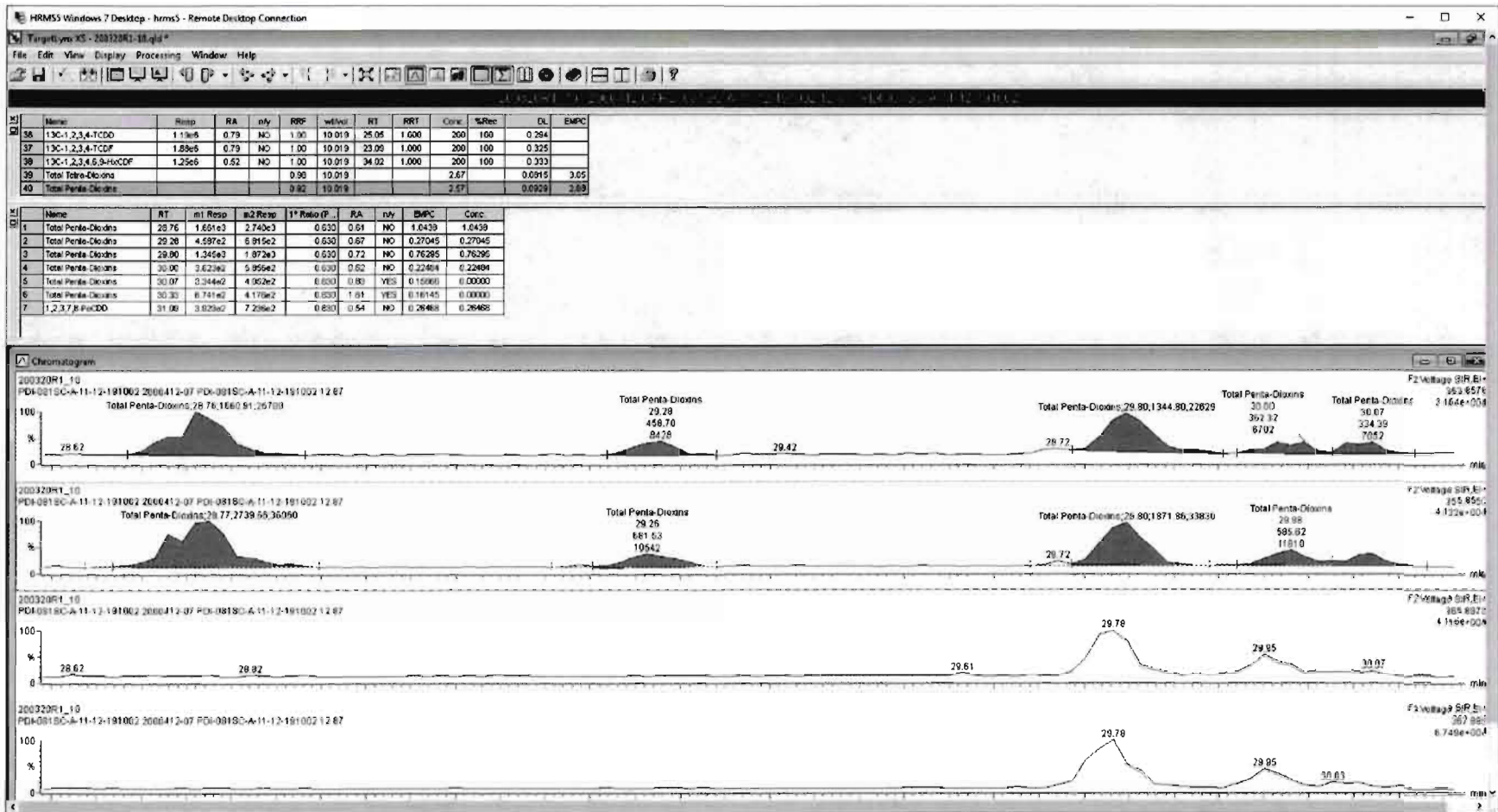
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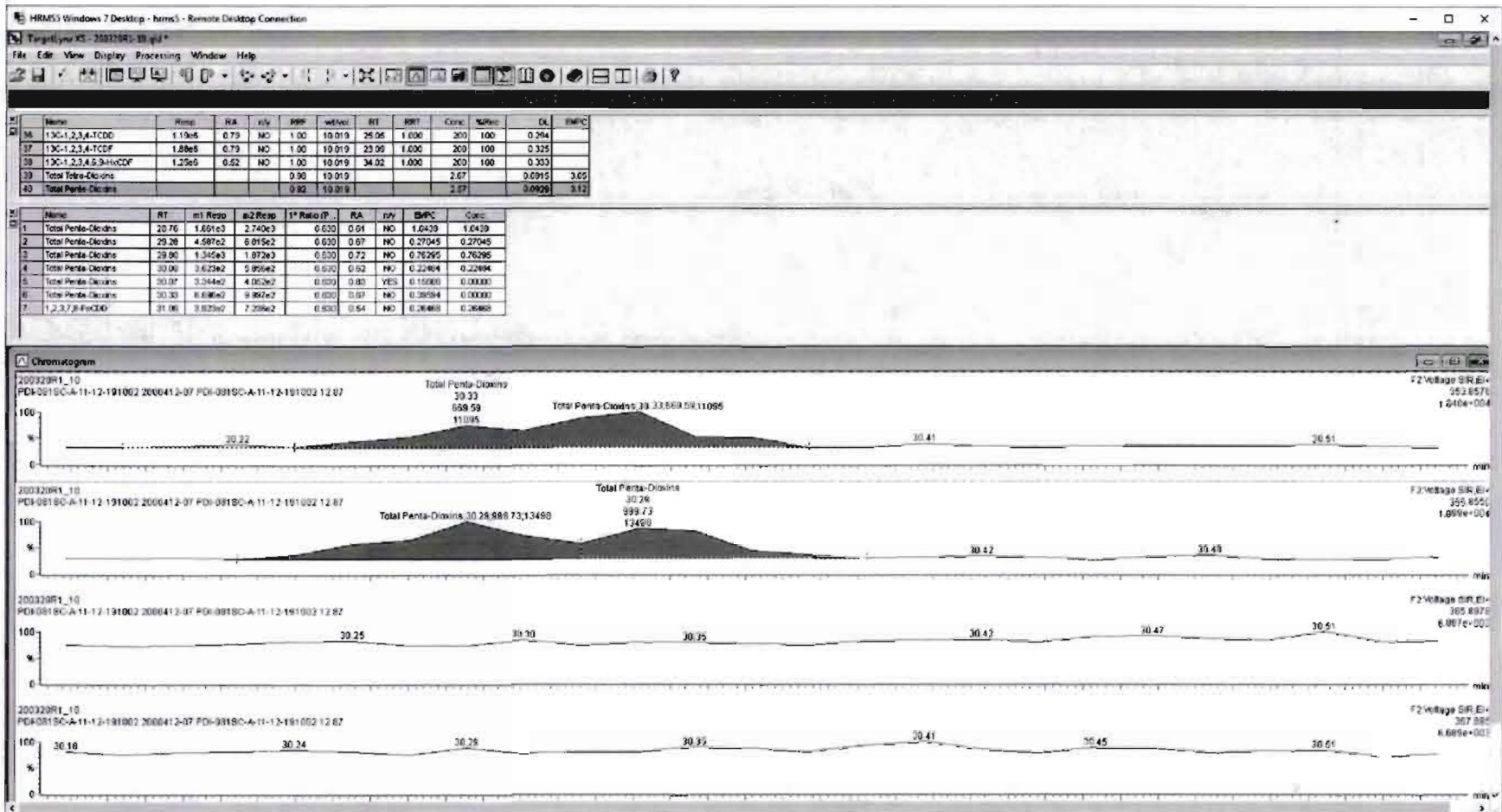
200320R1\_10



200320R1\_10







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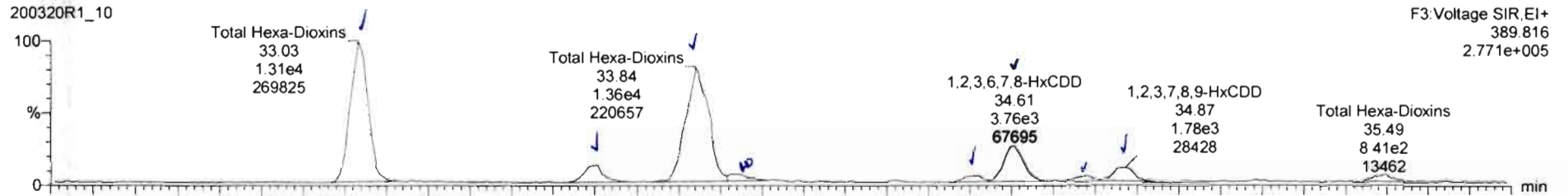
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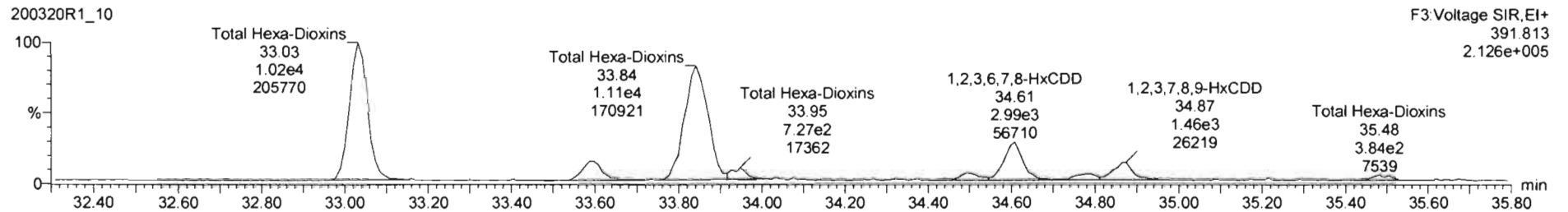
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1,2,3,4,7,8-HxCDD

200320R1\_10

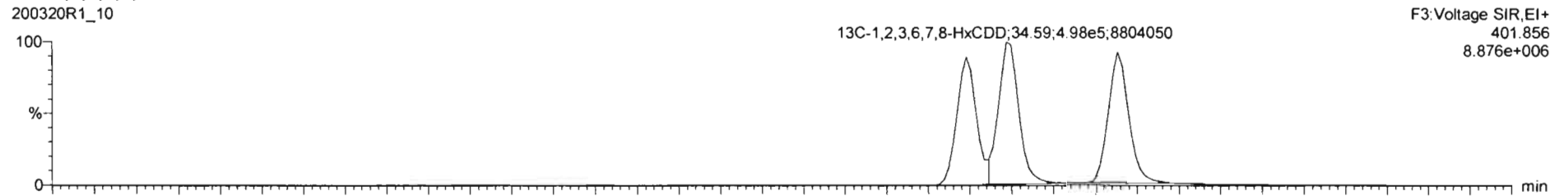


200320R1\_10

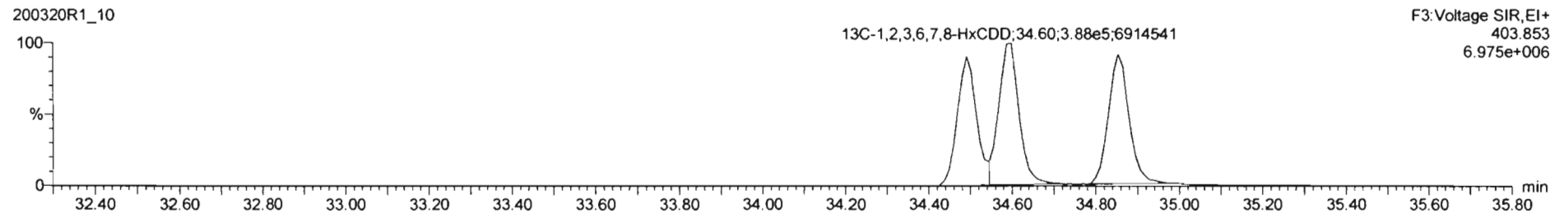


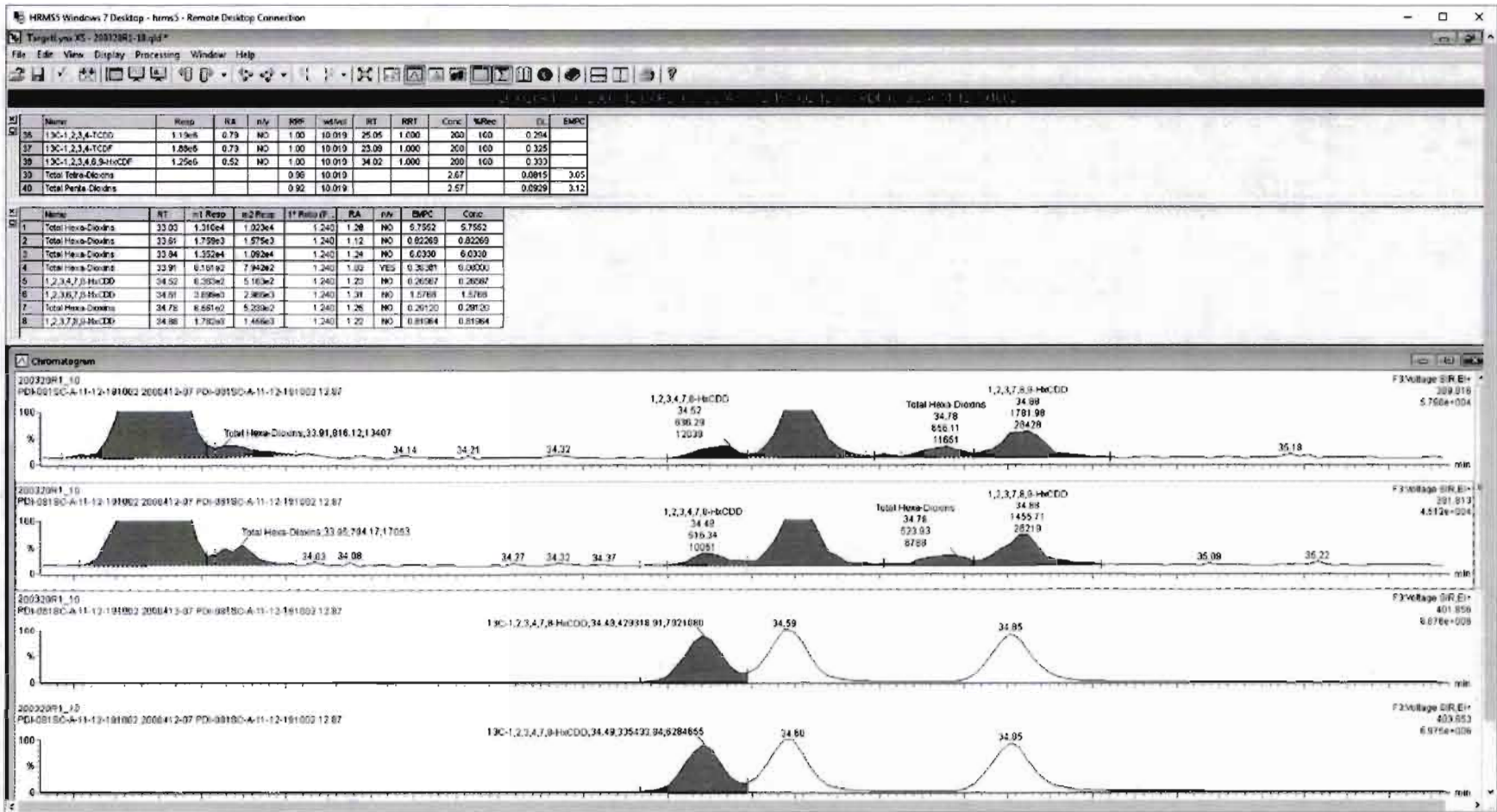
13C-1,2,3,4,7,8-HxCDD

200320R1\_10



200320R1\_10





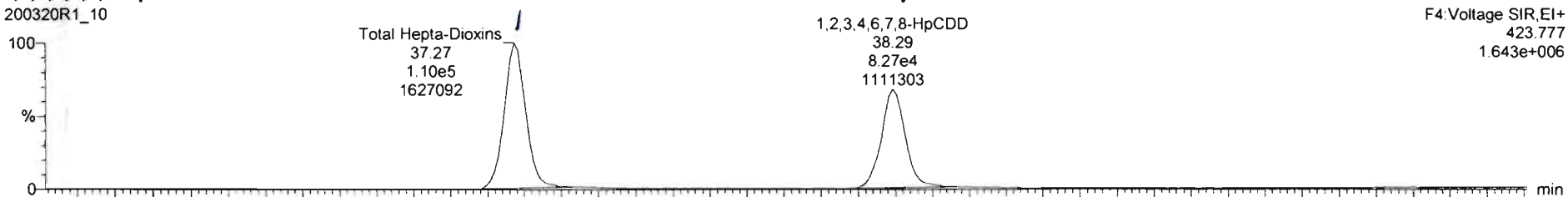
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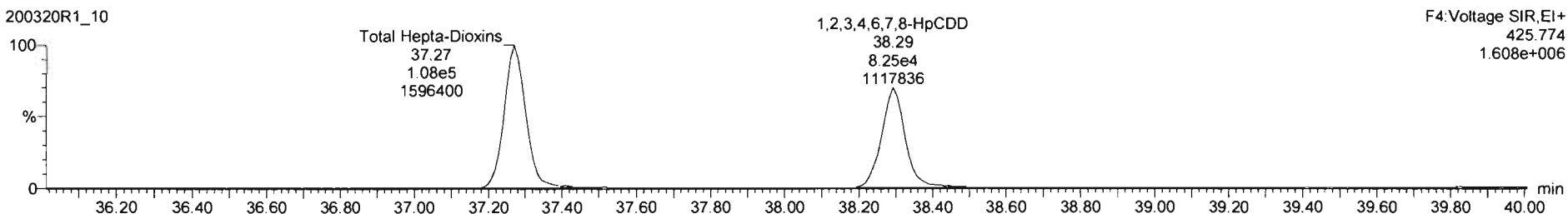
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1,2,3,4,6,7,8-HpCDD

200320R1\_10

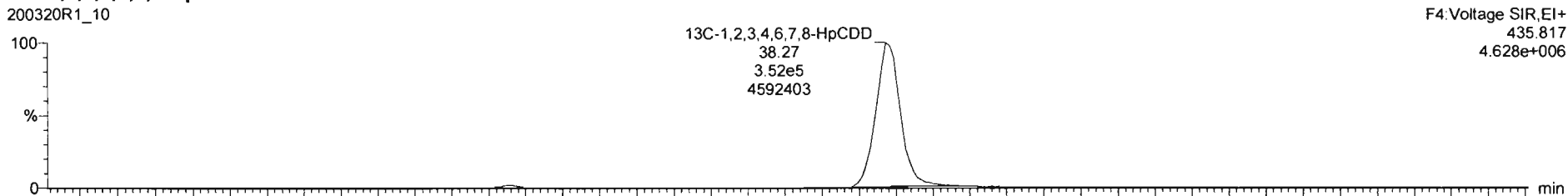


200320R1\_10

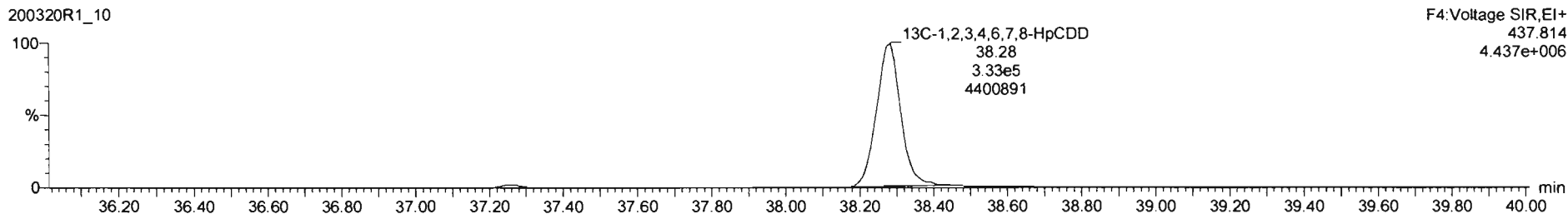


13C-1,2,3,4,6,7,8-HpCDD

200320R1\_10



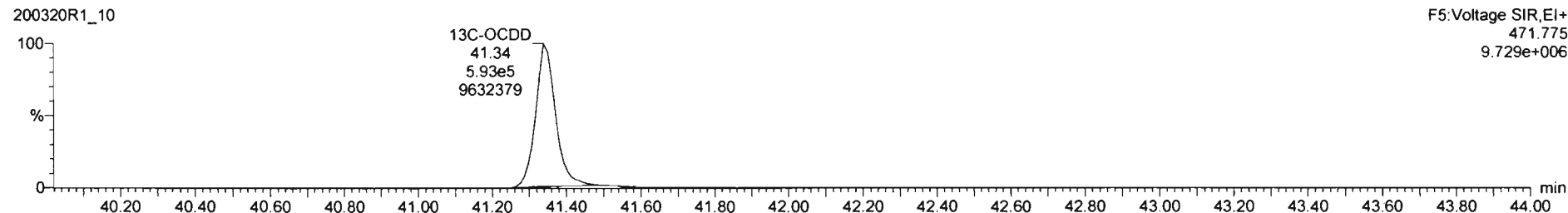
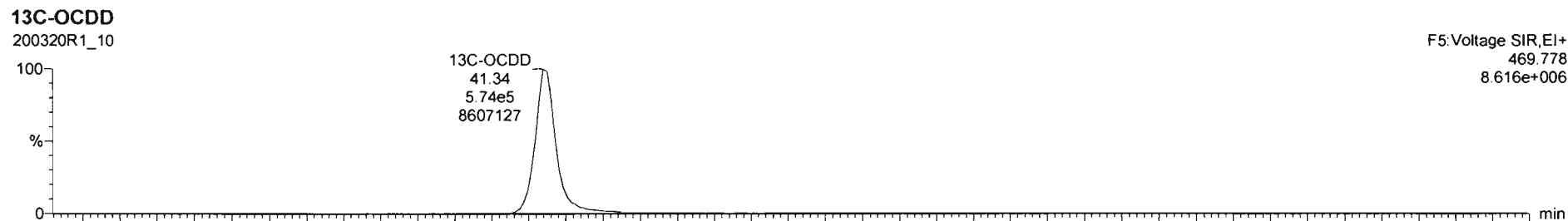
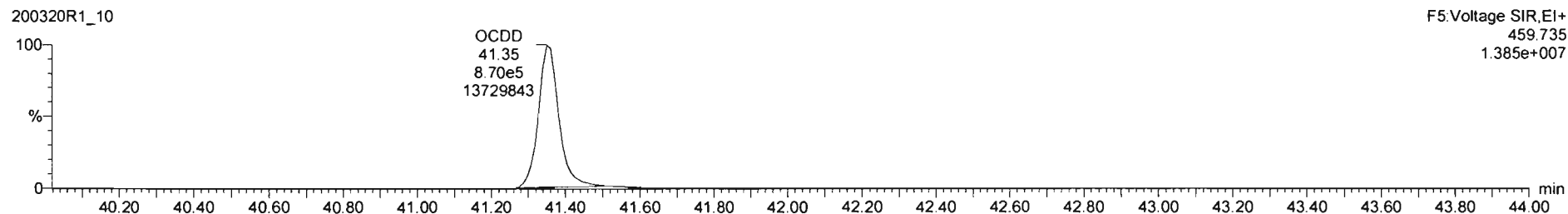
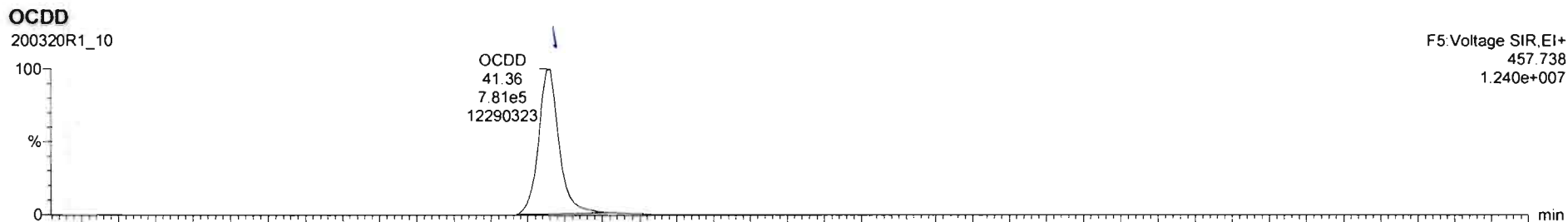
200320R1\_10



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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

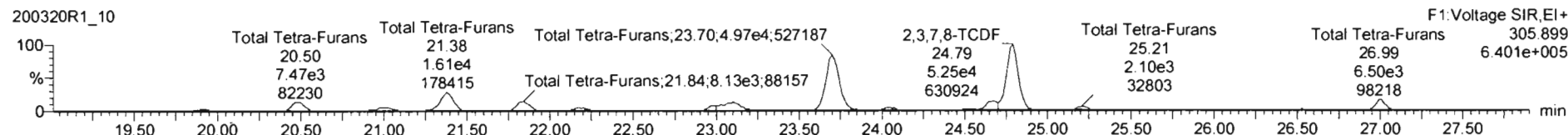
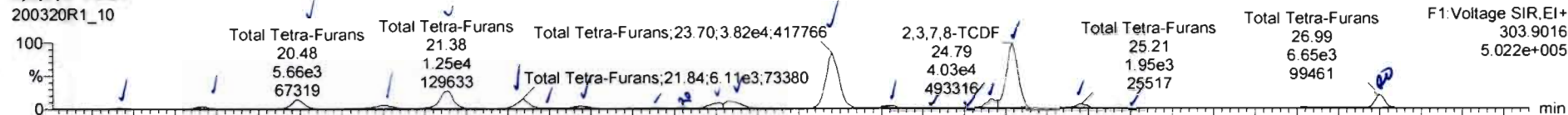


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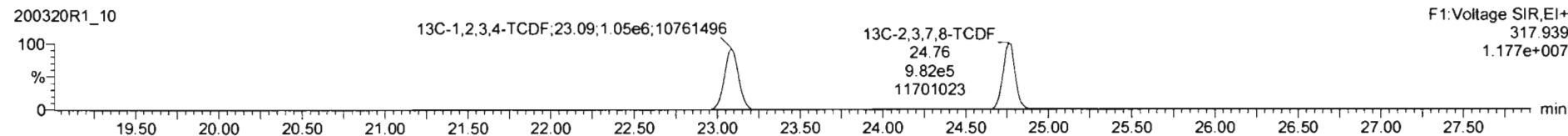
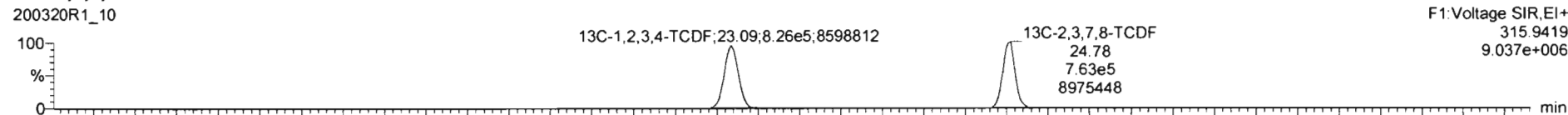
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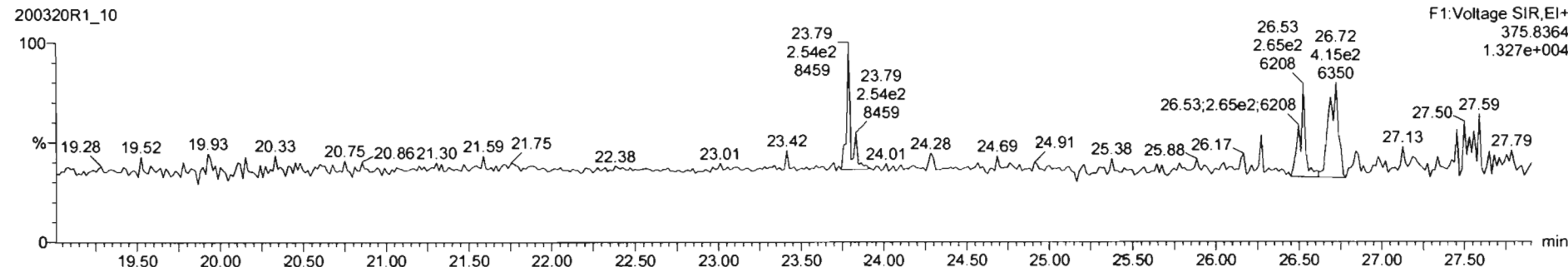
**2,3,7,8-TCDF**



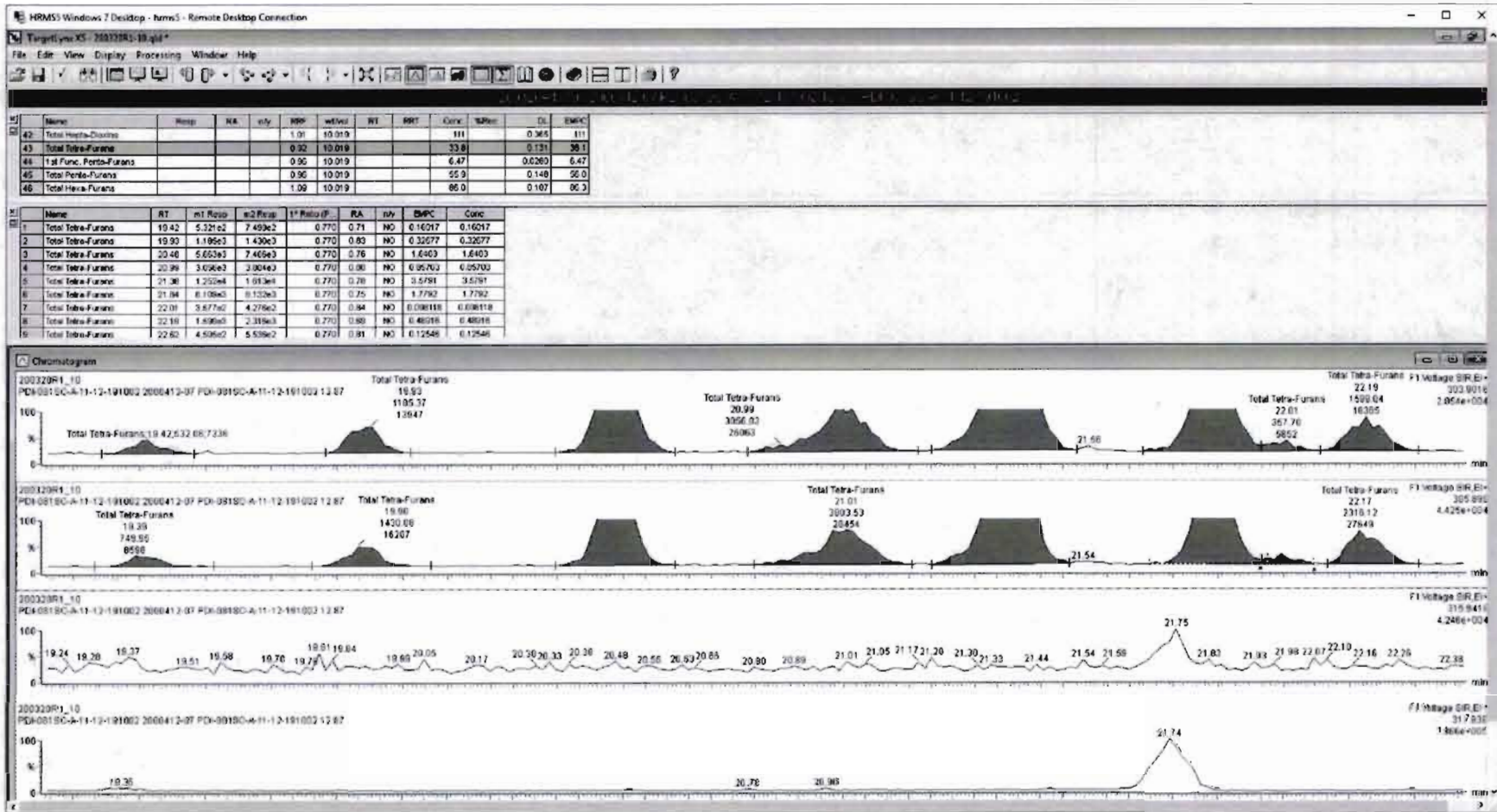
**13C-2,3,7,8-TCDF**

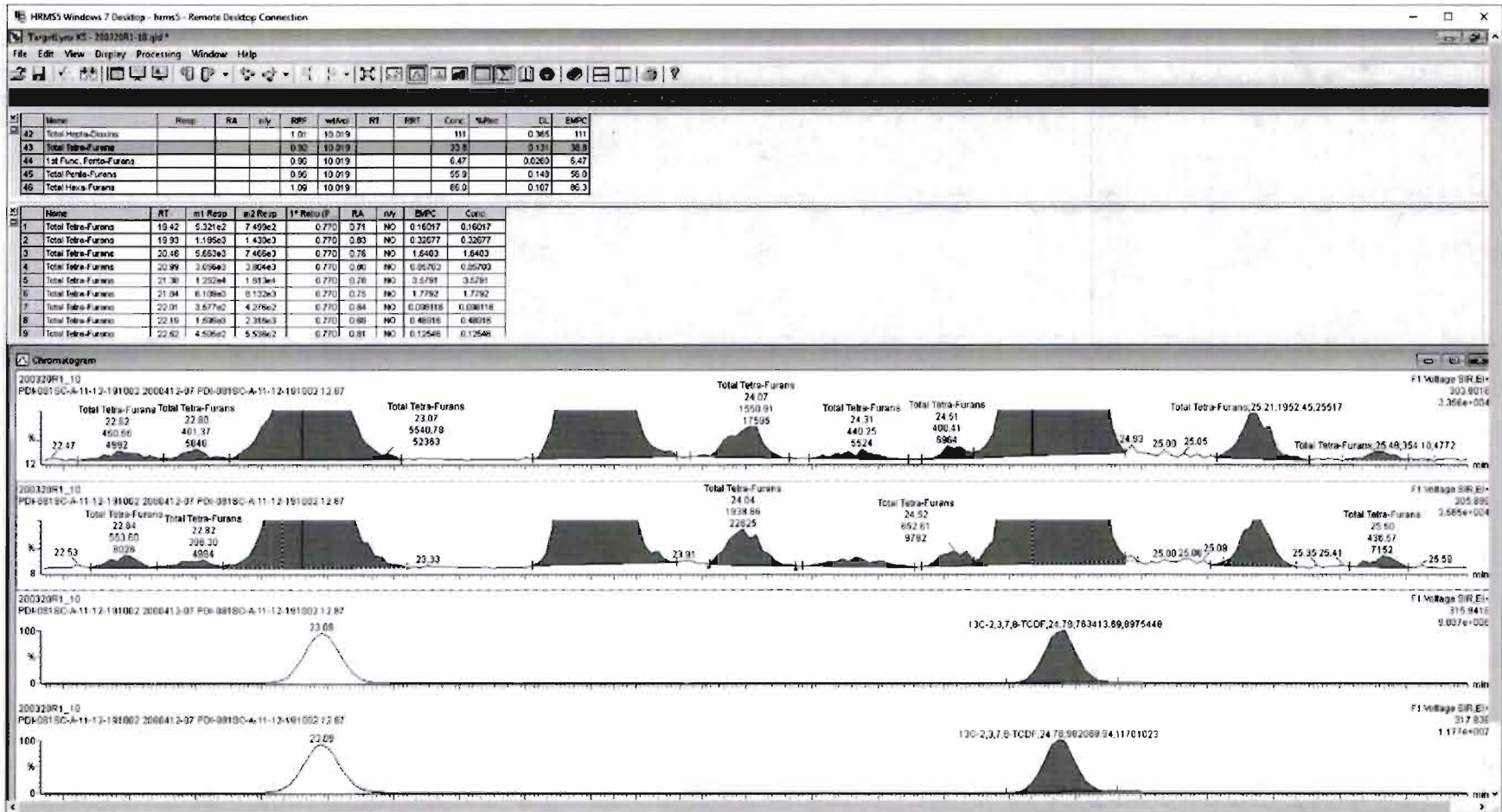


**DPE1**









Dataset: Untitled

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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

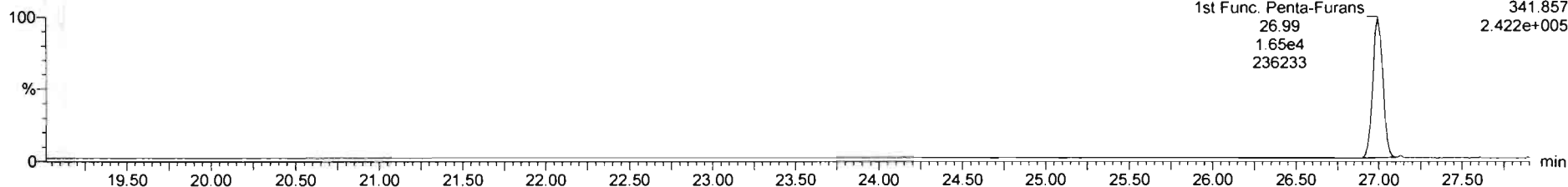
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200320R1\_10

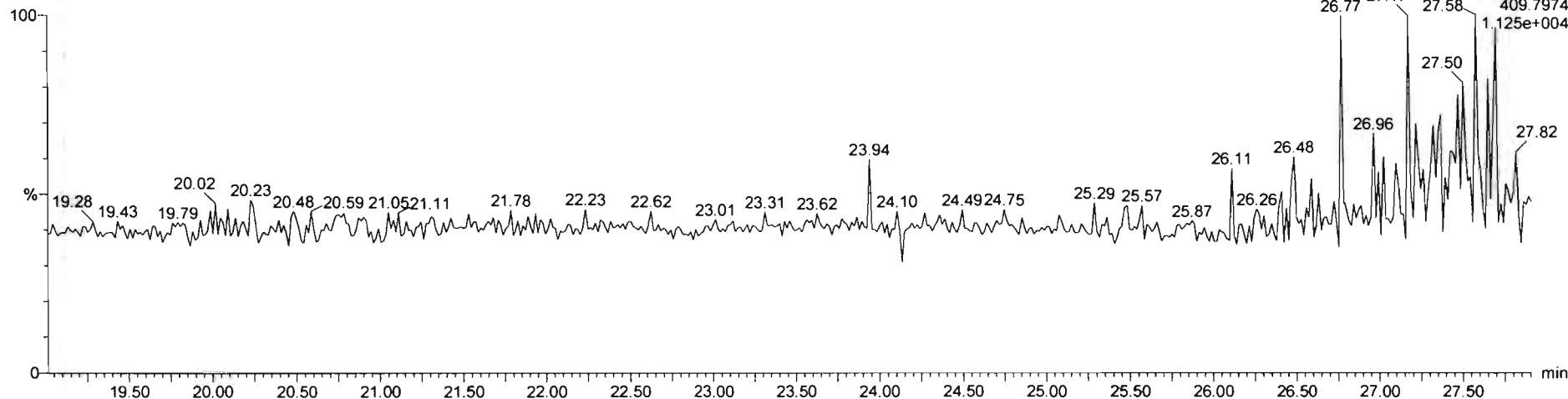


200320R1\_10



DPE6

200320R1\_10



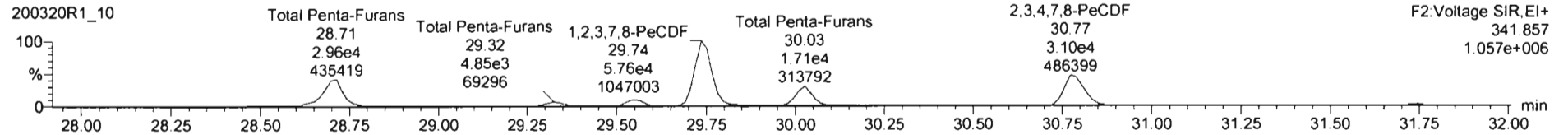
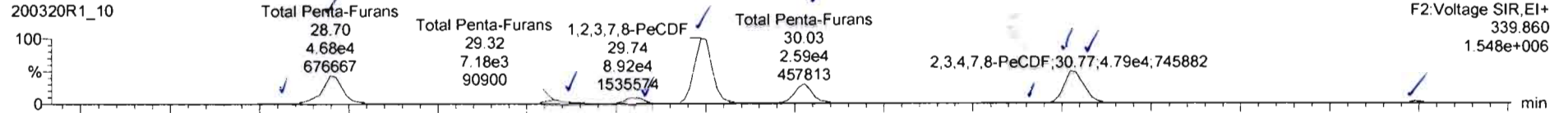
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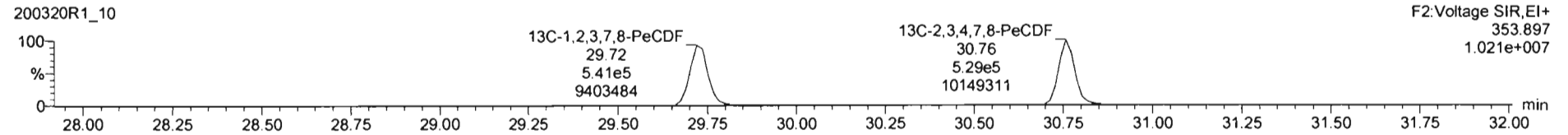
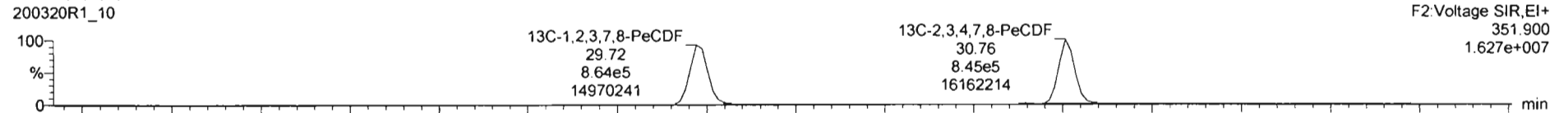
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Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

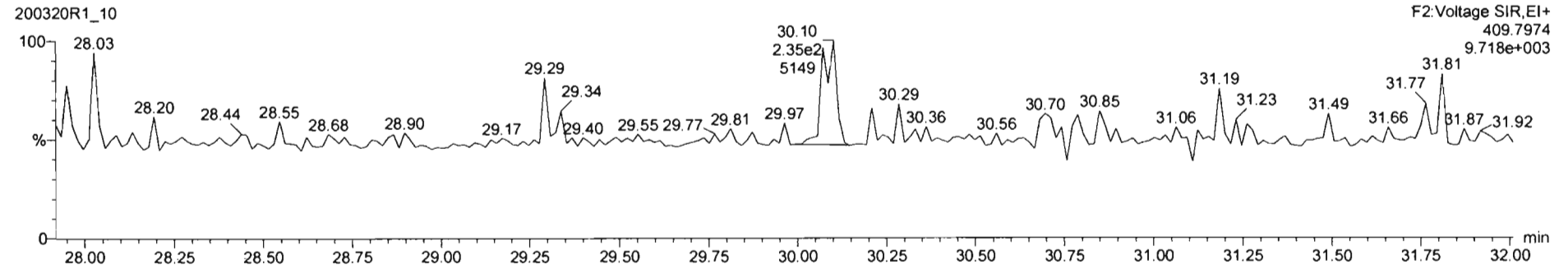
**1,2,3,7,8-PeCDF**

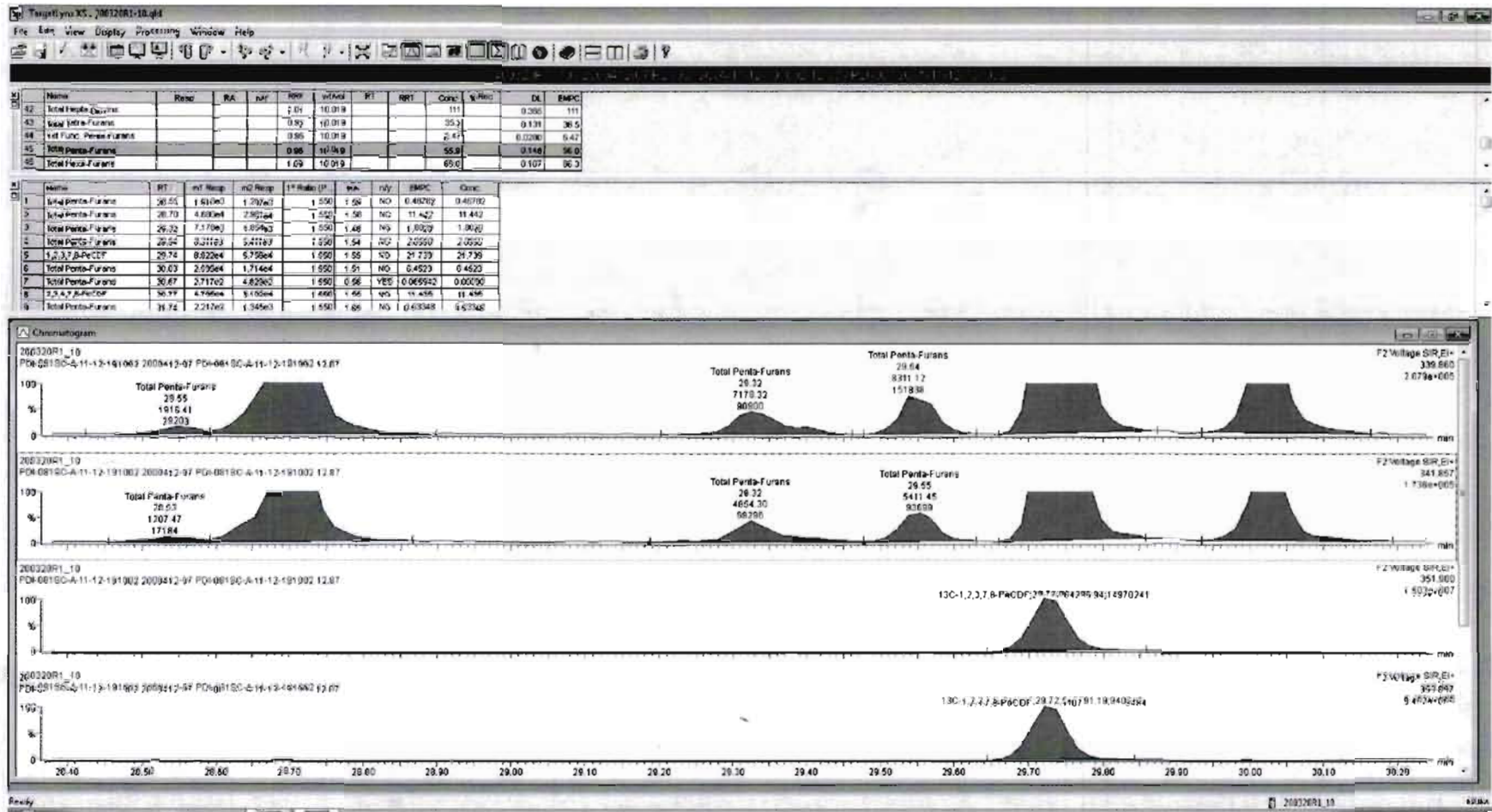


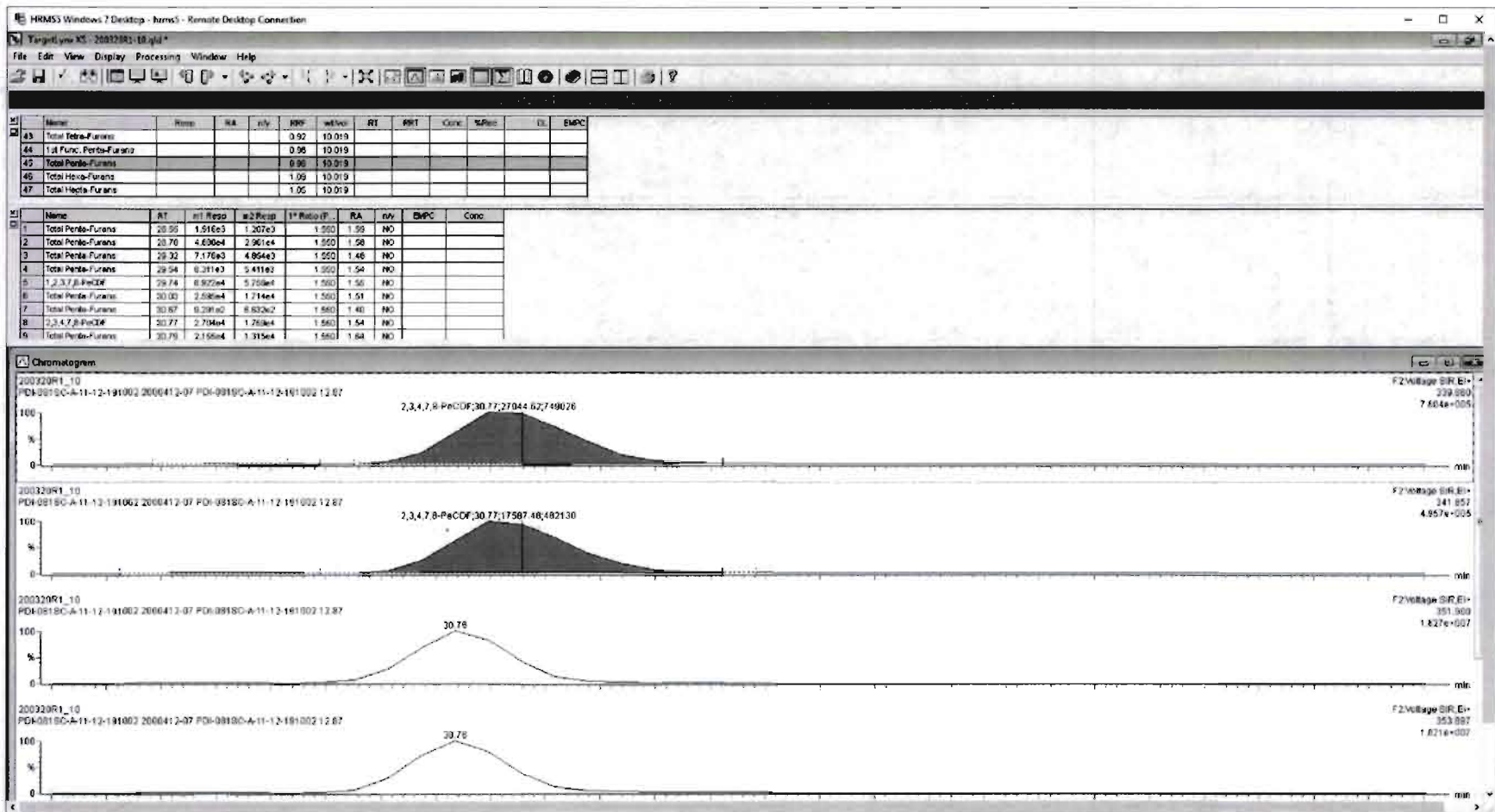
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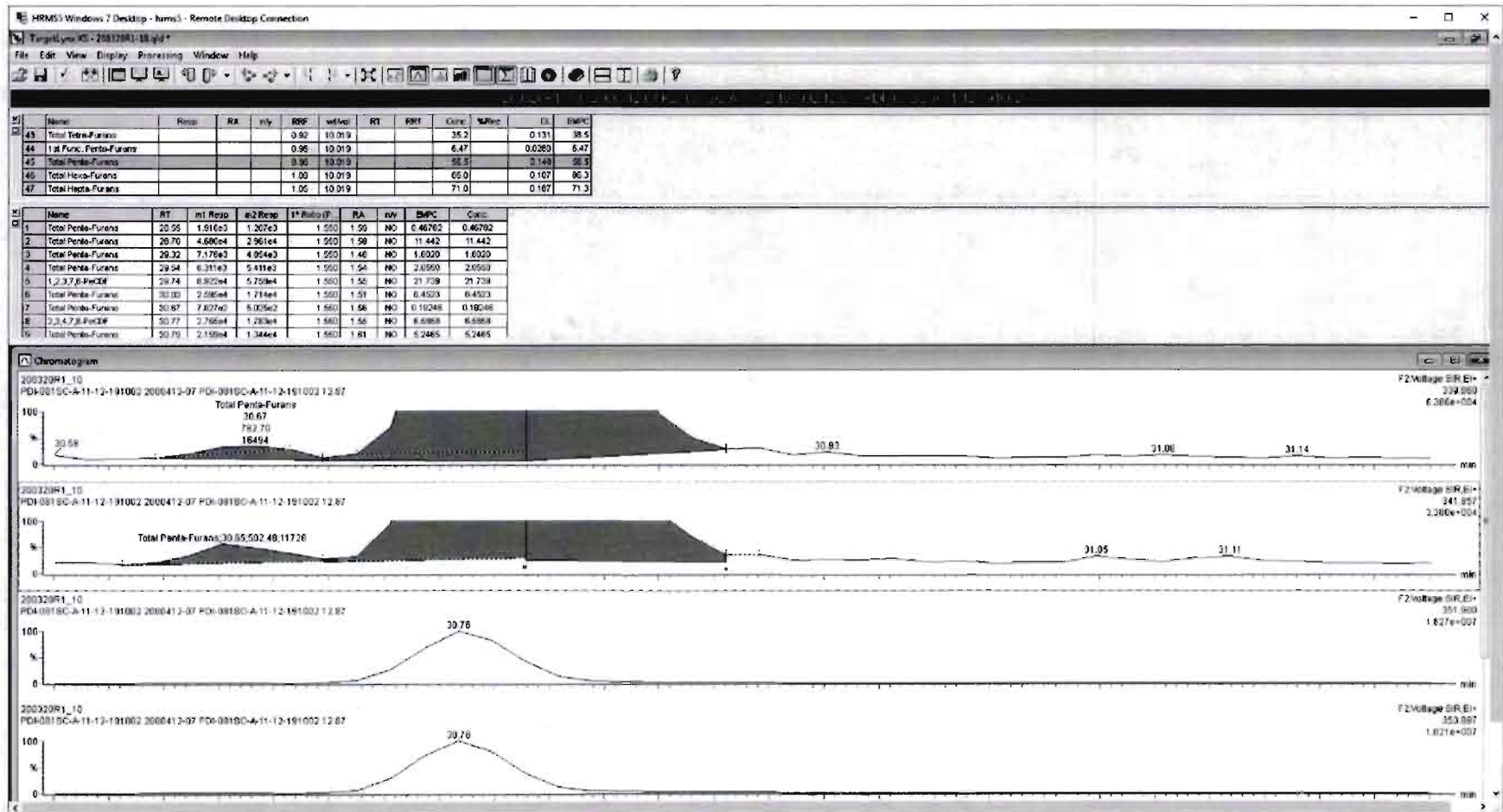


**DPE2**









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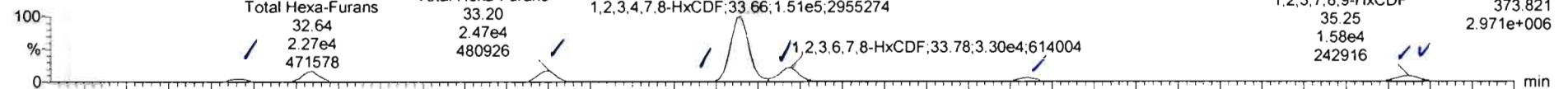
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

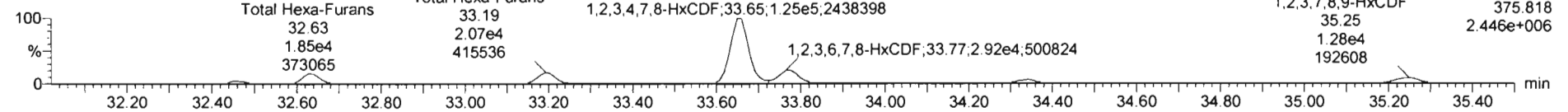
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**1,2,3,4,7,8-HxCDF**

200320R1\_10

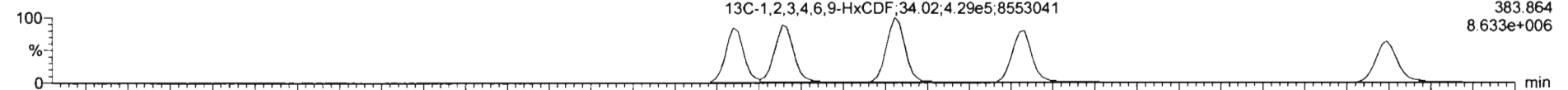


200320R1\_10

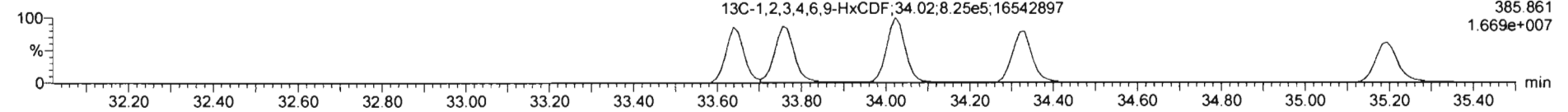


**13C-1,2,3,4,7,8-HxCDF**

200320R1\_10

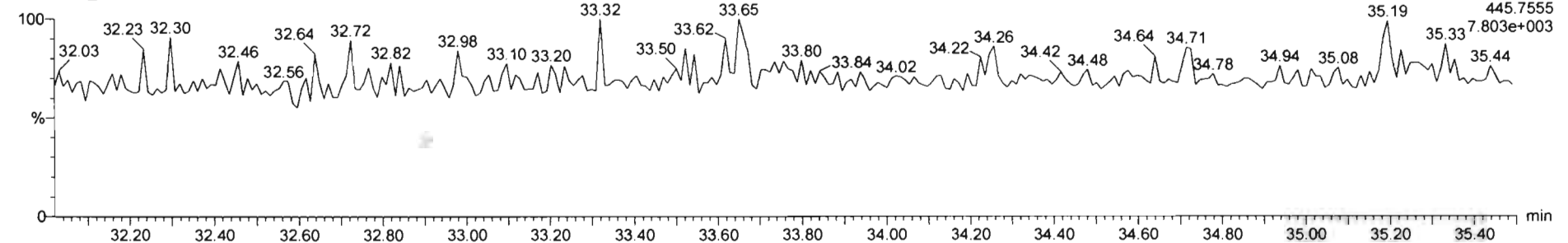


200320R1\_10

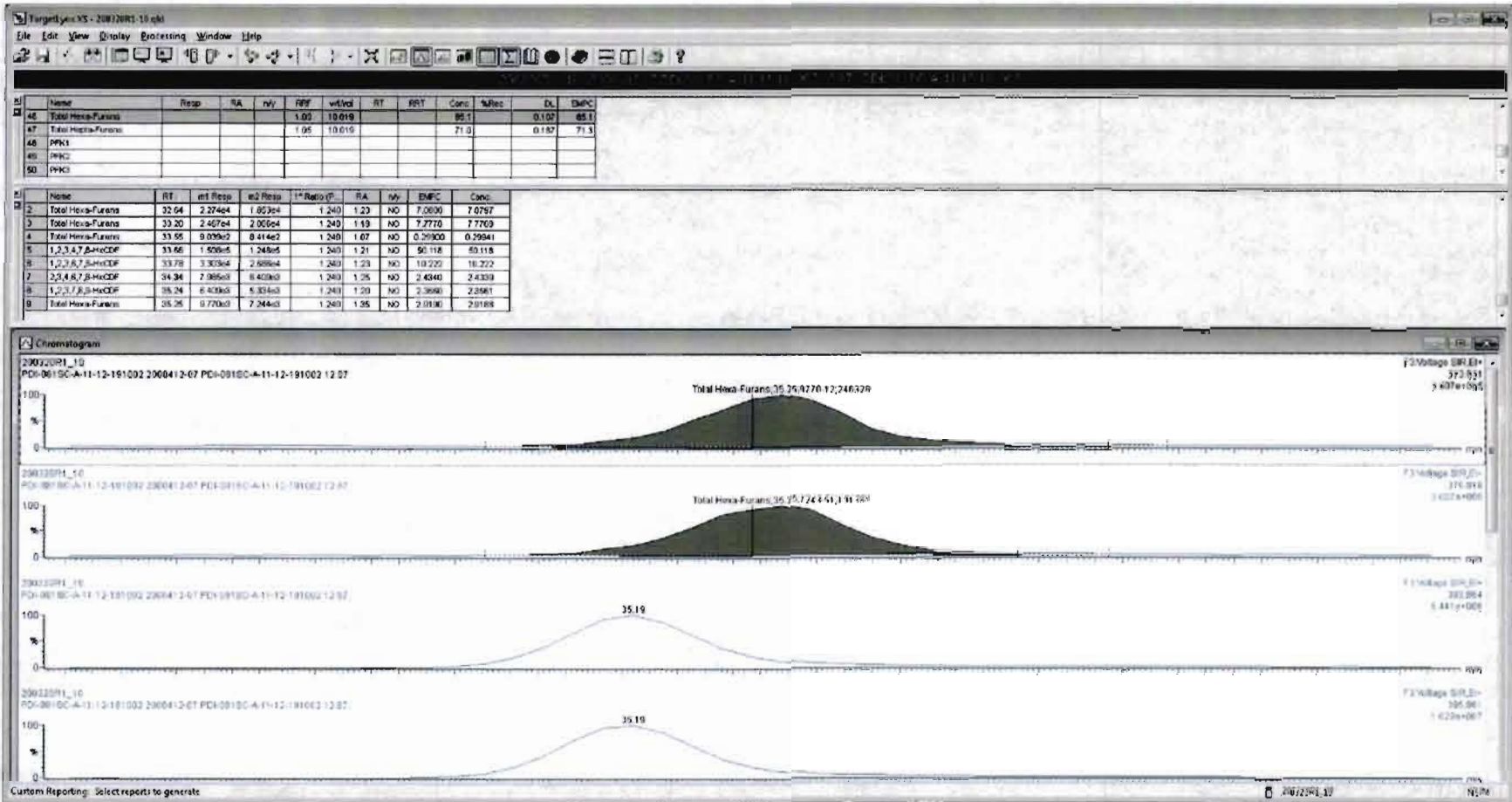


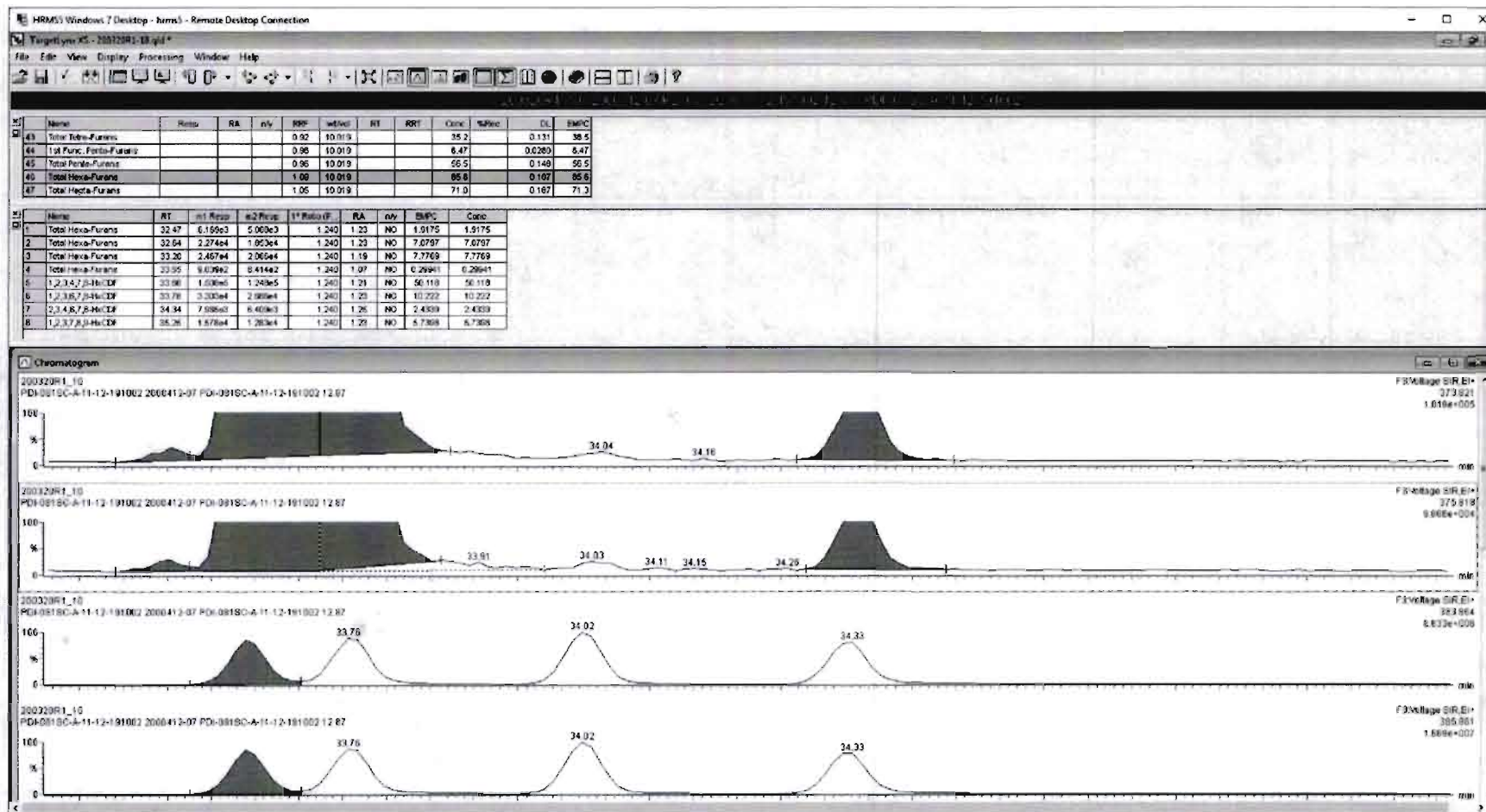
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200320R1\_10







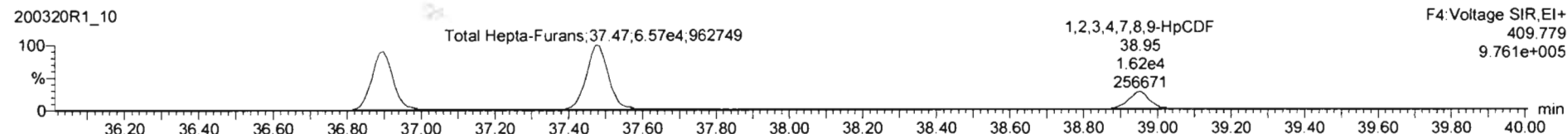
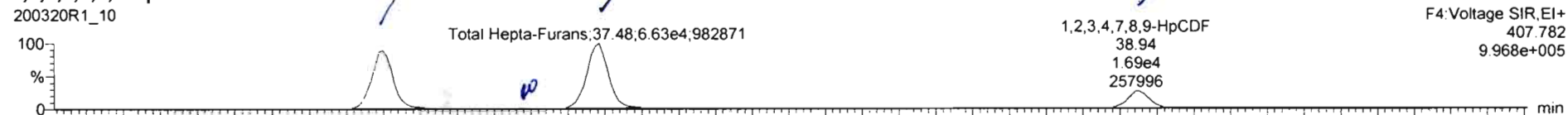


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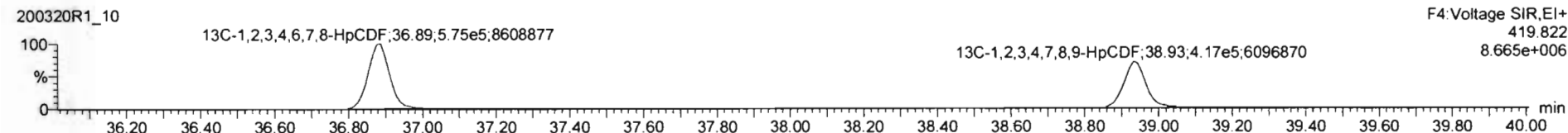
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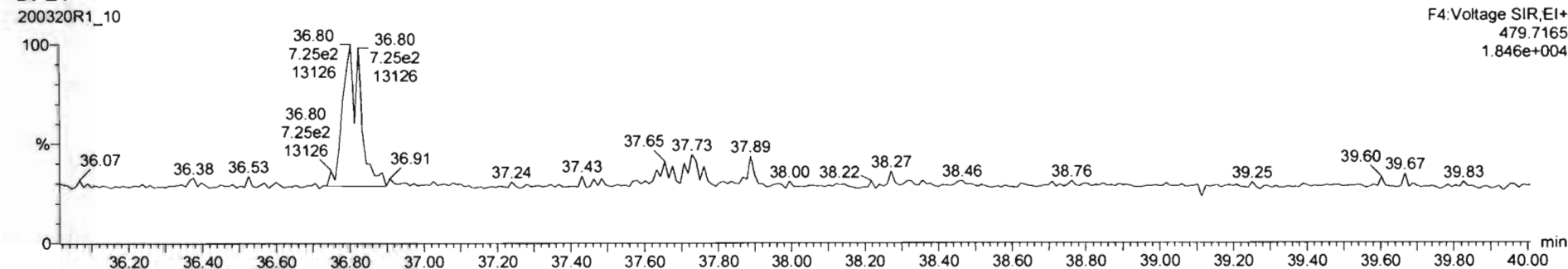
1,2,3,4,6,7,8-HpCDF

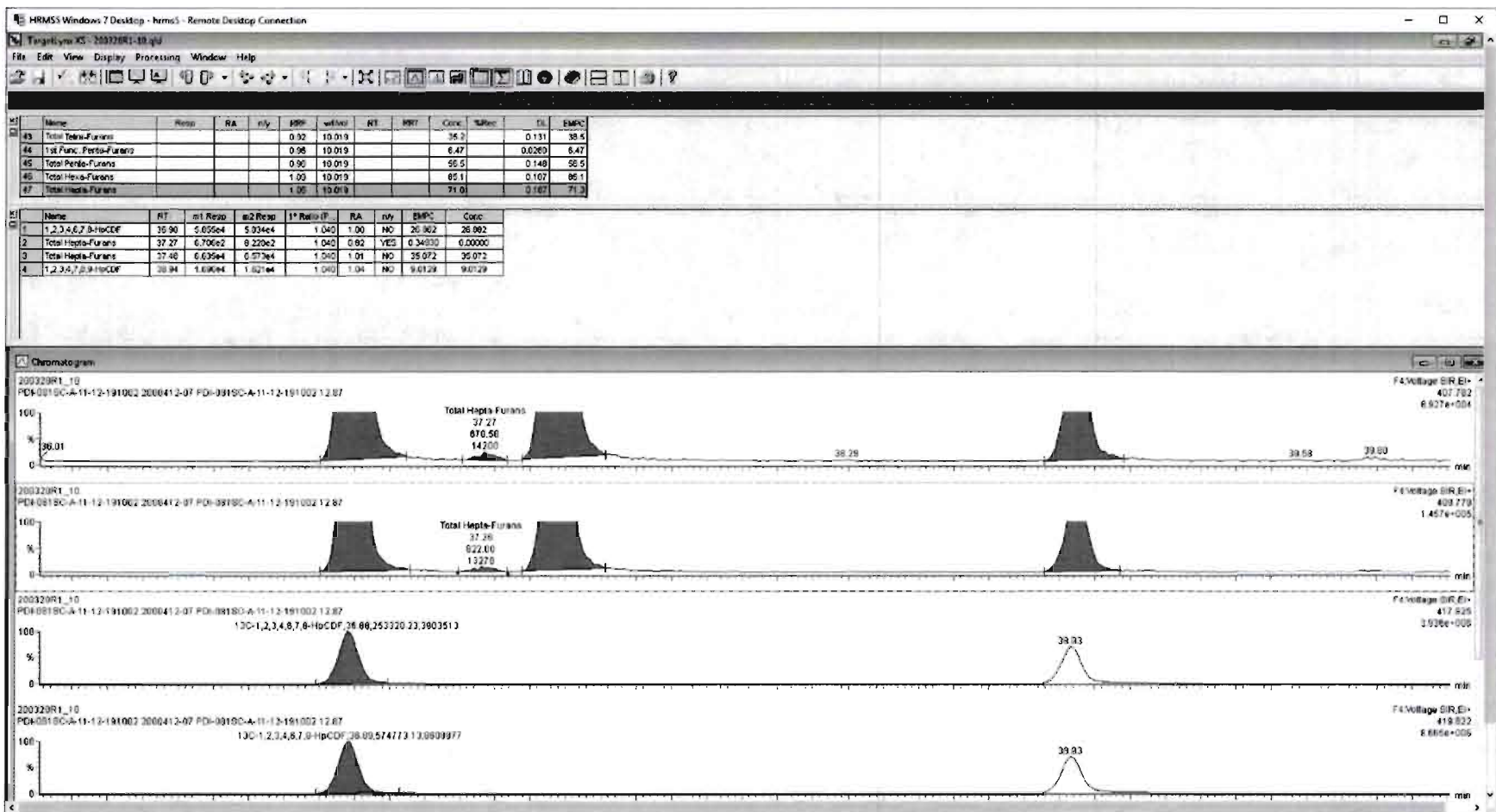


13C-1,2,3,4,6,7,8-HpCDF



DPE4

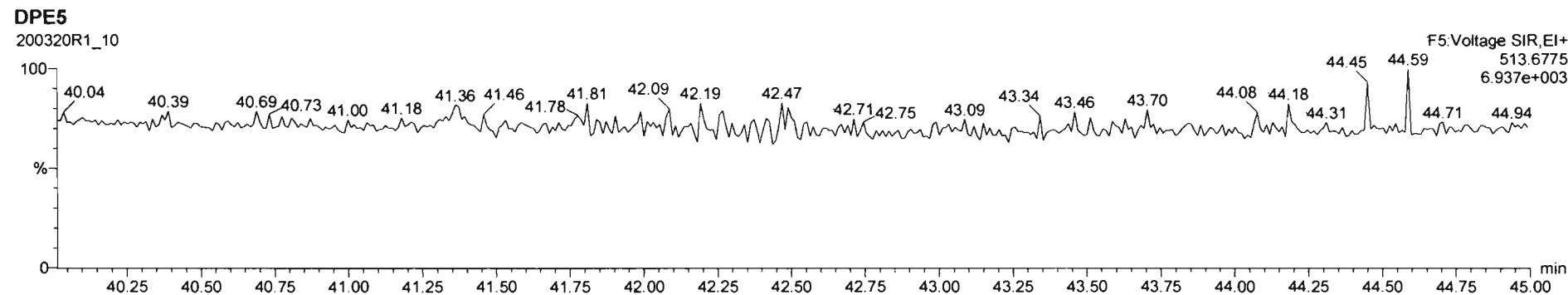
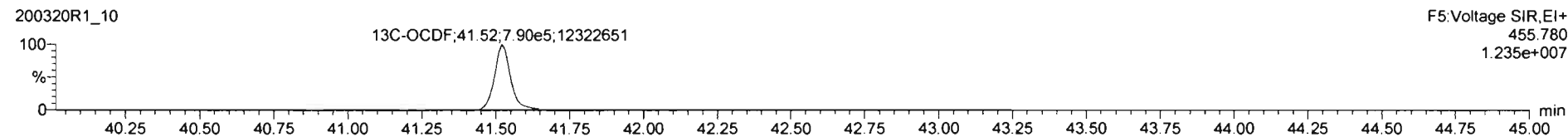
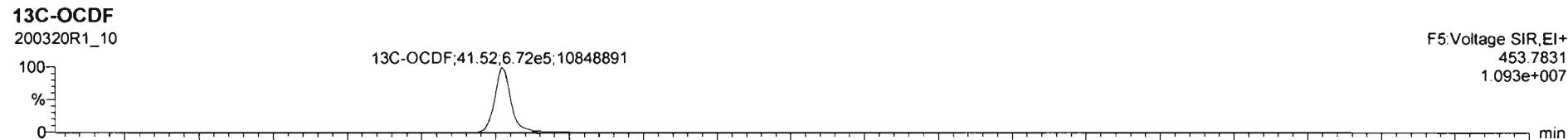
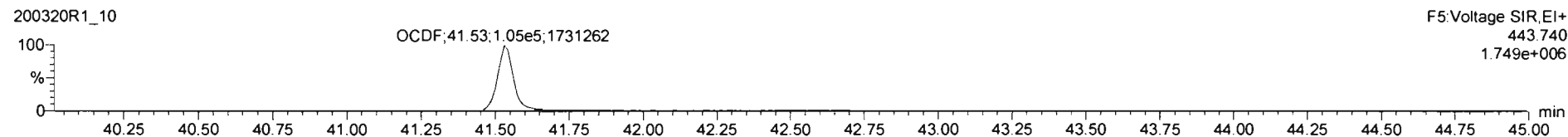
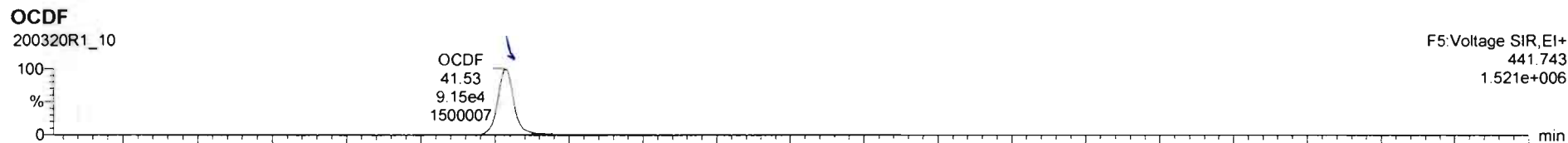




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Name: 200320R1\_10, Date: 20-Mar-2020, Time: 21:00:39, ID: 2000412-07 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002



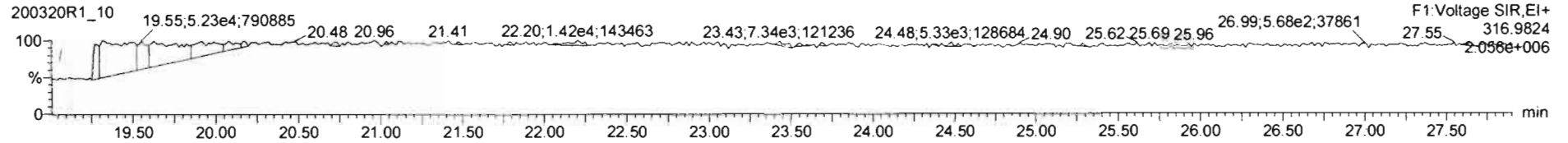
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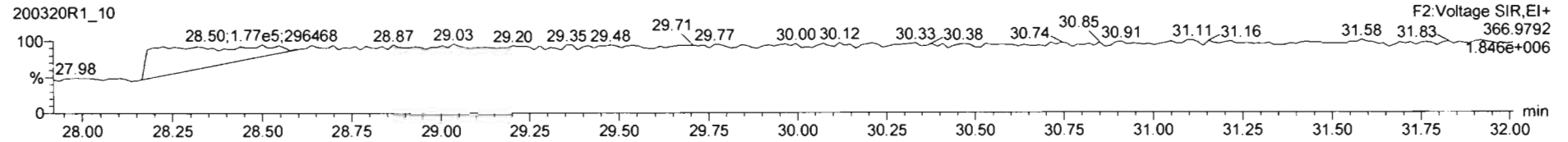
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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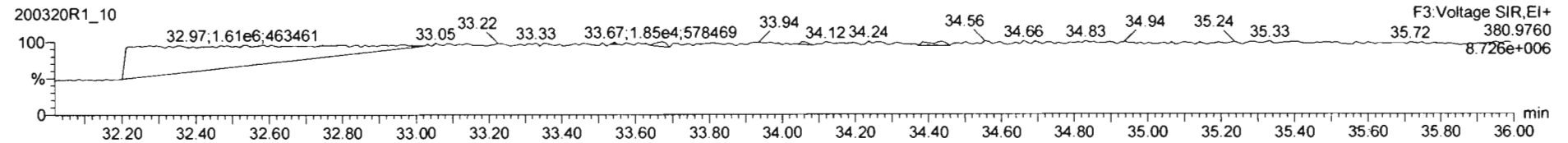
PFK1



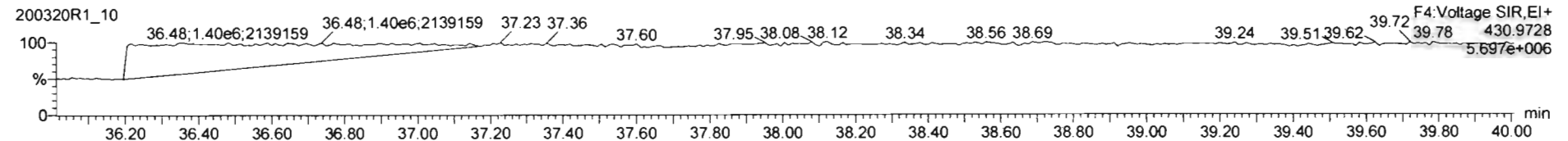
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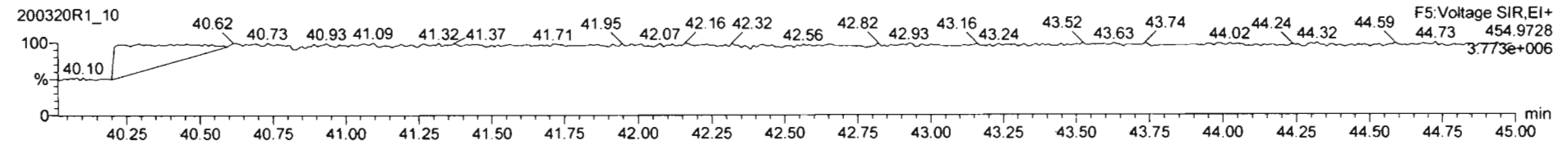
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-11.qld

Last Altered: Thursday, March 26, 2020 15:48:01 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:48:37 Pacific Daylight Time

GRB 03/26/2020

C7 04/02/2020

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.983	10.019	25.811		1.001				0.0865	
2	2 1,2,3,7,8-PeCDD	9.10e2	0.77	YES	0.921	10.019	31.116	31.12	1.001	1.001	0.24104		0.0901	0.222
3	3 1,2,3,4,7,8-HxCDD	8.17e2	1.28	NO	1.13	10.019	34.512	34.50	1.000	1.000	0.20984		0.139	0.210
4	4 1,2,3,6,7,8-HxCDD	5.09e3	1.29	NO	0.984	10.019	34.598	34.62	1.000	1.001	1.2671		0.132	1.27
5	5 1,2,3,7,8,9-HxCDD	2.01e3	1.08	NO	0.967	10.019	34.874	34.89	1.000	1.001	0.56103		0.152	0.561
6	6 1,2,3,4,6,7,8-HpCDD	8.22e4	1.02	NO	1.01	10.019	38.305	38.30	1.000	1.000	25.987		0.366	26.0
7	7 OCDD	1.08e6	0.90	NO	1.05	10.019	41.361	41.38	1.000	1.001	386.84		0.285	387
8	8 2,3,7,8-TCDF	2.78e4	0.76	NO	0.915	10.019	24.802	24.81	1.001	1.001	3.8688	(3.80)	0.115	3.87
9	9 1,2,3,7,8-PeCDF	2.18e4	1.47	NO	0.959	10.019	29.757	29.75	1.001	1.001	3.5803		0.0764	3.58
10	10 2,3,4,7,8-PeCDF	1.81e4	1.45	NO	1.00	10.019	30.794	30.79	1.001	1.000	2.9482		0.0683	2.95
11	11 1,2,3,4,7,8-HxCDF	2.27e4	1.20	NO	1.04	10.019	33.650	33.66	1.000	1.000	4.5945		0.0612	4.59
12	12 1,2,3,6,7,8-HxCDF	1.66e4	1.20	NO	1.01	10.019	33.777	33.78	1.000	1.000	3.1392		0.0568	3.14
13	13 2,3,4,6,7,8-HxCDF	6.76e3	1.31	NO	1.09	10.019	34.366	34.35	1.001	1.001	1.2585		0.0586	1.26
14	14 1,2,3,7,8,9-HxCDF	3.02e3	1.24	NO	1.03	10.019	35.205	35.25	1.000	1.001	0.67805		0.0818	0.678
15	15 1,2,3,4,6,7,8-HpCDF	5.17e4	1.03	NO	1.05	10.019	36.935	36.91	1.001	1.000	12.909		0.120	12.9
16	16 1,2,3,4,7,8,9-HpCDF	4.91e3	0.98	NO	1.21	10.019	38.943	38.95	1.000	1.000	1.4899		0.141	1.49
17	17 OCDF	9.39e4	0.89	NO	0.947	10.019	41.542	41.55	1.000	1.000	29.458		0.105	29.5
18	18 13C-2,3,7,8-TCDD	1.14e6	0.79	NO	1.18	10.019	25.804	25.78	1.030	1.029	176.03	88.2	0.211	
19	19 13C-1,2,3,7,8-PeCDD	8.18e5	0.64	NO	0.864	10.019	31.119	31.09	1.242	1.241	173.60	87.0	0.196	
20	20 13C-1,2,3,4,7,8-HxCDD	6.86e5	1.33	NO	0.754	10.019	34.503	34.50	1.014	1.014	154.64	77.5	0.313	
21	21 13C-1,2,3,6,7,8-HxCDD	8.15e5	1.23	NO	0.925	10.019	34.605	34.60	1.017	1.017	149.66	75.0	0.255	
22	22 13C-1,2,3,7,8,9-HxCDD	7.41e5	1.25	NO	0.829	10.019	34.874	34.86	1.025	1.024	151.73	76.0	0.285	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.28e5	1.07	NO	0.598	10.019	38.294	38.29	1.125	1.125	178.39	89.4	0.381	
24	24 13C-OCDD	1.06e6	0.91	NO	0.571	10.019	41.357	41.36	1.215	1.215	314.05	78.7	0.474	
25	25 13C-2,3,7,8-TCDF	1.57e6	0.78	NO	1.09	10.019	24.791	24.78	0.989	0.989	167.78	84.0	0.381	
26	26 13C-1,2,3,7,8-PeCDF	1.27e6	1.58	NO	0.876	10.019	29.759	29.74	1.187	1.186	168.31	84.3	0.359	
27	27 13C-2,3,4,7,8-PeCDF	1.22e6	1.59	NO	0.844	10.019	30.739	30.77	1.227	1.228	168.46	84.4	0.372	
28	28 13C-1,2,3,4,7,8-HxCDF	9.49e5	0.52	NO	1.00	10.019	33.652	33.65	0.989	0.989	161.27	80.8	0.348	
29	29 13C-1,2,3,6,7,8-HxCDF	1.04e6	0.52	NO	1.12	10.019	33.774	33.77	0.992	0.992	158.58	79.4	0.311	
30	30 13C-2,3,4,6,7,8-HxCDF	9.82e5	0.52	NO	1.04	10.019	34.332	34.33	1.009	1.009	161.25	80.8	0.336	
31	31 13C-1,2,3,7,8,9-HxCDF	8.65e5	0.53	NO	0.873	10.019	35.204	35.21	1.034	1.034	168.34	84.3	0.398	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-11.qld

Last Altered: Thursday, March 26, 2020 15:48:01 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:48:37 Pacific Daylight Time

Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

#	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	7.63e5	0.45	NO	0.771	10.019	36.905	36.90	1.084	1.084	168.22	84.3	0.386	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.43e5	0.44	NO	0.519	10.019	38.944	38.94	1.144	1.144	177.84	89.1	0.573	
34	34 13C-OCDF	1.34e6	0.91	NO	0.696	10.019	41.537	41.54	1.220	1.221	327.99	82.1	0.288	
35	35 37Cl-2,3,7,8-TCDD	4.48e5			1.17	10.019	25.834	25.81	1.031	1.030	69.908	87.5	0.0586	
36	36 13C-1,2,3,4-TCDD	1.09e6	0.79	NO	1.00	10.019	25.030	25.06	1.000	1.000	199.63	100	0.250	
37	37 13C-1,2,3,4-TCDF	1.71e6	0.80	NO	1.00	10.019	23.090	23.10	1.000	1.000	199.63	100	0.415	
38	38 13C-1,2,3,4,6,9-HxCDF	1.17e6	0.52	NO	1.00	10.019	34.020	34.03	1.000	1.000	199.63	100	0.348	
39	39 Total Tetra-Dioxins				0.983	10.019	24.620		0.000		2.6523		0.0865	2.65
40	40 Total Penta-Dioxins				0.921	10.019	29.960		0.000		3.1116		0.0991	3.33
41	41 Total Hexa-Dioxins				0.984	10.019	33.635		0.000		13.228		0.146	13.2
42	42 Total Hepta-Dioxins				1.01	10.019	37.640		0.000		70.148		0.366	70.1
43	43 Total Tetra-Furans				0.915	10.019	23.610		0.000		20.087		0.115	20.2 P
44	44 1st Func. Penta-Furans				0.959	10.019	27.090		0.000		8.3579		0.0271	8.36
45	45 Total Penta-Furans				0.959	10.019	29.275		0.000		18.150		0.0740	18.5 P
46	46 Total Hexa-Furans				1.09	10.019	33.555		0.000		25.122		0.0610	25.1
47	47 Total Hepta-Furans				1.05	10.019	37.835		0.000		40.305		0.138	40.3



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-11.qld

Last Altered: Thursday, March 26, 2020 15:48:01 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:48:37 Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.42	6.571e4	8.149e4	5.641e3	7.252e3	0.78	NO	1.289e4	2.3019	2.3019	0.0865
2	Total Tetra-Dioxins	21.81	1.064e4	1.167e4	9.188e2	1.043e3	0.88	NO	1.962e3	0.35033	0.35033	0.0865

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.77	2.064e4	3.528e4	1.537e3	2.715e3	0.57	NO	4.252e3	1.1257	1.1257	0.0991
2	Total Penta-Dioxins	29.28	9.096e3	1.080e4	4.651e2	7.451e2	0.62	NO	1.210e3	0.32045	0.32045	0.0991
3	Total Penta-Dioxins	29.81	2.296e4	2.989e4	1.151e3	1.601e3	0.72	NO	2.752e3	0.72873	0.72873	0.0991
4	Total Penta-Dioxins	30.00	7.801e3	1.315e4	4.023e2	5.650e2	0.71	NO	9.673e2	0.25612	0.25612	0.0991
5	Total Penta-Dioxins	30.06	5.102e3	8.045e3	3.132e2	4.666e2	0.67	NO	7.798e2	0.20647	0.20647	0.0991
6	Total Penta-Dioxins	30.32	8.228e3	1.592e4	6.674e2	1.123e3	0.59	NO	1.791e3	0.47414	0.47414	0.0991
7	1,2,3,7,8-PeCDD	31.12	7.086e3	9.790e3	3.966e2	5.138e2	0.77	YES	9.104e2	0.00000	0.22175	0.0991

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	2.356e5	1.682e5	1.076e4	8.668e3	1.24	NO	1.943e4	5.2739	5.2739	0.146
2	Total Hexa-Dioxins	33.60	2.293e4	2.198e4	1.212e3	9.984e2	1.21	NO	2.211e3	0.59995	0.59995	0.146
3	Total Hexa-Dioxins	33.86	1.633e5	1.186e5	1.035e4	7.945e3	1.30	NO	1.830e4	4.9656	4.9656	0.146
4	Total Hexa-Dioxins	33.96	1.252e4	1.202e4	7.122e2	5.784e2	1.23	NO	1.291e3	0.35028	0.35028	0.146
5	1,2,3,4,7,8-HxCDD	34.50	1.077e4	8.009e3	4.582e2	3.585e2	1.28	NO	8.167e2	0.20984	0.20984	0.139
6	1,2,3,6,7,8-HxCDD	34.62	5.052e4	3.913e4	2.870e3	2.222e3	1.29	NO	5.092e3	1.2671	1.2671	0.132
7	1,2,3,7,8,9-HxCDD	34.89	1.737e4	1.944e4	1.046e3	9.671e2	1.08	NO	2.013e3	0.56103	0.56103	0.152

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.28	9.923e5	9.400e5	7.057e4	6.919e4	1.02	NO	1.398e5	44.161	44.161	0.366
2	1,2,3,4,6,7,8-HpCDD	38.30	5.577e5	5.475e5	4.153e4	4.071e4	1.02	NO	8.224e4	25.987	25.987	0.366

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-11.qid

Last Altered: Thursday, March 26, 2020 15:48:01 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:48:37 Pacific Daylight Time

Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.42	9.963e3	1.157e4	7.570e2	8.954e2	0.85	NO	1.652e3	0.22973	0.22973	0.115
2	Total Tetra-Furans	19.90	1.731e4	2.597e4	1.488e3	2.038e3	0.73	NO	3.526e3	0.49014	0.49014	0.115
3	Total Tetra-Furans	20.50	8.707e4	1.060e5	7.002e3	8.986e3	0.78	NO	1.599e4	2.2228	2.2228	0.115
4	Total Tetra-Furans	20.98	9.257e3	9.574e3	7.573e2	9.007e2	0.84	NO	1.658e3	0.23051	0.23051	0.115
5	Total Tetra-Furans	21.02	1.125e4	1.456e4	7.896e2	1.074e3	0.74	NO	1.864e3	0.25911	0.25911	0.115
6	Total Tetra-Furans	21.40	6.707e4	8.616e4	5.663e3	8.005e3	0.71	NO	1.367e4	1.9003	1.9003	0.115
7	Total Tetra-Furans	21.86	5.624e4	7.476e4	5.286e3	6.883e3	0.77	NO	1.217e4	1.6919	1.6919	0.115
8	Total Tetra-Furans	22.01	5.221e3	5.584e3	2.855e2	2.640e2	1.08	YES	0.000e0	0.00000	0.064967	0.115
9	Total Tetra-Furans	22.19	8.466e3	1.169e4	8.011e2	1.185e3	0.68	NO	1.987e3	0.27619	0.27619	0.115
10	Total Tetra-Furans	23.03	2.939e4	4.349e4	3.343e3	4.992e3	0.67	NO	8.335e3	1.1588	1.1588	0.115
11	Total Tetra-Furans	23.10	2.103e4	2.925e4	1.593e3	2.123e3	0.75	NO	3.716e3	0.51659	0.51659	0.115
12	Total Tetra-Furans	23.73	1.471e5	1.849e5	1.398e4	1.801e4	0.78	NO	3.199e4	4.4481	4.4481	0.115
13	Total Tetra-Furans	23.82	1.970e4	3.143e4	9.270e2	1.291e3	0.72	NO	2.218e3	0.30831	0.30831	0.115
14	Total Tetra-Furans	24.06	8.179e3	1.152e4	5.823e2	8.586e2	0.68	NO	1.441e3	0.20032	0.20032	0.115
15	Total Tetra-Furans	24.70	1.990e4	2.657e4	1.496e3	2.094e3	0.71	NO	3.590e3	0.49912	0.49912	0.115
16	2,3,7,8-TCDF	24.81	1.459e5	1.905e5	1.203e4	1.579e4	0.76	NO	2.783e4	3.8688	3.8688	0.115
17	Total Tetra-Furans	25.21	1.258e4	2.136e4	8.934e2	1.276e3	0.70	NO	2.169e3	0.30161	0.30161	0.115
18	Total Tetra-Furans	26.57	1.498e4	2.347e4	1.120e3	1.622e3	0.69	NO	2.743e3	0.38130	0.38130	0.115
19	Total Tetra-Furans	26.72	1.535e4	2.349e4	1.110e3	1.494e3	0.74	NO	2.604e3	0.36207	0.36207	0.115
20	Total Tetra-Furans	27.02	3.811e4	4.282e4	2.476e3	2.855e3	0.87	NO	5.331e3	0.74120	0.74120	0.115

P

F

**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	27.01	4.527e5	2.803e5	3.088e4	1.904e4	1.62	NO	4.992e4	8.3579	8.3579	0.0271

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-11.qld

Last Altered: Thursday, March 26, 2020 15:48:01 Pacific Daylight Time

Printed: Thursday, March 26, 2020 15:48:37 Pacific Daylight Time

Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.56	2.204e4	1.022e4	1.249e3	7.383e2	1.69	NO	1.987e3	0.33273	0.33273	0.0740
2	Total Penta-Furans	28.71	2.573e5	1.516e5	1.976e4	1.246e4	1.59	NO	3.221e4	5.3933	5.3933	0.0740
3	Total Penta-Furans	28.78	3.401e4	2.012e4	1.074e3	7.535e2	1.42	NO	0.000e0	0.00000	0.30590	0.0740
4	Total Penta-Furans	29.34	9.407e4	5.066e4	5.741e3	3.522e3	1.63	NO	9.263e3	1.5507	1.5507	0.0740
5	Total Penta-Furans	29.57	5.414e4	3.137e4	2.972e3	1.714e3	1.73	NO	4.686e3	0.78454	0.78454	0.0740
6	1,2,3,7,8-PeCDF	29.75	2.254e5	1.537e5	1.296e4	8.822e3	1.47	NO	2.178e4	3.5803	3.5803	0.0764
7	Total Penta-Furans	30.04	1.321e5	8.896e4	7.593e3	5.153e3	1.47	NO	1.275e4	2.1340	2.1340	0.0740
8	Total Penta-Furans	30.12	3.051e4	2.411e4	1.815e3	1.268e3	1.43	NO	3.083e3	0.51612	0.51612	0.0740
9	2,3,4,7,8-PeCDF	30.79	2.012e5	1.447e5	1.069e4	7.382e3	1.45	NO	1.808e4	2.9482	2.9482	0.0683
10	Total Penta-Furans	30.82	1.536e5	8.710e4	3.417e3	2.022e3	1.69	NO	5.439e3	0.91057	0.91057	0.0740

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.48	8.347e4	7.866e4	4.394e3	3.815e3	1.15	NO	8.209e3	1.5633	1.5633	0.0610
2	Total Hexa-Furans	32.65	3.068e5	2.452e5	1.564e4	1.278e4	1.22	NO	2.842e4	5.4126	5.4126	0.0610
3	Total Hexa-Furans	33.01	1.194e4	8.067e3	5.339e2	3.832e2	1.39	NO	9.171e2	0.17466	0.17466	0.0610
4	Total Hexa-Furans	33.20	4.693e5	3.634e5	2.247e4	1.861e4	1.21	NO	4.108e4	7.8244	7.8244	0.0610
5	Total Hexa-Furans	33.58	8.290e3	5.791e3	3.883e2	2.741e2	1.42	NO	6.624e2	0.12615	0.12615	0.0610
6	1,2,3,4,7,8-HxCDF	33.66	2.483e5	2.045e5	1.238e4	1.030e4	1.20	NO	2.268e4	4.5945	4.5945	0.0612
7	1,2,3,6,7,8-HxCDF	33.78	1.660e5	1.475e5	9.054e3	7.555e3	1.20	NO	1.661e4	3.1392	3.1392	0.0568
8	Total Hexa-Furans	34.04	8.284e3	7.480e3	3.976e2	2.858e2	1.39	NO	6.835e2	0.13016	0.13016	0.0610
9	2,3,4,6,7,8-HxCDF	34.35	6.908e4	5.963e4	3.841e3	2.923e3	1.31	NO	6.763e3	1.2585	1.2585	0.0586
10	1,2,3,7,8,9-HxCDF	35.25	3.301e4	2.915e4	1.668e3	1.348e3	1.24	NO	3.016e3	0.67805	0.67805	0.0818
11	Total Hexa-Furans	35.27	2.858e4	1.983e4	6.518e2	5.053e2	1.29	NO	1.157e3	0.22036	0.22036	0.0610

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	3.926e5	3.933e5	2.624e4	2.548e4	1.03	NO	5.172e4	12.909	12.909	0.120
2	Total Hepta-Furans	37.49	6.463e5	6.295e5	4.488e4	4.398e4	1.02	NO	8.886e4	25.906	25.906	0.138
3	1,2,3,4,7,8,9-HpCDF	38.95	3.814e4	3.969e4	2.425e3	2.482e3	0.98	NO	4.907e3	1.4899	1.4899	0.141

Dataset: Untitled

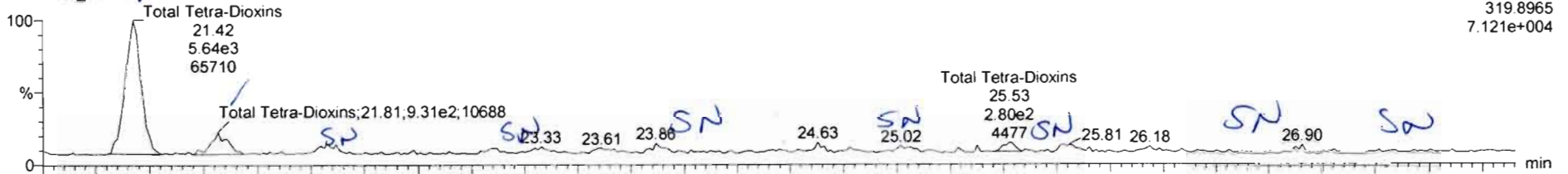
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

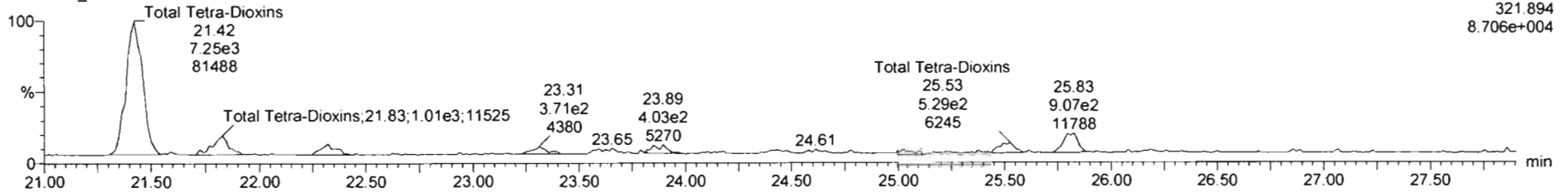
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**2,3,7,8-TCDD**

200320R1\_11

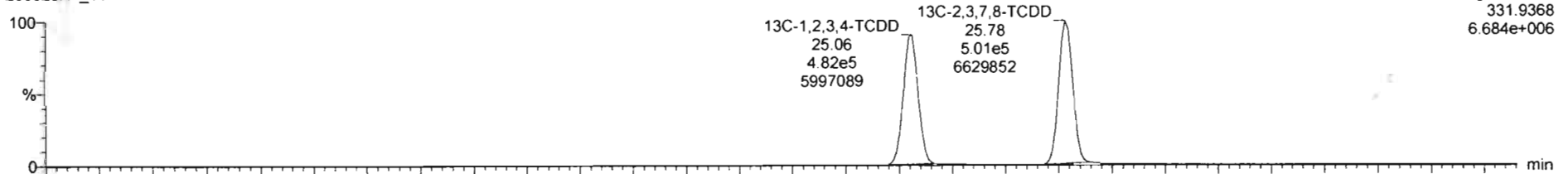


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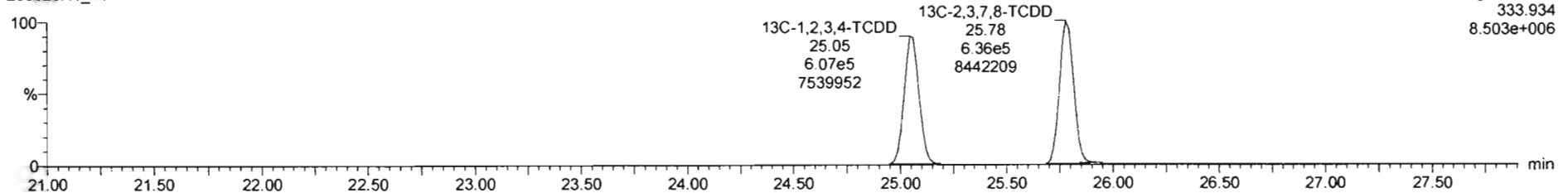


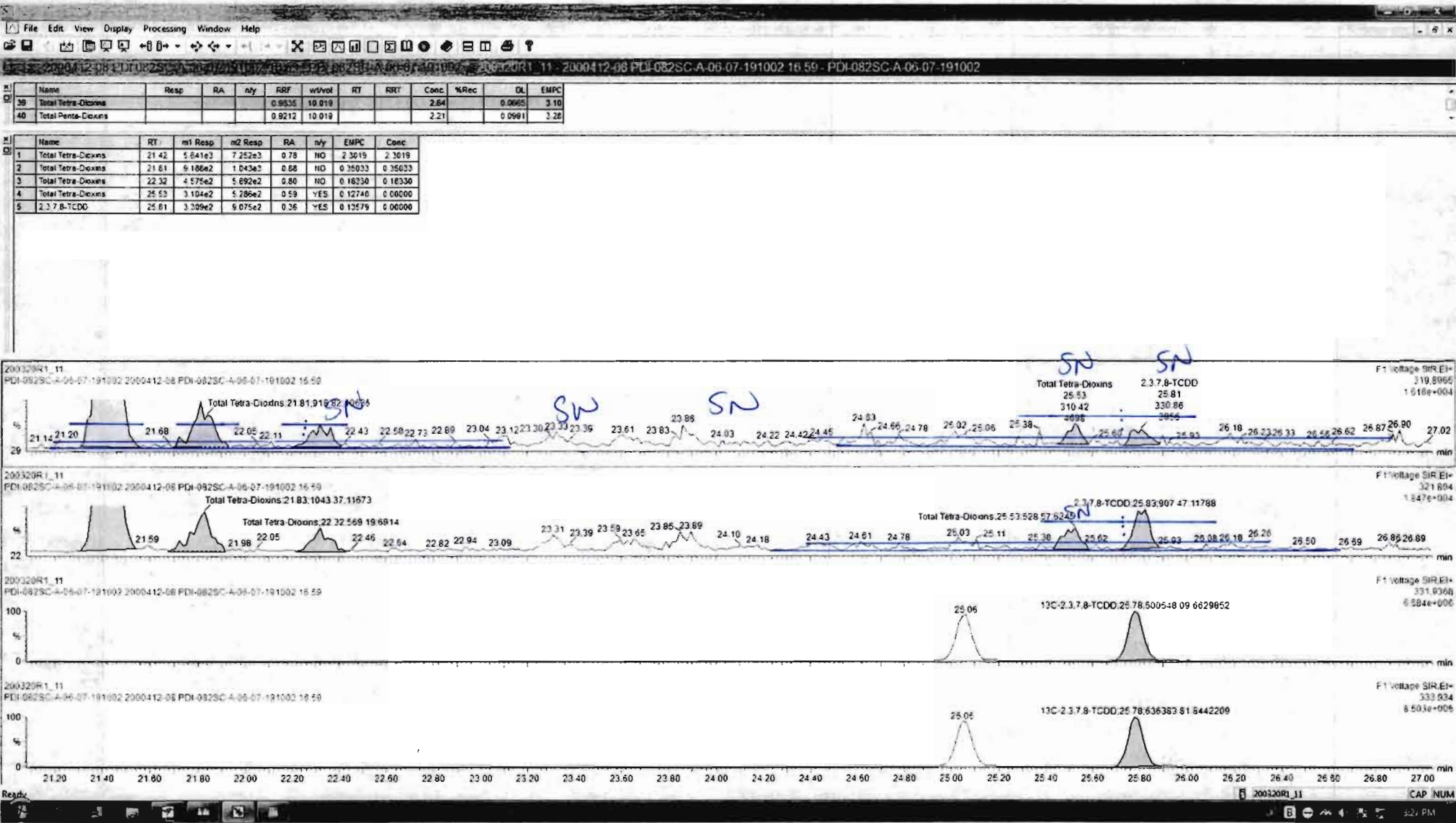
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200320R1\_11



200320R1\_11





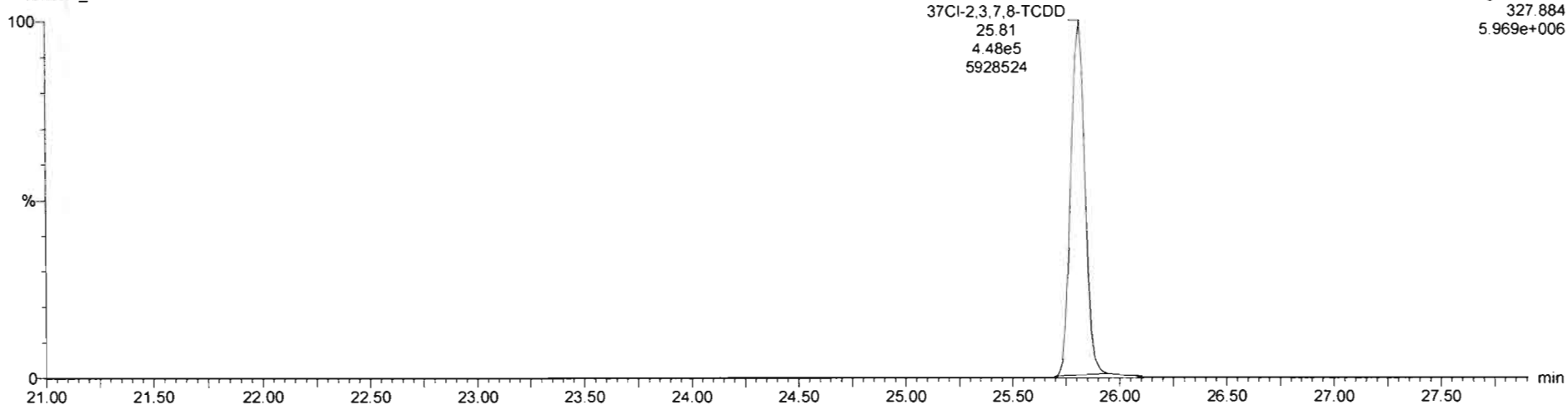
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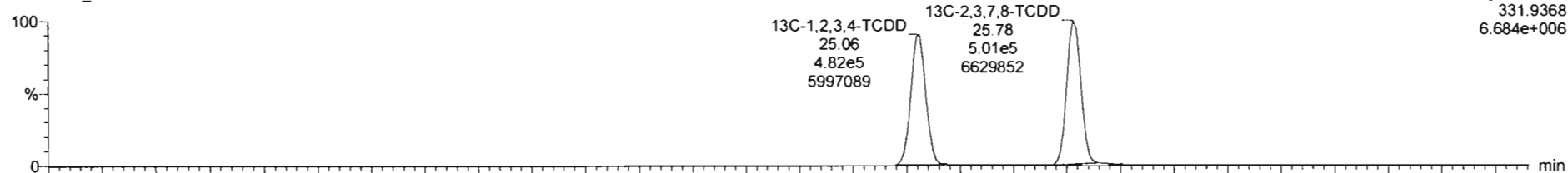
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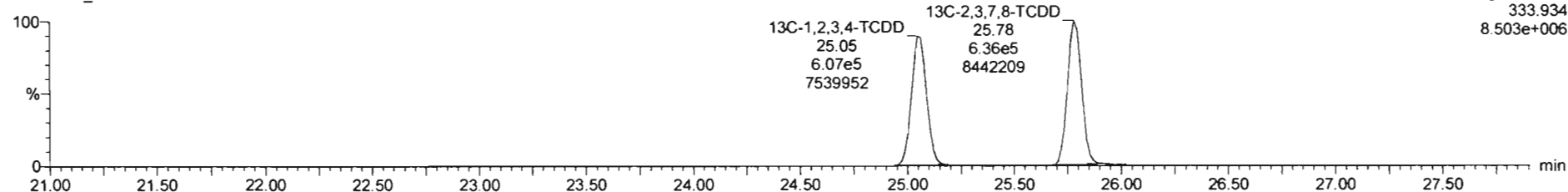


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200320R1\_11



200320R1\_11



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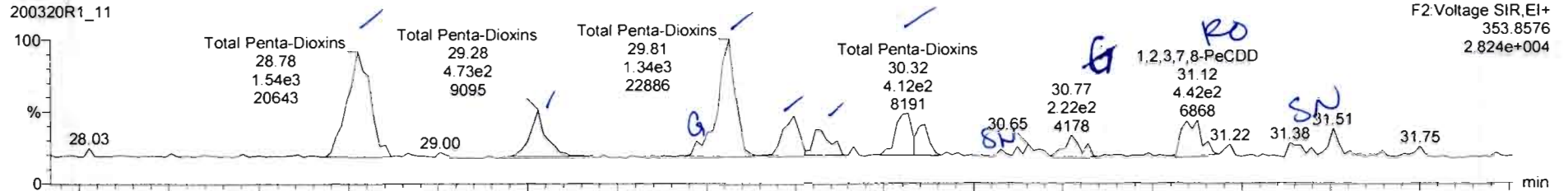
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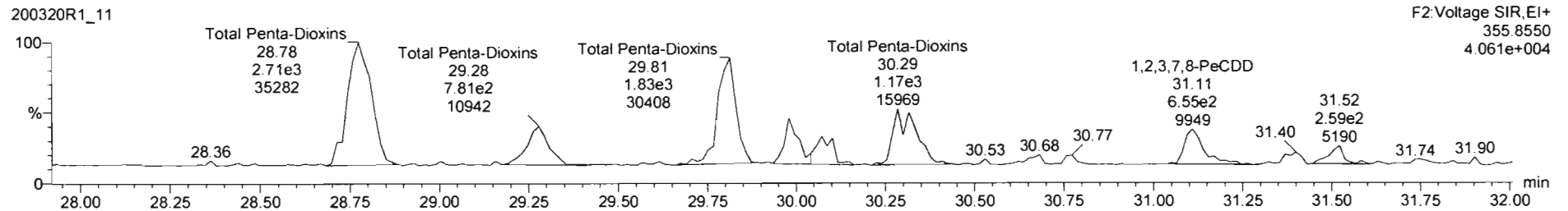
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1,2,3,7,8-PeCDD

200320R1\_11

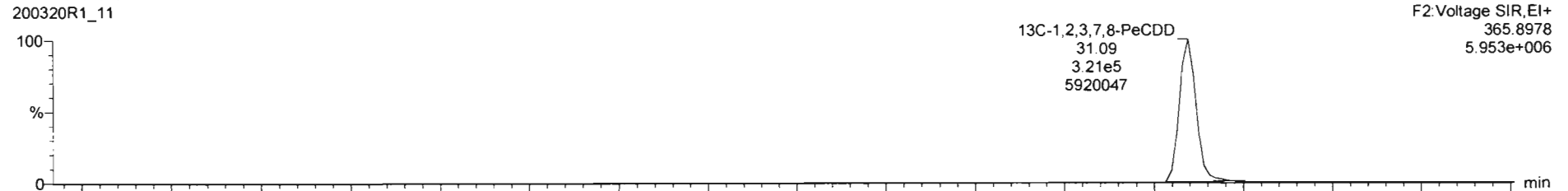


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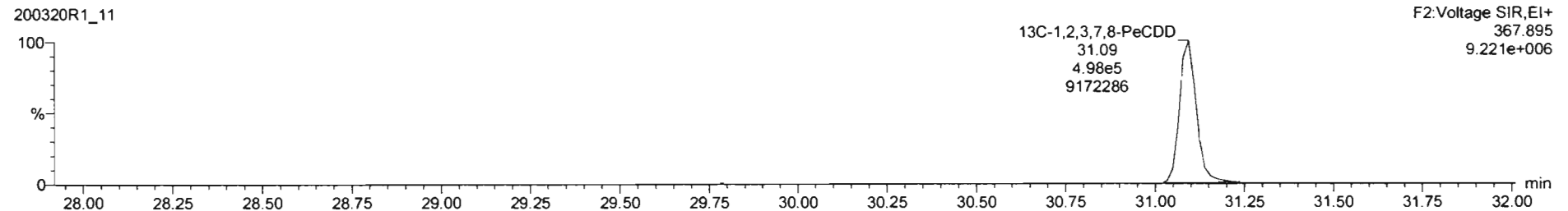


13C-1,2,3,7,8-PeCDD

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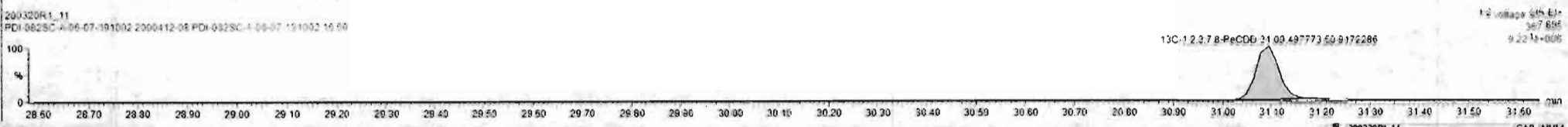
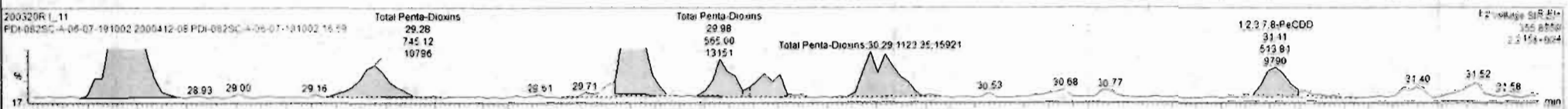
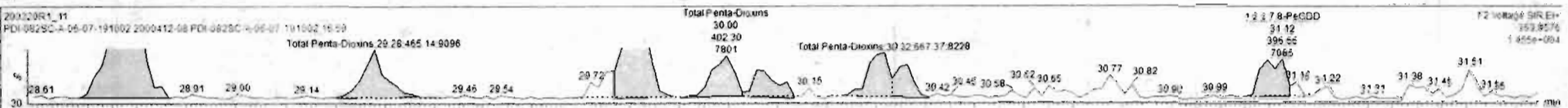


200320R1\_11



Name	Resp	RA	RY	RRF	WVMI	RT	RRF	Conc	%Rec	DL	EMPC
Total Tetra-Dioxins				0.9825	10.019			2.65		0.0665	2.61
Total Penta-Dioxins				0.8212	10.019			3.11		0.0961	3.33

Name	RT	m1 Resp	m2 Resp	RA	RY	EMPC	Conc
Total Penta-Dioxins	28.77	1.537e3	2.715e3	0.57	NO	1.1257	1.1257
Total Penta-Dioxins	29.28	4.651e2	7.451e2	0.62	NO	0.32045	0.32045
Total Penta-Dioxins	29.81	1.151e3	1.801e3	0.72	NO	0.72872	0.72872
Total Penta-Dioxins	30.00	4.023e2	5.850e2	0.71	NO	0.25612	0.25612
Total Penta-Dioxins	30.05	3.132e2	4.566e2	0.87	NO	0.20647	0.20647
Total Penta-Dioxins	30.32	6.674e2	1.123e3	0.55	NO	0.47414	0.47414
1,2,3,7,8-PeCDD	31.12	3.966e2	5.138e2	0.77	YES	0.22175	0.00000





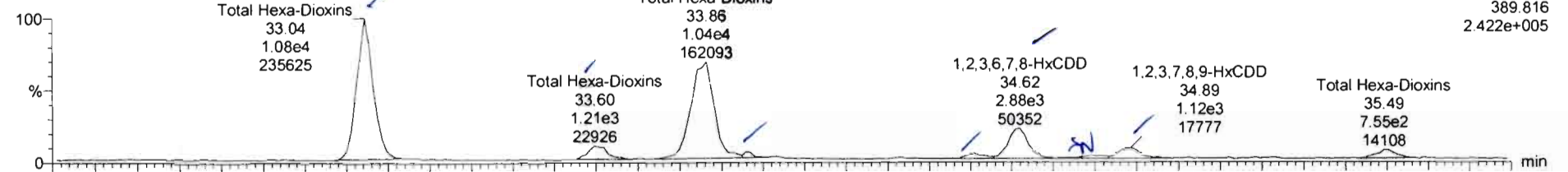
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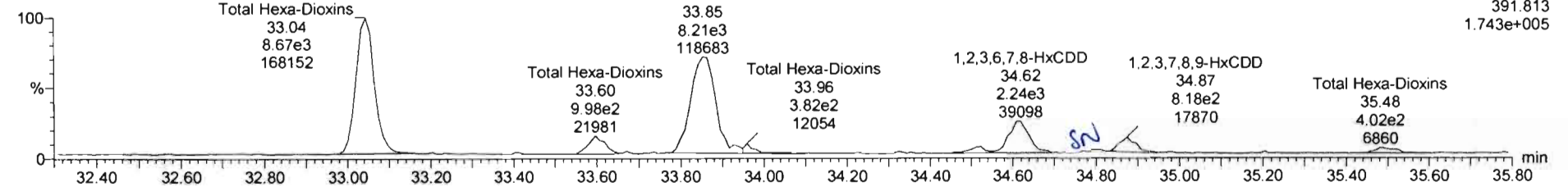
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1,2,3,4,7,8-HxCDD

200320R1\_11

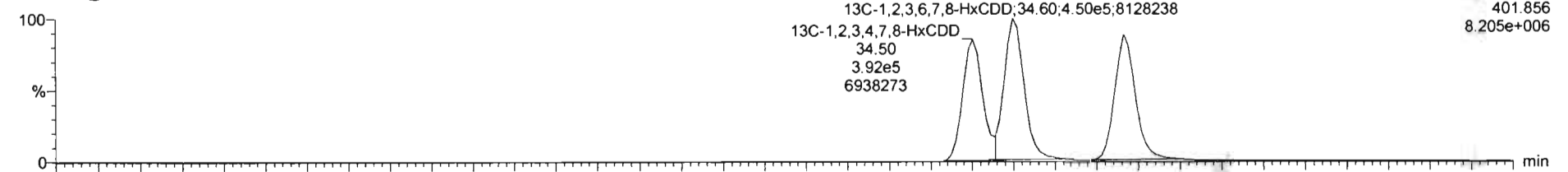


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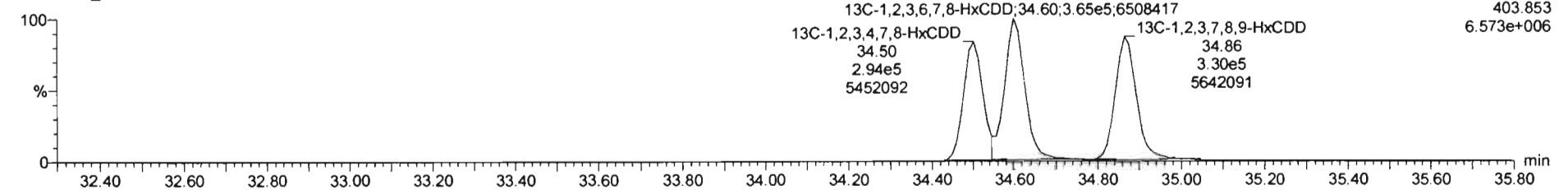


13C-1,2,3,4,7,8-HxCDD

200320R1\_11

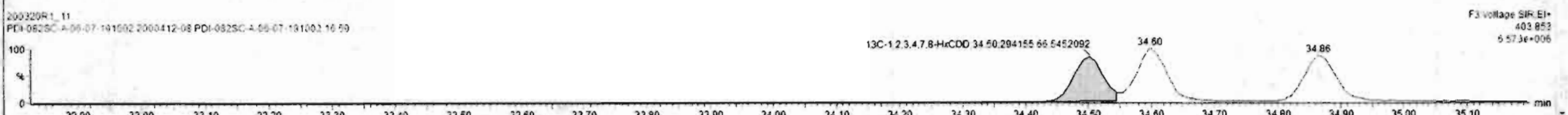
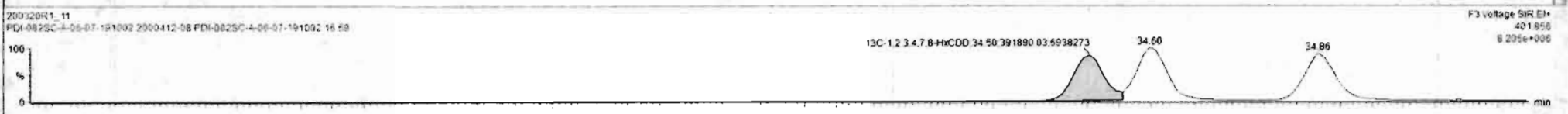
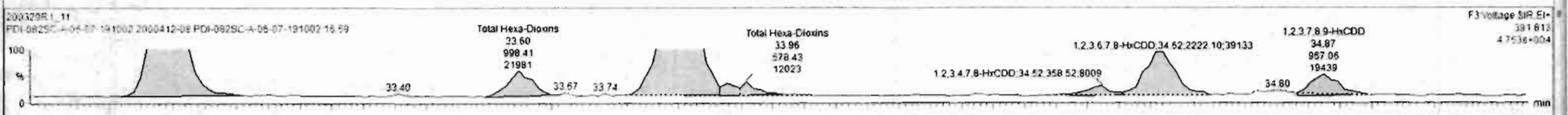
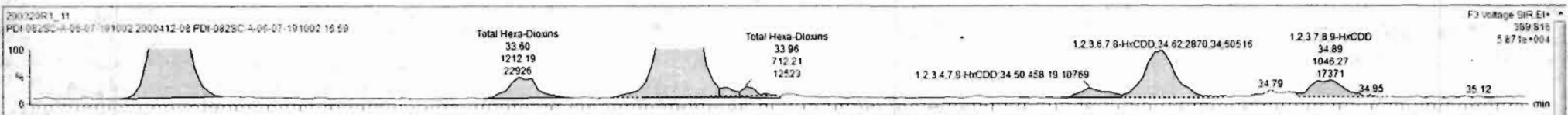


200320R1\_11



Name	Resp	RA	n/y	RRF	w/Vol	R7	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9835	10.019			2.65		0.0665	2.65
40	Total Penta-Dioxins			0.9212	10.016			2.11		0.0991	3.33

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc	
1	Total Hexa-Dioxins	33.04	1.076e4	6.668e3	1.24	NO	5.2739	5.2739
2	Total Hexa-Dioxins	33.60	1.212e3	9.564e2	1.21	NO	0.59695	0.59695
3	Total Hexa-Dioxins	33.66	1.035e4	7.945e3	1.30	NO	4.9656	4.9656
4	Total Hexa-Dioxins	33.66	7.122e2	5.784e2	1.23	NO	0.35028	0.35028
5	1,2,3,4,7,8-HxCDD	34.50	4.582e2	3.585e2	1.28	NO	0.20964	0.20964
6	1,2,3,6,7,8-HxCDD	34.62	2.670e3	2.222e3	1.29	NO	1.2671	1.2671
7	1,2,3,7,8,9-HxCDD	34.88	1.046e3	9.671e2	1.08	NO	0.96103	0.96103



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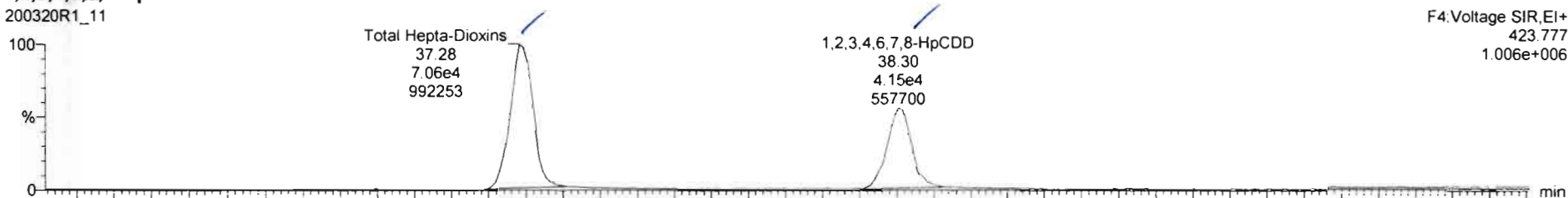
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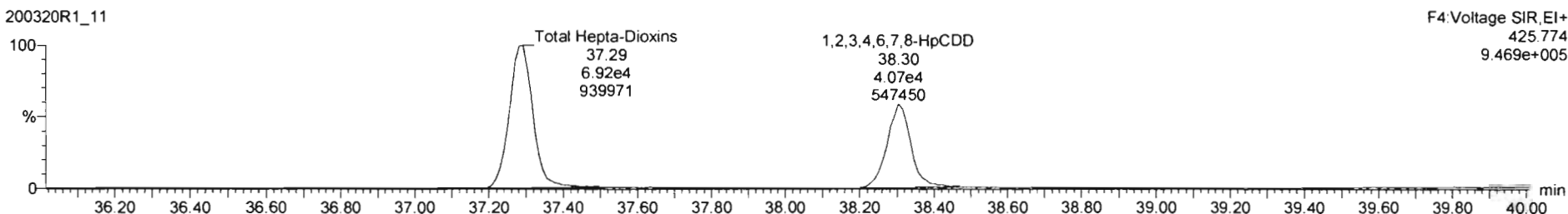
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**1,2,3,4,6,7,8-HpCDD**

200320R1\_11

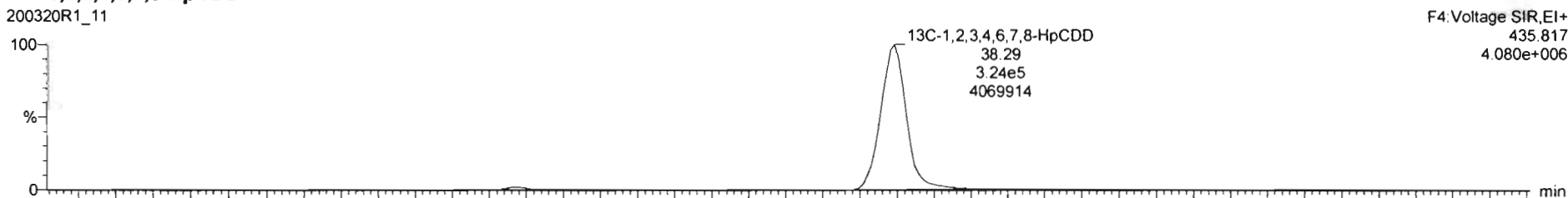


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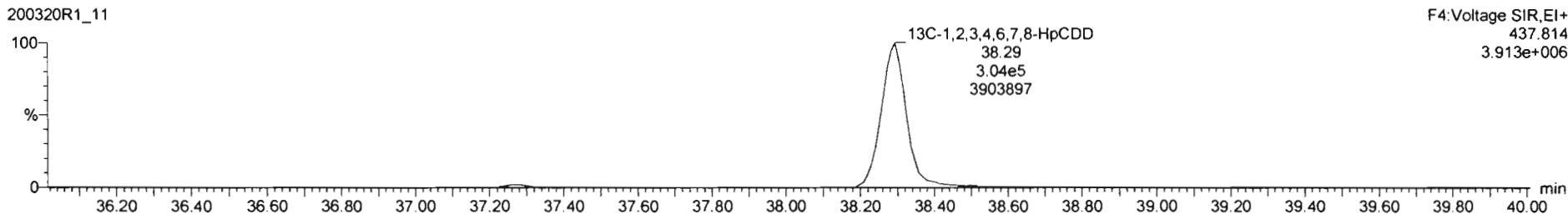


**<sup>13</sup>C-1,2,3,4,6,7,8-HpCDD**

200320R1\_11



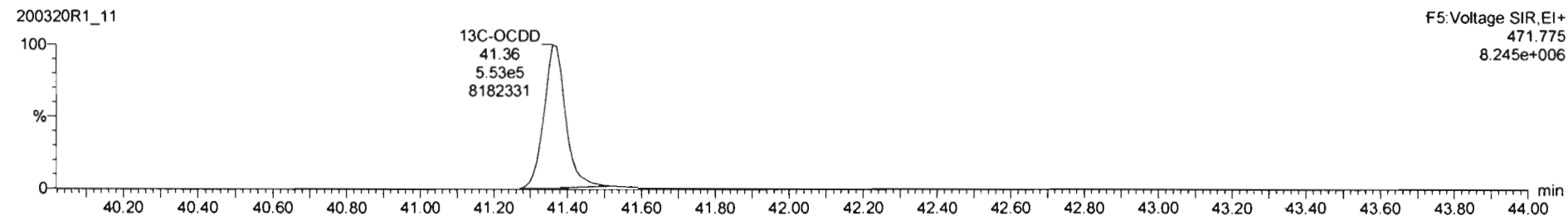
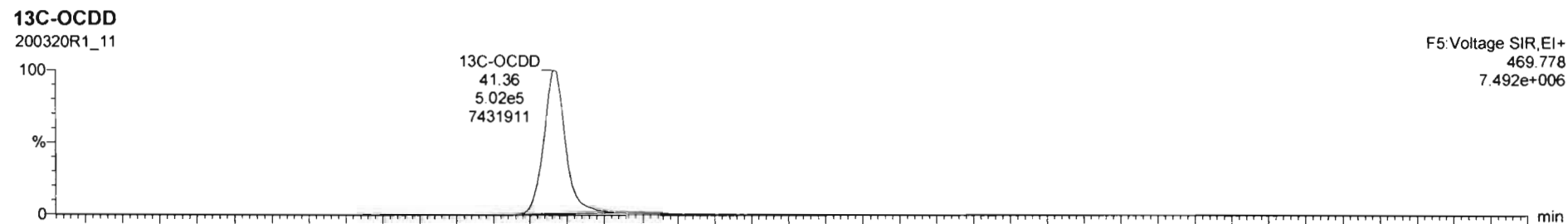
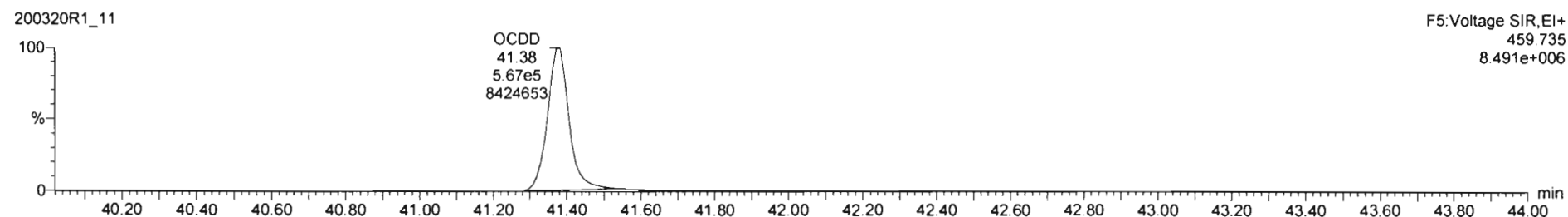
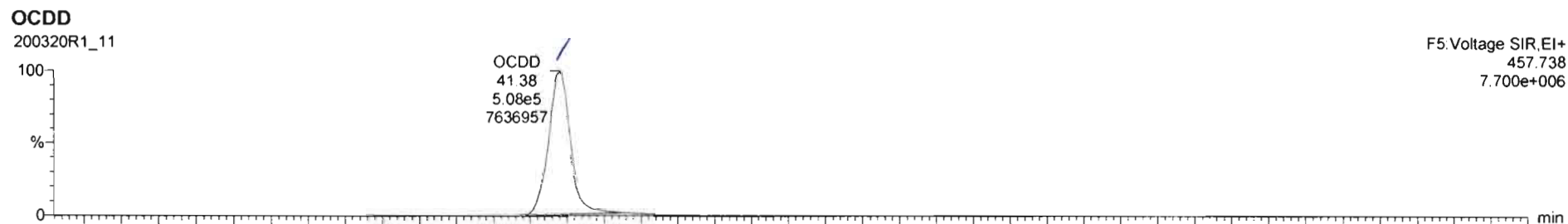
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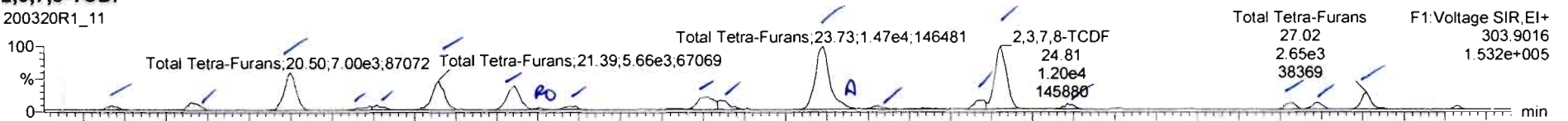
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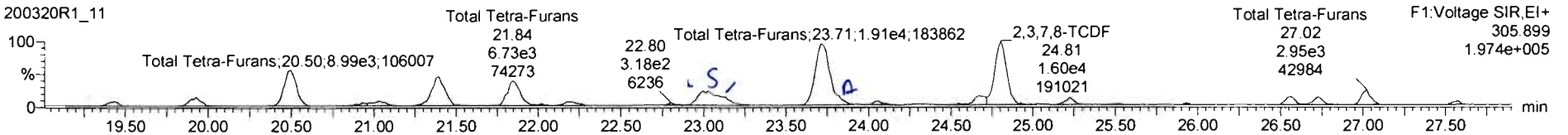
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**2,3,7,8-TCDF**

200320R1\_11

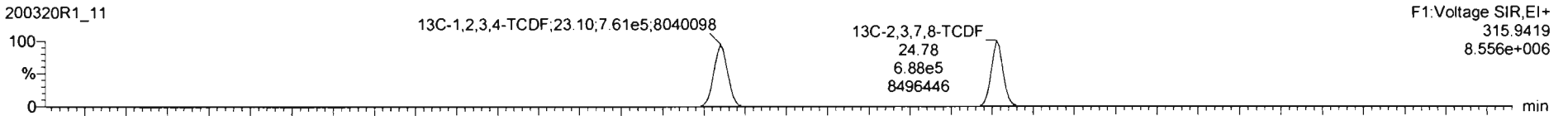


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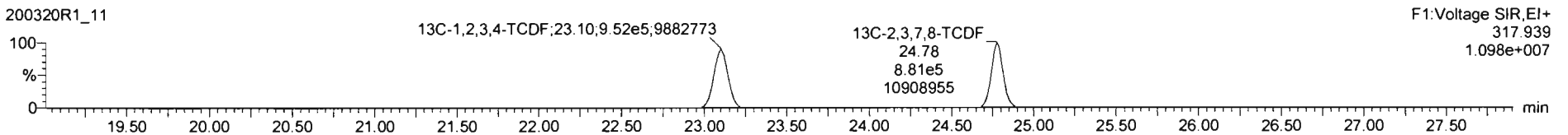


**13C-2,3,7,8-TCDF**

200320R1\_11

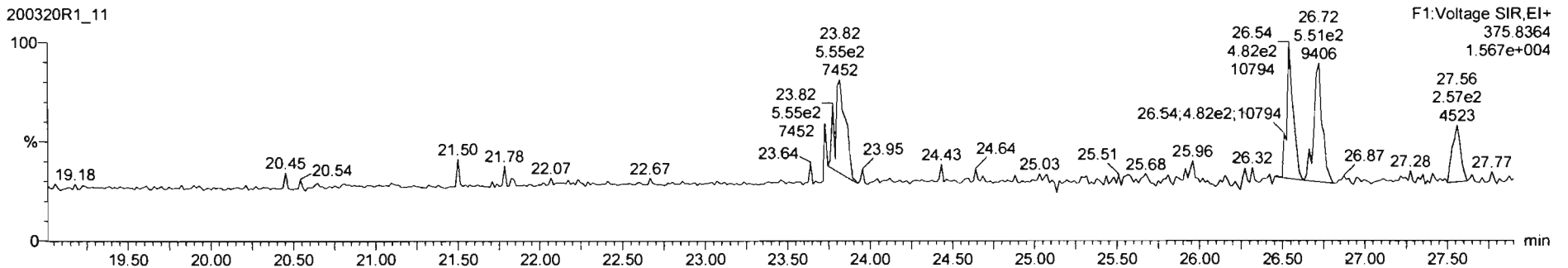


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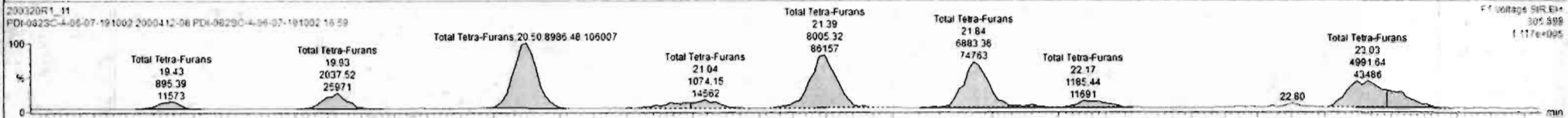
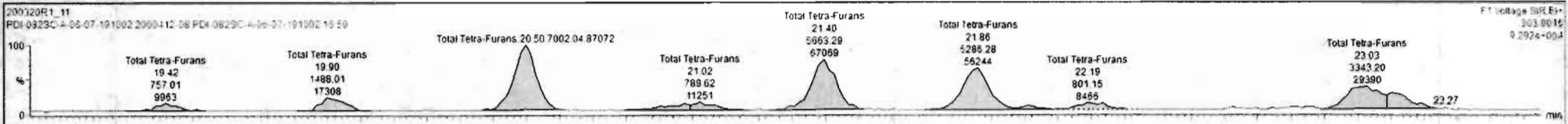
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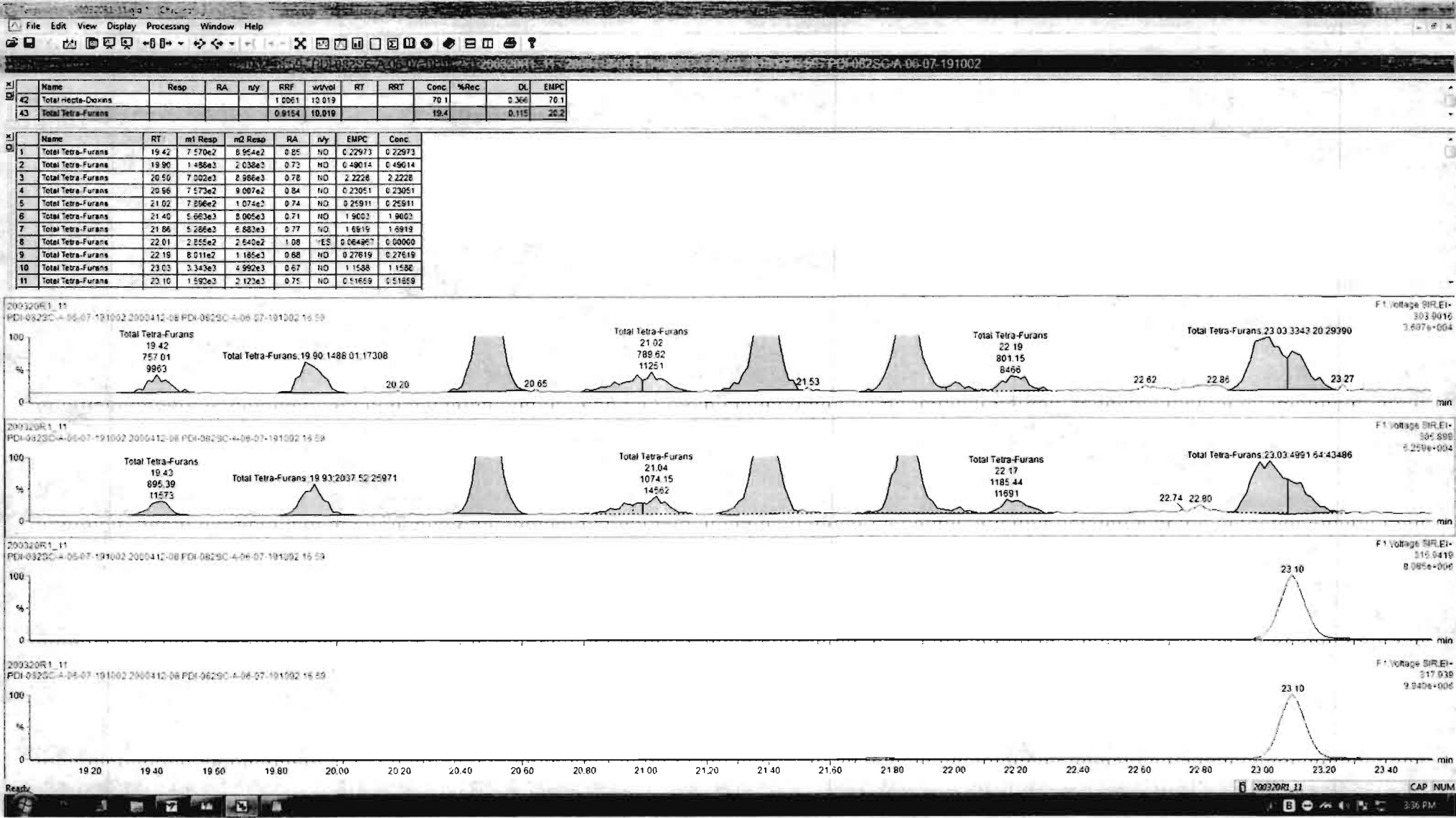
200320R1\_11



Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.051	10.019			70.1		0.356	70.1
43 Total Tetra-Furans				0.9154	10.019			19.4		0.115	20.2

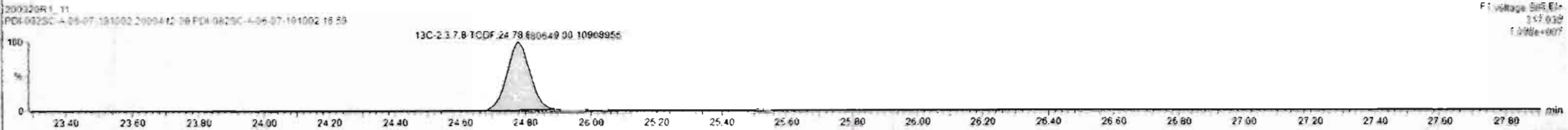
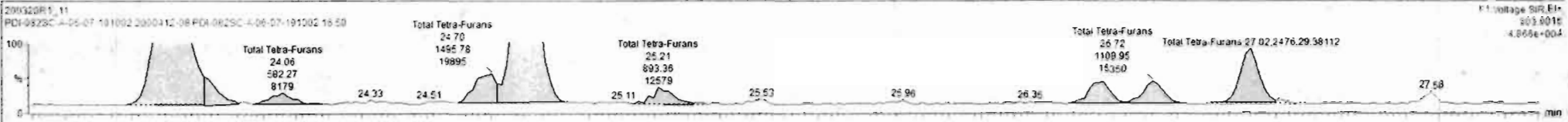
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.42	7.570e2	6.554e2	0.86	NO	0.22973	0.22973
2 Total Tetra-Furans	19.90	1.488e3	2.038e2	0.73	NO	0.49014	0.49014
3 Total Tetra-Furans	20.50	7.002e3	8.986e3	0.78	NO	2.2228	2.2228
4 Total Tetra-Furans	20.96	7.572e2	9.007e2	0.84	NO	0.23051	0.23051
5 Total Tetra-Furans	21.02	7.296e2	1.074e3	0.74	NO	0.25911	0.25911
6 Total Tetra-Furans	21.40	5.663e3	8.005e3	0.71	NO	1.9002	1.9002
7 Total Tetra-Furans	21.86	5.286e2	6.883e2	0.77	NO	1.5919	1.5919
8 Total Tetra-Furans	22.01	2.255e2	2.640e2	1.06	YES	0.064967	0.00000
9 Total Tetra-Furans	22.19	8.011e2	1.185e2	0.66	NO	0.27619	0.27619
10 Total Tetra-Furans	23.03	3.343e3	4.950e3	0.67	NO	1.1588	1.1588
11 Total Tetra-Furans	23.10	1.592e2	2.123e2	0.75	NO	0.51659	0.51659





Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	GL	EMPC
42 Total Hepta-Dioxins				1.0051	10.019			70.1	0.366	70.1	
43 Total Tetra-Furans				0.8154	10.019			20.1	0.115	20.2	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
10 Total Tetra-Furans	23.03	3.342e3	4.592e3	0.67	NO	1.1588	1.1588
11 Total Tetra-Furans	23.10	1.592e3	2.123e3	0.75	NO	0.51659	0.51659
12 Total Tetra-Furans	23.73	1.398e4	1.601e4	0.78	NO	4.4481	4.4481
13 Total Tetra-Furans	23.82	9.270e2	1.291e3	0.72	NO	0.30831	0.30831
14 Total Tetra-Furans	24.05	5.823e2	8.586e2	0.68	NO	0.20032	0.20032
15 Total Tetra-Furans	24.70	1.496e3	2.094e3	0.71	NO	0.49912	0.49912
16 2,3,7,8-TCDF	24.81	1.203e4	1.579e4	0.76	NO	3.8688	3.8688
17 Total Tetra-Furans	25.21	8.93e2	1.275e3	0.70	NO	0.30161	0.30161
18 Total Tetra-Furans	26.57	1.120e3	1.622e3	0.69	NO	0.38130	0.38130
19 Total Tetra-Furans	26.72	1.110e3	1.494e3	0.74	NO	0.36207	0.36207
20 Total Tetra-Furans	27.02	2.476e3	2.655e3	0.87	NO	0.74120	0.74120





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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

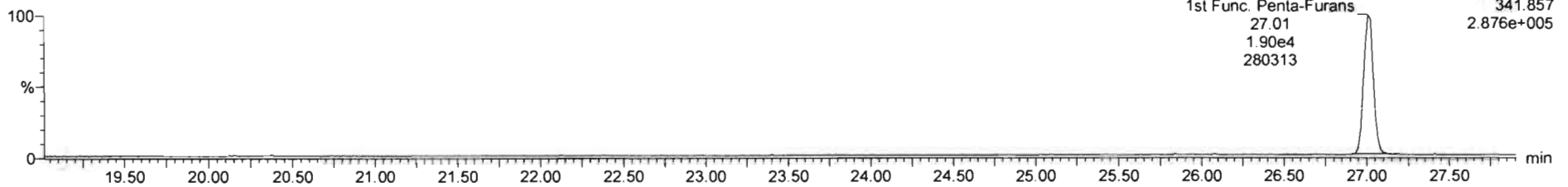
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1st Func. Penta-Furans

200320R1\_11

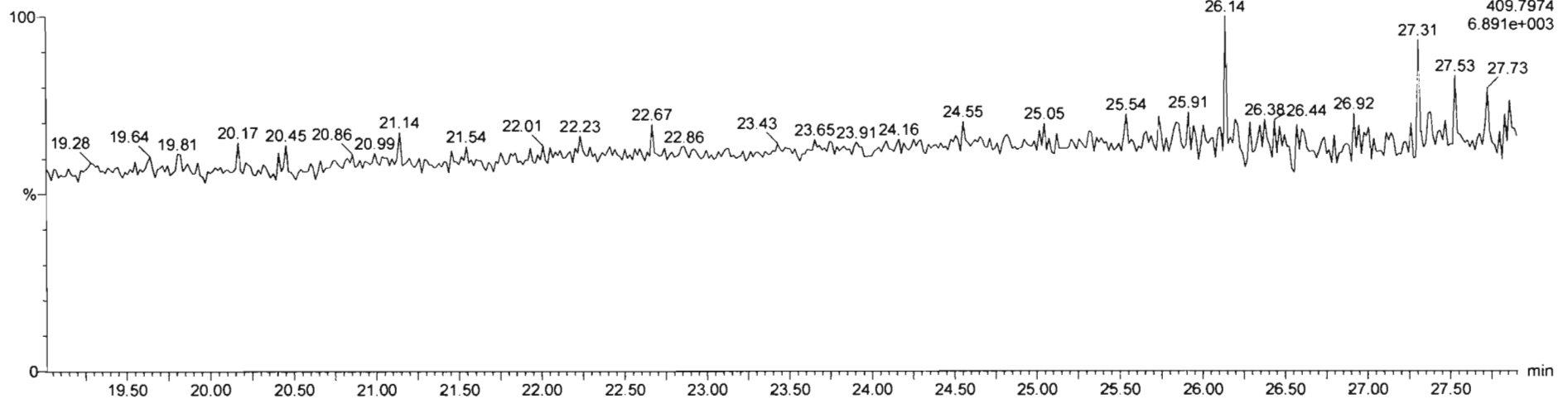


200320R1\_11



DPE6

200320R1\_11



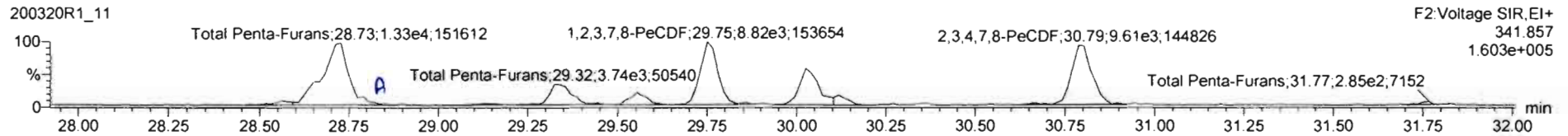
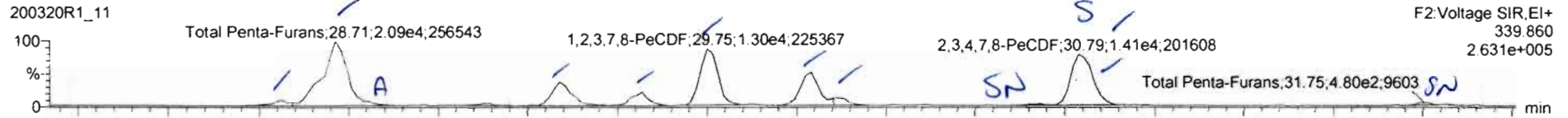
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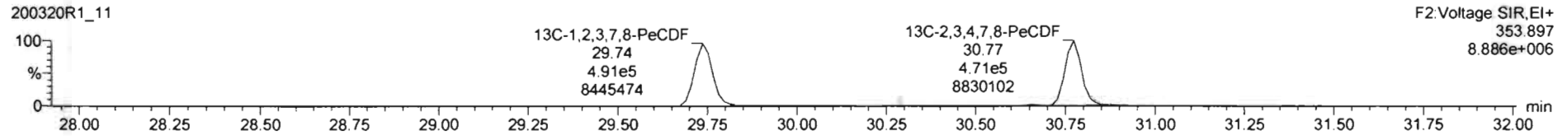
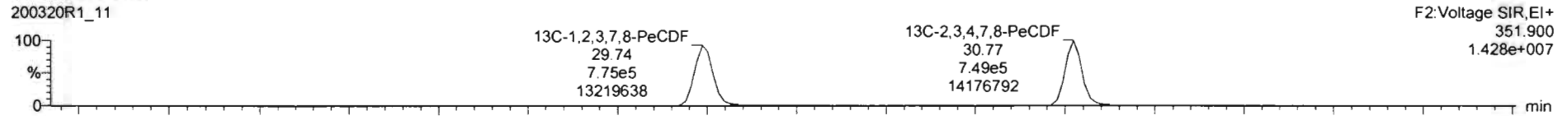
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Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

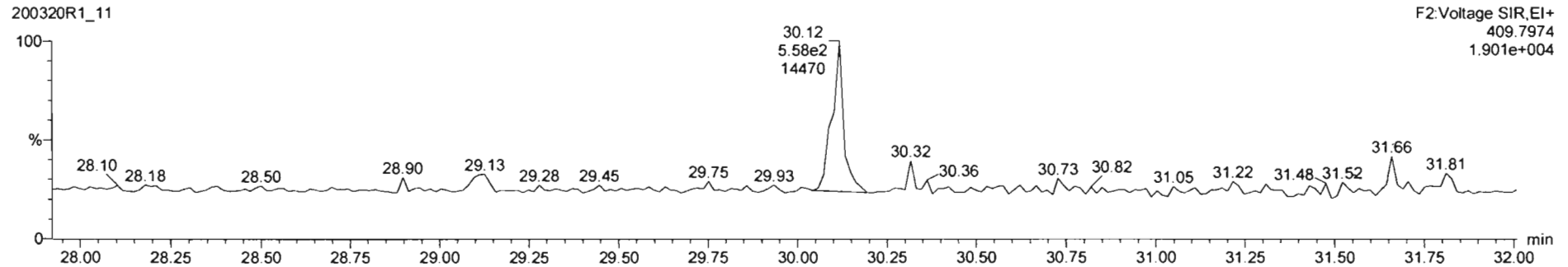
1,2,3,7,8-PeCDF



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

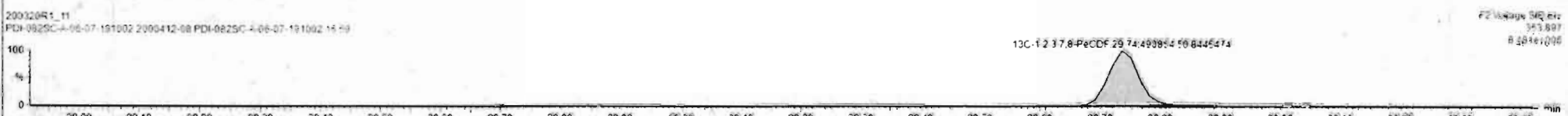
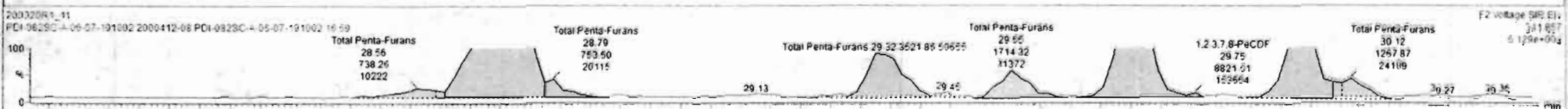
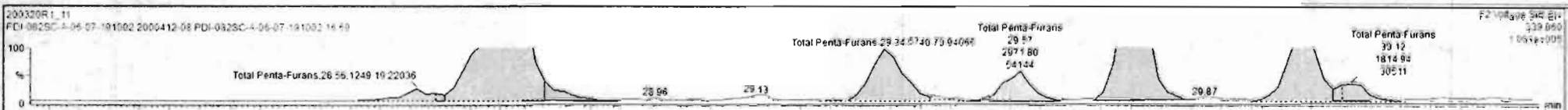


DPE2



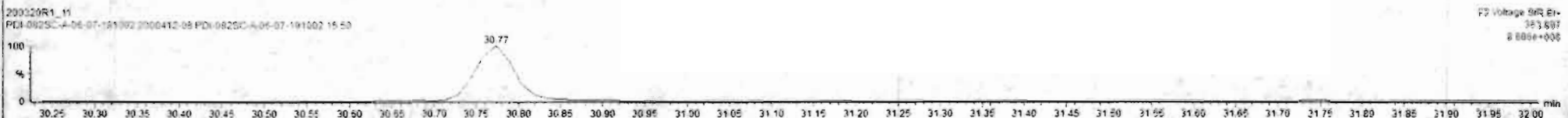
Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.019			18.3		0.0740	18.7
46 Total Hexa-Furans				1.0920	10.019			24.8		0.0610	25.1

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Penta-Furans	28.56	1.249e3	7.383e2	1.65	NO	0.33273	0.33273
2 Total Penta-Furans	28.71	1.978e4	1.246e4	1.55	NO	5.3933	5.3933
3 Total Penta-Furans	28.76	1.074e3	7.535e2	1.42	NO	0.30590	0.00000
4 Total Penta-Furans	29.34	5.741e3	3.522e3	1.63	NO	1.5507	1.5507
5 Total Penta-Furans	29.57	2.972e3	1.714e3	1.73	NO	0.76454	0.78454
6 1,2,3,7,8-PeCDF	29.75	1.296e4	8.822e3	1.47	NO	3.5603	3.5803
7 Total Penta-Furans	30.04	7.593e3	4.153e3	1.47	NO	2.1340	2.1340
8 Total Penta-Furans	30.12	1.815e3	1.268e3	1.43	NO	0.51612	0.51612
9 Total Penta-Furans	30.68	4.138e2	2.019e2	2.05	YES	0.086184	0.00000
10 2,3,4,7,8-PeCDF	30.79	1.407e4	9.614e3	1.46	NO	3.9631	3.9631
11 Total Penta-Furans	31.75	4.797e2	2.845e2	1.69	NO	0.12794	0.12794



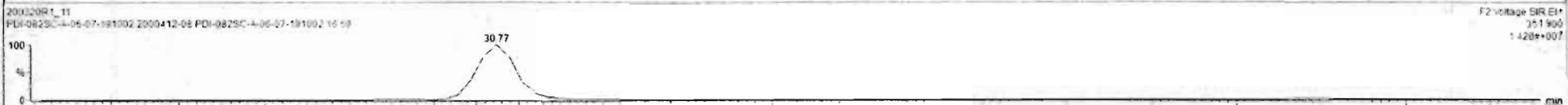
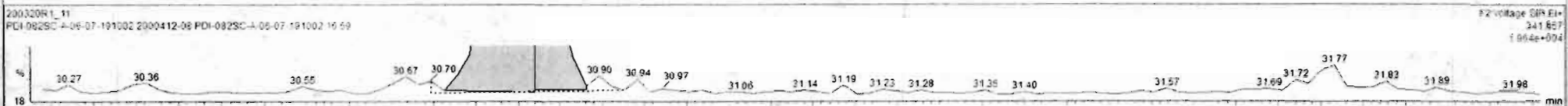
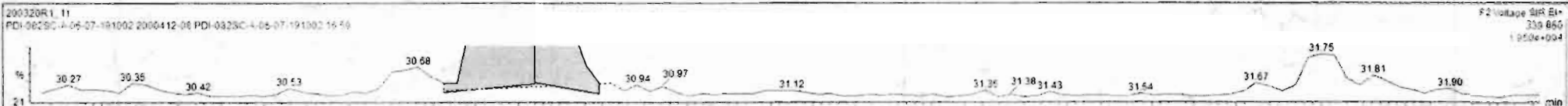
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.019			18.1	0.0740	18.4	
46 Total Hexa-Furans				1.0920	10.019			24.8	0.0610	25.1	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.56	1.246e3	7.383e2	1.69	NO	0.33273	0.33273
2 Total Penta-Furans	28.71	1.976e4	1.246e4	1.59	NO	5.3033	5.3633
3 Total Penta-Furans	28.78	1.074e3	7.535e2	1.42	NO	0.20590	0.00000
4 Total Penta-Furans	29.34	5.741e3	3.522e3	1.63	NO	1.6507	1.5507
5 Total Penta-Furans	29.57	2.972e3	1.714e3	1.73	NO	0.78454	0.78454
6 1,2,3,7,8-PeCDF	29.75	1.296e4	8.622e3	1.47	NO	3.5803	3.5803
7 Total Penta-Furans	30.04	7.592e3	5.153e3	1.47	NO	2.1340	2.1340
8 Total Penta-Furans	30.12	1.815e2	1.268e2	1.43	NO	0.51612	0.51612
9 2,3,4,7,8-PeCDF	30.79	1.057e4	7.441e3	1.42	NO	2.9383	2.9383
10 Total Penta-Furans	30.52	3.417e3	2.022e3	1.69	NO	0.91057	0.91057



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.019			18.2		0.0740	18.5
46 Total Hexa-Furans				1.9920	10.015			24.8		0.0610	25.1

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.56	1.249e3	7.383e2	1.69	NO	0.33273	0.33273
2 Total Penta-Furans	28.71	1.978e4	1.246e4	1.59	NO	5.3933	5.3933
3 Total Penta-Furans	28.78	1.074e3	7.535e2	1.42	NO	0.20590	0.00000
4 Total Penta-Furans	29.34	5.741e2	3.522e3	1.63	NO	1.5507	1.5507
5 Total Penta-Furans	29.57	2.972e3	1.714e3	1.73	NO	0.78454	0.78454
6 1,2,3,7,8-PeCDF	29.75	1.296e4	8.822e3	1.47	NO	3.5803	3.5803
7 Total Penta-Furans	30.04	7.593e3	5.153e3	1.47	NO	2.1340	2.1340
8 Total Penta-Furans	30.12	1.815e3	1.286e3	1.43	NO	0.51612	0.51612
9 2,3,4,7,8-PeCDF	30.79	1.069e4	7.382e3	1.45	NO	2.9462	2.9462
10 Total Penta-Furans	30.82	3.417e3	2.022e3	1.69	NO	0.51057	0.51057



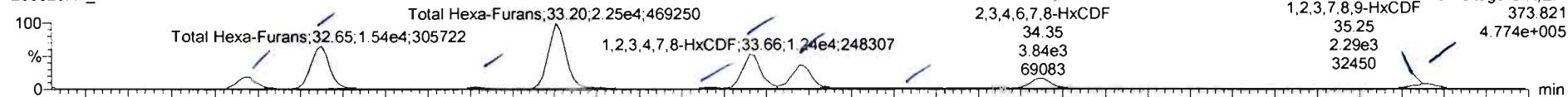
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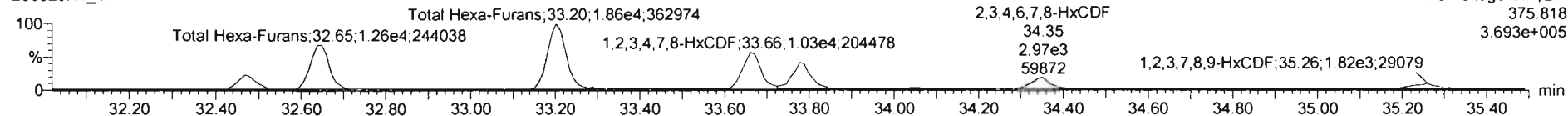
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**1,2,3,4,7,8-HxCDF**

200320R1\_11

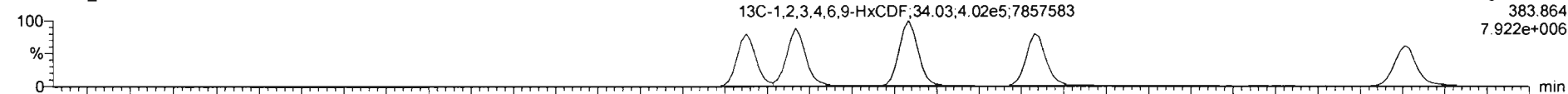


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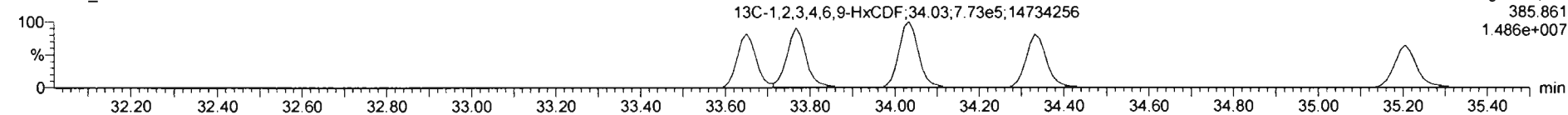


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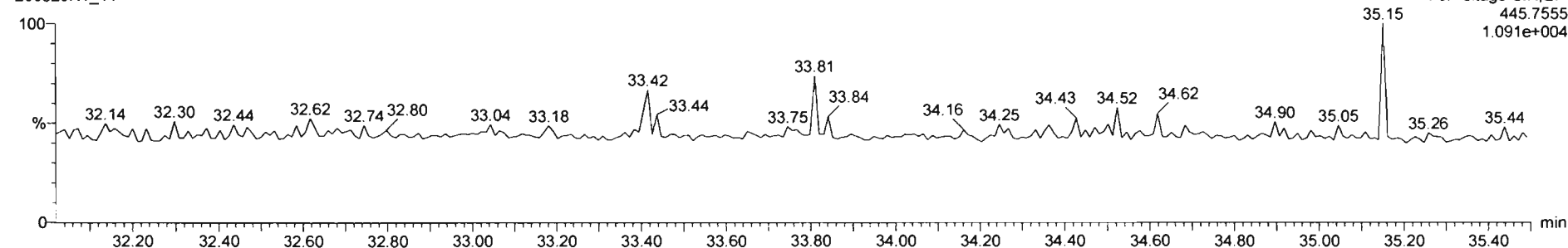


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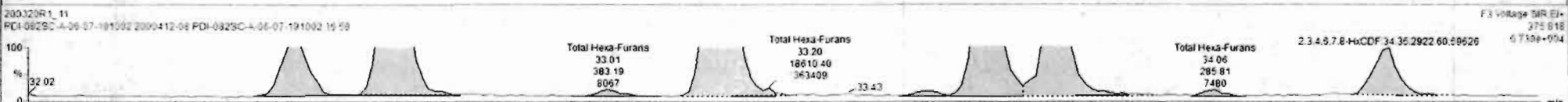
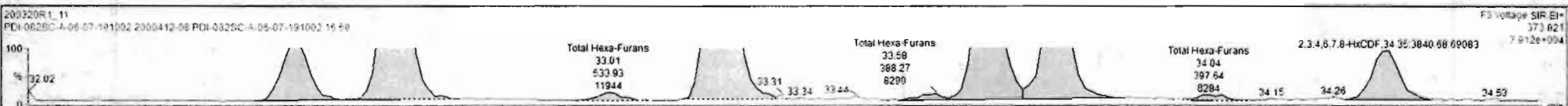
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200320R1\_11



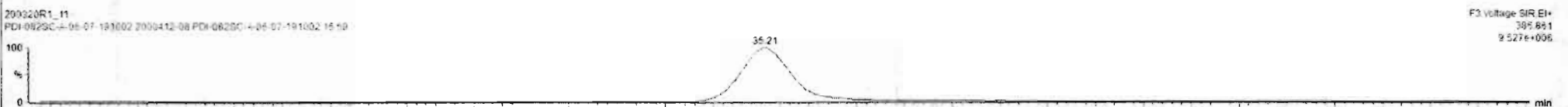
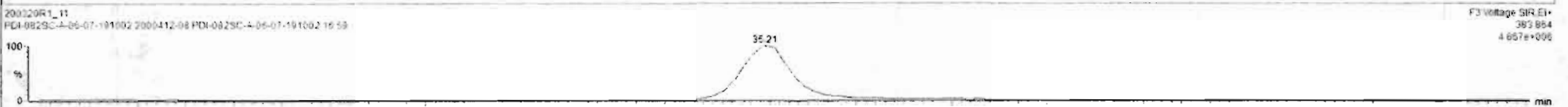
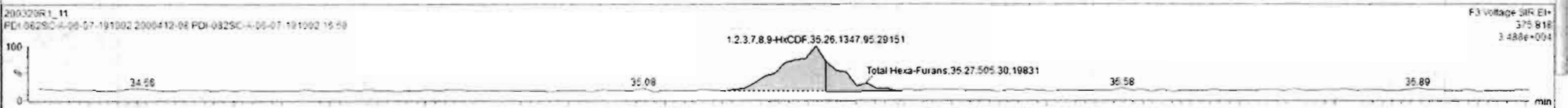
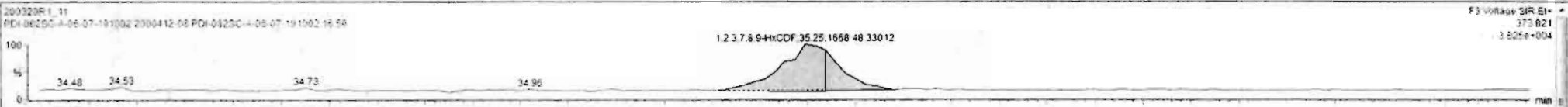
Name	Resp	RA	n/y	RRF	wVvol	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.019			8.36	0.0271	8.36	
45 Total Penta-Furans				0.9594	10.019			18.2	0.0740	18.5	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.48	4.294e2	3.615e3	1.15	NO	1.5633	1.5633
2 Total Hexa-Furans	32.65	1.964e4	1.278e4	1.22	NO	5.4126	5.4126
3 Total Hexa-Furans	33.01	5.339e2	3.832e2	1.39	NO	0.17466	0.17466
4 Total Hexa-Furans	33.20	2.247e4	1.861e4	1.21	NO	7.8244	7.8244
5 Total Hexa-Furans	33.58	3.880e2	2.741e2	1.42	NO	0.12615	0.12615
6 1,2,3,4,7,8-HxCDF	33.66	1.238e4	1.030e4	1.20	NO	4.5945	4.5945
7 1,2,3,6,7,8-HxCDF	33.76	9.054e3	7.555e3	1.26	NO	3.1392	3.1392
8 Total Hexa-Furans	34.04	3.978e2	2.858e2	1.39	NO	0.13016	0.13016
9 2,3,4,6,7,8-HxCDF	34.35	3.841e3	2.923e3	1.31	NO	1.2585	1.2585
10 1,2,3,7,8,9-HxCDF	35.25	2.290e3	1.623e3	1.26	NO	0.92449	0.92449



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.019			8.36	0.0271	8.36	
45 Total Penta-Furans				0.9594	10.019			18.2	0.0740	18.5	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hexa-Furans	32.48	4.294e3	3.815e3	1.15	NO	1.5633	1.5633
2 Total Hexa-Furans	32.85	1.564e4	1.278e4	1.22	NO	5.4126	5.4126
3 Total Hexa-Furans	33.01	5.339e2	3.832e2	1.39	NO	0.17468	0.17468
4 Total Hexa-Furans	33.20	2.247e4	1.861e4	1.21	NO	7.8244	7.8244
5 Total Hexa-Furans	33.58	3.883e2	2.741e2	1.42	NO	0.12615	0.12615
6 1,2,3,4,7,8-HxCDF	33.66	1.236e4	1.020e4	1.20	NO	4.5945	4.5945
7 1,2,3,6,7,8-HxCDF	33.76	9.054e3	7.555e3	1.20	NO	3.1392	3.1392
8 Total Hexa-Furans	34.04	3.976e2	2.858e2	1.39	NO	0.13016	0.13016
9 2,3,4,6,7,8-HxCDF	34.35	3.841e3	2.623e2	1.31	NO	1.2585	1.2585
10 1,2,3,7,8,9-HxCDF	35.25	1.888e3	1.348e3	1.24	NO	0.67605	0.67605
11 Total Hexa-Furans	35.27	6.518e2	5.052e2	1.29	NO	0.22036	0.22036





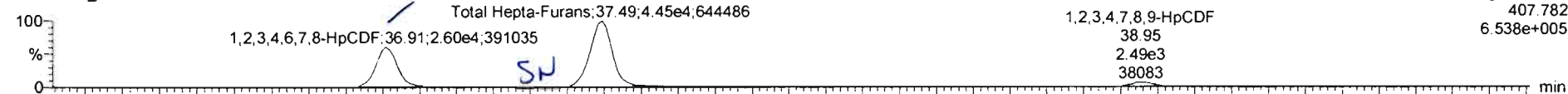
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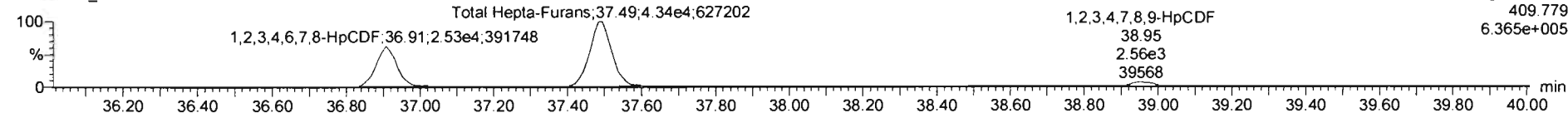
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1,2,3,4,6,7,8-HpCDF

200320R1\_11

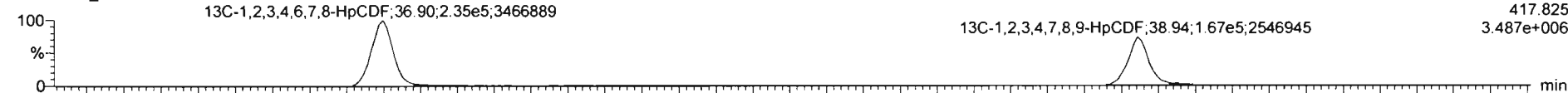


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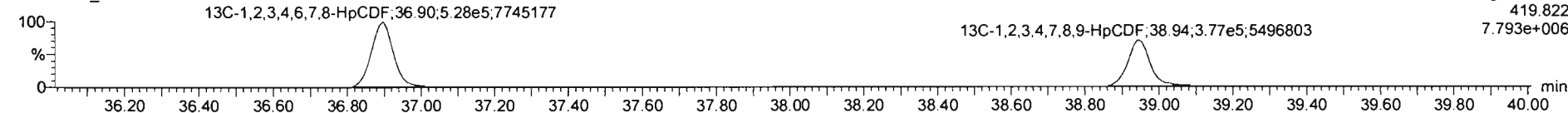


13C-1,2,3,4,6,7,8-HpCDF

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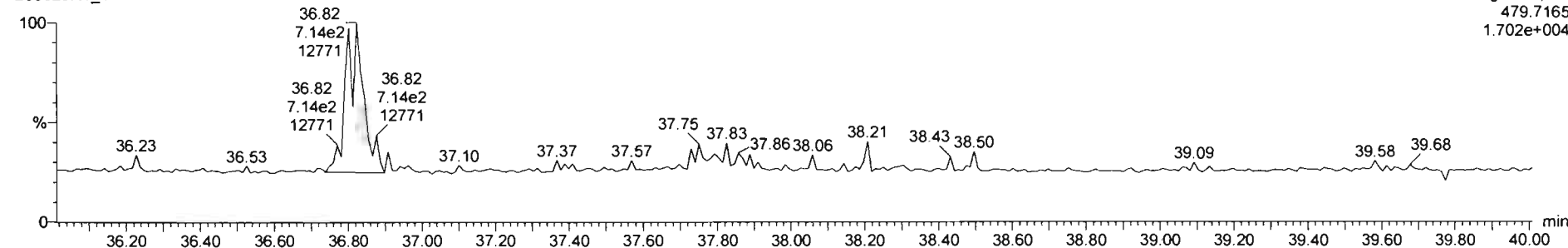


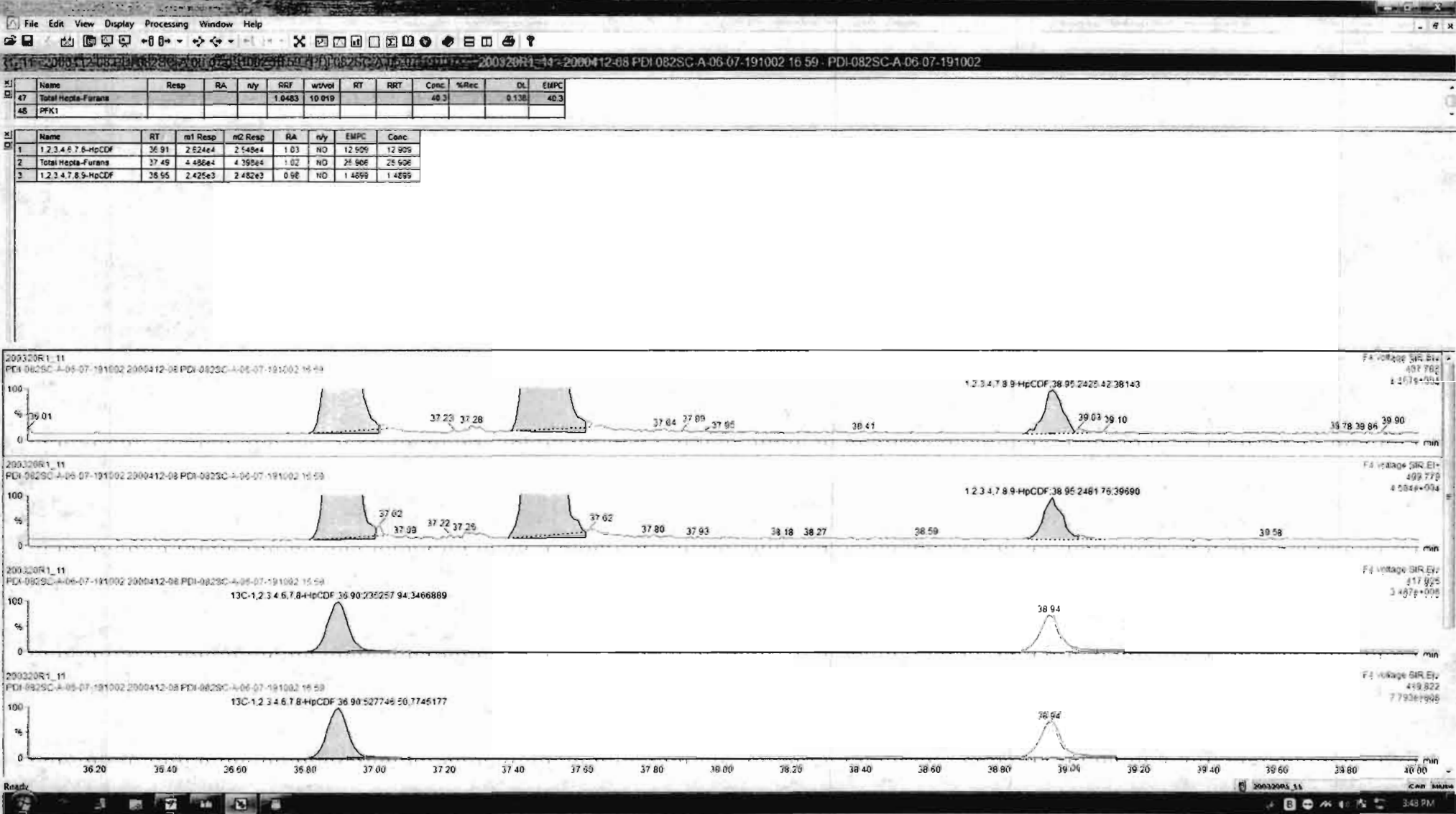
200320R1\_11



DPE4

200320R1\_11



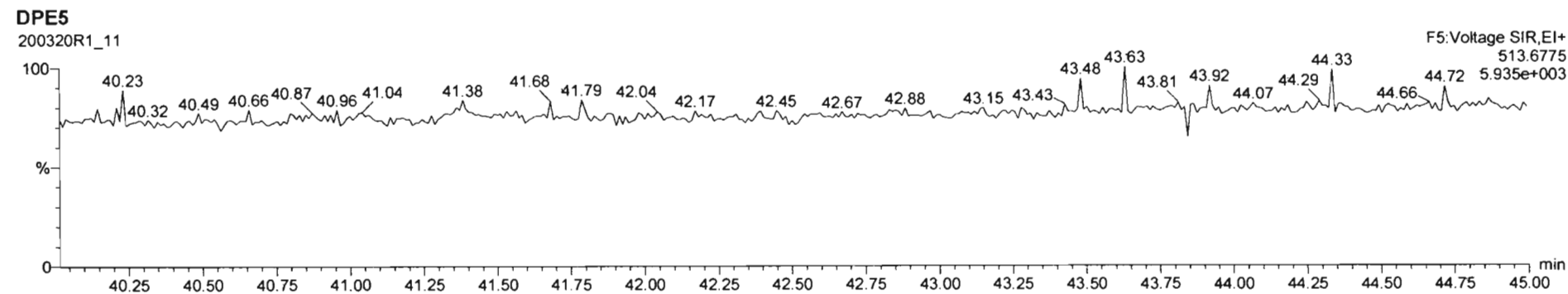
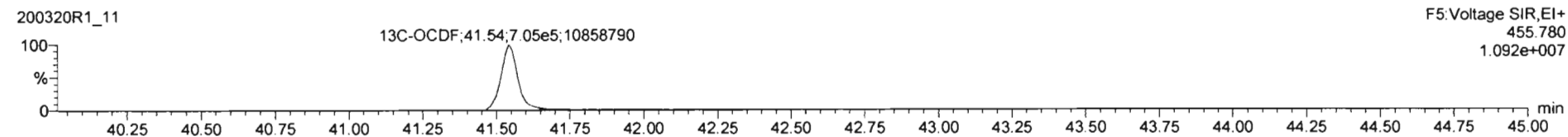
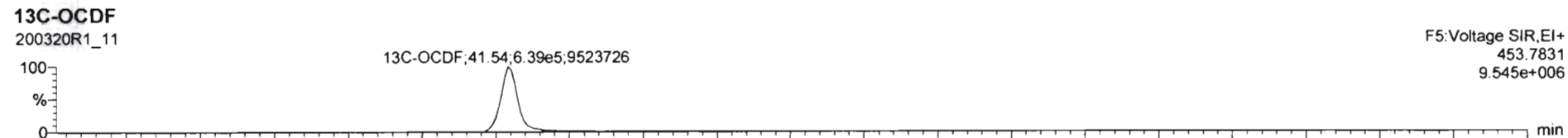
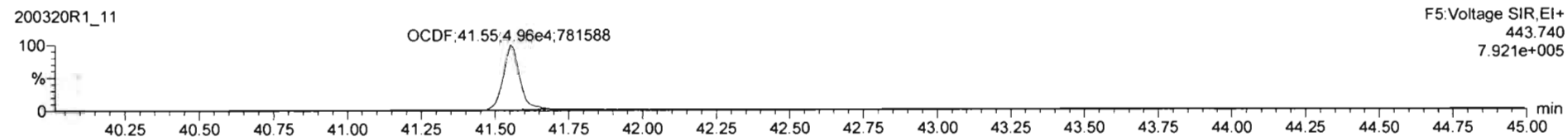
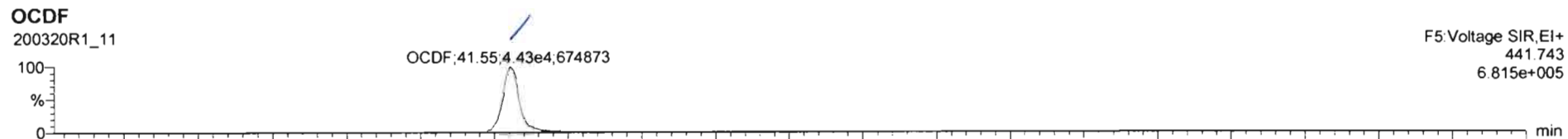


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Name: 200320R1\_11, Date: 20-Mar-2020, Time: 21:48:24, ID: 2000412-08 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002



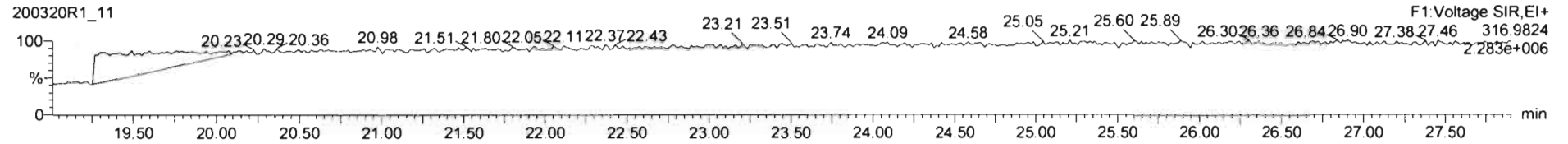
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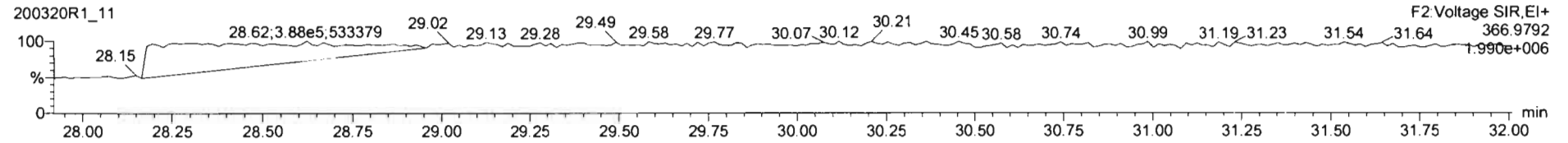
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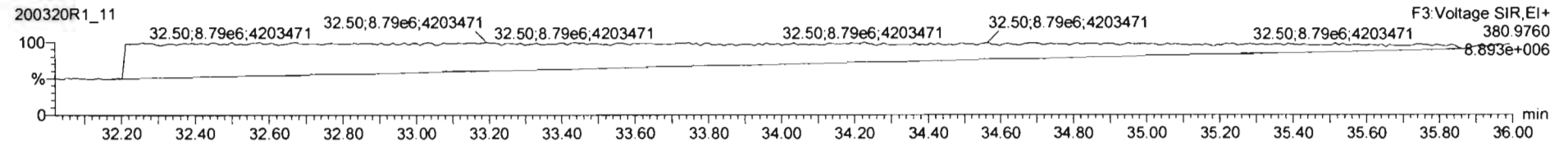
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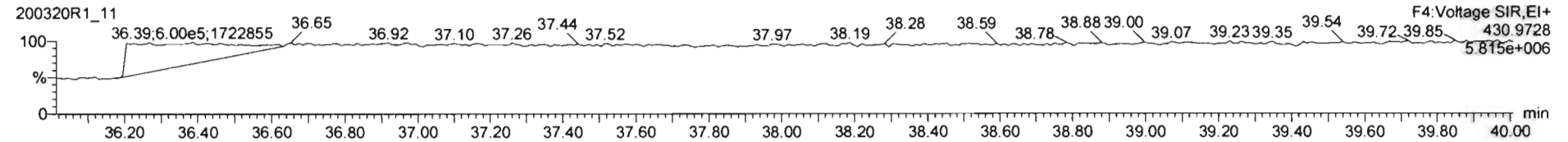
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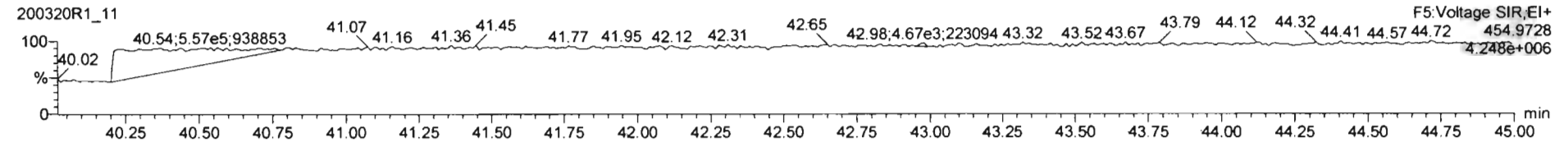
PFK3



PFK4



PFK5



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HN 04/02/2020

C7 04/02/2020

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#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.19e4	0.77	NO	0.983	10.007	25.826	25.81	1.001	1.001	2.0155		0.114	2.02
2	2 1,2,3,7,8-PeCDD	8.64e3	0.58	NO	0.921	10.007	31.116	31.11	1.001	1.001	2.1911		0.105	2.19
3	3 1,2,3,4,7,8-HxCDD	8.62e3	1.31	NO	1.13	10.007	34.512	34.51	1.000	1.000	2.3439		0.215	2.34
4	4 1,2,3,6,7,8-HxCDD	5.41e4	1.25	NO	0.984	10.007	34.598	34.62	1.000	1.001	13.849		0.215	13.8
5	5 1,2,3,7,8,9-HxCDD	2.01e4	1.29	NO	0.967	10.007	34.874	34.88	1.000	1.000	5.9234		0.250	5.92
6	6 1,2,3,4,6,7,8-HpCDD	1.12e6	1.03	NO	1.01	10.007	38.304	38.30	1.000	1.000	417.19		1.04	417
7	7 OCDD	5.22e6	0.89	NO	1.05	10.007	41.371	41.38	1.000	1.000	5449.1		2.04	5450
8	8 2,3,7,8-TCDF	1.11e6	0.76	NO	0.915	10.007	24.817	24.82	1.001	1.001	154.83	(148)	0.187	155
9	9 1,2,3,7,8-PeCDF	1.48e6	1.55	NO	0.959	10.007	29.757	29.75	1.001	1.001	232.02		0.409	232
10	10 2,3,4,7,8-PeCDF	8.56e5	1.56	NO	1.00	10.007	30.805	30.79	1.001	1.000	139.45		0.385	139
11	11 1,2,3,4,7,8-HxCDF	1.66e6	1.21	NO	1.04	10.007	33.650	33.66	1.000	1.000	335.00		0.319	335
12	12 1,2,3,6,7,8-HxCDF	5.80e5	1.22	NO	1.01	10.007	33.777	33.78	1.000	1.000	109.40		0.319	109
13	13 2,3,4,6,7,8-HxCDF	1.41e5	1.23	NO	1.09	10.007	34.366	34.35	1.001	1.001	28.361		0.348	28.4
14	14 1,2,3,7,8,9-HxCDF	8.28e4	1.18	NO	1.03	10.007	35.205	35.25	1.000	1.001	19.247		0.452	19.2
15	15 1,2,3,4,6,7,8-HpCDF	7.96e5	1.01	NO	1.05	10.007	36.935	36.91	1.001	1.000	224.68		0.349	225
16	16 1,2,3,4,7,8,9-HpCDF	1.88e5	1.03	NO	1.21	10.007	38.954	38.97	1.000	1.000	63.878		0.434	63.9
17	17 OCDF	8.56e5	0.87	NO	0.947	10.007	41.542	41.55	1.000	1.000	462.27		0.431	462
18	18 13C-2,3,7,8-TCDD	1.20e6	0.78	NO	1.18	10.007	25.804	25.80	1.030	1.029	170.08	85.1	0.220	
19	19 13C-1,2,3,7,8-PeCDD	8.56e5	0.63	NO	0.864	10.007	31.119	31.09	1.242	1.241	166.75	83.4	0.310	
20	20 13C-1,2,3,4,7,8-HxCDD	6.49e5	1.29	NO	0.754	10.007	34.503	34.50	1.014	1.014	142.94	71.5	0.245	
21	21 13C-1,2,3,6,7,8-HxCDD	7.93e5	1.27	NO	0.925	10.007	34.605	34.60	1.017	1.017	142.28	71.2	0.199	
22	22 13C-1,2,3,7,8,9-HxCDD	7.02e5	1.25	NO	0.829	10.007	34.874	34.86	1.025	1.024	140.46	70.3	0.222	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.31e5	1.07	NO	0.598	10.007	38.294	38.29	1.125	1.125	147.41	73.8	0.320	
24	24 13C-OCDD	3.64e5	0.93	NO	0.571	10.007	41.357	41.37	1.215	1.216	105.79	26.5	0.305	
25	25 13C-2,3,7,8-TCDF	1.56e6	0.78	NO	1.09	10.007	24.791	24.79	0.989	0.989	159.63	79.9	0.367	
26	26 13C-1,2,3,7,8-PeCDF	1.33e6	1.59	NO	0.876	10.007	29.759	29.74	1.187	1.186	169.07	84.6	0.317	
27	27 13C-2,3,4,7,8-PeCDF	1.22e6	1.60	NO	0.844	10.007	30.739	30.77	1.227	1.228	161.04	80.6	0.329	
28	28 13C-1,2,3,4,7,8-HxCDF	9.57e5	0.52	NO	1.00	10.007	33.652	33.65	0.989	0.989	158.78	79.4	0.305	
29	29 13C-1,2,3,6,7,8-HxCDF	1.05e6	0.53	NO	1.12	10.007	33.774	33.77	0.992	0.992	155.51	77.8	0.273	
30	30 13C-2,3,4,6,7,8-HxCDF	9.07e5	0.52	NO	1.04	10.007	34.332	34.33	1.009	1.009	145.45	72.8	0.295	
31	31 13C-1,2,3,7,8,9-HxCDF	8.37e5	0.50	NO	0.873	10.007	35.204	35.21	1.034	1.034	159.19	79.6	0.349	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-12.qld

Last Altered: Thursday, April 02, 2020 11:02:40 AM Pacific Daylight Time

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Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	6.76e5	0.44	NO	0.771	10.007	36.905	36.90	1.084	1.084	145.50	72.8	0.304	
33	13C-1,2,3,4,7,8,9-HpCDF	4.87e5	0.43	NO	0.519	10.007	38.944	38.95	1.144	1.145	155.61	77.9	0.451	
34	13C-OCDF	7.82e5	0.90	NO	0.696	10.007	41.537	41.54	1.220	1.221	186.33	46.6	0.249	
35	37Cl-2,3,7,8-TCDD	4.56e5			1.17	10.007	25.834	25.81	1.031	1.030	65.363	81.8	0.0810	
36	13C-1,2,3,4-TCDD	1.19e6	0.80	NO	1.00	10.007	25.030	25.06	1.000	1.000	199.87	100	0.261	
37	13C-1,2,3,4-TCDF	1.80e6	0.79	NO	1.00	10.007	23.090	23.12	1.000	1.000	199.87	100	0.400	
38	13C-1,2,3,4,6,9-HxCDF	1.20e6	0.52	NO	1.00	10.007	34.020	34.03	1.000	1.000	199.87	100	0.305	
39	Total Tetra-Dioxins				0.983	10.007	24.620		0.000		20.160		0.114	20.2
40	Total Penta-Dioxins				0.921	10.007	29.960		0.000		27.099		0.105	27.8
41	Total Hexa-Dioxins				0.984	10.007	33.635		0.000		143.13		0.235	145
42	Total Hepta-Dioxins				1.01	10.007	37.640		0.000		1085.2		1.04	1090
43	Total Tetra-Furans				0.915	10.007	23.610		0.000		492.33		0.187	511
44	1st Func. Penta-Furans				0.959	10.007	27.090		0.000		65.173		0.0394	65.2
45	Total Penta-Furans				0.959	10.007	29.275		0.000		673.23		0.406	674
46	Total Hexa-Furans				1.09	10.007	33.555		0.000		735.69		0.339	737
47	Total Hepta-Furans				1.05	10.007	37.835		0.000		719.31		0.412	719

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Last Altered: Thursday, April 02, 2020 11:02:40 AM Pacific Daylight Time

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Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.44	2.760e5	3.480e5	2.476e4	3.138e4	0.79	NO	5.614e4	9.5423	9.5423	0.114
2	Total Tetra-Dioxins	21.83	5.089e4	7.340e4	5.640e3	6.637e3	0.85	NO	1.228e4	2.0867	2.0867	0.114
3	Total Tetra-Dioxins	22.35	2.209e4	2.638e4	1.788e3	2.504e3	0.71	NO	4.291e3	0.72947	0.72947	0.114
4	Total Tetra-Dioxins	23.34	1.244e4	1.293e4	1.001e3	1.323e3	0.76	NO	2.324e3	0.39498	0.39498	0.114
5	Total Tetra-Dioxins	23.64	2.191e4	2.818e4	2.339e3	3.064e3	0.76	NO	5.402e3	0.91831	0.91831	0.114
6	Total Tetra-Dioxins	23.88	3.303e4	4.258e4	3.113e3	3.762e3	0.83	NO	6.875e3	1.1687	1.1687	0.114
7	Total Tetra-Dioxins	24.12	9.447e3	1.382e4	9.041e2	1.097e3	0.82	NO	2.001e3	0.34012	0.34012	0.114
8	Total Tetra-Dioxins	24.45	1.029e4	1.323e4	8.096e2	1.192e3	0.68	NO	2.002e3	0.34022	0.34022	0.114
9	Total Tetra-Dioxins	24.64	1.642e4	1.795e4	1.204e3	1.643e3	0.73	NO	2.847e3	0.48390	0.48390	0.114
10	Total Tetra-Dioxins	25.02	1.083e4	1.158e4	9.987e2	1.283e3	0.78	NO	2.282e3	0.38791	0.38791	0.114
11	Total Tetra-Dioxins	25.21	5.927e3	5.936e3	2.626e2	3.731e2	0.70	NO	6.358e2	0.10807	0.10807	0.114
12	Total Tetra-Dioxins	25.53	3.077e4	4.098e4	2.470e3	3.536e3	0.70	NO	6.006e3	1.0209	1.0209	0.114
13	2,3,7,8-TCDD	25.81	7.211e4	8.716e4	5.150e3	6.707e3	0.77	NO	1.186e4	2.0155	2.0155	0.114
14	Total Tetra-Dioxins	26.18	1.686e4	2.379e4	1.130e3	1.513e3	0.75	NO	2.643e3	0.44931	0.44931	0.114
15	Total Tetra-Dioxins	26.86	8.050e3	7.536e3	4.410e2	5.806e2	0.76	NO	1.022e3	0.17365	0.17365	0.114

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Last Altered: Thursday, April 02, 2020 11:02:40 AM Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:06:35 AM Pacific Daylight Time

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**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.77	1.569e5	2.664e5	1.290e4	2.090e4	0.62	NO	3.380e4	8.5710	8.5710	0.105
2	Total Penta-Dioxins	29.28	5.312e4	8.025e4	2.607e3	4.361e3	0.60	NO	6.968e3	1.7668	1.7668	0.105
3	Total Penta-Dioxins	29.81	1.375e5	2.336e5	9.040e3	1.353e4	0.67	NO	2.257e4	5.7225	5.7225	0.105
4	Total Penta-Dioxins	30.00	8.170e4	1.295e5	4.168e3	6.326e3	0.66	NO	1.049e4	2.6611	2.6611	0.105
5	Total Penta-Dioxins	30.09	4.467e4	6.663e4	2.324e3	3.852e3	0.60	NO	6.176e3	1.5661	1.5661	0.105
6	Total Penta-Dioxins	30.30	5.397e4	9.181e4	4.882e3	7.610e3	0.64	NO	1.249e4	3.1677	3.1677	0.105
7	Total Penta-Dioxins	30.65	1.454e4	2.810e4	7.509e2	1.433e3	0.52	YES	0.000e0	0.00000	0.49266	0.105
8	1,2,3,7,8-PeCDD	31.11	6.010e4	9.402e4	3.180e3	5.461e3	0.58	NO	8.641e3	2.1911	2.1911	0.105
9	Total Penta-Dioxins	31.16	1.695e4	3.423e4	1.116e3	1.800e3	0.62	NO	2.915e3	0.73927	0.73927	0.105
10	Total Penta-Dioxins	31.40	1.995e4	1.227e4	7.317e2	6.105e2	1.20	YES	0.000e0	0.00000	0.25235	0.105
11	Total Penta-Dioxins	31.51	2.174e4	3.203e4	9.936e2	1.821e3	0.55	NO	2.815e3	0.71374	0.71374	0.105

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	2.271e6	1.792e6	1.131e5	8.942e4	1.26	NO	2.025e5	57.519	57.519	0.235
2	Total Hexa-Dioxins	33.60	2.401e5	1.846e5	1.257e4	9.949e3	1.26	NO	2.252e4	6.3964	6.3964	0.235
3	Total Hexa-Dioxins	33.85	1.611e6	1.349e6	1.061e5	8.398e4	1.26	NO	1.900e5	53.981	53.981	0.235
4	Total Hexa-Dioxins	33.96	1.210e5	8.761e4	6.412e3	4.569e3	1.40	NO	1.098e4	3.1191	3.1191	0.235
5	1,2,3,4,7,8-HxCDD	34.51	1.006e5	7.617e4	4.885e3	3.738e3	1.31	NO	8.623e3	2.3439	2.3439	0.215
6	1,2,3,6,7,8-HxCDD	34.62	5.181e5	4.479e5	3.007e4	2.404e4	1.25	NO	5.411e4	13.849	13.849	0.215
7	Total Hexa-Dioxins	34.79	6.465e4	5.090e4	3.337e3	2.322e3	1.44	YES	0.000e0	0.00000	1.4775	0.235
8	1,2,3,7,8,9-HxCDD	34.88	1.856e5	1.540e5	1.132e4	8.806e3	1.29	NO	2.012e4	5.9234	5.9234	0.250

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.29	1.319e7	1.268e7	9.100e5	8.765e5	1.04	NO	1.786e6	667.99	667.99	1.04
2	1,2,3,4,6,7,8-HpCDD	38.30	7.573e6	7.339e6	5.668e5	5.490e5	1.03	NO	1.116e6	417.19	417.19	1.04



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Dataset: U:\VG12.PRO\Results\200320R1\200320R1-12.qld

Last Altered: Thursday, April 02, 2020 11:02:40 AM Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:06:35 AM Pacific Daylight Time

Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.43	4.764e4	5.972e4	3.616e3	4.562e3	0.79	NO	8.178e3	1.1412	1.1412	0.187
2	Total Tetra-Furans	19.94	1.245e5	1.574e5	1.005e4	1.277e4	0.79	NO	2.283e4	3.1855	3.1855	0.187
3	Total Tetra-Furans	20.50	5.832e5	7.839e5	5.024e4	6.795e4	0.74	NO	1.182e5	16.494	16.494	0.187
4	Total Tetra-Furans	21.03	2.080e5	2.685e5	2.851e4	3.878e4	0.74	NO	6.730e4	9.3908	9.3908	0.187
5	Total Tetra-Furans	21.41	1.499e6	1.966e6	1.378e5	1.844e5	0.75	NO	3.222e5	44.966	44.966	0.187
6	Total Tetra-Furans	21.87	6.541e5	8.799e5	5.986e4	8.043e4	0.74	NO	1.403e5	19.576	19.576	0.187
7	Total Tetra-Furans	22.04	4.646e4	6.510e4	4.128e3	5.636e3	0.73	NO	9.765e3	1.3626	1.3626	0.187
8	Total Tetra-Furans	22.22	2.833e5	3.934e5	2.627e4	3.472e4	0.76	NO	6.099e4	8.5101	8.5101	0.187
9	Total Tetra-Furans	22.68	4.643e4	6.660e4	4.845e3	6.629e3	0.73	NO	1.147e4	1.6012	1.6012	0.187
10	Total Tetra-Furans	22.82	3.775e4	4.449e4	3.280e3	4.096e3	0.80	NO	7.377e3	1.0294	1.0294	0.187
11	Total Tetra-Furans	23.03	3.385e5	4.497e5	2.351e4	3.132e4	0.75	NO	5.482e4	7.6502	7.6502	0.187
12	Total Tetra-Furans	23.13	5.571e5	7.002e5	6.467e4	8.491e4	0.76	NO	1.496e5	20.874	20.874	0.187
13	Total Tetra-Furans	23.73	5.432e6	7.134e6	5.173e5	6.788e5	0.76	NO	1.196e6	166.91	166.91	0.187
14	Total Tetra-Furans	24.07	1.957e5	2.684e5	1.713e4	2.433e4	0.70	NO	4.146e4	5.7855	5.7855	0.187
15	Total Tetra-Furans	24.34	2.643e4	3.137e4	2.701e3	3.239e3	0.83	NO	5.940e3	0.82889	0.82889	0.187
16	Total Tetra-Furans	24.55	7.101e4	8.897e4	5.437e3	6.746e3	0.81	NO	1.218e4	1.7001	1.7001	0.187
17	Total Tetra-Furans	24.69	6.671e5	8.715e5	4.143e4	5.546e4	0.75	NO	9.688e4	13.520	13.520	0.187
18	2,3,7,8-TCDF	24.82	5.729e6	7.485e6	4.807e5	6.289e5	0.76	NO	1.110e6	154.83	154.83	0.187
19	Total Tetra-Furans	25.23	2.581e5	3.603e5	2.084e4	2.888e4	0.72	NO	4.972e4	6.9377	6.9377	0.187
20	Total Tetra-Furans	25.50	6.704e4	8.654e4	5.072e3	6.834e3	0.74	NO	1.191e4	1.6614	1.6614	0.187
21	Total Tetra-Furans	25.94	1.485e4	1.669e4	9.295e2	1.240e3	0.75	NO	2.169e3	0.30270	0.30270	0.187
22	Total Tetra-Furans	26.39	3.816e4	1.884e4	2.922e3	1.589e3	1.84	YES	0.000e0	0.00000	0.39238	0.187
23	Total Tetra-Furans	26.56	9.402e4	1.281e5	6.320e3	8.333e3	0.76	NO	1.465e4	2.0447	2.0447	0.187
24	Total Tetra-Furans	26.72	9.685e4	1.155e5	6.735e3	7.782e3	0.87	NO	1.452e4	2.0258	2.0258	0.187
25	Total Tetra-Furans	27.02	9.966e5	1.092e6	6.904e4	7.368e4	0.94	YES	0.000e0	0.00000	18.198	0.187

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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	27.01	3.611e6	2.253e6	2.450e5	1.548e5	1.58	NO	3.998e5	65.173	65.173	0.0394

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Printed: Thursday, April 02, 2020 11:06:35 AM Pacific Daylight Time

Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.56	2.793e5	1.707e5	1.898e4	1.149e4	1.65	NO	3.047e4	4.9674	4.9674	0.406
2	Total Penta-Furans	28.71	7.840e6	5.092e6	5.316e5	3.378e5	1.57	NO	8.694e5	141.72	141.72	0.406
3	Total Penta-Furans	29.14	3.003e4	2.854e4	2.124e3	1.651e3	1.29	YES	0.000e0	0.00000	0.56970	0.406
4	Total Penta-Furans	29.34	6.991e5	4.415e5	5.776e4	3.555e4	1.62	NO	9.331e4	15.211	15.211	0.406
5	Total Penta-Furans	29.57	2.063e6	1.300e6	1.147e5	7.251e4	1.58	NO	1.872e5	30.525	30.525	0.406
6	1,2,3,7,8-PeCDF	29.75	1.463e7	9.414e6	9.029e5	5.820e5	1.55	NO	1.485e6	232.02	232.02	0.409
7	Total Penta-Furans	30.04	7.141e6	4.530e6	3.761e5	2.370e5	1.59	NO	6.131e5	99.943	99.943	0.406
8	Total Penta-Furans	30.35	2.376e4	1.451e4	1.204e3	7.260e2	1.66	NO	1.930e3	0.31470	0.31470	0.406
9	Total Penta-Furans	30.55	3.904e4	2.690e4	1.681e3	1.182e3	1.42	NO	2.863e3	0.46670	0.46670	0.406
10	Total Penta-Furans	30.67	1.243e5	9.302e4	5.791e3	4.160e3	1.39	NO	9.951e3	1.6222	1.6222	0.406
11	2,3,4,7,8-PeCDF	30.79	8.066e6	5.088e6	5.216e5	3.343e5	1.56	NO	8.559e5	139.45	139.45	0.385
12	Total Penta-Furans	31.08	2.658e4	1.636e4	1.953e3	1.060e3	1.84	YES	0.000e0	0.00000	0.44048	0.406
13	Total Penta-Furans	31.75	4.549e5	2.807e5	2.621e4	1.668e4	1.57	NO	4.289e4	6.9916	6.9916	0.406

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.47	1.210e6	1.014e6	6.481e4	5.391e4	1.20	NO	1.187e5	23.187	23.187	0.339
2	Total Hexa-Furans	32.65	4.601e6	3.688e6	2.343e5	1.906e5	1.23	NO	4.249e5	82.984	82.984	0.339
3	Total Hexa-Furans	32.79	2.339e4	1.786e4	1.197e3	1.041e3	1.15	NO	2.237e3	0.43695	0.43695	0.339
4	Total Hexa-Furans	33.01	8.195e4	7.616e4	3.937e3	3.635e3	1.08	NO	7.572e3	1.4789	1.4789	0.339
5	Total Hexa-Furans	33.20	5.995e6	4.799e6	2.966e5	2.414e5	1.23	NO	5.380e5	105.07	105.07	0.339
6	Total Hexa-Furans	33.42	1.980e4	1.528e4	1.073e3	8.163e2	1.31	NO	1.889e3	0.36898	0.36898	0.339
7	Total Hexa-Furans	33.55	2.253e5	1.914e5	1.042e4	8.501e3	1.23	NO	1.892e4	3.6944	3.6944	0.339
8	1,2,3,4,7,8-HxCDF	33.66	1.910e7	1.567e7	9.118e5	7.531e5	1.21	NO	1.665e6	335.00	335.00	0.319
9	1,2,3,6,7,8-HxCDF	33.78	5.164e6	4.272e6	3.188e5	2.616e5	1.22	NO	5.805e5	109.40	109.40	0.319
10	Total Hexa-Furans	34.04	1.398e5	1.246e5	7.337e3	6.821e3	1.08	NO	1.416e4	2.7650	2.7650	0.339
11	Total Hexa-Furans	34.14	2.809e4	2.924e4	1.693e3	2.023e3	0.84	YES	0.000e0	0.00000	0.59730	0.339
12	Total Hexa-Furans	34.27	4.120e4	4.092e4	1.513e3	1.702e3	0.89	YES	0.000e0	0.00000	0.53394	0.339
13	2,3,4,6,7,8-HxCDF	34.35	1.420e6	1.145e6	7.761e4	6.297e4	1.23	NO	1.406e5	28.361	28.361	0.348
14	1,2,3,7,8,9-HxCDF	35.25	1.637e6	1.327e6	4.486e4	3.794e4	1.18	NO	8.280e4	19.247	19.247	0.452
15	Total Hexa-Furans	35.26	1.703e6	1.402e6	6.736e4	5.399e4	1.25	NO	1.213e5	23.698	23.698	0.339

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-12.qld

Last Altered: Thursday, April 02, 2020 11:02:40 AM Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:06:35 AM Pacific Daylight Time

Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

Hepta-Furans

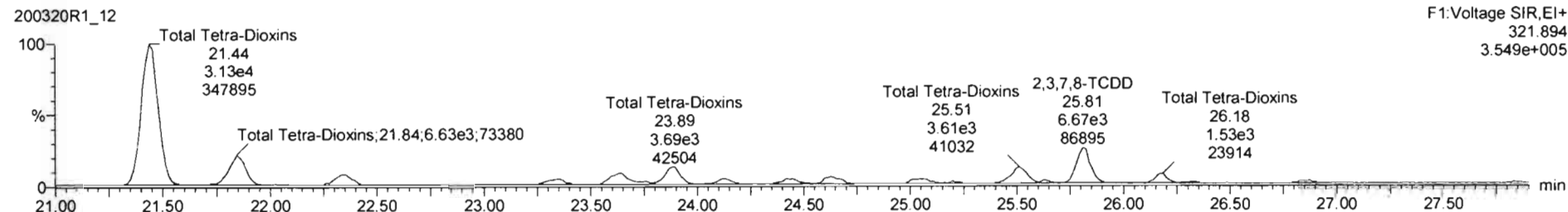
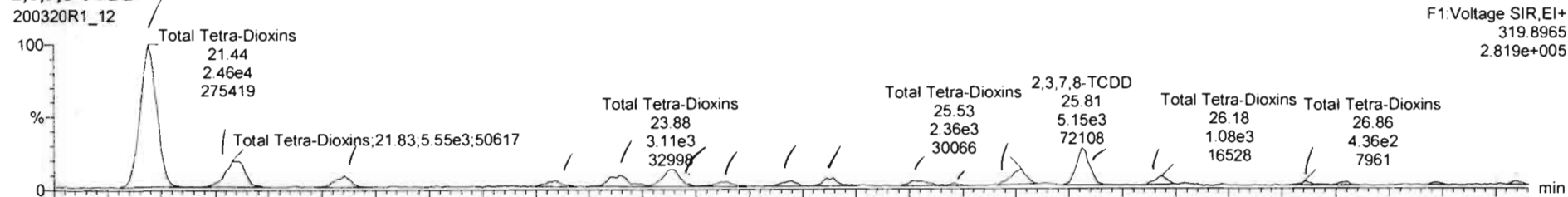
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	5.906e6	5.783e6	4.003e5	3.959e5	1.01	NO	7.962e5	224.68	224.68	0.349
2	Total Hepta-Furans	37.29	9.500e4	1.004e5	6.000e3	6.413e3	0.94	NO	1.241e4	4.0718	4.0718	0.412
3	Total Hepta-Furans	37.49	9.198e6	9.121e6	6.533e5	6.475e5	1.01	NO	1.301e6	426.68	426.68	0.412
4	1,2,3,4,7,8,9-HpCDF	38.97	1.423e6	1.380e6	9.569e4	9.255e4	1.03	NO	1.882e5	63.878	63.878	0.434

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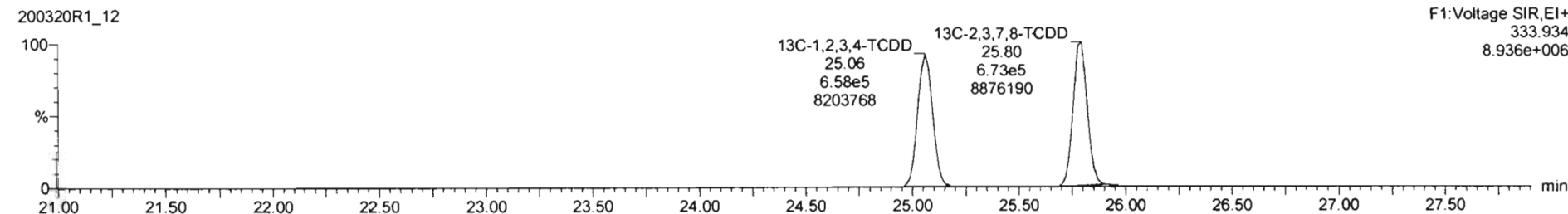
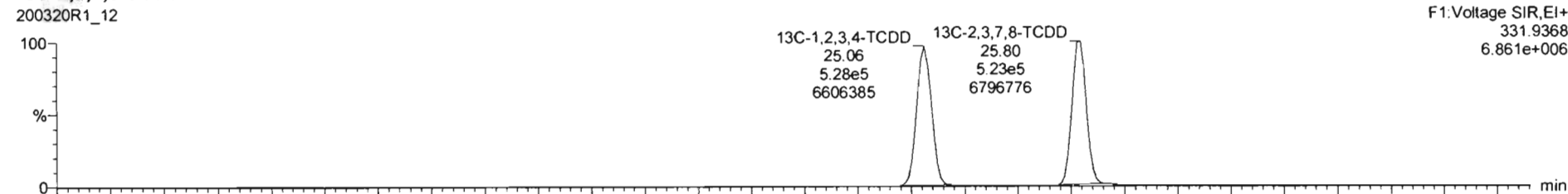
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

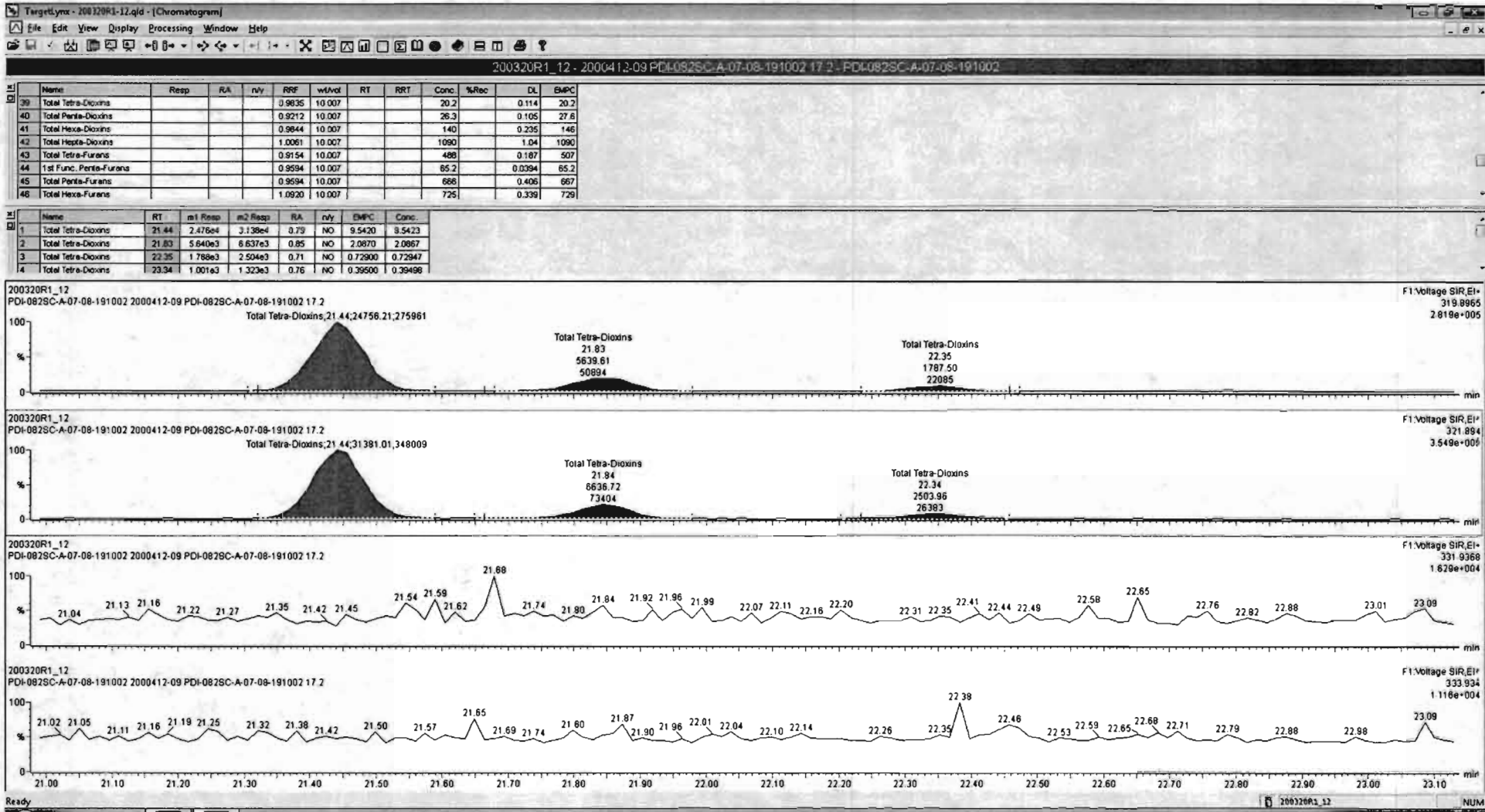
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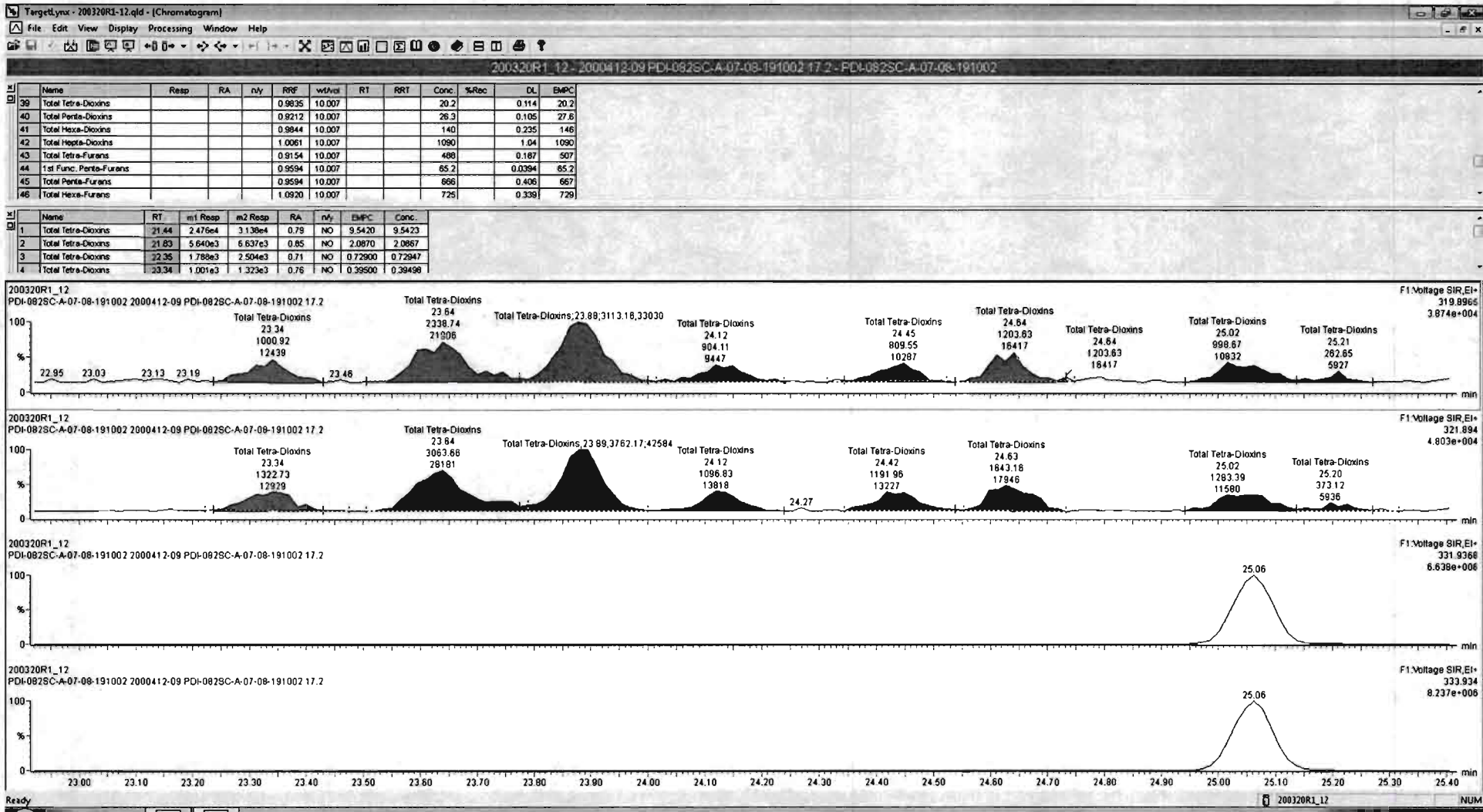
**2,3,7,8-TCDD**

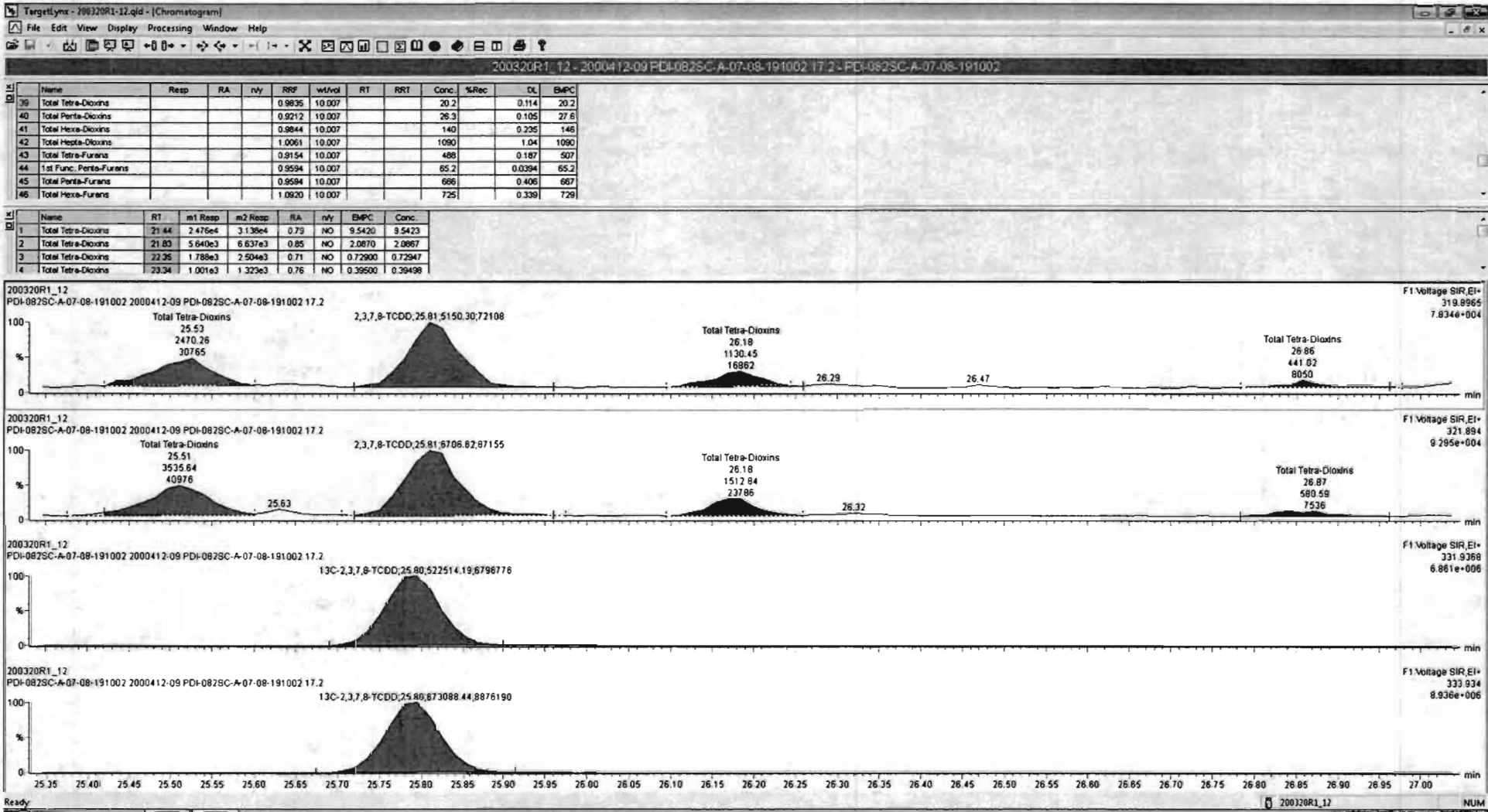


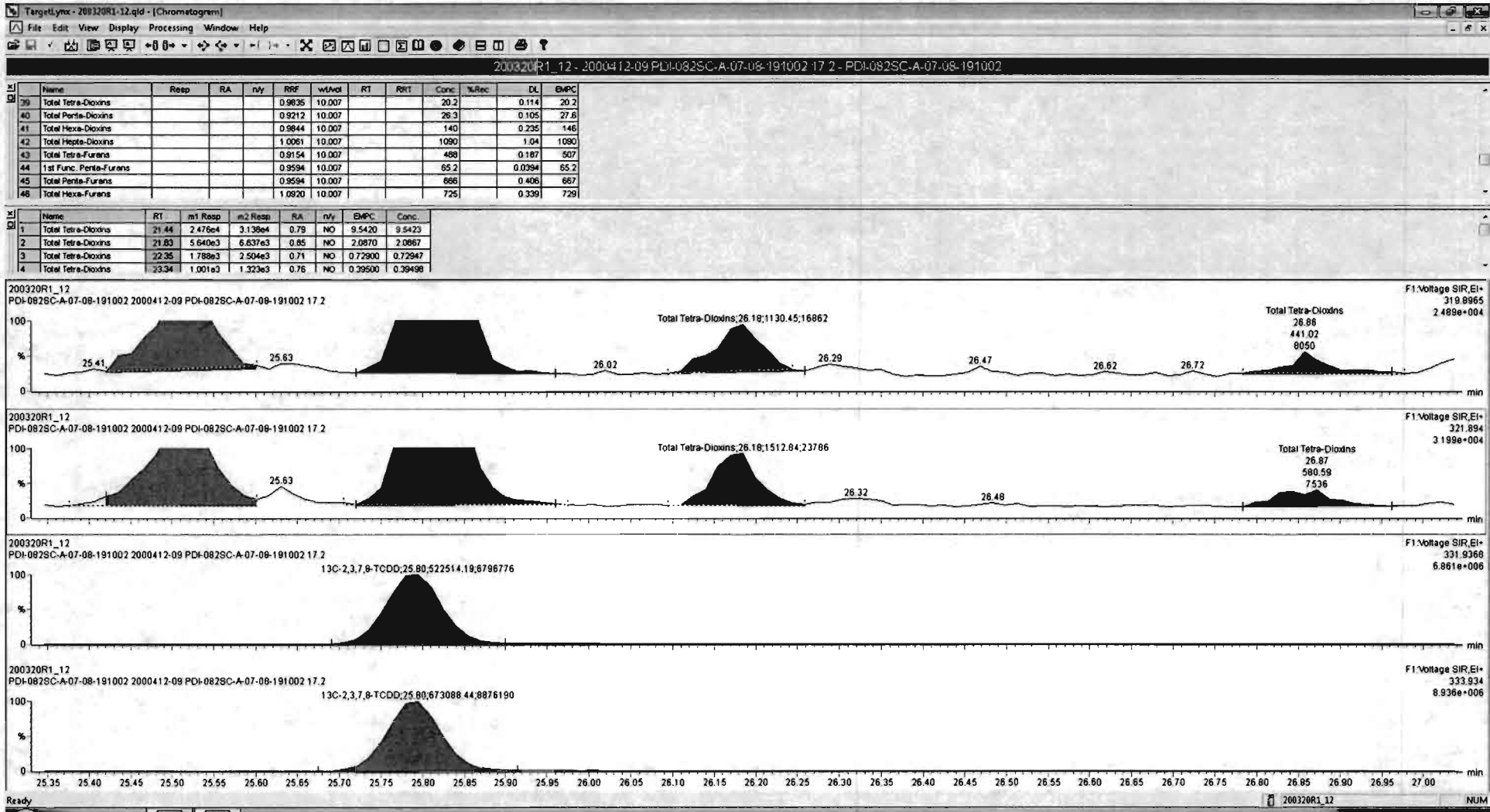
**13C-2,3,7,8-TCDD**













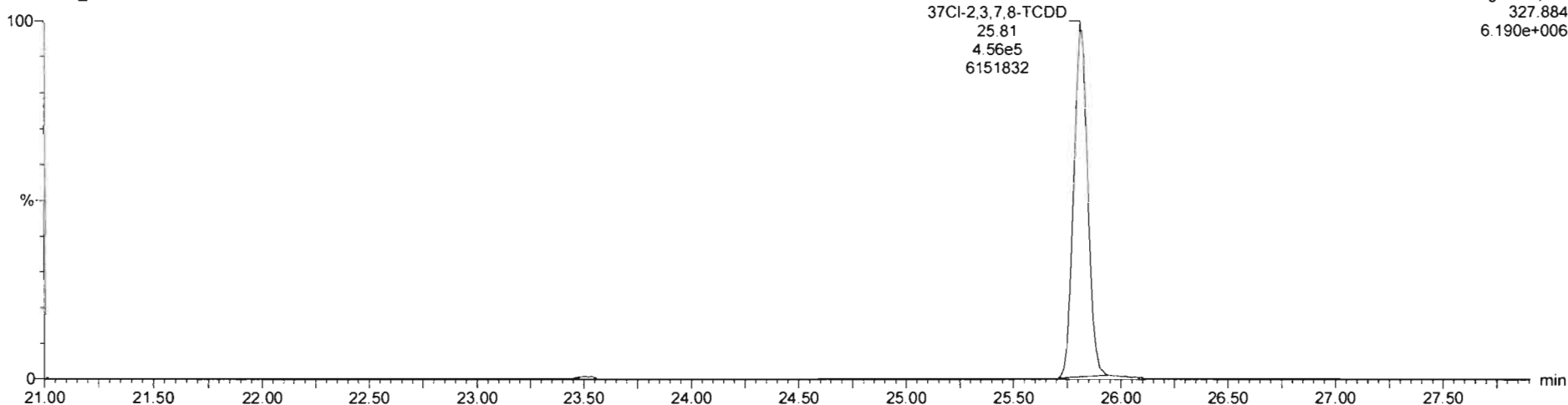
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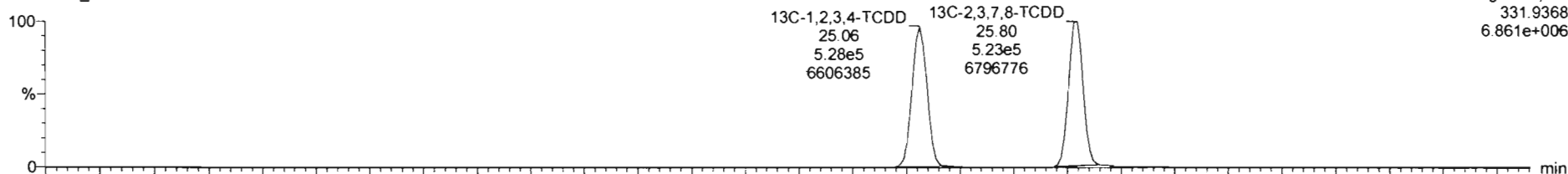
**37Cl-2,3,7,8-TCDD**

200320R1\_12

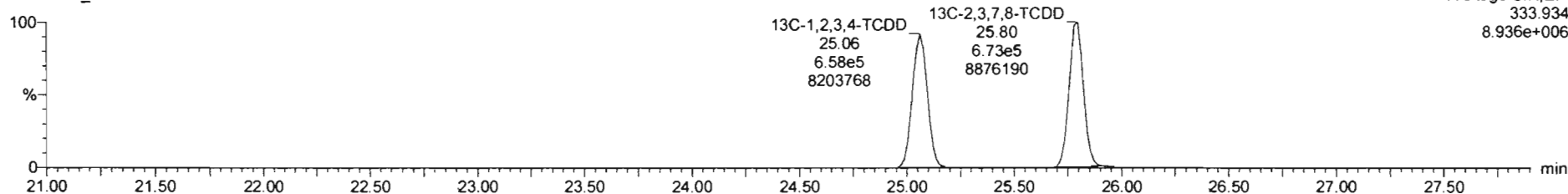


**13C-1,2,3,4-TCDD**

200320R1\_12



200320R1\_12



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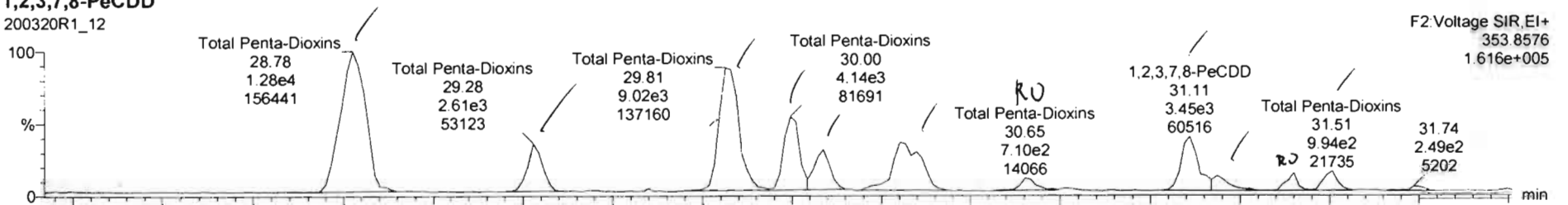
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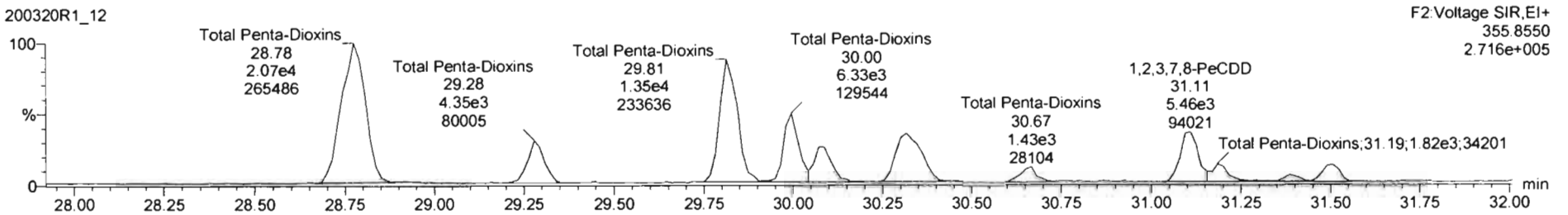
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1,2,3,7,8-PeCDD

200320R1\_12

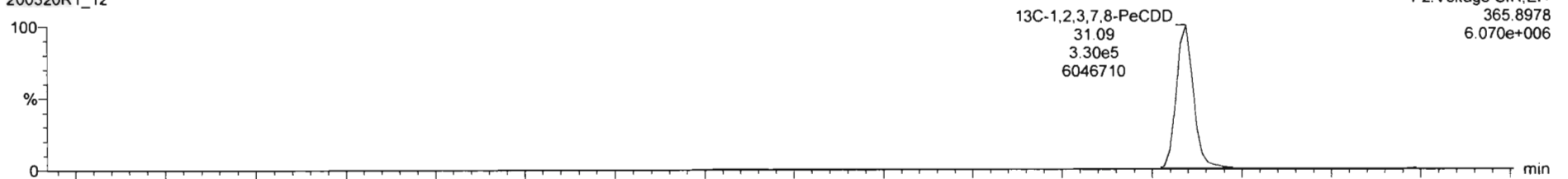


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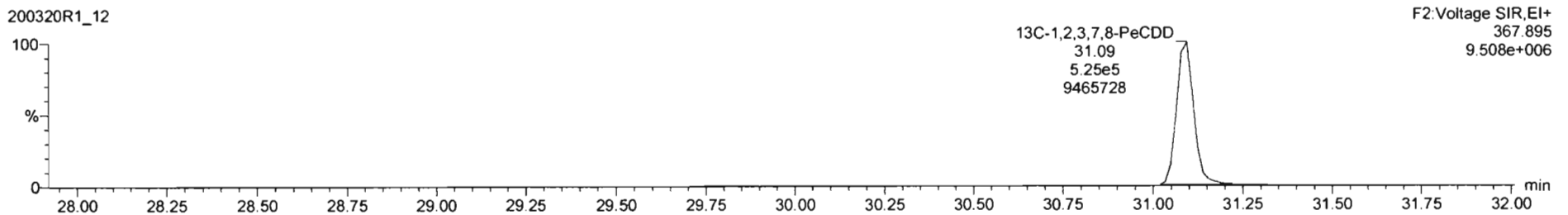


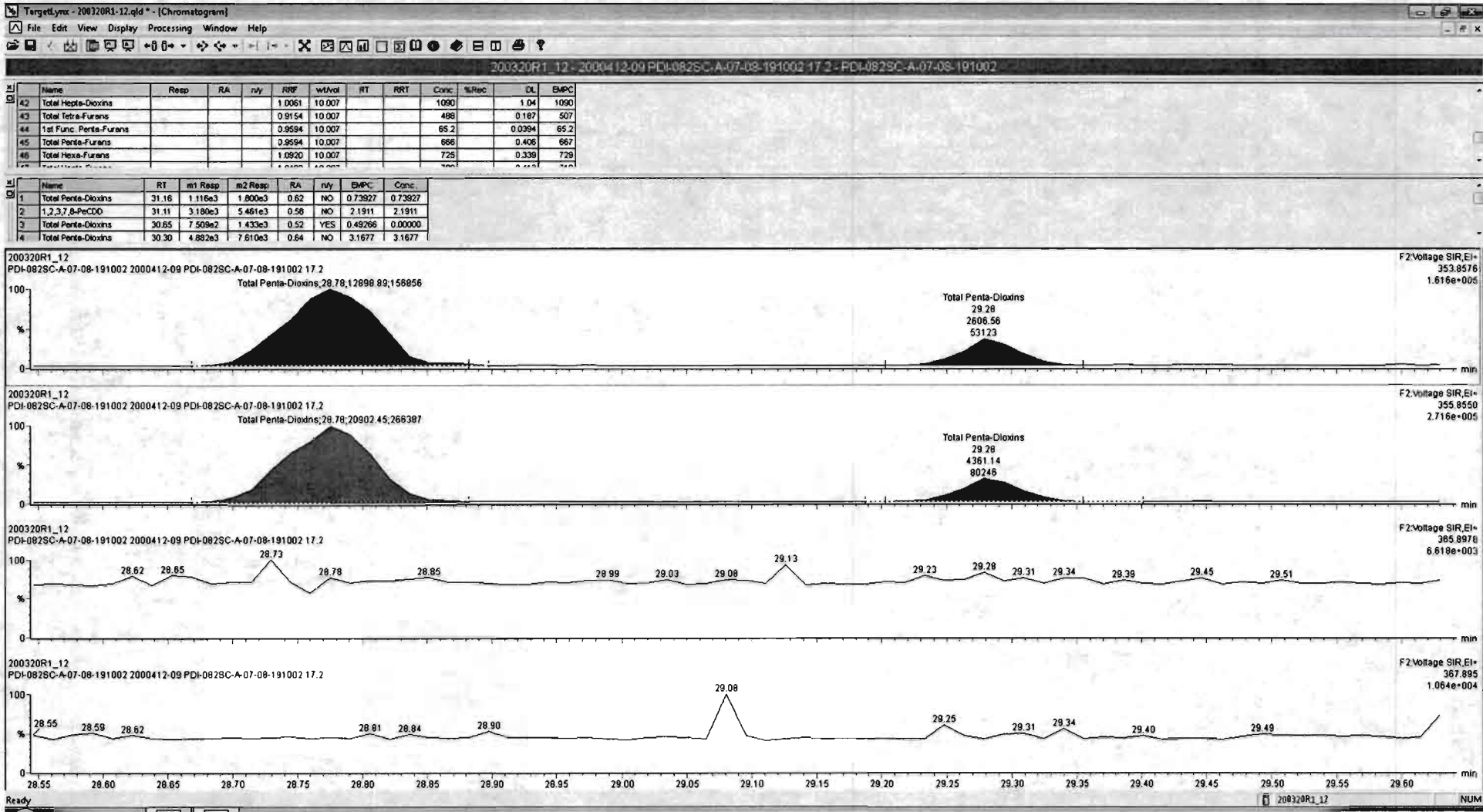
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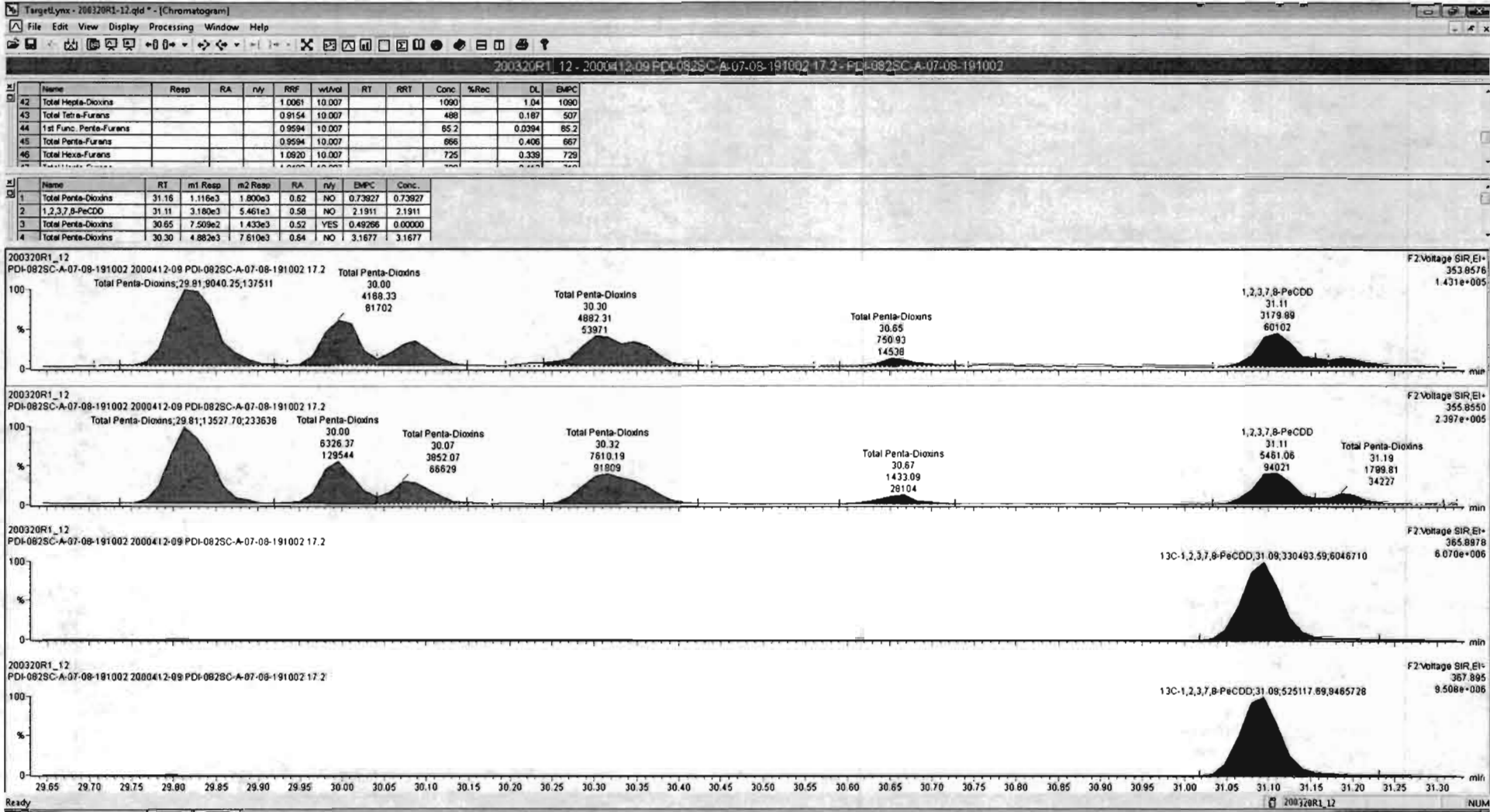
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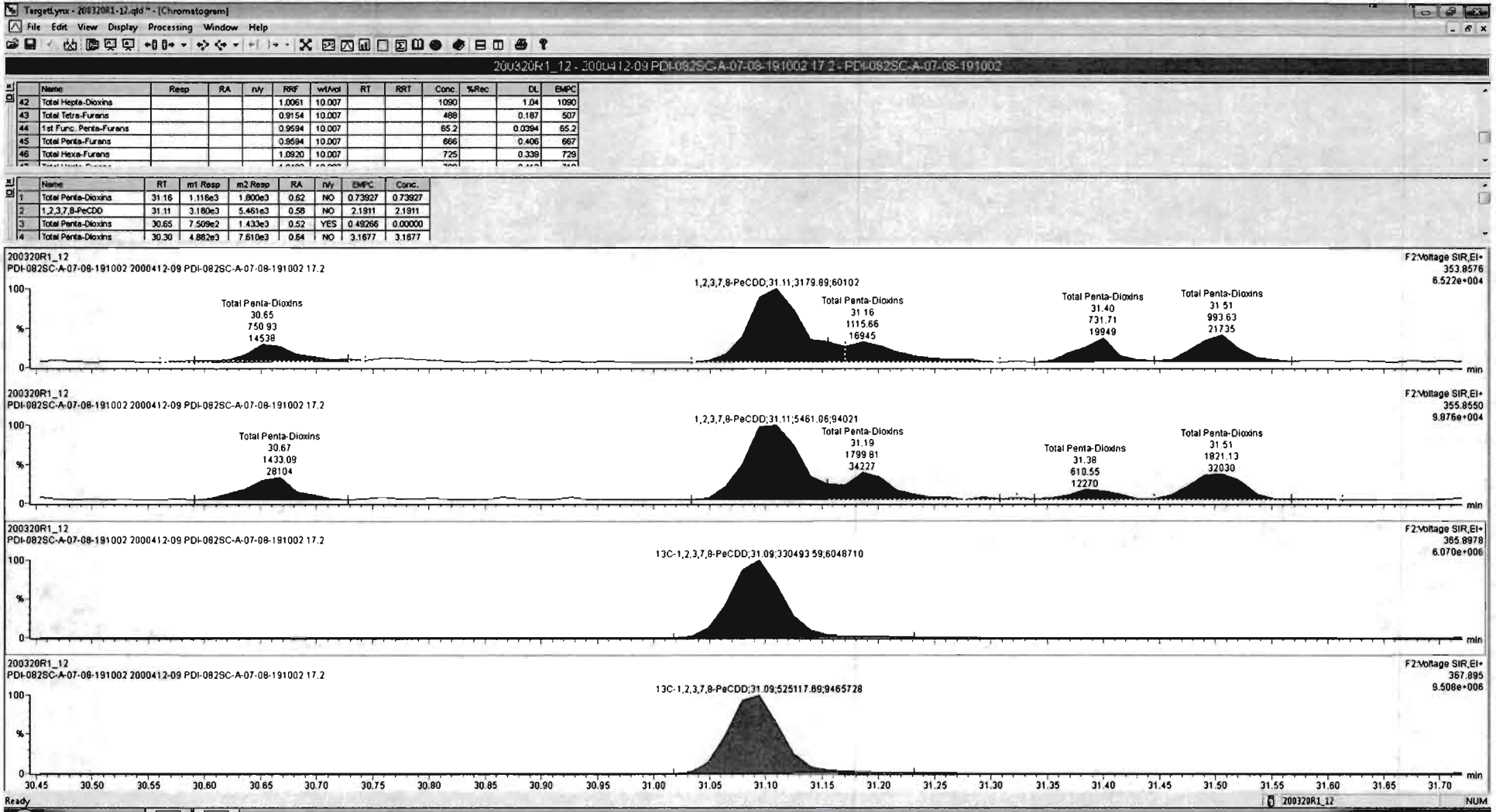


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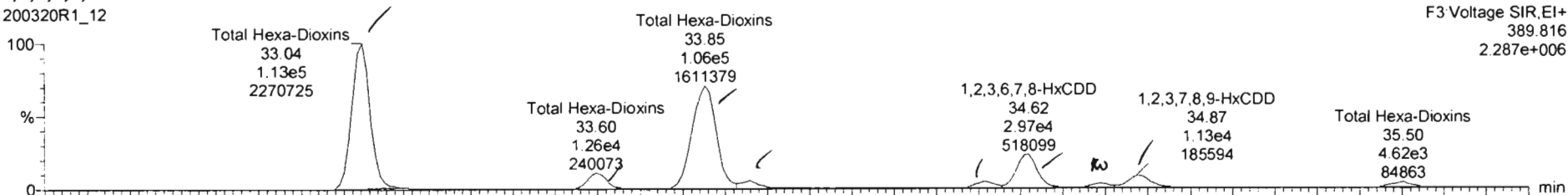
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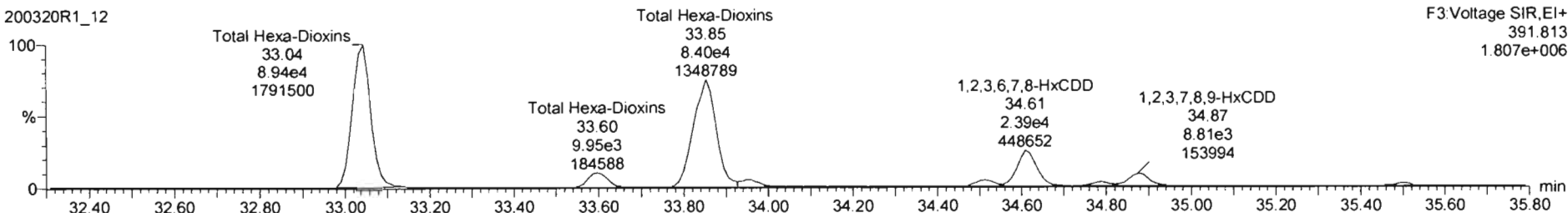
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1,2,3,4,7,8-HxCDD

200320R1\_12

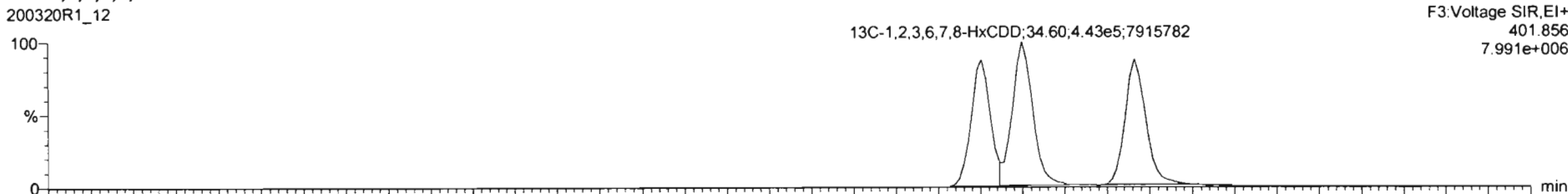


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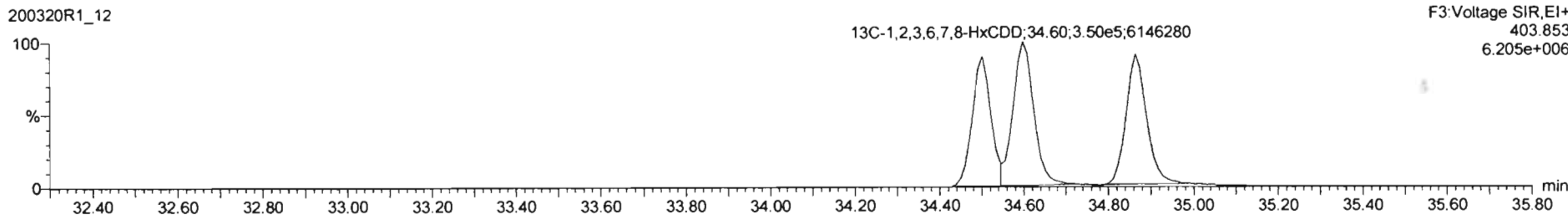


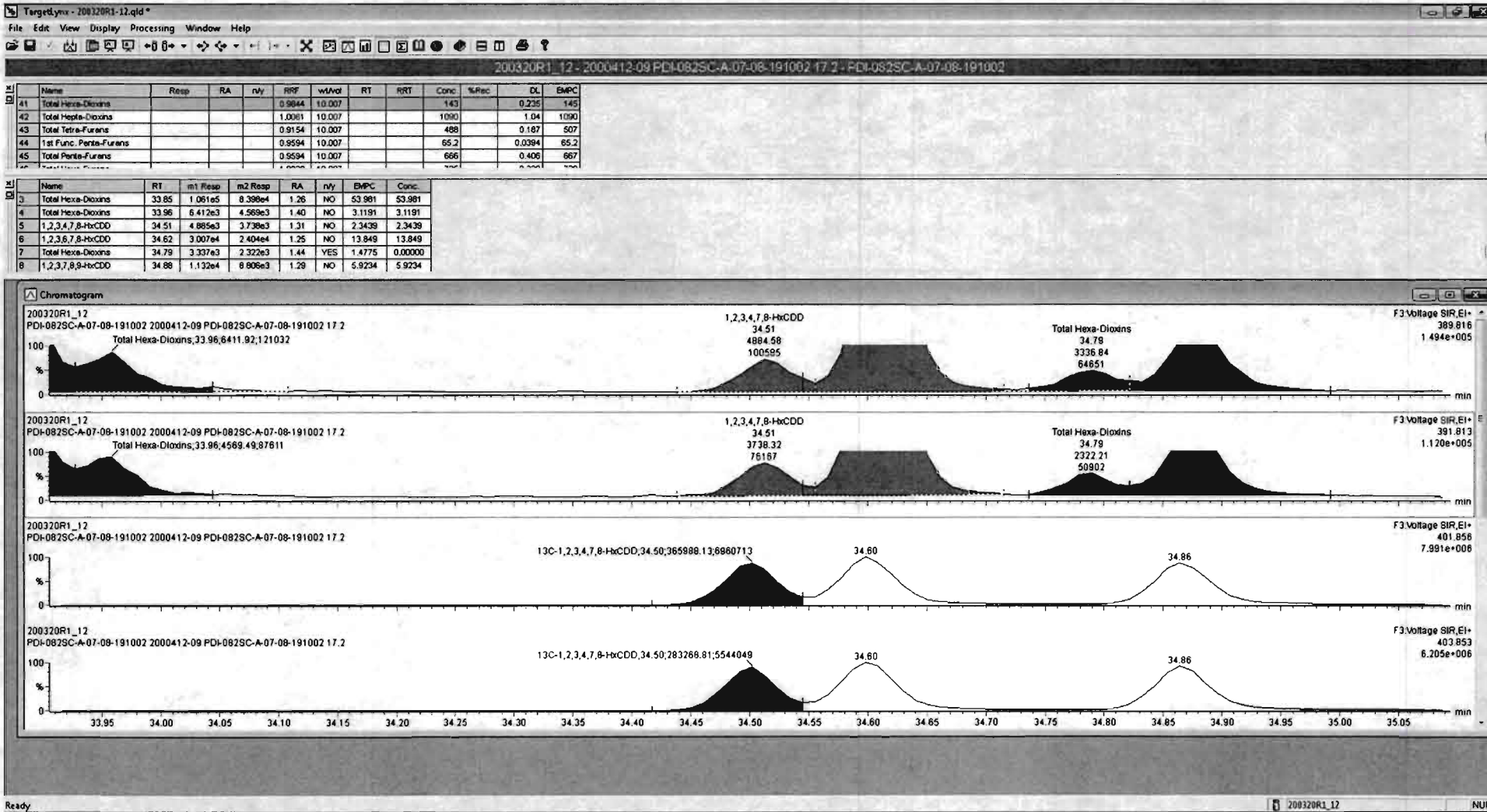
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200320R1\_12



200320R1\_12





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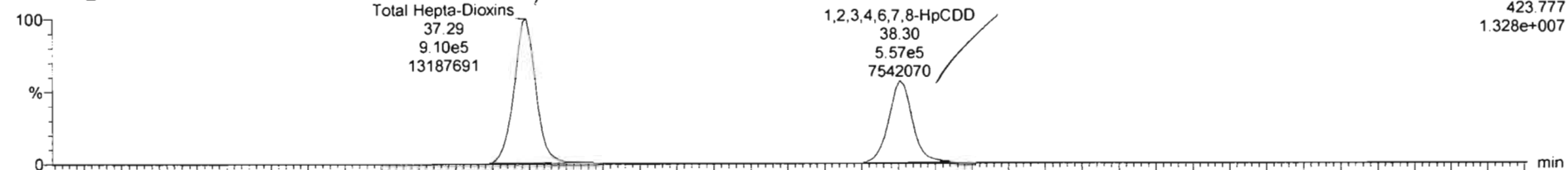
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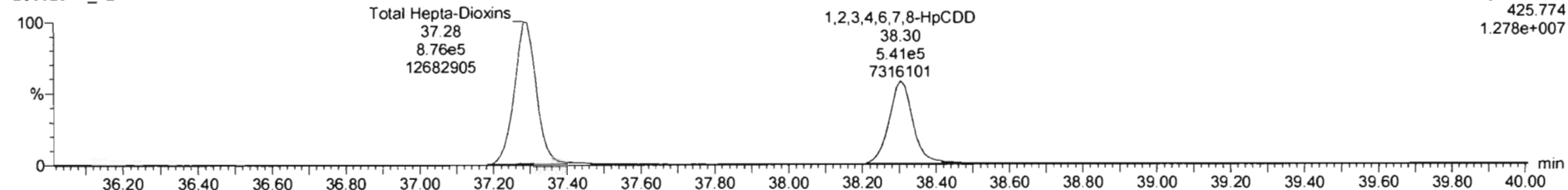
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1,2,3,4,6,7,8-HpCDD

200320R1\_12

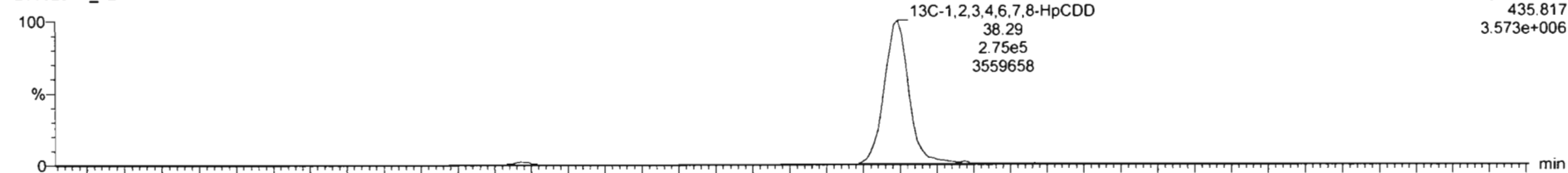


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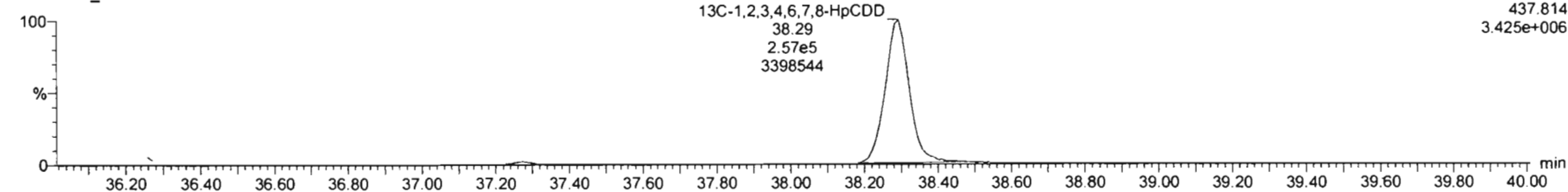


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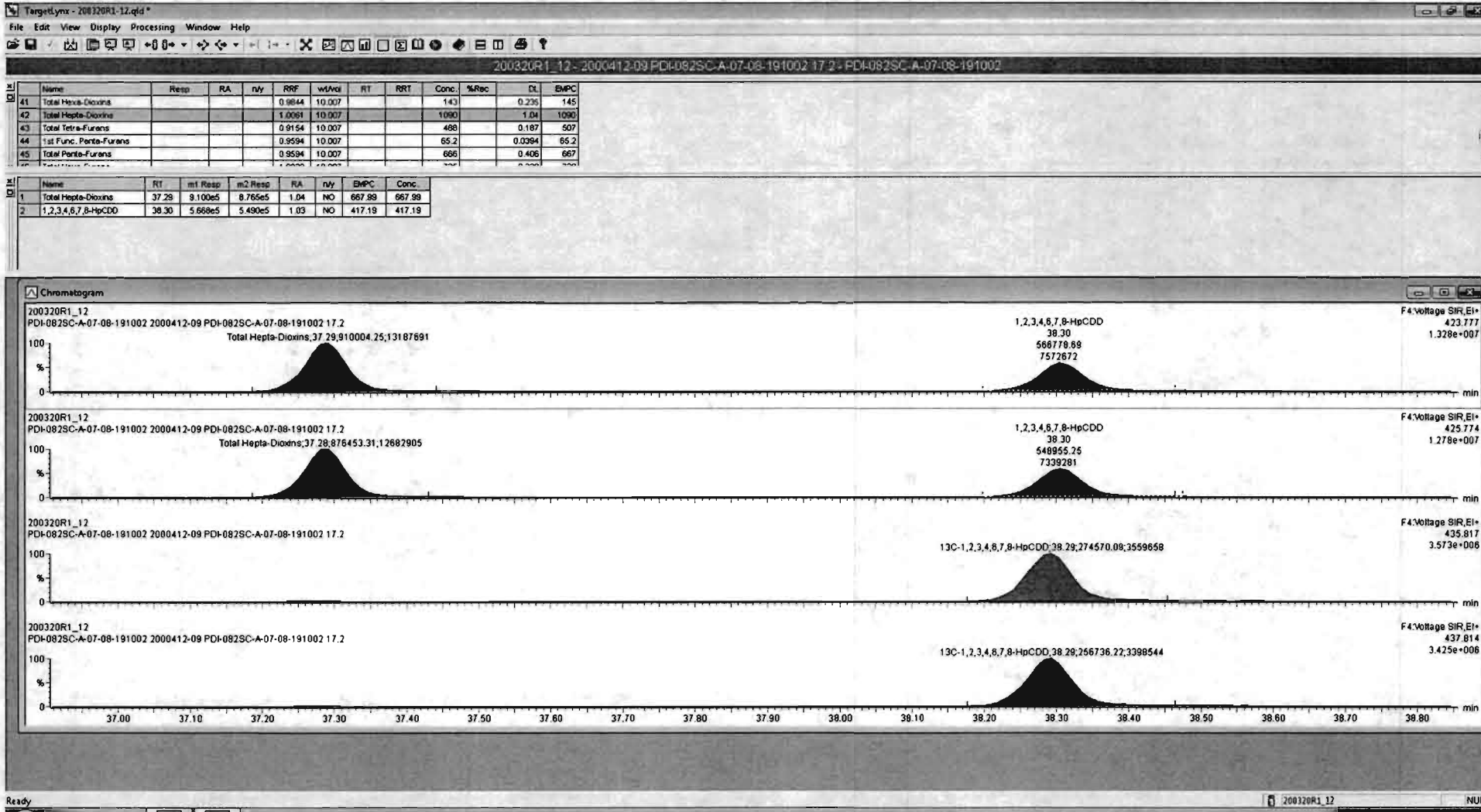
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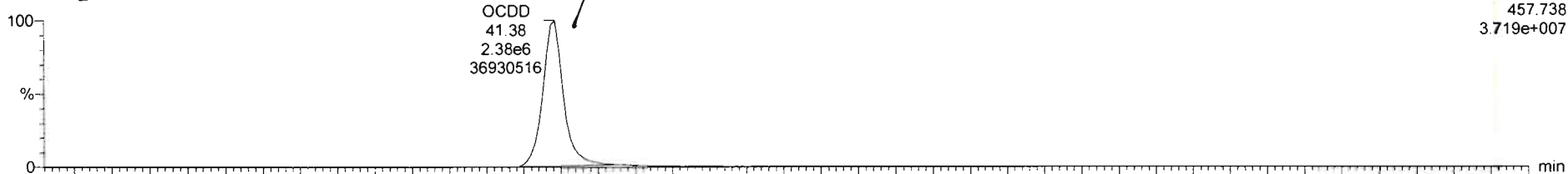
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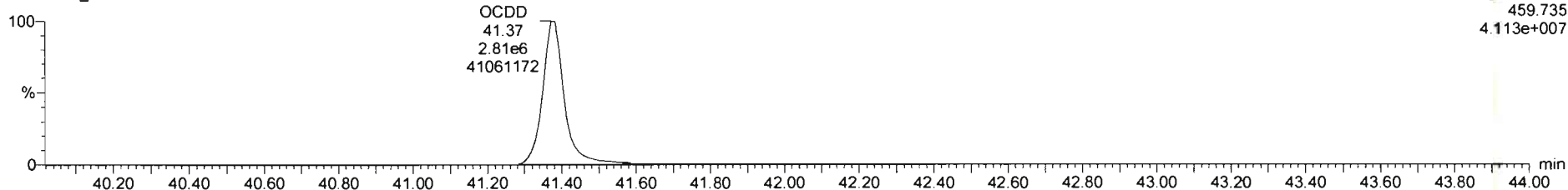
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OCDD

200320R1\_12

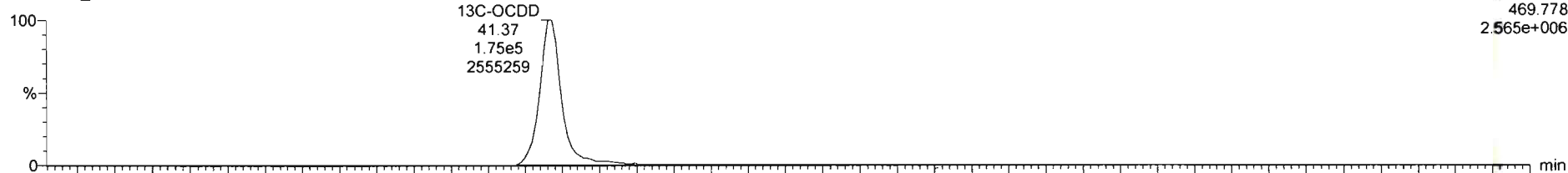


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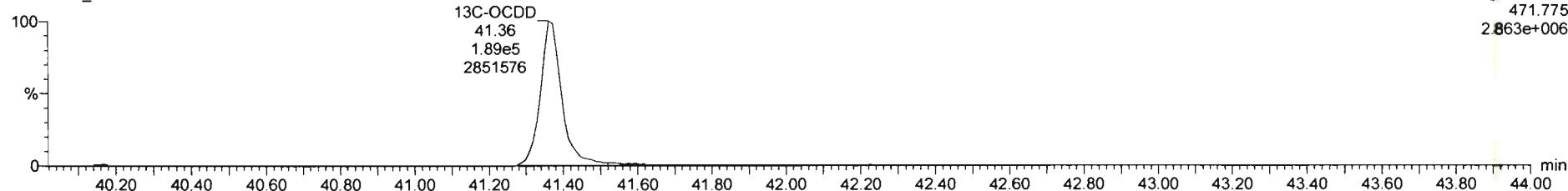


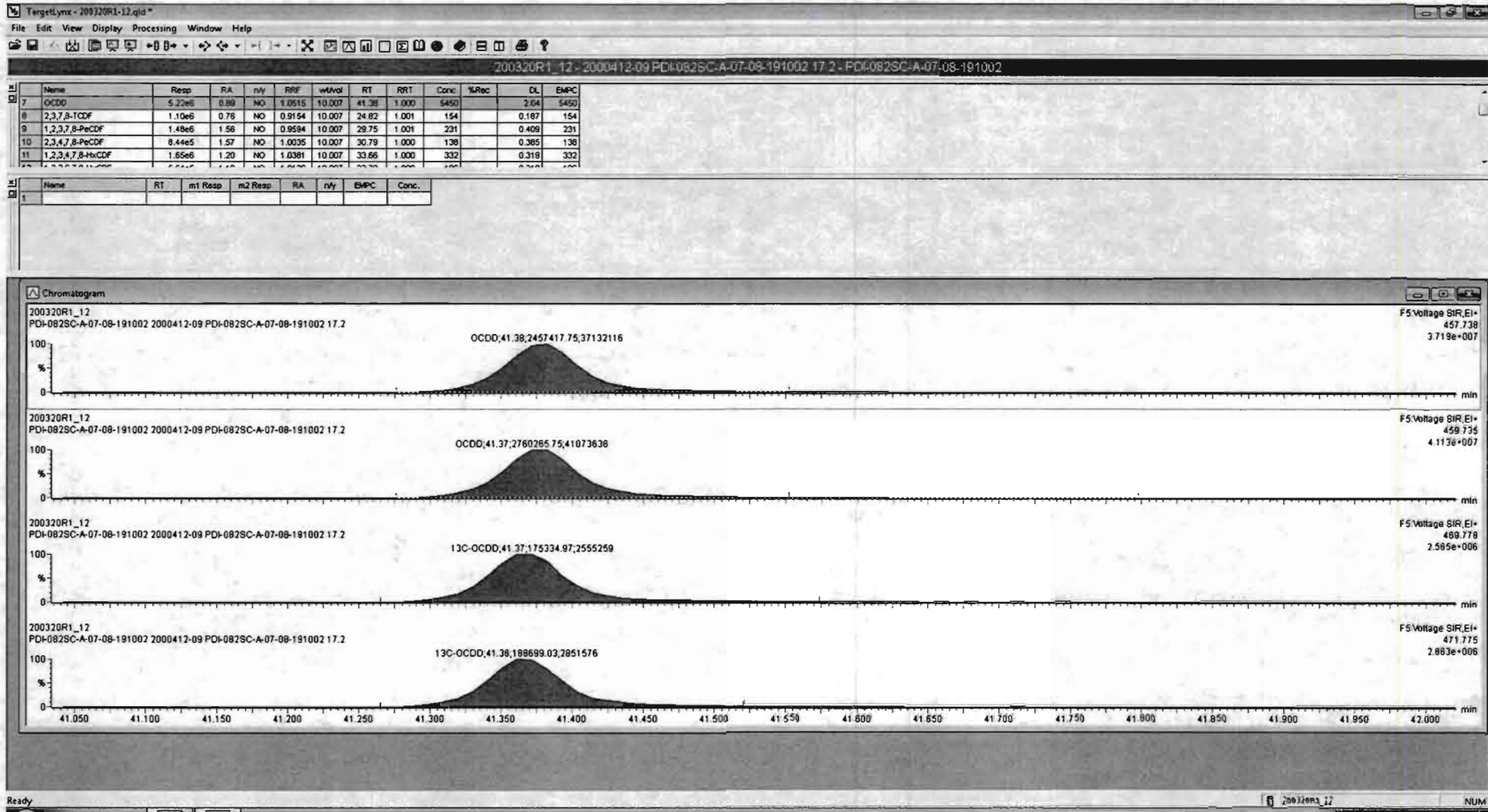
13C-OCDD

200320R1\_12



200320R1\_12





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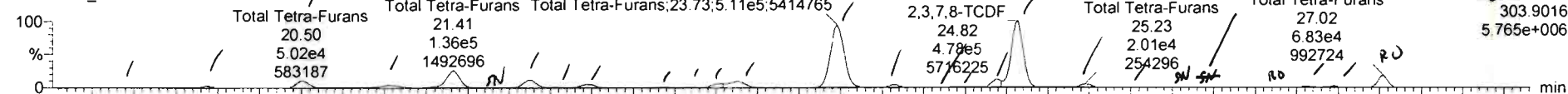
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Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

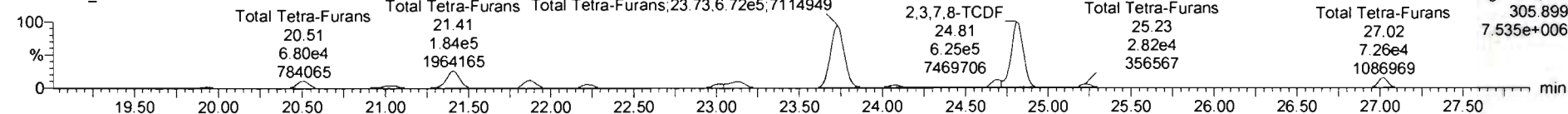
HN 03/21/2020

2,3,7,8-TCDF

200320R1\_12

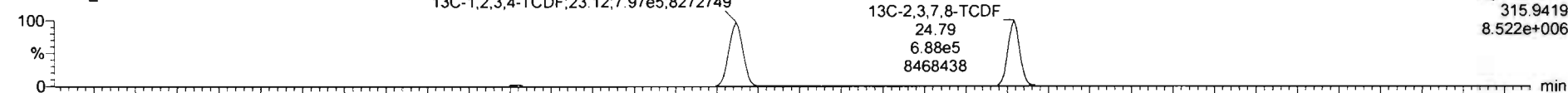


200320R1\_12

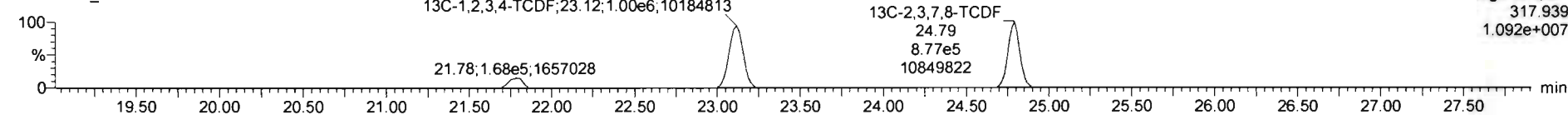


13C-2,3,7,8-TCDF

200320R1\_12

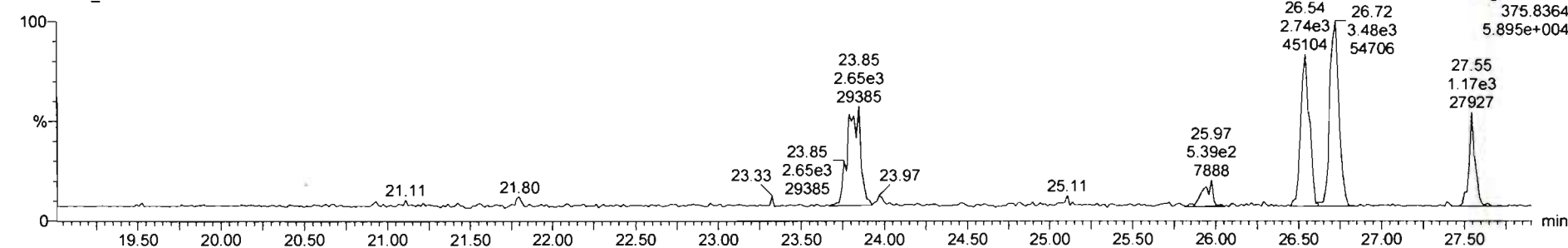


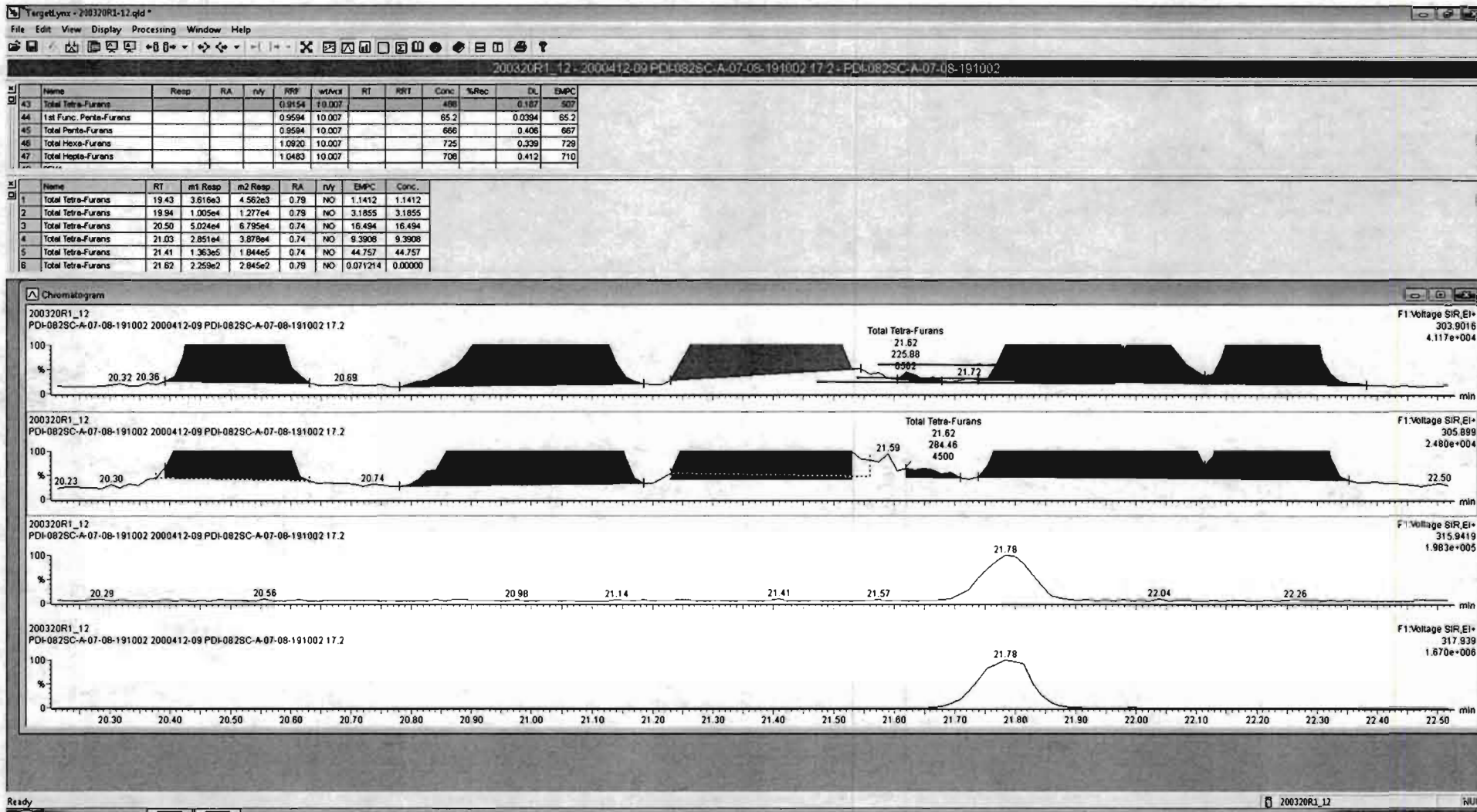
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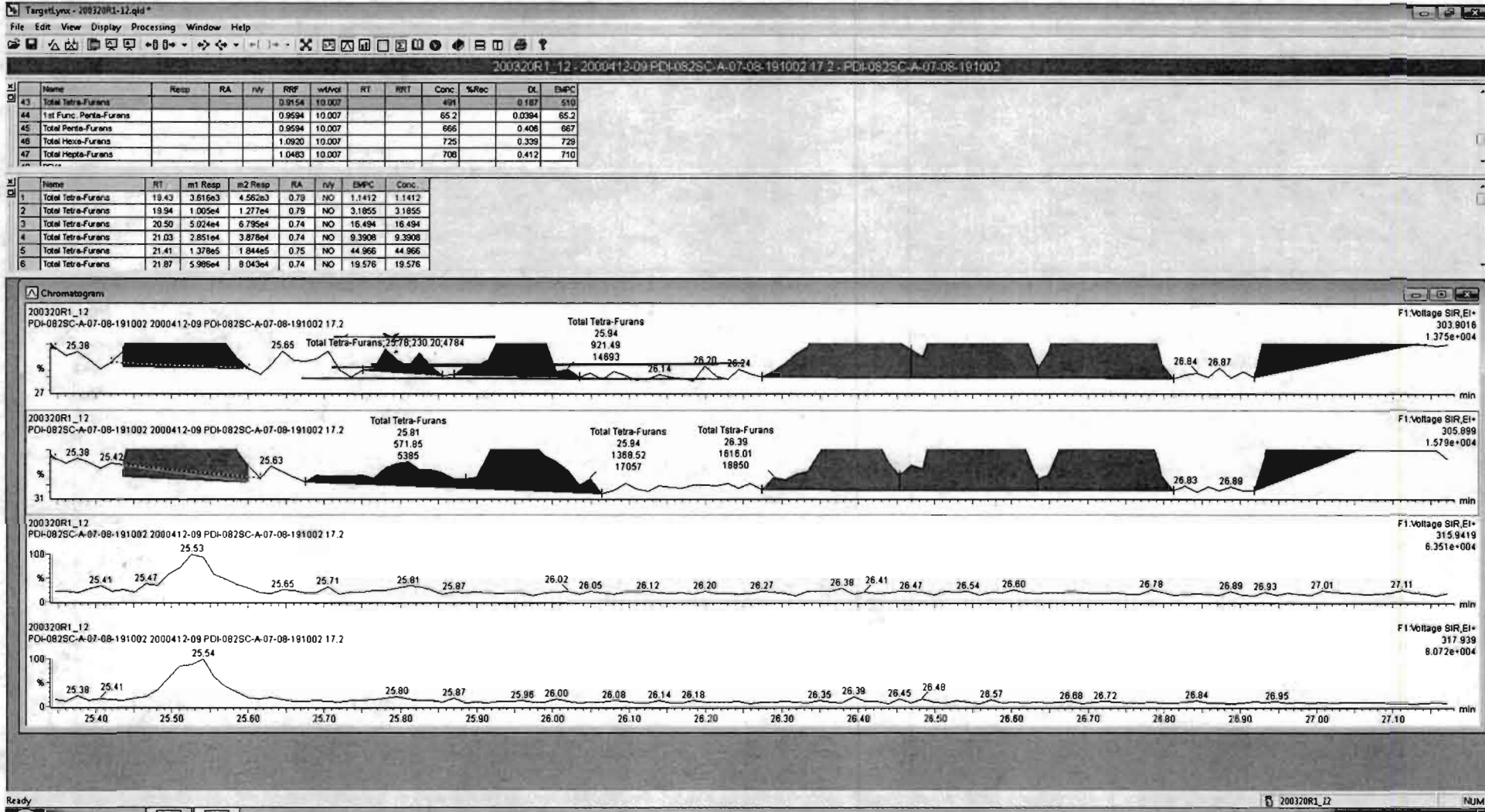


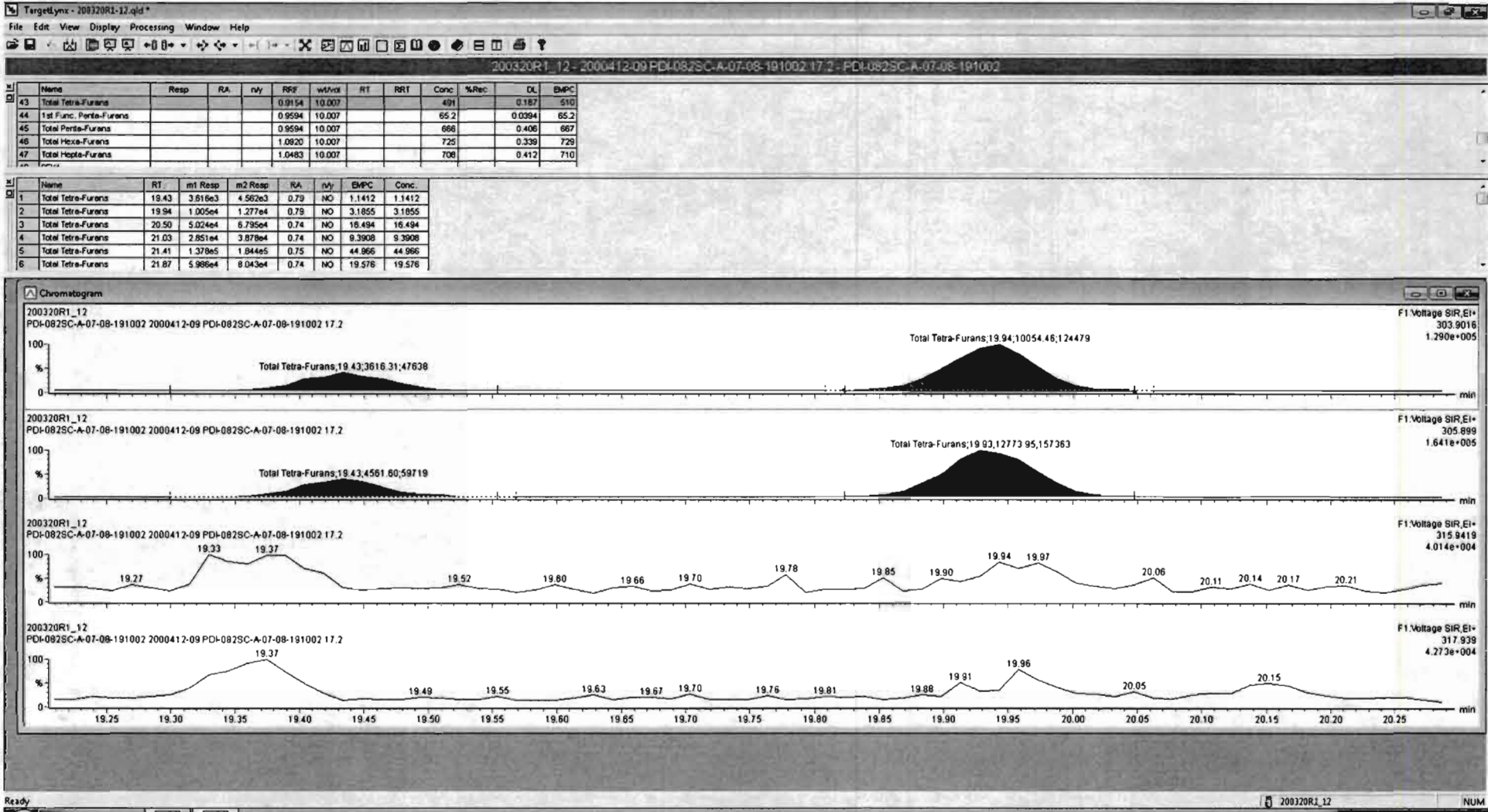
DPE1

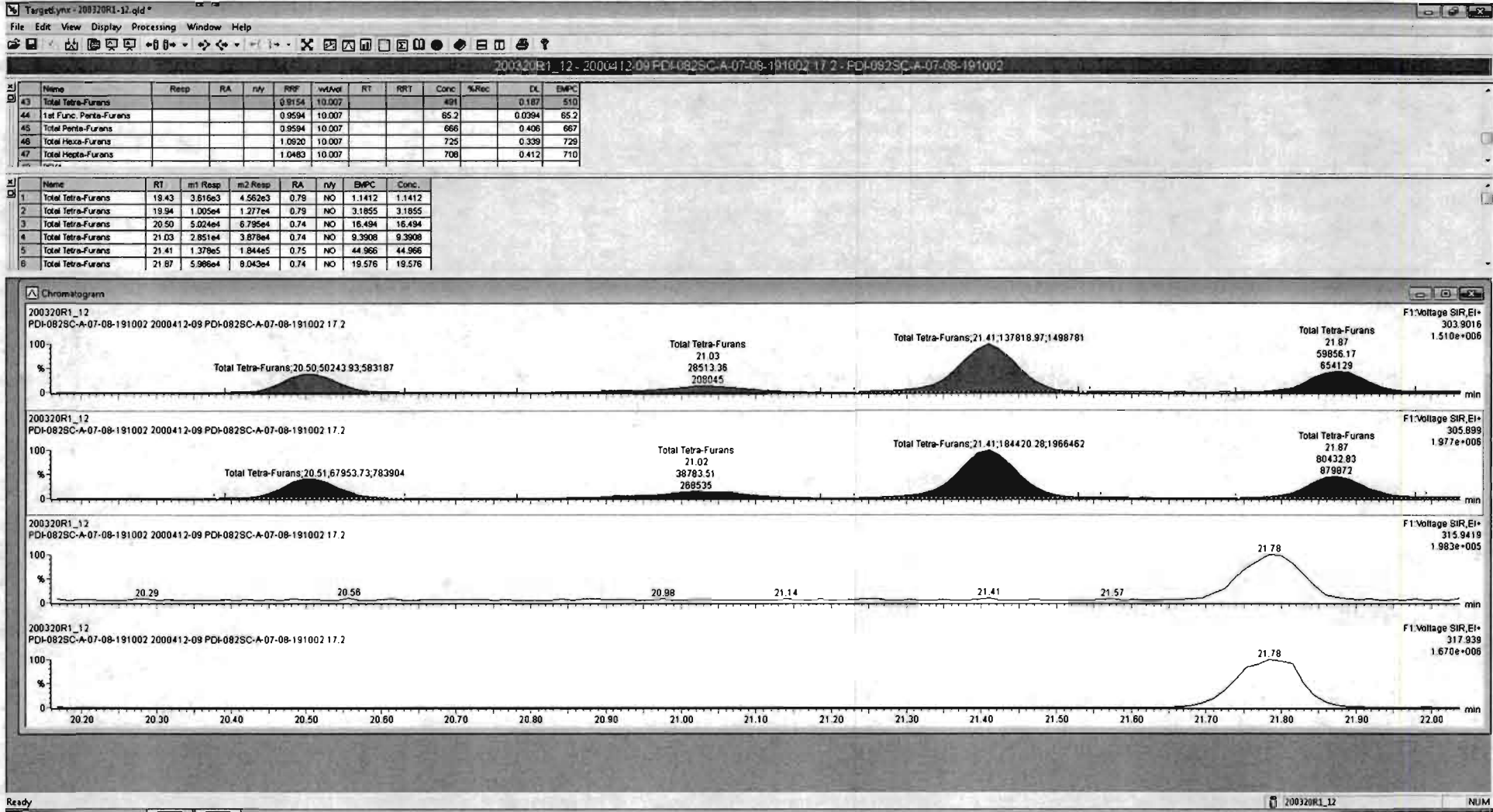
200320R1\_12



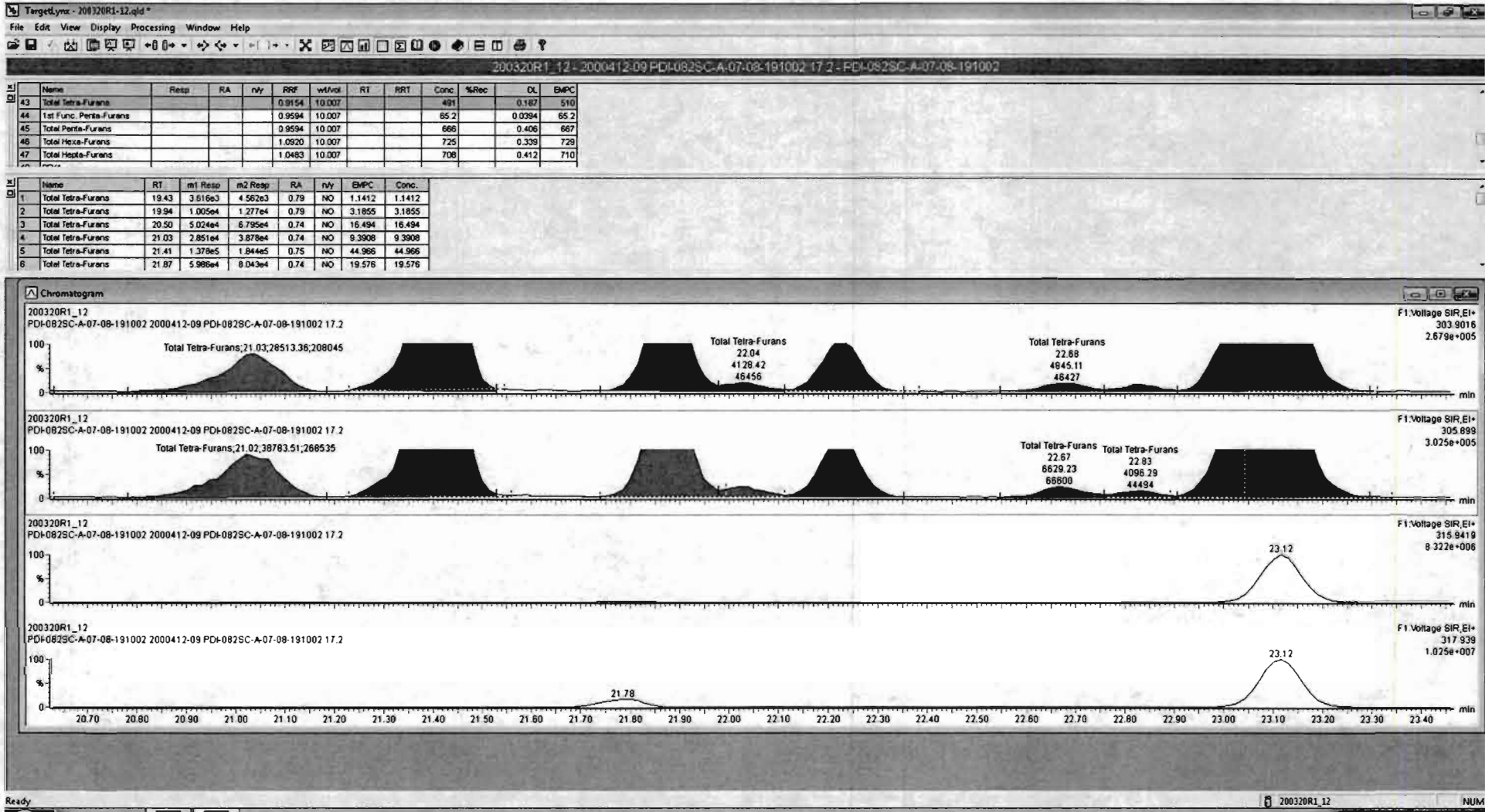


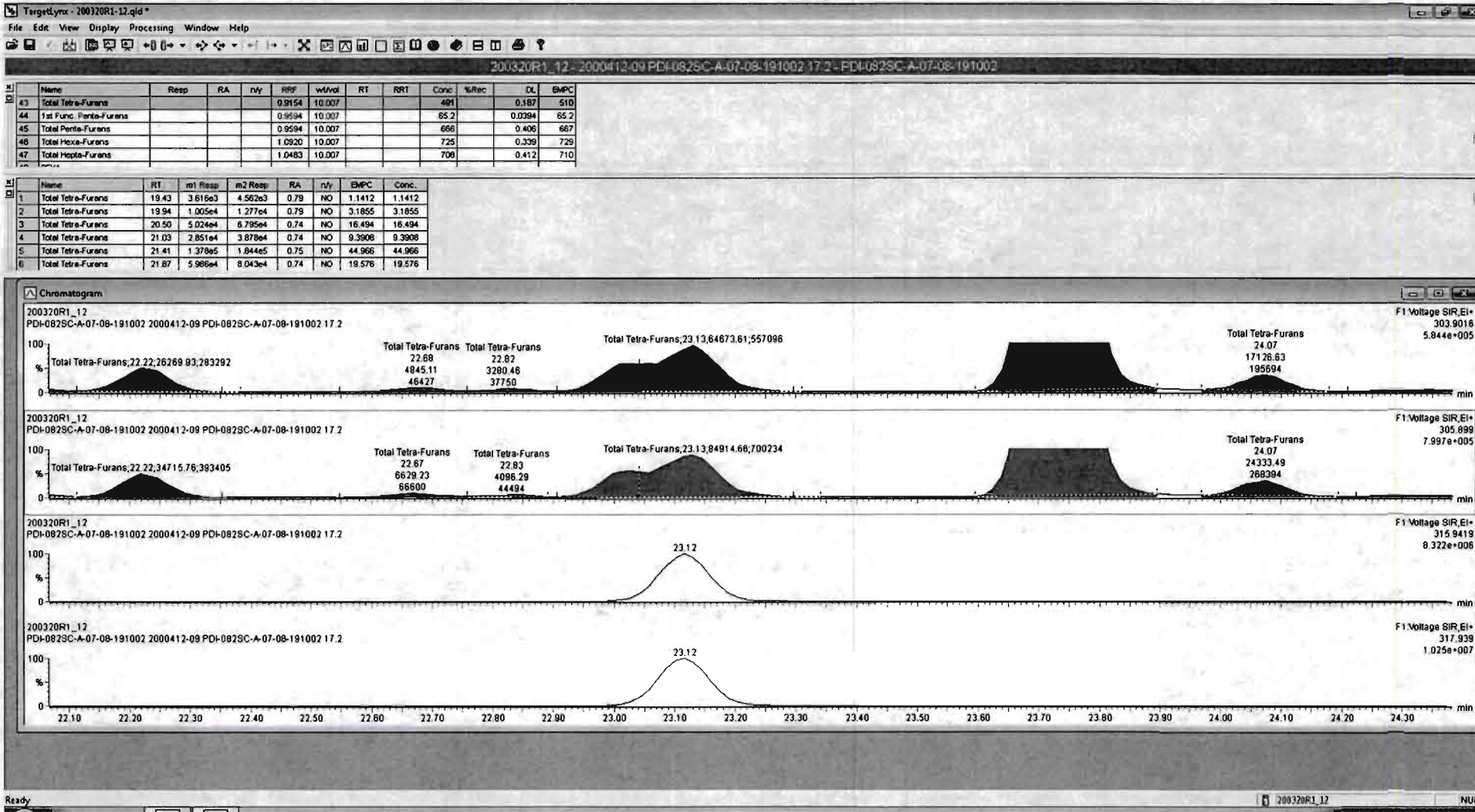


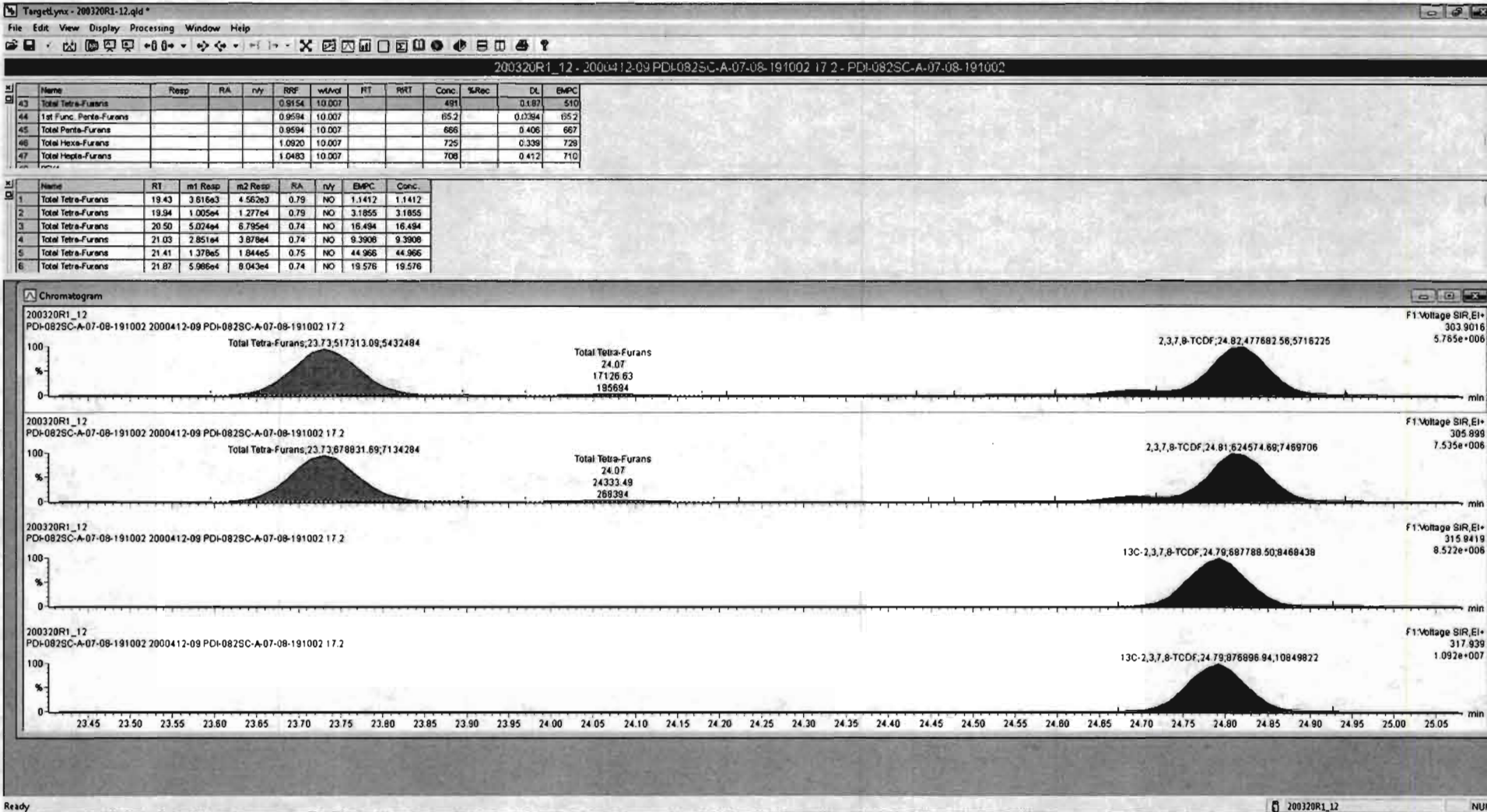








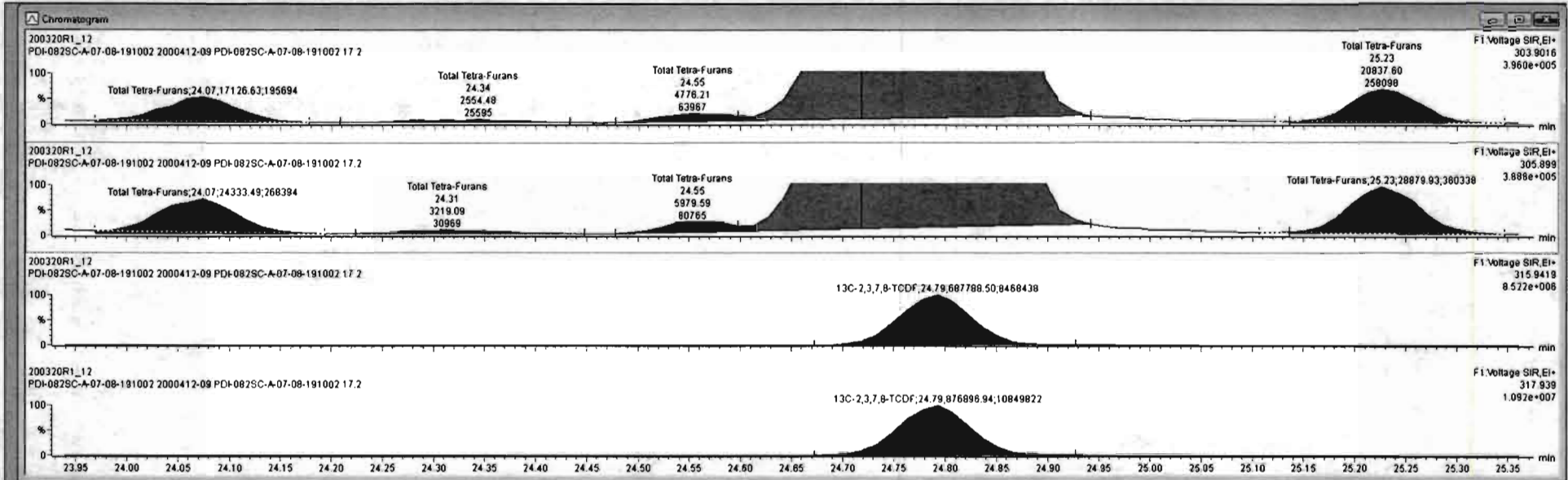


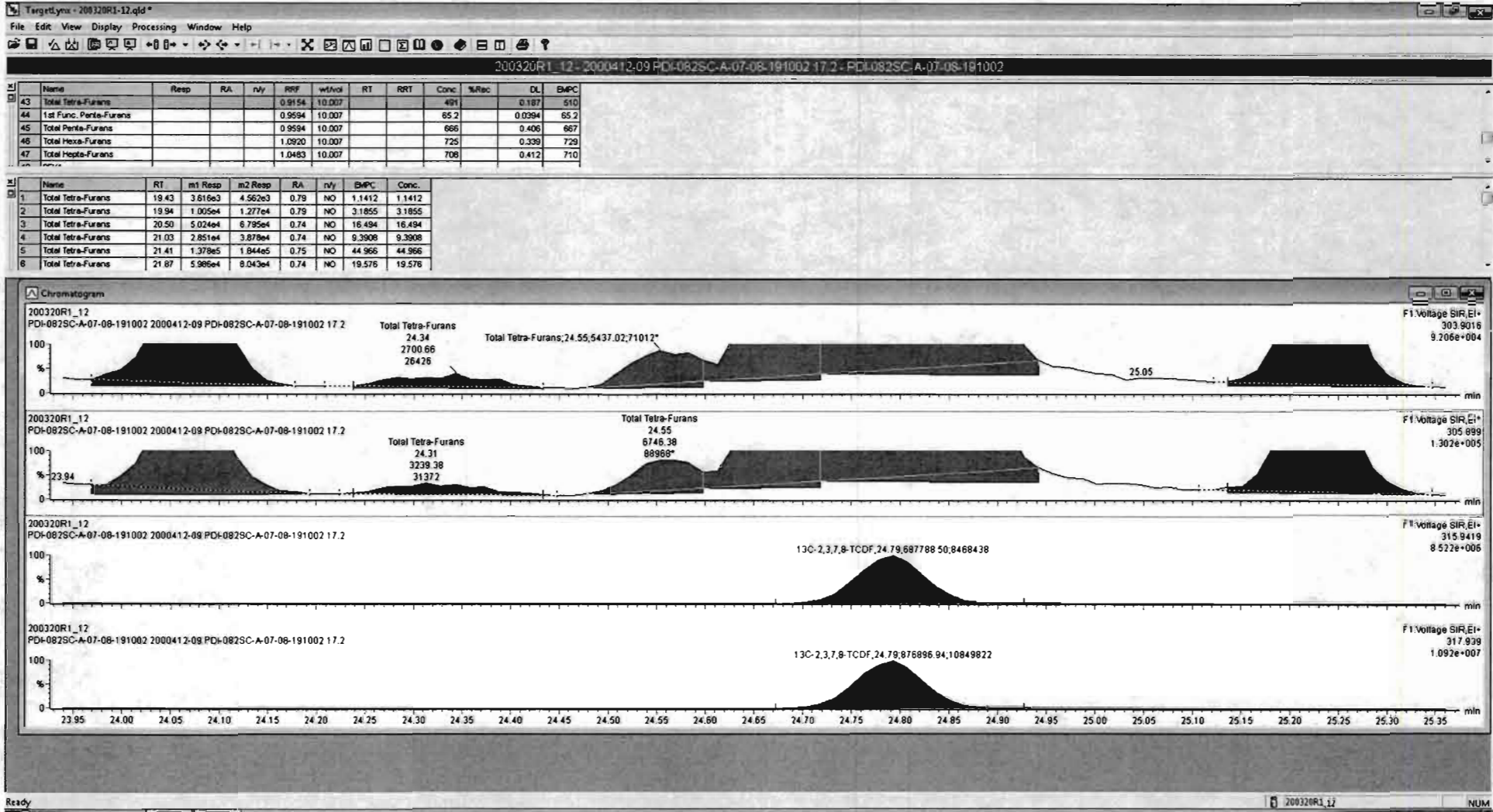


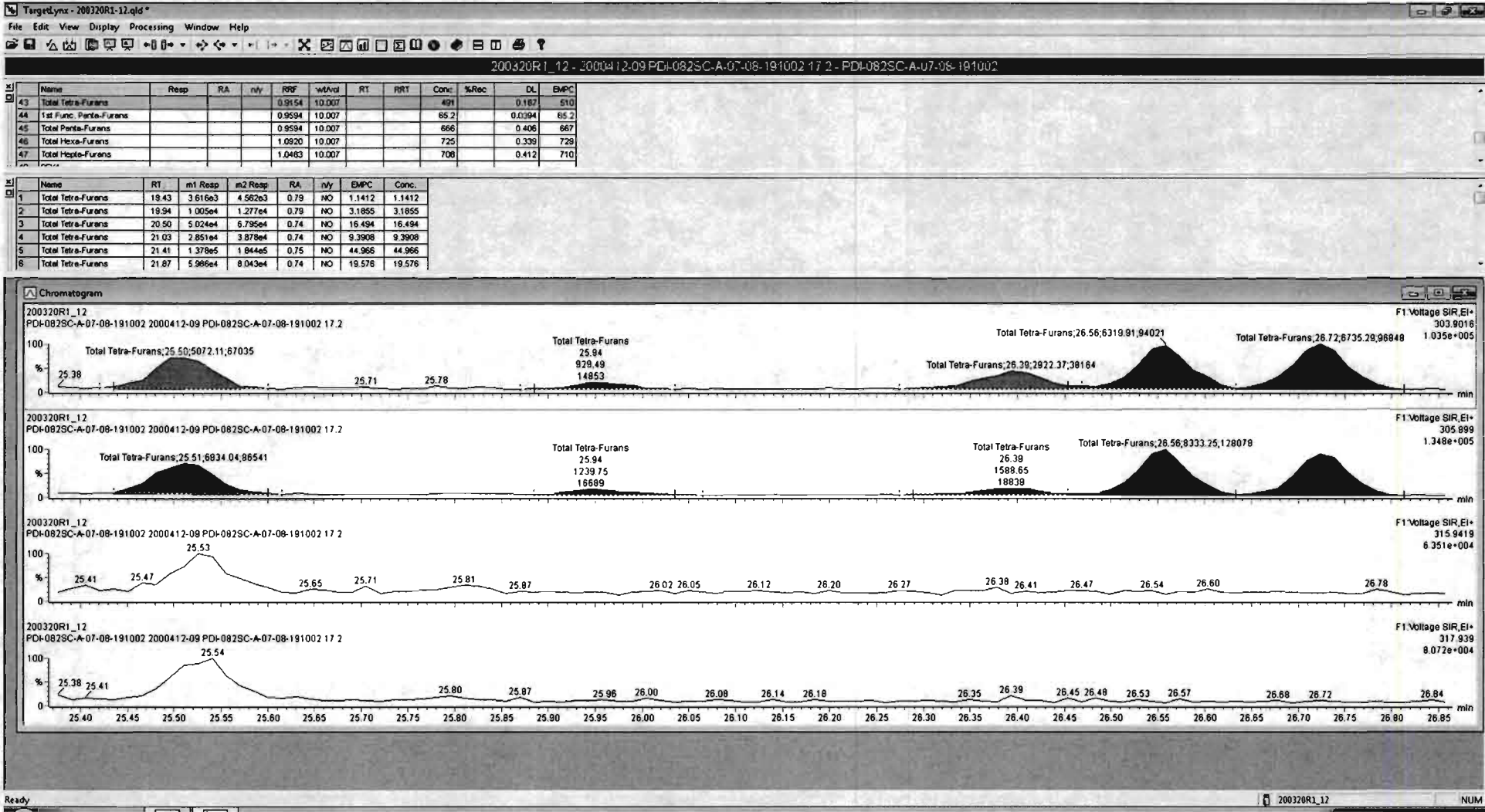
200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

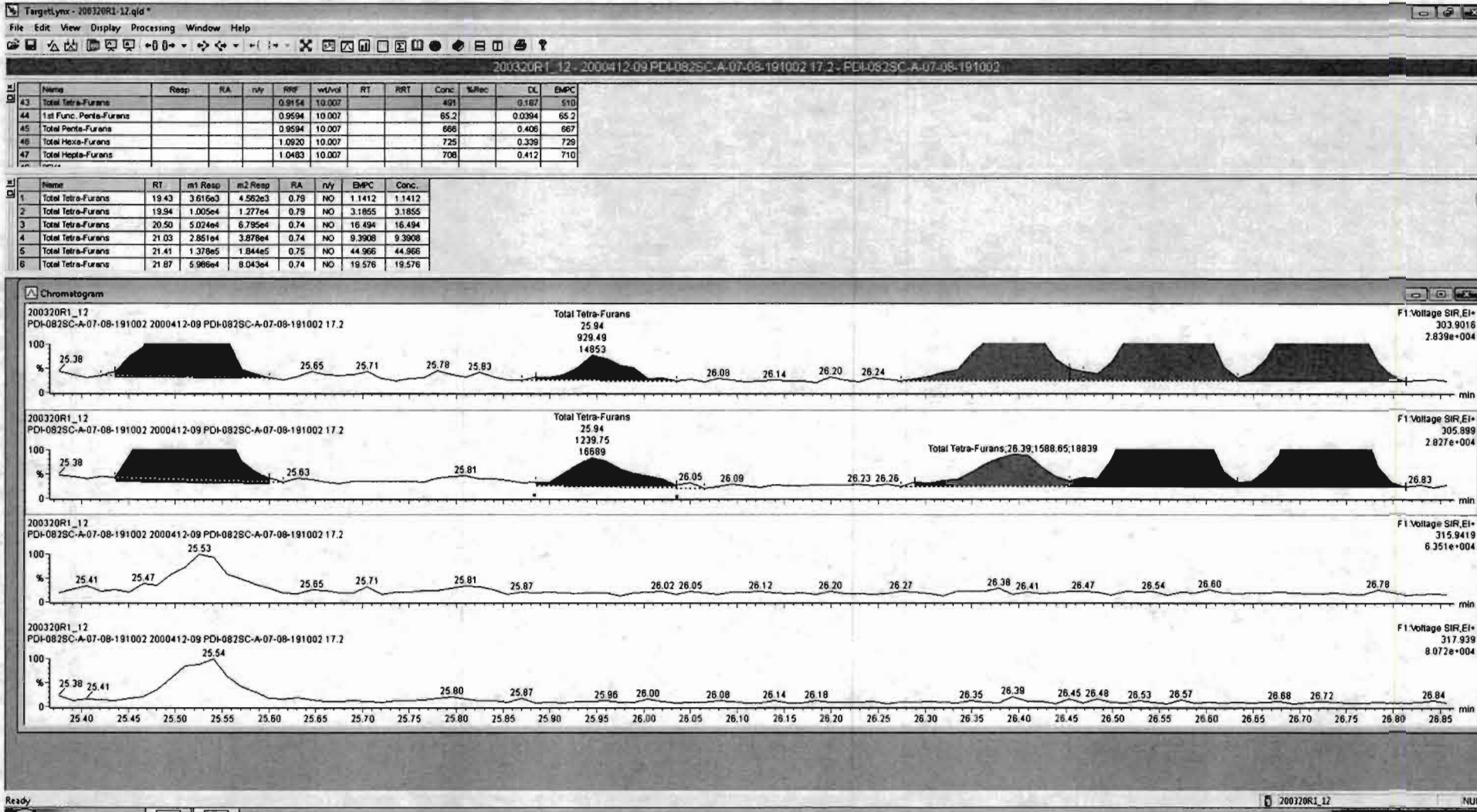
Name	Resp	RA	n/y	RF	WAnd	RT	RR1	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.007			491		0.187	510
44 1st Func. Penta-Furans				0.9594	10.007			65.2		0.0394	65.2
45 Total Penta-Furans				0.9594	10.007			666		0.406	667
46 Total Hexa-Furans				1.0920	10.007			725		0.339	729
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710

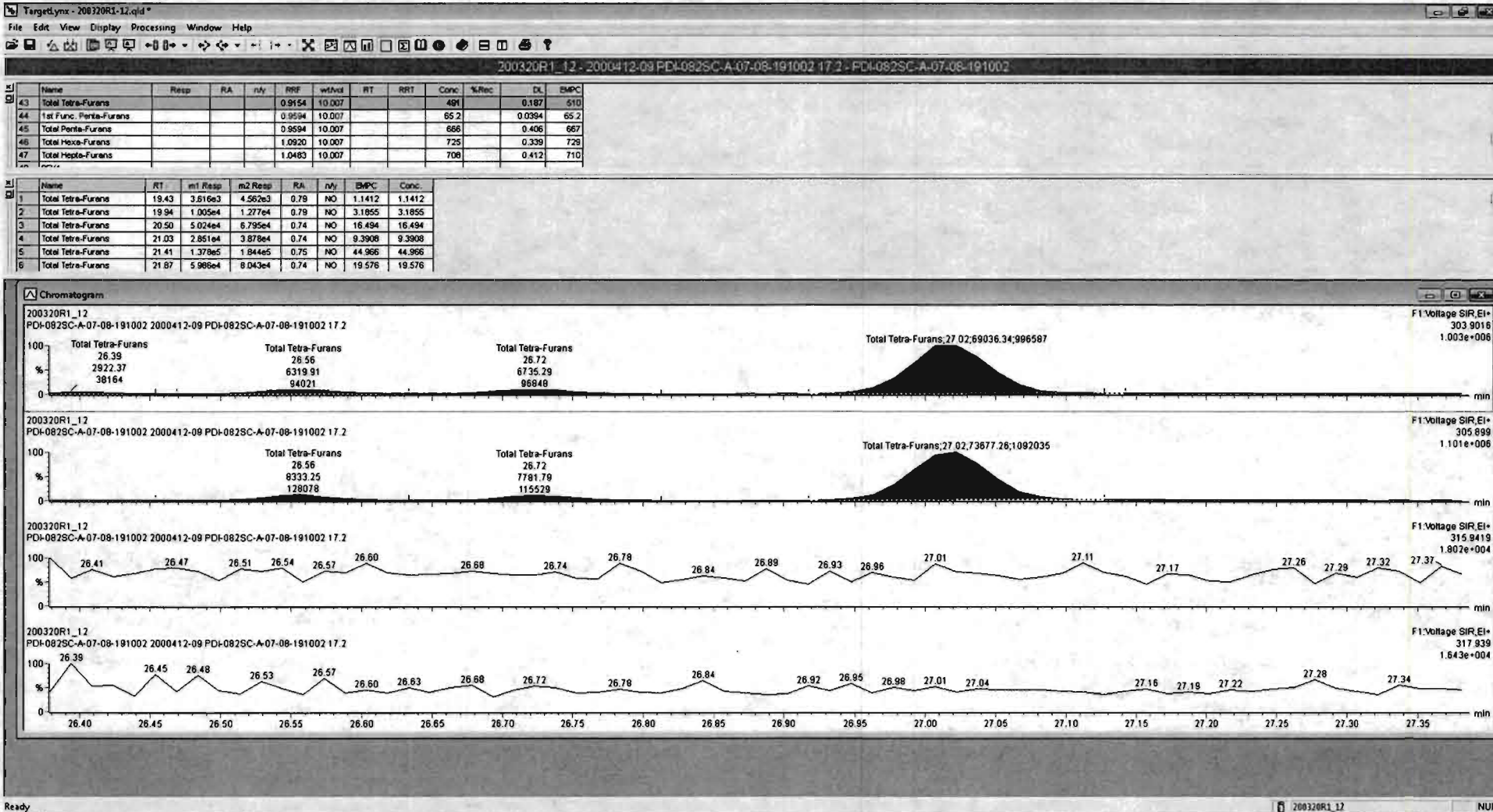
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.43	3.616e3	4.562e3	0.79	NO	1.1412	1.1412
2 Total Tetra-Furans	19.94	1.005e4	1.277e4	0.79	NO	3.1855	3.1855
3 Total Tetra-Furans	20.50	5.024e4	6.795e4	0.74	NO	16.494	16.494
4 Total Tetra-Furans	21.03	2.851e4	3.878e4	0.74	NO	9.3908	9.3908
5 Total Tetra-Furans	21.41	1.378e5	1.844e5	0.75	NO	44.966	44.966
6 Total Tetra-Furans	21.87	5.986e4	8.043e4	0.74	NO	19.576	19.576













Dataset: Untitled

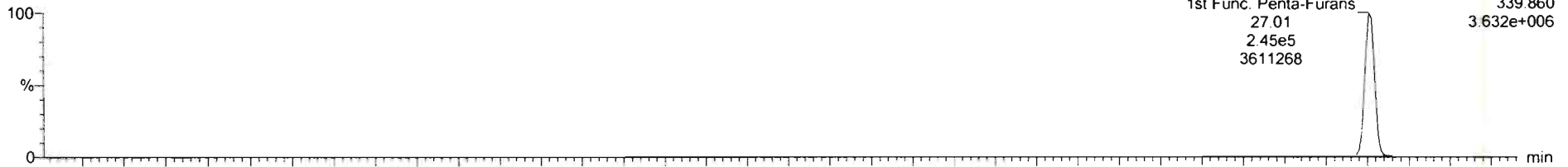
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

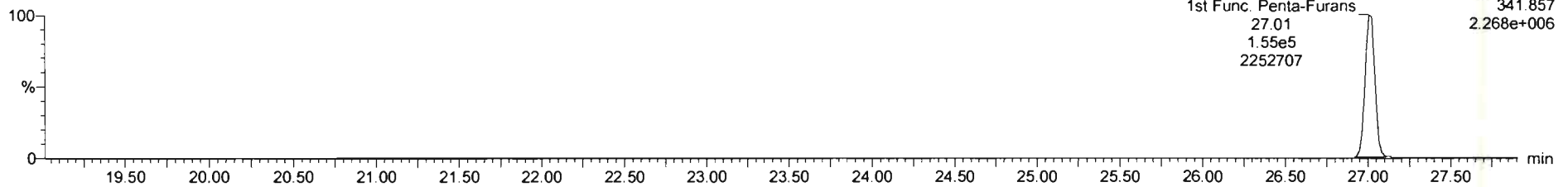
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1st Func. Penta-Furans

200320R1\_12

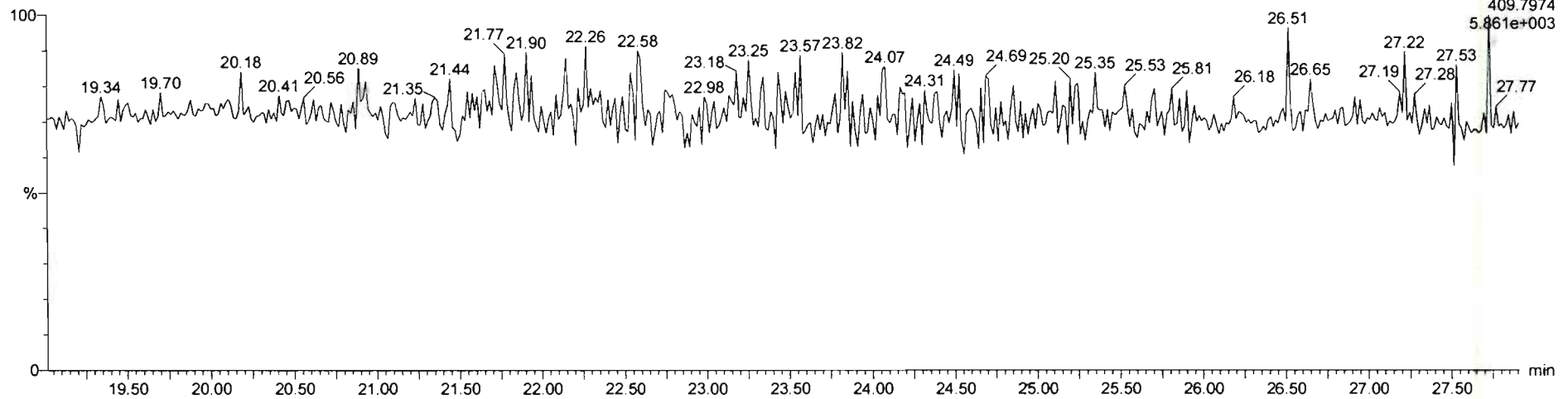


200320R1\_12



DPE6

200320R1\_12



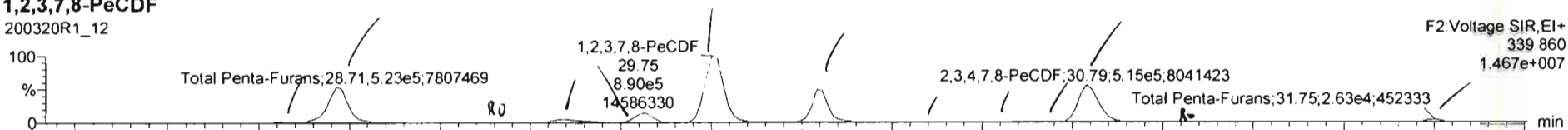
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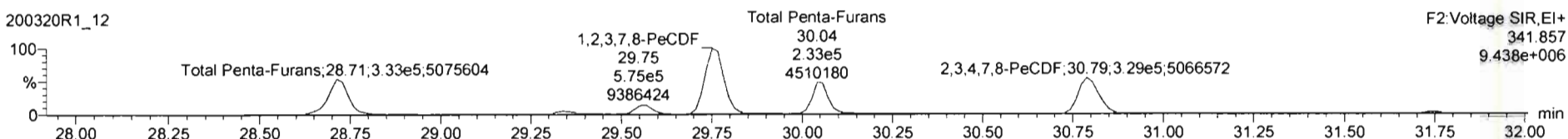
Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

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

200320R1\_12

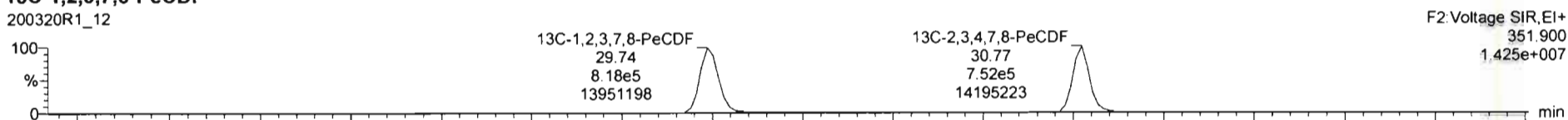


200320R1\_12

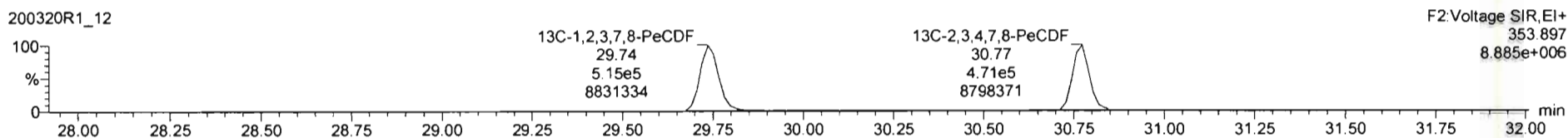


### 13C-1,2,3,7,8-PeCDF

200320R1\_12

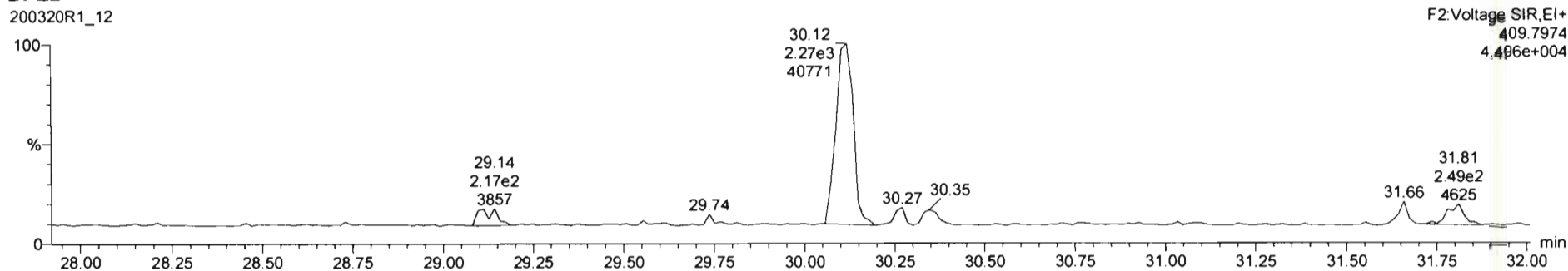


200320R1\_12



### DPE2

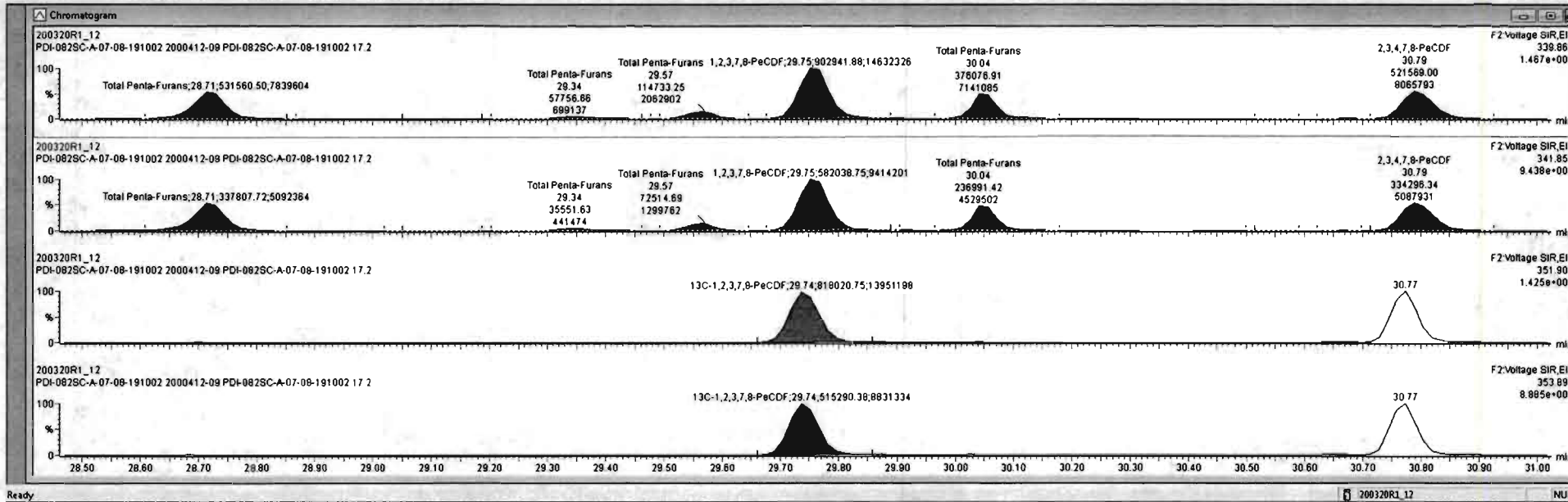
200320R1\_12



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	RRF	wAval	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673	0.406	675	
46 Total Hexa-Furans				1.0920	10.007			725	0.339	729	
47 Total Hepta-Furans				1.0483	10.007			708	0.412	710	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

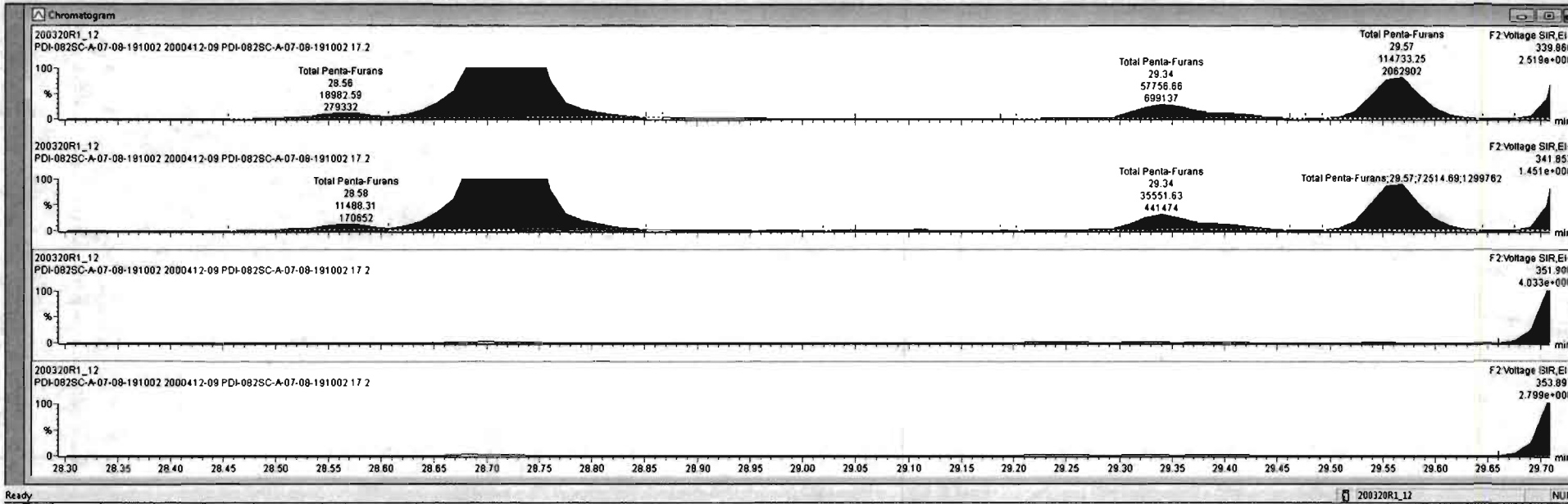
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	1.898e4	1.149e4	1.65	NO	4.9674	4.9674
2 Total Penta-Furans	28.71	5.315e5	3.378e5	1.57	NO	141.72	141.72
3 Total Penta-Furans	29.14	2.124e3	1.651e3	1.29	YES	0.58970	0.00000
4 Total Penta-Furans	29.34	5.776e4	3.555e4	1.62	NO	15.211	15.211
5 Total Penta-Furans	29.57	1.147e5	7.251e4	1.58	NO	30.525	30.525
6 1,2,3,7,8-PeCDF	29.75	9.029e5	5.820e5	1.55	NO	232.02	232.02
7 Total Penta-Furans	30.04	3.761e5	2.370e5	1.59	NO	99.943	99.943



200320R1\_12 - 2000412-09 PDI-082SC-A-07-09-191002 17 2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	RRP	wtVol	RT	RR1	Conc.	%Rec	CL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	675
46 Total Hexa-Furans				1.0920	10.007			725		0.338	729
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

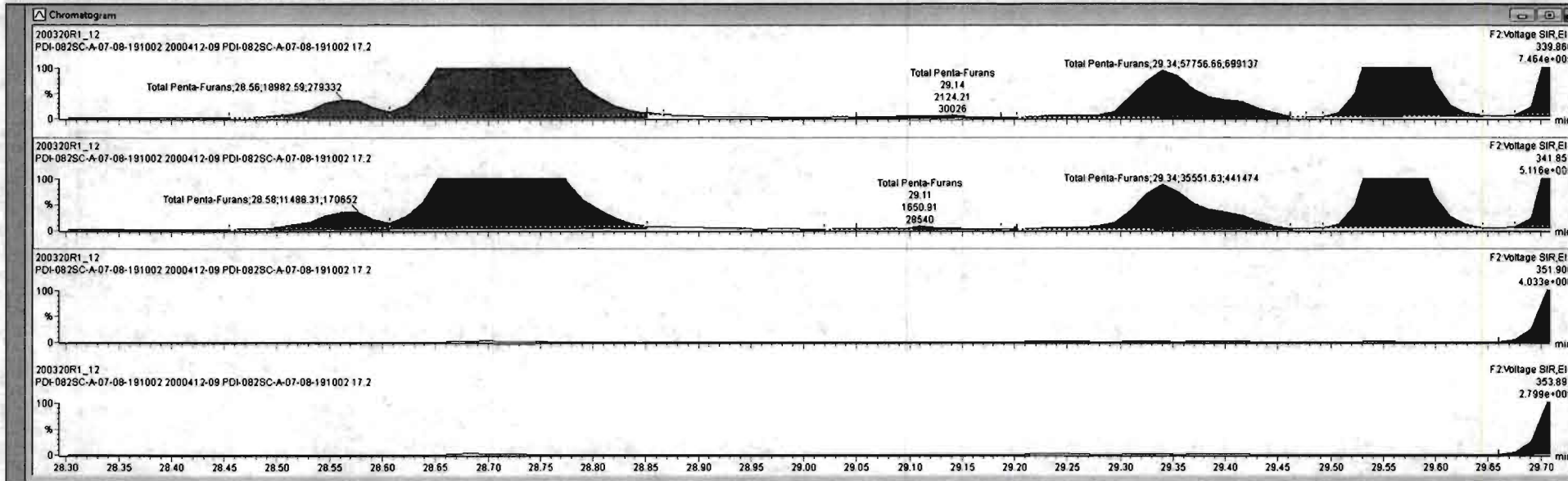
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	1.898e4	1.149e4	1.65	NO	4.9674	4.9674
2 Total Penta-Furans	28.71	5.316e5	3.378e5	1.57	NO	141.72	141.72
3 Total Penta-Furans	29.14	2.124e3	1.651e3	1.29	YES	0.56970	0.00000
4 Total Penta-Furans	29.34	5.778e4	3.555e4	1.62	NO	15.211	15.211
5 Total Penta-Furans	29.57	1.147e5	7.251e4	1.58	NO	30.525	30.525
6 1,2,3,7,8-PeCDF	29.75	9.029e5	5.820e5	1.55	NO	232.02	232.02
7 Total Penta-Furans	30.04	3.751e5	2.370e5	1.59	NO	99.943	99.943



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

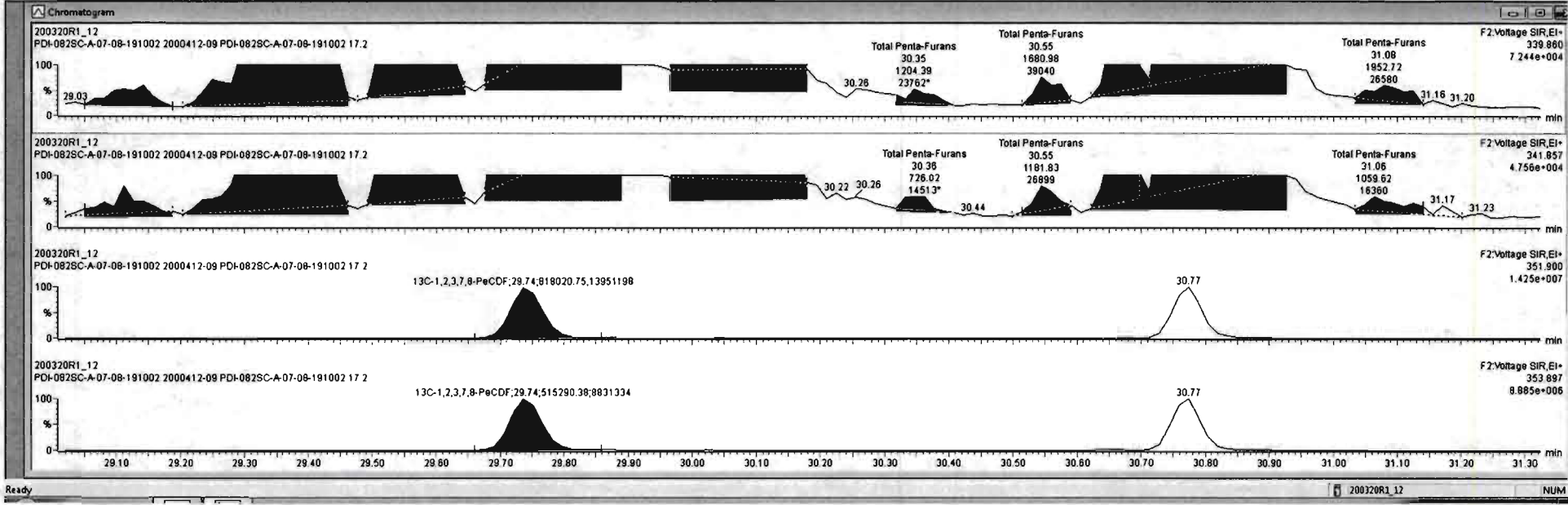
Name	Resp	RA	n/y	RRF	wAval	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	675
46 Total Hexa-Furans				1.0920	10.007			725		0.339	729
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	1.898e4	1.149e4	1.65	NO	4.9674	4.9674
2 Total Penta-Furans	28.71	5.316e5	3.378e5	1.57	NO	141.72	141.72
3 Total Penta-Furans	29.14	2.124e3	1.651e3	1.29	YES	0.56970	0.00000
4 Total Penta-Furans	29.34	5.776e4	3.555e4	1.62	NO	15.211	15.211
5 Total Penta-Furans	29.57	1.147e5	7.251e4	1.58	NO	30.525	30.525
6 1,2,3,7,8-PeCDF	29.75	9.029e5	5.820e5	1.55	NO	232.02	232.02
7 Total Penta-Furans	30.04	3.781e5	2.370e5	1.59	NO	99.943	99.943



Name	Resp	RA	rly	RRF	wtAvl	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	675
46 Total Hexa-Furans				1.0920	10.007			725		0.339	729
47 Total Hepta-Furans				1.0483	10.007			706		0.412	710
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

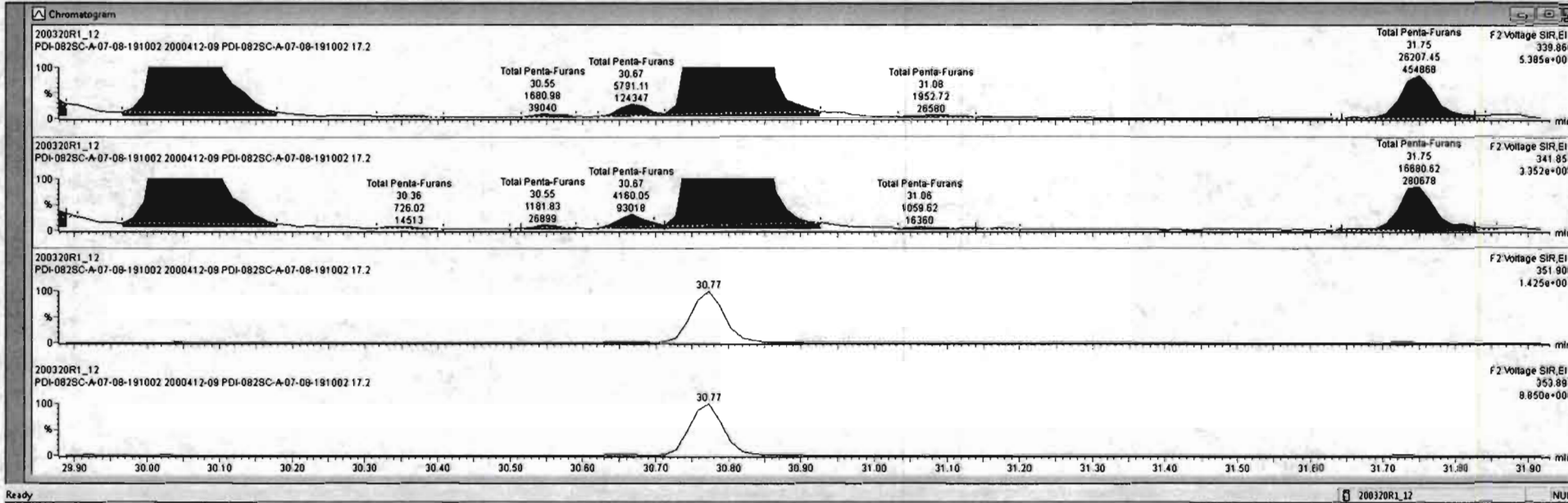
Name	RT	m1 Resp	m2 Resp	RA	rly	EMPC	Conc.
1 Total Penta-Furans	31.89	2.278e3	6.349e2	3.59	YES	0.26394	0.00000
2 Total Penta-Furans	31.75	2.626e4	1.702e4	1.54	NO	7.0556	7.0556
3 Total Penta-Furans	31.08	1.953e3	1.060e3	1.84	YES	0.44048	0.00000
4 2,3,4,7,8-PeCDF	30.79	5.216e5	3.343e5	1.56	NO	139.45	139.45
5 Total Penta-Furans	30.67	5.791e3	4.160e3	1.39	NO	1.8222	1.8222
6 Total Penta-Furans	30.55	1.681e3	1.182e3	1.42	NO	0.46670	0.46670
7 Total Penta-Furans	30.35	9.900e2	6.340e2	1.56	NO	0.26475	0.26475



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17 2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	RF	withval	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.408	674
46 Total Hexa-Furans				1.0920	10.007			725		0.339	729
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	1.898e4	1.149e4	1.65	NO	4.9674	4.9674
2 Total Penta-Furans	28.71	5.316e5	3.378e5	1.57	NO	141.72	141.72
3 Total Penta-Furans	29.14	2.124e3	1.651e3	1.29	YES	0.58970	0.00000
4 Total Penta-Furans	29.34	5.776e4	3.555e4	1.62	NO	15.211	15.211
5 Total Penta-Furans	29.57	1.147e5	7.251e4	1.58	NO	30.525	30.525
1,2,3,7,8-PeCDF	29.75	9.029e5	5.820e5	1.55	NO	232.02	232.02
7 Total Penta-Furans	30.04	3.761e5	2.370e5	1.59	NO	99.943	99.943



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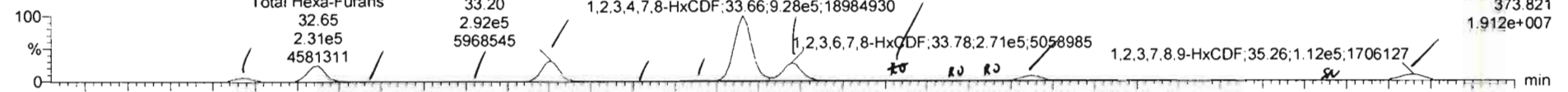
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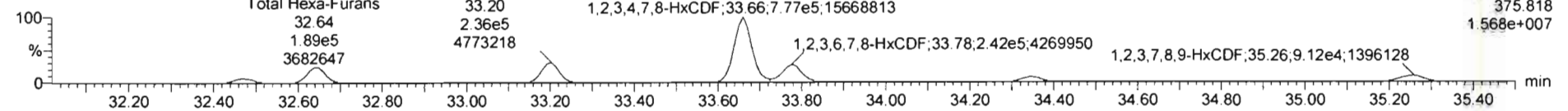
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**1,2,3,4,7,8-HxCDF**

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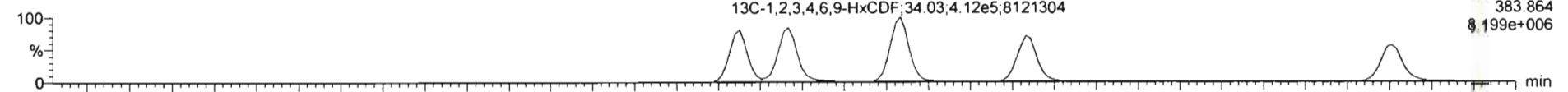


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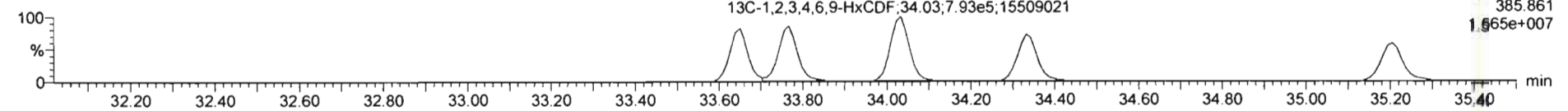


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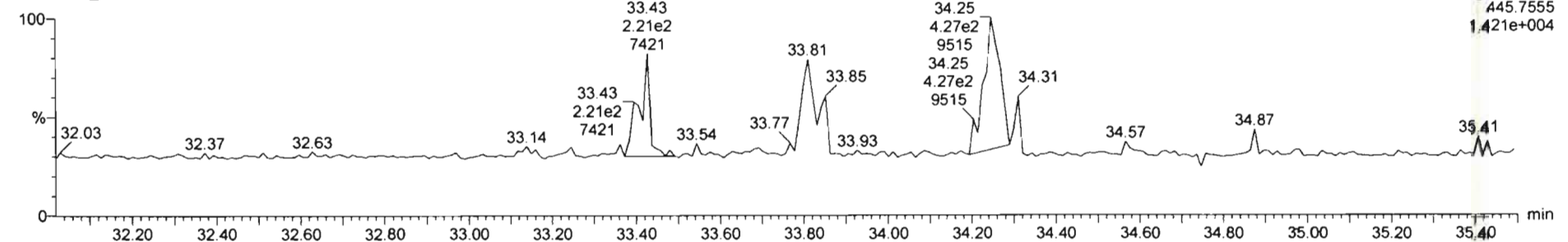


200320R1\_12



**DPE3**

200320R1\_12

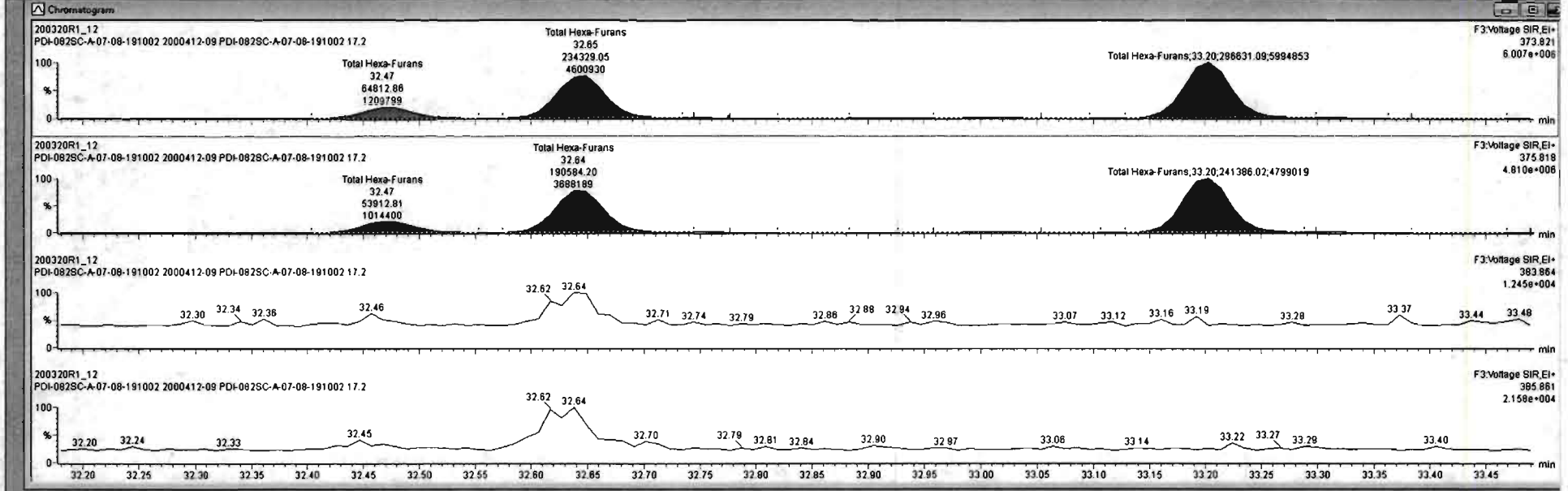




200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	R/R	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	674
46 Total Hexa-Furans				1.0820	10.007			741		0.339	742
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											

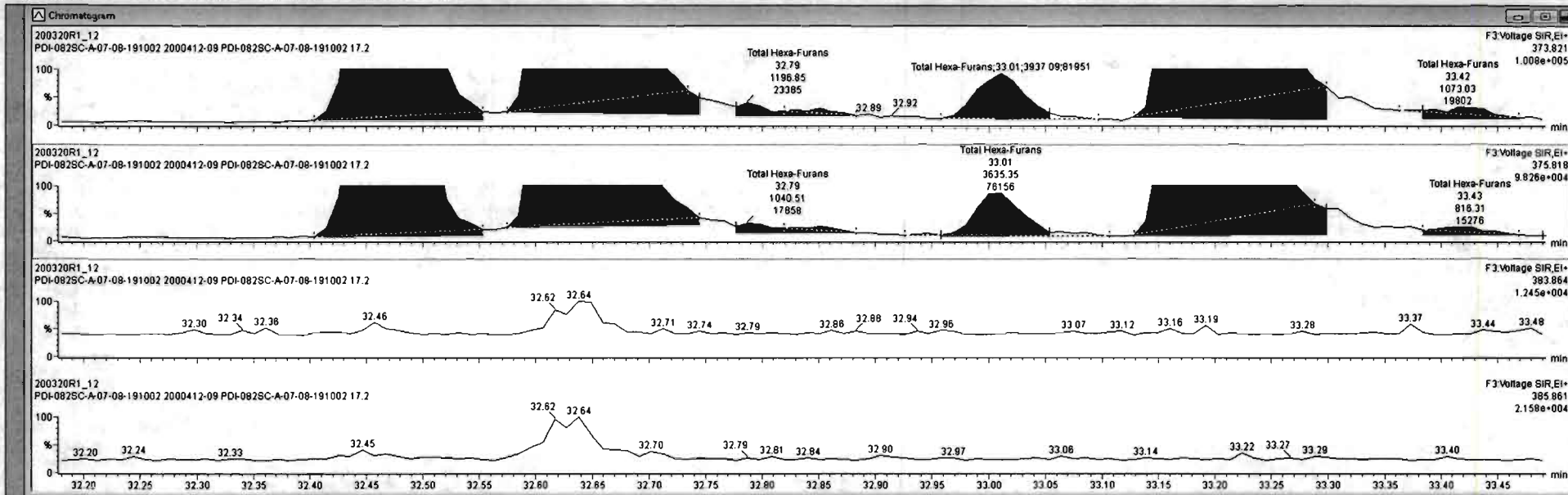
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.47	6.481e4	5.391e4	1.20	NO	23.187	23.187
2 Total Hexa-Furans	32.65	2.343e5	1.906e5	1.23	NO	82.984	82.984
3 Total Hexa-Furans	32.79	1.197e3	1.041e3	1.15	NO	0.43695	0.43695



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	rly	RRF	v/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	674
46 Total Hexa-Furans				1.0920	10.007			741		0.339	742
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											

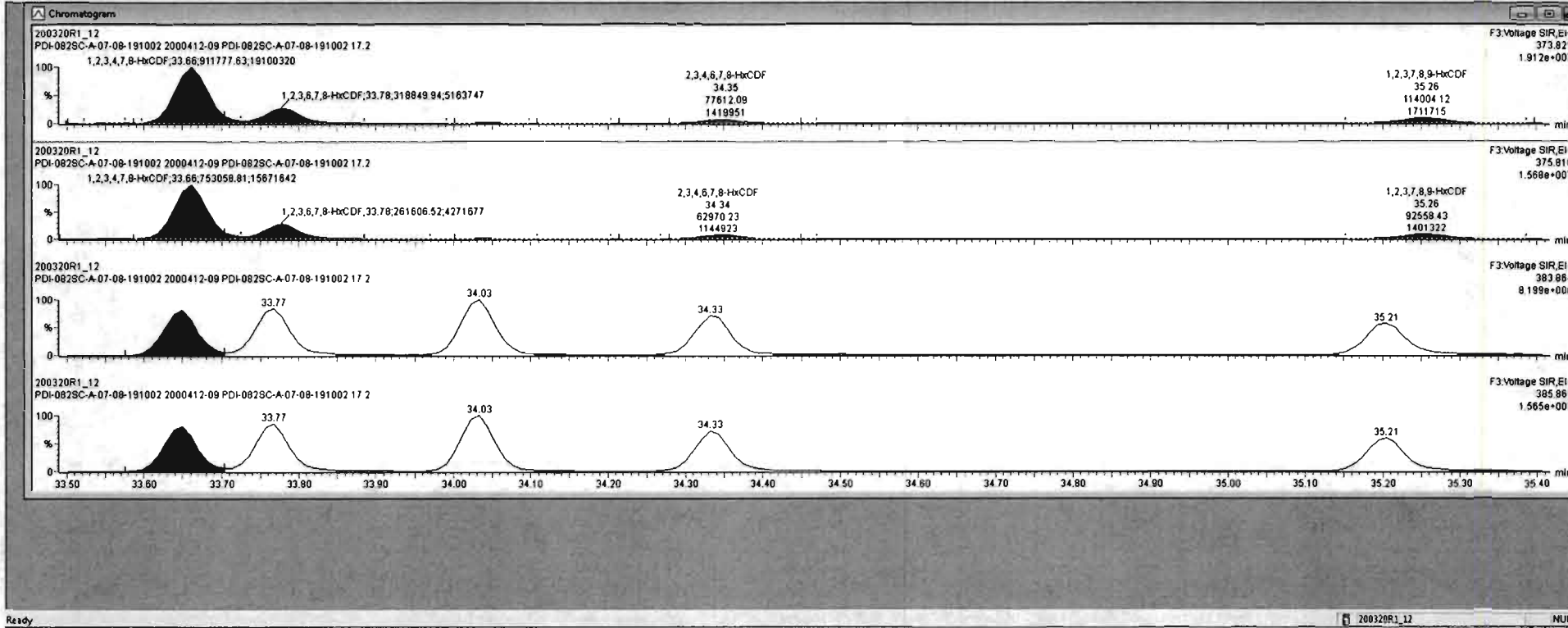
Name	RT	m1 Resp	m2 Resp	RA	rly	EMPC	Conc.
1 Total Hexa-Furans	32.47	6.481e4	5.391e4	1.20	NO	23.187	23.187
2 Total Hexa-Furans	32.65	2.343e5	1.906e5	1.23	NO	82.984	82.984
3 Total Hexa-Furans	32.79	1.197e3	1.041e3	1.15	NO	0.43695	0.43695

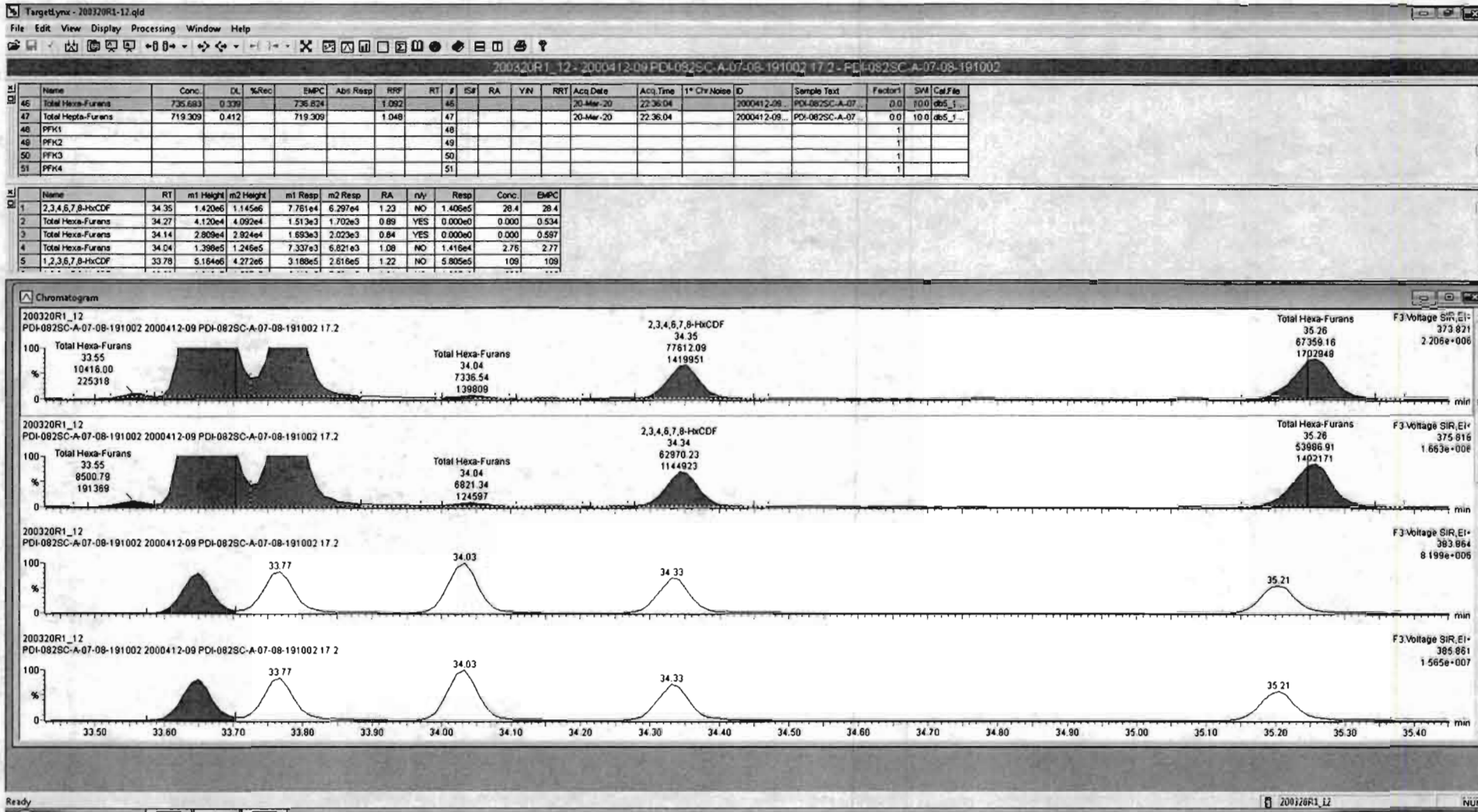


200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	674
46 Total Hexa-Furans				1.0920	10.007			741		0.339	742
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.47	6.481e4	5.391e4	1.20	NO	23.187	23.187
2 Total Hexa-Furans	32.65	2.343e5	1.906e5	1.23	NO	82.984	82.984
3 Total Hexa-Furans	32.79	1.197e3	1.041e3	1.15	NO	0.43695	0.43695

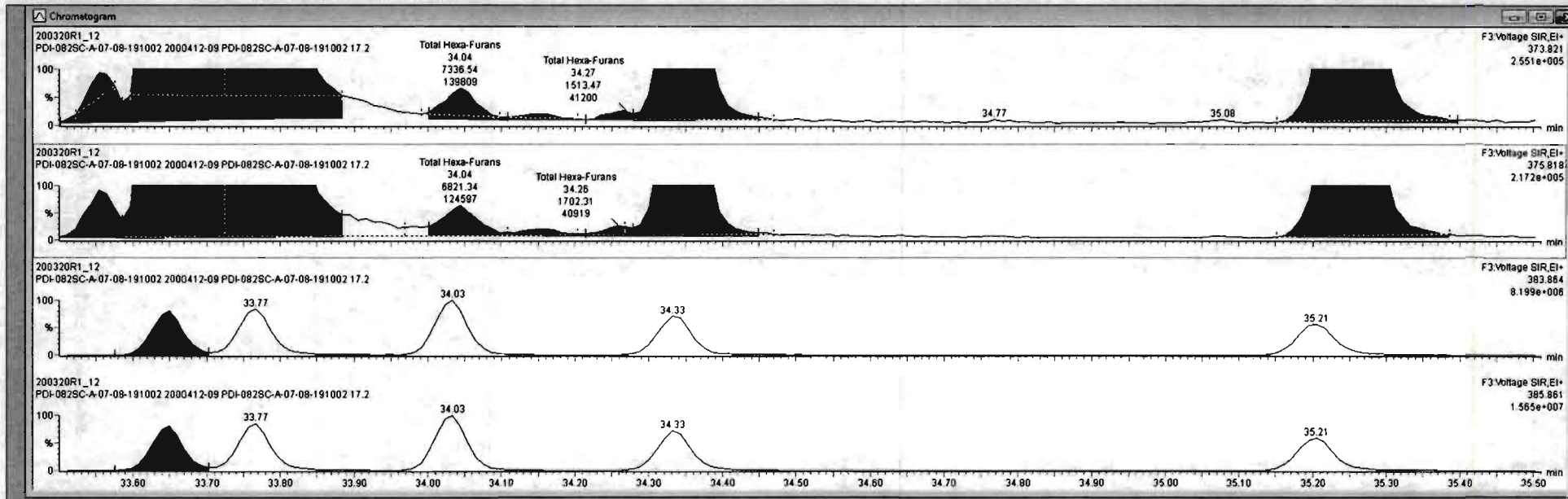




200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17 2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	rv/y	RPF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	674
46 Total Hexa-Furans				1.0920	10.007			741		0.359	742
47 Total Hepta-Furans				1.0483	10.007			708		0.412	710
48 PFK1											

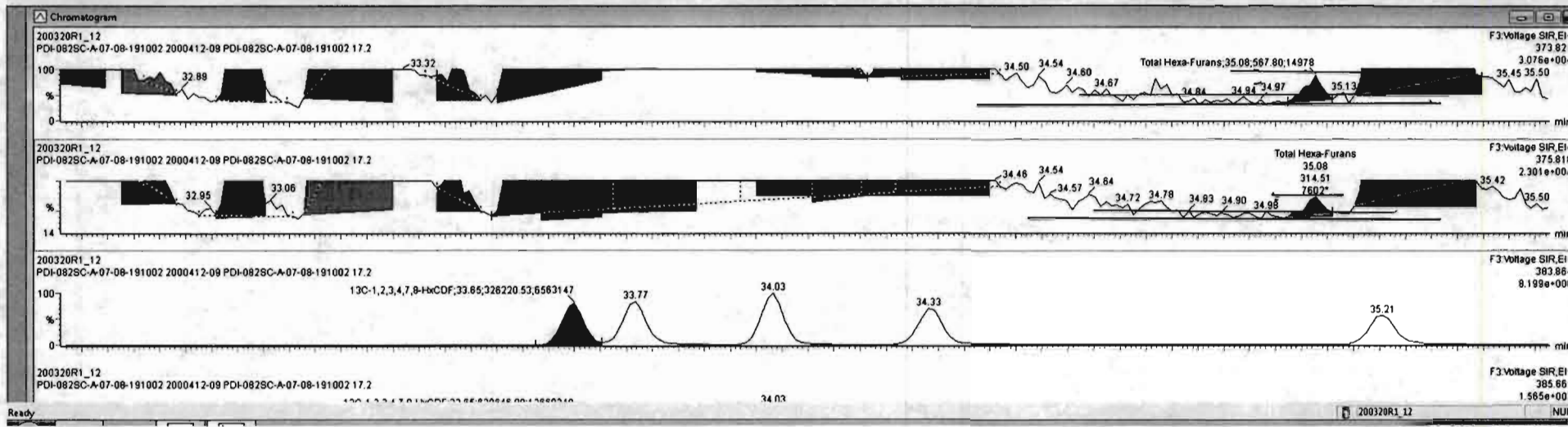
Name	RT	m1 Resp	m2 Resp	RA	rv/y	EMPC	Conc.
1 Total Hexa-Furans	32.47	6.481e4	5.391e4	1.30	NO	23.187	23.187
2 Total Hexa-Furans	32.65	2.343e5	1.906e5	1.33	NO	82.984	82.984
3 Total Hexa-Furans	32.79	1.197e3	1.041e3	1.15	NO	0.43695	0.43695



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

#	Name	Resp	RA	rvly	RRF	wtVol	RT	RR1	Conc.	%Rec	DL	B MPC
45	Total Penta-Furans				0.9594	10.007			673		0.406	674
46	Total Hexa-Furans				1.0920	10.007			740		0.339	741
47	Total Hepta-Furans				1.0483	10.007			708		0.412	710
48	PFK1											

#	Name	RT	m1 Resp	m2 Resp	RA	rvly	B MPC	Conc.
1	Total Hexa-Furans	32.47	6.481e4	5.391e4	1.20	NO	23.197	23.197
2	Total Hexa-Furans	32.65	2.343e5	1.906e5	1.23	NO	82.984	82.984
3	Total Hexa-Furans	32.79	1.197e3	1.041e3	1.15	NO	0.43695	0.43695
4	Total Hexa-Furans	33.01	3.937e3	3.625e3	1.08	NO	1.4789	1.4789
5	Total Hexa-Furans	33.20	2.966e5	2.414e5	1.23	NO	105.07	105.07
6	Total Hexa-Furans	33.42	1.073e3	8.163e2	1.31	NO	0.36898	0.36898
7	Total Hexa-Furans	33.55	1.042e4	8.501e3	1.23	NO	3.6944	3.6944
8	1,2,3,4,7,8-HxCDF	33.66	9.118e5	7.531e5	1.21	NO	335.00	335.00
9	1,2,3,6,7,8-HxCDF	33.78	3.188e5	2.616e5	1.22	NO	109.40	109.40
10	Total Hexa-Furans	34.04	7.337e3	6.821e3	1.08	NO	2.7650	2.7650
11	Total Hexa-Furans	34.14	1.693e3	2.023e3	0.84	YES	0.59730	0.00000
12	Total Hexa-Furans	34.27	1.513e3	1.702e3	0.89	YES	0.53394	0.00000
13	2,3,4,6,7,8-HxCDF	34.35	7.761e4	8.297e4	1.23	NO	26.361	26.361
14	Total Hexa-Furans	35.08	5.676e2	2.656e2	2.14	YES	0.11621	0.00000
15	1,2,3,7,8,9-HxCDF	35.26	1.124e5	9.122e4	1.23	NO	47.343	47.343



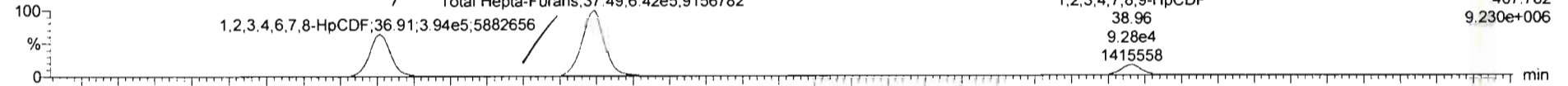
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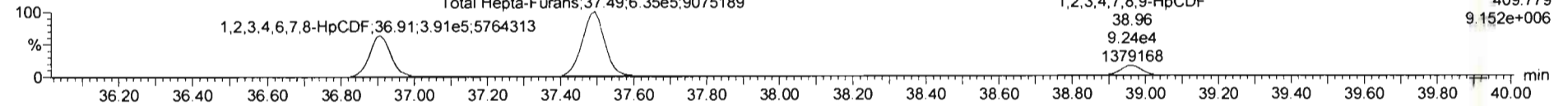
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**1,2,3,4,6,7,8-HpCDF**

200320R1\_12

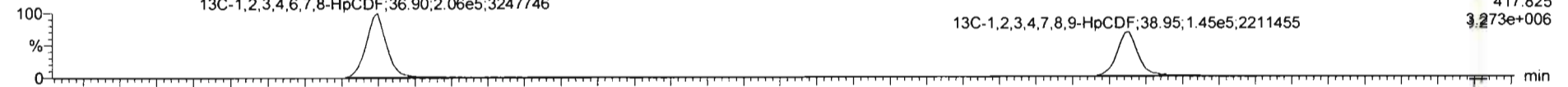


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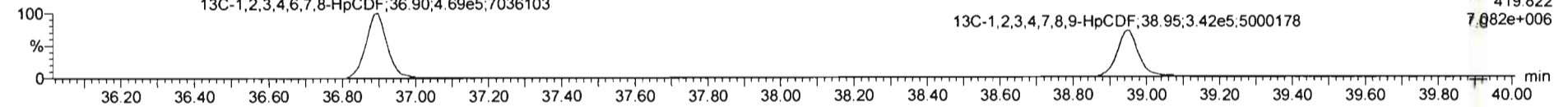


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200320R1\_12

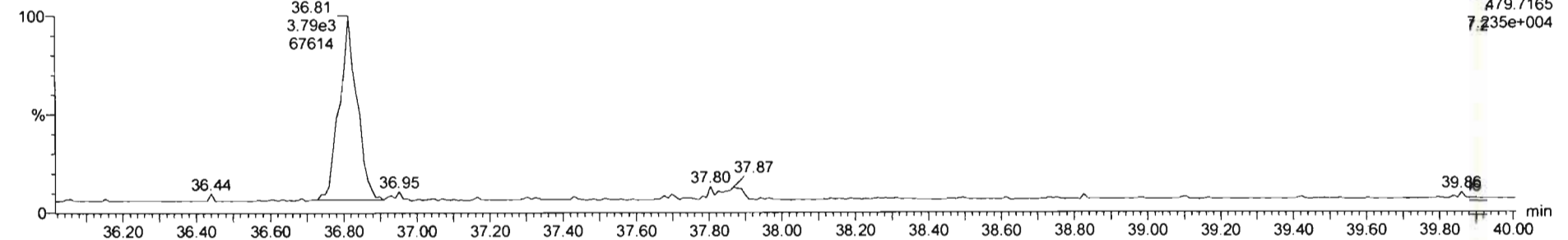


200320R1\_12



**DPE4**

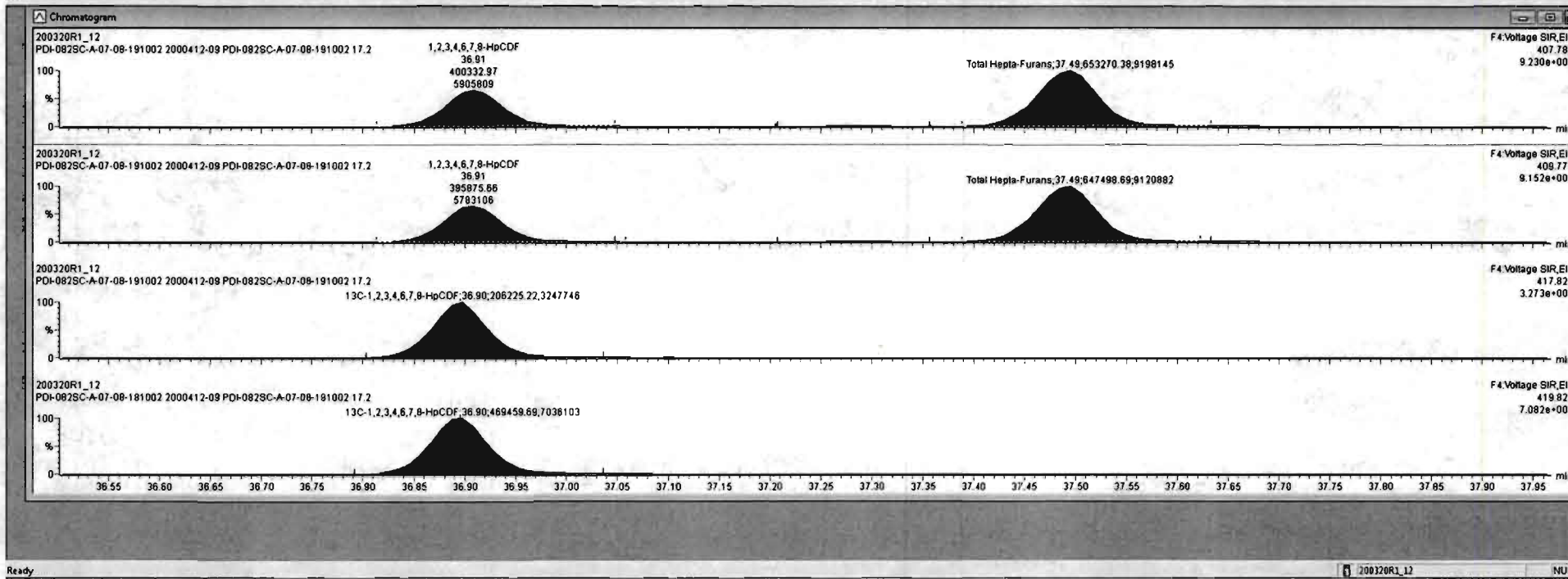
200320R1\_12



200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

Name	Resp	RA	n/y	RRF	vVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.007			673		0.406	674
46 Total Hexa-Furans				1.0920	10.007			741		0.339	742
47 Total Hepta-Furans				1.0483	10.007			719		0.412	719
48 PFK1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.91	4.003e5	3.959e5	1.01	NO	224.68	224.68
2 Total Hepta-Furans	37.29	6.000e3	6.413e3	0.94	NO	4.0718	4.0718
3 Total Hepta-Furans	37.49	6.533e5	6.475e5	1.01	NO	426.68	426.68
4 1,2,3,4,7,8,9-HpCDF	38.96	9.569e4	9.255e4	1.03	NO	63.878	63.878

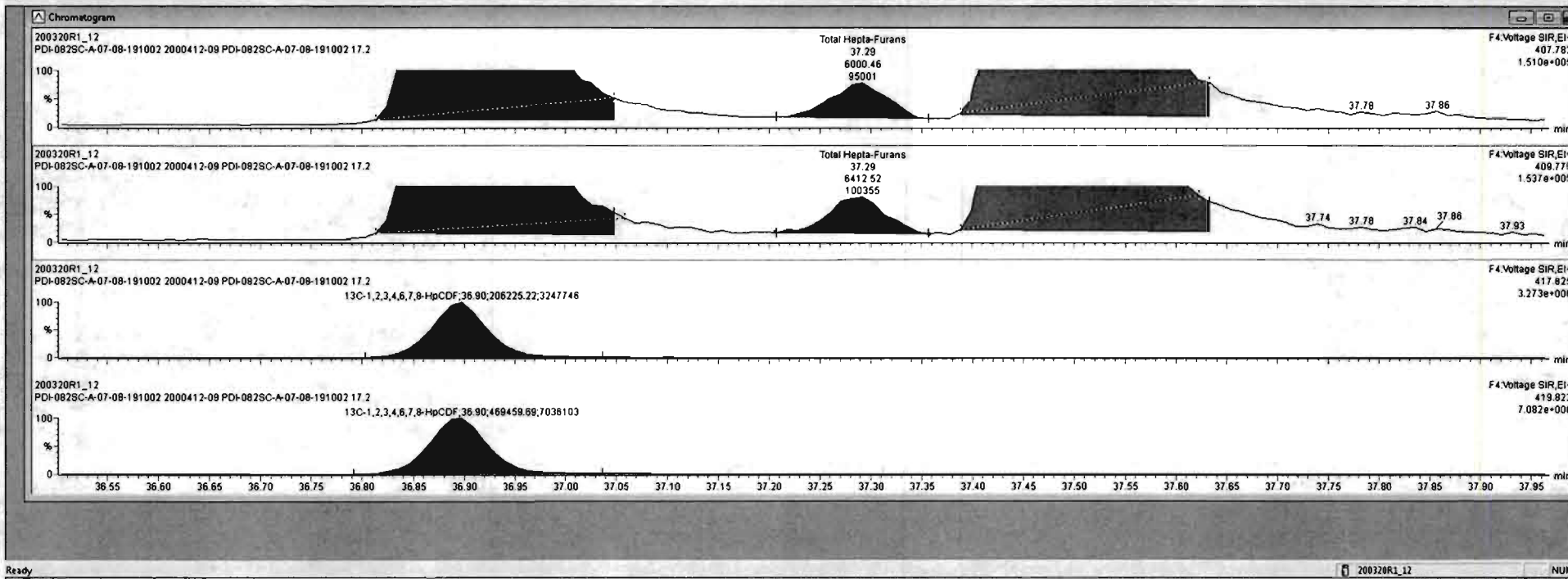




200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17.2 - PDI-082SC-A-07-08-191002

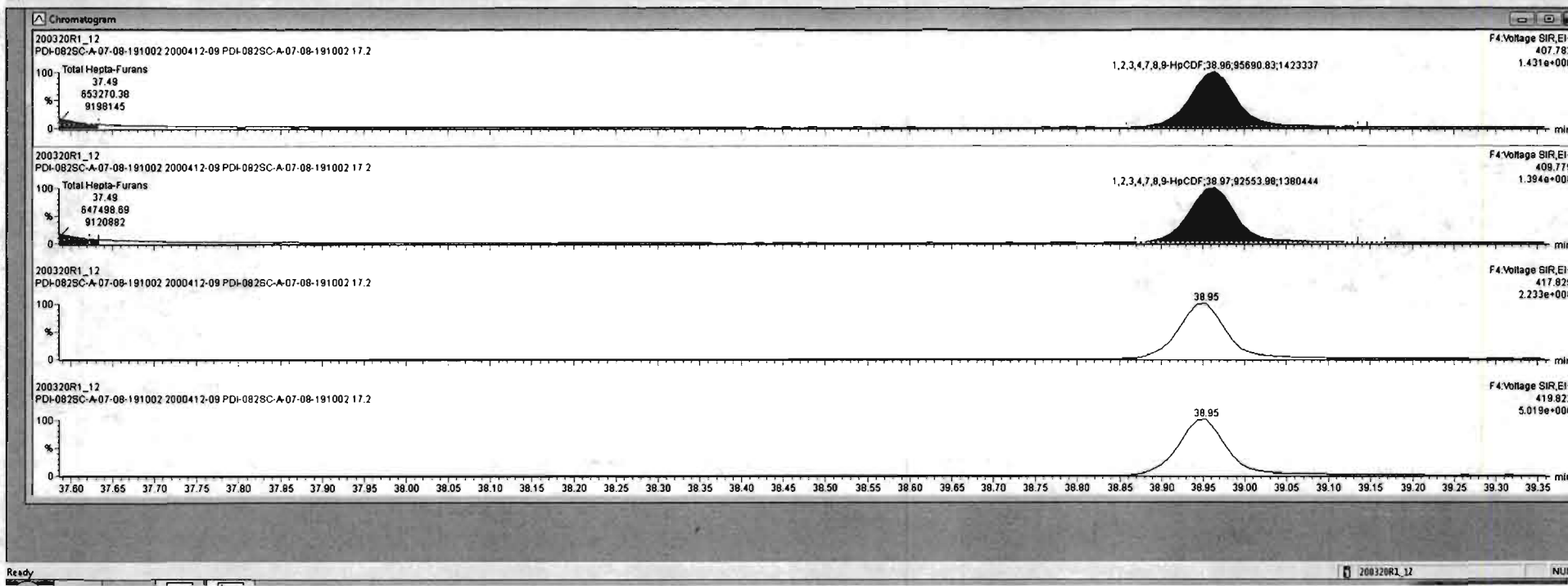
Name	Resp	RA	n/y	RRF	wAvol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans		0.9594	10.007		673			0.406		674	
46 Total Hexa-Furans		1.0920	10.007		741			0.339		742	
47 Total Hepta-Furans		1.0483	10.007		719			0.412		719	
48 PFK1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.91	4.003e5	3.959e5	1.01	NO	224.68	224.68
2 Total Hepta-Furans	37.29	6.000e3	6.413e3	0.94	NO	4.0718	4.0718
3 Total Hepta-Furans	37.49	6.533e5	6.475e5	1.01	NO	426.68	426.68
4 1,2,3,4,7,8,9-HpCDF	38.96	9.569e4	9.255e4	1.03	NO	63.878	63.878



#	Name	Resp	RA	n/y	RSF	wtAdj	RT	RRT	Conc.	%Rec	DL	EMPC
45	Total Penta-Furans				0.9594	10.007			673		0.406	674
46	Total Hexa-Furans				1.0920	10.007			741		0.339	742
47	Total Hepta-Furans				1.0483	10.007			719		0.412	719
48	PFK1											

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	1,2,3,4,6,7,8-HpCDF	36.91	4.003e5	3.959e5	1.01	NO	224.68	224.68
2	Total Hepta-Furans	37.29	6.000e3	6.413e3	0.94	NO	4.0718	4.0718
3	Total Hepta-Furans	37.49	6.533e5	6.475e5	1.01	NO	426.68	426.68
4	1,2,3,4,7,8,9-HpCDF	38.96	9.569e4	9.255e4	1.03	NO	63.878	63.878

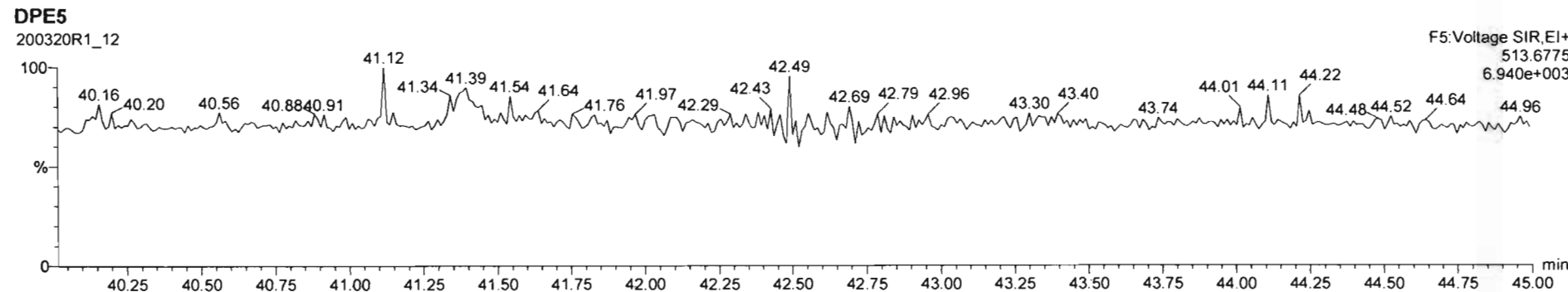
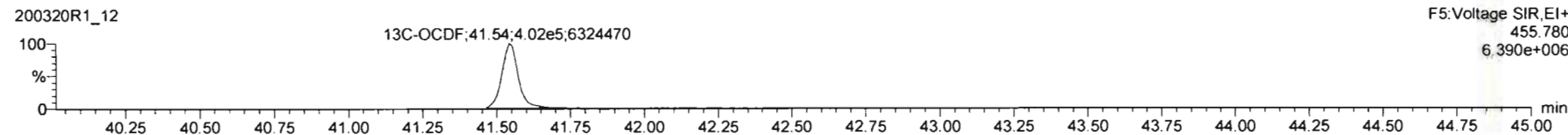
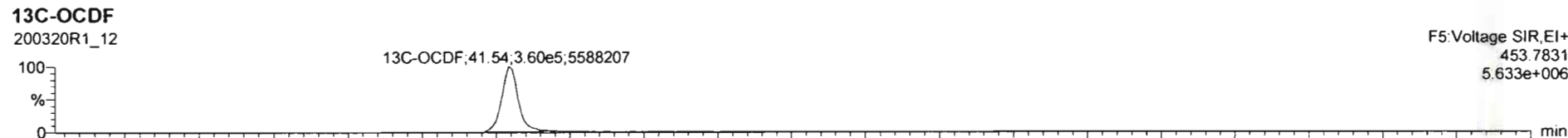
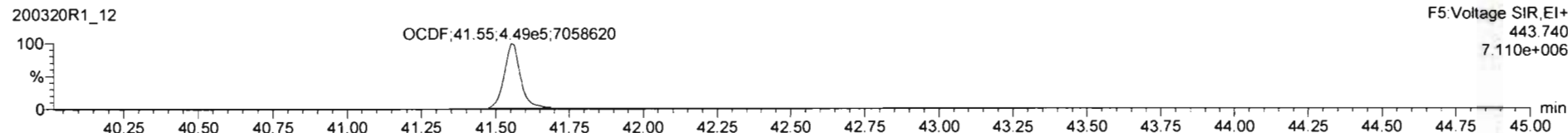
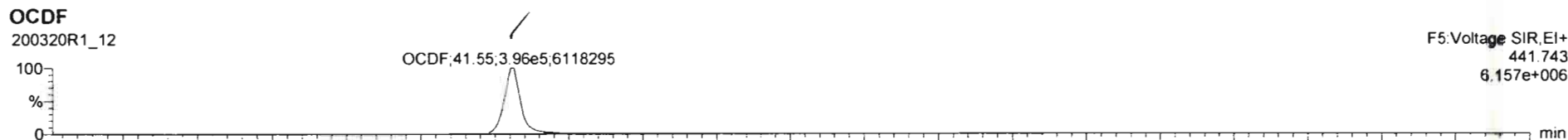


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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

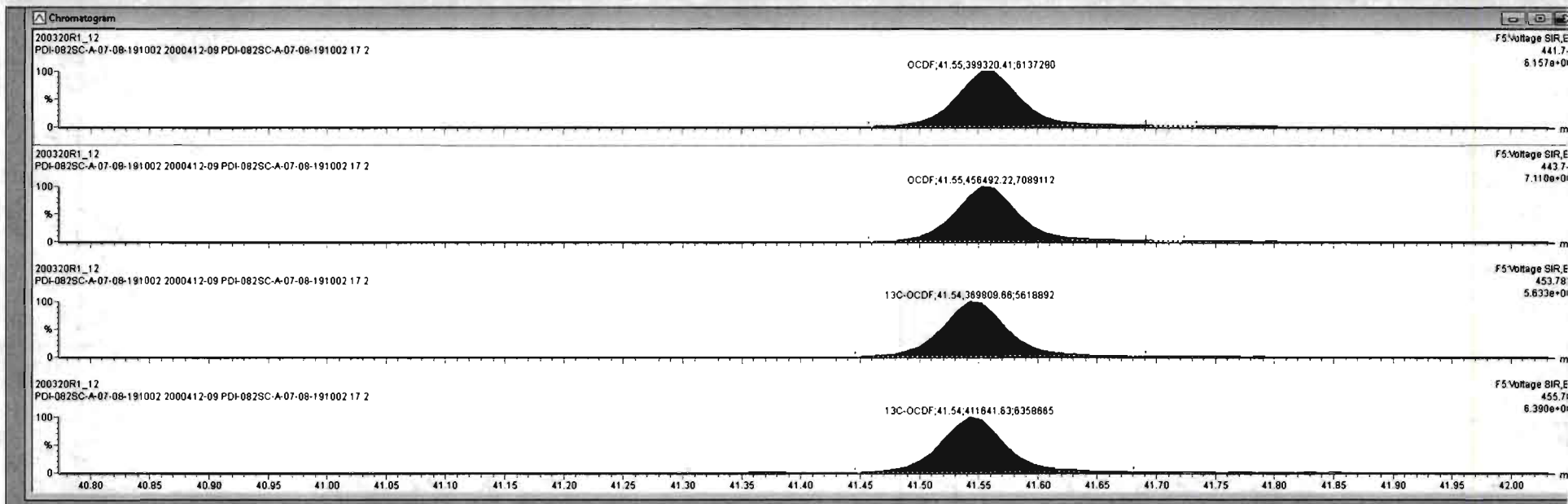
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200320R1\_12 - 2000412-09 PDI-082SC-A-07-08-191002 17 - PDI-082SC-A-07-08-191002

Name	Resp	RA	rvy	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
17	OCDf	8.55e5	0.87	NO	0.9458	10.007	41.55	1.000	452	0.431	452
18	13C-2,3,7,8-1CDD	1.20e6	0.78	NO	1.1842	10.007	25.80	1.029	170	85.1	0.220
19	13C-1,2,3,7,8-PeCDD	8.55e5	0.63	NO	0.8644	10.007	31.08	1.241	167	83.4	0.310
20	13C-1,2,3,4,7,8-HxCDD	6.49e5	1.29	NO	0.7539	10.007	34.50	1.014	143	71.5	0.245

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

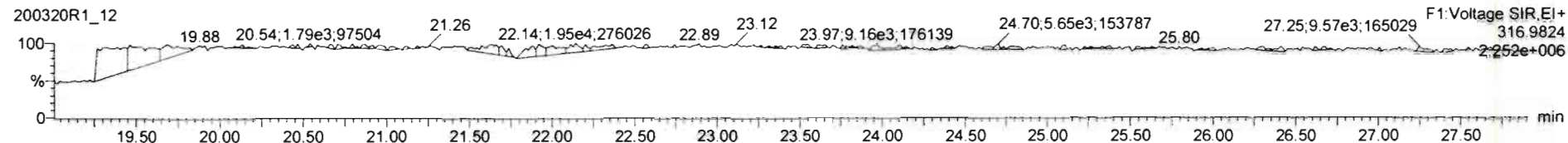


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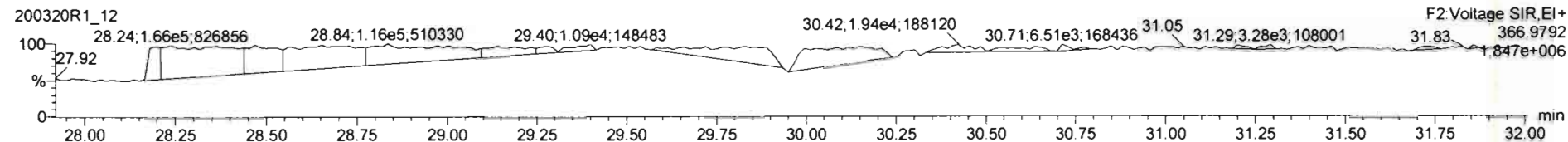
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_12, Date: 20-Mar-2020, Time: 22:36:04, ID: 2000412-09 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

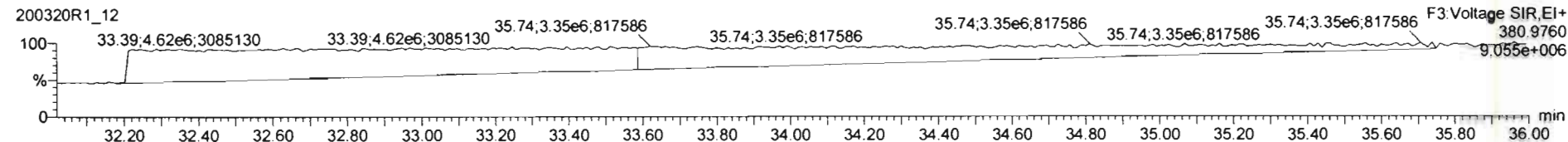
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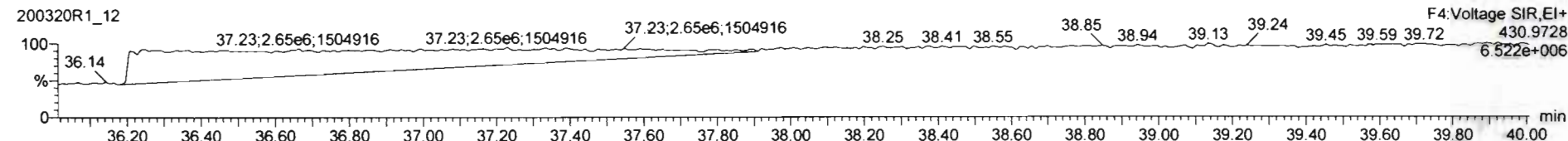
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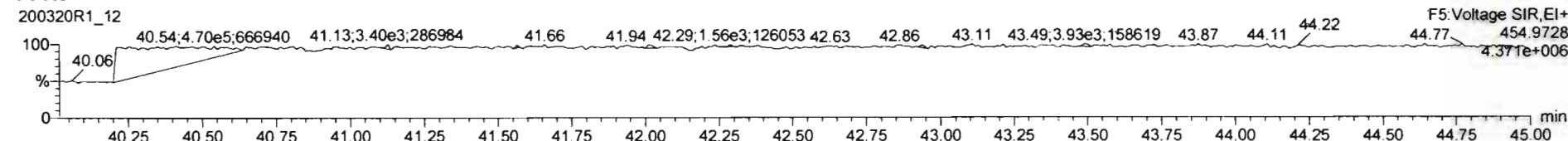
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

Last Altered: Friday, March 27, 2020 11:24:18 Pacific Daylight Time  
Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

*Geo 03/27/2020*

*07 04/02/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

#	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	4.20e3	0.69	NO	0.983	10.068	25.811	25.81	1.001	1.001	0.75318		0.127	0.753
2	2 1,2,3,7,8-PeCDD	3.32e3	0.60	NO	0.921	10.068	31.116	31.11	1.001	1.001	0.89420		0.0980	0.894
3	3 1,2,3,4,7,8-HxCDD	2.33e3	1.37	NO	1.13	10.068	34.512	34.51	1.000	1.000	0.63284		0.124	0.633
4	4 1,2,3,6,7,8-HxCDD	1.94e4	1.31	NO	0.984	10.068	34.598	34.61	1.000	1.000	5.0799		0.124	5.08
5	5 1,2,3,7,8,9-HxCDD	6.21e3	1.36	NO	0.967	10.068	34.874	34.88	1.000	1.001	1.8481		0.138	1.85
6	6 1,2,3,4,6,7,8-HpCDD	6.28e5	1.06	NO	1.01	10.068	38.304	38.30	1.000	1.000	222.20		0.683	222
7	7 OCDD	4.98e6	0.91	NO	1.05	10.068	41.361	41.37	1.000	1.000	2110.6		0.613	2110
8	8 2,3,7,8-TCDF	1.59e5	0.76	NO	0.915	10.068	24.802	24.81	1.001	1.001	22.864	(21.1)	0.157	22.9
9	9 1,2,3,7,8-PeCDF	1.52e5	1.59	NO	0.959	10.068	29.757	29.75	1.001	1.001	25.658		0.137	25.7
10	10 2,3,4,7,8-PeCDF	1.15e5	1.60	NO	1.00	10.068	30.805	30.80	1.001	1.001	19.145		0.129	19.1
11	11 1,2,3,4,7,8-HxCDF	3.72e5	1.22	NO	1.04	10.068	33.650	33.66	1.000	1.000	78.014		0.180	78.0
12	12 1,2,3,6,7,8-HxCDF	9.27e4	1.25	NO	1.01	10.068	33.777	33.78	1.000	1.000	18.105		0.169	18.1
13	13 2,3,4,6,7,8-HxCDF	4.28e4	1.22	NO	1.09	10.068	34.366	34.34	1.001	1.000	8.4442		0.172	8.44
14	14 1,2,3,7,8,9-HxCDF	3.63e4	1.20	NO	1.03	10.068	35.205	35.26	1.000	1.002	8.7474		0.245	8.75
15	15 1,2,3,4,6,7,8-HpCDF	3.96e5	1.02	NO	1.05	10.068	36.935	36.91	1.001	1.000	107.67		0.227	108
16	16 1,2,3,4,7,8,9-HpCDF	5.64e4	1.02	NO	1.21	10.068	38.943	38.95	1.000	1.000	18.966		0.294	19.0
17	17 OCDF	3.24e5	0.83	NO	0.947	10.068	41.542	41.55	1.000	1.000	123.99		0.227	124
18	18 13C-2,3,7,8-TCDD	1.13e6	0.79	NO	1.18	10.068	25.788	25.78	1.030	1.029	166.44	83.8	0.221	
19	19 13C-1,2,3,7,8-PeCDD	8.02e5	0.64	NO	0.864	10.068	31.101	31.09	1.242	1.241	162.34	81.7	0.208	
20	20 13C-1,2,3,4,7,8-HxCDD	6.45e5	1.28	NO	0.754	10.068	34.503	34.50	1.014	1.014	141.48	71.2	0.328	
21	21 13C-1,2,3,6,7,8-HxCDD	7.72e5	1.27	NO	0.925	10.068	34.605	34.60	1.017	1.017	137.97	69.5	0.267	
22	22 13C-1,2,3,7,8,9-HxCDD	6.90e5	1.25	NO	0.829	10.068	34.874	34.86	1.025	1.024	137.49	69.2	0.298	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.58e5	1.05	NO	0.598	10.068	38.294	38.29	1.125	1.125	154.24	77.6	0.367	
24	24 13C-OCDD	8.91e5	0.88	NO	0.571	10.068	41.357	41.36	1.215	1.215	257.96	64.9	0.273	
25	25 13C-2,3,7,8-TCDF	1.51e6	0.78	NO	1.09	10.068	24.776	24.78	0.989	0.989	154.03	77.5	0.351	
26	26 13C-1,2,3,7,8-PeCDF	1.23e6	1.59	NO	0.876	10.068	29.741	29.74	1.187	1.187	155.36	78.2	0.343	
27	27 13C-2,3,4,7,8-PeCDF	1.19e6	1.59	NO	0.844	10.068	30.720	30.77	1.227	1.229	157.18	79.1	0.356	
28	28 13C-1,2,3,4,7,8-HxCDF	9.11e5	0.51	NO	1.00	10.068	33.652	33.65	0.989	0.989	150.64	75.8	0.338	
29	29 13C-1,2,3,6,7,8-HxCDF	1.00e6	0.51	NO	1.12	10.068	33.774	33.77	0.992	0.992	148.50	74.8	0.303	
30	30 13C-2,3,4,6,7,8-HxCDF	9.23e5	0.52	NO	1.04	10.068	34.332	34.33	1.009	1.009	147.31	74.2	0.327	
31	31 13C-1,2,3,7,8,9-HxCDF	8.04e5	0.53	NO	0.873	10.068	35.204	35.21	1.034	1.034	152.21	76.6	0.388	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

Last Altered: Friday, March 27, 2020 11:24:18 Pacific Daylight Time

Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

#	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	6.96e5	0.43	NO	0.771	10.068	36.905	36.90	1.084	1.084	149.34	75.2	0.329	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.88e5	0.44	NO	0.519	10.068	38.944	38.94	1.144	1.144	155.41	78.2	0.489	
34	34 13C-OCDF	1.10e6	0.93	NO	0.696	10.068	41.537	41.54	1.220	1.221	260.53	65.6	0.357	
35	35 37Cl-2,3,7,8-TCDD	4.37e5			1.17	10.068	25.818	25.81	1.031	1.030	65.077	81.9	0.0705	
36	36 13C-1,2,3,4-TCDD	1.13e6	0.80	NO	1.00	10.068	25.030	25.05	1.000	1.000	198.65	100	0.262	
37	37 13C-1,2,3,4-TCDF	1.79e6	0.79	NO	1.00	10.068	23.090	23.10	1.000	1.000	198.65	100	0.382	
38	38 13C-1,2,3,4,6,9-HxCDF	1.20e6	0.51	NO	1.00	10.068	34.020	34.03	1.000	1.000	198.65	100	0.338	
39	39 Total Tetra-Dioxins				0.983	10.068	24.620		0.000		11.141		0.127	11.1
40	40 Total Penta-Dioxins				0.921	10.068	29.960		0.000		16.702		0.0980	17.0
41	41 Total Hexa-Dioxins				0.984	10.068	33.635		0.000		68.890		0.133	68.9
42	42 Total Hepta-Dioxins				1.01	10.068	37.640		0.000		491.17		0.683	491
43	43 Total Tetra-Furans				0.915	10.068	23.610		0.000		116.51		0.157	118
44	44 1st Func. Penta-Furans				0.959	10.068	27.090		0.000		70.673		0.0461	70.7
45	45 Total Penta-Furans				0.959	10.068	29.275		0.000		125.27		0.136	125
46	46 Total Hexa-Furans				1.09	10.068	33.555		0.000		227.31		0.180	227
47	47 Total Hepta-Furans				1.05	10.068	37.835		0.000		262.35		0.273	262

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Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

Last Altered: Friday, March 27, 2020 11:24:18 Pacific Daylight Time

Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.42	1.510e5	1.840e5	1.273e4	1.590e4	0.80	NO	2.863e4	5.1371	5.1371	0.127
2	Total Tetra-Dioxins	21.86	3.008e4	3.653e4	2.992e3	3.381e3	0.89	NO	6.373e3	1.1435	1.1435	0.127
3	Total Tetra-Dioxins	22.32	1.236e4	1.467e4	9.940e2	1.222e3	0.81	NO	2.216e3	0.39759	0.39759	0.127
4	Total Tetra-Dioxins	23.34	7.469e3	7.548e3	6.894e2	8.563e2	0.81	NO	1.546e3	0.27732	0.27732	0.127
5	Total Tetra-Dioxins	23.59	1.568e4	2.118e4	1.721e3	2.172e3	0.79	NO	3.893e3	0.69853	0.69853	0.127
6	Total Tetra-Dioxins	23.85	1.548e4	2.129e4	1.448e3	1.969e3	0.74	NO	3.417e3	0.61310	0.61310	0.127
7	Total Tetra-Dioxins	24.09	6.762e3	8.884e3	5.768e2	6.829e2	0.84	NO	1.260e3	0.22602	0.22602	0.127
8	Total Tetra-Dioxins	24.40	7.125e3	8.803e3	5.664e2	6.838e2	0.83	NO	1.250e3	0.22431	0.22431	0.127
9	Total Tetra-Dioxins	24.63	9.264e3	1.250e4	8.186e2	1.073e3	0.76	NO	1.892e3	0.33944	0.33944	0.127
10	Total Tetra-Dioxins	25.02	9.578e3	8.132e3	7.237e2	9.046e2	0.80	NO	1.628e3	0.29215	0.29215	0.127
11	Total Tetra-Dioxins	25.53	2.349e4	2.892e4	2.018e3	2.378e3	0.85	NO	4.396e3	0.78865	0.78865	0.127
12	2,3,7,8-TCDD	25.81	2.147e4	3.406e4	1.708e3	2.490e3	0.69	NO	4.198e3	0.75318	0.75318	0.127
13	Total Tetra-Dioxins	26.17	1.041e4	1.247e4	6.062e2	7.882e2	0.77	NO	1.394e3	0.25017	0.25017	0.127

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.78	9.669e4	1.865e5	8.016e3	1.362e4	0.59	NO	2.163e4	5.8198	5.8198	0.0980
2	Total Penta-Dioxins	29.29	1.445e4	3.732e4	9.709e2	1.723e3	0.56	NO	2.694e3	0.72464	0.72464	0.0980
3	Total Penta-Dioxins	29.81	1.189e5	1.944e5	7.195e3	1.021e4	0.70	NO	1.740e4	4.6818	4.6818	0.0980
4	Total Penta-Dioxins	29.98	2.446e4	3.798e4	1.339e3	2.116e3	0.63	NO	3.455e3	0.92949	0.92949	0.0980
5	Total Penta-Dioxins	30.07	2.450e4	3.908e4	1.300e3	2.128e3	0.61	NO	3.428e3	0.92222	0.92222	0.0980
6	Total Penta-Dioxins	30.30	2.400e4	4.182e4	1.045e3	1.868e3	0.56	NO	2.913e3	0.78362	0.78362	0.0980
7	Total Penta-Dioxins	30.35	2.834e4	3.557e4	1.338e3	1.941e3	0.69	NO	3.279e3	0.88207	0.88207	0.0980
8	Total Penta-Dioxins	30.65	7.804e3	1.257e4	4.961e2	7.371e2	0.67	NO	1.233e3	0.33175	0.33175	0.0980
9	1,2,3,7,8-PeCDD	31.11	2.361e4	3.890e4	1.252e3	2.072e3	0.60	NO	3.324e3	0.89420	0.89420	0.0980
10	Total Penta-Dioxins	31.17	7.625e3	1.674e4	4.399e2	7.556e2	0.58	NO	1.196e3	0.32162	0.32162	0.0980
11	Total Penta-Dioxins	31.40	9.313e3	1.293e4	5.251e2	6.415e2	0.82	YES	0.000e0	0.00000	0.28128	0.0980
12	Total Penta-Dioxins	31.51	1.170e4	1.797e4	6.132e2	9.126e2	0.67	NO	1.526e3	0.41050	0.41050	0.0980



Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

Last Altered: Friday, March 27, 2020 11:24:18 Pacific Daylight Time

Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	1.125e6	9.134e5	5.673e4	4.505e4	1.26	NO	1.018e5	29.239	29.239	0.133
2	Total Hexa-Dioxins	33.11	2.647e4	3.014e4	9.773e2	6.860e2	1.42	NO	1.663e3	0.47782	0.47782	0.133
3	Total Hexa-Dioxins	33.60	1.236e5	8.942e4	6.352e3	4.784e3	1.33	NO	1.114e4	3.1993	3.1993	0.133
4	Total Hexa-Dioxins	33.85	8.128e5	6.276e5	5.196e4	4.150e4	1.25	NO	9.347e4	26.853	26.853	0.133
5	Total Hexa-Dioxins	33.95	3.816e4	3.096e4	1.778e3	1.285e3	1.38	NO	3.063e3	0.87982	0.87982	0.133
6	1,2,3,4,7,8-HxCDD	34.51	2.700e4	2.142e4	1.345e3	9.827e2	1.37	NO	2.328e3	0.63284	0.63284	0.124
7	1,2,3,6,7,8-HxCDD	34.61	2.015e5	1.546e5	1.102e4	8.419e3	1.31	NO	1.944e4	5.0799	5.0799	0.124
8	Total Hexa-Dioxins	34.78	2.485e4	1.905e4	1.350e3	1.019e3	1.32	NO	2.369e3	0.68061	0.68061	0.133
9	1,2,3,7,8,9-HxCDD	34.88	6.542e4	4.402e4	3.581e3	2.627e3	1.36	NO	6.208e3	1.8481	1.8481	0.138

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.28	5.407e6	5.318e6	3.872e5	3.730e5	1.04	NO	7.602e5	268.97	268.97	0.683
2	1,2,3,4,6,7,8-HpCDD	38.30	4.126e6	4.008e6	3.226e5	3.054e5	1.06	NO	6.280e5	222.20	222.20	0.683

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

Last Altered: Friday, March 27, 2020 11:24:18 Pacific Daylight Time  
 Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.42	3.736e4	4.642e4	2.853e3	3.772e3	0.76	NO	6.625e3	0.95207	0.95207	0.157
2	Total Tetra-Furans	19.91	8.661e4	1.123e5	6.834e3	9.218e3	0.74	NO	1.605e4	2.3069	2.3069	0.157
3	Total Tetra-Furans	20.48	5.639e5	7.556e5	4.856e4	6.452e4	0.75	NO	1.131e5	16.251	16.251	0.157
4	Total Tetra-Furans	20.93	3.210e4	4.036e4	2.362e3	3.054e3	0.77	NO	5.416e3	0.77836	0.77836	0.157
5	Total Tetra-Furans	21.01	4.667e4	6.120e4	4.773e3	5.986e3	0.80	NO	0.000e0	0.00000	1.5462	0.157
6	Total Tetra-Furans	21.38	2.934e5	4.142e5	2.965e4	4.020e4	0.74	NO	6.985e4	10.038	10.038	0.157
7	Total Tetra-Furans	21.86	3.818e5	5.134e5	3.636e4	4.841e4	0.75	NO	8.478e4	12.184	12.184	0.157
8	Total Tetra-Furans	22.01	1.194e4	1.870e4	8.154e2	1.081e3	0.75	NO	1.896e3	0.27255	0.27255	0.157
9	Total Tetra-Furans	22.20	3.868e4	5.495e4	3.676e3	4.829e3	0.76	NO	8.505e3	1.2223	1.2223	0.157
10	Total Tetra-Furans	22.65	8.213e3	1.083e4	7.580e2	9.841e2	0.77	NO	1.742e3	0.25037	0.25037	0.157
11	Total Tetra-Furans	22.82	1.864e4	3.019e4	1.809e3	2.475e3	0.73	NO	4.285e3	0.61581	0.61581	0.157
12	Total Tetra-Furans	23.01	2.447e5	3.342e5	2.502e4	3.200e4	0.78	NO	5.702e4	8.1946	8.1946	0.157
13	Total Tetra-Furans	23.07	1.064e5	1.334e5	8.806e3	1.091e4	0.81	NO	1.972e4	2.8341	2.8341	0.157
14	Total Tetra-Furans	23.73	6.070e5	8.071e5	5.910e4	7.828e4	0.76	NO	1.374e5	19.744	19.744	0.157
15	Total Tetra-Furans	23.80	1.344e5	1.673e5	7.026e3	8.972e3	0.78	NO	1.600e4	2.2991	2.2991	0.157
16	Total Tetra-Furans	24.06	3.093e4	3.643e4	3.115e3	4.241e3	0.73	NO	7.356e3	1.0572	1.0572	0.157
17	Total Tetra-Furans	24.30	1.197e4	1.321e4	1.350e3	1.569e3	0.86	NO	2.919e3	0.41954	0.41954	0.157
18	Total Tetra-Furans	24.54	1.653e4	2.013e4	1.133e3	1.341e3	0.84	NO	2.474e3	0.35549	0.35549	0.157
19	Total Tetra-Furans	24.67	9.882e4	1.273e5	6.093e3	8.339e3	0.73	NO	1.443e4	2.0741	2.0741	0.157
20	2,3,7,8-TCDF	24.81	8.192e5	1.082e6	6.846e4	9.063e4	0.76	NO	1.591e5	22.864	22.864	0.157
21	Total Tetra-Furans	25.23	5.218e4	6.254e4	3.486e3	5.050e3	0.69	NO	8.536e3	1.2268	1.2268	0.157
22	Total Tetra-Furans	25.51	1.142e4	1.332e4	8.567e2	1.041e3	0.82	NO	1.898e3	0.27280	0.27280	0.157
23	Total Tetra-Furans	25.96	1.646e4	1.936e4	1.007e3	1.423e3	0.71	NO	2.430e3	0.34929	0.34929	0.157
24	Total Tetra-Furans	26.54	1.144e5	1.446e5	7.922e3	9.933e3	0.80	NO	1.785e4	2.5661	2.5661	0.157
25	Total Tetra-Furans	26.72	1.295e5	1.620e5	8.173e3	1.062e4	0.77	NO	1.879e4	2.7011	2.7011	0.157
26	Total Tetra-Furans	27.02	2.051e5	2.640e5	1.446e4	1.811e4	0.80	NO	3.257e4	4.6807	4.6807	0.157

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**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	27.01	3.901e6	2.389e6	2.552e5	1.575e5	1.62	NO	4.128e5	70.673	70.673	0.0461

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-13.qld

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 Printed: Friday, March 27, 2020 11:24:37 Pacific Daylight Time

Name: 200320R1\_13, Date: 29-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.56	1.321e5	7.477e4	6.531e3	4.208e3	1.55	NO	1.074e4	1.8387	1.8387	0.136
2	Total Penta-Furans	28.71	1.871e6	1.176e6	1.468e5	9.146e4	1.61	NO	2.383e5	40.803	40.803	0.136
3	Total Penta-Furans	29.34	6.957e5	4.127e5	4.272e4	2.586e4	1.65	NO	6.858e4	11.742	11.742	0.136
4	Total Penta-Furans	29.55	2.157e5	1.359e5	1.122e4	7.695e3	1.46	NO	1.891e4	3.2383	3.2383	0.136
5	1,2,3,7,8-PeCDF	29.75	1.763e6	1.111e6	9.323e4	5.860e4	1.59	NO	1.518e5	25.658	25.658	0.137
6	Total Penta-Furans	29.84	3.749e4	2.811e4	1.692e3	1.108e3	1.53	NO	2.800e3	0.47948	0.47948	0.136
7	Total Penta-Furans	30.03	6.546e5	4.174e5	3.827e4	2.419e4	1.58	NO	6.246e4	10.694	10.694	0.136
8	Total Penta-Furans	30.12	2.241e5	1.482e5	1.100e4	7.048e3	1.56	NO	1.805e4	3.0901	3.0901	0.136
9	Total Penta-Furans	30.67	3.894e4	2.757e4	2.138e3	1.337e3	1.60	NO	3.475e3	0.59504	0.59504	0.136
10	2,3,4,7,8-PeCDF	30.80	1.355e6	8.481e5	7.100e4	4.440e4	1.60	NO	1.154e5	19.145	19.145	0.129
11	Total Penta-Furans	30.82	1.125e6	6.932e5	2.497e4	1.539e4	1.62	NO	4.035e4	6.9092	6.9092	0.136
12	Total Penta-Furans	31.67	1.979e4	1.327e4	8.932e2	5.812e2	1.54	NO	1.474e3	0.25245	0.25245	0.136
13	Total Penta-Furans	31.75	5.282e4	3.982e4	2.959e3	1.833e3	1.61	NO	4.792e3	0.82050	0.82050	0.136

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.47	8.503e5	6.784e5	4.212e4	3.443e4	1.22	NO	7.655e4	15.295	15.295	0.180
2	Total Hexa-Furans	32.64	2.300e6	1.832e6	1.140e5	9.210e4	1.24	NO	2.061e5	41.174	41.174	0.180
3	Total Hexa-Furans	33.01	3.431e4	2.443e4	1.706e3	1.471e3	1.16	NO	3.177e3	0.63481	0.63481	0.180
4	Total Hexa-Furans	33.20	2.793e6	2.265e6	1.426e5	1.158e5	1.23	NO	2.583e5	51.617	51.617	0.180
5	Total Hexa-Furans	33.55	6.402e4	4.232e4	2.840e3	2.150e3	1.32	NO	4.990e3	0.99707	0.99707	0.180
6	1,2,3,4,7,8-HxCDF	33.66	4.097e6	3.362e6	2.039e5	1.677e5	1.22	NO	3.715e5	78.014	78.014	0.180
7	1,2,3,6,7,8-HxCDF	33.78	8.876e5	7.154e5	5.148e4	4.117e4	1.25	NO	9.266e4	18.105	18.105	0.169
8	Total Hexa-Furans	33.87	2.672e4	2.075e4	1.622e3	1.457e3	1.11	NO	3.078e3	0.61512	0.61512	0.180
9	Total Hexa-Furans	34.04	3.905e4	3.021e4	2.166e3	1.610e3	1.34	NO	3.776e3	0.75455	0.75455	0.180
10	Total Hexa-Furans	34.27	1.588e4	1.174e4	6.459e2	3.530e2	1.83	YES	0.000e0	0.00000	0.15798	0.180
11	2,3,4,6,7,8-HxCDF	34.34	4.511e5	3.672e5	2.349e4	1.933e4	1.22	NO	4.282e4	8.4442	8.4442	0.172
12	1,2,3,7,8,9-HxCDF	35.26	4.620e5	3.552e5	1.983e4	1.651e4	1.20	NO	3.634e4	8.7474	8.7474	0.245
13	Total Hexa-Furans	35.27	3.734e5	2.941e5	8.240e3	6.313e3	1.31	NO	1.455e4	2.9079	2.9079	0.180

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Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10, PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	2.970e6	2.959e6	1.998e5	1.958e5	1.02	NO	3.956e5	107.67	107.67	0.227
2	Total Hepta-Furans	37.29	2.723e4	3.101e4	1.953e3	1.917e3	1.02	NO	3.870e3	1.2384	1.2384	0.273
3	Total Hepta-Furans	37.49	2.979e6	2.923e6	2.114e5	2.088e5	1.01	NO	4.202e5	134.47	134.47	0.273
4	1,2,3,4,7,8,9-HpCDF	38.95	4.173e5	4.065e5	2.853e4	2.785e4	1.02	NO	5.638e4	18.966	18.966	0.294

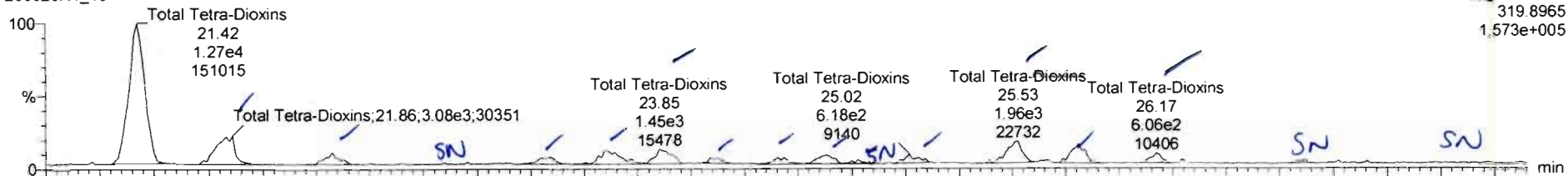
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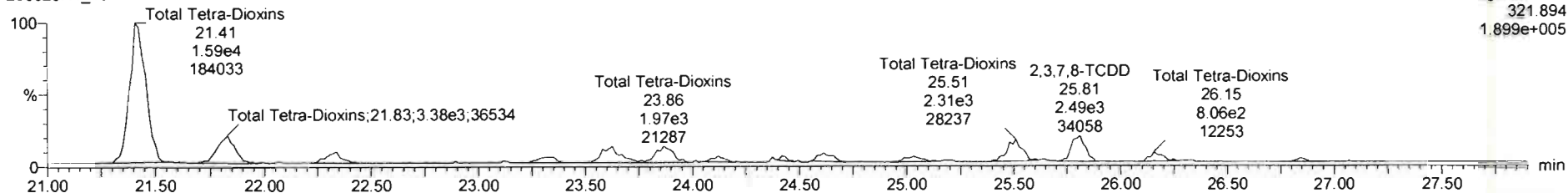
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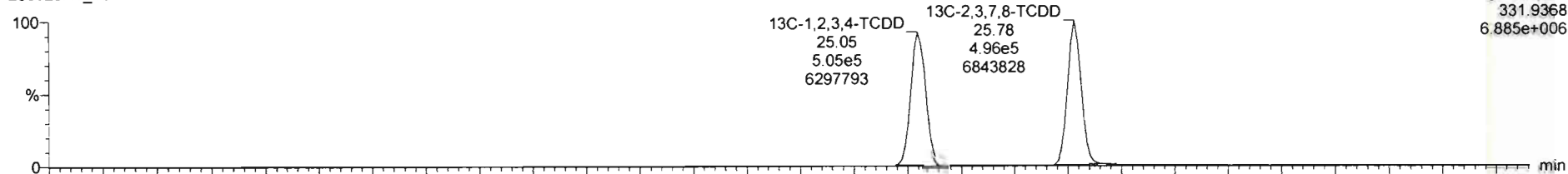


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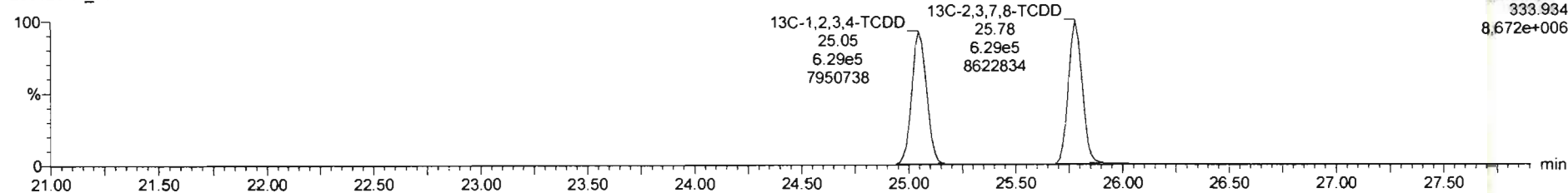


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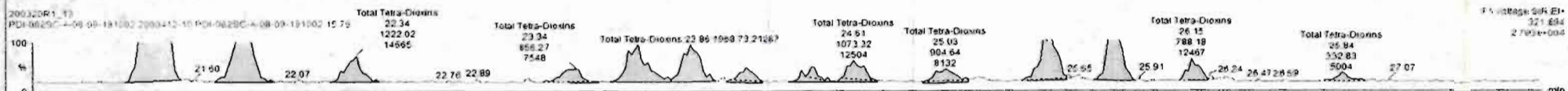
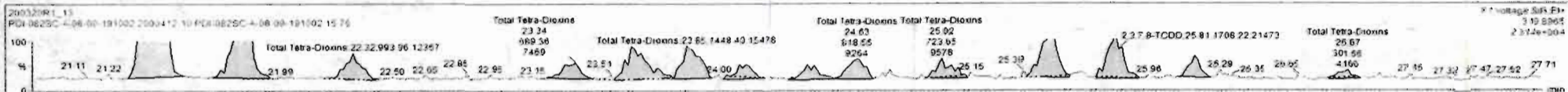


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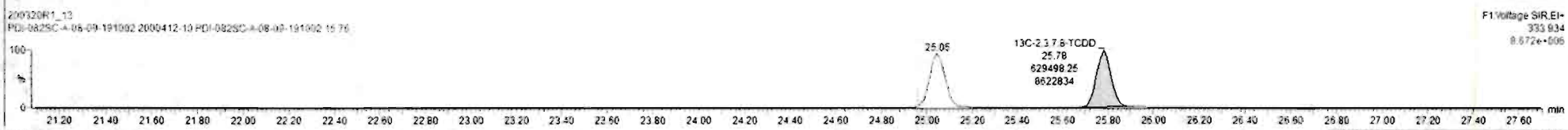
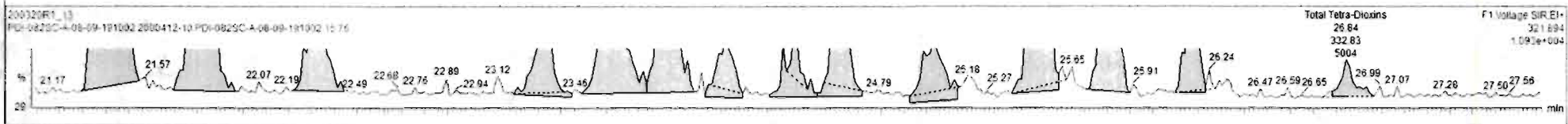
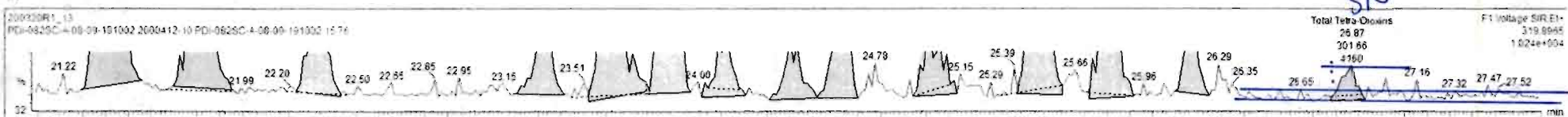
Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.065			11.1		0.127	11.2
40 Total Penta-Dioxins				0.9212	10.065			15.6		0.0960	17.0

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	21.47	1.273e4	1.590e4	0.60	NO	5.1371	5.1371
2 Total Tetra-Dioxins	21.66	2.952e3	3.381e3	0.69	NO	1.1435	1.1435
3 Total Tetra-Dioxins	22.32	9.940e2	1.222e3	0.61	NO	0.36759	0.36759
4 Total Tetra-Dioxins	23.34	8.094e2	6.553e2	0.61	NO	0.27732	0.27732
5 Total Tetra-Dioxins	23.59	1.721e3	2.172e3	0.79	NO	0.69653	0.69653
6 Total Tetra-Dioxins	23.85	1.448e3	1.955e3	0.74	NO	0.61310	0.61310
7 Total Tetra-Dioxins	24.09	5.768e2	8.829e2	0.64	NO	0.22602	0.22602
8 Total Tetra-Dioxins	24.40	5.864e2	6.838e2	0.63	NO	0.22431	0.22431
9 Total Tetra-Dioxins	24.63	8.196e2	1.073e3	0.76	NO	0.33944	0.33944
10 Total Tetra-Dioxins	25.02	7.277e2	9.046e2	0.60	NO	0.29215	0.29215
11 Total Tetra-Dioxins	25.53	3.016e1	2.378e3	0.65	NO	0.76665	0.76665
12 2,3,7,8-TCDD	25.61	1.708e3	2.490e3	0.69	NO	0.75316	0.75316
13 Total Tetra-Dioxins	26.17	6.052e2	7.682e2	0.77	NO	0.25017	0.25017
14 Total Tetra-Dioxins	26.67	3.017e2	3.329e2	0.51	YES	0.10570	0.06000



Name	Resp	RA	ny	RRF	wtVol	RT	RRT	Conc.	WAcc	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.068			11.1		0.127	11.2
40 Total Penta-Dioxins				0.9212	10.068			15.6		0.0960	17.0

Name	RT	m1 Resp	m2 Resp	RA	ny	EMPC	Conc.
1 Total Tetra-Dioxins	21.42	1.273e4	1.550e4	0.90	NO	5.1371	5.1371
2 Total Tetra-Dioxins	21.86	2.952e3	3.381e3	0.89	NO	1.1435	1.1435
3 Total Tetra-Dioxins	22.32	9.940e2	1.222e3	0.81	NO	0.36759	0.39759
4 Total Tetra-Dioxins	23.34	6.854e2	8.563e2	0.81	NO	0.27732	0.27732
5 Total Tetra-Dioxins	23.59	1.721e3	2.172e3	0.79	NO	0.69853	0.69853
6 Total Tetra-Dioxins	23.85	1.446e3	1.969e3	0.74	NO	0.61310	0.61310
7 Total Tetra-Dioxins	24.09	5.759e2	6.825e2	0.84	NO	0.22802	0.22802
8 Total Tetra-Dioxins	24.40	5.664e2	6.838e2	0.83	NO	0.22451	0.22451
9 Total Tetra-Dioxins	24.63	8.186e2	1.073e3	0.76	NO	0.33944	0.33944
10 Total Tetra-Dioxins	25.02	7.237e2	9.046e2	0.80	NO	0.29216	0.29215
11 Total Tetra-Dioxins	25.53	2.018e3	2.378e3	0.85	NO	0.78865	0.78865
12 2,3,7,8-TCDD	25.81	1.708e2	2.490e3	0.69	NO	0.75318	0.75318
13 Total Tetra-Dioxins	26.17	6.062e2	7.682e2	0.77	NO	0.25017	0.25017
14 Total Tetra-Dioxins	26.87	3.017e2	3.328e2	0.91	YES	0.10570	0.00000



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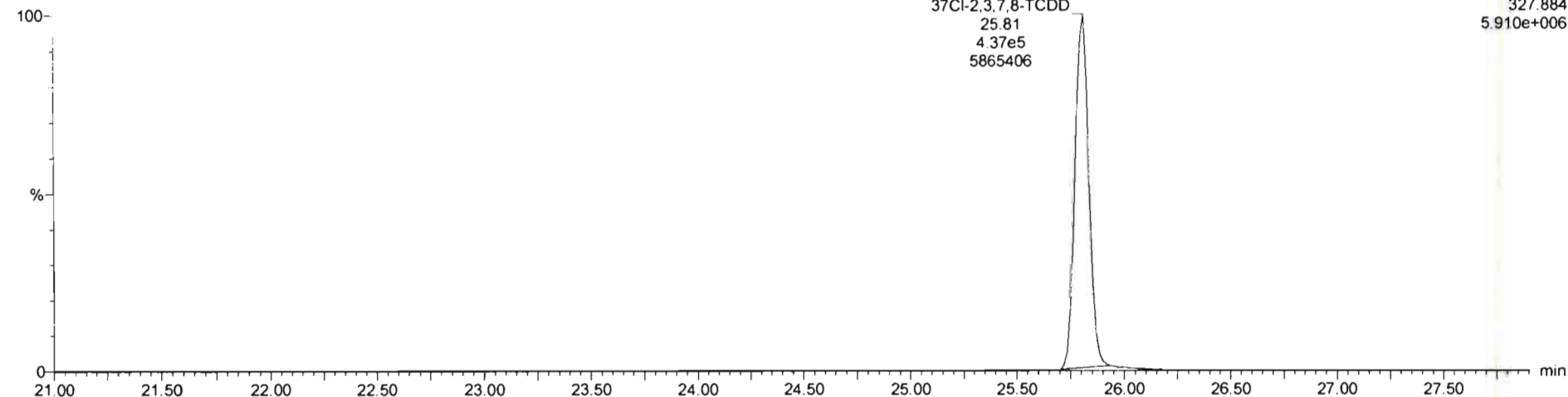
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

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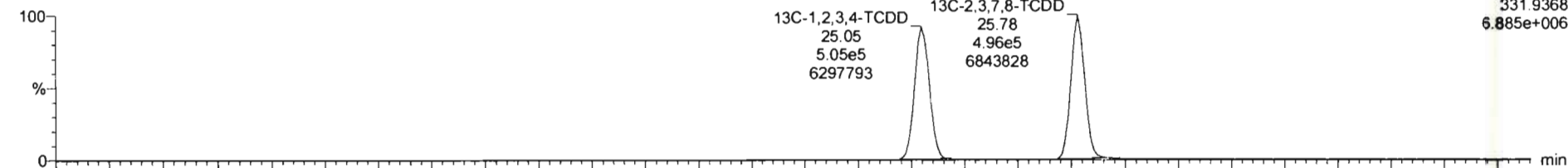
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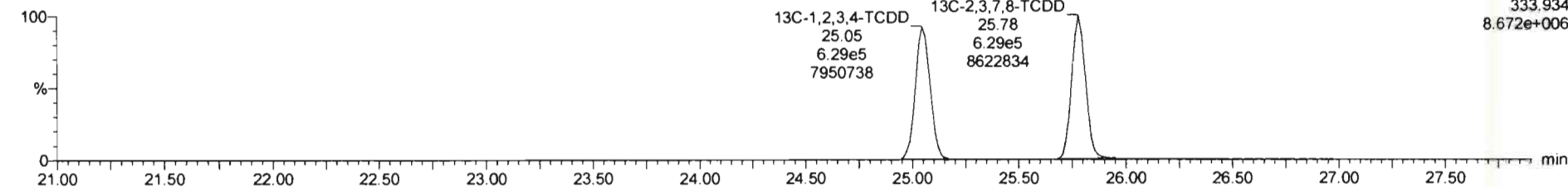


**13C-1,2,3,4-TCDD**

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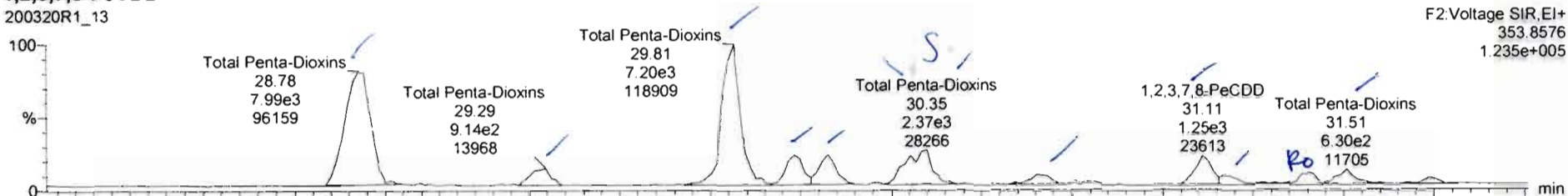
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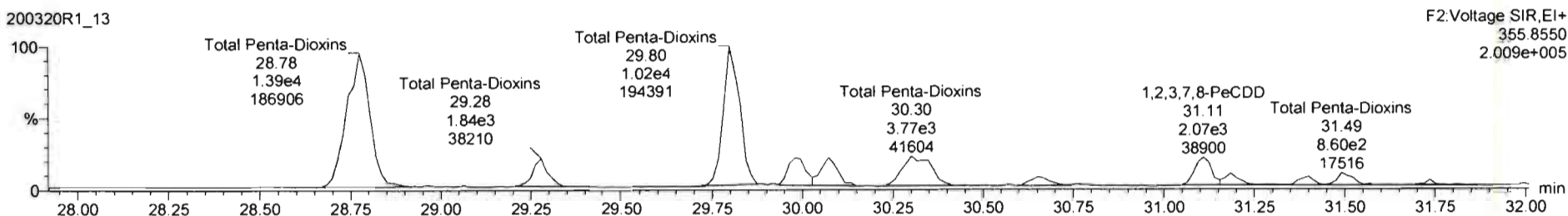
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1,2,3,7,8-PeCDD

200320R1\_13

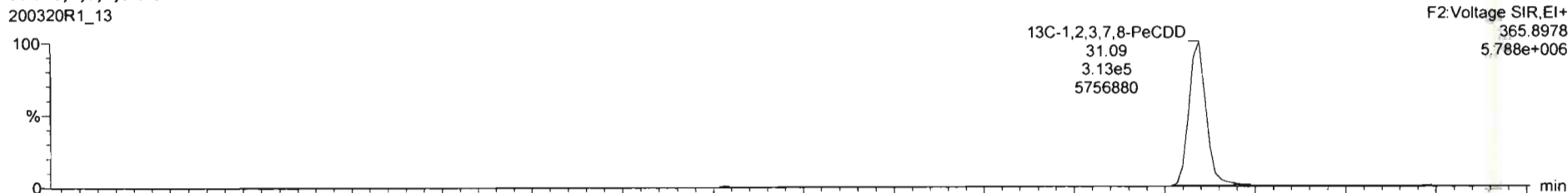


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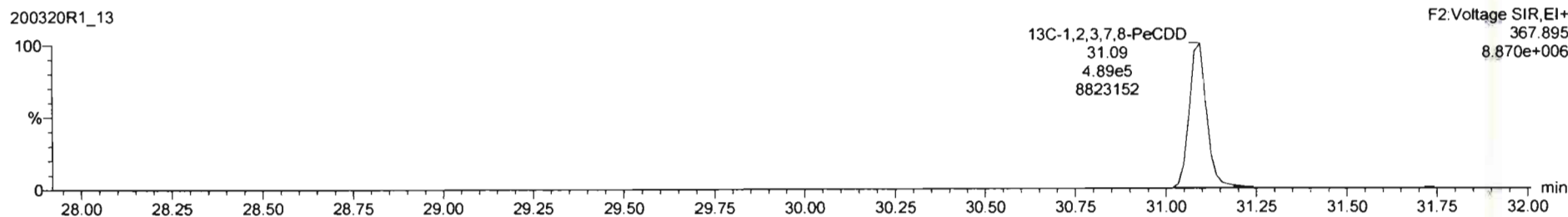


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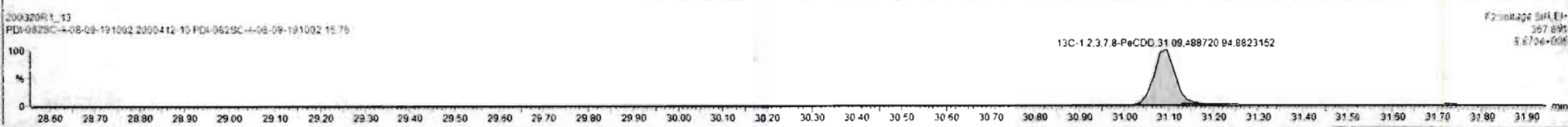
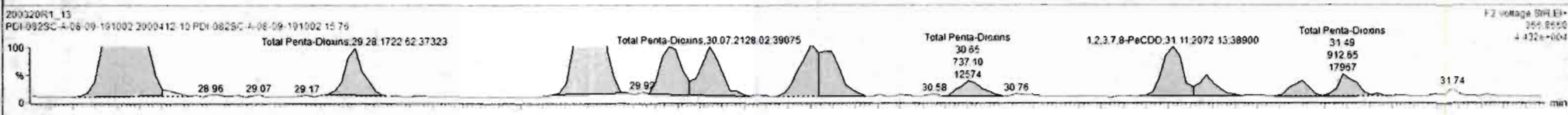
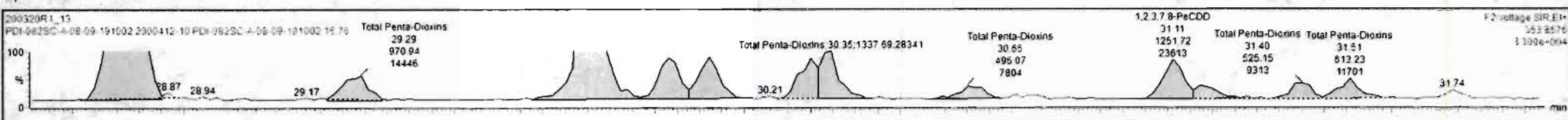


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Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.068			11.1		0.127	11.1
40 Total Penta-Dioxins				0.9212	10.068			16.7		0.0960	17.0

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Dioxins	28.76	6.016e3	1.362e4	0.59	NO	5.8198	5.8198
2 Total Penta-Dioxins	29.29	9.709e2	1.723e3	0.56	NO	0.72464	0.72464
3 Total Penta-Dioxins	29.61	7.195e3	1.021e4	0.70	NO	4.6818	4.6818
4 Total Penta-Dioxins	29.96	1.339e3	2.115e3	0.63	NO	0.92949	0.92949
5 Total Penta-Dioxins	30.07	1.300e3	2.128e3	0.61	NO	0.92222	0.92222
6 Total Penta-Dioxins	30.30	1.045e3	1.868e3	0.56	NO	0.76362	0.76362
7 Total Penta-Dioxins	30.35	1.338e3	1.841e3	0.69	NO	0.88207	0.88207
8 Total Penta-Dioxins	30.65	4.961e2	7.371e2	0.67	NO	0.33175	0.33175
9 1,2,3,7,8-PeCDD	31.11	1.252e3	2.072e3	0.60	NO	0.89420	0.89420
10 Total Penta-Dioxins	31.17	4.399e2	7.556e2	0.58	NO	0.32162	0.32162
11 Total Penta-Dioxins	31.40	5.251e2	6.415e2	0.82	ES	0.28128	0.06000
12 Total Penta-Dioxins	31.51	6.132e2	8.126e2	0.67	NO	0.41050	0.41050



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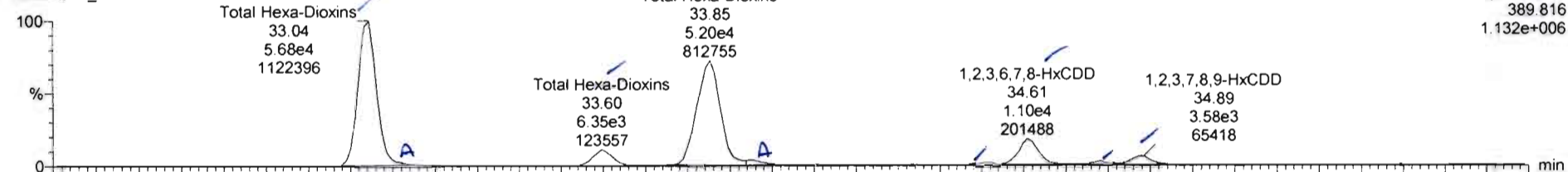
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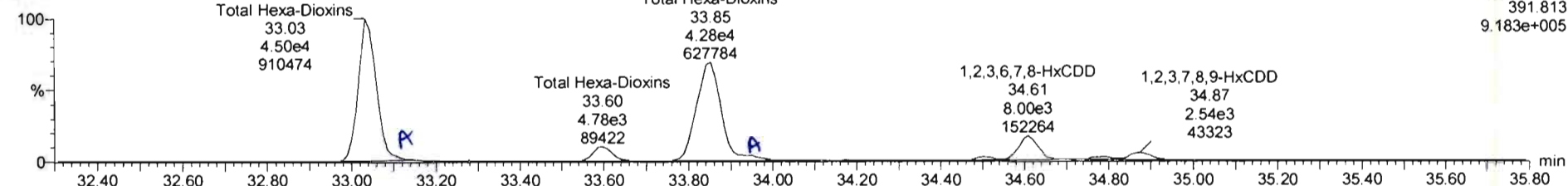
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1,2,3,4,7,8-HxCDD

200320R1\_13

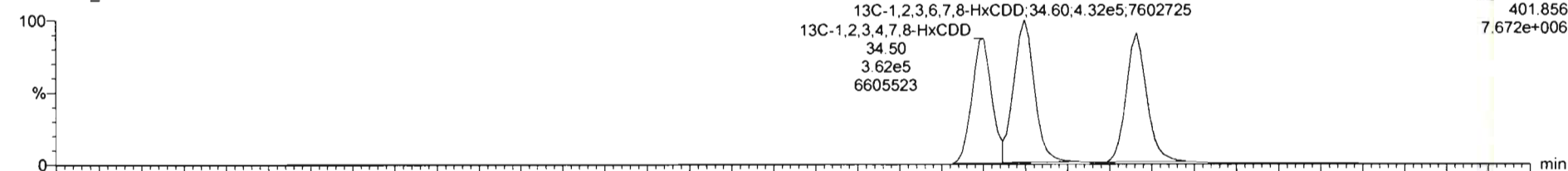


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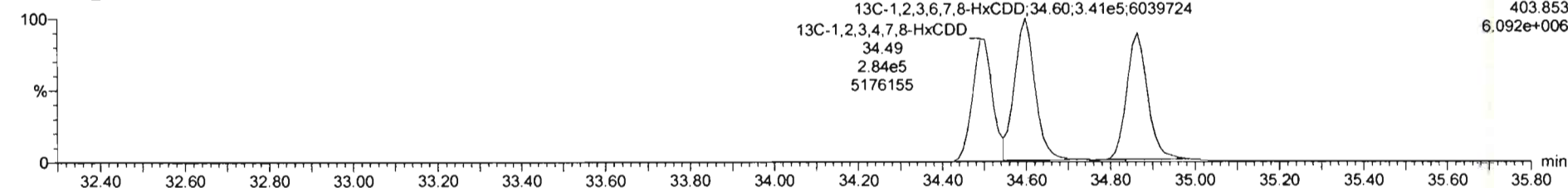


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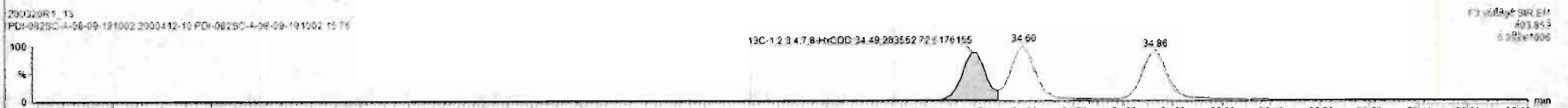
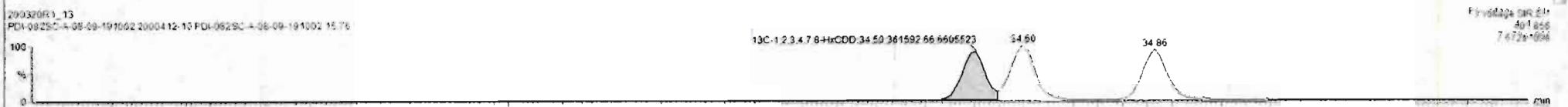


200320R1\_13



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.068			11.1		0.127	11.1
40 Total Penta-Dioxins				0.9212	10.068			16.7		0.0960	17.0

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.04	5.673e4	4.505e4	1.26	NO	25.239	29.239
2 Total Hexa-Dioxins	33.11	9.773e2	6.860e2	1.42	NO	0.47782	0.47782
3 Total Hexa-Dioxins	33.60	6.352e3	4.784e3	1.33	NO	3.1593	3.1593
4 Total Hexa-Dioxins	33.65	5.196e4	4.150e4	1.25	NO	26.853	26.853
5 Total Hexa-Dioxins	33.95	1.778e3	1.285e3	1.38	NO	0.87962	0.87962
6 1,2,3,4,7,8-HxCDD	34.51	1.345e2	9.827e2	1.37	NO	0.63284	0.63284
7 1,2,3,6,7,8-HxCDD	34.61	1.102e4	8.419e3	1.21	NO	5.0799	5.0799
8 Total Hexa-Dioxins	34.76	1.350e3	1.019e3	1.32	NO	0.88061	0.88061
9 1,2,3,7,8,9-HxCDD	34.88	3.581e3	2.627e3	1.36	NO	1.8481	1.8481



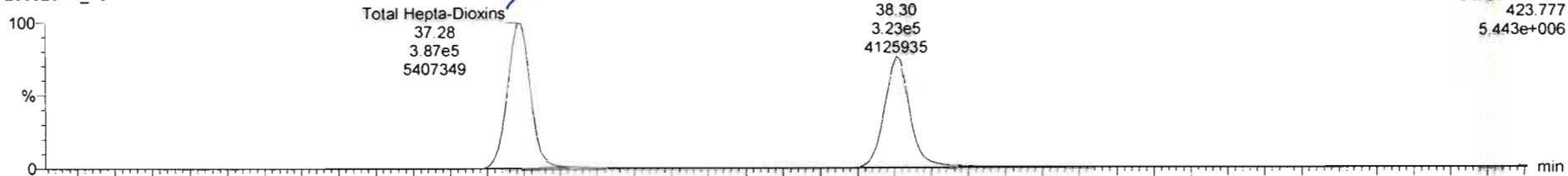
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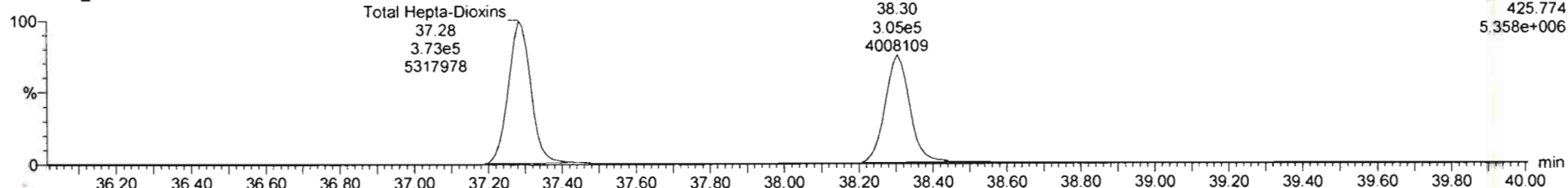
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1,2,3,4,6,7,8-HpCDD

200320R1\_13

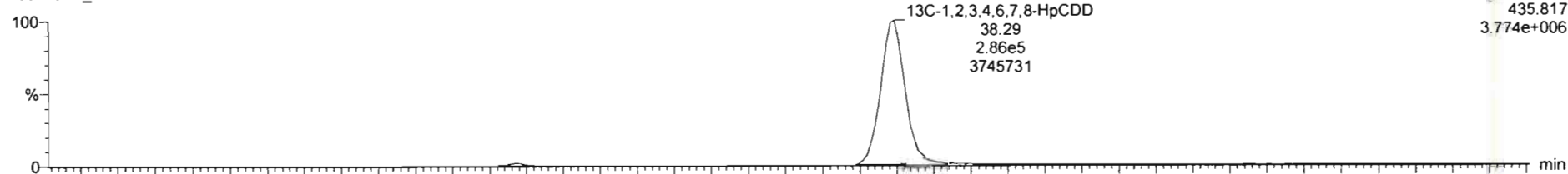


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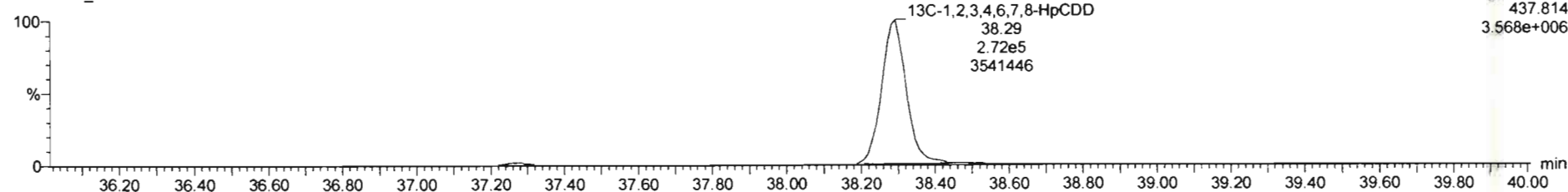


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200320R1\_13



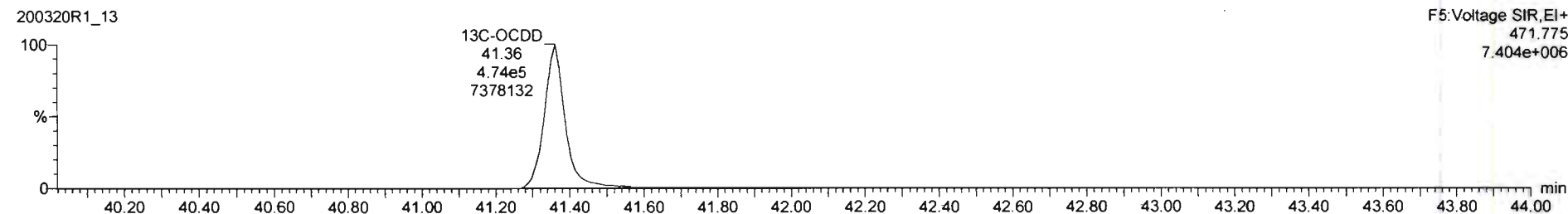
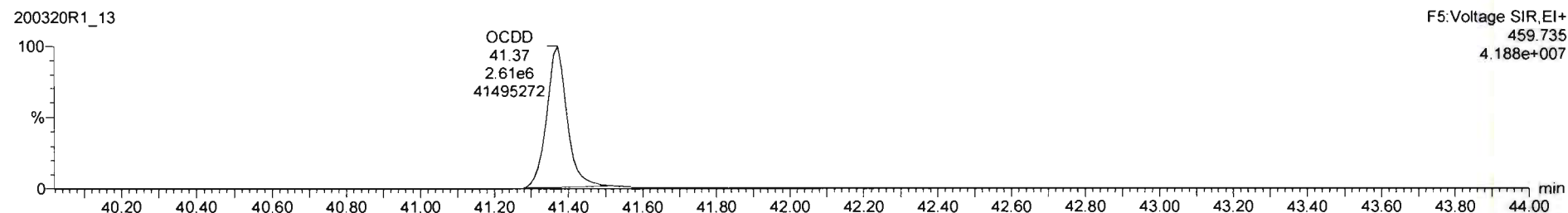
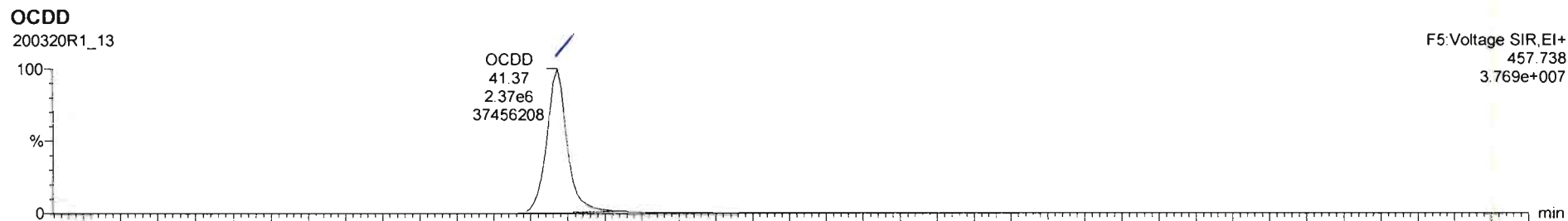
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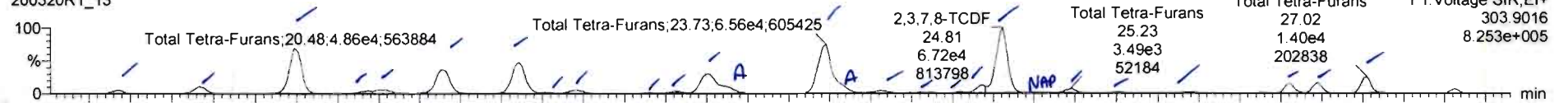
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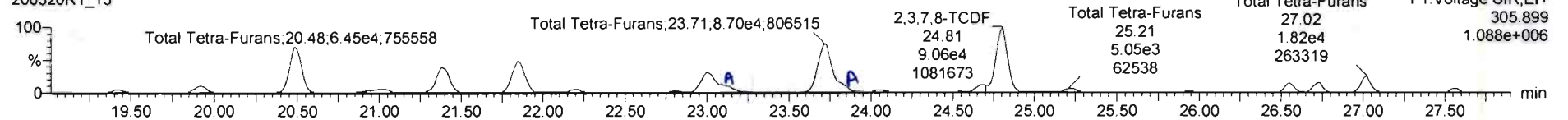
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**2,3,7,8-TCDF**

200320R1\_13

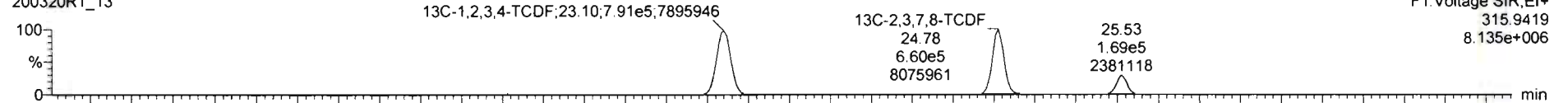


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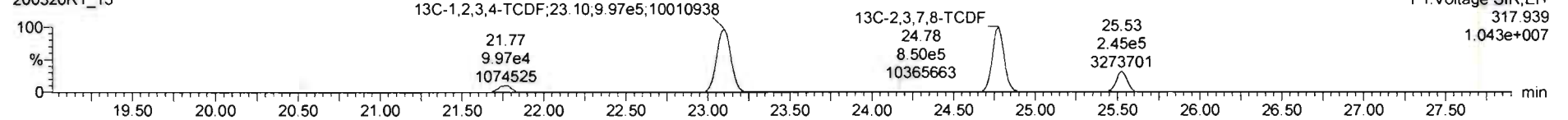


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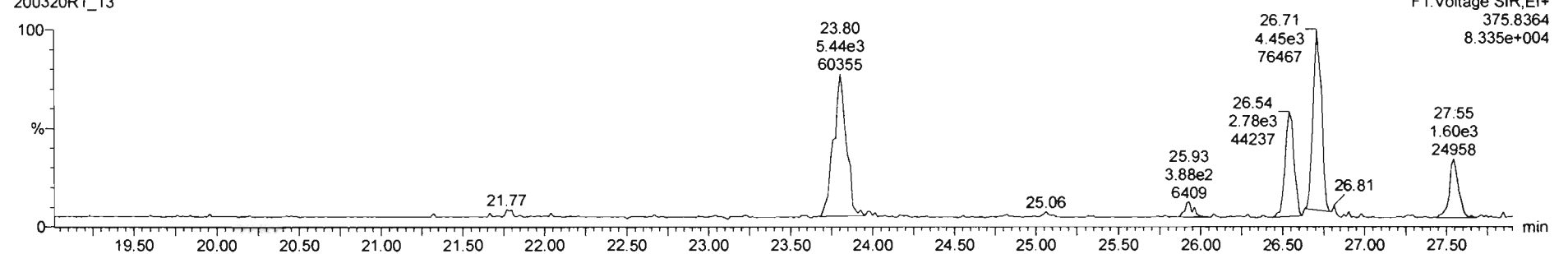


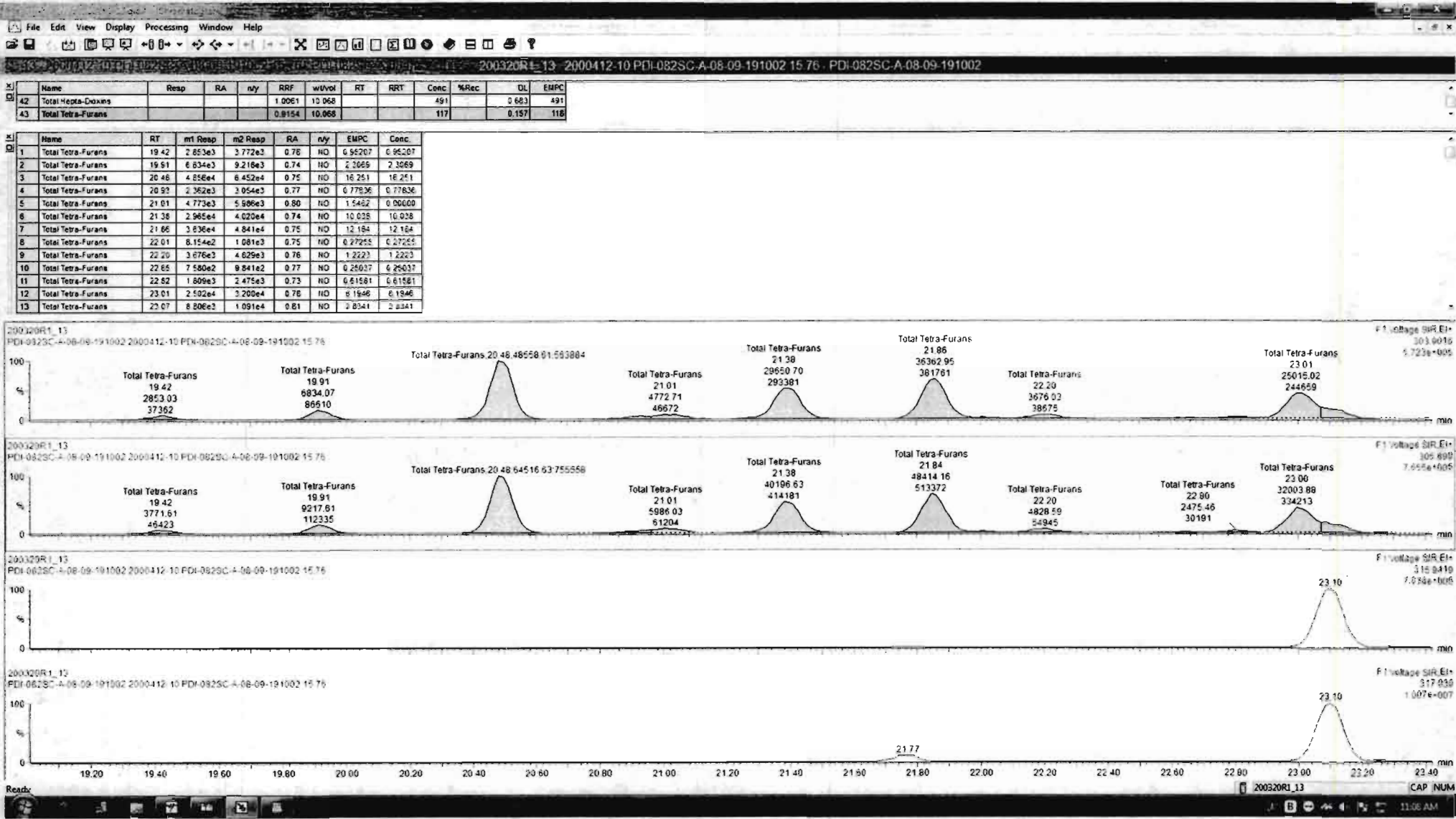
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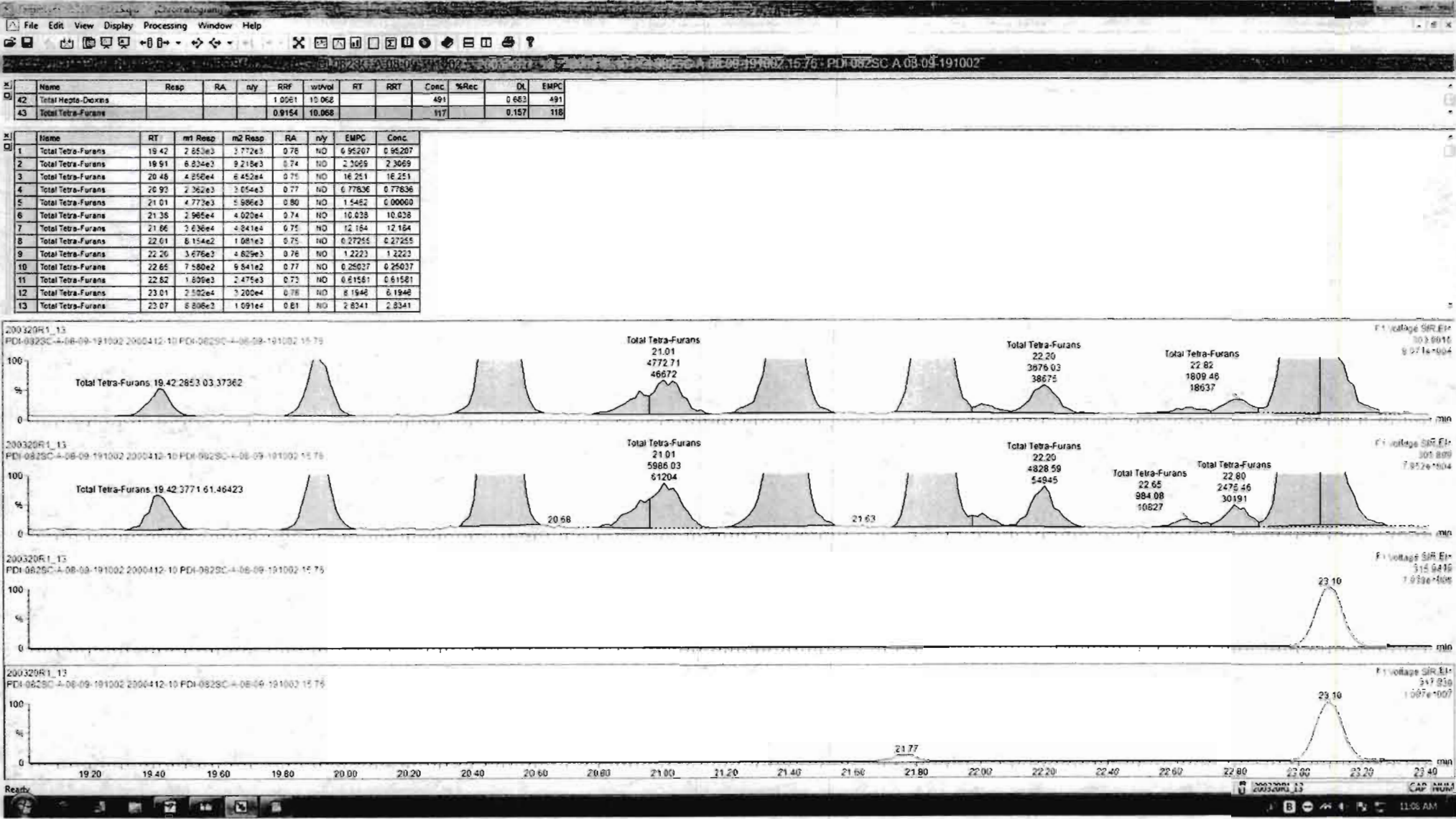
**DPE1**

200320R1\_13



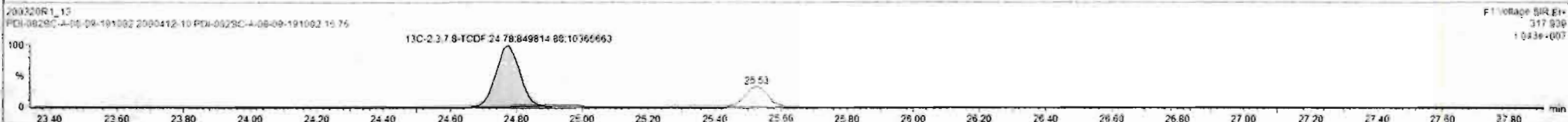
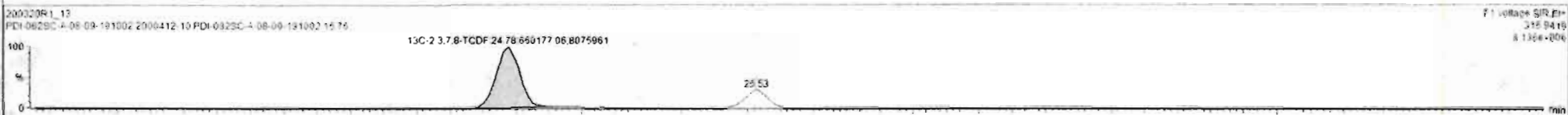
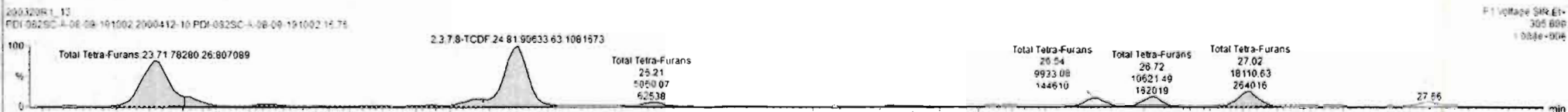






Name	Resp	RA	nfy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0051	10.068			491		0.683	491
43 Total Tetra-Furans				0.9154	10.068			117		0.157	118

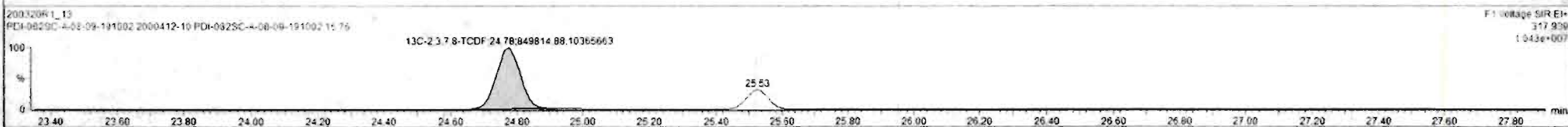
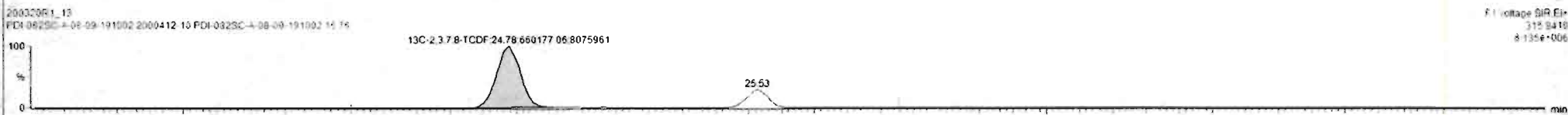
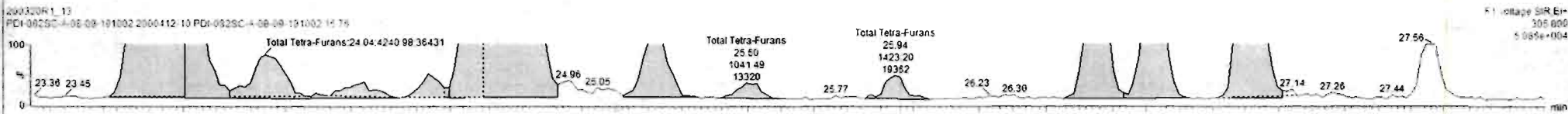
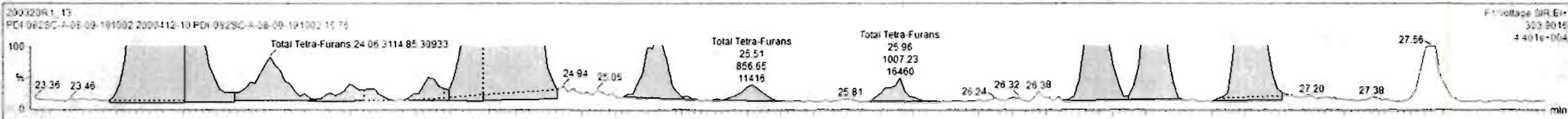
Name	RT	m1 Resp	m2 Resp	RA	nfy	EMPC	Conc
14 Total Tetra-Furans	23.73	5.910e4	7.828e4	0.76	NO	19.744	19.744
15 Total Tetra-Furans	23.80	7.026e3	8.972e3	0.76	NO	2.2991	2.2991
16 Total Tetra-Furans	24.06	3.115e3	4.241e3	0.73	NO	1.0572	1.0572
17 Total Tetra-Furans	24.30	1.350e3	1.569e3	0.86	NO	0.41954	0.41954
18 Total Tetra-Furans	24.54	1.123e3	1.341e3	0.84	NO	0.26549	0.26549
19 Total Tetra-Furans	24.67	6.092e2	8.339e2	0.73	NO	2.0741	2.0741
20 2,3,7,8-TCDF	24.61	6.648e4	9.063e4	0.76	NO	22.864	22.864
21 Total Tetra-Furans	25.23	3.486e3	5.050e3	0.69	NO	1.2298	1.2298
22 Total Tetra-Furans	25.51	8.567e2	1.041e3	0.82	NO	0.27280	0.27280
23 Total Tetra-Furans	25.96	1.007e3	1.423e3	0.71	NO	0.34929	0.34929
24 Total Tetra-Furans	26.54	7.922e3	9.933e3	0.80	NO	2.5661	2.5661
25 Total Tetra-Furans	26.72	6.173e3	1.062e4	0.77	NO	2.7011	2.7011
26 Total Tetra-Furans	27.02	1.448e4	1.811e4	0.80	NO	4.8527	4.8527



Custom Reporting: Select reports to generate

Name	Resp	RA	n/y	RRF	wvol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.00E1	10.068			491		0.683	491
43 Total Tetra-Furans				0.9154	10.068			117		0.157	118

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
14 Total Tetra-Furans	23.73	5.910e4	7.828e4	0.76	NO	19.744	19.744
15 Total Tetra-Furans	23.80	7.026e3	6.972e3	0.76	NO	2.2991	2.2991
16 Total Tetra-Furans	24.06	3.115e3	4.241e2	0.73	NO	1.0572	1.0572
17 Total Tetra-Furans	24.30	1.350e3	1.569e3	0.86	NO	0.41954	0.41954
18 Total Tetra-Furans	24.54	1.133e3	1.341e2	0.84	NO	0.35549	0.35549
19 Total Tetra-Furans	24.67	6.932e3	6.339e3	0.73	NO	2.0741	2.0741
20 2,3,7,8-TCDF	24.61	6.848e4	9.063e4	0.76	NO	22.864	22.864
21 Total Tetra-Furans	25.23	3.486e3	5.050e3	0.69	NO	1.2268	1.2268
22 Total Tetra-Furans	25.51	6.567e2	1.041e3	0.82	NO	0.27280	0.27280
23 Total Tetra-Furans	25.96	1.307e2	1.423e2	0.71	NO	0.34929	0.34929
24 Total Tetra-Furans	26.54	7.922e3	9.933e2	0.80	NO	2.5661	2.5661
25 Total Tetra-Furans	26.72	8.173e3	1.062e4	0.77	NO	2.7011	2.7011
26 Total Tetra-Furans	27.02	1.44E+4	1.811e4	0.80	NO	4.6507	4.6507



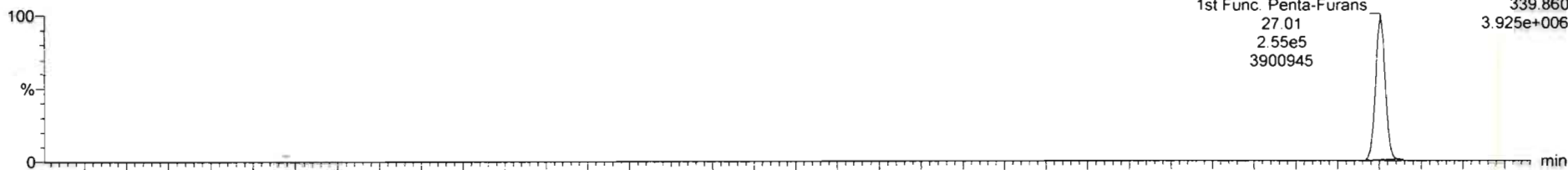
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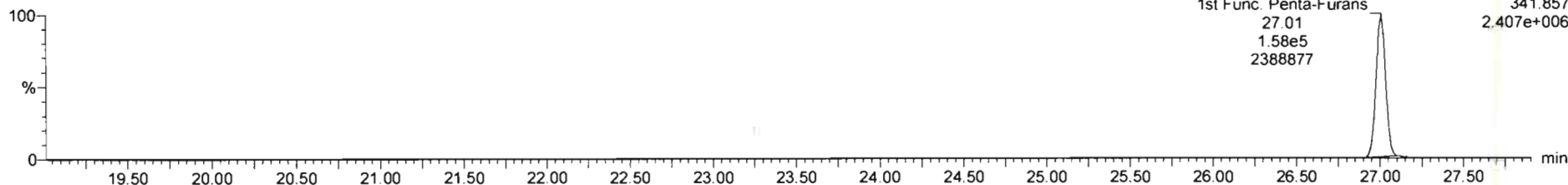
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1st Func. Penta-Furans

200320R1\_13

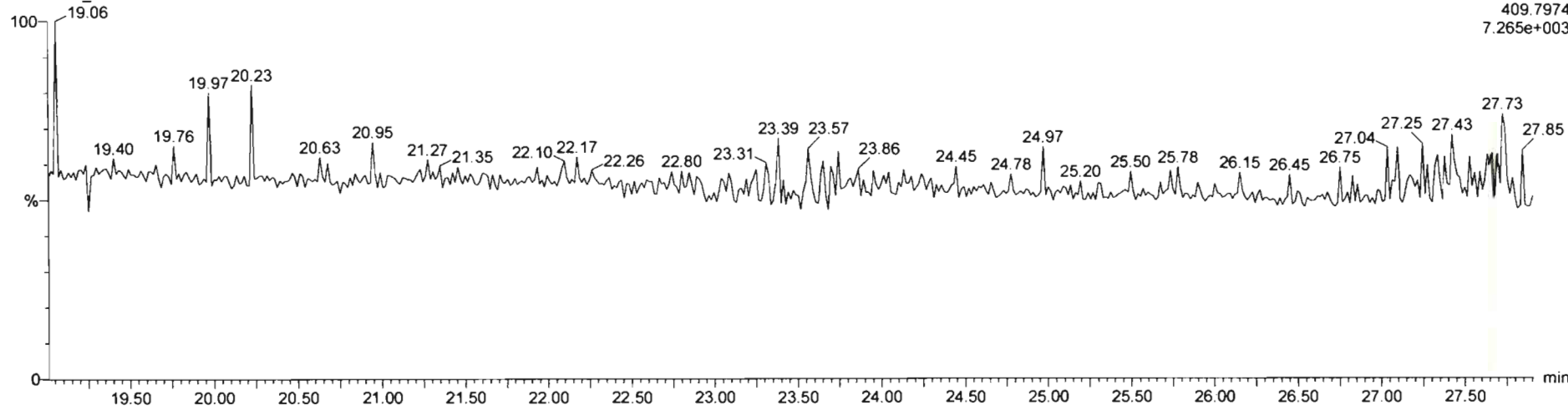


200320R1\_13



DPE6

200320R1\_13



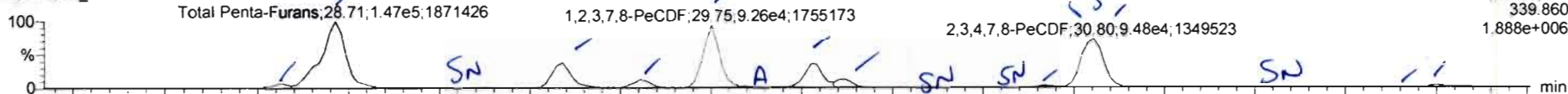
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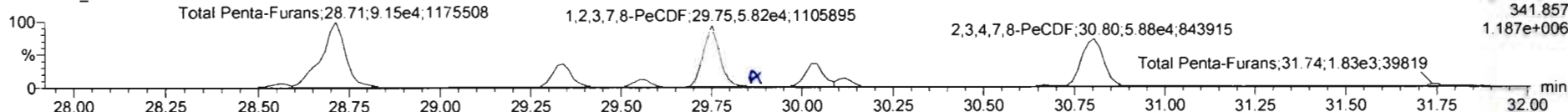
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**1,2,3,7,8-PeCDF**

200320R1\_13



200320R1\_13

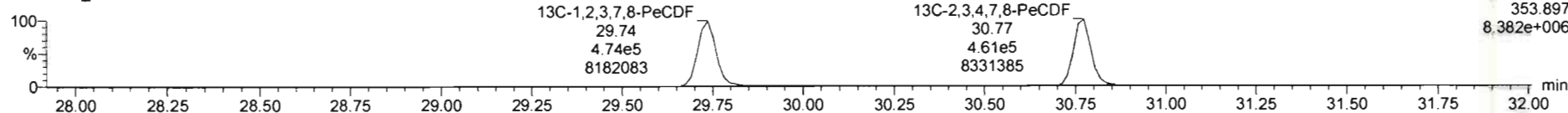


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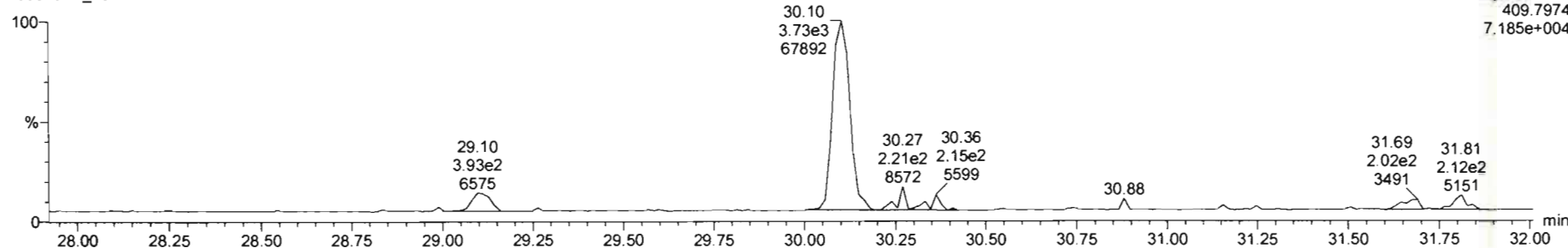


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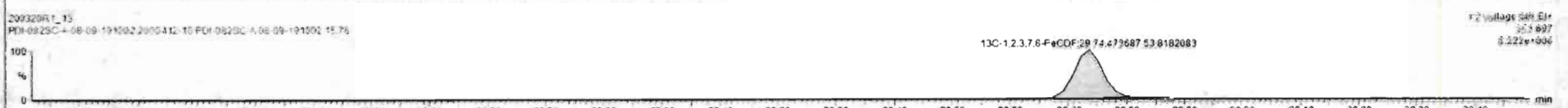
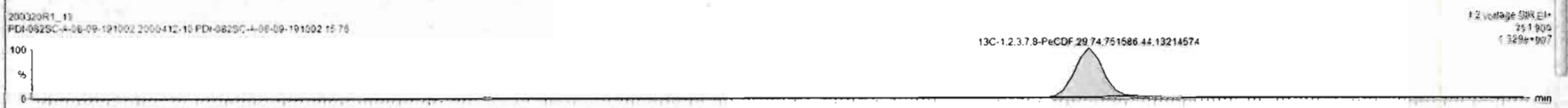
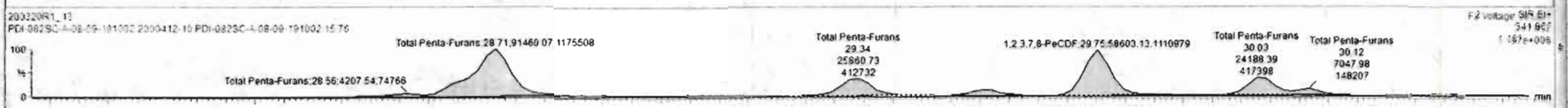
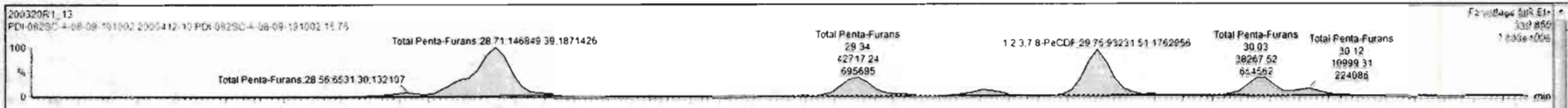
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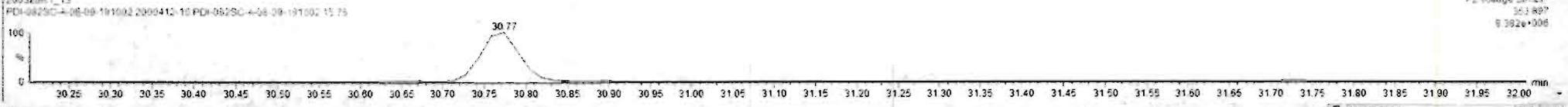
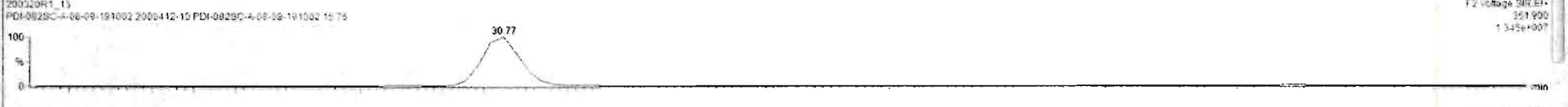
Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.068			125		0.136	125
46 Total Hexa-Furans				1.0520	10.068			221		0.160	222

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	6.531e3	4.205e3	1.55	NO	1.8387	1.8387
2 Total Penta-Furans	28.71	1.488e5	9.146e4	1.61	NO	40.603	40.603
3 Total Penta-Furans	29.34	4.272e4	2.586e4	1.65	NO	11.742	11.742
4 Total Penta-Furans	29.55	1.122e4	7.695e3	1.46	NO	3.2383	3.2383
5 1,2,3,7,8-PeCDF	29.75	9.323e4	5.660e4	1.59	NO	25.656	25.656
6 Total Penta-Furans	29.84	1.692e3	1.105e3	1.53	NO	0.47948	0.47948
7 Total Penta-Furans	30.03	3.627e4	2.419e4	1.55	NO	10.694	10.694
8 Total Penta-Furans	30.12	1.100e4	7.046e3	1.56	NO	3.0901	3.0901
9 Total Penta-Furans	30.67	2.138e3	1.337e3	1.60	NO	0.59504	0.59504
10 2,3,4,7,8-PeCDF	30.80	5.596e4	5.963e4	1.61	NO	25.811	25.811
11 Total Penta-Furans	31.67	8.932e2	5.812e2	1.54	NO	0.26245	0.26245
12 Total Penta-Furans	31.75	2.959e3	1.833e3	1.61	NO	0.82050	0.82050



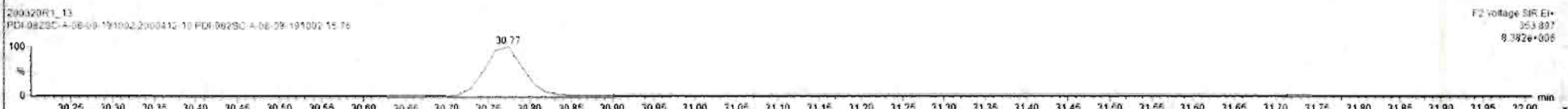
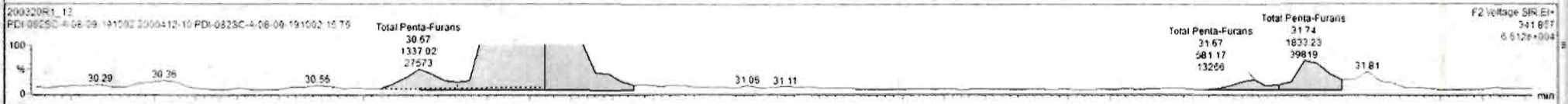
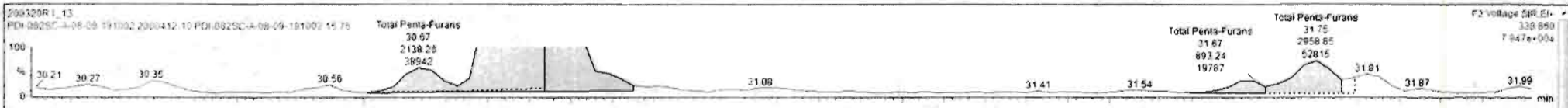
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.068			125		0.136	125
46 Total Hexa-Furans				1.9920	10.066			221		0.180	222

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.56	6.531e3	4.208e2	1.55	NO	1.8387	1.8387
2 Total Penta-Furans	28.71	1.468e5	9.146e4	1.61	NO	40.803	40.803
3 Total Penta-Furans	29.24	4.272e4	2.586e4	1.65	NO	11.742	11.742
4 Total Penta-Furans	29.55	1.122e4	7.595e2	1.46	NO	3.2383	3.2383
5 1,2,3,7,8-PeCDF	29.75	9.323e4	6.860e4	1.59	NO	25.658	25.658
6 Total Penta-Furans	29.84	1.692e3	1.108e2	1.53	NO	0.47948	0.47948
7 Total Penta-Furans	30.03	3.827e4	2.419e4	1.58	NO	10.694	10.694
8 Total Penta-Furans	30.12	1.100e4	7.048e2	1.56	NO	3.0501	3.0501
9 Total Penta-Furans	30.67	2.138e3	1.337e3	1.60	NO	0.59504	0.59504
10 2,3,4,7,8-PeCDF	30.68	7.190e4	4.440e4	1.60	NO	18.145	18.145
11 Total Penta-Furans	30.52	2.497e4	1.539e4	1.62	NO	6.9092	6.9092
12 Total Penta-Furans	31.67	6.932e2	5.812e2	1.14	NO	0.36245	0.36245
13 Total Penta-Furans	31.75	2.958e2	1.835e2	1.81	NO	0.52050	0.52050



Name	Resp	RA	n/y	R/R	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9504	19.068			125		0.136	125
46 Total Hexa-Furans				1.0920	10.068			221		0.180	222

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.56	6.531e3	4.208e3	1.55	NO	1.8387	1.8387
2 Total Penta-Furans	28.71	1.468e5	9.146e4	1.61	NO	40.803	40.803
3 Total Penta-Furans	29.34	4.272e4	2.589e4	1.65	NO	11.742	11.742
4 Total Penta-Furans	29.55	1.122e4	7.695e3	1.46	NO	2.2382	2.2382
5 1,2,3,7,8-PeCDF	29.75	9.323e4	5.660e4	1.59	NO	25.658	25.658
6 Total Penta-Furans	29.84	1.892e3	1.105e3	1.53	NO	0.47948	0.47948
7 Total Penta-Furans	30.02	2.827e4	2.419e4	1.58	NO	10.694	10.694
8 Total Penta-Furans	30.12	1.100e4	7.048e3	1.56	NO	3.0601	3.0601
9 Total Penta-Furans	30.67	2.138e3	1.337e3	1.60	NO	0.55604	0.55604
10 2,3,4,7,8-PeCDF	30.60	7.100e4	4.440e4	1.60	NO	19.145	19.145
11 Total Penta-Furans	30.62	2.497e4	1.539e4	1.62	NO	6.9092	6.9092
12 Total Penta-Furans	31.67	6.632e2	5.812e2	1.54	NO	0.25245	0.25245
13 Total Penta-Furans	31.75	2.569e3	1.633e2	1.61	NO	0.62050	0.62050





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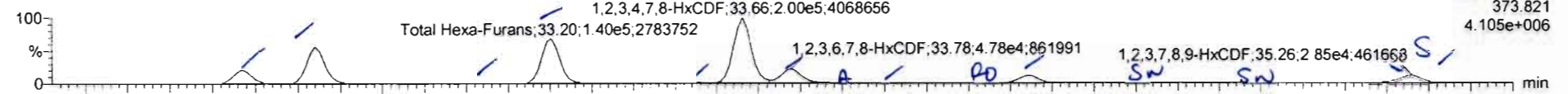
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

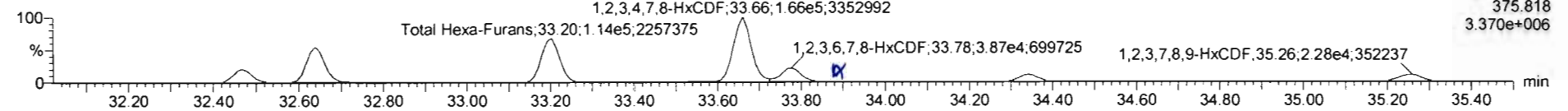
**1,2,3,4,7,8-HxCDF**

200320R1\_13



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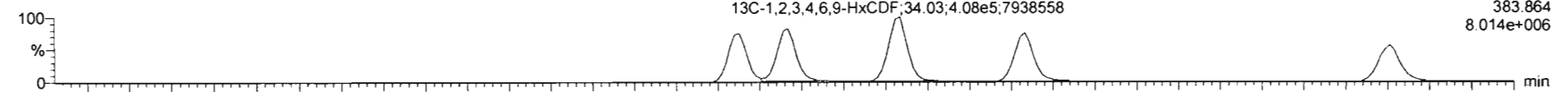
200320R1\_13



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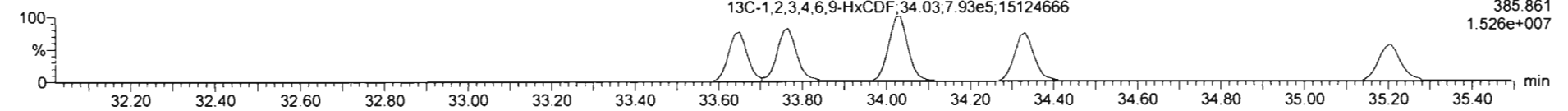
**13C-1,2,3,4,7,8-HxCDF**

200320R1\_13



F3: Voltage SIR, EI+  
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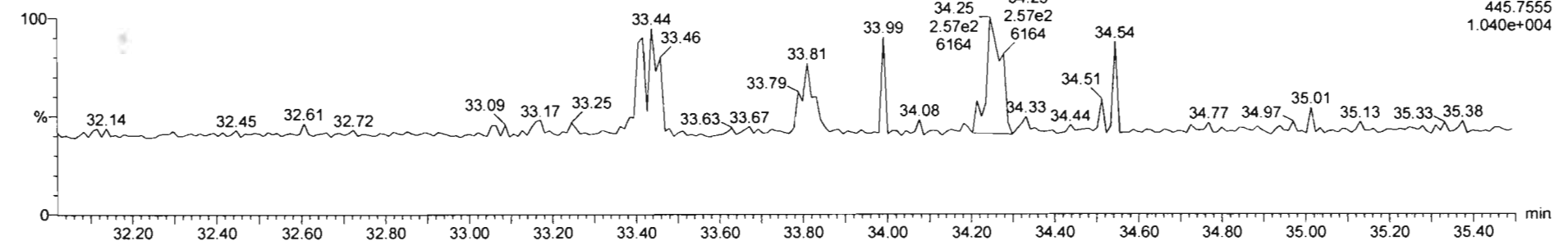
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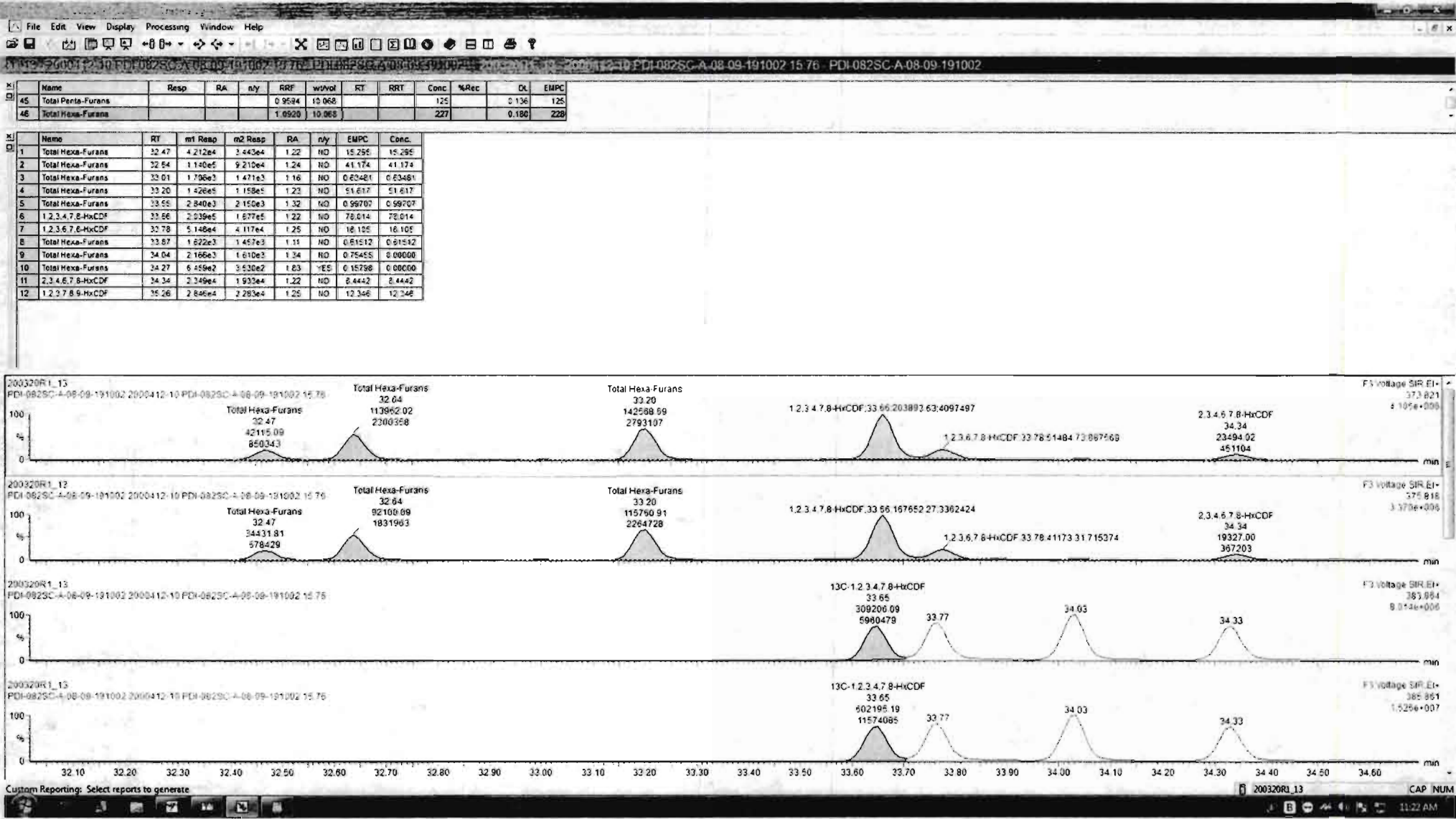
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**DPE3**

200320R1\_13

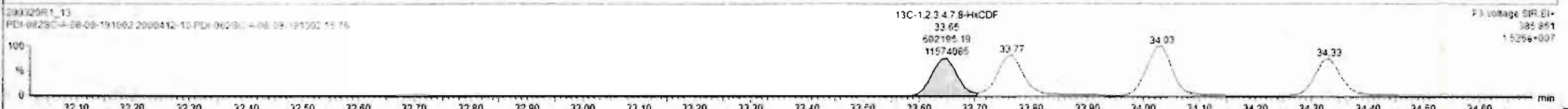
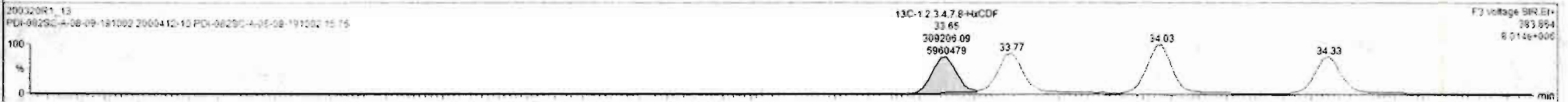
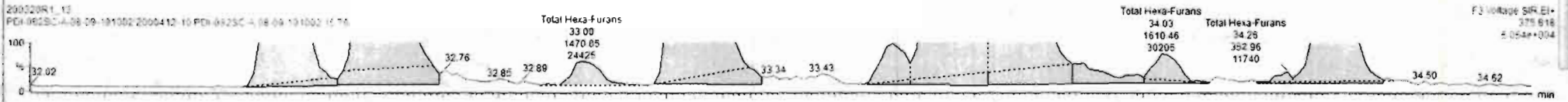
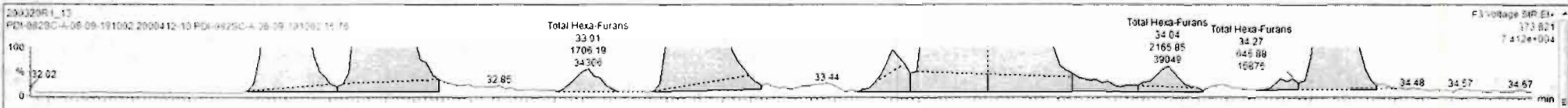


F3: Voltage SIR, EI+  
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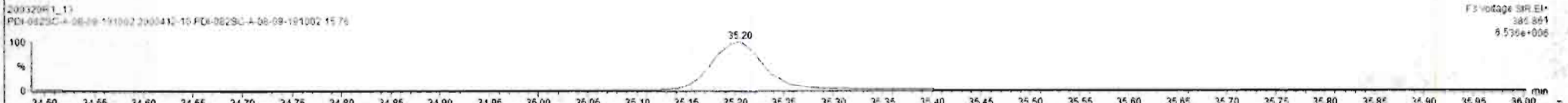
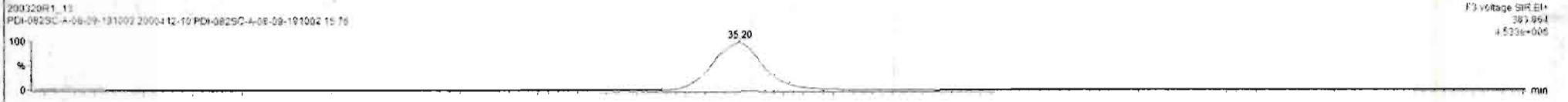
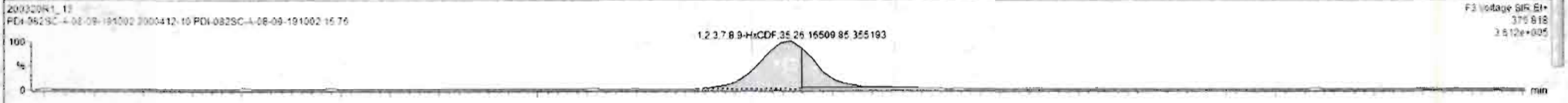
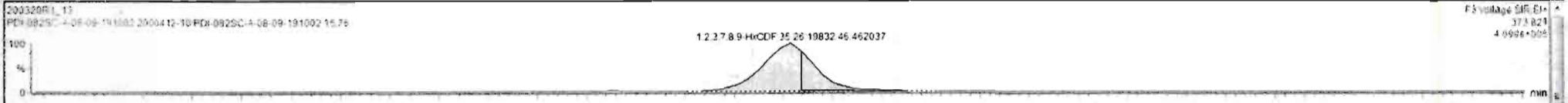
Name	Resp	RA	n/y	RPF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.068			125		0.136	125
46 Total Hexa-Furans				1.0928	10.068			227		0.180	228

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.47	4.212e4	3.443e4	1.22	NO	15.295	15.295
2 Total Hexa-Furans	32.64	1.140e5	9.210e4	1.24	NO	41.174	41.174
3 Total Hexa-Furans	33.01	1.706e3	1.471e3	1.16	NO	0.63481	0.63481
4 Total Hexa-Furans	33.20	1.426e5	1.158e5	1.23	NO	51.617	51.617
5 Total Hexa-Furans	33.55	2.940e3	2.150e3	1.32	NO	0.99707	0.99707
6 1,2,3,4,7,8-HxCDF	33.86	2.039e5	1.677e5	1.22	NO	78.014	78.014
7 1,2,3,6,7,8-HxCDF	33.78	5.148e4	4.117e4	1.25	NO	18.105	18.105
8 Total Hexa-Furans	33.87	1.622e3	1.457e3	1.11	NO	0.61512	0.61512
9 Total Hexa-Furans	34.04	2.166e3	1.610e3	1.34	NO	0.75456	0.00000
10 Total Hexa-Furans	34.27	5.459e2	3.530e2	1.03	ES	0.15798	0.00000
11 2,3,4,6,7,8-HxCDF	34.34	2.349e4	1.933e4	1.22	NO	8.4442	8.4442
12 1,2,3,7,8,9-HxCDF	35.26	2.686e4	2.283e4	1.25	NO	12.346	12.346



Name	Resp	RA	n/y	RRF	w/wol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.068			125		0.136	125
46 Total Hexa-Furans				1.0920	10.068			227		0.166	227

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.47	4.212e4	3.443e4	1.22	NO	15.295	15.295
2 Total Hexa-Furans	32.64	1.140e5	9.210e4	1.24	NO	41.174	41.174
3 Total Hexa-Furans	32.01	1.706e3	1.471e3	1.16	NO	0.63481	0.63481
4 Total Hexa-Furans	33.20	1.426e5	1.158e5	1.23	NO	51.617	51.617
5 Total Hexa-Furans	33.55	2.840e3	2.150e3	1.32	NO	0.99701	0.99701
6 1,2,3,4,7,8-HxCDF	33.66	2.039e5	1.677e5	1.22	NO	76.014	76.014
7 1,2,3,6,7,8-HxCDF	33.78	5.146e4	4.117e4	1.25	NO	18.105	18.105
8 Total Hexa-Furans	33.87	1.622e3	1.457e3	1.11	NO	0.61512	0.61512
9 Total Hexa-Furans	34.04	2.166e3	1.610e3	1.34	NO	0.75455	0.75455
10 Total Hexa-Furans	34.27	6.459e2	3.530e2	1.63	YES	0.15798	0.00000
11 2,3,4,6,7,8-HxCDF	34.34	2.349e4	1.933e4	1.22	NO	8.4442	8.4442
12 1,2,3,7,8,9-HxCDF	35.26	1.983e4	1.651e4	1.20	NO	8.7414	8.7414
13 Total Hexa-Furans	35.27	6.240e3	6.313e3	1.31	NO	2.9079	2.9079



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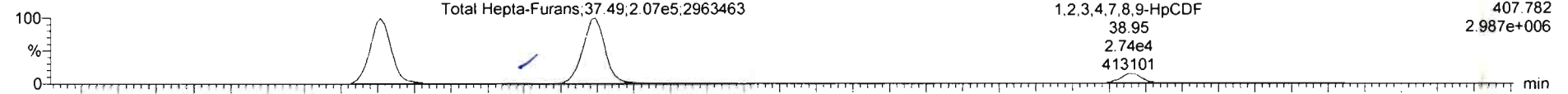
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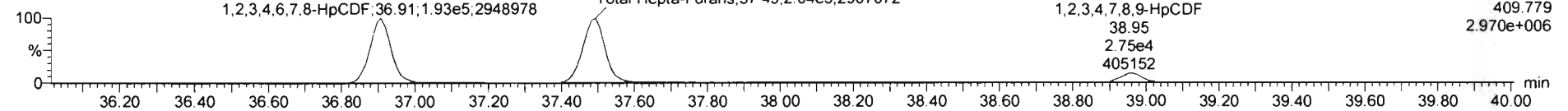
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**1,2,3,4,6,7,8-HpCDF**

200320R1\_13

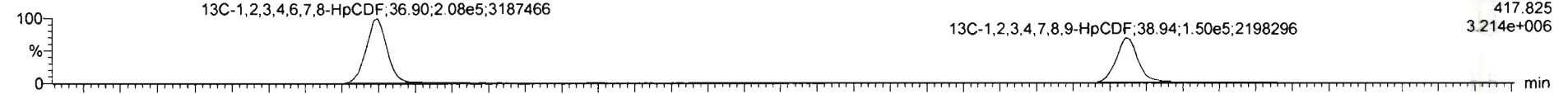


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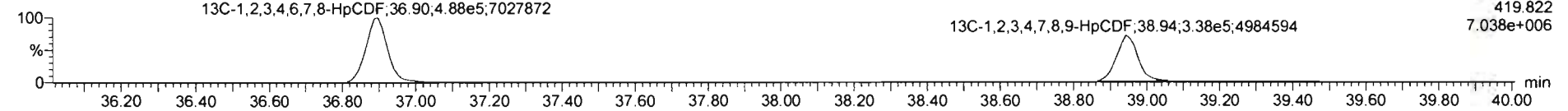


**13C-1,2,3,4,6,7,8-HpCDF**

200320R1\_13

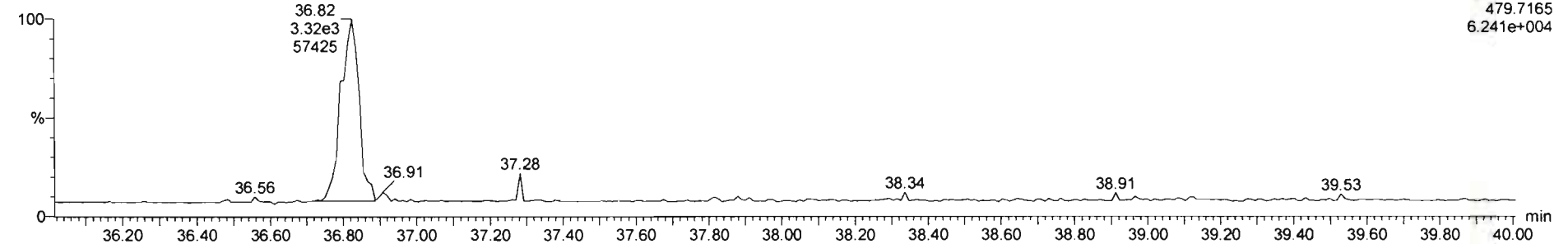


200320R1\_13



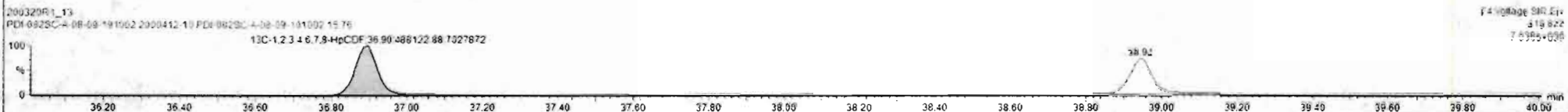
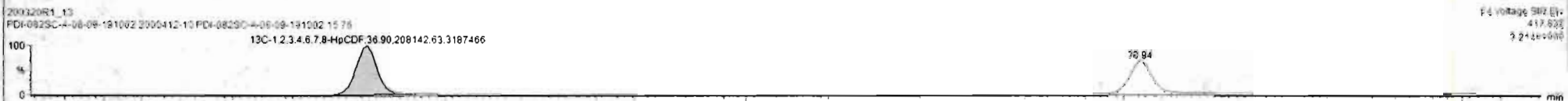
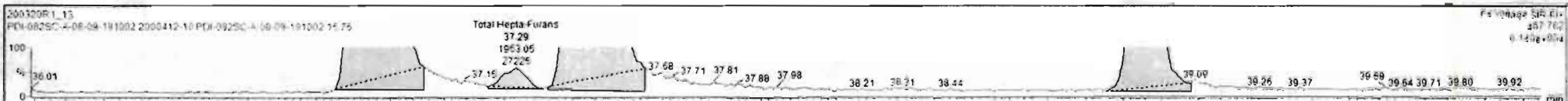
**DPE4**

200320R1\_13



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.068			125		0.136	125
46 Total Hexa-Furans				1.0920	10.066			227		0.160	227

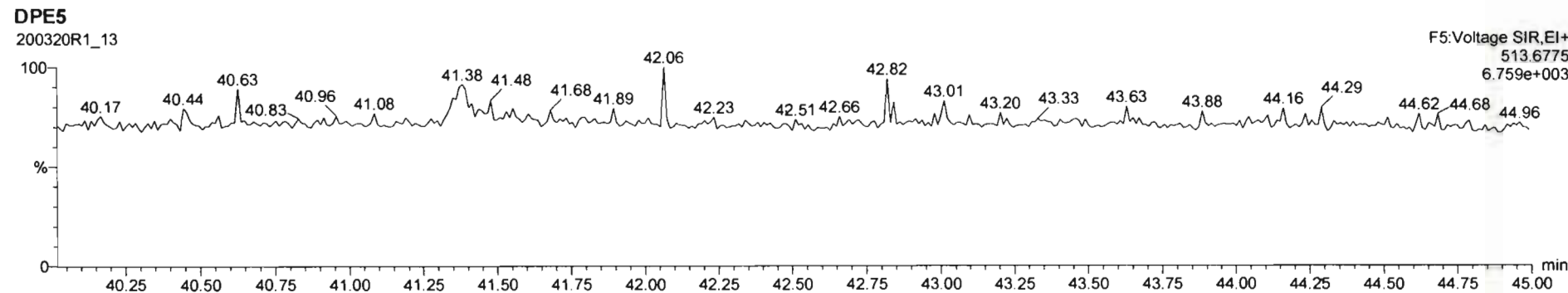
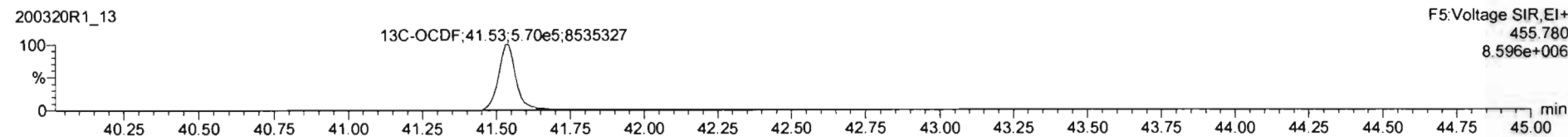
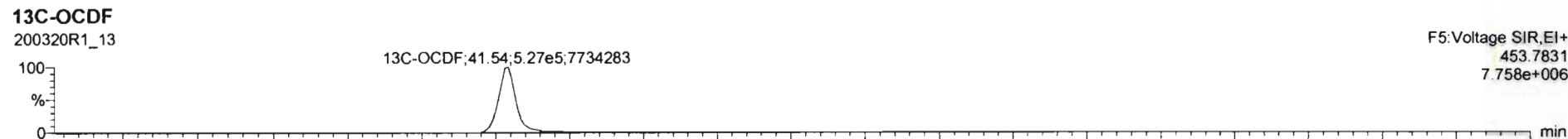
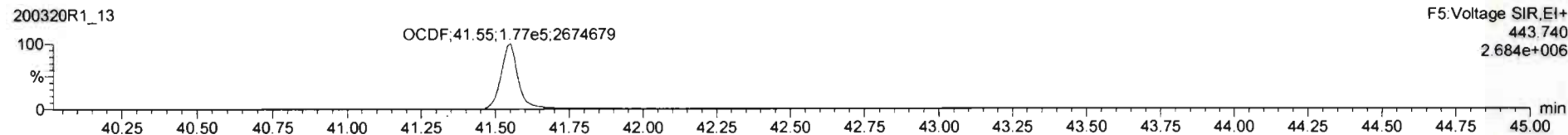
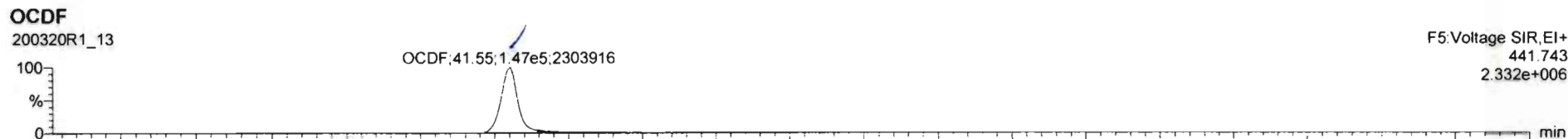
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.91	1.896e5	1.958e5	1.02	NO	107.67	107.67
2 Total Hepta-Furans	37.29	1.652e3	1.517e3	1.02	NO	1.2384	1.2384
3 Total Hepta-Furans	37.49	2.114e5	2.088e5	1.01	NO	134.47	134.47
4 1,2,3,4,7,8,9-HpCDF	38.95	2.053e4	2.785e4	1.02	NO	18.966	18.966



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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_13, Date: 20-Mar-2020, Time: 23:23:43, ID: 2000412-10 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002



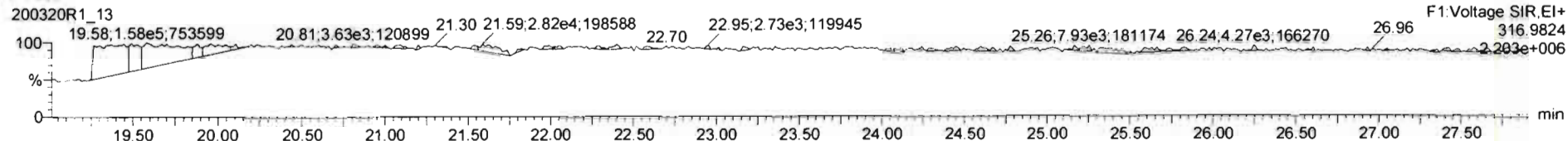
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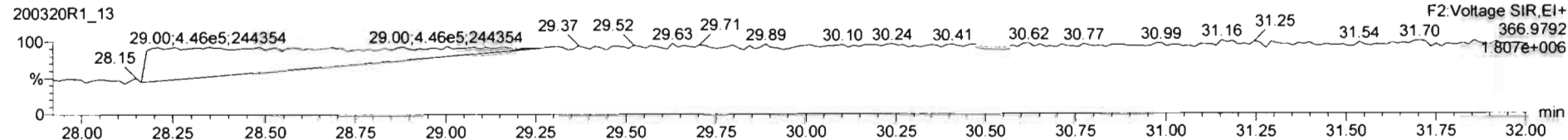
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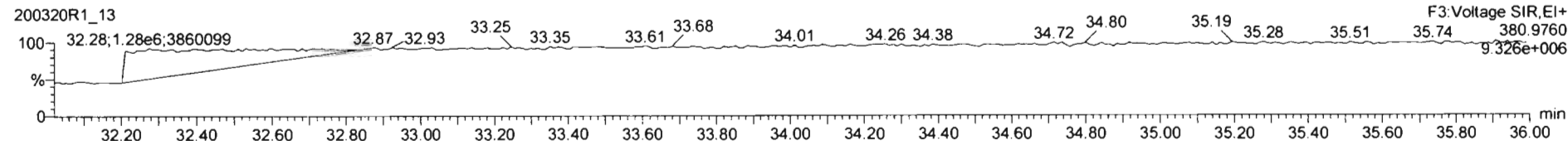
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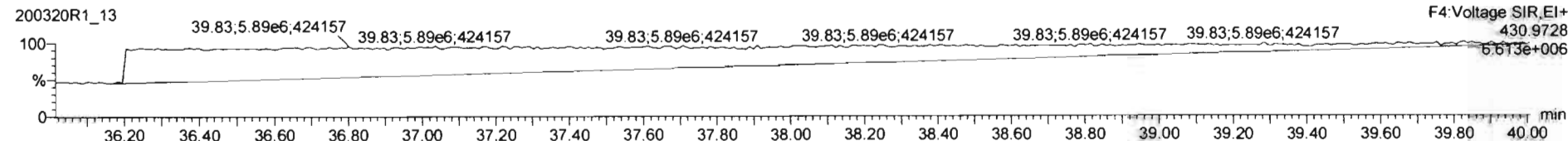
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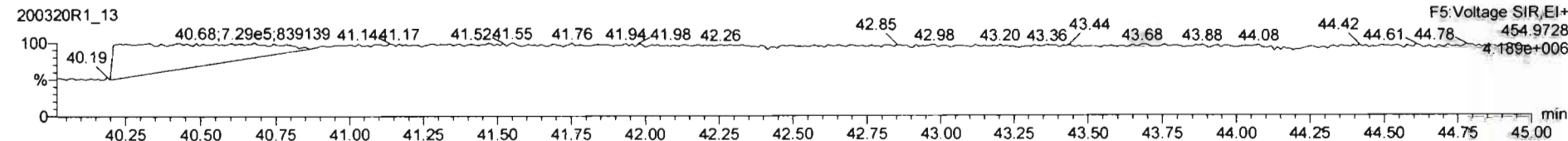
PFK3



PFK4



PFK5





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GRB 03/27/2020

C1 04/02/2020

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	3.37e3	0.70	NO	0.983	10.003	25.826	25.83	1.001	1.001	0.52707		0.118	0.527
2	2 1,2,3,7,8-PeCDD	5.08e3	0.58	NO	0.921	10.003	31.116	31.11	1.001	1.001	1.1529		0.0821	1.15
3	3 1,2,3,4,7,8-HxCDD	5.69e3	1.17	NO	1.13	10.003	34.512	34.52	1.000	1.001	1.2485		0.190	1.25
4	4 1,2,3,6,7,8-HxCDD	5.56e4	1.24	NO	0.984	10.003	34.609	34.62	1.000	1.000	12.418		0.200	12.4
5	5 1,2,3,7,8,9-HxCDD	1.38e4	1.25	NO	0.967	10.003	34.885	34.89	1.000	1.000	3.3294		0.223	3.33
6	6 1,2,3,4,6,7,8-HpCDD	2.22e6	1.03	NO	1.01	10.003	38.305	38.31	1.000	1.001	578.44		0.907	578
7	7 OCDD	1.57e7	0.89	NO	1.05	10.003	41.382	41.39	1.000	1.000	4306.2		0.690	4310
8	8 2,3,7,8-TCDF	6.29e5	0.76	NO	0.915	10.003	24.832	24.84	1.001	1.001	78.348	(72.4)	0.168	78.3
9	9 1,2,3,7,8-PeCDF	5.24e5	1.57	NO	0.959	10.003	29.757	29.75	1.001	1.001	76.449		0.179	76.4
10	10 2,3,4,7,8-PeCDF	3.36e5	1.55	NO	1.00	10.003	30.794	30.79	1.001	1.000	48.816		0.172	48.8
11	11 1,2,3,4,7,8-HxCDF	4.90e5	1.22	NO	1.04	10.003	33.650	33.67	1.000	1.001	87.846		0.206	87.8
12	12 1,2,3,6,7,8-HxCDF	1.39e5	1.25	NO	1.01	10.003	33.777	33.78	1.000	1.000	23.968		0.209	24.0
13	13 2,3,4,6,7,8-HxCDF	5.84e4	1.22	NO	1.09	10.003	34.366	34.35	1.001	1.001	9.8233		0.212	9.82
14	14 1,2,3,7,8,9-HxCDF	5.08e4	1.19	NO	1.03	10.003	35.216	35.26	1.000	1.001	10.393		0.284	10.4
15	15 1,2,3,4,6,7,8-HpCDF	3.70e5	1.01	NO	1.05	10.003	36.946	36.92	1.001	1.000	83.429		0.285	83.4
16	16 1,2,3,4,7,8,9-HpCDF	6.95e4	0.99	NO	1.21	10.003	38.954	38.96	1.000	1.000	17.887		0.311	17.9
17	17 OCDF	8.66e5	0.86	NO	0.947	10.003	41.563	41.57	1.000	1.000	227.03		0.201	227
18	18 13C-2,3,7,8-TCDD	1.30e6	0.78	NO	1.18	10.003	25.819	25.80	1.030	1.029	184.56	92.3	0.211	
19	19 13C-1,2,3,7,8-PeCDD	9.56e5	0.63	NO	0.864	10.003	31.138	31.09	1.242	1.240	185.92	93.0	0.218	
20	20 13C-1,2,3,4,7,8-HxCDD	8.04e5	1.27	NO	0.754	10.003	34.504	34.50	1.014	1.014	172.84	86.4	0.345	
21	21 13C-1,2,3,6,7,8-HxCDD	9.09e5	1.28	NO	0.925	10.003	34.606	34.61	1.017	1.017	159.21	79.6	0.281	
22	22 13C-1,2,3,7,8,9-HxCDD	8.56e5	1.28	NO	0.829	10.003	34.875	34.88	1.025	1.025	167.29	83.7	0.314	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.61e5	1.04	NO	0.598	10.003	38.295	38.29	1.125	1.125	206.23	103	0.386	
24	24 13C-OCDD	1.38e6	0.90	NO	0.571	10.003	41.358	41.38	1.215	1.216	392.81	98.2	0.384	
25	25 13C-2,3,7,8-TCDF	1.75e6	0.78	NO	1.09	10.003	24.806	24.81	0.989	0.989	179.55	89.8	0.337	
26	26 13C-1,2,3,7,8-PeCDF	1.43e6	1.58	NO	0.876	10.003	29.776	29.74	1.187	1.186	181.92	91.0	0.408	
27	27 13C-2,3,4,7,8-PeCDF	1.37e6	1.58	NO	0.844	10.003	30.757	30.77	1.227	1.227	181.23	90.6	0.424	
28	28 13C-1,2,3,4,7,8-HxCDF	1.07e6	0.52	NO	1.00	10.003	33.653	33.65	0.989	0.989	173.99	87.0	0.424	
29	29 13C-1,2,3,6,7,8-HxCDF	1.15e6	0.53	NO	1.12	10.003	33.775	33.77	0.992	0.992	166.36	83.2	0.380	
30	30 13C-2,3,4,6,7,8-HxCDF	1.09e6	0.52	NO	1.04	10.003	34.333	34.33	1.009	1.009	170.34	85.2	0.410	
31	31 13C-1,2,3,7,8,9-HxCDF	9.52e5	0.52	NO	0.873	10.003	35.205	35.22	1.034	1.035	176.70	88.4	0.486	

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

Last Altered: Friday, March 27, 2020 3:26:52 PM Pacific Daylight Time

Printed: Friday, March 27, 2020 3:27:50 PM Pacific Daylight Time

Name: 200320R1\_14, Date: 21-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

#	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	8.46e5	0.44	NO	0.771	10.003	36.906	36.91	1.084	1.084	177.81	88.9	0.357	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.42e5	0.46	NO	0.519	10.003	38.945	38.95	1.144	1.145	200.41	100	0.530	
34	34 13C-OCDF	1.61e6	0.89	NO	0.696	10.003	41.538	41.56	1.220	1.221	375.19	93.8	0.309	
35	35 37Cl-2,3,7,8-TCDD	5.17e5			1.17	10.003	25.849	25.83	1.031	1.030	73.966	92.5	0.0852	
36	36 13C-1,2,3,4-TCDD	1.19e6	0.81	NO	1.00	10.003	25.030	25.08	1.000	1.000	199.94	100	0.249	
37	37 13C-1,2,3,4-TCDF	1.79e6	0.78	NO	1.00	10.003	23.090	23.15	1.000	1.000	199.94	100	0.367	
38	38 13C-1,2,3,4,6,9-HxCDF	1.23e6	0.52	NO	1.00	10.003	34.020	34.03	1.000	1.000	199.94	100	0.425	
39	39 Total Tetra-Dioxins				0.983	10.003	24.620		0.000		15.042		0.118	15.0
40	40 Total Penta-Dioxins				0.921	10.003	29.960		0.000		21.949		0.0821	22.1
41	41 Total Hexa-Dioxins				0.984	10.003	33.635		0.000		149.09		0.212	149
42	42 Total Hepta-Dioxins				1.01	10.003	37.640		0.000		1279.4		0.907	1280
43	43 Total Tetra-Furans				0.915	10.003	23.610		0.000		262.98		0.168	272
44	44 1st Func. Penta-Furans				0.959	10.003	27.090		0.000		61.511		0.0333	61.5
45	45 Total Penta-Furans				0.959	10.003	29.275		0.000		224.47		0.179	274
46	46 Total Hexa-Furans				1.09	10.003	33.555		0.000		235.83		0.215	236
47	47 Total Hepta-Furans				1.05	10.003	37.835		0.000		314.03		0.317	314

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

Last Altered: Friday, March 27, 2020 3:26:52 PM Pacific Daylight Time

Printed: Friday, March 27, 2020 3:27:50 PM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_14, Date: 21-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.47	2.121e5	2.912e5	1.940e4	2.532e4	0.77	NO	4.472e4	6.9909	6.9909	0.118
2	Total Tetra-Dioxins	21.86	4.674e4	6.916e4	5.001e3	6.315e3	0.79	NO	1.132e4	1.7689	1.7689	0.118
3	Total Tetra-Dioxins	22.38	1.370e4	1.998e4	1.387e3	1.911e3	0.73	NO	3.298e3	0.51563	0.51563	0.118
4	Total Tetra-Dioxins	23.35	1.129e4	1.273e4	9.613e2	1.177e3	0.82	NO	2.138e3	0.33425	0.33425	0.118
5	Total Tetra-Dioxins	23.66	3.378e4	3.328e4	2.887e3	3.561e3	0.81	NO	6.448e3	1.0080	1.0080	0.118
6	Total Tetra-Dioxins	23.91	2.751e4	2.848e4	2.299e3	2.984e3	0.77	NO	5.282e3	0.82574	0.82574	0.118
7	Total Tetra-Dioxins	24.16	7.632e3	1.034e4	7.201e2	9.056e2	0.80	NO	1.626e3	0.25414	0.25414	0.118
8	Total Tetra-Dioxins	24.45	6.539e3	8.083e3	5.221e2	7.582e2	0.69	NO	1.280e3	0.20014	0.20014	0.118
9	Total Tetra-Dioxins	24.64	1.403e4	1.532e4	9.548e2	1.309e3	0.73	NO	2.263e3	0.35382	0.35382	0.118
10	Total Tetra-Dioxins	25.08	1.459e4	1.571e4	1.324e3	1.653e3	0.80	NO	2.978e3	0.46549	0.46549	0.118
11	Total Tetra-Dioxins	25.24	3.770e3	4.875e3	2.717e2	3.356e2	0.81	NO	6.074e2	0.094945	0.094945	0.118
12	Total Tetra-Dioxins	25.54	4.418e4	6.187e4	3.736e3	5.214e3	0.72	NO	8.950e3	1.3991	1.3991	0.118
13	2,3,7,8-TCDD	25.83	1.821e4	2.666e4	1.392e3	1.979e3	0.70	NO	3.372e3	0.52707	0.52707	0.118
14	Total Tetra-Dioxins	26.18	1.005e4	1.595e4	8.398e2	1.101e3	0.76	NO	1.941e3	0.30339	0.30339	0.118

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.79	1.377e5	2.225e5	1.088e4	1.731e4	0.63	NO	2.819e4	6.3981	6.3981	0.0821
2	Total Penta-Dioxins	29.28	4.236e4	5.979e4	2.616e3	3.861e3	0.68	NO	6.478e3	1.4702	1.4702	0.0821
3	Total Penta-Dioxins	29.81	1.239e5	2.199e5	7.756e3	1.256e4	0.62	NO	2.031e4	4.6104	4.6104	0.0821
4	Total Penta-Dioxins	30.00	3.906e4	7.414e4	2.173e3	3.973e3	0.55	NO	6.146e3	1.3949	1.3949	0.0821
5	Total Penta-Dioxins	30.07	5.015e4	7.823e4	2.571e3	4.019e3	0.64	NO	6.590e3	1.4957	1.4957	0.0821
6	Total Penta-Dioxins	30.30	6.622e4	1.028e5	5.603e3	8.702e3	0.64	NO	1.431e4	3.2467	3.2467	0.0821
7	Total Penta-Dioxins	30.65	2.932e4	4.361e4	1.751e3	2.467e3	0.71	NO	4.218e3	0.95724	0.95724	0.0821
8	1,2,3,7,8-PeCDD	31.11	3.369e4	6.373e4	1.867e3	3.212e3	0.58	NO	5.080e3	1.1529	1.1529	0.0821
9	Total Penta-Dioxins	31.19	2.721e4	4.147e4	1.198e3	1.873e3	0.64	NO	3.071e3	0.69696	0.69696	0.0821
10	Total Penta-Dioxins	31.40	1.095e4	9.936e3	5.332e2	4.516e2	1.18	YES	0.000e0	0.00000	0.16706	0.0821
11	Total Penta-Dioxins	31.51	1.325e4	2.441e4	8.237e2	1.492e3	0.55	NO	2.316e3	0.52564	0.52564	0.0821

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

Last Altered: Friday, March 27, 2020 3:26:52 PM Pacific Daylight Time

Printed: Friday, March 27, 2020 3:27:50 PM Pacific Daylight Time

Name: 200320R1\_14, Date: 24-Mar-2020, Time: 06:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	2.532e6	2.119e6	1.345e5	1.095e5	1.23	NO	2.440e5	57.875	57.875	0.212
2	Total Hexa-Dioxins	33.61	3.056e5	2.327e5	1.594e4	1.297e4	1.23	NO	2.891e4	6.8565	6.8565	0.212
3	Total Hexa-Dioxins	33.85	2.050e6	1.665e6	1.429e5	1.141e5	1.25	NO	2.570e5	60.969	60.969	0.212
4	Total Hexa-Dioxins	33.95	1.228e5	9.153e4	6.604e3	5.187e3	1.27	NO	1.179e4	2.7967	2.7967	0.212
5	1,2,3,4,7,8-HxCDD	34.52	5.668e4	4.870e4	3.061e3	2.624e3	1.17	NO	5.686e3	1.2485	1.2485	0.190
6	1,2,3,6,7,8-HxCDD	34.62	5.011e5	3.999e5	3.077e4	2.480e4	1.24	NO	5.557e4	12.418	12.418	0.200
7	Total Hexa-Dioxins	34.80	1.359e5	1.051e5	8.592e3	6.582e3	1.31	NO	1.517e4	3.5991	3.5991	0.212
8	1,2,3,7,8,9-HxCDD	34.89	1.286e5	1.152e5	7.654e3	6.136e3	1.25	NO	1.379e4	3.3294	3.3294	0.223

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.30	1.815e7	1.765e7	1.363e6	1.322e6	1.03	NO	2.685e6	700.98	700.98	0.907
2	1,2,3,4,6,7,8-HpCDD	38.31	1.406e7	1.352e7	1.125e6	1.090e6	1.03	NO	2.215e6	578.44	578.44	0.907

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

Last Altered: Friday, March 27, 2020 3:26:52 PM Pacific Daylight Time  
Printed: Friday, March 27, 2020 3:27:50 PM Pacific Daylight Time

Name: 200320R1\_14, Date: 21-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.48	5.018e4	6.236e4	3.659e3	5.191e3	0.70	NO	8.850e3	1.1027	1.1027	0.168
2	Total Tetra-Furans	19.99	1.182e5	1.515e5	9.383e3	1.195e4	0.78	NO	2.134e4	2.6584	2.6584	0.168
3	Total Tetra-Furans	20.54	6.767e5	8.873e5	5.733e4	7.634e4	0.75	NO	1.337e5	16.654	16.654	0.168
4	Total Tetra-Furans	21.07	1.225e5	1.472e5	1.709e4	2.221e4	0.77	NO	3.930e4	4.8964	4.8964	0.168
5	Total Tetra-Furans	21.44	9.429e5	1.232e6	8.923e4	1.169e5	0.76	NO	2.062e5	25.688	25.688	0.168
6	Total Tetra-Furans	21.90	5.844e5	7.709e5	5.421e4	7.113e4	0.76	NO	1.253e5	15.616	15.616	0.168
7	Total Tetra-Furans	22.05	3.161e4	3.020e4	1.751e3	2.266e3	0.77	NO	4.016e3	0.50043	0.50043	0.168
8	Total Tetra-Furans	22.25	1.192e5	1.399e5	1.065e4	1.347e4	0.79	NO	2.412e4	3.0051	3.0051	0.168
9	Total Tetra-Furans	22.71	2.624e4	3.311e4	2.287e3	3.064e3	0.75	NO	5.351e3	0.66676	0.66676	0.168
10	Total Tetra-Furans	22.86	2.743e4	3.787e4	2.734e3	3.771e3	0.73	NO	6.505e3	0.81049	0.81049	0.168 P
11	Total Tetra-Furans	23.06	3.409e5	4.548e5	3.625e4	4.777e4	0.76	NO	8.402e4	10.469	10.469	0.168
12	Total Tetra-Furans	23.15	2.831e5	3.874e5	2.672e4	3.451e4	0.77	NO	6.123e4	7.6287	7.6287	0.168
13	Total Tetra-Furans	23.76	2.745e6	3.578e6	2.576e5	3.382e5	0.76	NO	5.958e5	74.232	74.232	0.168
14	Total Tetra-Furans	24.10	1.163e5	1.739e5	1.090e4	1.489e4	0.73	NO	2.579e4	3.2130	3.2130	0.168
15	Total Tetra-Furans	24.36	2.097e4	2.452e4	1.898e3	2.665e3	0.71	NO	4.563e3	0.56858	0.56858	0.168
16	Total Tetra-Furans	24.60	4.218e4	5.776e4	3.051e3	4.252e3	0.72	NO	7.304e3	0.90998	0.90998	0.168
17	Total Tetra-Furans	24.70	4.009e5	5.270e5	3.054e4	4.039e4	0.76	NO	7.094e4	8.8383	8.8383	0.168
18	2,3,7,8-TCDF	24.84	3.143e6	4.122e6	2.720e5	3.568e5	0.76	NO	6.288e5	78.348	78.348	0.168
19	Total Tetra-Furans	25.26	1.524e5	2.309e5	1.353e4	1.720e4	0.79	NO	3.073e4	3.8286	3.8286	0.168
20	Total Tetra-Furans	25.53	2.781e4	3.425e4	1.884e3	2.543e3	0.74	NO	4.427e3	0.55159	0.55159	0.168
21	Total Tetra-Furans	25.96	8.160e3	1.256e4	6.064e2	8.034e2	0.75	NO	1.410e3	0.17565	0.17565	0.168
22	Total Tetra-Furans	26.41	1.938e4	8.093e3	1.177e3	4.639e2	2.54	YES	0.000e0	0.00000	0.10231	0.168
23	Total Tetra-Furans	26.56	6.413e4	9.233e4	4.328e3	5.623e3	0.77	NO	9.952e3	1.2399	1.2399	0.168 P
24	Total Tetra-Furans	26.74	7.057e4	8.902e4	4.834e3	6.222e3	0.78	NO	1.106e4	1.3776	1.3776	0.168 P
25	Total Tetra-Furans	27.02	5.251e5	5.981e5	3.638e4	3.995e4	0.91	YES	0.000e0	0.00000	8.8108	0.168

**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	27.02	3.883e6	2.441e6	2.532e5	1.599e5	1.58	NO	4.131e5	61.511	61.511	0.0333

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

Last Altered: Friday, March 27, 2020 3:26:52 PM Pacific Daylight Time  
 Printed: Friday, March 27, 2020 3:27:50 PM Pacific Daylight Time

Name: 200320R1\_14, Date: 24-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.56	1.797e5	1.183e5	1.203e4	7.764e3	1.55	NO	1.979e4	2.9466	2.9466	0.179
2	Total Penta-Furans	28.71	3.559e6	2.371e6	2.520e5	1.622e5	1.55	NO	4.142e5	61.670	61.670	0.179
3	Total Penta-Furans	28.79	2.133e5	1.349e5	6.768e3	4.001e3	1.69	NO	1.077e4	1.6034	1.6034	0.179
4	Total Penta-Furans	29.34	7.068e5	4.421e5	4.130e4	2.734e4	1.51	NO	0.000e0	0.00000	10.219	0.179
5	Total Penta-Furans	29.39	1.989e5	1.330e5	6.988e3	4.687e3	1.49	NO	0.000e0	0.00000	1.7384	0.179
6	Total Penta-Furans	29.57	9.629e5	5.756e5	5.331e4	3.305e4	1.61	NO	8.637e4	12.860	12.860	0.179
7	1,2,3,7,8-PeCDF	29.75	5.801e6	3.665e6	3.200e5	2.042e5	1.57	NO	5.242e5	76.449	76.449	0.179
8	Total Penta-Furans	29.83	1.498e5	8.605e4	4.406e3	2.957e3	1.49	NO	7.363e3	1.0963	1.0963	0.179
9	Total Penta-Furans	30.04	2.692e6	1.739e6	1.449e5	9.142e4	1.59	NO	0.000e0	0.00000	35.194	0.179
10	Total Penta-Furans	30.09	2.534e5	1.595e5	1.063e4	7.559e3	1.41	NO	0.000e0	0.00000	2.7079	0.179
11	Total Penta-Furans	30.67	8.954e4	6.632e4	4.899e3	3.199e3	1.53	NO	8.098e3	1.2058	1.2058	0.179
12	2,3,4,7,8-PeCDF	30.79	3.851e6	2.500e6	2.038e5	1.319e5	1.55	NO	3.357e5	48.816	48.816	0.172
13	Total Penta-Furans	30.82	2.737e6	1.689e6	6.205e4	3.753e4	1.65	NO	9.958e4	14.828	14.828	0.179
14	Total Penta-Furans	31.75	2.374e5	1.366e5	1.225e4	7.895e3	1.55	NO	2.015e4	3.0001	3.0001	0.179

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.48	5.665e5	4.799e5	3.016e4	2.377e4	1.27	NO	5.393e4	9.2704	9.2704	0.215
2	Total Hexa-Furans	32.65	1.983e6	1.582e6	1.013e5	8.261e4	1.23	NO	1.839e5	31.608	31.608	0.215
3	Total Hexa-Furans	33.02	3.761e4	2.922e4	2.128e3	1.644e3	1.29	NO	3.772e3	0.64837	0.64837	0.215
4	Total Hexa-Furans	33.20	3.325e6	2.715e6	1.757e5	1.432e5	1.23	NO	3.189e5	54.810	54.810	0.215
5	Total Hexa-Furans	33.56	7.948e4	6.819e4	3.798e3	3.298e3	1.15	NO	7.096e3	1.2197	1.2197	0.215
6	1,2,3,4,7,8-HxCDF	33.67	4.895e6	3.984e6	2.689e5	2.208e5	1.22	NO	4.897e5	87.846	87.846	0.206
7	1,2,3,6,7,8-HxCDF	33.78	1.323e6	1.081e6	7.726e4	6.200e4	1.25	NO	1.393e5	23.968	23.968	0.209
8	Total Hexa-Furans	33.88	3.861e4	4.002e4	2.317e3	2.015e3	1.15	NO	4.332e3	0.74455	0.74455	0.215
9	Total Hexa-Furans	34.04	5.873e4	4.778e4	3.367e3	2.725e3	1.24	NO	6.092e3	1.0471	1.0471	0.215
10	2,3,4,6,7,8-HxCDF	34.35	5.564e5	4.600e5	3.210e4	2.627e4	1.22	NO	5.837e4	9.8233	9.8233	0.212
11	1,2,3,7,8,9-HxCDF	35.26	5.950e5	5.003e5	2.763e4	2.317e4	1.19	NO	5.080e4	10.393	10.393	0.284
12	Total Hexa-Furans	35.27	5.743e5	4.890e5	1.384e4	1.204e4	1.15	NO	2.588e4	4.4487	4.4487	0.215

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-14.qld

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Name: 200320R1\_14, Date: 24-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.92	2.621e6	2.587e6	1.857e5	1.842e5	1.01	NO	3.698e5	83.429	83.429	0.285
2	Total Hepta-Furans	37.30	3.643e4	3.107e4	2.305e3	2.191e3	1.05	NO	4.496e3	1.1530	1.1530	0.317
3	Total Hepta-Furans	37.51	5.519e6	5.415e6	4.146e5	4.104e5	1.01	NO	8.250e5	211.56	211.56	0.317
4	1,2,3,4,7,8,9-HpCDF	38.96	4.926e5	4.954e5	3.465e4	3.485e4	0.99	NO	6.949e4	17.887	17.887	0.311

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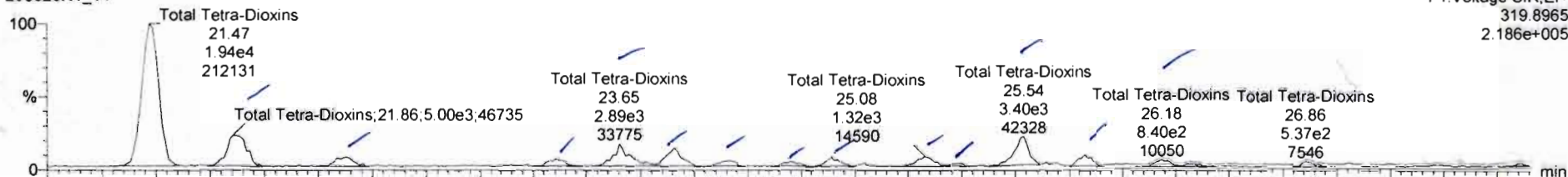
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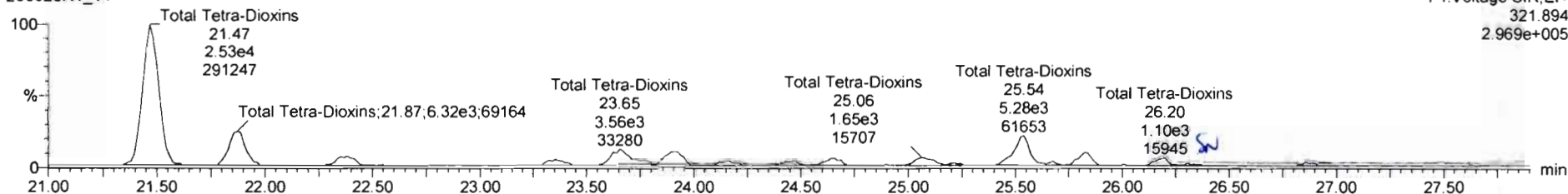
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2,3,7,8-TCDD

200320R1\_14

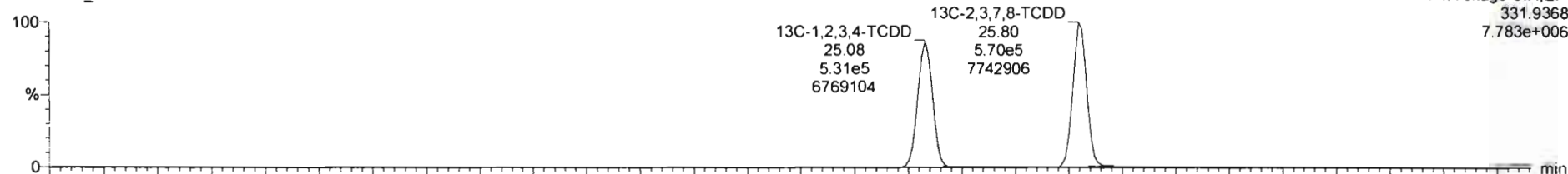


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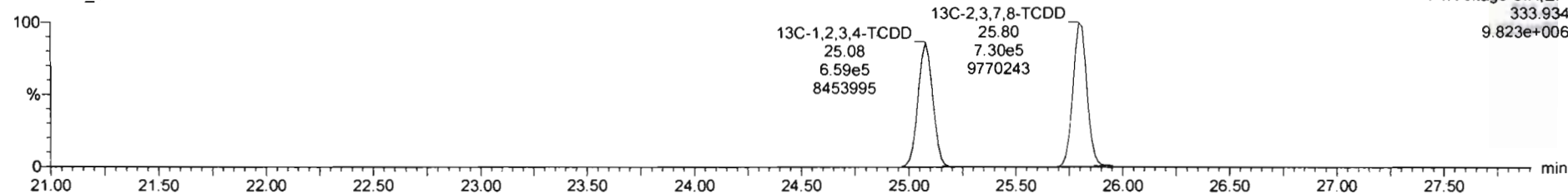


13C-2,3,7,8-TCDD

200320R1\_14



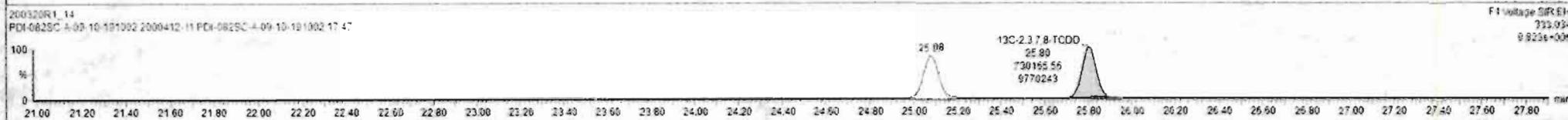
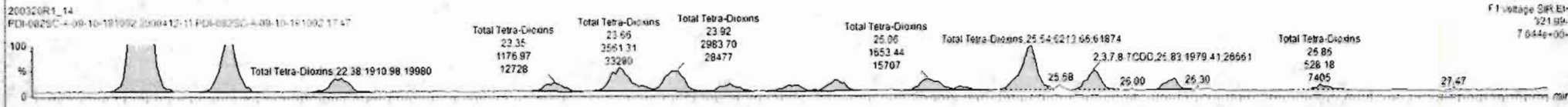
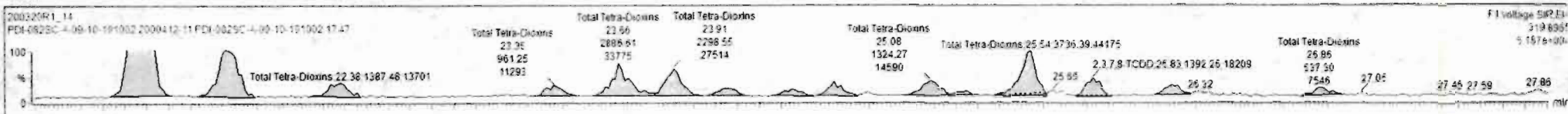
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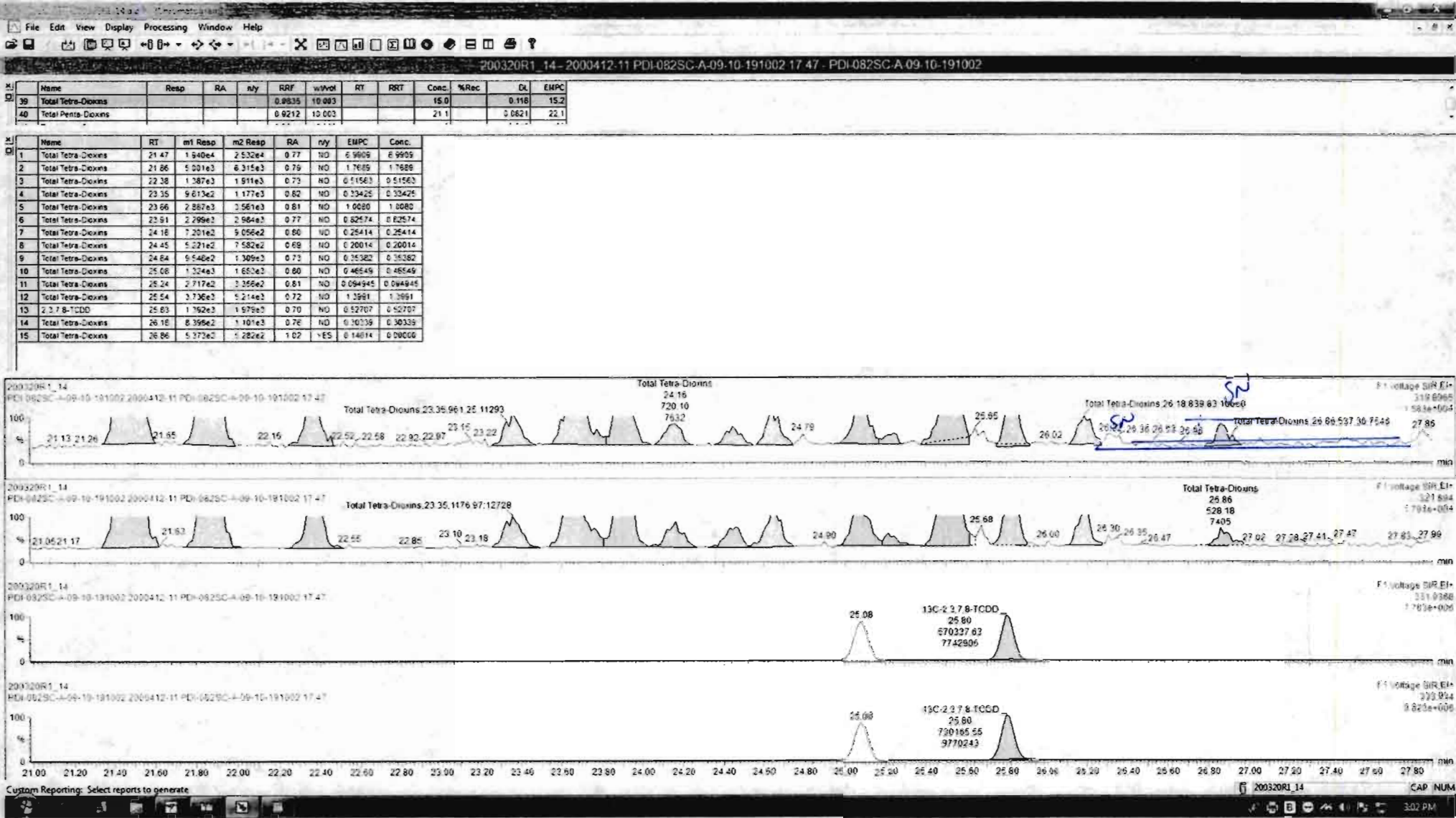




Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.003			15.0		0.118	15.2
40 Total Penta-Dioxins				0.9212	10.002			21.1		0.0821	22.1

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	21.47	1.940e4	2.532e4	0.77	NO	6.9909	6.9909
2 Total Tetra-Dioxins	21.95	5.001e2	6.315e3	0.79	NO	1.7689	1.7689
3 Total Tetra-Dioxins	22.38	1.367e3	1.911e3	0.73	NO	0.51563	0.51563
4 Total Tetra-Dioxins	23.35	9.613e2	1.177e3	0.82	NO	0.33425	0.33425
5 Total Tetra-Dioxins	23.66	2.867e2	3.561e3	0.81	NO	1.0280	1.0280
6 Total Tetra-Dioxins	23.91	2.299e3	2.984e3	0.77	NO	0.82574	0.82574
7 Total Tetra-Dioxins	24.18	7.201e2	9.056e2	0.80	NO	0.25414	0.25414
8 Total Tetra-Dioxins	24.45	5.221e2	7.582e2	0.69	NO	0.20014	0.20014
9 Total Tetra-Dioxins	24.64	9.548e2	1.206e3	0.73	NO	0.35382	0.35382
10 Total Tetra-Dioxins	25.28	1.324e3	1.653e3	0.80	NO	0.46549	0.46549
11 Total Tetra-Dioxins	25.24	2.717e2	3.356e2	0.81	NO	0.094945	0.094945
12 Total Tetra-Dioxins	25.54	3.730e2	5.214e3	0.72	NO	1.3991	1.3991
13 2,3,7,8-TCDD	25.82	1.392e3	1.979e3	0.70	NO	0.52707	0.52707
14 Total Tetra-Dioxins	26.18	6.286e2	1.101e3	0.76	NO	0.30339	0.30339
15 Total Tetra-Dioxins	26.96	5.373e2	5.282e2	1.02	YES	0.14814	0.00000





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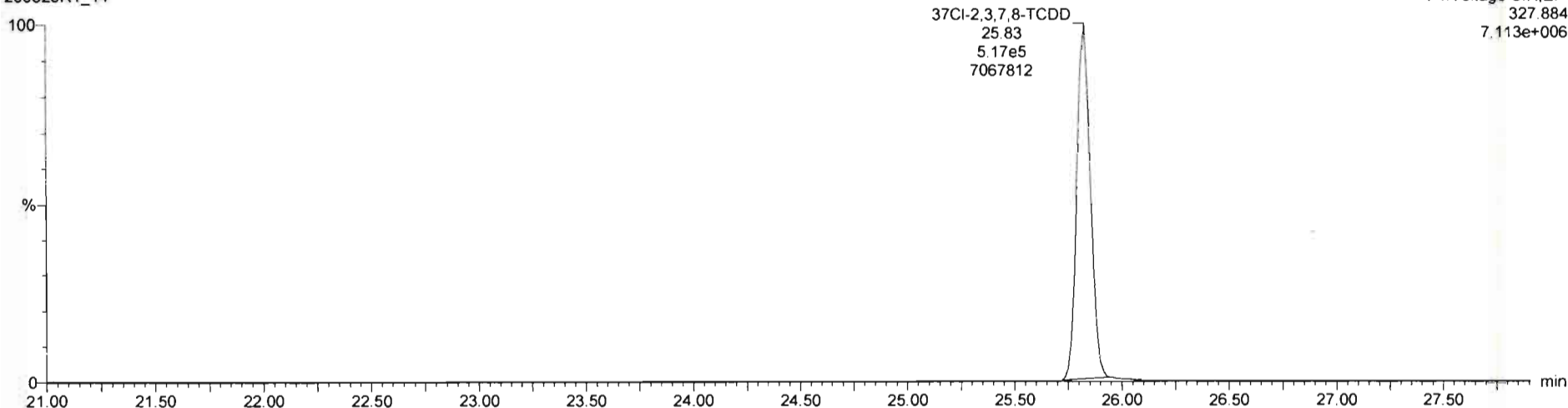
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Name: 200320R1\_14, Date: 21-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

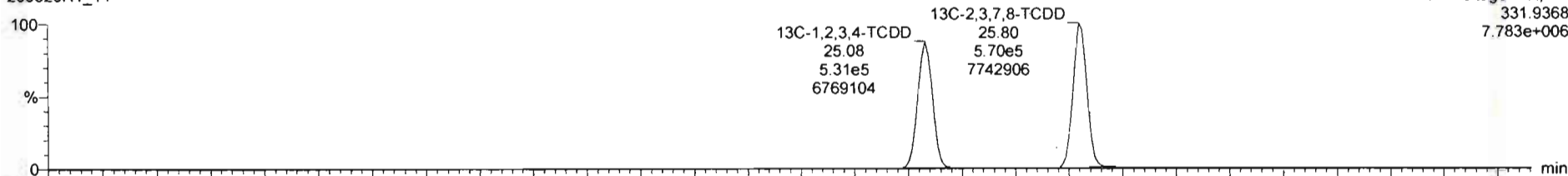
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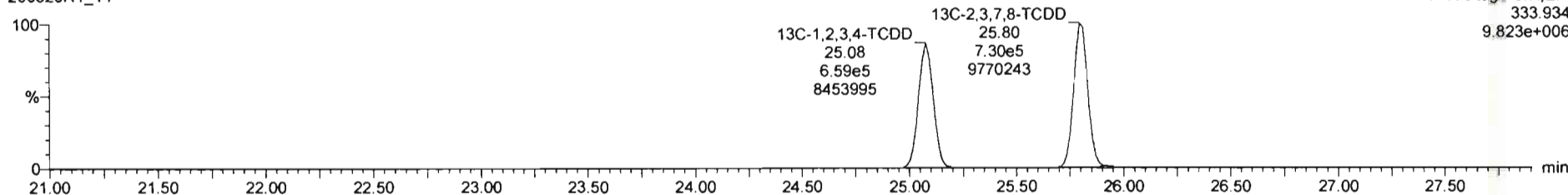


**13C-1,2,3,4-TCDD**

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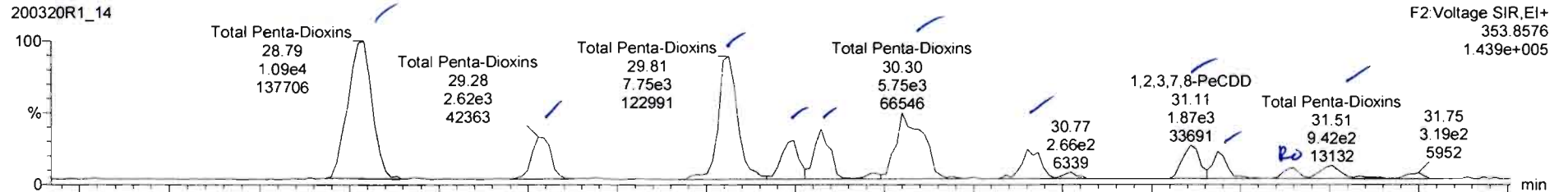
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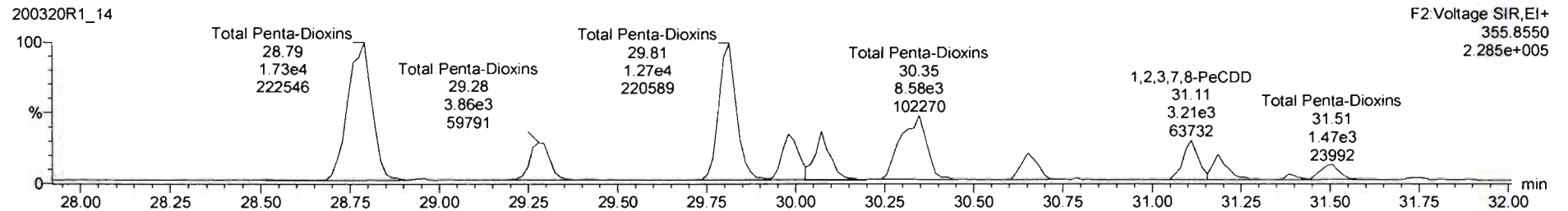
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**1,2,3,7,8-PeCDD**

200320R1\_14

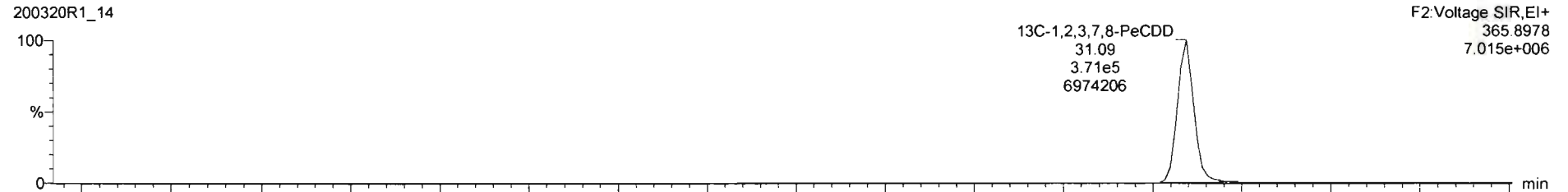


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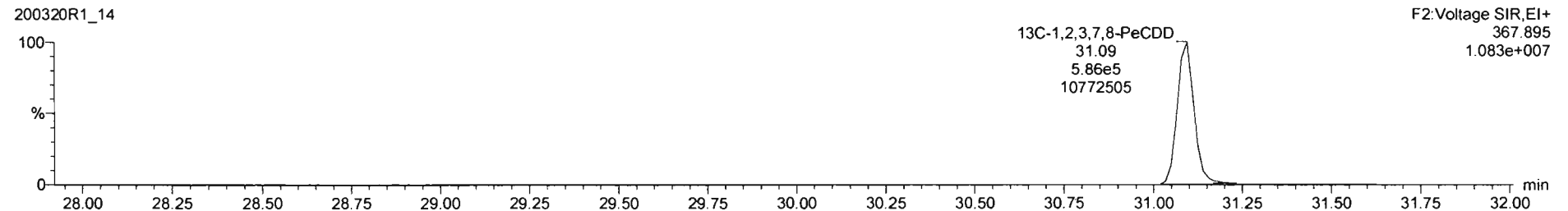


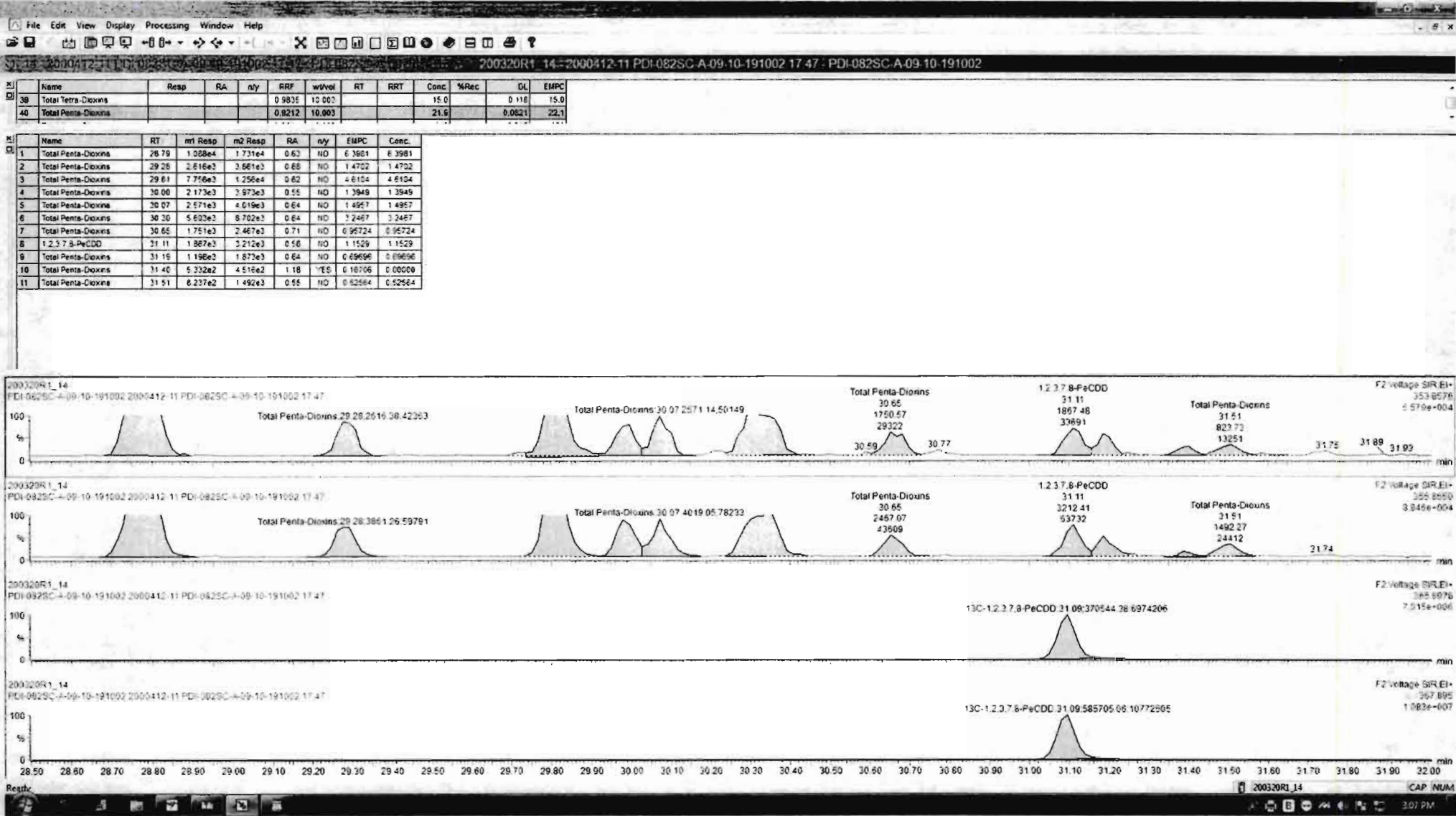
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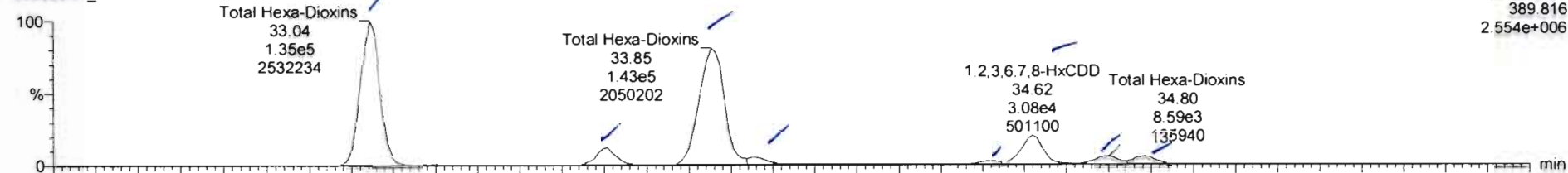
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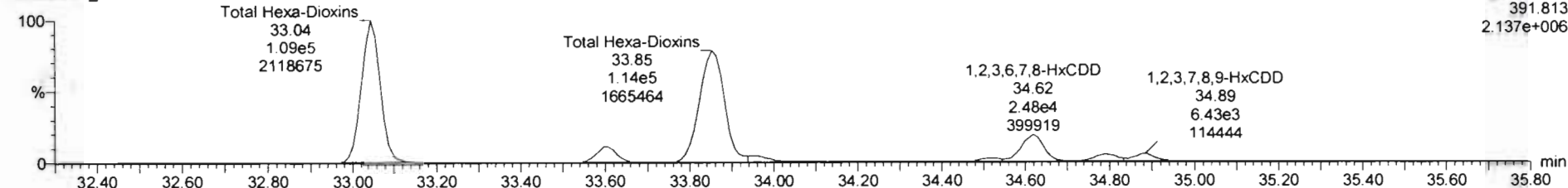
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1,2,3,4,7,8-HxCDD

200320R1\_14

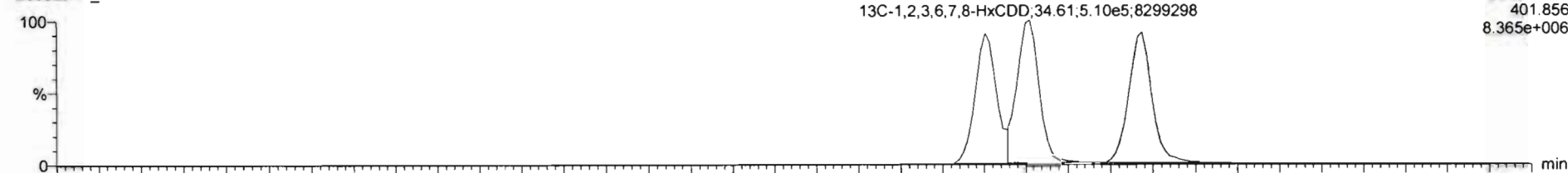


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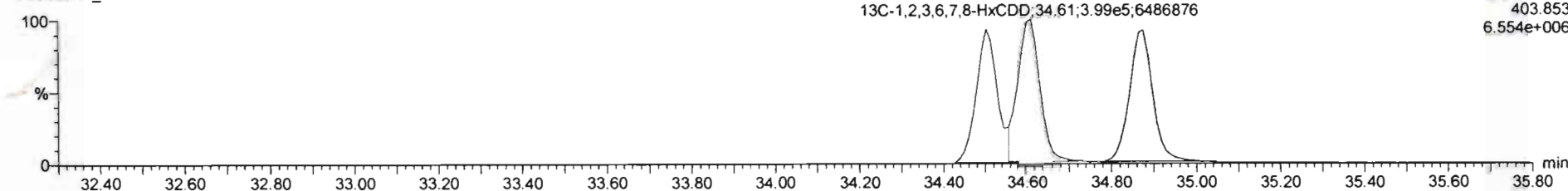


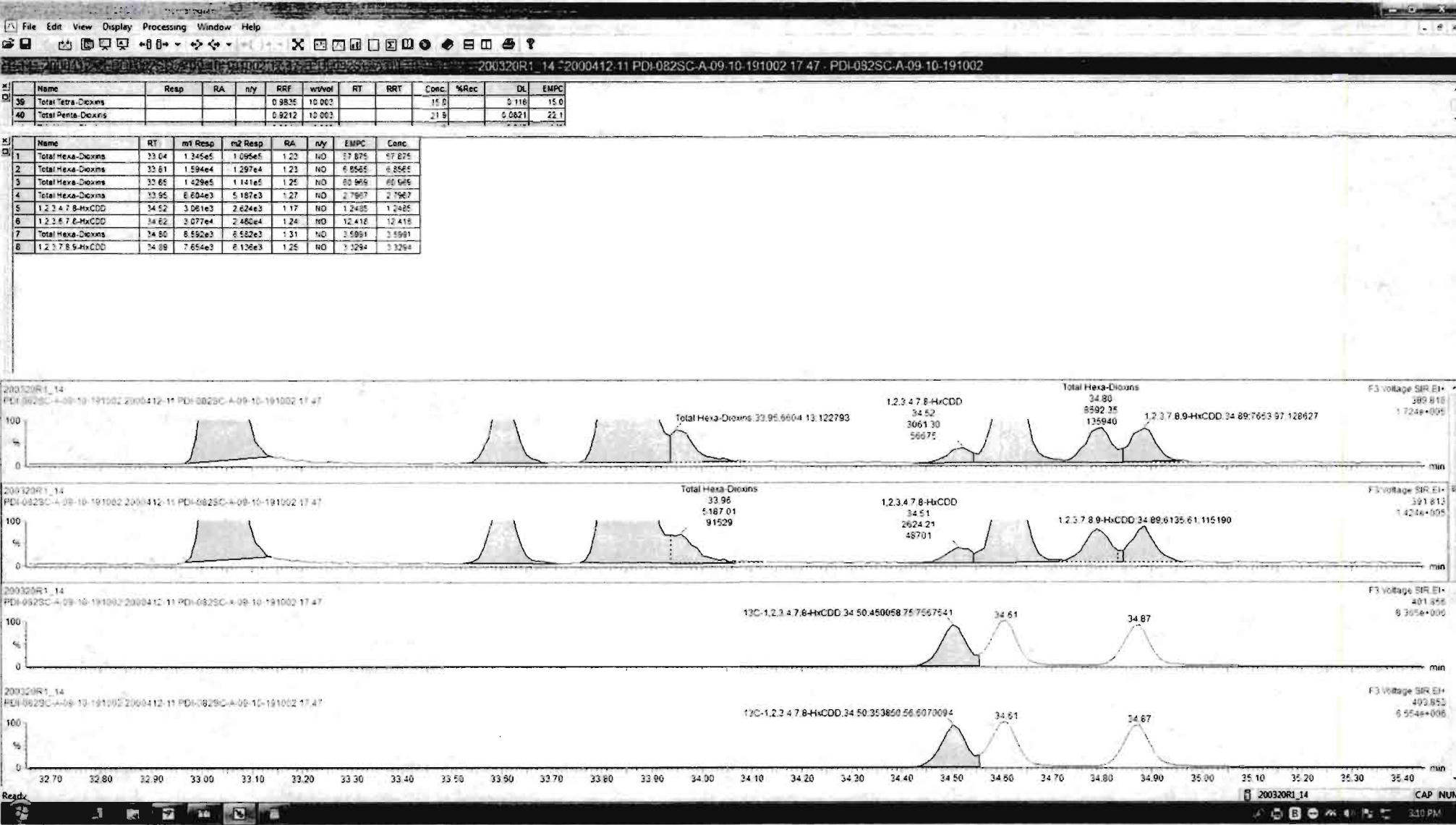
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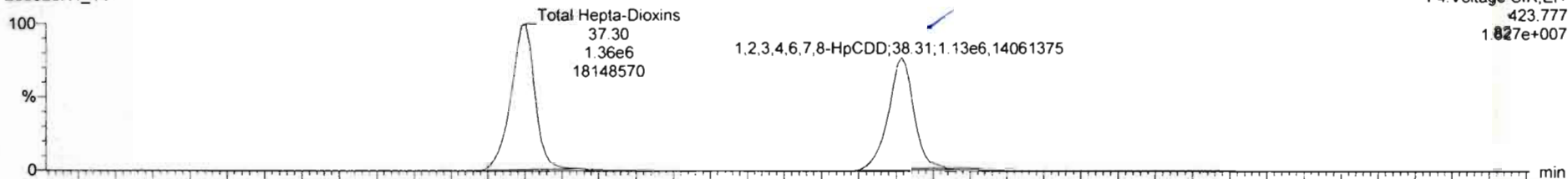
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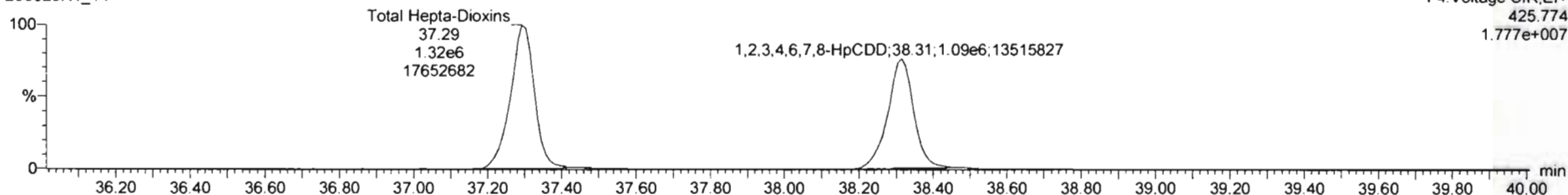
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1,2,3,4,6,7,8-HpCDD

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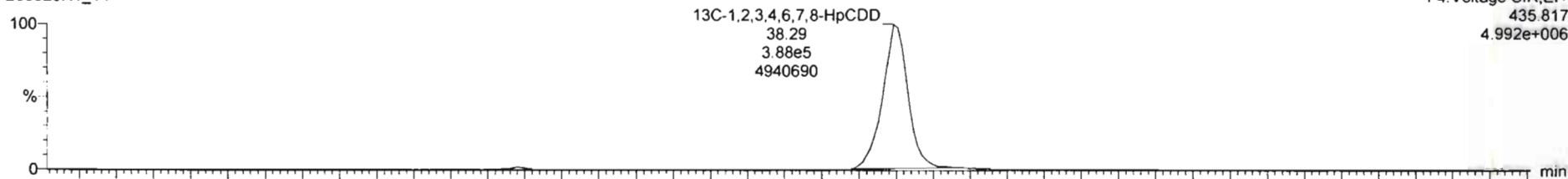


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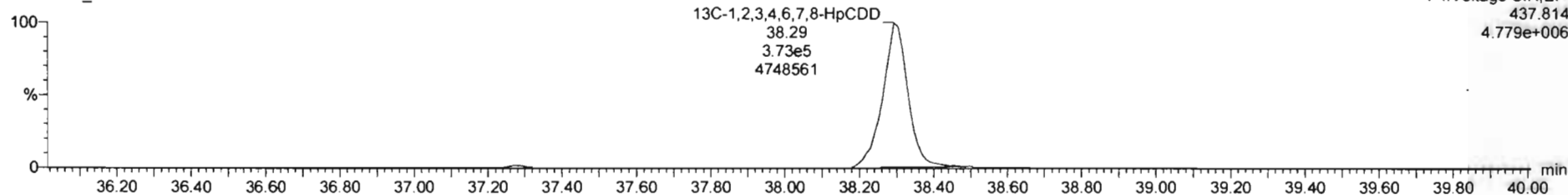


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200320R1\_14



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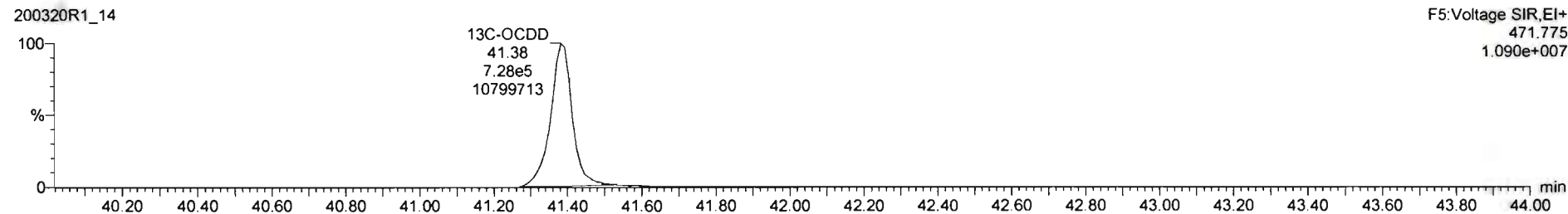
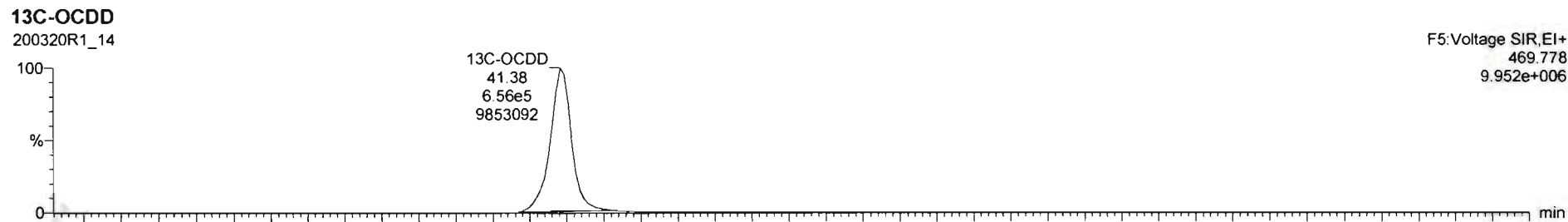
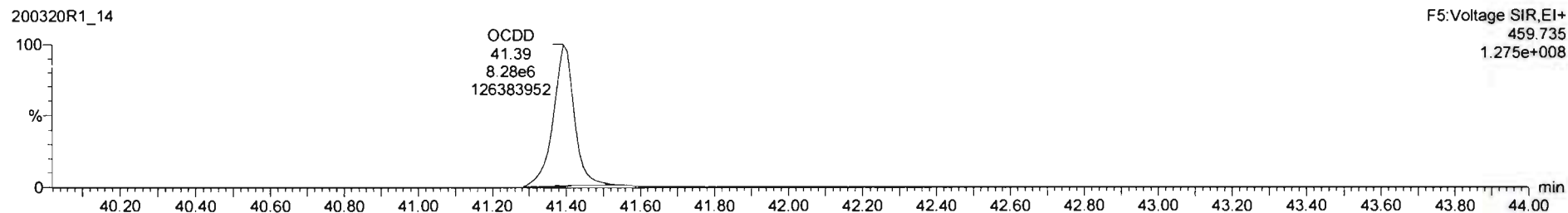
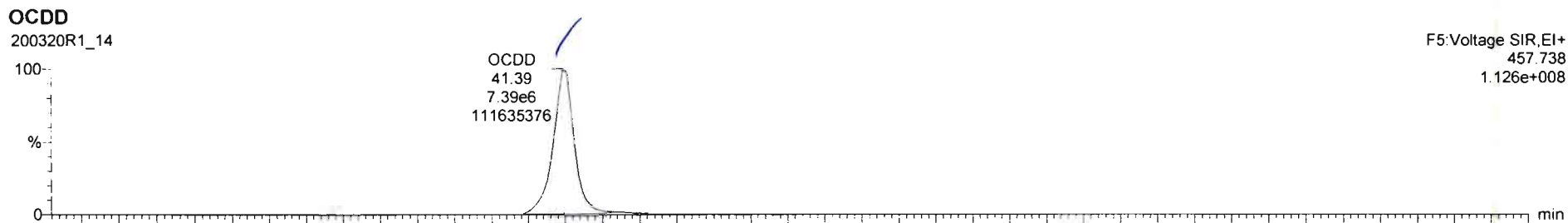




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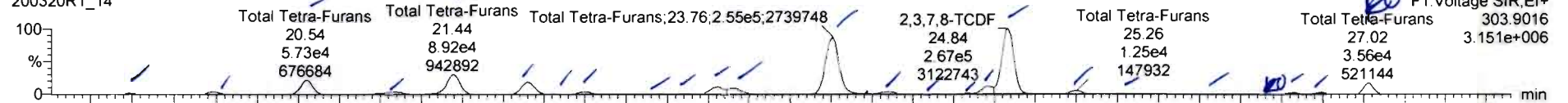
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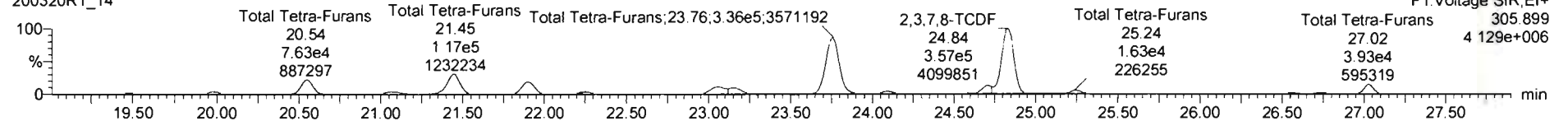
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**2,3,7,8-TCDF**

200320R1\_14

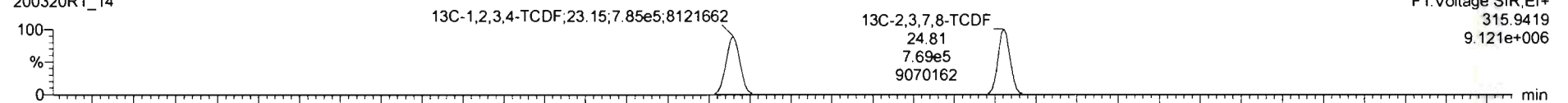


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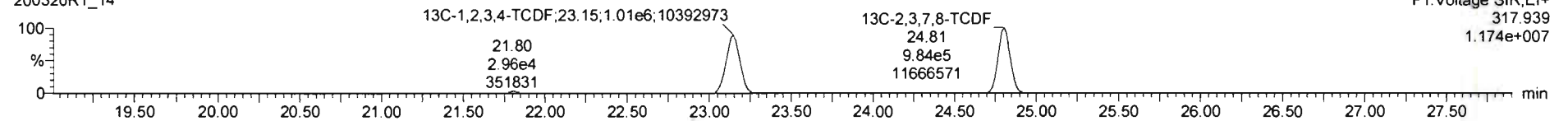


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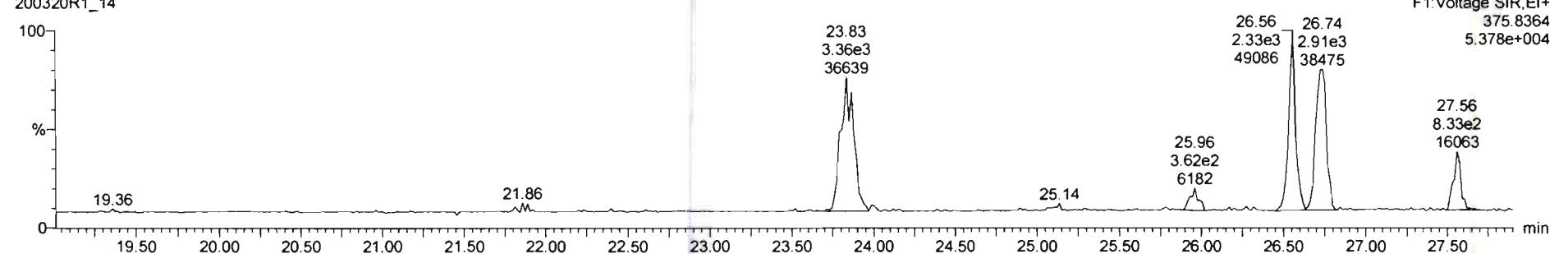


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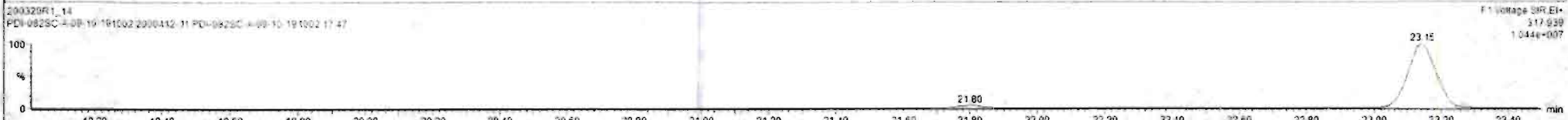
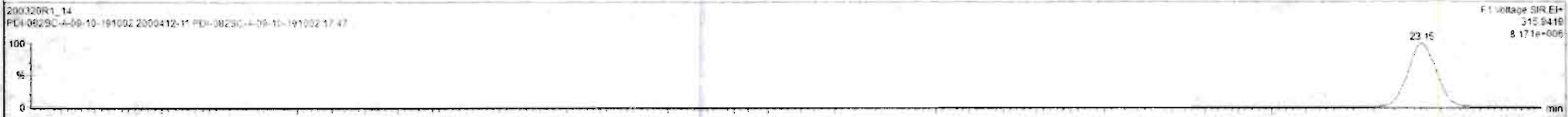
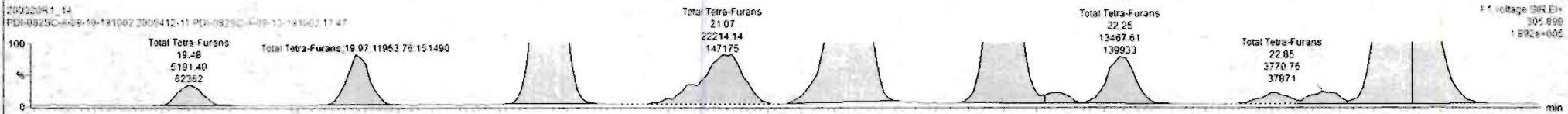
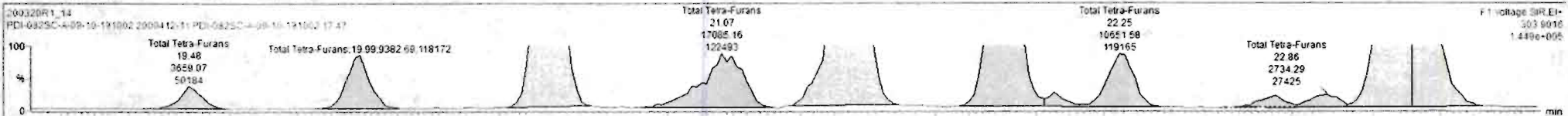
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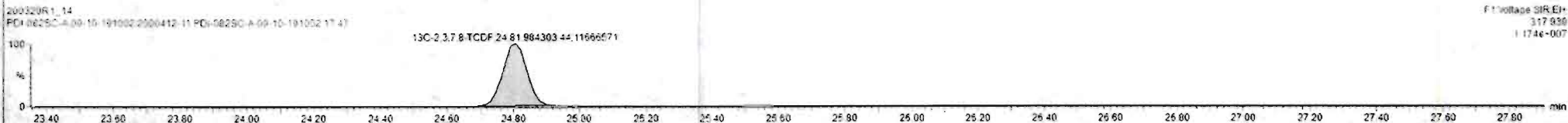
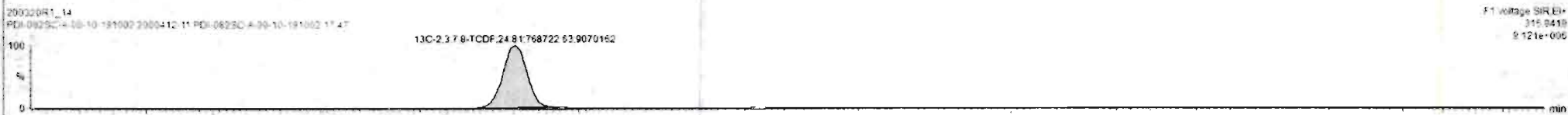
Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0561	10.003			1260	0.907	1.280	
43 Total Tetra-Furans				0.9154	10.003			253	0.188	288	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.48	3.659e3	5.191e3	0.70	NO	1.1027	1.1027
2 Total Tetra-Furans	19.95	9.383e3	1.195e4	0.78	NO	2.6584	2.6584
3 Total Tetra-Furans	20.54	1.733e4	7.634e4	0.75	NO	16.654	16.654
4 Total Tetra-Furans	21.07	1.709e4	2.221e4	0.77	NO	4.8954	4.8954
5 Total Tetra-Furans	21.44	6.523e4	1.105e5	0.76	NO	25.688	25.688
6 Total Tetra-Furans	21.90	5.421e4	7.113e4	0.76	NO	15.616	15.616
7 Total Tetra-Furans	22.05	1.751e3	2.266e3	0.77	NO	0.50043	0.50043
8 Total Tetra-Furans	22.25	1.085e4	1.357e4	0.79	NO	3.0051	3.0051
9 Total Tetra-Furans	22.71	2.287e3	3.084e3	0.75	NO	0.68676	0.68676
10 Total Tetra-Furans	22.86	2.734e3	3.771e3	0.73	NO	0.81045	0.81045
11 Total Tetra-Furans	23.06	3.625e4	4.777e4	0.76	NO	10.469	10.469
12 Total Tetra-Furans	23.15	2.672e4	3.451e4	0.77	NO	7.6287	7.6287



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.00E1	13.003			1260	0.907	1260	
43 Total Tetra-Furans				0.9154	10.003			263	0.166	272	

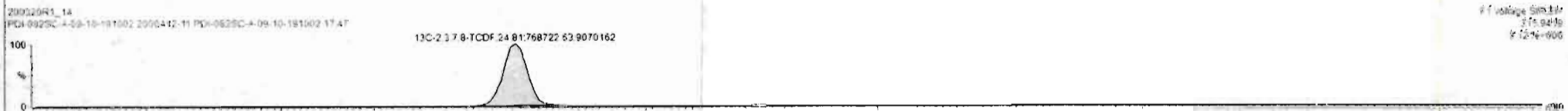
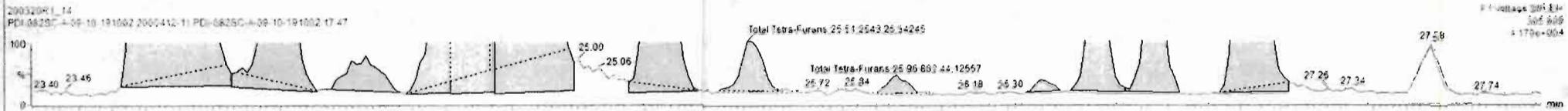
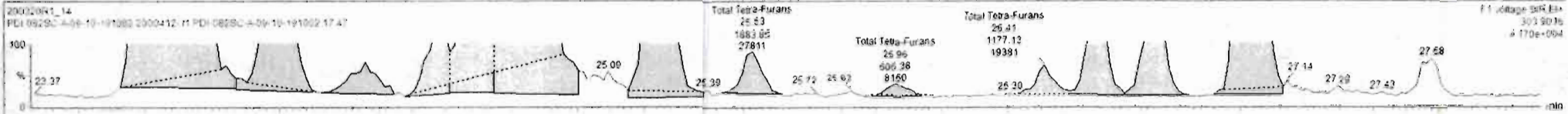
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
13 Total Tetra-Furans	23.76	2.576e5	3.382e5	0.76	NO	74.232	74.232
14 Total Tetra-Furans	24.10	1.090e4	1.489e4	0.73	NO	3.2120	3.2120
15 Total Tetra-Furans	24.36	1.896e3	2.665e3	0.71	NO	0.66859	0.66658
16 Total Tetra-Furans	24.60	3.051e3	4.252e3	0.72	NO	0.90960	0.90960
17 Total Tetra-Furans	24.70	3.094e4	4.029e4	0.76	NO	8.8363	8.8382
18 2,3,7,8-TCDF	24.84	2.720e5	3.568e5	0.76	NO	78.348	78.348
19 Total Tetra-Furans	25.26	1.363e4	1.720e4	0.79	NO	3.8296	3.8296
20 Total Tetra-Furans	25.53	1.884e3	2.543e3	0.74	NO	0.95159	0.95159
21 Total Tetra-Furans	25.96	6.084e2	8.034e2	0.75	NO	0.17665	0.17665
22 Total Tetra-Furans	26.41	1.177e3	4.639e2	2.54	YES	6.10231	0.00660
23 Total Tetra-Furans	26.56	4.328e3	5.623e3	0.77	NO	1.2399	1.2399
24 Total Tetra-Furans	26.74	4.804e3	6.202e3	0.76	NO	1.3776	1.3776
25 Total Tetra-Furans	27.02	3.636e4	3.88e4	0.91	YES	3.6108	0.00000



Custom Reporting: Select reports to generate

Name	Resp	RA	nHy	RRF	wtVof	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.00E1	10.003			1260		3.907	1290
43 Total Tetra-Furans				0.9154	10.003			263		0.168	272

Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc
13 Total Tetra-Furans	23.76	2.576e5	2.382e5	0.78	NO	74.232	74.232
14 Total Tetra-Furans	24.10	1.990e4	1.489e4	0.73	NO	3.2130	3.2130
15 Total Tetra-Furans	24.36	1.866e3	2.665e3	0.71	NO	0.66858	0.66858
16 Total Tetra-Furans	24.60	3.051e3	4.252e3	0.72	NO	0.90998	0.90998
17 Total Tetra-Furans	24.70	3.054e4	4.038e4	0.76	NO	8.8383	8.8383
18 2,3,7,8-TCDF	24.64	2.720e5	3.568e5	0.76	NO	78.348	78.348
19 Total Tetra-Furans	26.28	1.352e4	1.720e4	0.79	NO	3.8296	3.8296
20 Total Tetra-Furans	26.53	1.884e3	2.543e3	0.74	NO	0.55159	0.55159
21 Total Tetra-Furans	26.96	8.064e2	8.034e2	0.75	NO	0.17561	0.17561
22 Total Tetra-Furans	26.41	1.177e3	4.839e2	2.64	YES	0.10231	0.00000
23 Total Tetra-Furans	26.56	4.328e3	5.623e3	0.77	NO	1.2398	1.2398
24 Total Tetra-Furans	26.74	4.834e3	6.222e3	0.76	NO	1.3776	1.3776
25 Total Tetra-Furans	27.02	3.836e4	3.985e4	0.91	YES	8.8108	0.00000



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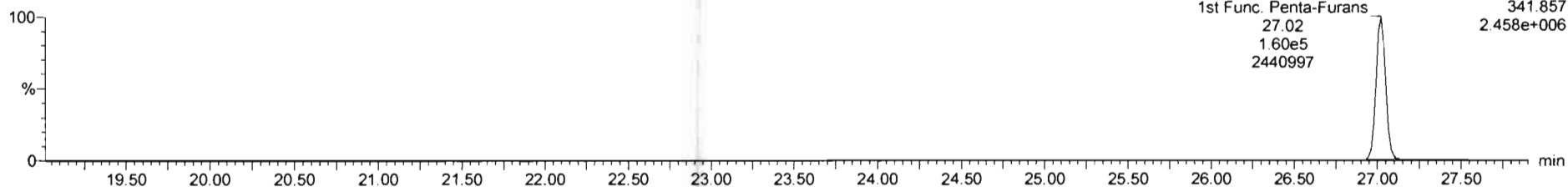
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1st Func. Penta-Furans

200320R1\_14

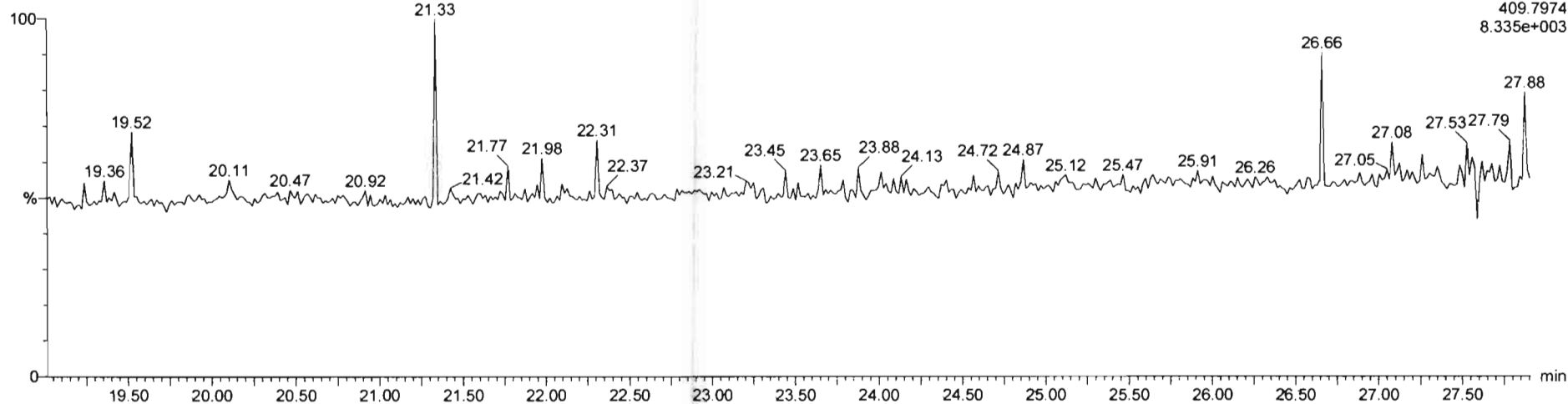


200320R1\_14



DPE6

200320R1\_14



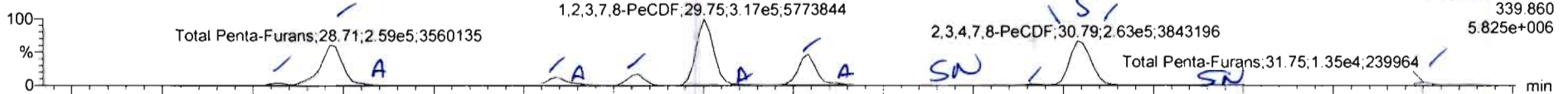
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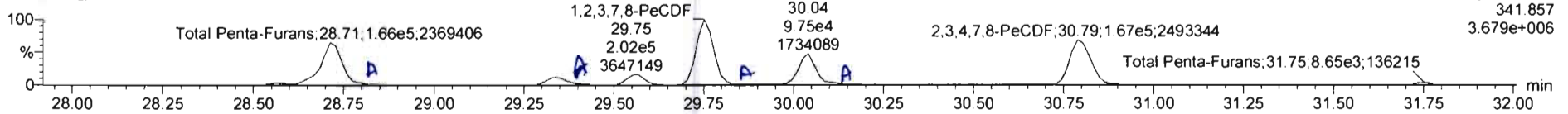
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1,2,3,7,8-PeCDF

200320R1\_14

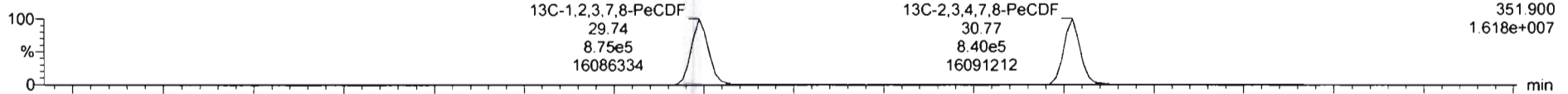


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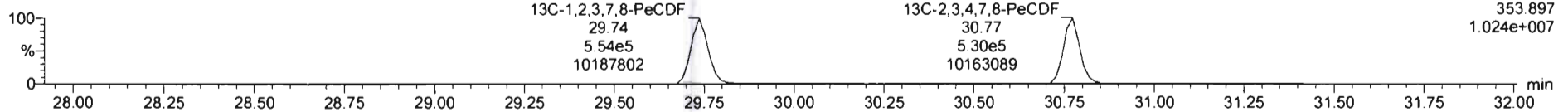


13C-1,2,3,7,8-PeCDF

200320R1\_14

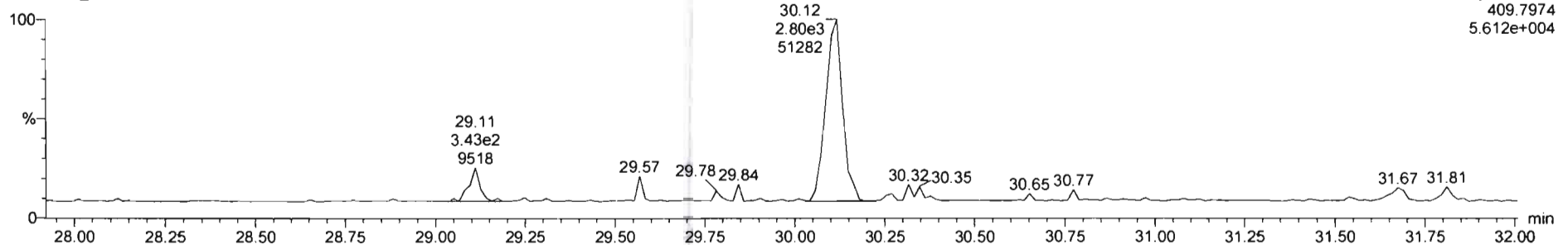


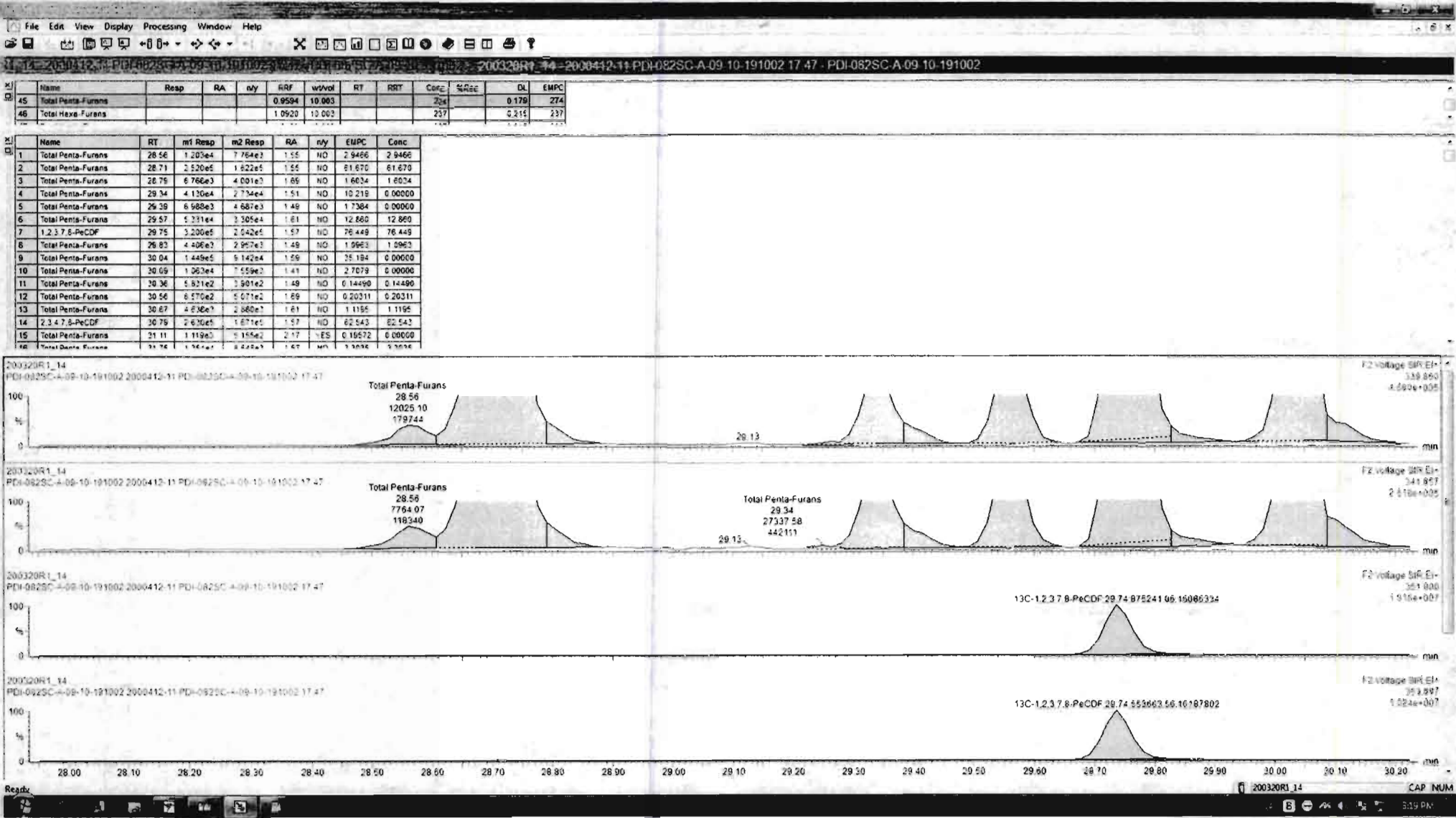
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DPE2

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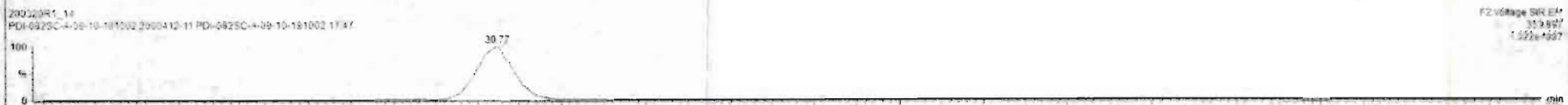
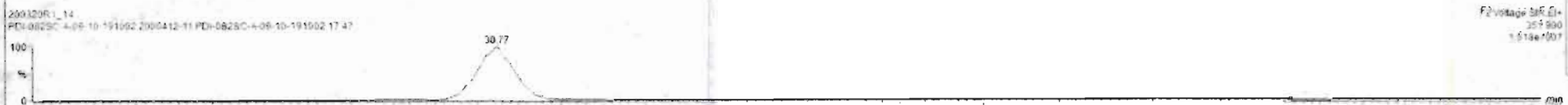






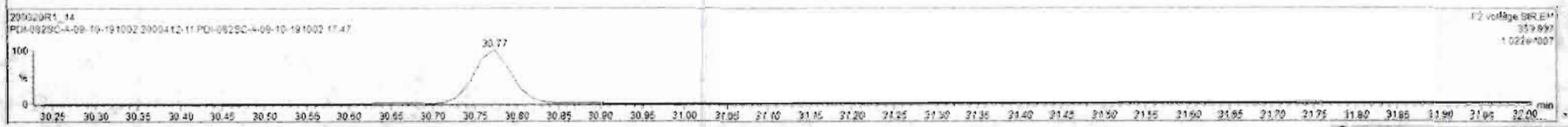
Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			224	0.179		274
46 Total Hexa-Furans				1.0920	10.003			237	0.215		237

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.56	1.203e4	7.764e3	1.55	NO	2.9456	2.9456
2 Total Penta-Furans	28.71	2.520e5	1.622e5	1.55	NO	61.670	61.670
3 Total Penta-Furans	28.75	6.756e3	4.001e3	1.69	NO	1.6034	1.6034
4 Total Penta-Furans	29.34	4.130e4	2.734e4	1.51	NO	10.219	0.00000
5 Total Penta-Furans	29.39	8.668e3	4.687e3	1.49	NO	1.7384	0.00000
6 Total Penta-Furans	29.57	5.331e4	3.305e4	1.61	NO	12.660	12.660
7 1,2,3,7,8-PeCDF	29.75	1.200e5	2.042e5	1.57	NO	76.449	76.449
8 Total Penta-Furans	29.83	4.405e3	2.957e3	1.49	NO	1.0963	1.0963
9 Total Penta-Furans	30.04	1.449e2	9.142e4	1.59	NO	35.194	0.00000
10 Total Penta-Furans	30.05	1.063e4	7.559e3	1.41	NO	2.7679	0.00000
11 Total Penta-Furans	30.67	4.599e3	2.199e3	1.52	NO	1.2058	1.2058
12 2,3,4,7,8-PeCDF	30.75	2.038e5	1.319e5	1.55	NO	48.816	48.816
13 Total Penta-Furans	30.82	5.205e4	2.755e4	1.65	NO	14.828	14.828
14 Total Penta-Furans	31.75	1.225e4	7.695e3	1.55	NO	3.0001	3.0001



KL	Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furans				0.9584	10.003			224	0.179		274
46	Total Hexa-Furans				1.0520	10.002			237	0.215		237

KL	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1	Total Penta-Furans	28.56	1.233e4	7.754e3	1.55	NO	2.949e	2.949e
2	Total Penta-Furans	28.71	2.520e5	1.622e5	1.55	NO	61.670	61.670
3	Total Penta-Furans	28.75	6.766e3	4.001e3	1.85	NO	1.6034	1.6034
4	Total Penta-Furans	29.34	4.130e4	2.734e4	1.51	NO	10.219	0.00000
5	Total Penta-Furans	29.39	6.908e2	4.687e3	1.49	NO	1.7384	0.00000
6	Total Penta-Furans	29.57	5.331e4	3.505e4	1.61	NO	12.880	12.880
7	1,2,3,4,7,8-PeCDF	30.75	3.300e5	2.042e5	1.57	NO	76.449	76.449
8	Total Penta-Furans	29.93	4.406e3	2.957e3	1.49	NO	1.0963	1.0963
9	Total Penta-Furans	30.04	1.449e5	9.142e4	1.59	NO	35.194	0.00000
10	Total Penta-Furans	30.05	1.063e4	7.559e3	1.41	NO	2.7079	0.00000
11	Total Penta-Furans	30.67	4.899e3	3.199e3	1.63	NO	1.2058	1.2058
12	2,3,4,7,8-PeCDF	30.75	2.038e5	1.319e5	1.55	NO	48.616	48.616
13	Total Penta-Furans	30.82	6.205e4	3.753e4	1.65	NO	14.528	14.808
14	Total Penta-Furans	31.75	1.225e4	7.895e3	1.55	NO	3.0001	3.0001



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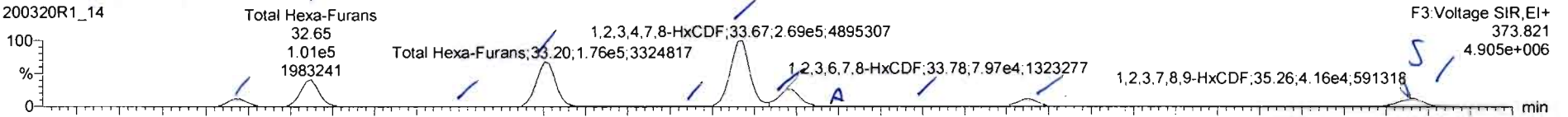
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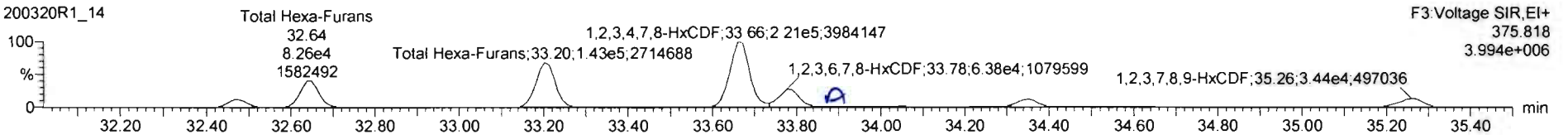
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**1,2,3,4,7,8-HxCDF**

200320R1\_14

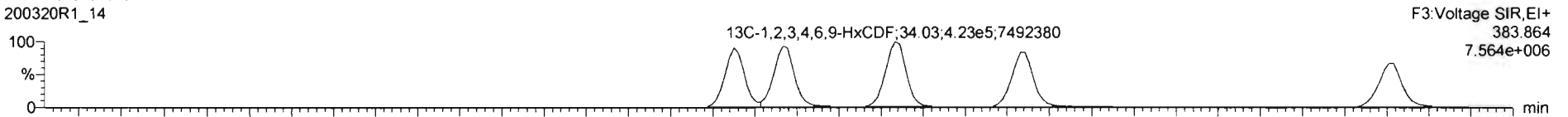


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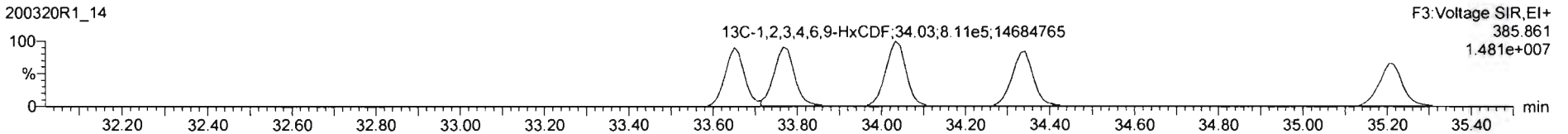


**13C-1,2,3,4,7,8-HxCDF**

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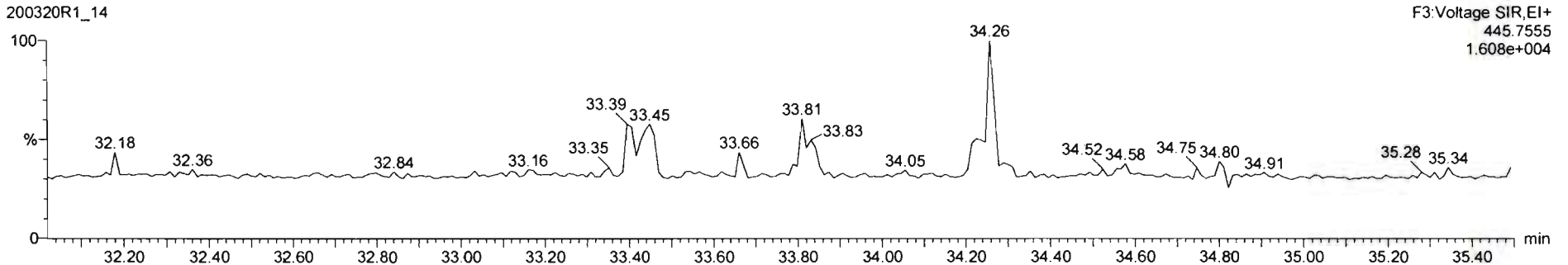


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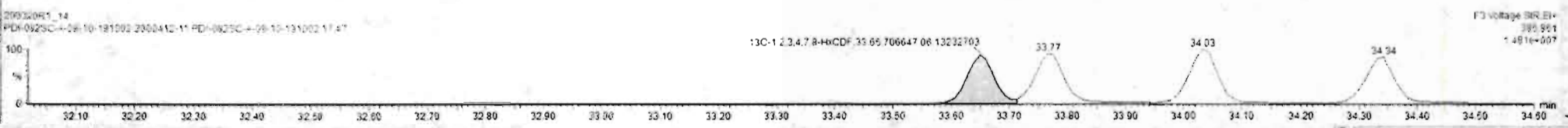
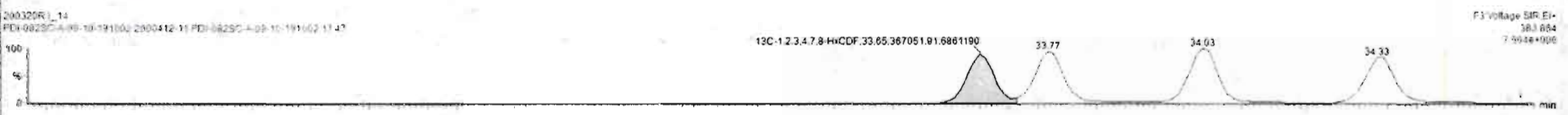
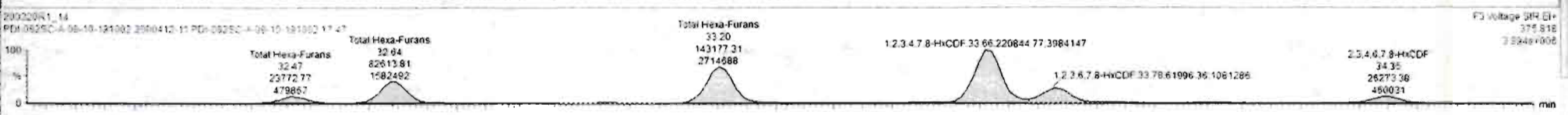
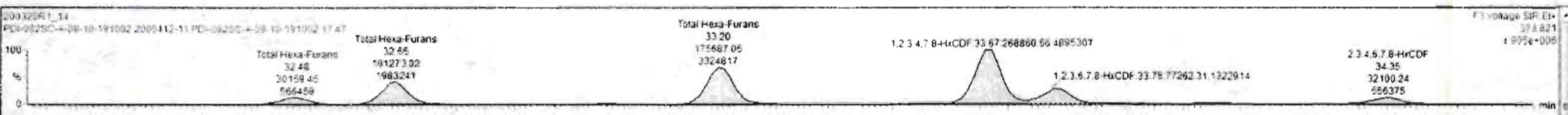
**DPE3**

200320R1\_14



Name	Resp	RA	nY	RRF	w%Vol	RT	RRF	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			224	0.179	274	
46 Total Hexa-Furans				1.0920	10.003			237	0.215	237	

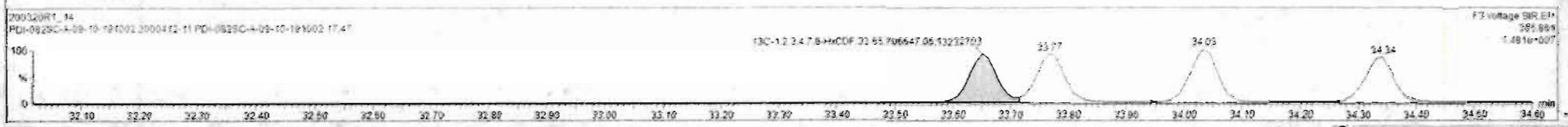
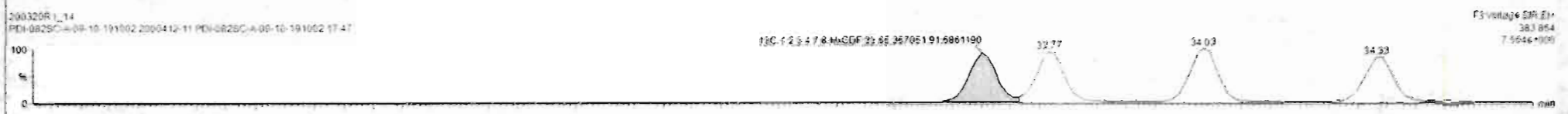
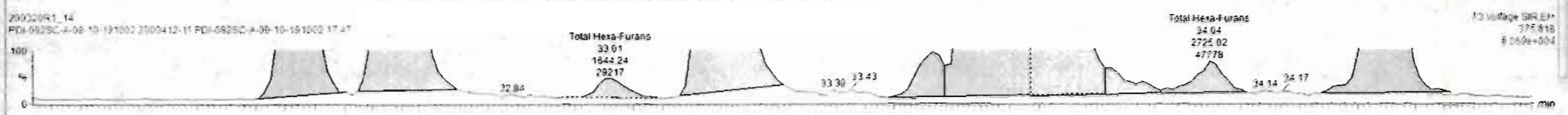
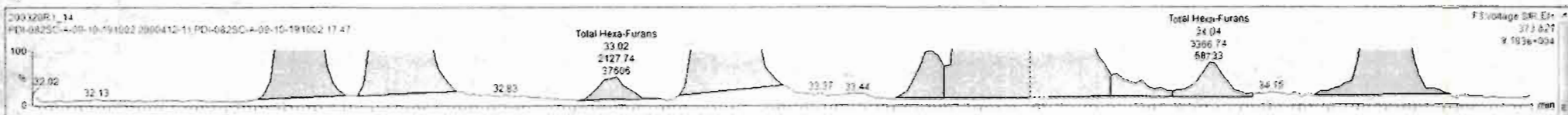
Name	RT	m1 Resp	m2 Resp	RA	nY	EMPC	Conc.
1 Total Hexa-Furans	32.46	3.316e4	2.371e4	1.27	NO	9.2704	9.2704
2 Total Hexa-Furans	32.65	1.012e5	8.261e4	1.23	NO	31.609	31.609
3 Total Hexa-Furans	33.02	2.122e3	1.644e3	1.25	NO	0.64837	0.64837
4 Total Hexa-Furans	33.20	1.757e5	1.432e5	1.23	NO	54.810	54.810
5 Total Hexa-Furans	33.56	3.798e3	3.296e3	1.15	NO	1.2197	1.2197
6 1,2,3,4,7,8-HxCDF	33.67	2.899e5	2.208e5	1.20	NO	87.846	87.846
7 1,2,3,6,7,8-HxCDF	33.78	1.726e4	8.200e4	1.25	NO	23.968	23.968
8 Total Hexa-Furans	33.86	2.317e3	2.015e3	1.15	NO	0.74455	0.74455
9 Total Hexa-Furans	34.04	3.367e3	2.725e3	1.24	NO	1.0471	1.0471
10 2,3,4,6,7,8-HxCDF	34.35	3.210e4	2.627e4	1.20	NO	3.6233	3.6233
11 Total Hexa-Furans	35.09	1.055e3	5.501e2	1.92	YES	0.21181	0.00000
12 1,2,3,7,8-HxCDF	35.26	4.161e4	3.435e4	1.21	NO	15.550	15.550



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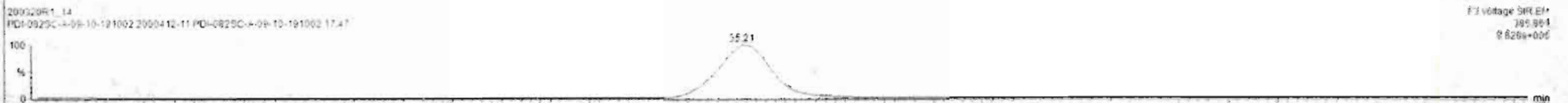
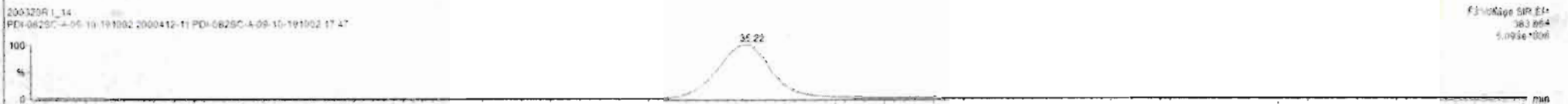
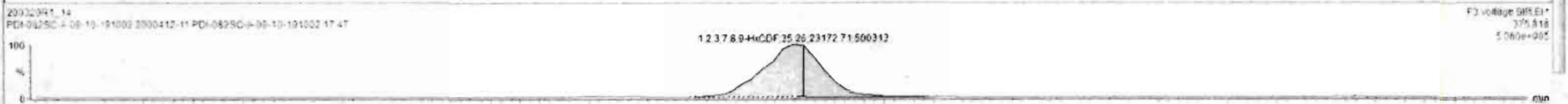
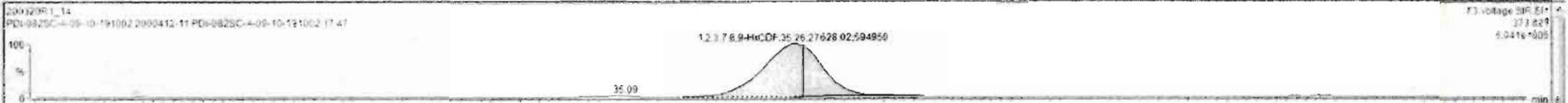
Name	Resp	RA	nHy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			224	0.178	274	
46 Total Hexa-Furans				1.0520	10.003			237	0.215	237	

Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc
1 Total Hexa-Furans	32.46	3.016e4	2.377e4	1.27	NO	9.2704	9.2704
2 Total Hexa-Furans	32.65	1.012e5	8.261e4	1.23	NO	31.608	31.608
3 Total Hexa-Furans	33.02	2.126e3	1.644e3	1.29	NO	6.64837	6.64837
4 Total Hexa-Furans	33.20	1.757e5	1.432e5	1.23	NO	54.810	54.810
5 Total Hexa-Furans	33.56	3.798e3	3.298e3	1.16	NO	1.2197	1.2197
6 1,2,3,4,7,8-HxCDF	33.67	2.699e5	2.208e5	1.22	NO	87.848	87.848
7 1,2,3,6,7,8-HxCDF	33.78	1.726e4	6.200e4	1.25	NO	23.988	23.988
8 Total Hexa-Furans	33.88	2.317e3	2.015e3	1.15	NO	0.74455	0.74455
9 Total Hexa-Furans	34.04	3.367e3	2.725e3	1.24	NO	1.0471	1.0471
10 1,2,3,6,7,8-HxCDF	34.35	3.210e4	2.627e4	1.22	NO	8.8223	8.8223
11 Total Hexa-Furans	35.09	1.355e3	5.501e2	1.92	YES	0.21181	0.80000
12 1,2,3,7,8,9-HxCDF	35.26	4.161e4	3.439e4	1.21	NO	15.550	15.550



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.000			224	0.179	274	
46 Total Hexa-Furans				1.0920	10.000			236	0.215	236	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.46	3.016e4	2.377e4	1.27	NO	9.2704	9.2704
2 Total Hexa-Furans	32.65	1.012e5	6.261e4	1.23	NO	31.608	31.608
3 Total Hexa-Furans	33.02	2.126e3	1.644e3	1.26	NO	0.64637	0.64637
4 Total Hexa-Furans	33.20	1.757e5	1.432e5	1.22	NO	54.810	54.810
5 Total Hexa-Furans	33.56	3.798e3	3.298e3	1.15	NO	1.2197	1.2197
6 1,2,3,4,7,8-HxCDF	33.67	2.680e5	2.208e5	1.22	NO	87.846	87.846
7 1,2,3,6,7,8-HxCDF	33.78	7.726e4	6.200e4	1.26	NO	23.968	23.968
8 Total Hexa-Furans	33.88	2.317e3	2.015e3	1.15	NO	0.74455	0.74455
9 Total Hexa-Furans	34.04	3.367e3	2.725e3	1.24	NO	1.0471	1.0471
10 2,3,4,6,7,8-HxCDF	34.35	3.210e4	2.627e4	1.22	NO	9.6233	9.6233
11 1,2,3,7,8-HxCDF	35.26	2.763e4	2.317e4	1.19	NO	10.393	10.393
12 Total Hexa-Furans	35.27	1.384e4	1.204e4	1.15	NO	4.4487	4.4487



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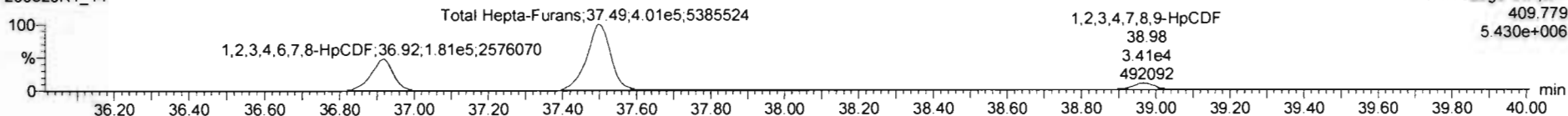
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**1,2,3,4,6,7,8-HpCDF**

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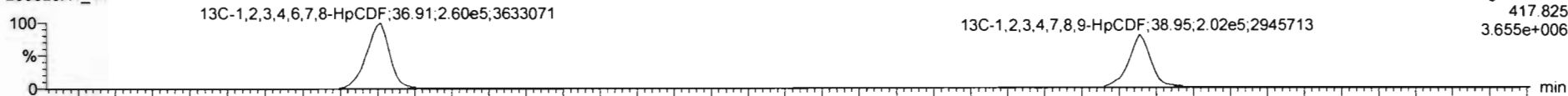


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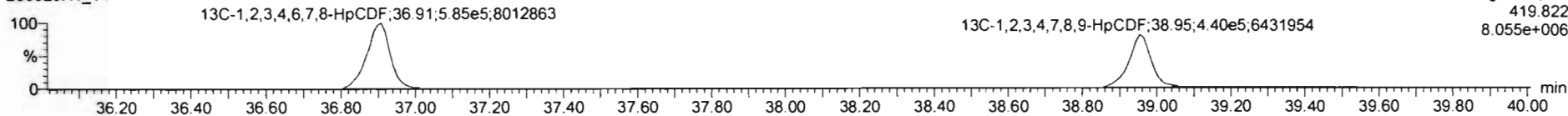


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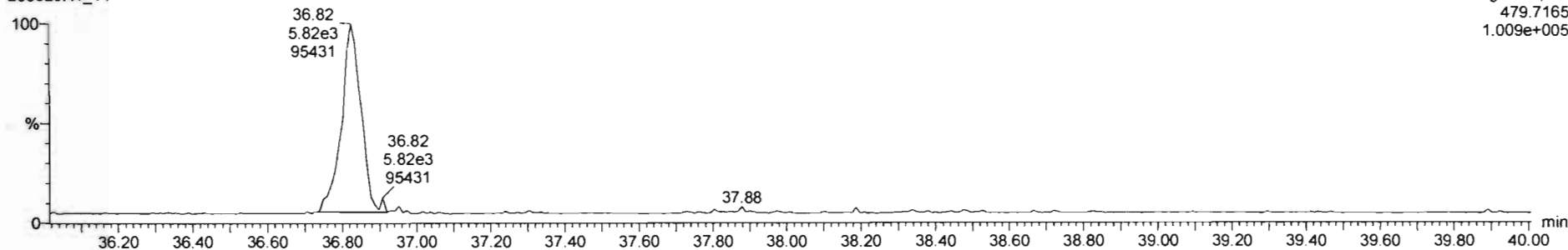


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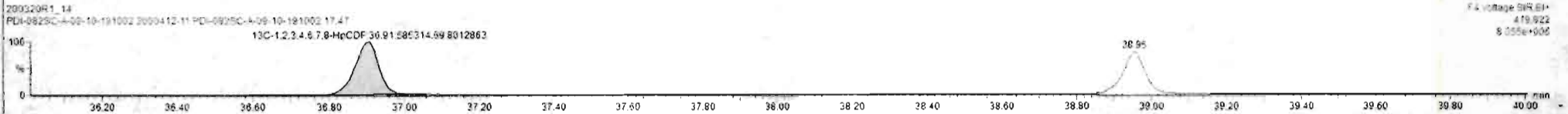
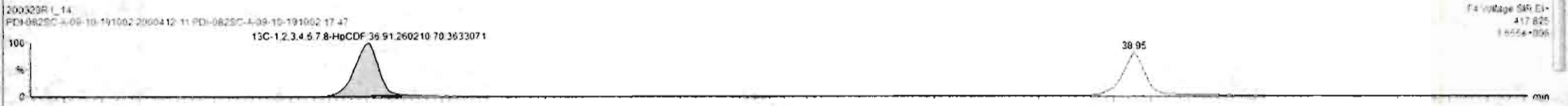
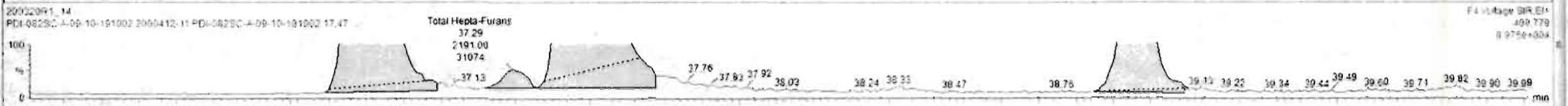
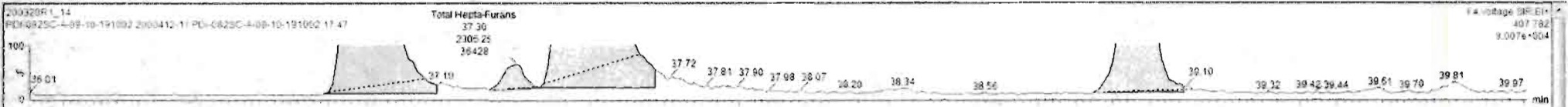
**DPE4**

200320R1\_14



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.003			224		0.179	274
46 Total Hexa-Furans				1.0920	10.003			236		0.215	236

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 1,2,3,4,6,7,8-HpCDF	36.92	1.857e5	1.842e5	1.01	NO	83.429	83.429
2 Total Hepta-Furans	37.30	2.305e3	2.191e2	1.05	NO	1.1530	1.1530
3 Total Hepta-Furans	37.51	4.146e5	4.104e5	1.01	NO	211.56	211.56
4 1,2,3,4,7,8,9-HpCDF	38.96	3.485e4	3.485e4	0.99	NO	17.887	17.887

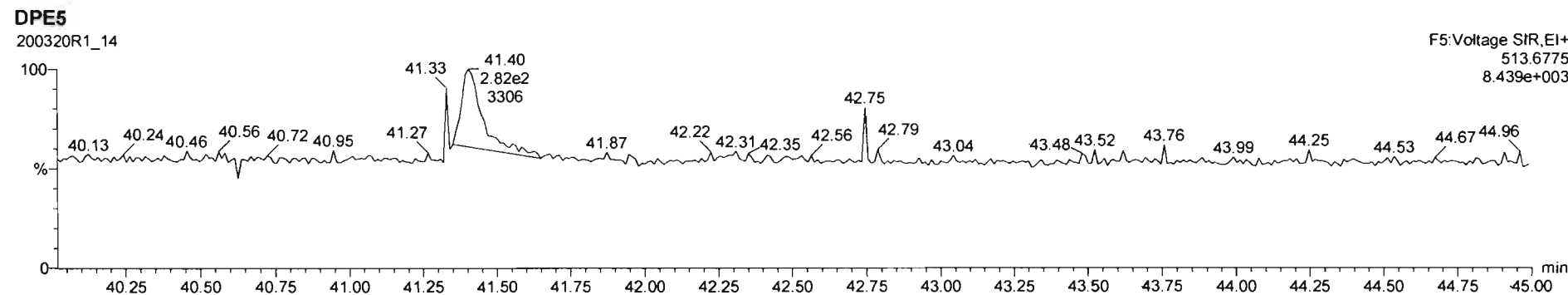
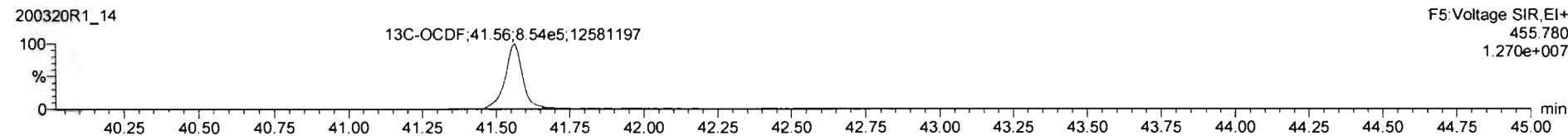
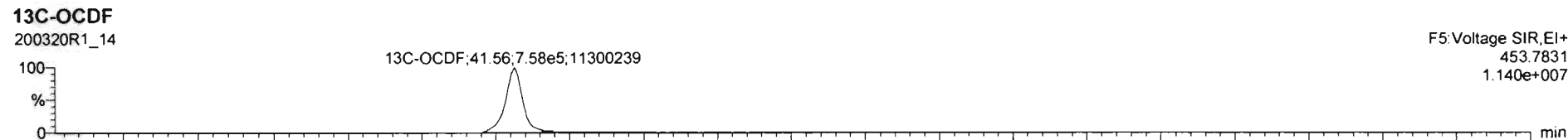
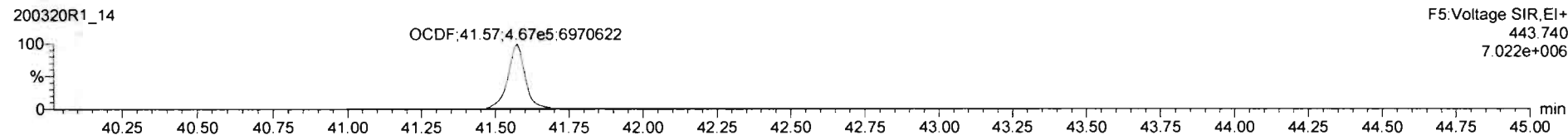
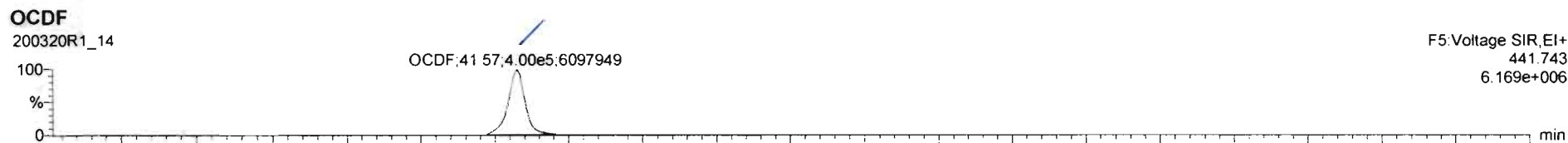




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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R1\_14, Date: 21-Mar-2020, Time: 00:11:28, ID: 2000412-11 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002



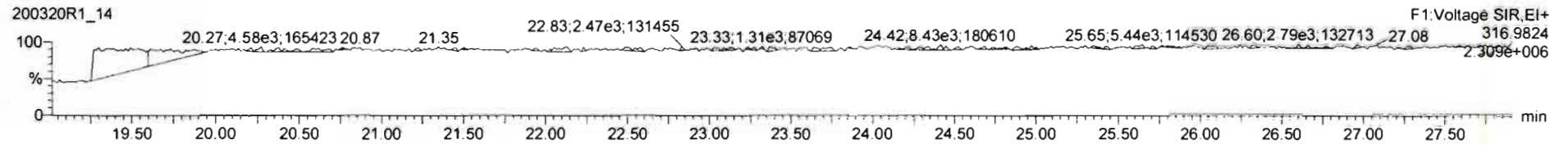
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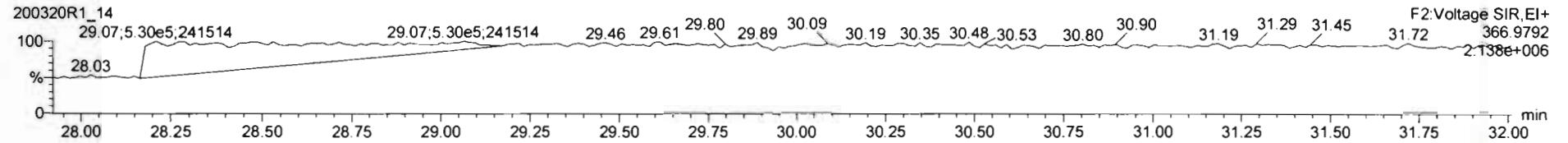
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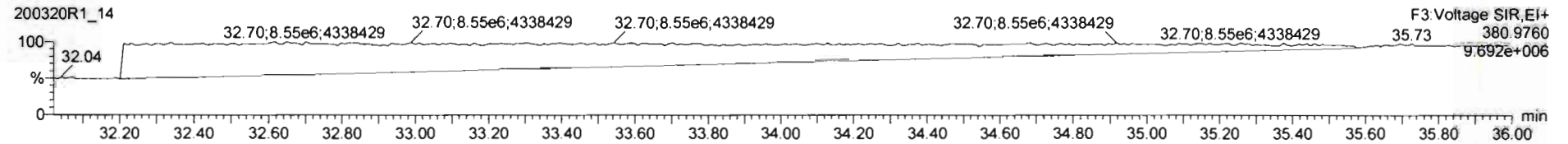
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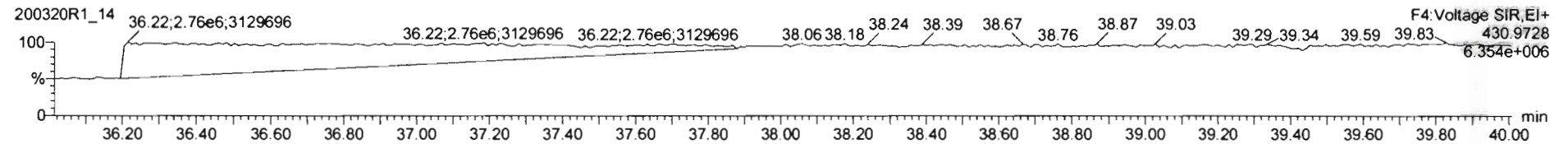
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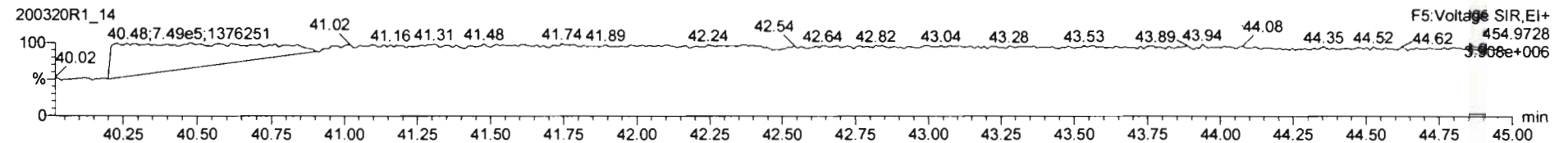
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R2\200320R2-4.qld

Last Altered: Thursday, April 02, 2020 10:53:57 AM Pacific Daylight Time  
Printed: Thursday, April 02, 2020 10:58:41 AM Pacific Daylight Time

HN 04/02/2020

C7 04/02/2020

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	2.10e3	0.55	YES	0.983	10.017	25.811	25.80	1.001	1.001	0.37466		0.0866	0.306
2	2 1,2,3,7,8-PeCDD	1.58e3	0.55	NO	0.921	10.017	31.116	31.11	1.001	1.001	0.42069		0.0880	0.421
3	3 1,2,3,4,7,8-HxCDD	7.84e2	1.36	NO	1.13	10.017	34.501	34.50	1.000	1.000	0.21981		0.129	0.220
4	4 1,2,3,6,7,8-HxCDD	3.48e3	1.38	NO	0.984	10.017	34.598	34.61	1.000	1.000	0.92026		0.132	0.920
5	5 1,2,3,7,8,9-HxCDD	1.65e3	1.34	NO	0.967	10.017	34.874	34.89	1.000	1.001	0.49226		0.148	0.492
6	6 1,2,3,4,6,7,8-HpCDD	4.94e4	1.07	NO	1.01	10.017	38.294	38.30	1.000	1.001	18.846		0.351	18.8
7	7 OCDD	5.67e5	0.89	NO	1.05	10.017	41.361	41.37	1.000	1.000	238.25		0.274	238
8	8 2,3,7,8-TCDF	5.42e4	0.74	NO	0.915	10.017	24.787	24.79	1.001	1.001	7.5678	(7.36)	0.101	7.57
9	9 1,2,3,7,8-PeCDF	6.32e4	1.58	NO	0.959	10.017	29.757	29.75	1.001	1.001	10.503		0.122	10.5
10	10 2,3,4,7,8-PeCDF	2.12e4	1.48	NO	1.00	10.017	30.764	30.79	1.000	1.000	3.4665		0.120	3.47
11	11 1,2,3,4,7,8-HxCDF	1.30e5	1.24	NO	1.04	10.017	33.650	33.66	1.000	1.000	27.624		0.126	27.6
12	12 1,2,3,6,7,8-HxCDF	4.77e4	1.19	NO	1.01	10.017	33.777	33.78	1.000	1.000	9.3420		0.118	9.34
13	13 2,3,4,6,7,8-HxCDF	7.34e3	1.22	NO	1.09	10.017	34.366	34.34	1.001	1.000	1.4780		0.122	1.48
14	14 1,2,3,7,8,9-HxCDF	7.78e3	1.26	NO	1.03	10.017	35.205	35.26	1.000	1.002	1.9056		0.167	1.91
15	15 1,2,3,4,6,7,8-HpCDF	5.71e4	1.03	NO	1.05	10.017	36.935	36.91	1.001	1.000	16.278		0.152	16.3
16	16 1,2,3,4,7,8,9-HpCDF	1.23e4	0.95	NO	1.21	10.017	38.943	38.95	1.000	1.000	4.2799		0.178	4.28
17	17 OCDF	6.76e4	0.87	NO	0.947	10.017	41.542	41.55	1.000	1.000	24.634		0.118	24.6
18	18 13C-2,3,7,8-TCDD	1.14e6	0.79	NO	1.18	10.017	25.788	25.78	1.030	1.029	177.92	89.1	0.232	
19	19 13C-1,2,3,7,8-PeCDD	8.16e5	0.63	NO	0.864	10.017	31.101	31.09	1.242	1.241	175.03	87.7	0.190	
20	20 13C-1,2,3,4,7,8-HxCDD	6.29e5	1.28	NO	0.754	10.017	34.493	34.49	1.014	1.014	149.81	75.0	0.357	
21	21 13C-1,2,3,6,7,8-HxCDD	7.67e5	1.26	NO	0.925	10.017	34.595	34.60	1.017	1.017	148.93	74.6	0.291	
22	22 13C-1,2,3,7,8,9-HxCDD	6.92e5	1.23	NO	0.829	10.017	34.863	34.86	1.025	1.025	149.93	75.1	0.324	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.20e5	1.02	NO	0.598	10.017	38.283	38.28	1.125	1.125	156.29	78.3	0.389	
24	24 13C-OCDD	9.04e5	0.89	NO	0.571	10.017	41.345	41.36	1.215	1.216	284.38	71.2	0.366	
25	25 13C-2,3,7,8-TCDF	1.56e6	0.77	NO	1.09	10.017	24.776	24.76	0.989	0.989	170.16	85.2	0.330	
26	26 13C-1,2,3,7,8-PeCDF	1.25e6	1.59	NO	0.876	10.017	29.741	29.74	1.187	1.187	169.39	84.8	0.451	
27	27 13C-2,3,4,7,8-PeCDF	1.22e6	1.59	NO	0.844	10.017	30.720	30.77	1.227	1.229	171.05	85.7	0.469	
28	28 13C-1,2,3,4,7,8-HxCDF	9.06e5	0.51	NO	1.00	10.017	33.642	33.65	0.989	0.989	162.69	81.5	0.551	
29	29 13C-1,2,3,6,7,8-HxCDF	1.01e6	0.52	NO	1.12	10.017	33.764	33.77	0.992	0.992	161.65	81.0	0.493	
30	30 13C-2,3,4,6,7,8-HxCDF	9.09e5	0.51	NO	1.04	10.017	34.322	34.33	1.009	1.009	157.65	79.0	0.532	
31	31 13C-1,2,3,7,8,9-HxCDF	7.94e5	0.52	NO	0.873	10.017	35.193	35.21	1.034	1.035	163.40	81.8	0.631	

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-4.qld

Last Altered: Thursday, April 02, 2020 10:53:57 AM Pacific Daylight Time

Printed: Thursday, April 02, 2020 10:58:41 AM Pacific Daylight Time

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

#	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	6.68e5	0.45	NO	0.771	10.017	36.895	36.90	1.084	1.085	155.80	78.0	0.333	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.74e5	0.45	NO	0.519	10.017	38.933	38.94	1.144	1.145	163.90	82.1	0.494	
34	34 13C-OCDF	1.16e6	0.89	NO	0.696	10.017	41.525	41.54	1.220	1.221	298.75	74.8	0.266	
35	35 37Cl-2,3,7,8-TCDD	4.48e5			1.17	10.017	25.818	25.80	1.031	1.030	70.703	88.5	0.0663	
36	36 13C-1,2,3,4-TCDD	1.08e6	0.79	NO	1.00	10.017	25.030	25.05	1.000	1.000	199.66	100	0.275	
37	37 13C-1,2,3,4-TCDF	1.68e6	0.79	NO	1.00	10.017	23.090	23.09	1.000	1.000	199.66	100	0.359	
38	38 13C-1,2,3,4,6,9-HxCDF	1.11e6	0.52	NO	1.00	10.017	34.020	34.02	1.000	1.000	199.66	100	0.551	
39	39 Total Tetra-Dioxins				0.983	10.017	24.620		0.000		0.85317		0.0866	1.55
40	40 Total Penta-Dioxins				0.921	10.017	29.960		0.000		1.9270		0.0880	2.80
41	41 Total Hexa-Dioxins				0.984	10.017	33.635		0.000		8.4614		0.142	8.46
42	42 Total Hepta-Dioxins				1.01	10.017	37.640		0.000		42.710		0.351	42.7
43	43 Total Tetra-Furans				0.915	10.017	23.610		0.000		27.265		0.101	27.8
44	44 1st Func. Penta-Furans				0.959	10.017	27.090		0.000		3.6735		0.0306	3.67
45	45 Total Penta-Furans				0.959	10.017	29.275		0.000		26.806		0.123	26.8
46	46 Total Hexa-Furans				1.09	10.017	33.555		0.000		50.876		0.125	51.4
47	47 Total Hepta-Furans				1.05	10.017	37.835		0.000		34.620		0.174	34.9

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Dataset: U:\VG12.PRO\Results\200320R2\200320R2-4.qld

Last Altered: Thursday, April 02, 2020 10:53:57 AM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.41	1.302e4	1.911e4	1.137e3	1.396e3	0.81	NO	2.533e3	0.45256	0.45256	0.0866
2	Total Tetra-Dioxins	21.81	7.203e3	6.656e3	5.615e2	5.024e2	1.12	YES	0.000e0	0.00000	0.15888	0.0866
3	Total Tetra-Dioxins	22.34	3.402e3	4.722e3	2.994e2	3.828e2	0.78	NO	6.822e2	0.12189	0.12189	0.0866
4	Total Tetra-Dioxins	23.28	7.731e3	1.142e4	6.438e2	9.161e2	0.70	NO	1.560e3	0.27872	0.27872	0.0866
5	Total Tetra-Dioxins	25.50	6.511e3	6.421e3	5.953e2	5.070e2	1.17	YES	0.000e0	0.00000	0.16034	0.0866
6	2,3,7,8-TCDD	25.80	1.311e4	1.762e4	7.457e2	1.351e3	0.55	YES	2.097e3	0.00000	0.30627	0.0866
7	Total Tetra-Dioxins	26.17	4.708e3	5.728e3	2.209e2	2.370e2	0.93	YES	0.000e0	0.00000	0.074941	0.0866

**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	1.614e4	2.293e4	1.124e3	1.712e3	0.66	NO	2.836e3	0.75338	0.75338	0.0880
2	Total Penta-Dioxins	29.29	7.432e3	8.813e3	3.563e2	4.575e2	0.78	YES	0.000e0	0.00000	0.19809	0.0880
3	Total Penta-Dioxins	29.80	1.106e4	2.021e4	8.810e2	1.245e3	0.71	NO	2.126e3	0.56469	0.56469	0.0880
4	Total Penta-Dioxins	29.98	6.561e3	1.385e4	2.507e2	6.656e2	0.38	YES	0.000e0	0.00000	0.17233	0.0880
5	Total Penta-Dioxins	30.06	8.750e3	5.744e3	2.859e2	4.226e2	0.68	NO	7.085e2	0.18819	0.18819	0.0880
6	Total Penta-Dioxins	30.29	5.591e3	8.563e3	4.481e2	5.411e2	0.83	YES	0.000e0	0.00000	0.23428	0.0880
7	Total Penta-Dioxins	30.67	4.693e3	3.379e3	1.482e2	1.719e2	0.86	YES	0.000e0	0.00000	0.074446	0.0880
8	1,2,3,7,8-PeCDD	31.11	1.066e4	1.745e4	5.633e2	1.020e3	0.55	NO	1.584e3	0.42069	0.42069	0.0880
9	Total Penta-Dioxins	31.20	2.971e3	4.623e3	1.299e2	2.104e2	0.62	NO	0.000e0	0.00000	0.090402	0.0880
10	Total Penta-Dioxins	31.51	2.853e3	6.706e3	1.463e2	3.059e2	0.48	YES	0.000e0	0.00000	0.10058	0.0880

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Printed: Thursday, April 02, 2020 10:58:41 AM Pacific Daylight Time

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	1.169e5	8.920e4	5.838e3	4.741e3	1.23	NO	1.058e4	3.0825	3.0825	0.142
2	Total Hexa-Dioxins	33.61	1.669e4	1.761e4	1.005e3	7.742e2	1.30	NO	1.779e3	0.51829	0.51829	0.142
3	Total Hexa-Dioxins	33.85	9.217e4	7.810e4	6.276e3	4.803e3	1.31	NO	1.108e4	3.2283	3.2283	0.142
4	1,2,3,4,7,8-HxCDD	34.50	9.467e3	8.646e3	4.515e2	3.323e2	1.36	NO	7.839e2	0.21981	0.21981	0.129
5	1,2,3,6,7,8-HxCDD	34.61	3.527e4	2.464e4	2.017e3	1.464e3	1.38	NO	3.481e3	0.92026	0.92026	0.132
6	1,2,3,7,8,9-HxCDD	34.89	1.698e4	1.665e4	9.459e2	7.051e2	1.34	NO	1.651e3	0.49226	0.49226	0.148

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.28	4.724e5	4.544e5	3.139e4	3.120e4	1.01	NO	6.258e4	23.864	23.864	0.351
2	1,2,3,4,6,7,8-HpCDD	38.30	3.373e5	3.116e5	2.554e4	2.388e4	1.07	NO	4.942e4	18.846	18.846	0.351

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-4.qld

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Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.40	1.524e4	1.629e4	9.503e2	1.128e3	0.84	NO	2.078e3	0.29007	0.29007	0.101
2	Total Tetra-Furans	19.90	9.752e3	1.398e4	7.065e2	1.154e3	0.61	YES	0.000e0	0.00000	0.22665	0.101
3	Total Tetra-Furans	20.48	6.216e4	7.143e4	5.338e3	6.411e3	0.83	NO	1.175e4	1.6397	1.6397	0.101
4	Total Tetra-Furans	20.99	1.605e4	2.023e4	2.164e3	2.709e3	0.80	NO	4.872e3	0.67997	0.67997	0.101
5	Total Tetra-Furans	21.38	7.529e4	9.669e4	7.089e3	9.284e3	0.76	NO	1.637e4	2.2851	2.2851	0.101
6	Total Tetra-Furans	21.84	3.591e4	4.614e4	3.037e3	4.081e3	0.74	NO	7.118e3	0.99337	0.99337	0.101
7	Total Tetra-Furans	21.99	5.870e3	9.552e3	4.586e2	7.131e2	0.64	YES	0.000e0	0.00000	0.14712	0.101
8	Total Tetra-Furans	22.20	1.767e4	2.211e4	1.587e3	1.925e3	0.82	NO	3.512e3	0.49020	0.49020	0.101
9	Total Tetra-Furans	22.61	3.245e3	3.625e3	1.409e2	2.374e2	0.59	YES	0.000e0	0.00000	0.045212	0.101
10	Total Tetra-Furans	22.65	3.604e3	3.507e3	1.563e2	1.486e2	1.05	YES	0.000e0	0.00000	0.036716	0.101
11	Total Tetra-Furans	22.80	4.234e3	4.359e3	3.532e2	3.229e2	1.09	YES	0.000e0	0.00000	0.079766	0.101
12	Total Tetra-Furans	23.12	5.508e4	7.815e4	7.940e3	1.028e4	0.77	NO	1.822e4	2.5433	2.5433	0.101
13	Total Tetra-Furans	23.70	2.175e5	3.025e5	2.081e4	2.815e4	0.74	NO	4.896e4	6.8331	6.8331	0.101
14	Total Tetra-Furans	24.06	1.121e4	1.654e4	9.835e2	1.279e3	0.77	NO	2.262e3	0.31575	0.31575	0.101
15	Total Tetra-Furans	24.27	3.947e3	5.347e3	3.917e2	5.363e2	0.73	NO	9.280e2	0.12952	0.12952	0.101
16	Total Tetra-Furans	24.54	5.002e3	7.090e3	3.385e2	4.241e2	0.80	NO	7.626e2	0.10643	0.10643	0.101
17	Total Tetra-Furans	24.67	6.138e4	6.705e4	3.693e3	4.719e3	0.78	NO	8.412e3	1.1740	1.1740	0.101
18	2,3,7,8-TCDF	24.79	2.767e5	3.521e5	2.309e4	3.114e4	0.74	NO	5.422e4	7.5678	7.5678	0.101
19	Total Tetra-Furans	25.21	1.775e4	2.187e4	1.335e3	1.776e3	0.75	NO	3.111e3	0.43419	0.43419	0.101
20	Total Tetra-Furans	25.48	7.636e3	8.602e3	5.897e2	7.511e2	0.79	NO	1.341e3	0.18713	0.18713	0.101
21	Total Tetra-Furans	26.54	6.269e3	7.957e3	4.216e2	4.795e2	0.88	NO	9.011e2	0.12576	0.12576	0.101
22	Total Tetra-Furans	26.72	6.787e3	9.940e3	4.984e2	6.356e2	0.78	NO	1.134e3	0.15826	0.15826	0.101
23	Total Tetra-Furans	27.01	5.434e4	7.613e4	4.094e3	5.300e3	0.77	NO	9.394e3	1.3110	1.3110	0.101

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	27.01	1.966e5	1.250e5	1.329e4	8.498e3	1.56	NO	2.179e4	3.6735	3.6735	0.0306

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-4.qld

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Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

## Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.56	1.486e4	9.244e3	9.850e2	7.078e2	1.39	NO	1.693e3	0.28545	0.28545	0.123
2	Total Penta-Furans	28.71	3.014e5	1.870e5	2.290e4	1.400e4	1.64	NO	3.689e4	6.2211	6.2211	0.123
3	Total Penta-Furans	29.34	8.842e4	5.831e4	5.428e3	3.945e3	1.38	NO	9.373e3	1.5804	1.5804	0.123
4	Total Penta-Furans	29.55	5.778e4	3.371e4	3.107e3	2.047e3	1.52	NO	5.154e3	0.86913	0.86913	0.123
5	1,2,3,7,8-PeCDF	29.75	6.671e5	4.295e5	3.872e4	2.445e4	1.58	NO	6.317e4	10.503	10.503	0.122
6	Total Penta-Furans	30.04	1.711e5	1.001e5	1.034e4	6.230e3	1.66	NO	1.657e4	2.7937	2.7937	0.123
7	2,3,4,7,8-PeCDF	30.79	2.235e5	1.454e5	1.266e4	8.535e3	1.48	NO	2.120e4	3.4665	3.4665	0.120
8	Total Penta-Furans	30.82	1.527e5	9.441e4	2.981e3	2.056e3	1.45	NO	5.038e3	0.84944	0.84944	0.123
9	Total Penta-Furans	31.75	1.884e4	1.065e4	8.468e2	5.613e2	1.51	NO	1.408e3	0.23744	0.23744	0.123

## Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.47	7.610e4	5.795e4	3.617e3	3.022e3	1.20	NO	6.639e3	1.3434	1.3434	0.125
2	Total Hexa-Furans	32.64	2.668e5	2.161e5	1.336e4	1.020e4	1.31	NO	2.355e4	4.7664	4.7664	0.125
3	Total Hexa-Furans	33.20	2.316e5	1.968e5	1.204e4	9.784e3	1.23	NO	2.183e4	4.4167	4.4167	0.125
4	1,2,3,4,7,8-HxCDF	33.66	1.436e6	1.190e6	7.196e4	5.814e4	1.24	NO	1.301e5	27.624	27.624	0.126
5	1,2,3,6,7,8-HxCDF	33.78	4.247e5	3.646e5	2.588e4	2.178e4	1.19	NO	4.765e4	9.3420	9.3420	0.118
6	2,3,4,6,7,8-HxCDF	34.34	7.579e4	6.727e4	4.032e3	3.312e3	1.22	NO	7.344e3	1.4780	1.4780	0.122
7	1,2,3,7,8,9-HxCDF	35.26	8.858e4	6.682e4	4.339e3	3.443e3	1.26	NO	7.782e3	1.9056	1.9056	0.167
8	Total Hexa-Furans	35.27	6.581e4	4.897e4	1.361e3	1.015e3	1.34	NO	0.000e0	0.00000	0.48082	0.125

## Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	4.292e5	4.241e5	2.901e4	2.812e4	1.03	NO	5.713e4	16.278	16.278	0.152
2	Total Hepta-Furans	37.29	6.416e3	8.124e3	3.539e2	4.854e2	0.73	YES	0.000e0	0.00000	0.23153	0.174
3	Total Hepta-Furans	37.49	3.201e5	3.021e5	2.130e4	2.086e4	1.02	NO	4.217e4	14.062	14.062	0.174
4	1,2,3,4,7,8,9-HpCDF	38.95	9.573e4	9.503e4	5.983e3	6.305e3	0.95	NO	1.229e4	4.2799	4.2799	0.178



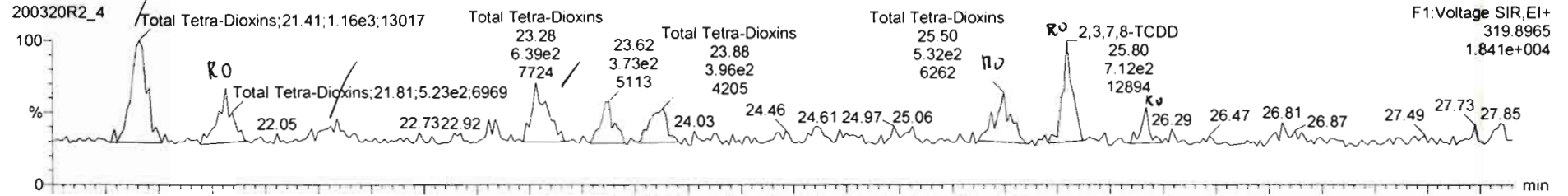
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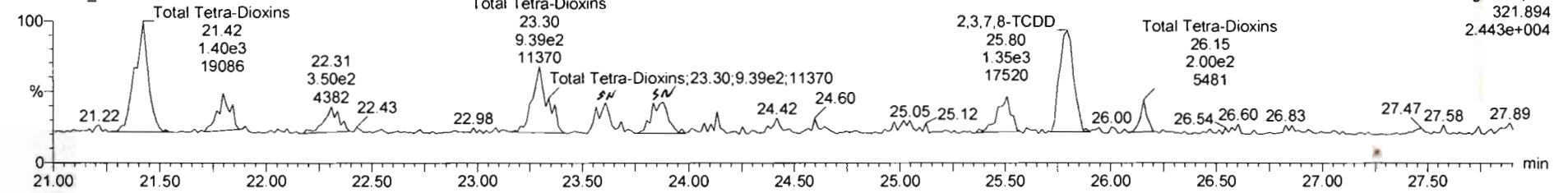
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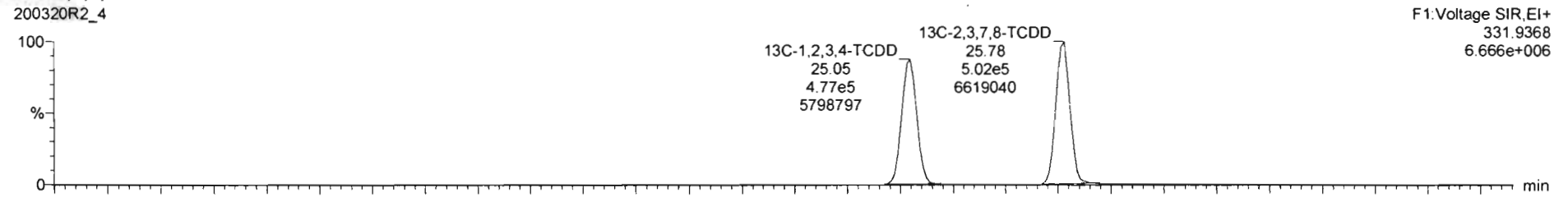
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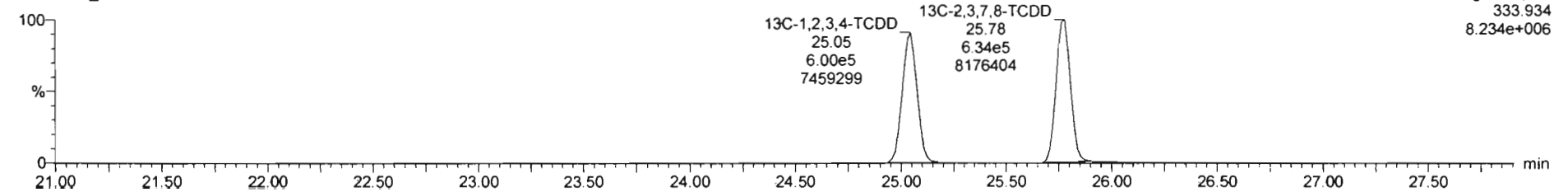
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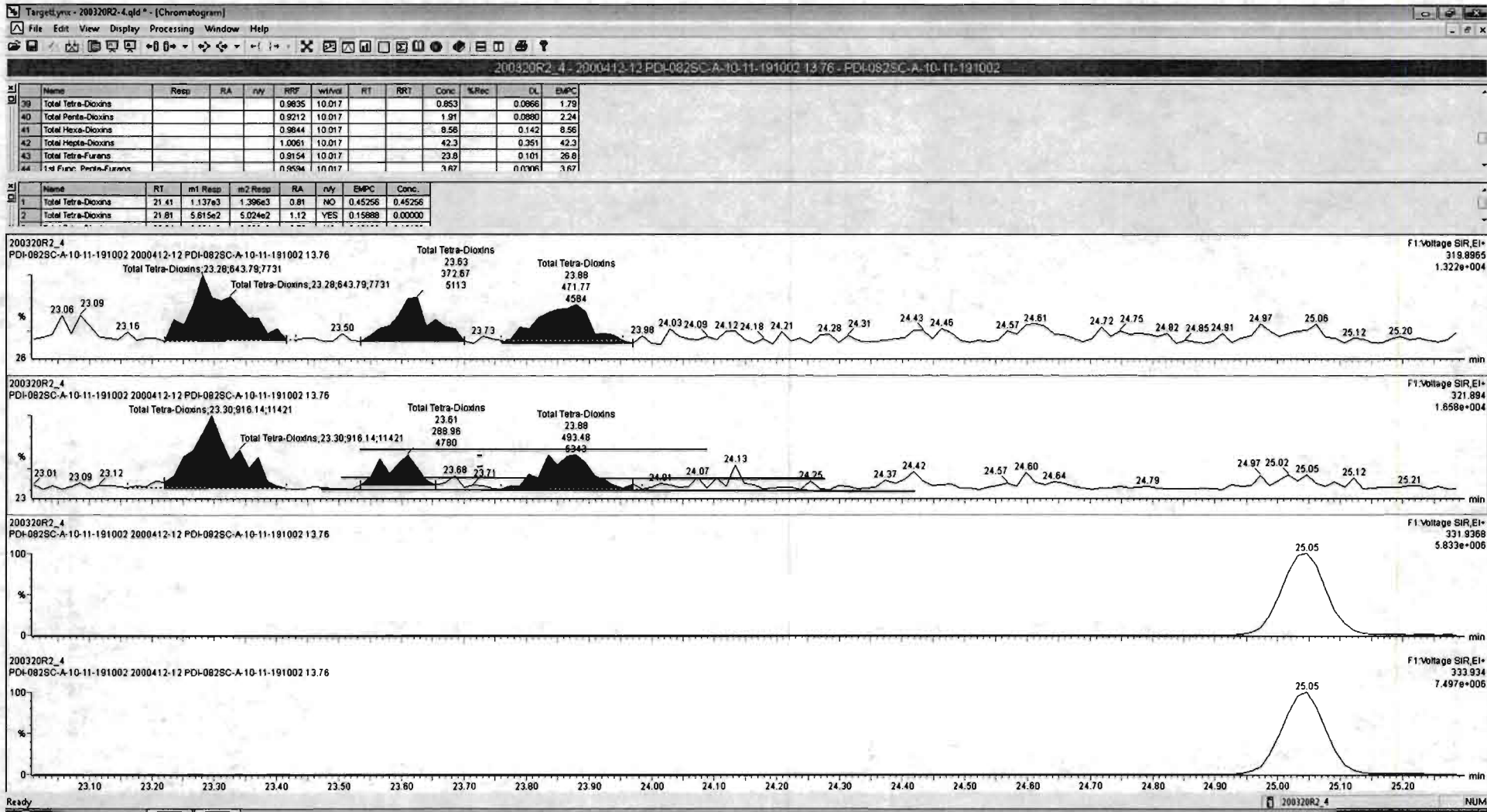


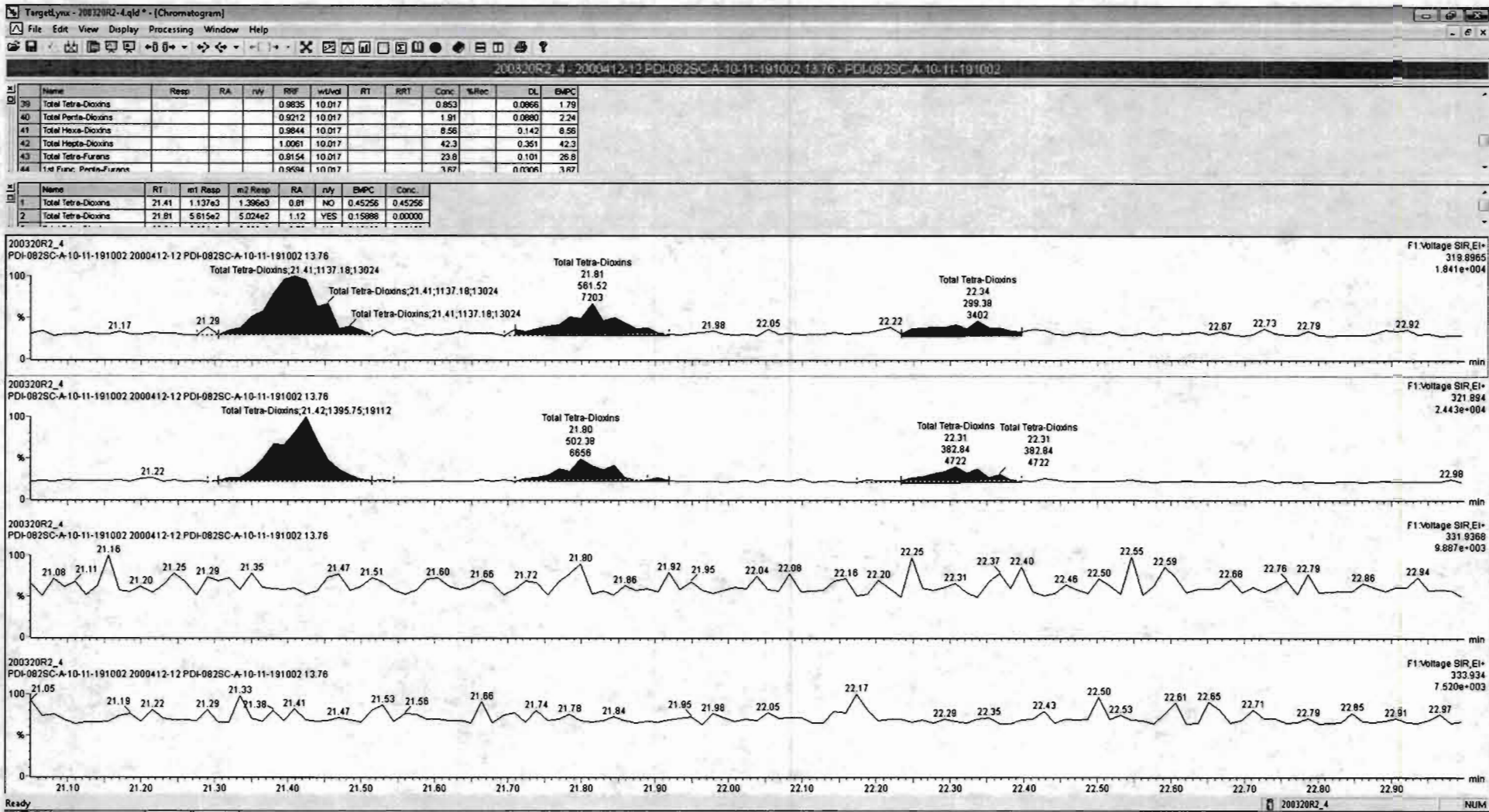
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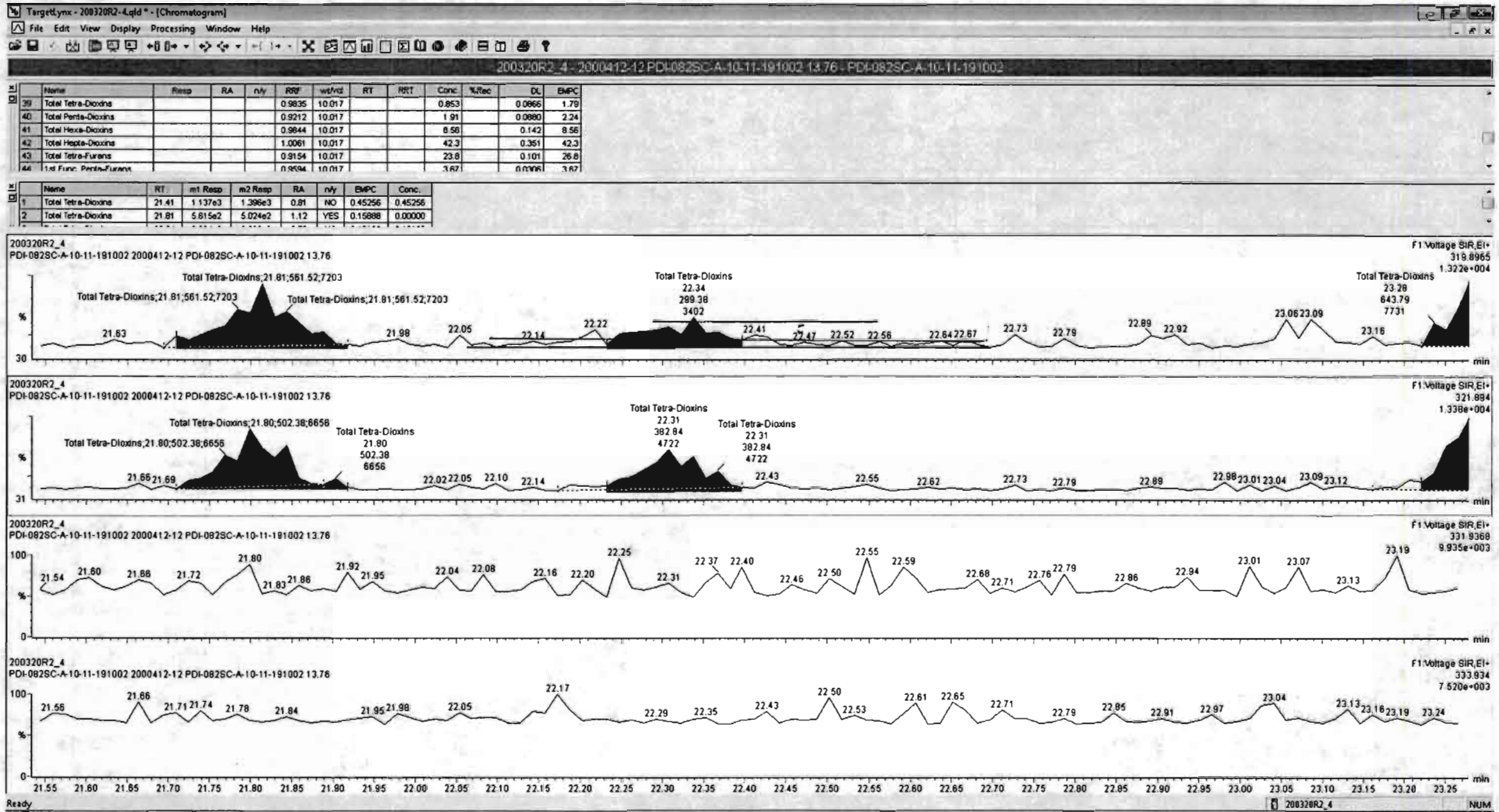


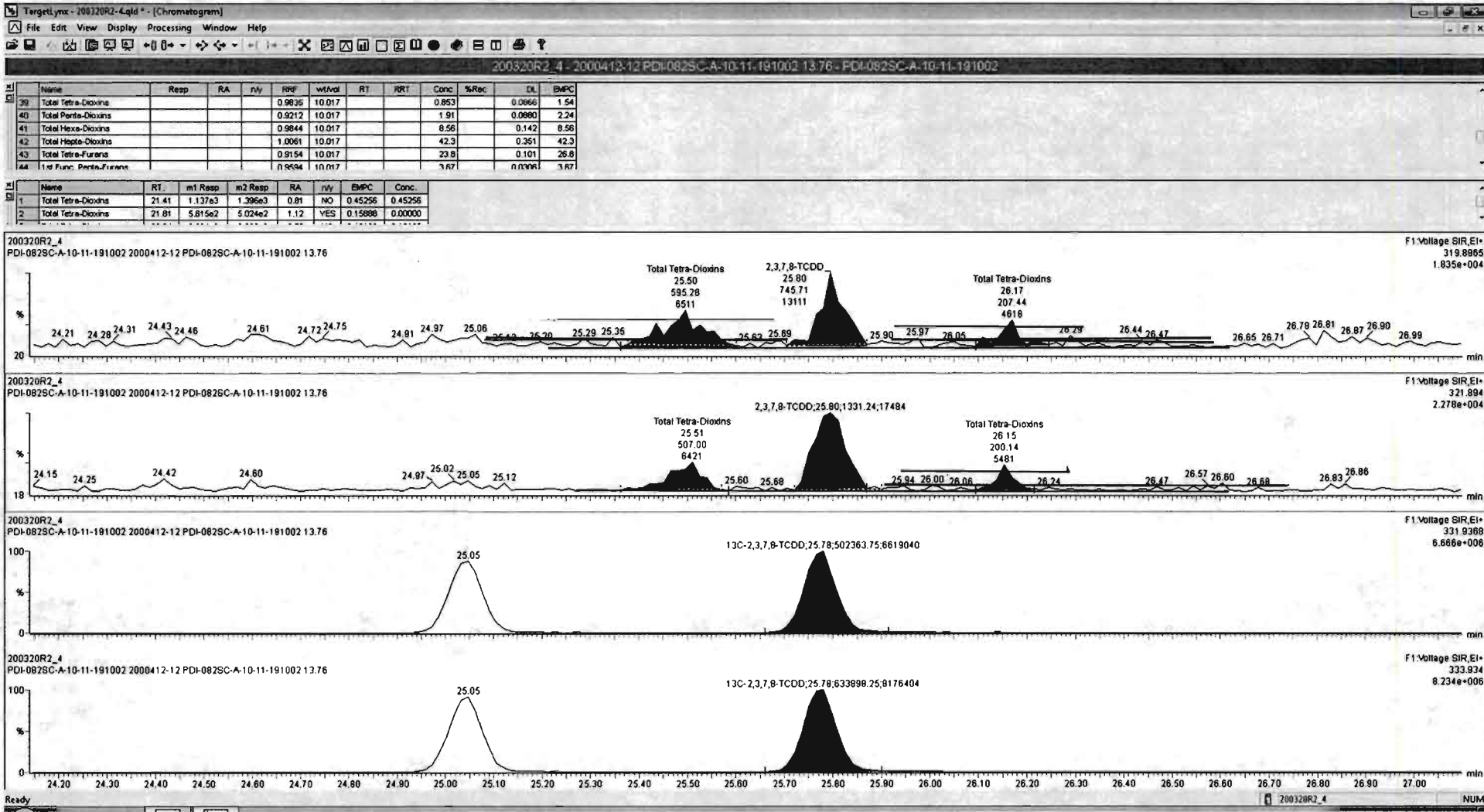
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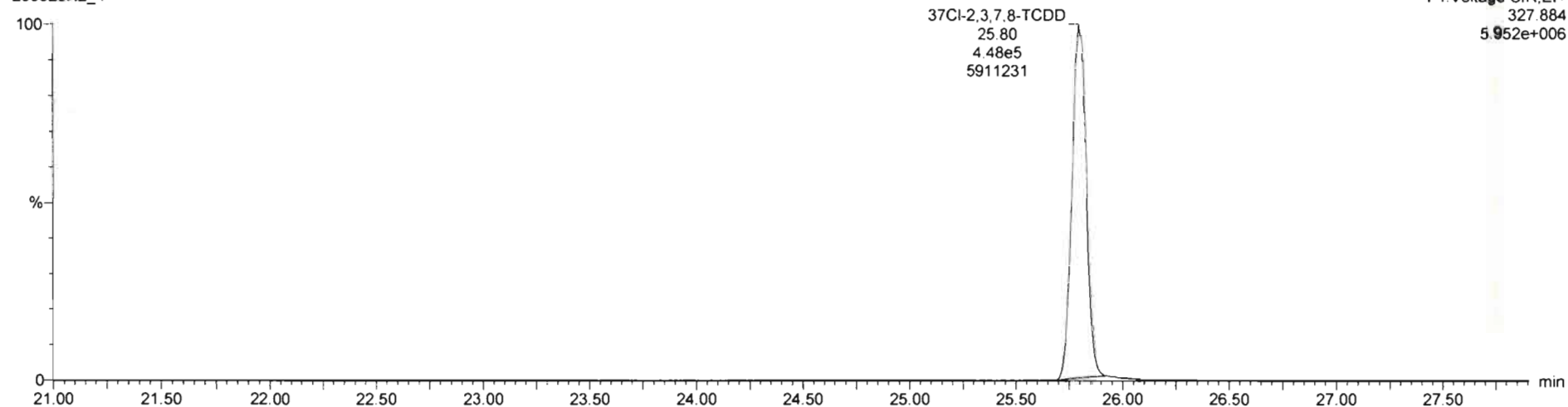
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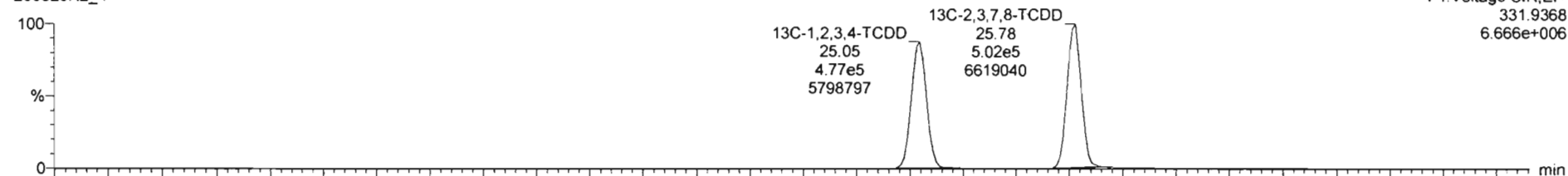
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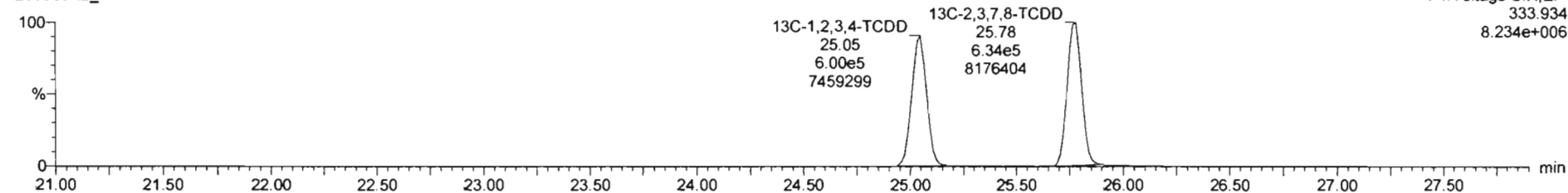


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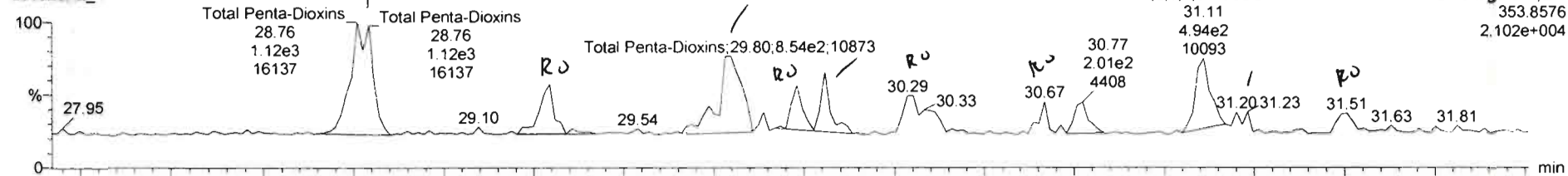
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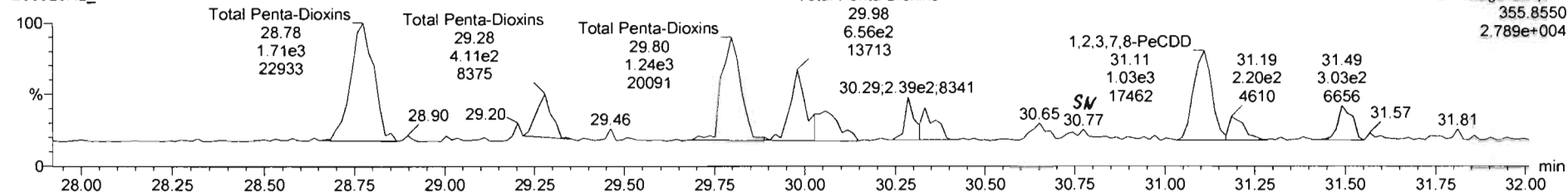
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1,2,3,7,8-PeCDD

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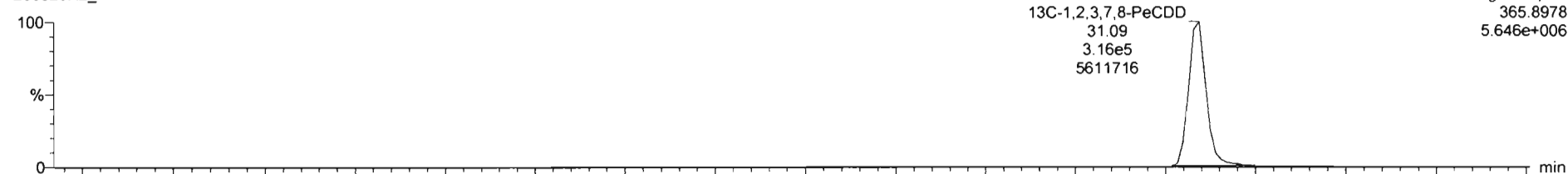


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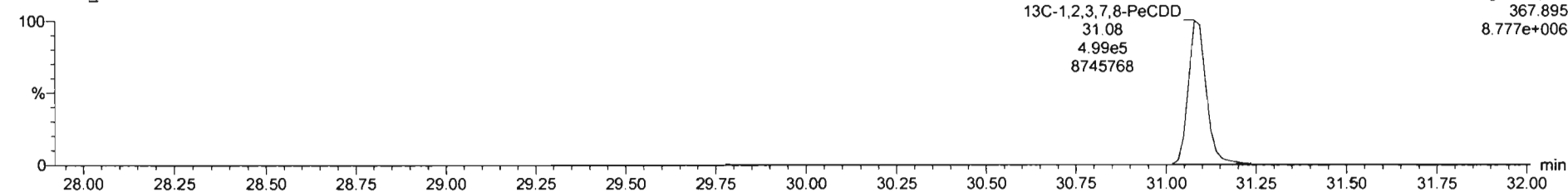


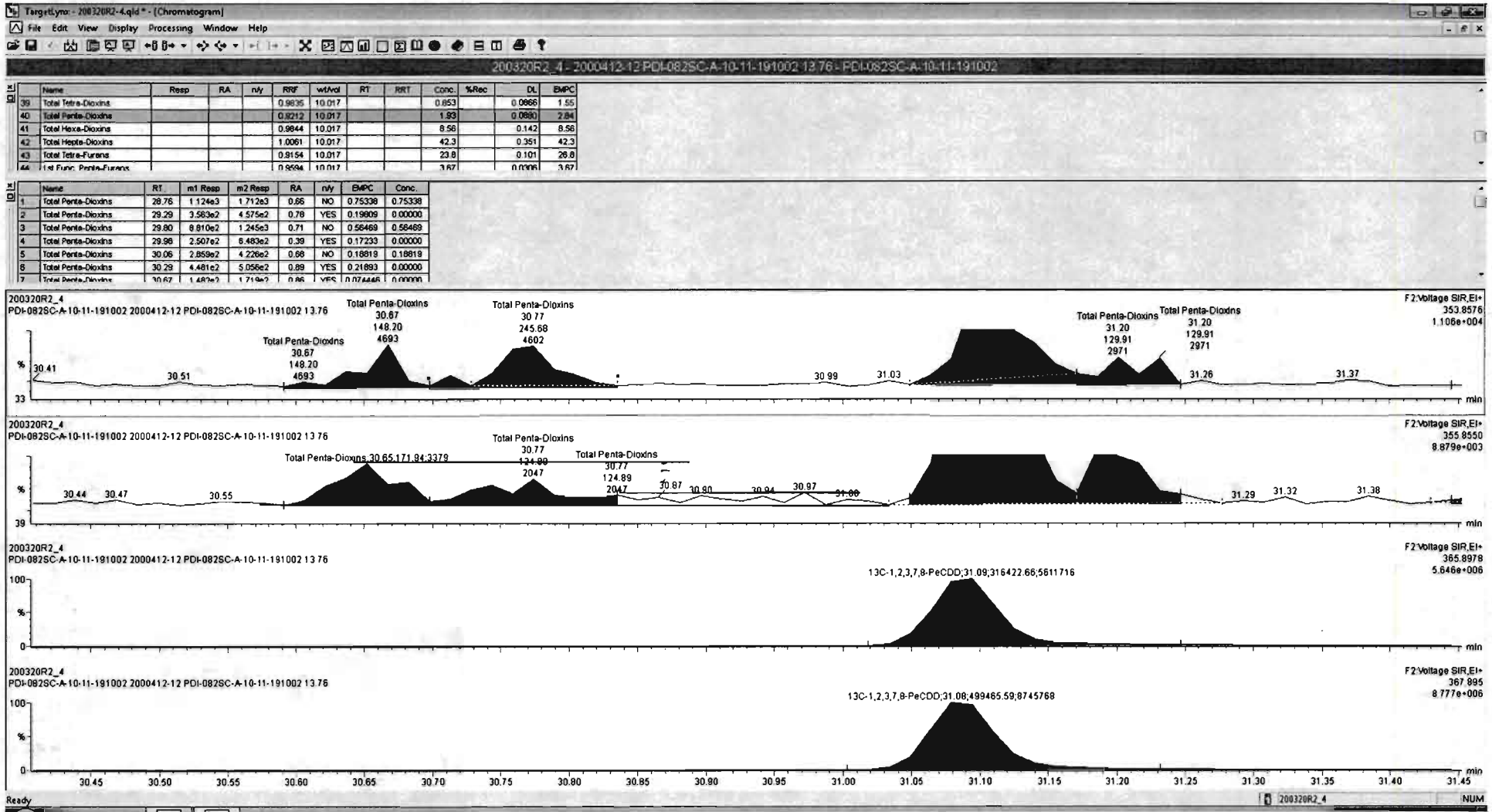
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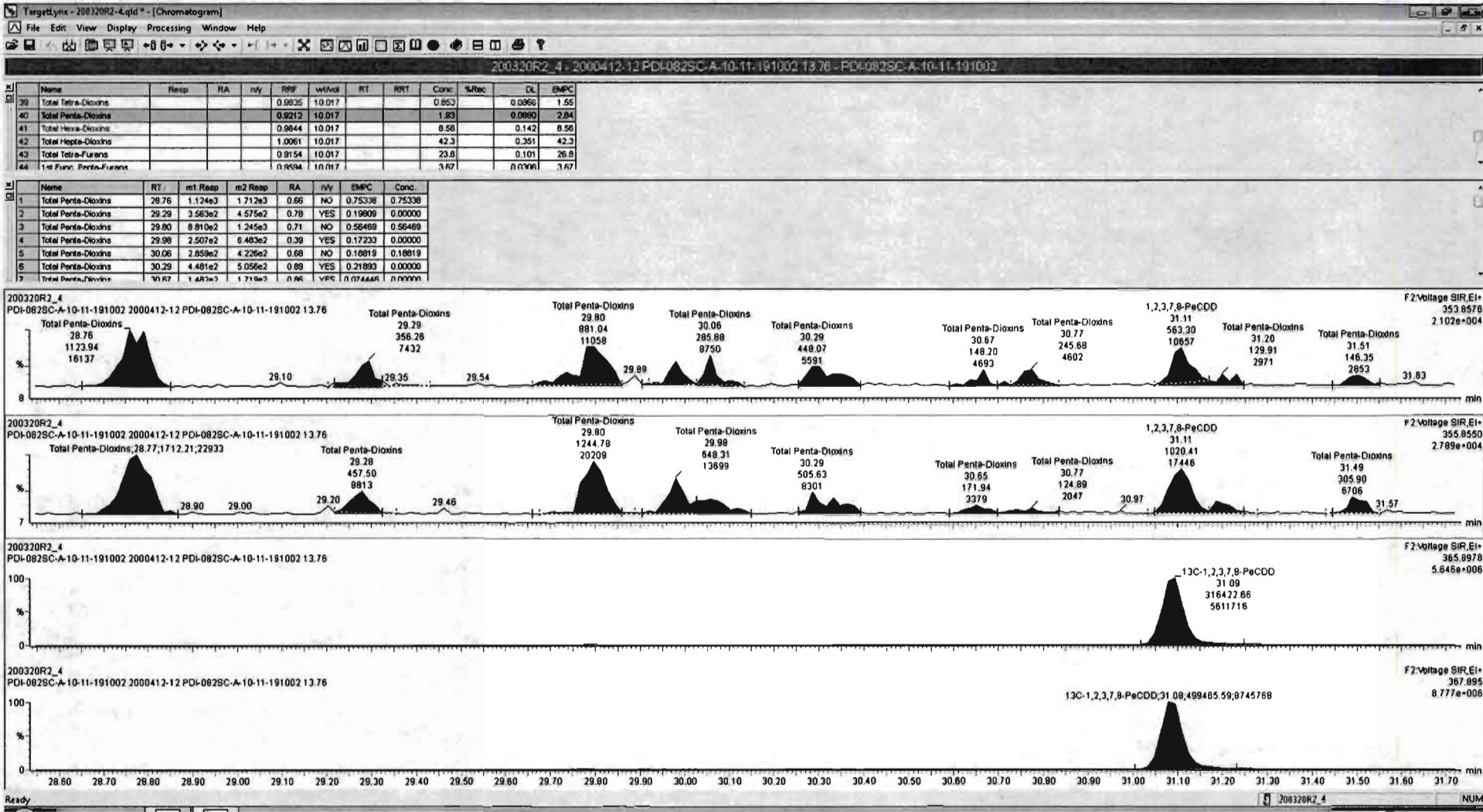


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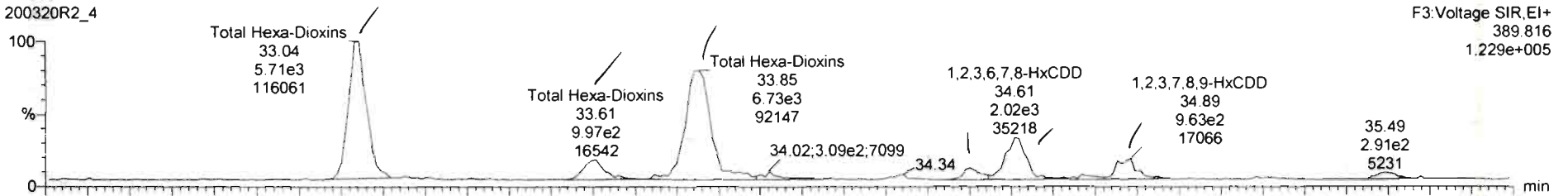
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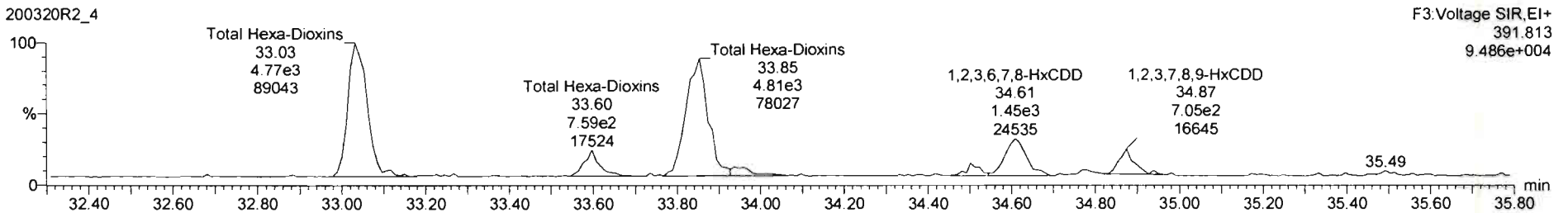
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1,2,3,4,7,8-HxCDD

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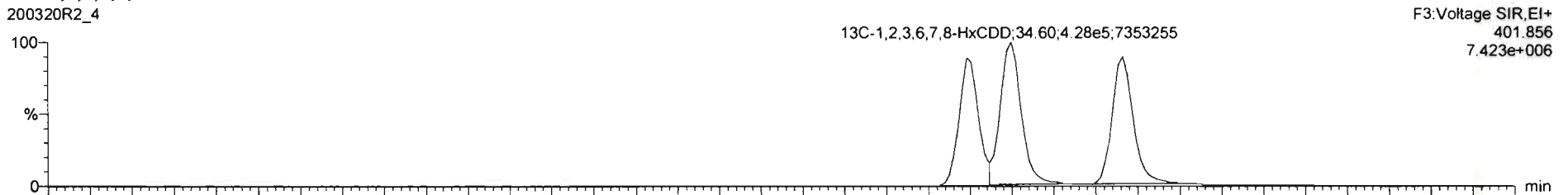


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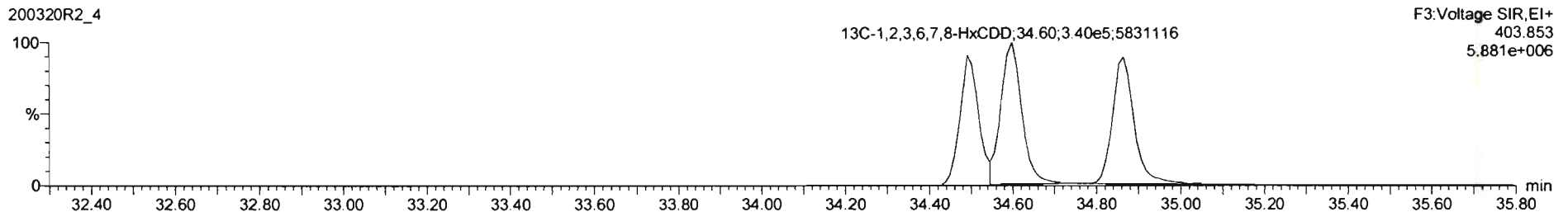


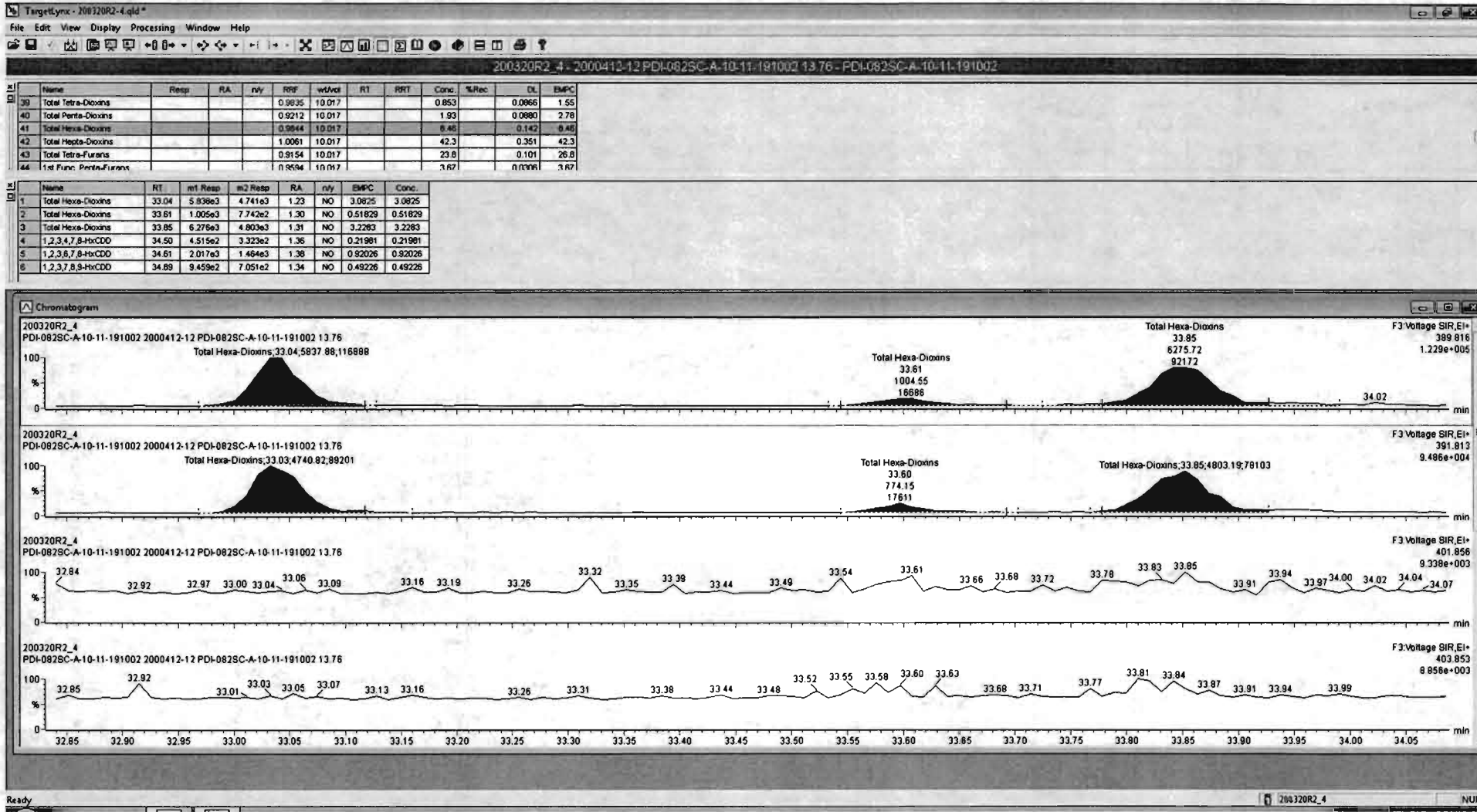
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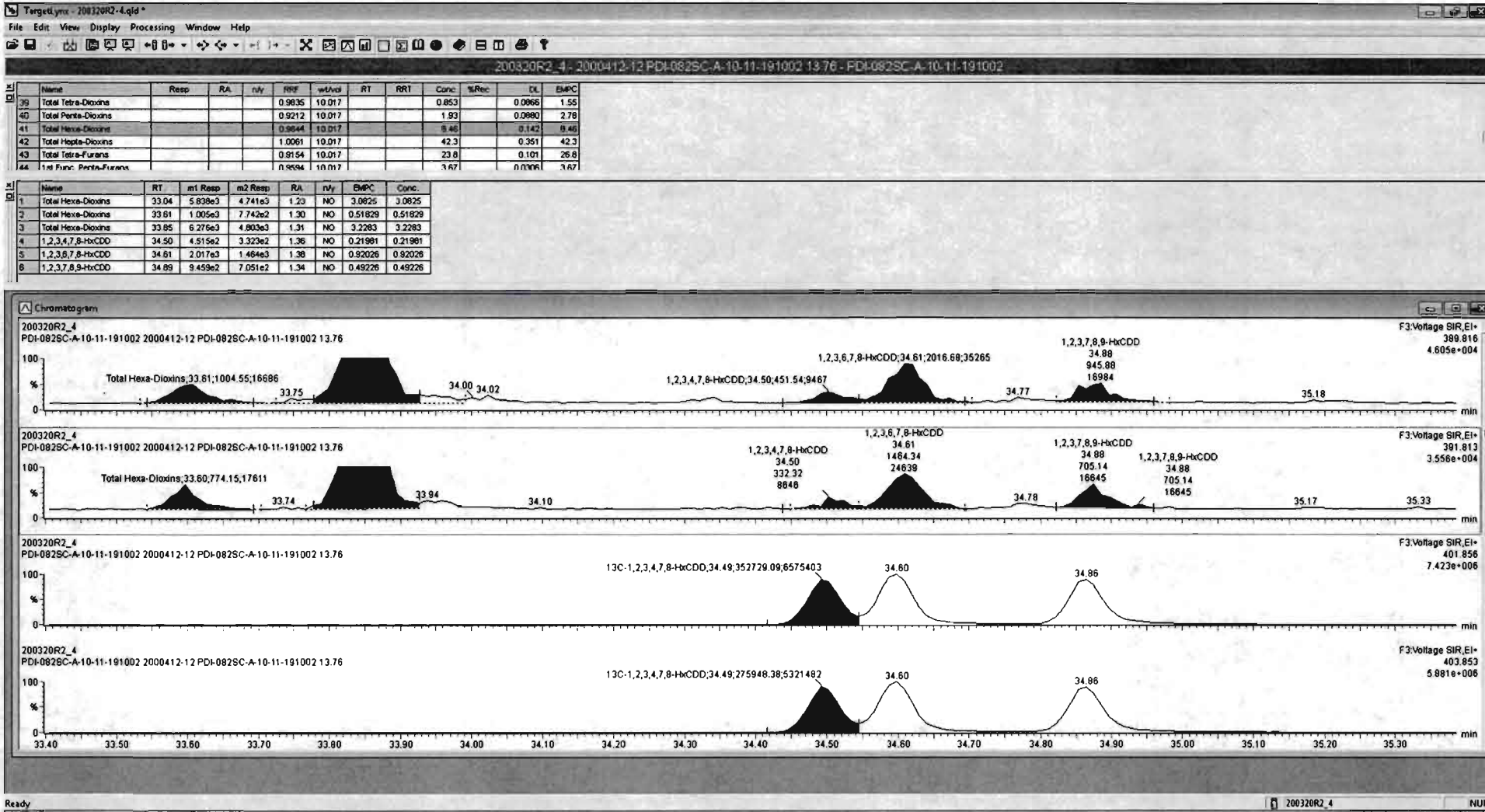
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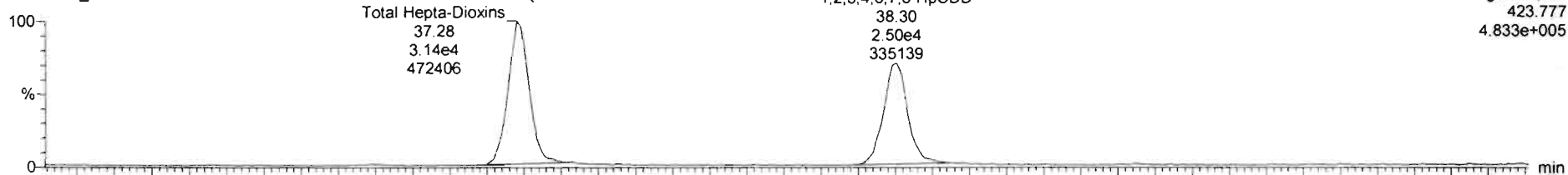
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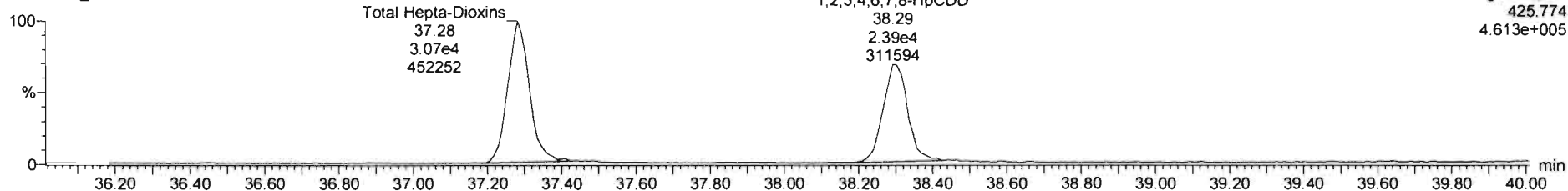
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1,2,3,4,6,7,8-HpCDD

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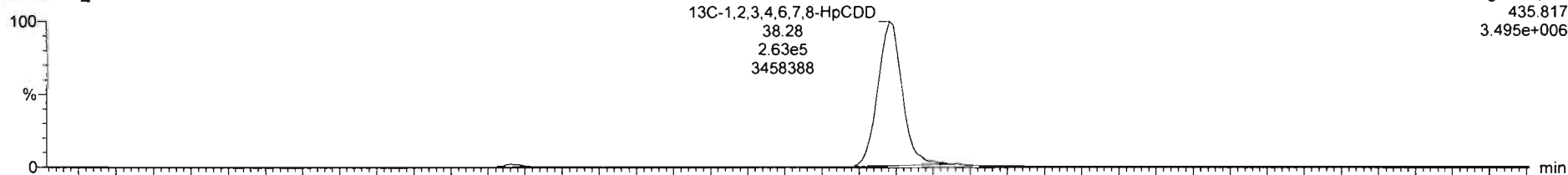


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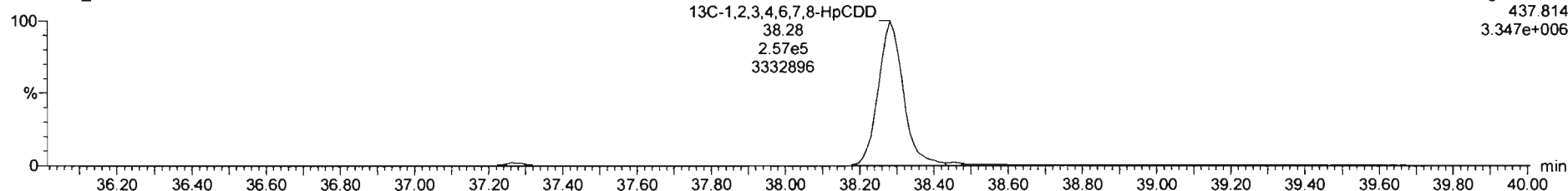


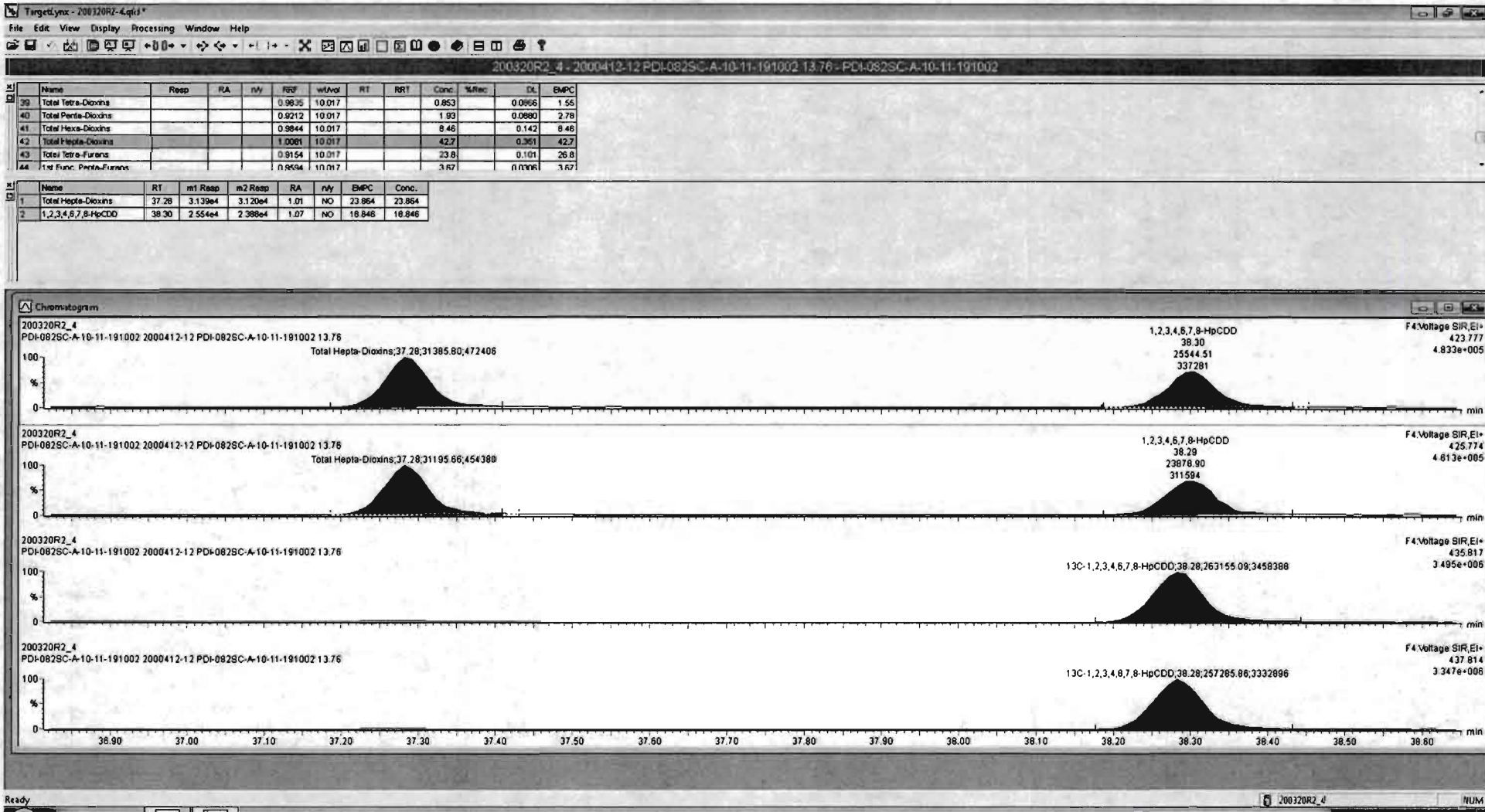
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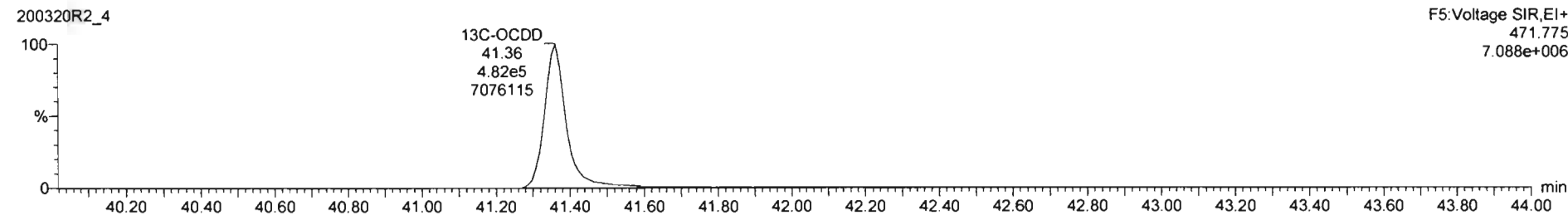
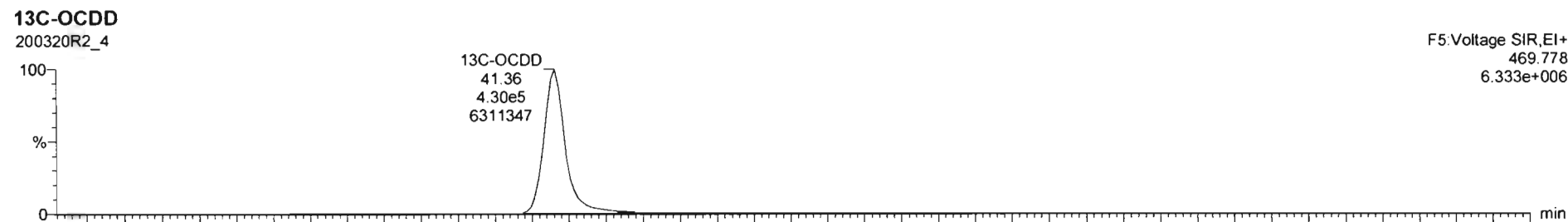
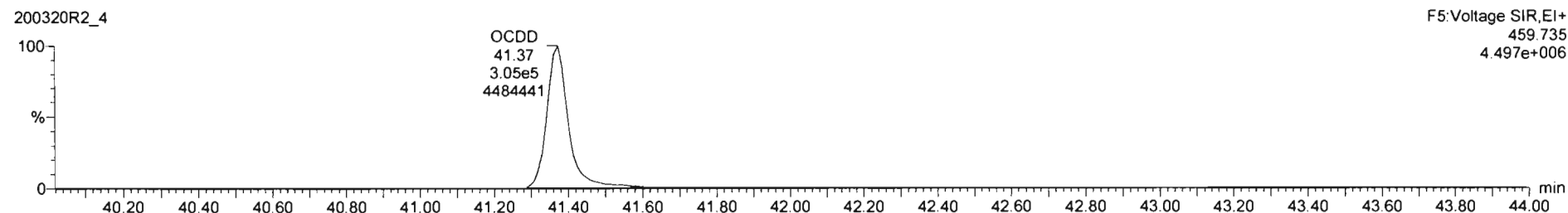
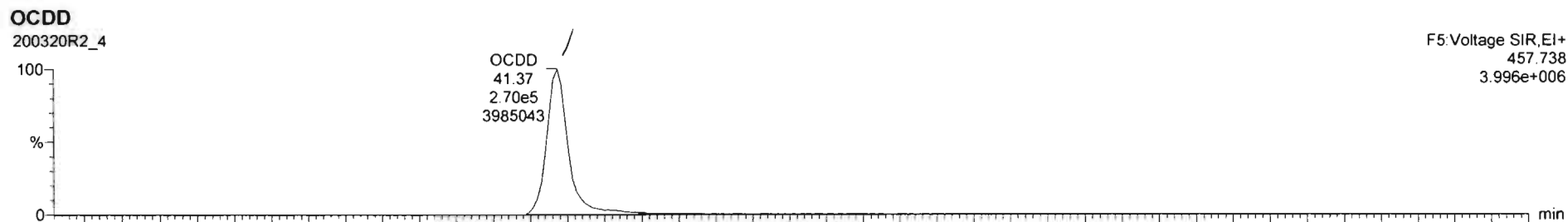


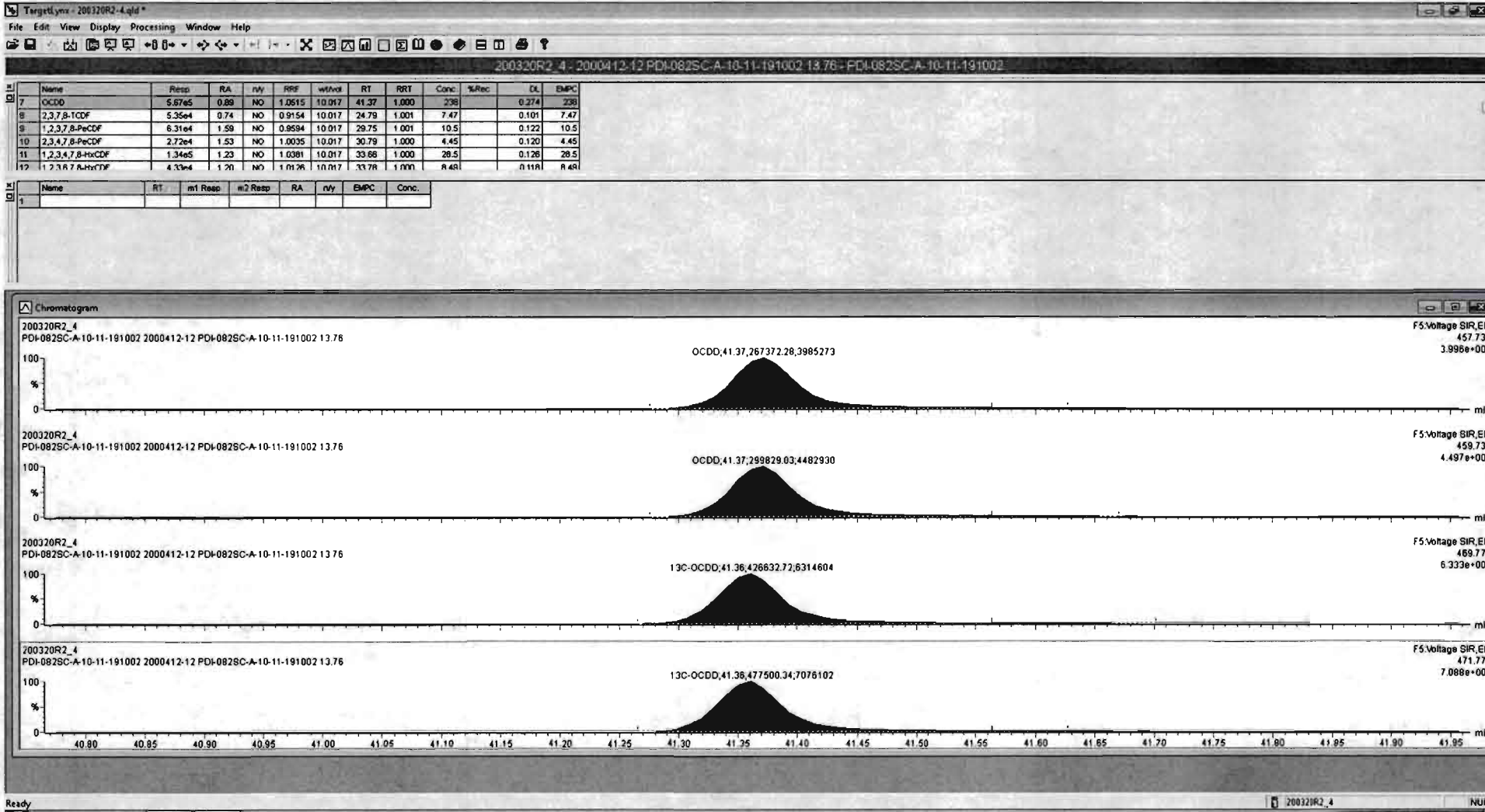


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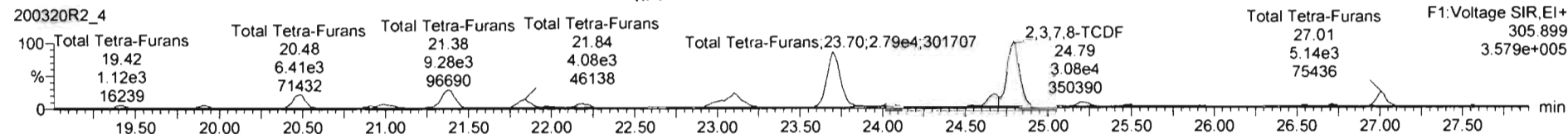
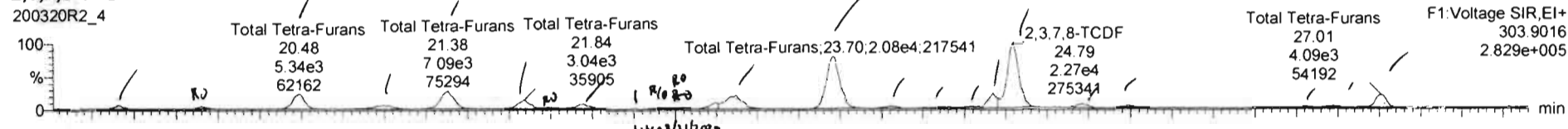


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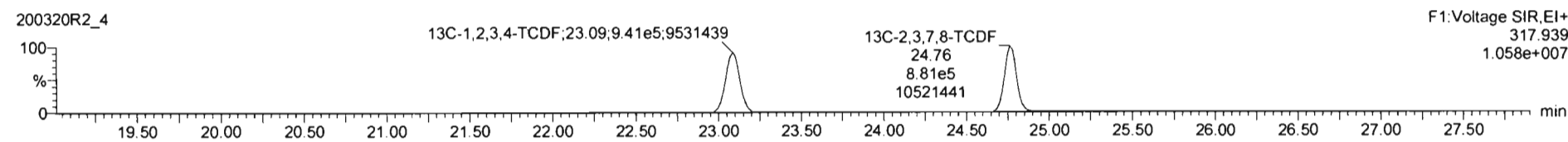
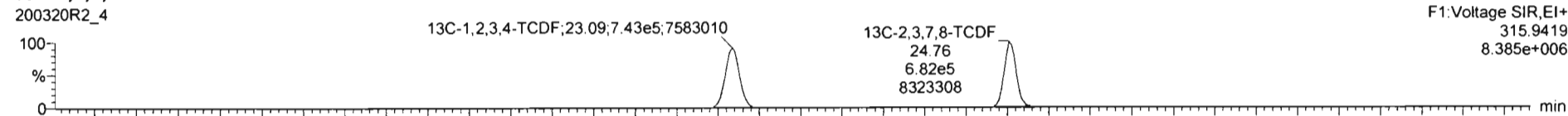
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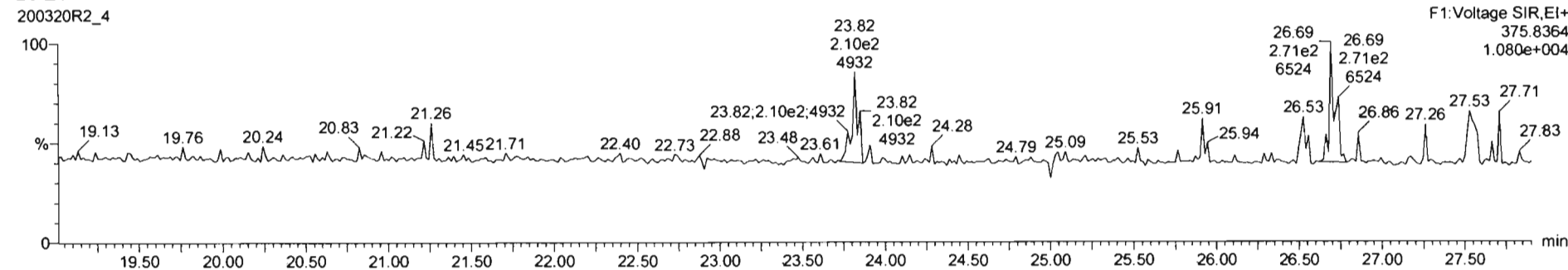
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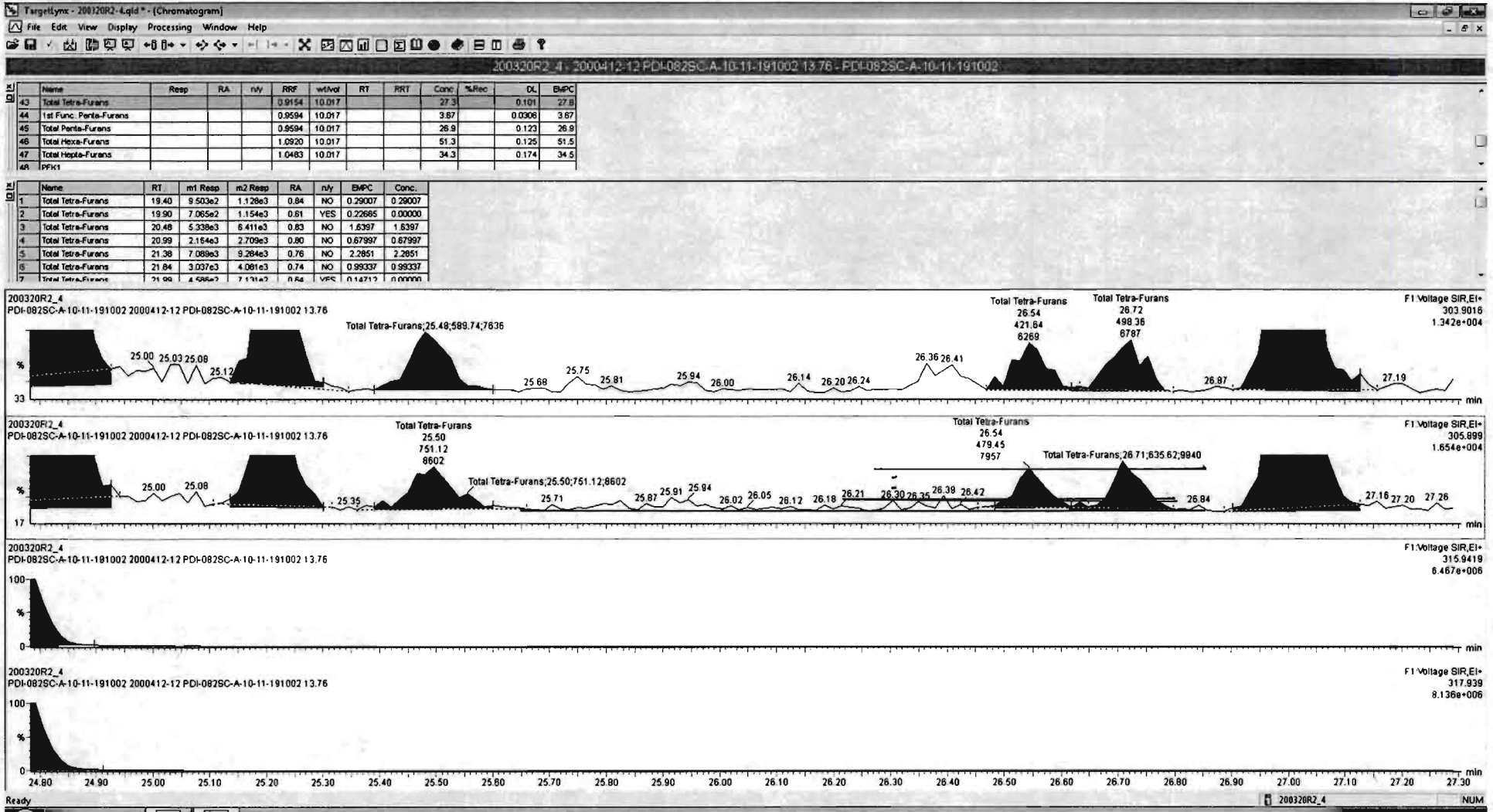


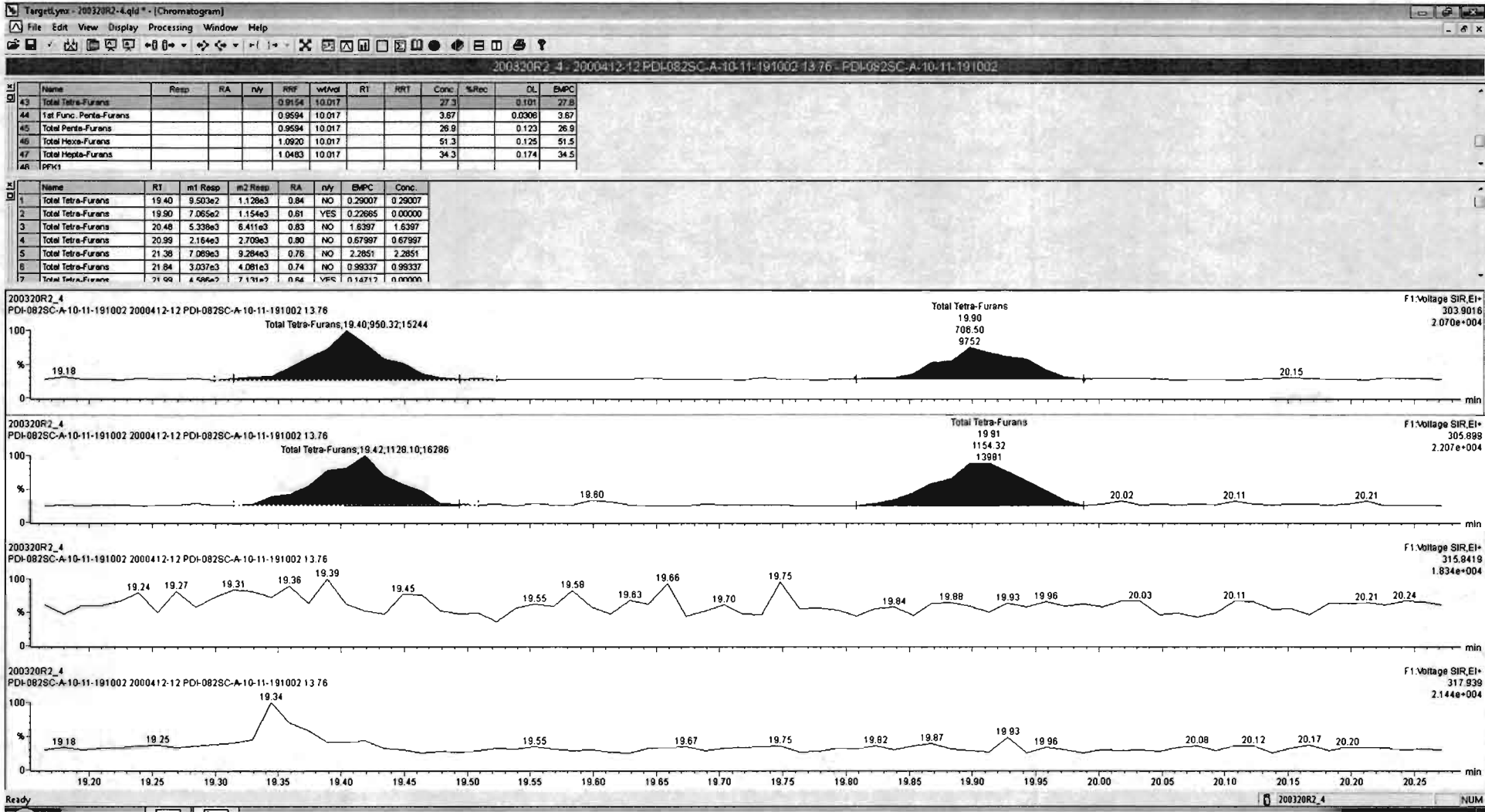
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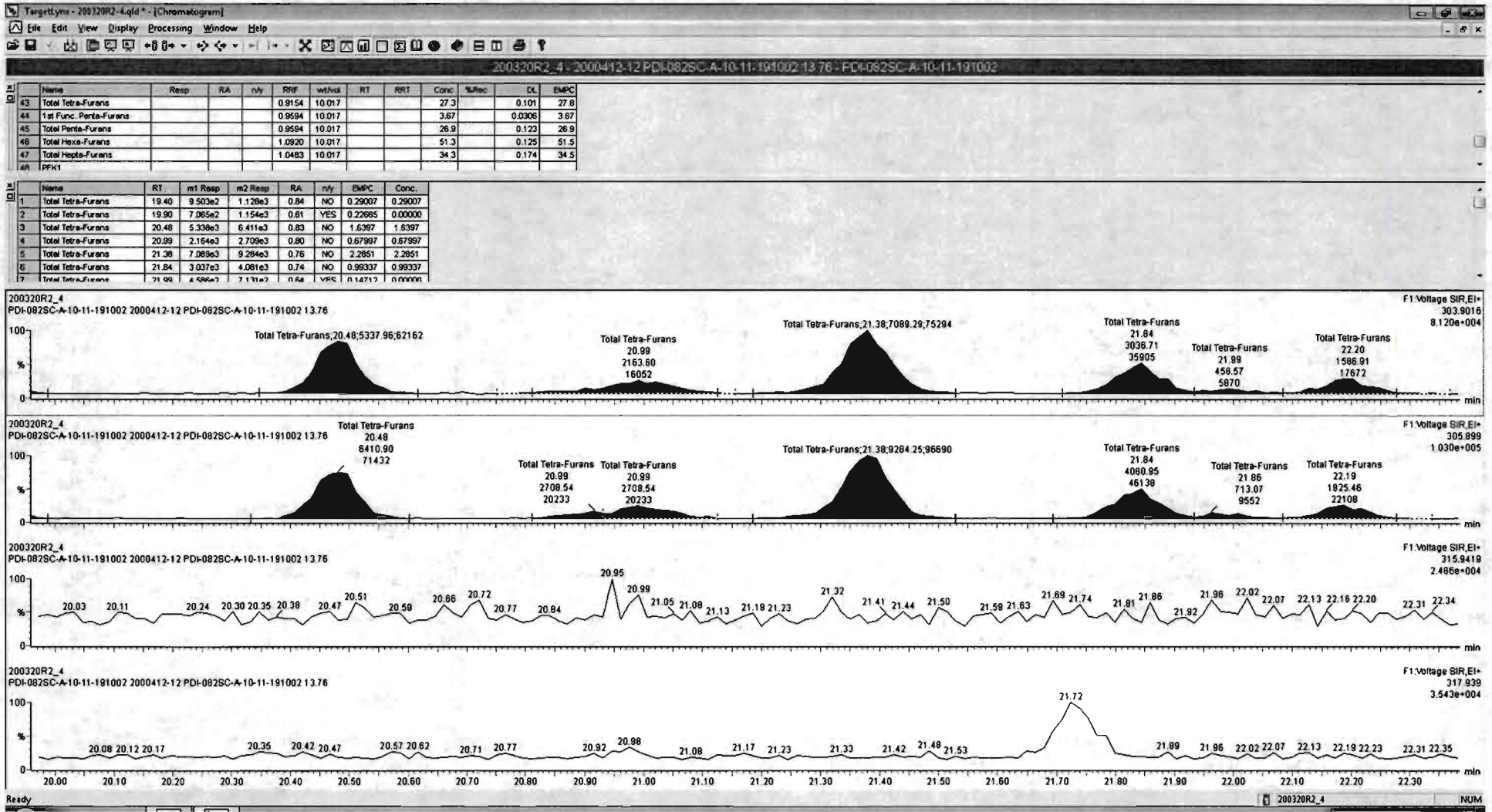


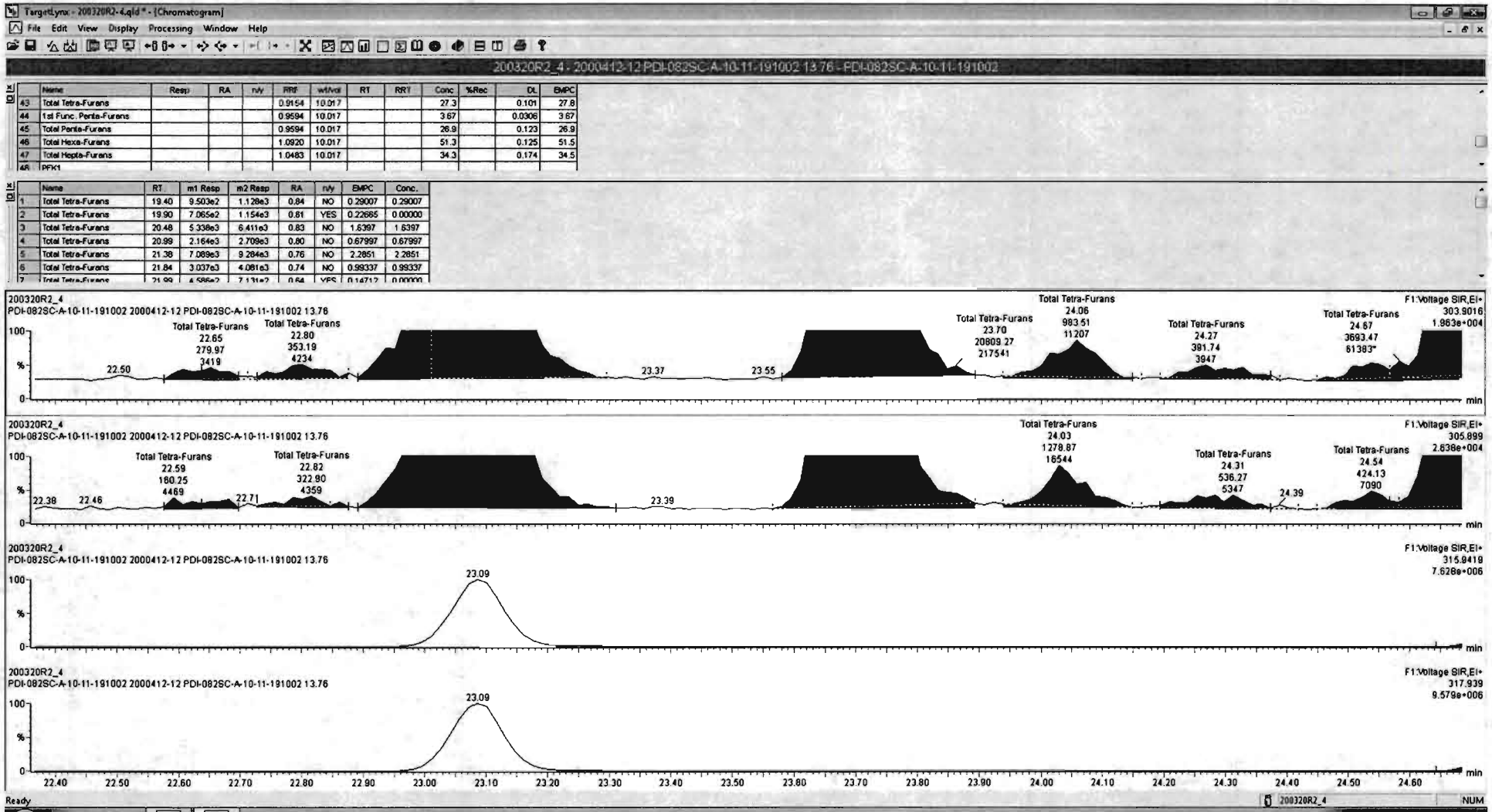
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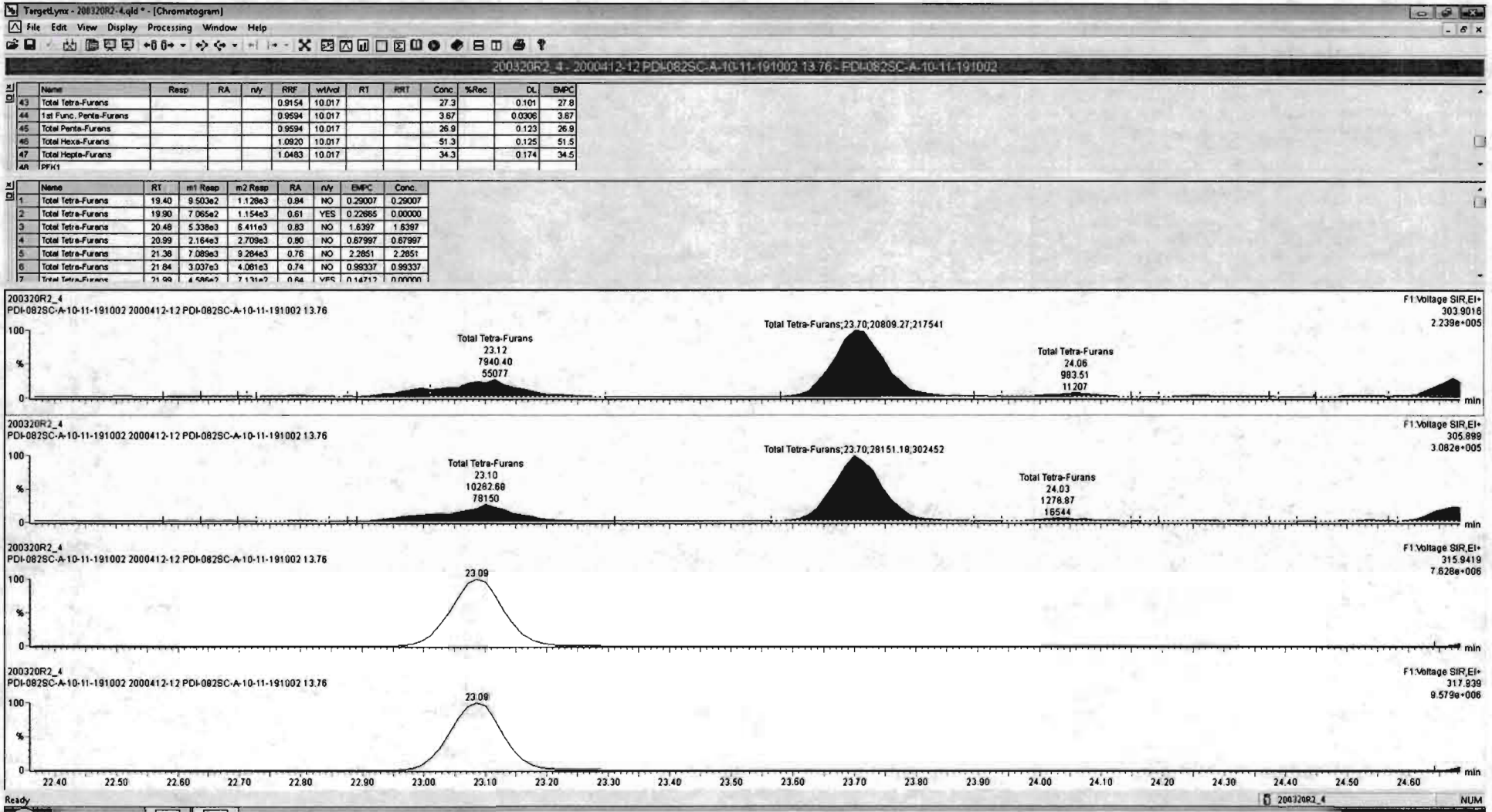


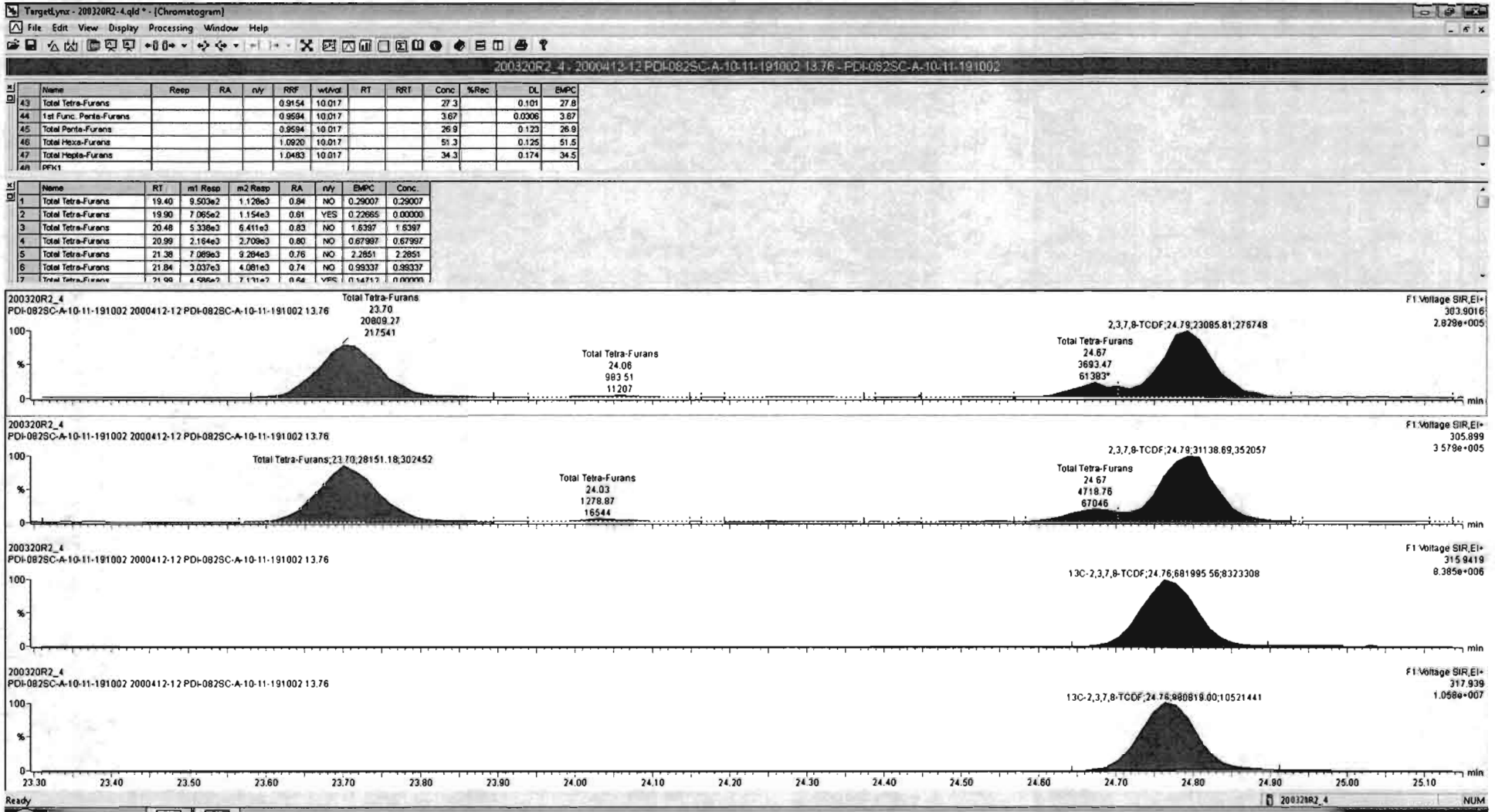


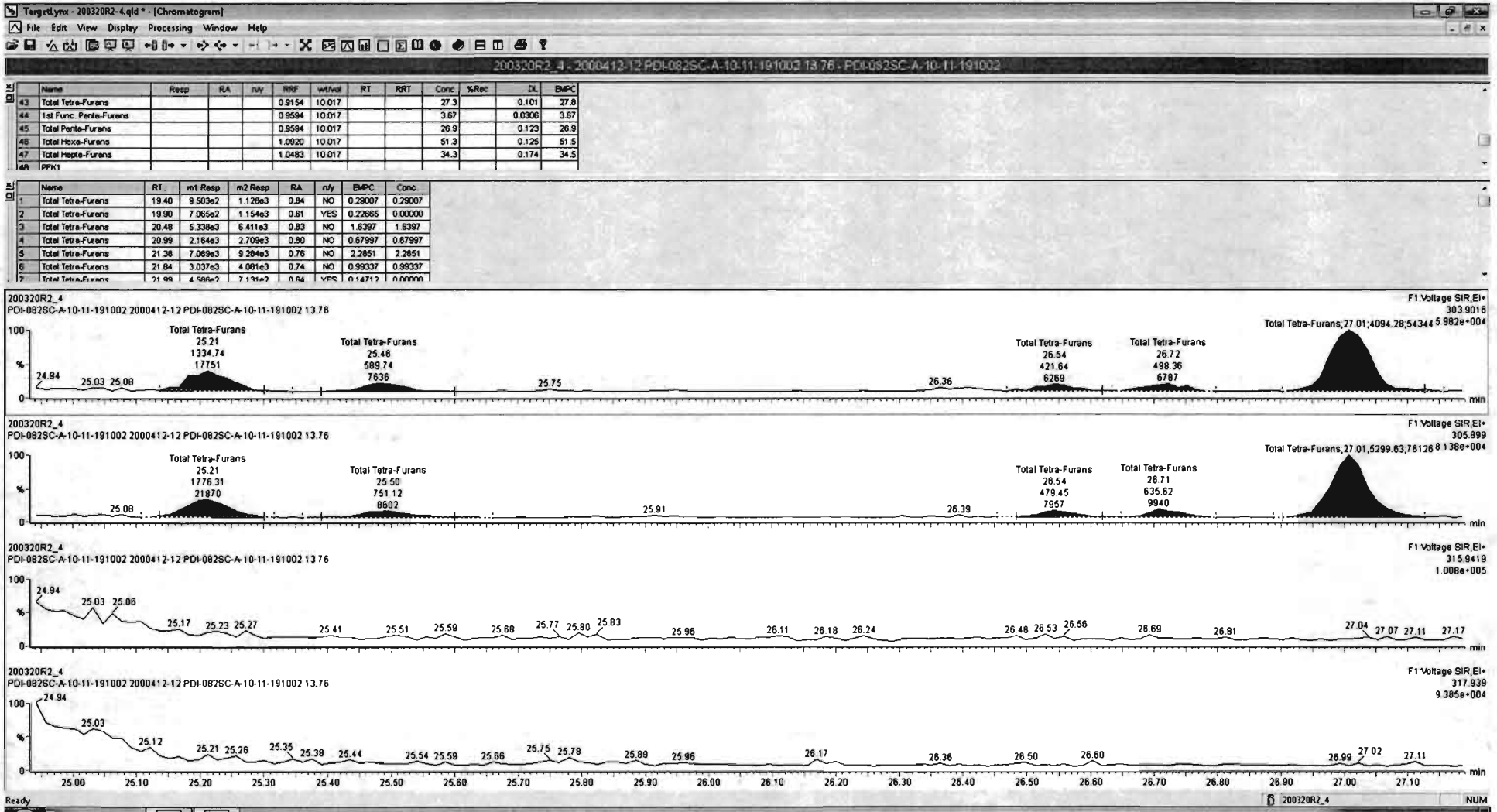














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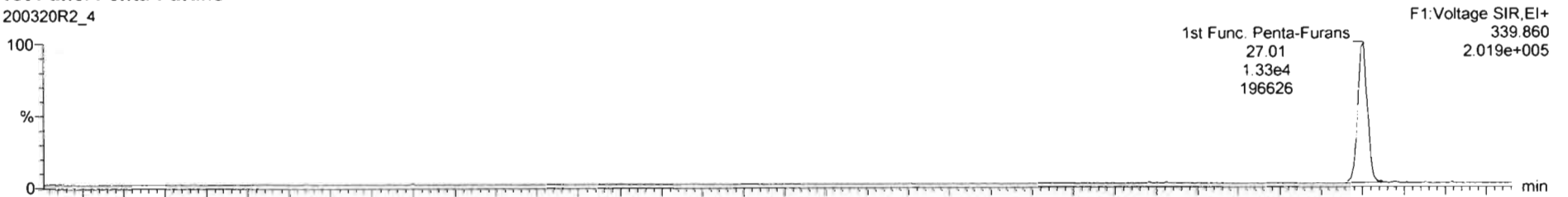
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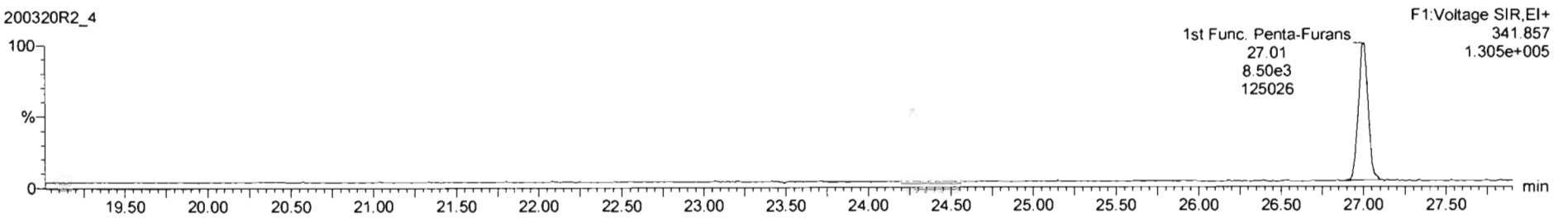
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1st Func. Penta-Furans

200320R2\_4

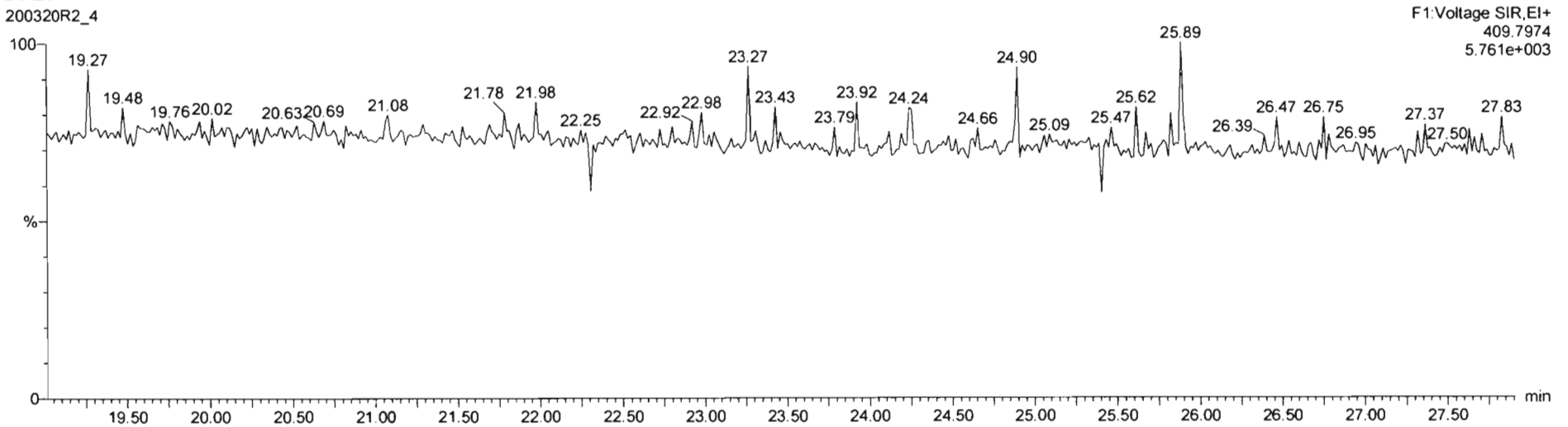


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DPE6

200320R2\_4

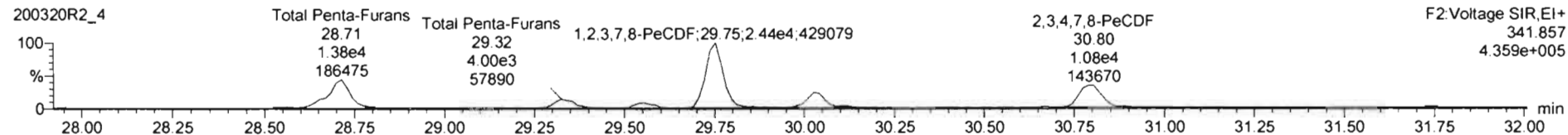
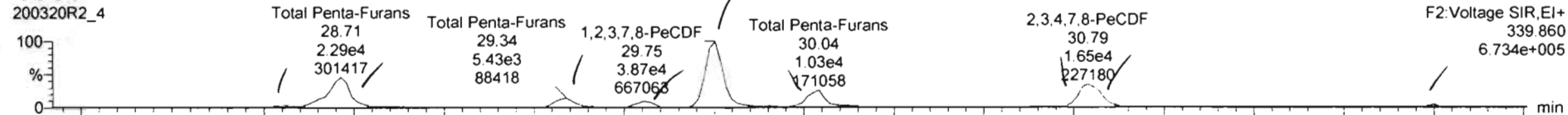


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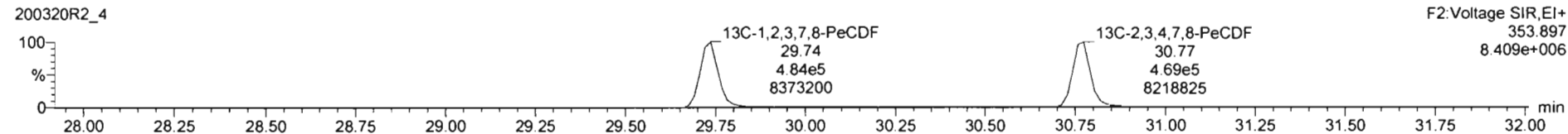
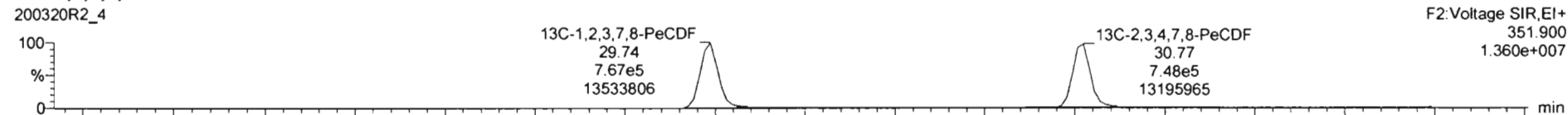
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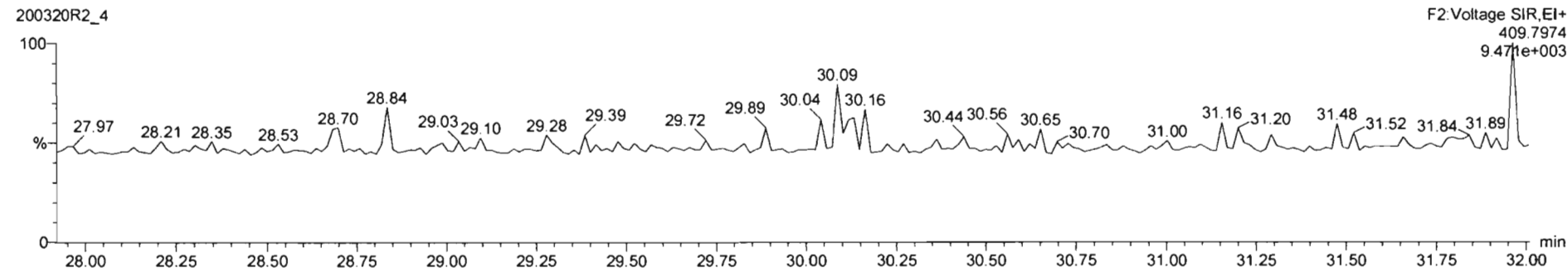
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**13C-1,2,3,7,8-PeCDF**

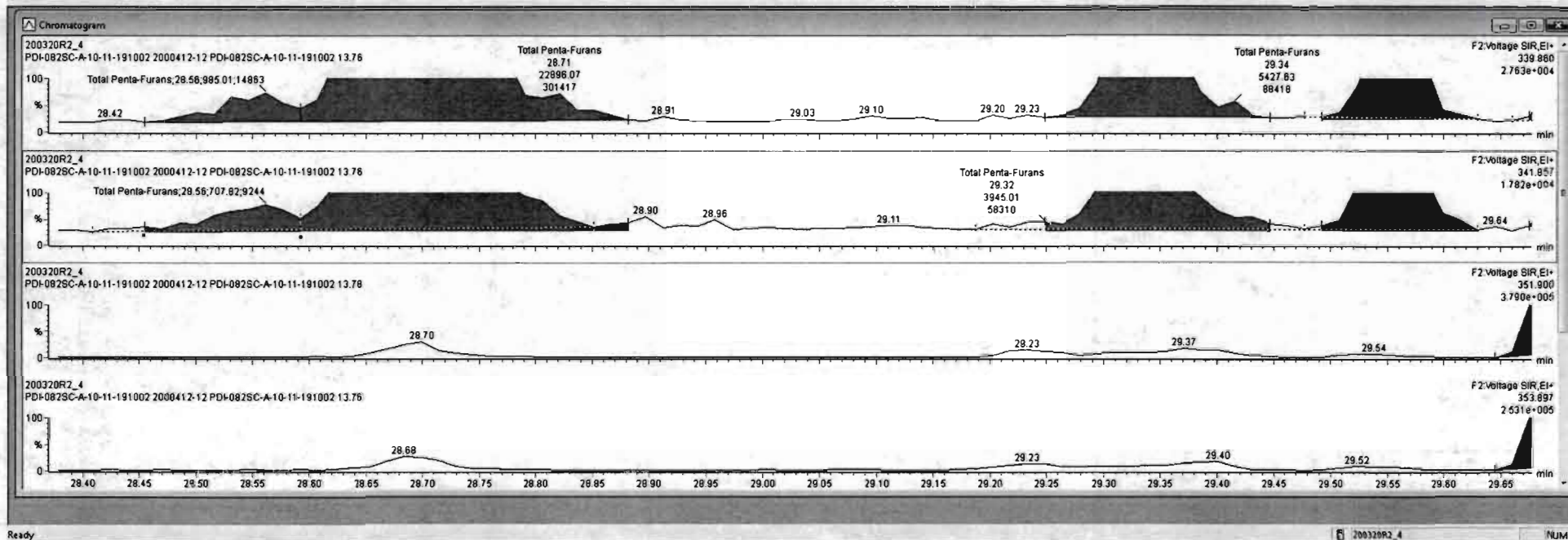


**DPE2**



Name	Resp.	RA	nHy	RFV	wfAwt	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.017			27.3		0.101	27.8
44 1st Func. Penta-Furans				0.9594	10.017			3.67		0.0306	3.67
45 Total Penta-Furans				0.9594	10.017			26.9		0.122	26.9
46 Total Hexa-Furans				1.0920	10.017			51.3		0.125	51.5
47 Total Hepta-Furans				1.0483	10.017			34.3		0.174	34.5
48 PPK1											

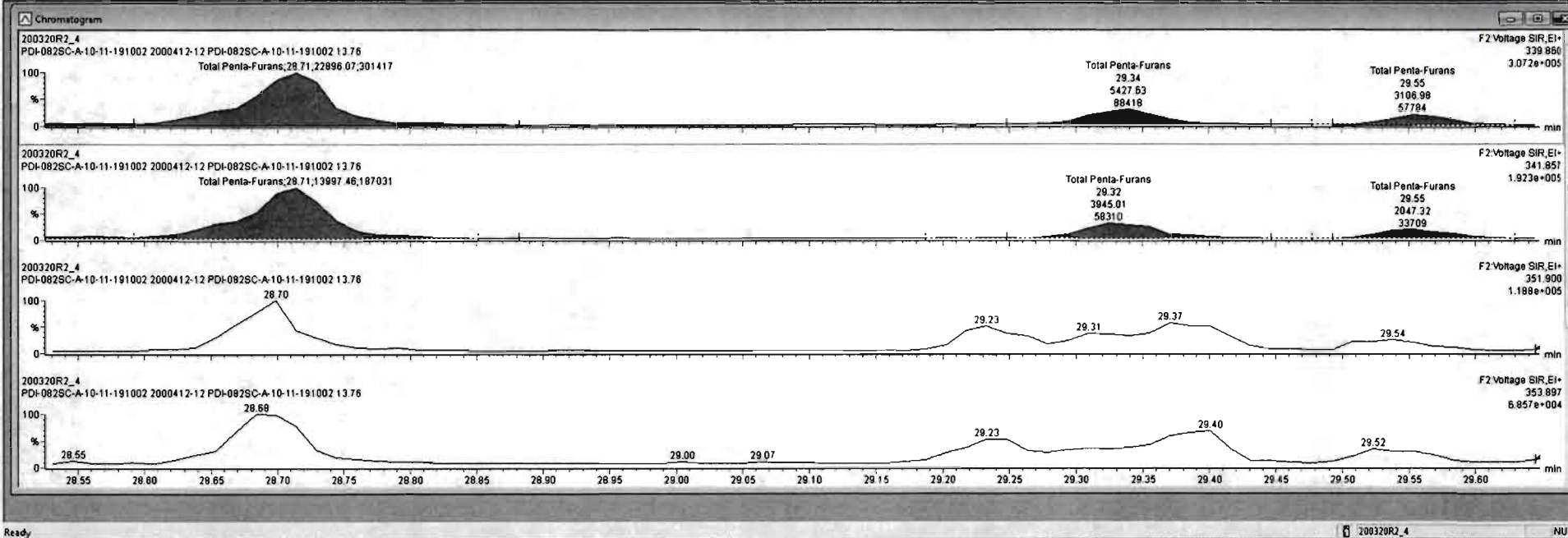
Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc.
1 Total Penta-Furans	28.58	9.850e2	7.078e2	1.39	NO	0.28545	0.28545
2 Total Penta-Furans	28.71	2.290e4	1.400e4	1.64	NO	6.2211	6.2211
3 Total Penta-Furans	29.34	5.428e3	3.945e3	1.38	NO	1.5804	1.5804
4 Total Penta-Furans	29.55	3.107e3	2.047e3	1.52	NO	0.88913	0.88913
5 1,2,3,7,8-PeCDF	29.75	3.872e4	2.438e4	1.59	NO	10.490	10.490
6 Total Penta-Furans	30.04	1.034e4	6.230e3	1.66	NO	2.7937	2.7937
7 2,3,4,7,8-PeCDF	30.79	1.644e4	1.064e4	1.54	NO	4.4291	4.4291

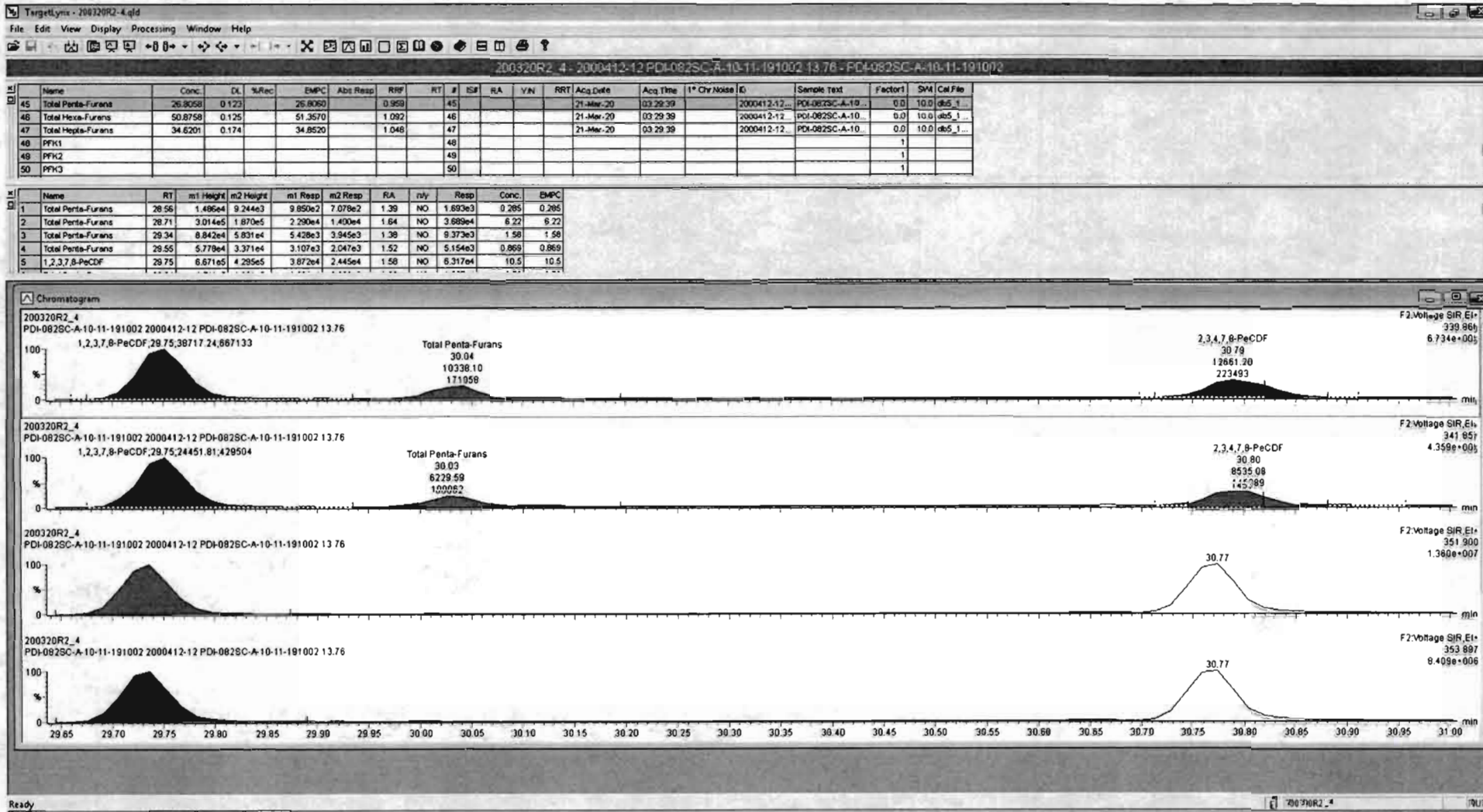


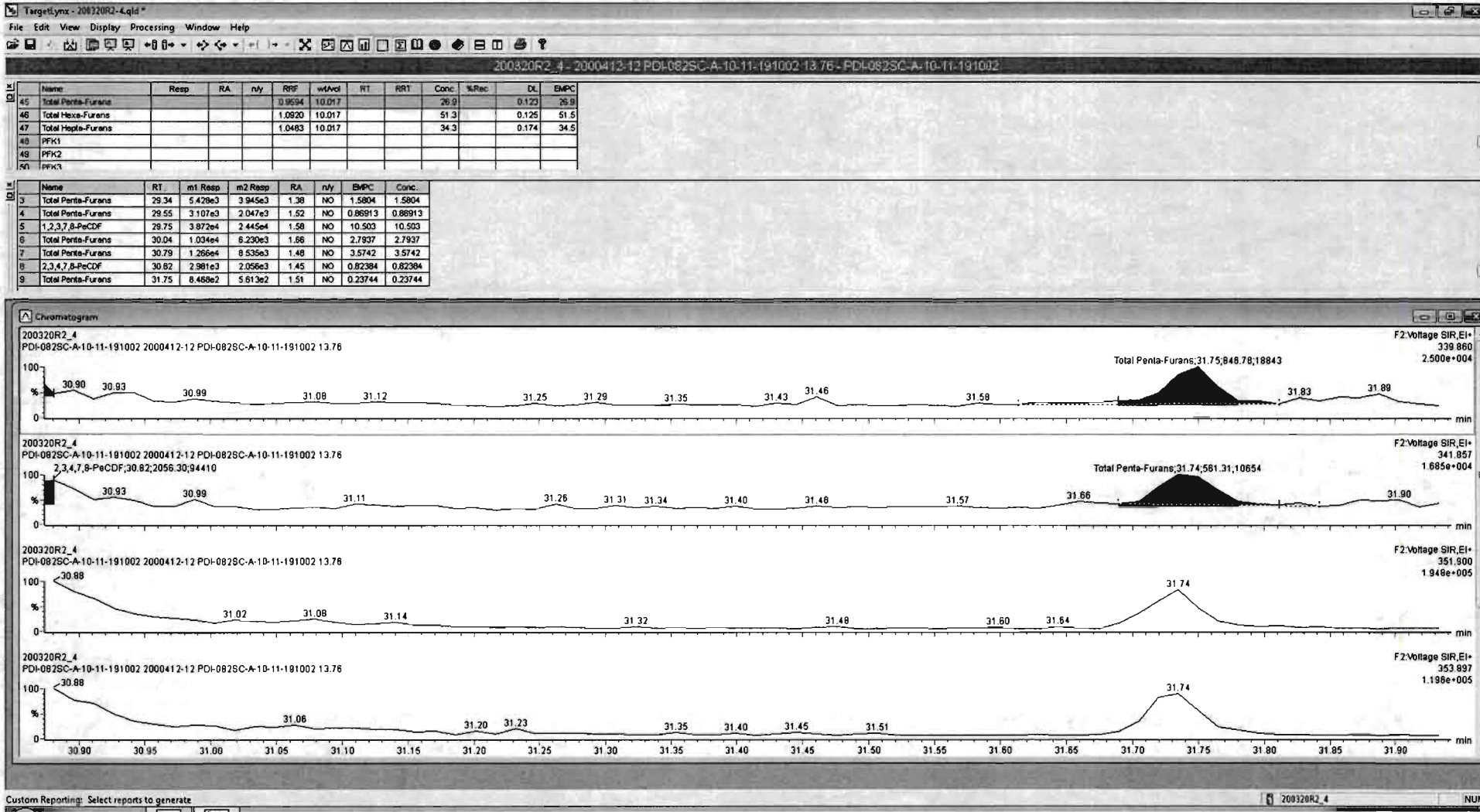
200320R2\_4 - 2000412-12 PDI-082SC-A-10-11-191002 13.76 - FDI-082SC-A-10-11-191002

Name	Resp	RA	nHy	RRF	wAdj	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.017			26.3		0.123	26.8
46 Total Hexa-Furans				1.0920	10.017			51.3		0.125	51.5
47 Total Hepta-Furans				1.0483	10.017			34.3		0.174	34.5
48 PFK1											
49 PFK2											
50 PFK3											

Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc.
3 Total Penta-Furans	29.34	5.428e3	3.945e3	1.38	NO	1.5804	1.5804
4 Total Penta-Furans	29.55	3.107e3	2.047e3	1.52	NO	0.86913	0.86913
5 1,2,3,7,8-PeCDF	29.75	3.872e4	2.445e4	1.58	NO	10.503	10.503
6 Total Penta-Furans	30.04	1.034e4	6.230e3	1.66	NO	2.7937	2.7937
7 Total Penta-Furans	30.79	1.268e4	8.535e3	1.48	NO	3.5742	3.5742
8 2,3,4,7,8-PeCDF	30.82	2.981e3	2.058e3	1.45	NO	0.82384	0.82384
9 Total Penta-Furans	31.75	8.468e2	5.813e2	1.51	NO	0.23744	0.23744





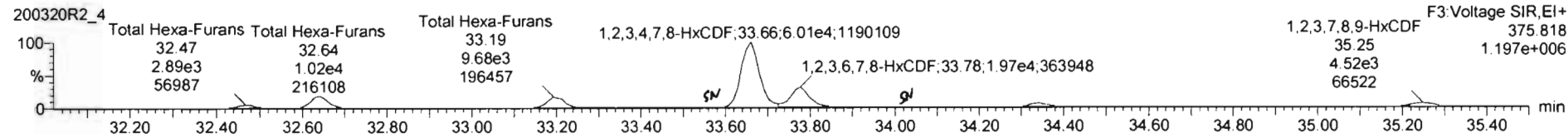
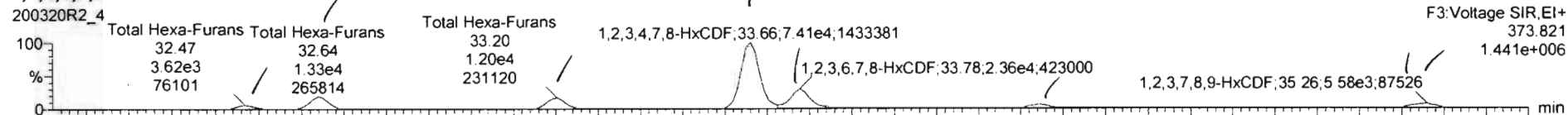


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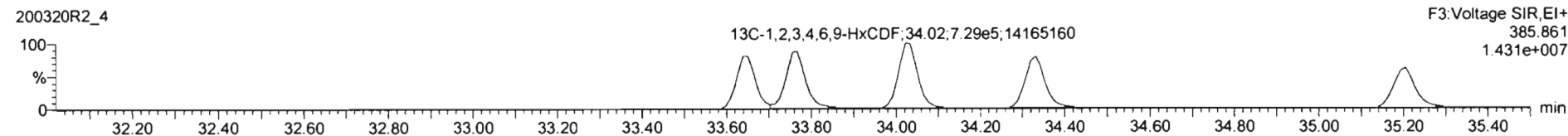
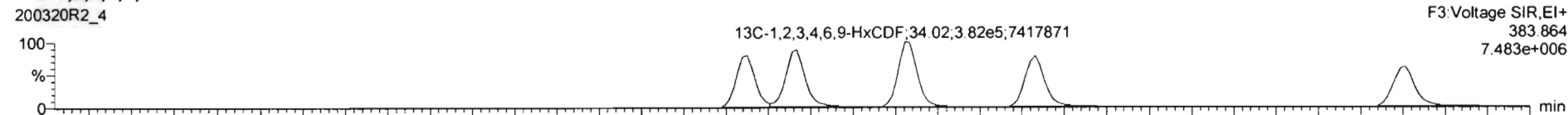
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

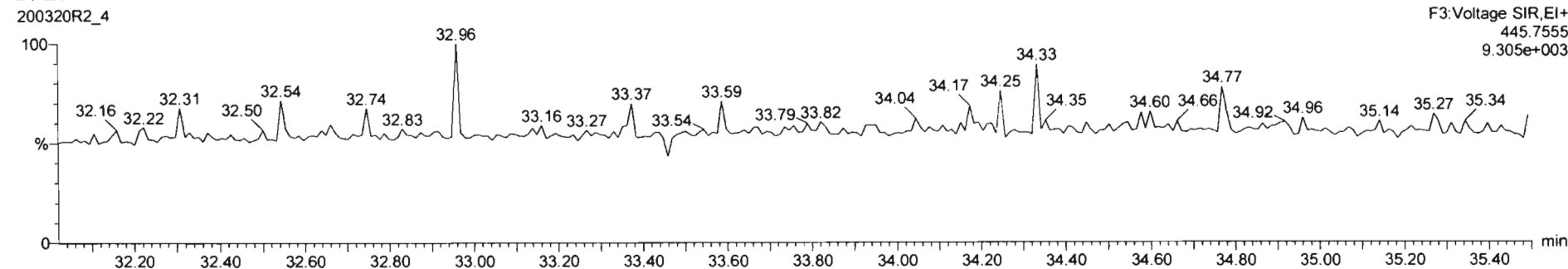
1,2,3,4,7,8-HxCDF

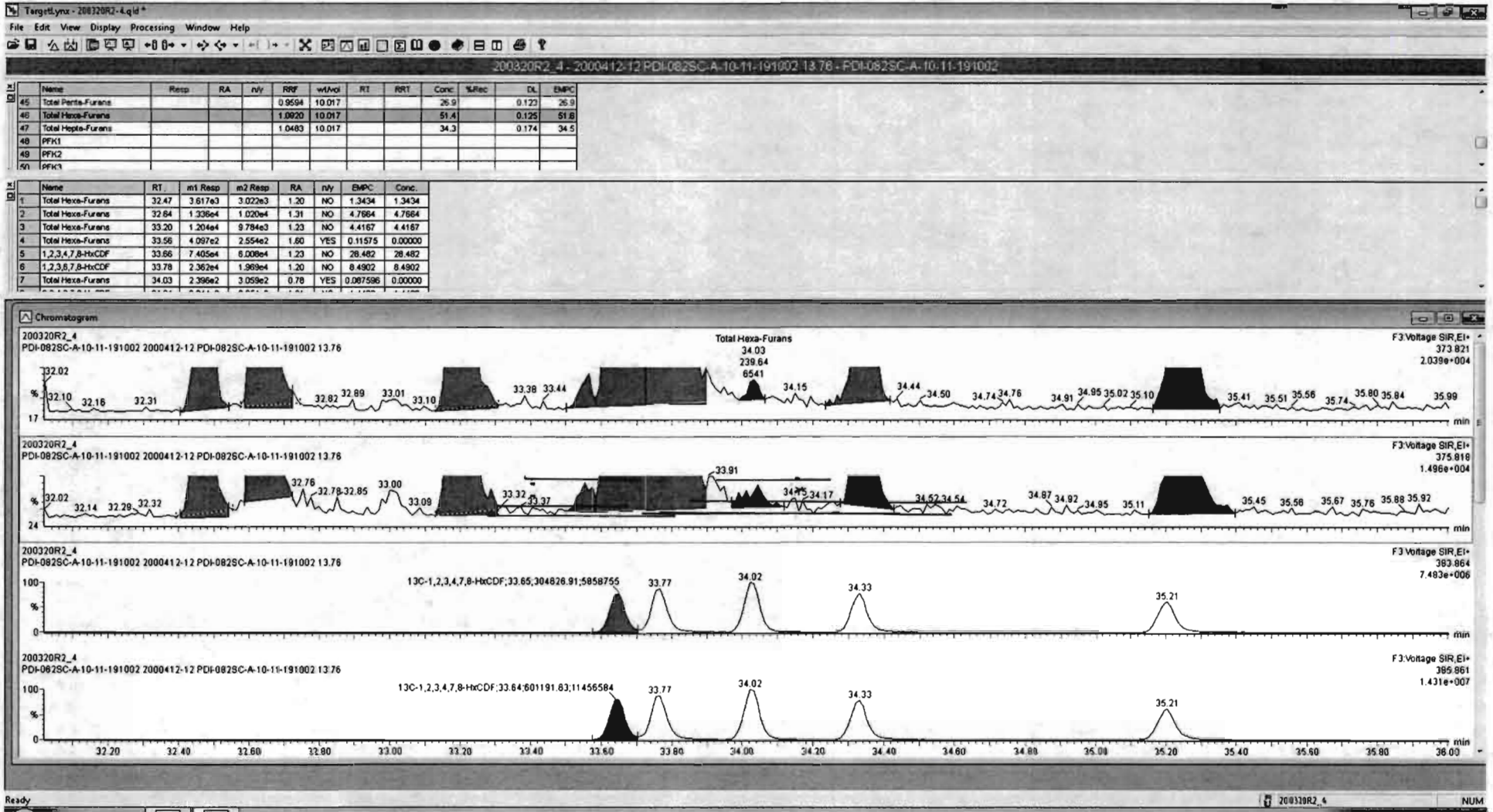


13C-1,2,3,4,7,8-HxCDF

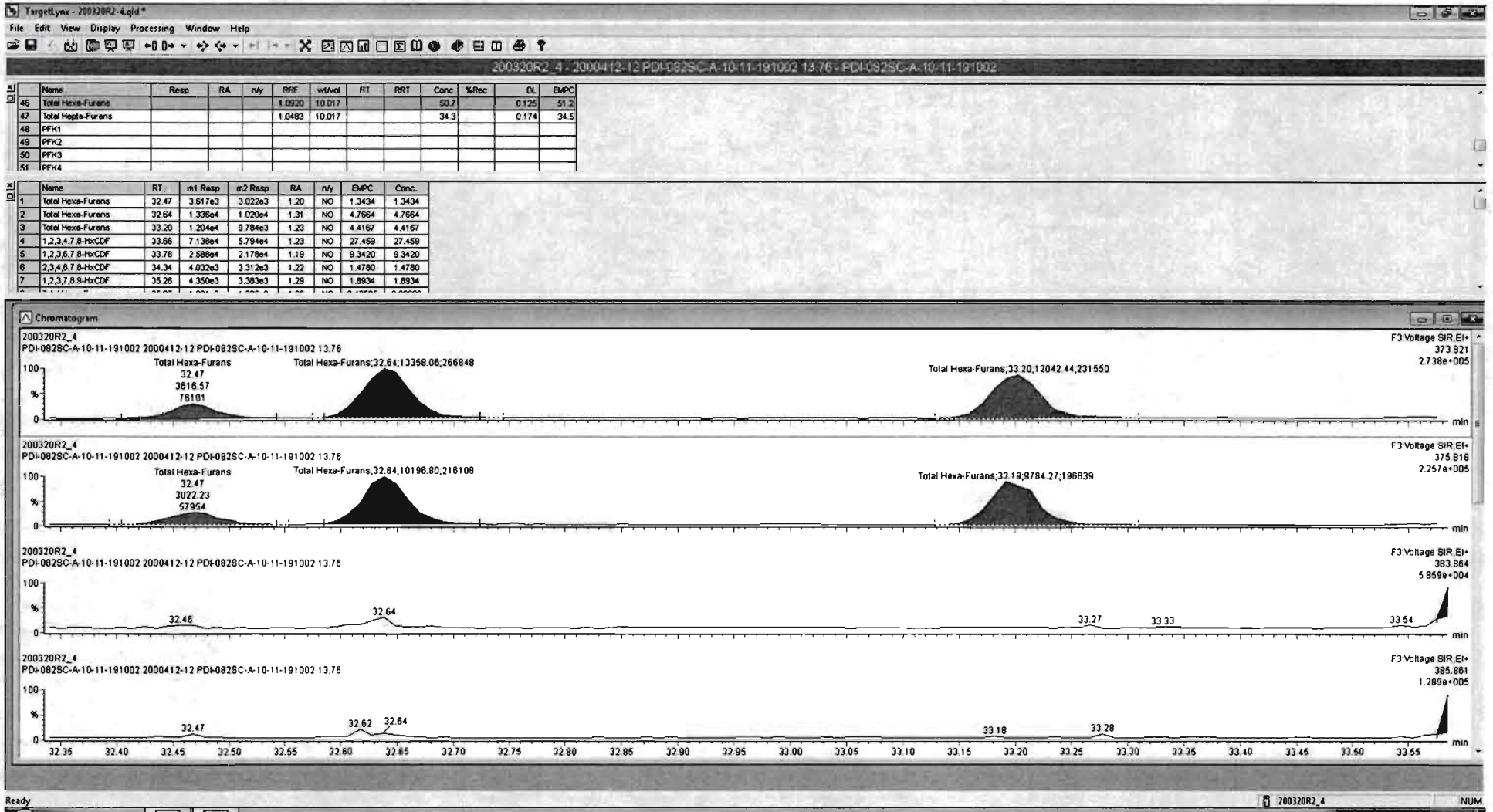


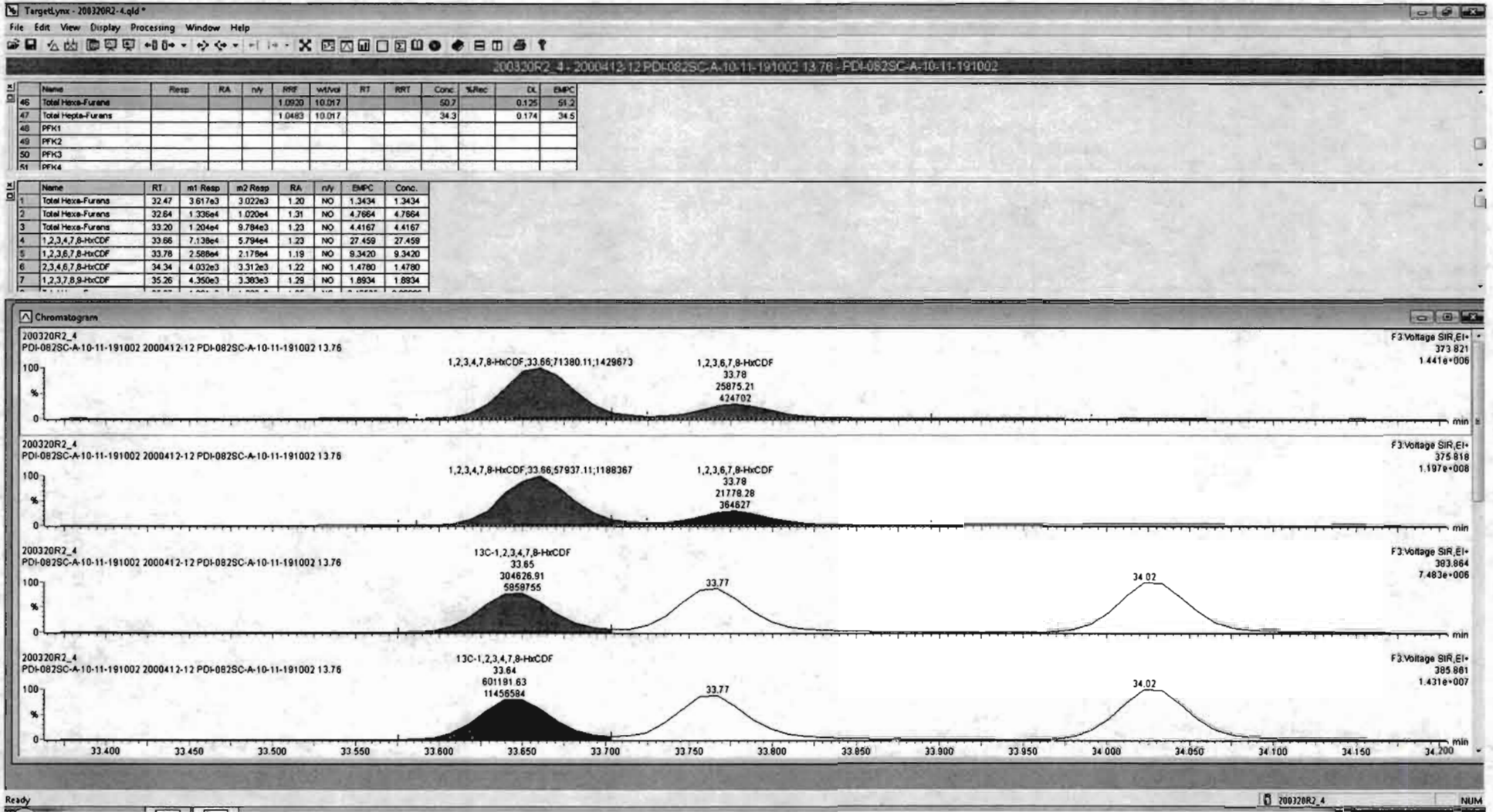
DPE3

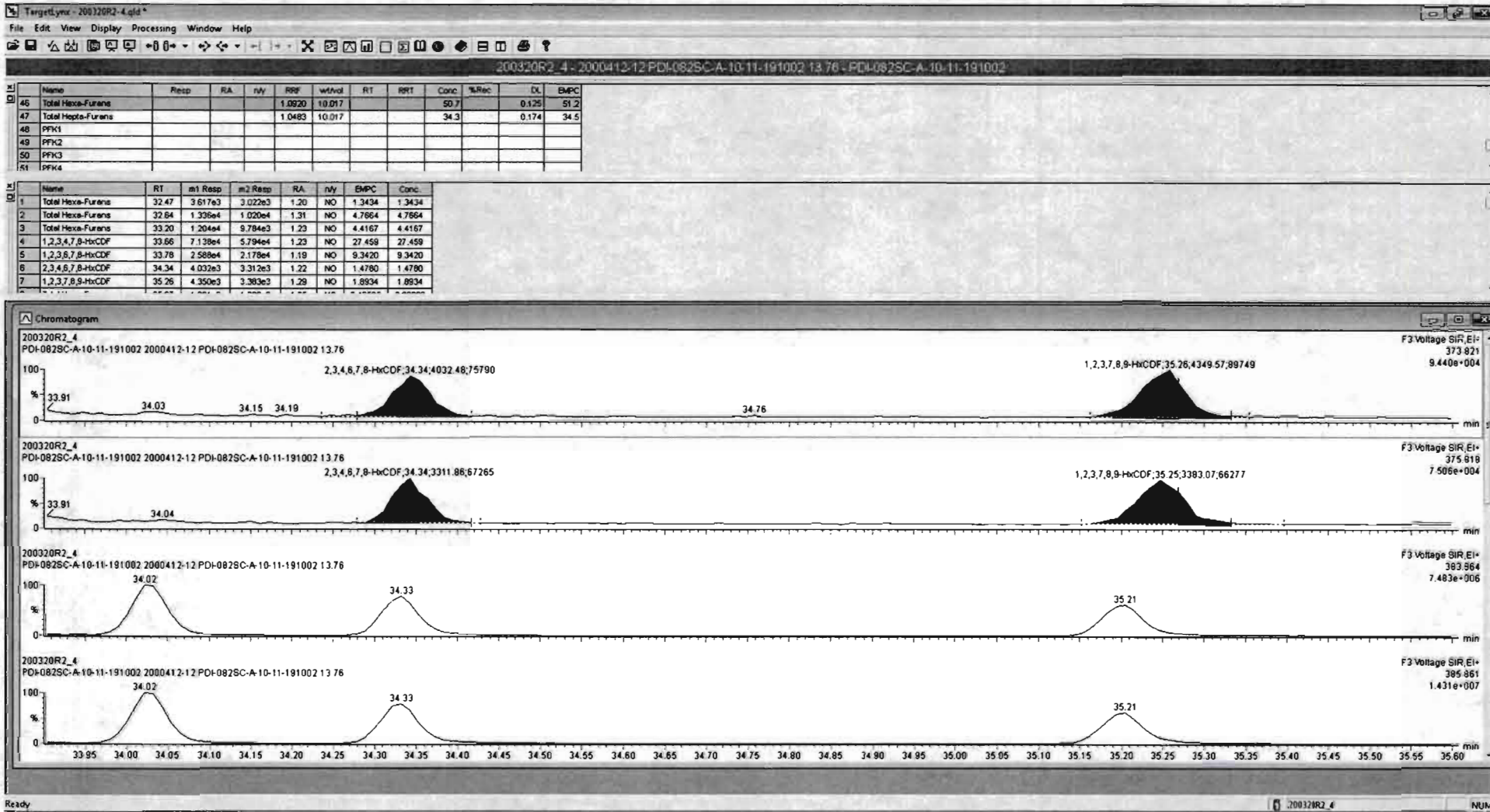










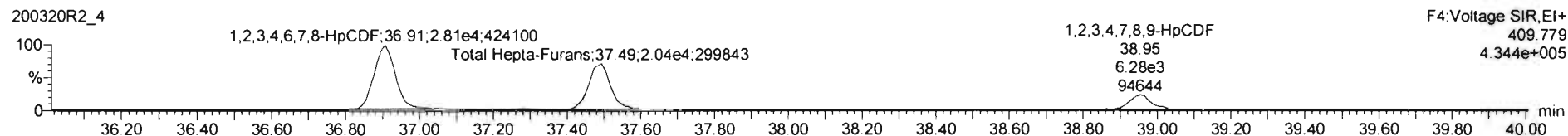
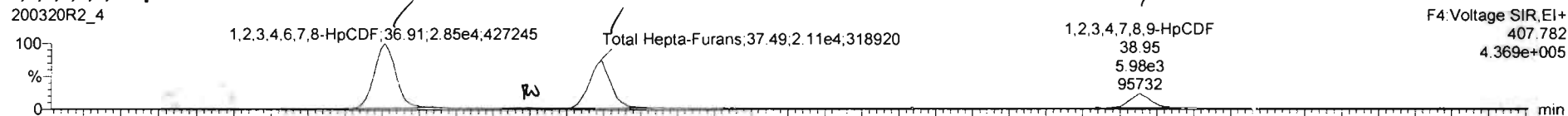


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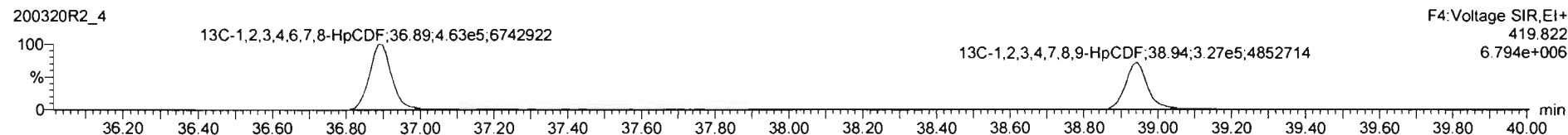
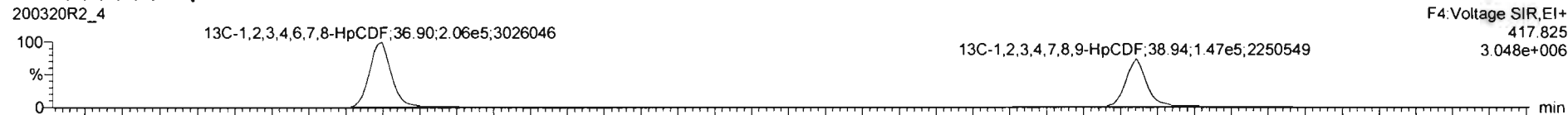
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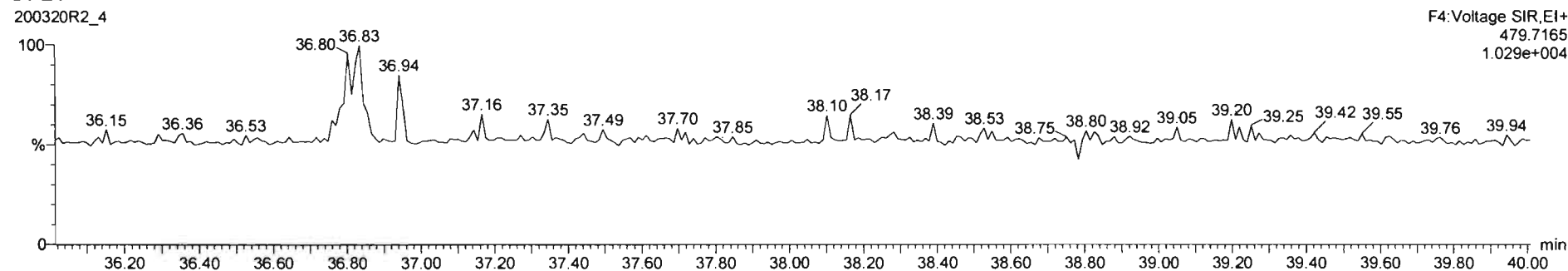
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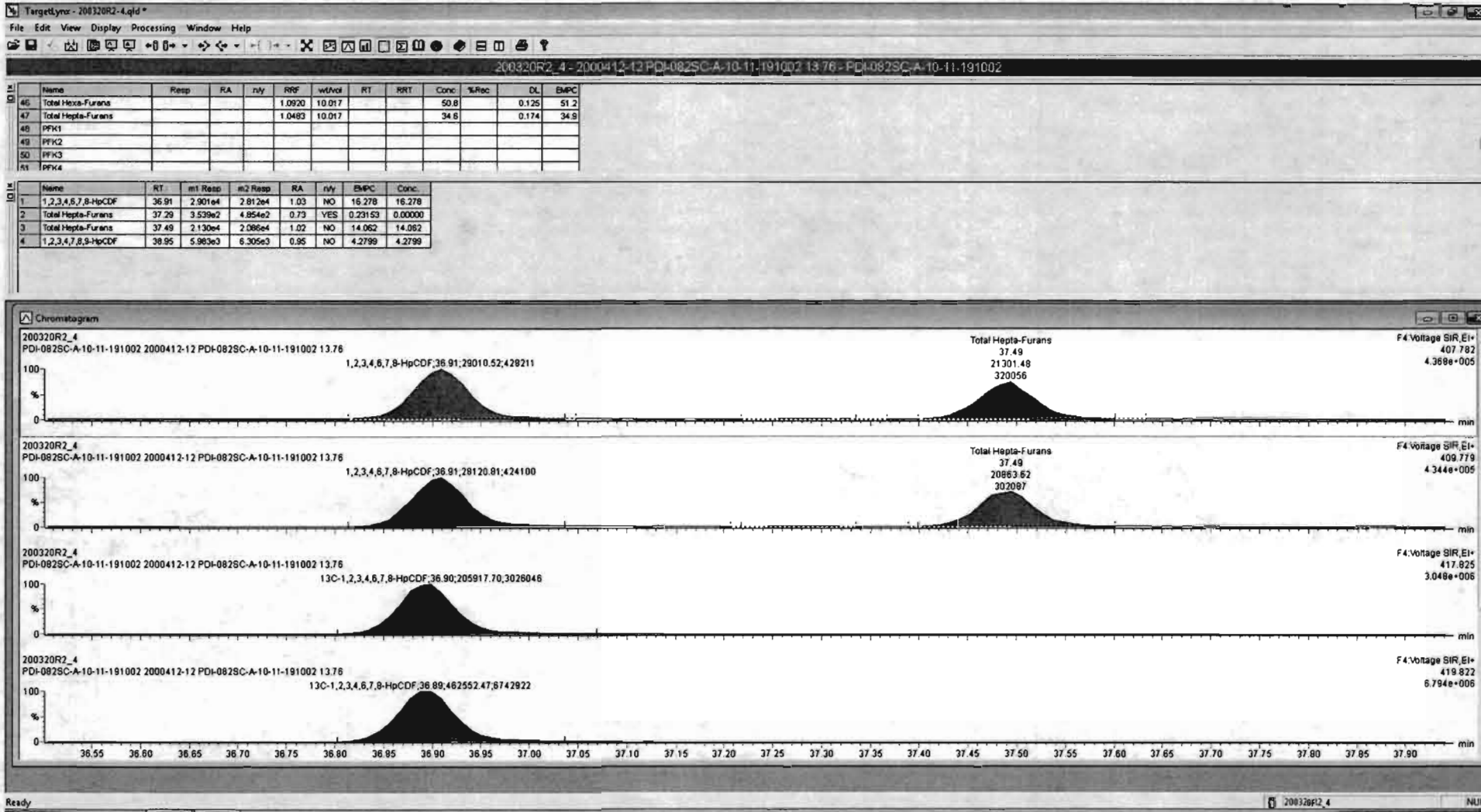


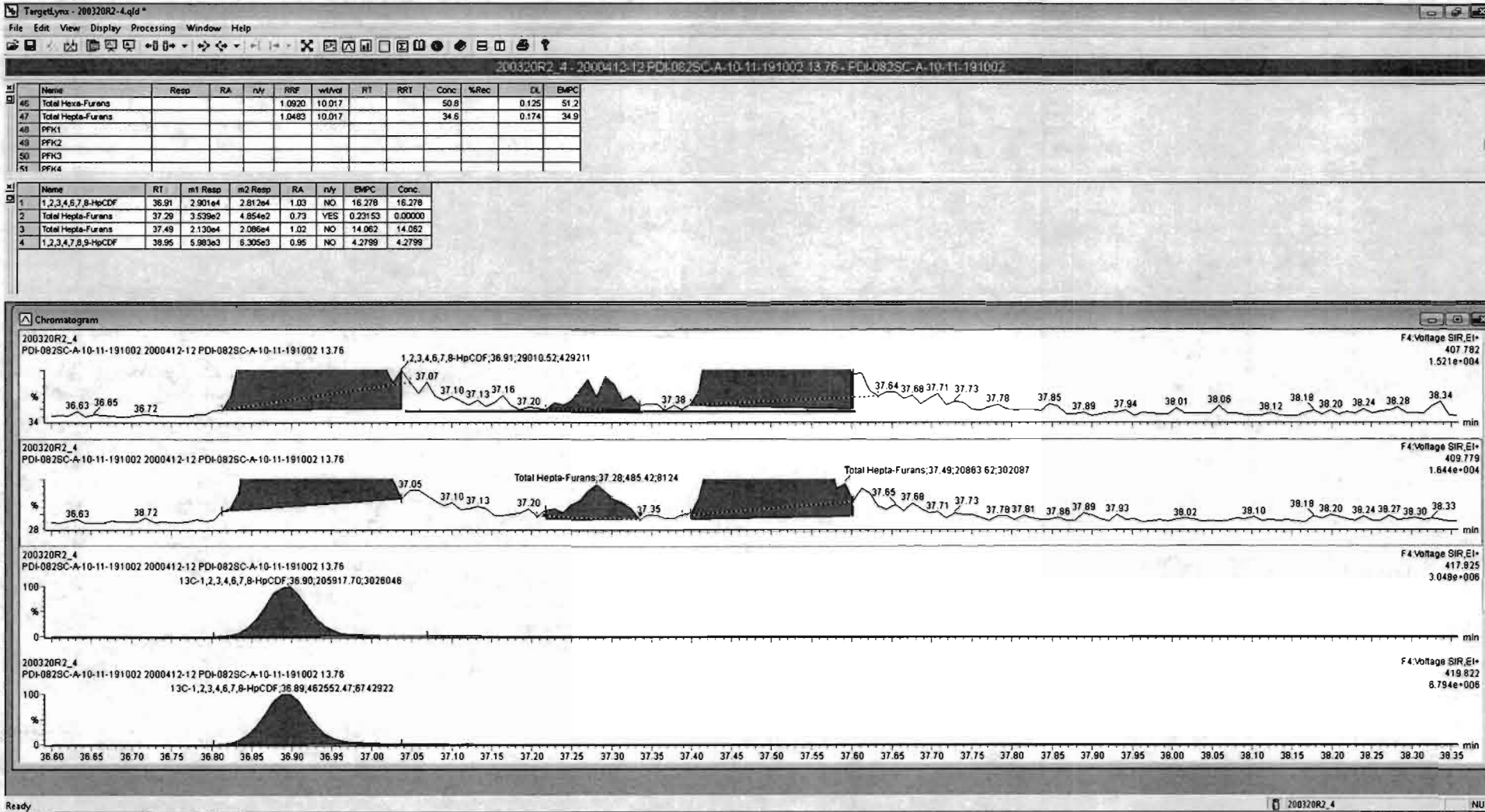
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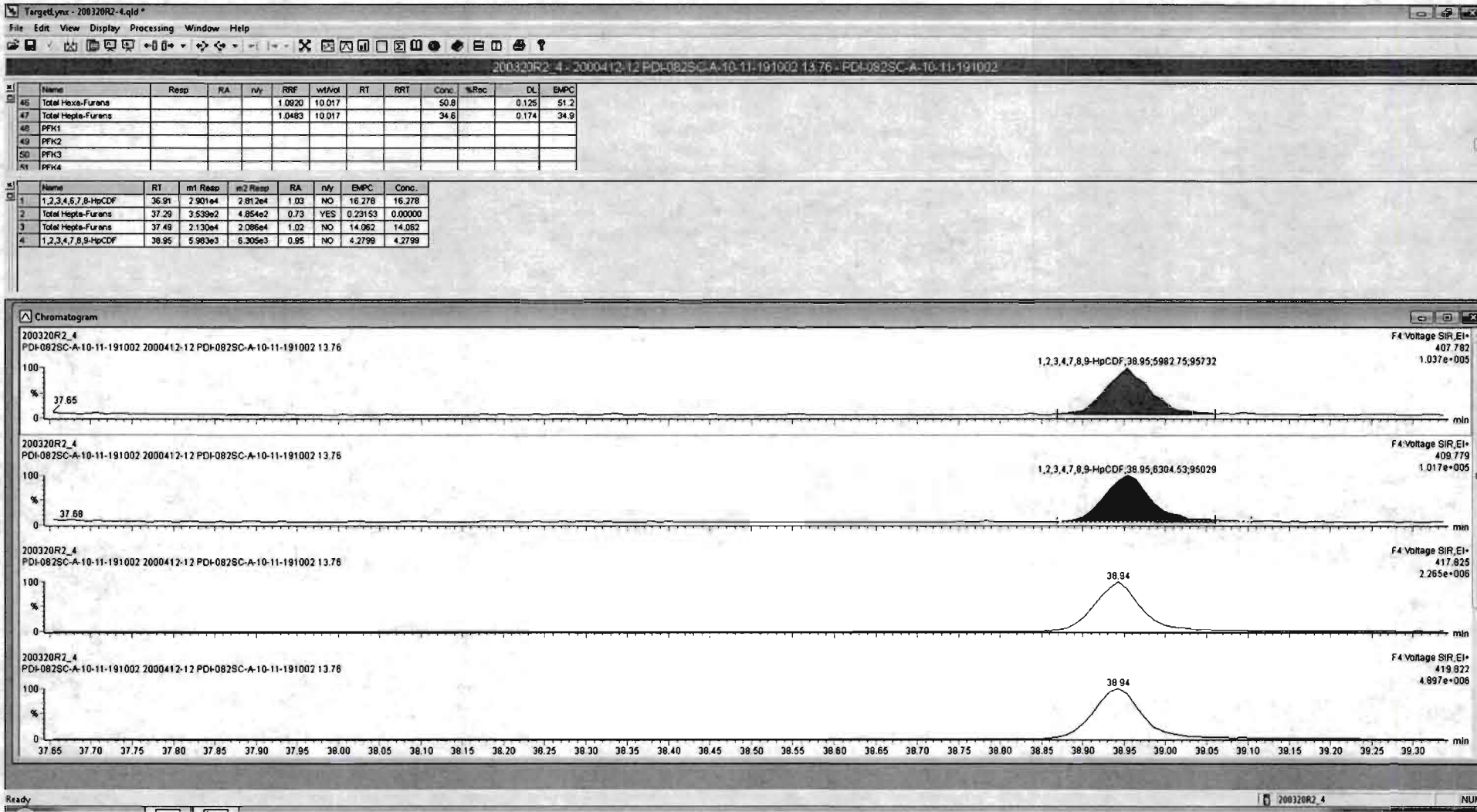


**DPE4**





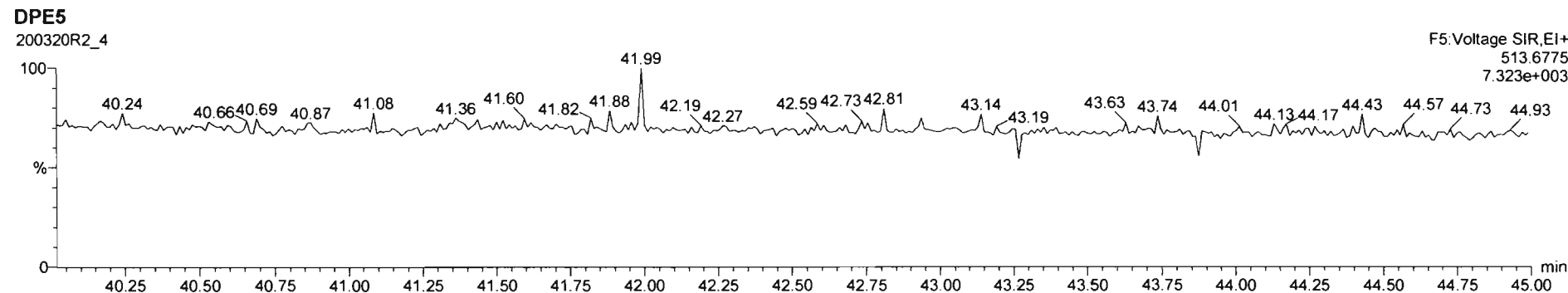
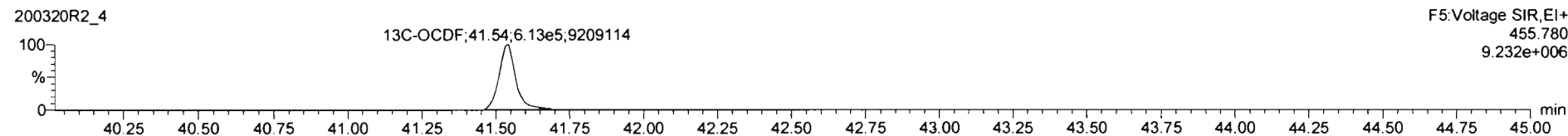
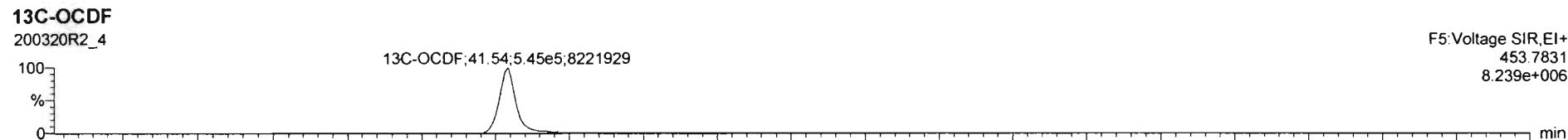
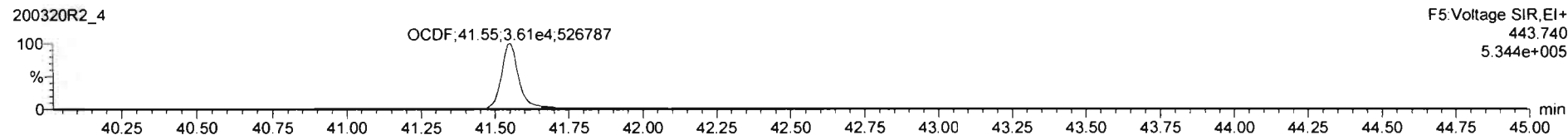
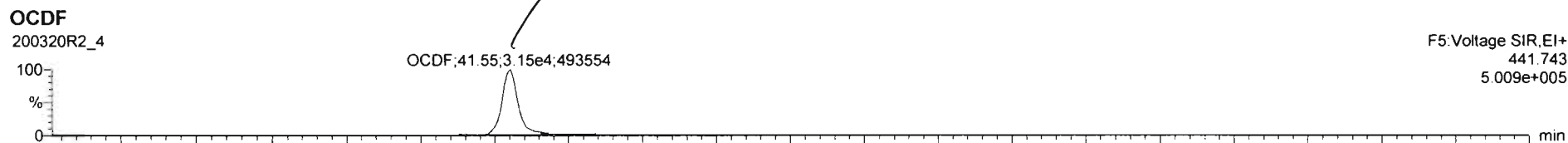




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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_4, Date: 21-Mar-2020, Time: 03:29:39, ID: 2000412-12 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002



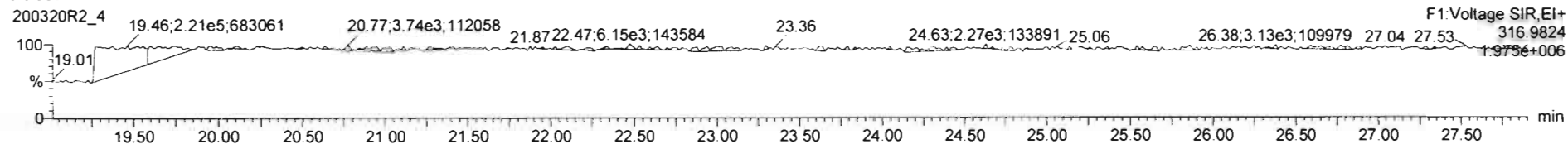


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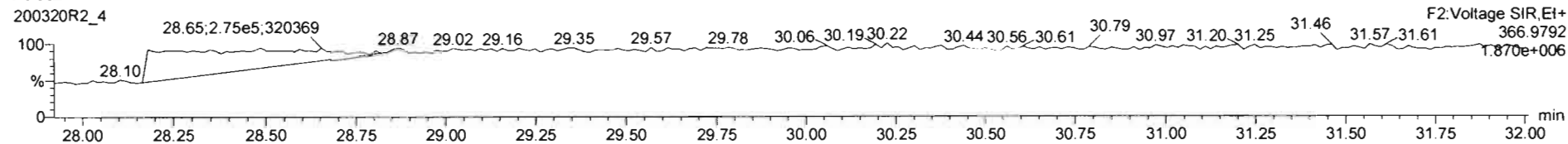
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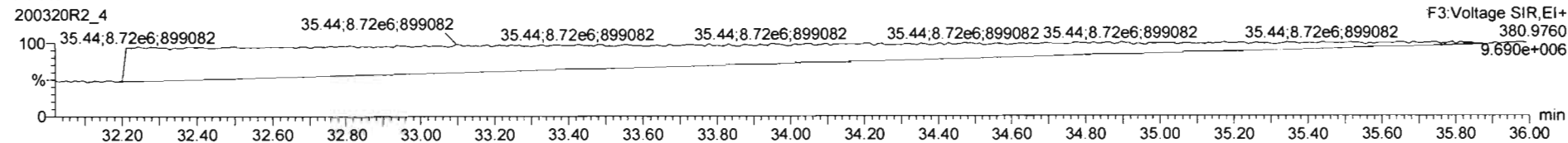
PFK1



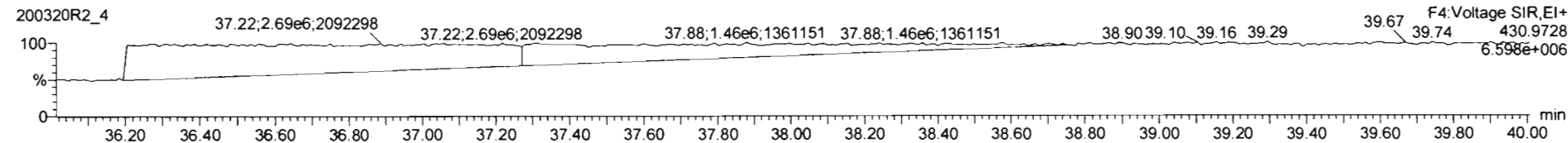
PFK2



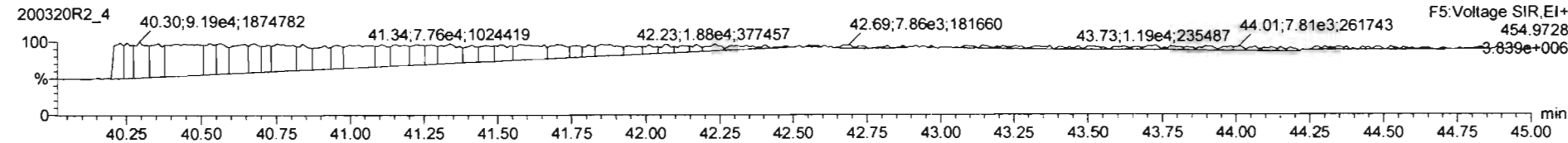
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R2\200320R2-5.qld

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Printed: Thursday, April 02, 2020 15:44:10 Pacific Daylight Time

*dy 04-02-2020*

*0704/03/2020*

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

#	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	8.57e2	0.25	YES	0.983	10.087	25.811	25.81	1.001	1.001	0.12969		0.0605	0.0598
2	2 1,2,3,7,8-PeCDD	1.65e2	0.87	YES	0.921	10.087	31.116	31.13	1.001	1.001	0.036472		0.0560	0.0317
3	3 1,2,3,4,7,8-HxCDD	1.81e2	1.35	NO	1.13	10.087	34.512	34.51	1.000	1.000	0.040872		0.0636	0.0409
4	4 1,2,3,6,7,8-HxCDD	3.62e2	1.51	YES	0.984	10.087	34.598	34.60	1.000	1.000	0.077489		0.0648	0.0692
5	5 1,2,3,7,8,9-HxCDD	5.07e2	0.98	YES	0.967	10.087	34.874	34.86	1.000	1.000	0.12382		0.0743	0.111
6	6 1,2,3,4,6,7,8-HpCDD	4.27e3	1.07	NO	1.01	10.087	38.305	38.31	1.000	1.001	1.2133		0.106	1.21
7	7 OCDD	8.17e4	0.88	NO	1.05	10.087	41.372	41.38	1.000	1.000	26.885		0.117	26.9
8	8 2,3,7,8-TCDF	4.05e2	0.50	YES	0.915	10.087	24.802	24.81	1.001	1.001	0.049541		0.0401	0.0382
9	9 1,2,3,7,8-PeCDF	4.53e2	1.50	NO	0.959	10.087	29.757	29.75	1.001	1.001	0.064616		0.0162	0.0646
10	10 2,3,4,7,8-PeCDF	7.97e1	1.44	NO	1.00	10.087	30.774	30.77	1.000	1.000	0.011103		0.0155	0.0111
11	11 1,2,3,4,7,8-HxCDF	5.87e2	0.93	YES	1.04	10.087	33.650	33.68	1.000	1.001	0.10343		0.0259	0.0899
12	12 1,2,3,6,7,8-HxCDF	2.10e2	1.63	YES	1.01	10.087	33.777	33.77	1.000	1.000	0.034296		0.0254	0.0292
13	13 2,3,4,6,7,8-HxCDF	1.18e2	1.59	YES	1.09	10.087	34.366	34.36	1.001	1.001	0.018821		0.0257	0.0164
14	14 1,2,3,7,8,9-HxCDF	2.44e2	1.84	YES	1.03	10.087	35.205	35.22	1.000	1.000	0.040195		0.0271	0.0388
15	15 1,2,3,4,6,7,8-HpCDF	5.24e2	0.83	YES	1.05	10.087	36.920	36.89	1.001	1.000	0.11774		0.0185	0.105
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.087	38.954		1.000				0.0473	
17	17 OCDF	8.52e2	0.94	NO	0.947	10.087	41.553	41.56	1.000	1.000	0.24042		0.0678	0.240
18	18 13C-2,3,7,8-TCDD	1.33e6	0.79	NO	1.18	10.087	25.788	25.78	1.030	1.029	205.55	104	0.227	
19	19 13C-1,2,3,7,8-PeCDD	9.74e5	0.63	NO	0.864	10.087	31.101	31.09	1.242	1.241	205.70	104	0.389	
20	20 13C-1,2,3,4,7,8-HxCDD	7.74e5	1.28	NO	0.754	10.087	34.503	34.50	1.014	1.014	173.94	87.7	0.282	
21	21 13C-1,2,3,6,7,8-HxCDD	9.40e5	1.26	NO	0.925	10.087	34.605	34.60	1.017	1.017	172.19	86.8	0.230	
22	22 13C-1,2,3,7,8,9-HxCDD	8.40e5	1.27	NO	0.829	10.087	34.874	34.86	1.025	1.024	171.67	86.6	0.257	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.94e5	1.06	NO	0.598	10.087	38.294	38.29	1.125	1.125	196.60	99.1	0.422	
24	24 13C-OCDD	1.15e6	0.86	NO	0.571	10.087	41.357	41.37	1.215	1.216	340.07	85.8	0.487	
25	25 13C-2,3,7,8-TCDF	1.77e6	0.78	NO	1.09	10.087	24.776	24.78	0.989	0.989	190.52	96.1	0.315	
26	26 13C-1,2,3,7,8-PeCDF	1.45e6	1.60	NO	0.876	10.087	29.741	29.74	1.187	1.187	194.09	97.9	0.391	
27	27 13C-2,3,4,7,8-PeCDF	1.42e6	1.57	NO	0.844	10.087	30.720	30.77	1.227	1.229	197.09	99.4	0.406	
28	28 13C-1,2,3,4,7,8-HxCDF	1.08e6	0.52	NO	1.00	10.087	33.652	33.65	0.989	0.989	183.82	92.7	0.312	
29	29 13C-1,2,3,6,7,8-HxCDF	1.20e6	0.51	NO	1.12	10.087	33.774	33.77	0.992	0.992	182.19	91.9	0.279	
30	30 13C-2,3,4,6,7,8-HxCDF	1.13e6	0.52	NO	1.04	10.087	34.332	34.33	1.009	1.009	185.82	93.7	0.301	
31	31 13C-1,2,3,7,8,9-HxCDF	9.57e5	0.52	NO	0.873	10.087	35.204	35.21	1.034	1.034	185.84	93.7	0.357	

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-5.qld

Last Altered: Thursday, April 02, 2020 15:39:50 Pacific Daylight Time

Printed: Thursday, April 02, 2020 15:44:10 Pacific Daylight Time

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

#	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	8.42e5	0.44	NO	0.771	10.087	36.905	36.90	1.084	1.084	185.24	93.4	0.413	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.17e5	0.43	NO	0.519	10.087	38.944	38.95	1.144	1.145	201.40	102	0.613	
34	34 13C-OCDF	1.48e6	0.89	NO	0.696	10.087	41.537	41.55	1.220	1.221	361.45	91.1	0.384	
35	35 37Cl-2,3,7,8-TCDD	5.16e5			1.17	10.087	25.818	25.81	1.031	1.030	80.297	101	0.0375	
36	36 13C-1,2,3,4-TCDD	1.09e6	0.81	NO	1.00	10.087	25.030	25.05	1.000	1.000	198.28	100	0.268	
37	37 13C-1,2,3,4-TCDF	1.69e6	0.79	NO	1.00	10.087	23.090	23.10	1.000	1.000	198.28	100	0.343	
38	38 13C-1,2,3,4,6,9-HxCDF	1.17e6	0.52	NO	1.00	10.087	34.020	34.03	1.000	1.000	198.28	100	0.312	
39	39 Total Tetra-Dioxins				0.983	10.087	24.620		0.000		0.046336		0.0605	0.725
40	40 Total Penta-Dioxins				0.921	10.087	29.960		0.000		0.00000		0.0298	0.384
41	41 Total Hexa-Dioxins				0.984	10.087	33.635		0.000		1.5164		0.0700	1.73
42	42 Total Hepta-Dioxins				1.01	10.087	37.640		0.000		3.1463		0.106	3.15
43	43 Total Tetra-Furans				0.915	10.087	23.610		0.000		0.041339		0.0401	0.193
44	44 1st Func. Penta-Furans				0.959	10.087	27.090		0.000		0.00000		0.00722	0.0302
45	45 Total Penta-Furans				0.959	10.087	29.275		0.000		0.075720		0.0162	0.118
46	46 Total Hexa-Furans				1.09	10.087	33.555		0.000		0.033142		0.0268	0.268
47	47 Total Hepta-Furans				1.05	10.087	37.835		0.000		0.00000		0.0218	0.222

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-5.qld

Last Altered: Thursday, April 02, 2020 15:39:50 Pacific Daylight Time

Printed: Thursday, April 02, 2020 15:44:10 Pacific Daylight Time

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.42	2.045e3	1.667e3	1.794e2	1.447e2	1.24	YES	0.000e0	0.00000	0.038741	0.0605
2	Total Tetra-Dioxins	21.84	2.960e3	2.149e3	1.462e2	1.275e2	1.15	YES	0.000e0	0.00000	0.034143	0.0605
3	Total Tetra-Dioxins	22.31	4.383e3	3.241e3	3.035e2	1.604e2	1.89	YES	0.000e0	0.00000	0.042949	0.0605
4	Total Tetra-Dioxins	22.35	2.337e3	3.609e3	9.918e1	3.377e2	0.29	YES	0.000e0	0.00000	0.034484	0.0605
5	Total Tetra-Dioxins	23.34	1.658e4	2.021e4	1.588e3	1.749e3	0.91	YES	0.000e0	0.00000	0.46826	0.0605
6	2,3,7,8-TCDD	25.81	4.094e3	1.376e4	1.721e2	6.853e2	0.25	YES	8.574e2	0.00000	0.059844	0.0605
7	Total Tetra-Dioxins	26.87	2.372e3	4.099e3	1.365e2	1.699e2	0.80	NO	3.063e2	0.046336	0.046336	0.0605

**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	1.600e3	5.225e3	8.566e1	2.375e2	0.36	YES	0.000e0	0.00000	0.048990	0.0580
2	Total Penta-Dioxins	29.29	8.138e3	9.486e3	4.443e2	6.007e2	0.74	YES	0.000e0	0.00000	0.21645	0.0580
3	Total Penta-Dioxins	30.33	2.579e3	3.500e3	1.512e2	2.955e2	0.51	YES	0.000e0	0.00000	0.086458	0.0580
4	1,2,3,7,8-PeCDD	31.13	1.220e3	1.725e3	7.694e1	8.806e1	0.87	YES	1.650e2	0.00000	0.031728	0.0580

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	4.599e4	3.422e4	2.313e3	1.847e3	1.25	NO	4.160e3	0.98433	0.98433	0.0700
2	Total Hexa-Dioxins	33.61	3.056e3	2.536e3	1.085e2	8.013e1	1.35	NO	1.887e2	0.044646	0.044646	0.0700
3	Total Hexa-Dioxins	33.85	1.441e4	1.059e4	9.393e2	7.718e2	1.22	NO	1.711e3	0.40491	0.40491	0.0700
4	Total Hexa-Dioxins	33.96	2.508e3	2.244e3	1.073e2	7.091e1	1.51	YES	0.000e0	0.00000	0.037588	0.0700
5	1,2,3,4,7,8-HxCDD	34.51	2.566e3	1.711e3	1.037e2	7.689e1	1.35	NO	1.806e2	0.040872	0.040872	0.0636
6	1,2,3,6,7,8-HxCDD	34.60	4.797e3	2.847e3	2.174e2	1.442e2	1.51	YES	3.616e2	0.00000	0.069238	0.0648
7	Total Hexa-Dioxins	34.78	2.151e3	1.979e3	9.249e1	8.345e1	1.11	NO	1.759e2	0.041637	0.041637	0.0700
8	1,2,3,7,8,9-HxCDD	34.86	5.095e3	4.202e3	2.514e2	2.560e2	0.98	YES	5.074e2	0.00000	0.11084	0.0743

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-5.qld

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Printed: Thursday, April 02, 2020 15:44:10 Pacific Daylight Time

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## Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.27	4.911e4	4.558e4	3.592e3	3.211e3	1.12	NO	6.804e3	1.9329	1.9329	0.106
2	1,2,3,4,6,7,8-HpCDD	38.31	3.013e4	2.786e4	2.205e3	2.066e3	1.07	NO	4.271e3	1.2133	1.2133	0.106

## Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.50	5.249e3	7.563e3	4.025e2	6.467e2	0.62	YES	0.000e0	0.00000	0.11327	0.0401
2	Total Tetra-Furans	23.68	1.887e3	2.933e3	1.425e2	1.952e2	0.73	NO	3.377e2	0.041339	0.041339	0.0401
3	2,3,7,8-TCDF	24.81	2.482e3	3.969e3	1.356e2	2.691e2	0.50	YES	4.047e2	0.00000	0.038161	0.0401

## 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	26.99	2.421e3	1.208e3	1.606e2	8.214e1	1.96	YES	0.000e0	0.00000	0.030189	0.00722

## Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8-PeCDF	29.75	4.650e3	3.511e3	2.721e2	1.813e2	1.50	NO	4.534e2	0.064616	0.064616	0.0162
2	Total Penta-Furans	30.04	1.870e3	2.957e3	9.111e1	9.480e1	0.96	YES	0.000e0	0.00000	0.021606	0.0162
3	2,3,4,7,8-PeCDF	30.77	1.821e3	1.774e3	4.702e1	3.264e1	1.44	NO	7.965e1	0.011103	0.011103	0.0155
4	Total Penta-Furans	30.79	2.135e3	1.872e3	8.808e1	7.508e1	1.17	YES	0.000e0	0.00000	0.020886	0.0162

## Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.65	2.355e3	4.422e3	1.136e2	1.162e2	0.98	YES	0.000e0	0.00000	0.034032	0.0268
2	Total Hexa-Furans	33.19	2.184e3	3.084e3	8.861e1	1.269e2	0.70	YES	0.000e0	0.00000	0.026555	0.0268
3	1,2,3,4,7,8-HxCDF	33.68	5.794e3	5.656e3	2.827e2	3.046e2	0.93	YES	5.873e2	0.00000	0.089929	0.0259
4	1,2,3,6,7,8-HxCDF	33.77	2.720e3	1.226e3	1.305e2	7.986e1	1.63	YES	2.104e2	0.00000	0.029159	0.0254
5	2,3,4,6,7,8-HxCDF	34.36	1.945e3	1.375e3	7.257e1	4.568e1	1.59	YES	1.183e2	0.00000	0.016373	0.0257
6	1,2,3,7,8,9-HxCDF	35.22	4.424e3	3.342e3	1.579e2	8.595e1	1.84	YES	2.438e2	0.00000	0.038844	0.0371
7	Total Hexa-Furans	35.24	3.170e3	2.489e3	1.049e2	9.488e1	1.11	NO	1.998e2	0.033142	0.033142	0.0268

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-5.qld

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Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.89	3.492e3	4.828e3	2.372e2	2.870e2	0.83	YES	5.242e2	0.00000	0.10451	0.0185
2	Total Hepta-Furans	37.49	4.486e3	4.699e3	2.320e2	3.000e2	0.77	YES	0.000e0	0.00000	0.11799	0.0218

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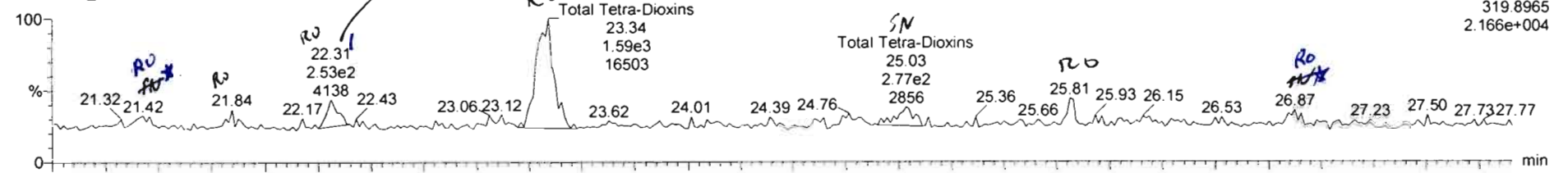
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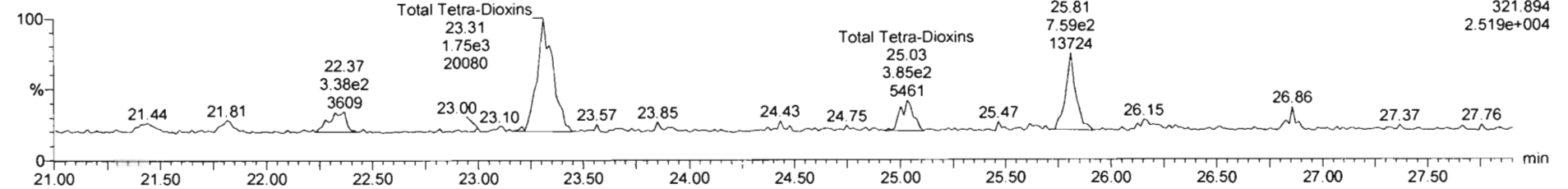
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**2,3,7,8-TCDD**

200320R2\_5

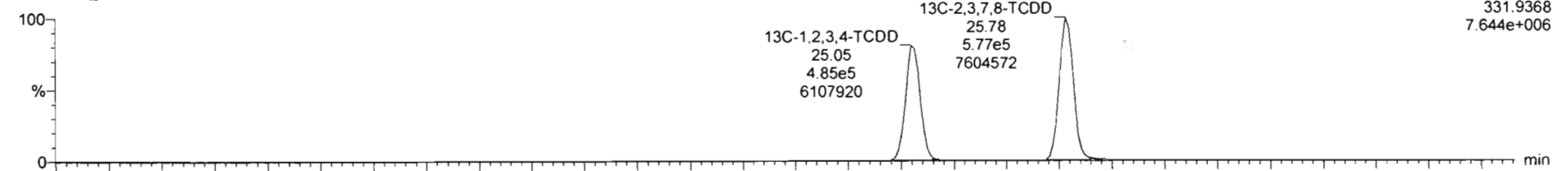


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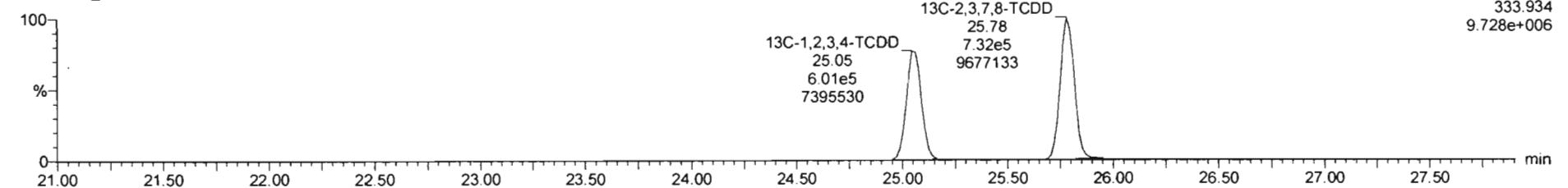


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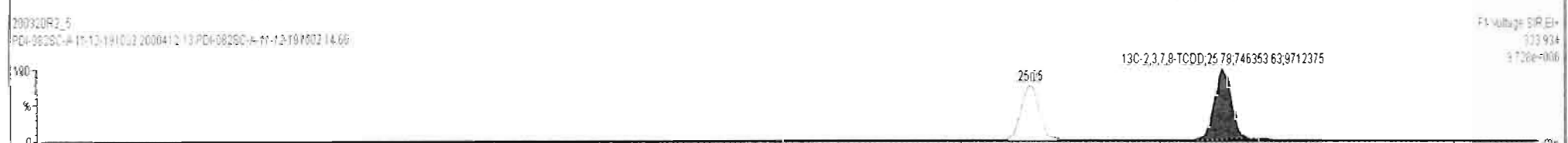
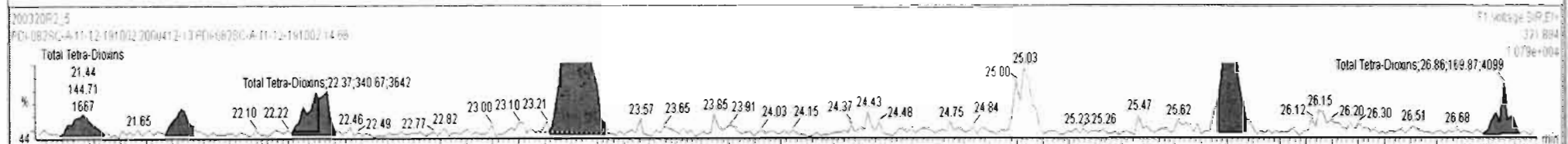
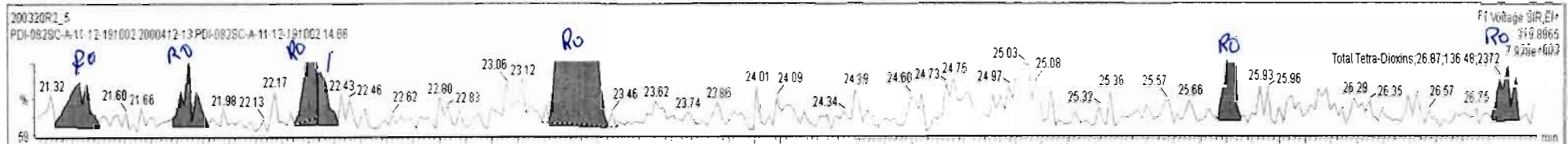


200320R2\_5



Name	Resp	RA	nLy	RRF	wtAol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.087			0.0463		0.0605	0.725

Name	RT	m1 Resp	m2 Resp	RA	nLy	EMPC	Conc
1 Total Tetra-Dioxins	23.34	1.588e3	1.749e3	0.91	YES	0.46826	0.00000
2 Total Tetra-Dioxins	22.31	3.035e2	1.604e2	1.89	YES	0.042949	0.00000
3 2,3,7,8-TCDD	25.81	1.721e2	6.853e2	0.25	YES	0.059844	0.00000
4 Total Tetra-Dioxins	26.87	1.365e2	1.699e2	0.80	NO	0.046336	0.046336
5 Total Tetra-Dioxins	21.42	1.794e2	1.447e2	1.24	YES	0.038741	0.00000
6 Total Tetra-Dioxins	22.35	9.918e1	3.407e2	0.29	YES	0.034484	0.00000
7 Total Tetra-Dioxins	21.84	1.462e2	1.275e2	1.15	YES	0.034143	0.00000

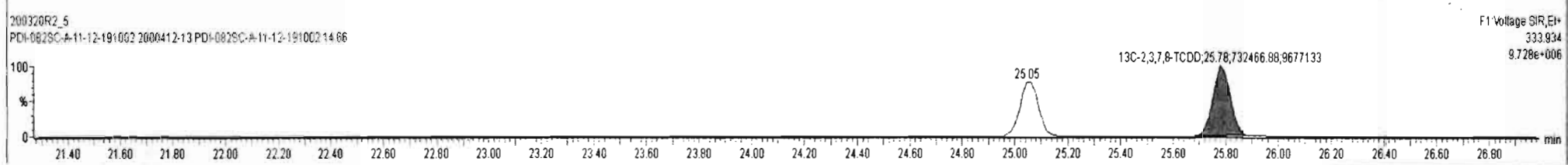
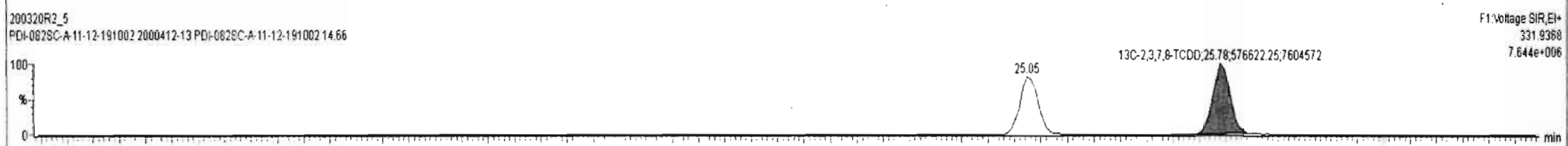
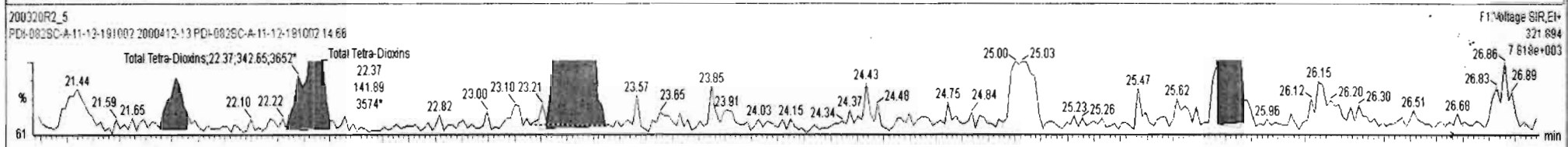
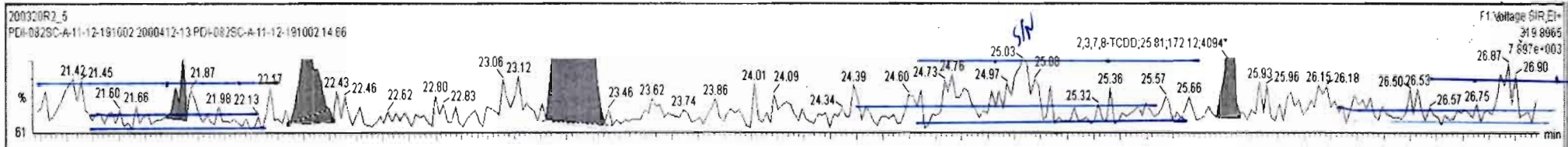




200320R2\_5 - 2000412-13 PDI-082SC-A-11-12-191002 14.66 - PDI-082SC-A-11-12-191002

Name	Resp	RA	n/y	RRF	wAval	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.087			0.000		0.0808	0.658

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	23.34	1.609e3	1.770e3	0.91	YES	0.48300	0.00000
2 Total Tetra-Dioxins	22.31	2.041e2	1.936e2	1.05	YES	0.053000	0.00000
3 2,3,7,8-TCDD	25.81	1.664e2	6.614e2	0.25	YES	0.059000	0.00000
4 Total Tetra-Dioxins	22.35	9.832e1	1.419e2	0.69	NO	0.037000	0.00000
5 Total Tetra-Dioxins	21.84	7.868e1	1.275e2	0.62	YES	0.028000	0.00000



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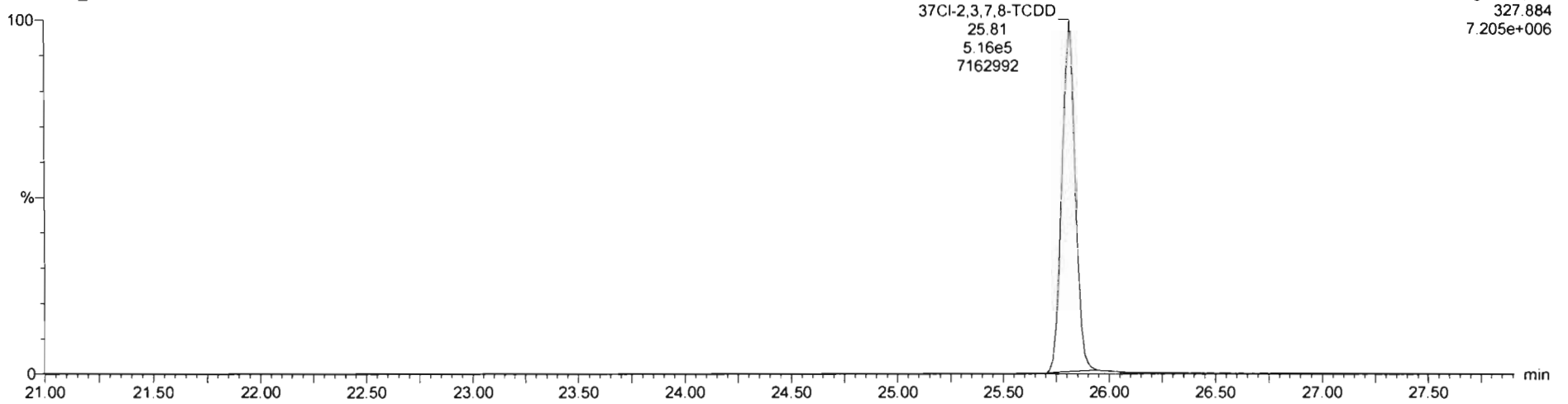
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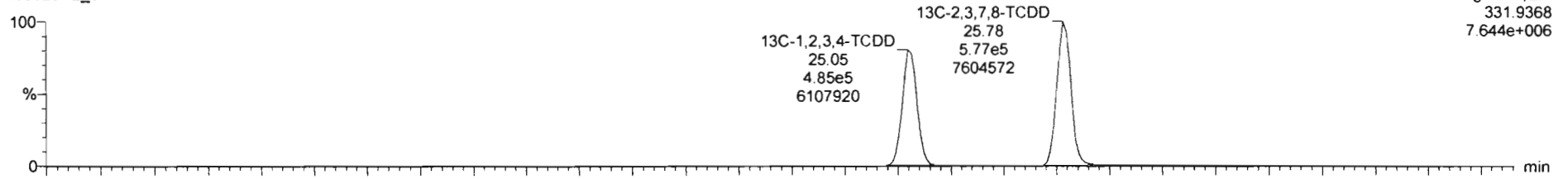
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200320R2\_5

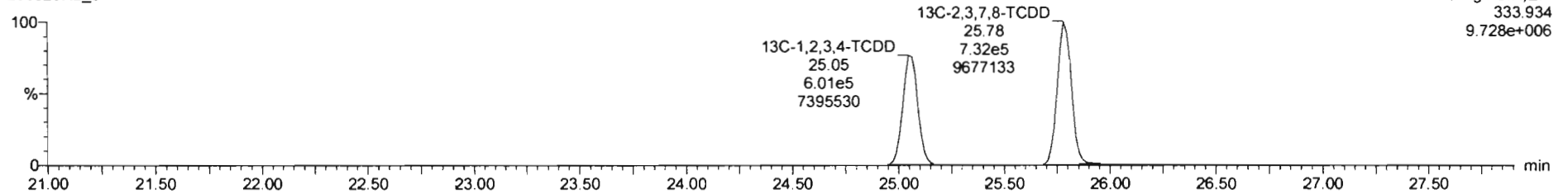


**13C-1,2,3,4-TCDD**

200320R2\_5



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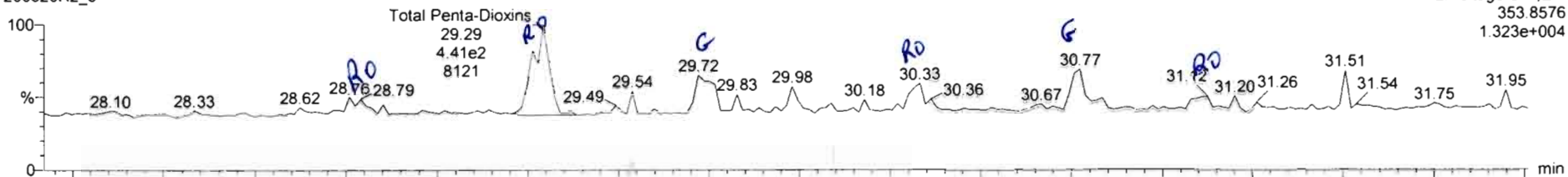
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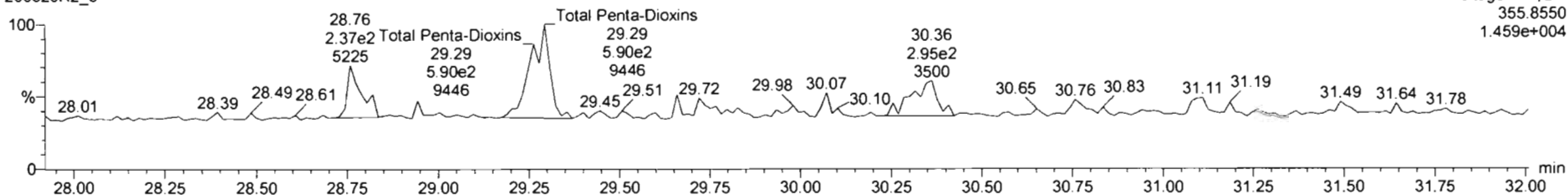
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1,2,3,7,8-PeCDD

200320R2\_5

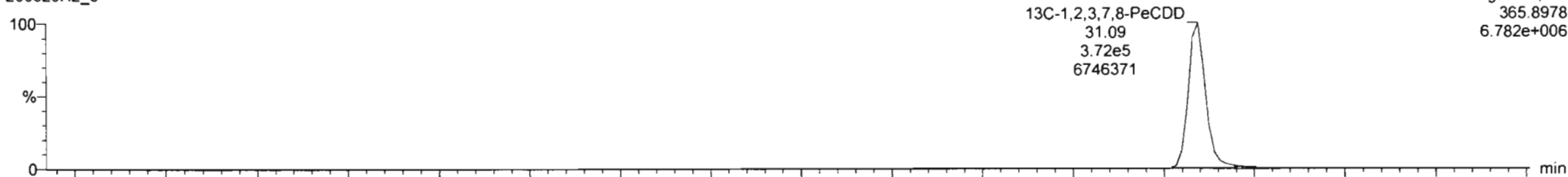


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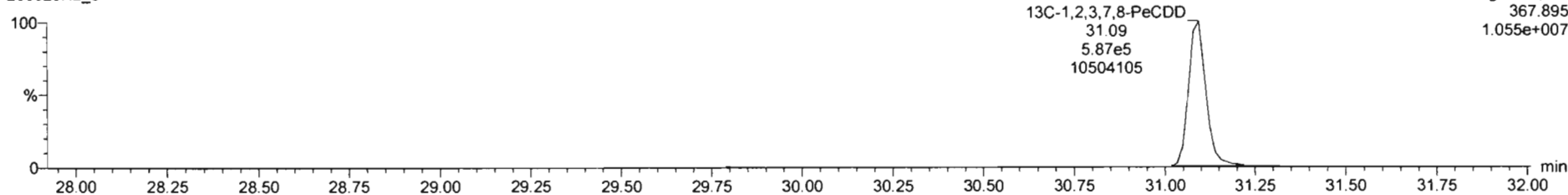


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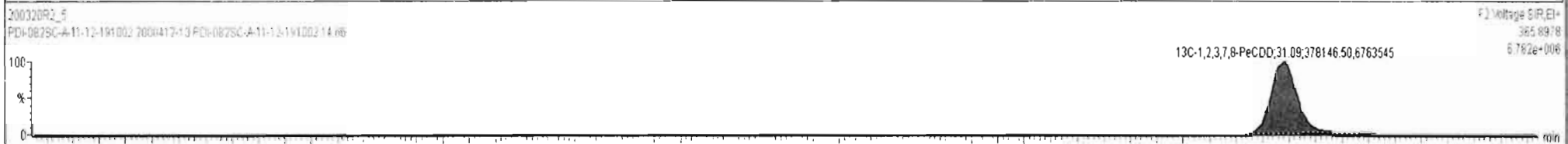
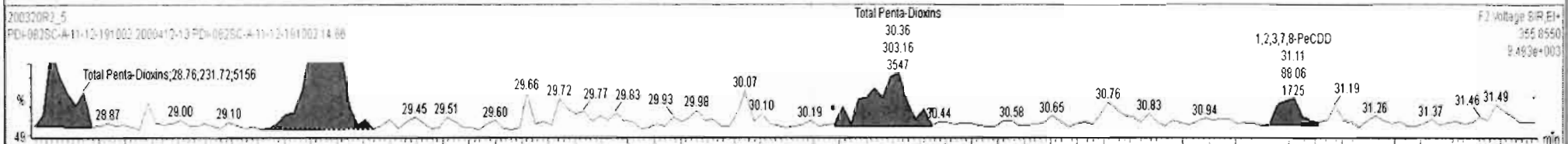
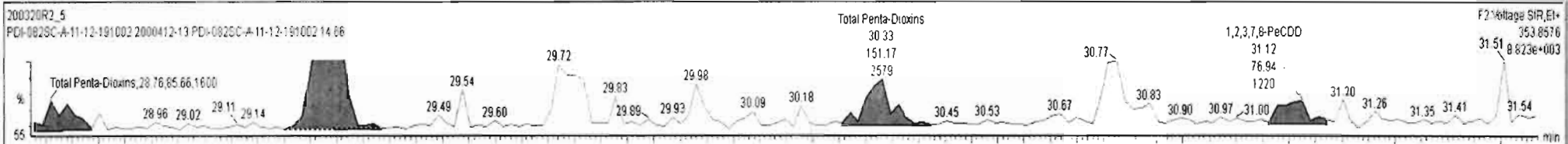


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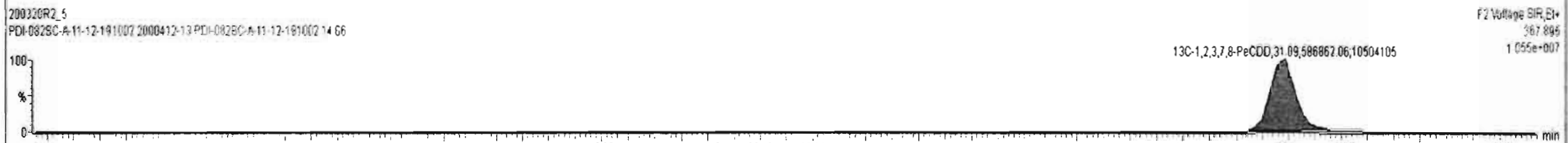
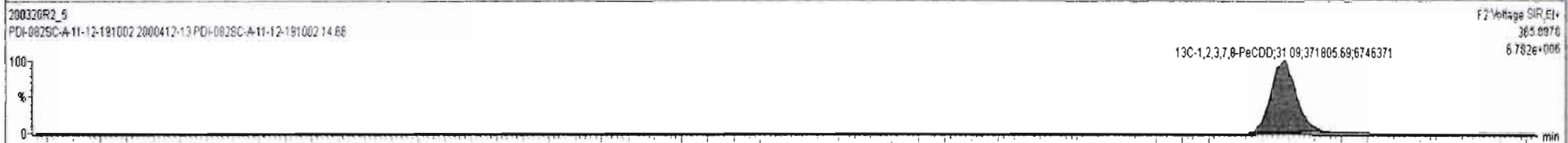
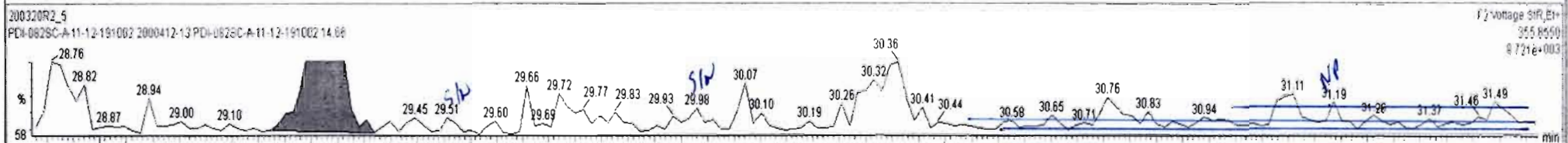
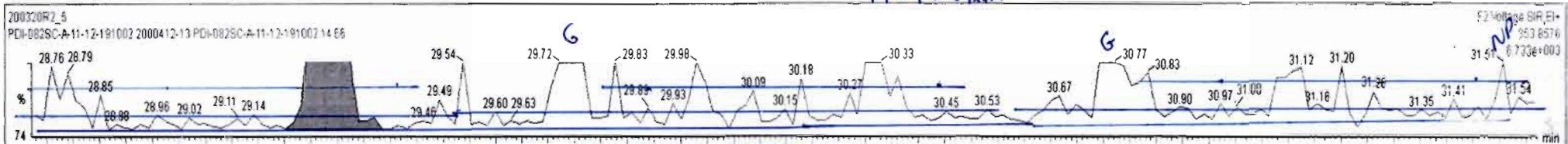
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39 Total Tetra-Dioxins				0.9635	10.087			0.0463		0.0606	0.725

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Dioxins	29.29	4.443e2	6.007e2	0.74	YES	0.21645	0.00000
2 1,2,3,7,8-PeCDD	31.12	7.694e1	8.806e1	0.87	YES	0.031726	0.00000
3 Total Penta-Dioxins	30.33	1.512e2	3.032e2	0.50	YES	0.086458	0.00000
4 Total Penta-Dioxins	28.76	8.566e1	2.317e2	0.37	YES	0.048990	0.00000



Name	Resp	RA	nV	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9635	10.087			0.0463		0.0605	0.725

Name	RT	m1 Resp	m2 Resp	RA	nV	EMPC	Conc.
1	Total Penta-Dioxins	29.29	4.411e2	5.899e2	0.75	YES	0.21586



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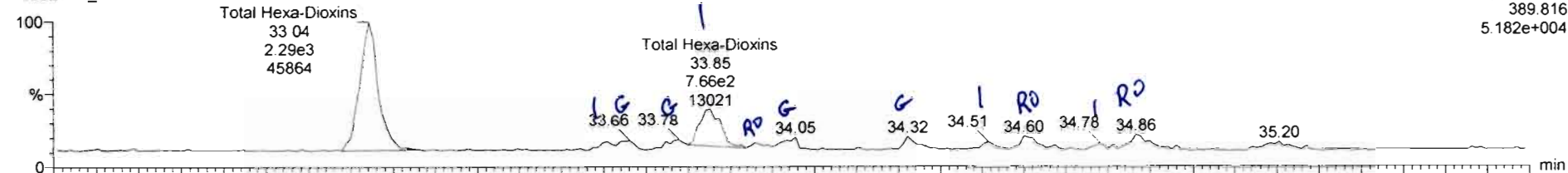
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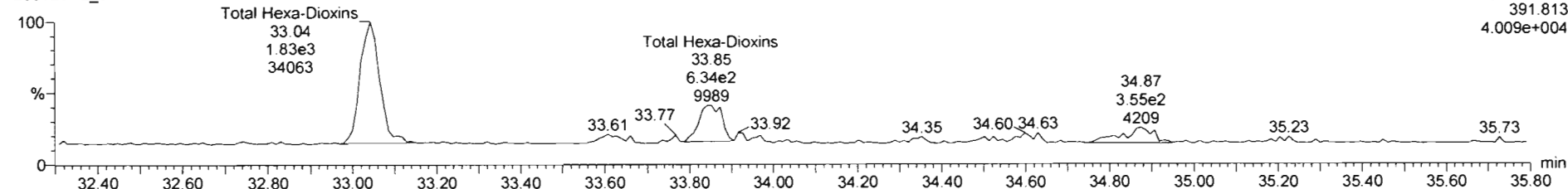
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1,2,3,4,7,8-HxCDD

200320R2\_5

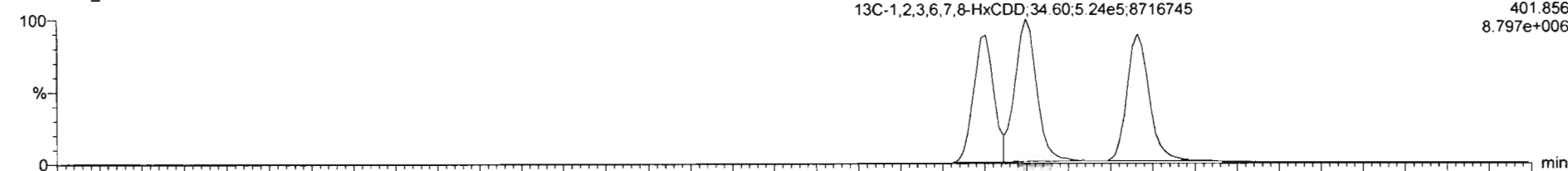


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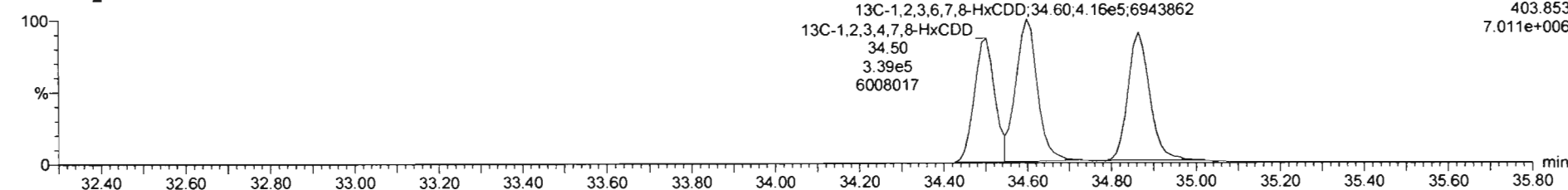


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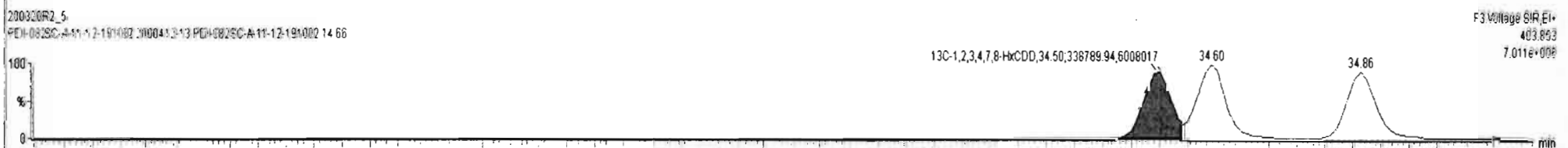
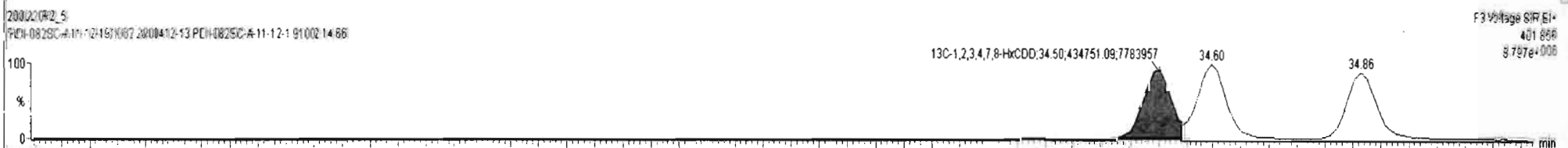
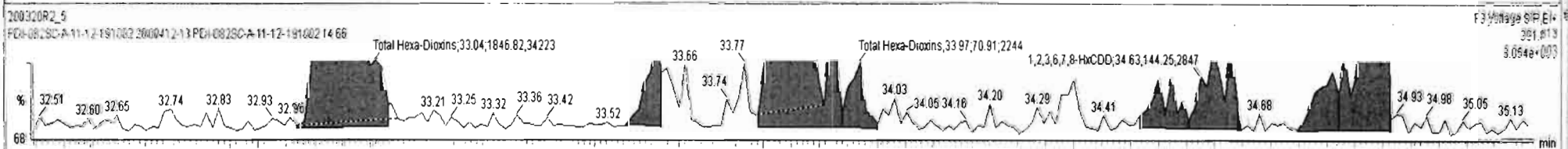
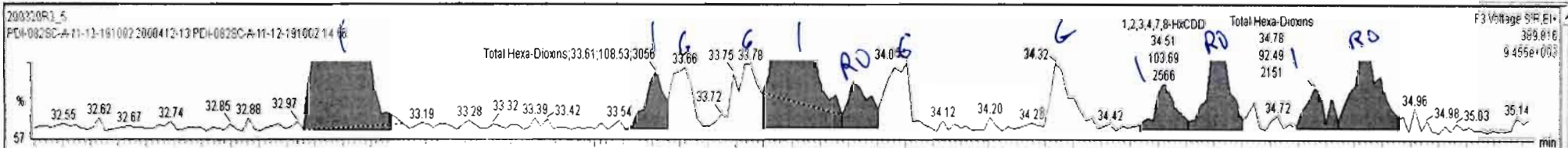


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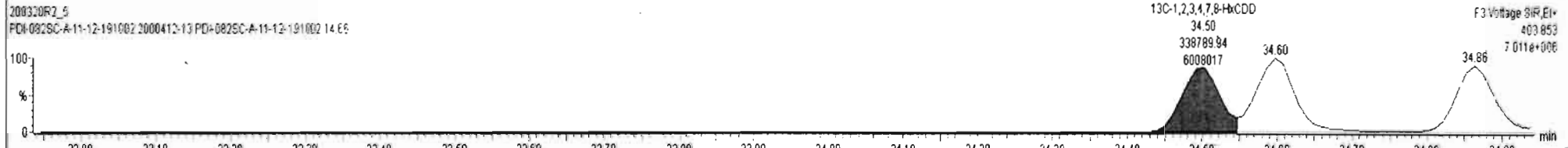
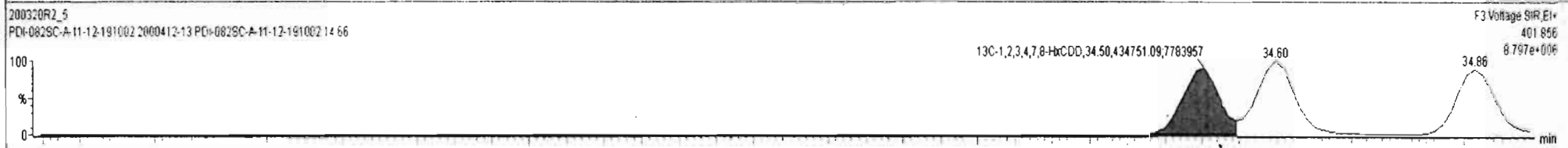
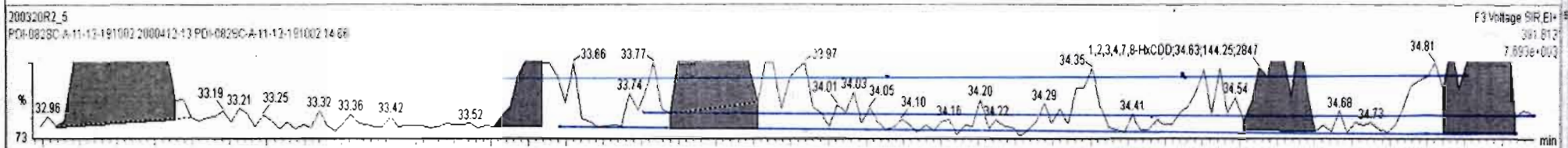
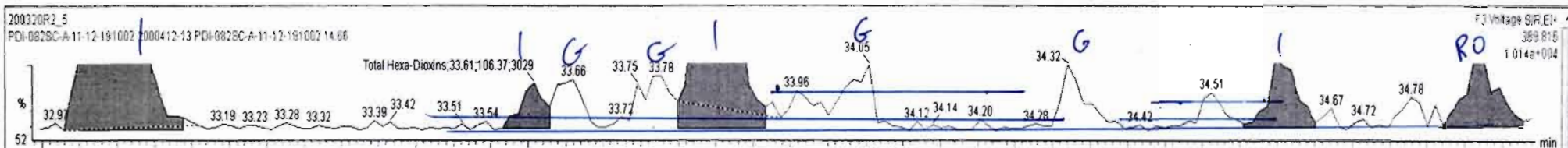
Name	Resp	RA	nly	RRF	wAvol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			1.92		0.106	1.92
43 Total Tetra-Furans				0.9154	10.087			0.000		0.0179	0.112
44 1st Func. Penta-Furans				0.9594	10.087					0.00722	
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hexa-Dioxins	33.04	2.313e3	1.847e3	1.25	NO	0.98433	0.98433
2 Total Hexa-Dioxins	33.61	1.085e2	8.013e1	1.35	NO	0.044646	0.044646
3 Total Hexa-Dioxins	33.85	9.393e2	7.719e2	1.22	NO	0.40491	0.40491
4 Total Hexa-Dioxins	33.96	1.073e2	7.091e1	1.51	YES	0.037588	0.00000
5 1,2,3,4,7,8-HxCDD	34.51	1.037e2	7.689e1	1.35	NO	0.040872	0.040872
6 1,2,3,6,7,8-HxCDD	34.60	2.174e2	1.442e2	1.51	YES	0.069238	0.00000
7 Total Hexa-Dioxins	34.78	9.249e1	8.345e1	1.11	NO	0.041637	0.041637
8 1,2,3,7,8,9-HxCDD	34.86	2.514e2	2.560e2	0.98	YES	0.11064	0.00000



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.087			1.48		0.0700	1.58
42 Total Hepta-Dioxins				1.0061	10.087			1.92		0.106	1.92
43 Total Tetra-Furans				0.9154	10.087			0.000		0.0179	0.112
44 1st Func. Penta-Furans				0.9594	10.087					0.00722	
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0463	10.087					0.0218	
48 PFK1											
49 PFK2											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Dioxins	33.04	2.313e3	1.825e3	1.27	NO	0.97911	0.97911
2 Total Hexa-Dioxins	33.61	1.064e2	8.009e1	1.33	NO	0.044125	0.044125
3 Total Hexa-Dioxins	33.85	9.091e2	7.032e2	1.29	NO	0.38156	0.38156
4 1,2,3,4,7,8-HxCDD	34.60	1.976e2	1.442e2	1.37	NO	0.077364	0.077364
5 1,2,3,7,8,9-HxCDD	34.86	2.322e2	2.560e2	0.91	YES	0.10239	0.00000





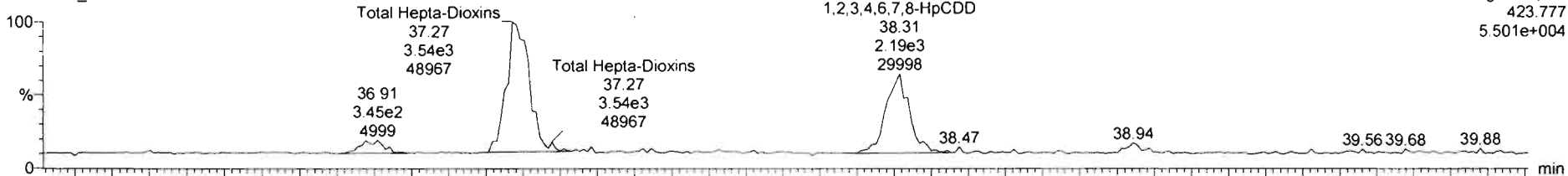
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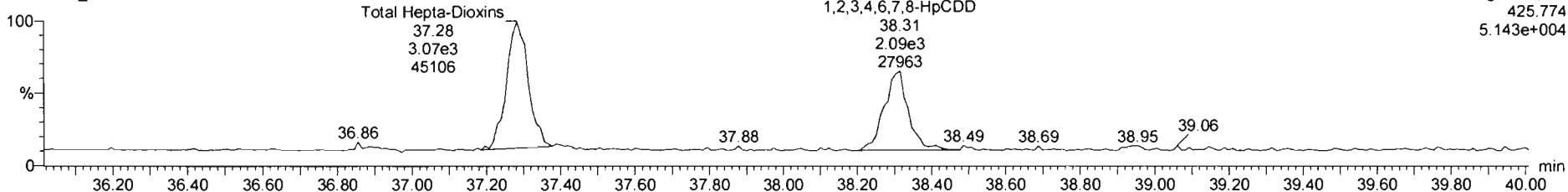
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1,2,3,4,6,7,8-HpCDD

200320R2\_5

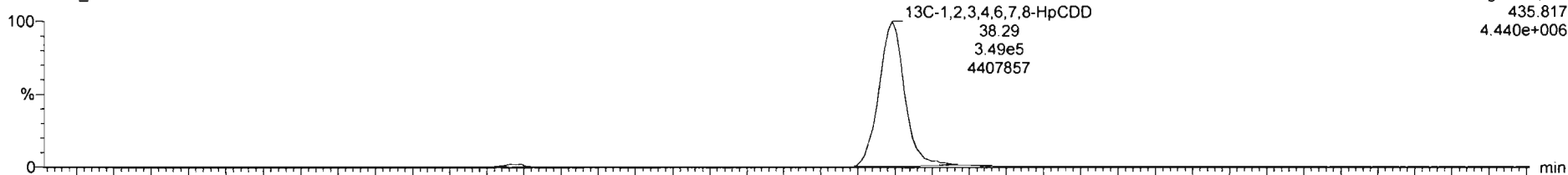


200320R2\_5

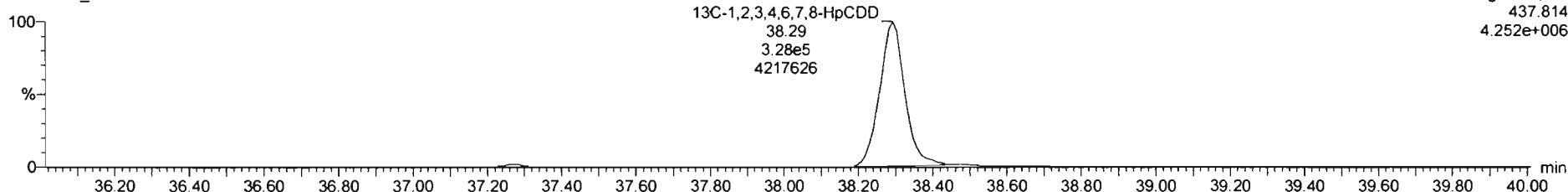


13C-1,2,3,4,6,7,8-HpCDD

200320R2\_5



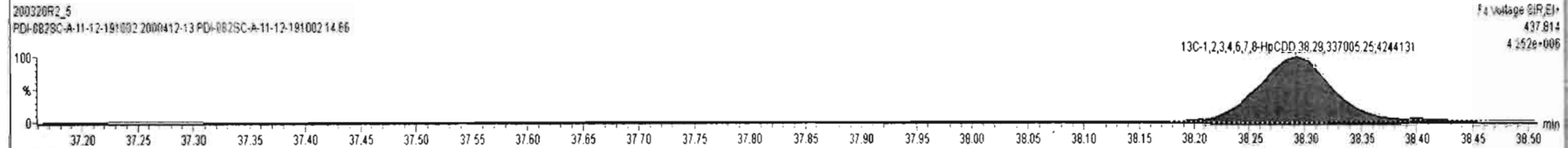
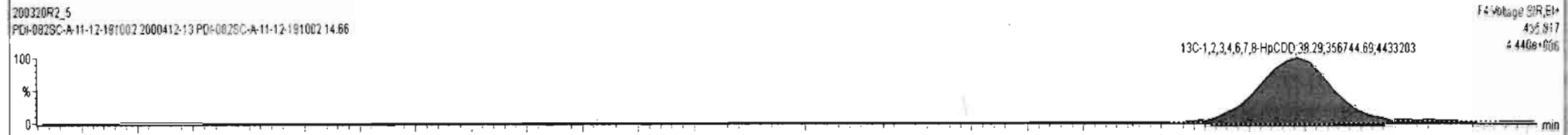
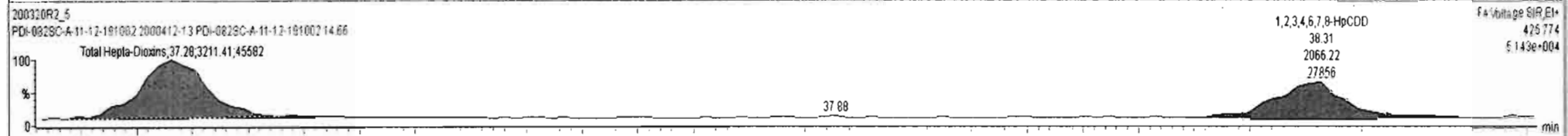
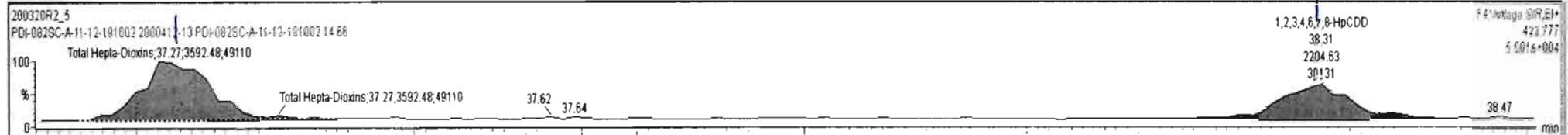
200320R2\_5



200320R2\_5 - 2000412-13 PDI-082SC-A-11-12-191002 14.66 - PDI-082SC-A-11-12-191002

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.067			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.067			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.067			0.000		0.0179	0.112
44 1st Func. Penta-Furans				0.9594	10.067					0.00722	
45 Total Penta-Furans				0.9594	10.067					0.0162	
46 Total Hexa-Furans				1.0920	10.067			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.067					0.0218	
48 PFK1											
49 PFK2											

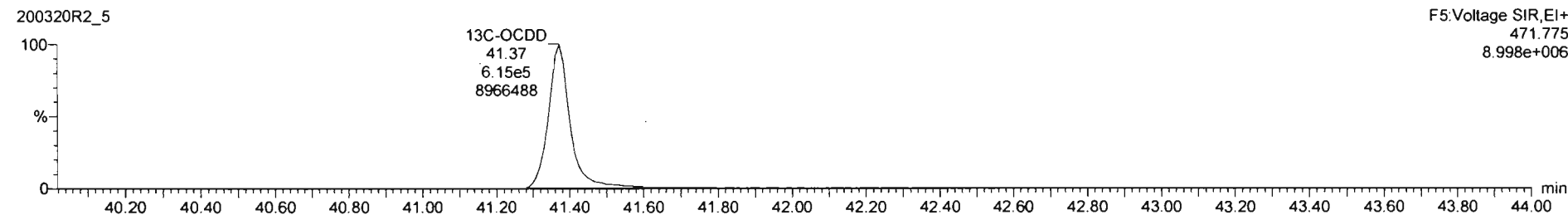
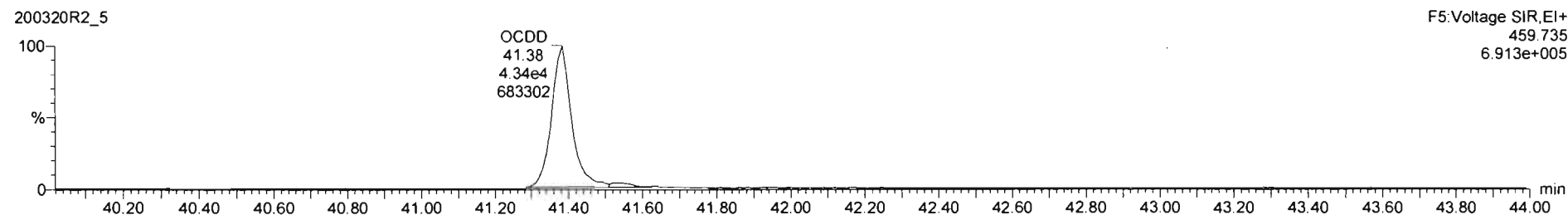
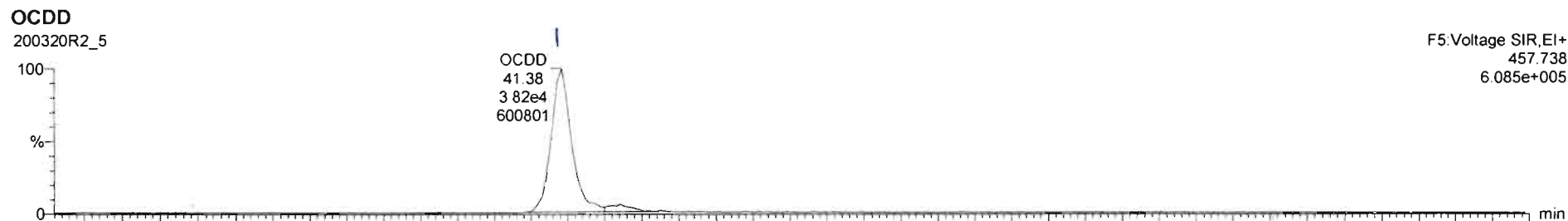
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.27	3.592e3	3.211e3	1.12	NO	1.9329	1.9329
2 1,2,3,4,6,7,8-HpCDD	38.31	2.205e3	2.066e3	1.07	NO	1.2133	1.2133



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Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002



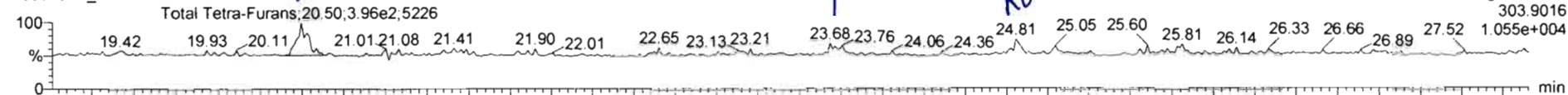
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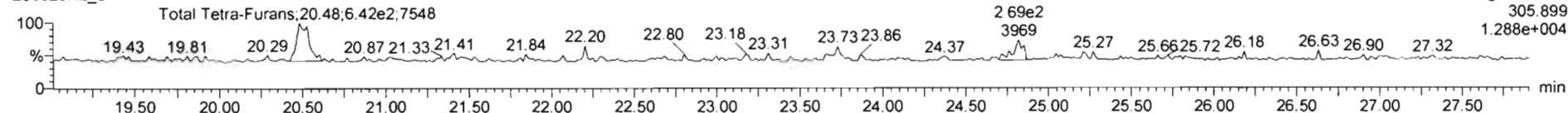
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**2,3,7,8-TCDF**

200320R2\_5

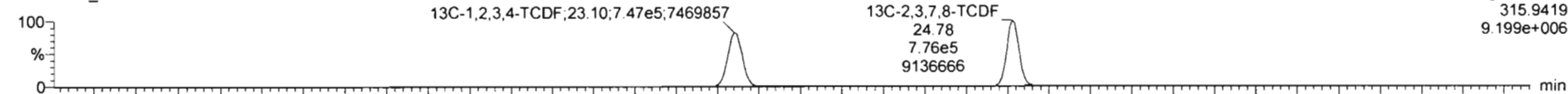


200320R2\_5

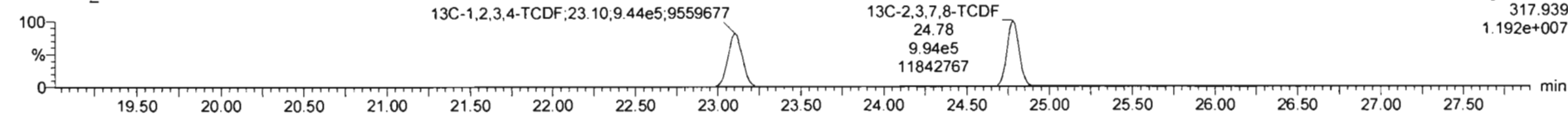


**13C-2,3,7,8-TCDF**

200320R2\_5

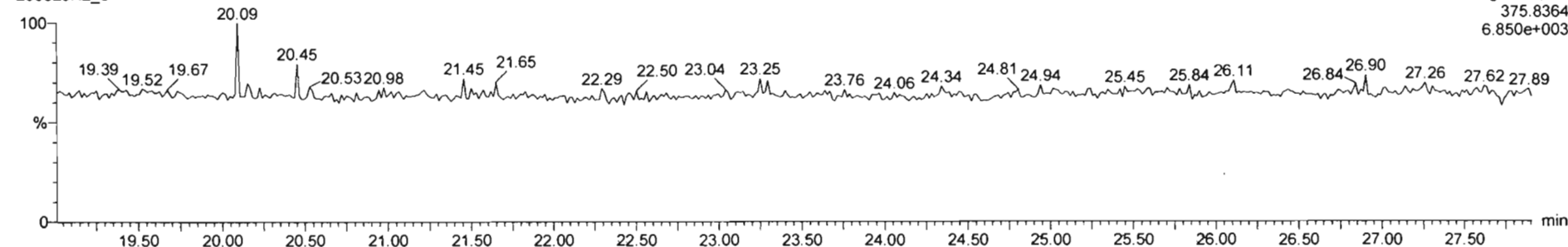


200320R2\_5



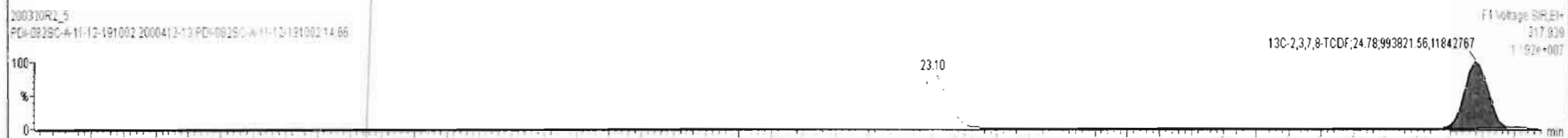
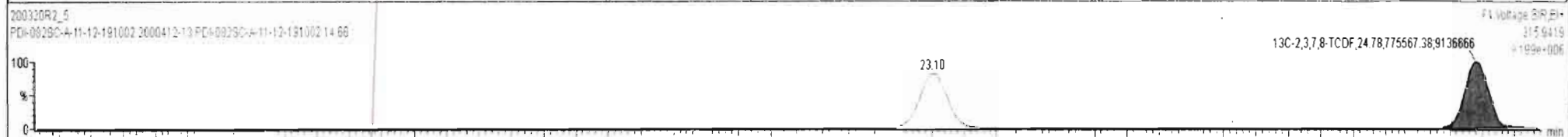
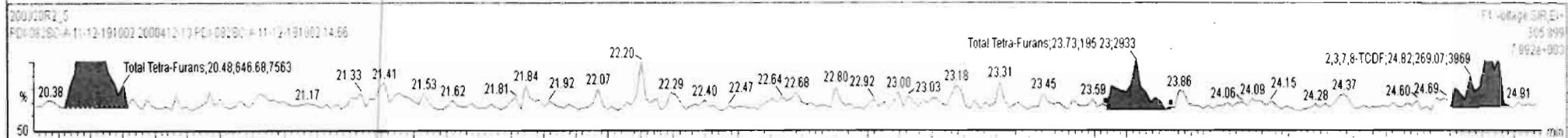
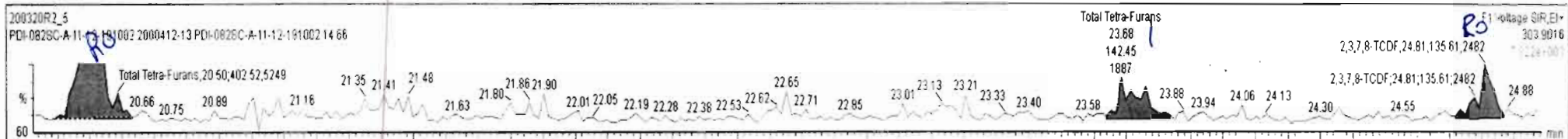
**DPE1**

200320R2\_5



Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.087			0.0463		0.0605	0.726
40 Total Penta-Dioxins				0.9212	10.087			0.000		0.0298	0.384
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.087			0.0413		0.0401	0.193
44 1st Func. Penta-Furans				0.9594	10.087					0.00722	
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0790
47 Total Hepta-Furans				1.0463	10.087					0.0218	

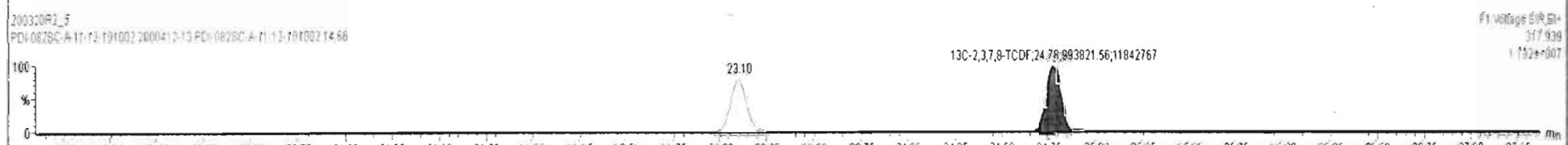
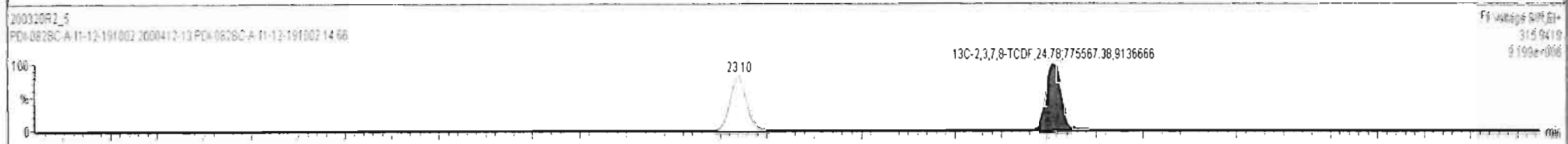
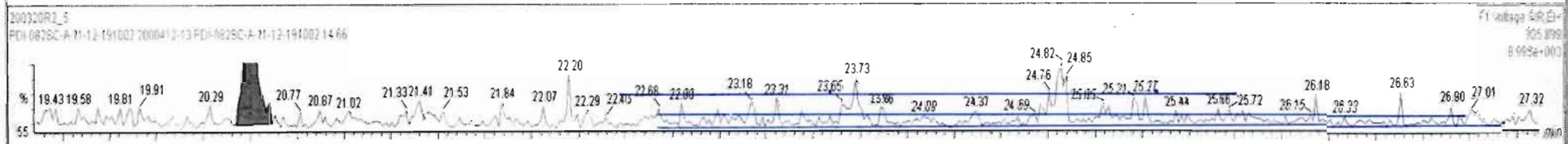
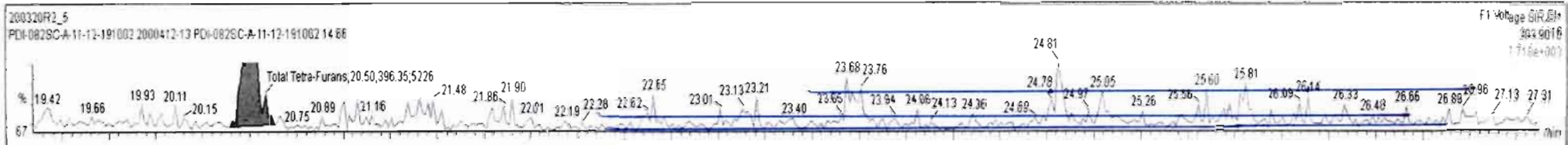
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	20.50	4.025e2	6.467e2	0.62	YES	0.11327	0.00000
2 Total Tetra-Furans	23.68	1.425e2	1.952e2	0.73	NO	0.041339	0.041339
3 2,3,7,8-TCDF	24.81	1.356e2	2.691e2	0.50	YES	0.038161	0.00000



200320R2\_5 - 2000412-13.PDI-082SC-A-11-12-191002 14.66 - PDI-082SC-A-11-12-191002

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.087			0.0463		0.0605	0.726
40 Total Penta-Dioxins				0.9212	10.087			0.000		0.0298	0.384
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.087			0.000		0.0179	0.112
44 1st Func. Penta-Furans				0.9594	10.087					0.00722	
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	20.50	3.964e2	6.419e2	0.62	YES	0.11154	0.00000



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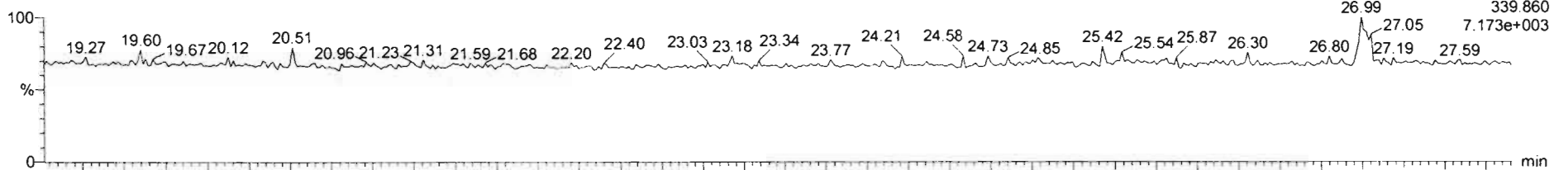
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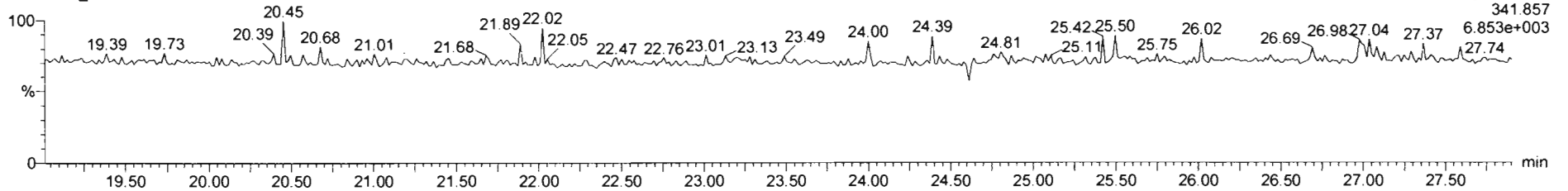
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1st Func. Penta-Furans

200320R2\_5

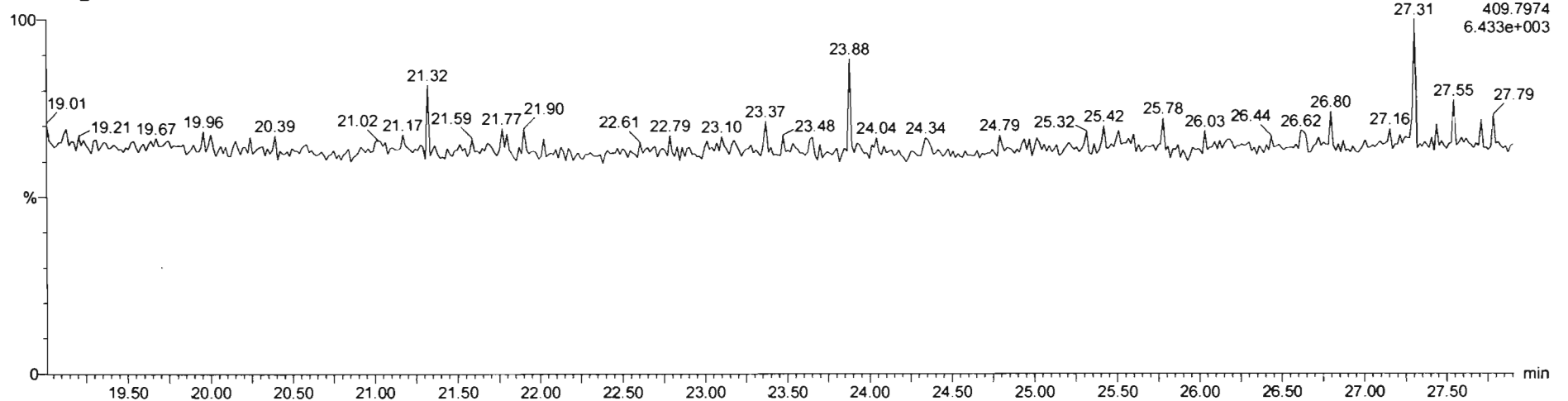


200320R2\_5



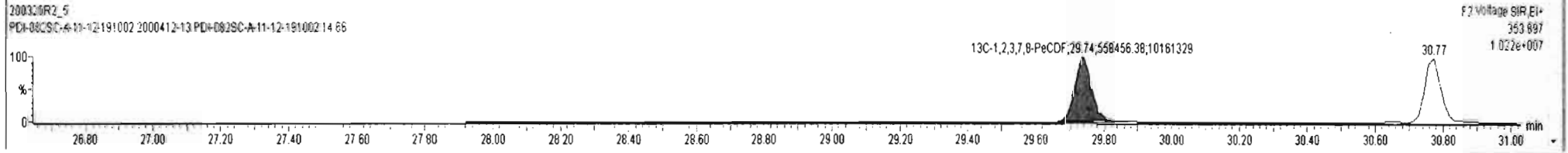
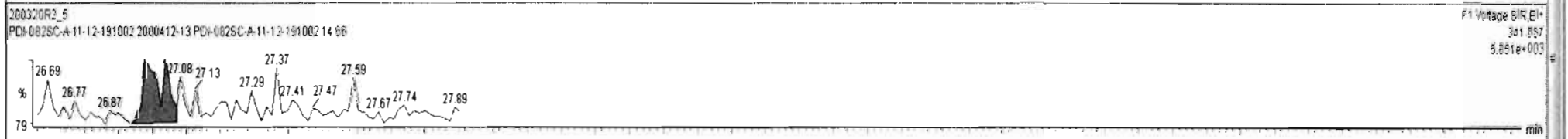
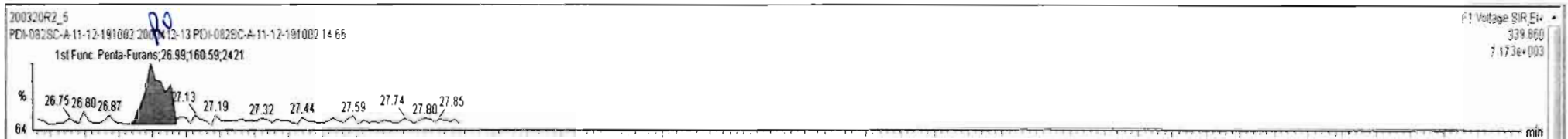
DPE6

200320R2\_5



Name	Resp	RA	nly	RRF	wAdj	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.087			0.0463		0.0605	0.726
40 Total Penta-Dioxins				0.9212	10.087			0.000		0.0298	0.384
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.087			0.0413		0.0401	0.193
44 1st Func. Penta-Furans				0.9594	10.087			0.000		0.00722	0.0302
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	

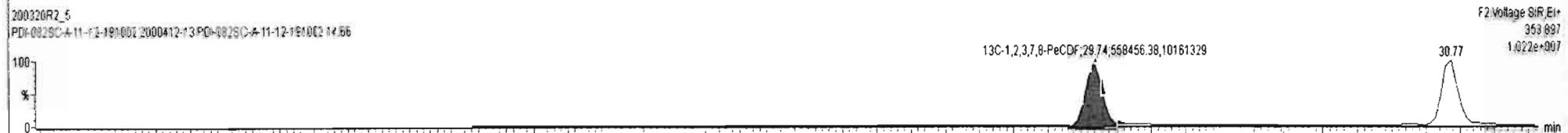
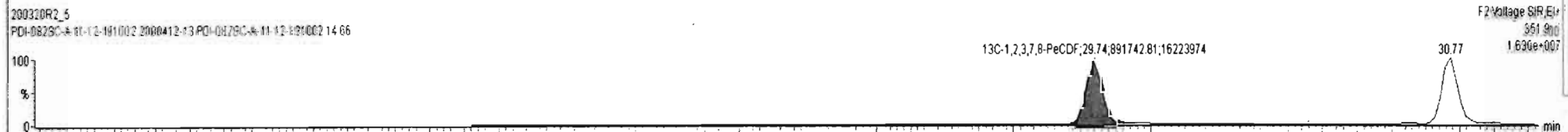
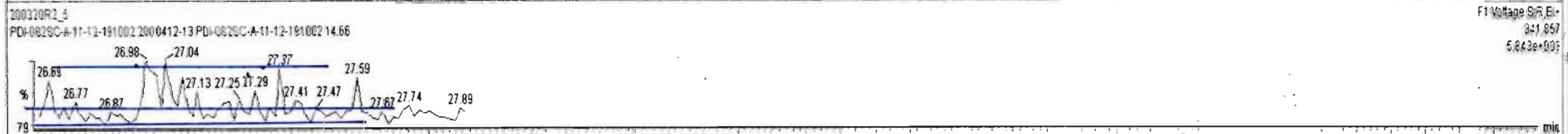
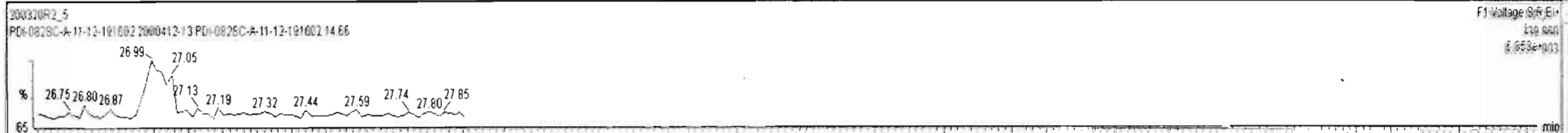
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 1st Func. Penta-Furans	26.99	1.606e2	8.214e1	1.96	YES	0.030189	0.00000





Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.087			0.0463		0.0605	0.726
40 Total Penta-Dioxins				0.9212	10.087			0.000		0.0298	0.384
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.087			0.0413		0.0401	0.193
44 1st Func. Penta-Furans				0.9594	10.087					0.00722	
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0820	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	

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

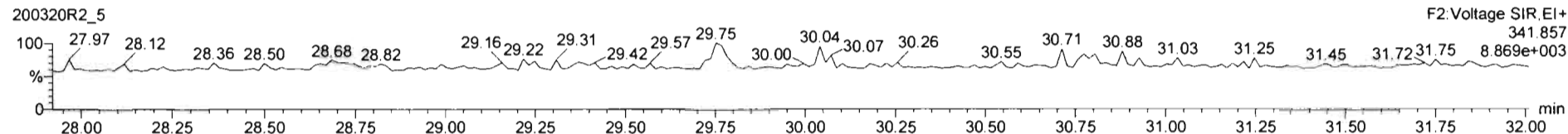
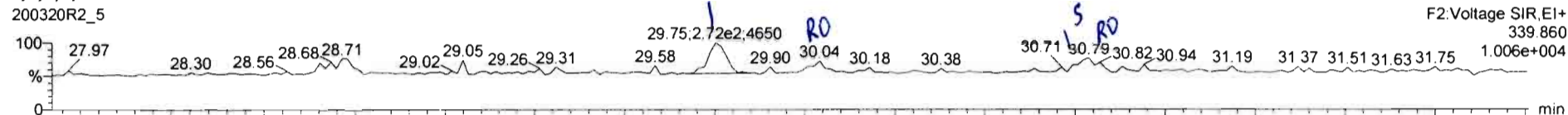


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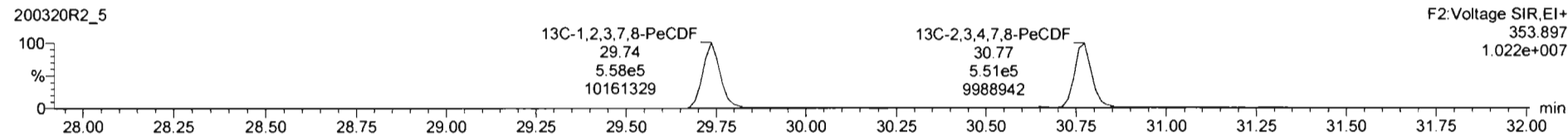
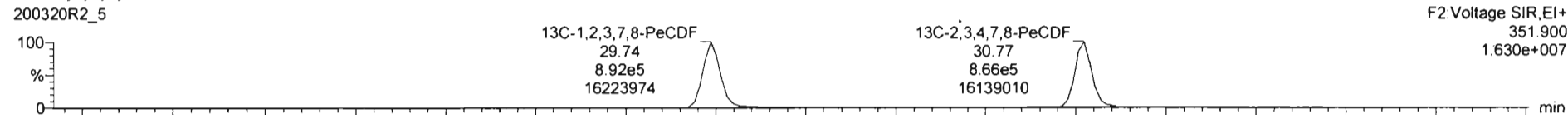
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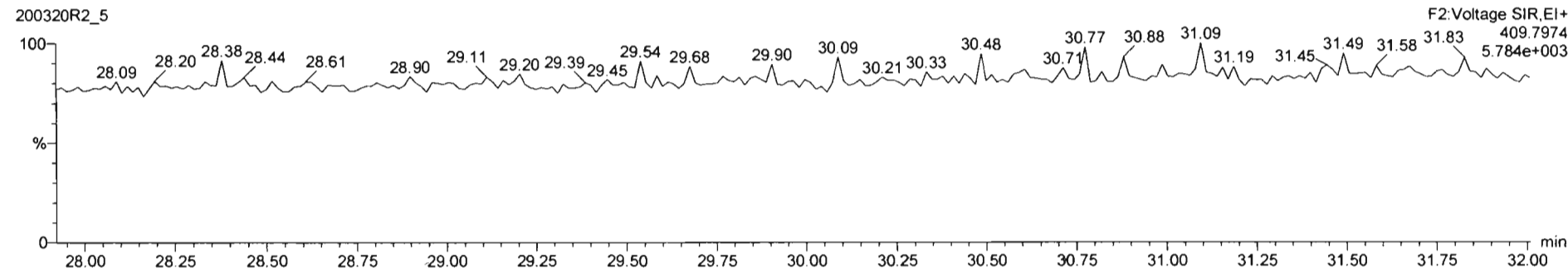
1,2,3,7,8-PeCDF



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

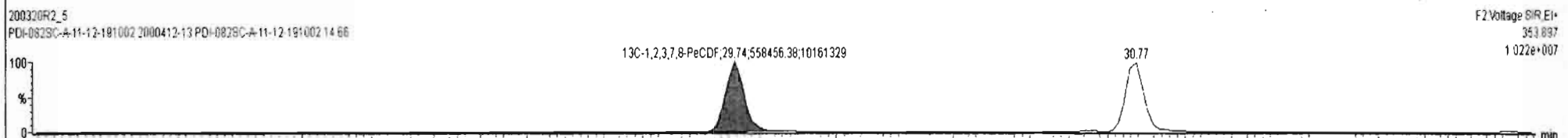
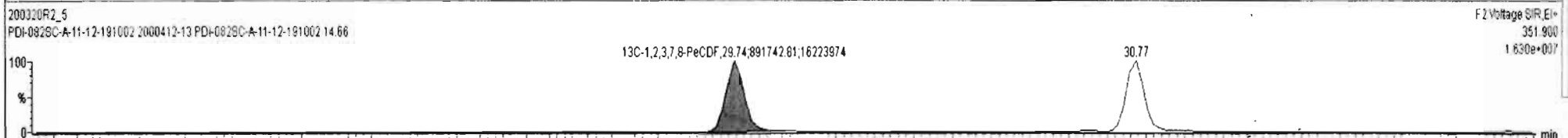
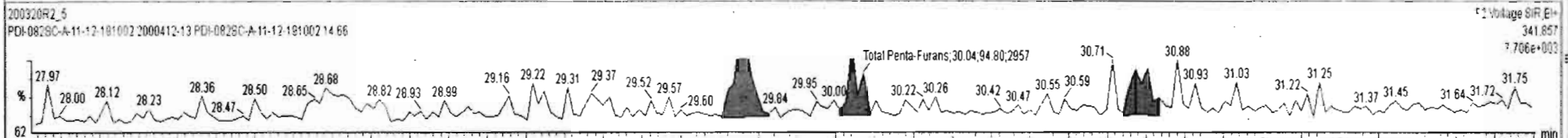
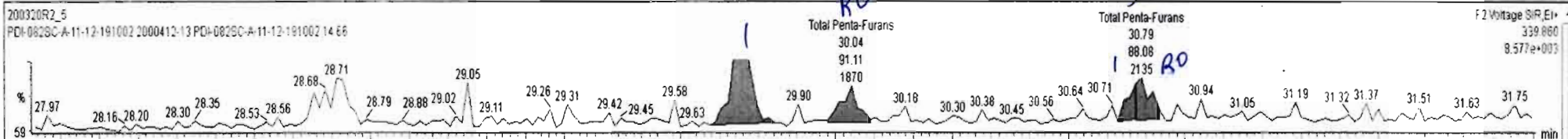


DPE2



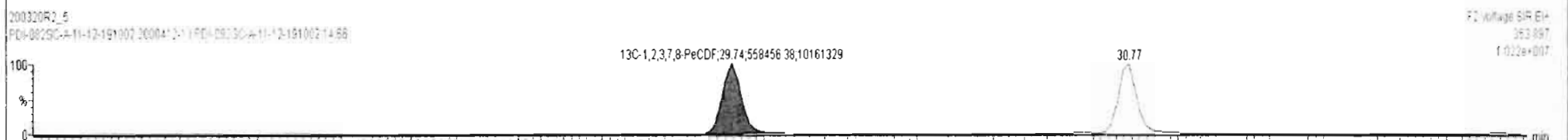
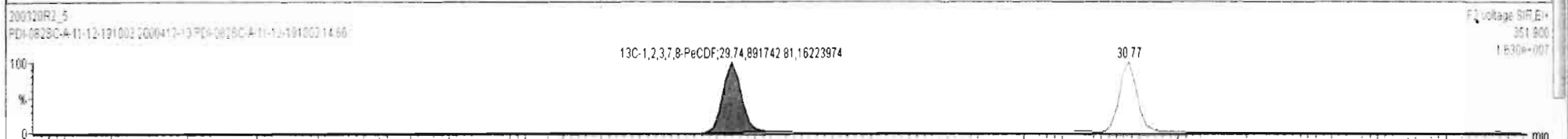
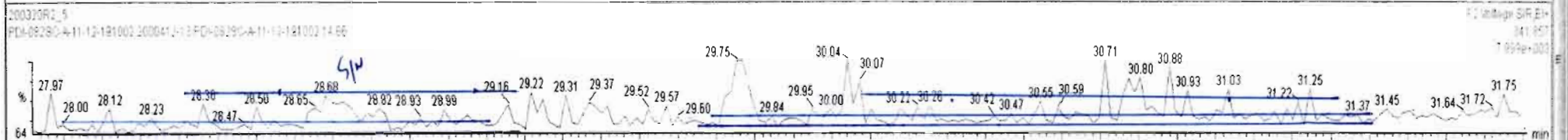
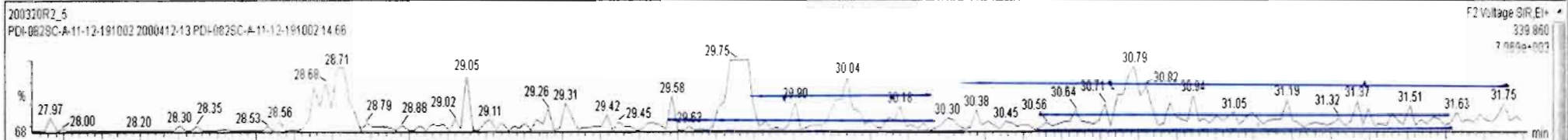
Name	Resp	RA	nV	RRF	wVvol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

Name	RT	m1 Resp	m2 Resp	RA	nV	EMPC	Conc.
1 1,2,3,7,8-PeCDF	29.75	2.721e2	1.813e2	1.50	NO	0.064616	0.064616
2 Total Penta-Furans	30.04	9.111e1	9.480e1	0.96	YES	0.021606	0.00000
3 2,3,4,7,8-PeCDF	30.77	4.702e1	3.264e1	1.44	NO	0.011103	0.011103
4 Total Penta-Furans	30.79	8.806e1	7.508e1	1.17	YES	0.020886	0.00000



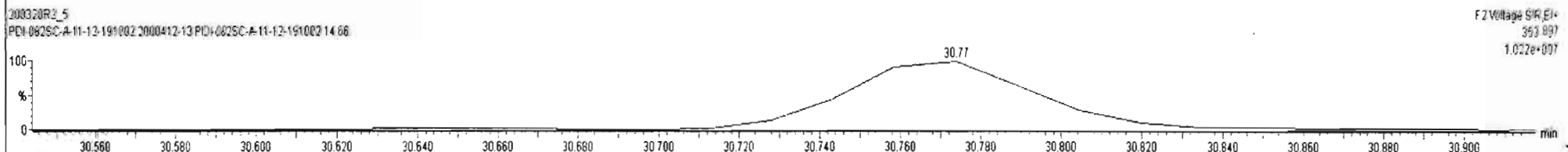
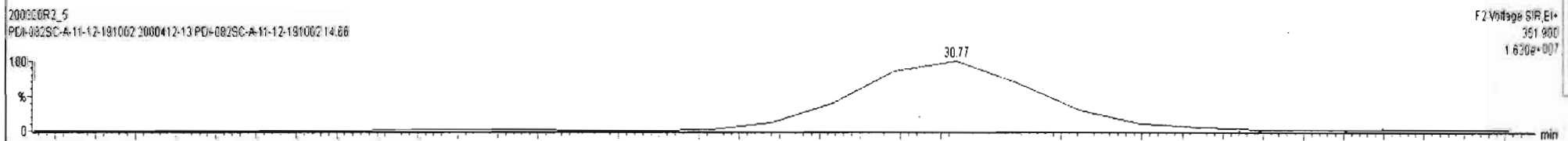
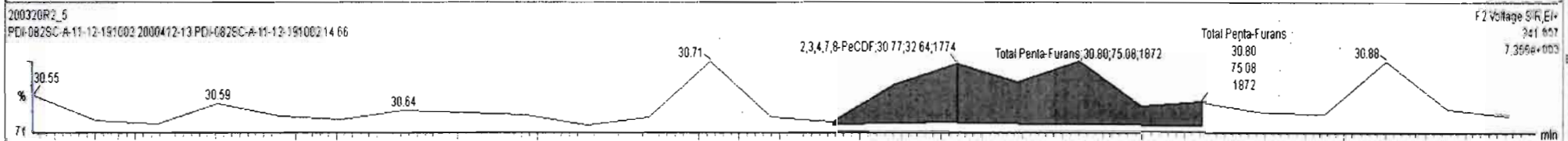
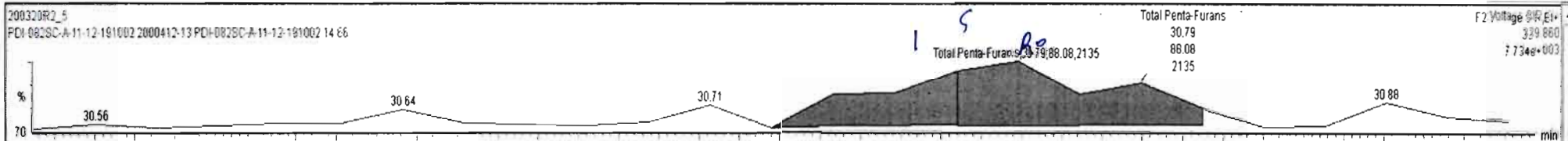
Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.087			0.0463		0.0605	0.726
40 Total Penta-Dioxins				0.9212	10.087			0.000		0.0298	0.384
41 Total Hexa-Dioxins				0.9844	10.087			1.52		0.0700	1.73
42 Total Hepta-Dioxins				1.0061	10.087			3.15		0.106	3.15
43 Total Tetra-Furans				0.9154	10.087			0.0413		0.0401	0.193
44 1st Func. Penta-Furans				0.9594	10.087			0.000		0.00722	0.0302
45 Total Penta-Furans				0.9594	10.087					0.0162	
46 Total Hexa-Furans				1.0920	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0493	10.087					0.0218	

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



Name	Resp	RA	nLy	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.067			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0520	10.067			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.067					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

Name	RT	m1 Resp	m2 Resp	RA	nLy	EMPC	Conc.
1 1,2,3,7,8-PeCDF	29.75	2.721e2	1.813e2	1.50	NO	0.064616	0.064616
2 Total Penta-Furans	30.04	9.111e1	9.480e1	0.96	YES	0.021606	0.00000
3 2,3,4,7,8-PeCDF	30.77	4.702e1	3.264e1	1.44	NO	0.011103	0.011103
4 Total Penta-Furans	30.79	8.809e1	7.508e1	1.17	YES	0.020886	0.00000

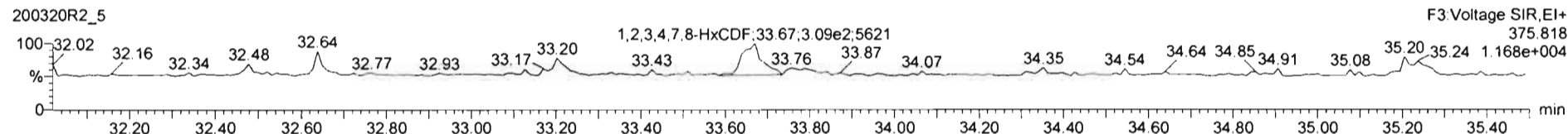
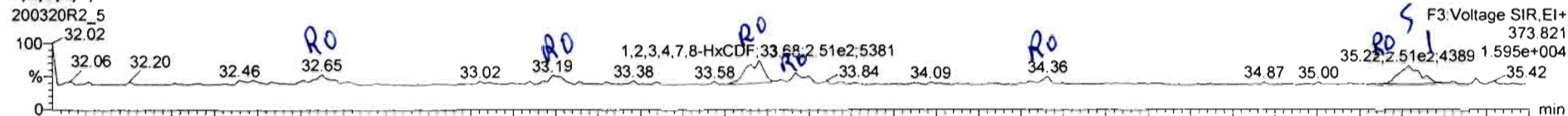


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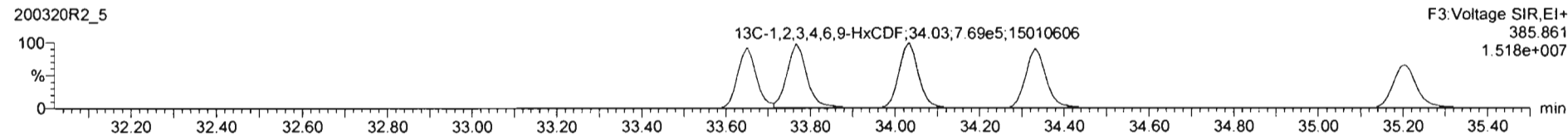
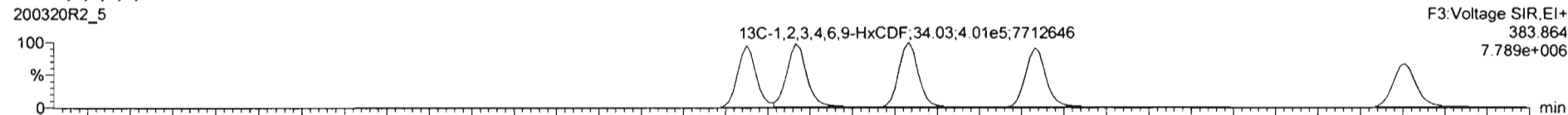
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

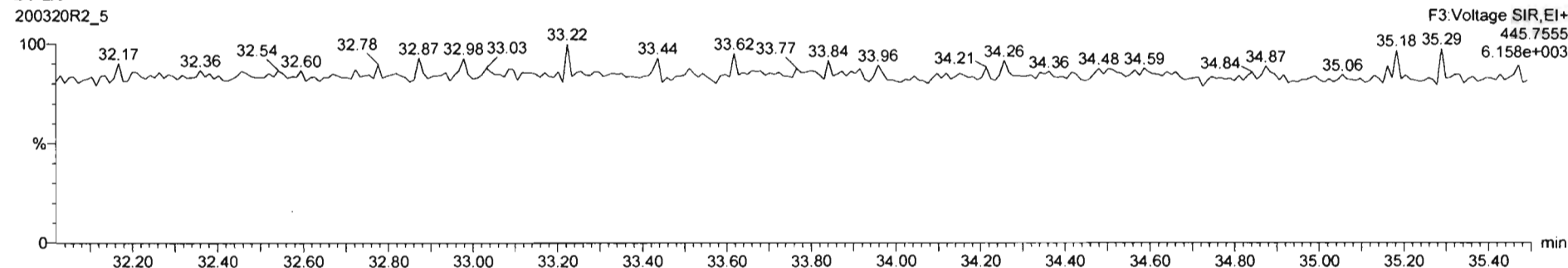
1,2,3,4,7,8-HxCDF



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

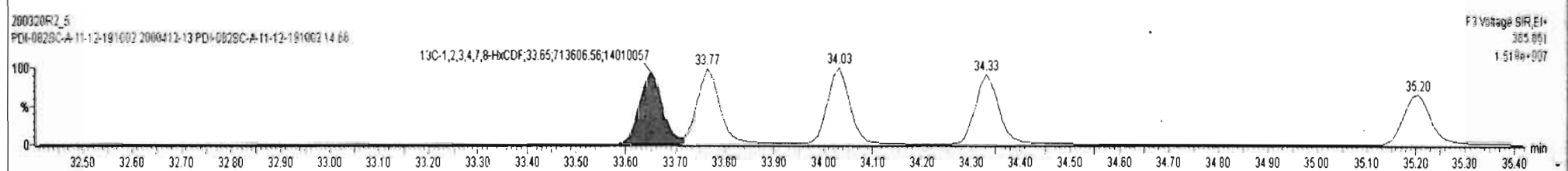
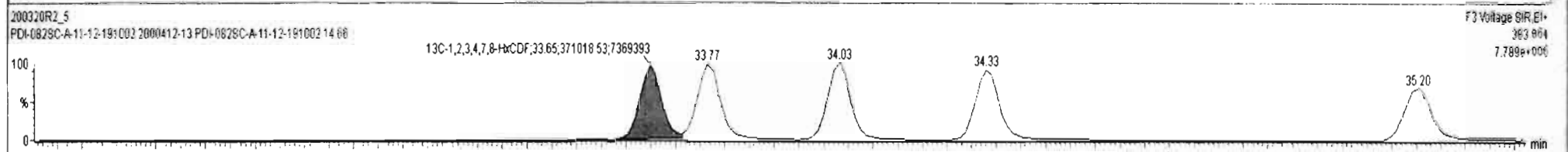
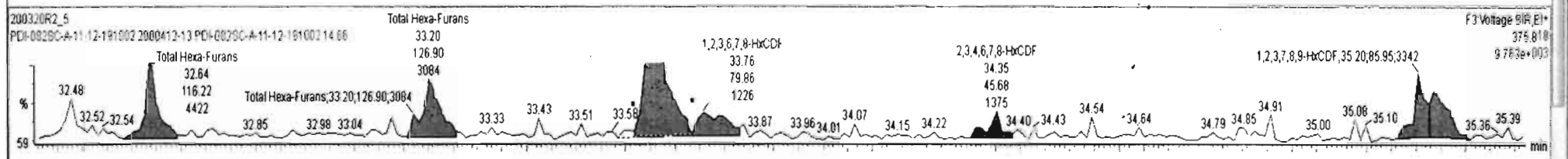
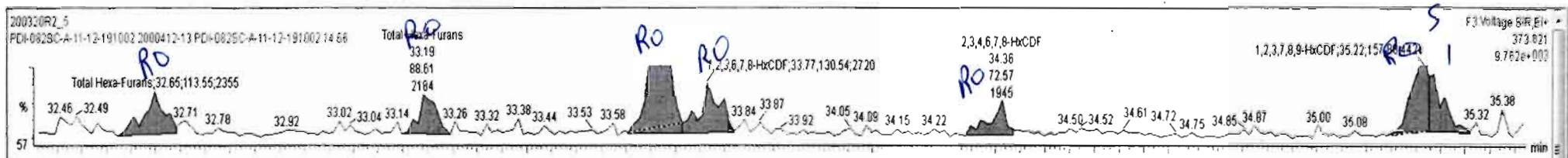


DPE3



Name	Resp	RA	nLy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0920	10.087			0.0331		0.0268	0.268
47 Total Hepta-Furans				1.0463	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

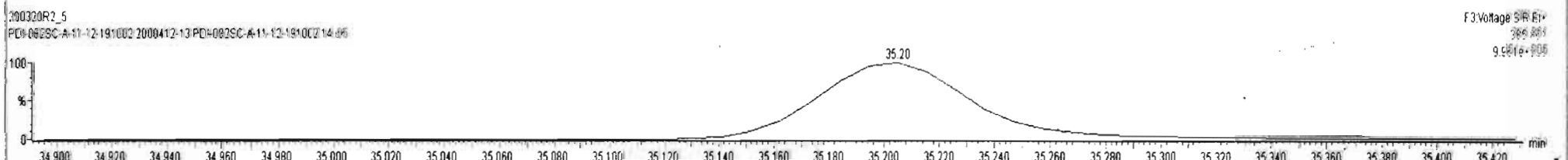
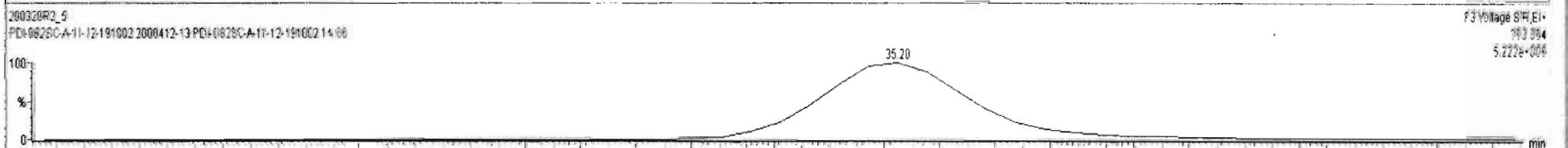
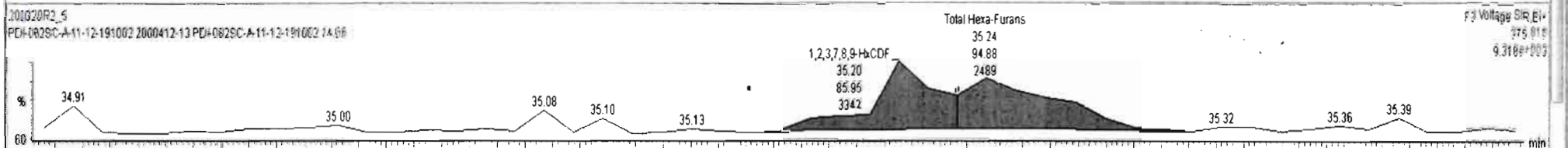
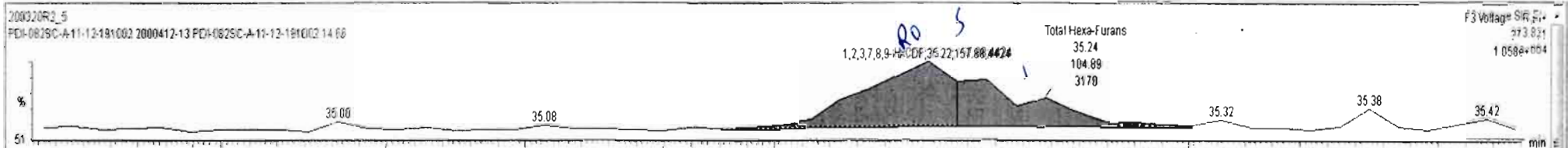
Name	RT	m1 Resp	m2 Resp	RA	nLy	EMPC	Conc.
1 Total Hexa-Furans	32.65	1.136e2	1.162e2	0.96	YES	0.034032	0.00000
2 Total Hexa-Furans	33.19	8.861e1	1.269e2	0.70	YES	0.026555	0.00000
3 1,2,3,4,7,8-HxCDF	33.68	2.827e2	3.046e2	0.93	YES	0.089929	0.00000
4 1,2,3,6,7,8-HxCDF	33.77	1.305e2	7.986e1	1.63	YES	0.029159	0.00000
5 2,3,4,6,7,8-HxCDF	34.36	7.257e1	4.568e1	1.59	YES	0.016373	0.00000
6 1,2,3,7,8,9-HxCDF	35.22	1.579e2	8.595e1	1.84	YES	0.038644	0.00000
7 Total Hexa-Furans	35.24	1.049e2	9.488e1	1.11	NO	0.033142	0.033142



200320R2\_5 - 2000412-13.PDI+0825C-A-11-12-191002 14.66 - PDI+0825C-A-11-12-191002

Name	Resp	RA	nly	RFF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0520	10.087			0.0331		0.0268	0.268
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

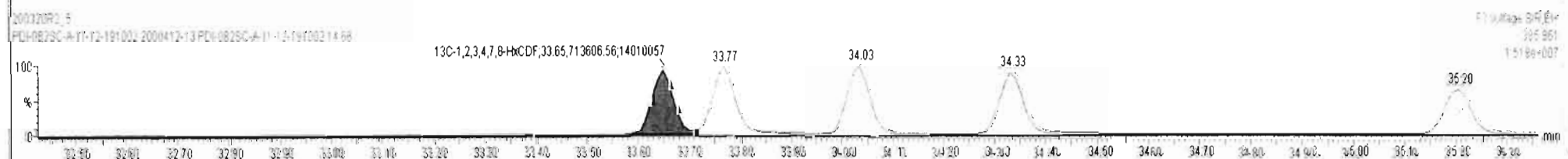
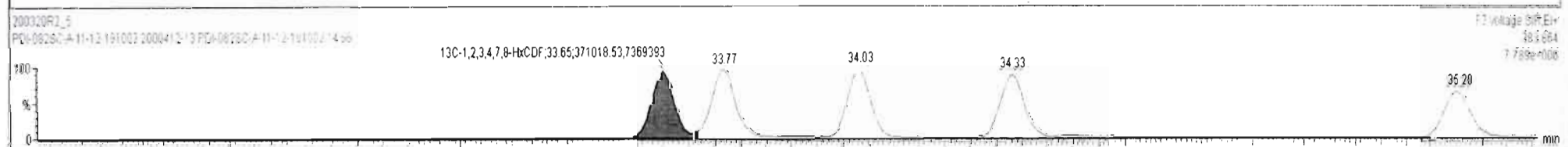
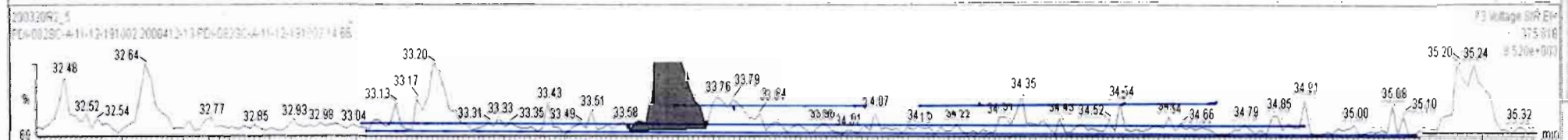
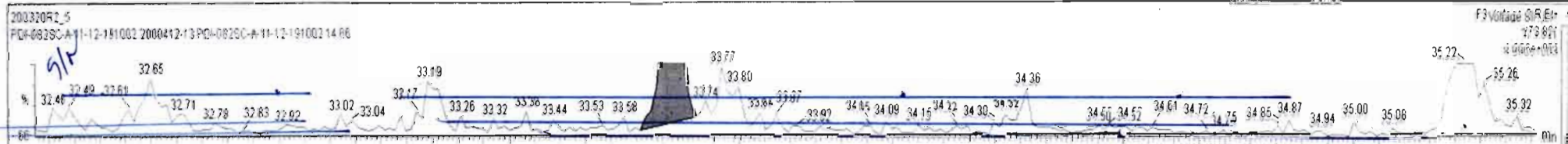
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Furans	32.65	1.136e2	1.162e2	0.98	YES	0.034032	0.00000
2 Total Hexa-Furans	33.19	8.861e1	1.269e2	0.70	YES	0.026555	0.00000
3 1,2,3,4,7,8-HxCDF	33.68	2.827e2	3.046e2	0.93	YES	0.089929	0.00000
4 1,2,3,6,7,8-HxCDF	33.77	1.305e2	7.986e1	1.63	YES	0.029159	0.00000
5 2,3,4,6,7,8-HxCDF	34.36	7.257e1	4.568e1	1.59	YES	0.016373	0.00000
6 1,2,3,7,8,9-HxCDF	35.22	1.579e2	8.595e1	1.84	YES	0.038844	0.00000
7 Total Hexa-Furans	35.24	1.049e2	9.488e1	1.11	NO	0.033142	0.033142





Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Pento-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0820	10.087			0.000		0.0150	0.0798
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 1,2,3,4,7,8-HxCDF	33.68	2.508e2	3.087e2	0.81	YES	0.079783	0.00000



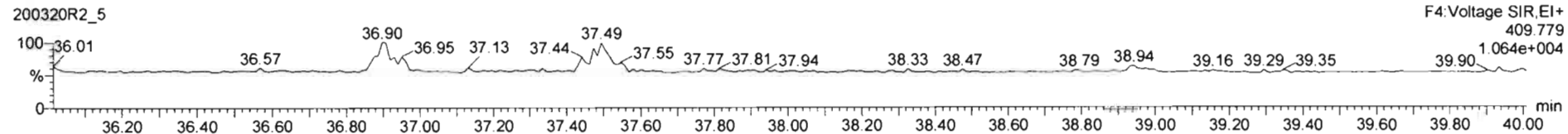
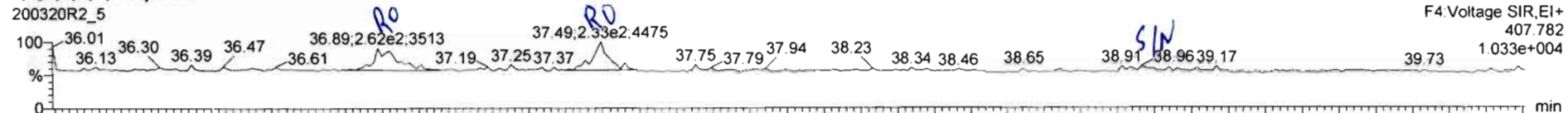
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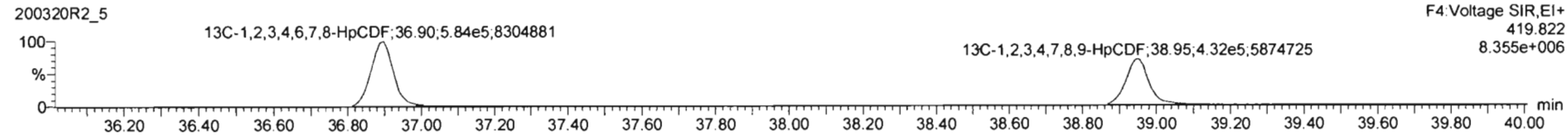
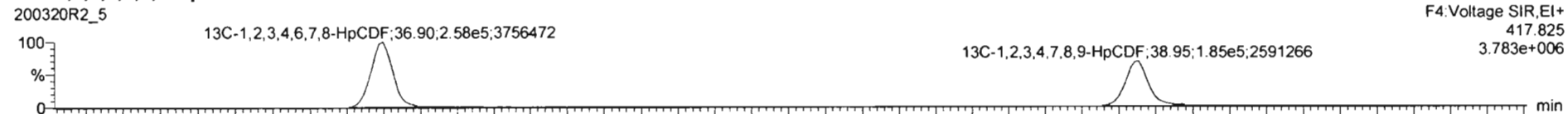
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

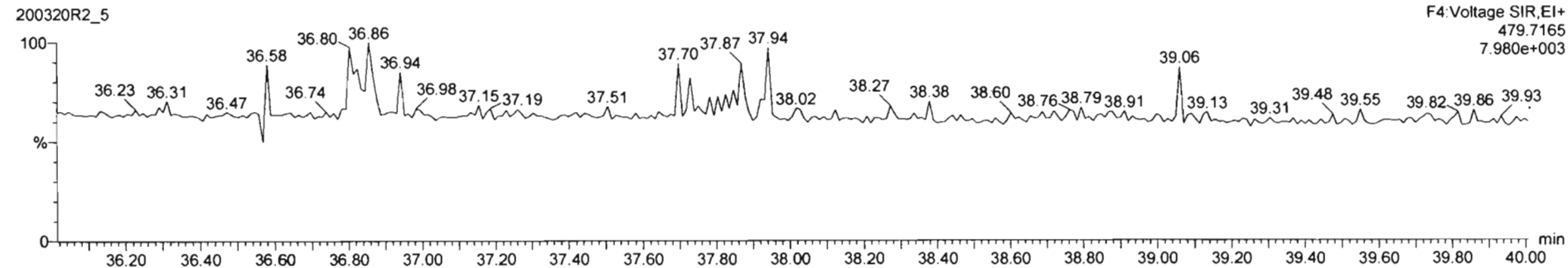
1,2,3,4,6,7,8-HpCDF



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

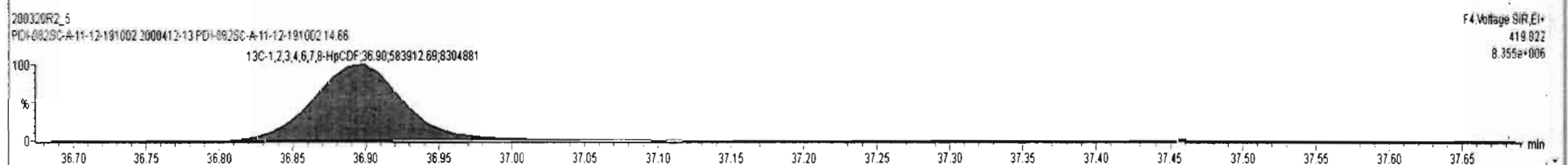
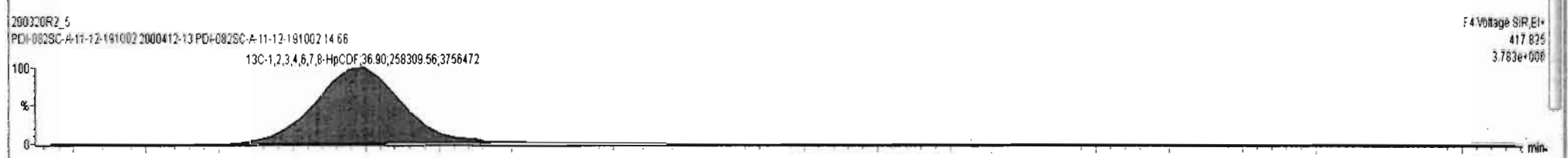
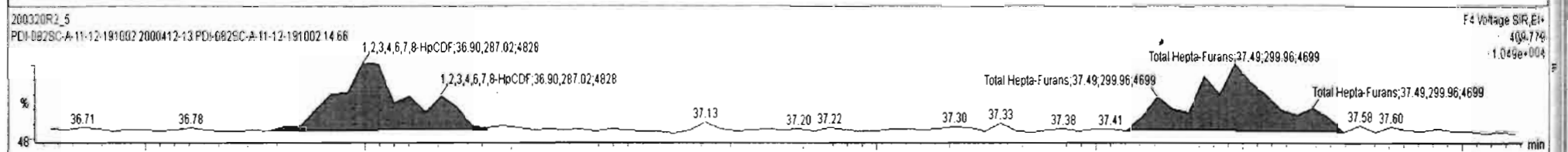
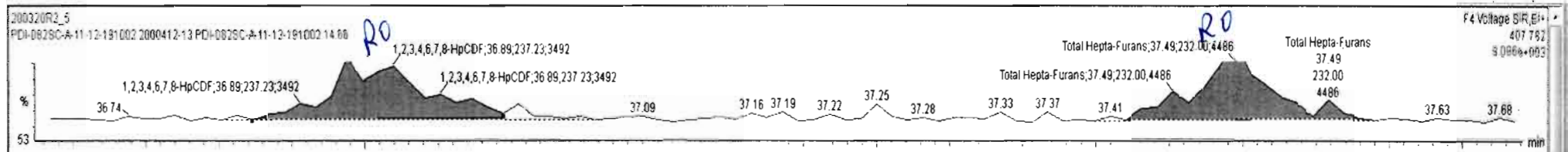


DPE4



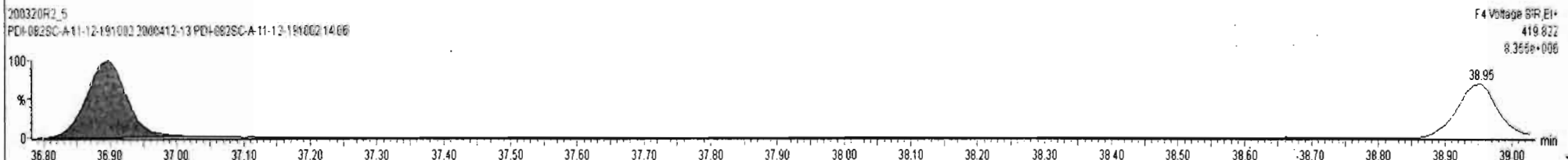
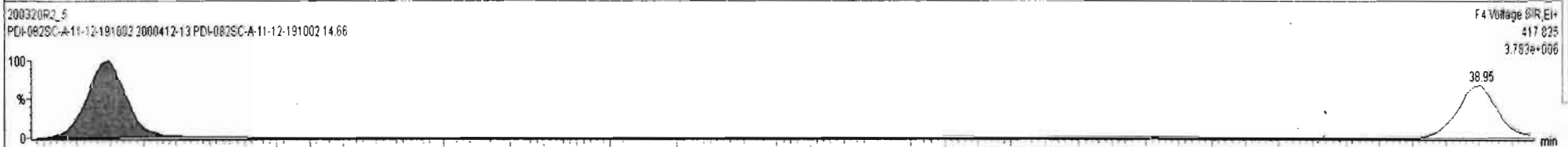
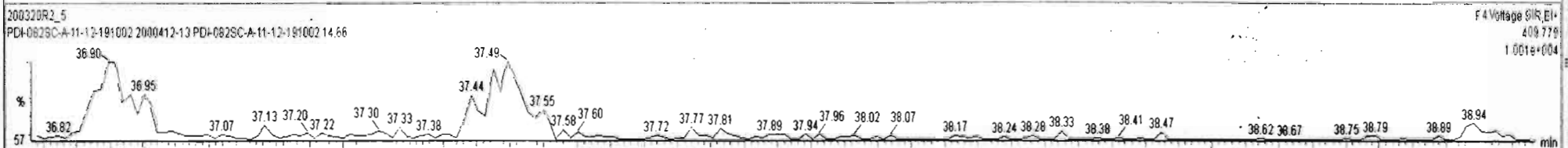
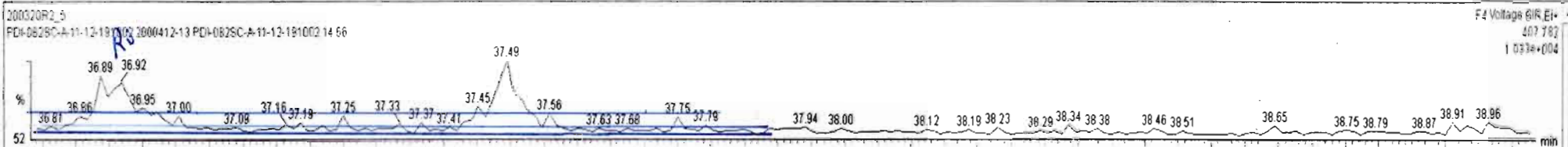
Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0920	10.087			0.0331		0.0268	0.268
47 Total Hepta-Furans				1.0483	10.087			0.000		0.0218	0.222
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.89	2.372e2	2.870e2	0.83	YES	0.10451	0.00000
2 Total Hepta-Furans	37.49	2.320e2	3.000e2	0.77	YES	0.11799	0.00000



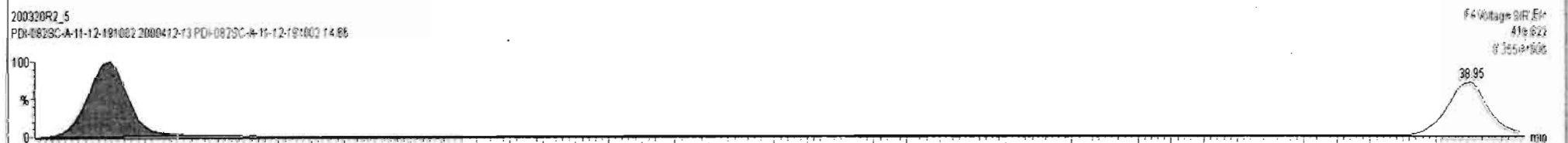
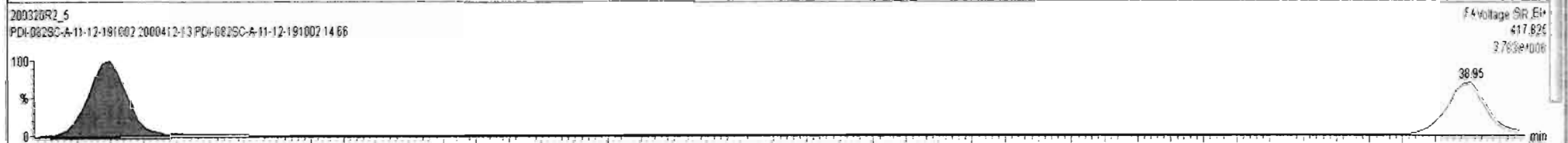
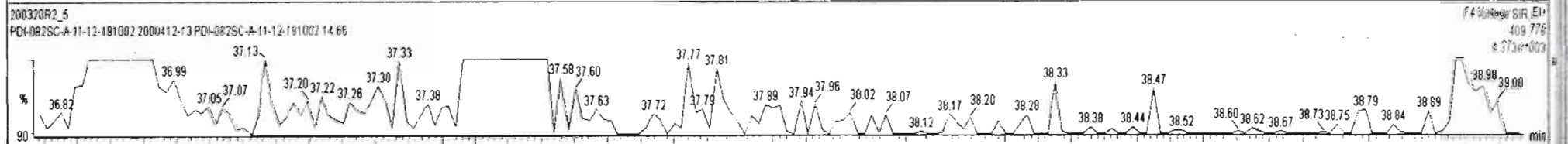
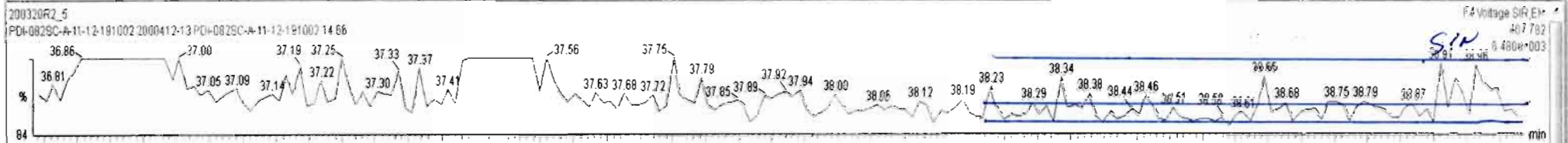
Name	Resp	RA	nly	RRF	wMol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0920	10.087			0.0331		0.0268	0.268
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

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



Name	Resp	RA	n/y	RRF	w/Aol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.087			0.0757		0.0162	0.118
46 Total Hexa-Furans				1.0920	10.087			0.0331		0.0268	0.268
47 Total Hepta-Furans				1.0483	10.087					0.0218	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											

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

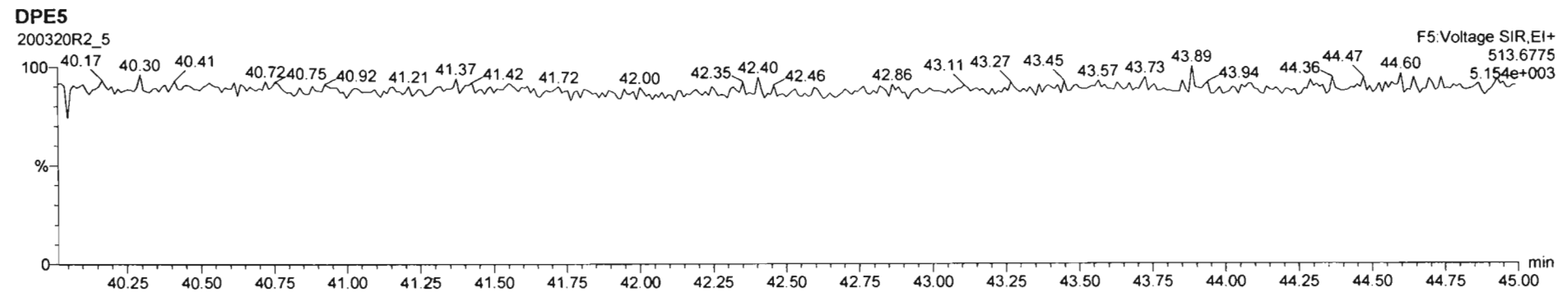
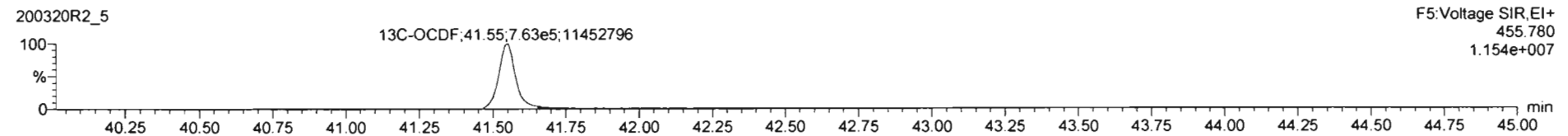
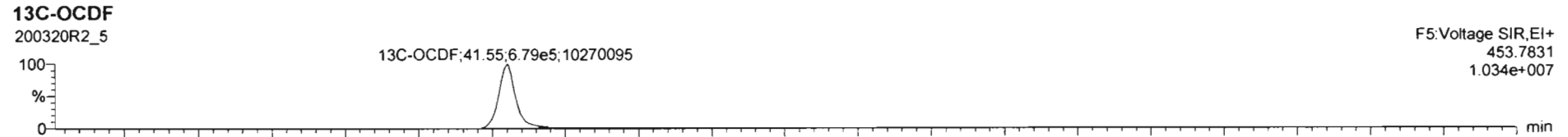
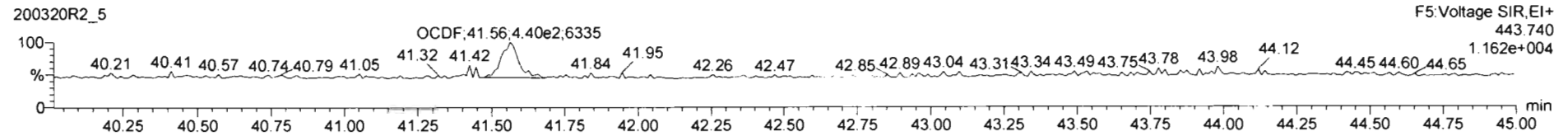
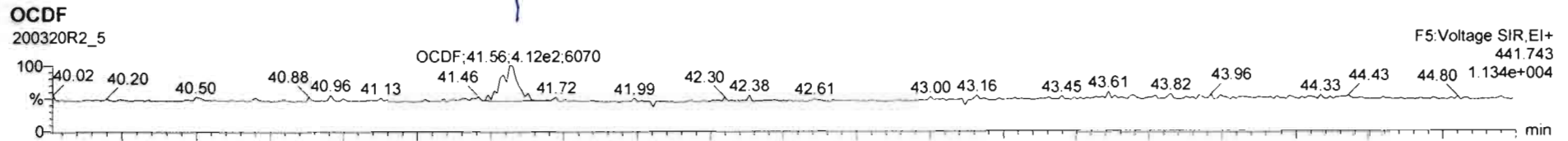


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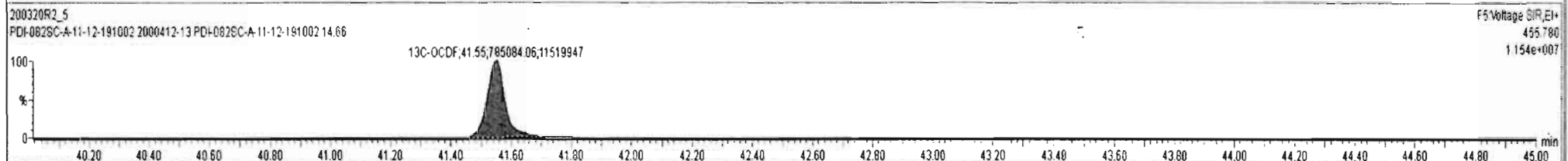
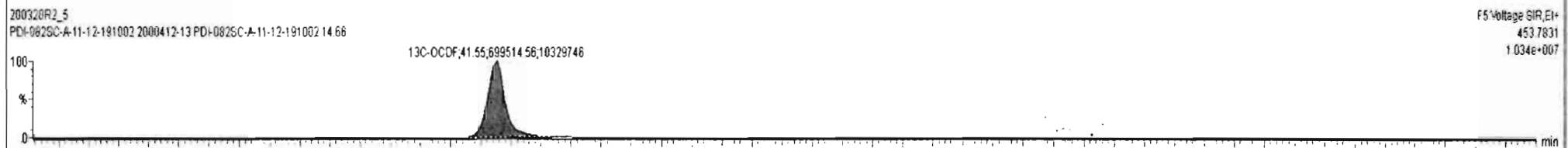
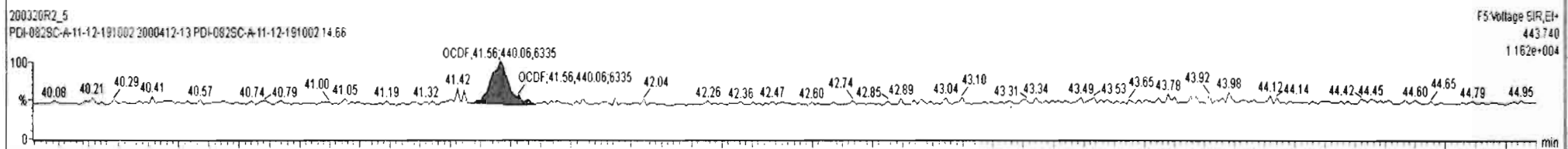
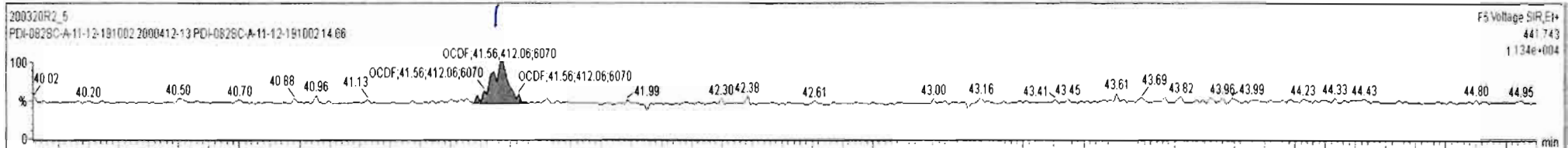
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002



Name	Resp	RA	nly	RRF	wtAval	RT	RRT	Conc.	%Rec	DL	EMPC
17	OCCDF	8.52e2	0.94	NO	0.9468	10.087	41.56	1.000	0.240	0.0678	0.240
18	13C-2,3,7,8-TCDD	1.33e6	0.79	NO	1.1842	10.087	25.78	1.029	206	104	0.227
19	13C-1,2,3,7,8-PeCDD	9.74e5	0.63	NO	0.8644	10.087	31.09	1.241	206	104	0.389
20	13C-1,2,3,4,7,8-HxCDD	7.74e5	1.28	NO	0.7539	10.087	34.50	1.014	174	87.7	0.282
21	13C-1,2,3,6,7,8-HxCDD	9.40e5	1.26	NO	0.9254	10.087	34.60	1.017	172	86.8	0.230
22	13C-1,2,3,7,8,9-HxCDD	8.40e5	1.27	NO	0.8294	10.087	34.86	1.024	172	86.6	0.257
23	13C-1,2,3,4,6,7,8-HpCDD	6.94e5	1.06	NO	0.5982	10.087	38.29	1.125	197	99.1	0.422
24	13C-OCDD	1.15e6	0.86	NO	0.5712	10.087	41.37	1.216	340	85.8	0.487
25	13C-2,3,7,8-TCDF	1.77e6	0.78	NO	1.0893	10.087	24.78	0.989	191	96.1	0.315

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

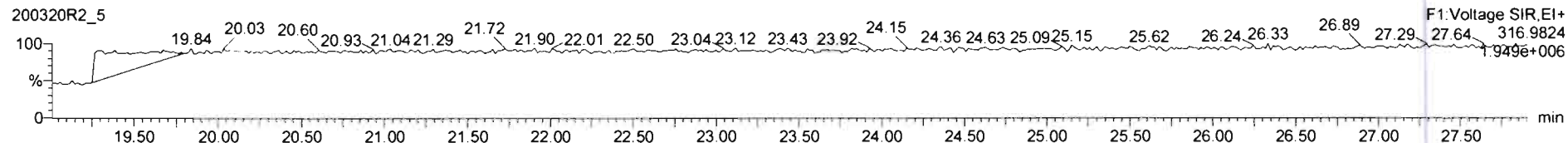


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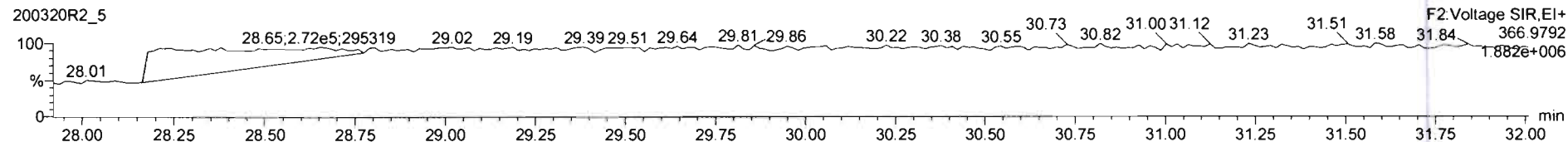
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Name: 200320R2\_5, Date: 21-Mar-2020, Time: 04:17:24, ID: 2000412-13 PDI-082SC-A-11-12-191002 14.66, Description: PDI-082SC-A-11-12-191002

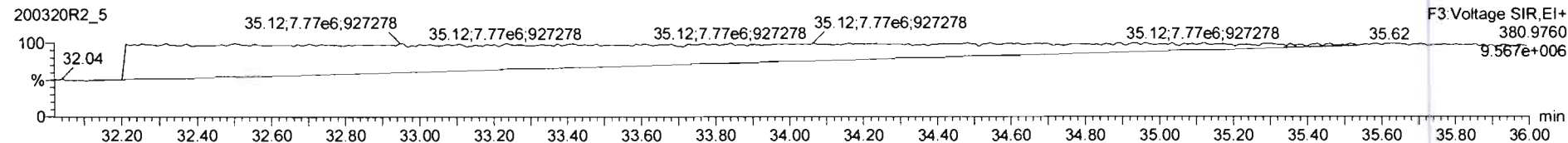
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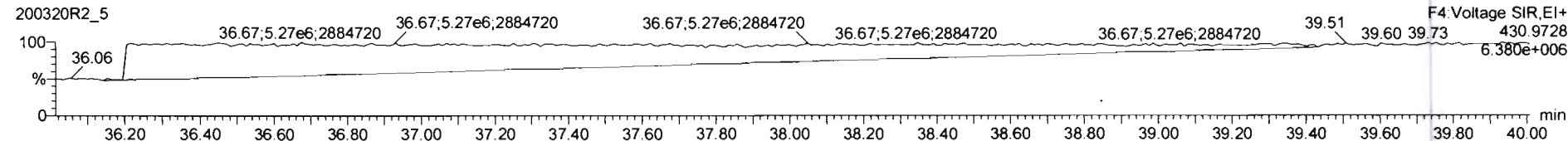
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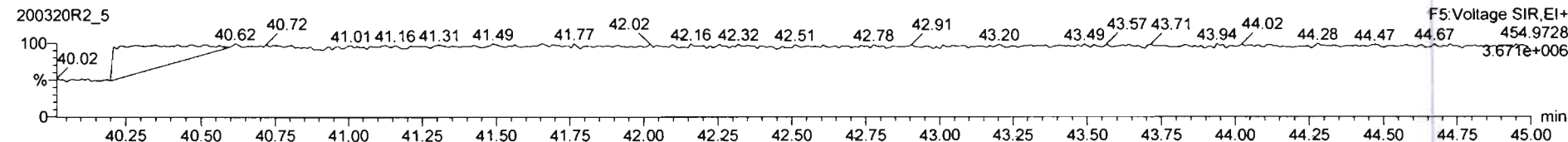
PFK3



PFK4



PFK5





Dataset: U:\VG12.PRO\Results\200320R2\200320R2-6b.qld

Last Altered: Thursday, April 02, 2020 12:02:17 Pacific Daylight Time  
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*chy 04-02-2020*

*04/03/2020*

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\ldb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

#	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	6.46e2	0.32	YES	0.983	10.019	25.826	25.81	1.001	1.001	0.12899		0.0843	0.0713
2	2 1,2,3,7,8-PeCDD	1.48e2	0.57	NO	0.921	10.019	31.116	31.11	1.001	1.001	0.038685		0.0951	0.0387
3	3 1,2,3,4,7,8-HxCDD	2.13e2	2.01	YES	1.13	10.019	34.523	34.61	1.000	1.003	0.054243		0.0864	0.0404
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.019	34.609		1.000				0.0582	
5	5 1,2,3,7,8,9-HxCDD	4.87e2	1.10	NO	0.967	10.019	34.885	34.89	1.000	1.000	0.12585		0.0666	0.126
6	6 1,2,3,4,6,7,8-HpCDD	3.75e3	1.02	NO	1.01	10.019	38.315	38.31	1.000	1.000	1.1528		0.0821	1.15
7	7 OCDD	2.74e4	0.88	NO	1.05	10.019	41.371	41.38	1.000	1.000	9.9017		0.0977	9.90
8	8 2,3,7,8-TCDF			NO	0.915	10.019	24.817		1.001				0.0548	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.019	29.757		1.001				0.0328	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.019	30.805		1.001				0.0297	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.019	33.660		1.000				0.0291	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.019	33.788		1.000				0.0273	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.019	34.376		1.001				0.0271	
14	14 1,2,3,7,8,9-HxCDF	2.21e2	1.56	YES	1.03	10.019	35.215	35.23	1.000	1.000	0.046984		0.0182	0.0428
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.019	36.946		1.001				0.0324	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.019	38.954		1.000				0.0394	
17	17 OCDF	1.14e2	1.03	YES	0.947	10.019	41.553	41.57	1.000	1.001	0.026550		0.0614	0.0341
18	18 13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.18	10.019	25.804	25.80	1.030	1.029	145.48	72.9	0.227	
19	19 13C-1,2,3,7,8-PeCDD	8.29e5	0.63	NO	0.864	10.019	31.119	31.09	1.242	1.241	162.67	81.5	0.324	
20	20 13C-1,2,3,4,7,8-HxCDD	6.91e5	1.27	NO	0.754	10.019	34.514	34.51	1.014	1.014	147.05	73.7	0.286	
21	21 13C-1,2,3,6,7,8-HxCDD	8.42e5	1.28	NO	0.925	10.019	34.616	34.61	1.017	1.017	146.08	73.2	0.233	
22	22 13C-1,2,3,7,8,9-HxCDD	7.99e5	1.29	NO	0.829	10.019	34.885	34.88	1.025	1.024	154.53	77.4	0.260	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.45e5	1.07	NO	0.598	10.019	38.306	38.30	1.125	1.125	173.07	86.7	0.292	
24	24 13C-OCDD	1.05e6	0.90	NO	0.571	10.019	41.370	41.37	1.215	1.215	295.49	74.0	0.274	
25	25 13C-2,3,7,8-TCDF	1.36e6	0.79	NO	1.09	10.019	24.791	24.79	0.989	0.989	136.24	68.3	0.297	
26	26 13C-1,2,3,7,8-PeCDF	1.25e6	1.59	NO	0.876	10.019	29.759	29.74	1.187	1.186	155.73	78.0	0.392	
27	27 13C-2,3,4,7,8-PeCDF	1.18e6	1.57	NO	0.844	10.019	30.739	30.77	1.227	1.228	153.47	76.9	0.407	
28	28 13C-1,2,3,4,7,8-HxCDF	9.59e5	0.52	NO	1.00	10.019	33.663	33.66	0.989	0.989	153.93	77.1	0.342	
29	29 13C-1,2,3,6,7,8-HxCDF	1.08e6	0.52	NO	1.12	10.019	33.785	33.78	0.992	0.992	155.21	77.8	0.306	
30	30 13C-2,3,4,6,7,8-HxCDF	1.03e6	0.52	NO	1.04	10.019	34.344	34.34	1.009	1.009	160.17	80.2	0.330	
31	31 13C-1,2,3,7,8,9-HxCDF	8.76e5	0.53	NO	0.873	10.019	35.215	35.22	1.034	1.034	161.04	80.7	0.391	

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-6b.qld

Last Altered: Thursday, April 02, 2020 12:02:17 Pacific Daylight Time

Printed: Thursday, April 02, 2020 12:09:31 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	7.65e5	0.44	NO	0.771	10.019	36.917	36.91	1.084	1.084	159.18	79.7	0.315	
33	13C-1,2,3,4,7,8,9-HpCDF	5.45e5	0.46	NO	0.519	10.019	38.957	38.95	1.144	1.144	168.53	84.4	0.468	
34	13C-OCDF	1.31e6	0.89	NO	0.696	10.019	41.551	41.55	1.220	1.221	302.77	75.8	0.243	
35	37Cl-2,3,7,8-TCDD	3.93e5			1.17	10.019	25.834	25.81	1.031	1.030	56.679	71.0	0.0581	
36	13C-1,2,3,4-TCDD	1.18e6	0.81	NO	1.00	10.019	25.030	25.06	1.000	1.000	199.62	100	0.269	
37	13C-1,2,3,4-TCDF	1.83e6	0.78	NO	1.00	10.019	23.090	23.12	1.000	1.000	199.62	100	0.323	
38	13C-1,2,3,4,6,9-HxCDF	1.24e6	0.52	NO	1.00	10.019	34.020	34.04	1.000	1.000	199.62	100	0.342	
39	Total Tetra-Dioxins				0.983	10.019	24.620		0.000		0.75688		0.0813	
40	Total Penta-Dioxins				0.921	10.019	29.960		0.000		0.47780		0.0951	0.619
41	Total Hexa-Dioxins				0.984	10.019	33.635		0.000		1.8494		0.0634	1.94
42	Total Hepta-Dioxins				1.01	10.019	37.640		0.000		3.2012		0.0821	3.20
43	Total Tetra-Furans				0.915	10.019	23.610		0.000		0.38408		0.0548	0.384
44	1st Func. Penta-Furans				0.959	10.019	27.090		0.000				0.00808	
45	Total Penta-Furans				0.959	10.019	29.275		0.000				0.0134	
46	Total Hexa-Furans				1.09	10.019	33.555		0.000		0.00000		0.0140	0.0872
47	Total Hepta-Furans				1.05	10.019	37.835		0.000		0.013815		0.0216	0.0138

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-6b.qld

Last Altered: Thursday, April 02, 2020 12:02:17 Pacific Daylight Time

Printed: Thursday, April 02, 2020 12:09:31 Pacific Daylight Time

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.42	4.397e3	4.067e3	3.068e2	2.777e2	1.10	YES	0.000e0	0.00000	0.098217	0.0813
2	Total Tetra-Dioxins	21.81	4.149e3	5.576e3	3.248e2	3.855e2	0.84	NO	7.102e2	0.14191	0.14191	0.0813
3	Total Tetra-Dioxins	22.35	5.177e3	6.293e3	3.722e2	5.696e2	0.65	YES	0.000e0	0.00000	0.17096	0.0813
4	Total Tetra-Dioxins	23.33	1.295e4	1.649e4	1.340e3	1.738e3	0.77	NO	3.078e3	0.61497	0.61497	0.0813
5	Total Tetra-Dioxins	25.03	4.773e3	4.315e3	2.862e2	3.126e2	0.92	YES	0.000e0	0.00000	0.11056	0.0813
6	2,3,7,8-TCDD	25.81	3.086e3	6.796e3	1.553e2	4.902e2	0.32	YES	6.455e2	0.00000	0.071338	0.0813

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.77	3.641e3	5.525e3	2.266e2	3.602e2	0.63	NO	5.868e2	0.15336	0.15336	0.0951
2	Total Penta-Dioxins	29.28	8.782e3	9.131e3	4.165e2	6.769e2	0.62	NO	1.093e3	0.28575	0.28575	0.0951
3	Total Penta-Dioxins	30.03	1.408e3	2.043e3	8.501e1	7.858e1	1.08	YES	0.000e0	0.00000	0.033475	0.0951
4	Total Penta-Dioxins	30.32	2.139e3	7.129e3	8.795e1	2.185e2	0.40	YES	0.000e0	0.00000	0.059472	0.0951
5	Total Penta-Dioxins	30.36	2.951e3	3.558e3	9.614e1	1.122e2	0.86	YES	0.000e0	0.00000	0.047783	0.0951
6	1,2,3,7,8-PeCDD	31.11	1.391e3	2.772e3	5.352e1	9.450e1	0.57	NO	1.480e2	0.038685	0.038685	0.0951

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.04	4.648e4	3.965e4	2.434e3	2.000e3	1.22	NO	4.434e3	1.1568	1.1568	0.0634
2	Total Hexa-Dioxins	33.61	4.612e3	2.783e3	9.830e1	9.082e1	1.08	NO	1.891e2	0.049336	0.049336	0.0634
3	Total Hexa-Dioxins	33.85	1.499e4	1.455e4	1.104e3	8.790e2	1.26	NO	1.984e3	0.51744	0.51744	0.0634
4	Total Hexa-Dioxins	33.96	2.896e3	3.157e3	1.058e2	1.109e2	0.95	YES	0.000e0	0.00000	0.049848	0.0634
5	1,2,3,4,7,8-HxCDD	34.61	4.948e3	2.197e3	1.419e2	7.073e1	2.01	YES	2.126e2	0.00000	0.040425	0.0584
6	1,2,3,7,8,9-HxCDD	34.89	5.146e3	4.785e3	2.555e2	2.316e2	1.10	NO	4.871e2	0.12585	0.12585	0.0666

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-6b.qld

Last Altered: Thursday, April 02, 2020 12:02:17 Pacific Daylight Time

Printed: Thursday, April 02, 2020 12:09:31 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.29	5.444e4	4.790e4	3.458e3	3.203e3	1.08	NO	6.660e3	2.0483	2.0483	0.0821
2	1,2,3,4,6,7,8-HpCDD	38.31	2.609e4	2.790e4	1.893e3	1.855e3	1.02	NO	3.748e3	1.1528	1.1528	0.0821

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.51	1.250e4	1.768e4	1.017e3	1.376e3	0.74	NO	2.392e3	0.38408	0.38408	0.0548

**Penta-Furans function 1**

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

**Penta-Furans**

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

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.64	1.918e3	2.613e3	7.650e1	1.028e2	0.74	YES	0.000e0	0.00000	0.025580	0.0140
2	1,2,3,7,8,9-HxCDF	35.23	4.107e3	2.884e3	1.346e2	8.613e1	1.56	YES	2.208e2	0.00000	0.042808	0.0182
3	Total Hexa-Furans	35.24	3.382e3	1.934e3	7.360e1	4.530e1	1.62	YES	0.000e0	0.00000	0.018785	0.0140

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Furans	37.51	1.440e3	1.256e3	2.298e1	2.453e1	0.94	NO	4.751e1	0.013815	0.013815	0.0216

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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

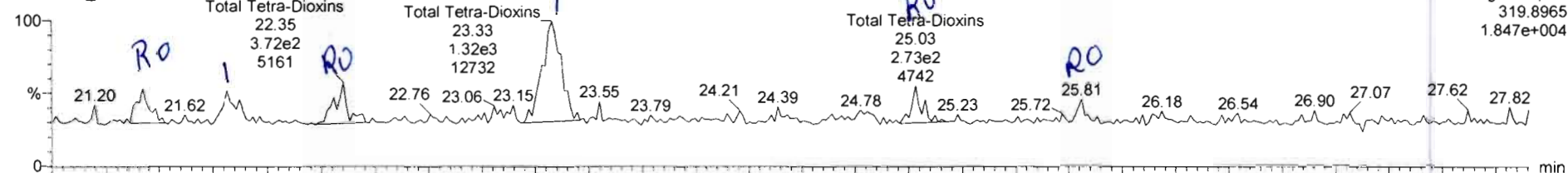
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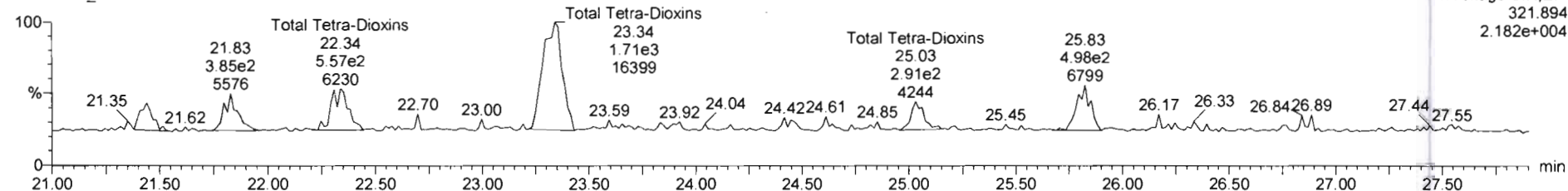
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**2,3,7,8-TCDD**

200320R2\_6

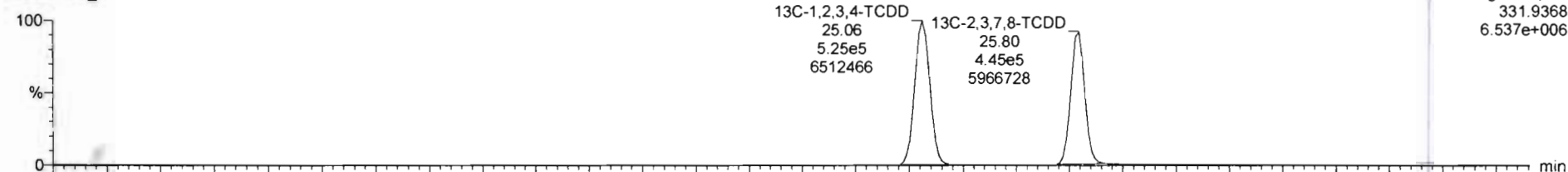


200320R2\_6

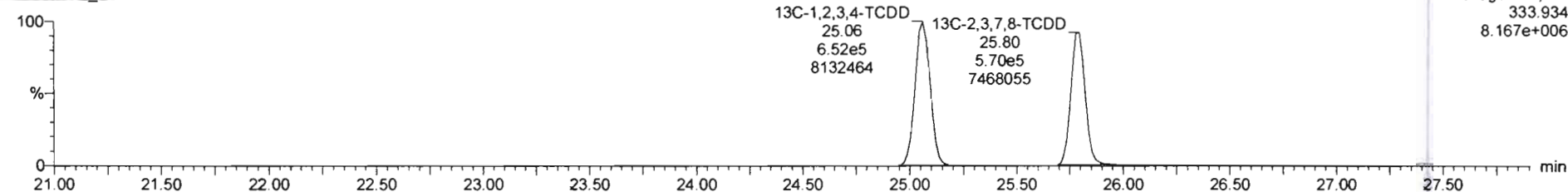


**13C-2,3,7,8-TCDD**

200320R2\_6



200320R2\_6

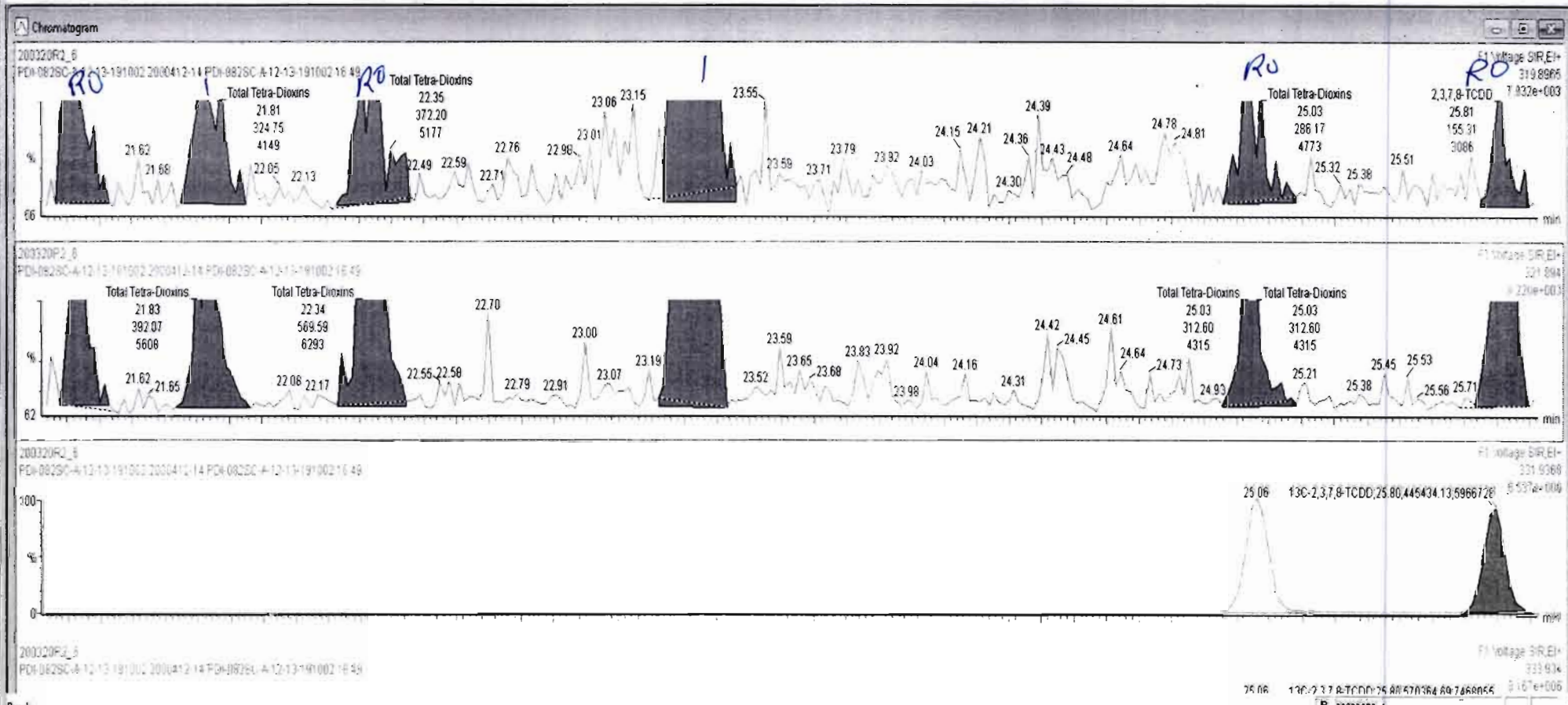




200320R2\_6 - 200412-14-PD-0825C-A-12-13-191002 16:49 - PD-0825C-A-12-13-191002

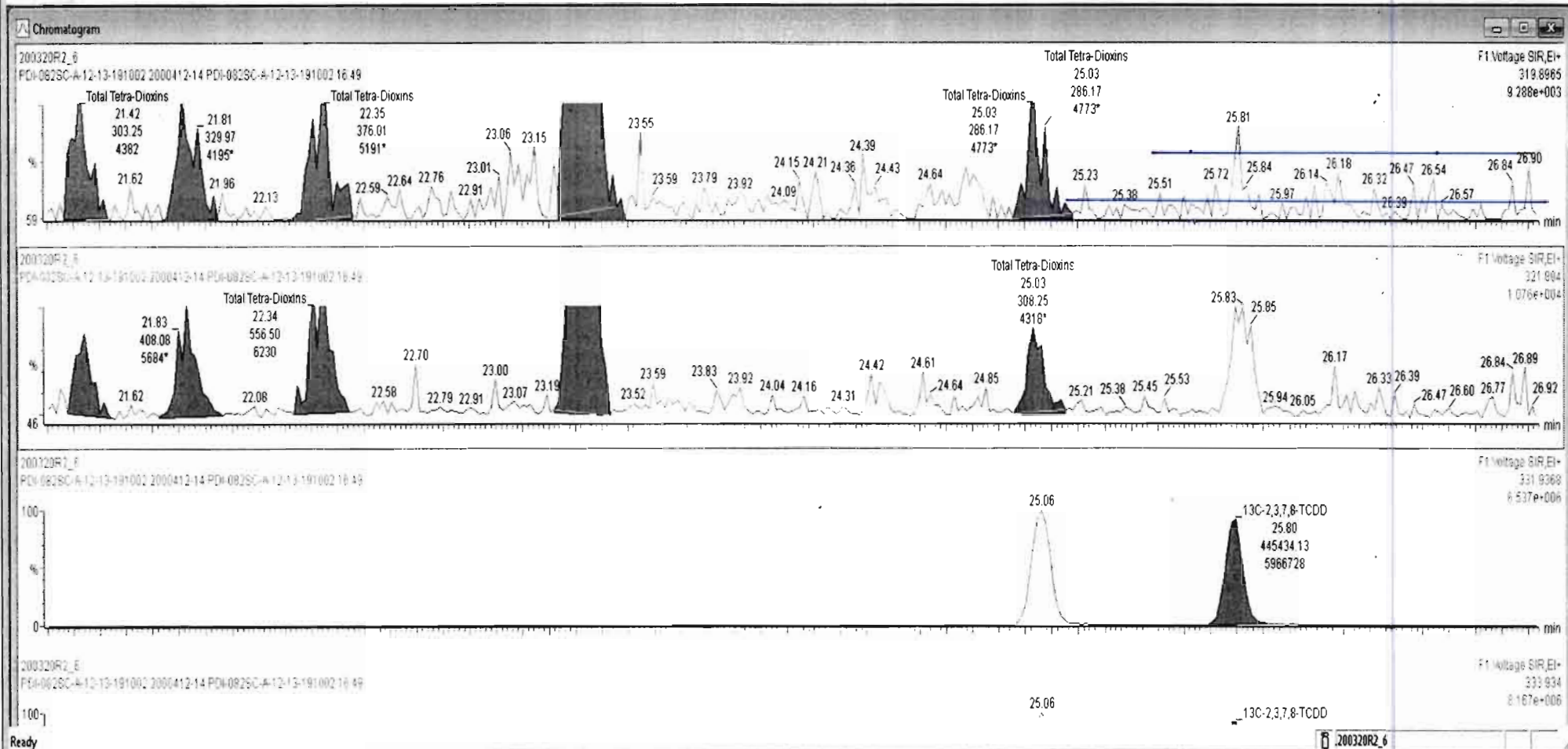
Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.758		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.443		0.0951	0.443
41 Total Hexa-Dioxins				0.9844	10.019			1.59		0.0634	1.59
42 Total Hepta-Dioxins				1.0061	10.019			3.17		0.0832	3.17
43 Total Tetra-Furans				0.9154	10.019			0.376		0.0548	0.376
44 1st Func. Penta-Furans				0.9594	10.019					0.00808	
45 Total Penta-Furans				0.9594	10.019					0.0134	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Dioxins	21.42	3.068e2	2.777e2	1.10	YES	0.098217	0.00000
2 Total Tetra-Dioxins	21.81	3.248e2	3.921e2	0.89	NO	0.14323	0.14323
3 Total Tetra-Dioxins	22.35	3.722e2	5.696e2	0.65	YES	0.17096	0.00000
4 Total Tetra-Dioxins	23.33	1.340e3	1.738e3	0.77	NO	0.81497	0.81497
5 Total Tetra-Dioxins	25.03	2.862e2	3.126e2	0.92	YES	0.11056	0.00000
6 2,3,7,8-TCDD	25.81	1.553e2	4.902e2	0.32	YES	0.071338	0.00000



#	Name	Trace	RT	Area	IS Area	Response	Primer...	Conc.	%Dev
1	2,3,7,8-TCDD	319.8965			445434.125				
2	1,2,3,7,8-PeCDD	353.8576			321230.594				
3	1,2,3,4,7,8-HxCDD	389.816			387097.344				
4	1,2,3,6,7,8-HxCDD	389.816			472280.063				
5	1,2,3,7,8,9-HxCDD	389.816			450020.125				
6	1,2,3,4,6,7,8-HpCDD	423.777	38.31	1846.717	335798.250	11.410	bb	1.1	
7	OCDD	457.738	41.38	12844.500	514837.313	105.045	bd	10.0	

#	Name	Trace	RT	Area	IS Area	Response	Primer...	Conc.	%Dev
1	39 Total Tetra-Dioxins	319.8965	25.03	272.653	445434.125	0.000	bb	0.0	
2	39 Total Tetra-Dioxins	319.8965	23.33	1321.988	445434.125	5.979	bb	0.6	
3	39 Total Tetra-Dioxins	319.8965	22.35	371.532	445434.125	1.827	bb	0.2	
4	39 Total Tetra-Dioxins	319.8965	21.42	303.245	445434.125	0.000	bb	0.0	

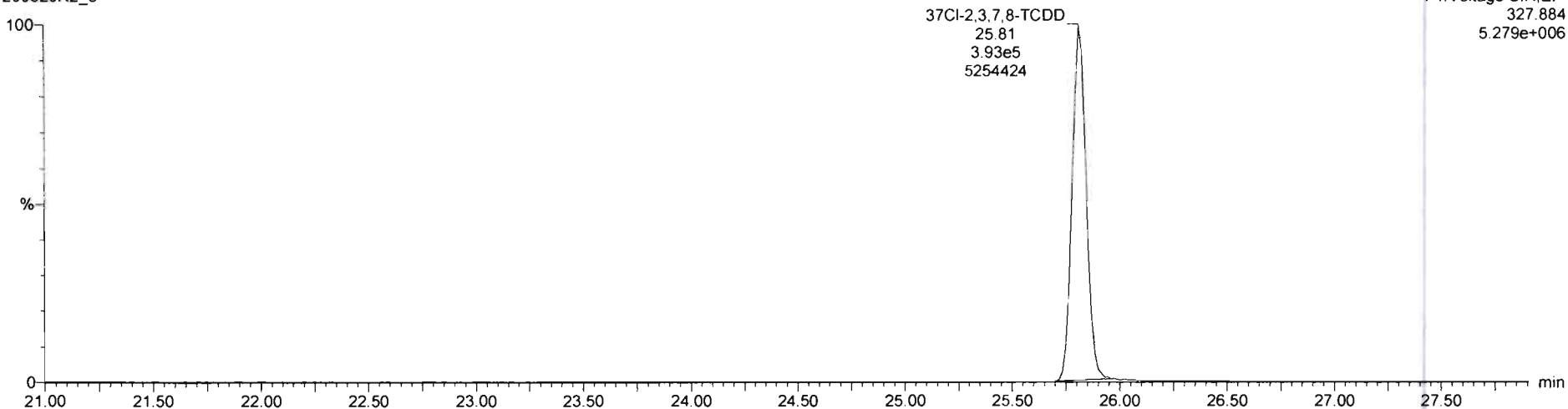


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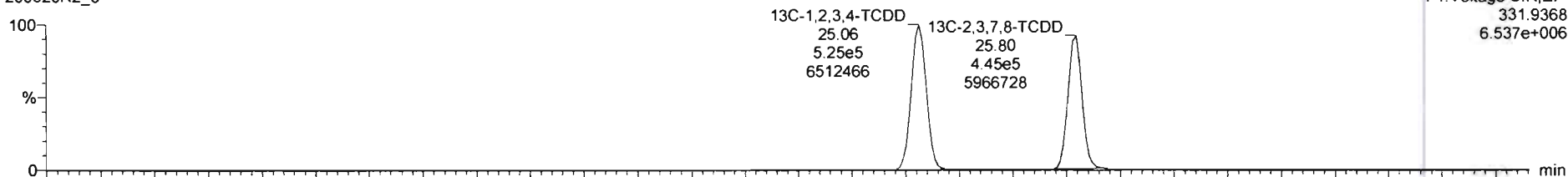
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Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

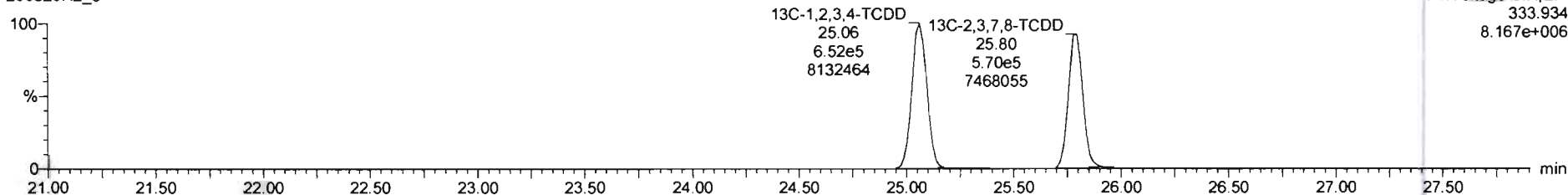
37Cl-2,3,7,8-TCDD  
200320R2\_6



13C-1,2,3,4-TCDD  
200320R2\_6



200320R2\_6



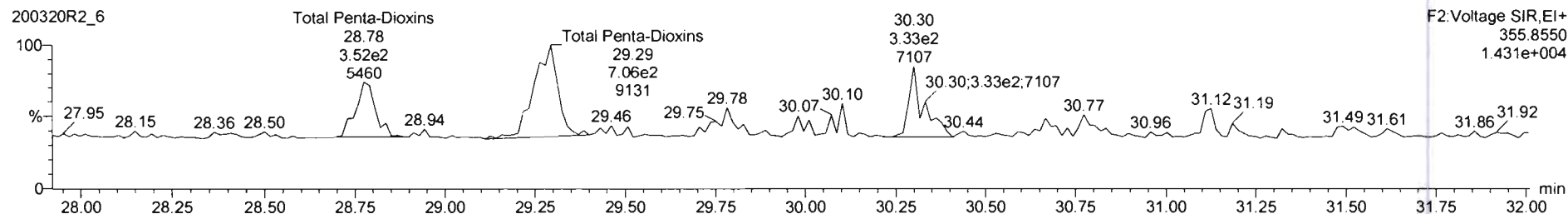
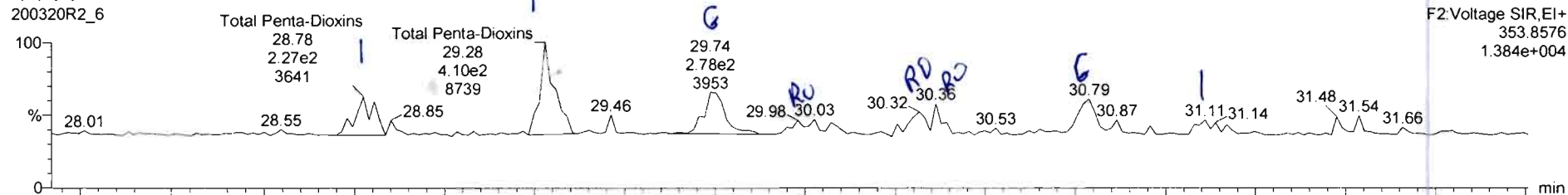


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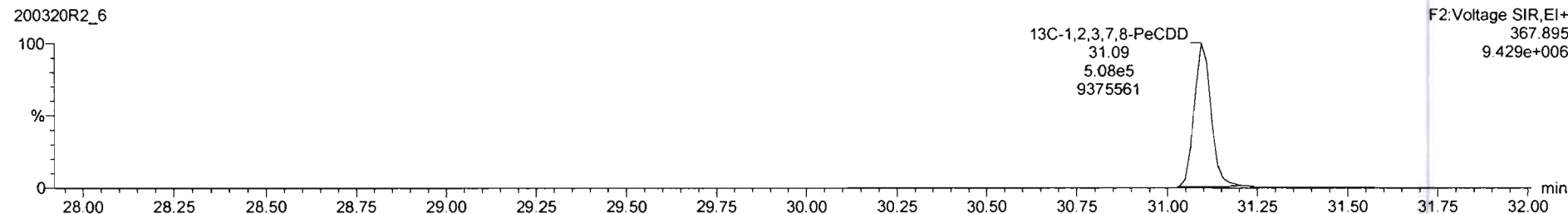
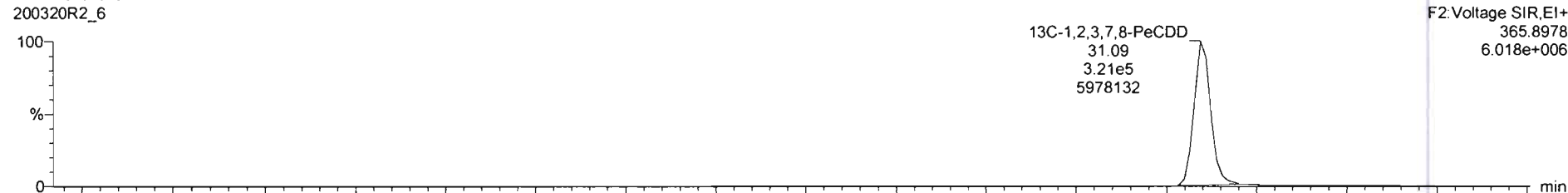
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1,2,3,7,8-PeCDD

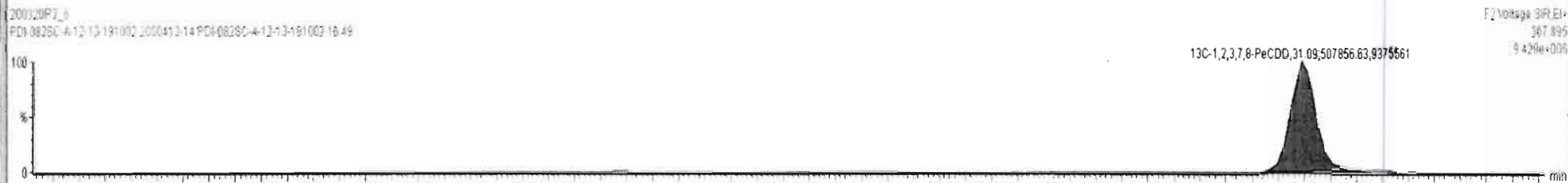
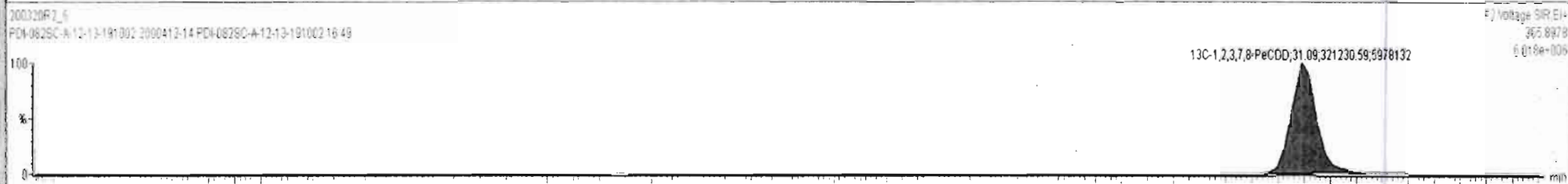
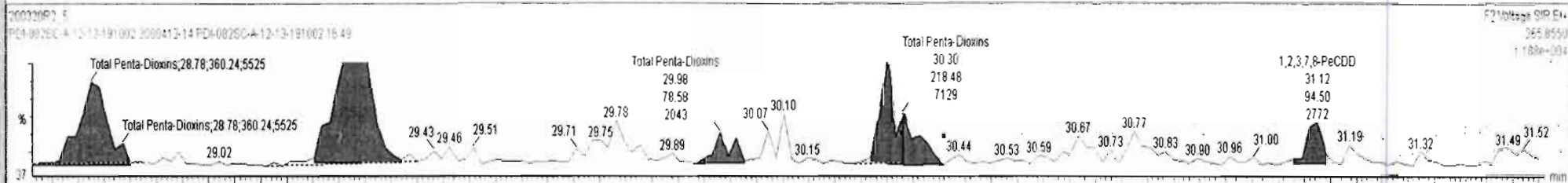
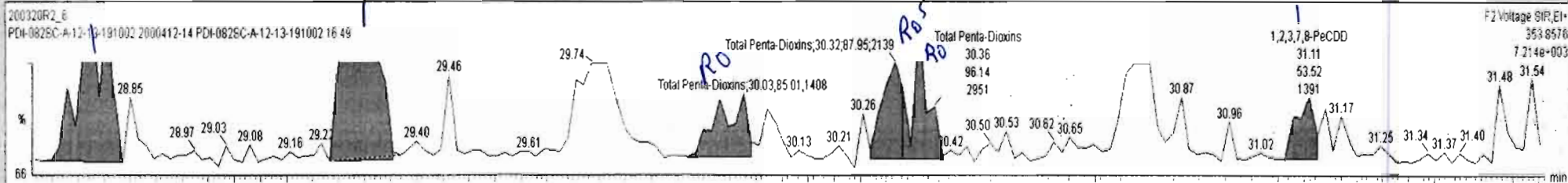


13C-1,2,3,7,8-PeCDD



Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.758		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.478		0.0951	0.619
41 Total Hexa-Dioxins				0.9844	10.019			1.59		0.0634	1.59

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Penta-Dioxins	28.77	2.266e2	3.602e2	0.63	NO	0.15336	0.15336
2 Total Penta-Dioxins	29.28	4.165e2	6.769e2	0.62	NO	0.28575	0.28575
3 Total Penta-Dioxins	30.03	8.501e1	7.858e1	1.08	YES	0.033475	0.00000
4 Total Penta-Dioxins	30.32	8.795e1	2.185e2	0.40	YES	0.059472	0.00000
5 Total Penta-Dioxins	30.36	9.614e1	1.122e2	0.86	YES	0.047783	0.00000
6 1,2,3,7,8-PeCDD	31.11	5.352e1	9.450e1	0.57	NO	0.038685	0.038685

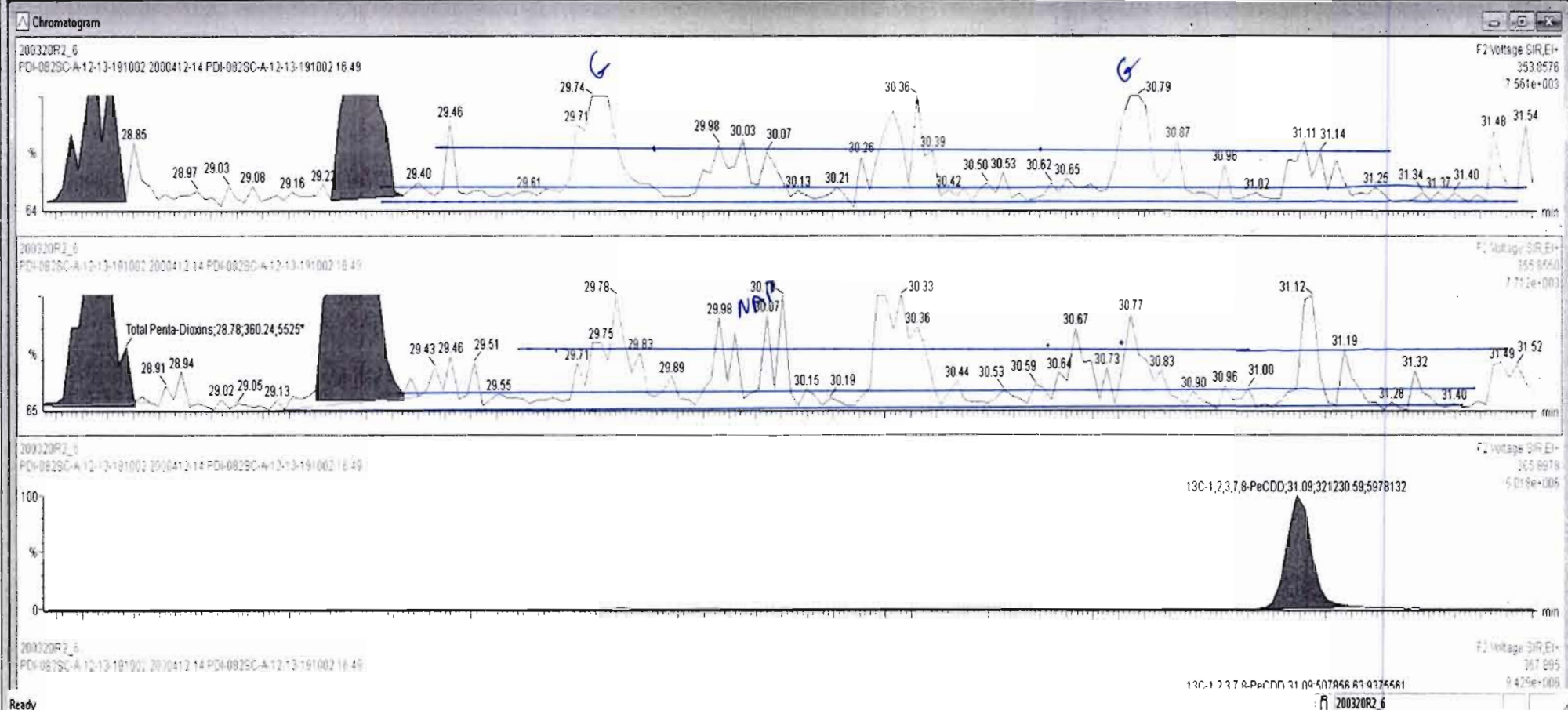




200320R2\_6 - 2010-12-14 PDI-082SC-A-12-13-191002 16:49 - PDI-082SC-A-12-13-191002

Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.758		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.443		0.0951	0.443
41 Total Hexa-Dioxins				0.9844	10.019			1.59		0.0634	1.59
42 Total Hepta-Dioxins				1.0061	10.019			3.17		0.0832	3.17
43 Total Tetra-Furans				0.9154	10.019			0.376		0.0548	0.376
44 1st Func. Penta-Furans				0.9594	10.019					0.00808	
45 Total Penta-Furans				0.9594	10.019					0.0134	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Penta-Dioxins	26.77	2.266e2	3.515e2	0.64	NO	0.15109	0.15109
2 Total Penta-Dioxins	29.28	4.103e2	7.064e2	0.58	NO	0.29185	0.29185



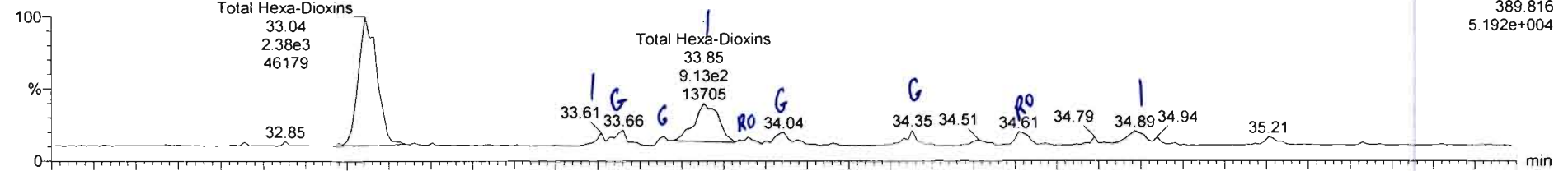
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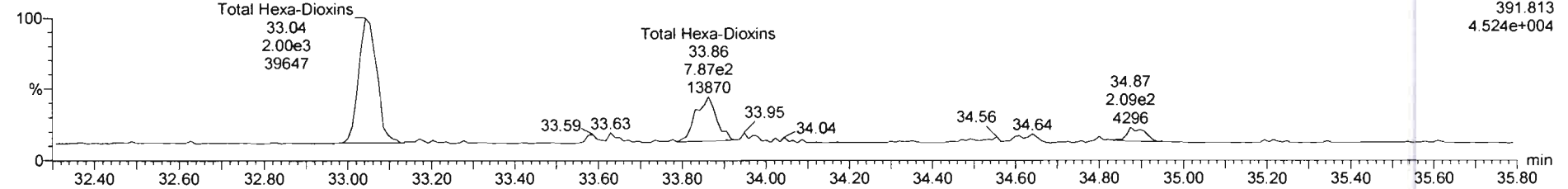
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1,2,3,4,7,8-HxCDD

200320R2\_6

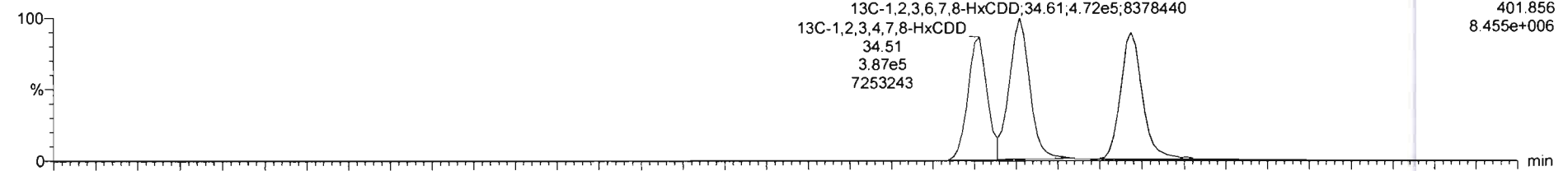


200320R2\_6

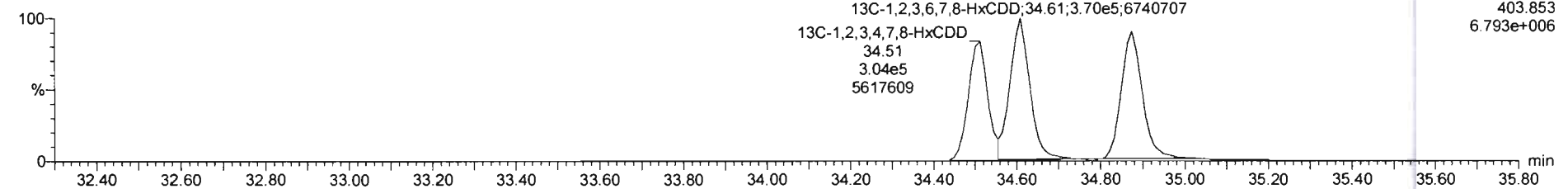


13C-1,2,3,4,7,8-HxCDD

200320R2\_6

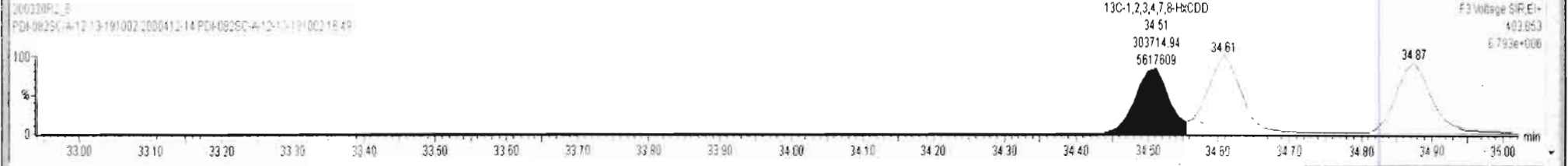
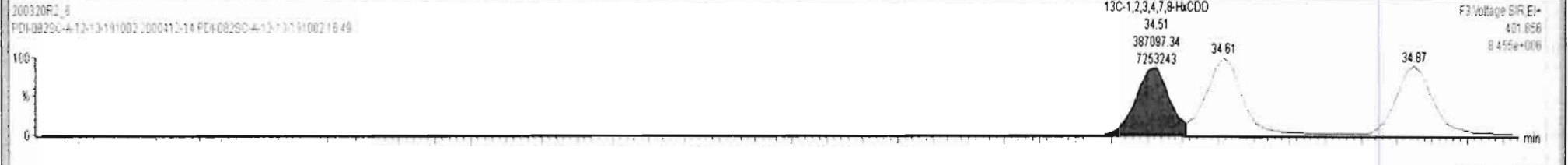
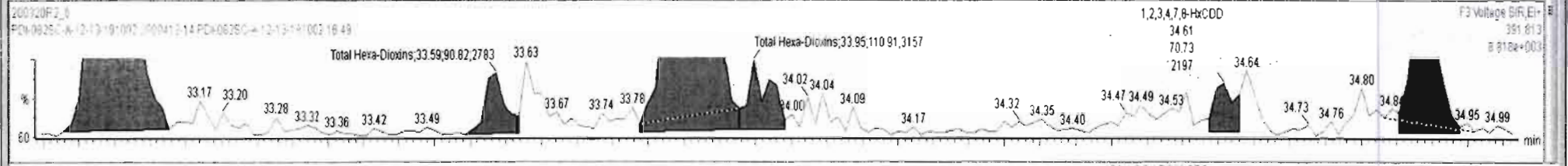
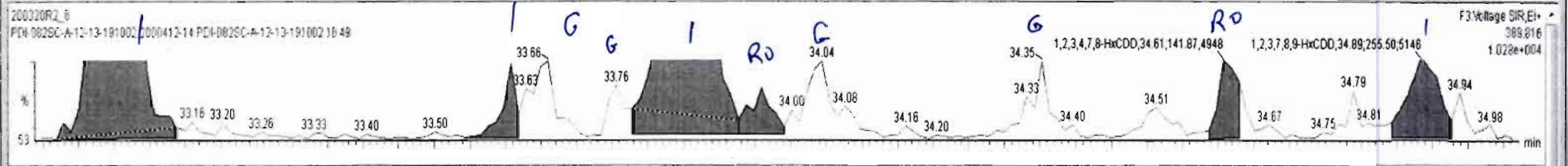
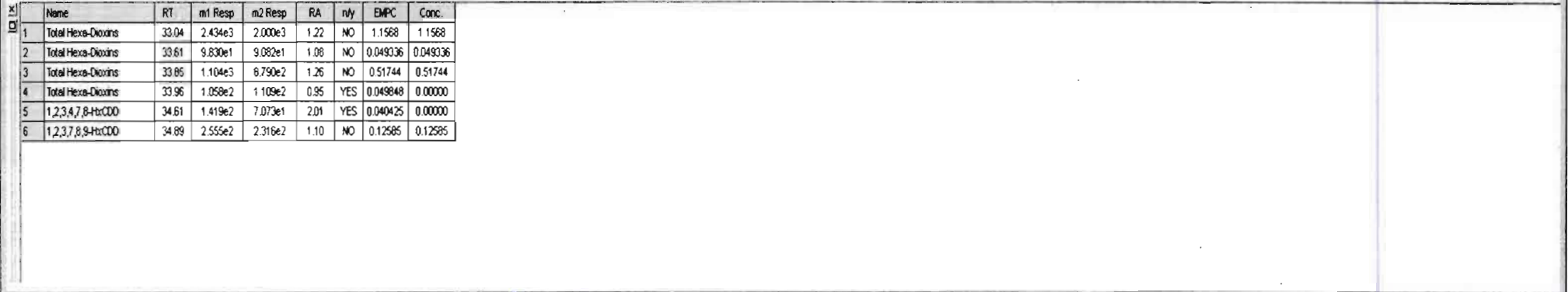


200320R2\_6



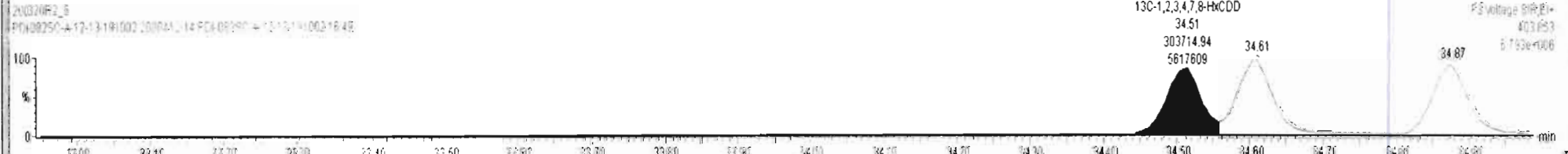
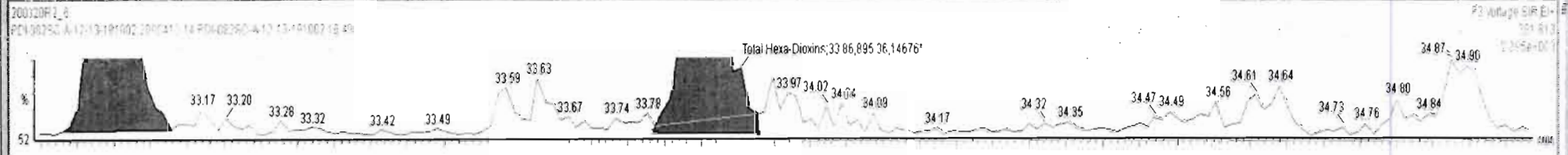
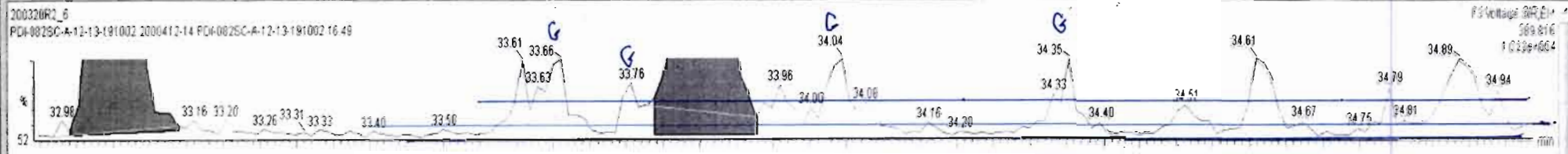
Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.756		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.478		0.0951	0.619
41 Total Hexa-Dioxins				0.9844	10.019			1.85		0.0634	1.94

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Dioxins	33.04	2.434e3	2.000e3	1.22	NO	1.1568	1.1568
2 Total Hexa-Dioxins	33.61	9.830e1	9.082e1	1.08	NO	0.049336	0.049336
3 Total Hexa-Dioxins	33.85	1.104e3	6.790e2	1.26	NO	0.51744	0.51744
4 Total Hexa-Dioxins	33.96	1.059e2	1.109e2	0.95	YES	0.049848	0.00000
5 1,2,3,4,7,8-HxCDD	34.61	1.419e2	7.073e1	2.01	YES	0.040425	0.00000
6 1,2,3,7,8,9-HxCDD	34.89	2.555e2	2.316e2	1.10	NO	0.12585	0.12585



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.758		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.478		0.0951	0.619
41 Total Hexa-Dioxins				0.9844	10.019			1.59		0.0634	1.59

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.04	2.377e3	2.000e3	1.19	NO	1.1420	1.1420
2 Total Hexa-Dioxins	33.85	9.132e2	7.874e2	1.16	NO	0.44362	0.44362



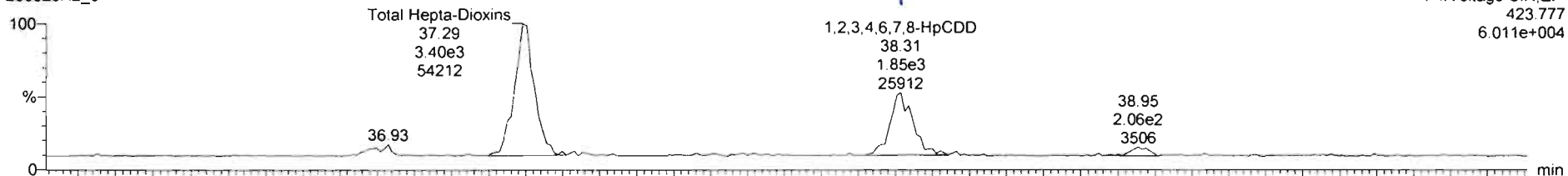
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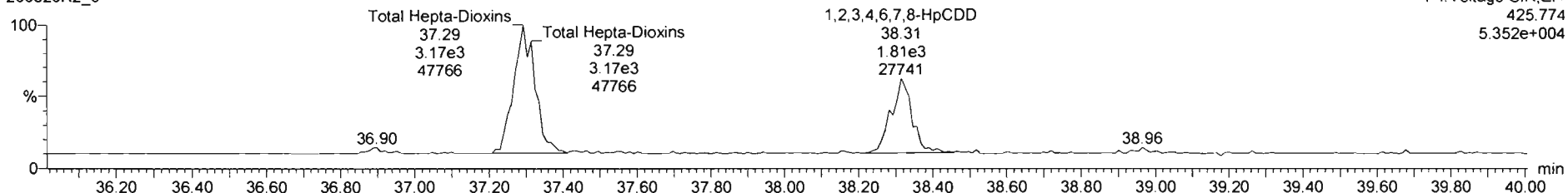
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1,2,3,4,6,7,8-HpCDD

200320R2\_6

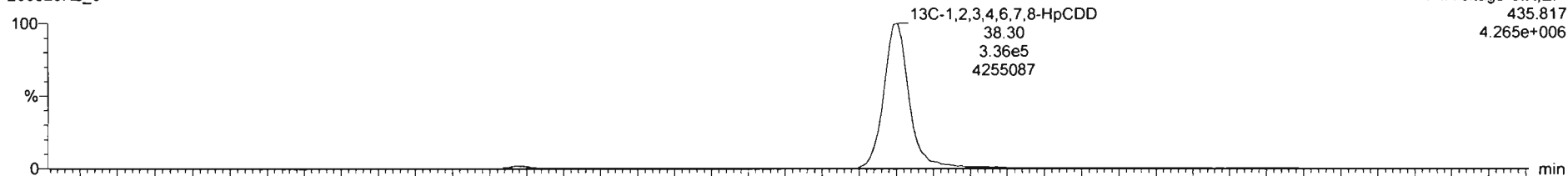


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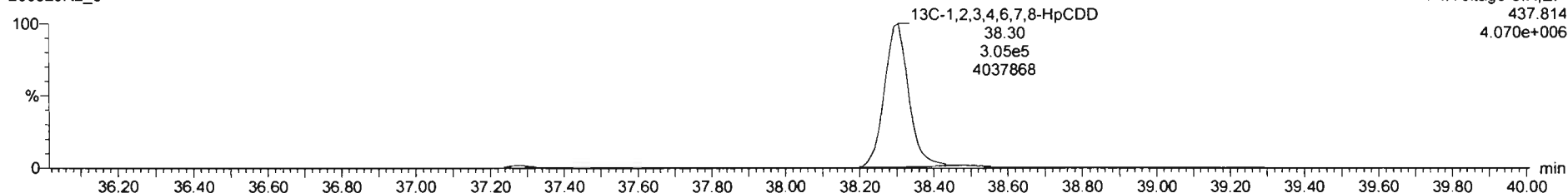


13C-1,2,3,4,6,7,8-HpCDD

200320R2\_6

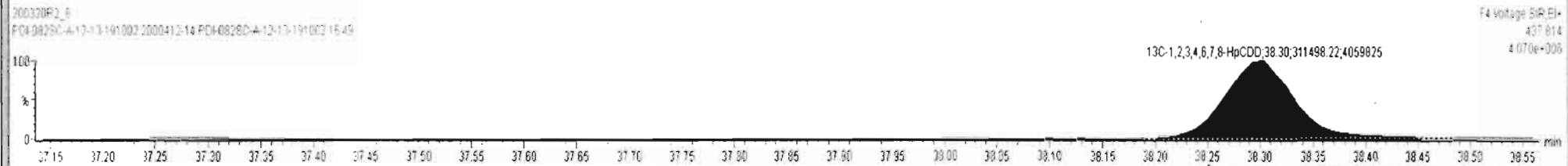
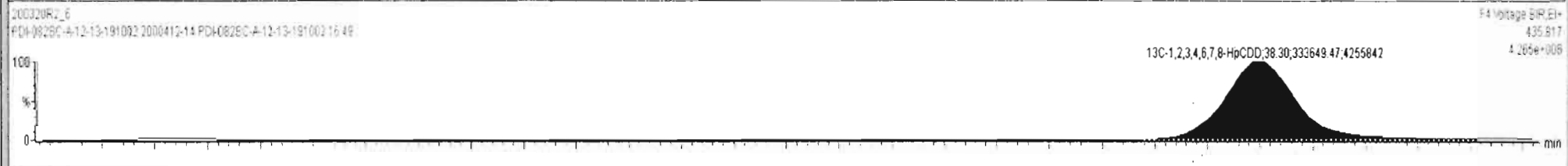
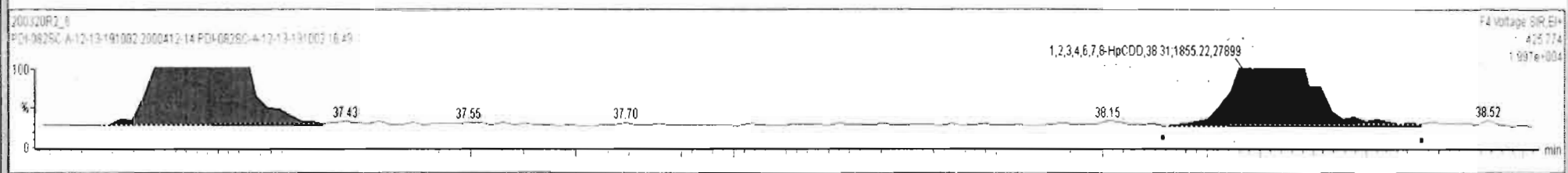
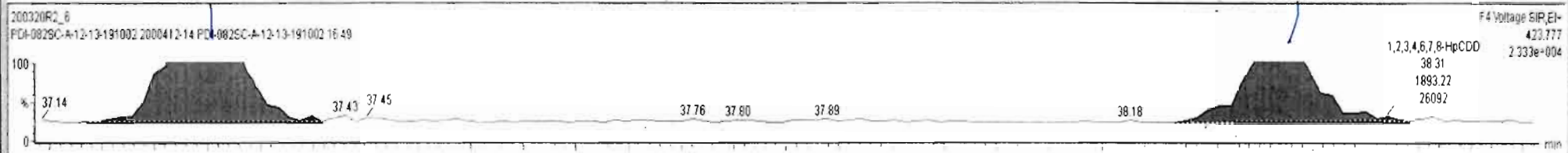


200320R2\_6



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.019			0.758		0.0813	1.21
40 Total Penta-Dioxins				0.9212	10.019			0.478		0.0951	0.619
41 Total Hexa-Dioxins				0.9844	10.019			1.85		0.0634	1.94

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hepta-Dioxins	37.29	3.458e3	3.203e3	1.08	NO	2.0483	2.0483
2 1,2,3,4,6,7,8-HpCDD	38.31	1.893e3	1.855e3	1.02	NO	1.1528	1.1528



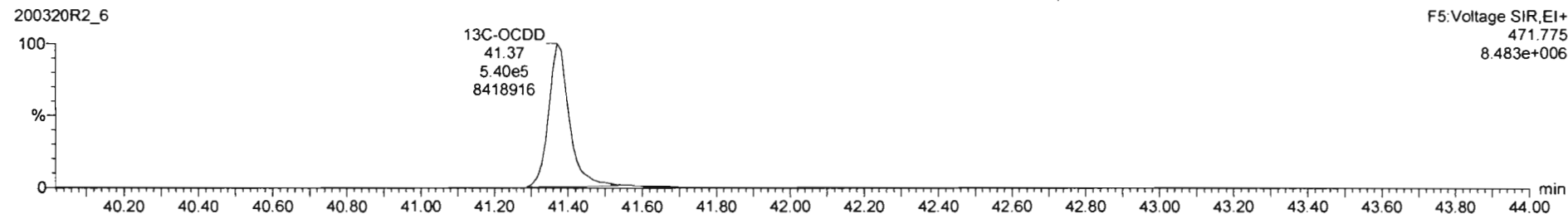
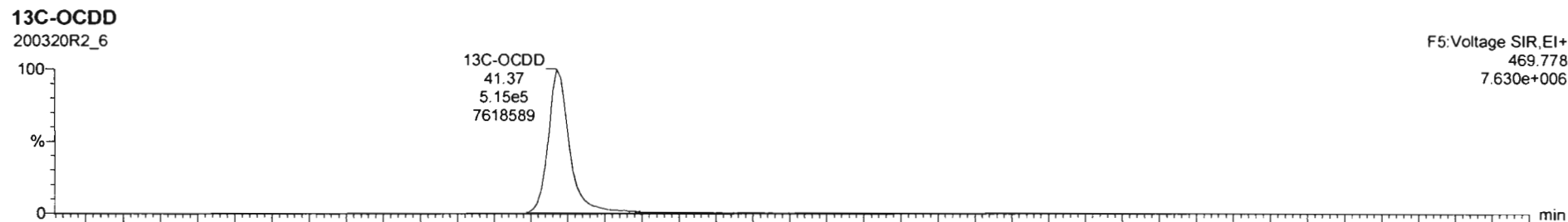
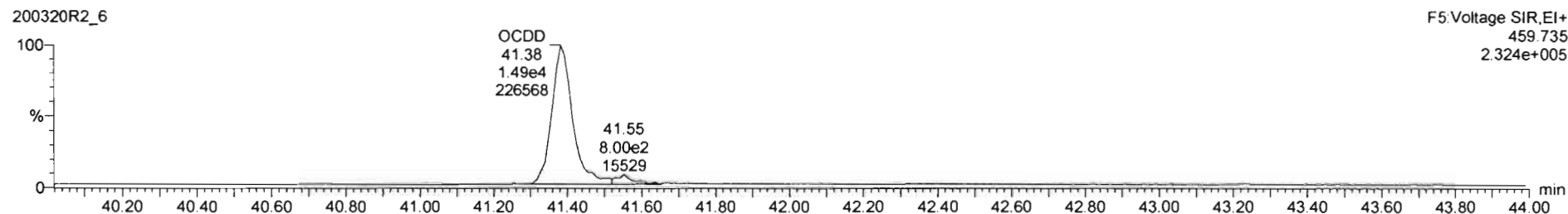
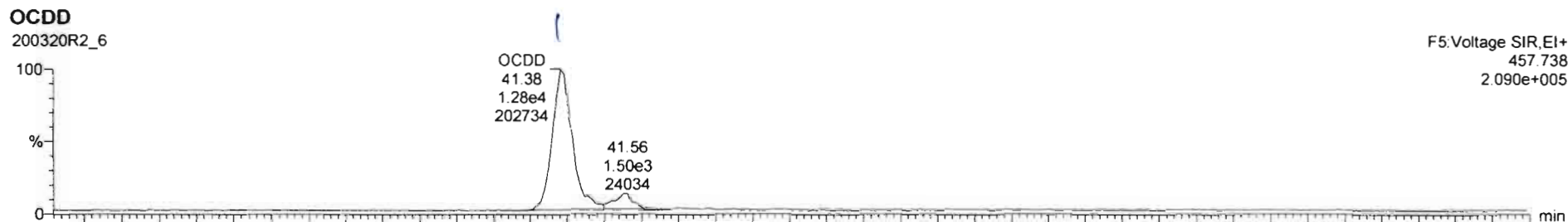


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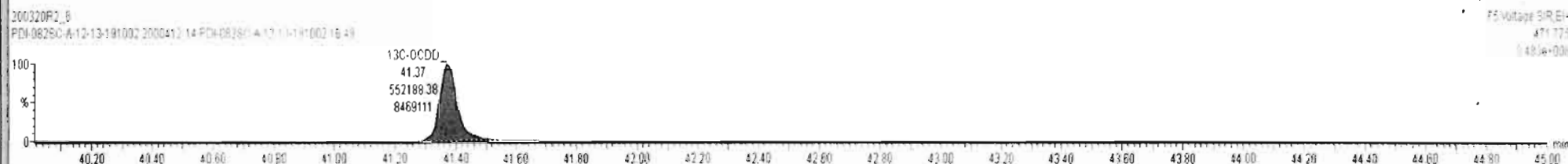
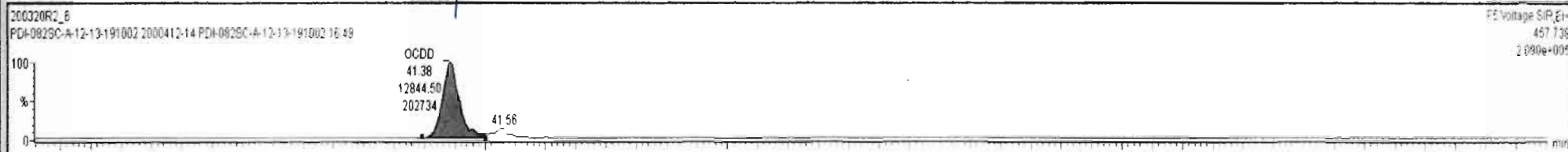
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Name	Resp	RA	n/y	RF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
7 OCDD	2.74e4	0.88	NO	1.0515	10.019	41.38	1.000	9.90		0.0977	9.90
8 2,3,7,8-TCDF			NO	0.9154	10.019					0.0548	
9 1,2,3,7,8-PeCDF			NO	0.9564	10.019					0.0328	

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

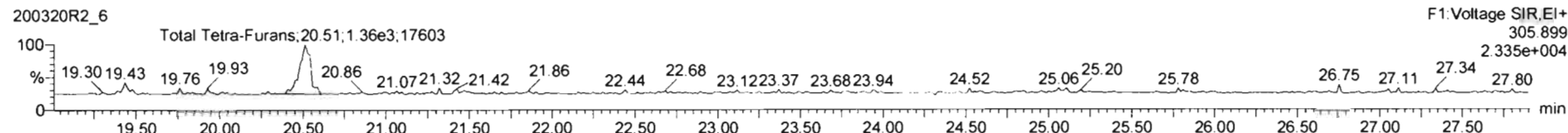
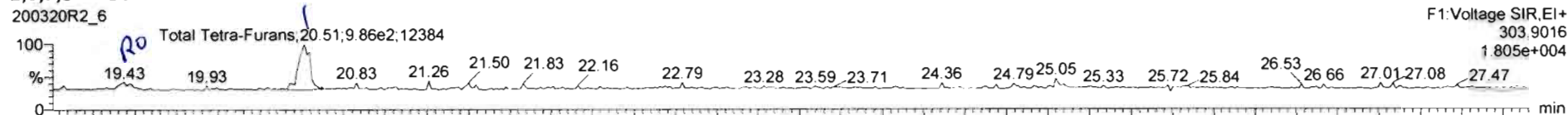


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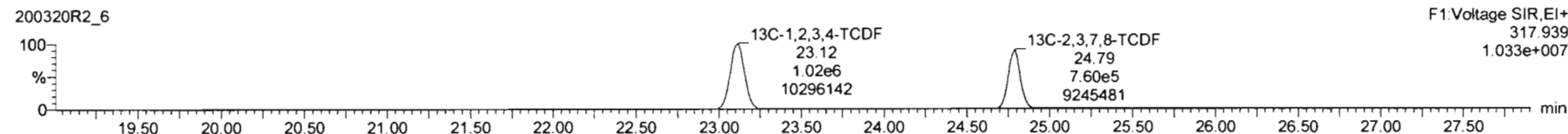
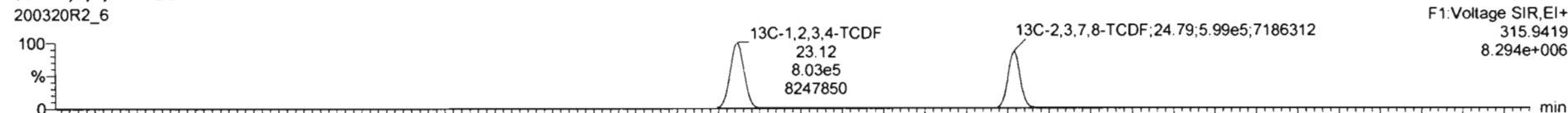
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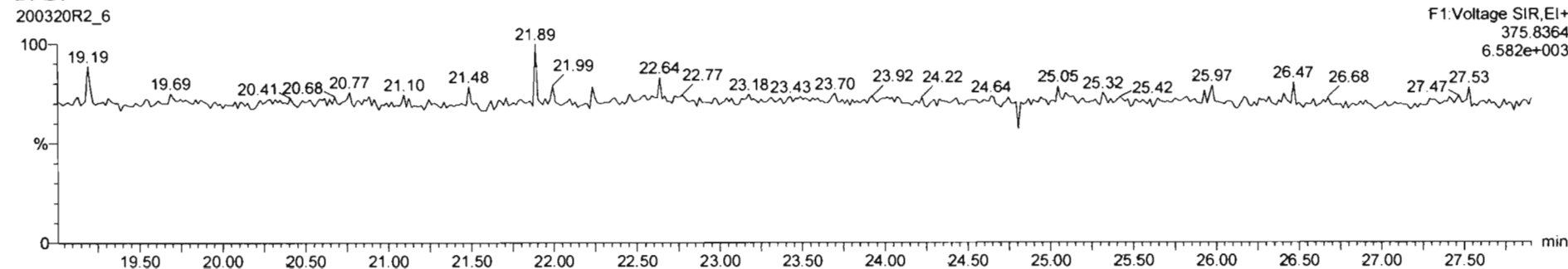
**2,3,7,8-TCDF**



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

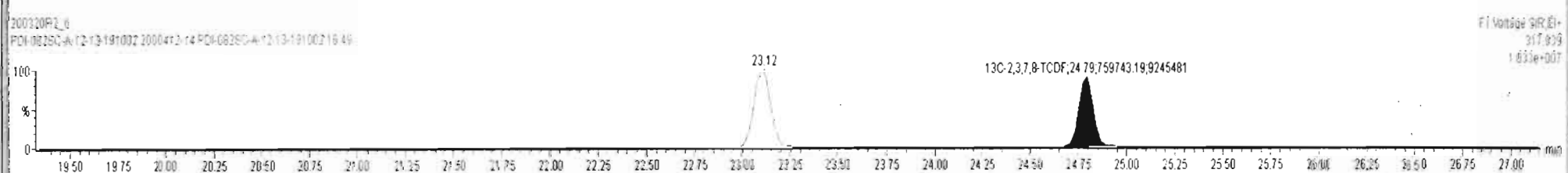
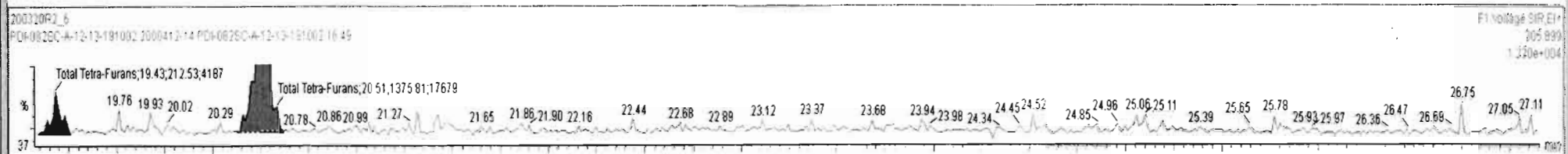
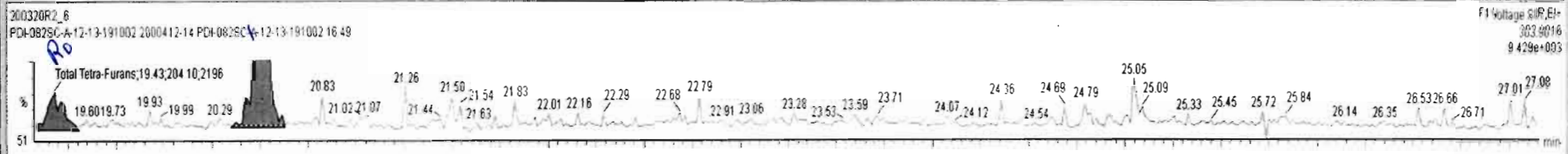


**DPE1**



Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.019			0.384		0.0548	0.444
44 1st Func. Penta-Furans				0.9594	10.019					0.00808	
45 Total Penta-Furans				0.9594	10.019					0.0134	

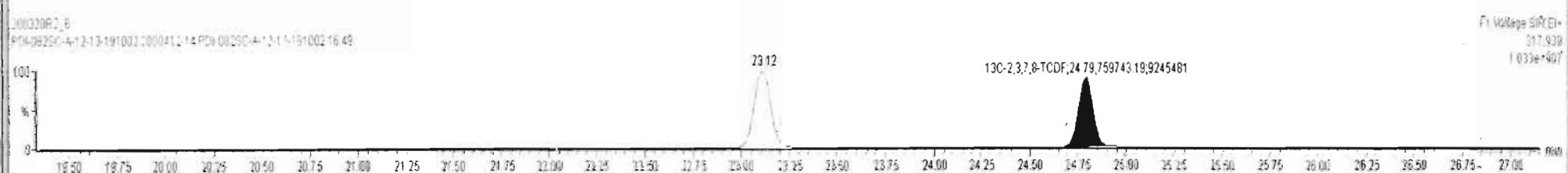
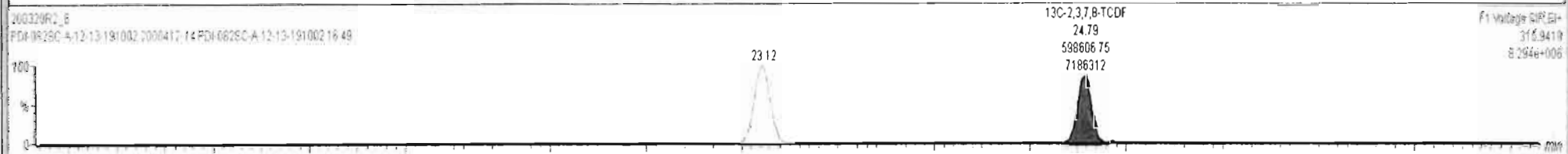
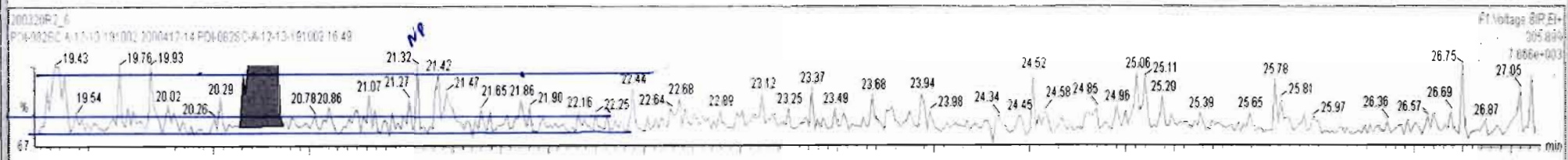
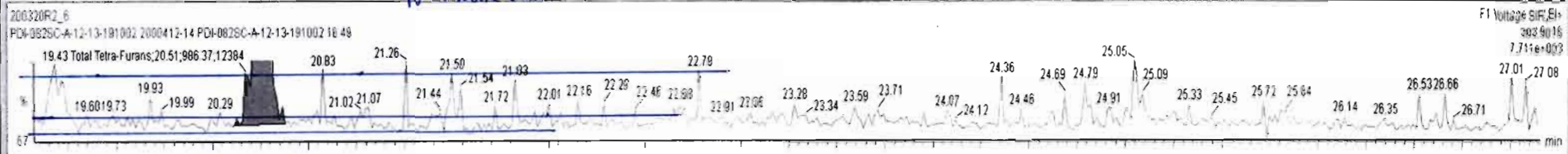
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	19.43	2.041e2	2.125e2	0.96	YES	0.060389	0.00000
2 Total Tetra-Furans	20.51	1.017e3	1.376e3	0.74	NO	0.38408	0.38408



#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43	Total Tetra-Furans				0.9154	10.019			0.376		0.0548	0.376
44	1st Func. Penta-Furans				0.9594	10.019					0.00808	
45	Total Penta-Furans				0.9594	10.019					0.0134	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Tetra-Furans	20.51	9.864e2	1.358e3	0.73	NO	0.37635	0.37635

*NR = Noise Peak*



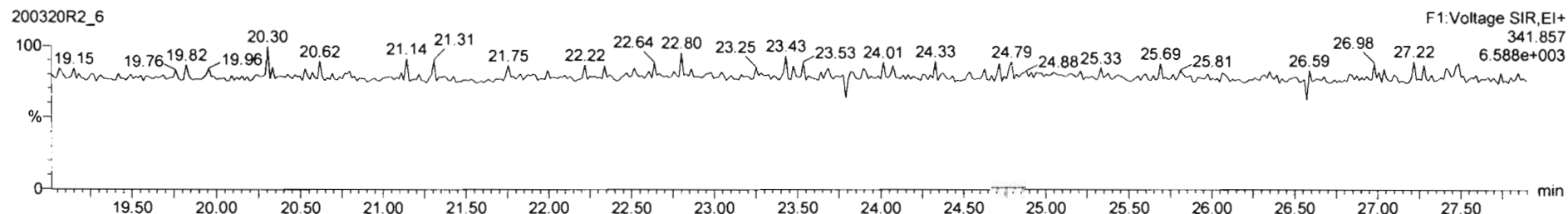
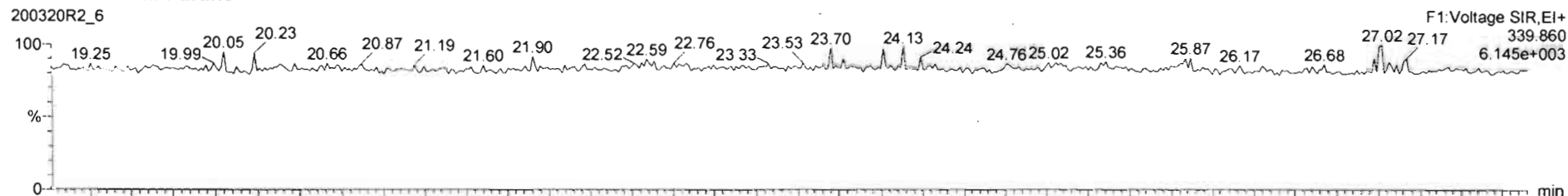
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

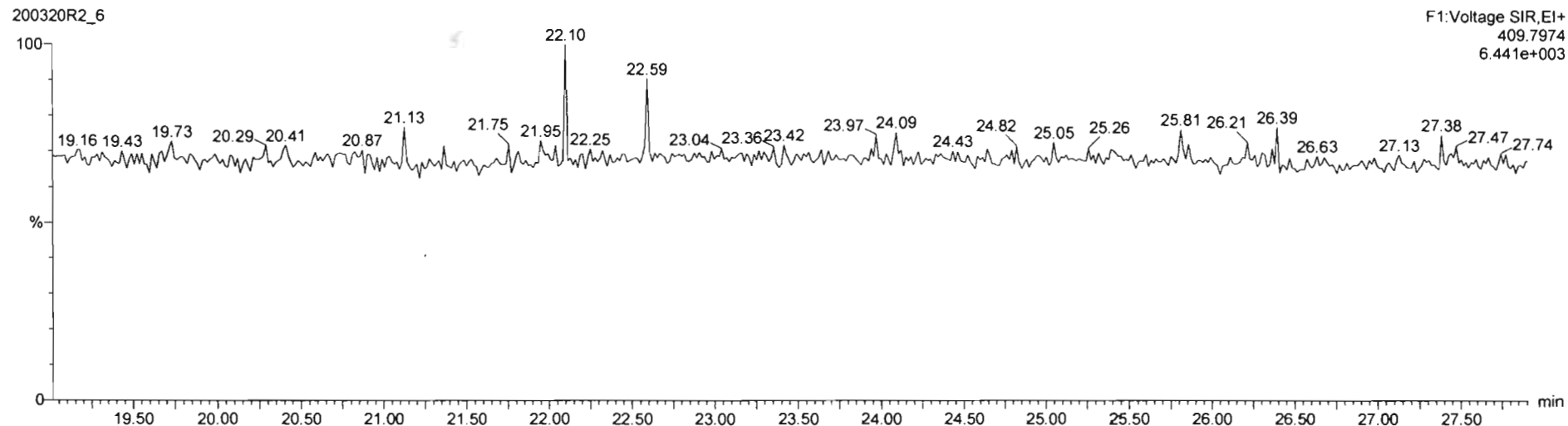
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

1st Func. Penta-Furans



DPE6

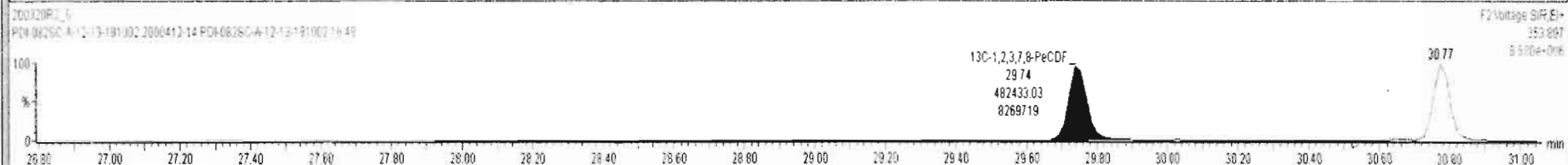
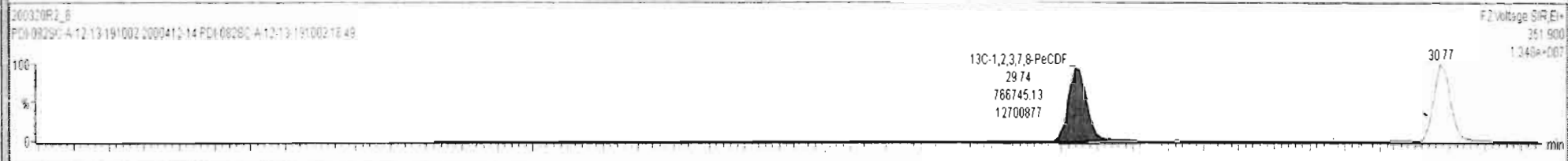
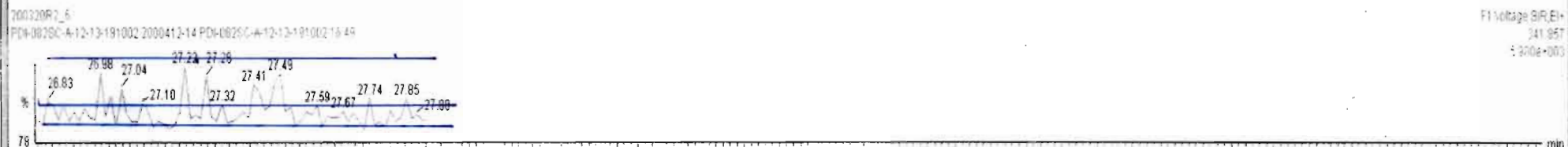
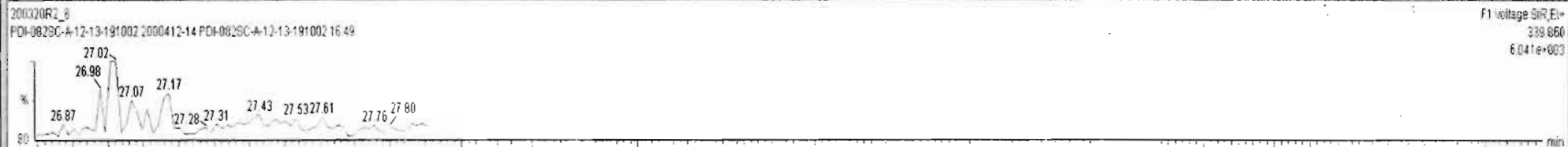




1st Func. Penta-Furans

#	Name	Std. Conc.	RT	Resp	Ratio	Ratio Flag	IS Resp	Response	Conc.	%Dev	RRF Mean	RRF %RSD	RRF	Divisor1
1	200320R2_6						0.000e0	0.000			0.959	4.515		10.0

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

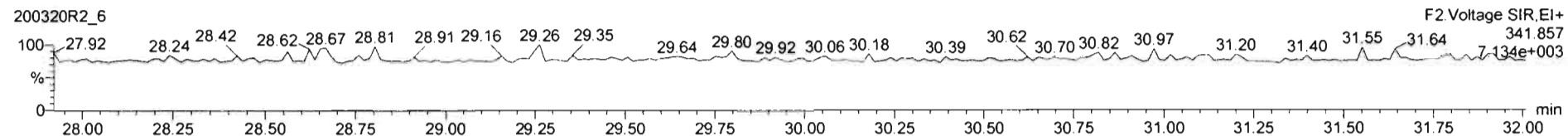
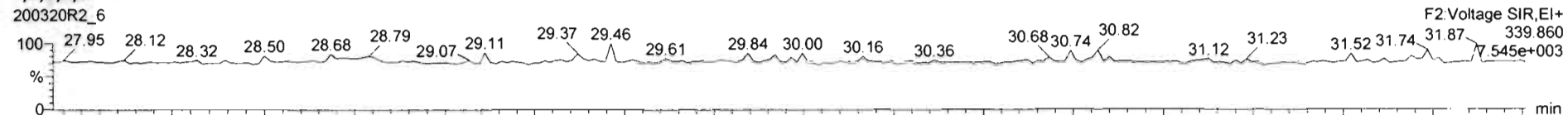


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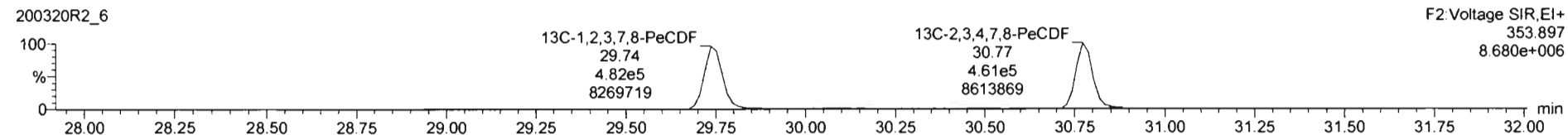
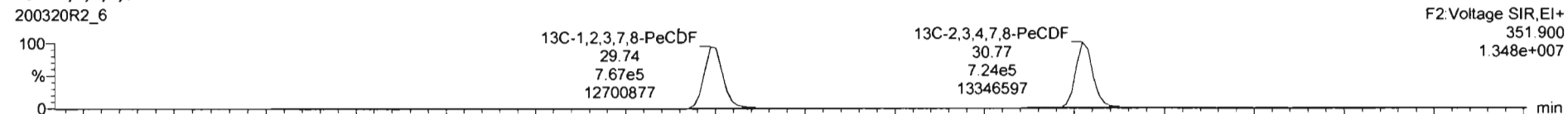
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

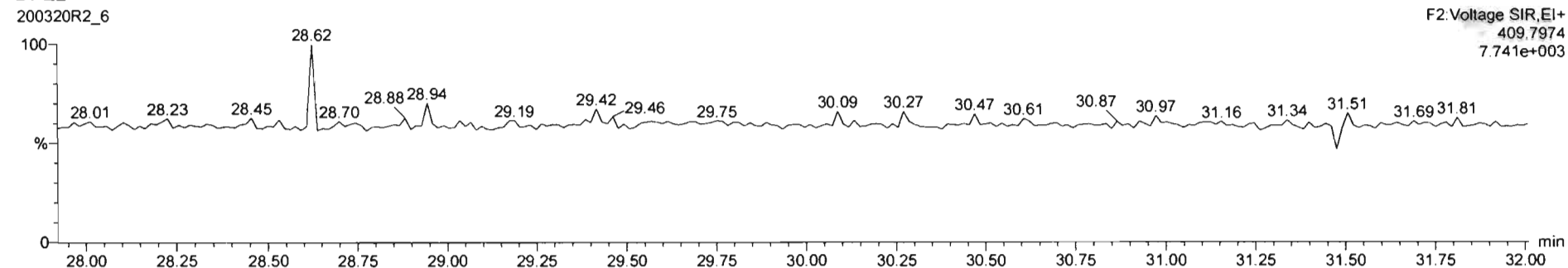
**1,2,3,7,8-PeCDF**



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



**DPE2**



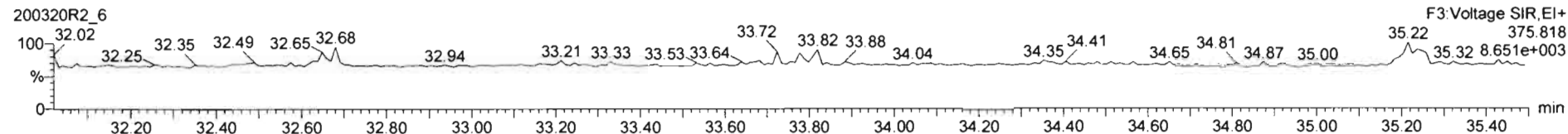
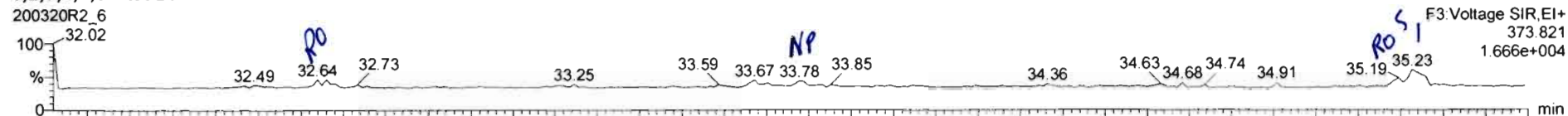


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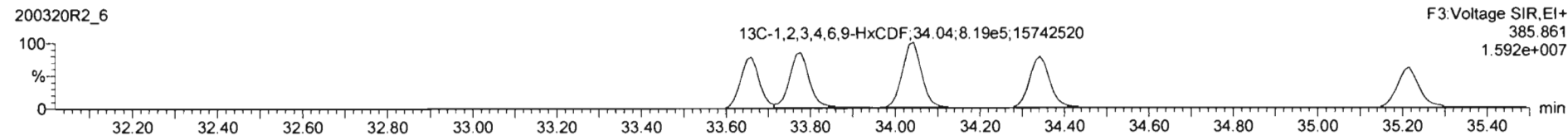
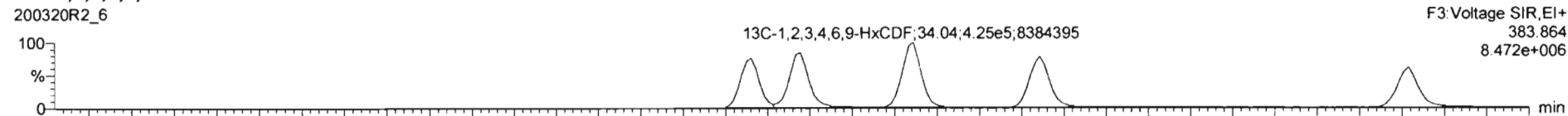
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

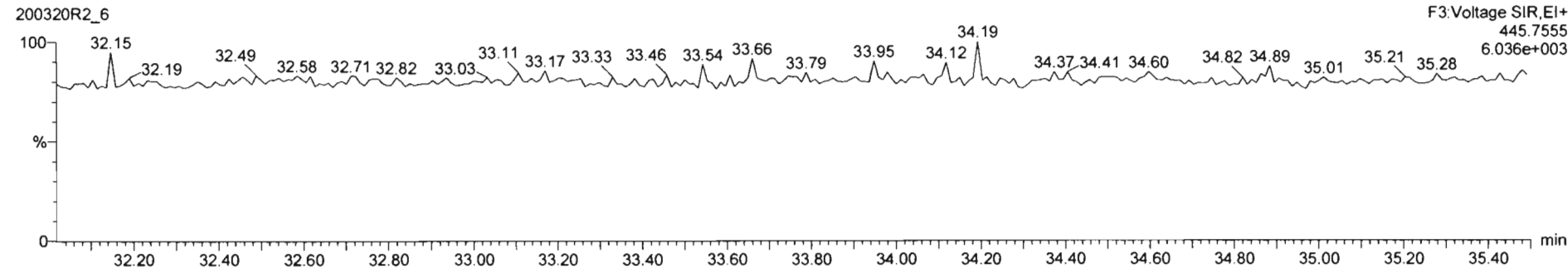
**1,2,3,4,7,8-HxCDF**



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



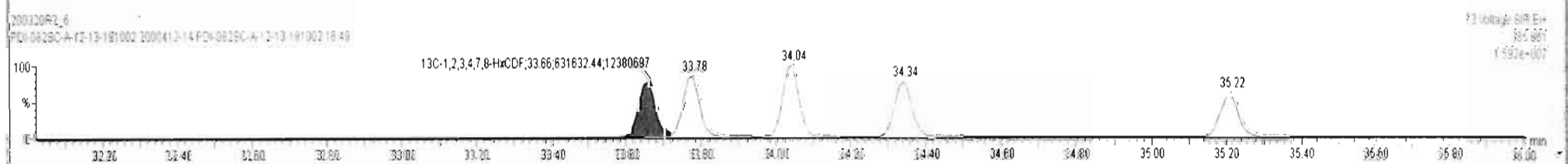
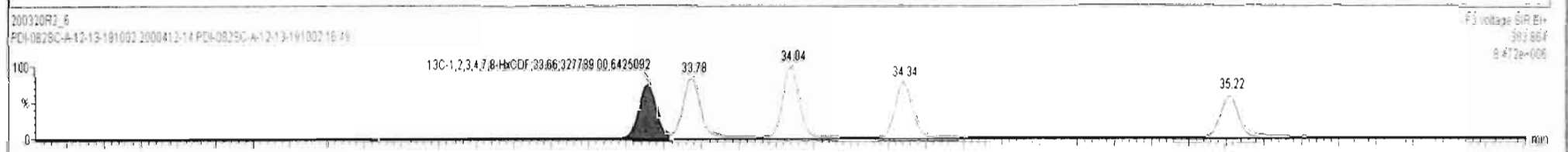
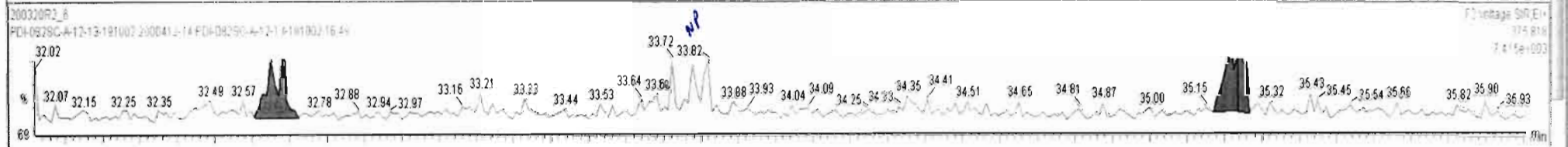
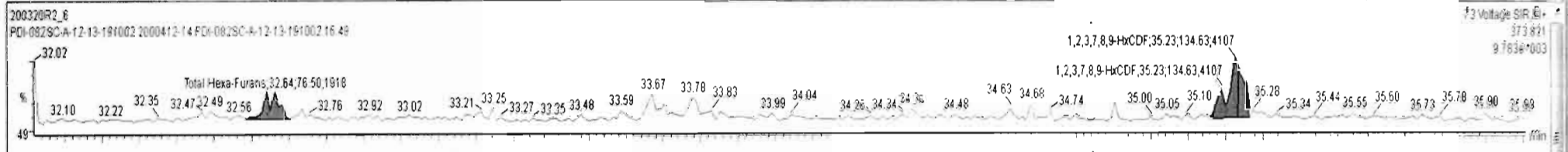
**DPE3**



Name	Resp	RA	n/y	RRF	w/Aol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.019			0.000		0.0140	0.0672

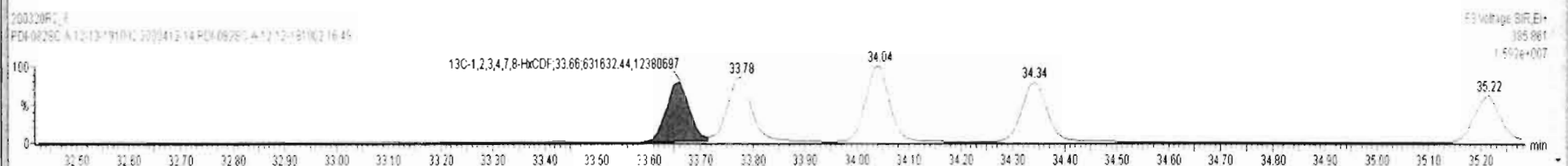
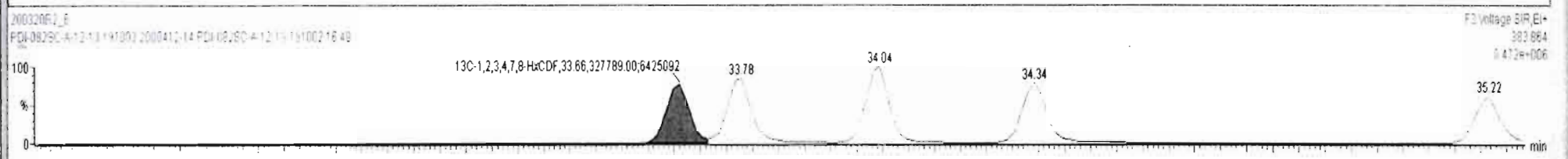
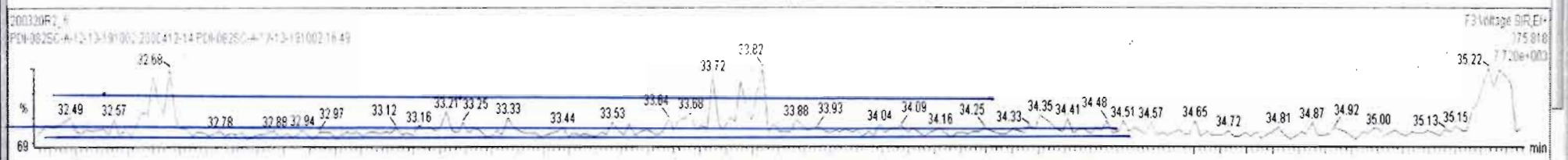
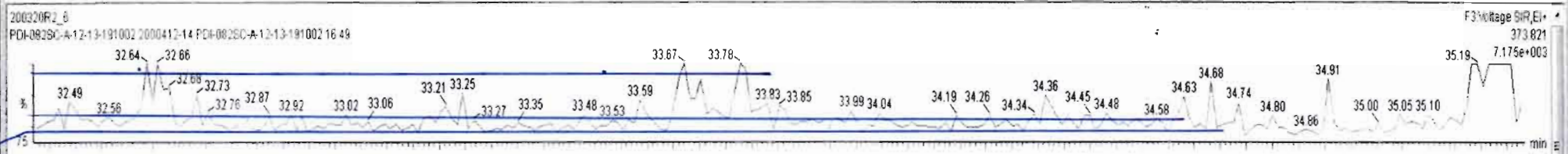
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.64	7.650e1	1.028e2	0.74	YES	0.025580	0.00000
2 1,2,3,7,8,9-HxCDF	35.23	1.348e2	8.613e1	1.56	YES	0.042808	0.00000
3 Total Hexa-Furans	35.24	7.360e1	4.530e1	1.62	YES	0.018785	0.00000

Noise Peak



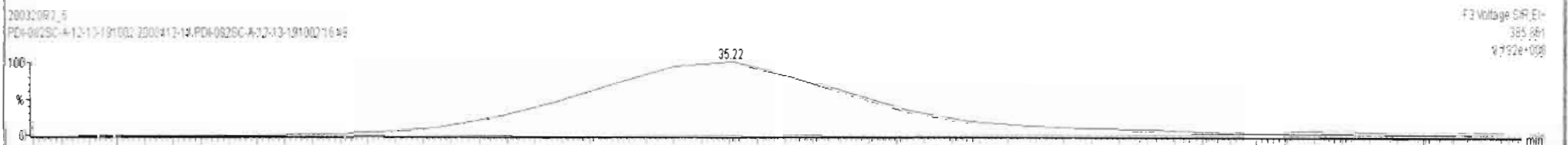
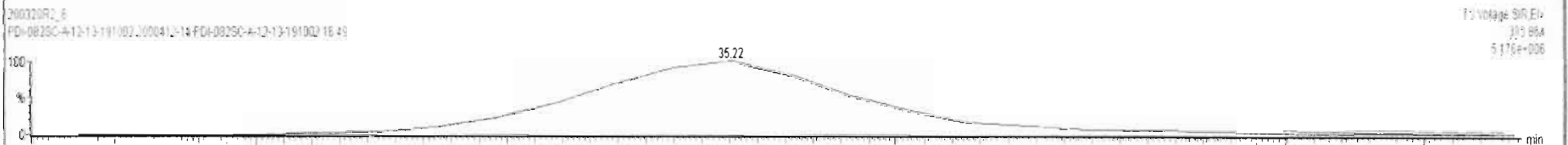
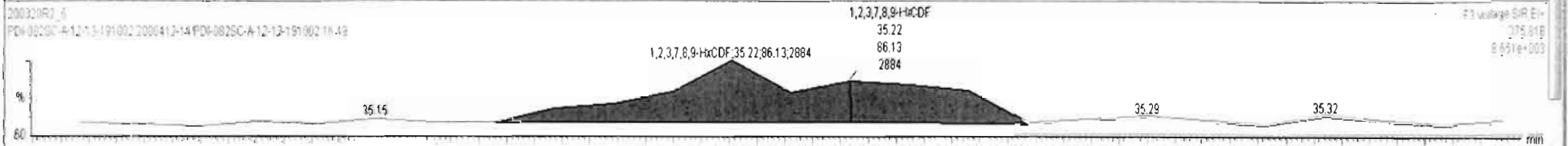
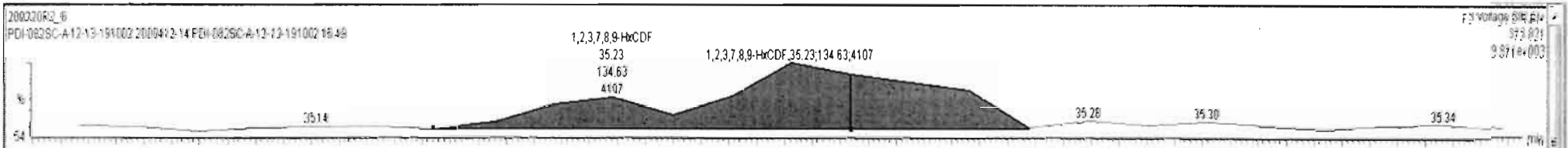
Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.019					0.0134	
46 Total Hexa-Furans				1.0920	10.019					0.0140	
47 Total Hepta-Furans				1.0483	10.019					0.0216	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											

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



Name	Resp	RA	rly	RRF	wMol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.019			0.000		0.0140	0.0872

Name	RT	m1 Resp	m2 Resp	RA	rly	EMPC	Conc.
1 Total Hexa-Furans	32.64	7.850e1	1.028e2	0.74	YES	0.025580	0.00000
2 1,2,3,7,8,9-HxCDF	35.23	1.346e2	8.613e1	1.56	YES	0.042808	0.00000
3 Total Hexa-Furans	35.24	7.360e1	4.530e1	1.62	YES	0.018785	0.00000

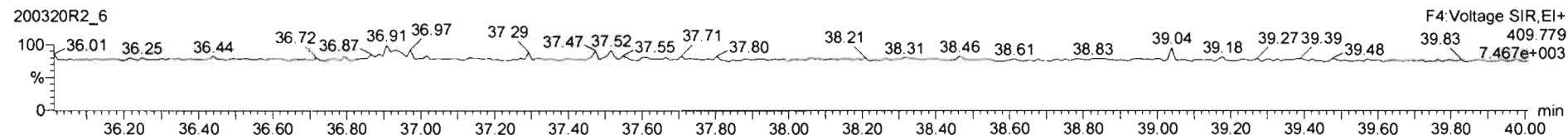
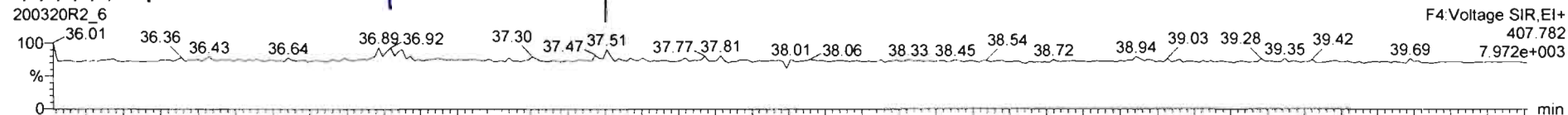


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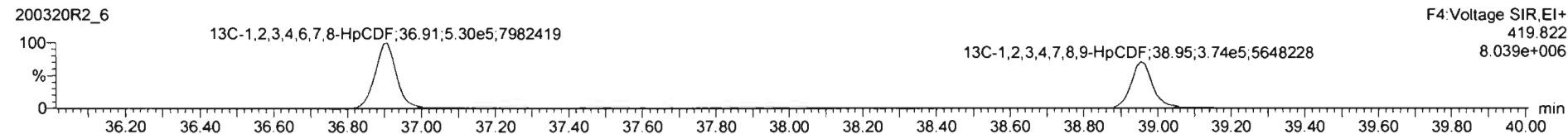
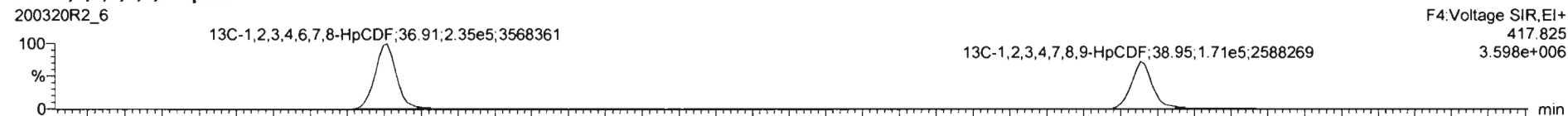
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

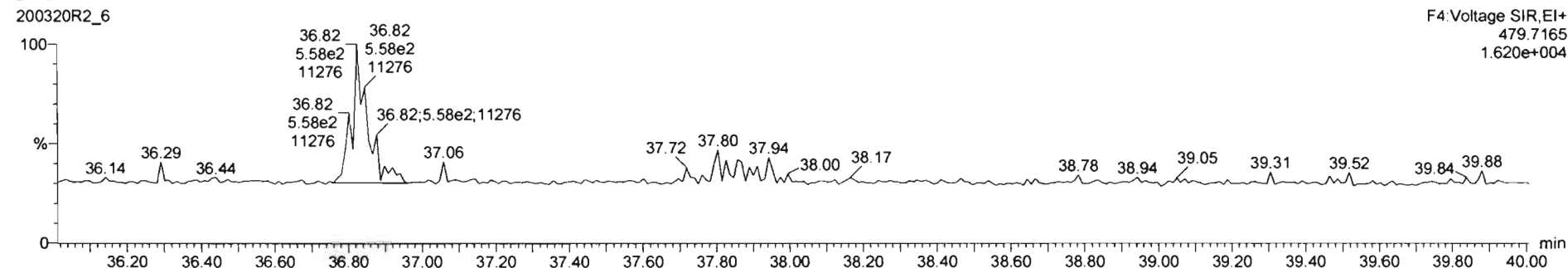
1,2,3,4,6,7,8-HpCDF



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

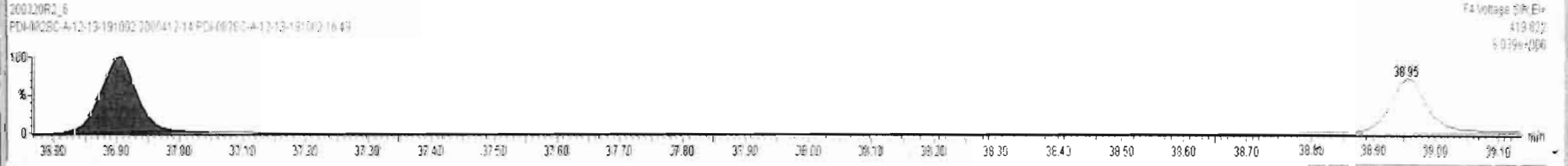
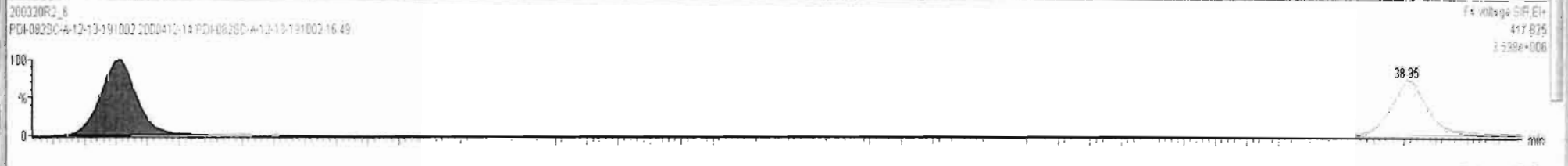
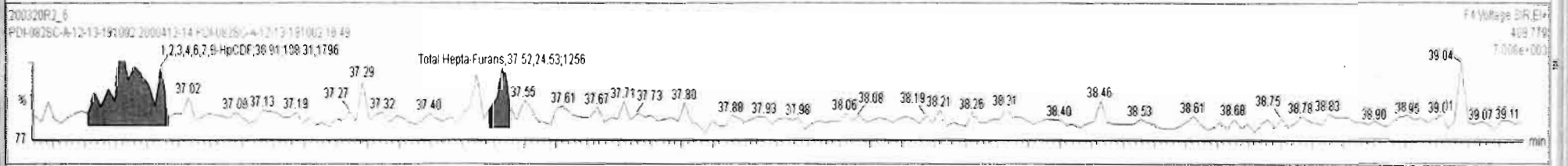
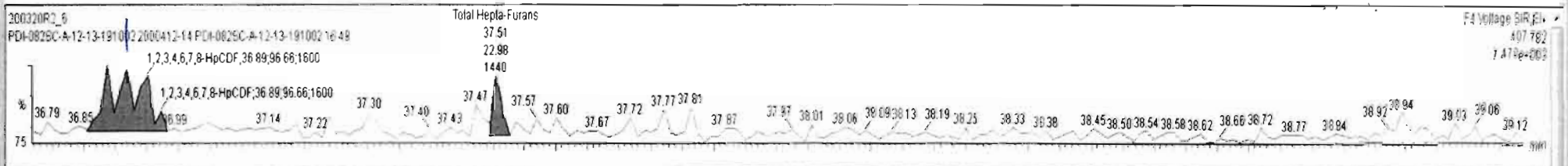


DPE4



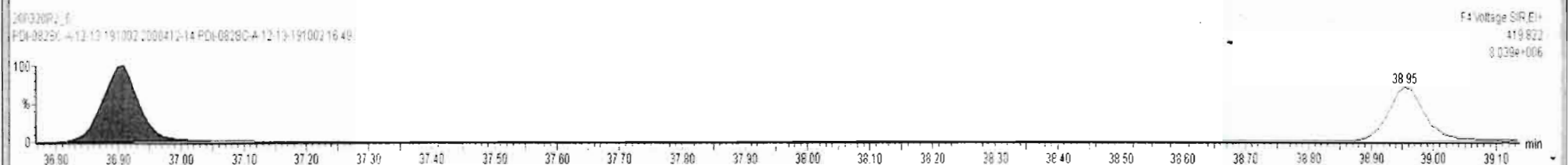
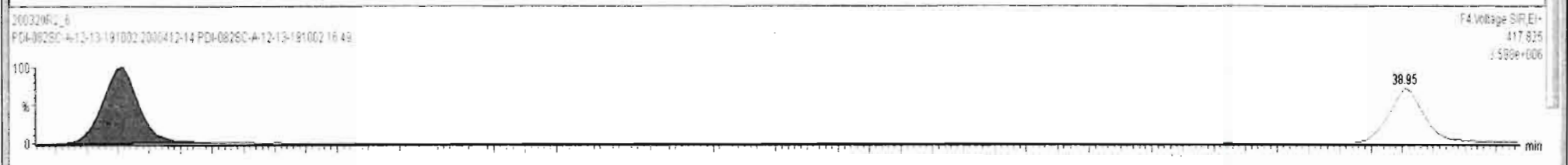
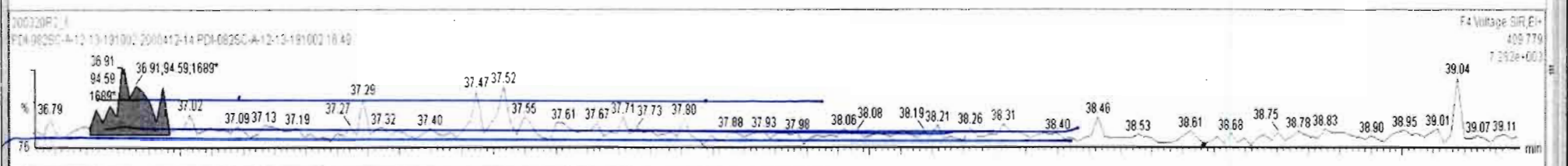
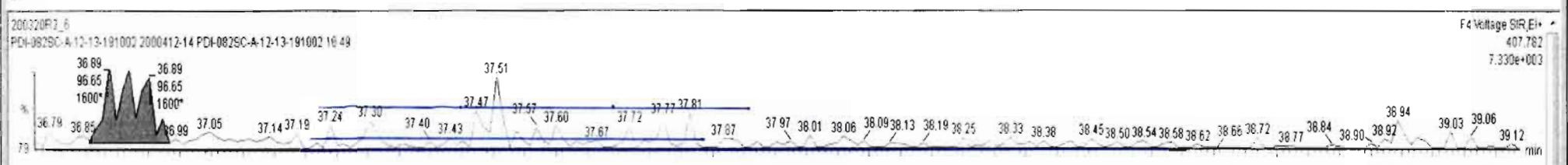
Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0820	10.019			0.0141		0.0140	0.0892
47 Total Hepta-Furans				1.0483	10.019			0.0649		0.0216	0.0649
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.89	9.666e1	1.083e2	0.89	NO	0.051051	0.051051
2 Total Hepta-Furans	37.51	2.298e1	2.453e1	0.94	NO	0.013815	0.013815



Name	Resp	RA	n/y	RF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.019			0.0141		0.0140	0.0892
47 Total Hepta-Furans				1.0483	10.019					0.0216	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											

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

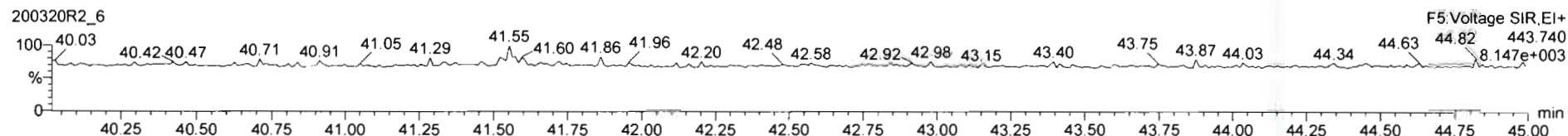
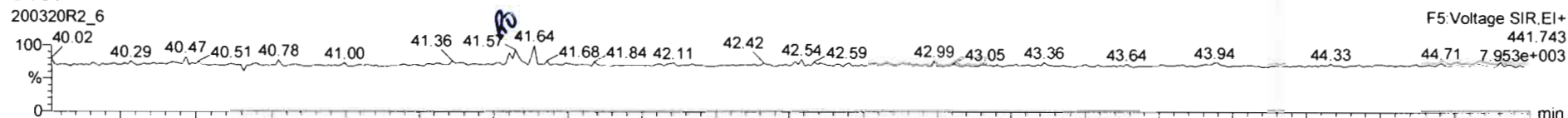


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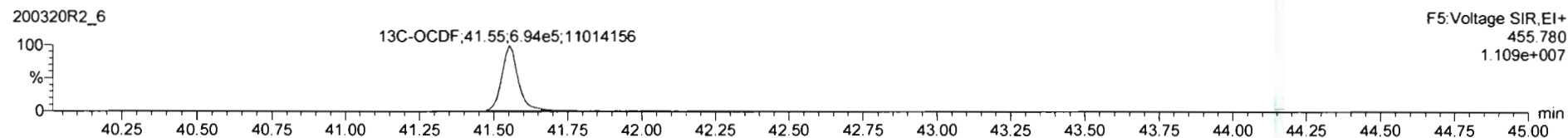
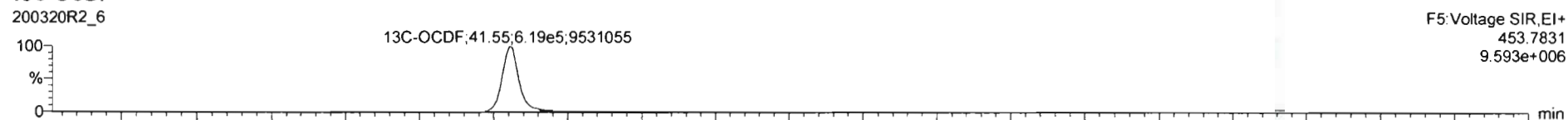
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

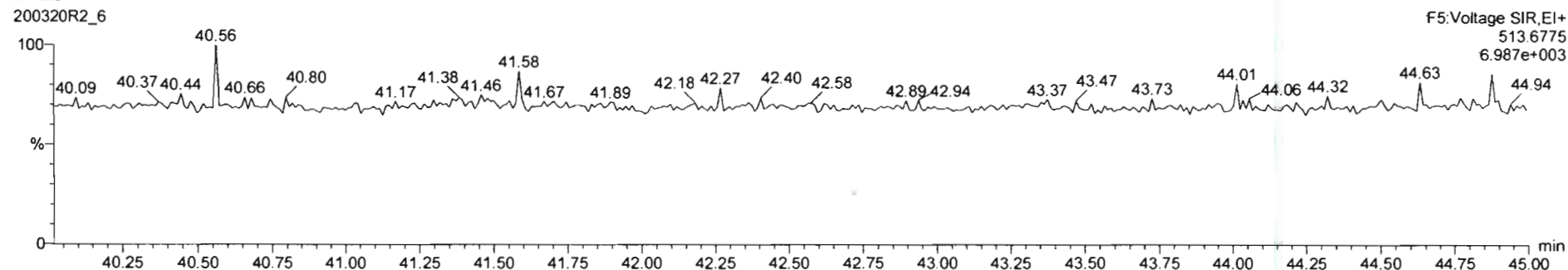
OCDF



13C-OCDF



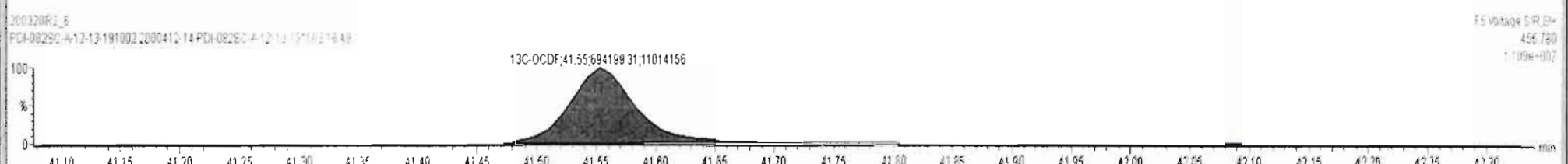
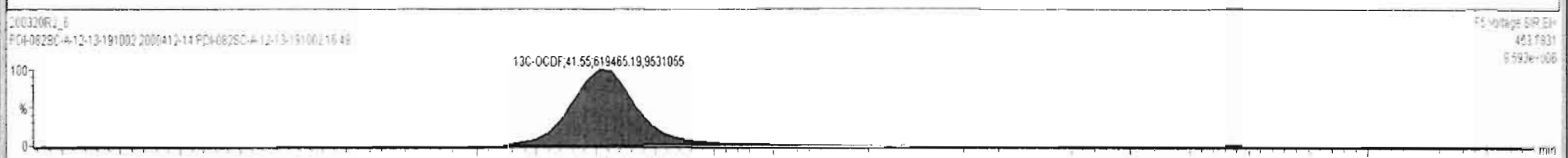
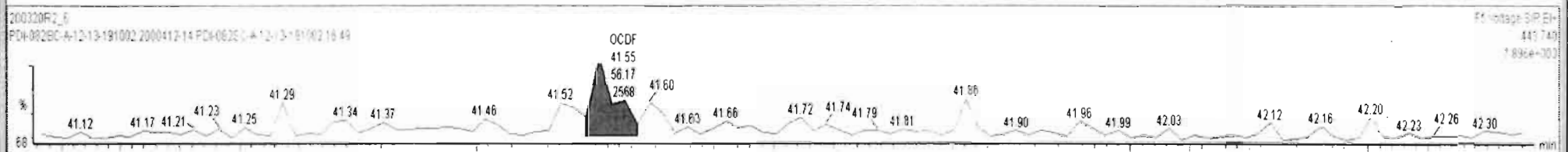
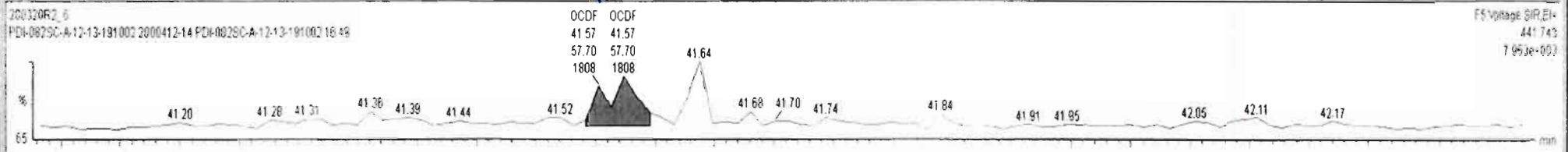
DPE5





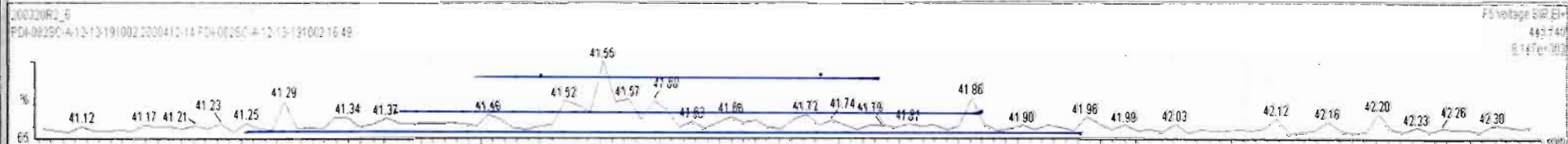
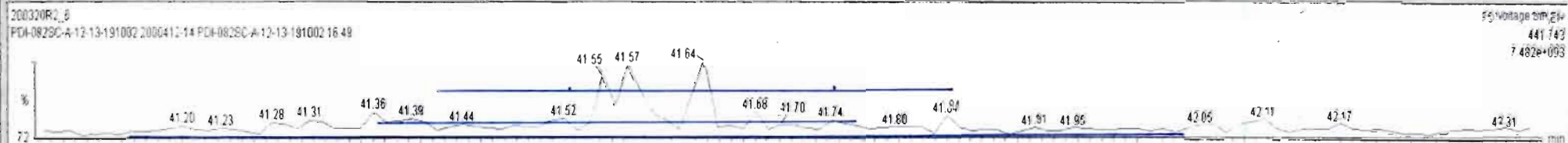
Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
17 OCDF	1.14e2	1.03	YES	0.9468	10.019	41.57	1.001	0.0365		0.0514	0.0341
18 13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.1842	10.019	25.80	1.029	145	72.9	0.227	
19 13C-1,2,3,7,8-PeCDD	8.29e5	0.63	NO	0.8644	10.019	31.09	1.241	163	81.5	0.324	
20 13C-1,2,3,4,7,8-HxCDD	6.91e5	1.27	NO	0.7539	10.019	34.51	1.014	147	73.7	0.286	
21 13C-1,2,3,6,7,8-HxCDD	8.42e5	1.26	NO	0.9254	10.019	34.61	1.017	146	73.2	0.233	
22 13C-1,2,3,7,8,9-HxCDD	7.99e5	1.29	NO	0.8294	10.019	34.88	1.024	155	77.4	0.260	
23 13C-1,2,3,4,6,7,8-HpCDD	6.45e5	1.07	NO	0.5962	10.019	38.30	1.125	173	86.7	0.292	

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



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF			0.9468	10.019					0.0514	
18	13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.1842	10.019	25.80	1.029	145	72.9	0.227
19	13C-1,2,3,7,8-PeCDD	8.29e5	0.63	NO	0.8644	10.019	31.09	1.241	163	81.5	0.324
20	13C-1,2,3,4,7,8-HxCDD	6.91e5	1.27	NO	0.7539	10.019	34.51	1.014	147	73.7	0.266
21	13C-1,2,3,6,7,8-HxCDD	8.42e5	1.28	NO	0.9254	10.019	34.61	1.017	146	73.2	0.233
22	13C-1,2,3,7,8,9-HxCDD	7.99e5	1.29	NO	0.8294	10.019	34.88	1.024	155	77.4	0.260
23	13C-1,2,3,4,6,7,8-HpCDD	6.45e5	1.07	NO	0.5982	10.019	38.30	1.125	173	86.7	0.292

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



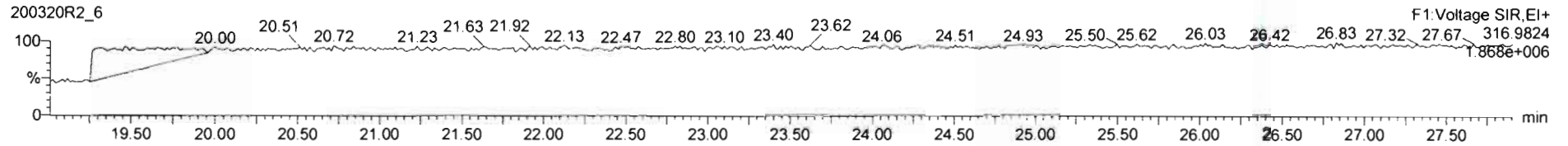
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Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time

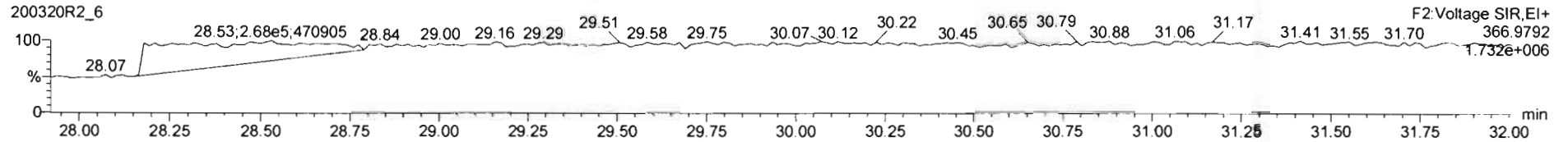
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_6, Date: 21-Mar-2020, Time: 05:05:09, ID: 2000412-14 PDI-082SC-A-12-13-191002 16.49, Description: PDI-082SC-A-12-13-191002

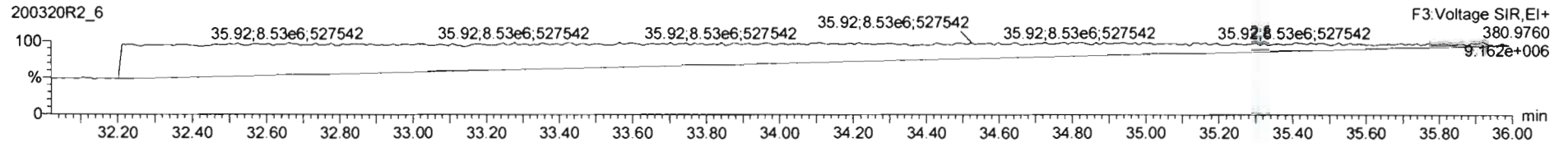
PFK1



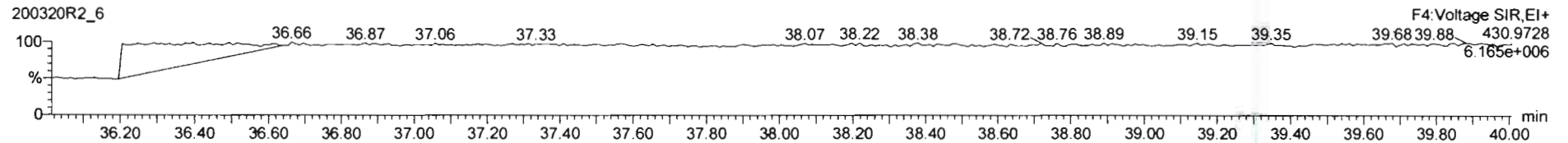
PFK2



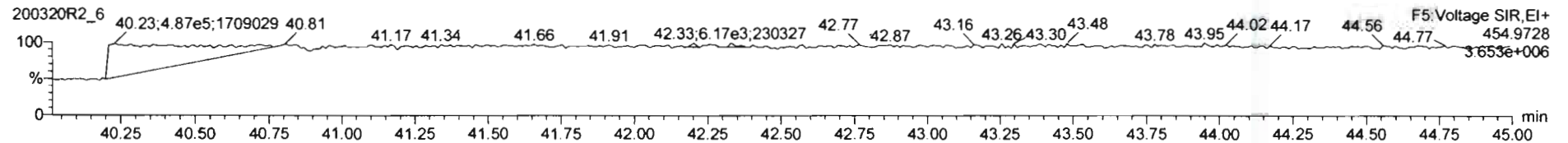
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200320R2\200320R2-7a.qld

Last Altered: Thursday, April 02, 2020 11:31:45 Pacific Daylight Time  
Printed: Thursday, April 02, 2020 11:35:16 Pacific Daylight Time

*dy 04-02-2020*  
*07 04/03/2020*

Method: Untitled 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\ddb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

#	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	8.57e2	0.27	YES	0.983	10.018	25.811	25.81	1.001	1.001	0.13891		0.0649	0.0663
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.018	31.116		1.001				0.0827	
3	3 1,2,3,4,7,8-HxCDD	1.62e2	1.66	YES	1.13	10.018	34.501	34.52	1.000	1.001	0.038832		0.0570	0.0327
4	4 1,2,3,6,7,8-HxCDD	3.10e2	1.12	NO	0.984	10.018	34.598	34.62	1.000	1.001	0.071633		0.0565	0.0716
5	5 1,2,3,7,8,9-HxCDD	6.37e2	1.03	YES	0.967	10.018	34.874	34.88	1.000	1.000	0.16131		0.0682	0.148
6	6 1,2,3,4,6,7,8-HpCDD	4.97e3	0.97	NO	1.01	10.018	38.294	38.31	1.000	1.001	1.4473		0.116	1.45
7	7 OCDD	5.33e4	0.88	NO	1.05	10.018	41.361	41.37	1.000	1.000	17.389		0.112	17.4
8	8 2,3,7,8-TCDF			NO	0.915	10.018	24.802		1.001				0.0364	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.018	29.757		1.001				0.0323	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.018	30.805		1.001				0.0312	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.018	33.650		1.000				0.0279	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.018	33.777		1.000				0.0272	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.018	34.366		1.001				0.0274	
14	14 1,2,3,7,8,9-HxCDF	1.98e2	1.14	NO	1.03	10.018	35.212	35.22	1.000	1.000	0.041458		0.0240	0.0415
15	15 1,2,3,4,6,7,8-HpCDF	2.09e2	1.31	YES	1.05	10.018	36.935	36.91	1.001	1.000	0.047375		0.0146	0.0418
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.018	38.943		1.000				0.0364	
17	17 OCDF			NO	0.947	10.018	41.542		1.000				0.0381	
18	18 13C-2,3,7,8-TCDD	1.27e6	0.80	NO	1.18	10.018	25.788	25.78	1.030	1.029	193.29	96.8	0.227	
19	19 13C-1,2,3,7,8-PeCDD	9.12e5	0.63	NO	0.864	10.018	31.101	31.09	1.242	1.241	189.94	95.1	0.256	
20	20 13C-1,2,3,4,7,8-HxCDD	7.36e5	1.27	NO	0.754	10.018	34.493	34.49	1.014	1.014	166.88	83.6	0.318	
21	21 13C-1,2,3,6,7,8-HxCDD	8.78e5	1.28	NO	0.925	10.018	34.595	34.60	1.017	1.017	162.04	81.2	0.259	
22	22 13C-1,2,3,7,8,9-HxCDD	8.15e5	1.26	NO	0.829	10.018	34.863	34.86	1.025	1.025	167.85	84.1	0.289	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.82e5	1.05	NO	0.598	10.018	38.283	38.28	1.125	1.125	194.75	97.6	0.365	
24	24 13C-OCDD	1.16e6	0.91	NO	0.571	10.018	41.345	41.36	1.215	1.216	348.43	87.3	0.333	
25	25 13C-2,3,7,8-TCDF	1.72e6	0.77	NO	1.09	10.018	24.776	24.78	0.989	0.989	180.03	90.2	0.302	
26	26 13C-1,2,3,7,8-PeCDF	1.38e6	1.58	NO	0.876	10.018	29.741	29.74	1.187	1.187	180.32	90.3	0.415	
27	27 13C-2,3,4,7,8-PeCDF	1.34e6	1.58	NO	0.844	10.018	30.720	30.77	1.227	1.229	181.14	90.7	0.431	
28	28 13C-1,2,3,4,7,8-HxCDF	1.02e6	0.52	NO	1.00	10.018	33.642	33.65	0.989	0.989	173.95	87.1	0.351	
29	29 13C-1,2,3,6,7,8-HxCDF	1.14e6	0.54	NO	1.12	10.018	33.764	33.77	0.992	0.992	173.57	86.9	0.314	
30	30 13C-2,3,4,6,7,8-HxCDF	1.06e6	0.52	NO	1.04	10.018	34.322	34.33	1.009	1.009	174.72	87.5	0.339	
31	31 13C-1,2,3,7,8,9-HxCDF	9.31e5	0.52	NO	0.873	10.018	35.193	35.21	1.034	1.035	182.16	91.2	0.402	

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-7a.qld

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Printed: Thursday, April 02, 2020 11:35:16 Pacific Daylight Time

Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

#	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	8.39e5	0.45	NO	0.771	10.018	36.895	36.90	1.084	1.085	186.09	93.2	0.363	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.89e5	0.44	NO	0.519	10.018	38.933	38.94	1.144	1.145	193.69	97.0	0.538	
34	34 13C-OCDF	1.42e6	0.89	NO	0.696	10.018	41.525	41.54	1.220	1.221	347.46	87.0	0.333	
35	35 37Cl-2,3,7,8-TCDD	4.90e5			1.17	10.018	25.818	25.81	1.031	1.030	75.109	94.1	0.0424	
36	36 13C-1,2,3,4-TCDD	1.11e6	0.80	NO	1.00	10.018	25.030	25.05	1.000	1.000	199.64	100	0.269	
37	37 13C-1,2,3,4-TCDF	1.75e6	0.79	NO	1.00	10.018	23.090	23.10	1.000	1.000	199.64	100	0.329	
38	38 13C-1,2,3,4,6,9-HxCDF	1.17e6	0.52	NO	1.00	10.018	34.020	34.02	1.000	1.000	199.64	100	0.351	
39	39 Total Tetra-Dioxins				0.983	10.018	24.620		0.000		0.89173		0.0649	1.21
40	40 Total Penta-Dioxins				0.921	10.018	29.960		0.000		0.31220		0.0827	0.418
41	41 Total Hexa-Dioxins				0.984	10.018	33.635		0.000		1.6541		0.0621	2.00
42	42 Total Hepta-Dioxins				1.01	10.018	37.640		0.000		4.0632		0.116	4.06
43	43 Total Tetra-Furans				0.915	10.018	23.610		0.000		0.26686		0.0364	0.293
44	44 1st Func. Penta-Furans				0.959	10.018	27.090		0.000				0.00792	
45	45 Total Penta-Furans				0.959	10.018	29.275		0.000		0.017300		0.0162	0.0173
46	46 Total Hexa-Furans				1.09	10.018	33.555		0.000		0.065601		0.0181	0.0656
47	47 Total Hepta-Furans				1.05	10.018	37.835		0.000		0.00000		0.0174	0.0418

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-7a.qld

Last Altered: Thursday, April 02, 2020 11:31:45 Pacific Daylight Time

Printed: Thursday, April 02, 2020 11:35:16 Pacific Daylight Time

Method: Untitled 21 Mar 2020 09:40:15

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Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.47	4.564e3	4.078e3	3.369e2	3.356e2	1.00	YES	0.000e0	0.00000	0.094868	0.0649
2	Total Tetra-Dioxins	21.81	4.434e3	5.223e3	2.835e2	3.077e2	0.92	YES	0.000e0	0.00000	0.086964	0.0649
3	Total Tetra-Dioxins	22.34	5.917e3	8.101e3	4.630e2	6.236e2	0.74	NO	1.087e3	0.17352	0.17352	0.0649
4	Total Tetra-Dioxins	23.34	1.995e4	3.001e4	1.948e3	2.550e3	0.76	NO	4.498e3	0.71821	0.71821	0.0649
5	Total Tetra-Dioxins	25.03	3.370e3	4.276e3	2.457e2	2.604e2	0.94	YES	0.000e0	0.00000	0.073595	0.0649
6	2,3,7,8-TCDD	25.81	2.229e3	8.870e3	1.806e2	6.767e2	0.27	YES	8.573e2	0.00000	0.066311	0.0649

**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	4.509e3	4.431e3	2.343e2	2.734e2	0.86	YES	0.000e0	0.00000	0.10592	0.0827
2	Total Penta-Dioxins	29.28	6.600e3	1.077e4	3.602e2	6.220e2	0.58	NO	9.822e2	0.23345	0.23345	0.0827
3	Total Penta-Dioxins	30.36	3.036e3	6.763e3	1.221e2	2.092e2	0.58	NO	3.313e2	0.078753	0.078753	0.0827

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.03	4.835e4	4.057e4	2.430e3	1.965e3	1.24	NO	4.394e3	1.1008	1.1008	0.0621
2	Total Hexa-Dioxins	33.62	4.422e3	2.900e3	1.886e2	1.052e2	1.79	YES	0.000e0	0.00000	0.059037	0.0621
3	Total Hexa-Dioxins	33.85	1.630e4	1.136e4	1.103e3	8.193e2	1.35	NO	1.923e3	0.48162	0.48162	0.0621
4	Total Hexa-Dioxins	33.95	4.063e3	2.462e3	1.212e2	8.331e1	1.45	YES	0.000e0	0.00000	0.046747	0.0621
5	1,2,3,4,7,8-HxCDD	34.52	2.259e3	1.745e3	1.013e2	6.094e1	1.66	YES	1.622e2	0.00000	0.032680	0.0570
6	1,2,3,6,7,8-HxCDD	34.62	3.664e3	3.389e3	1.640e2	1.460e2	1.12	NO	3.100e2	0.071633	0.071633	0.0565
7	Total Hexa-Dioxins	34.78	3.666e3	2.347e3	1.498e2	9.930e1	1.51	YES	0.000e0	0.00000	0.055720	0.0621
8	1,2,3,7,8,9-HxCDD	34.88	5.114e3	6.297e3	3.238e2	3.130e2	1.03	YES	6.368e2	0.00000	0.14815	0.0662

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 Printed: Thursday, April 02, 2020 11:35:16 Pacific Daylight Time

Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.28	6.585e4	6.469e4	4.491e3	4.497e3	1.00	NO	8.988e3	2.6159	2.6159	0.116
2	1,2,3,4,6,7,8-HpCDD	38.31	3.380e4	3.482e4	2.443e3	2.530e3	0.97	NO	4.973e3	1.4473	1.4473	0.116

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.40	2.406e3	2.639e3	1.621e2	1.183e2	1.37	YES	0.000e0	0.00000	0.026574	0.0364
2	Total Tetra-Furans	20.50	1.311e4	1.661e4	8.820e2	1.220e3	0.72	NO	2.102e3	0.26686	0.26686	0.0364

**Penta-Furans function 1**

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

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	30.12	2.567e3	1.447e3	6.708e1	4.611e1	1.45	NO	1.132e2	0.017300	0.017300	0.0162

**Hexa-Furans**

	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	4.436e3	3.326e3	1.056e2	9.283e1	1.14	NO	1.985e2	0.041458	0.041458	0.0240
2	Total Hexa-Furans	35.23	2.329e3	2.978e3	7.931e1	5.747e1	1.38	NO	1.368e2	0.024143	0.024143	0.0181

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.91	2.460e3	1.684e3	1.185e2	9.032e1	1.31	YES	2.088e2	0.00000	0.041802	0.0146

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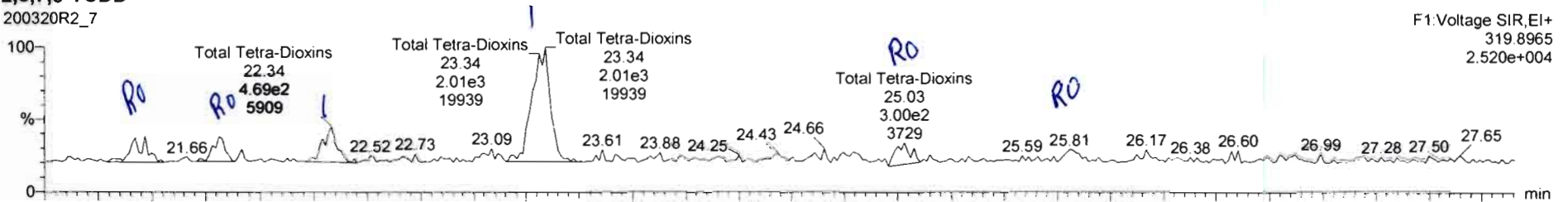
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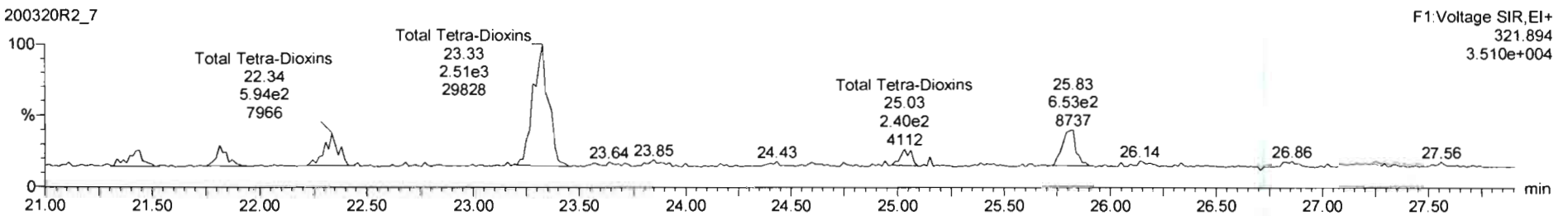
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**2,3,7,8-TCDD**

200320R2\_7

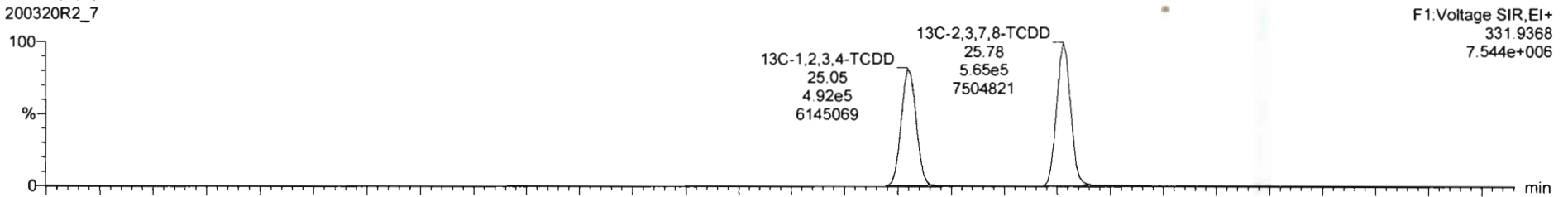


200320R2\_7

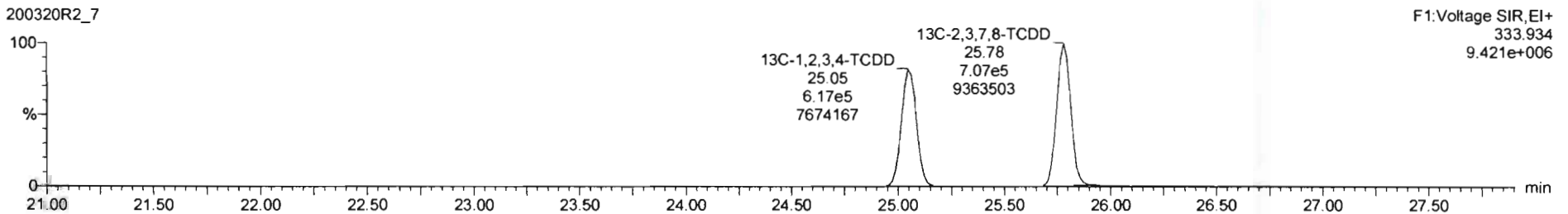


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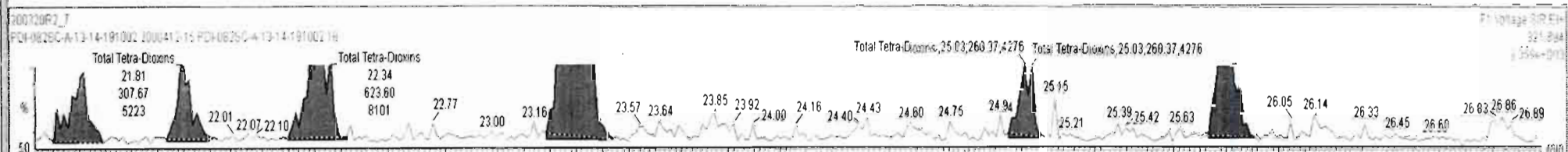
200320R2\_7





Name	Resp	RA	nly	RF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892		0.0649	1.21
40 Total Penta-Dioxins				0.9212	10.018			0.253		0.0827	0.253
41 Total Hexa-Dioxins				0.9844	10.018			1.45		0.0621	1.54
42 Total Hepta-Dioxins				1.0061	10.018			3.92		0.117	3.92
43 Total Tetra-Furans				0.9154	10.018			0.262		0.0364	0.262
44 1st Func. Penta-Furans				0.9594	10.018					0.00792	
45 Total Penta-Furans				0.9594	10.018					0.0162	

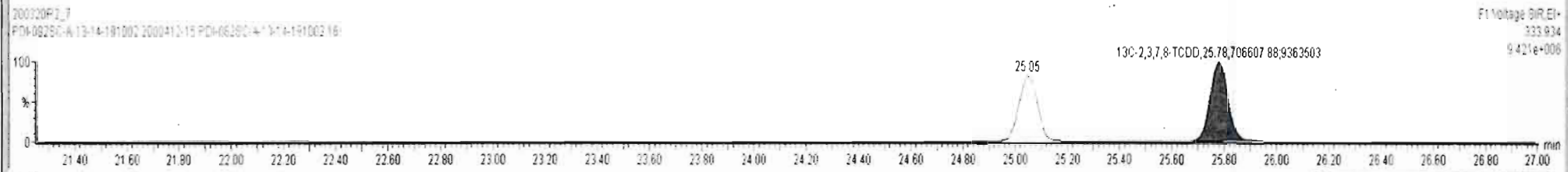
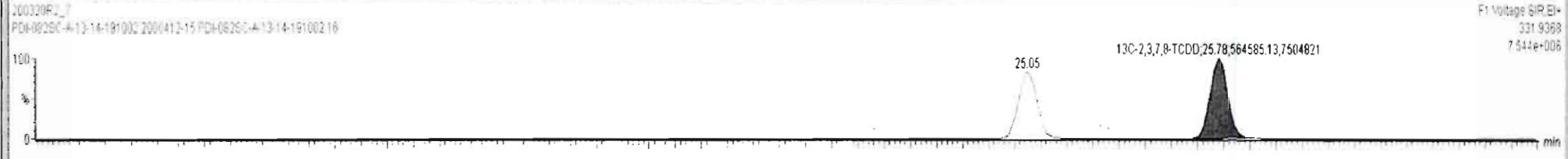
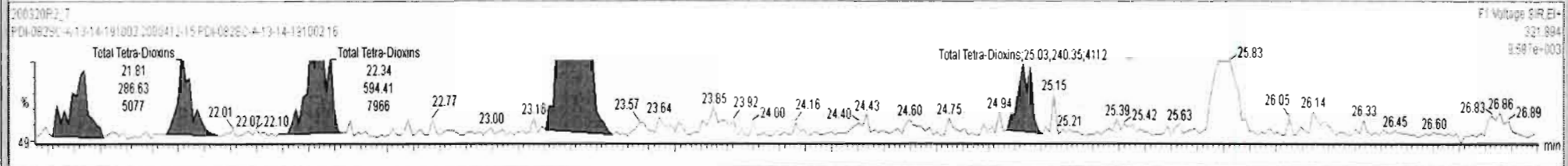
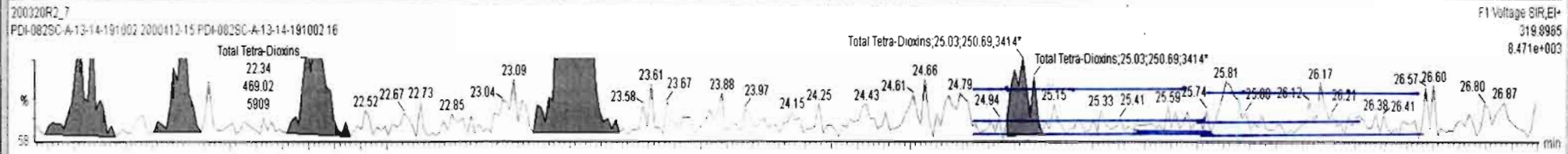
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Dioxins	21.47	3.368e2	3.356e2	1.00	YES	0.094868	0.00000
2 Total Tetra-Dioxins	21.81	2.835e2	3.077e2	0.92	YES	0.086964	0.00000
3 Total Tetra-Dioxins	22.34	4.630e2	6.236e2	0.74	NO	0.17352	0.17352
4 Total Tetra-Dioxins	23.34	1.949e3	2.550e3	0.76	NO	0.71821	0.71821
5 Total Tetra-Dioxins	25.03	2.457e2	2.604e2	0.94	YES	0.073595	0.00000
6 2,3,7,8-TCDD	25.81	1.806e2	6.767e2	0.27	YES	0.066311	0.00000



200320R2\_7 - 2000412-15 PD-082SC-A-13-14-191002 16 - PD-082SC-A-13-14-191002

Name	Resp	RA	nly	RRF	wUvol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.891	0.0649	1.13	
40 Total Penta-Dioxins				0.9212	10.018			0.253	0.0822	0.253	
41 Total Hexa-Dioxins				0.9844	10.018			1.45	0.0621	1.54	
42 Total Hepta-Dioxins				1.0061	10.018			3.92	0.117	3.92	
43 Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	
44 1st Func. Penta-Furans				0.9594	10.018				0.00792		
45 Total Penta-Furans				0.9594	10.018				0.0162		

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Dioxins	21.47	3.652e2	3.279e2	1.11	YES	0.093000	0.00000
2 Total Tetra-Dioxins	21.81	2.762e2	2.866e2	0.96	YES	0.091000	0.00000
3 Total Tetra-Dioxins	22.34	4.690e2	5.944e2	0.79	NO	0.17000	0.16982
4 Total Tetra-Dioxins	23.34	2.007e3	2.507e3	0.80	NO	0.72100	0.72083
5 Total Tetra-Dioxins	25.03	3.001e2	2.404e2	1.25	YES	0.068000	0.00000



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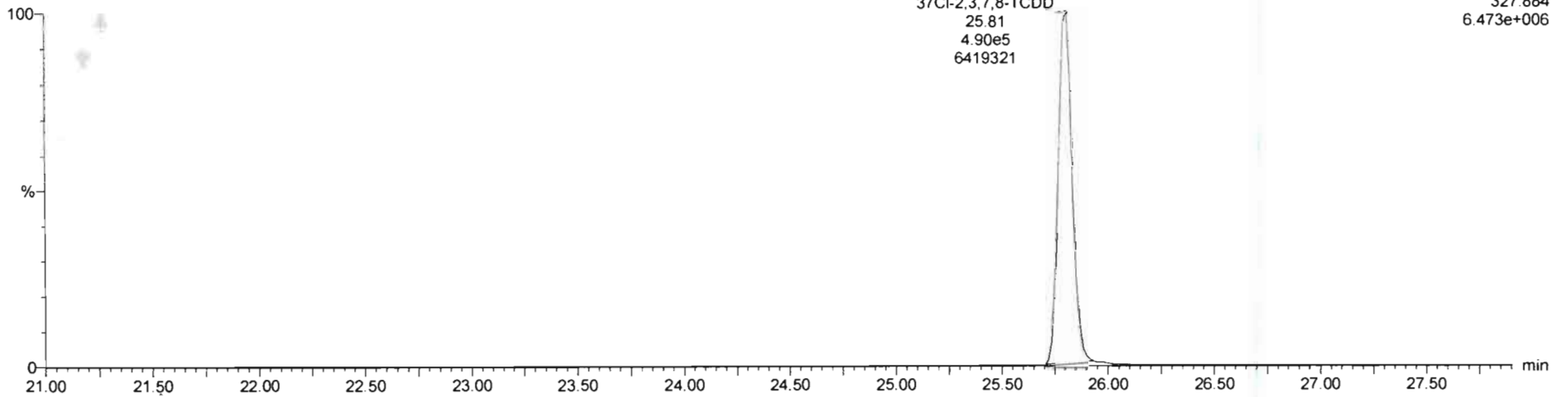
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Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

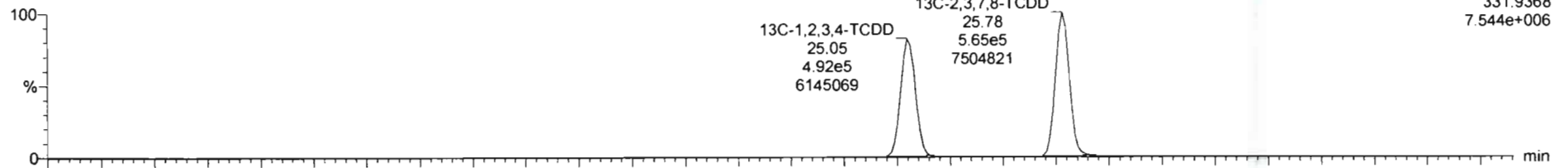
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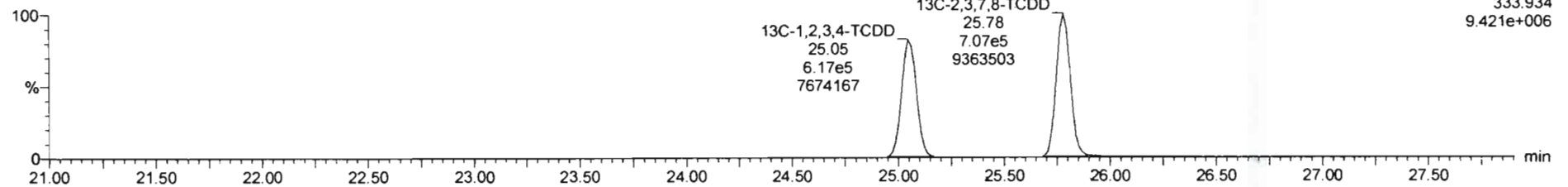


13C-1,2,3,4-TCDD

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200320R2\_7



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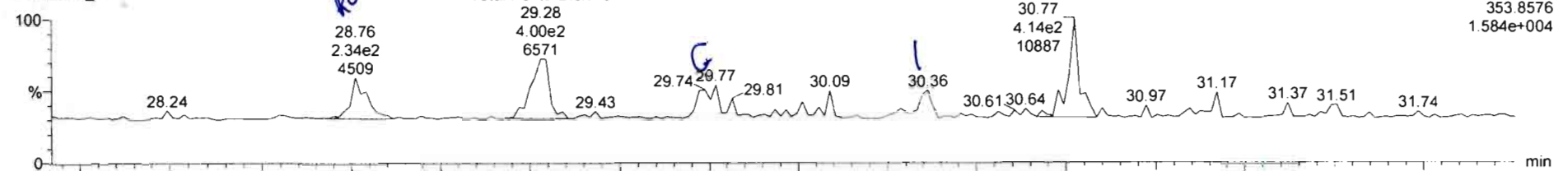
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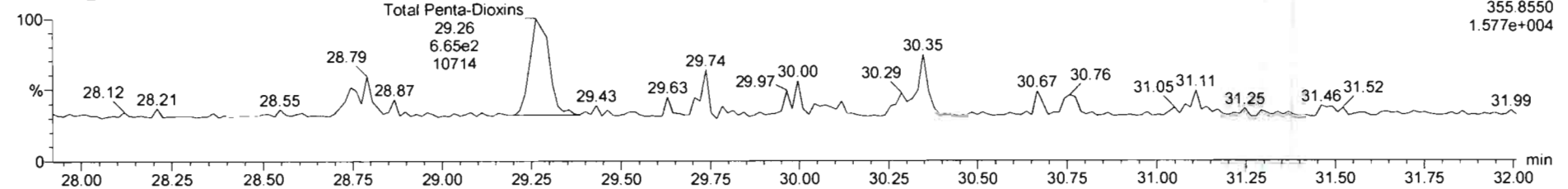
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**1,2,3,7,8-PeCDD**

200320R2\_7

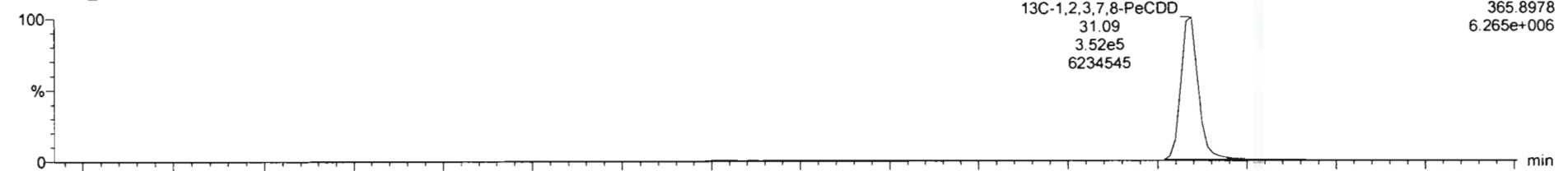


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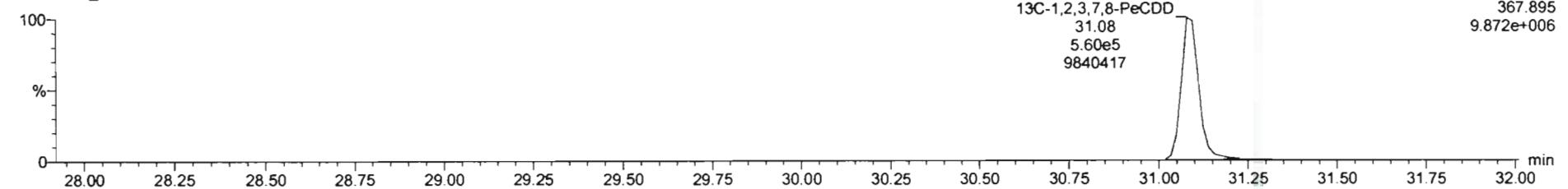


**13C-1,2,3,7,8-PeCDD**

200320R2\_7

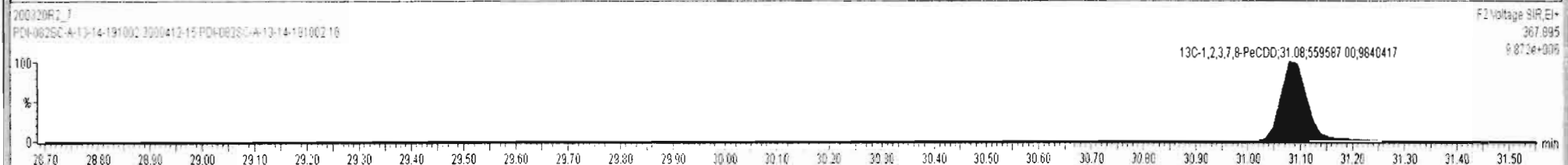
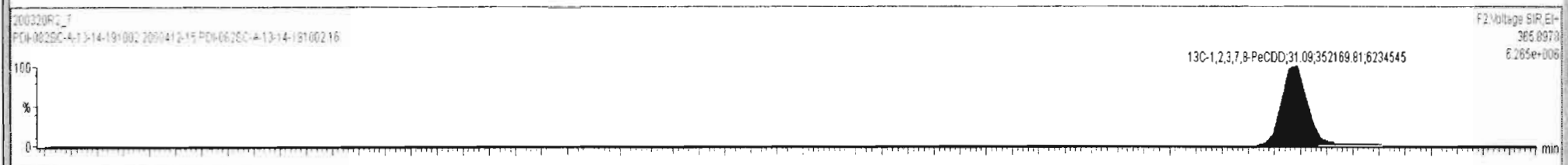
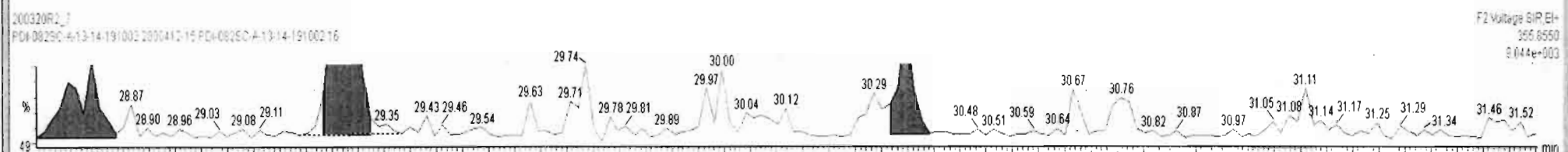
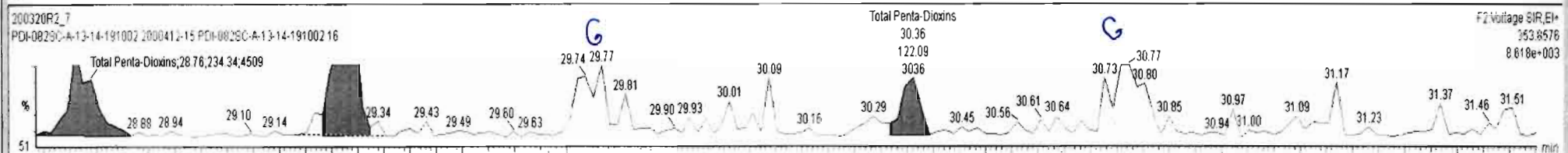


200320R2\_7



Name	Resp	RA	n/y	RF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892	0.0649	1.21	
40 Total Penta-Dioxins				0.9212	10.018			0.312	0.0827	0.418	
41 Total Hexa-Dioxins				0.9844	10.018			1.45	0.0621	1.54	
42 Total Hepta-Dioxins				1.0061	10.018			3.92	0.117	3.92	
43 Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	
44 1st Func. Penta-Furans				0.9594	10.018				0.00792		
45 Total Penta-Furans				0.9594	10.018				0.0162		

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	28.76	2.343e2	2.734e2	0.86	YES	0.10592	0.00000
2 Total Penta-Dioxins	29.28	3.602e2	6.220e2	0.58	NO	0.23345	0.23345
3 Total Penta-Dioxins	30.36	1.221e2	2.092e2	0.58	NO	0.078753	0.078753



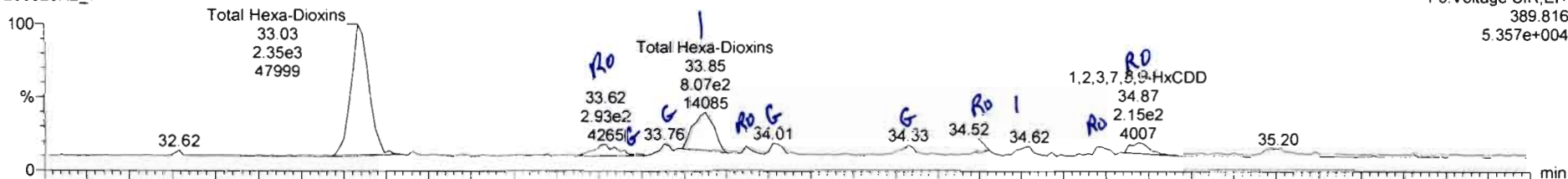
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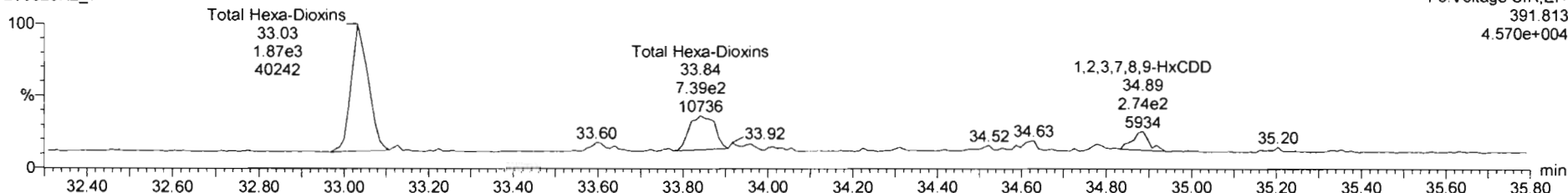
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1,2,3,4,7,8-HxCDD

200320R2\_7

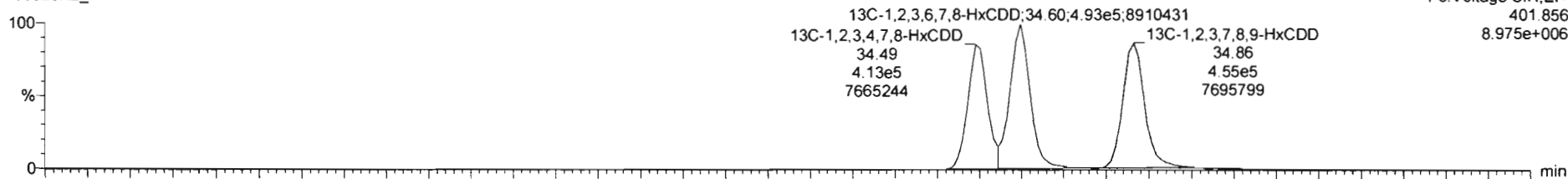


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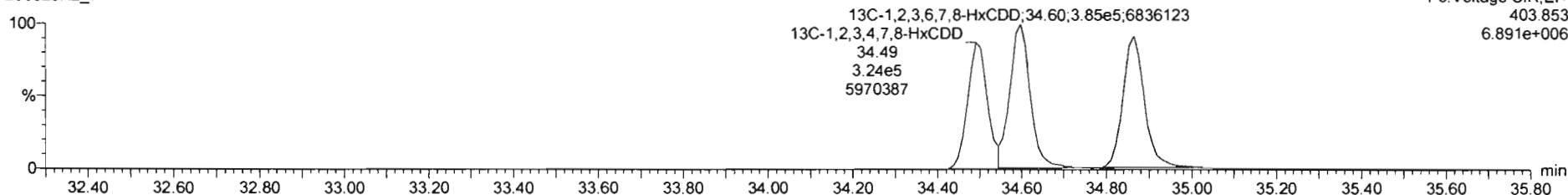


13C-1,2,3,4,7,8-HxCDD

200320R2\_7

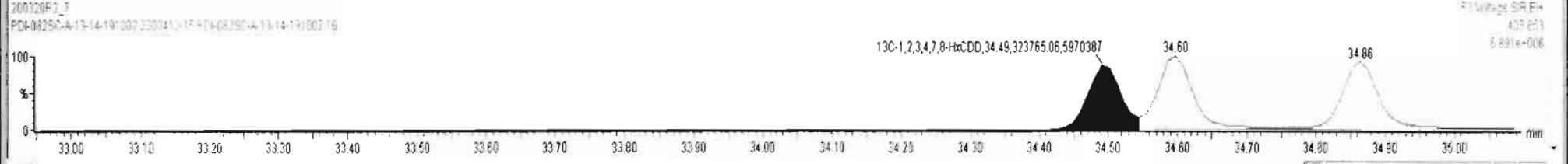
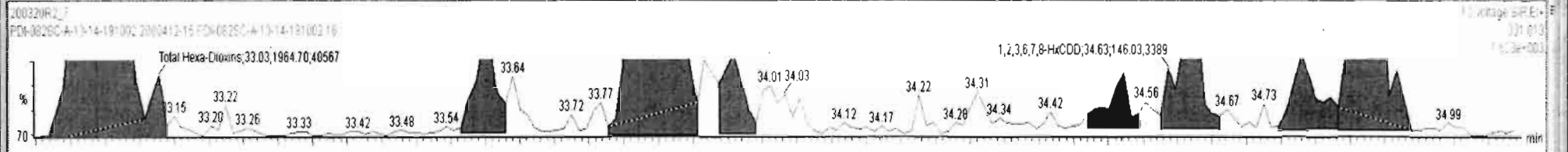
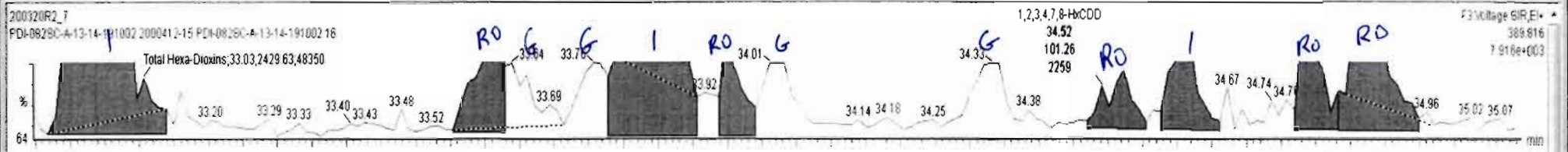


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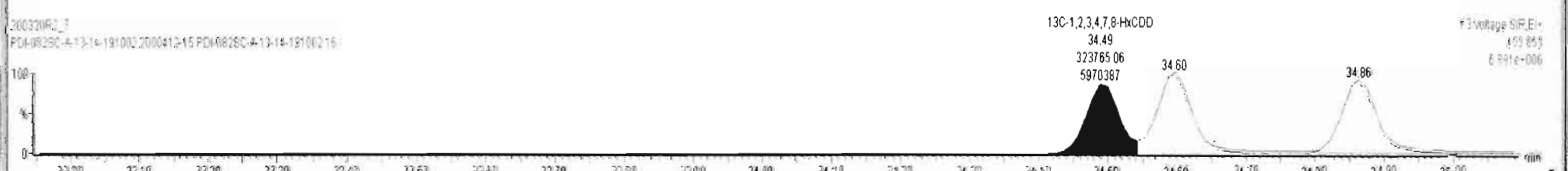
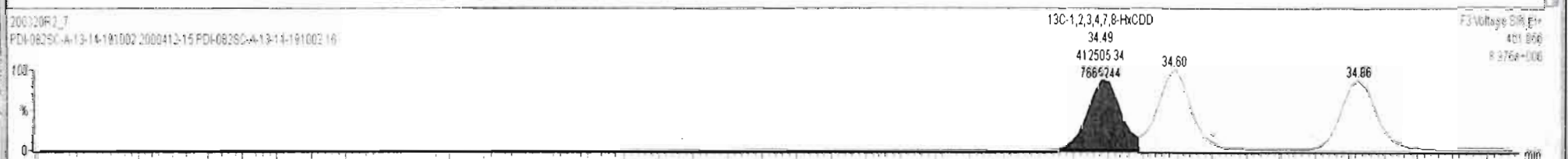
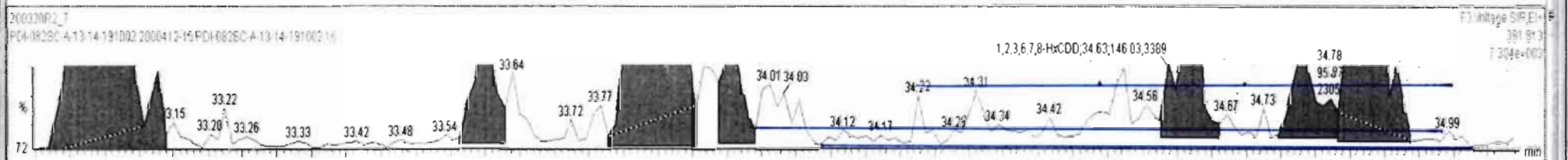
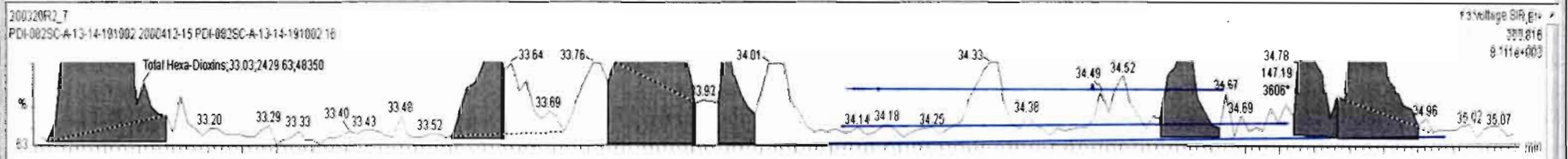
Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892	0.0649	1.21	
40 Total Penta-Dioxins				0.9212	10.018			0.312	0.0827	0.418	
41 Total Hexa-Dioxins				0.9844	10.018			1.65	0.0621	2.00	
42 Total Hepta-Dioxins				1.0061	10.018			3.92	0.117	3.92	
43 Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Dioxins	33.03	2.430e3	1.965e3	1.24	NO	1.1008	1.1008
2 Total Hexa-Dioxins	33.62	1.686e2	1.052e2	1.79	YES	0.059037	0.00000
3 Total Hexa-Dioxins	33.85	1.103e3	8.193e2	1.35	NO	0.48162	0.48162
4 Total Hexa-Dioxins	33.95	1.212e2	8.331e1	1.45	YES	0.046747	0.00000
5 1,2,3,4,7,8-HxCDD	34.52	1.013e2	6.094e1	1.66	YES	0.032680	0.00000
6 1,2,3,6,7,8-HxCDD	34.62	1.640e2	1.460e2	1.12	NO	0.071633	0.071633
7 Total Hexa-Dioxins	34.78	1.498e2	9.930e1	1.51	YES	0.055720	0.00000
8 1,2,3,7,8,9-HxCDD	34.87	3.238e2	3.130e2	1.03	YES	0.14815	0.00000



ID	Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	10.018			0.892	0.0649	1.21	
40	Total Penta-Dioxins				0.9212	10.018			0.312	0.0827	0.418	
41	Total Hexa-Dioxins				0.9844	10.018			1.65	0.0621	1.91	
42	Total Hepta-Dioxins				1.0061	10.018			3.92	0.117	3.92	
43	Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	
44	1st Func. Penta-Furans				0.9594	10.018				0.00792		
45	Total Penta-Furans				0.9594	10.018				0.0162		

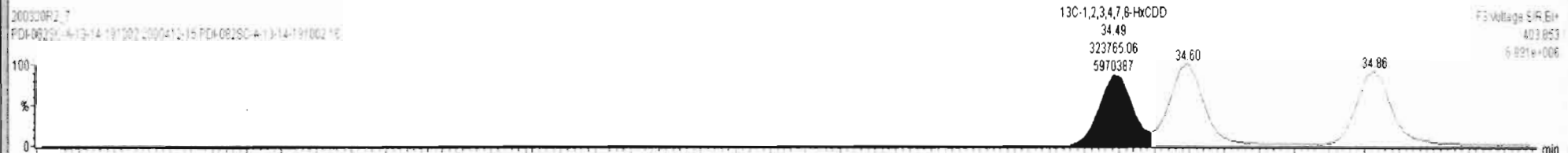
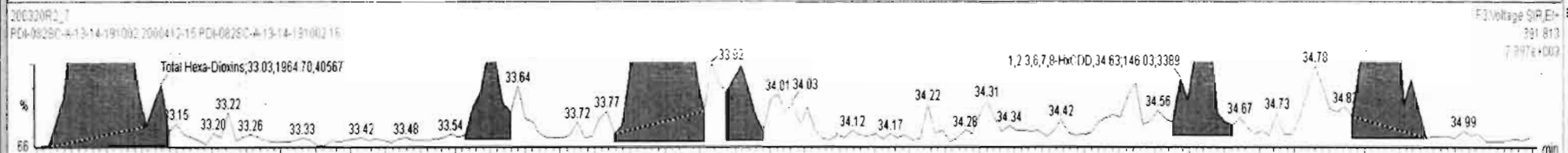
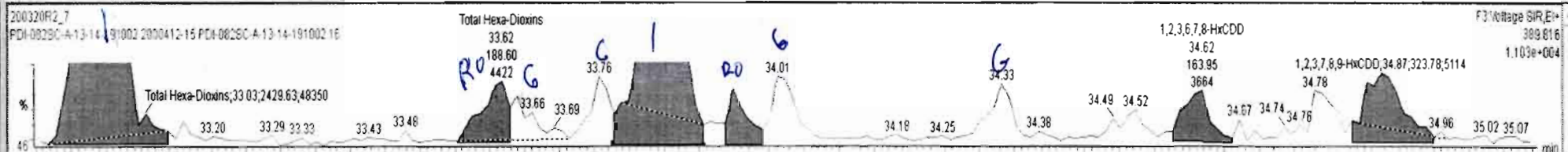
ID	Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1	Total Hexa-Dioxins	33.03	2.430e3	1.965e3	1.24	NO	1.1008	1.1008
2	Total Hexa-Dioxins	33.62	1.886e2	1.052e2	1.79	YES	0.059037	0.00000
3	Total Hexa-Dioxins	33.85	1.103e3	8.193e2	1.35	NO	0.48162	0.48162
4	Total Hexa-Dioxins	33.95	1.212e2	8.331e1	1.45	YES	0.046747	0.00000
5	1,2,3,6,7,8-HxCDD	34.62	1.640e2	1.460e2	1.12	NO	0.071633	0.071633
6	1,2,3,7,8,9-HxCDD	34.87	3.238e2	3.130e2	1.03	YES	0.14815	0.00000





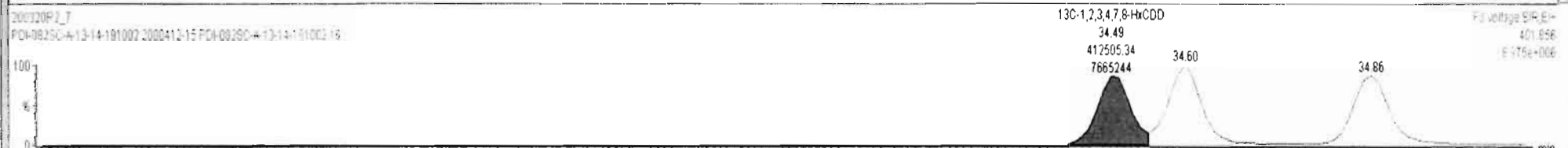
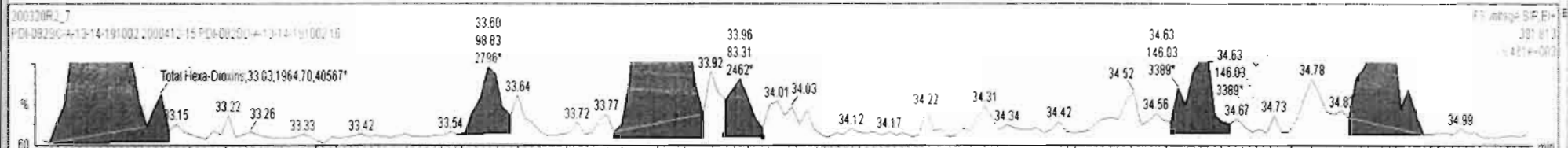
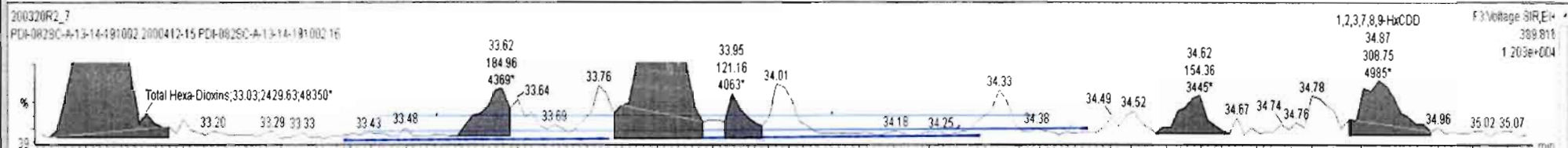
Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892	0.0649	1.21	
40 Total Penta-Dioxins				0.9212	10.018			0.312	0.0827	0.418	
41 Total Hexa-Dioxins				0.9844	10.018			1.65	0.0621	1.91	
42 Total Hepta-Dioxins				1.0061	10.018			3.92	0.117	3.92	
43 Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	
44 1st Func. Penta-Furans				0.9594	10.018				0.00792		
45 Total Penta-Furans				0.9594	10.018				0.0162		

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.03	2.430e3	1.965e3	1.24	NO	1.1008	1.1008
2 Total Hexa-Dioxins	33.62	1.886e2	1.052e2	1.79	YES	0.059037	0.00000
3 Total Hexa-Dioxins	33.85	1.103e3	8.193e2	1.35	NO	0.48162	0.48162
4 Total Hexa-Dioxins	33.95	1.212e2	8.331e1	1.45	YES	0.046747	0.00000
5 1,2,3,6,7,8-HxCDD	34.62	1.640e2	1.460e2	1.12	NO	0.071633	0.071633
6 1,2,3,7,8,9-HxCDD	34.87	3.238e2	3.130e2	1.03	YES	0.14815	0.00000



Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892		0.0649	1.21
40 Total Penta-Dioxins				0.9212	10.018			0.312		0.0827	0.418
41 Total Hexa-Dioxins				0.9844	10.018			1.45		0.0621	1.54
42 Total Hepta-Dioxins				1.0061	10.018			3.92		0.117	3.92
43 Total Tetra-Furans				0.9154	10.018			0.262		0.0364	0.262
44 1st Func. Penta-Furans				0.9594	10.018					0.00792	
45 Total Penta-Furans				0.9594	10.018					0.0162	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Dioxins	33.03	2.350e3	1.874e3	1.25	NO	1.0581	1.0581
2 Total Hexa-Dioxins	33.85	8.070e2	7.393e2	1.09	NO	0.36737	0.36737
3 1,2,3,7,8-HxCDD	34.88	2.152e2	2.744e2	0.78	YES	0.098480	0.00000



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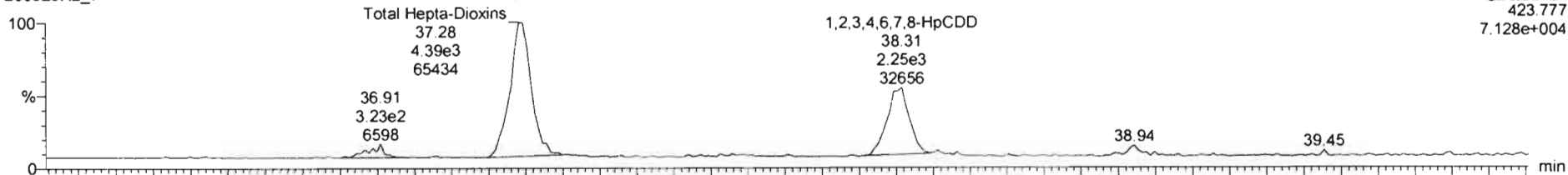
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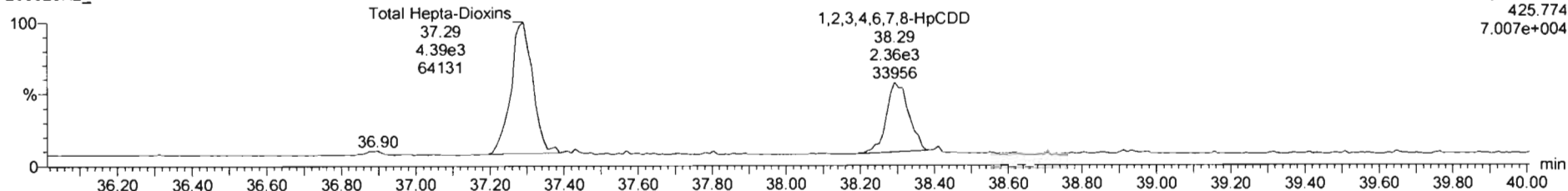
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1,2,3,4,6,7,8-HpCDD

200320R2\_7

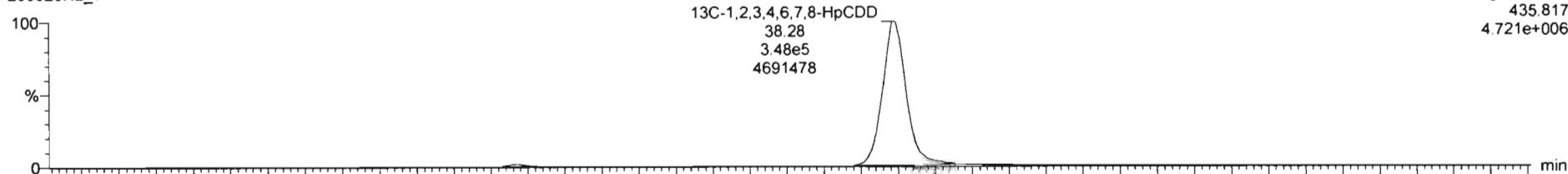


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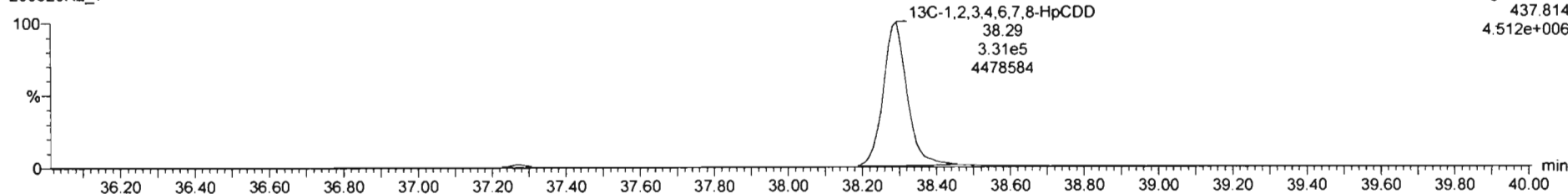


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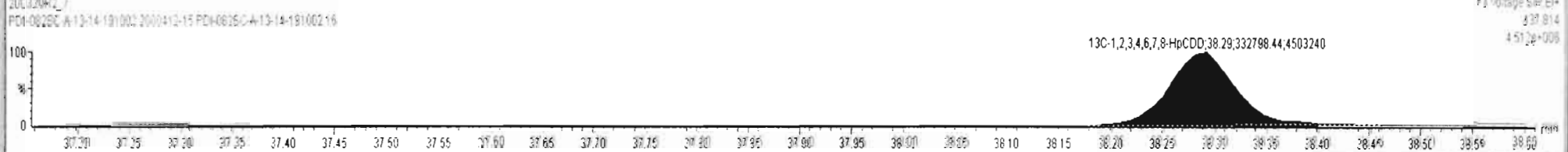
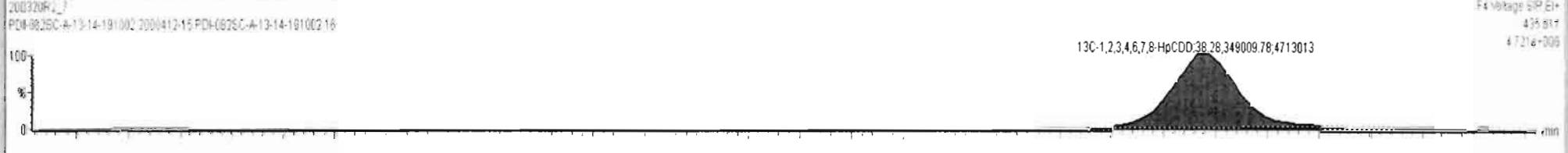
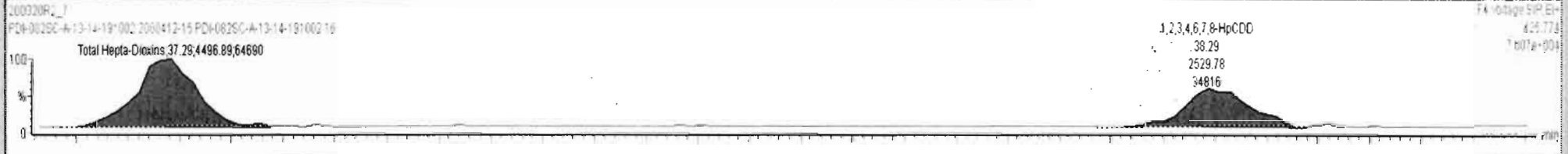
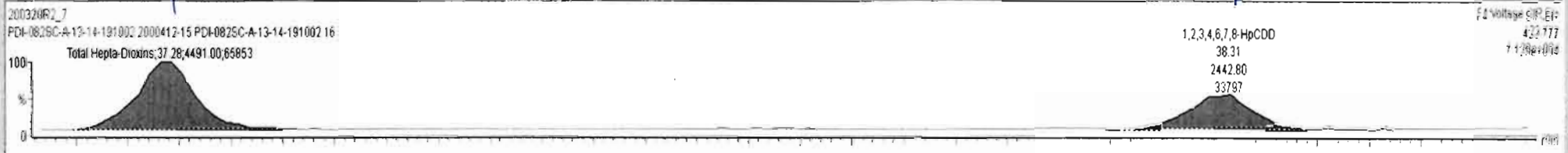


200320R2\_7



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.018			0.892	0.0649	1.21	
40 Total Penta-Dioxins				0.9212	10.018			0.312	0.0827	0.418	
41 Total Hexa-Dioxins				0.9844	10.018			1.65	0.0621	2.00	
42 Total Hepta-Dioxins				1.0061	10.018			4.06	0.116	4.06	
43 Total Tetra-Furans				0.9154	10.018			0.262	0.0384	0.262	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.28	4.491e3	4.497e3	1.00	NO	2.6159	2.6159
2 1,2,3,4,6,7,8-HpCDD	38.31	2.443e3	2.530e3	0.97	NO	1.4473	1.4473

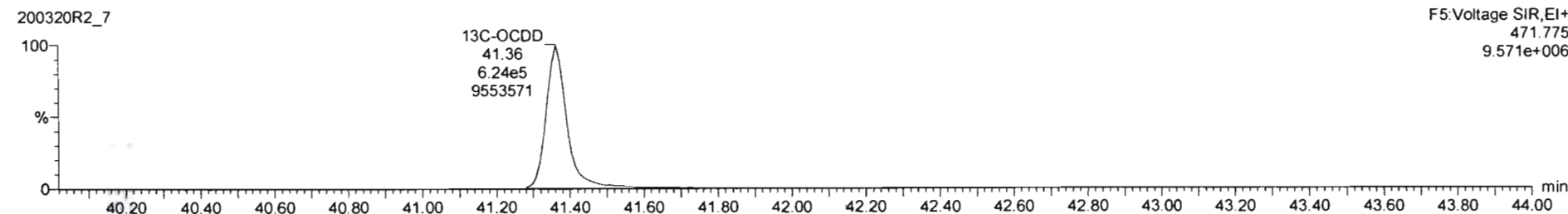
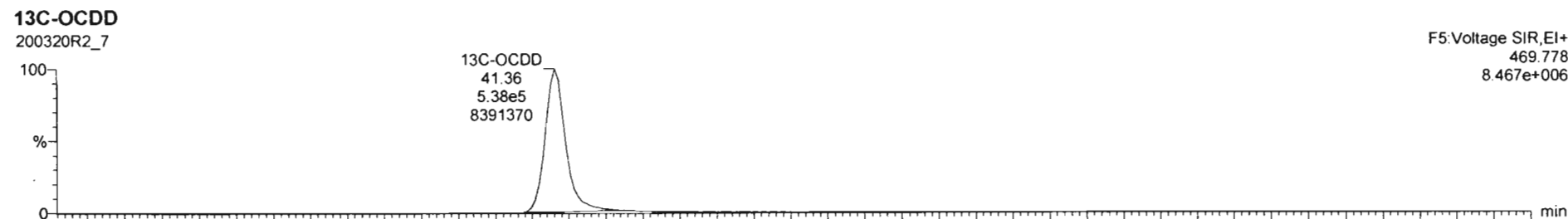
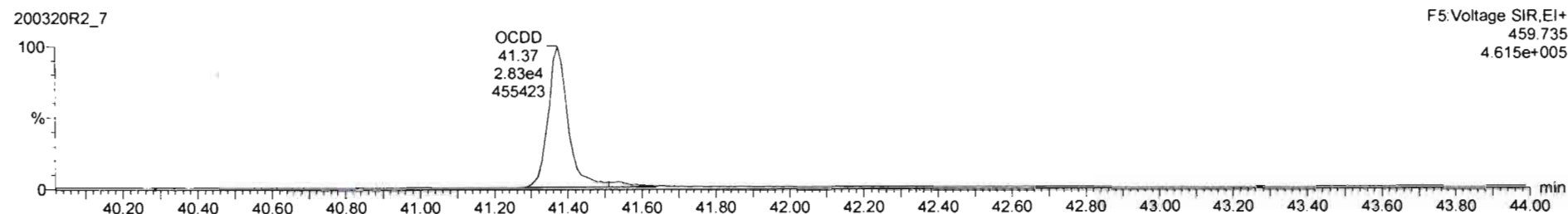
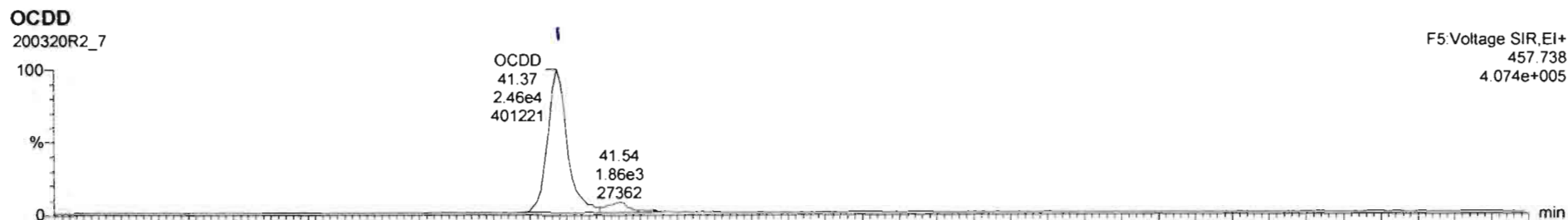


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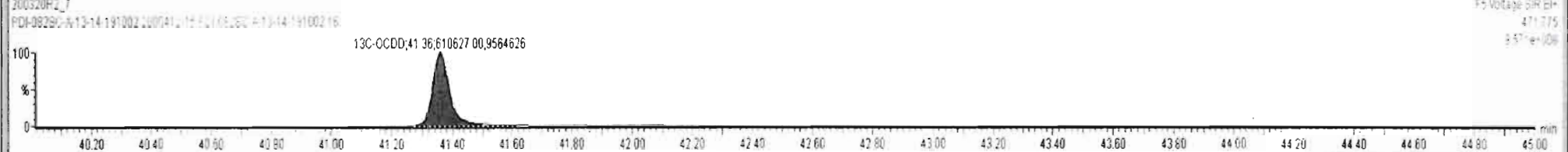
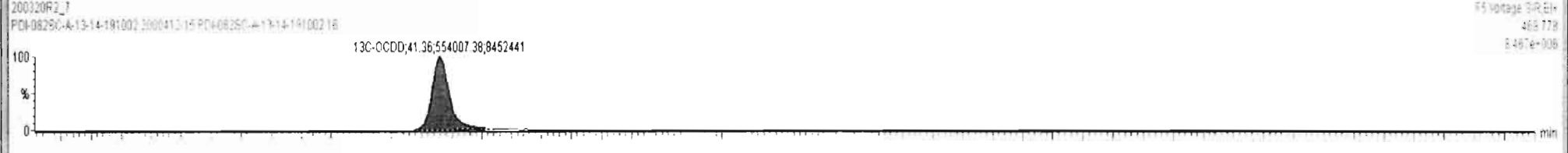
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200320R2\_7 - 2000412-15 PDI-082SC-A-13-14-191002 16 - PDI-082SC-A-13-14-191002

#	Name	Resp	RA	n/y	RF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
7	OCDD	5.33e4	0.88	NO	1.0515	10.018	41.37	1.000	17.4		0.112	17.4
8	2,3,7,8-TCDF			NO	0.9154	10.018					0.0364	
9	1,2,3,7,8-PeCDF			NO	0.9594	10.018					0.0323	
10	2,3,4,7,8-PeCDF			NO	1.0035	10.018					0.0312	
11	1,2,3,4,7,8-HxCDF			NO	1.0381	10.018					0.0279	

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



Dataset: Untitled

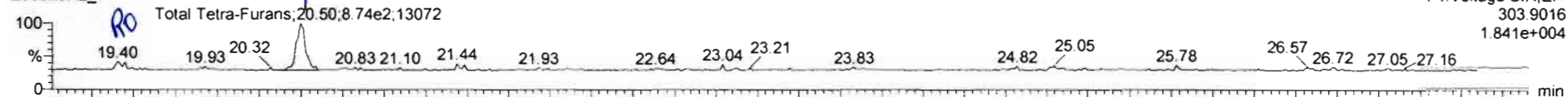
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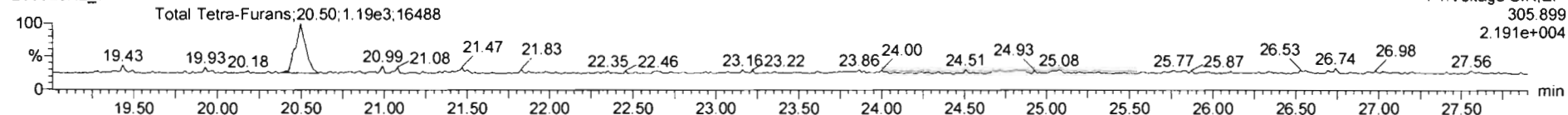
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**2,3,7,8-TCDF**

200320R2\_7

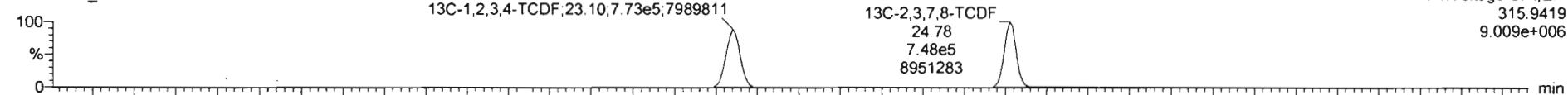


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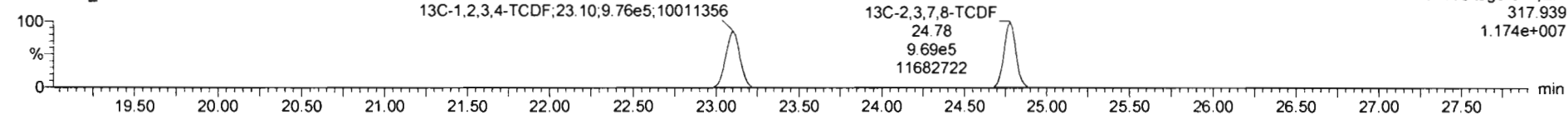


**13C-2,3,7,8-TCDF**

200320R2\_7

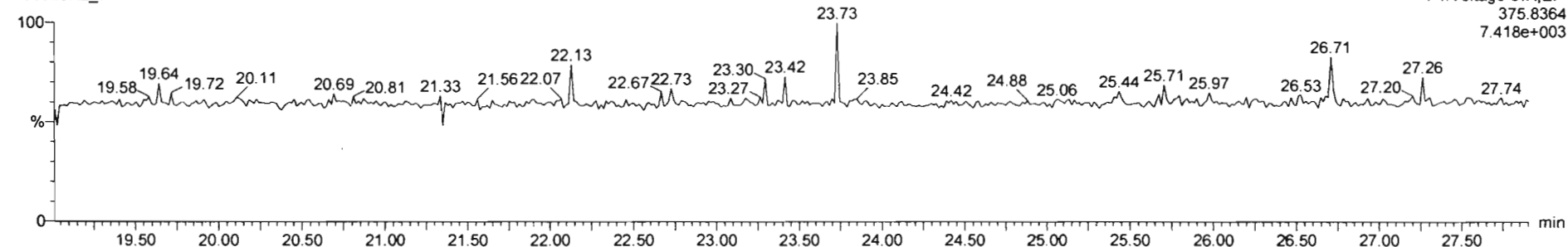


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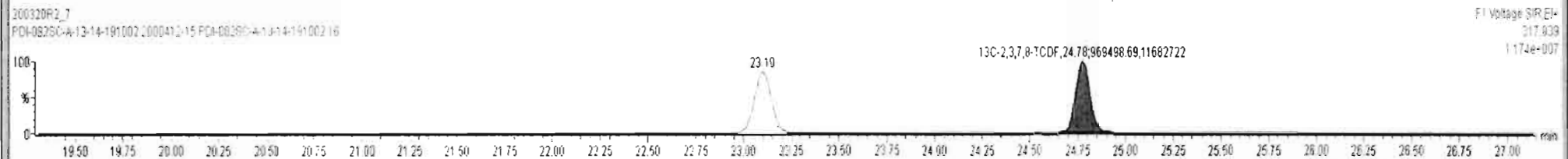
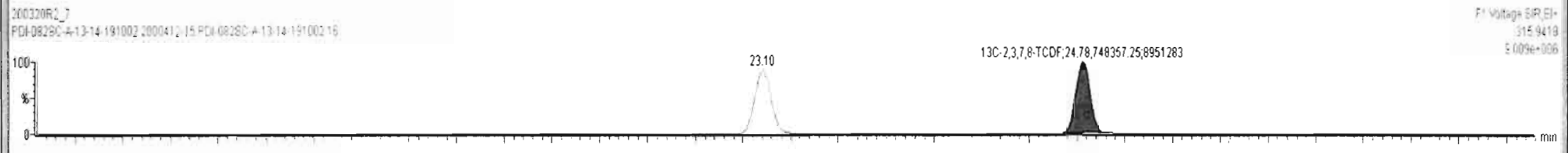
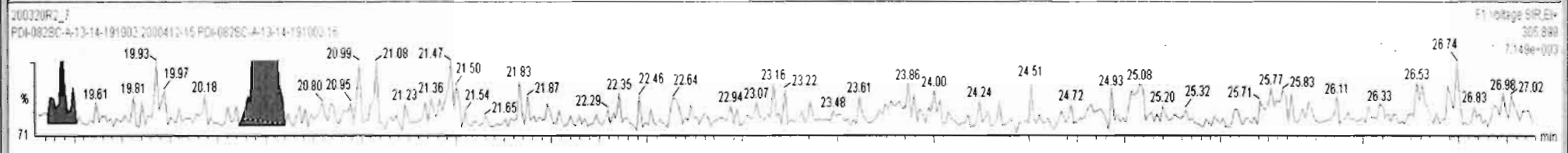
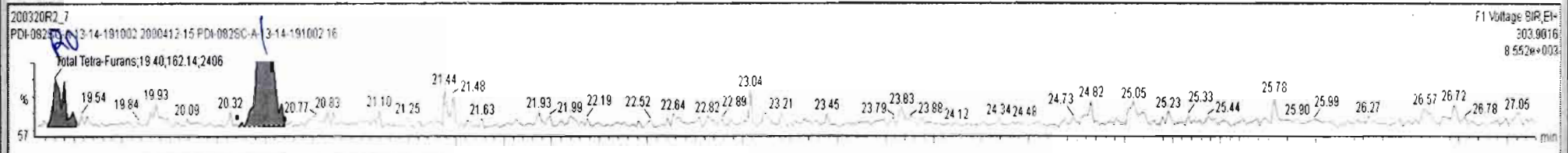
**DPE1**

200320R2\_7



Name	Resp	RA	n/y	RfF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.018			0.267		0.0364	0.293
44 1st Func. Penta-Furans				0.9594	10.018					0.00792	
45 Total Penta-Furans				0.9594	10.018					0.0162	
46 Total Hexa-Furans				1.0920	10.018					0.0181	
47 Total Hepta-Furans				1.0483	10.018					0.0174	

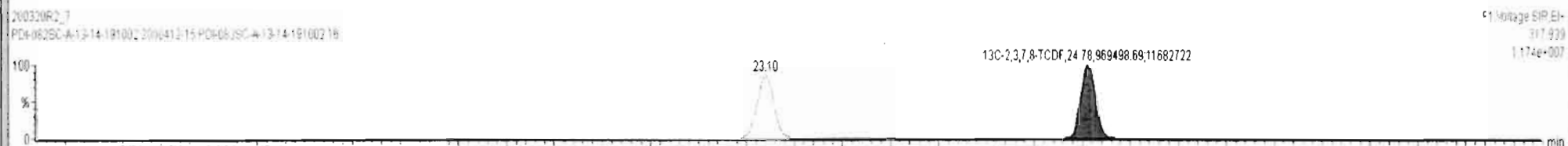
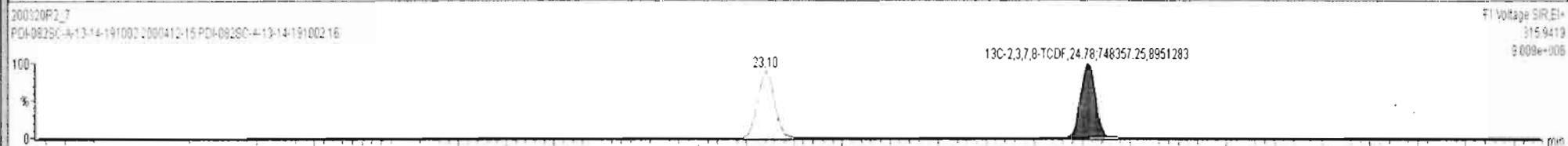
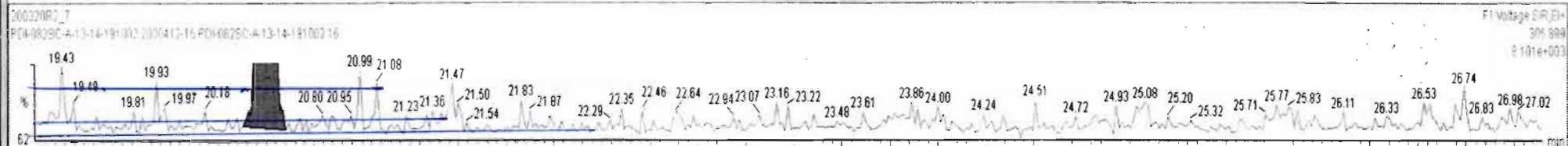
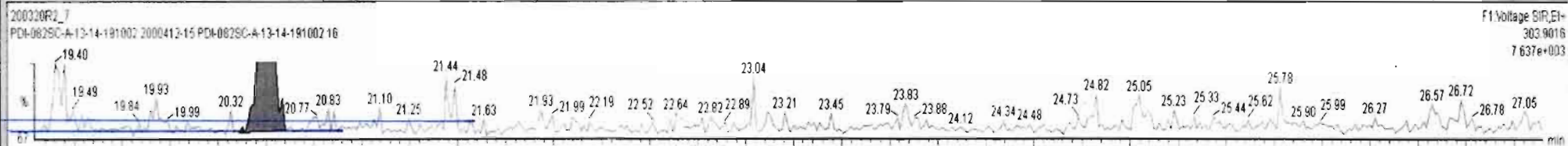
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.40	1.621e2	1.183e2	1.37	YES	0.028574	0.00000
2 Total Tetra-Furans	20.50	8.820e2	1.220e3	0.72	NO	0.26886	0.26886





#	Name	Resp	RA	n/y	RfF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43	Total Tetra-Furans				0.9154	10.018			0.262	0.0364	0.262	
44	1st Func. Penta-Furans				0.9594	10.018					0.00792	
45	Total Penta-Furans				0.9594	10.018					0.0162	
46	Total Hexa-Furans				1.0920	10.018					0.0181	
47	Total Hepta-Furans				1.0483	10.018					0.0174	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1	Total Tetra-Furans	20.50	8.737e2	1.190e3	0.73	NO	0.26195	0.26195



Dataset: Untitled

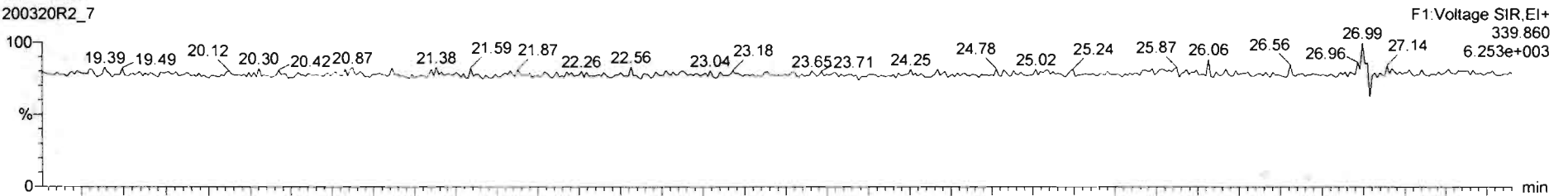
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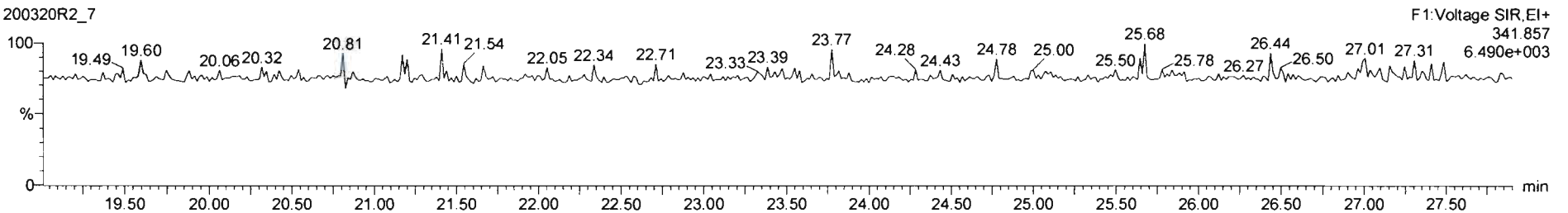
Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

1st Func. Penta-Furans

200320R2\_7

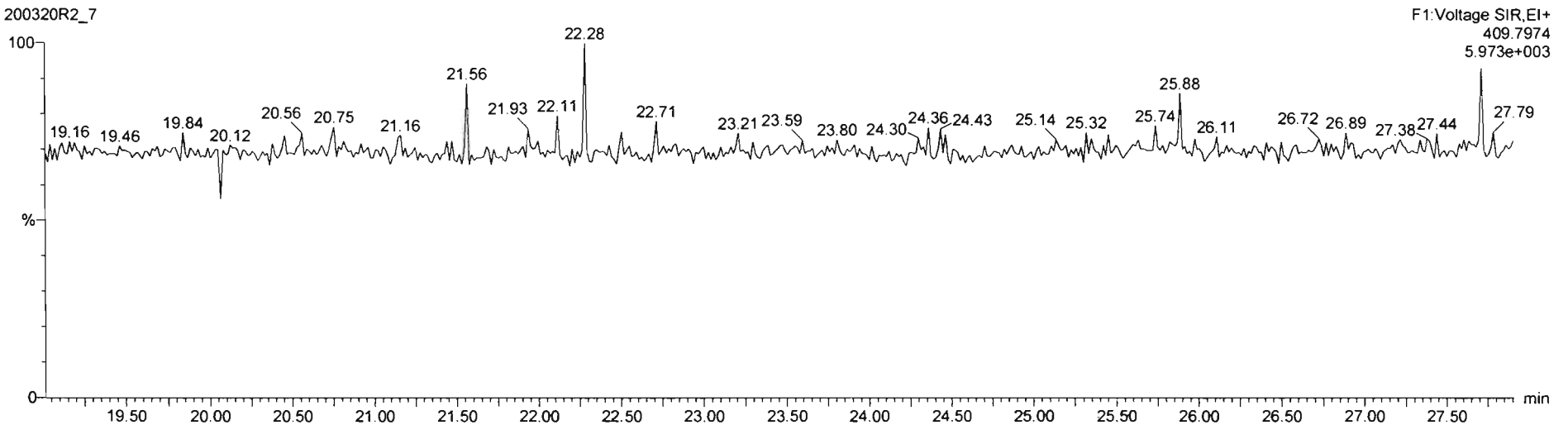


200320R2\_7



DPE6

200320R2\_7



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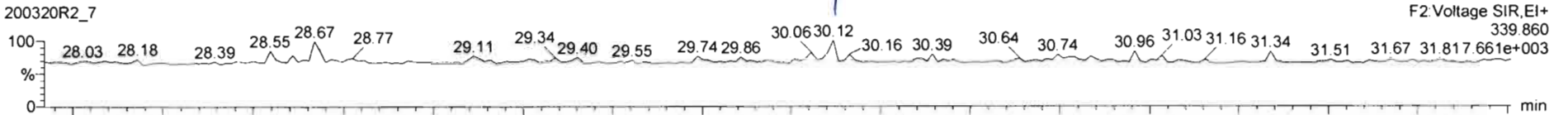
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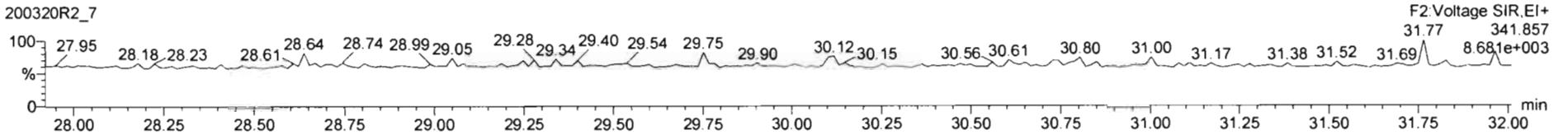
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**1,2,3,7,8-PeCDF**

200320R2\_7

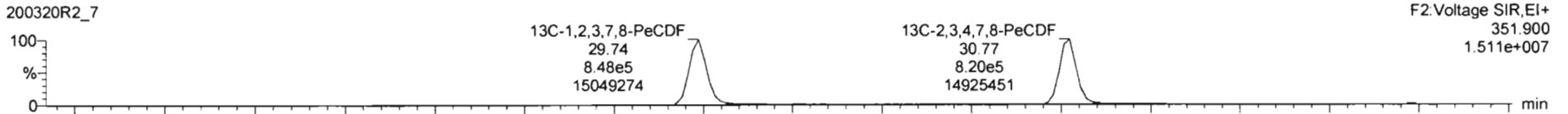


200320R2\_7

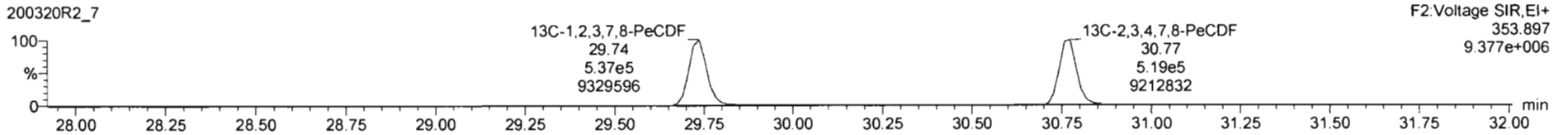


**13C-1,2,3,7,8-PeCDF**

200320R2\_7

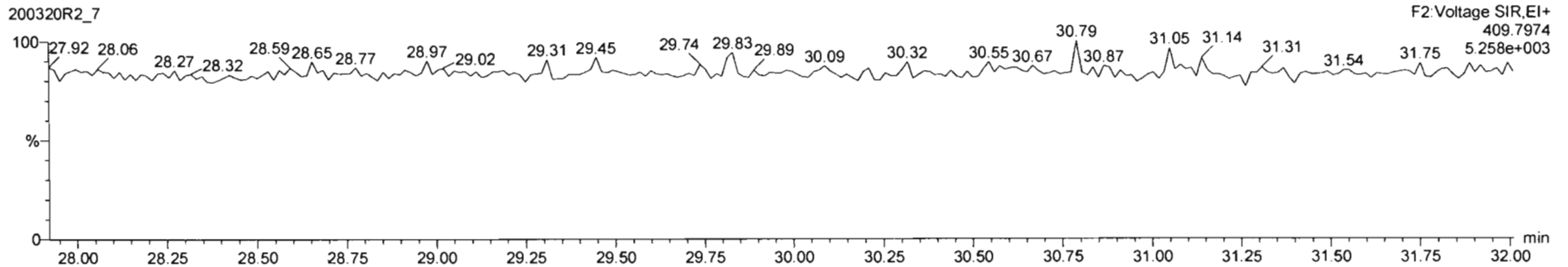


200320R2\_7



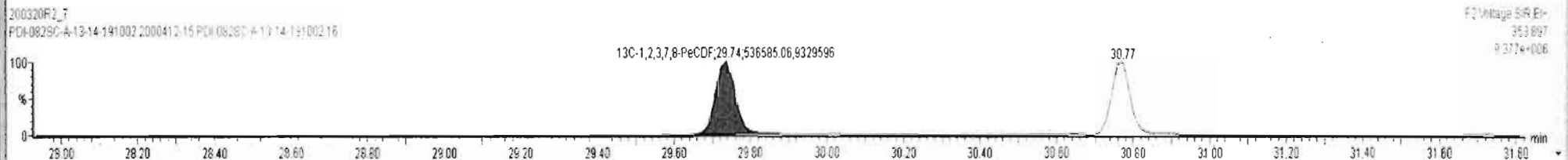
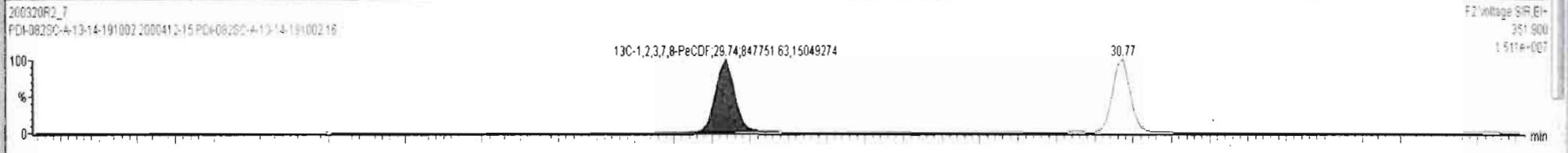
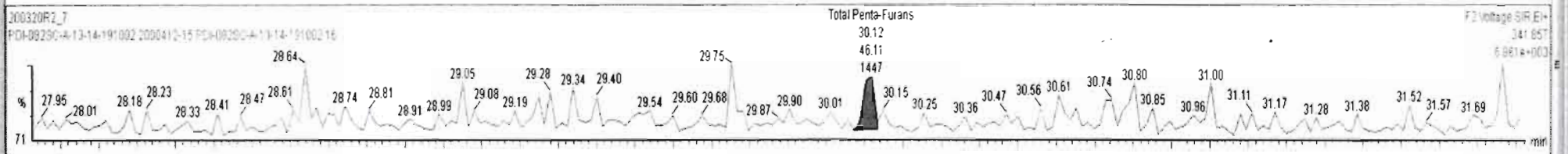
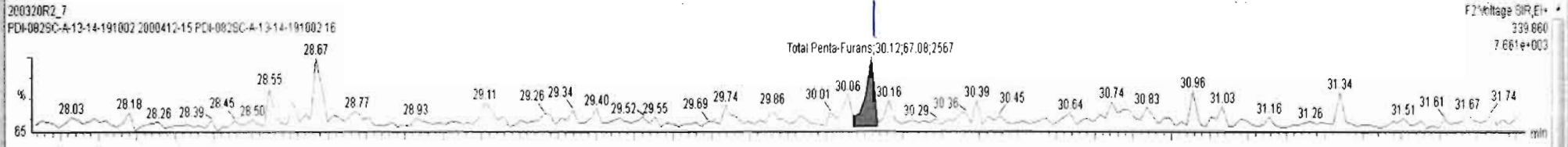
**DPE2**

200320R2\_7



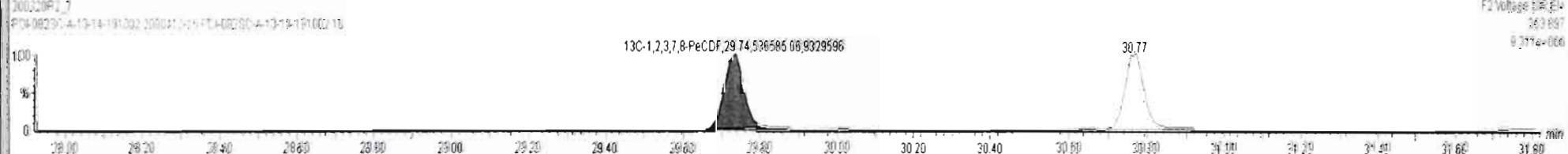
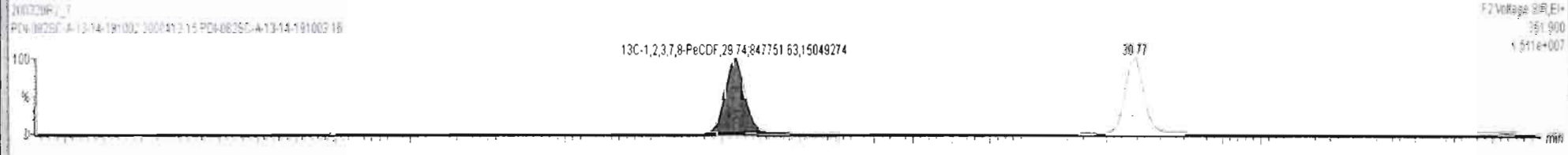
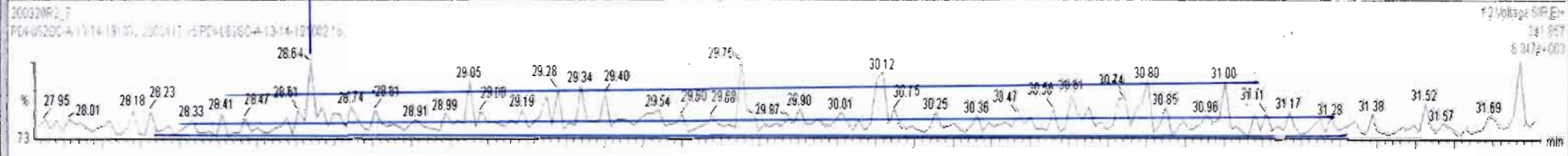
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.018			0.267		0.0364	0.293
44 1st Func. Penta-Furans				0.9594	10.018					0.00792	
45 Total Penta-Furans				0.9594	10.018			0.0173		0.0162	0.0173
46 Total Hexa-Furans				1.0920	10.018					0.0181	
47 Total Hepta-Furans				1.0483	10.018					0.0174	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	30.12	6.708e1	4.611e1	1.45	NO	0.017300	0.017300



#	Name	Resp	RA	n/y	RfF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43	Total Tetra-Furans				0.9154	10.018			0.267	0.0364	0.293	
44	1st Func. Penta-Furans				0.9594	10.018				0.00792		
45	Total Penta-Furans				0.9594	10.018				0.0162		
46	Total Hexa-Furans				1.0920	10.018				0.0181		
47	Total Hepta-Furans				1.0483	10.018				0.0174		

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



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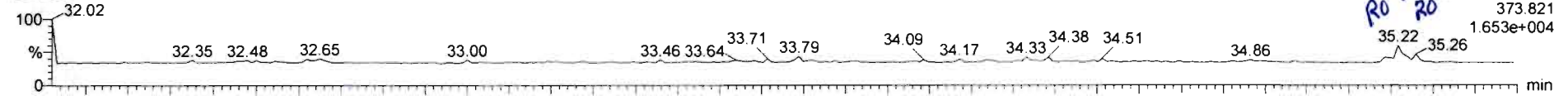
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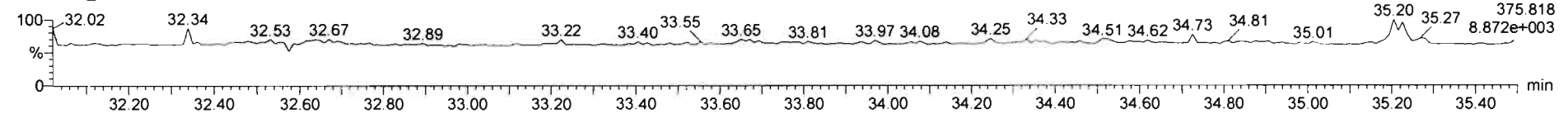
Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

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

200320R2\_7

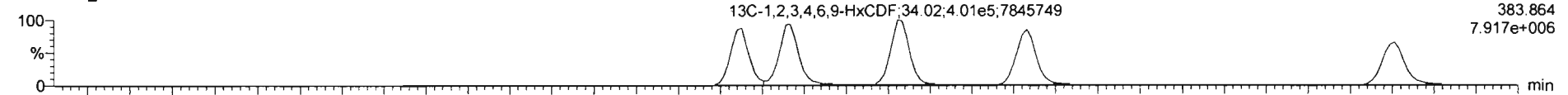


200320R2\_7

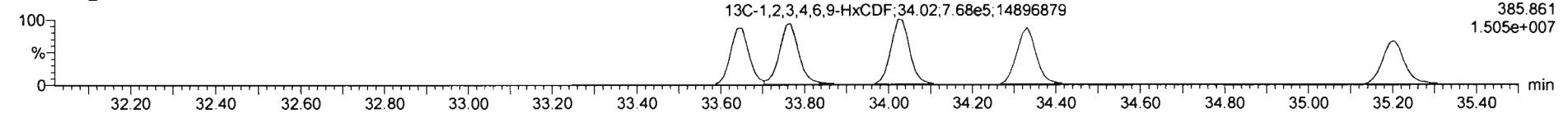


**13C-1,2,3,4,7,8-HxCDF**

200320R2\_7

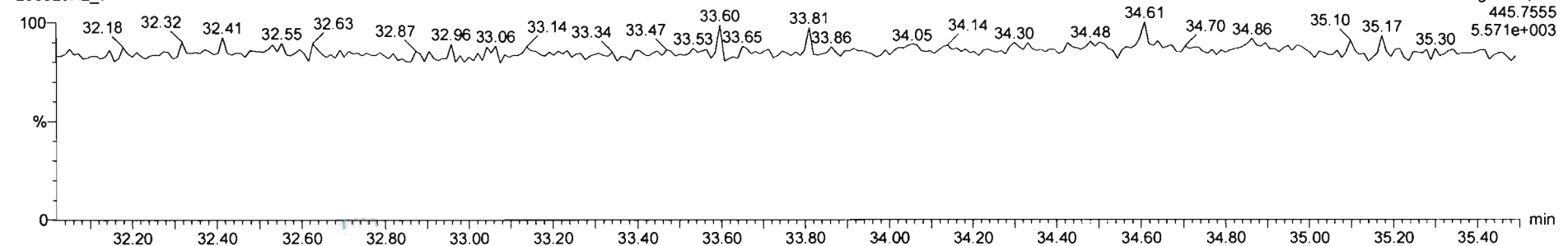


200320R2\_7



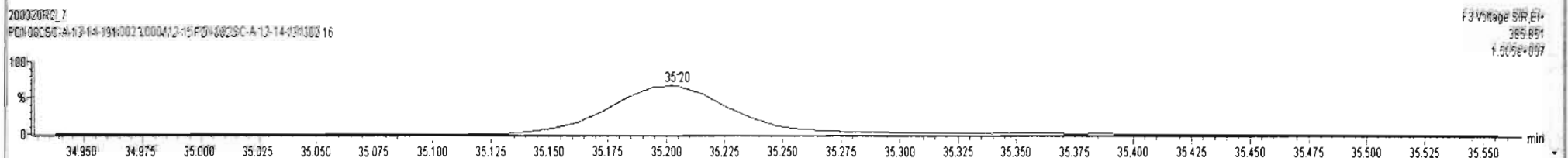
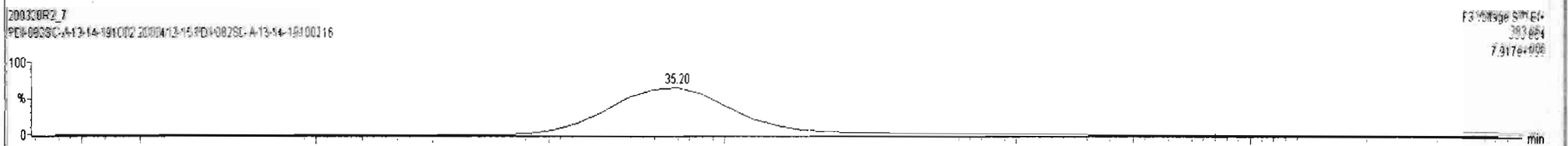
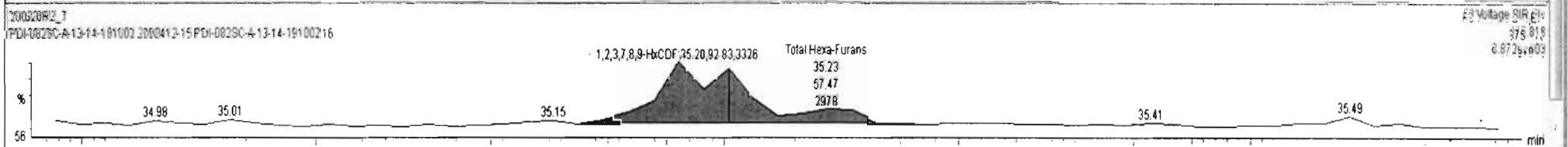
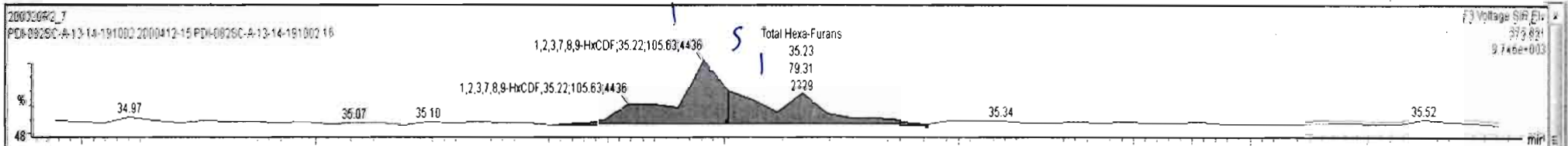
**DPE3**

200320R2\_7



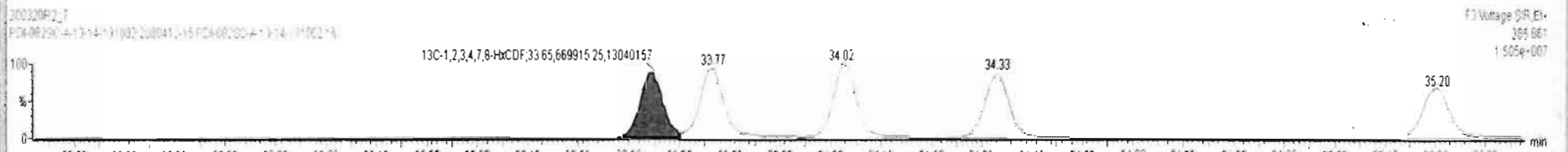
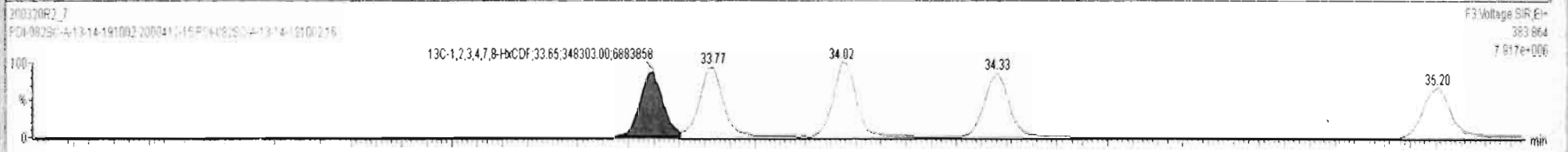
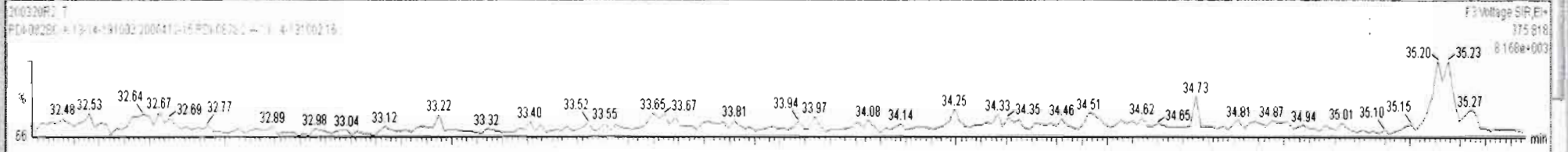
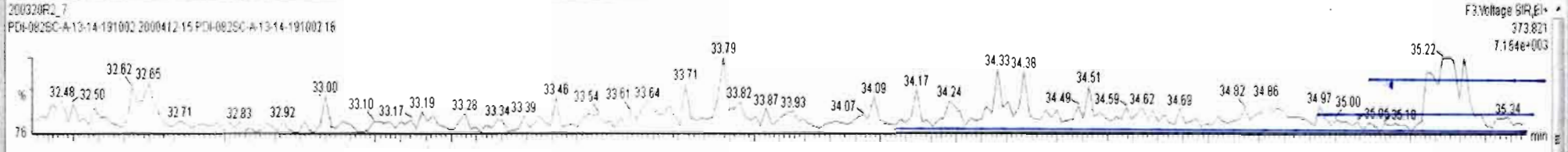
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.016			0.0656		0.0161	0.0656

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,7,8,9-HxCDF	35.22	1.056e2	9.283e1	1.14	NO	0.041458	0.041458
2 Total Hexa-Furans	35.23	7.931e1	5.747e1	1.38	NO	0.024143	0.024143



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.018			0.267		0.0364	0.293
44 1st Func. Penta-Furans				0.9594	10.018					0.00792	
45 Total Penta-Furans				0.9594	10.018			0.0173		0.0162	0.0173
46 Total Hexa-Furans				1.0920	10.018					0.0181	
47 Total Hepta-Furans				1.0483	10.018					0.0174	

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



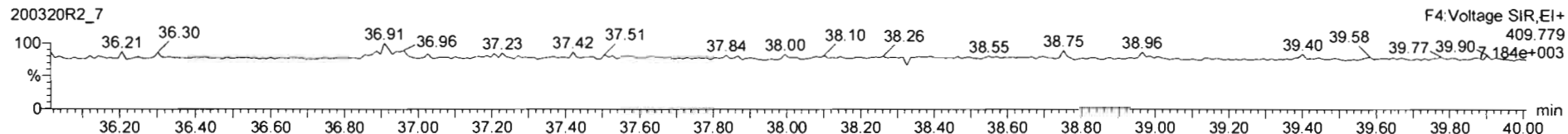
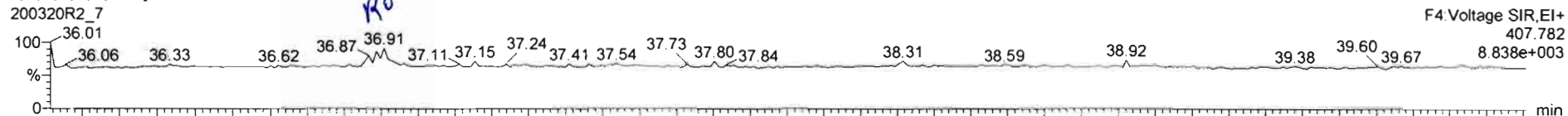


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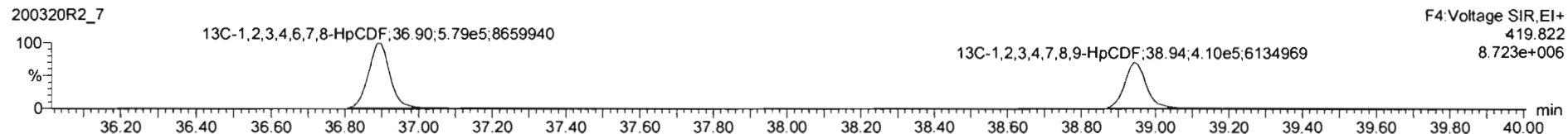
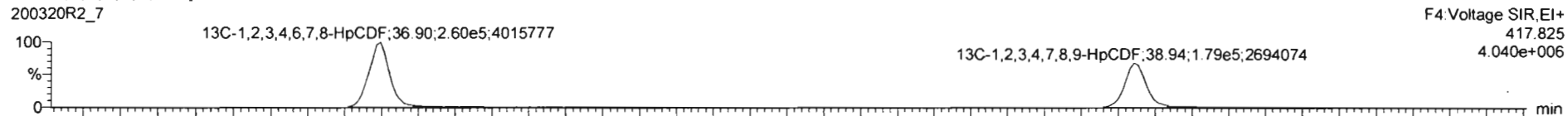
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Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

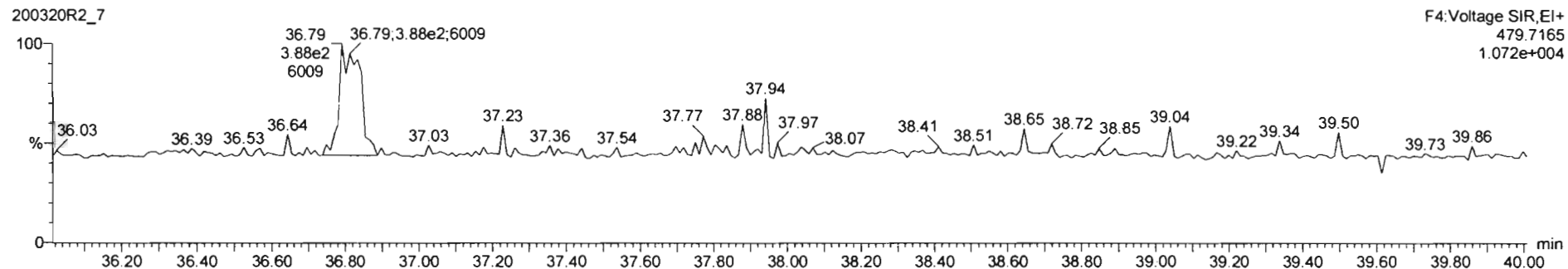
**1,2,3,4,6,7,8-HpCDF**



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



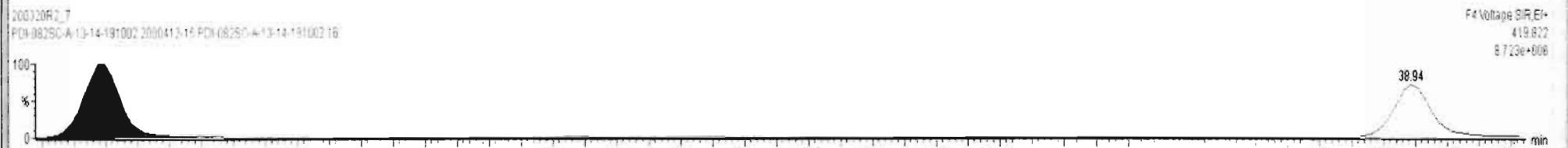
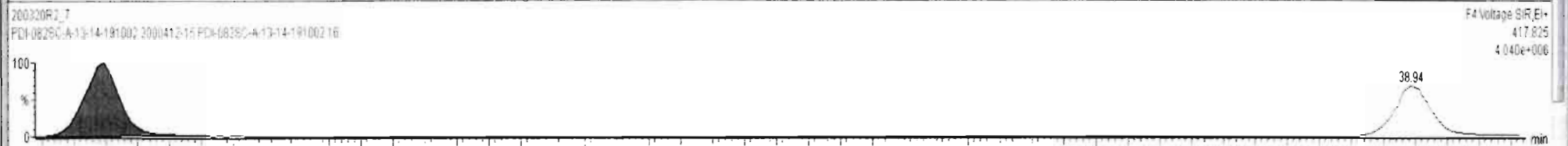
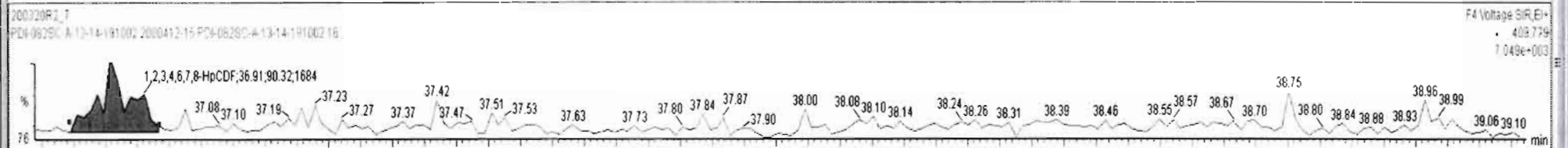
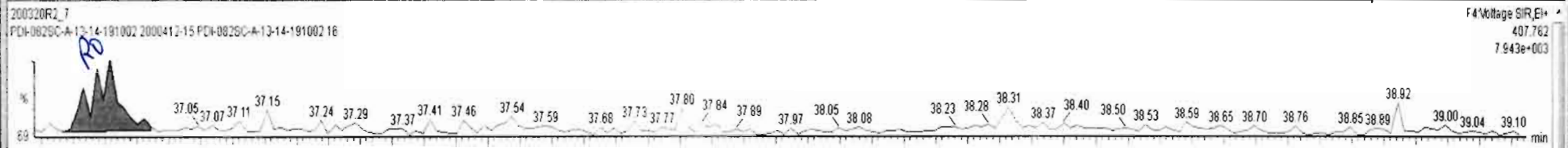
**DPE4**



200320R2\_7 - 2000412-15 PDI-0825C-A-13-14-191002 16 - PDI-0625C-A-13-14-191002

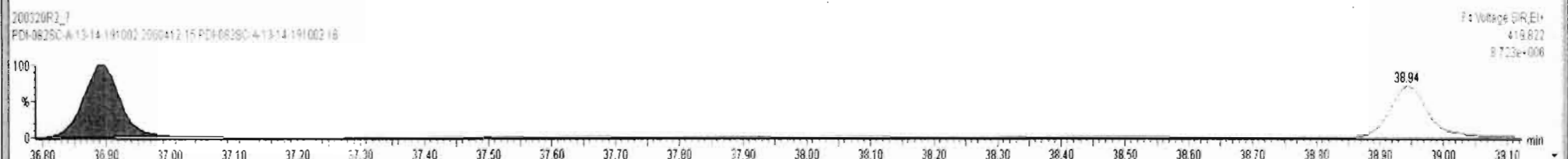
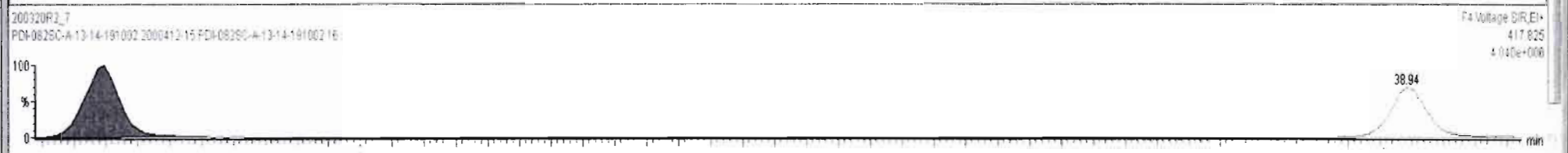
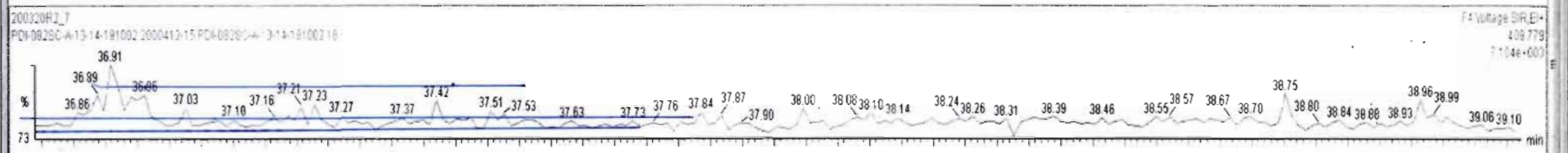
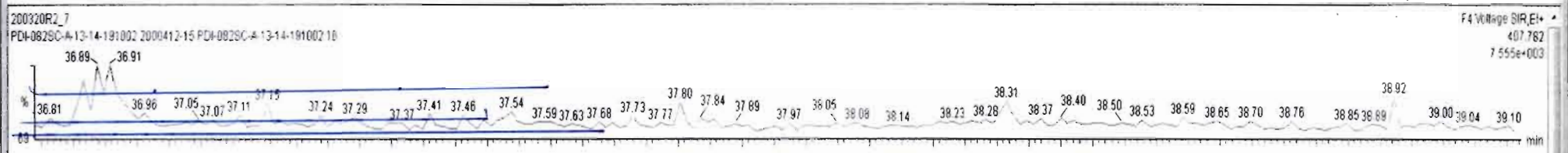
#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45	Total Penta-Furans				0.9594	10.018			0.0173		0.0162	0.0173
46	Total Hexa-Furans				1.0920	10.018			0.000		0.0181	0.0492
47	Total Hepta-Furans				1.0483	10.018			0.000		0.0174	0.0418
48	PFK1											
49	PFK2											

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	1,2,3,4,6,7,8-HpCDF	36.91	1.185e2	9.032e1	1.31	YES	0.041802	0.00000



Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.018			0.0173		0.0162	0.0173
46 Total Hexa-Furans				1.0920	10.018			0.000		0.0181	0.0492
47 Total Hepta-Furans				1.0483	10.018					0.0174	
48 PFK1											
49 PFK2											

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

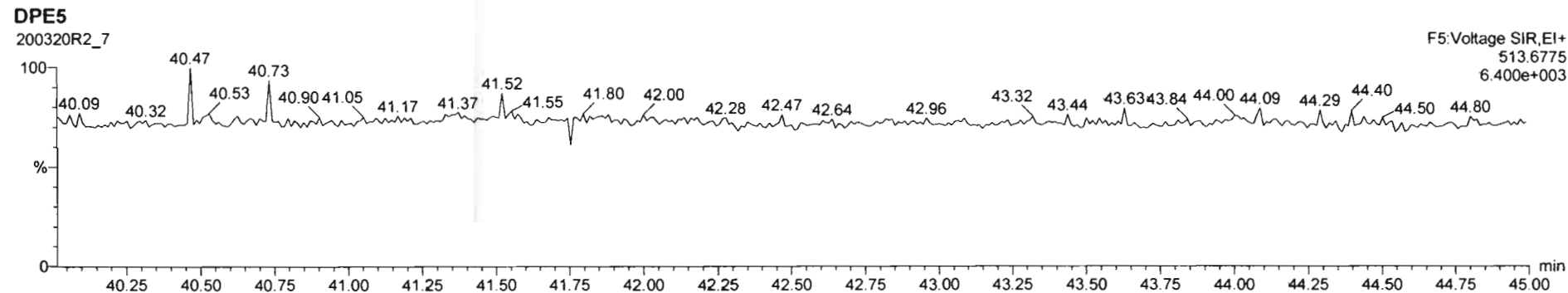
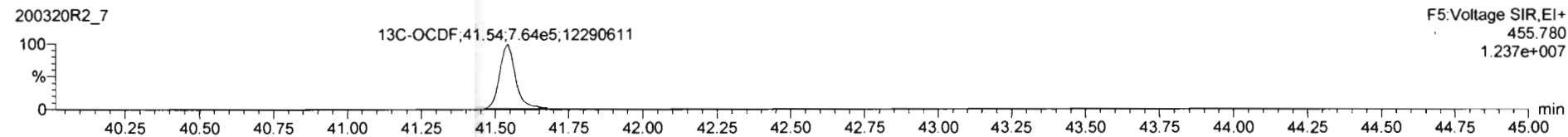
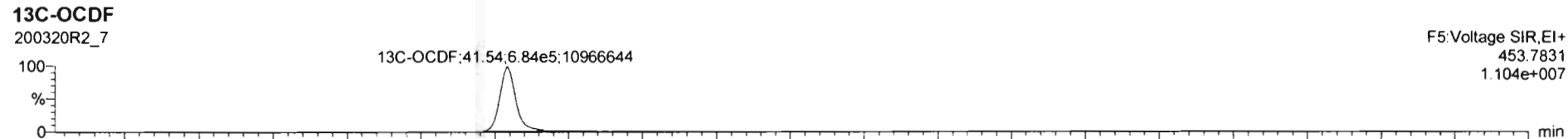
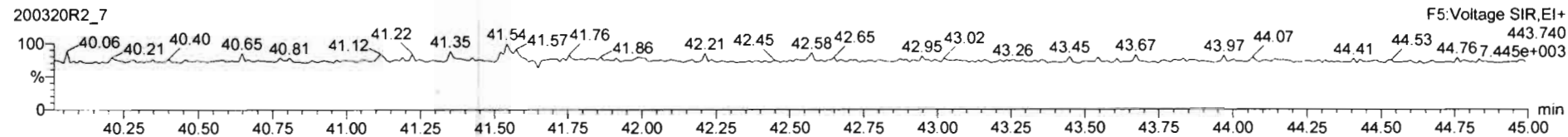
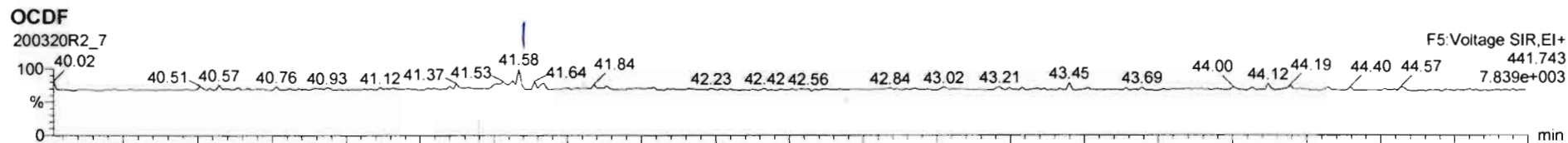


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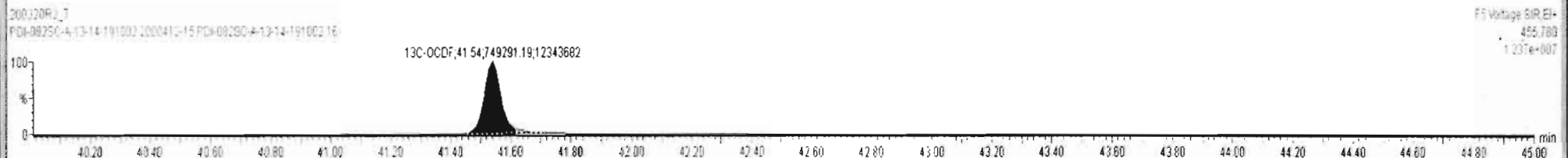
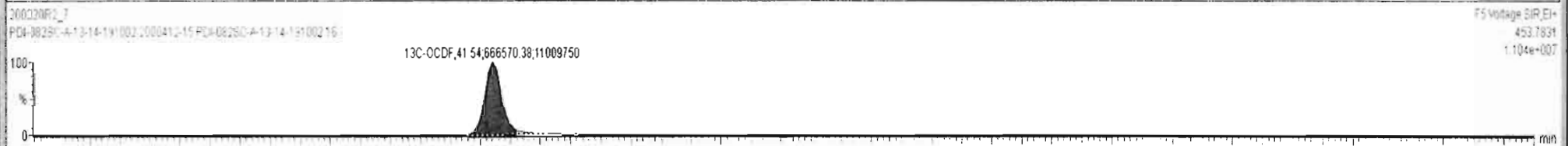
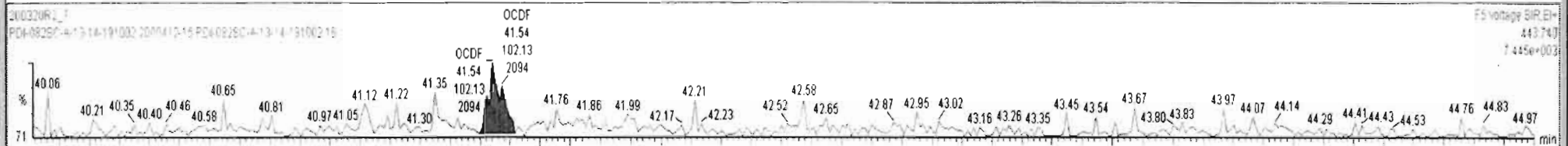
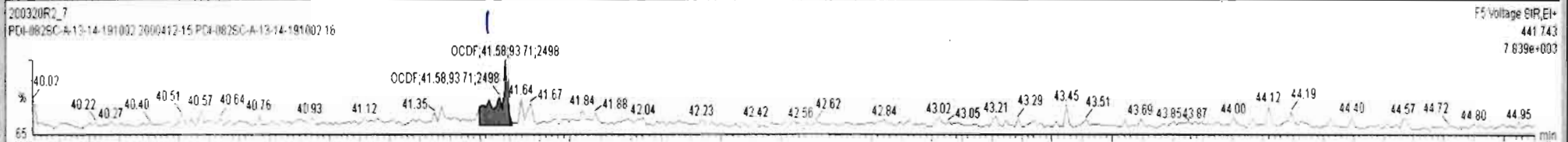
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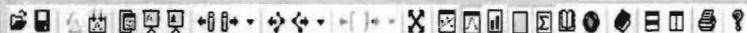
Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002



Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
17	OCDF	1.96e2	0.92	NO	0.9468	10.018	41.58	1.001	0.0583	0.0381	0.0583
18	13C-2,3,7,8-TCDD	1.27e6	0.80	NO	1.1842	10.018	25.78	1.029	193	96.8	0.227
19	13C-1,2,3,7,8-PeCDD	9.12e5	0.63	NO	0.8644	10.018	31.09	1.241	190	95.1	0.256
20	13C-1,2,3,4,7,8-HxCDD	7.36e5	1.27	NO	0.7539	10.018	34.49	1.014	167	83.6	0.318
21	13C-1,2,3,6,7,8-HxCDD	8.78e5	1.28	NO	0.9254	10.018	34.60	1.017	162	81.2	0.259

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

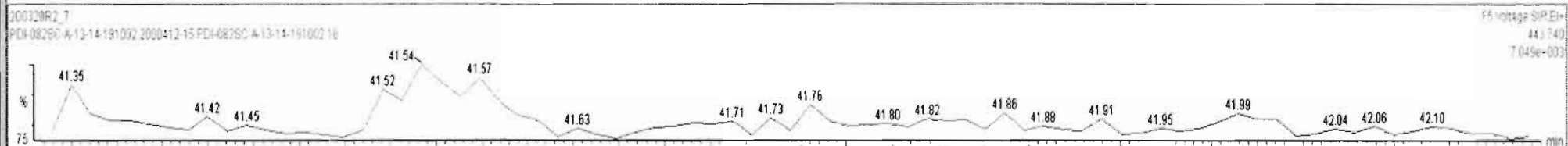
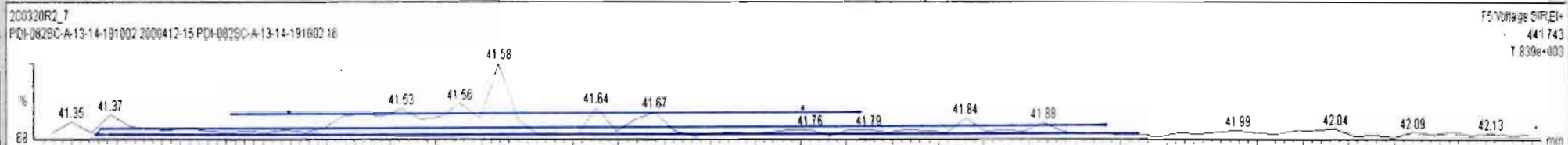




200320R2\_7 - 2000412-15 PDI-082SC-A-13-14-191002 18 - PDI-082SC-A-13-14-191002

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
17 OCDF			NO	0.9468	10.018					0.0383	
18 13C-2,3,7,8-TCDD	1.27e6	0.80	NO	1.1842	10.018	25.78	1.029	193	96.8	0.227	
19 13C-1,2,3,7,8-PeCDD	9.12e5	0.63	NO	0.8844	10.018	31.09	1.241	190	95.1	0.256	
20 13C-1,2,3,4,7,8-HxCDD	7.36e5	1.27	NO	0.7539	10.018	34.49	1.014	167	83.6	0.318	
21 13C-1,2,3,6,7,8-HxCDD	8.78e5	1.28	NO	0.9254	10.018	34.60	1.017	162	81.2	0.259	

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

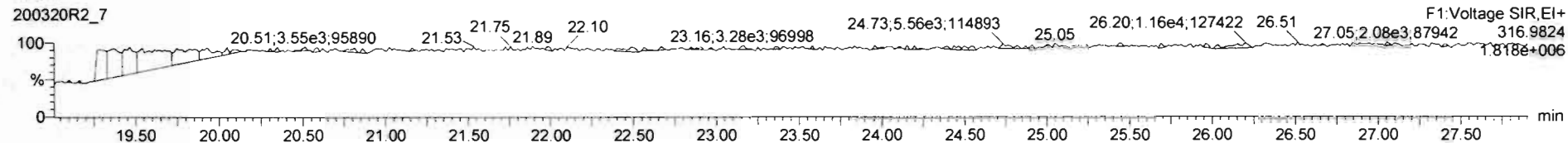


Dataset: Untitled

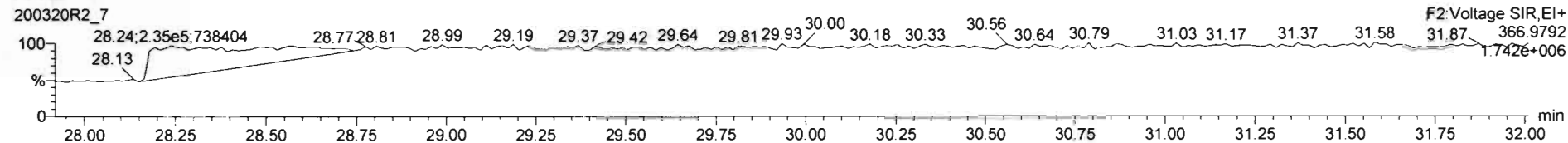
Last Altered: Monday, March 23, 2020 11:38:14 Pacific Daylight Time  
Printed: Monday, March 23, 2020 11:43:29 Pacific Daylight Time

Name: 200320R2\_7, Date: 21-Mar-2020, Time: 05:52:53, ID: 2000412-15 PDI-082SC-A-13-14-191002 16, Description: PDI-082SC-A-13-14-191002

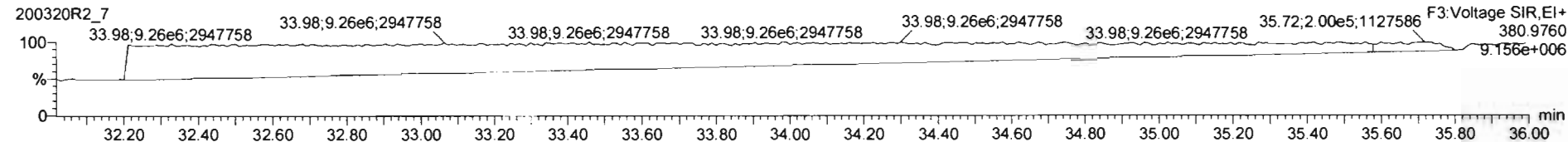
**PFK1**



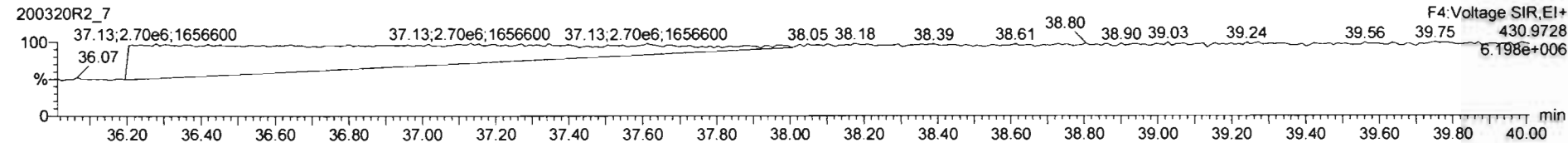
**PFK2**



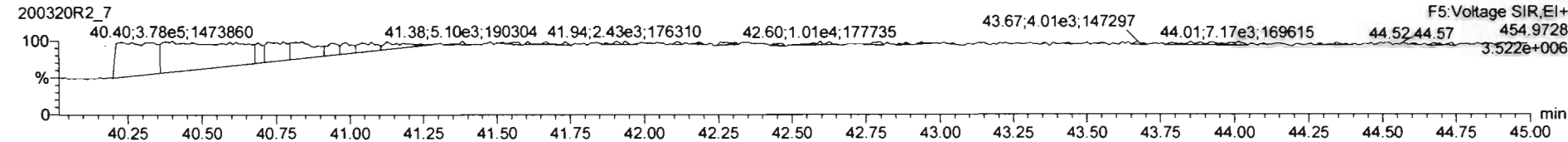
**PFK3**



**PFK4**



**PFK5**



## **CONFIRMATION**



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_9.qld

Last Altered: Wednesday, March 25, 2020 16:31:14 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:32:42 Pacific Daylight Time

DB 3/25/20 C704/02/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_9, Date: 25-Mar-2020, Time: 16:08:19, ID: 2000412-06RE1 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

#	Name	Resp	RA	n/y	IRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	3.41e4	0.78	NO	0.982	10.009	17.829	17.83	1.000	1.001	93.168		1.03	93.2
2	2 13C-2,3,7,8-TCDF	7.46e4	0.79	NO	1.08	10.009	17.817	17.81	1.133	1.137	195.41	97.8	2.07	
3	3 13C-1,2,3,4-TCDF	7.04e4	0.78	NO	1.00	10.009	15.660	15.66	1.000	1.000	199.82	100	2.25	

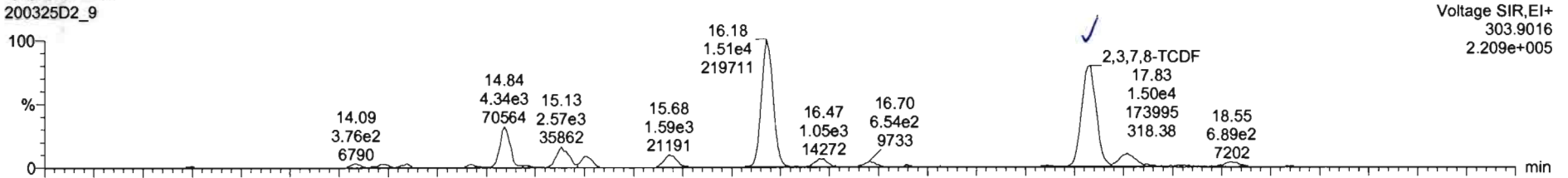
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_9.qld

Last Altered: Wednesday, March 25, 2020 16:31:14 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:33:04 Pacific Daylight Time

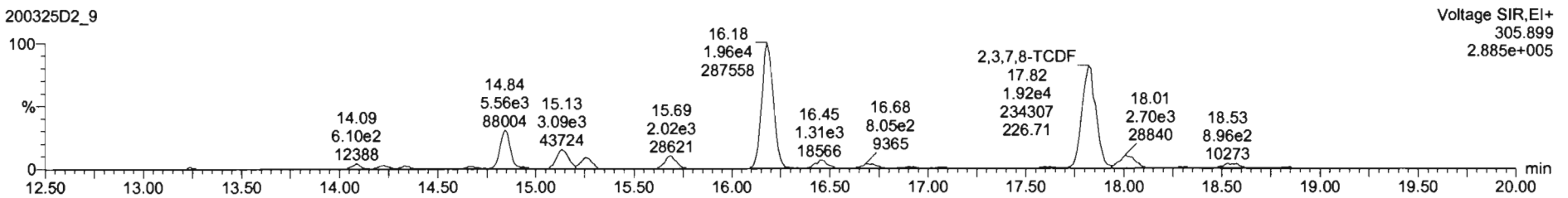
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_9, Date: 25-Mar-2020, Time: 16:08:19, ID: 2000412-06RE1 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

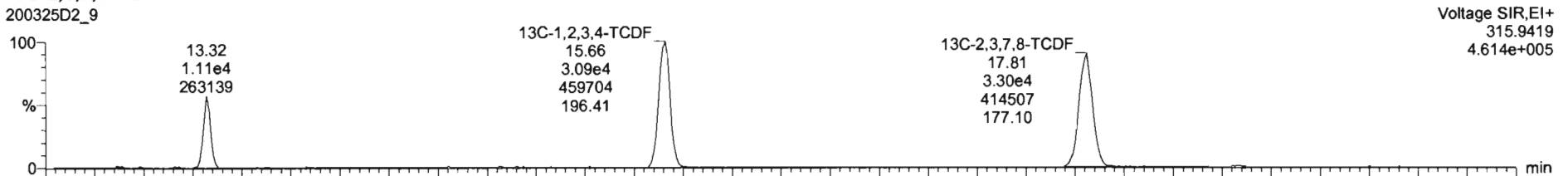
2,3,7,8-TCDF  
200325D2\_9



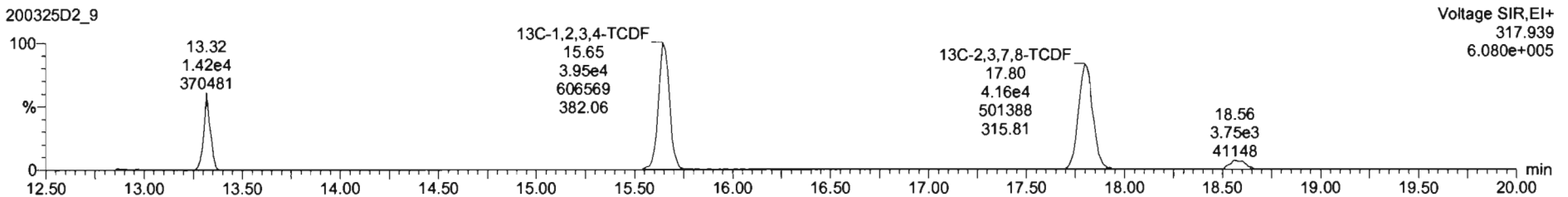
200325D2\_9



13C-2,3,7,8-TCDF  
200325D2\_9



200325D2\_9



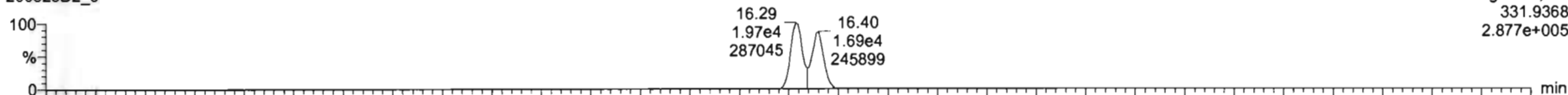
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_9.qld

Last Altered: Wednesday, March 25, 2020 16:31:14 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:33:04 Pacific Daylight Time

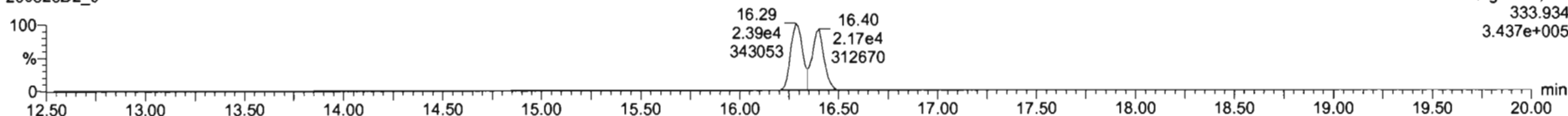
Name: 200325D2\_9, Date: 25-Mar-2020, Time: 16:08:19, ID: 2000412-06RE1 PDI-081SC-A-10-11-191002 16.81, Description: PDI-081SC-A-10-11-191002

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

200325D2\_9

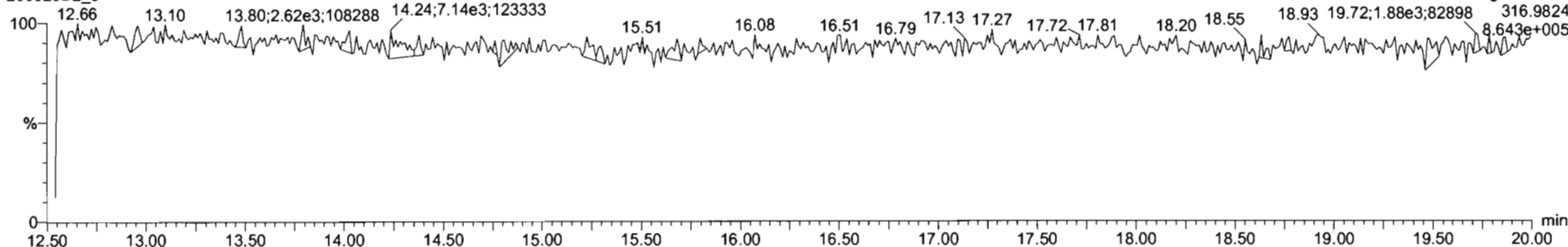


200325D2\_9



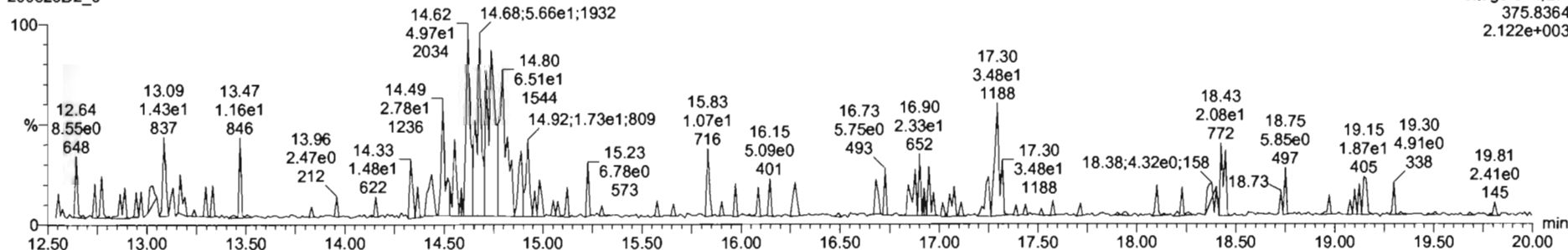
PFK1

200325D2\_9



DPE1

200325D2\_9



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_6.qld

Last Altered: Wednesday, March 25, 2020 14:56:29 Pacific Daylight Time

Printed: Wednesday, March 25, 2020 14:57:30 Pacific Daylight Time

*DB 3/25/20*

*CT 04/02/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_6, Date: 25-Mar-2020, Time: 14:33:11, ID: 2000412-07RE1 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	4.55e3	0.80	NO	0.982	10.019	17.817	17.83	1.000	1.002	10.973		0.657	11.0
2	2 13C-2,3,7,8-TCDF	8.43e4	0.80	NO	1.08	10.019	17.817	17.80	1.133	1.137	174.43	87.4	2.27	
3	3 13C-1,2,3,4-TCDF	8.91e4	0.78	NO	1.00	10.019	15.660	15.66	1.000	1.000	199.63	100	2.46	

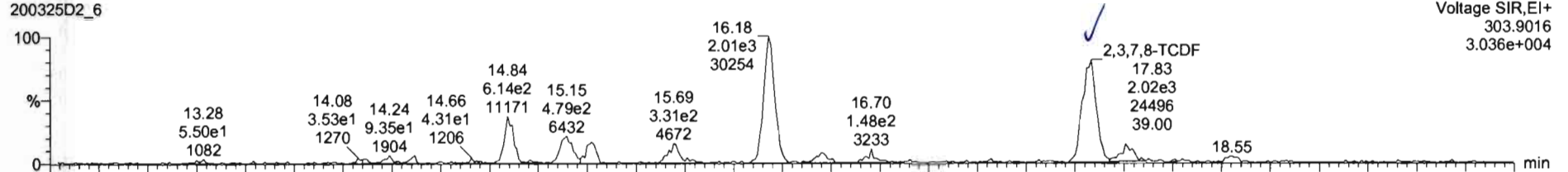
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_6.qld

Last Altered: Wednesday, March 25, 2020 14:56:29 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 14:57:52 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

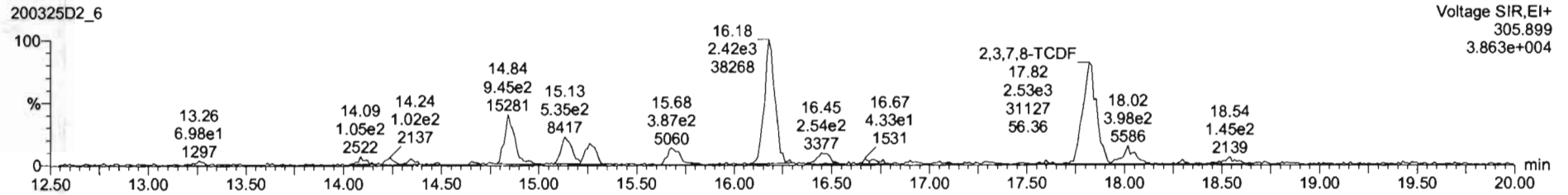
Name: 200325D2\_6, Date: 25-Mar-2020, Time: 14:33:11, ID: 2000412-07RE1 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

2,3,7,8-TCDF  
200325D2\_6



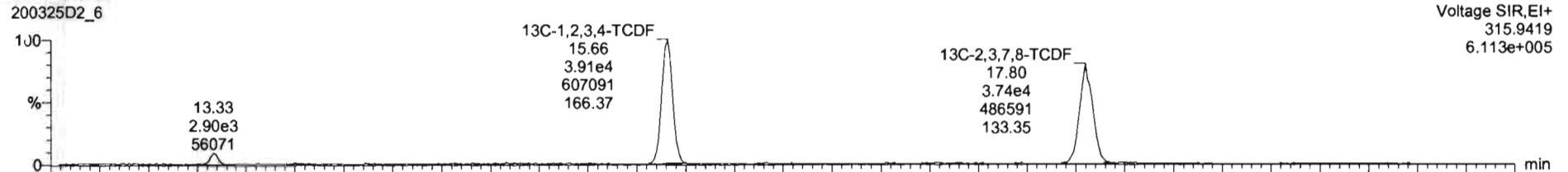
Voltage SIR, EI+  
303.9016  
3.036e+004

200325D2\_6



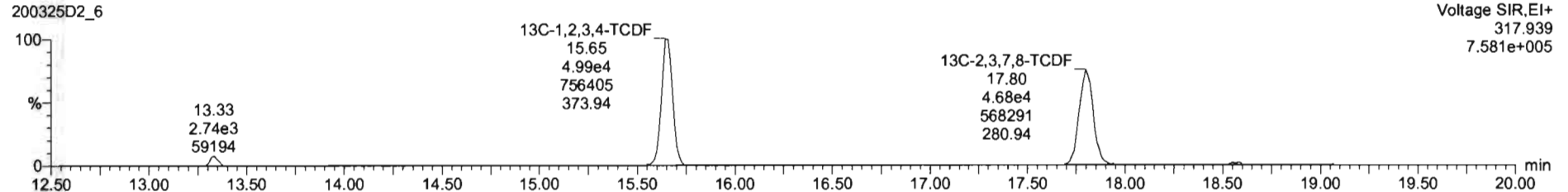
Voltage SIR, EI+  
305.899  
3.863e+004

13C-2,3,7,8-TCDF  
200325D2\_6



Voltage SIR, EI+  
315.9419  
6.113e+005

200325D2\_6



Voltage SIR, EI+  
317.939  
7.581e+005

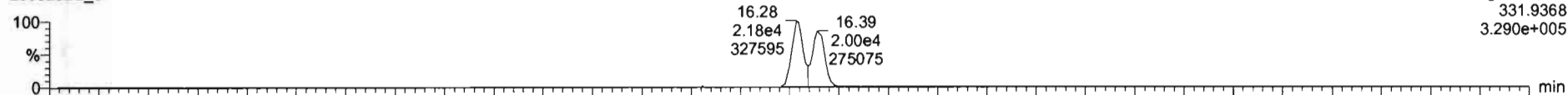
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_6.qld

Last Altered: Wednesday, March 25, 2020 14:56:29 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 14:57:52 Pacific Daylight Time

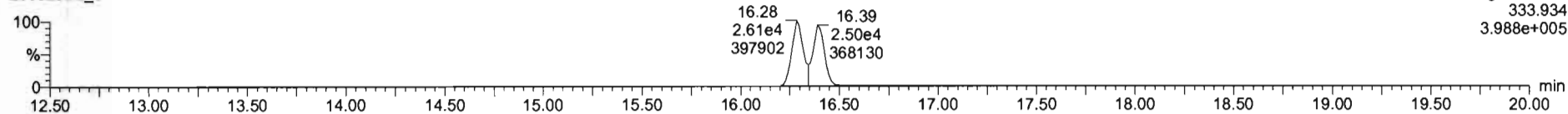
Name: 200325D2\_6, Date: 25-Mar-2020, Time: 14:33:11, ID: 2000412-07RE1 PDI-081SC-A-11-12-191002 12.87, Description: PDI-081SC-A-11-12-191002

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

200325D2\_6

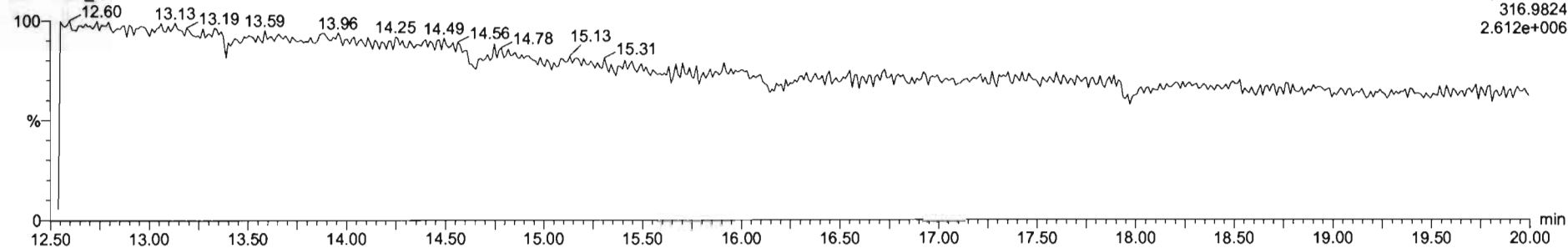


200325D2\_6



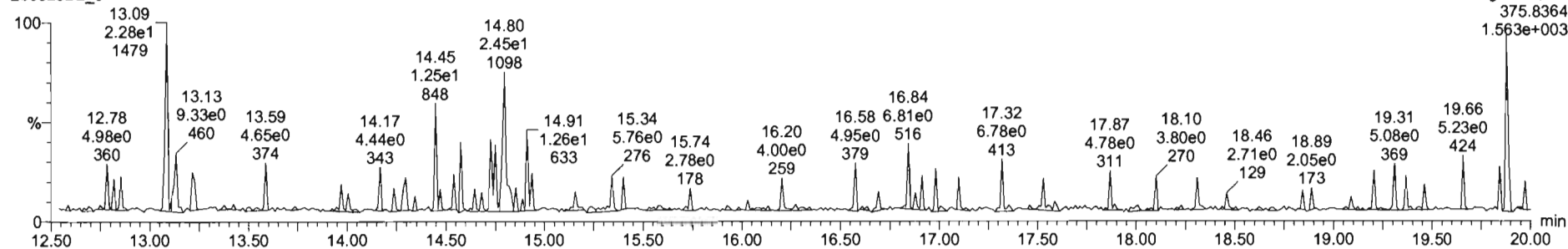
PFK1

200325D2\_6



DPE1

200325D2\_6



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_4.qld

Last Altered: Wednesday, March 25, 2020 13:52:56 Pacific Daylight Time

Printed: Wednesday, March 25, 2020 13:54:04 Pacific Daylight Time

*DB 3/25/20 C7 04/02/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_4, Date: 25-Mar-2020, Time: 13:29:48, ID: 2000412-08RE1 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	1.59e3	0.81	NO	0.982	10.019	17.817	17.82	1.000	1.001	3.8024		0.418	3.80
2	2 13C-2,3,7,8-TCDF	8.50e4	0.80	NO	1.08	10.019	17.805	17.80	1.133	1.138	182.65	91.5	1.01	
3	3 13C-1,2,3,4-TCDF	8.58e4	0.79	NO	1.00	10.019	15.660	15.65	1.000	1.000	199.63	100	1.09	

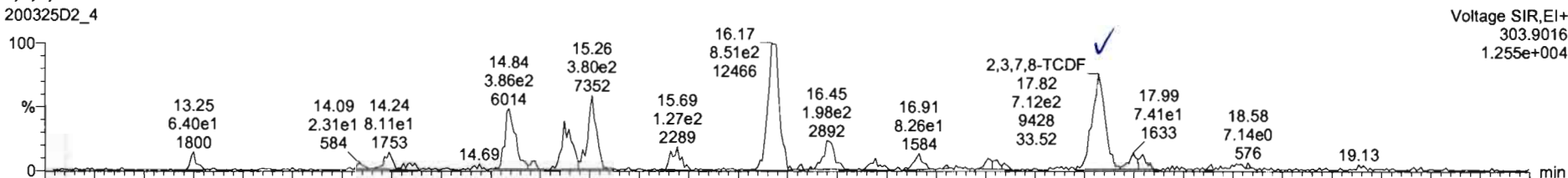
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_4.qld

Last Altered: Wednesday, March 25, 2020 13:52:56 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 13:54:23 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

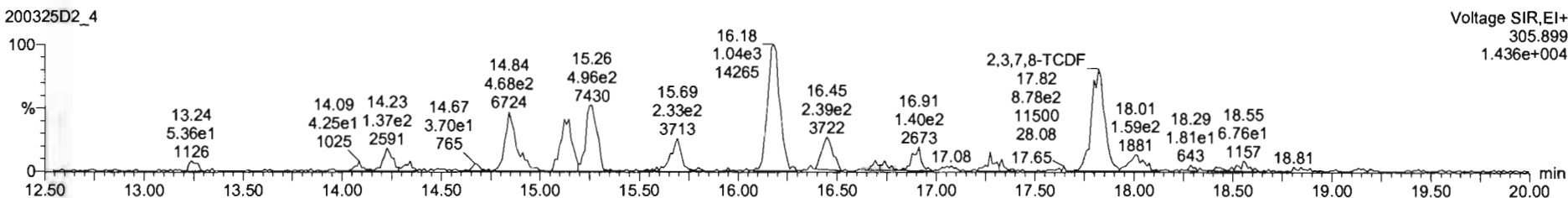
Name: 200325D2\_4, Date: 25-Mar-2020, Time: 13:29:48, ID: 2000412-08RE1 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

2,3,7,8-TCDF  
200325D2\_4



Voltage SIR,EI+  
303.9016  
1.255e+004

200325D2\_4



Voltage SIR,EI+  
305.899  
1.436e+004

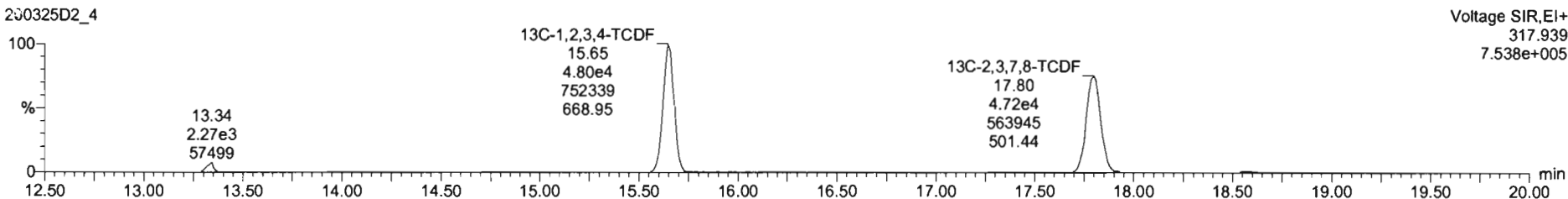
13C-2,3,7,8-TCDF

200325D2\_4



Voltage SIR,EI+  
315.9419  
5.880e+005

200325D2\_4



Voltage SIR,EI+  
317.939  
7.538e+005



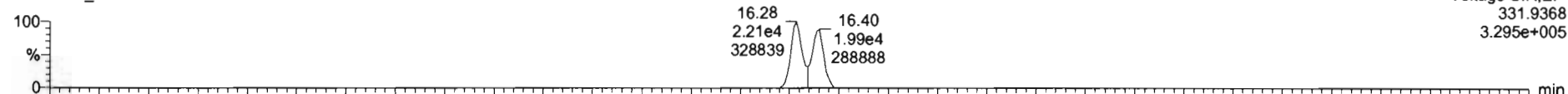
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_4.qld

Last Altered: Wednesday, March 25, 2020 13:52:56 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 13:54:23 Pacific Daylight Time

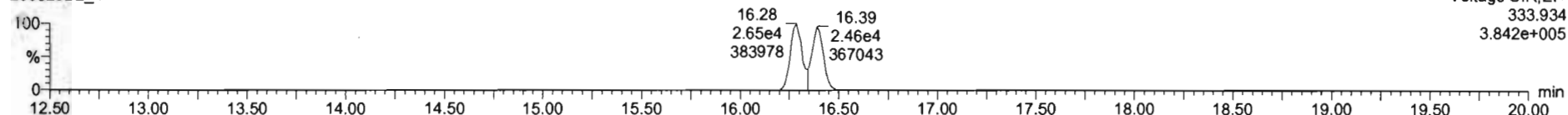
Name: 200325D2\_4, Date: 25-Mar-2020, Time: 13:29:48, ID: 2000412-08RE1 PDI-082SC-A-06-07-191002 16.59, Description: PDI-082SC-A-06-07-191002

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

200325D2\_4

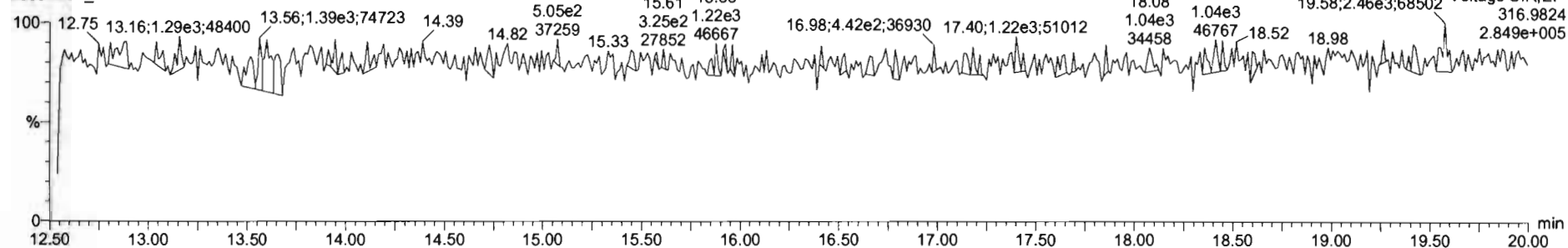


200325D2\_4



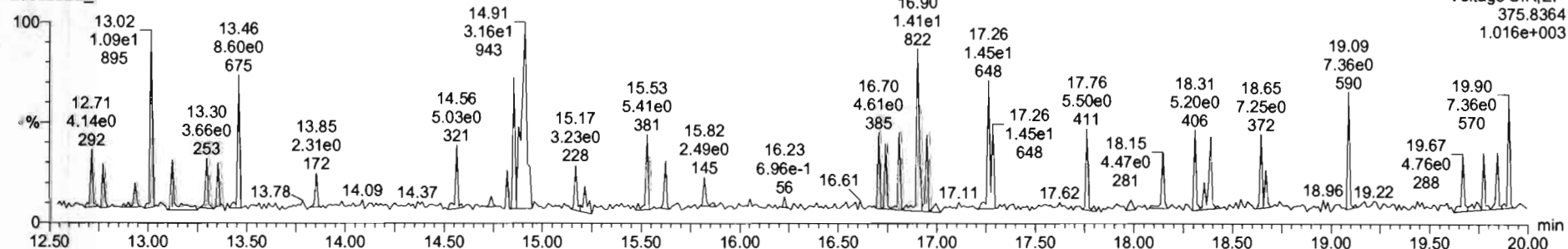
PFK1

200325D2\_4



DPE1

200325D2\_4



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_10.qld

Last Altered: Wednesday, March 25, 2020 17:05:24 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 17:06:27 Pacific Daylight Time

*DB 3/25/20*

*CT04/04/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_10, Date: 25-Mar-2020, Time: 16:40:00, ID: 2000412-09RE1 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	5.59e4	0.76	NO	0.982	10.007 ✓	17.829	17.83	1.000	1.001	148.10		0.906	148
2	2 13C-2,3,7,8-TCDF	7.69e4	0.75	NO	1.08	10.007	17.829	17.81	1.133	1.137	158.36	79.2	2.16	
3	3 13C-1,2,3,4-TCDF	8.96e4	0.75	NO	1.00	10.007	15.660	15.67	1.000	1.000	199.87	100	2.34	

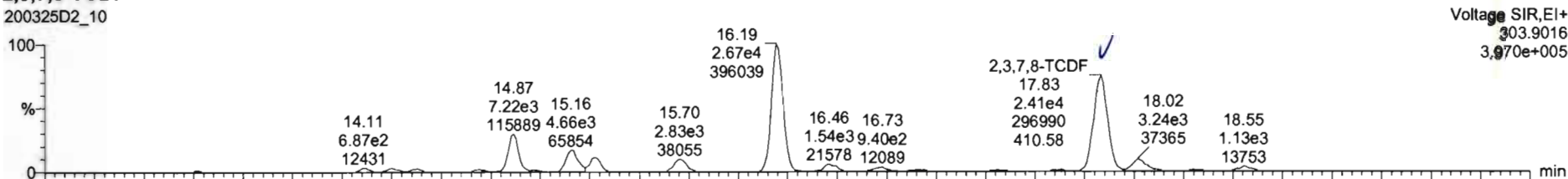
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_10.qld

Last Altered: Wednesday, March 25, 2020 17:05:24 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 17:06:47 Pacific Daylight Time

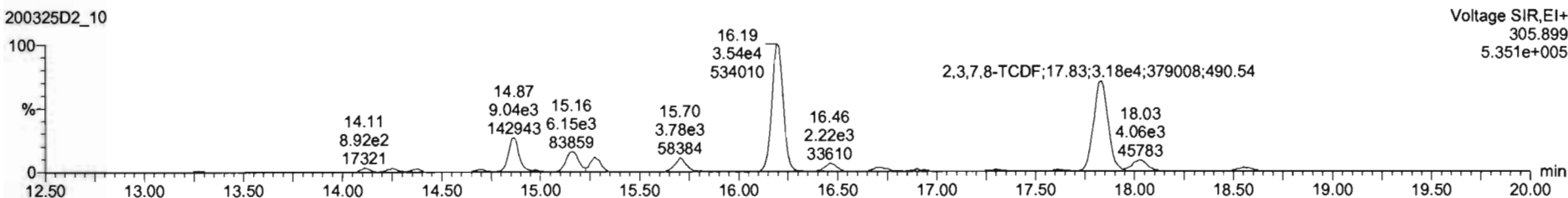
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\lb-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_10, Date: 25-Mar-2020, Time: 16:40:00, ID: 2000412-09RE1 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

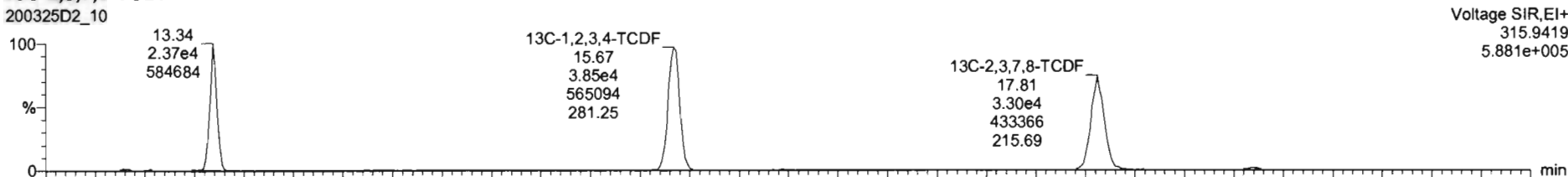
2,3,7,8-TCDF  
200325D2\_10



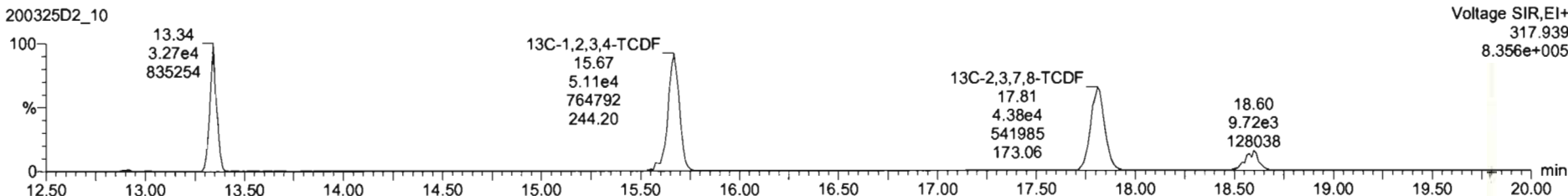
200325D2\_10



13C-2,3,7,8-TCDF  
200325D2\_10



200325D2\_10



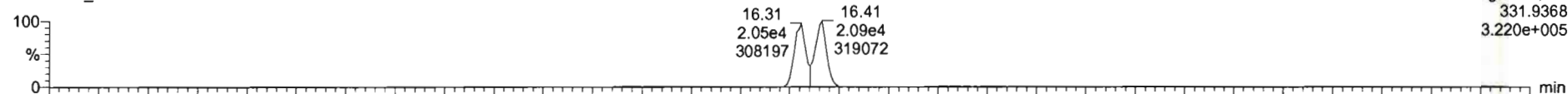
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_10.qld

Last Altered: Wednesday, March 25, 2020 17:05:24 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 17:06:47 Pacific Daylight Time

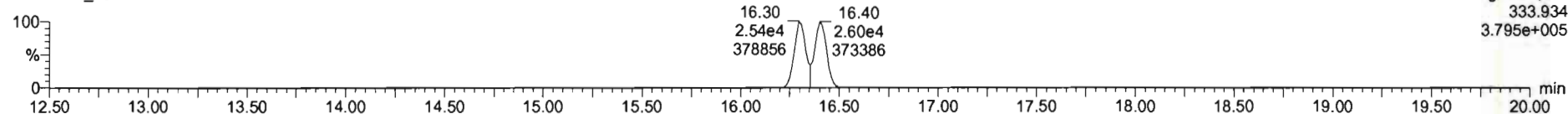
Name: 200325D2\_10, Date: 25-Mar-2020, Time: 16:40:00, ID: 2000412-09RE1 PDI-082SC-A-07-08-191002 17.2, Description: PDI-082SC-A-07-08-191002

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

200325D2\_10

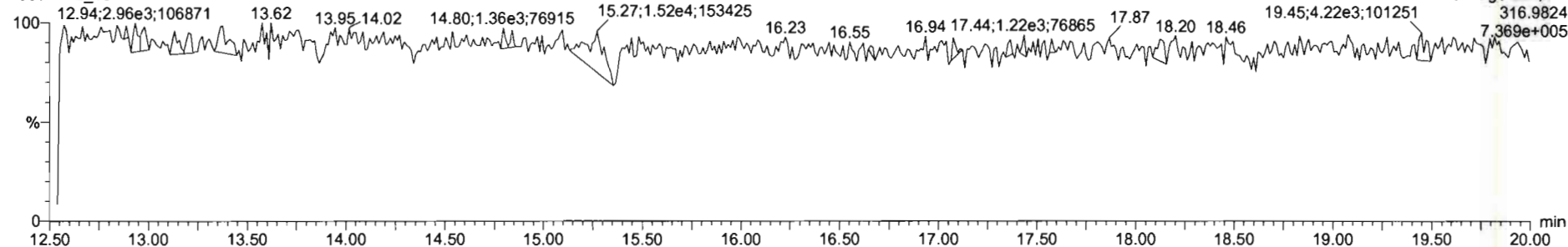


200325D2\_10



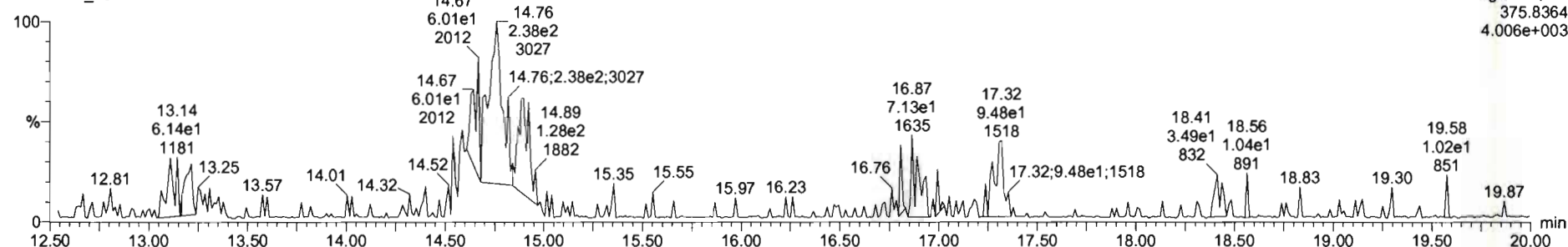
PFK1

200325D2\_10



DPE1

200325D2\_10



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_7.qld

Last Altered: Wednesday, March 25, 2020 15:28:44 Pacific Daylight Time

Printed: Wednesday, March 25, 2020 15:29:54 Pacific Daylight Time

DB 3/25/20 CT 04/07/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_7, Date: 25-Mar-2020, Time: 15:04:54, ID: 2000412-10RE1 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	8.14e3	0.78	NO	0.982	10.068 ✓	17.806	17.82	1.000	1.002	21.137		0.820	21.1
2	2 13C-2,3,7,8-TCDF	7.79e4	0.78	NO	1.08	10.068	17.806	17.79	1.133	1.137	151.72	76.4	2.88	
3	3 13C-1,2,3,4-TCDF	9.43e4	0.78	NO	1.00	10.068	15.660	15.65	1.000	1.000	198.65	100	3.12	

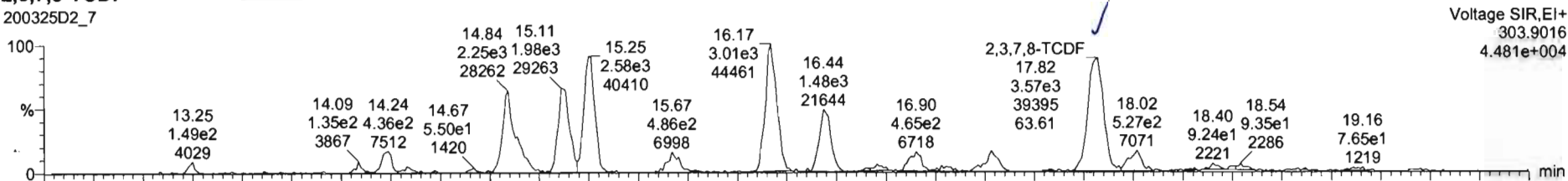
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_7.qld

Last Altered: Wednesday, March 25, 2020 15:28:44 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 15:30:16 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

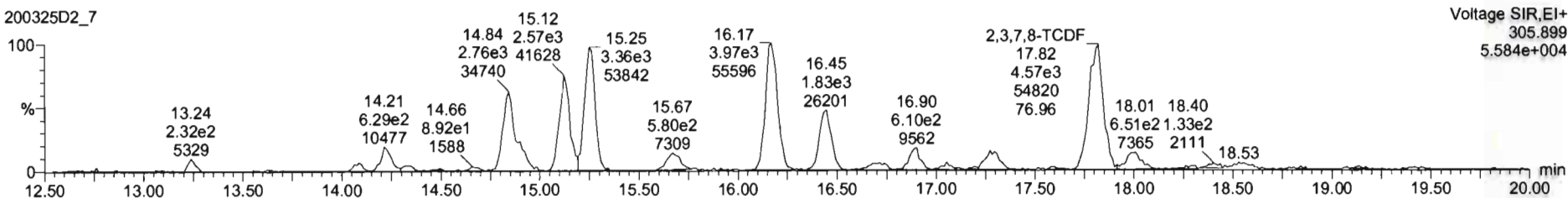
Name: 200325D2\_7, Date: 25-Mar-2020, Time: 15:04:54, ID: 2000412-10RE1 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

2,3,7,8-TCDF  
200325D2\_7



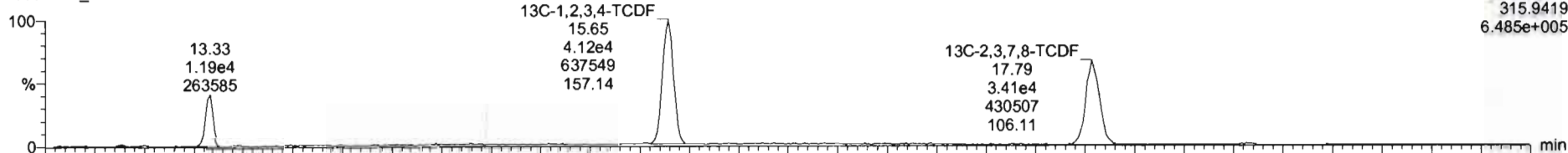
Voltage SIR,EI+  
303.9016  
4.481e+004

200325D2\_7



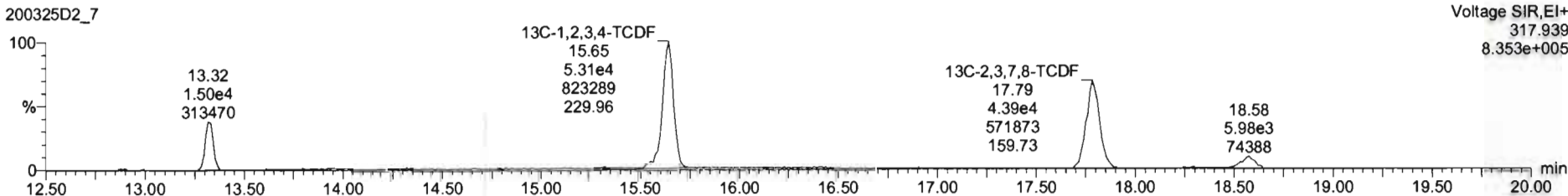
Voltage SIR,EI+  
305.899  
5.584e+004

13C-2,3,7,8-TCDF  
200325D2\_7



Voltage SIR,EI+  
315.9419  
6.485e+005

200325D2\_7



Voltage SIR,EI+  
317.939  
8.353e+005

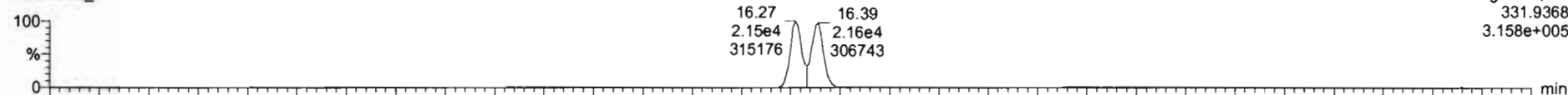
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_7.qld

Last Altered: Wednesday, March 25, 2020 15:28:44 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 15:30:16 Pacific Daylight Time

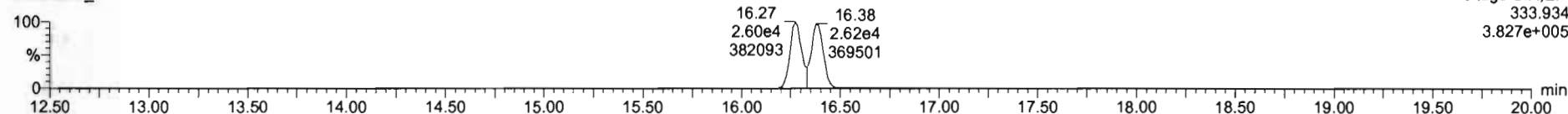
Name: 200325D2\_7, Date: 25-Mar-2020, Time: 15:04:54, ID: 2000412-10RE1 PDI-082SC-A-08-09-191002 15.76, Description: PDI-082SC-A-08-09-191002

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

200325D2\_7

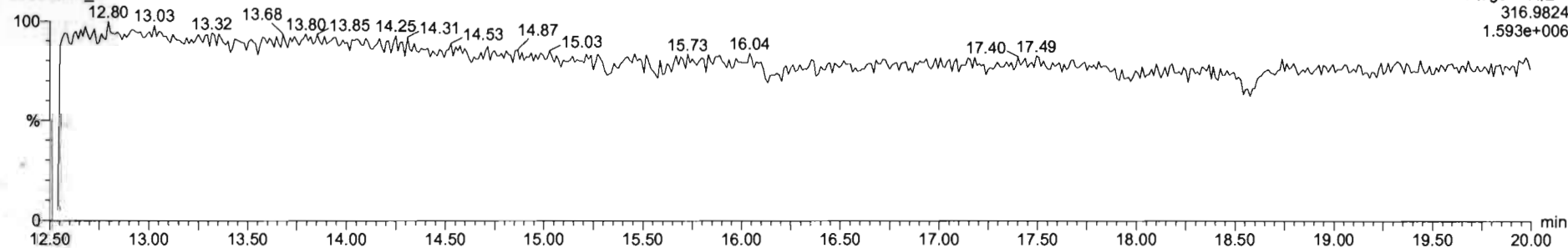


200325D2\_7



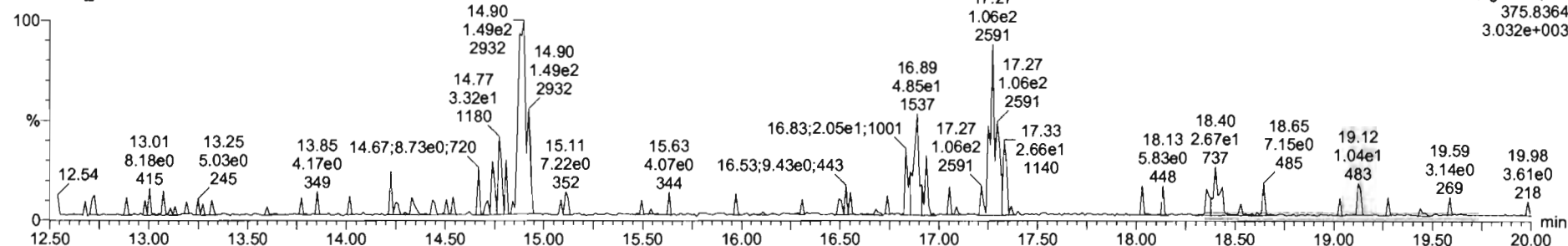
PFK1

200325D2\_7



DPE1

200325D2\_7



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_8.qld

Last Altered: Wednesday, March 25, 2020 16:00:00 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:01:06 Pacific Daylight Time

*DB 3/25/20 (M 04/02/2020)*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_8, Date: 25-Mar-2020, Time: 15:36:36, ID: 2000412-11RE1 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	3.36e4	0.76	NO	0.982	10.003 ✓	17.806	17.81	1.000	1.001	72.409		0.614	72.4
2	2 13C-2,3,7,8-TCDF	9.44e4	0.77	NO	1.08	10.003	17.794	17.79	1.133	1.138	188.91	94.5	1.58	
3	3 13C-1,2,3,4-TCDF	9.22e4	0.79	NO	1.00	10.003	15.660	15.63	1.000	1.000	199.94	100	1.71	



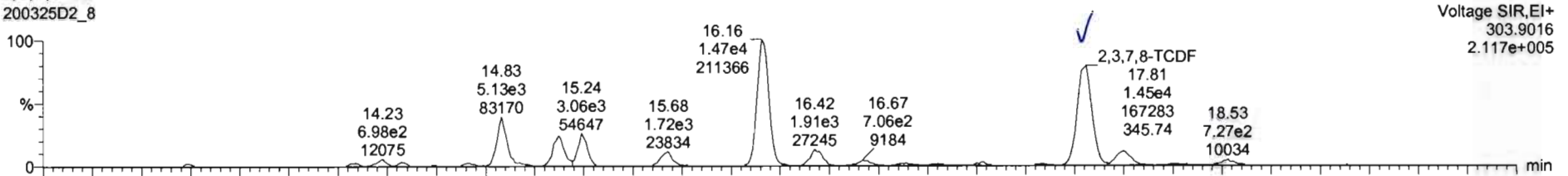
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_8.qld

Last Altered: Wednesday, March 25, 2020 16:00:00 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:02:15 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

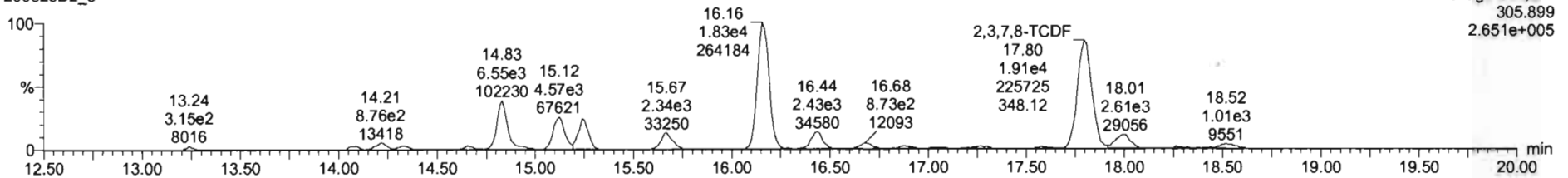
Name: 200325D2\_8, Date: 25-Mar-2020, Time: 15:36:36, ID: 2000412-11RE1 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

2,3,7,8-TCDF  
200325D2\_8



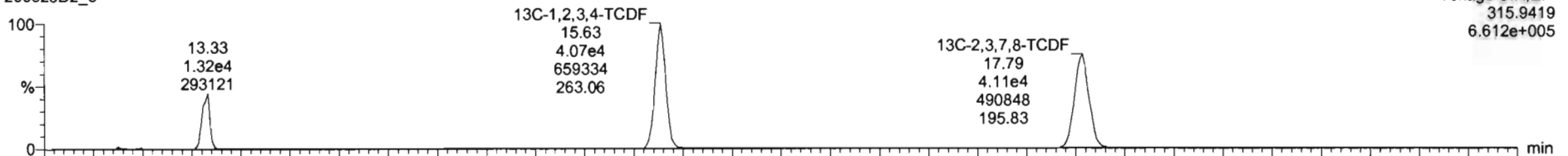
Voltage SIR,EI+  
303.9016  
2.117e+005

200325D2\_8



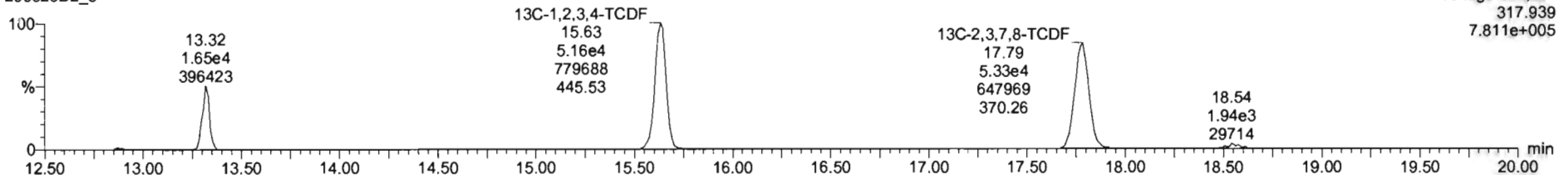
Voltage SIR,EI+  
305.899  
2.651e+005

13C-2,3,7,8-TCDF  
200325D2\_8



Voltage SIR,EI+  
315.9419  
6.612e+005

200325D2\_8



Voltage SIR,EI+  
317.939  
7.811e+005

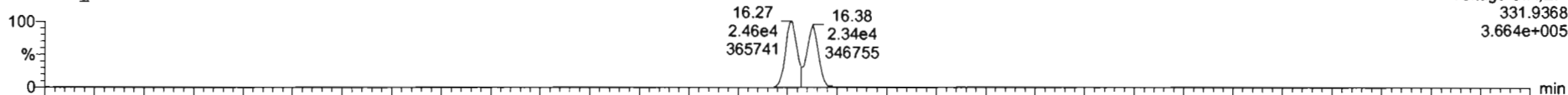
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_8.qld

Last Altered: Wednesday, March 25, 2020 16:00:00 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 16:02:15 Pacific Daylight Time

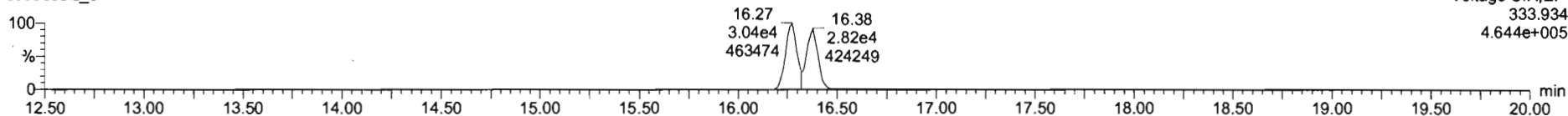
Name: 200325D2\_8, Date: 25-Mar-2020, Time: 15:36:36, ID: 2000412-11RE1 PDI-082SC-A-09-10-191002 17.47, Description: PDI-082SC-A-09-10-191002

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

2J0325D2\_8

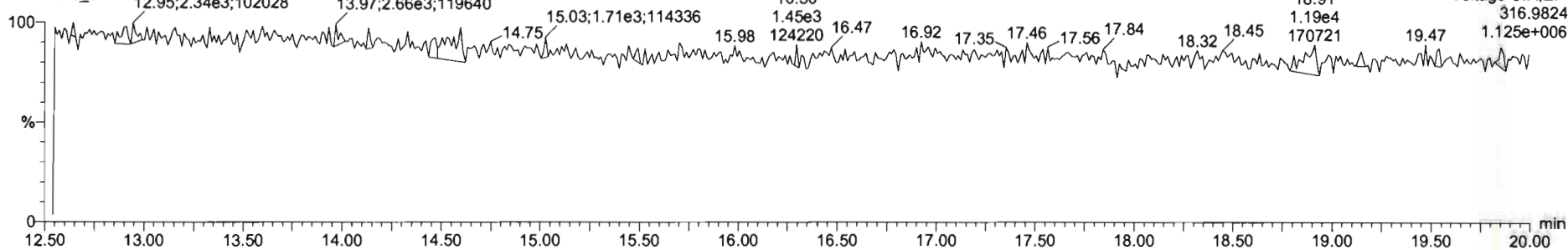


200325D2\_8



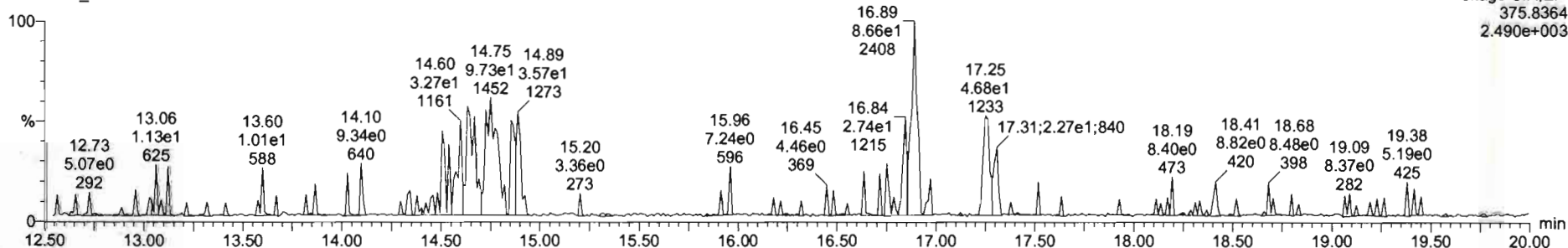
PFK1

200325D2\_8



DPE1

200325D2\_8



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_5.qld

Last Altered: Wednesday, March 25, 2020 14:26:09 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 14:27:49 Pacific Daylight Time

*DB 3/25/20 CT 04/02/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_5, Date: 25-Mar-2020, Time: 14:01:28, ID: 2000412-12RE1 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	2.95e3	0.75	NO	0.982	10.017	17.806	17.80	1.000	1.001	7.3631		0.417	7.36
2	2 13C-2,3,7,8-TCDF	8.13e4	0.81	NO	1.08	10.017	17.794	17.79	1.133	1.138	176.96	88.6	1.06	
3	3 13C-1,2,3,4-TCDF	8.48e4	0.80	NO	1.00	10.017	15.660	15.63	1.000	1.000	199.66	100	1.14	

Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_5.qld

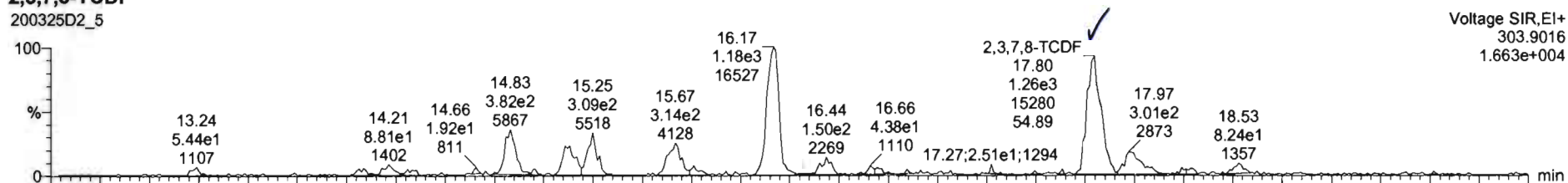
Last Altered: Wednesday, March 25, 2020 14:26:09 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 14:28:09 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

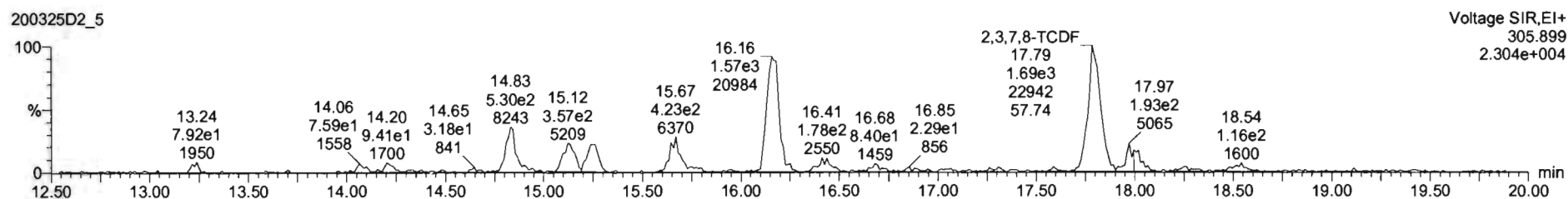
Name: 200325D2\_5, Date: 25-Mar-2020, Time: 14:01:28, ID: 2000412-12RE1 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

2,3,7,8-TCDF

200325D2\_5



200325D2\_5

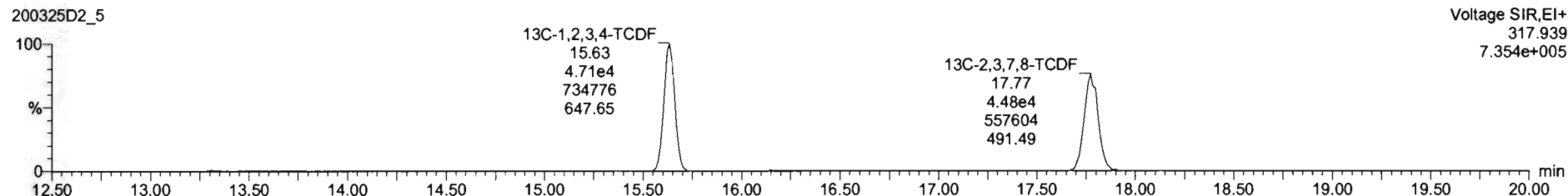


13C-2,3,7,8-TCDF

200325D2\_5



200325D2\_5



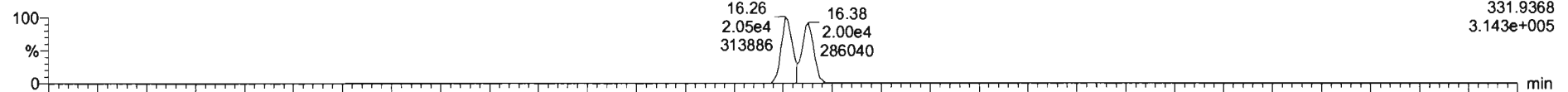
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_5.qld

Last Altered: Wednesday, March 25, 2020 14:26:09 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 14:28:09 Pacific Daylight Time

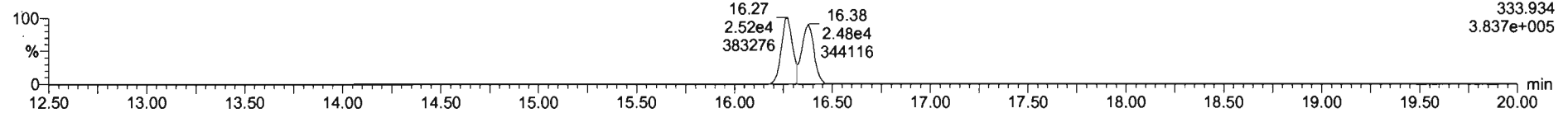
Name: 200325D2\_5, Date: 25-Mar-2020, Time: 14:01:28, ID: 2000412-12RE1 PDI-082SC-A-10-11-191002 13.76, Description: PDI-082SC-A-10-11-191002

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

200325D2\_5

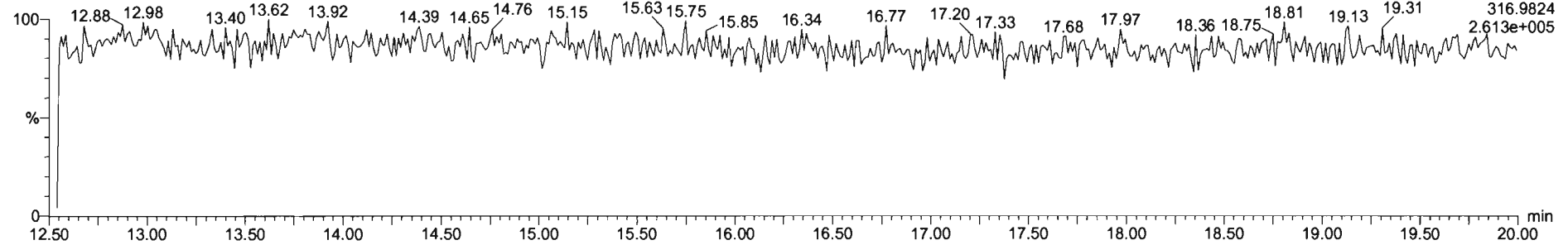


200325D2\_5



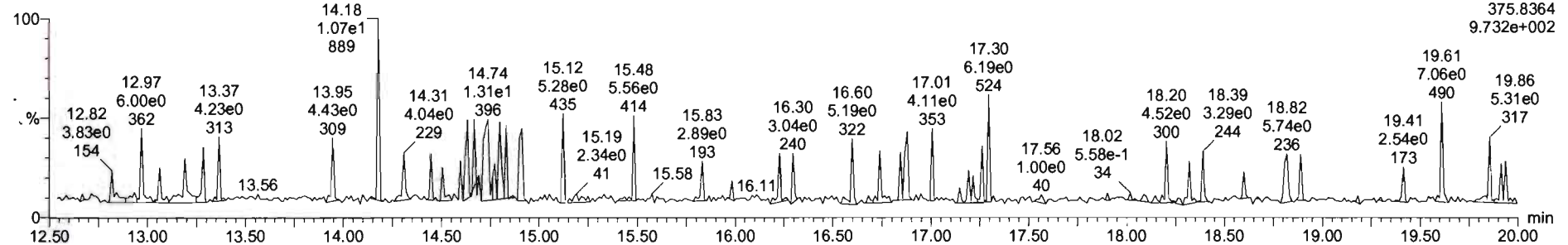
PFK1

200325D2\_5



DPE1

200325D2\_5



## **CONTINUING CALIBRATION**



Dataset: U:\VG12.PRO\Results\200319R1\200319R1-2.qld

Last Altered: Friday, March 20, 2020 07:32:19 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:33:16 Pacific Daylight Time

*GRB 03/18/2020*

*C7 03/20/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	7.44e4	8.38e5	0.76	NO	0.983	25.80	25.80	NO	1.001	1.001	9.0225	90.2	NO
2	2 1,2,3,7,8-PeCDD	2.66e5	6.07e5	0.62	NO	0.921	31.09	31.08	NO	1.001	1.000	47.654	95.3	NO
3	3 1,2,3,4,7,8-HxCDD	2.44e5	4.59e5	1.26	NO	1.13	34.49	34.49	NO	1.000	1.000	46.982	94.0	NO
4	4 1,2,3,6,7,8-HxCDD	2.52e5	5.72e5	1.25	NO	0.984	34.58	34.59	NO	1.000	1.000	44.743	89.5	NO
5	5 1,2,3,7,8,9-HxCDD	2.32e5	5.19e5	1.21	NO	0.967	34.85	34.85	NO	1.000	1.000	46.172	92.3	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.01e5	4.40e5	1.02	NO	1.01	38.27	38.28	NO	1.000	1.001	45.529	91.1	NO
7	7 OCDD	4.02e5	8.54e5	0.89	NO	1.05	41.33	41.34	NO	1.000	1.000	89.475	89.5	NO
8	8 2,3,7,8-TCDF	8.50e4	1.10e6	0.74	NO	0.915	24.79	24.79	NO	1.001	1.001	8.4712	84.7	NO
9	9 1,2,3,7,8-PeCDF	3.94e5	8.92e5	1.56	NO	0.959	29.74	29.74	NO	1.001	1.001	46.060	92.1	NO
10	10 2,3,4,7,8-PeCDF	3.93e5	8.47e5	1.53	NO	1.00	30.79	30.77	NO	1.001	1.000	46.261	92.5	NO
11	11 1,2,3,4,7,8-HxCDF	2.84e5	6.03e5	1.22	NO	1.04	33.63	33.64	NO	1.000	1.000	45.427	90.9	NO
12	12 1,2,3,6,7,8-HxCDF	3.09e5	6.67e5	1.23	NO	1.01	33.76	33.76	NO	1.000	1.000	45.765	91.5	NO
13	13 2,3,4,6,7,8-HxCDF	3.01e5	6.18e5	1.19	NO	1.09	34.34	34.32	NO	1.001	1.000	44.647	89.3	NO
14	14 1,2,3,7,8,9-HxCDF	2.41e5	5.18e5	1.21	NO	1.03	35.18	35.19	NO	1.000	1.000	45.397	90.8	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.47e5	5.19e5	0.99	NO	1.05	36.90	36.89	NO	1.001	1.001	45.357	90.7	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.90e5	3.50e5	1.03	NO	1.21	38.91	38.93	NO	1.000	1.001	44.905	89.8	NO
17	17 OCDF	4.20e5	9.86e5	0.88	NO	0.947	41.50	41.51	NO	1.000	1.000	89.952	90.0	NO
18	18 13C-2,3,7,8-TCDD	8.38e5	7.15e5	0.77	NO	1.18	25.75	25.77	NO	1.029	1.029	98.980	99.0	NO
19	19 13C-1,2,3,7,8-PeCDD	6.07e5	7.15e5	0.63	NO	0.864	30.94	31.06	NO	1.236	1.241	98.166	98.2	NO
20	20 13C-1,2,3,4,7,8-HxCDD	4.59e5	6.17e5	1.26	NO	0.754	34.48	34.48	NO	1.014	1.014	98.777	98.8	NO
21	21 13C-1,2,3,6,7,8-HxCDD	5.72e5	6.17e5	1.26	NO	0.925	34.59	34.58	NO	1.017	1.017	100.26	100	NO
22	22 13C-1,2,3,7,8,9-HxCDD	5.19e5	6.17e5	1.25	NO	0.829	34.86	34.84	NO	1.025	1.024	101.36	101	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.40e5	6.17e5	1.04	NO	0.598	38.32	38.26	NO	1.127	1.125	119.15	119	NO
24	24 13C-OCDD	8.54e5	6.17e5	0.89	NO	0.571	41.47	41.33	NO	1.219	1.215	242.31	121	NO
25	25 13C-2,3,7,8-TCDF	1.10e6	1.05e6	0.77	NO	1.09	24.77	24.76	NO	0.990	0.989	96.189	96.2	NO
26	26 13C-1,2,3,7,8-PeCDF	8.92e5	1.05e6	1.57	NO	0.876	29.61	29.72	NO	1.183	1.187	97.189	97.2	NO
27	27 13C-2,3,4,7,8-PeCDF	8.47e5	1.05e6	1.60	NO	0.844	30.62	30.76	NO	1.223	1.229	95.949	95.9	NO
28	28 13C-1,2,3,4,7,8-HxCDF	6.03e5	6.17e5	0.51	NO	1.00	33.63	33.63	NO	0.989	0.989	97.759	97.8	NO
29	29 13C-1,2,3,6,7,8-HxCDF	6.67e5	6.17e5	0.51	NO	1.12	33.74	33.75	NO	0.992	0.992	96.726	96.7	NO
30	30 13C-2,3,4,6,7,8-HxCDF	6.18e5	6.17e5	0.51	NO	1.04	34.32	34.31	NO	1.009	1.009	96.768	96.8	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.18e5	6.17e5	0.50	NO	0.873	35.20	35.18	NO	1.035	1.034	96.135	96.1	NO



Dataset: U:\VG12 PRO\Results\200319R1\200319R1-2.qld

Last Altered: Friday, March 20, 2020 07:32:19 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:33:16 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	5.19e5	6.17e5	0.44	NO	0.771	36.91	36.87	NO	1.085	1.084	109.14	109	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.50e5	6.17e5	0.44	NO	0.519	39.00	38.91	NO	1.147	1.144	109.34	109	NO
34	34 13C-OCDF	9.86e5	6.17e5	0.87	NO	0.696	41.65	41.50	NO	1.225	1.220	229.49	115	NO
35	35 37Cl-2,3,7,8-TCDD	7.80e4	7.15e5			1.17	25.76	25.78	NO	1.029	1.030	9.2878	92.9	NO
36	36 13C-1,2,3,4-TCDD	7.15e5	7.15e5	0.80	NO	1.00	25.05	25.03	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.05e6	1.05e6	0.78	NO	1.00	23.19	23.09	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	6.17e5	6.17e5	0.51	NO	1.00	33.88	34.01	NO	1.000	1.000	100.00	100	YES <i>ok</i>
39	39 Total Tetra-Dioxins		8.38e5			0.983	24.62		NO	0.000		80.091		NO
40	40 Total Penta-Dioxins		6.07e5			0.921	29.96		NO	0.000		213.07		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		225.46		NO
42	42 Total Hepta-Dioxins		4.40e5			1.01	37.64		NO	0.000		127.10		NO
43	43 Total Tetra-Furans		1.10e6			0.915	23.61		NO	0.000		41.677		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		89.312		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		159.60		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		254.91		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		90.446		NO

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:40:32 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:40:36 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

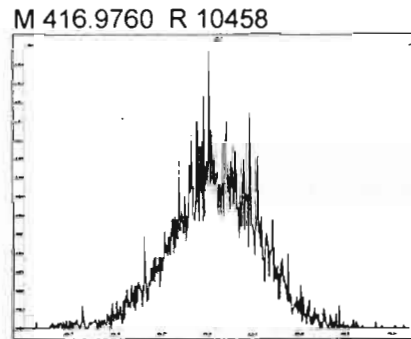
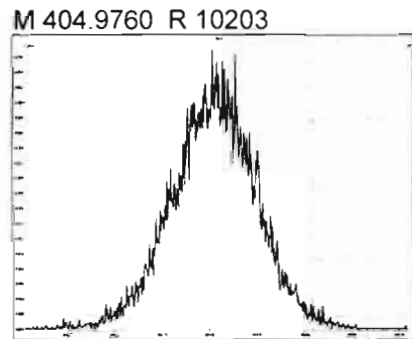
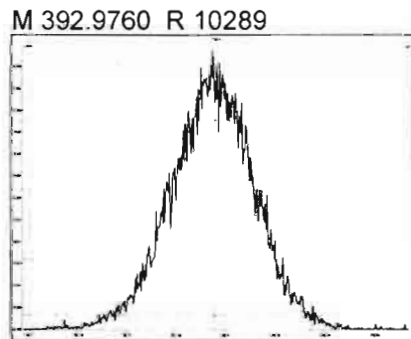
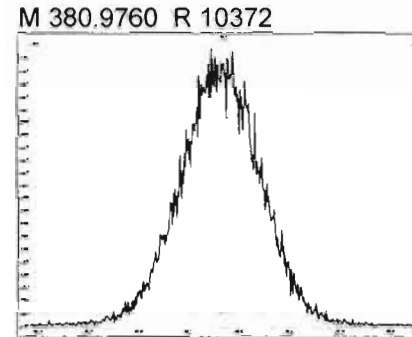
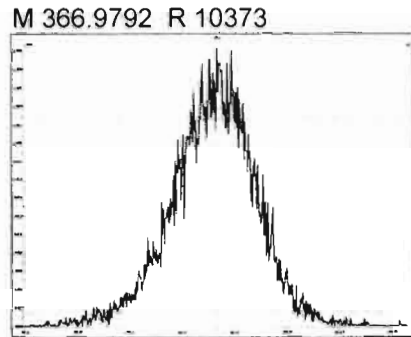
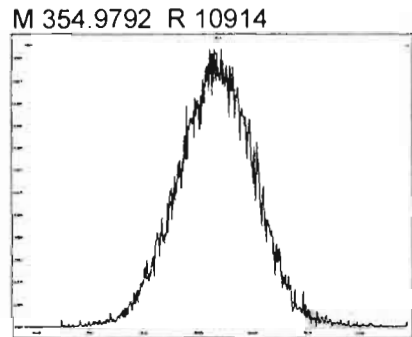
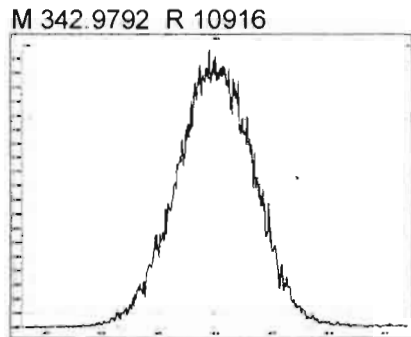
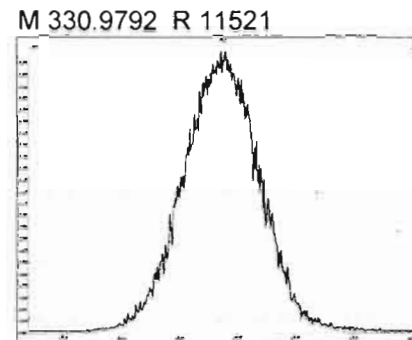
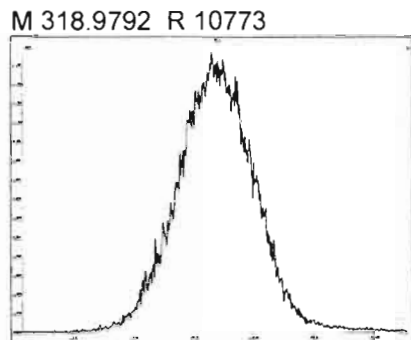
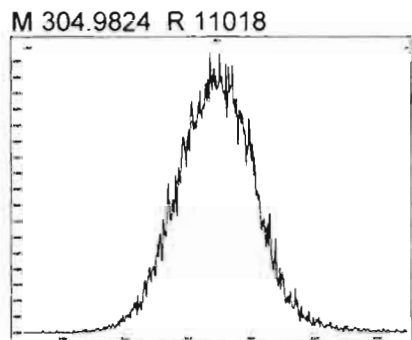
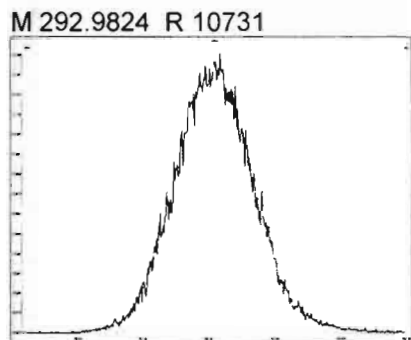
	Name	ID	Acq.Date	Acq.Time
1	Ⓐ 200319R1_1	ST200319R1_1 1613 CS3 19L2305	19-Mar-20	16:18:06
2	Ⓑ 200319R1_2	ST200319R1_2 1613 CS3 19L2305	19-Mar-20	17:08:32
3	200319R1_3	B0B0187-BS1 OPR 10	19-Mar-20	17:54:46
4	200319R1_4	B0C0040-BS1 OPR 10	19-Mar-20	18:42:22
5	200319R1_5	SOLVENT BLANK	19-Mar-20	19:30:06
6	200319R1_6	B0B0187-BLK1 Method Blank 10	19-Mar-20	20:17:51
7	200319R1_7	B0C0040-BLK1 Method Blank 10	19-Mar-20	21:05:36
8	200319R1_8	2000440-05 PDI-066SC-A-13-14-191011 17.4	19-Mar-20	21:53:14
9	200319R1_9	B0B0187-DUP1 Duplicate 12.19	19-Mar-20	22:40:53
10	200319R1_10	2000195-01 PDI-062SC-A-10-11-191023 12.2	19-Mar-20	23:28:38
11	200319R1_11	2000195-02 PDI-066SC-A-07-08-191011 16.75	20-Mar-20	00:16:22
12	200319R1_12	2000195-03 PDI-066SC-A-08-09-191011 17.12	20-Mar-20	01:04:01
13	200319R1_13	2000195-04 PDI-067SC-A-06-07-191010 13.34	20-Mar-20	01:51:41
14	200319R1_14	1903654-05RE3@5X PDI-075SC-B-00-02-191...	20-Mar-20	02:39:26
15	200319R1_15	1903654-08RE3@5X PDI-075SC-B-06-08-191...	20-Mar-20	03:27:05
16	200319R1_16	1903654-11RE3@5X PDI-076SC-B-05-07-191...	20-Mar-20	04:14:45

Ⓐ USED TO ADJUST WINDOWS

Ⓑ USED FOR RUN

File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

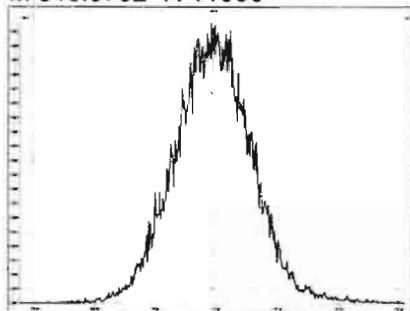
Printed: Thursday, March 19, 2020 16:12:39 Pacific Daylight Time



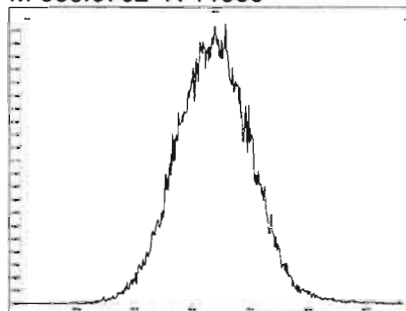
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, March 19, 2020 16:13:31 Pacific Daylight Time

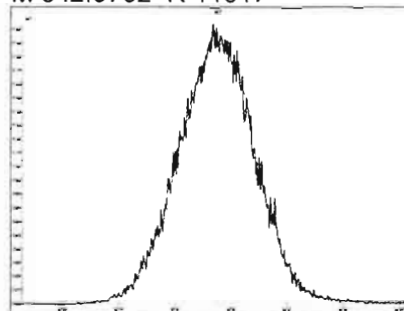
M 318.9792 R 11060



M 330.9792 R 11063



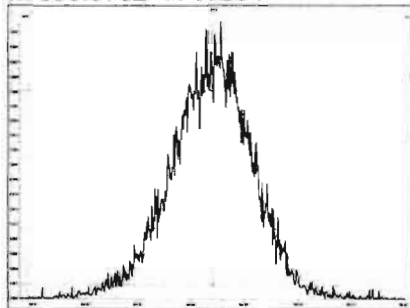
M 342.9792 R 11017



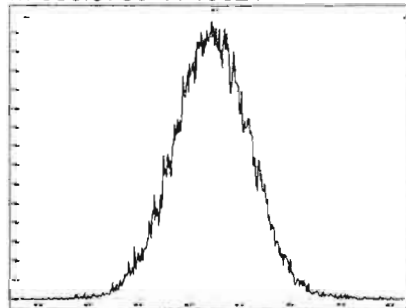
M 354.9792 R 10640



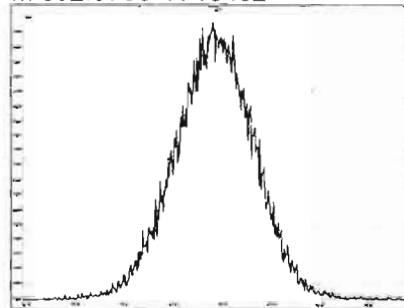
M 366.9792 R 10204



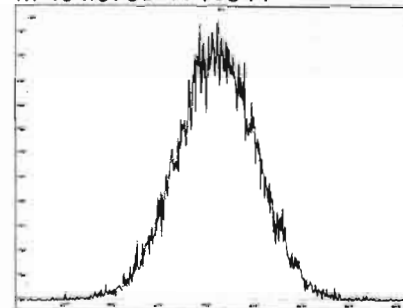
M 380.9760 R 10821



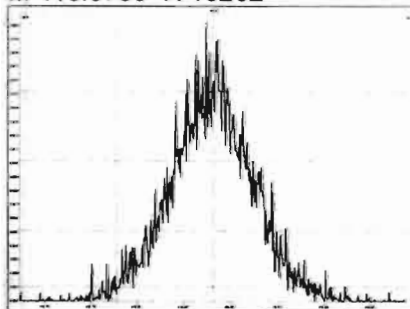
M 392.9760 R 10462



M 404.9760 R 10544



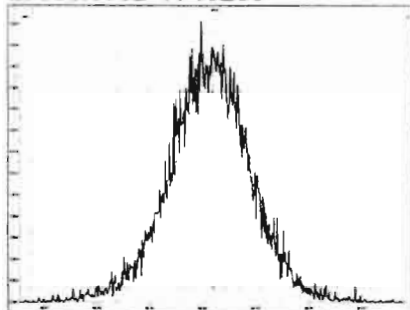
M 416.9760 R 10202



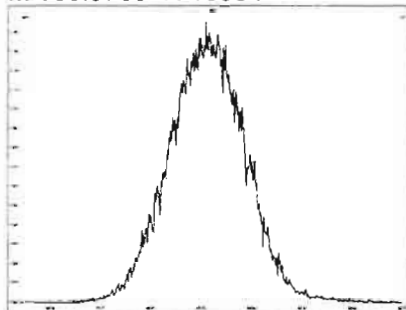
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, March 19, 2020 16:14:09 Pacific Daylight Time

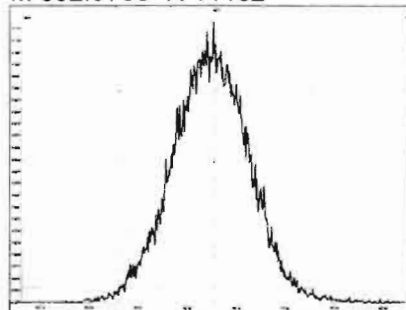
M 366.9792 R 10288



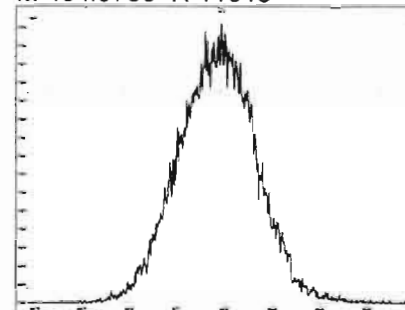
M 380.9760 R 10964



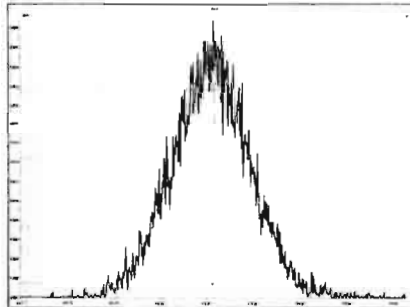
M 392.9760 R 11162



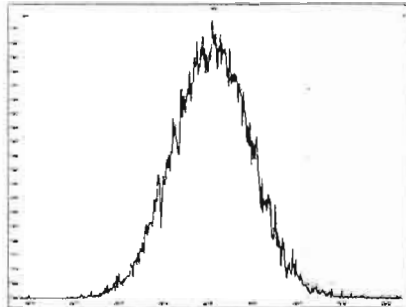
M 404.9760 R 11013



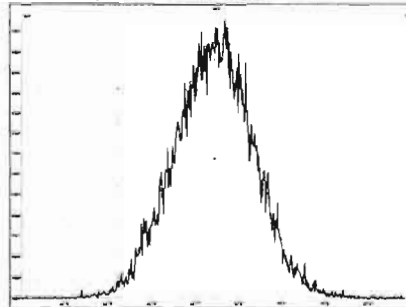
M 416.9760 R 11523



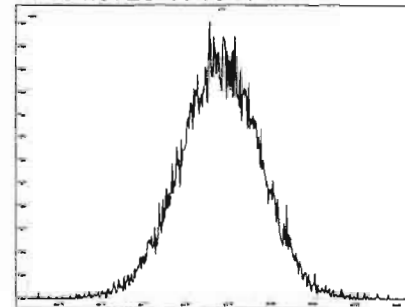
M 430.9728 R 10635



M 442.9728 R 10592

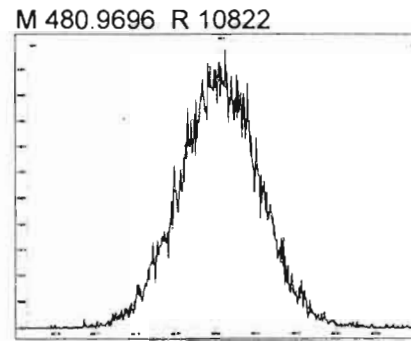
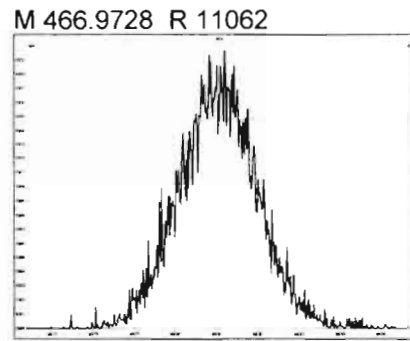
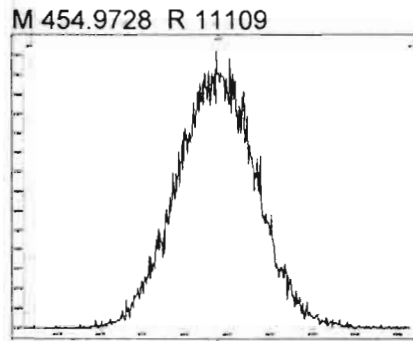
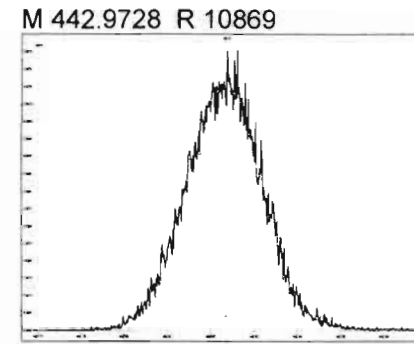
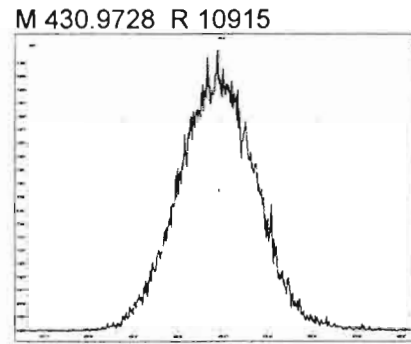
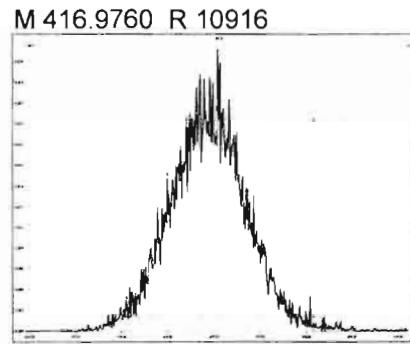
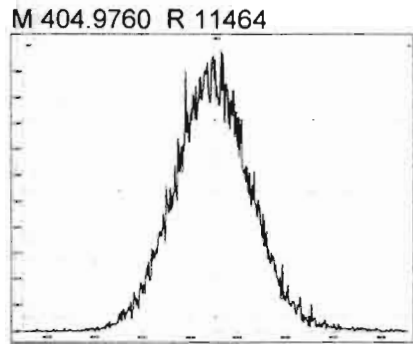


M 454.9728 R 10414



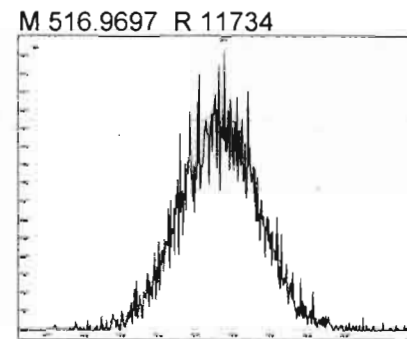
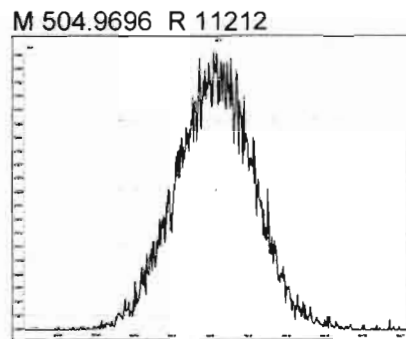
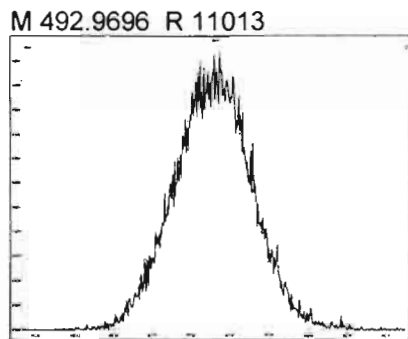
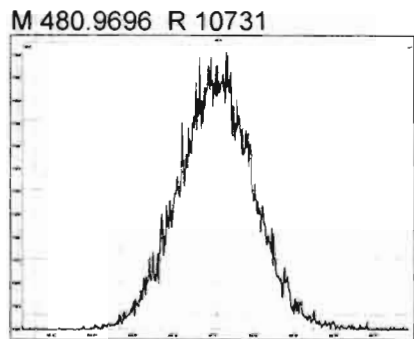
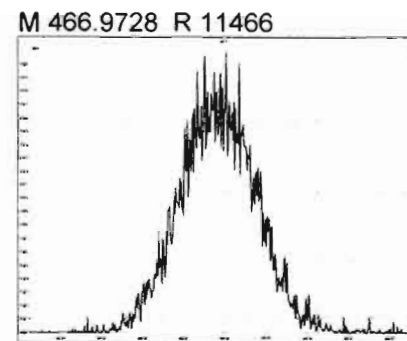
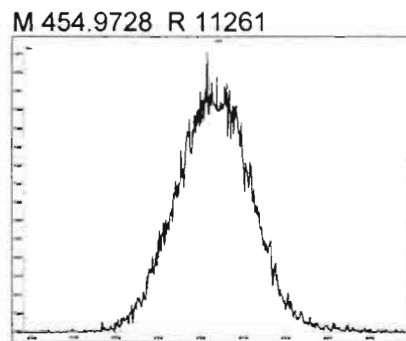
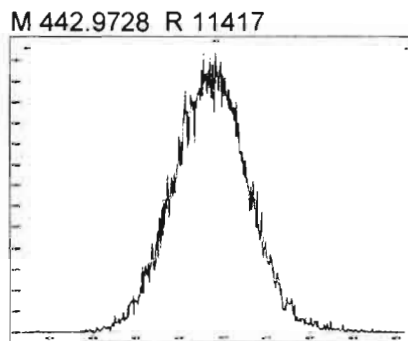
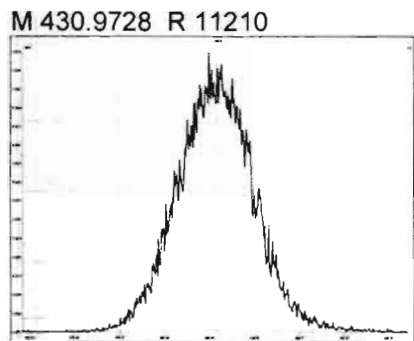
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, March 19, 2020 16:14:39 Pacific Daylight Time



File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, March 19, 2020 16:15:29 Pacific Daylight Time



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:35:30 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:38:43 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1 1,3,6,8-TCDD (First)	21.39
2	2 1,2,8,9-TCDD (Last)	26.83
3	3 1,2,4,7,9-PeCDD (First)	28.76
4	4 1,2,3,8,9-PeCDD (Last)	31.48
5	5 1,2,4,6,7,9-HxCDD (First)	33.02
6	6 1,2,3,7,8,9-HxCDD (Last)	34.85
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.26
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.28
9	9 1,3,6,8-TCDF (First)	19.39
10	10 1,2,8,9-TCDF (Last)	26.99
11	11 1,3,4,6,8-PeCDF (First)	26.96
12	12 1,2,3,8,9-PeCDF (Last)	31.74
13	13 1,2,3,4,6,8-HxCDF (First)	32.45
14	14 1,2,3,7,8,9-HxCDF (Last)	35.19
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.89
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.93



Dataset: Untitled

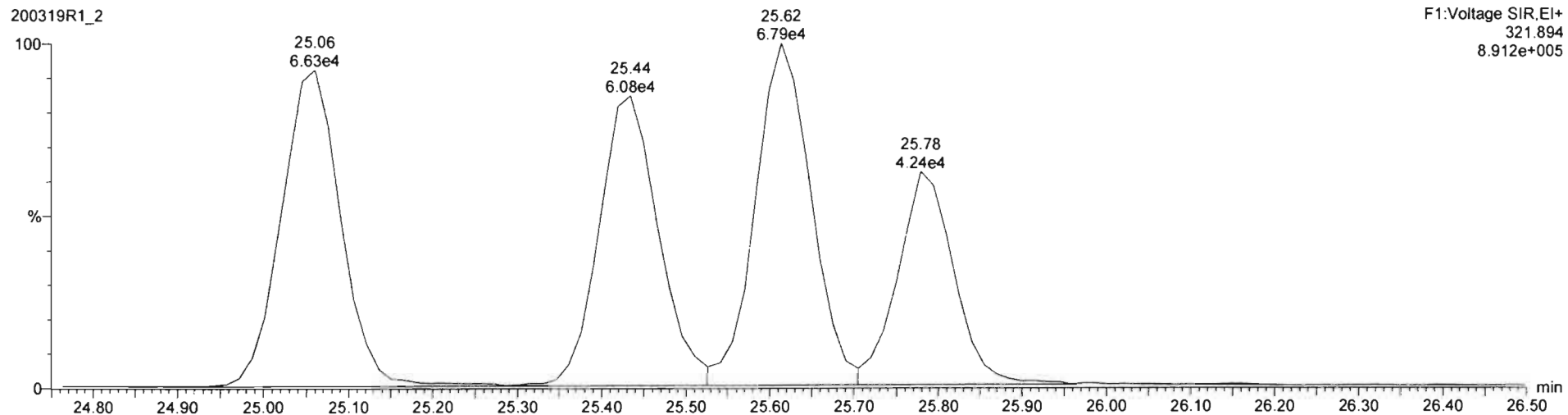
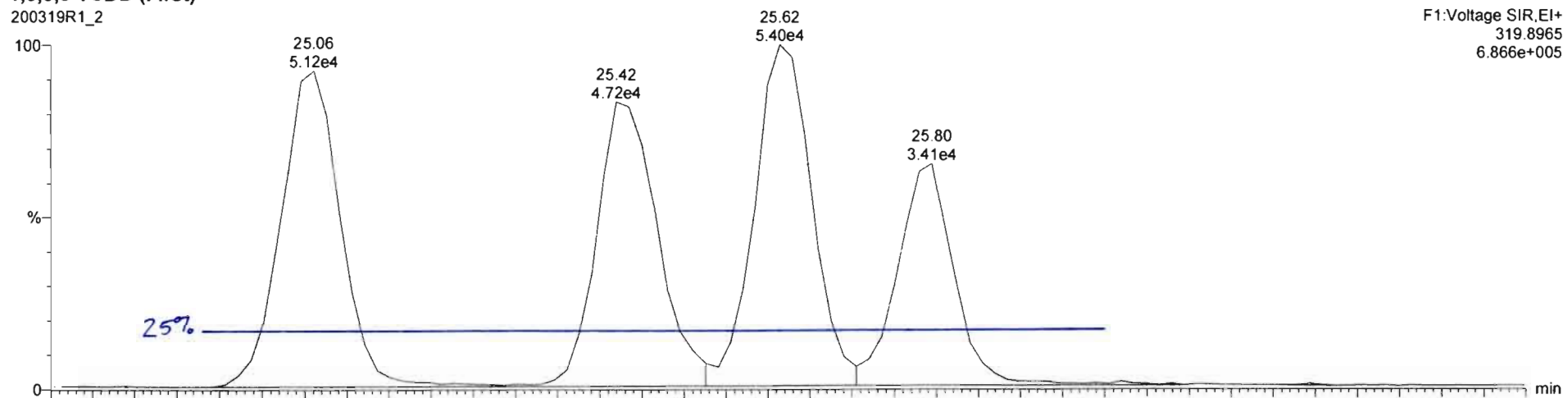
Last Altered: Friday, March 20, 2020 07:35:30 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:38:43 Pacific Daylight Time

GRB 03/20/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,3,6,8-TCDD (First)



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

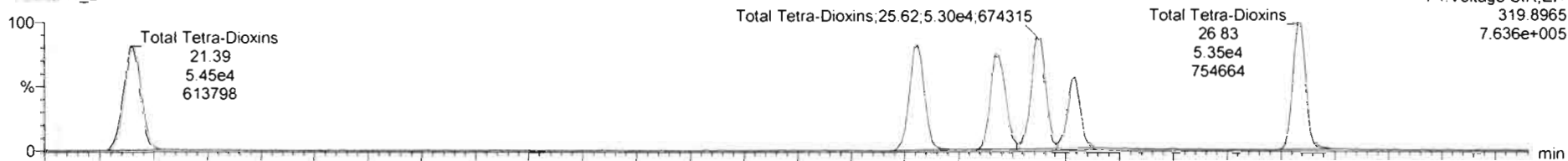
Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

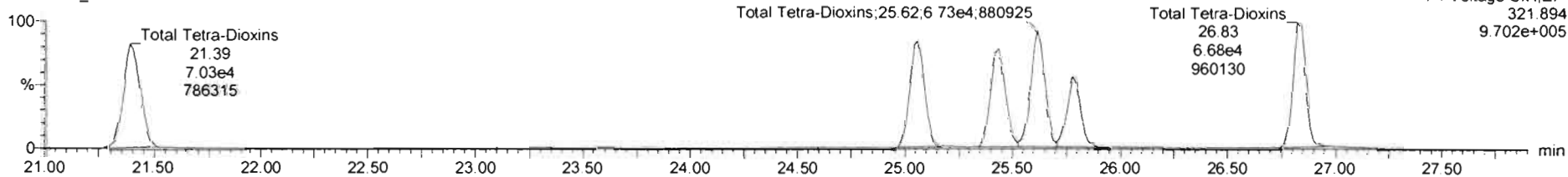
Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200319R1\_2

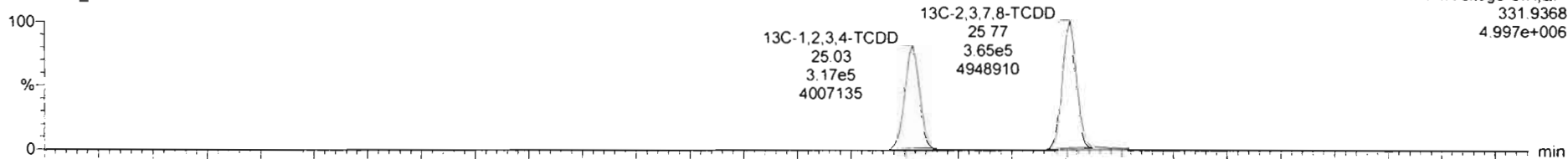


200319R1\_2

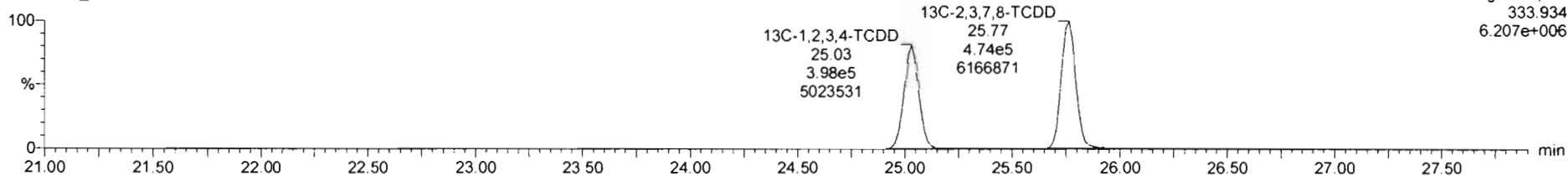


**13C-2,3,7,8-TCDD**

200319R1\_2



200319R1\_2



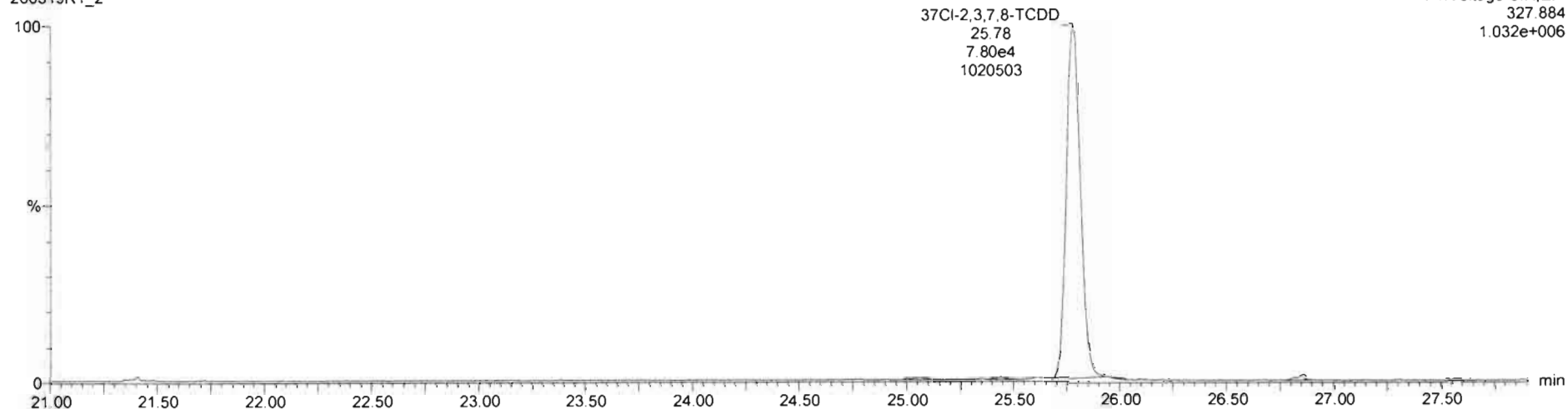
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

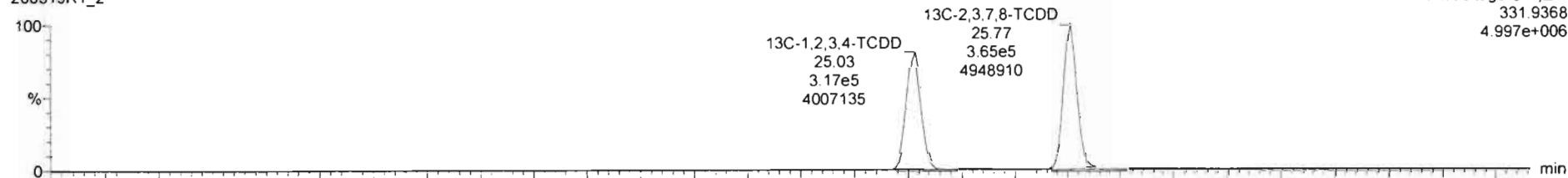
37Cl-2,3,7,8-TCDD

200319R1\_2

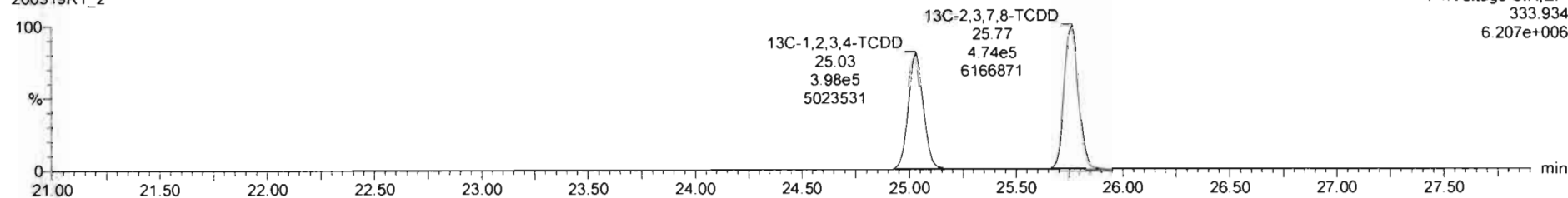


13C-1,2,3,4-TCDD

200319R1\_2



200319R1\_2



Dataset: Untitled

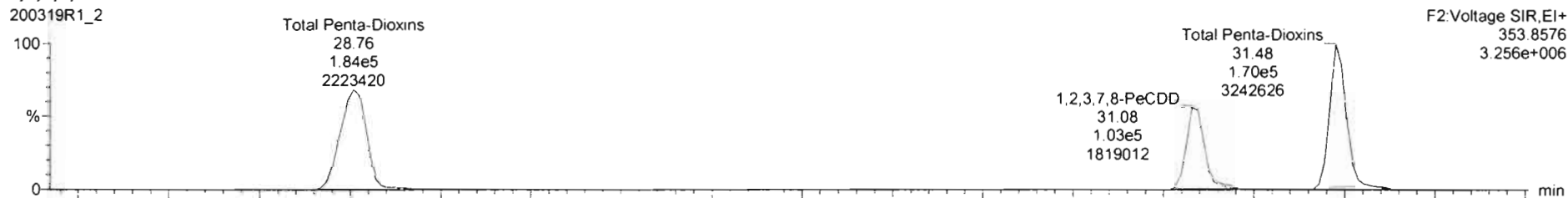
Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

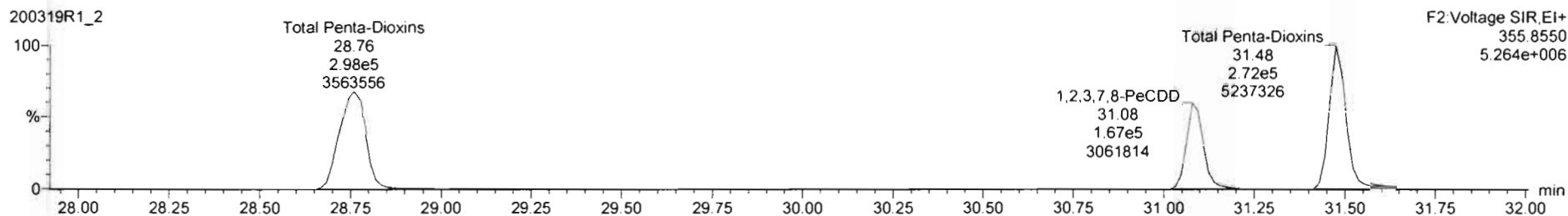
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### 1,2,3,7,8-PeCDD

200319R1\_2

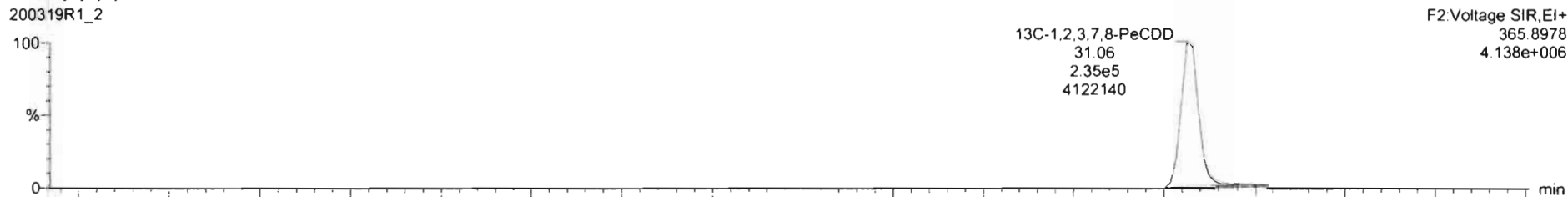


200319R1\_2

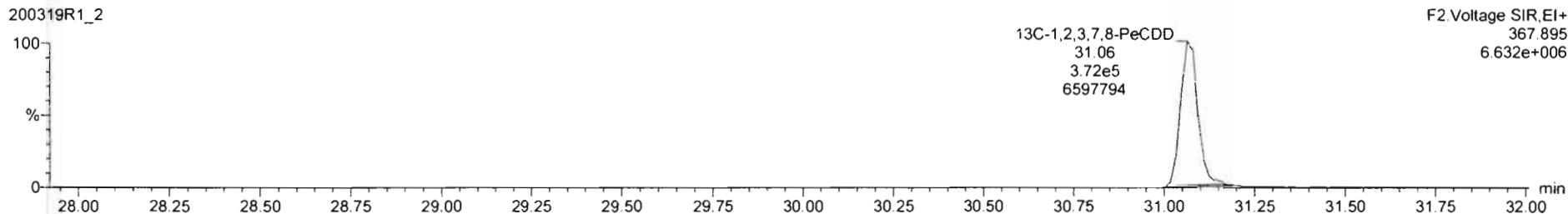


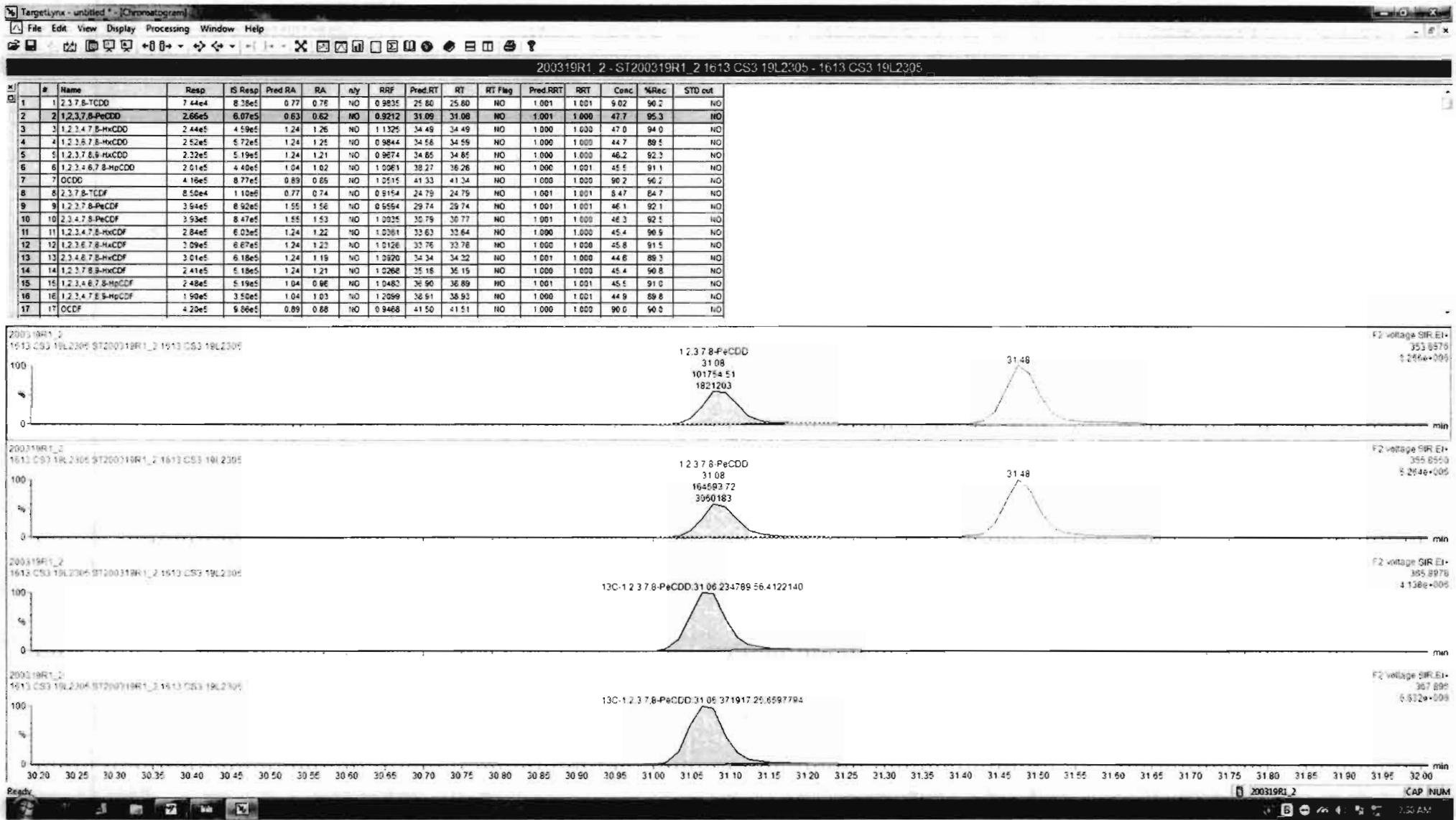
### 13C-1,2,3,7,8-PeCDD

200319R1\_2



200319R1\_2





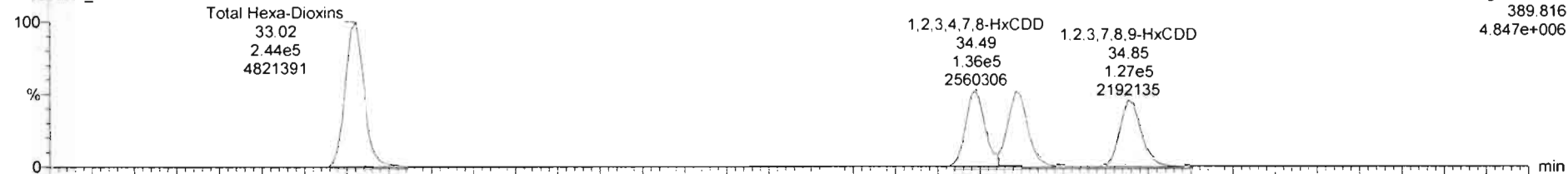
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

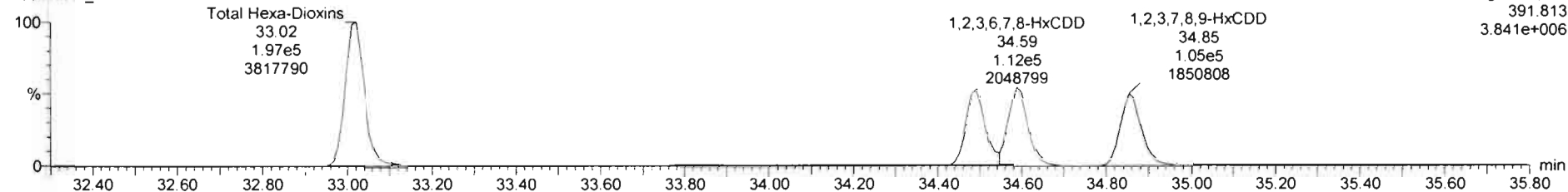
Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200319R1\_2

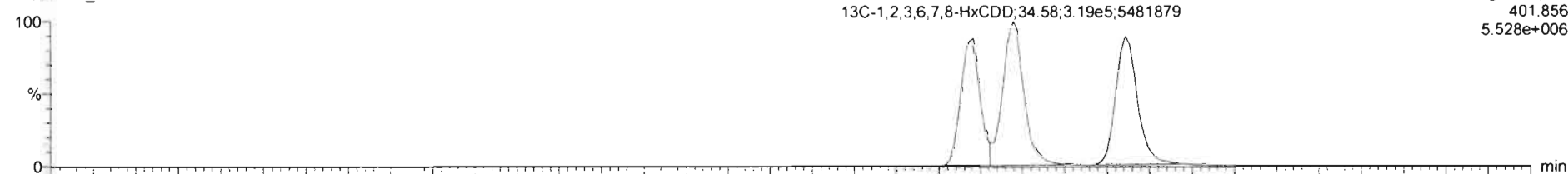


200319R1\_2

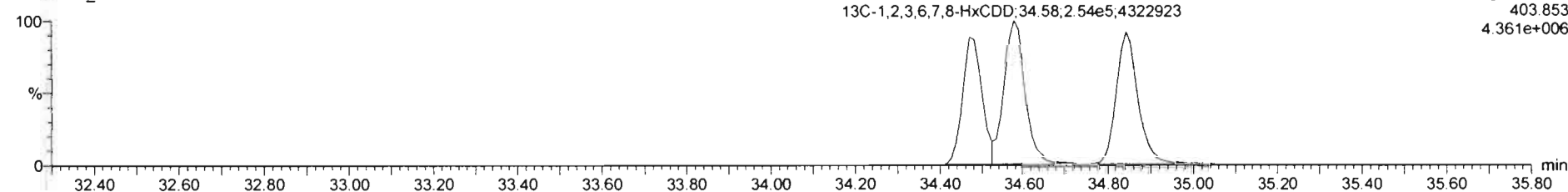


13C-1,2,3,4,7,8-HxCDD

200319R1\_2



200319R1\_2



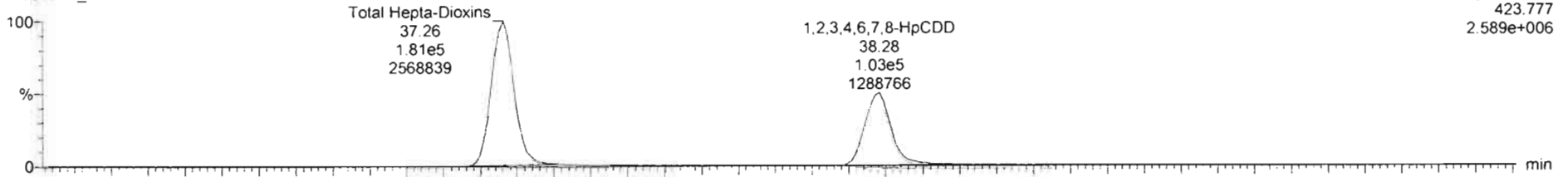
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

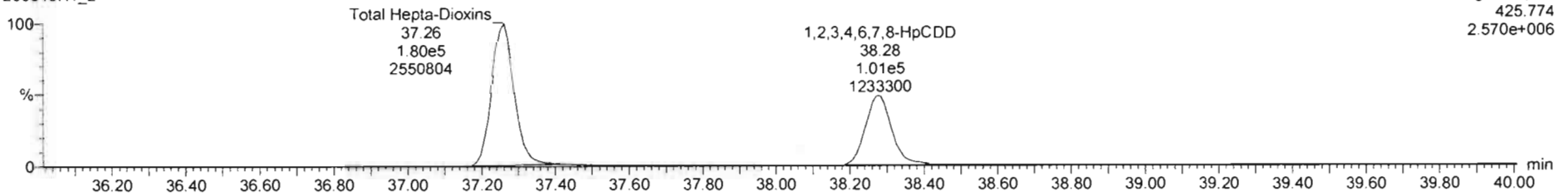
1,2,3,4,6,7,8-HpCDD

200319R1\_2



F4: Voltage SIR, EI+  
423.777  
2.589e+006

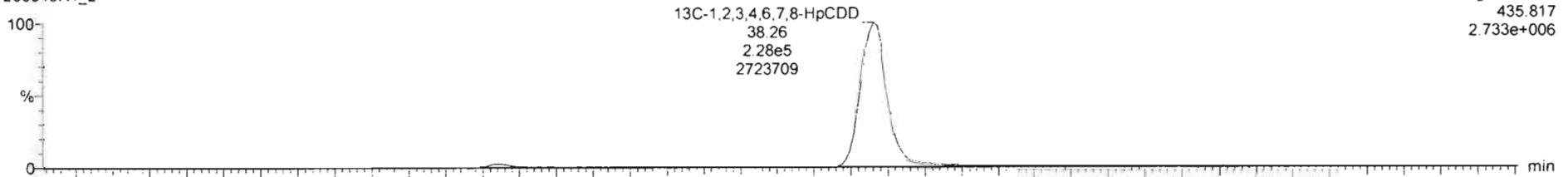
200319R1\_2



F4: Voltage SIR, EI+  
425.774  
2.570e+006

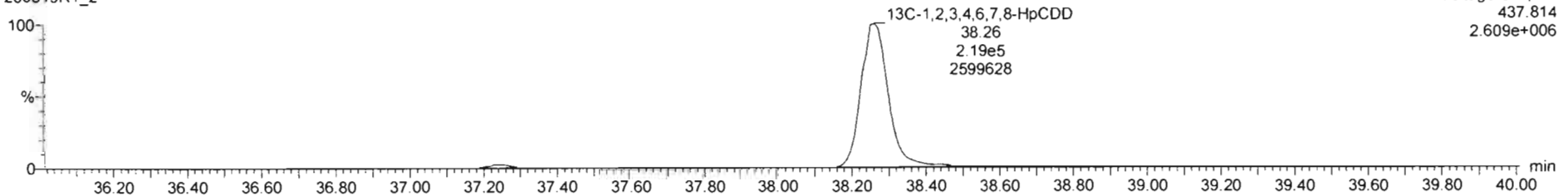
13C-1,2,3,4,6,7,8-HpCDD

200319R1\_2

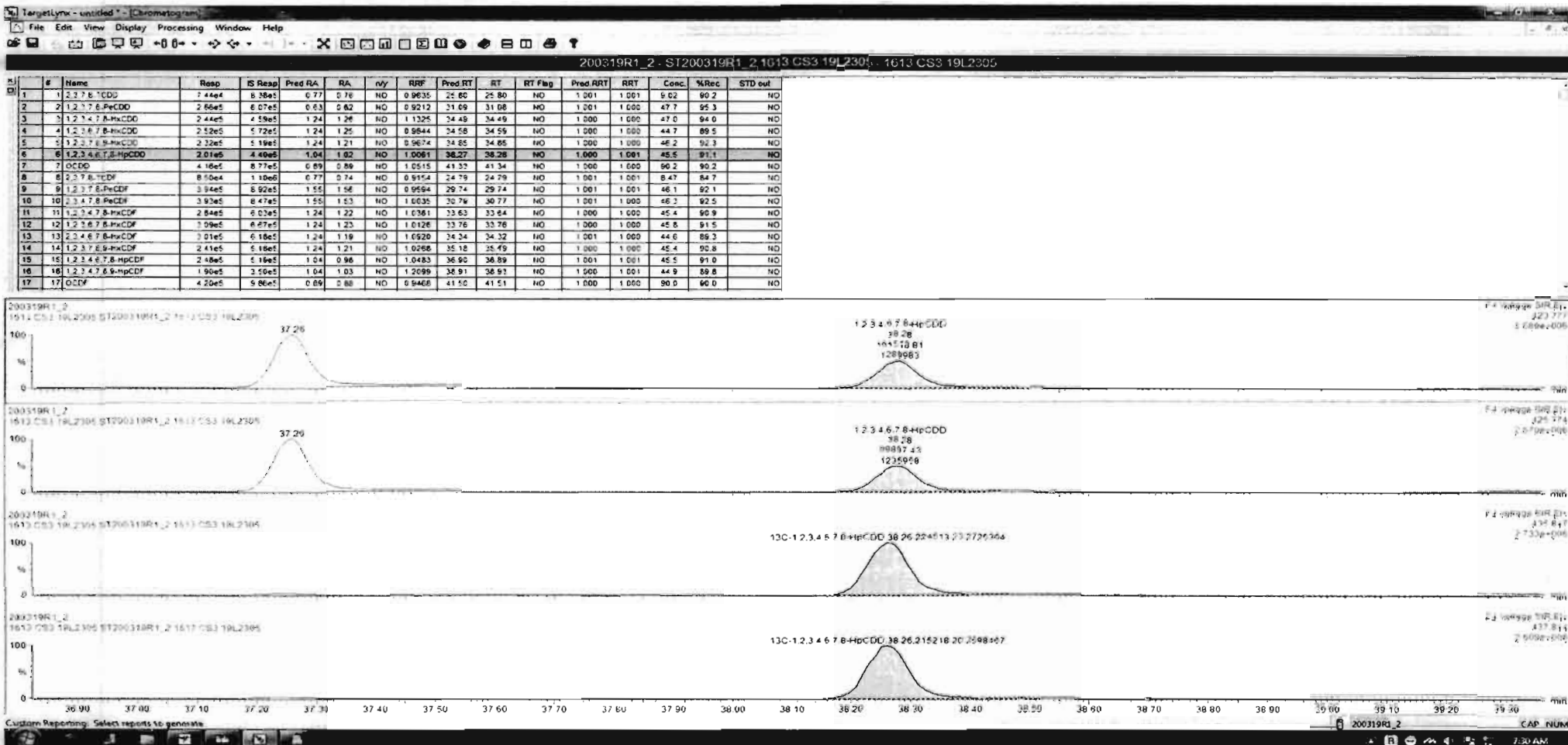


F4: Voltage SIR, EI+  
435.817  
2.733e+006

200319R1\_2



F4: Voltage SIR, EI+  
437.814  
2.609e+006





Dataset: Untitled

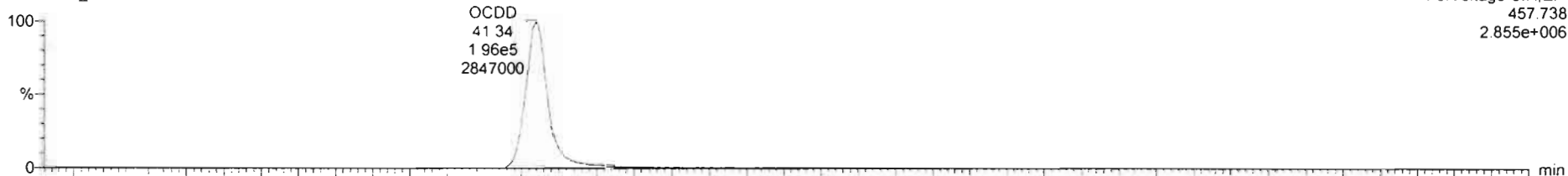
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Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

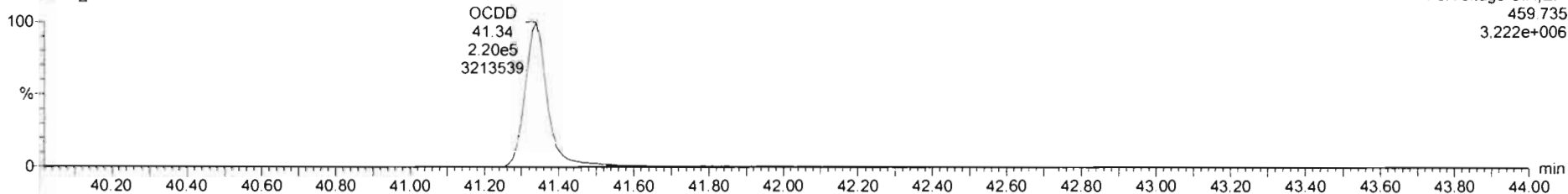
Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

OCDD

200319R1\_2

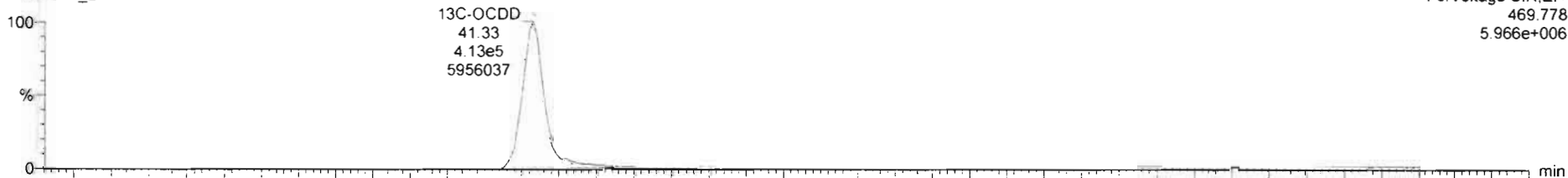


200319R1\_2

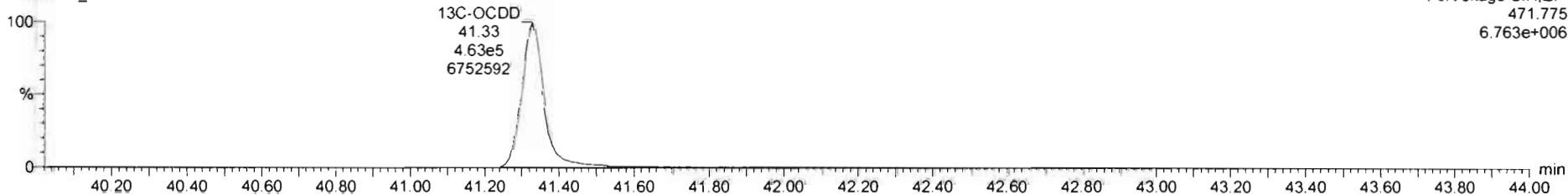


13C-OCDD

200319R1\_2

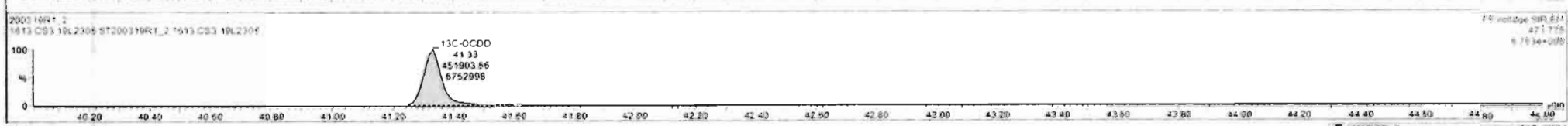


200319R1\_2



200319R1\_2 - ST200319R1\_2 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	S Resp	Pred RA	RA	ny	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	1,2,3,7,8-OCDD	7.44e4	8.36e5	0.77	0.76	NO	0.5635	25.80	25.80	NO	1.001	1.001	9.02	90.2	NO
2	1,2,3,7,8-PeCDD	2.66e5	6.07e5	0.63	0.62	NO	0.9212	31.05	31.05	NO	1.001	1.000	47.7	95.3	NO
3	1,2,3,4,7,8-HxCDD	2.44e5	4.55e5	1.24	1.26	NO	1.1325	34.49	34.49	NO	1.000	1.000	47.0	94.6	NO
4	1,2,3,6,7,8-HxCDD	2.52e5	5.72e5	1.24	1.25	NO	0.9844	34.58	34.59	NO	1.000	1.000	44.7	89.5	NO
5	1,2,3,7,8,9-HxCDD	2.32e5	5.19e5	1.24	1.21	NO	0.9674	34.85	34.85	NO	1.000	1.000	46.2	92.3	NO
6	1,2,3,4,6,7,8-HpCDD	2.01e5	4.40e5	1.04	1.02	NO	1.0061	38.27	38.28	NO	1.000	1.001	45.5	91.1	NO
7	OCDD	4.02e5	8.54e5	0.89	0.89	NO	1.0515	41.33	41.34	NO	1.000	1.000	89.5	89.5	NO
8	2,3,7,8-TCDF	8.50e4	1.10e5	0.77	0.74	NO	0.9154	24.70	24.79	NO	1.001	1.001	6.47	84.7	NO
9	1,2,3,7,8-PeCDF	3.94e5	6.92e5	1.55	1.56	NO	0.5594	29.74	29.74	NO	1.001	1.001	46.1	92.1	NO
10	1,2,3,4,7,8-PeCDF	3.93e5	8.47e5	1.55	1.53	NO	1.0055	30.79	30.77	NO	1.001	1.000	46.3	92.5	NO
11	1,2,3,4,7,8-HxCDF	2.84e5	6.03e5	1.24	1.22	NO	1.0761	33.63	33.64	NO	1.000	1.000	45.4	90.9	NO
12	1,2,3,6,7,8-HxCDF	3.09e5	6.67e5	1.24	1.23	NO	1.0126	33.76	33.76	NO	1.000	1.000	45.8	91.5	NO
13	1,2,3,4,6,7,8-HxCDF	3.01e5	6.16e5	1.24	1.19	NO	1.0920	34.34	34.32	NO	1.001	1.000	44.6	89.3	NO
14	1,2,3,7,8,9-HxCDF	2.41e5	5.18e5	1.24	1.21	NO	1.0268	35.18	35.19	NO	1.000	1.000	45.4	90.8	NO
15	1,2,3,4,6,7,8-HpCDF	2.48e5	5.19e5	1.04	0.96	NO	1.0483	36.90	36.89	NO	1.001	1.001	45.5	91.0	NO
16	1,2,3,4,7,8,9-HpCDF	1.90e5	3.50e5	1.04	1.03	NO	1.2099	38.91	38.93	NO	1.000	1.001	44.9	89.8	NO
17	OCDF	4.20e5	9.86e5	0.89	0.86	NO	0.9468	41.50	41.51	NO	1.000	1.000	90.0	90.0	NO

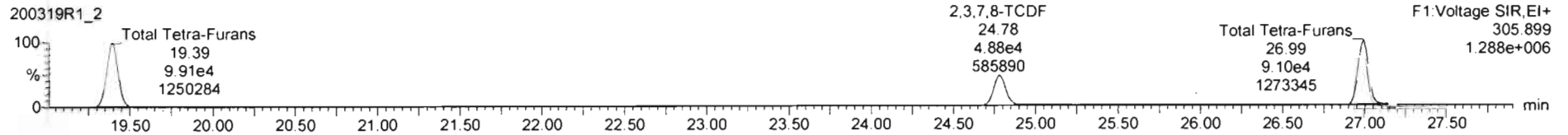
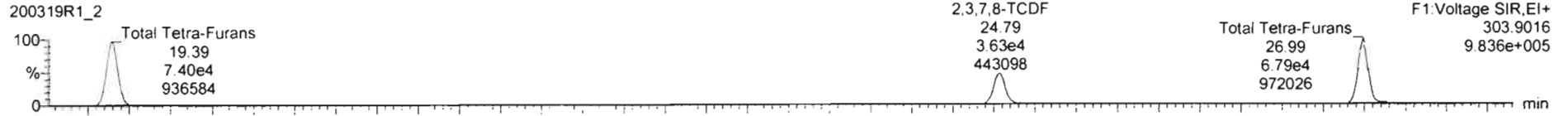


Dataset: Untitled

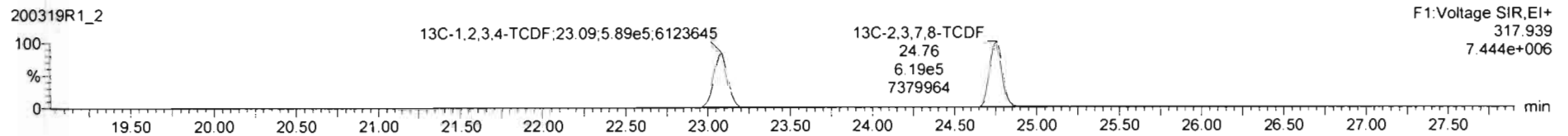
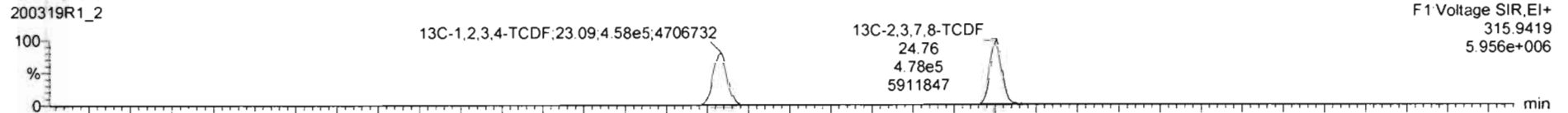
Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

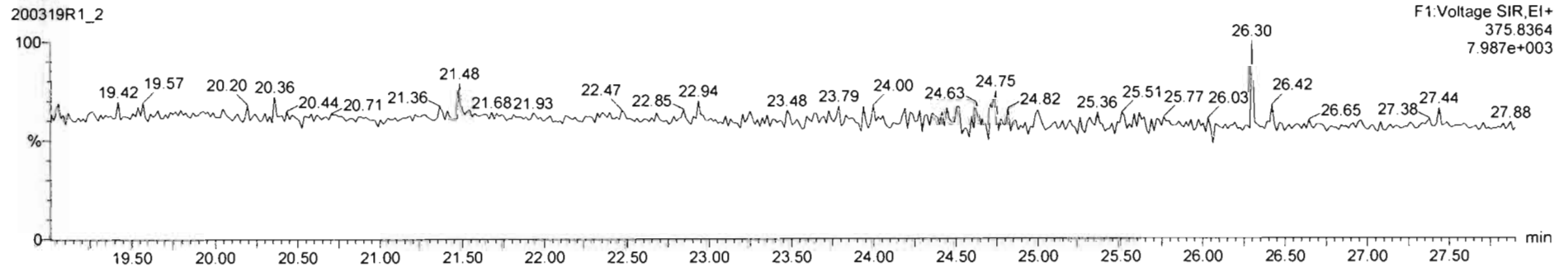
**2,3,7,8-TCDF**



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



**DPE1**



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time

Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

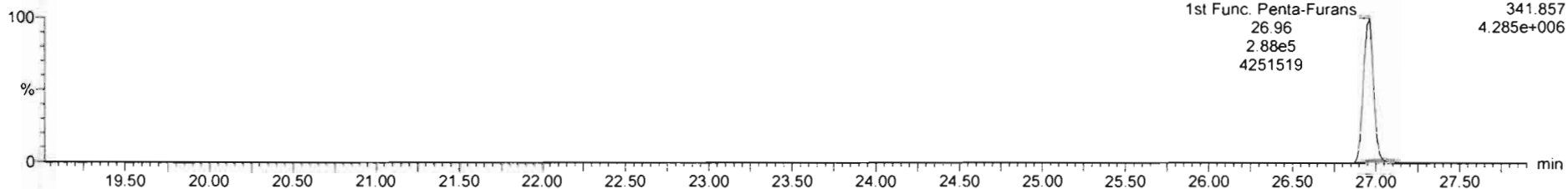
Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1st Func. Penta-Furans

200319R1\_2

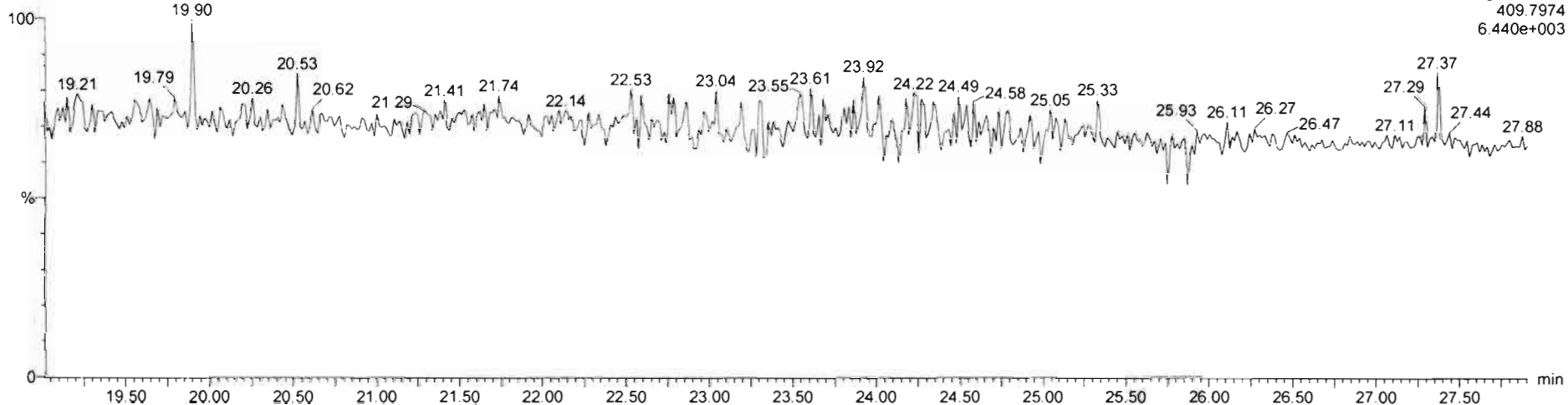


200319R1\_2



DPE6

200319R1\_2



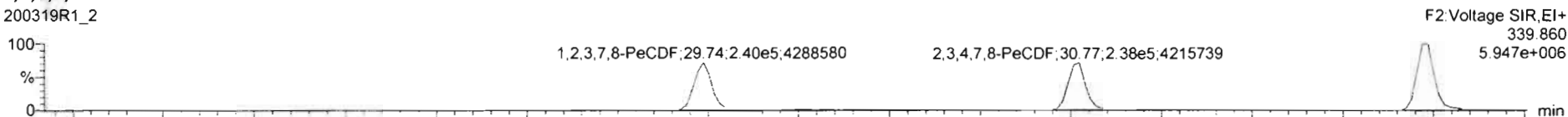
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

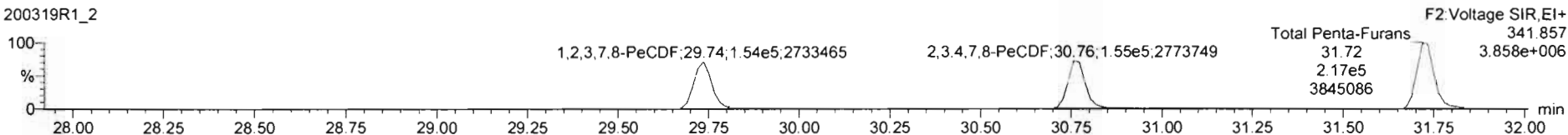
Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200319R1\_2

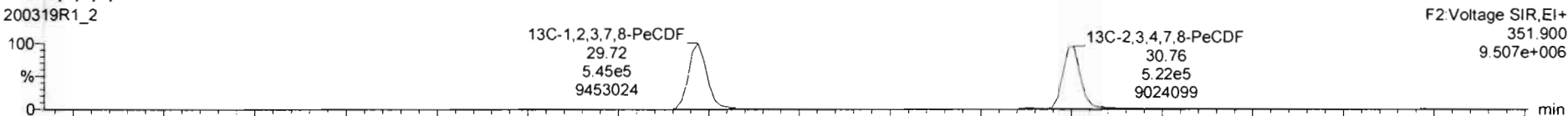


200319R1\_2

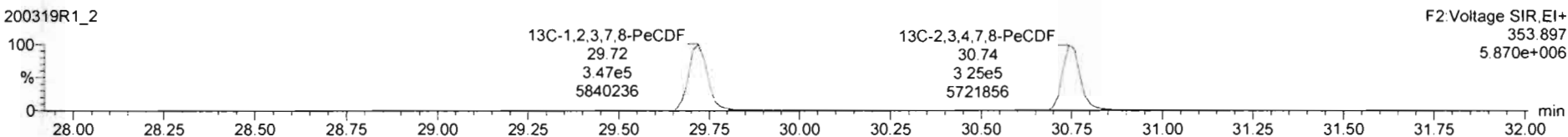


**13C-1,2,3,7,8-PeCDF**

200319R1\_2

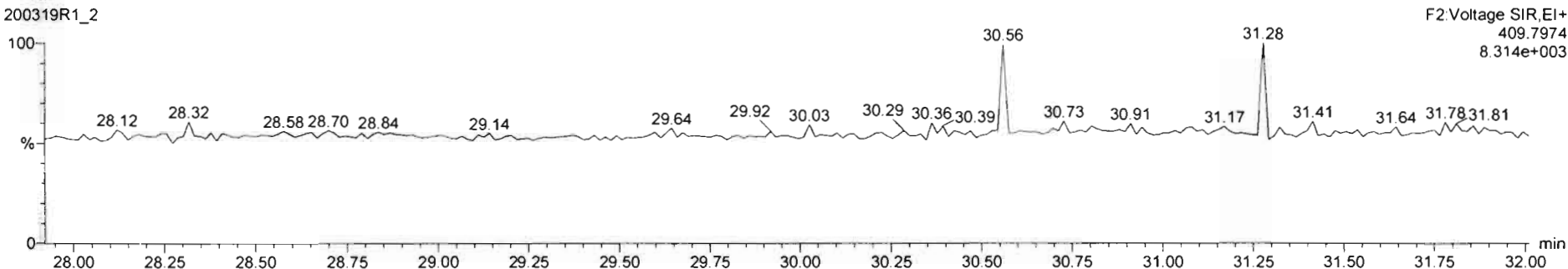


200319R1\_2



**DPE2**

200319R1\_2



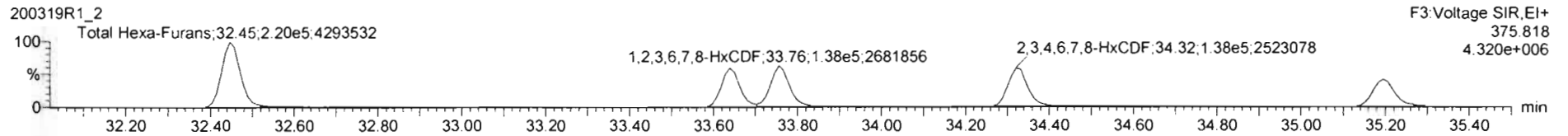
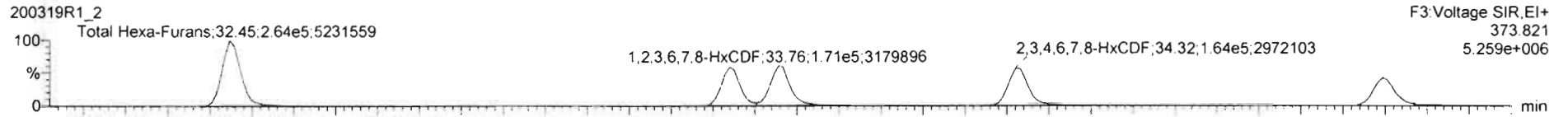
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time

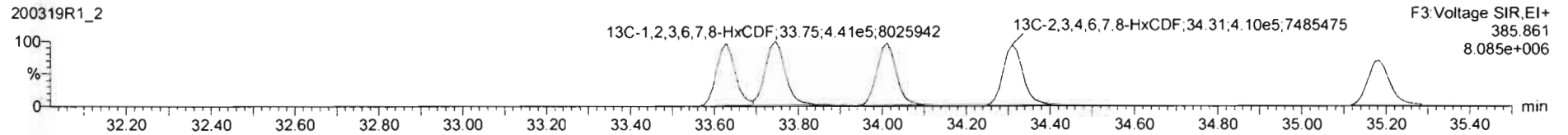
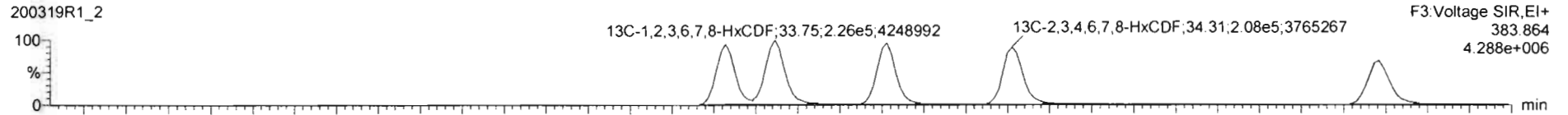
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

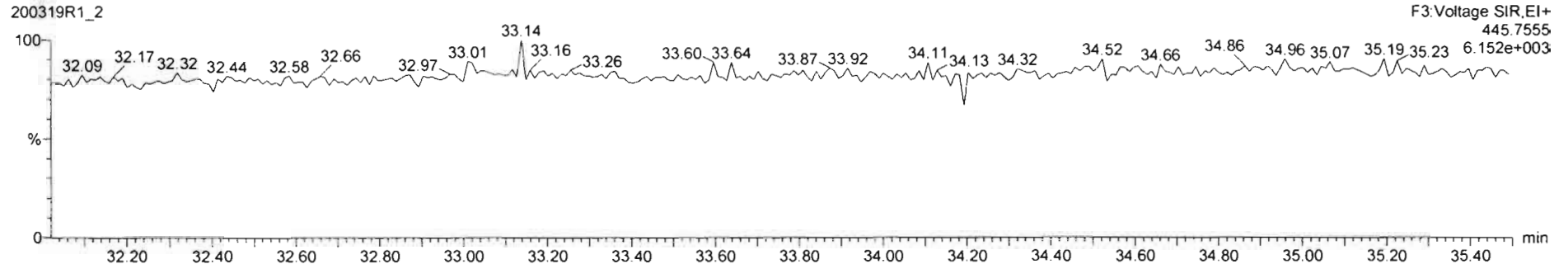
**1,2,3,4,7,8-HxCDF**



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

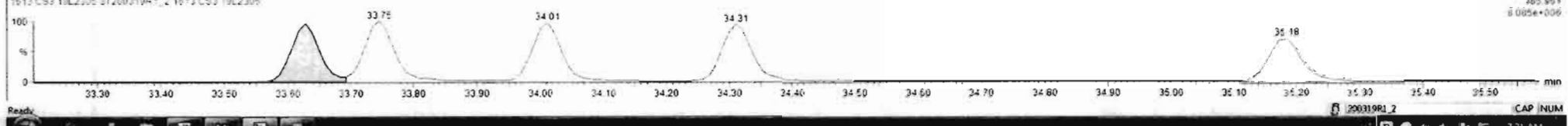
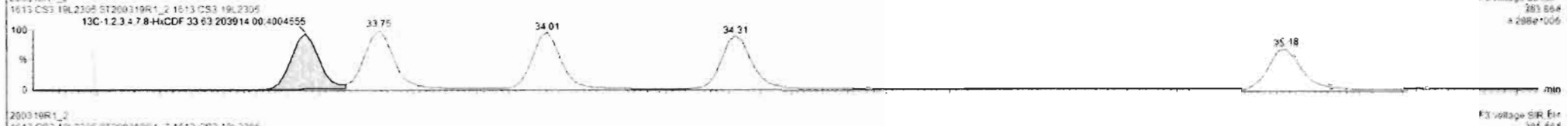
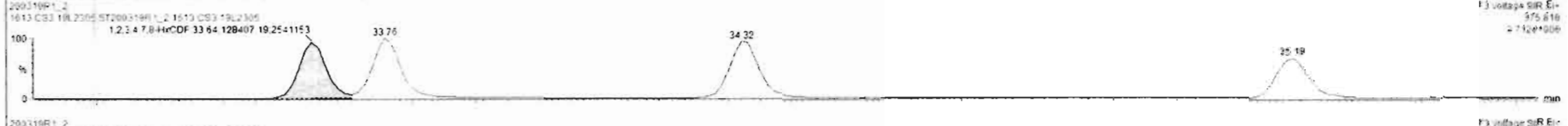
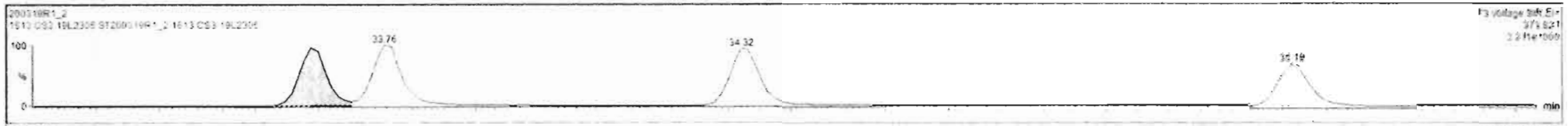


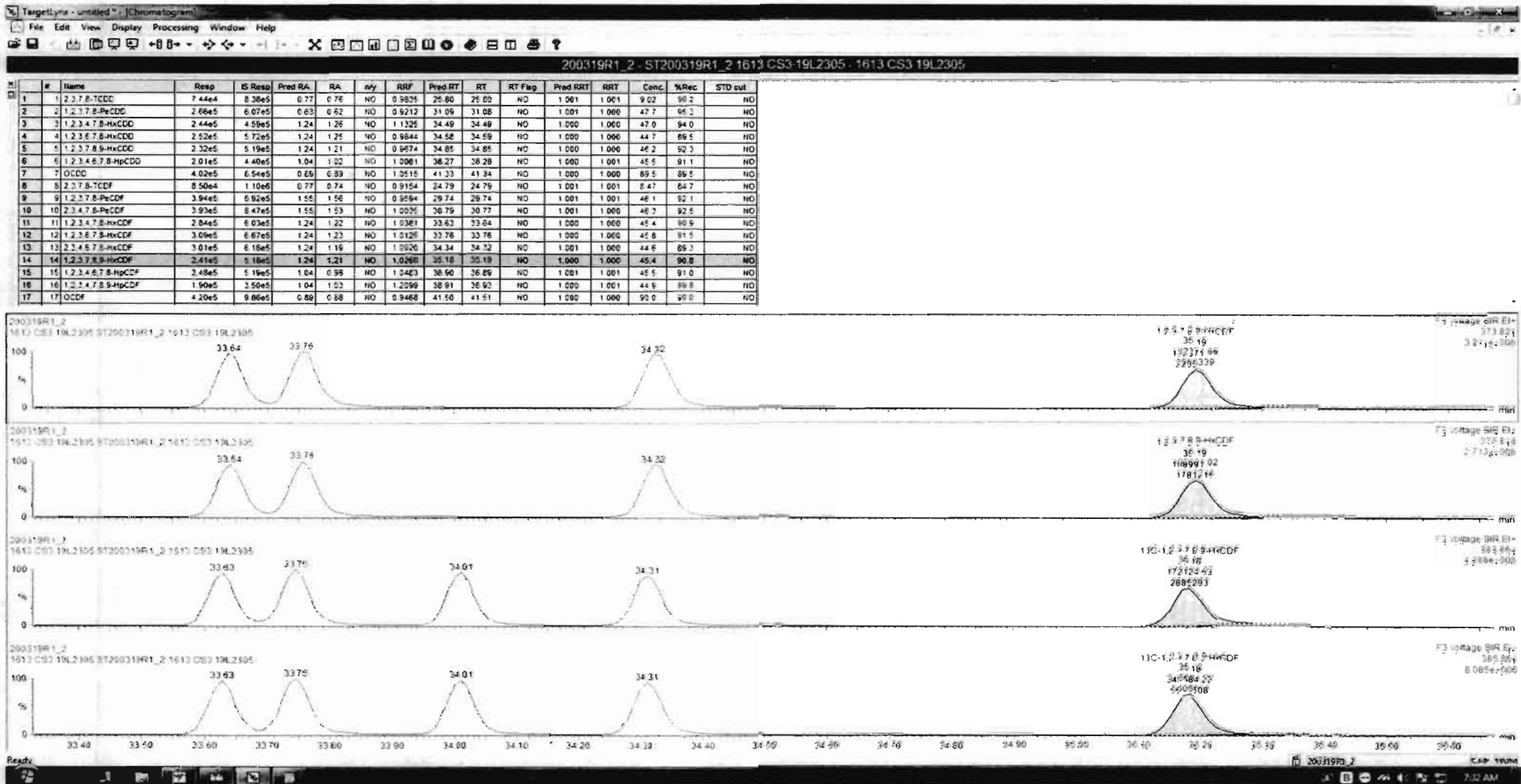
**DPE3**



200319R1\_2 - ST200319R1\_2 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	IS Resp	Pred RA	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc	%Rec	STD out
1	1,2,3,7,8-TCDD	7.44e4	6.26e5	0.77	0.76	ND	0.5835	25.80	25.80	ND	1.001	1.001	9.02	90.2	NO
2	1,2,3,7,8-PeCDD	2.68e5	6.07e5	0.63	0.62	ND	0.5212	31.09	31.08	ND	1.001	1.000	47.7	55.3	NO
3	1,2,3,4,7,8-HxCDD	2.44e5	4.59e5	1.24	1.26	NO	1.1325	34.49	34.48	ND	1.000	1.000	47.0	94.0	NO
4	1,2,3,6,7,8-HxCDD	2.52e5	5.72e5	1.24	1.25	NO	0.9844	34.58	34.59	ND	1.000	1.000	44.7	89.5	NO
5	1,2,3,7,8,9-HxCDD	2.32e5	5.19e5	1.24	1.21	NO	0.9874	34.85	34.85	ND	1.000	1.000	46.2	92.3	NO
6	1,2,3,4,6,7,8-HpCDD	2.01e5	4.40e5	1.04	1.02	NO	1.0061	38.27	38.28	ND	1.001	1.001	45.5	91.1	NO
7	OCDD	4.02e5	6.54e5	0.69	0.69	NO	1.0515	41.33	41.34	ND	1.000	1.000	89.5	89.5	NO
8	1,2,3,8-TCDF	8.50e4	1.10e6	0.77	0.74	NO	0.5154	24.79	24.79	ND	1.001	1.001	8.47	94.7	NO
9	1,2,3,7,8-PeCDF	3.94e5	8.92e5	1.55	1.56	NO	0.9594	29.74	29.74	ND	1.001	1.001	46.1	92.1	NO
10	1,2,3,4,7,8-PeCDF	3.93e5	8.47e5	1.55	1.53	NO	1.0035	30.79	30.77	ND	1.001	1.000	46.3	92.5	NO
11	1,2,3,4,7,8-HxCDF	2.64e5	6.03e5	1.24	1.22	NO	1.0381	33.63	33.64	ND	1.000	1.000	45.4	90.9	NO
12	1,2,3,6,7,8-HxCDF	3.09e5	6.67e5	1.24	1.23	NO	1.0126	33.76	33.76	ND	1.000	1.000	45.8	91.5	NO
13	1,2,3,4,6,7,8-HxCDF	3.01e5	6.16e5	1.24	1.19	NO	1.0920	34.34	34.32	ND	1.001	1.000	44.6	89.3	NO
14	1,2,3,7,8,9-HxCDF	2.41e5	5.18e5	1.24	1.21	NO	1.0265	35.18	35.19	ND	1.000	1.000	45.4	90.5	NO
15	1,2,3,4,6,7,8-HpCDF	2.48e5	5.19e5	1.04	0.98	NO	1.0483	36.90	36.89	ND	1.001	1.001	45.5	91.0	NO
16	1,2,3,4,7,8,9-HpCDF	1.50e5	3.50e5	1.04	1.03	NO	1.2089	38.91	38.93	ND	1.000	1.001	44.5	89.8	NO
17	OCDF	4.20e5	9.86e5	0.68	0.68	NO	0.9468	41.50	41.51	ND	1.000	1.000	90.6	90.0	NO







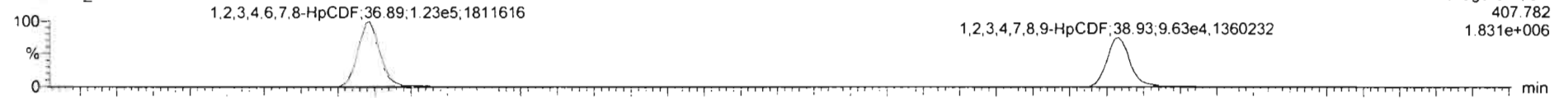
Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

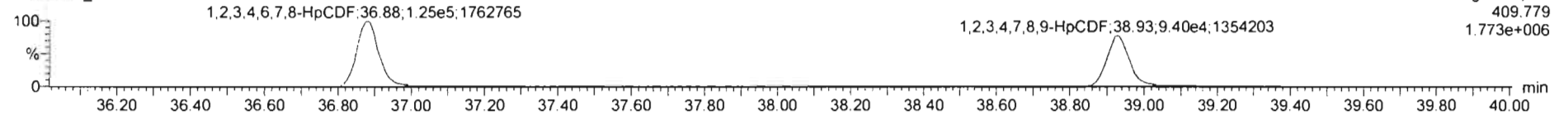
**1,2,3,4,6,7,8-HpCDF**

200319R1\_2



F4: Voltage SIR, EI+  
407.782  
1.831e+006

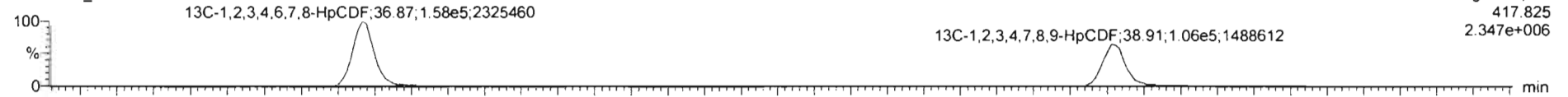
200319R1\_2



F4: Voltage SIR, EI+  
409.779  
1.773e+006

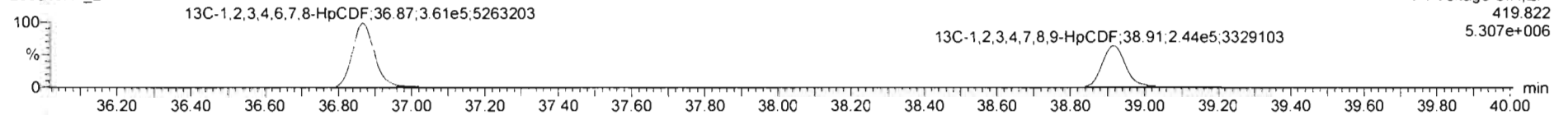
**13C-1,2,3,4,6,7,8-HpCDF**

200319R1\_2



F4: Voltage SIR, EI+  
417.825  
2.347e+006

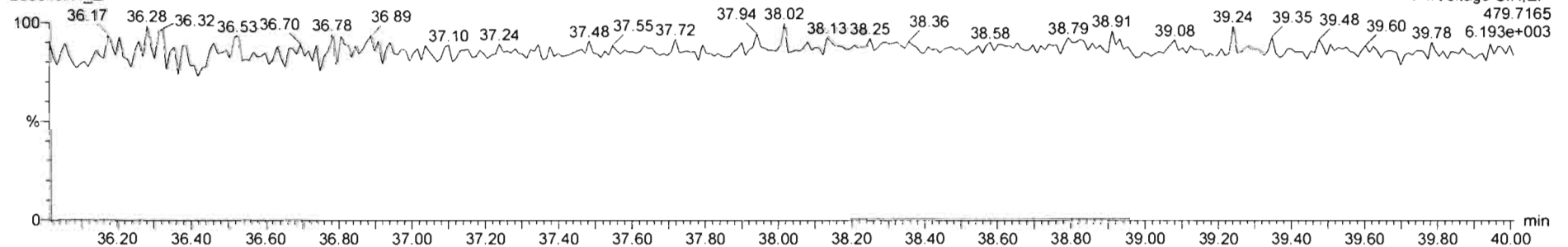
200319R1\_2



F4 Voltage SIR, EI+  
419.822  
5.307e+006

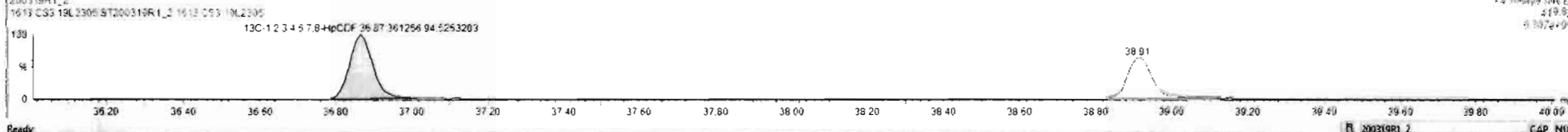
**DPE4**

200319R1\_2



F4: Voltage SIR, EI+  
479.7165  
6.193e+003

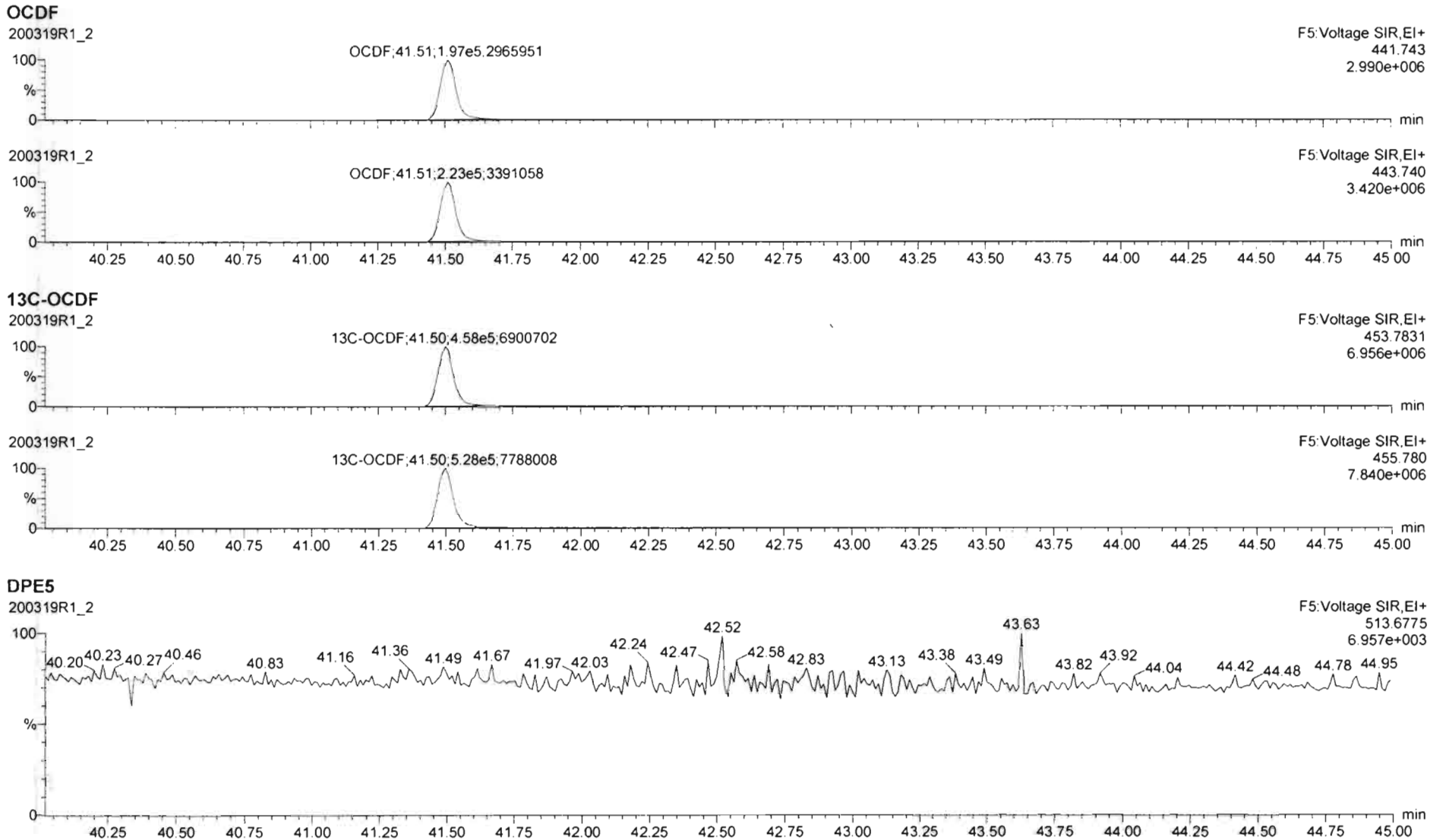
#	Name	Resp	IS Resp	Pred RA	RA	n/y	RRF	Pred RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	7.44e4	8.38e5	0.77	0.76	NO	0.9235	25.86	25.80	NO	1.001	1.001	9.02	90.2	NO
2	1 2,3,7,8-PeCDD	2.66e5	6.07e5	0.63	0.62	NO	0.9212	31.09	31.06	NO	1.001	1.000	47.7	95.3	NO
3	1 2,3,4,7,8-HxCDD	2.44e5	4.59e5	1.24	1.26	NO	1.1325	34.49	34.45	NO	1.000	1.000	47.0	94.0	NO
4	1 2,3,6,7,8-HxCDD	2.52e5	5.72e5	1.24	1.25	NO	0.9844	34.58	34.55	NO	1.000	1.000	44.7	89.5	NO
5	1 2,3,7,8,9-HxCDD	2.32e5	5.19e5	1.24	1.21	NO	0.9674	34.65	34.65	NO	1.000	1.000	46.2	92.3	NO
6	1 2,3,4,6,7,8-HpCDD	2.01e5	4.40e5	1.04	1.02	NO	1.0061	36.27	36.28	NO	1.000	1.001	45.5	91.1	NO
7	7 OCDD	4.02e5	8.54e5	0.89	0.89	NO	1.0515	41.33	41.34	NO	1.000	1.000	89.5	85.5	NO
8	2 2,3,7,8-TCDF	8.50e4	1.10e6	0.77	0.74	NO	0.9154	24.79	24.79	NO	1.001	1.001	8.47	84.7	NO
9	1 2,3,7,8-PeCDF	3.94e5	8.52e5	1.55	1.56	NO	0.9594	29.74	29.74	NO	1.001	1.001	46.1	92.1	NO
10	1 2,3,4,7,8-PeCDF	3.93e5	8.47e5	1.55	1.53	NO	1.0035	30.79	30.77	NO	1.001	1.000	46.3	92.5	NO
11	1 2,3,4,7,8-HxCDF	2.84e5	6.03e5	1.24	1.22	NO	1.0781	33.63	33.64	NO	1.000	1.000	45.4	90.9	NO
12	1 2,3,6,7,8-HxCDF	2.09e5	6.67e5	1.24	1.23	NO	1.0126	33.76	33.76	NO	1.000	1.000	45.6	91.5	NO
13	1 2,3,4,6,7,8-HxCDF	3.01e5	8.18e5	1.24	1.19	NO	1.0920	34.34	34.32	NO	1.001	1.000	44.6	89.3	NO
14	1 2,3,7,8,9-HxCDF	2.41e5	5.18e5	1.24	1.21	NO	1.0268	35.18	35.19	NO	1.000	1.000	45.4	90.8	NO
15	1 2,3,4,6,7,8-HpCDF	2.47e5	5.19e5	1.04	0.99	NO	1.0463	36.59	36.60	NO	1.001	1.001	45.4	90.7	NO
16	1 2,3,4,7,8,9-HpCDF	1.90e5	3.50e5	1.04	1.02	NO	1.2095	38.91	38.93	NO	1.000	1.001	44.9	89.8	NO
17	17 OCDF	4.20e5	9.82e5	0.89	0.88	NO	0.9468	41.50	41.51	NO	1.000	1.000	90.0	90.0	NO



Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time  
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

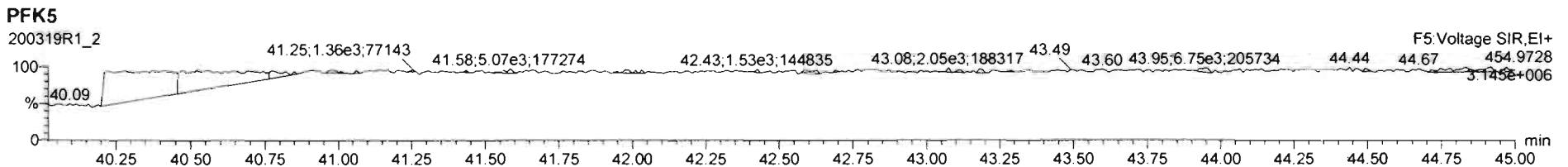
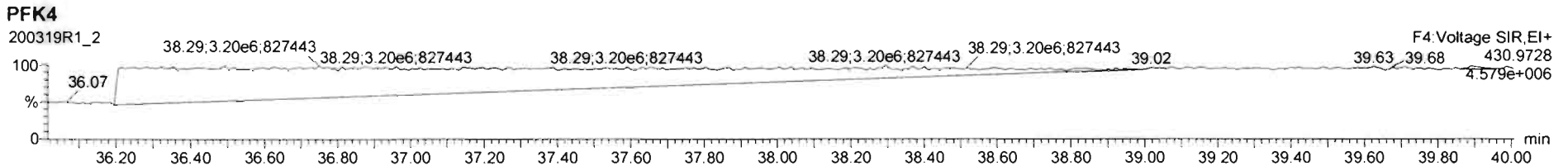
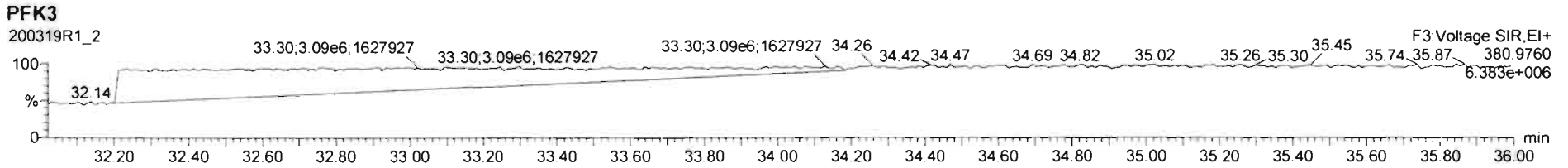
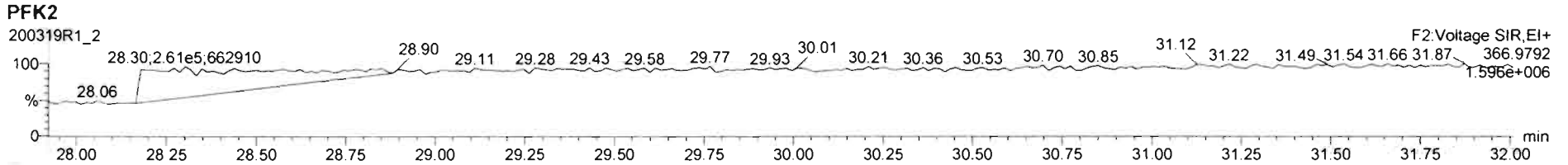
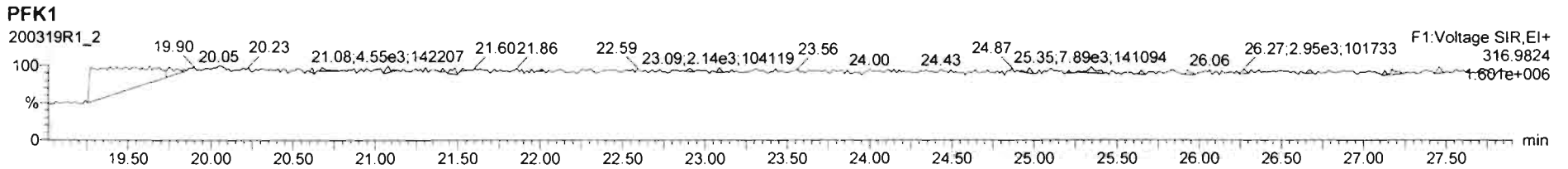


Dataset: Untitled

Last Altered: Friday, March 20, 2020 07:33:28 Pacific Daylight Time

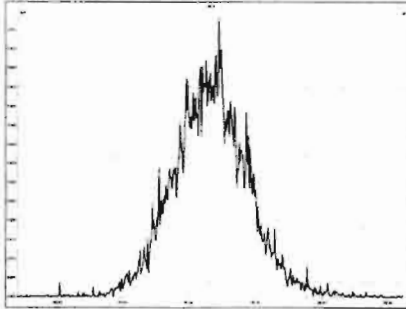
Printed: Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1\_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1\_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

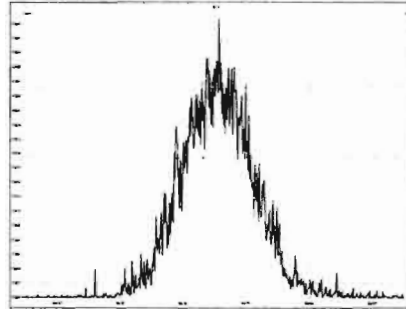


Printed: Friday, March 20, 2020 05:11:17 Pacific Daylight Time

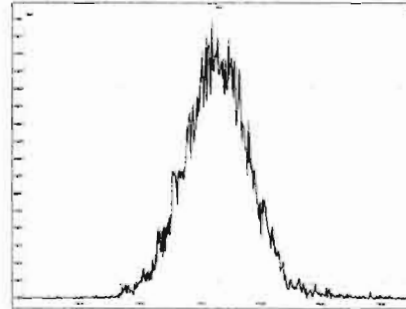
M 292.9824 R 11604



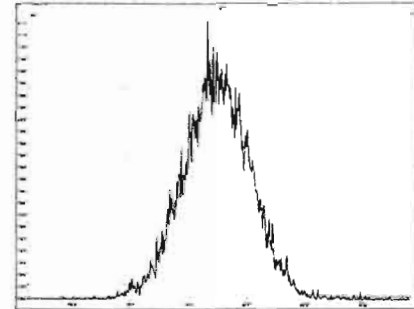
M 304.9824 R 13091



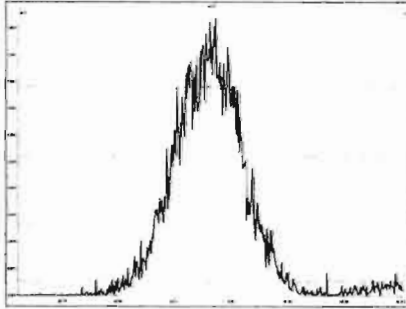
M 318.9792 R 12691



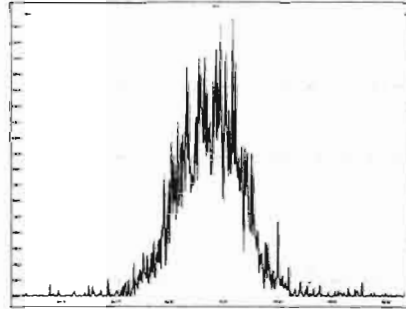
M 330.9792 R 12726



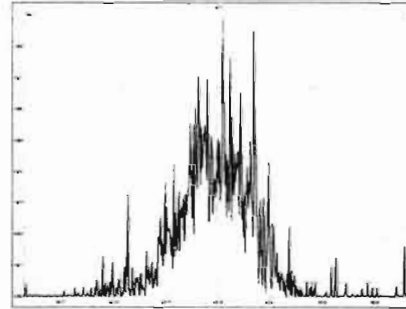
M 342.9792 R 13065



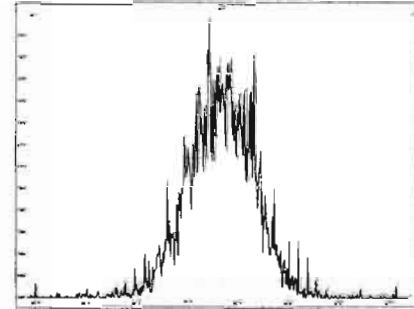
M 354.9792 R 14295



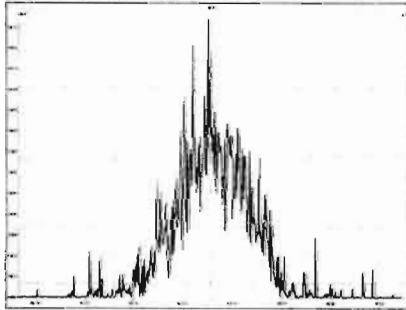
M 366.9792 R 17576



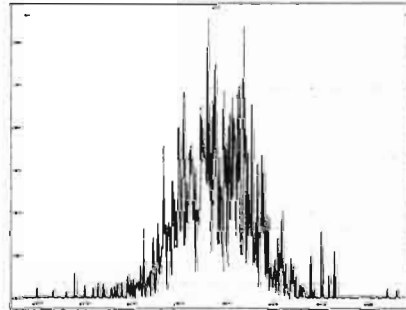
M 380.9760 R 15112



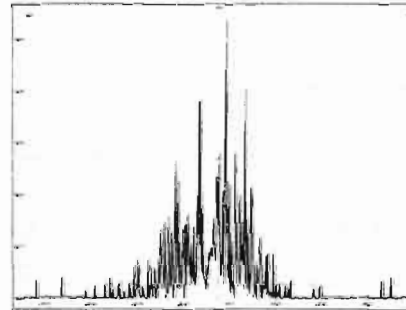
M 392.9760 R 13909



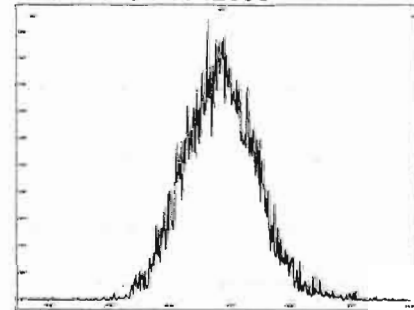
M 404.9760 R 16541



M 416.9760 R 27851

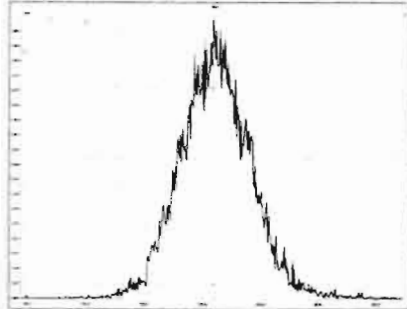


M 318.9792 R 12698

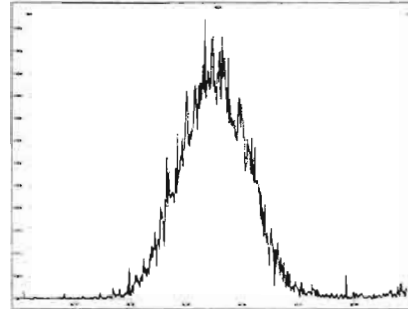


Printed: Friday, March 20, 2020 05:11:17 Pacific Daylight Time

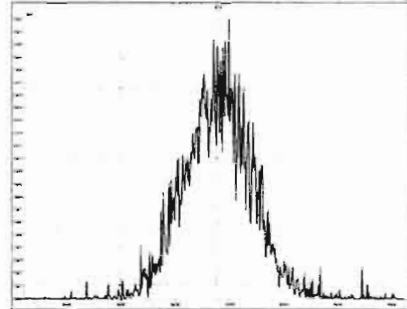
M 330.9792 R 13199



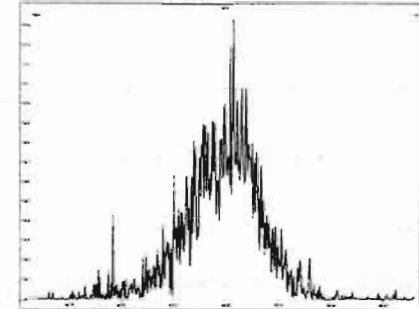
M 342.9792 R 12594



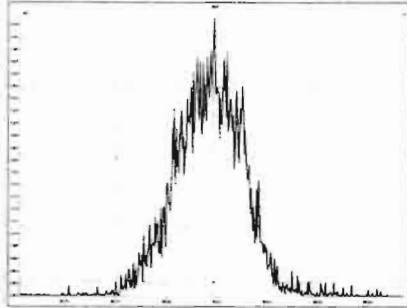
M 354.9792 R 14837



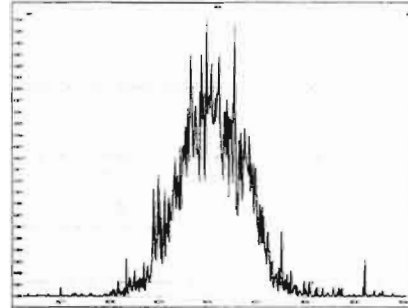
M 366.9792 R 15874



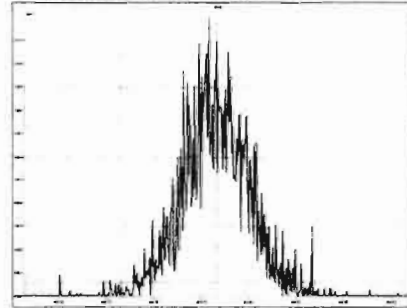
M 380.9760 R 14006



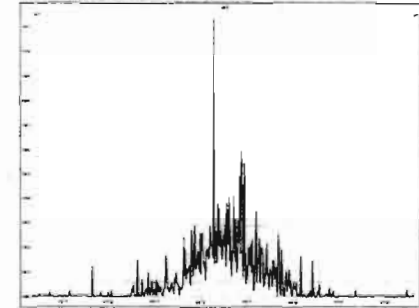
M 392.9760 R 14108



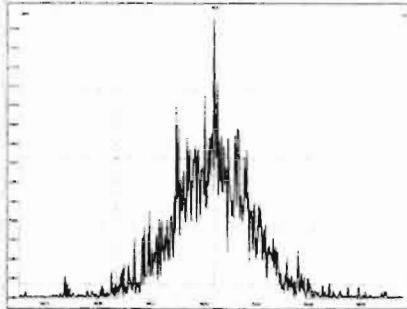
M 404.9760 R 15201



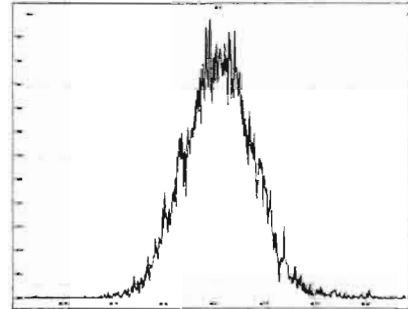
M 416.9760 R 19535



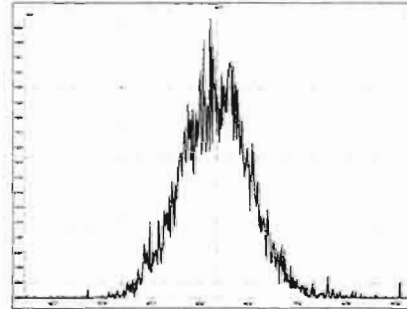
M 366.9792 R 13626



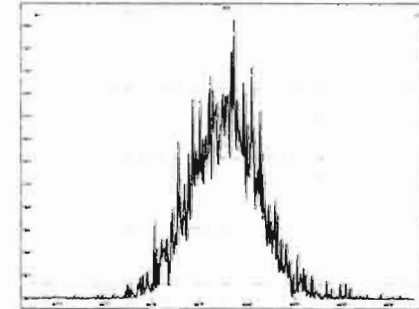
M 380.9760 R 12828



M 392.9760 R 12724

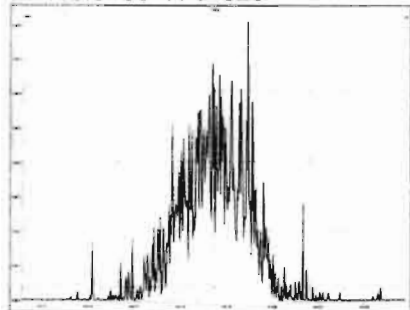


M 404.9760 R 14374

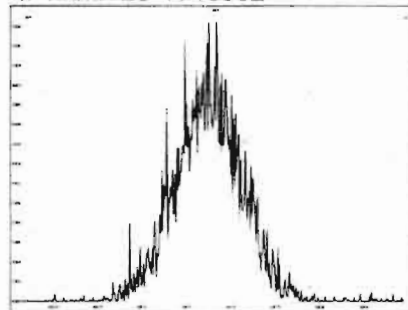


Printed: Friday, March 20, 2020 05:11:17 Pacific Daylight Time

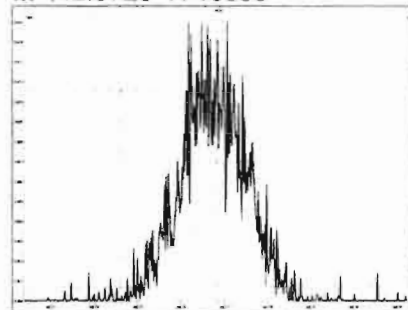
M 416.9760 R 14029



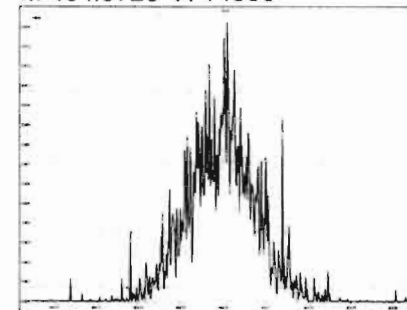
M 430.9728 R 13532



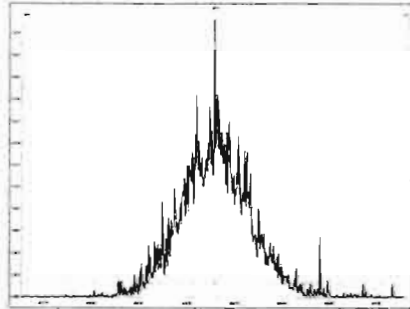
M 442.9728 R 15030



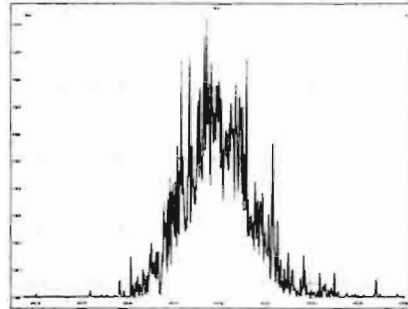
M 454.9728 R 14660



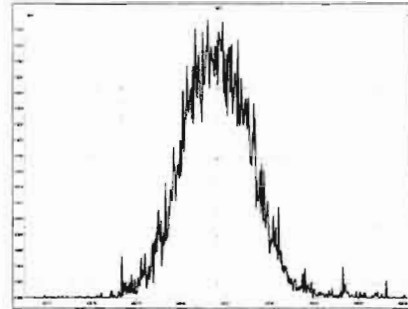
M 404.9760 R 12817



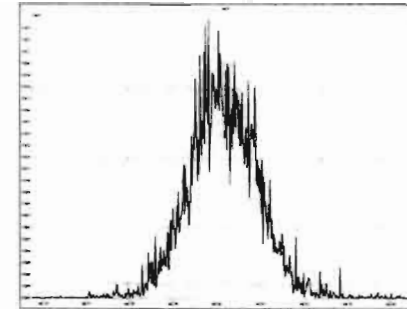
M 416.9760 R 15385



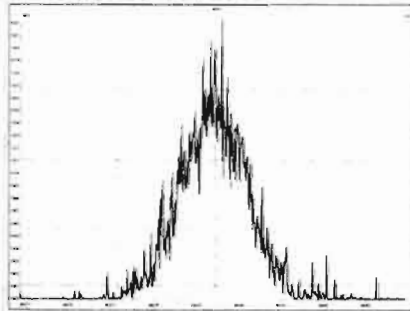
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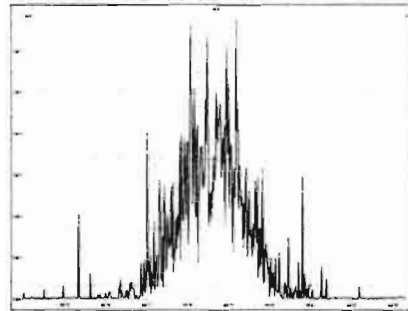
M 442.9728 R 13892



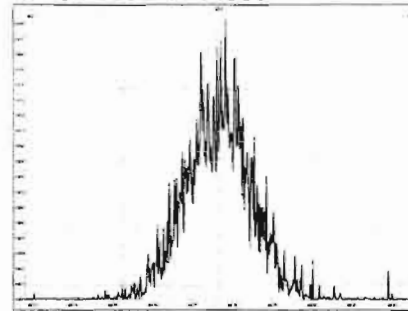
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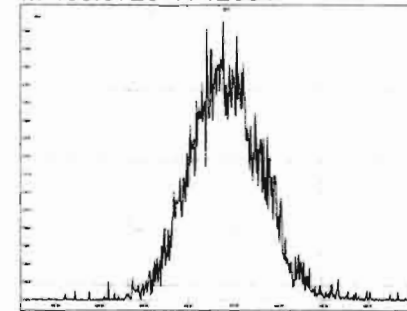
M 466.9728 R 16021



M 480.9696 R 14665

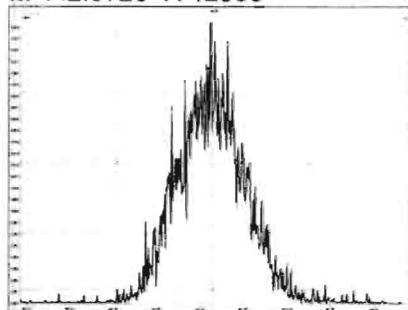


M 430.9728 R 12991

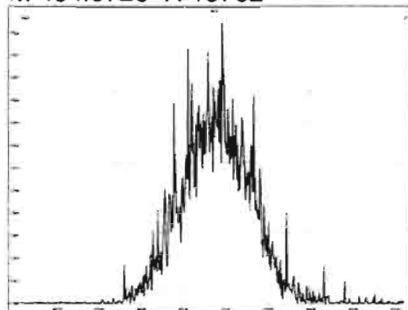


Printed: Friday, March 20, 2020 05:11:17 Pacific Daylight Time

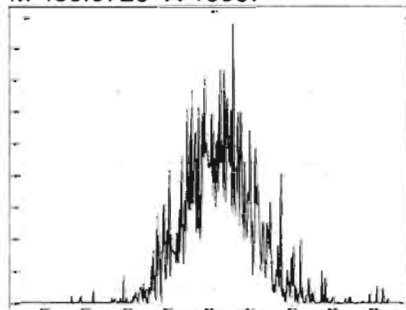
M 442.9728 R 12953



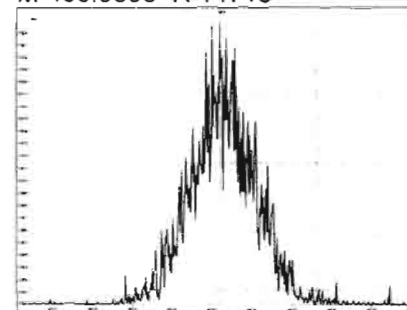
M 454.9728 R 13782



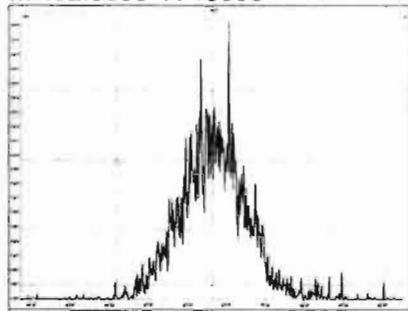
M 466.9728 R 15987



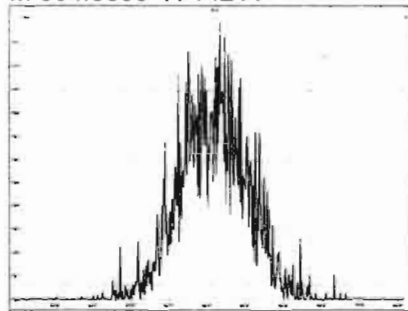
M 480.9696 R 14718



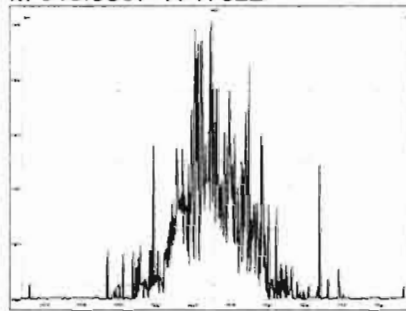
M 492.9696 R 13566



M 504.9696 R 14211



M 516.9697 R 17022





## HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST200320R1-1

Reviewed By: C7 03/23/2020  
*Initials & Date*

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> <u>NA</u>
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<u>GRB</u>	<input type="checkbox"/>
<b><u>Run Log:</u></b>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/> <u>↓</u>
- Samples within 12 hour clock?	<input checked="" type="checkbox"/> <u>Y</u>	<input type="checkbox"/> <u>N</u>
- Bottle position verified?	<input type="checkbox"/>	<input type="checkbox"/>

Mass resolution ≥

5k    6-8K    8K    10K  
 1614   1699   429   1613/1668/8280

Intergrated peaks display correctly?

GC Break <20%

**8280 CS1 End Standard:**

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours

**Comments:**

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-1.qld

Last Altered: Friday, March 20, 2020 14:44:48 Pacific Daylight Time  
Printed: Friday, March 20, 2020 14:45:51 Pacific Daylight Time

*H2 3.23.2020 for GRB*

*C703/23/2020*

Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	1.00e5	1.07e6	0.81	NO	0.983	25.81	25.80	NO	1.001	1.001	9.5045	95.0	NO
2	2 1,2,3,7,8-PeCDD	3.50e5	7.60e5	0.64	NO	0.921	31.10	31.09	NO	1.001	1.000	49.952	99.9	NO
3	3 1,2,3,4,7,8-HxCDD	3.53e5	6.05e5	1.27	NO	1.13	34.50	34.50	NO	1.000	1.000	51.482	103	NO
4	4 1,2,3,6,7,8-HxCDD	3.70e5	7.75e5	1.28	NO	0.984	34.59	34.61	NO	1.000	1.001	48.431	96.9	NO
5	5 1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.23	NO	0.967	34.87	34.87	NO	1.000	1.000	50.636	101	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.78e5	5.60e5	1.03	NO	1.01	38.29	38.29	NO	1.000	1.000	49.356	98.7	NO
7	7 OCDD	5.16e5	1.00e6	0.90	NO	1.05	41.34	41.36	NO	1.000	1.001	98.041	98.0	NO
8	8 2,3,7,8-TCDF	1.35e5	1.55e6	0.76	NO	0.915	24.79	24.79	NO	1.001	1.001	9.4687	94.7	NO
9	9 1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.59	NO	0.959	29.74	29.75	NO	1.001	1.001	50.487	101	NO
10	10 2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.56	NO	1.00	30.79	30.77	NO	1.001	1.000	51.007	102	NO
11	11 1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.23	NO	1.04	33.64	33.66	NO	1.000	1.001	49.137	98.3	NO
12	12 1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	NO	1.01	33.77	33.78	NO	1.000	1.001	50.396	101	NO
13	13 2,3,4,6,7,8-HxCDF	5.03e5	9.40e5	1.23	NO	1.09	34.36	34.34	NO	1.001	1.001	49.050	98.1	NO
14	14 1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.25	NO	1.03	35.19	35.20	NO	1.000	1.000	49.296	98.6	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.92e5	7.66e5	1.02	NO	1.05	36.92	36.90	NO	1.001	1.000	48.787	97.6	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.05e5	5.08e5	1.01	NO	1.21	38.93	38.94	NO	1.000	1.000	49.521	99.0	NO
17	17 OCDF	6.08e5	1.30e6	0.90	NO	0.947	41.52	41.53	NO	1.000	1.000	99.051	99.1	NO
18	18 13C-2,3,7,8-TCDD	1.07e6	9.15e5	0.80	NO	1.18	25.75	25.78	NO	1.029	1.030	98.888	98.9	NO
19	19 13C-1,2,3,7,8-PeCDD	7.60e5	9.15e5	0.62	NO	0.864	30.94	31.08	NO	1.236	1.242	96.105	96.1	NO
20	20 13C-1,2,3,4,7,8-HxCDD	6.05e5	9.24e5	1.26	NO	0.754	34.50	34.49	NO	1.014	1.014	86.812	86.8	NO
21	21 13C-1,2,3,6,7,8-HxCDD	7.75e5	9.24e5	1.29	NO	0.925	34.60	34.59	NO	1.017	1.017	90.663	90.7	NO
22	22 13C-1,2,3,7,8,9-HxCDD	7.06e5	9.24e5	1.28	NO	0.829	34.87	34.86	NO	1.025	1.025	92.142	92.1	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.60e5	9.24e5	1.04	NO	0.598	38.33	38.28	NO	1.127	1.125	101.29	101	NO
24	24 13C-OCDD	1.00e6	9.24e5	0.90	NO	0.571	41.48	41.34	NO	1.219	1.215	189.70	94.8	NO
25	25 13C-2,3,7,8-TCDF	1.55e6	1.45e6	0.79	NO	1.09	24.77	24.76	NO	0.990	0.989	98.164	98.2	NO
26	26 13C-1,2,3,7,8-PeCDF	1.22e6	1.45e6	1.64	NO	0.876	29.61	29.72	NO	1.183	1.187	95.850	95.9	NO
27	27 13C-2,3,4,7,8-PeCDF	1.15e6	1.45e6	1.59	NO	0.844	30.62	30.76	NO	1.223	1.229	93.872	93.9	NO
28	28 13C-1,2,3,4,7,8-HxCDF	9.29e5	9.24e5	0.51	NO	1.00	33.64	33.64	NO	0.989	0.989	100.50	100	NO
29	29 13C-1,2,3,6,7,8-HxCDF	1.02e6	9.24e5	0.52	NO	1.12	33.75	33.76	NO	0.992	0.992	99.029	99.0	NO
30	30 13C-2,3,4,6,7,8-HxCDF	9.40e5	9.24e5	0.52	NO	1.04	34.33	34.32	NO	1.009	1.009	98.218	98.2	NO
31	31 13C-1,2,3,7,8,9-HxCDF	8.04e5	9.24e5	0.51	NO	0.873	35.21	35.19	NO	1.035	1.034	99.696	99.7	NO

Dataset: U:\VG12.PRO\Results\200320R1\200320R1-1.qld

Last Altered: Friday, March 20, 2020 14:44:48 Pacific Daylight Time  
Printed: Friday, March 20, 2020 14:45:51 Pacific Daylight Time

Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	7.66e5	9.24e5	0.44	NO	0.771	36.92	36.89	NO	1.085	1.084	107.53	108	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.08e5	9.24e5	0.44	NO	0.519	39.01	38.93	NO	1.147	1.144	105.93	106	NO
34	34 13C-OCDF	1.30e6	9.24e5	0.89	NO	0.696	41.66	41.52	NO	1.225	1.220	201.61	101	NO
35	35 37Cl-2,3,7,8-TCDD	1.02e5	9.15e5			1.17	25.76	25.80	NO	1.029	1.031	9.4829	94.8	NO
36	36 13C-1,2,3,4-TCDD	9.15e5	9.15e5	0.82	NO	1.00	25.05	25.03	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.45e6	1.45e6	0.81	NO	1.00	23.19	23.09	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	9.24e5	9.24e5	0.51	NO	1.00	34.03	34.02	NO	1.000	1.000	100.00	100	YES*
39	39 Total Tetra-Dioxins		1.07e6			0.983	24.62		NO	0.000		84.897		NO
40	40 Total Penta-Dioxins		7.60e5			0.921	29.96		NO	0.000		225.56		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		247.56		NO
42	42 Total Hepta-Dioxins		5.60e5			1.01	37.64		NO	0.000		134.02		NO
43	43 Total Tetra-Furans		1.55e6			0.915	23.61		NO	0.000		46.362		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		79.723		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		176.71		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		279.69		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		98.308		NO

Dataset: Untitled

Last Altered: Friday, March 20, 2020 14:46:47 Pacific Daylight Time

Printed: Friday, March 20, 2020 14:47:01 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Mar 2020 14:46:47

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1 1,3,6,8-TCDD (First)	21.41
2	2 1,2,8,9-TCDD (Last)	26.84
3	3 1,2,4,7,9-PeCDD (First)	28.78
4	4 1,2,3,8,9-PeCDD (Last)	31.49
5	5 1,2,4,6,7,9-HxCDD (First)	33.03
6	6 1,2,3,7,8,9-HxCDD (Last)	34.87
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.28
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.29
9	9 1,3,6,8-TCDF (First)	19.40
10	10 1,2,8,9-TCDF (Last)	27.01
11	11 1,3,4,6,8-PeCDF (First)	26.98
12	12 1,2,3,8,9-PeCDF (Last)	31.74
13	13 1,2,3,4,6,8-HxCDF (First)	32.46
14	14 1,2,3,7,8,9-HxCDF (Last)	35.20
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.90
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.94

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Saturday, March 21, 2020 09:41:28 Pacific Daylight Time

Printed: Saturday, March 21, 2020 09:41:58 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

	Name	ID	Acq.Date	Acq.Time
1	200320R1_1	ST200320R1_1 1613 CS3 19L2305	20-Mar-20	13:52:12
2	200320R1_2	SOLVENT BLANK	20-Mar-20	14:40:11
3	200320R1_3	2000412-01 PDI-055SC-A-07-08-191015 13.58	20-Mar-20	15:26:26
4	200320R1_4	B0C0040-DUP1 Duplicate 13.49	20-Mar-20	16:14:09
5	200320R1_5	2000412-02 PDI-055SC-A-08-09-191015 13.61	20-Mar-20	17:01:54
6	200320R1_6	2000412-03 PDI-055SC-A-09-10-191015 13.52	20-Mar-20	17:49:39
7	200320R1_7	2000412-04 PDI-055SC-A-10-11-191015 14.45	20-Mar-20	18:37:24
8	200320R1_8	2000412-05 PDI-079SC-A-10-11-191014 12.24	20-Mar-20	19:25:10
9	200320R1_9	2000412-06 PDI-081SC-A-10-11-191002 16.81	20-Mar-20	20:12:54
10	200320R1_10	2000412-07 PDI-081SC-A-11-12-191002 12.87	20-Mar-20	21:00:39
11	200320R1_11	2000412-08 PDI-082SC-A-06-07-191002 16.59	20-Mar-20	21:48:24
12	200320R1_12	2000412-09 PDI-082SC-A-07-08-191002 17.2	20-Mar-20	22:36:04
13	200320R1_13	2000412-10 PDI-082SC-A-08-09-191002 15.76	20-Mar-20	23:23:43
14	200320R1_14	2000412-11 PDI-082SC-A-09-10-191002 17.47	21-Mar-20	00:11:28

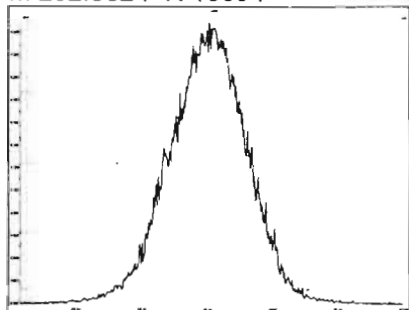
Experiment Calibration Report

MassLynx 4.1 SCN815

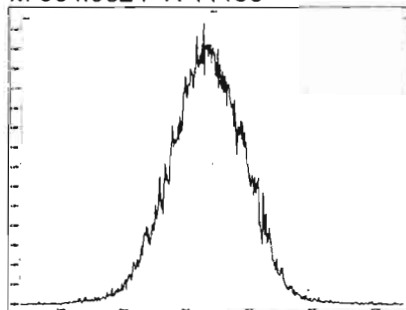
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, March 20, 2020 13:44:47 Pacific Daylight Time

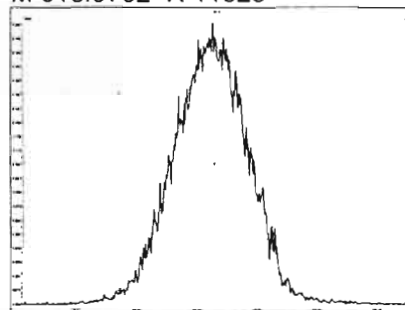
M 292.9824 R 10594



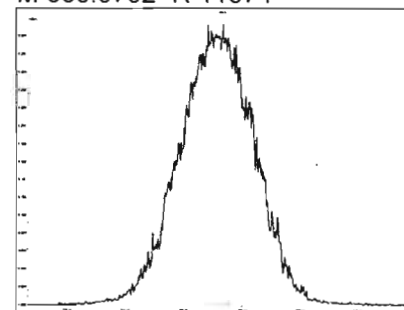
M 304.9824 R 11160



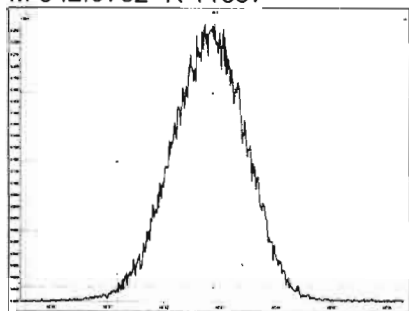
M 318.9792 R 11625



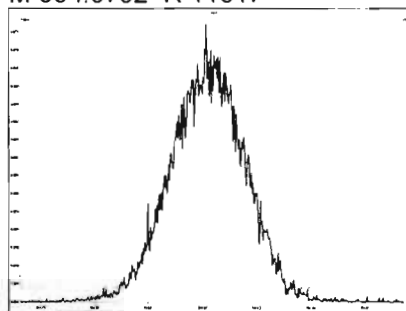
M 330.9792 R 11574



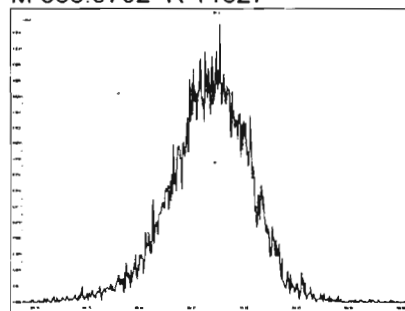
M 342.9792 R 11367



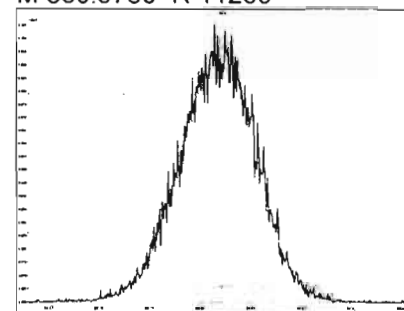
M 354.9792 R 11517



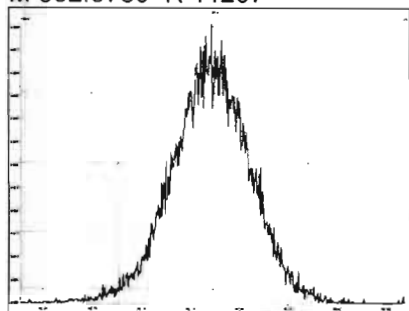
M 366.9792 R 11627



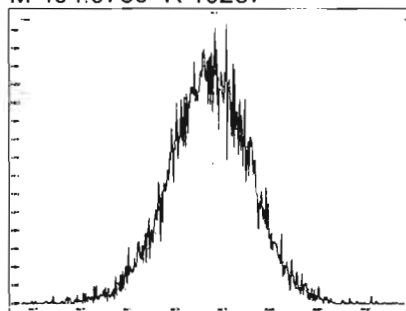
M 380.9760 R 11259



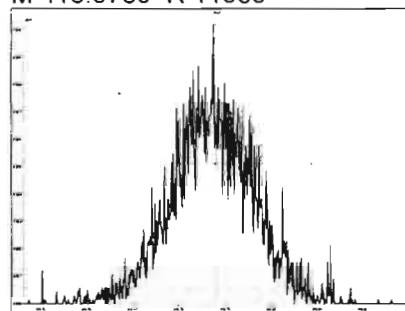
M 392.9760 R 11207



M 404.9760 R 10287



M 416.9760 R 11959



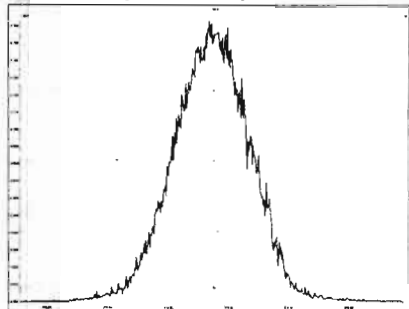
Experiment Calibration Report

MassLynx 4.1 SCN815

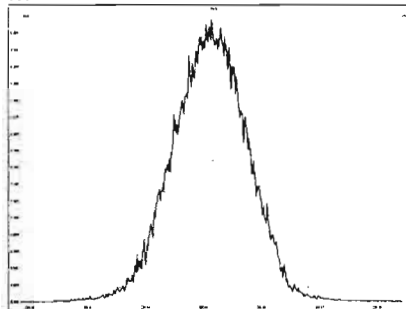
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, March 20, 2020 13:45:31 Pacific Daylight Time

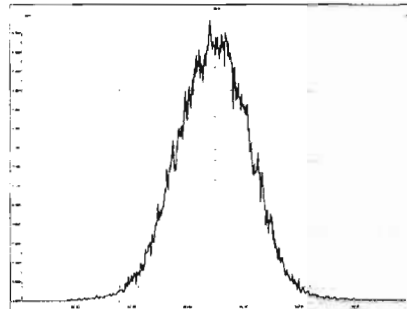
M 318.9792 R 11361



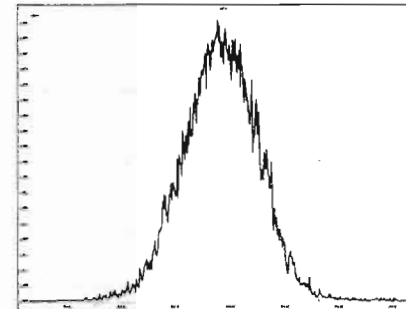
M 330.9792 R 11522



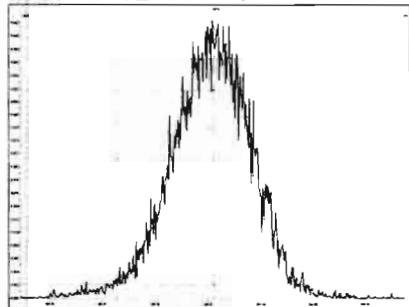
M 342.9792 R 11160



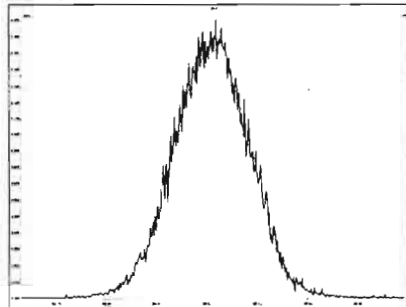
M 354.9792 R 11213



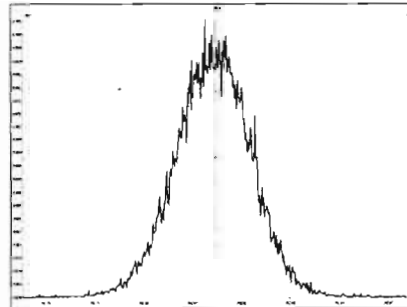
M 366.9792 R 10683



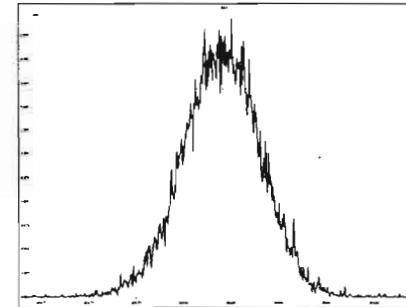
M 380.9760 R 11260



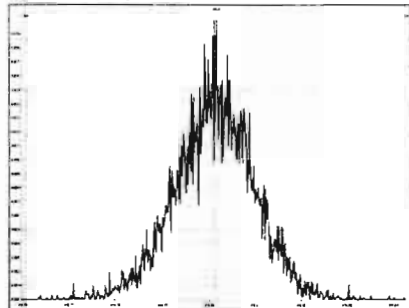
M 392.9760 R 11059



M 404.9760 R 10548



M 416.9760 R 10915



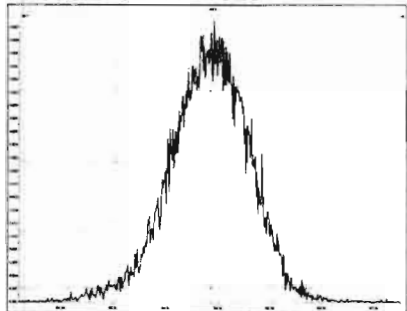
Experiment Calibration Report

MassLynx 4.1 SCN815

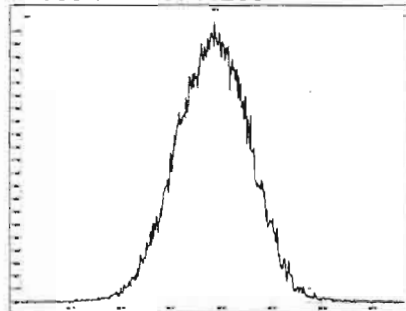
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, March 20, 2020 13:46:18 Pacific Daylight Time

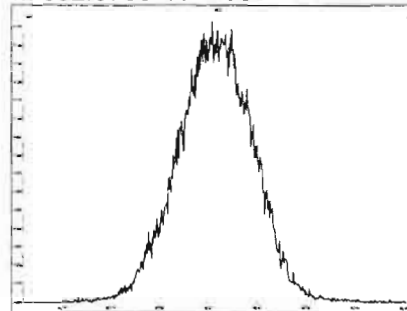
M 366.9792 R 11628



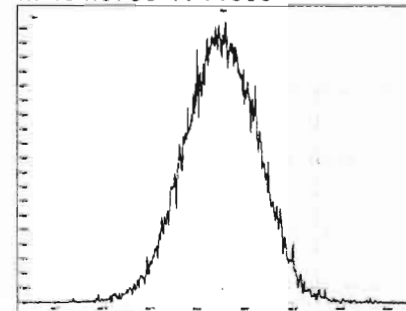
M 380.9760 R 11260



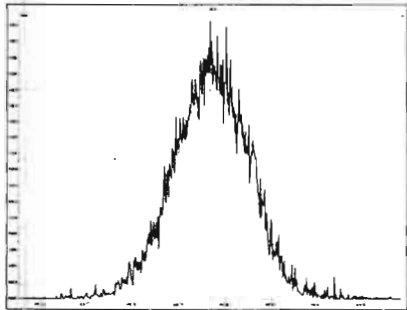
M 392.9760 R 11360



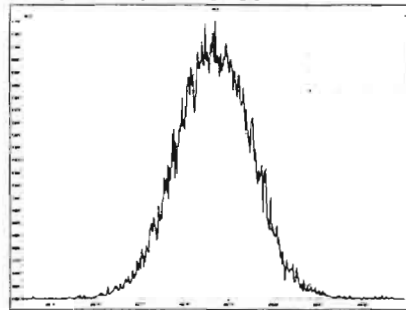
M 404.9760 R 11363



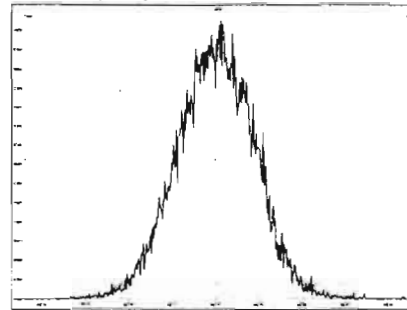
M 416.9760 R 11263



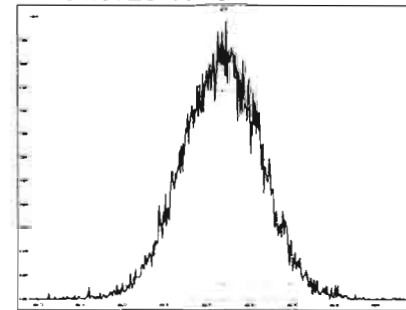
M 430.9728 R 10866



M 442.9728 R 10916



M 454.9728 R 10777

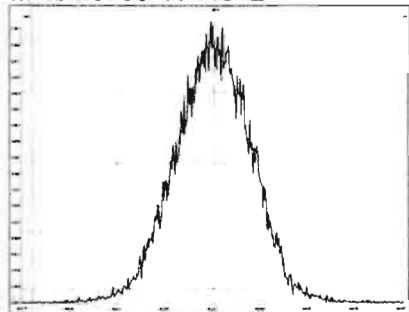




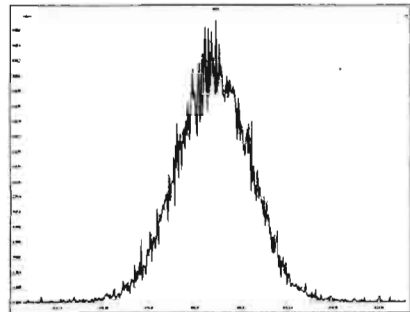
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Printed: Friday, March 20, 2020 13:47:24 Pacific Daylight Time

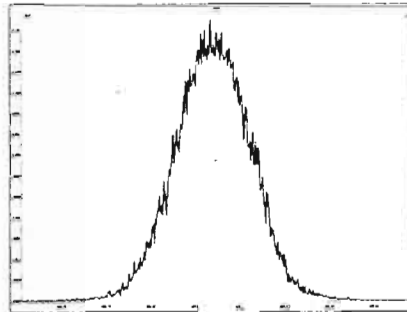
M 404.9760 R 11312



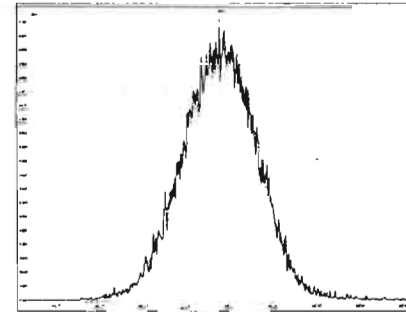
M 416.9760 R 11362



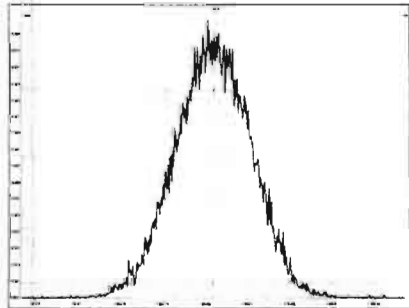
M 430.9728 R 11258



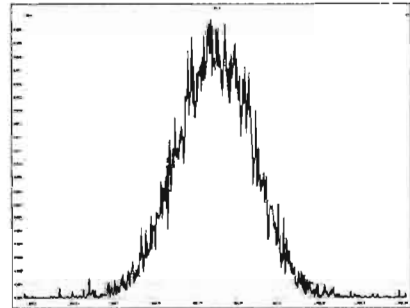
M 442.9728 R 11627



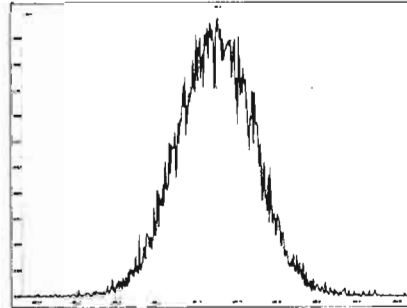
M 454.9728 R 11365



M 466.9728 R 11468



M 480.9696 R 10916



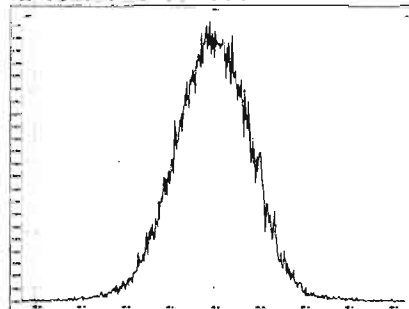
Experiment Calibration Report

MassLynx 4.1 SCN815

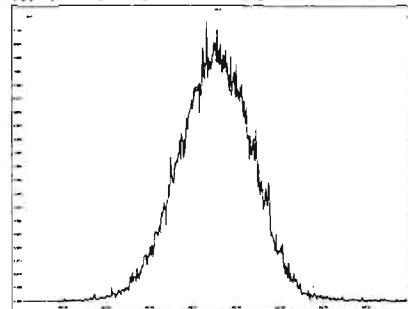
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, March 20, 2020 13:48:02 Pacific Daylight Time

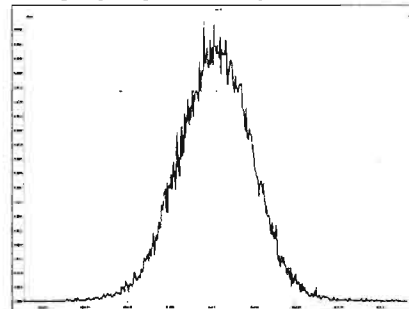
M 430.9728 R 10964



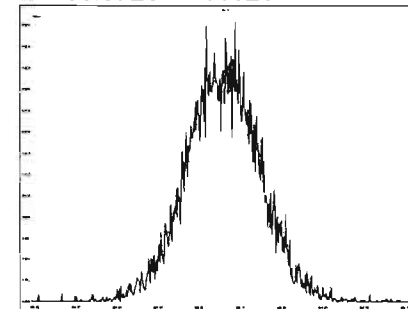
M 442.9728 R 11413



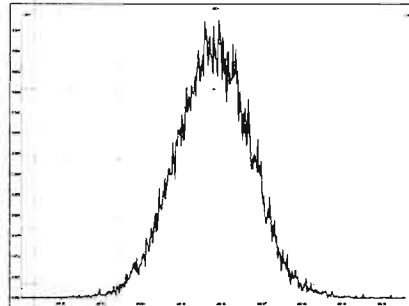
M 454.9728 R 11210



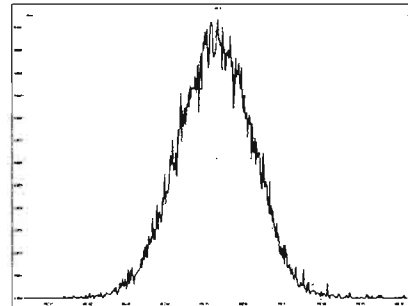
M 466.9728 R 11626



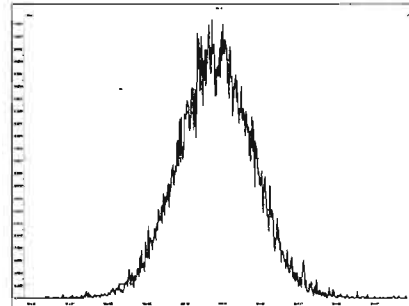
M 480.9696 R 11212



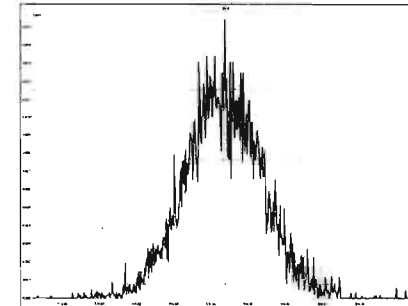
M 492.9696 R 11210



M 504.9696 R 10458



M 516.9697 R 11741



Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Friday, March 20, 2020 14:46:47 Pacific Daylight Time

Printed: Friday, March 20, 2020 14:47:01 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Mar 2020 14:46:47

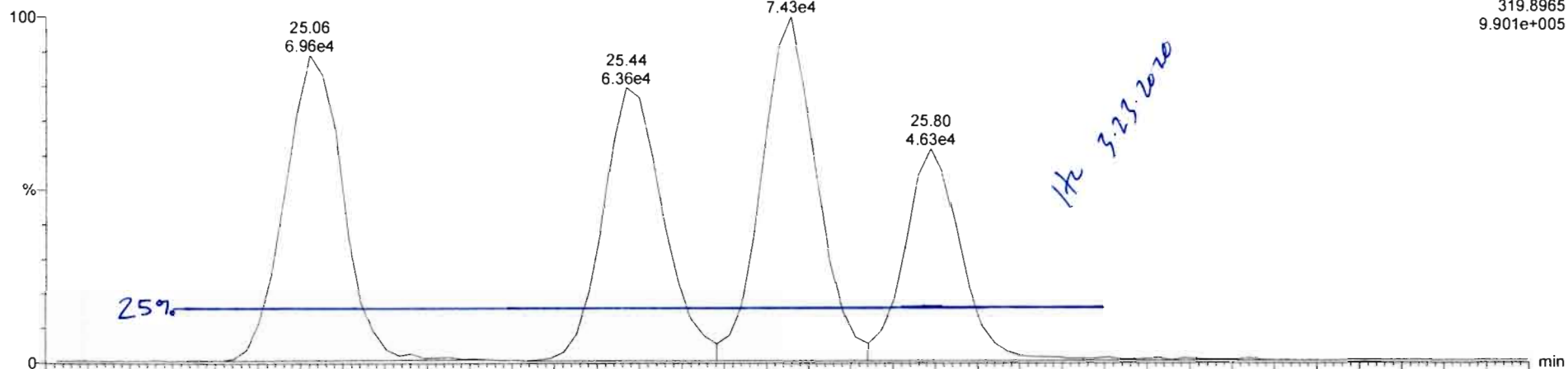
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,3,6,8-TCDD (First)

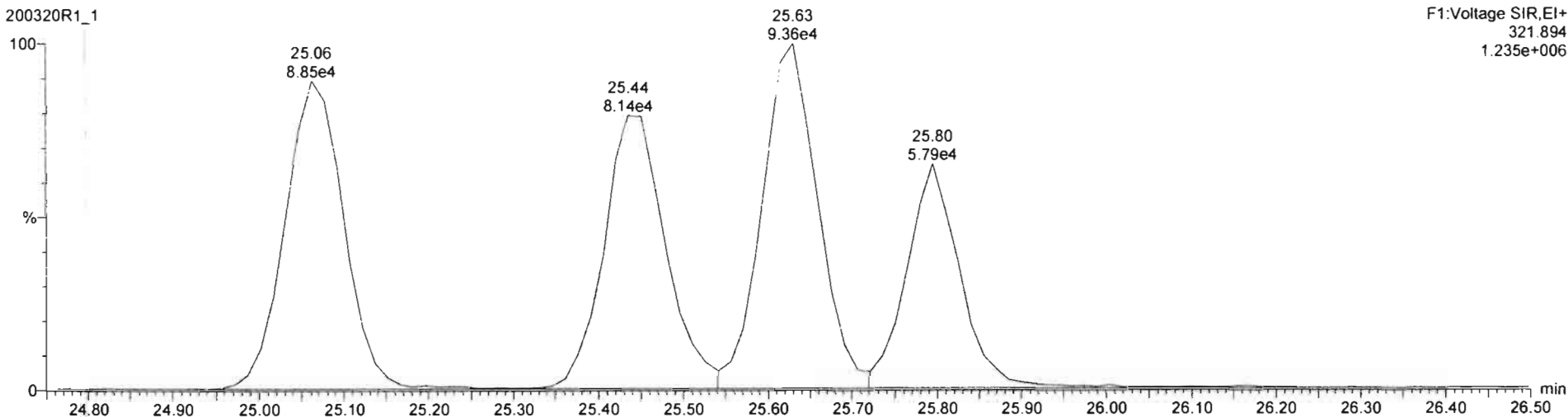
200320R1\_1

F1:Voltage SIR,EI+  
319.8965  
9.901e+005



200320R1\_1

F1:Voltage SIR,EI+  
321.894  
1.235e+006



Dataset: Untitled

Last Altered: Friday, March 20, 2020 14:39:05 Pacific Daylight Time

Printed: Friday, March 20, 2020 14:40:37 Pacific Daylight Time

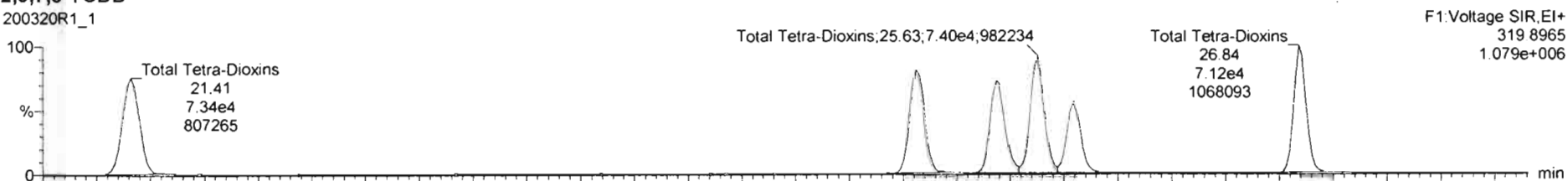
Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\ldb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

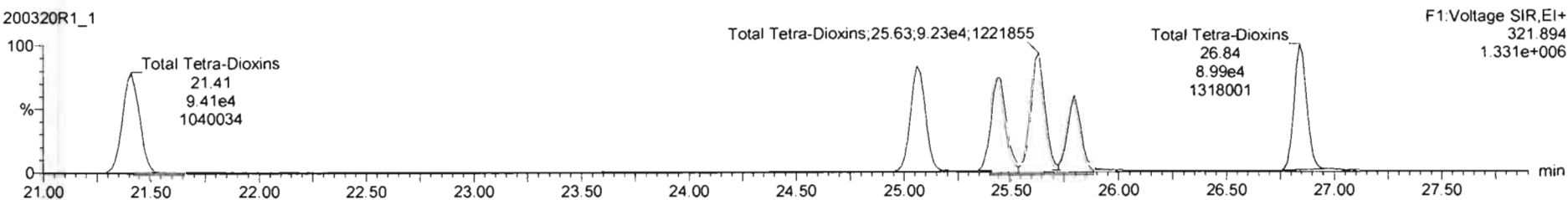
Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

2,3,7,8-TCDD

200320R1\_1

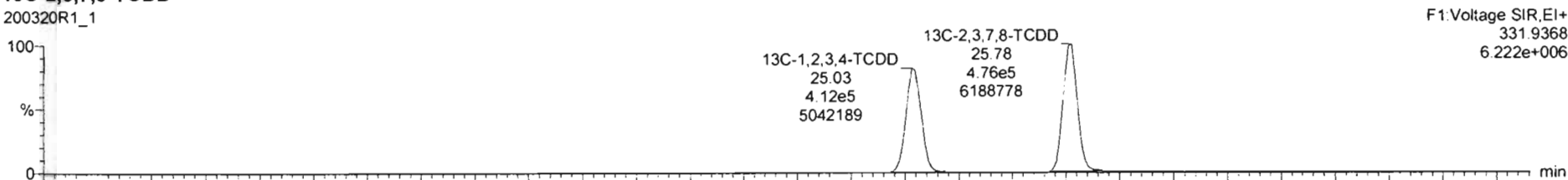


200320R1\_1

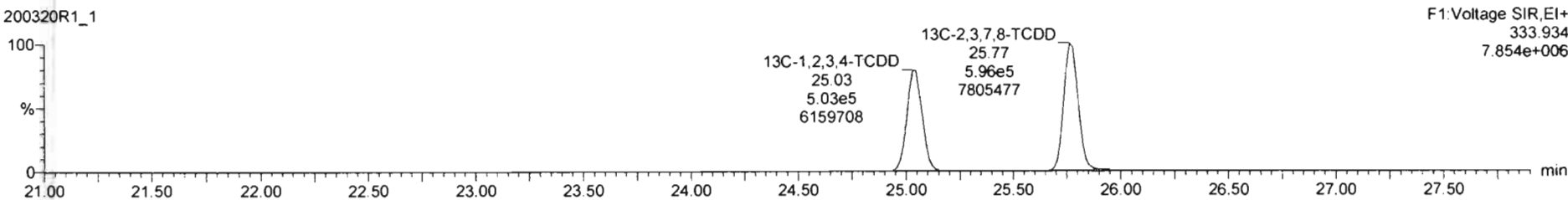


13C-2,3,7,8-TCDD

200320R1\_1

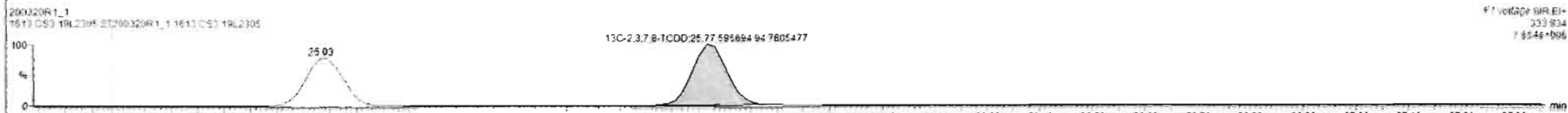
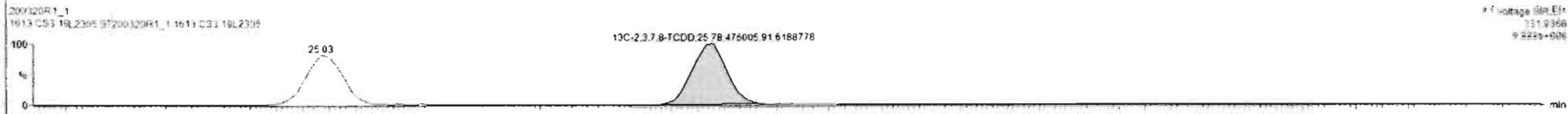
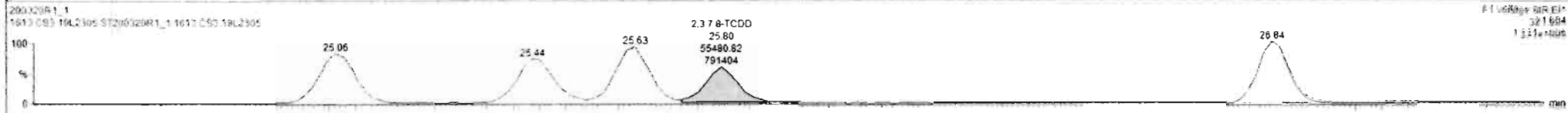
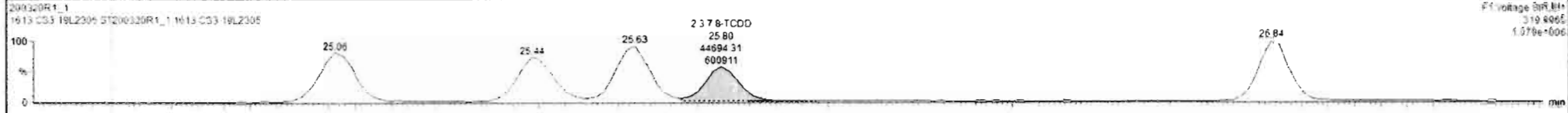


200320R1\_1



200320R1\_1 - ST200320R1\_1 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	IS Resp	Pred RA	RA	nly	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	2,3,7,8-TCDD	1.00e5	1.07e6	0.77	0.81	NO	0.9835	25.81	25.80	NO	1.001	1.001	9.50	95.0	NO
2	1,2,3,7,8-PeCDD	3.61e5	7.80e5	0.63	0.63	NO	0.9212	31.10	31.08	NO	1.061	1.000	51.6	102	NO
3	1,2,3,4,7,8-HxCDD	3.53e5	6.27e5	1.24	1.27	NO	1.1325	34.50	34.50	NO	1.000	1.000	45.7	99.3	NO
4	1,2,3,6,7,8-HxCDD	3.70e5	7.52e5	1.24	1.26	NO	0.9844	34.59	34.61	NO	1.000	1.001	45.9	99.8	NO
5	1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.24	1.23	NO	0.9674	34.87	34.87	NO	1.000	1.000	50.6	101	NO
6	1,2,3,4,6,7,8-HpCDD	2.78e5	5.67e5	1.04	1.03	NO	1.0061	36.29	36.29	NO	1.000	1.000	46.7	97.4	NO
7	OCDD	5.33e5	1.04e6	0.89	0.89	NO	1.0515	41.34	41.36	NO	1.000	1.001	97.1	97.1	NO
8	2,3,7,8-TCDF	1.35e5	1.55e6	0.77	0.76	NO	0.9154	24.79	24.79	NO	1.001	1.001	9.47	94.7	NO
9	1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.55	1.59	NO	0.9594	29.74	29.75	NO	1.061	1.031	50.5	101	NO
10	2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.55	1.56	NO	1.0035	30.79	30.77	NO	1.061	1.000	51.0	102	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.24	1.23	NO	1.0381	33.64	33.66	NO	1.000	1.001	49.1	96.3	NO
12	1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	1.24	NO	1.0126	33.77	33.78	NO	1.000	1.001	50.4	101	NO
13	2,3,4,6,7,8-HxCDF	5.03e5	9.40e5	1.24	1.23	NO	1.0920	34.36	34.34	NO	1.001	1.001	49.1	98.1	NO
14	1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.24	1.25	NO	1.0268	35.19	35.20	NO	1.000	1.000	49.3	96.6	NO
15	1,2,3,4,6,7,8-HpCDF	3.92e5	7.66e5	1.04	1.02	NO	1.0483	36.92	36.90	NO	1.001	1.000	48.8	97.0	NO
16	1,2,3,4,7,8,9-HpCDF	3.05e5	5.58e5	1.04	1.01	NO	1.2095	36.93	36.94	NO	1.000	1.000	45.5	99.0	NO
17	OCDF	6.18e5	1.30e6	0.88	0.93	NO	0.9468	41.52	41.53	NO	1.000	1.000	101	101	NO
18	13C-2,3,7,8-TCDD	9.15e5	9.15e5	0.77	0.80	NO	1.1642	26.75	26.78	NO	1.000	1.000	68.9	68.0	NO



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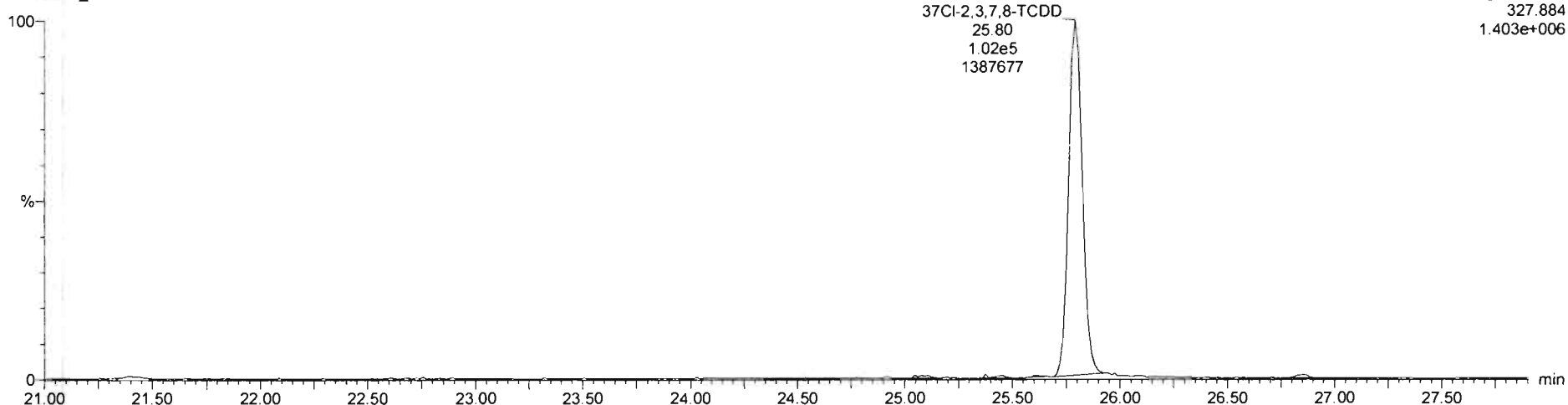
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Printed: Friday, March 20, 2020 14:40:37 Pacific Daylight Time

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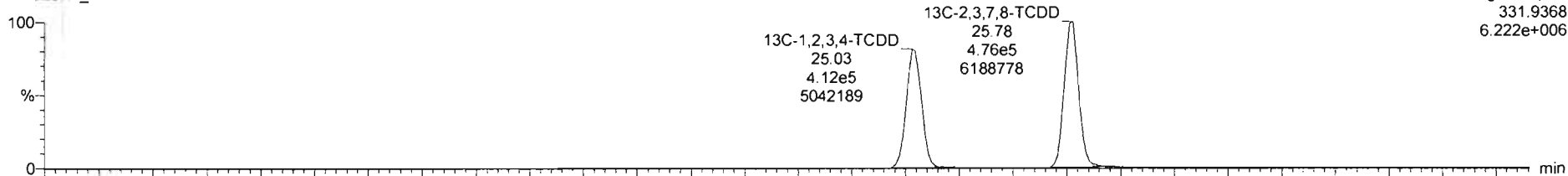
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200320R1\_1

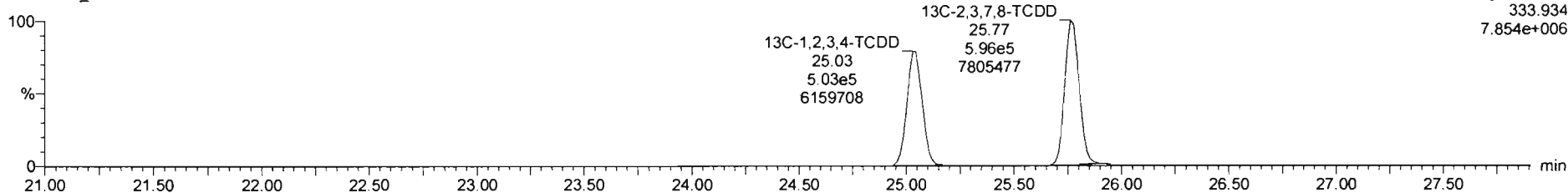


13C-1,2,3,4-TCDD

200320R1\_1



200320R1\_1



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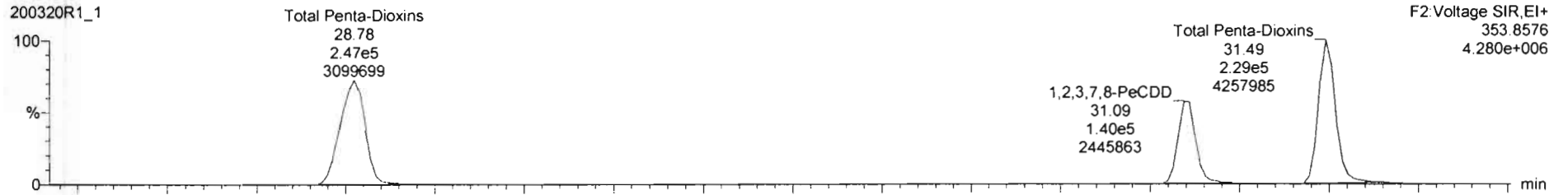
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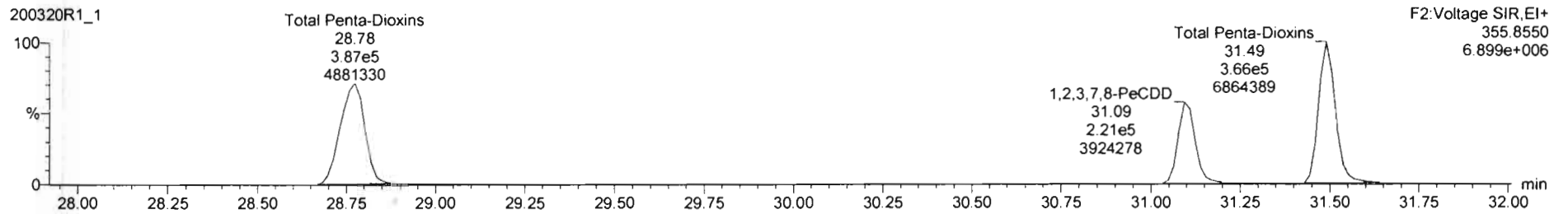
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**1,2,3,7,8-PeCDD**

200320R1\_1

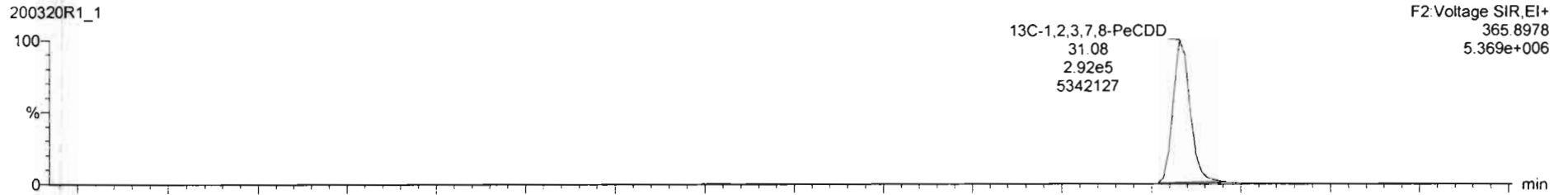


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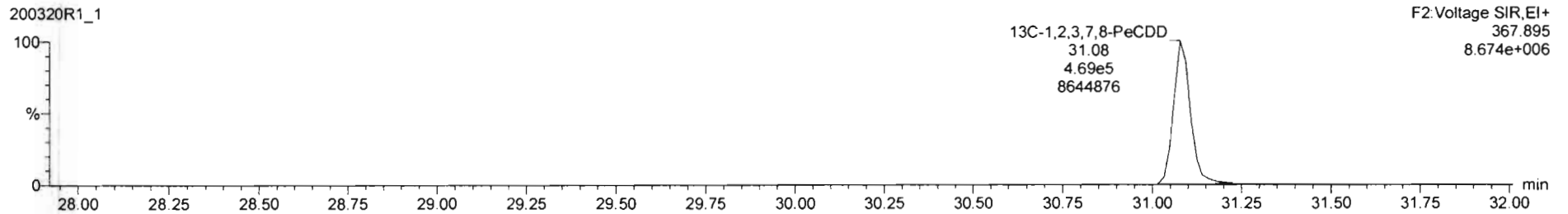


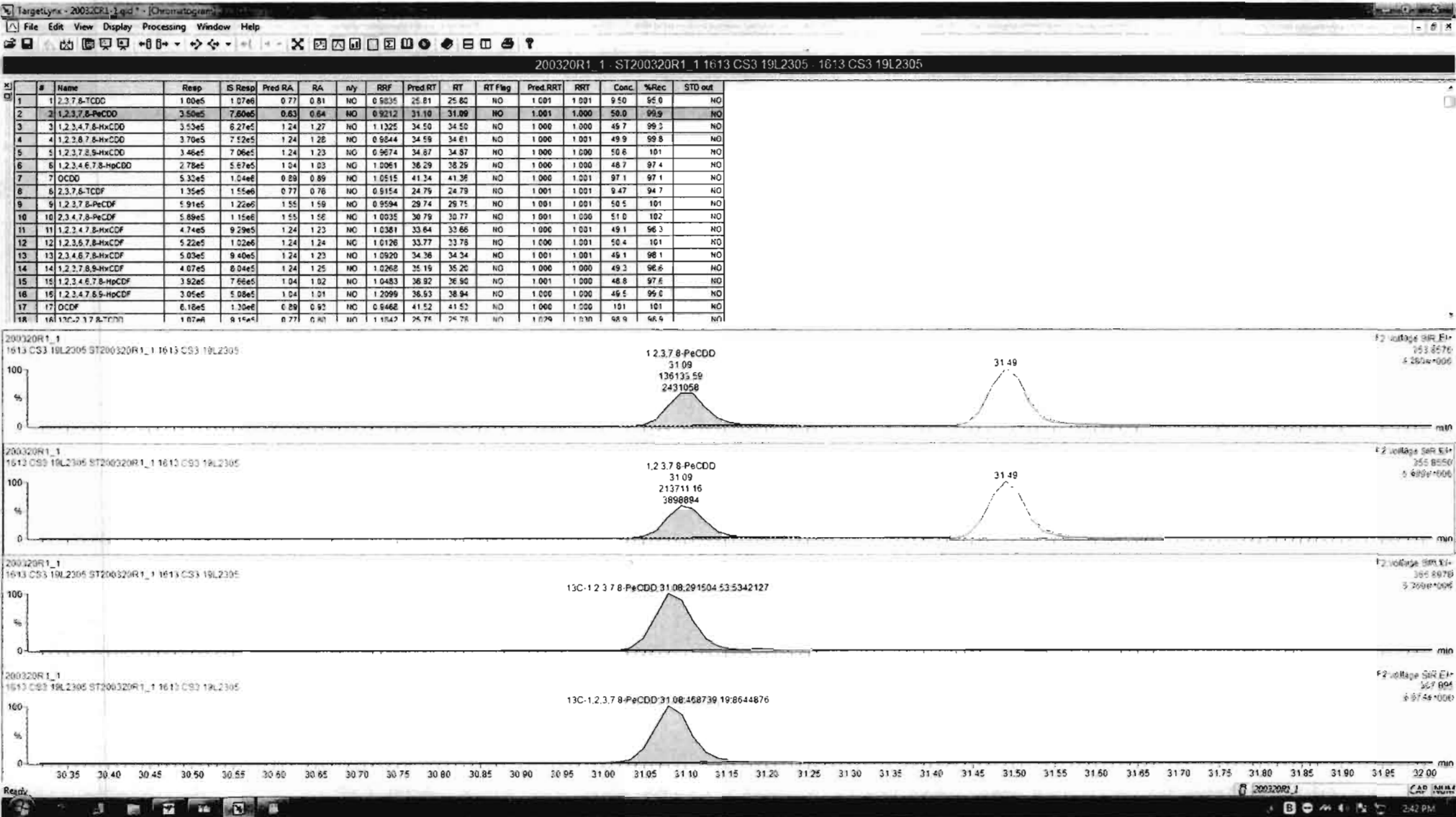
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200320R1\_1



200320R1\_1







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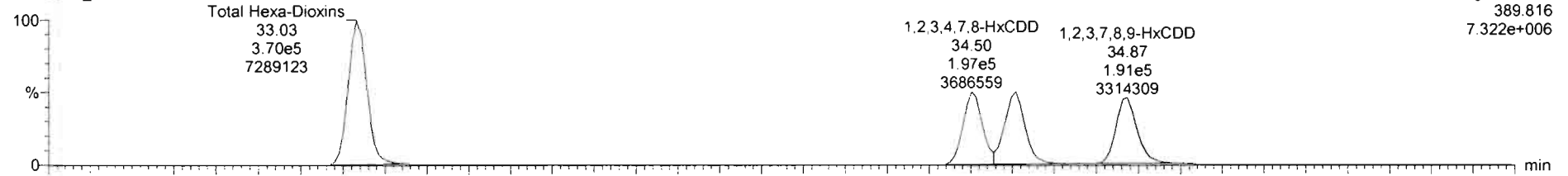
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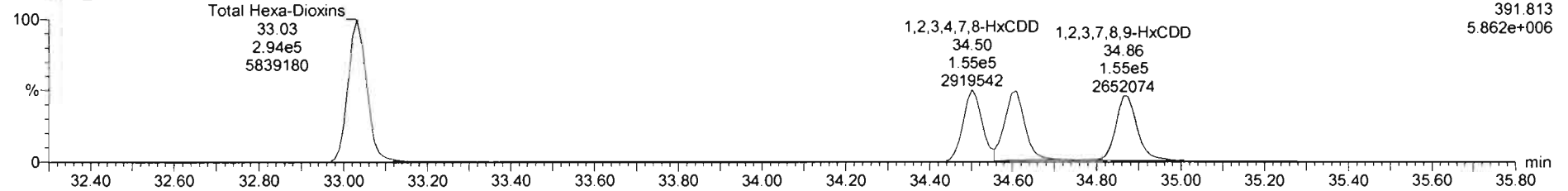
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**1,2,3,4,7,8-HxCDD**

200320R1\_1

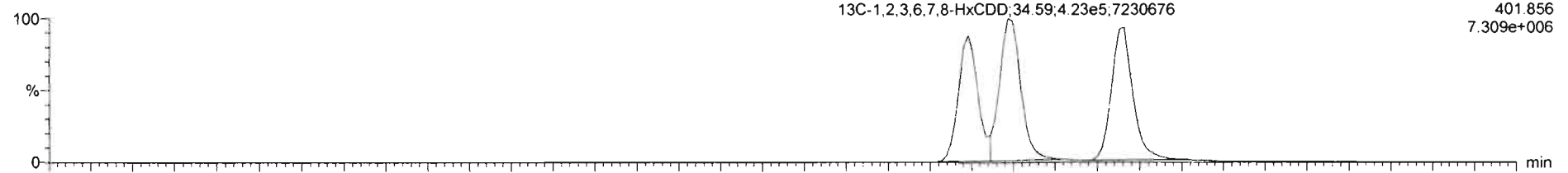


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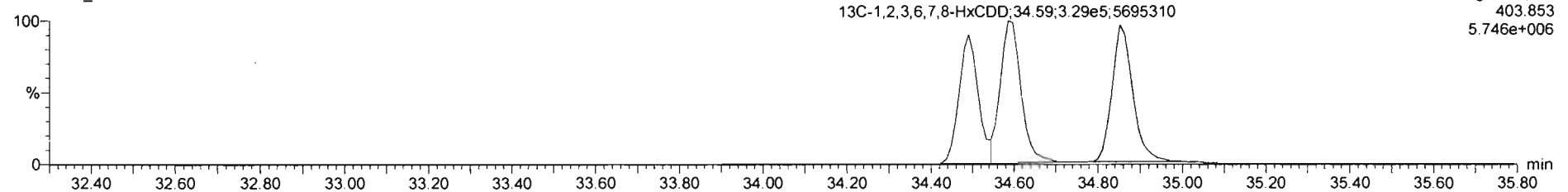


**13C-1,2,3,4,7,8-HxCDD**

200320R1\_1

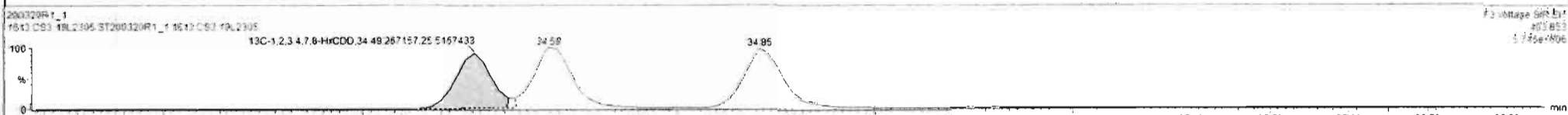
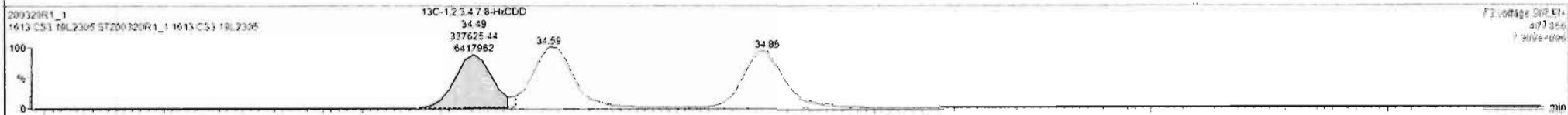
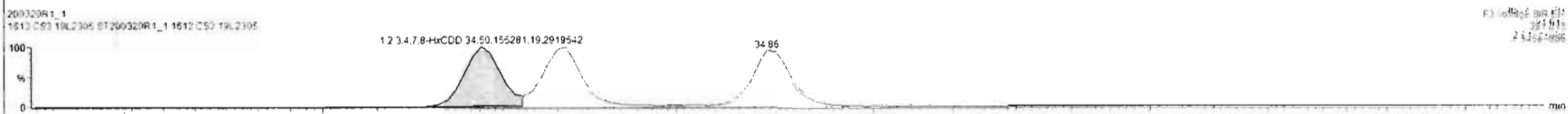
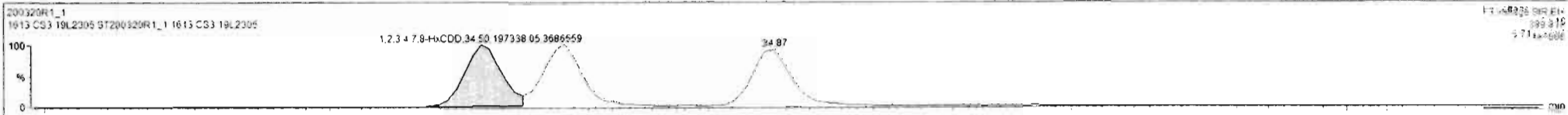


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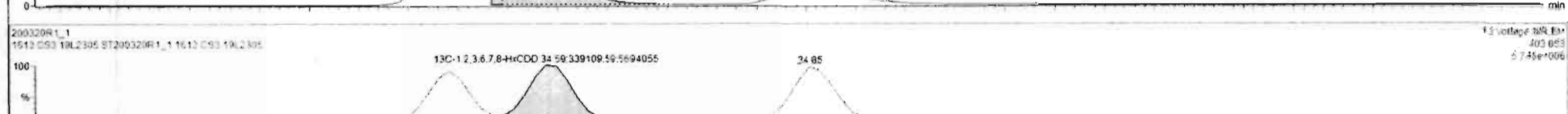
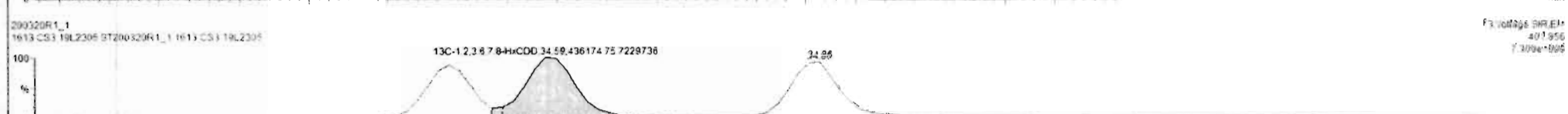
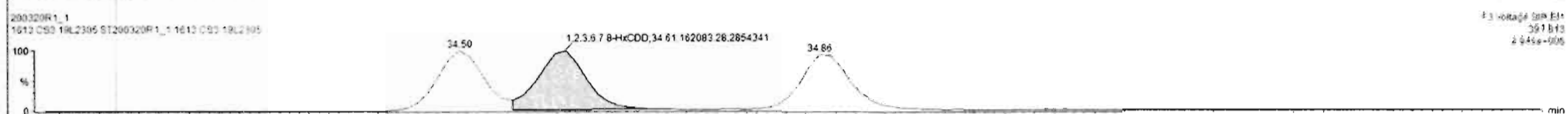
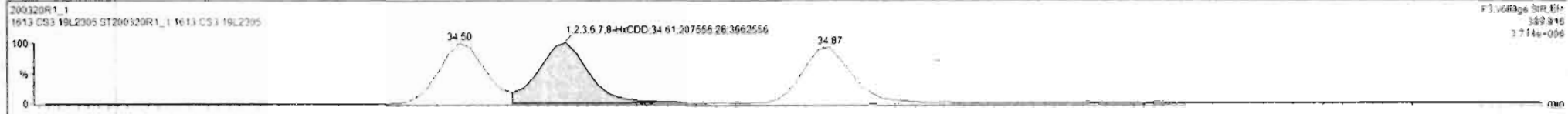
200320R1\_1 - ST200320R1\_1 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	IS Resp	Pred RA	RA	nly	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	1,2,3,7,8-TCDD	1.00e5	1.07e6	0.77	0.81	NO	0.9835	25.81	25.80	NO	1.001	1.001	9.50	95.0	NO
2	1,2,3,7,8-PeCDD	3.50e5	7.80e5	0.63	0.64	NO	0.9212	31.10	31.09	NO	1.001	1.000	50.0	99.9	NO
3	1,2,3,4,7,8-HxCDD	3.53e5	6.05e5	1.24	1.27	NO	1.1325	34.50	34.50	NO	1.000	1.000	51.5	103	NO
4	1,2,3,6,7,8-HxCDD	3.70e5	7.52e5	1.24	1.26	NO	0.9844	34.59	34.61	NO	1.000	1.001	49.9	99.8	NO
5	1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.24	1.23	NO	0.9674	34.67	34.87	NO	1.000	1.000	56.6	101	NO
6	1,2,3,4,6,7,8-HpCDD	2.78e5	5.67e5	1.04	1.03	NO	1.0061	36.29	36.29	NO	1.000	1.000	46.7	97.4	NO
7	OCDD	5.33e5	1.04e6	0.89	0.89	NO	1.0515	41.34	41.36	NO	1.000	1.001	97.1	97.1	NO
8	1,2,3,7,8-TCDF	1.35e5	1.55e6	0.77	0.76	NO	0.9154	24.79	24.79	NO	1.001	1.001	9.47	94.7	NO
9	1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.55	1.59	NO	0.9594	29.74	29.75	NO	1.001	1.001	50.5	101	NO
10	1,2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.55	1.56	NO	1.0035	30.79	30.77	NO	1.001	1.000	51.0	102	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.24	1.23	NO	1.0281	33.64	33.66	NO	1.000	1.001	49.1	96.3	NO
12	1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	1.24	NO	1.0126	33.77	33.78	NO	1.000	1.001	50.4	101	NO
13	1,2,3,4,6,7,8-HxCDF	5.03e5	9.40e5	1.24	1.23	NO	1.0920	34.36	34.34	NO	1.001	1.001	49.1	98.1	NO
14	1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.24	1.25	NO	1.0268	35.19	35.20	NO	1.000	1.000	49.3	96.6	NO
15	1,2,3,4,6,7,8-HpCDF	3.92e5	7.86e5	1.04	1.02	NO	1.0483	36.92	36.90	NO	1.001	1.000	48.6	97.6	NO
16	1,2,3,4,7,8,9-HpCDF	3.05e5	5.08e5	1.04	1.01	NO	1.2099	38.93	38.94	NO	1.000	1.000	49.5	99.0	NO
17	OCDF	8.18e5	1.30e6	0.89	0.93	NO	0.9468	41.52	41.53	NO	1.000	1.000	101	101	NO
18	1,2,3,7,8,9-HxCDF	1.07e6	9.15e5	0.77	0.80	NO	1.1647	26.74	26.78	NO	1.079	1.030	96.9	96.5	NO



Custom Reporting: Select reports to generate

#	Name	Resp	IS Resp	Pred RA	RA	nHy	RRF	Pred RT	RT	RT flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	1.00e5	1.07e6	0.77	0.81	NO	0.6835	25.81	25.80	NO	1.001	1.001	9.50	55.9	NO
2	1,2,3,7,8-PeCDD	3.50e5	7.80e5	0.63	0.64	NO	0.9212	31.10	31.08	NO	1.001	1.000	58.0	99.9	NO
3	1,2,3,4,7,8-HxCDD	3.53e5	6.05e5	1.24	1.27	NO	1.1325	34.50	34.50	NO	1.000	1.000	51.5	103	NO
4	1,2,3,6,7,8-HxCDD	3.70e5	7.75e5	1.24	1.28	NO	0.9844	34.59	34.61	NO	1.000	1.001	48.4	96.9	NO
5	1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.24	1.23	NO	0.9674	34.87	34.87	NO	1.000	1.000	50.6	101	NO
6	1,2,3,4,6,7,8-HpCDD	2.78e5	5.67e5	1.04	1.03	NO	1.0061	36.29	35.29	NO	1.000	1.000	46.7	97.4	NO
7	OCDD	5.32e5	1.04e6	0.89	0.89	NO	1.0515	41.34	41.35	NO	1.000	1.001	97.1	97.1	NO
8	2,3,7,8-TCDF	1.35e5	1.55e6	0.77	0.76	NO	0.9154	24.79	24.79	NO	1.001	1.001	9.47	94.7	NO
9	1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.55	1.55	NO	0.9594	29.74	29.75	NO	1.001	1.001	50.5	101	NO
10	2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.55	1.56	NO	1.0035	30.79	30.77	NO	1.001	1.000	51.0	102	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.24	1.23	NO	1.0381	33.64	33.66	NO	1.000	1.001	49.1	56.3	NO
12	1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	1.24	NO	1.0126	33.77	33.78	NO	1.000	1.001	50.4	101	NO
13	2,3,4,6,7,8-HxCDF	5.03e5	5.40e5	1.24	1.23	NO	1.0920	34.36	34.34	NO	1.001	1.001	49.1	98.1	NO
14	1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.24	1.25	NO	1.0268	35.19	35.20	NO	1.000	1.000	49.3	96.6	NO
15	1,2,3,4,6,7,8-HpCDF	3.92e5	7.66e5	1.04	1.02	NO	1.0483	36.92	36.90	NO	1.001	1.000	48.8	97.6	NO
16	1,2,3,4,7,8,9-HpCDF	3.05e5	5.28e5	1.04	1.01	NO	1.2095	36.53	36.94	NO	1.000	1.000	48.5	99.0	NO
17	OCDF	6.18e5	1.30e6	0.89	0.83	NO	0.9462	41.52	41.53	NO	1.000	1.000	101	101	NO
18	13C-1,2,3,7,8-HxCDD	1.67e6	9.14e6	0.77	0.80	NO	1.1842	26.74	26.78	NO	1.009	1.000	58.9	96.9	NO



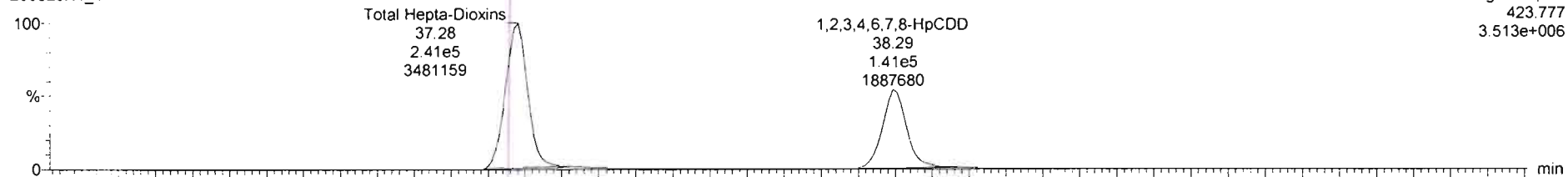
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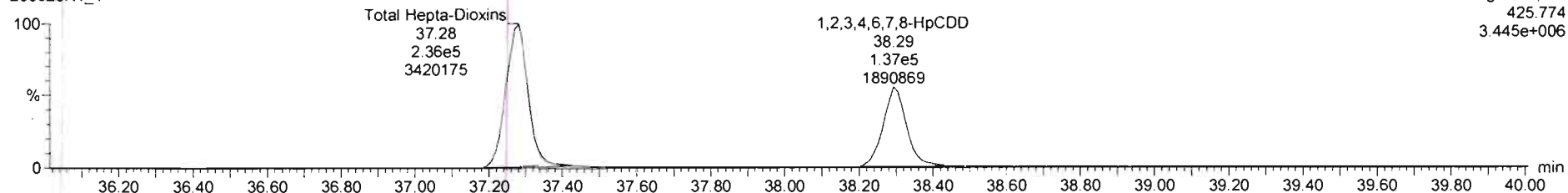
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200320R1\_1



F4: Voltage SIR, EI+  
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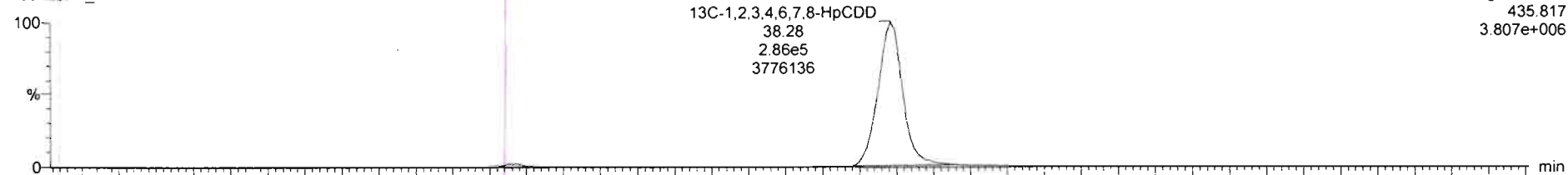
200320R1\_1



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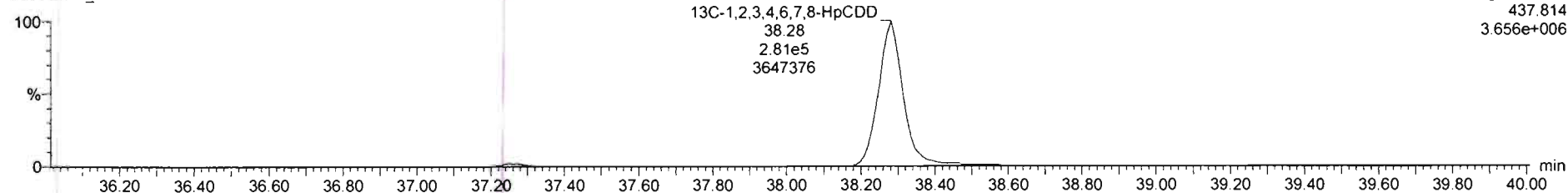
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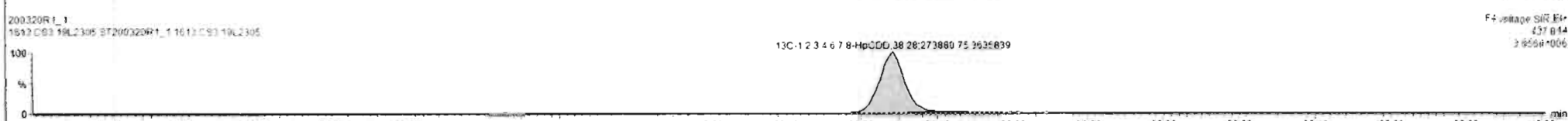
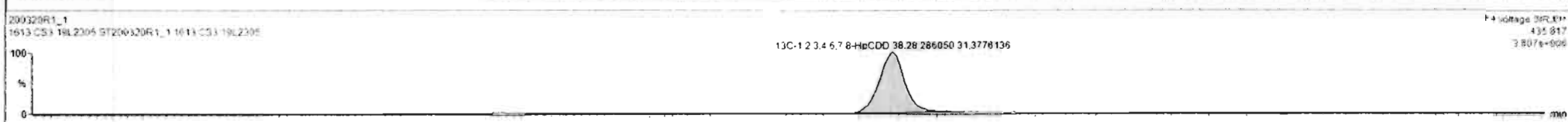
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3.807e+006

200320R1\_1



F4: Voltage SIR, EI+  
437.814  
3.656e+006

#	Name	Resp	IS Resp	Pred RA	RA	nly	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	1.00e5	1.07e6	0.77	0.81	NO	0.9875	25.81	25.80	NO	1.001	1.001	9.50	95.0	NO
2	1,2,3,7,8-PeCDD	3.50e5	7.80e5	0.63	0.64	NO	0.9212	31.10	31.09	NO	1.001	1.000	50.0	99.9	NO
3	1,2,3,4,7,8-HxCDD	3.63e5	6.05e5	1.24	1.27	NO	1.1325	34.50	34.50	NO	1.000	1.000	51.5	100	NO
4	1,2,3,6,7,8-HxCDD	3.70e5	7.75e5	1.24	1.26	NO	0.9844	34.58	34.61	NO	1.000	1.001	48.4	96.6	NO
5	1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.24	1.23	NO	0.9674	34.87	34.87	NO	1.000	1.000	50.6	100	NO
6	1,2,3,4,6,7,8-HpCDD	2.78e5	5.80e5	1.04	1.03	NO	1.0061	38.29	38.29	NO	1.000	1.000	49.4	98.7	NO
7	OCDD	5.33e5	1.04e6	0.89	0.89	NO	1.0515	41.34	41.35	NO	1.000	1.001	97.1	97.1	NO
8	2,3,7,8-TCDF	1.35e5	1.55e6	0.77	0.76	NO	0.9154	24.79	24.79	NO	1.001	1.001	9.47	94.7	NO
9	1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.55	1.59	NO	0.9594	29.74	29.75	NO	1.001	1.001	50.5	100	NO
10	2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.55	1.56	NO	1.0035	30.79	30.77	NO	1.001	1.000	51.0	100	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.24	1.23	NO	1.0381	33.84	33.66	NO	1.000	1.001	49.1	96.3	NO
12	1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	1.24	NO	1.0126	33.77	33.78	NO	1.000	1.001	50.4	100	NO
13	2,3,4,6,7,8-HxCDF	5.03e5	9.40e5	1.24	1.23	NO	1.0920	34.38	34.34	NO	1.001	1.001	49.1	98.1	NO
14	1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.24	1.25	NO	1.0262	35.19	35.20	NO	1.000	1.000	49.3	96.6	NO
15	1,2,3,4,6,7,8-HpCDF	3.92e5	7.66e5	1.04	1.02	NO	1.0483	36.92	36.90	NO	1.001	1.000	48.9	97.6	NO
16	1,2,3,4,7,8,9-HpCDF	3.05e5	5.08e5	1.04	1.01	NO	1.2099	36.93	36.94	NO	1.000	1.000	49.5	99.0	NO
17	OCDF	6.18e5	1.30e6	0.89	0.92	NO	0.9468	41.52	41.52	NO	1.000	1.000	101	101	NO
18	1,2,3,4,6,7,8,9-TCDF	1.67e6	9.14e6	0.77	0.80	NO	1.1842	24.74	24.76	NO	1.000	1.000	98.4	98.4	NO

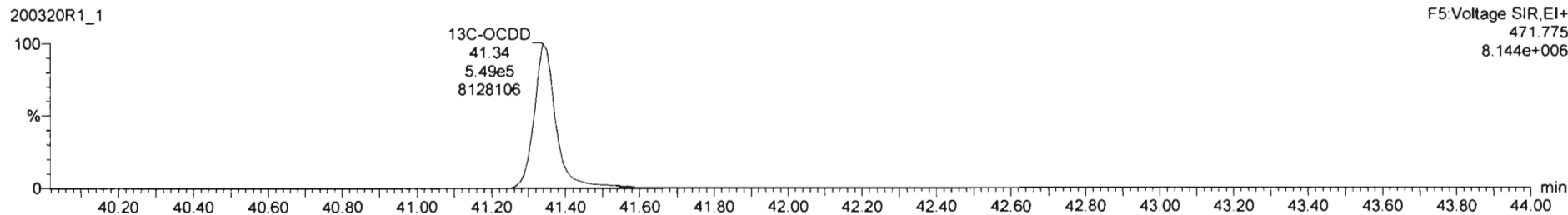
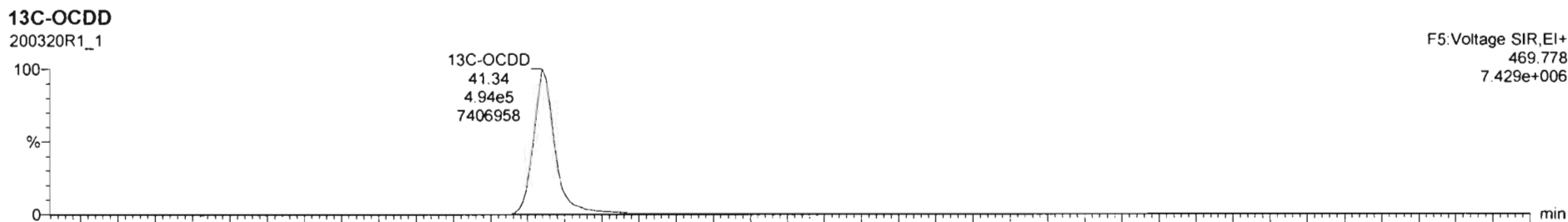
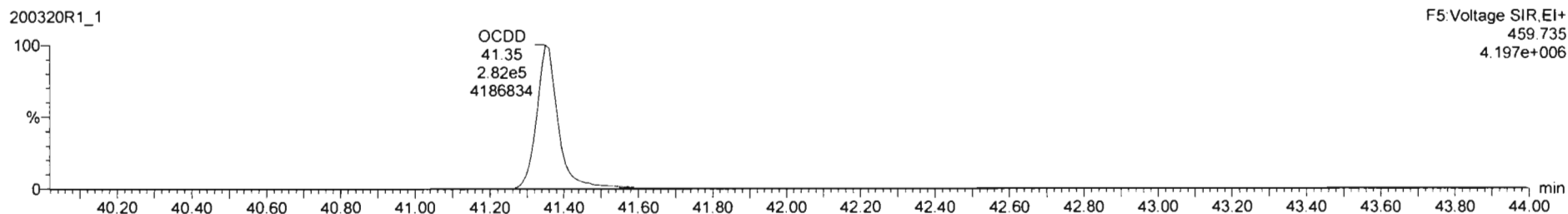
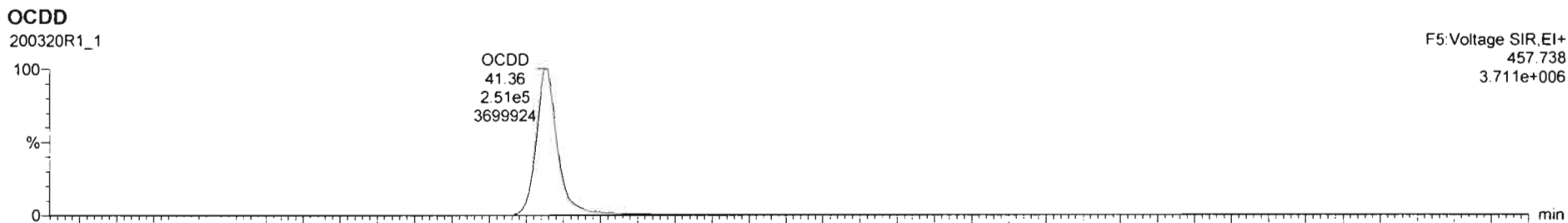


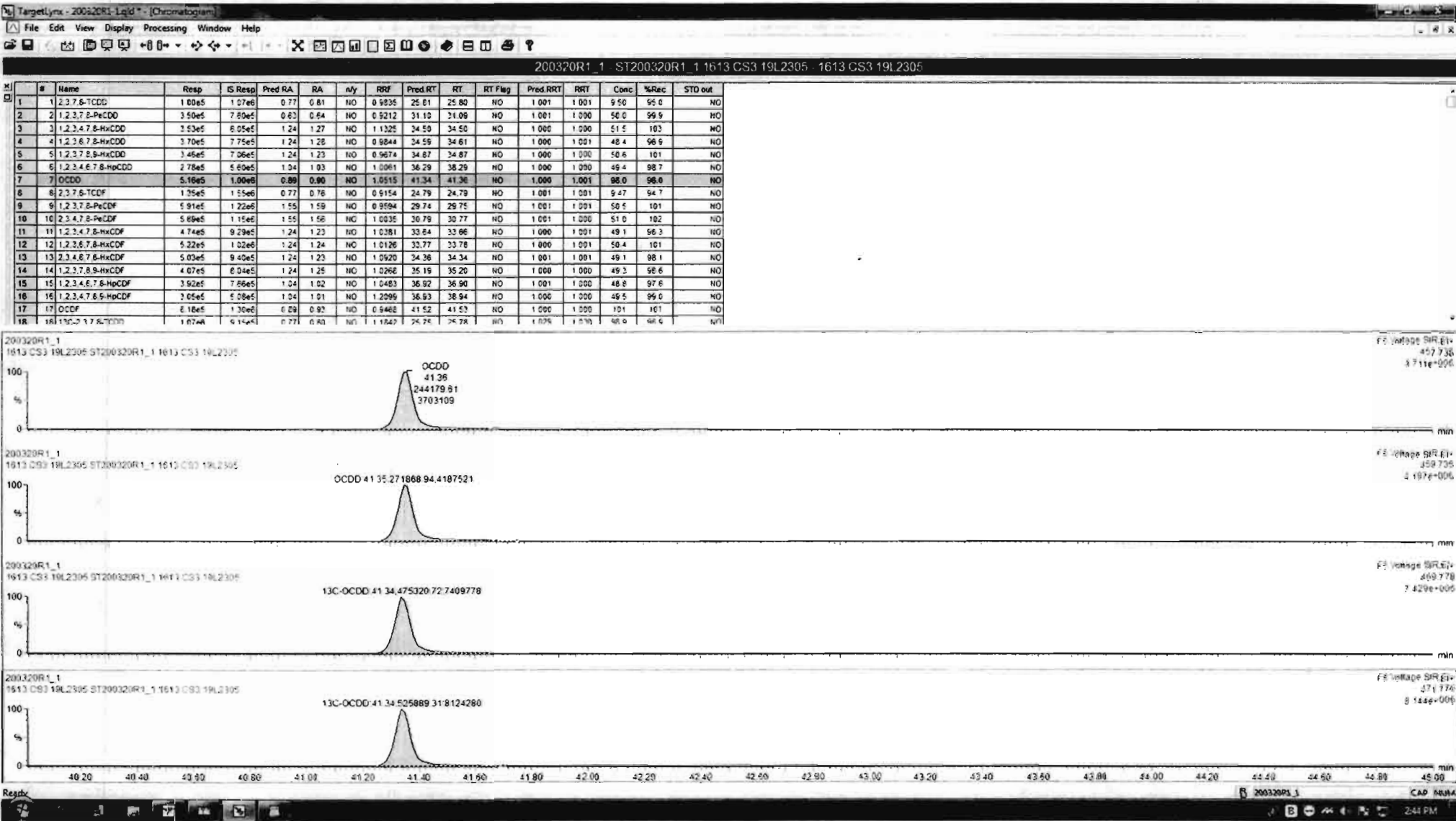
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Last Altered: Friday, March 20, 2020 14:39:05 Pacific Daylight Time

Printed: Friday, March 20, 2020 14:40:37 Pacific Daylight Time

Name: 200320R1\_1, Date: 20-Mar-2020, Time: 13:52:12, ID: ST200320R1\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





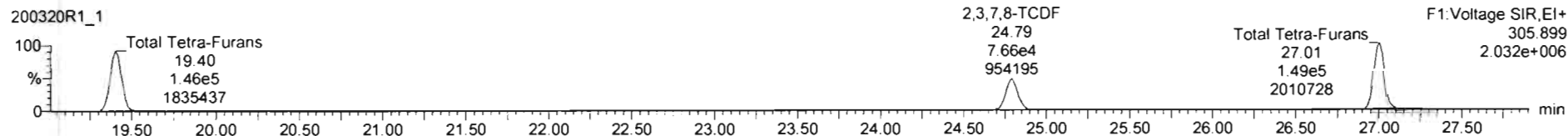
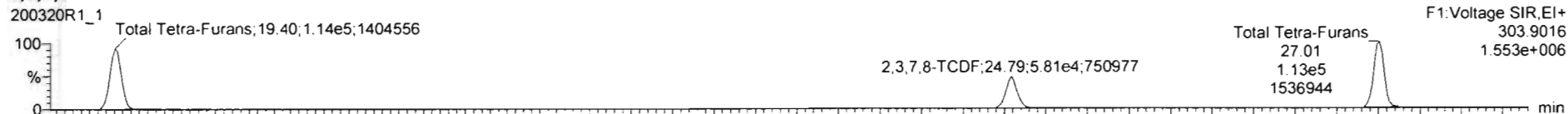
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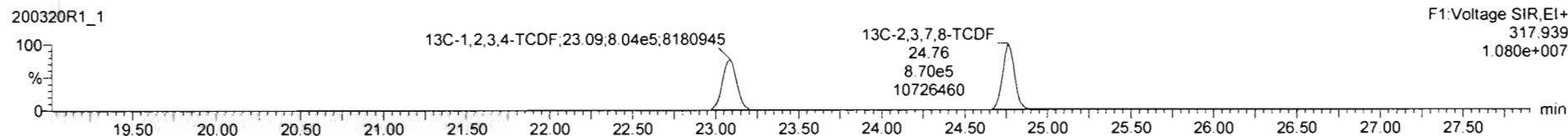
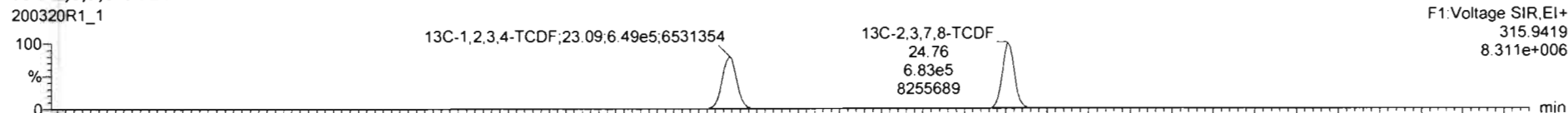
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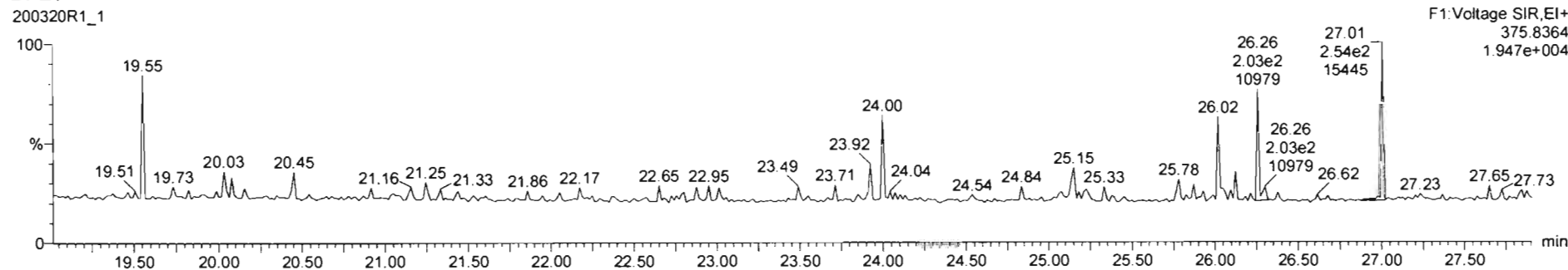
**2,3,7,8-TCDF**



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



**DPE1**





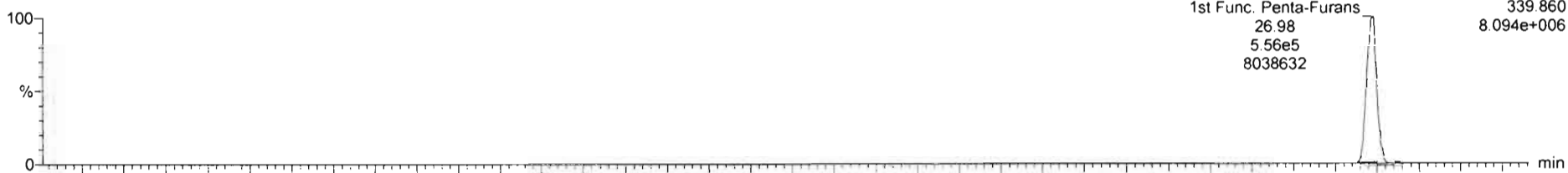
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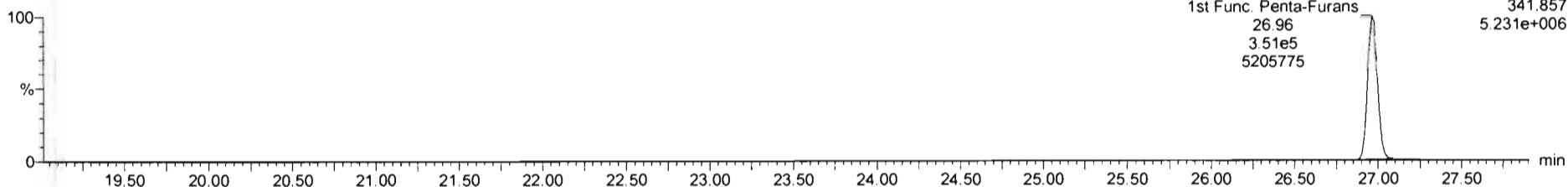
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1st Func. Penta-Furans

200320R1\_1

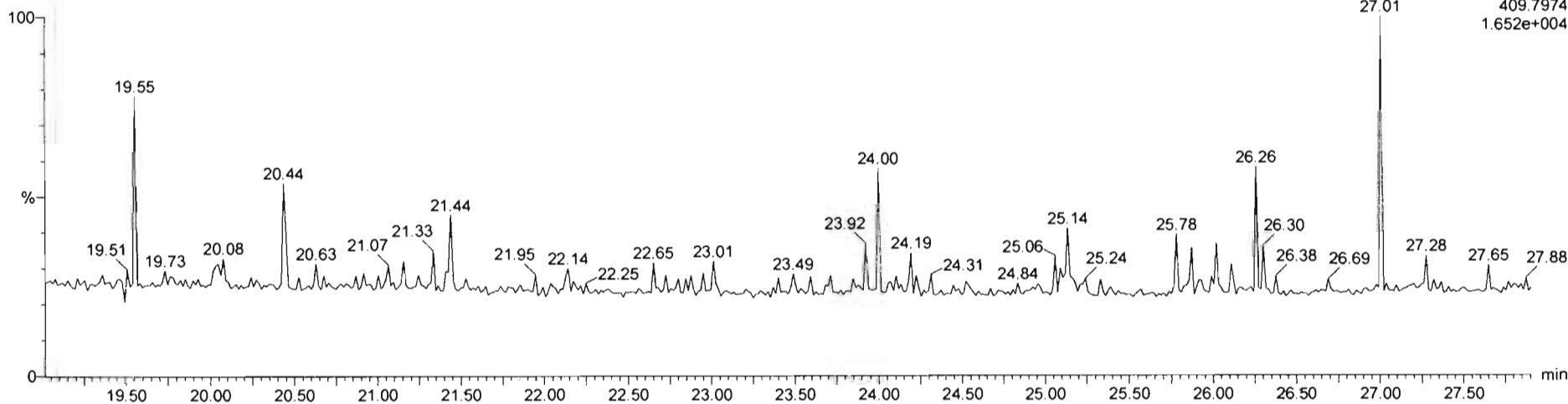


200320R1\_1



DPE6

200320R1\_1



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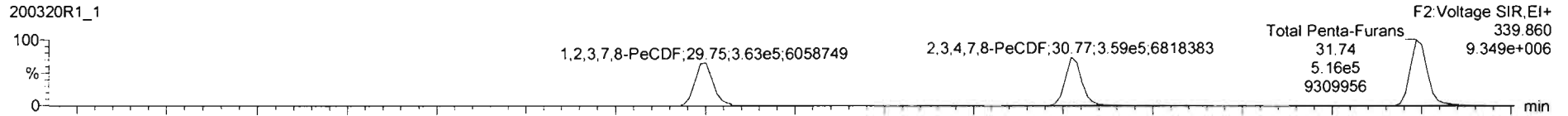
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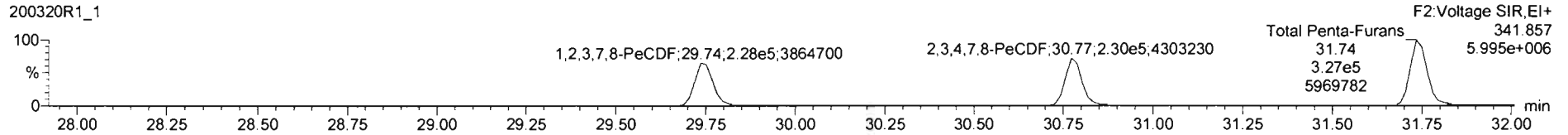
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**1,2,3,7,8-PeCDF**

200320R1\_1

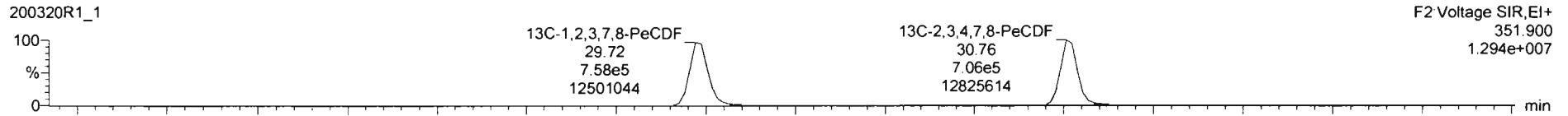


200320R1\_1

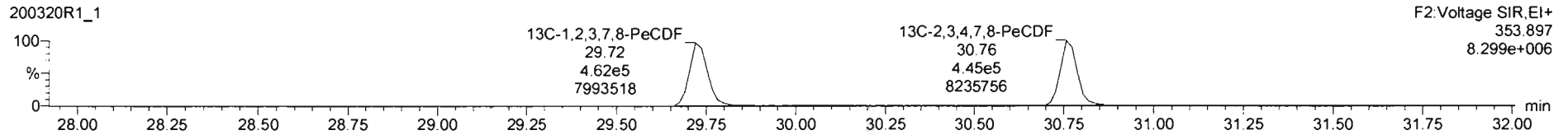


**13C-1,2,3,7,8-PeCDF**

200320R1\_1

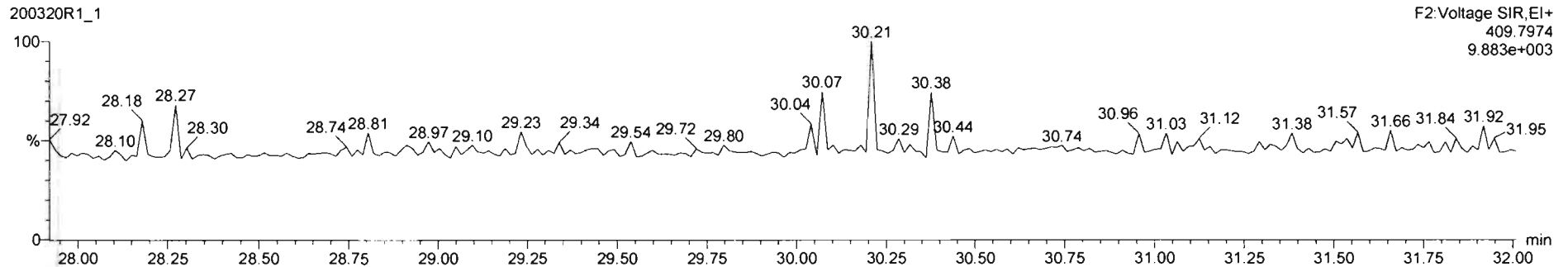


200320R1\_1



**DPE2**

200320R1\_1

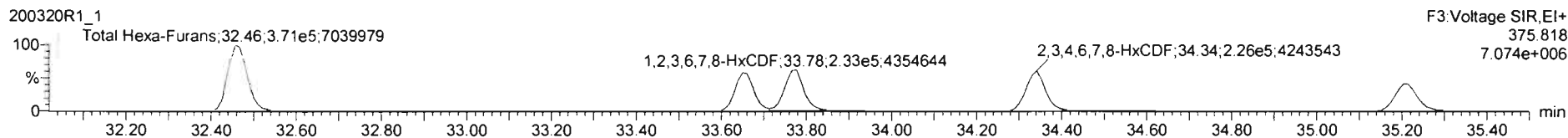
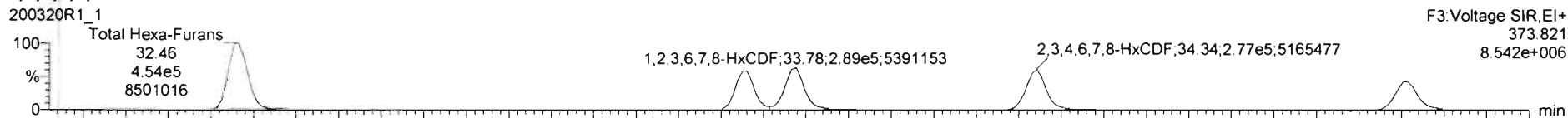


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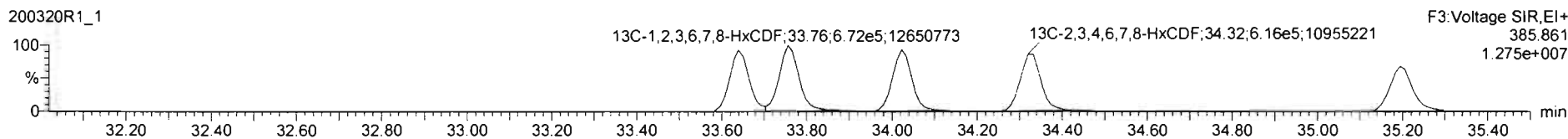
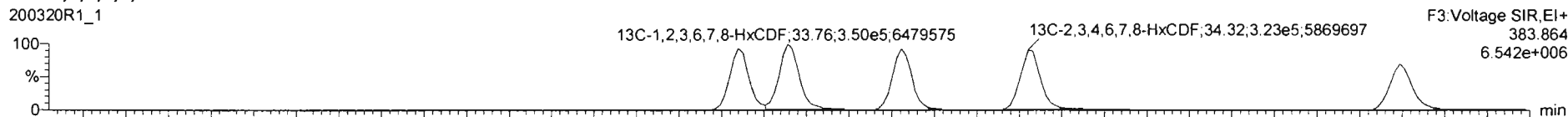
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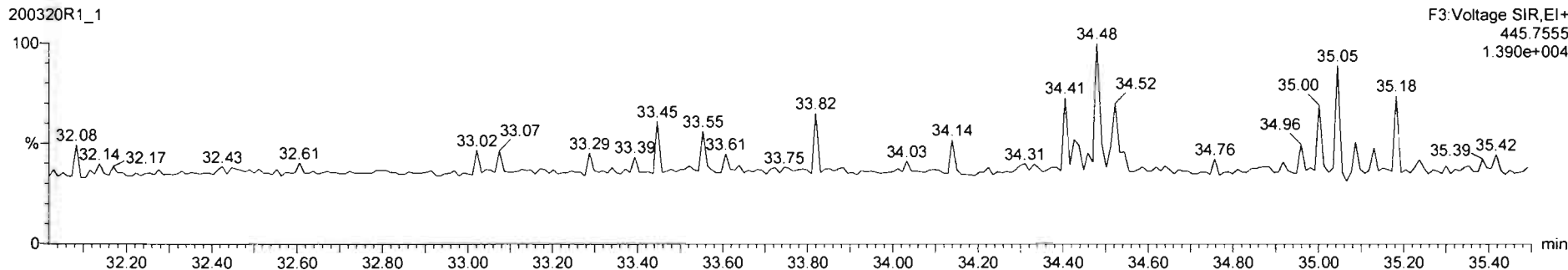
**1,2,3,4,7,8-HxCDF**



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



**DPE3**



Dataset: Untitled

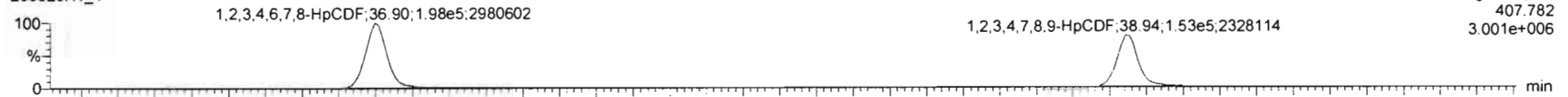
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Printed: Friday, March 20, 2020 14:40:37 Pacific Daylight Time

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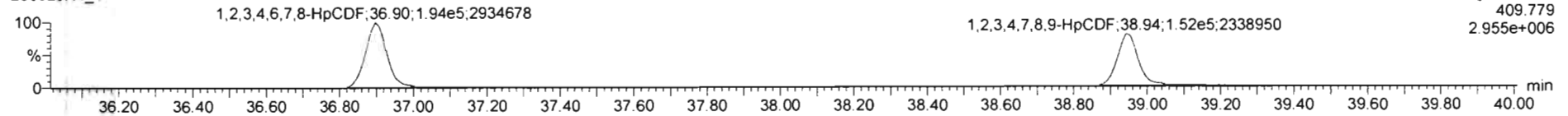
**1,2,3,4,6,7,8-HpCDF**

200320R1\_1



F4:Voltage SIR,EI+  
407.782  
3.001e+006

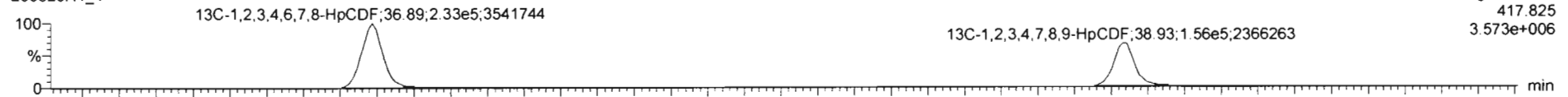
200320R1\_1



F4:Voltage SIR,EI+  
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2.955e+006

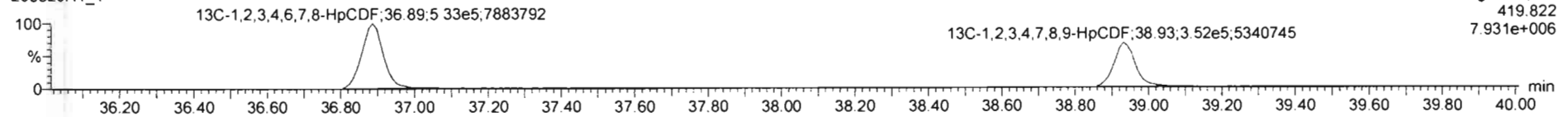
**13C-1,2,3,4,6,7,8-HpCDF**

200320R1\_1



F4:Voltage SIR,EI+  
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3.573e+006

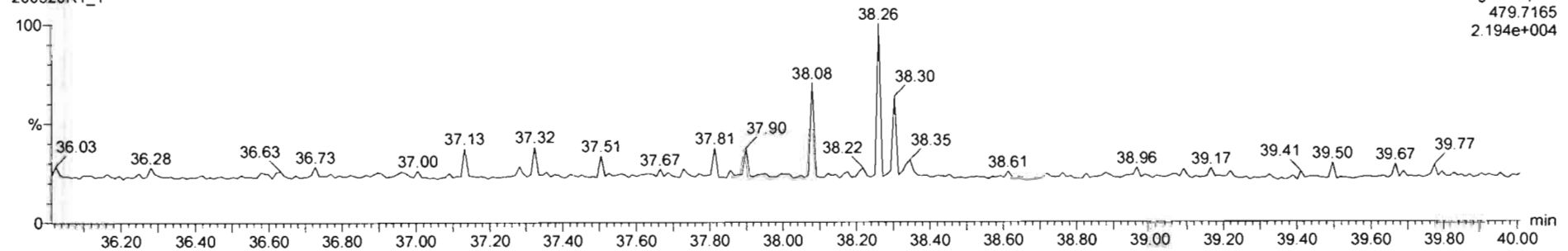
200320R1\_1



F4:Voltage SIR,EI+  
419.822  
7.931e+006

**DPE4**

200320R1\_1



F4:Voltage SIR,EI+  
479.7165  
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Dataset: Untitled

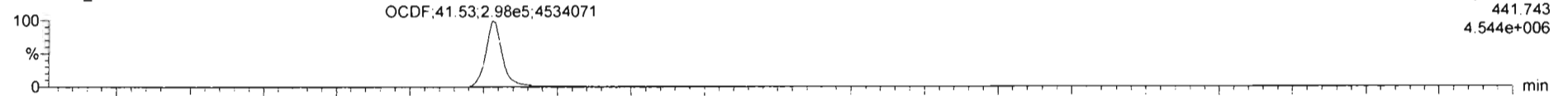
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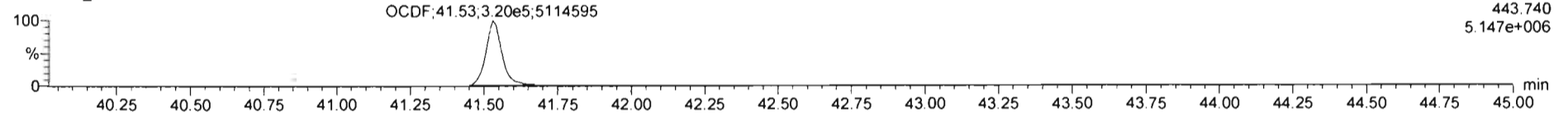
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**OCDF**

200320R1\_1

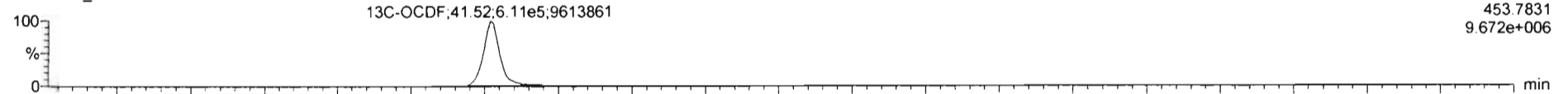


200320R1\_1

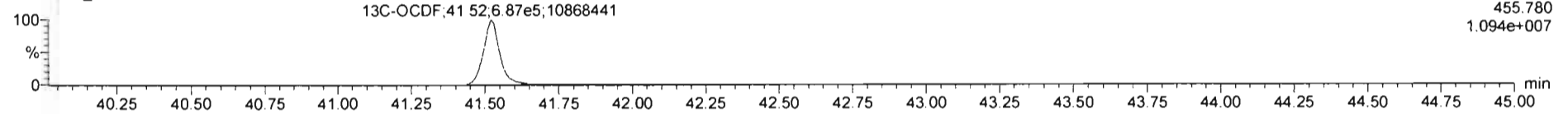


**13C-OCDF**

200320R1\_1

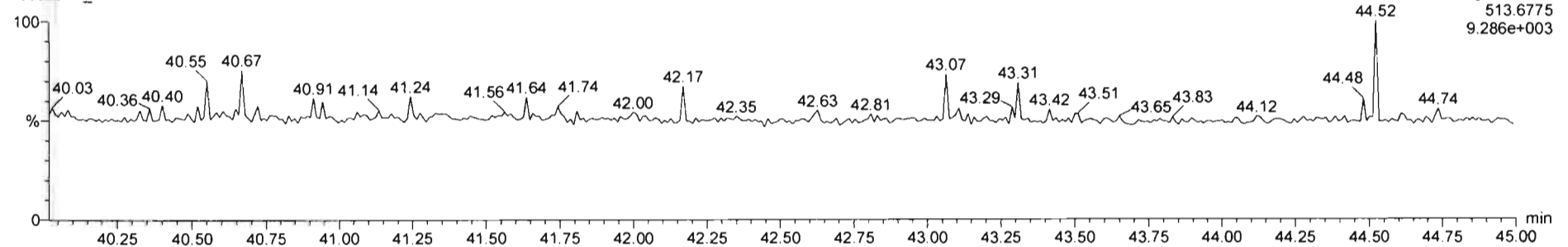


200320R1\_1



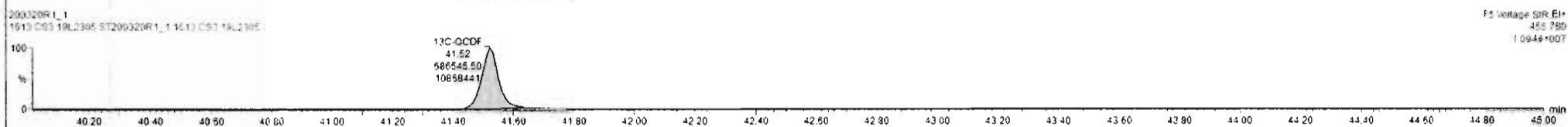
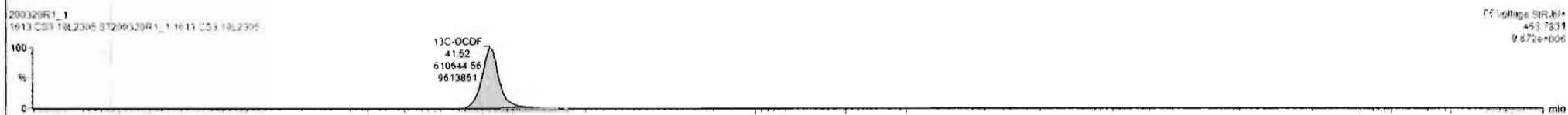
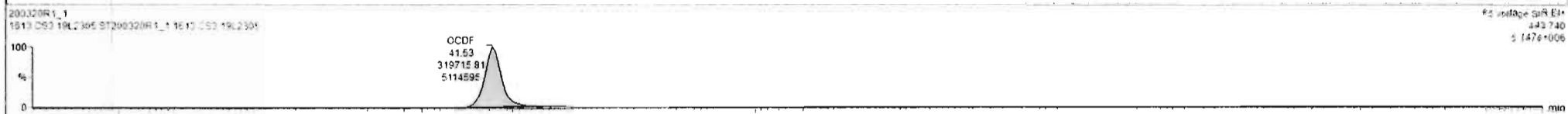
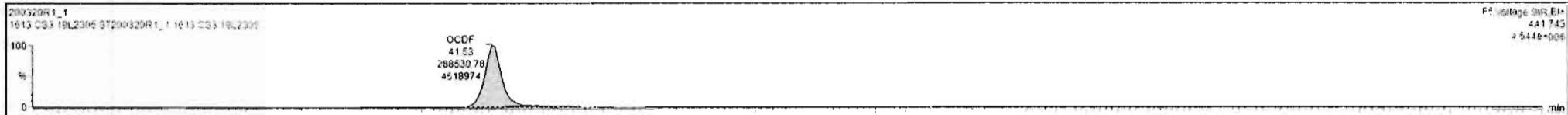
**DPES**

200320R1\_1



200320R1\_1 - ST200320R1\_1 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	IS Resp	Pred RA	RA	n/y	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	2,3,7,8-TCDD	1.00e5	1.07e6	0.77	0.81	NO	0.9835	25.81	25.80	NO	1.001	1.001	55.0	55.0	NO
2	1,2,3,7,8-PeCDD	3.50e5	7.80e5	0.82	0.84	NO	0.9212	31.10	31.09	NO	1.001	1.000	50.0	99.9	NO
3	1,2,3,4,7,8-HxCDD	3.53e5	6.05e5	1.24	1.27	NO	1.1325	34.50	34.50	NO	1.000	1.000	51.5	103	NO
4	1,2,3,6,7,8-HxCDD	3.70e5	7.75e5	1.24	1.28	NO	0.9844	34.59	34.61	NO	1.000	1.001	48.4	98.9	NO
5	1,2,3,7,8,9-HxCDD	3.46e5	7.06e5	1.24	1.23	NO	0.9674	34.87	34.87	NO	1.000	1.000	50.6	101	NO
6	1,2,3,4,6,7,8-HpCDD	2.78e5	5.80e5	1.04	1.03	NO	1.0061	38.29	38.29	NO	1.000	1.000	49.4	98.7	NO
7	OCDD	5.18e5	1.00e6	0.89	0.90	NO	1.0515	41.24	41.35	NO	1.000	1.001	98.0	98.0	NO
8	2,3,7,8-TCDF	1.35e5	1.55e6	0.77	0.76	NO	0.9154	24.79	24.79	NO	1.001	1.001	5.27	94.7	NO
9	1,2,3,7,8-PeCDF	5.91e5	1.22e6	1.55	1.59	NO	0.9594	29.74	29.75	NO	1.001	1.001	50.5	101	NO
10	2,3,4,7,8-PeCDF	5.89e5	1.15e6	1.55	1.56	NO	1.0035	30.79	30.77	NO	1.001	1.000	51.0	102	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.29e5	1.24	1.23	NO	1.0381	33.54	33.66	NO	1.000	1.001	49.1	98.3	NO
12	1,2,3,6,7,8-HxCDF	5.22e5	1.02e6	1.24	1.24	NO	1.0126	33.77	33.78	NO	1.000	1.001	50.4	101	NO
13	2,3,4,6,7,8-HxCDF	5.03e5	9.46e5	1.24	1.23	NO	1.0523	34.36	34.34	NO	1.001	1.001	49.1	98.1	NO
14	1,2,3,7,8,9-HxCDF	4.07e5	8.04e5	1.24	1.25	NO	1.0262	35.19	35.20	NO	1.000	1.000	48.2	98.6	NO
15	1,2,3,4,6,7,8-HpCDF	3.92e5	7.86e5	1.04	1.02	NO	1.0483	36.92	36.90	NO	1.001	1.000	48.8	97.8	NO
16	1,2,3,4,7,8,9-HpCDF	3.05e5	5.88e5	1.04	1.01	NO	1.2099	38.93	38.94	NO	1.000	1.000	49.5	99.0	NO
17	OCDF	6.08e5	1.30e6	0.89	0.90	NO	0.9465	41.52	41.53	NO	1.000	1.000	99.1	99.1	NO
18	1,6,11,12,17-AhCDD	1.07e6	5.15e6	0.77	0.80	NO	1.1842	26.75	26.78	NO	1.029	1.030	58.9	96.9	NO



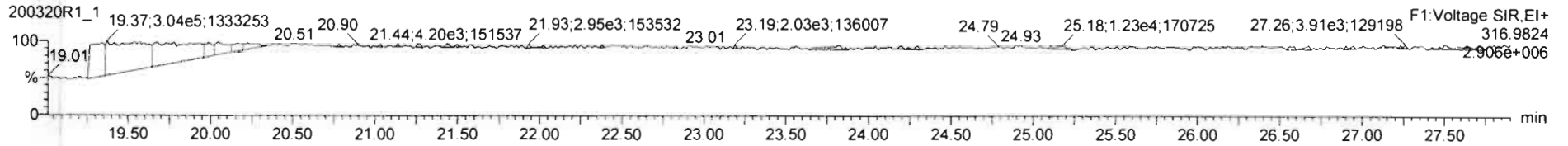
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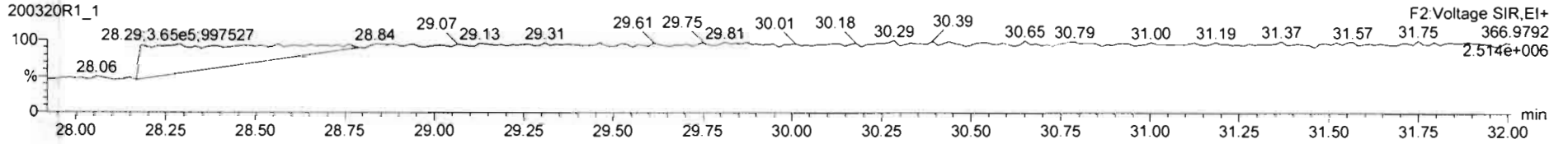
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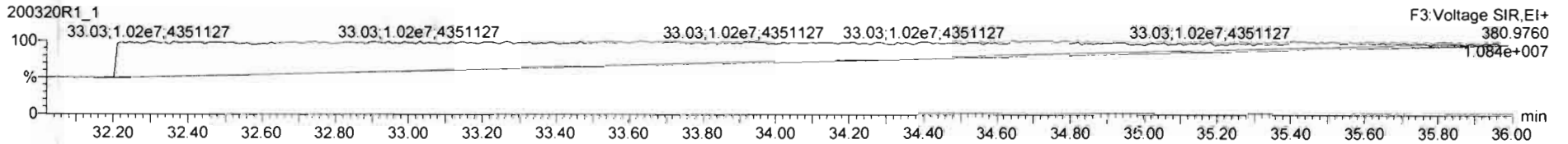
PFK1



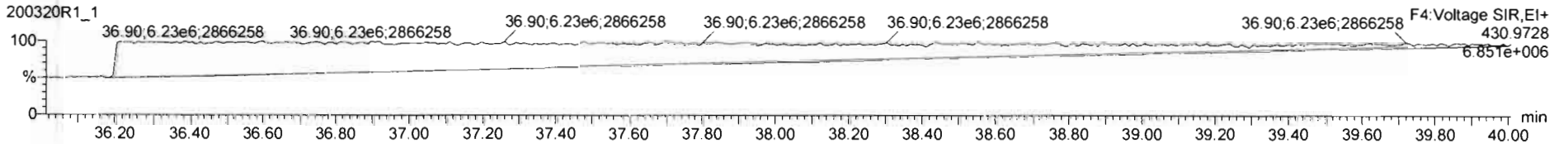
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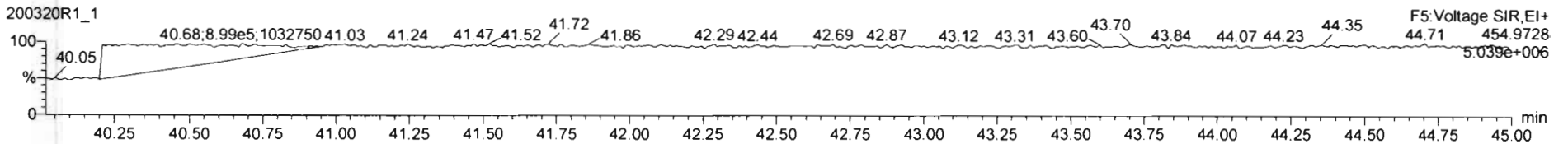
PFK3



PFK4

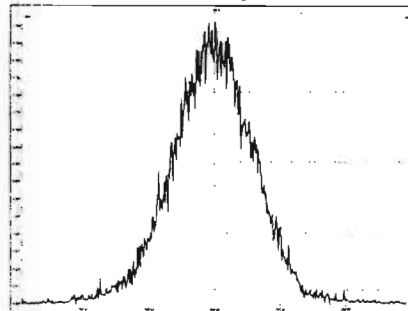


PFK5

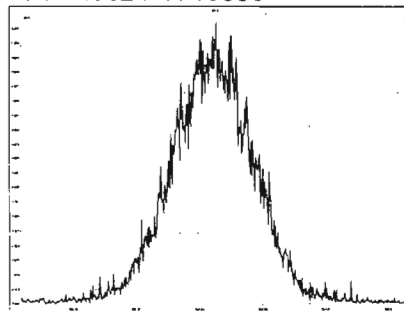


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

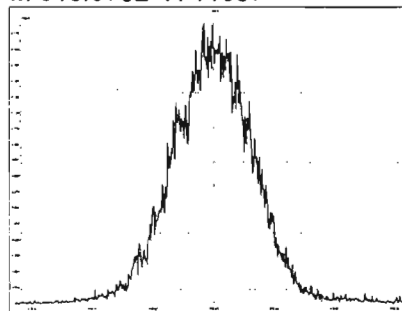
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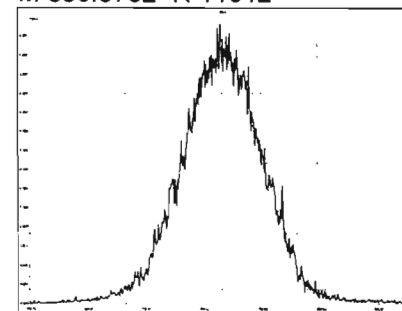
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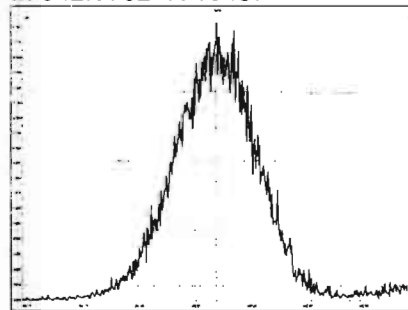
M 318.9792 R 11037



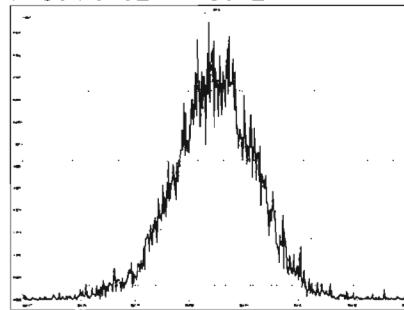
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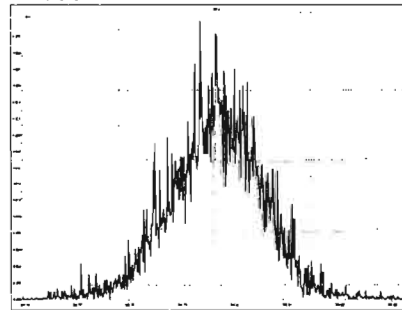
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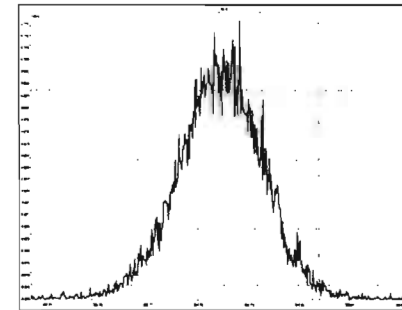
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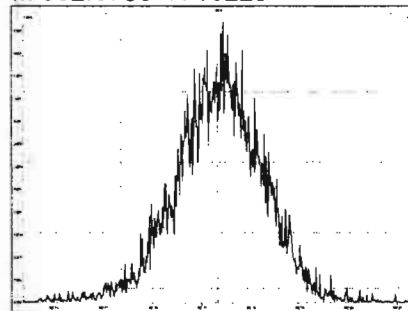
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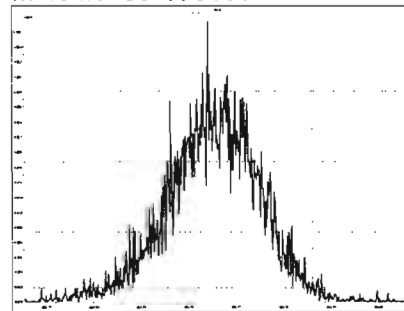
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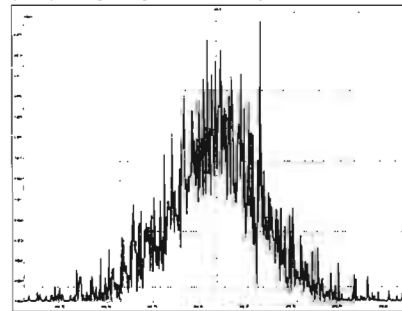
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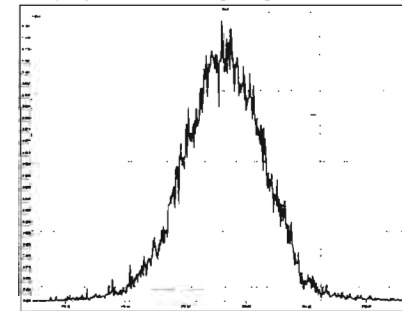
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M 416.9760 R 11178



M 318.9792 R 10510



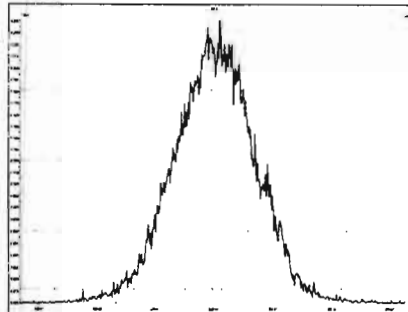


Resolution Check Report

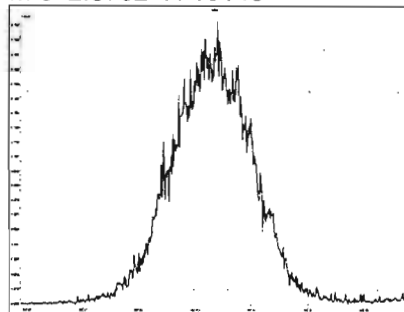
MassLynx 4.1 SCN815

Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

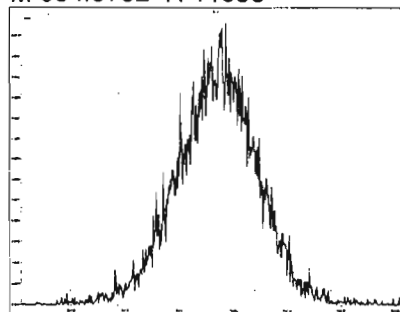
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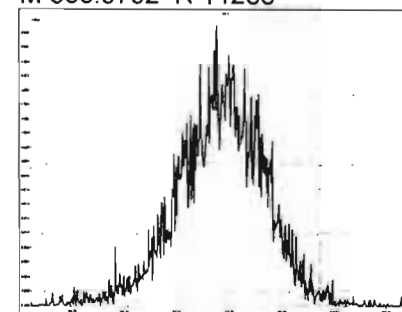
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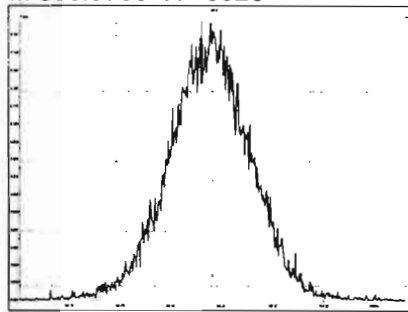
M 354.9792 R 11358



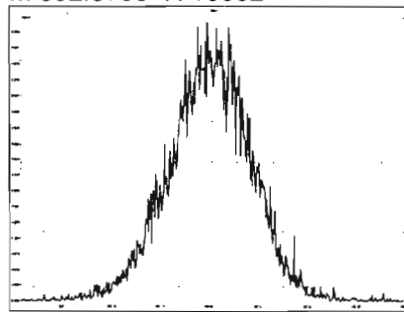
M 366.9792 R 11288



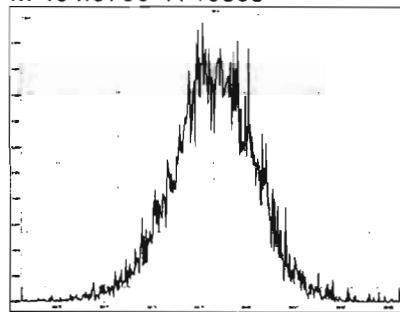
M 380.9760 R 10526



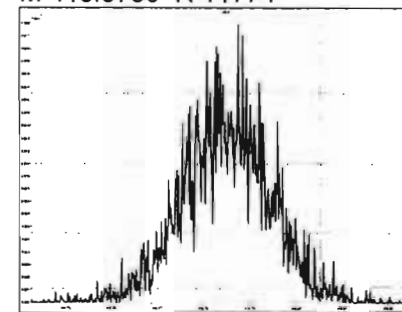
M 392.9760 R 10552



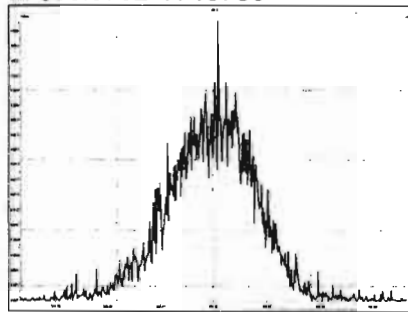
M 404.9760 R 10835



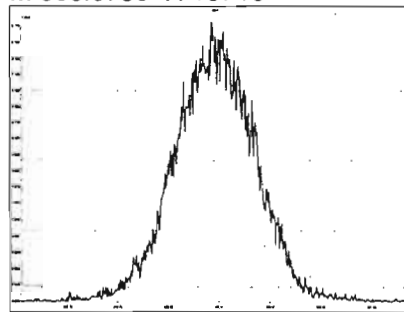
M 416.9760 R 11774



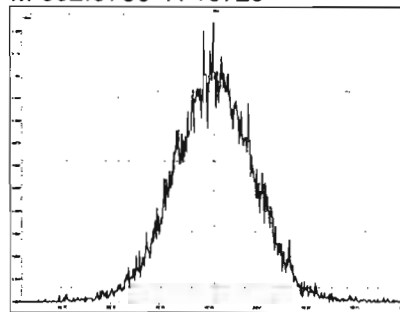
M 366.9792 R 10780



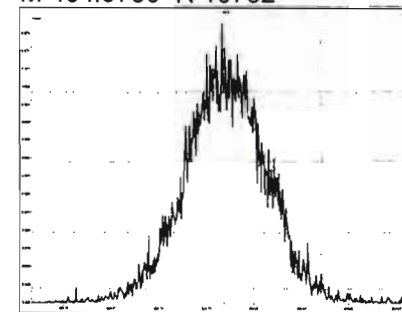
M 380.9760 R 10710



M 392.9760 R 10729

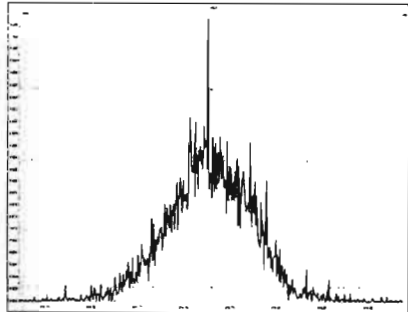


M 404.9760 R 10752

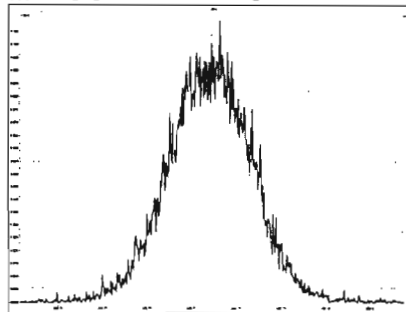


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

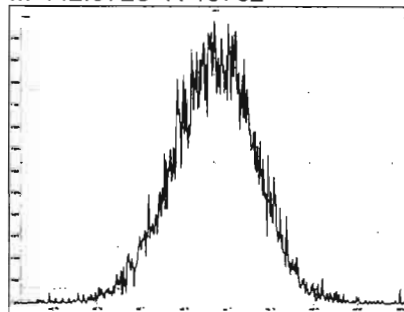
M 416.9760 R 11210



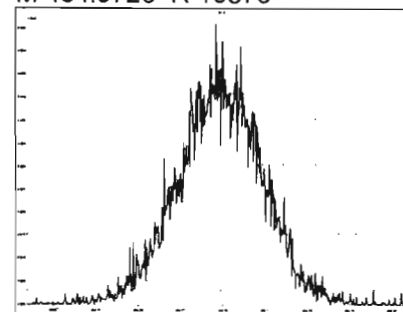
M 430.9728 R 10373



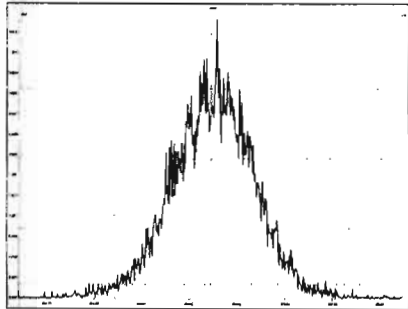
M 442.9728 R 10752



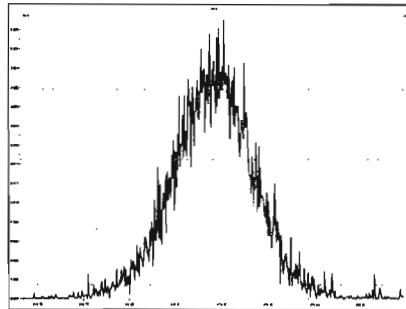
M 454.9728 R 10376



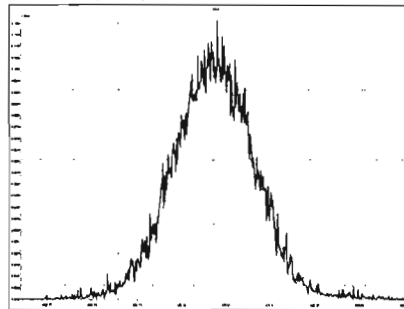
M 404.9760 R 10555



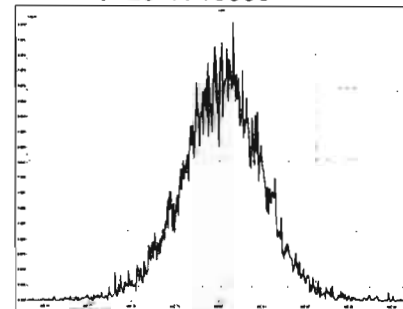
M 416.9760 R 11390



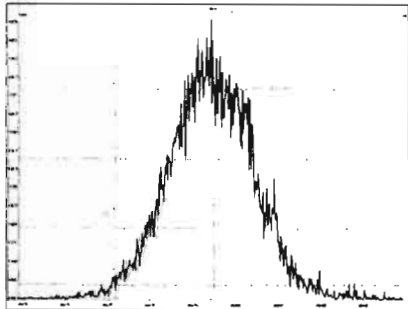
M 430.9728 R 10270



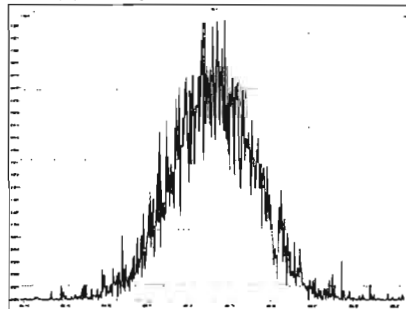
M 442.9728 R 10990



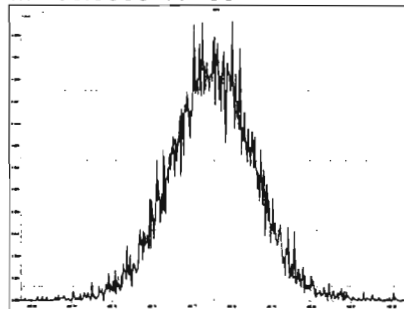
M 454.9728 R 10745



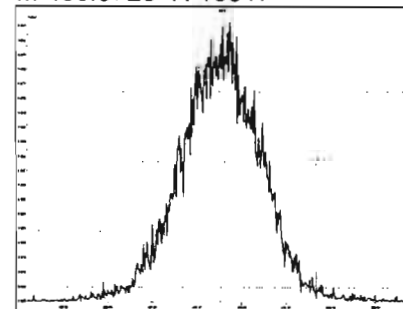
M 466.9728 R 11162



M 480.9696 R 10374

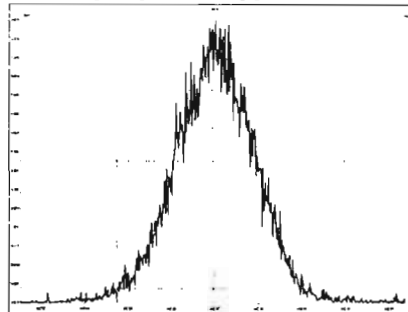


M 430.9728 R 10817

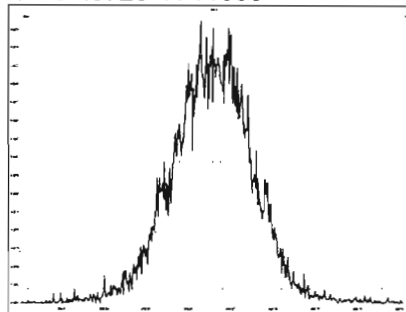


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

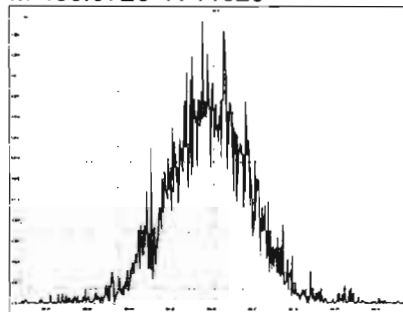
M 442.9728 R 11236



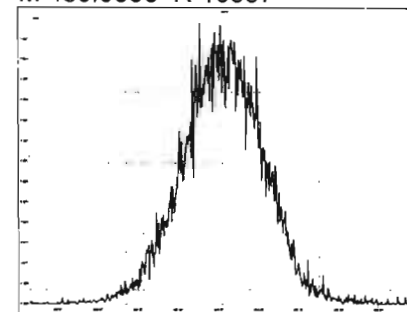
M 454.9728 R 11039



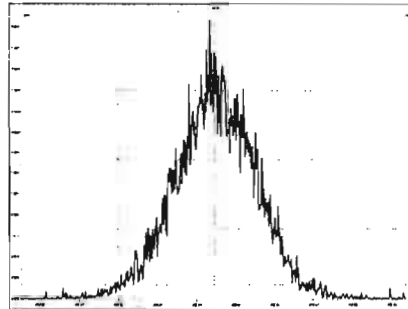
M 466.9728 R 11520



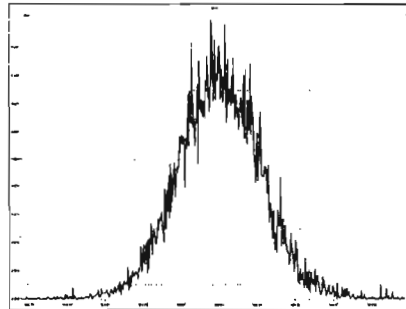
M 480.9696 R 10997



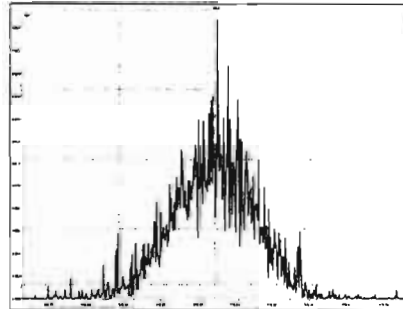
M 492.9696 R 10742



M 504.9696 R 11086



M 516.9697 R 11288



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST20032002-1

Reviewed By: C7 03/23/2020  
*Initials & Date*

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <u>NA</u>
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<u>Hc</u>	<u>D</u>
<u>Run Log:</u>		
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <u>NA</u>
- Samples within 12 hour clock?	<u>(Y)</u>	<u>N</u>
- Bottle position verified?		<u>Hc</u>

Mass resolution ≥

5k    6-8K    8K    10K  
 1614   1699   429   1613/1668/8280

Intergrated peaks display correctly?

GC Break <20%

8280 CS1 End Standard:

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours

Comments:

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-2.qld

Last Altered: Saturday, March 21, 2020 09:53:47 Pacific Daylight Time  
Printed: Saturday, March 21, 2020 10:16:19 Pacific Daylight Time

*HC-320*  
*3.21.2020* *C7 03/23/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15  
Calibration: U:\VG12.PRO\CurveDB\ldb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_2, Date: 21-Mar-2020, Time: 01:54:16, ID: ST200320R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	1.05e5	1.15e6	0.77	NO	0.983	25.81	25.81	NO	1.001	1.001	9.2469	92.5	NO
2	2 1,2,3,7,8-PeCDD	3.81e5	8.29e5	0.62	NO	0.921	31.12	31.11	NO	1.001	1.000	49.954	99.9	NO
3	3 1,2,3,4,7,8-HxCDD	3.64e5	6.58e5	1.26	NO	1.13	34.51	34.51	NO	1.000	1.000	48.810	97.6	NO
4	4 1,2,3,6,7,8-HxCDD	3.81e5	7.85e5	1.26	NO	0.984	34.61	34.62	NO	1.000	1.000	49.250	98.5	NO
5	5 1,2,3,7,8,9-HxCDD	3.48e5	7.35e5	1.26	NO	0.967	34.88	34.88	NO	1.000	1.000	48.981	98.0	NO
6	6 1,2,3,4,6,7,8-HpCDD	3.13e5	6.57e5	1.03	NO	1.01	38.31	38.30	NO	1.000	1.000	47.322	94.6	NO
7	7 OCDD	5.31e5	1.08e6	0.89	NO	1.05	41.37	41.38	NO	1.000	1.000	93.787	93.8	NO
8	8 2,3,7,8-TCDF	1.38e5	1.62e6	0.76	NO	0.915	24.80	24.81	NO	1.001	1.001	9.3479	93.5	NO
9	9 1,2,3,7,8-PeCDF	6.01e5	1.26e6	1.62	NO	0.959	29.76	29.75	NO	1.001	1.000	49.762	99.5	NO
10	10 2,3,4,7,8-PeCDF	6.03e5	1.21e6	1.58	NO	1.00	30.81	30.79	NO	1.001	1.000	49.742	99.5	NO
11	11 1,2,3,4,7,8-HxCDF	4.74e5	9.44e5	1.23	NO	1.04	33.65	33.66	NO	1.000	1.000	48.387	96.8	NO
12	12 1,2,3,6,7,8-HxCDF	5.20e5	1.04e6	1.24	NO	1.01	33.78	33.79	NO	1.000	1.001	49.289	98.6	NO
13	13 2,3,4,6,7,8-HxCDF	5.01e5	9.53e5	1.23	NO	1.09	34.38	34.35	NO	1.001	1.000	48.113	96.2	NO
14	14 1,2,3,7,8,9-HxCDF	4.05e5	8.23e5	1.23	NO	1.03	35.21	35.23	NO	1.000	1.001	47.970	95.9	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.80e5	7.61e5	1.00	NO	1.05	36.94	36.92	NO	1.001	1.001	47.603	95.2	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.21e5	5.61e5	1.02	NO	1.21	38.94	38.97	NO	1.000	1.000	47.279	94.6	NO
17	17 OCDF	6.15e5	1.38e6	0.89	NO	0.947	41.54	41.56	NO	1.000	1.000	94.498	94.5	NO
18	18 13C-2,3,7,8-TCDD	1.15e6	9.72e5	0.79	NO	1.18	25.79	25.78	NO	1.030	1.029	100.16	100	NO
19	19 13C-1,2,3,7,8-PeCDD	8.29e5	9.72e5	0.63	NO	0.864	31.10	31.09	NO	1.242	1.241	98.709	98.7	NO
20	20 13C-1,2,3,4,7,8-HxCDD	6.58e5	9.44e5	1.28	NO	0.754	34.50	34.50	NO	1.014	1.014	92.509	92.5	NO
21	21 13C-1,2,3,6,7,8-HxCDD	7.85e5	9.44e5	1.25	NO	0.925	34.60	34.61	NO	1.017	1.017	89.875	89.9	NO
22	22 13C-1,2,3,7,8,9-HxCDD	7.35e5	9.44e5	1.25	NO	0.829	34.87	34.88	NO	1.025	1.025	93.912	93.9	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.57e5	9.44e5	1.06	NO	0.598	38.29	38.29	NO	1.125	1.125	116.46	116	NO
24	24 13C-OCDD	1.08e6	9.44e5	0.89	NO	0.571	41.36	41.37	NO	1.215	1.216	199.72	99.9	NO
25	25 13C-2,3,7,8-TCDF	1.62e6	1.52e6	0.78	NO	1.09	24.78	24.78	NO	0.989	0.989	97.795	97.8	NO
26	26 13C-1,2,3,7,8-PeCDF	1.26e6	1.52e6	1.61	NO	0.876	29.74	29.74	NO	1.187	1.187	94.726	94.7	NO
27	27 13C-2,3,4,7,8-PeCDF	1.21e6	1.52e6	1.60	NO	0.844	30.72	30.77	NO	1.227	1.229	94.494	94.5	NO
28	28 13C-1,2,3,4,7,8-HxCDF	9.44e5	9.44e5	0.51	NO	1.00	33.65	33.65	NO	0.989	0.989	100.01	100	NO
29	29 13C-1,2,3,6,7,8-HxCDF	1.04e6	9.44e5	0.51	NO	1.12	33.78	33.77	NO	0.992	0.992	98.693	98.7	NO
30	30 13C-2,3,4,6,7,8-HxCDF	9.53e5	9.44e5	0.52	NO	1.04	34.33	34.34	NO	1.009	1.009	97.567	97.6	NO
31	31 13C-1,2,3,7,8,9-HxCDF	8.23e5	9.44e5	0.53	NO	0.873	35.20	35.21	NO	1.034	1.034	99.856	99.9	NO

Dataset: U:\VG12.PRO\Results\200320R2\200320R2-2.qld

Last Altered: Saturday, March 21, 2020 09:53:47 Pacific Daylight Time

Printed: Saturday, March 21, 2020 10:16:19 Pacific Daylight Time

Name: 200320R2\_2, Date: 21-Mar-2020, Time: 01:54:16, ID: ST200320R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	7.61e5	9.44e5	0.44	NO	0.771	36.91	36.90	NO	1.084	1.084	104.68	105	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.61e5	9.44e5	0.44	NO	0.519	38.94	38.94	NO	1.144	1.144	114.48	114	NO
34	34 13C-OCDF	1.38e6	9.44e5	0.92	NO	0.696	41.54	41.54	NO	1.220	1.221	209.35	105	NO
35	35 37Cl-2,3,7,8-TCDD	1.10e5	9.72e5			1.17	25.82	25.81	NO	1.031	1.031	9.6128	96.1	NO
36	36 13C-1,2,3,4-TCDD	9.72e5	9.72e5	0.79	NO	1.00	25.03	25.05	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.52e6	1.52e6	0.79	NO	1.00	23.09	23.10	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	9.44e5	9.44e5	0.52	NO	1.00	34.02	34.03	NO	1.000	1.000	100.00	100	YES <i>616</i>

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Saturday, March 21, 2020 09:54:47 Pacific Daylight Time

Printed: Saturday, March 21, 2020 09:55:47 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-20-20.mdb 21 Mar 2020 09:40:15

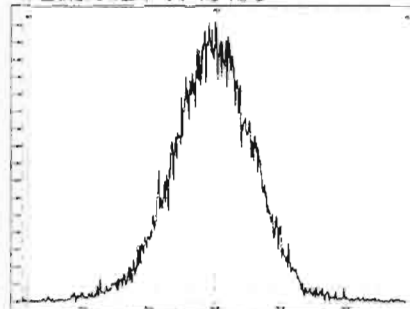
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

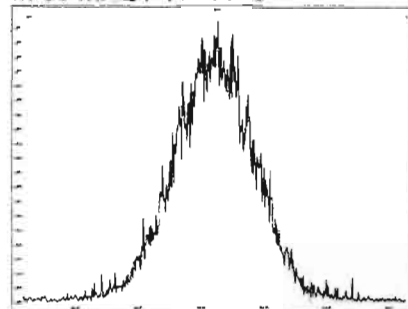
	Name	ID	Acq.Date	Acq.Time
1	200320R2_1	SOLVENT BLANK	21-Mar-20	01:08:02
2	200320R2_2	ST200320R2_1 1613 CS3 19L2305	21-Mar-20	01:54:16
3	200320R2_3	SOLVENT BLANK	21-Mar-20	02:42:01
4	200320R2_4	2000412-12 PDI-082SC-A-10-11-191002 13.76	21-Mar-20	03:29:39
5	200320R2_5	2000412-13 PDI-082SC-A-11-12-191002 14.66	21-Mar-20	04:17:24
6	200320R2_6	2000412-14 PDI-082SC-A-12-13-191002 16.49	21-Mar-20	05:05:09
7	200320R2_7	2000412-15 PDI-082SC-A-13-14-191002 16	21-Mar-20	05:52:53

Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

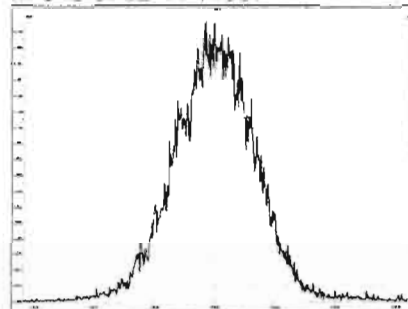
M 292.9824 R 10190



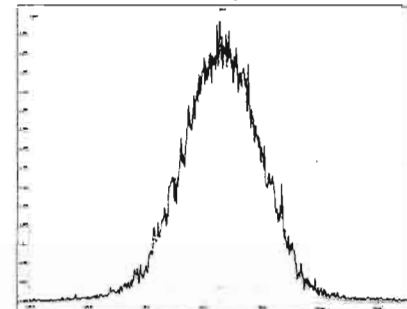
M 304.9824 R 10683



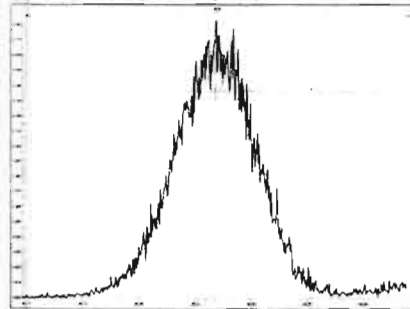
M 318.9792 R 11037



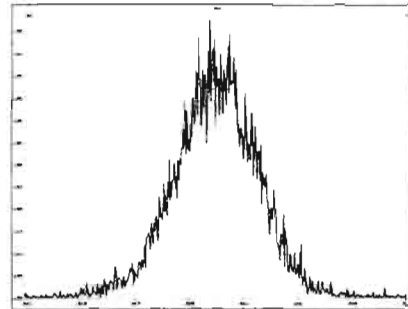
M 330.9792 R 11012



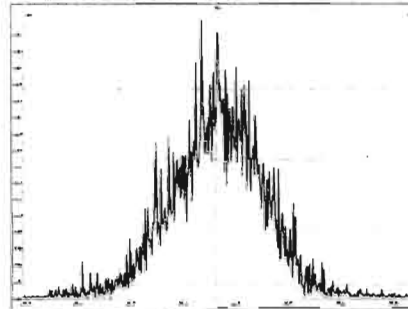
M 342.9792 R 10487



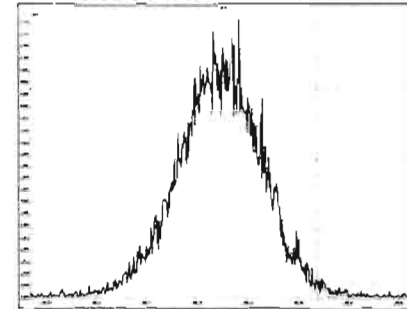
M 354.9792 R 10972



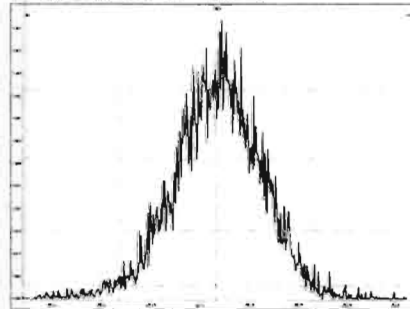
M 366.9792 R 11111



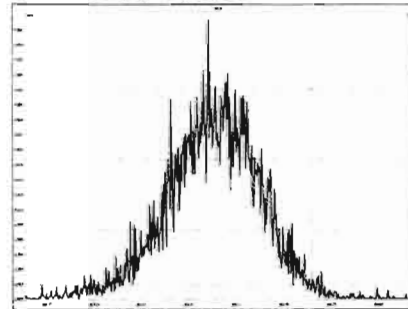
M 380.9760 R 9940 OK



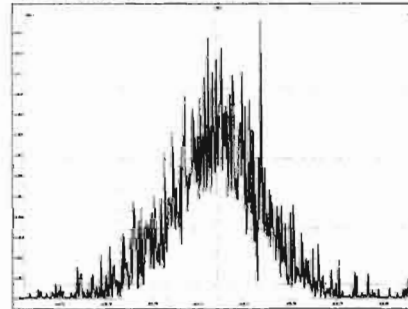
M 392.9760 R 10225



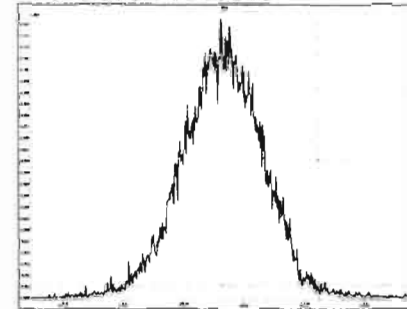
M 404.9760 R 9806



M 416.9760 R 11178



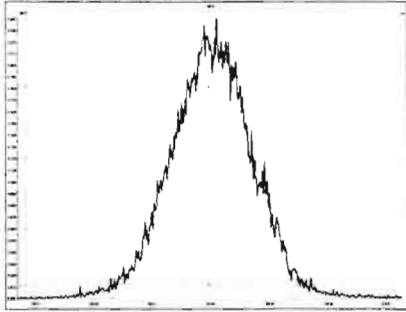
M 318.9792 R 10510



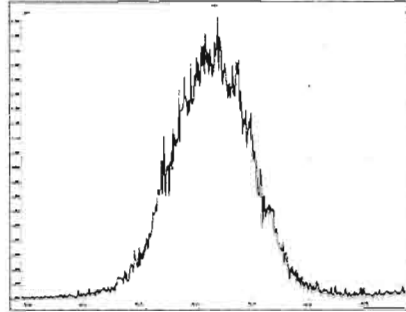


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

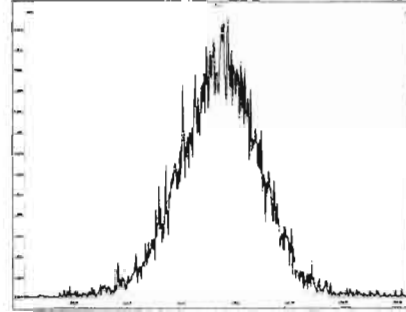
M 330.9792 R 10827



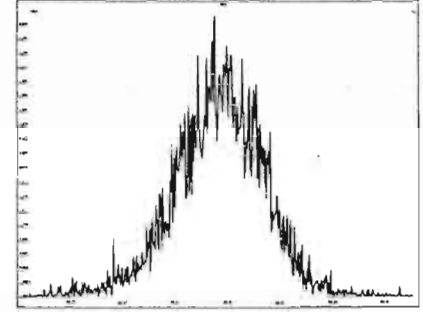
M 342.9792 R 10148



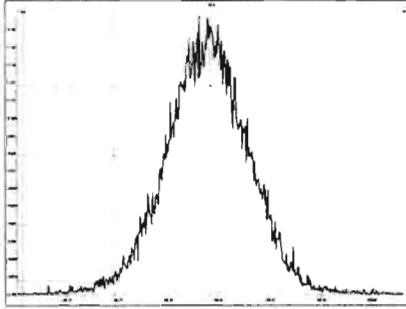
M 354.9792 R 11358



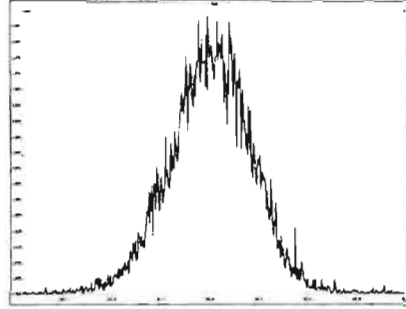
M 366.9792 R 11288



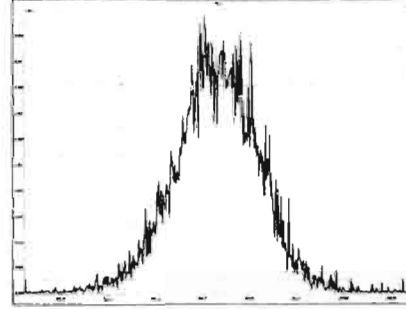
M 380.9760 R 10526



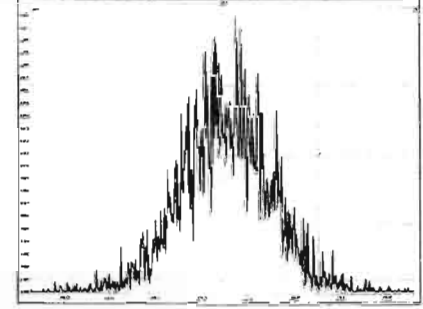
M 392.9760 R 10552



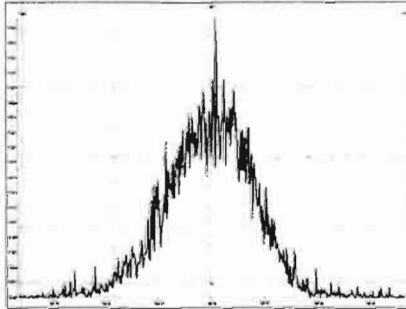
M 404.9760 R 10835



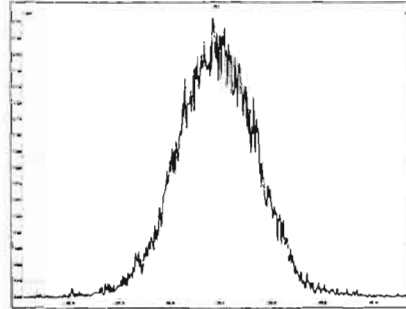
M 416.9760 R 11774



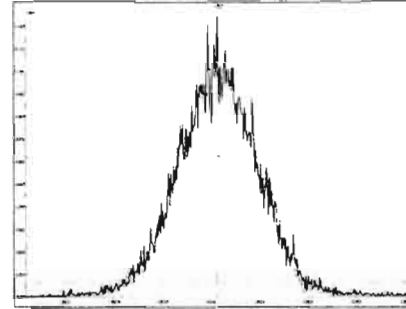
M 366.9792 R 10780



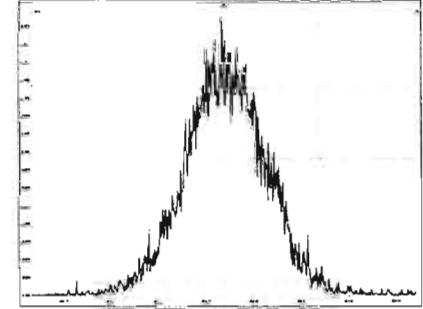
M 380.9760 R 10710



M 392.9760 R 10729

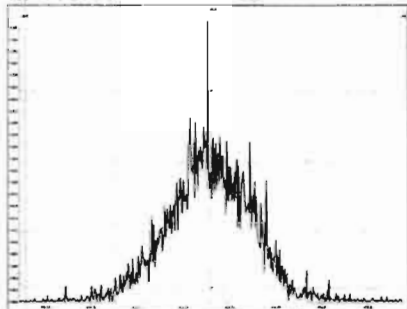


M 404.9760 R 10752

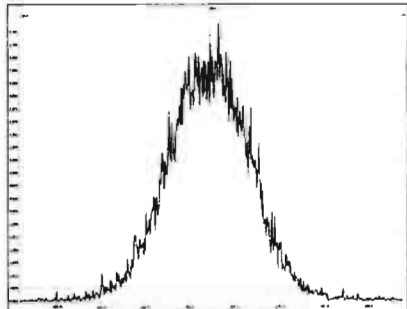


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

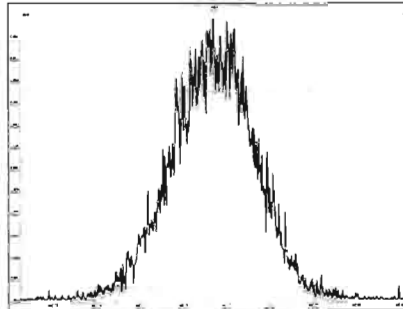
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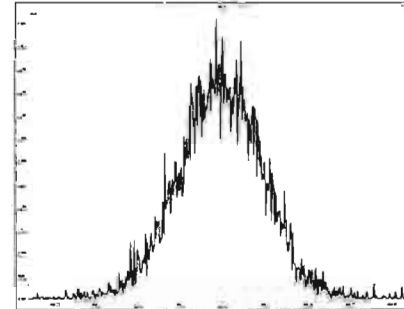
M 430.9728 R 10373



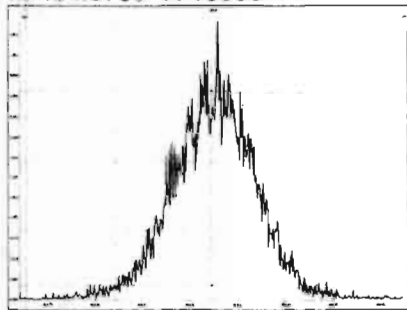
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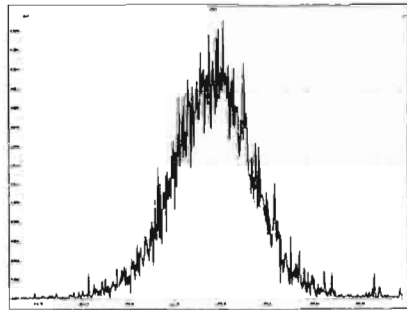
M 454.9728 R 10376



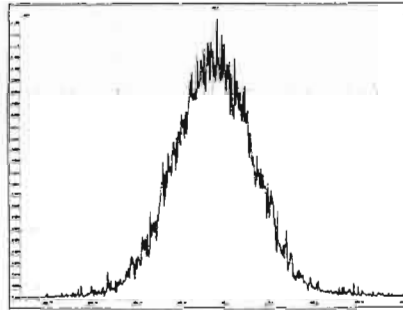
M 404.9760 R 10555



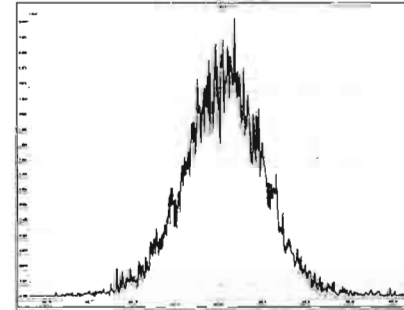
M 416.9760 R 11390



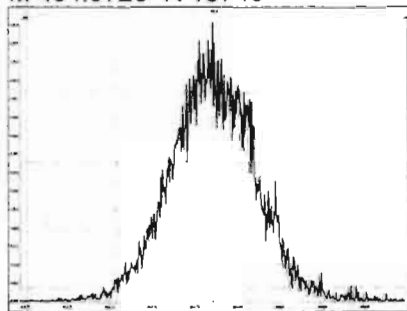
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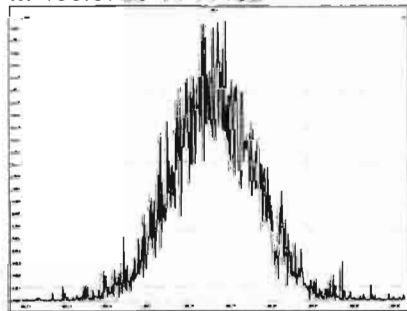
M 442.9728 R 10990



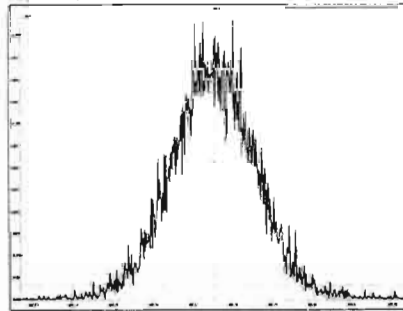
M 454.9728 R 10745



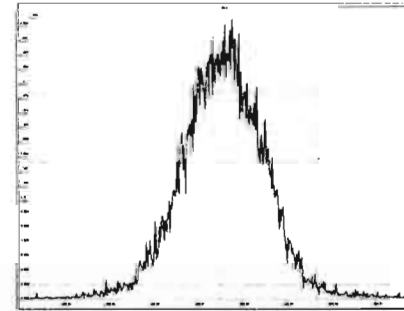
M 466.9728 R 11162



M 480.9696 R 10374

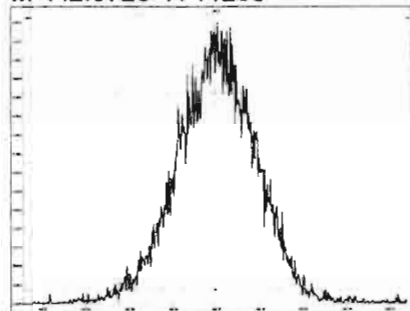


M 430.9728 R 10817

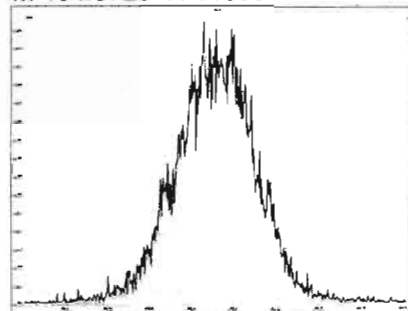


Printed: Saturday, March 21, 2020 01:08:00 Pacific Daylight Time

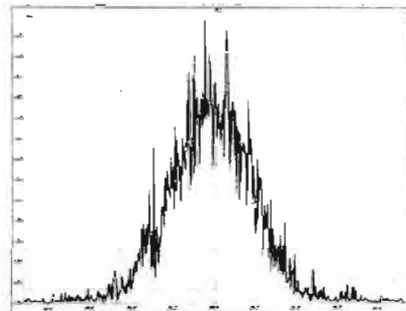
M 442.9728 R 11236



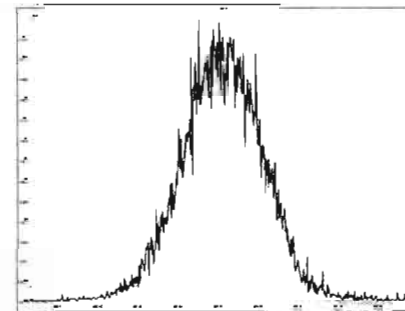
M 454.9728 R 11039



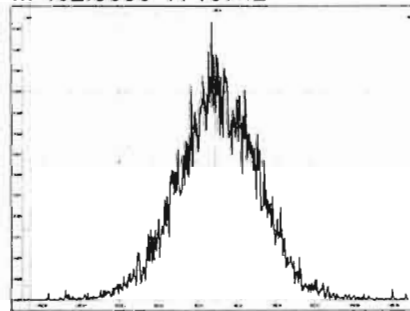
M 466.9728 R 11520



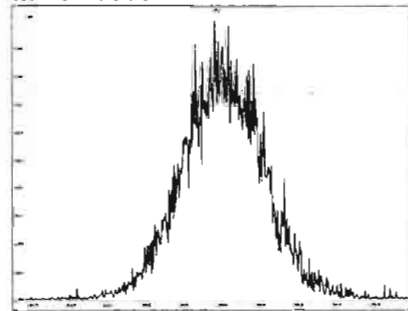
M 480.9696 R 10997



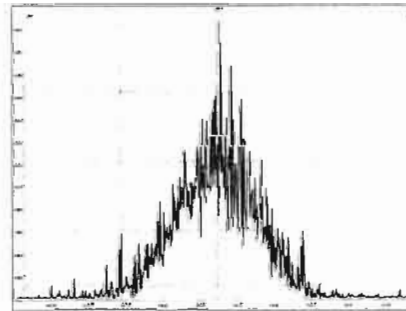
M 492.9696 R 10742



M 504.9696 R 11086



M 516.9697 R 11288



Dataset: Untitled

Last Altered: Saturday, March 21, 2020 09:56:24 Pacific Daylight Time

Printed: Saturday, March 21, 2020 09:56:44 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Mar 2020 14:46:47

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200320R2\_2, Date: 21-Mar-2020, Time: 01:54:16, ID: ST200320R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1,3,6,8-TCDD (First)	21.42
2	1,2,8,9-TCDD (Last)	26.86
3	1,2,4,7,9-PeCDD (First)	28.79
4	1,2,3,8,9-PeCDD (Last)	31.51
5	1,2,4,6,7,9-HxCDD (First)	33.04
6	1,2,3,7,8,9-HxCDD (Last)	34.89
7	1,2,3,4,6,7,9-HpCDD (First)	37.29
8	1,2,3,4,6,7,8-HpCDD (Last)	38.30
9	1,3,6,8-TCDF (First)	19.42
10	1,2,8,9-TCDF (Last)	27.02
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.75
13	1,2,3,4,6,8-HxCDF (First)	32.48
14	1,2,3,7,8,9-HxCDF (Last)	35.23
15	1,2,3,4,6,7,8-HpCDF (First)	36.92
16	1,2,3,4,7,8,9-HpCDF (Last)	38.96

Dataset: Untitled

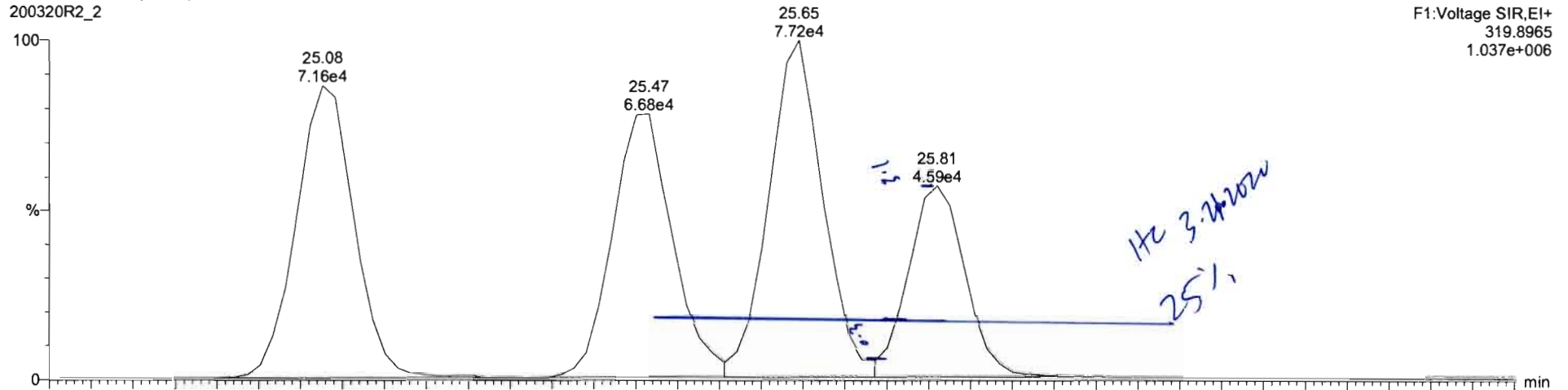
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Printed: Saturday, March 21, 2020 09:56:44 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Mar 2020 14:46:47  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

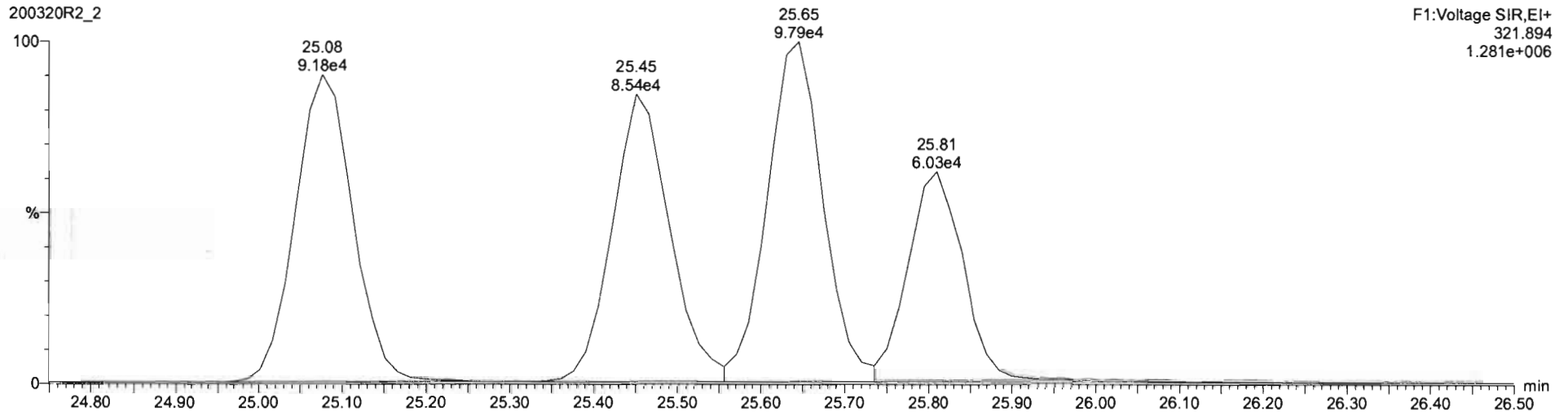
Name: 200320R2\_2, Date: 21-Mar-2020, Time: 01:54:16, ID: ST200320R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,3,6,8-TCDD (First)

200320R2\_2



200320R2\_2



Dataset: Untitled

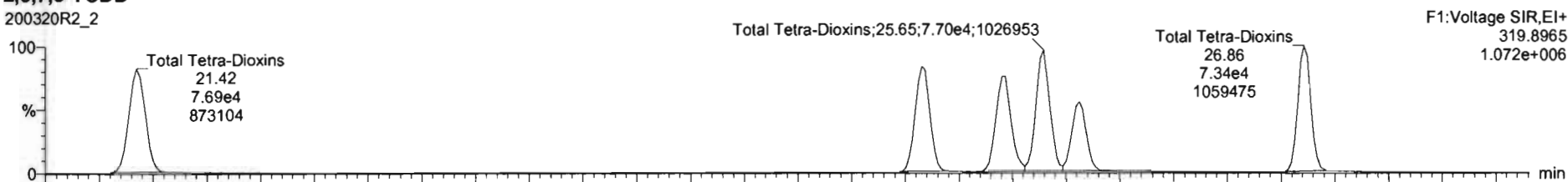
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Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

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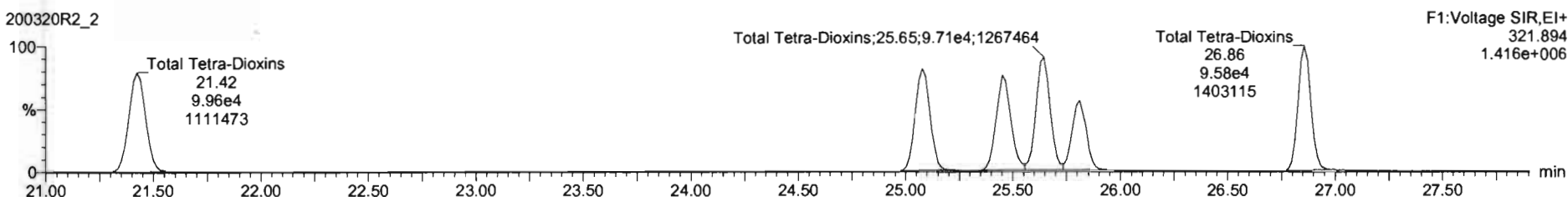
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**2,3,7,8-TCDD**

200320R2\_2

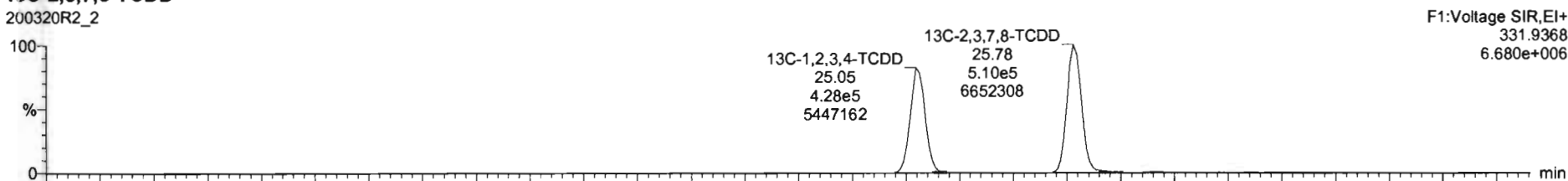


200320R2\_2

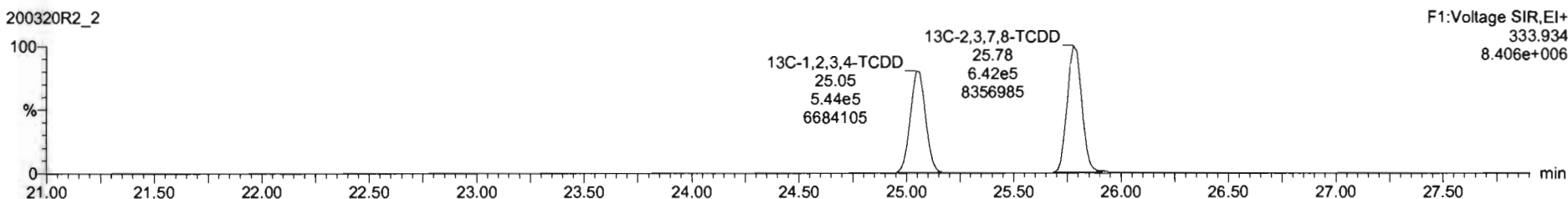


**13C-2,3,7,8-TCDD**

200320R2\_2



200320R2\_2



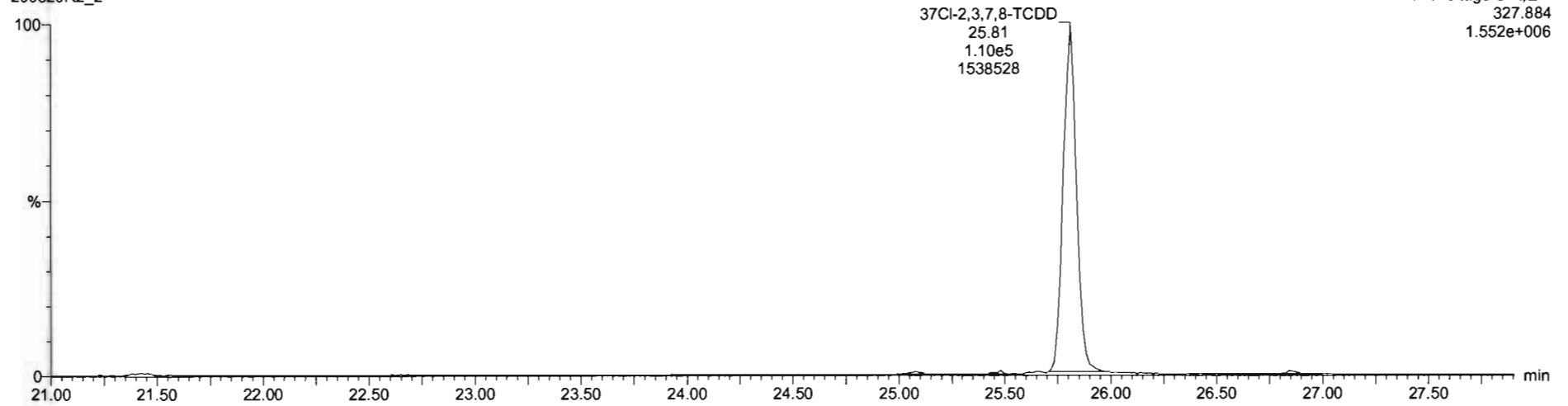
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Last Altered: Saturday, March 21, 2020 09:54:47 Pacific Daylight Time  
Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

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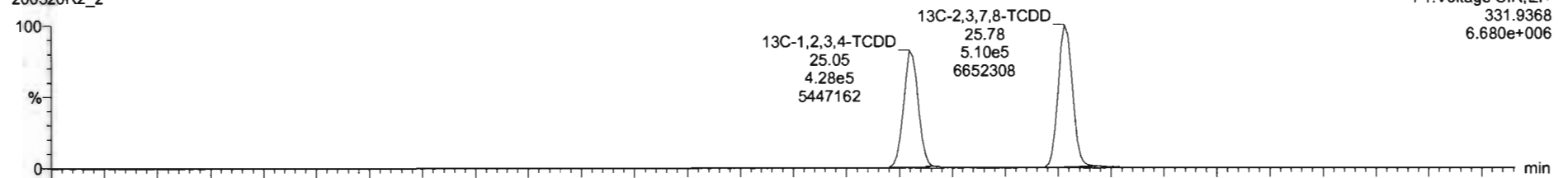
**37Cl-2,3,7,8-TCDD**

200320R2\_2

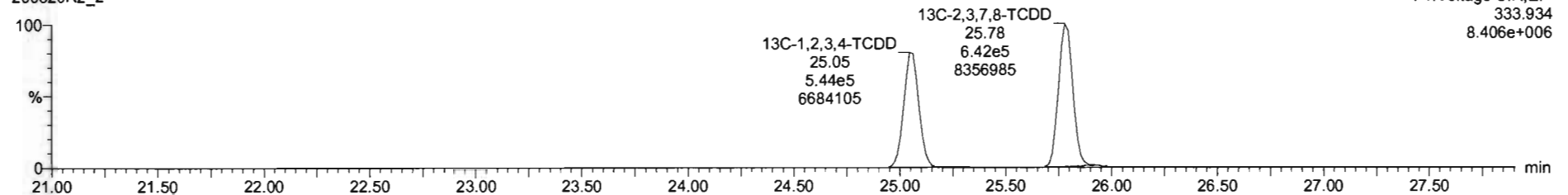


**13C-1,2,3,4-TCDD**

200320R2\_2



200320R2\_2



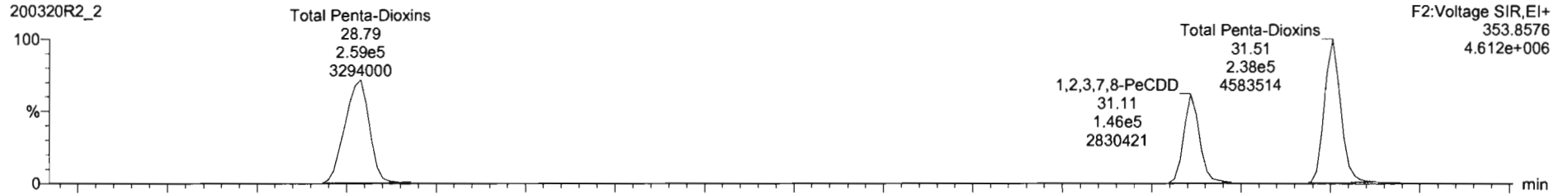
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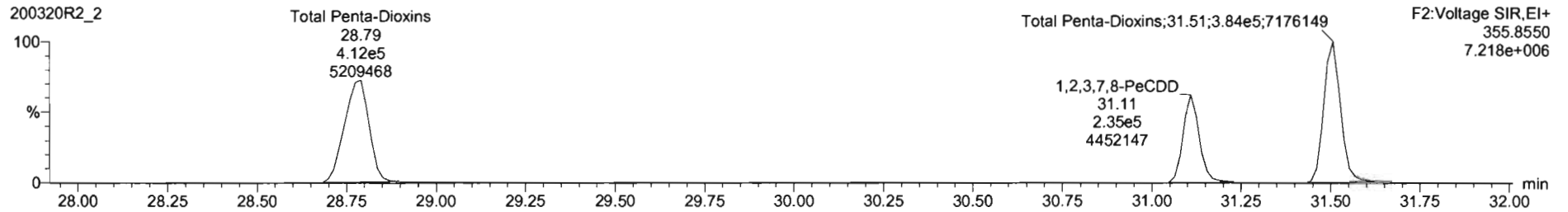
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**1,2,3,7,8-PeCDD**

200320R2\_2

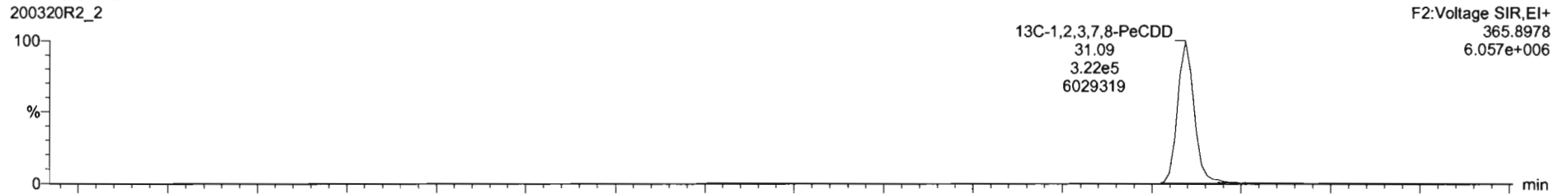


200320R2\_2

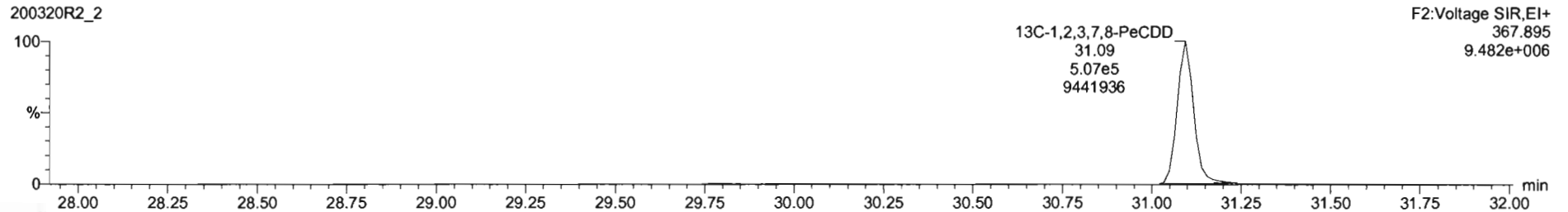


**13C-1,2,3,7,8-PeCDD**

200320R2\_2



200320R2\_2





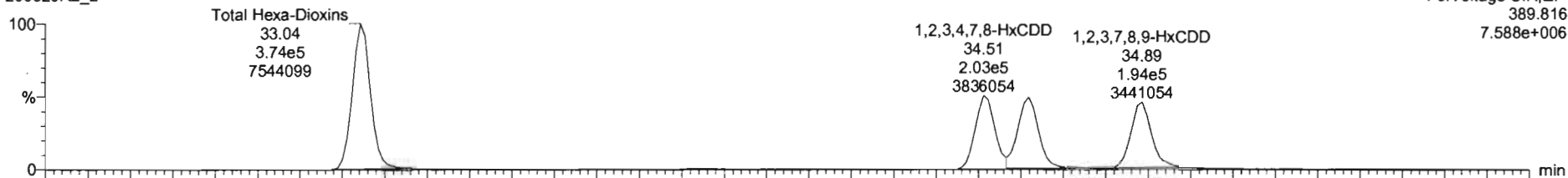
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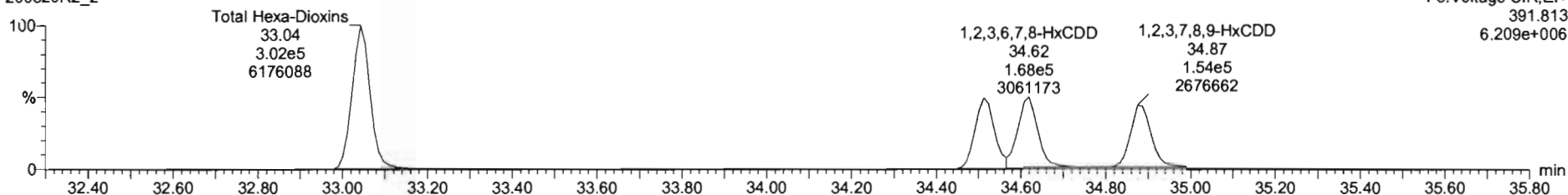
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**1,2,3,4,7,8-HxCDD**

200320R2\_2

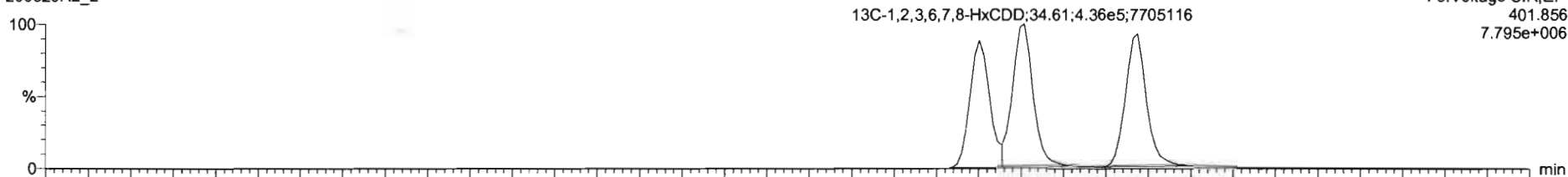


200320R2\_2

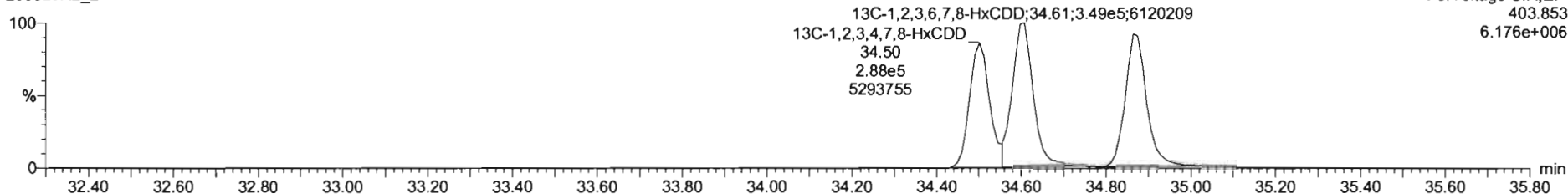


**<sup>13</sup>C-1,2,3,4,7,8-HxCDD**

200320R2\_2



200320R2\_2



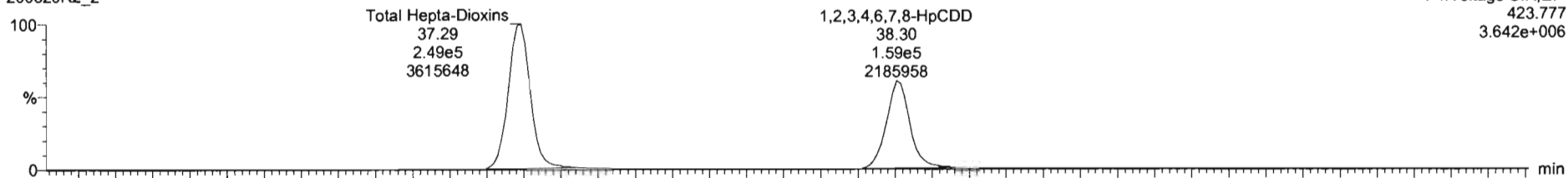
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Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

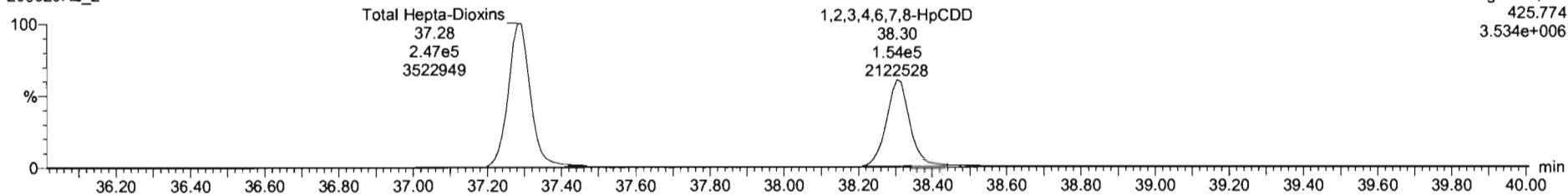
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1,2,3,4,6,7,8-HpCDD

200320R2\_2

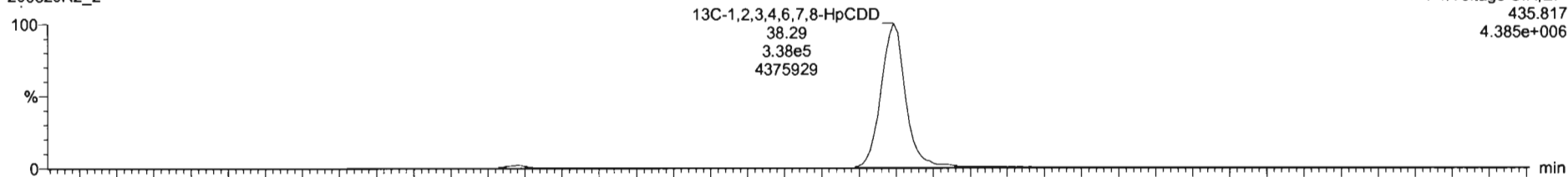


200320R2\_2

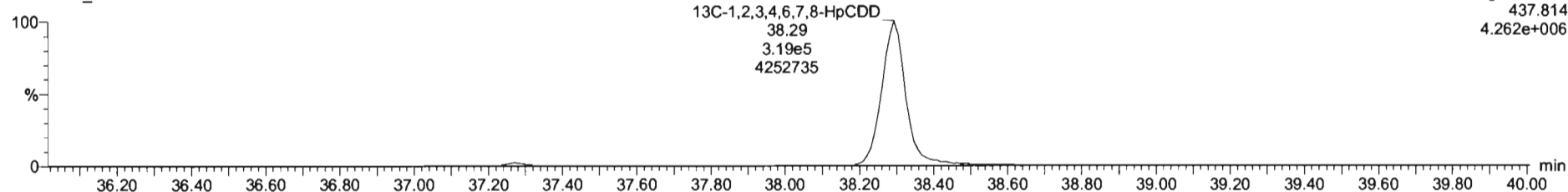


13C-1,2,3,4,6,7,8-HpCDD

200320R2\_2



200320R2\_2



Dataset: Untitled

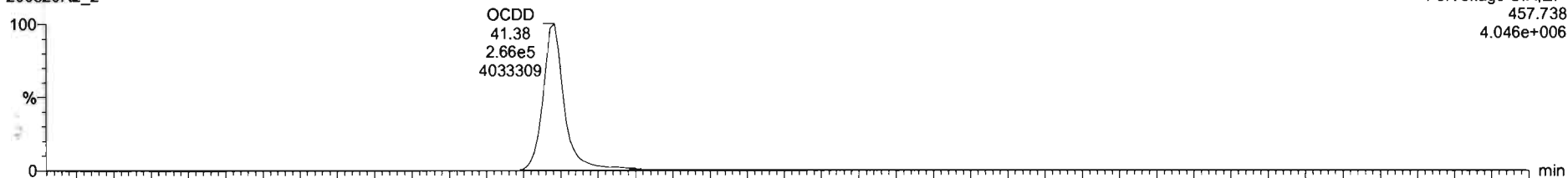
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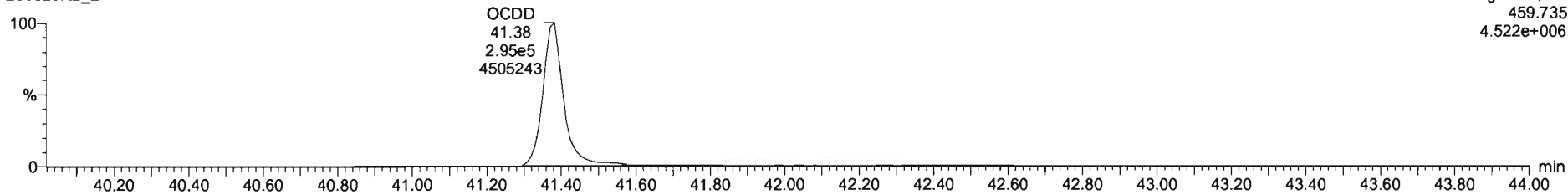
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**OCDD**

200320R2\_2

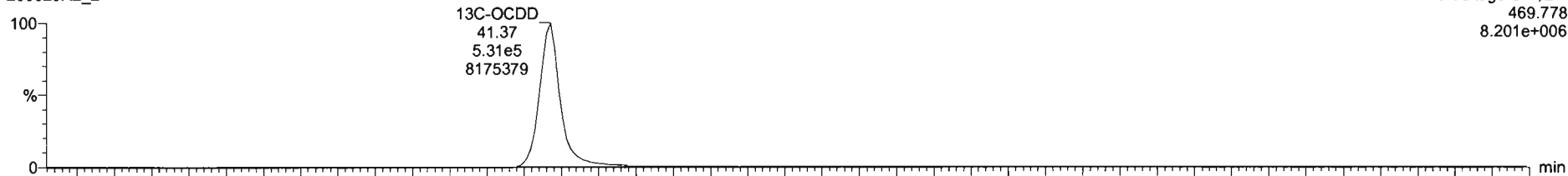


200320R2\_2

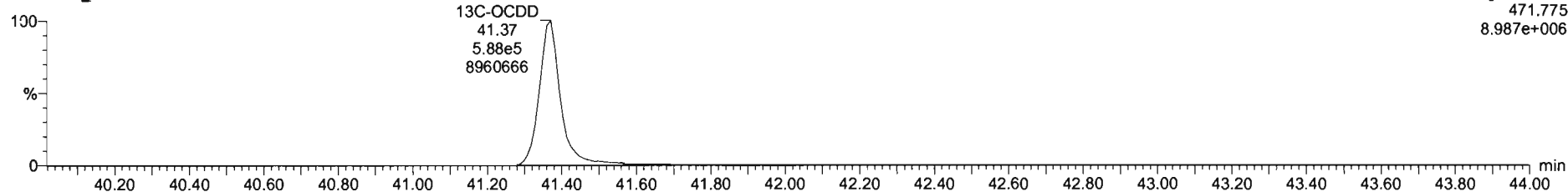


**13C-OCDD**

200320R2\_2



200320R2\_2

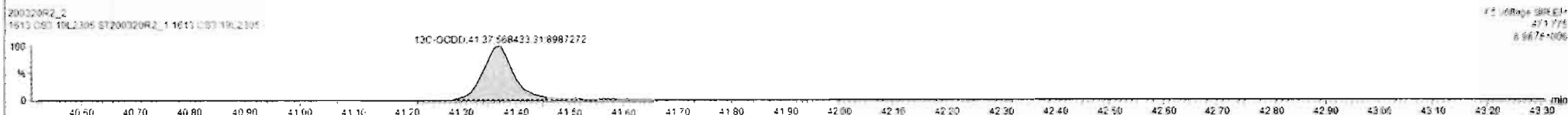
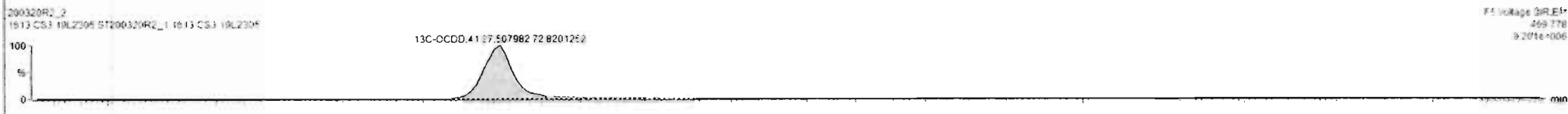
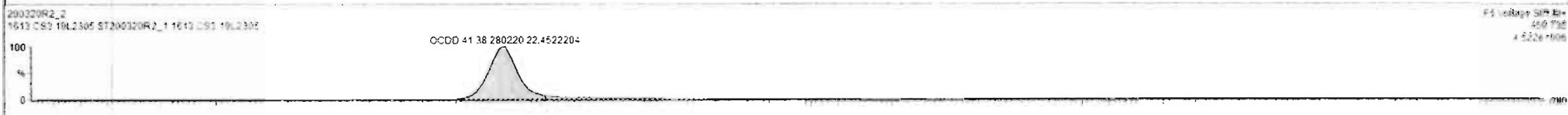


TargetLynx - 200320R2\_2.qd - Chromatogram

File Edit View Display Processing Window Help

200320R2\_2 - ST200320R2\_1 1613 CS3 19L2305 - 1613 CS3 19L2305

#	Name	Resp	IS Resp	Pred RA	RA	nLy	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	2,3,7,8-TCDD	1.05e5	1.15e6	0.77	0.77	NO	0.5835	25.81	25.81	NO	1.001	1.001	9.25	92.5	NO
2	1,2,3,7,8-PeCDD	3.81e5	8.29e5	0.63	0.62	NO	0.5212	31.12	31.11	NO	1.001	1.000	56.0	95.9	NO
3	1,2,3,4,7,8-HxCDD	3.64e5	6.58e5	1.24	1.26	NO	1.1325	34.51	34.51	NO	1.000	1.000	48.8	97.6	NO
4	1,2,3,6,7,8-HxCDD	3.81e5	7.85e5	1.24	1.26	NO	0.9844	34.81	34.82	NO	1.000	1.000	49.2	96.5	NO
5	1,2,3,7,8,9-HxCDD	3.48e5	7.25e5	1.24	1.26	NO	0.9874	34.88	34.88	NO	1.000	1.000	49.0	98.0	NO
6	1,2,3,4,6,7,8-HpCDD	3.13e5	6.57e5	1.54	1.03	NO	1.0061	36.31	36.30	NO	1.000	1.000	47.3	94.6	NO
7	OCDD	5.31e5	1.08e6	0.89	0.89	NO	1.0515	41.37	41.38	NO	1.000	1.000	93.5	93.8	NO
8	2,3,7,8-TCDF	1.38e5	1.62e6	0.77	0.76	NO	0.5154	24.80	24.81	NO	1.001	1.001	9.35	93.5	NO
9	1,2,3,7,8-PeCDF	8.01e5	1.26e6	1.55	1.52	NO	0.9594	29.78	29.76	NO	1.001	1.000	49.8	99.5	NO
10	2,3,4,7,8-PeCDF	8.03e5	1.21e6	1.55	1.58	NO	1.0035	30.81	30.79	NO	1.001	1.000	49.7	99.5	NO
11	1,2,3,4,7,8-HxCDF	4.74e5	9.44e5	1.24	1.23	NO	1.0381	33.85	33.86	NO	1.000	1.000	48.4	96.8	NO
12	1,2,3,6,7,8-HxCDF	5.20e5	1.04e6	1.24	1.24	NO	1.0126	33.78	33.79	NO	1.000	1.001	49.3	98.6	NO
13	2,3,4,6,7,8-HxCDF	5.01e5	9.53e5	1.24	1.23	NO	1.0920	34.38	34.35	NO	1.001	1.000	48.1	96.2	NO
14	1,2,3,7,8,9-HxCDF	4.05e5	8.23e5	1.24	1.23	NO	1.0268	35.21	35.23	NO	1.000	1.001	48.0	95.9	NO
15	1,2,3,4,6,7,9-HpCDF	3.80e5	7.81e5	1.54	1.00	NO	1.0483	36.94	36.92	NO	1.001	1.001	47.6	95.2	NO
16	1,2,3,4,7,8,9-HpCDF	3.21e5	5.61e5	1.54	1.02	NO	1.2099	36.94	36.97	NO	1.000	1.000	47.7	94.6	NO
17	OCDF	8.15e5	1.38e6	0.89	0.89	NO	0.9468	41.54	41.56	NO	1.000	1.000	94.6	94.5	NO
18	13C-2,3,7,8-TCDD	1.15e6	9.72e5	0.77	0.79	NO	1.1842	25.79	25.78	NO	1.030	1.026	100	100	NO
19	13C-1,2,3,7,8-PeCDD	8.29e5	9.72e5	0.63	0.63	NO	0.8844	31.10	31.08	NO	1.242	1.241	98.7	98.7	NO
20	13C-1,2,3,4,7,8-HxCDD	6.58e5	5.44e5	1.24	1.26	NO	0.7536	34.50	34.50	NO	1.014	1.014	92.5	92.5	NO



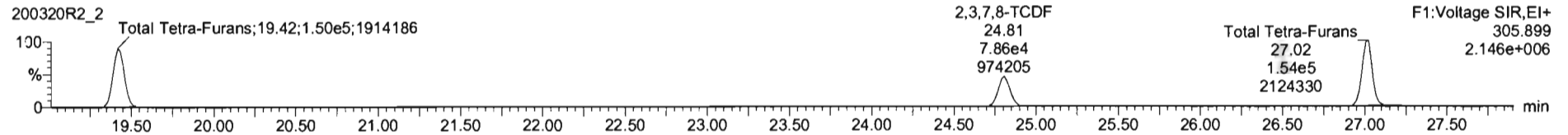
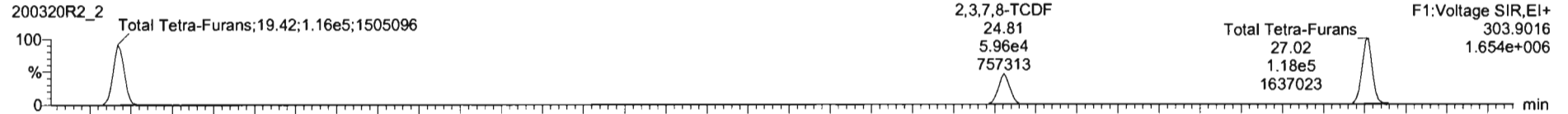
200320R2\_2 CAP NUM

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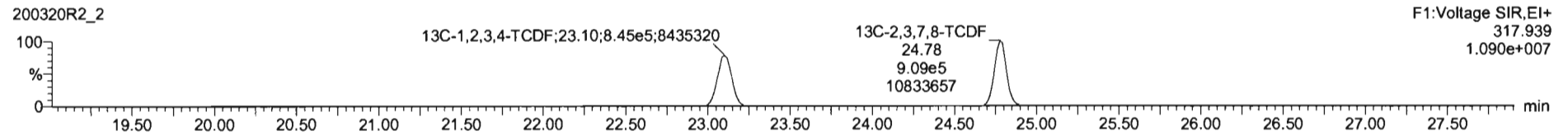
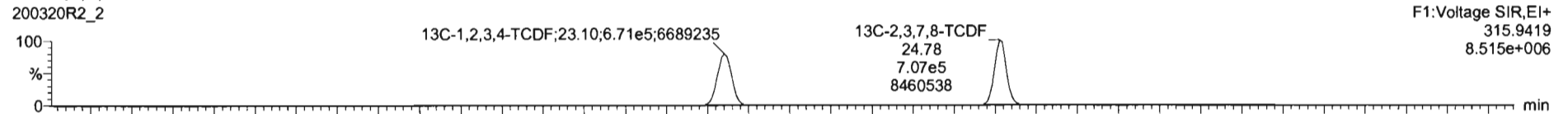
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Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

Name: 200320R2\_2, Date: 21-Mar-2020, Time: 01:54:16, ID: ST200320R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

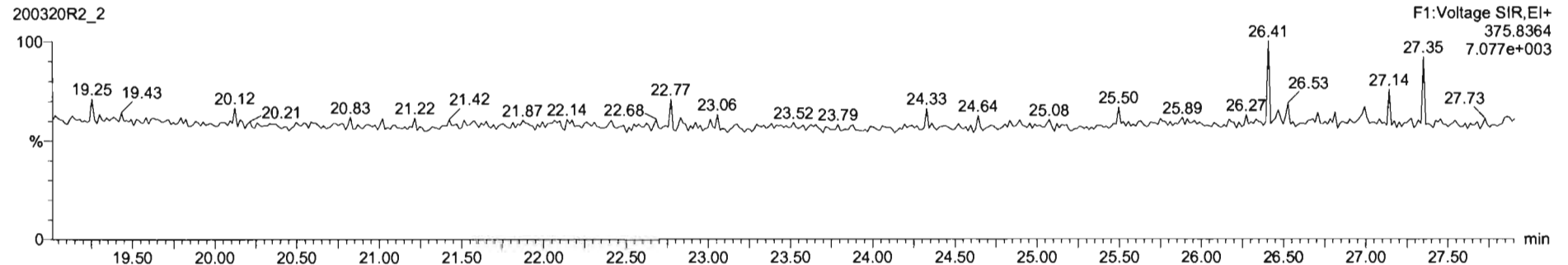
**2,3,7,8-TCDF**



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



**DPE1**



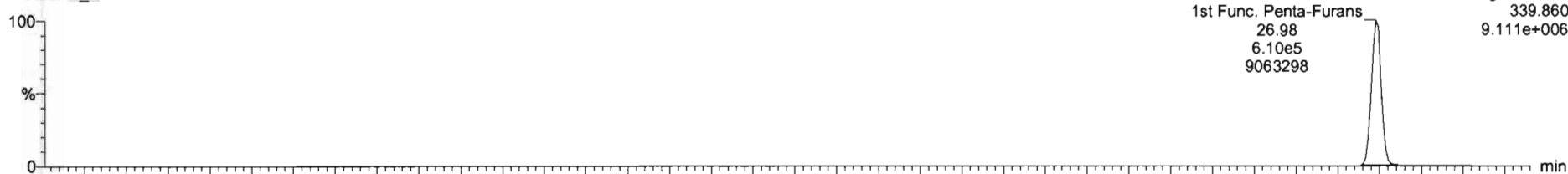
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Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

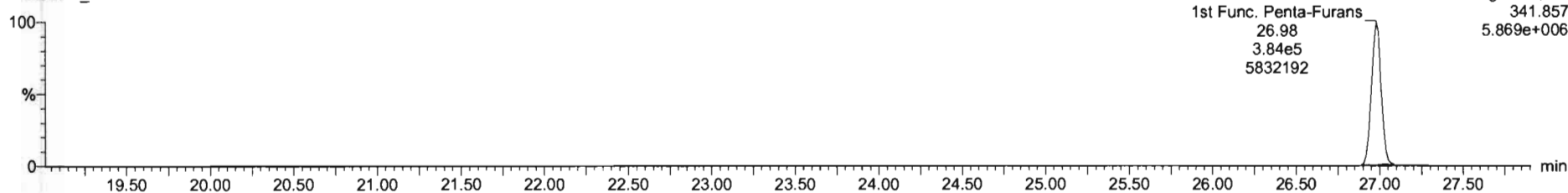
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1st Func. Penta-Furans

200320R2\_2

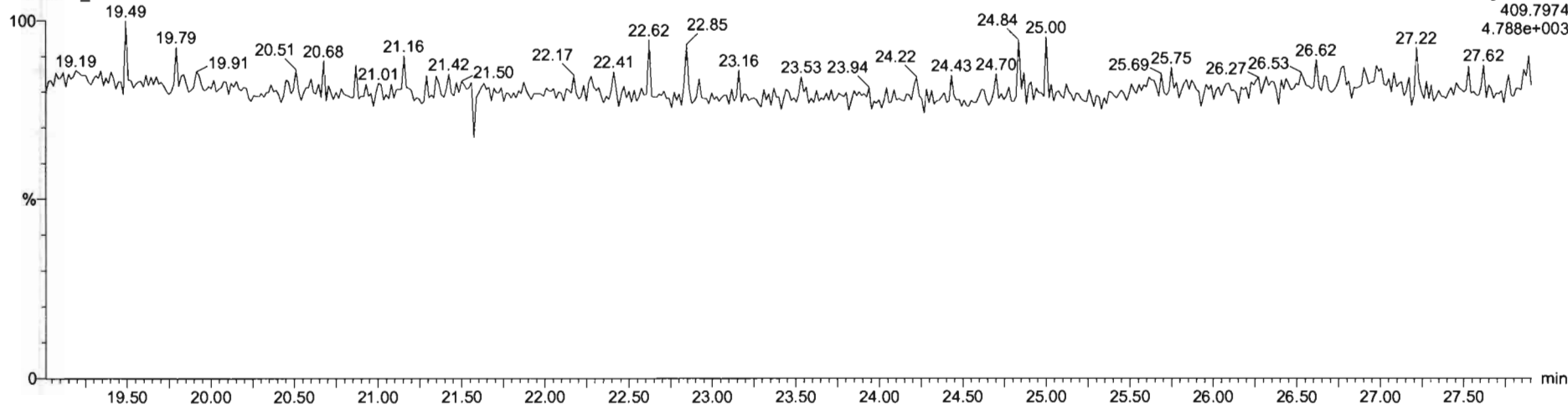


200320R2\_2



DPE6

200320R2\_2

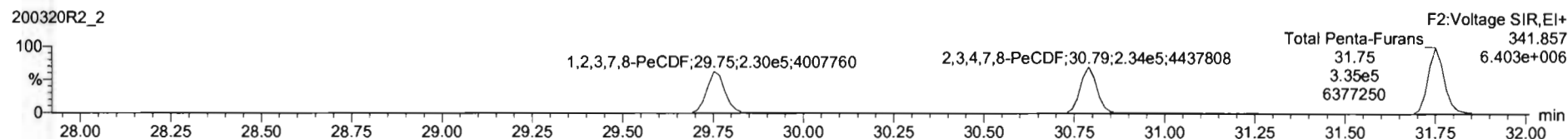
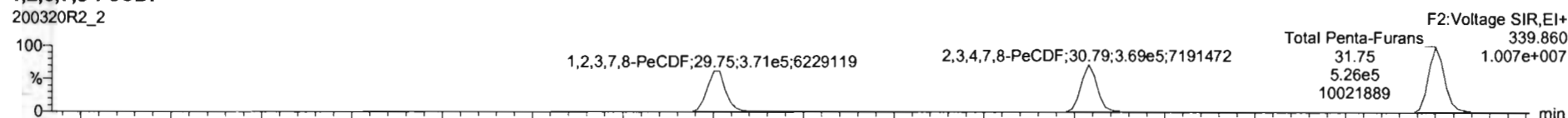


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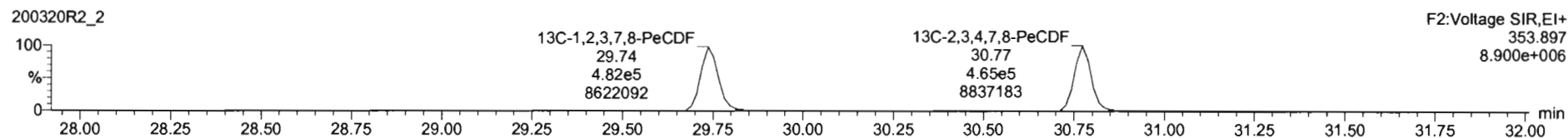
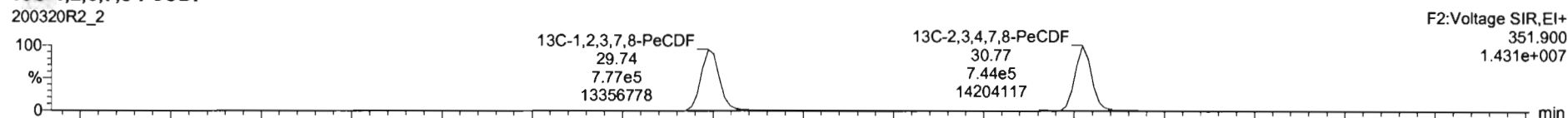
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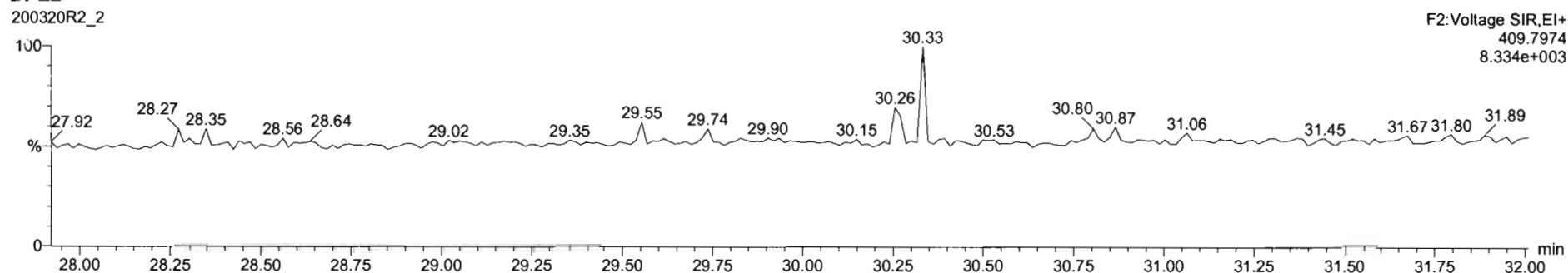
**1,2,3,7,8-PeCDF**



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



**DPE2**

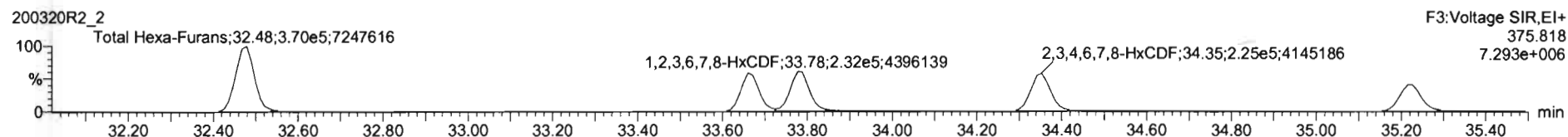
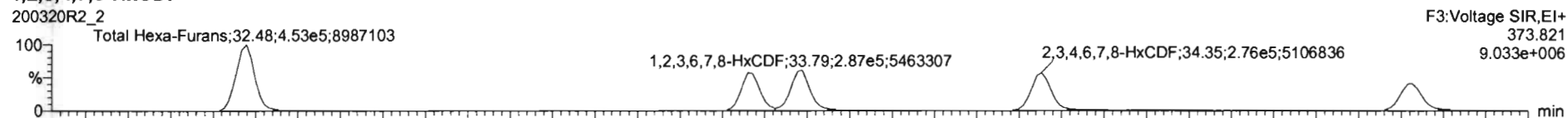


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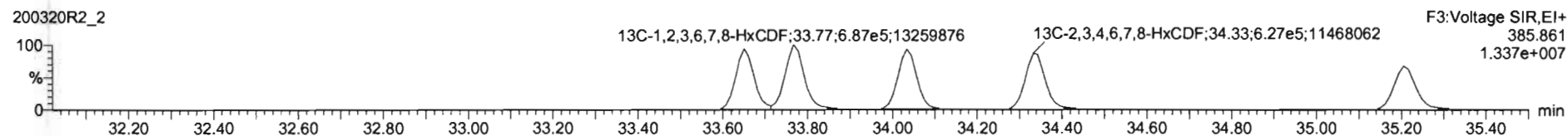
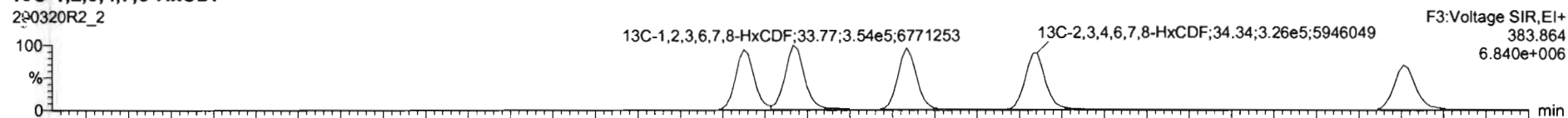
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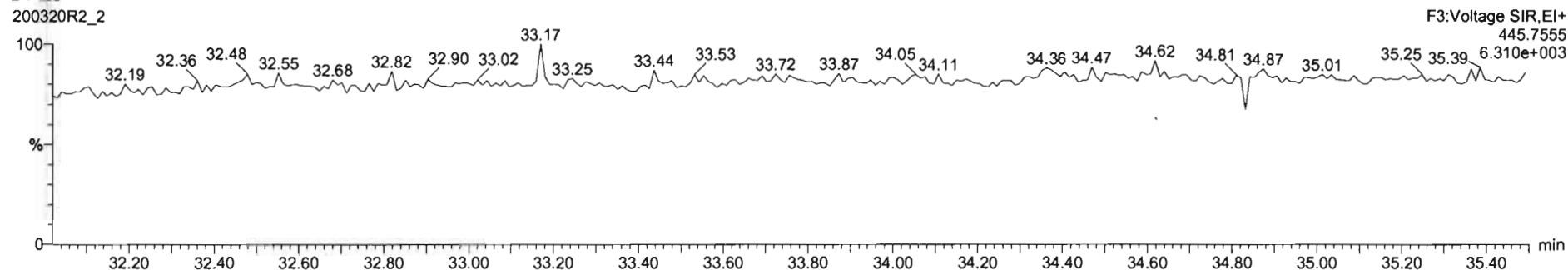
**1,2,3,4,7,8-HxCDF**



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



**DPE3**





Dataset: Untitled

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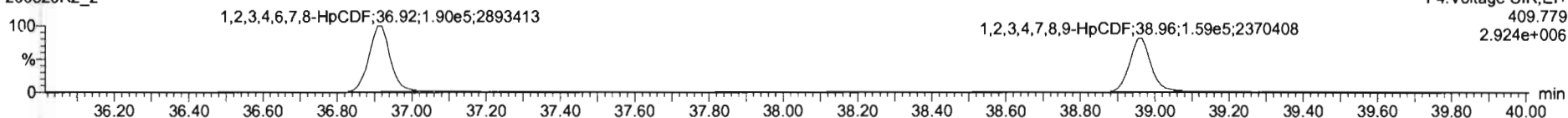
**1,2,3,4,6,7,8-HpCDF**

200320R2\_2



F4: Voltage SIR, EI+  
407.782  
2.923e+006

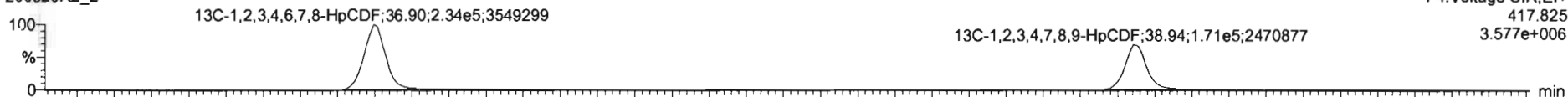
200320R2\_2



F4: Voltage SIR, EI+  
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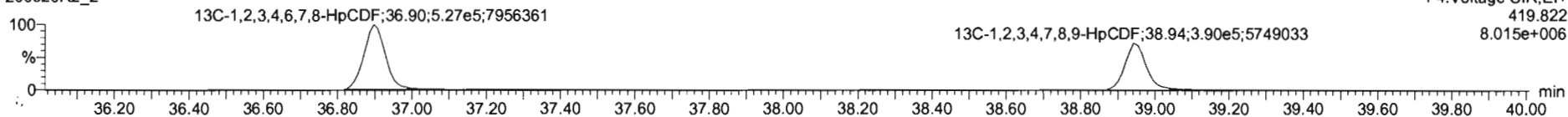
**13C-1,2,3,4,6,7,8-HpCDF**

200320R2\_2



F4: Voltage SIR, EI+  
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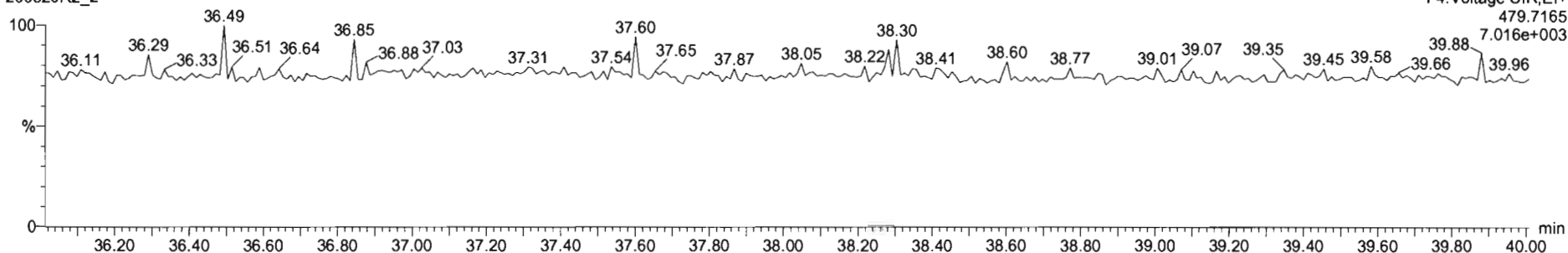
200320R2\_2



F4: Voltage SIR, EI+  
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8.015e+006

**DPE4**

200320R2\_2



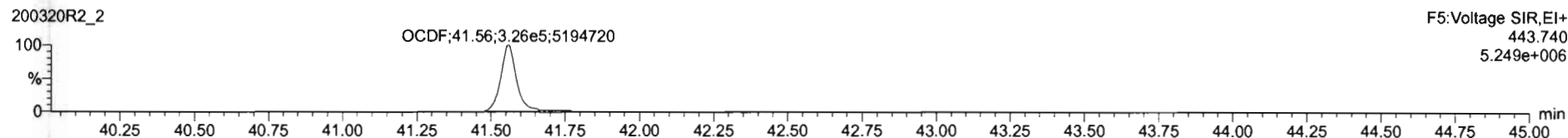
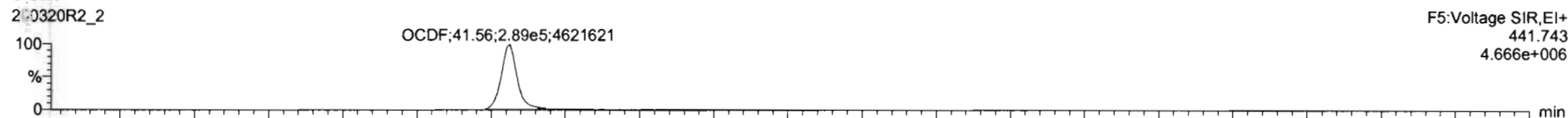
F4: Voltage SIR, EI+  
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7.016e+003

Dataset: Untitled

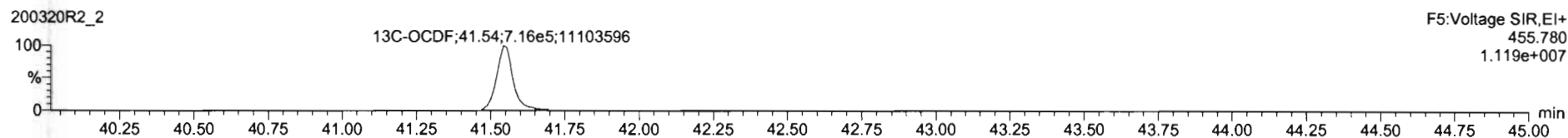
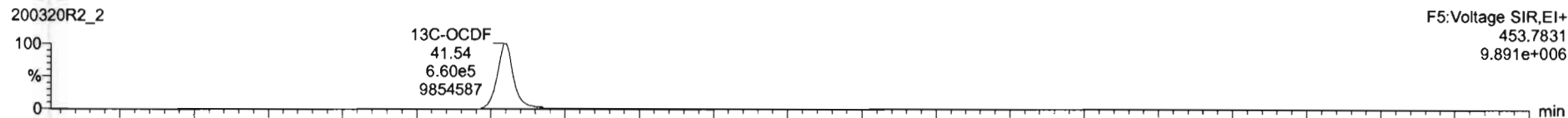
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Printed: Saturday, March 21, 2020 09:56:11 Pacific Daylight Time

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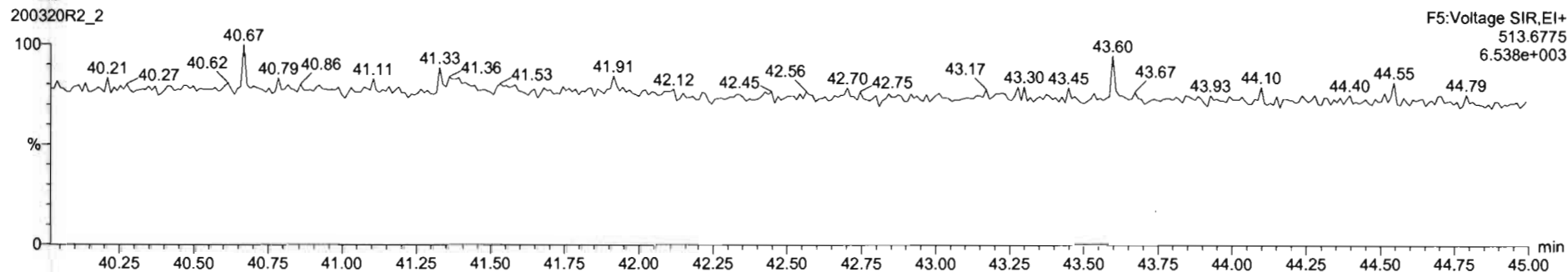
**OCDF**



**13C-OCDF**



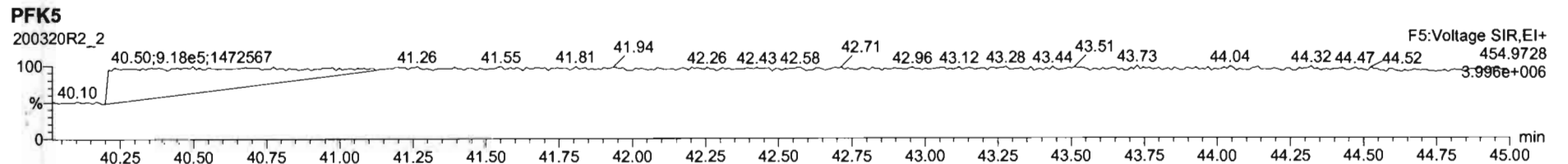
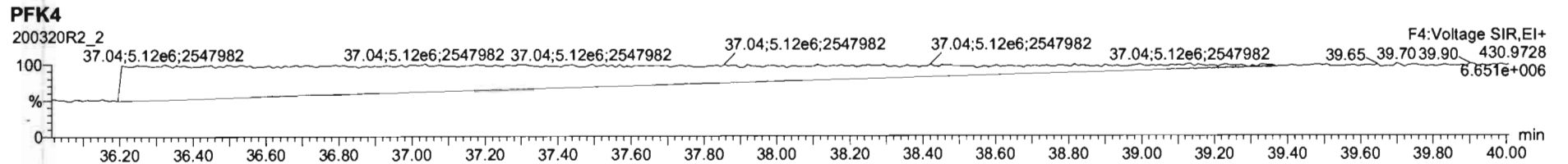
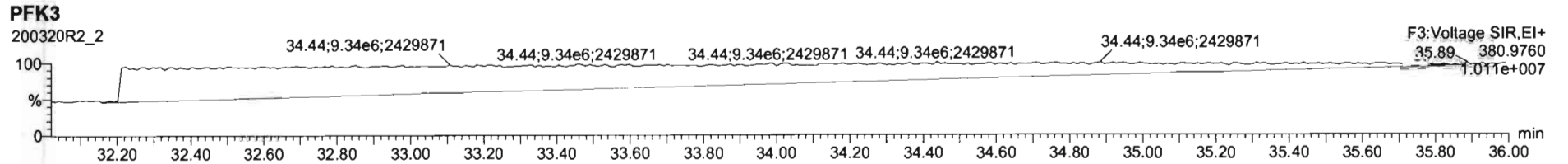
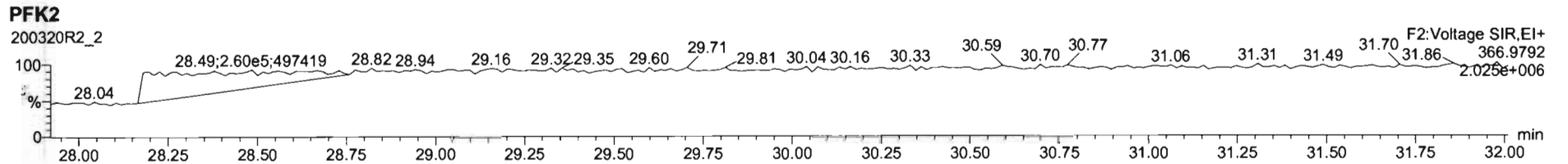
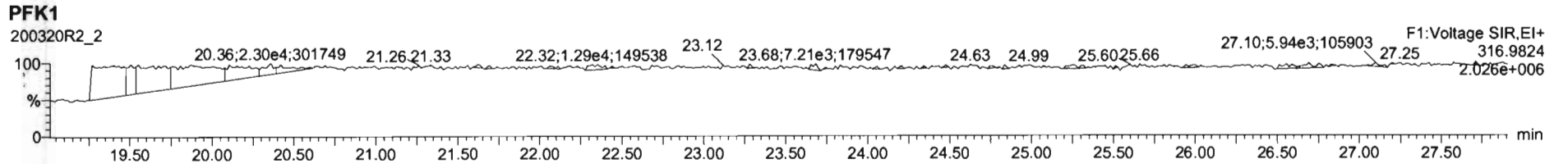
**DPE5**



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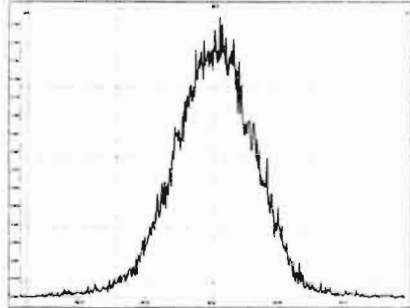
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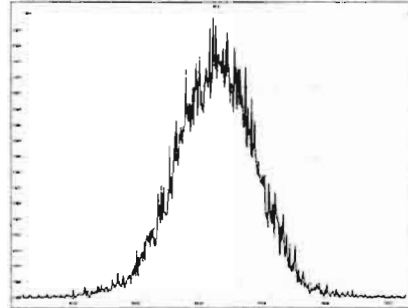


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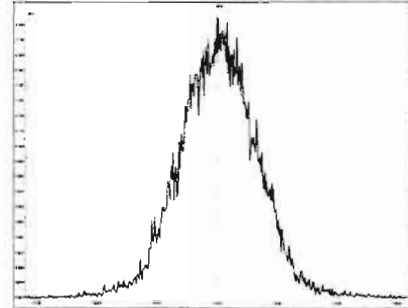
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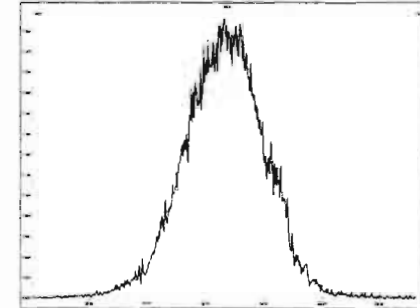
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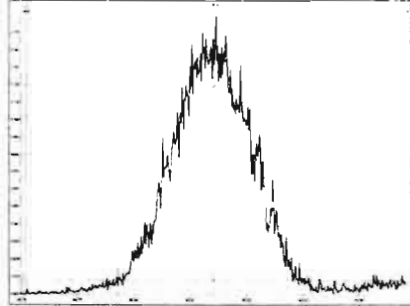
M 318.9792 R 11365



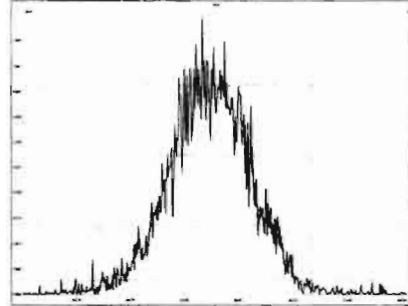
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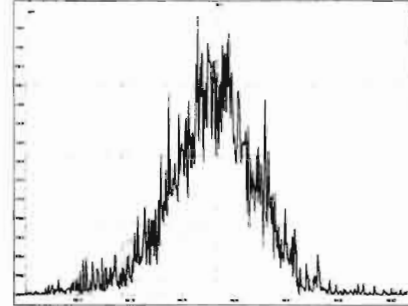
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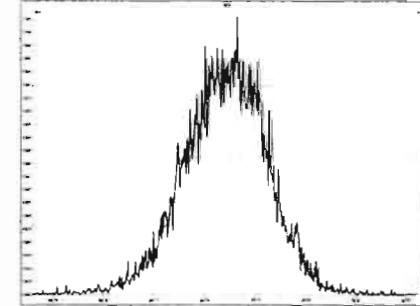
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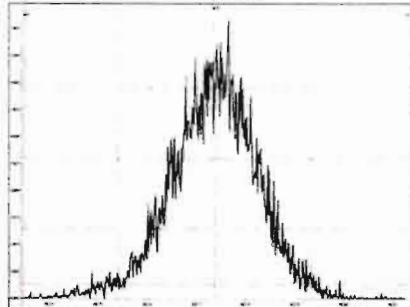
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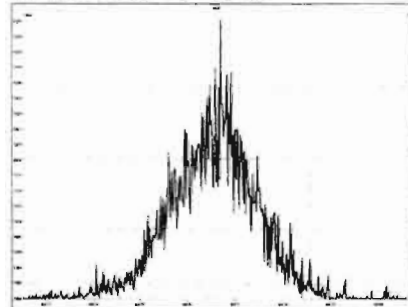
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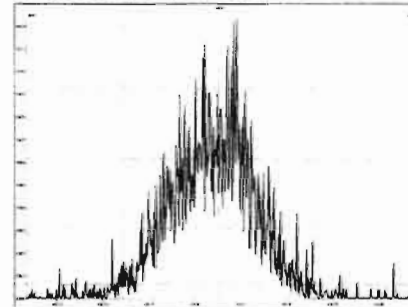
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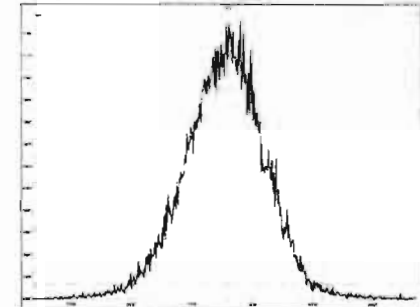
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M 416.9760 R 11937

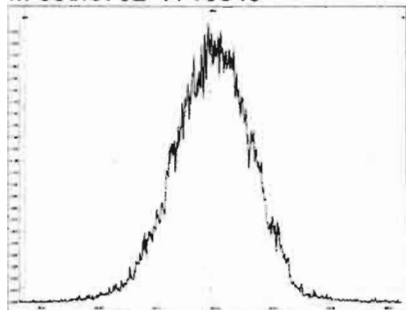


M 318.9792 R 10827

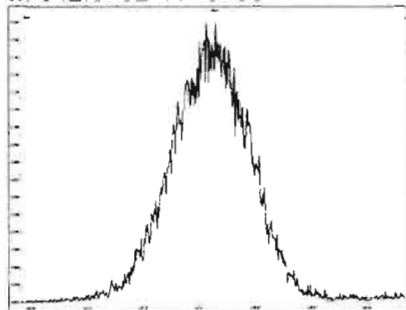


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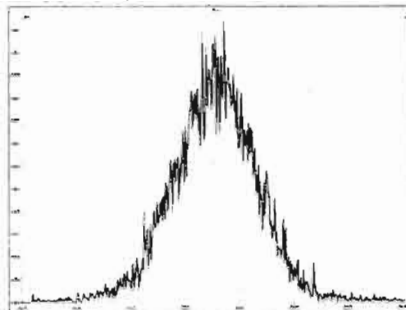
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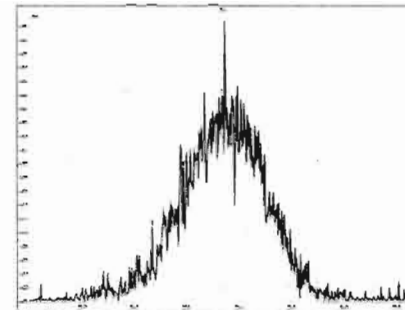
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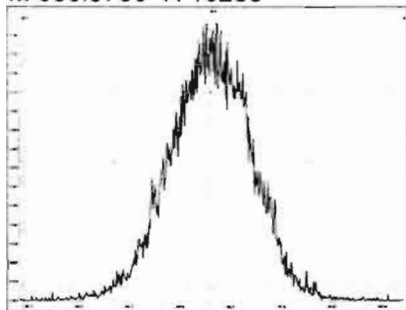
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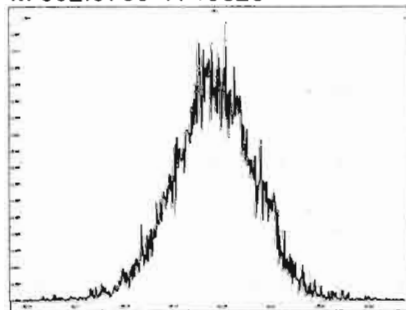
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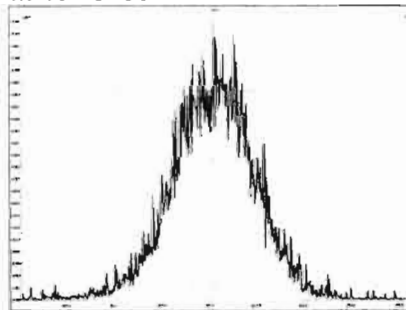
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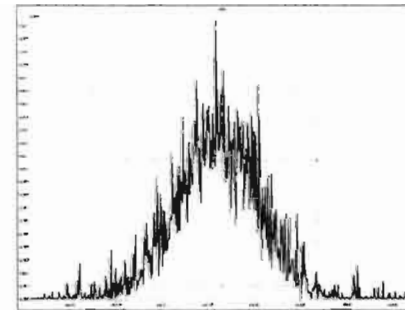
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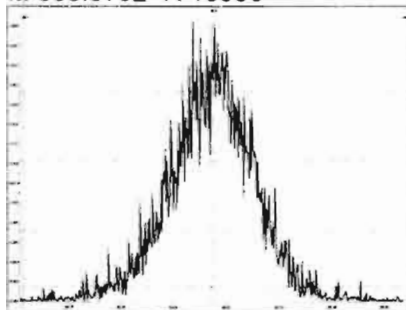
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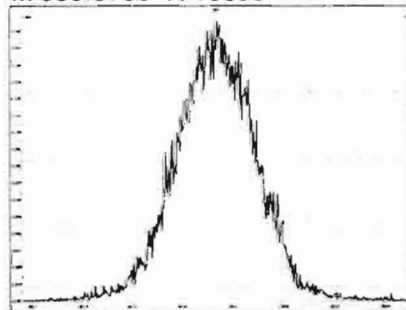
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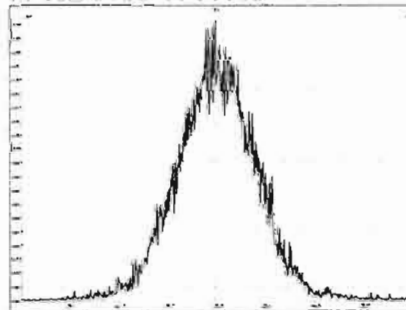
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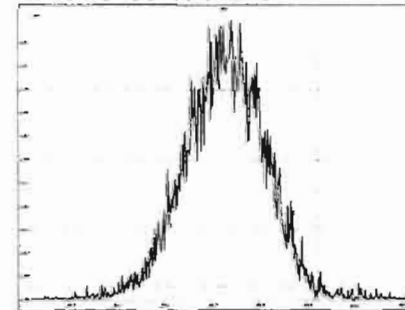
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M 392.9760 R 11166

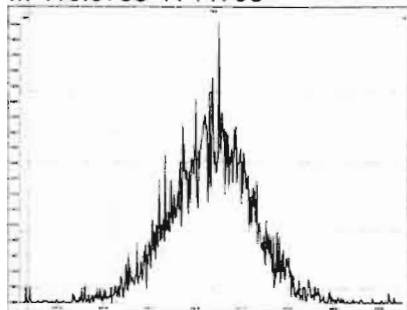


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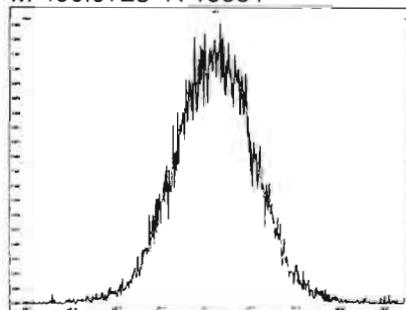


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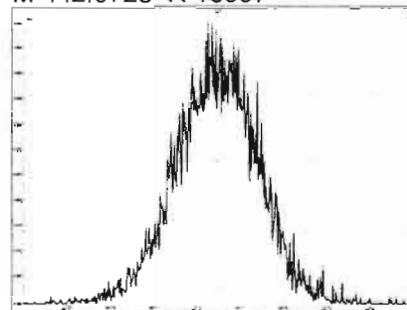
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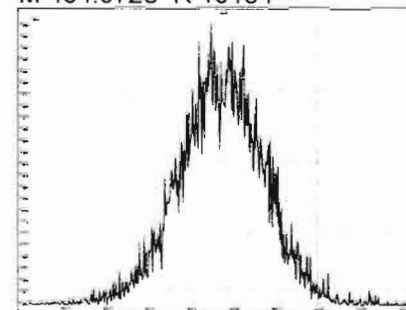
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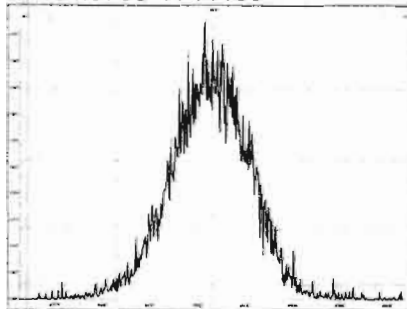
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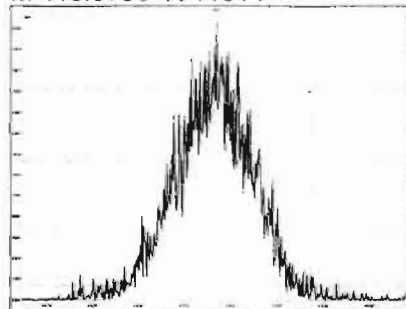
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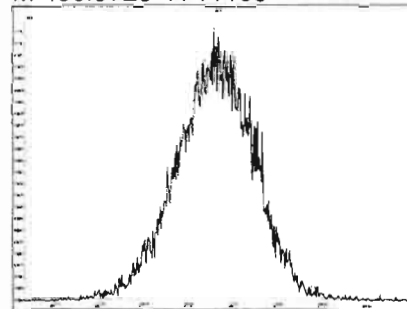
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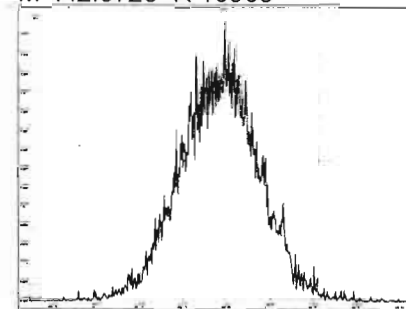
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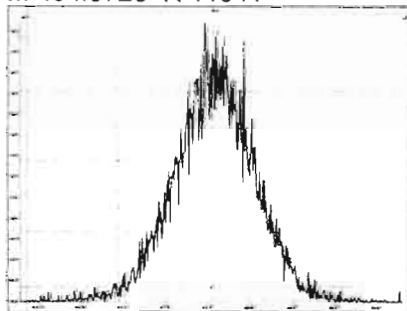
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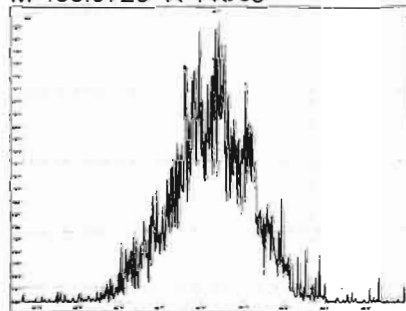
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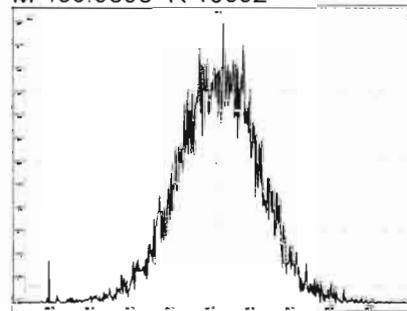
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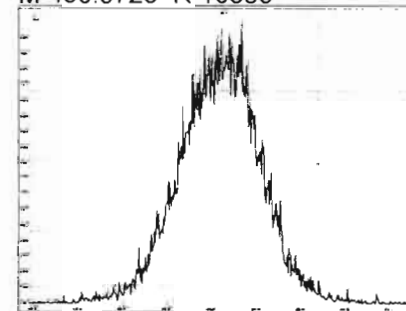
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M 480.9696 R 10992

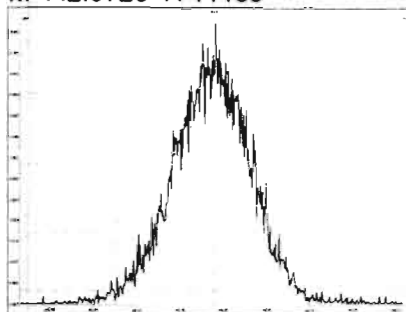


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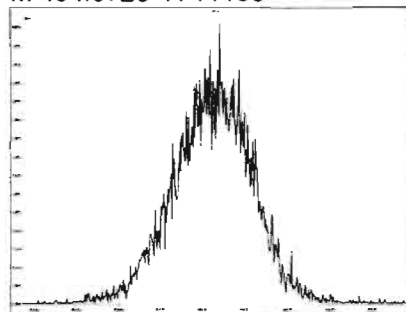


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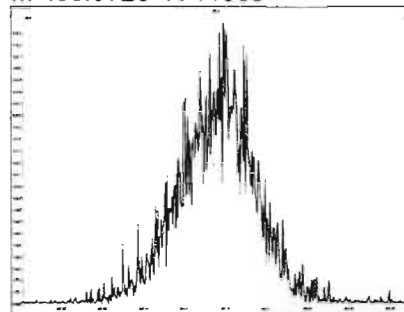
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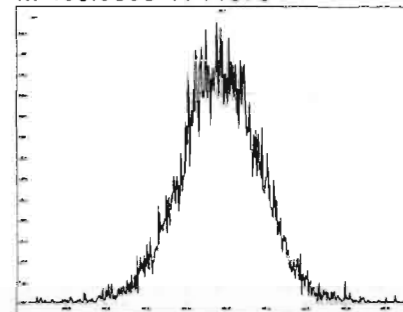
M 454.9728 R 11135



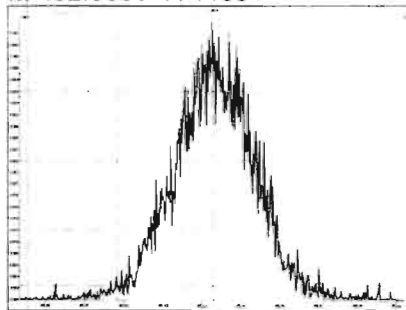
M 466.9728 R 11966



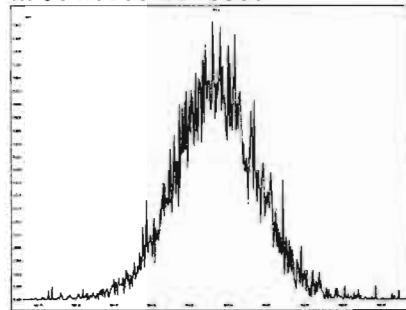
M 480.9696 R 11378



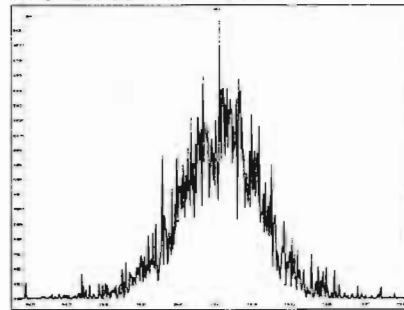
M 492.9696 R 11391



M 504.9696 R 10803



M 516.9697 R 11895







Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_2.qld

Last Altered: Wednesday, March 25, 2020 12:49:22 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 12:50:22 Pacific Daylight Time

DB 3/25/20

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

C 7/03/20/2020

Name: 200325D2\_2, Date: 25-Mar-2020, Time: 12:26:21, ID: ST200325D2-1 1613 CS3 19L2305, Description: 1613 CS3 19I1604

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	6.49e3	0.76	NO	0.982	1.000	17.794	17.79	1.000	1.001	8.5518	85.5 <del>89</del> -120	0.175	8.55
2	2 13C-2,3,7,8-TCDF	7.73e4	0.78	NO	1.08	1.000	17.782	17.77	1.133	1.138	99.616	99.6 <del>71</del> -140	0.530	
3	3 13C-1,2,3,4-TCDF	7.17e4	0.80	NO	1.00	1.000	15.660	15.62	1.000	1.000	100.00	100	0.574	

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, March 25, 2020 17:02:36 Pacific Daylight Time

Printed: Wednesday, March 25, 2020 17:02:49 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

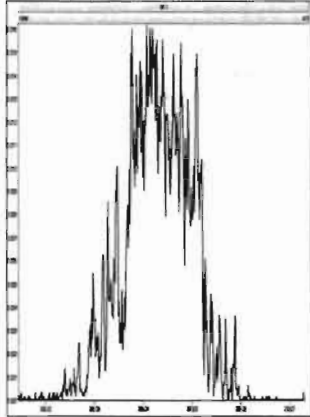
Compound name: 2,3,7,8-TCDF

	Name	ID	Acq.Date	Acq.Time
1	200325D2_1	CP200325D2-1 DB-225 CPSM	25-Mar-20	11:56:11
2	200325D2_2	ST200325D2-1 1613 CS3 19L2305	25-Mar-20	12:26:21
3	200325D2_3	SOLVENT BLANK	25-Mar-20	12:58:03
4	200325D2_4	2000412-08RE1 PDI-082SC-A-06-07-191002 ...	25-Mar-20	13:29:48
5	200325D2_5	2000412-12RE1 PDI-082SC-A-10-11-191002 ...	25-Mar-20	14:01:28
6	200325D2_6	2000412-07RE1 PDI-081SC-A-11-12-191002 ...	25-Mar-20	14:33:11
7	200325D2_7	2000412-10RE1 PDI-082SC-A-08-09-191002 ...	25-Mar-20	15:04:54
8	200325D2_8	2000412-11RE1 PDI-082SC-A-09-10-191002 ...	25-Mar-20	15:36:36
9	200325D2_9	2000412-06RE1 PDI-081SC-A-10-11-191002 ...	25-Mar-20	16:08:19
10	200325D2_10	2000412-09RE1 PDI-082SC-A-07-08-191002 ...	25-Mar-20	16:40:00

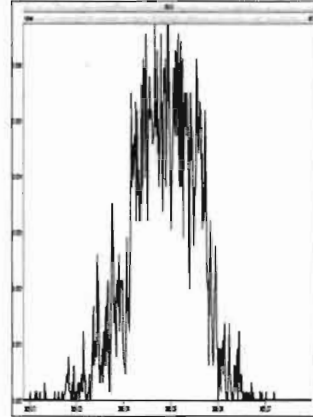
File: Experiment: tcdf\_db225.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Wednesday, March 25, 2020 11:55:22 Pacific Daylight Time

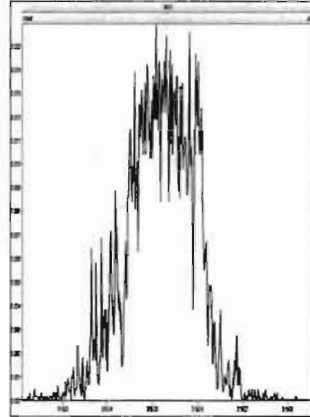
M 292.9824 R 11845



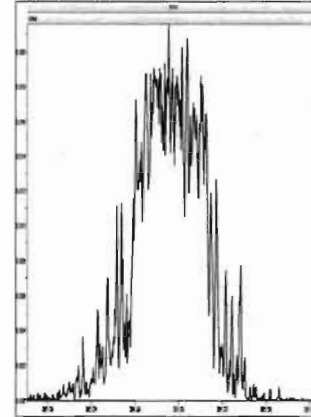
M 304.9824 R 11416



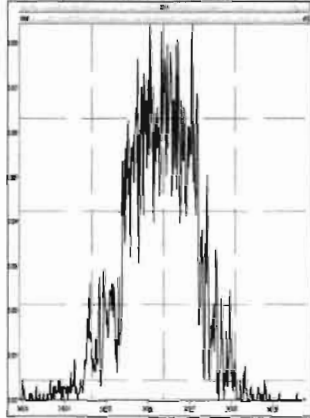
M 318.9792 R 11012



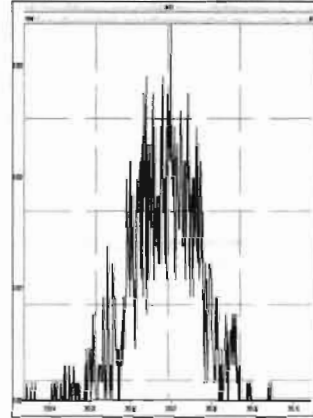
M 330.9792 R 10507



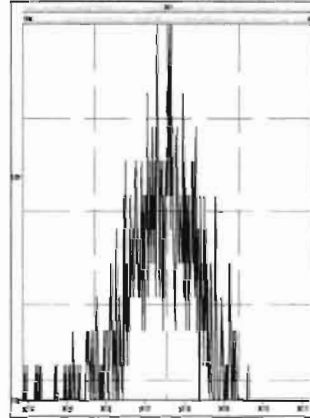
M 342.9792 R 12377



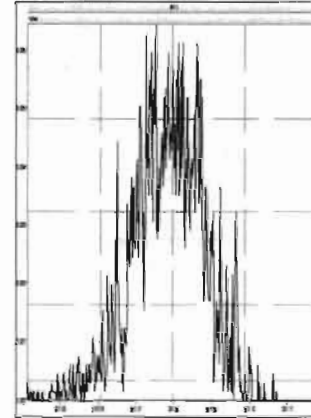
M 354.9792 R 14534

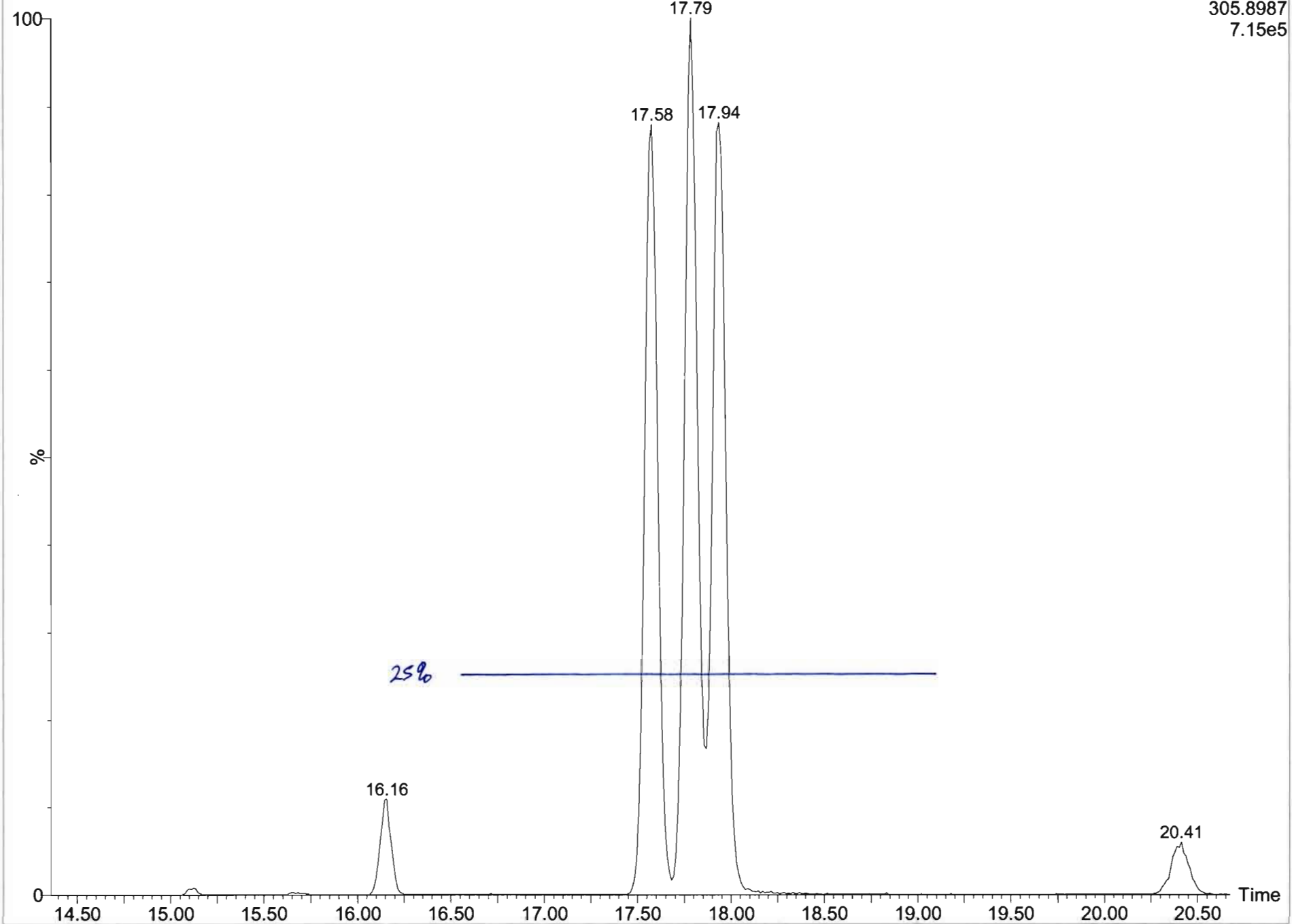


M 366.9792 R 17854



M 380.9760 R 11734





Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_1.qld

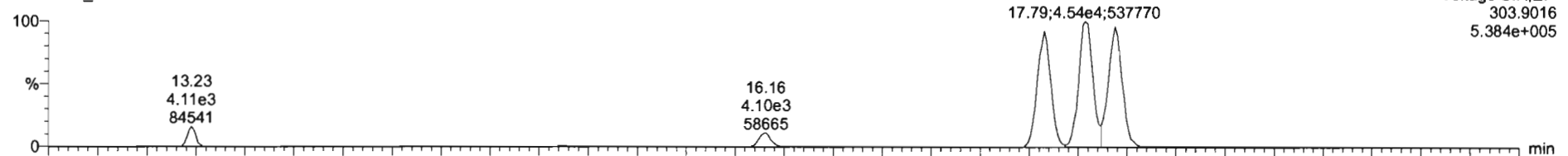
Last Altered: Wednesday, March 25, 2020 12:18:11 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 12:19:27 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

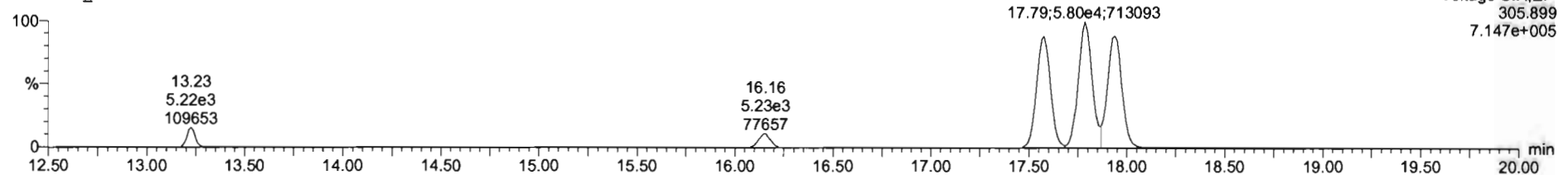
Name: 200325D2\_1, Date: 25-Mar-2020, Time: 11:56:11, ID: CP200325D2-1 DB-225 CPSM, Description: DB-225 CPSM

2,3,7,8-TCDF

200325D2\_1

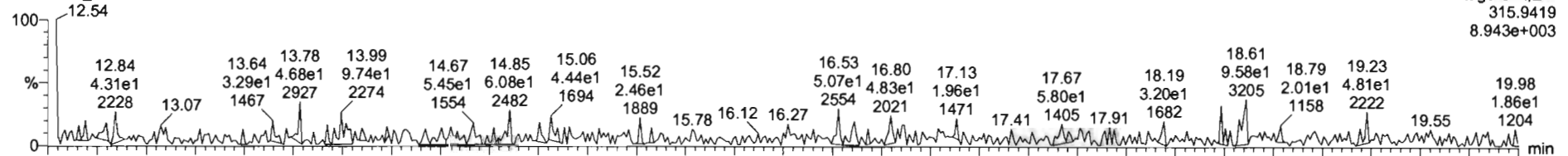


200325D2\_1

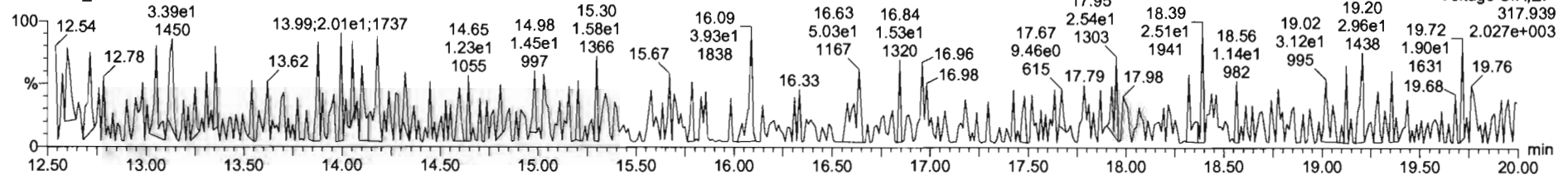


13C-2,3,7,8-TCDF

200325D2\_1



200325D2\_1

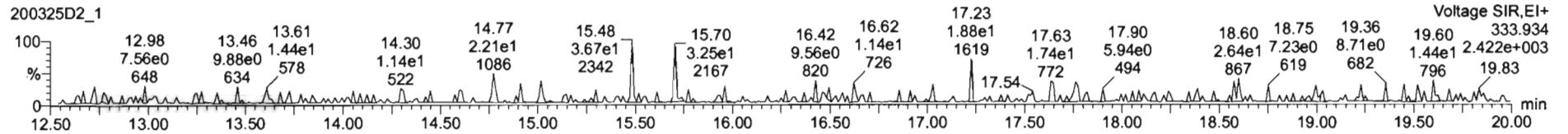
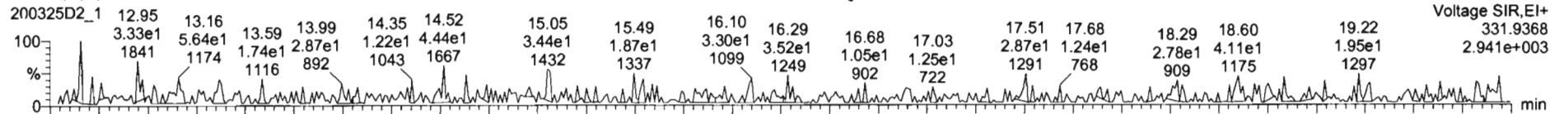


Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_1.qld

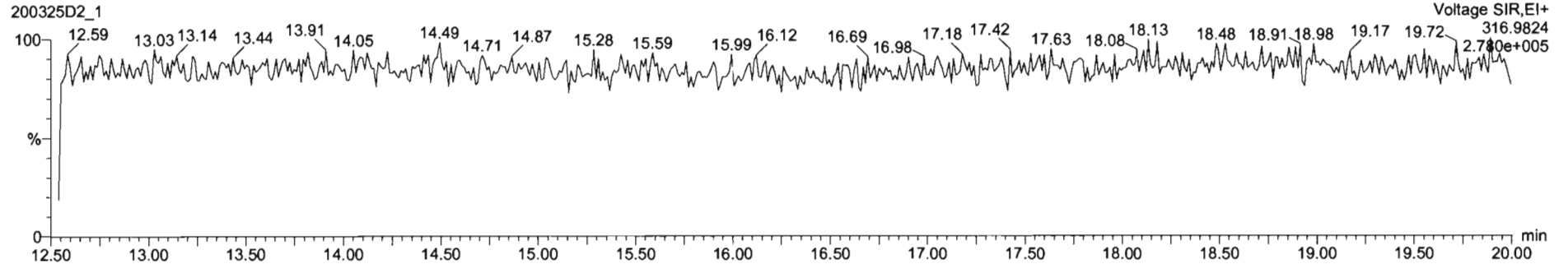
Last Altered: Wednesday, March 25, 2020 12:18:11 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 12:19:27 Pacific Daylight Time

Name: 200325D2\_1, Date: 25-Mar-2020, Time: 11:56:11, ID: CP200325D2-1 DB-225 CPSM, Description: DB-225 CPSM

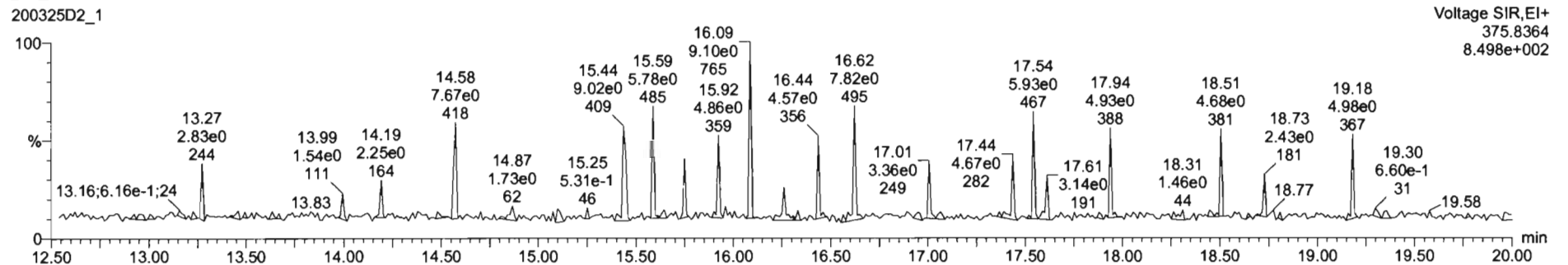
13C-1,2,3,4-TCDD



PFK1



DPE1



Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_2.qld

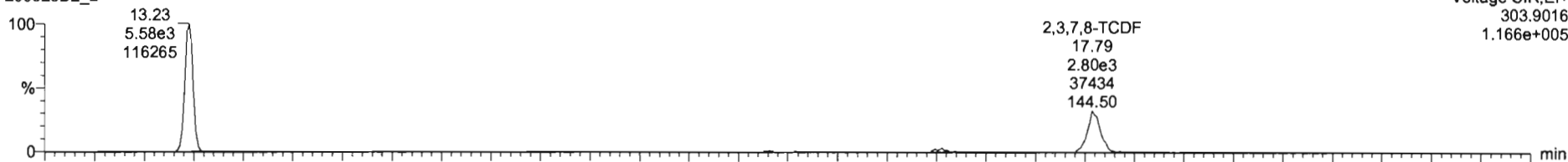
Last Altered: Wednesday, March 25, 2020 12:49:22 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 12:50:41 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200325D2\_2, Date: 25-Mar-2020, Time: 12:26:21, ID: ST200325D2-1 1613 CS3 19L2305, Description: 1613 CS3 19I1604

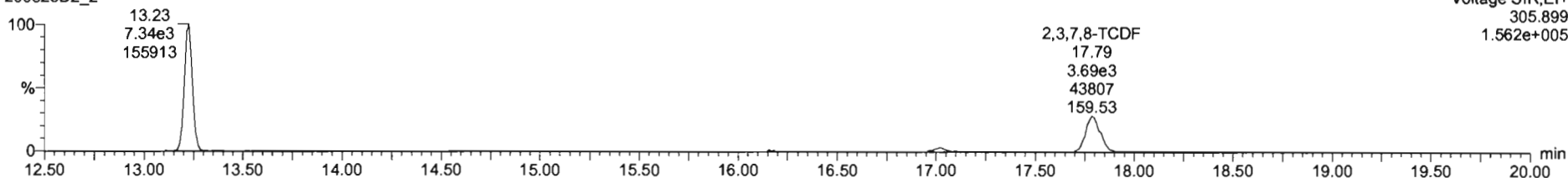
2,3,7,8-TCDF

200325D2\_2



Voltage SIR,EI+  
303.9016  
1.166e+005

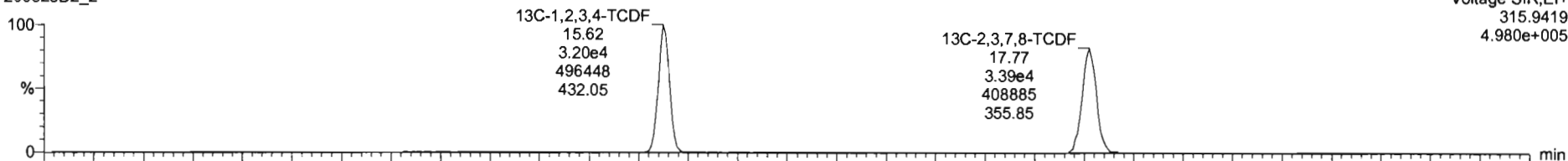
200325D2\_2



Voltage SIR,EI+  
305.899  
1.562e+005

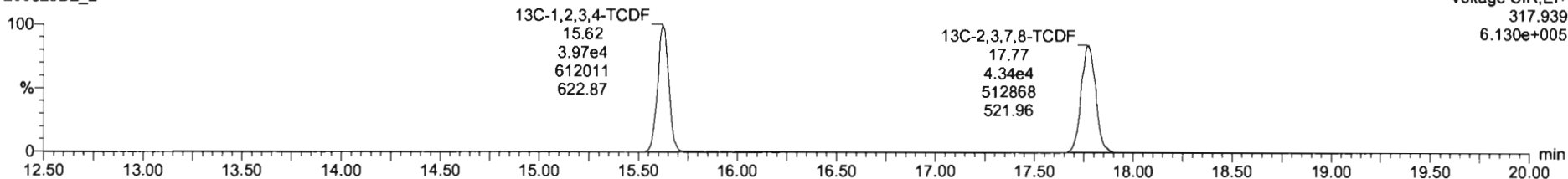
13C-2,3,7,8-TCDF

200325D2\_2



Voltage SIR,EI+  
315.9419  
4.980e+005

200325D2\_2



Voltage SIR,EI+  
317.939  
6.130e+005

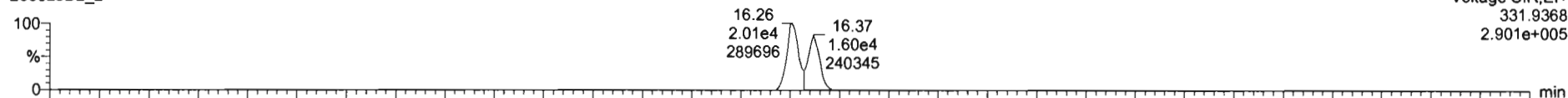
Dataset: U:\VG7.PRO\Results\200325D2\200325D2\_2.qld

Last Altered: Wednesday, March 25, 2020 12:49:22 Pacific Daylight Time  
Printed: Wednesday, March 25, 2020 12:50:41 Pacific Daylight Time

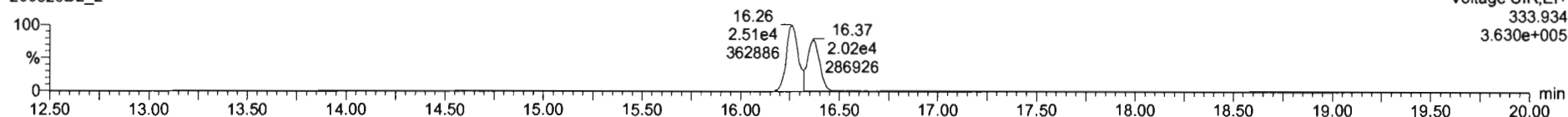
Name: 200325D2\_2, Date: 25-Mar-2020, Time: 12:26:21, ID: ST200325D2-1 1613 CS3 19L2305, Description: 1613 CS3 19I1604

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

200325D2\_2

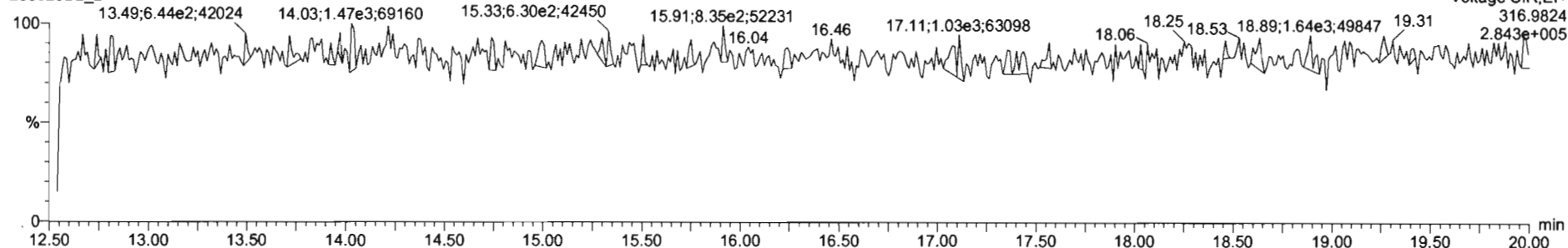


200325D2\_2



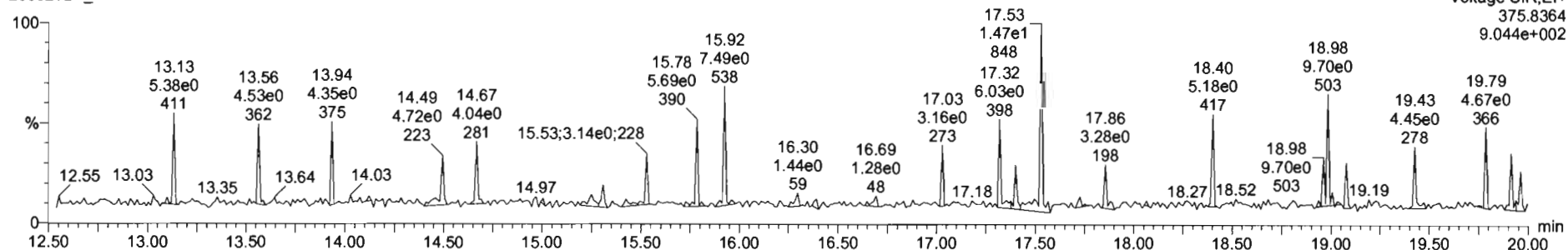
PFK1

200325D2\_2



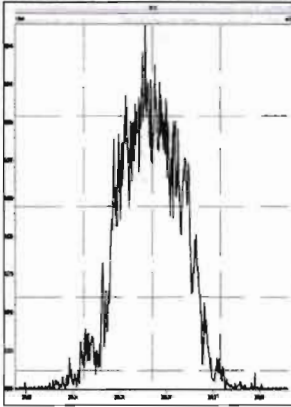
DPE1

200325D2\_2

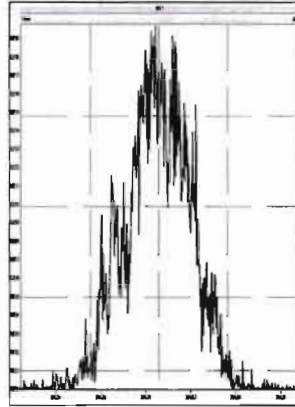




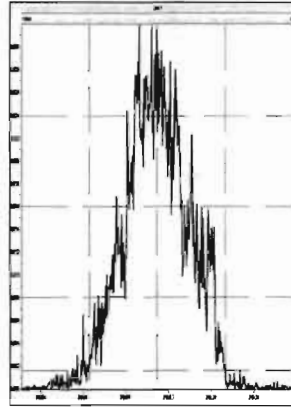
M 292.9824 R 11089



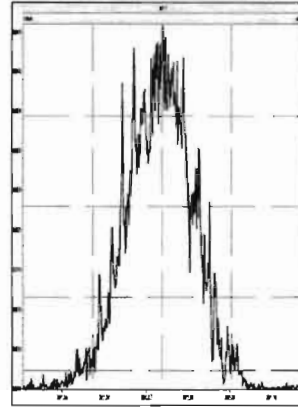
M 304.9824 R 10799



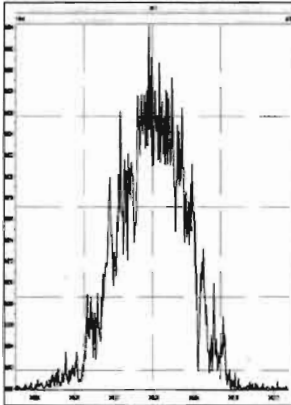
M 318.9792 R 10399



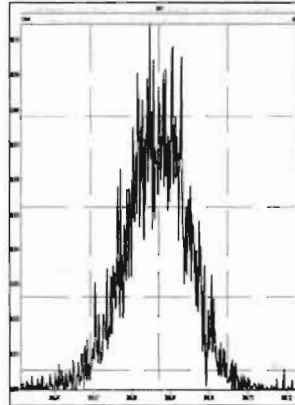
M 330.9792 R 10536



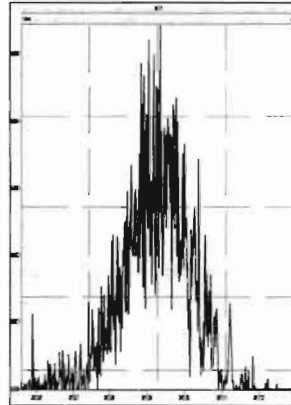
M 342.9792 R 10008



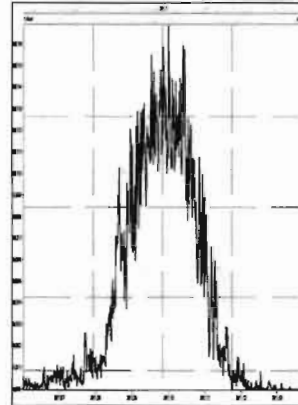
M 354.9792 R 11018



M 366.9792 R 12948



M 380.9760 R 9994



## **INITIAL CALIBRATION**

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

*GRB 03/09/2020*

*C1 03/09/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 11:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

Response Factor: 0.983462

RRF SD: 0.0620764, Relative SD: 6.31202

Response type: Internal Std ( Ref 18 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	0.250	0.88	NO	25.83	1.001	2.55e3	1.02e6	0.255	1.8	1.00	MM
2	200306R2_2	0.500	0.79	NO	25.80	1.001	5.56e3	1.04e6	0.545	9.0	1.07	bb
3	200306R2_3	2.00	0.77	NO	25.81	1.001	2.04e4	9.83e5	2.11	5.3	1.04	bb
4	200306R2_4	10.0	0.80	NO	25.81	1.001	1.07e5	1.15e6	9.48	-5.2	0.933	db
5	200306R2_5	40.0	0.77	NO	25.80	1.001	4.79e5	1.30e6	37.6	-5.9	0.925	bb
6	200306R2_6	300	0.79	NO	25.80	1.001	3.75e6	1.34e6	285	-5.0	0.934	bb

Compound name: 1,2,3,7,8-PeCDD

Response Factor: 0.921241

RRF SD: 0.0620739, Relative SD: 6.73807

Response type: Internal Std ( Ref 19 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	0.68	NO	31.00	1.000	7.57e3	7.13e5	1.15	-7.8	0.849	MM
2	200306R2_2	2.50	0.65	NO	30.97	1.000	1.74e4	6.98e5	2.70	8.2	0.996	bb
3	200306R2_3	10.0	0.68	NO	30.99	1.000	6.63e4	6.63e5	10.8	8.5	0.999	bb
4	200306R2_4	50.0	0.63	NO	30.99	1.000	3.98e5	9.00e5	48.0	-4.0	0.884	bb
5	200306R2_5	200	0.63	NO	30.99	1.000	1.71e6	9.49e5	195	-2.4	0.899	bb
6	200306R2_6	1500	0.63	NO	30.99	1.000	1.46e7	1.08e6	1460	-2.3	0.900	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 1,2,3,4,7,8-HxCDD**

Response Factor: 1.13254

RRF SD: 0.050207, Relative SD: 4.43315

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	200306R2_1	1.25	1.29	NO	34.40	1.001	7.33e3	5.37e5	1.21	-3.6	1.09	bd
2	200306R2_2	2.50	1.25	NO	34.37	1.001	1.58e4	5.23e5	2.66	6.4	1.21	bd
3	200306R2_3	10.0	1.25	NO	34.37	1.000	5.85e4	4.95e5	10.4	4.4	1.18	bd
4	200306R2_4	50.0	1.24	NO	34.38	1.001	3.69e5	6.79e5	48.0	-4.0	1.09	bd
5	200306R2_5	200	1.24	NO	34.37	1.000	1.50e6	6.81e5	194	-3.0	1.10	bd
6	200306R2_6	1500	1.24	NO	34.38	1.000	1.42e7	8.39e5	1500	-0.3	1.13	bd

**Compound name: 1,2,3,6,7,8-HxCDD**

Response Factor: 0.984449

RRF SD: 0.0570908, Relative SD: 5.79927

Response type: Internal Std ( Ref 21 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.21	NO	34.49	1.000	7.49e3	6.23e5	1.22	-2.3	0.961	MM
2	200306R2_2	2.50	1.23	NO	34.47	1.000	1.71e4	6.45e5	2.69	7.8	1.06	db
3	200306R2_3	10.0	1.24	NO	34.48	1.000	6.35e4	6.06e5	10.6	6.4	1.05	db
4	200306R2_4	50.0	1.26	NO	34.48	1.000	3.94e5	8.29e5	48.3	-3.4	0.951	db
5	200306R2_5	200	1.25	NO	34.47	1.000	1.68e6	8.67e5	197	-1.6	0.969	db
6	200306R2_6	1500	1.24	NO	34.49	1.001	1.45e7	1.05e6	1400	-6.8	0.917	db

**Compound name: 1,2,3,7,8,9-HxCDD**

Response Factor: 0.967395

RRF SD: 0.0672904, Relative SD: 6.95583

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	200306R2_1	1.25	1.19	NO	34.76	1.000	6.08e3	5.57e5	1.13	-9.9	0.872	MM
2	200306R2_2	2.50	1.24	NO	34.74	1.001	1.51e4	5.80e5	2.70	7.9	1.04	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight 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	200306R2_3	10.0	1.23	NO	34.74	1.000	5.71e4	5.46e5	10.8	8.1	1.05	bb
4	200306R2_4	50.0	1.23	NO	34.74	1.000	3.51e5	7.47e5	48.6	-2.9	0.940	bb
5	200306R2_5	200	1.25	NO	34.74	1.000	1.47e6	7.83e5	194	-2.8	0.940	bb
6	200306R2_6	1500	1.23	NO	34.75	1.000	1.34e7	9.31e5	1490	-0.5	0.963	bb

**Compound name: 1,2,3,4,6,7,8-HpCDD**

Response Factor: 1.00606

RRF SD: 0.0598777, Relative SD: 5.95172

Response type: Internal Std ( Ref 23 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.04	NO	38.23	1.000	4.50e3	3.74e5	1.19	-4.5	0.960	MM
2	200306R2_2	2.50	1.03	NO	38.17	1.000	1.17e4	4.34e5	2.69	7.6	1.08	bb
3	200306R2_3	10.0	1.02	NO	38.18	1.000	4.15e4	3.84e5	10.7	7.4	1.08	bb
4	200306R2_4	50.0	1.03	NO	38.21	1.000	2.63e5	5.52e5	47.4	-5.1	0.954	bb
5	200306R2_5	200	1.04	NO	38.21	1.001	1.14e6	5.89e5	192	-3.9	0.967	bb
6	200306R2_6	1500	1.03	NO	38.22	1.001	9.92e6	6.67e5	1480	-1.4	0.992	bb

**Compound name: OCDD**

Response Factor: 1.05145

RRF SD: 0.114587, Relative SD: 10.898

Response type: Internal Std ( Ref 24 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	2.50	0.84	NO	41.25	1.000	1.06e4	7.05e5	2.86	14.2	1.20	MM
2	200306R2_2	5.00	0.98	NO	41.22	1.000	2.24e4	7.62e5	5.60	12.0	1.18	MM
3	200306R2_3	20.0	0.87	NO	41.23	1.000	7.58e4	7.16e5	20.1	0.7	1.06	bb
4	200306R2_4	100	0.90	NO	41.23	1.000	4.62e5	9.75e5	90.2	-9.8	0.948	bb
5	200306R2_5	400	0.89	NO	41.22	1.000	2.22e6	1.17e6	360	-10.0	0.946	bb
6	200306R2_6	3000	0.89	NO	41.24	1.000	2.08e7	1.42e6	2790	-7.1	0.977	MM

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
 Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.915401

RRF SD: 0.0583768, Relative SD: 6.37719

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	200306R2_1	0.250	0.84	NO	24.87	1.001	3.09e3	1.43e6	0.235	-5.9	0.861	MM
2	200306R2_2	0.500	0.78	NO	24.82	1.001	7.23e3	1.45e6	0.546	9.2	1.00	bb
3	200306R2_3	2.00	0.78	NO	24.82	1.001	2.69e4	1.38e6	2.14	6.8	0.978	bb
4	200306R2_4	10.0	0.77	NO	24.84	1.001	1.28e5	1.46e6	9.56	-4.4	0.875	bb
5	200306R2_5	40.0	0.77	NO	24.82	1.001	6.19e5	1.74e6	38.8	-3.1	0.887	bb
6	200306R2_6	300	0.77	NO	24.82	1.001	4.83e6	1.81e6	292	-2.7	0.891	bb

**Compound name: 1,2,3,7,8-PeCDF**

Response Factor: 0.959427

RRF SD: 0.0433152, Relative SD: 4.51469

Response type: Internal Std ( Ref 26 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.49	NO	29.68	1.000	1.28e4	1.13e6	1.18	-5.5	0.906	MM
2	200306R2_2	2.50	1.64	NO	29.63	1.000	2.70e4	1.07e6	2.63	5.3	1.01	bb
3	200306R2_3	10.0	1.54	NO	29.65	1.000	1.01e5	9.93e5	10.6	5.7	1.01	MM
4	200306R2_4	50.0	1.55	NO	29.66	1.001	6.19e5	1.30e6	49.4	-1.1	0.948	bb
5	200306R2_5	200	1.56	NO	29.65	1.000	2.60e6	1.38e6	196	-1.9	0.941	bb
6	200306R2_6	1500	1.53	NO	29.66	1.000	2.21e7	1.58e6	1460	-2.4	0.936	bb

**Compound name: 2,3,4,7,8-PeCDF**

Response Factor: 1.00349

RRF SD: 0.0546018, Relative SD: 5.44122

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	200306R2_1	1.25	1.61	NO	30.70	1.000	1.23e4	1.05e6	1.17	-6.4	0.940	MM
2	200306R2_2	2.50	1.54	NO	30.65	1.000	2.75e4	1.02e6	2.70	8.1	1.08	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
 Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight 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	200306R2_3	10.0	1.56	NO	30.67	1.000	1.02e5	9.68e5	10.5	5.1	1.05	bb
4	200306R2_4	50.0	1.58	NO	30.67	1.000	6.26e5	1.27e6	49.3	-1.4	0.990	bb
5	200306R2_5	200	1.54	NO	30.67	1.000	2.65e6	1.36e6	195	-2.6	0.978	bb
6	200306R2_6	1500	1.53	NO	30.68	1.000	2.24e7	1.53e6	1460	-2.8	0.975	bb

**Compound name: 1,2,3,4,7,8-HxCDF**

Response Factor: 1.03807

RRF SD: 0.0538106, Relative SD: 5.18374

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	200306R2_1	1.25	1.12	NO	33.54	1.001	8.84e3	7.10e5	1.20	-4.0	0.996	bd
2	200306R2_2	2.50	1.19	NO	33.51	1.000	1.92e4	6.91e5	2.68	7.2	1.11	bd
3	200306R2_3	10.0	1.26	NO	33.52	1.000	7.18e4	6.52e5	10.6	6.1	1.10	bd
4	200306R2_4	50.0	1.23	NO	33.52	1.000	4.56e5	8.98e5	48.9	-2.2	1.02	dd
5	200306R2_5	200	1.22	NO	33.52	1.001	1.87e6	9.40e5	192	-4.1	0.996	bd
6	200306R2_6	1500	1.22	NO	33.53	1.001	1.65e7	1.09e6	1460	-2.9	1.01	bd

**Compound name: 1,2,3,6,7,8-HxCDF**

Response Factor: 1.0126

RRF SD: 0.0619783, Relative SD: 6.12071

Response type: Internal Std ( Ref 29 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.20	NO	33.66	1.000	9.19e3	7.80e5	1.16	-6.9	0.943	db
2	200306R2_2	2.50	1.27	NO	33.63	1.000	2.08e4	7.71e5	2.66	6.4	1.08	db
3	200306R2_3	10.0	1.18	NO	33.64	1.000	7.95e4	7.22e5	10.9	8.7	1.10	db
4	200306R2_4	50.0	1.22	NO	33.64	1.000	4.93e5	1.01e6	48.1	-3.7	0.975	db
5	200306R2_5	200	1.22	NO	33.64	1.001	2.10e6	1.05e6	196	-1.8	0.994	db
6	200306R2_6	1500	1.22	NO	33.65	1.000	1.83e7	1.24e6	1460	-2.7	0.986	db

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
 Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 2,3,4,6,7,8-HxCDF**

Response Factor: 1.092

RRF SD: 0.0522909, Relative SD: 4.78856

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	200306R2_1	1.25	1.20	NO	34.23	1.001	9.49e3	7.13e5	1.22	-2.5	1.07	bb
2	200306R2_2	2.50	1.18	NO	34.19	1.000	2.08e4	7.13e5	2.68	7.1	1.17	bb
3	200306R2_3	10.0	1.21	NO	34.21	1.001	7.81e4	6.81e5	10.5	5.1	1.15	bb
4	200306R2_4	50.0	1.21	NO	34.21	1.001	4.95e5	9.38e5	48.3	-3.4	1.05	bb
5	200306R2_5	200	1.22	NO	34.20	1.000	2.06e6	9.84e5	192	-3.9	1.05	bb
6	200306R2_6	1500	1.22	NO	34.21	1.000	1.82e7	1.14e6	1460	-2.4	1.07	bb

**Compound name: 1,2,3,7,8,9-HxCDF**

Response Factor: 1.02678

RRF SD: 0.0447492, Relative SD: 4.35823

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	200306R2_1	1.25	1.27	NO	35.11	1.001	7.40e3	5.96e5	1.21	-3.3	0.993	bb
2	200306R2_2	2.50	1.24	NO	35.07	1.000	1.61e4	6.11e5	2.57	2.9	1.06	bb
3	200306R2_3	10.0	1.24	NO	35.08	1.000	6.28e4	5.68e5	10.8	7.6	1.10	bd
4	200306R2_4	50.0	1.25	NO	35.08	1.000	3.95e5	7.83e5	49.1	-1.8	1.01	MM
5	200306R2_5	200	1.23	NO	35.08	1.001	1.63e6	8.17e5	195	-2.7	0.999	bb
6	200306R2_6	1500	1.23	NO	35.10	1.000	1.48e7	9.86e5	1460	-2.7	0.999	bb

**Compound name: 1,2,3,4,6,7,8-HpCDF**

Response Factor: 1.04827

RRF SD: 0.0494086, Relative SD: 4.71334

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	200306R2_1	1.25	1.07	NO	36.81	1.000	6.78e3	5.13e5	1.26	0.8	1.06	bb
2	200306R2_2	2.50	0.98	NO	36.78	1.000	1.55e4	5.54e5	2.67	6.7	1.12	bb



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Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 1,2,3,4,6,7,8-HpCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	10.0	1.01	NO	36.79	1.000	5.42e4	4.96e5	10.4	4.2	1.09	bb
4	200306R2_4	50.0	1.00	NO	36.79	1.000	3.53e5	7.08e5	47.5	-5.0	0.996	bb
5	200306R2_5	200	1.00	NO	36.79	1.000	1.46e6	7.21e5	193	-3.6	1.01	bb
6	200306R2_6	1500	1.01	NO	36.80	1.000	1.31e7	8.61e5	1450	-3.2	1.02	bb

**Compound name: 1,2,3,4,7,8,9-HpCDF**

Response Factor: 1.2099

RRF SD: 0.0633946, Relative SD: 5.23967

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	200306R2_1	1.25	0.94	NO	38.85	1.001	4.87e3	3.35e5	1.20	-3.8	1.16	bb
2	200306R2_2	2.50	0.98	NO	38.82	1.000	1.18e4	3.60e5	2.72	8.8	1.32	bb
3	200306R2_3	10.0	0.98	NO	38.82	1.000	4.25e4	3.38e5	10.4	4.1	1.26	bb
4	200306R2_4	50.0	1.00	NO	38.82	1.000	2.73e5	4.70e5	48.0	-4.0	1.16	bb
5	200306R2_5	200	1.01	NO	38.82	1.000	1.18e6	4.99e5	195	-2.3	1.18	bb
6	200306R2_6	1500	1.01	NO	38.83	1.000	1.06e7	6.02e5	1460	-2.8	1.18	bb

**Compound name: OCDF**

Response Factor: 0.946773

RRF SD: 0.0474682, Relative SD: 5.01368

Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	2.50	0.83	NO	41.43	1.000	9.98e3	8.40e5	2.51	0.4	0.950	MM
2	200306R2_2	5.00	0.93	NO	41.40	1.000	2.36e4	9.23e5	5.39	7.8	1.02	bb
3	200306R2_3	20.0	0.89	NO	41.40	1.000	8.67e4	8.82e5	20.8	3.9	0.983	bb
4	200306R2_4	100	0.88	NO	41.41	1.000	5.44e5	1.20e6	95.4	-4.6	0.904	bb
5	200306R2_5	400	0.88	NO	41.40	1.000	2.61e6	1.42e6	387	-3.2	0.917	bb
6	200306R2_6	3000	0.89	NO	41.42	1.000	2.37e7	1.75e6	2870	-4.3	0.906	bb

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Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 13C-2,3,7,8-TCDD**

Response Factor: 1.18423

RRF SD: 0.101442, Relative SD: 8.56612

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	200306R2_1	100	0.79	NO	25.80	1.028	1.02e6	7.81e5	110	10.3	1.31	MM
2	200306R2_2	100	0.78	NO	25.76	1.028	1.04e6	9.79e5	89.6	-10.4	1.06	bb
3	200306R2_3	100	0.79	NO	25.78	1.028	9.83e5	9.27e5	89.5	-10.5	1.06	bb
4	200306R2_4	100	0.78	NO	25.78	1.028	1.15e6	9.40e5	103	3.3	1.22	bb
5	200306R2_5	100	0.78	NO	25.76	1.028	1.30e6	1.07e6	102	2.0	1.21	bb
6	200306R2_6	100	0.79	NO	25.76	1.028	1.34e6	1.07e6	105	5.2	1.25	bb

**Compound name: 13C-1,2,3,7,8-PeCDD**

Response Factor: 0.864397

RRF SD: 0.123368, Relative SD: 14.2722

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	200306R2_1	100	0.64	NO	30.99	1.235	7.13e5	7.81e5	106	5.7	0.914	bb
2	200306R2_2	100	0.63	NO	30.96	1.235	6.98e5	9.79e5	82.5	-17.5	0.713	bb
3	200306R2_3	100	0.64	NO	30.97	1.235	6.63e5	9.27e5	82.7	-17.3	0.715	bb
4	200306R2_4	100	0.62	NO	30.97	1.235	9.00e5	9.40e5	111	10.8	0.958	bb
5	200306R2_5	100	0.64	NO	30.97	1.236	9.49e5	1.07e6	102	2.3	0.884	bb
6	200306R2_6	100	0.63	NO	30.97	1.236	1.08e6	1.07e6	116	16.1	1.00	bb

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

Response Factor: 0.753912

RRF SD: 0.0956829, Relative SD: 12.6915

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	200306R2_1	100	1.25	NO	34.38	1.014	5.37e5	6.43e5	111	10.7	0.835	bd
2	200306R2_2	100	1.28	NO	34.35	1.014	5.23e5	7.96e5	87.2	-12.8	0.657	bd

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Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

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

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	100	1.28	NO	34.36	1.014	4.95e5	7.60e5	86.4	-13.6	0.652	bd
4	200306R2_4	100	1.27	NO	34.36	1.014	6.79e5	9.06e5	99.5	-0.5	0.750	bd
5	200306R2_5	100	1.26	NO	34.36	1.014	6.81e5	9.24e5	97.8	-2.2	0.738	bd
6	200306R2_6	100	1.28	NO	34.37	1.014	8.39e5	9.40e5	118	18.4	0.892	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDD**

Response Factor: 0.925405

RRF SD: 0.118798, Relative SD: 12.8375

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	200306R2_1	100	1.25	NO	34.49	1.017	6.23e5	6.43e5	105	4.6	0.968	db
2	200306R2_2	100	1.26	NO	34.46	1.017	6.45e5	7.96e5	87.5	-12.5	0.810	db
3	200306R2_3	100	1.25	NO	34.47	1.017	6.06e5	7.60e5	86.2	-13.8	0.797	db
4	200306R2_4	100	1.28	NO	34.47	1.017	8.29e5	9.06e5	98.9	-1.1	0.916	db
5	200306R2_5	100	1.28	NO	34.46	1.017	8.67e5	9.24e5	101	1.4	0.939	db
6	200306R2_6	100	1.27	NO	34.47	1.017	1.05e6	9.40e5	121	21.3	1.12	db

**Compound name: 13C-1,2,3,7,8,9-HxCDD**

Response Factor: 0.829419

RRF SD: 0.100271, Relative SD: 12.0893

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	200306R2_1	100	1.30	NO	34.75	1.025	5.57e5	6.43e5	104	4.5	0.867	bd
2	200306R2_2	100	1.23	NO	34.72	1.025	5.80e5	7.96e5	87.8	-12.2	0.728	bb
3	200306R2_3	100	1.24	NO	34.73	1.025	5.46e5	7.60e5	86.6	-13.4	0.718	bb
4	200306R2_4	100	1.23	NO	34.73	1.025	7.47e5	9.06e5	99.4	-0.6	0.825	bb
5	200306R2_5	100	1.19	NO	34.73	1.025	7.83e5	9.24e5	102	2.3	0.848	bb
6	200306R2_6	100	1.25	NO	34.74	1.025	9.31e5	9.40e5	119	19.4	0.990	bb

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Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
 Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

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

Response Factor: 0.598232

RRF SD: 0.0717306, Relative SD: 11.9904

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	200306R2_1	100	1.03	NO	38.21	1.127	3.74e5	6.43e5	97.3	-2.7	0.582	bb
2	200306R2_2	100	1.06	NO	38.17	1.127	4.34e5	7.96e5	91.1	-8.9	0.545	bd
3	200306R2_3	100	1.06	NO	38.17	1.126	3.84e5	7.60e5	84.5	-15.5	0.506	bb
4	200306R2_4	100	1.05	NO	38.19	1.127	5.52e5	9.06e5	102	1.9	0.610	bb
5	200306R2_5	100	1.11	NO	38.18	1.127	5.89e5	9.24e5	107	6.6	0.638	bd
6	200306R2_6	100	1.06	NO	38.19	1.127	6.67e5	9.40e5	119	18.6	0.709	bb

**Compound name: 13C-OCDD**

Response Factor: 0.571169

RRF SD: 0.108174, Relative SD: 18.9391

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	200306R2_1	200	0.90	NO	41.23	1.216	7.05e5	6.43e5	192	-4.0	0.548	bd
2	200306R2_2	200	0.90	NO	41.21	1.216	7.62e5	7.96e5	168	-16.2	0.479	bb
3	200306R2_3	200	0.94	NO	41.22	1.216	7.16e5	7.60e5	165	-17.5	0.471	bd
4	200306R2_4	200	0.85	NO	41.21	1.216	9.75e5	9.06e5	189	-5.7	0.538	bb
5	200306R2_5	200	0.89	NO	41.21	1.216	1.17e6	9.24e5	222	11.0	0.634	bd
6	200306R2_6	200	0.90	NO	41.23	1.217	1.42e6	9.40e5	265	32.5	0.757	bd

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 1.08928

RRF SD: 0.0987678, Relative SD: 9.06725

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	200306R2_1	100	0.79	NO	24.84	0.990	1.43e6	1.19e6	111	11.0	1.21	bb
2	200306R2_2	100	0.79	NO	24.79	0.989	1.45e6	1.48e6	89.7	-10.3	0.977	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 13C-2,3,7,8-TCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	100	0.77	NO	24.81	0.989	1.38e6	1.43e6	88.3	-11.7	0.962	bb
4	200306R2_4	100	0.78	NO	24.82	0.990	1.46e6	1.27e6	106	5.6	1.15	bb
5	200306R2_5	100	0.78	NO	24.81	0.990	1.74e6	1.56e6	103	2.7	1.12	bb
6	200306R2_6	100	0.78	NO	24.79	0.989	1.81e6	1.62e6	103	2.7	1.12	bb

**Compound name: 13C-1,2,3,7,8-PeCDF**

Response Factor: 0.876347

RRF SD: 0.137914, Relative SD: 15.7373

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	200306R2_1	100	1.55	NO	29.66	1.182	1.13e6	1.19e6	109	8.6	0.952	bb
2	200306R2_2	100	1.60	NO	29.63	1.182	1.07e6	1.48e6	82.5	-17.5	0.723	bb
3	200306R2_3	100	1.58	NO	29.63	1.182	9.93e5	1.43e6	79.2	-20.8	0.694	bb
4	200306R2_4	100	1.60	NO	29.63	1.181	1.30e6	1.27e6	117	17.2	1.03	bb
5	200306R2_5	100	1.57	NO	29.63	1.182	1.38e6	1.56e6	101	1.2	0.887	bb
6	200306R2_6	100	1.57	NO	29.65	1.183	1.58e6	1.62e6	111	11.3	0.976	bb

**Compound name: 13C-2,3,4,7,8-PeCDF**

Response Factor: 0.843553

RRF SD: 0.133299, Relative SD: 15.8021

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	200306R2_1	100	1.57	NO	30.68	1.223	1.05e6	1.19e6	105	4.8	0.884	db
2	200306R2_2	100	1.58	NO	30.64	1.222	1.02e6	1.48e6	81.4	-18.6	0.687	db
3	200306R2_3	100	1.58	NO	30.65	1.222	9.68e5	1.43e6	80.2	-19.8	0.677	db
4	200306R2_4	100	1.60	NO	30.65	1.222	1.27e6	1.27e6	118	18.2	0.997	db
5	200306R2_5	100	1.58	NO	30.65	1.223	1.36e6	1.56e6	103	3.2	0.870	db
6	200306R2_6	100	1.60	NO	30.67	1.224	1.53e6	1.62e6	112	12.2	0.947	db

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

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

Response Factor: 1.00027

RRF SD: 0.122541, Relative SD: 12.2508

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	200306R2_1	100	0.52	NO	33.52	0.988	7.10e5	6.43e5	110	10.3	1.10	bd
2	200306R2_2	100	0.51	NO	33.50	0.989	6.91e5	7.96e5	86.8	-13.2	0.869	bd
3	200306R2_3	100	0.52	NO	33.51	0.989	6.52e5	7.60e5	85.8	-14.2	0.858	bd
4	200306R2_4	100	0.51	NO	33.51	0.989	8.98e5	9.06e5	99.1	-0.9	0.992	bd
5	200306R2_5	100	0.52	NO	33.50	0.989	9.40e5	9.24e5	102	1.7	1.02	bd
6	200306R2_6	100	0.52	NO	33.51	0.989	1.09e6	9.40e5	116	16.3	1.16	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDF**

Response Factor: 1.1178

RRF SD: 0.141321, Relative SD: 12.6428

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	200306R2_1	100	0.51	NO	33.65	0.992	7.80e5	6.43e5	108	8.5	1.21	db
2	200306R2_2	100	0.51	NO	33.62	0.992	7.71e5	7.96e5	86.6	-13.4	0.969	db
3	200306R2_3	100	0.53	NO	33.63	0.992	7.22e5	7.60e5	85.0	-15.0	0.951	db
4	200306R2_4	100	0.52	NO	33.63	0.992	1.01e6	9.06e5	99.9	-0.1	1.12	db
5	200306R2_5	100	0.53	NO	33.61	0.992	1.05e6	9.24e5	102	2.1	1.14	db
6	200306R2_6	100	0.52	NO	33.64	0.993	1.24e6	9.40e5	118	17.9	1.32	db

**Compound name: 13C-2,3,4,6,7,8-HxCDF**

Response Factor: 1.03533

RRF SD: 0.12301, Relative SD: 11.8812

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	200306R2_1	100	0.52	NO	34.21	1.009	7.13e5	6.43e5	107	7.1	1.11	bb
2	200306R2_2	100	0.51	NO	34.18	1.009	7.13e5	7.96e5	86.5	-13.5	0.896	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight 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	200306R2_3	100	0.52	NO	34.19	1.009	6.81e5	7.60e5	86.6	-13.4	0.896	bb
4	200306R2_4	100	0.53	NO	34.19	1.009	9.38e5	9.06e5	100	0.1	1.04	MM
5	200306R2_5	100	0.52	NO	34.19	1.009	9.84e5	9.24e5	103	2.9	1.07	bb
6	200306R2_6	100	0.52	NO	34.20	1.009	1.14e6	9.40e5	117	16.9	1.21	bb

**Compound name: 13C-1,2,3,7,8,9-HxCDF**

Response Factor: 0.873112

RRF SD: 0.110234, Relative SD: 12.6254

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	200306R2_1	100	0.51	NO	35.08	1.035	5.96e5	6.43e5	106	6.1	0.926	bb
2	200306R2_2	100	0.51	NO	35.06	1.035	6.11e5	7.96e5	87.9	-12.1	0.768	bb
3	200306R2_3	100	0.52	NO	35.07	1.035	5.68e5	7.60e5	85.6	-14.4	0.747	bb
4	200306R2_4	100	0.52	NO	35.07	1.035	7.83e5	9.06e5	99.0	-1.0	0.864	bb
5	200306R2_5	100	0.51	NO	35.06	1.035	8.17e5	9.24e5	101	1.3	0.884	bb
6	200306R2_6	100	0.53	NO	35.08	1.035	9.86e5	9.40e5	120	20.1	1.05	bb

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

Response Factor: 0.770799

RRF SD: 0.0912069, Relative SD: 11.8328

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	200306R2_1	100	0.44	NO	36.80	1.085	5.13e5	6.43e5	104	3.5	0.798	bb
2	200306R2_2	100	0.46	NO	36.77	1.085	5.54e5	7.96e5	90.3	-9.7	0.696	bb
3	200306R2_3	100	0.45	NO	36.78	1.085	4.96e5	7.60e5	84.6	-15.4	0.652	bb
4	200306R2_4	100	0.46	NO	36.78	1.085	7.08e5	9.06e5	101	1.4	0.782	bd
5	200306R2_5	100	0.45	NO	36.78	1.086	7.21e5	9.24e5	101	1.3	0.781	bb
6	200306R2_6	100	0.45	NO	36.79	1.086	8.61e5	9.40e5	119	18.8	0.916	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 13C-1,2,3,4,7,8,9-HpCDF**

Response Factor: 0.519283

RRF SD: 0.0710328, Relative SD: 13.679

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	200306R2_1	100	0.45	NO	38.83	1.145	3.35e5	6.43e5	100	0.2	0.521	bd
2	200306R2_2	100	0.45	NO	38.80	1.145	3.60e5	7.96e5	87.0	-13.0	0.452	bd
3	200306R2_3	100	0.44	NO	38.81	1.145	3.38e5	7.60e5	85.6	-14.4	0.444	bd
4	200306R2_4	100	0.45	NO	38.81	1.145	4.70e5	9.06e5	99.9	-0.1	0.519	bb
5	200306R2_5	100	0.44	NO	38.81	1.145	4.99e5	9.24e5	104	3.9	0.540	bb
6	200306R2_6	100	0.45	NO	38.82	1.145	6.02e5	9.40e5	123	23.3	0.640	bb

**Compound name: 13C-OCDF**

Response Factor: 0.696311

RRF SD: 0.133796, Relative SD: 19.215

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	200306R2_1	200	0.88	NO	41.42	1.221	8.40e5	6.43e5	188	-6.2	0.653	bb
2	200306R2_2	200	0.90	NO	41.38	1.221	9.23e5	7.96e5	167	-16.7	0.580	bb
3	200306R2_3	200	0.86	NO	41.39	1.221	8.82e5	7.60e5	167	-16.6	0.581	bb
4	200306R2_4	200	0.89	NO	41.40	1.222	1.20e6	9.06e5	191	-4.6	0.664	bb
5	200306R2_5	200	0.89	NO	41.39	1.222	1.42e6	9.24e5	221	10.7	0.771	bb
6	200306R2_6	200	0.89	NO	41.41	1.222	1.75e6	9.40e5	267	33.4	0.929	bb

**Compound name: 37Cl-2,3,7,8-TCDD**

Response Factor: 1.17455

RRF SD: 0.0840795, Relative SD: 7.15847

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	200306R2_1	0.250			25.84	1.030	2.53e3	7.81e5	0.276	10.3	1.30	bb
2	200306R2_2	0.500			25.78	1.029	5.58e3	9.79e5	0.486	-2.9	1.14	bb



Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**Compound name: 37Cl-2,3,7,8-TCDD**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	2.00			25.80	1.029	1.94e4	9.27e5	1.78	-11.1	1.04	bb
4	200306R2_4	10.0			25.80	1.029	1.11e5	9.40e5	10.1	0.8	1.18	bb
5	200306R2_5	40.0			25.80	1.029	4.97e5	1.07e6	39.5	-1.4	1.16	bb
6	200306R2_6	200			25.80	1.029	2.63e6	1.07e6	208	4.2	1.22	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

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.81	NO	25.09	1.000	7.81e5	7.81e5	100	0.0	1.00	bb
2	200306R2_2	100	0.80	NO	25.06	1.000	9.79e5	9.79e5	100	0.0	1.00	bb
3	200306R2_3	100	0.80	NO	25.08	1.000	9.27e5	9.27e5	100	0.0	1.00	bb
4	200306R2_4	100	0.78	NO	25.08	1.000	9.40e5	9.40e5	100	0.0	1.00	bb
5	200306R2_5	100	0.81	NO	25.06	1.000	1.07e6	1.07e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	25.06	1.000	1.07e6	1.07e6	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	200306R2_1	100	0.80	NO	23.24	1.000	1.19e6	1.19e6	100	0.0	1.00	bb
2	200306R2_2	100	0.79	NO	23.21	1.000	1.48e6	1.48e6	100	0.0	1.00	bb
3	200306R2_3	100	0.81	NO	23.21	1.000	1.43e6	1.43e6	100	0.0	1.00	bb
4	200306R2_4	100	0.79	NO	23.22	1.000	1.27e6	1.27e6	100	0.0	1.00	bb
5	200306R2_5	100	0.79	NO	23.21	1.000	1.56e6	1.56e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	23.19	1.000	1.62e6	1.62e6	100	0.0	1.00	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

Compound name: 13C-1,2,3,4,6,9-HxCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.51	NO	33.91	1.000	6.43e5	6.43e5	100	0.0	1.00	bb
2	200306R2_2	100	0.52	NO	33.88	1.000	7.96e5	7.96e5	100	0.0	1.00	bb
3	200306R2_3	100	0.51	NO	33.89	1.000	7.60e5	7.60e5	100	0.0	1.00	bb
4	200306R2_4	100	0.52	NO	33.89	1.000	9.06e5	9.06e5	100	0.0	1.00	bb
5	200306R2_5	100	0.52	NO	33.88	1.000	9.24e5	9.24e5	100	0.0	1.00	bb
6	200306R2_6	100	0.52	NO	33.89	1.000	9.40e5	9.40e5	100	0.0	1.00	bb

Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:43:03 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:45:55 Pacific Daylight Time

Method: U:\VG12.PROMethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

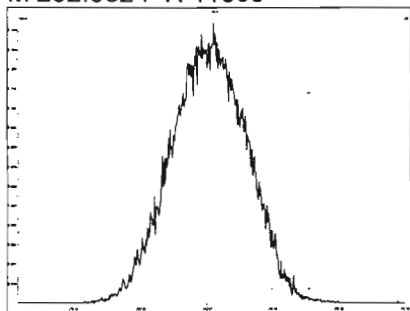
Compound name: 2,3,7,8-TCDD

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1	200306R2_1	ST200306R2_1 1613 CS0 19L2302	06-Mar-20	13:08:38
2	200306R2_2	ST200306R2_2 1613 CS1 19L2303	06-Mar-20	13:58:25
3	200306R2_3	ST200306R2_3 1613 CS2 19L2304	06-Mar-20	14:44:37
4	200306R2_4	ST200306R2_4 1613 CS3 19L2305	06-Mar-20	15:32:12
5	200306R2_5	ST200306R2_5 1613 CS4 19L2306	06-Mar-20	16:19:37
6	200306R2_6	ST200306R2_6 1613 CS5 19L2307	06-Mar-20	17:07:03
7	200306R2_7	SOLVENT BLANK	06-Mar-20	17:56:11
8	200306R2_8	SS200306R2_1 1613 SSS 19L2308	06-Mar-20	18:42:29
9	200306R2_9	SOLVENT BLANK	06-Mar-20	19:38:48
10	200306R2_10	2000406-09 PDI-049SC-A-04-05-191015 16.98	06-Mar-20	20:25:03
11	200306R2_11	2000406-10 PDI-049SC-A-05-06-191015 16.09	06-Mar-20	21:12:36
12	200306R2_12	2000406-11 PDI-049SC-A-06-07-191015 13.96	06-Mar-20	22:00:09
13	200306R2_13	2000406-12 PDI-049SC-A-07-08-191015 12.78	06-Mar-20	22:47:33
14	200306R2_14	2000406-13 PDI-059SC-A-11-12-191016 13.47	06-Mar-20	23:35:07
15	200306R2_15	2000406-14 PDI-084SC-A-03-04-191002 18.94	07-Mar-20	00:22:31
16	200306R2_16	2000406-15 PDI-084SC-A-04-05-191002 17.76	07-Mar-20	01:09:56

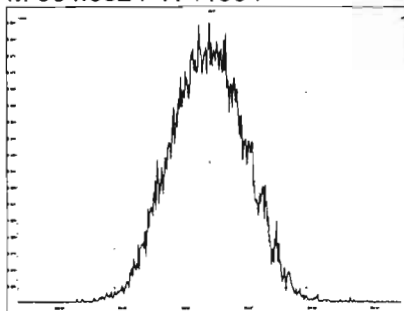
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:05:44 Pacific Standard Time

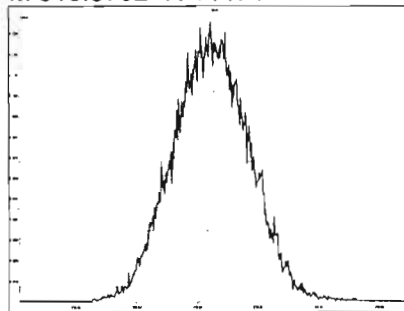
M 292.9824 R 11365



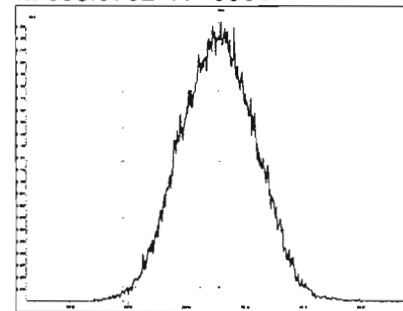
M 304.9824 R 11904



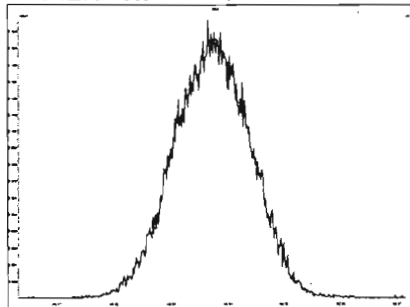
M 318.9792 R 11471



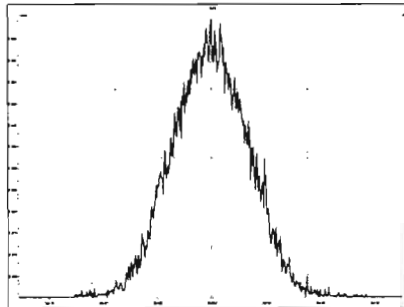
M 330.9792 R 10961



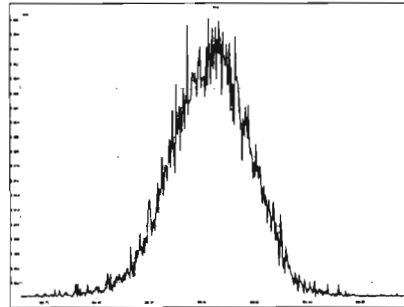
M 342.9792 R 11061



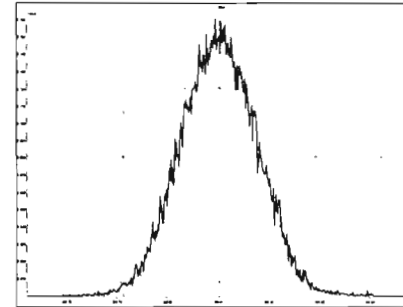
M 354.9792 R 11365



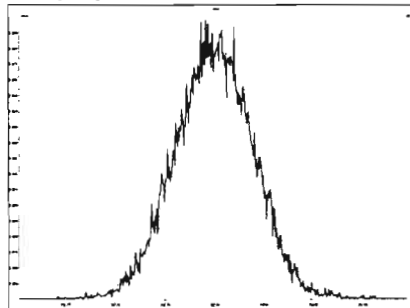
M 366.9792 R 10460



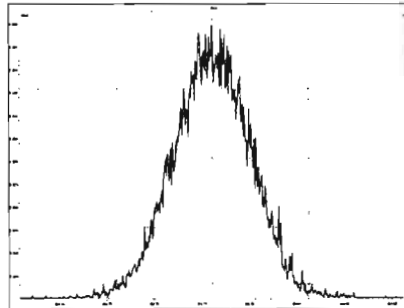
M 380.9760 R 11016



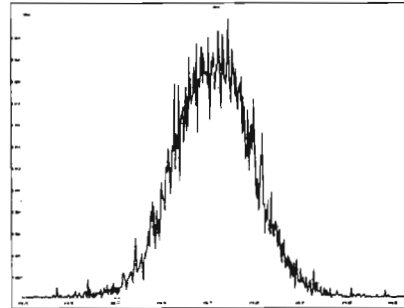
M 392.9760 R 10594



M 404.9760 R 11260



M 416.9760 R 11465



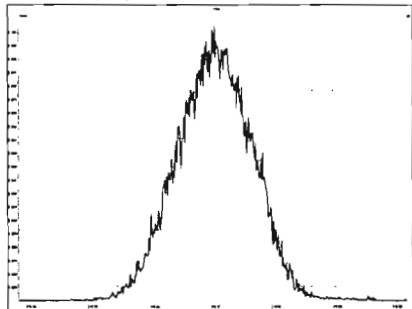
Experiment Calibration Report

MassLynx 4.1 SCN815

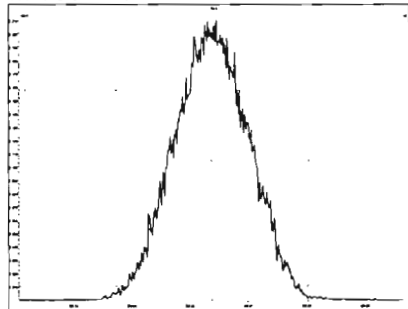
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:06:28 Pacific Standard Time

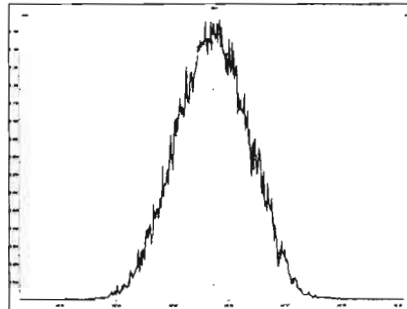
M 318.9792 R 11796



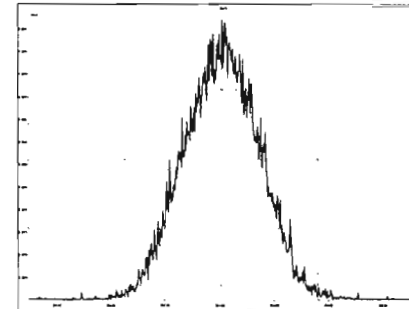
M 330.9792 R 11522



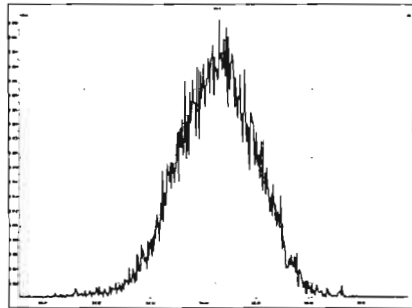
M 342.9792 R 11363



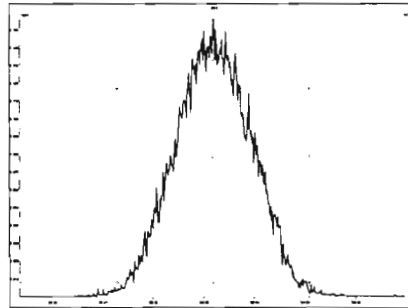
M 354.9792 R 11413



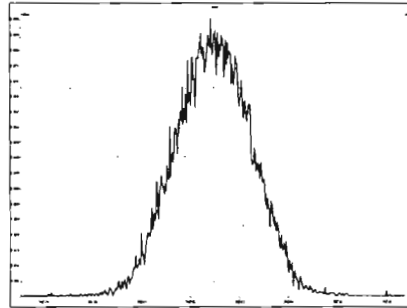
M 366.9792 R 10730



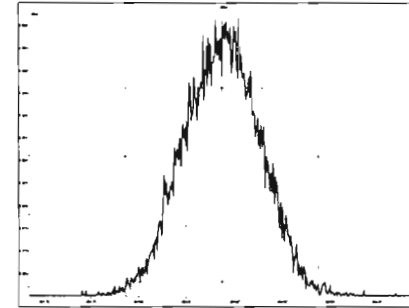
M 380.9760 R 11159



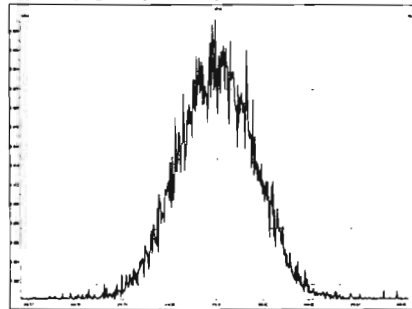
M 392.9760 R 11575



M 404.9760 R 11061



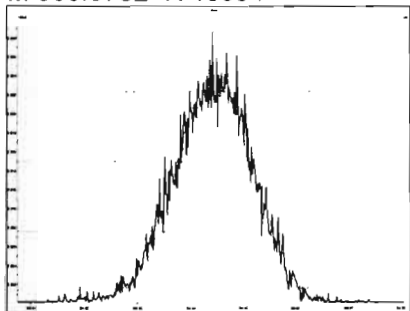
M 416.9760 R 10728



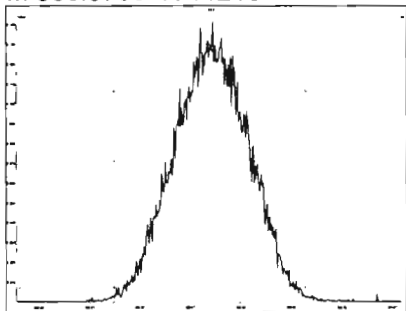
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:07:06 Pacific Standard Time

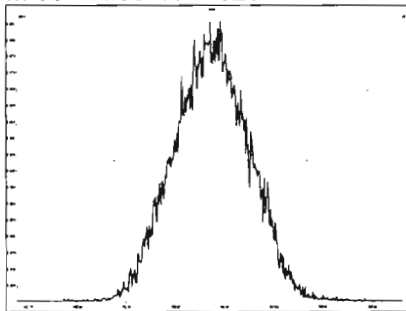
M 366.9792 R 10504



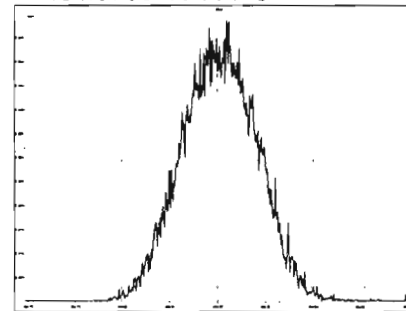
M 380.9760 R 11210



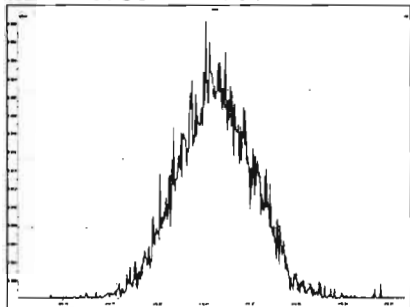
M 392.9760 R 11629



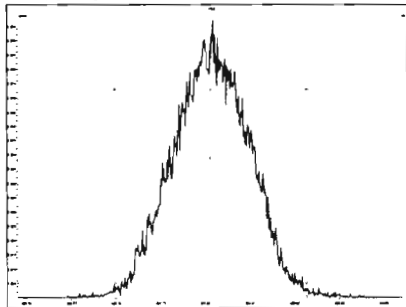
M 404.9760 R 11415



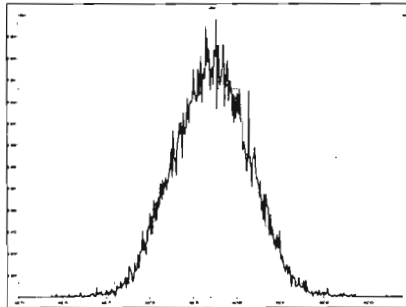
M 416.9760 R 11795



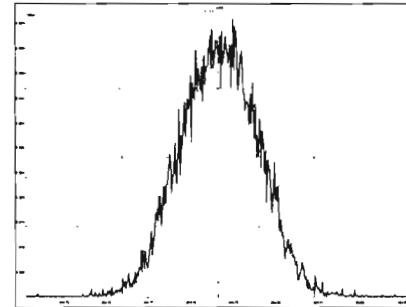
M 430.9728 R 11108



M 442.9728 R 11415



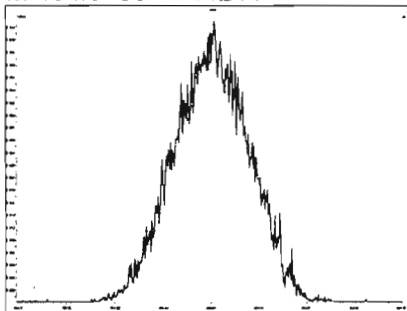
M 454.9728 R 11063



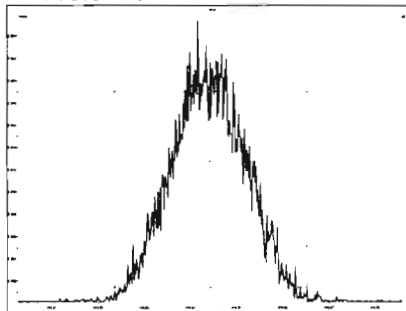
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:07:43 Pacific Standard Time

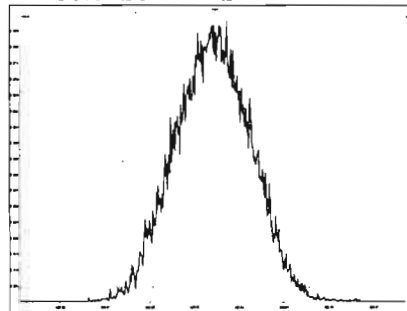
M 404.9760 R 11211



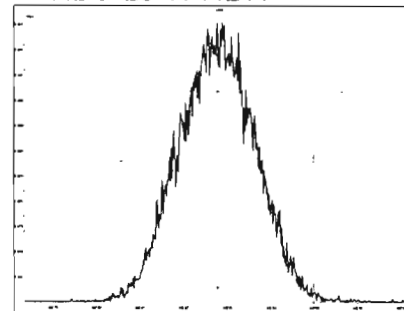
M 416.9760 R 10964



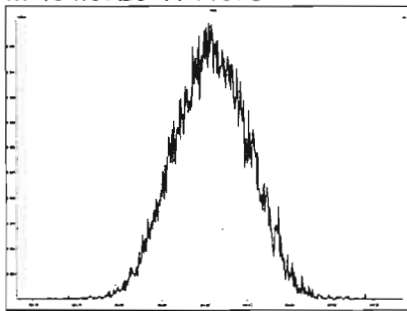
M 430.9728 R 11263



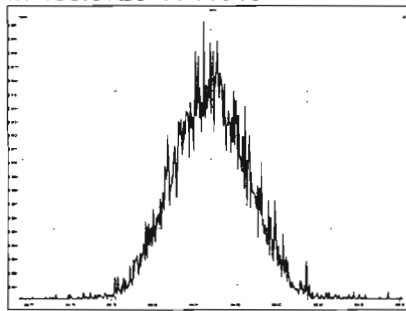
M 442.9728 R 11211



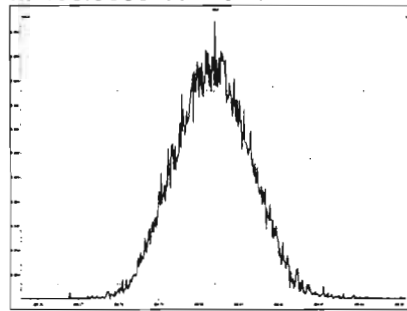
M 454.9728 R 11576



M 466.9728 R 11313



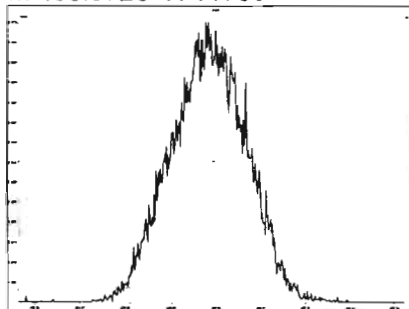
M 480.9696 R 11904



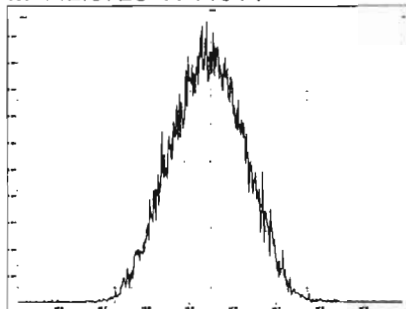
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Printed: Friday, March 06, 2020 13:08:16 Pacific Standard Time

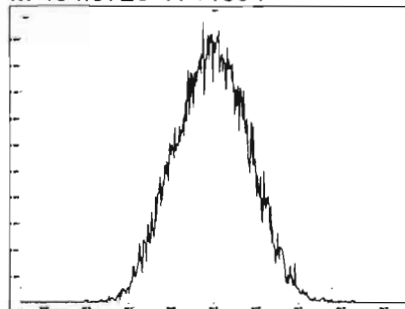
M 430.9728 R 11736



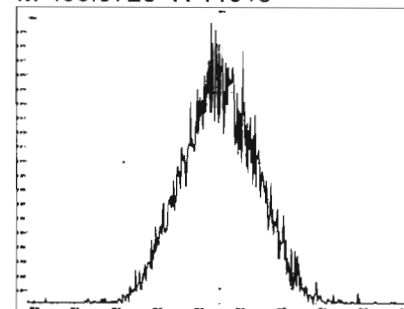
M 442.9728 R 11314



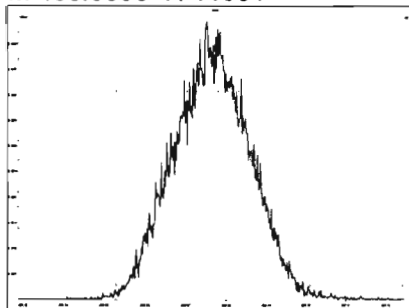
M 454.9728 R 11364



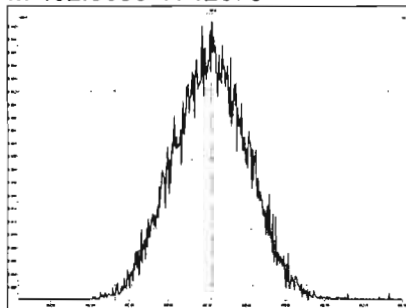
M 466.9728 R 11015



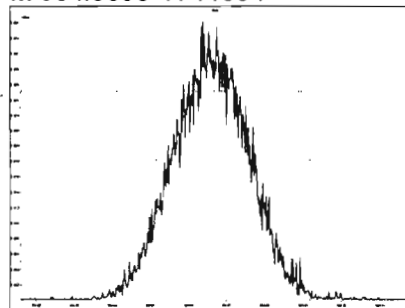
M 480.9696 R 11361



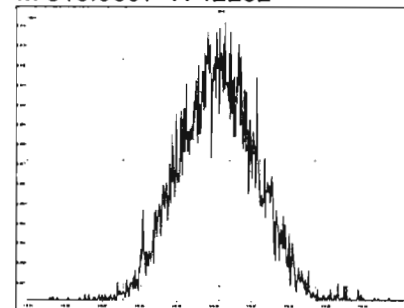
M 492.9696 R 12376



M 504.9696 R 11064



M 516.9697 R 12252





Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:48:00 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:48:29 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1 1,3,6,8-TCDD (First)	21.53
2	2 1,2,8,9-TCDD (Last)	26.81
3	3 1,2,4,7,9-PeCDD (First)	28.70
4	4 1,2,3,8,9-PeCDD (Last)	31.38
5	5 1,2,4,6,7,9-HxCDD (First)	32.90
6	6 1,2,3,7,8,9-HxCDD (Last)	34.74
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.17
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.21
9	9 1,3,6,8-TCDF (First)	19.52
10	10 1,2,8,9-TCDF (Last)	26.96
11	11 1,3,4,6,8-PeCDF (First)	26.93
12	12 1,2,3,8,9-PeCDF (Last)	31.63
13	13 1,2,3,4,6,8-HxCDF (First)	32.34
14	14 1,2,3,7,8,9-HxCDF (Last)	35.08
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.79
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:48:00 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:48:29 Pacific Daylight Time

GRB 03/09/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

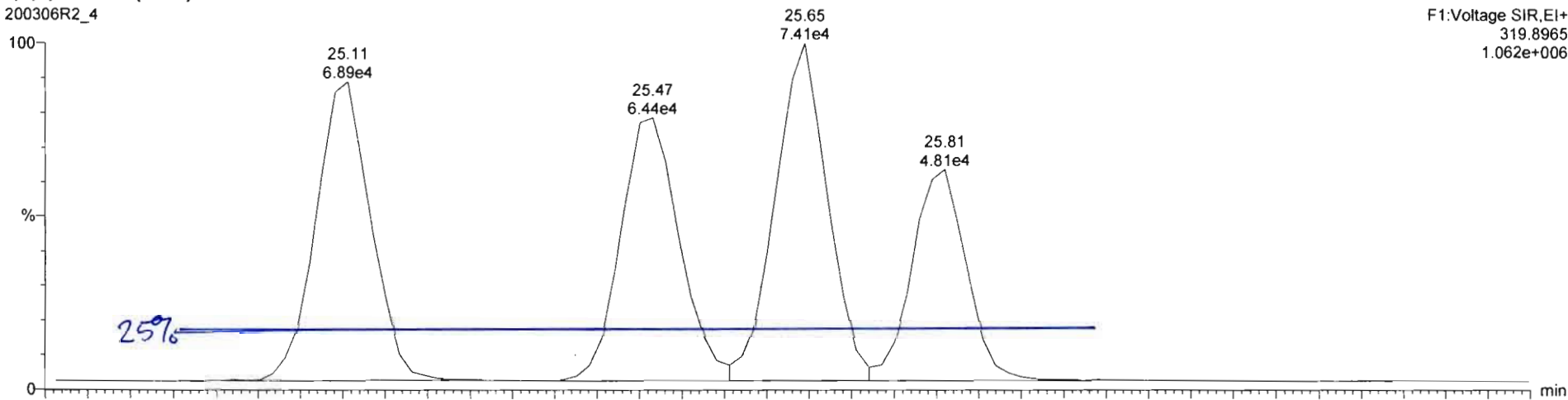
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,3,6,8-TCDD (First)

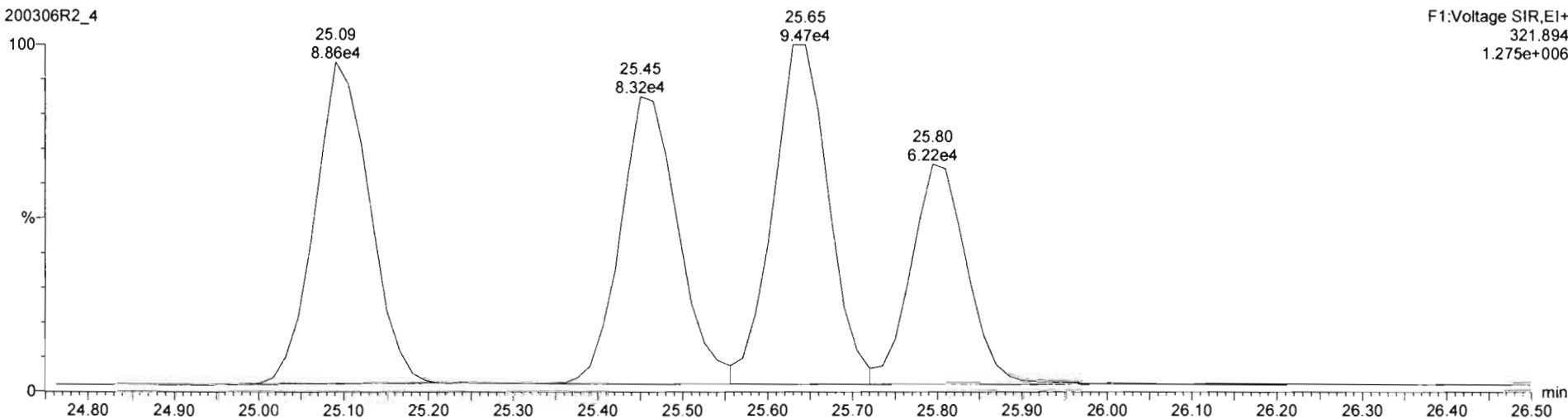
200306R2\_4

F1:Voltage SIR,EI+  
319.8965  
1.062e+006



200306R2\_4

F1:Voltage SIR,EI+  
321.894  
1.275e+006



Dataset: Untitled

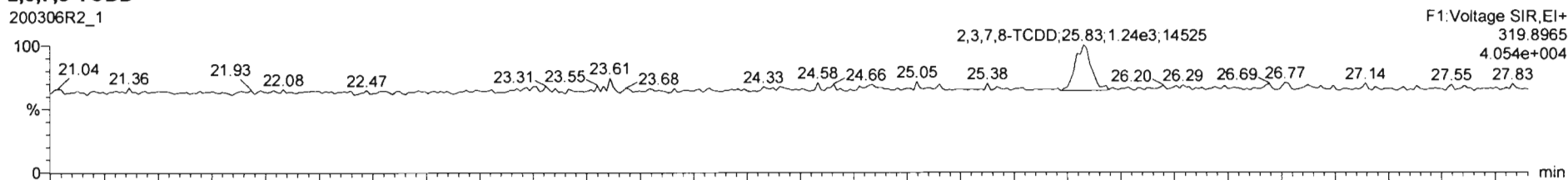
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

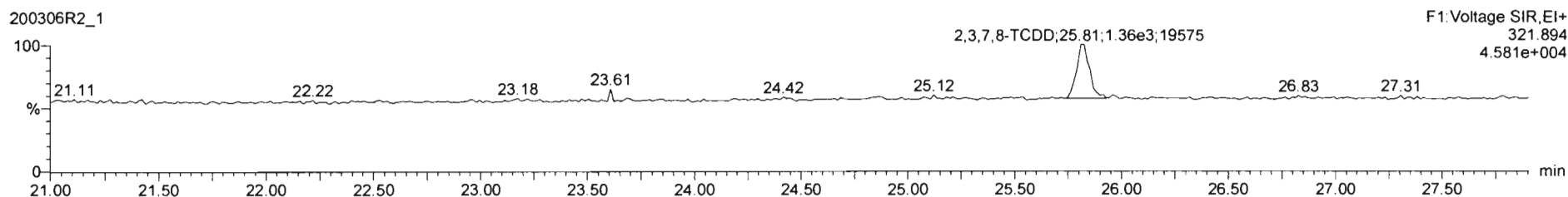
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

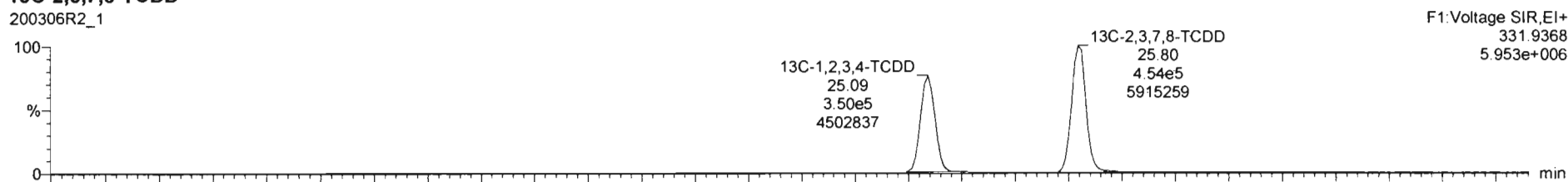


200306R2\_1

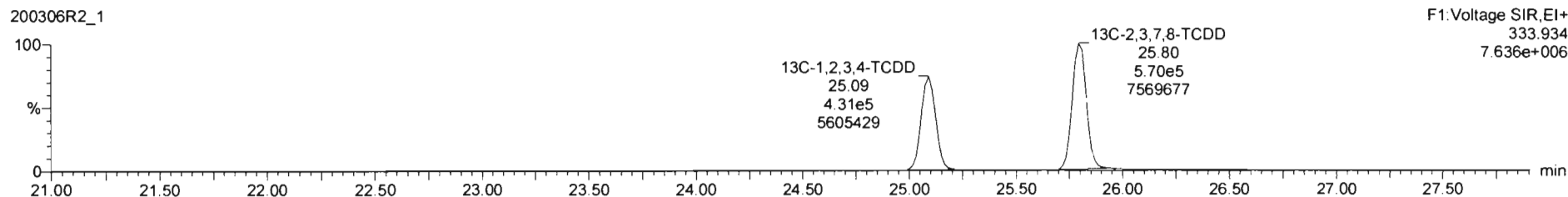


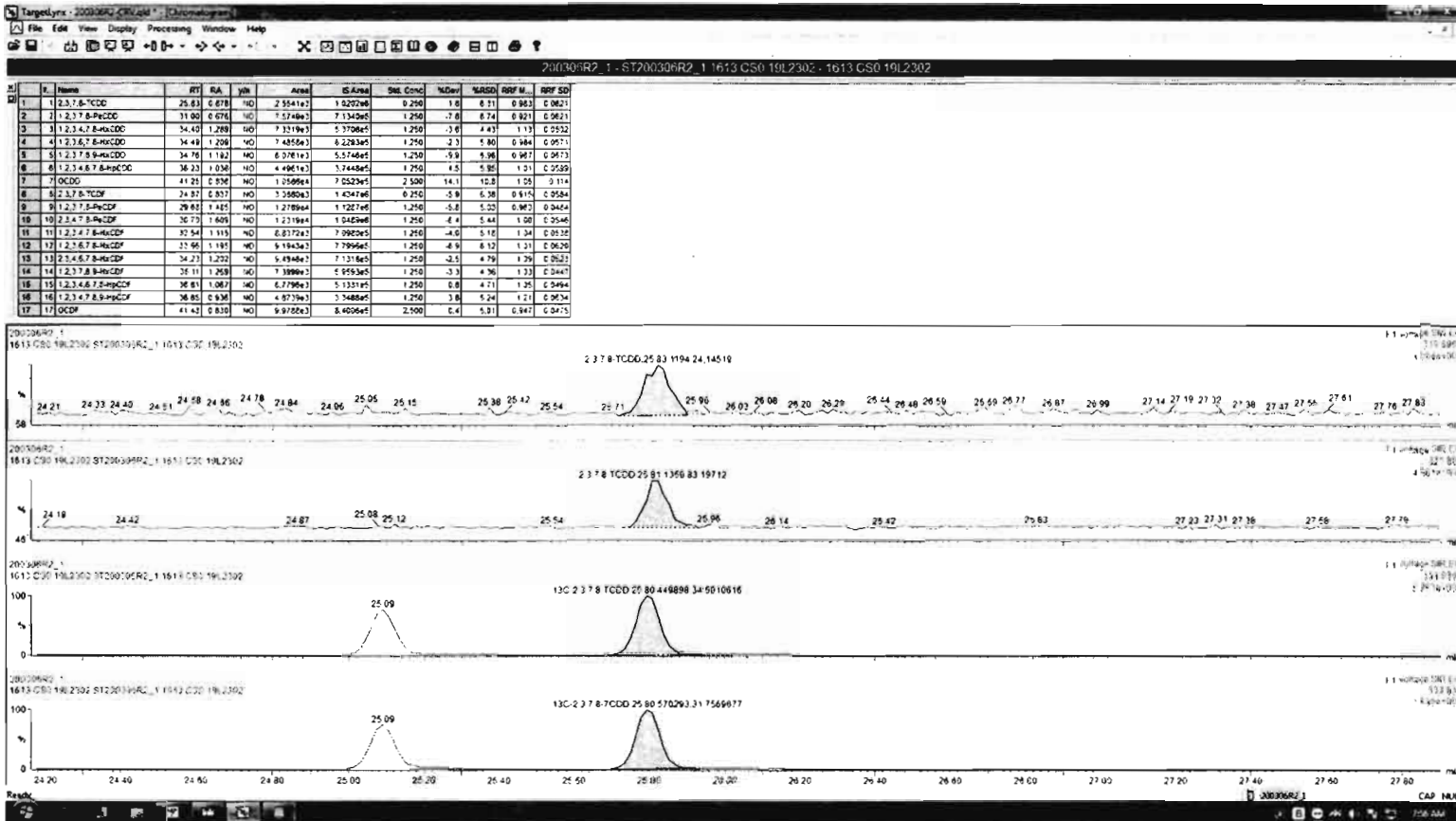
**13C-2,3,7,8-TCDD**

200306R2\_1



200306R2\_1





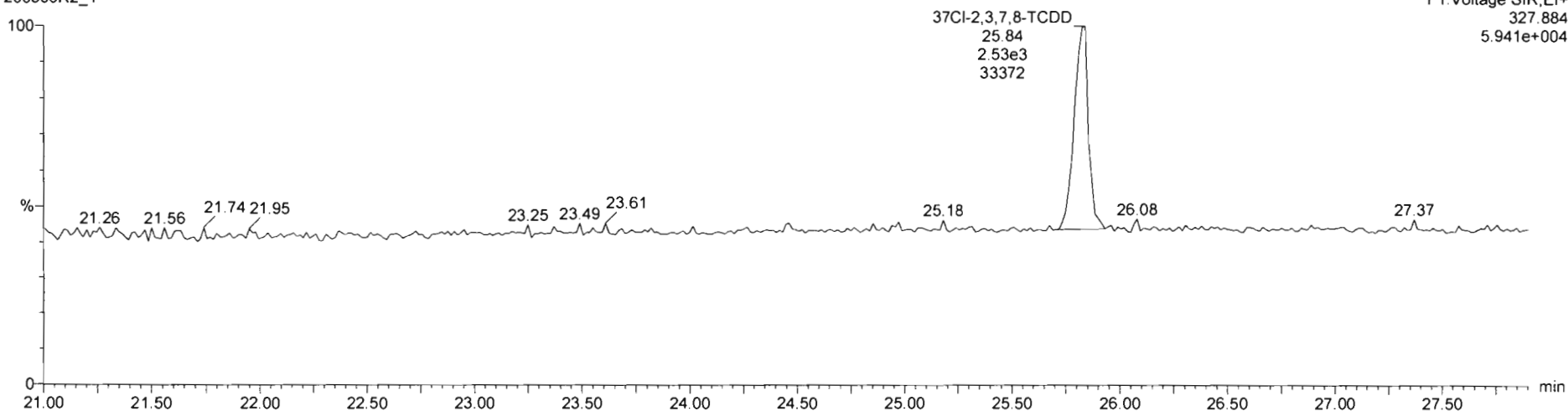
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

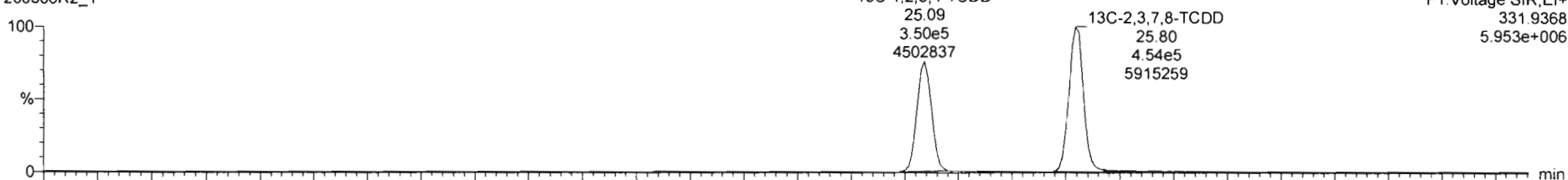
**37Cl-2,3,7,8-TCDD**

200306R2\_1

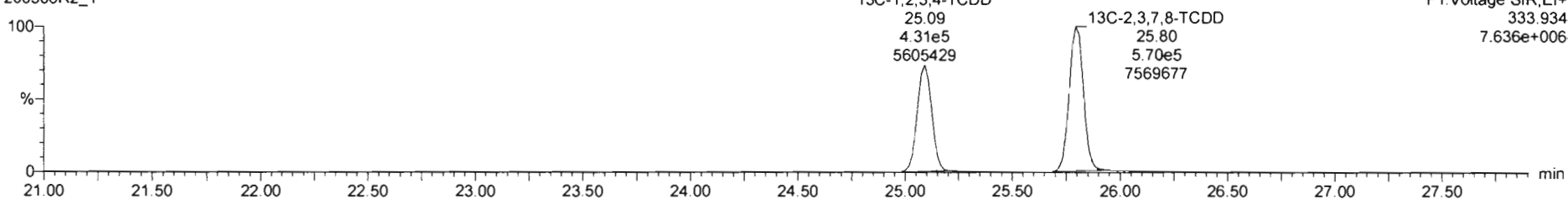


**13C-1,2,3,4-TCDD**

200306R2\_1



200306R2\_1



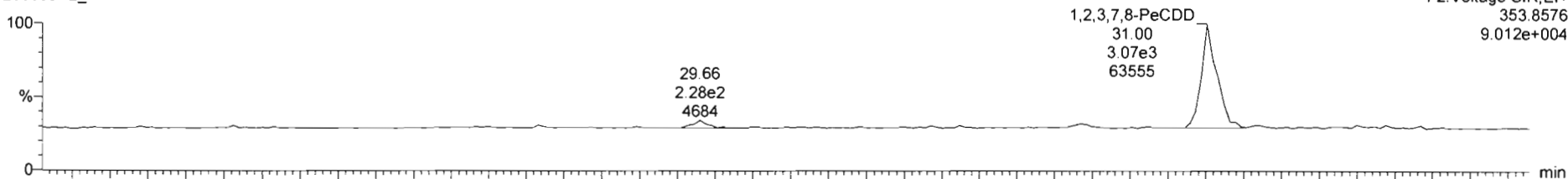
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

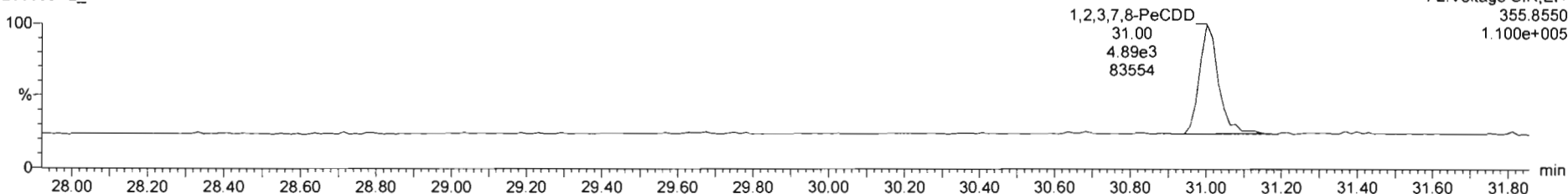
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1



200306R2\_1

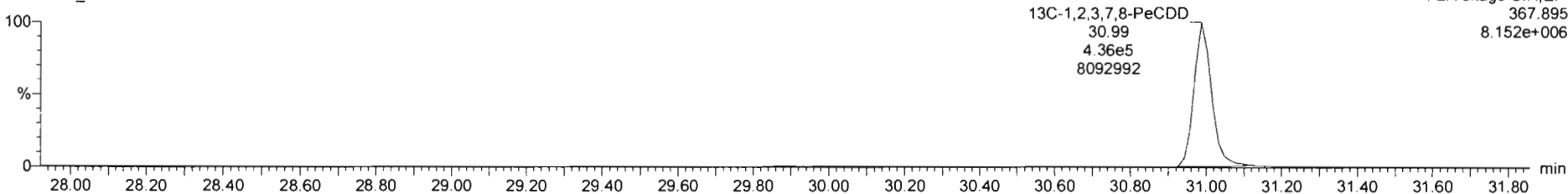


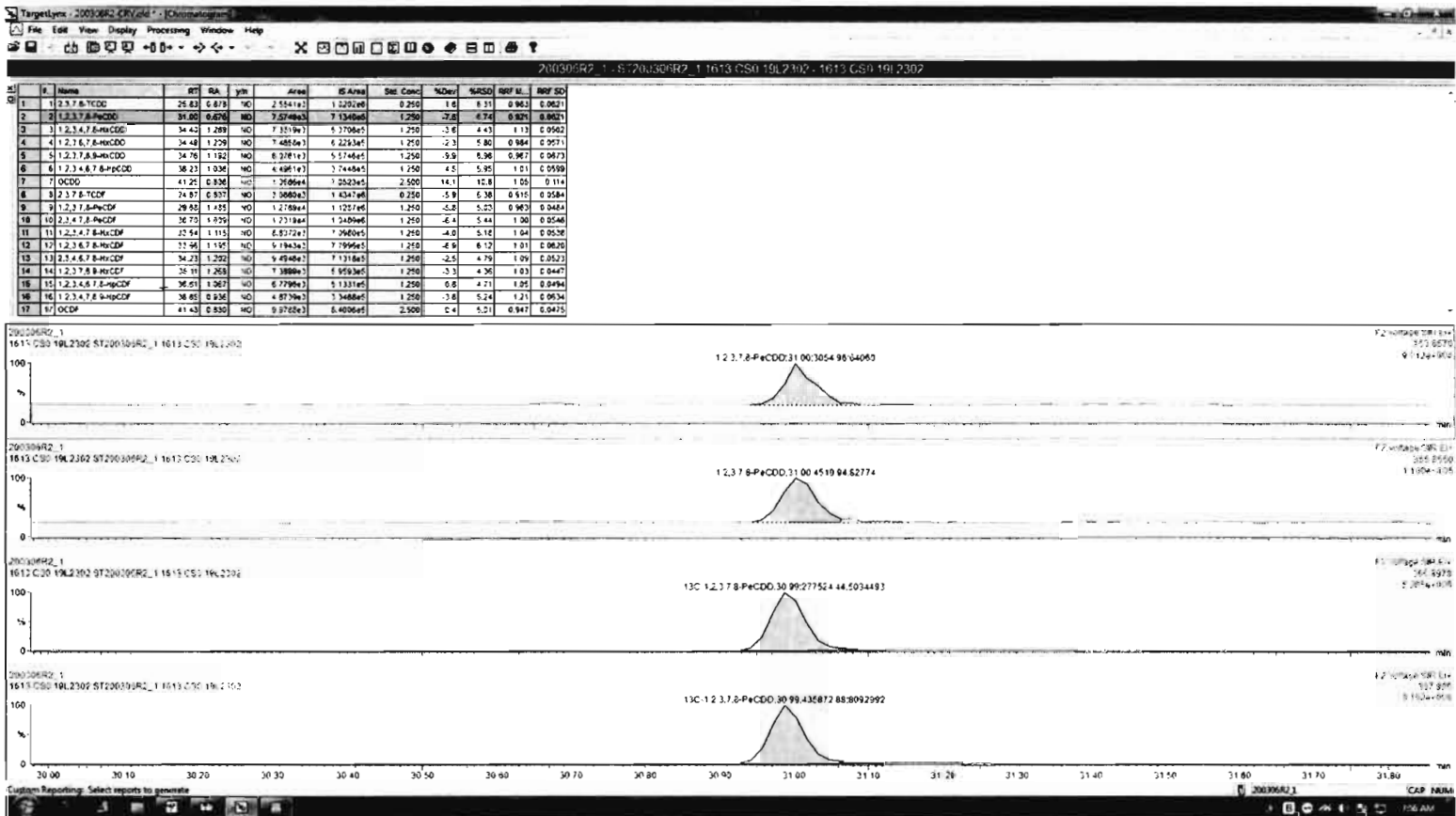
**13C-1,2,3,7,8-PeCDD**

200306R2\_1



200306R2\_1





Dataset: Untitled

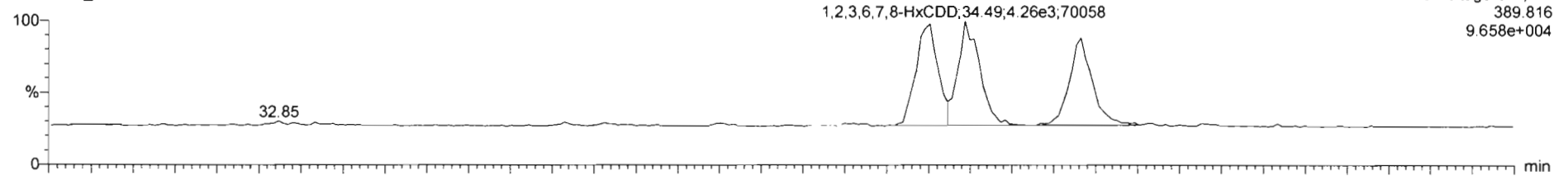
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

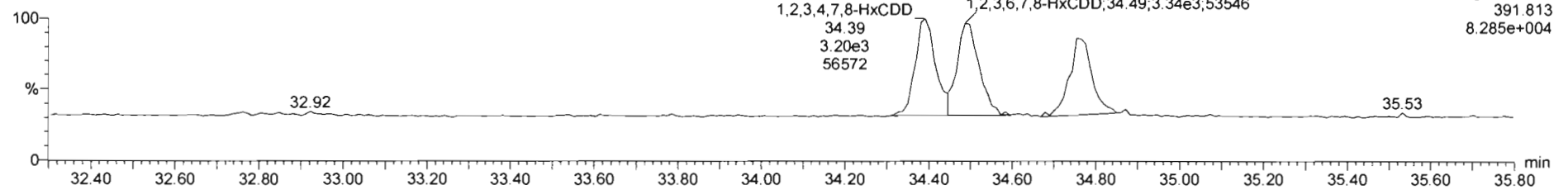
**1,2,3,4,7,8-HxCDD**

200306R2\_1



F3: Voltage SIR, EI+  
389.816  
9.658e+004

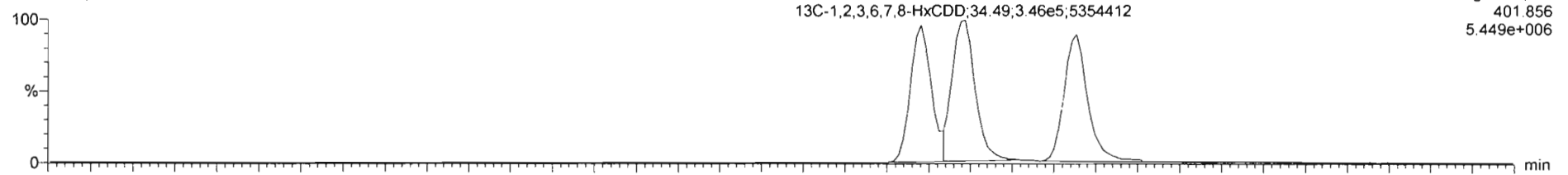
200306R2\_1



F3: Voltage SIR, EI+  
391.813  
8.285e+004

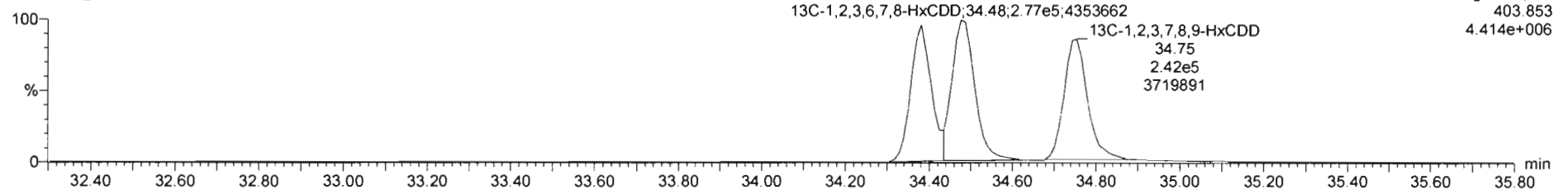
**13C-1,2,3,4,7,8-HxCDD**

200306R2\_1



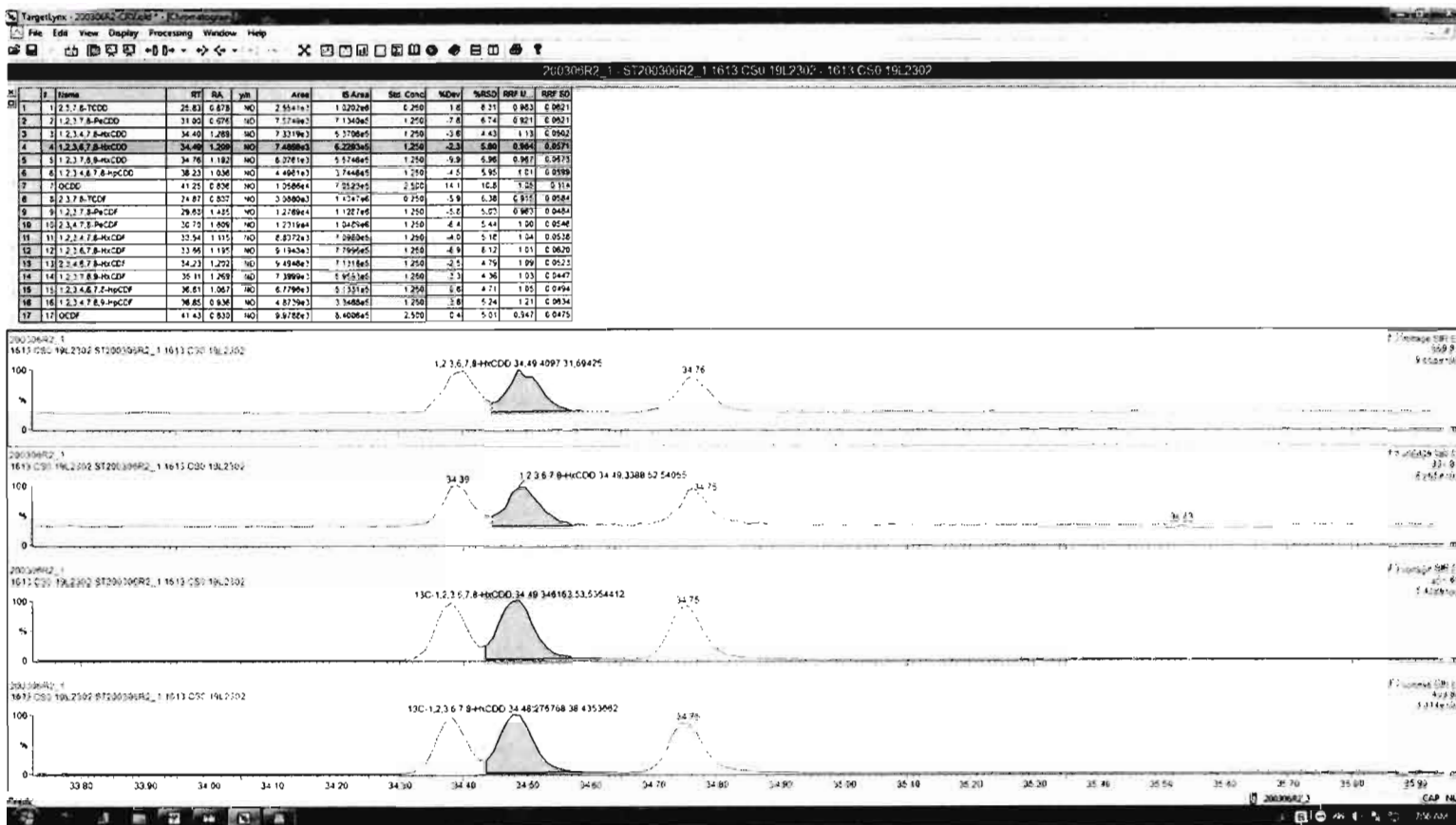
F3: Voltage SIR, EI+  
401.856  
5.449e+006

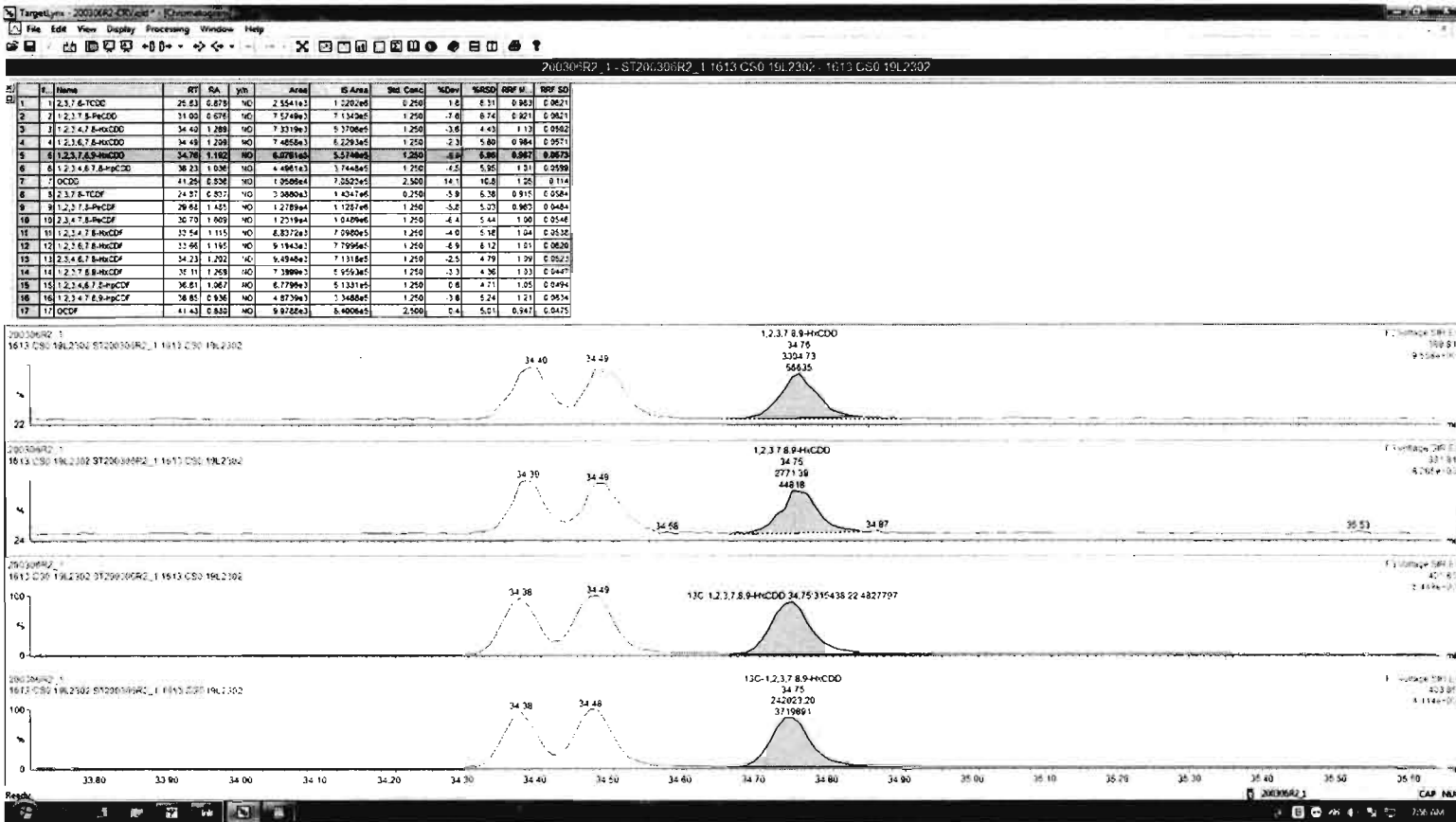
200306R2\_1



F3: Voltage SIR, EI+  
403.853  
4.414e+006







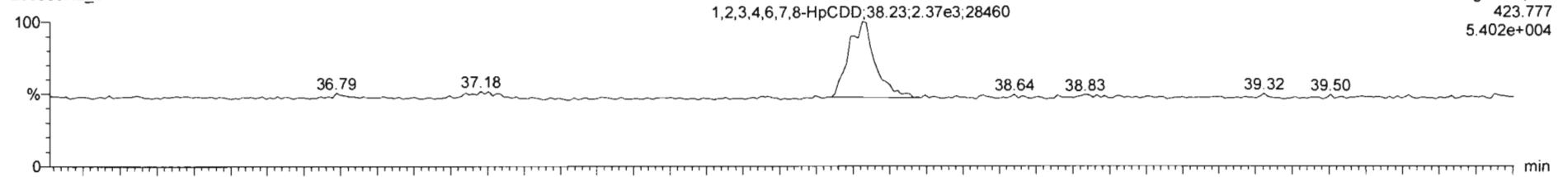
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

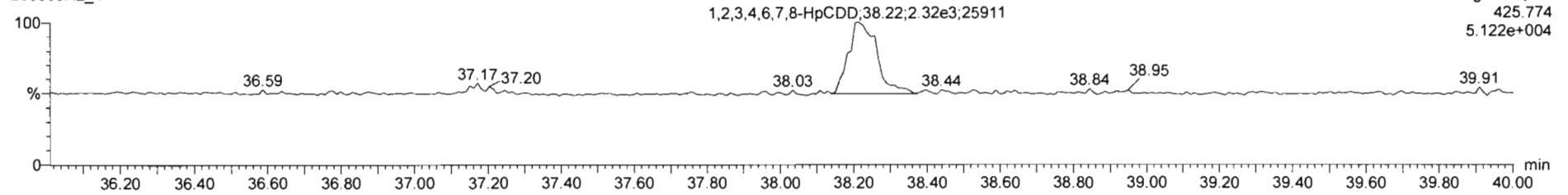
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

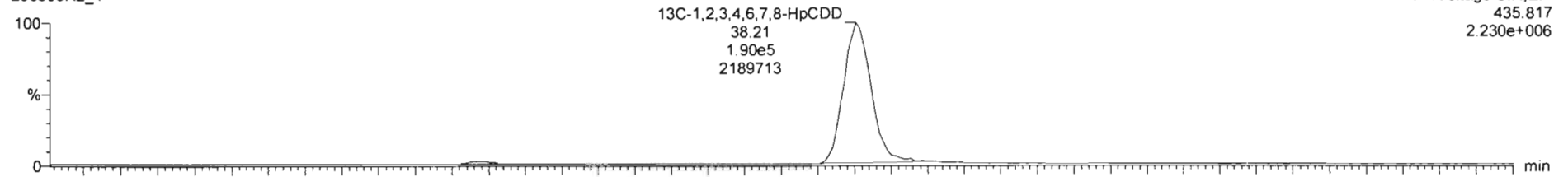


200306R2\_1

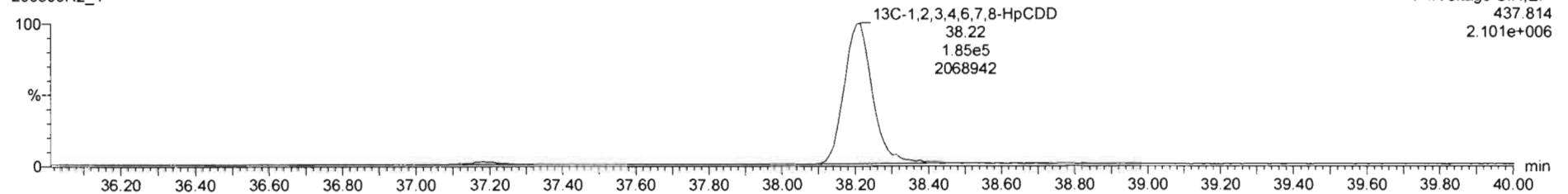


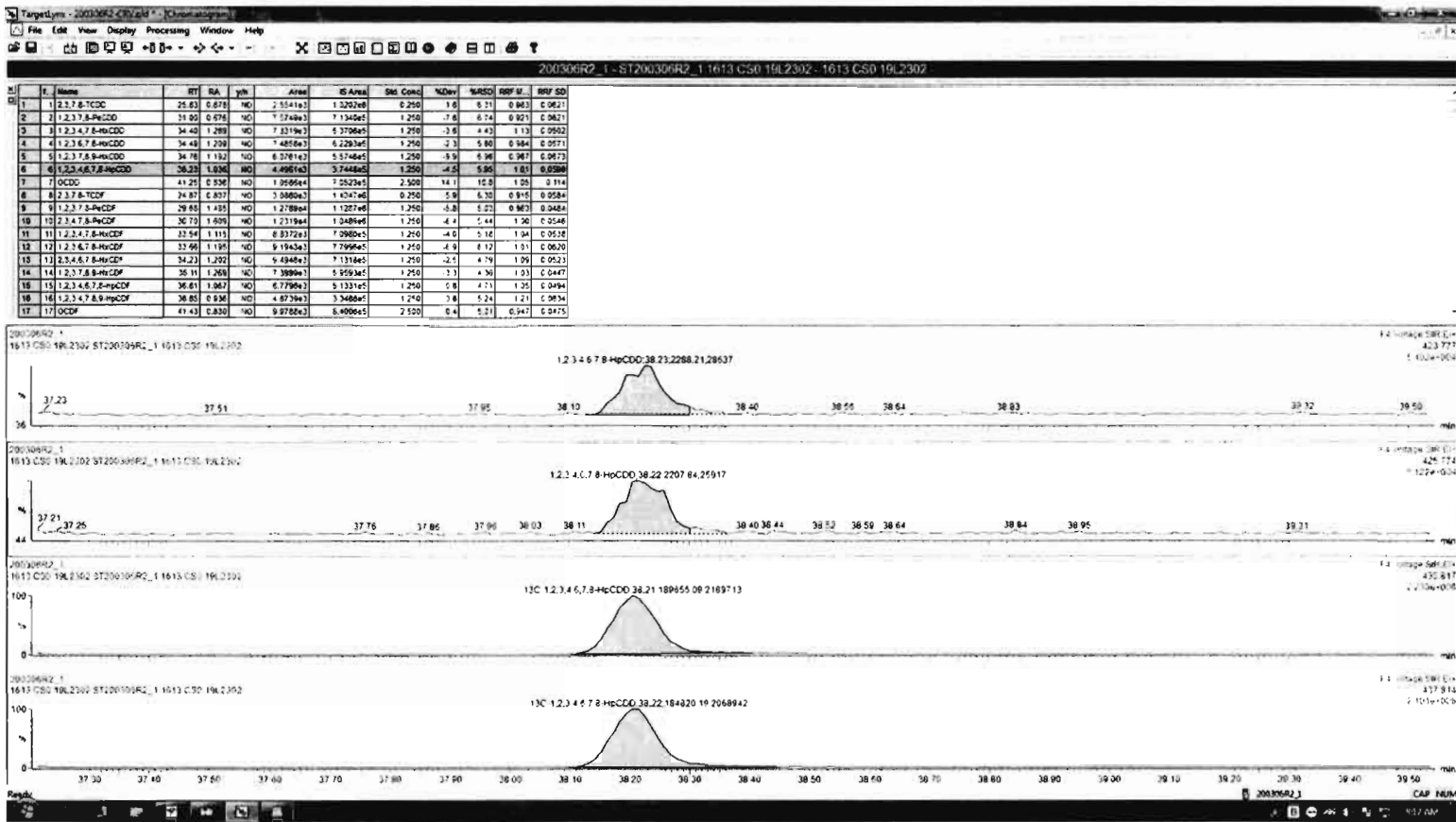
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_1



200306R2\_1





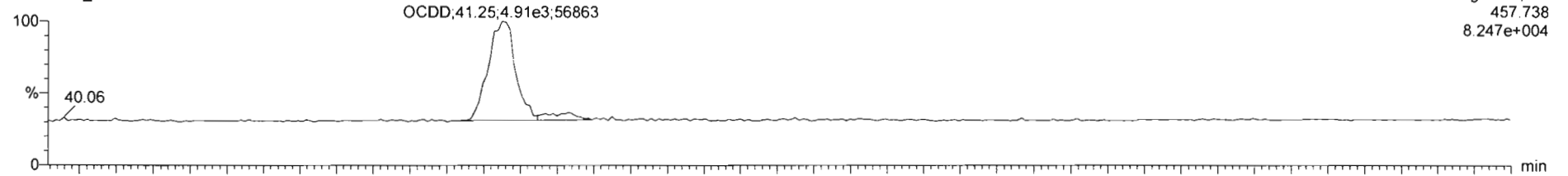
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

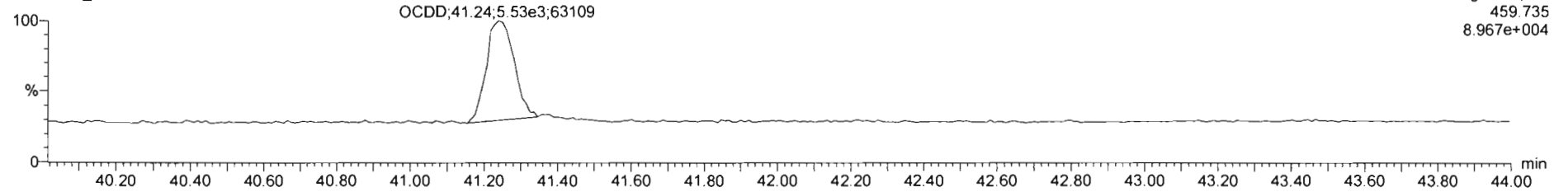
**OCDD**

200306R2\_1



F5:Voltage SIR,EI+  
457.738  
8.247e+004

200306R2\_1



F5:Voltage SIR,EI+  
459.735  
8.967e+004

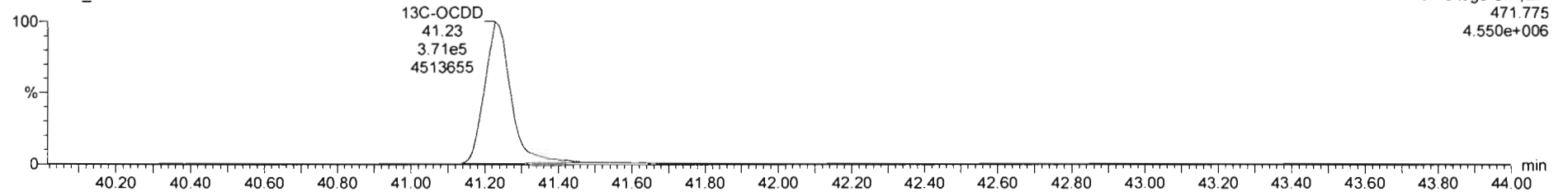
**13C-OCDD**

200306R2\_1

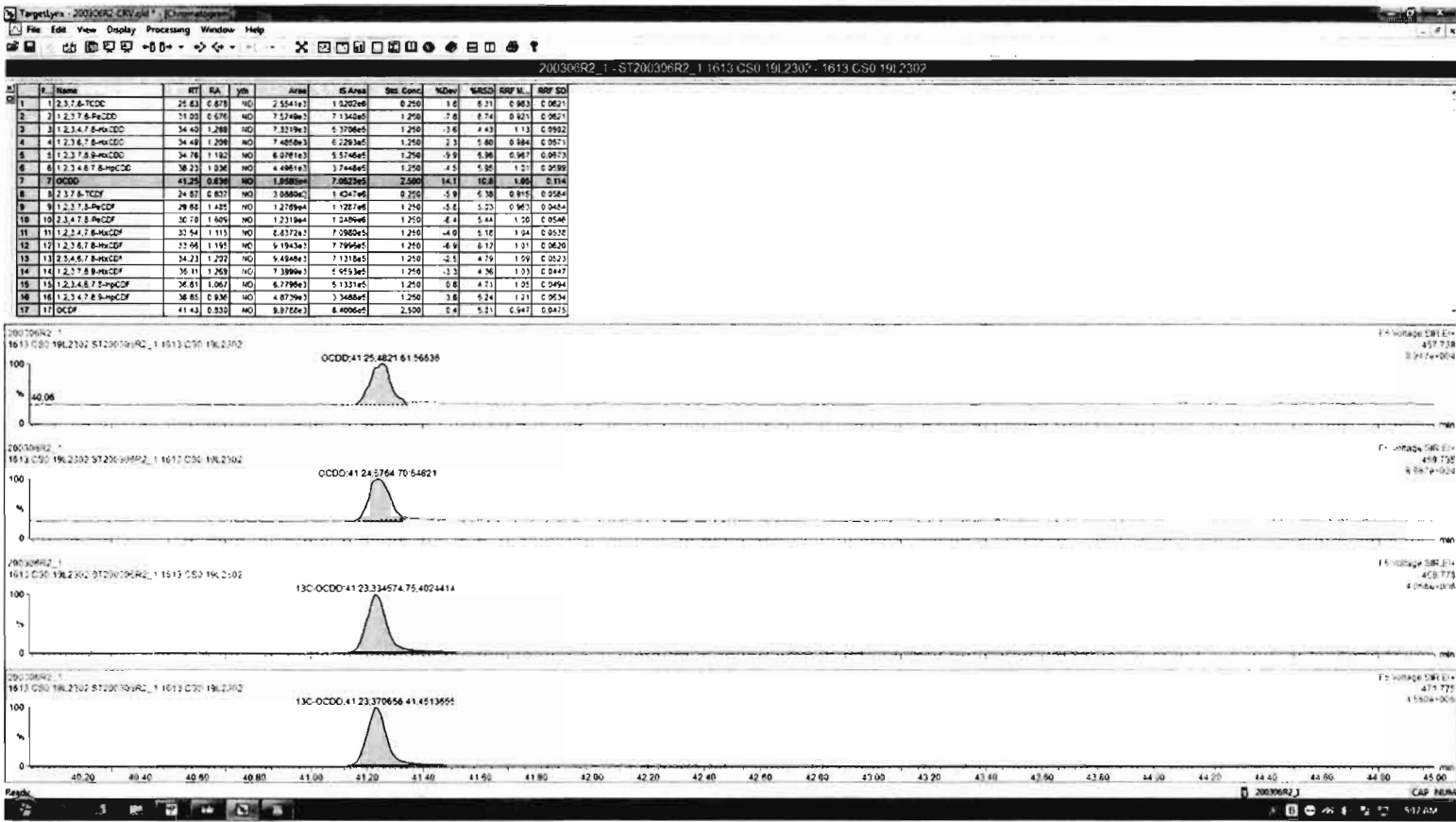


F5:Voltage SIR,EI+  
469.778  
4.056e+006

200306R2\_1



F5:Voltage SIR,EI+  
471.775  
4.550e+006



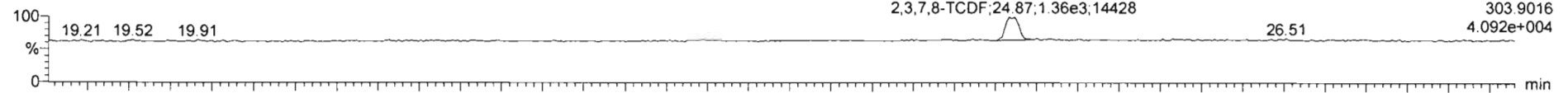
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

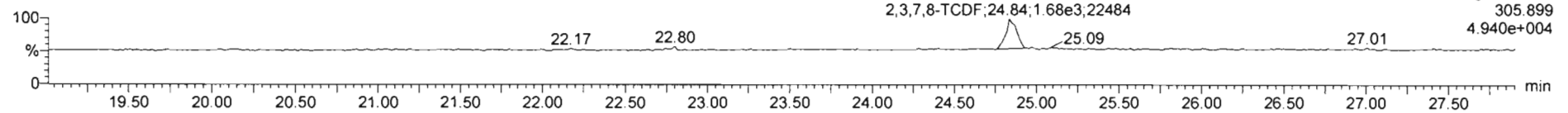
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

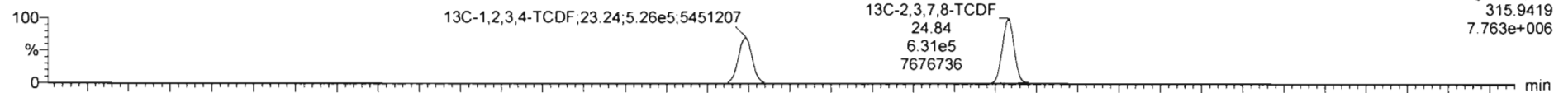


200306R2\_1

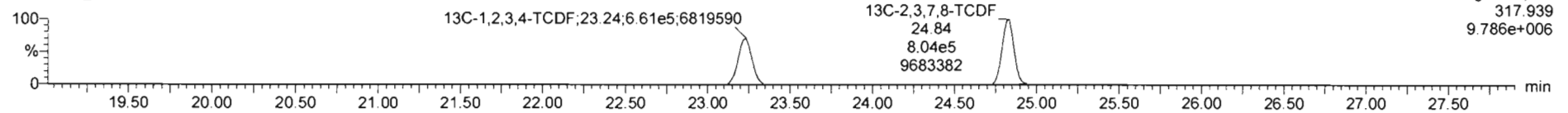


**13C-2,3,7,8-TCDF**

200306R2\_1

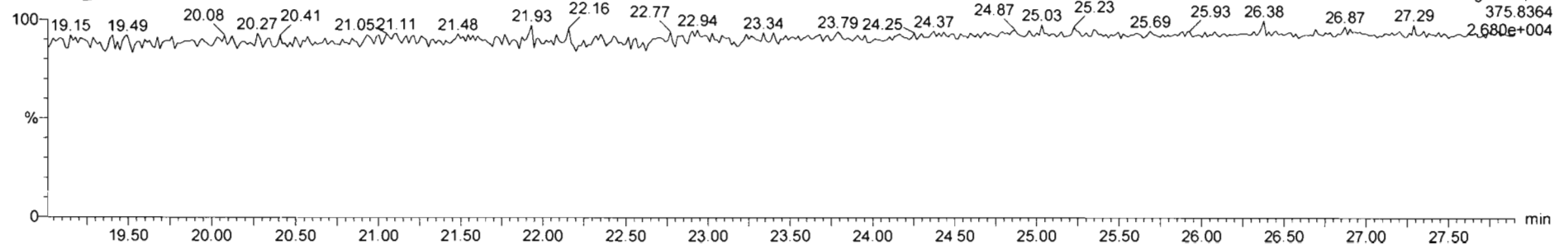


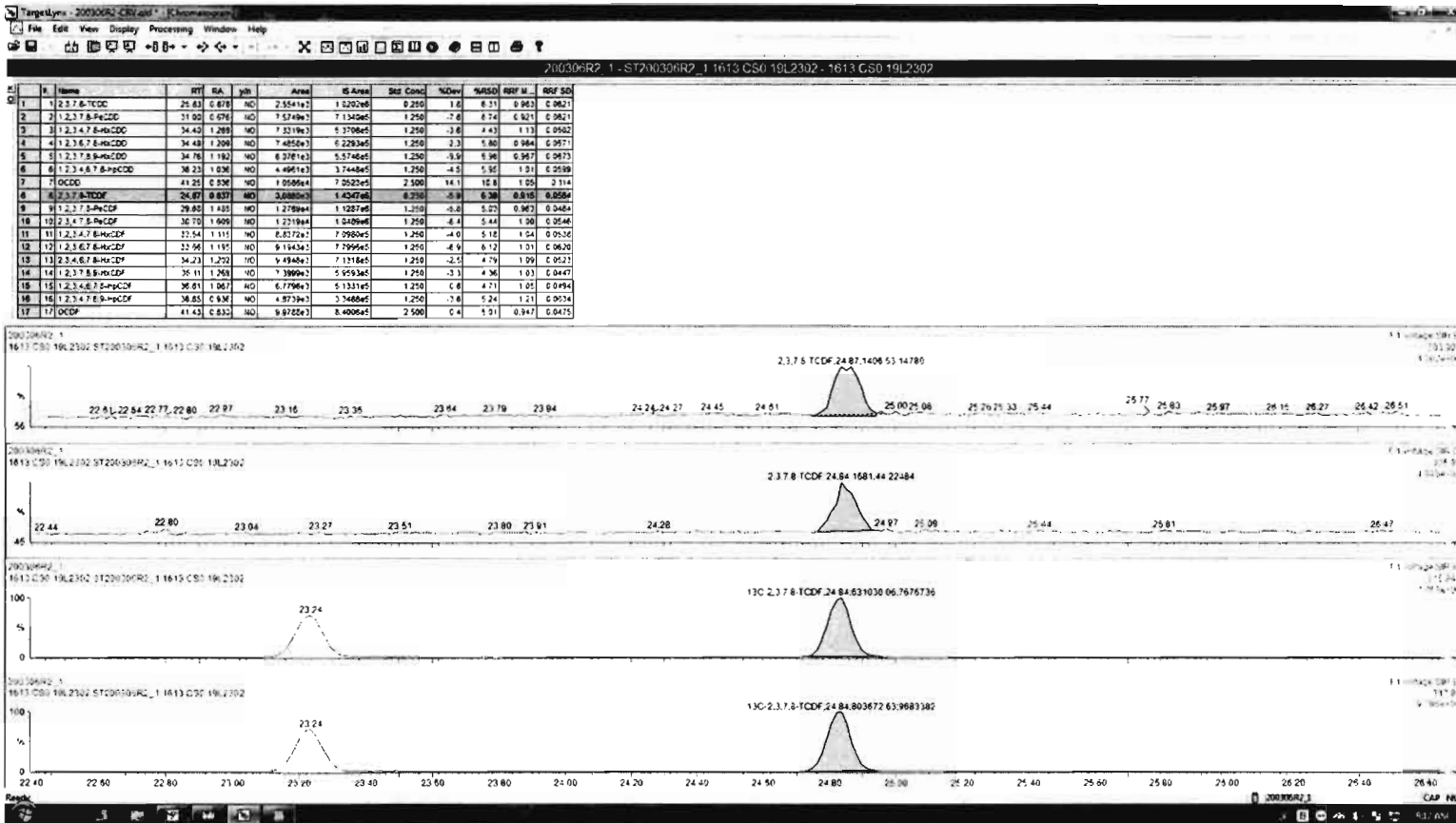
200306R2\_1



**DPE1**

200306R2\_1







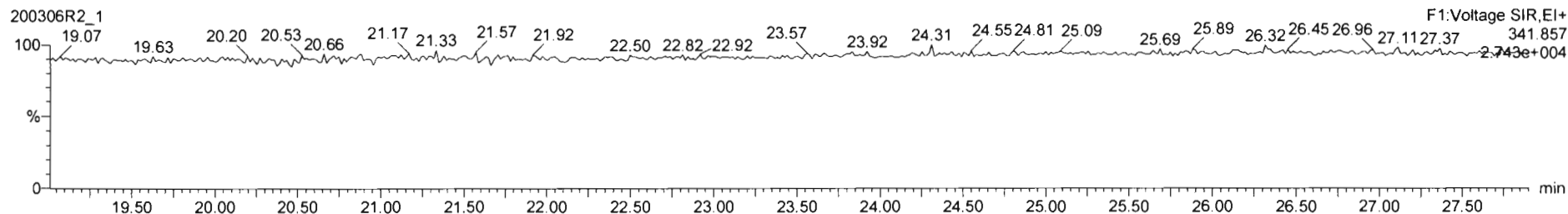
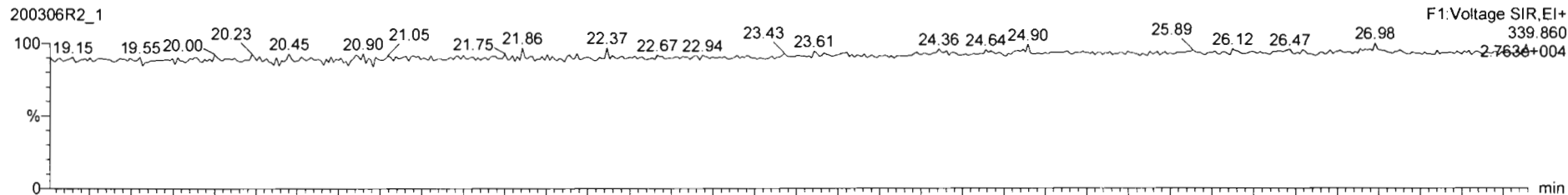
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

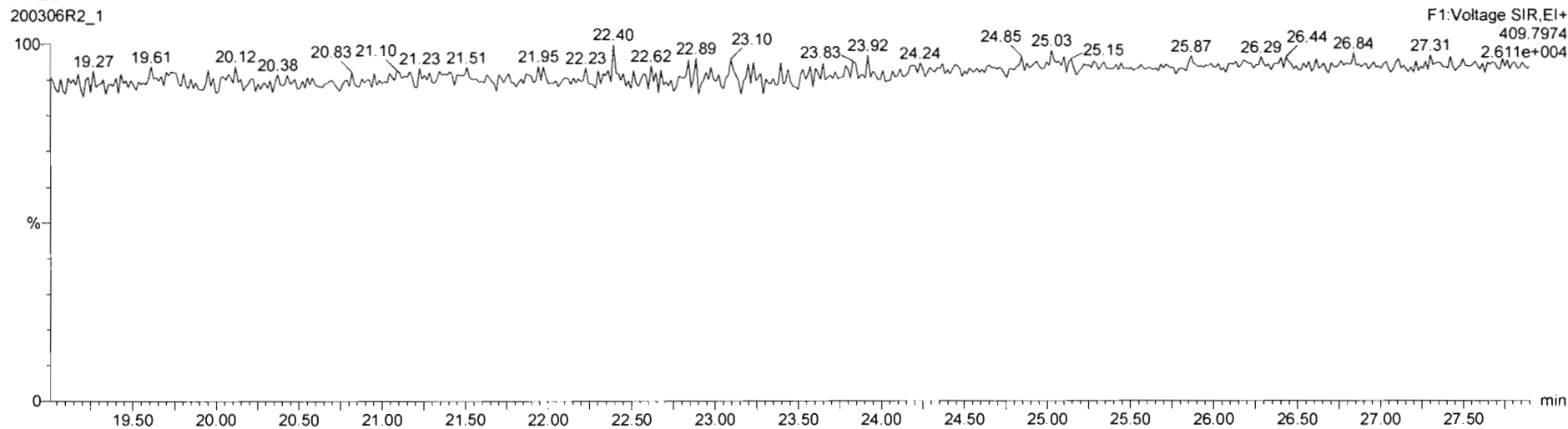
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

1st Func. Penta-Furans



DPE6



Dataset: Untitled

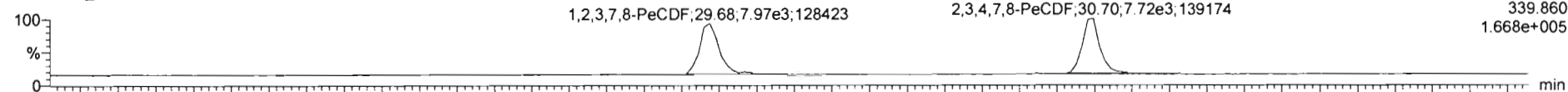
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

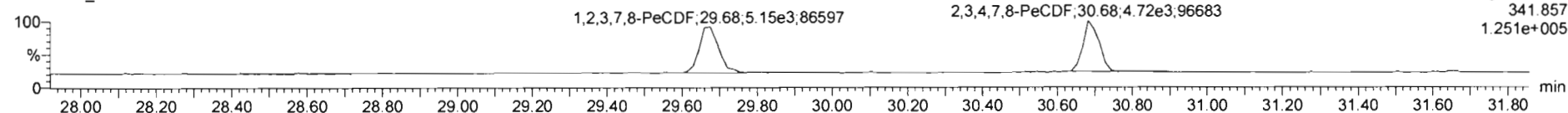
**1,2,3,7,8-PeCDF**

200306R2\_1



F2: Voltage SIR, EI+  
339.860  
1.668e+005

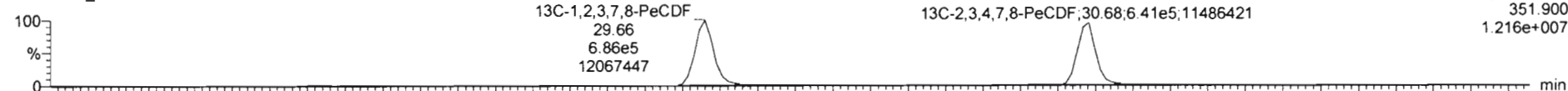
200306R2\_1



F2: Voltage SIR, EI+  
341.857  
1.251e+005

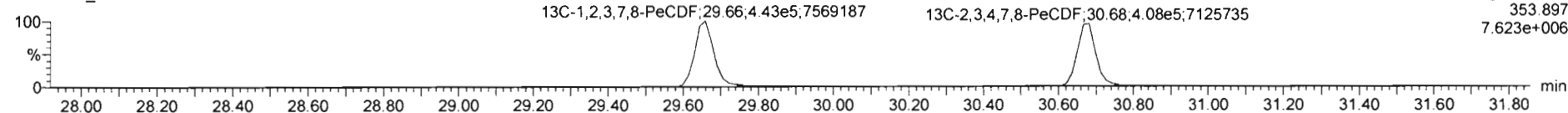
**13C-1,2,3,7,8-PeCDF**

200306R2\_1



F2: Voltage SIR, EI+  
351.900  
1.216e+007

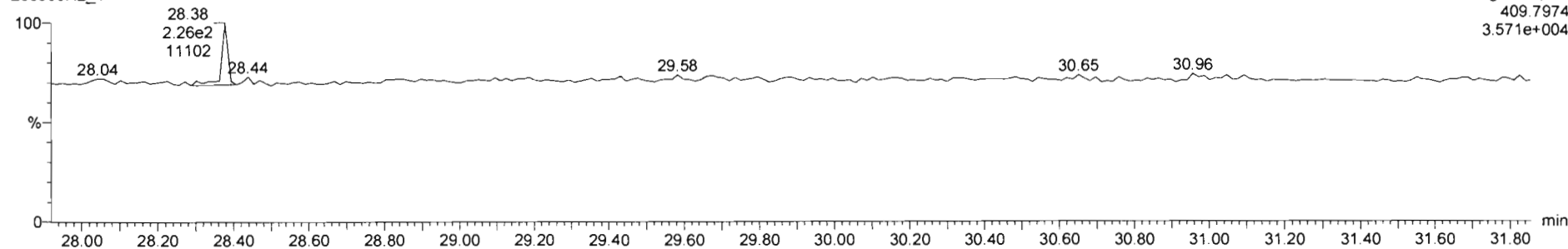
200306R2\_1



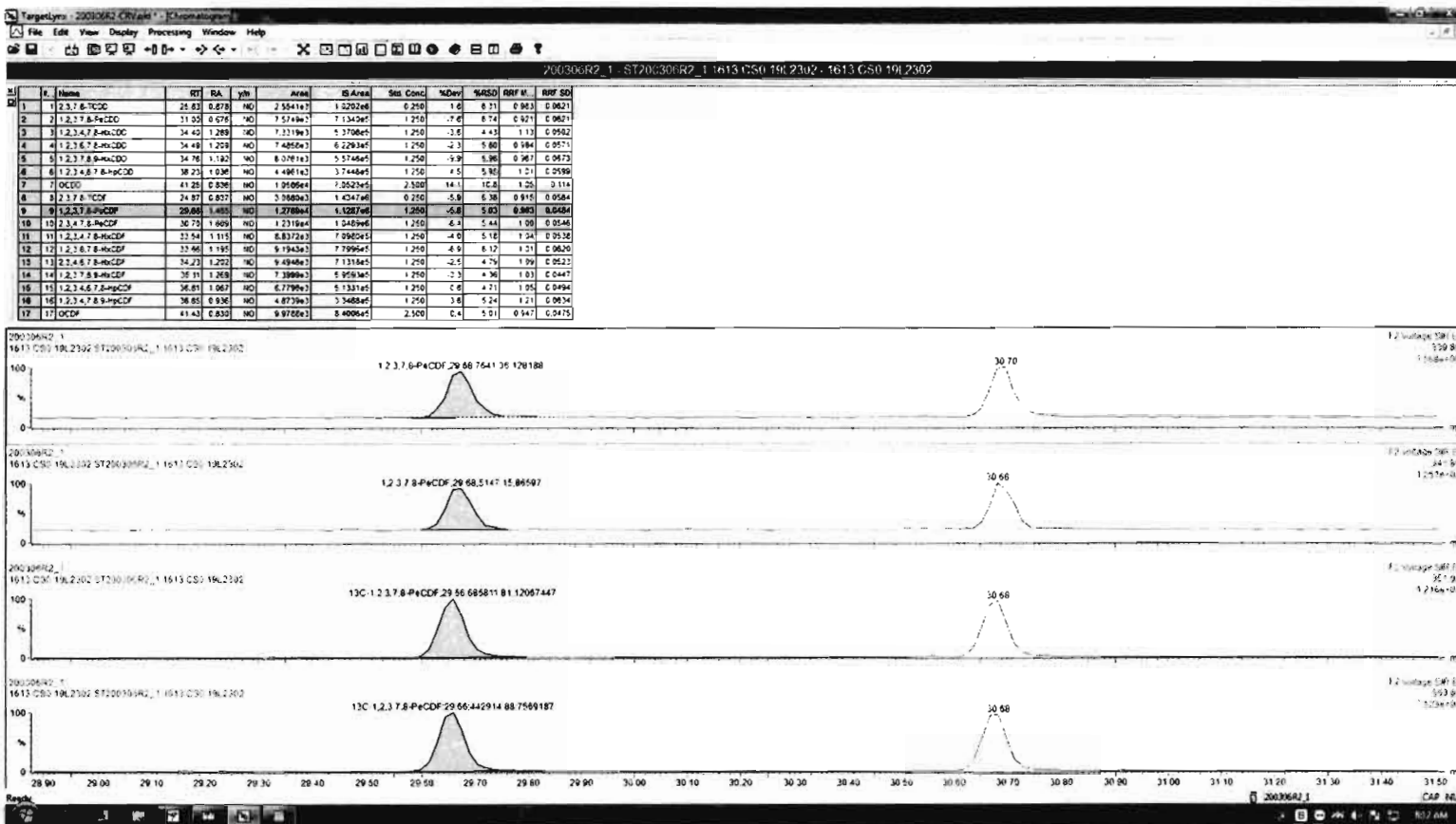
F2: Voltage SIR, EI+  
353.897  
7.623e+006

**DPE2**

200306R2\_1



F2: Voltage SIR, EI+  
409.7974  
3.571e+004





Dataset: Untitled

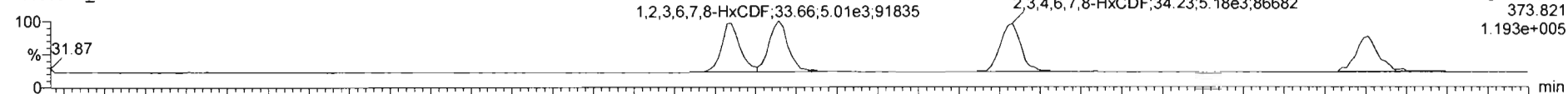
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

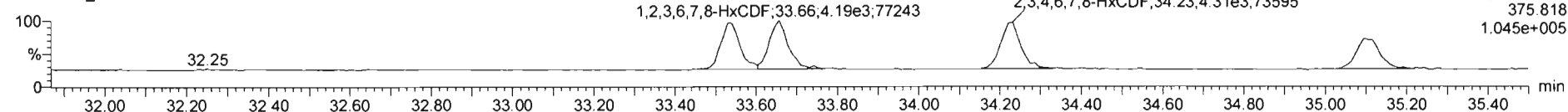
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**1,2,3,4,7,8-HxCDF**

200306R2\_1

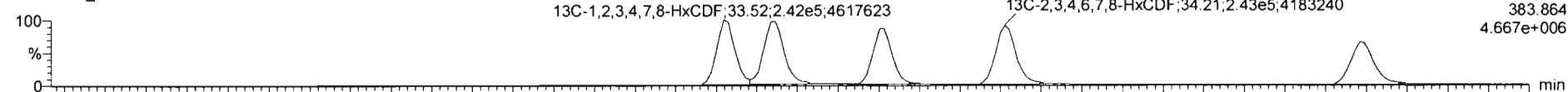


200306R2\_1

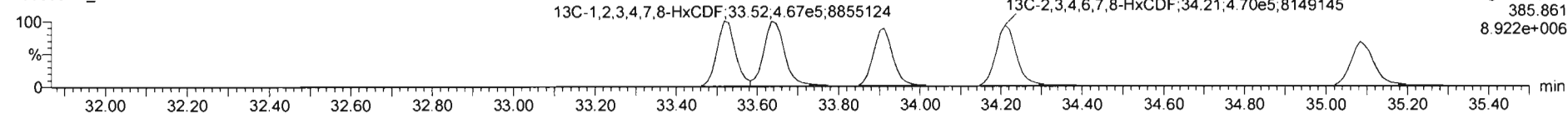


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_1

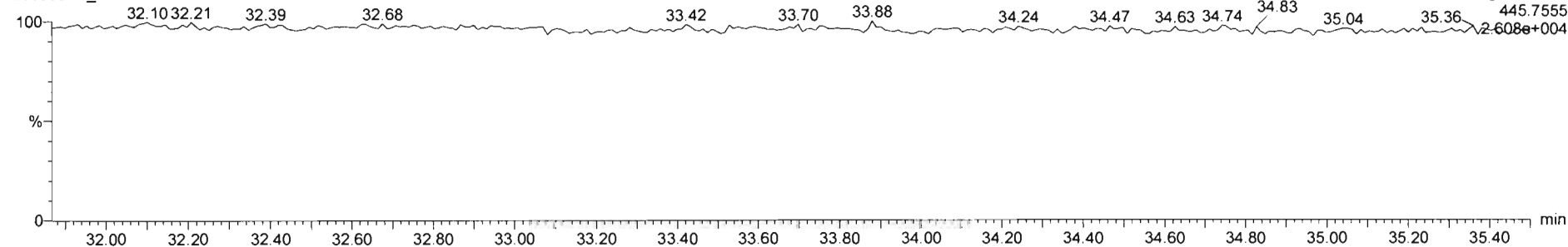


200306R2\_1



**DPE3**

200306R2\_1

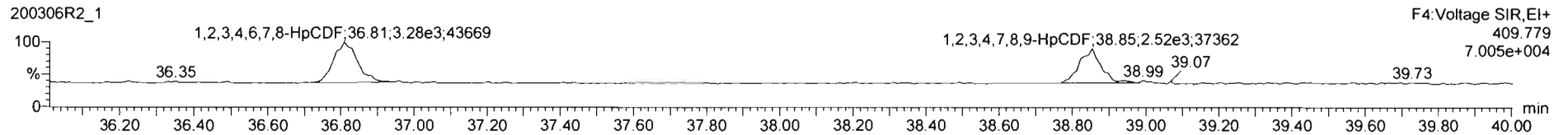
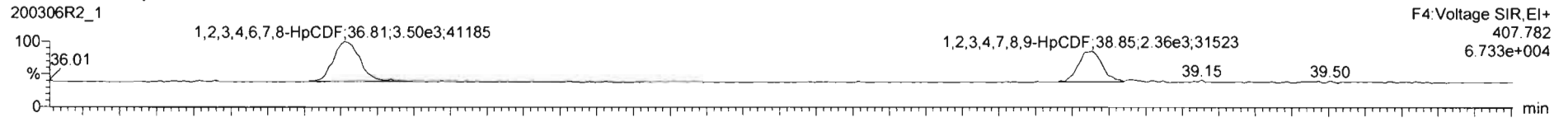


Dataset: Untitled

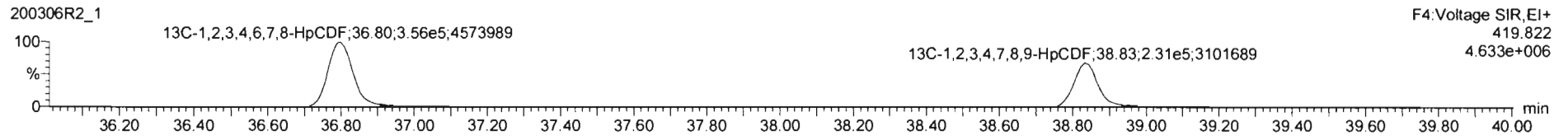
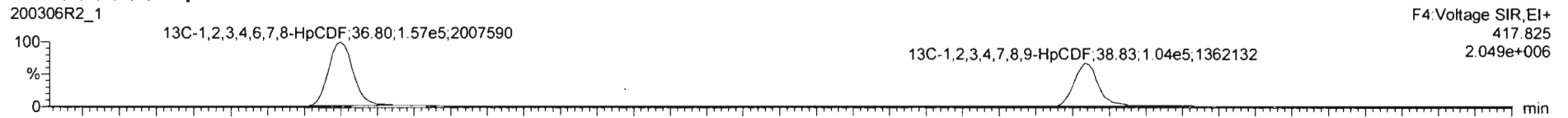
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

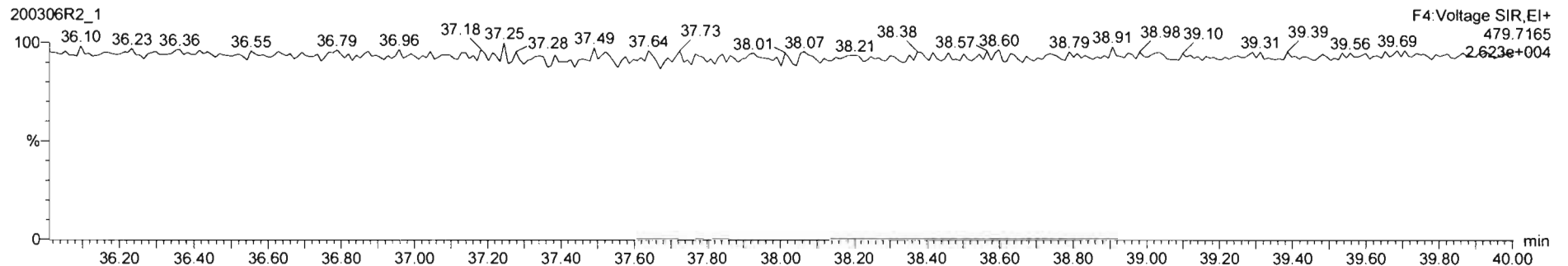
1,2,3,4,6,7,8-HpCDF



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



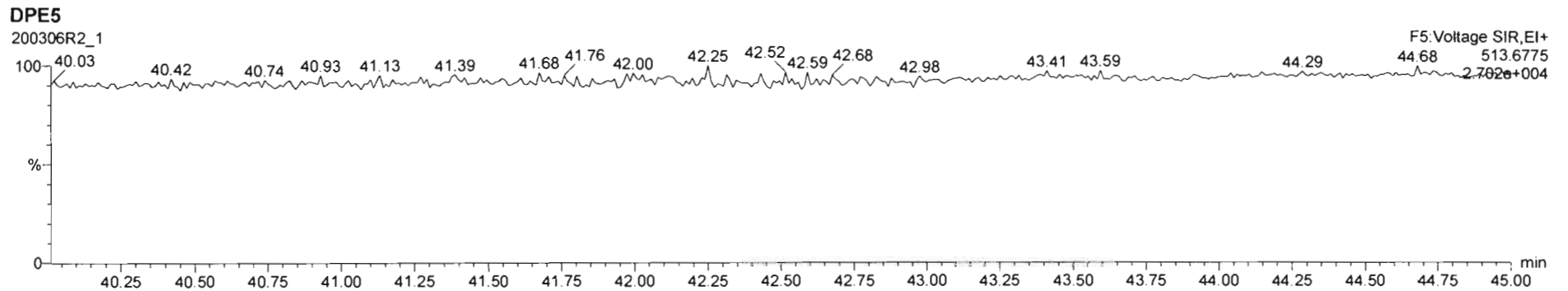
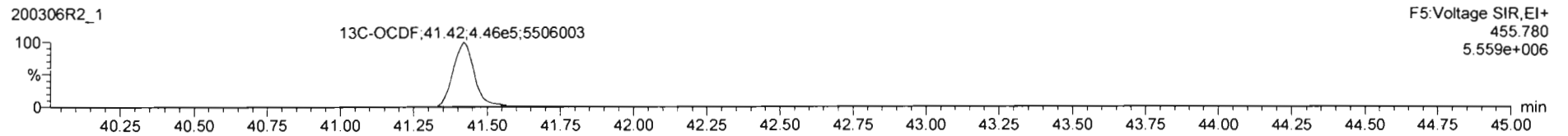
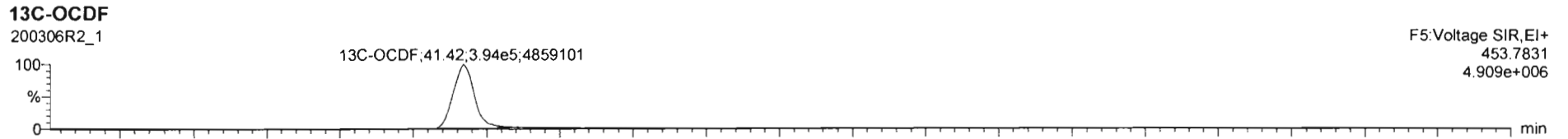
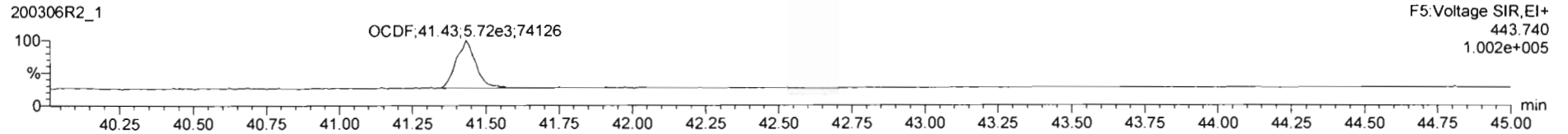
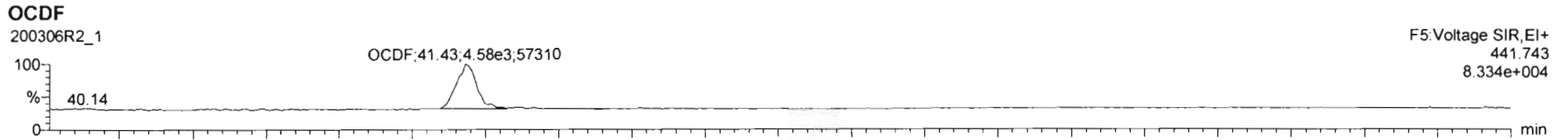
DPE4

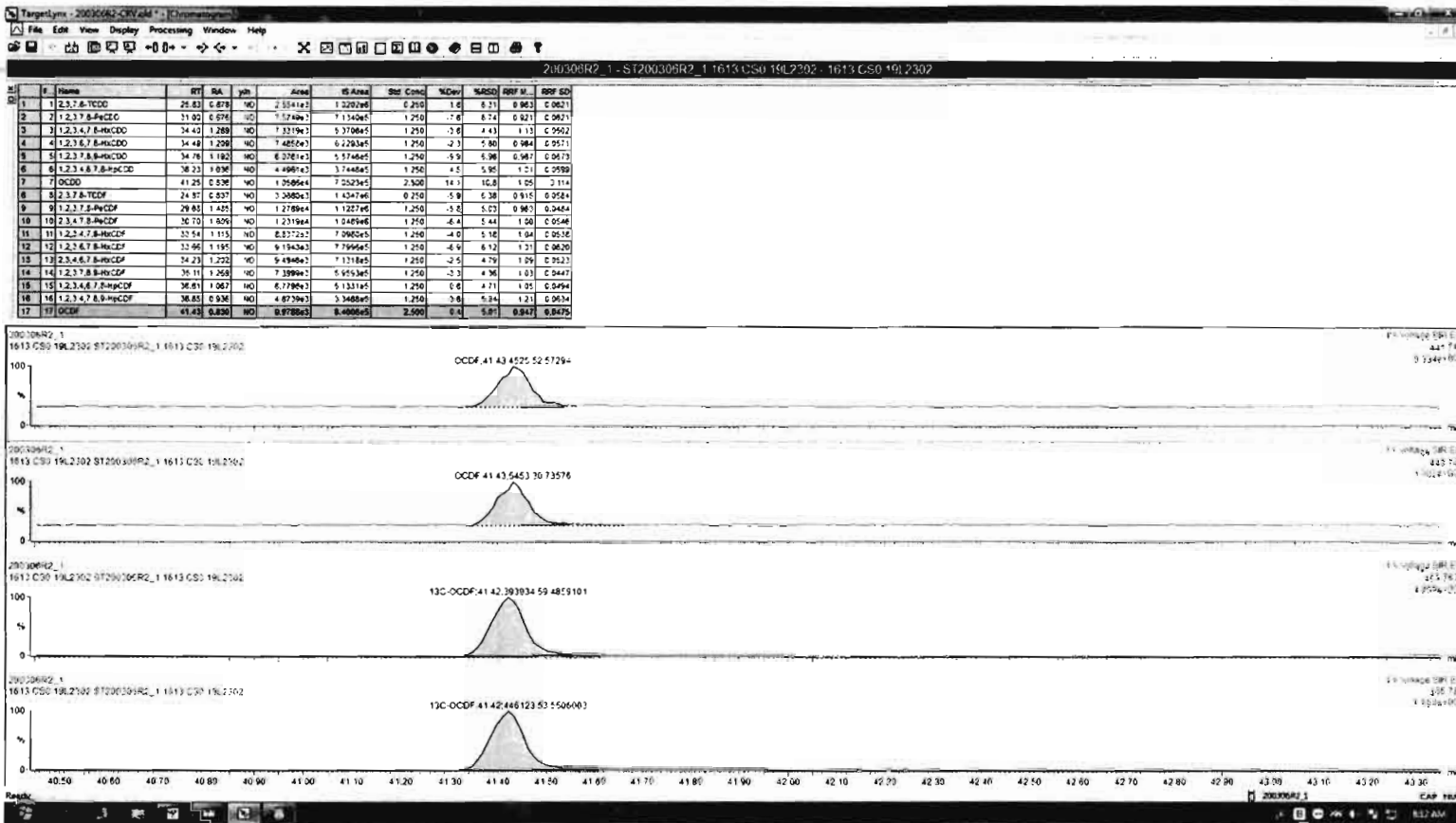


Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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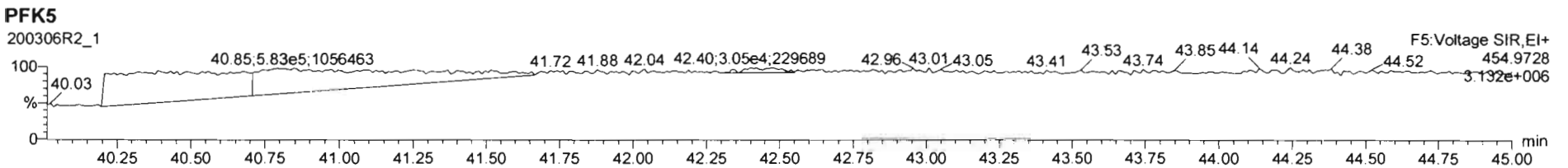
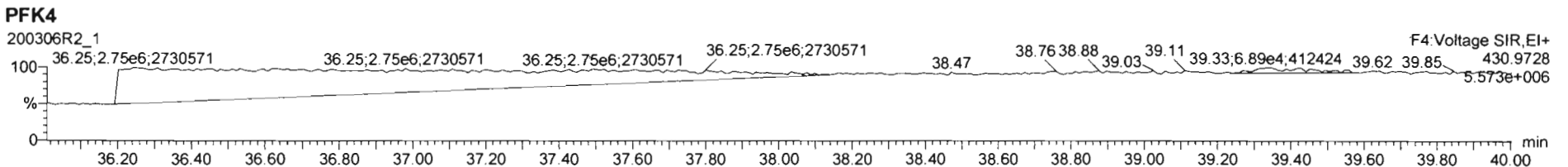
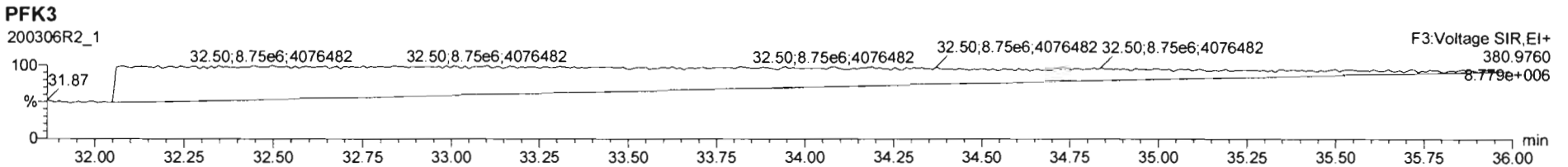
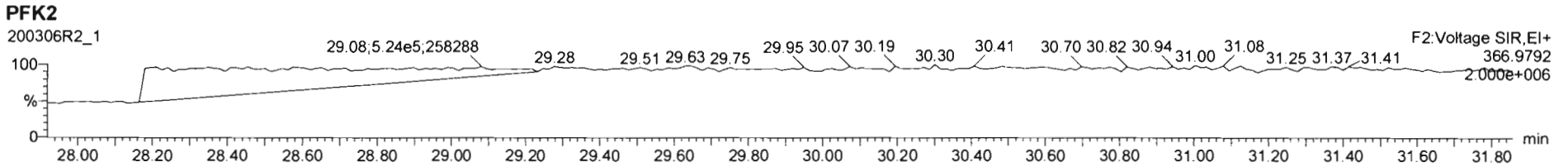
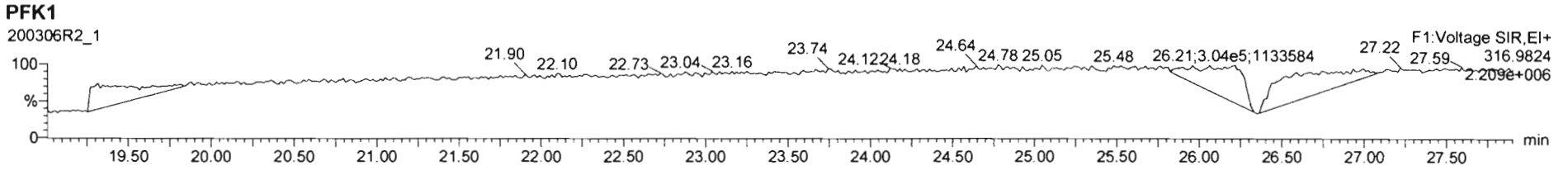




Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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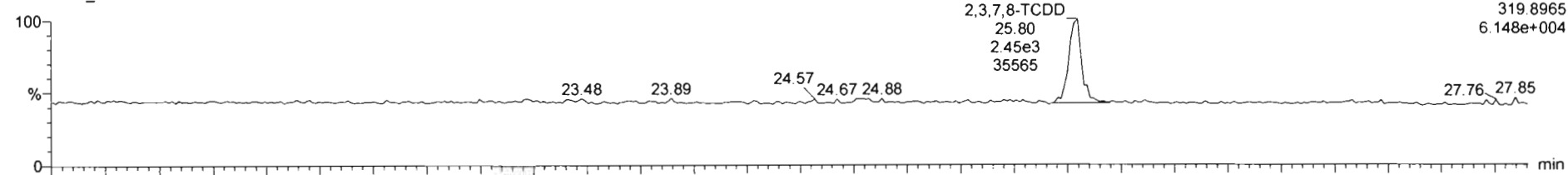
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

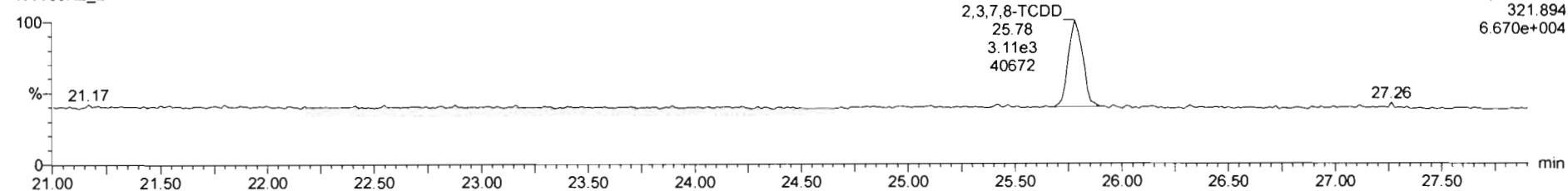
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**2,3,7,8-TCDD**

200306R2\_2

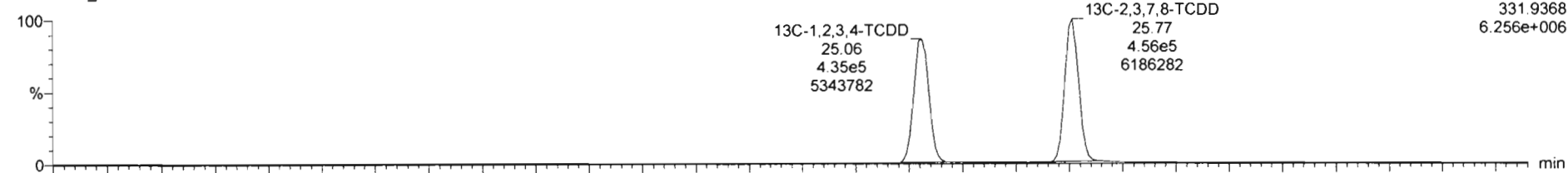


200306R2\_2

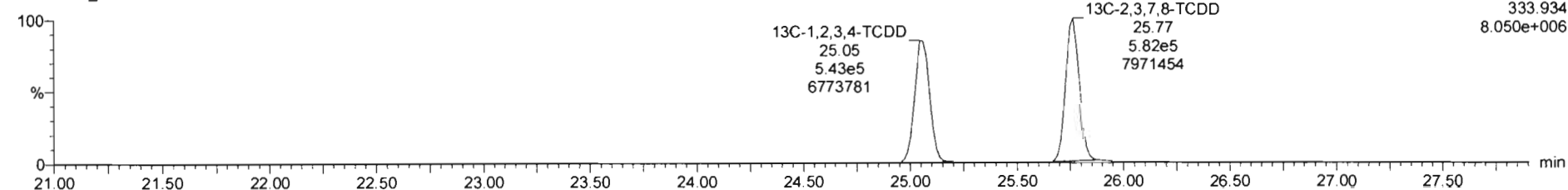


**13C-2,3,7,8-TCDD**

200306R2\_2



200306R2\_2



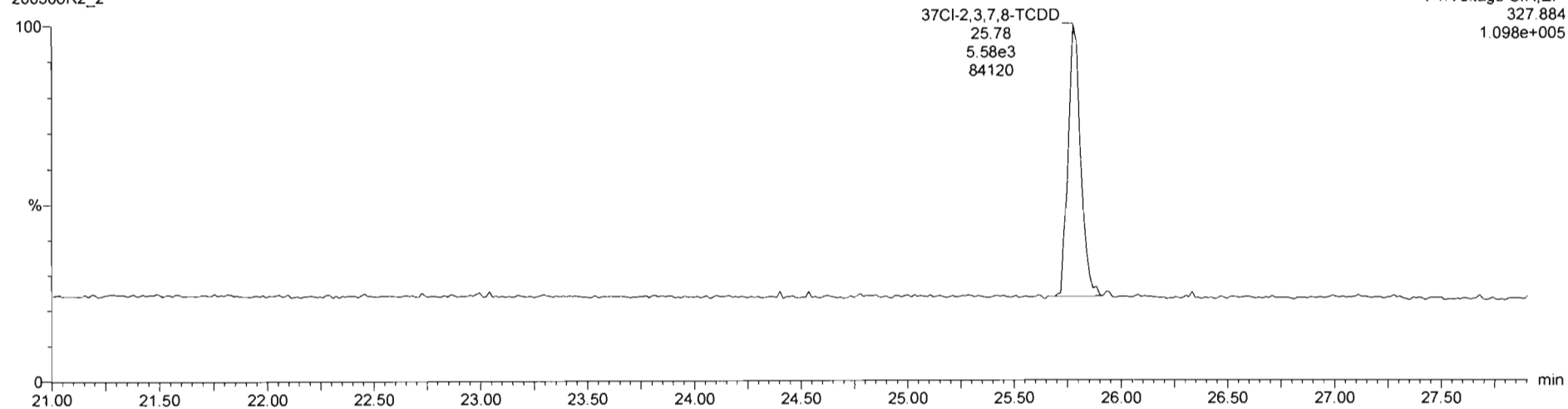
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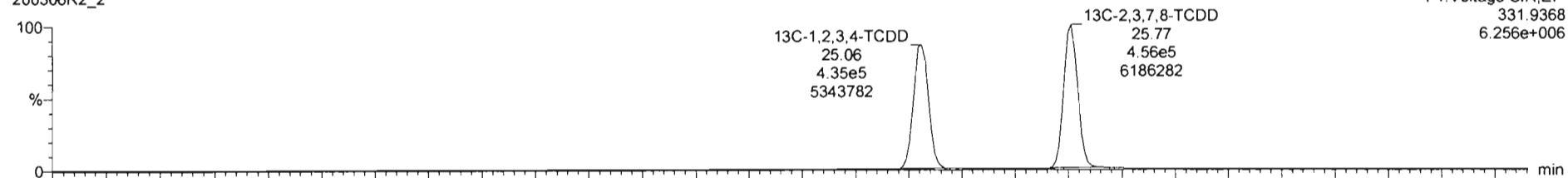
**37Cl-2,3,7,8-TCDD**

200306R2\_2

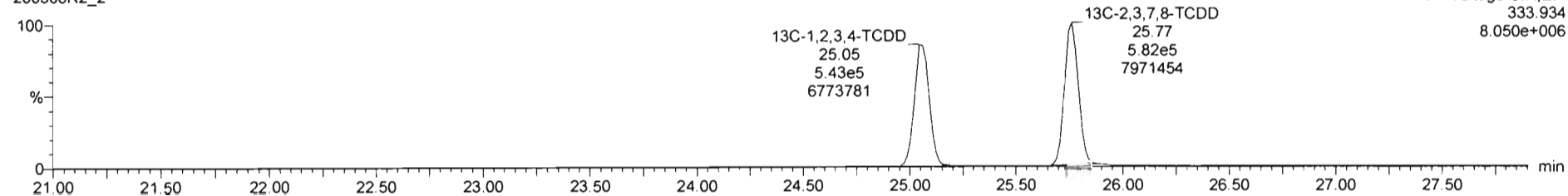


**13C-1,2,3,4-TCDD**

200306R2\_2



200306R2\_2



Dataset: Untitled

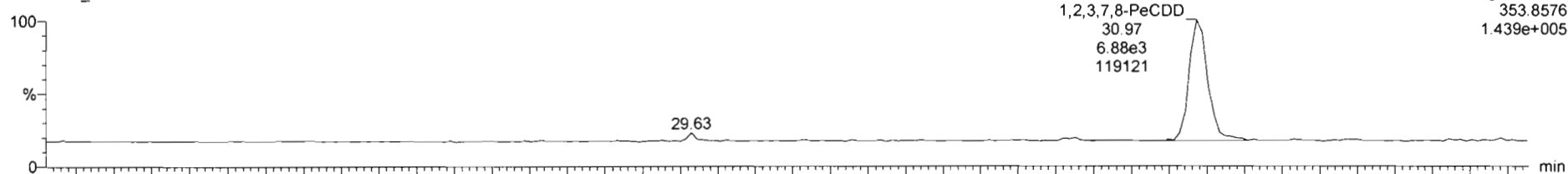
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

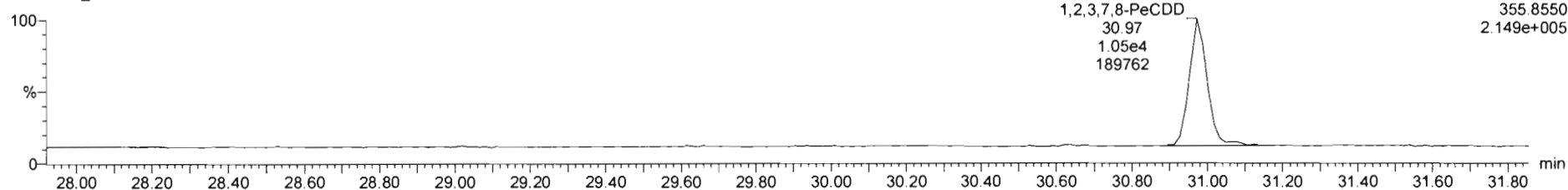
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**1,2,3,7,8-PeCDD**

200306R2\_2

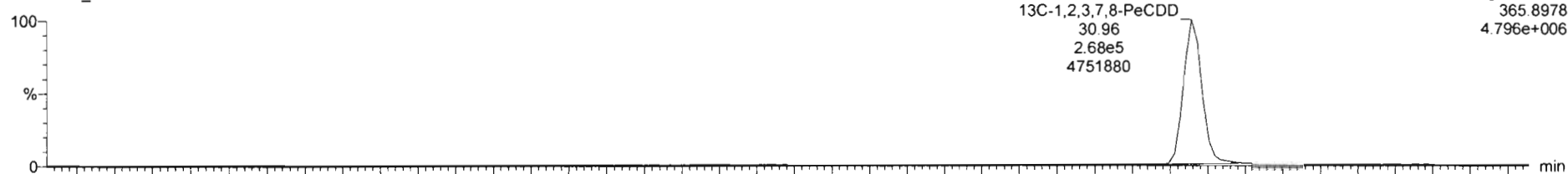


200306R2\_2

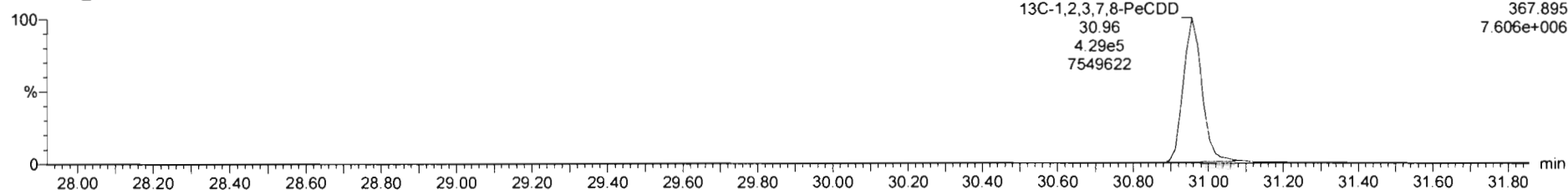


**13C-1,2,3,7,8-PeCDD**

200306R2\_2



200306R2\_2



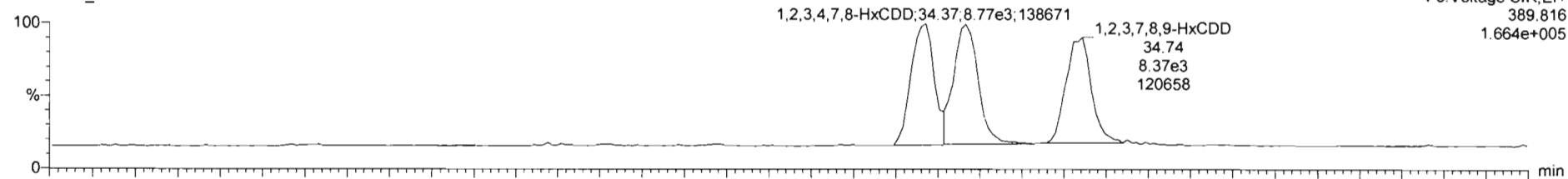
Dataset: Untitled

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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

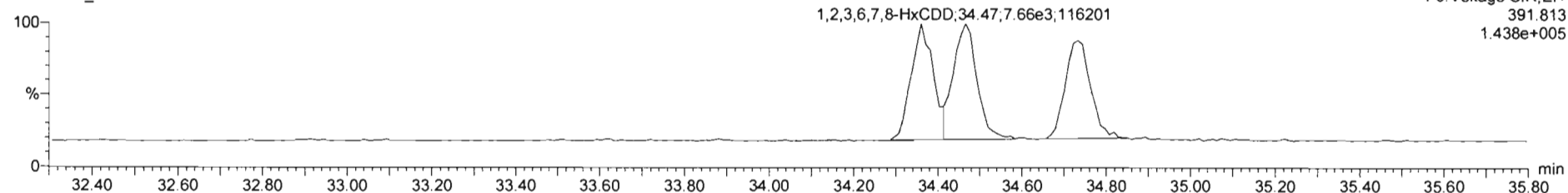
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**1,2,3,4,7,8-HxCDD**

200306R2\_2

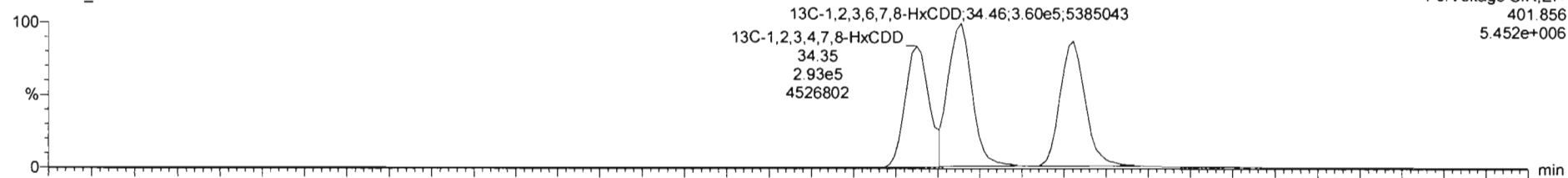


200306R2\_2

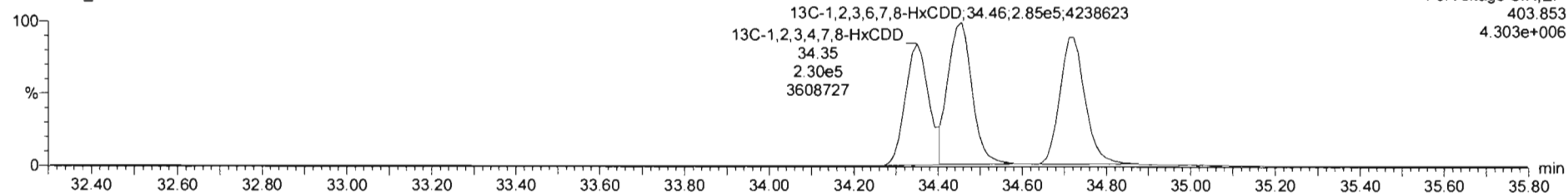


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_2



200306R2\_2



Dataset: Untitled

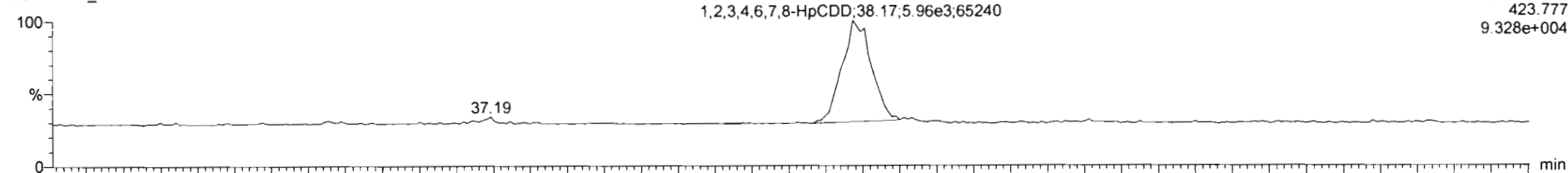
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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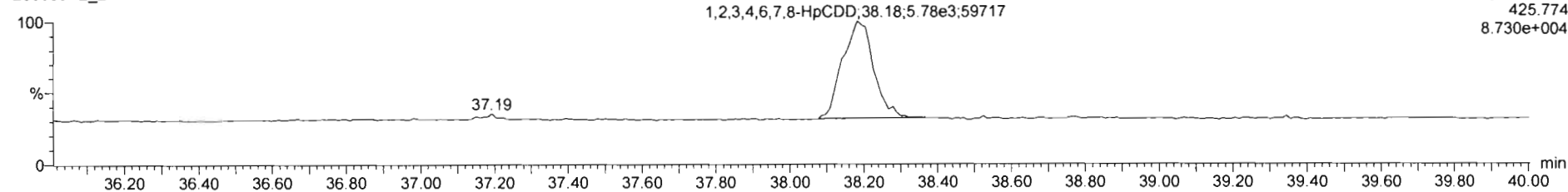
1,2,3,4,6,7,8-HpCDD

200306R2\_2



F4: Voltage SIR, EI+  
423.777  
9.328e+004

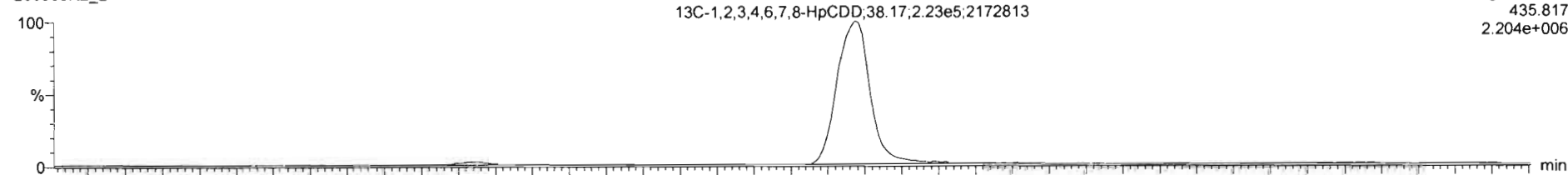
200306R2\_2



F4: Voltage SIR, EI+  
425.774  
8.730e+004

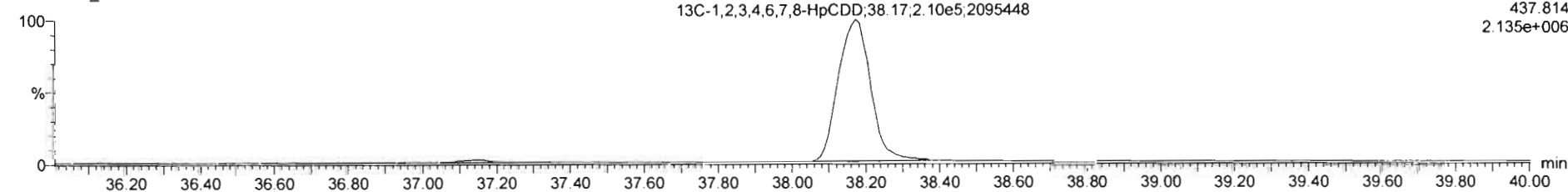
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_2



F4: Voltage SIR, EI+  
435.817  
2.204e+006

200306R2\_2



F4: Voltage SIR, EI+  
437.814  
2.135e+006

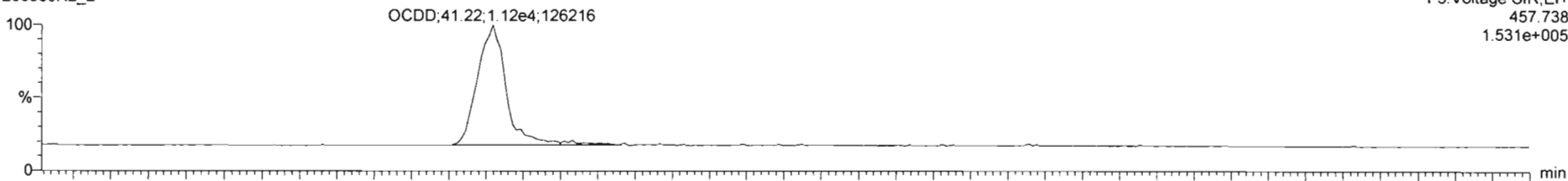
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

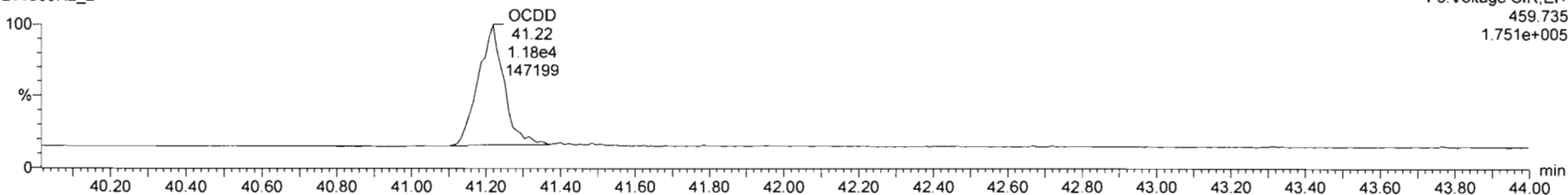
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OCDD

200306R2\_2

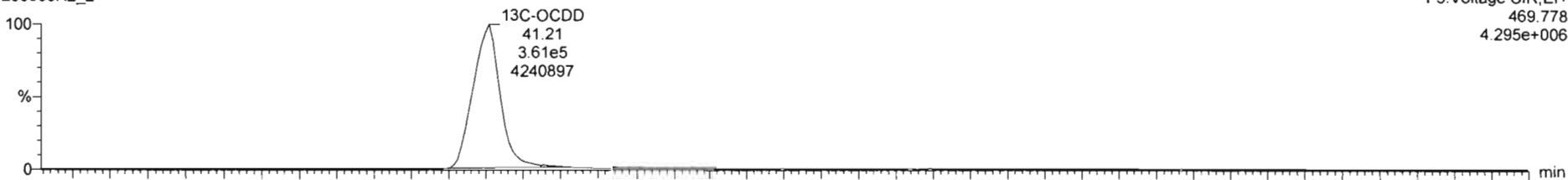


200306R2\_2

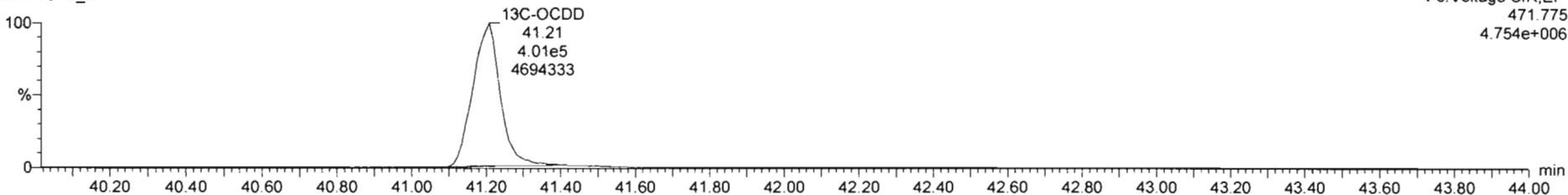


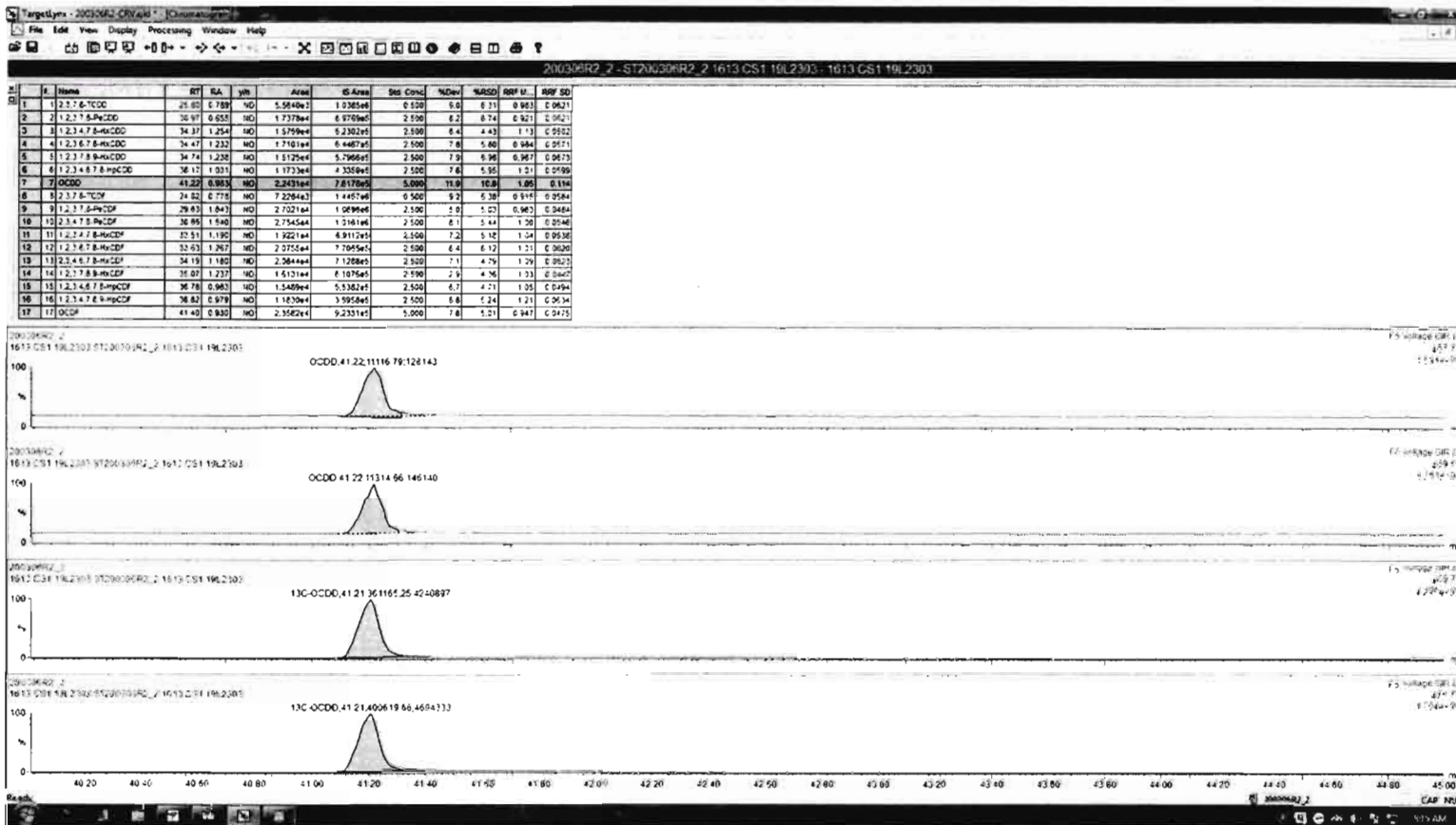
13C-OCDD

200306R2\_2



200306R2\_2







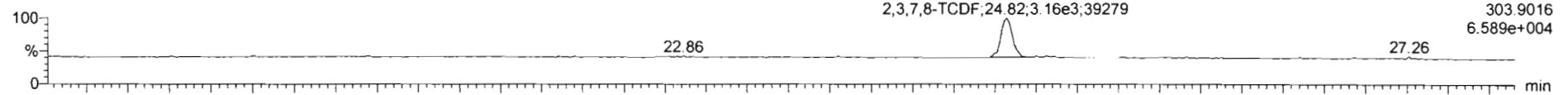
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

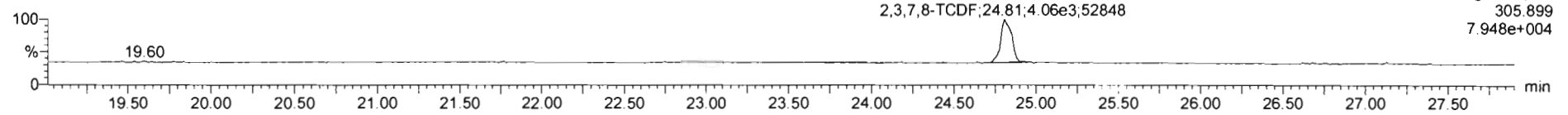
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**2,3,7,8-TCDF**

200306R2\_2

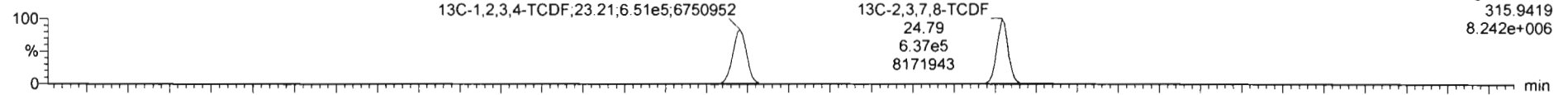


200306R2\_2

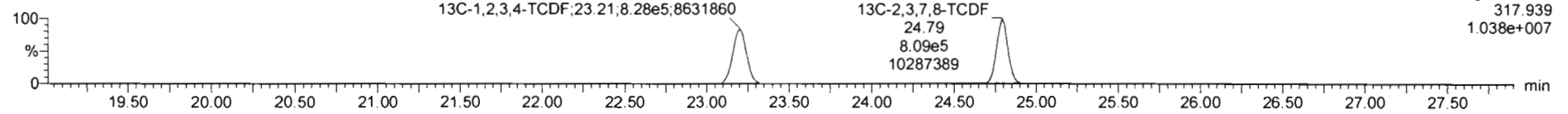


**13C-2,3,7,8-TCDF**

200306R2\_2

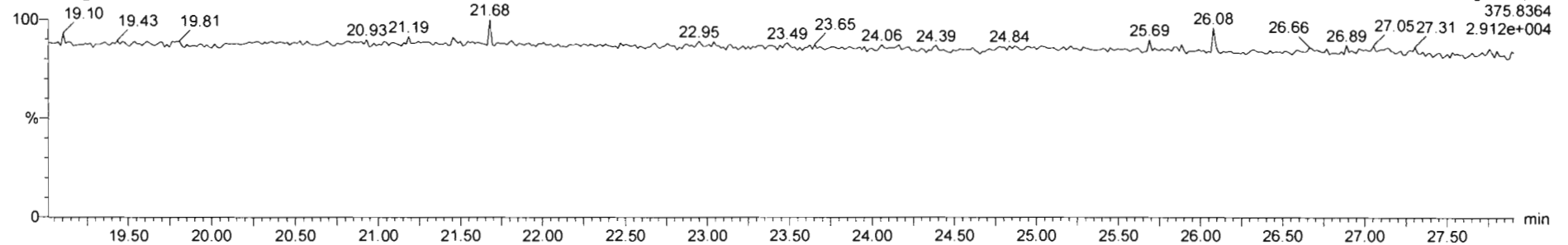


200306R2\_2



**DPE1**

200306R2\_2



Dataset: Untitled

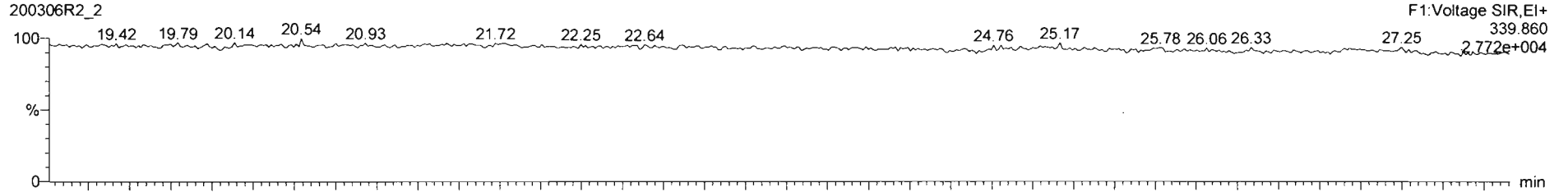
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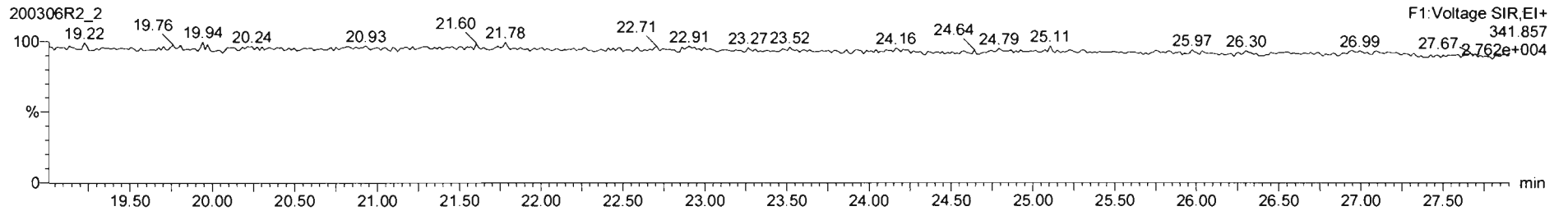
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200306R2\_2

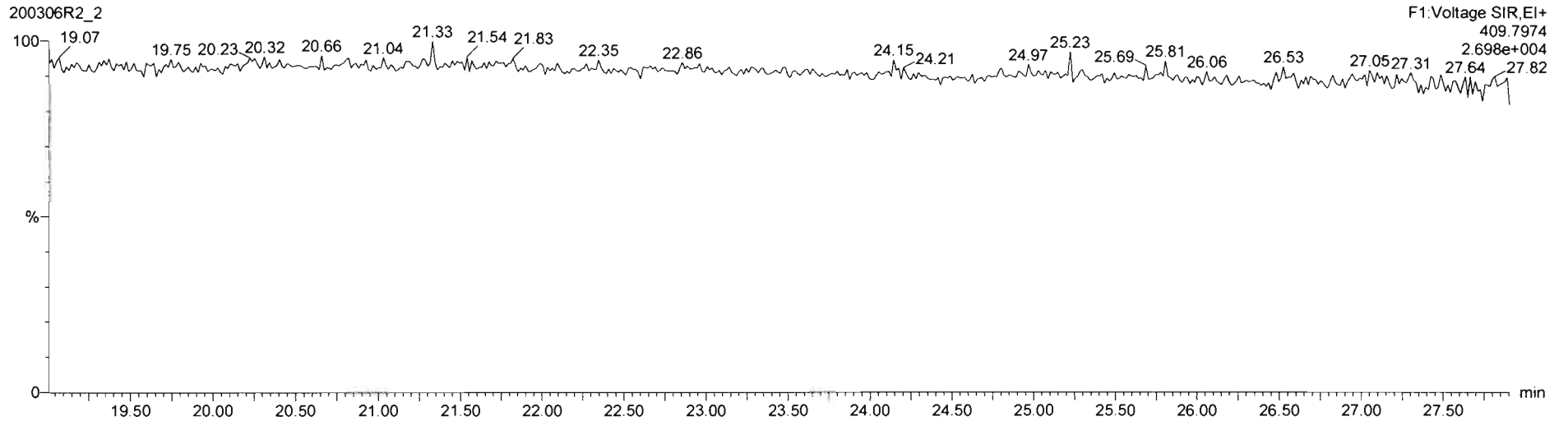


200306R2\_2



DPE6

200306R2\_2



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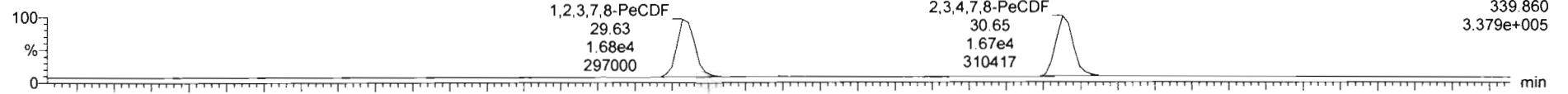
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

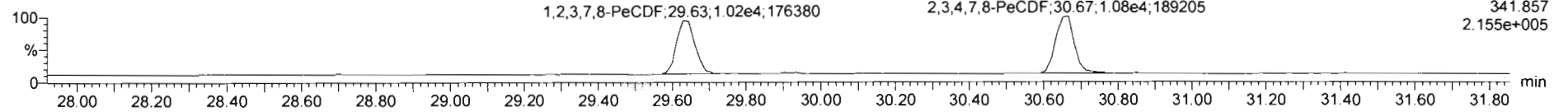
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**1,2,3,7,8-PeCDF**

200306R2\_2

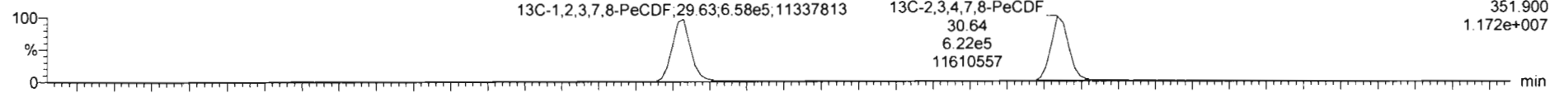


200306R2\_2

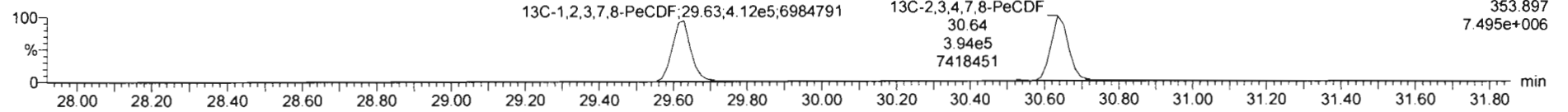


**13C-1,2,3,7,8-PeCDF**

200306R2\_2

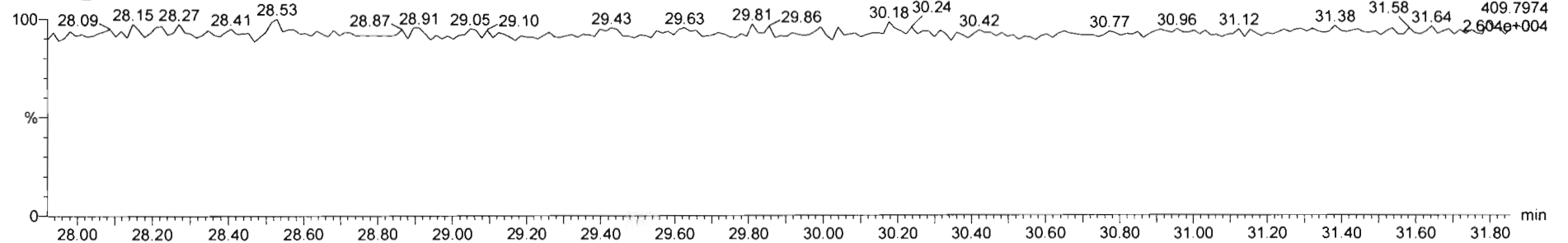


200306R2\_2



**DPE2**

200306R2\_2



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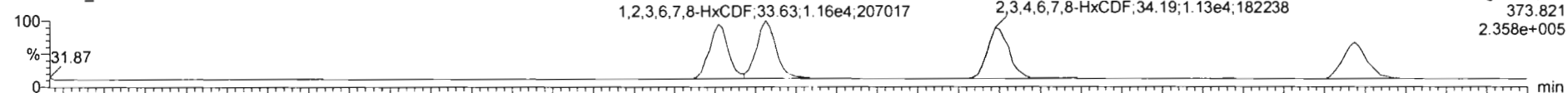
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

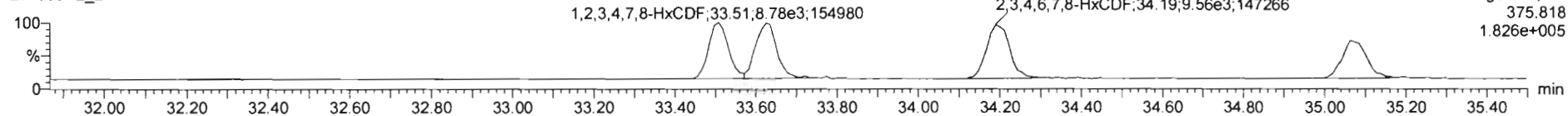
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1,2,3,4,7,8-HxCDF

200306R2\_2

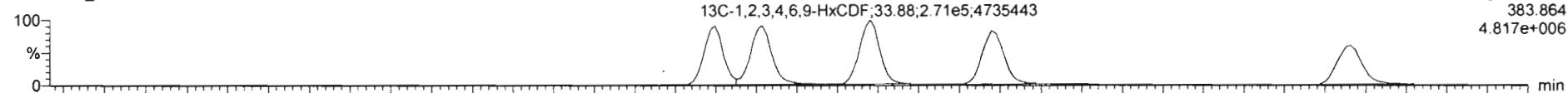


200306R2\_2

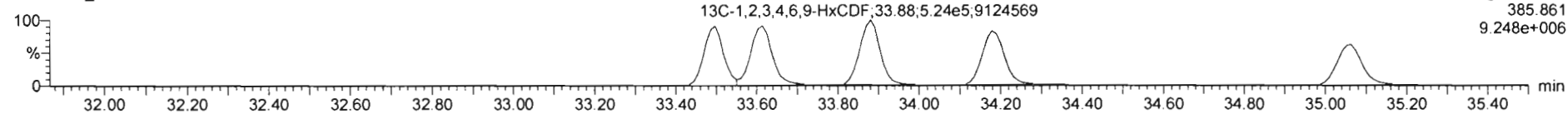


13C-1,2,3,4,7,8-HxCDF

200306R2\_2

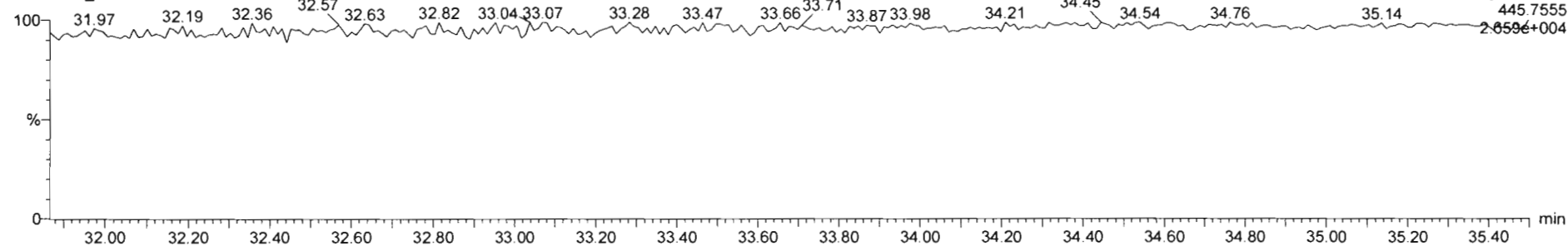


200306R2\_2



DPE3

200306R2\_2

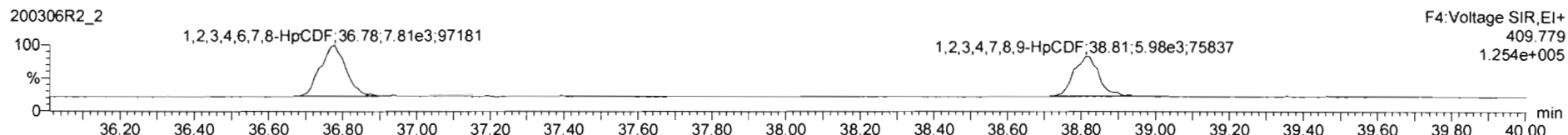
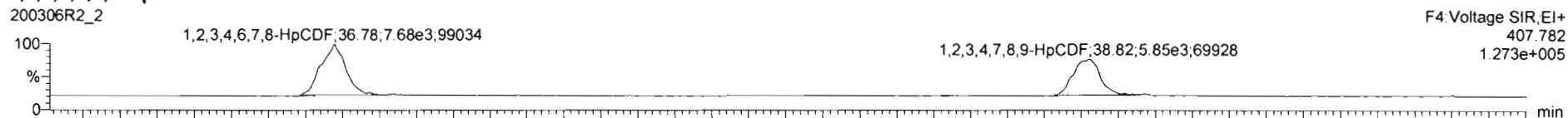


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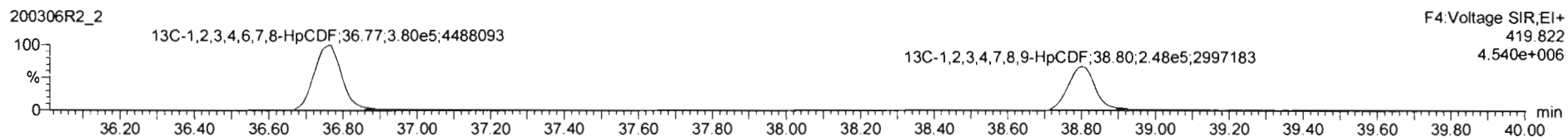
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_2, Date: 06-Mar-2020, Time: 13:58:25, ID: ST200306R2\_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

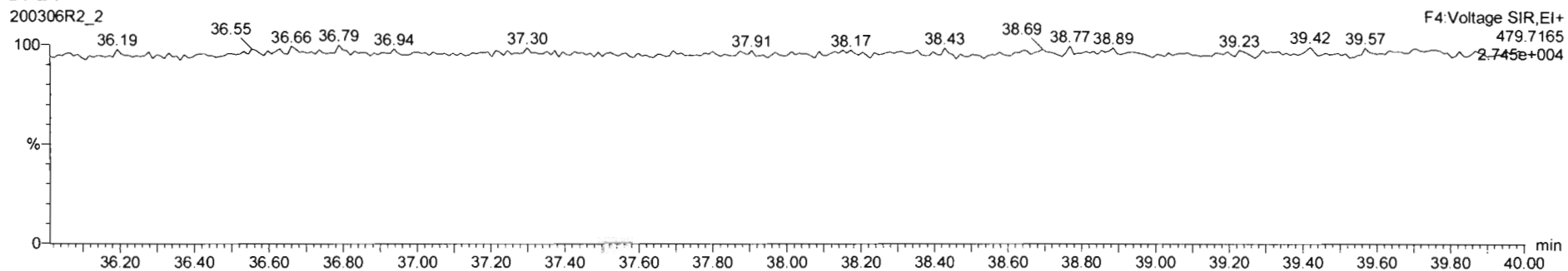
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**



Dataset: Untitled

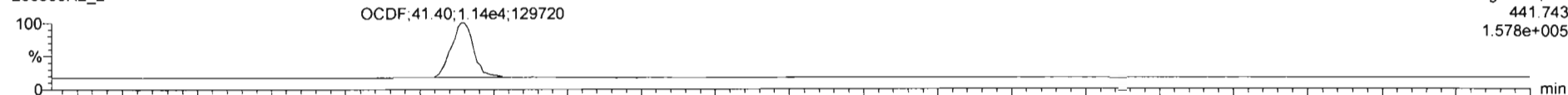
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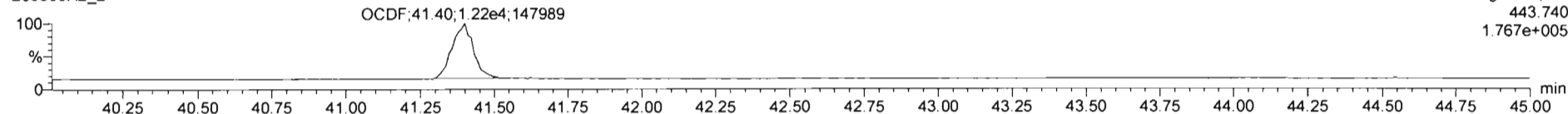
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**OCDF**

200306R2\_2

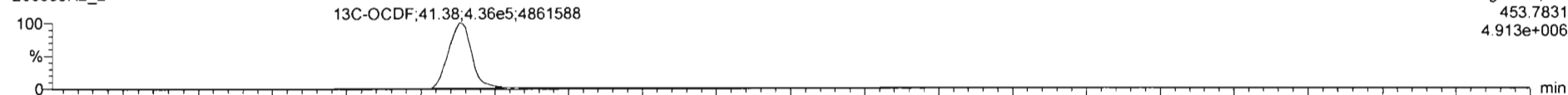


200306R2\_2

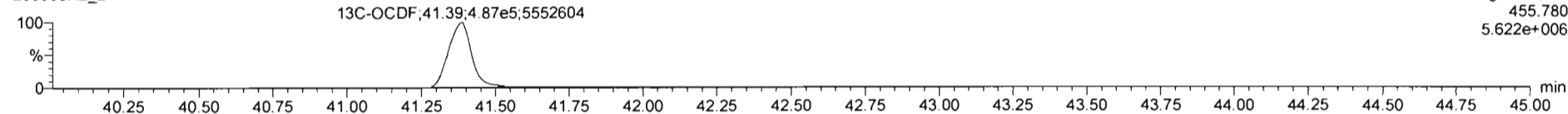


**13C-OCDF**

200306R2\_2

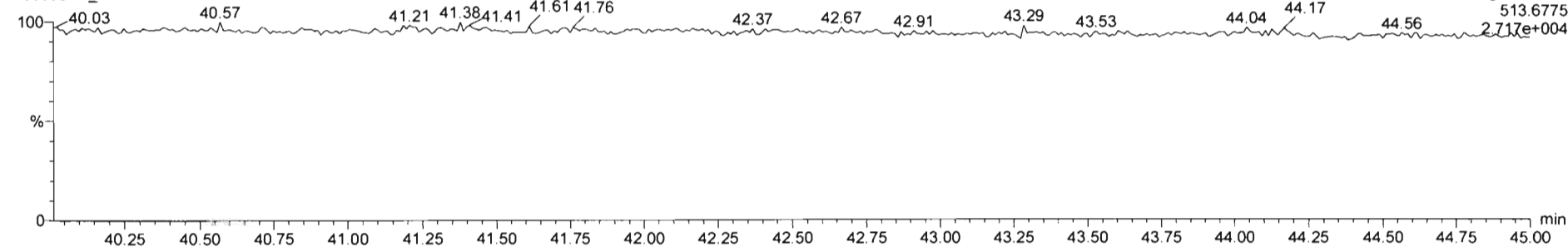


200306R2\_2



**DPE5**

200306R2\_2

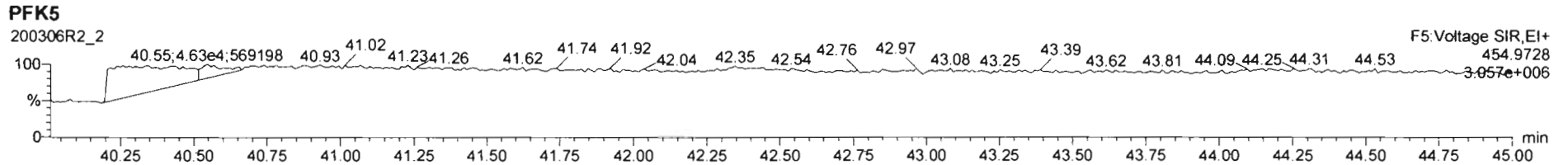
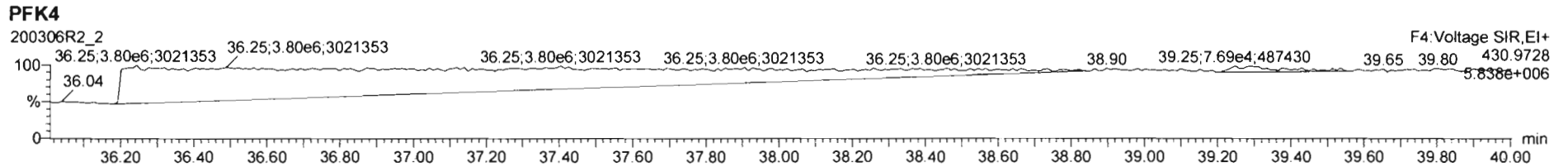
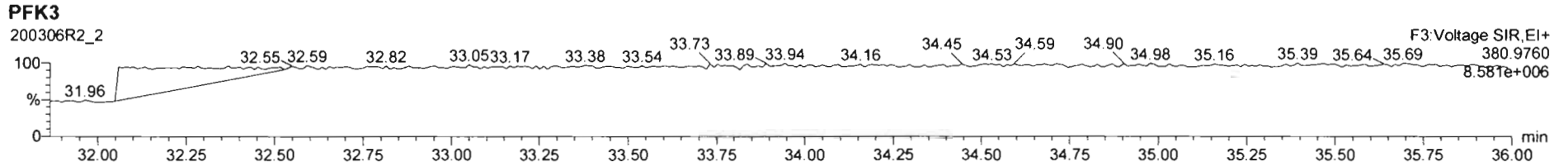
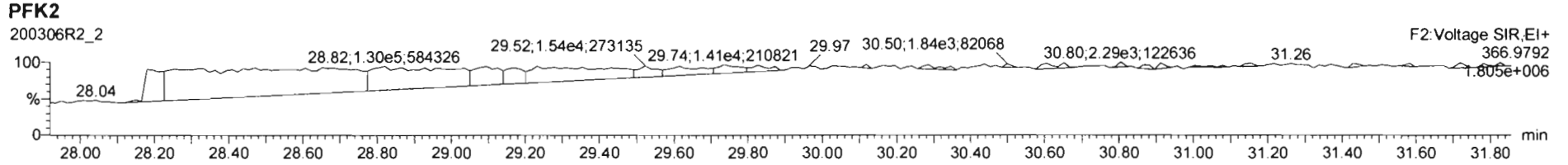
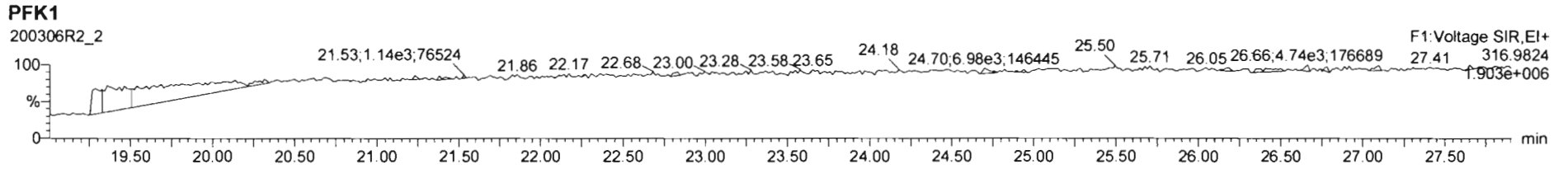


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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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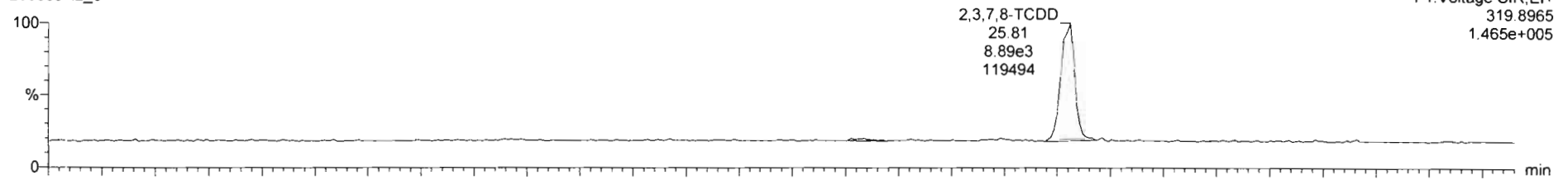
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

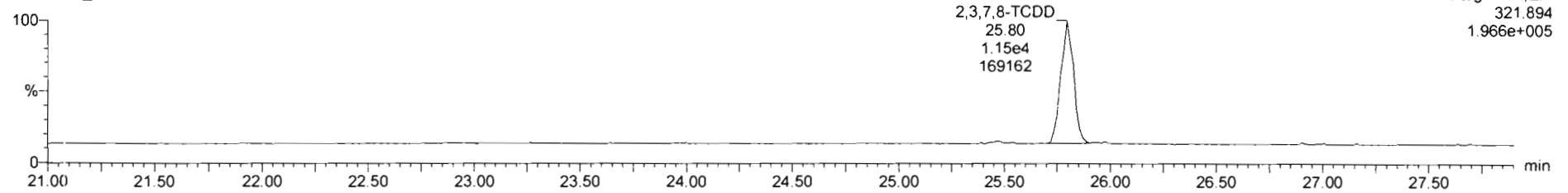
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**2,3,7,8-TCDD**

200306R2\_3

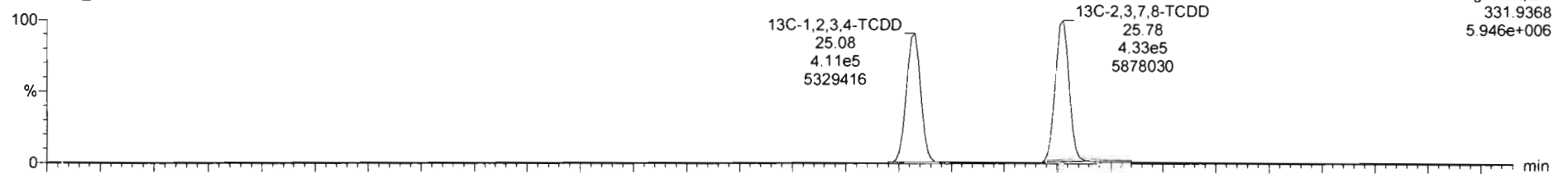


200306R2\_3

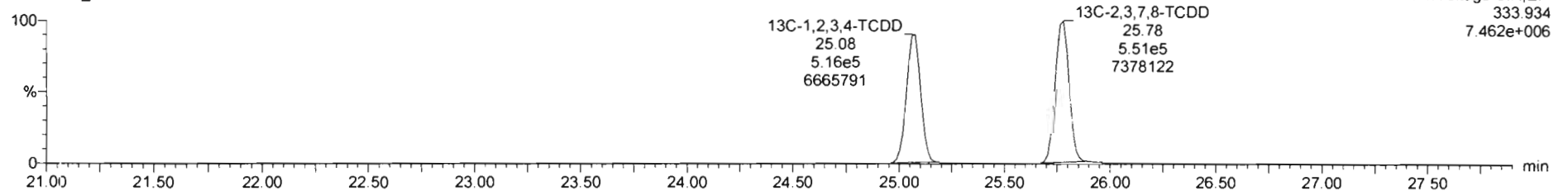


**13C-2,3,7,8-TCDD**

200306R2\_3



200306R2\_3





Dataset: Untitled

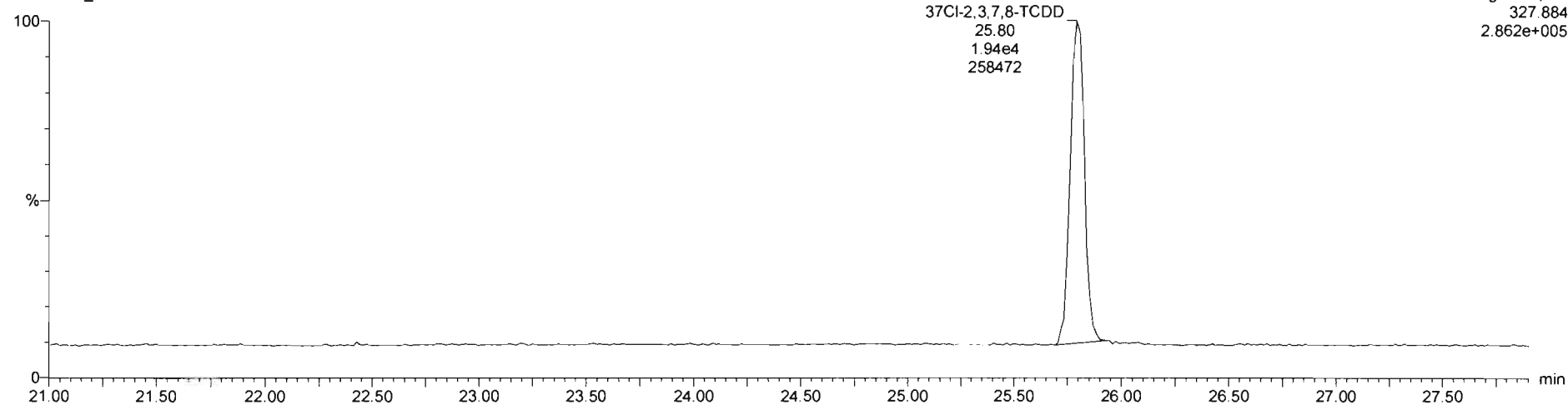
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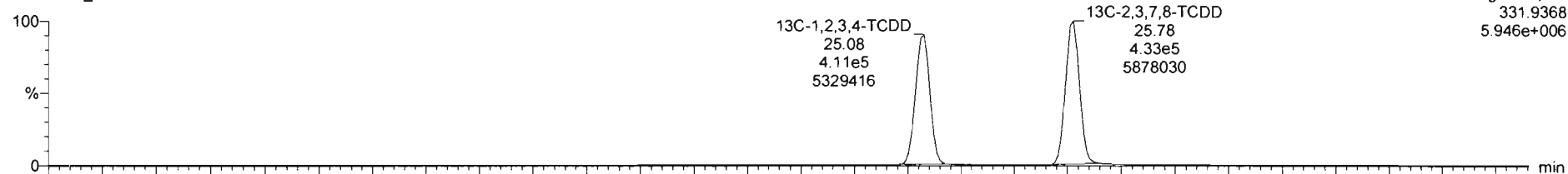
37Cl-2,3,7,8-TCDD

200306R2\_3

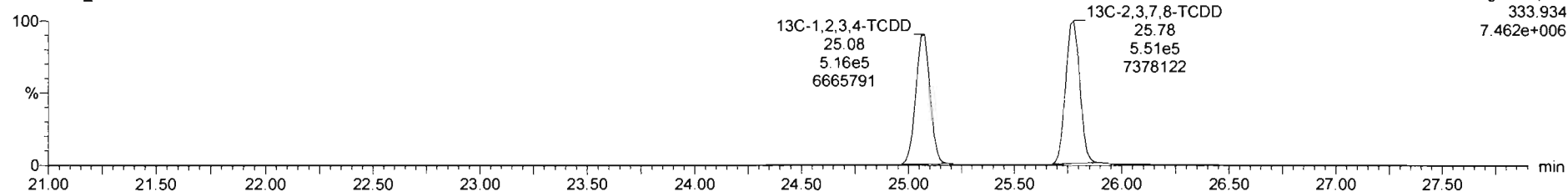


13C-1,2,3,4-TCDD

200306R2\_3



200306R2\_3



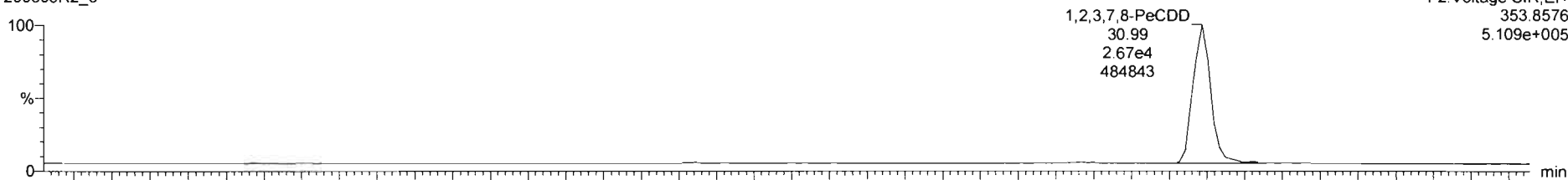
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

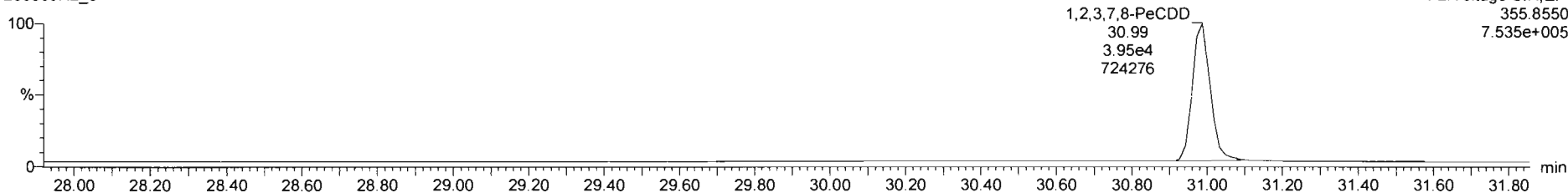
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**1,2,3,7,8-PeCDD**

200306R2\_3

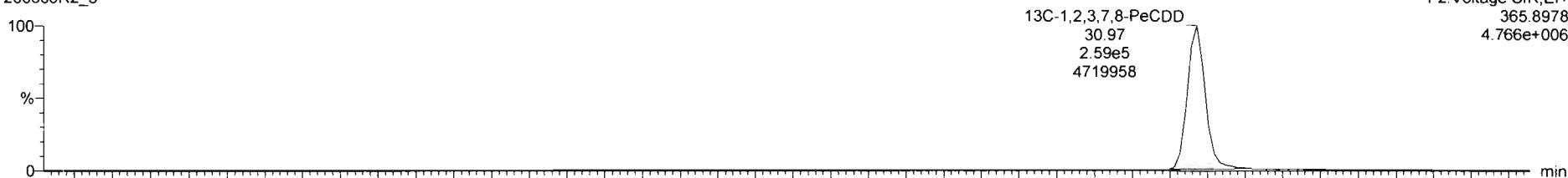


200306R2\_3

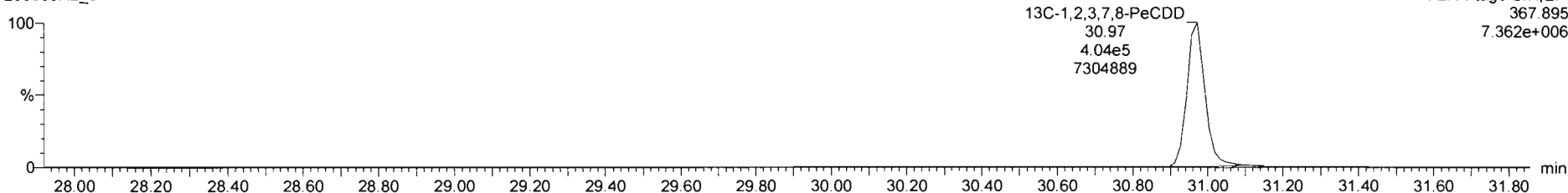


**13C-1,2,3,7,8-PeCDD**

200306R2\_3



200306R2\_3



Dataset: Untitled

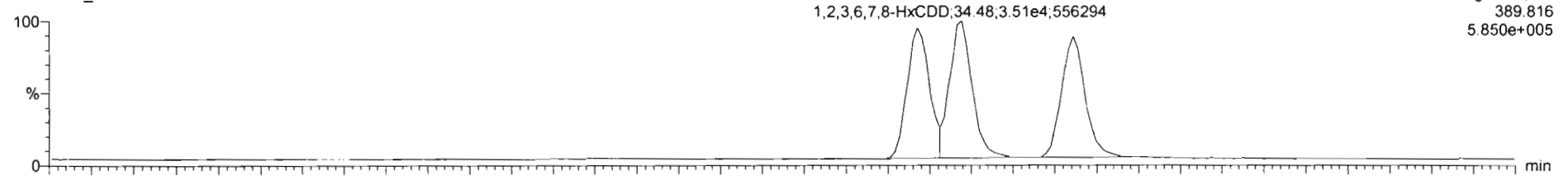
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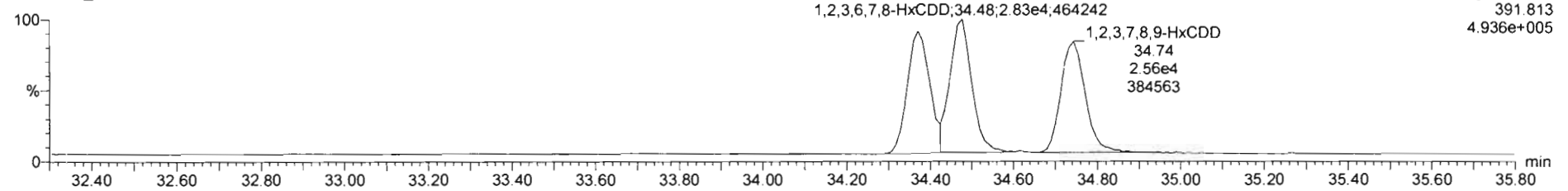
**1,2,3,4,7,8-HxCDD**

200306R2\_3



F3: Voltage SIR, EI+  
389.816  
5.850e+005

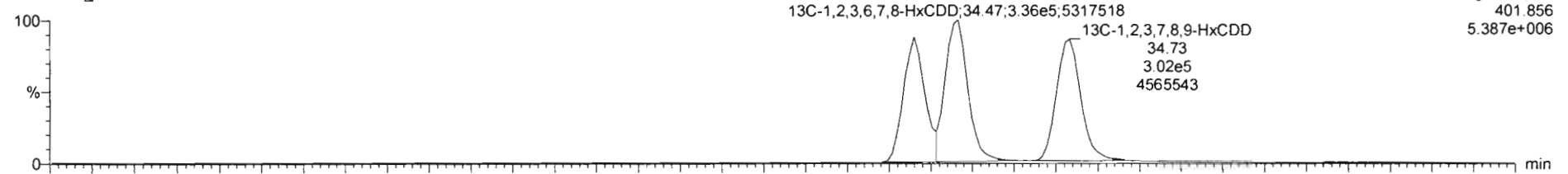
200306R2\_3



F3: Voltage SIR, EI+  
391.813  
4.936e+005

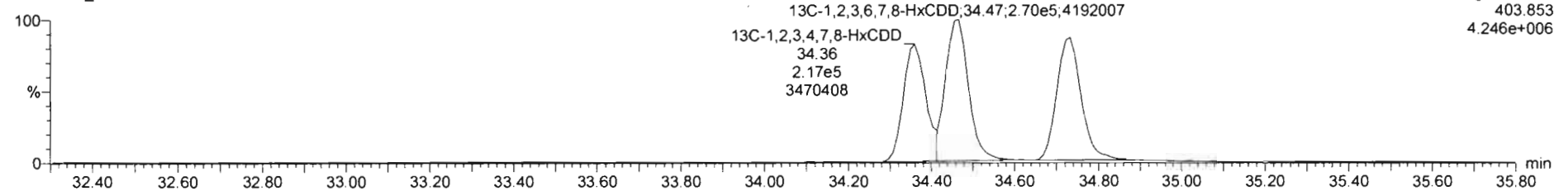
**13C-1,2,3,4,7,8-HxCDD**

200306R2\_3



F3: Voltage SIR, EI+  
401.856  
5.387e+006

200306R2\_3



F3: Voltage SIR, EI+  
403.853  
4.246e+006

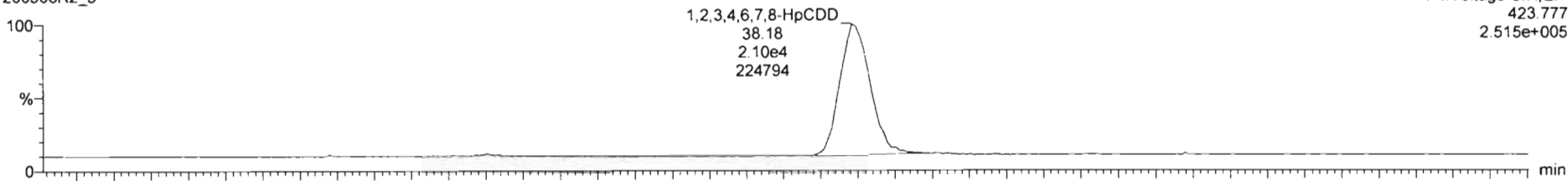
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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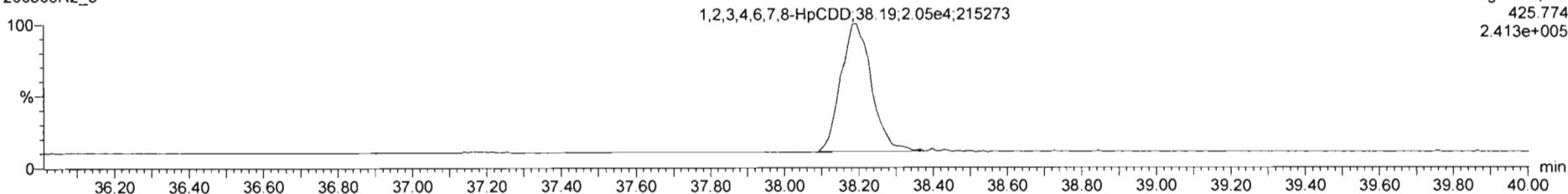
1,2,3,4,6,7,8-HpCDD

200306R2\_3



F4: Voltage SIR, EI+  
423.777  
2.515e+005

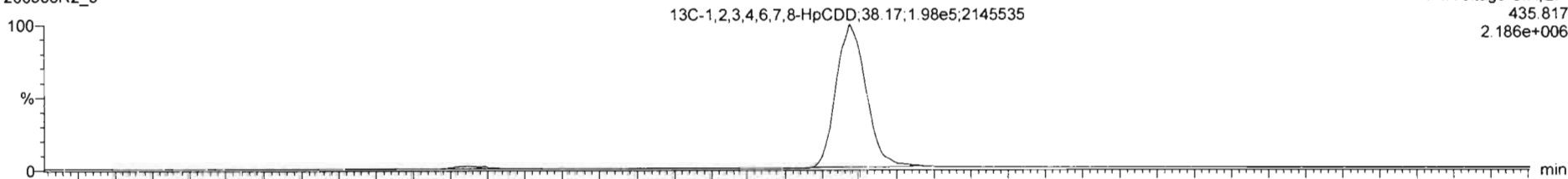
200306R2\_3



F4: Voltage SIR, EI+  
425.774  
2.413e+005

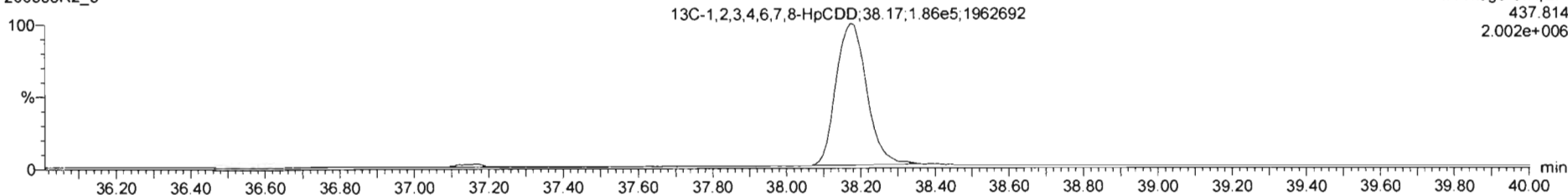
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_3



F4: Voltage SIR, EI+  
435.817  
2.186e+006

200306R2\_3



F4: Voltage SIR, EI+  
437.814  
2.002e+006

Dataset: Untitled

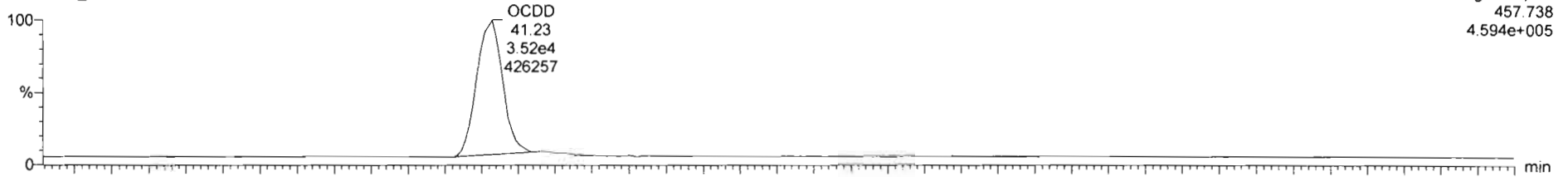
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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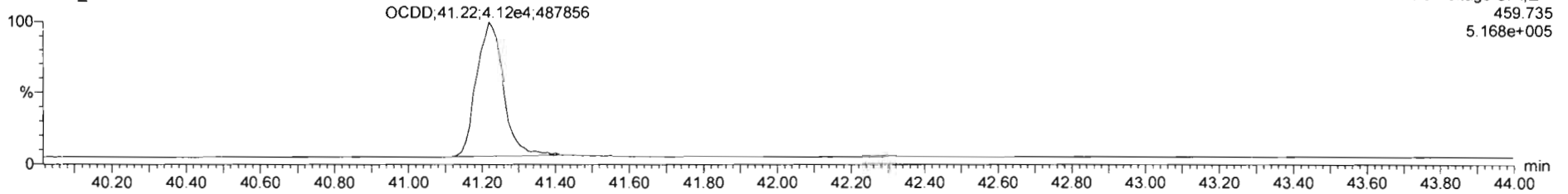
**OCDD**

200306R2\_3



F5:Voltage SIR,EI+  
457.738  
4.594e+005

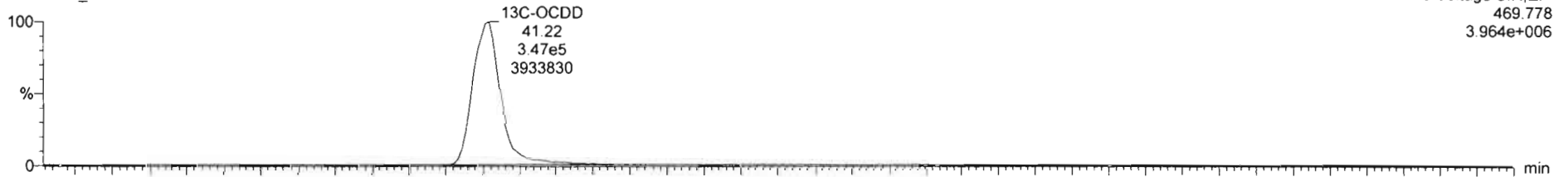
200306R2\_3



F5:Voltage SIR,EI+  
459.735  
5.168e+005

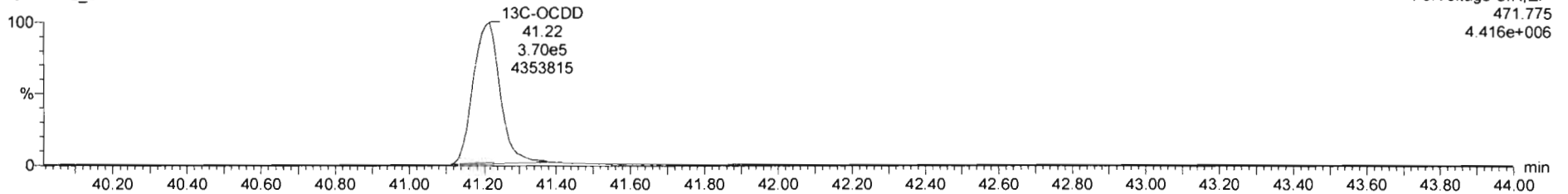
**13C-OCDD**

200306R2\_3



F5:Voltage SIR,EI+  
469.778  
3.964e+006

200306R2\_3



F5:Voltage SIR,EI+  
471.775  
4.416e+006

Dataset: Untitled

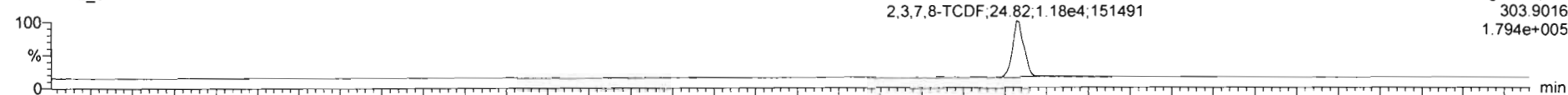
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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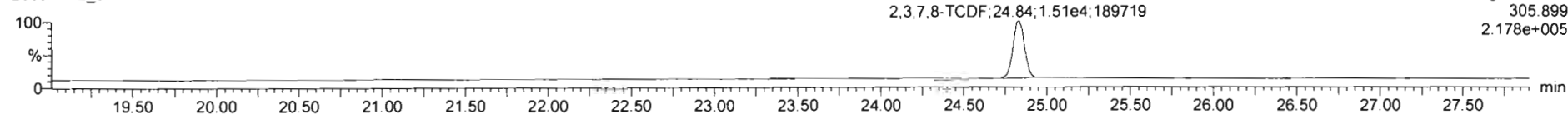
**2,3,7,8-TCDF**

200306R2\_3



F1:Voltage SIR,EI+  
303.9016  
1.794e+005

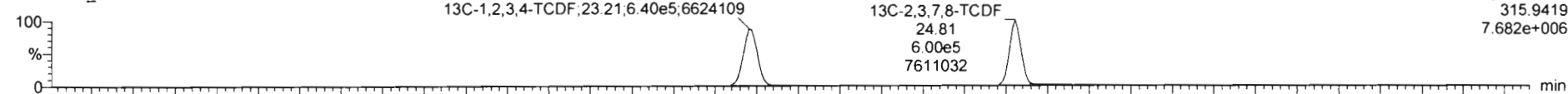
200306R2\_3



F1:Voltage SIR,EI+  
305.899  
2.178e+005

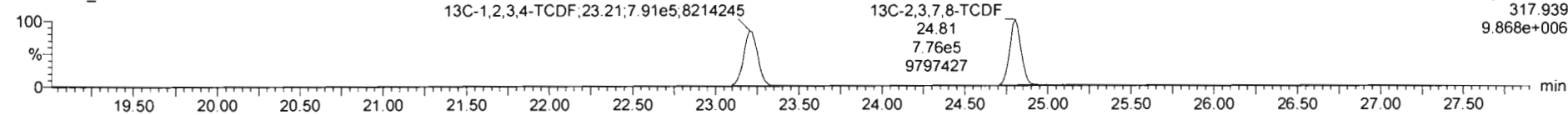
**13C-2,3,7,8-TCDF**

200306R2\_3



F1:Voltage SIR,EI+  
315.9419  
7.682e+006

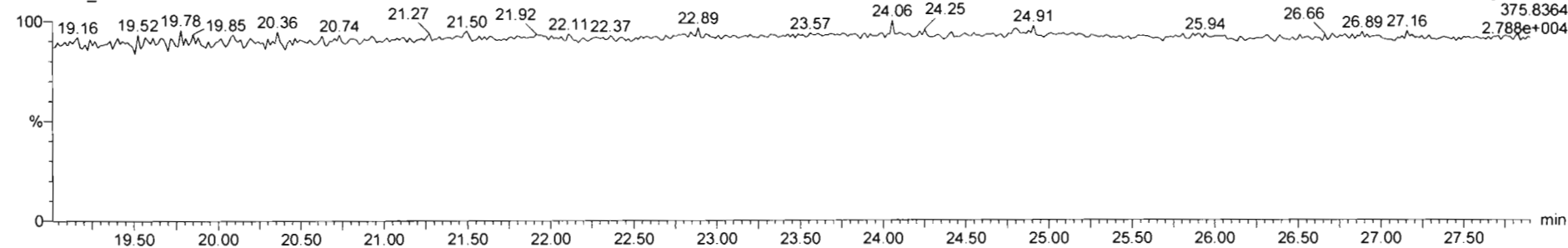
200306R2\_3



F1:Voltage SIR,EI+  
317.939  
9.868e+006

**DPE1**

200306R2\_3



F1:Voltage SIR,EI+  
375.8364  
2.788e+004

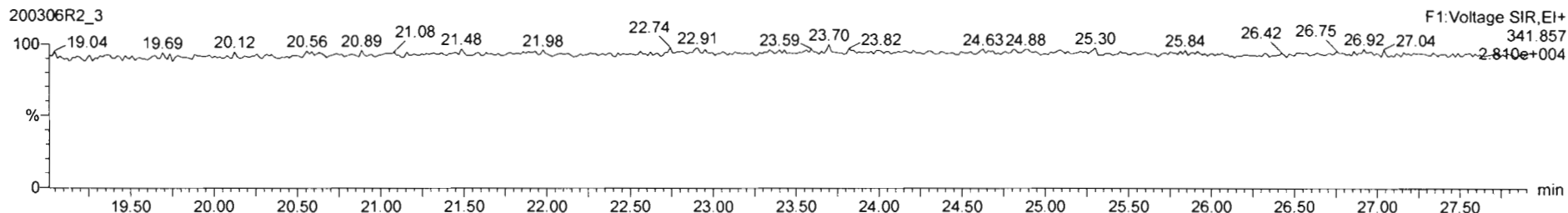
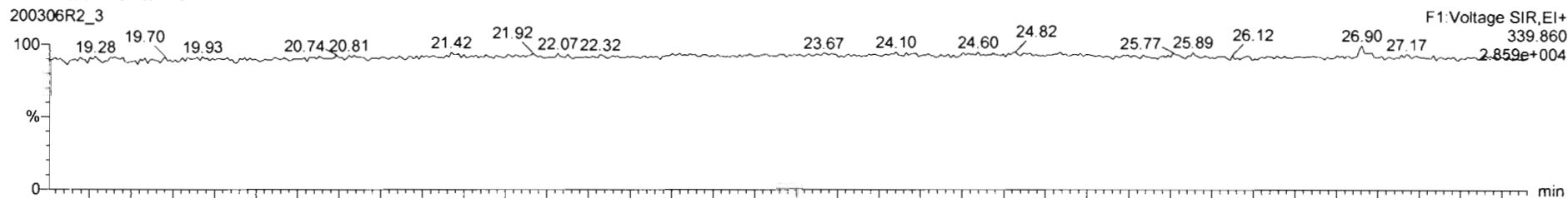
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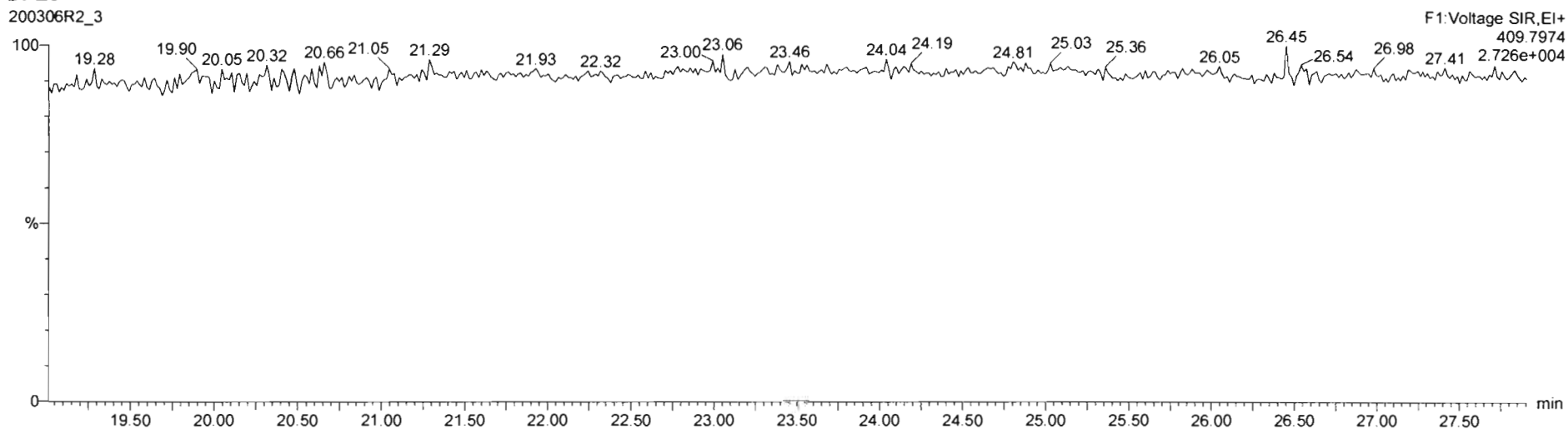
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Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

1st Func. Penta-Furans



DPE6



Dataset: Untitled

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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

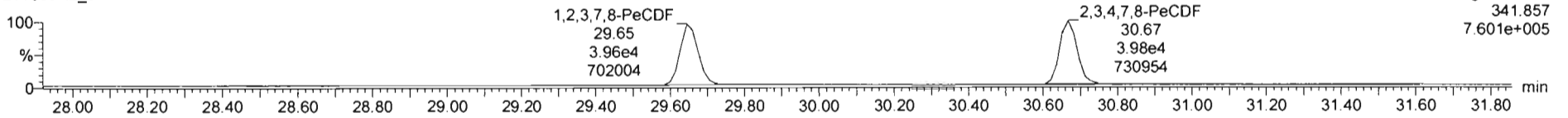
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**1,2,3,7,8-PeCDF**

200306R2\_3

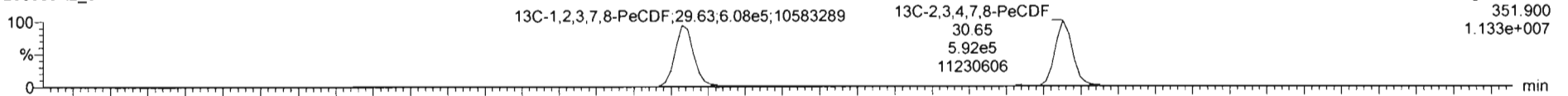


200306R2\_3

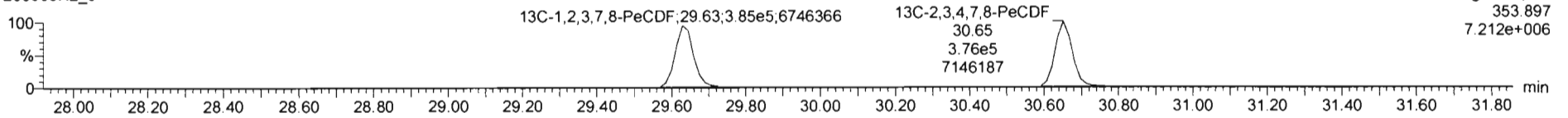


**13C-1,2,3,7,8-PeCDF**

200306R2\_3

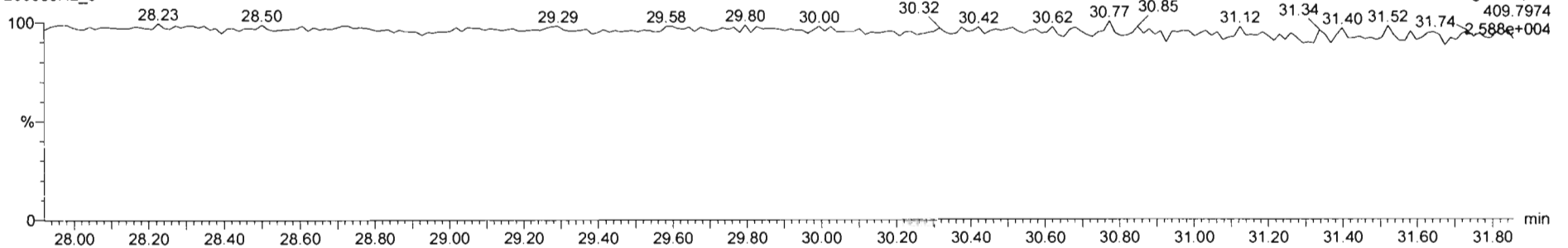


200306R2\_3

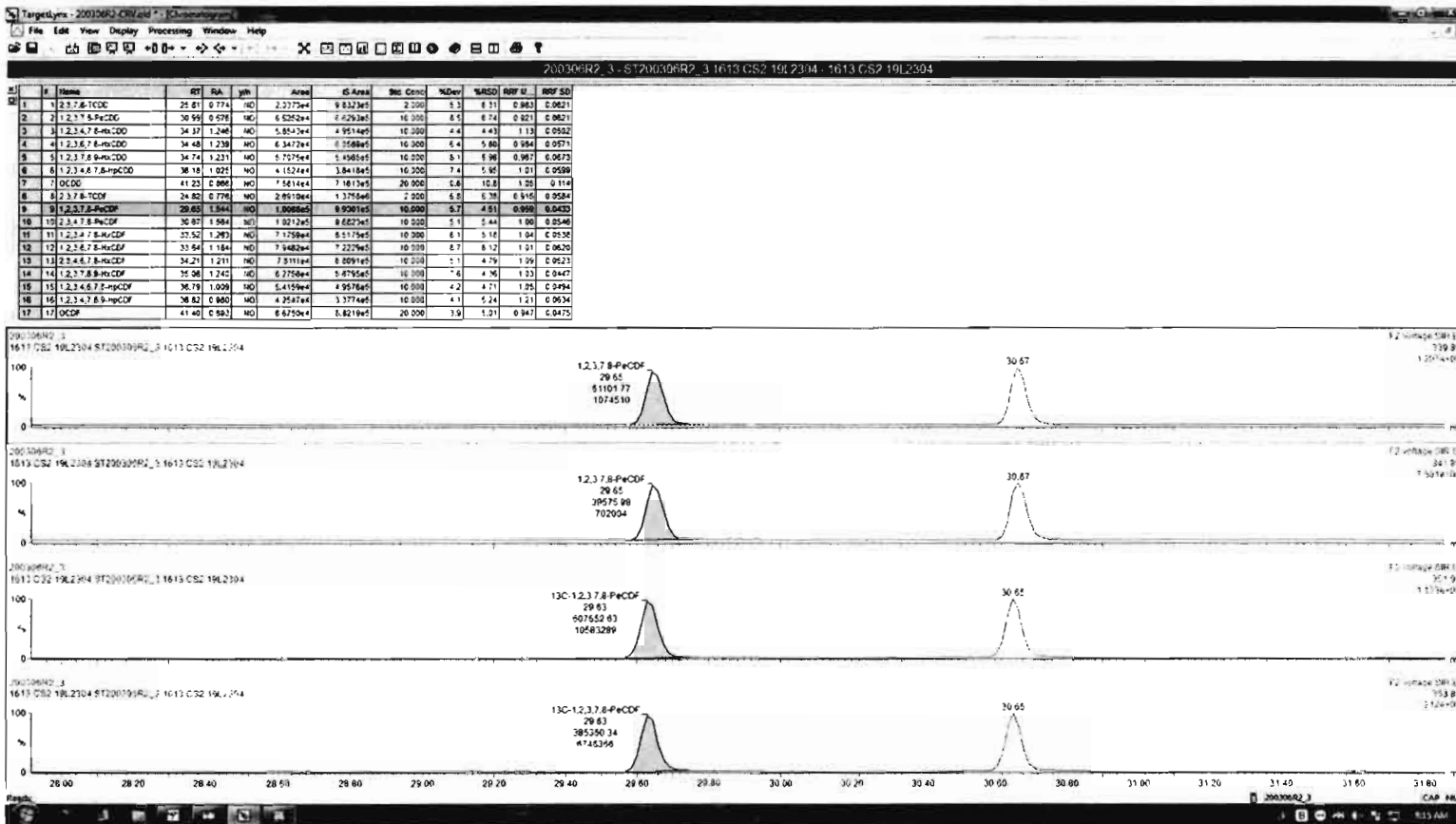


**DPE2**

200306R2\_3







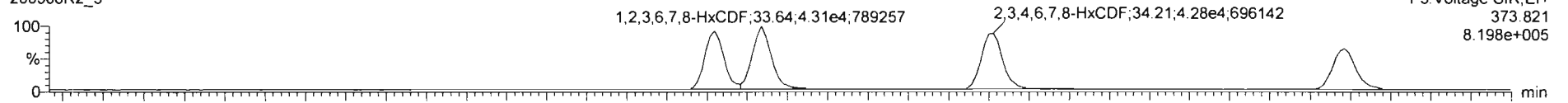
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

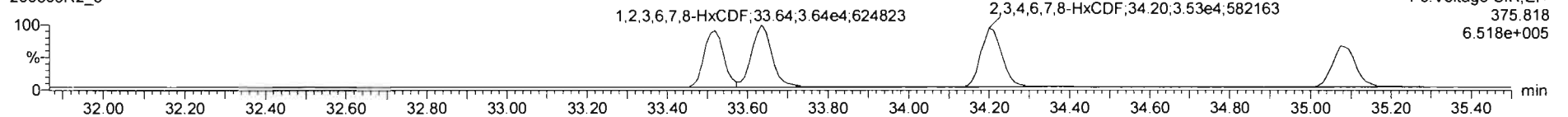
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**1,2,3,4,7,8-HxCDF**

200306R2\_3

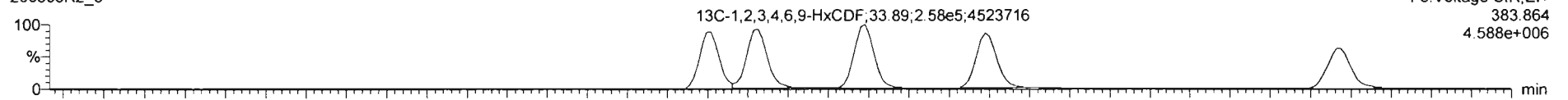


200306R2\_3

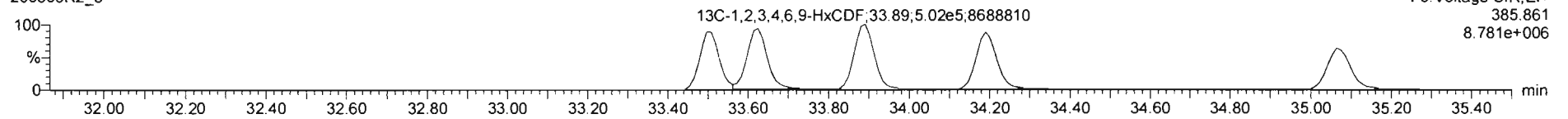


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_3

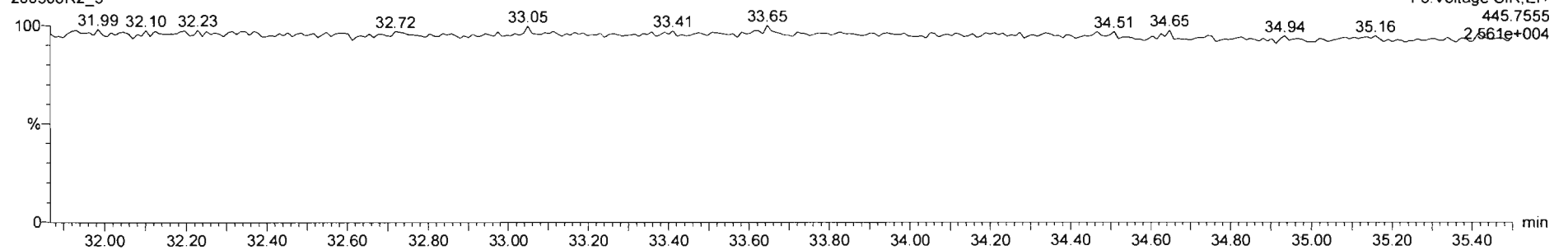


200306R2\_3



**DPE3**

200306R2\_3



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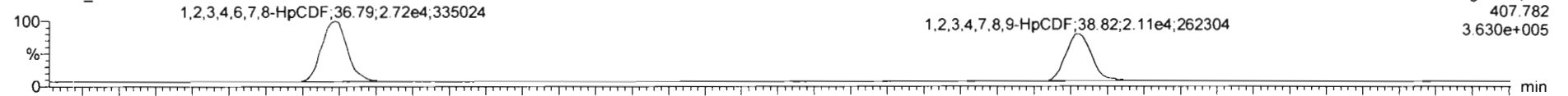
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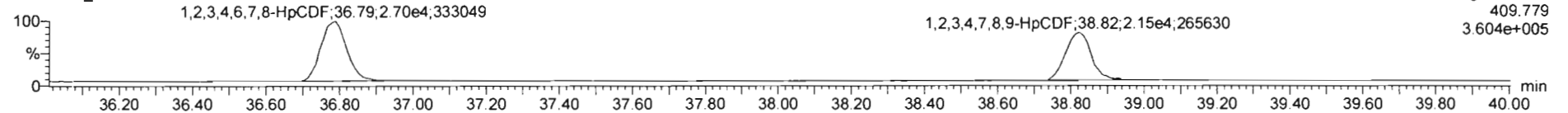
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_3

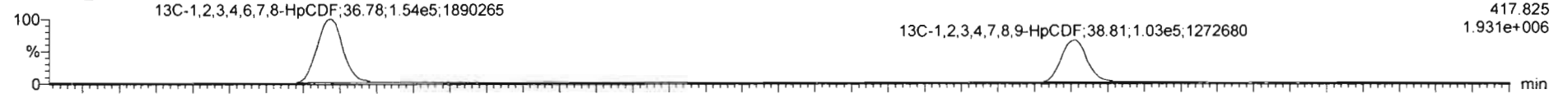


200306R2\_3

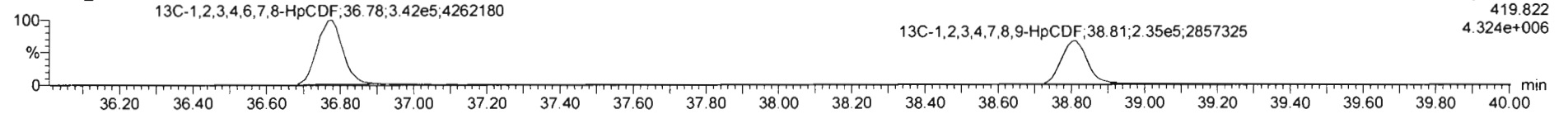


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_3

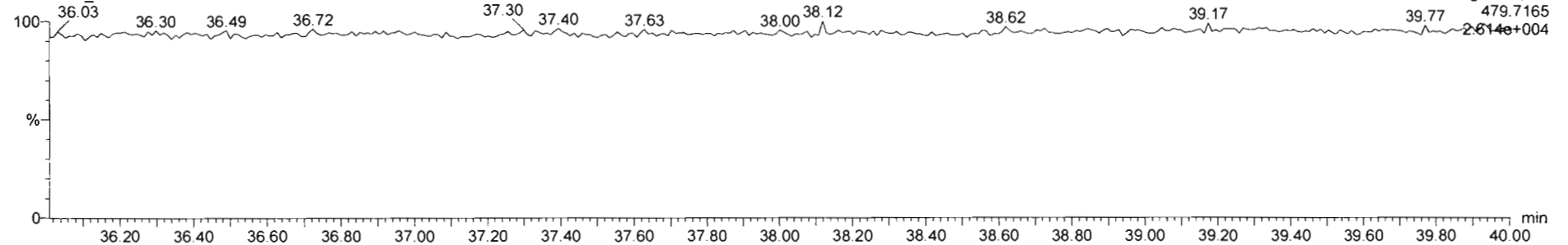


200306R2\_3



**DPE4**

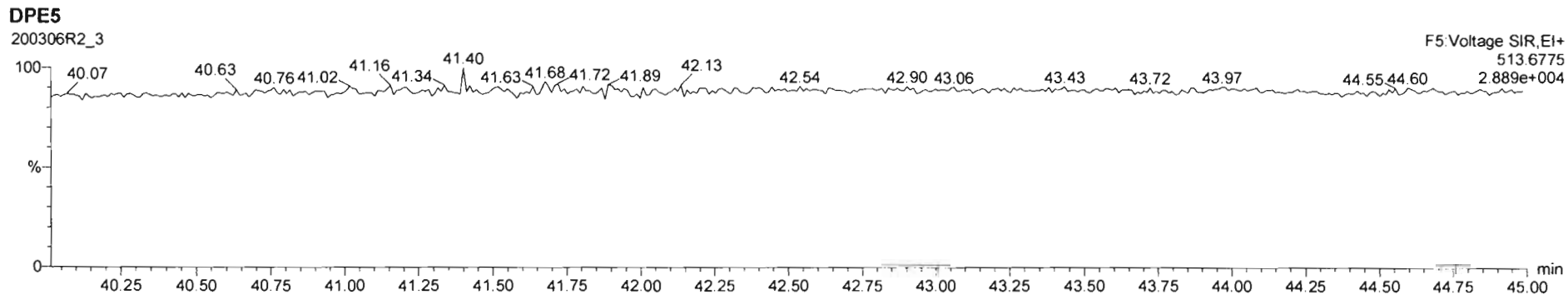
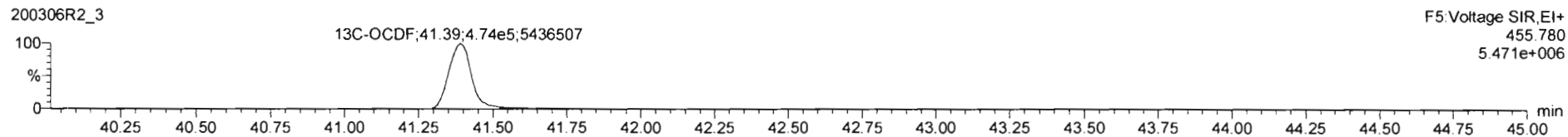
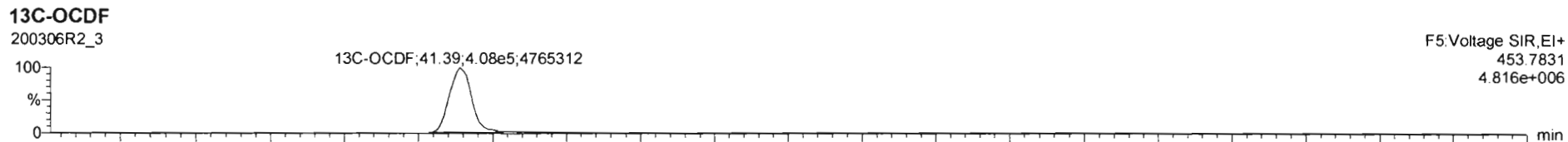
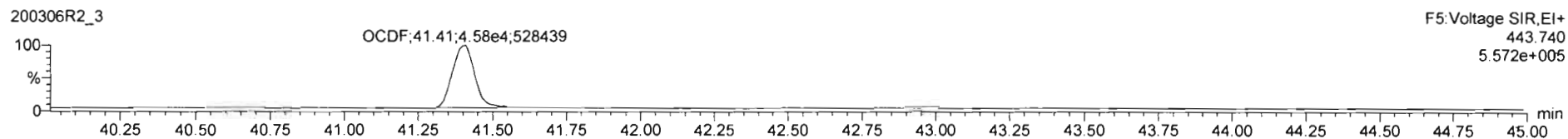
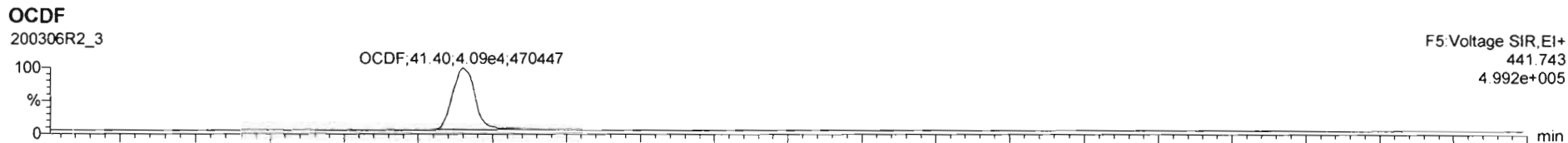
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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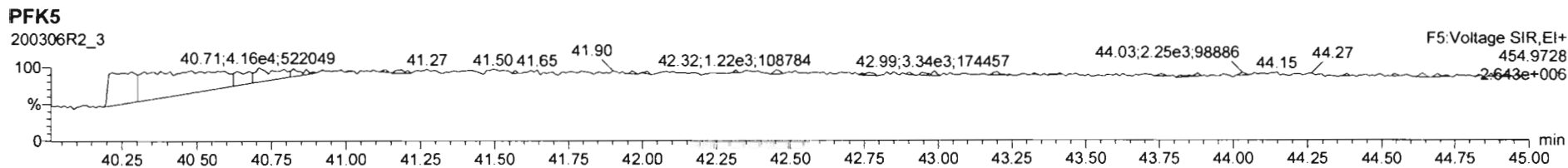
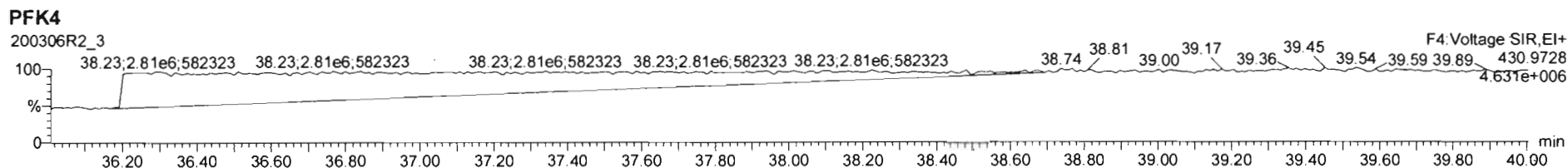
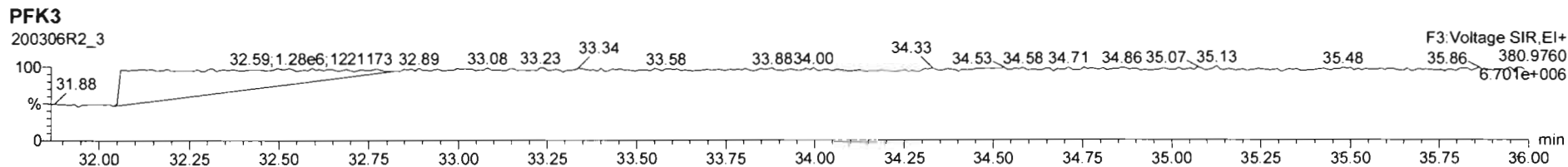
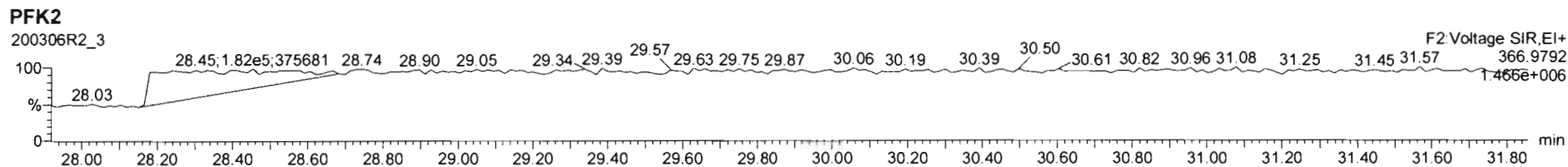
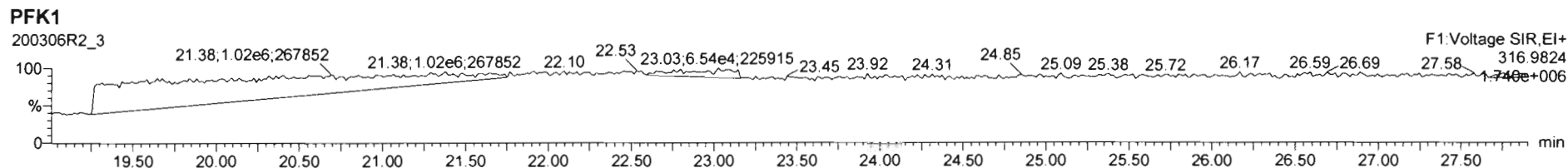


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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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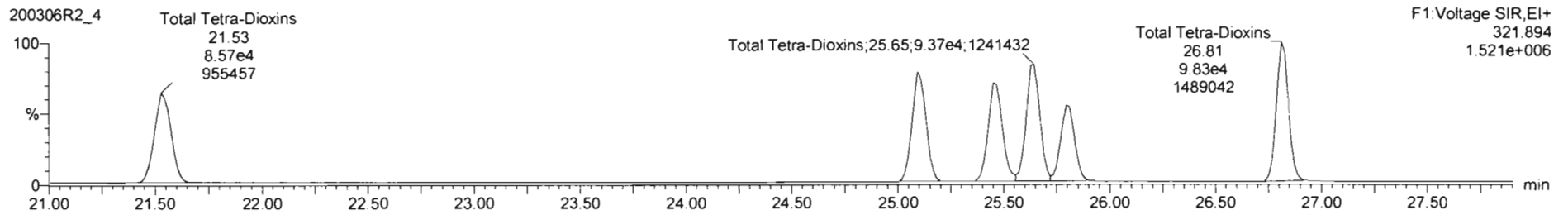
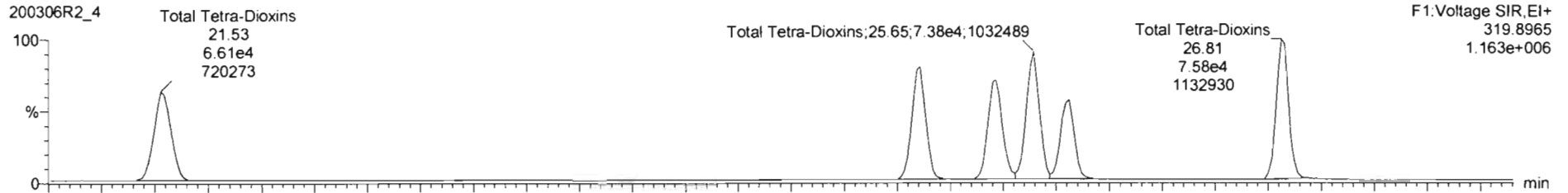


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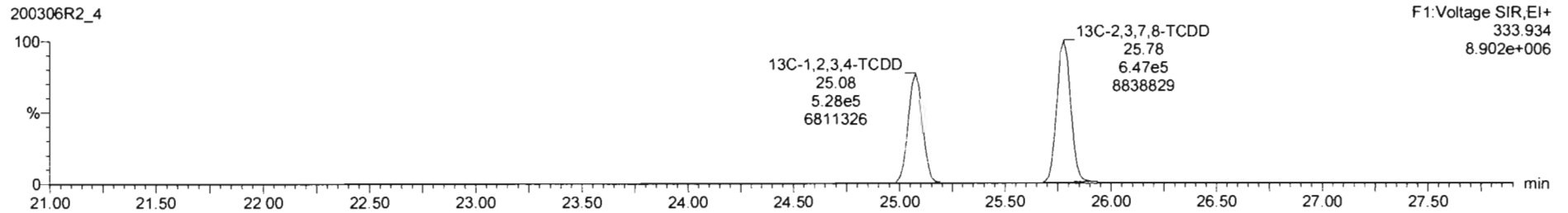
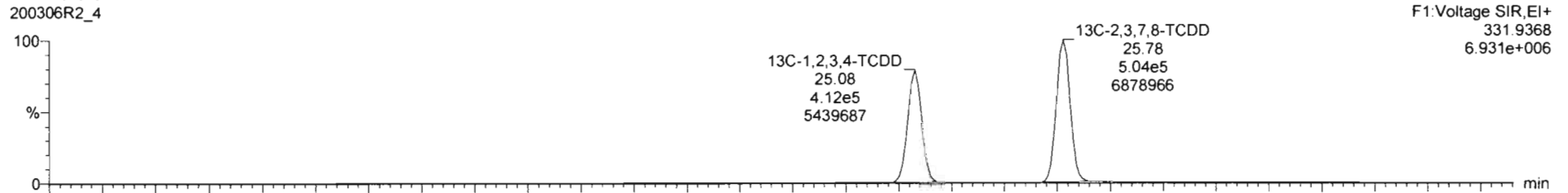
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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



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

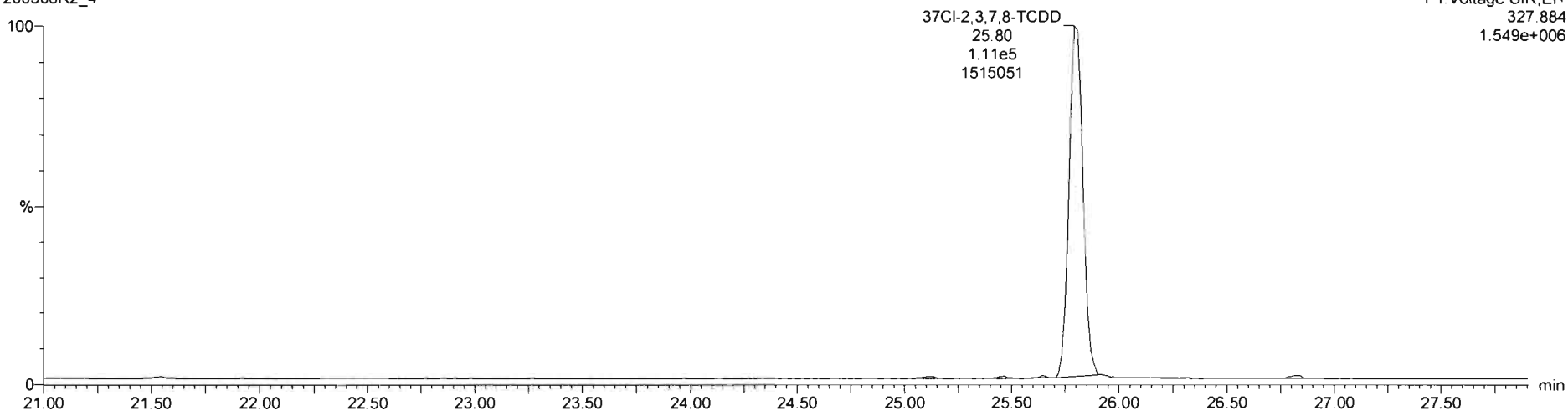


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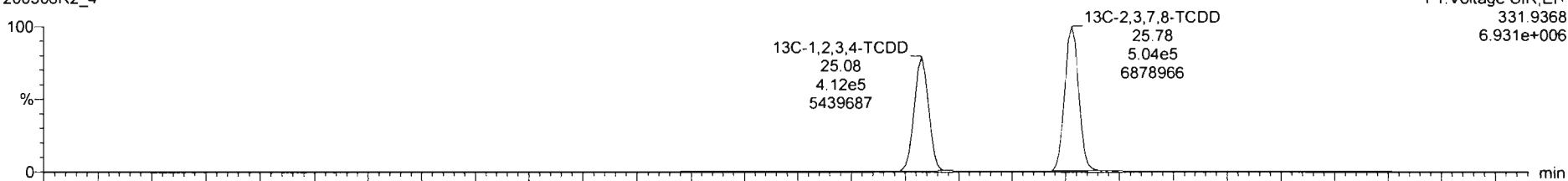
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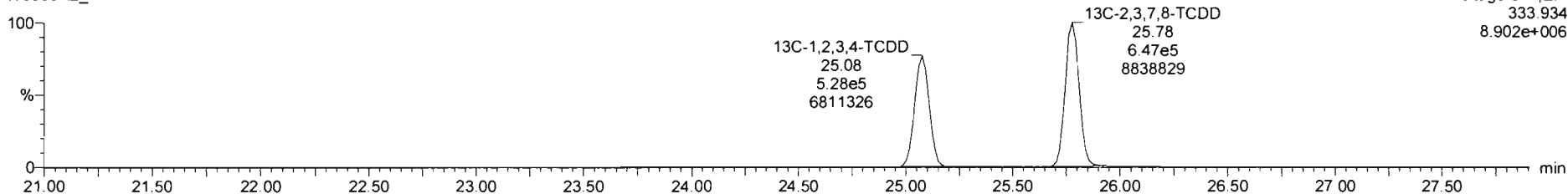
37Cl-2,3,7,8-TCDD  
200306R2\_4



13C-1,2,3,4-TCDD  
200306R2\_4



200306R2\_4



Dataset: Untitled

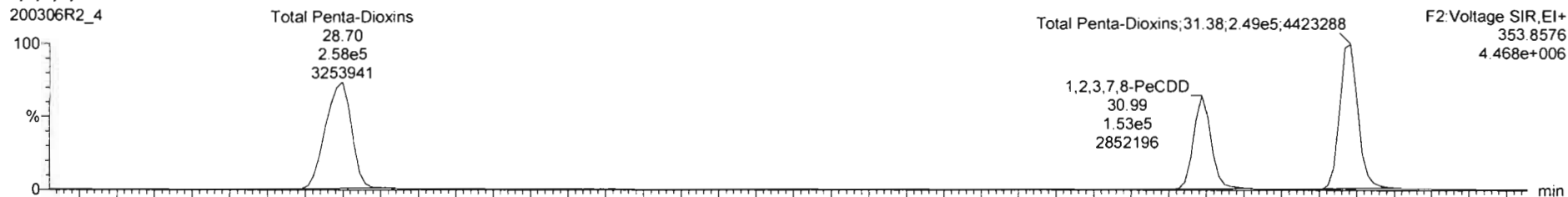
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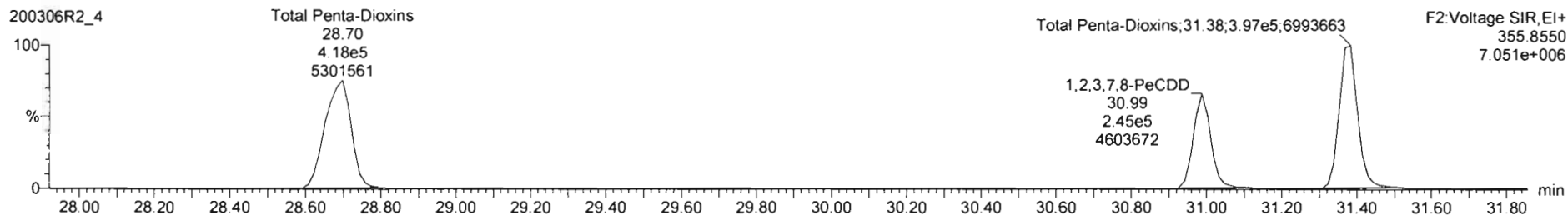
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**1,2,3,7,8-PeCDD**

200306R2\_4

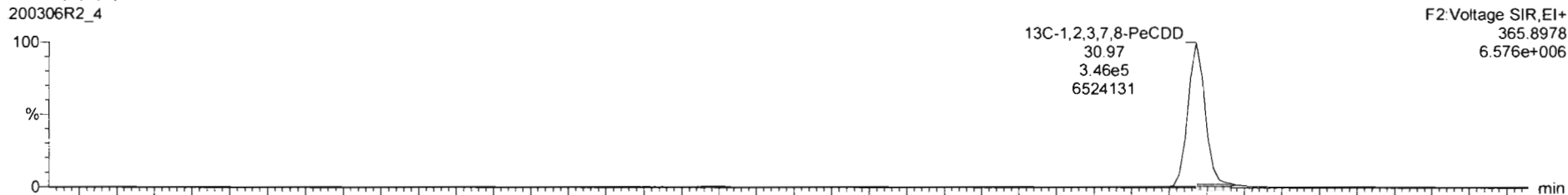


200306R2\_4

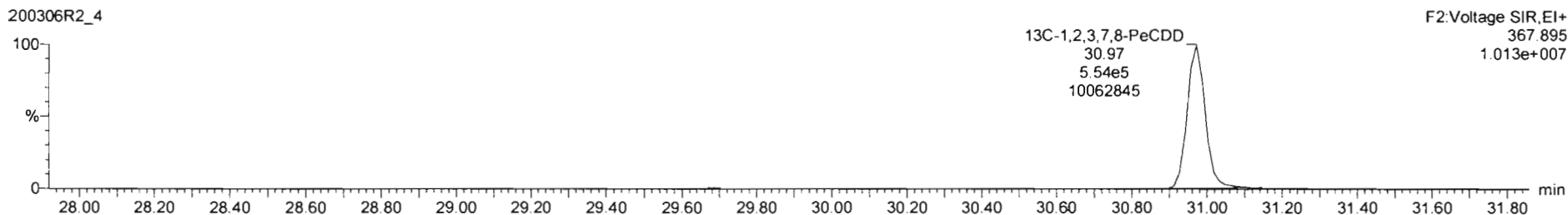


**13C-1,2,3,7,8-PeCDD**

200306R2\_4



200306R2\_4





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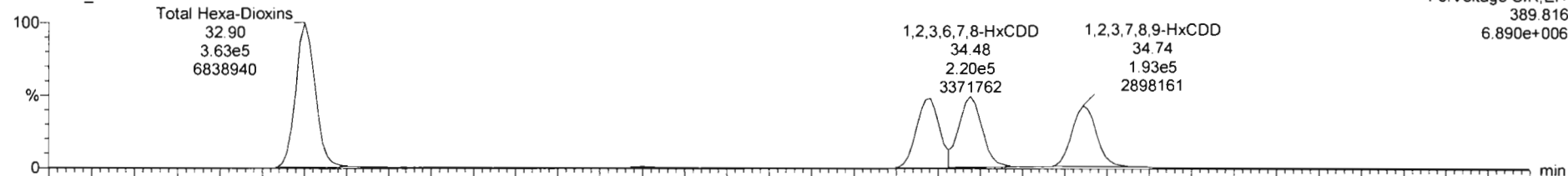
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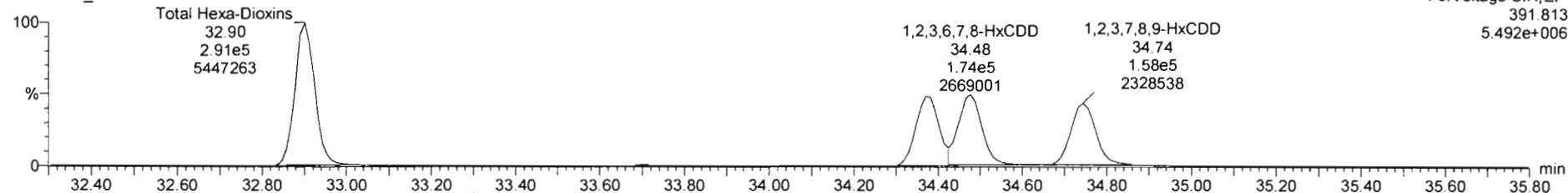
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**1,2,3,4,7,8-HxCDD**

200306R2\_4

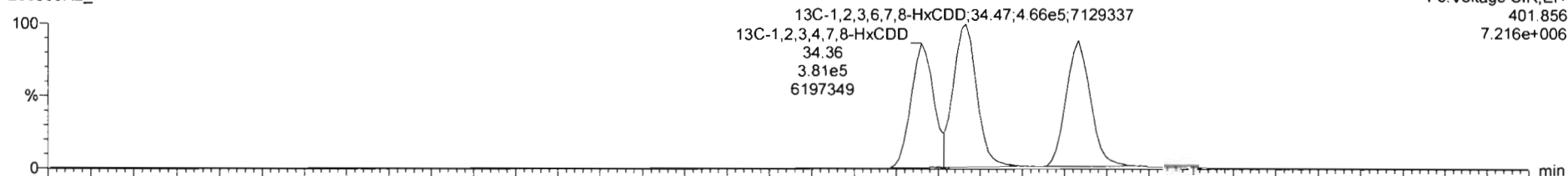


200306R2\_4

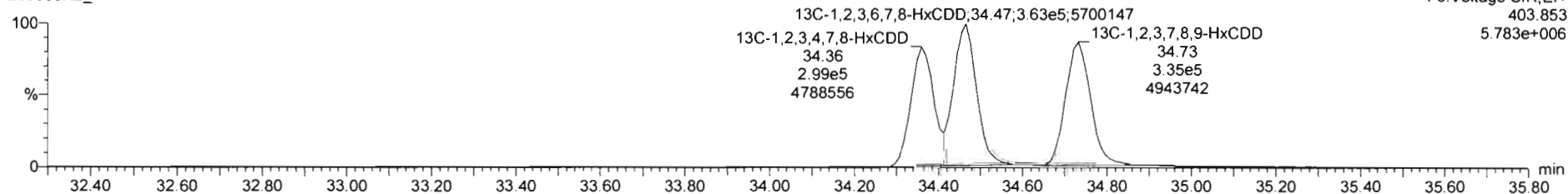


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_4



200306R2\_4



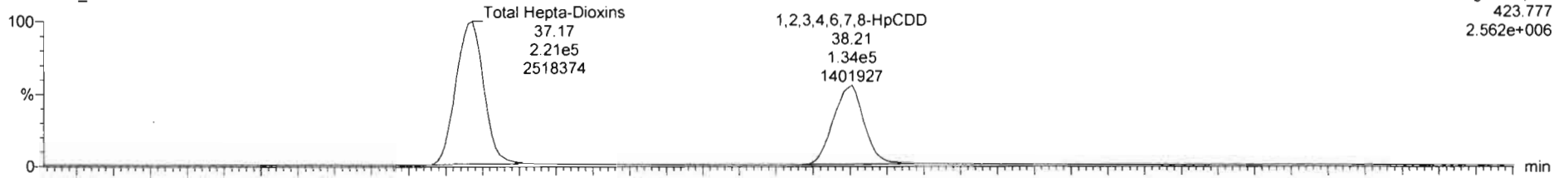
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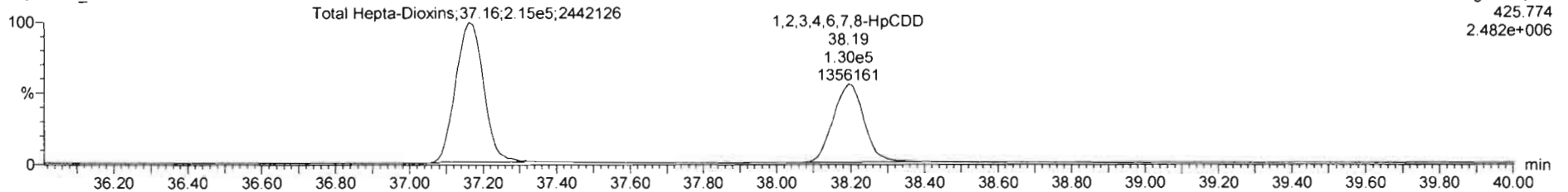
1,2,3,4,6,7,8-HpCDD

200306R2\_4



F4: Voltage SIR, EI+  
423.777  
2.562e+006

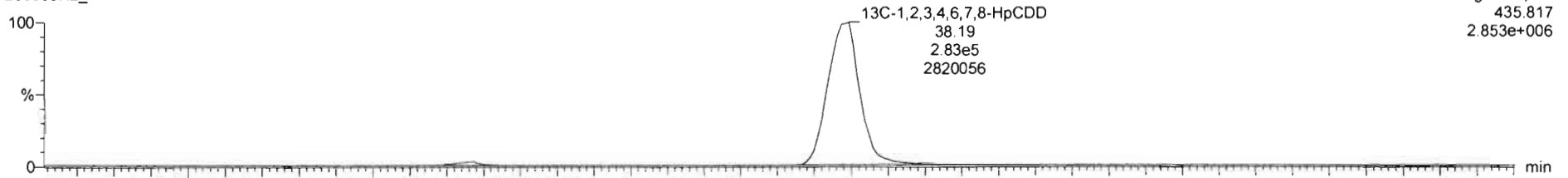
200306R2\_4



F4: Voltage SIR, EI+  
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2.482e+006

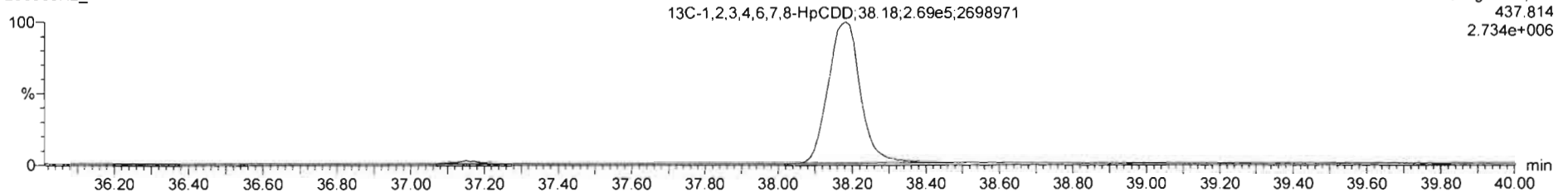
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_4



F4: Voltage SIR, EI+  
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2.853e+006

200306R2\_4

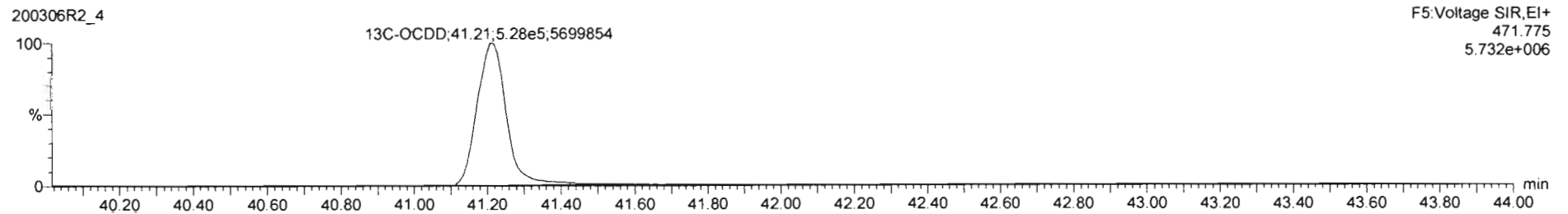
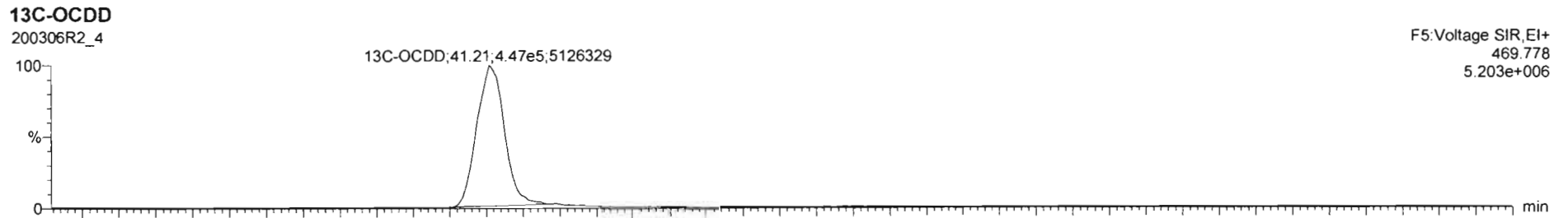
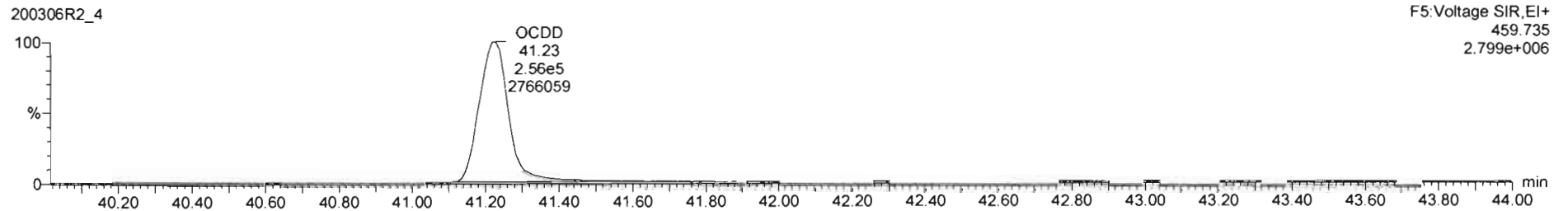
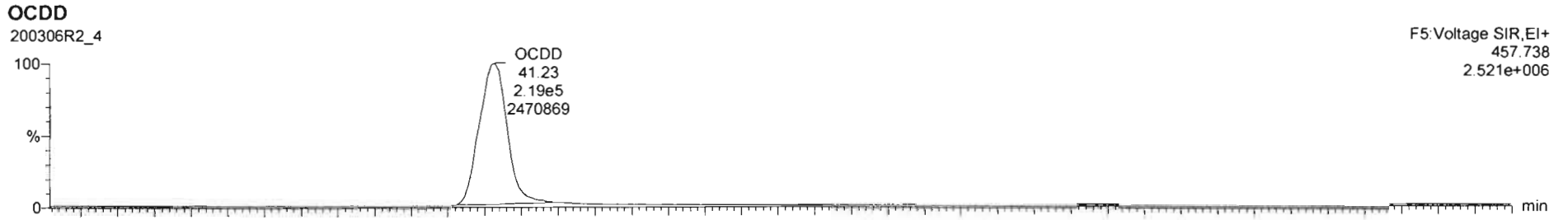


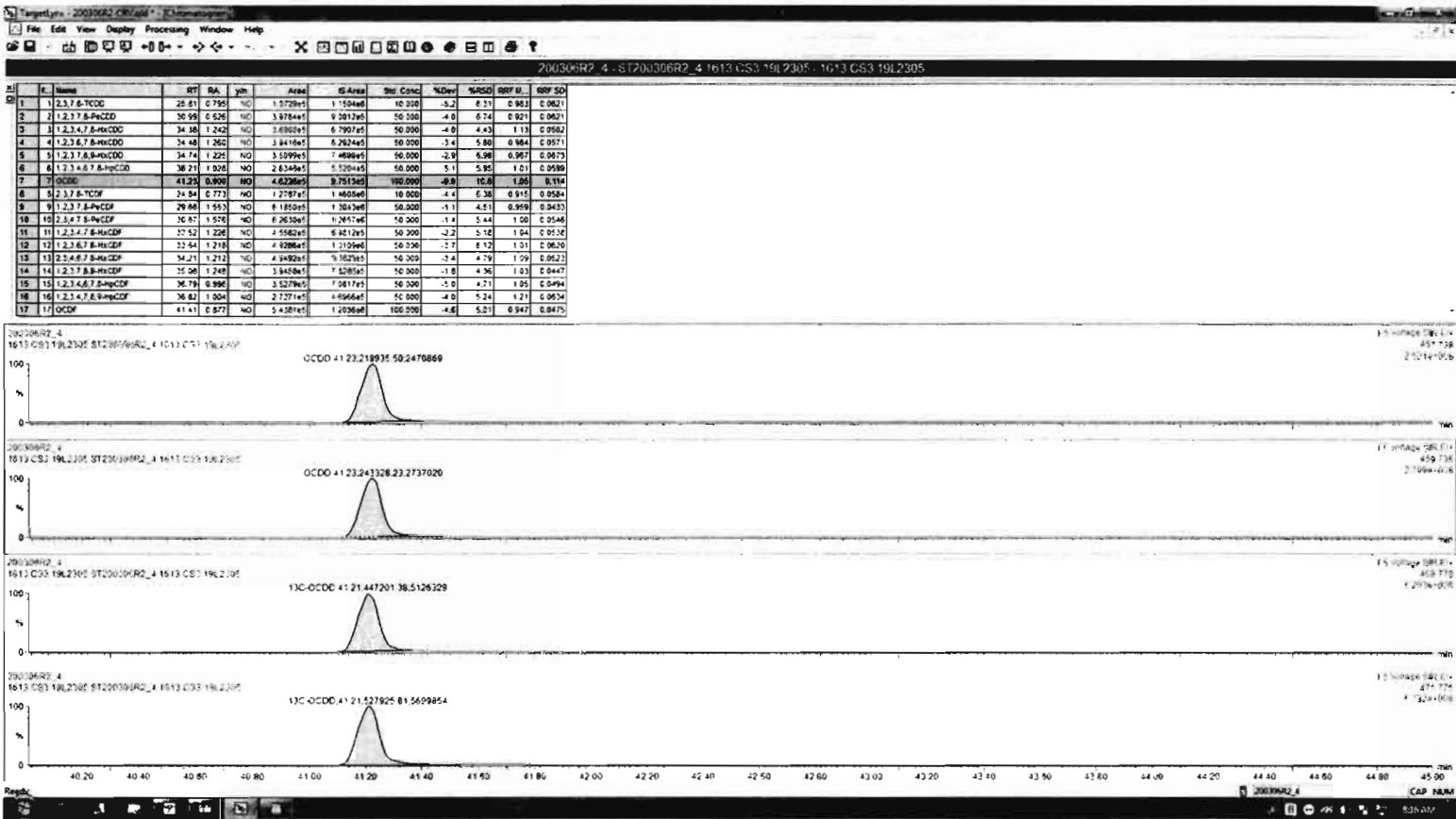
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437.814  
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Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305





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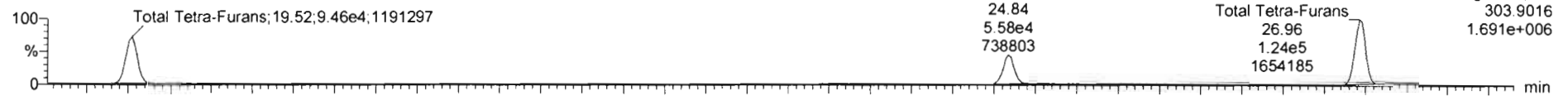
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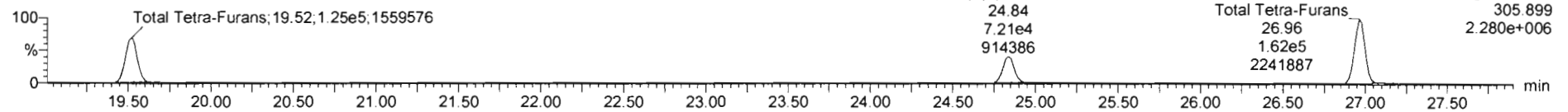
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**2,3,7,8-TCDF**

200306R2\_4

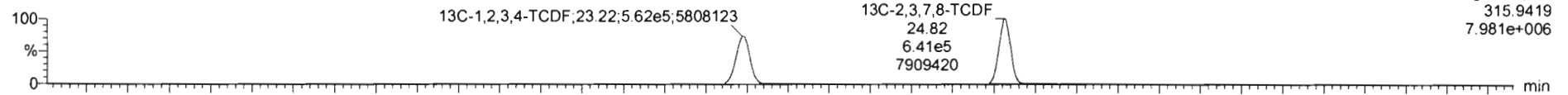


200306R2\_4

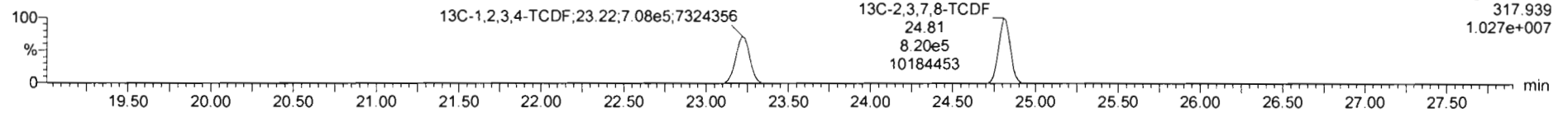


**13C-2,3,7,8-TCDF**

200306R2\_4

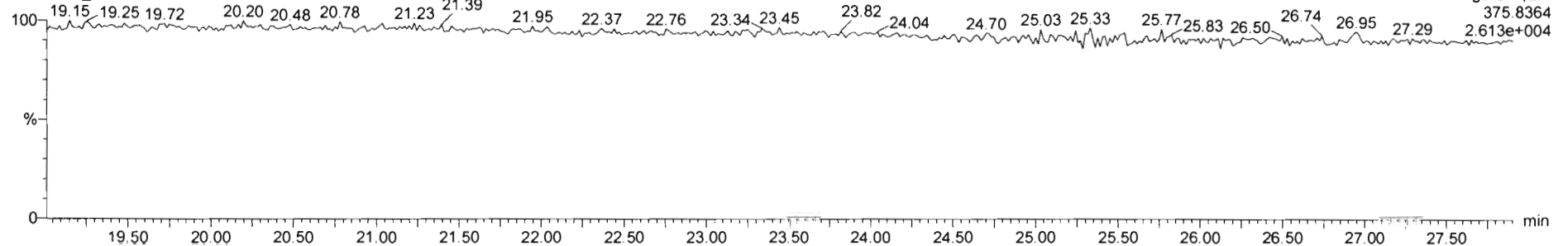


200306R2\_4



**DPE1**

200306R2\_4



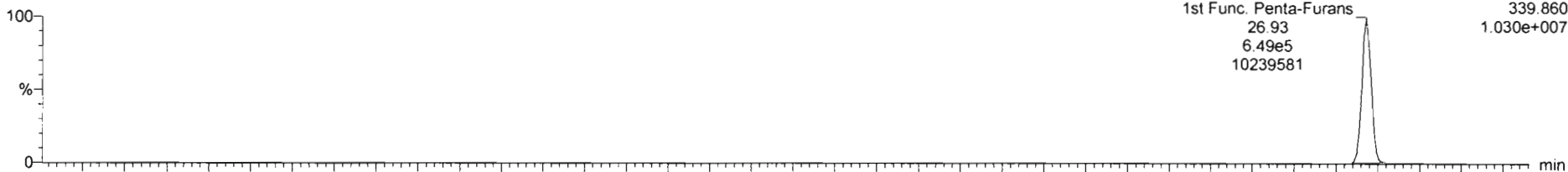
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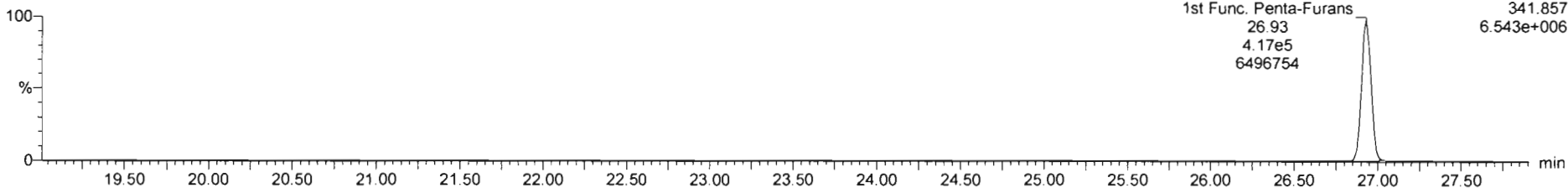
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1st Func. Penta-Furans

200306R2\_4

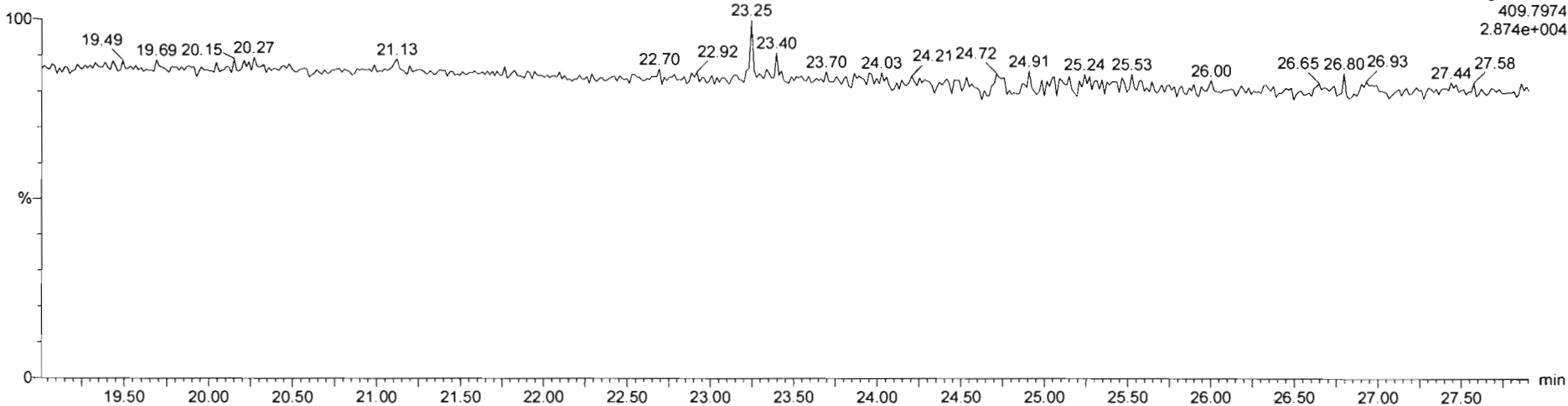


200306R2\_4



DPE6

200306R2\_4



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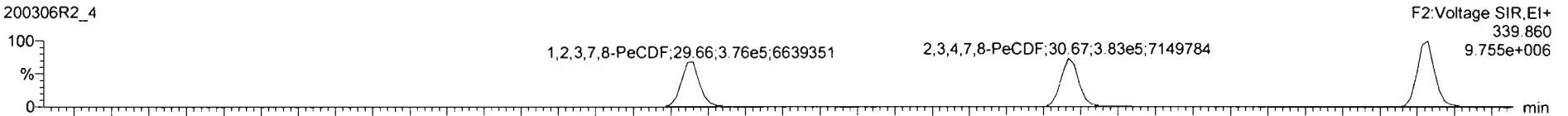
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

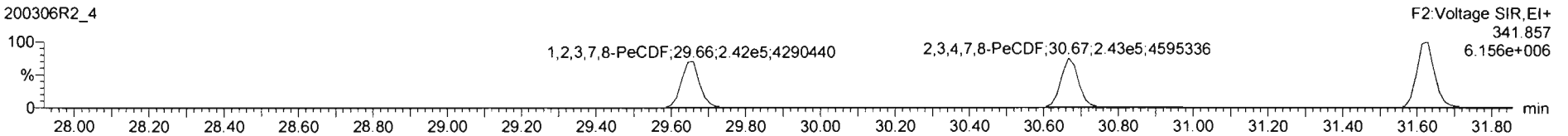
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**1,2,3,7,8-PeCDF**

200306R2\_4

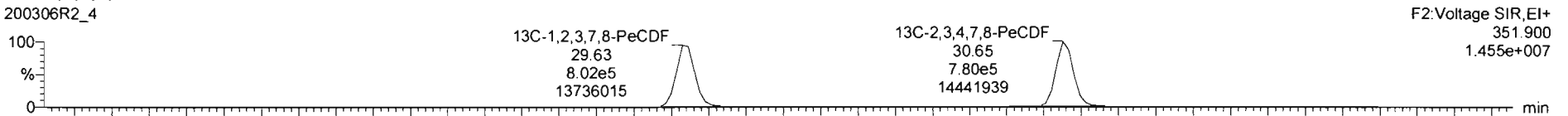


200306R2\_4

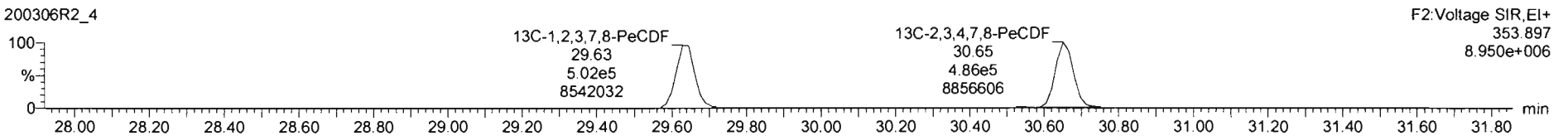


**13C-1,2,3,7,8-PeCDF**

200306R2\_4

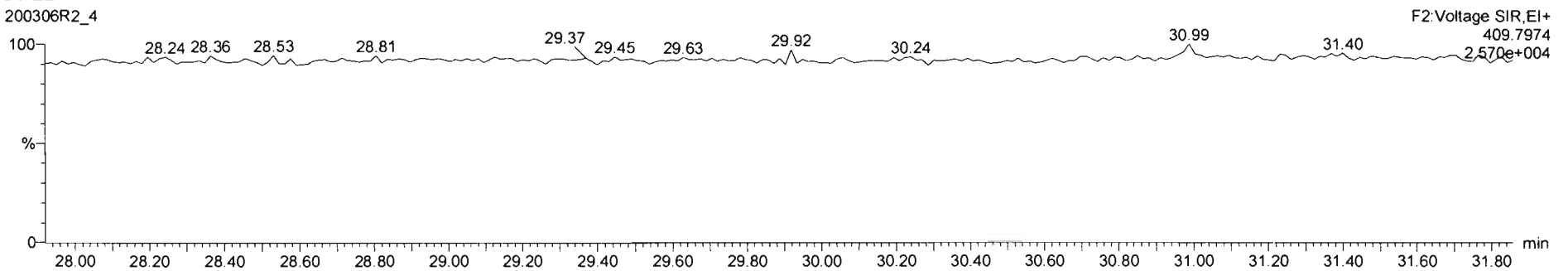


200306R2\_4



**DPE2**

200306R2\_4



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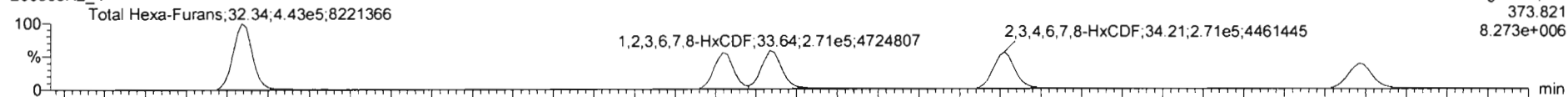
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

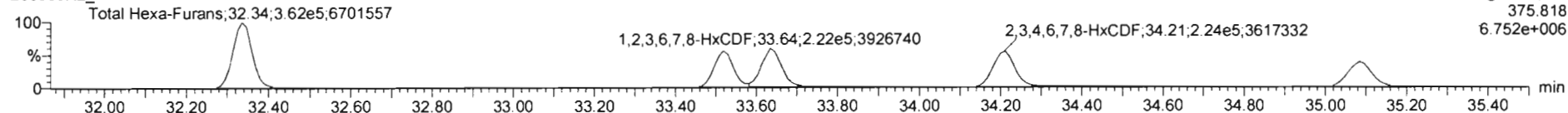
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**1,2,3,4,7,8-HxCDF**

200306R2\_4

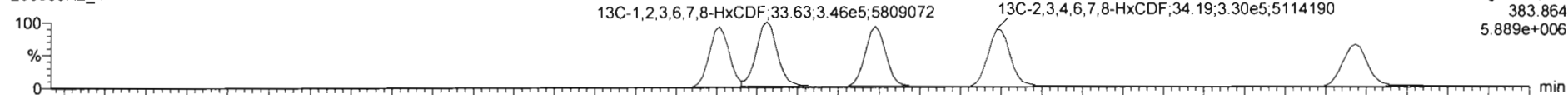


200306R2\_4

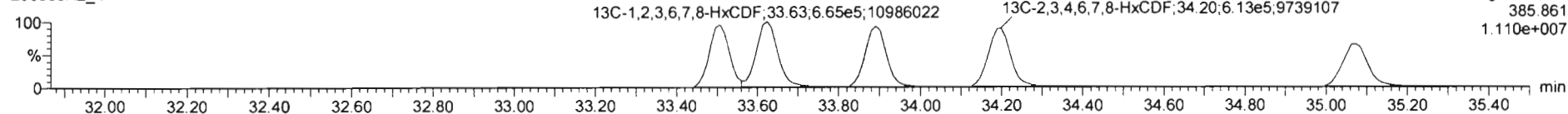


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_4

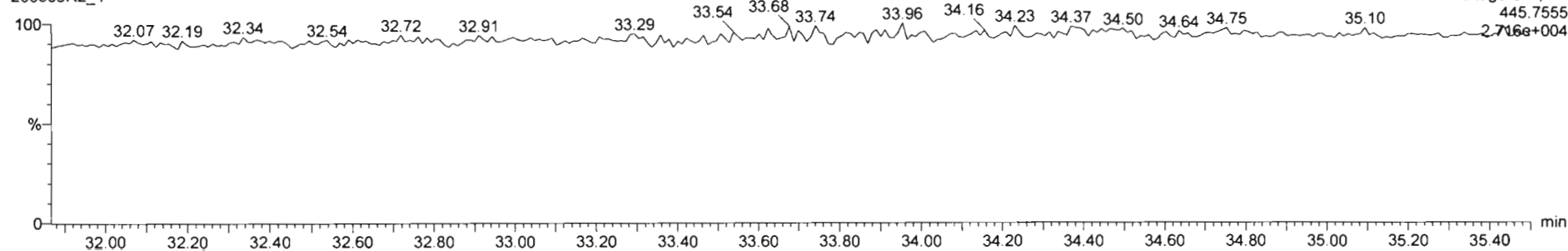


200306R2\_4

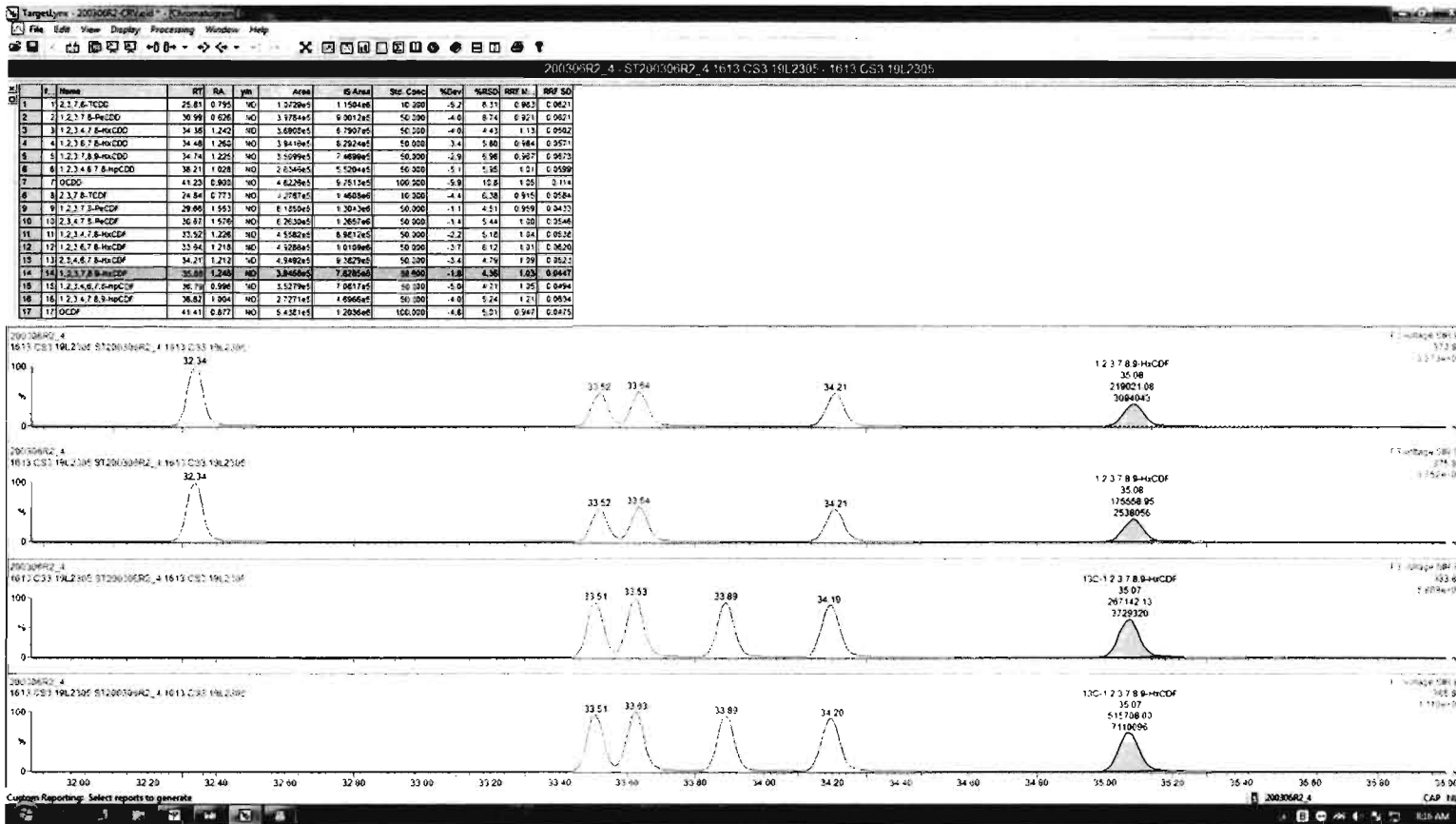


**DPE3**

200306R2\_4







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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

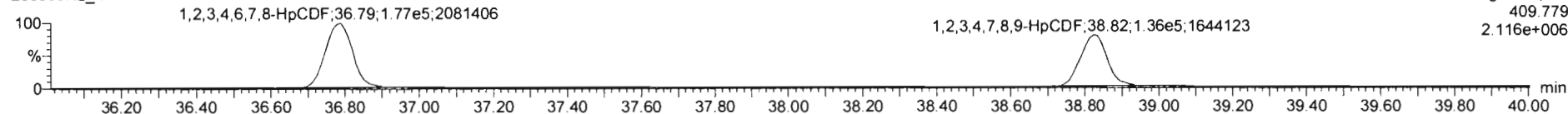
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_4



200306R2\_4

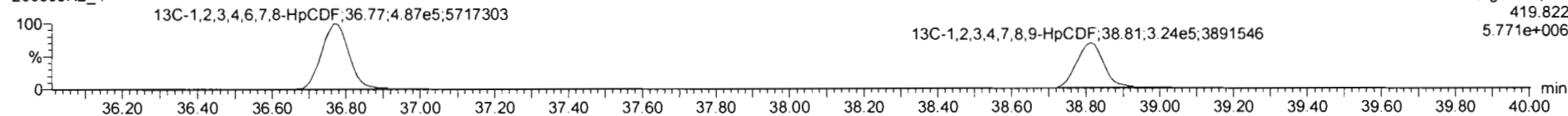


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_4

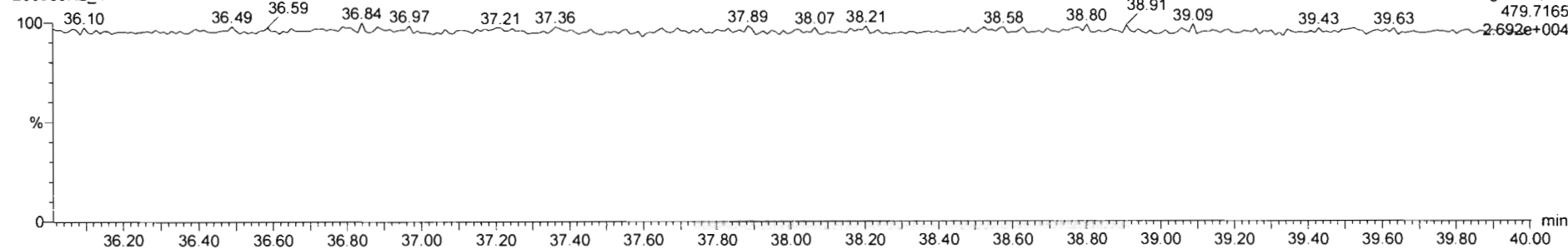


200306R2\_4



**DPE4**

200306R2\_4

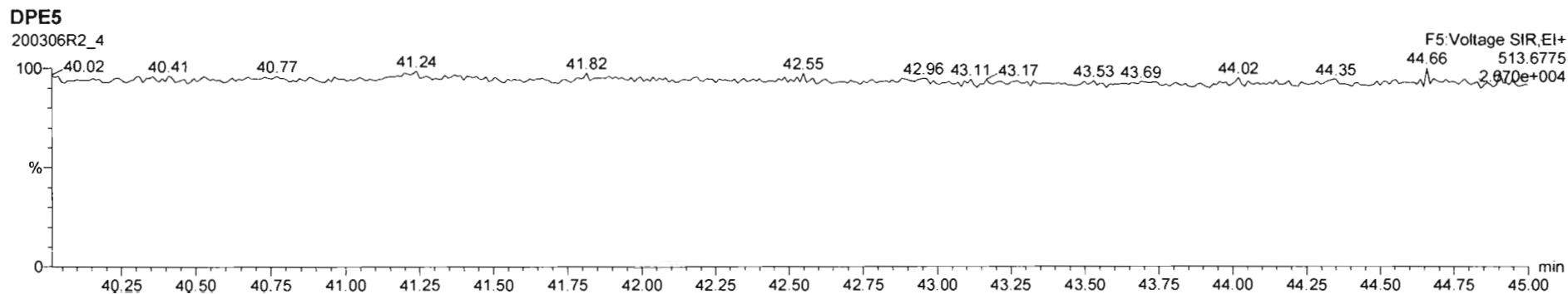
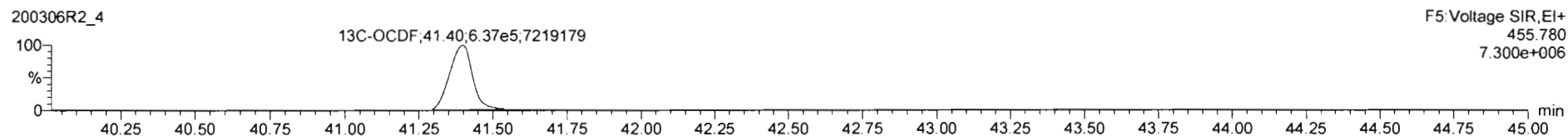
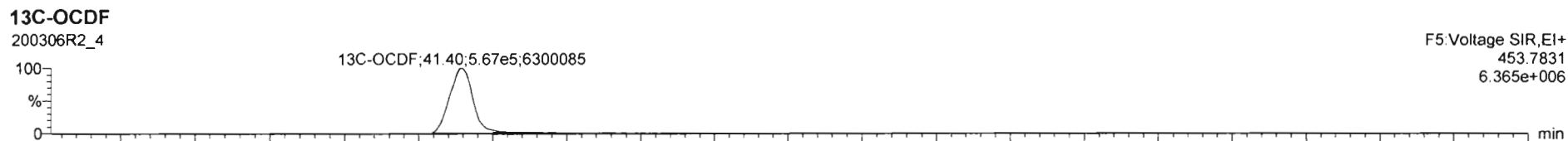
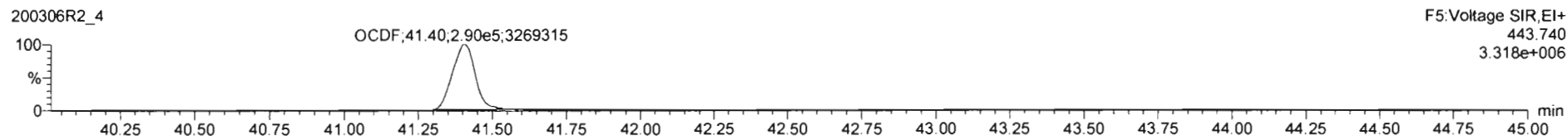
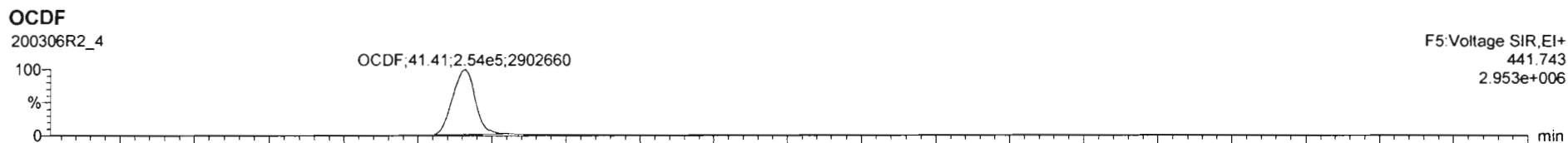


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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

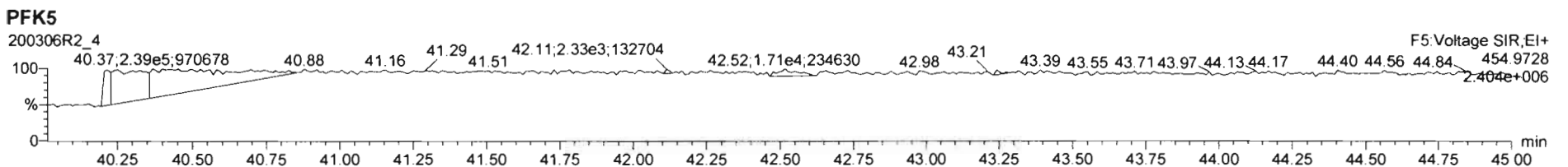
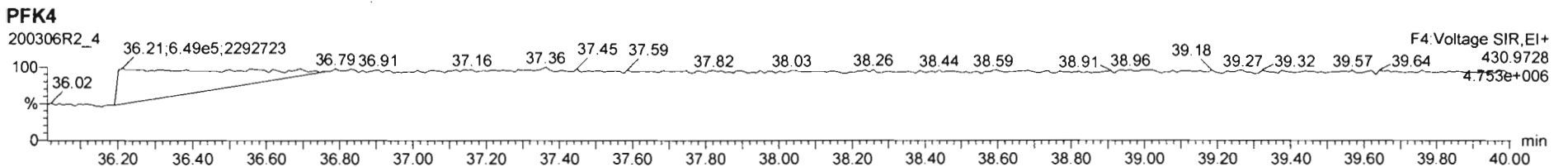
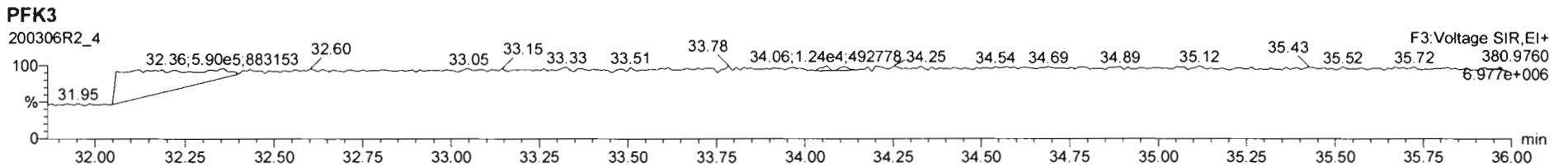
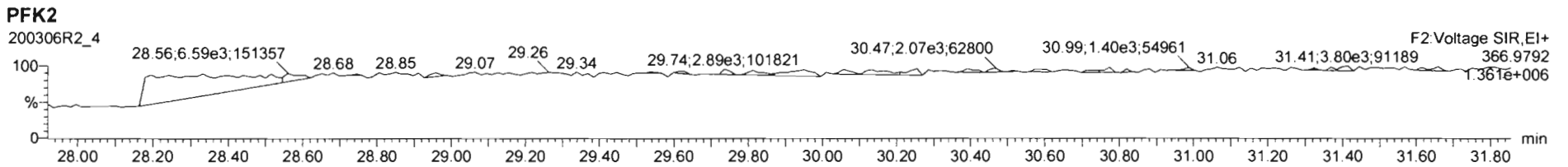
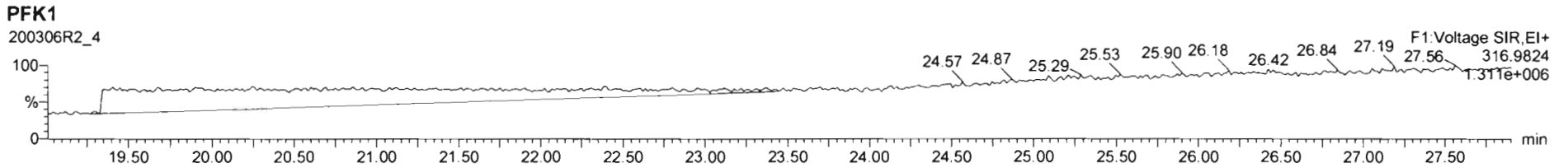
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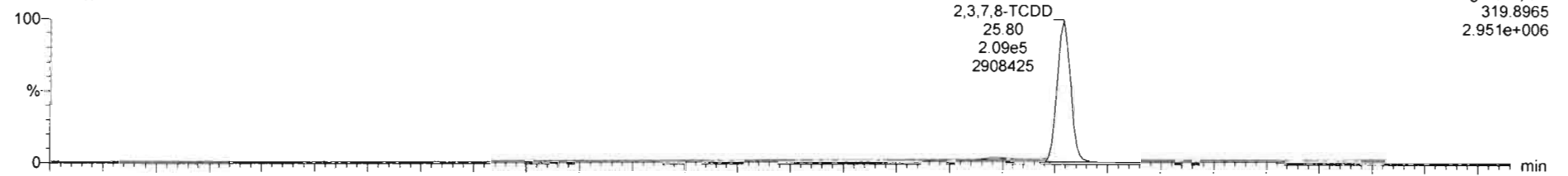
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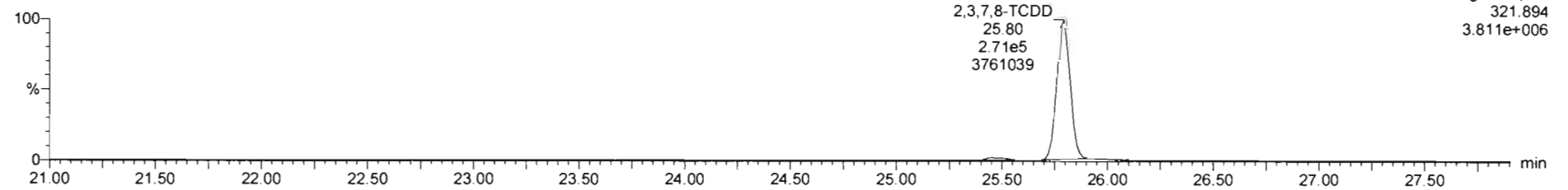
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**2,3,7,8-TCDD**

200306R2\_5

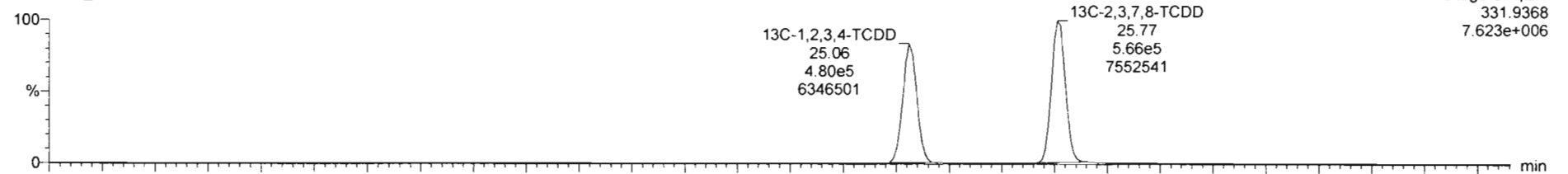


200306R2\_5

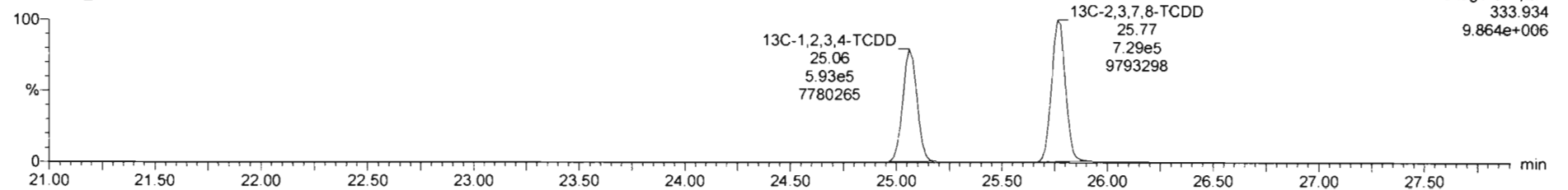


**13C-2,3,7,8-TCDD**

200306R2\_5



200306R2\_5



Dataset: Untitled

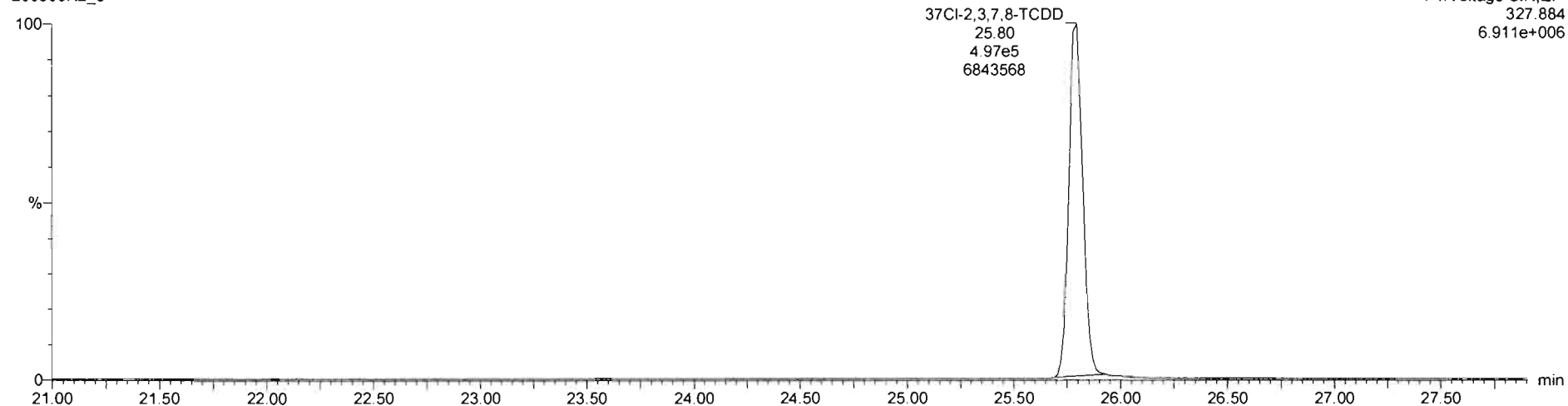
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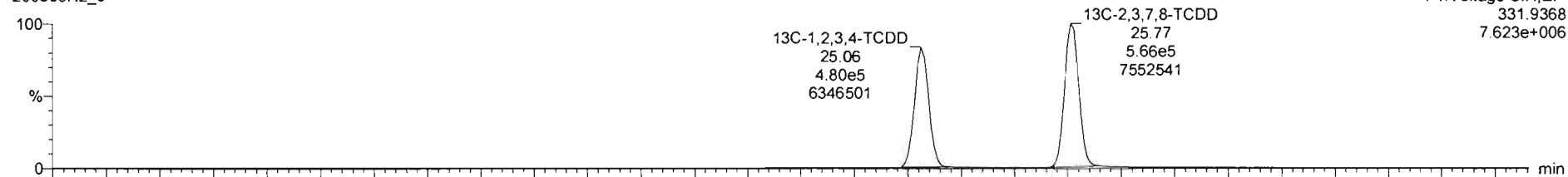
**37Cl-2,3,7,8-TCDD**

200306R2\_5

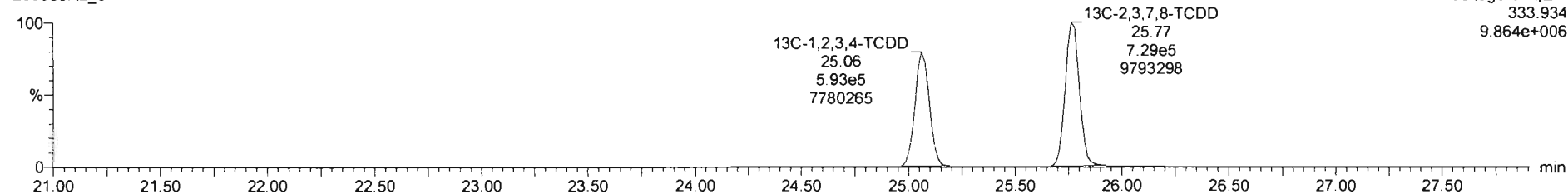


**13C-1,2,3,4-TCDD**

200306R2\_5



200306R2\_5



Dataset: Untitled

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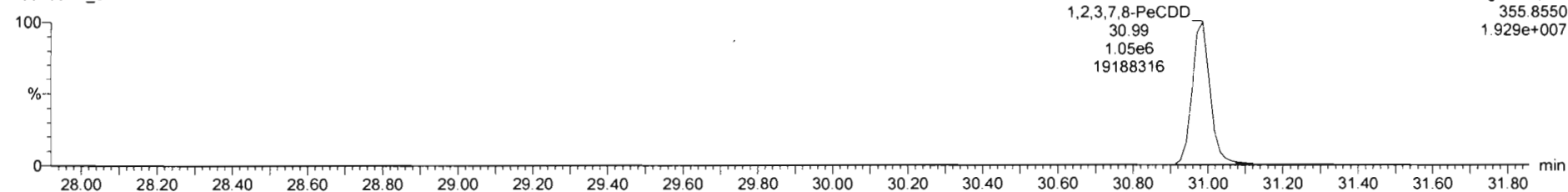
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**1,2,3,7,8-PeCDD**

200306R2\_5



200306R2\_5

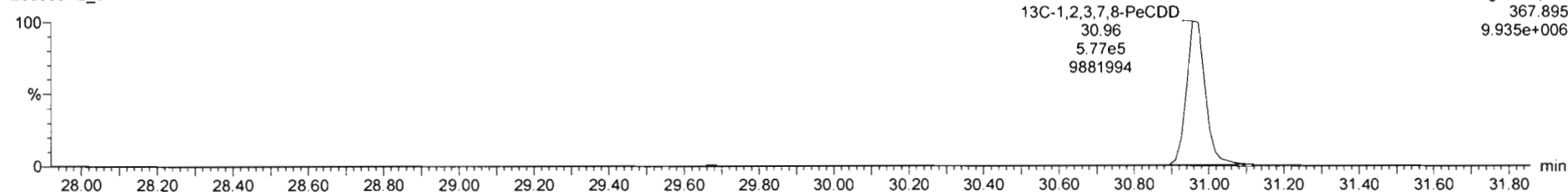


**13C-1,2,3,7,8-PeCDD**

200306R2\_5



200306R2\_5



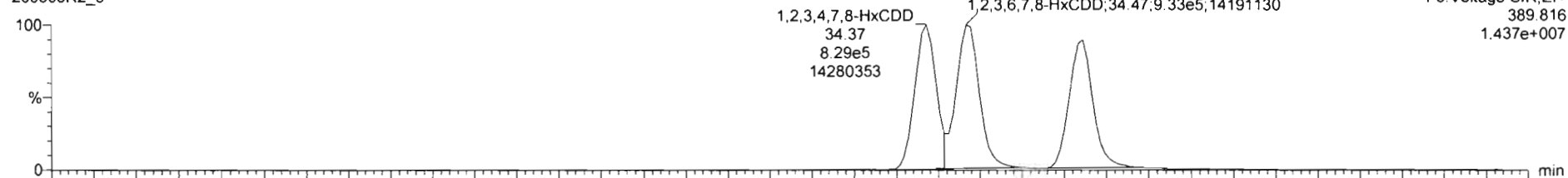
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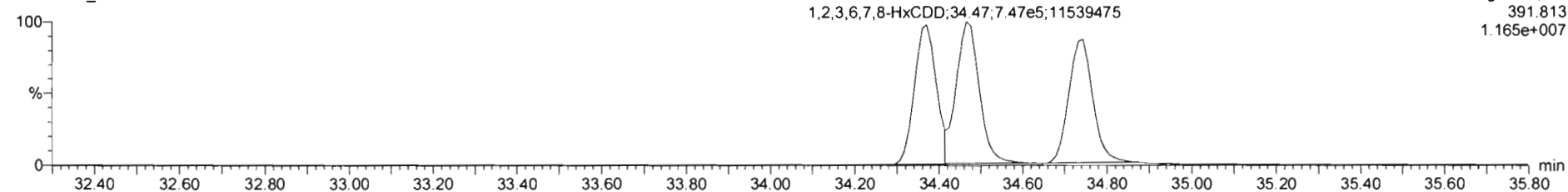
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**1,2,3,4,7,8-HxCDD**

200306R2\_5

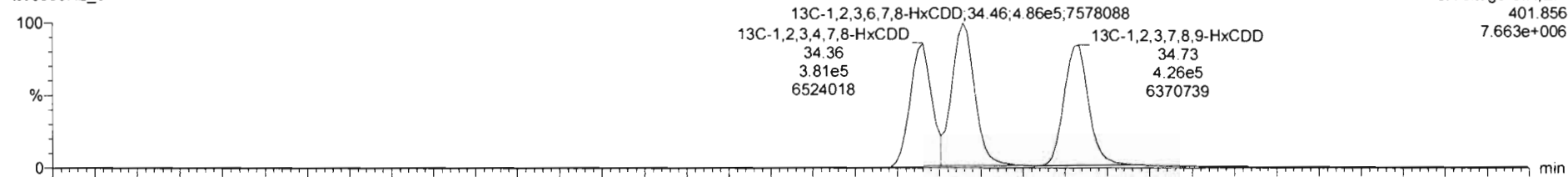


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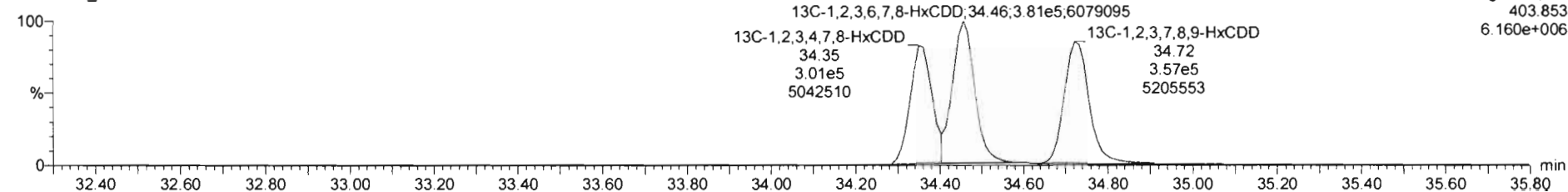


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_5



200306R2\_5





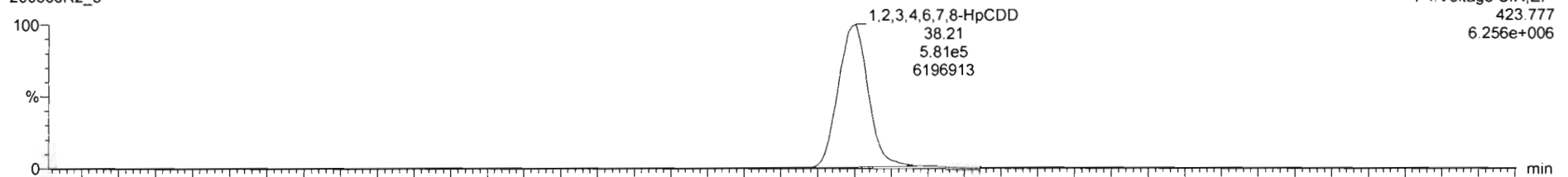
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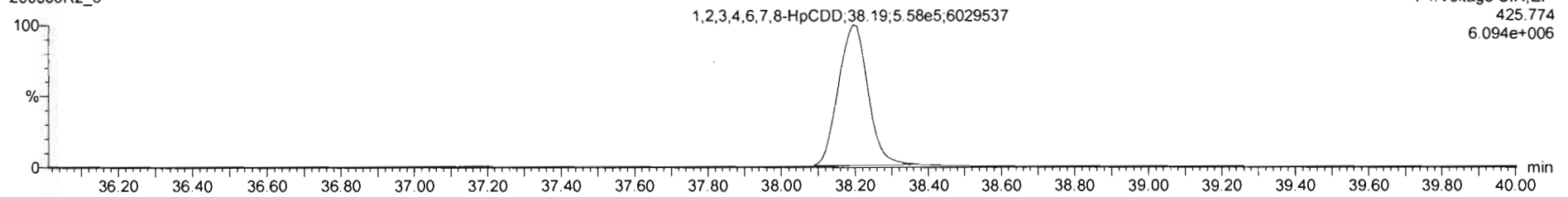
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**1,2,3,4,6,7,8-HpCDD**

200306R2\_5

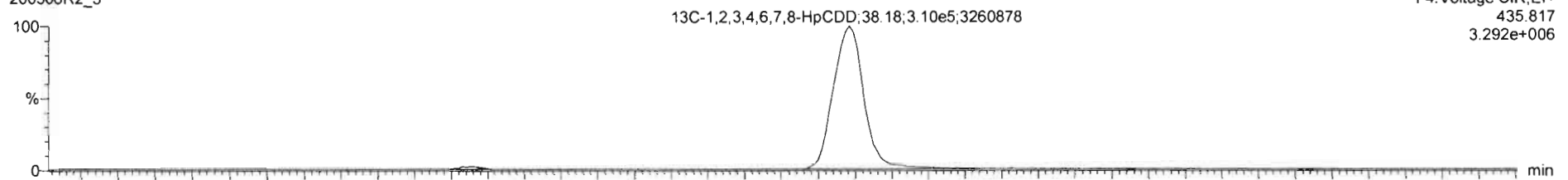


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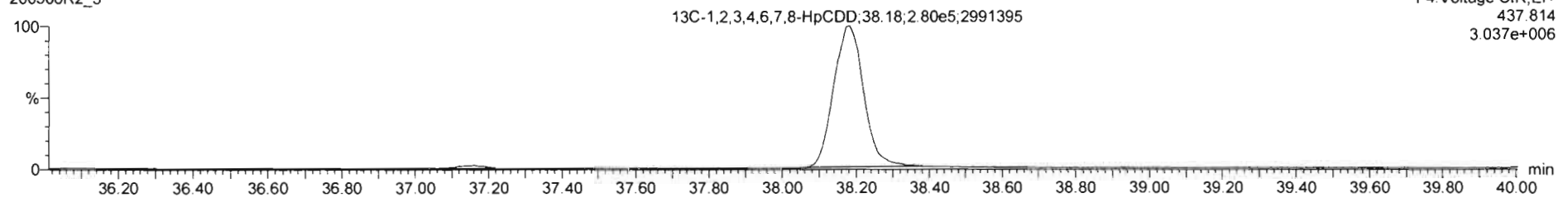


**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_5



200306R2\_5



Dataset: Untitled

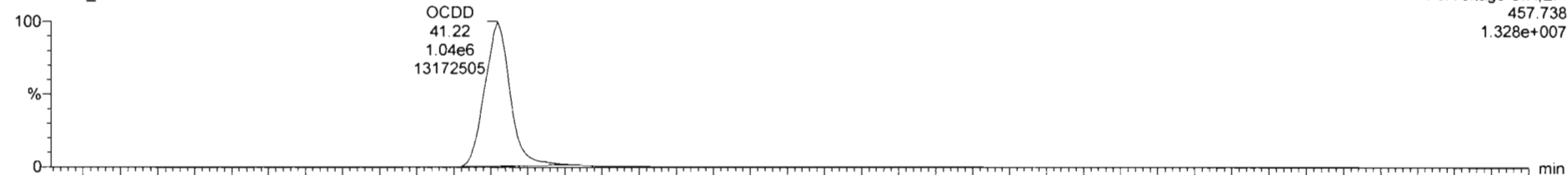
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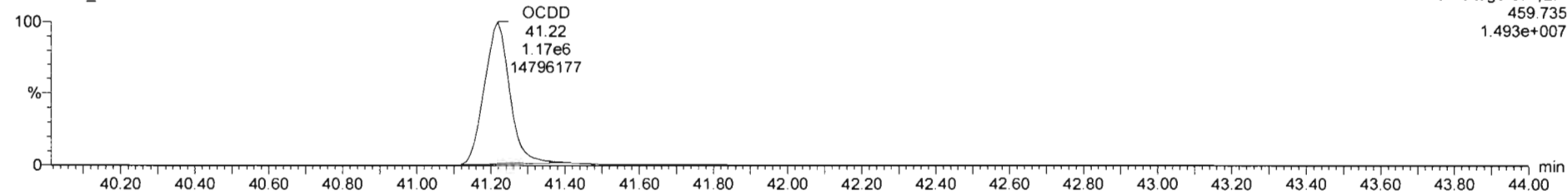
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OCDD

200306R2\_5

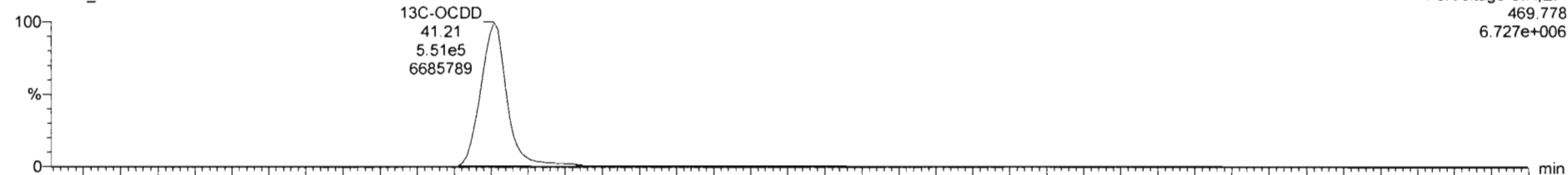


200306R2\_5

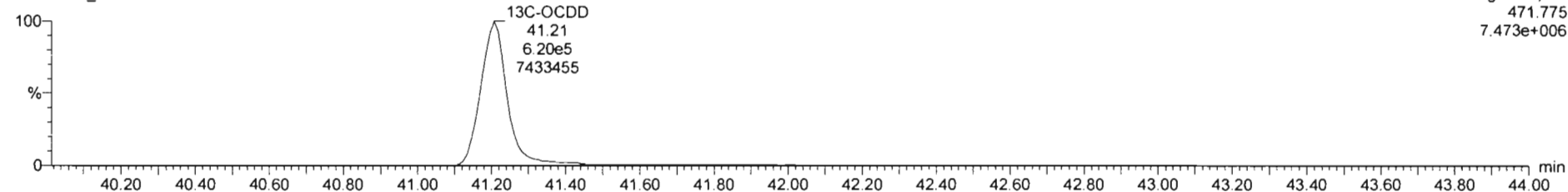


13C-OCDD

200306R2\_5



200306R2\_5



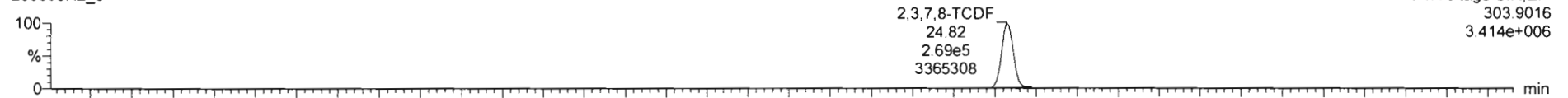
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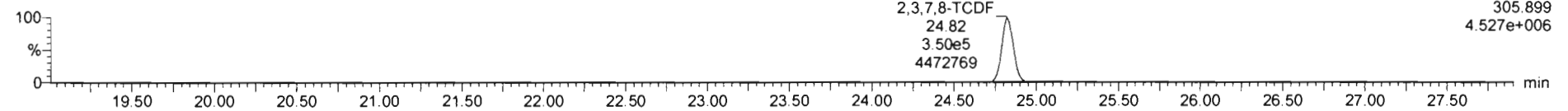
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**2,3,7,8-TCDF**

200306R2\_5

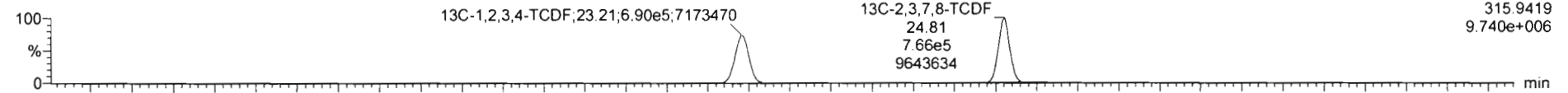


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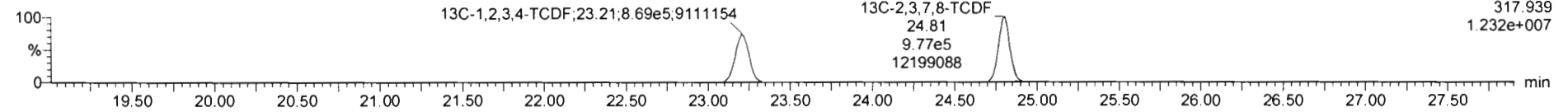


**13C-2,3,7,8-TCDF**

200306R2\_5

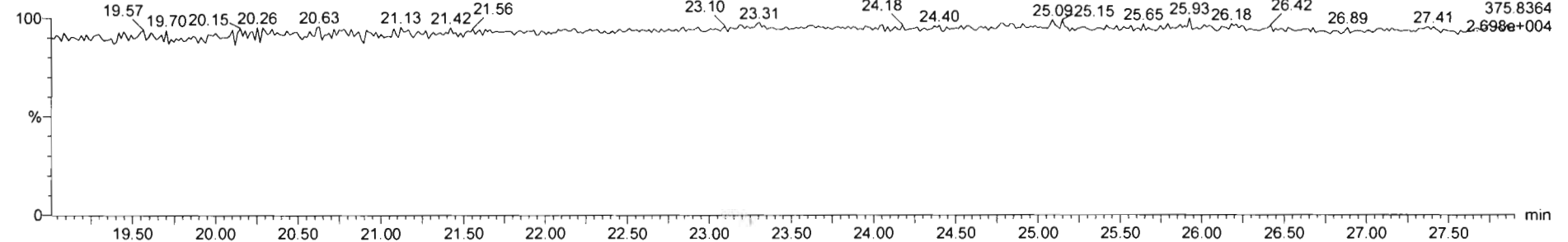


200306R2\_5



**DPE1**

200306R2\_5

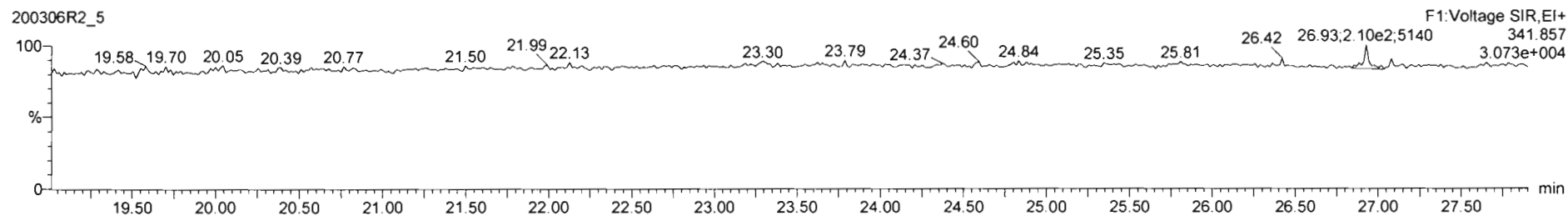
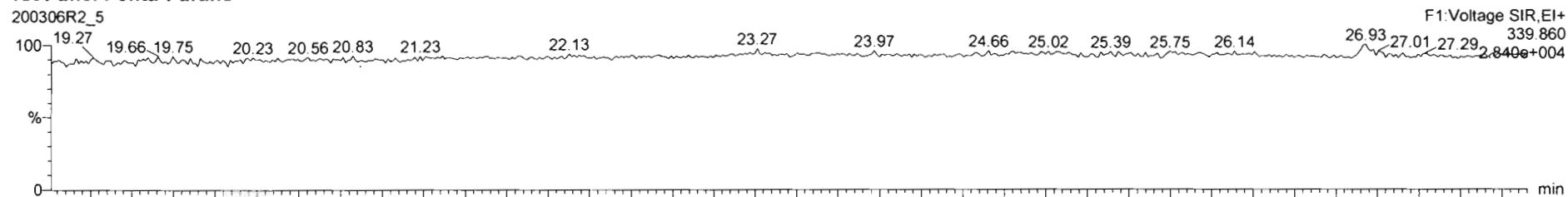


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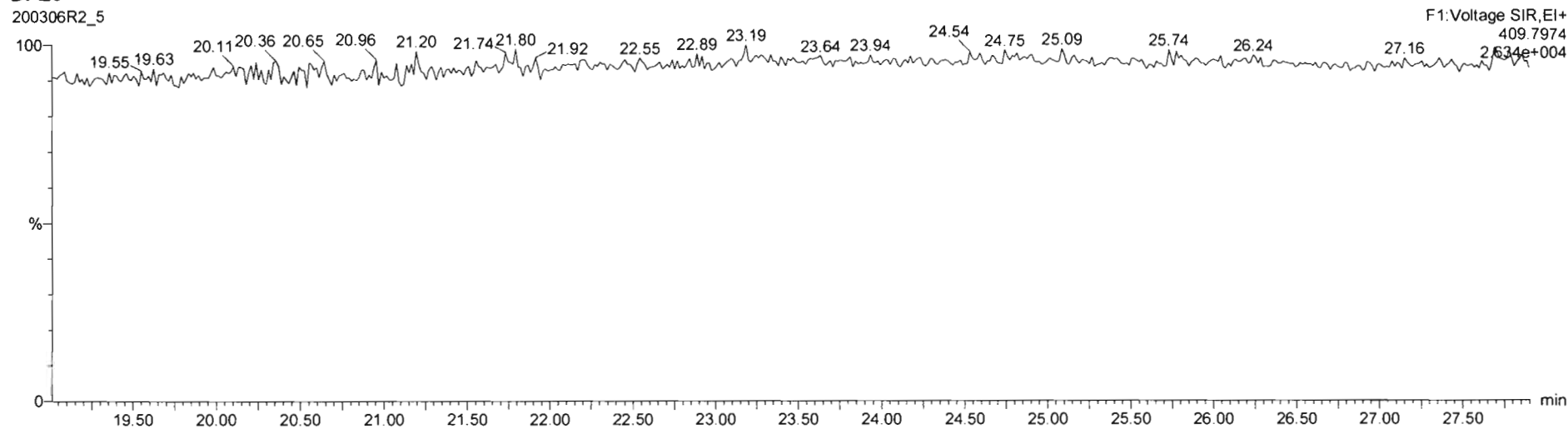
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Name: 200306R2\_5, Date: 06-Mar-2020, Time: 16:19:37, ID: ST200306R2\_5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

1st Func. Penta-Furans



DPE6



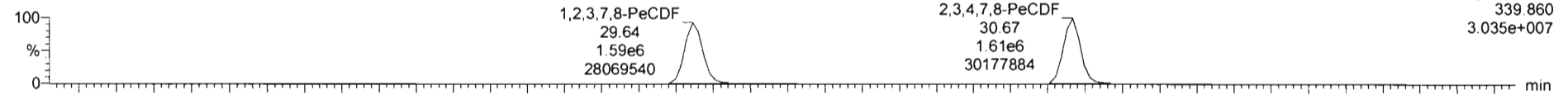
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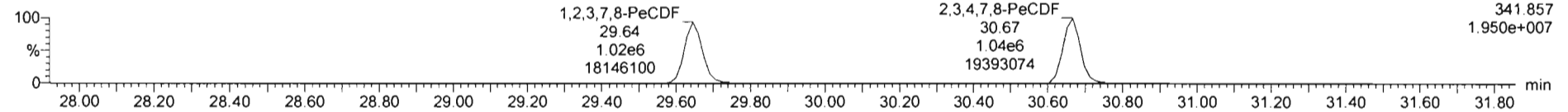
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**1,2,3,7,8-PeCDF**

200306R2\_5

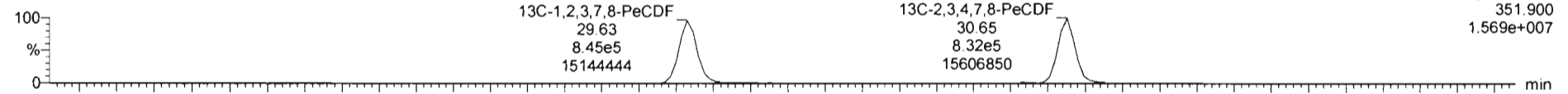


200306R2\_5

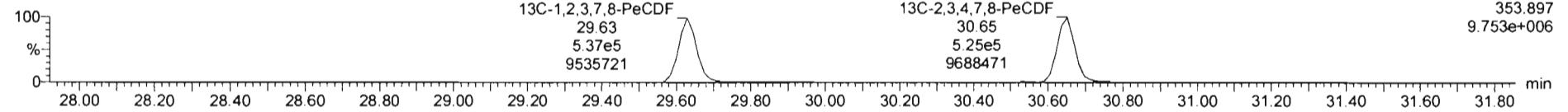


**13C-1,2,3,7,8-PeCDF**

200306R2\_5

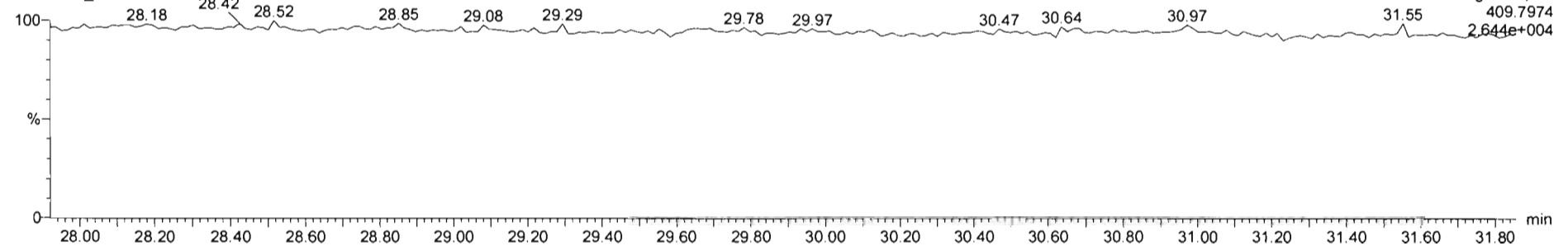


200306R2\_5



**DPE2**

200306R2\_5



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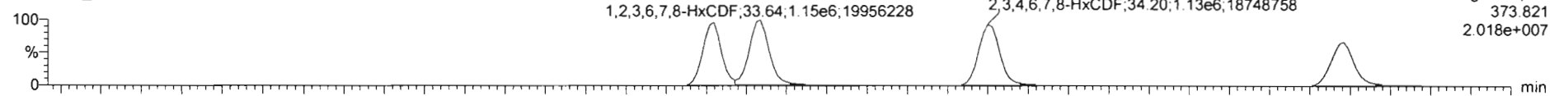
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

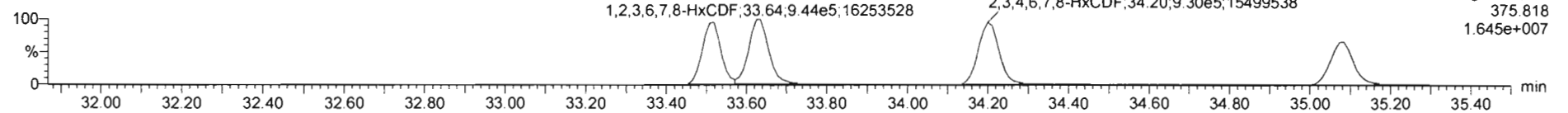
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**1,2,3,4,7,8-HxCDF**

200306R2\_5

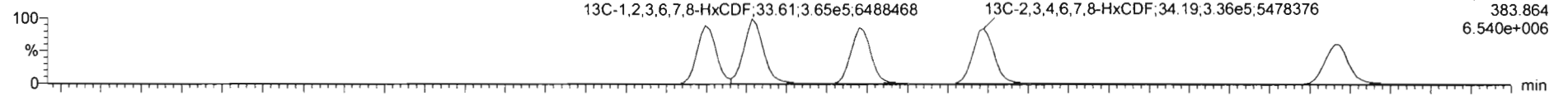


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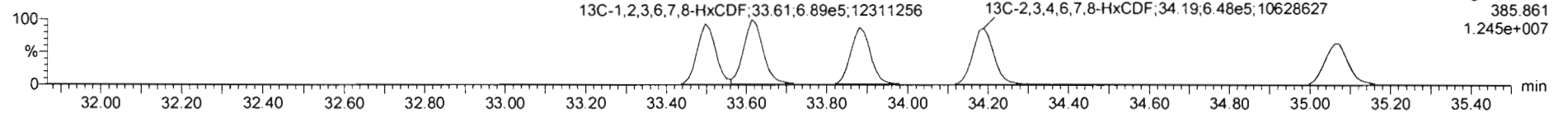


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_5

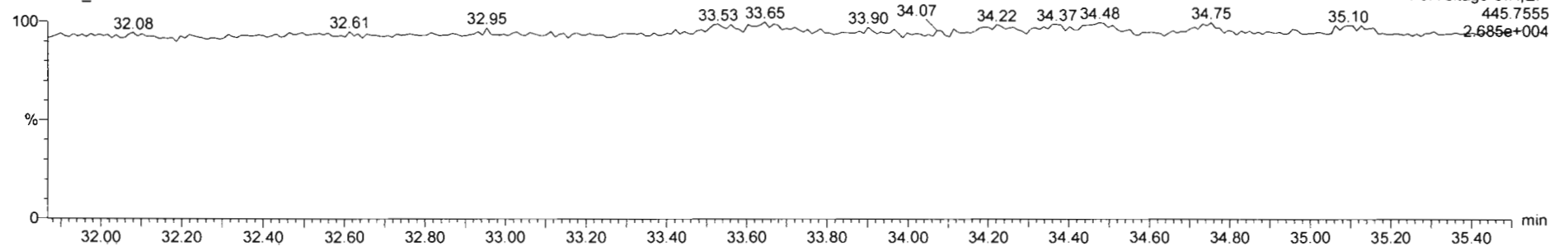


200306R2\_5



**DPE3**

200306R2\_5



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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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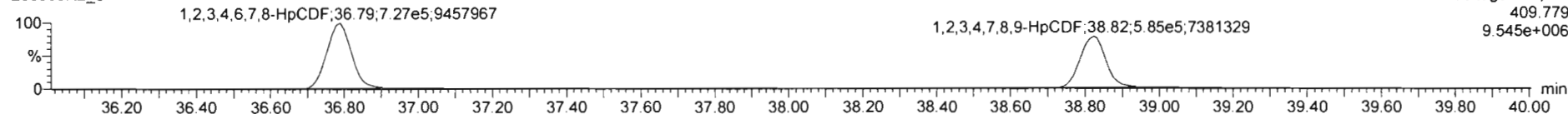
**1,2,3,4,6,7,8-HpCDF**

200306R2\_5



F4: Voltage SIR, EI+  
407.782  
9.536e+006

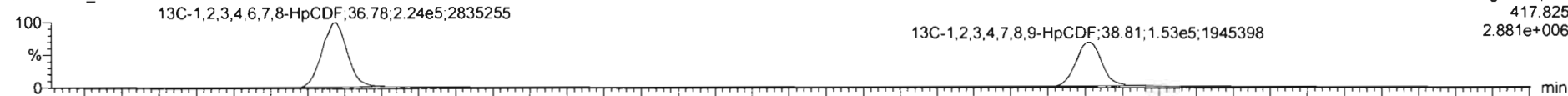
200306R2\_5



F4: Voltage SIR, EI+  
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9.545e+006

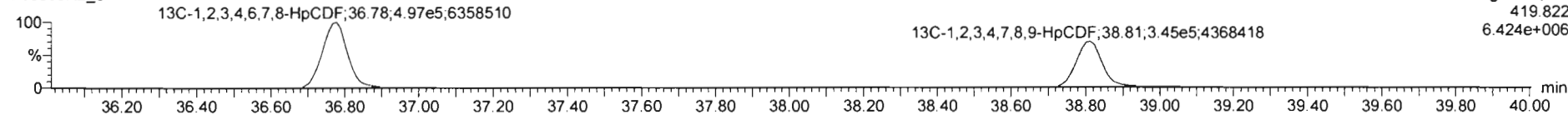
**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_5



F4: Voltage SIR, EI+  
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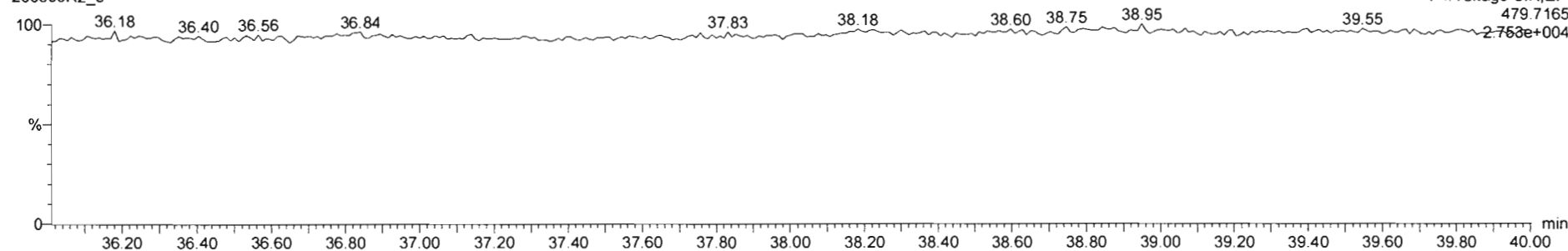
200306R2\_5



F4: Voltage SIR, EI+  
419.822  
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**DPE4**

200306R2\_5



F4: Voltage SIR, EI+  
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2.753e+004

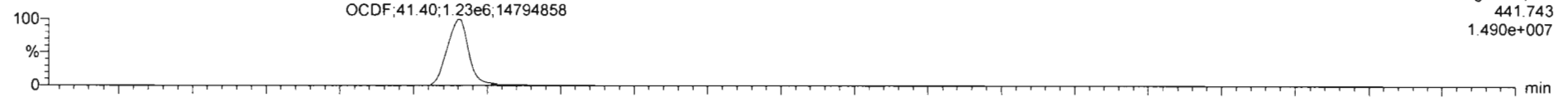
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

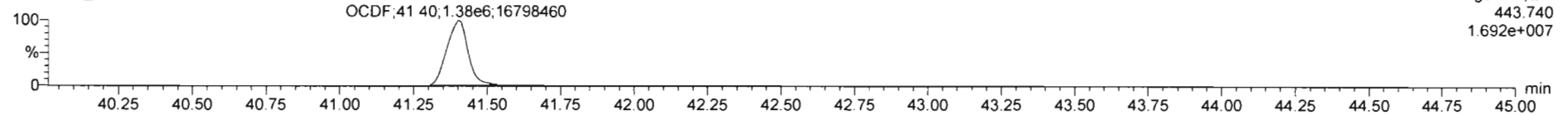
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**OCDF**

200306R2\_5

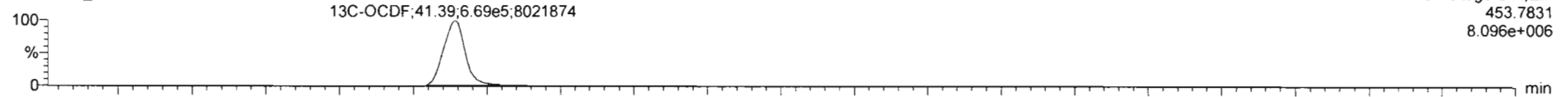


200306R2\_5

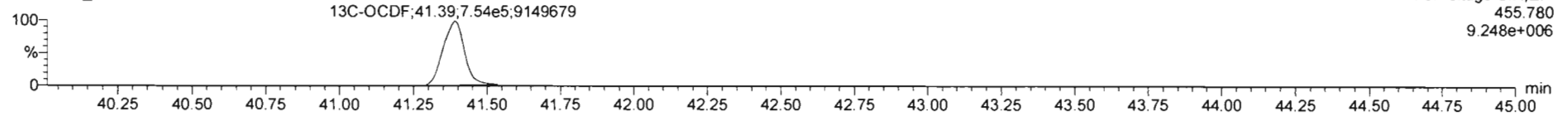


**13C-OCDF**

200306R2\_5

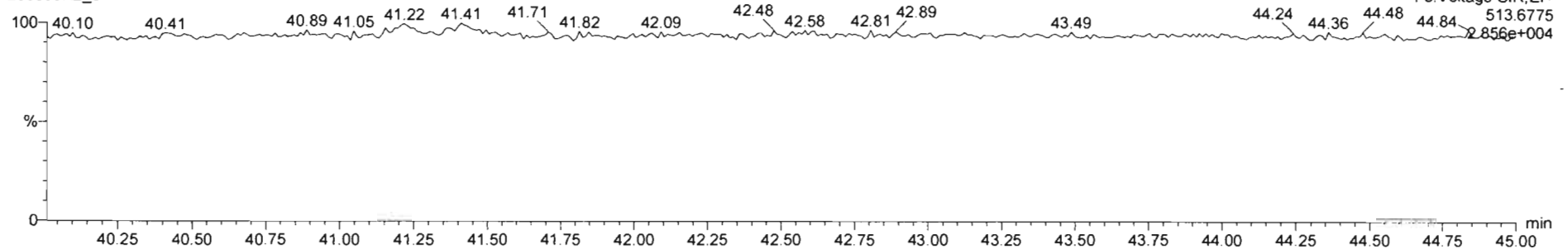


200306R2\_5



**DPE5**

200306R2\_5





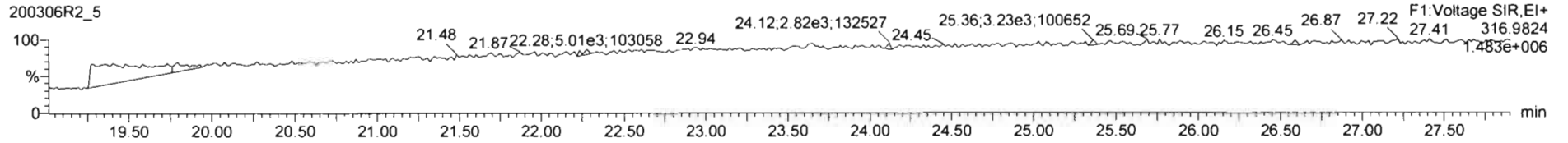
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

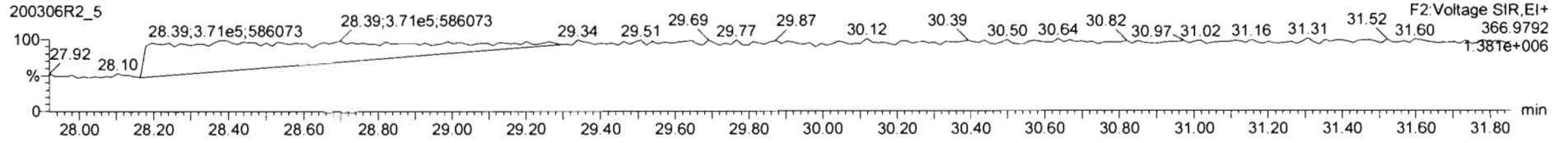
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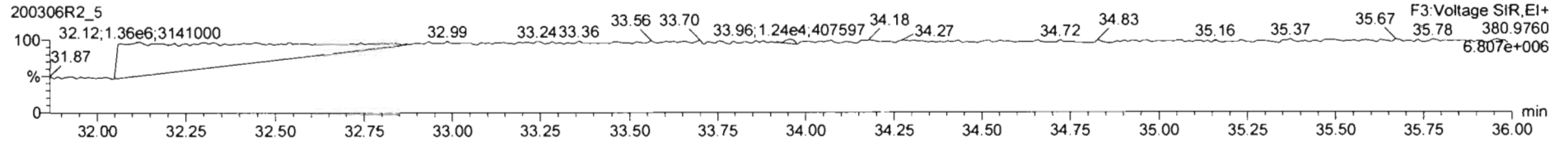
PFK1



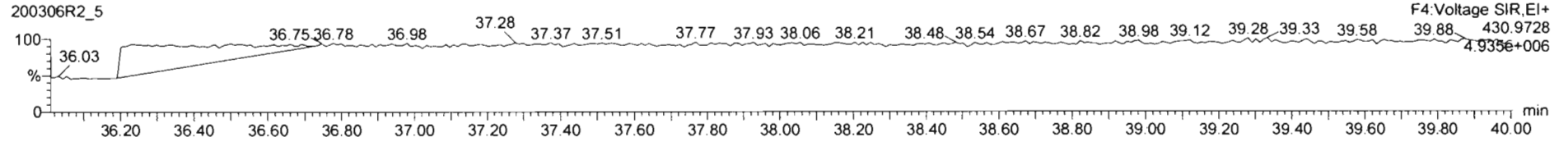
PFK2



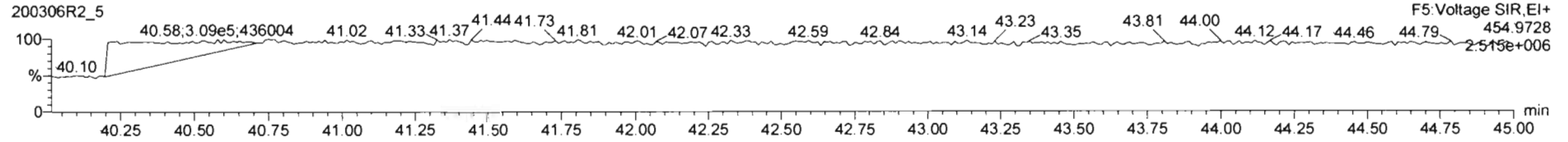
PFK3



PFK4



PFK5



Dataset: Untitled

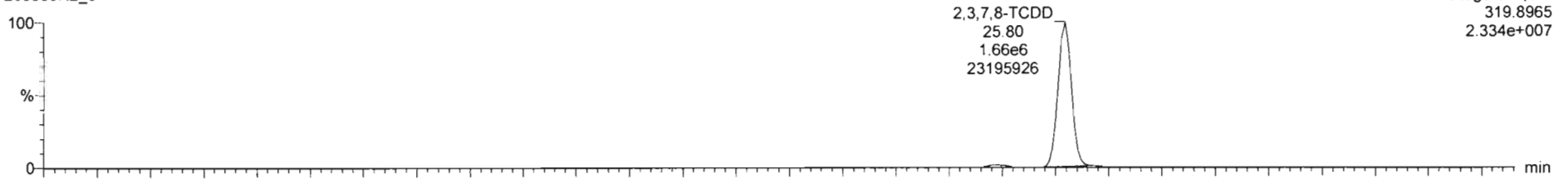
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

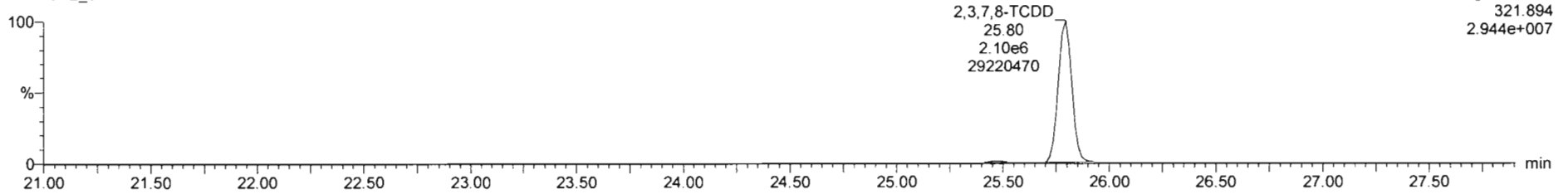
Name: 200306R2\_6; Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

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

200306R2\_6

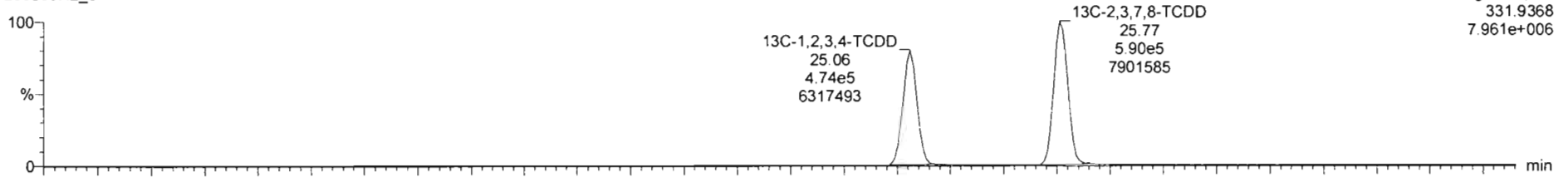


200306R2\_6

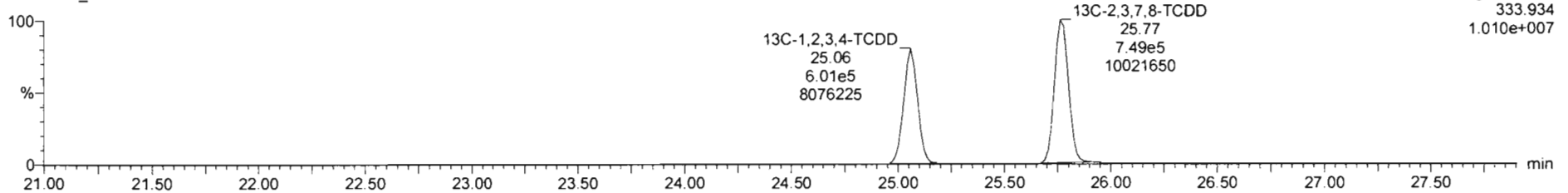


**13C-2,3,7,8-TCDD**

200306R2\_6



200306R2\_6



Dataset: Untitled

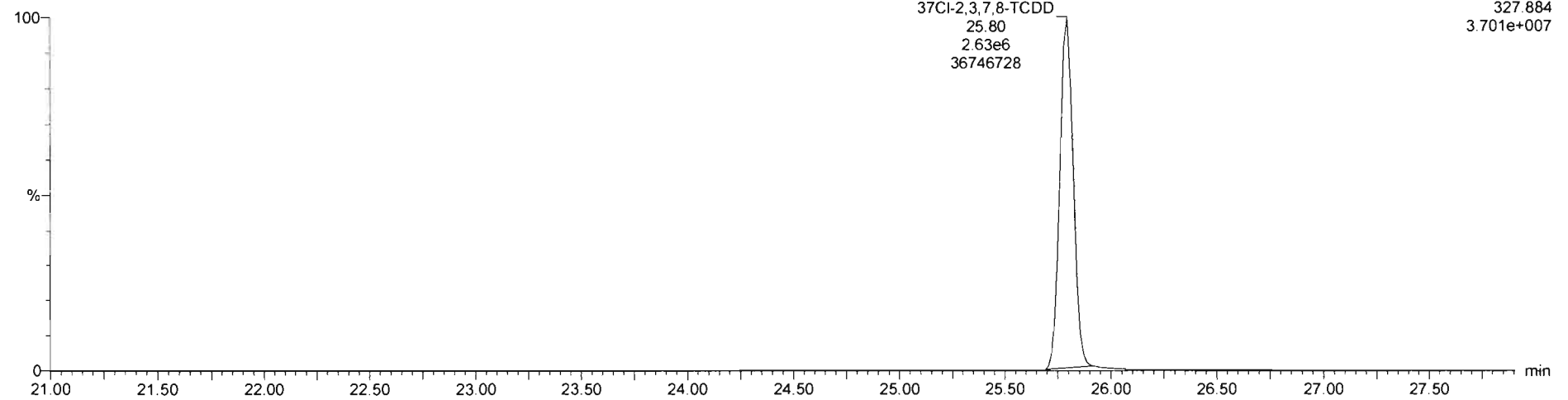
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6; Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

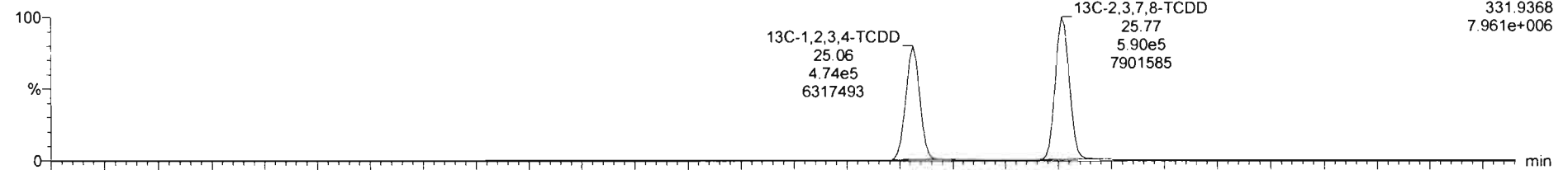
**37Cl-2,3,7,8-TCDD**

200306R2\_6

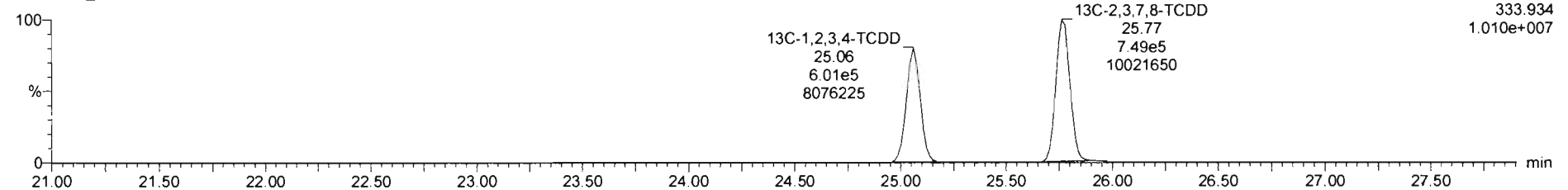


**13C-1,2,3,4-TCDD**

200306R2\_6



200306R2\_6



Dataset: Untitled

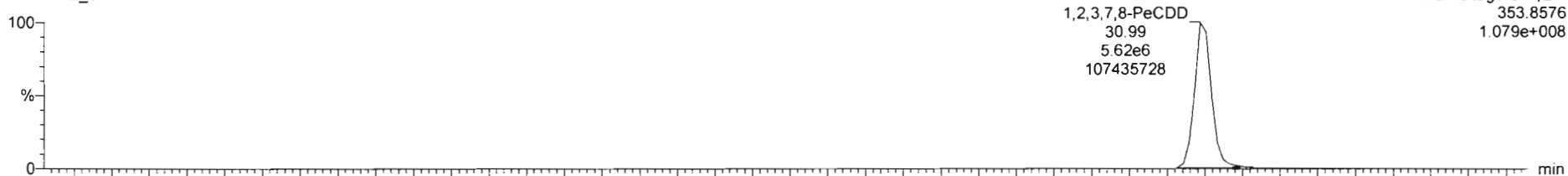
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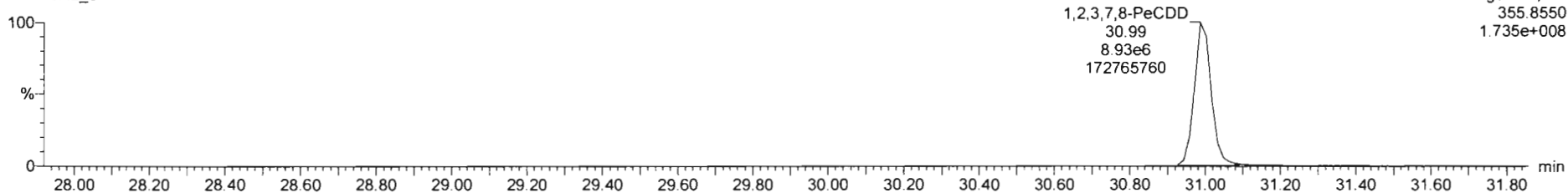
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**1,2,3,7,8-PeCDD**

200306R2\_6

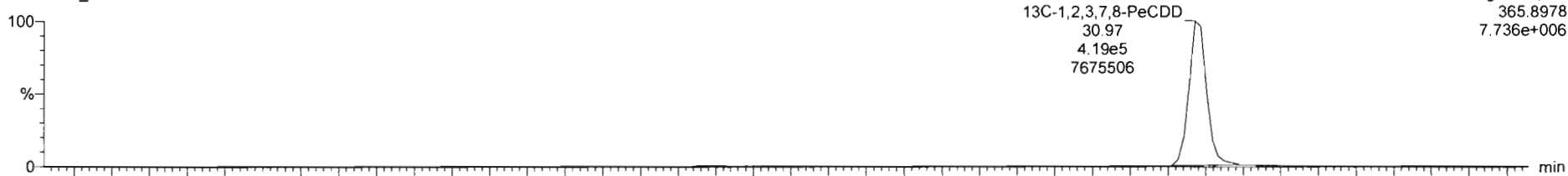


200306R2\_6

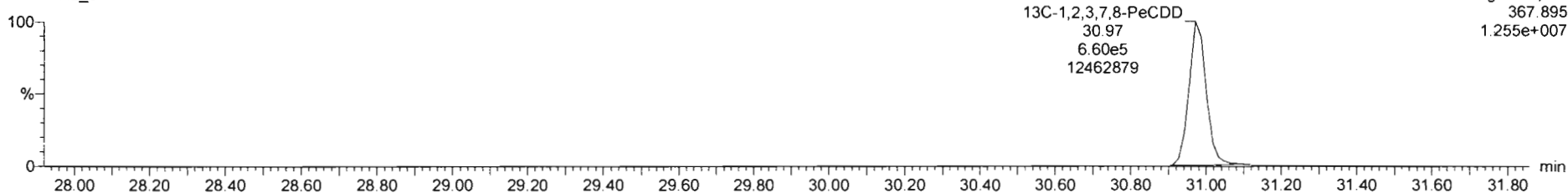


**13C-1,2,3,7,8-PeCDD**

200306R2\_6



200306R2\_6



Dataset: Untitled

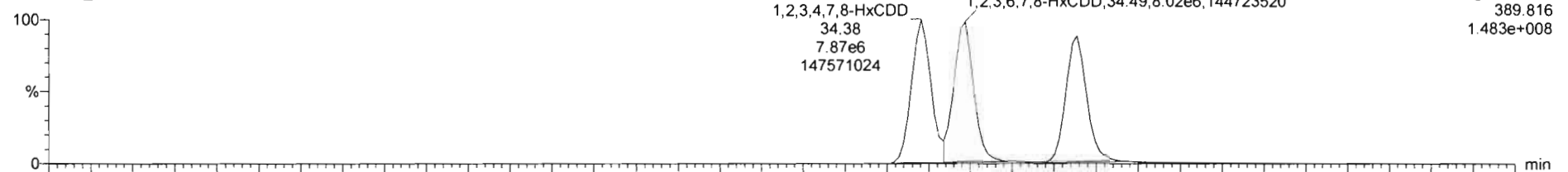
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

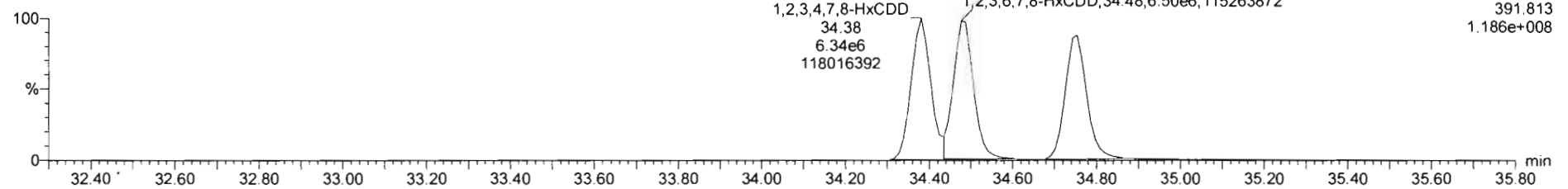
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**1,2,3,4,7,8-HxCDD**

200306R2\_6

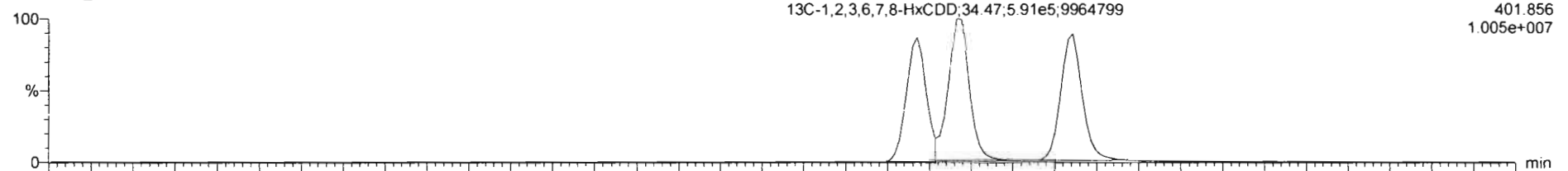


200306R2\_6

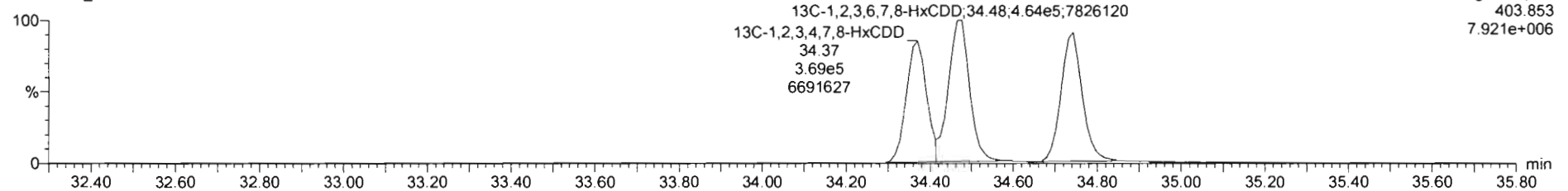


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_6



200306R2\_6



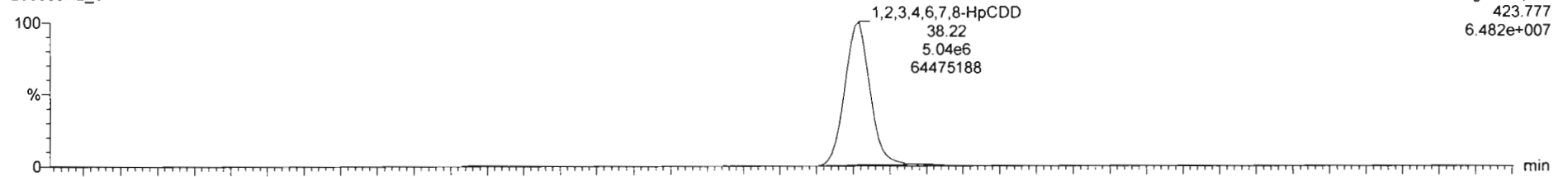
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

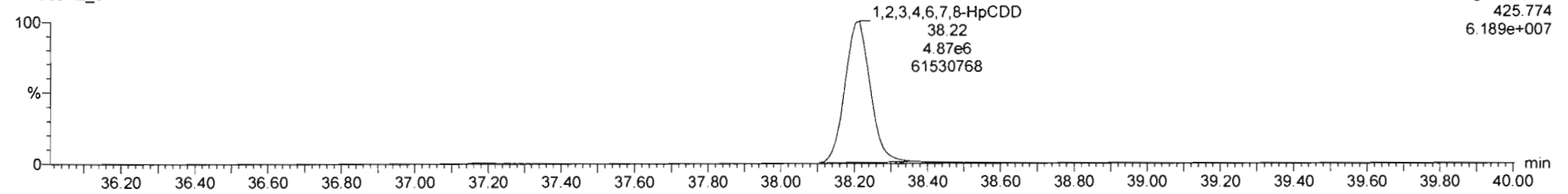
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**1,2,3,4,6,7,8-HpCDD**

200306R2\_6

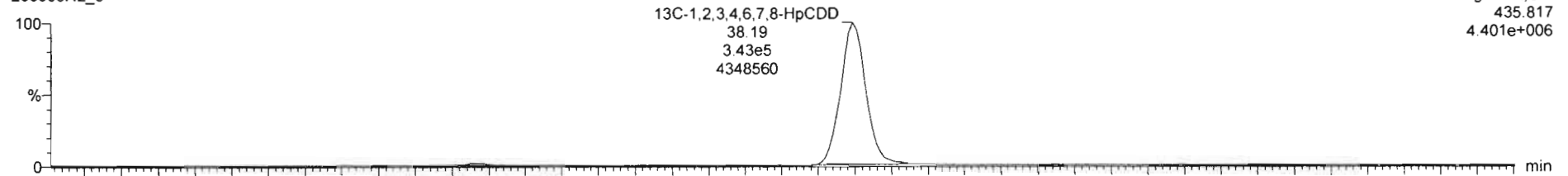


200306R2\_6

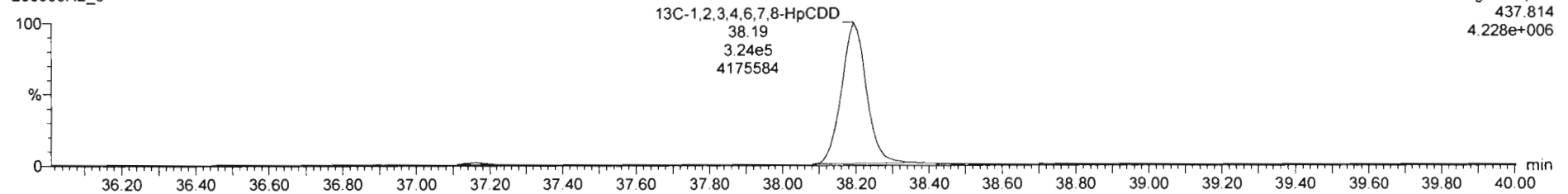


**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_6



200306R2\_6



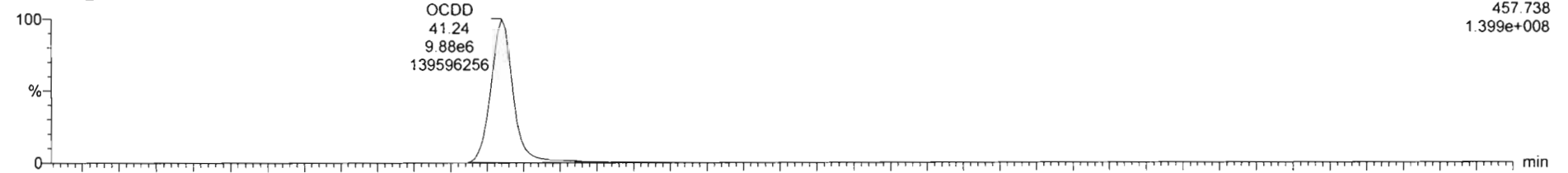
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

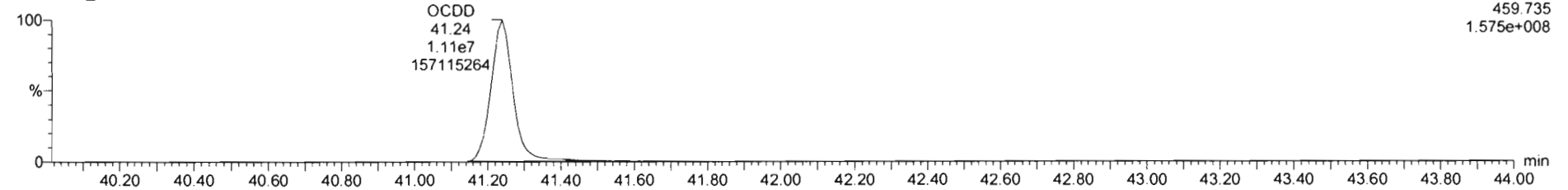
**OCDD**

200306R2\_6



F5:Voltage SIR,EI+  
457.738  
1.399e+008

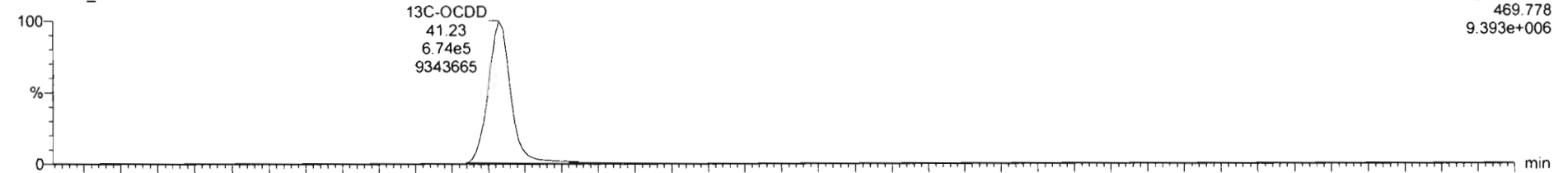
200306R2\_6



F5:Voltage SIR,EI+  
459.735  
1.575e+008

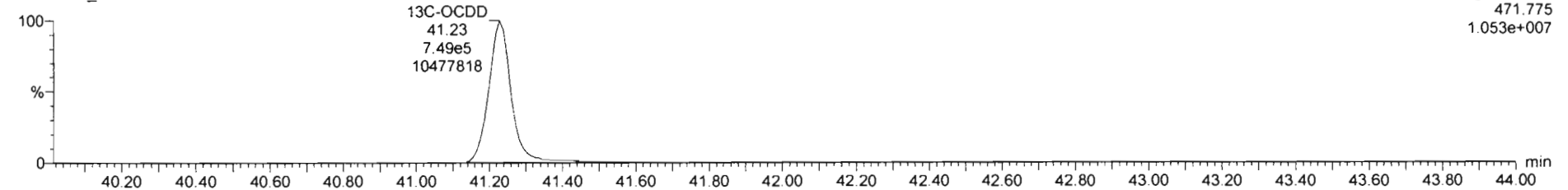
**13C-OCDD**

200306R2\_6

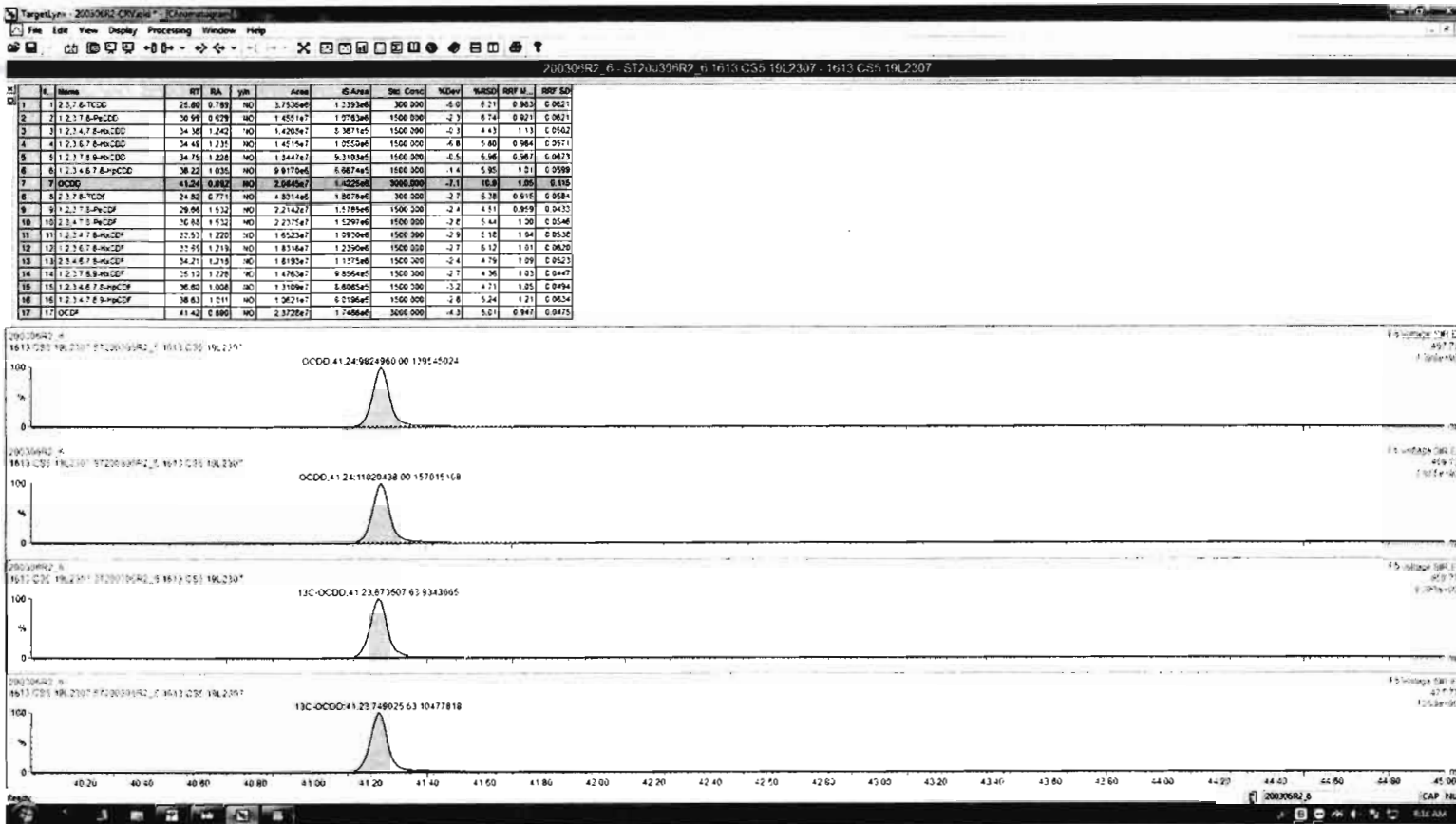


F5:Voltage SIR,EI+  
469.778  
9.393e+006

200306R2\_6



F5:Voltage SIR,EI+  
471.775  
1.053e+007





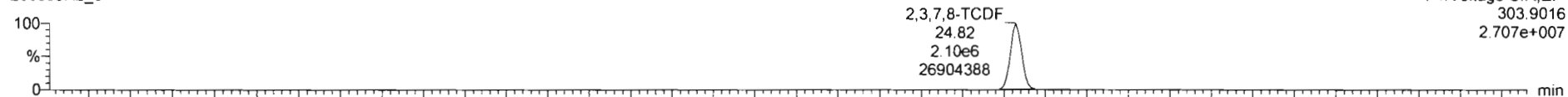
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

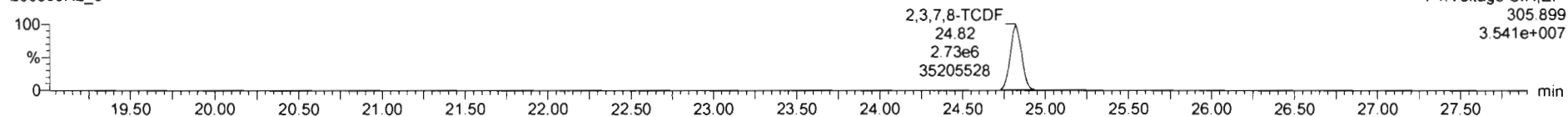
Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

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

200306R2\_6

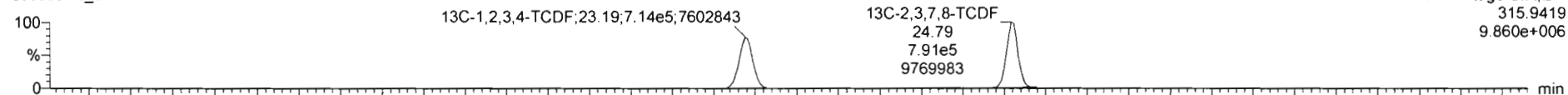


200306R2\_6

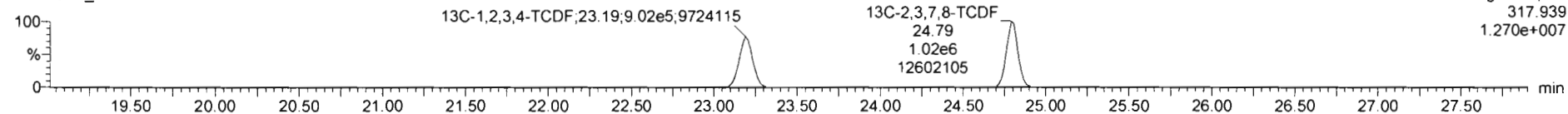


**13C-2,3,7,8-TCDF**

200306R2\_6

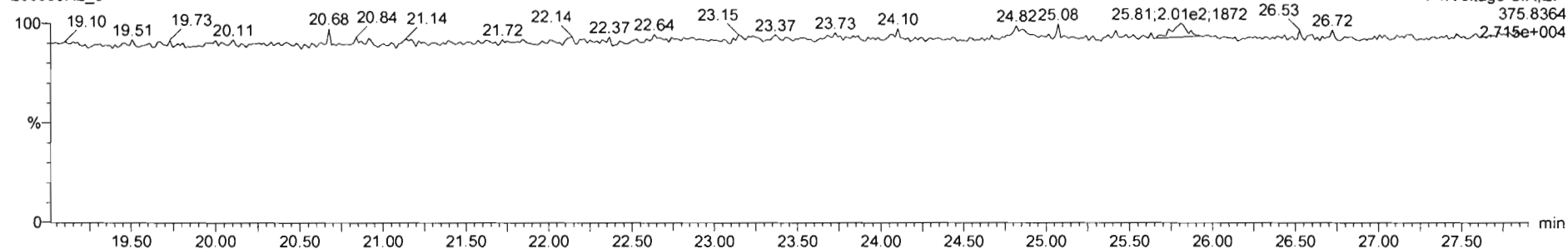


200306R2\_6



**DPE1**

200306R2\_6



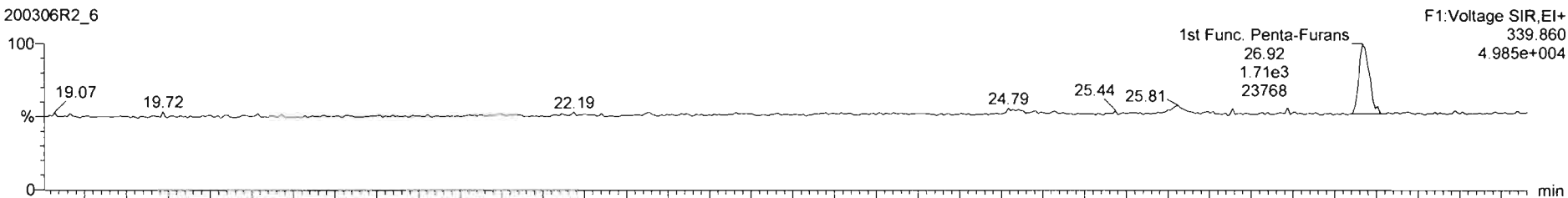
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

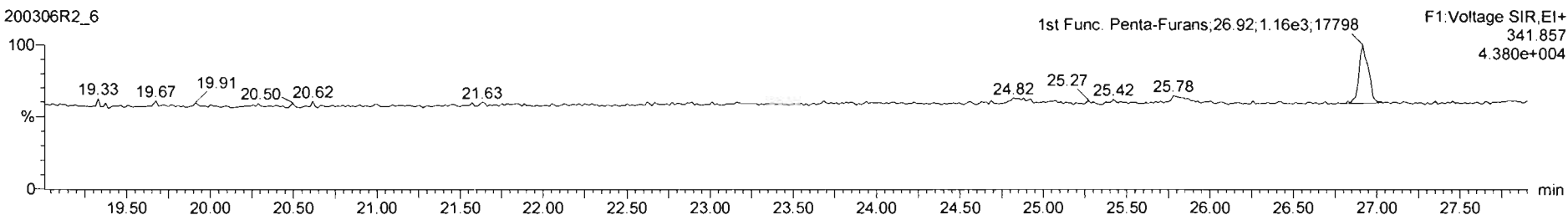
Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

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200306R2\_6

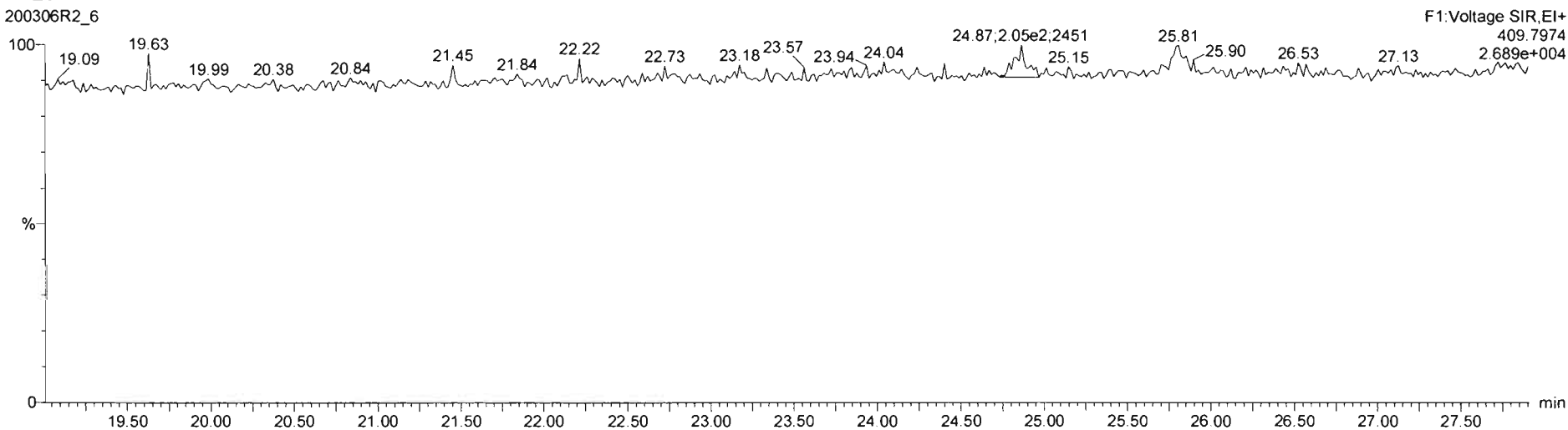


200306R2\_6



DPE6

200306R2\_6



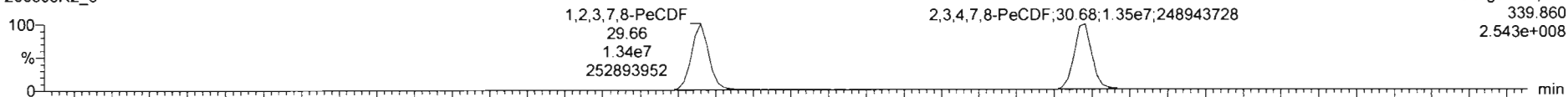
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

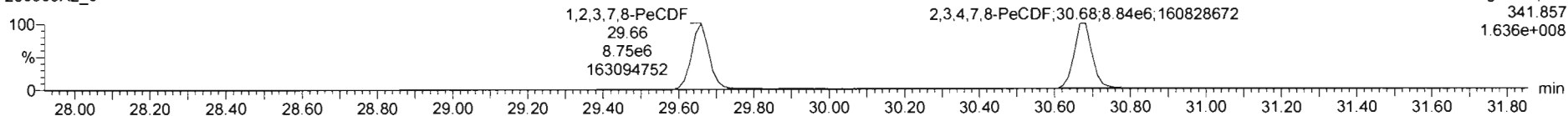
**1,2,3,7,8-PeCDF**

200306R2\_6



F2:Voltage SIR,EI+  
339.860  
2.543e+008

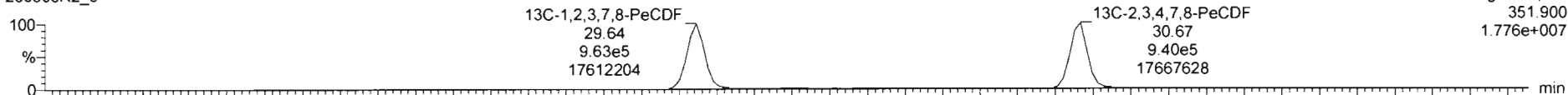
200306R2\_6



F2:Voltage SIR,EI+  
341.857  
1.636e+008

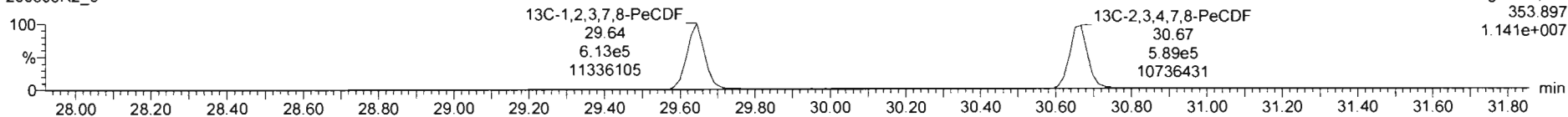
**13C-1,2,3,7,8-PeCDF**

200306R2\_6



F2:Voltage SIR,EI+  
351.900  
1.776e+007

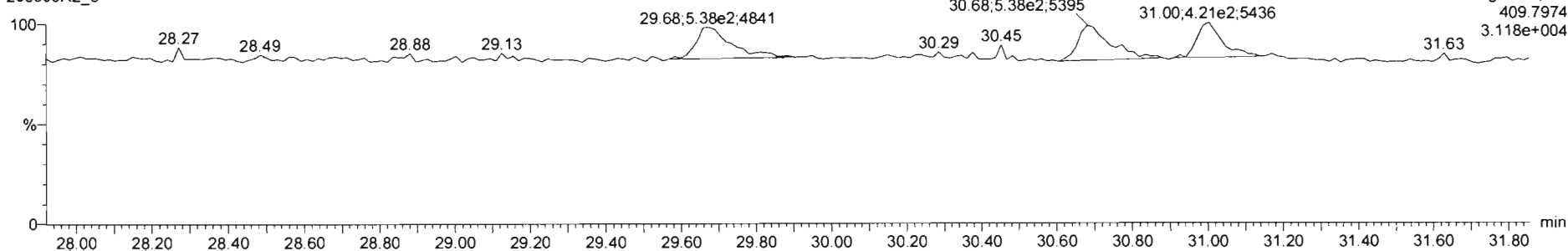
200306R2\_6



F2:Voltage SIR,EI+  
353.897  
1.141e+007

**DPE2**

200306R2\_6



F2:Voltage SIR,EI+  
409.7974  
3.118e+004

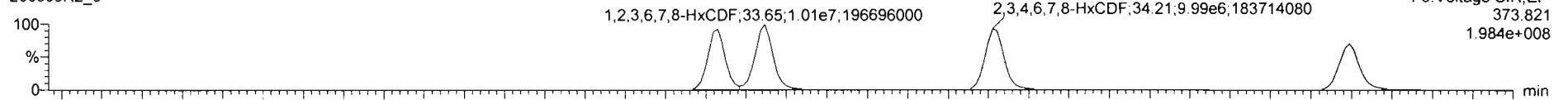
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

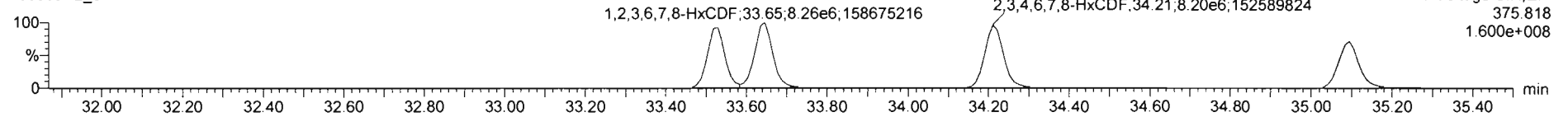
**1,2,3,4,7,8-HxCDF**

200306R2\_6



F3: Voltage SIR, EI+  
373.821  
1.984e+008

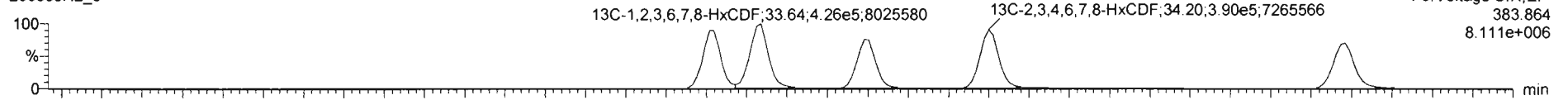
200306R2\_6



F3: Voltage SIR, EI+  
375.818  
1.600e+008

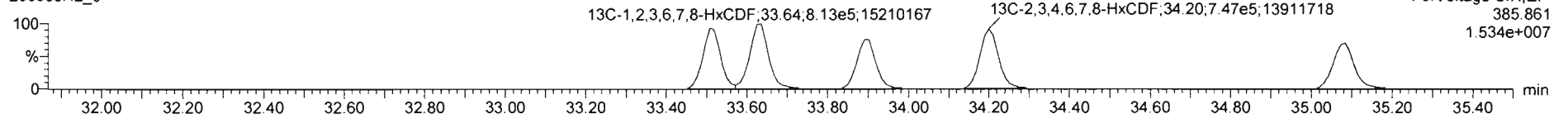
**13C-1,2,3,4,7,8-HxCDF**

200306R2\_6



F3: Voltage SIR, EI+  
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8.111e+006

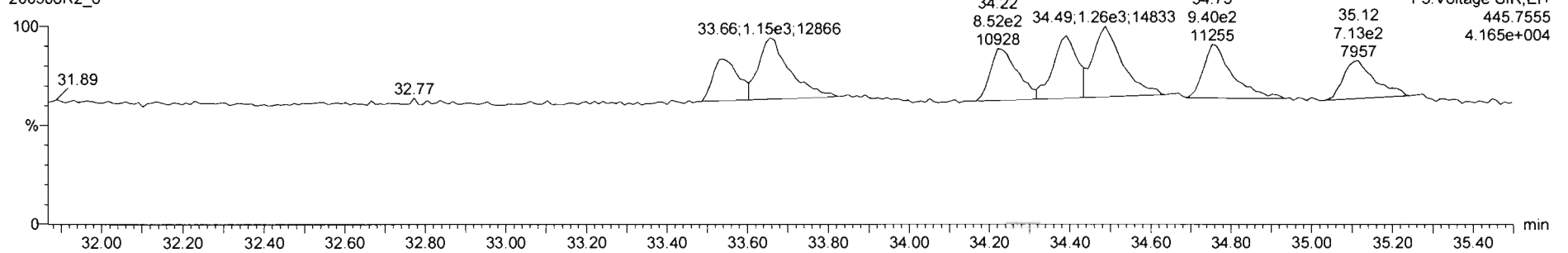
200306R2\_6



F3: Voltage SIR, EI+  
385.861  
1.534e+007

**DPE3**

200306R2\_6



F3: Voltage SIR, EI+  
445.7555  
4.165e+004

Dataset: Untitled

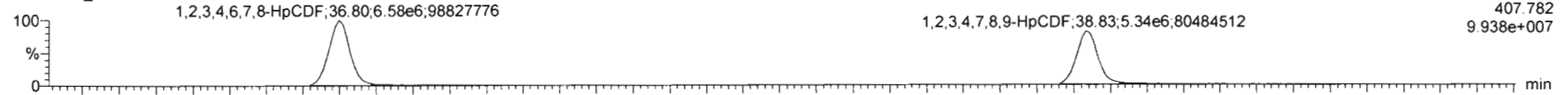
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

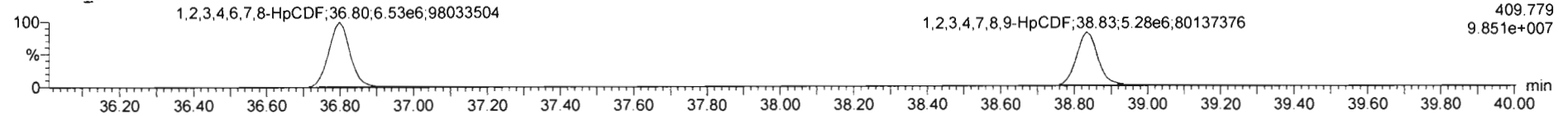
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_6

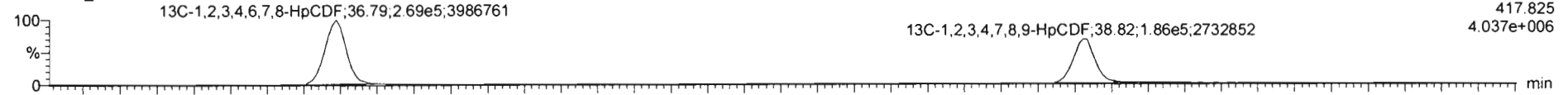


200306R2\_6

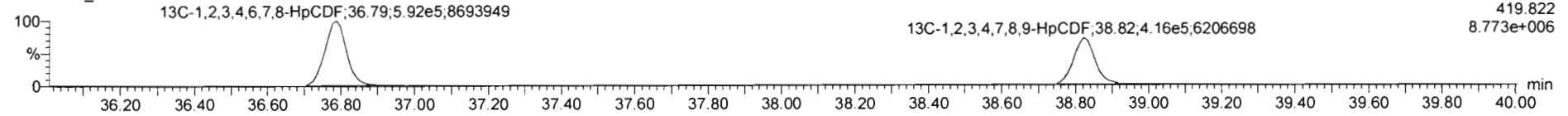


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_6

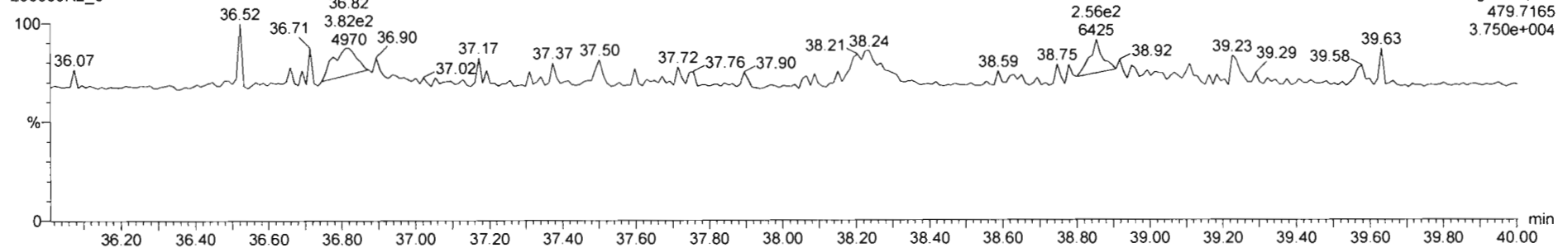


200306R2\_6



**DPE4**

200306R2\_6



Dataset: Untitled

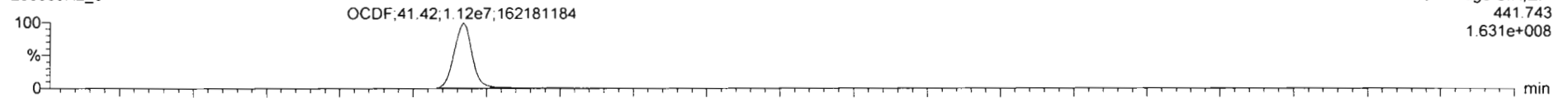
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

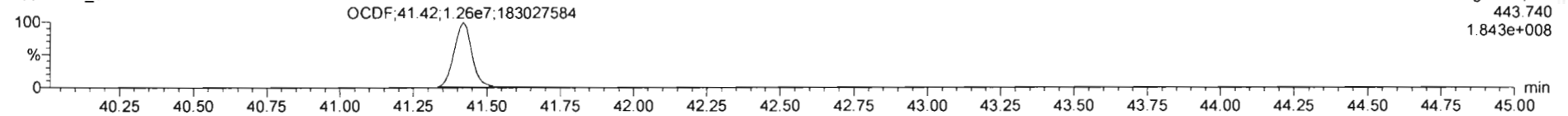
Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

**OCDF**

200306R2\_6

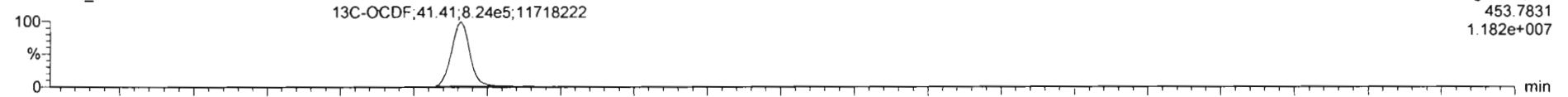


200306R2\_6

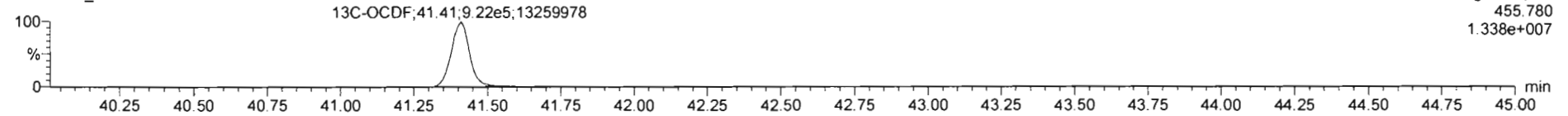


**13C-OCDF**

200306R2\_6

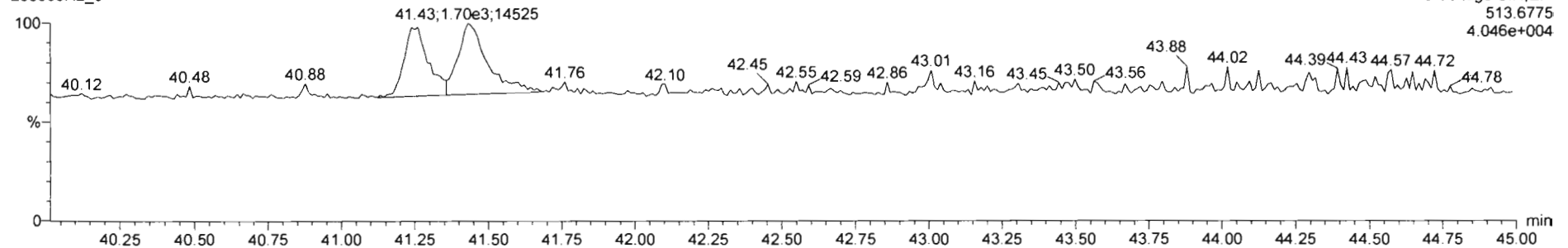


200306R2\_6



**DPE5**

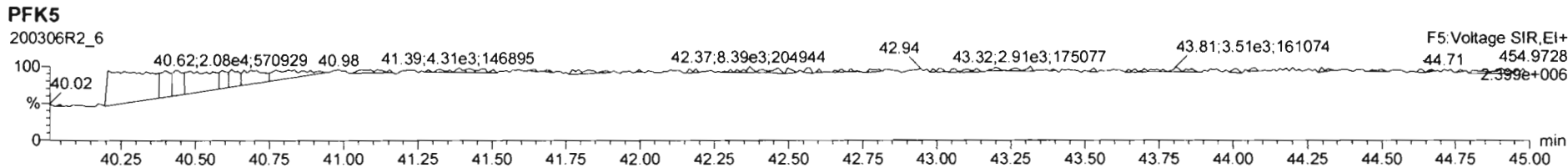
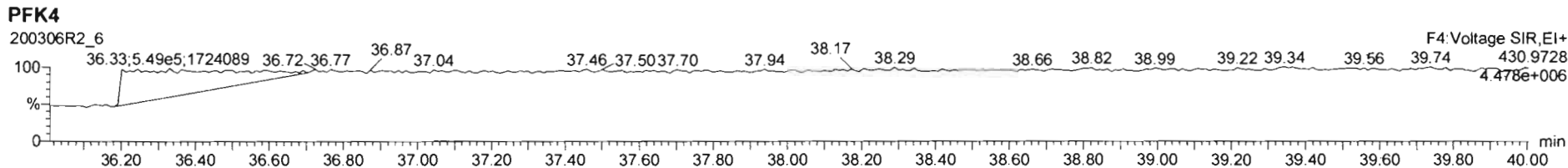
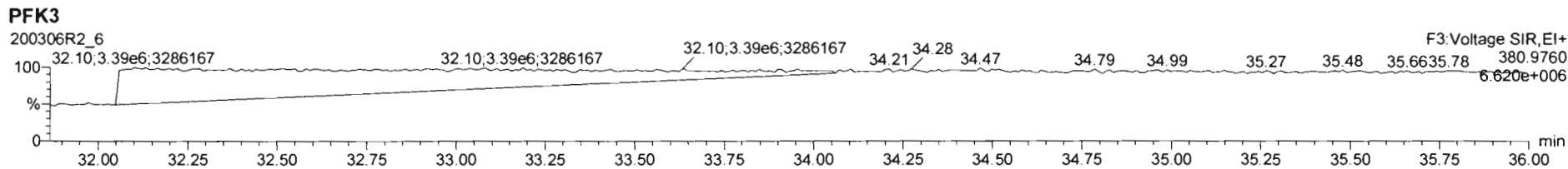
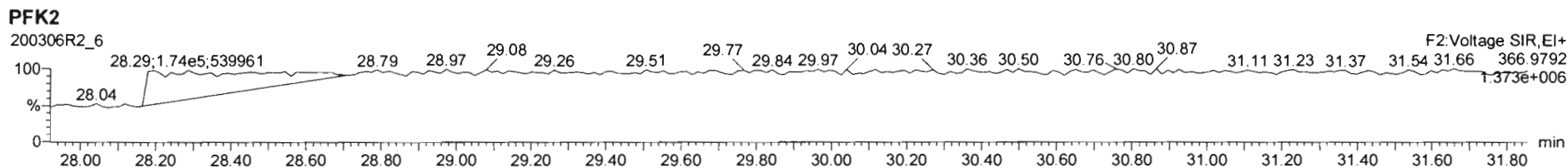
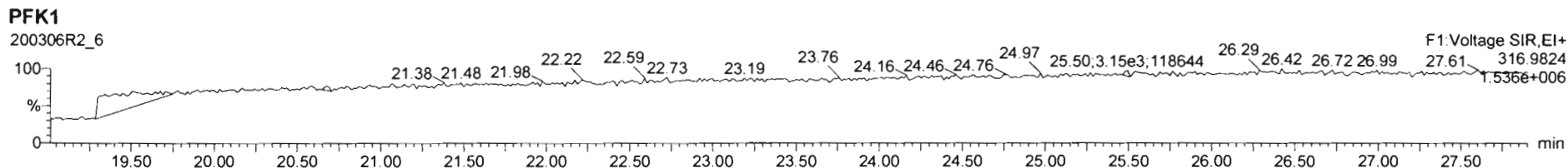
200306R2\_6



Dataset: Untitled

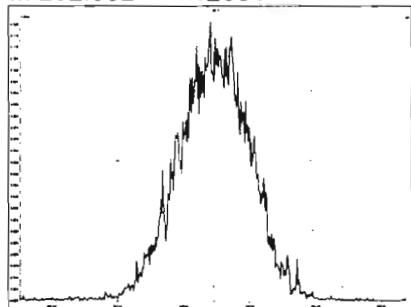
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

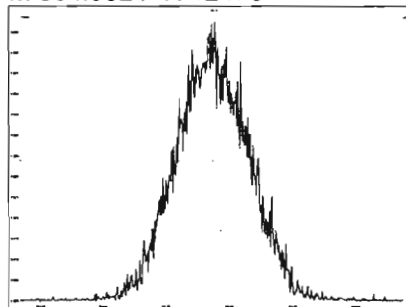


Printed: Friday, March 06, 2020 19:38:46 Pacific Standard Time

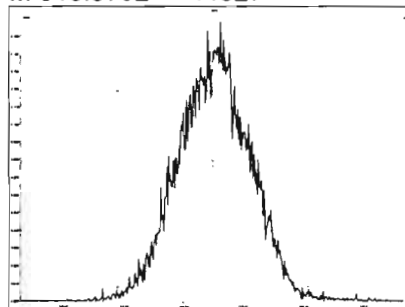
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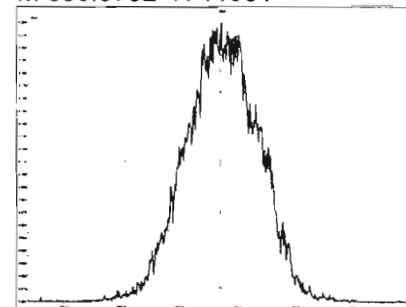
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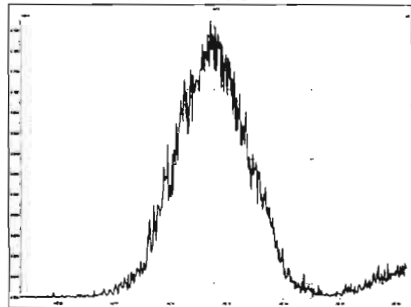
M 318.9792 R 11827



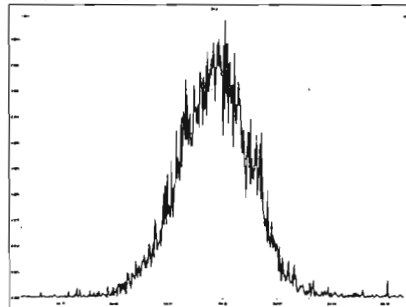
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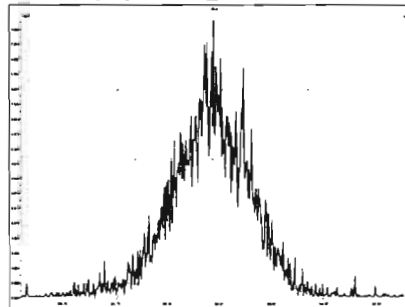
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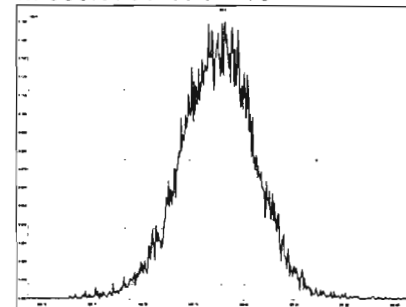
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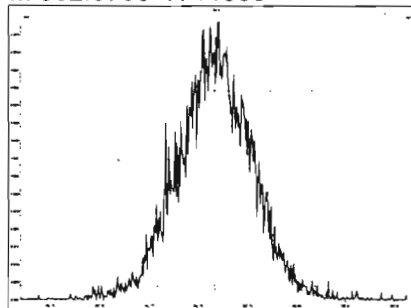
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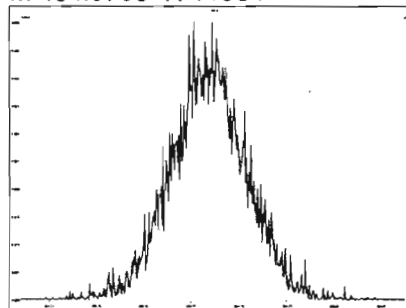
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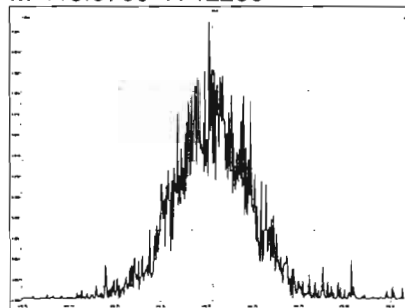
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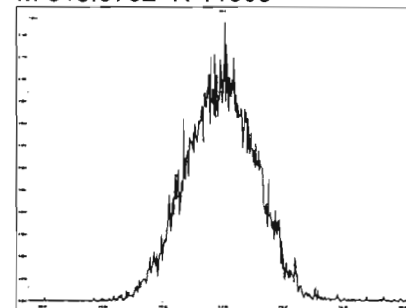
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M 416.9760 R 12269

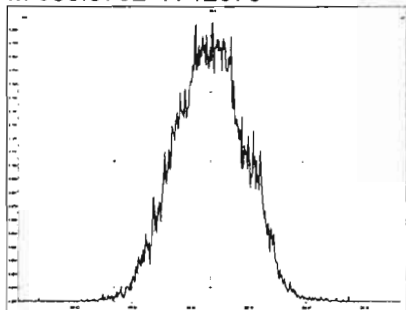


M 318.9792 R 11905

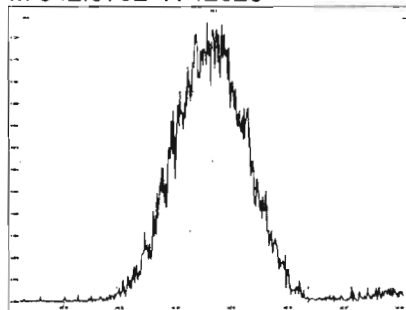




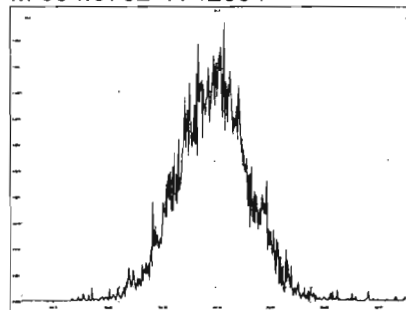
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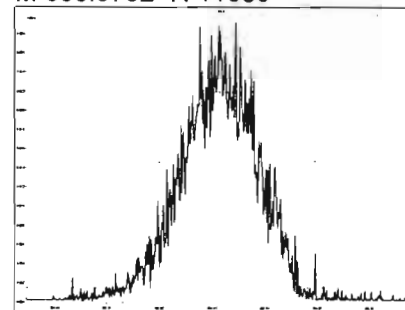
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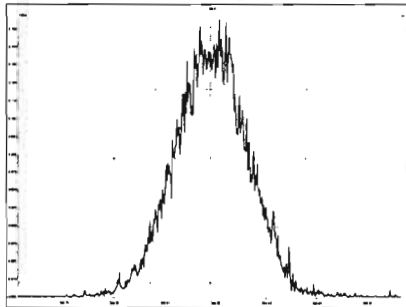
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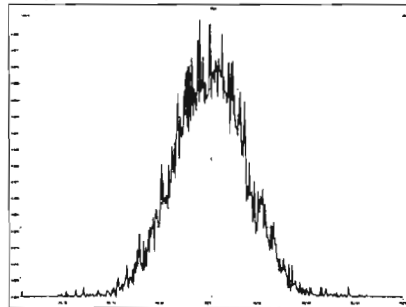
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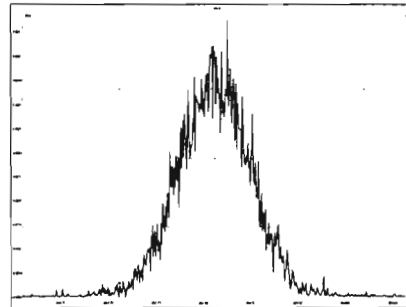
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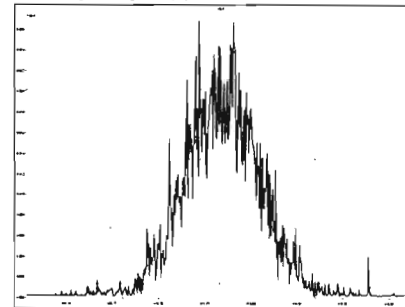
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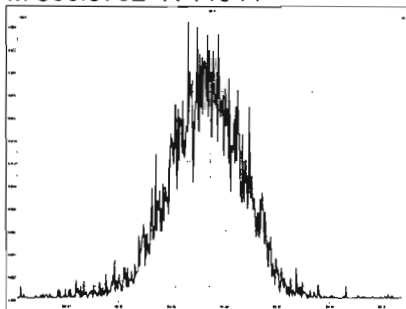
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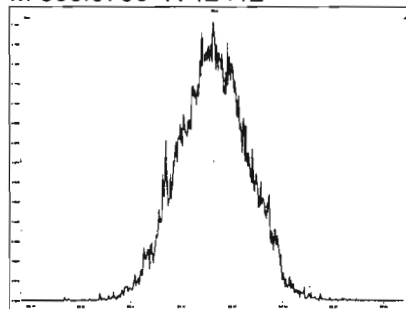
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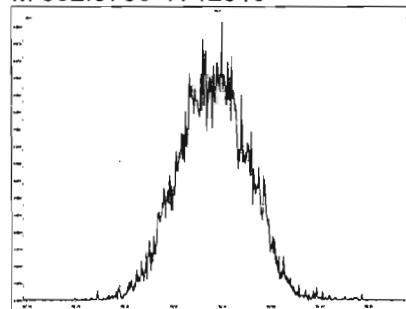
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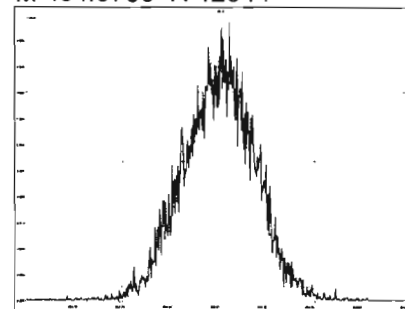
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M 392.9760 R 12319

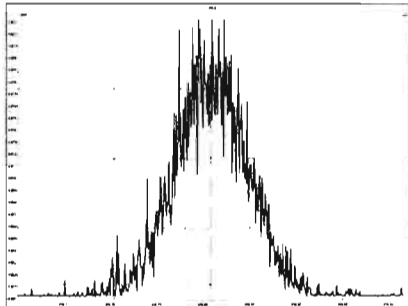


M 404.9760 R 12544

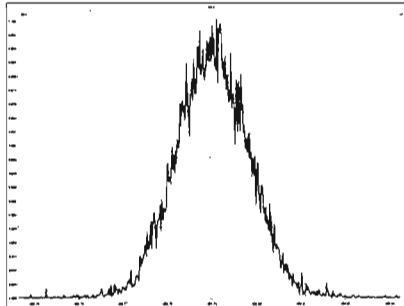


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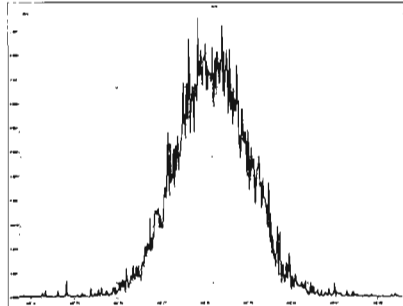
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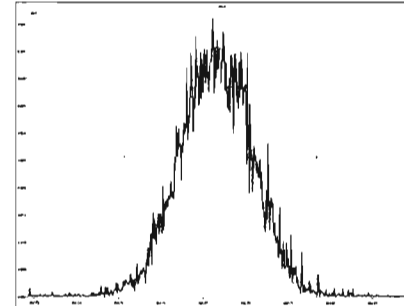
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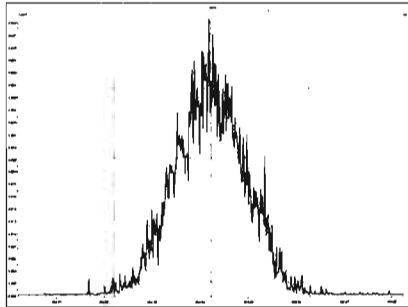
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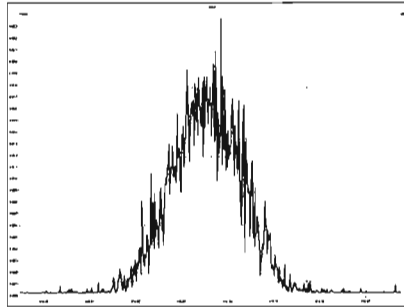
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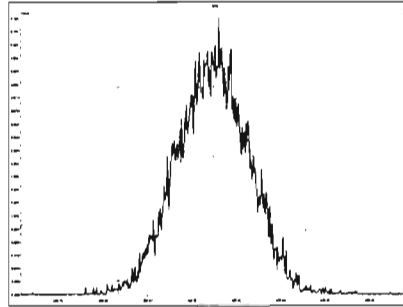
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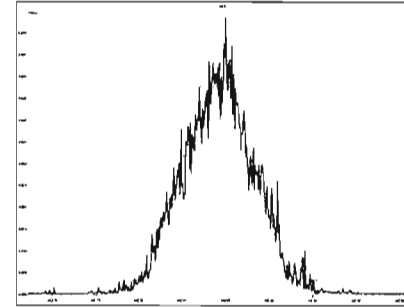
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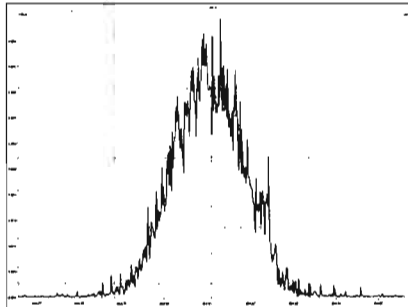
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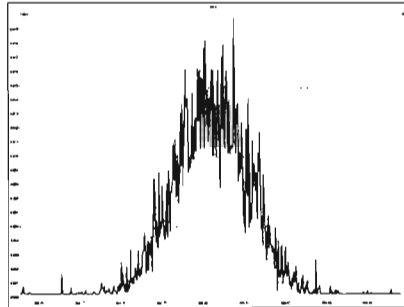
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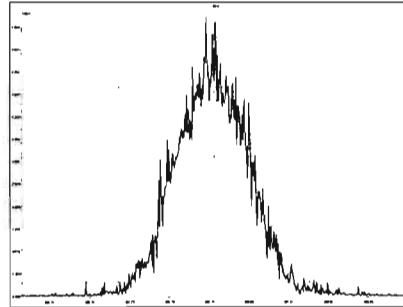
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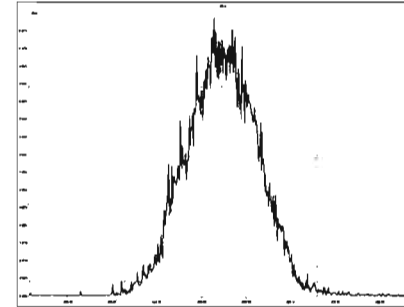
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M 480.9696 R 12284

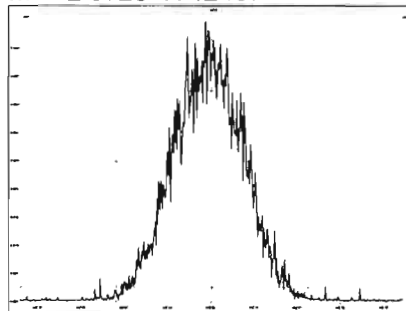


M 430.9728 R 12416

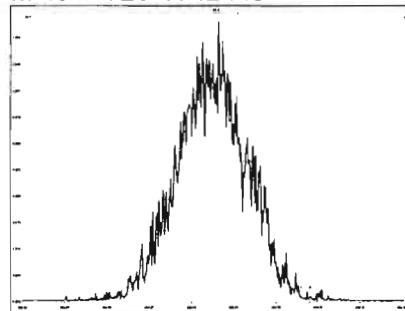


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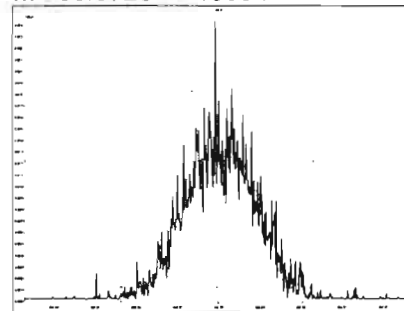
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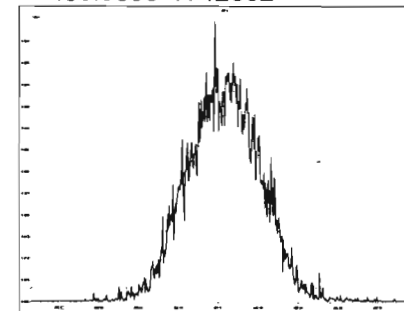
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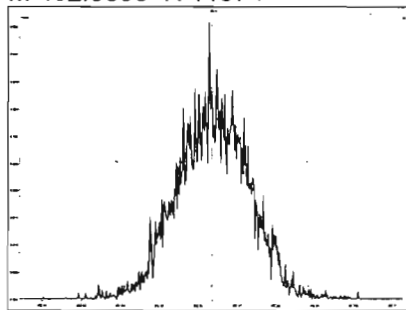
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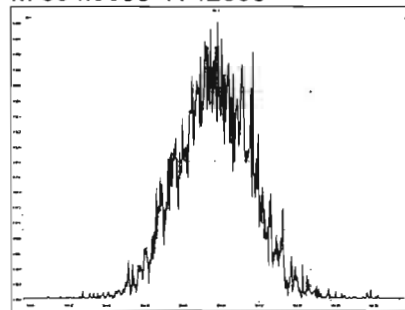
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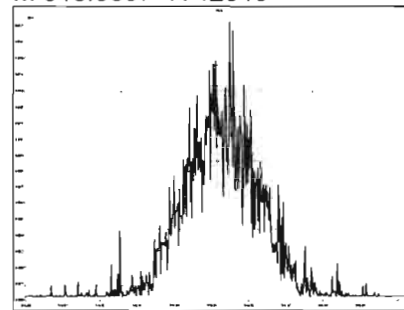
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Dataset: U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Monday, March 09, 2020 09:14:18 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:15:42 Pacific Daylight Time

*GRB 03/09/2020*

*03/09/2020*

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Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

#	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	9.28e4	0.77	NO	0.983	1.000	25.781	25.78	1.001	1.001	10.508	105	0.0462	10.5
2	2 1,2,3,7,8-PeCDD	3.71e5	0.63	NO	0.921	1.000	30.979	30.97	1.001	1.000	54.038	108	0.0655	54.0
3	3 1,2,3,4,7,8-HxCDD	3.32e5	1.24	NO	1.13	1.000	34.349	34.36	1.000	1.001	53.824	108	0.101	53.8
4	4 1,2,3,6,7,8-HxCDD	3.81e5	1.27	NO	0.984	1.000	34.445	34.46	1.000	1.000	57.230	114	0.0994	57.2
5	5 1,2,3,7,8,9-HxCDD	3.33e5	1.22	NO	0.967	1.000	34.722	34.72	1.000	1.000	56.617	113	0.117	56.6
6	6 1,2,3,4,6,7,8-HpCDD	2.52e5	1.04	NO	1.01	1.000	38.184	38.19	1.000	1.001	55.470	111	0.201	55.5
7	7 OCDD	4.61e5	0.91	NO	1.05	1.000	41.208	41.22	1.000	1.000	104.33	104	0.212	104
8	8 2,3,7,8-TCDF	1.19e5	0.80	NO	0.915	1.000	24.817	24.81	1.001	1.001	10.876	109	0.0390	10.9
9	9 1,2,3,7,8-PeCDF	5.58e5	1.55	NO	0.959	1.000	29.635	29.63	1.001	1.001	53.583	107	0.0901	53.6
10	10 2,3,4,7,8-PeCDF	6.50e5	1.53	NO	1.00	1.000	30.667	30.65	1.001	1.000	60.478	121	0.0822	60.5
11	11 1,2,3,4,7,8-HxCDF	4.39e5	1.22	NO	1.04	1.000	33.486	33.50	1.000	1.000	56.277	113	0.116	56.3
12	12 1,2,3,6,7,8-HxCDF	4.83e5	1.22	NO	1.01	1.000	33.614	33.63	1.000	1.001	58.225	116	0.120	58.2
13	13 2,3,4,6,7,8-HxCDF	4.58e5	1.23	NO	1.09	1.000	34.213	34.19	1.001	1.000	53.808	108	0.121	53.8
14	14 1,2,3,7,8,9-HxCDF	3.65e5	1.23	NO	1.03	1.000	35.052	35.06	1.000	1.000	54.692	109	0.173	54.7
15	15 1,2,3,4,6,7,8-HpCDF	3.38e5	1.03	NO	1.05	1.000	36.793	36.78	1.001	1.001	55.962	112	0.171	56.0
16	16 1,2,3,4,7,8,9-HpCDF	2.60e5	1.01	NO	1.21	1.000	38.801	38.81	1.000	1.000	55.091	110	0.218	55.1
17	17 OCDF	5.30e5	0.88	NO	0.947	1.000	41.389	41.40	1.000	1.000	107.93	108	0.154	108
18	18 13C-2,3,7,8-TCDD	8.98e5	0.78	NO	1.18	1.000	25.781	25.75	1.029	1.027	94.504	94.5	0.106	
19	19 13C-1,2,3,7,8-PeCDD	7.45e5	0.64	NO	0.864	1.000	30.974	30.96	1.236	1.235	107.38	107	0.187	
20	20 13C-1,2,3,4,7,8-HxCDD	5.45e5	1.26	NO	0.754	1.000	34.341	34.34	1.014	1.014	85.136	85.1	0.201	
21	21 13C-1,2,3,6,7,8-HxCDD	6.77e5	1.26	NO	0.925	1.000	34.449	34.45	1.017	1.017	86.121	86.1	0.164	
22	22 13C-1,2,3,7,8,9-HxCDD	6.09e5	1.27	NO	0.829	1.000	34.710	34.71	1.025	1.025	86.383	86.4	0.183	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.51e5	1.04	NO	0.598	1.000	38.158	38.17	1.127	1.127	88.689	88.7	0.205	
24	24 13C-OCDD	8.40e5	0.87	NO	0.571	1.000	41.298	41.21	1.219	1.217	173.12	86.6	0.205	
25	25 13C-2,3,7,8-TCDF	1.19e6	0.78	NO	1.09	1.000	24.801	24.79	0.990	0.989	86.829	86.8	0.143	
26	26 13C-1,2,3,7,8-PeCDF	1.09e6	1.58	NO	0.876	1.000	29.643	29.61	1.183	1.182	98.396	98.4	0.243	
27	27 13C-2,3,4,7,8-PeCDF	1.07e6	1.60	NO	0.844	1.000	30.655	30.64	1.223	1.222	100.81	101	0.253	
28	28 13C-1,2,3,4,7,8-HxCDF	7.52e5	0.52	NO	1.00	1.000	33.491	33.49	0.989	0.989	88.441	88.4	0.228	
29	29 13C-1,2,3,6,7,8-HxCDF	8.18e5	0.53	NO	1.12	1.000	33.599	33.60	0.992	0.992	86.171	86.2	0.204	
30	30 13C-2,3,4,6,7,8-HxCDF	7.80e5	0.52	NO	1.04	1.000	34.178	34.18	1.009	1.009	88.698	88.7	0.220	
31	31 13C-1,2,3,7,8,9-HxCDF	6.50e5	0.50	NO	0.873	1.000	35.049	35.05	1.035	1.035	87.589	87.6	0.261	

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Monday, March 09, 2020 09:14:18 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:15:42 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

	# 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	5.76e5	0.45	NO	0.771	1.000	36.759	36.76	1.085	1.085	87.916	87.9	0.211	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.91e5	0.44	NO	0.519	1.000	38.839	38.80	1.147	1.146	88.538	88.5	0.314	
34	34 13C-OCDF	1.04e6	0.90	NO	0.696	1.000	41.477	41.39	1.225	1.222	175.32	87.7	0.183	
35	35 37Cl-2,3,7,8-TCDD	9.59e4			1.17	1.000	25.791	25.78	1.029	1.029	10.173	102	0.0234	
36	36 13C-1,2,3,4-TCDD	8.02e5	0.79	NO	1.00	1.000	25.050	25.06	1.000	1.000	100.00	100	0.126	
37	37 13C-1,2,3,4-TCDF	1.26e6	0.80	NO	1.00	1.000	23.190	23.19	1.000	1.000	100.00	100	0.156	
38	38 13C-1,2,3,4,6,9-HxCDF	8.50e5	0.51	NO	1.00	1.000	33.880	33.87	1.000	1.000	100.00	100	0.228	

Dataset: Untitled

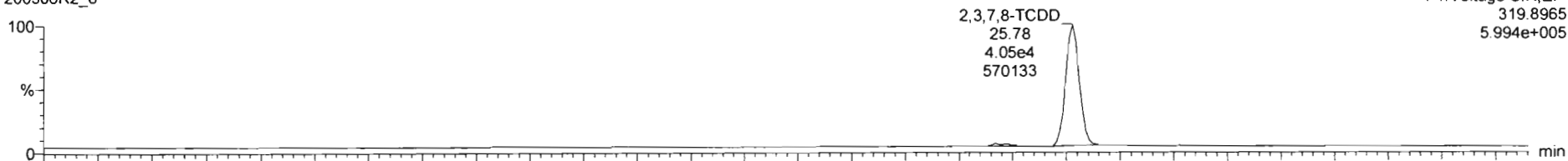
Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time  
Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

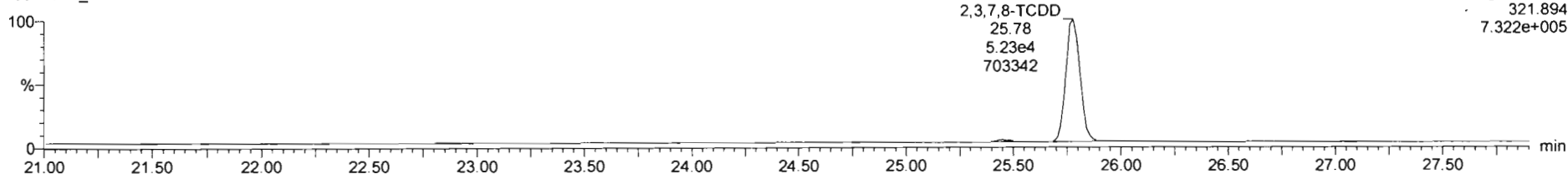
Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200306R2\_8

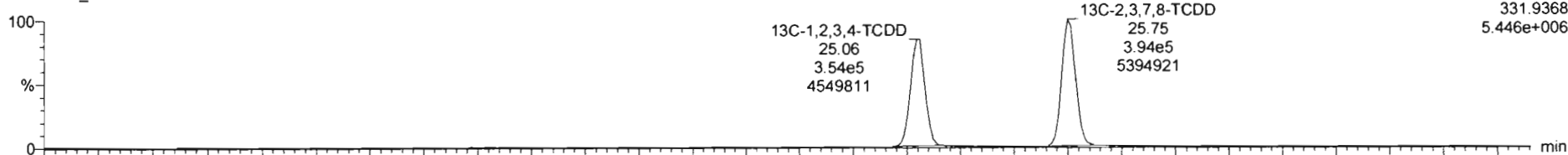


200306R2\_8

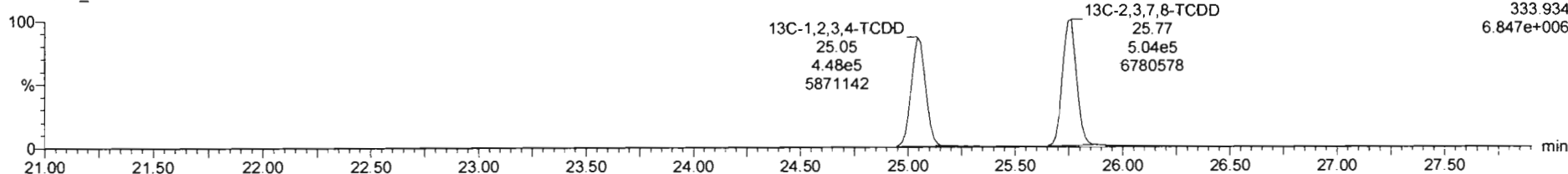


**13C-2,3,7,8-TCDD**

200306R2\_8



200306R2\_8



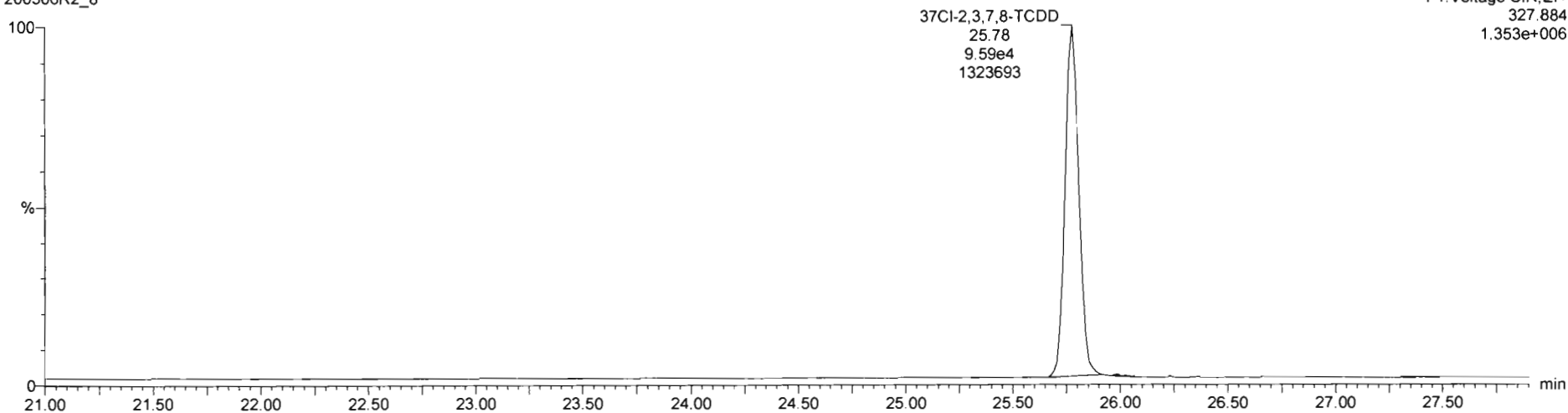
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

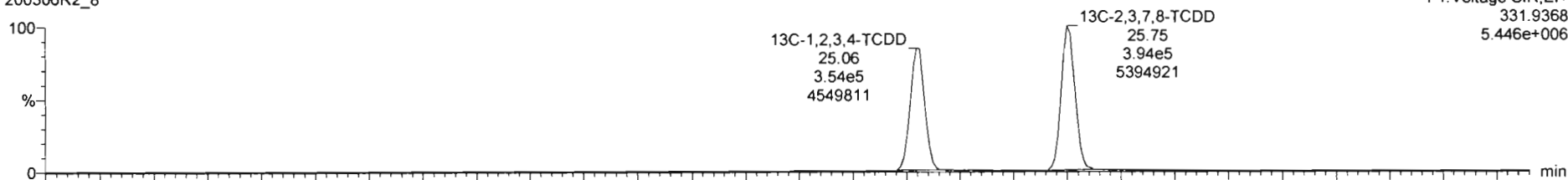
**37Cl-2,3,7,8-TCDD**

200306R2\_8

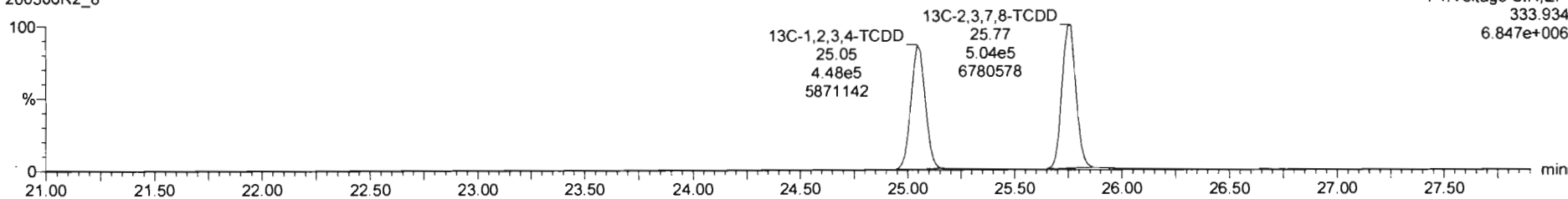


**13C-1,2,3,4-TCDD**

200306R2\_8



200306R2\_8



Dataset: Untitled

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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

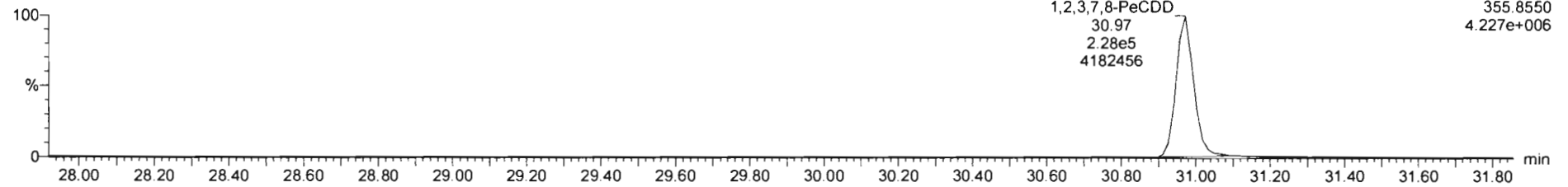
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**1,2,3,7,8-PeCDD**

200306R2\_8

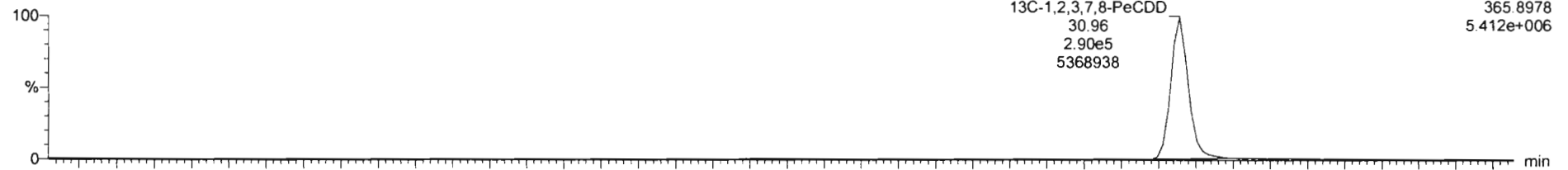


200306R2\_8

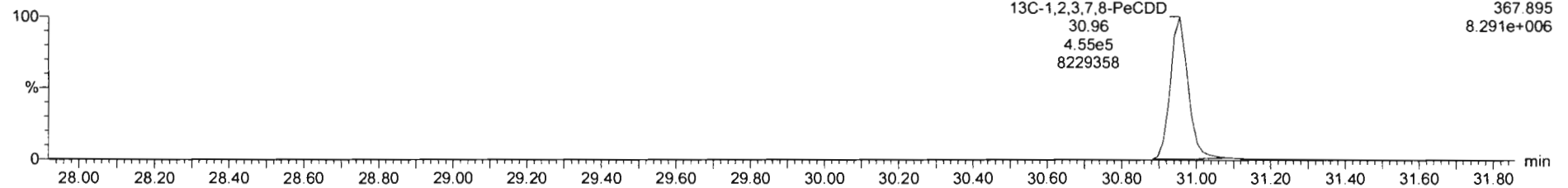


**13C-1,2,3,7,8-PeCDD**

200306R2\_8



200306R2\_8





Dataset: Untitled

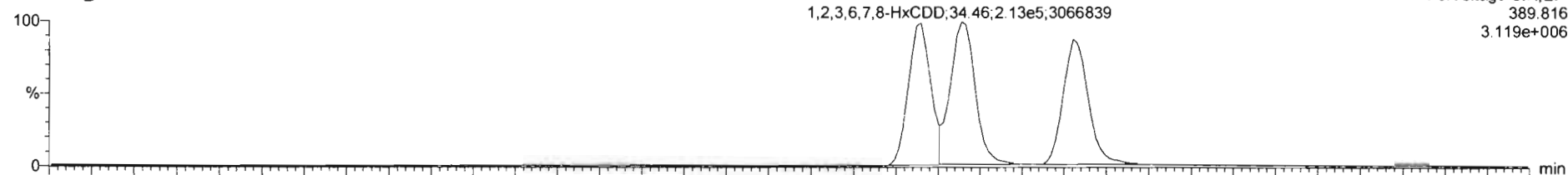
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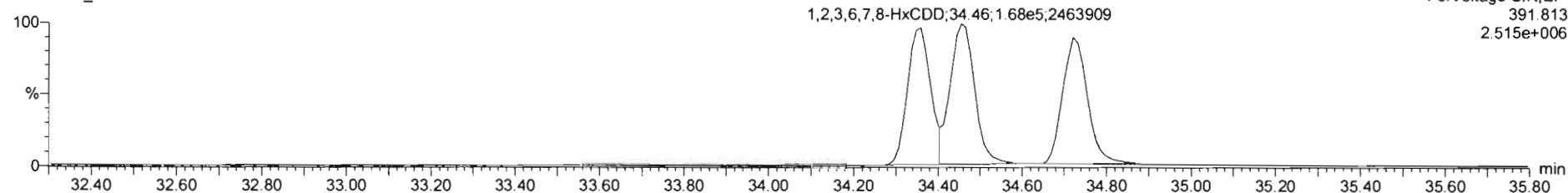
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**1,2,3,4,7,8-HxCDD**

200306R2\_8

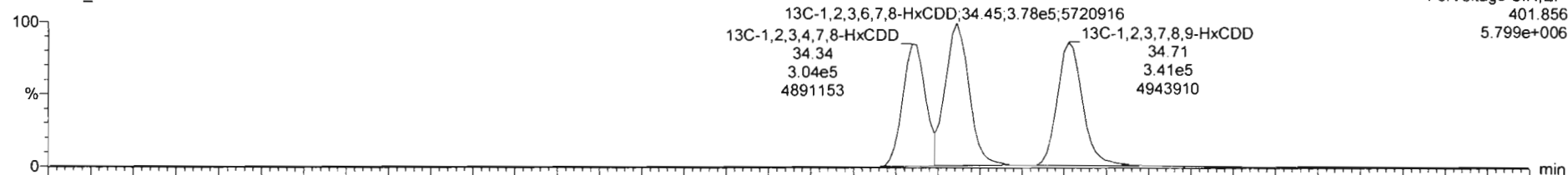


200306R2\_8

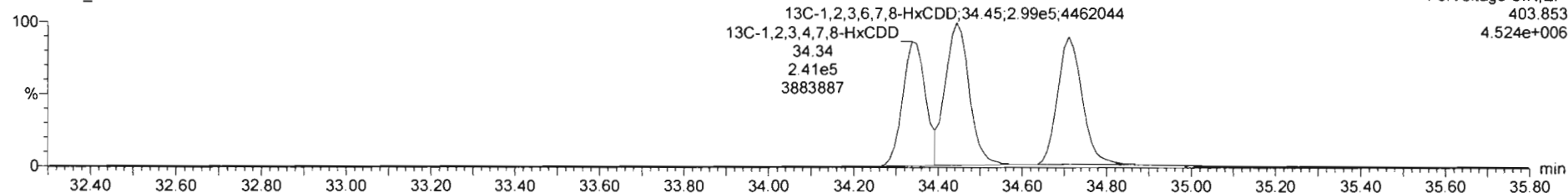


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_8



200306R2\_8



Dataset: Untitled

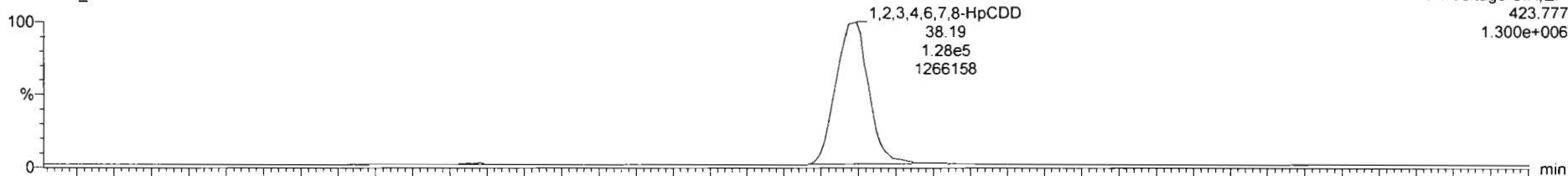
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Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

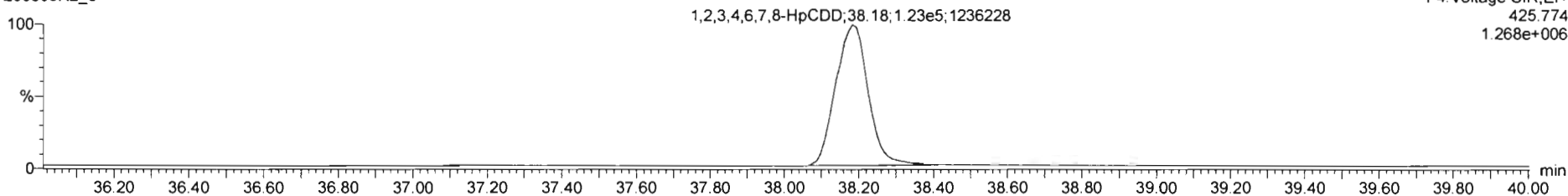
**1,2,3,4,6,7,8-HpCDD**

200306R2\_8



F4: Voltage SIR, EI+  
423.777  
1.300e+006

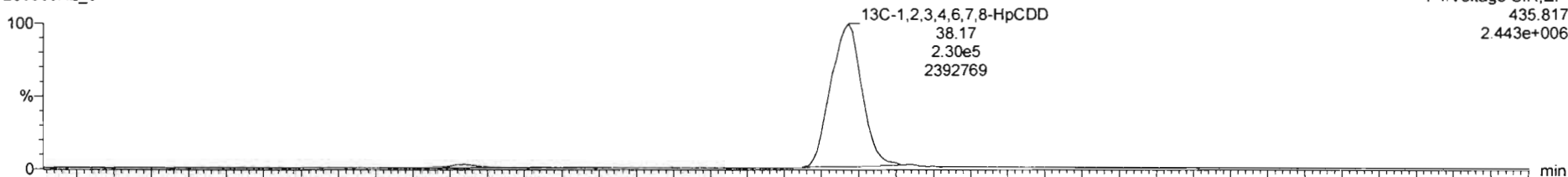
200306R2\_8



F4: Voltage SIR, EI+  
425.774  
1.268e+006

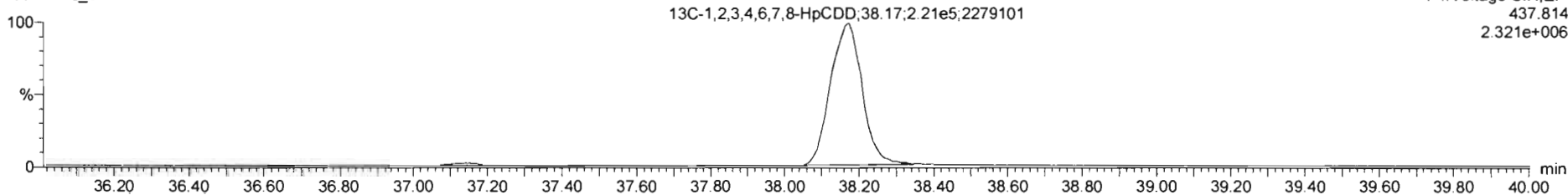
**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_8



F4: Voltage SIR, EI+  
435.817  
2.443e+006

200306R2\_8



F4: Voltage SIR, EI+  
437.814  
2.321e+006

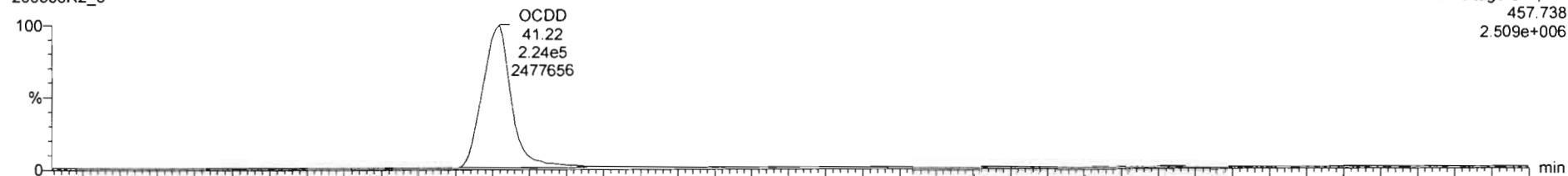
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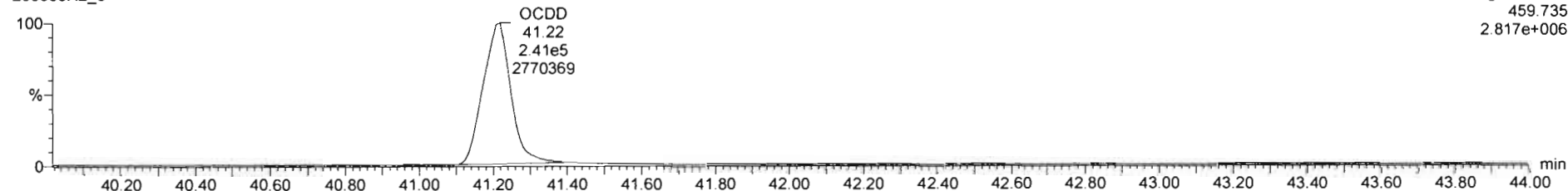
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**OCDD**

200306R2\_8

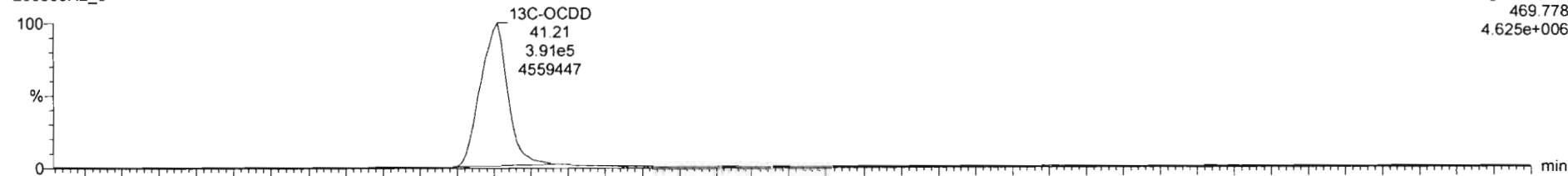


200306R2\_8

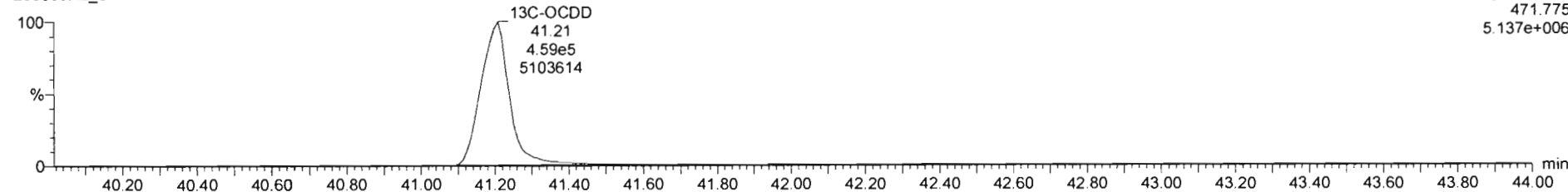


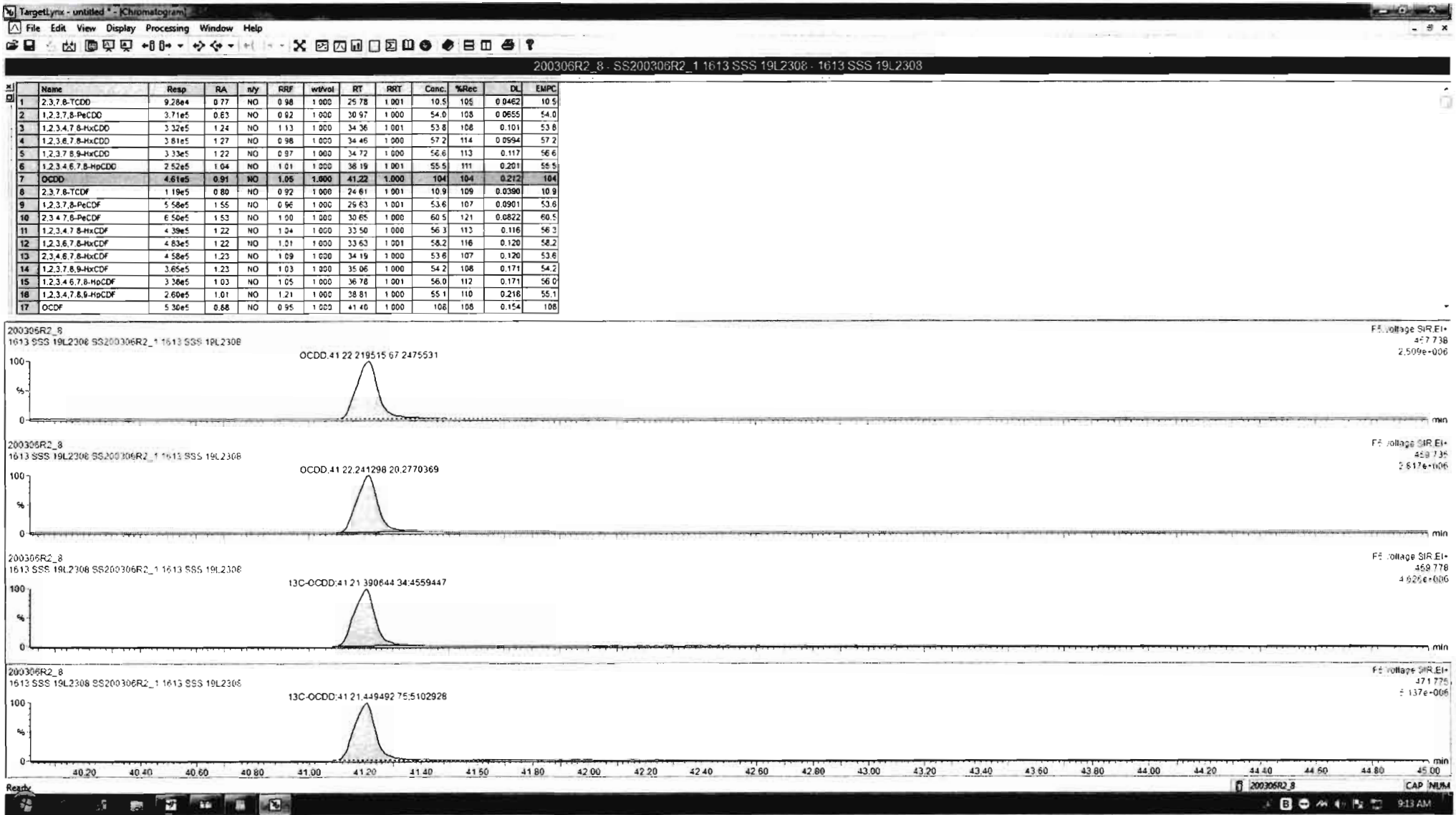
**13C-OCDD**

200306R2\_8



200306R2\_8





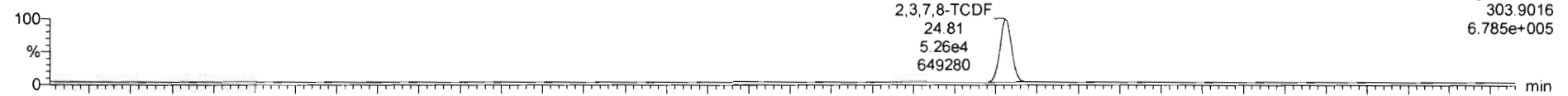
Dataset: Untitled

Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time  
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Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

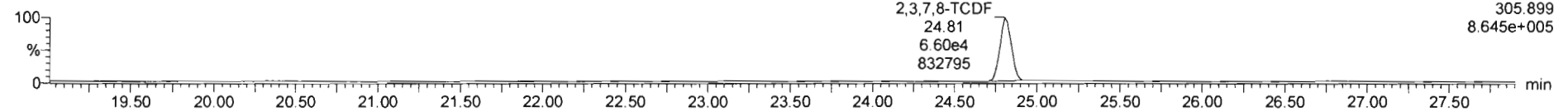
**2,3,7,8-TCDF**

200306R2\_8



F1: Voltage SIR, EI+  
303.9016  
6.785e+005

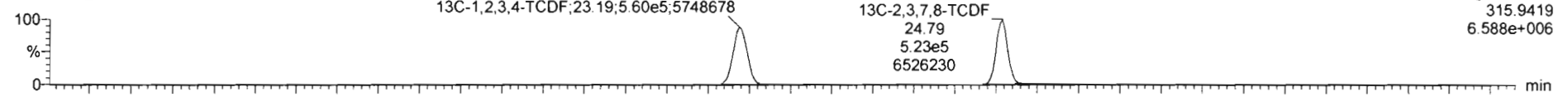
200306R2\_8



F1: Voltage SIR, EI+  
305.899  
8.645e+005

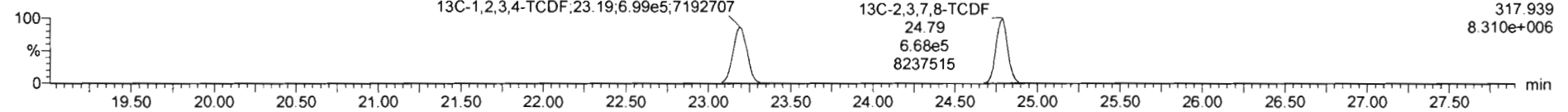
**13C-2,3,7,8-TCDF**

200306R2\_8



F1: Voltage SIR, EI+  
315.9419  
6.588e+006

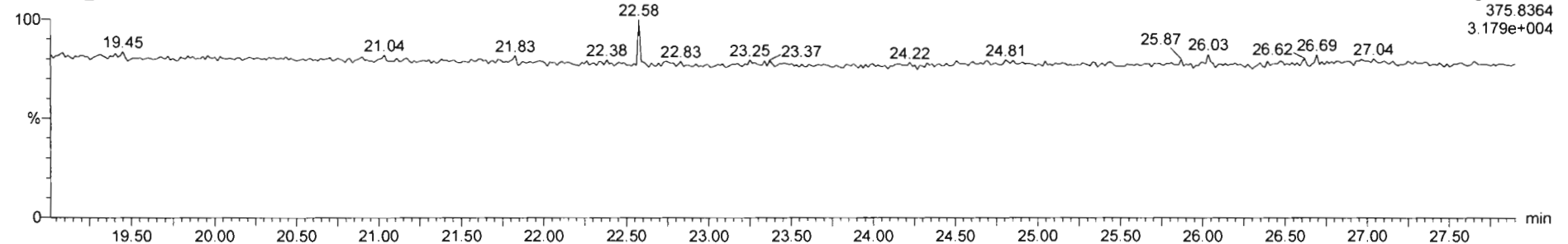
200306R2\_8



F1: Voltage SIR, EI+  
317.939  
8.310e+006

**DPE1**

200306R2\_8



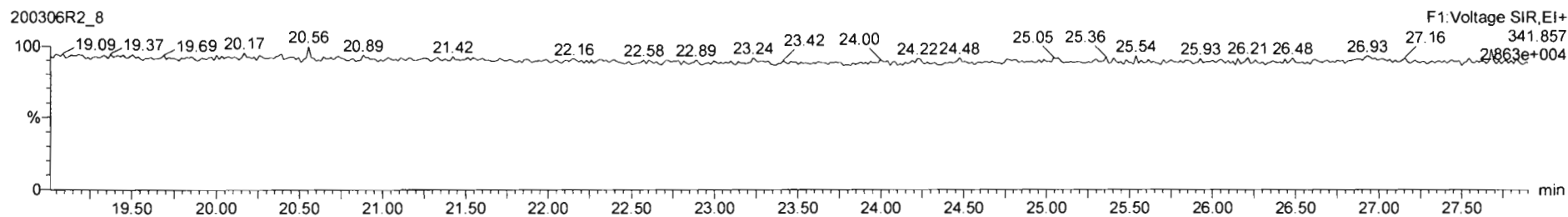
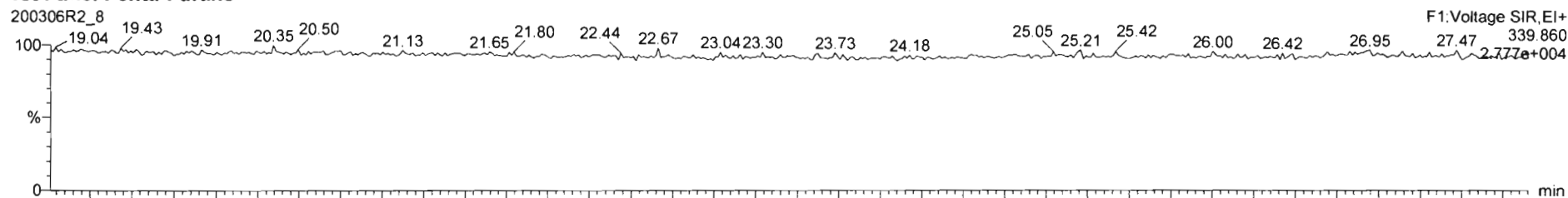
F1: Voltage SIR, EI+  
375.8364  
3.179e+004

Dataset: Untitled

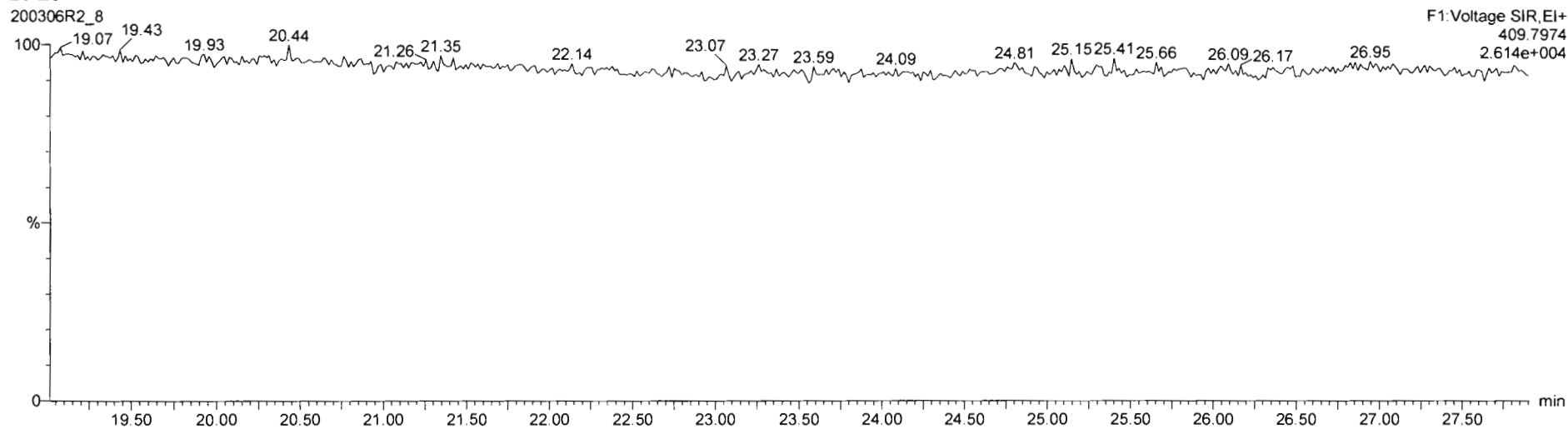
Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time  
Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

1st Func. Penta-Furans



DPE6



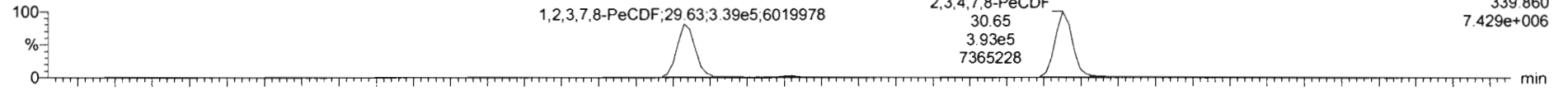
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

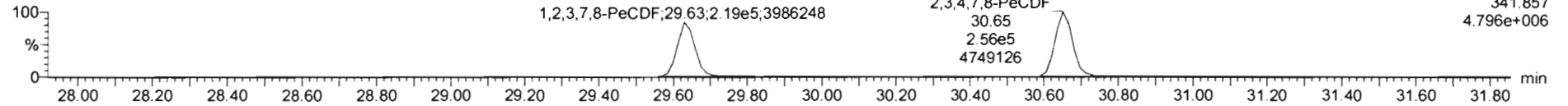
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**1,2,3,7,8-PeCDF**

200306R2\_8

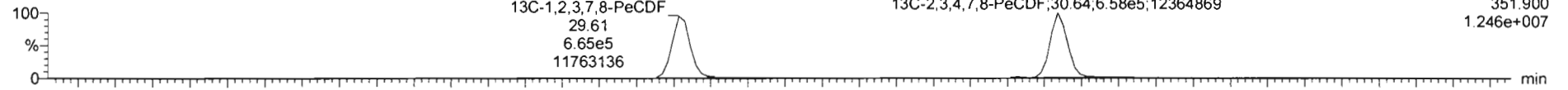


200306R2\_8

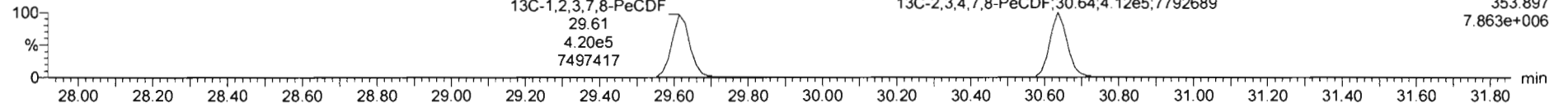


**13C-1,2,3,7,8-PeCDF**

200306R2\_8

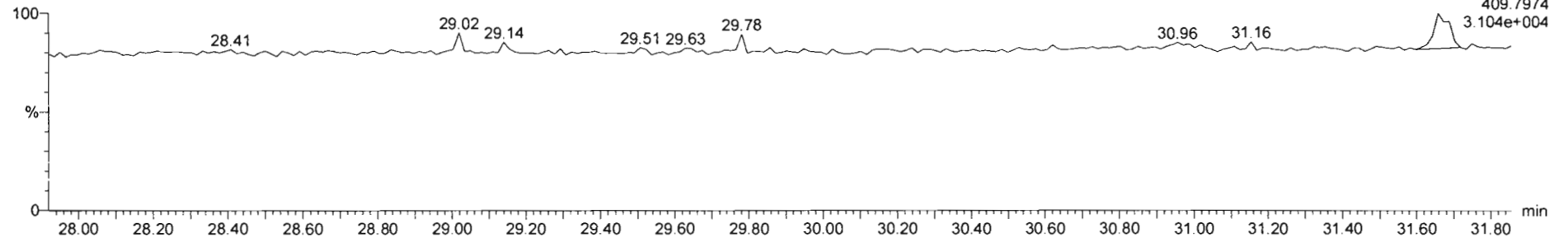


200306R2\_8



**DPE2**

200306R2\_8



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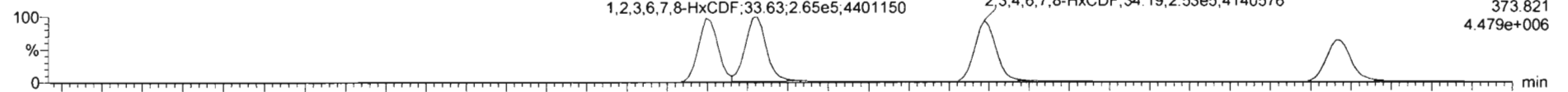
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

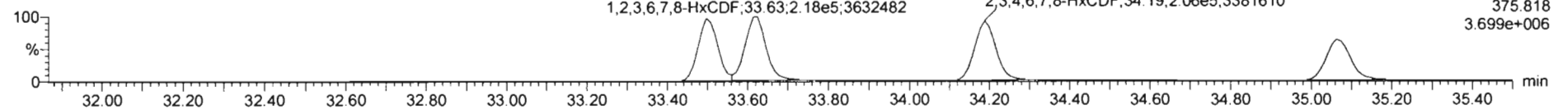
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**1,2,3,4,7,8-HxCDF**

200306R2\_8

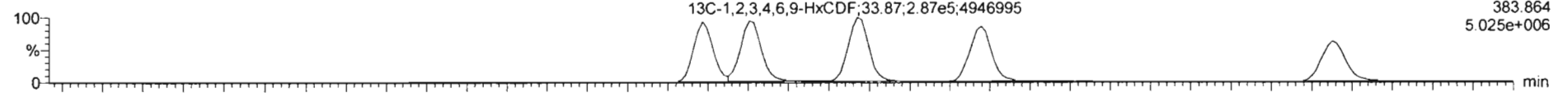


200306R2\_8

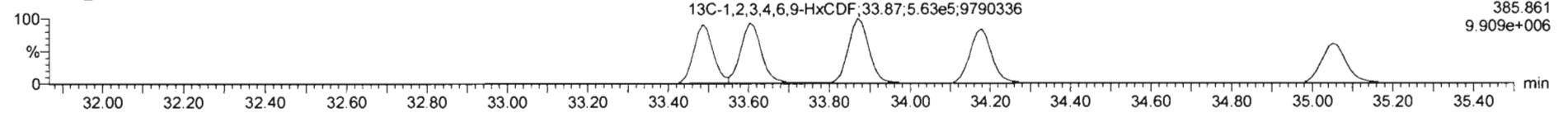


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_8

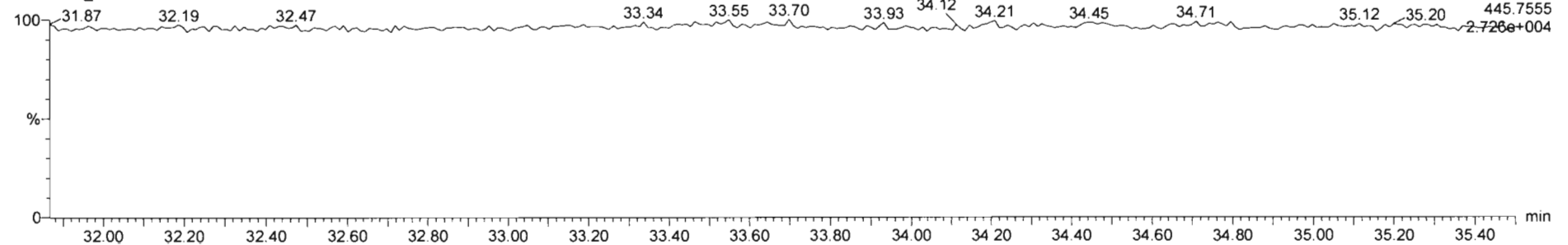


200306R2\_8

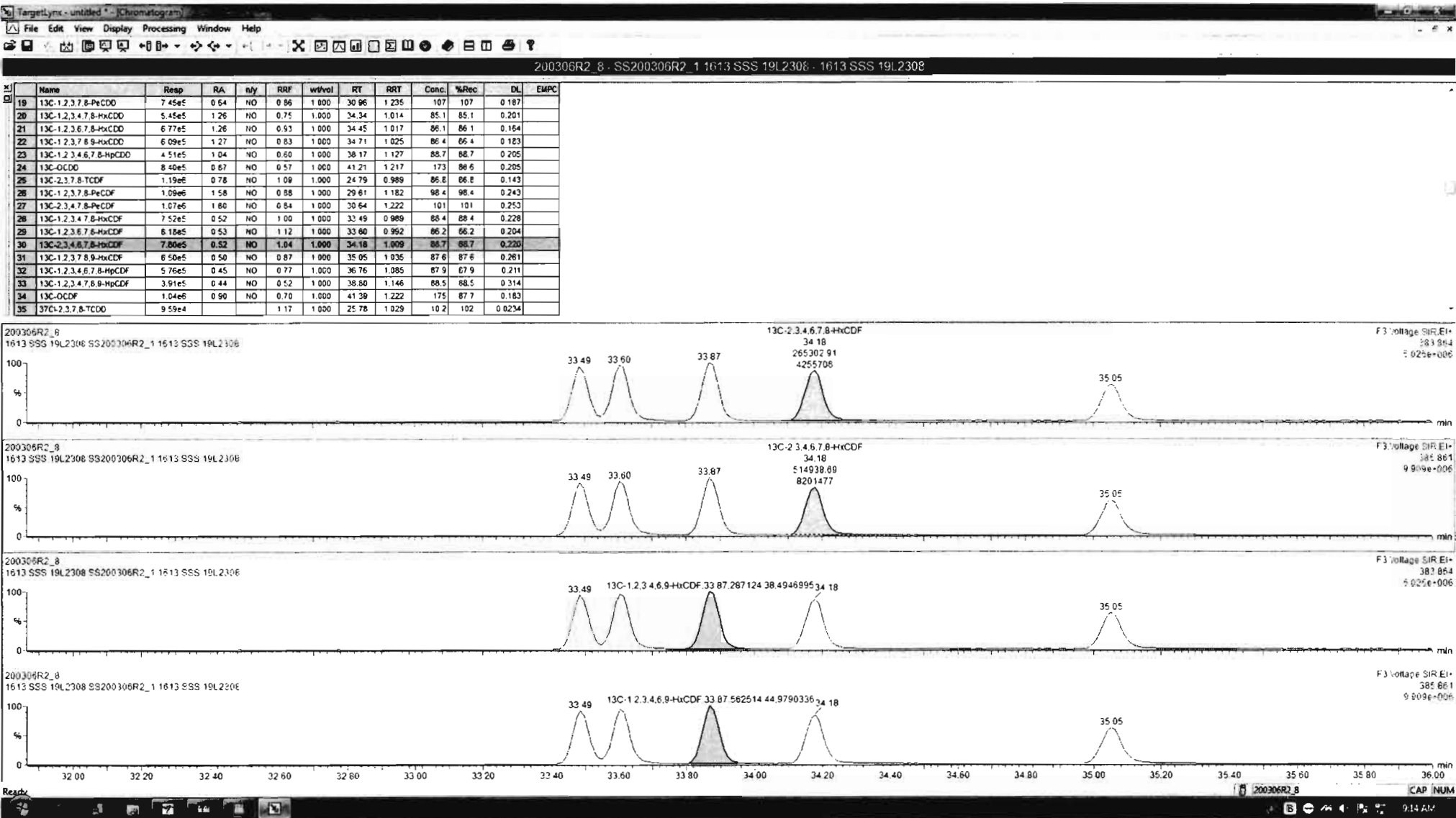


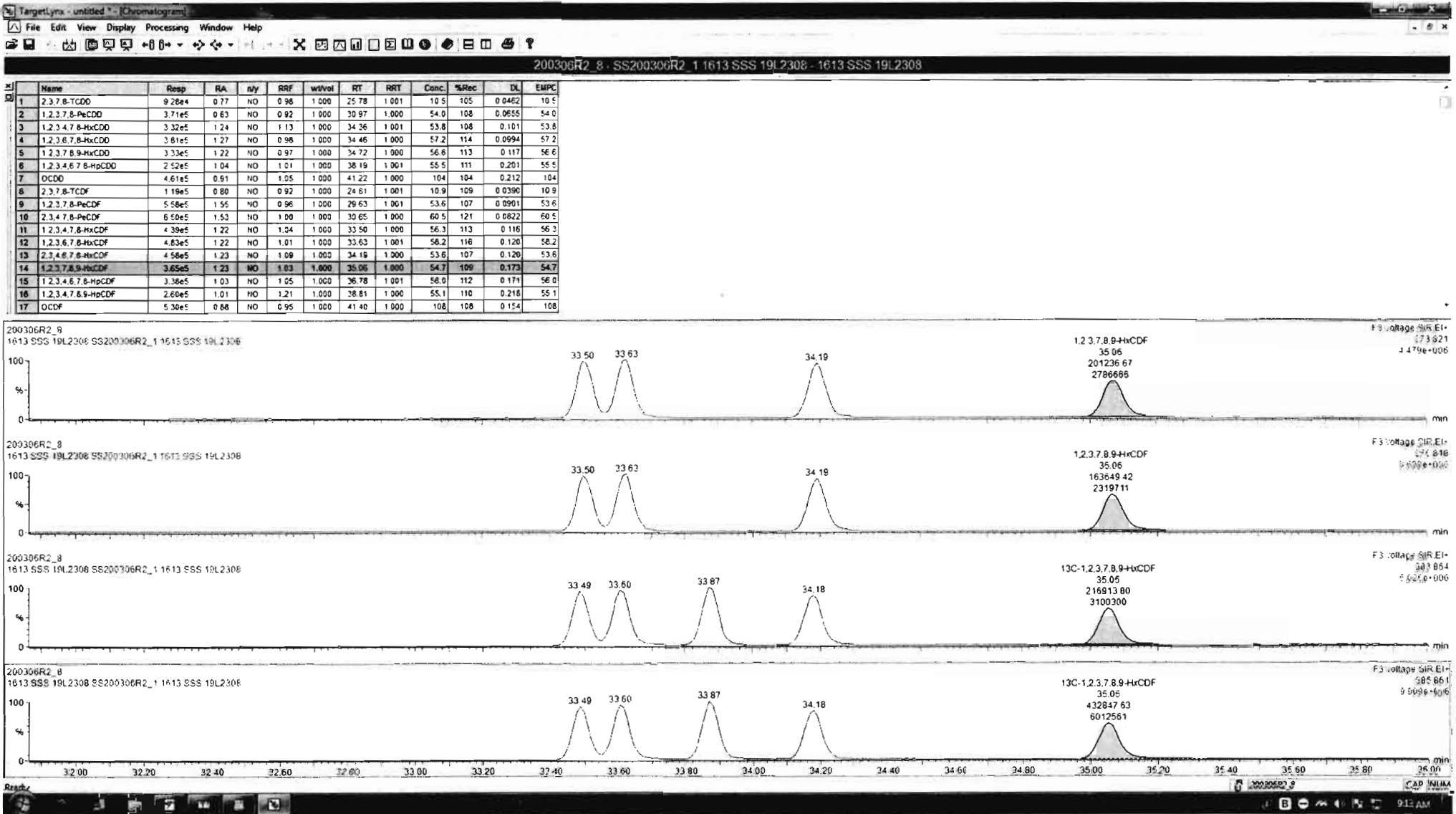
**DPE3**

200306R2\_8









Dataset: Untitled

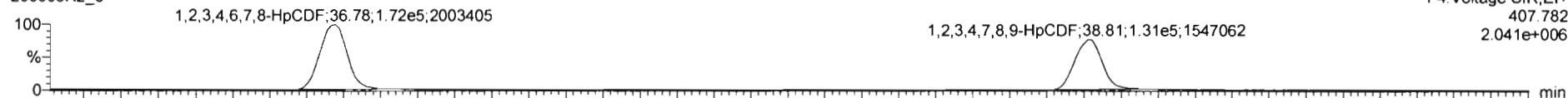
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

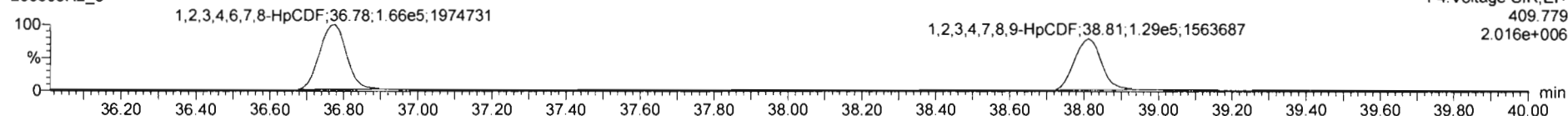
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_8

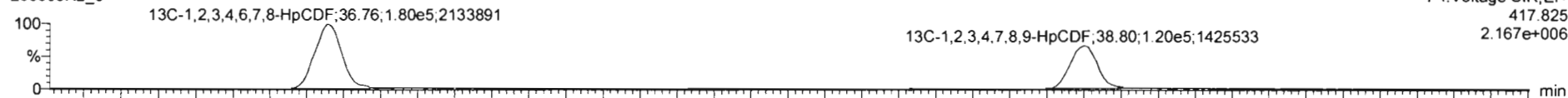


200306R2\_8

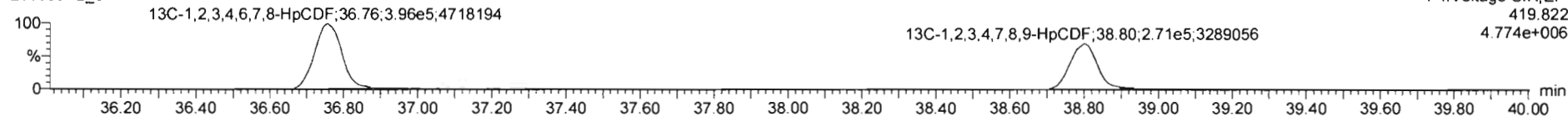


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_8

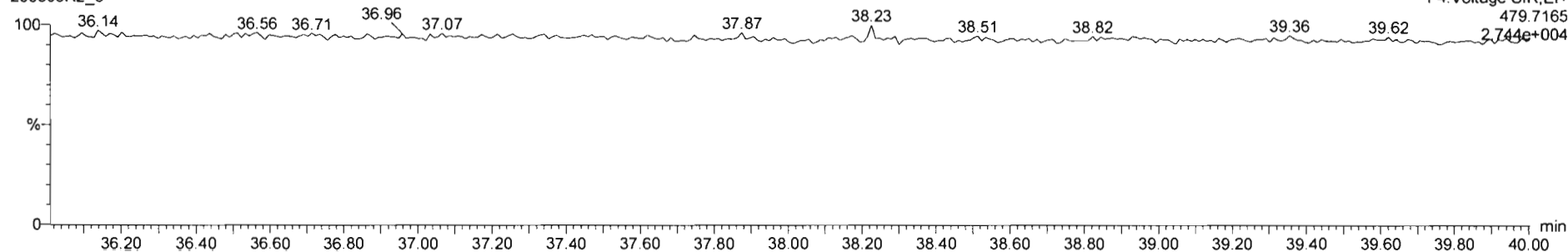


200306R2\_8



**DPE4**

200306R2\_8



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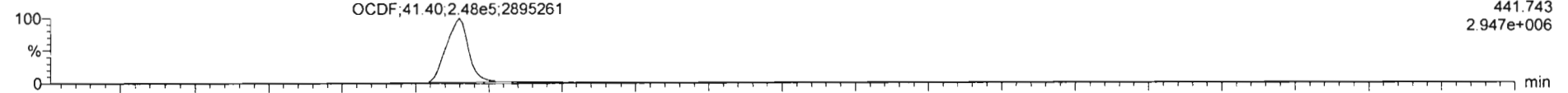
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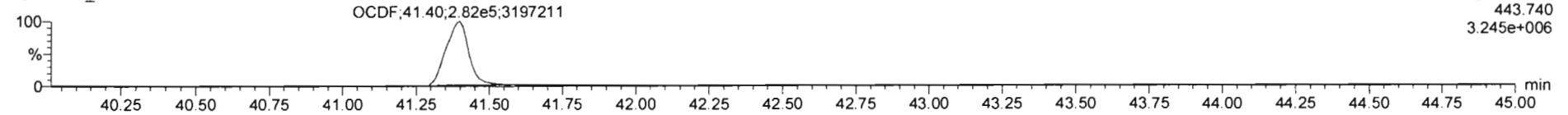
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**OCDF**

200306R2\_8

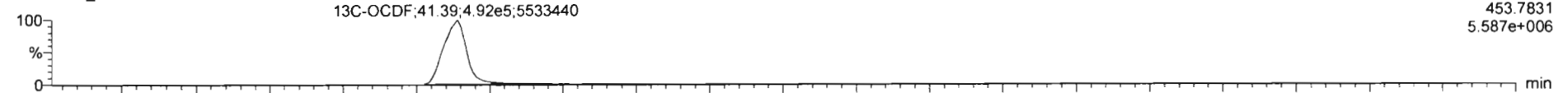


200306R2\_8

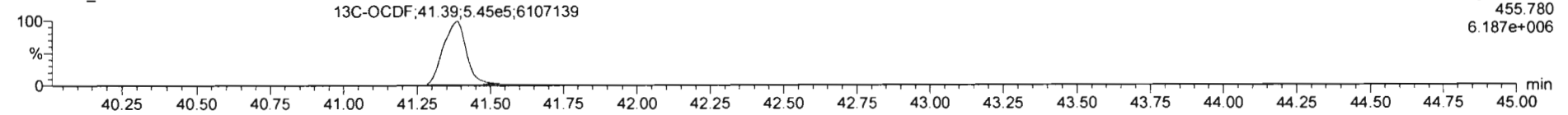


**13C-OCDF**

200306R2\_8

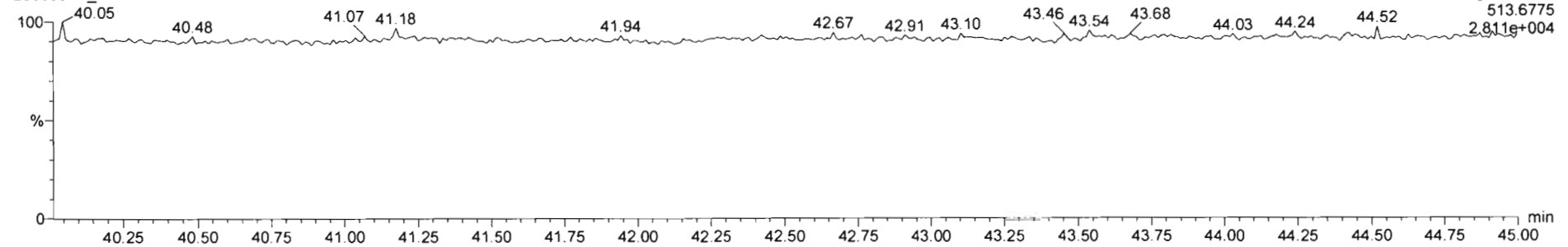


200306R2\_8



**DPE5**

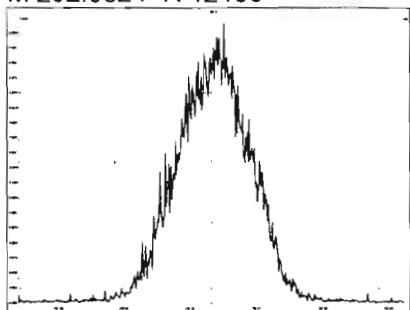
200306R2\_8



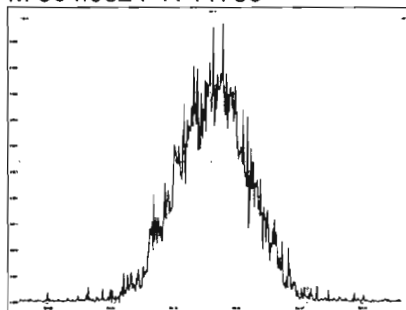


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

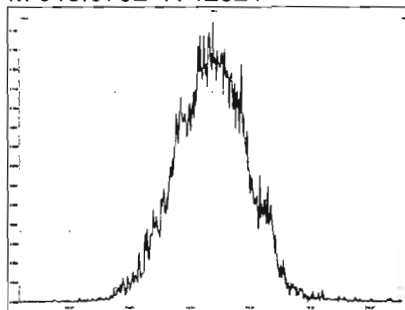
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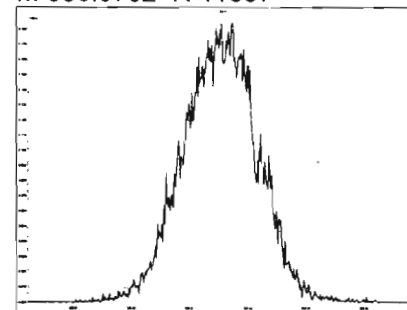
M 304.9824 R 11783



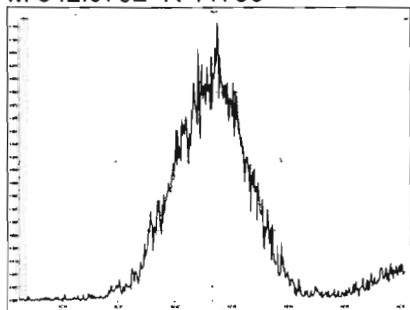
M 318.9792 R 12021



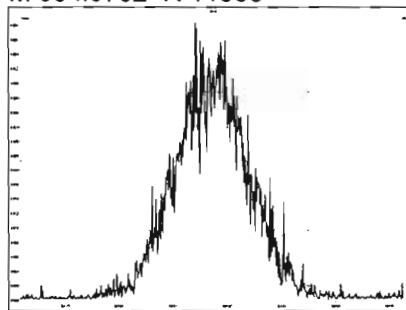
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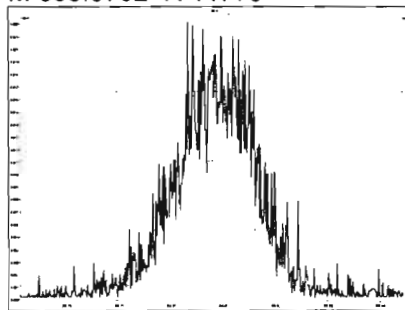
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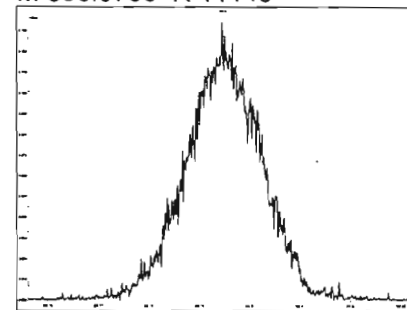
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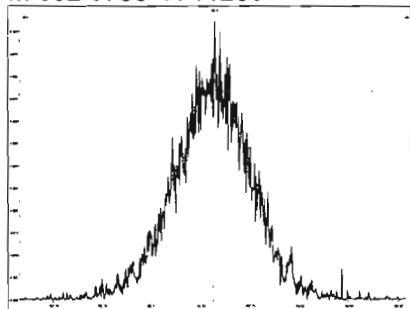
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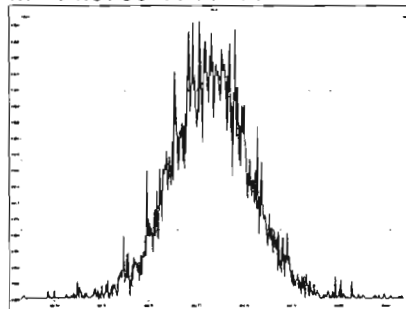
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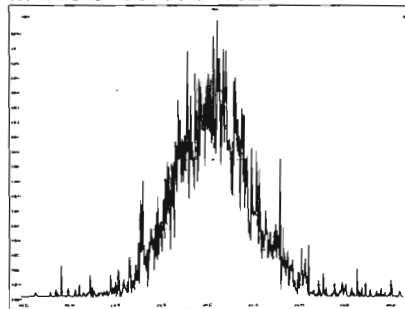
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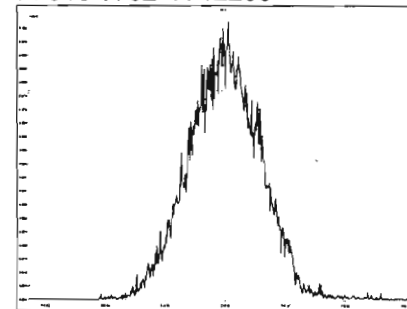
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M 416.9760 R 12132

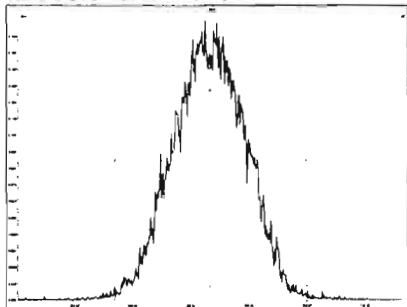


M 318.9792 R 12255

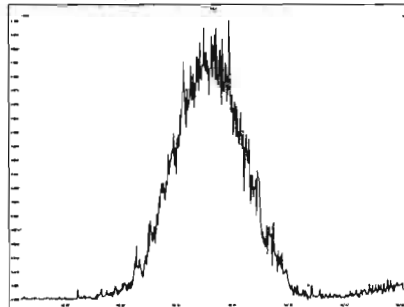


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

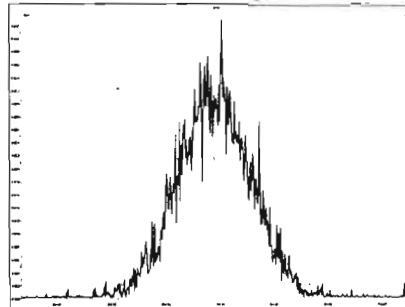
M 330.9792 R 11656



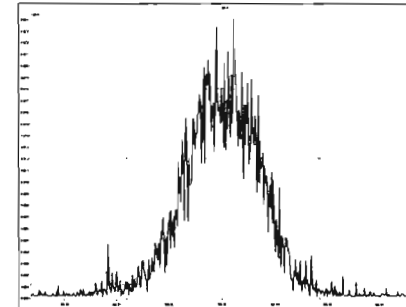
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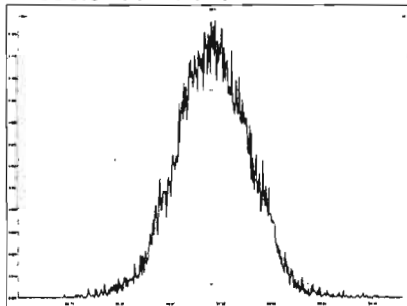
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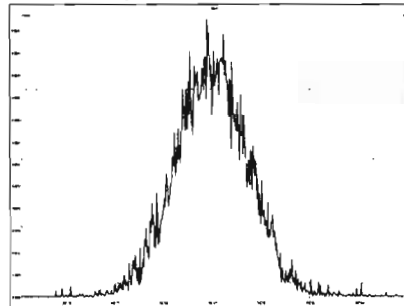
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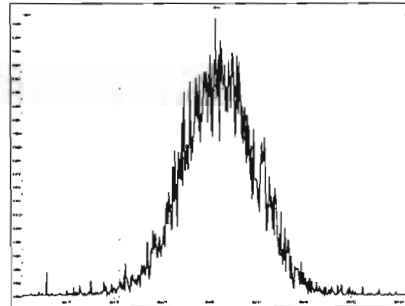
M 380.9760 R 11600



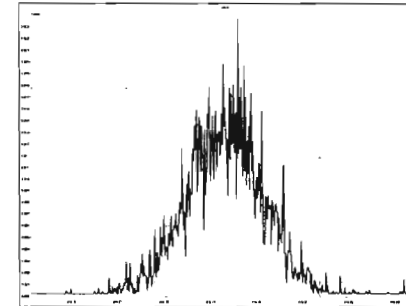
M 392.9760 R 12100



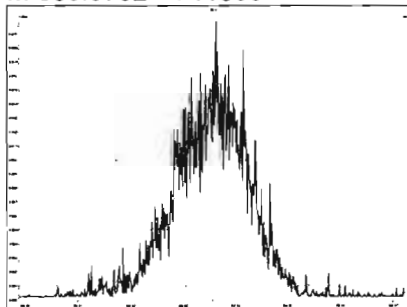
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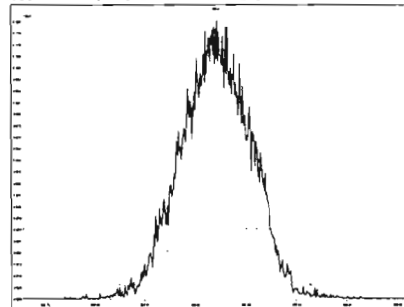
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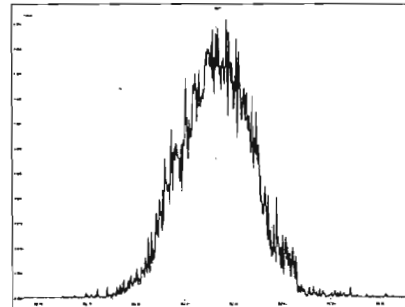
M 366.9792 R 11669



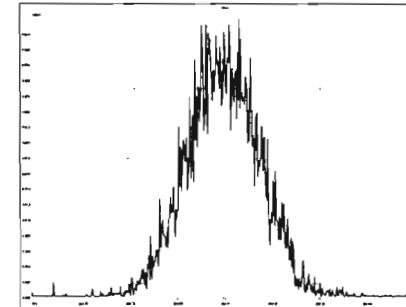
M 380.9760 R 12285



M 392.9760 R 12090

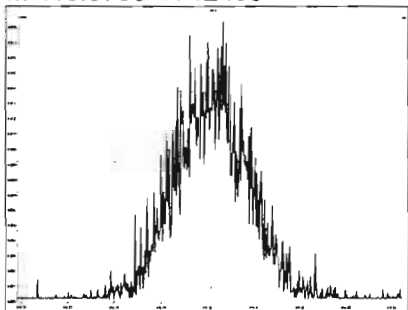


M 404.9760 R 12490

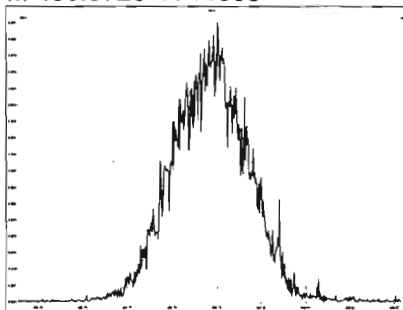


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

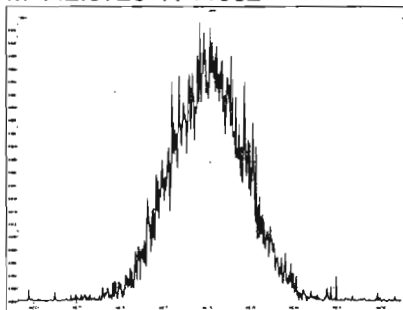
M 416.9760 R 12438



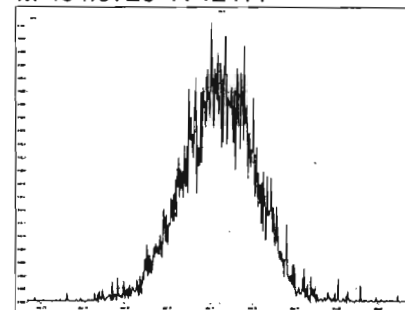
M 430.9728 R 11993



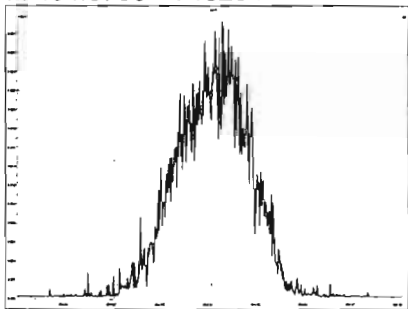
M 442.9728 R 11962



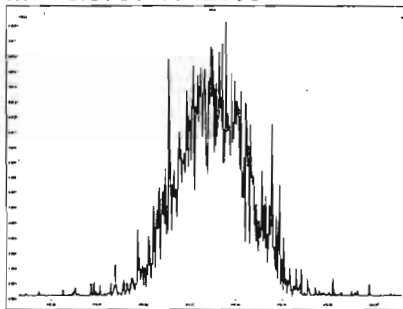
M 454.9728 R 12177



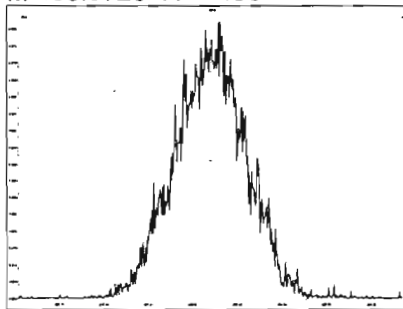
M 404.9760 R 13264



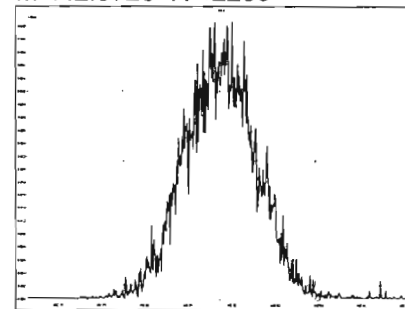
M 416.9760 R 12953



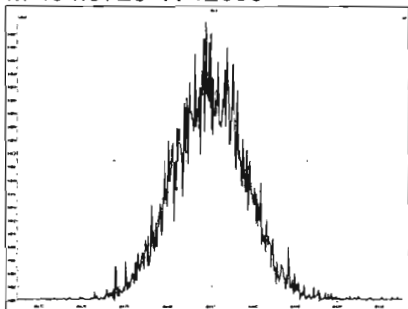
M 430.9728 R 12468



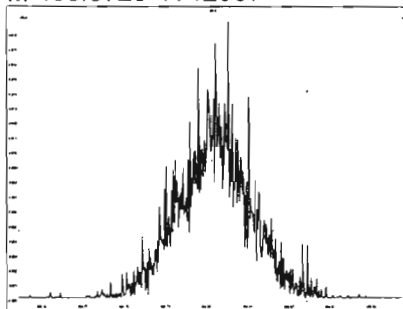
M 442.9728 R 12290



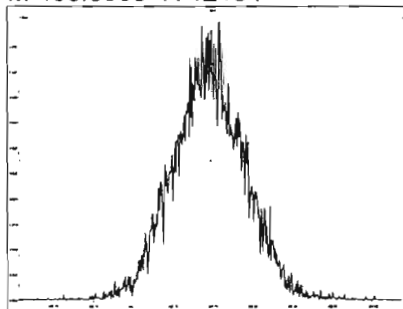
M 454.9728 R 12565



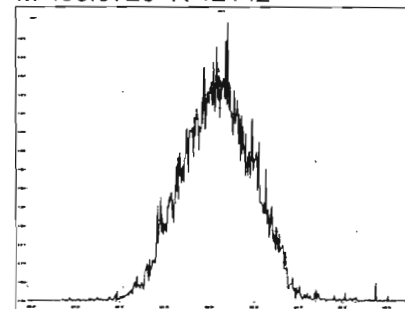
M 466.9728 R 12957



M 480.9696 R 12154

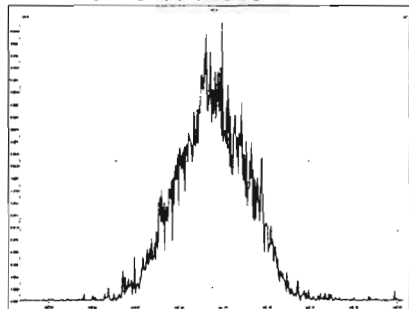


M 430.9728 R 12142

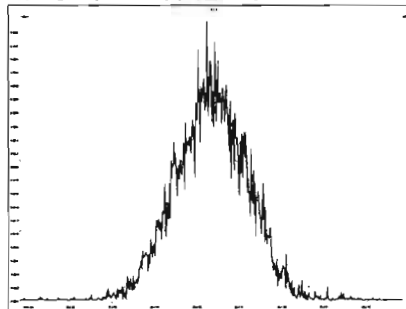




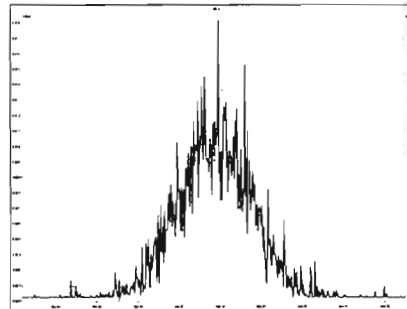
M 442.9728 R 12853



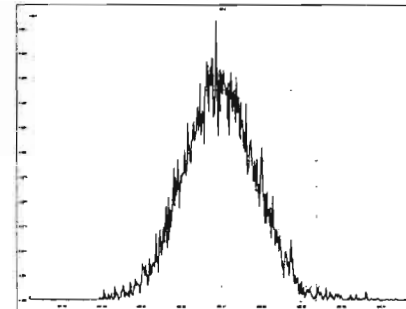
M 454.9728 R 12213



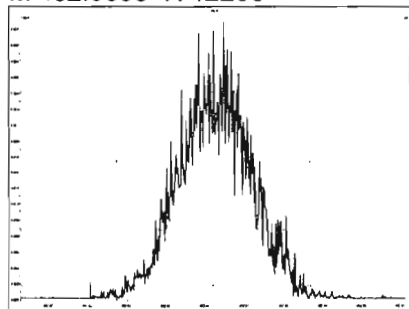
M 466.9728 R 12501



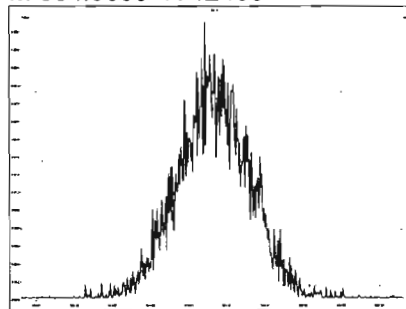
M 480.9696 R 12255



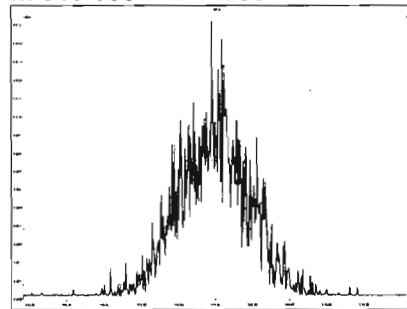
M 492.9696 R 12255



M 504.9696 R 12406



M 516.9697 R 12265



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

DB 2/12/20 01 02/12/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.9819  
RRF SD: 0.0791981, Relative SD: 8.06581  
Response type: Internal Std ( Ref 2 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	0.250	0.86	NO	17.23	3.04e2	1.39e5	0.223	0.876
2	2 200211D2_4	0.500	0.66	NO	17.22	6.08e2	1.13e5	0.549	1.08
3	3 200211D2_5	2.00	0.73	NO	17.23	2.63e3	1.30e5	2.06	1.01
4	4 200211D2_6	10.0	0.75	NO	17.23	1.15e4	1.25e5	9.33	0.916
5	5 200211D2_7	40.0	0.74	NO	17.23	5.76e4	1.51e5	39.0	0.957
6	6 200211D2_8	300	0.73	NO	17.23	4.81e5	1.52e5	321	1.05

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 1.08271  
RRF SD: 0.0939058, Relative SD: 8.67318  
Response type: Internal Std ( Ref 3 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.72	NO	17.20	1.39e5	1.13e5	113	1.23
2	2 200211D2_4	100	0.71	NO	17.20	1.13e5	1.14e5	91.7	0.993
3	3 200211D2_5	100	0.71	NO	17.20	1.30e5	1.34e5	89.3	0.967
4	4 200211D2_6	100	0.75	NO	17.20	1.25e5	1.15e5	101	1.09
5	5 200211D2_7	100	0.71	NO	17.20	1.51e5	1.35e5	103	1.11
6	6 200211D2_8	100	0.72	NO	17.20	1.52e5	1.38e5	102	1.11

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

**Compound name: 13C-1,2,3,4-TCDF**

Response Factor: 1

RRF SD: 7.02167e-017, Relative SD: 7.02167e-015

Response type: Internal Std ( Ref 3 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.70	NO	15.17	1.13e5	1.13e5	100	1.00
2	2 200211D2_4	100	0.71	NO	15.18	1.14e5	1.14e5	100	1.00
3	3 200211D2_5	100	0.74	NO	15.17	1.34e5	1.34e5	100	1.00
4	4 200211D2_6	100	0.72	NO	15.17	1.15e5	1.15e5	100	1.00
5	5 200211D2_7	100	0.73	NO	15.17	1.35e5	1.35e5	100	1.00
6	6 200211D2_8	100	0.73	NO	15.17	1.38e5	1.38e5	100	1.00

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1026.38

RRF SD: 123.841, Relative SD: 12.0658

Response type: External Std, Area

Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.79	NO	15.78	1.04e5		102	1040
2	2 200211D2_4	100	0.77	NO	15.78	8.57e4		83.5	857
3	3 200211D2_5	100	0.79	NO	15.78	9.44e4		92.0	944
4	4 200211D2_6	100	0.79	NO	15.78	9.87e4		96.1	987
5	5 200211D2_7	100	0.78	NO	15.78	1.13e5		110	1130
6	6 200211D2_8	100	0.78	NO	15.78	1.20e5		116	1200

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2\_3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

	# Name	Resp	RA	n/y	RRF M...	w/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	3.04e2	0.86	NO	0.982	1.000	17.23	0.22305	89.2	0.0931
2	2 13C-2,3,7,8-TCDF	1.39e5	0.72	NO	1.08	1.000	17.20	113.42	113	0.342
3	3 13C-1,2,3,4-TCDF	1.13e5	0.70	NO	1.00	1.000	15.17	100.00	100	0.371
4	4 13C-1,2,3,4-TCDD	1.04e5	0.79	NO	1030	1.000	15.78	101.65	102	0.291

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	6.08e2	0.66	NO	0.982	1.000	17.22	0.54947	110	0.147
2	2 13C-2,3,7,8-TCDF	1.13e5	0.71	NO	1.08	1.000	17.20	91.711	91.7	0.381
3	3 13C-1,2,3,4-TCDF	1.14e5	0.71	NO	1.00	1.000	15.18	100.00	100	0.412
4	4 13C-1,2,3,4-TCDD	8.57e4	0.77	NO	1030	1.000	15.78	83.528	83.5	0.324

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	2.63e3	0.73	NO	0.982	1.000	17.23	2.0631	103	0.121
2	2 13C-2,3,7,8-TCDF	1.30e5	0.71	NO	1.08	1.000	17.20	89.279	89.3	0.292
3	3 13C-1,2,3,4-TCDF	1.34e5	0.74	NO	1.00	1.000	15.17	100.00	100	0.316
4	4 13C-1,2,3,4-TCDD	9.44e4	0.79	NO	1030	1.000	15.78	92.007	92.0	0.336

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.15e4	0.75	NO	0.982	1.000	17.23	9.3257	93.3	0.185
2	2 13C-2,3,7,8-TCDF	1.25e5	0.75	NO	1.08	1.000	17.20	100.76	101	0.364
3	3 13C-1,2,3,4-TCDF	1.15e5	0.72	NO	1.00	1.000	15.17	100.00	100	0.394
4	4 13C-1,2,3,4-TCDD	9.87e4	0.79	NO	1030	1.000	15.78	96.149	96.1	0.331

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	5.76e4	0.74	NO	0.982	1.000	17.23	38.981	97.5	0.158
2	2 13C-2,3,7,8-TCDF	1.51e5	0.71	NO	1.08	1.000	17.20	102.61	103	0.300
3	3 13C-1,2,3,4-TCDF	1.35e5	0.73	NO	1.00	1.000	15.17	100.00	100	0.325
4	4 13C-1,2,3,4-TCDD	1.13e5	0.78	NO	1030	1.000	15.78	110.19	110	0.311



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

**Name: 200211D2\_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307**

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	4.81e5	0.73	NO	0.982	1.000	17.23	321.06	107	0.243
2	2 13C-2,3,7,8-TCDF	1.52e5	0.72	NO	1.08	1.000	17.20	102.22	102	0.295
3	3 13C-1,2,3,4-TCDF	1.38e5	0.73	NO	1.00	1.000	15.17	100.00	100	0.319
4	4 13C-1,2,3,4-TCDD	1.20e5	0.78	NO	1030	1.000	15.78	116.47	116	0.322

Dataset: Untitled

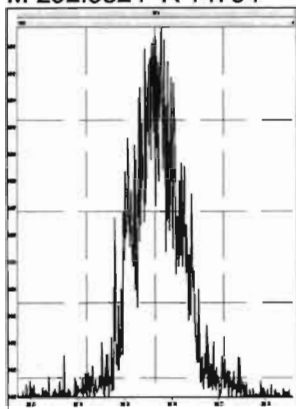
Last Altered: Wednesday, February 12, 2020 10:45:15 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:45:35 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
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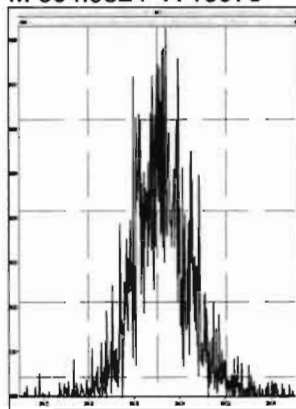
Compound name: 2,3,7,8-TCDF

	Name	ID	Acq.Date	Acq.Time
1	200211D2_1	SOLVENT BLANK	11-Feb-20	19:58:43
2	200211D2_2	CP200211D2-1 DB-225 CPSM	11-Feb-20	20:28:53
3	200211D2_3	ST200211D2-1 1613 CS0 19L2302	11-Feb-20	21:00:36
4	200211D2_4	ST200211D2-2 1613 CS1 19L2303	11-Feb-20	21:32:19
5	200211D2_5	ST200211D2-3 1613 CS2 19L2304	11-Feb-20	22:04:03
6	200211D2_6	ST200211D2-4 1613 CS3 19L2305	11-Feb-20	22:35:45
7	200211D2_7	ST200211D2-5 1613 CS4 19L2306	11-Feb-20	23:07:28
8	200211D2_8	ST200211D2-6 1613 CS5 19L2307	11-Feb-20	23:39:11
9	200211D2_9	SOLVENT BLANK	12-Feb-20	00:10:54
10	200211D2_10	SS200211D2-1 1613 SSS 19L2308	12-Feb-20	00:42:33
11	200211D2_11	SOLVENT BLANK	12-Feb-20	01:14:15
12	200211D2_12	1903740-08RE1 PDI-097SC-B-06-08-191017 ...	12-Feb-20	01:45:58
13	200211D2_13	1903740-07RE1 PDI-097SC-B-04-06-191017 ...	12-Feb-20	02:17:39
14	200211D2_14	1903740-06RE1 PDI-097SC-B-02-04-191017 ...	12-Feb-20	02:49:21
15	200211D2_15	1903740-01RE1 PDI-031SC-B-00-02-191017 ...	12-Feb-20	03:21:03
16	200211D2_16	1903740-05RE1 PDI-097SC-B-00-02-191017 ...	12-Feb-20	03:52:45

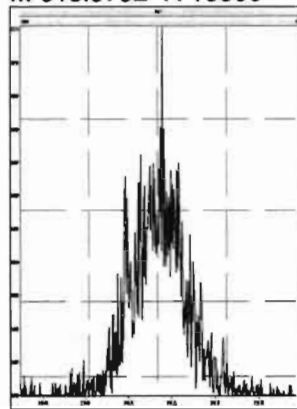
M 292.9824 R 14754



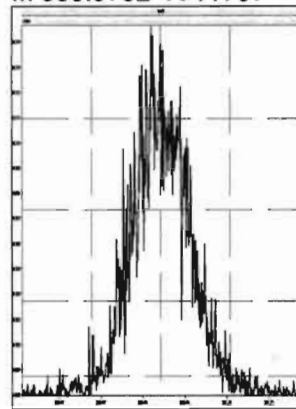
M 304.9824 R 15978



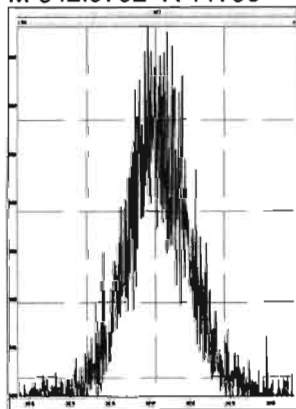
M 318.9792 R 15503



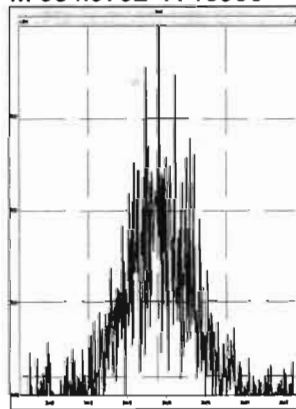
M 330.9792 R 11737



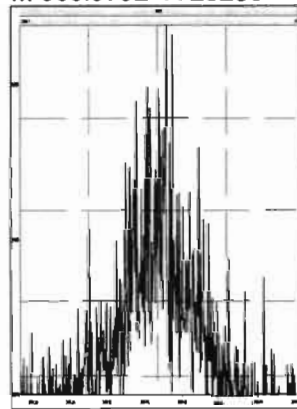
M 342.9792 R 11796



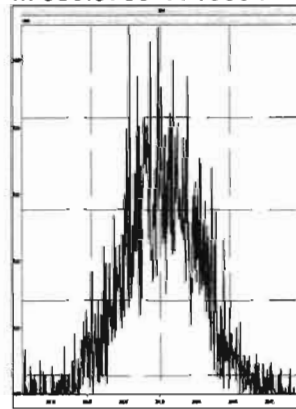
M 354.9792 R 15966

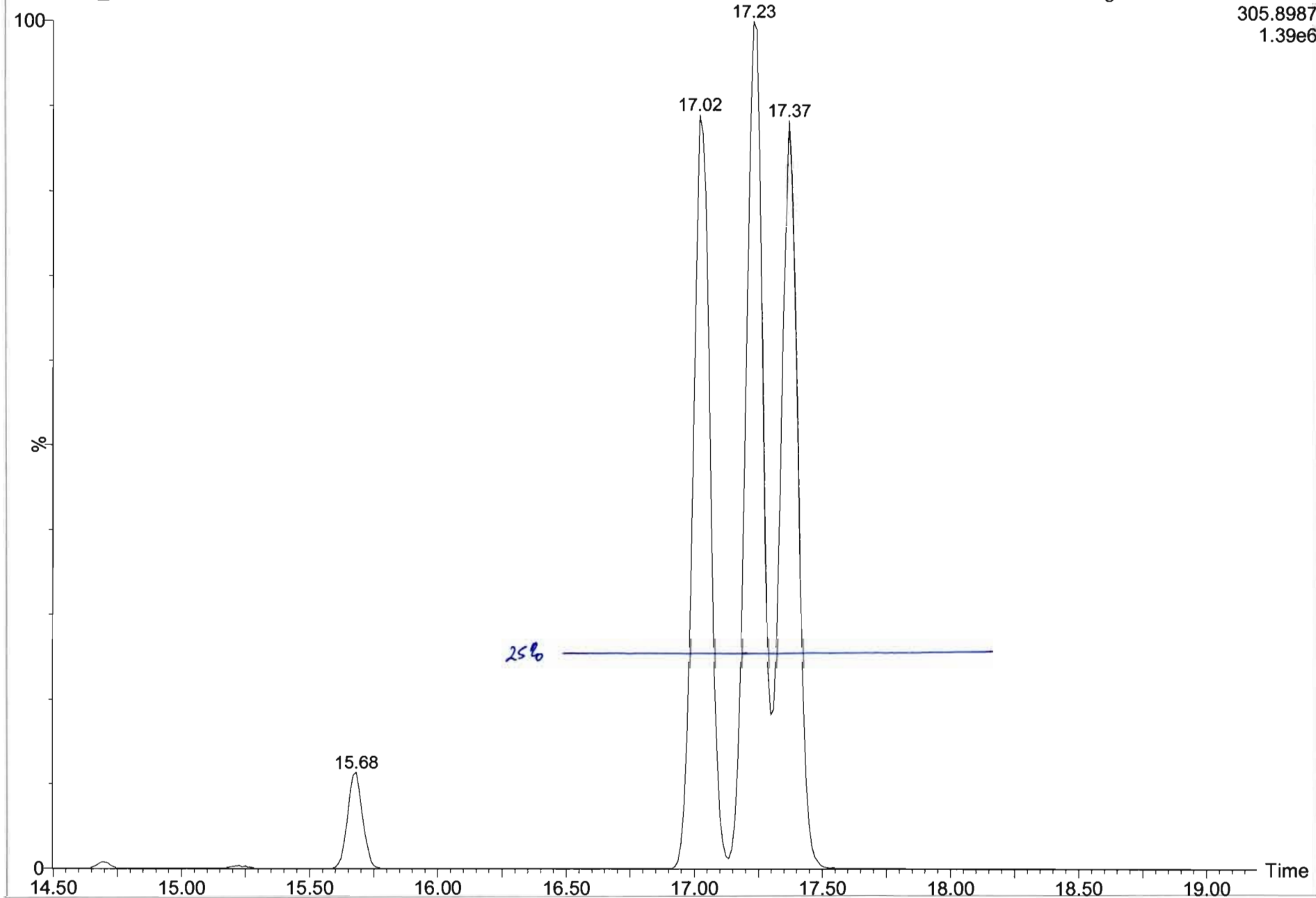


M 366.9792 R 28256



M 380.9760 R 13094





Dataset: U:\VG7.PRO\Results\200211D2\200111D2\_2.qld

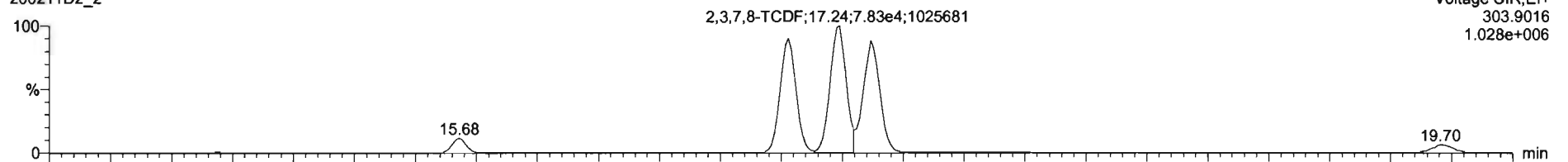
Last Altered: Wednesday, February 12, 2020 10:13:49 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:15:34 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: C:\MassLynx\Default.PRO\CurveDB\db-225\_m23tcdfvg7-2-11-20.cdb 11 Feb 2020 14:52:18

Name: 200211D2\_2, Date: 11-Feb-2020, Time: 20:28:53, ID: CP200211D2-1 DB-225 CPSM, Description: DB-225 CPSM

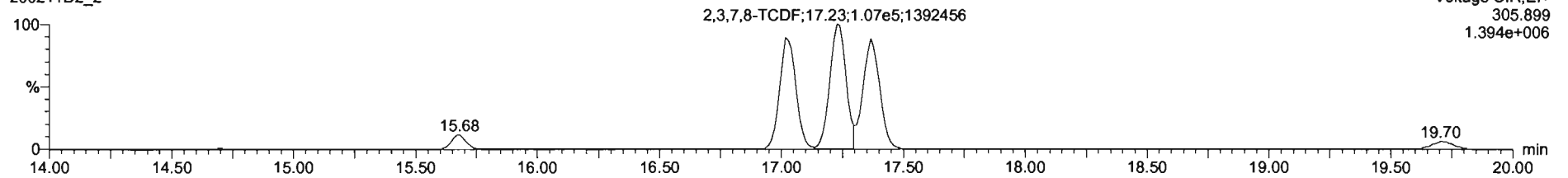
2,3,7,8-TCDF

200211D2\_2



Voltage SIR,EI+  
303.9016  
1.028e+006

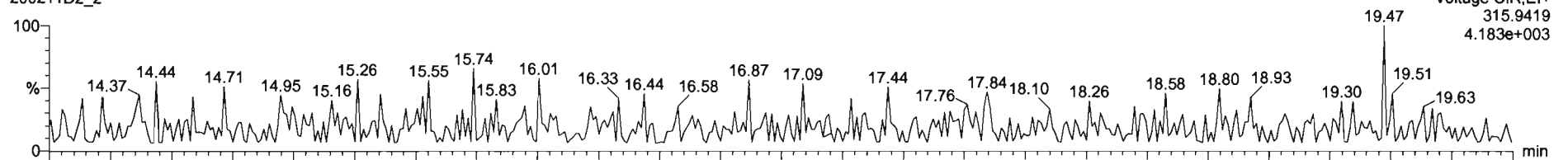
200211D2\_2



Voltage SIR,EI+  
305.899  
1.394e+006

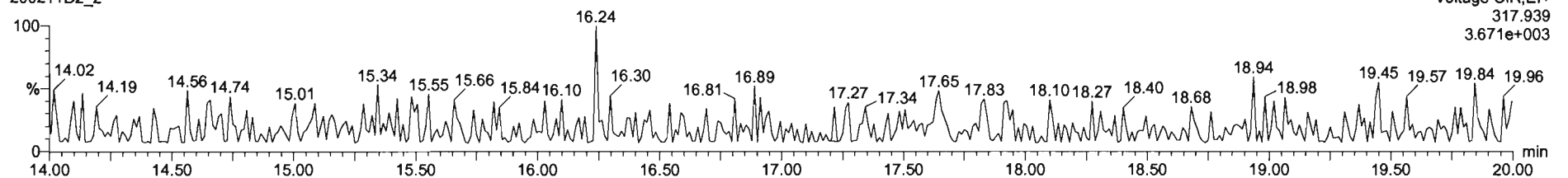
13C-2,3,7,8-TCDF

200211D2\_2



Voltage SIR,EI+  
315.9419  
4.183e+003

200211D2\_2



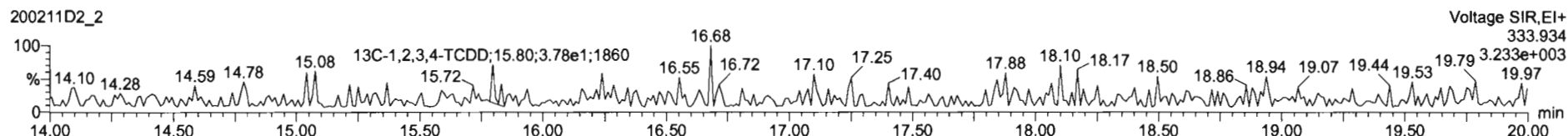
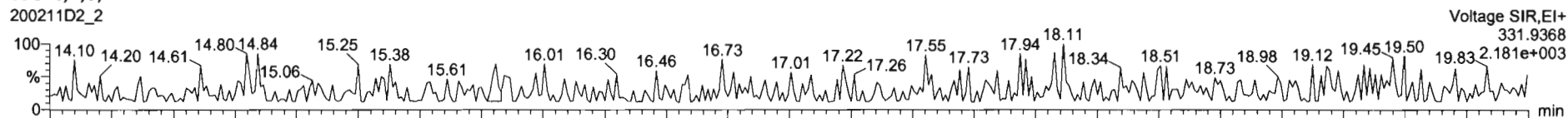
Voltage SIR,EI+  
317.939  
3.671e+003

Dataset: U:\VG7.PRO\Results\200211D2\200111D2\_2.qld

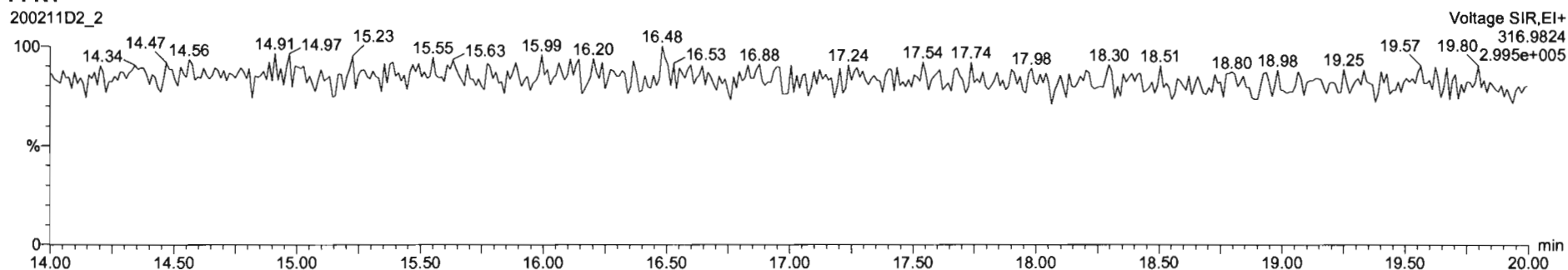
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Printed: Wednesday, February 12, 2020 10:15:34 Pacific Standard Time

Name: 200211D2\_2, Date: 11-Feb-2020, Time: 20:28:53, ID: CP200211D2-1 DB-225 CPSM, Description: DB-225 CPSM

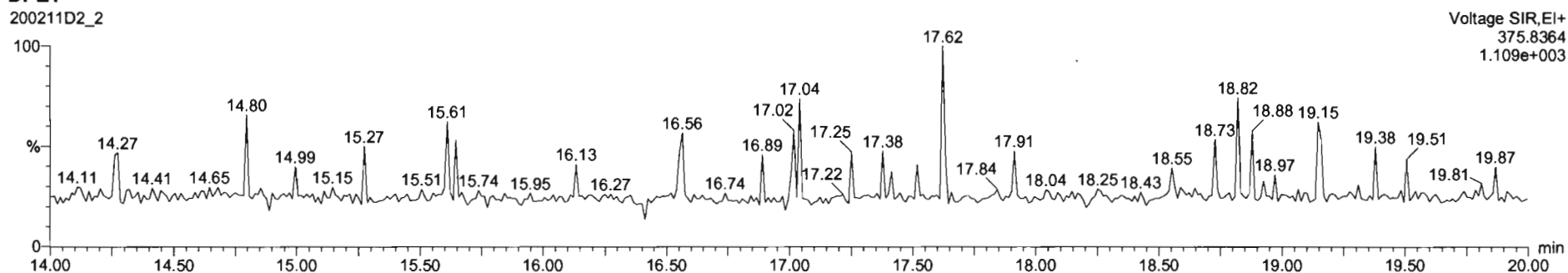
13C-1,2,3,4-TCDD



PFK1



DPE1



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

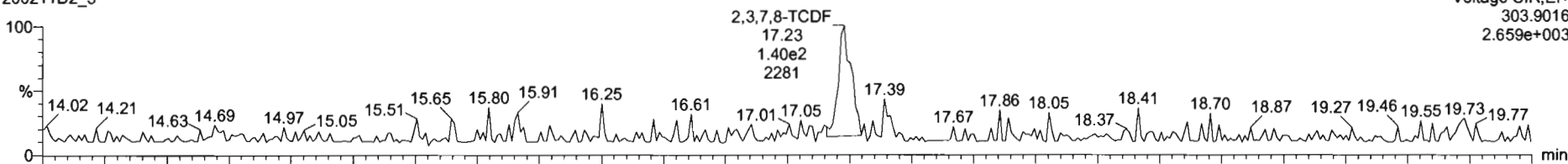
Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvfg7-2-11-20.cdb 12 Feb 2020 10:17:56

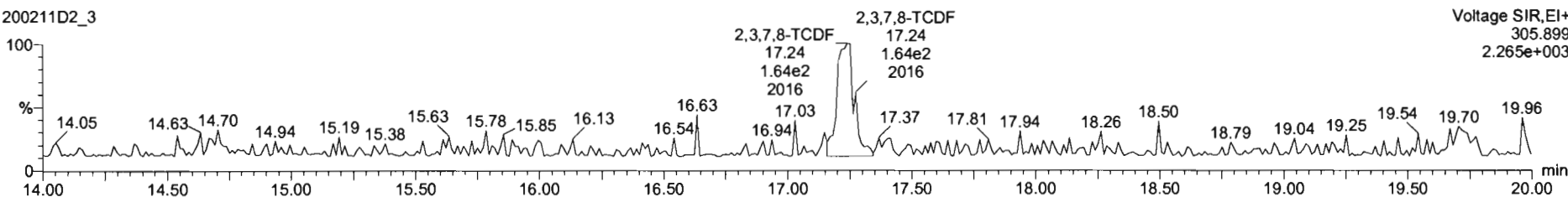
Name: 200211D2\_3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

2,3,7,8-TCDF

200211D2\_3

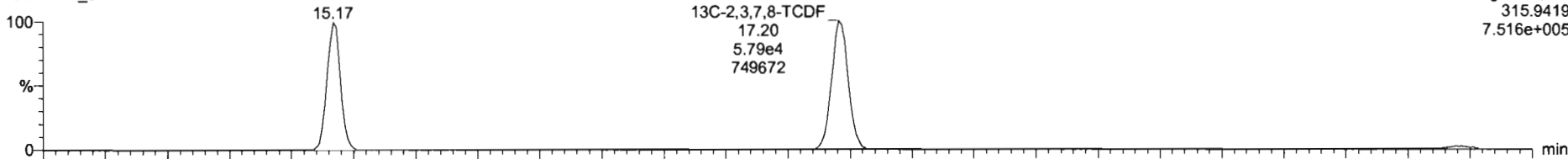


200211D2\_3

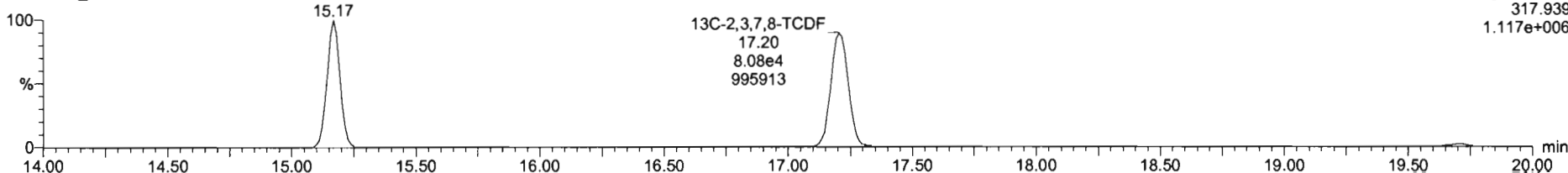


13C-2,3,7,8-TCDF

200211D2\_3



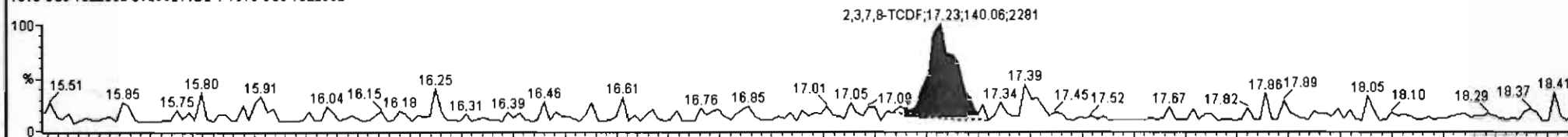
200211D2\_3



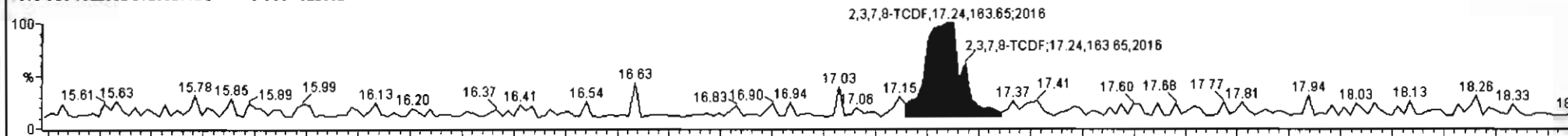
Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDF	3.04e2	0.86	NO	0.98	1.000	17.23	1.001	0.223	89.2	0.0831	0.223
2 13C-2,3,7,8-TCDF	1.39e5	0.72	NO	1.08	1.000	17.20	1.134	113	113	0.342	
3 13C-1,2,3,4-TCDF	1.13e5	0.70	NO	1.00	1.000	15.17	1.000	100	100	0.371	
4 13C-1,2,3,4-TCDF	1.04e5	0.79	NO	1026.38	1.000	15.78	0.000	102	102	0.291	
5 PFOS					1.000						
6 DPE1					1.000						

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

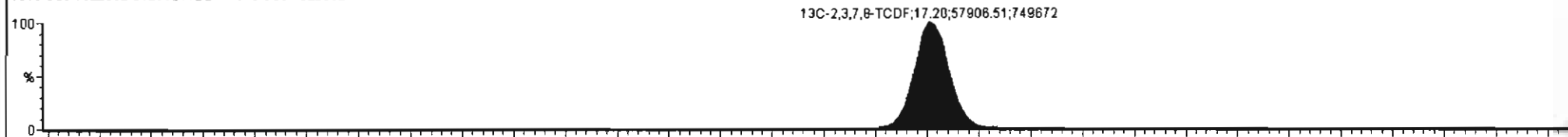
200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



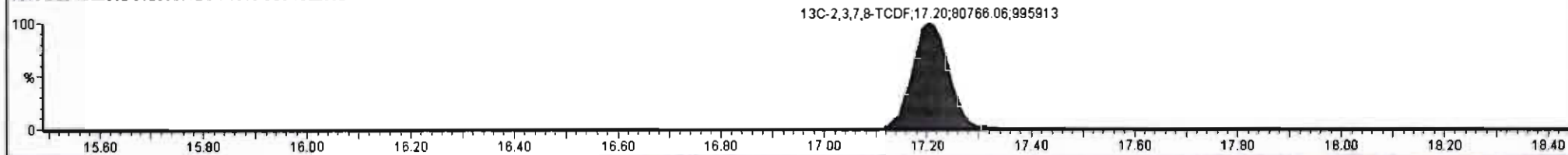
200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302





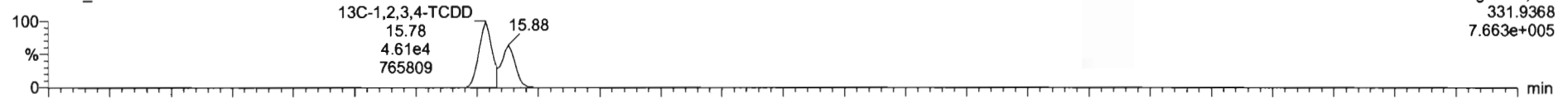
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Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

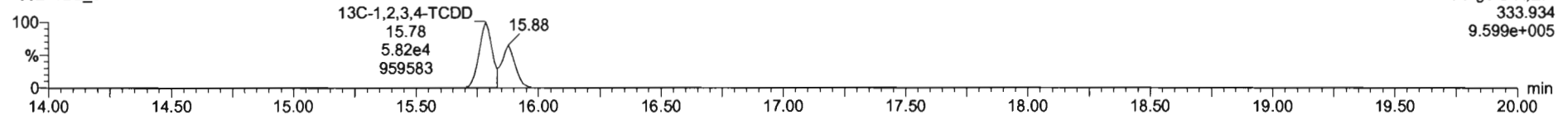
Name: 200211D2\_3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200211D2\_3

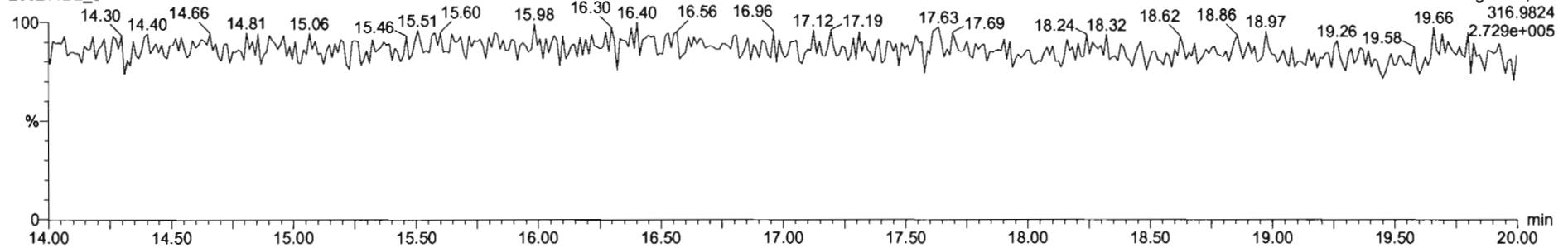


200211D2\_3



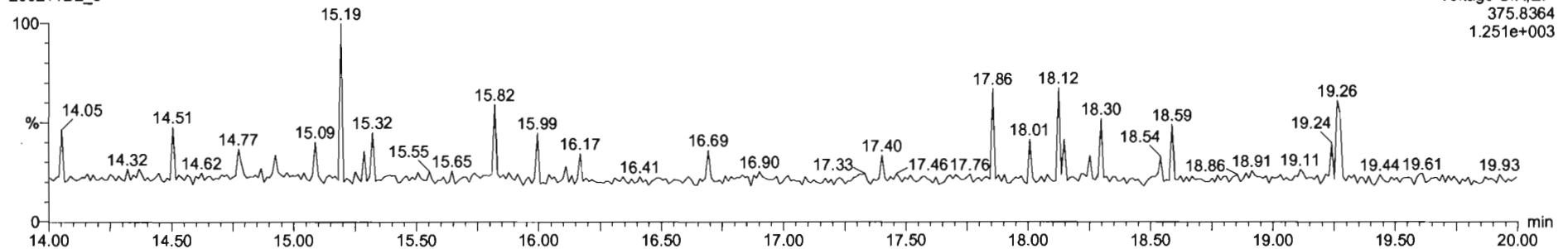
PFK1

200211D2\_3



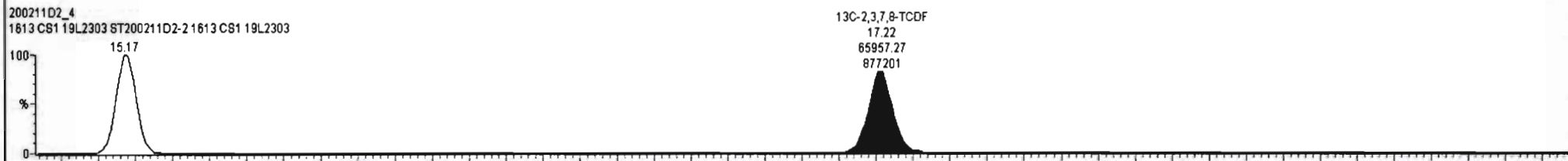
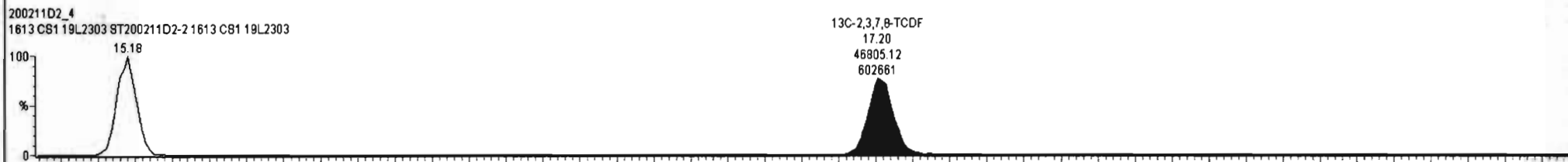
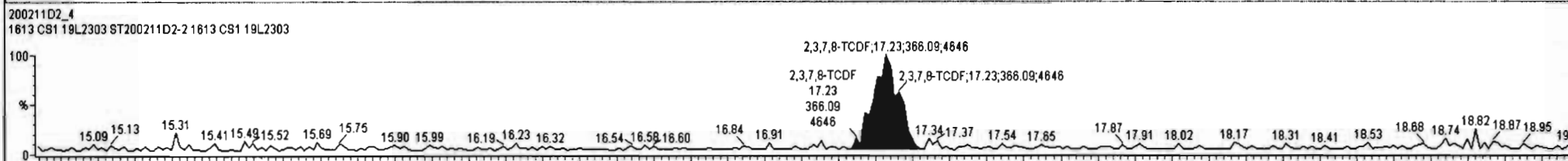
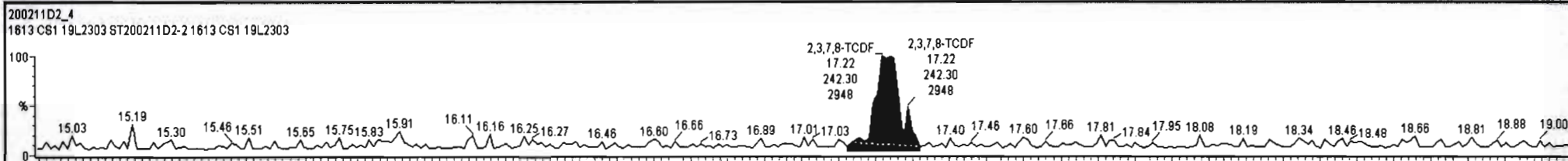
DPE1

200211D2\_3



#	Name	Resp	RA	ruy	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EWPC
1	2,3,7,8-TCDF	8.08e2	0.66	NO	0.98	1.000	17.22	1.001	0.548	110	0.147	0.548
2	13C-2,3,7,8-TCDF	1.13e5	0.71	NO	1.08	1.000	17.20	1.133	91.7	91.7	0.381	
3	13C-1,2,3,4-TCDF	1.14e5	0.71	NO	1.00	1.000	15.18	1.000	100	100	0.412	
4	13C-1,2,3,4-TCDD	8.57e4	0.77	NO	1026.38	1.000	15.78	0.000	83.5	83.5	0.324	
5	PFK1					1.000						
6	DPF1					1.000						

#	Name	RT	int Resp	m2 Resp	RA	ruy	EWPC	Conc.
1								



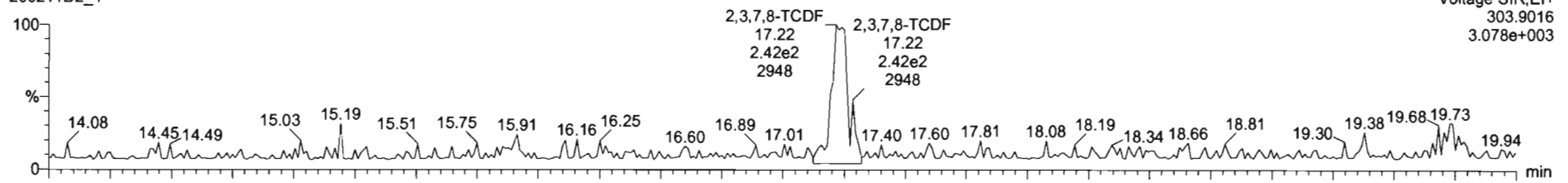
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Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

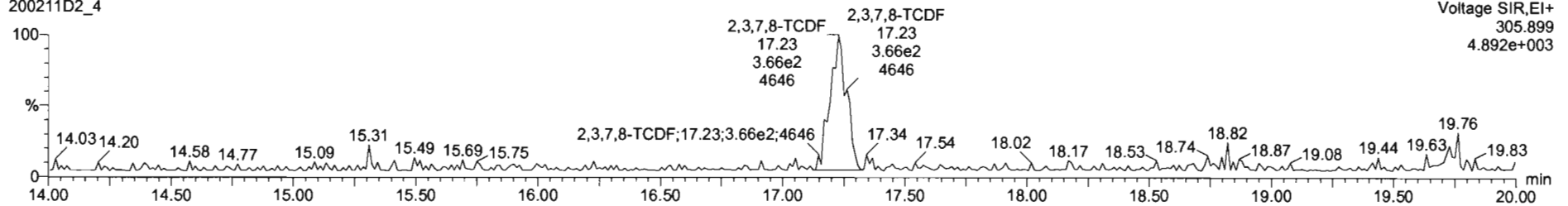
Name: 200211D2\_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

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

200211D2\_4

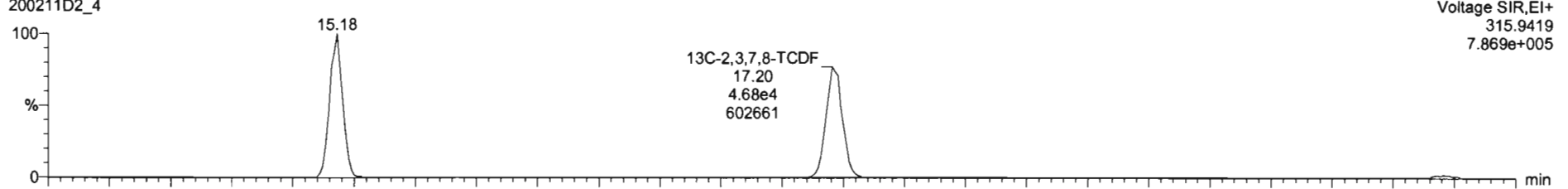


200211D2\_4

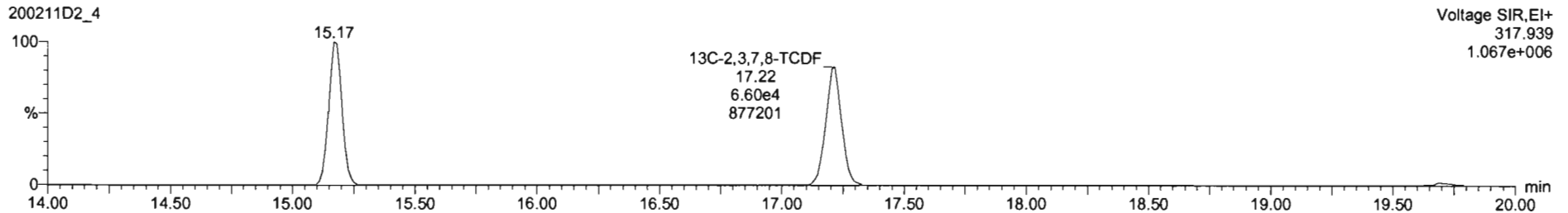


**13C-2,3,7,8-TCDF**

200211D2\_4



200211D2\_4



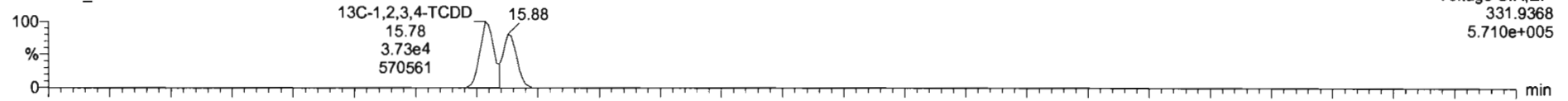
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

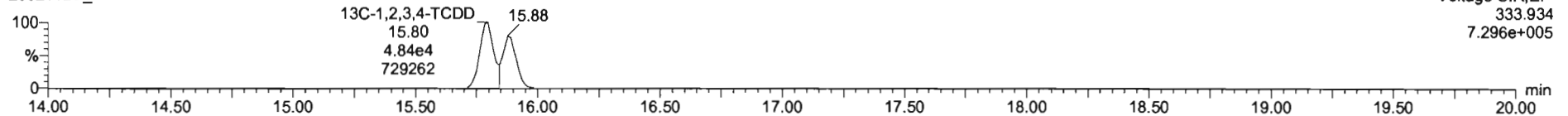
Name: 200211D2\_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

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

200211D2\_4

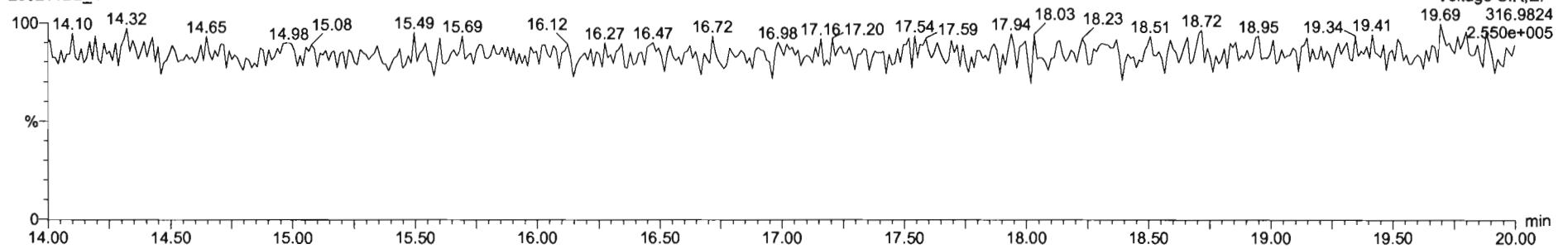


200211D2\_4



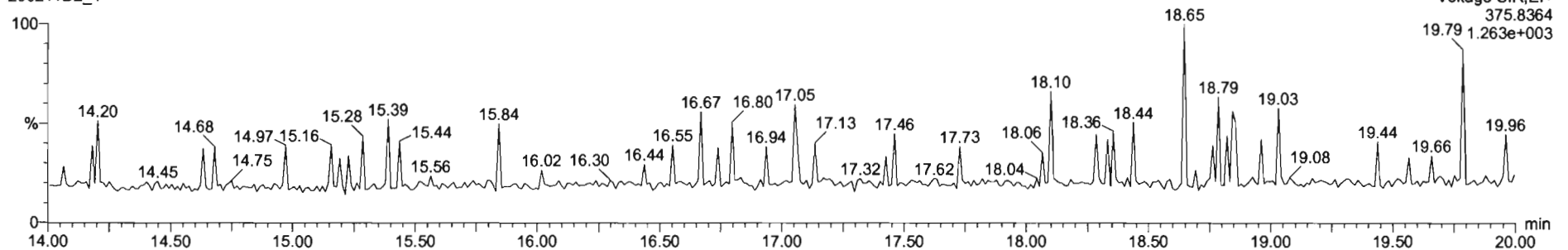
**PFK1**

200211D2\_4



**DPE1**

200211D2\_4



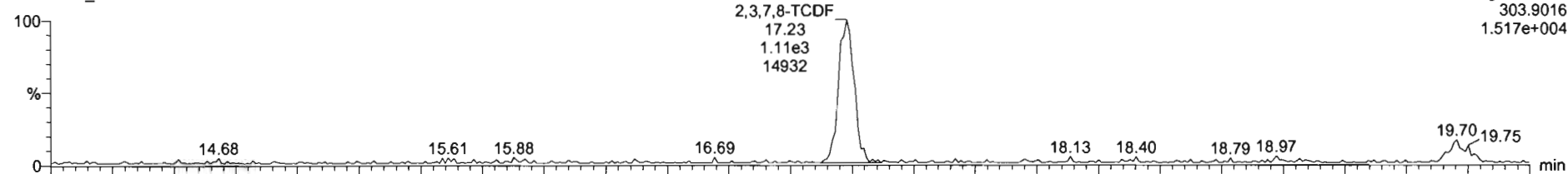
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2\_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

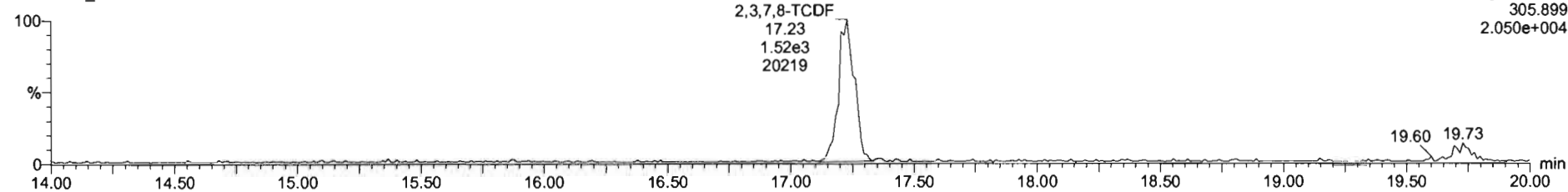
**2,3,7,8-TCDF**

200211D2\_5



Voltage SIR,EI+  
303.9016  
1.517e+004

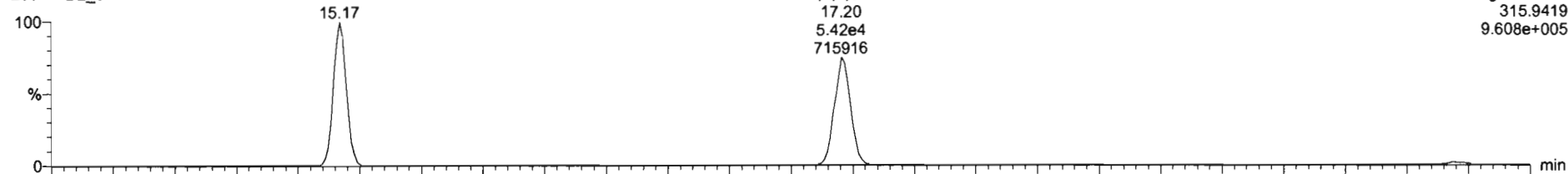
200211D2\_5



Voltage SIR,EI+  
305.899  
2.050e+004

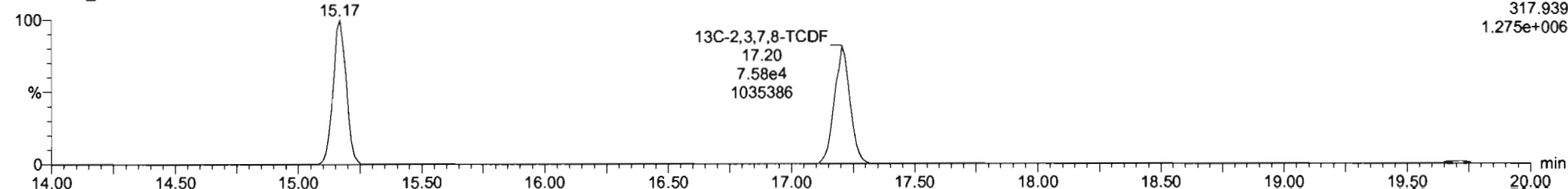
**13C-2,3,7,8-TCDF**

200211D2\_5



Voltage SIR,EI+  
315.9419  
9.608e+005

200211D2\_5



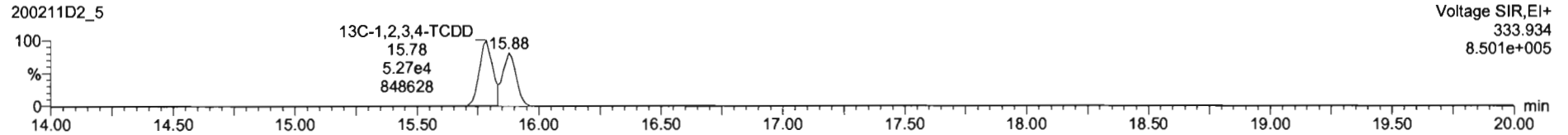
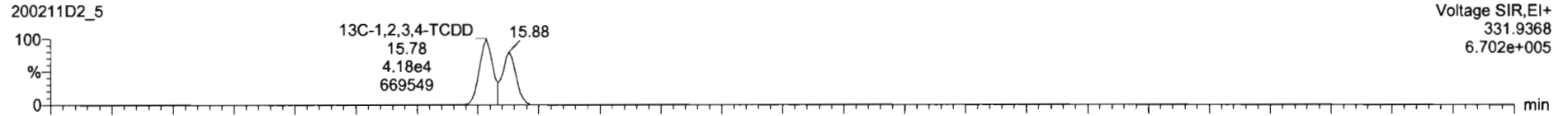
Voltage SIR,EI+  
317.939  
1.275e+006

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

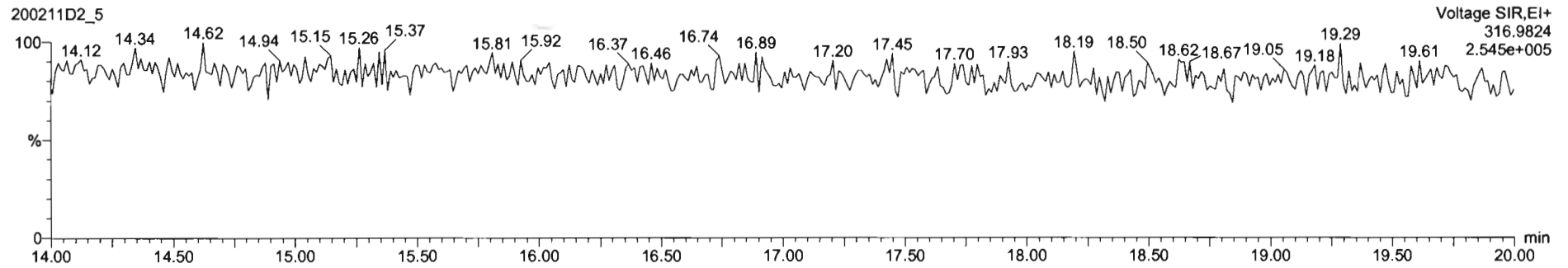
Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2\_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

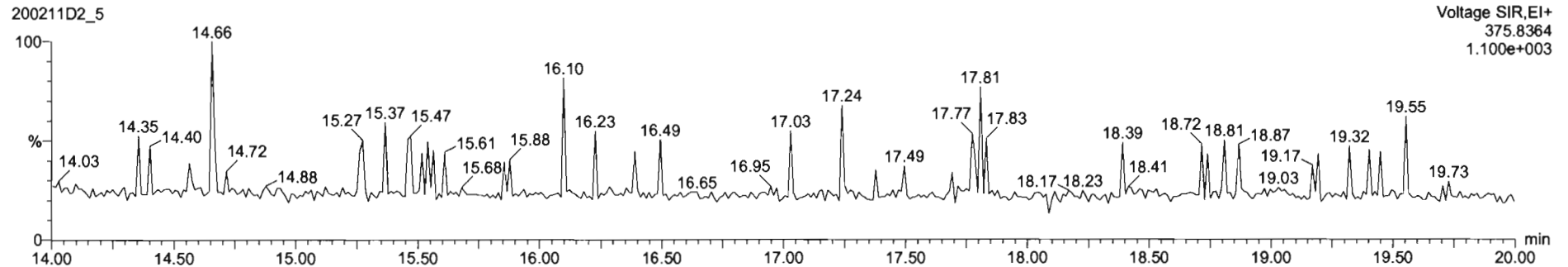
13C-1,2,3,4-TCDD



PFK1



DPE1



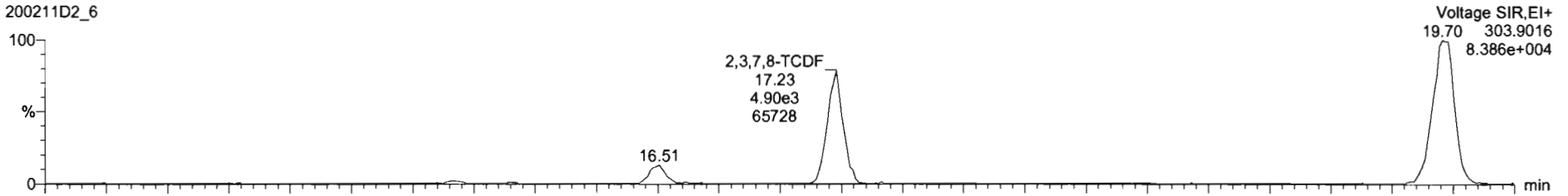
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

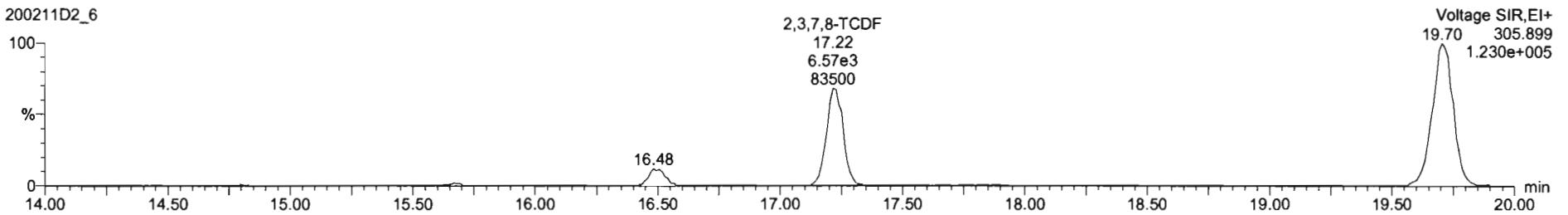
Name: 200211D2\_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200211D2\_6

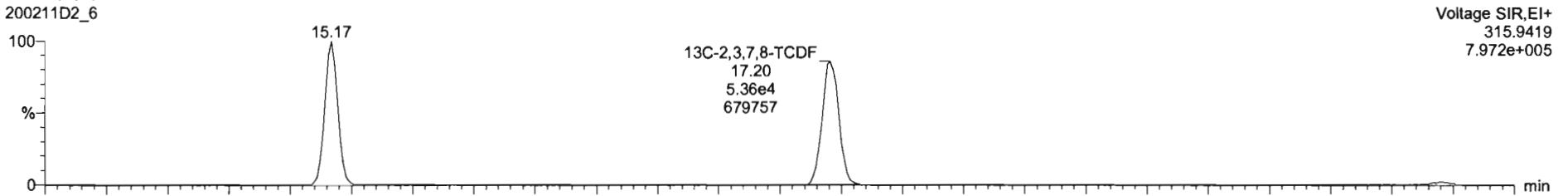


200211D2\_6

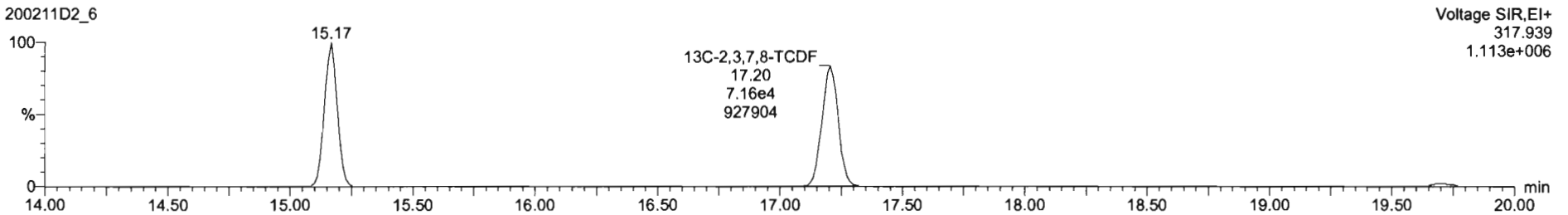


**13C-2,3,7,8-TCDF**

200211D2\_6



200211D2\_6



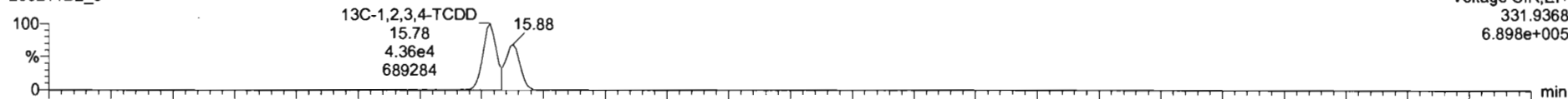
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Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

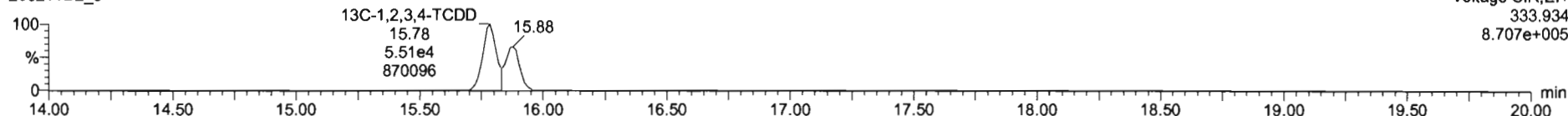
Name: 200211D2\_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200211D2\_6

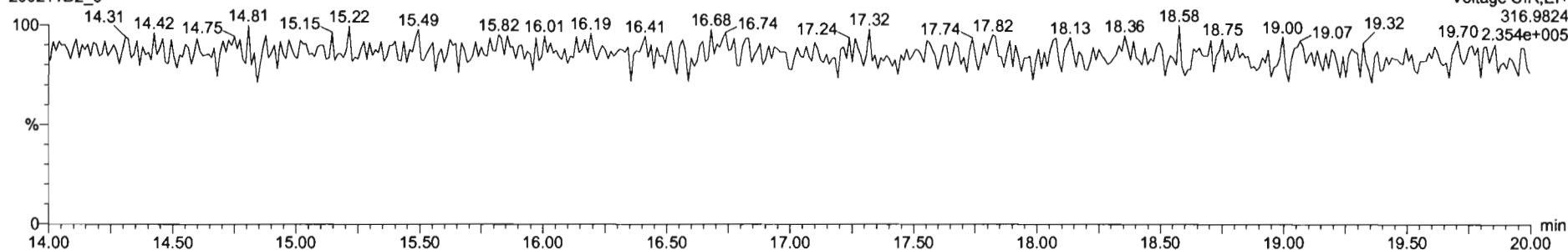


200211D2\_6



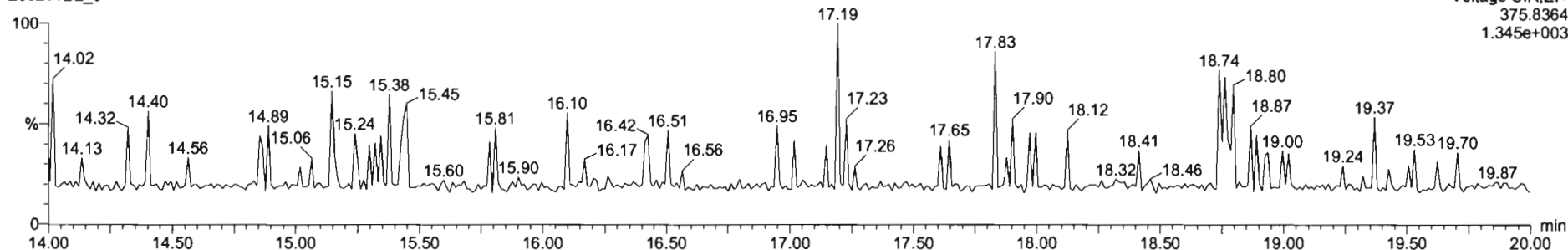
**PFK1**

200211D2\_6



**DPE1**

200211D2\_6





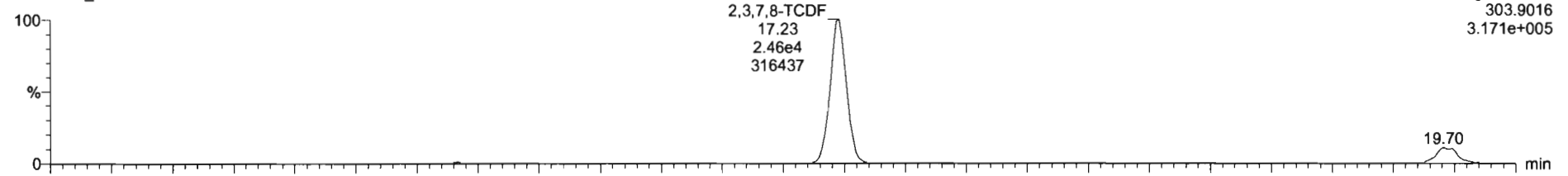
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Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

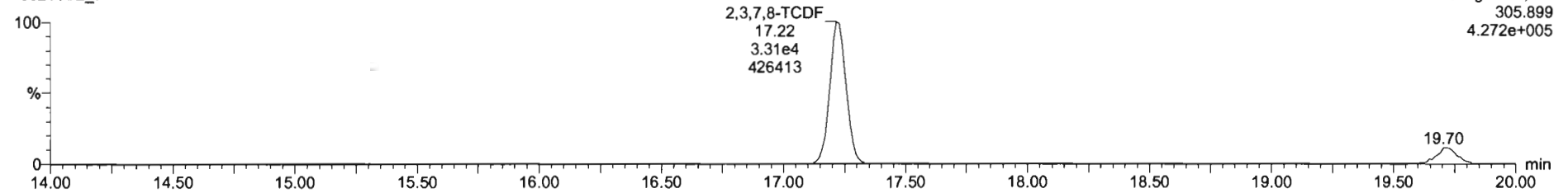
Name: 200211D2\_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

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

200211D2\_7

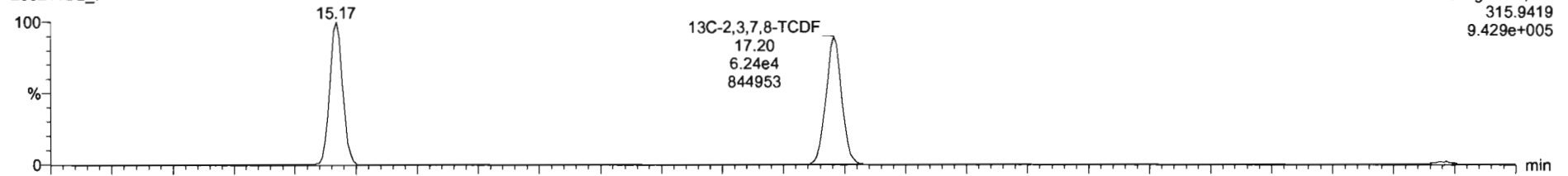


200211D2\_7

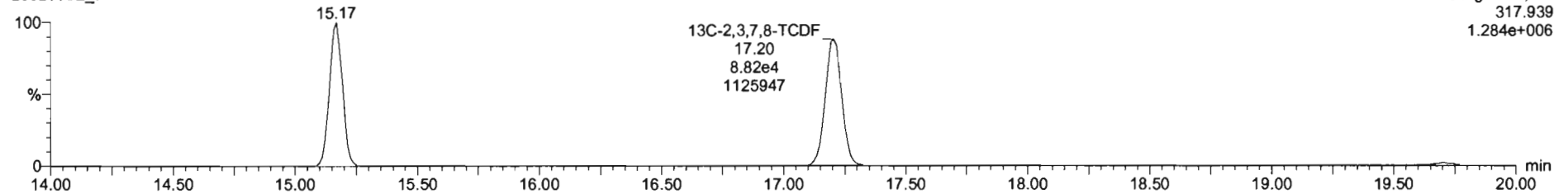


**13C-2,3,7,8-TCDF**

200211D2\_7



200211D2\_7



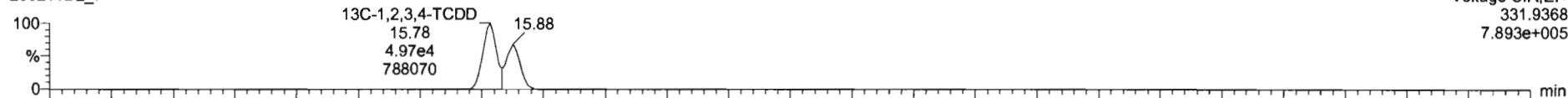
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

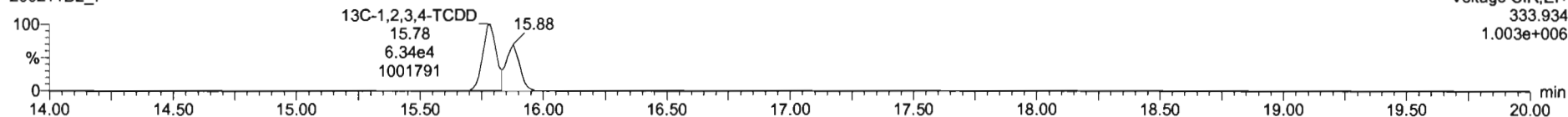
Name: 200211D2\_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

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

200211D2\_7

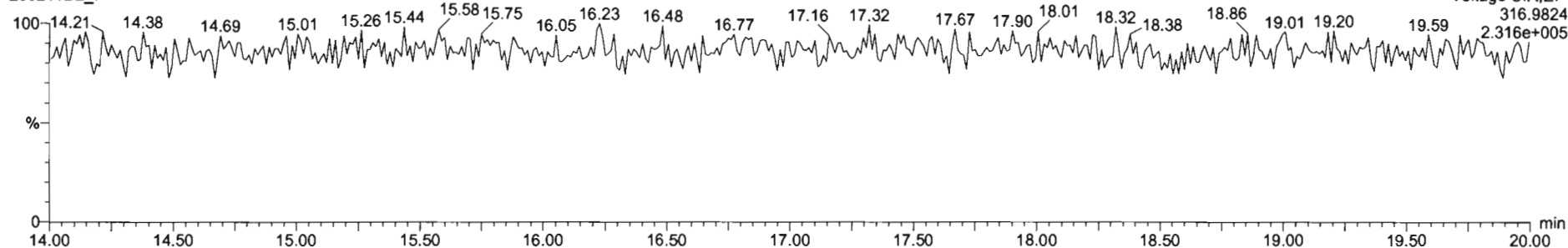


200211D2\_7



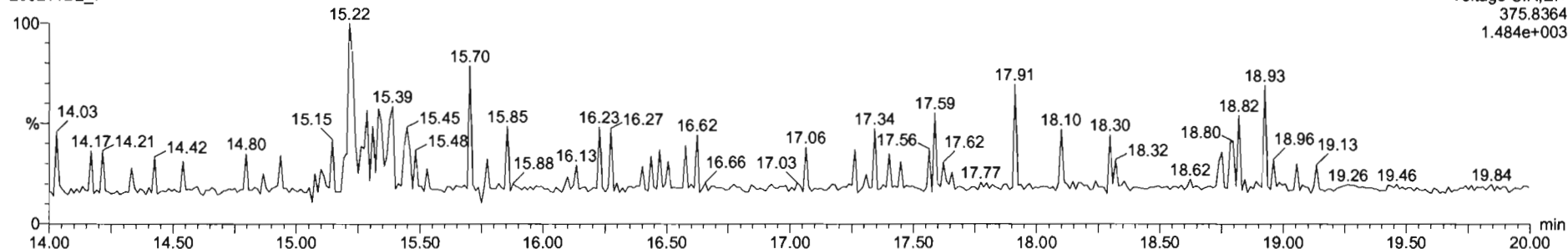
**PFK1**

200211D2\_7



**DPE1**

200211D2\_7



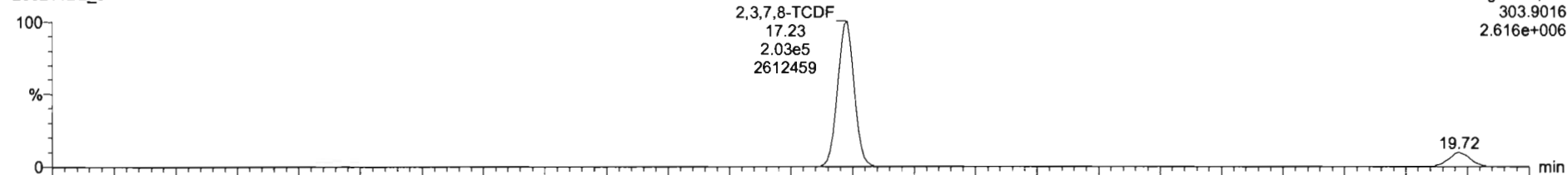
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2\_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

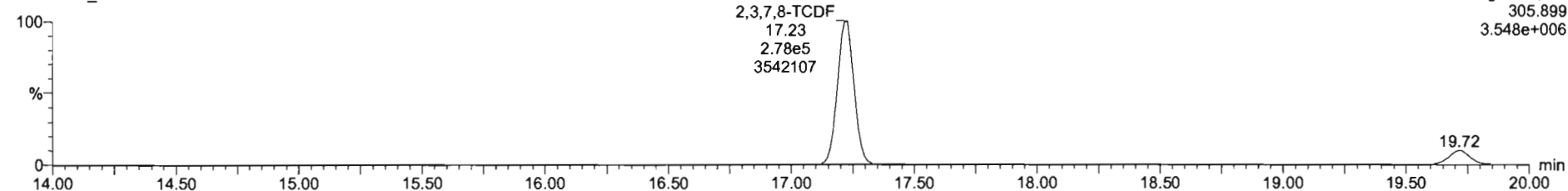
**2,3,7,8-TCDF**

200211D2\_8



Voltage SIR,EI+  
303.9016  
2.616e+006

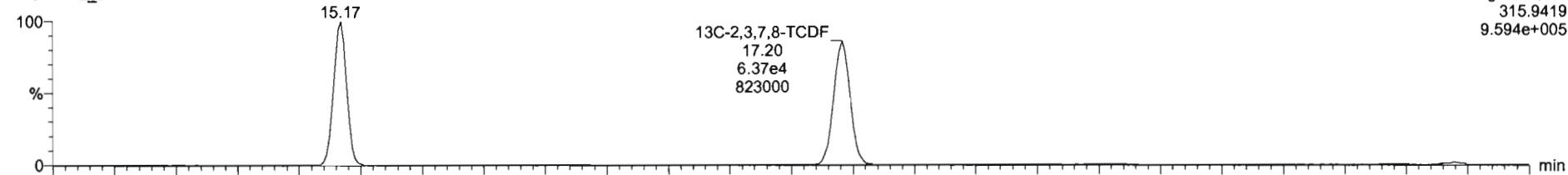
200211D2\_8



Voltage SIR,EI+  
305.899  
3.548e+006

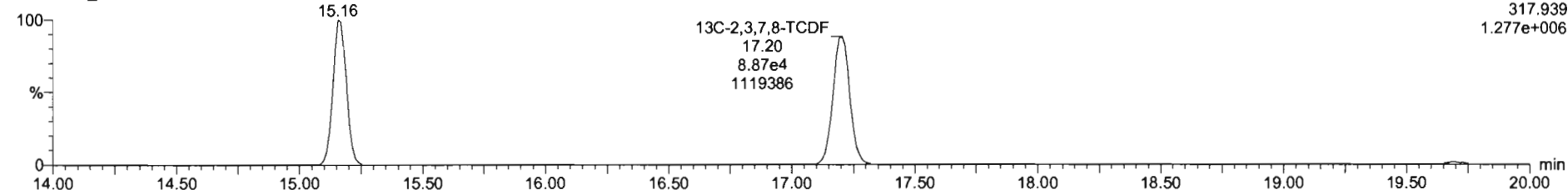
**13C-2,3,7,8-TCDF**

200211D2\_8



Voltage SIR,EI+  
315.9419  
9.594e+005

200211D2\_8



Voltage SIR,EI+  
317.939  
1.277e+006

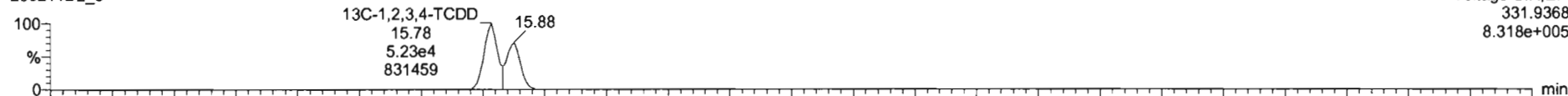
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

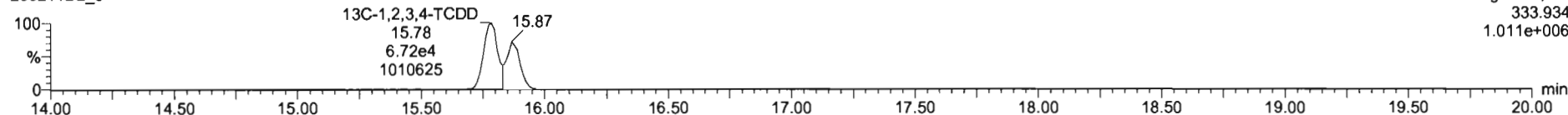
Name: 200211D2\_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

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

200211D2\_8

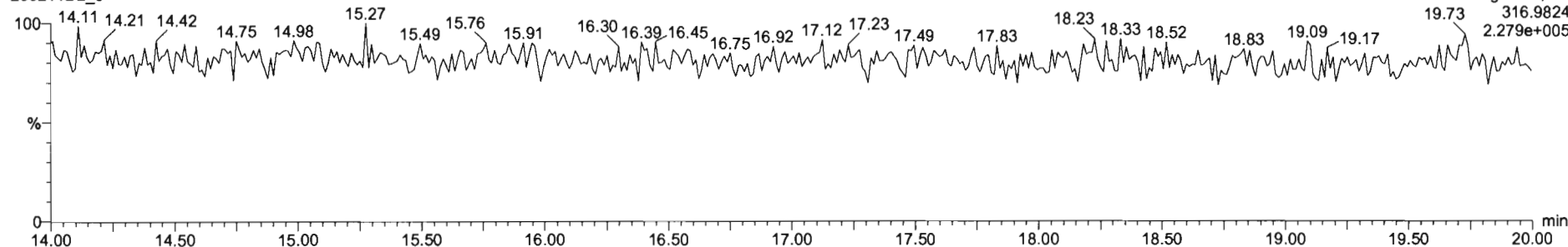


200211D2\_8



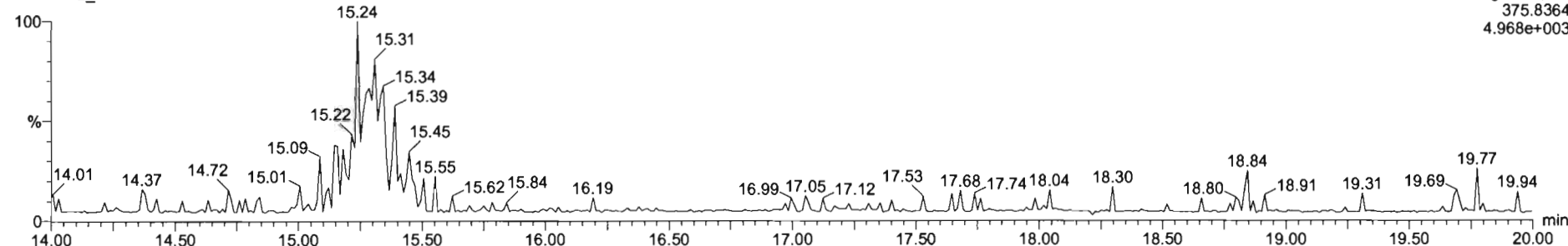
PFK1

200211D2\_8

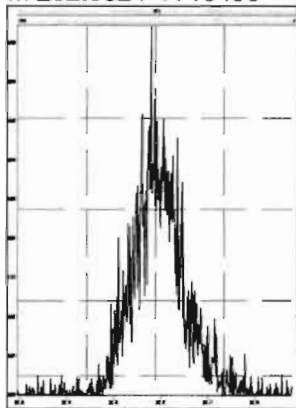


DPE1

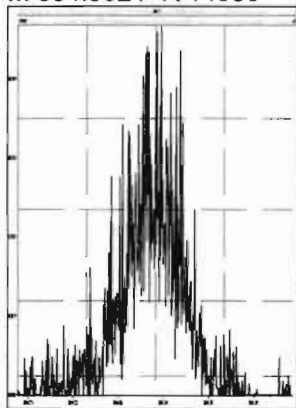
200211D2\_8



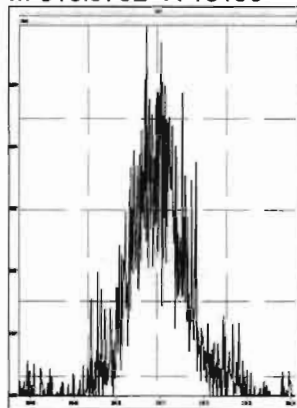
M 292.9824 R 13493



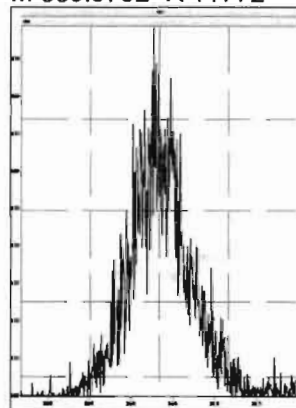
M 304.9824 R 14983



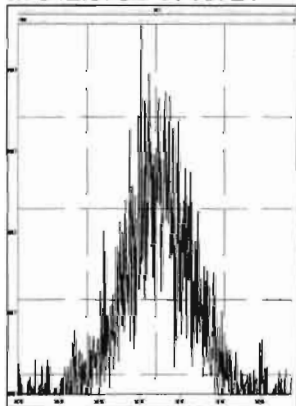
M 318.9792 R 15196



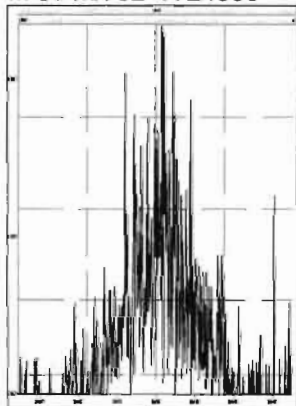
M 330.9792 R 11772



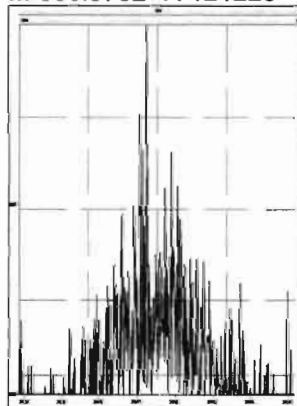
M 342.9792 R 13721



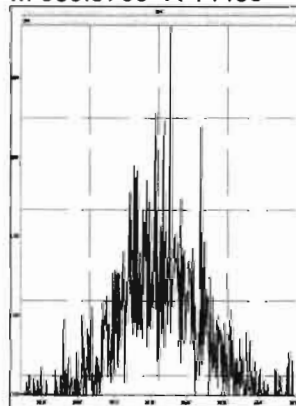
M 354.9792 R 24553



M 366.9792 R 121228



M 380.9760 R 14409



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_10.qld

Last Altered: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:52:52 Pacific Standard Time

*DB 2/12/20 07:52/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2\_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

#	Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	2,3,7,8-TCDF	1.29e4	0.77	NO	0.982	1.000	17.22	10.800	108	0.183
2	13C-2,3,7,8-TCDF	1.22e5	0.73	NO	1.08	1.000	17.20	92.025	92.0	0.305
3	13C-1,2,3,4-TCDF	1.22e5	0.72	NO	1.00	1.000	15.17	100.00	100	0.330
4	13C-1,2,3,4-TCDD	8.99e4	0.76	NO	1030	1.000	15.78	87.563	87.6	0.304

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_10.qld

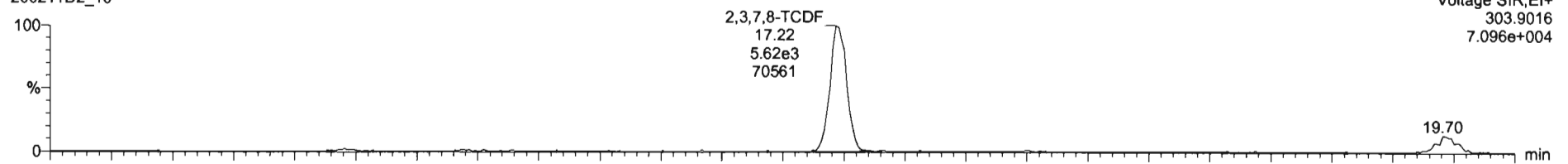
Last Altered: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:53:15 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

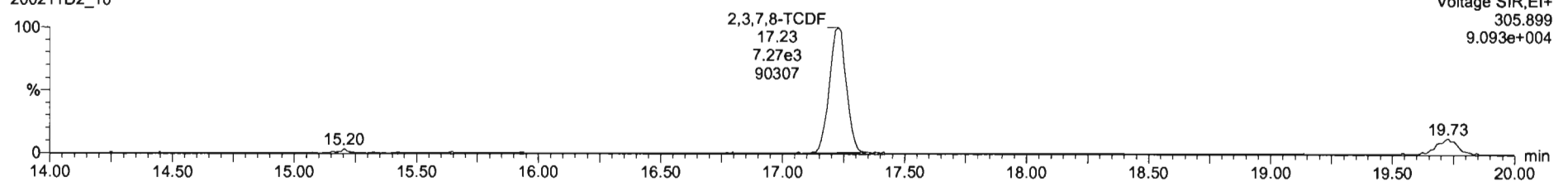
Name: 200211D2\_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200211D2\_10

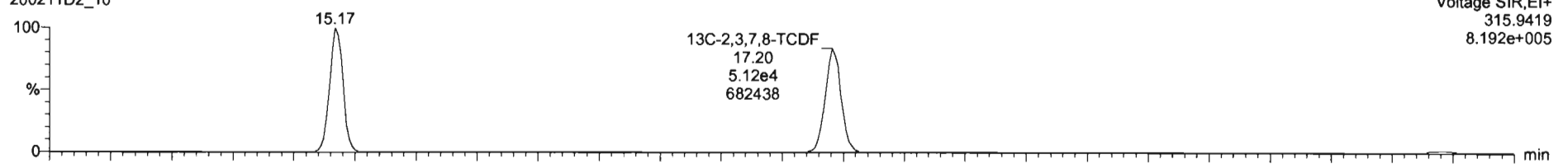


200211D2\_10

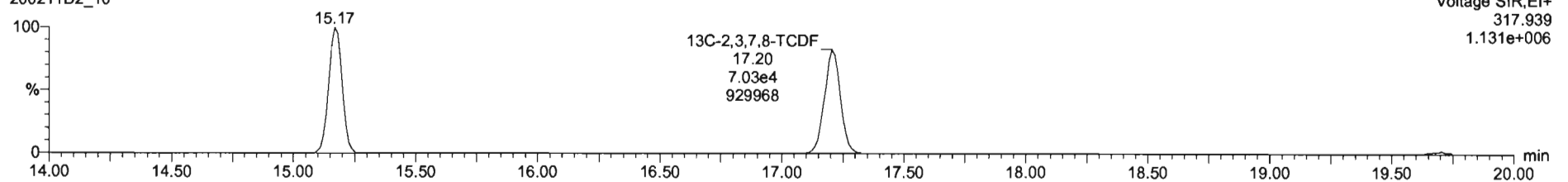


**13C-2,3,7,8-TCDF**

200211D2\_10



200211D2\_10



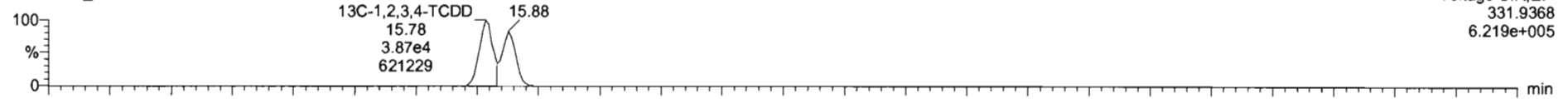
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_10.qld

Last Altered: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:53:15 Pacific Standard Time

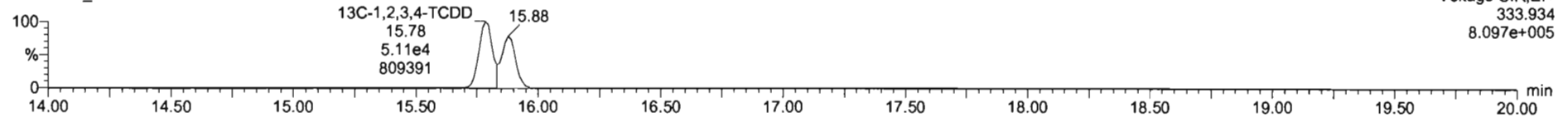
Name: 200211D2\_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200211D2\_10

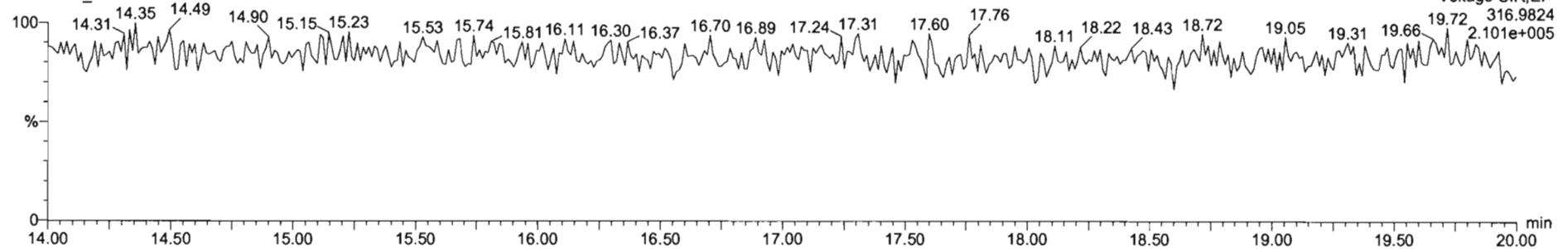


200211D2\_10



**PFK1**

200211D2\_10



**DPE1**

200211D2\_10

